ASCE

2023

REPORT CARD FOR MICHIGAN'S INFRASTRUCTURE

Methodology

- CAPACITY
- OPERATION AND MAINTENANCE
- CONDITION
- PUBLIC SAFETY
- FUNDING
- RESILIENCE
- FUTURE NEED
- INNOVATION

What the Grades Mean

EXCEPTIONAL
Fit for the future

GOOD
Adequate for now

MEDIOCRE
Requires attention

POOR
At risk

FAILING/CRITICAL
Unfit for purpose

Key Trends

1. Aging infrastructure systems are increasingly vulnerable to natural disasters and extreme weather events, creating unexpected and often avoidable risks to public safety and the economy.

2. Recent federal and state investments have had a positive impact, but the full force of increased funding will take years to realize. Sustained investment is key to providing certainty and ensuring planning goes to development, as well as making larger infrastructure projects attainable.

3. Unreliable or unavailable data on key performance indicators continues to impact certain infrastructure sectors.

2023 Report Card for Michigan's Infrastructure

AVIATION	C
BRIDGES	D+
DAMS	C-
DRINKING WATER	D+
ENERGY	D
INLAND WATERWAYS	C
PUBLIC PARKS	C
RAIL	C
ROADS	D
SCHOOLS	C-
SOLID WASTE	C+
STORMWATER	D
TRANSIT	C-
WASTEWATER	C

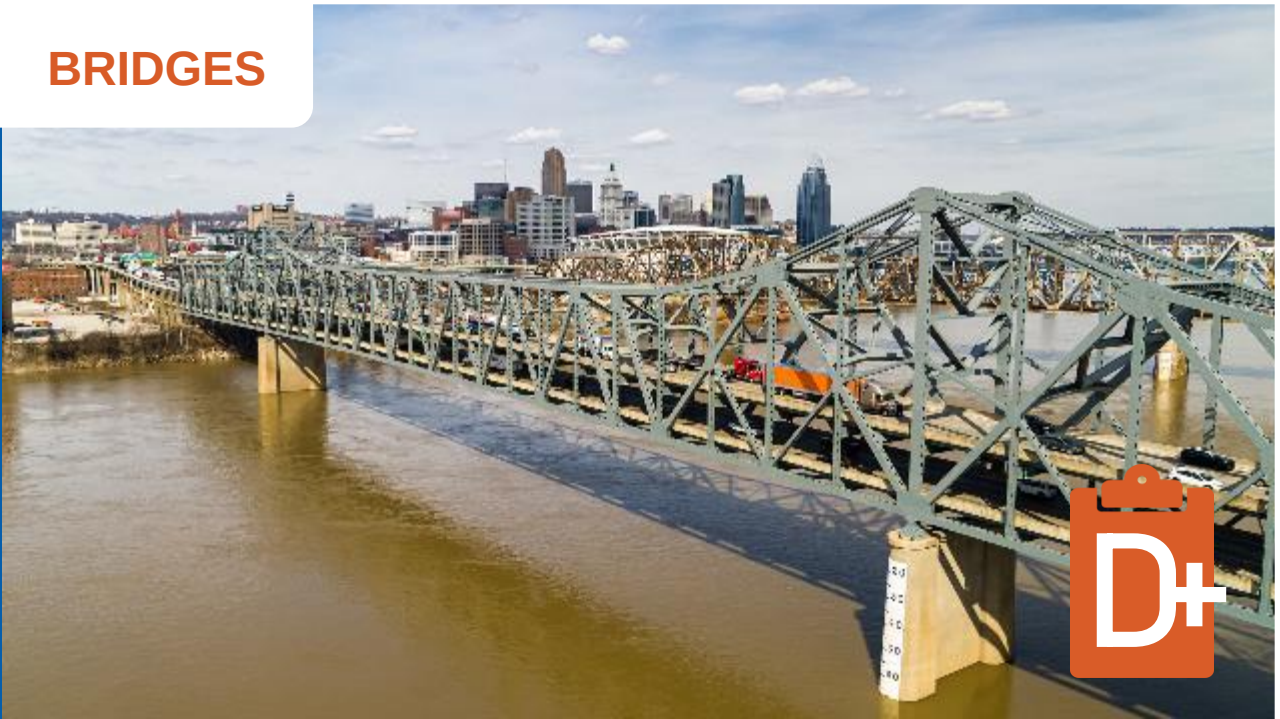
Michigan's Cumulative Infrastructure Grade

A	EXCEPTIONAL
B	GOOD
C	MEDIOCRE
D	POOR
F	FAILING

ROADS

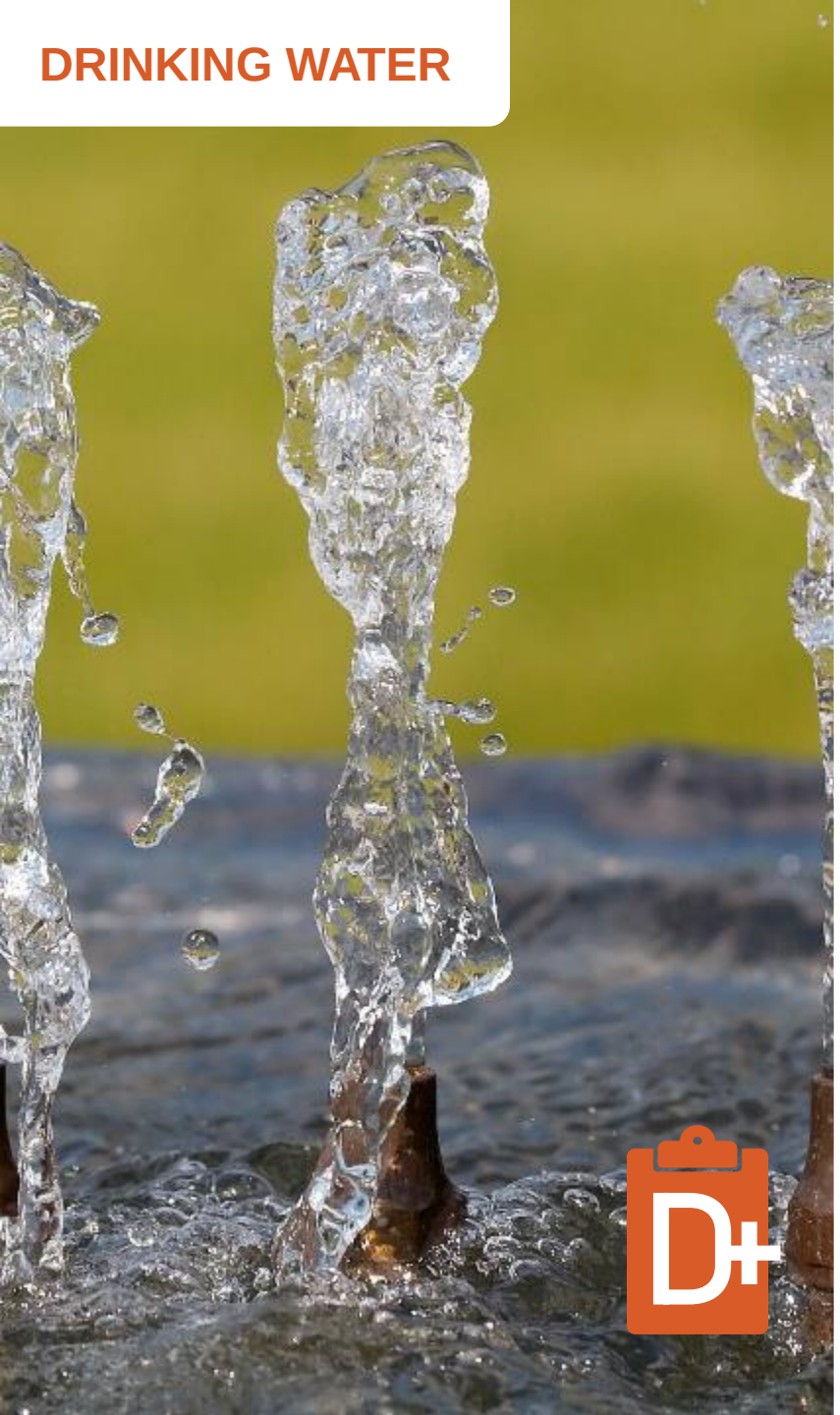
AVIATION

BRIDGES



TRANSIT

DRINKING WATER



WASTEWATER

STORMWATER


DAMS


INLAND
WATERWAYS

RAIL

C

SOLID WASTE

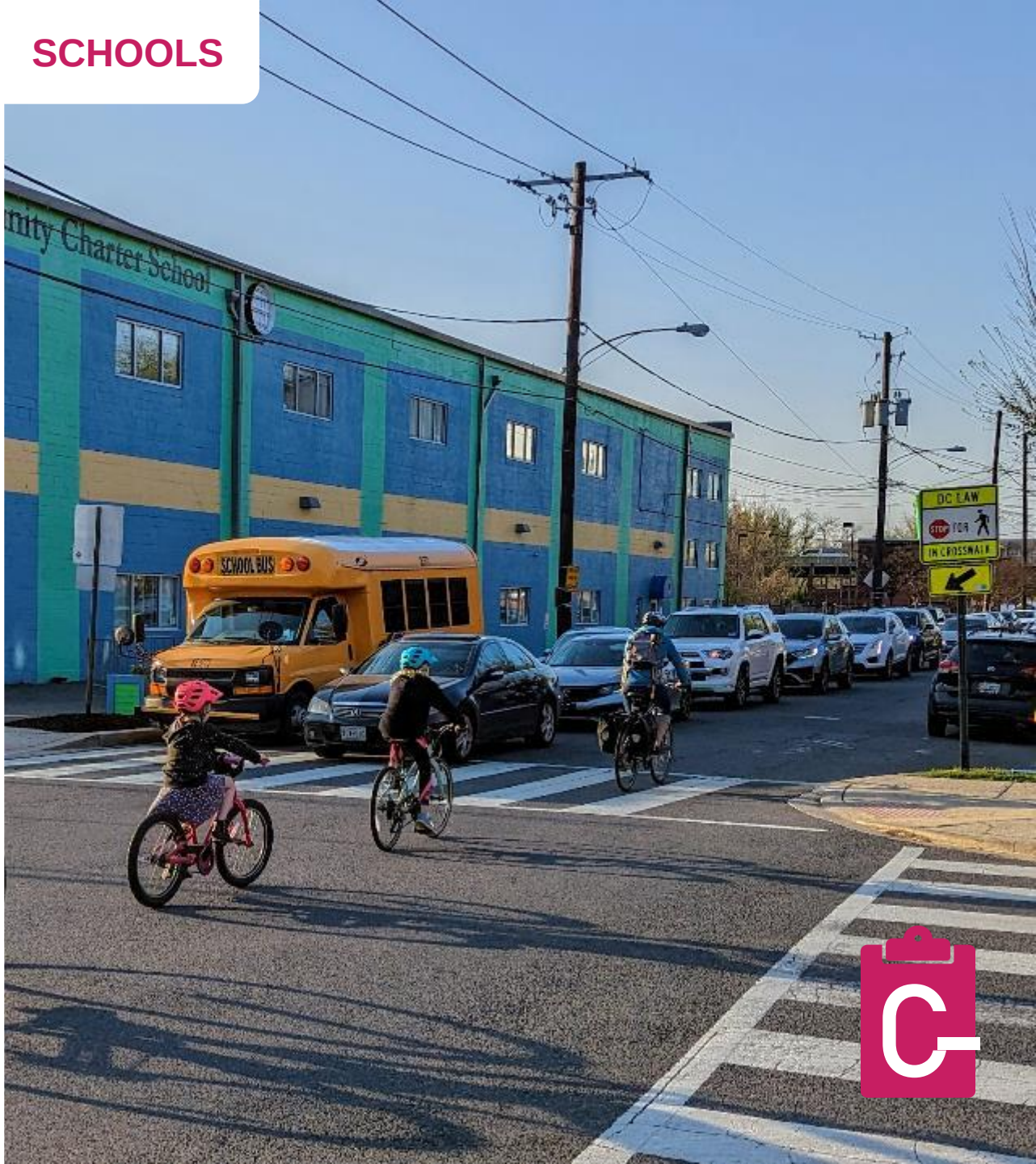
C+

ENERGY

D

PUBLIC PARKS

SCHOOLS



Investment Gap

Infrastructure System	TOTAL NEEDS	FUNDED	FUNDING GAP
AVIATION[3]	$310	$197	$113
BRIDGES[4]	$538	$165	$373
BROADBAND[5]	$61	$61	$0
DAMS[6]	$185	$20	$166
DRINKING WATER[7]	$670	$361	$309
ENERGY[8]	$1,886	$1,308	$578
HAZARDOUS & SOLID WASTE[9]	$162	$146	$16
INLAND WATERWAYS & PORTS[10]	$45	$32	$13
LEVEES[11]	$97	$7	$91
PUBLIC PARKS[12]	$106	$62	$44
RAIL[13]	$145	$113	$32
ROADS[14]	$2,233	$1,549	$684
SCHOOLS[15]	$1,100	$671	$429
TRANSIT[16]	$618	$466	$152
WASTEWATER + STORMWATER[17]	$983	$293	$690
TOTALS	**$9,139**	**$5,450**	**$3,689**

$3.7 Trillion needed

CURRENT FUNDING | FUNDING GAP

Bridging the Economic Impact

Ten-Year Gaps with Continue to Act Scenario, 2024-33[3]

Total Needs - Anticipated Investment = Gap *Dollars in 2022 Billions* *Columns may not add due to rounding.*

Surface Transportation

Water Transportation

Energy

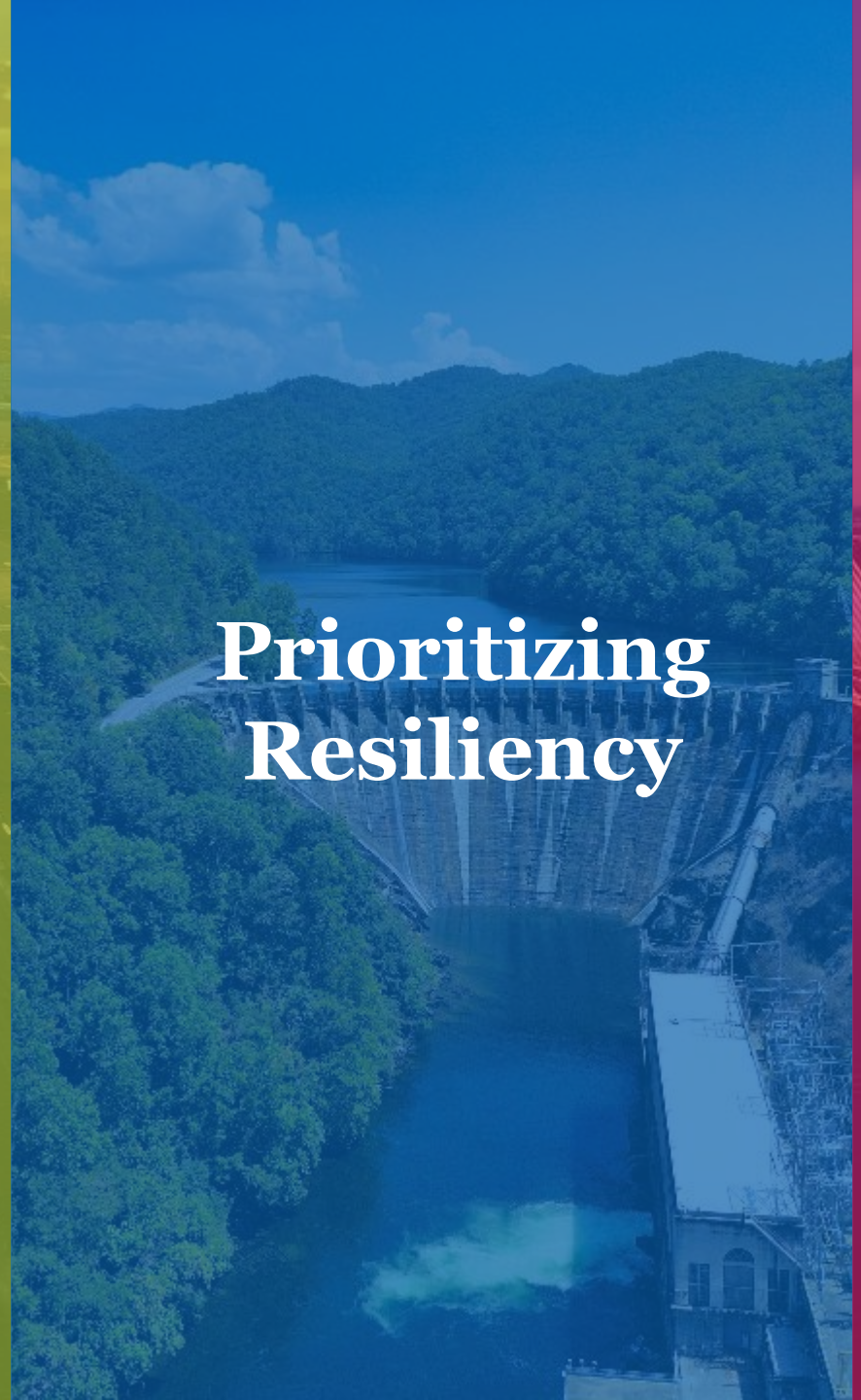
Aviation

Drinking Water, Wastewater, & Stormwater

Anticipated Investment

Gap

Sustaining Investment



Prioritizing Resiliency

Advancing Policy & Innovation

SOLUTIONS

Sustaining Investment

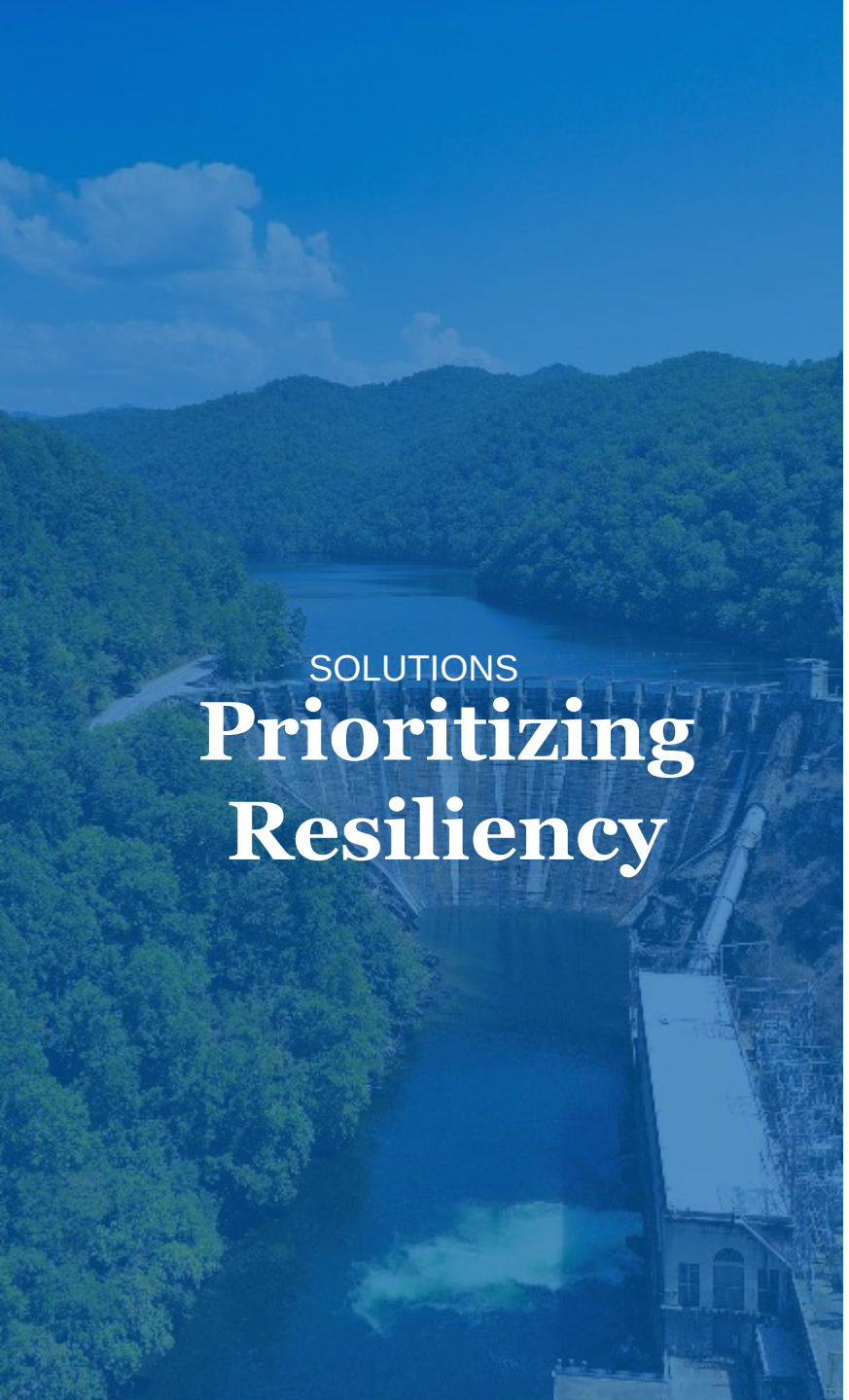
Congress should maintain investment levels provided by the IIJA when the law expires in 2026 and fully fund authorized programs during the annual appropriations process.

Infrastructure owners and operators must charge rates reflecting the true cost of using, maintaining and improving infrastructure while educating the public on actual costs.

Federal, state and local governments should expand the use of public-private partnerships for appropriate projects and find opportunities to leverage additional financing tools.

Congress must reinstate confidence in critical infrastructure programs.

Project owners should include life-cycle costs to properly evaluate the full infrastructure cost and the need to plan for the total cost over a project's lifespan.



SOLUTIONS

Prioritizing Resiliency

Enabling communities, regardless of size, to develop and institute their own resilience pathway across all infrastructure portfolios.

Incentivizing and enforcing the use of the most up-to-date codes and standards, which mitigate risks of major weather events.

Encouraging asset management practices to ensure investments are spent wisely.

Understanding that our infrastructure is a system-of-systems and encouraging a dynamic, “big picture” perspective that weighs trade-offs across infrastructure sectors.

Prioritizing projects that improve the sustainability, safety and security of systems and communities to ensure continued reliability and enhanced resilience.

Improving land-use planning across all levels of decision-making to strike a balance between the built and natural environments.

Enhancing the resilience of various infrastructure sectors by including nature-based or “green” infrastructure solutions.

SOLUTIONS

Advancing Policy & Innovation

Innovate policies and practices across all levels of government that address common issues in project development and delivery across infrastructure sectors, locations and environmental conditions.

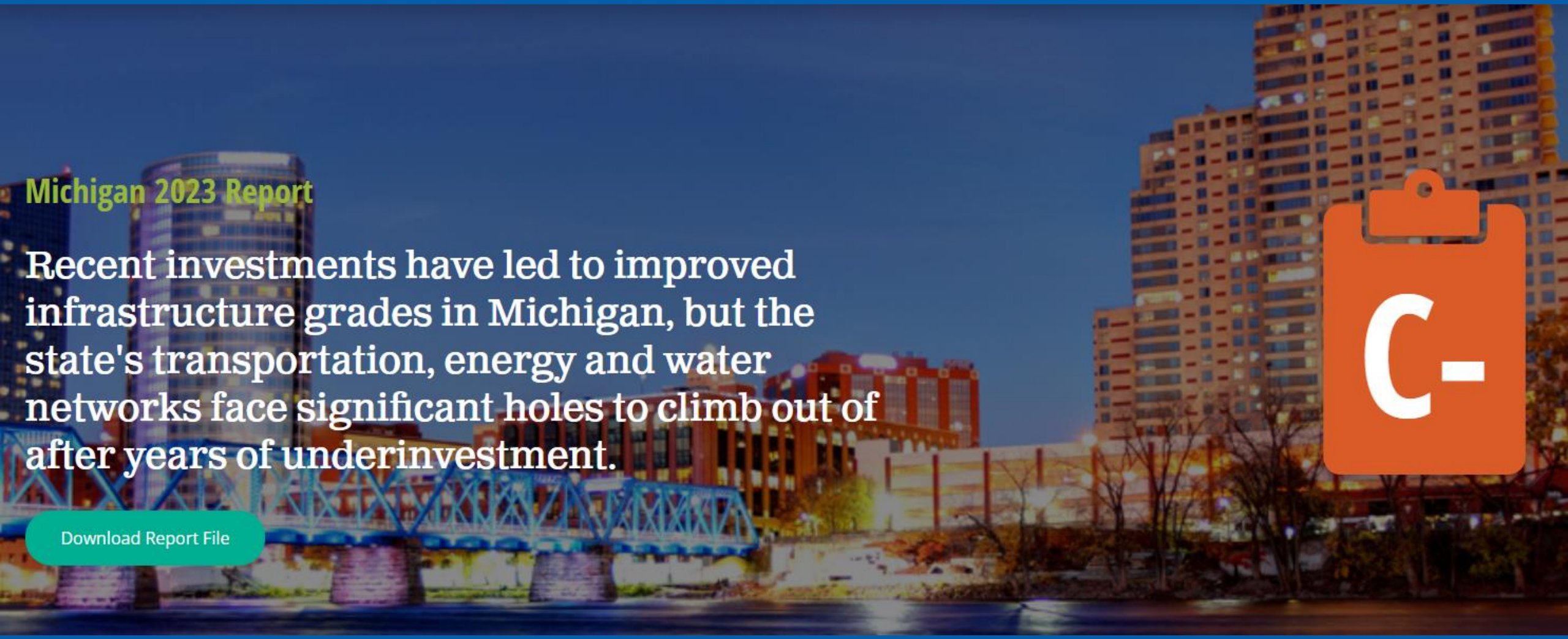
Assess current government permitting processes, identify “pain points” and inform strategies to modernize compliance across all infrastructure sectors.

Address the engineering and construction workforce shortage by implementing strategies and policies that recognize short- and long-term recruitment and retention challenges.

Ensure reliable data on infrastructure systems is collected and released to the public frequently.

Leverage proven and emerging technologies to make the best use of limited financial and personnel resources.

Support research and development of innovative materials, technologies and processes to modernize and extend the life of infrastructure, expedite repairs or replacements and reduce future costs.



Thank you

www.infrastructurereportcard.org/state-item/michigan/

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