

To Build or Not to Build:

Analysis of the I-81 Viaduct Project in Syracuse, New York

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## Executive Summary

This report examines the Interstate 81 Viaduct Project (“I-81 Project”) in Syracuse, New York. The project is primarily executed and managed by the New York State Department of Transportation (NYSDOT) with the Federal Highway Administration (FHWA) acting as a joint partner. As determined by infrastructure specialists, Interstate 81 (“I-81”) is past its “useful life” and needs to be updated to address structural inefficiencies. As it currently stands, I-81 bisects the city of Syracuse, carrying traffic North-South. After years of deliberation and research, NYSDOT issued the decision to reroute I-81 and replace the viaduct with a surface level boulevard, also referred to as the “community grid.”

The final plan has received a lot of concern from the community with various stakeholders disagreeing over the future of I-81 through Syracuse. As outlined in our *Program Environmental Assessment*, some key stakeholders include leaders and government officials at the federal, state, and local level. Stakeholders in support of the community grid are taking a prospective stance given the new opportunities and areas this project brings. Groups that are wary of the plans set by NYSDOT are taking a reactive stance to the negative impacts the community grid could bring. The concerns raised have ultimately resulted in a lawsuit, halting the first phase of the project. These developments are discussed further in the *Program Implementation Issues*.

The lawsuit has prompted community members to consider the impact the project could have on addressing the systemic barriers the viaduct has created. Detailed in *Problem Definition, Theory of Change, and Logic Model* are four main areas of concern the project will need to address: infrastructure, traffic, enterprise, and inclusion. Infrastructure and traffic are the two issues which have a direct relationship to the project’s introduction. As for enterprise and inclusion, these “wicked problems” are more complex and have resulted in much of the debate the project has seen. The measurements and results of infrastructure and traffic can be assessed through examples of similar projects such as the infamous “Big Dig” of the Central Artery Tunnel (I-93) in Boston, Massachusetts and The Inner Loop (NY940T) in Rochester, New York. Some of the criteria assembled include traffic times, accident reduction, public space assessment, and travel times.

Given the implementation issues and current state of the project, a recommendation for NYSDOT and FHWA is to conduct another high-scale evaluation of the I-81 Project and the impact it can have on Syracuse and Central New York. The analysis in our report outlines the potential for poor participant experiences and the displacement of individuals and businesses. While this project has support at both the federal and state level, there seems to be a lack of meaningful input from community members residing within Syracuse and across Central New York; those who will be immediately affected and those who feel they will be. NYSDOT and FHWA should also consider additional activities which may minimize the community grid’s high impact, costs, and risks in other areas. For example, adding additional routes to interstates and highways surrounding I-81, or creating more robust public transportation.

## Program Overview

NYSDOT, in collaboration with FHWA, is responsible for the design and implementation of the I-81 Viaduct Project. The project was designated as a Nation Environmental Policy Act (NEPA) Class I Project requiring preparation of an Environmental Impact Statement (EIS). According to the report, FHWA serves as the Federal Lead Agency and NYSDOT serves as Joint Lead Agency. The purpose of this infrastructure project is to “address structural deficiencies and non-standard highway features while creating an improved transportation corridor through the City of Syracuse that meets the transportation needs and provides the infrastructure to support long-range transportation planning efforts.” The goals of the project are to: “improve safety and create an efficient regional and local transportation system within and through greater Syracuse; and provide transportation solutions that enhance the livability, visual quality, sustainability, and economic vitality of greater Syracuse”.<sup>1</sup>

The I-81 Project has seen a long and contentious history given the broad and long-lasting impact it has on the Central New York region. The viaduct project is supported by a three-year planning study, the I-81 Corridor Study, that NYSDOT created in partnership with Syracuse Metropolitan Transportation Council and FHWA. The study found an immediate need for the near-term reconstruction or replacement of the travel capacity of I-81 through Downtown Syracuse, leading to the introduction of the I-81 Project. In August 2013, FHWA announced a ‘Notice of Intent’ to create an EIS for the Project which kickstarted community discussion and engagement surrounding the issue. In November 2013, representatives from NYSDOT had a preliminary scoping meeting at the OnCenter in Downtown Syracuse. In April 2015, FHWA and NYSDOT released the Project Scoping Report which outlined comments they received on the project from both agencies and the general public. Following the report's issue, both FHWA and NYSDOT started their work on the Draft Design Report/Draft Environmental Impact Statement (DDR/DEIS). This draft was released to the public in April 2019 and opened for public commentary. FHWA and NYSDOT reviewed the comments and released a second DDR/DEIS which was published on July 16, 2021. The public comment period for this report lasted until October 14, 2021. During that three-month period, NYSDOT held two virtual public hearings in August. From there, the agencies reviewed the commentary and released the Final Design Report/Final Environmental Impact Statement (FDR/FEIS) in April 2022.

The FDR/FEIS solidified FHWA and NYSDOT’s decision of a community grid for the I-81 Project. The agencies considered both a “no build” and “viaduct” alternatives. The “no-build” alternative would only maintain the current system in place, and the “viaduct” alternative would involve a full-scale reconstruction of the current I-81 viaduct. The decision for a community grid has received a backlash from some stakeholders and the target population. The target populations include individual users and community members who are affected by I-81. The project is in Syracuse, North Syracuse, Cicero, East Syracuse, and DeWitt in Onondaga County, New York. Building the community grid will require improvements to Interstate 690 (“I-690”) and Interstate 481 (“I-481”) therefore affected areas will extend beyond the I-81 footprint and across Central New York. The project will be built in two phases. Phase one will rebuild I-481 around the east side of Syracuse, after which it will be redesignated as I-81. The second phase will “tear down the elevated highway through Syracuse and send traffic to a series of city streets, with Almond

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<sup>1</sup> NYSDOT/FHWA, “I-81 Viaduct Project FDR/FEIS.”

Street as the main corridor”.<sup>2</sup> This area will be called Business Loop 81. Overall, the project is expected to take about six years to complete.

In terms of frontline workers, the main implementors of the projects will be the NYSDOT and the contractors assigned to the demolition and construction of the grid. The project is currently halted due to a lawsuit which has delayed selecting a contractor. On December 5<sup>th</sup>, 2022, the injunction was modified to allow state transportation officials to do paperwork necessary to award the first construction contract for the \$2.25 billion project. It is due to be awarded by January 14<sup>th</sup>, 2022.<sup>3</sup> Further details on the injunction will be brought up later in the report.

## **Program Environmental Assessment**

### *Stakeholders: Federal Government*

There are many federal stakeholders involved in the I-81 Project ranging from presidential advisors to members of congress. The federal government carries considerable power in the direction of the project; however, there is little interest among some of the region’s congressional delegation.

President Joe Biden’s election has elevated federal interest in the future of I-81 through the City of Syracuse; President Biden married his first wife, a Central New Yorker, in 1966<sup>4</sup> and graduated from Syracuse University College of Law in 1968. Serving under President Biden, United States Department of Transportation (“USDOT”) Secretary Pete Buttigieg joined Central New York’s congressional delegation to tour the highway. During his visit, Secretary Buttigieg referred to the construction of I-81 as “one of the most stark illustrations” of a highway ruining opportunity for people of color.<sup>5</sup> As the project has progressed, one of the president’s top aids called the project “beautiful,” encouraging Syracuse Mayor Ben Walsh to “very strongly and very aggressively become the model for the country.”<sup>6</sup>

The Central New York congressional delegation is currently comprised of retiring Rep. John Katko (R-Camillus), Sen. Chuck Schumer (D-Brooklyn), and Sen. Kirsten Gillibrand (D-Albany). In 2016, Rep. Katko declined to endorse any of three project proposals, instead deferring judgement to the community and claiming he would be their “cheerleader” in congress.<sup>7</sup> As early as 2014, Sen. Schumer told the community “it’s not [his] job to come up with the idea of what should happen at I-81.”<sup>8</sup> Sen. Gillibrand was the only of the three to make a public endorsement, calling the community grid “the better approach to not only revitalization, but to support all members of [the] community.”<sup>9</sup>

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<sup>2</sup> Breidenbach, Here's “What the First Part of Syracuse's I-81 Construction Will Look like (Maps) .”

<sup>3</sup> Knauss, “Judge Lets DOT Do Paperwork, but Not Physical Work.”

<sup>4</sup> Weiss.

<sup>5</sup> Weaver, “In syracuse.com interview, Buttigieg discusses race, reparations and I-81” 2021

<sup>6</sup> Breidenbach, “Biden advisor says Syracuse’s I-81 plan is “a beautiful project” being replicated across U.S.”

<sup>7</sup> Harding.

<sup>8</sup> Weaver, “Sen. Charles Schumer on I-81: Not my job to pick highway design.”

<sup>9</sup> Weiner, “Kirsten Gillibrand: Interstate 81 grid would help revitalize Syracuse.”

USDOT and the FHWA are responsible for ensuring the project follows federal regulations. The Fixing America's Surface Transportation Act of 2015 establishes the formula used by the federal government in determining reimbursement to state and local governments from the Highway Trust Fund, later reinforced by the Infrastructure Investment and Jobs Act of 2021.<sup>10</sup> The federal government's share of a project is 80 percent "unless expressly provided by the Act or determined by the Secretary."<sup>11</sup> As most project funding comes from the federal government, policymakers wield considerable influence on the I-81 Viaduct Project. Congress may exercise legislative power to guide projects in one direction or another through legislation, such as through the designation of new high priority corridors in the Infrastructure Investment and Jobs Act of 2021.

Federal stakeholders additionally impose labor regulations on state and local governments regarding federal projects, including the construction of federal interstate highways. The Davis-Bacon Act of 1931 prescribes that those employed on federal construction projects must be paid the "prevailing wage;" the wages employees in similar projects not governed by the act are paid.<sup>12</sup> Critics of Davis-Bacon contend this results in additional construction costs; however, studies comparing state and federal projects indicate this claim to be unsubstantiated.<sup>13</sup> In addition to the Davis-Bacon Act, Sen. Gillibrand introduced legislation to the Senate which would impose additional requirements on the I-81 Project. The Build Local, Hire Local Act would require 50 percent of construction labor to be locally sourced and the prioritization of those experiencing chronic barriers to unemployment.<sup>14</sup> In Syracuse, Secretary Buttigieg told the community USDOT was "making sure that the people who actually live in the communities where these projects are located get the opportunity to work on them."<sup>15</sup>

### *Stakeholders: State Government*

As the federal government defers the decision-making regarding the construction of highways to states, there is high power and interest in the project among elected stakeholders. The State of New York is led by Governor Kathy Hochul. In early 2022, Gov. Hochul reaffirmed the state's decision to pursue the community grid claiming indecision has gone on too long and pivoted her focus to revitalizing the community divided by the highway.<sup>16</sup> NYSDOT Commissioner Marie Therese Dominquez has been instructed to "get moving" on the project.<sup>17</sup>

Since 2020, Central New York has been represented by State Senators John Mannion (D-Geddes) and Rachel May (D-Syracuse) who both support the community grid. During Sen. Mannion's campaign, he won the endorsement of Syracuse Mayor Ben Walsh who also favors the community grid.<sup>18</sup> In partnership with local State Assemblyman Bill Magnarelli (D-Syracuse), Sen. Mannion is renewing a push to drop tolls along the New York State Thruway in

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<sup>10</sup> Federal Highway Administration.

<sup>11</sup> Federal Highway Administration.

<sup>12</sup> U.S. Department of Labor.

<sup>13</sup> Duncan.

<sup>14</sup> Build Local, Hire Local Act.

<sup>15</sup> Knauss, "Pete Buttigieg in Syracuse: I-81 construction jobs will go to local residents."

<sup>16</sup> Breidenbach, "Gov. Hochul confirms NYS is replacing I-81 with community grid: 'This has gone on too long'."

<sup>17</sup> Breidenbach, "Gov. Hochul confirms NYS is replacing I-81 with community grid: 'This has gone on too long'."

<sup>18</sup> Weaver, "Ben Walsh endorses Democrat in Syracuse-area Senate race."

the Syracuse area.<sup>19</sup> In the State Assembly, Assemblyman Magnarelli serves as Chair the Transportation Committee.<sup>20</sup>

Former Mayor of Syracuse Matthew Driscoll serves as the retiring Executive Director of the New York State Thruway Authority (“NYSTA”).<sup>21</sup> In addition to Director Driscoll, Former Onondaga County Executive Joanie M. Mahoney serves as Chair of NYSTA’s Board of Directors.<sup>22</sup> Business, state, and local leaders have called upon NYSTA to either end tolls in the Syracuse area permanently or indefinitely throughout the duration of the project. As NYSTA’s exclusive revenue stream is the collection of tolls, there is little-to-no incentive to pursue this policy. Former Governor Andrew Cuomo vetoed legislation to mandate toll-free travel in the Syracuse area calling it a violation of state law and a catalyst for other communities to seek a similar benefit.<sup>23</sup> As neither Driscoll nor Mahoney appear positioned for future political office and have avoided using their positions with NYSTA to benefit the project, their interest in forcing change among others is low.

#### *Stakeholders: Local Government*

The Onondaga County Executive and Legislature wields little power over the direction of the I-81 Project. They may, however, direct county resources and influence agencies such as the Onondaga County Industrial Development Agency to assist communities.

Onondaga County Executive J. Ryan McMahon (R-Syracuse) favored the plans for a tunnel and believed rerouting traffic around Syracuse would be harmful to suburban economies.<sup>24</sup> On the Onondaga County Legislature, Charles Garland (D-Syracuse) stands in opposition to the community grid and has voiced support for replacing the viaduct as-is when the legislator works with Republicans, he carries power and openly “trades votes” to benefit his constituency.<sup>25</sup> Julie Abbott (R-Skaneateles) is skeptical of the community grid, citing environmental concerns of increased truck traffic through her community; she has called for the plan to be modified or scrapped.<sup>26</sup>

In 2017, the City of Syracuse elected Mayor Ben Walsh as the first independent to represent the city in more than one-hundred years.<sup>27</sup> Mayor Walsh is an advocate of the community grid and has appointed former Common Councilor Joe Driscoll, who founded a campaign advocating for the grid, as the city’s I-81 Project Manager.<sup>28</sup> The mayor has shown a great interest in the project in addition to a modest amount of power, as he works with community members and policymakers in pursuit of his goals.

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<sup>19</sup> Breidenbach, “Magnarelli, Mannion will push Albany to drop NY Thruway tolls in Syracuse area.”

<sup>20</sup> Breidenbach, “Magnarelli, Mannion will push Albany to drop NY Thruway tolls in Syracuse area.”

<sup>21</sup> New York State.

<sup>22</sup> New York State.

<sup>23</sup> Buckshot.

<sup>24</sup> Weaver, “Ryan McMahon, an I-81 tunnel fan, prepares for a grid reality in Syracuse.”

<sup>25</sup> Knauss, “Charles Garland – a key vote for controversial \$85M aquarium – OK with going it alone.”

<sup>26</sup> Buttacavoli, “Suburban and rural communities take concern with I-81 community grid proposal.”

<sup>27</sup> McMahon.

<sup>28</sup> The City of Syracuse.

Several suburbs stand in opposition to the community grid, including the Towns of DeWitt and Salina. The Town of DeWitt joined the lawsuit to halt construction, with Town Supervisor Ed Michalenko believing it threatens the community's environmental and economic interests.<sup>29</sup> These sentiments are shared by Town of Salina Supervisor Nick Paro who has joined state lawmakers in calling for the Thruway Authority to end tolling in the region.<sup>30</sup>

### *Stakeholders: Businesses and Organizations*

Destiny USA is the largest mall in New York and was the sixth-largest mall in the country at the time it completed its expansion from the Carousel Center in 2012.<sup>31</sup> Destiny USA's developers, the Pyramid Companies, received a 30-year waiver on property taxes from the City in addition to the state's Empire Zone credits; the credits are reimbursements from state taxpayers to offset the tax burden in exchange for the mall's expansion.<sup>32</sup> Recently, the mall has faced financial uncertainties exacerbated by the pandemic and retailers closing their businesses. As I-81 directly serves Destiny USA Drive, the Pyramid Companies have a high interest in maintaining traffic flow to their property. In an intersection of the private and public interest, Onondaga County Legislator Julie Abbott's ex-father-in-law is Bruce Kenan, a partner of Destiny USA; it is unclear if Legislator Abbott will use her position to benefit the mall or not.

Micron Technology recently announced a \$100 billion investment to build a computer plant in Clay, a suburb north of the city.<sup>33</sup> The State of New York will invest \$200 million to improve roads and infrastructure around the site. Clay is currently served by I-81 and NY-481, an extension of the existing I-481. Micron has not commented on the I-81 Project; however, their influence may be pivotal as their announcement drew national attention.

Renew 81 For All is a new coalition of business and individual stakeholders, such as Destiny USA and Legislator Garland, who oppose the construction of the community grid.<sup>34</sup> They have shown their proclivity to challenge the project by filing lawsuits and are said to be using "the same playbook" as Save 81, a previous coalition which also opposed the community grid.<sup>35</sup> ReThink 81 was a coalition of grassroots community activists which supported replacing the viaduct with the community grid in addition increased community involvement in the decision-making process.<sup>36</sup> Their support included individual stakeholders such as Syracuse Common Councilor Khalid Bey and organizations like the Onondaga Citizens League.<sup>37</sup>

### *Strategic Assessment*

Overall, we understand the I-81 Project's current plan to be prospectively positioned; however, this feature is not shared across individual stakeholders. The viaduct's replacement with a surface-level boulevard is being offered as an early model for other cities across the

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<sup>29</sup> Ed Michalenko.

<sup>30</sup> Breidenbach, "Free Thruway tolls, traffic circle, cash: New Salina supervisor wants state to pay for loss of I-81."

<sup>31</sup> Niedt.

<sup>32</sup> Niedt.

<sup>33</sup> Weiner, Micron picks Syracuse suburb for huge computer chip plant that would bring up to 9,000 jobs."

<sup>34</sup> Breidenbach, "New group, using SAVE 81's playbook, tries to stop I-81 project with last-minute lawsuit."

<sup>35</sup> Breidenbach, "New group, using SAVE 81's playbook, tries to stop I-81 project with last-minute lawsuit."

<sup>36</sup> Morelli.

<sup>37</sup> Morelli.

country. In consideration of roadways as services, the replacement of the viaduct is one of the City of Syracuse's most transformative in recent history. Residents and commuters can access existing and new businesses along the corridor and expand Centro's bus services.

As a surface-level boulevard, the community grid will offer residents, commuters, and visitors the opportunity to connect with existing and emerging businesses throughout the City of Syracuse. The students at Syracuse University, SUNY ESF, and Upstate Medical University will be encouraged to further connect with and foster positive relationships with the community around them. In addition, the city is poised to change the relationship it holds with the residents of the community divided by the highway. The implementation of programs will offer residents restorative support to promote their health and wellbeing.

We have seen a strong interest in cross-boundary collaboration between stakeholders involved in the project. Hesitant to steer the conversation, policymakers allowed the community to become involved and offer comments in the decision-making process. As the project progresses, we expect the project to be governed through a lead organization network. Either the NYSDOT or the City of Syracuse may assume this role in some form with the involvement of the City's Joe Driscoll, as FHWA is the lead agency for federal purposes rather than state and local.

Business interests, such as Destiny USA, and Legislator Charles Garland epitomize individuals who divergent from prospective stakeholders. Opponents of the community grid are interested in seeing the viaduct either replaced as it currently stands or with a skyway; the maintenance of existing traffic flow is consistent with their economic and environmental goals. Refusing to work with federal, state, and local stakeholders prevents these opponents from reaching an agreement which alleviates their concerns. Despite lacking status as high-ranking government officials, the ability to file lawsuits is a key barrier for the project's short- and long-term success.

### *Stakeholder Impact*

The stakeholders mentioned above can have an immense impact on program operations. In government involvement, NYSDOT holds most power in the reconstruction project. As the agency responsible for selecting contractors, they have a key role in choosing partners that can handle the responsibilities of redesigning I-81. Questions will need to be asked such as how NYSDOT will select the private firms they work with. The selection process and contract design will have long-term effects on project implementation and execution, so it will need to be carefully evaluated. NYSDOT will also be responsible for the financial support of this project which the community grid requires for success. This is critical as delays may cause the I-81 Project to cost more than anticipated. A lack of support at the federal and state level will result in a poor experience building the community grid.

Local government leaders, businesses, and organizations within Syracuse can impede the project's operations. These groups can organize and create coalitions that can halt the project's timeline. As mentioned above, several interest groups were formed in response to the final decision by NYSDOT and FHWA, each of them having concerns over various aspects of the project. This has led to one of the groups, Renew 81 For All, issuing a lawsuit to pause work on the project.



## Problem Definition, Theory of Change, and Logic Model

### *Problem Definition*

Based on the context outlined in our *Environmental Assessment*, we identified four different problem definitions.

*Figure 1*

Problem Area	Problem Definition
Infrastructure	The current I-81 viaduct structure is aging and needs to be modernized or regularly maintained.
Traffic	The current I-81 viaduct structure contributes to heavy high-speed traffic congestion and delays during peak travel hours.
Enterprise*	The current I-81 viaduct structure disconnects residents, local businesses, and commerce industries.
Inclusion*	The current I-81 viaduct structure disproportionately impacts residents of color.

*\* Problems presented in the planning phase of the project*

When analyzing the I-81 Project, it is important to consider infrastructure, traffic, the economy (enterprise), and inclusion of all local Syracuse residents. In addition, to get a full sense of the project and its intended goals, we must make a distinction between infrastructure and traffic, and enterprise and inclusion. Enterprise and traffic problems are the two issues which had a direct relationship to the project's introduction – the viaduct was aging, and traffic was increasing in severity. As for enterprise and inclusion, those problems were introduced *after* the project had already been conceptualized. Defining and analyzing the problem definitions in the correct order is vital for assessing the true motivation for the project. In this case, the I-81 is intended to address the first two problems, infrastructure and traffic, while enterprise and inclusion are two consequences factored into the planning phase. Interestingly, marketing and communication regarding the replacement of this section of I-81 has been geared towards the enterprise and inclusion problems.

### *Theory of Change*

In 2013, the NYSDOT, FHWA, and the Syracuse Metropolitan Transportation Council launched a three-year research project that indicated a “need for the near-term reconstruction or replacement of the travel capacity of I-81.” The findings of the study lead to the creation of the Viaduct Project, and a Cooperative Agency taskforce which included the Advisory Council on Historic Preservation (ACHP), the U.S. Environmental Protection Agency (USEPA), The U.S. Army Corps of Engineers (USACE), the New York State Office of Parks, Recreation and

Historic Preservation (SHPO), and the New York State Department of Environmental Conservation (NYSDEC).

In the planning phase of the I-81 project, administrators placed a primary emphasis on learning. According to documents released by Gov. Hochul’s office, NYSDOT received about 8,000 community comments on the original project draft and 1,000 more during a 30-day final review period. In addition, NYSDOT hosted public hearings on August 17<sup>th</sup>, 2021, and August 18<sup>th</sup>, 2021. As a result, the proposed project construction site was moved from its original location, near Dr. King Elementary School, to its current location, the intersection of Almond Street and Van Buren Street. Administrators and public officials exercised authority to push this project forward. The new community grid is slated for construction on Almond Street which runs directly under the current I-81 highway system. Auxiliary improvements will be made on I-690 East and West, I-481, and 81 Business Loop. Further details on flawed theories of change will be discussed in our analysis of the *Program Implementation Issues*.

### *Logic Model*

*Figure 2: Community Grid Logic Model*

Inputs	Activities	Outputs	Outcomes/Impacts
<b>1.</b> Research produced by NYSDOT and FHWA  <b>2.</b> Funding from NYSDOT and FHWA  <b>3.</b> Desire for modern infrastructure by NYS government	<b>1.</b> Redo the current highway system through the city of Syracuse	<b>1.</b> Reroute I-81 into a community grid style infrastructure  <b>2.</b> Improve I-690 East and West  <b>3.</b> Improve 81 Business Loop	<b>1.</b> Reduced high speed traffic congestion during peak hours  <b>2.</b> Improved access to health services and hospitals  <b>3.</b> Improved inclusion of Syracuse residents and businesses  <b>4.</b> A modernized travel infrastructure system

The figure above depicts the logic model followed by the NYDOT, FHWA, and NYS governing authorities that helped inform their decision to construct the community grid. However, there are several flaws in the logic model and theories of change which were addressed by the previously mentioned lawsuit, Renew 81 For All. Importantly, the current logic model and theory of change suggests that the community grid is the most environmentally friendly and sustainable option. However, the Renew 81 For All lawsuit claims that the construction of the new infrastructure simply shifts the environmental burden to the suburbs. In addition, the logic model, theory of change, and project marketing seem to imply that the new community grid will have a direct role in “redressing” the historical wrongs originally committed through the construction of I-81.

## Program Performance Measurement and Results

### *Introduction*

When attempting to assemble a set of criteria by which to judge potential solutions to the problems posed by the existing viaduct carrying I-81 in Syracuse, best practice would be to examine other projects that have been carried out and/or are under discussion around the nation. We review projects in Boston, Massachusetts; Portland, Oregon; Rochester, New York; and Albany, New York, to identify the most important factors to consider when evaluating the different options that exist for the future of I-81 in Syracuse.

### *Comparative Projects*

#### Boston, Massachusetts

The first of these projects to consider is one that garnered national attention, the “Big Dig” in Boston Massachusetts. Between 1991 and 2007, the Big Dig, formally referred to as the Central Artery/Tunnel Project, razed the existing viaduct over Downtown Boston which carried U.S. Route 1, Massachusetts State Route 3, Interstates 90 (The Massachusetts Turnpike) and 93. The roads were then redirected through a pair of tunnels; one carrying Interstates 93, U.S. Route 1, and Massachusetts State Route 3 under downtown, directly beneath the footprint of the old viaduct, and one extending I-90 to the east under the harbor to better serve Logan International Airport.<sup>38</sup>

#### Portland, Oregon

The next project to consider is the removal of the Harbor Drive highway in Portland Oregon. Between 1974 and 1984, Portland became the first city in the United States to remove one of their highways.<sup>39</sup> Built in 1950, Harbor Drive carried U.S. Route 99W through Portland along the banks of the Willamette River. Less than twenty years later, however, citizen calls for the removal of the highway gained widespread support, and the highway was converted to a large public park and a smaller boulevard to serve the local traffic.<sup>40</sup>

#### Rochester, New York

Rochester, New York recently completed their own highway removal project. Between 2014 and 2017, Rochester conducted what is referred to locally as “The Project,” and formally as the Inner Loop East Reconstruction Project, which removed a portion of the Inner Loop highway. The Inner loop, officially New York State Route 940T with a short concurrence with I-490, was a circumferential highway which encircled much of downtown Rochester as well as part of the Genesee River. The portion east of the river was sunken, above ground but below

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<sup>38</sup> “The Big Dig: Project Background.”

<sup>39</sup> Lloyd, “Portland’s Harbor Drive Was an Urban Development Landmark, before Going Away (Historical Photos).”

<sup>40</sup> Congress for the New Urbanism, “Harbor Drive.”

grade, and The Project was aimed at filling in the eastern quarter of the loop to create a fully at-grade boulevard, leaving the Inner Loop now as a “c-shaped” highway.<sup>41</sup>

Albany, New York

The last highway to consider when comparing I-81 is another future project currently being planned in New York State, Interstate 787 (“I-787”) in Albany. I-787 is currently an auxiliary highway which connects the New York State Thruway and I-87 south of Albany along the Hudson River with U.S. Route 20 downtown, then I-90 to the north, and eventually to New York State Route 7. Like in Syracuse, New York State is considering proposals that would raze I-787, create public spaces and economic development, and install a cable car across the Hudson to connect Downtown Albany and the Empire State Plaza with Albany-Rensselaer train station.

### *Developed Criteria*

#### *Traffic Volume*

Heavy traffic was one of the most important motivators for the Big Dig, with 200,000 vehicles traversing the highway each day by the early nineties.<sup>42</sup> Even with a metropolitan area population one-tenth the size of Boston, I-81 sees an average of 90,000 vehicles on weekdays. The large number of parking garages adjacent to the viaduct that serve workers and visitors to Crouse Hospital, the Veterans Affairs hospital, Syracuse University, SUNY Upstate Medical, and the JMA Wireless Dome are known to be incredibly busy. All the garages are parallel Irving Avenue; when evening traffic gets heavy, either because of normal rush hour traffic or an event at the Dome, drivers can become trapped in these garages.<sup>43</sup> In Albany, I-787 sees a daily average of 87,000 vehicles, like I-81 through Syracuse, however the high-capacity design of the highway means that high traffic and vehicle accidents are not as present.<sup>44</sup>

Traffic volume is also of note in Portland, but conversely. For a time, Harbor Drive was Portland’s only latitudinal highway, and thus received much traffic. By the time calls for it to be removed were becoming serious, Interstate 5 had been built along the other side of the river, and the traffic on Harbor Drive had been reduced to only about 24,000 vehicles daily.<sup>45</sup>

#### *Accident Reduction*

This high traffic volume combined with the design of the viaducts leads to a high number of vehicle accidents. The accident rate on Central Artery was four times the national average, and the confined nature of the viaduct meant that not only did accidents make the already heavy traffic worse, but emergency services could have a challenging time accessing accidents. In Syracuse, vehicle accidents are also high on the I-81 viaduct.

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<sup>41</sup> HR&A Advisors, Inc., “Rochester Inner Loop East Reconstruction Project Benefit Cost Analysis & Real Estate Market Analysis,” 2.

<sup>42</sup> “The Big Dig: Project Background.”

<sup>43</sup> Weaver and Lohmann, “Good Riddance to I-690, I-81 Wreckfest.”

<sup>44</sup> Franchini et al., “I-787/Hudson Waterfront Corridor Study,” 24.

<sup>45</sup> Lloyd, “Portland’s Harbor Drive Was an Urban Development Landmark, before Going Away (Historical Photos)”; Congress for the New Urbanism, “Harbor Drive.”

According to New York State, not all sections are compliant with federal highway safety standards, and accidents on the viaduct are two to three times higher than like highways around the state; with an accident occurring about once a day where I-81 and I-690 merge alone, an area described by local residents as “terrifying”.<sup>46</sup> Of the 1,087 incidents that occurred from 2010 to 2013 on the sections of I-81 and I-690 in question, 267 were connected to aspects of the highway not in compliance with federal standards. The minimal amount of shoulder areas on the viaduct forces tow trucks and other responding vehicles to stop in active lanes.

### Public Transportation Access

Transit was a feature of the original plan for Boston’s Big Dig. The I-93 tunnel was originally planned to feature rail in addition to the vehicle traffic. The proposal, known as the North-South Rail Link, would have connected Boston’s North Station to South Station. Boston’s extensive commuter rail system is currently divided between the lines to the north and to the south, which run into their respective stations. Amtrak services to New York and Albany and beyond use South Station, and the *Downeaster* service, which connects Boston with New Hampshire and Maine, uses North Station.<sup>47</sup> There is currently no one-seat ride<sup>48</sup> between the two stations, however passengers traveling on several of the southwestern lines as well as on Amtrak’s Lake Shore Limited can arrive at Back Bay Station, take the MBTA’s Orange Line directly to North Station, and passengers on the Fitchburg and Rockport Lines can reach South Station by transferring to the Red and Silver Lines at Porter Square and Chelsea stops, respectively.<sup>49</sup> The North-South Rail Link would allow for through-running of the northern and southern services, increasing capacity & reducing crowding on other transit methods.<sup>50</sup> The proposal for the rail link to be included in the Big Dig was scrapped however, as the lack of electrification on Boston’s commuter railways meant that special ventilation equipment would have been required to allow diesel service, the cost of which was considered too high.<sup>51</sup> The only transit project that was successfully completed as part of the Big Dig was Silver Line One (SLI) and later Silver Line Three (SLIII), a bus rapid transit (BRT) line which uses the I-90 tunnel to connect South Station with Logan Airport and Chelsea using trolleybuses, though the original plan was to connect with SLIV and SLV, the Silver Line services

Figure 3: Boston Rail Map



Source: Massachusetts Bay Transportation Authority

<sup>46</sup> Weaver and Lohmann, “Good Riddance to I-690, I-81 Wreckfest.”

<sup>47</sup> Amtrak, “Amtrak System Timetable”; Massachusetts Bay Transportation Authority, “Massachusetts Bay Transportation Authority Commuter Rail Map.”

<sup>48</sup> A “one seat ride” is a service that serves both points directly.

<sup>49</sup> Massachusetts Bay Transportation Authority, “Massachusetts Bay Transportation Authority Commuter Rail Map.”

<sup>50</sup> “North South Rail Link Feasibility Reassessment,” 4.

<sup>51</sup> Karl Haglund, *Inventing the Charles River*, 316.

which serve Washington Street as a replacement service for the Orange Line, which had been relocated from the Washington Street Elevated in 1987.<sup>52</sup>

In Portland, the removal of the Harbor Drive highway, along with federal funding available as part of the cancellation of the Mt. Hood freeway project, set the stage for the construction of their first light rail project between 1982 and 1986. What is now known as the Blue and Red Lines of their MAX Light Rail system was constructed adjacent to where the Harbor Drive highway had been.<sup>53</sup> Since its opening, the MAX system has spurred \$25 billion in development.<sup>54</sup> In the succeeding years, MAX has expanded significantly, and now serves 97 stations, and had 38,817,600 riders in 2019.<sup>55</sup>

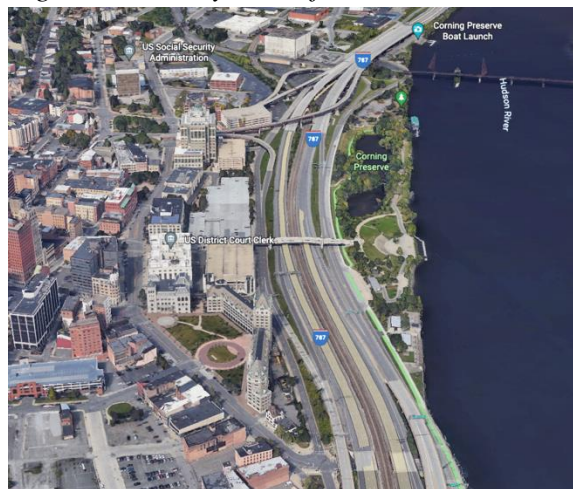
Access to transit is also a centerpiece of the I-787 removal project in Albany. Connection with the rail station is unusually important for a city of Albany's size, however as the state capital ridership is incredibly high. In FY 2021, Amtrak's *Empire South* service, which connects Albany and New York City, and Albany-Rensselaer Station were the nation's fourth busiest route and ninth busiest station, and the busiest in the eastern U.S. outside of the Washington D.C.-Boston Northeast Corridor.<sup>56</sup> Albany's Amtrak station was moved across the river in 1968 when the construction of I-787 required the demolition of the platforms & yard at Albany Union Station downtown and the Maiden Lane Bridge, which connected Albany Union Station with what is now CSX's Hudson subdivision, the line which Amtrak uses to connect Albany with New York City.<sup>57</sup> Figures 4&5 show a portion of the Albany waterfront in 1940 and 2022 respectively, highlighting the removal of the rail infrastructure on the western side of the Hudson.

Figure 4: Albany Waterfront – Circa 1940



Source: Fairchild Aerial Surveys

Figure 5: Albany Waterfront –2022



Source: Google Earth

<sup>52</sup> Leidolf, "Racial Disparities in MBTA Service – Throwback"; *Equal or Better*.

<sup>53</sup> "Banfield Light Rail: Eastside Max Blue Line."

<sup>54</sup> "MAX Light Rail Project History."

<sup>55</sup> "MAX Light Rail Project History"; Tri-County Metropolitan Transportation District of Oregon, "TriMet Service and Ridership Information."

<sup>56</sup> Amtrak, "Amtrak FY21 Ridership," 21.

<sup>57</sup> De Socio, "Is It Time to Give Albany's Old Union Station Back to the People?"; Franchini et al., "I-787/Hudson Waterfront Corridor Study," 8.



### Local Environmental Improvement

In the 1960s and 70s, Portland had a major issue with air quality.<sup>58</sup> In a 1963 article in *The Oregonian*, writer James Lattie described the air quality, saying “Each Portland resident annually collects more than a pound of dirt by the simple process of breathing...his unwanted ... is seasoned with an assortment of organic gases, dusts, tars, metals and other materials.”<sup>59</sup> In Boston, environmental concerns were also of importance to policymakers. The Big Dig succeeded in reducing carbon monoxide levels by 12 percent city-wide. In Rochester, a reduction in “carbon monoxide, carbon dioxide, mono-nitrogen oxides, and particulate matter” was of importance and highlighted in the materials presented.<sup>60</sup>

*Figure 6: Smog in Portland—1971*



Source: *The Oregonian*

### Public Spaces

The creation of public space is a feature in all four cities. In Portland, the park built along the riverfront by removing Harbor Drive doubled the size of public green spaces in the city, and the boulevard built in its stead is also more walkable and friendly to pedestrian traffic.<sup>61</sup> The Big Dig provided the space for forty-five different parks and other public spaces to be built in Boston. Collectively known as the Rose Kennedy Greenway, 75 percent of the area freed up by burying I-93 has been dedicated to providing these spaces for public use and enjoyment.<sup>62</sup> The footprint of the project in Rochester was not as large as those in the other cities, but concerted efforts were made to plant trees, pedestrianize, and reserve spaces for future use.<sup>63</sup> Not only would the removal of I-787 provide room for more public spaces, it would allow easier access to existing spaces.<sup>64</sup> I-787 cuts off access to the Corning Preserve, a park built on reclaimed land from the quays and railyard that existed there before the construction of I-787 and the USS Slater, the last World War II destroyer still floating, which has been turned into a museum and is docked in Albany.<sup>65</sup>

### Program Implementation Issues

The I-81 Project is a multi-billion-dollar infrastructure project which will dynamically intersect with nearly every facet of life across Central New York. Construction of the original viaduct created a wicked problem, and therefore solutions in the community interest are certain to be riddled with conflict and potential deficiencies.

#### *Possible Program Deficiency:*

<sup>58</sup> *Oregonian/OregonLive*, “‘Could the Killer Smog Ever Happen in Portland?’”

<sup>59</sup> Lattie, “Dirty Portland Air Leaves Dirty Buildings, Dirty Lungs.”

<sup>60</sup> HR&A Advisors, Inc., “Rochester Inner Loop East Reconstruction Project Benefit Cost Analysis & Real Estate Market Analysis,” 15.

<sup>61</sup> Congress for the New Urbanism, “Harbor Drive.”

<sup>62</sup> “The Big Dig: Project Background | Mass.Gov.”

<sup>63</sup> “A World without NEPA.”

<sup>64</sup> De Socio, “Finding a Creative Way Around a Bad Highway.”

<sup>65</sup> “Historic WWII Vintage Destroyer to Transit New York’s Hudson River.”

### *Inadequately Trained & Resourced Frontline Workers*

The realization of pending federal legislation and timelines set forth by NYSDOT may lead to inadequately trained and resourced frontline workers. Transportation Secretary Pete Buttigieg, Senator Kirsten Gillibrand, and Mayor Ben Walsh aim to guarantee jobs related to the project prioritize locals. Sen. Gillibrand introduced legislation to the United States Senate would impose this prioritization on infrastructure projects nationwide in addition to those experiencing barriers to employment, veterans, and “individuals representing traditionally underrepresented in the infrastructure workforce.”<sup>66</sup> Barriers to employment are defined in section 3 of the Workforce Innovation and Opportunity Act and include, but are not limited to, identities such as displaced homemakers, individuals with disabilities, ex-offenders, and homeless individuals.<sup>67</sup> Sen. Gillibrand’s legislation proposes the creation of pathways training programs.<sup>68</sup>

The project’s contracts are expected to be awarded beginning January 2023;<sup>69</sup> however, the highway is already past its useful life<sup>70</sup> and the project was expected to begin in late 2022.<sup>71</sup> The state plans for the first and second phase to each take three years for a total of six years.<sup>72</sup> Programs already exist in the Syracuse area providing a seven-week hybrid construction jobs training program,<sup>73</sup> but programs such as this rely on the assumption of immediately prepared trainees; disabled and homeless individuals may be more likely to require additional resources and supports prior to joining and during these workforce development programs.

In consideration of inadequately trained and resourced frontline workers, we understand the confluence of project deadlines and pending regulations as a potential major program deficiency. As mutually exclusive priorities, there is less competition between these goals. To impose additional labor regulations on a project already past its expected commencement may lead to adequately resourced frontline workers for training, but inadequate time to meet training targets. This may cause either project delays or substandard construction.

#### *Possible Program Deficiency:*

##### *Coordination Failure, Overly Burdensome Oversight & Control*

There is competition between federal, state, and local stakeholders over the project’s direction, which may lead to coordination failure. As the Fixing America’s Surface Transportation Act allows the Secretary of Transportation to direct additional funds to highway projects as appropriate,<sup>74</sup> President Biden and Secretary Buttigieg can use their positions to control the project through the allocation of additional funds. Competing with the executive branch, Sen. Gillibrand wants to impose legislative control over the project’s direction. Should both the executive and legislative branches impose control over the project, especially during the beginning of the project, it may complicate plans and confuse state and local stakeholders.

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<sup>66</sup> Build Local, Hire Local Act.

<sup>67</sup> Build Local, Hire Local Act.

<sup>68</sup> Build Local, Hire Local Act.

<sup>69</sup> Knauss, “State DOT seeks judge’s OK to award I-81 contracts while lawsuit against project proceeds.”

<sup>70</sup> Breidenbach, “How much are taxpayers spending to keep I-81 in Syracuse safe before NY tears it down?.”

<sup>71</sup> Weaver, “I-81 project timeline: When construction starts and ends.”

<sup>72</sup> Weaver, “I-81 project timeline: When construction starts and ends.”

<sup>73</sup> Syracuse Educational Opportunity Center.

<sup>74</sup> Federal Highway Administration.



The state and local government have shown their interest in overseeing the project. After public hearings and preferring the community grid, Gov. Hochul shared the state's decision to move forward with the plan in early 2022.<sup>75</sup> With interstate highways owned and maintained by the states in which they exist,<sup>76</sup> the NYSDOT is the primary project planner; however, the City of Syracuse's appointment of their own project manager confuses the coordination between the two governments. The mayor is critical of some of the state's plans regarding the community grid<sup>77</sup> and appears to lack the oversight and control he wishes for the city.

During this project, a lead organization network through the NYSDOT not only makes the most sense but appears to be commonplace. Unfortunately, the lack of clarity regarding the nature of this network in addition to evolving regulations risks the project devolving into a de facto self-governed network. The lack of coordination under the self-governed network may cause nonprofit and private sector partners to experience confusion and frustration, with the potential for retraction from the project.

*Possible Program Deficiency:  
Poor Participant Experiences*

Families and individuals living in and around the project area in addition to those who travel along the existing viaduct are likely to experience a poor participant experience in one form or another. Residents of the City of Syracuse may experience displacement and environmental hazards due to construction. While no homes are directly implicated in acquisitions during the project's construction,<sup>78</sup> the redevelopment of public housing around the area are.<sup>79</sup> The redevelopment of public housing may not go as planned, causing frustration among those who live there. In addition, families and individuals may experience environmental hazards from the project; this may lead them to find new homes, experiencing negative health outcomes, or both.

Regional residents commuting into and through the city, in addition to through-traffic along I-81 may have poor experiences adjusting to new traffic patterns and delays. Suburban commuters who work in Syracuse are likely to experience delays due to construction, especially those working near the existing viaduct's corridor. An additional concern which comes from Onondaga County Legislator Abbott is increased truck traffic through Skaneateles;<sup>80</sup> westbound traffic may exit the highway and seek these alternative routes if the rerouted I-81's junctions are burdensome.

While some of these challenges may be alleviated following the project's conclusion, the chance for poor participant experiences appears most salient as the viaduct is torn down. This is the time when residents and commuters alike will experience disruptions to their everyday lives; it is arguable that the disruptions experienced by those living along the highway's footprints are considered greater than those who do not. Unfortunately, challenges with inadequately trained and resourced frontline workers in addition to coordination failure are factors which can exacerbate this problem.

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<sup>75</sup> Breidenbach, "Gov. Hochul confirms NYS is replacing I-81 with community grid: 'This has gone on too long'."

<sup>76</sup> Federal Highway Administration.

<sup>77</sup> Breidenbach, "Here's What the First Part of Syracuse's I-81 Construction Will Look like (Maps)."

<sup>78</sup> Breidenbach, "I-81 replacement: Community grid would displace parking lots, three businesses, but no homes."

<sup>79</sup> Breidenbach, "Syracuse embarks on \$800 million plan to end public housing as we know it."

<sup>80</sup> Buttacavoli, "Suburban and rural communities take concern with I-81 community grid proposal."

*Flawed Theory of Change:*

*If the community grid is built, then the environment will be protected.*

Proponents of the community grid contend the belief that the viaduct is an environmental hazard which leads to negative health outcomes. Therefore, the community grid will mitigate environmental adversity to benefit the community.

The Town of DeWitt rejects this claim and joined Renew 81 For All's lawsuit against the New York State Department of Transportation and Federal Highway Administration. I-481 footprint exists as a bypass which travels through the town, and the rerouting of I-81 along the existing I-481 will result in increased through-traffic avoiding the City of Syracuse. DeWitt Town Supervisor Michalenko says he is unable to support the community grid, finding it unacceptable to his constituents due to the increases in fossil fuel consumption, air, and noise pollution.<sup>81</sup> Joined by Supervisor Michalenko is former City of Syracuse Police Chief Frank Fowler, a city resident, who is President of Renew 81; Mr. Fowler argues in court documents he will suffer from deteriorated air quality at his home on Longmeadow Drive.<sup>82</sup>

We understand those opposed to the community grid believe its construction and rerouting of I-81 deprives them of a healthy and safe environment. If opponents' arguments are true, we find it imperative in pointing this deprivation comes from the shift of the burden from one community to others; however, Supervisor Michalenko fails to point out the proliferation of electric vehicles and the shared interest of noise mitigation with Mayor Walsh.<sup>83</sup> A move which may challenge their claims, at the same time Renew 81 filed their lawsuit, Gov. Hochul directed "the State Department of Environmental Conservation to take major regulatory action that will require all new passenger cars, pickup trucks, and SUVs sold in New York State to be zero emissions by 2035."<sup>84</sup>

An area of consideration for both parties is that the community grid may be the option which pursues the least environmental adversity for the most people, in addition understanding the historic environmental racism endured by communities living around the existing viaduct. Those who would see the burden shift onto them may not experience it as severe as others in addition to potentially having the resources to protect their health beyond the state's plans.

*Flawed Theory of Change:*

*If the community grid is built, then historical wrongs are redressed.*

Syracuse's 15<sup>th</sup> ward was seen as "a refuge from discrimination [seen elsewhere],"<sup>85</sup> which was destroyed by urban renewal and the construction of the I-81 viaduct; the AME Zion Church (Figure 7) is only structure originally built for the African American community which still stands.<sup>86</sup> Proponents of the community grid believe they can redress historical wrongs, reconnecting and revitalizing the historic community (Figure 8).<sup>87</sup>

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<sup>81</sup> Michalenko.

<sup>82</sup> Breidenbach, "New group, using SAVE 81's playbook, tries to stop I-81 project with last-minute lawsuit."

<sup>83</sup> Breidenbach, "Here's What the First Part of Syracuse's I-81 Construction Will Look like (Maps)."

<sup>84</sup> New York State.

<sup>85</sup> Onondaga Historical Association.

<sup>86</sup> Onondaga Historical Association.

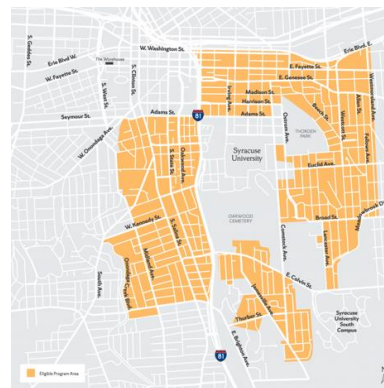
<sup>87</sup> Breidenbach, "Syracuse embarks on \$800 million plan to end public housing as we know it."



**Figure 7:** AME Zion Church 1941



**Figure 8:** Reimagined 15<sup>th</sup> Ward



**Figure 9:** Live Local University-Area

While the original construction of the I-81 viaduct was opposed by Syracuse Mayor Anthony Henninger as being a “dividing wall,”<sup>88</sup> opponents of the grid are unconvinced by current politicians’ same claims. Legislator Garland claims the community grid has always been a gentrification project “to move 4 to 5,000 people out of Pioneer Homes, Central Village all of that area.”<sup>89</sup> His argument, and the potential for stakeholders with ulterior motives, is supported by the Syracuse University Live Local Program. Live Local offers the university’s faculty and staff guaranteed mortgages and the opportunity participate in a university-area homeownership program, providing a forgivable home improvement loan of up to \$15,000.<sup>90</sup> Syracuse University includes the city’s South Side, represented by Legislator Garland, as one of the eligible university-areas (Figure 9).<sup>91</sup>

Legislator Garland believes the primary interest of those advocating for the community grid, particularly those in government, are in support of business interests which will harm his community. In an email exchange with the Legislator, he explained the “impetus” for Renew 81’s lawsuit being the existence of a document crafted with the involvement of Mayor Walsh<sup>92</sup> which describes the economic benefit a community grid would bring. In the original construction of the viaduct, the Garland Family’s funeral home was taken by the state.<sup>93</sup>

Despite plans to ensure families and individuals are housed during the project, in addition to benefitting from redevelopment plans, Legislator Garland may be right to offer skepticism over the government’s plans. Actions taken by stakeholders such as Syracuse University may be understood as gentrification efforts to drive his community out before the project begins; the document which details the community grid’s economic benefit was published by the Onondaga Citizens League, a body which reports on public affairs-related issues through the University College at Syracuse University.<sup>94</sup>

<sup>88</sup> Rubin.

<sup>89</sup> Jackson.

<sup>90</sup> Syracuse University.

<sup>91</sup> Syracuse University.

<sup>92</sup> Onondaga Citizens League.

<sup>93</sup> Breidenbach, “New group, using SAVE 81’s playbook, tries to stop I-81 project with last-minute lawsuit.”

<sup>94</sup> Onondaga Citizens League.

## Recommendations

We agree with the I-81 Project's current problem definitions. The NYSDOT, FHWA, and Gov. Hochul's Office have produced considerable evidence that the current I-81 structure negatively affects the flow of traffic during peak travel periods, and that the structure's age is cause for near-future concern. In addition, there is comprehensive evidence to suggest that the original construction of the I-81 continues to contribute to institutional racism structures within the City of Syracuse.

We also acknowledge that there are several flaws in both the logic model and the theory of change outlines which can have damaging effects on the success of the project implementation. The project's servicers make overreaching statements which may not be true in the long term and can further erode the trust between local and state government and City of Syracuse residents. For example, an aforementioned theory of change is that the transition from the viaduct to the community grid will improve inclusion between different regions of the City of Syracuse. However, groups should be wary of this claim regarding inclusion of land and resources. The removal of the highway could allow for further gentrification of the downtown areas of the City of Syracuse, effectively pushing out residents through land grabs and "local business development." While it is worthwhile to achieve as much as possible during a massive and expensive project like the I-81 Renewal, it may be beneficial to reduce the scope of the project.

As discussed in *Measurement and Results*, there are several indicators which would suggest a successful project: traffic volume, vehicle accident reduction, public transportation access, local environmental improvement, and public spaces. These are existing measures, gathered from the goals of other highway removal projects across decades in Boston, Massachusetts; Portland, Oregon; Rochester, New York; and Albany, New York.

Traffic volume is important to consider, as the existing I-81 viaduct carries an average of 90,000 vehicles daily.<sup>95</sup> If most of the through-traffic is to be rerouted over the existing I-481, significant improvements will need to be made to the existing infrastructure of a beltway around Syracuse. Not all traffic will be able to use I-481, however, whether downtown or in the University area, so the new project will need to have enough capacity to handle the traffic that cannot be rerouted. Ensuring that all roads are compliant with federal guidelines when the project is complete will aid in reducing the number of accidents on I-81, and the less confined nature of the roads will allow easier access to the scene for emergency services if an accident does occur.

Public transit access provides the most amorphous indicator of success. Only three of CENTRO, the local bus operator's routes, currently use the section of I-81 in question, however the concept of a new-from-scratch project makes available any number of public transit options.<sup>96</sup> Additional bus infrastructure could be built along the corridor, providing an improved service. Alternatively, light rail could also be constructed for a more robust and environmentally friendly offering, with great capacity for expansion as the area grows and develops.

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<sup>95</sup> Weaver and Lohmann, "Good Riddance to I-690, I-81 Wreckfest."

<sup>96</sup> "System Map."

The I-81 Project also presents a major opportunity to improve the local environment. The area surrounding the current viaduct has been burdened with high levels of air pollution for decades.<sup>97</sup> These environmental concerns lead to negative health outcomes in Syracuse, with blood-lead levels and asthma related hospitalizations within the Syracuse City School District (SCSD) being some of the highest in the state.<sup>98</sup> High levels of local air pollution are also correlated with lower academic achievement.<sup>99</sup> Dr. King Elementary, an SCSD school, which lies directly adjacent to the viaduct, has academic performance in the bottom one percent of schools in New York State.<sup>100</sup>

Finally, public spaces must be accounted for in the I-81 Project. There are already several public spaces along Almond Street which lie under the viaduct, notably Wilson and Forman Parks.<sup>101</sup> Inclusion of additional public spaces is crucial, as it will drive foot traffic, increasing the economic development sought by the project.

As the project has not yet broken ground, evaluation of the program's current operations and process is not fully encompassing. The lawsuit has paused all physical construction with further review of the plans pending. Our analysis reviews the concerns raised by groups wary of the community grid and the plans set forth by NYSDOT and FHWA, also serving as pathway for any improvements that should be made to the program's operations. We also consider hypothetical situations that can arise in the case of execution of the program. As discussed *Program Implementation Issues*, the three possible program deficiencies are: inadequately trained and resourced frontline workers; coordination failure, overly burdensome oversight and control; and poor participant experiences.

The clear implementation issues seen throughout this project's life have led to the lawsuit NYSDOT and FHWA are facing. The injunction was filed due to a lack of planning over the environmental impact the community grid could have. Concerns have been raised by community members in Syracuse's surrounding areas over statements made that the reconstruction would benefit the environment, but there is a chance for more air and noise pollution. The theories of change also imply that the grid would address historical wrongs committed against Syracuse's communities of color. However, comments made by Legislator Garland imply otherwise. This project will require individuals and businesses to be displaced, and concerns should be raised as to how they will receive support from agencies throughout this process and whether this will impact the systemic justice the project claims to bring.

With these issues in mind, the clearest recommendation is to have another high-scale reviewal process of the Design Report/Environmental Impact Statement of the community grid. The issues raised show there has been a barrier in the input process from local leaders, businesses, and organizations. In the initial timeline of the project, NYSDOT and FHWA did have two "public commentary periods" for the project, but the ways in which they were conducted should be evaluated and changed if needed. For example, there were two *virtual*

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<sup>97</sup> Owens-Chaplin, Miller, and McCormack, "Building a Better Future," 21.

<sup>98</sup> Owens-Chaplin, Miller, and McCormack, 12.

<sup>99</sup> Owens-Chaplin, Miller, and McCormack, 12, 26.

<sup>100</sup> Owens-Chaplin, Miller, and McCormack, 11.

<sup>101</sup> Owens-Chaplin, Miller, and McCormack, 24.

public commentary periods during the second release of the DDR/DEIS. NYSDOT and FHWA would benefit from a hybrid commentary period in and around Syracuse, both in-person and online, giving opportunity for those with time and/or place restrictions. This would increase community engagement and response, especially with more people being aware of the I-81 project.

In addition to more community engagement with the review of the grid, additional projects which could minimize the high scale of reconstruction should be considered. An example of this could be creating additional routes on surrounding interstates such as I-481 and I-690. This could help lessen the construction needed on I-81, whether it be through the proposed community grid or an alternative building scheme. Similarly, an additional alternative that could minimize the scale of the I-81 construction could be enhancing public transportation in Syracuse. Robust transportation infrastructure, such as a light rail system, in and around the city could help with traffic and highway usage; this could minimize the need for a large-scale construction project while investing in future regional development.

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