

City of Windsor Heights, Iowa 73rd Street Multimodal Connector

Merit Criteria

Better Utilizing Investments to Leverage Development
(BUILD) Grant Application



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Project Merit Criteria

The City of Windsor Heights proposed 73rd Street Multimodal Connector Project would bring enormous safety benefits to a high-risk and high-injury section of a corridor that bridges multiple jurisdictions and connects residents to regional amenities and services. The primary purpose of the project's improvements is to enable multimodal access to vulnerable road users that have hitherto been unable to cross the 73rd Street underpass at I-235 safely. Improved health, increasing use of sustainable transportation options, and easier access to daily goods and services for residents are three of the main benefits expected to come out of the proposed improvements. The City believes that the grant proposal addresses the required number of merit criteria to receive a rating of "Highly Recommended."

Criteria #1: Safety

Criteria #1: Safety	HIGHLY QUALIFIED
	<i>Aligns with two (2) High rating benefits</i>
<i>The Project...</i> <ul style="list-style-type: none"><i>A. Protects non-motorized travelers from safety risks</i><i>B. Reduces fatalities and/or serious injuries in communities to bring them below the state-wide average</i>	

1.a. Protects non-motorized travelers from safety risks

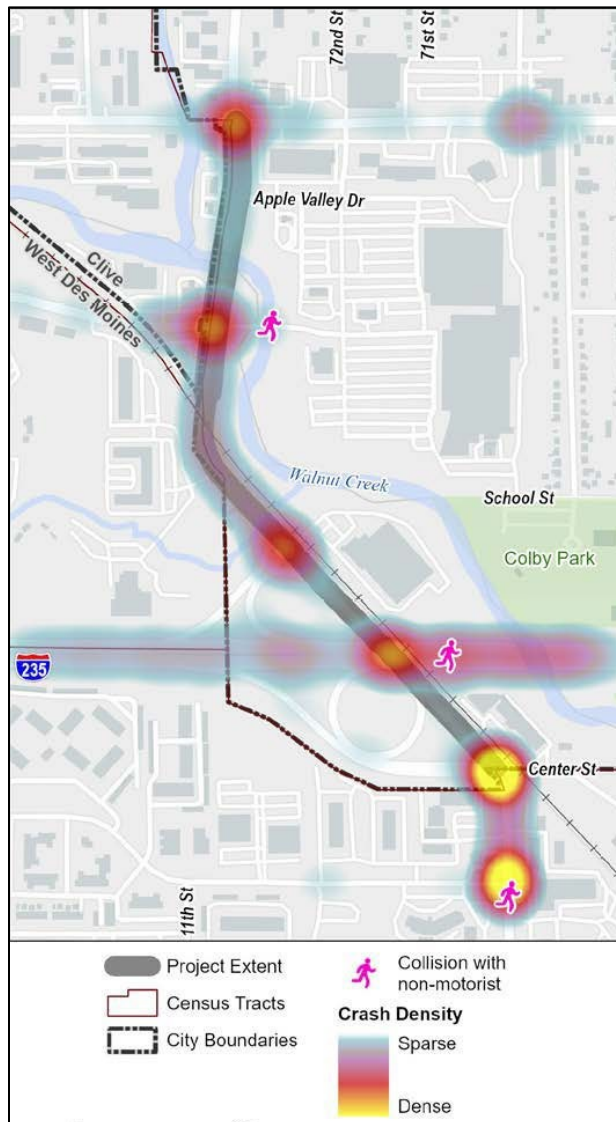


Figure 1 A Heat Map of Historical Crashes in the Project Area from 2013-2022

The 73rd Street Multimodal Connector project will address critical safety concerns for non-motorists who are not empowered to safely navigate the corridor at present. The corridor lacks proper pedestrian facilities, with multiple sidewalk gaps, poor crossing safety at the railroad, and substandard roadway geometry. Many pedestrians, including those from nearby low-income communities and residential areas, have little choice but to walk along dangerous stretches of the corridor without safe alternatives. The historical crash record shows how this had led to fatal repercussions (**Figure 1**). Engagement and analysis from the development of the Des Moines Area MPO's Comprehensive Safety Action Plan identified this segment as being a part of the regional High Injury Network and also the High Risk Network, underscoring the necessity of a swift and comprehensive response to the problem.

The Project will install new, and presently non-existent sidewalks along the east side of 73rd Street and a pedestrian bridge over Walnut Creek at Center Street to connect existing pedestrian networks. High visibility pedestrian crossings will be implemented throughout the 73rd Street corridor along all intersections. The installation of these facilities will reduce safety risks and provide safe travel options for non-motorized users.

This is particularly important given the area's high pedestrian activity. Pedestrian walkways

are Proven Safety Countermeasures according to US DOT's National Roadway Safety Strategy¹.

¹ <https://highways.dot.gov/safety/proven-safety-countermeasures/walkways>

1.b. Reduce fatalities and serious injuries in communities to bring them below the state-wide average

The 73rd Street corridor currently experiences crash rates well above both local and state-wide averages, with a 15% higher crash rate than City streets and more than double the statewide average (**Table 1**).

Table 1 Historic Crash Rates in the Project area compared to statewide averages

Total Crashes in Project Area (2013-2022)	236
Average AADT 2013-2022	21,233
Crash Rate (Crashes per 100 Million Vehicle Miles Traveled)	448
Statewide Crash Rate (2013-2016, All Roads)	162
Statewide Crash Rate (2013-2016, City Streets within Incorporated Municipalities)	389

All data in the table based on data from Iowa DOT

[Crash Data](#) | [Statewide Average Rates](#)

The Project aims to reduce fatalities and serious injuries by improving both roadway geometry and safety features. At the Norfolk Southern/Iowa Interstate railroad crossing, the project will enhance the roadway's curve to meet a reduced speed limit, which will help prevent crashes. Additionally, the crossing will be upgraded with new crossing gates, replacing the current



warning lights, and a raised median will be added (**Figure 2**). These improvements are expected to significantly reduce the likelihood of automobile-train collisions. By addressing these safety concerns, the project will work towards bringing crash rates on the corridor below the statewide average, making the roadway safer for all users.

Figure 2 Existing (left) and Proposed Condition (right) at Rail Crossing

Criteria #2: Environmental Sustainability

Criteria #2: Environmental Sustainability	HIGHLY QUALIFIED
	<i>Aligns with three (3) High rating benefits</i>
<i>The Project...</i> <ul style="list-style-type: none"><i>A. Reduce VMT through modal shift to active transit</i><i>B. Expands transportation-efficient land-use and design</i><i>C. Addresses the negative environmental effects of transportation infrastructure to disadvantaged communities</i>	

2.a. Reduce vehicle miles traveled specifically through modal shift to transit, rail, or active transportation:

Through the Project, the City aims to reduce single-occupancy vehicle usage by providing multiple means of access to active transportation. This will be accomplished through the installation of sidewalks along 73rd Street and a pedestrian bridge crossing Walnut Creek which will connect the south side of the 73rd Street overpass to the Clive Greenbelt Trail. Lower-carbon travel modes by foot or wheel that were previously inaccessible will be enabled by the inclusion of these active transportation facilities. Furthermore, residents of the area will have expanded access to bus services provided by DART at multiple stops north of the 73rd Street overpass. The City anticipates that these improvements in access to active and public transit will decrease vehicle miles traveled (VMT) through the area and thus a reduction in greenhouse gas (GHG) emissions as a result. In an area that is already flush with automobiles and heavy traffic, any reduction would be an improvement in traffic and environmental quality.

2.b. Implement transportation-efficient land use and design

While a sizable portion of the area surrounding the project does not exemplify transportation-efficient land use and design, there are signs that the area's development patterns are moving in a more compact direction and towards becoming more walkable. The [City's 2017 Comprehensive Plan](#) names walkability and complete streets a major goal in tangent with encouraging mixed-use development. To that end the City has made progress by improving pedestrian facilities along University Avenue to the Northeast of the project area and a number of infill developments such as a new Aldi have complemented what was already a well-trafficked shopping center in the region. The City anticipates that the 73rd Street Multimodal Connector Project improvements will serve to encourage attractive, sustainable, and efficient land-uses both within Windsor Heights and in jurisdictions immediately surrounding the area. The area to the south of the project on 73rd Street within West Des Moines' jurisdiction has already seen development that supports this notion with the recent construction of a multi-use, 42-apartment building with ground-floor commercial space.

2.c. Address the disproportionately negative environmental impacts of transportation on disadvantaged communities such as by reducing exposure to elevated levels of air, water, and noise pollution

The City of Windsor Heights is committed to pursuing initiatives aimed at growing as a thriving community for all residents regardless of age, race, sexual orientation, or physical disability. This project will avoid adverse impacts to air and water quality as well as to wetlands and endangered species and will incur no negative environmental impacts on nearby communities.

This project area includes many features that serve disadvantaged persons within the disadvantaged census tract within the Project area. The risks and hazards that the current state of the roadway presents to disadvantaged persons, is not providing them a safe crossing of a railroad, proper lighting for vehicles to see them as they walk along the roadway, as well as not providing a dedicated pathway for

them to go to and from home, grocery stores, community events, Walmart, and the DART bus stops. This project will address each of those system barriers and serve as a direct positive impact to the human health hazard that it currently presents.

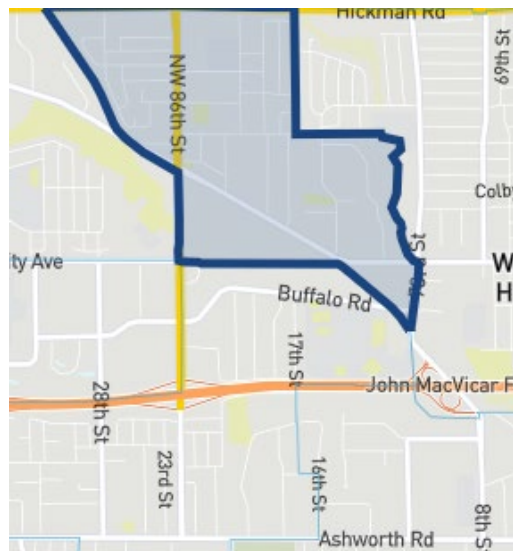


Figure 3 CEJST Disadvantaged Track 112.05 intersecting with and extending North of the Project area

Criteria #3: Quality of Life

Criteria #3: Quality of Life	HIGHLY QUALIFIED
	<i>Aligns with three (3) High rating benefits</i>
<i>The Project...</i> <ul style="list-style-type: none"> <i>A. Increases affordable transportation options</i> <i>B. Improves access to daily destinations</i> <i>C. Improves public health</i> 	

3.a. Increase affordable transportation choices

This Project increases affordable transportation choices by creating a safer and more accessible environment for active transportation modes such as walking and cycling. By improving street design and eliminating dangerous exit ramps from I-235, the Project connects residents to an expanded network of active transportation routes and public transit options.

These changes provide residents who previously were forced to rely on a vehicle multiple alternatives to walk or cycle to their desired destinations in the vicinity. By reducing dependence on single-occupancy vehicles, the Project fosters a more connected and cost-effective transportation system for the community.

3.b. Improve access to daily destinations like jobs, healthcare, grocery stores, schools, places of worship, recreation, or parks through transit and active transportation

As a result of this Project, residents to the south of the I-235 overpass over who are currently unable to safely access the north side will have access to a wide range of daily destinations serving a diversity of cultural, economic, and situational needs. The connection will enable residents to safely access the Windsor Trail which accesses hundreds of regional destinations. Nearby, residents will have quicker and safer access to Windsor Heights' Colby Park which makes further connections to the Bill Riley and Great Western Trails. Large-chain grocery and ethnic grocery stores that populate the North side of the overpass will be safely accessible to nearby residents as a result of the Project, as well as a plethora of restaurants, coffee shops, and locally owned retail establishments.



Figure 4 Pedestrians photographed walking along the railroad tracks adjacent to 73rd Street

3.c. Improve public health by adding new facilities that promote walking, biking, and other forms of active transportation

The public health benefits of the Project will be realized through the encouragement of active transportation options and enhanced walkability. According to the CDC [walkable communities](#)

and transportation facilities that promote walking and cycling increase physical activity and the overall quality of life. The improvements to the pavement quality within the Project area from its current PCI score of less than 25 will allow for smoother and quieter driving conditions for motorists and heavy freight, reducing the burden of noise pollution to nearby residents and businesses from what is already a loud area from the traffic on I-235.

Criteria #4: Mobility and Community Connectivity

Criteria #4: Mobility and Community Connectivity	HIGHLY QUALIFIED
	<i>Aligns with three (3) High rating benefits</i>
<p><i>The Project...</i></p> <ul style="list-style-type: none"> <i>A. Improves system-wide connectivity with access to transit</i> <i>B. Addresses community-identified gaps in the existing network</i> <i>C. Removes physical barriers for individuals and reconnects communities to affordable transportation</i> 	

4.a. Improve system-wide connectivity with access to transit, micro-mobility, and mobility on-demand

The new sidewalk along 73rd Street as well as the Walnut Creek trail-connection bridge will allow residents to access numerous commercial centers and make the connection to the DART bus station that serves routes 3, 74, and 96 while reducing dependence on automobiles. These connections will be enhanced with high-visibility crosswalks at all signalized intersections, connecting the new sidewalk to existing land uses and facilities on the west side of the road. When not constrained by the I-235 bridge, the sidewalk will be built farther away from the roadway and be separated from the roadway with a grassy planting strip. Currently, there is no Americans with Disabilities Act (ADA) compliant access along this roadway. The sidewalk will be built according to ADA design requirements to ensure all users can safely utilize the new transportation network.

4.b. Implement plans, based on community participation and data, that addresses gaps identified in the existing network

This project has been considered by Windsor Heights for years, warranting inclusion in the City's 2017 [comprehensive plan](#). The 2022 West Des Moines [comprehensive plan](#) also includes reference to the barriers imposed by the road's design and included a resident's suggestion to provide a pedestrian bridge over Walnut Creek to allow for safe access. West Des Moines constructed improvements along 8th Street at the southern end of the project corridor (8th Street in West Des Moines and 73rd Street in Windsor Heights are the same roadway). The reconstruction of 73rd Street and inclusion of the Walnut Creek pedestrian bridge will continue those improvements into Windsor Heights, making for a safe, seamless pedestrian experience between the two communities.

This project is consistent with the Des Moines Area MPO's metro-wide Tomorrow Plan that guides how the Greater Des Moines region will grow sustainably over the next 40 years. The

project upholds Tomorrow Plan Goal 3: Further the Health and Well-Being of All Residents in the Region by filling in gaps to the sidewalk network so residents can access hubs of commerce and transportation without the use of a personal automobile.

The [Windsor Heights 2017 Comprehensive Plan](#) and its goals strongly support the 73rd Street Multimodal Connector. A few leading goals providing support for this project are:

1. Neighborhood Enhancement: Make improvements to streets and other infrastructure to enhance neighborhood quality and;
2. Complete Streets: Provide safe and pleasant streets that allow travel by car, foot, or bicycle and create a connected sidewalk network, especially along arterial roads, schools, parks, trails, and retail and embrace an expansive view of “walkability” that includes creating a pleasant walking environment and encouraging mixed-use development.

The Project also implements some of the goals of [The CONNECT: Central Iowa Bicycle and Pedestrian Transportation Action Plan](#) 2020 hopes to increase the number of trips taken by foot or bicycle while decreasing the number of injury and fatalities.

Finally, the Project also addresses the forthcoming regional [Comprehensive Safety Action Plan](#) that involved substantial community outreach across the region. The Plan identifies 73rd Street as being a part of both the High Risk Network and High Injury Network through comprehensive data analysis. The segment of roadway also received multiple comments from community outreach efforts highlighting its safety issues.

4.c. Remove physical barriers for individuals by reconnecting communities to direct, affordable transportation options

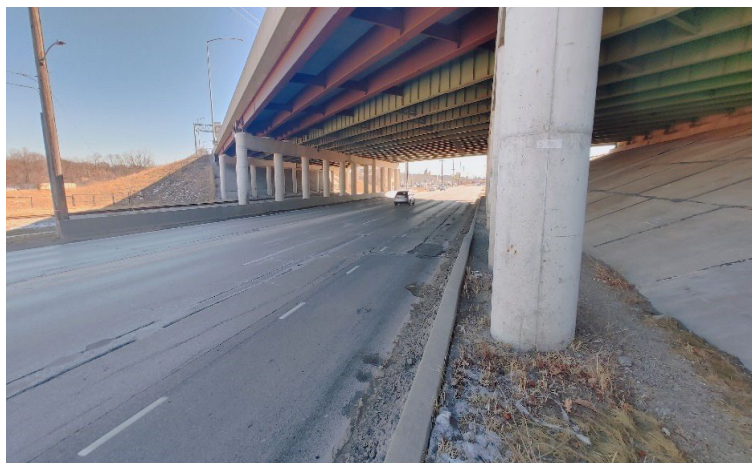


Figure 5 A photo of the area under I-235 along 73rd Street

The Project removes barriers to safe, easy access along 73rd Street under I-235 for pedestrians and cyclists and connects them to a wider range of public transportation options on the North side of the Project area. Furthermore, the pedestrian bridge across Walnut Creek allows for nearby and easy access to the metropolitan and regional trail network that connects to the wider Des Moines area.

Criteria #5: Economic Competitiveness and Opportunity

Criteria #5: Economic Competitiveness and Opportunity	HIGHLY QUALIFIED
	<i>Aligns with two (2) High rating benefits</i>
<i>The Project...</i> <i>A. Promote long-term economic growth and other broader economic and fiscal benefits</i> <i>B. Improves travel time reliability for vulnerable road users</i>	

5.a. Promote long-term economic growth and other broader economic and fiscal benefits

The Project's main anticipated improvement to the local economy is expanding local residents' access to jobs and daily destinations while also improving the safety of accessing the local shopping hub. The Project expands active transportation access to local goods and services which is recognized by the [US DOT](#) as a strategy that brings a community together and generates a prosperous local economy. While the benefits to larger businesses in the area are expected to be realized, the City hopes that the Project supports local businesses that otherwise would have needed to contribute their own resources to upgrade public infrastructure which can instead be invested in the success of their own businesses. Beyond the businesses within the vicinity of the Project area, the Project will provide enhanced access for transit-dependent individuals to DART bus routes 3, 74, and 96—connecting them to economic opportunities within the region that may otherwise have been inaccessible for them.

5.b. Improve travel time reliability

The Project aims to improve travel time reliability by improving road-user safety and thereby reducing the frequency of traffic incidents, as well as providing well-designed pedestrian facilities which connect users to public transit and daily destinations. The Project includes a sidewalk along 73rd Street as well as a pedestrian bridge connecting the south side of the area to the already-existing trail. The combination of safety improvements to road-users with the separation of two dedicated pedestrian options reduce the likelihood of delays which may be caused by individuals sharing the road with motor vehicles. Additionally, the inclusion of proper sidewalk infrastructure—e.g. lighting, smooth surfaces—ensure that vulnerable users in the area will be able to navigate regardless of time of day and weather conditions.

Criteria #6: State of Good Repair

Criteria #6: State of Good Repair	HIGHLY QUALIFIED
	<i>Aligns with two (2) High rating benefits</i>
<i>The Project...</i> <i>A. Addresses current transportation system vulnerabilities for communities</i> <i>B. Prioritizes improvements of existing transportation facilities within the existing footprint</i>	

6.a. Address current or projected transportation system vulnerabilities for communities

The City of Windsor Heights aims to improve multimodal connections across I-235 with this Project, addressing current vulnerabilities in the transportation system. The corridor faces issues such as roadway deterioration, a lack of pedestrian facilities, and the challenges posed by a nearby aging population—18% of Windsor Heights residents are over the age of 65, according to the U.S. Census Bureau. The project will enhance the resilience of this corridor in both the short and long term, accommodating future increases in traffic and population. Specific improvements include the realignment and repaving of roadways, the update of an unsafe railroad crossing, and the construction of new walkways, all of which will enhance safety and access for all users. By addressing these vulnerabilities, the project will support more reliable and equitable transportation options for vulnerable, carless populations.

6.b. Prioritize improvement of the condition and safety of existing transportation infrastructure within the existing footprint

The Project will prioritize the improvement of the condition and safety of existing transportation infrastructure within the existing footprint. The lack of dedicated pedestrian infrastructure will be filled within the existing footprint of the corridor. 73rd Street also has substandard horizontal curvature near its crossing of the Norfolk Southern/Iowa Interstate railroad. This curve will be redesigned to meet modern design standards for a 30 mph speed limit, improving both safety and traffic flow. Additionally, the railroad crossing currently equipped with only warning lights will be upgraded to include crossing gates, providing a higher level of protection for all road users. These changes will ensure that the existing infrastructure better serves the community and remains functional as traffic and population continue to grow. Even after the project's completion, the City of Windsor Heights will continue to maintain and improve the corridor to meet the needs of all road users, further strengthening the overall transportation system.

Minimal right-of-way acquisition is anticipated (approximately 0.1 acres) based on the current layout so no disruption to the community is anticipated. Right-of-way availability is also limited, which ensures that no disruption to the community outside of typical construction activities will occur.

Criteria #7: Partnership and Collaboration

Criteria #7: Partnership and Collaboration	HIGHLY QUALIFIED
	<i>Aligns with one (1) High rating benefits</i>
<p><i>The Project...</i></p> <ul style="list-style-type: none"> <i>A. Engages residents to ensure communities are meaningfully integrated throughout the lifecycle of the project</i> <i>B. Has documented supported from local, regional, and national levels</i> 	

7.a. Engage residents and community-based organizations to ensure communities are meaningfully integrated throughout the lifecycle of the project

Over multiple years, residents of Windsor Heights and surrounding communities have expressed concern for the barrier that this area of 73rd Street creates for its residents. A key issue discussed at community events, such as the Windsor Wonderland held in December, 2023, was how to safely connect people and improve access to and from the community. The event attracted over 1,000 residents, providing an opportunity for attendees to learn about the project, ask questions, and offer feedback to City staff.

During Windsor Wonderland, the project board was on display (see **Figure 6**) and City staff were available to engage with residents. A QR code on the board allowed attendees to submit their feedback digitally. In addition, the City has taken additional steps to ensure they engage a diverse audience, ensuring diverse voices are heard. Project boards with the same QR codes and project details were also strategically placed at locations like an ethnic grocery store and the Walnut Creek YMCA adjacent to the project area.



Figure 6 Project board on display at community event

The City is committed to engaging residents throughout the process and collaborating with nearby jurisdictions whose residents will also benefit from the Project. To that end, the Project is receiving financial support from the cities of Des Moines and West Des Moines. The City Council and staff view collaboration with nearby jurisdictions and equitable engagement as a top priority, ensuring the Project meets the needs of all residents and creates a safer, more efficient corridor into the community.

7.b. Documenting support from local, regional, or national levels

Partnering with local businesses, national businesses within Windsor Heights, neighboring communities and public figures is crucial in a project of this size. Windsor Heights representatives (staff, City Council, etc.) have discussed this project at length with many public and private partners and have acquired letters of support from the following stakeholders:

- Senator Joni Ernst, Senator Charles Grassley, Senator Claire Celsi, Congressman Zach Nunn -Political representatives who see the impact this project will make for Iowa and are eager to see funding support for the project.
- City of Clive and the City of West Des Moines – Neighboring communities that will see a direct impact of the roadway project to help better connect its residents and communities to Windsor Heights amenities
- The Des Moines Area MPO – A significant regional coordinating body that has expressed its eagerness for the safety benefits to be realized through this Project
- Dowling Catholic School – A school located near 73rd Street that many of its workers and visitors use 73rd Street to access.
- DART– the Des Moines Area Regional Transit Authority is the local bus system that is located directly on 73rd Street and serves to connect people to and from workforce, housing, essential services, and recreational amenities.
- Colby Interests, Hy-Vee, Kum & Go, Wal-Mart, Walnut Creek YMCA –businesses located along or near the project site that will see the economic development opportunities this project brings once completed by bringing more people to and from their businesses.
- Clive Chamber of Commerce, Des Moines Metropolitan Planning Organization, Valley Square Owners Association, West Des Moines Chamber of Commerce – Community organizations that serve a diverse group of individuals who use 73rd Street to attend their events/meetings

Each of these stakeholders will be key to seeing this Project through to its completion. They will continue to be invited to participate in public participation meetings, as well as continue to help spread the word about this impactful project in Windsor Heights. A full selection of letters of support received to date can be viewed on the project [website](#).

Criteria #8: Innovation

Criteria #8: Mobility and Community Connectivity	HIGHLY QUALIFIED
	<i>Aligns with two (2) High rating benefits</i>
<i>The Project...</i> <i>A. Uses innovative materials</i> <i>B. Uses sensors to monitor real-time conditions of pavement quality</i>	

8.a. Use low-carbon or other innovative materials

The Project will use recycled concrete from the existing roadway facilities and include low carbon concrete from CarbonCure in the new pavement to reduce the amount of embodied carbon from the roadway reconstruction. CarbonCure technology in roadway reconstruction is an innovative and environmentally sustainable technique for the community. The product strengthens the material while also reducing the amount of cement needed, reducing the overall carbon footprint of the construction process.

Repainting of the roadway as well as the introduction of markings signaling pedestrian crossings will be supportive of the navigation of autonomous vehicles through the Project area. Modern roadway paintings contribute to improved lane detection, intersection navigation, and improve the overall reliability of Avs' navigation systems.

8.b. Use sensors to monitor real-time conditions of pavement quality, signage, crosswalks, transit headways, or other public infrastructure

The Project will introduce to the community Vaisala Xcast Sensors that provide real-time monitoring of roadway conditions, driver behavior in adverse winter weather conditions, and predictive technology to make maintenance actions more effective and efficient. The City will install two such sensors along 73rd Street within the Project area to monitor road conditions and make efficient use of salt inputs during the winter months as well as contribute to the safety of the roadway.

Additionally, the Project will include the installation of fiber connectivity to traffic signals within the project area and installation of McCain Monitoring to synchronize signals which will contribute to decreased energy and maintenance costs in the future. Resynchronization of the traffic signals will contribute to more efficient signal maintenance and improve safety in the area.