

## GIAMPO RESOLUTION NO. 2019-5

### Grand Island Area Metropolitan Planning Organization

#### A Resolution Amending the Long Range Transportation Plan “Journey 2040”

**WHEREAS**, the Grand Island Area Metropolitan Planning Organization (GIAMPO), is designated as the Metropolitan Planning Organization (MPO) for the Grand Island Urbanized Area, by the Governor acting through the Nebraska Department of Transportation in cooperation with locally elected officials of the Grand Island Urbanized Area; and

**WHEREAS**, a Long Range Transportation Plan (LRTP) is required by the U.S. Department of Transportation (DOT) and was developed by the MPO for the Grand Island metropolitan planning area; and

**WHEREAS**, the GIAMPO Long Range Transportation Plan “Journey 2040” was approved by the MPO Policy Board on April 26, 2016. This plan provides a comprehensive plan to guide multimodal transportation improvements in the Grand Island metropolitan area over a 25-year planning horizon; and

**WHEREAS**, the GIAMPO Transportation Improvement Programs (TIP) for FY 2020-2024 is the MPO’s five-year implementation programs and must be consistent with the Long Range Transportation Plan; and

**WHEREAS**, since the development of the GIAMPO Long Range Transportation Plan, the below project changes have occurred to result in a Long Range Transportation Plan amendment:

- State ID 41704, US-281 West, Grand Island – Changes the project total estimate from \$30,693 million to \$29,256 (no federal-aid).
- State ID 42776, In Grand Island Bridges – Changes the project federal-aid amount from \$3,420 million to \$3,767 million and the project total estimate from \$4,648 million to \$5,137 million.
- State ID 42819, In Grand Island & South (SB) – Adds a new project with a project federal-aid amount of \$2,183 million and a project total estimate of \$2,730 million.
- State ID 42891, District 4 Wetland Bank – Adds a new project with a project total estimate of \$903 thousand (no federal-aid).
- State ID 42894, West Grand Island Interchange – Adds a new project with a project total estimate of \$660 thousand (no federal-aid).
- State ID 42863, 5-Points Intersections Improvements – Identifies a specific intersection improvement project with a project federal-aid amount of \$1,700 million and a project total estimate of \$2,436 million. This project was originally included with Intersection Improvements (Project Name) under the GIAMPO Project Listing 2026-2040.
- Project ID B-2a, Old Potash Highway – Changes the project description from “Widen to 5 lanes” to “Widen to 3-5 lanes”, the project limits from “Claude Road to Webb Road” to “North Road to Webb Road”, and the total project estimate from \$5,668 million to \$17,930 million.

- Project Name: Intersection Improvements (GIAMPO Project Listing 2021-2025) – Changes the total project estimate from \$4,606 million to \$5,024 million.
- Project ID B-4, North Road – Moves the project to the GIAMPO Project Listing 2021-2025.
- Project ID B-8, Husker Highway; Project ID B-7, Stolley Park Road; Project ID B-1a, Capital Avenue; and Project ID B-6, 13th Street – Moves these projects to the GIAMPO Project Listing 2026-2040.
- Project ID B-2b, Old Potash Highway – Changes the project limits from “Engleman Road to Claude Road” to “Engleman Road to North Road” and moves the project to the Illustrative Project Plan.
- Project ID 11, 13th St. - 10th St. Connector – Moves the project to the Illustrative Project Plan.

The above project changes are shown in Table 9-5 and Table 9-6 (in red) in the attached document; and

**WHEREAS**, updates or amendments to the Long Range Transportation on or after May 20, 2019 must be developed according to the performance-based provisions of 23 CFR Part 450 and the pavement and bridge condition, system reliability, freight, and CMAQ performance measure requirements; and

**WHEREAS**, the attached includes a revised section in Chapter 3 (section 3.4) of the Long Range Transportation Plan relating to national performance management measures; and


**WHEREAS**, the amendment was made available for public comment for a thirty (30) day period and was reviewed and recommended for adoption by the MPO Technical Advisory Committee (TAC), and now requires official approval from the MPO Policy Board; and

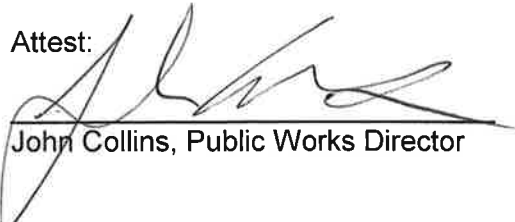
**NOW, THEREFORE BE IT RESOLVED**, that the Policy Board of the Grand Island Area Metropolitan Planning Organization approves and adopts the amendment to the MPO’s Long Range Transportation Plan, modifying Chapter 3, Chapter 7, Chapter 8, Chapter 9, and Appendix F of the Plan in the attached document.

**BE IT FURTHER RESOLVED**, that the Chairperson is hereby authorized and directed to execute such amendment on behalf of the Grand Island Area Metropolitan Planning Organization.

**Certification:**

The foregoing resolution was approved by the Grand Island Area Metropolitan Planning Organization Policy Board at its regularly scheduled meeting on May 28, 2019.

By:   
 Roger Steele, Mayor / Chairperson

Attest:   
 John Collins, Public Works Director

### 3.4 National Performance Management Measures

When Congress passed the federal transportation bill MAP-21 in July 2012, it included a series of provisions for Transportation Performance Management (TPM). In the intervening years, Congress passed the FAST Act in December 2015, which essentially maintained and reaffirmed the performance management provisions of MAP-21. Since the passage of MAP-21, FHWA and FTA have issued Final Rules that include National Performance Management Measures at the system level that the State DOTs and MPOs are required to incorporate into their planning processes. The National Performance Management Measures were developed to address the National Goals established under MAP-21 and MPOs are required to incorporate the National Performance Management Measures and the National Goals [23 CFR 134 (I)] in their LRTPs.

The Federal Rules that establish the National Performance Management Measures applicable to MPOs are:

- **Safety (PM-1).** Highway Safety Improvement Program/Safety Performance Management Measures [23 CFR § 924, 23 CFR § 490]
- **Infrastructure (PM-2).** Assessing Pavement Condition for the National Highway Performance Program and Bridge Condition for the National Highway Performance Program [23 CFR § 490]
- **System Performance (PM-3).** Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program [23 CFR § 490]
- **Transit Asset Management (TAM)** is established to evaluate the state of good repair of transit provider capital assets for safety and operations [49 CFR § 625, 630].

MPOs are to report baseline condition/performance and progress toward the achievement of their targets in the system performance report of their LRTPs [23 CFR § 490]. The National Performance Management Measures applicable to MPOs are listed below.

#### Safety

FHWA published the Highway Safety Improvement Program and Safety Performance Management Measures (PM-1) Final Rules in the Federal Register on March 15, 2016. The Safety Performance Management Measures (Safety PM) rule supports the Highway Safety Improvement Program (HSIP), as it establishes five safety performance measures to carry out the HSIP and to assess serious injuries and fatalities on all public roads. Table 3-7 shows the five performance measures.

**Table 3-7: Safety Performance Measures**

| Performance Measures                                                  |
|-----------------------------------------------------------------------|
| <b>Safety</b>                                                         |
| Number of Fatalities                                                  |
| Rate of Fatalities per 100 million vehicle miles traveled (VMT)       |
| Number of Serious Injuries                                            |
| Rate of Serious Injuries per 100 million VMT                          |
| Number of Non-motorized Fatalities and Non-motorized Serious Injuries |

States are required annually to establish statewide targets for each of the safety performance measures on an annual basis. MPOs must establish safety targets by either supporting a State DOT's statewide target or establishing a numerical target specific to the MPO planning area. MPOs' targets are reported to the State DOT, which must be able to provide the targets to FHWA, upon request.

The PM-1 Rule was effective as of April 14, 2016. State DOTs were required to set targets by August 31, 2017 as part of the State's annual submission of its HSIP. MPOs were required to set targets by February 27, 2018 and incorporate them into their LRTPs. In the LRTP, performance measures are to be used to aid in making informed decisions about strategic investments and to evaluate projects.

Working in partnership with local agencies, the Nebraska Department of Transportation (NDOT) safety investments are to be identified and programmed to construct effective countermeasures that will reduce traffic fatalities and serious injuries. GIAMPO has agreed to support the NDOT CY 2018 targets for Safety Performance Measures as identified for HSIP investment which are based on crash history, roadway characteristics, and the existence of infrastructure countermeasures that can address the types of crashes present. As for CY 2019 targets, GIAMPO has continued to support the targets established by NDOT.

### Infrastructure

Assessing Pavement Condition for the National Highway Performance Program and Bridge Condition for the National Highway Performance Program (PM-2) was identified in the FHWA Final Ruling published in the Federal Register on January 18, 2017 (82 FR 5886). This rule establishes performance measures to assess the condition of pavement and bridges on the National Highway System (NHS) to carry out the National Highway Performance Program. There are four performance measures to assess pavement condition and two performance measures to assess bridge condition. Table 3-8 shows the six performance measures.

**Table 3-8: Pavement and Bridge Condition Performance Measures**

| Performance Measures                                                   |
|------------------------------------------------------------------------|
| <b>Pavement Condition</b>                                              |
| Percentage of Interstate Pavements in Good Condition                   |
| Percentage of Interstate Pavements in Poor Condition                   |
| Percentage of Non-Interstate NHS Pavements in Good Condition           |
| Percentage of Non-Interstate NHS Pavements in Poor Condition           |
| <b>Bridge Condition</b>                                                |
| Percentage of NHS Bridges by Deck Area Classified as in Good Condition |
| Percentage of NHS Bridges by Deck Area Classified as in Poor Condition |

State DOTs are required every four years to establish 2-year and 4-year statewide targets for a 4-year performance period. MPOs must establish 4-year targets by either supporting the State DOT's statewide target, or defining a target unique to the MPO. State DOTs will submit their established targets in a baseline report at the beginning of the performance period and report progress at the midpoint and end of the performance period. MPOs are not required to provide separate reporting to FHWA. However, State DOTs and MPOs will need to coordinate and mutually agree to a target establishment reporting process. Coordination will also be required between State DOTs and MPOs if a State DOT adjusts its 4-year target at the midpoint of the performance period.

The PM-2 Rule was effective as of May 20, 2017. State DOTs were required to set targets by May 20, 2018, and MPOs are required to set targets by November 16, 2018. GIAMPO has agreed to support the NDOT 4-year performance period (CY 2018-2021) targets for Pavement and Bridge Condition Performance Measures.

### System Performance

Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program (PM-3) was identified in the FHWA Final Ruling, published in the Federal Register on January 18, 2017 (82 FR 5970). This rule establishes performance measures to assess the performance of the Interstate and non-Interstate NHS to carry out the National Highway Performance Program, freight movement on the Interstate system to carry out the National Highway Freight Program, and traffic congestion and on-road mobile source emissions for the purpose of carrying out the Congestion Mitigation and Air Quality Improvement (CMAQ) Program. There are two performance measures to assess system performance of the NHS, one performance measure to assess freight movement on the Interstate system, two performance measures to assess traffic congestion under the CMAQ program, and one performance measure to assess total emissions reductions by applicable pollutants under the CMAQ program. Table 3-8 shows the six performance measures.

**Table 3-9: System Performance (NHS), Freight Movement, and CMAQ Performance Measures**

| Performance Measures                                                                                         |
|--------------------------------------------------------------------------------------------------------------|
| <b>System Performance of the NHS</b>                                                                         |
| Percent of Person-Miles Traveled on the Interstate System that are Reliable                                  |
| Percent of Person-Miles Traveled on the Non-Interstate NHS that are Reliable                                 |
| <b>Freight Movement</b>                                                                                      |
| Measurement of Travel Time Reliability on the Interstate System (Truck Travel Time Reliability (TTTR) Index) |
| <b>CMAQ</b>                                                                                                  |
| Annual Hours of Peak-Hour Excessive Delay Per Capita*                                                        |
| Percent of Non-Single Occupancy Vehicle Travel*                                                              |
| Total Emissions Reduction*                                                                                   |

*\*Nebraska exempt from CMAQ measures this performance period*

State DOTs are required every four years to establish 2-year and 4-year statewide targets for a 4-year performance period. MPOs must establish 4-year targets by either supporting the State DOT's statewide target, or defining a target unique to the MPO. State DOTs will submit its established targets in a baseline report at the beginning of the performance period and report progress at the midpoint and end of the performance period. MPOs are not required to provide separate reporting to FHWA. However, State DOTs and MPOs will need to coordinate and mutually agree to a target establishment reporting process. Coordination will also be required between State DOTs and MPOs if a State DOT adjusts its 4-year target at the midpoint of the performance period.

The PM-3 Rule was effective as of May 20, 2017. State DOTs were required to set targets by May 20, 2018, and MPOs are required to set targets by November 16, 2018. GIAMPO has agreed to support the NDOT 4-year performance period (CY 2018-2021) targets for System Performance of the NHS and Freight Movement Performance Measures (Nebraska exempt from CMAQ measures this performance period).

### Transit Asset Management

FTA issued a Final Rule on transit asset management (TAM) plans to evaluate the state of good repair of transit provider capital assets for safety and operations. Recipients of public transit funds—which include states, local authorities, and public transportation operators—are required to establish targets for state of good repair performance measures; to develop transit asset management and transit safety plans; and to report on their progress toward achieving targets. Public transportation operators are directed to share information with MPOs and states so that all plans and performance reports are coordinated. MPOs are to consider the State TAM plan and the TAM plan for their respective jurisdiction during the LRTP planning process.

The Rule, "Transit Asset Management; National Transit Database," went into effect on July 26, 2016 with the TAM plan due for transit by October 1, 2018. Transit target setting repeats

annually and plans are updated every four years. The City of Grand Island (transit provider) participates in a group TAM plan, which is sponsored by NDOT. GIAMPO has agreed to establish state of good repair performance targets, which are the same targets established by NDOT and the City of Grand Island. NDOT set its targets on January 1, 2017, and the City of Grand Island set its targets on May 23, 2017.

## Chapter 7 FINANCIAL CAPACITY

The analysis of financial resources is an important element of a long-range transportation plan. The purpose of this section is to provide an overview of transportation funds available for the Grand Island metropolitan area over the time horizon of the plan. It also explains the key elements of the financial plan, the data collected, and the assumptions made about future revenue and expenditures. The forecasts of future transportation revenues and costs are presented and summarized, including the discussion of both costs for new construction and operations and maintenance. Once these estimates are in place, GIAMPO and its planning partners can determine which improvements submitted for inclusion in the plan are financially feasible.

The funding of transportation projects and services has grown more difficult over the last 10 and even 20 years. The population has increased along with the use of private vehicles. Inflation of construction materials has also increased costs. At the same time, revenues have not grown. The federal gas tax has remained constant since 1993. Some additional funding has been made possible at the state level with the passing of LB-610 which provides a gradual increase in the tax on motor fuels.

The federal government addressed funding transportation in December 2015 when the President signed into law the Fixing America's Surface Transportation Act, or "FAST Act." It is the first law enacted in over 10 years that provides long-term funding certainty for surface transportation. Overall, the FAST Act largely maintains current program structures and funding shares between highways and transit. The bill increases funding by 11 percent over 5 years, but does not change the federal gas tax rate.

This plan includes estimates for the amount of revenues for funding elements of this transportation plan. The revenues are categorized at three different levels: federal, state, and local. Many federal-aid projects, those projects that receive federal transportation funds, require some form of local match. As a newly formed MPO, historical information on past revenue trends was not as available, as with longer standing MPOs. For the purposes of this plan, past revenue data was obtained from the City of Grand Island, NDOR, and the counties. Based on these assumptions, **\$461.5** million is anticipated to be available for transportation in the GIAMPO area for all purposes over the 25-year planning period.

### 7.1 Local Revenues

Local funding comes from various sources of taxing and bonding abilities afforded to local jurisdictions. These can include property and sales tax, special tax levies, special assessments for transportation, general fund, bonds, or other sources unique to local jurisdictions. These funds finance local transportation improvements, as well as provide a local match for federal and state transportation funds.

Local revenue forecasts, including locally-collected revenue and state aid, were created based on historical trends to gain an average percent projection. Since these forecasts are based solely on historic revenue, they could change as funding mechanisms are shifted and as populations shift and affect the tax base. Sales Tax Motor Vehicle and Motor Vehicle Tax revenues are not mandated by the state to be used for transportation related expenditures; however, these revenue sources are listed



### State Transit Assistance (STA).

All Public Transit Systems are eligible for funding. These funds can be used by the public transit system for operating expenses related to the provision of open-to-the-public passenger transportation. A separate allocation of state funding is available to match the federal Intercity Bus funds. The NDOR contributes approximately \$100,000 in state funds for public transportation services. In the future, this allocation will change due to the change to an urbanized area. It is anticipated the state funding will decrease due to the funding category regulations for local match.

### 7.5 Available Funding

Transportation revenues pay for the new construction and ongoing operations, maintenance, and reconstruction costs. The revenue element is an estimate of how much money will be available to spend on new transportation projects in the GIAMPO area between 2016 and 2040. Between 2016 and 2040, GIAMPO forecasts that approximately \$461.5 million in transportation revenue will be available to fund operations and maintenance, reconstruction, new projects, and expanded capacity.

The list of available funds from traditional roadway sources is shown in Table 7-1. The revenue estimates are based upon trends for local funds, state funds and federal funds that are expected to be obligated in the MPO area. The funding trends are based upon examining funding sources between the years 2005 through 2015. The assumption for federal funds has been limited, with federal funds shown as only the committed projects in FY2016-2025 and as TBD in the FY2026. A detailed breakdown by year and individual funding source is provided in Appendix C.

Generally, federal funding from the Surface Transportation Block Grant Program (STBGP), Bridge Replacement and Rehabilitation Program (BRRP) and National Highway Performance Program (NHPP) are deemed not to be available to local partners in the Grand Island Area MPO jurisdiction. These funding sources are assumed to be available only by the Nebraska Department of Roads throughout the duration of this planning document. Funding through the Highway Safety Improvement Program (HSIP) and the Congestion Mitigation and Air Quality (CMAQ) programs may be available to local partners on a limited basis for specific projects that address safety concerns, congestion issues, or projects that improve the air quality in the Grand Island Area MPO planning area.

**Table 7-1: Total Available Roadway Funds (2016-2040)**

| Total Available Roadway Funds (\$1,000) |                  |                  |                  |                  |
|-----------------------------------------|------------------|------------------|------------------|------------------|
| Time Period                             | Federal          | State            | Local            | Total Revenues   |
| 2016-2025                               | \$41,890         | \$117,752        | \$42,430         | \$202,072        |
| 2026-2040                               | TBD <sup>9</sup> | \$169,495        | \$89,952         | \$259,447        |
| <b>Total</b>                            | <b>\$41,890</b>  | <b>\$287,247</b> | <b>\$132,382</b> | <b>\$461,519</b> |

Table 7-2 on the following page shows the amount of funding available for constructing new projects after the costs for personnel, operations, maintenance, reconstruction, and equipment, plus projects that have already been programmed, are subtracted. This funding balance is assumed to be available to construct new projects in the GIAMPO Area based upon a conservative forecast of future operations and maintenance costs and revenue generation. Assumptions relating to the forecasts and detailed tables are shown in Appendix C.

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<sup>9</sup> *To Be determined (TBD): Federal revenue estimates for NDOR projects in the GIAMPO planning area will be determined as the MPO's needs are assessed and funding targets are established. At this time, NDOR is still assessing the need for specific projects of regional significance in the Grand Island Area MPO planning area for the period of 2020-2040. NDOR has established revenue projections within the timeframe of the NDOR Surface Transportation Program Book, a six-year document that outlines NDOR's projects and future expenditures. NDOR recognizes an ongoing and long-term need to monitor, evaluate and upgrade the state highway and interstate highway system in the Grand Island Area MPO planning area as well as the State of Nebraska at large. NDOR will continue to monitor the existing conditions and proposed future changes to the state highway system with the continuing cooperation, coordination and assistance of GIAMPO and local partners. As future needs are identified with regard to infrastructure condition, safety, roadway capacity or transit service, NDOR will work to address these needs and include them through update or amendment in the GIAMPO Long Range Plan, TIP and the NDOR Surface Transportation Program Book and STIP as required by State and Federal regulation.*

**Table 7-2: Funds Available for New Roadway Projects**

| New Roadway Project Revenue (\$1,000) |                   |                  |                  |
|---------------------------------------|-------------------|------------------|------------------|
| Time Period                           | Federal           | Local / State    | Total Revenues   |
| 2016-2025                             | \$0               | \$54,115         | \$54,115         |
| 2026-2040                             | TBD <sup>10</sup> | \$113,236        | \$113,236        |
| <b>Total</b>                          | <b>\$0</b>        | <b>\$167,351</b> | <b>\$167,351</b> |

Funding for transit service was also examined through the 2040 horizon year. Transit service in the GIAMPO area is expected to continue but will be subject to the availability of local matching funds. A detailed breakdown of transit funding sources, assumptions and year-to-year forecasts for available revenue is shown in Appendix C. It is assumed that Grand Island will provide service only up to the budget that is available through a combination of Federal Transit funding and local matching dollars. A summary of the available transit revenue is shown below in Table 7-3.

**Table 7-3: Transit Revenue and Expenditures (2016-2040)**

| Transit Revenue/Expenditure (\$1,000) |                 |                |                 |
|---------------------------------------|-----------------|----------------|-----------------|
| Time Period                           | Federal         | Local / State  | Total Revenue   |
| 2016-2025                             | \$5,762         | \$2,839        | \$8,602         |
| 2026-2040                             | \$11,193        | \$5,765        | \$16,958        |
| <b>Total</b>                          | <b>\$16,956</b> | <b>\$8,604</b> | <b>\$25,560</b> |

<sup>10</sup> To Be determined (TBD): Federal revenue estimates for NDOR projects in the GIAMPO planning area will be determined as the MPO's needs are assessed and funding targets are established. At this time, NDOR is still assessing the need for specific projects of regional significance in the Grand Island Area MPO planning area for the period of 2020-2040. NDOR has established revenue projections within the timeframe of the NDOR Surface Transportation Program Book, a six-year document that outlines NDOR's projects and future expenditures. NDOR recognizes an ongoing and long-term need to monitor, evaluate and upgrade the state highway and interstate highway system in the Grand Island Area MPO planning area as well as the State of Nebraska at large. NDOR will continue to monitor the existing conditions and proposed future changes to the state highway system with the continuing cooperation, coordination and assistance of GIAMPO and local partners. As future needs are identified with regard to infrastructure condition, safety, roadway capacity or transit service, NDOR will work to address these needs and include them through update or amendment in the GIAMPO Long Range Plan, TIP and the NDOR Surface Transportation Program Book and STIP as required by State and Federal regulation.

### Noise

A noise analysis is required for federally funded Type I Projects. These project typically include capacity adding such as lane additions, a new roadway on new alignment and substantial changes in vertical or horizontal alignment (see Nebraska Noise and Analysis Abatement Policy or 23 CFR 772 for complete definition of a Type I project). If noise impacts are identified, noise abatement is considered. Noise abatement must meet feasibility and reasonableness goals as outlined in the Nebraska Noise Policy in order to be constructed. Best Management Practices shall be used to control and mitigate construction noise. It is important for local planning agencies to coordinate with developers in order to recommend setbacks for new or changed developments to prevent future noise impacts.

### Historical and Cultural Resources

Cultural resources would be considered under this category of environmental impact.<sup>11</sup> If, in consultation with the Nebraska State Historic Preservation (NESHPO), it is determined that a historic resource would be adversely affected by a federal undertaking, efforts to avoid and or minimize the adverse effect would be necessary. If avoidance and minimization are not effective, then mitigation of the adverse effect would be completed.

### Environmental Justice

Environment Justice Areas can be described as areas where a significant portion of minority and/or low-income people live. Executive Order on Environmental Justice 12898 requires all federal agencies, including both the FHWA and FTA, to address the impact of their programs with respect to Environmental Justice. To the extent practicable and permitted by law, the Executive Order states that neither minority nor low-income populations may receive disproportionately high or adverse impacts as a result of a proposed project.

In order to classify a census block group as an Environmental Justice Area, the population must have a high percentage of minority populations and/or a high percentage of low-income households when compared to the larger surrounding area. Environmental Justice Areas are considered to be areas where the minority and/or low-income population percentage is meaningfully greater than the minority and/or low-income population percentages in the larger surrounding area.

The DOT-based guidelines, established from the U.S. Department of Health and Human Services poverty guidelines<sup>12</sup>, were used to determine which households are low-income in the region. An Environmental Justice analysis is to compare areas within the community at-large. For this overview,

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<sup>11</sup> National Historic Preservation Act of 1966, as amended. Section 106 Identification, Evaluation and Project Effect Recommendations

low-income households are shown to provide a general overview of areas where the rate of low-income households comprise **greater** than 20 percent of a census block group.

A total of **16** out of **48** block groups are considered to have a high rate of low-income households, while **11** block groups have both high levels of minority populations and low-income households. **Figure 8-1** displays the environmental justice areas in Grand Island and the proposed transportation projects by 2040. These areas show locations where a separate environmental justice analysis may need to be completed as projects are developed.

A system level review of environmental justice impacts was conducted for projects with defined locations. To conduct this review, the following methodology was applied. Future project investments that were located entirely inside an environmental justice area were determined to have 100 percent impact in that location. Projects that abutted or crossed into environmental justice areas were assigned 50 percent to those areas. Projects that are not located adjacent to or inside areas identified as environmental justice sensitive areas were assigned zero percent impact on environmental justice areas.

For the intersection improvement groupings shown in the FY2016-2025 and FY2026-2040 periods an average percentage impact was calculated based upon the location impact methodology above and then projected based upon the number of intersection improvement projects listed in the fiscally constrained program (for reference this percentage is **17** percent and **56** percent for the respective periods). Total investment impact from the intersection improvement projects was then determined by multiplying the grouped project budget by the environmental justice percentage.

The individual project assignment of investment and impact percentage for individual projects is shown in Appendix F. A summary table of investment in environmental justice areas as compared total regional investment is shown on the following page in Table 8-1. As previously stated, several **2016-2022** projects are listed with various locations that cannot be accurately mapped and assigned to reasonable locations for assessment of impact. Project locations are also shown in Figure 8-1 with the project identification numbers corresponding to the project listing shown in Appendix F.

Projects located in environmental justice areas account for **67.6** percent of the total funding to be spent for the duration of this plan. Due to the large number of projects that occur in environmental justice areas, project owners are encouraged to take steps to avoid, minimize or mitigate any potential negative impacts of specific projects. Due to the small scope of many of these projects and the enhanced connectivity and access that will result at their completion it is assumed that overall the benefits of the program outweigh the burdens that may occur during project development. Special care

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<sup>12</sup> In **2016**, the average household size in Grand Island, **2.7** persons, was used to determine the most a household could earn and still be considered low-income. The income levels for 2-person, **\$16,020**, and 3-person households, **\$20,160**, were found and multiplied by **0.7** in order to find the low-income threshold for Grand Island's average household size, **\$18,918**. Because the American Community Survey only provides household income data in \$5,000 increments, low-income households are considered to be households earning less than \$20,000.

should be taken to accommodate low income and minority persons during the development of the individual projects to ensure that project sponsors are acting in the best interest of the public.

**Table 8-1: Investment in Environmental Justice Areas (2016-2040)**

| Environmental Justice Investment |                |                                     |                                                |                                                   |                                                               |
|----------------------------------|----------------|-------------------------------------|------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------|
| Time Period                      | Total Projects | Total Project Cost in YOE (\$1,000) | Projects Impacting Environmental Justice Areas | Environmental Justice Investment in YOE (\$1,000) | Percentage of Total Investment in Environmental Justice Areas |
| 2016-2022                        | 9              | \$ 82,027                           | 7                                              | \$ 51,526                                         | 62.8%                                                         |
| 2016-2025                        | 4              | \$ 50,243                           | 4                                              | \$ 46,056                                         | 91.7%                                                         |
| 2026-2040                        | 11             | \$ 108,398                          | 8                                              | \$ 65,168                                         | 60.1%                                                         |
| <b>Total</b>                     | <b>24</b>      | <b>\$ 240,668</b>                   | <b>19</b>                                      | <b>\$ 162,750</b>                                 | <b>67.6%</b>                                                  |

### Air Quality

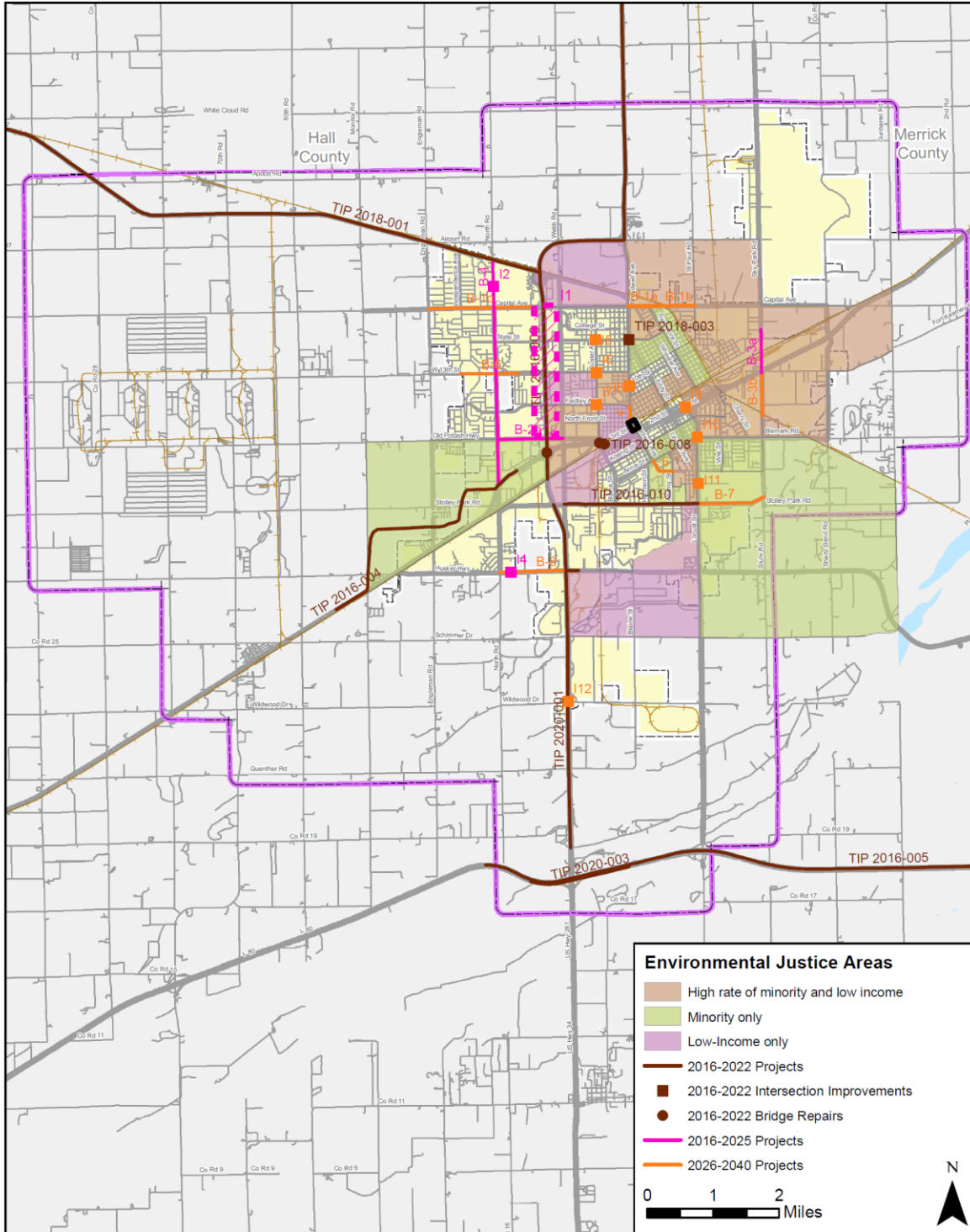
According to the Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2013, nearly one-third of all U.S. carbon dioxide emissions come from transportation, or the second largest single source. Transportation infrastructure inherently generates pollution from burning fossil fuels from automobiles, air travel, marine transportation, and rail. Of those sectors, farming, trucking, personal vehicles, and rail traffic are most prevalent in Grand Island. Efforts to reducing global greenhouse emissions include reducing vehicle miles traveled (VMT), reducing traffic congestion, and by driving more fuel efficient vehicles or drive vehicles that emit lower levels of pollution.

The Clean Air Act, as amended in 1990, requires the EPA to set National Ambient Air Quality Standards (NAAQS) for pollutants deemed harmful to humans and the environment. The EPA lists the following seven pollutants as harmful.

- **PM10:** Fine Particulates less than 10 microns in diameter.
- **PM2.5:** Fine Particulates less than 2.5 microns in diameter.
- **O3:** Ground level Ozone gas.
- **CO:** Carbon Monoxide gas.
- **SO2:** Sulfur Dioxide gas.
- **TRS:** Total Reduced Sulfur.
- **NO2:** Nitrogen Dioxide gas.

With federal regulations, the state of Nebraska is required to monitor the ambient air quality inside its borders. Air quality sensors in both Nebraska monitor the levels of harmful gasses, particulates, and elements contained in the ambient air of the GIAMPO area. Currently, the GIAMPO area is in attainment for the above air quality standards. Should the Grand Island area be designated as non-attainment in the future, GIAMPO would need to work with the local governments and with the Nebraska Department of Environmental Quality (NDEQ) to address potential issues. In other areas,

**Figure 8-1: Proposed Projects & Environmental Justice Areas**



Notes - A census block group is determined an EJ area if the proportion of minority populations in the block group is greater than the minority proportion of the overall MPO area (31.02 percent) and/or if there is higher than 20% of households with incomes under \$20,000. Source - U.S. Census Bureau, ACS 2012-2016.

Table 9-1: Total Available Roadway Revenue (2016-2040)

| Total Available Roadway Funds (\$1,000) |                   |                  |                  |                  |
|-----------------------------------------|-------------------|------------------|------------------|------------------|
| Time Period                             | Federal           | State            | Local            | Total Revenues   |
| 2016-2025                               | \$41,890          | \$117,752        | \$42,430         | \$202,072        |
| 2026-2040                               | TBD <sup>14</sup> | \$169,495        | \$89,952         | \$259,447        |
| <b>Total</b>                            | <b>\$41,890</b>   | <b>\$287,247</b> | <b>\$132,382</b> | <b>\$461,519</b> |

### Committed Costs

Committed projects are defined to include those projects currently programmed or now under construction. The first step in identifying the amount of funds available for new construction was to subtract the cost of these projects from the estimated total revenues from 2016 through 2040. A number of major projects have been programmed for the Grand Island area. Many of the committed projects are being completed by NDOR utilizing federal funding from a number of sources. The specific construction year and funding by source can be found in the GIAMPO Transportation Improvement Programs (TIP) 2016-2020, 2018-2022, 2019-2023, and 2020-2024.

Between 2016 and 2024, NDOR will complete a major reconstruction on I-80 in the GIAMPO planning area, the reconstruction of US-281 between US-30 and south of Howard County line, and the replacement of three bridges on US-30. NDOR has also committed to construct a new alignment of US-30 from west of US-281 to near County Road 20, install automated gates at I-80 interchanges, resurface N-2 from Cairo to US-281, and resurface US-281 from Stolley Park Road to north of I-80.

The total cost of the committed projects, shown in Table 9-2, is estimated at \$85.7 million.

<sup>14</sup> To Be determined (TBD): Federal revenue estimates for NDOR projects in the GIAMPO planning area will be determined as the MPO's needs are assessed and funding targets are established. At this time, NDOR is still assessing the need for specific projects of regional significance in the Grand Island Area MPO planning area for the period of 2020-2040. NDOR has established revenue projections within the timeframe of the NDOR Surface Transportation Program Book, a six-year document that outlines NDOR's projects and future expenditures. NDOR recognizes an ongoing and long-term need to monitor, evaluate and upgrade the state highway and interstate highway system in the Grand Island Area MPO planning area as well as the State of Nebraska at large. NDOR will continue to monitor the existing conditions and proposed future changes to the state highway system with the continuing cooperation, coordination and assistance of GIAMPO and local partners. As future needs are identified with regard to infrastructure condition, safety, roadway capacity or transit service, NDOR will work to address these needs and include them through update or amendment in the GIAMPO Long Range Plan, TIP and the NDOR Surface Transportation Program Book and STIP as required by State and Federal regulation.



**Table 9-2: Committed Project Cost**

| Committed Project Cost (\$1,000) |          |          |         |             |
|----------------------------------|----------|----------|---------|-------------|
| Time Period                      | Federal  | State    | Local   | Total Costs |
| 2016-2025                        | \$41,890 | \$36,539 | \$7,319 | \$85,748    |

*Note: Project Costs have been inflated to Year of Expenditure by sponsoring jurisdictions at a 4 percent increase per year per US DOT recommendations.*

### Operation & Maintenance & Reconstruction Costs

The City of Grand Island and Hall County in the GIAMPO study area have an annual Operation and Maintenance budget to maintain the existing transportation infrastructure. It includes personnel, equipment, and materials cost of maintenance. It also includes funds for more extensive maintenance projects such as resurfacing, replacing curbs, signs, signal maintenance, and other similar activities.

NDOR contracts with the local governments to complete routine maintenance. Table 9-3 presents the combined local and state maintenance costs. Operation and Maintenance costs, also presented in Table 9-3, were projected for the next 25 years. These costs are shown on an annual basis in Appendix C. In addition, a general estimate of reconstruction costs for projects not yet determined was included in these cost estimates. The funds for operations, maintenance, and reconstruction are shown in Table 9-3. The inflation rate for the future year of expenditure is based upon past trends for each specific line item. These assumptions and rates are documented in Appendix C.

**Table 9-3: Operation and Maintenance Budget**

| Operation & Maintenance Expenditures (\$1,000) |                               |
|------------------------------------------------|-------------------------------|
| Time Period                                    | Local Operation & Maintenance |
| 2016-2025                                      | \$62,209                      |
| 2026-2040                                      | \$146,211                     |
| <b>Total</b>                                   | <b>\$208,420</b>              |

Table 9-4 on the following page shows the remaining funds available after committed project costs, operations and maintenance costs are subtracted from the total revenues. In summary, the table shows anticipated revenues for available for programming new construction projects in the GIAMPO area for the remaining portion of the plan.

Table 9-4: Available Roadway Revenue

| Available New Project Revenue (\$1,000) |                   |                |                  |
|-----------------------------------------|-------------------|----------------|------------------|
| Time Period                             | Federal           | Local / State  | Total Revenue    |
| 2016-2025                               | \$0               | \$54,115       | \$54,115         |
| 2026-2040                               | TBD <sup>15</sup> | \$113,236      | \$113,236        |
| <b>Total</b>                            | <b>\$0</b>        | <b>167,351</b> | <b>\$167,351</b> |

## 9.2 Project Priority Process

The projects were evaluated and prioritized based upon the funds and in what time period the project would be proposed. This process took three steps: project evaluation, public input, and MPO Technical Committee review.

### Project Evaluation

Each of the proposed projects presented in the Long-Range Transportation Plan was evaluated based on the GIAMPO 2040 project goals and evaluation criteria presented in Chapter 3. Each criterion was transparent. Base factors and criteria were developed for each project goal. A composite score was calculated for each project based on the goal score multiplied by the goal weight, which was developed as part of the public involvement process. The priorities are discussed in Chapter 5, with detailed project scoring shown in the Appendices.

### Public Input

Public input was sought on project priorities. As part of the second public meeting, participants scored a high, medium, or low prioritization to each project type. They also provided input on specific projects

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<sup>15</sup> To Be determined (TBD): Federal revenue estimates for NDOR projects in the GIAMPO planning area will be determined as the MPO's needs are assessed and funding targets are established. At this time, NDOR is still assessing the need for specific projects of regional significance in the Grand Island Area MPO planning area for the period of 2020-2040. NDOR has established revenue projections within the timeframe of the NDOR Surface Transportation Program Book, a six-year document that outlines NDOR's projects and future expenditures. NDOR recognizes an ongoing and long-term need to monitor, evaluate and upgrade the state highway and interstate highway system in the Grand Island Area MPO planning area as well as the State of Nebraska at large.

NDOR will continue to monitor the existing conditions and proposed future changes to the state highway system with the continuing cooperation, coordination and assistance of GIAMPO and local partners. As future needs are identified with regard to infrastructure condition, safety, roadway capacity or transit service, NDOR will work to address these needs and include them through update or amendment in the GIAMPO Long Range Plan, TIP and the NDOR Surface Transportation Program Book and STIP as required by State and Federal regulation.

Table 9-5: Fiscally Constrained Project Plan

| Grand Island Area MPO Transportation Improvement Program FY 2016-2020 / FY 2018-2022 / FY 2019-2023 / FY 2020-2024 |                           |                                                                                                                                                                     |            |              |                    |          |      |           |                                      |                                        |
|--------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------|--------------------|----------|------|-----------|--------------------------------------|----------------------------------------|
| State ID                                                                                                           | Project Name              | Project Description                                                                                                                                                 | A/Q Status | Length (SLM) | Total Project Est. | Phase    | YOE  | Fund Type | Fund Description                     | TIP Estimate by Phase Amount (\$1,000) |
| 41704                                                                                                              | US-281 West, Grand Island | 4 lane divided roadway on new alignment<br>US-30 from 1.4 mi west of Grand Island to 0.4 mi west of US-281, Begin Ramp - 308.84                                     | Exempt     | 3.7 mi       | \$29,256           | PE       | 2020 | City      | Grand Island                         | \$191                                  |
|                                                                                                                    |                           |                                                                                                                                                                     |            |              |                    | PE       | 2020 | State     | Build Nebraska                       | \$2,126                                |
|                                                                                                                    |                           |                                                                                                                                                                     |            |              |                    | ROW      | 2021 | City      | Grand Island                         | \$508                                  |
|                                                                                                                    |                           |                                                                                                                                                                     |            |              |                    | ROW      | 2021 | State     | Build Nebraska                       | \$3,863                                |
|                                                                                                                    |                           |                                                                                                                                                                     |            |              |                    | CONST/CE | 2022 | City      | Grand Island                         | \$2,199                                |
|                                                                                                                    |                           |                                                                                                                                                                     |            |              |                    | CONST/CE | 2022 | State     | Build Nebraska                       | \$20,369                               |
| 42674                                                                                                              | Platte River - Phillips   | Mill, concrete repair, resurface 4-lane dual roadway and shoulders, bridge repair<br>I-80 from Platte River west of Grand Island to Phillips, Beginning RP - 310.88 | Exempt     | 7.7 mi       | \$12,708           | PE       | 2017 | State     | NDOR                                 | \$45                                   |
|                                                                                                                    |                           |                                                                                                                                                                     |            |              |                    | CONST/CE | 2018 | NHPP      | National Highway Performance Program | \$11,396                               |
|                                                                                                                    |                           |                                                                                                                                                                     |            |              |                    | CONST/CE | 2018 | State     | NDOR                                 | \$1,267                                |

| State ID | Project Name            | Project Description                                                                       | A/Q Status | Length (SLM) | Total Project Est. | Phase    | YOE   | Fund Type                            | Fund Description | TIP Estimate by Phase Amount (\$1,000) |
|----------|-------------------------|-------------------------------------------------------------------------------------------|------------|--------------|--------------------|----------|-------|--------------------------------------|------------------|----------------------------------------|
| 42690    | In Grand Island & North | Resurf existing roadway & US-281/N-2 ramps, concrete repair, bridge repair, add subdrains | Exempt     | 9.6 mi       | \$18,707           | PE       | 2015  | State                                | NDOR             | \$779                                  |
|          |                         |                                                                                           |            |              |                    | CONST/CE | 2017  | City                                 | Grand Island     | \$3,126                                |
|          |                         | CONST/CE                                                                                  |            |              |                    | 2017     | NHPP  | National Highway Performance Program | \$11,450         |                                        |
|          |                         | CONST/CE                                                                                  |            |              |                    | 2017     | HSIP  | Highway Safety Improvement Program   | \$585            |                                        |
|          |                         | CONST/CE                                                                                  |            |              |                    | 2017     | State | NDOR                                 | \$2,767          |                                        |
| 42773    | Grand Island - WACO     | Deploy automated gate systems and CCTV Cameras                                            | Exempt     | 0            | \$1,537            | PE       | 2016  | State                                | NDOR             | \$39                                   |
|          |                         |                                                                                           |            |              |                    | CONST/CE | 2017  | EM                                   | Earmark          | \$355                                  |
|          |                         | CONST/CE                                                                                  |            |              |                    | 2017     | NHPP  | National Highway Performance Program | \$949            |                                        |
|          |                         | CONST/CE                                                                                  |            |              |                    | 2017     | State | NDOR                                 | \$194            |                                        |
|          |                         | Several I-80 interchanges in District 4                                                   |            |              |                    |          |       |                                      |                  |                                        |

| State ID | Project Name                                | Project Description                                                                                                                                                                               | A/Q Status | Length (SLM) | Total Project Est. | Phase    | YOE  | Fund Type | Fund Description                     | TIP Estimate by Phase Amount (\$1,000) |
|----------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------|--------------------|----------|------|-----------|--------------------------------------|----------------------------------------|
| 42776    | In Grand Island Bridges                     | 3-bridge repair/overlays, sealing, approach slabs, mill, resurface roadway<br>Three US-30 Bridges in Grand Island (Jct US-30/US-281/N-2 bridge and from Old Lincoln Hwy to Grant St), RP - 313.66 | Exempt     | 0.4 mi       | \$5,137            | PE       | 2019 | State     | NDOR                                 | \$247                                  |
|          |                                             |                                                                                                                                                                                                   |            |              |                    | ROW      | 2020 | State     | NDOR                                 | \$27                                   |
|          |                                             |                                                                                                                                                                                                   |            |              |                    | CONST/CE | 2022 | Local     | Grand Island                         | \$227                                  |
|          |                                             |                                                                                                                                                                                                   |            |              |                    | CONST/CE | 2022 | NHPP      | National Highway Performance Program | \$3,767                                |
|          |                                             |                                                                                                                                                                                                   |            |              |                    | CONST/CE | 2022 | State     | NDOR                                 | \$869                                  |
| 42812    | Grand Island - Stolley Park Reconfiguration | Reconfigure Stolley Park Road to 3,4 and 5 lane sections - FHWA Road Diet Initiative<br>From Webb Road to S. Locust St                                                                            | Exempt     | 2.04 mi      | \$1,349            | PE       | 2016 | HSIP      | Highway Safety Improvement Program   | \$100                                  |
|          |                                             |                                                                                                                                                                                                   |            |              |                    | PE       | 2016 | Local     | Grand Island                         | \$10                                   |
|          |                                             |                                                                                                                                                                                                   |            |              |                    | CONST/CE | 2017 | HSIP      | Highway Safety Improvement Program   | \$1,115                                |
|          |                                             |                                                                                                                                                                                                   |            |              |                    | CONST/CE | 2017 | Local     | Grand Island                         | \$124                                  |
| 42828    | District 4 - Districtwide striping          | Install durable pavement markings                                                                                                                                                                 | Exempt     | 0            | \$1,110            | PE       | 2016 | State     | NDOR                                 | \$1                                    |
|          |                                             |                                                                                                                                                                                                   |            |              |                    | CONST/CE | 2016 | State     | NDOR                                 | \$111                                  |
|          |                                             |                                                                                                                                                                                                   |            |              |                    | CONST/CE | 2016 | HSIP      | Highway Safety Improvement Program   | \$998                                  |

| State ID | Project Name                 | Project Description                                                                                   | A/Q Status | Length (SLM) | Total Project Est. | Phase    | YOE   | Fund Type                            | Fund Description                     | TIP Estimate by Phase Amount (\$1,000) |
|----------|------------------------------|-------------------------------------------------------------------------------------------------------|------------|--------------|--------------------|----------|-------|--------------------------------------|--------------------------------------|----------------------------------------|
|          | Transit Needs Analysis       | Feasibility Study to identify Transit Needs                                                           | Exempt     |              | \$125              |          | 2016  | FTA                                  | Sec. 5307                            | \$100                                  |
|          |                              |                                                                                                       |            |              |                    | 2016     | Local | Grand Island                         | \$25                                 |                                        |
| 42787    | Cairo - Grand Island         |                                                                                                       | Exempt     | 12.5 mi      | \$9,215            | PE       | 2019  | State                                | NDOR                                 | \$53                                   |
|          |                              |                                                                                                       |            |              |                    | ROW      | 2020  | State                                | NDOR                                 | \$10                                   |
|          |                              | CONST/CE                                                                                              |            |              |                    | 2022     | Local | Grand Island                         | \$198                                |                                        |
|          |                              | CONST/CE                                                                                              |            |              |                    | 2022     | NHPP  | National Highway Performance Program | \$7,292                              |                                        |
|          |                              | CONST/CE                                                                                              |            |              |                    | 2022     | State | NDOR                                 | \$1,662                              |                                        |
|          |                              | Resurfacing<br>N-2 from Cairo southeast to US-281 in Grand Island, Begin RP - 343.73                  |            |              |                    |          |       |                                      |                                      |                                        |
| 42819    | In Grand Island & South (SB) | Resurfacing<br>US-34 from 2.2 mi south of Grand Island north to N Jct US-281 / W Jct N-2, RP - 226.74 | Exempt     | 5.4 mi       | \$2,730            | PE       | 2021  | State                                | NDOR                                 | \$1                                    |
|          |                              |                                                                                                       |            |              |                    | CONST/CE | 2023  | NHPP                                 | National Highway Performance Program | \$2,183                                |
|          |                              | CONST/CE                                                                                              |            |              |                    | 2023     | State | NDOR                                 | \$546                                |                                        |

| State ID     | Project Name                       | Project Description                                                       | A/Q Status | Length (SLM) | Total Project Est. | Phase    | YOE  | Fund Type | Fund Description                   | TIP Estimate by Phase Amount (\$1,000) |
|--------------|------------------------------------|---------------------------------------------------------------------------|------------|--------------|--------------------|----------|------|-----------|------------------------------------|----------------------------------------|
| 42891        | District 4 Wetland Bank            | Survey, design, construct and monitor a wetland mitigation site           | Exempt     | 0            | \$903              | PE       | 2020 | State     | NDOR                               | \$4                                    |
|              |                                    | Adjacent to existing Mormon Island Mitigation Bank, RP – 0.00             |            |              |                    | CONST/CE | 2021 | State     | NDOR                               | \$899                                  |
| 42894        | West Grand Island Interchange      | Build new high mast lighting towers, install buried cable & control boxes | Exempt     | 1.5 mi       | \$660              | PE       | 2019 | State     | NDOR                               | \$3                                    |
|              |                                    | I-80 at the Grand Island Interchange, RP - 311.50                         |            |              |                    | CONST/CE | 2020 | State     | NDOR                               | \$657                                  |
| 42863        | 5-Points Intersection Improvements | Broadwell Avenue, State Street, and Eddy Street intersection              | Exempt     | 0.4 mi       | \$2,436            | PE       | 2019 | Local     | Grand Island                       | \$78                                   |
|              |                                    |                                                                           |            |              |                    | PE       | 2019 | HSIP      | Highway Safety Improvement Program | \$312                                  |
|              |                                    |                                                                           |            |              |                    | ROW      | 2020 | Local     | Grand Island                       | \$101                                  |
|              |                                    |                                                                           |            |              |                    | ROW      | 2020 | HSIP      | Highway Safety Improvement Program | \$406                                  |
|              |                                    |                                                                           |            |              |                    | CONST/CE | 2021 | Local     | Grand Island                       | \$557                                  |
|              |                                    |                                                                           |            |              |                    | CONST/CE | 2021 | HSIP      | Highway Safety Improvement Program | \$982                                  |
| <b>Total</b> |                                    |                                                                           |            |              |                    |          |      |           | <b>\$85,873</b>                    |                                        |

Table 9-5: Fiscally Constrained Project Plan (Continued)

| GIAMPO Project Listing 2021-2025 |                           |                                       |            |                    |              |                                   |                                  |                                        |
|----------------------------------|---------------------------|---------------------------------------|------------|--------------------|--------------|-----------------------------------|----------------------------------|----------------------------------------|
| Project ID                       | Project Name              | Project Description                   | From       | To                 | Jurisdiction | Total Cost (\$1,000) Current Year | Total Cost (\$1,000) Future Year | Available Fiscal Constrained (\$1,000) |
| <b>2016 – 2025</b>               |                           |                                       |            |                    |              |                                   |                                  | <b>\$54,115</b>                        |
|                                  | Intersection Improvements | Improvements at various intersections | Various    | Various            | Grand Island | \$3,818                           | \$5,024                          | \$49,091                               |
| B-3a                             | Stuhr Road                | Widen to 3 lanes                      | US-30      | BNSF RR            | Grand Island | \$9,656                           | \$12,707                         | \$36,384                               |
| B-2a                             | Old Potash Highway        | Widen to 3-5 lanes*                   | North Road | Webb Road          | Grand Island | \$13,625                          | \$17,930                         | \$18,454                               |
| B-4                              | North Road                | Widen to 3 lanes                      | Highway 2  | Old Potash Highway | Grand Island | \$11,081                          | \$14,582                         | \$3,872                                |
| <b>Total 2021-2025</b>           |                           |                                       |            |                    |              | <b>\$38,180</b>                   | <b>\$50,243</b>                  | <b>\$3,872</b>                         |

\*Includes extension of Claude Road from Old Potash Highway to Faidley Avenue



Table 9-5 Fiscally Constrained Project Plan (Continued)

| GIAMPO Project Listing 2026-2040 |                                             |                                       |                      |                     |              |                                   |                                  |                                        |
|----------------------------------|---------------------------------------------|---------------------------------------|----------------------|---------------------|--------------|-----------------------------------|----------------------------------|----------------------------------------|
| Project ID                       | Project Name                                | Project Description                   | From                 | To                  | Jurisdiction | Total Cost (\$1,000) Current Year | Total Cost (\$1,000) Future Year | Available Fiscal Constrained (\$1,000) |
| <b>2026 - 2040</b>               |                                             |                                       |                      |                     |              |                                   |                                  | <b>\$117,108*</b>                      |
| B-8                              | Husker Highway                              | Widen to 3 lanes                      | US-281               | North Road          | Grand Island | \$4,947                           | \$9,636                          | \$107,472                              |
| B-7                              | Stolley Park Road                           | Widen to 3 lanes                      | Fair Ground Entrance | Stuhr Road          | Grand Island | \$2,183                           | \$4,252                          | \$103,220                              |
| B-1a                             | Capital Avenue                              | Widen to 5 lanes                      | Broadwell Avenue     | BNSF RR/Oak Street  | Grand Island | \$3,438                           | \$6,697                          | \$96,523                               |
| B-6                              | 13th Street                                 | Widen to 3 lanes                      | West of US-281       | Independence Avenue | Grand Island | \$4,193                           | \$8,168                          | \$88,355                               |
|                                  | Intersection Improvements                   | Improvements at various intersections | Various              | Various             | Grand Island | \$1,950                           | \$3,798                          | \$84,557                               |
| 2                                | Stuhr Bridges over BNSF and UPRR            | Engineering                           |                      |                     | Grand Island | \$2,048                           | \$3,989                          | \$80,568                               |
| B-3b                             | Stuhr Road                                  | Widen to 3 lanes                      | BNSF RR              | US-34               | Grand Island | \$9,656                           | \$18,809                         | \$61,759                               |
| B-1b                             | Capital Avenue                              | Widen to 3 lanes                      | BNSF RR/Oak Street   | St Paul Road        | Grand Island | \$1,781                           | \$3,470                          | \$58,289                               |
| B-1c                             | Capital Avenue                              | Widen to 3 lanes                      | Dairy Queen          | Engleman Road       | Grand Island | \$5,700                           | \$11,103                         | \$47,186                               |
| 4                                | Broadwell over UPRR and Broadwell Extension | Broadwell Avenue Widening (5-lane)    | Faidley Avenue       | Third Street        | Grand Island | \$3,900                           | \$7,597                          | \$39,589                               |
| 5                                |                                             | Broadwell UPRR bridge                 |                      |                     |              | \$13,000                          | \$25,323                         | \$14,266                               |
| 6                                |                                             | Broadwell Extension (3-lane)          | Anna Street          | Adams Street        |              | \$4,900                           | \$9,545                          | \$4,721                                |
| <b>Total 2026-2040</b>           |                                             |                                       |                      |                     |              | <b>\$57,696</b>                   | <b>\$112,387</b>                 | <b>\$4,721</b>                         |

\*Note: includes \$3,872 of FY2016-2025 carryover plus forecast \$113,236.

Table 9-6: Illustrative Project Plan

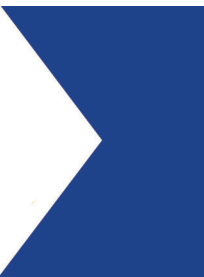
| GIAMPO Illustrative Projects      |                               |                                                |                    |                 |              |                                   |                                  |                                        |
|-----------------------------------|-------------------------------|------------------------------------------------|--------------------|-----------------|--------------|-----------------------------------|----------------------------------|----------------------------------------|
| Project ID                        | Project Name                  | Project Description                            | From               | To              | Jurisdiction | Total Cost (\$1,000) Current Year | Total Cost (\$1,000) Future Year | Available Fiscal Constrained (\$1,000) |
| <b>Illustrative Project 2040+</b> |                               |                                                |                    |                 |              |                                   |                                  | <b>\$4,721</b>                         |
| B-2b                              | Old Potash Highway            | Widen to 3 lanes                               | Engleman Road      | North Road      | Grand Island | \$4,070                           | \$6,727                          |                                        |
| 11                                | 13th St. – 10th St. Connector | Reconstruct                                    | W 13th Street      | 10th Street     | Grand Island | \$600                             | \$992                            |                                        |
| B-5                               | Swift Road                    | New 2-lane road                                | Talc Road          | Shady Bend Road | Grand Island | \$3,150                           | 5,209                            |                                        |
| 7                                 | North Road and UPRR Bridge    | Widen to 3 lanes; new 2-lane bridge            | Old Potash Highway | Husker Highway  | Grand Island | \$16,200                          | \$26,776                         |                                        |
| 9                                 | Broadwell over BNSF           | Widen to 5 lanes                               | Capital Avenue     | Airport Road    | Grand Island | \$14,300                          | \$23,636                         |                                        |
|                                   |                               | Realign Old Highway 2 to connect Custer Avenue |                    |                 |              |                                   |                                  |                                        |
|                                   |                               | New 4-lane bridge                              |                    |                 |              |                                   |                                  |                                        |
| 3                                 | Eddy Street Extension         | New 2-lane Road                                | Phoenix Avenue     | Locust Street   | Grand Island | \$3,300                           | \$5,454                          |                                        |
| 12                                | Alda Road and UPRR Bridge     | New 2-lane bridge                              | Apollo Street      | US-30           | Grand Island | \$11,300                          | \$18,677                         |                                        |
| 15                                | East Bypass (5-lanes)         | 5-lane Stolley Park Road *                     | Locust Street      | Stuhr Road      | Grand Island | \$2,500                           | \$4,132                          |                                        |
|                                   |                               | 5-Lane Stuhr Road / Sky Park Road *            | US-34              | Capital Avenue  |              | \$11,875                          | \$19,628                         |                                        |
|                                   |                               | 5-lane Husker Hwy                              | US-281             | Stuhr Road      |              | \$18,750                          | \$30,991                         |                                        |
|                                   |                               | 5-lane Captial Avenue                          | BNSF RR/Oak Street | Sky Park Road   |              | \$20,375                          | \$33,677                         |                                        |
| 16                                | East Bypass US-281 to I-80    | 4-lane Expressway                              | I-80               | US-281          | Grand Island | \$78,750                          | \$130,162                        |                                        |

\*expand 3-lane to 5-lane

Table 9-6: Illustrative Project Plan (Continued)

| GIAMPO Illustrative Projects      |                             |                     |       |            |              |                                   |                                  |                                        |
|-----------------------------------|-----------------------------|---------------------|-------|------------|--------------|-----------------------------------|----------------------------------|----------------------------------------|
| Project ID                        | Project Name                | Project Description | From  | To         | Jurisdiction | Total Cost (\$1,000) Current Year | Total Cost (\$1,000) Future Year | Available Fiscal Constrained (\$1,000) |
| <b>Illustrative Project 2040+</b> |                             |                     |       |            |              |                                   |                                  |                                        |
| 2                                 | Stuhr Road bridge over UPRR | New 4-lane bridge   | US-30 | 4th Street | Grand Island | \$15,952                          | \$26,366                         |                                        |
|                                   | Stuhr Road bridge over BNSF | New 4-lane bridge   |       |            | Grand Island | \$11,000                          | \$18,181                         |                                        |

Journey  
**2040**



# APPENDIX **F**

GIAMPO |

 **OLSSON**  
ASSOCIATES

| **vireo**

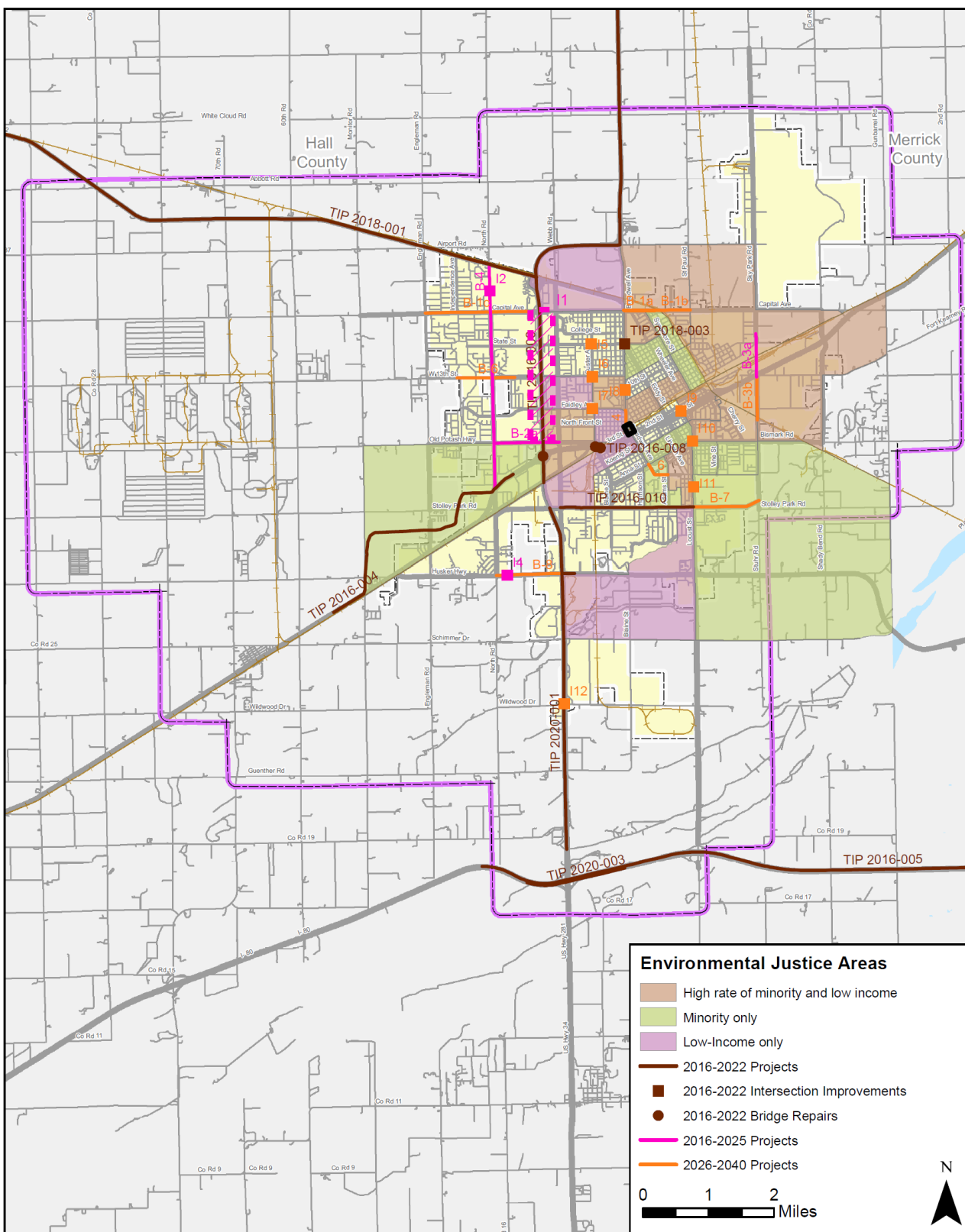
Environmental Justice Impacts for Individual Projects FY2016-2040

| Project ID       | Project Name                                | Project Description                                                                          | Hwy                | From                                                             | To                                    | Jurisdiction | YOE Cost (1,000) | Time Period | Environmental Justice Area Impacts                   | Assigned Impact |
|------------------|---------------------------------------------|----------------------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------|---------------------------------------|--------------|------------------|-------------|------------------------------------------------------|-----------------|
| TIP No. 2016-004 | US-281 West, Grand Island                   | 4-lane divided roadway on new alignment                                                      | US-30              | West of Monitor Road                                             | West of US-281                        | NDOR         | \$29,256         | 2016-2022   | Minority                                             | 100%            |
| TIP No. 2016-005 | Platte River - Phillips                     | Mill, concrete repair, resurface 4-lane dual roadway and shoulders, bridge repair            | I-80               | Platte River west of Grand Island                                | Phillips                              | NDOR         | \$12,708         | 2016-2022   | None                                                 | 0%              |
| TIP No. 2016-006 | In Grand Island & North                     | Resurface existing roadway & US-281/N-2 ramps, concrete repair, bridge repair, add subdrains | US-281             | Old US-30 Viaduct                                                | 1.8 miles south of Howard County Line | NDOR         | \$18,707         | 2016-2022   | Adjacent to Both Minority and Low Income Areas       | 50%             |
| TIP No. 2016-008 | In Grand Island Bridges                     | 3-bridge repairs/overlays, sealing, new approach slabs, mill, resurface roadway              | US-30              | Jct US-30/US-281/N-2 bridge and from Old Lincoln Hwy to Grant St |                                       | NDOR         | \$5,137          | 2016-2022   | Both Minority and Low Income Areas                   | 100%            |
| TIP No. 2016-010 | Grand Island - Stolley Park Reconfiguration | Reconfigure Stolley Park Road to 3, 4 and 5 lane sections - FHWA Road Diet Initiative        | Stolley Park Road  | Webb Road                                                        | Locust Street                         | Grand Island | \$1,349          | 2016-2022   | Adjacent to Both Minority Areas and Low Income Areas | 50%             |
| TIP No. 2018-001 | Cairo - Grand Island                        | Resurfacing                                                                                  | N-2                | Cairo                                                            | US-281                                | NDOR         | \$9,215          | 2016-2022   | Adjacent to Low Income                               | 50%             |
| TIP No. 2020-001 | In Grand Island & South (SB)                | Resurfacing                                                                                  | US-34              | North of I-80                                                    | Stolley Park Road                     | NDOR         | \$2,730          | 2016-2022   | Adjacent to Low Income                               | 50%             |
| TIP No. 2020-003 | West Grand Island Interchange               | Build new high mast lighting towers, install buried cable & control boxes                    | I-80               | West of US-281 interchange                                       | East of US-281 interchange            | NDOR         | \$660            | 2016-2022   | None                                                 | 0%              |
| TIP No. 2018-003 | 5-Points Intersection Improvements          | Intersection Improvements                                                                    | Broadwell Avenue   | Broadwell Avenue, State Street, and Eddy Street                  |                                       | Grand Island | \$2,265          | 2016-2022   | Adjacent to Both Minority Areas and Low Income Areas | 50%             |
| B-3a             | Stuhr Road                                  | Widen to 3 lanes                                                                             | Stuhr Road         | US-30                                                            | BNSF RR                               | Grand Island | \$12,707         | 2016-2025   | Both Minority and Low Income Areas                   | 100%            |
| B-2a             | Old Potash Highway                          | Widen to 3-5 lanes                                                                           | Old Potash Highway | North Road                                                       | Webb Road                             | Grand Island | \$17,930         | 2016-2025   | Both Minority and Low Income Areas                   | 100%            |

| Project ID | Project Name              | Project Description                   | Hwy               | From                                             | To                  | Jurisdiction | YOE Cost (\$1,000) | Time Period | Environmental Justice Area Impacts             | Assigned Impact |
|------------|---------------------------|---------------------------------------|-------------------|--------------------------------------------------|---------------------|--------------|--------------------|-------------|------------------------------------------------|-----------------|
| B-4        | North Road                | Widen to 3 lanes                      | North Road        | Highway 2                                        | Old Potash Highway  | Grand Island | \$14,582           | 2016-2025   | Minority                                       | 100%            |
| I1         | Intersection Improvements | Improvements at various intersections | US-281            | Capital Avenue                                   | Old Potash Highway  | Grand Island | \$5,024            | 2016-2025   | Adjacent to Both Minority and Low Income Areas | 50%             |
| I2         |                           |                                       | North Road        | North Road at Northwest High School              |                     | Grand Island |                    | 2016-2025   | None                                           | 0%              |
| I4         |                           |                                       | Husker Highway    | Husker Highway at Heartland Lutheran High School |                     | Grand Island |                    | 2016-2025   | None                                           | 0%              |
| B-8        | Husker Highway            | Widen to 3 lanes                      | Husker Highway    | US-281                                           | North Road          | Grand Island | \$9,636            | 2026-2040   | None                                           | 0%              |
| B-7        | Stolley Park Road         | Widen to 3 lanes                      | Stolley Park Road | Fair Ground Entrance                             | Stuhr Road          | Grand Island | \$4,252            | 2026-2040   | Minority                                       | 100%            |
| B-1a       | Capital Avenue            | Widen to 5 lanes                      | Capital Avenue    | Broadwell Avenue                                 | BNSF RR/Oak Street  | Grand Island | \$6,697            | 2026-2040   | Both Minority and Low Income Areas             | 100%            |
| B-6        | 13th Street               | Widen to 3 lanes                      | 13th Street       | West of US-281                                   | Independence Avenue | Grand Island | \$8,168            | 2026-2040   | None                                           | 0%              |
| I5         | Intersection Improvements | Improvements at various intersections |                   | Custer Avenue & State Street                     |                     | Grand Island | 3,798              | 2026-2040   | None                                           | 0%              |
| I6         |                           |                                       |                   | Custer Avenue & 13th Street                      |                     | Grand Island |                    | 2026-2040   | Adjacent to Both Minority and Low Income Areas | 50%             |
| I7         |                           |                                       |                   | Custer Avenue & Faidley Avenue                   |                     | Grand Island |                    | 2026-2040   | Both Minority and Low Income Areas             | 100%            |
| I8         |                           |                                       |                   | Broadwell Avenue & 10th Street                   |                     | Grand Island |                    | 2026-2040   | Adjacent to Both Minority and Low Income Areas | 50%             |
| I9         |                           |                                       |                   | Walnut Street & WB US-30                         |                     | Grand Island |                    | 2026-2040   | Adjacent to Both Minority and Low Income Areas | 50%             |

| Project ID | Project Name                                | Project Description                | Hwy              | From                                 | To            | Jurisdiction | YOE Cost (1,000) | Time Period | Environmental Justice Area Impacts | Assigned Impact |
|------------|---------------------------------------------|------------------------------------|------------------|--------------------------------------|---------------|--------------|------------------|-------------|------------------------------------|-----------------|
| I10        |                                             |                                    |                  | Locust Street & Anna Street          |               | Grand Island |                  | 2026-2040   | Both Minority and Low Income Areas | 100%            |
| I11        |                                             |                                    |                  | Locust Street & State Fair Boulevard |               | Grand Island |                  | 2026-2040   | Both Minority and Low Income Areas | 100%            |
| I12        |                                             |                                    |                  | US-281 & Wildwood Road               |               | Grand Island |                  | 2026-2040   | None                               | 0%              |
| B-3b       | Stuhr Road                                  | Widen to 3 lanes                   | Stuhr Road       | BNSF                                 | US-34         | Grand Island | \$18,809         | 2026-2040   | Both Minority and Low Income Areas | 100%            |
| B-1b       | Capital Avenue                              | Widen to 3 lanes                   | Capital Avenue   | BNSF RR/Oak Street                   | St. Paul Road | Grand Island | \$3,470          | 2026-2040   | Both Minority and Low Income Areas | 100%            |
| B-1c       | Capital Avenue                              | Widen to 3 lanes                   | Capital Avenue   | Dairy Queen                          | Engleman Road | Grand Island | \$11,103         | 2026-2040   | None                               | 0%              |
| 4          | Broadwell over UPRR and Broadwell Extension | Broadwell Avenue Widening (5-lane) | Broadwell Avenue | Faidley Avenue                       | Third Street  | Grand Island | \$7,597          | 2026-2040   | Both Minority and Low Income Areas | 100%            |
| 5          |                                             | Broadwell UPRR bridge              | Broadwell Avenue |                                      |               | Grand Island | \$25,323         | 2026-2040   | Adjacent to Low Income             | 50%             |
| 6          |                                             | Broadwell Extension (3-lane)       | Broadwell Avenue | Anna Street                          | Adams Street  | Grand Island | \$9,545          | 2026-2040   | Minority                           | 100%            |

**Figure 8-1: Proposed Projects & Environmental Justice Areas**



Notes - A census block group is determined an EJ area if the proportion of minority populations in the block group is greater than the minority proportion of the overall MPO area (31.02 percent) and/or if there is higher than 20% of households with incomes under \$20,000. Source - U.S. Census Bureau, ACS 2012-2016.