

## **PART 2. MITIGATION MEASURES**

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Mitigation measures have been defined to avoid or minimize the environmental impacts of the proposed project. These mitigation measures will not change without prior written approval from the Federal Highway Administration.

### **MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION DESIGN RESPONSIBILITIES**

1. The Maricopa Department of Transportation will coordinate and work with local jurisdictions (the cities of Glendale, El Mirage, and Peoria) regarding comprehensive city plans that would accommodate growth as a result of a new facility, along with future planned projects. (Refer to pages 57 and 68 of the Draft EA.)
2. During the design phase, the Maricopa County Department of Transportation will ensure that landscape and aesthetic treatment plans would be reviewed and approved by the City of Glendale, City of El Mirage, City of Peoria, and the Arizona Department of Transportation. (Refer to page 84 of the Draft EA.)
3. The Maricopa County Department of Transportation will ensure that relocation of residents and businesses would comply with the terms of the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. This would provide land owners the fair market value and equal treatment for all properties to be acquired for a new facility and relocation assistance for eligible residents and business owners. (Refer to pages 57 and 72 of the Draft EA.)
4. The Maricopa County Department of Transportation will ensure that noise abatement measures that may be required for the selected alternative are reasonable and feasible, in accordance with Federal Highway Administration regulations and the current Arizona Department of Transportation's Noise Abatement Policy. Actual types and locations of noise abatement mitigation will be analyzed in more detail during subsequent design phases for the selected alternative. (Refer to page 90 of the Draft EA.)
5. The Maricopa County Department of Transportation will ensure that detention basins are designed and installed to mitigate any increases in peak runoff rates. (Refer to page 121 of the Draft EA.)

6. The Maricopa County Department of Transportation will consult with the Federal Emergency Management Agency and the U.S. Army Corps of Engineers to identify and mitigate potential effects on floodplains or waters of the United States. (Refer to page 121 of the Draft EA.)
7. The Maricopa County Department of Transportation will design the new facility to minimize floodplain encroachments and ensure that the flood-carrying capacity of drainages that cross the study area would not be impaired. (Refer to page 121 of the Draft EA.)
8. During final design, the Maricopa County Department of Transportation will coordinate with the U.S. Army Corps of Engineers to complete the jurisdictional delineation to identify permit requirements formally under Sections 401 and 404 of the Clean Water Act and mitigate potential impacts from a new facility. (Refer to page 122 of the Draft EA.)
9. To lessen or avoid potential effects on wildlife in the study area, the Maricopa County Department of Transportation will ensure that removal or disturbance of vegetation would be minimized through project design as practicable. (Refer to page 130 of the Draft EA.)
10. During final design, the Maricopa County Department of Transportation will coordinate with the Federal Highway Administration to determine if a “no effect” is still warranted or if there needs to be consultation with the U.S. Fish and Wildlife Service and obtain a list of threatened, endangered, proposed, and candidate species. The Arizona Game and Fish Department’s Heritage Database Management System list of special status species will be reviewed by a qualified biologist to determine if any new species have been listed or any changes in listing status have occurred. The biological evaluation would be updated to reflect any changes, if needed. The amended Biological Evaluation would be submitted to the Arizona Department of Transportation for review, approval, and coordination with the Federal Highway Administration. (Refer to page 130 of the Draft EA.)
11. During final design, the Maricopa County Department of Transportation will contact the Hazardous Materials Coordinator of the Arizona Department of Transportation’s Environmental Planning Group (602.712.7767) to determine the need for additional site assessment. The Maricopa County Department of Transportation will make reasonable effort to locate and identify potentially hazardous materials and/or underground storage tanks within the project area prior to construction. (Refer to page 138 of the Draft EA.)

12. The Maricopa County Department of Transportation will coordinate with the City of Glendale and City of Peoria Parks and Recreation staff to ensure that the Northern Parkway improvements accommodate the proposed park and trail improvements at the New River and Northern Horizon Park.
13. During final design, the Maricopa County Department of Transportation will contact adjacent property owners where farming is occurring and coordinate relocation and reconfiguration of existing irrigation facilities.
14. The Maricopa County Department of Transportation will ensure that any activities related to wells such as installing a new well or abandoning a well would comply with Arizona Department of Water Resources regulations. Domestic water well relocation would also require plans review and approval from Maricopa County Environmental Services Department.
15. Relocation of sanitary sewer facilities including lift stations will require plan review and approval from the Maricopa County Environmental Services Department.
16. Any impacts to groundwater recharge facilities identified during final design would require coordination with the Arizona Department of Water Resources and possibly an Aquifer Protection Permit.

## **MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION CONSTRUCTION RESPONSIBILITIES**

1. Prior to construction, the Maricopa County Department of Transportation will coordinate relocation of affected utilities with utility purveyors as necessary. (Refer to page 58 of the Draft EA.)
2. The Maricopa County Department of Transportation will coordinate with local jurisdictions (e.g., City of Glendale, City of El Mirage, and City of Peoria) to develop specific plans that would accommodate emergency service vehicles and respond to public safety concerns during the construction and operations phases. (Refer to pages 56 and 72 of the Draft EA.)
3. The Maricopa County Department of Transportation will ensure that local agencies and jurisdictions (e.g., City of Glendale, City of El Mirage, and City of Peoria) would notify the public of the project's status through meetings and newsletters. Materials will also be produced in Spanish for the Spanish-speaking population along these areas. (Refer to pages 72 and 68 of the Draft EA.)

4. The Maricopa County Department of Transportation will ensure that there would be access to pedestrian and transit routes at all times for transit-dependent individuals. (Refer to pages 56 and 72 of the Draft EA.)
5. This project is subject to the Arizona Pollutant Discharge Elimination System. The Maricopa County Department of Transportation will direct its contractor to comply with general permit requirements for construction sites under the Arizona Department of Environmental Quality, the Arizona Pollutant Discharge Elimination System Construction General Permit. In addition, the Maricopa County Department of Transportation and the Contractor will submit the Notice of Intent and the Notice of Termination to the Arizona Department of Environmental Quality. (Refer to page 122 of the Draft EA.)
6. The Maricopa County Department of Transportation will ensure that “[t]he Contractor shall take sufficient precautions, considering various conditions, to prevent pollution to streams, lakes, and reservoirs with fuels, oils, bitumens, calcium chloride, fresh Portland cement, raw sewage, muddy water, chemicals, or other harmful materials. None of these materials shall be discharged into any channels leading to such streams, lakes, or reservoirs.” (Refer to page 123 of the Draft EA.)
7. The Maricopa County Department of Transportation will apply for and receive a Section 401/404 permit from the U.S. Army Corps of Engineers. The Maricopa County Department of Transportation will ensure that no work would occur within jurisdictional waters until the Section 401/404 permit is obtained. (Refer to page 121 of the Draft EA.)
8. The Maricopa County Department of Transportation will ensure that all necessary Federal, State, and local permits are obtained in accordance with applicable laws and regulations.

## **CONTRACTOR RESPONSIBILITIES**

1. The Maricopa County Department of Transportation’s Contractor will ensure that traffic access continues to be provided throughout the construction phase of the new facility. Traffic control will be in accordance with the most current *Manual on Uniform Traffic Control Devices for Streets and Highways*, published by the Federal Highway Administration, including any revisions or additions, and/or associated provisions in the project plans, as determined by Arizona Department of Transportation’s Traffic Design Section during design. (Refer to pages 56, 71, and 68 of the Draft EA.)
2. The Maricopa County Department of Transportation’s Contractor will provide notice to residences and businesses adjacent to the project at least two weeks prior to construction.

The notice would provide information about construction activities and when those would occur. Notice distribution will occur via letters, door hangers, etc. Materials will also be produced in Spanish for the Spanish-speaking population along these areas. (Refer to pages 56, 71, and 68 of the Draft EA.)

3. The Maricopa County Department of Transportation's Contractor will provide elderly and disabled populations with contact information for demand-responsive transit services or other assistance. (Refer to page 72 of the Draft EA.)
4. The Maricopa County Department of Transportation's Contractor will ensure that construction noise would be controlled in accordance with the Arizona Department of Transportation's *Standard Specifications for Road and Bridge Construction*, Section 104.08 (2008), special provisions, and local rules or ordinances. (Refer to page 90 of the Draft EA.)
5. The Maricopa County Department of Transportation's Contractor will ensure that each internal combustion engine used for any purpose on the project, or related to the project, would be equipped with a muffler recommended by the manufacturer. (Refer to page 90 of the Draft EA.)
6. The Maricopa County Department of Transportation's Contractor will ensure that noise abatement measures are reasonable and feasible to be recommended for implementation in accordance with the Federal Highway Administration's regulations and Arizona Department of Transportation's Noise Abatement Policy. (Refer to page 90 of the Draft EA.)
7. The Maricopa County Department of Transportation's Contractor will take precautions to prevent materials from being discharged into washes and channels to prevent construction materials from entering the Agua Fria River and New River in accordance with necessary permits under the Clean Water Act. (Refer to page 121 of the Draft EA.)
8. The Maricopa County Department of Transportation's Contractor will follow all requirements issued in the U.S. Army Corps of Engineers Section 404 and Section 401 permits. (Refer to pages 121 and 122 of the Draft EA.)
9. Because more than 1 acre would be disturbed during construction, compliance with the Arizona Pollutant Discharge Elimination System requirements administered by the Arizona Department of Environmental Quality is necessary. The Contractor shall take all necessary measures to assure compliance of employees and subcontractors with the Arizona Pollutant

Discharge Elimination System Construction General Permit for Arizona as well as other applicable Federal, State, and local laws, ordinances, statutes, rules, and regulations pertaining to stormwater discharge and air, groundwater, and surface water quality. As the permittee, the Contractor is responsible for preparing in a manner acceptable to the Arizona Department of Environmental Quality and the Environmental Protection Agency all documents required by regulation, which shall include but not necessarily be limited to the following:

- Notice of Intent (NOI)
- Stormwater Pollution Prevention Plan (SWPPP)
- Notice of Termination (NOT)

Preliminary copies of the Notice of Intent and the Stormwater Pollution Prevention Plan shall be submitted to Maricopa County Department of Transportation during the pre-construction conference and shall be subject to review by the Maricopa County Department of Transportation prior to implementation. Copies will be provided also to the Cities of Glendale, Peoria, and El Mirage.

The Contractor shall ensure the completed and duly signed Notice of Intent form(s) are submitted in a timely manner to prevent a delay to project construction. The Arizona Pollutant Discharge Elimination System form shall be submitted to the Arizona Department of Environmental Quality Phoenix, Arizona, office by certified mail or hand delivered to the address below:

Arizona Department of Environmental Quality  
Surface Water Section/Stormwater & General Permits Unit  
1110 West Washington, 5415A-1  
Phoenix, AZ 85007

(Refer to page 122 of the Draft EA.)

10. The Maricopa County Department of Transportation's Contractor will ensure that all disturbed soils that would not be landscaped or otherwise permanently stabilized by construction would be seeded using species native to the project vicinity. (Refer to page 130 of the Draft EA.)

11. If protected native plants would be impacted by project activities, the Maricopa County Department of Transportation's Contractor would notify the Arizona Department of Agriculture at least 60 days prior to the start of construction so that the Arizona Department of Agriculture could determine the disposition of these plants. (Refer to page 130 of the Draft EA.)
12. The Maricopa County Department of Transportation's Contractor will prevent the introduction of invasive species seed and will ensure that all construction equipment would be washed at the Contractor's storage facility prior to entering the construction site. (Refer to page 130 of the Draft EA.)
13. To prevent the seeds of invasive species from leaving the site, the Maricopa County Department of Transportation's Contractor will inspect all construction equipment and remove all attached plant/vegetation debris and soil/mud prior to the equipment leaving the construction site. (Refer to page 130 of the Draft EA.)
14. The Maricopa County Department of Transportation's Contractor will suppress dust by stabilizing (e.g., water, chemical dust suppressants) all unpaved dust-producing surfaces to reduce dust entering ambient air and reduce short-term effects associated with an increase in particulate matter attributable to construction activity. (Refer to page 107 of the Draft EA.)
15. The Maricopa County Department of Transportation's Contractor will cover dump trucks transporting materials that might become airborne during transit. After dumping of such materials, the Contractor would either cover the truck bed or take measures to remove all residues that might become airborne (MCDOT Supplement to MAG Specifications Section 107.6.3). (Refer to page 107 of the Draft EA.)
16. The Maricopa County Department of Transportation's Contractor will minimize offsite tracking of sediments by washing, brushing, or blowing off wheels of construction vehicles, or any other method deemed appropriate by the Contractor, before those vehicles exit the construction site (MCDOT Supplement to MAG Specifications Section 107.6.3). (Refer to page 107 of the Draft EA.)
17. In the event hazardous material is found by the Maricopa County Department of Transportation's Contractor or subcontractors of any tier, during the performance of the work that is suspected to be hazardous, the Contractor would stop work at the affected area and remove all personnel from that area as well as barricade the area and provide traffic

control to prohibit unauthorized entry. The Contractor would immediately notify the Project Engineer to determine resolution of the matter. (Refer to page 139 of the Draft EA.)

18. The Maricopa County Department of Transportation's Contractor will dispose of construction debris on an as-needed basis to keep the site safe for the Contractor's personnel and the general public. Construction debris will be disposed of only in a manner or in a location approved by the Project Engineer. The Contractor would be responsible for the safe and clean condition of the site during the entire period the site is under the Contractor's care, custody, and control. (Refer to page 138 of the Draft EA.)
19. The Maricopa County Department of Transportation's Contractor will ensure that farm irrigation facilities remain operational during construction including construction of temporary irrigation facilities as required.
20. During construction, the Maricopa County Department of Transportation's Contractor will minimize land disturbance, stabilize the surface of soil piles, and create wind breaks to reduce disturbance of particulate matter including emissions off the construction site caused by strong winds.
21. When construction is complete, the Maricopa County Department of Transportation's Contractor will remove all unused material and soil piles via covered trucks.
22. The Maricopa County Department of Transportation's Contractor will ensure that no work would occur within the jurisdictional waters until the Section 401/404 permit is obtained.
23. The Maricopa County Department of Transportation's Contractor will ensure that no staging work during bridge construction over the New River would occur in the floodplain south of the proposed right-of-way. (Refer to pages 123 and 131 of the Draft EA.)

## **STANDARD SPECIFICATIONS INCLUDED AS MITIGATION MEASURES**

1. The Maricopa County Department of Transportation will ensure that the project is designed according to Arizona Department of Transportation's *Standard Specifications for Road and Bridge Construction* (2008), Section 104, "Scope of Work," Subsection 09, "Prevention of Landscape Defacement: Protection of Streams, Lakes, and Reservoirs," which states "the Contractor shall give special attention to the effect of its operations on the landscape and shall take special care to maintain natural surroundings undamaged." (Refer to page 84 of the Draft EA.)

2. To minimize emissions from idling and slow-moving traffic in the construction zones, traffic control will be in accordance with the most current *Manual on Uniform Traffic Control Devices for Streets and Highways*, published by the Federal Highway Administration, including any revisions or additions, and/or associated provisions in the project plans, as determined by the Maricopa County Department of Transportation's Traffic Design Section during design. (Refer to page 106 of the Draft EA.)
3. According to the Arizona Department of Transportation's *Standard Specifications for Road and Bridge Construction* (2008 edition), Section 107, "Legal Relations and Responsibility to Public," Subsection 05, "Archaeological Features," "[w]hen previously unidentified archaeological, historical, or paleontological features are encountered or discovered during any activity related to the construction of the project, the Contractor shall stop work immediately at that location and shall take all reasonable steps to secure the preservation of those resources and notify the Engineer." The responsible Engineer will, in turn, notify the Arizona Department of Transportation's Environmental Planning Group Historic Preservation Team (602.712.7767) to evaluate the significance of the resources.
4. According to the Arizona Department of Transportation's *Standard Specifications for Road and Bridge Construction* (2008 edition), Section 104, "Scope of Work," Subsection 08, "Prevention of Air and Noise Pollution," "[t]he Contractor shall control, reduce, remove or prevent air pollution in all its forms, including air contaminants, in the performance of the Contractor's work." The Contractor will comply with all air pollution ordinances, regulations, orders, etc., during construction. All dust-producing surfaces will be watered or otherwise stabilized to reduce short-term impacts associated with an increase in particulate matter attributable to construction activity. (Refer to pages 107 and 106 of the Draft EA.)
5. The Maricopa County Department of Transportation would ensure compliance with the Maricopa County Department of Transportation Supplement to the Maricopa Association of Governments' Uniform Standard Specifications and Details for Public Works Construction, January 2008, regarding Section 107.2.1 Arizona Pollutant Discharge Elimination System Construction General Permit Requirements. (Refer to page 123 of the Draft EA.)
6. According to the Arizona Department of Transportation's *Standard Specifications for Road and Bridge Construction* (2008 edition), Section 107, "Legal Relations and Responsibility to Public," Subsection 07, "Sanitary, Health, and Safety Provisions," should the Contractor encounter potential hazardous or contaminated material, the Contractor would immediately

stop work and remove workers, barricade the area, provide traffic controls and notify the Project Engineer. The Project Engineer would arrange for proper assessment, treatment, or disposal of those materials. Such locations would be investigated and proper action implemented prior to the continuation of work in that location. (Refer to page 138 of the Draft EA.)

7. According to the Arizona Department of Transportation's *Standard Specifications for Road and Bridge Construction* (2008 edition), Section 1001, "Material Sources," Subsection 2, "General," any material sources required for this project outside the project area would be examined for environmental effects, by the Contractor, prior to use. (Refer to page 139 of the Draft EA.)
8. According to the Arizona Department of Transportation's *Standard Specifications for Road and Bridge Construction* (2008 edition), Section 107, "Legal Relations and Responsibility to Public," Subsection 11, "Protection and Restoration of Property and Landscape," "[m]aterials removed during construction operations such as trees, stumps, building materials, irrigation and drainage structures, broken concrete, and other similar materials shall not be dumped on either private or public property unless the Contractor has obtained written permission from the owner or public agency with jurisdiction over the land. Written permission would not be required, however, when materials are disposed of at an operating, public dumping ground." The Contractor will dispose of excess waste material and construction debris at a municipal landfill approved under Title D of the Resource Conservation and Recovery Act, construction debris landfill approved under the Arizona Revised Statutes Title 49, Section 241, Permit Required to Discharge, administered by the Arizona Department of Environmental Quality, an inert landfill, or at another approved site. (Refer to page 139 of the Draft EA.)
9. The Maricopa County Department of Transportation's Contractor will comply with all air pollution ordinances, regulations, orders, etc., during construction including *Maricopa County Air Quality Rules 310 and 310.01 – Fugitive Dust Sources*, Arizona Administrative Code R18-2-604 through 607, Arizona Administrative Code R18-2-804, and any required air quality permits. (Refer to page 107 of the Draft EA.)