

---

## Project Level PM Quantitative Hot-Spot Analysis - Project of Air Quality Concern Questionnaire

---

### Project Setting and Description

The Arizona Department of Transportation (ADOT), pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated April 16, 2019 and executed by FHWA and ADOT (84 FR 26503), is preparing an Environmental Assessment (EA) of the proposed improvements to a segment of Interstate 10 (I-10) from the I-10/I-17 (Split) Traffic Interchange (TI) (Milepost [MP] 149.5) to the Loop 202 (SR202L) Santan Freeway (MP 160.9). The proposed project would widen existing I-10 to the outside between 24th Street and Ray Road.

The existing Salt River bridge would be widened to accommodate 7 general purpose (GP) lanes and 2 high-occupancy vehicle (HOV) lanes to 32nd Street. The west end of the bridge would flare to accommodate proposed future reconstruction of the I-10/I-17 system interchange. Between 32nd Street and the I-10 system interchange with US60, I-10 would have a basic 6 GP lane and 2 HOV lane typical section, with auxiliary (AUX) lanes added between interchanges and at collector-distributor (CD) roadway connections. South of Baseline Road, two GP lanes would be added in the eastbound direction to Elliot Road (6 GP lanes and 1 HOV lane) and one GP lane in the westbound (5 GP lanes and 1 HOV lane). Between Elliot Road and Ray Road, one GP lane would be added in each direction (4 GP lanes and 1 HOV lane). HOV buffers would be eliminated throughout the project length.

The SR143, Broadway Road, and 48th Street interchanges would be reconstructed and connected to new CD roads. The eastbound CD road would begin as the direct connection from southbound SR143 to eastbound I-10 with the addition of the Broadway Road eastbound on-ramp and extending to Baseline Road, providing access to US60, I-10, and Baseline Road. The westbound CD road would run between Baseline Road and 40th Street, providing access to Broadway Road, SR143, 48th Street north, University Drive, and 40th Street. A direct HOV connection between SR143 and I-10 to and from the east would also be added.

Access to I-10 eastbound from 24th, 32nd, and 40th Streets would be maintained. SR143 southbound and the Broadway Road on-ramp would access I-10 eastbound via the proposed eastbound CD road. Traffic from University Drive would no longer access I-10 eastbound via SR143, but would continue south on 48th Street to eastbound Broadway Road to access I-10 eastbound as described above. University Drive traffic could also access I-10 eastbound from the 40th Street and 32nd Street TIs.

Baseline Road and SR143 southbound would access I-10 westbound via the proposed westbound CD road. A new ramp from US60 westbound would also connect directly to the westbound CD road. On ramps from 40th Street and Broadway Road westbound would provide direct access to I-10 westbound.

The interchanges at 40th Street and US60 would be modified. The existing loop on-ramp from 40th Street southbound to I-10 eastbound would be eliminated, and the I-10 eastbound off-ramp

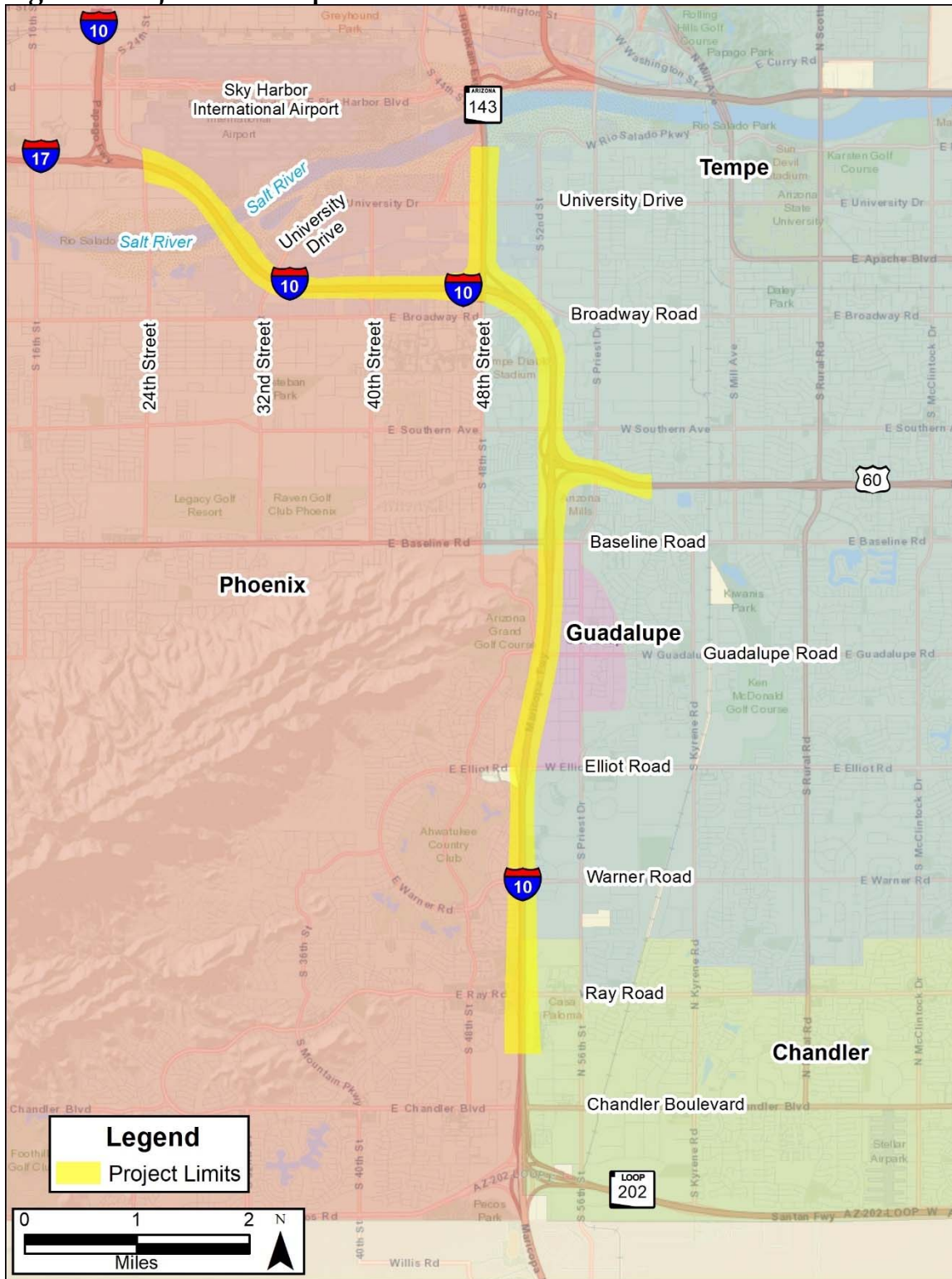
---

to 40th Street relocated. In addition, the I-10 westbound to US60 eastbound ramp would be widened.

The goal of this proposed project is to increase the capacity of the I-10 corridor in accordance with the approved regional and local transportation plans. This project would also seek to optimize the traffic operations within the corridor for the projected Design Year 2040 traffic demand, to retain local access at existing traffic interchanges, and to minimize or mitigate impacts the improvements could have on the surrounding community. The proposed project is included in the Maricopa Association of Governments (MAG) 2040 Regional Transportation Plan (RTP). Project construction is currently planned to begin the summer of 2021, with an expected duration of 36 months.

The project is within the Phoenix carbon monoxide (CO) maintenance area. The latest conformity determination for the [FY 2018-2022](#) MAG Transportation Improvement Program and 2040 MAG Regional Transportation Plan for the area was made by the Federal Highway Administration and Federal Transit Administration on February 7, 2019.

Figure 1. Project Area Map



---

## Project Assessment

The following questionnaire is used to compare the proposed project to a list of project types in 40 CFR 93.123(b) requiring a quantitative analysis of local particulate emissions (Hot-spots) in non-attainment or maintenance areas, which include:

- i) New highway projects that have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;
- ii) Projects affecting intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level-of-Service D, E, or F because of an increase in traffic volumes from a significant number of diesel vehicles related to the project;
- iii) New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
- iv) Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
- v) Projects in or affecting locations, areas, or categories of sites which are identified in the PM<sub>10</sub> or PM<sub>2.5</sub> applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

If the project matches one of the listed project types in 40 CFR 123(b)(1) above, it is considered a project of local air quality concern and the hot-spot demonstration must be based on quantitative analysis methods in accordance to 40 CFR 93.116(a) and the consultation requirements of 40 CFR 93.105(c)(1)(i). If the project does not require a PM hot-spot analysis, a qualitative assessment will be developed that demonstrates that the project will not contribute to any new localized violations, increase the frequency or severity of any existing violations, or delay the timely attainment of any NAAQS or any required emission reductions or milestones in any nonattainment or maintenance area.

On March 10, 2006, EPA published *PM<sub>2.5</sub> and PM<sub>10</sub> Hot-Spot Analyses in Project-Level Transportation Conformity Determinations for the New PM<sub>2.5</sub> and Existing PM<sub>10</sub> National Ambient Air Quality Standards; Final Rule* describing the types of projects that would be considered a project of air quality concern and that require a hot-spot analysis (71 FR 12468-12511). Specifically on page 12491, EPA provides the following clarification: "Some examples of *projects of air quality concern* that would be covered by § 93.123(b)(1)(i) and (ii) are: A project on a new highway or expressway that serves a significant volume of diesel truck traffic, such as facilities with greater than 125,000 annual average daily traffic (AADT) and 8% or more of such AADT is diesel truck traffic;" .." Expansion of an existing highway or other facility that affects a congested intersection (operated at Level-of-Service D, E, or F) that has a significant increase in the number of diesel trucks;" These examples will be used as the baseline for determining if the project is a project of air quality concern.

### New Highway Capacity

Is this a New highway project that has a significant number of diesel vehicles?

*Example: total traffic volumes  $\geq 125,000$  annual average daily traffic (AADT) and truck volumes  $\geq 10,000$  diesel trucks per day (8% of total traffic).*

**NO** - This project is not a new highway project.

## Expanded Highway Capacity

Is this an expanded highway projects that have a significant increase in the number of diesel vehicles? *Example: the build scenario of the expanded highway or expressway causes a significant increase in the number of diesel trucks compared with the no-build scenario.*

**NO** - This is an expanded highway project, but there is not a significant increase in the number of diesel vehicles. The Maricopa Association of Governments (MAG) travel demand model estimates that the percentage of truck traffic along the corridor will not increase as a result of the project. The AADT and truck percent for the build alternative were compared to the no build alternative at four locations along the project corridor, as summarized in Table 1. The percent change in medium and heavy trucks ranges from a decrease of 3.98% to an increase of 1.35% with an average increase of 0.15%, and the total increase in medium and heavy trucks ranging from 3,260-8,734 with an average total of 5,568 medium and heavy trucks.

**Table 1. AADT and Truck Percentage**

|                                 |                                 | Scenario      | Total AADT | % Truck | Truck AADT | Increase Truck | % Increase |
|---------------------------------|---------------------------------|---------------|------------|---------|------------|----------------|------------|
| I-17 Split                      | 32 <sup>nd</sup> Street         | 2018 Existing | 305,620    | 14%     | 43,612     |                |            |
|                                 |                                 | 2040 No Build | 330,389    | 13%     | 43,266     | 5,206          | 0.59%      |
|                                 |                                 | 2040 Build    | 354,222    | 14%     | 48,472     |                |            |
| 32 <sup>nd</sup> Street         | 40 <sup>th</sup> Street         | 2018 Existing | 291,876    | 13%     | 38,581     |                |            |
|                                 |                                 | 2040 No Build | 308,441    | 12%     | 38,104     | 5,894          | 0.82%      |
|                                 |                                 | 2040 Build    | 333,906    | 13%     | 43,998     |                |            |
| 40 <sup>th</sup> Street         | 48 <sup>th</sup> Street / SR143 | 2018 Existing | 293,240    | 13%     | 38,381     |                |            |
|                                 |                                 | 2040 No Build | 305,066    | 12%     | 36,783     | 6,972          | 0.24%      |
|                                 |                                 | 2040 Build    | 355,762    | 12%     | 43,755     |                |            |
| 48 <sup>th</sup> Street / SR143 | Broadway Road                   | 2018 Existing | 305,118    | 12%     | 36,286     |                |            |
|                                 |                                 | 2040 No Build | 302,763    | 10%     | 30,647     | 8,734          | 0.48%      |
|                                 |                                 | 2040 Build    | 371,398    | 11%     | 39,381     |                |            |
| Broadway Road                   | US60                            | 2018 Existing | 337,193    | 11%     | 38,767     |                |            |
|                                 |                                 | 2040 No Build | 338,350    | 11%     | 36,120     | 3,260          | -0.33%     |
|                                 |                                 | 2040 Build    | 380,571    | 10%     | 39,380     |                |            |
| US60                            | Baseline Road                   | 2018 Existing | 152,396    | 15%     | 23,368     |                |            |
|                                 |                                 | 2040 No Build | 147,191    | 13%     | 19,394     | 3,593          | -3.98%     |
|                                 |                                 | 2040 Build    | 250,001    | 9%      | 22,987     |                |            |
| Baseline Road                   | Elliot Road                     | 2018 Existing | 250,686    | 11%     | 27,860     |                |            |
|                                 |                                 | 2040 No Build | 251,317    | 10%     | 24,112     | 5,729          | 1.02%      |
|                                 |                                 | 2040 Build    | 281,067    | 11%     | 29,841     |                |            |
| Elliot Road                     | Warner Road                     | 2018 Existing | 225,472    | 10%     | 23,375     |                |            |
|                                 |                                 | 2040 No Build | 223,949    | 9%      | 19,366     | 5,375          | 1.35%      |
|                                 |                                 | 2040 Build    | 247,464    | 10%     | 24,741     |                |            |
| Warner Road                     | Ray Road                        | 2018 Existing | 209,244    | 11%     | 22,562     |                |            |
|                                 |                                 | 2040 Build    | 211,282    | 9%      | 18,507     | 5,347          | 1.19%      |
|                                 |                                 | 2040 No Build | 239,690    | 10%     | 23,854     |                |            |
| <b>Average</b>                  |                                 |               |            |         | 32,426     | 5,568          | 0.15%      |

Source: I-10: I-17 (Split) to Loop 202 (Santan Freeway) Traffic Operations Analysis, WSP 2019

### Projects with Congested Intersections

Is this a project that affects a congested intersection (LOS D or greater) that has a significant number of diesel trucks, OR will change LOS to D or greater because of increase traffic volumes for significant number of diesel trucks related to the project?

**NO** - This is not a project that affects a congested intersection of LOS D or will change LOS to D or greater which has a significant number of diesel trucks. The intersection operation analysis shows 17 intersections have a LOS of D, E, or F, and none of these intersections has a significant number of diesel trucks (Table 2), there is a slight decrease in the number of trucks in the AM peak with two intersections showing improvement in LOS in both AM and PM peak, overall the LOS isn't impacted by this project.

**Table 2. 2040 LOS and Traffic Volumes**

| Intersection                          | Existing |       |        |     |       |        | 2040 No Build |       |        |     |       |        | 2040 Build |       |        |     |       |        |
|---------------------------------------|----------|-------|--------|-----|-------|--------|---------------|-------|--------|-----|-------|--------|------------|-------|--------|-----|-------|--------|
|                                       | AM       |       |        | PM  |       |        | AM            |       |        | PM  |       |        | AM         |       |        | PM  |       |        |
|                                       | LOS      | Delay | Volume | LOS | Delay | Volume | LOS           | Delay | Volume | LOS | Delay | Volume | LOS        | Delay | Volume | LOS | Delay | Volume |
| 32nd Street & I-10 EB                 | D        | 40.1  | 4236   | D   | 48.5  | 4410   | E             | 61.6  | 4991   | E   | 63.4  | 5014   | F          | 82.8  | 5522   | F   | 86.5  | 5554   |
| 32nd Street & I-10 WB                 | C        | 25.3  | 3098   | E   | 56.1  | 4091   | D             | 45    | 3768   | E   | 69.2  | 4565   | D          | 37.5  | 3923   | F   | 110.9 | 4778   |
| 40th Street & I-10 EB                 | C        | 28.9  | 3245   | C   | 22.5  | 3150   | C             | 32.5  | 4171   | C   | 32.6  | 3649   | D          | 51.3  | 4429   | E   | 64.5  | 4607   |
| 40th Street & I-10 WB                 | D        | 38.4  | 3250   | E   | 58.5  | 3419   | D             | 47.8  | 3545   | E   | 57.6  | 3808   | F          | 93.4  | 3873   | F   | 110.7 | 4108   |
| 48th Street & I-10 EB                 | D        | 54.2  | 4186   | D   | 36.4  | 4454   | -             | -     | -      | -   | -     | -      | -          | -     | -      | -   | -     | -      |
| Broadway Road & 48th Street           | D        | 54.5  | 5519   | F   | 112.3 | 6295   | D             | 48.8  | 5353   | F   | 85.3  | 5604   | D          | 54.1  | 5395   | F   | 81.2  | 5059   |
| Broadway Road & I-10 EB               | D        | 50.7  | 3631   | F   | 175.2 | 4540   | E             | 68.7  | 3962   | F   | 166.8 | 4818   | C          | 22.8  | 3406   | D   | 43.7  | 3497   |
| Broadway Road & I-10 WB / 52nd Street | E        | 56.2  | 5211   | D   | 43.4  | 5213   | F             | 81    | 5881   | F   | 126.8 | 6213   | E          | 60    | 5262   | F   | 262.3 | 5764   |
| University Drive & SR 143             | C        | 25.3  | 6093   | F   | 82.9  | 6698   | D             | 41.6  | 6861   | F   | 167.5 | 7691   | C          | 25.1  | 6331   | E   | 58.7  | 7090   |
| Baseline Road & I-10 EB               | E        | 59.4  | 6279   | F   | 126.4 | 7519   | F             | 106.9 | 6495   | F   | 182.2 | 7757   | F          | 94.4  | 6850   | F   | 155.6 | 7590   |
| Baseline Road & I-10 WB               | D        | 53.9  | 5755   | E   | 66.7  | 6313   | E             | 71.1  | 5683   | E   | 79.3  | 6406   | F          | 81    | 6018   | E   | 68.4  | 6481   |
| E Elliot Road & I-10 EB               | E        | 73.5  | 4052   | E   | 71.4  | 4397   | F             | 62.1  | 4403   | E   | 183.5 | 4779   | F          | 148.7 | 6232   | F   | 367.9 | 7226   |
| E Elliot Road & I-10 WB               | F        | 172.6 | 3905   | E   | 66.2  | 4387   | F             | 106.6 | 4712   | E   | 65    | 5180   | F          | 285.3 | 7541   | F   | 222.7 | 6901   |
| Wamer Road & I-10 EB                  | C        | 32.3  | 2754   | F   | 86.4  | 3490   | C             | 30.2  | 2772   | F   | 103.5 | 3450   | C          | 30.7  | 2706   | F   | 150.7 | 3504   |
| Wamer Road & I-10 WB                  | E        | 55.4  | 3160   | C   | 24.5  | 3132   | F             | 121.4 | 3259   | D   | 40    | 3492   | F          | 88.6  | 3423   | F   | 87.4  | 3711   |
| Priest Drive & US 60 EB               | D        | 48.2  | 2518   | D   | 36.9  | 3776   | D             | 47.4  | 2444   | D   | 36.5  | 3542   | D          | 39.4  | 2601   | C   | 34.5  | 3473   |
| Priest Drive & US 60 WB               | C        | 27.1  | 3617   | C   | 25.7  | 4191   | C             | 28    | 3599   | C   | 23.7  | 4119   | C          | 23.9  | 3517   | C   | 22.8  | 4002   |
| Ray Road & I-10 EB                    | C        | 31.6  | 5148   | D   | 49.7  | 5677   | C             | 33.1  | 4576   | C   | 32.5  | 5270   | D          | 38.9  | 4874   | D   | 38    | 5725   |
| Ray Road & I-10 WB                    | D        | 44.5  | 4658   | D   | 46.6  | 4713   | D             | 44.7  | 4625   | D   | 38.4  | 4626   | E          | 59.8  | 4947   | D   | 42.4  | 5031   |

Source: MAG Travel Demand Model (TR #1967)

### New Bus and Rail Terminals

Does the project involve construction of a new bus or intermodal terminal that accommodates a significant number of diesel vehicles?

**NO** - These facilities are not included in the project.

### Expanded Bus and Rail Terminals

Does the project involve an existing bus or intermodal terminal that has a large vehicle fleet where the number of diesel buses (or trains) increases by 50% or more, as measured by arrivals?

**NO** - These facilities are not included in the project.

---

### **Projects Affecting PM Sites of Violation or Possible Violation**

Does the project affect locations, areas or categories of sites that are identified in the PM<sub>10</sub> or PM<sub>2.5</sub> applicable plan or implementation plan submissions, as appropriate, as sites of violation or potential violation?

**NO** -Twenty-one PM<sub>10</sub> monitoring stations are located in Maricopa County, four of which are located within five miles of the project footprint. None of these intersections are specifically identified in applicable plans as sites of violation potential violation.

Within the Maricopa County nonattainment area, the National Ambient Air Quality Standard has not yet been attained for PM<sub>10</sub> particulate pollution. The area is classified as a Serious Area under the Clean Air Act. Consequently, the MAG 2012 Five Percent Plan for PM<sub>10</sub> has been prepared to meet the requirements in Section 189(d) of the Clean Air Act and improve air quality in the Maricopa County nonattainment area. The plan is required to reduce PM<sub>10</sub> emissions by at least five percent per year until the standard is attained as measured by the monitors. The plan presents a variety of control measures and projects that have been implemented to reduce PM<sub>10</sub>. The plan does not identify specific locations or monitors as sites of potential violation.

### **POAQC Determination**

The Traffic Operations Analysis does not show a significant increase in diesel truck traffic volume due to the Project. Therefore, ADOT is recommending that this project is not a project of air quality concern and does not require a PM10 quantitative analysis.

### **Interagency Consultation Results**

On June 6<sup>th</sup>, 2019 ADOT provided a copy of this questionnaire, to the following consultation parties, EPA, FHWA, MAG, Arizona Department of Environmental Quality (ADEQ), and Maricopa County Air Quality Department as the local air agencies in Maricopa County. There were no objections to the project determination and on June 20<sup>th</sup>, 2019 ADOT concluded Interagency Consultation by notifying interested parties that this project will proceed as a project that does not require a quantitative PM10 hot-spot analysis under 40CFR 93.123(b).

## **Interagency Consultation Emails**





Beverly Chenausky <bchenausky@azdot.gov>

---

## Re: Interagency Consultation: Determining Project of Air Quality Concern in MAG Region

1 message

---

**Beverly Chenausky** <bchenausky@azdot.gov>

Thu, Jun 20, 2019 at 8:42 AM

To: Lindy Bauer <lbauer@azmag.gov>, "Wamsley, Jerry" <wamsley.jerry@epa.gov>, Johanna Kuspert - AQDX <JKuspert@mail.maricopa.gov>, Transportationconformity <transportationconformity@azdeq.gov>, "Hansen, Alan (FHWA)" <Alan.Hansen@dot.gov>, Paul O'Brien <POBrien@azdot.gov>

Cc: Clifton Meek <meeck.clifton@epa.gov>, Karina O'Conner <oconnor.karina@epa.gov>, ADOTAirNoise - ADOT <adotairnoise@azdot.gov>, Dean Giles <dgiles@azmag.gov>, Katie Rodriguez <krdriguez@azdot.gov>

As there are no objections to the project determination presented for PM10, interagency consultation is complete with the project identified as a project that does not require a quantitative hot-spot analysis as listed under 40 CFR 93.123(b). Please provide any additional comments on the models, methods and assumptions used for the CO Quantitative Hot-spot modeling, by **July 8, 2019**.

**Beverly T. Chenausky**  
**Air & Noise Program Manager**

MD EM02, Room 41  
1611 W. Jackson St.  
Phoenix, AZ 85007  
602.712.6269  
[azdot.gov](http://azdot.gov)



On Thu, Jun 6, 2019 at 11:59 AM Beverly Chenausky <bchenausky@azdot.gov> wrote:

ADOT is presenting the following project, **I-10, I-17 (Split) to SR202L (Santan)**, for interagency consultation per 40 CFR 93.105 as a potential project that is **not** a project of Air Quality Concern and thereby will not require a PM10 hot-spot analysis. If through interagency consultation it is determined that this project will not require a hot-spot analysis, other conformity provisions apply and will be addressed in the air quality section of the environmental clearance. ADOT is requesting responses to the attached PM questionnaire within **10 business days**; a non-response will be interpreted as concurrence that the project is not a project of air quality concern and does not require a hot-spot analysis. If any consulted party believes this project should be treated as a project of air quality concern that requires a Quantitative PM hot-spot analysis, please document the appropriate section under 40 CFR 93.123 (b) that applies to the project and describe why the project should be treated as a project of air quality concern.

Additionally, ADOT has determined that the project requires a quantitative hot-spot analysis only for CO, the modeling assumptions for Attached is the combined *Project Level CO Hot-Spot Analysis Questionnaire* demonstrating the need for analysis and the *Project Level CO Quantitative Hot\_Sot Analysis - Consultation Document*. The Purpose of this document is to describe the methods, models and assumptions used for a quantitative hot-spot analysis as required in 40 CFR 93.105(c)(1)(i), 93.123, 93.116, additional information on the receptor locations is also included (as zip file). It is requested that the consulted parties provide comments or questions on the methods, models and assumptions within **30 days**, a non-response will be interpreted as concurrence with the planning assumptions as describe in the attached CO document.

**Beverly T. Chenausky**  
**Air & Noise Program Manager**

MD EM02, Room 41  
1611 W. Jackson St.  
Phoenix, AZ 85007  
602.712.6269  
[azdot.gov](http://azdot.gov)





Beverly Chenausky <bchenausky@azdot.gov>

---

## Interagency Consultation: Determining Project of Air Quality Concern in MAG Region

1 message

---

**Beverly Chenausky** <bchenausky@azdot.gov>

Thu, Jun 6, 2019 at 11:59 AM

To: Lindy Bauer <lbauer@azmag.gov>, "Wamsley.Jerry" <wamsley.jerry@epa.gov>, Johanna Kuspert - AQDX <JKuspert@mail.maricopa.gov>, Transportationconformity <transportationconformity@azdeq.gov>, "Hansen, Alan (FHWA)" <Alan.Hansen@dot.gov>, Paul O'brien <POBrien@azdot.gov>

Cc: Clifton Meek <meek.clifton@epa.gov>, Karina O'Conner <oconnor.karina@epa.gov>, ADOTAirNoise - ADOT <adotairnoise@azdot.gov>, Dean Giles <dgiles@azmag.gov>, Katie Rodriguez <krodriguez@azdot.gov>

ADOT is presenting the following project, **I-10, I-17 (Split) to SR202L (Santan)**, for interagency consultation per 40 CFR 93.105 as a potential project that is **not** a project of Air Quality Concern and thereby will not require a PM10 hot-spot analysis. If through interagency consultation it is determined that this project will not require a hot-spot analysis, other conformity provisions apply and will be addressed in the air quality section of the environmental clearance. ADOT is requesting responses to the attached PM questionnaire within **10 business days**; a non-response will be interpreted as concurrence that the project is not a project of air quality concern and does not require a hot-spot analysis. If any consulted party believes this project should be treated as a project of air quality concern that requires a Quantitative PM hot-spot analysis, please document the appropriate section under 40 CFR 93.123 (b) that applies to the project and describe why the project should be treated as a project of air quality concern.

Additionally, ADOT has determined that the project requires a quantitative hot-spot analysis only for CO, the modeling assumptions for Attached is the combined *Project Level CO Hot-Spot Analysis Questionnaire* demonstrating the need for analysis and the *Project Level CO Quantitative Hot\_Sot Analysis - Consultation Document*. The Purpose of this document is to describe the methods, models and assumptions used for a quantitative hot-spot analysis as required in 40 CFR 93.105(c)(1)(i), 93.123, 93.116, additional information on the receptor locations is also included (as zip file). It is requested that the consulted parties provide comments or questions on the methods, models and assumptions within **30 days**, a non-response will be interpreted as concurrence with the planning assumptions as describe in the attached CO document.

**Beverly T. Chenausky**  
**Air & Noise Program Manager**  
MD EM02, Room 41  
1611 W. Jackson St.  
Phoenix, AZ 85007  
602.712.6269  
[azdot.gov](http://azdot.gov)




---

### 3 attachments

 **F0072\_PM10 Consultation\_0662019.pdf**  
386K

**F0072\_CO Hotspot\_Consultation\_0606209.pdf**

 1951K

 **Receptors.zip**  
4K



---

**Re: FW: 010-C(220); F0072 - AQ Review**

1 message

---

**Amy Ritz** <aritz@azdot.gov>

Tue, May 28, 2019 at 9:11 AM

To: "Lirange, Aryan (FHWA)" <Aryan.lirange@dot.gov>

Cc: "Thoms, Sandra" <Sandra.Thoms@wsp.com>, "Steve Mishler (MMishler@azdot.gov)" <MMishler@azdot.gov>, "Grombacher, Sam M." <Sam.Grombacher@wsp.com>, "Fly, Becky" <BECKY.FLY@wsp.com>, "bchenausky azdot.gov" <bchenausky@azdot.gov>, "Yedlin, Rebecca (FHWA)" <Rebecca.Yedlin@dot.gov>, Katie Rodriguez <krodriguez@azdot.gov>

Aryan,

Our conversations with MAG do not change the number of lanes, just the width of the lanes. The 5+1 is just Baseline to Elliot but that remains unchanged.

Amy Ritz

Project Manager

Major Projects

(602) 708-0267

[aritz@azdot.gov](mailto:aritz@azdot.gov)



On Tue, May 28, 2019 at 6:36 AM Lirange, Aryan (FHWA) <[Aryan.lirange@dot.gov](mailto:Aryan.lirange@dot.gov)> wrote:

Good Morning... I understand that there are deliberations with MAG and the project team about modifying the southern section of the project from a 5+1 to a 4+1. The graphics at the back of the traffic memo show a 5+1 and I presume the mem data tables are based on 5+1.

Beverly, can you provide feedback on if and how this change to 4+1 (reduction of lanes and change in operation) would impact the analysis you are performing?

*Aryan*

Arizona FHWA – Senior Urban Engineer

(eMail) [aryan.lirange@dot.gov](mailto:aryan.lirange@dot.gov)

(602) 382 8973 | cell (602) 999 2921

**From:** bchenausky [azdot.gov](mailto:bchenausky@azdot.gov)

**Sent:** Friday, May 24, 2019 9:50 AM

**To:** Yedlin, Rebecca (FHWA) <[Rebecca.Yedlin@dot.gov](mailto:Rebecca.Yedlin@dot.gov)>

**Subject:** Re: 010-C(220); F0072 - AQ Review

We have a final May 7, 2019 traffic memo based on Aryan's comments, as noted and attached and we already provided the Shapefiles.

"Good morning everyone,

Some questions were raised about the consistency between some of the 2040 Build volumes in the MAG TDM (shapefile) and the Traffic Memo. We looked into it and found that the Traffic Memo was reporting 2040 Build volumes from a different version of the MAG TDM – the one used for the Spine Study. The numbers used for the Air Quality and Noise Analysis were the most recent ones that correlate to the provided shapefile. I have since updated the Traffic Memo to reflect the newest 2040 Build volumes which match the shapefile. An additional change you will note is in the Truck volumes. The MAG TDM shows trucks in the HOV lanes and those were not extracted and represented in the previous version of the memo. Now the number of trucks shown represents those in the GP and HOV lanes.

Additionally, Aryan Lirange from FHWA had asked about the intersection LOS table that was provided as part of the Air Quality document. I have added a sub-section of the memo to present that table (Tables 6, 7, & 8) and discuss how those results were obtained."

**Beverly T. Chenausky**  
**Air & Noise Program Manager**  
MD EM02, Room 41  
[1611 W. Jackson St.](#)  
Phoenix, AZ 85007  
602.712.6269  
[azdot.gov](#)



On Thu, May 23, 2019 at 8:56 AM Yedlin, Rebecca (FHWA) <[Rebecca.Yedlin@dot.gov](mailto:Rebecca.Yedlin@dot.gov)> wrote:

FHWA is reviewing the responses you provided below. I hope to get a response to you on those pieces by the end of next week.

As for the PM10, we are still waiting for the final traffic data from the PM. We can complete our review of that piece once we receive the information requested. Thanks, Rebecca

**From:** bchenausky [azdot.gov](#)  
**Sent:** Wednesday, May 22, 2019 2:45 PM  
**To:** Yedlin, Rebecca (FHWA) <[Rebecca.Yedlin@dot.gov](mailto:Rebecca.Yedlin@dot.gov)>  
**Cc:** Lirange, Aryan (FHWA) <[Aryan.lirange@dot.gov](mailto:Aryan.lirange@dot.gov)>  
**Subject:** Re: 010-C(220); F0072 - AQ Review

Rebecca - Do you have an estimated time of when FHWA will be providing comments for the PM10? We have a tight deadline and would like to start interagency consultation for this project. Also the answers to the earlier comments are provided below.

1. or CO, based on the traffic forecasts provided, FHWA concurs that the project requires a hot-spot analysis and does not meet the thresholds for the categorical hot-spot.
  - a. Comments regarding the CO hot-spot modeling methodology:
    - i. Are both the AM and PM peak rates going to be modeled with CAL3QHC? **Yes, we are going to see both AM/PM peak emission factors to make sure which one is worse. Unlike other areas, sometimes PM could be worse than AM in Arizona.**
    - ii. (Additional comments included in the figures.) Additional receptors need to be added. To adhere to the 1992 guidance the receptors along the approach legs should be spaced 25 meters apart from each other. That should be stated here. **We will add more receptors with 25 m spaces and review the locations.**
    - iii. Since the persistence factor is being used for the 8 hr CO concentration are both the AM peak and PM peak going to be modeled with CAL3QHC? **Yes, answered above. but please let us know if you anticipate any problems for modeling both AM and PM.**