# Traffic Relief Program

## Data Analyst: Hunter

## Client/Sponsor: AZDOT (Fake)

## Purpose:

*Write a brief description of why this project is happening below. Why is this project happening? What are the goals?*

*To utilize comprehensive data analysis techniques and methodologies to enhance the Arizona Department of Transportation's (AZDOT) operational efficiency, safety measures, and infrastructure planning. Employing the principles of Taffci (Timely, Accurate, Fair, Focused, Consistent, and Insightful), this project aims to extract actionable insights from diverse datasets, enabling informed decision-making, optimizing resource allocation, and fostering innovation within AZDOT's transportation ecosystem*

## Scope / Major Project Activities:

*What are the major parts of this project? List out the high-level steps, activities, or stages of the project, and give a brief description for each.*

| Activity | Description |
| --- | --- |
| Data Collection | Collect traffic congestion sensor data from Dept of Transportation’s database |
| Identify hotspots | Analyze DOT data to identify 10 worst hotspots for congestion. |
| Identify congestion causes | Study each hotspot to understand causes. This stage may require additional data gathering using sensors and/or cameras |
| Create congestion relief recommendations | Create recommendations for alleviating each congestion hotspot. Estimate costs for each recommendation. Estimate amount of congestion relief. Rank suggestions by relief, divided by cost. |
| Deliver final report | Deliver final report and recommendations to Department of Transportation. |

## This project does not include:

*Specify the things that this project isn’t responsible for doing, For instance, “this project does not involve a summation of 2019 data analysis”*

* Any areas outside the city limits of Citysville, as defined by the city charter.
* Implementing any solutions or recommendations
* No traffic data older than 5 years will be considered in the project

## Deliverables:

*A specific list of things that your project will deliver.*

| Deliverable | Description/ Details |
| --- | --- |
| Hotspot Map | A data visualization of the most congested areas in the city limits |
| Recommendations and Estimates | A list of recommendations for each area. |
| Final Report | A final report detailing each of the 10 hotspots, including times, causes, recommendations for alleviating, and cost-benefit analysis for each hotspot. |

## Schedule Overview / Major Milestones:

*The expected schedule for the project. This can be defined by milestones (e.g. “all data is cleaned and processed”), periods of time (“Week 1 / Week 2”), or other ways based on the needs of the project.*

| Milestone | Expected Completion Date | Description/Details |
| --- | --- | --- |
| *Data Review* | *1/1/21* | *Review of all data sources from DOT completed* |
| *Data analysis* | *1/15/21* | *Initial data analysis completed* |
| *Hotspot List* | *1/22/21* | *10 worst hotspots identified* |
| *Heatmap creation* | *1//29/21* | *Heatmap visualization created* |
| *Recommendations list* | *2/28/21* | *List of recommendations for each hotspot, including cost estimates and effectiveness estimates* |
| *Final report* | *3/31/21* | *Final report detailing all work, analysis, methodologies, and findings.* |

## \*Estimated date for completion:

*This is my “if all goes well and I have everything I need, this is when I’ll be done” date.*

March 31, 2021