



Lone Tree Overpass Project Update

City of Flagstaff Mayor & Council Presentation - October 19, 2021

Presentation Overview

1. Project Overview

2. Traffic Demand Model

3. Intersection Types

4. Greenhouse Gas Analysis

5. Project Aesthetics

6. Path Forward









Project Overview

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Railway

6

Street

20

Route

66

Brannen Avenue

Lone Tree Road

Butler Ave



Avenue

5

Sawmill Road



Project Overview



Lone Tree - Sawmill to Butler

- Two travel lanes in each direction.
- FUTS alignment stays on the west side of Lone Tree Road.
- Warrant Analysis at Franklin and

at Sawmill.







Lone Tree - Butler to Route 66

- Two travel lanes in each direction.
- FUTS connectivity on west side of bridge.
- Bridge spans over BNSF
 Railway, future Rio de Flag, and
 future Elden/Cottage extension.



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Project Overview



Route 66 - Elden to East of Lone Tree

- Maintain North Curb Line.
- Connect to future Switzer Canyon FUTS.
- Widen to the South.
- End Improvements before Elden Street.



Travel Demand Model

Travel Demand Model







• Lone Tree Overpass is the Preferred Route.

- Improves Operations on Milton and through Downtown.
- Reduces Traffic in Southside on Beaver Street and San Francisco Street, which could provide opportunities to improve multi-modal facilities.

Travel Demand Model

Intersection Volumes

1 Lane

Thru Lanes



2 Lane

2040 – Build Traffic

- Separate Right Turn Lanes can be • considered.
- Thru volumes high enough for more • than (1) lane.
- Southbound Lefts are high enough • for Double Left Turns.

Shared

Thru

2 Lane

Westbound Double Lefts needed with ٠ high Eastbound Thru traffic.

> Thru + Right >300 vph

Right Turn Lanes

1 Lane



1 Lane

Left Turn Lanes

Travel Demand Model

Intersection Volumes

2040 - Build Traffic

- Separate Right Turn Lanes can be considered.
- Thru volumes high enough for more than (1) lane.
- Northbound Left and Right Turn volumes are high enough for Double Turn Lanes.



US Route 66 & Lone Tree Rd



Intersection Selection





Options to Enhance Multi-Modal Use of Intersection

NACTO

National Association of City Transportation Officials



Don't Give Up at the Intersection

Designing All Ages and Abilities Bicycle Crossings



NACTO National Association



(Example Only, not a Project Intersection)





Options to Enhance Multi-Modal Use of Intersection

Pavement Markings



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Options to Enhance Multi-Modal Use of Intersection





Separated Bike Lane



Curbing Delineators

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Options to Enhance Driver Safety at Intersection

Negative Offset



Zero Offset



Positive Offset

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Lone Tree Road & Butler Avenue – Intersection Viable Intersections Traditional Intersection – Minor Enhancements



Lone Tree Road & Butler Avenue – Intersection Comparisons Traditional Intersection – I

Traditional Intersection - Full Enhancements







Lone Tree Road & US-66 – Intersection Viable Intersections

Conventional Intersection





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Lone Tree Road & US-66 – Intersection Viable Intersections Florida T - No Enhancements



Lone Tree Road & US-66 – Intersection **Viable Intersections**





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Greenhouse Gases





Estimated Reduction in Greenhouse Gases

4-Lane Lone Tree Overpass 2026-2040, annual 2026-2040, total 2026, annual 2040, annual Measure average **Gallons of Fuel Reduced** 1.896.500 285.900 (16,500) 126.400 **GHG emissions avoided (Tons)** 17.000 2.600 (200)1.100 2-Lane Scenario (For Comparative Purposes) 1,164,900 **Gallons of Fuel Reduced** 122,100 38,700* 77,700 (0)**GHG emissions avoided (Tons)** 10,500 1.100 300* 700

* 2-Lane scenario continues to have positive reductions through 2047



2026 numbers are similar to 2019 No-Growth Volumes for comparison purposes.

Summary: A 4-Lane Corridor will lower Greenhouse Gases compared to existing conditions or a 2-Lane Corridor due to more efficient traffic operations.

Project Aesthetics





Aesthetic Incorporation into Design Elements







Railing Treatments

Aesthetic Incorporation into Design Elements







Aesthetic Incorporation into Design Elements







Wall Treatments

Accommodation of Future Civic Spaces



Accommodation of Future Civic Spaces

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Public Improvement Concept Plan 41

Accommodation of Future Civic Spaces

Lone Tree Schedule

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Website: lonetreeoverpass.org

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LONE TREE OVERPASS PROJECT

Improving mobility and safety with a new north-south roadway connection extending Lone Tree Road between Butler Avenue to the south and Route 66 to the north.

About Public Involvement Virtual Public Meeting FAQs Documents Contact Us

Provide Your Input

— Online survey:

CITY OF FLAGSTAFF

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Thank you!

wsp.com