City Council Staff Report

MAPLETON

Date:
12/15/21

Applicant:
Mapleton City

Location:
N/A

Prepared By:
Sean Conroy, Community Development Director

Public Hearing:
Yes

Attachments:
1. Existing and proposed Transportation Map.
2. Maple Street Design Memo and information.
3. Examples of areas designated as Country Lanes.

REQUEST

Consideration of an ordinance adopting amendments to the City's Transportation Master Plan Map.

BACKGROUND/DESCRIPTION

The City's Transportation Master Plan includes a map that identifies existing and future street locations and classifications. Each street classification corresponds with a street cross section that identifies the street width and other improvements (curb, gutter, planter strip, sidewalk). As new development occurs, or as the City contemplates street expansions, the Transportation Plan map is used to determine the appropriate street cross section.

The existing transportation plan has the following street classification hierarchy from highest traffic volumes to lowest:

- Arterial;
- Collector;
- Major local;
- Minor local; and
- Private road.

Staff is proposing an updated Transportation Plan Map to reflect changes to the street network that have occurred since the original adoption of the map and to make adjustments to some street designations. Earlier this year, the City Council adopted amendments to the subdivision ordinance. One of the amendments included the creation of a new street classification, the Country Lane. The proposed amended map now includes the Country Lane classification.

EVALUATION

General Plan: Goal #1 of the Land Use Element of the General Plan encourages the preservation and enhancement of the City's rural atmosphere. Street design plays a significant role in the character of a community. Excessively wide streets, and in some instances the inclusion of curb, gutter and sidewalk, can have a negative impact on the rural atmosphere of the City and can be costly to manage and maintain.

Country Lane (28' ROW): The most significant amendment to the Transportation Plan Map is the inclusion of the country lane designation. The cross section for a Country Lane includes 28 feet of asphalt with no curb, gutter or sidewalk.

The Planning Commission reviewed this item on November 18, 2021. During their review, the Commission expressed some concern that at least in some instances it may be desirable to have a sidewalk included with the Country Lane cross sections. Staff recommends adding a note to the cross section that indicates that the Council may require a sidewalk if it determines it would be beneficial for pedestrian connectivity and safety.

Minor Local (32' ROW): Most of the changes to the minor local streets just reflect subdivision projects that have been built or proposed since the original adoption of the plan.

Major Local (36' ROW): A few changes have been made to the major local roads. These include:

- **800 S** from Highway 89 to 800 W. This segment was previously designated as a major local. However, due to the existing width of the street and the construction of the middle school and other developments in the area, this has been upgraded to a collector.
- **1200 S** from Highway 89 to 800 W. This segment was also previously designated as a major local street, primarily because it was not anticipated to connect to Highway 89. Now that a connection to the highway is proposed, it has been upgraded to a collector.
- **1900 E** was downgraded to a country lane.
- **Nemelka Lane (1200 E)** was downgraded to a country lane.
- **1600 N** from Main Street east was downgraded to a country lane.

Collector (46' ROW): The only changes to collector roads were those listed above for 800 S and 1200 S.

Arterial: For a number of years the Transportation Plan has shown a future Maple Street extension that would run west from Slant Road across Highway 51 and eventually connect with Springville's 1600 South. Some of the benefits of this future road would include:

- Provide the City with a direct route to the new freeway interchange at 1600 South in Springville.
- Disperse traffic and provide an additional route to and from the City.
- Provide a direct route to the City's future 20 acre park in Sunrise Ranch.

In 2012, the Mountainlands Association of Governments prepared the Springville-Spanish Fork Area Transportation Study that evaluated future growth and the need for specific transportation improvements in the area. One of the focuses of the study was the future freeway interchange at 1600 South in Springville, improvements along 1600 South in Springville and possible alternatives to connect 1600 South with Highway 89 in Mapleton or southern Springville. Mapleton City also requested that the study evaluate the Maple Street extension. The study found significant constraints and challenges with this alternative that included (see attachment "2" for the full memo):

- Highest cost of any design alternative.
- The route would require 7 to 10 right-of-way relocations and significant interstion improvements at Slant Road and Highway 51.
- The route impacts wetlands, protected agricultural areas, conservation easments, etc.
- The route would require grade separated crossings of two sets of rail road tracks. Staff notes that it is still possible that one of the tracks gets removed and only one grade separation would be required.

- In addition to these challenges, staff also notes that if Maple Street was extended it would also bisect the future 20 acre park in the Sunrise Ranch Development.
- Staff also notes that there is uncertainly regarding how Springville will develop within the Maple Street corridor.
- Staff further notes that the extension is not listed on the Regional Transportation Plan, which identifies regional projects eligible for federal funding through 2050. Funding would be difficult to obtain because the extension may not be seen as “regionally significant”.

Staff has received development interested on the two parcels west of Slant Road that include wetlands and the future alignment of Maple Street. If/when an application is proposed on either of these parcels, the City will need to determine if the Maple Street extension is still desired so that the development can be planned accordingly.

Staff is requesting that the Council determine whether the Maple Street extension should continue to be included on the transportation plan.

RECOMMENDATION

Approve the proposed ordinance.

ORDINANCE NO. 2021-

AN ORDINANCE ADOPTING AMENDMENTS TO TRANSPORATION MASTER PLAN MAP

WHEREAS, the City's Transportation Master Plan includes a map that identifies existing and future street locations and classifications; and

WHEREAS, the proposed amendments are intended to update that map based on existing development and to address changing needs; and

WHEREAS, the Planning Commission recommended approval of the proposed amendments on November 18, 2021.

NOW THEREFORE, BE IT RESOLVED by the City Council of Mapleton, Utah, adopt the updated Transportation Master Plan Map as described in Exhibit "A".

PASSED AND ORDERED PUBLISHED BY THE CITY COUNCIL OF MAPLETON, UTAH,

This 15th Day of December, 2021.

_____
Dallas Hakes
Mayor

ATTEST:

_____
Camille Brown
City Recorder
Publication Date:
Effective Date:

Exhibit "A"

Mapleton City 2021 Transportation Plan

1 inch = 0.25 miles

0 0.125 0.25 0.5 0.75 1 Miles

Legend

- Existing Arterial Road (UDOT)
- Proposed Country Lane
- Existing Country Lane
- Proposed Arterial Road
- Existing Collector Road
- Proposed Collector Road
- Existing Major Local Road
- Proposed Major Local Road
- Existing Minor Local Road
- Proposed Minor Local Road
- Existing Roads
- Dirt; Gravel
- Railroads
- Mapleton Boundary
- Uinta National Forest
- Mapleton
- Spanish Fork
- Springville
- Unincorporated County Areas
- Lakes

N W E S

Attachment "1"
Existing Transportation Plan

Map #1
Mapleton City
Master Street
Plan Map

N
W E
S

0 0.25 0.5 0.75 1 Miles

1 inch equals 0.25 miles (24 x 36 Paper Size)
1:15,840

Legend

Master Street Plan

- Existing Arterial Road (UDOT)
- Existing Collector Road - 66'-80' ROW
- Proposed Collector Road - 66'-80' ROW
- Existing Major Local Road - 56'-66' ROW
- Proposed Major Local Road - 56'-66' ROW
- Existing Minor Local Road
- Proposed Minor Local Road
- Existing Private Road

Points of Interest

- Mapleton Ambulance
- Mapleton City Center
- Mapleton City Public Works
- Mapleton Pioneer Heritage Museum
- Mapleton Volunteer Fire Dept.
- Schools
- Churches
- Cemeteries
- Peak
- Spot Elevations
- Other Roads
- Railroads
- Lakes
- Canal or Ditch
- Intermittent Stream
- Stream or River
- Parcels as of 3-25-09
- Mapleton Boundary
- Uinta National Forest
- Hobble Creek WMA
- Schools Property

MAPLETON CITY CORPORATION

This map is intended to show general locations of proposed improvements, and does not constitute an approved engineering plan or set forth a timeline for improvements.

Mapleton City makes no warranty with respect to the accuracy, completeness, or usefulness of this map. For official Plan verifications, contact the Community Development Department.

Map Adopted: July 20, 2010

Attachment "2"
Maple Street Memo

APPENDIX G: MAPLETON STREET CONNECTION DESIGN MEMO

HORROCKS ENGINEERS

Date: October 10, 2011

Subject: **Design Memo regarding the Mapleton Street connection as part of the MAG Study**

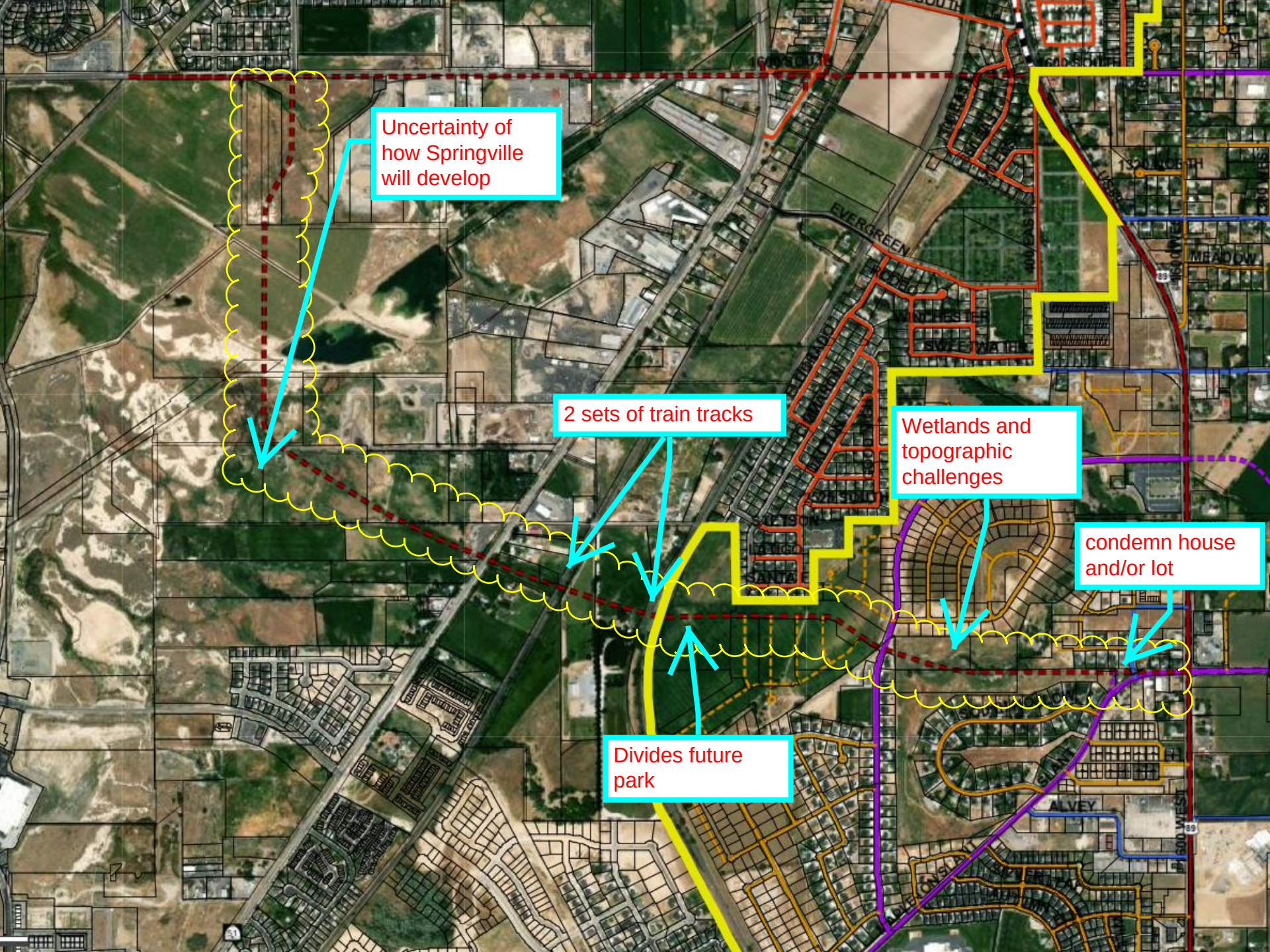
As part of the MAG Study, several alternatives were analyzed to find a connection between SR-51 and US-89 in the Springville/Mapleton area. This connection would also provide access to I-15, which would have a new interchange located at 1600 South. One of the primary purposes for providing this connection would be to reduce the traffic demand on 400 South in Springville. It would also provide Mapleton with better access to I-15.

During the study Mapleton City officials asked about the possibility of a Maple Street extension to 1600 South in Springville. The following summarizes the study findings regarding this alternative:

- The route represents over two miles of new roadway. Costs and impacts are much greater than any other option we have identified, and as a result, the Maple Street route was not competitive in a cost-to-benefit analysis. Current estimates show the construction costs to be two times more than other options considered. Also the proposed route, including intersection improvements at SR-51 and Slant Road, would require seven to ten ROW relocations.
- The proposed route impacts areas of wetlands, dedicated open space and conservation easements at Big Hollow, and agricultural protected fields within County limits. All of these restrictions will bring challenges if this option is advanced for NEPA clearance. Also, the wetland impacts are much higher than other options considered.
- The Maple Street connection would require up to two miles of out-of-direction travel compared with the 1600 South route. Many users would avoid that penalty and continue to use the Springville 400 South connection to I-15. The regional traffic models confirm this. While the Maple Street connection does relieve some congestion on 400 South, it is less effective than the other options considered. However, if both the 1600 South connection and the Maple Street connection were built, each road could be built to a 3-lane arterial instead of one 5-lane arterial. The route could have some appeal as a future roadway link in the West Mapleton area but fails the purposes set forth by the study for a standalone option. This option should probably be considered as a viable east west corridor for the region as other studies are developed.
- The grade separation crossings of the two UPRR tracks will be very expensive and will require extensive reconstruction of the SR-51 intersection. The existing terrain falls about 80 feet from the eastern track to SR-51. The fill height between the two railroad structures would be approximately 35 to 40 feet high with significant impacts to the residences in that area.
- SR-51 intersection would have to be reconstructed and raised to match the profile that was raised to cross the railroad tracks. The existing intersection would have to be raised approximately 8 to 10 feet and reconstruction of SR-51, including all the driveways accessing SR-51 in the area, would have to be rebuilt to match.
- A new intersection with Slant Road would have to be reconstructed to make it parallel to tie in with the new Maple Street Connection. This new intersection would require the relocation of two existing homes.
- Mapleton City currently owns a 50'-wide ROW stub along the current portion of Slant Road that ties into US-89. The extension of Maple Street will require a wider ROW for an arterial and will impact existing homes and properties.

- Approximately 1,000 feet west of the intersection of Maple Street/Highway 89 is a large depression roughly 28' deep known as "Big Hollow". We would need to fill this in (which has wetland impacts), build a bridge, or realign the road to avoid it. This area also has a conservation easement as well as wetlands in it, all of which will be challenging during the NEPA process.

Conclusion:
Due to the high cost, relocations, and environmental impacts associated with this option, it is not recommended that this option be recommended as a viable standalone connection to SR-51 and US-89 for the MAG study. However, from a regional mobility standpoint, this option does show some benefit if it were combined with the 1600 South extension.


Uncertainty of how Springville will develop
2 sets of train tracks
Wetlands and topographic challenges
condemn house and/or lot
Divides future park

Attachment "3"
Country Lane Examples







