

CENTERVILLE WORK SESSION AGENDA

NOTICE IS HEREBY GIVEN THAT THE CENTERVILLE CITY COUNCIL WILL HOLD ITS WORK SESSION MEETING AT 5:30 PM ON November 7, 2018 AT THE CENTERVILLE CITY COMMUNITY CENTER, 250 NORTH MAIN STREET, CENTERVILLE, UTAH. THE AGENDA IS SHOWN BELOW.

A. ROLL CALL

B. NEW BUSINESS

1. Staff Report and Discussion re Future Drainage and Street Projects

C. ADJOURNMENT

Mackenzie Wood
Centerville City Recorder

CENTERVILLE

Staff Backup Report

11/7/2018

Item No. 1.

Short Title: Staff Report and Discussion re Future Drainage and Street Projects

Initiated By: City Staff

Scheduled Time:

SUBJECT

RECOMMENDATION

Allow staff to report on proposed drainage and street projects. The Council may then provide pertinent feedback and direction.

BACKGROUND

The City Manager, City Engineer and Public Works Director have been discussing a number of future drainage and street projects and would like to now brief/update the City Council and seek their direction. These are identified below.

Drainage

- Amendment to Storm Drain Master Plan relating to 1275 North on west side of freeway
- Three culvert projects under the D&RGW trail corridor
- Wetlands delineation effort relating to future extension of 1250 West

Streets/Traffic

- Frontage Road Project update
- Review of past improvements made at Main & Parrish
- 400 West/Parrish Lane intersection
- Marketplace/Parrish Lane intersection
- Interchange reconstruction

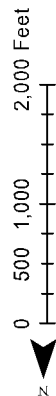
The discussion about the Parrish Lane intersections and interchange will draw upon the results of the in-depth traffic study by UDOT not long ago. One of the specific reasons for this work session is to explain the proposed improvements for the Marketplace/Parrish Lane intersection, which are the subject of the Letter of Intent submitted on October 29 to WFRC. The City Council requested a discussion about this proposed project before the City submits a funding application in January 2019.

Documents relating to these projects will be attached as provided by staff prior to the work session. When viewing the attached concept plan for 400 West (Parrish Lane intersection), the drawing shows the maximum impact on the Dairy Queen corner if the City is not able to get UDOT's approval of narrower lanes, which was achieved at the Parrish & Main intersection several years ago. Staff believe there is a good chance the encroachment can be reduced on the Dairy Queen property. Staff also have several ideas for preserving Dairy Queen's current parking capacity.

ATTACHMENTS:

Description

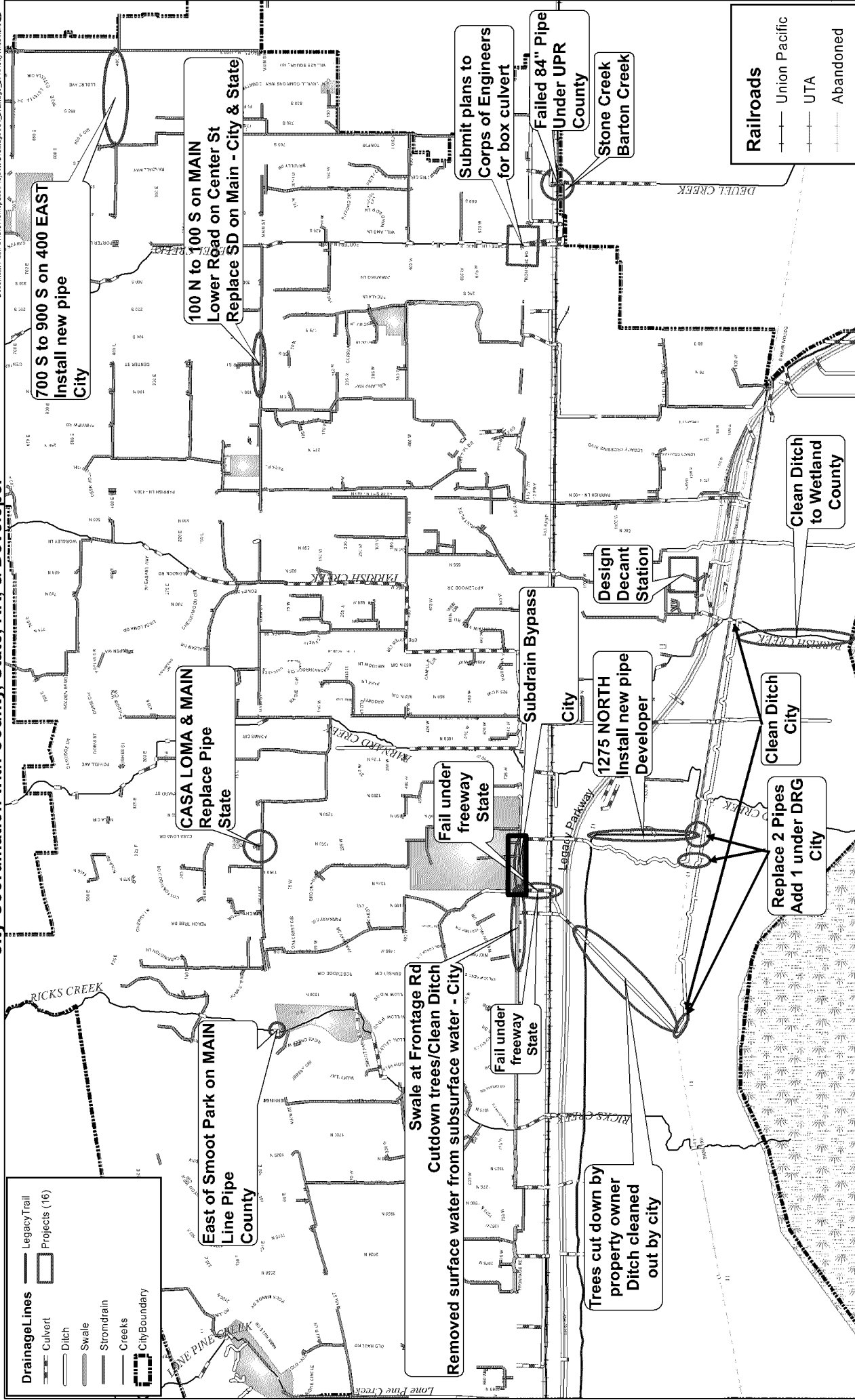
- ▢ Drainage Projects Map 6/5/18
- ▢ 1250 West Road Concept Plan
- ▢ 1250 West Corridor Wetlands Study
- ▢ 10-25-18 Marketplace Conceptual Plan
- ▢ 10-25-18 400 West Conceptual Plan
- ▢ 10-25-18 Main and Parrish As Built Plan
- ▢ UDOT I-15 SPUI Concept
- ▢ Parrish Lane Photos
- ▢ Market Place Dual Lefts Data

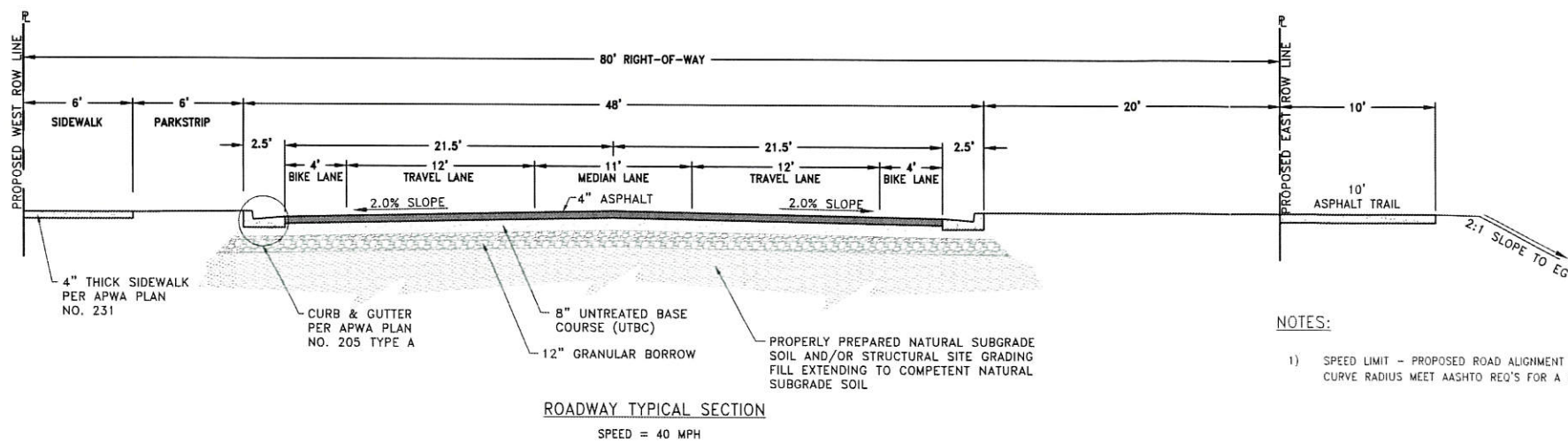
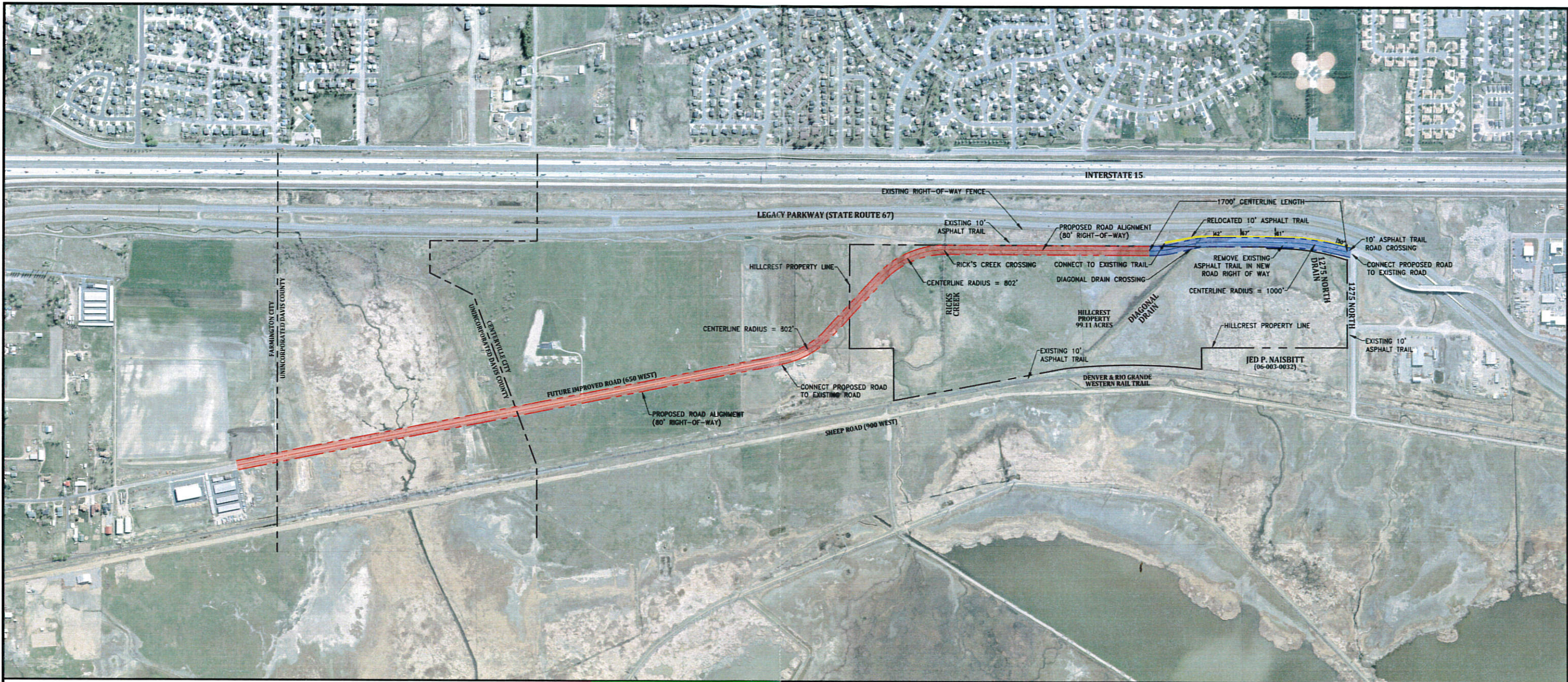


Drainage Projects Next 12 Months City Coordination with County, State, RR, & Developer

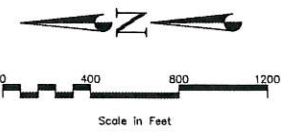
6/5/18

Document Path: C:\GIS\workspace\Projects\Drainage\RR, Drainage, 2018\CityWide.mxd

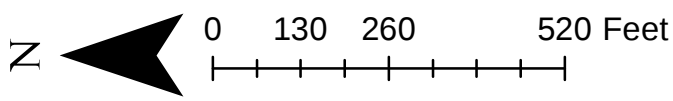




NOTES:
1) SPEED LIMIT - PROPOSED ROAD ALIGNMENT INCLUDING CURVE RADIUS MEET AASHTO REQ'S FOR A 40 MPH SPEED LIMIT.



DRAWN NOVEMBER 2017 DATE DESIGNED DATE APPROVED DATE		CHECKED DATE CCA PROJECT ENGINEER CAB PROJECT MANAGER		HILLCREST INVESTMENT COMPANY, LLC CENTERVILLE CITY, UTAH		 5684 South Green Street Murray, Utah 84123 801-713-3000		CENTERVILLE PROJECT FRONTAGE ROAD CONCEPT PLAN - OVERALL		PROJECT NO. 2575 SHEET NO. RD-1 FILE NAME: SCALE:	
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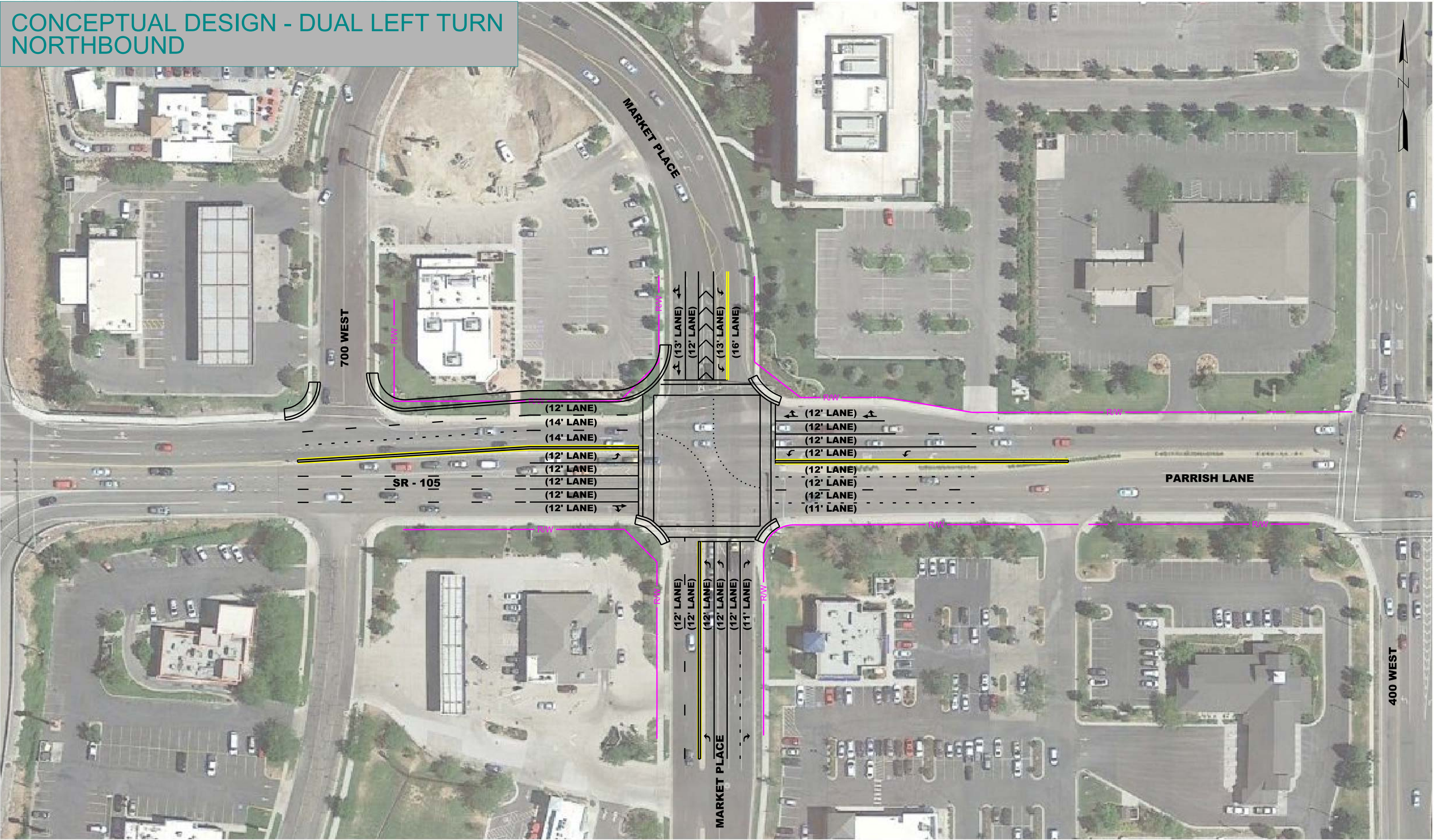
Ground Elevations at Wells 10/18/18



MARKET PLACE DRIVE & PARRISH LANE

October 25, 2018

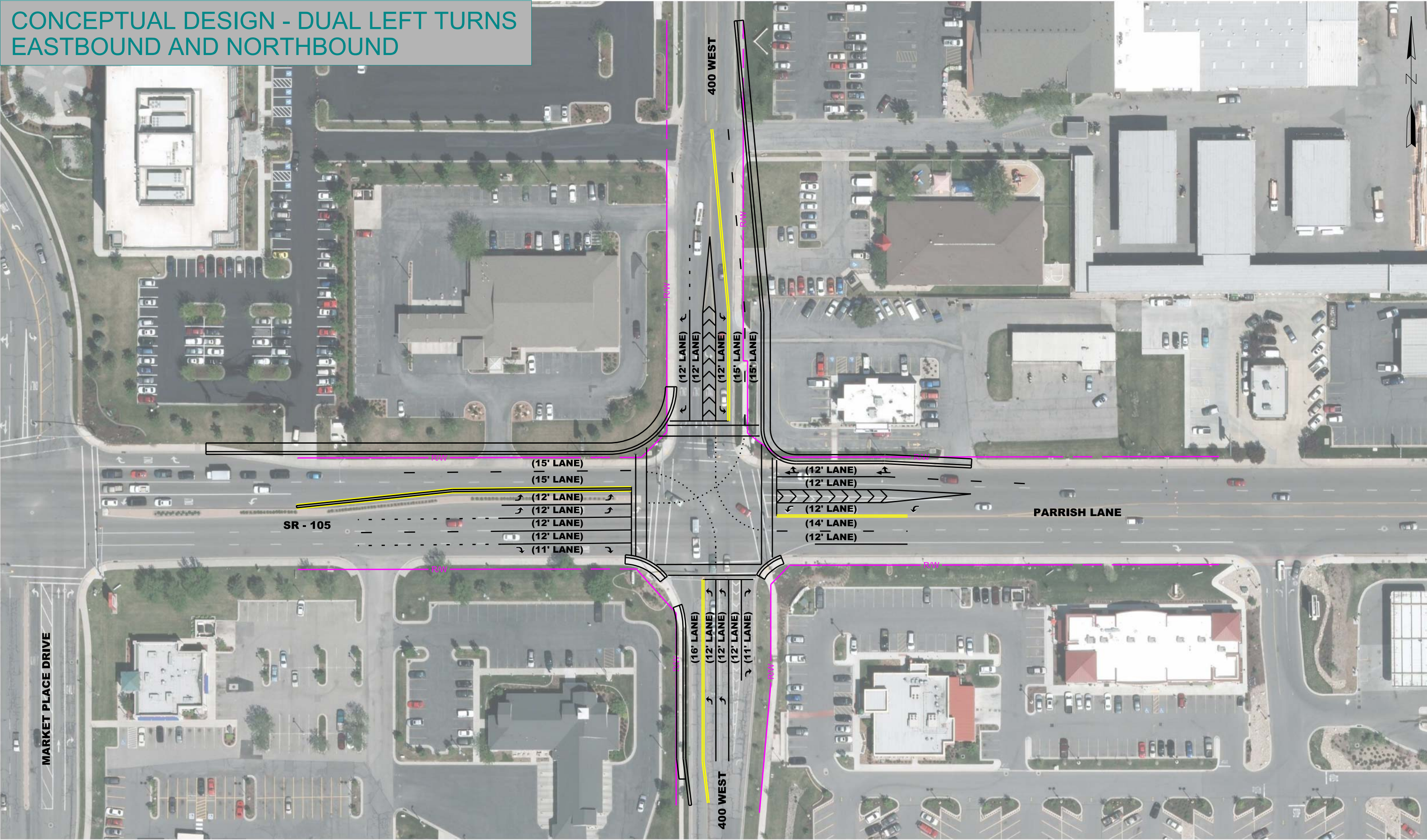
CONCEPTUAL DESIGN - DUAL LEFT TURN NORTHBOUND



400 WEST & PARRISH LANE

October 25, 2018

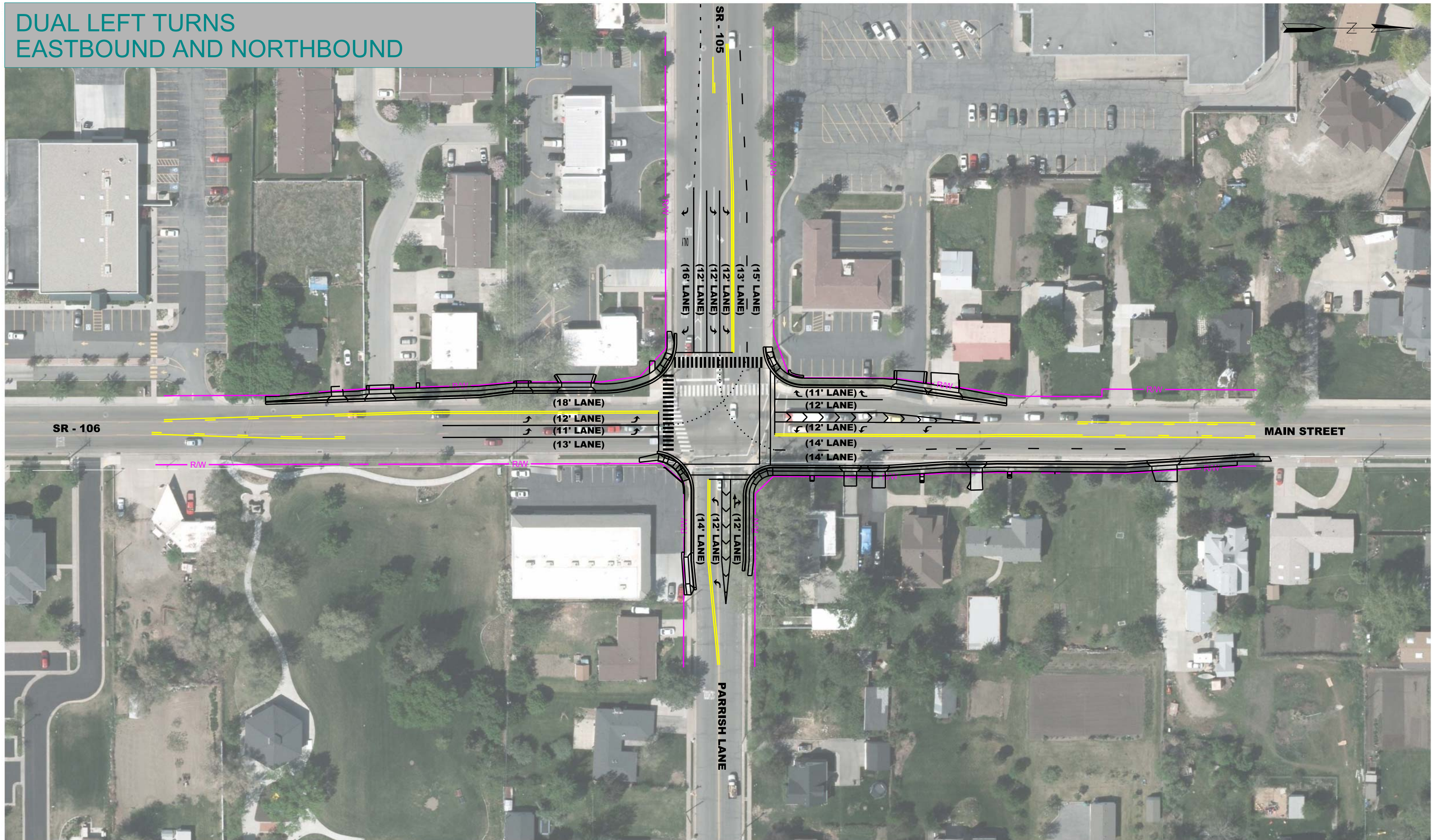
CONCEPTUAL DESIGN - DUAL LEFT TURNS
EASTBOUND AND NORTHBOUND



MAIN STREET & PARRISH LANE

October 25, 2018

DUAL LEFT TURNS EASTBOUND AND NORTHBOUND



Parrish Lane & I-15

I-15; Interchange Study in Davis & Weber Counties **PIN 14651**

DRAFT

October 27, 2016

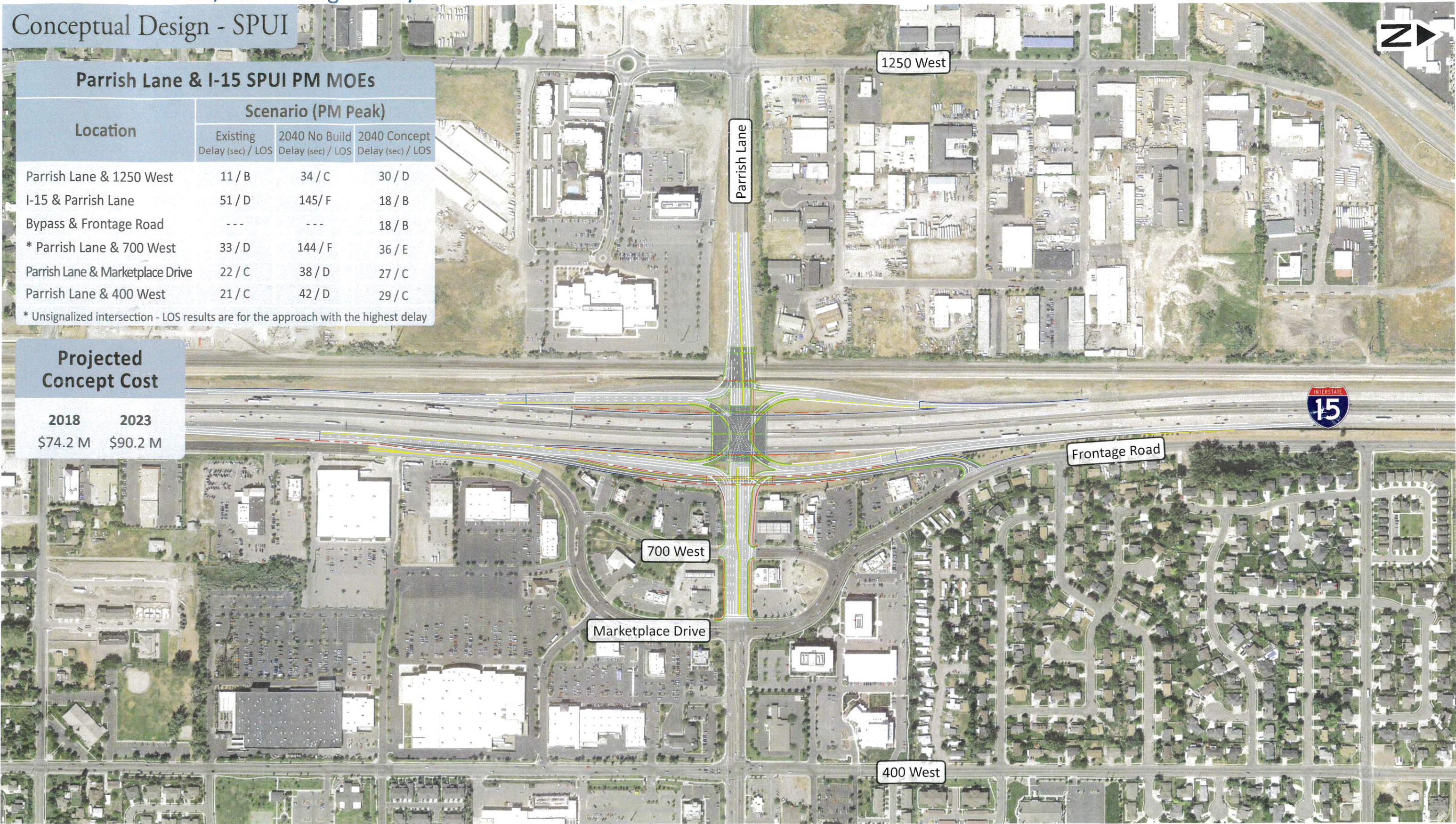
Conceptual Design - SPUI

Parrish Lane & I-15 SPUI PM MOEs			
Location	Scenario (PM Peak)		
	Existing Delay (sec) / LOS	2040 No Build Delay (sec) / LOS	2040 Concept Delay (sec) / LOS
Parrish Lane & 1250 West	11 / B	34 / C	30 / D
I-15 & Parrish Lane	51 / D	145 / F	18 / B
Bypass & Frontage Road	---	---	18 / B
* Parrish Lane & 700 West	33 / D	144 / F	36 / E
Parrish Lane & Marketplace Drive	22 / C	38 / D	27 / C
Parrish Lane & 400 West	21 / C	42 / D	29 / C

* Unsignalized intersection - LOS results are for the approach with the highest delay

Projected Concept Cost

2018	2023
\$74.2 M	\$90.2 M





MARKET PLACE AT PARRISH LANE NB DUAL LEFT TURNS

11-4-2018

OVERVIEW

1. Multiple Left Turn Criterion

i Used where traffic volumes have increased to the point that signal timing cannot alleviate excessive queues and delay with the current number of lanes.

Reduction in Delay reduces vehicle emissions

Allow for shorter cycle length, which reduces delay

Helps reduce the queue waiting to turn left, and potential impedance to other movements

Generally required when turning traffic volumes exceed 300 vehicles per hour

Protected only phasing (dedicated left turn signal head) is used, which provides more safety for turning left

2. Safety Performance

i Studies show that dual left-turn lanes with protected-only phasing generally operate with minimal negative safety impacts (FHWA – Signalized Intersections: An Information Guide)

26% estimated reduction in all property damage only (PDO) collisions

29% estimated reduction in fatal/injury rear-end collisions

47% estimated reduction in fatal/injury left turn collisions

20% estimated reduction in angle fatal/injury collisions

3. Benefit Summary

i Safety – Potential reduction in collisions

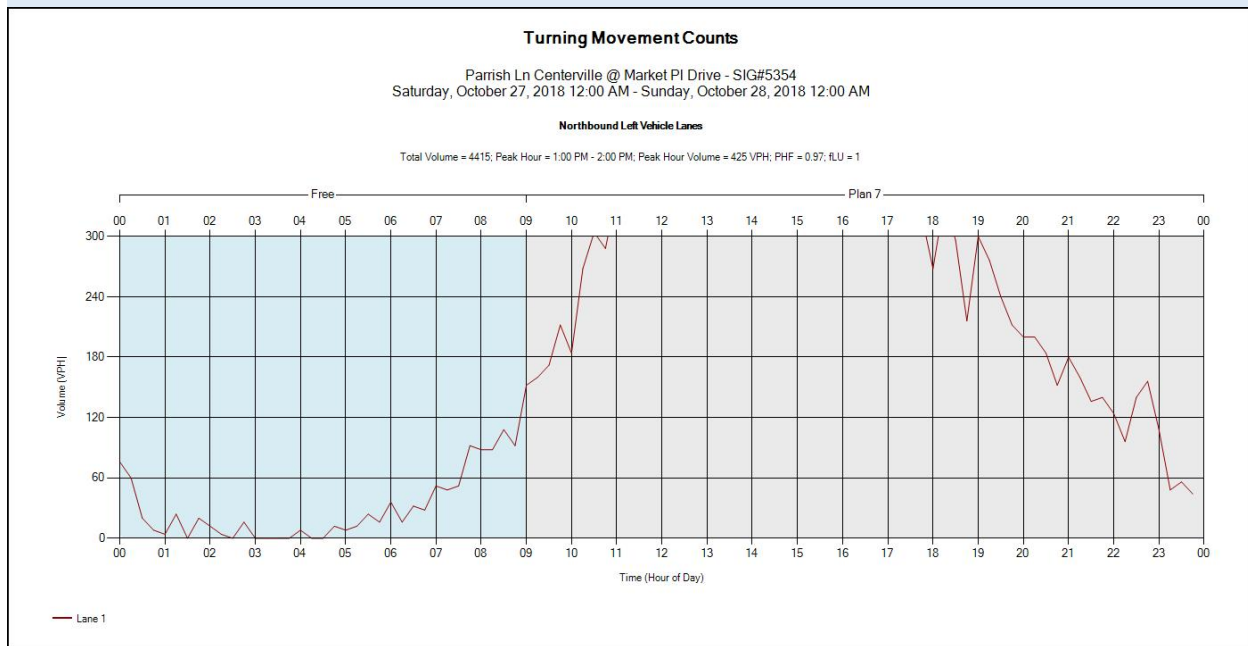
Operations – Potential improvement in Capacity

Socioeconomic – Potential reduction in vehicle emissions due to reduced delay

Enforcement, Education – No additional enforcement or education required to operate

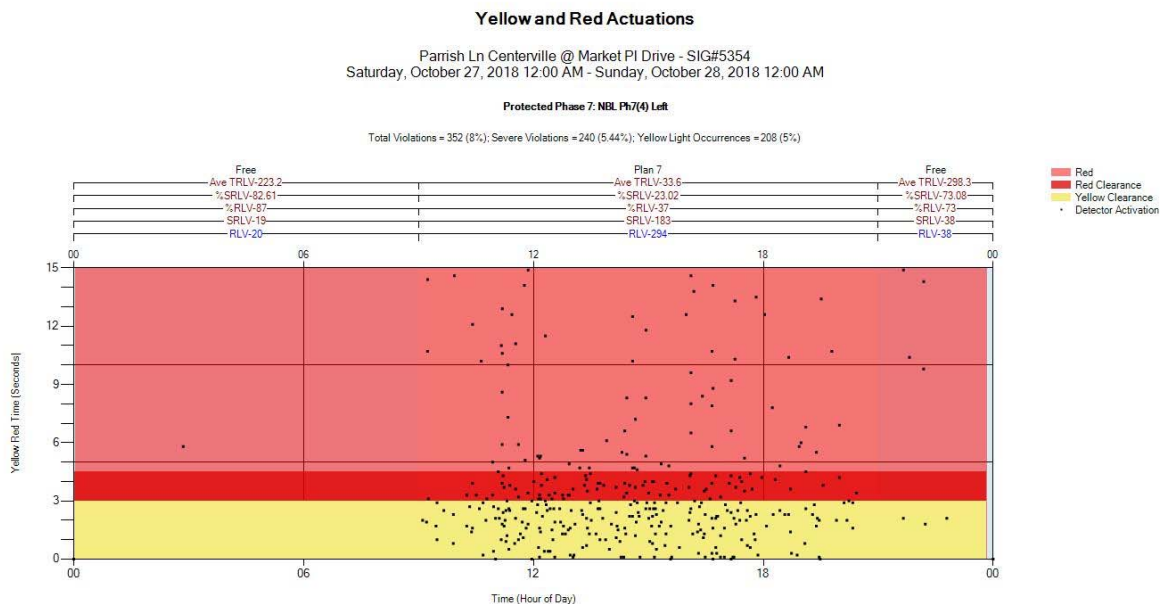
4. Market Place North Bound Left Turn Traffic

i Saturday, October 27, 2018 – Over 7-hours of traffic volume >300 veh/hr

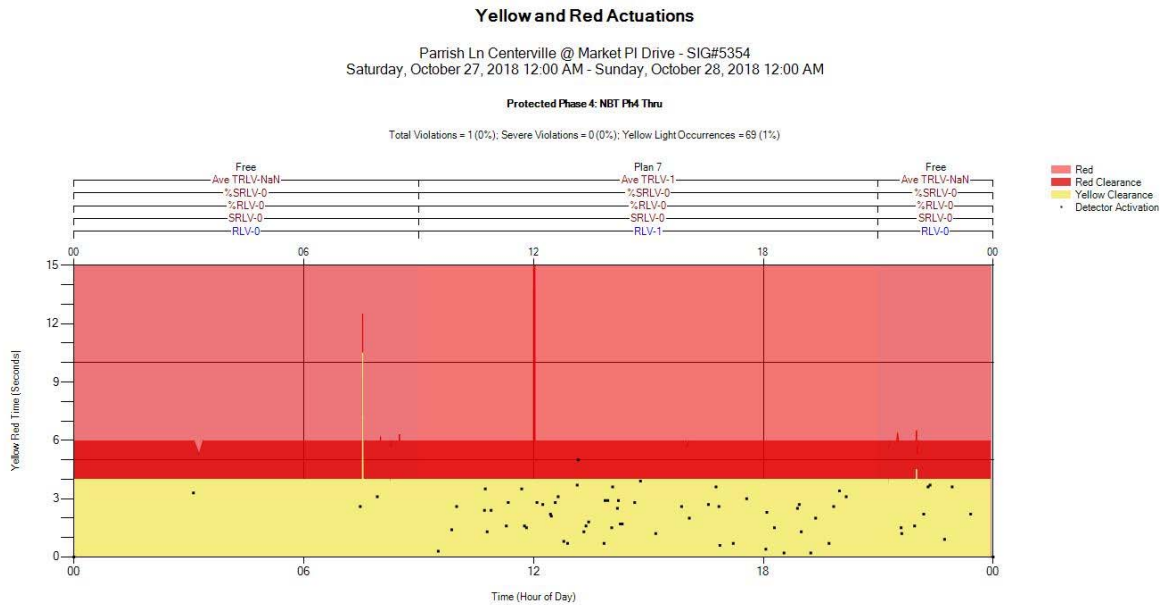


5. Safety Concerns

i UDOT obtains data for vehicles that run red lights. The graphic has 3 colors that represent time for Yellow Signal (3 seconds), time for Clearance Red Signal (1.5 seconds before another signal turns on), and time for Red Signal (when signal is red while other signals are green). Black dots represent vehicles entering intersection. Vehicle queues are so long in the north bound left turn lane at Market Place that cars are passing through the intersection well after the light has turned red.



By comparison, here is the Yellow and Red Actuation graph for north bound lane on Market Place driving thru the intersection for the same day.



6. Conclusion

i Considering the volume of traffic alone, dual left turn lanes are highly needed at Market Place in the north bound direction. Dual left turns will help the function of the intersection by reducing delay and help reduce vehicle emissions. But the greatest benefit will be safety, reduction in delay at the intersection may reduce the motorist inclination to continue through the intersection when the light is red.