



## City of Ketchum

October 4, 2021

Mayor Bradshaw and City Councilors  
City of Ketchum  
Ketchum, Idaho

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### **Receive Update and Provide Direction to Staff Regarding Scramble Pedestrian Crossing at Main Street and Sun Valley Road**

#### Recommendation and Summary

City staff is coordinating with HDR to complete a re-timing of all intersections on Main Street. The contract assumes “as-is operations” of the scramble pedestrian crosswalk at Main Street and Sun Valley Road. Should City Council wish to revert to the previous configuration, it is most efficient to make that determination now before the timing plan is completed.

The reasons for the recommendation are as follows:

- Signal operation at Sun Valley Road and Main Street has recently been changed from a traditional pedestrian cross walk to a Scramble which is coordinated with the HAWK pedestrian crosswalk at 4<sup>th</sup> street.
- The City Council recently approved funding for HDR to complete a new signal timing plan that will determine the optimum cycle length for each light within the Main Street corridor.
- Should the Council wish to alter the pedestrian cross walk at Sun Valley Road and Main Street, it would be most financially efficient to do so now. HDR plans to complete the work within 4 weeks, therefore, time is of the essence.

#### Introduction and History

Timing plans are developed by analyzing traffic volume and traffic direction on a given street or corridor during a given time of the day. A typical traffic signal uses timing plans based on the time of day; AM peak period, PM peak period and off-peak period. A five-step process is used when creating a timing plan. These steps include data collection, optimization/modeling, implementation, evaluation and refinement.

With the addition of the pedestrian scramble at Sun Valley Road and the HAWK on 4<sup>th</sup> Street, the existing Main Street corridor timing plan is out-of-date. The signals within the corridor are no longer sequenced with current traffic patterns. The signal timing plan will utilize recently collected traffic data to develop a timing plan based on the existing traffic patterns of the corridor, and optimize the signal sequencing and cycle length for AM and PM peak times.

During the September 20<sup>th</sup> meeting, the City Council approved HDR to complete the timing plan. HDR has completed the as-is traffic counts and is prepared to begin the analysis to complete the plan. City staff wanted to check-in with the Council to make sure there is support to continue with the scramble pedestrian crosswalk for the mid-term. There would be added costs should the city wish to revert to the previous traditional pedestrian crosswalk as HDR is assuming current scramble configuration with regard to the new timing plan.

### ***Sun Valley Road/Main Street Signal Before Scramble***

- Pedestrian crossing permitted east-west during same traffic movement, with north-south movements following turn movements (i.e. 2x's per signal cycle but opposite directions).
- Pedestrian walk time was 25 seconds during parallel movement. The entire cycle time was 100 seconds. There was no timing plan as signal ran on detection alone.

### ***SV and Main Signal with HAWK @ Main/4th***

- Pedestrian crossing permitted only 1x during cycle length, but all movement occurs at once.
- Pedestrian walk time is 31 seconds (due to diagonal). Entire cycle length varies as there are five different plans developed.
  - (1) 8:00 am to 9:00 am – 130 second cycle – NB movement favored
  - (2) 9:00 am to 1:30 pm – 118 second cycle – more balanced, any extra time is dumped/added to the NB movement based on detection
  - (3) 1:30 pm to 3:45 pm – 118 second cycle – more balanced, any extra time is dumped/added to SB movement based on detection
  - (4) 3:45 pm to 8:00 pm – 130 second cycle – SB movement favored
  - (5) 8:00 pm to 8:00 am – 66 second maximum cycle – running free using detection only

### ***HAWK (4<sup>th</sup> Street/Main Street)***

- Radar detection is not working properly by allowing two crossings per signal cycle at Main and Sun Valley Road. It is currently only happening once per cycle.
- The pedestrian movement of the HAWK currently occurs ahead of the Scramble at the same time as the EB left turn movement onto SH-75 (because this is the lightest movement) to prevent a large que between 4th and SV Road. It is not occurring at the same time as the Scramble.

### **Sustainability Impact**

Improved signal timing reduces wait time and idling at intersections.

### **Financial Impact**

Current timing plan is fully funded. Should the city request changing back to traditional pedestrian crossing at Sun Valley Road, additional funds would be required to re-time Main Street intersections.