

TRAFFIC STUDY REPORT

“Moose Hollow Estates & Laurel Flats” Subdivisions

May 2, 2023

SE 1/4 NW 1/4 Section 15, Township 3 North, Range 45 E.,B.M.
Teton County, Idaho

Owners:

Moose Hollow Estates
Kelly Lark
7856 Hidden Valley Rd
Marshing, ID. 83639

Laurel Flats
Lone Run LLC, Abbott Gilbane
9444 South Highway # 31
Victor, ID. 83455

ENGINEER: Arnold Woolstenhulme
A-W ENGINEERING
Box 139 - 255 South Main St.
Victor, ID. 83455

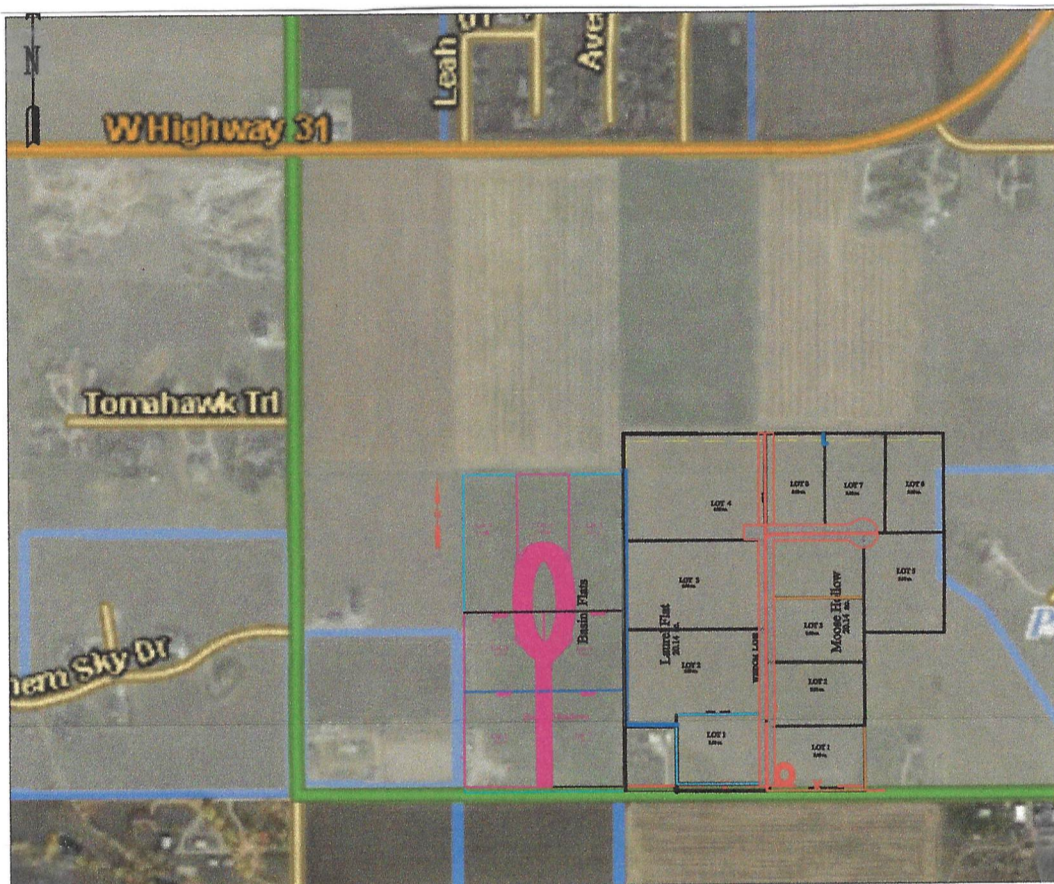


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1.0 INTRODUCTION

Moose Hollow Estates and Laurel Flats are proposed single-family residential subdivisions that are adjacent to each other. It was deemed expedient to have a common access from one road, thus initiating the requirement by Teton County Planning and Zoning staff to perform a traffic study. The two subdivisions are located north of West 9500 South between South 1000 West and South 2000 West. It is bordered by the Pole Canyon Subdivision on the East and the proposed 7 lot Basin Meadows Subdivision on the West. The 8 lot Canyon Wren Subdivision lies west of this property on the South side of West 9500 South. There are existing driveways into residences along this ½ mile stretch of county road West 9500 South, as well as having 32 lots with future residences. There is also the possibility of a guest residence on each lot; therefore this study was done for a potential traffic impact of 64 residences along this road in addition to all existing traffic.

The current zoning for this area is ARR-2.5, A Preliminary Plat is attached as Appendix A-1.

The following are key transportation impact attributes for the proposed subdivisions:

- The common access point to the proposed subdivision is Wisdom Way and County Road West 9500 South.
- The subdivision road will be privately owned and maintained.
- A pathway easement is being granted across the South side of each both the Laurel Flats Subdivision and the Moose Hollow Estates Subdivision for a future path in the event there is connectivity to an existing pathway system.

The purpose and objective of this study is to determine the traffic impacts associated with the build-out of the proposed developments. Existing conditions of County roads West 9500 South and South 2000 West were used to forecast the amount of traffic expected from the proposed developments. If needed, mitigation measures will be recommended along with the associated improvements to the existing roadway system. Existing multimodal facilities will also be inventoried and recommendations will be provided on how to incorporate the proposed development into the master plan for pathways that was created by the Teton Valley Trails and Pathways or TVTAP.

2.0 Existing Conditions

As discussed above there is only one county road that fronts this property. The street classifications, posted speed limits, lane configurations, and multimodal facilities are listed in Table 1- “Existing Conditions”.

Table 1- Existing Conditions

Roadway Name	Roadway Classification	Posted Speed Limit	Lanes	Multimodal Facilities
2000 West (Smith Canyon)	Minor Collector Street	35 mph	2 undivided	New path along Lucy Meadows West side
9500 South	Minor Collector Street	35 mph	2 undivided	5' dirt pathway on the south side of road.
1000 West Pole Canyon	Minor Collector Street	35 mph	2 undivided	None

Traffic counts for the existing roadways were obtained from the City of Victor and Teton County. These counts and data sheets are included in Appendix B of this study. The summary of the count data is contained in Table 2.

Table 2- Traffic Count Data

Location of Count	Data of Study	AADT	85 th Percentile Speed (mph)
500 west (between 9000 south and 9500 west)	September 2020	604	36
9500 south (Teton Springs maintenance facility entrance)	September 2020	592	46
1000 west (8500 south)	October 2019	419	40
9500 S between 1500W & 2000 W	October 2020	261	45

According to the Teton County Transportation Planning Study, the maximum roadway capacity for a local and a collector was established as 1700 vehicles per hour. Comparing this threshold with the AADT's that are listed in the counts reveals that there is still plenty of available capacity on the study roadways before the level of service would be impacted.

The intersections that will be used by this development are County Roads West 9500 South at both South 1000 West and South 2000 West. There is a 4 way stop sign at the South 1000 West intersection and a stop sign on West 9500 South at South 2000 West.

3.0 Traffic Forecasts

Traffic forecasts have been created for the next 10 years which is the anticipated buildout of this subdivision. To develop forecasts for the region a growth rate of 2.5% was used. This growth rate was developed by the Transportation System Plan that was created for the City of Victor. Please refer to it for the logic and explanation of the growth rate. The following Table 3 reflects the estimated AADT for the next 10 years. The forecast for the region was developed based on a linear growth rate to keep it simple.

Table 3- Regional 10 Year Forecast

Roadway Name	Existing AADT	Estimated 20 Year Growth Rate	2025 AADT	2030 AADT
500 West	604	2.5%	683	773
9500 S Sec 20	592	2.5%	670	758
9500 S Sec 19	211	2.5%	222	251
1000 West	419	2.5%	474	536
2000 West	300	2.5%	323	355

The next step in the analysis was to forecast the traffic resulting from the subdivision. The industry standard for the number of trips per day is 9.57. This number comes from the Institute of Transportation Engineers or ITE and translates into the AADT for a detached single family residential unit. For larger developments there are more specific criteria for peak hours and adjustment factors that will not be included as part of this study due to the small amount of traffic generated relative to the traffic industry. The total number of trips at buildout is calculated by multiplying the total number of units by the number of trips per day that are anticipated. The resulting number of trips generated by the proposed development is 32 units x 9.57 trips per day per unit = 306 trips per day.

These trips were then distributed to the different roadways based on the anticipated traffic movements. At this time 100% of the traffic will be exiting onto West 9500 South. It is anticipated that 25 percent of the vehicles will be traveling to the West to the intersection at South 2000 West and then turning to the North onto State Highway 31. The other traffic will be turning East and travel to either Victor or Jackson, Wy.

Table 4 is the distribution of trips generated by the proposed development. This trip distribution was based on the following assumptions:

- The majority of traffic will be towards Victor and or Jackson on County roads.
- 80% of traffic will turn East onto West 9500 South to Hwy 33.
- 20% of traffic will turn West on West 9500 South to South 2000 West, then North to Hwy 31.

Table 4- Proposed Development Forecast

Roadway Name	2030 AADT Generated by Development
500 West	138.8
9500 South	306
1000 West	288
2000 West	61

It is important to note that the trips generated by this development are not above and beyond the regional 10 year forecast contained in Table 3. The proposed development is included in the 2.5 percent growth rate that is built into the forecast. For example, in 2030 the AADT is estimated to be 773 trips on 500 west. Approximately 138.8 trips out of the 773 trips will originate from the proposed development.

4.0 Multimodal Transportation

The existing inventory for the multimodal transportation system was included in Table 1. Appendix C includes a copy of the City of Victor Pathways Plan by TVTAP that was created for the Victor Area. The plan calls for a future bike lane on South 500 West, a bike lane on West 9500 South, and a multi-use pathways on South 1000 West. The developers are providing pathway easement along the South boundary of these two subdivisions.

Connecting any proposed pathways into a pathways system may necessitate crossing West 9000 South. The crossing gap is sufficient according to the daily traffic counts; however, as a result of the high speeds it is recommended to place crossing facilities in accordance with MUTCD standards in an attempt to inform the vehicles passing that there is a pedestrian crossing.

5.0 Conclusion and Recommendations

The impacts to the transportation system resulting from the construction of this subdivision are minimal. In accordance with the Teton County Transportation Plan the volumes that exist and that are forecasted as part of this development are too low to conduct a level of service analysis as established in the industry or that are included in the Highway Capacity Manual (HCM). The existing roadways have sufficient capacity for the developments without any recommended improvements.

The intersections that are near this development are already controlled intersections and do not require any additional improvements to handle the forecasted traffic. The new intersections at the new access point for the development will meet the clear sight triangle requirements and will be required to have a controlled stop sign per MUTCD standards.

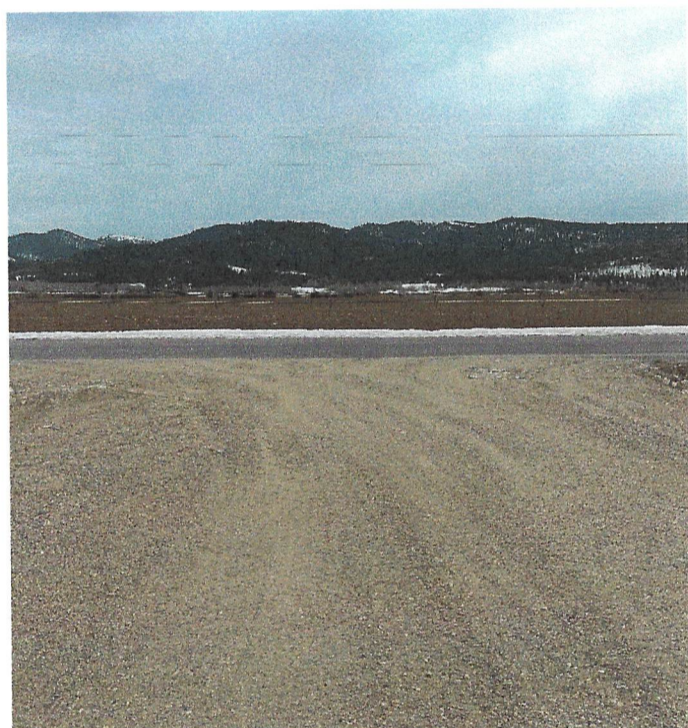
A 60 foot road easement is shown on the plat to connect these subdivisions to the land on the North that could be utilized at the time a development is proposed on the adjacent parcel of land.

APPENDIX

**MOOSE HOLLOW ESTATES SUBDIVISION & LAUREL FLATS SUBDIVISION
COMMON ROAD PHOTOS:**

“WISDOM WAY”

**“Wisdom Way” – North from
Intersection with W9500S**



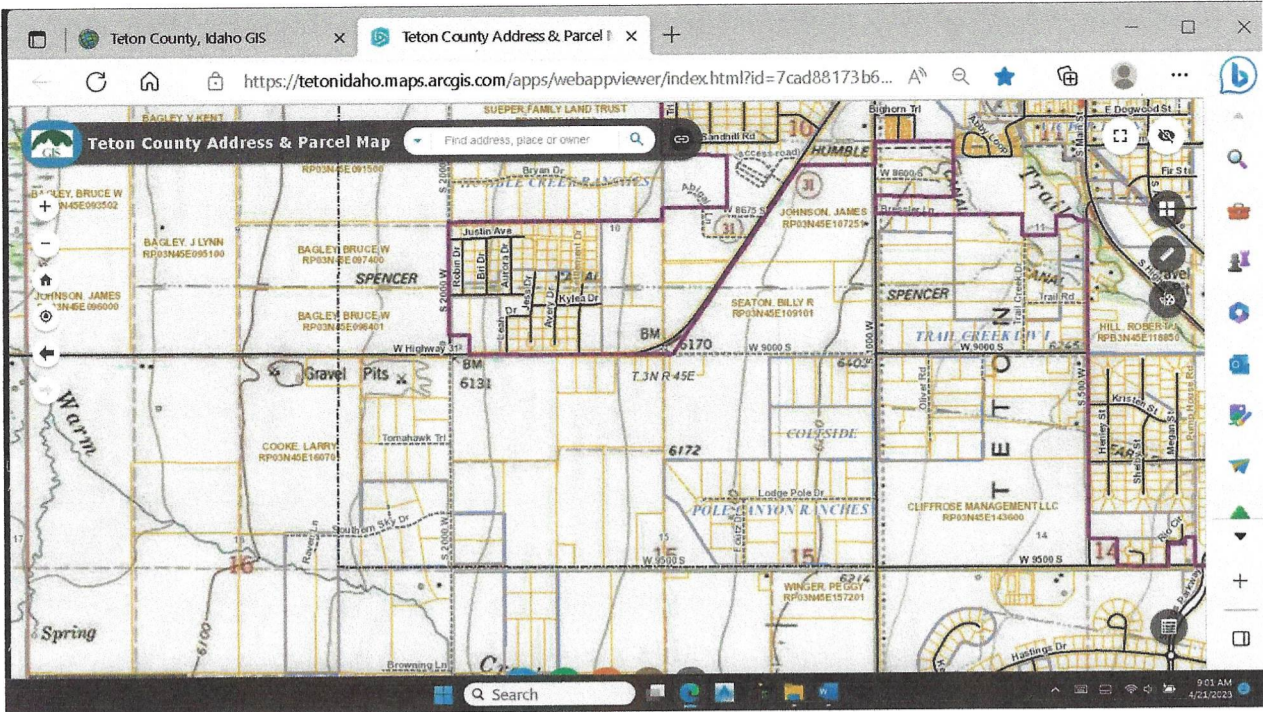
“Wisdom Way” at intersection with County Road “W9500S”



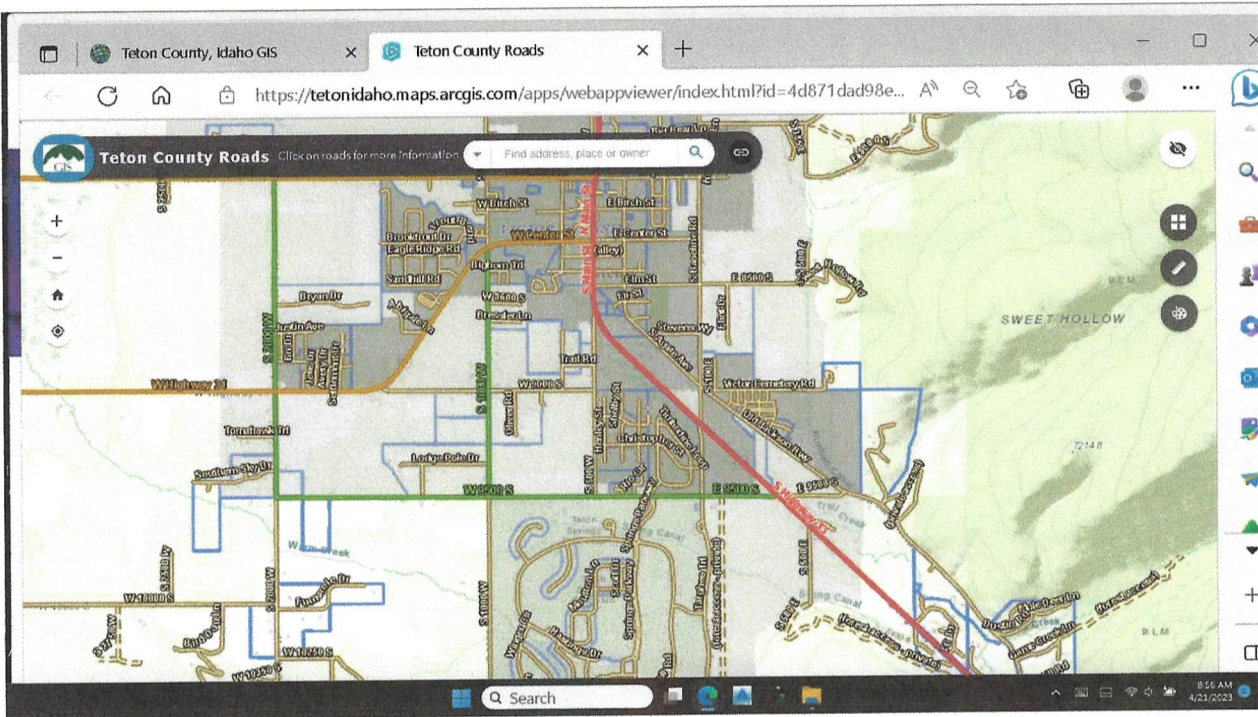
County Road "W9500S" which "Wisdom Way" will access. West view from intersection with "Wisdom Way"



North end of "Wisdom Way" with Lot 4 of Laurel Flats Subdivision on the left and Lot 8 of Moose Hollow Estates Subdivision on the right



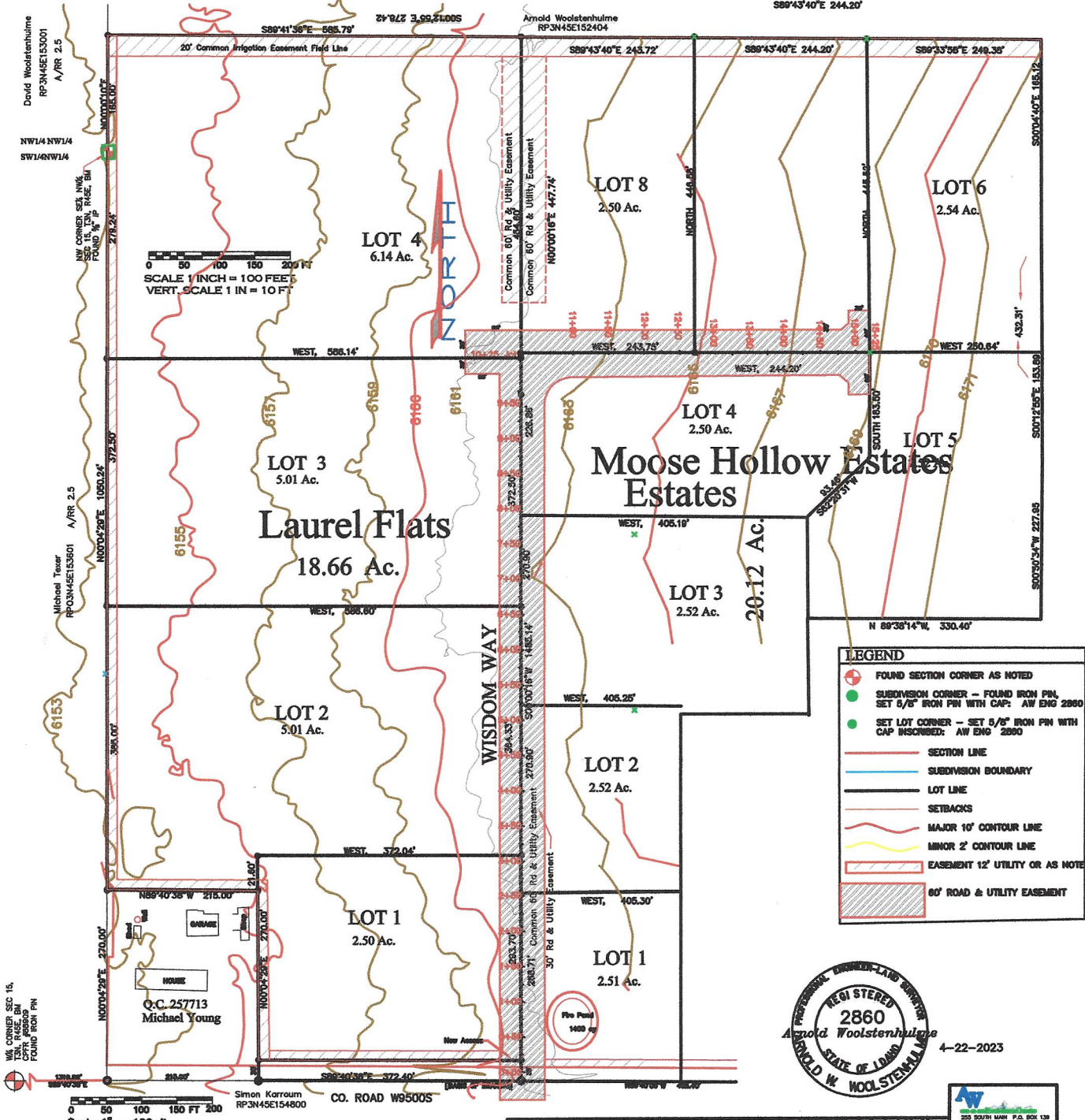
AREA OF SUBDIVISION ROADS



VICINITY MAP OF AREA

Laurel Flats & Moose Hollow Pre PLats

SE 1/4 SW1/4, Sec 19, Twp 43 N, Rng 45 E, Teton Co, Id.



LEGEND	
	FOUND SECTION CORNER AS NOTED
	SUBDIVISION CORNER - FOUND IRON PIN SET 5/8" IRON PIN WITH CAP: AW ENG 2860
	SET LOT CORNER - SET 5/8" IRON PIN WITH CAP INSCRIBED: AW ENG 2860
	SECTION LINE
	SUBDIVISION BOUNDARY
	LOT LINE
	SETBACKS
	MAJOR 10' CONTOUR LINE
	MINOR 2' CONTOUR LINE
	EASEMENT 12' UTILITY OR AS NOTED
	60' ROAD & UTILITY EASEMENT

