

## **Autumnal Equinox Fieldwork**

### **Experimental Procedure**

For my Autumnal Equinox observation, I chose a location near St. Aidan's Roman Catholic Church, where the open streets give a relatively clear view toward the western horizon (see map). I marked my position on Apple Maps to document where I was standing and oriented myself using both the map and nearby landmarks to ensure I was facing west. I took my photo close to the official sunset time on September 22, 2025, noting the sun's angle as it dipped below the horizon.

### **Data Collection & Processing**

My camera captured the sunset over the rooftops, and I marked the direction of the sun's descent on the map. The sun appeared to set almost perfectly due West, which I confirmed by aligning it with the street grid running east-west in this part of the neighborhood. The photo shows the sun low on the horizon, with its glow spread evenly across the west-facing streets, giving additional confirmation of its direction.

### **Reflection on Accuracy and Improvements**

The results were fairly accurate in demonstrating that the sun sets due West on the equinox. However, some factors may have caused small inaccuracies, nearby buildings slightly blocked the horizon, and the exact time of sunset was difficult to capture precisely. If I repeat the experiment next year, I would try to find a higher, more open spot with an unobstructed view of the horizon. I would also take multiple photos at one-minute intervals around sunset and possibly use a compass app or astronomy software to compare my results. Overall, the experiment successfully showed how the equinox marks a unique point when the sun aligns with the true West.

Annotated Map:

