GIS 5572 Lab 3

**Due:** ~~3 weeks~~ 4 weeks from the date of assignment

**Part 1 Goals**

1. Learn to create your own network dataset
2. Learn how to perform optimal routing in ArcPro and ArcOnline
3. Generate a routing map to support decision-making
4. Compare routing in ArcOnline versus in ArcPro

**Part 1 Deliverables**

Submit a part 1 lab report on Canvas as a PDF (see [report form](https://docs.google.com/document/u/0/d/1gOGBtTe3dQzrXCEMl644QIVdJgMp8ahN/?rtpof=true&usp=drive_fs)). Include all your code on GitHub as both .ipynb files and PDFs of the notebooks.

**Part 1 Specifics**

Solve the following word problem in both ArcPro and ArcOnline using your own constructed network dataset (though feel free to compare results with Esri’s proprietary network services):

Reilly and Randy are two USPS drivers. Their boss gave them overtime work for a Saturday to get packages delivered before the holidays. They start at 8am and need to deliver 10 packages to 10 different locations that are scattered around Western Twin Cities.

Your job is to help them find the best 2 routes between their two trucks so that it minimizes the amount of time they have to spend working before a holiday. Provide directions for them that they can print off. They’re old school and don’t carry smart phones.

The 10 addresses are as follows:

5525 Cedar Lake Rd S, St Louis Park, MN 55416

225 Thomas Ave N #700, Minneapolis, MN 55405 **MUST arrive between 10 and 11am**

701 N 5th St, Minneapolis, MN 55401

920 E Lake St #123, Minneapolis, MN 55407

783 Harding St NE, Minneapolis, MN 55413

4165 W Broadway Ave, Robbinsdale, MN 55422

1321 E 78th St, Bloomington, MN 55425

12547 Riverdale Blvd, Coon Rapids, MN 55448

9875 Hospital Dr, Maple Grove, MN 55369

3300 Oakdale Ave N, Robbinsdale, MN 55422 **MUST arrive between 10 and 11am**

Note: 94 and 35W are closed for construction. Be sure your routes reflect this. Comment on how this impacts routing in your lab.

Start/End Location:

1436 Lone Oak Rd, St Paul, MN 55121

**Part 2 – CANCELED**

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