

Traffic Stress Assessment

shared lanes

bike lanes

intersections

trails

cycle tracks

Level of Traffic Stress

Bicyclists have varying levels of tolerance for stress created by volume, speed, and proximity of automobile traffic. Their tolerance is likely to change over time and with bicycling experience.

The Level of Traffic Stress Assessment is based on the Dutch concept of low-stress bike facilities to encourage high levels of bicycle use:

- Lower stress facilities have increased separation from traffic as volume speed increase along roadways.
- Low stress crossings provide a refuge and/or a traffic signal at major roadways.

The highest stress point of a trip can act as a barrier to cycling. For instance, if it is difficult to cross a busy arterial from a local street, the crossing may prevent some riders from choosing that route. This has the effect of creating "stress" islands within a community.

A central goal of this plan will be to enable seamless stress trips throughout the city which will require improvements to some intersections and street sections.

The following defines the four Dutch Stress types utilized to evaluate Fort Collins Streets:

Level of Traffic Stress 1

Tolerable for users from 8 (children) to 80 (seniors)

Level of Traffic Stress 2

Tolerable for the mainstream adult population ('interested but concerned')

Level of Traffic Stress 3

Tolerable for adult population comfortable in shared traffic but who may prefer some separation ('enthused and confident')

Level of Traffic Stress 4

Tolerable for adult population comfortable in shared traffic with no separation ('strong and fearless')



Level of Traffic Stress	shared lanes	bike lanes	intersections	trails	cycle tracks
1	 ≤ 2K ADT ≤ 25 mph	 < 25 mph, 2-3 lanes bike lane > 7 feet	 dutch style	 greenway	 cycle track
2	 2K-4K ADT 30 mph	 30 mph, 2-3 lanes bike lane > 6 feet	 short right turn lane	 sidepath (low ped volume)	
3	 4K-6K ADT 35 mph	 35 mph, 3-4 lanes bike lane > 5 feet	 long right turn lane	 sidepath (high ped volume)	
4	 > 6K ADT > 40 mph	 40 mph, 3-4 lanes bike lane > 4 feet	 bike lane drop		

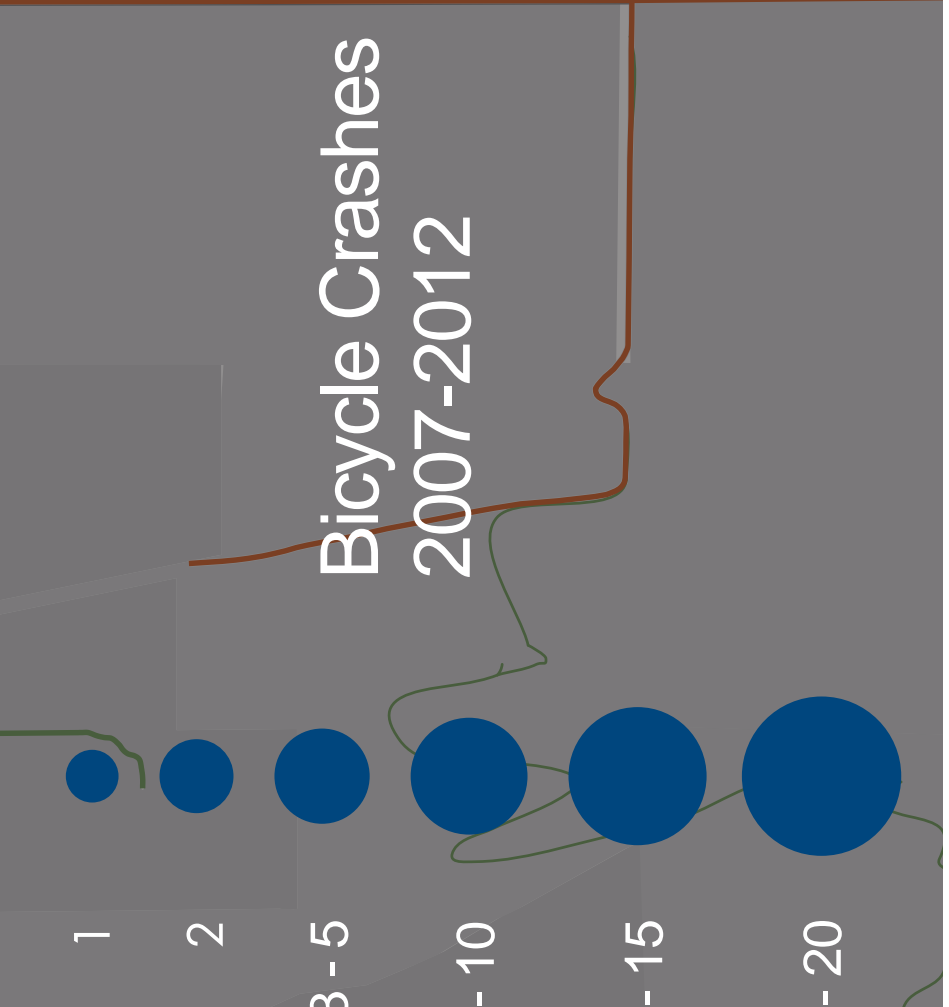
EXISTING LEVEL OF TRAFFIC STRESS

Comments?

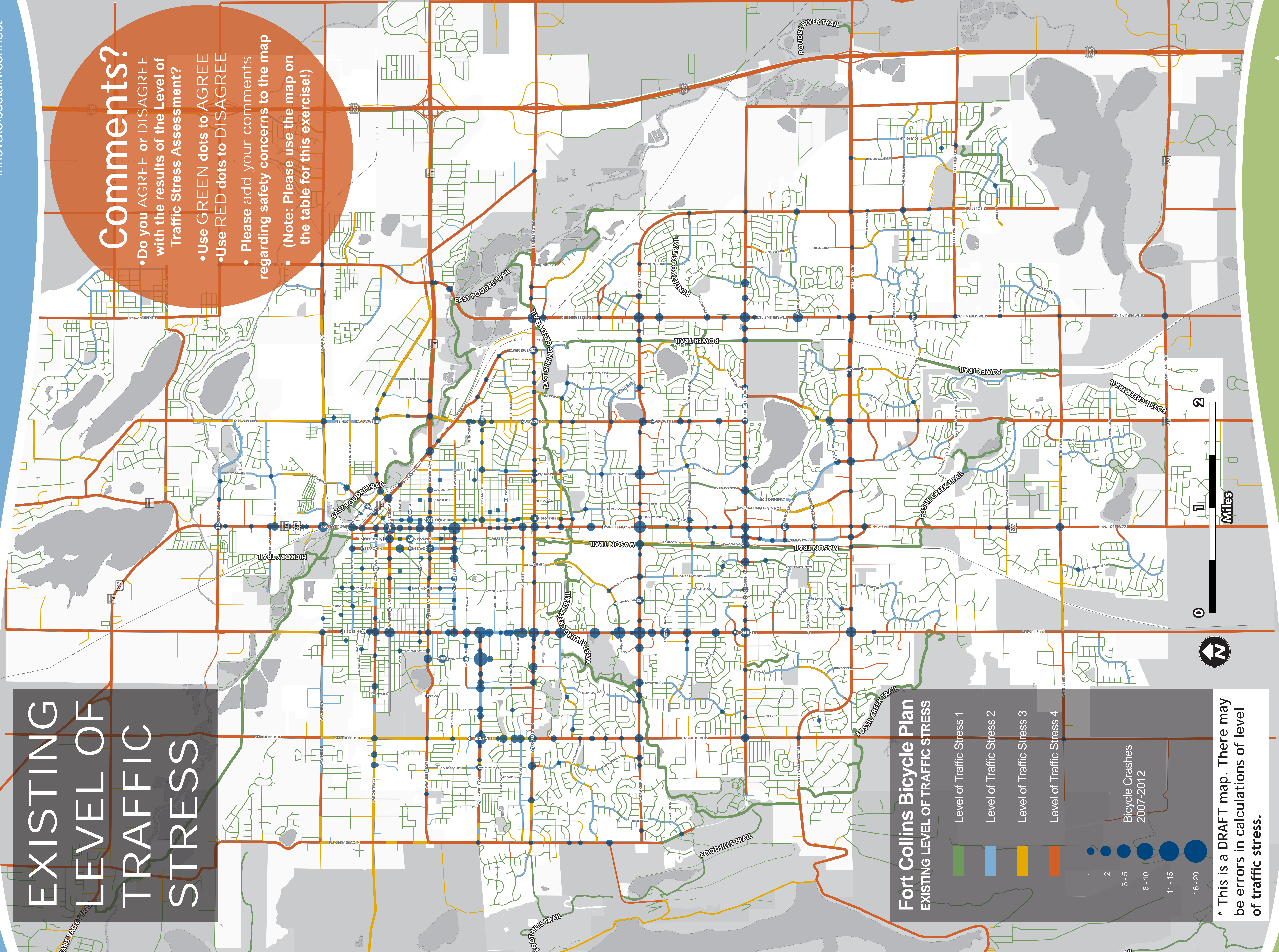
- Do you AGREE or DISAGREE with the results of the Level of Traffic Stress Assessment?
- Use GREEN dots to AGREE
- Use RED dots to DISAGREE
- Please add your comments regarding safety concerns to the map
- (Note: Please use the map on the table for this exercise.)

Fort Collins Bicycle Plan EXISTING LEVEL OF TRAFFIC STRESS

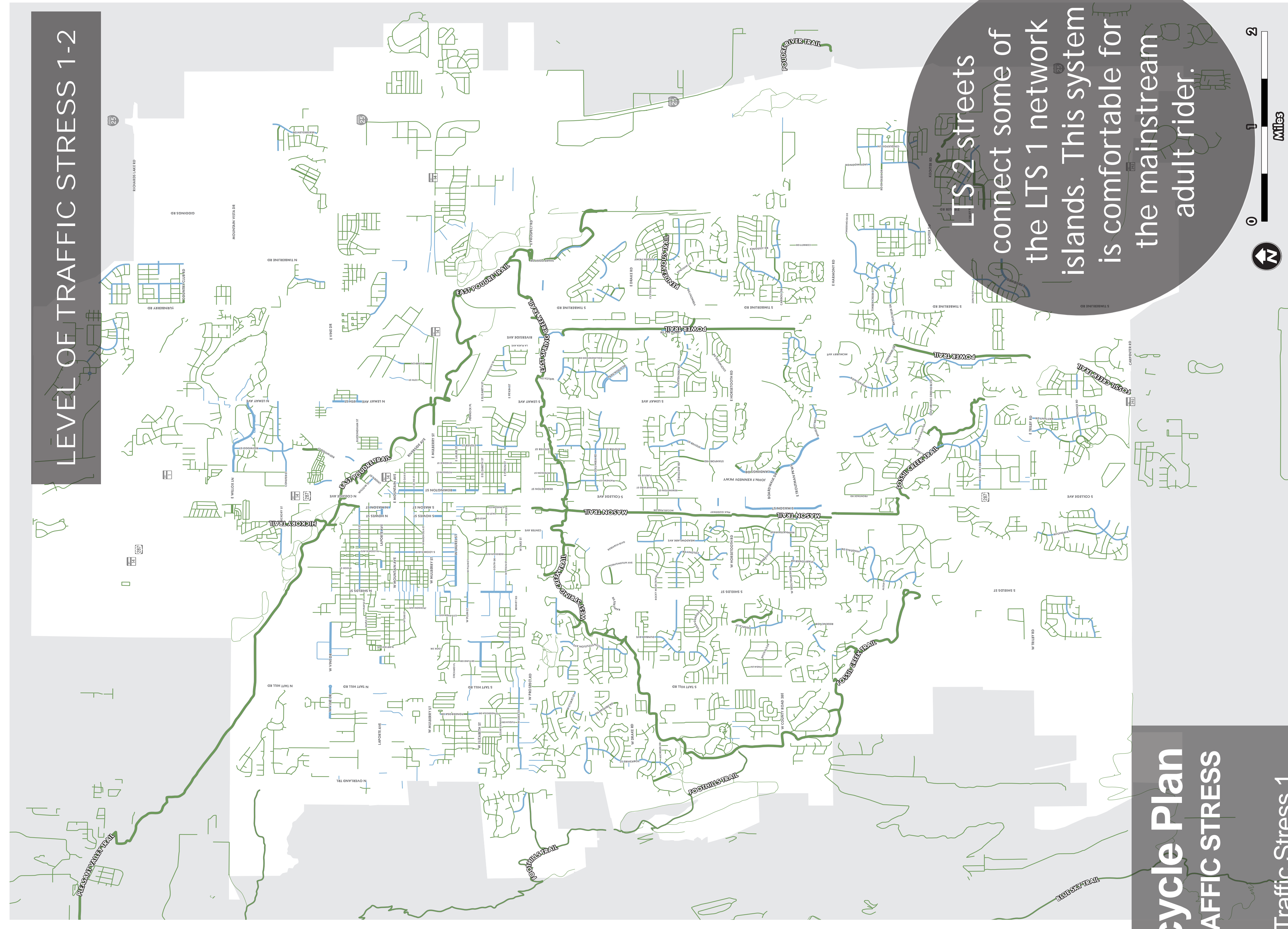
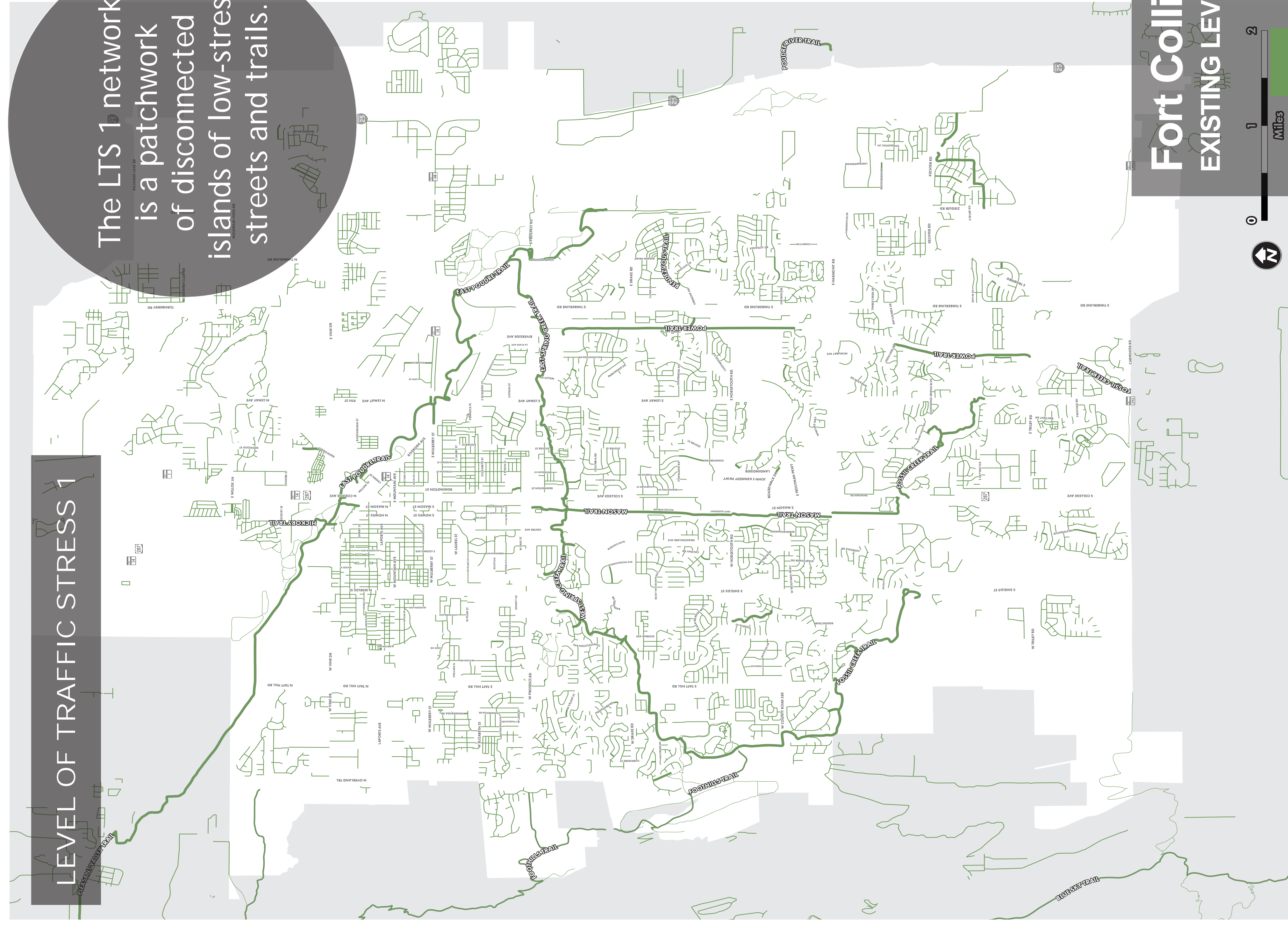
- Level of Traffic Stress 1
- Level of Traffic Stress 2
- Level of Traffic Stress 3
- Level of Traffic Stress 4



* This is a DRAFT map. There may be errors in calculations of level of traffic stress.

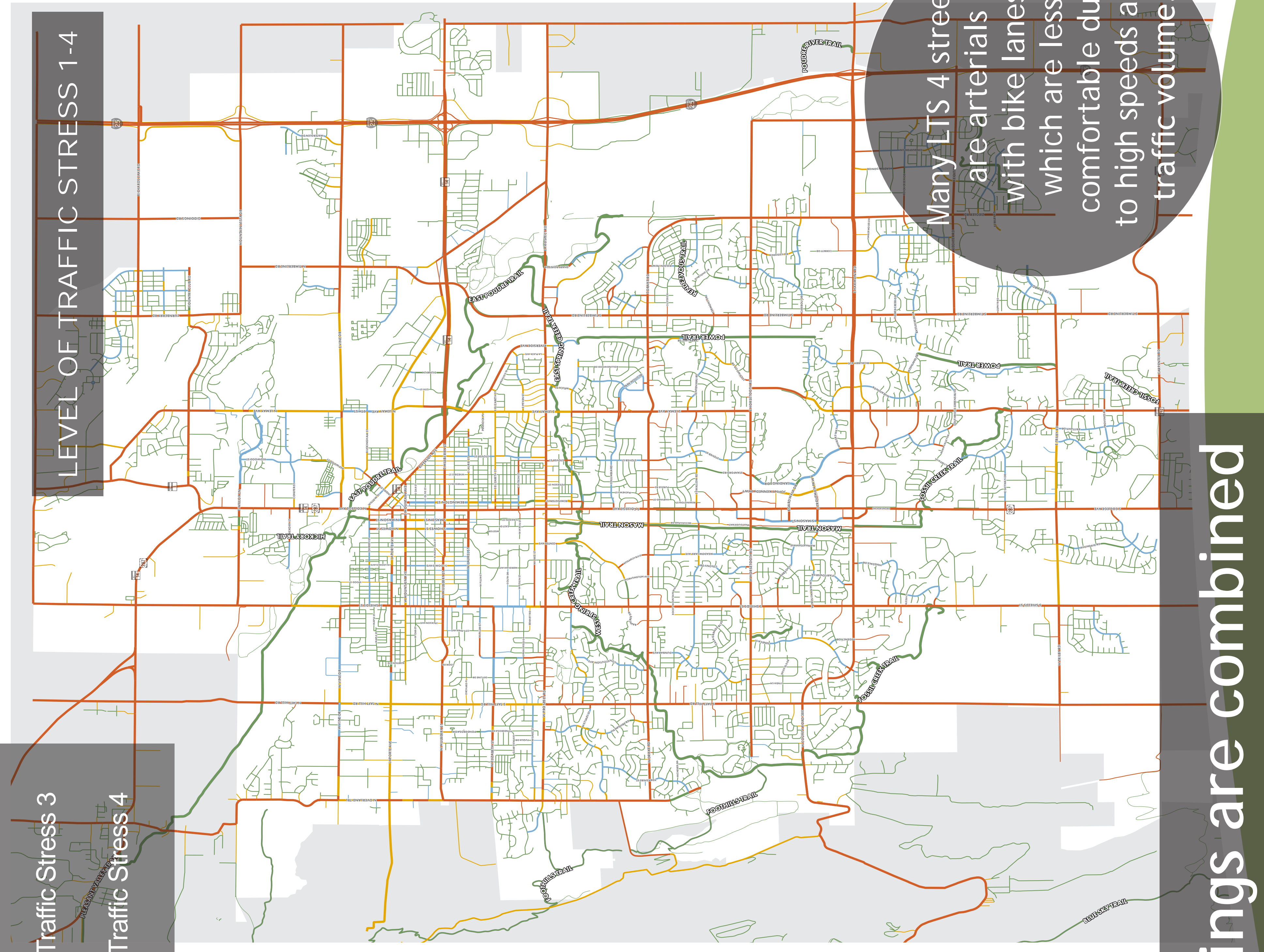
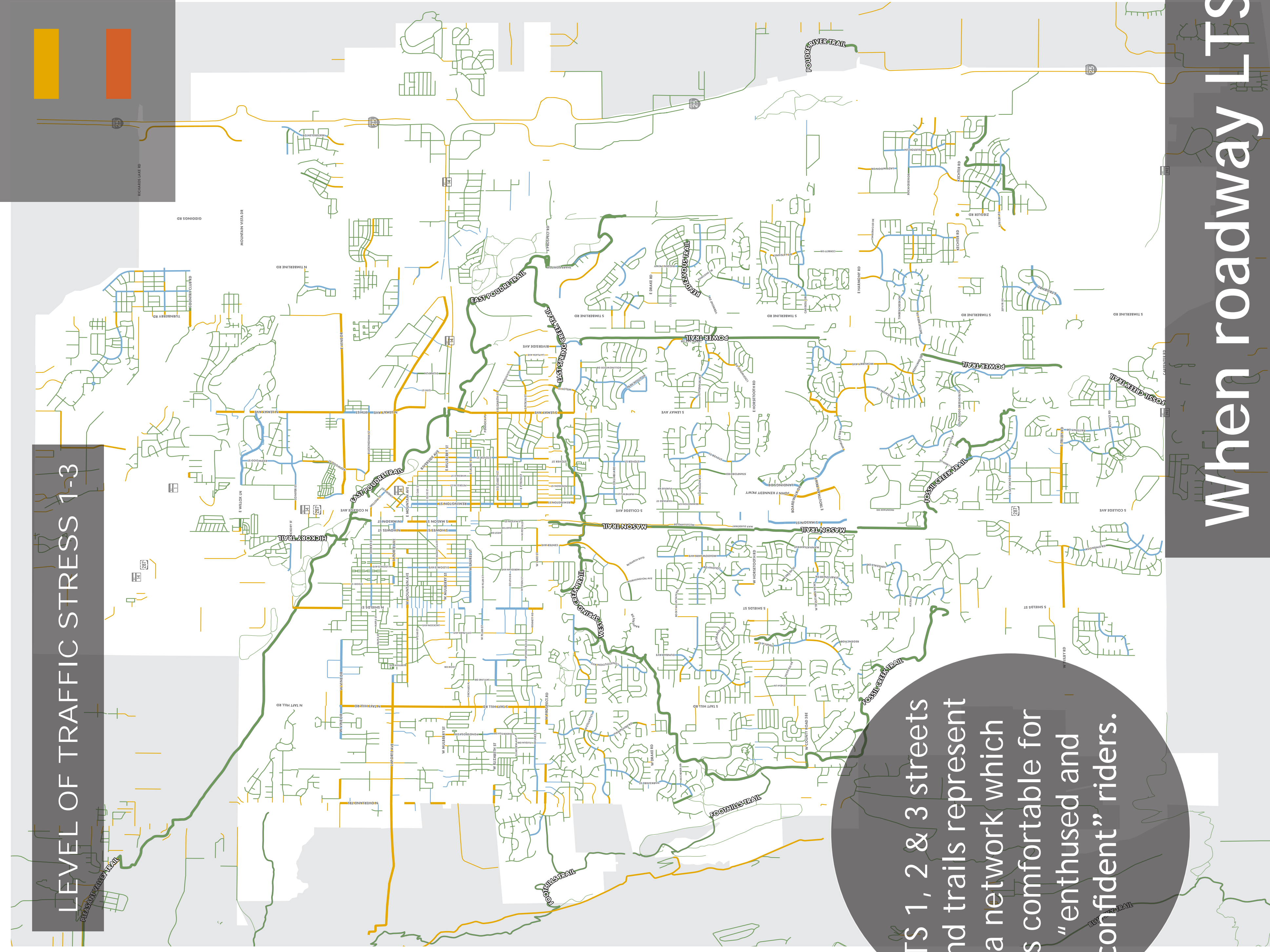


Stress Connectivity Assessment



Fort Collins Bicycle Plan EXISTING LEVEL OF TRAFFIC STRESS

- Level of Traffic Stress 1
- Level of Traffic Stress 2
- Level of Traffic Stress 3
- Level of Traffic Stress 4



When roadway LTS ratings are combined with intersection LTS ratings, a full picture of the existing network emerges.