

I-395 Route 9 Transportation Study

Traffic Impacts

PAC Meeting – Oct. 23, 2001

The Traffic Impacts of Each Alternative

Discussion of:

- **The travel time & travel distances between major origin / destination pairs which have been assigned to the alternatives.**
- **The travel demand for each alternative.**
- **The savings in vehicle-miles traveled.**
- **The saving in vehicle-hours traveled.**

The traffic impacts for each alternative are measured by being compared to the existing alternative.

Comparison of travel time & travel distances between major origin / destination pairs.

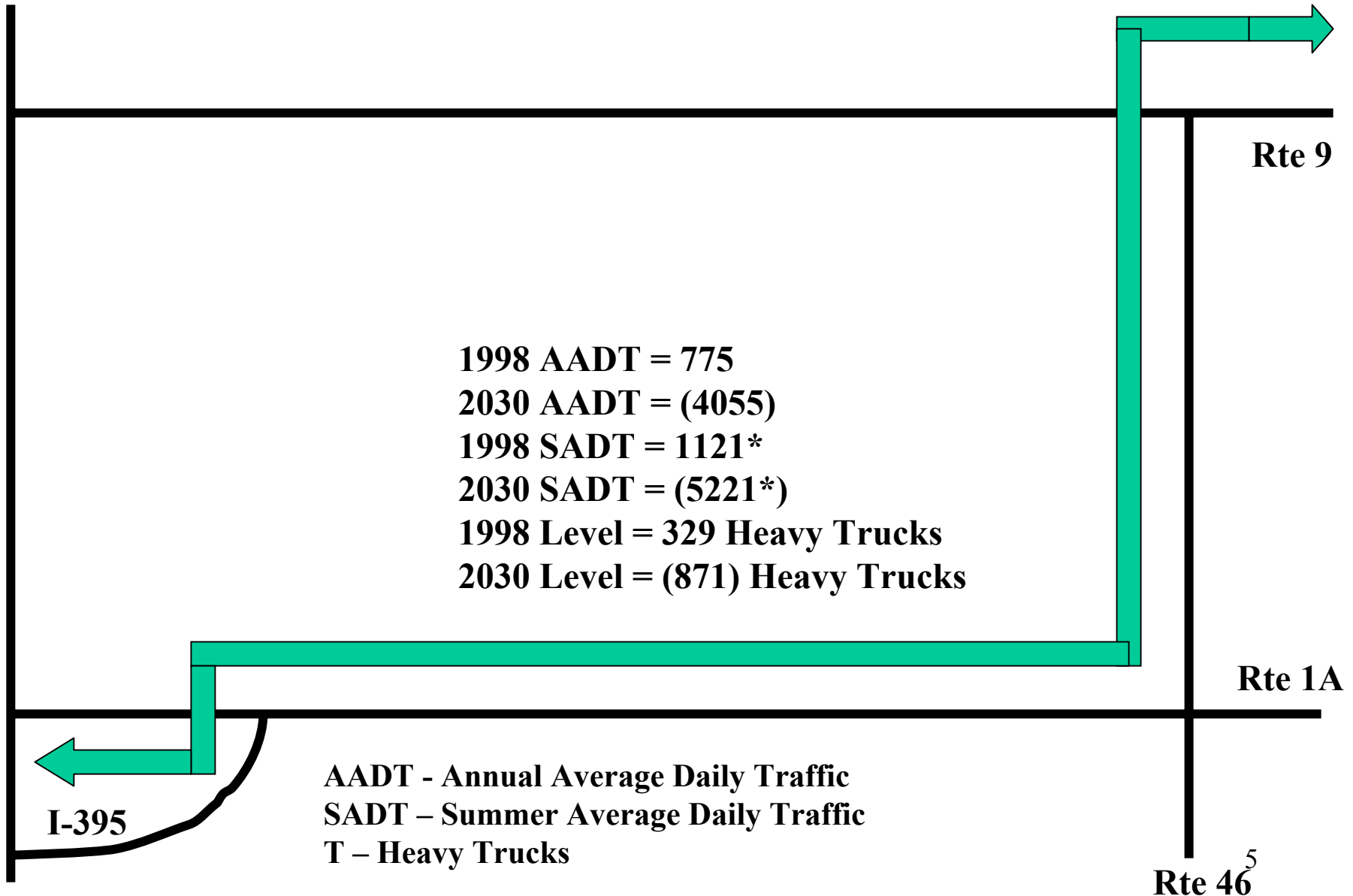
- Three major origin /destination pairs are assigned to all the alternatives:

Trips between:

1. Rte 9 (E/O Rte 46) and I-395 now using Rte 46.
2. Rte 9 (E/O Rte 46) & Rte 1A (W/O I-395) now using Rte 46.
3. Rte 9 (E/O Rte 46) & I-395 now using Rte 9 and downtown Brewer.

The fourth major origin / destination pair are trips between Rte 1A (E/O Rte 46) and I-395 are assigned to only Alternative 4B.

1. Trips between Rte 9 E and I-395 via Rte 46

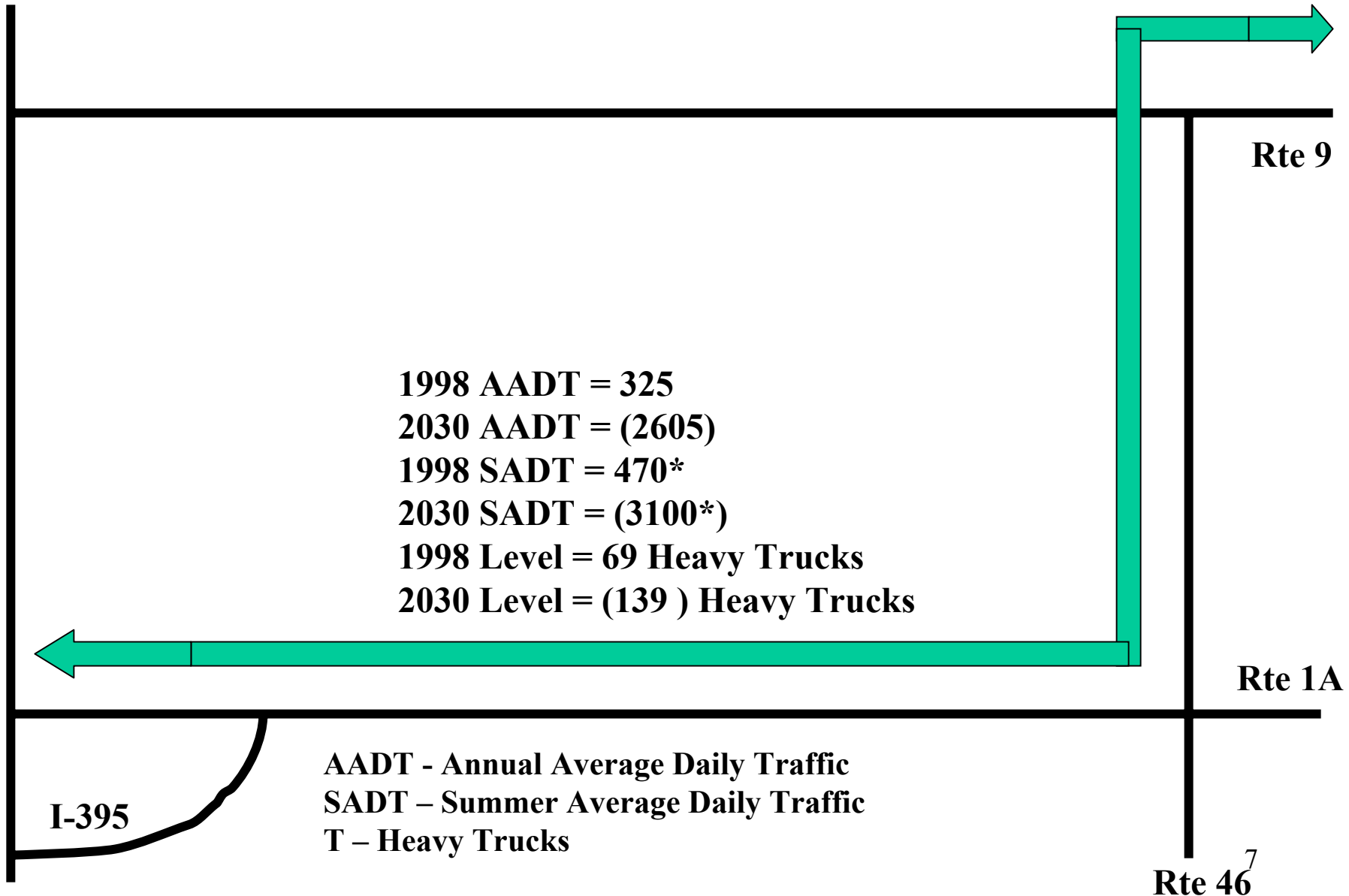


1. Travel Time & Distances

Between Rte 9 E & I-395 via Rte 46

| | | Rank | | Rank |
|-----------------|----------------|----------|--------------|----------|
| | Distance | Shortest | Time | Shortest |
| Alternative | Miles | Distance | Minutes | Time |
| 3 AIK | 9.41 | 2 | 10.26 | 1 |
| 3 AI | 9.29 * | 1 | 10.75 | 2 |
| 3EIK | 10.03 | 4 | 10.94 | 3 |
| 3 EI | 9.91 | 3 | 11.43 | 4 |
| 3E 2C 2E | 10.63 | 5 | 11.60 | 5 |
| 4B | 10.85 * | 8 | 11.86 | 6 |
| 2E 2C | 10.71 | 6 | 12.61 | 7 |
| 2 B | 10.71 | 6 | 12.84 | 8 |
| Existing | 11.80 | 9 | 17.89 | 9 |

2. Trips between Rte 9 E and Rte 1A W via Rte 46

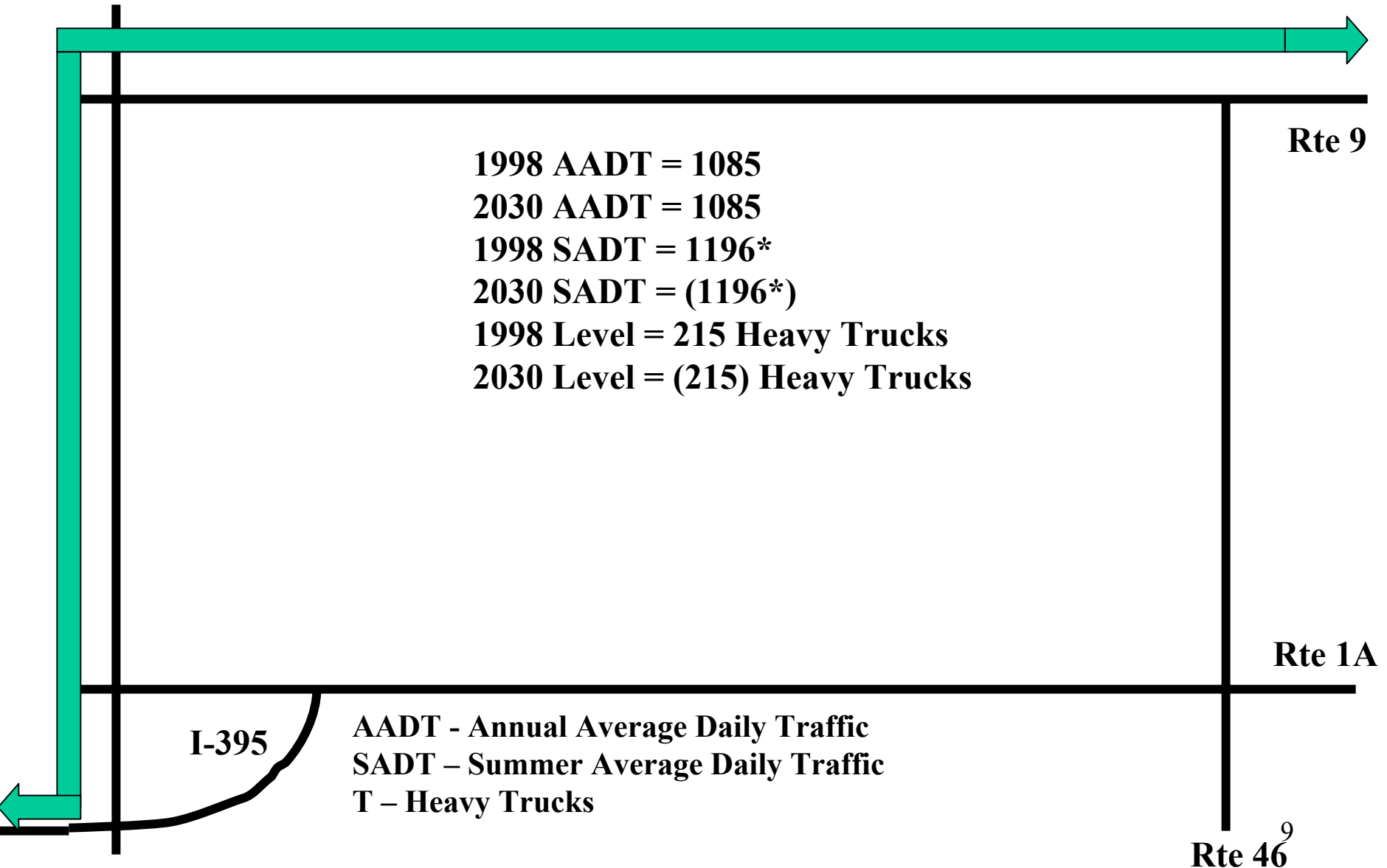


2. Travel Time & Distances

Between Rte 9 E & Rte 1A W via Rte 46

| | | Rank | | Rank |
|-------------|----------|----------|---------|----------------|
| | Distance | Shortest | Time | Shortest |
| Alternative | Miles | Distance | Minutes | Time |
| 3 AIK | 8.61 | 2 | 12.55 | 1 |
| 3 AI | 8.49 * | 1 | 13.04 | 2 |
| 3 EIK | 10.83 | 6 | 13.23 | 3 |
| 3 EI | 10.71 | 5 | 13.72 | 4 |
| 3E 2C 2E | 11.43 | 8 | 13.89 | 5 |
| 4B | 10.22 | 4 | 14.15 | 6 |
| 3E 2C | 11.51 * | 9 | 14.90 | 7 |
| 2B | 9.91 | 3 | 15.13 | 8 |
| Existing | 11.00 | 7 | 19.06 | 9 ⁸ |

3. Trips Between Rte 9 E and I-395 Via Rte 9



3. Travel Time & Distances Between Rte 9 E & I-395 via Rte 9

| | | Rank | | Rank |
|-----------------|----------------|----------|--------------|------------------------|
| | Distance | Shortest | Time | Shortest |
| Alternative | Miles | Distance | Minutes | Time |
| 3 AIK | 11.51 | 2 | 12.55 | 1 |
| 3 AI | 11.39 * | 1 | 13.04 | 2 |
| 3 EIK | 12.13 | 4 | 13.23 | 3 |
| 3 EI | 12.01 | 3 | 13.72 | 4 |
| 3E 2C 2E | 12.73 | 8 | 13.89 | 5 |
| 4B | 12.95 * | 9 | 14.15 | 6 |
| 3E 2C | 12.81 | 5 | 14.90 | 7 |
| 2B | 12.81 | 5 | 15.13 | 8 |
| Existing | 12.29 | 7 | 19.06 | 9 ₁₀ |

4. Trips Between Rte 1A E and I-395 (Only Assigned to Alternative 4B)

AADT - Annual Average Daily Traffic
SADT – Summer Average Daily Traffic
T – Heavy Trucks

1998 AADT = 3410
2030 AADT = (5310)
1998 SADT = 4792*
2030 SADT = (7172*)
1998 Level = Est. 350 Heavy Trucks
2030 Level = Est. (700) Heavy Trucks

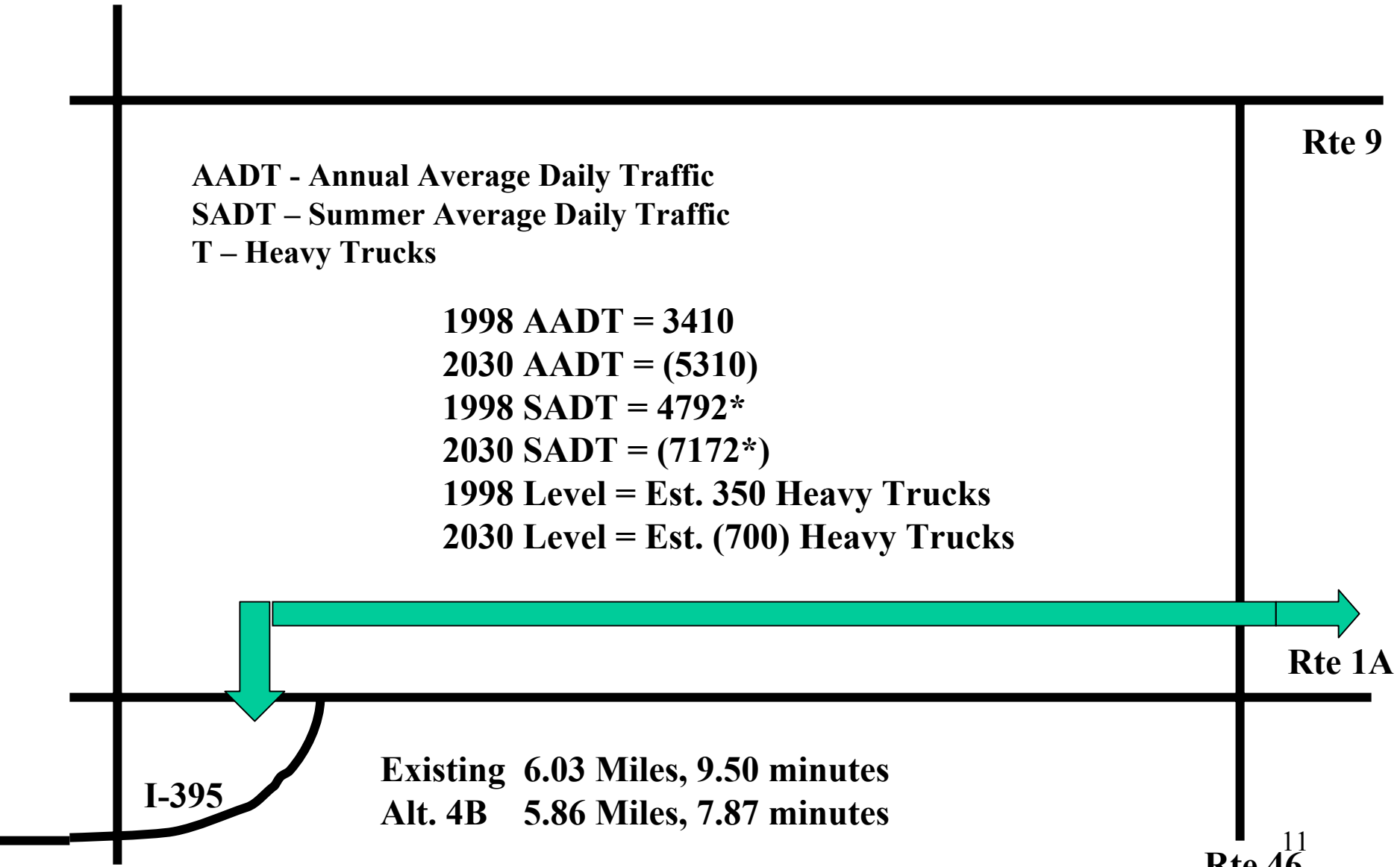
Rte 9

Rte 1A

I-395

Existing 6.03 Miles, 9.50 minutes
Alt. 4B 5.86 Miles, 7.87 minutes

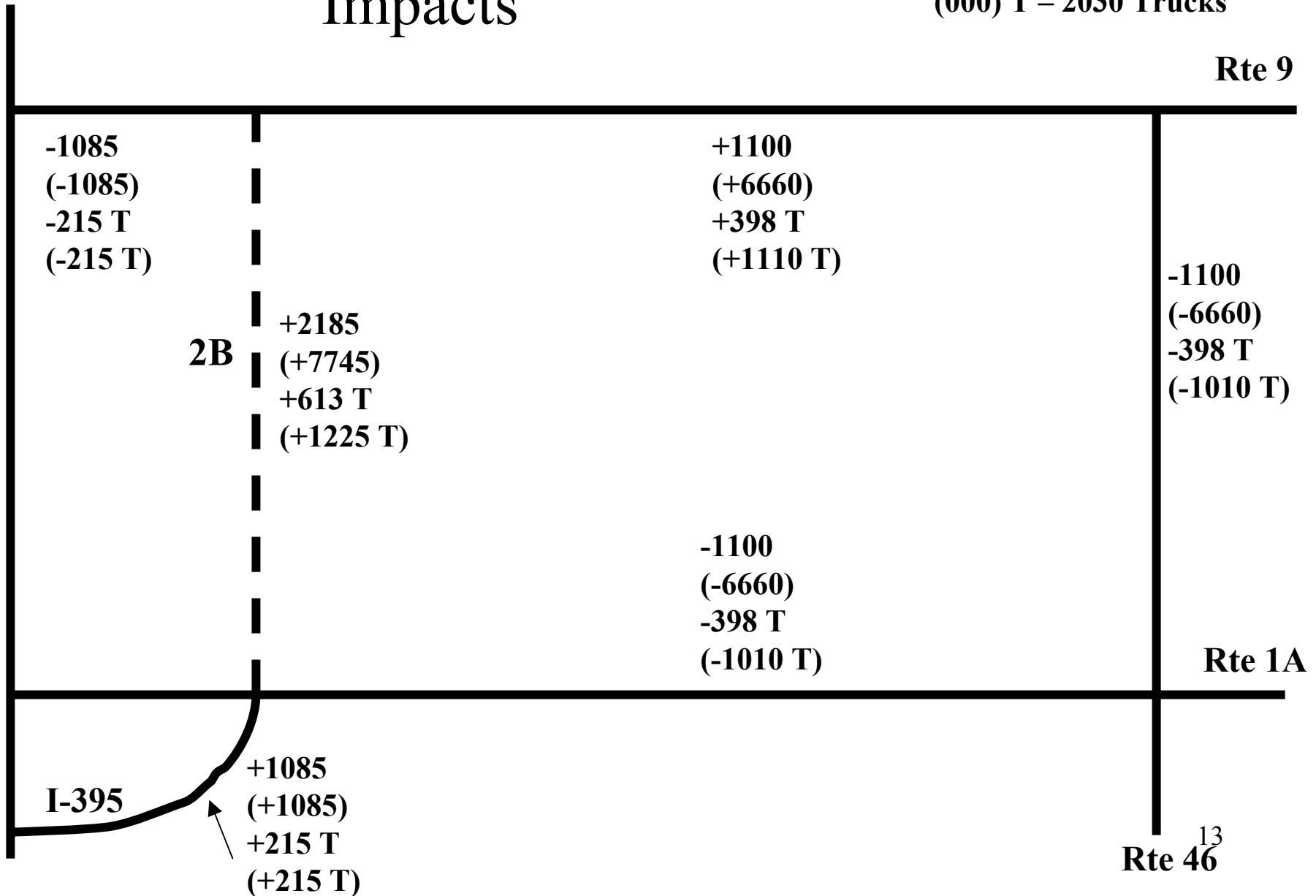
Rte 46¹¹



**Travel demand for each
alternative.**

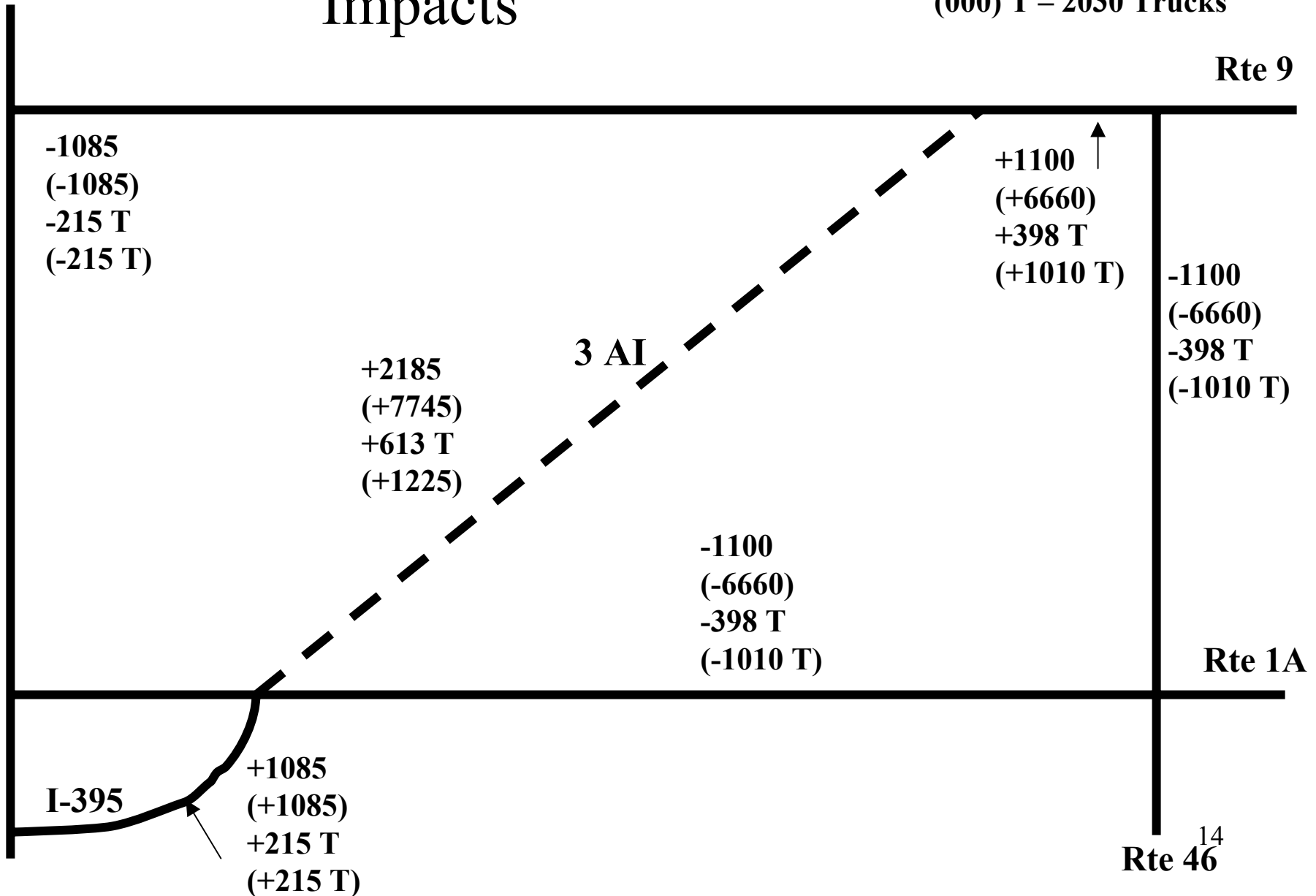
Alternative 2B Traffic Impacts

000 – 1998 AADT
(000) – 2030 AADT
000 T – 1998 Trucks
(000) T – 2030 Trucks



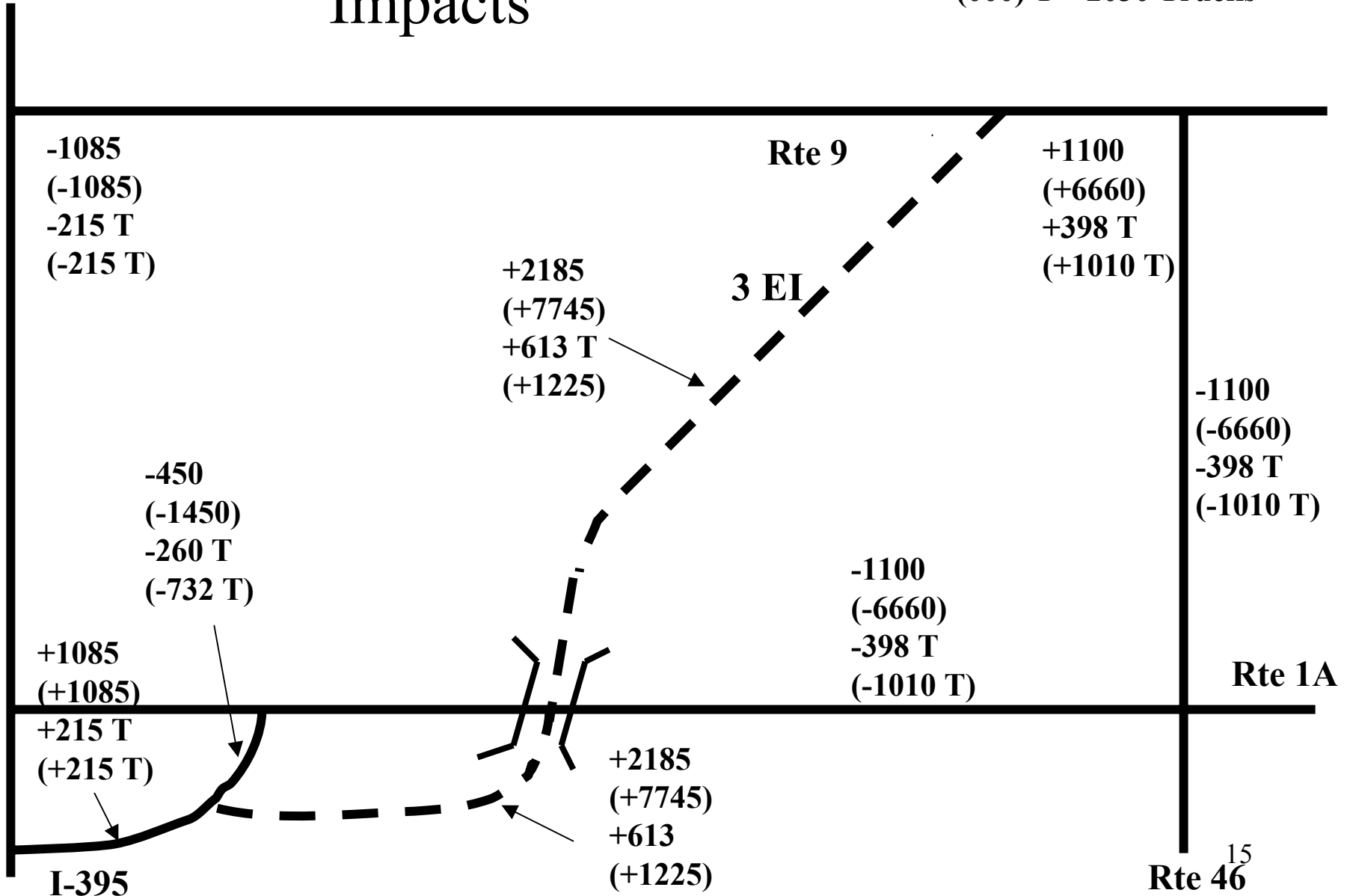
Alternative 3 AI Traffic Impacts

000 – 1998 AADT
(000) – 2030 AADT
000 T – 1998 Trucks
(000) T – 2030 Trucks



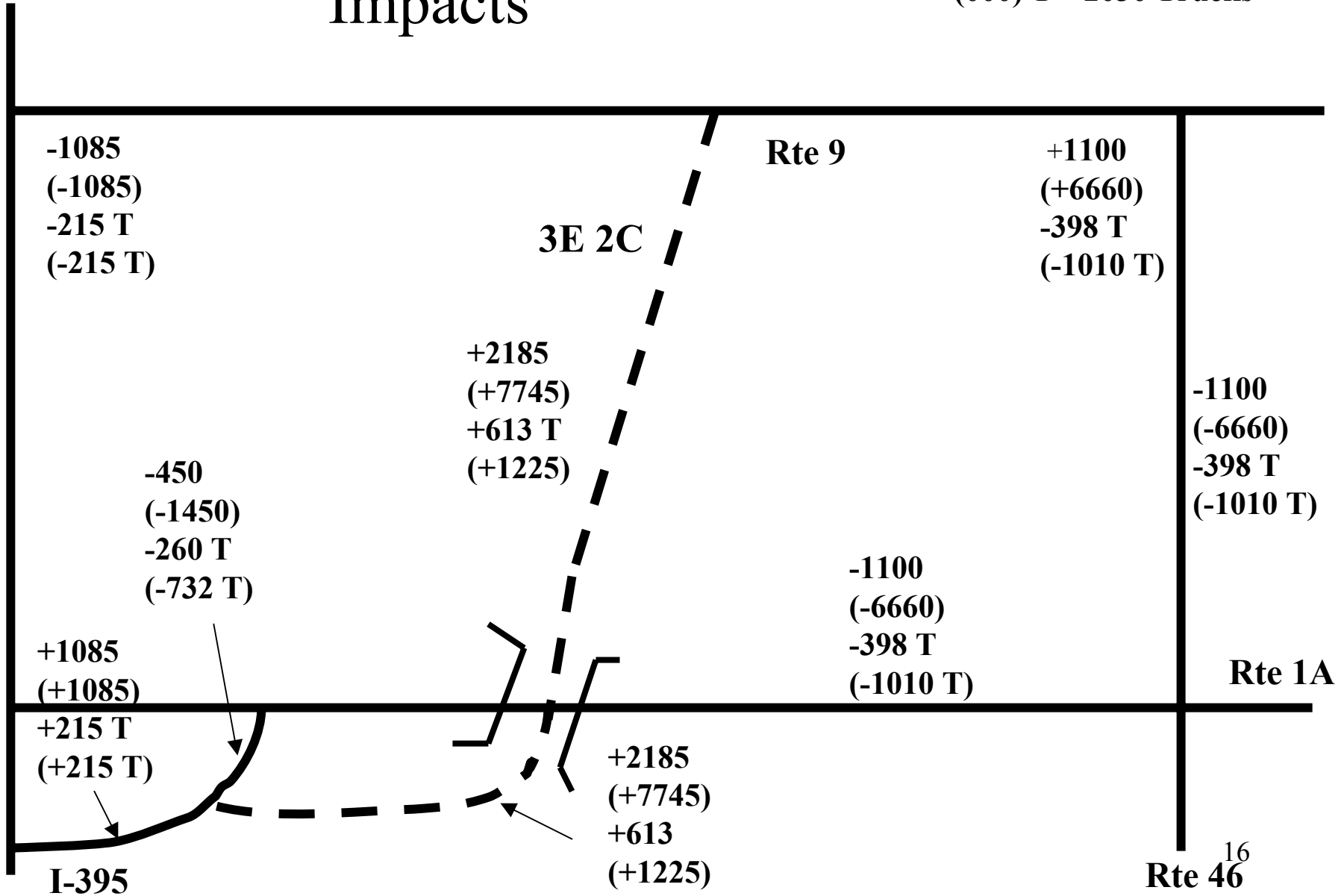
Alternative 3EI Traffic Impacts

000 – 1998 AADT
(000) – 2030 AADT
000 T – 1998 Trucks
(000) T – 2030 Trucks

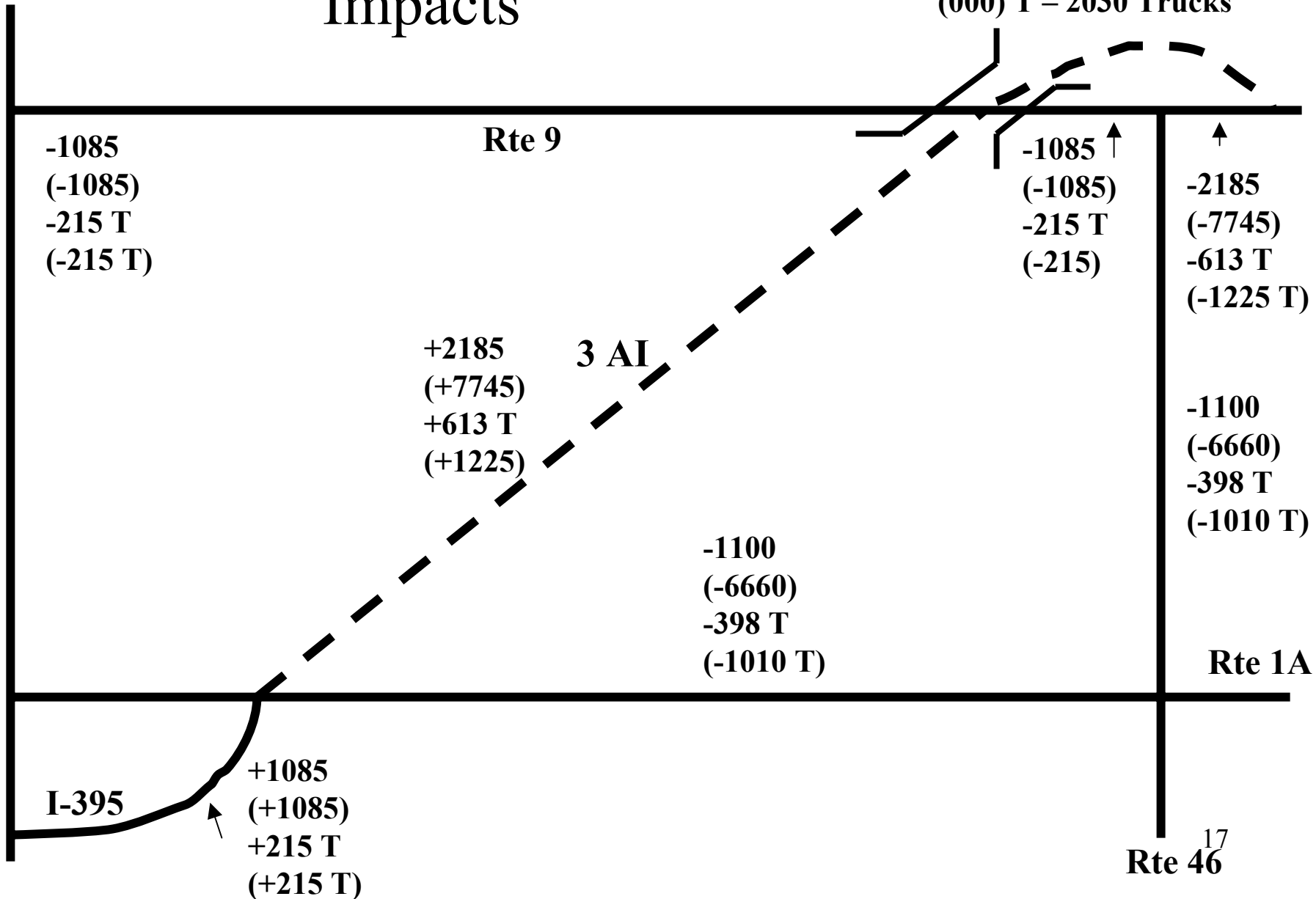


Alternative 3E 2C Traffic Impacts

000 – 1998 AADT
 (000) – 2030 AADT
 000 T – 1998 Trucks
 (000) T – 2030 Trucks

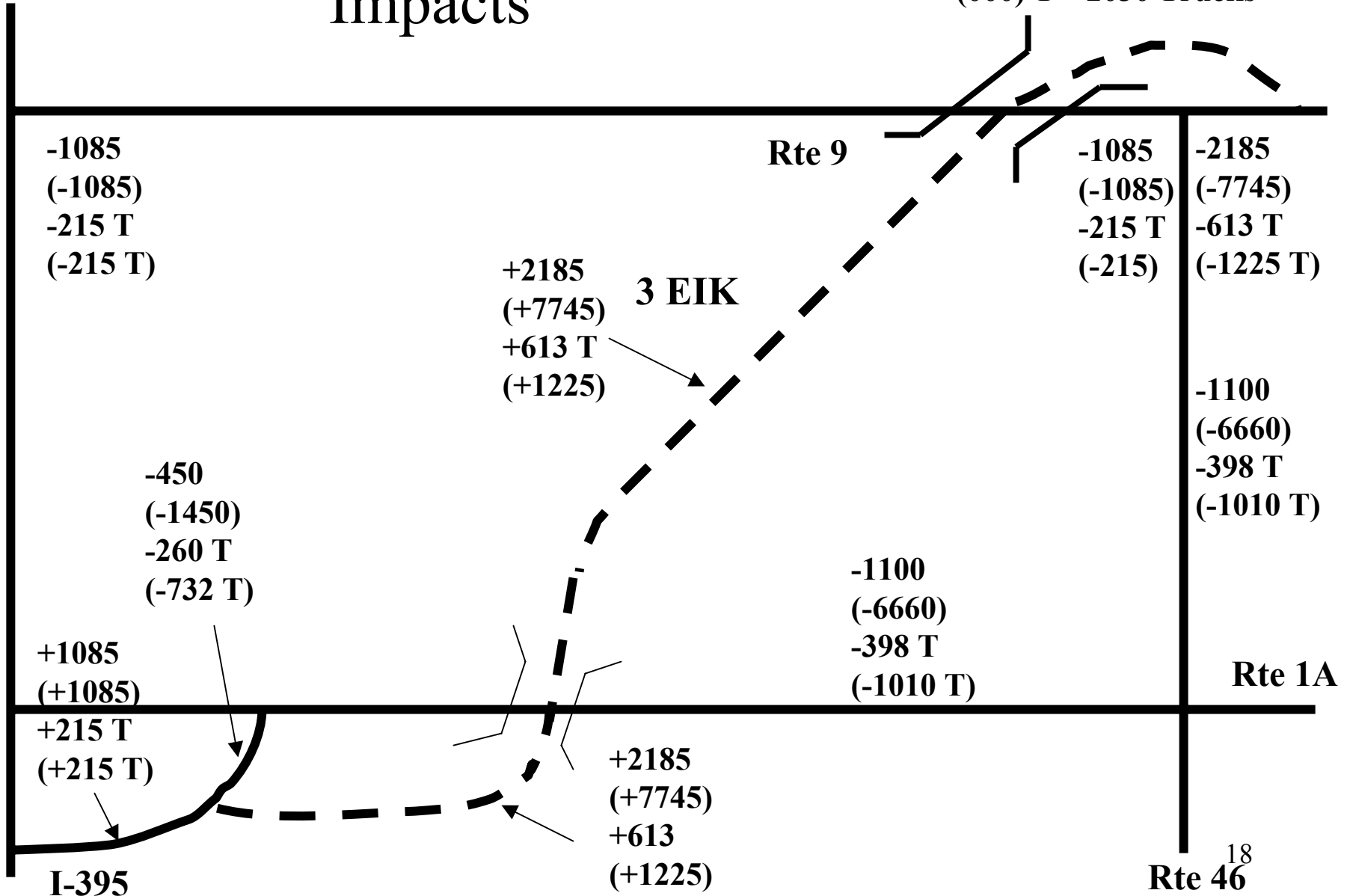


Alternative 3 AIK Traffic Impacts



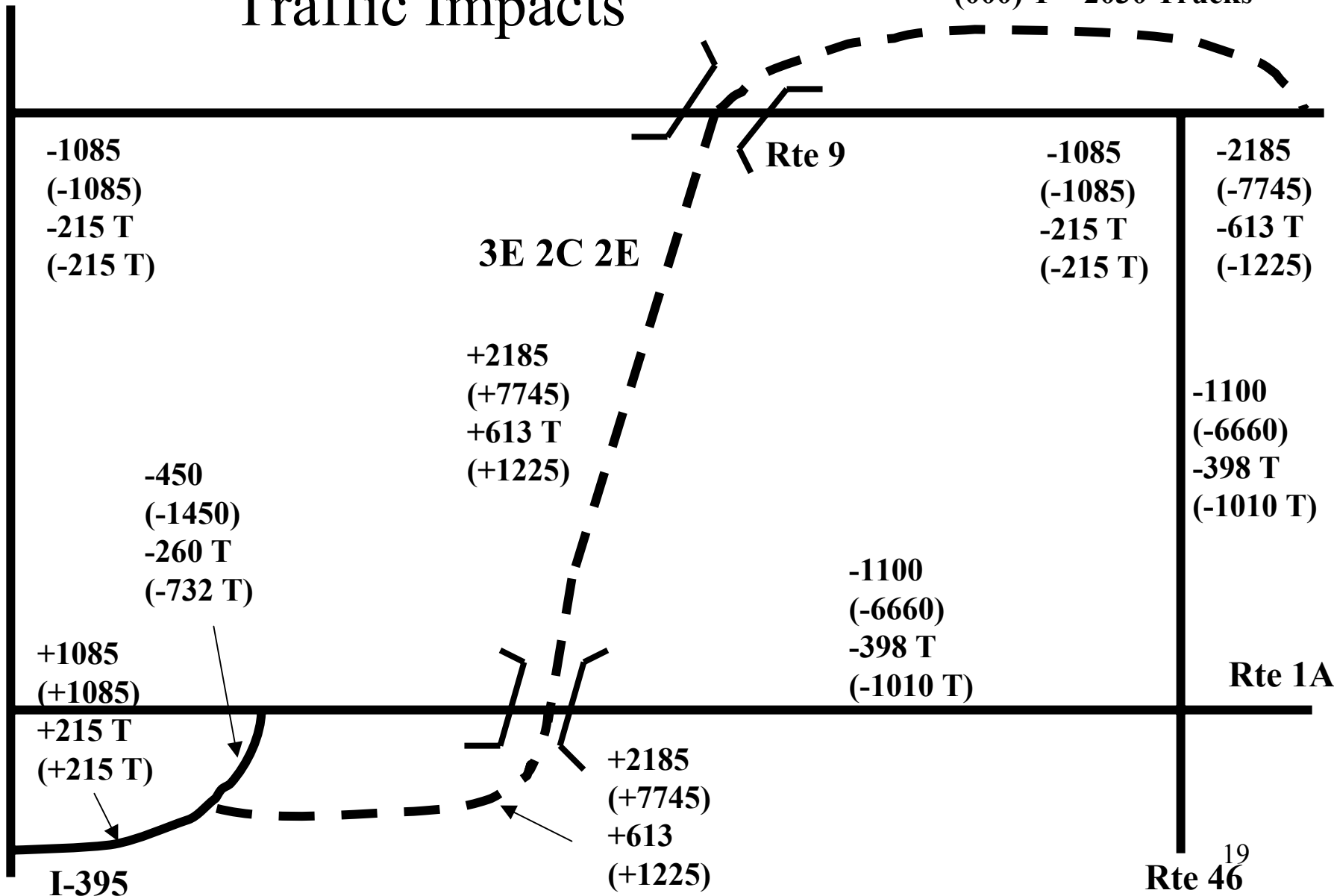
Alternative 3EIK Traffic Impacts

000 – 1998 AADT
 (000) – 2030 AADT
 000 T – 1998 Trucks
 (000) T – 2030 Trucks

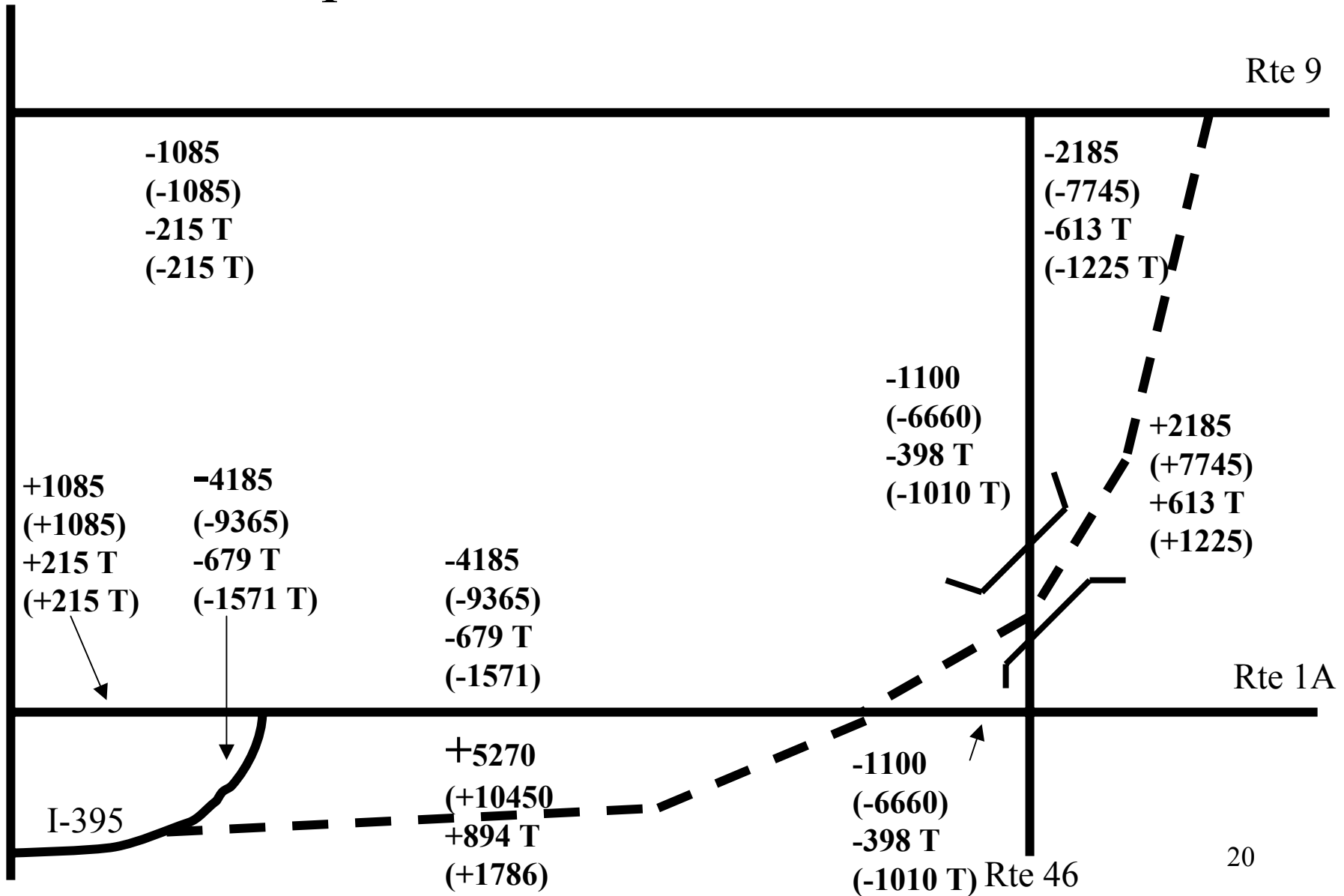


Alternative 3E 2C 2E Traffic Impacts

000 – 1998 AADT
 (000) – 2030 AADT
 000 T – 1998 Trucks
 (000) T – 2030 Trucks



Alternative 4B Traffic Impacts



Vehicle-Miles & Vehicle-Hours Saved.

Comparison 1998 Vehicle Miles Traveled & Vehicle Hours Traveled

| | | 1998 | | | 1998 |
|-------------|-----------------|-------------------|-------------|-----------------|-----------------|
| | | Annual | | | Annual |
| | | Vehicle | | | Vehicle |
| | | Miles | | | Hours |
| Rank | Alt. | Traveled | Rank | Alt. | Traveled |
| 1 | 3AI | -1,364,188 | 1 | 3 AIK | -94,026 |
| 2 | 3 AIK | -1,268,485 | 2 | 3AI | -87,513 |
| 3 | 3 EI | -679,922 | 3 | 3 EIK | -81,547 |
| 4 | 3 EIK | -584,219 | 4 | 3 EI | -75,034 |
| 5 | 4B | -311,473 | 5 | 3E 2C 2E | -72,775 |
| 6 | 2B | -231,702 | 6 | 4B | -69,536 |
| 7 | 3E 2C 2E | -105,704 | 7 | 2B | -59,733 |
| 8 | 3E 2C | -41,902 | 8 | 3E 2C | -59,350 |
| 9 | Existing | 0 | 9 | Existing | 0 |

Comparison 2030 Vehicle Miles Traveled & Vehicles Hours Traveled

| | | 2030 | | | 2030 |
|-------------|-----------------|-------------------|--|-------------|-----------------|
| | | Annual | | | Annual |
| | | Vehicle | | | Vehicle |
| | | Miles | | | Hours |
| Rank | Alt. | Traveled | | Rank | Alt. |
| 1 | 3AI | -6,457,982 | | 1 | 3 AIK |
| 2 | 3 AIK | -6,118,751 | | 2 | 3AI |
| 3 | 3 EI | -3,183,968 | | 3 | 4B |
| 4 | 3 EIK | -2,844,737 | | 4 | 3 EIK |
| 5 | 2B | -2,443,748 | | 5 | 3 EI |
| 6 | 4B | -2,215,824 | | 6 | 3E 2C 2E |
| 7 | 3E 2C 2E | -1,148,582 | | 7 | 2B |
| 8 | 3E 2C | -922,428 | | 8 | 3E 2C |
| 9 | Existing | | | 9 | Existing |

Conclusions

- **Alternatives AI and AIK save the most travel distance and travel time for the following major origin / destination pairs:**
 - » **Rte 9 E & I-395 via Rte 46**
 - » **Rte 9 E & Rte 1A W via Rte 46**
 - » **Rte 9 E & I-385 via Rte 9**
- **Alternative 4B is the only alternative that diverts traffic from Rte. 1A for trips between Rte 1A E & I-395 as it saves both travel time & distance.**

Conclusions

- All alternatives divert the same origin / destination pairs from Rte 46:
 - Rte 9 E & I-395 via Rte 46
 - Rte 9 E & Rte 1A W via Rte 46
 - Rte 9 E & I-395 via Rte 9
- All the alternatives except for the Eddington by-pass alternatives (3 AIK, 3 EIK & 3E 2C 2E) add traffic to Route 9 between Rte. 46 & the by-pass alternative.

Conclusions

- All the alternatives would reduce the number of heavy trucks using Route 46 between Rte 9 and Rte 1A and downtown Brewer via Route 9.
- Alternatives AI & AIK save the most vehicle-miles traveled & vehicle hours traveled.

Conclusions

- All alternatives reduce the same number of trips from the Holden – Route 1A & Route 46 Intersection.

Conclusions

- Remember that the transportation impacts are only one factor in the decision making process.

Any Questions?