

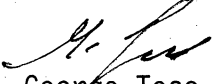


CITY OF CAMBRIDGE
INTEROFFICE CORRESPONDENCE

RECEIVED
91 FEB -8 AM 11:33
OFFICE OF THE CITY MANAGER

To Robert Healy, City Manager

Date Feb. 8, 1991

From 
George Teso, Traffic Director

Reference

Subject City Council Order #18 dated 5/2/90 Re: Signalized Crossing on Cambridge St. @ the High School

The Traffic Department has completed its traffic study on Cambridge St. at the high school and find that it does not meet the warrants for a full traffic signal. However, our study indicated that a pedestrian signal may be warranted if we could consolidate all the pedestrians in one crosswalk, but as can be seen by the study the high school students cross everywhere.

This location will be placed on our priority list and re-evaluated at a later date.

GT:rd

PEDESTRIAN CROSSING ANALYSIS

CAMBRIDGE STREET

PREPARED BY
CITY OF CAMBRIDGE
TRAFFIC AND PARKING DEPARTMENT
FEBRUARY 1991

PEDESTRIAN CROSSING ANALYSIS
CAMBRIDGE STREET AT RINDGE AND LATIN HIGH SCHOOL

A. PURPOSE

The purpose of this study is to collect and analyze data to determine the need to improve pedestrian safety and the need of any traffic control devices that would improve that safety. The method used was to conduct various studies such as traffic volume, pedestrian counts, speed and accident studies and to analyze this information and make a determination of what the problems are and what measures can be taken to solve them.

B. EXISTING CONDITIONS

Cambridge Street from Irving Street to Roberts Road currently operates with free flowing traffic. There are cross walks located at Irving Street, Trowbridge Street, and Roberts Road. Cambridge Street is 45 feet wide with one lane of traffic in each direction and a parking lane on both sides. The Bus stops are located opposite Irving Street on the south side and at Trowbridge Street on the North side of Cambridge Street. There are also several stores located between Trowbridge Street and Roberts Road that are frequented by many students.

C. TRAFFIC VOLUMES

Mechanical counters were used to obtain average daily traffic counts (ADT).

The following are ADT volumes and AM/PM volumes when school opens and closes.

| <u>STREET</u> | <u>DIRECTION</u> | <u>ADT</u> | <u>AM</u> | | <u>PM</u> |
|---------------|------------------|------------|------------------|------------------|-----------|
| | | | <u>7:45-8:45</u> | <u>1:45-2:45</u> | |
| Cambridge St. | eastbound | 7,345 | 368 | 464 | |
| Cambridge St. | westbound | 5,421 | 322 | 350 | |

For pedestrian crossing volumes and location see attached sketch.

D. ACCIDENT STUDIES

An accident study was conducted by the Traffic Department with cooperation from the Police Department and as shown on the enclosed collision diagram, there were a total of seven (7) accidents reported in 1990. Of the 7 accident reported, only one (1) involved a pedestrian. This accident occurred at 12:15 AM and involved the use of alcohol.

E. SPEED STUDIES

Radar speed checks were made by checking vehicles at random in both directions on Cambridge Street.

The following speeds were recorded.

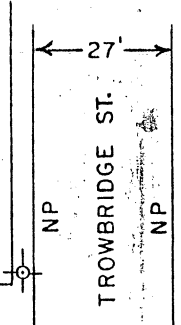
| <u>STREET</u> | <u>DIRECTION</u> | <u>AVERAGE SPEED</u> | <u>85% SPEED</u> |
|---------------|------------------|----------------------|------------------|
| Cambridge St | eastbound | 26.2 MPH | 30 MPH |
| Cambridge St. | westbound | 24.2 MPH | 30 MPH |

The speed check reveals that the average speed is within the 30 MPH legal range in both directions and that approximately 10% of all drivers are exceeding the speed limit.

F. CONCLUSION AND RECOMMENDATIONS

In analyzing all the data collected, the area of Cambridge Street in front of the High School does not meet the warrants for a traffic signal at this time. The only possible way for a signal to be installed would be for control of the pedestrians. However, as can be seen from the attached sketch on pedestrian counts, the pedestrians cross Cambridge Street any where between Roberts Road and Irving Street.

This area will be placed on our priority list and will be reevaluated in the future.

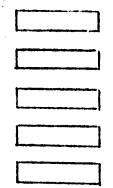


OPEN PARKING

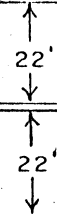
CAMBRIDGE

NO STOPPING

RESERVED HANDICAP



RESERVED HANDICAP



BUS STOP
ST.

1 HP METERS

C. R. L. H. S.

| NO. | DATE | DESCRIPTION | DRAWN | CHKD | REC'M | APPVD | DATE |
|-----------------|------|-------------|-------|------|-------|-------|------|
| REVISIONS ABOVE | | | | | | | |

CAMBRIDGE ST. & TROWBRIDGE ST.
CONDITION DIAGRAM

| | INITIAL | DATE |
|------------|--------------|---------|
| DRAWN | W E J | 1/31/91 |
| TRACED | | |
| CHECKED | | |
| REC'M APP. | <i>M/K</i> | 2/5/91 |
| APPROVED | <i>W E J</i> | 2/5/91 |

DEPARTMENT OF
TRAFFIC AND PARKING
CITY OF CAMBRIDGE

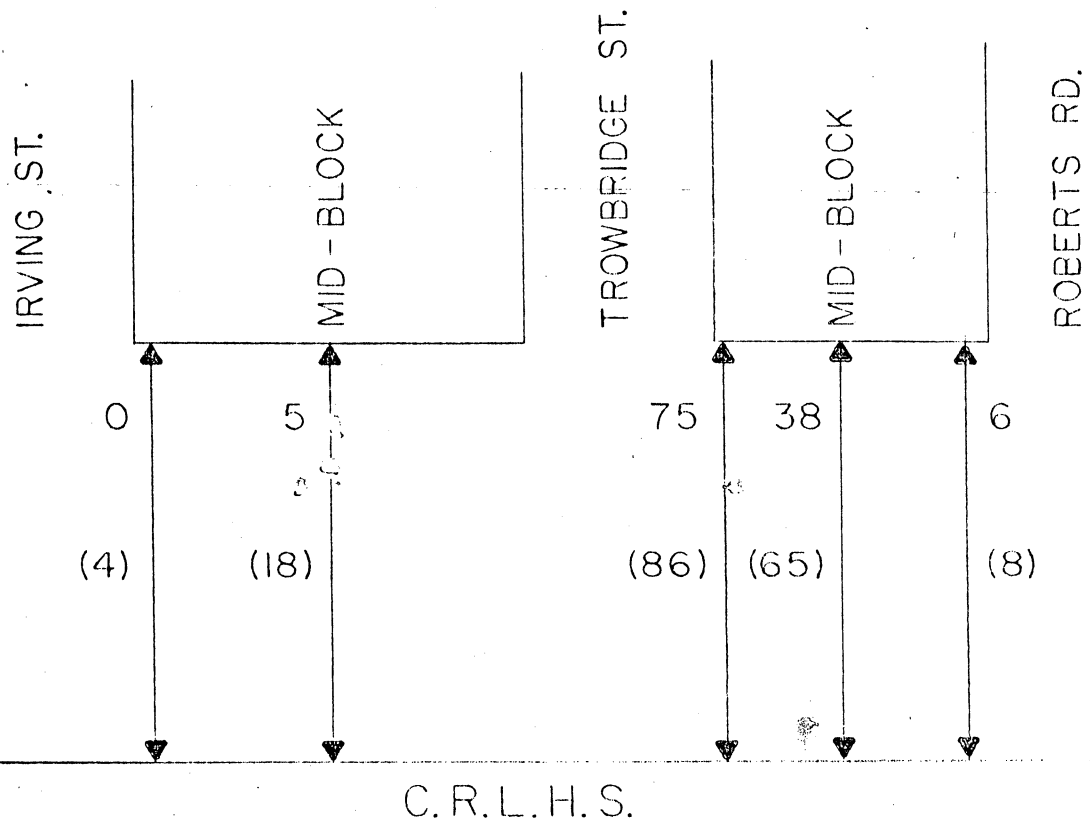
DRAWING NO.
SCALE 1" = 40'
SHEET NO. 1 OF 1

DRAWING 40-150

PEDESTRIAN COUN.

MORNING XX

AFTERNOON (XX)

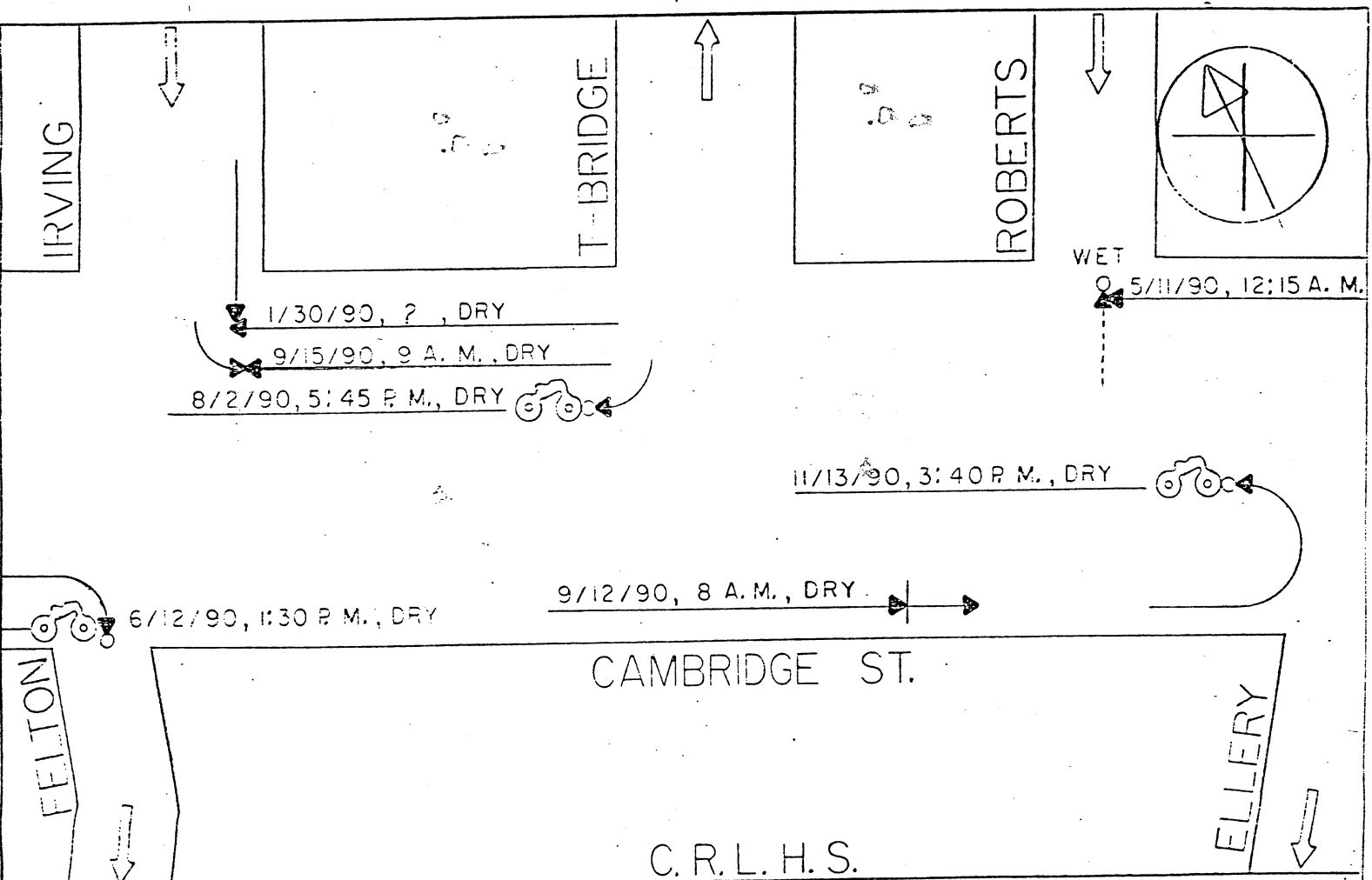


NO SCALE

CITY OF CAMBRIDGE

COLLISION DIAGRAM

Location CAMBRIDGE ST. AT H.S. Number of Accidents 7
 From 1/1/90 To 1/1/91 Date 1/8/91
 Data Obtained From CAMBRIDGE POLICE By E. J.



Legend

- ← Moving Motor Vehicle
- ▲ Pedestrian
- ☐ Parked Vehicle
- Fixed Object
- ⊗ Fatal Accident
- ⊗ Personal Injury
- ⊗ Property Damage
- ⊗ Trolley
- ⊗ Out of Control
- ⊗ Rear End
- ⊗ Right Angle

| Accident Summary | | | | | | | | | |
|------------------|-------|----------|--------------|----------|----------|-----------|-----------|----------|----------|
| By Types | | | | | By Years | | | | |
| Type | Fatal | Inj. | Prop. Damage | Total | Year | M.V. M.V. | M.V. Ped. | Other | Total |
| Head On | | | | | 90 | 3 | 1 | 3 | 7 |
| Side Swipe | | | | | | | | | |
| M.V. Ped. | | 1 | | 1 | | | | | |
| Fixed Object | | | | | | | | | |
| Right Angle | | 3 | 2 | 5 | | | | | |
| Others | | | 1 | 1 | | | | | |
| Total | | 4 | 3 | 7 | | 3 | 1 | 3 | 7 |

Date 1/9/91 Compiled By E. J.

AT THE INTERSECTION OF

DATE 4/14/87

DIRECTION EAST

WEATHER CLDY

COMPILED BY E. J.

| HOUR BEGIN | WEEKDAY | | | | | SUB-TOTAL | SAT | SUN | TOTAL |
|---------------|---------|------|-----|-------|------|-----------|------|------|-------|
| | MON | TUES | WED | THURS | FRI | | | | |
| 11 - 2400 | | | 145 | 153 | 100 | | 190 | 214 | |
| 12 - 0100 | | | 57 | 83 | 91 | | 134 | 140 | |
| 1 - 0200 | | | 29 | 35 | 44 | | 83 | 93 | |
| 2 - 0300 | | | 19 | 19 | 27 | | 50 | 61 | |
| 3 - 0400 | | | 13 | 24 | 20 | | 29 | 30 | |
| 4 - 0500 | | | 23 | 22 | 26 | | 28 | 17 | |
| 5 - 0600 | | | 51 | 56 | 54 | | 32 | 30 | |
| 6 - 0700 | | | 212 | 198 | 199 | | 94 | 67 | |
| 7 - 0800 | | | 485 | 616 | 421 | | 145 | 86 | |
| 8 - 0900 | | | 683 | 755 | 491 | | 201 | 154 | |
| 9 - 1000 | | 450 | 515 | 473 | 411 | | 358 | 245 | |
| 10 - 1100 | | 317 | — | 519 | 461 | | 363 | 271 | |
| 11 - 1200 | | — | 502 | 545 | 495 | | 428 | 293 | |
| P M | | | | | | | | | |
| 12 - 1300 | | * | 502 | 473 | 520 | | 440 | 350 | |
| 1 - 1400 | | * | 438 | 480 | 525 | | 420 | 288 | |
| 2 - 1500 | | * | 516 | 582 | 544 | | 415 | 299 | |
| 3 - 1600 | | * | 592 | 677 | 600 | | 457 | 312 | |
| 4 - 1700 | | | 555 | 519 | 580 | | 406 | 321 | |
| 5 - 1800 | | | 503 | 523 | 506 | | 392 | 328 | |
| 6 - 1900 | | | 440 | 460 | 467 | | 403 | 273 | |
| 7 - 2000 | | | 380 | 455 | 481 | | 315 | 311 | |
| 8 - 2100 | | | 327 | 338 | 384 | | 303 | 263 | |
| 9 - 2200 | | | 266 | 284 | 315 | | 259 | 233 | |
| 10 - 2300 | | | 213 | 216 | 264 | | 229 | 196 | |
| TOTAL | | | | 8717 | 7973 | | 6171 | 4998 | |

AVERAGE WEEKDAY VOLUME 325

AVERAGE DAY VOLUME 325

CAMBRIDGE ST

AT THE INTERSECTION OF

STATE ST

DATE 4/14/87

2 OF 2

DIRECTION EAST

WEATHER CLDY

COMPILED BY E. G.

| HOUR BEG IN | WEEKDAY | | | | | SUB-TOTAL | SAT | SUN | TOTAL |
|----------------|---------|------|----------------|-------|------|-----------|-----|-----|-------|
| | MON | TUES | WED | THURS | FRI | | | | |
| | ✓ | ✓ | ✓ | AM | | | | | |
| 11- 2400 | 144 | 122 | 142 | 163 | 169 | | | | |
| 12- 0100 | 64 | 40 | 78 | 104 | 98 | | | | |
| 1- 0200 | 40 | 25 | 33 | 38 | 47 | | | | |
| 2- 0300 | 27 | 21 | 24 | 17 | 22 | | | | |
| 3- 0400 | 17 | 15 | 16 | 24 | 21 | | | | |
| 4- 0500 | 24 | 21 | 19 | 25 | 20 | | | | |
| 5- 0600 | 47 | 51 | 54 | 63 | 62 | | | | |
| 6- 0700 | 114 | 193 | 180 | 178 | 197 | | | | |
| 7- 0800 | 242 | 403 | 414 | 399 | 384 | | | | |
| 8- 0900 | 286 | 478 | 435 | 482 | 447 | | | | |
| 9- 1000 | 303 | 396 | 410 | 403 | 395 | | | | |
| 10- 1100 | 331 | 410 | 377 | 384 | 408 | | | | |
| 11- 1200 | 371 | 442 | 384 | 474 | 459 | | | | |
| | | | | PM | | | | | |
| 12- 1300 | 379 | 432 | 396 | 454 | 536 | | | | |
| 1- 1400 | 314 | 457 | 428 | 415 | *784 | | | | |
| 2- 1500 | 345 | 470 | 448 | 511 | | | | | |
| 3- 1600 | 473 | 565 | 539 | 585 | | | | | |
| 4- 1700 | 400 | 675 | 526 | 478 | | | | | |
| 5- 1800 | 385 | 673 | 506 | *102 | | | | | |
| 6- 1900 | 337 | 424 | 417 | * — | | | | | |
| 7- 2000 | 331 | 408 | 417 | 382 | | | | | |
| 8- 2100 | 260 | 292 | 311 | 400 | | | | | |
| 9- 2200 | 198 | 278 | 283 | 256 | | | | | |
| 10- 2300 | 175 | 172 | 226 | 211 | | | | | |
| TOTAL | 5607 | 7472 | 7063 | | | | | | |

AVERAGE WEEKDAY VOLUME 7345

AVERAGE DAY VOLUME 6328

AT THE INTERSECTION OF

DATE 4/14/87

2 of 2

DIRECTION WEST

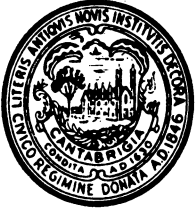
WEATHER CLDY

COMPILED BY E. J.

| HOUR BEGIN | WEEKDAY | | | | | SUB-TOTAL | SAT | SUN | TOTAL |
|---------------|---------|------|------|-------|-----|-----------|-----|-----|-------|
| | MON | TUES | WED | THURS | FRI | | | | |
| 11- 2400 | 108 | 33 | 49 | 102 | 109 | | | | |
| 12- 0100 | 47 | 47 | 48 | 40 | 41 | | | | |
| 1- 0200 | 41 | 22 | 50 | 30 | 50 | | | | |
| 2- 0300 | 19 | 13 | 12 | 15 | 19 | | | | |
| 3- 0400 | 13 | 22 | 10 | 21 | 11 | | | | |
| 4- 0500 | 11 | 16 | 18 | 13 | 23 | | | | |
| 5- 0600 | 65 | 102 | 101 | 111 | 118 | | | | |
| 6- 0700 | 188 | 369 | 333 | 338 | 344 | | | | |
| 7- 0800 | 178 | 342 | 346 | 371 | 340 | | | | |
| 8- 0900 | 245 | 361 | 339 | 321 | 345 | | | | |
| 9- 1000 | 251 | 361 | 334 | 344 | 314 | | | | |
| 10- 1100 | 230 | 323 | 346 | 331 | 330 | | | | |
| 11- 1200 | 230 | 330 | 321 | 321 | 306 | | | | |
| P M | | | | | | | | | |
| 12- 1300 | 267 | 363 | 382 | 373 | 237 | | | | |
| 1- 1400 | 271 | 395 | 358 | 383 | 47 | | | | |
| 2- 1500 | 306 | 377 | 369 | 353 | | | | | |
| 3- 1600 | 288 | 357 | 356 | 387 | | | | | |
| 4- 1700 | 297 | 284 | 343 | 375 | | | | | |
| 5- 1800 | 314 | 239 | 365 | 387 | | | | | |
| 6- 1900 | 253 | 324 | 316 | 404 | | | | | |
| 7- 2000 | 229 | 241 | 288 | 257 | | | | | |
| 8- 2100 | 178 | 209 | 232 | 218 | | | | | |
| 9- 2200 | 138 | 178 | 179 | 176 | | | | | |
| 10- 2300 | 143 | 149 | 162 | 166 | | | | | |
| TOTAL | 4345 | 5147 | 5606 | | | | | | |

AVERAGE WEEKDAY VOLUME 544

AVERAGE DAY VOLUME 5450



CITY OF CAMBRIDGE

CAMBRIDGE, MASSACHUSETTS 02139

TEL. 349-4300

FAX. 349-4307

EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

February 11, 1991

To The Honorable, The City Council:

In response to Awaiting Report Item No. 4, regarding signalized crossing on Cambridge Street at the High School, please find attached a report from George Teso, Traffic & Parking Director.

Very truly yours,

Robert W. Healy
City Manager

RWH/mev
attachment

CONSENT AGENDA # 8

8-273

Awaiting Report Item No. 4, regarding
signalized crossing on Cambridge Street
at the High School.

In City Council,

February 11, 1991

Placed on file