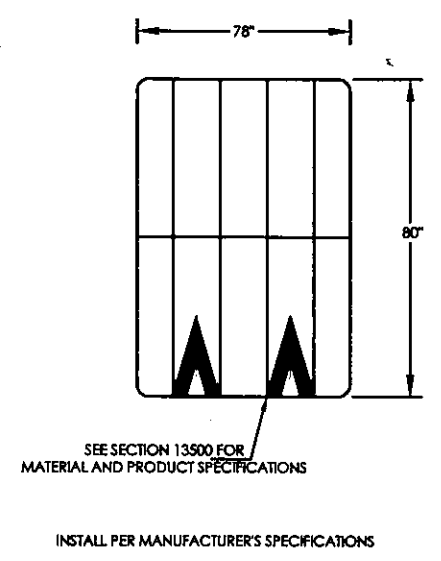


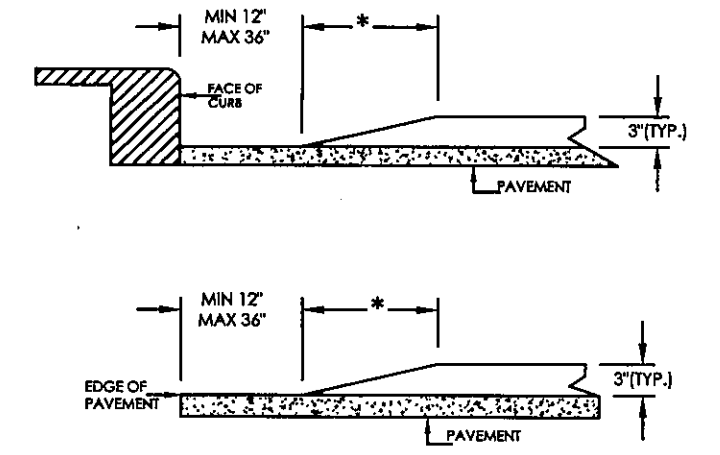
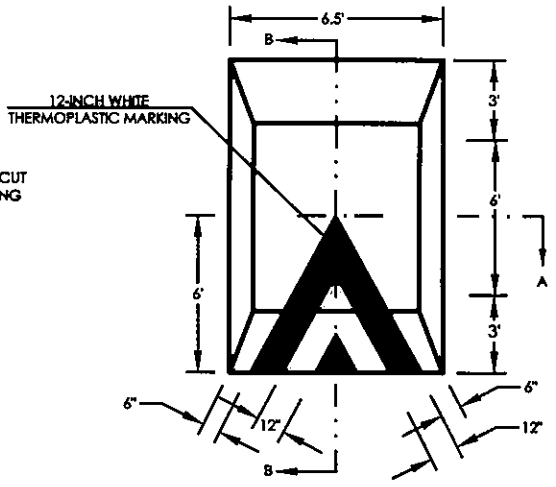
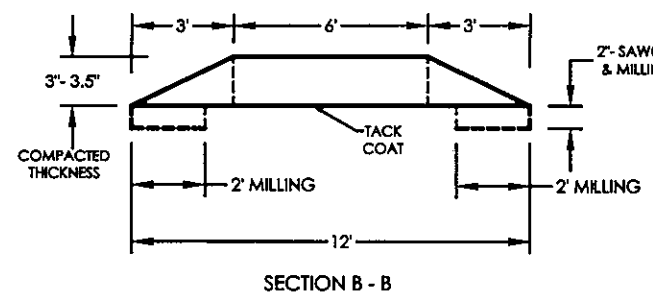
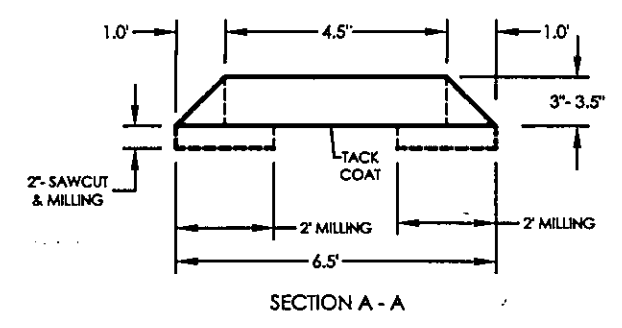
RUBBER SPEED CUSHION



GENERAL NOTES

1. SPEED CUSHIONS AND ASSOCIATED SIGNS AND PAVEMENT MARKINGS WILL BE CONSTRUCTED AT LOCATIONS DESIGNED BY TRAFFIC OPERATIONS DIVISION (TOD) OR PER PLANS APPROVED BY TOD.
2. CONTRACTOR SHALL CONTACT THE CONSTRUCTION COORDINATOR BEFORE ANY STREET IS TEMPORARILY CLOSED FOR CONSTRUCTION.
3. THE TYPE OF SPEED CUSHION AND DISTANCE BETWEEN EACH CUSHION WILL BE DETERMINED BY TOD.
4. NO PART OF A SPEED CUSHION SHALL BE LOCATED IN FRONT OF DRIVEWAY APPROACH; RATHER THERE SHOULD BE A MINIMUM OF 6 FEET FROM THE EDGE OF A DRIVEWAY, WHEN PRACTICAL.
5. SPEED CUSHIONS SHOULD BE PLACED AS CLOSE AS POSSIBLE TO THE PROPERTY LINES INSTEAD OF MID - LOT LOCATION, WHERE PRACTICAL.
6. SPEED CUSHIONS SHOULD BE INSTALLED AT A RIGHT ANGLE TO THE CENTERLINE TANGENT OF THE ROADWAY.
7. TRAFFIC CONTROL CONSISTING OF SIGNS SHALL BE PROVIDED TO ADVISE ROADWAY USER OF SPEED CUSHIONS PRESENT. TRAFFIC SIGNS, AND PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).
8. ALL SIGNS AND PAVEMENT MARKINGS WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR.
9. CONTRACTOR SHALL NOT OPEN SPEED CUSHIONS TO TRAFFIC UNTIL ALL REQUIRED WARNING SIGNS AND PAVEMENT MARKINGS ARE COMPLETED.
10. CONTRACTOR WILL MAINTAIN TEMPORARY MARKINGS UNTIL PERMANENT MARKINGS ARE INSTALLED.
11. CONTRACTOR SHALL COMPLETE THE CUSHION INSTALLATION TO FORM ONE COMPLETE HUMP BEFORE LEAVING THE JOB SITE.
12. CONTRACTOR SHALL WORK ONE HALF OF THE STREET AT A TIME AND MAINTAIN TWO - WAY TRAFFIC WITH CERTIFIED FLAGGER.
13. ASPHALT SPEED CUSHION SHALL BE CONSTRUCTED WITH TYPE D ASPHALT MIX PER CITY OF HOUSTON SPECIFICATIONS; A TACK COAT SHALL BE APPLIED PRIOR TO APPLICATION OF PAVEMENT MATERIAL.
14. ASPHALT SPEED CUSHIONS SHALL BE COMPACTED PER CITY OF HOUSTON SPECIFICATIONS AND SHAPE ACCORDING TO INSTALLATION DETAILS. COMPACTION SHALL REQUIRE UTILIZATION OF ALL NECESSARY SIZES AND TYPES OF ROLLERS TO ACCOMPLISH PROPER COMPACTION AND SHAPE.
15. ASPHALT SPEED CUSHIONS ARE TO BE CONSTRUCTED BETWEEN 3" - 3 1/2" IN HEIGHT.
16. CONTRACTOR SHALL NOTIFY GARY DRABEK (832-395-2997) A MINIMUM OF TWO BUSINESS DAYS IN ADVANCE OF THE INSTALLATION OF SPEED CUSHIONS.

ASPHALT SPEED CUSHION - INSTALLATION DETAILS



* RUBBER CUSHION - 12" TAPER, ASPHALT CUSHION - 12" TAPER.

TYPICAL SPEED CUSHIONS ARRANGEMENT FOR A GIVEN PAVEMENT WIDTH

| PAVEMENT WIDTH (FT) | No OF CUSHIONS | GAP (IN) | CUSHION (IN) | GAP (IN) | CUSHION (IN) | GAP (IN) | CUSHION (IN) | GAP (IN) | CUSHION (IN) | GAP (IN) | CUSHION (IN) | GAP (IN) |
|---------------------|----------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|
| 16 | 2 | 12 | 78 | 12 | 78 | 12 | | | | | | |
| 18 | 2 | 20 | 78 | 20 | 78 | 20 | | | | | | |
| 20 | 2 | 30 | 78 | 24 | 78 | 30 | | | | | | |
| 22 | 2 | 36 | 78 | 36 | 78 | 36 | | | | | | |
| 24 | 3 | 15 | 78 | 12 | 78 | 12 | 78 | 15 | | | | |
| 26 | 3 | 20 | 78 | 19 | 78 | 19 | 78 | 20 | | | | |
| 28 | 3 | 27 | 78 | 24 | 78 | 24 | 78 | 27 | | | | |
| 30 | 3 | 31 | 78 | 32 | 78 | 32 | 78 | 31 | | | | |
| 32 | 4 | 18 | 78 | 12 | 78 | 12 | 78 | 12 | 78 | 18 | | |
| 34 | 4 | 21 | 78 | 18 | 78 | 18 | 78 | 18 | 78 | 21 | | |
| 36 | 4 | 24 | 78 | 24 | 78 | 24 | 78 | 24 | 78 | 24 | | |
| 38 | 4 | 30 | 78 | 28 | 78 | 28 | 78 | 28 | 78 | 30 | | |
| 40 | 4 | 33 | 78 | 34 | 78 | 34 | 78 | 34 | 78 | 33 | | |
| 42 | 5 | 19 | 78 | 19 | 78 | 19 | 78 | 19 | 78 | 19 | 78 | 19 |
| 44 | 5 | 23 | 78 | 23 | 78 | 23 | 78 | 23 | 78 | 23 | 78 | 23 |

CITY OF HOUSTON
DEPARTMENT OF PUBLIC WORKS AND ENGINEERING

**SPEED CUSHIONS
ARRANGEMENT AND INSTALLATION**
(NOT TO SCALE)

| | |
|---|--|
| APPROVED BY: <i>[Signature]</i> CITY ENGINEER | APPROVED BY: <i>[Signature]</i> DIRECTOR OF PUBLIC WORKS AND ENGINEERING |
| EFF DATE: JUL-2016 | DWG NO: 13501-01 |