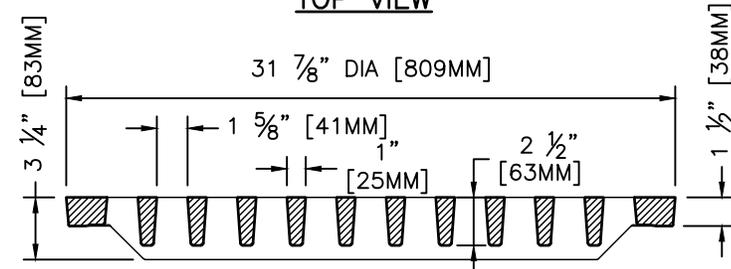
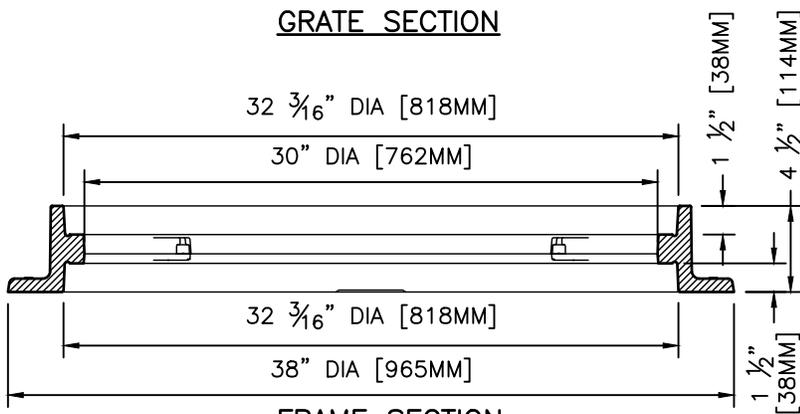


TOP VIEW



GRATE SECTION



FRAME SECTION

* SEE NOTE 9

NOTES:

1. APPROXIMATE WEIGHTS:
GRATE - 241 LBS (109KGS)
FRAME - 169 LBS (77KGS)
UNIT - 410 LBS (186KGS)
2. MATERIALS - GRAY IRON ASTM A48 CL35B.
3. CASTINGS MUST BE MANUFACTURED AND PROOF TESTED IN ACCORDANCE WITH AASHTO M306.
4. EJ V3419 ASY OR APPROVED EQUAL.
5. OPEN AREA OF GRATE 337 SQ. IN.
6. IDENTIFICATION MARKINGS MUST COMPLY WITH CITY SPECIFICATIONS. MARKINGS NOT SHOWN ON THIS DETAIL MUST BE PLACED ON THE CASTING:
 - A. PROVIDE ALL FRAME MARKINGS ON THE TOP SIDE OF THE FRAME.
 - B. PROVIDE GRATE AND COVER MARKINGS ON EITHER TOP OR BOTTOM OF CASTING.
7. GRATE IS BICYCLE-COMPATIBLE WHEN THE LONG DIMENSION OF SLOT IS ORIENTED PERPENDICULAR TO THE DIRECTION OF TRAVEL.
8. GRATE IS NOT ADA-COMPATIBLE. DO NOT PLACE IN PEDESTRIAN WALKWAYS OR SHARED USE PATHS.
9. THIS FRAME IS DESIGNED FOR USE IN STANDARD (NON-INVERTED AS SHOWN) AND INVERTED ORIENTATIONS. REFER TO CONTRACT DOCUMENTS FOR SPECIFIED ORIENTATION.

GRATE SECTION

DISCLAIMER: THE USE OF THIS STANDARD IS GOVERNED BY THE TEXAS ENGINEERING PRACTICE ACT. THE DESIGN REQUIREMENTS ON THIS STANDARD DO NOT PURPORT TO ADDRESS ALL OF THE SAFETY CONCERNS ASSOCIATED WITH THEIR USE. THE ENGINEER OF RECORD (EOR) IS TO REVIEW THESE DESIGN REQUIREMENTS AND BY AUTHORIZING THEIR USE, ACCEPTS RESPONSIBILITY FOR THEIR APPLICABILITY, ADEQUACY AND SAFETY. NO WARRANTY OF ANY KIND IS MADE BY THE CITY OF HOUSTON FOR ANY PURPOSES WHATSOEVER. THE CITY OF HOUSTON ASSUMES NO RESPONSIBILITY FOR INCORRECT RESULTS OR DAMAGES RESULTING FROM ITS USE.

APPROVED BY:

Signed by:

1BE8B22072F84DC...

CITY ENGINEER

Signed by:

BE463EF0DF454EB...

DIRECTOR OF HPW

CITY OF HOUSTON
HOUSTON PUBLIC WORKS STANDARD

**32" STORM SEWER MANHOLE
FRAME AND GRATE**

(SCALE: NOT TO SCALE)

EFF DATE: MAR-02-2026 | DWG NO: 02090-03