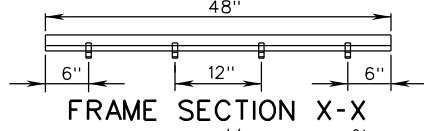
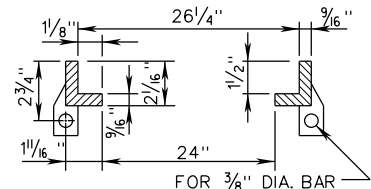


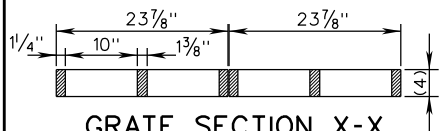
FRAME AND GRATE PLAN



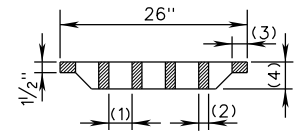
FRAME SECTION X-X



FRAME SECTION Y-Y



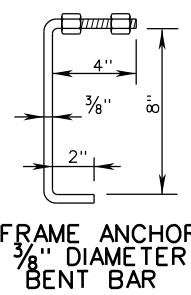
GRATE SECTION X-X



GRATE SECTION Y-Y

NOTE: SEE GRATE DIMENSION TABLE FOR GRATE TYPE I & II DIMENSIONS

| GRATE DIMENSIONS | | | | |
|------------------|-------------------|-------------------|-----------------------|---------------------|
| GRATE TYPE | OPENING WIDTH (1) | BAR THICKNESS (2) | END SECTION WIDTH (3) | GRATE THICKNESS (4) |
| TYPE I | 3 1/4" | 1 3/8" | 2 1/8" | 3 3/4" |
| | 5 OPENINGS | 4 BARS | | |
| TYPE II | 1 1/2" | 1 3/8" | 2 3/8" | 3 3/4" |
| | 8 OPENINGS | 7 BARS | | |



FRAME ANCHOR 3/8" DIAMETER BENT BAR

NOTES

- DEPTH OF INLET (H) TO BE SHOWN ON PLANS. FOR DEPTH GREATER THAN 6'-6", USE ST'D. DI-12, DI-12A.
- LENGTH OF SLOT (L) WILL IN EVERY CASE, BE SHOWN ON PLANS.
- ALL REINFORCING BARS TO BE #4
- DI-12C CONCRETE GUTTER INCREMENT: ADD 0.07 CU. YDS CLASS A3 CONCRETE FOR EACH ADDITIONAL FOOT OF SLOT LENGTH GREATER THAN MINIMUM 3'-8".
- GRATE BARS TO BE INSTALLED SO THEY WILL BE ALIGNED PARALLEL TO THE DITCH FLOW.
- IF NORMAL DITCH GRADE IS TOO FLAT TO ALLOW FOR ADJUSTED GRADE TO INLET A SPECIAL GUTTER DETAIL WILL BE REQUIRED ON PLANS.
- DI-12B-----NO GUTTER
DI-12C-----PERIPHERAL GUTTER
- PAVED DITCHES ARE TO BE TRANSITIONED TO MEET INLET GUTTER AS SHOWN IN STANDARD PG-2A.
- QUANTITIES SHOWN ARE FOR INLETS WITHOUT PIPES. PIPE DISPLACEMENTS MUST BE DEDUCTED TO OBTAIN TRUE QUANTITIES.
- PAVED TRANSITION WHERE REQUIRED ON PLANS. TRANSITION IS TO BE SHAPED TO CONFORM TO ROUNDED CONCRETE GUTTER OF DI-12C.
- TYPE I GRATE: LIMITED ACCESS AND RURAL UNLIMITED ACCESS
- TYPE II GRATE: URBAN AREAS
- L = LENGTH ROUNDED FOR PLAN USE.
- DI-12C: FOR APPROX. QUANTITIES FOR DI-12C, ADD 0.36 CU. YDS. OF CLASS A3 CONCRETE TO DI-12B QUANTITIES FOR CONCRETE GUTTER. QUANTITY SHOWN IS FOR A MINIMUM SLOT LENGTH OF 3'-8". FOR OTHER LENGTHS SEE CONCRETE GUTTER INCREMENT BELOW.
- DI-12B AND DI-12C ARE NOT TO BE UTILIZED IN LOCATIONS NORMALLY SUBJECT TO TRAFFIC.
- DUMP NO WASTE DRAINS TO WATERWAYS LETTERING IS REQUIRED ON ALL DI-12 GRATES. LOCATION OF LETTERING MAY VARY BY MANUFACTURER.
- TYPE I AND TYPE II GRATES SHALL NOT BE LOCATED WITHIN THE LIMITS OF ANY PEDESTRIAN ACCESS ROUTE, SUCH AS A SIDEWALK, SHARED USE PATH, OR PEDESTRIAN CROSSING (MARKED OR UNMARKED).

TABULATION CHARTS

| APPROXIMATE QUANTITIES DI-12B ONLY (SEE NOTES 19 & 24) | | | | | |
|---|------------|----------------------|------------------------------|------------------|---|
| (MINIMUM HEIGHT) SLOT 4' TO 14' (SEE NOTE 23) | | | | | |
| L (SEE NOTE 23) | L1 | CONCRETE CU. YDS. | REINFORCING STEEL LBS. | NUMBER GRATES | CONCRETE CHAMBER INCREMENTS PER FOOT CU. YDS. |
| 4 | 3'-8" | 0.99 | 81.27 | 2 | .35 |
| 6 | 5'-8 3/4" | 1.28 | 122.81 | 3 | |
| 8 | 7'-8" | 1.48 | 161.90 | 4 | |
| 10 | 9'-8 3/4" | 1.79 | 203.37 | 5 | |
| 12 | 11'-8" | 2.09 | 242.45 | 6 | |
| 14 | 13'-8 3/4" | 2.40 | 283.93 | 7 | |

| |
|-------------------------|
| SPECIFICATION REFERENCE |
| 241 503 |

MULTIGRATE DROP INLET
FOR PIPE SIZES 12" TO 36"
VIRGINIA DEPARTMENT OF TRANSPORTATION

| | |
|-----------------------------------|------------------------|
| VDOT ROAD AND BRIDGE STANDARDS | |
| REVISION DATE 08/14 | SHEET 2 OF 2 104.34 |