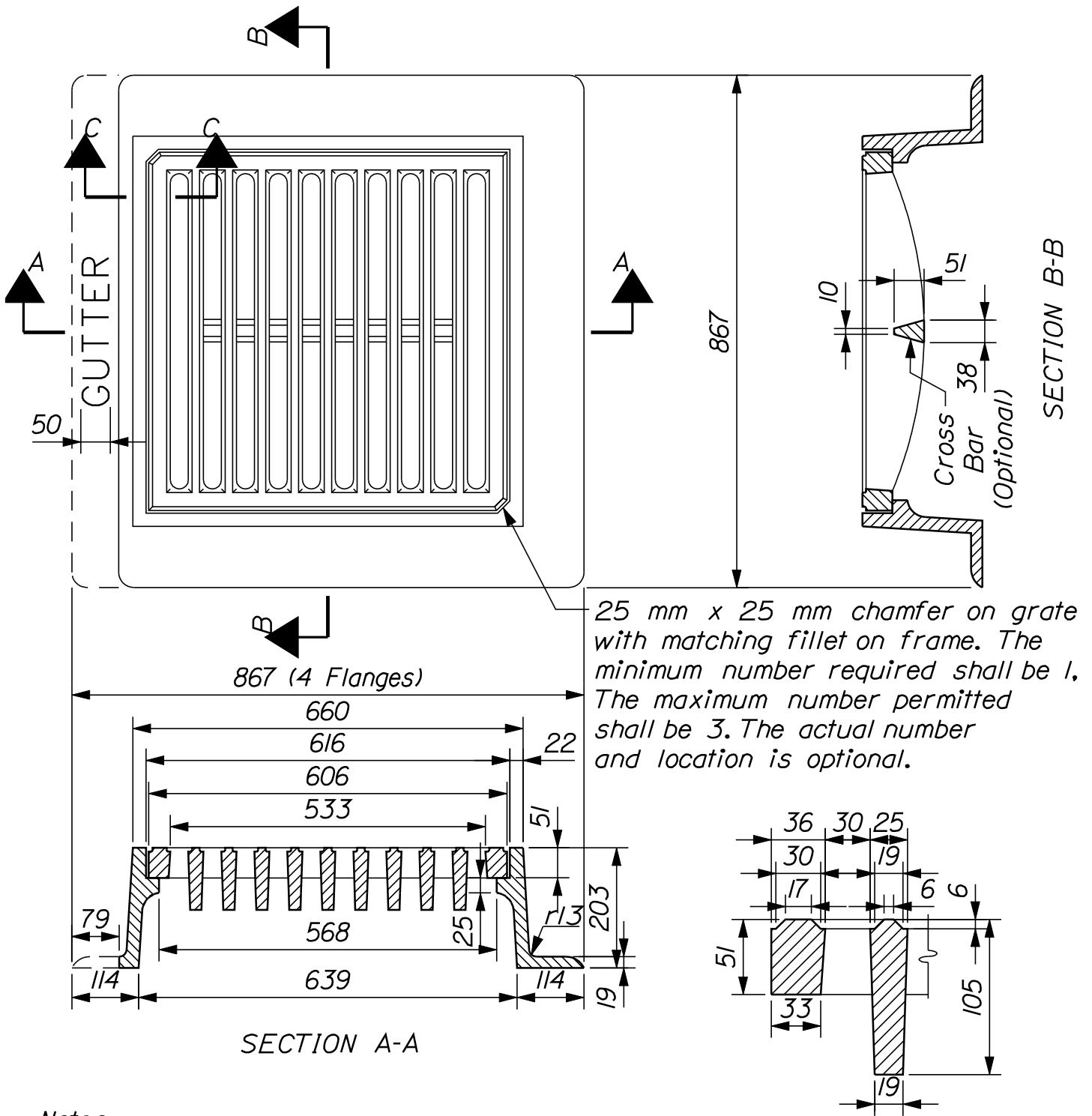


## GENERAL NOTES

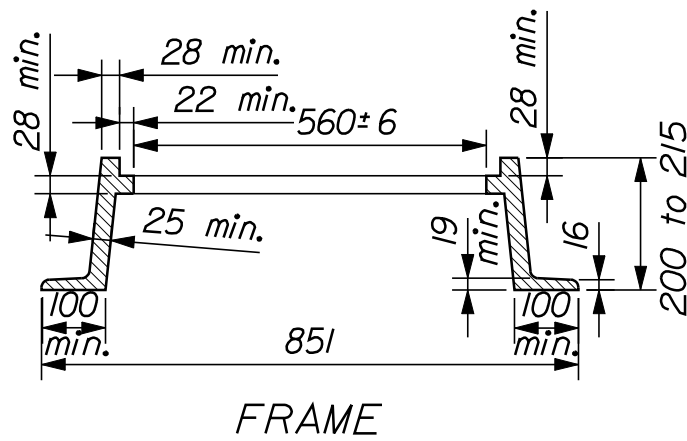
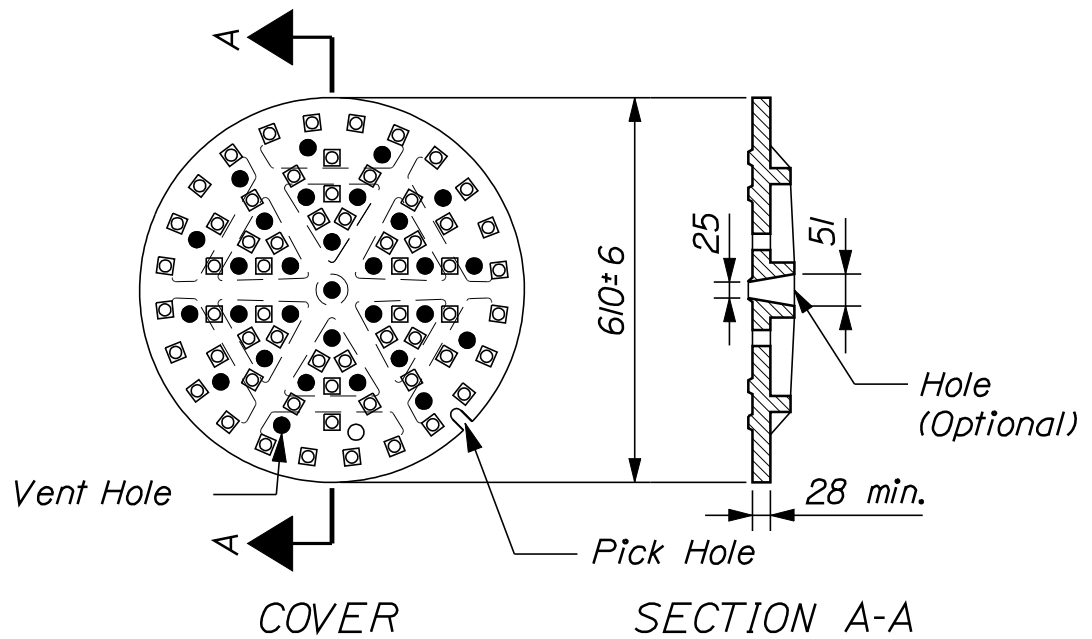
- 1. Catch basins in excess of 2 400 mm in depth shall, if directed, be provided with steps similar to those detailed for manholes.*
- 2. Drain holes in precast sumps shall be not over 75 mm in diameter and shall be plugged with mortar when constructed.*
- 3. All precast sections of less than 204 mm wall thickness shall have tongue and groove joints.*
- 4. Cone and ring sections shall have a wall thickness of 100 mm minimum to 204 mm maximum.*
- 5. Minimum wall thickness at the sump shall be 100 mm as specified in AASHTO M199.*
- 6. The wall around inlet and outlet pipes shall be a precast ring with an opening 50 mm larger than the outside diameter of the pipe.*
- 7. Lift holes or lift handles shall be provided for installation of catch basins and manholes.*
- 8. Lift holes shall not exceed 75 mm in diameter and shall be plugged with mortar when constructed. Lift handles shall not exceed 75 mm in diameter and shall be cut off as directed by the Resident Engineer prior to back filling the structure.*



**Notes:**

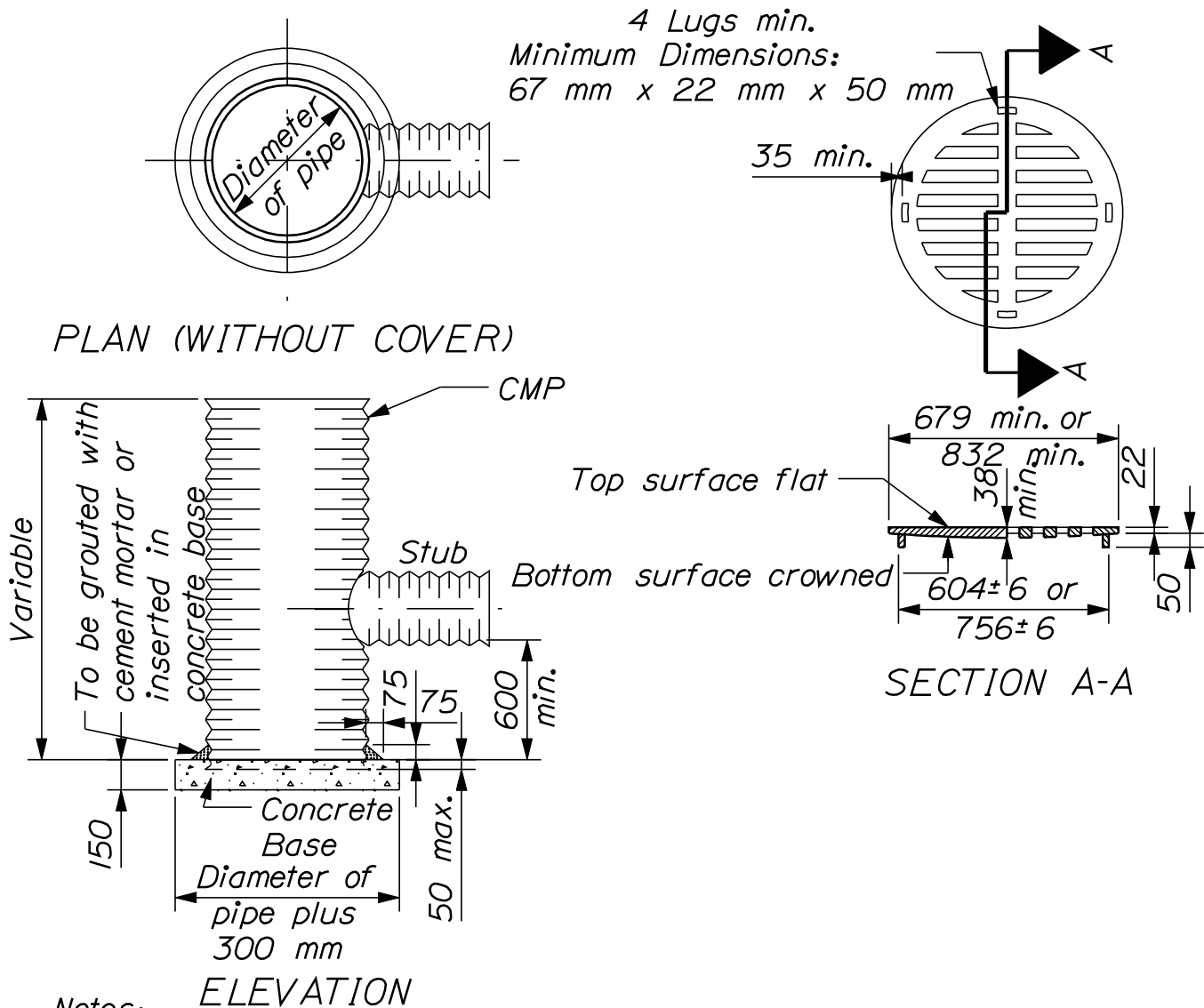
1. Type "A" frames are to have 3 flanges.
2. Type "B" frames are to have 4 flanges.
3. The word "gutter" is to be molded into the back flange - type "B" only.
4. Frames and grates are to be of gray cast iron or ductile iron conforming to AASHTO M306.
5. Dimensions are nominal.





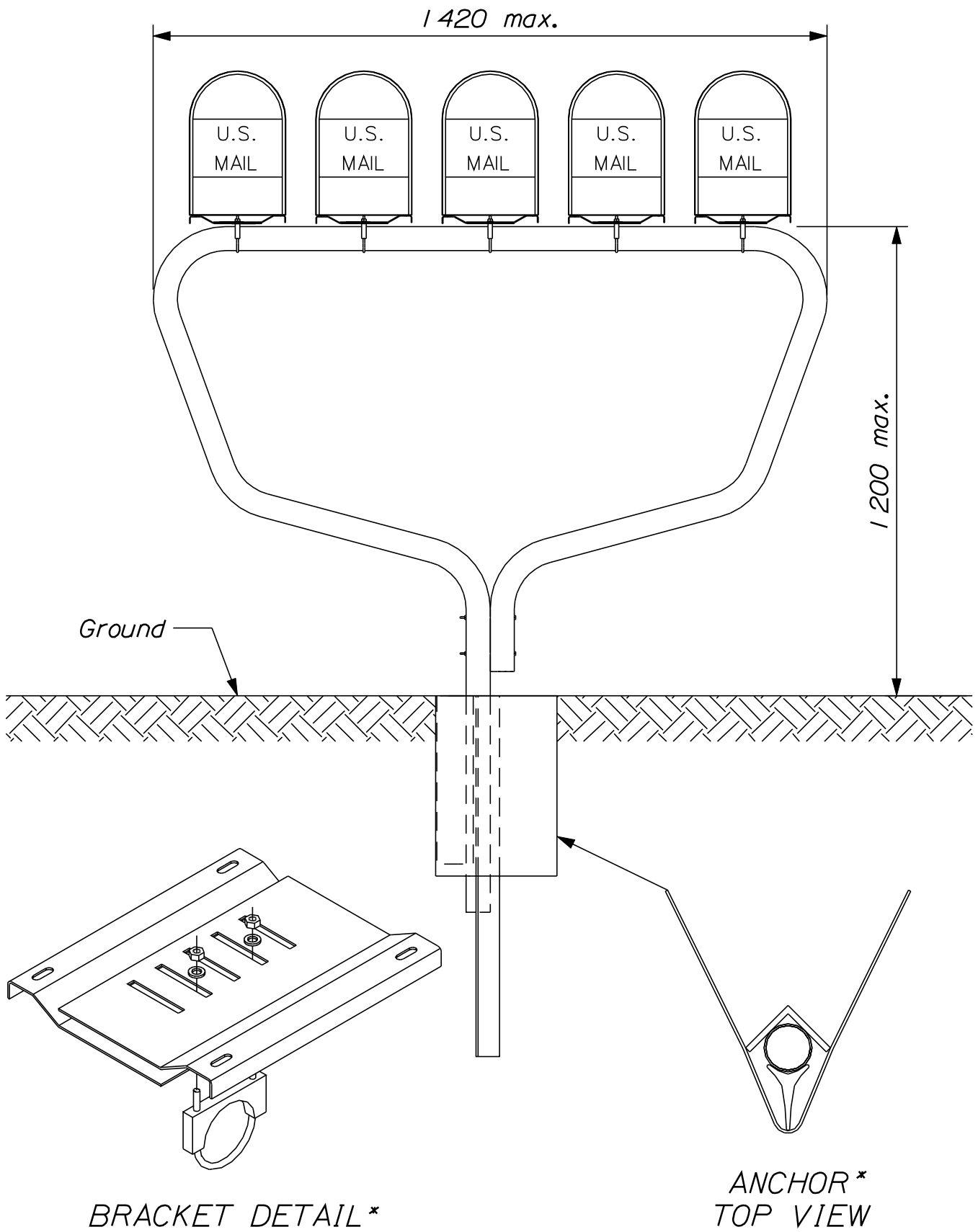
**Notes:**

1. Manhole frames and covers are to be machined to a smooth fit and shall be of gray cast iron or ductile iron.
2. Diamond top surface is optional.



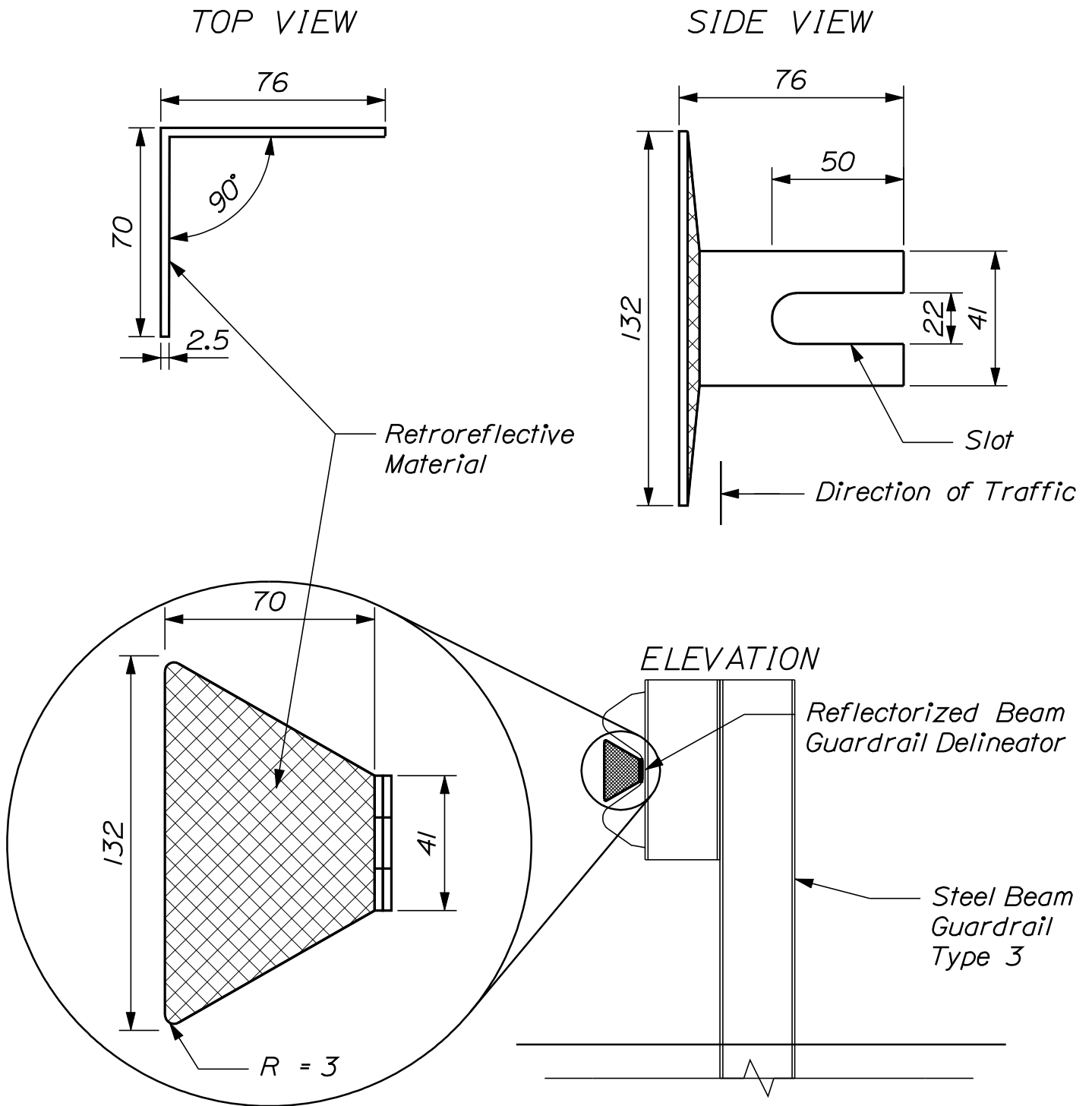
- Notes:
1. Excess pipe to be cut and folded against the inside wall of catch basin. Joints to be caulked with Oakum and Asphalt Cement. Joints may be shop welded.
  2. Stubs to be made from 600 mm length of pipe. Cost shall be incidental to the Catch Basin item.
  3. Grate to be gray cast iron or ductile iron.
  4. Bars of grate to be placed parallel with flow.
  5. Grate for 762 mm Catch Basins Type "E" shall have a total cumulative width of openings of 350 mm min. Grate for 610 mm Catch Basins Type "E" shall have a total cumulative width of openings of 200 mm min.
  6. Corrugated Metal Pipe shall conform to Section 712.08 of the Standard Specifications.

CATCH BASIN TYPE "E"  
604(09)



\*Hardware may vary depending on particular approved system used.

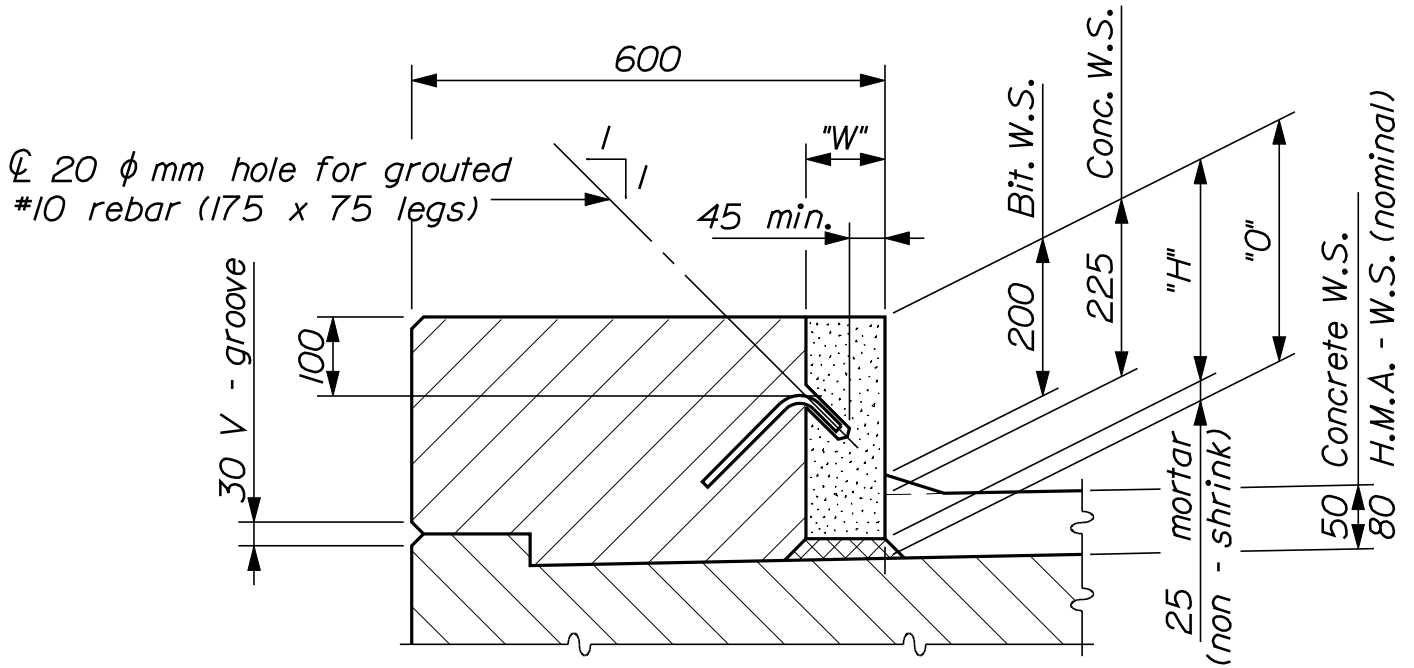
MULTIPLE MAILBOX SUPPORT  
606(02)



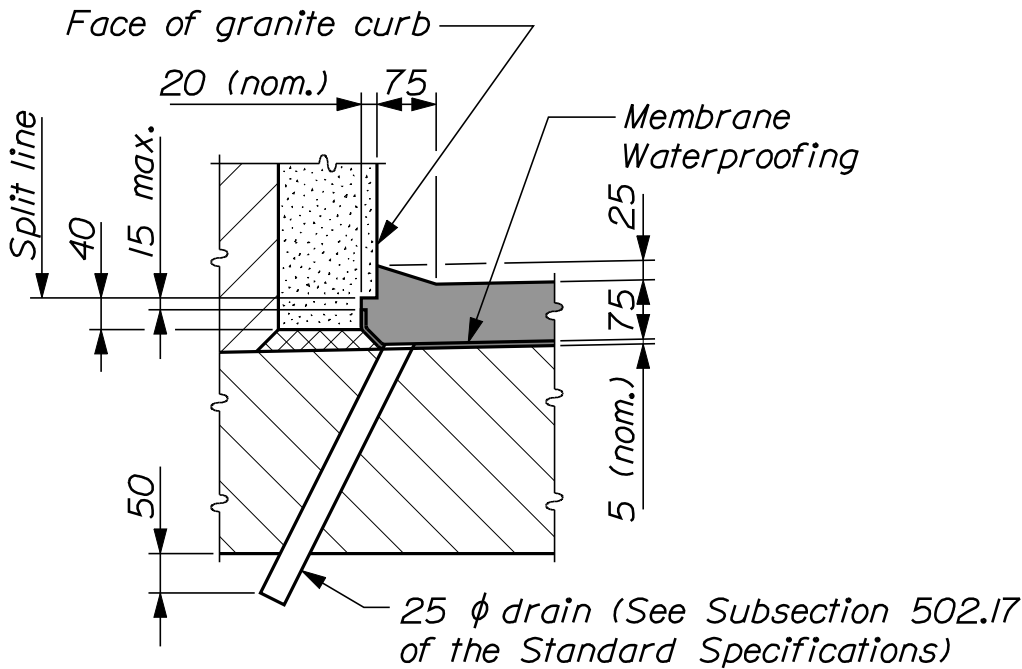
All dimensions are in mm and subject to manufacturing tolerances.

## REFLECTORIZED BEAM GUARDRAIL DELINEATOR DETAILS

606(07)



-- VERTICAL BRIDGE CURB DETAIL --



| TABLE OF DIMENSIONS            |         |
|--------------------------------|---------|
| Type IA<br>(Concrete W.S.)     |         |
| "W"                            | 100 ± 5 |
| "H"                            | 250 ± 5 |
| "O"                            | 275     |
| Type IB (Hot Mix Asphalt W.S.) |         |
| "W"                            | 125 ± 5 |
| "H"                            | 280 ± 5 |
| "O"                            | 305     |

-- TYPE IB NOTCH DETAIL --