NO STEPS TO BE INSTALLED

SEE MANHOLE FRAME AND COVER DETAIL

AC PAVING LIMITS (TYP.)

STREET SURFACE

10" MIN

24" DIA.

18" MIN

24" MAX

GRADE RINGS

SEE NOTE 3

CONCENTRIC CONE RISER

4" DIAMETER MANHOLE
FOR 36" & SMALLER PIPE

5" DIAMETER MANHOLE
FOR 39" TO 48" PIPE

18", 24", 36" OR 48"
PRECAST SECTIONS
AS REQUIRED

TROWEL FINISH

FORM GROOVE IN BASE

NO. 4 BAR @ 12"
EACH WAY
(SEE NOTE 2)

NON-SHRINK GROUT AT BASE
OF MANHOLE SHALL BE
FLUSH WITH PIPE INVERTS

NOTES:

1. LAY PIPE THRU BOTTOM OF MANHOLES, AFTER CONCRETE IN BASE HAS SET,
   KNOCK OUT PORTION OF PIPE INDICATED WITH DASHED LINES.

2. MANHOLE BASE REINFORCING IS NOT REQUIRED FOR 36" DIAMETER
   OR SMALLER PIPE.

3. INSTALL RAM-NEK JOINT TAPE OR EQUAL AT ALL JOINTS.

4. MORTAR ALL JOINTS WITH A SMOOTH FINISH.

CITY OF MOUNTAIN VIEW
PUBLIC WORKS DEPARTMENT
STANDARD DETAIL

STORM DRAIN MANHOLE
FOR PIPE 48" DIA. AND LESS

FILE NO. B-1
CONCRETE BASE

CHANNELIZE IN DIRECTION OF FLOW

MANHOLE INSIDE DIAMETER

CHANNELIZE IN DIRECTION OF FLOW (DO NOT INTRUDE MORE THAN 20% OF PIPE DIAMETER)

4' DIAMETER OR LARGER

CURVE TO FIT (TYP.) TROWEL SMOOTH

TYPICAL MANHOLE WITH BRANCHES

CITY OF MOUNTAIN VIEW
PUBLIC WORKS DEPARTMENT
STANDARD DETAIL

STORM
MANHOLE BASE WITH BRANCHES
FOR MANHOLES IN PUBLIC RIGHT-OF-WAY
OR PUBLIC EASEMENT:

CITY OF MOUNTAIN VIEW
STORM

OR
FOR MANHOLES IN OTHER LOCATIONS:

STORM

PLAN - FRAME & COVER

SECTION - FRAME & COVER

NOTES:

1. WHEN THERE IS A NEED TO RAISE MANHOLE COVERS TO MEET NEW GRADE,
   ONLY ONE ADDITIONAL MANHOLE RING MAY BE ADDED.

2. FRAME AND COVER SHALL BE PHOENIX IRON WORKS #P-1090 OR APPROVED EQUAL.
NOTE: REINFORCING STEEL SHALL BE REQUIRED IN WALLS OF DROP INLETS WHICH ARE GREATER THAN 6' IN DEPTH. BOTTOM REBAR MAT IS REQUIRED REGARDLESS OF HEIGHT OF WALLS.

INSTALL ALUMINUM DISK "NO DUMPING - DRAINS TO BAY"

SECTION B-B

CONCRETE

3'-0"

6"

6"

3'-0"

6"

SECTION A-A

CONCRETE

6"
NOTES

1. HINGED GRATE ONLY WHEN SPECIFIED.
2. PLACE GRATE BARS PARALLEL TO FLOW.
3. ALL MISCELLANEOUS IRON & STEEL INCLUDING 3/8"Ø RIVETS PLACED AT 5" O.C. TO BE GALVANIZED AFTER FABRICATION.
4. FRAME TO BE CONAC CALTRANS TYPE 24 FRAME OR WRITTEN APPROVED EQUAL. GRATE TO BE CONAC NO. 24-10SG OR WRITTEN APPROVED EQUAL.
5. INSTALL ALUMINUM DISK "NO DUMPING - DRAINS TO BAY" ON TOP OF CURB.
6. EXISTING STORM FRAMES AND GRATES ARE OF VARIOUS SIZES. FOR RETROFFITS, CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND PROVIDE RETICULINE GRATES WITH SNUG FIT.
7. GRATES MUST FIT INTO THEIR FRAMES WITHOUT ROCKING.

CITY OF MOUNTAIN VIEW
PUBLIC WORKS DEPARTMENT
STANDARD DETAIL
STORM
CURB INLET FRAME AND GRATE

FILE NO. B-5
DEPRESS 0.1' MIN.

LIMIT OF DEPRESSION

EDGE OF PAVEMENT

LIMIT OF DEPRESSION

6'

VARIATES-6' MIN.

18' OR 24'

FACE OF CURB

CONCRETE CURB AND GUTTER

INSTALL ALUMINUM DISK "NO DUMPING - DRAINS TO BAY"

CITY OF MOUNTAIN VIEW
PUBLIC WORKS DEPARTMENT
STANDARD DETAIL

STORM
GUTTER DEPRESSION
NOTE:

REINFORCING STEEL SHALL BE REQUIRED IN WALLS OF DROP INLETS WHICH ARE GREATER THAN 6' IN DEPTH. BOTTOM REBAR MAT IS REQUIRED REGARDLESS OF HEIGHT OF WALLS.

SECTION A-A

NOTE:

THIS DETAIL IS TO BE USED WHERE THERE ARE NO CURB AND GUTTER.
NOTES:

1. MAX. OUTLET PIPE 24" DIAMETER
2. MIN. OUTLET PIPE 12" DIAMETER
3. SET CROWN OF INLET PIPE AT SAME ELEVATION AS CROWN OF OUTLET PIPE
4. REINFORCING STEEL SHALL BE REQUIRED FOR WALLS GREATER THAN 6" IN DEPTH. BOTTOM REBAR MAT IS REQUIRED REGARDLESS OF HEIGHT OF WALLS.
5. CHRISTY U23 CATCH BASIN (2' x 2' WITH 6" WALLS) OR AN APPROVED EQUAL.
6. SEE DETAIL B-9.
CITY OF MOUNTAIN VIEW
PUBLIC WORKS DEPARTMENT
STANDARD DETAIL

FRAME & GRATE FOR PROPERTY LINE
STORM DRAIN INLET & CLEAN-OUT

NOTE:

1. FRAME AND GRATE TO BE MADE OF CARBON STEEL.
2. ALL SURFACES TO BE GALVANIZED AFTER FABRICATION.
3. PLACE GRATE BEARING BARS PARALLEL TO CENTERLINE OF OUTLET PIPE.
4. FASTEN GRATE TO FRAME AT CORNERS WITH REMOVABLE CLIPS.
5. INSTALL ALUMINUM DISK "NO DUMPING - DRAINS TO BAY".
6. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND FURNISH CUSTOMIZED RETICULINE GRATES TO FIT EXISTING STORM FRAMES AND GRATES WITHOUT ROCKING.
7. SEE DETAIL B-8.

SECTION A-A

1/2" x 3-1/2" SQ. EDGE FLAT BAR

FRAME PLAN

4 COWERS
3/16"

2'-5"
2'-2"

2'-1/2"

4" x 3" x 1/2" ELL

 SECTION A-A

4 ANCHORS
1/4"

1" Ø

4"

1-6"

4"

4" x 1/4" BEARING BARS (TYP.)

2'-3/16"

2'-4 1/2"

5"

3/8" x 3-1/2" BAR

2" x 3/16" RETICULINE BARS (TYP) TOP FLUSH

GRATE PLAN

Revision Date: 08-11-16
Drawn: QT
Checked: LA
Approved: No. 57093

FILE NO. B-9
SECTION A-A

NOTE:
1. DRAINS TO BE MAINTAINED BY DEVELOPER / PROPERTY OWNER.
2. SEE DETAILS B-11 AND B-12.

SECTION B-B

CITY OF MOUNTAIN VIEW
PUBLIC WORKS DEPARTMENT
STANDARD DETAIL

STORM
CURB DRAIN
FRAME PLAN

3/8" x 2-1/4" SQ. EDGE FLAT BAR

GRATE PLAN

2" x 3/16" RETICULINE BARS (TYP)
TOP FLUSH

3/8" x 2-1/4" BAR

SECTION A-A

NOTES
1. FRAME AND GRATE TO BE MADE OF CARBON STEEL.
2. ALL SURFACES TO BE GALVANIZED AFTER FABRICATION.
3. PLACE GRATE BEARING BARS PARALLEL TO CENTERLINE OF OUTLET PIPE.
4. FASTEN GRATE TO FRAME AT CORNERS WITH REMOVABLE CLIPS.
5. INSTALL ALUMINUM DISK "NO DUMPING - DRAINS TO BAY".
6. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND FURNISH
CUSTOMIZED RETICULINE GRATES TO FIT EXISTING STORM
FRAMES AND GRATES WITHOUT ROCKING.
7. SEE DETAILS B-10 AND B-12.

CITY OF MOUNTAIN VIEW
PUBLIC WORKS DEPARTMENT
STANDARD DETAIL

STORM FRAME & GRATE
FOR FACE OF CURB DRAIN INLET

FILE NO. B-11
4x4 WIRE MESH OR REBAR MAT

SECTION A-A
(CURB & SIDEWALK)

4x4 WIRE MESH OR REBAR MAT

A

9" MIN. (TYP.)

1.5" 1.5"

1.5" 1.5"

3 - #2 @ 1.5" O.C.

2" MIN.

1.5" CLEARANCE

S=2% MIN.

SECTION A-A
(CURB ONLY)

NOTES:
1. 0.5" MIN. BETWEEN PIPE FL AND GUTTER FL
2. PIPE SHALL BE 3" C.I.P. OR D.I.P.
3. MIN. OF TWO PIPES AND MAX. OF THREE PIPES,
4. SEE DETAIL B-10.

CITY OF MOUNTAIN VIEW
PUBLIC WORKS DEPARTMENT
STANDARD DETAIL

STORM
FACE OF CURB OUTLET