NOTE: The following standard plates establish minimum engineering design guidance. All designs shall use engineering judgement and are the responsibility of the Engineer of Record.

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PLACE AND COMPACT BACKFILL OVER EXISTING STRUCTURE TO PROPOSED GRADE

REMOVE EXISTING FRAME, COVER, CASTING, AND ADJUSTING RINGS, SALVAGE CASTING BACK TO THE UNIVERSITY.

MIN. 4'0"

REPLACE EXISTING STRUCTURE TO A MINIMUM DEPTH OF 4'0" BELOW FINISHED GRADE. STRUCTURE MAY BE REMOVED TO A GREATER DEPTH.

FILL REMAINING DEPTH OF STRUCTURE LEFT IN PLACE WITH FLOWABLE FILL, SAND, AND/OR BALLAST AS APPLICABLE

CAP OR PLUG ALL EXISTING SEWER PIPE ENDS OR OPENINGS IN ABANDONED STRUCTURE AND INSTALL CONCRETE AROUND CAP AND OVER PIPE TO ENSURE IT IS NOT PENETRATABLE BY GROUNDWATER

FILL EXISTING SEWER PIPES THAT ARE TO BE ABANDONED WITH FLOWABLE FILL

DRILL HOLES IN STRUCTURE FLOOR AND WALLS PRIOR TO FILLING TO ALLOW STRUCTURE TO DRAIN

NOT TO SCALE

ABANDONED STRUCTURE

UNIVERSITY OF MINNESOTA
FACILITIES MANAGEMENT
ENGINEERING & UTILITIES
PUBLISHED: 03/17/2023

STANDARD PLATE NO.
GEN-0001
NOTES:

1. CONCRETE COLLAR TO ENCASE CASTING AND ADJUSTING RINGS
2. CONCRETE COLLAR SHALL BE CIRCULAR OR SQUARE LAYOUT
3. SEAL JOINT BETWEEN PAVEMENT AND COLLAR
4. MAINTAIN 3 1/2" COVER ON REINFORCEMENT
3/4” RAISED FLUSH LETTERING

U OF M

RAISED MINNESOTA ‘M’ LOGO

EST. 1851

WATER

3/4” RAISED FLUSH LETTERING

RAISED KNOBS

(1) 1 1/4” DIA. LIFT HOLE

21 5/8”

7/8”

5/8”

7/8”

14”

25 3/4”

3/16”

1 1/4”

3/8”

1 1/4”

NOTES

NEENAH FOUNDRY CASTING NO. R-1733-0806 OR SIMILAR

EQUIPMENT NOS.: NEW COPE AND DRAG

MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B

FINISH: NO PAINT UNLESS SPECIFIED ON PURCHASE ORDER

WEIGHT: APPROX. 150 LBS.

TREADS 3/16” HIGH
NOTES:

1. REINFORCEMENT SHALL BE SINGLE LINE STEEL WIRE FABRIC HAVING AN AREA OF NOT LESS THAN 0.12 SQ. IN. PER FOOT OF HEIGHT

2. NO PIPE OR STRUCTURE ALLOWED ABOVE TOP OF CONE

3. THE ELEVATION OF LINE A SHALL BE EQUAL TO OR ABOVE LINE B

4. STEPS REQUIRED IN MANHOLE STRUCTURES MORE THAN 4' DEEP, STRUCTURE STEPS SHALL BE SPACED 16" ON CENTER OVER DOWNSTREAM OUTLET. NEENAH R-1980E OR SIMILAR.

5. EXTERNAL CHIMNEY SEALS SHALL EXTEND FROM THE CASTING TO THE CONE
NOTES:

1. REINFORCEMENT SHALL BE SINGLE LINE STEEL WIRE FABRIC HAVING AN AREA OF NOT LESS THAN 0.12 SQ. IN. PER FOOT OF HEIGHT

2. NO PIPE ALLOWED WITHIN CONE SECTION

3. STRUCTURE STEPS SHALL BE SPACED 16" ON CENTER OVER DOWNSRREAM OUTLET. NEENAH R-1985E OR SIMILAR.

4. EXTERNAL CHIMNEY SEALS SHALL EXTEND FROM THE CASTING TO THE CONE
NOTES:

1. ALL PIPING SHALL BE PVC
2. CONCRETE COLLAR TO ENCASE CLEANOUT FRAME IN PAVED AREAS
3. CONCRETE COLLAR SHALL BE CIRCULAR OR SQUARE
4. SEAL JOINT BETWEEN PAVEMENT AND COLLAR
5. CAST IRON CLEANOUT FRAME SHALL BE EJ 1574, OR APPROVED EQUAL
6. CAST IRON CLEANOUT LID SHALL BE EJ 1574A SW VC WITH THE WORD "SEWER" STAMPED ON THE LID, OR APPROVED EQUAL
3/4" RAISED FLUSH LETTERING

RAISED MINNESOTA 'M' LOGO

1" RAISED FLUSH LETTERING

7/8" DIA. CROWN

7/8"

5/8"

21 5/8"

3/16" HIGH

NOTES

NEENAH FOUNDRY CASTING NO. R-1733-0804 OR SIMILAR

EQUIPMENT NOS.: NEW COPE AND DRAG
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH: NO PAINT UNLESS SPECIFIED ON PURCHASE ORDER
WEIGHT: APPROX. 150 LBS.
NOTES:

1. REINFORCEMENT SHALL BE SINGLE LINE STEEL WIRE FABRIC HAVING AN AREA OF NOT LESS THAN 0.12 SQ. IN. PER FOOT OF HEIGHT
2. NO PIPE OR STRUCTURE ALLOWED ABOVE TOP OF CONE
3. THE ELEVATION OF LINE A SHALL BE EQUAL TO OR ABOVE LINE B
4. STEPS REQUIRED IN MANHOLE STRUCTURES MORE THAN 4' DEEP. STRUCTURE STEPS SHALL BE SPACED 16' ON CENTER OVER DOWNSTREAM OUTLET. NEENAH R-1980E OR SIMILAR.
NOTES:

1. REINFORCEMENT SHALL BE SINGLE LINE STEEL WIRE FABRIC HAVING AN AREA OF NOT LESS THAN 0.12 SQ. IN. PER FOOT OF HEIGHT

2. PROVIDE MORTAR FILLETS TO FIT THE BOTTOM PORTION OF PIPE TO DIRECT FLOW TO OUTLET

3. THE ELEVATION OF INLET INVERTS SHALL BE ABOVE THE OUTLET INVERT ELEVATION

4. ADJUSTING RINGS TO HAVE A FULL BED OF MORTAR BETWEEN RINGS AND AROUND THE OUTSIDE OF RINGS

5. INSIDE DIMENSIONS OF 2.00' X 3.00' (STRENGTH DESIGN OF BASE SLAB AND STRUCTURE PER MANUFACTURER.)

6. FILL VOID BETWEEN STRUCTURE AND PIPE WITH BRICK AND MORTAR. MORTAR BETWEEN THE BRICK AND ACROSS THE FACE.
NOTES:

1. REINFORCEMENT SHALL BE SINGLE LINE STEEL WIRE FABRIC HAVING AN AREA OF NOT LESS THAN 0.12 SQ. IN. PER FOOT OF HEIGHT.

2. PROVIDE MORTAR FILLETS TO FIT THE BOTTOM PORTION OF PIPE TO DIRECT FLOW TO OUTLET.

3. ADJUSTING RINGS TO HAVE A FULL BED OF MORTAR BETWEEN RINGS AND AROUND THE OUTSIDE OF RINGS.

4. FILL VOID BETWEEN STRUCTURE AND PIPE WITH BRICK AND MORTAR. MORTAR BETWEEN THE BRICK AND ACROSS THE FACE.

5. FOR USE WHERE THERE ARE NO INLET PIPES

SEE STANDARDS FOR APPROVED CASTING

2" ADJUSTING RINGS
(2 MIN., 5 MAX.)

MORTAR BETWEEN CASTING AND ADJUSTING RINGS

27" DIA.

5"

PRE-CAST REINFORCED CONCRETE PER ASTM C476

FLOW

6" MIN. PRE-CAST REINFORCED CONCRETE BASE SLAB, TYP.

SLOPE INVERT TO PROVIDE SMOOTH FLOW TO OUTLET
NOTES:

1. REINFORCEMENT SHALL BE SINGLE LINE STEEL WIRE FABRIC HAVING AN AREA OF NOT LESS THAN 0.12 SQ. IN. PER FOOT OF HEIGHT.

2. NO PIPE OR STRUCTURE ALLOWED ABOVE TOP OF CONE.

3. THE ELEVATION OF LINE A SHALL BE EQUAL TO OR ABOVE LINE B.

4. STRUCTURE STEPS SHALL BE SPACED 16" ON CENTER OVER DOWNSTREAM OUTLET. NEENAH R-1980E OR SIMILAR.

5. SUMP DEPTH TO BE DESIGNED BY THE ENGINEER OF RECORD.

6. SUMP STRUCTURES TO HAVE A MAXIMUM OF 1 INLET PIPE, TYP.

7. OUTLET INVERT TO HAVE A SKIMMER AND/OR FLOW DISSIPATION DEVICE. SKIMMER SHALL HAVE A PORT THAT ALLOWS ACCESS TO THE OUTLET PIPE, AND AN ANTI-SIPHON DEVICE.

NOT TO SCALE.
NOTES:

1. TWO ROPES OF BUTYL SEALANT, ALL AROUND

2. EXTERIOR JOINT WRAP, TOP AND SIDES (CONSEAL CS212 OR EQUAL)

3. TIE ALL JOINTS
TYPE 5 NON-WOVEN GEOTEXTILE FABRIC WRAP ENTIRELY AROUND, WITH 1 FT OVERLAP FROM TOP OF STRUCTURE. TAPE TOP OF FABRIC TO CASTING THEN BACKFILL.
NOTES

NEENAH FOUNDRY CASTING NO. R-1733-0805 OR SIMILAR

EQUIPMENT NOS.: NEW COPE AND DRAG
MATERIAL: CAST GRAY IRON ASTM A-48, CLASS 35B
FINISH: NO PAINT UNLESS SPECIFIED ON PURCHASE ORDER
WEIGHT: APPROX. 150 LBS.

NOT TO SCALE
NOTES:

1. FOR USE WITHIN THE URBANIZED AREA OF THE UNIVERSITY OF MINNESOTA DULUTH (UMD) CAMPUS ONLY.
2. UMD USES THE SAME STAMP AS CITY OF DULUTH. A CATCH BASKET CAN BE BORROWED FROM UMD FACILITIES MANAGEMENT IF NECESSARY.
3. IMPRINT SHOULD BE APPROXIMATELY 1/4 (ONE QUARTER) INCH IN DEPTH. NOT SO DEEP SO AS TO MAKE FRAME MARKS IN THE CONCRETE, BUT DEEP ENOUGH THAT WHEN STAMP IS REMOVED THE TEXT IS LEGIBLE.
4. A SINGLE STAMP SHOULD BE PLACED ON THE UPGRADENT SIDE OF THE CATCH BASIN SO THAT IT IS READABLE FROM THE STREET.
5. WHEN ADJACENT TO A SIDEWALK AND/OR THE GUTTER IS SLOPED TOWARD THE CATCH BASIN IN BOTH DIRECTIONS, A SECOND STAMP SHOULD BE PLACED SO THAT IT IS READABLE FROM THE BACK OF CURB.