NOTES:

1. ADJUST MONUMENT BOX UPWARD OR DOWNWARD AS REQUIRED. FINAL ADJUSTMENT SHALL BE MADE AFTER PAVING AND BEFORE SEALING.

2. WHEN CONCRETE COLLAR IS PLACED ADJACENT TO CONCRETE PAVEMENT, COLLAR SHALL MATCH ADJACENT CONCRETE DEPTH WITH A MINIMUM OF 8" DEPTH.
NOT TO SCALE

**NOTES:**

1. MATERIAL COMPACTION SHALL CONFORM TO SECTIONS 02220, 02225, 02226, 02231, AND 02512.

2. WHEN ANY PORTION OF THE PIPE HAS LESS THAN 18" COVER TO FINISH GRADE OR THE TRENCH IS LESS THAN 30" IN WIDTH, THE TRENCH SHALL BE BACKFILLED WITH CITY MIX 3 SLURRY.

3. DEPTH OF BITUMINOUS PATCH SHALL BE A MINIMUM OF 4" OR MATCH EXISTING UP TO 6" ON ALL STREETS DESIGNATED AS LOCAL STREETS OR ALLEYS. PATCH DEPTH OF 6" OR MATCH EXISTING UP TO 12" ARE REQUIRED ON ALL COLLECTORS AND ARTERIALS.

4. EXISTING PAVEMENT SHALL BE CUT BACK A MINIMUM OF 12" BEYOND ANY DISTURBED BASE COURSE, SUBGRADE OR BROKEN ASPHALT. IN ADDITION, THE ADJACENT PAVEMENTS SHALL BE MILLED A DEPTH OF 1/4" NO LESS THAN ONE FOOT WIDE AND THE TOP LIFT INLAID. SEE SECTION 02515 FOR ADDITIONAL ASPHALT REMOVAL AND PATCHING REQUIREMENTS.
NOTES:

1. MATERIAL COMPACTION SHALL CONFORM TO SECTIONS 02220, 02225, 02226, 02231, AND 02512.

2. WHEN ANY PORTION OF THE PIPE HAS LESS THAN 18" OF COVER TO FINISH GRADE OR THE TRENCH IS LESS THAN 36" IN WIDTH THE TRENCH SHALL BE BACKFILLED WITH CITY MIX 3 SLURRY TO TOP OF SUBGRADE.

3. DEPTH OF BITUMINOUS PATCH SHALL BE A MINIMUM OF 4" OR MATCH EXISTING UP TO 6" ON ALL STREETS DESIGNATED AS LOCAL OR ALLEYS. PATCH DEPTH OF 6" OR MATCH EXISTING UP TO 12" ARE REQUIRED ON ALL STREETS DESIGNATED AS COLLECTOR OR ARTERIAL.

4. EXISTING PAVEMENT SHALL BE CUT BACK A MINIMUM OF 12" BEYOND ANY DISTURBED BASE, SUBGRADE OR ASPHALT. IN ADDITION, THE ADJACENT PAVEMENTS SHALL BE MILLLED A DEPTH OF 1½" NO LESS THAN ONE FOOT WIDE AND THE TOP LIFT OF ASPHALT INLAID. SEE SECTION 02515 FOR ADDITIONAL ASPHALT REMOVAL AND PATCHING REQUIREMENTS.
NOTES:
1. MATERIAL COMPACTION SHALL CONFORM TO SECTIONS 02220, 02225, 02226, 02231, AND 02512.

2. WHEN ANY PORTION OF THE PIPE HAS LESS THAN 18" OF COVER TO TOP OF FINISH GRADE OR THE TRENCH IS LESS THAN 30" IN WIDTH THE TRENCH SHALL BE BACKFILLED WITH CITY MIX 3 SLURRY.

3. CONCRETE BASE SHALL BE REINSTALLED WITH #5 EPOXY COATED REBAR, 18 INCHES ON CENTER AND 18" LONG CENTERED IN CONCRETE. MIRITAK FABRIC OR APPROVED EQUAL SHALL BE INSTALLED WITH THE CENTER OVER THE JOINT AND EXTENDED 3" BEYOND SAWCUT END.

4. DEPTH OF BITUMINOUS PATCH SHALL BE A MINIMUM OF 4" OR MATCH EXISTING UP TO 6" ON ALL STREETS DESIGNATED AS LOCAL OR ALLEYS. 6PATCH DEPTH OF 6" OR MATCH EXISTING UP TO 12" ON ALL STREETS DESIGNATED AS COLLECTOR OR ARTERIALS.

5. EXISTING PAVEMENT SHALL BE CUT BACK A MINIMUM OF 12" BEYOND ANY DISTURBED BASE COURSE, SUBGRADE OR BROKEN ASPHALT. IN ADDITION, THE ADJACENT PAVEMENT SHALL BE MILLED A DEPTH OF 1/4" NO LESS THAN ONE FOOT WIDE AND THE TOP LIFT OF PATCH INLAID. SEE SECTION 02515 FOR ADDITIONAL ASPHALT REMOVAL AND PATCHING REQUIREMENTS.
TYPICAL CURB STOP ADJUSTMENT

NOTES:

1. ALL CURB STOPS PLACED IN CONCRETE SHALL BE SLEEVED IN ACCORDANCE WITH THIS DRAWING.
NOT TO SCALE

PROPERTY LINE
2'-0'

AS REQUIRED TO LOCATE VALVE IN STREET

OPEN CLOCKWISE

1-1/2' PENTAGON

MUELLER OR CLOW DRY BARREL FIRE HYDRANT

LARGE OUTLET TO FACE STREET UNLESS OTHERWISE SPECIFIED

APPROVED TRAFFIC FLANGE

DO NOT LOCATE VALVE IN CURB OR VALLEY GUTTER SECTIONS

MINIMUM OF 18'

CONCRETE COLLAR

FINISHED GRADE

PLACE A LAYER OF 8 MIL. PLASTIC ON TOP OF DRAINFIELD ROCK

2'-1"

KEEP DRAIN HOLE CLEAN

3/4" TO 1-1/2" GRAVEL FILL 1 C.Y. MIN.

20'-0"

6'-0" MIN. BURY HYDRANT

6-0" MIN.

Mega Lug

6' GATE VALVE

18'x18'x6' CONCRETE SLAB

18" MIN.

Use bond breaker between concrete and fitting typical

NOTE:
1. DRAIN HOLES ARE TO BE PLUGGED IF LOCATED BELOW WATER TABLE.
2. DOUBLE POLYWRAP ALL UNDERGROUND FACILITIES, INCLUDING THE VALVE BOX, SEE DETAIL 2663-02
3. ALL JOINTS BETWEEN HYDRANT & VALVE MUST BE RESTRAINED.
4. ALL THREAD RERAINT IS NOT ALLOWED.

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES STANDARD DRAWING

TYPICAL FIRE HYDRANT ASSEMBLY INSTALLATION DETAIL

REVISED 2014

STANDARD DRAWING NO. 02645-01
BOLLARD DETAIL

6' SCHEDULE 40 STEEL PIPE FILLED WITH CONCRETE AND PAINTED SAFETY YELLOW (TYPICAL)

3'

5' 3/4"

FIRE HYDRANT (TYP.)

3' OR HYDRANT HEIGHT

5'

MIN. OF 3'

2'

4' MIN.

6' SCHEDULE 40 STEEL PIPE FILLED WITH CONCRETE, OR PRECAST CONCRETE BOLLARDS. SEE VAUGHN CONCRETE PRODUCTS OR APPROVED EQUAL.

PAINTED SAFETY YELLOW

VARIES

COMPACTED BASE

CONCRETE

COMPACTED BASE
FIELD INSTALLATION - POLYETHYLENE WRAP

STEP 1  PLACE TUBE OF 8 MIL THICKNESS, ANSI AWWA C105/A215 V-BIO FILM POLYETHYLENE TUBE MATERIAL ON PIPE JUST PRIOR TO LOWERING IT INTO THE TRENCH. NOT WHEN IT IS STOCKPILED.

STEP 2  PULL THE TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO JOINT, FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH TAPE TO HOLD PLASTIC IN PLACE.

STEP 3  OVERLAP FIRST TUBE WITH ADJACENT TUBE OF 4 MIL CROSS LAMINATED POLYETHYLENE TUBE ENCASEMENT AND SECURE WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE SHALL BE LOOSE, EXCESS MATERIAL SHALL BE NEATLY DRAWN AROUND THE PIPE BARREL, FOLDED ON TOP OF THE PIPE AND TAPE IN PLACE WITH 3 FOOT OVERLAPS.

NOTE: DUCTILE IRON PIPE AND RELATED CONSTRUCTION MATERIALS SHALL BE DOUBLE WRAPPED.
MINIMUM DIMENSIONS FOR THRUST BLOCKING

<table>
<thead>
<tr>
<th>FITTING SIZE</th>
<th>TEES &amp; PLUGS</th>
<th>90° BENDS</th>
<th>45° BENDS &amp; WYES</th>
<th>REDUCERS &amp; 22 1/2° BENDS</th>
<th>11 1/4° BENDS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>B</td>
<td>A</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>4&quot;</td>
<td>1'-8&quot;</td>
<td>1'-6&quot;</td>
<td>2'-0&quot;</td>
<td>1'-6&quot;</td>
<td>1'-6&quot;</td>
</tr>
<tr>
<td>6&quot;</td>
<td>2'-8&quot;</td>
<td>2'-0&quot;</td>
<td>3'-3&quot;</td>
<td>2'-9&quot;</td>
<td>2'-6&quot;</td>
</tr>
<tr>
<td>8&quot;</td>
<td>3'-6&quot;</td>
<td>3'-0&quot;</td>
<td>4'-3&quot;</td>
<td>3'-6&quot;</td>
<td>3'-8&quot;</td>
</tr>
<tr>
<td>10&quot;</td>
<td>4'-3&quot;</td>
<td>4'-0&quot;</td>
<td>4'-6&quot;</td>
<td>5'-3&quot;</td>
<td>4'-0&quot;</td>
</tr>
<tr>
<td>12&quot;</td>
<td>5'-6&quot;</td>
<td>4'-6&quot;</td>
<td>6'-8&quot;</td>
<td>5'-0&quot;</td>
<td>4'-6&quot;</td>
</tr>
</tbody>
</table>

**NOTE:**
1. FITTINGS TO BE SEPARATED FROM BLOCKS WITH AN APPROVED BOND BREAKER, SUCH AS POLY WRAP.
2. ALL BLOCKS TO BEAR AGAINST UNDISTURBED MATERIAL.
3. ALL CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 4,000 PSI.
4. FOR FIRE HYDRANTS, THRUST BLOCKS A = 39", B = 33", LENGTH = 36"
NOTE:
1. B.O.P.U. makes taps 3" and larger.
2. This drawing is for tapping ductile iron pipe. See PVC specifications for tapping PVC pipe.
3. All meters pits shall be located a min. of 2" (feet) and a max. of 5" (feet) inside property line or as approved on plans.
4. 1½" to 2" will be allowed to tap at 90 degrees to main.
5. All meters 1½" and larger shall be installed in pits.

SELECT BACK FILL MATERIAL
SEE SPECIFICATIONS

CORPORATION STOP
NOT TO SCALE

NOTE:
16" AND LARGER WILL USE 8" PIPE, SMALLER THAN 16" WILL USE 6" PIPE, RESTRAINT JOINTS FROM MAIN TO BLOWOFF WYE.

ALL VALVES SHALL HAVE VALVE BOX ADAPTOR II.

6" BLOW OFF DETAIL

CITY OF CHEYENNE
AND
BOARD OF PUBLIC
UTILITIES
STANDARD DRAWING

REVISED
2014

STANDARD
DRAWING NO. 02665-08
NOTES:

1. THRUST BLOCKS MAY BE REQUIRED IN UNSTABLE MATERIAL.
2. PER D.E.Q. REQUIREMENTS, A CASING PIPE OR APPROPRIATE PIPE ENCASEMENT, SHALL BE REQUIRED WHEN WATER MAIN IS LESS THAN 18" ABOVE A SANITARY OR STORM SEWER.
3. JOINTS INSIDE THE CASING PIPE OR THE PIPE ENCASEMENT MUST ALSO BE RESTAINED JOINTS.
4. SUPPORT SANITARY SEWER OVER WATER MAIN.
5. SEE DRAWING 02665-01 FOR DETAILS ON CASING PIPE SPACERS AND END SEALS.

<table>
<thead>
<tr>
<th>FITTING</th>
<th>A</th>
<th>B</th>
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<tbody>
<tr>
<td>4'</td>
<td>2'-4&quot;</td>
<td>2'-0&quot;</td>
</tr>
<tr>
<td>6'</td>
<td>2'-4&quot;</td>
<td>2'-6&quot;</td>
</tr>
<tr>
<td>8'</td>
<td>3'-6&quot;</td>
<td>3'-3&quot;</td>
</tr>
<tr>
<td>10'</td>
<td>4'-3&quot;</td>
<td>4'-0&quot;</td>
</tr>
<tr>
<td>12'</td>
<td>5'-6&quot;</td>
<td>4'-6&quot;</td>
</tr>
</tbody>
</table>

3" MIN COVER
4000 PSI CONCRETE

TWO SPLIT RING MEGALUGS
WITH 90° OFFSET IN SPLITS.

EXISTING WATER MAIN

#5 REBARS @ 6" DC EW/EF TYPICAL

B

A

TRENCH WIDTH +12"

RESTRRAINT BLOCK DETAIL

EXISTING WATER MAIN

TRENCH WIDTH +12"

#5 REBARS @ 6" DC EW/EF (TYP)

KEY INTO TRENCH WALL 6"

3"

4000 PSI CONCRETE

TWO SPLIT RING MEGALUGS
WITH 90° OFFSET IN SPLITS.

A

KEY INTO TRENCH 6"

EXISTING WATER MAIN

TRENCH WIDTH +12"

RESTRRAINT BLOCK DETAIL

EXISTING WATER MAIN

TRENCH WIDTH +12"

#5 REBARS @ 6" DC EW/EF (TYP)

KEY INTO TRENCH WALL 6"

3"

4000 PSI CONCRETE

TWO SPLIT RING MEGALUGS
WITH 90° OFFSET IN SPLITS.

A

KEY INTO TRENCH 6"

EXISTING WATER MAIN

TRENCH WIDTH +12"

RESTRRAINT BLOCK DETAIL

EXISTING WATER MAIN

TRENCH WIDTH +12"

#5 REBARS @ 6" DC EW/EF (TYP)

KEY INTO TRENCH WALL 6"

3"

4000 PSI CONCRETE

TWO SPLIT RING MEGALUGS
WITH 90° OFFSET IN SPLITS.

A

KEY INTO TRENCH 6"

EXISTING WATER MAIN

TRENCH WIDTH +12"

RESTRRAINT BLOCK DETAIL

EXISTING WATER MAIN

TRENCH WIDTH +12"

#5 REBARS @ 6" DC EW/EF (TYP)

KEY INTO TRENCH WALL 6"

3"

4000 PSI CONCRETE

TWO SPLIT RING MEGALUGS
WITH 90° OFFSET IN SPLITS.

A

KEY INTO TRENCH 6"

EXISTING WATER MAIN

TRENCH WIDTH +12"

RESTRRAINT BLOCK DETAIL

EXISTING WATER MAIN

TRENCH WIDTH +12"

#5 REBARS @ 6" DC EW/EF (TYP)

KEY INTO TRENCH WALL 6"

3"

4000 PSI CONCRETE

TWO SPLIT RING MEGALUGS
WITH 90° OFFSET IN SPLITS.

A

KEY INTO TRENCH 6"

EXISTING WATER MAIN

TRENCH WIDTH +12"

RESTRRAINT BLOCK DETAIL

EXISTING WATER MAIN

TRENCH WIDTH +12"

#5 REBARS @ 6" DC EW/EF (TYP)

KEY INTO TRENCH WALL 6"

3"

4000 PSI CONCRETE

TWO SPLIT RING MEGALUGS
WITH 90° OFFSET IN SPLITS.

A

KEY INTO TRENCH 6"

EXISTING WATER MAIN

TRENCH WIDTH +12"

RESTRRAINT BLOCK DETAIL

EXISTING WATER MAIN

TRENCH WIDTH +12"

#5 REBARS @ 6" DC EW/EF (TYP)

KEY INTO TRENCH WALL 6"

3"

4000 PSI CONCRETE

TWO SPLIT RING MEGALUGS
WITH 90° OFFSET IN SPLITS.

A

KEY INTO TRENCH 6"

EXISTING WATER MAIN

TRENCH WIDTH +12"

RESTRRAINT BLOCK DETAIL

EXISTING WATER MAIN

TRENCH WIDTH +12"

#5 REBARS @ 6" DC EW/EF (TYP)

KEY INTO TRENCH WALL 6"

3"

4000 PSI CONCRETE

TWO SPLIT RING MEGALUGS
WITH 90° OFFSET IN SPLITS.
PREPPED AND PAINTED WITH RUST-OLEUM #944 SAFETY YELLOW

4" THD'D 90° ELBOW (STEEL)
PLACE #24 WELDED STAINLESS STEEL WIRE MESH AT THE END OF VENT PIPE

THD'D ENDS

4" VENT PIPE

POLYWRAP VENT PIPE

60" DIA. PRECAST CONC. FLAT M.H. COVER

CONC. EXTENSIONS RINGS

GROUND ELEV.

60" DIA. PRECAST CONC. M.H.

DEPT VARI"S

STEPS

14"

12"

6" MIN.

1- TAPPING SADDLE

ELEVATION

NOTE:
1. AIR VALVE SHALL BE VAL-MATIC OR APCD.
   * PRECAST MANHOLE SECTIONS SHALL CONFORM TO ASTM C 478

PLAN

8'-0"

4'-0" 4'-0"

10" 10"

1 1/2" WASHED ROCK

1/2" AIR VALVE

CONC. M.H. FOOTINGS 10'x10'x8' REINFORCED WITH BAR STEEL AS SHOWN IN FOOTING DETAIL

3' CLEARANCE

SECTION A-A

FOOTING DETAIL

No. 4 AT 10'
3- No. 6 CONT.

10'

10'

CITY OF CHEYENNE
AND BOARD OF PUBLIC UTILITIES
STANDARD DRAWING

STANDARD AIR VALVE FOR MAINS 10 INCH AND SMALLER

REVISED 2014

STANDARD DRAWING NO. 02665-10
SEE 02665-13 DETAIL

CDNC. EXTENSIONS RINGS
GROUND ELEV.

60" DIA.
PRECAST CDNC.
FLAT MH. COVER

RAM-NEK JOINTS
BRACE 2'x2'x1/4'

2- 2' I.P. THD'D
BRASS NIPPLES

60" DIA.
PRECAST CDNC.
M.H.

DEPTH VARIES

PREPPED & PAINTED
WITH RUST-OLEUM
#944 SAFETY YELLOW

4" THD'D 90° ELBOW (STEEL)
PLACE #24 WELDED
STAINLESS STEEL WIRE
MESH AT THE END OF
VENT PIPE

VTH'D ENDS

4" VENT
PIPE

POLYWARP
VENT PIPE

QUICK CONNECT COUPLINGS
2- 2' 90° STREET ELBOW
2" X 2" TEES
DRILL 1/4" HOLE FOR DRAIN
2- 2" THD'D AIR VALVE
2- 2" THD'D GATE VALVE
KEEP AIR RELIEF VALVE ABOVE WATER TABLE
2- 2" CORP. STOP THD'D BOTH ENDS

2- 2" TAPPING SADDLE

PIPE

NOTE:
1. AIR VALVE SHALL BE
VAL-MATIC OR APCO.

ELEVATION

FOOTING DETAIL

PLAN

CDNC. M.H. FOOTINGS
10'X10'X8' REINFORCED
WITH BAR STEEL AS
SHOWN IN FOOTING
DETAIL

3' CLEARANCE

SECTION A-A

1 1/2" WASHED
ROCK

2" AIR VALVE

1 1/2" WASHED
ROCK

NO. 4 AT 18°

3- NO. 6 CONT.

10'

10'
NOT TO SCALE

RING AND COVER SECTION

RANGE AND COVER SECTION
1/4" BELOW TOP OF PAVEMENT

TOP OF PAVEMENT

24"

24"

3/4"

3/4"

6" X 3/8"

1 3/8"

1"

5/8"

4 1/2"

22"

24 1/2"

31"

NOTES:

1. WITH APPROVED BOLT DOWN COVER AND WATER TIGHT GASKET IN FLOOD PLAIN AND OTHER AREAS SUBJECT TO INUNDATION.

2. CASTING INC. CL.-24-R / AL-24-R OR APPROVED EQUAL. MUST MEET HS-20-44 LOADING.

3. WEIGHT OF CASTING LIDS SHALL BE A MINIMUM OF 135 POUND COVER

4. 1 1/2" HOLE IN CENTER OF LID WITH A 6"X3/4" RECESS IN CENTER OF LID FOR A NEPTUNE PITANTAN I2527-000 RADIO READ OUT
NOT TO SCALE

1. FIT BETWEEN RING AND COVER MUST BE MACHINED.
2. MUST HAVE APPROVED BOLT DOWN COVER AND GASKET IN FLOOD PLAIN AND OTHER AREAS SUBJECT TO INUNDATION.
3. MANHOLE OUTSIDE PAVED STREETS OR ALLEYS SHALL HAVE BOLT TYPE COVER THAT BOLTS TO THE RING AND THE RING SHALL BE BOLTED TO CONE SECTION OR FLAT TOP SECTION OF MANHOLE. USE FOUR (4) \(\frac{1}{2}\)" DIAMETER X 3' LONG STAINLESS STEEL RAM SET ANCHORS OR APPROVED EQUAL.
4. EAST JORDAN IRON WORKS 330-4 RING WITH A CHECKERED FLUSH MOUNT COVER MARKED "WATER" OR APPROVED EQUAL.
5. USE A MINIMUM 135 POUND COVER.
FOR INSTALLATION UNDER NON-TRAFFIC CONDITION ONLY.

METER PIT SHALL BE SET ON OWNER'S PROPERTY 2' to 5' BEHIND PROPERTY LINE.

IF SURFACE IS NOT TO FINAL GRADE AT TIME OF INSTALLATION OF METER, OWNER MUST RAISE OR LOWER PIT WHEN SURFACE IS GRADED.

NO CONCRETE FLOOR SHALL BE LAID IN METER PIT.

PIT SHALL BE CONSTRUCTED OF PVC F-679 OR EQUAL AT THE SIZE OF 24" I.D. X 48".

NO IRRIGATION SYSTEM FITTINGS, VALVES OR OTHER NON-SERVICE RELATED PLUMBING SHALL BE ALLOWED IN METER PIT.

NO PRESSURE RELIEF VALVE SHALL BE ALLOWED IN THE METER PIT.

1-3/4" HOLE IS REQUIRED IN COVER FOR OUTSIDE READOUT.

REFER TO STANDARD DRAWING 02665-06 FOR METER PIT LOCATION

**NOTES:**

**WARNING! INSTALLATION OF A BACK FLOW PREVENTER REQUIRES INSTALLATION OF AN EXPANSION TANK IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.**

**TABLE:**

<table>
<thead>
<tr>
<th>METER SIZE</th>
<th>&quot;A&quot;</th>
<th>&quot;B&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot;</td>
<td>14-1/4&quot;</td>
<td>10-5/8&quot;</td>
</tr>
<tr>
<td>1&quot;</td>
<td>17-1/4&quot;</td>
<td>12-5/8&quot;</td>
</tr>
</tbody>
</table>
NOT TO SCALE

NOT PART OF THE BACKFLOW DEVICE

STOP VALVE

200 PSI INTERNATIONAL PLUMBING CODE APPROVED MATERIAL

WILKINS 950LF DOUBLE CHECK VALVE OR APPROVED EQUAL SUPPLIED AND INSTALLED BY OTHERS

IF BACKFLOW DEVICES, SHUT OFF VALVES, OR PRESSURE REDUCING VALVES, ARE IN A CRAWL SPACE, THESE DEVICES SHALL BE NO FURTHER THAN 3 FEET FROM OPENING TO CRAWL SPACE

PRESSURE REDUCING VALVE

200 PSI INTERNATIONAL PLUMBING CODE APPROVED MATERIAL (NOTE: TRANSITION FROM TYPE K RIGID COPPER TO 200 PSI INTERNATIONAL PLUMBING CODE APPROVED MATERIAL SHALL OCCUR A MIN. OF 24" BEYOND THE OUTSIDE OF THE METER PIT.

FLOW

SUPPLIED BY OTHERS

STOP VALVE

200 PSI INTERNATIONAL PLUMBING CODE APPROVED MATERIAL

NOTES: PRESSURE REDUCING VALVE AND BACKFLOW PREVENTOR WILL BE INSTALLED AFTER INSIDE SHUT OFF VALVE. BACKFLOW PREVENTOR SHALL NOT BE INSTALLED MORE THAN FOUR FEET OFF FLOOR LEVEL.

NO CONNECTIONS TO THE SERVICE SHALL BE PERMITTED UPSTREAM OF THE BACKFLOW PREVENTOR.

BACKFLOW PREVENTOR SET CLEARANCE SHALL BE 12 INCHES ON ALL SIDES.

APPROVED BOPU TRACER WIRE SHALL BE INSTALLED FROM THE METER PIT TO THE HOUSE STOP VALVE, IF COPPER IS USED NO TRACER WIRE IS REQUIRED.

WARNING:

INSTALLATION OF A BACKFLOW PREVENTOR REQUIRES INSTALLATION OF AN EXPANSION TANK IN ACCORDANCE WITH THE MANUFACTURER’S SPECIFICATIONS.

<table>
<thead>
<tr>
<th>METER SIZE</th>
<th>WILKINS DOUBLE CHECK VALVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot; &amp; 1&quot;</td>
<td>950LF OR EQUAL</td>
</tr>
</tbody>
</table>

CITY OF CHEYENNE AND BOARD OF PUBLIC UTILITIES

INSIDE INSTALLATION OF BACKFLOW PREVENTER W/ OUTSIDE METER PIT FOR 3/4" AND 1" METER DETAILS

REVISED 2014

STANDARD DRAWING NO. 02665-15
INSTALL LID TO MATCH ASPHALT OR CONCRETE ELEVATION

CONCRETE RISER

FIBERGLASS INSULATION BLANKET

EXPANSION CONNECTION EC-23-3/4", EC-4-1

FORD YOKE, Y 500 SERIES OR AY McDONALD 14-2,14-4


TYPE K SOFT COPPER

DFW PLASTICS, INC. MODEL #DFW 242148 METER PIT OR EQUAL. PIT HAVE A 24" O.D. WITH A MINIMUM 20" I.D. TOP AND A MINIMUM 23" WORKING SPACE.

FLOW

NOT TO SCALE

NOTES:

FOR INSTALLATION IN PRIVATE ROADWAYS, DRIVEWAYS, AND PARKING AREAS ONLY.

METER SHALL BE SET OUTSIDE PUBLIC R.O.W.

IF SURFACE IS NOT TO FINAL GRADE AT TIME OF INSTALLATION OF METER, OWNER MUST RAISE OR LOWER PIT WHEN SURFACE IS GRADED.

NO CONCRETE FLOOR SHALL BE LAID IN METER PIT.

PIT SHALL DFW PLASTICS, INC. MODEL #DFW242148 OR APPROVED EQUAL.

NO IRRIGATION SYSTEM FITTINGS, VALVES OR OTHER NON-SERVICE RELATED PLUMBING SHALL BE ALLOWED IN METER PIT.

PRESSURE RELIEF VALVE SHALL NOT BE ALLOWED IN THE METER PIT.

REFER TO STANDARD DRAWING 02665-06 FOR METER PIT LOCATION.

METER SIZE | "A" | "B"
---|---|---
3/4" | 14 1/4" | 10-5/8"
1" | 17 1/4" | 12-5/8"

WARNING: INSTALLATION OF A BACK FLOW PREVENTER REQUIRES INSTALLATION OF AN EXPANSION TANK IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
NOTES:
1. IF SURFACE IS NOT TO FINAL GRADE AT THE TIME OF INSTALLATION OF METER, OWNER MUST ADJUST PIT TO FINISH GRADE.
2. METER PIT TO BE LOCATED ON PRIVATE PROPERTY, CURB SHOULDS TO BE LOCATED IN THE RIGHT OF WAY.
3. METER SETTING MUST BE INSPECTED PRIOR TO BACKFILLING.
4. NO CONCRETE IS TO BE PLACED IN FLOOR OF METER PIT. 3/4" ROCK SHALL BE INSTALLED ON PIT FLOOR TO A DEPTH OF 6".
5. MATERIALS USED FOR SERVICE LINE PIPING THROUGH PIT SHALL BE 1-1/2" OR 2" TYPE "K" SOFT COPPER 20'S. COILED SOFT COPPER IS NOT ALLOWED THROUGH METER PIT. ALL FITTINGS SHALL BE FLARED OR MUELLER 110 COMPRESSION FITTINGS.
6. IF GROUND CONDITIONS ARE UNSTABLE FOOTINGS SHALL BE REQUIRED.
7. THE WORD "WATER" SHALL BE CAST ON THE LID.
8. COPPER COMPRESSION JOINTS SHALL BE USED INSIDE VAULT.
9. FORD OF LOK-PAK SHALL BE USED FOR METER SET INSIDE PIT.
10. ALL VALVES SHALL HAVE ADJUSTABLE CURB BOXES.
11. RIGID COPPER AND SILVER SOLDER IS ALLOWED FOR METER PITS.
12. MANHOLE STEPS SHALL BEGIN.
13. 2'-4" MAX. FROM COVER AND END.
14. 1'-6" MAX. FROM FLOOR.
15. A BYPASS IS ONLY ALLOWED FOR MEDICAL AND DENTAL FACILITIES UNLESS OTHERWISE APPROVED.
NOTES:
1. IF SURFACE IS NOT TO FINISHED GRADE AT TIME OF METER PIT INSTALLATION, OWNER SHALL RAISE OR LOWER PIT LID, WHEN SURFACE IS GRADED.
2. METER VAULT SHALL BE INSPECTED BEFORE BACKFILLING TOP.
3. BYPASS SHALL BE INSTALLED UNLESS OTHERWISE SPECIFIED.
4. ALL GATE VALVES SHALL BE DUCTILE IRON AND FITTINGS SHALL BE FLANGED.
5. ALL PIPE SHALL BE DUCTILE IRON AND ALL FITTINGS SHALL BE FLANGED.
6. SPEC. CASTING INC. CJ-24-R OR AL-24-R OR APPROVED EQUIVALENT.
7. SUPPORT UNDER METER MAY BE BRICK OR CONCRETE BLOCK.
8. 3/4" ROCK SHALL BE PLACED ON FLOOR OF PIT TO A DEPTH OF 6".
9. METER ON BYPASS IS AT OPTION OF B.O.P.U. SPOOL PIECE IS TO BE PROVIDED IF METER IS NOT INSTALLED.
10. SIZE OF BYPASS TO BE DETERMINED BY B.O.P.U.
11. MANHOLE STEPS TO BEGIN 2'-4" MAX. DOWN FROM COVER AND END 1'-6" MAX. UP FROM FLOOR. STEPS TO BE SPACED 12" OR 16", SEE O.S.H.A. REQUIREMENT.
12. VAULT SHALL BE CONSTRUCTED TO HS-20-44 LOAD.

PLAN VIEW

ELEVATION VIEW

CITY OF CHEYENNE
AND
BOARD OF PUBLIC
UTILITIES
STANDARD DRAWING

METER SETTING FOR 3" AND LARGER METER
WITH VALVE AND BYPASS

REVISED
2014

STANDARD DRAWING NO.
02665-18
NOTES:

1. IF SURFACE IS NOT TO FINISHED GRADE AT TIME OF METER PIT INSTALLATION, OWNER MUST RAISE OR LOWER PIT LID, WHEN SURFACE IS GRADED.

2. METER VAULT SHALL BE INSPECTED BEFORE BACK FILLING TOP.

3. ALL GATE VALVES SHALL BE A NON-RISING STEM.

4. ALL PIPE SHALL BE DUCTILE IRON AND FITTINGS SHALL BE FLANGED.

5. SPEC. CASTING INC. CI-24-R, AL-24-R OR APPROVED EQUIVALENT

6. SUPPORT UNDER METER MAY BE BRICK OR CONCRETE BLOCKS.

7. 1/2" TO 3/4" ROCK SHALL BE PLACED ON FLOOR OF PIT, 6" THICK.

8. MANHOLE STEPS TO BEGIN 2'-4" MAX. DOWN FROM COVER AND END 1'-6" MAX. UP FROM FLOOR. STEPS TO BE SPACED 12" OR 16", SEE SPACING PER O.S.H.A. REQUIREMENT.

9. VAULT SHALL BE CONSTRUCTED TO HS-20-44 LOAD.

10. SIZE VARIES DEPENDING ON PIPE SIZE AND TYPE OF METER (SEE STANDARD DRAWING NO. 02665-20)

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PLAN VIEW

- Vault top shall be in two piece section with lifting rings
- Finished grade
- Spacer pipe minimum of 3" diameter of pipeline
- Turbine or compound meter strainer
- Gate valve (Typ.)
- Wall sleeve (Typ.) or bond breaker
- Prefabricated screw type jacks
- 3/4" gravel
- 12"x12"x8" conc. blocks

ELEVATION VIEW

- See standard drawing no. 02665-12

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CITY OF CHEYENNE
AND BOARD OF PUBLIC UTILITIES
STANDARD DRAWING

IRRIGATION METER SETTING FOR 3" AND LARGER METER

REVISED
2014

STANDARD DRAWING NO. 02665-21
NOTES:

1. A #10 THHN BLUE PLASTIC COATED SOLID COPPER WIRE OR COPPERHEAD #12 AWG HS-CCS BLUE HDPE 30 MIL INSULATION COATED WIRE RUN CONTINUOUSLY. THE TRACER WIRE SHALL BE FASTENED SECURELY TO THE TOP OF THE PIPE WITH VINYL PLASTIC ELECTRICAL TAPE 7-MIL. (2) INCH WIDE.

2. ALL SPLICES SHALL BE MADE WITH A 3M R/Y CONNECTOR, CAPABLE OF HANDLING 3-#10 WIRES.

3. AT EVERY FIRE HYDRANT LOCATION A MINI GLEN 4 STATION IS REQUIRED. APPROVED EQUALS SHALL BE INSTALLED 1 FOOT IN FRONT OF THE HYDRANT (NOT WITHIN SIDEWALK), CONNECTED TO THE TRACER WIRE.

METER SHALL BE ADEQUATELY SUPPORTED TO ASSURE WEIGHT OF METER IS NOT SUPPORTED BY SERVICE LINE PIPING.

SUPPLIED BY THE B.O.P.U.
3/4" TAIL PIECE
FORD C-23-2.50
1" TAIL PIECE
FORD C-44-2.65

PRESSURE REDUCING VALVE

STOP VALVE

CONTRACTOR TO PROVIDE PROPER ADAPTORS

SUPPLIED BY OTHERS

200 PSI INTERNATIONAL PLUMBING CODE APPROVED MATERIAL (NOTE: TRANSITION FROM TYPE K RIGID COPPER TO 200 PSI INTERNATIONAL PLUMBING CODE APPROVED MATERIAL SHALL OCCUR AT CURB STOP.)

AIR INLET

EXPANSION TANK
2.5 GALLONS

200 PSI INTERNATIONAL PLUMBING CODE APPROVED MATERIAL

WILKENS 950LF DOUBLE CHECK VALVE OR EQUAL SUPPLIED AND INSTALLED BY OTHERS

FLOW

STOP VALVE

"A"

"B"

NOTES:
22 GAUGE 2 PAIR SOLID WIRE USED FOR WATER METER OUTSIDE READ. OUTSIDE READ WIRE RUN BY CONTRACTOR DURING CONSTRUCTION.

PRESSURE REDUCING VALVE SHALL BE INSTALLED UPSTREAM OF WATER METER.

WATER METER SHALL NOT BE INSTALLED MORE THAN FOUR FEET OFF FLOOR LEVEL AND WILL BE SET HORIZONTALLY TO THE FLOOR.

BACKFLOW PREVENTER SHALL BE INSTALLED DOWNSTREAM OF THE METER

WARNING!
INSTALLATION OF A BACK FLOW PREVENTER REQUIRES INSTALLATION OF AN EXPANSION TANK IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

<table>
<thead>
<tr>
<th>METER SIZE</th>
<th>&quot;A&quot;</th>
<th>&quot;B&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot;</td>
<td>9&quot;</td>
<td>13-3/4&quot;</td>
</tr>
<tr>
<td>1&quot;</td>
<td>11&quot;</td>
<td>15-3/4&quot;</td>
</tr>
</tbody>
</table>

NO CONNECTIONS TO THE SERVICE SHALL BE PERMITTED UPSTREAM OF THE WATER METER.

WATER METER SET CLEARANCES:
FROM BACK: 6 INCHES;
FROM SIDES: 2 FEET;
FROM FRONT: 2 FEET.

APPROVED B.O.P.U. TRACER WIRE SHALL BE INSTALLED FROM THE CURB STOP TO THE HOUSE STOP VALVE. IF COPPER IS USED NO TRACER WIRE IS REQUIRED.

CITY OF CHEYENNE
AND
BOARD OF PUBLIC UTILITIES
STANDARD DRAWING

INSIDE INSTALLATION DETAIL FOR 3/4" AND 1" WATER METER

REvised 2014

STANDARD DRAWING NO. 02665-24
BOXES INDICATE ONLY ACCEPTABLE LOCATIONS FOR RADIO READ RECEPTACLE

NOTE:
BOXES INDICATE ONLY ACCEPTABLE LOCATIONS FOR RADIO READ RECEPTACLES.

SUGGESTED LOCATIONS FOR CABLE ENTRANCE HOLES IN FOUNDATIONS

NOTE:
READOUT WIRE IS REQUIRED TO BE INSTALLED BY THE CONTRACTOR DURING CONSTRUCTION.

4" MIN.

4 NO. 22 GAUGE 2 PAIR SOLID WIRE INSULATED WIRE

42" APPROX.

2'-0" TYP.

NOTE:
• 4" MINIMUM SPACE FROM OUTSIDE READ TO OBSTRUCTIONS
• OUTSIDE READ WIRE IS NO. 22 GAUGE, TWO PAIR, SOLID WIRE
• ALL READOUT RECEPTACLES WILL BE ACCESSIBLE TO METER READERS.
• ALL READ OUT RECEPTACLES SHALL NOT BE MORE THAN TWO FEET FROM FRONT CORNER.

EXAMPLE OF OUTSIDE RADIO READ RECEPTACLE LOCATION OUTSIDE OF HOUSE.

CITY OF CHEYENNE
AND
BOARD OF PUBLIC
UTILITIES
STANDARD DRAWING

OUTSIDE RADIO READ
RECEPTACLE INSTALLATION
FOR INSIDE WATER METER

REVISED
2014

STANDARD
DRAWING NO.
02665-25
NOTES:

1. SLOPE ALL SHELVES TO CHANNEL AT 1" TO 2" PER FOOT.
2. SEE PLAN AND PROFILE SHEETS FOR SLOPE OF CHANNEL.
3. DROP ACROSS INVERT SHALL BE GREATER THAN OR EQUAL TO SLOPE OF ADJACENT SEWER, BUT NOT LESS THAN 0.1 FOOT.
4. SHELVES SHALL BE GIVEN A ROUGH BRUSHED FINISH WHEN PLACED.
5. LOCATION FOR STEPS.
6. ALL TROUGHS SHALL BE COATED WITH A TYPE #3 EPOXY.
NOTES:
1. Concrete shall be four thousand (4,000) PSI meeting BOPU’s concrete requirements.
2. Concrete shall be allowed to cure for five (5) day before setting M.H. sections.
3. No concrete blocks allowed.
4. Use one (1) inch to four (4) inch rock in unstable conditions.
5. Use number six (#6) rebar hoop four (4) foot diameter with thirty-six (36) inch laps three (3) inches above and below pipe penetration.
6. Use number five (#5) rebar twelve (12) inch on center below pipe penetration.
7. Concrete shall be poured two (2) times the diameter of the pipe below and above the pipe.
8. A rubber water stop material shall be around all pipe penetrations into base.
9. Double Conceal or Ramneck used when setting barrel section on to concrete base.
10. Poured in placed bases not allowed on new construction.
11. Precast and poured in place base trough’s shall have an Epoxy Type 3 lining.
NOT TO SCALE

TYPE "D" SOLID LID

SEE DETAIL "A"

PLAN VIEW

SLOPE CHANNEL 2% IN THE DIRECTION OF THE FLOW.

FLOW LINE

SECTION A-A

CONTRACTION JOINT (TYP.)

1'-10"

1/4"

SECTION B-B

2:1 SLOPE

COMPACTED SUBGRADE (SEE SPECS.)

NOTES:

1. WHEN THE CURB IS SEPARATED FROM THE SIDEWALK, THE STEEL PLATE SHALL BE PLACED ON THE SIDEWALK AND THE CONCRETE CHANNEL (WITH 6" THICK WALLS ON EACH SIDE) CONTINUED INTO THE CURB AND GUTTER.

2. NEENAH R-4999 HK SERIES BOLTED TRANSVERSE DRAINAGE STRUCTURE WITH SOLID CHECKERED TYPE "D" GRATE OR EQUAL SHALL BE USED.

3. SIZE OF DRAINAGE OPENING SHALL BE CALLED OUT ON THE CIVIL CONSTRUCTION PLANS.

DETAIL "A"

INSERT #3 REBAR AS ANCHOR ROD THROUGH LENGTH OF CHASE.
### Dimensions (inches)

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
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</thead>
<tbody>
<tr>
<td>Type I</td>
<td>6</td>
<td>(1)</td>
<td>4C*</td>
<td>1</td>
<td>1</td>
<td>(2)</td>
<td>1.5 Min</td>
<td>1 (3)</td>
<td>D=½₁₆ (3)</td>
<td>R=1 (4)</td>
</tr>
<tr>
<td>Type I with Descenders</td>
<td>6</td>
<td>(1)</td>
<td>4C*</td>
<td>0.5</td>
<td>1.5</td>
<td>(2)</td>
<td>1.5 Min</td>
<td>1 (3)</td>
<td>D=½₁₆ (3)</td>
<td>R=1 (4)</td>
</tr>
<tr>
<td>Type II</td>
<td>9</td>
<td>(1)</td>
<td>6C**</td>
<td>1.5</td>
<td>1.5</td>
<td>(2)</td>
<td>2 Min</td>
<td>1 (3)</td>
<td>D=½₁₆ (3)</td>
<td>R=1 (4)</td>
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<tr>
<td>Type II with Descenders</td>
<td>9</td>
<td>(1)</td>
<td>6C**</td>
<td>0.75</td>
<td>2.25</td>
<td>(2)</td>
<td>2 Min</td>
<td>1 (3)</td>
<td>D=½₁₆ (3)</td>
<td>R=1 (4)</td>
</tr>
</tbody>
</table>

* Type I upper case 4" min., and lower case 3" min.
** Type II upper case 6" minimum, and lower case 4 1/2" minimum

---

**E Carlson St**

Types I & II

**Bishop Blvd**

Types I & II with Descenders

### Notes

1. As needed; 24" Minimum
2. As needed
3. Typ. of 2
4. Optional

Type I Street Name Signs used at the intersection of two local roads speed limits of 25 mph or less.

Type II Street Name Signs used at all intersections on collectors and arterials with posted speed limits of 40 mph or less or 2 lane road any speed.

**COLORS:**
- LEGEND
- WHITE (RETROREFLECTIVE)
- BACKGROUND - GREEN (RETROREFLECTIVE)
### Dimensions (inches)

<table>
<thead>
<tr>
<th></th>
<th>A</th>
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<td>12</td>
<td>(1)</td>
<td>8C*</td>
<td>2</td>
<td>2</td>
<td>(2)</td>
<td>2 Min.</td>
<td>1 (3)</td>
<td>D=7/8 (3)</td>
<td>R=1.5</td>
<td>3/8</td>
<td>1.5 (3)</td>
<td>D=3/8 (3)</td>
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<tr>
<td>Type III with descenders</td>
<td>12</td>
<td>(1)</td>
<td>8C*</td>
<td>1</td>
<td>3</td>
<td>(2)</td>
<td>2 Min.</td>
<td>1 (3)</td>
<td>D=7/8 (3)</td>
<td>R=1.5</td>
<td>3/8</td>
<td>1.5 (3)</td>
<td>D=3/8 (3)</td>
</tr>
</tbody>
</table>

* Type III lower case 6" minimum

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**Notes**

(1) - As needed; 24" Minimum  
(2) - As needed  
(3) - Typ. of 2  

Type III Street Name Signs used at all intersections on streets with posted speed limits of more than 40 mph.

**COLORS:**  
- LEGEND AND BORDER -WHITE (RETROREFLECTIVE)  
- BACKGROUND -GREEN (RETROREFLECTIVE)
## Dimensions (inches)

<table>
<thead>
<tr>
<th></th>
<th>A</th>
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<th>M</th>
<th>N</th>
<th>P</th>
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<tbody>
<tr>
<td>Type IV</td>
<td>18</td>
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<td>12C*</td>
<td>3</td>
<td>3</td>
<td>(2)</td>
<td>3 Min.</td>
<td>3</td>
<td>(2)</td>
<td>3</td>
<td>1.5</td>
<td>3</td>
<td>3C**</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Type IV with descenders</td>
<td>18</td>
<td>(1)</td>
<td>12C*</td>
<td>1.5</td>
<td>4.5</td>
<td>(2)</td>
<td>3 Min.</td>
<td>3</td>
<td>(2)</td>
<td>R=1.5</td>
<td>1.5</td>
<td>3C**</td>
<td>4</td>
<td>4.5</td>
<td>0.5</td>
</tr>
</tbody>
</table>

* Type IV lower case 9" minimum

** Type IV lower case 2.25" minimum

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### Notes

1. As needed; 36" Minimum
2. As needed

Type IV Street Name Signs to be used at all signalized intersections.

**COLORS:**

- Legend and Border: -White (Retroreflective)
- Background: -Green (Retroreflective)
NOT TO SCALE

EXPANSION JOINTS SHALL BE CONSTRUCTED AT THESE LOCATIONS

SLOPE NOT TO EXCEED 1:10

REMOVE & REPLACE AS NECESSARY TO MEET MAX 1:2 SLOPE

SIDEWALK CURB TO REDUCE LANDSCAPE COST

VIEW PLAN

MAINTAIN SIDEWALK WIDTH BETWEEN CURBS

PAY LIMITS OF SIDEWALK

SECTION B-B

NOTES:

1. MATERIAL COMPACTION SHALL CONFORM TO SECTION 02231.

2. CONTRACTION AND EXPANSION JOINTS SHALL BE AS SHOWN AND CONFORM WITH SECTIONS 03251 AND 03340.

3. NO CONCRETE SHALL BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION BY THE CITY CONSTRUCTION DEPARTMENT.

4. CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCEMENT AND CONFORM WITH SECTION 03304.

5. ALL LANDINGS SHALL BE 5’ X 5’.

6. ENSURE ALL PAVEMENT SURFACES ARE SMOOTHLY TAPERED AND FLUSH AT CURB RAMPS TO FACILITATE WHEELCHAIR MOVEMENTS.

7. DETECTABLE WARNINGS SHALL BE EAST JORDAN IRON WORKS 7005 SERIES NATURAL FINISH (7006 SERIES ON RADIUS TYPE), NEENAH 4904 SERIES DETECTABLE WARNING PLATES OR APPROVED EQUAL.

8. DETECTABLE WARNING PLATES SHALL BE PLACED AT BOTTOM OF RAMP AND EXTEND two (2”) FEET BACK FROM EDGE AND A MINIMUM LENGTH OF 5 FEET (TO MATCH WIDTH OF RAMP).
NOTES:

1. MATERIAL COMPACTION SHALL CONFORM TO SECTION 02231.
2. CONTRACTION AND EXPANSION JOINTS SHALL BE AS SHOWN AND CONFORM WITH SECTIONS 03251 AND 03340.
3. NO CONCRETE SHALL BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION BY THE CITY CONSTRUCTION DEPARTMENT.
4. CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCEMENT AND CONFORM WITH SECTION 03405.
5. ALL LANDINGS SHALL BE 5' X 5'.
6. ENSURE ALL PAVEMENT SURFACES ARE SMOOTHLY TAPERED AND FLUSH AT CURB RAMPS TO FACILITATE WHEELCHAIR MOVEMENTS.
7. DETECTABLE WARNINGS SHALL BE EAST JORDON IRON WORKS 7005 SERIES NATURAL FINISH (7006 SERIES ON RADIUS TYPE) DETECTABLE WARNING PLATES OR APPROVED EQUAL.
8. DETECTABLE WARNING PLATES SHALL BE PLACED AT BOTTOM OF RAMP AND EXTEND 2 FEET BACK FROM EDGE AND A MINIMUM LENGTH OF 5 FEET (TO MATCH WIDTH OF RAMP).
TYPICAL SECTION

NOTES:

1.) FULL WIDTH TRANSVERSE GREENWAY JOINT SPACING SHALL BE 10'-0" (SAWCUT). 1" MIN. DEPTH.

2.) EXPANSION GREENWAY JOINT SPACING SHALL BE 150'. USE PREFORMED JOINT MATERIAL FULL DEPTH. GROUT AND SEAL WITH SILICONE. EXPANSION JOINT SHALL BE CONSIDERED SUBSIDIARY TO THE GREENWAY.

3.) ALL CONCRETE SHALL BE 4500 PSI WITH FIBER REINFORCEMENT AND CONFORM TO SECTION 03405.

4.) ALL GREENWAY PATH WILL BE 4" THICK EXCEPT FOR ACROSS APPROACHES. THICKNESS OF DRIVE APPROACH SHALL BE 6" FOR RESIDENTIAL AND 8" FOR COMMERCIAL DRIVE AND ALLEY APPROACHES.

5.) CRUSHED BASE IS TO EXTEND 12" PAST EDGE OF PATH AND COMPACTED PER SECTION 02231.

6.) NO CONCRETE SHALL BE PLACED WITHOUT A FINAL FORM AND GRADE INSPECTION BY THE CITY.

7.) MAX. LONGITUDINAL GRADE SHALL NOT EXCEED 5% PER ADA STANDARDS.