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NOTES:
1. INITIAL BACKFILL MATERIAL SHALL BE THOROUGHLY COMPACTED AROUND PIPE.
2. TRENCH WIDTH SHALL CONFORM TO SECTION 9.
3. BEDDING AND INITIAL BACKFILL MATERIAL SHALL BE 1/2" CRUSHED ROCK, OR APPROVED EQUIVALENT.
4. REFER TO DRAWING 4-17 FOR TRENCH DETAILS IN IMPROVED AREAS.
5. HDPE PIPE, IF APPROVED BY COUNTY ENGINEER, SHALL BE BACKFILLED WITH 2-SACK LEAN CONCRETE BACKFILL MATERIAL.
NOTES:
1. ON ALL PIPE UP TO 30” I.D., USE FLEXIBLE COMPRESSION GASKET OR BOOT CONNECTOR CONFORMING TO ASTM C-923. CONNECTION SHALL BE WATER AND SOIL TIGHT. FOR PIPES GREATER THAN 30” I.D., BASE MAY BE CAST-IN-PLACE AND A WATER STOP CONFORMING TO ASTM C-923 SHALL BE USED.

2. SUMP SHALL BE 1’-0” DEEP, MEASURED FROM INVERT OF OUTFALL PIPE. SUMP NOT REQUIRED IF OUTFALL IS 24” I.D. OR LARGER. SUMPS SHALL NOT BE ALLOWED OUT OF THE COUNTY RIGHT OF WAY.

3. RISER SECTIONS, CONES, AND ADJUSTING RINGS SHALL CONFORM TO ASTM C-478.

4. ALL JOINTS SHALL BE MADE WITH PREFORMED PLASTIC JOINT SEALING COMPOUND OR PRE-LUBRICATED GASKET. FOLLOWING INSTALLATION GROUT ALL INTERIOR AND EXTERIOR JOINTS.

5. CONCENTRIC COMPONENTS SHALL BE USED UNLESS OTHERWISE SPECIFIED ON THE PLANS.


7. CONSTRUCT WITH FLAT SLAB-TOP WHEN HEIGHT IS TOO SHALLOW TO CONSTRUCT WITH CONES.

8. FOR THE SLAB REDUCER OF THE BOX MANHOLE (BOX TO ROUND DIAMETER), THE DIAMETER OF THE ROUND REDUCER SHALL BE A MAX OF 12” SMALLER THAN THE INSIDE BOX WIDTH.

9. FLAT SLAB TOP MANHOLES SHALL HAVE A 36” MANHOLE FRAME AND COVER.
NOTES:

1. ALL CASTINGS TO CONFORM TO ASTM A48, CLASS 35B, D&L FOUNDRY A-1018, OR EQUIVALENT.
2. FRAME AND COVER TO MEET H-20 LOAD SPECIFICATIONS.
3. MACHINED HORIZONTAL AND VERTICAL BEARING SURFACES NOT TO EXCEED 1/64" TOLERANCE.
4. FRAME AND COVER SHALL HAVE A COATING OF BITUMINOUS MATERIAL.
5. LOCKING COVER TYPE FRAME AND COVERS SHALL BE USED IN EASEMENT AREAS UNLESS OTHERWISE APPROVED.
6. COVER SHALL BE LABELED AS REQUIRED BY SERVICE DISTRICT. COUNTY COVERS SHALL BE DENOTED "COY".

COUNTY OF YOLO
PLANNING AND PUBLIC WORKS DEPARTMENT

GRAY CAST IRON STANDARD
24" MANHOLE FRAME AND COVER

DATE: 08/05/08
SHEET # 1 OF 1
DRAWING #: 9-3
NOT TO SCALE
NOTES:

1. ALL CASTING TO CONFORM TO ASTM A48, CLASS 35B. D&L FOUNDRY A-1382, OR EQUIVALENT.

2. FRAME AND COVER TO MEET H-20 LOAD SPECIFICATIONS.

3. MACHINED HORIZONTAL AND VERTICAL BEARING SURFACES NOT TO EXCEED 1/64" TOLERANCE.

4. FRAME AND COVER SHALL HAVE A COATING OF BLACK BITUMINOUS PAINT.

5. LOCKING COVER TYPE FRAME AND COVERS SHALL BE USED IN EASEMENT AREAS UNLESS OTHERWISE APPROVED.

COUNTY OF YOLO
PLANNING AND PUBLIC WORKS DEPARTMENT

GRAY CAST IRON STANDARD 36" MANHOLE FRAME AND COVER

DATE: 08/05/08
SHEET #: 1 of 1
DRAWING #: 9-4
NOT TO SCALE

COUNTY ENGINEER No. C42401
APPROVAL DATE

[Signature] 28 Aug. 08
NOTES:
1. MANHOLE COVER SHALL FIT FRAME SHOWN ON DRAWING 9-2.

2. SEATING SURFACES SHALL BE MACHINED AS SHOWN IN DETAIL ON DRAWING 9-2.

3. THIS COVER MAY BE USED ONLY WITH APPROVAL OF THE COUNTY ENGINEER.

4. GALVANIZE AFTER FABRICATION PER ASTM 123.

5. PROVIDE BICYCLE PROOF AND ADA COMPLIANT GRATE.
NOTE:
1. PROVIDE NPDES LOGO IN TOP OF CURB. "NO DUMPING DRAINS TO WATERWAY".
PRECAST GO TOP

NOSING ANGLE
2-1/2" x 2 - 1/2" x 1/4"
WITH 3-1/2" Dia. x 9"
LONG ANCHORS AT 21" O.C.

1-1/4" Dia.
LIFT HOLES

FRAME ANGLE

3/4" Dia Rod

FRAME SIDE BAR

ISOMETRIC

1' - 11 5/8"  
1 7/8" O.C.

3/8" Dia, Cross Bars

BEARING BARS AT 1 - 7/8" O.C.

3'-4" O.C. 6"

4" O.C. 6"

4" O.C. 6"

BANDING BAR

GRID PLAN

GRATE (24-13)

13 BEARING BARS, 3-1/2" x 1/4"

2 BANDING BARS, 2-1/2" x 1/4"

FRAME

4" x 3" x 1/4" ANGLES

3-1/2" x 1/4" SIDE BARS

NOTES:

1. CONCRETE SHALL TEST TO 3000 PSI AT 28 DAYS.

2. FRAME, GRATE AND NOSING ANGLE SHALL BE HOT DIP GALVANIZED, AFTER FABRICATION PER ASTM SPEC A-123, UNLESS SPEC'D OTHERWISE.

3. WEIGHT OF PRECAST TOP WITHOUT GRATE = 1350 LBS. WEIGHT OF GRATE = 141 LBS.

4. WHERE "H" IS 8'-0" OR LESS THE WALL THICKNESS SHALL BE 6". WHERE "H" IS GREATER THAN 8'-0" THE WALL THICKNESS SHALL BE 8".

5. REINFORCING OF PRECAST BASE SHALL BE PER CALTRANS STANDARD PLAN D-74B.

6. SET PRECAST INLET ON 6" LAYER OF MECHANICALLY COMPACTED 3/4" CRUSHED ROCK COMPACTED TO 95% OVER 8" SUBGRADE COMPACTED TO 95%.

7. PROVIDE THREE 2" DIAMETER SUBSURFACE DRAINS IN FACE OF INLET LOCATED 2" ABOVE STREET SUBGRADE. PROVIDE 1 CUBIC FOOT OF DRAIN ROCK ENCLOSURE IN 120" GEOTEXTILE WRAP AT EACH HOLE.

SECTION

COUNTY OF YOLO
PLANNING AND PUBLIC WORKS DEPARTMENT
DROP INLET TYPE "GO"
VERTICAL CURB AND GUTTER ONLY
COUNTY ENGINEER No. C42401
DATE: 08/05/08
SHEET #: 2 OF 2
DRAWING #: 28-06-08
APPROVAL DATE: 9-6
NOT TO SCALE
1. CONCRETE PIPE TO CONCRETE PIPE
   WITHOUT STANDARD JOINT

2. CAST-IN PLACE OR PRE-CAST
   CONCRETE PIPE TO CMP

3. CONCRETE PIPE,
   CMP INTO EXISTING
   PIPE OR STRUCTURE

4. PIPES OF
   DISSIMILAR METALS

NOTES:
1. PIPE CONNECTIONS SHOWN ON THIS PAGE MAY
   BE USED ONLY WHEN APPROVED BY THE COUNTY
   ENGINEER.
2. USE MANUFACTURERS STANDARD COUPLINGS
   WHERE POSSIBLE.
**PLAN VIEW**

- **2" WEEP HOLES AT 10" CENTERS**
- **CONTRACTION JOINT AT 10" CENTERS**
- **EXPANSION JOINT AT 50" CENTERS**

**TYPICAL BOTTOM LINING**

- **OPTION 1**
  - 1:1 BENTONITE CLAY MIXTURE
  - 1" - 6" OR FLATTER
  - SUB-GRADE COMPACTED TO 95% RELATIVE COMPACTION

- **OPTION 2**
  - 1:1 BENTONITE CLAY MIXTURE
  - 1" - 0"
  - COMPACT BENTONITE CLAY MIXTURE TO 95% RELATIVE COMPACTION
  - #3 BARS AT 18" O.C. SUPPORTED ON 2" DOBIES AT 24" +/- O.C. BOTH WAYS

- **4" Poured-in-place CONCRETE**
  - 4% MIN.
  - VARIABLE 6' MIN
COMPACT BENTONITE CLAY MIXTURE TO 95% RELATIVE COMPACTION

#3 BARS AT 18" O.C.

1:1 OR FLATTER

12"

42% MIN.

VARIABLE 6" MIN

SEE JOINT DETAIL

6' CHAIN LINK FENCE

4"

6" MIN IF EQUIPMENT ACCESS IS PROVIDED ON OTHERSIDE

R/W

4" POURED-IN-PLACE CONCRETE AIR-BLOWN MORTAR OR SHOTCRETE

INVERT

1:1 OR FLATTER

1'

TYPICAL FULL LINING

#3 BARS AT 18" O.C.

CONSTRUCTION JOINT

VAR.

18"

#3 BARS AT 18" O.C.

8"

CUTOFF WALL

TO BE PLACED ALONG ENTIRE END OF LINED SECTION AT BEGINNING AND AT END OF LINING

JOINT DETAIL

ALL REBAR SHALL BE SUPPORTED ON 2" DOBIES AT 24" +/- O.C. BOTH WAYS

COUNTY OF YOLO
PLANNING AND PUBLIC WORKS DEPARTMENT

LINED CHANNEL SECTION

DATE: 08/05/08
SHEET #: 2 of 2
DRAWING #: 9-8
NOT TO SCALE
NOTES:

1. BOTTOM TRANSITION IS 25' MINIMUM LENGTH WITH NO RAMP.
2. WEEP HOLES AND JOINTS AS REQUIRED FOR ALL LINED CHANNEL SECTIONS.
3. LOW SIDE OF CHANNEL TO BE OPPOSITE RAMP.
H=6'-0" MINIMUM
H=2X PIPE DIA. (3' TO 6')

FRONT VIEW

SECTION A-A

#3 BARS AT 18" O.C.

SECTION B-B

BACKFLOW GATE AS REQUIRED

SECTION C-C

#3 BARS AT 18" O.C.

NOTES:
1. USE CLASS "B" CONCRETE OR GROUTED COBBLES AS SPECIFIED.
2. #3 BARS AT 18" CENTERS THROUGHOUT CONCRETE SUPPORTED ON 2" DOBIES AT 24" +/- O.C. BOTH WAYS.
NOTES:
1. USE CLASS "B" CONCRETE.
2. #3 BARS AT 18" CENTERS THROUGHOUT CONCRETE SUPPORTED ON 2" DOBIES AT 24" +/- O.C. BOTH WAYS.
3. ON LINED CHANNELS APRON SHALL CONNECT TO SIDE LINING.
4. B=DITCH BOTTOM WIDTH OR AS SHOWN ON PLANS.
5. D=DITCH WATER DEPTH PLUS ONE FOOT OF FREEBOARD.
END AND CORNER POST ASSEMBLY
4"X12" DIAMETER FOR FABRIC 72" HIGH OR LESS.
4"X16" FOR FABRIC MORE THAN 72".

DIAGONAL BRACE
TENSION WIRES

LINE POSTS:
4" X 12" DIAMETER FOR FABRIC 72" HIGH OR LESS.
4" X 16" FOR FABRIC GREATER THAN 72".

GATE POST
Horizontal brace with 3/8" steel truss rods
8" MAX Gate panel
8" Length as specified

DETAIL "A"
Gate frame
4"-0" at Gate post
2" Clearance

Truss rods

Line posts at 1000' maximum intervals braced and trussed in both directions except that this bracing and trussing may be omitted when the fabric is stretched by the equipment.

NOTES:
1. Chain link fabric shall be zinc coated steel manufactured in compliance with ASTM Standard A 392 with a 2 inch mesh of 9 gauge wire with knuckled selvage.
2. Tension wire shall be 7 gauge.
3. Where barbed wire is specified, it shall include 3 strands of galvanized 4 point wire attached with extension arms set at 45 degrees.
4. In residential areas, fabric shall be vinyl coated with slats, color determined by Director.
5. Increase diameter of concrete footing to 16" diameter for 8' chain link fencing.

COUNTY OF YOLO
PLANNING AND PUBLIC WORKS DEPARTMENT
CHAIN LINK FENCE

Date: 08/05/08
Sheet #: 1 of 2
Drawing #: 9-12
Not to Scale

COUNTY ENGINEER No. C42401
APPROVAL DATE 28 AUG 08

Pamela Jordan
<table>
<thead>
<tr>
<th>FENCE HEIGHT</th>
<th>LINE POSTS</th>
<th>END, LATCH AND CORNER POSTS</th>
<th>RAILS AND BRACES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NOMINAL ROUND O.D. (NOTES 7 AND 8)</td>
<td>H</td>
<td>ROLL FORMED</td>
</tr>
<tr>
<td>Less than 6'</td>
<td>1-1/2&quot;</td>
<td>1-7/8&quot;x1-5/8&quot;</td>
<td>1-7/8&quot;x1-5/8&quot;</td>
</tr>
<tr>
<td>6'</td>
<td>2&quot;</td>
<td>2-1/4&quot; x 2&quot;</td>
<td>2&quot; x 1-3/4&quot;</td>
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**GATE POST (NOTE 7)**

<table>
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<tr>
<th>FENCE HEIGHT</th>
<th>GATE WIDTHS</th>
<th>NOMINAL O.D.</th>
<th>WEIGHT PER FOOT</th>
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<tbody>
<tr>
<td>Less than 6'</td>
<td>Up thru 6&quot;</td>
<td>2-1/2&quot;</td>
<td>5.79</td>
</tr>
<tr>
<td></td>
<td>Over 6&quot; thru 12&quot;</td>
<td>4&quot;</td>
<td>10.79</td>
</tr>
<tr>
<td></td>
<td>Over 12&quot; thru 18&quot;</td>
<td>5&quot;</td>
<td>14.62</td>
</tr>
<tr>
<td></td>
<td>Over 18&quot; to 24&quot; max</td>
<td>6&quot;</td>
<td>18.97</td>
</tr>
<tr>
<td>6'</td>
<td>Up thru 6&quot;</td>
<td>3&quot;</td>
<td>7.58</td>
</tr>
<tr>
<td></td>
<td>Over 6&quot; thru 12&quot;</td>
<td>5&quot;</td>
<td>14.62</td>
</tr>
<tr>
<td></td>
<td>Over 12&quot; thru 18&quot;</td>
<td>6&quot;</td>
<td>18.97</td>
</tr>
<tr>
<td></td>
<td>Over 18&quot; to 24&quot; max</td>
<td>8&quot;</td>
<td>28.55</td>
</tr>
</tbody>
</table>

Notes:
1. The above table shows examples of post and brace sections which may comply with the Standard Construction Specifications.
2. Sections shown in the tables must also comply with the strength requirements and other provisions of the Standard Construction Specifications.
3. Other sections which comply with the strength requirements and other provisions of the Standard Construction Specifications may be used on approval of the Engineer.
4. Options exercised shall be uniform on any one project.
5. Dimensions shown are nominal.
6. Offset to be 2"-0" at monument locations, measured at right angles to R/W lines. Taper to achieve offset to be at least 20" long.
7. Pipe sections for posts, rails, braces, and gates shall be schedule 40 galvanized pipe manufactured in conformance with ASTM F 1083.
9. Chain link gate frames shall be a minimum of 1-7/8" pipe weighing 2.72 lbs/ft.
10. Galvanized gate holders of heavy cast construction with counterbalanced latches shall be provided for all gates. Gate holders shall be anchored with a minimum 24" length of 1-5/8" schedule 40 pipe set in 8" diameter concrete base.

Above post dimensions and masses are minimums. Larger sizes may be used on approval of the County Engineer.
NOTES:
1. ALL UTILITY CROSSINGS OF EXISTING STREAMS SHALL BE AT LEAST 36" BELOW EXISTING CHANNEL SIDES AND BOTTOMS. DEEPER PLACEMENT MAY BE REQUIRED IF FUTURE CHANNEL IMPROVEMENTS ARE ANTICIPATED.
2. THE CUT SHALL BE SEALED AS SHOWN WITH GROUTED COBBLES OR CLASS B CONCRETE TO A WIDTH 1' EACH SIDE OF THE UTILITY TRENCH. ALL NATURAL STREAMS, AS SHOWN ON THE NATURAL STREAMS PLAN, SHALL UTILIZE GROUTED COBBLES.
3. CUT OFF WALLS SHALL CONFORM TO STANDARD DRAWING 9-10.
4. GRAVITY PIPES SHALL NOT BE SIPHONS.
NOTES:

1. TO HELP CREATE A FLEXIBLE AND WATERTIGHT JOINT, DO NOT PLACE MORTAR AROUND THE CONNECTOR ON THE OUTSIDE OF THE STRUCTURE OR AROUND THE TOP HALF OF THE CONNECTOR ON THE INSIDE WHEN COMPLETING THE INVERT WORK.

2. RESILIENT CONNECTORS SHALL BE A-LOK, PRESS-SEAL OR APPROVED EQUIVALENT.

3. ALL CONNECTORS SHALL MEET OR EXCEED THE REQUIREMENTS OF ASTM C-923.
NOTE:
1. ALTERNATIVE OUTFLOW CONTROL STRUCTURES MAY BE APPROVED BY THE COUNTY ENGINEER.
2. CONTROL STRUCTURE SHALL BE ACCESSIBLE IN WET WEATHER CONDITIONS.
3. CONTROL STRUCTURE SHALL NOT BE LOCATED UNDER SIDEWALKS OR IN TRAFFIC AREAS.
4. PROVIDE FORMED VERTICAL CRACK CONTROL JOINTS AT EACH SIDE OF GALVANIZED ANGLE IRON FRAME AND MIDPOINTS AT HANDRAIL SUPPORTS.
5. PATCH HOLES IN FACE OF WIRE WITH NON-SHRINK GROUT TO PROVIDE UNIFORM APPEARANCE.

COUNTY OF YOLO
PLANNING AND PUBLIC WORKS DEPARTMENT
DETENTION BASIN OUTFLOW STRUCTURE ELEVATION

DATE: 08/05/08
SHEET #: 1 OF 4
DRAWING #: 9—15
COUNTY ENGINEER No. C42401
APPROVAL DATE 28AUG08
NOT TO SCALE
INSTALL BOLLARDS AS MAY BE REQUIRED. 4" SCH 40 STEEL PIPE X 7' LONG. EMBED 4" IN CONCRETE. SEE DWG 4-27 FOR CAP AND PAINTING DETAILS.

PRECAST DRAINAGE INLET
(CENTRAL PRE-CAST-MODEL #1R OR EQUIV.)

ALUMINUM STOP LOGS ATTACHED TO GATE FRAME PER MANUFACTURERS RECOMMENDATIONS

INFLOW FROM TRASH SCREEN.

FLOW CONTROL ORIFICE 2%

HEAVY DUTY (H-20) GRATE

HANDWHEEL SHALL BE EQUIPPED WITH A LOCKING DEVICE TO PROHIBIT OPERATION BY OTHERS. VERIFY TYPE AND CONFIGURATION WITH THE COUNTY ENGINEER.

OVERFLOW RELEASE ELEVATION

ATTACH GATE FRAME TO WALLS OF DI WITH CONCRETE ANCHORS & SEALANT PER MANUFACTURER'S RECOMMENDATIONS.

ALUMINUM GATE FRAME

ALUMINUM STOP LOGS ATTACHED TO GATE FRAME PER MANUFACTURERS RECOMMENDATIONS

ALUMINUM SLIDE GATE (WATERMAN QAR-50CH) WITH NEOPRENE SEALS. INSTALL PER MANUFACTURERS RECOMMENDATIONS

ORIFICE OPENING IN ALUMINUM SLIDE GATE SIZED TO CONTROL FLOW PER DRAINAGE STUDY

6" LAYER OF 3/4" CRUSHED ROCK WRAPPED IN 12oz NON-WOVEN GEOTEXTILE

TOP 8" (MIN.) SUBGRADE AT 95% MRC.

COUNTY OF YOLO
PLANNING AND PUBLIC WORKS DEPARTMENT
DETENTION BASIN SLIDE GATE RESTRCTOR OUTFLOW CONTROL STRUCTURE

COUNTY ENGINEER No. C42401
APPROVAL DATE

DATE: 08/05/08
SHEET #: 3 OF 4
DRAWING #: 9-15
NOT TO SCALE