

**NOTES:**

1. MANHOLE SHALL BE CONSTRUCTED USING PRE-CAST CONCRETE BARRELS, CONES (CONCENTRIC OR ECCENTRIC), AND PRE-CAST CONCRETE GRADE RINGS.
2. PRECAST UNITS SHALL BE ASSEMBLED USING CLASS "B" MORTAR.
3. THE DEPTH OF THE CHANNEL SHALL BE THE FULL DIAMETER OF THE PIPE.
4. IF DEPTH OF SEWER INVERT FROM THE RIM IS LESS THAN 6 FEET, THE HEIGHT OF THE MANHOLE ABOVE THE LINE L-M IS TO BE 3 FEET AND THE HEIGHT BELOW LINE L-M WILL THEN BECOME VARIABLE.

# JUNCTION CHAMBER "H"

REVISIONS		
MARK	DATE	DESCRIPTION



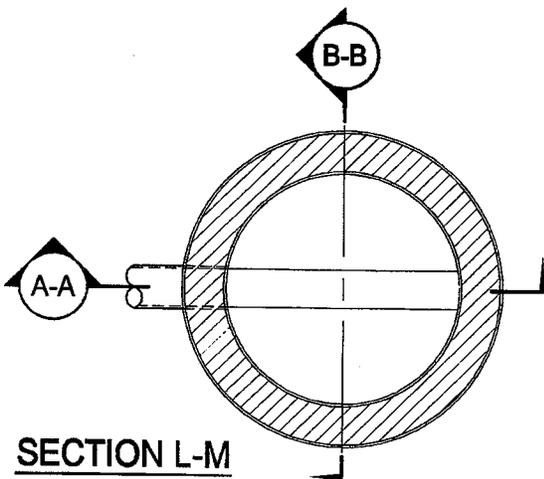
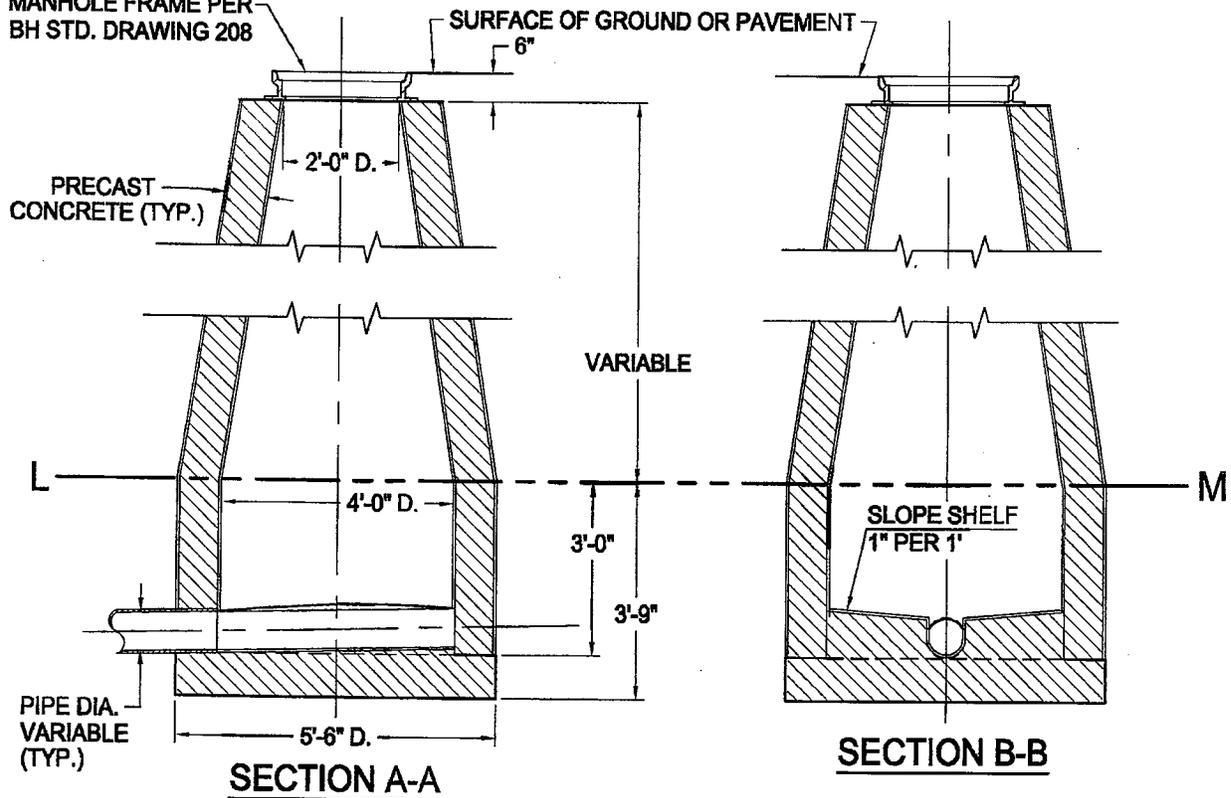
**CITY OF BEVERLY HILLS, CALIFORNIA**  
 DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
 CIVIL ENGINEERING DIVISION

RECOMMENDED *Christina* DATE *7-30-09*  
CITY ENGINEER

APPROVED *[Signature]* DATE *7-31-09*  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 205**  
 SHEET 1 OF 1

MANHOLE FRAME PER  
BH STD. DRAWING 208



**NOTES:**

1. MANHOLE SHALL BE CONSTRUCTED USING PRE-CAST CONCRETE BARRELS, CONES (CONCENTRIC OR ECCENTRIC), AND PRE-CAST CONCRETE GRADE RINGS.
2. PRECAST UNITS SHALL BE ASSEMBLED USING CLASS "B" MORTAR.
3. THE DEPTH OF THE CHANNEL SHALL BE THE FULL DIAMETER OF THE PIPE.
4. IF DEPTH OF SEWER INVERT FROM THE RIM IS LESS THAN 6 FEET, THE HEIGHT OF THE MANHOLE ABOVE THE LINE L-M IS TO BE 3 FEET AND THE HEIGHT BELOW LINE L-M WILL THEN BECOME VARIABLE.

## TERMINAL MANHOLE "Q"

REVISIONS		
MARK	DATE	DESCRIPTION



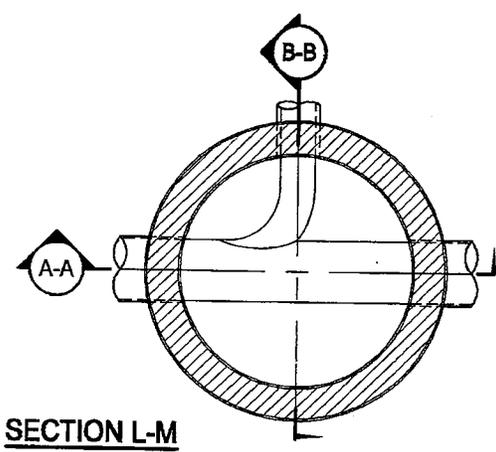
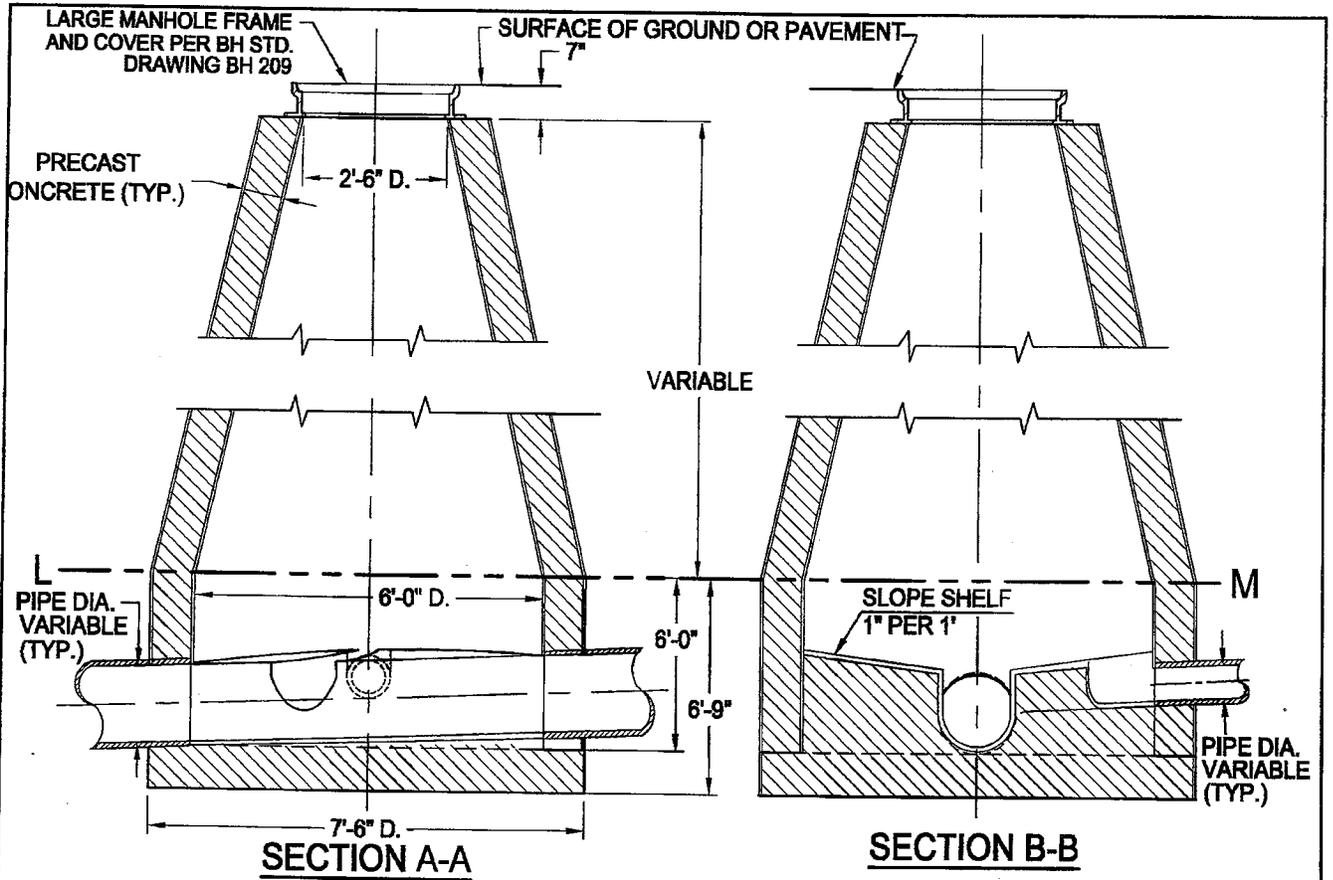
**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED *Christina* DATE 7-30-09  
CITY ENGINEER

APPROVED *Public Works* DATE 7-31-09  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 206**  
SHEET 1 OF 1



**NOTES:**

1. MANHOLE SHALL BE CONSTRUCTED USING PRE-CAST CONCRETE BARRELS, CONES (CONCENTRIC OR ECCENTRIC), AND PRE-CAST CONCRETE GRADE RINGS.
2. PRECAST UNITS SHALL BE ASSEMBLED USING CLASS "B" MORTAR.
3. THE DEPTH OF THE CHANNEL SHALL BE THE FULL DIAMETER OF THE PIPE.
4. IF DEPTH OF SEWER INVERT FROM THE RIM IS LESS THAN 6 FEET, THE HEIGHT OF THE MANHOLE ABOVE THE LINE L-M IS TO BE 3 FEET AND THE HEIGHT BELOW LINE L-M WILL THEN BECOME VARIABLE.

## MODIFIED JUNCTION CHAMBER "F"

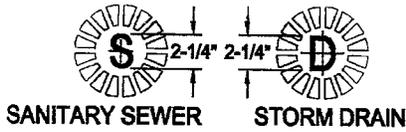
REVISIONS		
MARK	DATE	DESCRIPTION



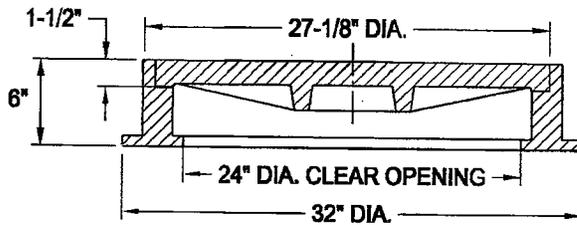
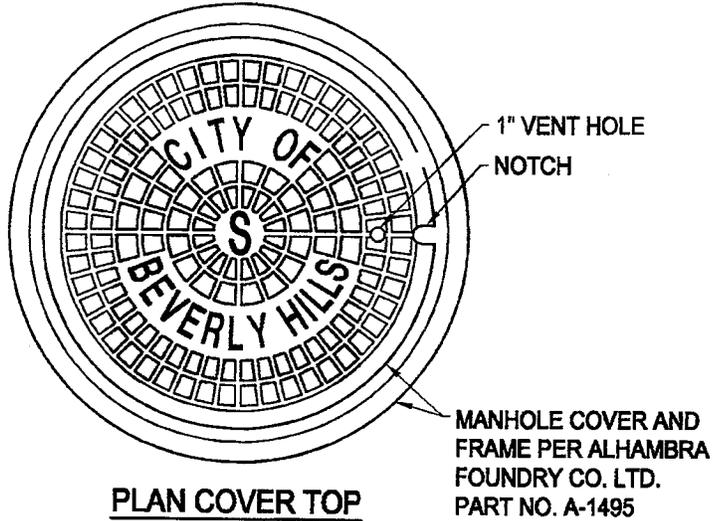
**CITY OF BEVERLY HILLS, CALIFORNIA**  
 DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
 CIVIL ENGINEERING DIVISION

RECOMMENDED *[Signature]* DATE *7-30-09*  
 CITY ENGINEER  
 APPROVED *[Signature]* DATE *7-31-09*  
 PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 207**  
 SHEET 1 OF 1



**DETAIL OF LETTERS**



**INSTALLATION NOTES:**

1. THE MANHOLE FRAME AND COVER SHALL BE MADE OF GRAY CAST IRON CONFORMING TO THE REQUIREMENTS OF ASTM A-48, CLASS 30.
2. ALL PARTS OF THE MANHOLE FRAME AND COVER EXCEPT MACHINED SURFACES SHALL BE COATED WITH ASPHALTUM PAINT.
3. THE MANHOLE FRAME AND COVER SHALL BE TESTED FOR ACCURACY OF FIT AND SHALL BE MARKED IN SETS BEFORE DELIVERY. THE COVER SHALL FIT THE FRAME SNUGLY BUT NOT TIGHTLY.
4. RAISED SURFACES OF LETTERS SHALL BE FLUSH WITH SURFACES OF THE RAISED BLOCK TREAD.
5. ALL RADII 1/8" UNLESS OTHERWISE SPECIFIED.
6. DRAFT TO BE 1-1/2" UNLESS OTHERWISE SPECIFIED.

**NON-ROCKING MANHOLE FRAME AND COVER**

REVISIONS		
MARK	DATE	DESCRIPTION

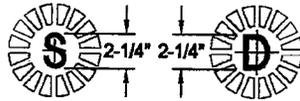


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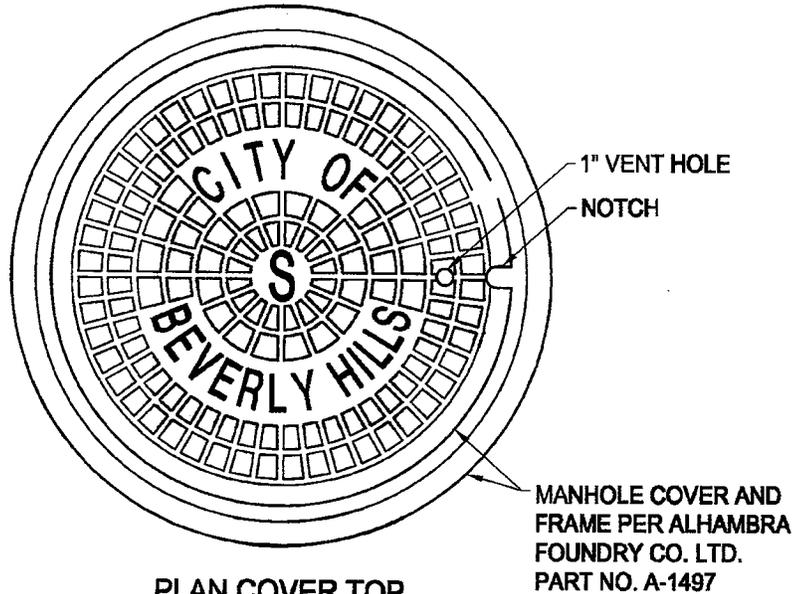
RECOMMENDED *Christina* DATE 7-30-09  
CITY ENGINEER  
 APPROVED *Walter* DATE 7-31-09  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 208**  
 SHEET 1 OF 1

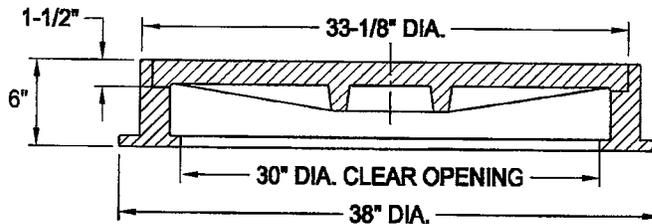


SANITARY SEWER                      STORM DRAIN

**DETAIL OF LETTERS**



**PLAN COVER TOP**



**INSTALLATION NOTES:**

1. THE MANHOLE FRAME AND COVER SHALL BE MADE OF GRAY CAST IRON CONFORMING TO THE REQUIREMENTS OF ASTM A-48, CLASS 30.
2. ALL PARTS OF THE MANHOLE FRAME AND COVER EXCEPT MACHINED SURFACES SHALL BE COATED WITH ASPHALTUM PAINT.
3. THE MANHOLE FRAME AND COVER SHALL BE TESTED FOR ACCURACY OF FIT AND SHALL BE MARKED IN SETS BEFORE DELIVERY. THE COVER SHALL FIT THE FRAME SNUGLY BUT NOT TIGHTLY.
4. RAISED SURFACES OF LETTERS SHALL BE FLUSH WITH SURFACES OF THE RAISED BLOCK TREAD.
5. ALL RADII 1/8" UNLESS OTHERWISE SPECIFIED.
6. DRAFT TO BE 1-1/2" UNLESS OTHERWISE SPECIFIED.

**LARGE MANHOLE FRAME AND COVER**

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED *Christina* DATE 7-30-09  
CITY ENGINEER

APPROVED *Robert* DATE 7-31-09  
PUBLIC WORKS DIRECTOR

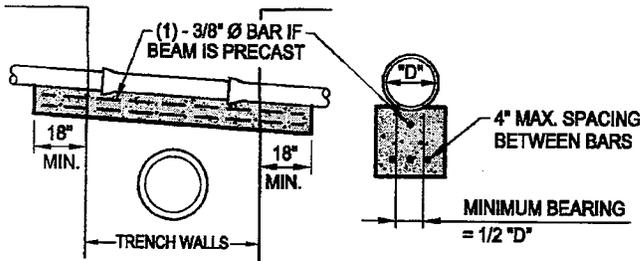
STANDARD DRAWING

**BH 209**

SHEET 1 OF 1

### CASE I

#### REINFORCED CONCRETE BEAM



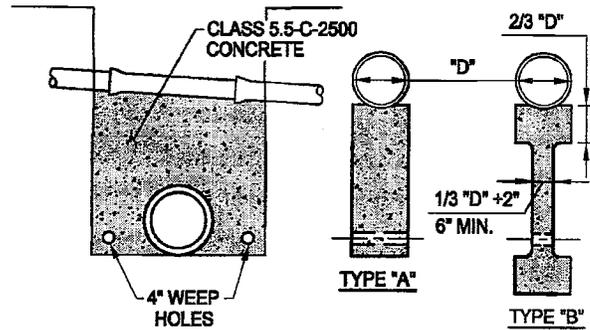
CLASS 6.0-C-3000 REINFORCED CONCRETE BEAM DIMENSIONS

TRENCH WIDTH	DEPTH OF BEAM	BAR SIZE	BEAM LENGTH
4'-0" or LESS	8"	5/8" Ø	7'-0"
4'-6"	9"	3/4" Ø	7'-6"
5'-0"	9-1/2"	3/4" Ø	8'-0"
6'-0"	10-1/2"	3/4" Ø	9'-0"
7'-0"	12"	7/8" Ø	10'-0"
8'-0"	13"	7/8" Ø	11'-0"

1. WIDTH OF BEAMS SHALL BE NOMINAL DIAMETER OF PIPE PLUS 2".
2. REINFORCING STEEL SHALL BE PLACED 1-1/2" CLEAR FROM THE SIDE AND BOTTOM OF BEAMS.
3. IF BEAMS ARE PRECAST, 18" AT ENDS OF BEAMS SHALL BE BEDDED IN CLASS 4.5-C-2000 CONCRETE. CLASS "C" MORTAR SHALL BE PLACED BETWEEN TOP OF BEAMS AND BOTTOM OF PIPE TO GIVE BEARING.

### CASE II

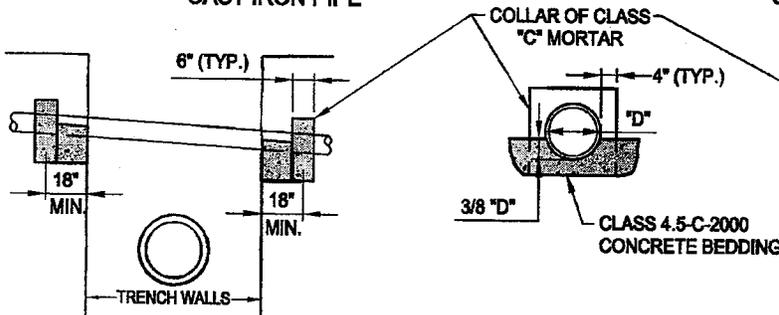
#### CONCRETE SUPPORT WALL



1. SUPPORTING WALL SHALL HAVE A FIRM BEARING ON THE SUBGRADE AND AGAINST THE SIDES OF THE EXCAVATION.
2. WALL SHALL BE AT LEAST 2" FREE AND CLEAR OF ANY GAS OR WATER MAIN OR OTHER CONDUIT OR DUCT.
3. EITHER TYPE "A" OR "B" CROSS SECTION MAY BE USED AT THE CONTRACTORS OPTION.

### CASE III

#### CAST IRON PIPE

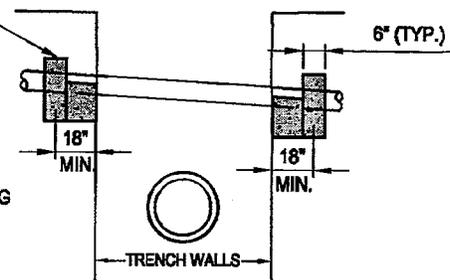


CLASS OF CAST IRON PIPE

INSIDE DIAMETER	CLASS 150 PIPE			CLASS 250 PIPE		
	6"	8"	10"	6"	8"	10"
MAXIMUM TRENCH WIDTH	4'-6"	5'-6"	7'-0"	5'-0"	6'-0"	8'-0"

### CASE IV

#### SPUN REINFORCED CONCRETE PIPE (STORM DRAINS ONLY)



1. CLASS 2000-D SPUN REINFORCED CONCRETE PIPE OF THE SAME DIAMETER AS STORM DRAIN MAY BE USED FOR STORM DRAINS ONLY WHERE WIDTH OF TRENCH IS 5'-0" OR LESS.
2. BEARING OF THE PIPE ENDS AND JOINT CLOSURE SHALL BE THE SAME AS FOR CASE III.

## PIPE SUPPORTS ACROSS TRENCHES

REVISIONS		
MARK	DATE	DESCRIPTION



CITY OF BEVERLY HILLS, CALIFORNIA

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED

*[Signature]*  
CITY ENGINEER

DATE 7-30-09

APPROVED

*[Signature]*  
PUBLIC WORKS DIRECTOR

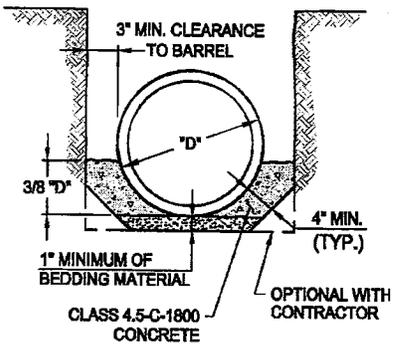
DATE 7-31-09

STANDARD DRAWING

**BH 210**

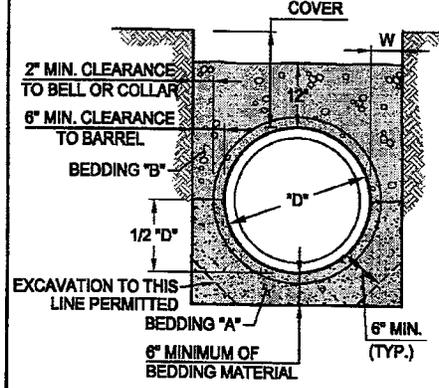
SHEET 1 OF 1

**CASE I**



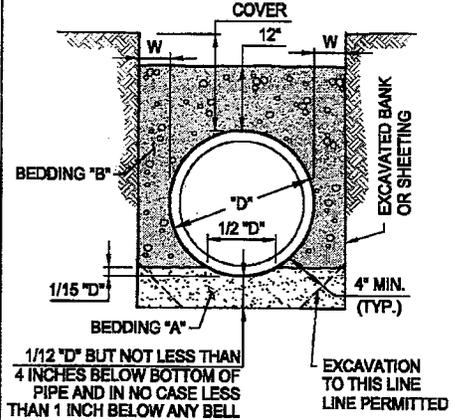
- CASE I BEDDING (LOAD FACTOR 2.1)** SHALL BE USED WHERE SPECIFIED ON THE PLANS OR WHERE REQUIRED AS AN ALTERNATIVE TO CASE II OR CASE III BEDDING AS PROVIDED HEREON. CASE IV BEDDING SHALL BE USED INSTEAD OF CASE I AGAINST SHEETING OR UNSTABLE TRENCH SIDES IF SO REQUIRED BY THE ENGINEER.

**CASE II  
CLAY AND CONCRETE PIPE**



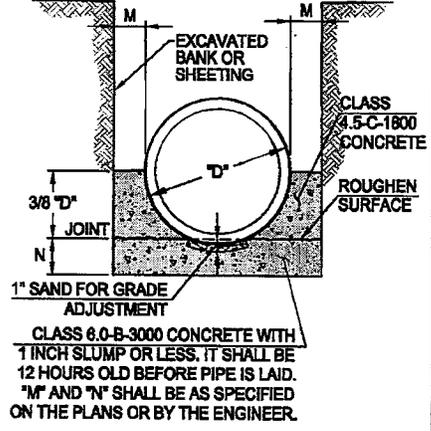
- CASE II BEDDING (LOAD FACTOR 1.8)**
  - "W" AT THE SPRING LINE SHALL NOT BE LESS THAN 8 INCHES FOR ANY DEPTH OF TRENCH.
  - WHERE THE COVER IS LESS THAN 8 FEET, "W" MEASURED AT THE TOP OF THE PIPE MAY BE ANY DIMENSION GREATER THAN 8 INCHES.
  - WHERE THE COVER IS GREATER THAN 8 FEET, "W" MEASURED AT THE TOP OF PIPE SHALL NOT BE GREATER THAN 8 INCHES UNLESS THE CONTRACTOR AT HIS OWN EXPENSE PROVIDES CASE I BEDDING. THE STATED 8 INCHES INCLUDES THE THICKNESS OF ANY SHEETING

**CASE III  
REINFORCED CONCRETE PIPE**



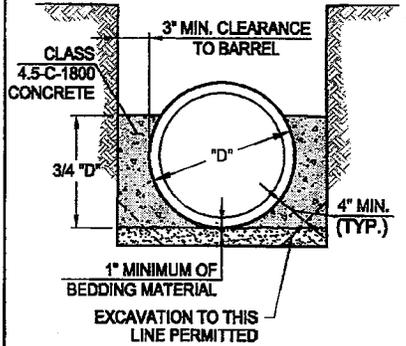
- CASE III BEDDING (LOAD FACTOR 1.8)**
  - "W" AT THE SPRING LINE SHALL NOT BE LESS THAN 3 INCHES FOR ANY DEPTH OF TRENCH.
  - WHERE THE COVER IS LESS THAN 8 FEET, "W" MEASURED AT THE TOP OF THE PIPE MAY BE ANY DIMENSION GREATER THAN 3 INCHES.
  - WHERE THE COVER IS GREATER THAN 8 FEET, "W" MEASURED AT THE TOP OF PIPE SHALL NOT BE GREATER THAN 10 INCHES UNLESS THE CONTRACTOR AT HIS OWN EXPENSE PROVIDES CASE I BEDDING. THE STATED 10 INCHES INCLUDES THE THICKNESS OF ANY SHEETING.

**CASE IV**



- CASE IV BEDDING (LOAD FACTOR 3.0)** WHERE REQUIRED BY THE ENGINEER AS AN ALTERNATIVE TO CASE I OR CASE V TO MEET CONDITIONS ARISING DURING CONSTRUCTION.

**CASE V**



- CASE V BEDDING (LOAD FACTOR 2.7)** SHALL BE USED WHERE SPECIFIED ON THE PLANS. CASE IV BEDDING SHALL BE USED INSTEAD OF CASE V AGAINST SHEETING OR UNSTABLE TRENCH WALLS IF SO REQUIRED BY THE ENGINEER.

**GENERAL NOTES**

- USE CASE III FOR RCP AND CASE II FOR VITRIFIED CLAY AND PLAIN CONCRETE PIPE UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE PROJECT DRAWINGS.
- BEDDING "A" SHALL BE COMPOSED OF SAND, NO. 3 OR NO. 4 CRUSHED ROCK OR GRAVEL, OR OTHER GRANULAR MATERIAL AS MAY BE SPECIFIED OR OTHERWISE APPROVED BY THE ENGINEER. THE MAXIMUM SIZE ROCK OR GRAVEL SHALL BE NO. 3 FOR PIPES 27 INCHES IN DIAMETER AND LARGER, AND NO. 4 FOR PIPES SMALLER THAN 27 INCHES IN DIAMETER. BEDDING "B" SHALL BE COMPOSED OF SAND OR OTHER GRANULAR MATERIAL AS MAY BE SPECIFIED OR OTHERWISE APPROVED BY THE ENGINEER AND SHALL BE COMPLETED PRIOR TO PLACING BALANCE OF BACKFILL.
- CONCRETE ENCASEMENT, WHERE CALLED FOR ON THE PROJECT DRAWINGS, SHALL BE CLASS 5.5-C-2500 CONCRETE POURED FROM A MINIMUM OF 4" BELOW BOTTOM OF PIPE TO A MINIMUM OF 6" ABOVE TOP OF PIPE.

**PIPE BEDDING IN TRENCHES**

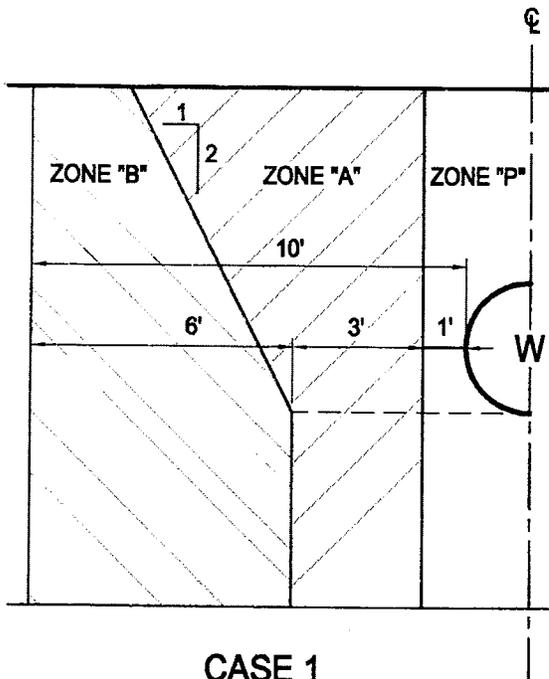
REVISIONS		
MARK	DATE	DESCRIPTION



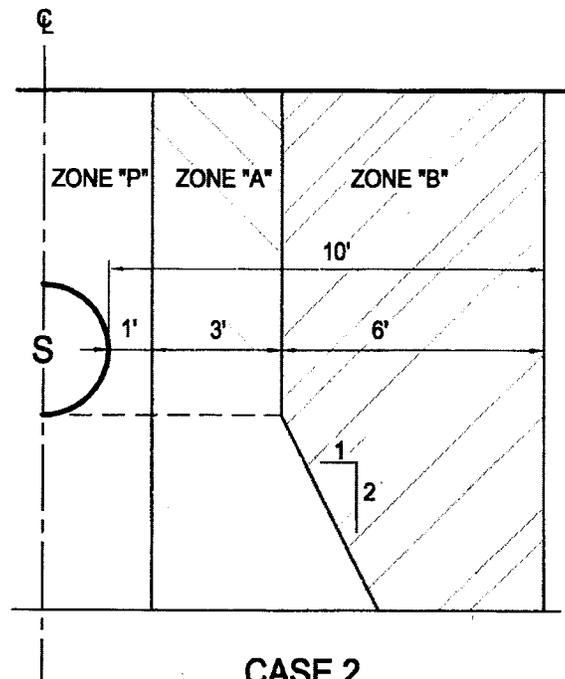
**CITY OF BEVERLY HILLS, CALIFORNIA**  
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED *[Signature]* DATE 7-30-09  
CITY ENGINEER  
APPROVED *[Signature]* DATE 7-31-09  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 211**  
SHEET 1 OF 1



**CASE 1**  
NEW SEWER



**CASE 2**  
NEW WATER MAIN

**ZONE SPECIAL CONSTRUCTION REQUIRED FOR SEWER**

- A. SEWER LINES PARALLEL TO WATER MAINS SHALL NOT BE PERMITTED IN THIS ZONE WITHOUT APPROVAL FROM THE CITY OF BEVERLY HILLS.
- B. A SEWER LINE PLACED PARALLEL TO A WATER LINE SHALL BE CONSTRUCTED OF:
  - 1. EXTRA STRENGTH VITRIFIED CLAY PIPE WITH COMPRESSION JOINTS.
  - 2. PLASTIC SEWER PIPE WITH RUBBER RING JOINTS (PER ASTM D 3034) OR EQUIVALENT.
  - 3. CAST OR DUCTILE IRON PIPE WITH COMPRESSION JOINTS.
  - 4. REINFORCED CONCRETE PRESSURE PIPE WITH COMPRESSION JOINTS (PER AWWA C302-74).
- P. PROHIBITED ZONE - NO SEWER MAINS ARE ALLOWED TO BE INSTALLED IN THIS ZONE.

**ZONE SPECIAL CONSTRUCTION REQUIRED FOR SEWER**

- A. NO WATER MAINS PARALLEL TO SEWERS SHALL BE CONSTRUCTED WITHOUT APPROVAL FROM THE CITY OF BEVERLY HILLS.
- B. A WATER LINE PLACED PARALLEL TO A SEWER LINE SHALL BE CONSTRUCTED OF STEEL PIPE, CML, AND CMC WITH WELDED JOINTS.
- P. PROHIBITED ZONE - NO WATER MAINS ARE ALLOWED TO BE INSTALLED IN THIS ZONE.

**ADDITIONAL NOTES:**

- 1. ZONES IDENTICAL ON EITHER SIDE OF CENTER LINES,
- 2. WATER MAINS AND SEWER MAINS MUST NOT BE INSTALLED IN THE SAME TRENCH.
- 3. SEPARATION DISTANCES SPECIFIED SHALL BE MEASURED FROM THE NEAREST EDGE OF FACILITIES.
- 4. STEEL PIPE SHALL BE A MINIMUM OF 10 GAGE THICKNESS.

**SEWER AND WATER MAIN PARALLEL SEPARATION < 10'**

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**CITY OF BEVERLY HILLS, CALIFORNIA**

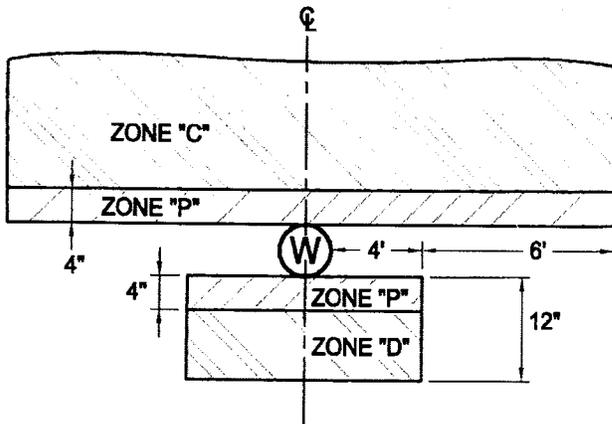
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED *Christina* DATE 11-18-10  
CITY ENGINEER  
APPROVED *Paul G. ...* DATE 11-18-10  
PUBLIC WORKS DIRECTOR

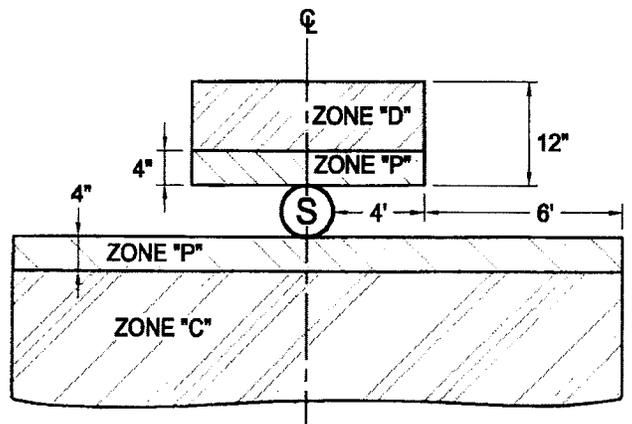
STANDARD DRAWING

**BH 212**

SHEET 1 OF 2



**CASE 1**  
NEW SEWER



**CASE 2**  
NEW WATER MAIN

**ZONE SPECIAL CONSTRUCTION REQUIRED FOR SEWER**

- C. A SEWER LINE CROSSING A WATER MAIN SHALL BE CONSTRUCTED OF:
1. DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING AND MECHANICAL JOINTS.
  2. A CONTINUOUS SECTION OF CLASS 200 (DR 14 PER AWWA 0990) PLASTIC PIPE OR EQUIVALENT. CENTERED OVER THE PIPE BEING CROSSED.
  3. A CONTINUOUS SECTION OF REINFORCED CONCRETE PRESSURE PIPE (PER AWWA C302-74) CENTERED OVER THE PIPE BEING CROSSED.
  4. ANY SEWER PIPE WITHIN A CONTINUOUS SLEEVE.
- D. A SEWER LINE CROSSING A WATER MAIN SHALL BE CONSTRUCTED OF:
1. A CONTINUOUS SECTION OF DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING.
  2. A CONTINUOUS SECTION OF CLASS 200 (DR 14 PER AWWA 0990) PLASTIC PIPE OR EQUIVALENT. CENTERED OVER THE PIPE BEING CROSSED.
  3. A CONTINUOUS SECTION OF REINFORCED CONCRETE PRESSURE PIPE (PER AWWA C302-74) CENTERED OVER THE PIPE BEING CROSSED.
  4. ANY SEWER PIPE WITHIN A CONTINUOUS SLEEVE
  5. ANY SEWER PIPE SEPARATED BY A 10"x10"x4" THICK REINFORCED CONCRETE SLAB.
- P. PROHIBITED ZONE - NO SEWER MAINS ARE ALLOWED TO BE INSTALLED IN THIS ZONE.

**ZONE SPECIAL CONSTRUCTION REQUIRED FOR SEWER**

- C. NO JOINTS WITHIN 10 FEET OF EITHER SIDE OF SEWER LINE. USE DUCTILE IRON PIPE, CML, AND POLYETHYLENE WRAPPED, OR STEEL PIPE, CML, AND CMC.
- D. NO JOINTS WITHIN 4 FEET OF EITHER SIDE OF SEWER LINE. USE DUCTILE IRON PIPE, CML, AND POLYETHYLENE WRAPPED, OR STEEL PIPE, CML, AND CMC.
- P. PROHIBITED ZONE - NO WATER MAINS ARE ALLOWED TO BE INSTALLED IN THIS ZONE.

**ADDITIONAL NOTES:**

1. WATER MAINS AND SEWER MAINS MUST NOT BE INSTALLED IN THE SAME TRENCH.
2. SEPARATION DISTANCES SPECIFIED SHALL BE MEASURED FROM THE NEAREST EDGE OF FACILITIES.
3. STEEL PIPE SHALL BE A MINIMUM OF 10 GAGE THICKNESS.

**SEWER AND WATER MAIN PERPENDICULAR SEPARATION < 10'**

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**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED

*[Signature]*  
CITY ENGINEER

DATE 11-18-10

APPROVED

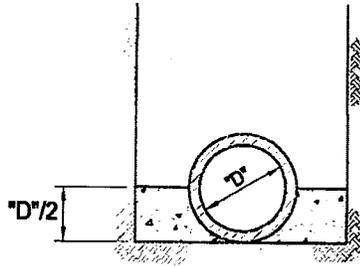
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PUBLIC WORKS DIRECTOR

DATE 11-18-10

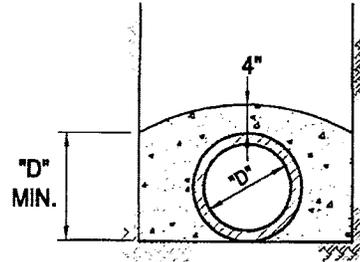
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**BH 212**

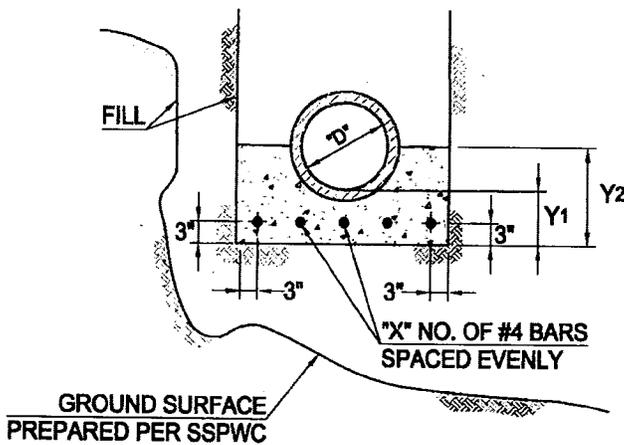
SHEET 2 OF 2



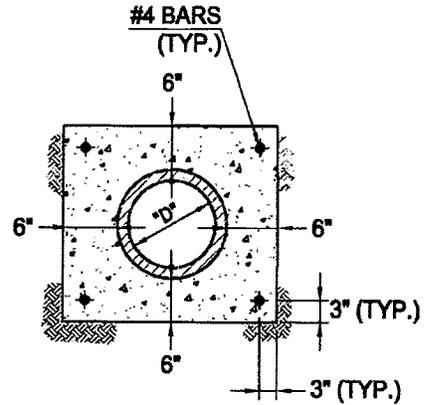
**CASE I  
CONCRETE CRADLE**



**CASE II  
CONCRETE ENCASEMENT**



**CASE III  
SPECIAL CRADLE**



**CASE IV  
SPECIAL ENCASEMENT**

SCHEDULE OF DIMENSIONS AND REINFORCING BARS FOR SPECIAL CRADLE - CASE III			
"D" DIAMETER	"X" NO. OF #4 BARS	THICKNESS	
		Y <sub>1</sub>	Y <sub>2</sub>
6"	2	4"	8"
8"	4	5"	10"
10"	4	6"	12"
12"	4	7"	15"
15"	5	9"	19"
18"	5	10"	22"
21"	6	12"	26"
24"	6	13"	28"

## CRADLING AND ENCASEMENT FOR SEWER LINE

REVISIONS		
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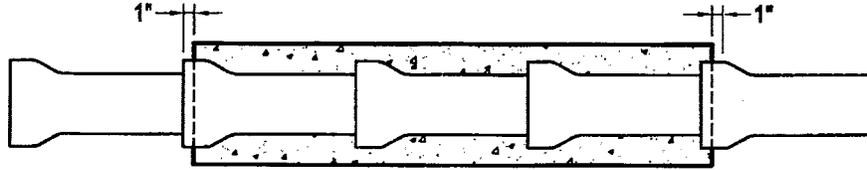
STANDARD DRAWING

**BH 213**

SHEET 1 OF 2

**NOTES:**

1. EXTEND BOTH ENDS OF CRADLE OR ENCASEMENT TO A POINT 1" SHORT OF FIRST PIPE JOINT BEYOND LOCATIONS SPECIFIED ON PLANS.



**PLAN VIEW**

2. APPLY FORM OIL, THIN PLASTIC SHEET, OR OTHER ACCEPTABLE MATERIAL TO PIPE, TO PREVENT BOND BETWEEN PIPE AND CONCRETE.
3. USE CLASS 420-C-2000 CONCRETE FOR ALL CASES.
4. CONDITIONS OF REQUIRED USE:
  - a. CASE I - CONCRETE CRADLE
    1. WHEN OVERBURDEN DEPTH IS GREATER THAN 20'.
    2. AS A SUPPORT WHEN CROSSING OVER A STRUCTURE WITH A CLEARANCE LESS THAN 1.5' AND GREATER THAN 0.5'.
    3. WHEN WITHIN A 45° ANGLE DOWNWARD FROM THE BOTTOM OF A FOOTING.
  - b. CASE II - CONCRETE ENCASEMENT
    1. WHEN CROSSING UNDER A STRUCTURE WITH A CLEARANCE LESS THAN 1.5' AND GREATER THAN 0.5'.
    2. WHEN COVER DIRT IS LESS THAN 4'.
    3. WHEN LESS THAN 3' FROM A POWER POLE.
  - c. CASE III - SPECIAL CRADLE
    1. AS A SUPPORT WHEN CROSSING OVER A TRENCH GREATER THAN 4' IN WIDTH, SEE APWA STANDARD PLAN 224.
  - d. CASE IV - SPECIAL ENCASEMENT
    1. WHEN CROSSING UNDER A STRUCTURE WITH A WIDTH GREATER THAN 5' AND A CLEARANCE LESS THAN 1.5' AND GREATER THAN 0.5'.
    2. WHEN WITHIN 10' OF A PRESSURIZED WATER MAIN, OR WITHIN 25' OF A GRAVITY FLOW WATER MAIN.

## CRADLING AND ENCASEMENT

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED

*[Signature]*  
CITY ENGINEER

DATE 11-18-10

APPROVED

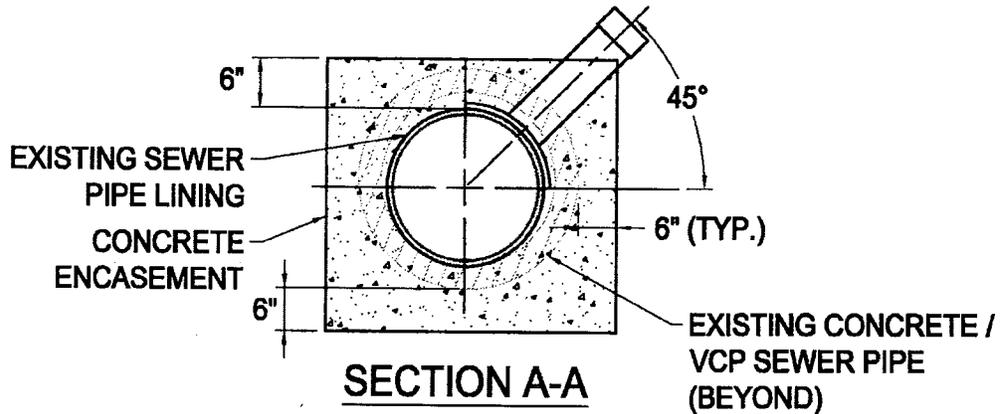
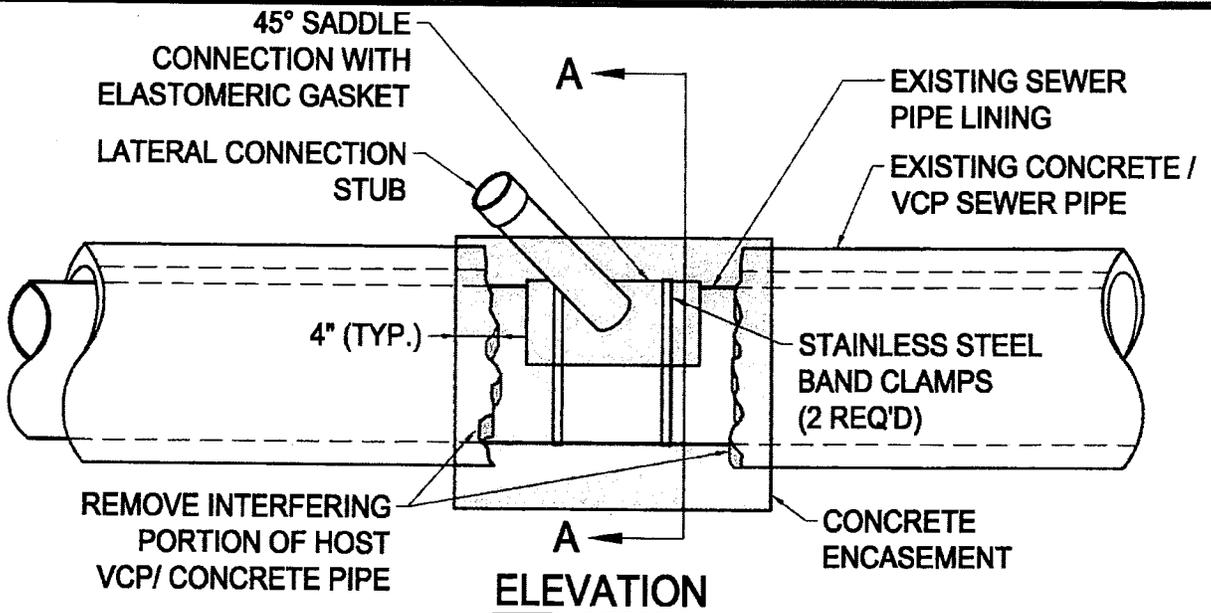
*[Signature]*  
PUBLIC WORKS DIRECTOR

DATE 11-18-10

STANDARD DRAWING

**BH 213**

SHEET 2 OF 2



**ADDITIONAL NOTES:**

1. MATERIALS SHALL BE SELECTED FROM THE CITY OF BEVERLY HILLS APPROVED MATERIALS LIST.
2. IN NO CASE SHALL CONNECTION BE MADE DIRECTLY ON TOP OF SEWER MAIN.
3. NO MORE THAN ONE CUT-IN LATERAL CONNECTION WILL BE ALLOWED FOR EACH LENGTH OF VCP SEWER MAIN.
4. LINING SHALL BE CORED THE EXACT DIAMETER OF THE LATERAL.
5. LATERAL SHALL BE FLUSH WITH THE LINING MATERIAL AND SHALL NOT PROTRUDE WITHIN THE LINING.

**LATERAL CONNECT TO LINED SEWER MAIN**

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED *[Signature]* DATE 11-8-10  
CITY ENGINEER

APPROVED *[Signature]* DATE 11-18-10  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING

**BH 214**

SHEET 1 OF 1

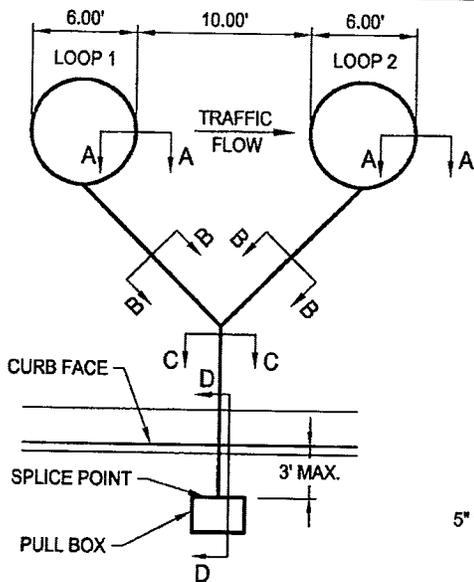
**(RESERVED)**

**Flood Control and  
Storm Drain Facilities**

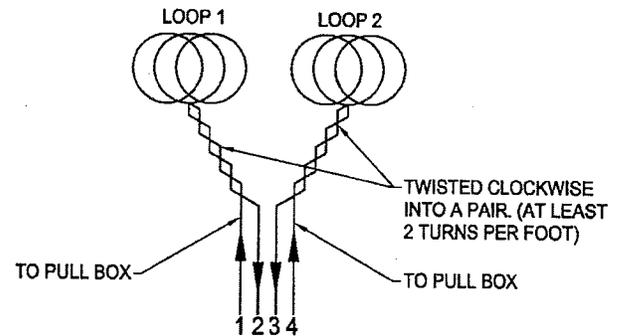
**Section III**

# **Section IV**

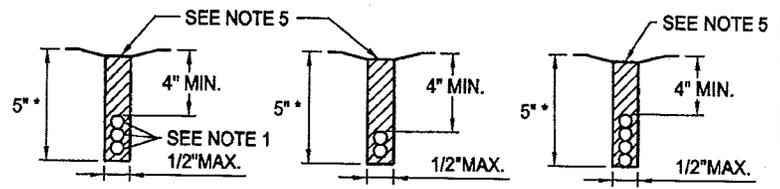
## **Street Lighting and Traffic Signals**



**PLAN**  
NOT TO SCALE



**WINDING DETAIL**  
NOT TO SCALE

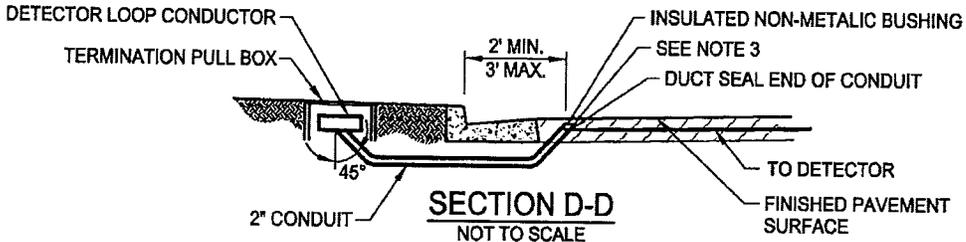


**SECTION A-A**  
NOT TO SCALE

**SECTION B-B**  
NOT TO SCALE

**SECTION C-C**  
NOT TO SCALE

\* DEPTH OF SLOT NOT TO EXCEED DEPTH OF PAVEMENT



**SECTION D-D**  
NOT TO SCALE

- NOTES:**
- THREE TURNS OF DETECTA-DUCT OR TYPE 2 LOOP WIRE STACKED ONE WIRE ON TOP OF ANOTHER. A PRE-WOUND LOOP WIRE SHALL BE USED IN SLOTS GREATER THAN 1/4" IN WIDTH.
  - LOOP DETECTOR LEAD-IN CABLE EXTENDING FROM THE PULL BOX ADJACENT TO THE LOOP TO THE FIELD TERMINAL IN THE CONTROLLER CABINET SHALL BE TWO, THREE, OR FOUR PAIR #18 AWG INDIVIDUALLY TWISTED, INDIVIDUALLY SHIELDED, FILLED (WATER BLOCKED) CABLE. EACH CABLE SHALL BE IDENTIFIED BY THE INSTALLATION OF A RIGID PLASTIC TAG HELD IN PLACE WITH TWO NYLON TIES.
  - STUB OUT SHALL BE LOCATED AT THE EDGE OF GUTTER IN PAVEMENT, 4" BELOW FINISHED SURFACE OR INSTALL DETECTOR HANDHOLE (CITY OF BH, STANDARD DRAWING BH 402) AS DIRECTED BY CITY ENGINEER.
  - IF THE "STUB OUT" EXCAVATION AREA FOR LOOP HOMERUNS IS GREATER THAN 6" IN DIAMETER, BACKFILL WITH ASPHALT CONCRETE. IF EXCAVATION AREA IS LESS THAN OR EQUAL TO 6" IN DIAMETER, SEAL AREA WITH HOT RUBBERIZED ASPHALT SEALANT.
  - FILL SLOT WITH HOT MELT RUBBERIZED ASPHALT SEALANT IN ACCORDANCE WITH SECTION 86-5.01A OF THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS. POUR POTS ARE NOT ACCEPTABLE TO APPLY SEALANT.
  - ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

# ROUND INDUCTIVE LOOP DETECTOR INSTALLATION

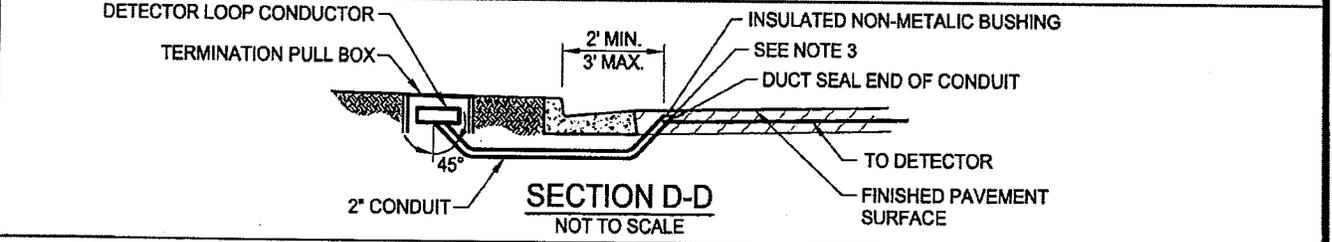
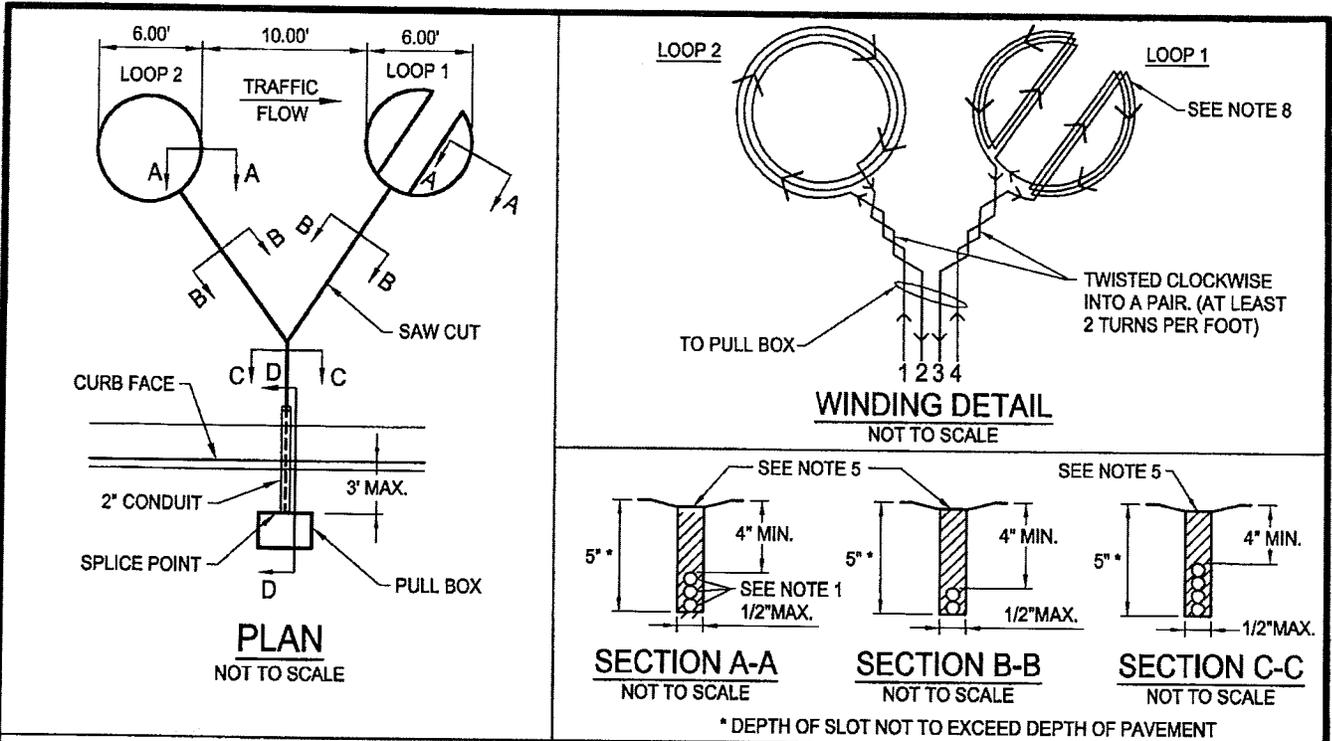
REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**  
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED \_\_\_\_\_ DATE 11/18/11  
CITY ENGINEER  
APPROVED \_\_\_\_\_ DATE 11-18-11  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 401**  
SHEET 1 OF 1



- NOTES:**
1. THREE TURNS OF DETECTA-DUCT OR TYPE 2 LOOP WIRE STACKED ONE WIRE ON TOP OF ANOTHER. A PRE-WOUND LOOP WIRE SHALL BE USED IN SLOTS GREATER THAN 1/4" IN WIDTH.
  2. LOOP DETECTOR LEAD-IN CABLE EXTENDING FROM THE PULL BOX ADJACENT TO THE LOOP TO THE FIELD TERMINAL IN THE CONTROLLER CABINET SHALL BE TWO, THREE, OR FOUR PAIR #18 AWG INDIVIDUALLY TWISTED, INDIVIDUALLY SHIELDED, FILLED (WATER BLOCKED) CABLE. EACH CABLE SHALL BE IDENTIFIED BY THE INSTALLATION OF A RIGID PLASTIC TAG HELD IN PLACE WITH TWO NYLON TIES.
  3. STUB OUT SHALL BE LOCATED AT THE EDGE OF GUTTER IN PAVEMENT, 4" BELOW FINISHED SURFACE OR INSTALL DETECTOR HANDHOLE (CITY OF BH, STANDARD DRAWING BH 402) AS DIRECTED BY CITY ENGINEER.
  4. IF THE "STUB OUT" EXCAVATION AREA FOR LOOP HOMERUNS IS GREATER THAN 6" IN DIAMETER, BACKFILL WITH ASPHALT CONCRETE. IF EXCAVATION AREA IS LESS THAN OR EQUAL TO 6" IN DIAMETER, SEAL AREA WITH HOT RUBBERIZED ASPHALT SEALANT.
  5. FILL SLOT WITH HOT MELT RUBBERIZED ASPHALT SEALANT IN ACCORDANCE WITH SECTION 86-5.01A OF THE STATE OF CALIFORNIA STANDARD SPECIFICATIONS. POUR POTS ARE NOT ACCEPTABLE TO APPLY SEALANT.
  6. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
  7. FRONT LOOP (LOOP 1) SHALL EXTEND INTO CROSSWALK 12" WHERE APPLICABLE.
  8. ROUND CORNERS OF ACUTE ANGLE SAWCUTS TO PREVENT DAMAGE TO CONDUCTORS.

## BIKE LOOP DETECTOR INSTALLATION

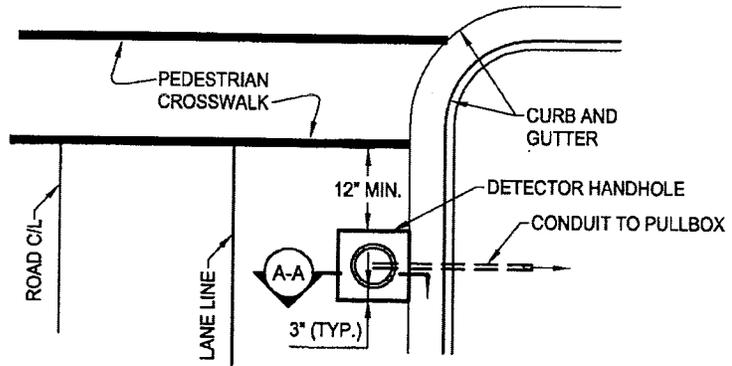
REVISIONS		
MARK	DATE	DESCRIPTION



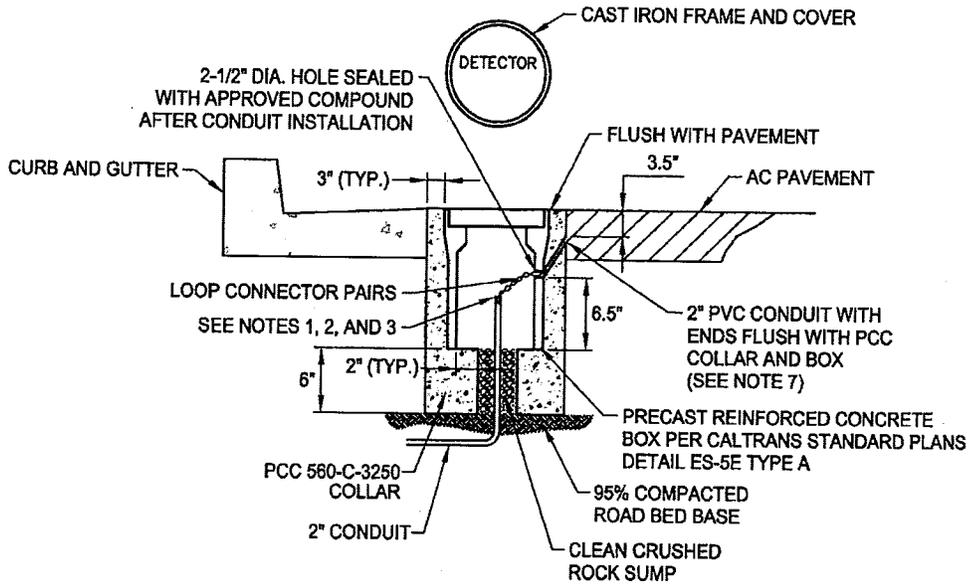
**CITY OF BEVERLY HILLS, CALIFORNIA**  
 DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
 CIVIL ENGINEERING DIVISION

RECOMMENDED *[Signature]* DATE 11/12/2011  
 CITY ENGINEER  
 APPROVED *[Signature]* DATE 11-18-11  
 PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 402**  
 SHEET 1 OF 1



**PLAN VIEW**  
NOT TO SCALE



**SECTION A-A**  
NOT TO SCALE

**NOTES:**

1. NON-METALLIC BUSHING SHALL BE USED AT ROADWAY END OF CONDUIT.
2. TAPE WIRE 3" EACH SIDE OF ROADWAY BUSHING.
3. INSTALL DUCT SEAL COMPOUND TO EACH END OF ROADWAY CONDUIT BEFORE INSTALLING EPOXY OR OTHER APPROVED MATERIALS.
4. ROUND ALL SHARP EDGES WHERE WIRE HAS TO PASS.
5. SPLICE DETECTOR CONDUCTORS OR CABLE TO LEAD-IN CABLE FOR RUN TO CONTROLLER CABINET.
6. 2" PVC CONDUIT ENDS SEALED WITH APPROVED COMPOUND AFTER CONDUCTOR INSTALLATION.
7. EXACT LOCATION OF THE DETECTOR HANDHOLE WILL BE DETERMINED BY THE CITY ENGINEER IN THE FIELD.
8. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT EDITION OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.

# TRAFFIC SIGNAL DETECTOR HANDHOLE

REVISIONS		
MARK	DATE	DESCRIPTION



## CITY OF BEVERLY HILLS, CALIFORNIA

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED DATE 11/18/11  
 APPROVED DATE 11-18-11

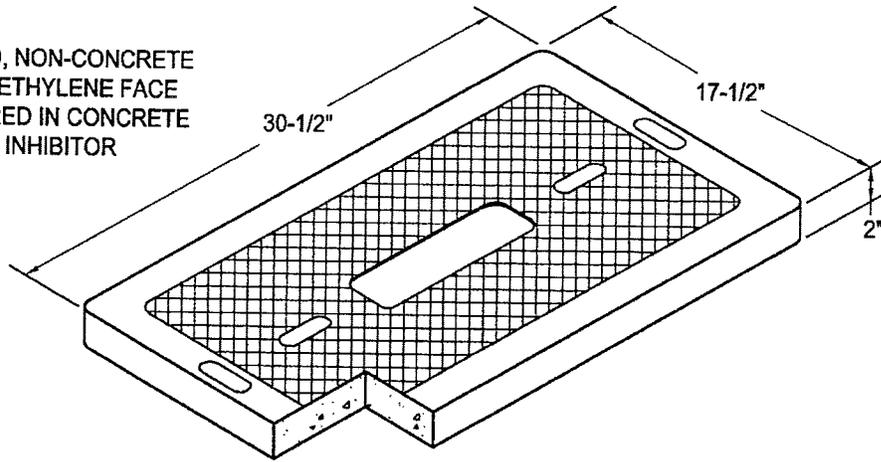
STANDARD DRAWING

**BH 403**

SHEET 1 OF 1

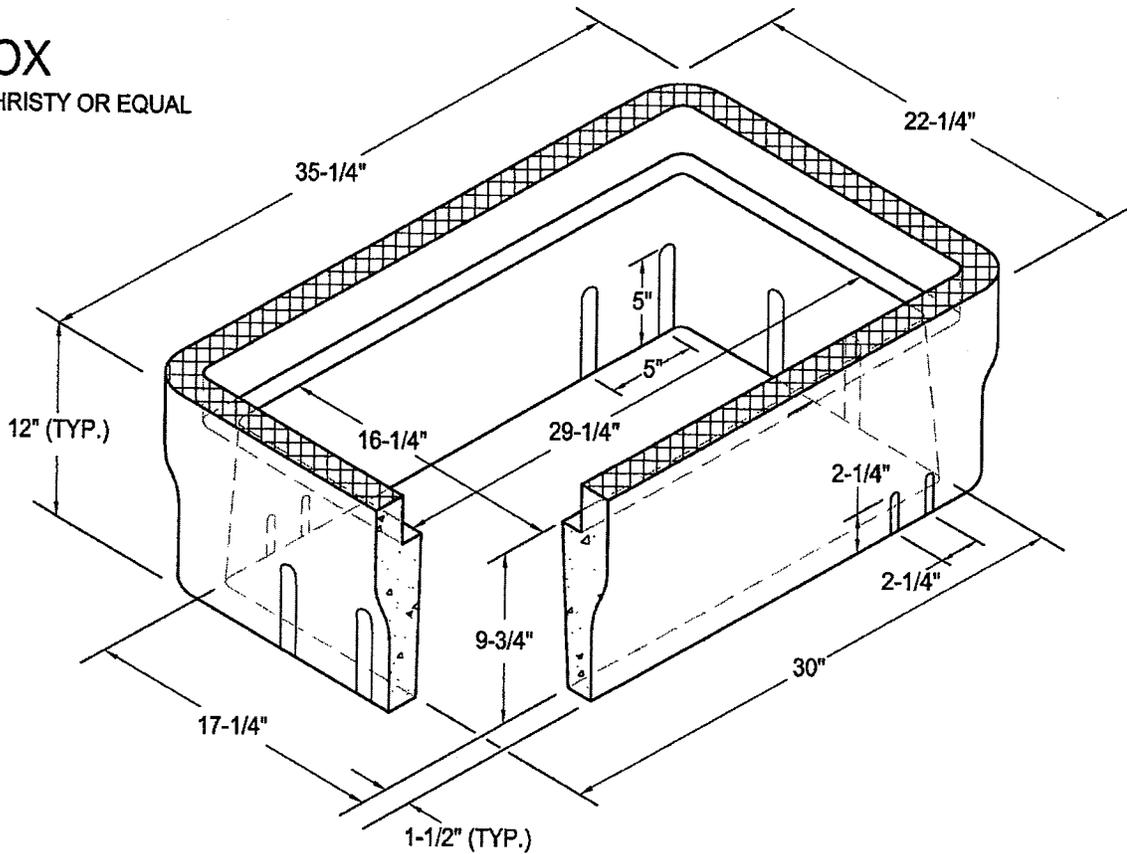
# LID

- FIBRELYTE LID, NON-CONCRETE
- ETCHED POLYETHYLENE FACE
- FACE ANCHORED IN CONCRETE
- ULTRA-VIOLET INHIBITOR



# BOX

- CHRISTY OR EQUAL



## TRAFFIC SIGNAL PULL BOX & LID

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED

*[Signature]*  
CITY ENGINEER

DATE 11/18/2011

APPROVED

*[Signature]*  
PUBLIC WORKS DIRECTOR

DATE 11-18-11

STANDARD DRAWING

**BH 404**

SHEET 1 OF 1

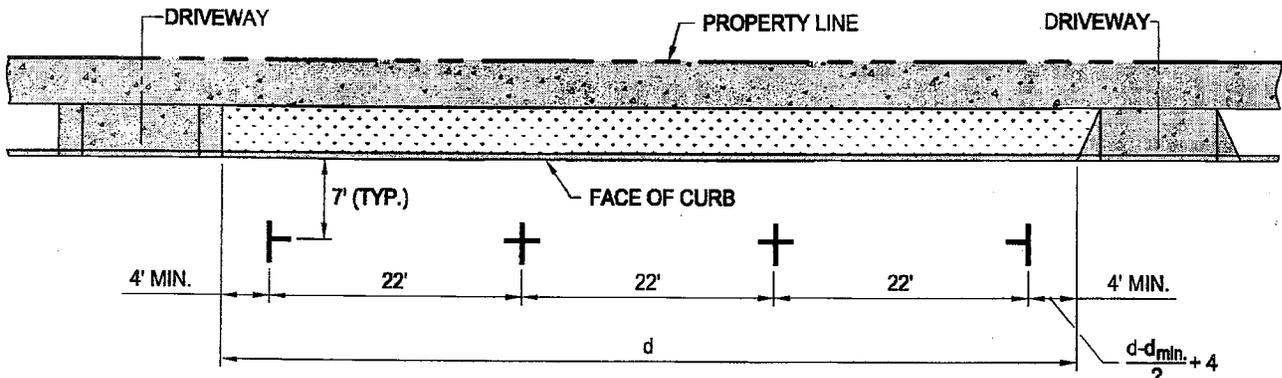
**Section V**

**Landscaping and Irrigation**

**(RESERVED)**

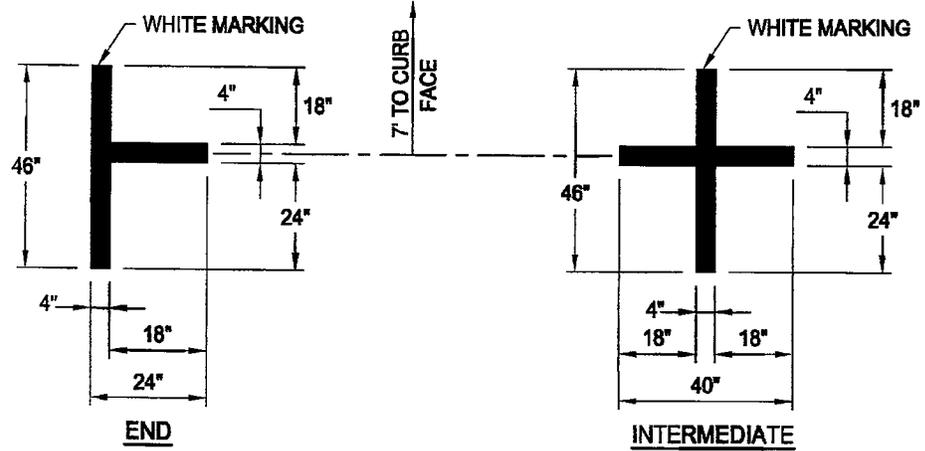
# **Section VI**

## **General Facilities**



d (IN FEET)	NUMBER OF SPACES	d (IN FEET)	NUMBER OF SPACES
0-30	1	140-162	7
30-52	2	162-184	8
52-74	3	184-206	9
74-96	4	206-228	10
96-118	5	228-250	11
118-140	6	250-272	12

**SYMMETRICAL**  
RESIDENTIAL AND COMMERCIAL FRONTAGE



**PAINTING DETAILS**

**PARKING SPACE MARKINGS**

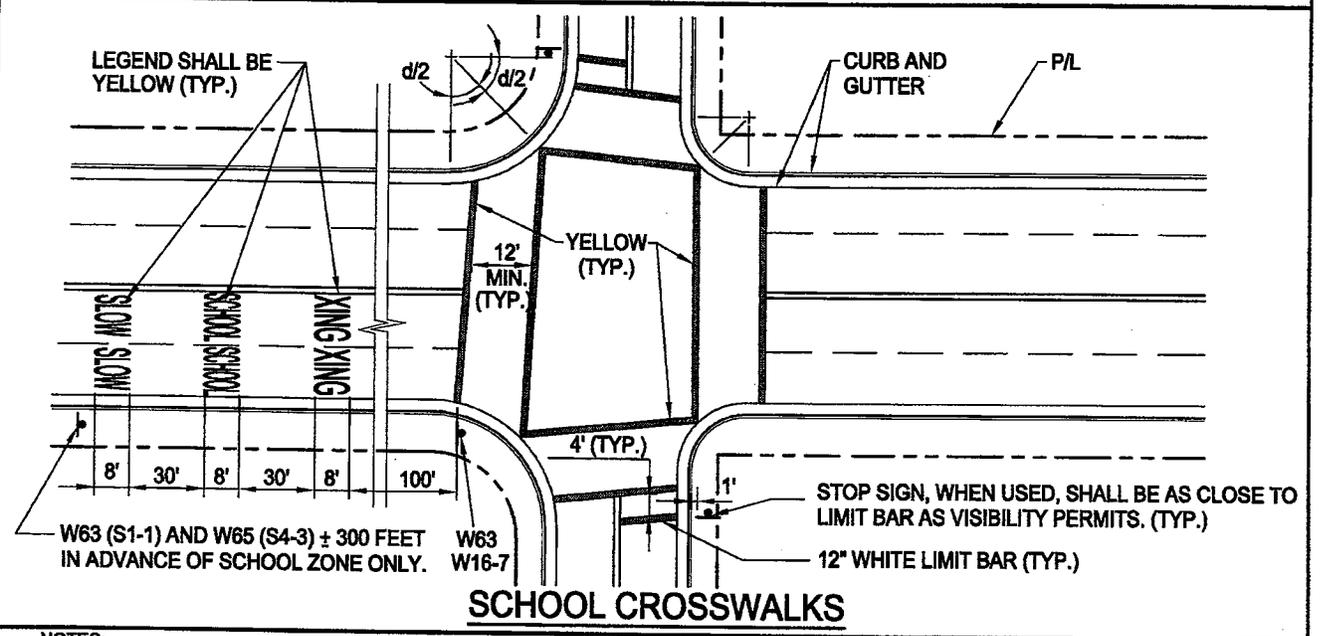
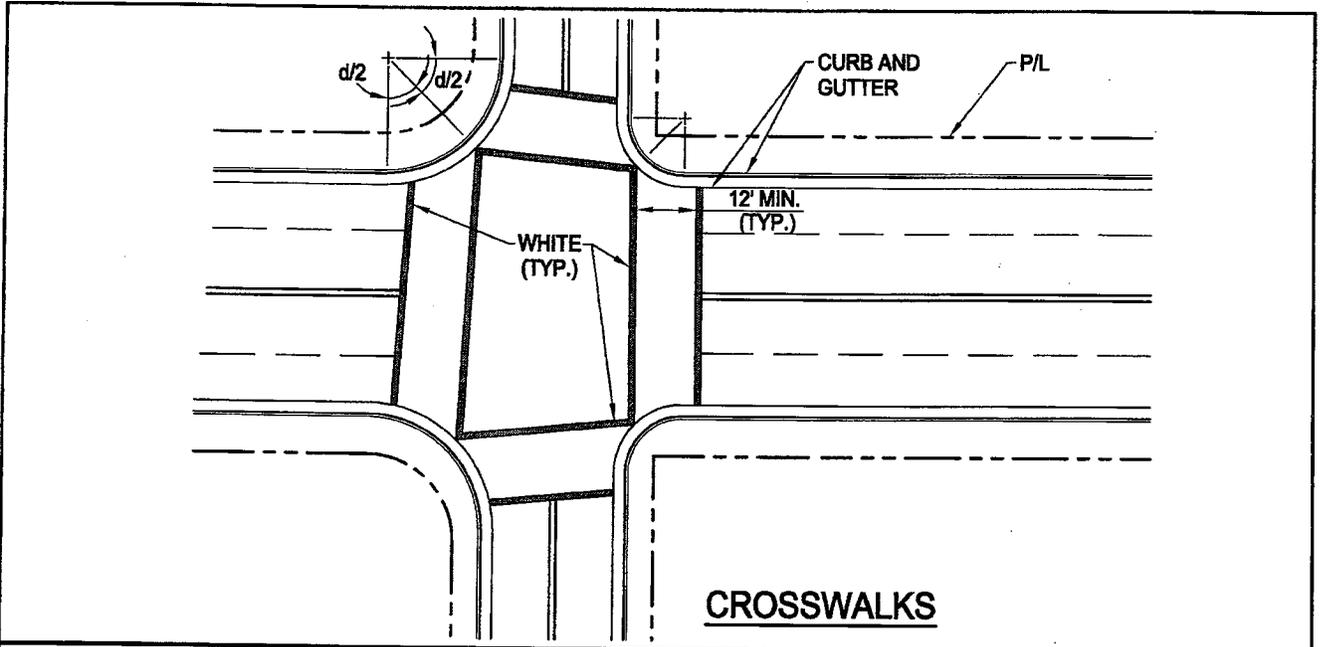
REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**  
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED *[Signature]* DATE 7-30-09  
CITY ENGINEER  
APPROVED *[Signature]* DATE 7-31-09  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 601**  
SHEET 1 OF 1



**NOTES:**

1. ALL CROSSWALK LINES SHALL BE 12" STROKE.
2. CROSSWALK WIDTH SHALL BE EQUAL TO ADJACENT MAXIMUM SIDEWALK WIDTH, BUT NO LESS THAN 12 FEET.
3. OMIT LEGEND ON INTERSECTION APPROACHES WHEN SIGNALS, STOP OR YIELD SIGNS ARE IN PLACE.
4. REFER TO M.U.T.C.D CA SUPPLEMENT (LATEST EDITION).

**CROSSWALKS STRIPING**

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**  
 DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
 CIVIL ENGINEERING DIVISION

RECOMMENDED

*[Signature]*  
 CITY ENGINEER

DATE 7-30-09

APPROVED

*[Signature]*  
 PUBLIC WORKS DIRECTOR

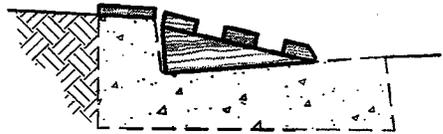
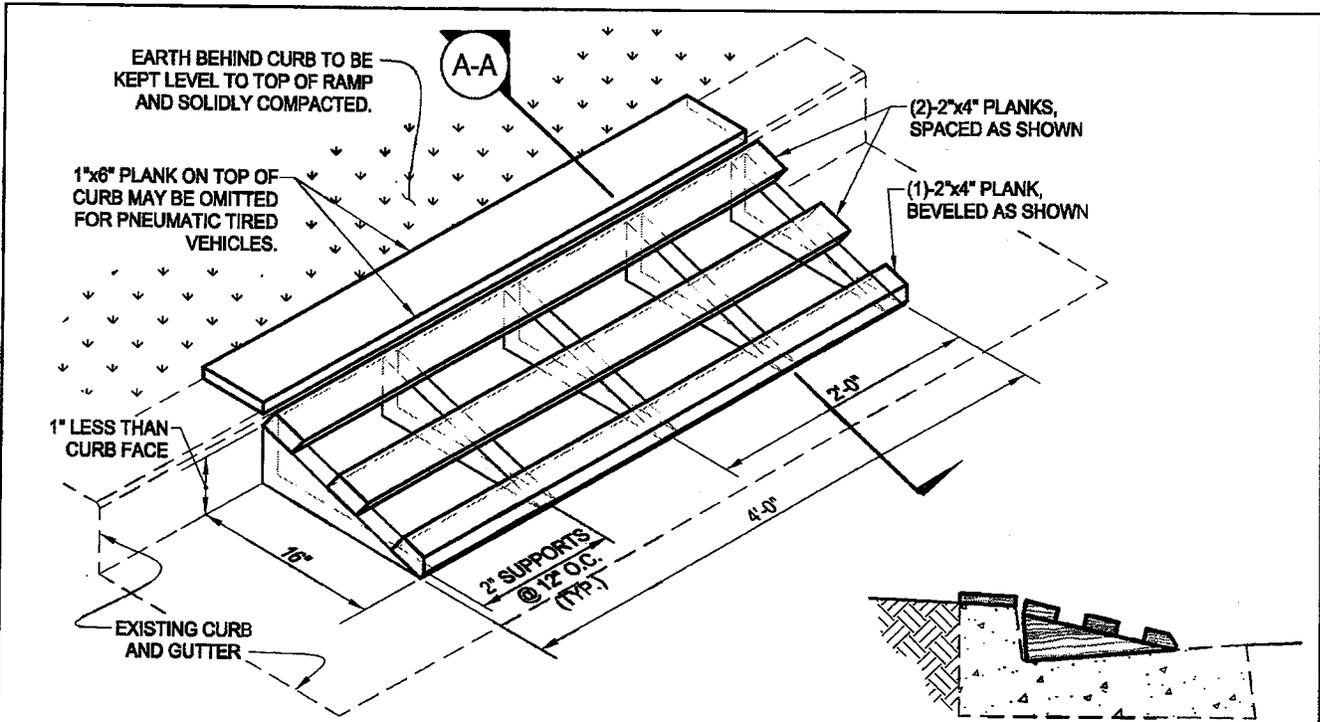
DATE 7-31-09

STANDARD DRAWING

**BH 602**

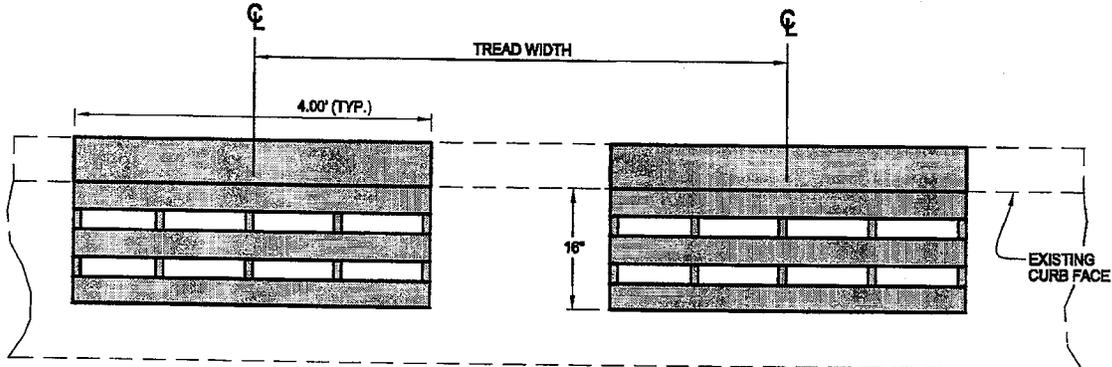
SHEET 1 OF 1





SECTION A-A

TEMPORARY CURB RAMP DETAIL



TWO RAMPS SPACED FOR VEHICLES

TEMPORARY CURB RAMP PLAN

NOT TO SCALE

# TEMPORARY CURB RAMP

REVISIONS		
MARK	DATE	DESCRIPTION



CITY OF BEVERLY HILLS, CALIFORNIA

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED

*Christina*  
CITY ENGINEER

DATE 7-30-09

APPROVED

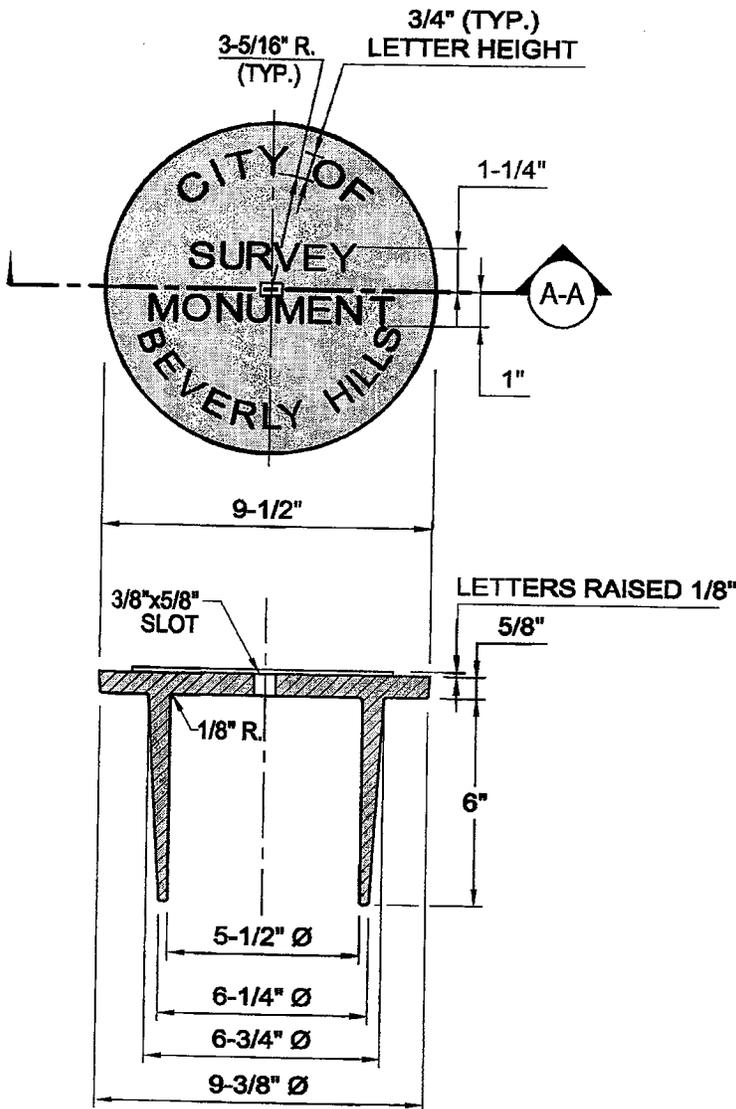
*Rudolph*  
PUBLIC WORKS DIRECTOR

DATE 7-31-09

STANDARD DRAWING

**BH 604**

SHEET 1 OF 1



**SPECIFICATIONS:**

ALL MONUMENT COVERS SHALL BE MADE OF CAST IRON IN ACCORDANCE WITH A.S.T.M STANDARD SPECIFICATIONS A48M-03, CLASS 30, EXCEPT THAT NO TRANSVERSE TEST WILL BE REQUIRED.

ALL MONUMENT COVERS SHALL BE MADE TO THE DIMENSIONS AS SHOWN HEREON, SHALL BE OF UNIFORM THICKNESS AND FREE FROM FLAWS OR DEFECTS. ALL LETTERING SHALL BE RADially PLACED, UNIFORM IN SIZE AND SHALL CONFORM TO THE DIMENSIONS AS SHOWN HEREON WITHOUT FLAWS OR IRREGULAR LETTERING.

**SECTION A-A**

**NOTES:**

1. ALL RADII TO BE 1/16" UNLESS OTHERWISE SPECIFIED.
2. ALL DRAFT TO BE 1-1/2° UNLESS OTHERWISE SPECIFIED.

**SURVEY MONUMENT COVER**

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**

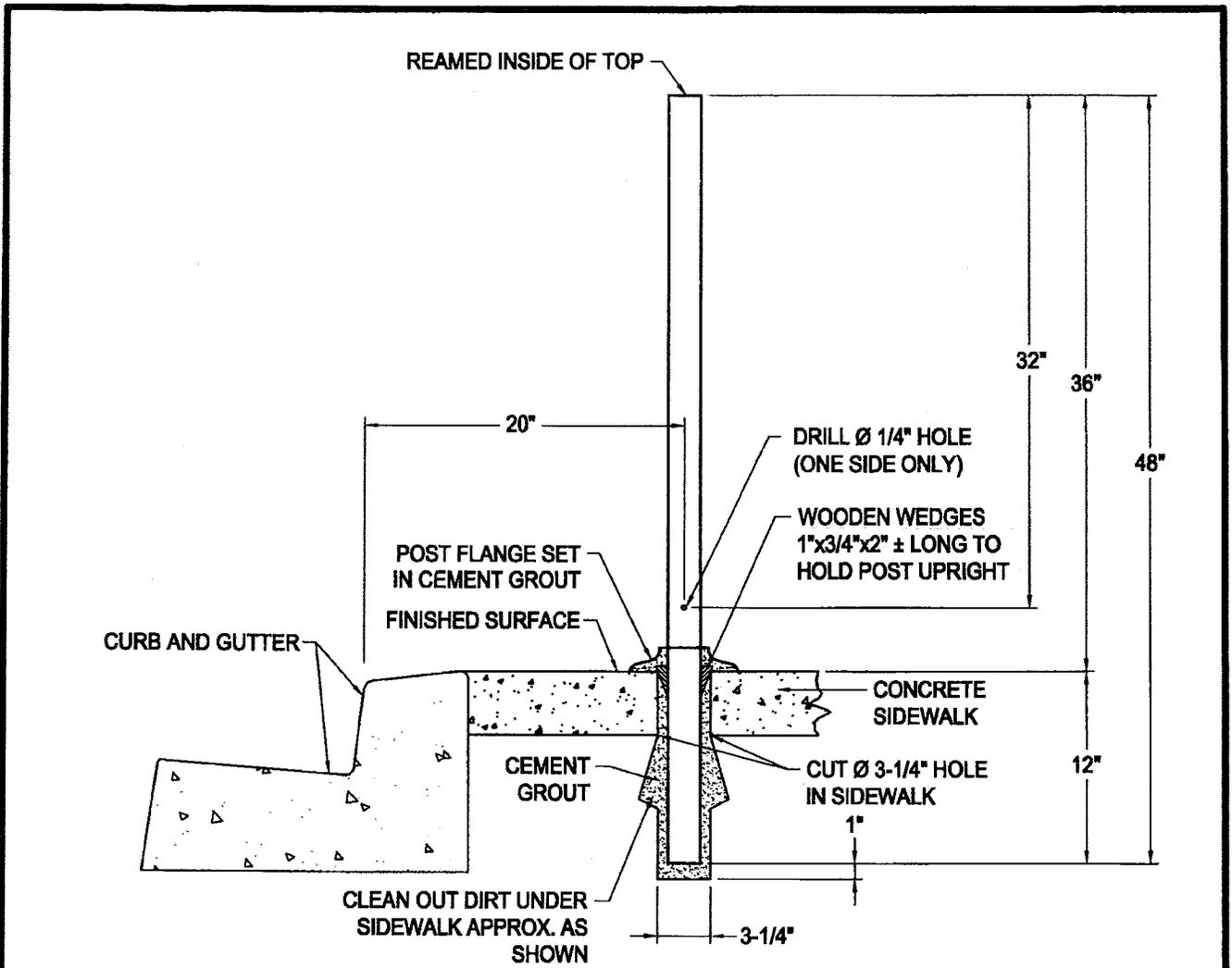
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED *Clinton* DATE 7-30-09  
CITY ENGINEER  
APPROVED *[Signature]* DATE 7-31-09  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING

**BH 605**

SHEET 1 OF 1



**SPECIFICATIONS FOR POST:**

STEEL PIPE, STANDARD WEIGHT, 2" X 48" LONG, ASTM-A120-63T, NEW AND UNUSED, HOT DIPPED GALVANIZED, TOP REAMED

**ADDITIONAL NOTES:**

1. POST TO BE LEVEL AND STRAIGHT
2. AREA TO BE LEFT CLEAN
3. CEMENT GROUT - 1 CEMENT : 2-1/2 SAND
4. TOP OF INSTALLED METER COIN/CARD SLOT SHALL NOT EXCEED 48" ABOVE FINISHED GRADE.

**PARKING METER POST INSTALLATION - CONCRETE SETTING**

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED *[Signature]* DATE 11-18-10  
CITY ENGINEER

APPROVED *[Signature]* DATE 11-18-10  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING

**BH 606**

SHEET OF

# **Section VII**

## **Water Pipe Line Installations**

## LEGEND

<p>PROPOSED WATER MAIN</p> <p>EXISTING WATER MAIN</p> <p>ROAD CENTER LINE</p> <p>DEPT. OF WATER &amp; POWER SERVICE</p> <p>P.T. &amp; T.</p> <p>SOUTHERN CALIFORNIA EDISON</p> <p>SOUTHERN CALIFORNIA GAS</p> <p>STORM DRAIN AND MANHOLE</p> <p>SANITARY SEWER AND MANHOLE</p> <p>CURB LINE</p> <p>O.L.C.</p>	<div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px dashed black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px dashed black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px dashed black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px dashed black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px dashed black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px dashed black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px dashed black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px dashed black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px dashed black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px solid black; height: 15px; margin-bottom: 5px;"></div> <div style="border-bottom: 1px dashed black; height: 15px; margin-bottom: 5px;"></div>
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## LEGEND

REVISIONS				<b>CITY OF BEVERLY HILLS, CALIFORNIA</b> DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION CIVIL ENGINEERING DIVISION	
MARK	DATE	DESCRIPTION			

RECOMMENDED <i>[Signature]</i> <small>CITY ENGINEER</small>	DATE <i>7-30-09</i>	STANDARD DRAWING <b>BH 701</b> SHEET 1 OF 1
APPROVED <i>[Signature]</i> <small>PUBLIC WORKS DIRECTOR</small>	DATE <i>7-31-09</i>	

## ABBREVIATIONS

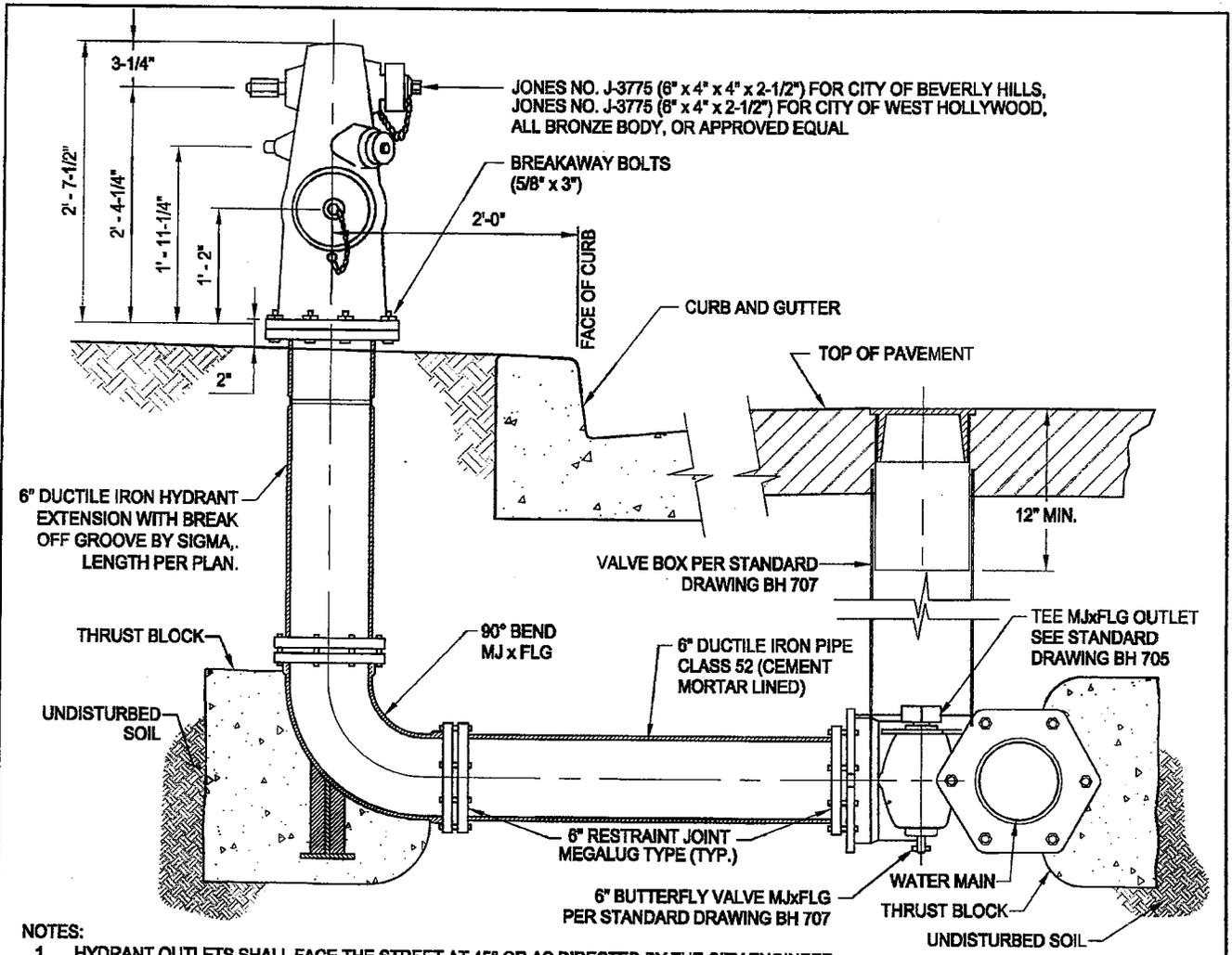
B.H.W.	BEVERLY HILLS WATER
D.W. & P.-W.S.	DEPARTMENT OF WATER & POWER, WATER SERVICE
P.T. & T	PACIFIC TELEPHONE & TELEGRAPH COMPANY
S.C.E.	SOUTHERN CALIFORNIA EDISON
S.C.G.	SOUTHERN CALIFORNIA GAS
S.D.M.H.	STORM DRAIN MAINTENANCE HOLE
S.S.M.H.	SANITARY SEWER MAINTENANCE HOLE
M.W.D.	METROPOLITAN WATER DISTRICT
O.L.C.	ORNAMENTAL LIGHTING CONDUIT
F.A.C.	FIRE ALARM CONDUIT
C.I.	CAST IRON
F.H.	FIRE HYDRANT
P/L	PROPERTY LINE

## ABBREVIATIONS

REVISIONS				<b>CITY OF BEVERLY HILLS, CALIFORNIA</b> DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION CIVIL ENGINEERING DIVISION	
MARK	DATE	DESCRIPTION			

RECOMMENDED	 CITY ENGINEER	DATE	7-30-09
APPROVED	 PUBLIC WORKS DIRECTOR	DATE	7-31-09

STANDARD DRAWING	<b>BH 702</b>
SHEET	1 OF 1



**NOTES:**

1. HYDRANT OUTLETS SHALL FACE THE STREET AT 45° OR AS DIRECTED BY THE CITY ENGINEER.
2. FINAL HYDRANT LOCATION TO BE DETERMINED BY THE CITY ENGINEER.
3. CONNECTION OF THE FIRE HYDRANT TO THE WATER MAIN MAY REQUIRE FITTING AND COUPLINGS NOT SHOWN HEREON. THE CONTRACTOR SHALL PROVIDE AND INSTALL AT NO EXTRA COST.
4. BREAKAWAY BOLTS SHALL BE USED TO INSTALL THE HYDRANT HEAD ON THE BURY.
5. THRUST BLOCKS SHALL BE PLACED PER STANDARD DRAWING BH 709 OR AS DIRECTED BY THE CITY ENGINEER.
6. FIRE HYDRANTS SHALL BE PAINTED IN ACCORDANCE WITH THE SPECIFICATIONS.
7. ALL HYDRANTS WATER OUTLET CAP MATERIAL SHALL BE BRONZE.
8. ALL FITTINGS USED TO CONNECT THE FIRE HYDRANT TO THE WATER MAIN SHALL BE PROPERLY RESTRAINED WITH APPROVED STANDARD METHODS OR AS DIRECTED BY THE CITY ENGINEER.
9. TRENCHES WITHIN THE ROADWAY FOR LATERAL INSTALLATIONS OR REMOVALS SHALL BE BACKFILLED WITH A SAND SLURRY MIX AS DIRECTED BY THE CITY ENGINEER.
10. EXPOSED BOLT AND NUT ASSEMBLIES ON FLEXIBLE COUPLINGS AND/OR MECHANICAL JOINT FITTINGS SHALL BE COATED WITH TAR BITUMASTIC ENAMEL PRIOR TO BACKFILL.
11. SURFACE CONDITIONS SHALL BE RESTORED TO THE SATISFACTION OF THE CITY ENGINEER.

## FIRE HYDRANT ASSEMBLY (TYPICAL)

REVISIONS		
MARK	DATE	DESCRIPTION



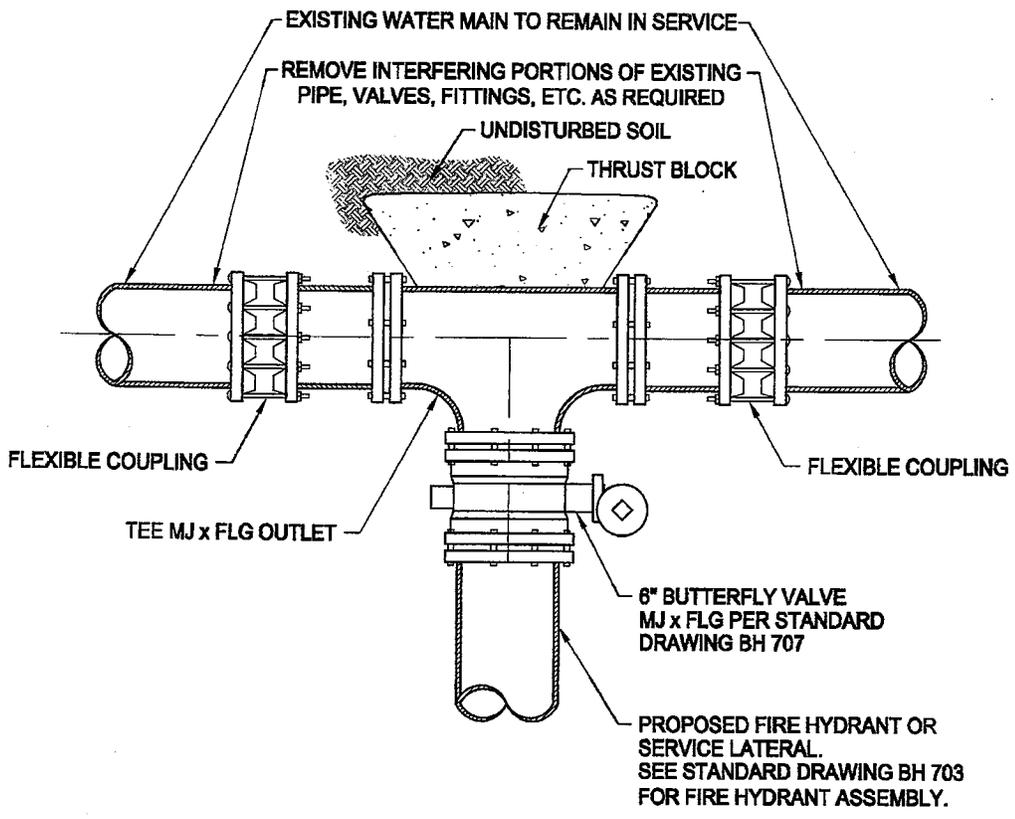
**CITY OF BEVERLY HILLS, CALIFORNIA**  
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED *Christina* DATE *7-30-09*  
CITY ENGINEER

APPROVED *Robert* DATE *7-31-09*  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 703**  
SHEET 1 OF 1





**NOTES:**

1. THRUST BLOCKS SHALL BE PLACED PER STANDARD DRAWING BH 709 OR AS DIRECTED BY THE CITY ENGINEER.
2. EXPOSED BOLT AND NUT ASSEMBLIES ON FLEXIBLE COUPLINGS AND/OR MECHANICAL JOINT FITTINGS SHALL BE COATED WITH TAR BITUMASTIC ENAMEL PRIOR TO BACKFILL.
3. TRENCHES WITHIN THE ROADWAY FOR LATERAL INSTALLATIONS OR REMOVALS SHALL BE BACKFILLED WITH A SAND SLURRY MIX AS DIRECTED BY THE CITY ENGINEER.
4. SURFACE CONDITIONS SHALL BE RESTORED TO THE SATISFACTION OF THE CITY ENGINEER.

## LATERAL INSTALLATION (FIRE HYDRANT)

REVISIONS		
MARK	DATE	DESCRIPTION



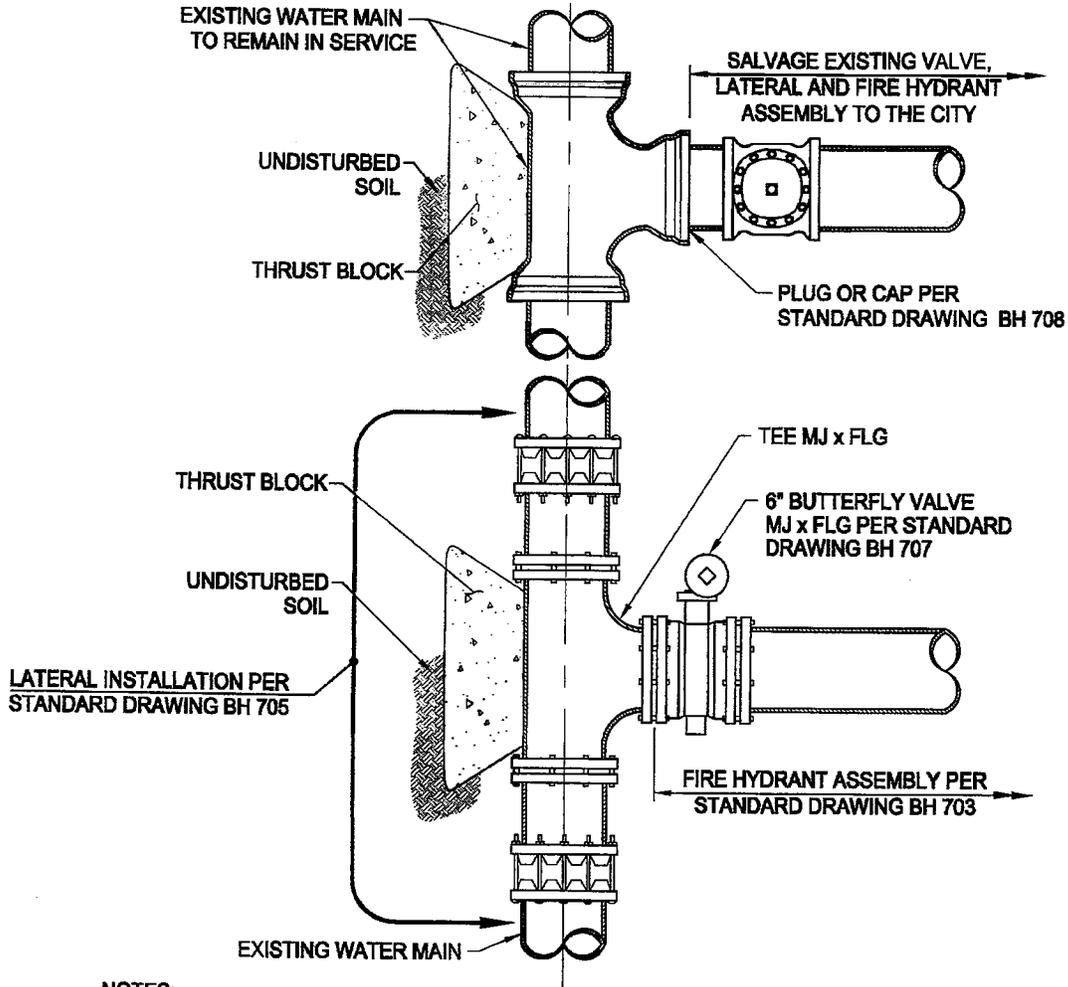
**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED *Cerstein* DATE *7-30-09*  
CITY ENGINEER

APPROVED *Public Works Director* DATE *7-31-09*  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 705**  
 SHEET 1 OF 1



**NOTES:**

1. THRUST BLOCKS PER STANDARD DRAWING NUMBER BH 709, ARE REQUIRED AT ALL PLUGS, TEES AND ENDS, OR AS DIRECTED BY THE CITY ENGINEER.
2. EXPOSED BOLT AND NUT ASSEMBLIES ON FLEXIBLE COUPLINGS AND/OR MECHANICAL JOINT FITTINGS SHALL BE COATED WITH TAR BITUMASTIC ENAMEL PRIOR TO BACKFILL.
3. ALL PERMANENT PLUGS OR CAPS, PER STANDARD DRAWING NO. BH 708, SHALL BE CAPABLE OF WITHSTANDING A 200 PSI TEST PRESSURE.
4. FINAL FIRE HYDRANT LOCATION TO BE DETERMINED BY THE CITY ENGINEER.
5. REMOVE EXISTING TEE, VALVE, LATERAL AND FIRE HYDRANT ASSEMBLY IF LOCATION REMAINS THE SAME.
6. TRENCHES WITHIN THE ROADWAY FOR LATERAL INSTALLATIONS OR REMOVALS SHALL BE BACKFILLED WITH A SAND SLURRY MIX AS DIRECTED BY THE CITY ENGINEER.
7. SURFACE CONDITIONS SHALL BE RESTORED TO THE SATISFACTION OF THE CITY ENGINEER.

## CONNECTION FOR UPGRADED FIRE HYDRANT INSTALLATION

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED *Chris Thomas* DATE 7-30-09  
CITY ENGINEER

APPROVED *Paul K. Zof* DATE 7-31-09  
PUBLIC WORKS DIRECTOR

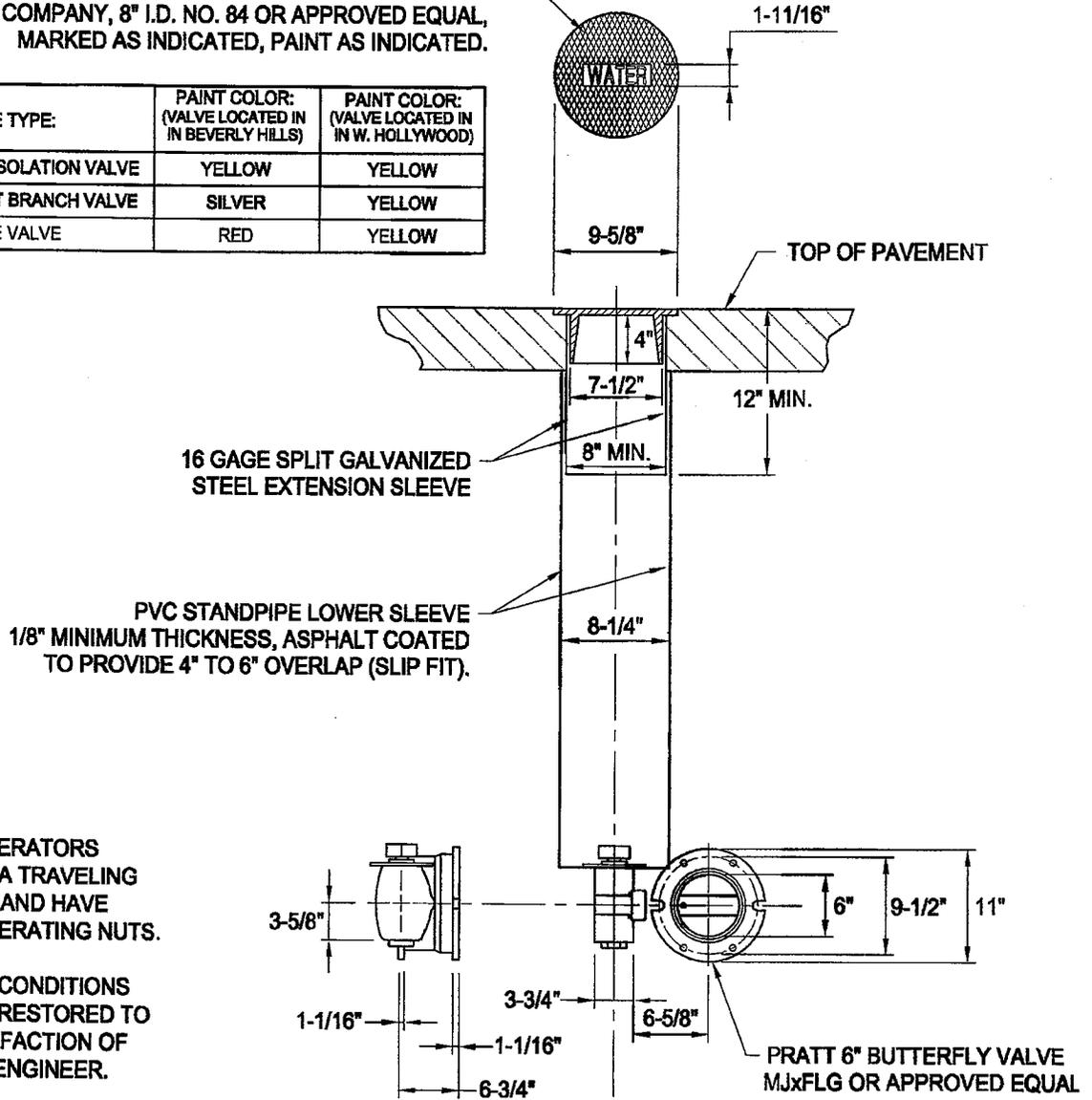
STANDARD DRAWING

BH 706

SHEET 1 OF 1

PROVIDE HEAVY DUTY CAST IRON VALVE BOX CAP, WESTERN WATER WORKS SUPPLY COMPANY, 8" I.D. NO. 84 OR APPROVED EQUAL, MARKED AS INDICATED, PAINT AS INDICATED.

VALVE TYPE:	PAINT COLOR: (VALVE LOCATED IN IN BEVERLY HILLS)	PAINT COLOR: (VALVE LOCATED IN IN W. HOLLYWOOD)
WATER MAIN ISOLATION VALVE	YELLOW	YELLOW
FIRE HYDRANT BRANCH VALVE	SILVER	YELLOW
ZONE VALVE	RED	YELLOW



**NOTES:**

1. VALVE OPERATORS SHALL BE A TRAVELING NUT TYPE AND HAVE 2-INCH OPERATING NUTS.
2. SURFACE CONDITIONS SHALL BE RESTORED TO THE SATISFACTION OF THE CITY ENGINEER.

## VALVE BOX DETAIL

REVISIONS		
MARK	DATE	DESCRIPTION



### CITY OF BEVERLY HILLS, CALIFORNIA

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

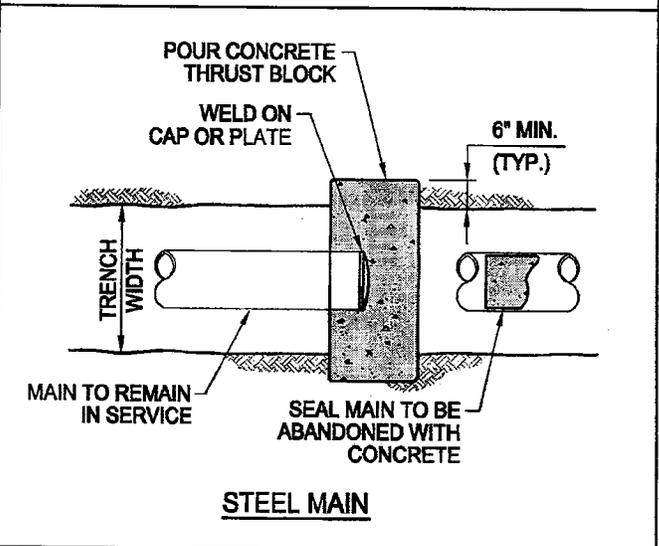
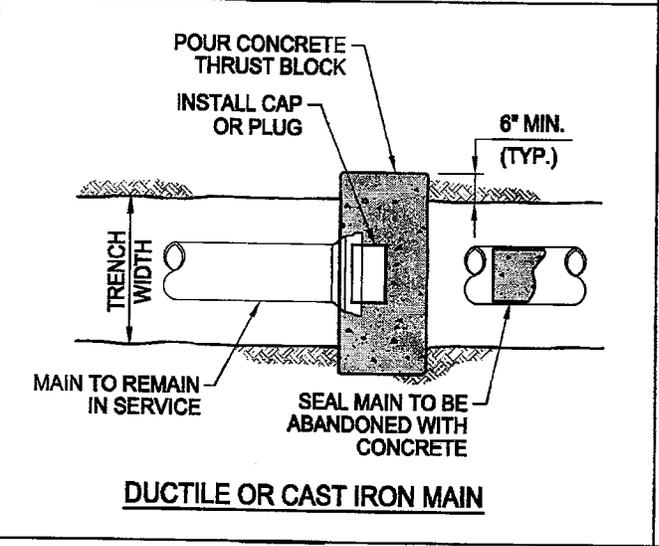
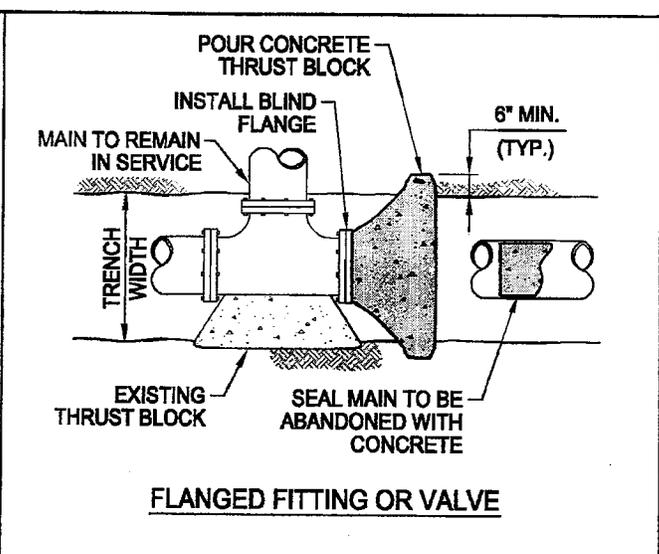
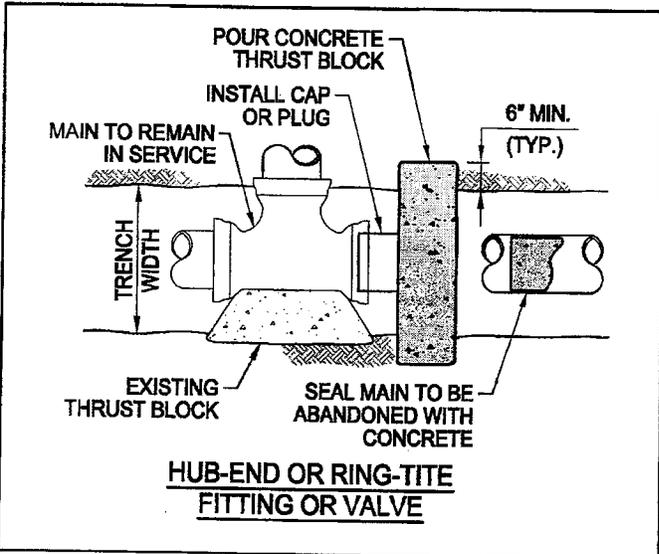
RECOMMENDED *[Signature]* DATE 7-30-09  
CITY ENGINEER

APPROVED *[Signature]* DATE 7-31-09  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING

**BH 707**

SHEET 1 OF 1



- NOTES:
1. CONCRETE SHALL BE 2000 P.S.I.
  2. POUR CONCRETE THRUST BLOCKS AGAINST UNDISTURBED SOIL.
  3. REMOVE INTERFERING PORTIONS OF MAIN TO BE ABANDONED.
  4. USE STEEL ANCHOR RODS OR STRAPS ONLY WHERE PERMITTED BY THE ENGINEER.

**TYPICAL CAPS AND PLUGS**

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**  
 DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
 CIVIL ENGINEERING DIVISION

RECOMMENDED *Alvin T. ...* DATE 7-30-09  
 CITY ENGINEER  
 APPROVED *...* DATE 7-31-09  
 PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 708**  
 SHEET 1 OF 1

HORIZONTAL BENDS													
NOMINAL PIPE SIZE (INCHES)	TEST PRESSURE (P.S.I.)	DEAD ENDS AND TEES			BENDS LESS THAN OR EQUAL TO ANGLE:								ALL BENDS
					11 - 1/4°		22 - 1/2°		45°		90°		
		A	B	C	A	B	A	B	A	B	A	B	
6	200	2'-6"	1'-6"	6"	1'-0"	1'-0"	2'-0"	1'-0"	3'-0"	1'-0"	3'-6"	1'-6"	8"
8	200	4'-6"	1'-6"	8"	1'-6"	1'-0"	3'-0"	1'-0"	3'-6"	1'-6"	5'-0"	2'-0"	10"
10	200	5'-6"	2'-0"	10"	2'-0"	1'-0"	3'-0"	1'-6"	4'-0"	2'-0"	6'-0"	2'-6"	1'-0"
12	200	7'-6"	2'-0"	1-0"	2'-0"	1'-6"	3'-0"	2'-0"	4'-6"	2'-6"	7'-0"	3'-0"	1'-0"

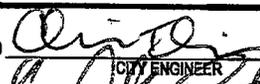
VERTICAL BENDS														
NOMINAL PIPE SIZE (INCHES)	TEST PRESSURE (P.S.I.)	BENDS LESS THAN OR EQUAL TO ANGLE:												ALL BENDS
		11 - 1/4°			22 - 1/2°			45°			90°			
		D	E	F	D	E	F	D	E	F	D	E	F	
6	200	1'-6"	3'-0"	1'-0"	2'-0"	4'-0"	1'-0"	3'-0"	5'-6"	1'-0"	4'-0"	7'-0"	2'-0"	8"
8	200	2'-0"	4'-0"	1'-0"	2'-6"	5'-0"	1'-0"	3'-6"	7'-0"	2'-0"	5'-0"	10'-0"	3'-6"	10"
10	200	2'-0"	4'-6"	1'-0"	3'-0"	6'-0"	1'-6"	4'-0"	9'-0"	3'-0"	6'-0"	12'-0"	5'-0"	1'-0"
12	200	2'-6"	5'-0"	1'-0"	3'-6"	7'-0"	2'-0"	5'-0"	10'-0"	4'-0"	7'-0"	14'-0"	7'-0"	1'-0"

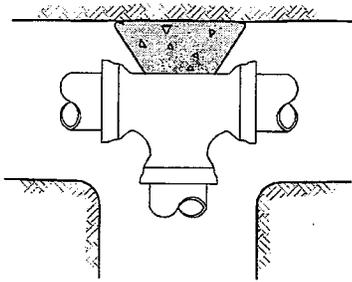
### CONCRETE THRUST BLOCK SCHEDULE

**NOTE:**

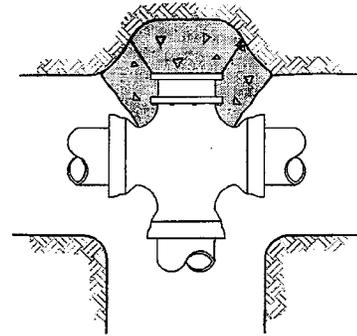
1. THRUST BLOCK SIZES ARE BASED ON A BEARING CAPACITY OF 1500 P.S.F., WITH A MINIMUM SOIL COVER OF 3'-0". IF SOIL COVER IS LESS THAN 3'-0", MULTIPLY BEARING AREA BY A FACTOR OF 1.5 FOR SOIL COVER OF 2'-0" TO 3'-0", OR BY A FACTOR OF THREE (3) FOR SOIL COVER OF 1'-0" TO 2'-0".
2. DIMENSIONS SHOWN REFER TO THRUST BLOCK TYPES SHOWN IN DETAIL, AND ARE MINIMUM VALUES ONLY.
3. CONCRETE MIX SHALL BE IN ACCORDANCE WITH SPECIFICATIONS FOR 3000 LBS. STRENGTH AT 28 DAYS WHEN TESTED IS ACCORDANCE WITH ASTM 039.
4. ALL THRUST BLOCKS SHALL BE POURED SOLIDLY AGAINST FIRM, UNDISTURBED SOIL.
5. IF SOILS HAVE BEEN PREVIOUSLY EXCAVATED AND BACKFILLED, CONTRACTOR SHALL NOTIFY CITY ENGINEER, WHO MAY DIRECT THAT THE DIMENSIONS SHOWN SHALL BE INCREASED BY A FACTOR OF 1.5.
6. CONCRETE POURED AGAINST PIPE FITTINGS SHALL NOT EXTEND BEYOND THE FITTING JOINTS WITHOUT THE APPROVAL OF THE CITY ENGINEER.
7. THRUST REACTION BACKING TYPE (SEE DRAWING) SHALL BE AS DIRECTED BY THE CITY ENGINEER.
8. THE ANGLE (θ) SHOWN IN THE DETAILS SHALL BE GREATER THAN 45° IN ALL CASES.

## CONCRETE THRUST BLOCKS

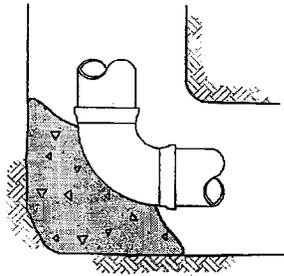
REVISIONS				CITY OF BEVERLY HILLS, CALIFORNIA		
MARK	DATE	DESCRIPTION		DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION CIVIL ENGINEERING DIVISION		
			RECOMMENDED	 <small>CITY ENGINEER</small>	DATE 7-30-09	STANDARD DRAWING
			APPROVED	 <small>PUBLIC WORKS DIRECTOR</small>	DATE 7-31-09	<b>BH 709</b>
						SHEET 1 OF 4



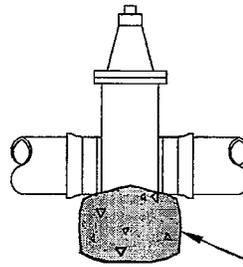
TEE



CROSS



90 DEGREE ELBOW



GATE VALVE

FOR AREA ON SIDE  
FACES USE VALVES  
REQUIRED FOR TEES

NOTE:

1. CONCRETE FOR THRUST BLOCK TO BE 2000 P.S.I.

## CONCRETE THRUST BLOCKS

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED

*Christina*  
CITY ENGINEER

DATE 7-30-09

APPROVED

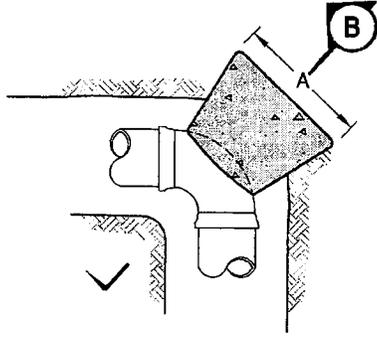
*Robert*  
PUBLIC WORKS DIRECTOR

DATE 7-31-09

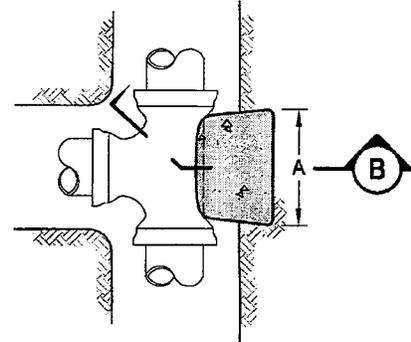
STANDARD DRAWING

**BH 709**

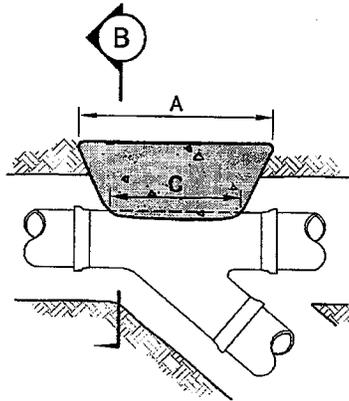
SHEET 2 OF 4



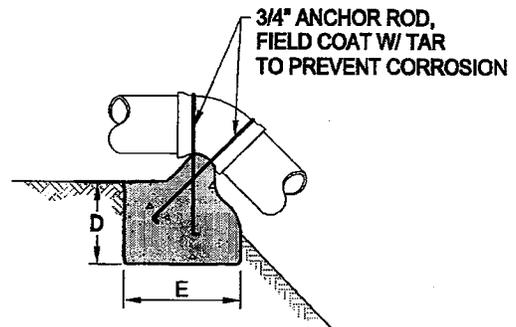
TYPE I



TYPE II

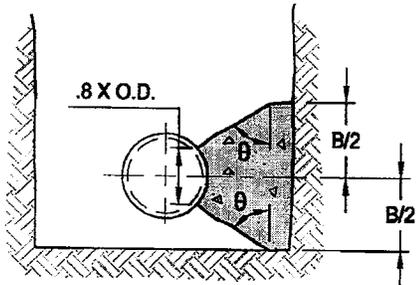


TYPE III



MAKE BLOCK WIDTH OF TRENCH

TYPE IV



SECTION B

NOTE:

1. SEE STANDARD DRAWING NO. BH 711, SHT. 1 FOR THRUST BLOCK SCHEDULE AND NOTES.

## CONCRETE THRUST BLOCKS

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED

*Christina*  
CITY ENGINEER

DATE 7-30-09

APPROVED

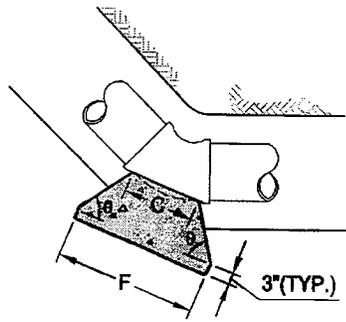
*Public Works Director*  
PUBLIC WORKS DIRECTOR

DATE 7-31-09

STANDARD DRAWING

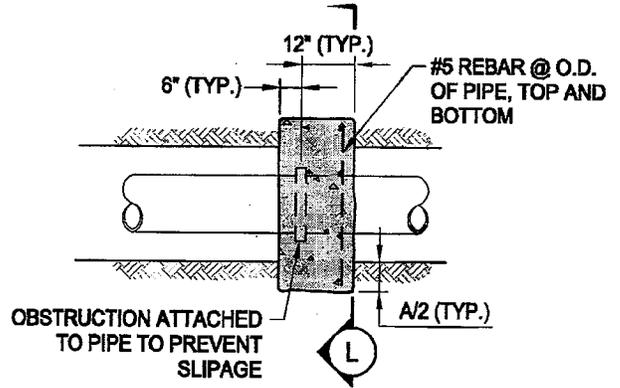
**BH 709**

SHEET 3 OF 4



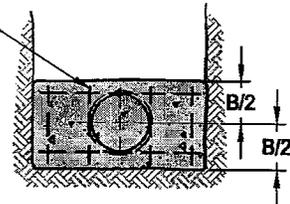
MAKE BLOCK FULL WIDTH OF TRENCH

**TYPE V**



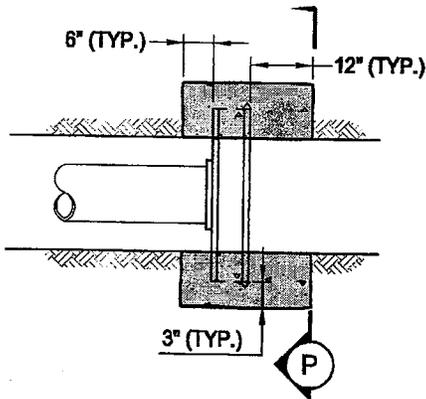
OBSTRUCTION ATTACHED TO PIPE TO PREVENT SLIPPAGE

#5 @ 12" O.C. MAX. MIN. 2 REQUIRED EACH SIDE

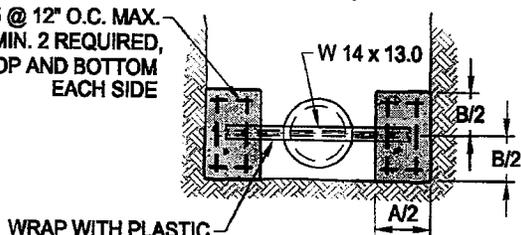


**SECTION L**

**TYPE VI**



#5 @ 12" O.C. MAX. MIN. 2 REQUIRED, TOP AND BOTTOM EACH SIDE



WRAP WITH PLASTIC LINER TO PREVENT CORROSION

**SECTION P**

**TYPE VII**

NOTE:

1. SEE STANDARD DRAWING NO. BH 711, SHT. 1 FOR THRUST BLOCK SCHEDULE AND NOTES.

# CONCRETE THRUST BLOCKS

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED *Oliver*  
CITY ENGINEER

APPROVED *Richard*  
PUBLIC WORKS DIRECTOR

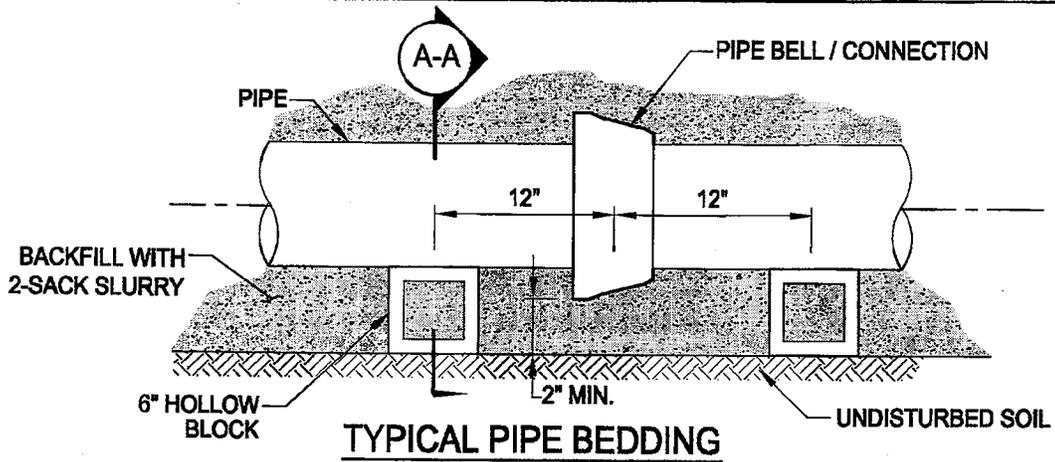
DATE 7-20-09

DATE 7-21-09

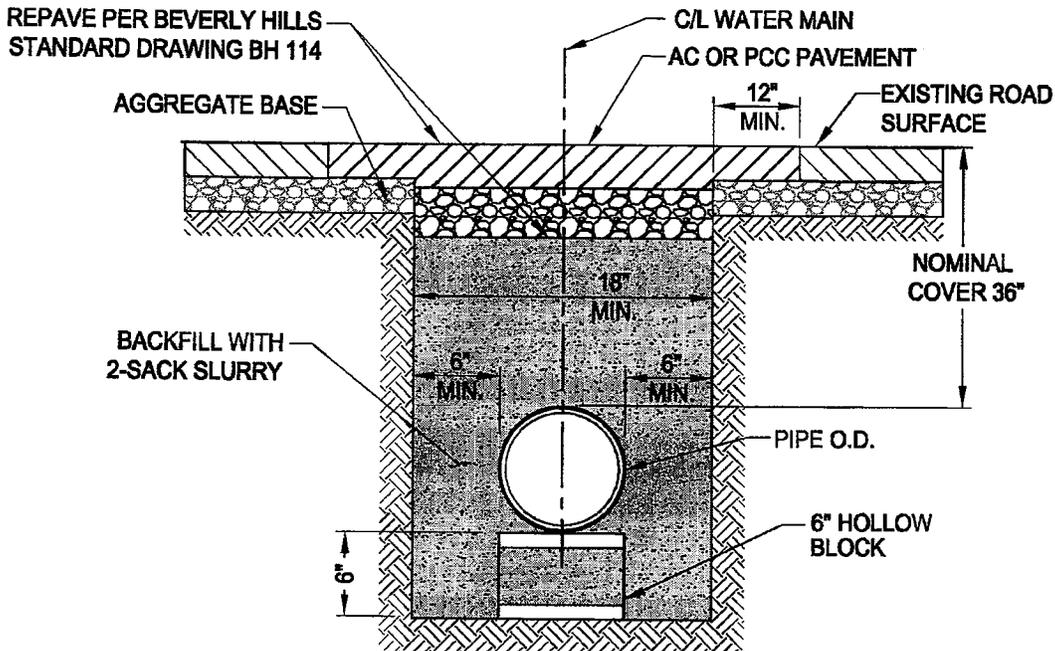
STANDARD DRAWING

**BH 709**

SHEET 4 OF 4



**TYPICAL PIPE BEDDING**



**TRENCH SECTION "A-A"**

NOT TO SCALE

**NOTES:**

1. WHEN TRENCH WORK CAN NOT BE COMPLETED WITHIN THE SAME WORKING DAY SEE BEVERLY HILLS STANDARD DRAWING BH 113 FOR STEEL PLATE PLACEMENT.
2. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK").

**TRENCH FOR WATER LINE**

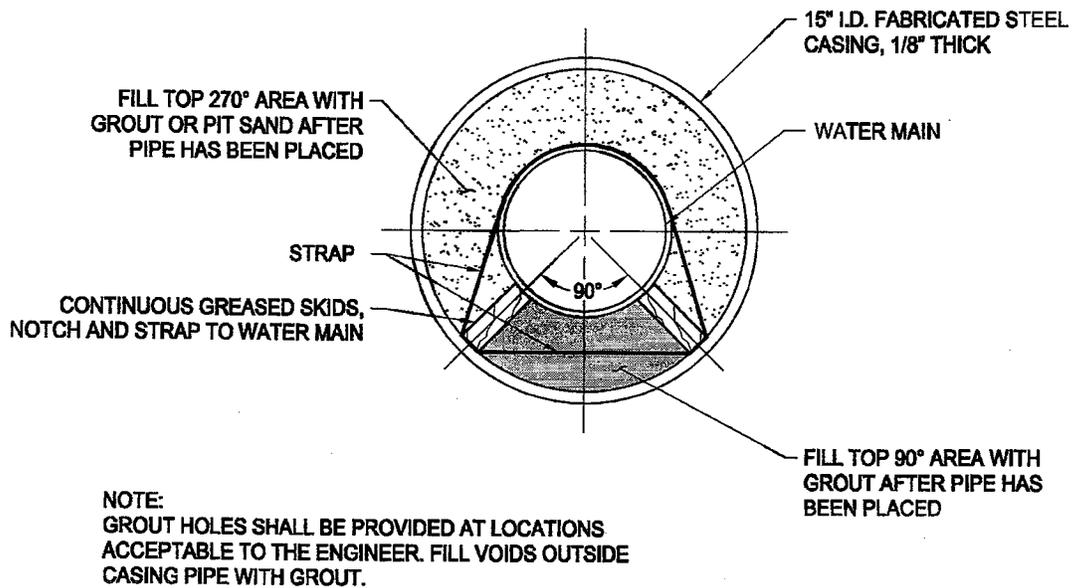
REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**  
 DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
 CIVIL ENGINEERING DIVISION

RECOMMENDED *[Signature]* DATE 7-30-09  
 CITY ENGINEER  
 APPROVED *[Signature]* DATE 7-31-09  
 PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 710**  
 SHEET 1 OF 1



**JACKED CASING WITH WATER MAIN**  
NOT TO SCALE

**JACKED CASING WITH WATER MAIN DETAIL**

REVISIONS		
MARK	DATE	DESCRIPTION



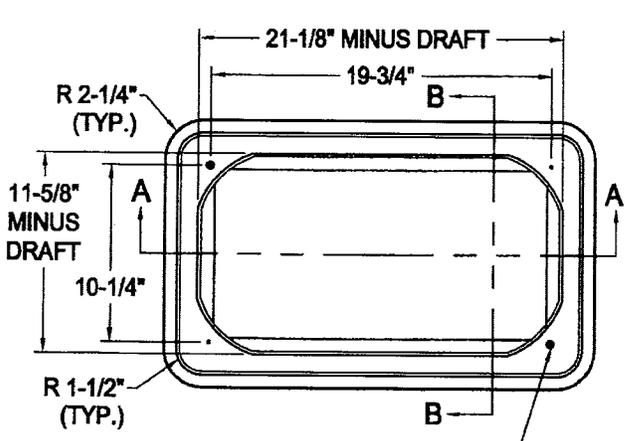
**CITY OF BEVERLY HILLS, CALIFORNIA**

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

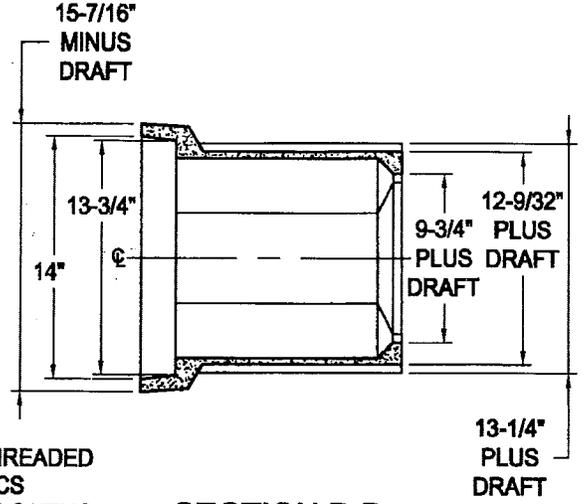
RECOMMENDED *[Signature]* DATE *7-30-09*  
CITY ENGINEER

APPROVED *[Signature]* DATE *7-31-09*  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 711**  
SHEET 1 OF 1

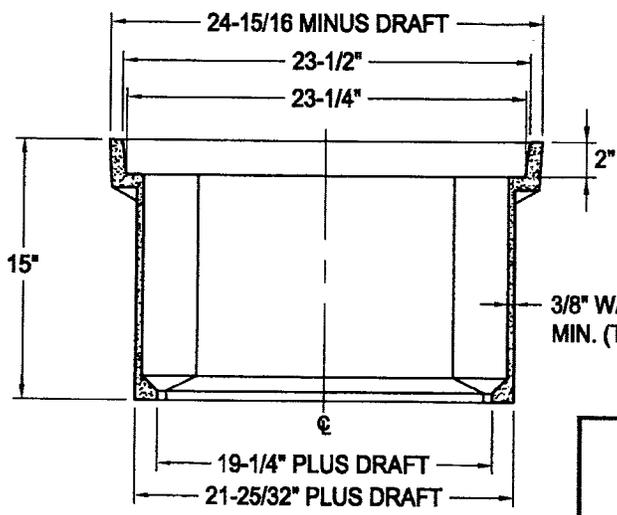


**PLAN VIEW**

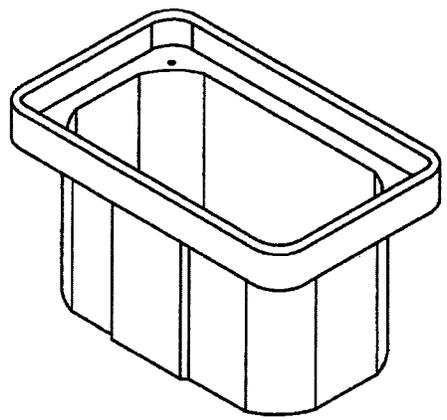


**SECTION B-B**

3/8-16 SST THREADED INSERT, 2 PLCS  
(4 PLCS OR FLOATING NUT ALSO AVAILABLE)



**SECTION A-A**



NON-TRAFFIC RATED	
DESCRIPTION OF MATERIAL:	POLYMER CONCRETE (GRAY)
TOLERANCE:	±1/8"
ESTIMATED PART WEIGHT:	65.0 LBS.

**WATER METER BOX & LID - 13" x 24"**

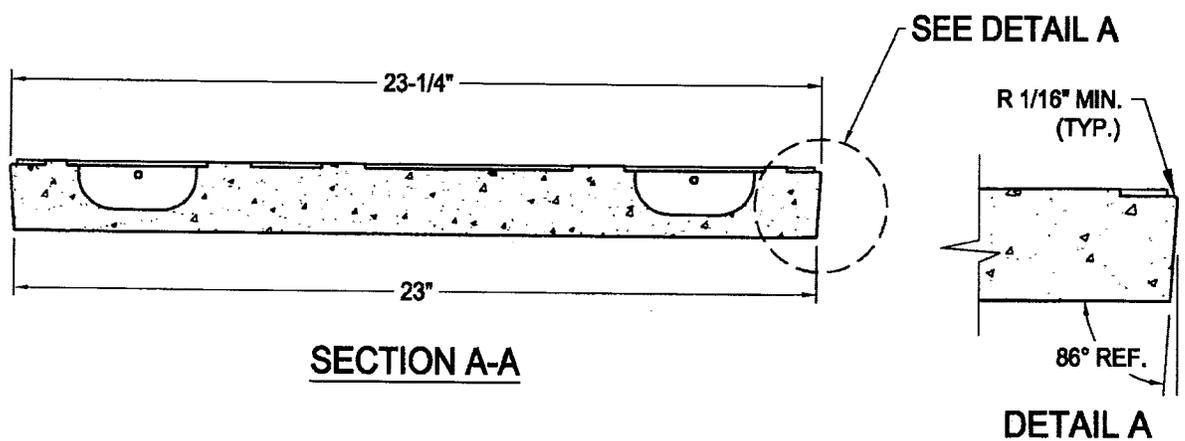
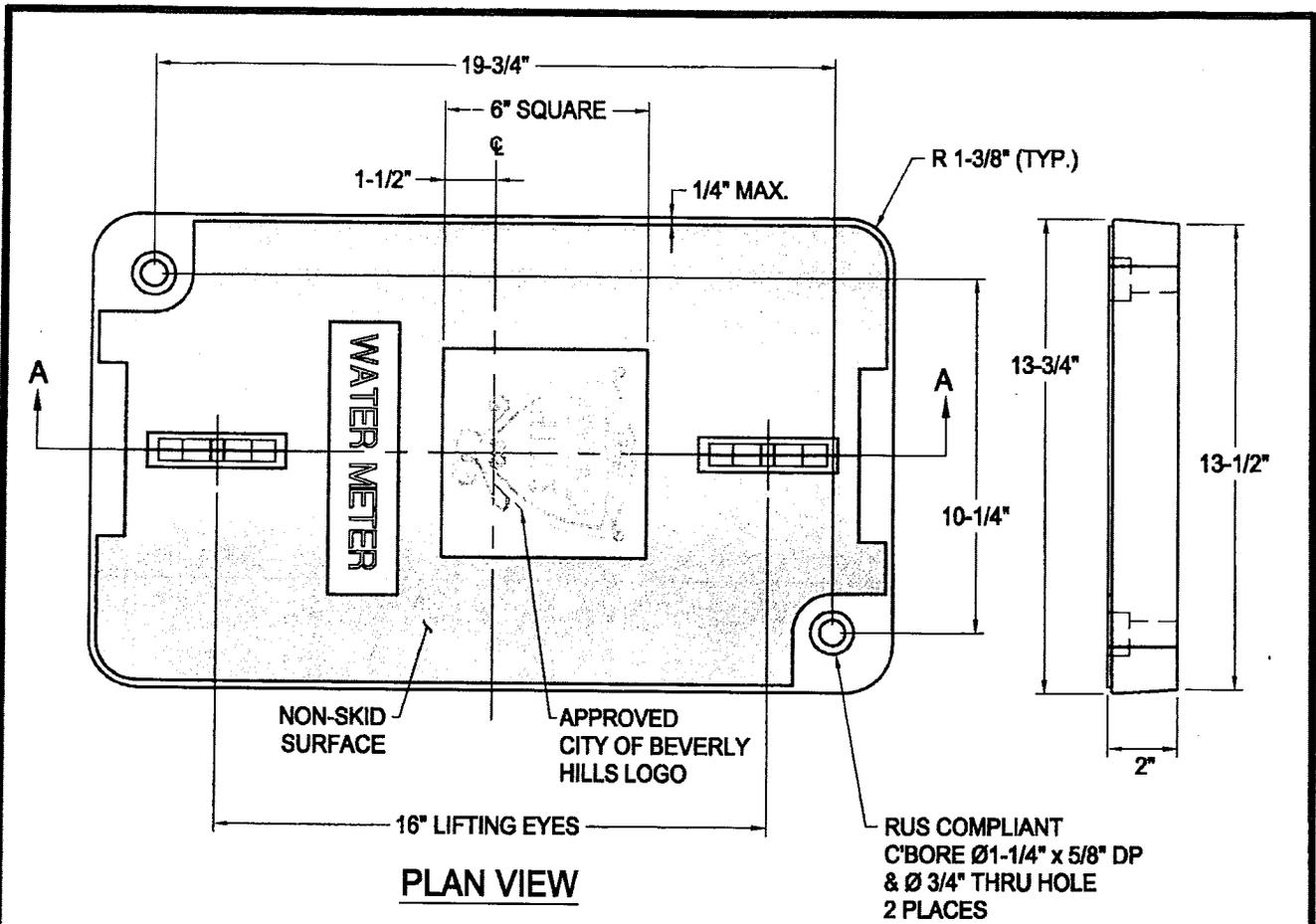
REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**  
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
CIVIL ENGINEERING DIVISION

RECOMMENDED *[Signature]* DATE 11-18-10  
APPROVED *[Signature]* DATE 11-18-10  
CIVIL ENGINEER  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 712**  
SHEET 1 OF 2



**WATER METER BOX & LID - 13" x 24"**

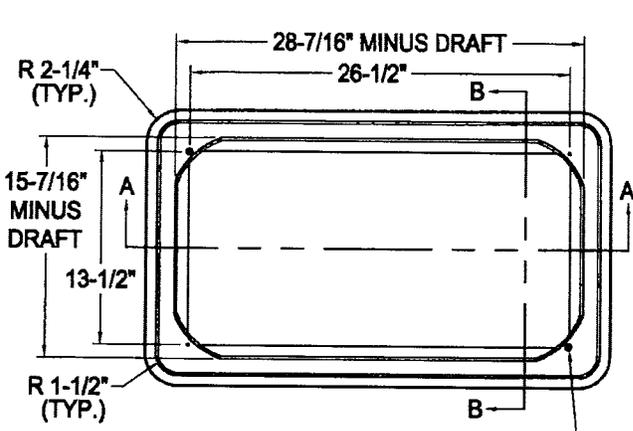
REVISIONS		
MARK	DATE	DESCRIPTION



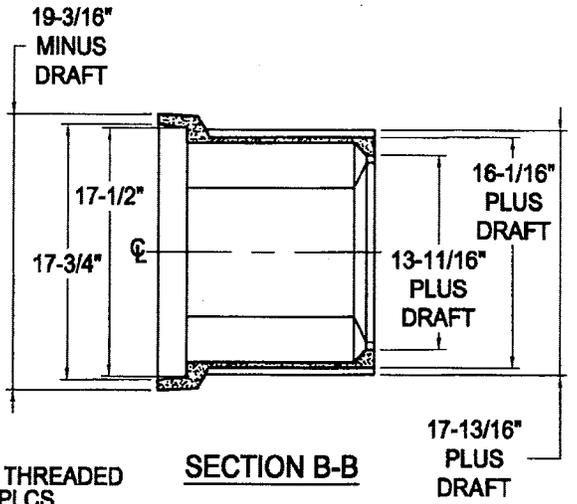
**CITY OF BEVERLY HILLS, CALIFORNIA**  
 DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
 CIVIL ENGINEERING DIVISION

RECOMMENDED *[Signature]* DATE 11-20-10  
 CITY ENGINEER  
 APPROVED *[Signature]* DATE 11-18-10  
 PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 712**  
 SHEET 2 OF 2

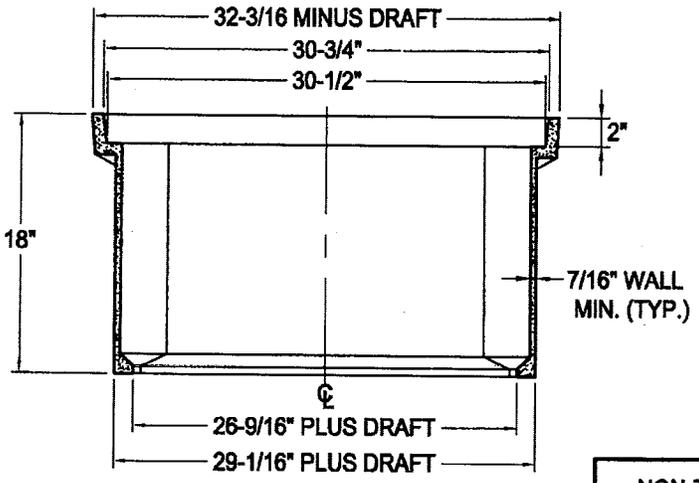


**PLAN VIEW**

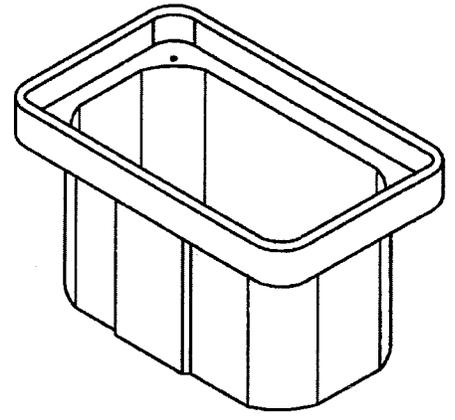


**SECTION B-B**

3/8-16 SST THREADED INSERT, 2 PLCS (4 PLCS OR FLOATING NUT ALSO AVAILABLE)



**SECTION A-A**



NON-TRAFFIC RATED	
DESCRIPTION OF MATERIAL:	POLYMER CONCRETE (GRAY)
TOLERANCE:	±1/8"
ESTIMATED PART WEIGHT:	99.0 LBS.

**WATER METER BOX & LID - 17" x 30"**

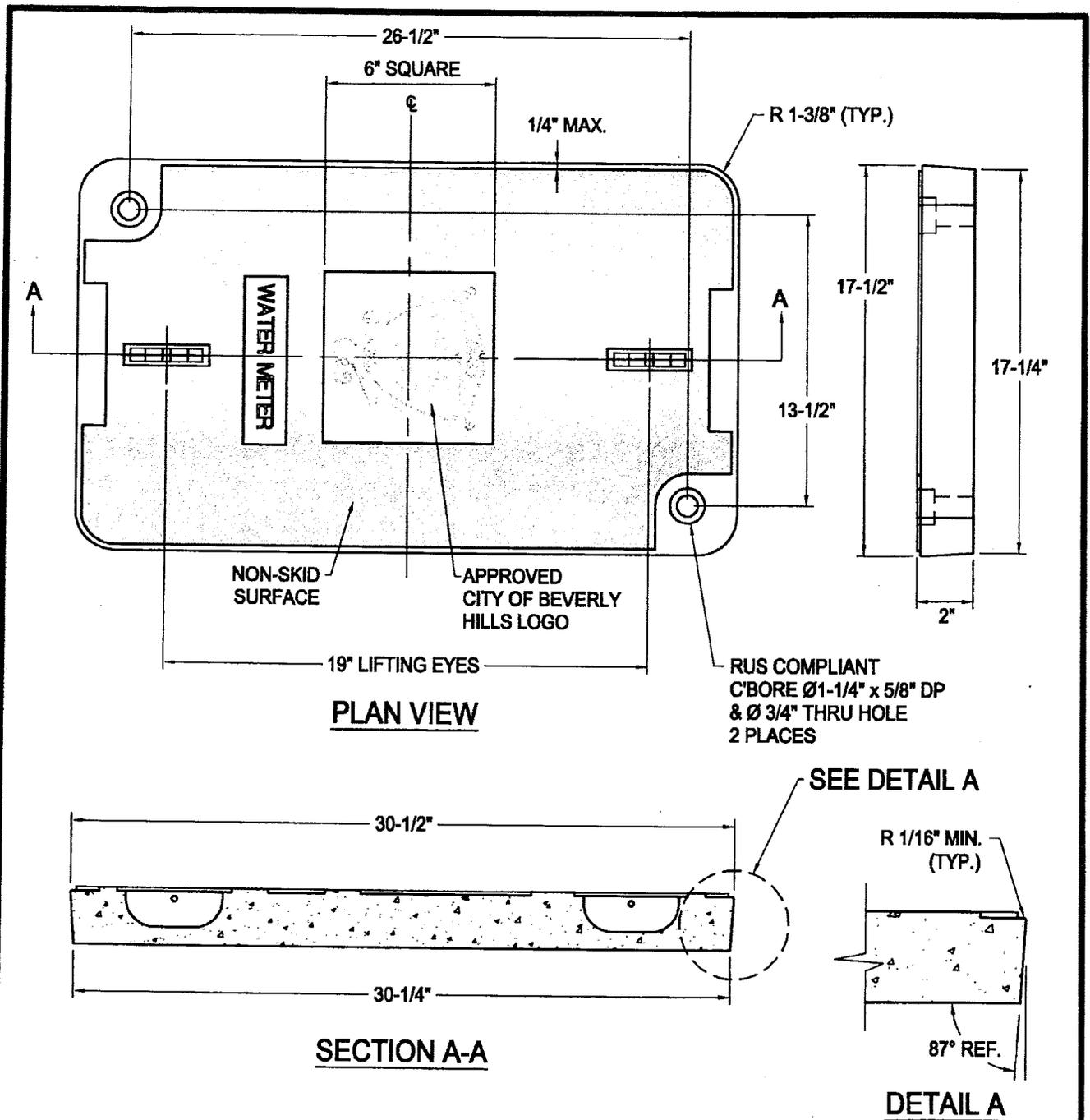
REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**  
 DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
 CIVIL ENGINEERING DIVISION

RECOMMENDED *[Signature]* DATE 11-18-10  
CITY ENGINEER  
 APPROVED *[Signature]* DATE 11-18-10  
PUBLIC WORKS DIRECTOR

STANDARD DRAWING  
**BH 713**  
 SHEET 1 OF 2



## WATER METER BOX & LID - 17" x 30"

REVISIONS		
MARK	DATE	DESCRIPTION

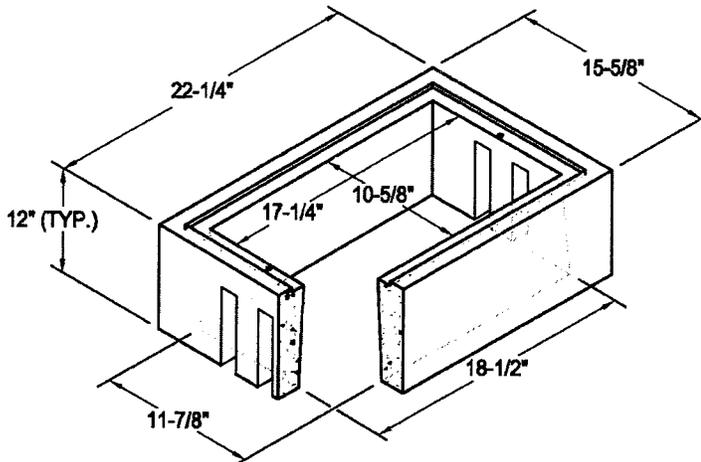


**CITY OF BEVERLY HILLS, CALIFORNIA**  
 DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
 CIVIL ENGINEERING DIVISION

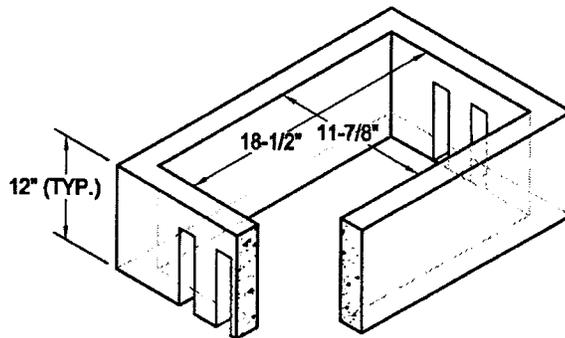
RECOMMENDED *[Signature]* DATE 11-18-10  
CITY ENGINEER

APPROVED *[Signature]* DATE 11-18-10  
PUBLIC WORKS DIRECTOR

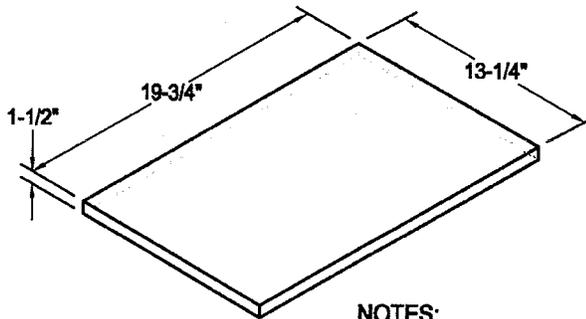
STANDARD DRAWING  
**BH 713**  
 SHEET 2 OF 2



**TRAFFIC BOX**  
 REINFORCED CONCRETE  
 H-20 LOADING  
 130 lbs.



**EXTENSION**  
 REINFORCED CONCRETE  
 H-20 LOADING  
 129 lbs.



**SLAB**  
 REINFORCED CONCRETE  
 32 lbs.

**NOTES:**

1. CALTRANS No. 3-1/2T STATE SPECIFICATIONS.

**10" x 17" WATER METER BOX & LID - H/20 LOADING**

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**

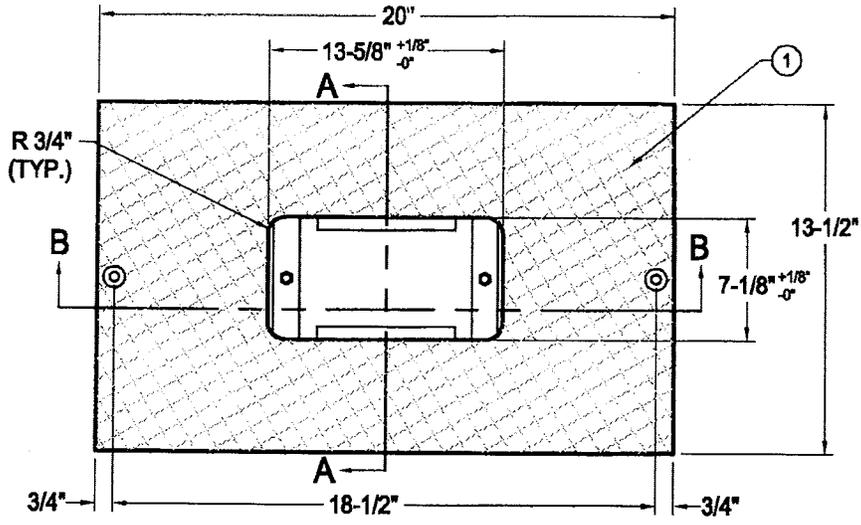
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION  
 CIVIL ENGINEERING DIVISION

RECOMMENDED *[Signature]* DATE 11-8-10  
CITY ENGINEER  
 APPROVED *[Signature]* DATE 11-18-10  
PUBLIC WORKS DIRECTOR

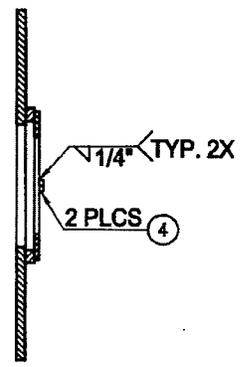
STANDARD DRAWING

**BH 714**

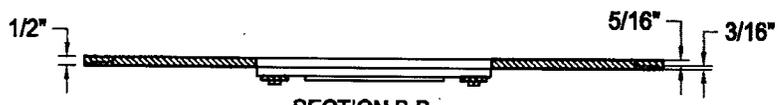
SHEET 1 OF 2



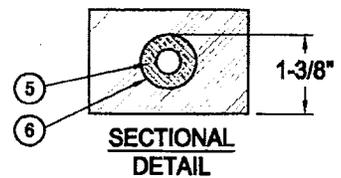
PLAN VIEW



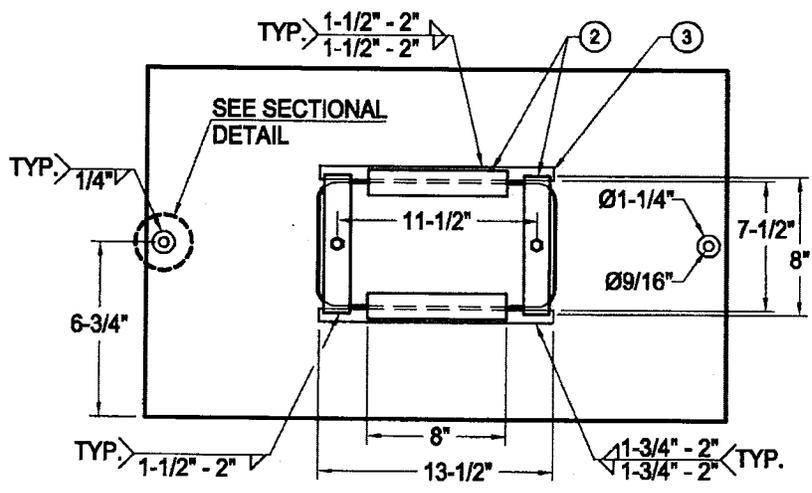
SECTION A-A



SECTION B-B



SECTIONAL DETAIL



- MATERIALS**
- ① - 1/2" DIAMOND CHECKER PLATE
  - ② - 1/4" x 1-1/2" STEEL FLAT STOCK
  - ③ - 3/4" x 1/2" STEEL FLAT STOCK
  - ④ - 3/8" - 16 STEEL NUT
  - ⑤ - 3/16" THICK WASHER TO BE WELDED PER ASTM A-706
  - ⑥ - SURFACE AROUND WELD TO BE FLAT

# 10" x 17" WATER METER BOX & LID - H/20 LOADING

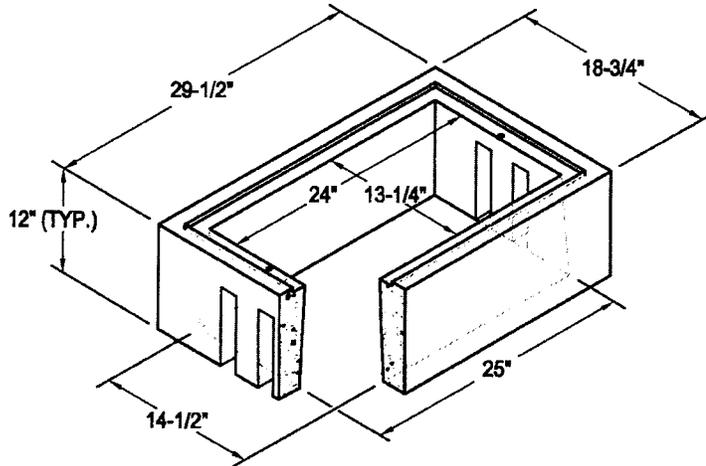
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MARK	DATE	DESCRIPTION



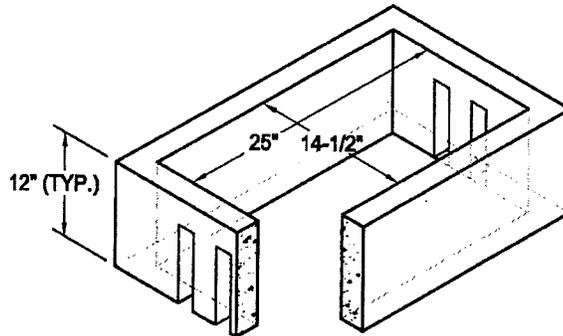
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CITY ENGINEER  
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PUBLIC WORKS DIRECTOR

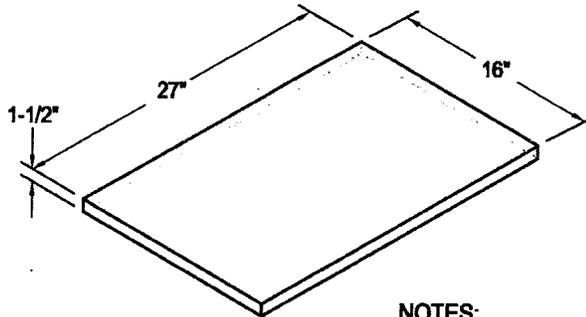
STANDARD DRAWING  
**BH 714**  
 SHEET 2 OF 2



**TRAFFIC BOX**  
 REINFORCED CONCRETE  
 H-20 LOADING  
 166 lbs.



**EXTENSION**  
 REINFORCED CONCRETE  
 H-20 LOADING  
 163 lbs.



**SLAB**  
 REINFORCED CONCRETE  
 52 lbs.

**NOTES:**

1. CALTRANS No. 5T STATE SPECIFICATIONS.

**13" x 24" WATER METER BOX & LID - H/20 LOADING**

REVISIONS		
MARK	DATE	DESCRIPTION



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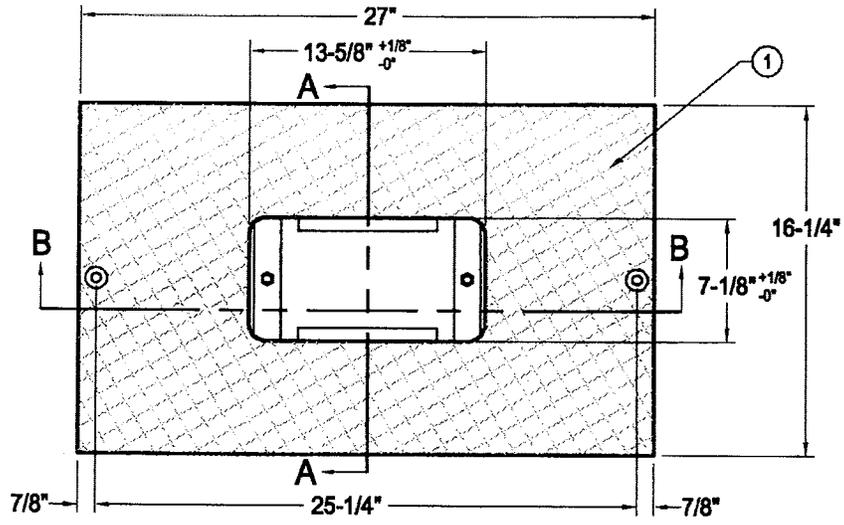
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DATE 11-18-10

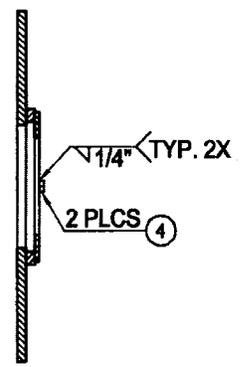
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**BH 715**

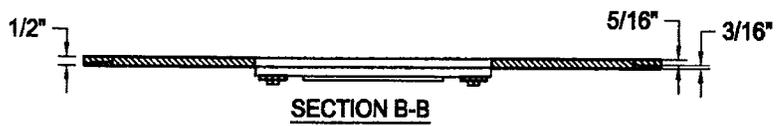
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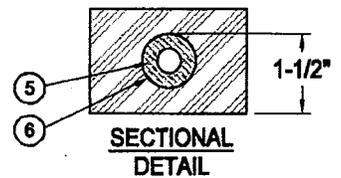
PLAN VIEW



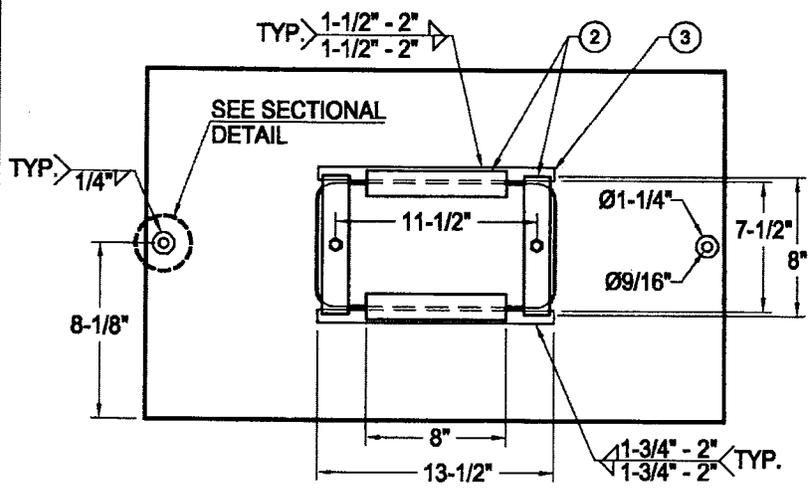
SECTION A-A



SECTION B-B



SECTIONAL DETAIL



- MATERIALS**
- ① - 1/2" DIAMOND CHECKER PLATE
  - ② - 1/4" x 1-1/2" STEEL FLAT STOCK
  - ③ - 3/4" x 1/2" STEEL FLAT STOCK
  - ④ - 3/8" - 16 STEEL NUT
  - ⑤ - 3/16" THICK WASHER TO BE WELDED PER ASTM A-706
  - ⑥ - SURFACE AROUND WELD TO BE FLAT

# 13" x 24" WATER METER BOX & LID - H/20 LOADING

REVISIONS		
MARK	DATE	DESCRIPTION

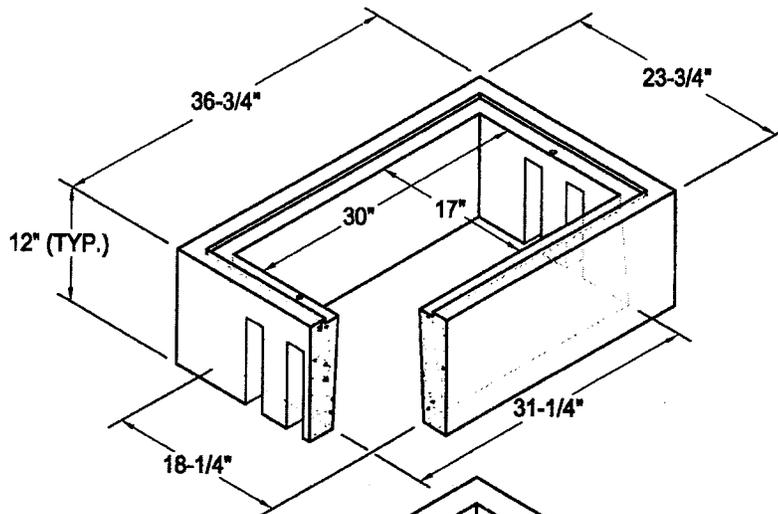


## CITY OF BEVERLY HILLS, CALIFORNIA

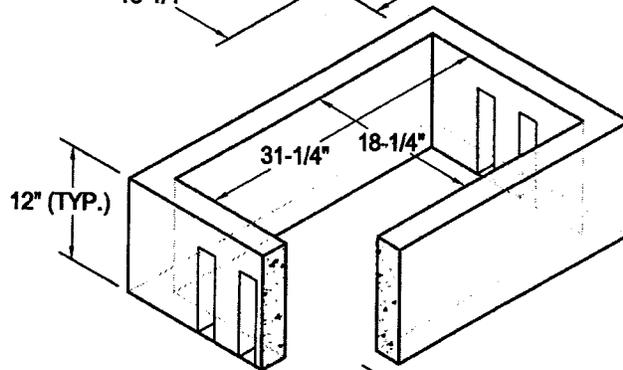
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APPROVED *[Signature]* DATE 11-18-10  
CITY ENGINEER  
PUBLIC WORKS DIRECTOR

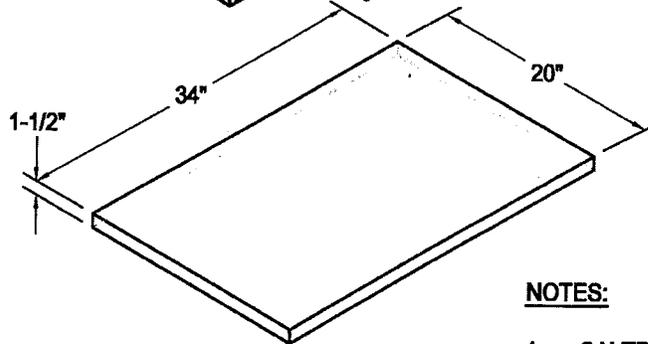
STANDARD DRAWING  
**BH 715**  
SHEET 2 OF 2



**BOX**  
 REINFORCED CONCRETE  
 H-20 LOADING  
 268 lbs.



**EXTENSION**  
 REINFORCED CONCRETE  
 H-20 LOADING  
 250 lbs.



**SLAB**  
 REINFORCED CONCRETE  
 108 lbs.

**NOTES:**

1. CALTRANS No. 6T STATE SPECIFICATIONS.

**17" x 30" WATER METER BOX & LID - H/20 LOADING**

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**

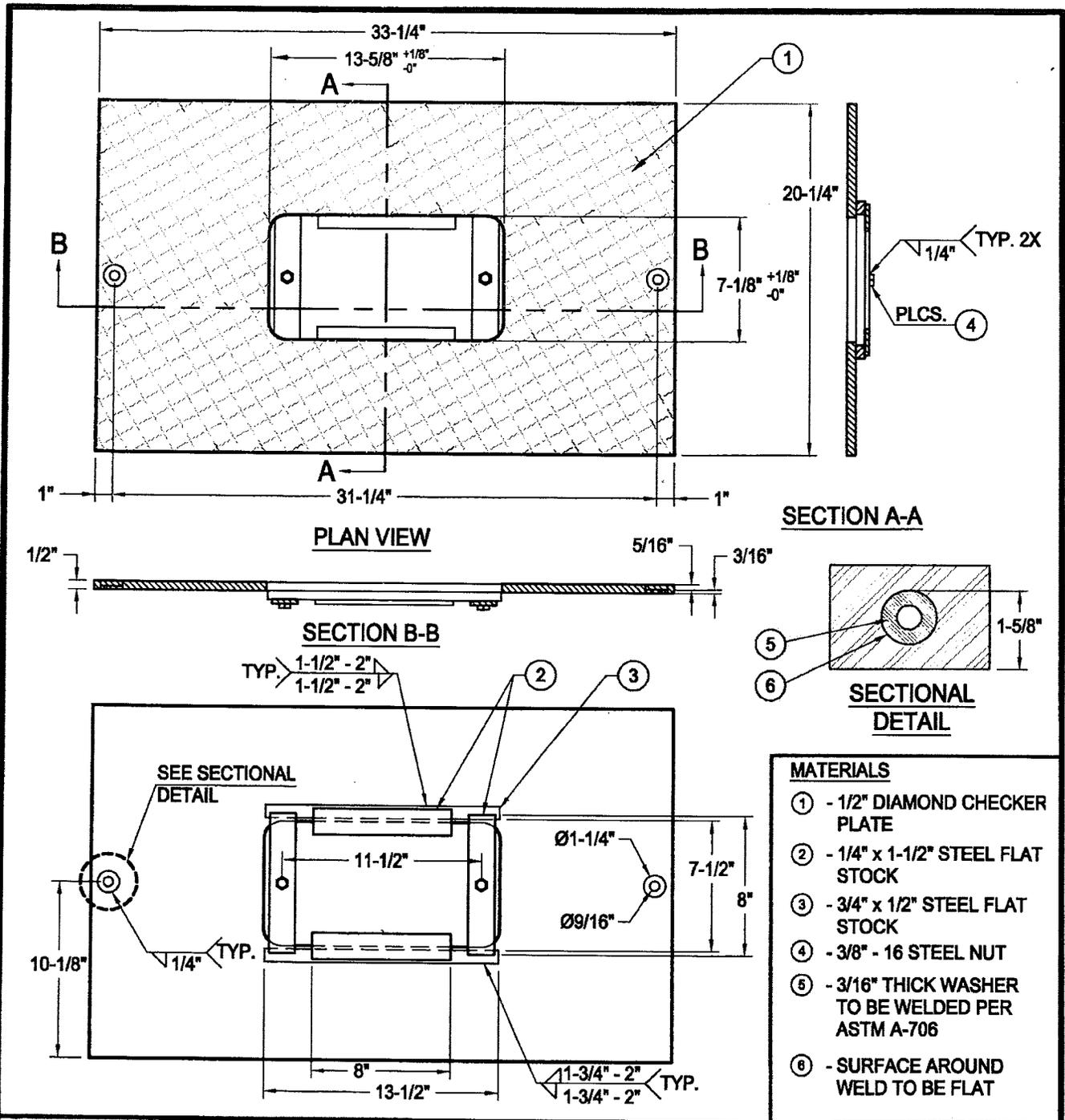
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STANDARD DRAWING

**BH 716**

SHEET 1 OF 2



# 17" x 30" WATER METER BOX & LID - H/20 LOADING

REVISIONS		
MARK	DATE	DESCRIPTION

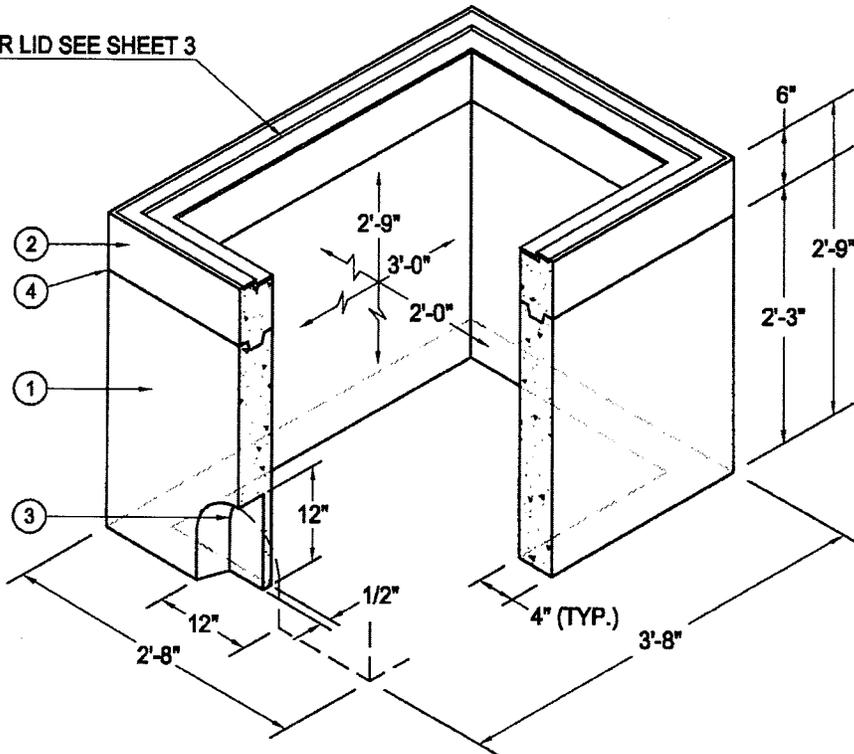


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STANDARD DRAWING  
**BH 716**  
 SHEET 2 OF 2

FOR LID SEE SHEET 3



**NOTES:**

**MATERIALS:**

- ① 27" HIGH LOWER SECTION.
- ② 6" TOP SECTION WITH GALVANIZED CAST-IN FRAME.
- ③ 12" x 12" KNOCK OUT x 3-1/2" DEEP ON EACH END WALL
- ④ 6" OR 12" EXTENSION SECTIONS AVAILABLE.

- 1. DESIGNED FOR PEDESTRIAN/PARKWAY LOADS OR TRAFFIC AASHTO H20 FOR USE IN OFF-STREET LOCATIONS ONLY.

STRUCTURE DESIGNED IN ACCORDANCE WITH:

- AASHTO H-20 TRAFFIC BRIDGE LOADING
- ASTM C-857 STANDARD PRACTICE FOR MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES
- AMERICAN CONCRETE INSTITUTE ACI 318-05
- 2. CONCRETE COMPRESSIVE STRENGTH  $F'_c = 5500$  PSI.
- 3. REINFORCEMENT IN ACCORDANCE WITH ASTM A-708 WITH A YIELD STRENGTH OF  $F_y = 60,000$  PSI.
- 4. 6" MINIMUM COMPACTED GRANULAR MATERIAL RECOMMENDED FOR SUB-BASE FOR EASE OF INSTALLATION AND EVEN LOAD DISTRIBUTION.
- 5. MINIMUM EXCAVATION SIZE: 3'-2" x 4'-2" x REQUIRED DEPTH.

## 2' x 3' WATER VAULT BOX & LID

REVISIONS		
MARK	DATE	DESCRIPTION



### CITY OF BEVERLY HILLS, CALIFORNIA

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APPROVED

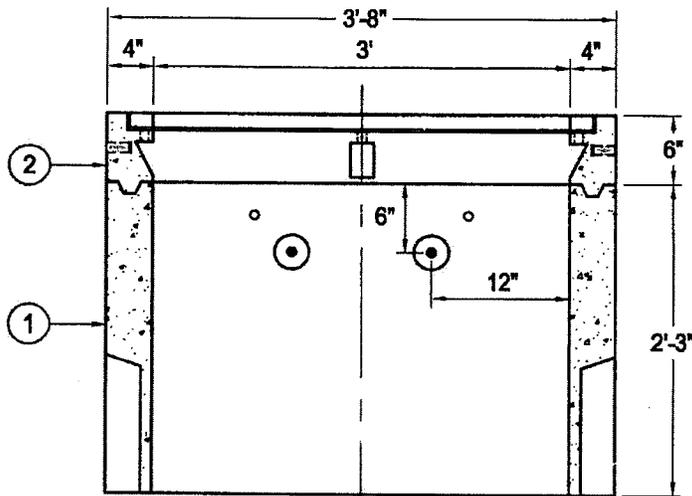
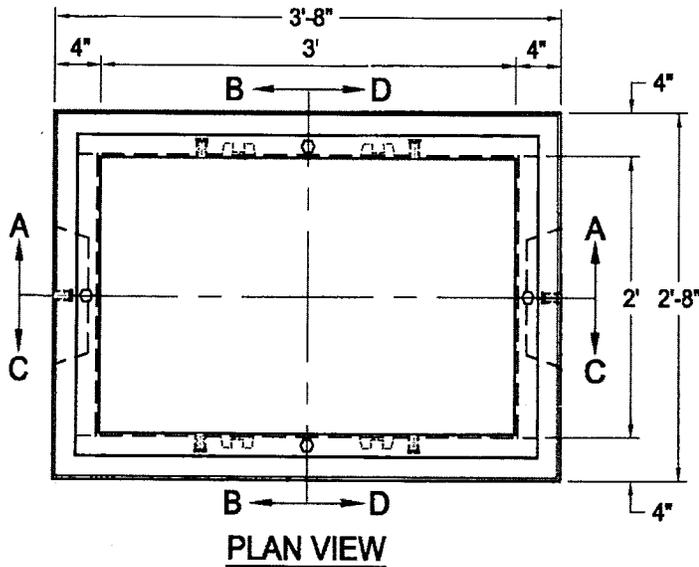
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DATE 11-18-10

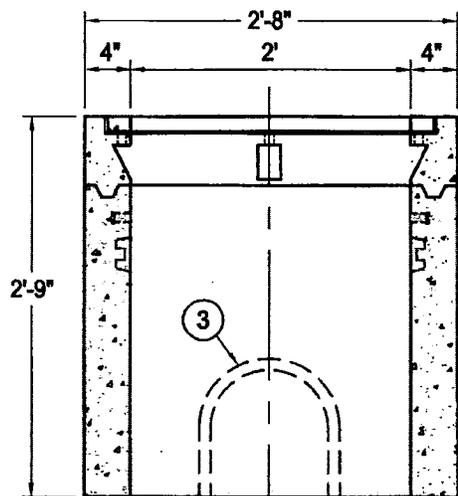
STANDARD DRAWING

**BH 717**

SHEET 1 OF 3



**SECTION A-A / C-C**



**SECTION B-B / D-D**

## 2' x 3' WATER VAULT BOX & LID

REVISIONS		
MARK	DATE	DESCRIPTION



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CIVIL ENGINEERING DIVISION

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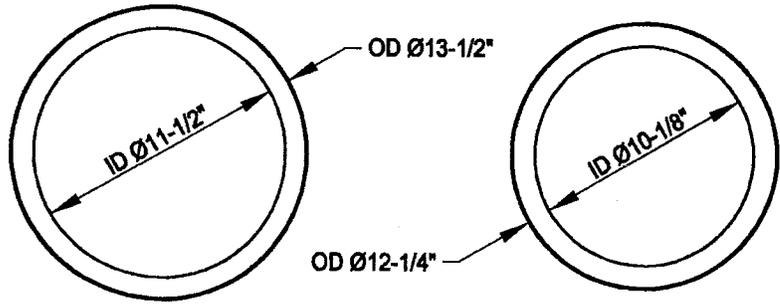
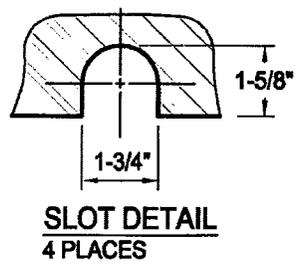
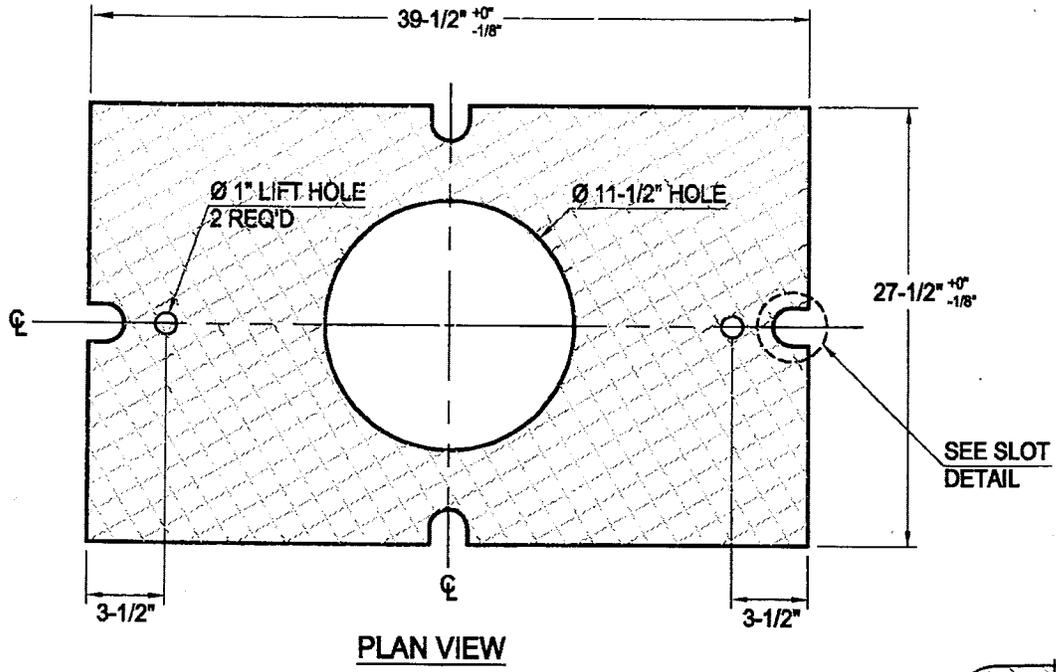
*[Signature]*  
PUBLIC WORKS DIRECTOR

DATE 11-18-10

STANDARD DRAWING

**BH 717**

SHEET 2 OF 3



1/4" PLATE (1)

1/4" PLATE (1)

APPROX. 104 lbs.

QTY.	MATERIALS
1	5/16" DIAMOND PLATE 27-1/2" x 39-1/2"
1	10-1/8" ID x 12-1/4" OD 1/4" PLATE
1	11-1/2" ID x 13-1/2" OD 1/4" PLATE

## 2' x 3' WATER VAULT BOX & LID

REVISIONS		
MARK	DATE	DESCRIPTION

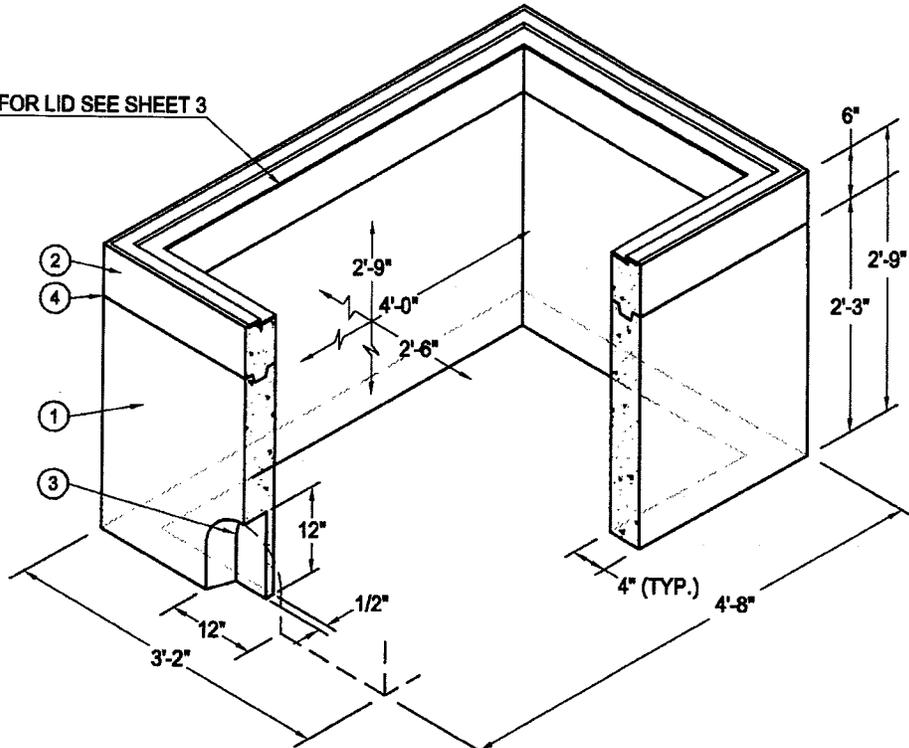


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STANDARD DRAWING  
**BH 717**  
 SHEET 3 OF 3

FOR LID SEE SHEET 3



**NOTES:**

**MATERIALS:**

- ① 27" HIGH LOWER SECTION.
- ② 6" TOP SECTION WITH GALVANIZED CAST-IN FRAME.
- ③ 12" x 12" KNOCK OUT x 3-1/2" DEEP ON EACH END WALL
- ④ 8" OR 12" EXTENSION SECTIONS AVAILABLE.

1. DESIGNED FOR PEDESTRIAN/PARKWAY LOADS OR TRAFFIC AASHTO H20 FOR USE IN OFF-STREET LOCATIONS ONLY.

STRUCTURE DESIGNED IN ACCORDANCE WITH:

- AASHTO H-20 TRAFFIC BRIDGE LOADING
  - ASTM C-857 STANDARD PRACTICE FOR MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES
  - AMERICAN CONCRETE INSTITUTE ACI 318-05
2. CONCRETE COMPRESSIVE STRENGTH  $F_c = 5500$  PSI.
  3. REINFORCEMENT IN ACCORDANCE WITH ASTM A-706 WITH A YIELD STRENGTH OF  $F_y = 60,000$  PSI.
  4. 6" MINIMUM COMPACTED GRANULAR MATERIAL RECOMMENDED FOR SUB-BASE FOR EASE OF INSTALLATION AND EVEN LOAD DISTRIBUTION.
  5. MINIMUM EXCAVATION SIZE: 3'-8" x 5'-2" x REQUIRED DEPTH.

## 2'-6" x 4' WATER VAULT BOX & LID

REVISIONS		
MARK	DATE	DESCRIPTION



### CITY OF BEVERLY HILLS, CALIFORNIA

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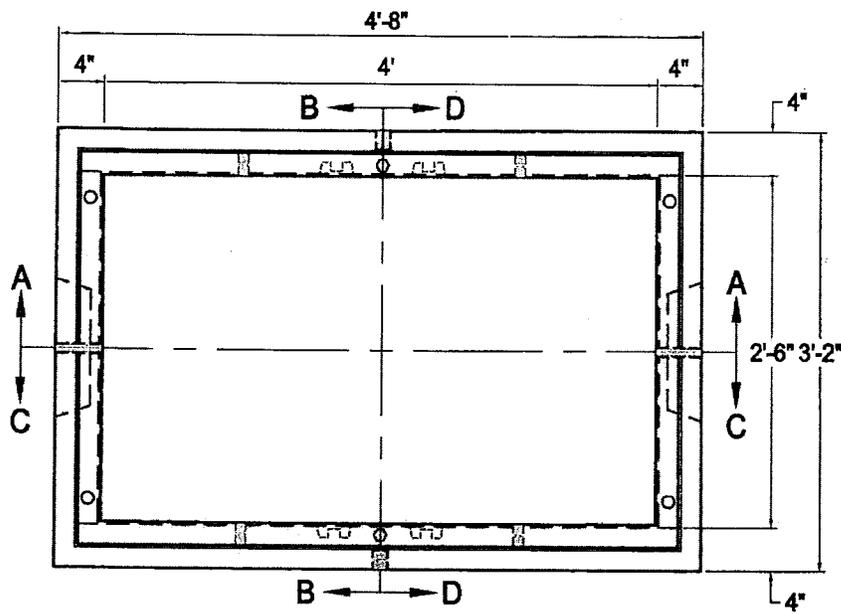
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PUBLIC WORKS DIRECTOR

DATE 11-18-10

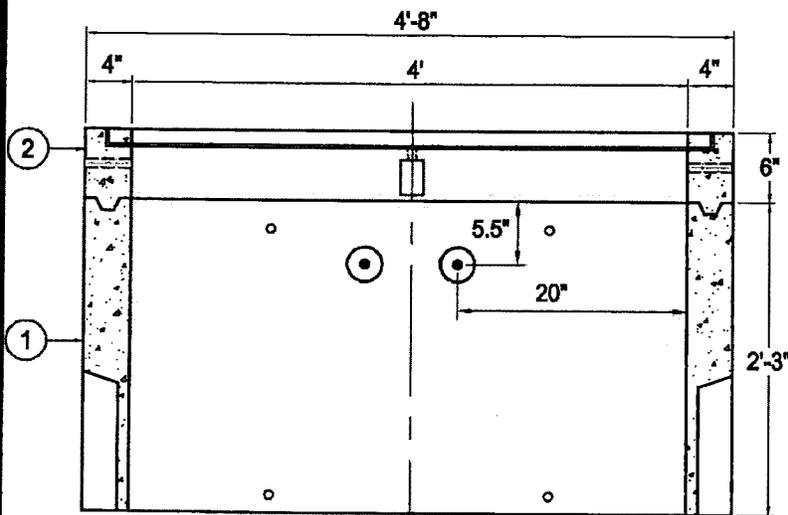
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**BH 718**

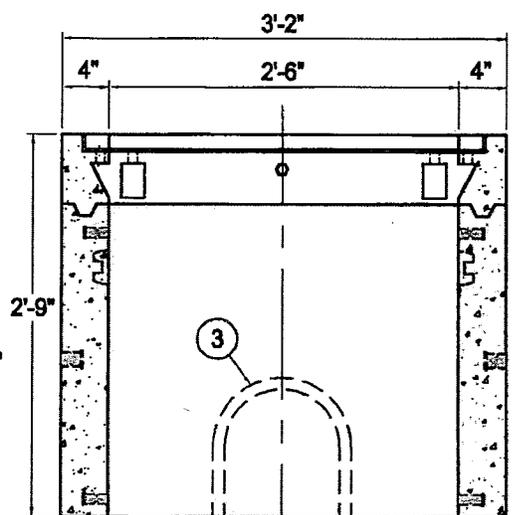
SHEET 1 OF 3



**PLAN VIEW**



**SECTION A-A / C-C**



**SECTION B-B / D-D**

## 2'-6" x 4' WATER VAULT BOX & LID

REVISIONS		
MARK	DATE	DESCRIPTION



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CIVIL ENGINEERING DIVISION

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CITY ENGINEER

DATE 11-18-10

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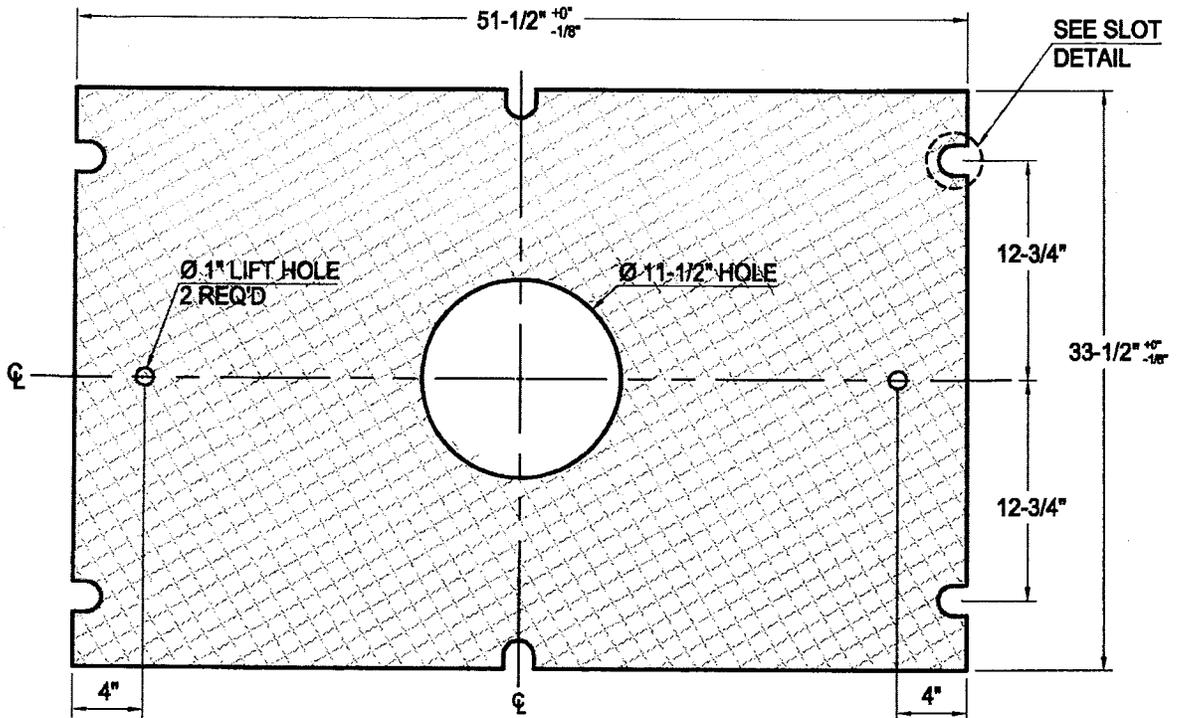
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DATE 11-18-10

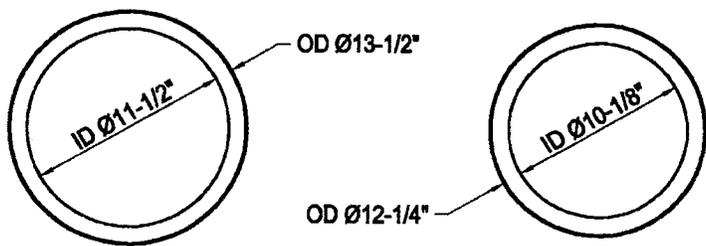
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**BH 718**

SHEET 2 OF 3

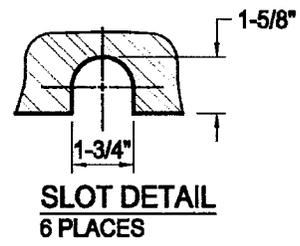


**PLAN VIEW**



1/4" PLATE (1)

1/4" PLATE (1)



QTY.	MATERIALS
1	5/16" DIAMOND PLATE 33-1/2" x 51-1/2"
1	10-1/8" ID x 12-1/4" OD 1/4" PLATE
1	11-1/2" ID x 13-1/2" OD 1/4" PLATE

**2'-6" x 4' WATER VAULT BOX & LID**

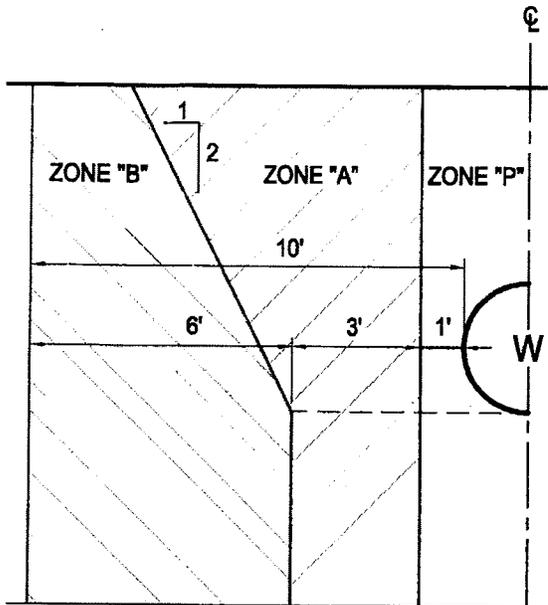
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MARK	DATE	DESCRIPTION



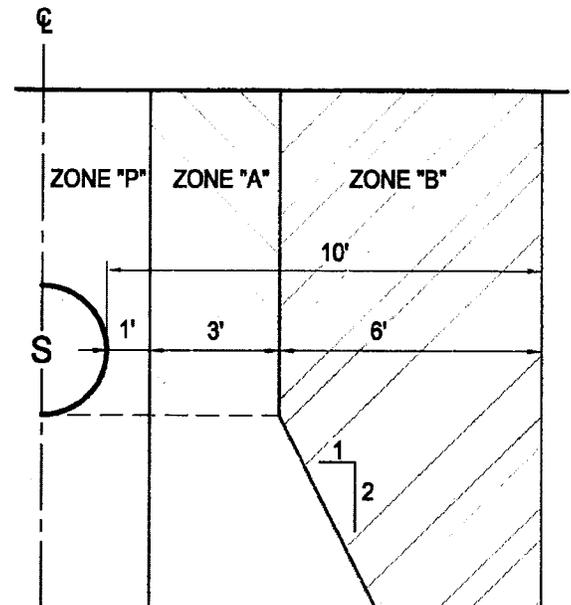
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STANDARD DRAWING  
**BH 718**  
 SHEET 3 OF 3



**CASE 1**  
NEW SEWER



**CASE 2**  
NEW WATER MAIN

**ZONE SPECIAL CONSTRUCTION REQUIRED FOR SEWER**

- A. SEWER LINES PARALLEL TO WATER MAINS SHALL NOT BE PERMITTED IN THIS ZONE WITHOUT APPROVAL FROM THE CITY OF BEVERLY HILLS.
- B. A SEWER LINE PLACED PARALLEL TO A WATER LINE SHALL BE CONSTRUCTED OF:
  1. EXTRA STRENGTH VITRIFIED CLAY PIPE WITH COMPRESSION JOINTS.
  2. PLASTIC SEWER PIPE WITH RUBBER RING JOINTS (PER ASTM D 3034) OR EQUIVALENT.
  3. CAST OR DUCTILE IRON PIPE WITH COMPRESSION JOINTS.
  4. REINFORCED CONCRETE PRESSURE PIPE WITH COMPRESSION JOINTS (PER AWWA C302-74).
- P. PROHIBITED ZONE - NO SEWER MAINS ARE ALLOWED TO BE INSTALLED IN THIS ZONE.

**ZONE SPECIAL CONSTRUCTION REQUIRED FOR SEWER**

- A. NO WATER MAINS PARALLEL TO SEWERS SHALL BE CONSTRUCTED WITHOUT APPROVAL FROM THE CITY OF BEVERLY HILLS.
- B. A WATER LINE PLACED PARALLEL TO A SEWER LINE SHALL BE CONSTRUCTED OF STEEL PIPE, CML, AND CMC WITH WELDED JOINTS.
- P. PROHIBITED ZONE - NO WATER MAINS ARE ALLOWED TO BE INSTALLED IN THIS ZONE.

**ADDITIONAL NOTES:**

1. ZONES IDENTICAL ON EITHER SIDE OF CENTER LINES,
2. WATER MAINS AND SEWER MAINS MUST NOT BE INSTALLED IN THE SAME TRENCH.
3. SEPARATION DISTANCES SPECIFIED SHALL BE MEASURED FROM THE NEAREST EDGE OF FACILITIES.
4. STEEL PIPE SHALL BE A MINIMUM OF 10 GAGE THICKNESS.

**SEWER AND WATER MAIN PARALLEL SEPARATION < 10'**

REVISIONS		
MARK	DATE	DESCRIPTION



**CITY OF BEVERLY HILLS, CALIFORNIA**

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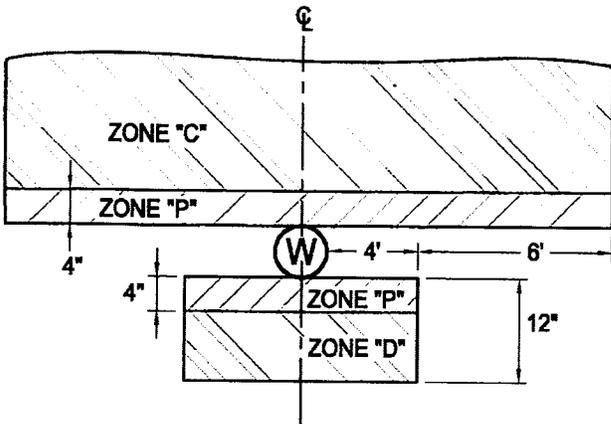
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PUBLIC WORKS DIRECTOR

DATE 11-18-10

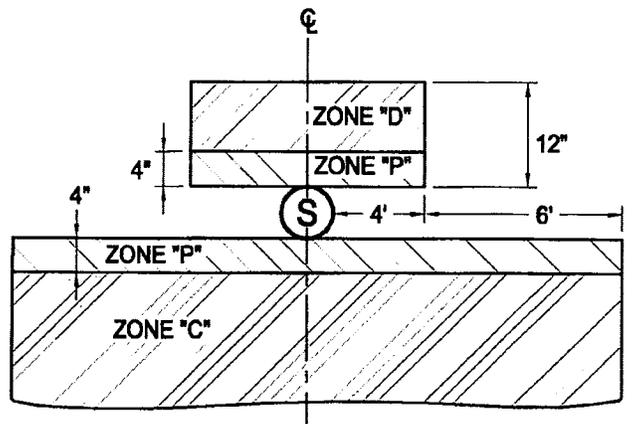
STANDARD DRAWING

**BH 719**

SHEET 1 OF 2



**CASE 1**  
NEW SEWER



**CASE 2**  
NEW WATER MAIN

**ZONE SPECIAL CONSTRUCTION REQUIRED FOR SEWER**

- C. A SEWER LINE CROSSING A WATER MAIN SHALL BE CONSTRUCTED OF:
1. DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING AND MECHANICAL JOINTS.
  2. A CONTINUOUS SECTION OF CLASS 200 (DR 14 PER AWWA 0990) PLASTIC PIPE OR EQUIVALENT. CENTERED OVER THE PIPE BEING CROSSED.
  3. A CONTINUOUS SECTION OF REINFORCED CONCRETE PRESSURE PIPE (PER AWWA C302-74) CENTERED OVER THE PIPE BEING CROSSED.
  4. ANY SEWER PIPE WITHIN A CONTINUOUS SLEEVE.

- D. A SEWER LINE CROSSING A WATER MAIN SHALL BE CONSTRUCTED OF:
1. A CONTINUOUS SECTION OF DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING.
  2. A CONTINUOUS SECTION OF CLASS 200 (DR 14 PER AWWA 0990) PLASTIC PIPE OR EQUIVALENT. CENTERED OVER THE PIPE BEING CROSSED.
  3. A CONTINUOUS SECTION OF REINFORCED CONCRETE PRESSURE PIPE (PER AWWA C302-74) CENTERED OVER THE PIPE BEING CROSSED.
  4. ANY SEWER PIPE WITHIN A CONTINUOUS SLEEVE
  5. ANY SEWER PIPE SEPARATED BY A 10"x10"x4" THICK REINFORCED CONCRETE SLAB.

P. PROHIBITED ZONE - NO SEWER MAINS ARE ALLOWED TO BE INSTALLED IN THIS ZONE.

**ZONE SPECIAL CONSTRUCTION REQUIRED FOR SEWER**

- C. NO JOINTS WITHIN 10 FEET OF EITHER SIDE OF SEWER LINE. USE DUCTILE IRON PIPE, CML, AND POLYETHYLENE WRAPPED, OR STEEL PIPE, CML, AND CMC.
- D. NO JOINTS WITHIN 4 FEET OF EITHER SIDE OF SEWER LINE. USE DUCTILE IRON PIPE, CML, AND POLYETHYLENE WRAPPED, OR STEEL PIPE, CML, AND CMC.
- P. PROHIBITED ZONE - NO WATER MAINS ARE ALLOWED TO BE INSTALLED IN THIS ZONE.

**ADDITIONAL NOTES:**

1. WATER MAINS AND SEWER MAINS MUST NOT BE INSTALLED IN THE SAME TRENCH.
2. SEPARATION DISTANCES SPECIFIED SHALL BE MEASURED FROM THE NEAREST EDGE OF FACILITIES.
3. STEEL PIPE SHALL BE A MINIMUM OF 10 GAGE THICKNESS.

**SEWER AND WATER MAIN PERPENDICULAR SEPARATION < 10'**

REVISIONS		
MARK	DATE	DESCRIPTION



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CIVIL ENGINEERING DIVISION

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CITY ENGINEER

DATE 11-18-10

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*[Signature]*  
PUBLIC WORKS DIRECTOR

DATE 11-18-10

STANDARD DRAWING

**BH 719**

SHEET 2 OF 2

## SECTION 6. OVERFLOW EMERGENCY RESPONSE PLAN

### 6.1 Introduction

This section of the SSMP is intended to provide an overview of the City's sanitary sewer system Overflow Emergency Response Plan. This Overflow Emergency Response Plan has been developed pursuant to State Water Resources Control Board guidelines requiring all public wastewater collection system agencies in California be regulated under General Waste Discharge Requirements.

### 6.2 Regulatory Requirements for the Overflow Emergency Response Plan Section

The requirements for the Operations and Maintenance Program section of the SSMP are:

#### **GWDR (Element 6 - Overflow Emergency Response Plan) Requirement:**

The GWDR requirements for the Overflow Emergency Response Plan are: *Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:*

- *Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSO's in a timely manner;*
- *A program to ensure an appropriate response to all overflows;*
- *Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities;*
- *A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSO's, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge;*
- *Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSO's that potentially affect public health or reach water of the State in accordance with the MRP. All SSO's shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDR's or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification; and*
- *Procedures to ensure that appropriate staff and contractor personnel are aware and follow the Overflow Emergency Response Plan and are appropriately trained.*



### 6.3 SSO Notification Procedure

The Requirement: *Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSO's in a timely manner.*

Section 2.3.2 of this SSMP introduces the process and individuals responsible for reporting and notification of a sanitary sewer overflow. Table 2-1 provides contacts and phone numbers for City staff who need to be notified of SSO's. Figure 2-2 depicts the chain of communication for responding to SSO's. Beverly Hills keeps a large "Call" poster at the City's Corporation Yard for clear reminders.

For Category 1 spills (overflow greater than 1,000 gallons), the Stand-by Operator immediately notifies the Drainage Systems Supervisor. In the absence of the Drainage Systems Supervisor (after hours), Operators are responsible to respond as required for collection system and wastewater treatment plant emergencies. A situation may occur where an Operator will need specialized equipment, physical assistance, and (or) technical advice. If needed, Operators may call in water system operators, other employees, and/or contractors for assistance during an emergency. Operators are instructed to contact the Drainage Systems Supervisor in case of any emergency. If the Drainage Systems Supervisor cannot be reached, Operators are instructed to contact the Utilities Manager. If the Director of Public Works and Transportation is not available, contact the City Manager.

For Category 1 spills and any overflow that enters the storm drain system, staff are directed to call the Drainage Systems Supervisor immediately. If not available, then staff is directed to call the **California Office of Emergency Services**, (800) 852-7550, the **Los Angeles Regional Water Quality Control Board**, (213) 576-6657 during business hours and (213) 305-2253 after business hours, and the **Los Angeles Public Health**, (213) 974-1234, within two hours of the start of the overflow.

Time frame for contacting local and other regulatory agencies is addressed in Section 6.5 of this SSMP.

### 6.4 SSO Emergency Response Procedure

The Requirement: *A program to ensure appropriate response to all overflows.*

The City responds to all spills within City limits. Wastewater Division staff must be familiar with these overflow emergency response procedures prior to being assigned "Stand-by." Stand-by Operators are to respond immediately. Section 2 of this SSMP addresses the responsibilities and authority of City staff during an emergency.

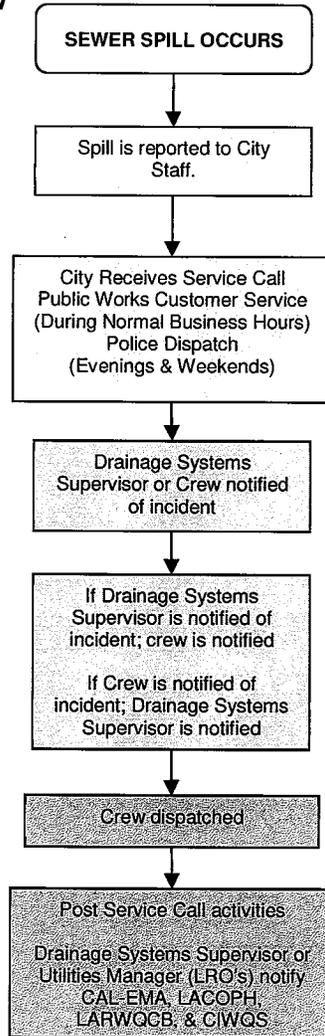
Additional Stand-by Operators who are notified that raw sewage spills have occurred will voluntarily respond if available and will take immediate corrective actions. Raw sewage (wastewater) spills may be caused by a blockage in the sewer line, broken sewer lines, pump failures or other unforeseen situations.



Figure 6-1 contains a flowchart depicting the chain of communication for notification of and reporting SSO's.

**Figure 6-1. SSO Response Flow**

**Chart**



#### 6.4.1 Secure the Area

The Requirement: *Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities.*

Wastewater Division staff respond to all sewer emergencies within City limits. Other departments within the City may provide assistance for traffic and crowd control depending on the severity of the situation, including the Public Works Department, Streets Division, and Fire and Police Departments.

To secure the wastewater spill area:

- Place warning signs
- Barricades and cones (lighted barricades if needed)
- Safety tape
- Sand or other available means

#### 6.4.2 Control the Cause of the Wastewater Spill

The Requirement: *A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSO's, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.*

City Wastewater Division staff are trained to use procedures identified in the City of Beverly Hills' Wastewater Division Standard Operating Procedure "Wastewater Spill Control Procedures." Staff are trained to use best management practices.

City staff will do what is necessary to stop the cause of the spill. If the overflow is caused by a stoppage in the main line, City staff will use the hydro jet or mechanical rotor truck to relieve the stoppage immediately.

One method to contain spills includes plugging of storm water lines and directing sewer spill flow to storm drain for use as a temporary catch basin. If this procedure is used, the storm drain will be cleaned and disinfected after the spill is relieved. (Pumper trucks or pumps can be used to remove the wastewater from the catch basin.) If necessary, the City will report spills immediately to the **Los Angeles County Public Health (LACOPH)** for monitoring water quality and posting hazard notices.

The City of Beverly Hills has all the major equipment (cranes, fencing, pumping) to respond to most emergencies. Additional Contracts/Emergency Resources are listed in Table 6-1 Contractors/Emergency Resources.



Beverly Hills has an internal Public Information Office (PIO) that is responsible for informing all the necessary media outlets during Emergency responses. Therese Kosterman is the current PIO for Beverly Hills. She can be contacted at (310) 285-2456.

**Table 6-1. Contractors/Emergency Resources**

SERVICE/PHONE NUMBER	
<b>Contractors</b>	
a. Insituform Technologies, LLC.....	(714) 278-1900
b. Pro Pipe.....	(877) 251-9345

**6.4.3 Clean Up the Wastewater Spill**

To minimize health impacts to the public and to protect the environment, the City will begin cleaning the wastewater spill site as soon as possible or immediately after the overflow stops.

The City will remove debris found in the wastewater spill surfaced area and return to the collection system, or collect and dispose of debris properly.

The City will disinfect the area exposed to the spilled material using a mild chlorine solution applied over the affected area with a Hudson Sprayer. During clean up, Operators wear personal protective clothing, including rubber boots, rubber gloves, coveralls, and goggles. Ultraviolet rays and heat from the sun will help sterilize any threatening organisms that are present.

The City will conduct a final inspection of the collection system and the wastewater spill area before leaving.

The affected area will remain isolated until all necessary steps are taken to eliminate possible health hazards.

**6.5 Sanitary Sewer Overflow Reporting**

*The Requirement: Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected agencies (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSO's that potentially affect public health or reach water of the State in accordance with the MRP. All SSO's shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDR's or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification.*

City policy is to report spills, depending upon size, significance, and/or containment, to the **Los Angeles Regional Water Quality Control Board, Los Angeles County Public Health,** and the **California Emergency Management Agency.** The City has a responsibility to provide full disclosure of its operations and performance, and has adopted the spill reporting format referenced in the reporting requirements of the State General Permit.



Reporting time frames vary by agency. Table 6-2 identifies the reporting time frame for each agency involved.

**Table 6-2. SSO Reporting Time Frame by Agency**

AGENCY	SSO REPORTING TIME FRAME
State Water Resources Control Board	<ul style="list-style-type: none"> <li>• Verbal notification within 24 hours of reportable spill</li> <li>• Written report within 72 hours of reportable spill</li> </ul>
Los Angeles Regional Water Quality Control Board	<ul style="list-style-type: none"> <li>• Written report within 30 days of reportable spill (required for any sewer spill)</li> </ul>
Los Angeles County Public Health (LACOPH)	<ul style="list-style-type: none"> <li>• Verbal notification within 24 hours of reportable spill</li> <li>• Written report within 72 hours of reportable spill</li> </ul>
California Emergency Management Agency	<ul style="list-style-type: none"> <li>• Verbal notification within 24 hours of reportable spill</li> </ul>

Category 1 spills must be reported to the Online SSO System within 3 business days of the sanitary sewer overflow. Information about the SSO Online Reporting system is included in Appendix 6-A Monitoring and Reporting Program No. 2006-0003-DWQ. Appendix 6-A also includes reporting requirements for other SSO Categories, including Category 2 and Private Lateral Sewage Discharges.

- Category 2 – All discharges of sewage other than Category 1 resulting from a failure in the City’s sanitary sewer system.
- Private Lateral Sewage Discharges – Sewage discharges caused by blockages or other problems within a privately owned lateral.

For these same overflows, a Sewage Spill Report shall be prepared and faxed to the **Regional Water Quality Control Board**, (213) 576-6657, and the **Los Angeles County Public Health** within 24 hours. A sample Sewage Spill Report form is included in Appendix 6-B.

## 6.6 Emergency Response Plan Distribution and Training

The Requirement: *Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Overflow Emergency Response Plan and are appropriately trained.*

The role of the Wastewater Division staff is clearly established and described in Section 2 of this SSMP. The City’s previous Sewer Spill Prevention Contingency Plan and SSMP are available digitally and in printed form for the Wastewater Division staff.



All Wastewater Division staff are required to be familiar with this SSMP prior to fulfilling On-Call and Stand-by assignments. In addition, the Collection Operator trains the additional staff that assists on the collection truck.



## **APPENDIX 6-A. MONITORING AND REPORTING PROGRAM**

### **Monitoring and Reporting Program No. 2006-0003-DWQ Statewide General Waste Discharge Requirements For Sanitary Sewer Systems**

This Monitoring and Reporting Program (MRP) establishing monitoring, record keeping, reporting and public notification requirements for Order No. 2006-2003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems." Revisions to this MRP may be made at any time by the Executive Director, and may include a reduction or increase in the monitoring and reporting.

#### **A. SANITARY SEWER OVERFLOW REPORTING**

##### **SSO Categories**

1. Category 1 – All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that:
  - a. Equal or exceed 1,000 gallons, or
  - b. Result in a discharge to a drainage channel and/or surface water; or
  - c. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.
  
2. Category 2 – All other discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system.
  
3. City does not report

##### **SSO Reporting Timeframes**

4. Category 1 SSO's – All SSO's that meet the above criteria for Category 1 SSO's must be reported as soon as: (1) the Enrollee has knowledge of the discharge, (2) reporting is possible, and (3) reporting can be provided without substantially impeding clean up or other emergency measures. Initial reporting of Category 1 SSO's must be reported to the Online SSO System as soon as possible but no later than 3 business days after the Enrollee is made aware of the SSO. Minimum information that must be contained in the 3-day report must include all information identified in section 9 below, except for item 9.K. A final certified report must be completed through the Online SSO System, within 15 calendar days of the conclusion of SSO response and remediation. Additional information may be added to the certified report, in the form of an attachment, at any time.

The above reporting requirements do not preclude other emergency notification requirements and timeframes mandated by other regulatory agencies (local County



Health officers, local Director of Environmental Health, Regional Water Boards, or California Emergency Management Agency or State law.

5. Category 2 SSO's – All SSO's that meet the above criteria for Category 2 SSO's must be reported to the Online SSO Database within three days after the end of the calendar month in which the SSO occurs (e.g. all SSO's occurring in the month of January must be entered into the database by March 1<sup>st</sup>).
6. Private Lateral Sewage Discharges – All sewage discharges that meet the above criteria for Private Lateral sewage discharges may be reported to the Online SSO Database based upon the Enrollee's discretion. If a Private Lateral sewage discharge is recorded in the SSO Database, the Enrollee must identify the sewage discharge as occurring and caused by a Private Lateral, and a responsible party (other than the Enrollee) should be identified, if known.
7. If there are no SSO's during the calendar month, the Enrollee will provide, within 30 days after the end of each calendar month, a statement through the Online SSO Database certifying that there were no SSO's for the designated month.
8. In the event that the SSO Online Database is not available, the enrollee must fax all required information to the appropriate Regional Water Board office in accordance with the time schedules identified above. In such event, the Enrollee must also enter all required information into the Online SSO Database as soon as practical.

**Mandatory Information to be Included in SSO Online Reporting**

All enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within thirty (30) days of receiving an account and prior to recording SSO's into the SSO Database, all Enrollees must complete the "Collection System Questionnaire," which collects pertinent information regarding the Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.

At a minimum, the following mandatory information must be included prior to finalizing and certifying an SSO report for each category of SSO:

9. Category 2 SSO's:
  - a. Location of SSO by entering GPS coordinates;
  - b. Applicable Regional Water Board, i.e. identify the region in which the SSO occurred;
  - c. County where SSO occurred;
  - d. Whether or not the SSO entered a drainage channel and/or surface water;
  - e. Whether or not the SSO was discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;



- f. Estimated SSO volume in gallons;
  - g. SSO source (manhole, cleanout, etc.);
  - h. SSO cause (mainline blockage, roots, etc.);
  - i. Time of SSO notification or discovery;
  - j. Estimated operator arrival time;
  - k. SSO destination;
  - l. Estimated SSO end time; and
  - m. SSO Certification. Upon SSO Certification, the SSO Database will issue a Final SSO Identification (ID) Number.
10. Private Lateral Sewage Discharge:
- a. All information listed above (if applicable and known), as well as;
  - b. Identification or sewage discharge as a private lateral sewage discharge; and
  - c. Responsible party contact information (if known).
11. Category 1 SSO's:
- a. All information listed for Category 2 SSO's, as well as;
  - b. Estimated SSO volume that reached surface water, drainage channel, or not recovered from a storm drain;
  - c. Estimated SSO amount recovered;
  - d. Response and corrective action taken;
  - e. If samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA must be selected.
  - f. Parameters that samples were analyzed for (if applicable);
  - g. Identification of whether or not health warnings were posted;
  - h. Beaches impacted (if applicable). If no beach was impacted, NA must be selected;
  - i. Whether or not there is an ongoing investigation;
  - j. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
  - k. OES control number (if applicable);
  - l. Date OES was called (if applicable);
  - m. Time OES was called (if applicable);
  - n. Identification of whether or not County Health Officers were called;
  - o. Date County Health Officer was called (if applicable); and
  - p. Time County Health Officer was called (if applicable).

### **Reporting to Other Regulatory Agencies**

These reporting requirements do not preclude an Enrollee from reporting SSO's to other regulatory agencies pursuant to California state law. These reporting requirements do not replace other Regional Water Board telephone reporting requirements for SSO's.



1. The Enrollee shall report SSO's to CAL-EMA, in accordance with California Water Code Section 13271.

California Office of Emergency Services  
Phone (800) 852-7550

2. The Enrollee shall report SSO's to County Health officials in accordance with California Health and Safety Code Section 5410 et seq.
3. The SSO database will automatically generate an e-mail notification with customized information about the SSO upon initial reporting of the SSO and final certification for all Category 1 SSO's. E-mails will be sent to the appropriate County Health Officer and/or Environmental Health Department if the County desires this information, and the appropriate Regional Water Board.

## **B. RECORD KEEPING**

1. Individual SSO Records shall be maintained by the Enrollee for a minimum of five years from the date of the SSO. This period may be extended when requested by a Regional Water Board Executive Officer;
2. All records shall be made available for review upon State or Regional Water Board staff's request;
3. All monitoring instruments and devices that are used by the Enrollee to fulfill the prescribed monitoring and reporting program shall be properly maintained and calibrated as necessary to ensure their continued accuracy;
4. The Enrollee shall retain records of all SSO's, such as, but not limited to and when applicable:
  - a. Record of Certified report, as submitted to the online SSO database;
  - b. All original recordings for continuous monitoring instrumentation;
  - c. Service call records and complaint logs of calls received by the Enrollee;
  - d. SSO calls;
  - e. SSO records;
  - f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps.
  - g. Work orders, work completed, and any other maintenance records from the previous 5 years which are associated with responses and investigations of system problems related to SSO's;
  - h. A list and description of complaints from customers or others from the previous 5 years; and
  - i. Documentation of performance and implementation measures for the previous 5 years.
5. If water quality samples are required by an environmental or health regulatory agency or State law, or if voluntary monitoring is conducted by the Enrollee or its agent(s), as a result of any SSO, records of monitoring information shall include:
  - a. The date, exact place, and time of sampling or measurements;
  - b. The individual(s) who performed the sampling or measurements;



- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical technique or method used; and,
- f. The results of such analyses.

**C. CERTIFICATION**

- 1. All final reports must be certified by an authorized person as required by Provision J of the Order.
- 2. Registration of authorized individuals, who may certify reports, will be in accordance with the CIWQS' protocols for reporting.

Monitoring and Reporting Program No. 2006-0003 will become effective on the date of adoption by the State Water Board.

**CERTIFICATION**

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Board held on May 2, 2006.



**APPENDIX 6-B. SEWAGE SPILL REPORT FORM (SAMPLE)**





**City of Beverly Hills  
Wastewater Disposal Services**

# SSO Volume Estimating Worksheet

Did an overflowing manhole reach a storm drain?

**Yes/No**  
(circle one)

If yes – Go to Step 1.

If no – perform wetted street volume calculations on reverse.

**Step 1. Determine Estimated Spill Volume to Street from overflowing Manhole.**

**A. Estimated spill start date/time:**

\_\_\_\_\_ MM/DD/YY Time 24 hr

**B. Estimated spill end date/time:**

\_\_\_\_\_ MM/DD/YY Time 24 hr

**C. Total spill time in minutes = B. – A.**

\_\_\_\_\_ Minutes

**D. Estimated Overflow Rate**

**References**

\_\_\_\_\_ Reference  
(P, A, B, C)

\_\_\_\_\_ GPM

1. Pictures (P), 2. Table A, 3. Table B, 4. Table C

**E. Estimated Spill Volume to Street = \_\_\_\_\_ C. X \_\_\_\_\_ D. = \_\_\_\_\_ gals.**

Did sewer overflow inside a building or residence?

**Yes/No**  
(circle one)

If yes – Go to Step 2.

If no – Go to Step 3.

**Step 2. Estimate Spill Volume to Building or Residence.**

**F. Determine total wetted floor area in sq. feet.**

1. Room Inventory	Length (ft.)	X	Width (ft.)	=	Area (ft. <sup>2</sup> )
a. _____	_____		_____	=	_____
b. _____	_____		_____	=	_____
c. _____	_____		_____	=	_____
d. _____	_____		_____	=	_____
e. _____	_____		_____	=	_____

**G. Total wetted floor area (add 1. a thru 1. e.) = \_\_\_\_\_**

H. Estimated average depth of wetted floor in inches = \_\_\_\_\_  
( in.)

Note: If can't actually measure, make a reasonable assumption 1/4" -1/2".

I. Convert depth in inches to ft.  $H. / 12$  = \_\_\_\_\_  
(ft.)

J. Estimated Spill Volume (Building or Residence) = G. x I. = \_\_\_\_\_  
(ft<sup>3</sup>)

K. Convert Estimated Spill Volume (Building or Residence) to gals.

$J. \times 7.48$  = \_\_\_\_\_  
(gals.)

**Step 3. Determine Total Estimated Spill Volume**

L. Total Estimated Spill Volume = E. + K. = \_\_\_\_\_  
(gals.)

**Step 4. Determine Estimated Volume of Spill Vacuum Recovered**

M. Estimated Vacuum Recovery Start date/time: \_\_\_\_\_  
MM/DD/YY Time 24 hr

N. Total Vacuum Recovery Time in minutes B. - M. = \_\_\_\_\_  
(mins.)

O. Est. Volume of Spill Vacuum Recovered = \_\_\_\_\_ X \_\_\_\_\_ = \_\_\_\_\_  
N. D. (gals.)

**Step 5. Estimated volume of spill that reached surface water, drainage channel, or not recovered from storm drain:**

P. [Est. Spill Volume to Street] - [Est. Volume of Spill Vacuum Recovered] - [Est. Spill Volume Captured] =

E. - O. - Volume Captured (below) = \_\_\_\_\_  
(gals.)

**Determine Wetted Street Volume or Volume Captured**

1. Attach copy of sketch from stoppage report.

Depth Information in Ft.

1/8" = 0.01 FT

Length (L) = \_\_\_\_\_ ft.

1/4 " = 0.021 FT

Width (W) = \_\_\_\_\_ ft.

3/8" = 0.031 FT

Depth (D) = Average Observed (in.) = \_\_\_\_\_ / 12 = \_\_\_\_\_ ft.

wetted street volume = \_\_\_\_\_ X \_\_\_\_\_ X \_\_\_\_\_ = \_\_\_\_\_ ft.<sup>3</sup> X 7.48 = \_\_\_\_\_  
L W D gals.



City of Beverly Hills
Wastewater Disposal Services

SSO Field Worksheet

Location of SSO: \_\_\_\_\_
(closest street address to overflow/cross street)

Date and time sanitary sewer system agency (Time drainage staff was informed)
was notified or discovered spill: MM/DD/YY Time 24 hr

Estimated spill start date/time: (Same as time immediately above unless you have reliable info of earlier start) MM/DD/YY Time 24 hr

Estimated operator arrival date/time: MM/DD/YY Time 24 hr

- Spill appearance point (Check one):
o Building or structure
o Force main or pressure sewer
o Gravity sewer
o Manhole
o Other sewer system structure
o Pump station
o Other (Specify) \_\_\_\_\_

Private lateral spill? (circle one) Yes/No

If no - move on to Estimated spill end date/time:

If yes - move on to County Health Department notification if private lateral spill
reached public right of way. No further notification is required. Clean-up sewage on
public right of way. Notify property owner/resident of requirement to correct or risk
water shutoff. Private lateral spills are NOT SSO's as of this revision.

Estimated spill end date/time: MM/DD/YY Time 24 hr

Health Department notified within 15 mins of arrival on scene? (circle one) Yes/No

24 Hour Number (213) 974-1234

Note: Health Dept. Notification required for all SSO's even if they never make it to a public right
of way.

Time County Health Department notified: \_\_\_\_\_

Operator # \_\_\_\_\_ Ticket # \_\_\_\_\_ MM/DD/YY Time 24 hr

Continue on Reverse

**Spill response activities (Check all that apply):**

- Cleaned-up (mitigated effects of spill)
- Contained all or a portion of spill
- Inspected sewer using CCTV to determine cause
- Restored flow
- Returned all or a portion of the spill to the sanitary sewer system
- Other (Specify)\_\_\_\_\_.

**Answer the following three questions about this event:**

**#1. Is the spill volume greater than or equal to 1,000 gals? Yes/No**

**#2. Did the spill discharge to a drainage channel or surface water? Yes/No**

**#3. Did the spill discharge to a storm drain pipe that was not fully captured and returned to the sanitary sewer system? Yes/No**

**Did you answer "yes" to any of the above questions? Yes/no**

If Yes SSO is-----> **Category 1**

If No SSO is-----> **Category 2**  
(circle one)

**Final spill destination(Check all that apply):**

- Building or structure
- Other paved surface
- Storm drain
- Street/curb and gutter
- Surface water
- Unpaved surface
- Other (Specify)\_\_\_\_\_.

**Estimated total spill volume: (Attach Calculations) A. \_\_\_\_\_gallons**

**Estimated volume of spill recovered: B. \_\_\_\_\_gallons**

**Estimated volume of spill that reached surface water, drainage channel, or not recovered from storm drain: C. \_\_\_\_\_gallons**

**Did you answer yes to either question #2 or #3 above?..... Yes/No**

**If Yes call OES within 2 hrs of time agency notified or discovered spill.**

**OES Phone # 1-800-852-7550**

**OES Control # \_\_\_\_\_ Time OES notified: \_\_\_\_\_  
MM/DD/YY Time 24 hr**

**Call supervisor to review circumstances and reporting. \_\_\_\_\_**

**Supervisor called: \_\_\_\_\_  
MM/DD/YY Time 24 hr**

**Special circumstances/Comments: \_\_\_\_\_**

**Attach This Worksheet to the Stoppage Report Package for This Event**



## Help Protect Public Health and the Environment

Los Angeles County Department of Public Health  
 Environmental Health Division  
 5050 Commerce Drive  
 Baldwin Park, CA 91706



<p><b>California Office of Emergency Services</b></p> <p><b>(800) 852-7550</b> (24-hour reporting)</p>	<p><b>Los Angeles County Public Health</b></p> <p><b>(213) 974-1234</b> (24-hour reporting)</p>	<p><b>Los Angeles Regional Water Quality Control Board</b></p> <p><b>(213) 576-6657</b> (business hours)</p> <p><b>(213) 305-2253</b> (non-business hours)</p>
<p>Report sewage discharges greater than 1,000 gallons which have entered, or may enter the <b>waters of the state</b>. (discharge has passed the curb into the gutter, flowing towards the storm drain)</p>	<p>Report sewage discharges which have entered, or may enter the <b>waters of the state</b>. (discharge has passed the curb into the gutter, flowing towards the storm drain)</p>	<p>Report all sewage discharges when public contact is likely.</p>
<p><b>Immediate notification</b>            Immediate notification to the OES as soon as that person has knowledge of the discharge, notification is possible and notification can be provided without substantially impeding clean-up or other emergency measures.</p>	<p><b>Notification within 15 minutes</b>            Fifteen minutes after an agency confirms that a sanitary sewer overflow has occurred or is occurring from the agency's sewer collection system.</p>	<p><b>Notification within 2 hours</b>            Applies only to Los Angeles County Publicly Owned Treatment Works (POTW) NPDES permittees.</p>
<ol style="list-style-type: none"> <li>1. Contact information</li> <li>2. Location of the discharge</li> <li>3. Amount of the discharge</li> <li>4. Start time and end time of the discharge</li> <li>5. Disposition of the discharge (contained, sent into a storm drain or waterway, soaked into the ground etc.)</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact information</li> <li>2. Location of the discharge</li> <li>3. Amount of the discharge</li> <li>4. Start time and end time of the discharge</li> <li>5. Disposition of the discharge (contained, sent into a storm drain or waterway, soaked into the ground etc.)</li> </ol>	<ol style="list-style-type: none"> <li>1. Contact information</li> <li>2. Location of the discharge</li> <li>3. Amount of the discharge</li> <li>4. Start time and end time of the discharge</li> <li>5. Disposition of the discharge (contained, sent into a storm drain or waterway, soaked into the ground etc.)</li> </ol>
<p><b>Authority</b>            California Water Code            Section 13271</p>	<p><b>Authority</b>            California Health &amp; Safety Code,            Section 5411.5</p>	<p><b>Authority</b>            Statewide General Waste Discharge Requirements (WDR) for Sanitary Sewer Systems and NPDES permits applicable.</p>

## SECTION 7. FATS, OILS, AND GREASE (FOG) CONTROL PROGRAM

### 7.1 Introduction

This section of the SSMP describes the development and implementation of FOG source control measures for all known sources of FOG discharged to the City's sanitary sewer system. The City currently contracts with the County of Los Angeles to implement the FOG Control Program under their agreement with the County as outlined in Section 3 of this SSMP.

### 7.2 Regulatory Requirements for the Fats, Oils, & Grease Control Program

Summarized requirements for the FOG Control Program section of the SSMP are:

#### **GWDR (Element 7 – Fats, Oils, and Grease (FOG) Control Program) Requirements:**

The GWDR requirements for the FOG Control Program are: *Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification as to why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:*

- *An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;*
- *A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system area;*
- *The legal authority to prohibit discharges to the system and identify measures to prevent SSO's and blockages caused by FOG;*
- *Requirements to install grease removal devices (such as traps or interceptors) design standards for the grease removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;*
- *Authority to inspect grease producing facilities, enforcement authorities, and whether the District has sufficient staff to inspect and enforce the FOG ordinance;*
- *An identification of sewer system sections subject to FOG blockages and establish a cleaning maintenance schedule for each section; and*
- *Development and implementation of source control measures, for all sources of FOG discharged to the sewer system, for each sewer system subject to FOG blockages.*

### 7.3 Nature and Extent of FOG Problem

The City's sanitary sewer collection system serves approximately 34,000 residents and can reach up to 200,000 people due to business, shopping and tourism. Several restaurants are located within the City as well. Food service establishments (FSE's) are the largest population of FOG producers within the City. Most FSE's are located near or in the heart of town near the



Golden Triangle shopping district bound by Wilshire Blvd., Santa Monica Blvd., and Rexford Avenue. Figure 7-1 identifies general locations of FSE's in Beverly Hills.

**Figure 7- 1. General Locations of FSE's in Beverly Hills.** (Image source: Beverly Hills GIS)



Existing FOG-control measures have prevented FOG-related SSO's for the last several years. Grease traps or interceptors are installed at all of the excessive grease-producing FSE's.

#### 7.4 Public Outreach

The Requirement: *An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG.*

The County proactively reaches out to customers throughout the service area about the FOG program. Information on proper disposal of FOG and other SSO prevention measures, including installation of backflow valves, house lateral maintenance, etc., is disseminated through publication of an Annual Report, brochures, articles in Cities' newsletters, and individual notices to property owners. The County also utilizes personal contacts with home and business owners by field crews and the County's Industrial Waste Inspectors. The County has also initiated the distribution of FOG door hangers in neighborhoods with sewer lines prone to heavy grease problems. These methods have proven to be very effective in relaying information on proper



disposal of FOG and other SSO prevention methods to stakeholders. The County is continuously seeking additional ways to communicate with the public. Expanded use of the County's home webpage, use of radio and television announcements, and other means would be pursued in the future.

#### **7.4.1 Residential Service Areas**

The City funds the purchase of promotional materials about the FOG Control Program, proper disposal methods, and Best Management Practices (BMP's) for residents. Promotional items include flyers and brochures. These items are periodically distributed as needed by City staff through mailers or community events such as Restaurant Week (March), Taste of Beverly Hills Food & Wine Festival (March), Farmers' Market during National Public Works Week (May), Wine and Food Festival in Beverly Hills Park (May), and United States Independence Day Parade and BBQ (July). The City may also use public service announcements for distribution of promotional materials.

The public outreach program for Residential Service Areas will be evaluated yearly for effectiveness. If needed, adjustments will be made regarding program implementation and cost of promotional items and communication methods.

#### **7.4.2 Commercial Service Areas**

The City funds the purchase and distribution of FOG control material for commercial service areas. FOG-control materials include:

- Brochure "Good Cleaning Practices" (See Appendix 7-A)
- Trap the Grease (See Appendix 7-B)
- The City's BMP's are also found on-line:  
<http://www.beverlyhills.org/living/utilities/stormwaterprogram/>

The City provides FOG-control material to new FSE's and existing businesses experiencing FOG problems. Currently, there is a low incidence of FOG-related SSO's in commercial service areas; however, formalizing the public outreach program to FSE's will aid in keeping the City incident free. The Environmental Compliance Inspector may periodically organize and facilitate workshops for restaurant owners and managers depending on need.

The public outreach program focused on Commercial Service Areas and FSE's will be evaluated yearly for effectiveness. If needed, adjustments will be made regarding program implementation and cost of FOG-control materials and methods.

### **7.5 Plan and Schedule for Disposal of FOG**

The Requirement: *A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area.*



Solidified fats found in the collection system during cleaning operations are trapped, collected, and taken to the maintenance yard dump bins. These and other debris collected from the system are taken to the County Sanitation Districts of Los Angeles County (CSD) facilities.

The City provides restaurant owners a list of acceptable local septic haulers for removing FOG. These haulers are identified in Table 7-1.

**Table 7-1. Local Septic Haulers**

BUSINESS/LOCATION	PHONE NUMBER
Baker Commodities 4020 Bandini Blvd. Vernon, CA 90058	(800) 427-0696
Jesus Grease	(323) 262-7315

## 7.6 Legal Authority

The Requirement: *The legal authority to prohibit discharges to the system and identify measures to prevent SSO's and blockages caused by FOG.*

The City's legal authority to prohibit discharges to the system and identify measures to prevent SSO's and blockages caused by FOG are handled by their agreement with Los Angeles County as outlined in Section 3. The County's authority is as follows:

The Director of Public Works and Transportation under the LACO Plumbing Code, Title 28, has the legal authority to require the installation of grease interceptors at restaurants and other food establishments that generate grease. Section 20.36.560 of LACO Code also gives the Director of Public Works and Transportation the authority to require the installation of treatment facilities, including grease interceptors, at any facility that generates FOG in the amount that will damage or increase the maintenance costs of the sewer collection system. The LACO Code Section 20.24.090 gives the Director of Public Works and Transportation the legal authority to inspect mainline sewers, sewage pumping plants, interceptors, etc., as often as he deems necessary, to ascertain whether such facilities are maintained and operated in accordance with the provisions of Division 2 of the LACO Code. Section 20.36.400 of the LACO Code prohibits the discharge of Fats, Oils, and Grease (FOG) and other substances that may, among other things, clog, obstruct, fill, or necessitate frequent repairs, cleaning out, or flushing of sewer facilities in the sewer system.

## 7.7 Grease Removal Device Requirements

The Requirement: *Requirements to install grease removal devices (such as traps or interceptors), design standards for removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements.*



The County of Los Angeles Department of Public Works supplies Standard Plans for Grease Interceptors, Standard Plan 2046-0 and 2041-0 (See Appendix 7-C).

### **7.7.1 Maintenance Requirements**

The Requirement: *Requirements to install grease removal devices (such as traps or interceptors), design standards for removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements.*

Each restaurant is responsible for scheduling maintenance of their grease traps.

### **7.8 Inspection Authority**

The Requirement: *Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance.*

Section 3 of the SSMP addresses legal authority to conduct inspections and enforce sewer ordinances.

The County Environmental Compliance Inspector performs inspections on a weekly basis.

When sizable grease deposits are discovered during cleaning or inspection of the sanitary sewer system, the City's Inspector notifies the FOG-producer and documents the incident in writing.

### **7.9 FOG Hot Spots and Preventive Maintenance**

The Requirement: *An identification of sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section.*

#### **7.9.1 FOG Hot Spots**

FOG Hot Spots are sections of the City's sanitary sewer system that are prone to FOG blockages and FOG-related SSO's. The City's FOG Hot Spots are identified on Figure 7-2.

#### **7.9.2 Preventive Maintenance of Sanitary Sewer System**

The City's Wastewater Division of the Public Works Department is responsible for maintenance of the sanitary sewer collection system. The City is currently undergoing a Citywide sewer system upgrade to address Hot Spots and aging infrastructure. The Wastewater Division provides routine maintenance for FOG Hot Spots sections. Given the low incidence of FOG-related SSO's, the maintenance schedule is effective and does not need adjustment at this time.

### **7.10 Implementation of Source Control Measures**

The City's program for developing and implementing FOG control measures is described above. Elements of the program include the following:

- Public Outreach,
- Plan and Schedule for Disposal of FOG,

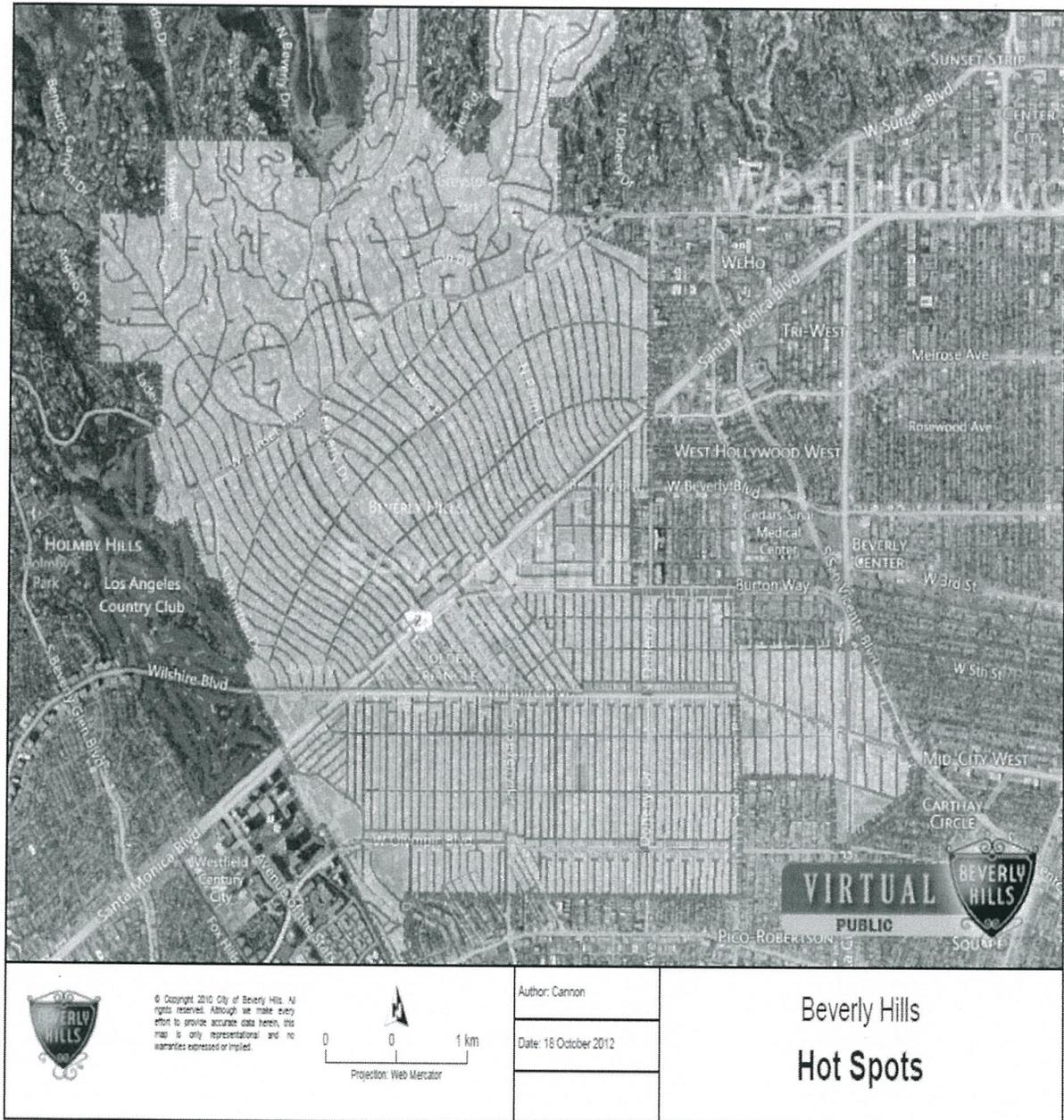


- Legal Authority,
- Grease Removal Device Requirements,
- Inspection Authority, and
- FOG Hot Spots and Preventive Maintenance.

The program will be evaluated periodically by the City and adjusted as needed.



Figure 7-2. Annual Sewer Hot Spot Jetting Locations, (Image source: Beverly Hills GIS)



**APPENDIX 7-A. BROCHURE**



# GOOD CLEANING PRACTICES

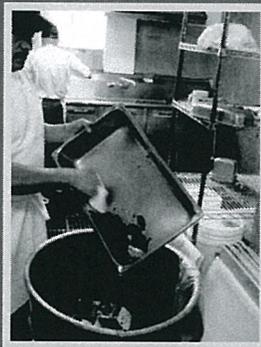
## Managing **EATS**, **OIL** and **GREASE**

### POST IN CLEANUP/WORK AREA

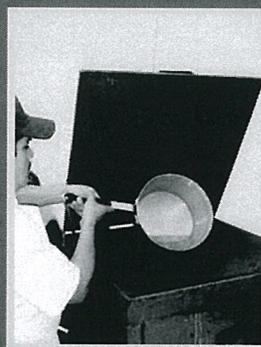
## THE RIGHT WAY



**1** Wipe pots, pans, and work areas prior to washing.



**2** Dispose of food waste directly into the trash.



**3** Collect waste oil and store for recycling.



**4** Clean mats inside over a utility sink. Use dry clean up for spills.

## THE WRONG WAY



**1** Do not pour cooking residue directly into the drain.



**2** Avoid using the garbage disposal. Place greasy food in the trash.



**3** Do not pour waste oil directly into the drain, parking lot or street.



**4** Do not wash floor mats outside where water will run off directly into the storm drain. Do not rinse spills into the street.

For more information call (888) CLEAN LA or visit [www.888CleanLA.com](http://www.888CleanLA.com)



County of Los Angeles Department of Public Works



[www.lacsd.org](http://www.lacsd.org)

**APPENDIX 7-B. TRAP THE GREASE**



## Do's and Don'ts



*Check out the Do's and Don'ts of FOG.*

### DON'T

Wash food scraps (solid or liquid) down the drain, dump them in the toilet, or grind them up in the garbage disposal.

Wash contents of soaking pots and pans down the drain.

Pour used oil down the drain.

Pour hot grease (including poultry skimming) down the drain.

Pour grease down the storm drain.

### DO

Use mesh drain strainers to catch solid food scraps for disposal in a trash can.

Pour liquid food scraps, e.g. sauces, milkshakes, into a container and place in the trash can.

Scrape plates over the trash can or dry wipe with a paper towel.

Pour used oil into a container with a top (the original if available) so it can be reused, recycled, or placed in the trash can for disposal.

Pour cooled grease into a grease can or other container for disposal and/or absorb with paper towels or newspaper.

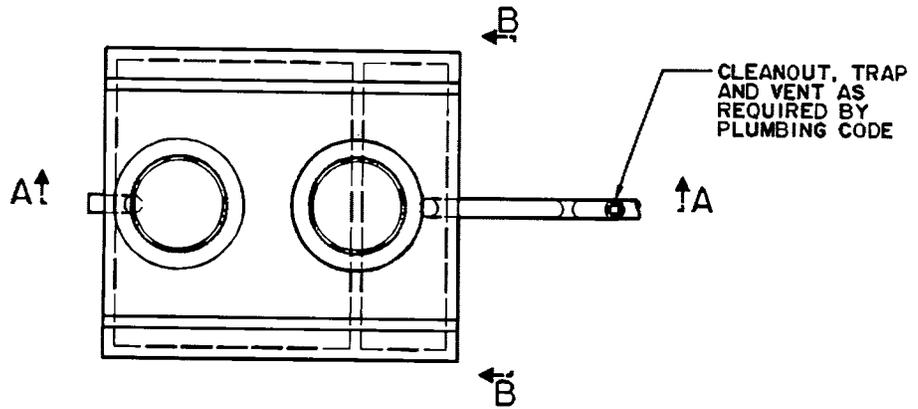
Pour cooled grease into a container, seal it and place it in the trash.

Mesh drain screens, paper towels and original oil containers are good tools for fighting FOG.

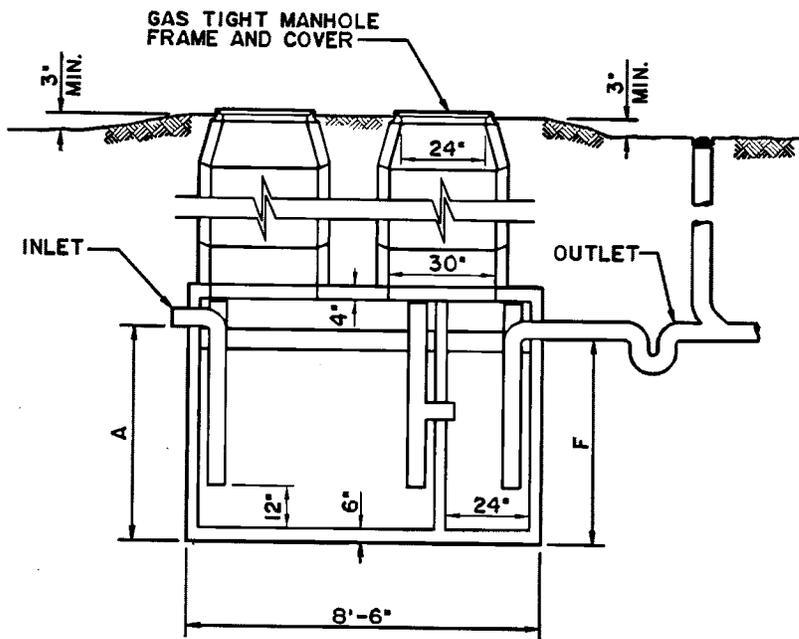
Other ways to be a part of the FOG solution include reporting any illegal dumping or spills immediately. You can also help by educating your neighbors and others in your community by sharing this website.

**APPENDIX 7-C. GREASE TRAP STANDARD DETAILS**

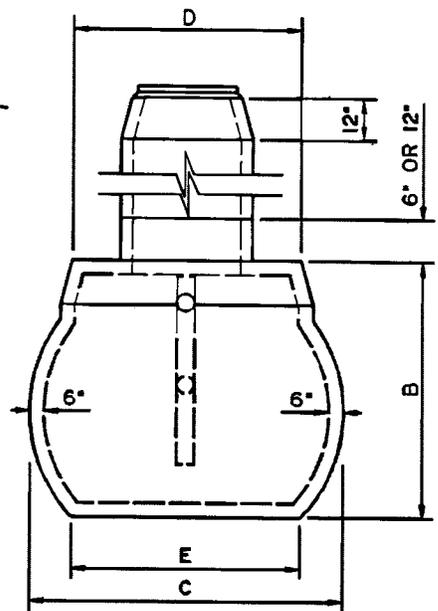




**PLAN**



**SECTION A-A**



**ELEVATION B-B**

CAPACITY IN GALLONS	DIMENSIONS						EXCAVATION SPECIFICATIONS		
	A	B	C	D	E	F	DEPTH BELOW INLET	LENGTH	WIDTH
750	4'-1"	5'-3"	5'-10"	4'-4"	4'-0"	3'-11"	4'-11"	9'-6"	6'-10"
1000	4'-7"	5'-7"	6'-5"	4'-9"	4'-7"	4'-5"	4'-7"	9'-6"	7'-5"
1200	5'-3"	6'-3"	6'-5"	4'-9"	4'-5"	5'-1"	5'-3"	9'-6"	7'-5"
1500	5'-3"	6'-3"	7'-5"	5'-9"	5'-5"	5'-1"	5'-3"	9'-6"	8'-5"

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

GREASE INTERCEPTOR

STANDARD PLAN

2046-0

APPROVED

*James A. Pedmonson*  
DIRECTOR OF PUBLIC WORKS

5/31/1992

DATE

SHEET 1 OF 2

NOTES

1. THE APPROVAL OF THE COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS MUST BE OBTAINED BEFORE INSTALLATION.
2. THE INTERCEPTOR IS TO BE CONSTRUCTED OF TYPE II PORTLAND CEMENT CONCRETE.
3. INTERCEPTOR EXCEEDING 6'-6" IN DEPTH MUST BE CONSTRUCTED OF REINFORCED CONCRETE.
4. IF INSTALLED INSIDE OF BUILDING THE TOP OF INTERCEPTOR MAY BE LEVEL WITH FLOOR PROVIDED THAT WASTES ENTER THROUGH INLET PIPE ONLY.
5. ALL SURFACE WATER MUST DRAIN AWAY FROM INTERCEPTOR TO EXCLUDE RAIN WATER TO PUBLIC SEWERS.
6. ALL PIPING SHALL BE CAST IRON.
7. MANHOLE COVERS SHALL BE OF METAL.
8. STRUCTURE NOT FOR TRAFFIC LOADING.

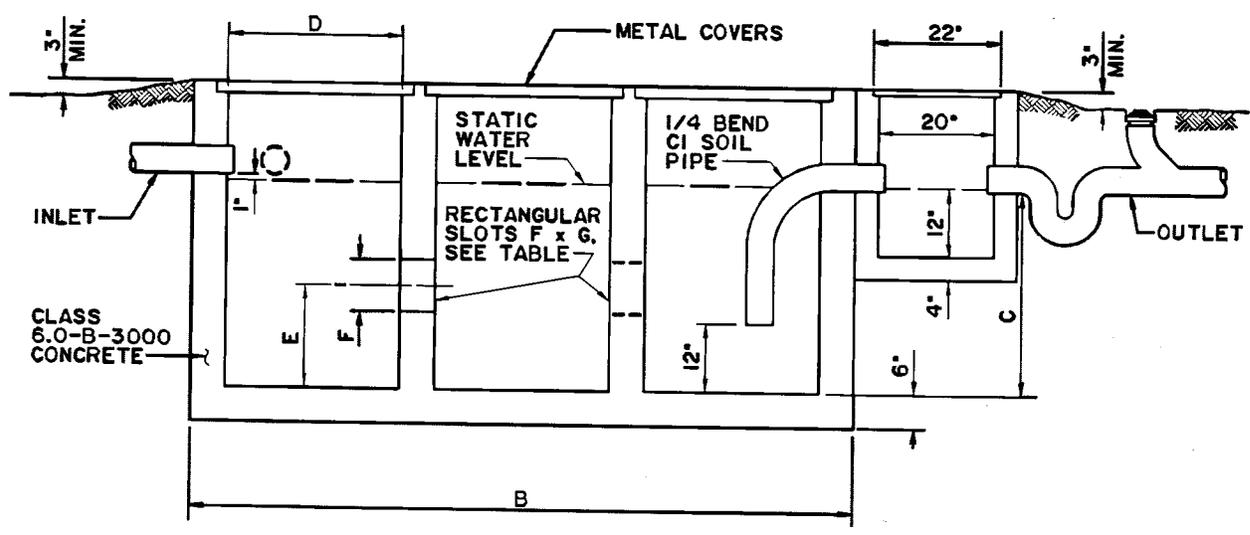
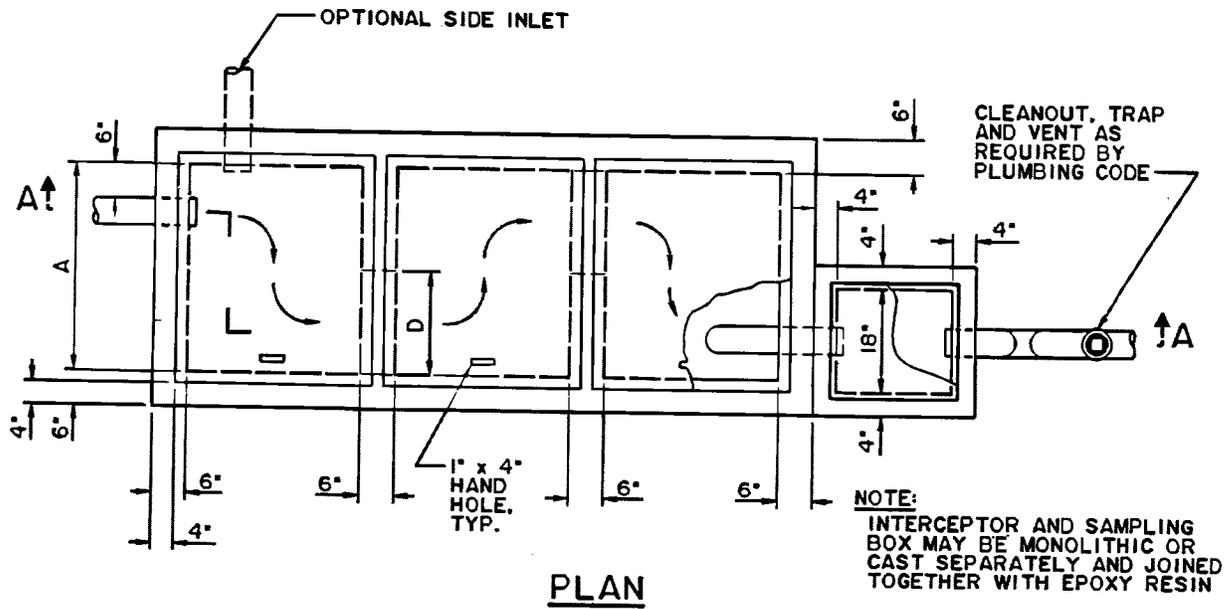
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

GREASE INTERCEPTOR

STANDARD PLAN

2046-0

SHEET 2 OF 2



CAPACITY GALLONS	DIMENSIONS							COVER SIZE	METAL COVERS	PIPE SIZE
	A	B	C	D	E	F	G			
510	3'-0"	9'-6"	3'-0"	2'-6"	18"	4 1/2"	18"	2'-10"x3'-4"	1/4" STEEL PLATE	4" MIN.
866	3'-6"	10'-3"	4'-0"	2'-9"	24"	6"	21"	3'-1"x3'-10"	3/8" ALUMINUM PLATE	4" MIN.
1260	4'-0"	12'-6"	4'-0"	3'-6"	24"	6"	24"	3'-10"x4'-4"	3/8" ALUMINUM PLATE	4" MIN.

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

SAND & GREASE INTERCEPTOR

STANDARD PLAN  
**2041-0**  
SHEET 1 OF 2

APPROVED *James A. Robinson*  
DIRECTOR OF PUBLIC WORKS

5/31/1992  
DATE

SUPERSEDES COUNTY ENGINEER STD. I-2

NOTES

1. THE APPROVAL OF THE COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS MUST BE OBTAINED BEFORE INSTALLATION.
2. THE INTERCEPTOR TO BE CONSTRUCTED OF TYPE II PORTLAND CEMENT CONCRETE.
3. INTERCEPTOR EXCEEDING 6'-6" IN DEPTH MUST BE CONSTRUCTED OF REINFORCED CONCRETE.
4. IF INSTALLED INSIDE OF BUILDING, THE TOP OF INTERCEPTOR MAY BE LEVEL WITH FLOOR PROVIDED THAT WASTES ENTER THROUGH INLET PIPE ONLY.
5. ALL SURFACE WATER MUST DRAIN AWAY FROM INTERCEPTOR TO EXCLUDE RAIN WATER FROM PUBLIC SEWERS.
6. STRUCTURE NOT FOR TRAFFIC LOADING.

LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS

SAND & GREASE INTERCEPTOR

STANDARD PLAN  
2041-0  
SHEET 2 OF 2

## SECTION 8. SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

### 8.1 Introduction

This section of the SSMP outlines the City's programs and activities to provide adequate hydraulic capacity in its collection system.

### 8.2 Regulatory Requirements for the System Evaluation and Capacity Assurance Plan Section

The requirements for the System Evaluation and Capacity Assurance Plan section of the SSMP are:

#### **GWDR (Element 8 – System Evaluation and Capacity Assurance Plan) Requirement:**

*The GWDR requirements for the System Evaluation and Capacity Assurance Plan are: Enrollee shall prepare and implement a capital improvement plan that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:*

- **Evaluation:** *Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSO's that escape the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events.*
- **Design Criteria:** *Where design criteria do not exist or are deficient, undertake the evaluation identified in the Evaluation requirement above to establish appropriate design criteria.*
- **Capacity Enhancement Measures:** *The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.*
- **Schedule:** *The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed above in Evaluation, Design Criteria, and Capacity Enhancement Measures requirements. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D.14 (of the GWDR).*

### 8.3 System Evaluation

In order to analyze the City's sewer collection system and plan for upgrades, the City completed a Sanitary Sewer Collection System Master Plan Document. This document was completed in September 2010 and recommendations for the collection system improvements were made. A copy of this Master Plan is kept with this SSMP document.



The major elements completed as a part of the master plan project are:

- An update of City's GIS of the sewer system
- The scanning of all sewer system record drawings and linking to the GIS
- GPS survey of every manhole in the system for location and rim elevations
- Flow monitoring to analyze inflow and infiltration within the City
- Recommendations for City design criteria
- Evaluating the condition of representative portions of the City of Beverly Hills sewer system through closed circuit television (CCTV) pipeline inspections and manhole inspections
- Extended period modeling analysis to evaluate hydraulic capacity in various design conditions
- Determining necessary capital improvement projects
- Providing a financial plan for proposed improvements and maintenance

The City of Beverly Hills sewer system is a gravity flow system consisting primarily of vitrified clay pipe constructed from the 1920s to the present. The local sewer collection pipelines are predominantly 8-inch in diameter, but diameters range from 6-inch to 36-inch and total over 100 miles. Approximately 34,000 residents are served by the City's sewer system. Wastewater generated in the City of Beverly Hills is conveyed by the City owned gravity sewer (mains) pipelines into the sewer system owned by the City of Los Angeles and finally into the Hyperion Treatment Plant in Playa del Rey.

Flow monitoring was conducted for a period of 28-days to evaluate the normal flow conditions within the system and an extended flow data analysis was performed to assess the amount of rainfall entering the sanitary sewer collection system through defects. The analysis found the majority of the water entering the sewer system is through inflow directly into the sewer system. Included in the Capital Improvement Program (CIP), is an Inflow and Infiltration Study to develop a plan to reduce defect flows into the sewer system.

A system analysis was conducted with the use of the updated and calibrated hydraulic model. The software used for the hydraulic model is Hydra by Pizer Incorporated. The purpose of the analysis was to simulate varying scenarios of different flow conditions to identify system deficiencies. As a result of the hydraulic model analysis, three projects were identified to alleviate the hydraulic capacity problems.



**Recommended Projects from Capacity Analysis**

Priority	Street	Diameter	Proposed Diameter	Total Length (LF)
1	Peck Drive	8"- 21"	12"- 27"	5,891
2	Gregory Way	24"- 30"	30"- 39"	4,286
3	Oakhurst Drive	10"-15"	15"- 21"	2,915

**8.4 Planning and Design Criteria**

The 2010 Sanitary Sewer Master Plan established several criteria to model and evaluate the City's sewer system, as described in this section. For a more detailed account of the planning and design criteria refer to Chapter 3 (Inflow and Infiltration Analysis and Chapter 6 System Analysis) of the 2010 Master Plan.

**8.4.1 Flow Monitoring**

As part of the Sanitary Master Plan, five temporary flow monitoring locations were installed and monitored for 28 days. Additionally, the City has eight permanent flow monitors in the collection system (owned by the City of Los Angeles) that monitor at four locations throughout the collection system and four locations where the flow leaves the City limits. These flows were utilized to determine Dry Weather, Wet Weather (with further analysis) and Storm Events. Rainfall during the 28 day monitoring totaled 2.7 inches.

**8.4.2 Dry Weather flow**

The average dry weather flow is defined as wastewater production (WWP) and base infiltration and inflow (BI/I). The wastewater production is the actual wastewater flow that is generated as a result of water use. The BWW factor varies from 1.0 to 0.75 and averages to 0.80 for predominately residential basins like Beverly Hills. BI/I occurs from naturally high ground water tables, irrigation drainage or faulty plumbing. BI/I are considered to be constant.

**8.4.3 Wet Weather Flow**

Wet weather is the total flow as a result of how the collection system responds to rainfall events. Therefore, this is considered Rainfall Infiltration and Inflow (RFI/I) and it can be dominated by quick inflow (defects in system) or by slow infiltration (rainfall induced).

**8.4.4 Flow Allocation**

In the hydraulic model, the flow allocation is completed with two techniques based on dry weather and wet weather flow conditions. The dry weather flow used the sub-basin manhole flow allocation. The wet weather flow used the parameter Inch Diameter Mile (IDM) method for allocating flow.

**8.4.5 Future Population and Projected Flows**

The projected population and corresponding flow projections were used for the future flow conditions. The California Department of Finance and the Southern California Council of Governments were consulted for existing and future projections. The ultimate future flow



scenario represents the sanitary flow increase of only 7.2 percent from existing flows to year 2030. Redevelopment Project Flow Projections for various identified projects were also considered with the flow projections. The Redevelopment flow projections are located in Table 6-7 of the Sanitary Master Plan.

#### 8.4.6 Flow Depth Criteria

Flow depth criteria were established as part of the master planning effort. These criteria are typically expressed in terms of maximum flow depth to pipe diameter (d/D) ratio. The following table indicates the classifications considered in the analysis of pipe capacity.

Pipe Diameter (in)	d/D Ratio		
	0.50 to 0.75	0.75 to 0.90	≥ 0.90
<18 "	Watch	Schedule	Replace
≥18"	OK	Watch	Replace

#### 8.5 Current Projects

As a result of the Sanitary Sewer Master Plan and concurrent CCTV of the collection system, the City has identified various components throughout the City that needed to be addressed. These components include CCTV of areas, lining of pipe and spot repair pipe. A project was designed and bid and a contractor was retained to complete the work. The work will be completed at a cost of \$4.7 million. The sewer improvements to be completed in the 2012-2013 fiscal year are shown below.

Item	Estimated Quantity	Unit	Description
1	7,000	Linear Ft	Clean & CCTV – 6" to 30"
2	18,5000	Linear Ft	6 -inch lining
3	103,300	Linear Ft	8 -inch Lining
4	5,800	Linear Ft	10-inch Lining
5	5,900	Linear Ft	12-inch Lining
6	2,000	Linear Ft	15-inch Lining
7	250	Linear Ft	24-inch Lining
8	420	Linear Ft	6-inch line repair
9	610	Linear Ft	8-inch line repair
10	30	Linear Ft	10-inch line repair
11	20	Linear Ft	12-inch line repair
12	10	Linear Ft	15-inch line repair
13	563	Each	Brick Manhole Rehabilitation



## SECTION 9. MONITORING MEASUREMENT AND PLAN MODIFICATION

### 9.1 Introduction

This section of the SSMP outlines the process that the City will follow to evaluate the effectiveness of the SSMP and to identify updates that may be needed for a more effective program. The City proposes the following methods for verifying that the SSMP goals are being met and that these goals are adequate for meeting the intent of the program, which is to minimize sanitary sewer overflows.

### 9.2 Regulatory Requirements for Monitoring Measurement and Plan Modification

The requirements for the Monitoring Measurement and Plan Modification section of the SSMP are:

**GWDR (Element 9 – Monitoring Measurement and Plan Modification) Requirement:**  
*The GWDR requirements for the Monitoring Measurement and Plan Modification are: Enrollee shall:*

- *Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;*
- *Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;*
- *Assess the success of the preventive maintenance program;*
- *Update program elements, as appropriate, based on monitoring or performance evaluations; and*
- *Identify and illustrate SSO trends, including: frequency, location, and volume.*

### 9.3 Operations and Maintenance Monitoring

The City uses a spreadsheet database to monitor, record, and track maintenance activities in the sewer collection system. The City tracks sanitary sewer overflows, blockages and their causes, sewer line cleaning and videoing, and FOG control activities. The data captured during these activities will be used to evaluate the effectiveness of this program.

### 9.4 Performance Measurement

The indicators that the City will use to measure the performance of its wastewater collection system and the effectiveness of its SSMP are:

- Total number of SSO's on an annual basis
- Number of SSO's by each cause (roots, grease, debris, pipe failure, inadequate capacity, pump station failure, other)
- Portion of Sewage Contained compared to Total Volume Spilled
- Volume of Spilled Sewage Discharged to Surface Water



- Planned # of Preventative Maintenance Activities vs. Actual # of Preventative Maintenance Activities

**9.5 Performance Evaluation**

The City has limited historical performance data for the selected performance measures. The data that is available is shown below in Tables 9-1 through 9-4. Trends will be added when the quantity of data is adequate. The goal is to keep the number of overflows to below the industry standard of less than six overflows per year per 100 miles of pipe. Given that the City has approximately 100 miles of pipe, this equates to approximately six overflows per year.

The City will evaluate the performance of its wastewater collection system as it relates to SSO's at least annually using the measurements identified above. The City will update the data and analysis in this section at the time of the evaluation.

**Table 9-1. Number of SSO's based on Facility Type**

CALENDAR YEAR	GRAVITY SEWER SSO'S
2010	3
2011	5
2012	12
2013	
2014	

**Table 9-2. Number of SSO's based on Cause**

CALENDAR YEAR	ROOTS	GREASE	DEBRIS	HYDRAULIC CAPACITY	PIPE FAILURE	OTHER	TOTAL
2010							3
2011							5
2012							12
2013							
2014							



**Table 9-3. Volume of SSO's (gallons)**

CALENDAR YEAR	VOLUME CONTAINED	VOLUME DISCHARGED TO SURFACE WATER	TOTAL VOLUME SPILLED
2010			7075
2011			8545
2012			8309
2013			
2014			

**Table 9-4. Maintenance Activity, Planned vs. Actual**

CALENDAR YEAR	# OF PLANNED ACTIVITIES <sup>1</sup>	# OF ACTUAL ACTIVITIES <sup>2</sup>	% OF PLANNED COMPLETED
2010			
2011			
2012			
2013			
2014			

1. Number of scheduled "Hot Spots" activities.
2. Number of hydro-jettings accomplished.

## 9.6 Program Modifications

The City will prioritize its actions and initiate changes to this SSMP and the related programs based on the results of the evaluation. If data indicates that certain elements of the program are not effective, staff will make adjustments to the program to ensure that overall goals can be met.



## SECTION 10. SSMP PROGRAM AUDITS

### 10.1 Introduction

This section of the SSMP outlines the process that the City will follow to audit the completeness and effectiveness of the SSMP and to identify updates that may be needed for a more effective program.

### 10.2 Regulatory Requirements for SSMP Program Audits

The requirements for the SSMP Program Audits section of the SSMP are:

#### **GWDR (Element 10 – SSMP Program Audits) Requirement:**

*The GWDR requirements for the SSMP Program Audits are:*

- *As part of the SSMP, Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSO's.*
- *At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.*

### 10.3 Audits

The City of Beverly Hills will conduct periodic internal audits at a minimum of at least once every two calendar years. The audit will be conducted by a team consisting of City staff selected from the Public Works Department and may include members from outside sister agencies and/or consultants.

The scope of the audit will cover each of the major sections of the SSMP and will be summarized through the completion of Table 10-1, Audit Checklist and an accompanying Audit Report. The Report will address the following topics and will be submitted to the RWQCB by March 15<sup>th</sup> following the calendar year that was the subject of the audit.

- A brief summary of the effectiveness of implementing SSMP elements;
- A description of the additions and improvements made to the sanitary sewer collection system during the reporting period; and,
- A description of the additions and improvements planned for the upcoming reporting year with an estimated schedule for implementation.

### 10.4 Updates

The City will determine the need to update its SSMP based on the results of the audit and the performance of its wastewater collection system determined from the Monitoring and Measurement Program Modification Section 9 of the SSMP. In the event the City decides that an update is warranted, the process to complete the update will be identified in the Audit Report. The City will then strive to complete the update within the same calendar year as the audit takes place.



**Table 10-1. Audit Checklist**

SECTION	TITLE	REQUIREMENT	IS SSMP CURRENT?	RECOMMENDED IMPROVEMENT	IMPLEMENTATION SCHEDULE
1	Goals	Reduce, prevent, and mitigate SSO's			
2	Organization	Designate LRO			
		Names and phone numbers for key management personnel			
		Names and phone numbers for key administrative personnel			
		Names and phone numbers for key maintenance personnel			
		Chain of communication for reporting SSO's			
3	Legal Authority	Prevent illicit discharges to sanitary sewer system			
		Require sewers and connection be properly designed and constructed			
		Ensure access for inspection, maintenance, and repairs (includes public portion of lateral)			
		Limit discharge of FOG and debris that may cause blockages			
		Require the installation of grease removal devices			
		Ability to inspect FOG producing facilities			
		Enforce violations of the City's sewer ordinances			
4	O&M Program	Maintain up-to-date maps of sanitary sewer system			
		Describe routine preventive maintenance program			
		Document completed preventive maintenance using system such as work orders			
		Rehabilitation and replacement plan that identifies and prioritizes sanitary sewer system defects			



SECTION	TITLE	REQUIREMENT	IS SSMP CURRENT?	RECOMMENDED IMPROVEMENT	IMPLEMENTATION SCHEDULE
		Provide regular technical training for City sanitary sewer system staff			
		Require contractors to provide training for their workers who work in the City's sanitary sewer system facilities			
		Maintain equipment inventory			
		Maintain critical spare part inventory			
5	Design and Performance Provisions	Design and construction standards for new sanitary sewer system facilities			
		Design and construction standards for repair and rehabilitation of existing sanitary sewer system facilities			
		Procedures for the inspection and acceptance of new sanitary sewer system facilities			
		Procedures for the inspection and acceptance of repaired and rehabilitated sanitary sewer system facilities			
6	OERP (SSORP)	Procedures for the notification of primary responders			
		Procedures for the notification of regulatory agencies			
		Program to ensure appropriate response to all SSO's			
		Proper reporting of all SSO's			
		Procedure to ensure City staff are aware of and follow SSORP			
		Procedure to ensure City staff are trained in the SSORP procedures			
		Procedure to ensure contractor personnel are aware of and follow SSORP			



SECTION	TITLE	REQUIREMENT	IS SSMP CURRENT?	RECOMMENDED IMPROVEMENT	IMPLEMENTATION SCHEDULE
		Procedure to ensure contractor personnel are trained in the SSORP procedures			
		Procedures to address emergency operations such as traffic and crowd control			
		Program to prevent the discharge of sewage to surface waters			
		Program to minimize or correct the impacts of any SSO's that occur			
		Program of accelerated monitoring to determine the impacts of any SSO's that occur			
7	FOG Control Program	Public outreach program that promotes the proper disposal of FOG			
		Plan for the disposal of FOG generated within the City's service area			
		Demonstrate that the City has allocated adequate resources for FOG control			
		Identification of sanitary sewer system facilities that have FOG-related problems			
		Program of preventive maintenance for sanitary sewer system facilities that have FOG-related problems			
8	SECAP	Identification of elements of the sanitary sewer system that experience or contribute to SSO's caused by hydraulic deficiencies			
		Established design criteria that provide adequate capacity			
		Short-term CIP that address known hydraulic deficiencies			
		Long-term CIP that address known hydraulic deficiencies			



SECTION	TITLE	REQUIREMENT	IS SSMP CURRENT?	RECOMMENDED IMPROVEMENT	IMPLEMENTATION SCHEDULE
		Procedures that provide for the analysis, evaluation, and prioritization of hydraulic deficiencies			
		The short- and long-term CIP's include schedules for the correction of each identified hydraulic deficiency			
9	Monitoring, Measurement, and Program Modifications	Maintain relevant information to establish, evaluate, and prioritize SSMP activities			
		Monitor implementation of the SSMP			
		Measure, where appropriate, performance of the elements of the SSMP			
		Assess success of the preventive maintenance program			
		Update SSMP program elements based on monitoring or performance			
		Identify and illustrate SSO trends			
10	SSMP Program Audits	Conduct periodic audits			
		Record the results of the audit in a report			
		Record the changes made and/or corrective actions taken			
11	Communications Program	Communicate with the public regarding the preparation of the SSMP			
		Communicate with the public regarding the performance of the SSMP			
		Communicate with tributary or satellite sewer systems			



## SECTION 11. COMMUNICATION PROGRAM

### 11.1 Introduction

This section of the SSMP outlines the process involved in communicating with interested members of the public regarding the development, implementation, and performance of this plan.

### 11.2 Regulatory Requirements for Communication Program

The requirements for the Communication Program section of the SSMP are:

#### **GWDR (Element 11 – Communication Program) Requirement:**

*The GWDR requirements for the Communication Program are:*

- *The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.*
- *The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.*

### 11.3 Communication during SSMP Development (and Updates)

The City of Beverly Hills City staff announced that it was requesting proposal for the development of an SSMP Document. Proposals were received on June 7, 2012. Cannon Corporation was retained to develop a comprehensive document. Future updates will be announced in a similar manner or completed in-house.

### 11.4 Communication regarding Sewer System Performance

The City will make information on the performance of its sanitary sewer system performance available for review. The performance information will include the performance indicators listed in Section 9 of the SSMP and will be compiled annually. Notice that the performance information is available for review will be posted on the City's website. The notice shall read:

The most recent compilation of the City's sanitary sewer system performance information is available for review during normal business hours. Interested parties can contact Christian Di Renzo ([cdirenzo@beverlyhills.org](mailto:cdirenzo@beverlyhills.org) & 310-288-2821) or Ken Gettler ([kgettler@beverlyhills.org](mailto:kgettler@beverlyhills.org) & 310-285-2469) for additional information.

The City reports SSO's electronically to the California Integrated Water Quality System (CIWQS). The electronic SSO data, as well as information regarding regulatory actions, is available at:

[http://www.waterboards.ca.gov/water\\_issues/programs/ciwqs/publicreports.shtml](http://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.shtml)



The City will direct interested parties to the CIWQS public access website. In addition, the City will report the performance of its sanitary sewer system to its City Council annually at a regularly scheduled meeting and the performance information will be included in the minutes of that public meeting. The performance information will include the performance indicators listed in Section 9 of the SSMP and will be compiled annually as stated above.

### **11.5 Communication with Satellite Collection Systems**

**City of Los Angeles:** The City of Beverly Hills entered into an agreement with the City of Los Angeles on March 9, 1999 for the conveyance, treatment and disposal of wastewater. This agreement is included as Appendix 3-B in this SSMP.

**County of Los Angeles:** The City of Beverly Hills entered into an agreement with the County of Los Angeles on August 14, 1990 for the enforcement of the industrial waste provisions of the City's Municipal Code. These services include, but are not limited to providing inspections, filing of required reports, and issuing permits. The services shall also include the inspection of open sanitary spills only in the event that the City, by action of City Council, requests such services. This agreement is included as Appendix 3-C in this SSMP.

