

RESOLUTION NO. 91-512

A RESOLUTION ADOPTING CHANGES TO CONSTRUCTION STANDARDS AND REGULATIONS FOR SANITARY SEWER AND STORM WATER MANAGEMENT SYSTEMS, INCLUDING REGULATIONS FOR EROSION CONTROL AND PERMANENT ON-SITE WATER QUANTITY AND WATER QUALITY FACILITIES, AND ESTABLISHING AN EFFECTIVE DATE.

WHEREAS, the City is a participant in regional storm water and sanitary sewer management systems established and operated through the Unified Sewerage Agency (USA), and

WHEREAS, the City has previously adopted all USA standards, regulations, and practices for storm water and sanitary sewer facilities within its boundaries, and

WHEREAS, the County Board of Commissioners, acting in its capacity as the USA Board of Directors, recently enacted changes to storm water and sanitary sewer standards that go into effect on November 15, 1991, and

WHEREAS, the Oregon Department of Environmental Quality requires that all jurisdictions with USA's boundary adopt these new standards by December 1, 1991.

NOW THEREFORE THE CITY RESOLVES AS FOLLOWS:

Section 1. New Standards Adopted.

That the Unified Sewerage Agency Resolution and Order No. 91-75, attached hereto as Exhibit A, is hereby APPROVED and ADOPTED in its entirety.

Section 2. Existed Standards Confirmed.

That all other standards, policies, and practices adopted by USA as part of the regional storm water and sanitary sewer management system shall continue in force in the City, except as specifically amended by USA Resolution and Order No. 91-75.

Section 3. Effective Date.

This Resolution shall become effective upon approval and adoption.

Duly passed by the City Council on November 13, 1991.

Attest:

Polly Blankenbaker  
Polly Blankenbaker, City Recorder

Rick A. Hohnbaum  
Rick A. Hohnbaum, Mayor

Resolution No. 91-512

November 13, 1991

Page 1

1 IN THE UNIFIED SEWERAGE AGENCY  
2 OF WASHINGTON COUNTY, OREGON  
3

4 In the Matter of Amending )  
5 Resolution and Order Number 91-47; )  
6 Adopting Amendments to the )  
7 Construction Standards and )  
8 Regulations Pertaining to the )  
9 Sanitary Sewerage and Storm and )  
Surface Water Management Systems, )  
Including Regulations for Erosion )  
Control and Permanent On-site Water )  
Quantity and Quality Facilities; )  
Pursuant to Ordinances 21 and 24; )  
and Declaring an Effective Date. )

RESOLUTION AND ORDER

NO. USA 91-75

10 The above entitled matter came on regularly before the Board  
11 at its regular meeting of October 22, 1991; and,

12 It appearing that this Board did, on June 25, 1991, adopt  
13 Resolution and Order No. 91-47 of the Unified Sewerage Agency  
14 pertaining to design and construction standards for public  
15 sanitary sewerage and storm and surface water management  
16 facilities, erosion control, and provision of permanent water  
17 quantity and quality facilities; and

18 It appearing that said standards, rules and regulations of  
19 the Agency contained in Resolution and Order No. 91-47 are in need  
20 of amendment, and that the amendments contained in Exhibit "A"  
21 attached hereto and by this reference incorporated herein, serve  
22 to safeguard the public health and safety and the operations of  
23 the Agency's sewerage system and storm and surface water system;  
24 and

25 It appearing to this Board that it has conducted a public  
26 hearing regarding the adoption of these rules and regulations this



1 date and that any person affected by the proposed rules had an  
2 opportunity to testify, and that public notice of such hearing was  
3 given in accordance with the provisions of of the aforesaid  
4 Ordinances; and

5 It appearing to this Board that it is appropriate to adopt  
6 the rules contained in Exhibit "A" relating to sanitary sewer and  
7 storm and surface water system construction, erosion control, and  
8 permanent water quality and quantity facilities and the Board  
9 being fully advised in the premises; it is, therefore

10 RESOLVED AND ORDERED that the rules contained in Exhibit "A"  
11 attached hereto and by this reference incorporated herein be, and  
12 hereby are, adopted and promulgated by this Board; and it is  
13 further

14 RESOLVED AND ORDERED that inconsistent provisions of  
15 Resolution and Order No. 91-47 are hereby superseded, provided  
16 however, that all construction permits issued and actions taken  
17 pursuant to Resolution and Order No. 91-47 prior to the effective  
18 date of this resolution shall remain in full force and effect; and  
19 it is further

20 RESOLVED AND ORDERED that this Resolution and Order shall  
21 take effect November 15, 1991. The General Manager shall make  
22 available these rules in the Office of the Unified Sewerage  
23 Agency, and is authorized to incorporate these rules into existing  
24 construction standards of the Agency, to provide a single document  
25 for the convenience and information of the public.

26 //////////////

GENERAL COUNSEL, UNIFIED SEWERAGE AGENCY  
HILLSBORO, OREGON 97103-3821



1 DATED this 22nd day of October, 1991.

2  
3 UNIFIED SEWERAGE AGENCY OF  
4 WASHINGTON COUNTY, OREGON  
5 By its Board of Directors  
6

7 Donnie L. Hays  
8 Chairman

9 5 VOTES AYE

10 Barbara Heitmaek  
11 Recording Secretary  
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GENERAL COUNSEL, UNIFIED SEWERAGE AGENCY  
HILLSBORO, OREGON 97121

Page



Exhibit A

Amendments to Resolution and Order No. 91-47

1. Amend Section 1.02.3 to read:

"1.02.3 Agency or City

The term "Agency or City" as used in these standards shall allow either the Agency or a City, including its authorized representatives, to perform a task or duty specified within this Resolution and Order, provided that, for actions of a City

- a. there is an intergovernmental agreement in effect between the Agency and City assigning such authority to the City, and
- b. the City action is within the boundary of that City, and
- c. said action is subject to the terms of such agreement and to the provisions of this Resolution and Order.

Where the term "Agency or City" is used, the Agency shall retain the ability to carry out a task or duty."

2. Amend Section 1.02.5 to read:

"1.02.5 As Approved by USA; As Approved by Agency or City

The term "as approved by Agency" or the like shall allow the Agency to interpret the provisions in question in a manner to protect the public health and safety, consistent with other applicable laws and other standards of the Agency, and to preserve the safe and reliable operation of the public sanitary sewer and storm and surface water systems. The phrase "as approved by Agency or City" shall allow a City to make the interpretation, subject to the limitations of Section 1.02.3."

3. Amend Section 1.02.9 to read:

"1.02.9 Capital Improvement Plan

The Sewer Capital Improvement Plan adopted by the Unified Sewerage Agency Board, issued every five years and the yearly updates of such five-year plans."

4. Amend Section 1.02.10 to read:

"1.02.10 Contractor

"The person, company, or corporation duly registered with the State of Oregon Construction Contractors Board, (unless exempt under ORS Chapter 804 (1989 Edition)) and designated by the Agency, City, or owner, to do the work in question."

5. Amend Section 1.09 by deleting the word "condemn" in the fourth line, and inserting the word "reject".

6. Amend Section 2.03 as follows:

Renumber Section 2.03.2 to Section 2.03.2.A

Add

"2.03.2.B Performance Assurance Exemption

Projects or portions thereof may be exempted from the performance assurance requirements of Chapter 2.03.2.A under the following circumstances:

a) A construction permit agreement has been fully executed by the owner and submitted to the Agency prior to commencing construction, and

b) The public sanitary sewer or storm system improvements are located solely on the Owner's property, and

c) The improvements are of a type or location such that failure to complete them will not damage or be harmful to the public system to which they will connect, and

d) No minor or major partition or final subdivision plat may be approved or be recorded until the public improvements have been completed and accepted by the Agency, or a performance assurance in the form and substance satisfactory to the Agency is submitted in accordance with Section 2.03.2. The amount of such performance assurance shall be the sum necessary to construct the remaining improvements in question and shall be conditioned upon the performance of all terms and conditions of the permit and this Resolution and Order."

No exemption shall be allowed for the portion of the project consisting of the construction of permanent on-site water quality facilities as required by Section 7.06. For projects not requiring a performance assurance for other public facilities, the performance assurance for on-site water quality facilities shall be submitted prior to plat approval, or issuance of development permits, whichever occurs earlier."

7. Renumber Section 2.03.4. to 2.03.4.A

8. Add a new Section 2.03.4.B to read:

"2.03.4.B Performance Assurance Partial Releases

For projects having a performance assurance to the Agency of more than \$100,000, the owner or holder of a construction permit agreement may request in writing the release of the assurance for a portion of the constructed system. Such releases shall meet the conditions specified in 2.03.4.A above and the following:

a) The request shall be in writing, signed by the holder of the construction permit agreement and the person who furnished the performance assurance, if different.

b) Each request shall be accompanied by a General Processing Fee.

c) The amount of the release shall be 85% of the estimated value of the completed portion of the improvements."

9. Amend Section 3.03.1 to add: "Chapter 6 of these standards contains additional requirements and specifications regarding the design of storm water systems."

10. Amend Section 3.04.6.H to read:

"H. Pipe Cover. Minimum pipe cover shall be provided during construction and for finished grade so that maximum allowable loads for the pipe material being used shall not be exceeded. Calculations, or the citation of an Agency-approved reference, showing that maximum allowable loads at finished grade and during construction will not be exceeded, shall be submitted for pipes with less than three feet of cover."

11. Delete Section 5.02.4.C.1 and insert:

"1) For work of a minor nature provided all the following criteria are met:

a) The land development does not require a development permit or approval from the local jurisdiction having land use decision authority, and

b) No land development activity or disturbance of land surface occurs within 100 feet of a sensitive area defined in Section 6.08.1, and

c) The slope of the site is less than 20 percent, and

d) The work on the site involves the disturbance of less than 500 square feet of land surface, and

e) The excavation, fill, or combination thereof involves less than 20 cubic yards of material."

12. Amend Section 5.02.05.A.2, line 3, to delete "and" and insert "or".

13. Delete Sections 6.01 and 6.02, and insert:

"6.01 Downstream Protection Requirement

Each new development is responsible for mitigating the impacts of that development upon the public storm water quantity system. The development may satisfy this requirement through the use of any of the following techniques, subject to the limitations and requirements in Chapters 6.02, and 6.03:

- a. Construction of Permanent on-site stormwater quantity detention facilities designed in accordance with this Chapter; or
- b. Enlargement of the downstream conveyance system in accordance with this Chapter and Chapter 3; or
- c. The payment of a Storm and Surface Water Management System Development Charge, as provided in Ordinance 23, which includes a water quantity component designated to meet these requirements.

#### 6.02 Review of Downstream System

For new development other than the construction of a single family house or duplex, plans shall document review by the design engineer of the downstream capacity of any existing storm drainage facilities impacted by the proposed development. That review shall extend downstream to a point where the impacts to the water surface elevation from the development will be insignificant, or to a point where the conveyance system has adequate capacity, as determined by the procedures in Section 3.03. If the increase in surface waters leaving a development will cause or contribute to documented significant damage from flooding to existing buildings or dwellings, then the identified capacity deficiency shall be corrected prior to development, or the development must construct on-site detention as defined in Section 6.04."

14. Amend Section 6.04 to add:

"Construction of on-site detention shall not be allowed as an option if such a detention facility would have an adverse effect upon receiving waters in the basin or subbasin in the event of flooding, or would increase the likelihood or severity of flooding problems downstream of the site."

15. Amend Section 7.11.a to add:

"The design manual "Surface Water Quality Facilities Technical Guidance Handbook" may be used in preparing the plan for the water quality facility."

16. Amend Section 7.11 to add:

In subsections a., b., and c., add the word "and" at the end of each sentence.

"d. An operation and maintenance plan documenting how the water quality facility will be maintained, and a statement as to who will be responsible for assuring the long term compliance with the plan. A copy of the operation and maintenance plan shall be forwarded to DEQ no later than one month following construction of the water quality facility."



17. Amend Section 9.02 to read:

"9.02 Pump Stations

Pump stations will not be allowed in areas where gravity sewer service is programmed for construction in the applicable Capital Improvement Plan, gravity sewer service is currently available, or where sewer service would be available through the construction of less than five thousand (5000) feet of gravity sewer line."

18. Amend Appendix I to delete the list of Standard Detail Drawings and Standard Drawing Numbers 060, 070, 100, and 170 and add the revised list of Standard Detail Drawings and Standard Drawing Numbers 060, 070, 100, 170, 350, 360, 370, 380, 390, 400, 410, 420, 430, and 440, attached hereto.

19. Add a new section 10.01, as follows:

"10.01 Prohibited Activities

In addition to the restrictions of Ordinance 24, Section 3, the following activities are prohibited, except as expressly allowed by Agency permit:

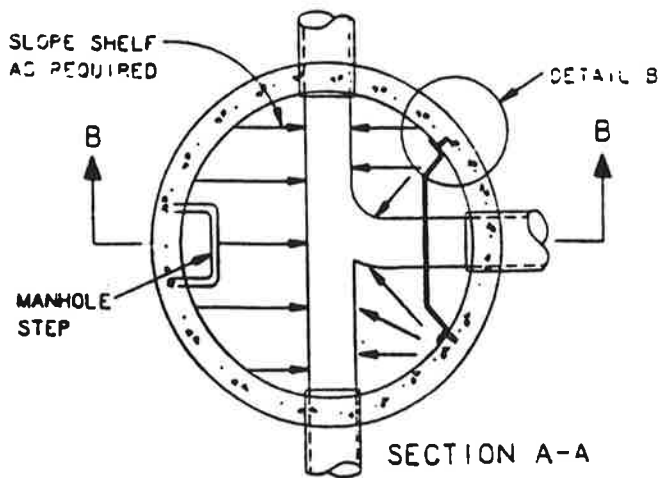
A. The discharge, placement, deposit, dumping or otherwise contributing a solid or liquid material into the public storm and surface water system, either directly or indirectly, which may obstruct flow or otherwise interfere with the operation or function of a public storm and surface water facility. This shall include, but is not limited to, placing of soil or rock without an approved fill permit, or the dumping of debris, rubbish, trash, or other waste material.

B. Operation of a motor vehicle in a sensitive area, mowing or altering the vegetation in a sensitive area, or interrupting the water source to a wetland.

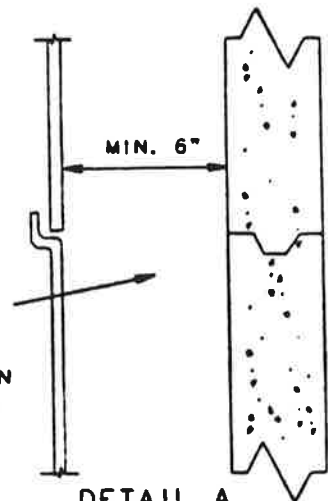
Violation of this Section is subject to enforcement by the Agency and City pursuant to applicable ordinances and rules."

## STANDARD DETAIL DRAWINGS

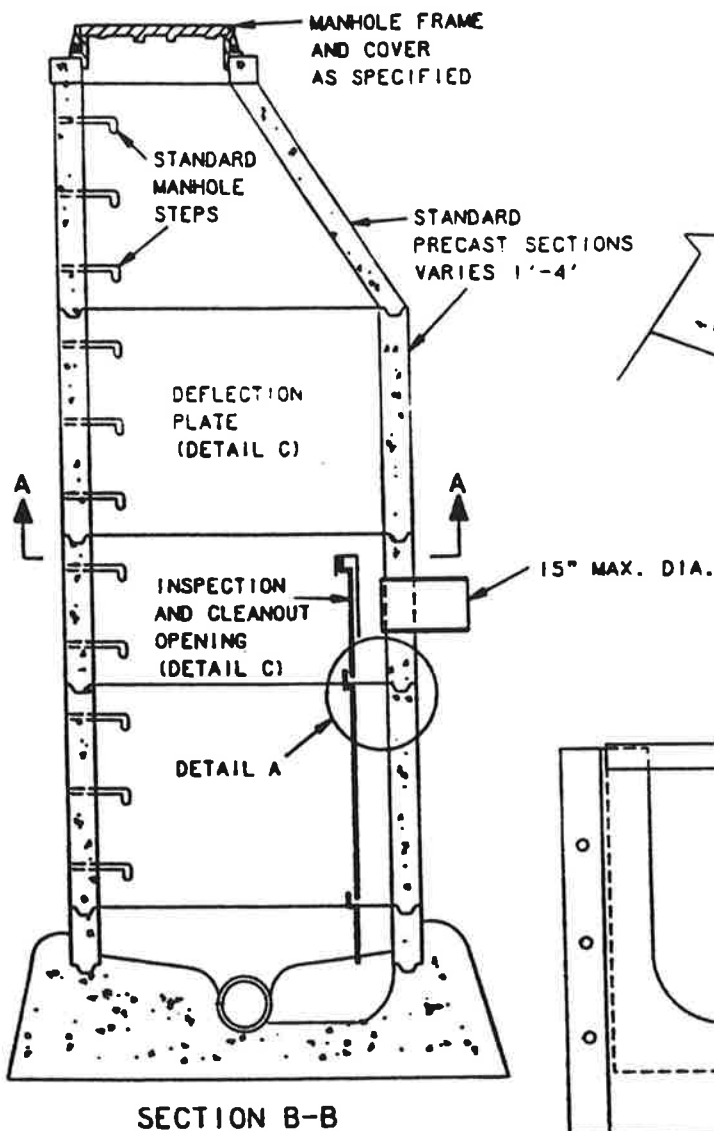
<u>Dwg.No.</u>	<u>Drawing Name</u>
010	Standard Manhole
020	Flat Top Manhole
030	Manhole for Large-Diameter Pipe
040	Precast Rubber Gasket Manhole
060	Inside Drop Manhole Fiberglass Partition
070	Inside Drop Assembly for Large-Diameter Pipe
080	Standard Manhole Outside Drop Connections
090	Precast Concrete Manhole Base
100	Pollution Control Manhole
120	Suburban & Standard Manhole Frame & Cover
130	Watertight Manhole Frame & Cover
140	Manhole Step
150	Standard Cleanout
155	Cleanout Ring & Cover
170	Gutter & Curb Inlet Catch Basin
180	Curb Inlet Catch Basin
190	Curb Inlet Catch Basin Oversize
220	Area Drain (Raised)
230	Area Drainage Basin or Field Inlet
240	Trench Backfill Details
250	Concrete Cap
260	Concrete Encasement
270	Anchor Walls
275	Pipe Slope Anchors
280	Thrust Block Detail
290	Bore Detail
300	Building Sewer/Storm Drains
310	Creek Crossing Restoration
320	Water Facility Sign
330	Electrical One Line Diagram for All Pump Stations
340	T-Cut Asphalt Repair
350	PVC Gasketed Saddle
360	Inserta-Tee
370	Catch Basin
380	Frame
390	Grate
400	Recessed Curb Inlet
410	Raised Area Drain
420	Area Drain, Type II
430	Frame Area Drain, Type II
440	Grate Area Drain, Type II



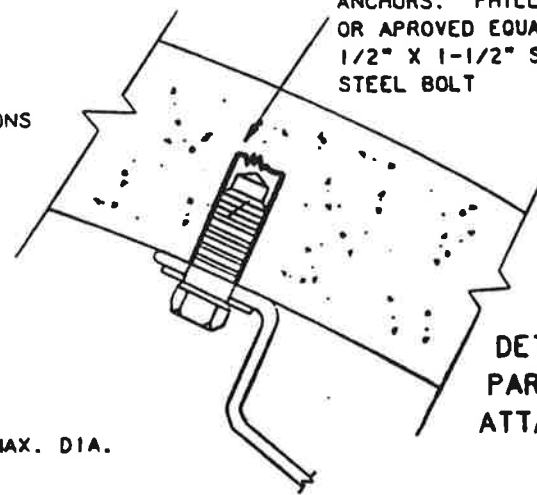
MAXIMUM STORM Q IS 3 CFS. IF GREATER THAN 3 CFS, USE OREGON DROP OR GRADE TO INVERT.



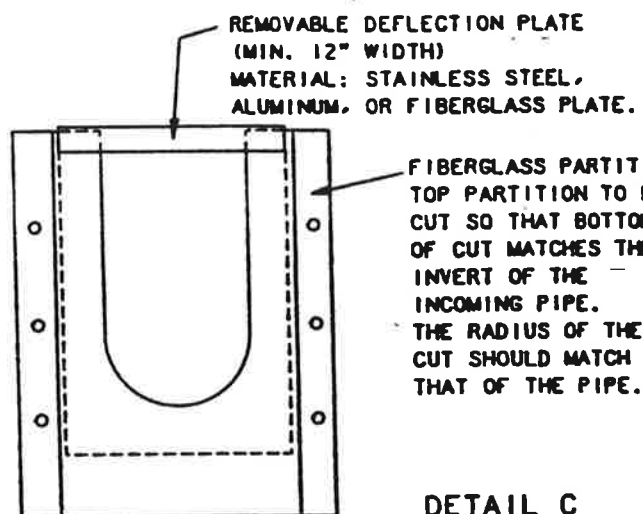
DETAIL A (PARTITION LOCATION)



1/2" SELF TAPPING CONC. ANCHORS. PHILLIPS S-12 OR APPROVED EQUAL, 1/2" X 1-1/2" STAINLESS STEEL BOLT



DETAIL B PARTITION ATTACHMENT

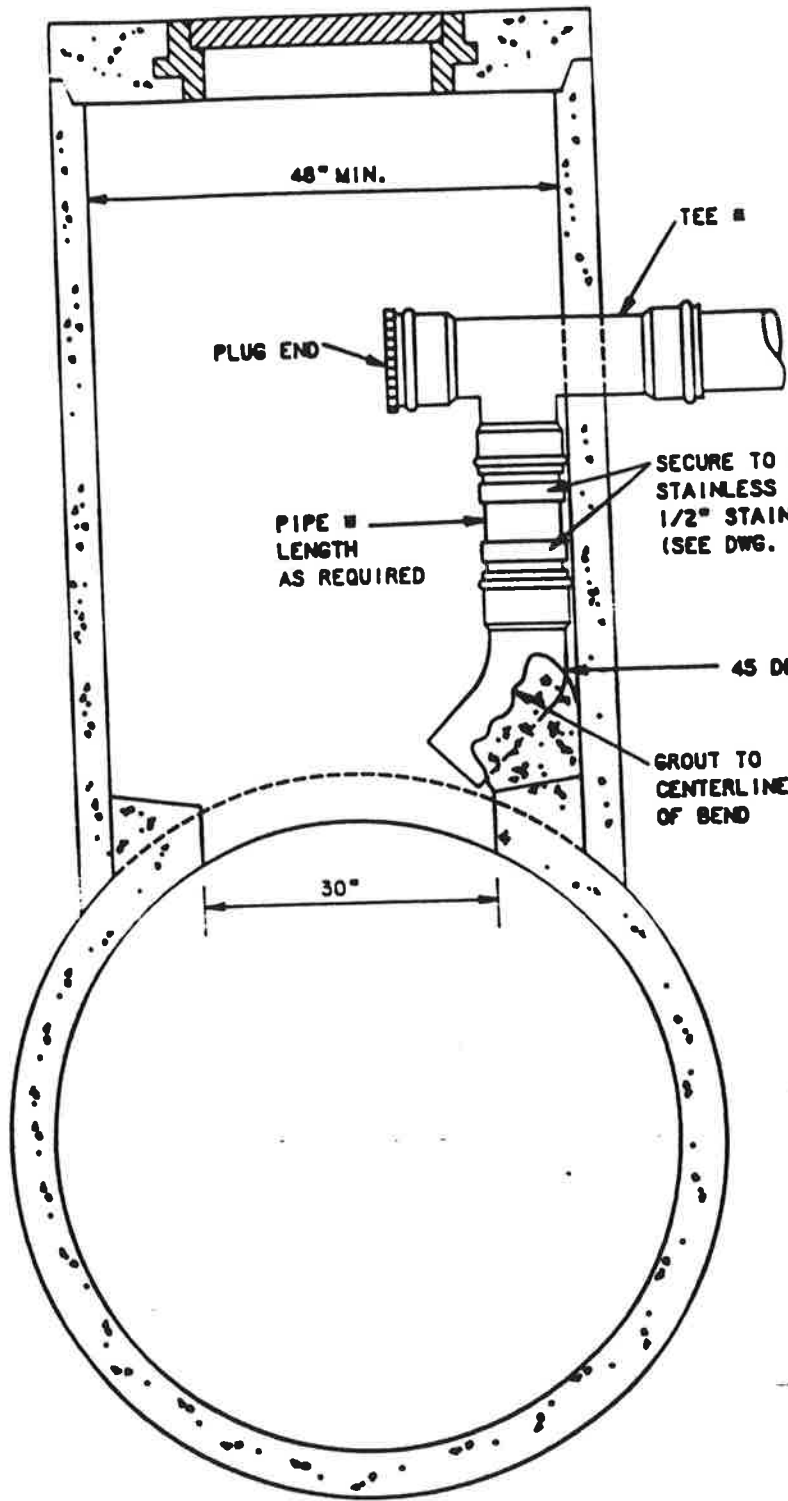


FIBERGLASS PARTITION: TOP PARTITION TO BE CUT SO THAT BOTTOM OF CUT MATCHES THE INVERT OF THE INCOMING PIPE. THE RADIUS OF THE CUT SHOULD MATCH THAT OF THE PIPE.

# INSIDE DROP MANHOLE



DRAWING NO. 060



48" MIN.

TEE

PLUG END

PIPE LENGTH AS REQUIRED

SECURE TO MH WALL WITH STAINLESS STEEL BAND WITH 1/2" STAINLESS STEEL BOLTS. (SEE DWG. 060 FOR DETAIL).

45 DEGREE BEND

GROUT TO CENTERLINE OF BEND

30"

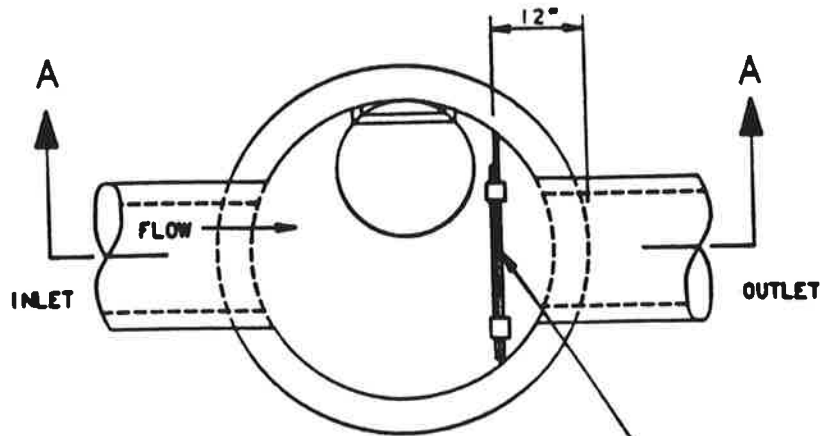
PIPE FITTINGS FOR DROP ASSEMBLY TO BE OF DUCTILE IRON ANSI A21.50-1 ANNA C150-1 OR PVC ASTM 3034 SDR 35

PIPE & FITTINGS TO BE SAME SIZE AS LINE COMING TO MANHOLE.

**INSIDE DROP ASSEMBLY FOR LARGE-DIAMETER PIPE**

**DRAWING NO. 070**





**PLAN**

PARTITION TO BE FASTENED TO MANHOLE WALL AT CORNERS AND 2' O.C. ALONG SIDES. 3 BRACKETS MIN. EACH SIDE. WITH 1/2" STAINLESS STEEL CONCRETE ANCHORS. INSTALL PRIOR TO MANHOLE CONE. INSTALLATION PARTITION TO BE HIGH DENSITY POLYETHYLENE, 1/2" THICK, ASTM D1248-78.

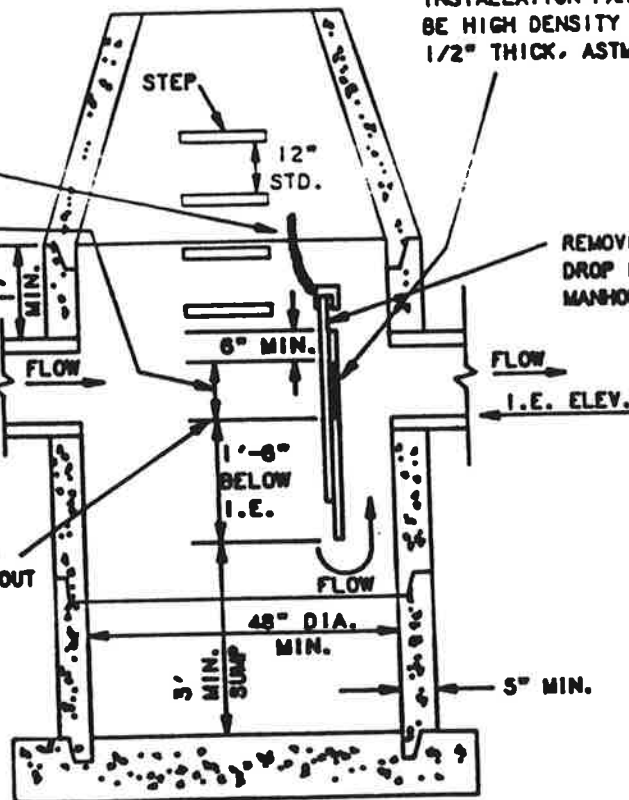
GALVANIZED CHAIN, 200# CAPACITY, SLACK WHEN PLATE IS DOWN.

1' MIN. INSPECTION HOLE IN PARTITION

PIPE SIZE 18" MAXIMUM

MATCH I.E. OUT

REMOVEABLE 1/2" HDPE DROP PLATE (CHAIN TO MANHOLE AT ACCESS).



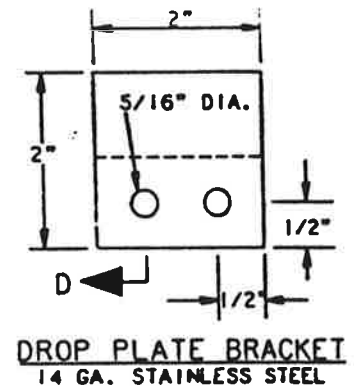
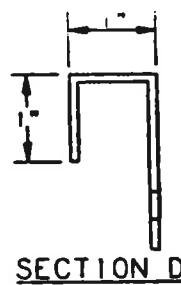
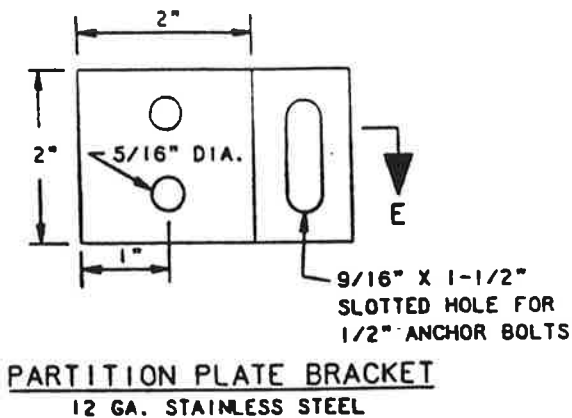
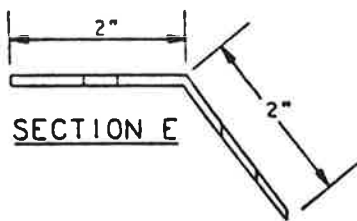
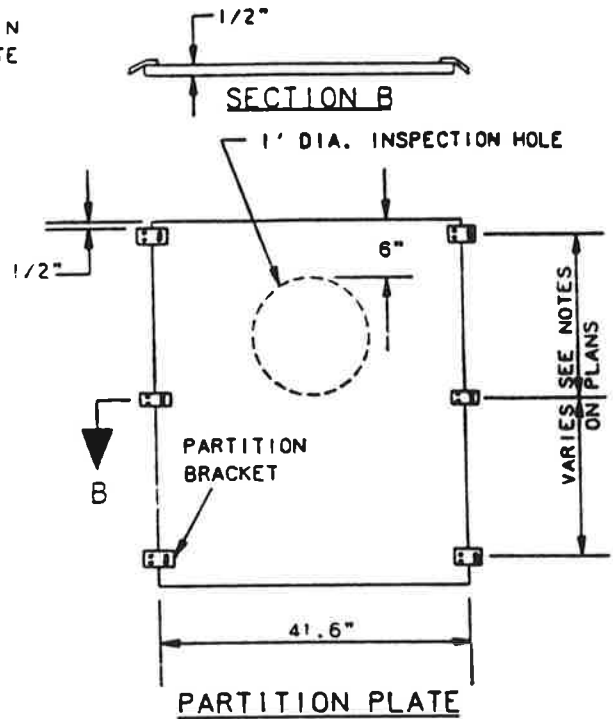
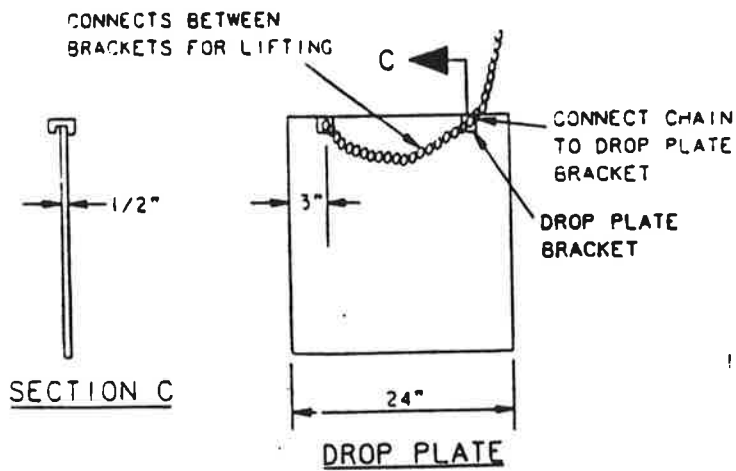
**SECTION A-A**

**SUMP VOLUME REQUIREMENTS**

SINGLE FAMILY RESIDENTIAL	3.5 CF/ACRE
MULTI FAMILY RESIDENTIAL	22.0 CF/ACRE
COMMERCIAL/INDUSTRIAL	94.0 CF/ACRE

**POLLUTION CONTROL  
MANHOLE**





**NOTES:**

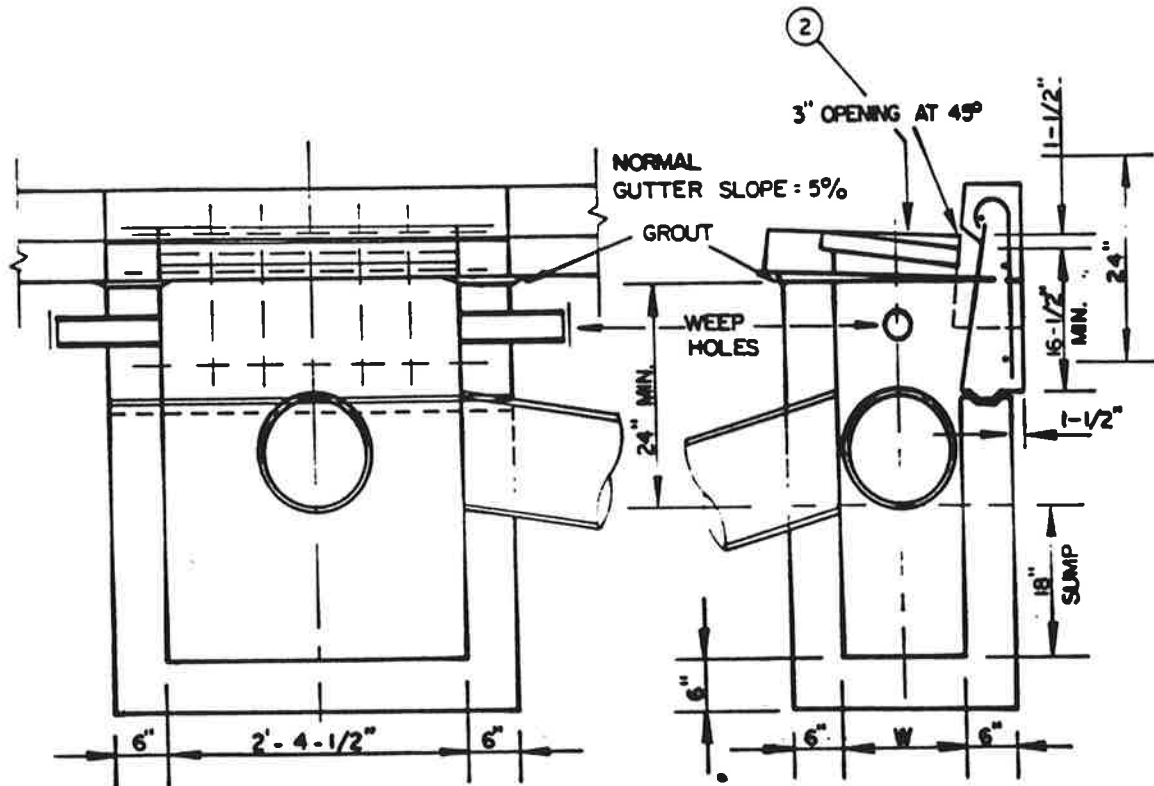
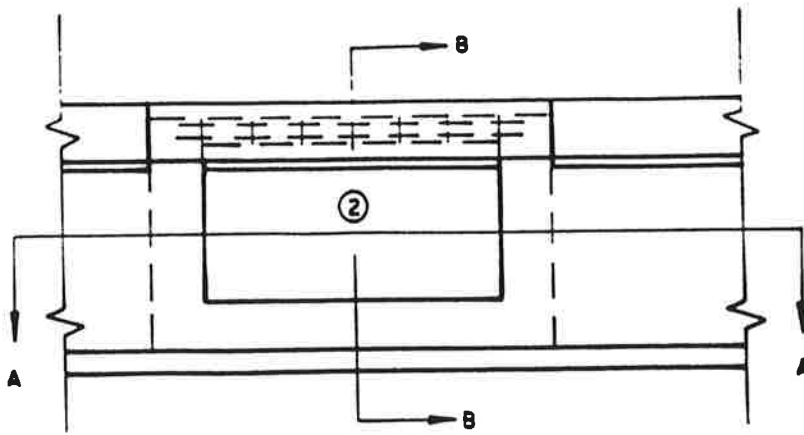
1. HARDWARE, FASTENERS AND ANCHORS TO STAINLESS STEEL, CHAIN MAY BE GALVANIZED STEEL OR 1/8" STAINLESS STEEL CABLE.
2. REMOVEABLE DROP PLATE AND PARTITION TO BE CONSTRUCTED OF HIGH DENSITY POLYETHYLENE (HDPE), 1/2" THICK ASTM D1248-78 AND INSTALLED PRIOR TO MANHOLE CONE OR TOP.
3. MANHOLE AND BASE PER MANHOLE DETAIL (DWG. 010).

**POLLUTION CONTROL  
MANHOLE**

DRAWING NO. 100

2 OF 2





NOTES:

- 1) CONCRETE SHALL BE CLASS 3300
- 2) USE FRAME & GRATE DETAILS FROM STD. DRWG. FOR GUTTER INLET
- 3) INSTALL STEPS WHEN DISTANCE FROM TOP OF GRATE TO FLOWLINE OF PIPE IS GREATER THAN 3.5'.

TYPE	W	PIPE DIAMETER
STANDARD	1'- 1-7/8"	10" - 12"
OVERSIZE*	2'- 3-3/8"	15" - 22"

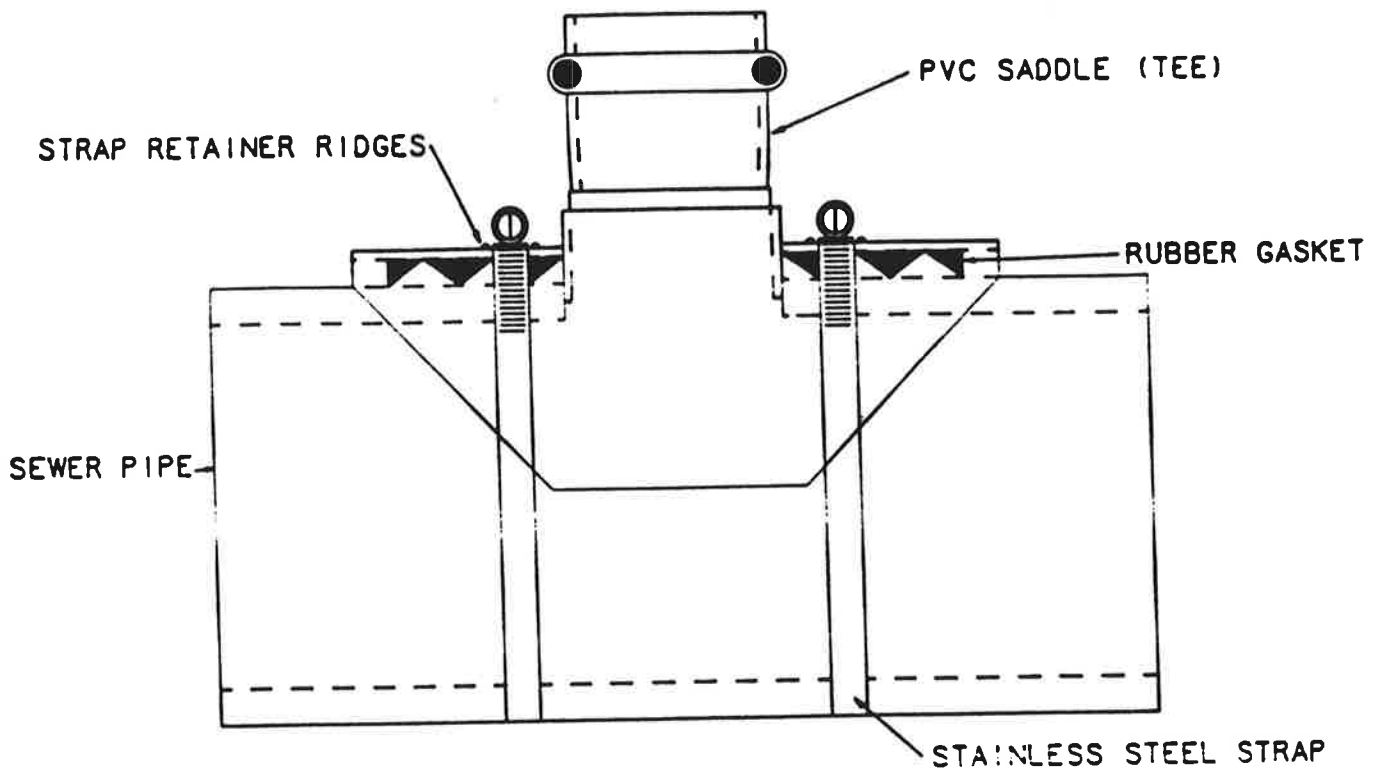
\* REQUIRES 2 GRATES  
SEE DRAWING No. 380

NOTE: ALL PASSTHROUGH CATCH BASINS  
SHALL BE OVERSIZE.

## GUTTER & CURB INLET CATCH BASIN DETAILS



Unified Sewerage Agency



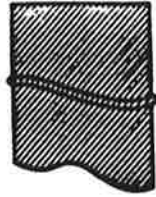
- ✱ PVC SADDLE SHALL BE ASTM 3034 SDR 35
- ✱ PVC COMPOUNDS SHALL BE ASTM D1784 WITH CELL CLASS OF 12454-B/C OR 12364-C
- ✱ ALL ELASTOMERIC SEALS (RUBBER GASKETS) SHALL BE ASTM F477
- ✱ STAINLESS STEEL BANDS SHALL BE 300 SERIES, FULL 9/16" WIDTH BAND, 5/16" SHOULDERED HEX HEAD, SLOTTED SCREW AND IS CADMIUM PLATED, CARBON STEEL.
- ✱ INSERTION HOLE SHALL BE CORE DRILLED.

## PVC GASKETED SADDLE



DRAWING NO. 350

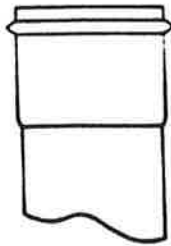




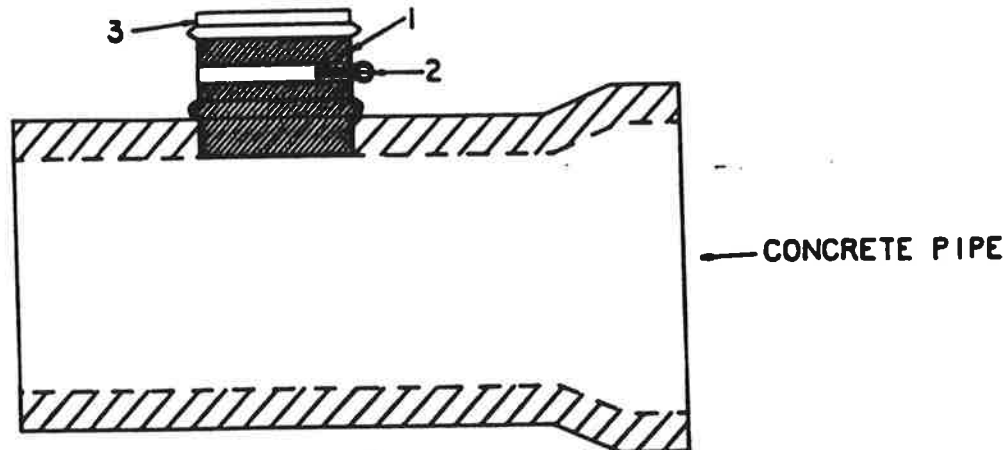
1. COMPLETE RUBBER SLEEVE (ASTM C-443) INCLUDES A MOLDED SEGMENT THAT HOLDS IT IN PLACE.



2. STAINLESS STEEL BAND (9/16" SERIES 300) SECURES UPPER HALF OF RUBBER SLEEVE TO THE PVC HUB.



3. PVC HUB (ASTM 3034 SDR 35) DRIVE INTO CENTER OF RUBBER SLEEVE AFTER SLEEVE IS PLACED IN HOLE.

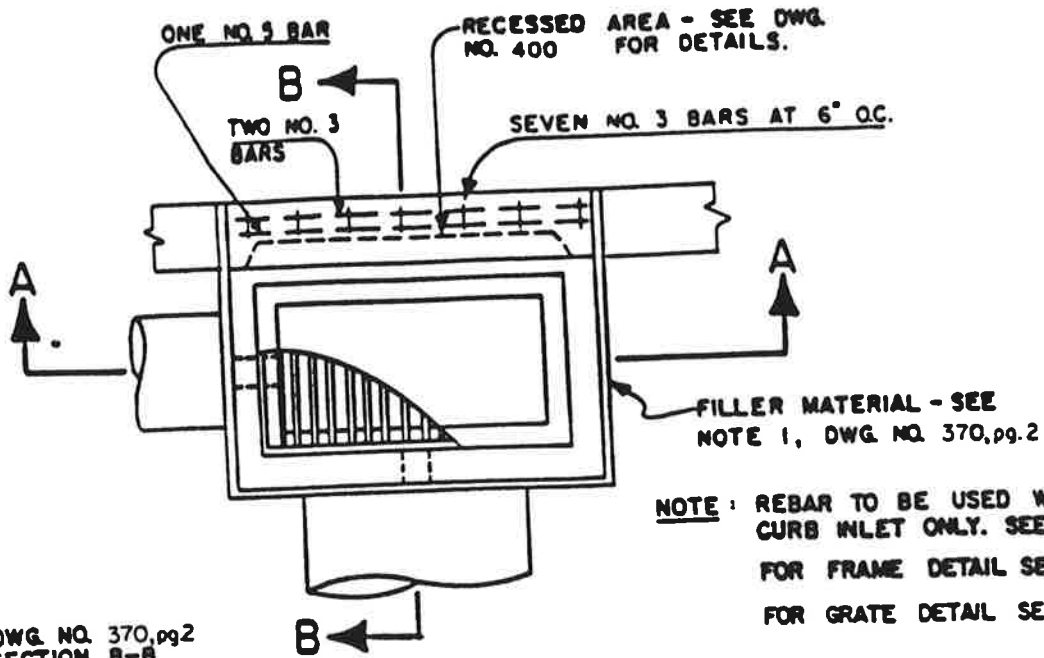


NOTE: ALL INSERTA-TEE HOLES SHALL BE MACHINE DRILLED.

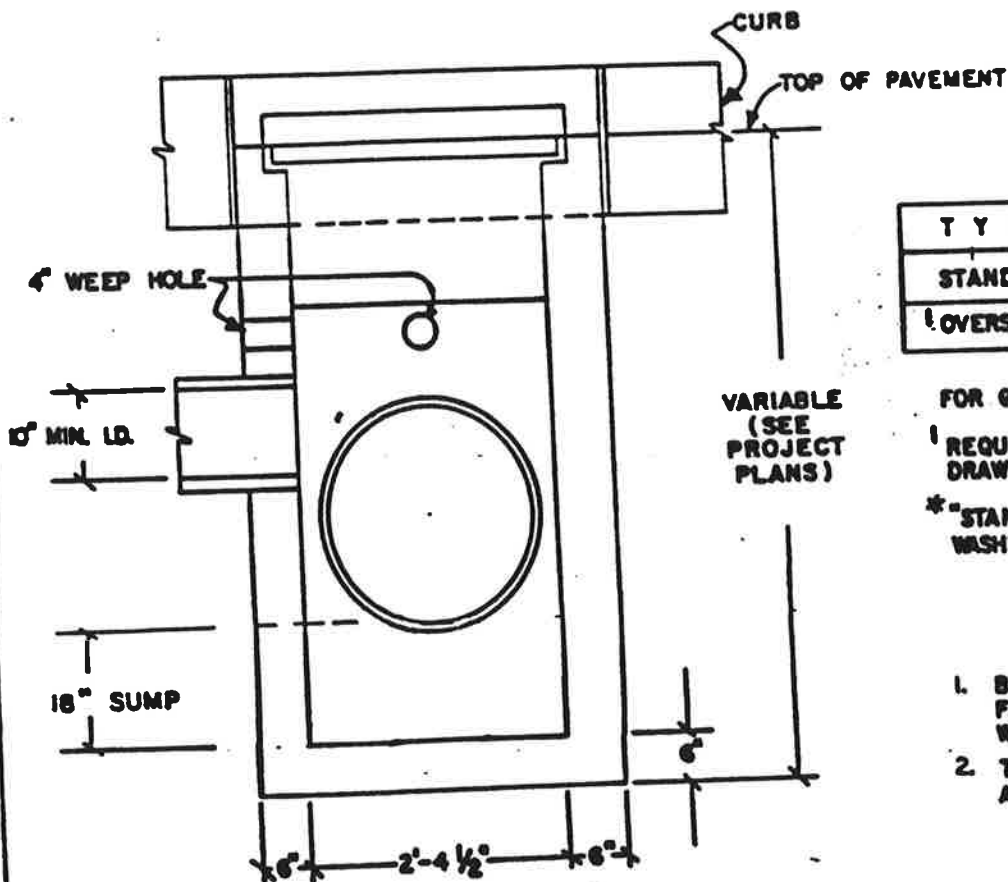
INSERTA-TEE

DRAWING NO. 360





**PLAN**



**SECTION A-A**

TYPE*	W	DIA. PIPE
STANDARD	1'-1 7/8"	10"-12"
OVERSIZE	2'-3 3/8"	15"-27"

FOR GRATE TYPE SEE DWG. NO. 390

1. REQUIRES TWO GRATES. SEE DRAWING NO. 380

\*"STANDARD" & "OVERSIZE" ARE WASHINGTON CO. DESIGNATIONS.

1. BATTER OF 1/4" TO 1" TO FACILITATE FORM REMOVAL WILL BE ALLOWED.
2. TOP OF WEEP HOLE AT SUBGRADE.

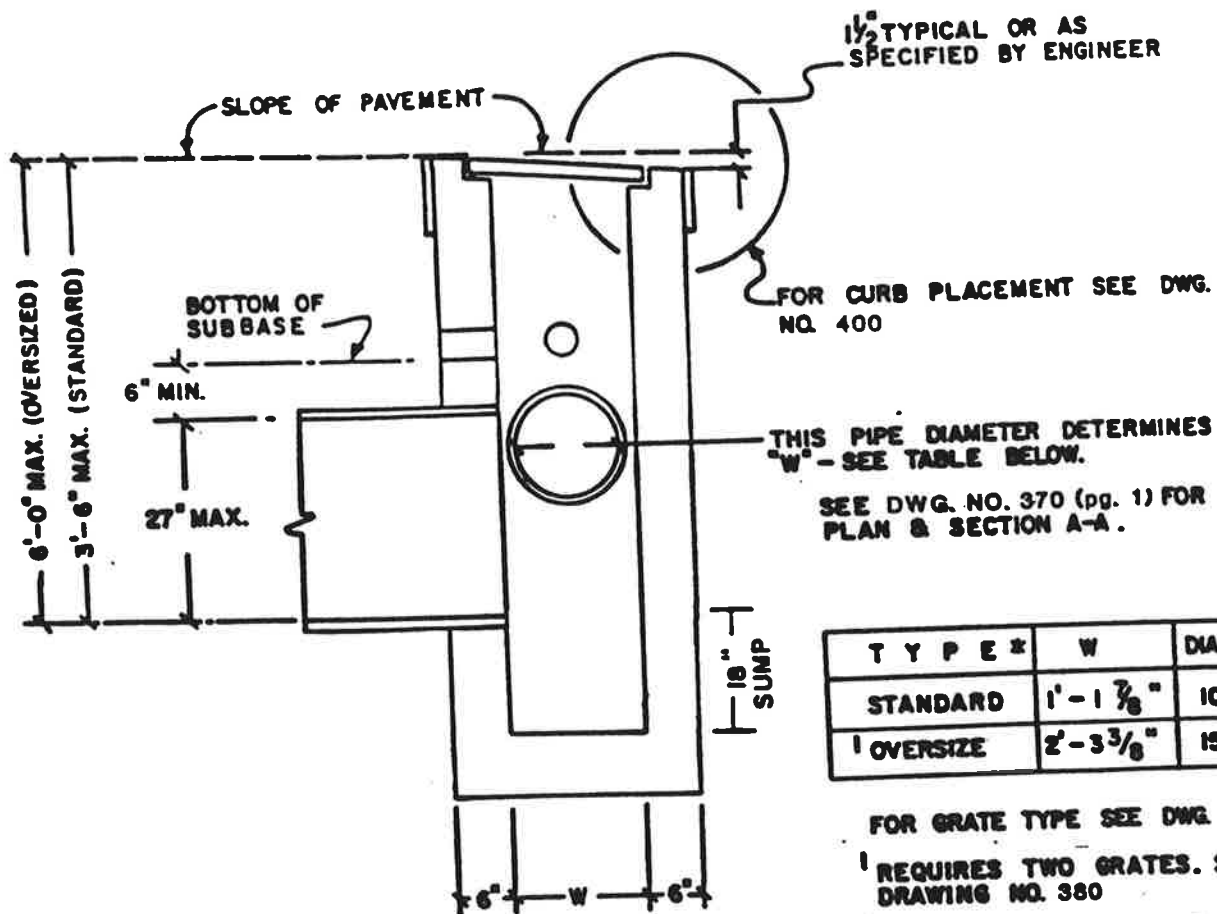
**CATCH BASIN**

DRAWING NO. 370 (pg. 1 of 2)



**NOTES:**

1. 3/4" PREFORMED JOINT FILLER MATERIAL TO BE USED AS SPECIFIED BY ENGINEER ONLY IN CONC. PAVEMENT OR GUTTER, AND TO EXTEND THROUGH THICKNESS OF CONCRETE.
2. CONST. CATCH BASIN PER DETAIL, BUT WITH DIMENSION "W" TO ACCOMMODATE LARGEST PIPE DIA. SPECIFIED.
3. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
4. IF APPROVED BY ENGINEER, WALLS MAY BE POURED AGAINST UNDISTURBED EARTH, EXCEPT FOR THE TOP 8", WHICH SHALL BE FORMED.
5. BACKFILL SHALL BE COMPACTED TO 95% DENSITY THROUGHOUT.
6. OVERSIZE CATCH BASINS: STEPS ARE REQUIRED FOR DEPTH GREATER THAN 4 FEET. INSTALL 2 FT. FROM TOP TO WITHIN 1 FT. OF BOTTOM.



**SECTION B-B**

T Y P E *	W	DIA. PIPE
STANDARD	1'-1 7/8"	10"-12"
OVERSIZE	2'-3 3/8"	15"-27"

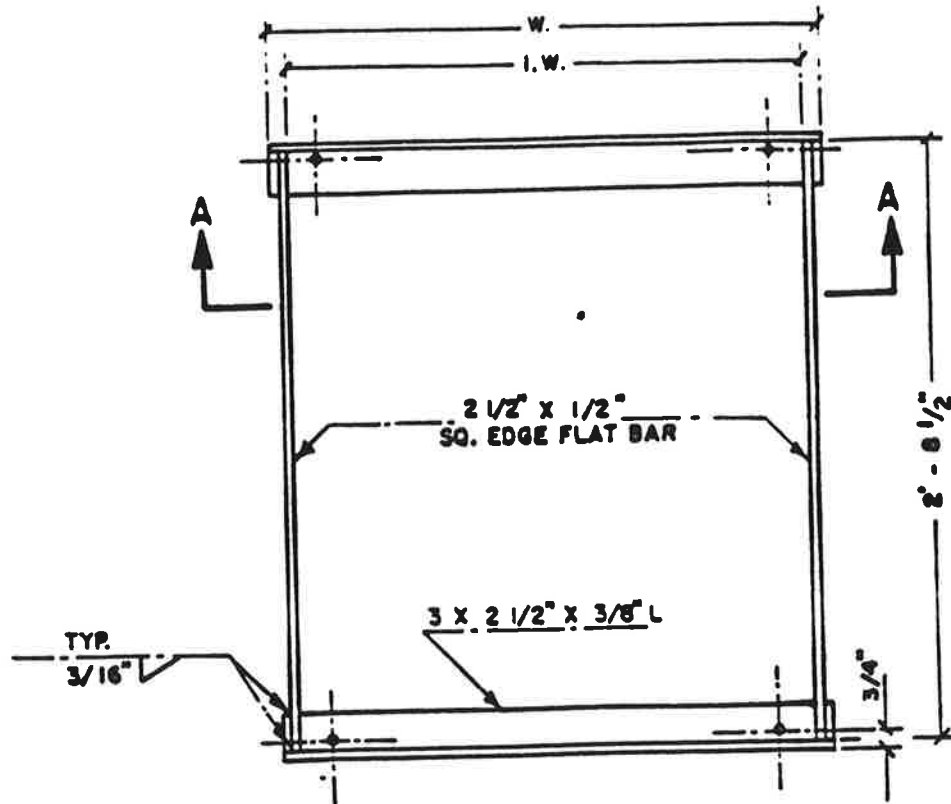
FOR GRATE TYPE SEE DWG. NO. 390

REQUIRES TWO GRATES. SEE DRAWING NO. 380

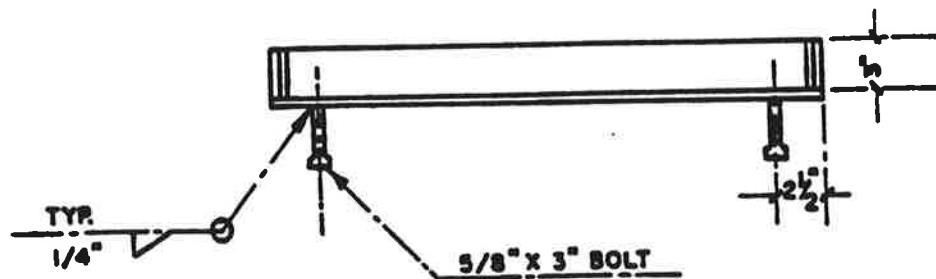
\*"STANDARD" & "OVERSIZE" ARE WASHINGTON CO. DESIGNATIONS.

**CATCH BASIN**





**PLAN**



**SECTION A-A**

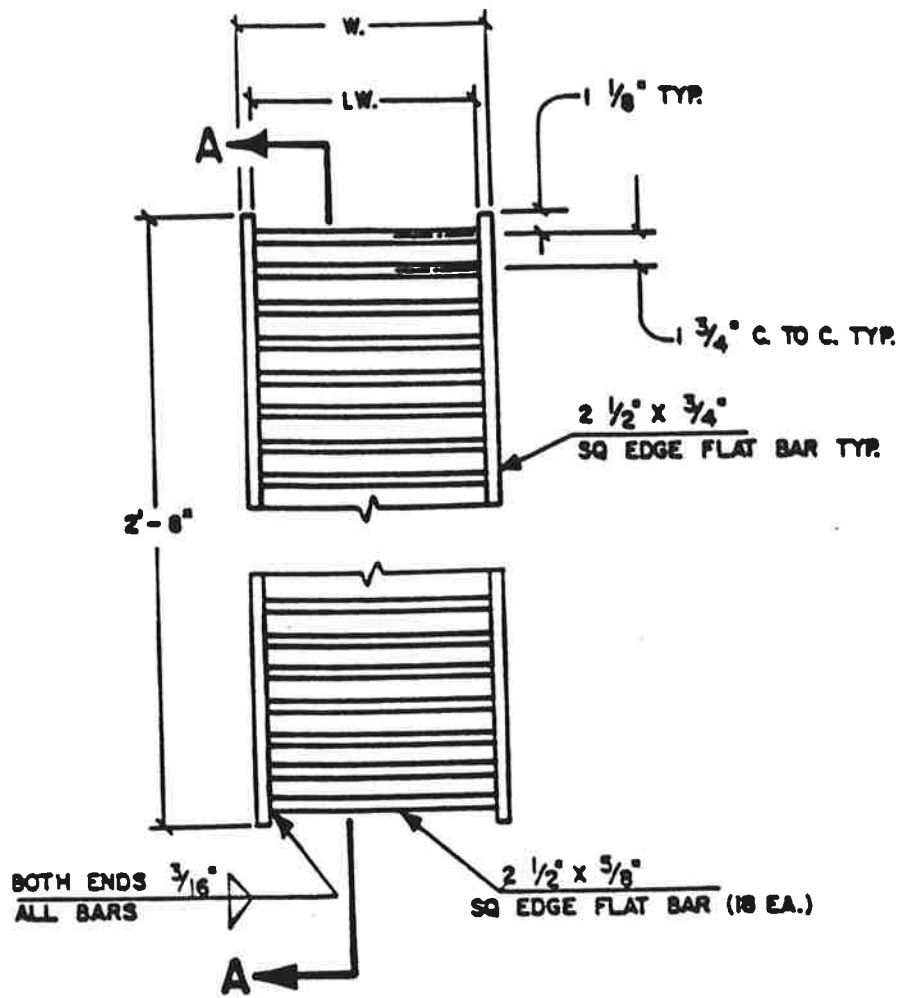
TYPE	DIA. PIPE	W.	LW.
STANDARD	10" - 12"	1' - 3 1/4"	1' - 1 7/8"
OVERSIZE	15" - 27"	2' - 4 3/4"	2' - 3 3/8"

! REQUIRES TWO GRATES

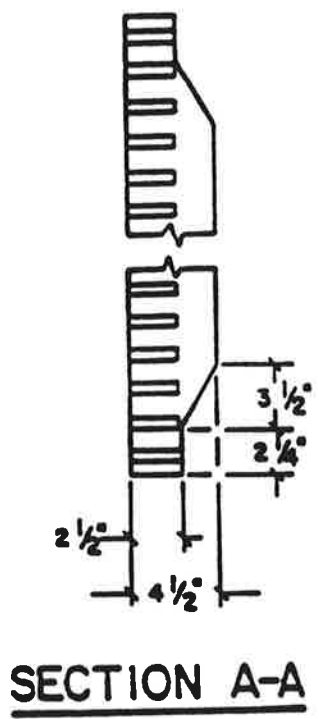
**FRAME**

DRAWING NO. 380





**PLAN**



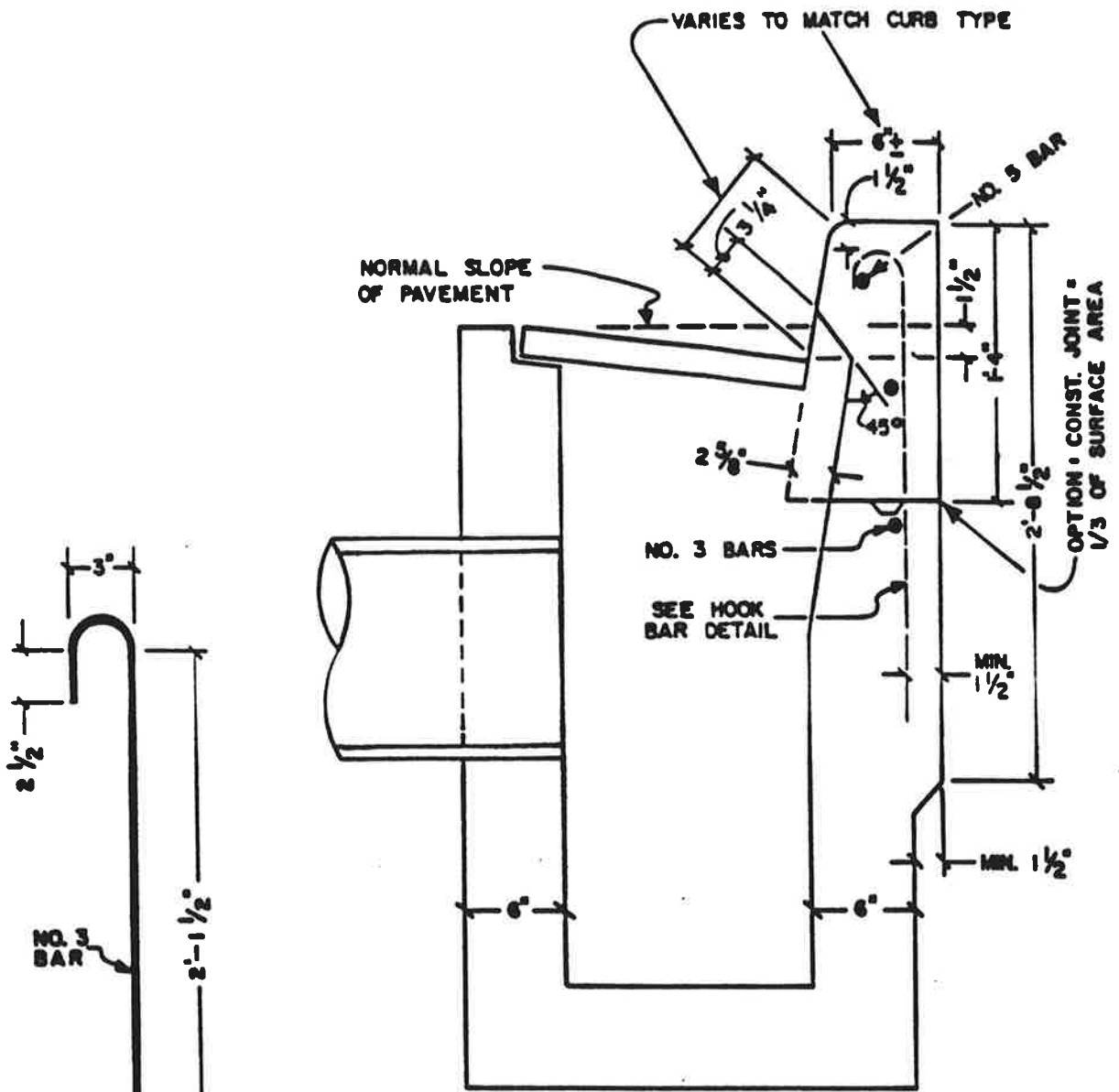
T Y P E *	W.	LW.
STANDARD	1'-1 1/2"	1'-0"
OVERSIZE	1'-1 1/2"	1'-0"

1 REQUIRES 2 GRATES.  
 \* "STANDARD" AND "OVERSIZE" ARE WASHINGTON COUNTY DESIGNATIONS.

**GRATE**

DRAWING NO. 390





**SECTION B-B**

NOTE: FOR PLAN & ELEVATION SEE DWG. NO. 370

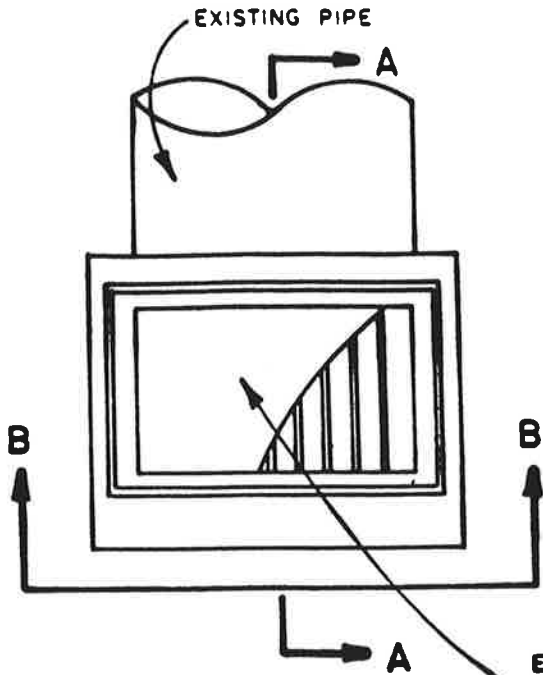
**HOOK BAR DETAIL**

**RECESSED CURB INLET**

DRAWING NO. 400

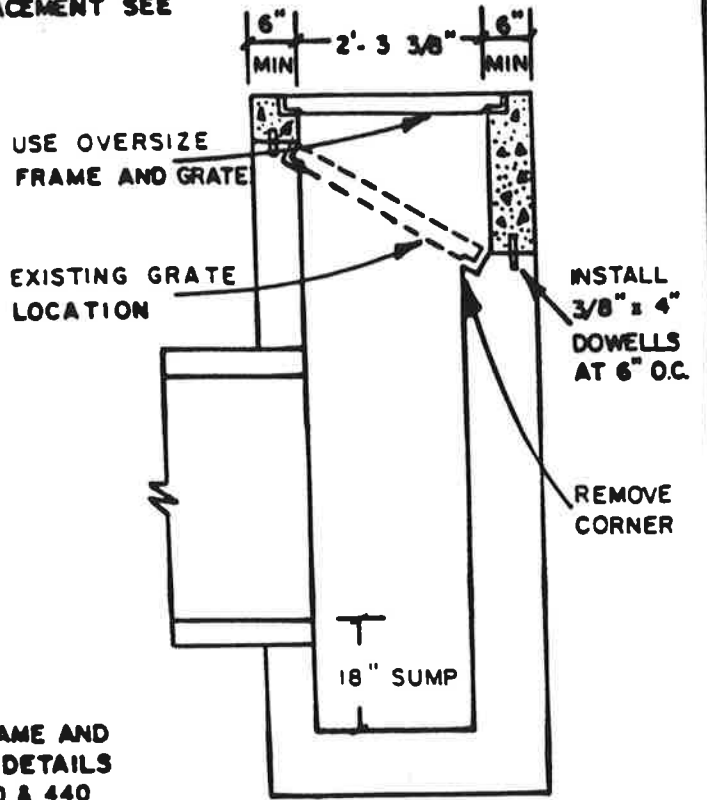


FOR CURB PLACEMENT SEE  
 DRG. NO. 400

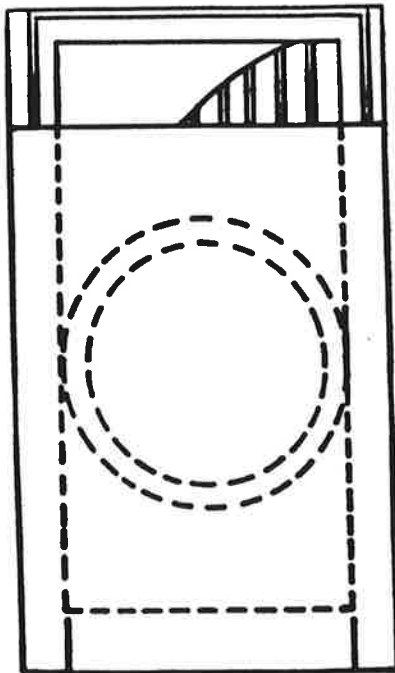


**EXISTING  
 PLAN VIEW**

EXISTING FRAME AND  
 GRATE SEE DETAILS  
 DWG. NO. 430 & 440

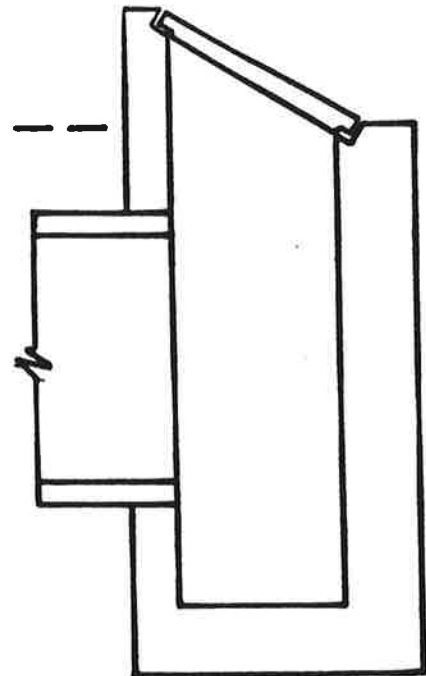


**SECTION A - A  
 DITCH INLET RAISED TO MAKE  
 OVERSIZE CATCH BASIN**



**EXISTING ELEVATION B - B**

CONCRETE TO BE  
 3000 P.S.I. - 28 DAYS  
 6 SACK MIX

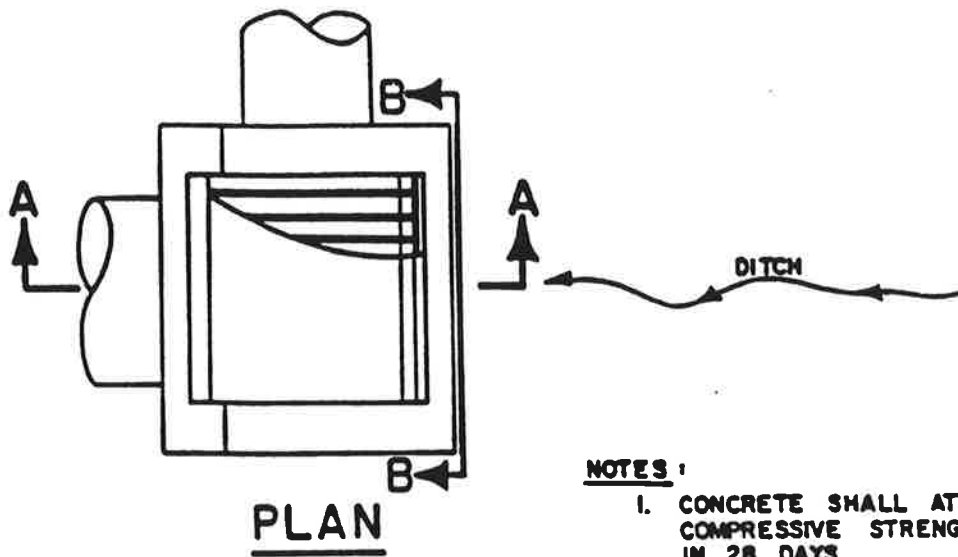


**EXISTING ELEVATION A - A**

**RAISED  
 AREA DRAIN**

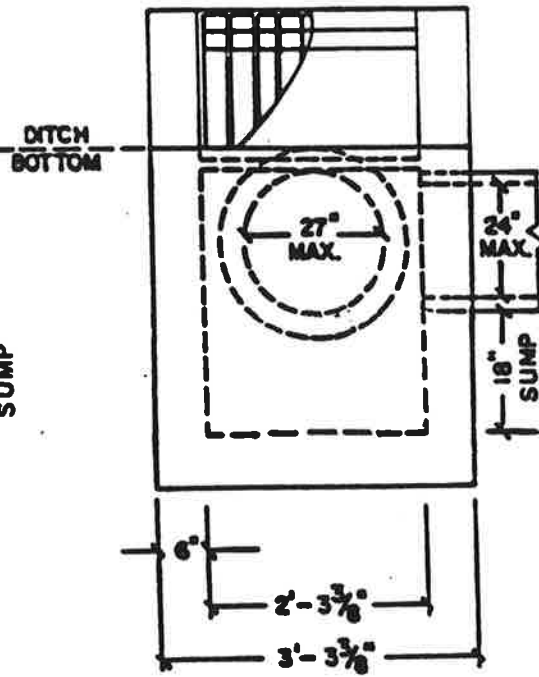
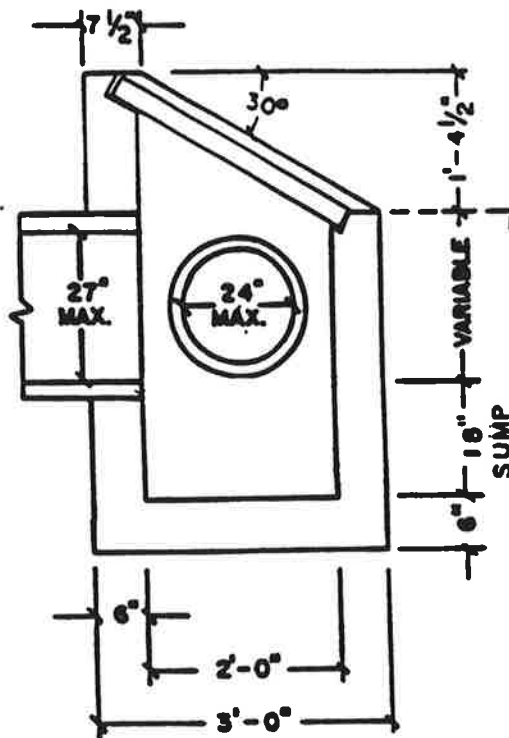
DRAWING NO. 410





**NOTES:**

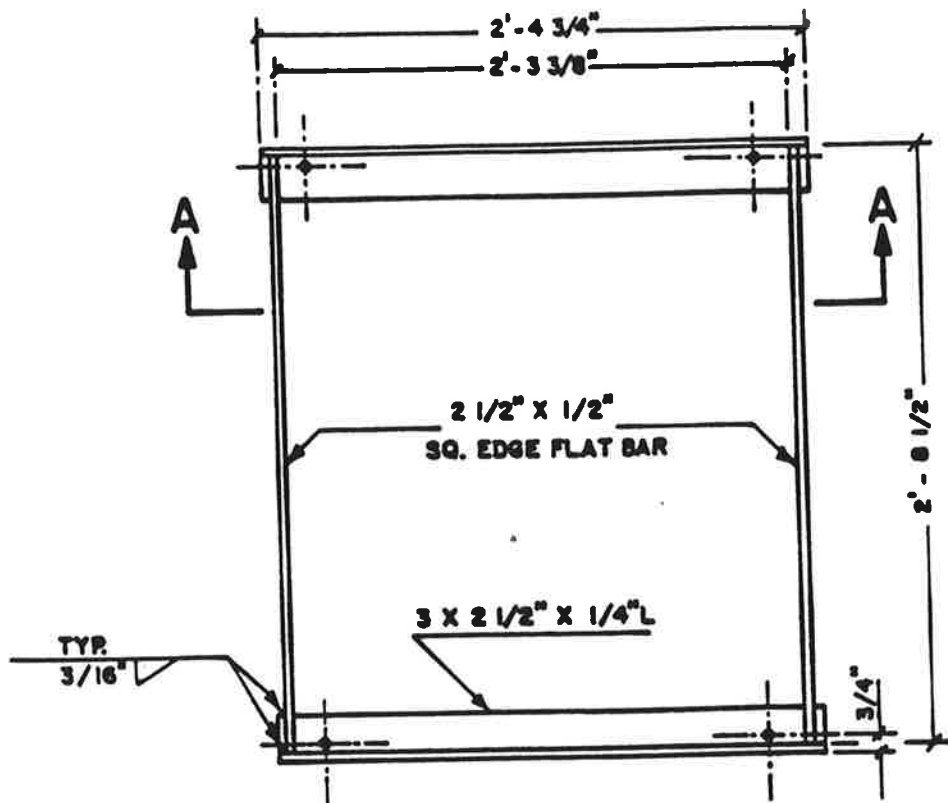
1. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. IN 28 DAYS.
2. FOR FRAME DETAIL, SEE DWG. NO. 430
3. FOR GRATE DETAIL, SEE DWG. NO. 440



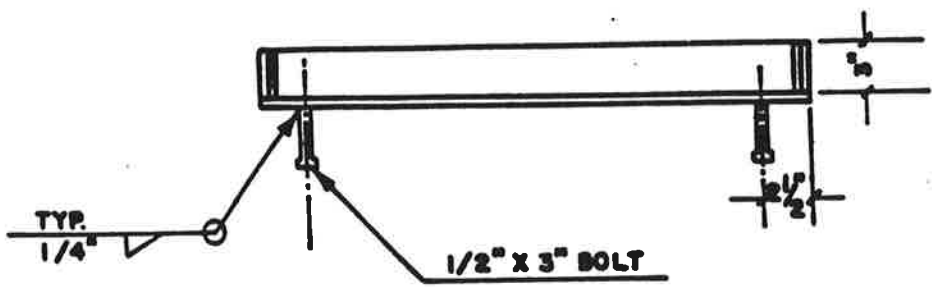
**AREA DRAIN,  
TYPE II**







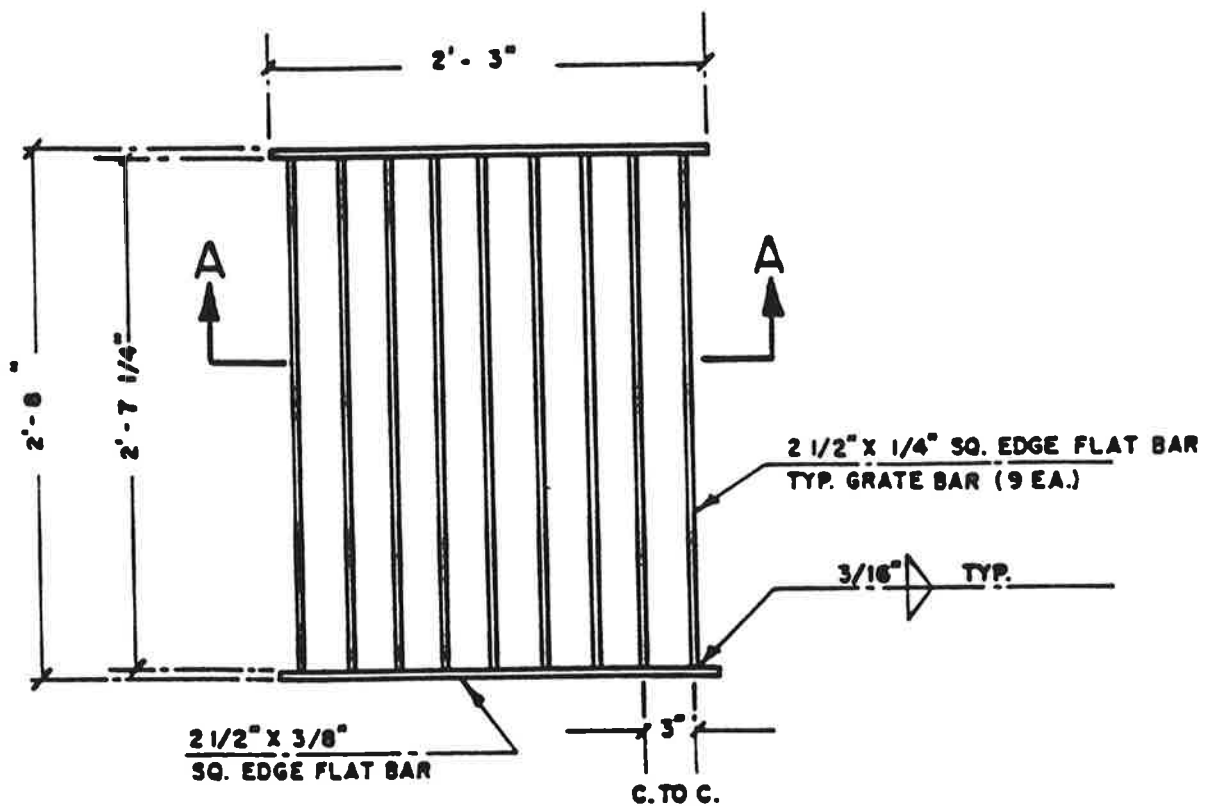
PLAN



SECTION A-A

**FRAME AREA  
DRAIN, TYPE II**





PLAN



SECTION A - A

**GRATE AREA  
DRAIN, TYPE II**





UNIFIED SEWERAGE AGENCY OF WASHINGTON COU

October 23, 1991

Jim Rapp  
City of Sherwood  
90 NW Park Street  
Sherwood, OR 97140

Dear Jim:

Last night, the Agency's Board of Directors adopted changes to Construction Standards, R&O #91-47. These changes will go int on November 15, 1991. A copy of the adopted changes is enclos

Most of the changes are to address clarifications requested by users, but items 11, 15, and 16 are the changes to address the problems noted in the DEQ Notice of Noncompliance (N.O.N.). T N.O.N. requires that the Agency and all cities adopt these cha December 1, 1991, or we will be subject to penalties.

In addition to adopting the above changes, the N.O.N. requires each city verify that its ordinances are equivalent to the Age ordinances. The letter to you from our General Manager dated September 26, 1991, outlines three options for accomplishing t

We will discuss the status of this effort at the City Committe meeting on Friday. Please let us know if we can assist you in way. We are also available to attend City Council meetings wh Agency ordinances are presented, if you wish.

Yours truly,

Christopher Bowles, P.E.  
Division Engineer

/eb

Enclosure

*# Not yet assigned*