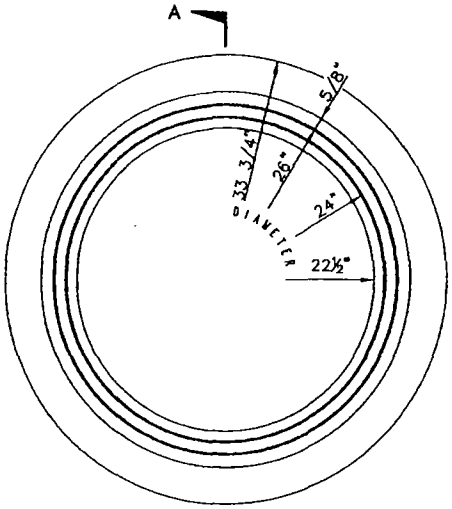
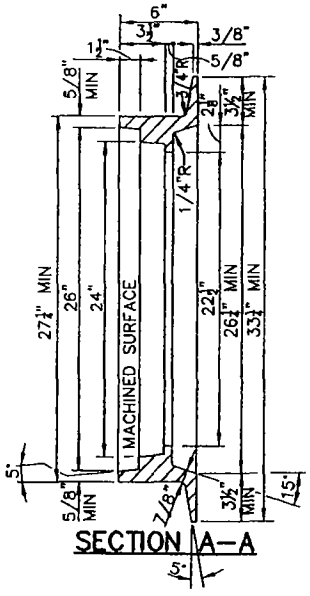


PLAN VIEW

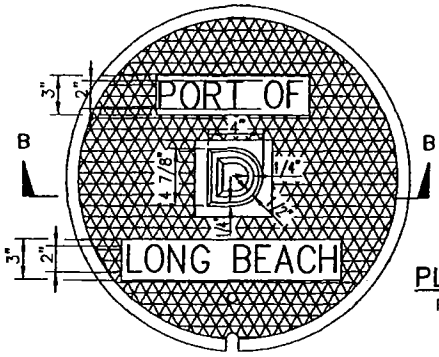
A

NOTE:
ALL FILLET RADII 1/8"
UNLESS OTHERWISE NOTED.

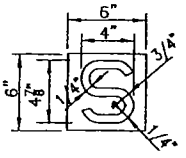


SECTION A–A

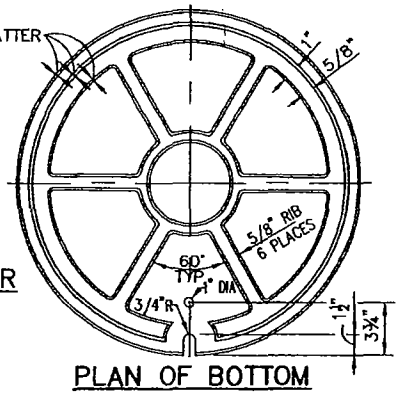
MANHOLE FRAME



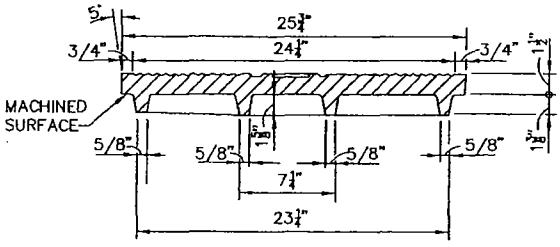
PLAN OF TOP
FOR STORM DRAIN COVER



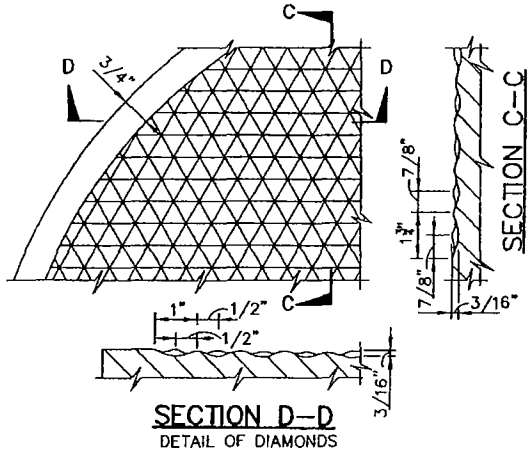
PLAN OF LETTER
FOR SEWER COVER



PLAN OF BOTTOM



SECTION B–B



SECTION D–D
DETAIL OF DIAMONDS

MANHOLE COVER
24" MANHOLE SHAFT

THE PORT OF LONG BEACH ENGINEERING DIVISION

REVISIONS		MANHOLE FRAME AND COVER	STANDARD PLAN
NO.	DATE		D–17
1			
2			
3		APPROVED BY: _____ CHIEF HARBOR ENGINEER R.E. NO.: _____ DATE: _____	1 OF 4

NOTES:

1. THE CAST IRON USED SHALL CONFORM WITH ASTM A-48 CLASS 35B.
2. THE FRAME AND COVER SHALL BE COATED WITH ASPHALTUM OR BITUMINOUS PAINT AFTER TESTING AND INSPECTION.
3. ALL LETTERS SHALL BE FLUSH WITH THE FINISHED SURFACE OF THE COVER.
4. COVERS AND FRAMES SHALL BE MANUFACTURED IN THE UNITED STATES.
5. FOUNDRY IDENTIFYING MARK, HEAT AND DATE SHALL BE CAST ON THE BOTTOM OF THE COVER AND ON THE INSIDE OF THE FRAME.
6. WEIGHT OF FRAME SHALL BE 260 POUNDS. WEIGHT OF COVER SHALL BE 175 POUNDS. ACTUAL WEIGHTS SHALL BE WITHING A RANGE OF 95% TO 110%.
7. THE MANHOLE FRAME AND COVER SHALL BE INSPECTED BY THE ENGINEER PRIOR TO SHIPMENT TO THE JOB SITE. ACCEPTANCE WILL BE INDICATED BY THE AGENCY'S MARK.
8. THE PROOF-LOAD FOR TEST METHOD B OF THE STANDARD SPECIFICATIONS IS 40,700 POUNDS.
9. COVERS FOR MANHOLES SHALL BE PROVIDED WITH SOCKET SET SCREW LOCKING DEVICES. DRILL AND TAP TWO HOLES TO A DEPTH OF ONE INCH AT 90 DEGREES TO PICK HOLE AND INSTALL ¾" X ¾" STAINLESS STEEL SOCKET SET SCREWS WITH ⅜" RECESSED HEX HEAD. ALL THREADS SHALL BE N.C.
10. IF SUBJECT TO CONTAINER EQUIPMENT LOADING DESIGN SHALL BE FOR 100 KIP WHEEL LOADS PLUS 25 KIP IMPACT LOADS. NEENAH FOUNDRY R-3493-A OR EQUAL.
11. ALHAMBRA FOUNDRY A-1170 OR EQUAL - H-20 LOADING.

24" MANHOLE SHAFT

THE PORT OF LONG BEACH ENGINEERING DIVISION

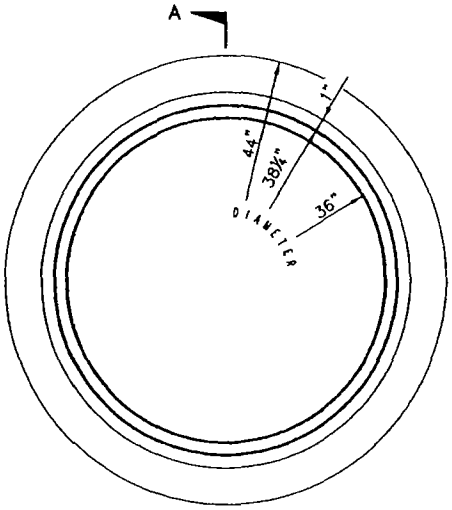
REVISIONS NO.	DATE
1	
2	
3	

MANHOLE FRAME AND COVER

STANDARD PLAN D-17

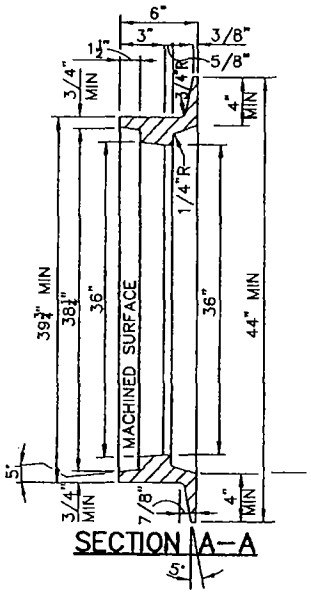
APPROVED BY: _____ CHIEF HARBOR ENGINEER R.E. NO.: _____ DATE: _____

2 OF 4



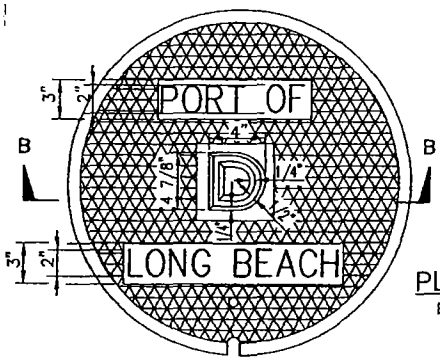
PLAN VIEW

NOTE:
ALL FILLET RADII 1/8"
UNLESS OTHERWISE NOTED.

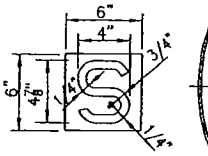


SECTION A-A

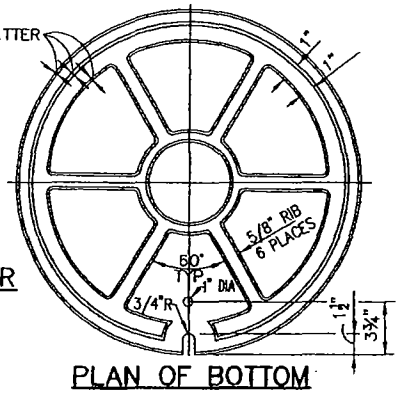
MANHOLE FRAME



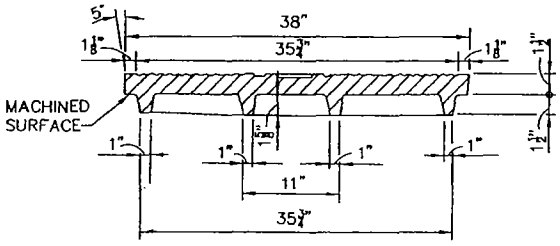
PLAN OF TOP
FOR STORM DRAIN COVER



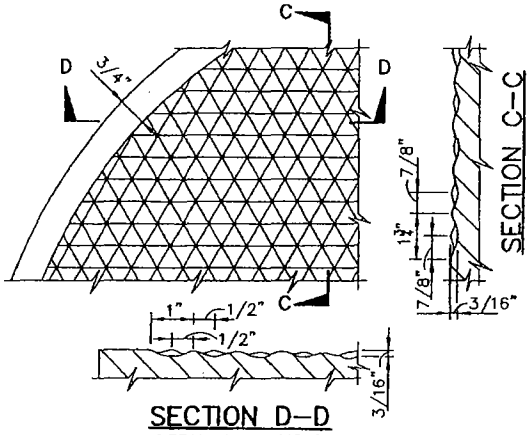
PLAN OF LETTER
FOR SEWER COVER



PLAN OF BOTTOM



SECTION B-B



SECTION D-D
DETAIL OF DIAMONDS

MANHOLE COVER
36" MANHOLE SHAFT

THE PORT OF LONG BEACH ENGINEERING DIVISION

REVISIONS NO.	DATE
1	
2	
3	

MANHOLE FRAME AND COVER

STANDARD PLAN
D-17

APPROVED BY: _____ CHIEF HARBOR ENGINEER R.E. NO.: _____ DATE: _____

3 OF 4

NOTES:

1. THE CAST IRON USED SHALL CONFORM WITH ASTM A-48 CLASS 35B.
2. THE FRAME AND COVER SHALL BE COATED WITH ASPHALTUM OR BITUMINOUS PAINT AFTER TESTING AND INSPECTION.
3. ALL LETTERS SHALL BE FLUSH WITH THE FINISHED SURFACE OF THE COVER.
4. COVERS AND FRAMES SHALL BE MANUFACTURED IN THE UNITED STATES.
5. FOUNDRY IDENTIFYING MARK, HEAT AND DATE SHALL BE CAST ON THE BOTTOM OF THE COVER AND ON THE INSIDE OF THE FRAME.
6. WEIGHT OF FRAME SHALL BE 335 POUNDS. WEIGHT OF COVER SHALL BE 340 POUNDS. ACTUAL WEIGHTS SHALL BE WITHING A RANGE OF 95% TO 110%.
7. THE MANHOLE FRAME AND COVER SHALL BE INSPECTED BY THE ENGINEER PRIOR TO SHIPMENT TO THE JOB SITE. ACCEPTANCE WILL BE INDICATED BY THE AGENCY'S MARK.
8. THE PROOF-LOAD FOR TEST METHOD B OF THE STANDARD SPECIFICATIONS IS 41,300 POUNDS.
9. COVERS FOR MANHOLES SHALL BE PROVIDED WITH SOCKET SET SCREW LOCKING DEVICES. DRILL AND TAP TWO HOLES TO A DEPTH OF ONE INCH AT 90 DEGREES TO PICK HOLE AND INSTALL ¾" X ¾" STAINLESS STEEL SOCKET SET SCREWS WITH ⅜" RECESSED HEX HEAD. ALL THREADS SHALL BE N.C.
10. IF SUBJECT TO CONTAINER EQUIPMENT LOADING DESIGN SHALL BE FOR 100 KIP WHEEL LOADS PLUS 25 KIP IMPACT LOADS. NEENAH FOUNDRY R-3492-C OR EQUAL.
11. ALHAMBRA FOUNDRY A-1251 TRAFFIC LOADING.

36" MANHOLE SHAFT

THE PORT OF LONG BEACH ENGINEERING DIVISION

REVISIONS		MANHOLE FRAME AND COVER	STANDARD PLAN
NO.	DATE		D-17
1			
2			
3		APPROVED BY: _____ CHIEF HARBOR ENGINEER R.E. NO.: _____ DATE: _____	4 OF 4