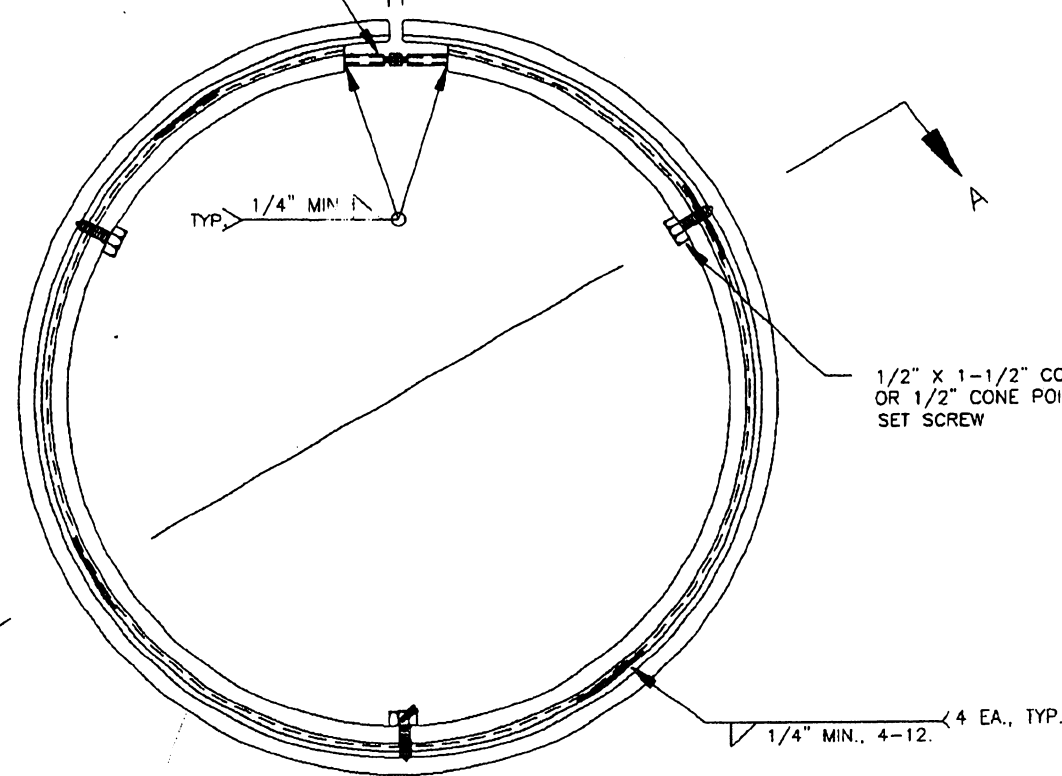


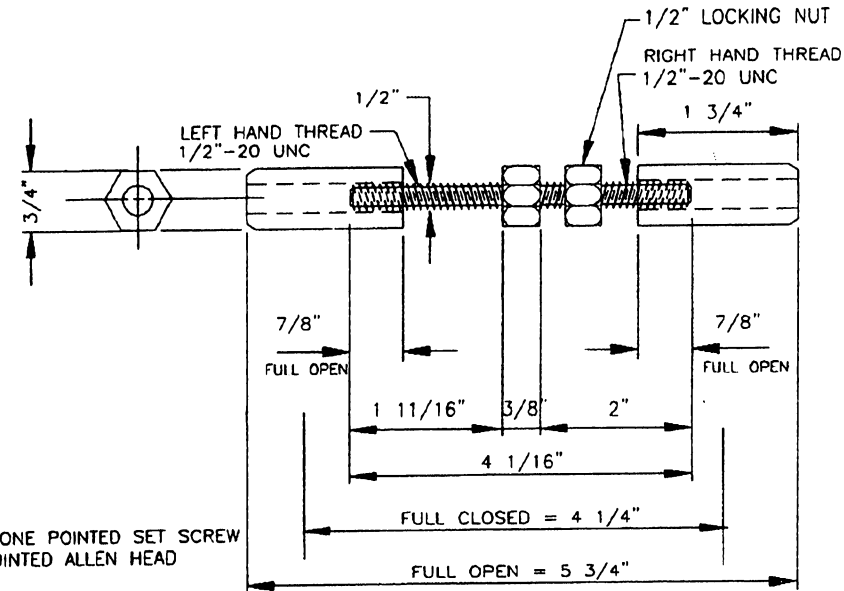
TYPE 5 MANHOLE RISER SYSTEM

MECHANICAL ADJUSTMENT SYSTEM
(SEE DETAIL THIS SHEET)

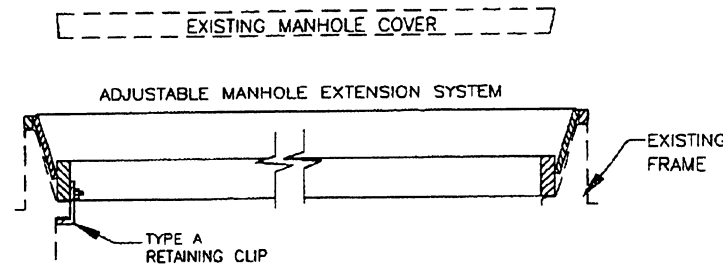
1 1/2" MAX.
TOTAL 3/4" MAXIMUM ADJUSTMENT, IN DIAMETER
THAT IS 3/8" IN EITHER DIRECTION



PLAN



MECHANICAL ADJUSTMENT SYSTEM



TYPICAL INSTALLATION AND
RETAINING CLIP DETAIL

NOTES

- ALL COMPONENTS ARE MANUFACTURED FROM U.S. MADE CARBON STEEL MEETING OR EXCEEDING THE MINIMUM REQUIREMENTS OF A.S.T.M. A-36.
- TOP AND BOTTOM RINGS ARE WELDED AS SHOWN.
- ADJUSTER STUD IS MADE FROM TYPE 304 STAINLESS STEEL.
- THIS SYSTEM IS USED WHEN THE RISE IS LESS THAN THE LID.
- EACH ADJUSTMENT RING IS CUSTOM FABRICATED FROM MEASUREMENTS PROVIDED WITH EACH ORDER. REQUIRED MEASUREMENTS INCLUDE:
 - EXIST. MANHOLE COVER DIAMETER AND THICKNESS
 - REQUIRED HEIGHT OF ADJUSTMENT FROM TOP OF EXISTING LID TO FINISHED ELEVATION. MAXIMUM RECOMMENDED HEIGHT OF ADJUSTMENT FOR REPAIRING PROJECTS IS 6". HEIGHT ADJUSTMENTS ARE AVAILABLE IN 1/4" INCREMENTS.
 - REQUIRED LENGTH AND TYPE OF RETAINER CLIP.
 - WIDTH AND HEIGHT OF EXISTING CASTING BEARING SURFACE.
- DURING INSTALLATION CHECK FOR FULL BEARING OF LOWER FRAME SECTION ON EXISTING CASTING.
- RISERS SHALL BE COATED WITH BLACK ASPHALT BITUMINOUS PAINT
- IN LIEU OF CONE TIPPED BOLTS FOR ATTACHMENT TO FRAME INCLUDE DRILLED AND TAPPED BAR STOCK WITH 1/2" DIA., -1" LONG STEEL BOLT, LOCK WASHER AND CLIPS.
- IT SHALL BE A SUBSIDIARY OBLIGATION OF THE CONTRACTOR TO TAKE ALL NECESSARY MEASUREMENT OF THE EXISTING MANHOLE COVER AND FRAME THAT WILL ALLOW THE APPROPRIATE FABRICATION OF THE ADJUSTMENT RING. THE EXCAVATION AND REPLACEMENT OF THE EXISTING PAVEMENT STRUCTURE SHALL BE A SUBSIDIARY OBLIGATION OF THE CONTRACT.
- UNLESS OTHERWISE INDICATED IN THE CONTRACT, THE CONTRACTOR MAY USE TYPE 1, 2, 5, OR 7 AT HIS CHOICE.
- THE USAGE OF EACH TYPE OF ATTACHMENT WILL BE LEFT AT THE SELECTION OF THE CONTRACTOR.

EFFECTIVE DATE: OCTOBER 2000

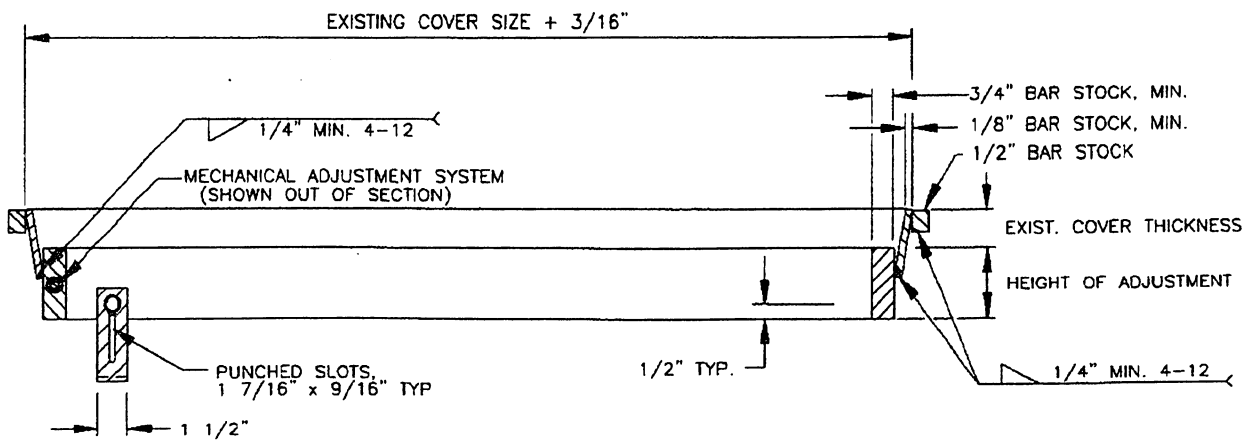
COMMONWEALTH OF PUERTO RICO
DEPARTMENT OF TRANSPORTATION
AND PUBLIC WORKS
HIGHWAY AND TRANSPORTATION AUTHORITY

**DRAINAGE
MANHOLE ADJUSTMENT**

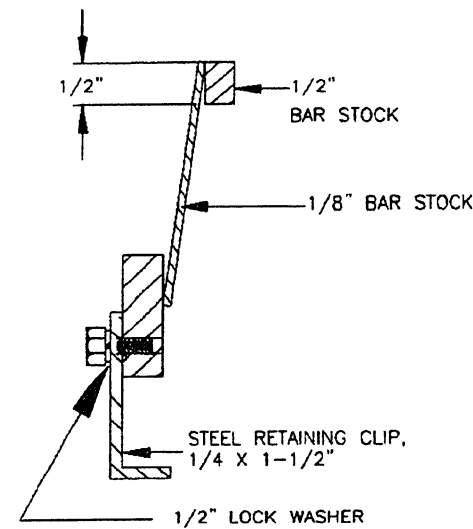
MANUFACTURED BY
ANDREWS METAL PRODUCTS
745 ANDREWS AVE
YOUNGSTOWN, OHIO 44505
PH 1-800-837-3901 FAX 330-744-1044
EMAIL: SALES@ANDREWSMETALPRODUCTS.COM

RECOMMENDED BY:
[Signature]
DESIGN AREA DIRECTOR
DATE: 10-20-00

APPROVED BY:
[Signature]
EXECUTIVE DIRECTOR
DATE: 10-20-00



SECTION A-A



OPTIONAL
CLIP DETAIL

DATE	REVISION	BY	STD.	DR
			DWG.	25C OF 40