



Chandler • Arizona
Where Values Make The Difference

MEMORANDUM

Case # 16-14

DATE: July 6, 2016

TO: MAG Specifications and Details Committee Members

FROM: Warren White, City of Chandler Representative

SUBJECT: Proposed Revisions to Water Meter Box and Cover Details

Purpose: Revise water meter box and cover detail no's 310-314 and 320 based on current practice and agency needs.

Revisions (update):

Detail No. 310 Steel Water Meter Box Cover

- Note 1 – lid material per ASTM.
- Added notes 4 and 5.
- General cleanup, removed letter J and shifted all other letters accordingly.
- Revised A and C dimensions to allow for 1/8" gap on each side.

Detail No. 315 Polymer Concrete Water Meter Box Cover

- Cleaned up optional AMR hole detail making dimensions easier to understand.
- Revised A and B dimensions to allow for 1/8" gap on each side.

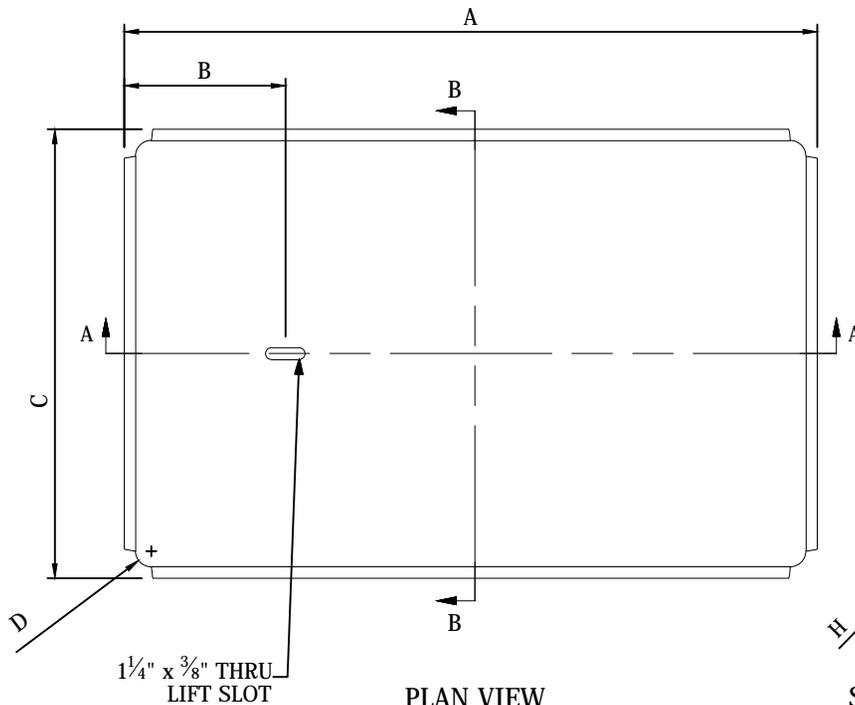
Detail No. 320 Water Meter Boxes

- Some revisions to dimensions.

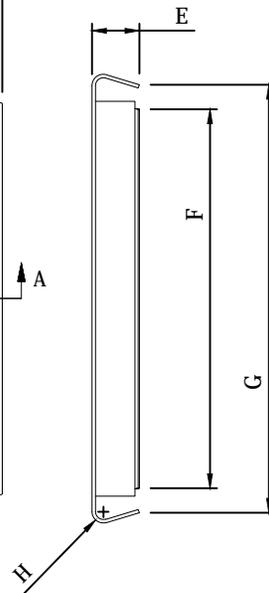
DRAFT
6-22-2016

NOTES:

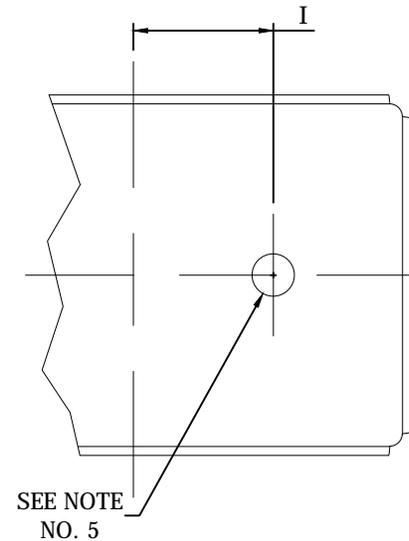
1. STEEL LID MATERIAL TO BE PER ASTM A786
2. POTABLE WATER PAINTED BLACK AND RECLAIMED WATER PAINTED PANTONE PURPLE 512
3. DIMENSIONS SHOWN SHOULD NOT VARY MORE THAN A $\frac{1}{16}$ OF AN INCH
4. ALL COVERS MADE OUT OF DIAMOND CHECKER PLATE
5. STANDARD AMR HOLE 2" PER AGENCY OR STANDARD SPECIFICATION



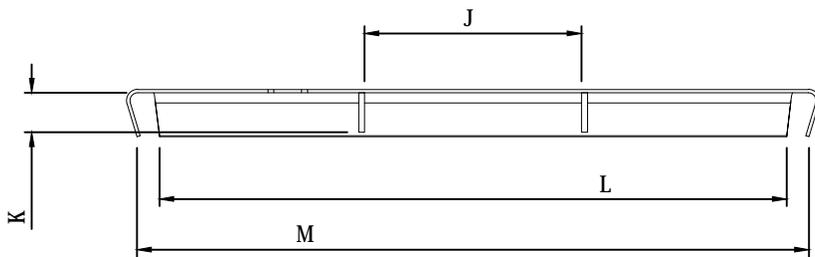
PLAN VIEW



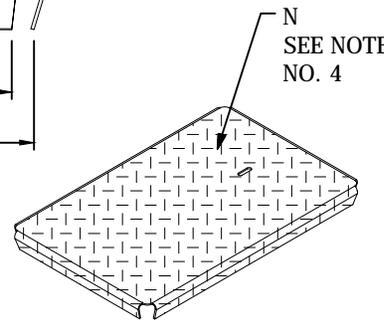
SECTION B-B



AMR DETAIL OPTION



SECTION A-A



STEEL WATER METER COVER DIMENSIONS				
DIMS	COVER NUMBER			
	1	2	3	4
A	15-3/4"	21-7/8"	26"	30-3/8"
B	3-7/8"	4-1/2"	2-1/8"	4-5/8"
C	9"	14"	15"	19-1/2"
D	1/2"	1/2"	1/2"	1/2"
E	1-1/2"	1-1/2"	2-1/4"	1-1/2"
F	7-1/8"	12"	13"	17-3/4"
G	8-1/4"	13-12"	14-1/8"	19-1/4"
H	1/8"	1/4"	1/8"	1/4"
I	3-3/4"	6-5/8"	9"	12-1/4"
J	NA	6-7/8"	8-1/2"	7-3/8"
K	NA	1-1/4"	1-1/4"	1-1/4"
L	13-7/8"	19-7/8"	24"	28-1/8"
M	15"	21-1/4"	25-1/8"	29-3/4"
N	14 GAUGE	12 GAUGE	12 GAUGE	12 GAUGE

DETAIL NO.
310



STANDARD DETAIL
ENGLISH

STEEL WATER METER BOX COVER

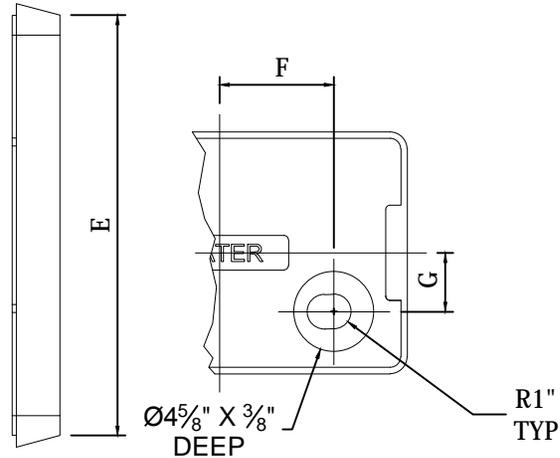
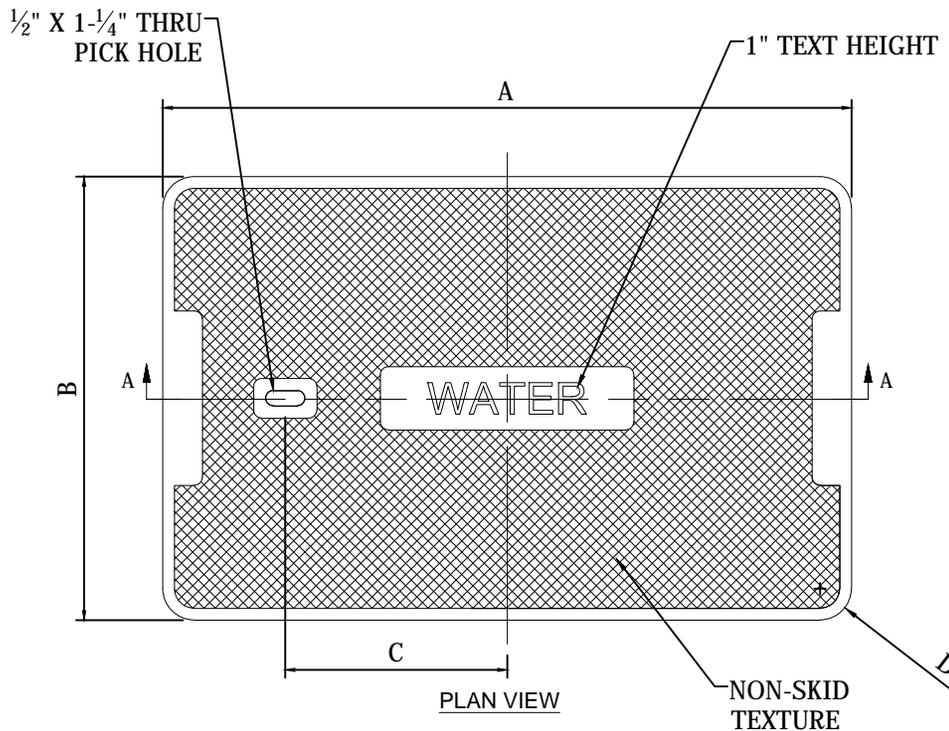
REVISED
1-1-2017

DETAIL NO.
310

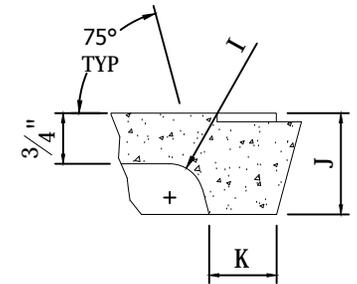
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6-22-2016

NOTES:

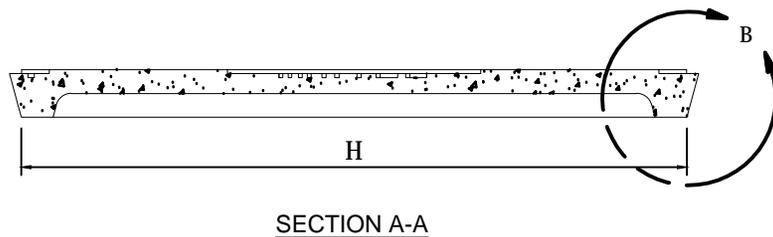
- POTABLE WATER TINTED GRAY AND RECLAIMED WATER TINTED PANTONE PURPLE 512
- DIMENSIONS SHOWN SHOULD NOT VARY MORE THAN A $\frac{1}{16}$ OF AN INCH
- ALTERNATIVE MATERIALS MAY INCLUDE "SHEET MOLDED COMPOUND" (SMC), AND "BULK MOLDED COMPOUND" (BMC). INJECTION MOLDED THERMOPLASTICS ARE NOT ACCEPTABLE MATERIALS



SLOTTED AMR DETAIL OPTION



DETAIL B



SECTION A-A

POLYMER CONCRETE COVER DIMENSIONS				
DIMS	COVER NUMBER			
	1	2	3	4
A	15-3/4"	21-7/8"	26"	30-3/8"
B	9"	14"	15"	19-1/2"
C	5"	7"	9"	10"
D	3/4"	1"	3/8"	3/8"
E	8-1/2"	13-1/4"	14-1/8"	19"
F	4-3/8"	6-5/8"	8"	10-3/4"
G	3/4"	3-3/8"	3-3/4"	6-1/4"
H	15-3/8"	21"	25-1/8"	29-1/2"
I	3/8"	1/2"	1"	1/4"
J	1-1/2"	1-1/2"	2-1/4"	1-1/2"
K	3/4"	1"	1"	1"

DETAIL NO.
315



STANDARD DETAIL
ENGLISH

POLYMER CONCRETE
WATER METER BOX COVER

REVISED
1-1-2017

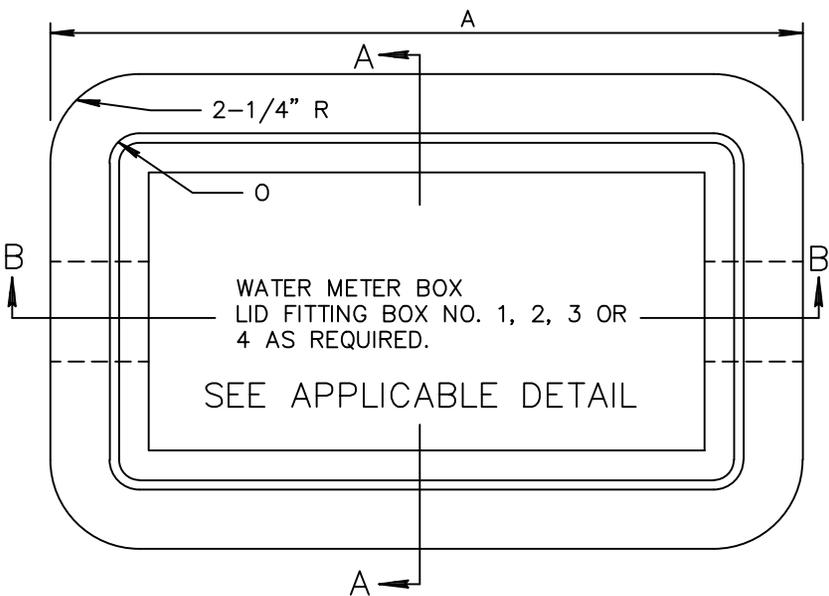
DETAIL NO.
315

DRAFT

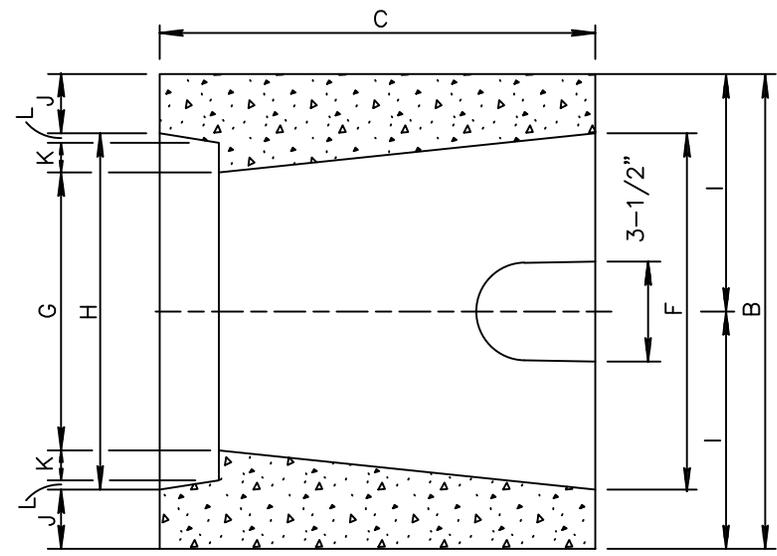
6-22-2016

NOTES:

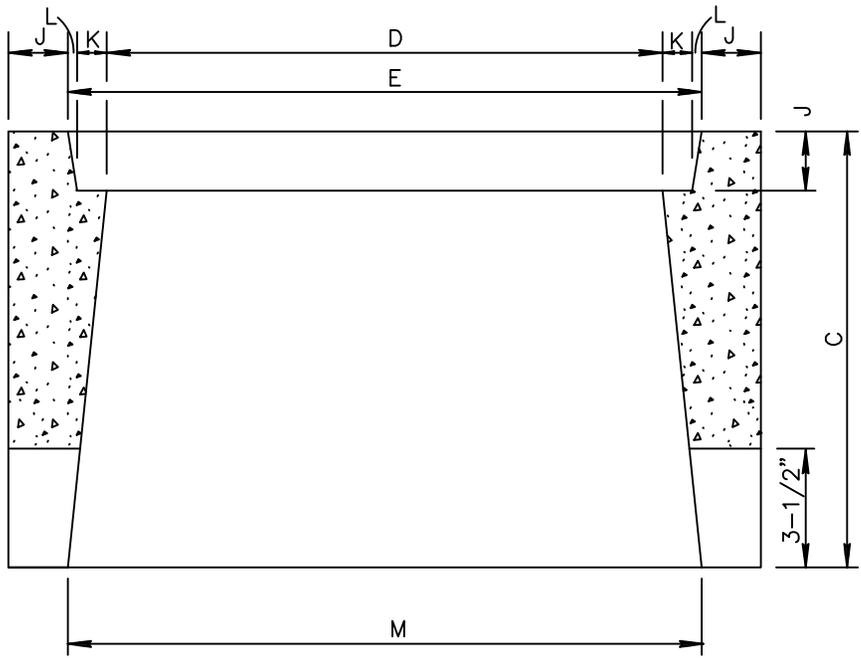
1. THE METER BOXES SHALL CONFORM TO THE DIMENSIONS AS SHOWN AND SHALL BE MADE OF PORTLAND CEMENT CONCRETE POURED AND TAMPED (OR VIBRATED) IN TRUE FORMS.
2. USE CLASS 'AA' CONCRETE PER SECT. 725.
3. ALTERNATIVE MATERIALS MAY INCLUDE "POLYMER CONCRETE", "SHEET MOLDED COMPOUND" (SMC), AND "BULK MOLDED COMPOUND" (BMC). INJECTION MOLDED AND ROTATIONALLY MOLDED THERMOPLASTICS ARE NOT ACCEPTABLE
4. VERTICAL LOAD RATING OF 3,000 lbs. (MINIMUM) TO 10,000 lbs. (COVER SHALL WITHSTAND THE MINIMUM TEST LOAD APPLIED OVER 10X10 STEEL PLATE WITH 1/2" RUBBER BACKING BETWEEN PLATE AND COVER, LOCATED IN CENTER OF COVER, WITH NO PERMANENT DEFLECTION OR DAMAGE TO LID OR BODY AFTER LOAD IS RELEASED)
5. DIMENSIONS SHOWN SHOULD NOT VARY MORE THAN A 1/16 OF AN INCH



PLAN VIEW



SECTION A-A



SECTION B-B

METER BOX DIMENSIONS				
DIMS	BOX NUMBER			
	1	2	3	4
A	18-1/2"	25"	28-3/8"	33-1/8"
B	11-3/4"	17-1/4"	17-5/8"	22-3/8"
C	12"	12"	12"	12"
D	14"	20"	24"	27-3/4"
E	16"	22-1/8"	26-1/4"	30-5/8"
F	9-1/4"	14-1/2"	15-1/8"	19-3/4"
G	7"	12-1/2"	13"	17"
H	9-1/4"	14-1/4"	15-1/4"	19-3/4"
I	5-7/8"	8-5/8"	8-7/8"	11-1/8"
J	1-1/2"	1-1/2"	2-1/4"	1-1/2"
K	3/4"	1/2"	3/4"	5/8"
L	1/4"	1/2"	1/2"	5/8"
M	16"	21-7/8"	26"	30-1/2"
O	1/2"	1/2"	1/2"	5/8"
	5/8" OR 3/4" METER	1" METER	1-1/2" METER	2" METER

DETAIL NO.
320



STANDARD DETAIL
ENGLISH

WATER METER BOXES

REVISED
1-1-2017

DETAIL NO.
320