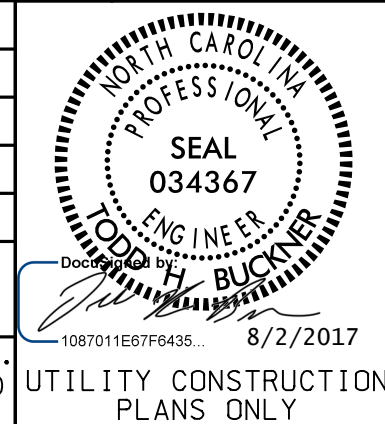


# PROJECT TYPICAL DETAILS

DOCUMENT NOT CONSIDERED FINAL  
UNTIL ALL SIGNATURES ARE COMPLETED

PROJECT REFERENCE NO. U-5935 SHEET NO. UC-3D



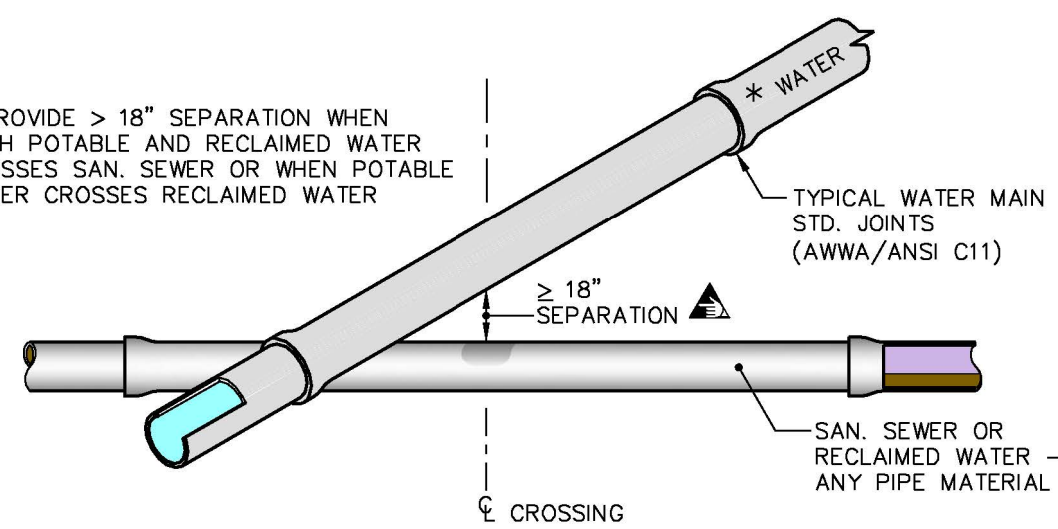
DESIGNED BY:  
DRAWN BY:  
CHECKED BY:  
APPROVED BY:  
REVISED:  
NORTH CAROLINA  
DEPARTMENT OF  
TRANSPORTATION  
UTILITIES ENGINEERING SEC.  
PHONE: (919) 707-6690  
FAX: (919) 250-4151

Michael Baker Engineering, Inc.  
8000 Regency Pkwy  
Suite 600  
Cary, NC 27518  
NC License: F-1084

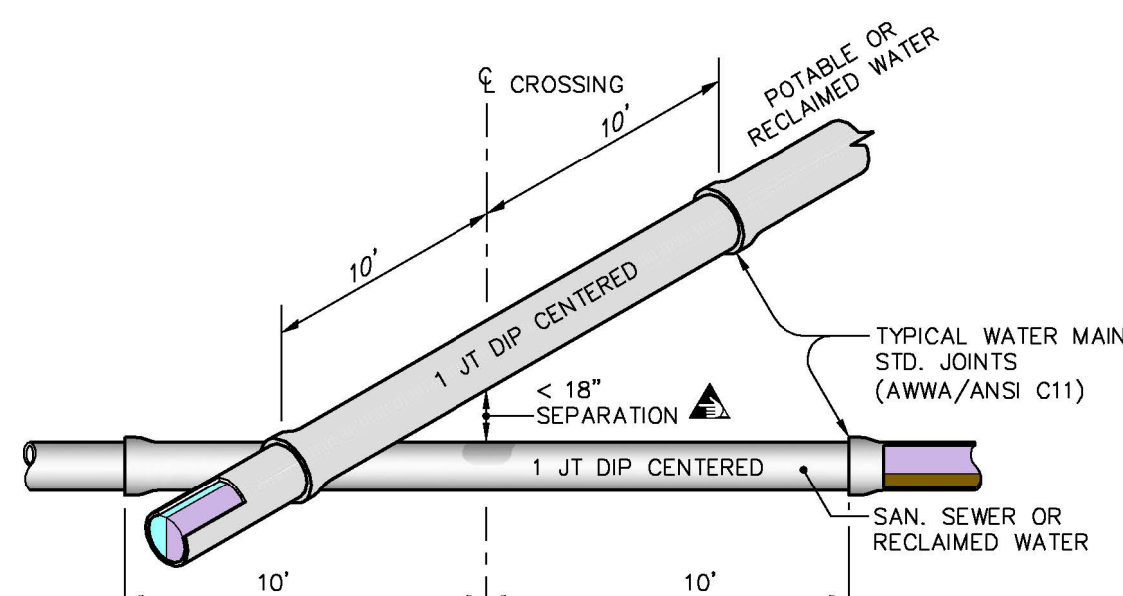
## UTILITY CONSTRUCTION

### PERPENDICULAR CROSSING WATER AND SEWER

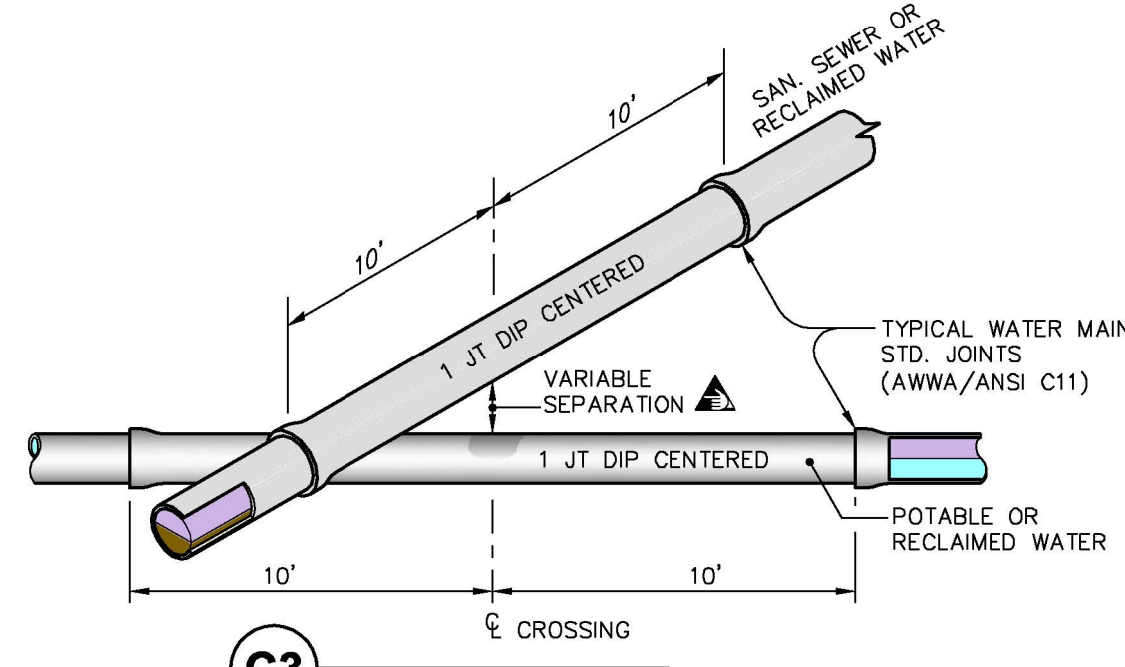
\* PROVIDE > 18" SEPARATION WHEN BOTH POTABLE AND RECLAIMED WATER CROSSES SAN. SEWER OR WHEN POTABLE WATER CROSSES RECLAIMED WATER



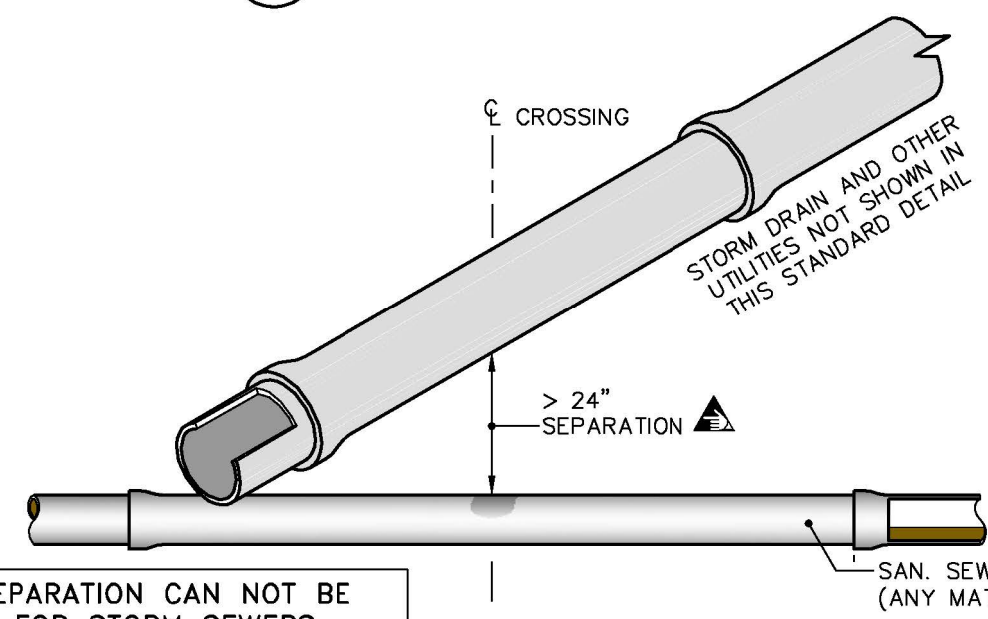
**C1 PREFERRED CONDITION**  
POTABLE OR RECLAIMED WATER ABOVE SAN. SEWER WITH ≥ 18" SEPARATION



**C2**  
POTABLE OR RECLAIMED WATER ABOVE SAN. SEWER WITH < 18" SEPARATION

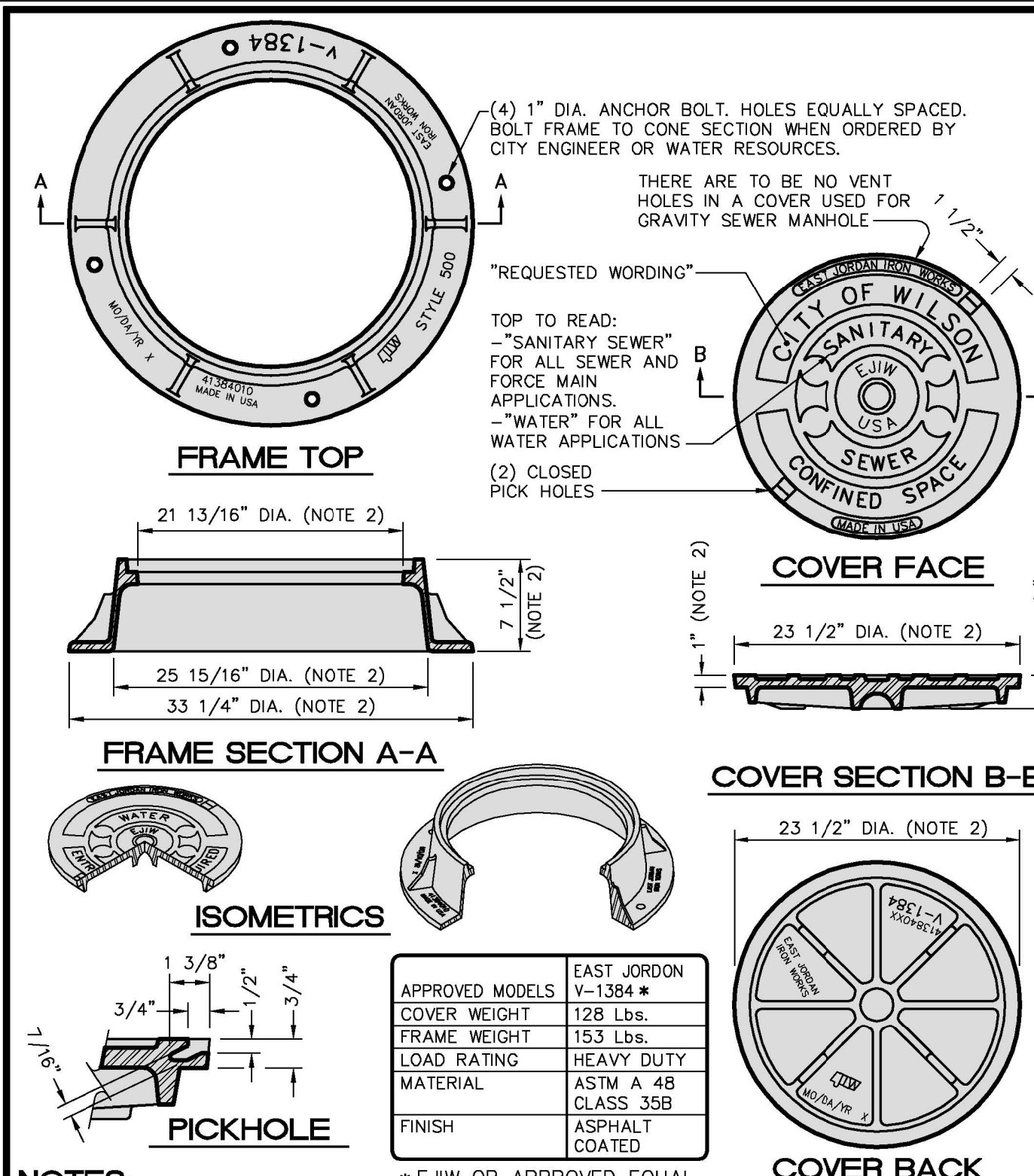


**C3**  
WATER BELOW SAN. SEWER



IF 24" SEPARATION CAN NOT BE ACHIEVED FOR STORM SEWERS, ENGINEERING SOLUTIONS SUCH AS DUCTILE IRON PIPE (SEWER) OR STRUCTURAL BRIDGING TO PREVENT CRUSHING THE UNDERLYING SEWER PIPE ARE ALLOWED.

**C4 PREFERRED CONDITION**  
STORM DRAIN ABOVE SAN SEWER WITH ≥ 24" SEPARATION



**NOTES:**  
1. Frame & Cover weight may not deviate by more than -5.0%.  
2. Iron casting to comply with AASHTO M306.  
3. See detail 633.03 for storm drainage cover design.

APPROVED MODELS	EAST JORDON V-1384 *
COVER WEIGHT	128 Lbs.
FRAME WEIGHT	153 Lbs.
LOAD RATING	HEAVY DUTY
MATERIAL	ASTM A 48 CLASS 35B
FINISH	ASPHALT COATED

\*EJW OR APPROVED EQUAL

**CITY of WILSON, N.C.**  
Public Services Departments  
1800 Herring Avenue, / P.O. Box 10  
Wilson, North Carolina 27894  
Voice (252) 399-2465  
FAX (252) 399-2453  
www.wilsonnc.org

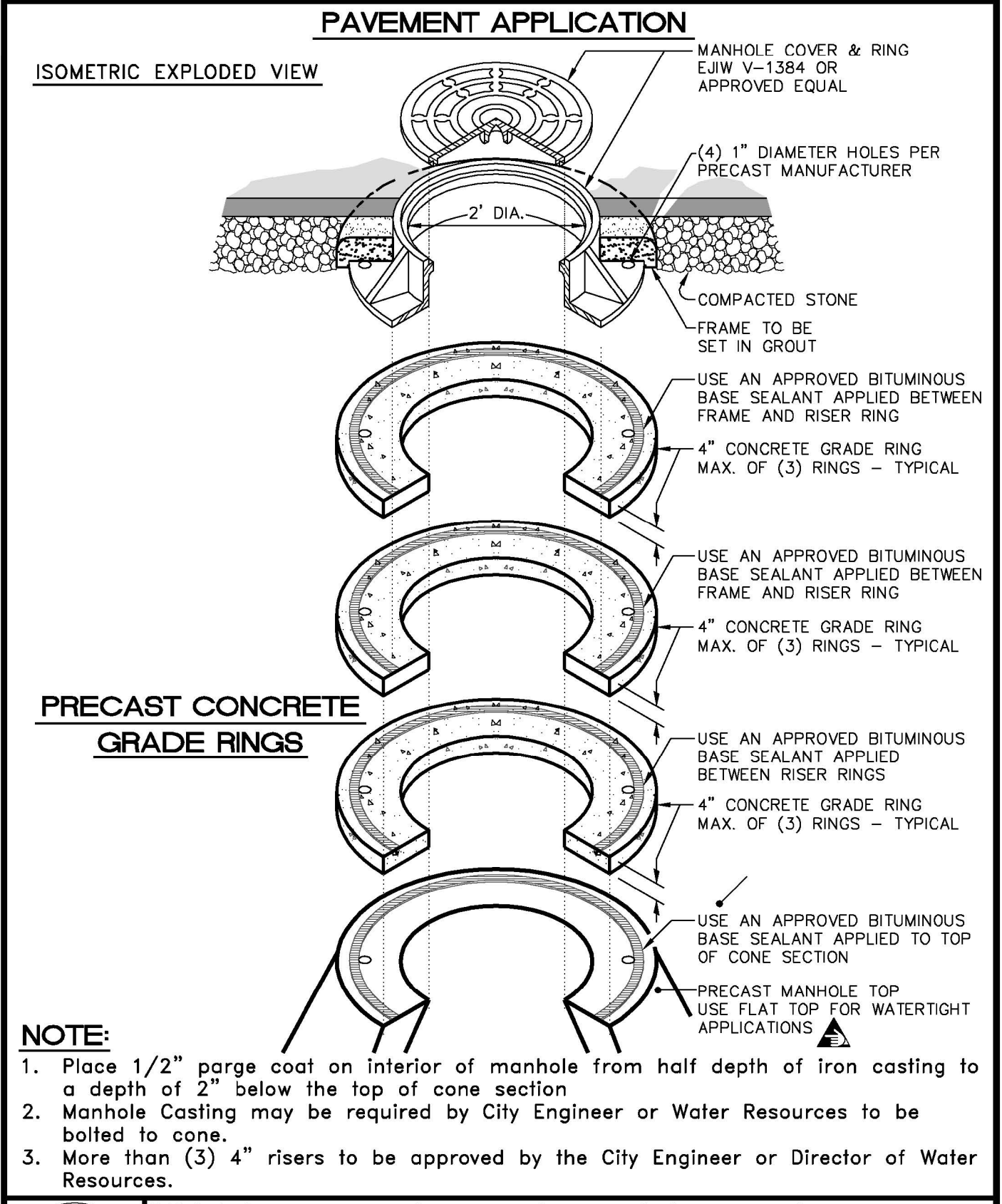
**MINIMUM SEPARATION OF UTILITIES AND OTHER FEATURES**  
SCALE: Not To Scale  
REVISION DATE: June, 2010  
SHEET # 2 of 5  
DETAIL # C01.04

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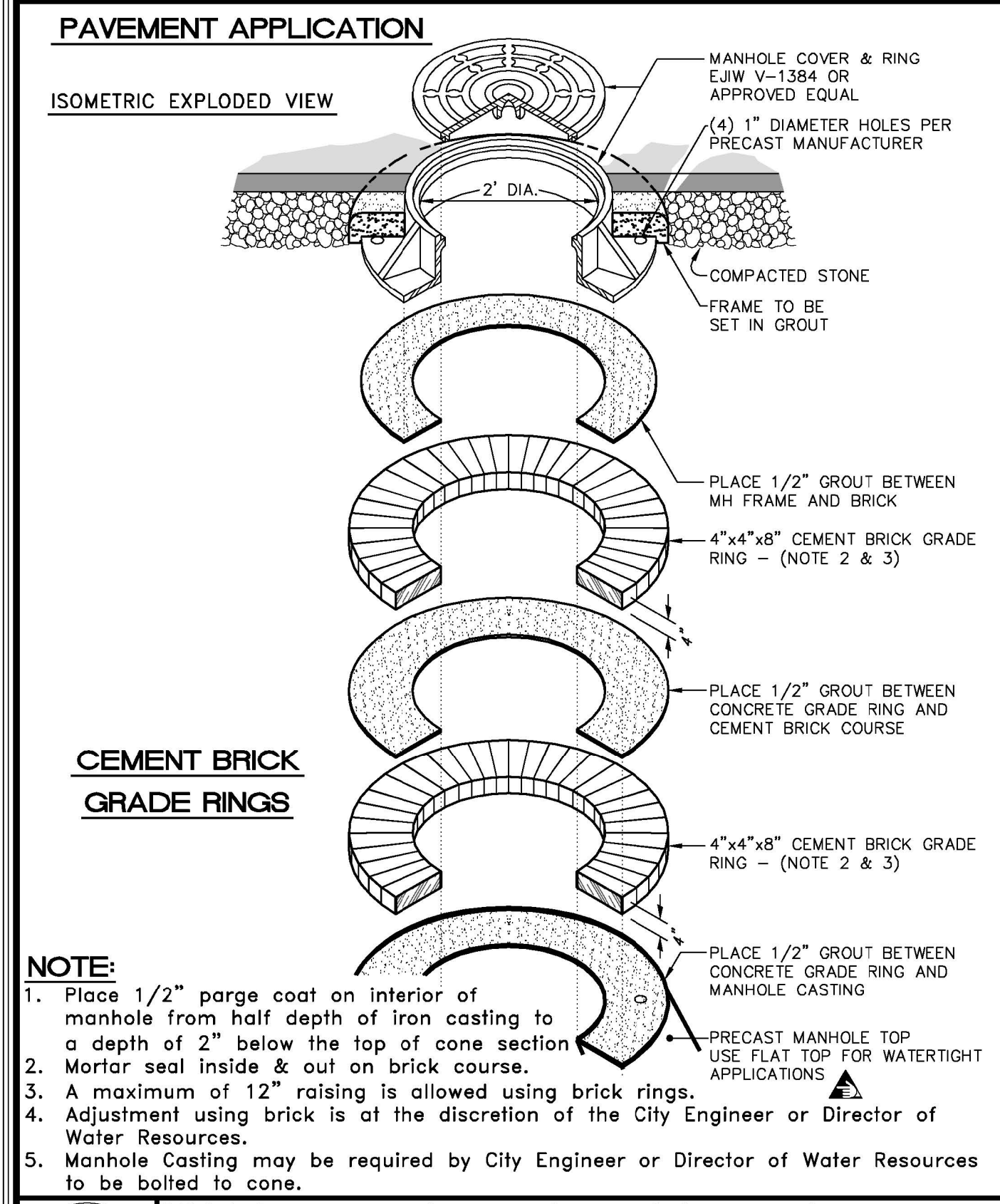
**MINIMUM SEPARATION OF UTILITIES AND OTHER FEATURES**  
SCALE: Not To Scale  
REVISION DATE: June, 2010  
SHEET # 3 of 5  
DETAIL # C01.04

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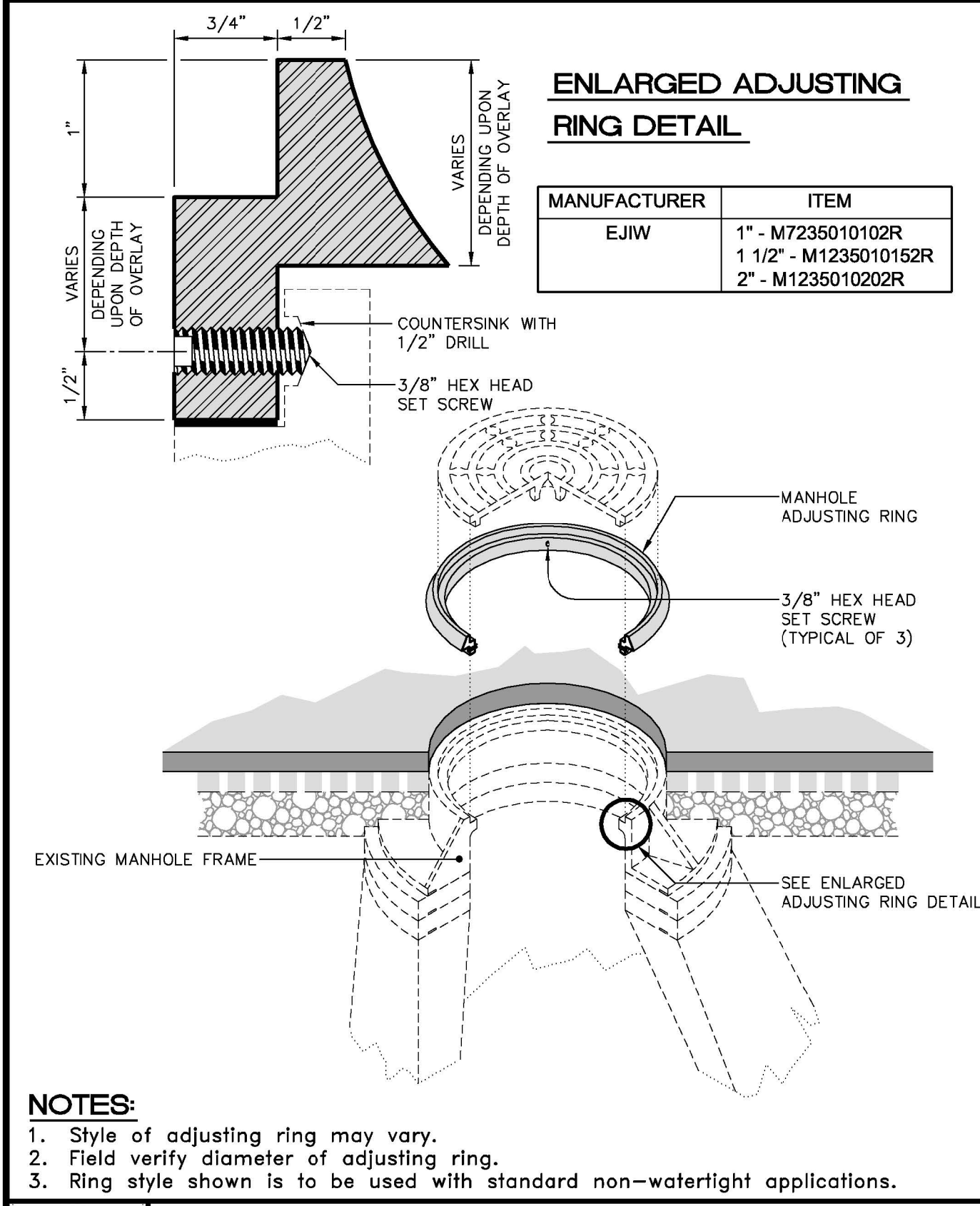
**STANDARD MANHOLE FRAME and COVER**  
SCALE: Not To Scale  
REVISION DATE: June, 2010  
SHEET # 1 of 1  
DETAIL # C06.01



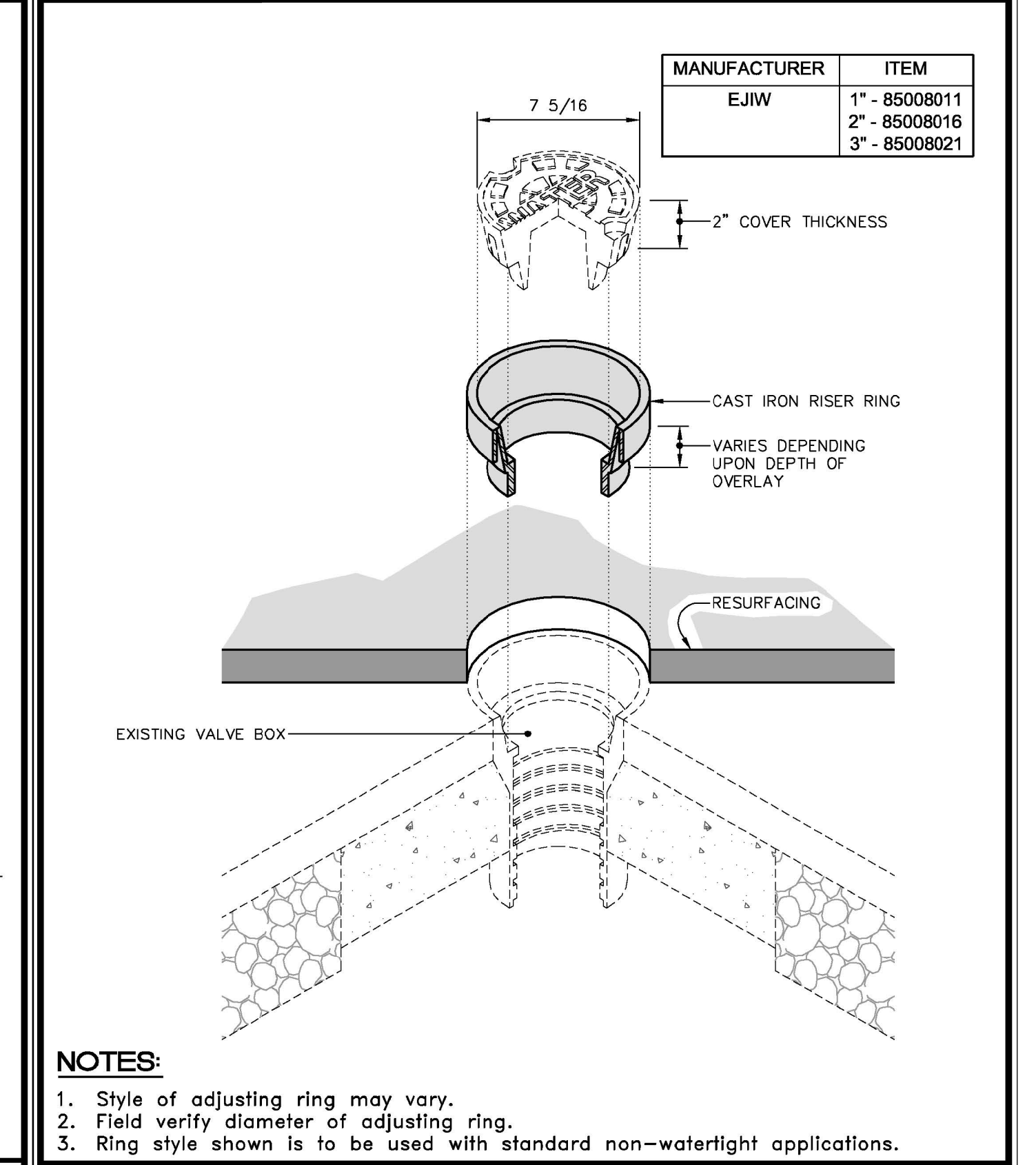
**NOTE:**  
1. Place 1/2" parge coat on interior of manhole from half depth of iron casting to a depth of 2" below the top of cone section  
2. Manhole Casting may be required by City Engineer or Water Resources to be bolted to cone.  
3. More than (3) 4" risers to be approved by the City Engineer or Director of Water Resources.



**NOTE:**  
1. Place 1/2" parge coat on interior of manhole from half depth of iron casting to a depth of 2" below the top of cone section  
2. Mortar seal inside & out on brick course.  
3. A maximum of 12" raising is allowed using brick rings.  
4. Adjustment using brick is at the discretion of the City Engineer or Director of Water Resources.  
5. Manhole Casting may be required by City Engineer or Director of Water Resources to be bolted to cone.



**NOTES:**  
1. Style of adjusting ring may vary.  
2. Field verify diameter of adjusting ring.  
3. Ring style shown is to be used with standard non-watertight applications.



**NOTES:**  
1. Style of adjusting ring may vary.  
2. Field verify diameter of adjusting ring.  
3. Ring style shown is to be used with standard non-watertight applications.

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**STANDARD MANHOLE RING AND COVER GRADE ADJUSTMENT**  
SCALE: Not To Scale  
REVISION DATE: June, 2013  
SHEET # 1 of 2  
DETAIL # C06.03

**CITY of WILSON, N.C.**  
Public Services Departments  
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**STANDARD MANHOLE RING AND COVER GRADE ADJUSTMENT**  
SCALE: Not To Scale  
REVISION DATE: June, 2013  
SHEET # 2 of 2  
DETAIL # C06.03

**CITY of WILSON, N.C.**  
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**MANHOLE ADJUSTING RING (RESURFACING APPLICATIONS ONLY)**  
SCALE: Not To Scale  
REVISION DATE: June, 2010  
SHEET # 1 of 1  
DETAIL # C06.04

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**VALVE BOX ADJUSTING RING (RESURFACING APPLICATIONS ONLY)**  
SCALE: Not To Scale  
REVISION DATE: June, 2010  
SHEET # 1 of 1  
DETAIL # C06.05

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