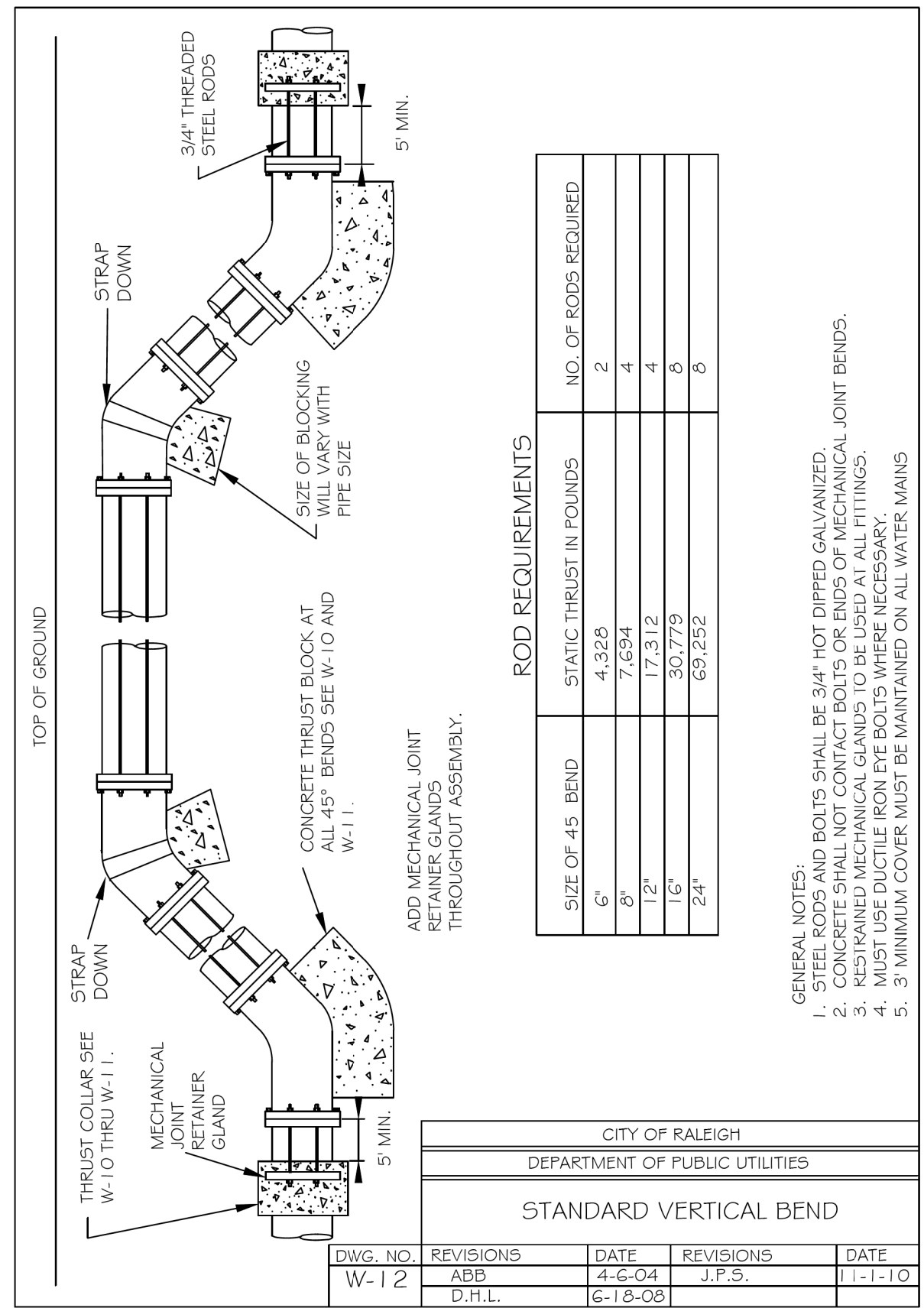


PROJECT REFERENCE NO.	SHEET NO.
B-5318	UC-3C
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
11/1/2008	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	UTILITY CONSTRUCTION PLANS ONLY

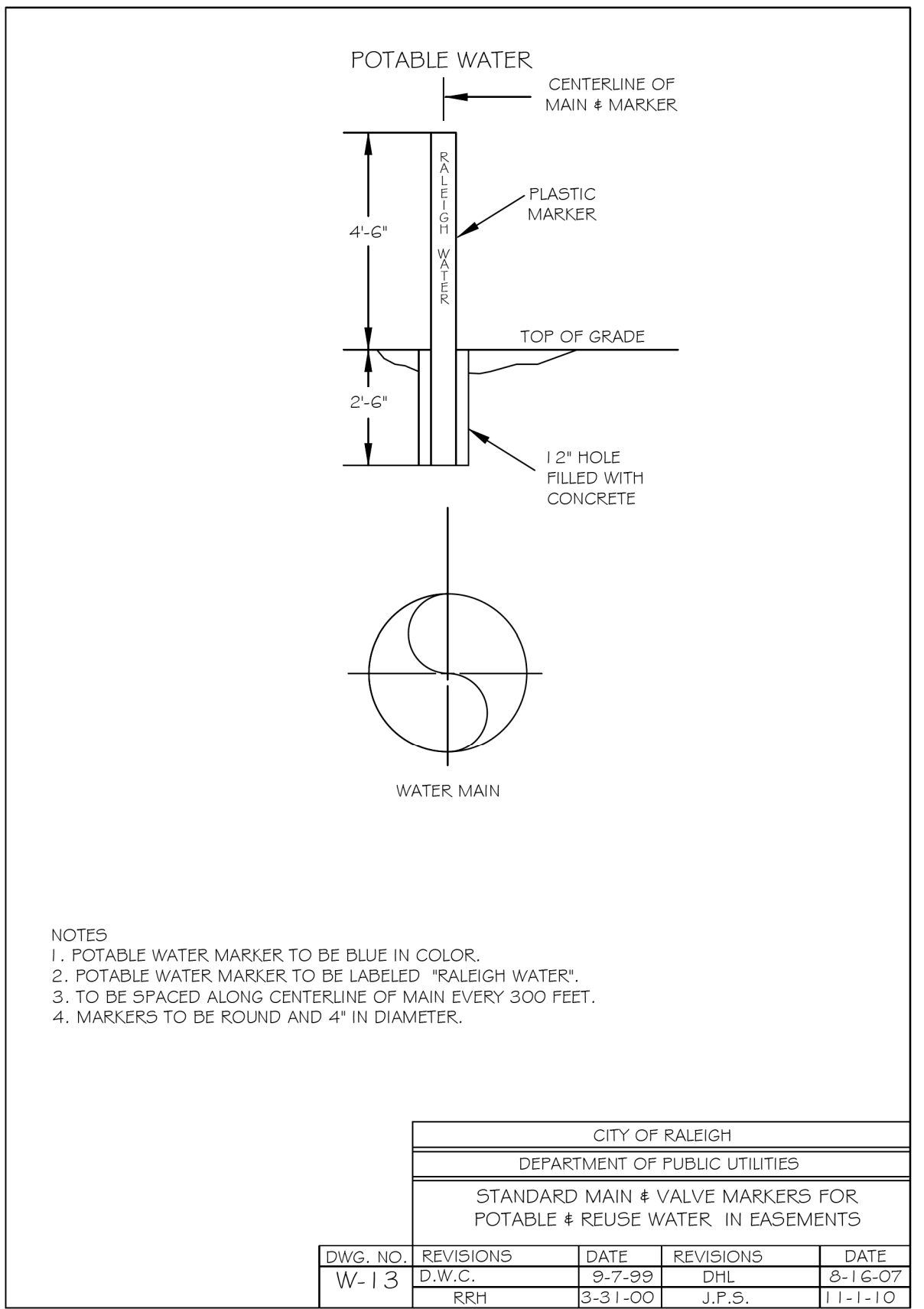
UTILITY CONSTRUCTION



SIZE OF 45° BEND	STATIC THRUST IN POUNDS	NO. OF RODS REQUIRED
6"	4,328	2
8"	7,694	4
12"	17,312	4
16"	30,779	6
24"	69,252	6

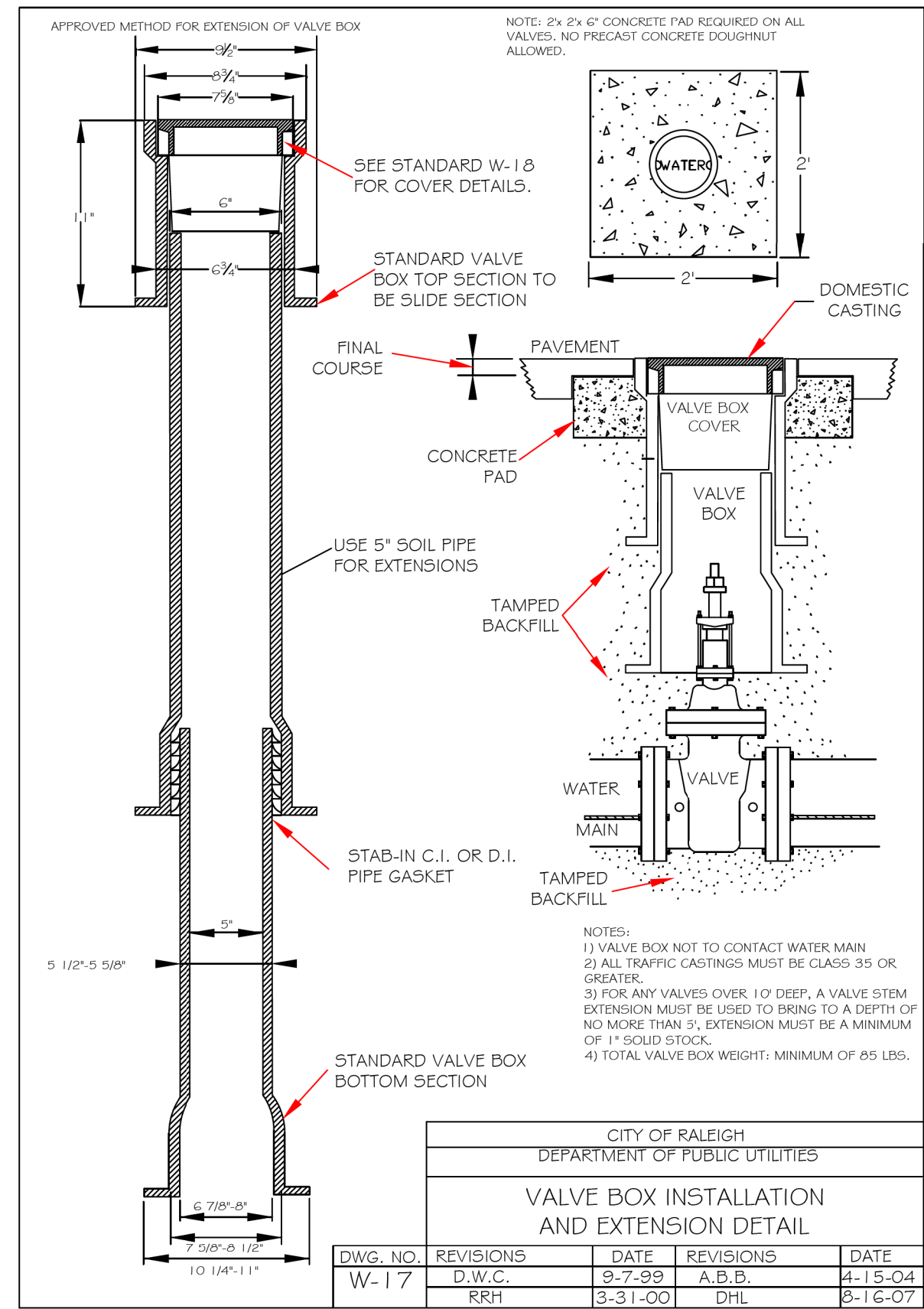
- GENERAL NOTES:
1. ALL RODS SHALL BE 3/4" HOT DIPPED GALVANIZED.
 2. CONCRETE SHALL NOT CONTACT BOLTS OR ENDS OF MECHANICAL JOINT BENDS.
 3. KEYSHANKED MECHANICAL JOINTS TO BE USED AT ALL FITTINGS.
 4. MUST USE DUCTILE IRON EYE BOLTS WHERE NECESSARY.
 5. 3" MINIMUM COVER MUST BE MAINTAINED ON ALL WATER MAINS.

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
STANDARD VERTICAL BEND				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-12	ARB	4-6-04	J.F.S.	1-1-10
	D.H.L.	6-18-08		

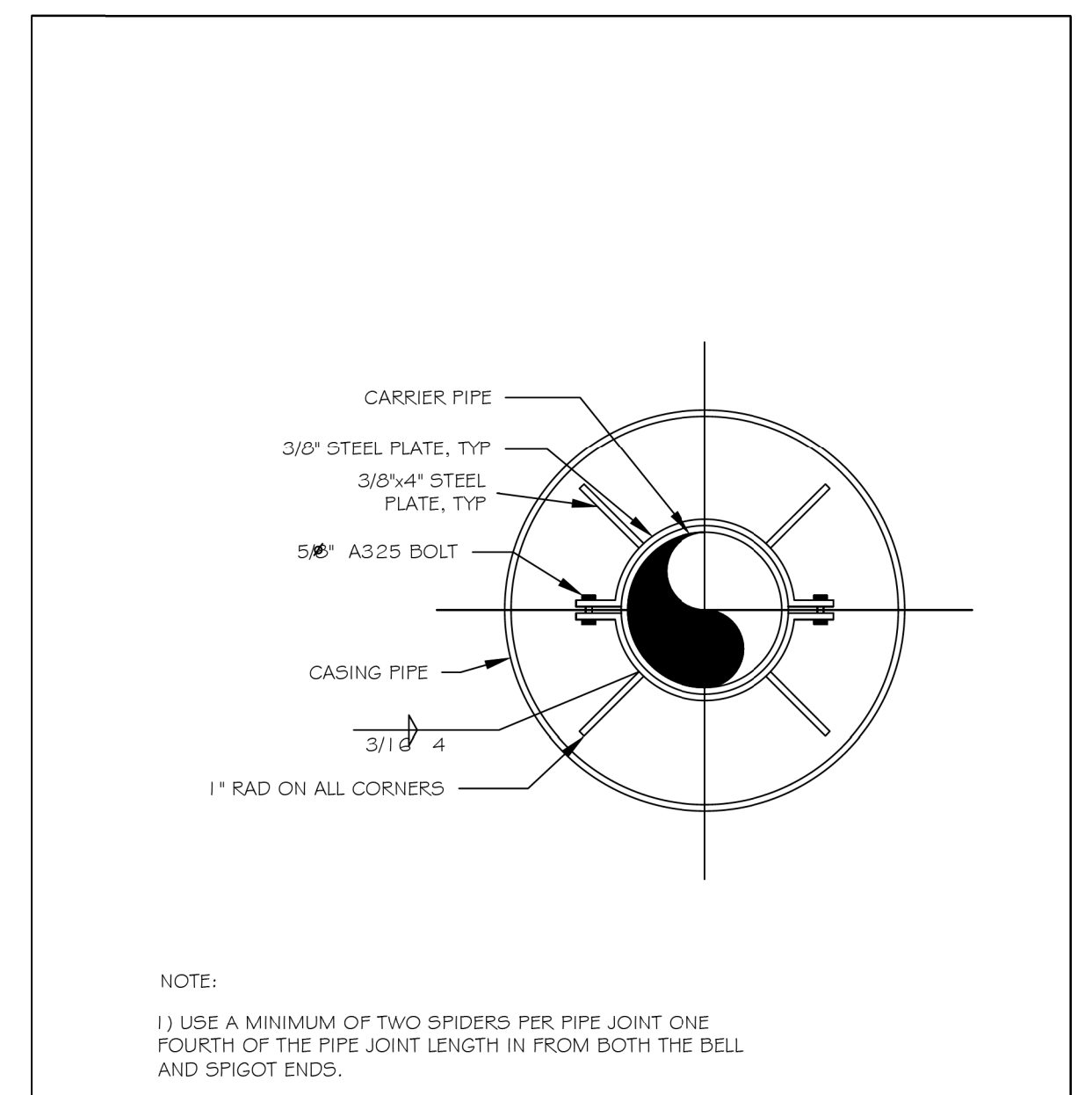


- NOTES
1. POTABLE WATER MARKER TO BE BLUE IN COLOR.
 2. POTABLE WATER MARKER TO BE LABELED "RALEIGH WATER".
 3. TO BE SPACED ALONG CENTERLINE OF MAIN EVERY 300 FEET.
 4. MARKERS TO BE ROUND AND 4" IN DIAMETER.

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
STANDARD MAIN & VALVE MARKERS FOR POTABLE & REUSE WATER, IN EASEMENTS				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-13	D.W.C.	9-7-99	DHL	8-16-07
	RRH	3-31-00	J.F.S.	1-1-10



CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
VALVE BOX INSTALLATION AND EXTENSION DETAIL				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-17	D.W.C.	9-7-99	A.B.B.	4-15-04
	RRH	3-31-00	DHL	8-16-07



- NOTE:
- 1) USE A MINIMUM OF TWO SPIDERS PER PIPE JOINT ONE FOURTH OF THE PIPE JOINT LENGTH IN FROM BOTH THE BELL AND SPIGOT ENDS.

CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
PIPE ALIGNMENT GUIDE				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-40	RRH	3-31-00		
	A.B.B.	4-16-04		

SITE PERMITTING APPROVAL

Water and Sewer Permits (if applicable)

The City of Raleigh consents to the connection and extension of the City's **Public Sewer System** as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit # S-4929**

The City of Raleigh consents to the connection and extension of the City's **Public Water System** as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook. **City of Raleigh Public Utilities Department Permit # W-3587**

The City of Raleigh consents to the connection to its public sewer system and extension of the private sewer collection system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh Public Utilities Department Permit # N/A

CITY OF RALEIGH - PLANS AUTHORIZED FOR CONSTRUCTION

Plans for the proposed use have been reviewed for general compliance with applicable codes. This limited review, and authorization for construction is not to be considered to represent total compliance with all legal requirements for development and construction. The property owner, design consultants, and contractors are each responsible for compliance with all applicable City, State and Federal laws. This specific authorization below is not a permit, nor shall it be construed to permit any violation of City, State or Federal Law. All Construction must be in accordance with all Local, State, and Federal Rules and Regulations.

Electronic Approval: This approval is being issued electronically. This approval is valid only upon the signature of a City of Raleigh Review Officer below. The City will retain a copy of the approved plans. Any work authorized by this approval must proceed in accordance with the plans kept on file with the City. This electronic approval may not be edited once issued. Any modification to this approval once issued will invalidate this approval.

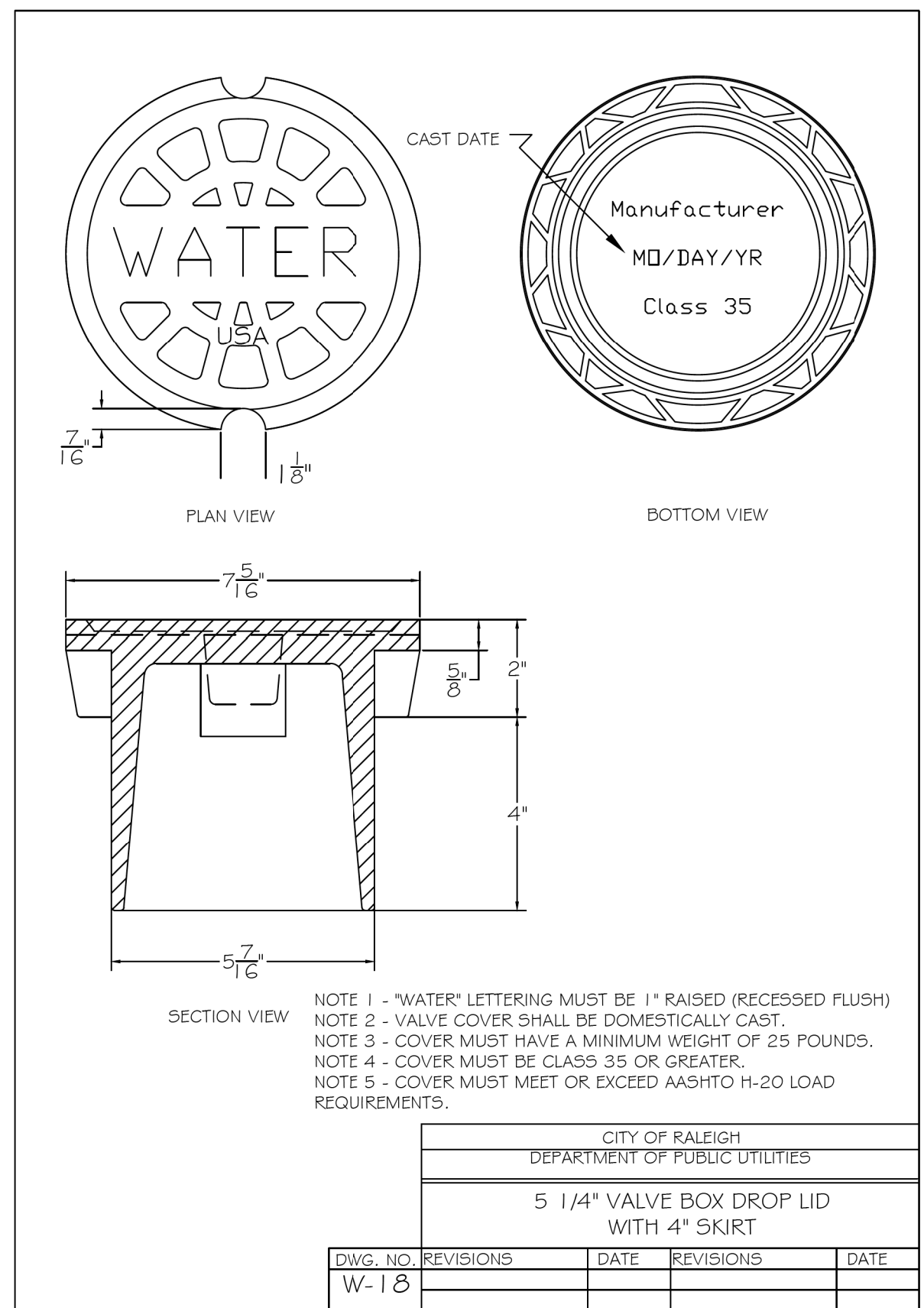
These plans have been electronically approved for construction by the Town of Wake Forest Planning Department. This approval may not be edited once issued.

Patrick Reid 04/2021
Patrick Reid 08/2021

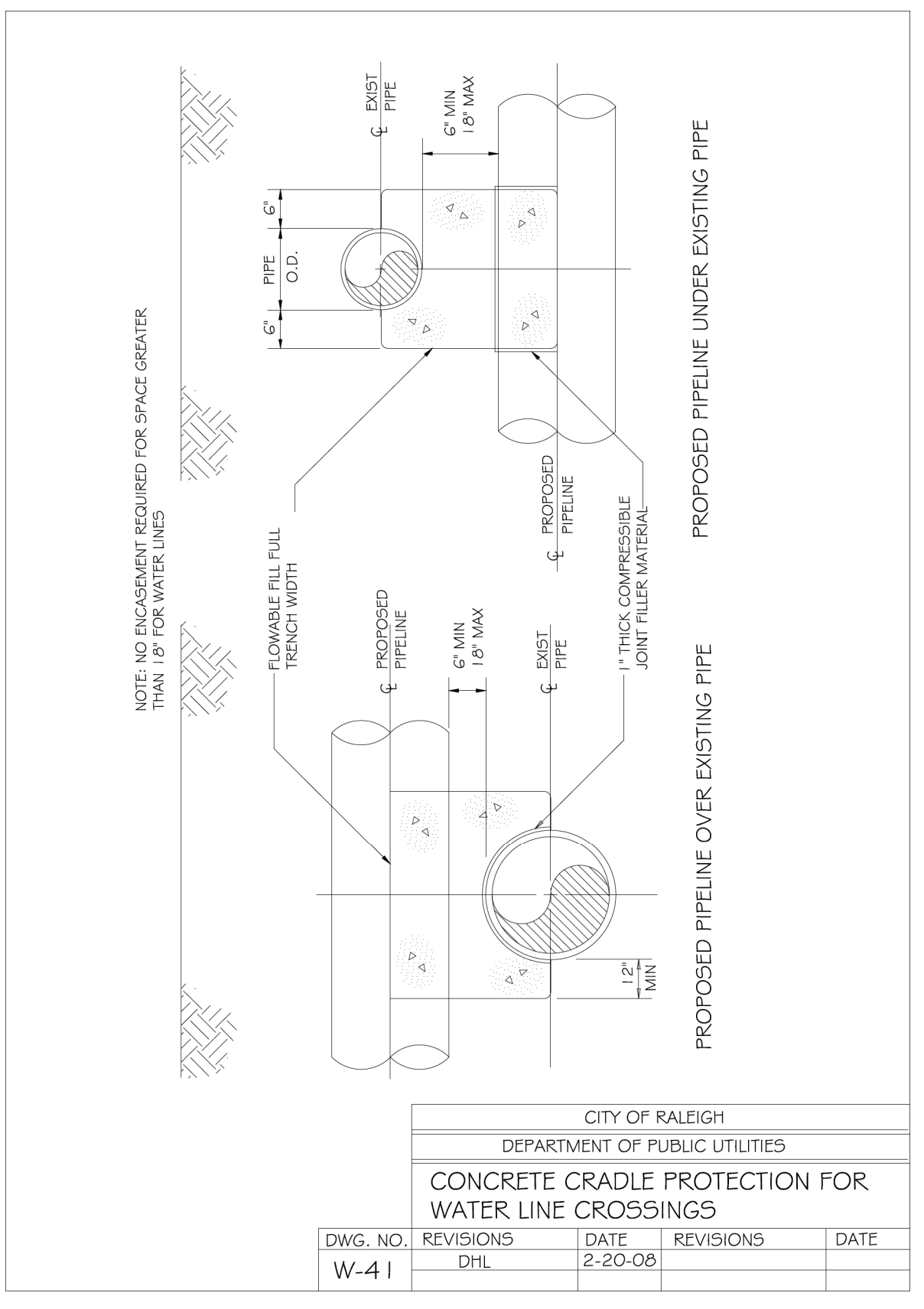
These plans have been electronically approved for construction by the Town of Wake Forest Public Works and Engineering Department. This approval may not be edited once issued.

Carrie Mitchell 08/2021
Carrie Mitchell 08/2021

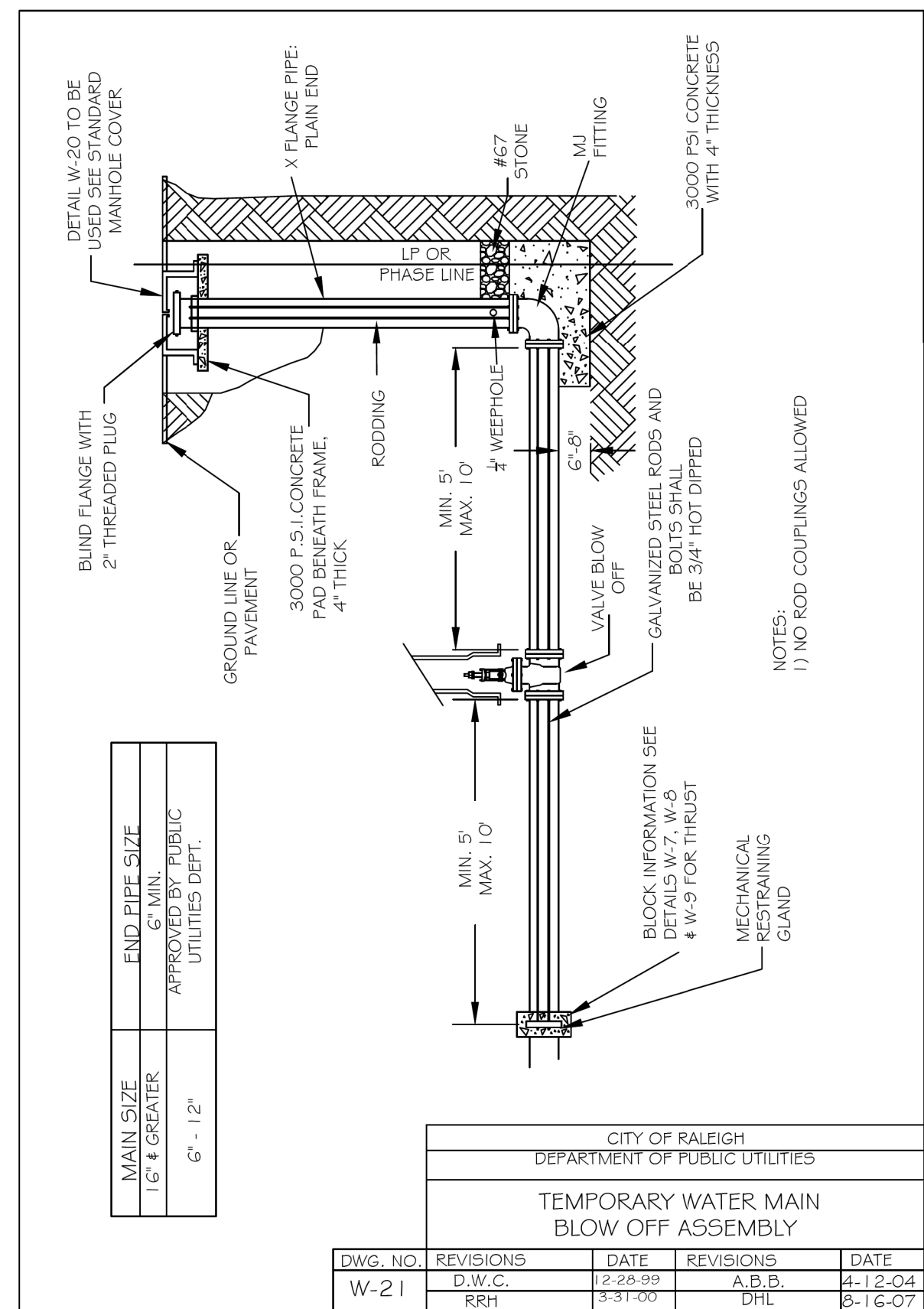
Public Works/Engineering



CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
5 1/4" VALVE BOX DROP LID WITH 4" SKIRT				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-18				



CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
CONCRETE CRADLE PROTECTION FOR WATER LINE CROSSINGS				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-41	DHL	2-20-09		



CITY OF RALEIGH				
DEPARTMENT OF PUBLIC UTILITIES				
TEMPORARY WATER MAIN BLOW OFF ASSEMBLY				
DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
W-21	D.W.C.	2-28-99	A.B.B.	4-12-04
	RRH	3-31-00	DHL	8-16-07