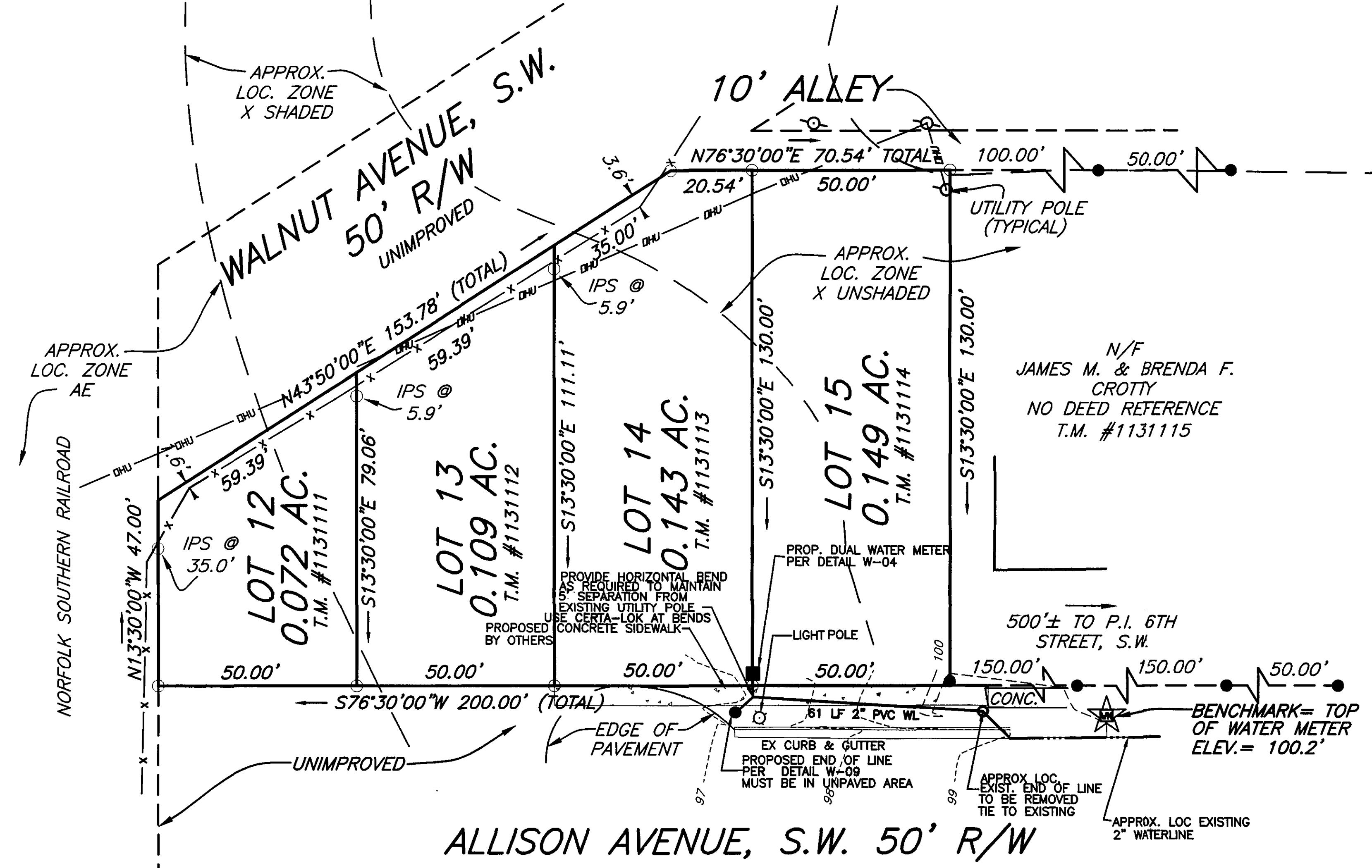
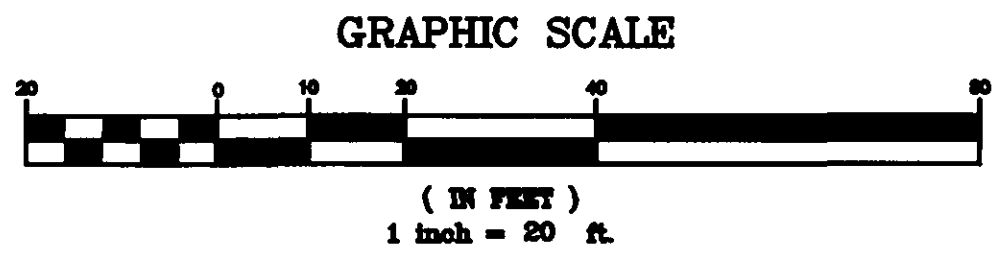


P.B. 1, PG. 19
(RKE. CO.)



NOTES:
 1. OWNERS OF RECORD: MICHAEL NATHAN HUDGINS
 MARK STEPHEN WALLER
 2. LEGAL REFERENCE: INSTRUMENT #040019637
 3. TAX MAP NUMBERS: 1131111-1131114
 4. UNDERGROUND UTILITY SERVICE LINES

THIS IS TO CERTIFY THAT AN ACTUAL FIELD SURVEY OF THE PREMISES SHOWN HEREON HAS BEEN PERFORMED UNDER MY SUPERVISION THAT ALL IMPROVEMENTS AND VISIBLE EVIDENCE OF EASEMENTS ARE SHOWN HEREON, AND THAT THERE ARE NO ENCROACHMENTS OR IMPROVEMENTS OTHER THAN THOSE SHOWN HEREON, THE SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO INFORMATION WHICH MAY BE DISCLOSED BY SUCH PROPERTY AS IN FEDERAL, DEFINED ZONE AS, SHOWN, AND IS UNSHOWN AS SHOWN ON COMBINATION PANEL No. 1161000044, EFFECTIVE DATE OCTOBER 15, 1993.

- GENERAL NOTES**
- PROVIDE NEW MATERIALS AND WORKMANSHIP IN CONFORMANCE WITH ALL APPLICABLE CODES, STATE AND FEDERAL LAWS, LOCAL ORDINANCES, INDUSTRY STANDARDS, AND OTHER CRITERIA WHICH WOULD NORMALLY APPLY TO WORK OF THIS NATURE. NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERING A CONFLICT IN CODES, ORDINANCES, STANDARDS, OR OTHER CRITERIA. APPLICABLE CODES AND STANDARDS INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, THE FOLLOWING:
 - BOCA - BASIC CODES
 - ROANOKE CITY
 - VDOT - VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS
 - VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS AND HANDBOOK, LATEST EDITION
 - OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
 - ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS
 - WVWA - WESTERN VIRGINIA WATER AUTHORITY
 - MAINTAIN A SET OF APPROVED PLANS ON SITE AT ALL TIMES DURING CONSTRUCTION.
 - OBTAIN EACH REQUIRED PERMIT PRIOR TO COMMENCING THAT PART OF THE WORK. PAY REQUIRED FEES.
 - NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF CONDITIONS WHICH DIFFER FROM THOSE SHOWN ON THE PLANS.
 - COMPLY WITH LOCAL ORDINANCES FOR BURNING OF WASTE, TRANSPORT WASTE MATERIALS AND UNSUITABLE MATERIALS FROM OWNER'S PROPERTY.
 - COORDINATE BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
 - A PRECONSTRUCTION MEETING MUST TAKE PLACE PRIOR TO COMMENCING WORK. AS A MINIMUM, THE CONTRACTOR, OWNER'S AGENT AND WVWA AGENT MUST ATTEND.
 - VERIFY THE LOCATION AND ELEVATION OF EACH EXISTING UNDERGROUND UTILITY IN AREAS OF CONSTRUCTION PRIOR TO COMMENCEMENT OF WORK. CONTACT ENGINEER IMMEDIATELY IF THERE APPEARS TO BE A CONFLICT. UPON DISCOVERY OF A UTILITY WHICH IS NOT SHOWN, AND UPON DISCOVERY OF A LOCATION OR ELEVATION WHICH DIFFERS FROM THAT SHOWN, TO LOCATE UTILITIES, CALL "MISS UTILITY", 1-800-552-7001. UTILITY LOCATIONS SHOWN ARE THE RESULT OF A COMBINATION OF FIELD LOCATION AND EXISTING INFORMATION. LOCATIONS ARE APPROXIMATE.
 - REPAIR ALL DAMAGE TO ANY UTILITY, PUBLIC OR PRIVATE, CAUSED AS A RESULT OF CONSTRUCTION ACTIVITIES, AT NO ADDITIONAL COST TO OWNER.
 - NOTIFY OWNERS OF UTILITIES IN AREAS OF CONSTRUCTION PRIOR TO COMMENCEMENT OF EXCAVATION.
 - SIGNAGE SHALL COMPLY WITH THE APPLICABLE REGULATIONS OF THE COUNTY. A SEPARATE PERMIT IS REQUIRED.
 - ANY SITE DEVELOPMENT OUTSIDE OF THE SCOPE OF THIS PLAN WILL REQUIRE SITE PLAN REVIEW.

- WATER NOTES:**
- ALL MATERIALS, CONSTRUCTION, ETC. SHALL MEET ALL THE SPECIFICATIONS AND REQUIREMENTS OF THE COMMONWEALTH OF VIRGINIA/STATE BOARD OF HEALTH "WATERWORKS REGULATIONS", LATEST EDITION, AS WELL AS THOSE OF THE LOCAL GOVERNING AUTHORITY. PROVIDE QUALITY WORKMANSHIP.
 - MINIMIZE ANY DISTURBANCE TO EXISTING UTILITY SERVICES DURING CONSTRUCTION.
 - PROVIDE 3.0 FEET MINIMUM COVER.
 - WATER MAINS SHALL BE ASTM 2241 SDR 21 OR EQUAL.
 - WATER LINES SHALL BE PVC, DR-14 AS A MINIMUM. INSTALL WATER BOXES BEYOND THE CURB LINE AND STUB THE SERVICE LINE. THE CONTRACTOR SHALL INSTALL THE METER.
 - MAKE ALL PIPE JOINTS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
 - PRESSURE TEST THE WATER MAINS AT TWO TIMES THE WORKING PRESSURE FOR AT LEAST TWO HOURS WITH NO LEAKAGE.
 - LOCATE AND UNCOVER VALVE VAULTS AFTER PAVING
 - REFERENCE THE WVWA FOR COVER AND SEWER REGULATIONS, LATEST EDITION.
 - PROVIDE A MINIMUM 3.0' COVER OVER WATER LINES MINIMUM VERTICAL SEPARATION BETWEEN UTILITIES AND STORM DRAIN IS 18".
 - ALL TAPS TO EXISTING WATER LINES OR STRUCTURES TO BE PERFORMED BY THE WESTERN VIRGINIA WATER AUTHORITY.

GENERAL UTILITY NOTES

- SUPPLY AND INSTALL ALL MATERIALS AND METHODS FOR WATERLINES, SANITARY SEWERS AND STORM DRAINAGE IN ACCORDANCE WITH THE SPECIFICATIONS AND REQUIREMENTS OF WVWA AND THE VIRGINIA DEPARTMENT OF TRANSPORTATION "ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS", LATEST EDITION.
- OBTAIN ALL REQUIRED PERMITS AND NOTIFY WVWA 48 HOURS PRIOR TO COMMENCEMENT OF WORK. OBTAIN INFORMATION FROM WVWA CONCERNING PERMITS AND CONNECTIONS TO EXISTING LINES.
- ALL WORK SHALL BE SUBJECT TO INSPECTION BY WVWA. NOTIFY APPROPRIATE OFFICIALS PRIOR TO COMMENCEMENT OF WORK.
- SITE SHALL BE TO SUB GRADE PRIOR TO INSTALLATION OF UTILITIES. ALL UTILITIES SHALL BE IN PLACE PRIOR TO PLACEMENT OF PAVEMENT BASE MATERIAL.
- USE SELECT MATERIAL FREE FROM FROST, LARGE CLODS, STONES, AND DEBRIS FOR BACK FILL FROM THE BOTTOM OF THE TRENCH TO TWELVE (12) INCHES ABOVE THE PIPE.
- MINIMIZE ANY DISTURBANCE TO EXISTING WATER SERVICE, SEWER LINES OR ANY OTHER UTILITY DURING CONSTRUCTION AND PROVIDE QUALITY WORKMANSHIP.
- MAKE ALL PIPE JOINTS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE COUNTY'S SPECIFICATIONS. MAKE JOINTS BETWEEN DIFFERENT PIPE MATERIALS WITH STANDARD FITTINGS MANUFACTURED FOR THE PURPOSE.
- MAINTAIN ALL WATER LINES AT TEN (10) FEET HORIZONTAL SEPARATION FROM SEWER LINES AND MANHOLES; MEASURE THE DISTANCE EDGE-TO-EDGE. WHEN LOCAL CONDITIONS PREVENT THE DESIRED HORIZONTAL SEPARATION, THE WATERLINE MAY BE LAID CLOSER TO THE SEWER OR MANHOLE PROVIDED THAT THE BOTTOM OF THE WATERLINE SHALL BE AT LEAST EIGHTEEN (18) INCHES ABOVE THE TOP OF THE SEWER. WHERE THIS VERTICAL SEPARATION CANNOT BE OBTAINED, CONSTRUCT THE SEWER OF ANWA APPROVED WATER PIPE AND PRESSURE TREAT IN PLACE PRIOR TO BACKFILLING. THE SEWER MANHOLE SHALL BE OF WATERTIGHT CONSTRUCTION TESTED IN PLACE.
- SEWER AND WATER TAPS SHALL BE LOCATED BY THE CONTRACTOR AND MADE BY THE WESTERN VIRGINIA WATER AUTHORITY.
- LOCATE AND UNCOVER VALVE VAULTS AND MANHOLES AFTER PAVING AND ADJUST TO FINAL GRADE, IF NECESSARY.
- REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS WHERE UTILITIES ENTER THE BUILDING.
- VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT THE ENGINEER IMMEDIATELY IF:
 - ANY LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS.
 - IF THERE APPEARS TO BE ANY CONFLICT.
 UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLANS.

- TO MISS UTILITIES, CALL "MISS UTILITY" OF VIRGINIA (TOLL FREE 1-800-552-7001) 48 HOURS BEFORE YOU DIG. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE CAUSED TO ANY UTILITY, PUBLIC OR PRIVATE, AS A RESULT OF THIS WORK. EXISTING UTILITY LOCATIONS SHOWN ARE THE RESULT OF A COMBINATION OF EXISTING INFORMATION AND FIELD LOCATION OF SURFACE FEATURES. LOCATIONS ARE APPROXIMATE.
- REPAIR ALL DAMAGE CAUSED TO ANY UTILITY, PUBLIC OR PRIVATE, AS A RESULT OF THIS WORK AT NO ADDITIONAL COST TO OWNER.
- REMOVE A CONTINUOUS AND UNIFORM BEDDING IN THE TRENCH FOR ALL PIPE. REMOVE STONES AND ROCKS FOUND IN THE TRENCH FOR A DEPTH OF AT LEAST SIX (6) INCHES BELOW THE BOTTOM OF THE PIPE AND TAMP SELECT FILL BEDDING PROVIDED. AFTER THE PIPE HAS BEEN PLACED IN THE TRENCH, BACK FILL THE TRENCH WITH SELECT MATERIAL, THOROUGHLY COMPACT TO 90% (98% UNDER PAVEMENT OR CONCRETE SLAB) OF THE STANDARD PROCTOR (ASTM D-888) USING CARE NOT TO DAMAGE THE PIPE. USE VDOT STANDARD PB-1 TRENCH FOR STORM SEWER AND UB-1 FOR SANITARY SEWER AND WATER.
- PLACE BACK FILL FOR ALL UTILITIES IN ACCORDANCE WITH THE WVWA SPECIFICATIONS, AND THE FOLLOWING CRITERIA:
 - BACK FILL NO TRENCH UNTIL AUTHORIZED BY THE WVWA. MATERIALS USED FOR BACK FILL FROM THE BOTTOM OF THE TRENCH TO TOP OF THE PIPE SHALL BE CRUSHER RUN, OR APPROVED EQUAL MATERIAL THOROUGHLY AND CAREFULLY COMPACT THE BACK FILL MATERIAL.
 - COMPACT BACK FILL BY MECHANICAL TAMING THROUGHOUT THE DEPTH OF THE TRENCH TO INSURE A SUITABLE SUBGRADE ACCEPTABLE TO THE ROAD ENGINEER. IF THE MATERIAL TAKEN FROM THE DITCH IS NOT SUITABLE FOR BACK FILLING, REMOVE IT AND USE AN ACCEPTABLE MATERIAL FOR BACK FILLING THE TRENCH.

IN AREAS OF WATER LINE CONSTRUCTION, GRADES SHALL BE WITHIN SIX (6) INCHES OF FINISHED SUB GRADE PRIOR TO THE COMMENCEMENT OF THIS WORK.

MINIMUM COVER OVER WATER AND SANITARY SEWER LINES SHALL BE THREE (3) FEET.

THE WESTERN VIRGINIA WATER AUTHORITY COUNTY SHALL MAKE ALL CONNECTIONS TO EXISTING WATER MAINS.

THE CONTRACTOR SHALL INSTALL ALL WATER SERVICE CONNECTIONS AND METER BOXES.

PIPES AND FITTINGS SHALL BE POLYVINYL PVC BENDS SHALL BE CERTA-LOK.

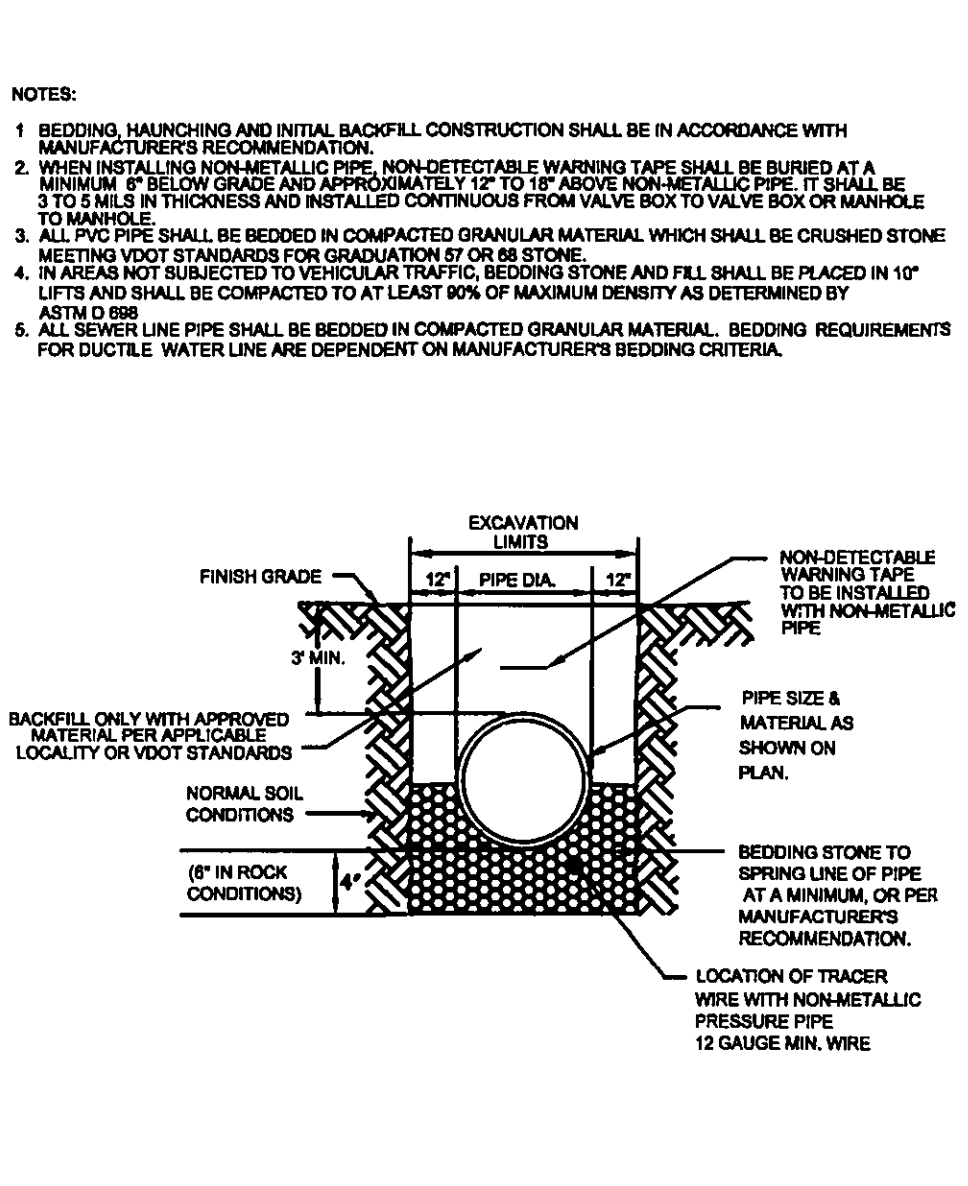
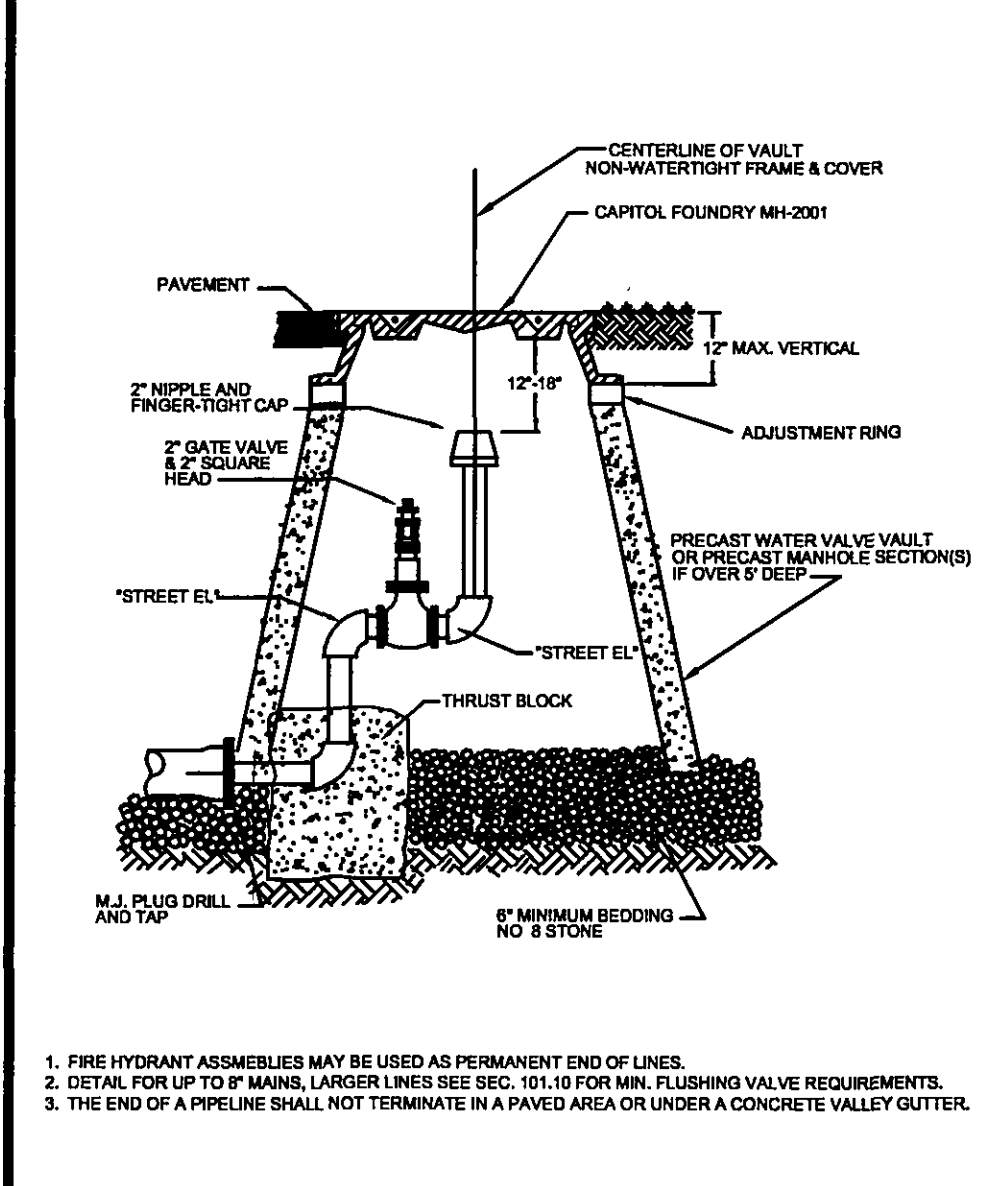
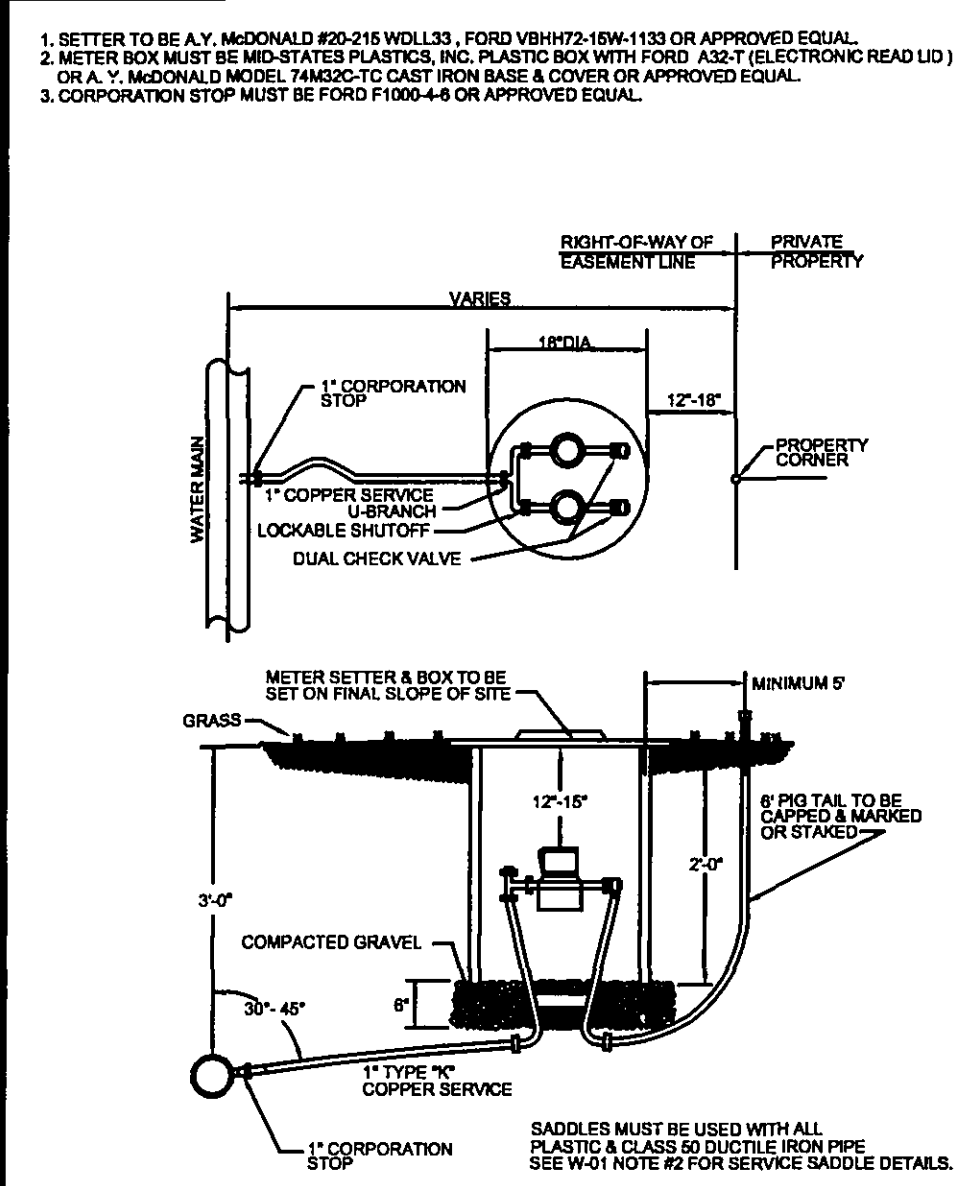
CONNECT PIPE TO MANHOLES THROUGH PRE CAST OPENINGS AND JOIN WITH EITHER A FLEXIBLE BOOT ADAPTER OR A PIPE SEAL GASKET.

APPROVED	Final Approval, Fabrication & Process Work As Shown.
APPROVED AS NOTED	Approval May Proceed On The Basis of Original Drawings & Specifications As Noted.
REVISED AND REBUILT	Approval May NOT Proceed. Revision: [Blank] & Rebuilt For Further Submittal.
DISAPPROVED	Approval May NOT Proceed. Revision: [Blank] & Rebuilt With Specification [Blank].

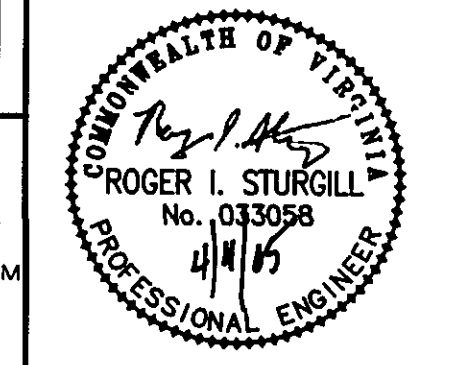
Approval Applies Only For Contractors With The Design Concept Of The Project And With The Information Given In The Contract Documents. And Does Not Relieve The Contractor Of Responsibility For Any Deviation From The Requirements Of The Contract Documents, Or For Errors Or Omissions In The Shop Drawings Or Samples. Contractor Is Responsible For Verifying Dimensions And For The Coordination Of The Work Of All Trades.

Western Virginia Water Authority
 Date: 4/5/05 By: [Signature]

AS BUILT.
 8-12-05
 Mark Waller Construction.
 643 & 647 Allison Ave. SW
 Mark Waller



WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS		WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS		WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS	
REVISION DATE	REVISION DATE	REVISION DATE	REVISION DATE	REVISION DATE	REVISION DATE
03/01/05	03/01/05	03/01/05	03/01/05	03/01/05	03/01/05
DOUBLE RESIDENTIAL WATER SERVICE	PERMANENT END OF LINE	BEDDING AND BACKFILL OUTSIDE OF PAVED AREAS			
W-04	W-09	G-01			



1208 Corporate Circle
 Roanoke, Virginia 24018
 Phone: 540/772-8580
 FAX: 540/772-8050

501 Branchway Road
 Richmond, Virginia 23236
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 FAX: 804/784-2636

880 Technology Park Drive
 Suite 200
 Glen Allen, Virginia 23059
 Phone: 804/653-0132
 FAX: 804/653-0133

102 Hubbard Street
 Staebuckburg, Virginia 24060
 Phone: 540/981-0061
 FAX: 540/981-0062

1657 Commerce Road
 Suite 201
 Verona, Virginia 24482
 Phone: 540/248-3220
 FAX: 540/248-3221

ALLISON AVE WATER EXT.
 UTILITY PLAN
 ROANOKE CITY, VIRGINIA

DRAWN BY: SMH
 DESIGNED BY: SMH
 CHECKED BY: SMH
 DATE: 3-28-05
 REVISIONS:
 4-4-05

SCALE: 1" = 20'
 SHEET NO.
 1
 JOB NO.
 R0500088.00