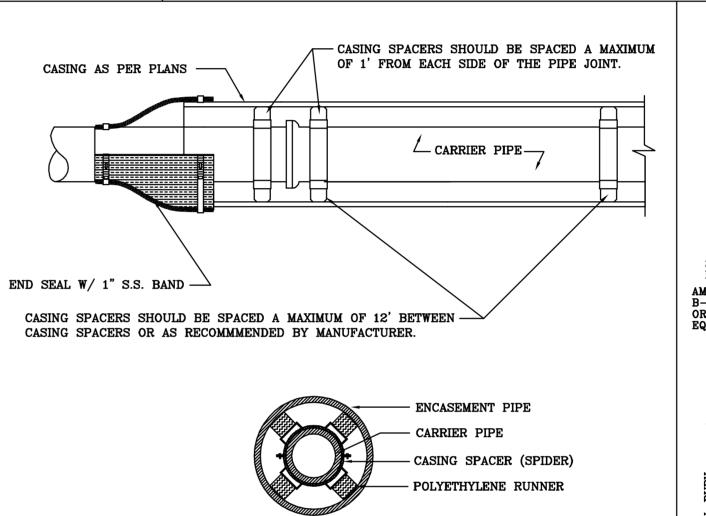


- 28 DAYS, STRENGTH AT 3,000 P.S.I.
- 3 MAX. OF 4 BRICK OR CONCRETE BLOCKS TO BE USED

MIX IS TO BE FORCED INTO ALL GROOVES AND UNDER FLANGE OF FRAME AND LEFT AT OR ABOVE TOP OF

- FOR GRADE CONTROL. 4 DO NOT BACKFILL AROUND FRAME AND COVER, FOR 48 HOURS AFTER CON. IS PLACED. THE USE OF HIGHEARLY
- STRENGTH CONCRETE WOULD REDUCE TIME TO (24HRS). 5 RESTRICT TRAFFIC LOAD FOR MIN. 24 HOURS.

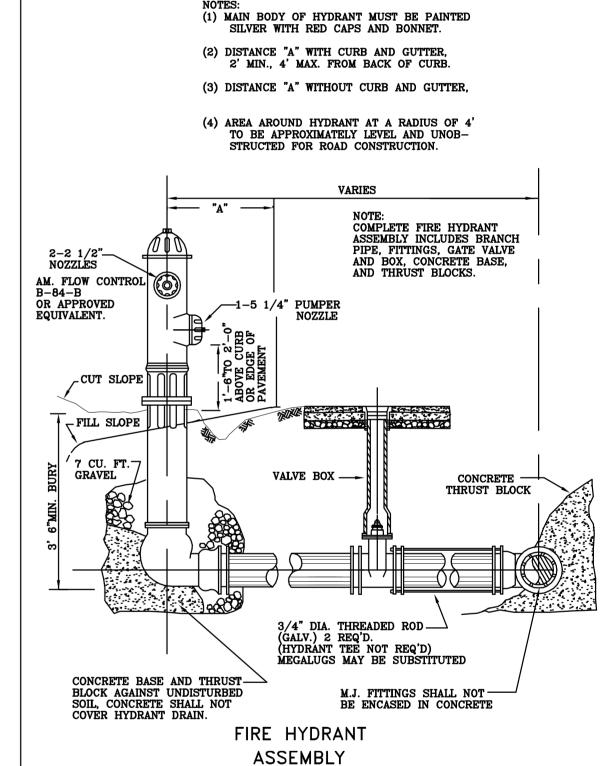
INSTALLATION DETAIL FOR ALL FRAMES AND COVERS



ALTERNATE PIPE SUPPORT IN CASING PIPE: 18" LONG TREATED TIMBER SKIDS OF APPROPRIATE WIDTH SO THAT BELLS OR FLANGES DO NOT REST ON CASING WITH MORE THAN 3/4" FREE PLAY. SKIDS TO BE PLACED AT 4'-0" O.C. AND SECURED WITH 2"x 1/4" GALV. STEEL STRAPS OR 1" S.S. BANDS. SOAP-BASED LUBRICANT MAY BE USED FOR SLIDING OF SKID WITH DUCTILE IRON PIPE AND FLAX-BASED LUBRICANT MAY BE USED FOR SLIDING OF SKID WITH PVC PIPE.

NOTE: A 1" DRAIN WILL BE REQUIRED ON THE LOWER END OF THE CASING IF THE CASING ENDS ARE SEALED WITH MORTER AND BRICK.

> PIPE SUPPORT IN CASING PIPE



VALVE & WATER STANDARDS FOR CONSTRUCTION

- VAULTS, MANHOLE BASES, RISERS, TAPERS AND GRADE RINGS SHALL BE PRECAST REINFORCED CONCRETE MANUFACTURED IN ACCORDANCE TO VIRGINIA DEPARTMENT OF TRANSPORTATION, ROAD AND BRIDGE SPECIFICATIONS, SECTION 503.
- MANHOLE BASE AND RISER SECTIONS CONSTRUCTION SHALL BE VERTICAL WITH MAXIMUM 1 INCH IN 4 FT. TILT. A MAXIMUM OF 2 CONSTRUCTION GRADE RINGS OR MAXIMUM OF 1" OF GRADE
- RINGS AND FRAME AND COVER ADJUSTMENT ARE ALLOWABLE. FINAL ADJUSTMENT OF FRAME AND COVER SHALL BE IN ACCORDANCE TO FRAME AND COVER ADJUSTMENT DETAIL USING NON SHRINK CONCRETE WITH MAXIMUM OF 4 BRICKS OR CONCRETE BLOCKS FOR GRADE CONTROL. FRAME AND COVER ARE TO BE SET AT FINISH GRADE OR 1/4 INCH ABOVE FINISH GRADE IN PAVEMENT AND YARD AREAS AND MINIMUM 6 INCH ABOVE FINISH GRADE IN OTHER AREAS. MANHOLE FRAMES AND COVERS ARE NOT TO BE SET IN
- DRAINAGE SWALE, VALLEY GUTTER, ETC. JOINTS AND OPENINGS IN MANHOLE UNITS SHALL BE MADE WATERTIGHT BY USING BUTYL SEALANTS, "O" RING GASKETS OR MASTIC. THE CONCRETE SURFACE SHALL BE CLEANED PRIOR TO USE OF SEALANT.
- FRAME AND COVERS -DEWEY BROTHERS INC APPROVED EQUAL.
- ALL LIFT HOLES, OPENINGS AROUND PIPE, ETC. SHALL BE FILLED FROM INSIDE AND OUTSIDE TO THICKNESS OF STRUCTURE. ALL UNITS USED IN MANHOLES AND VAULT CONSTRUCTION SHALL BE SECURELY CONNECTED BY INTERLOCKING BETWEEN UNITS, CONCRETE COLLARS OR
- AREA AROUND METER BOX AT A RADIUS OF 4 FT TO BE ON FINISH GRADE AND UNOBSTRUCTED EXCEPT FOR ROAD CONSTRUCTION.

APPROVED MATERIALS

- METER BOXES A) MID-STATES 18"x24" FOR RESIDENTIAL SETTING. B) APPROVED EQUAL.
- 2. METER SETTER (INCLUDING INLET RISER VALVE AND DOUBLE CHECK VALVE ON A) FORD METER BOX SERIES 500 YOKE BAR B) APPROVED EQUAL.
- 3. METER SETTER EXTENDER OR RISER A) NOT ALLOWED UNLESS APPROVED BY THE UTILITY DIRECTOR.
- A) FORD SERIES 1000 WITH GRIP JOINT 3) APPROVED EQUAL
- 5. METER BOX LIDS A) FORD MODEL C-32 TOUCHREAD B) APPROVED EQUAL

- 6. SERVICE SADDLES (FOR PVC PIPE) A) FORD MODEL F202) APPROVED EQUAL.
- GATE VALVES A) AMERICAN FLOW CONTROL SERIES 500 RESILIENT WEDGE GATE VALVE.
- B) APPROVED EQUAL. 8. AIR RELEASE VALVES

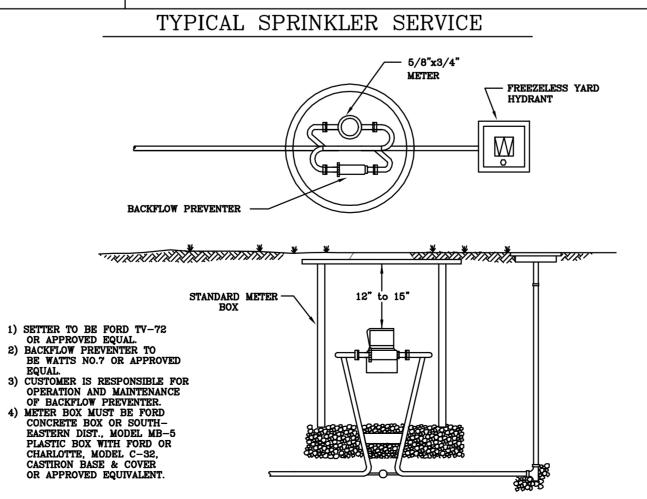
10. WATER METERS

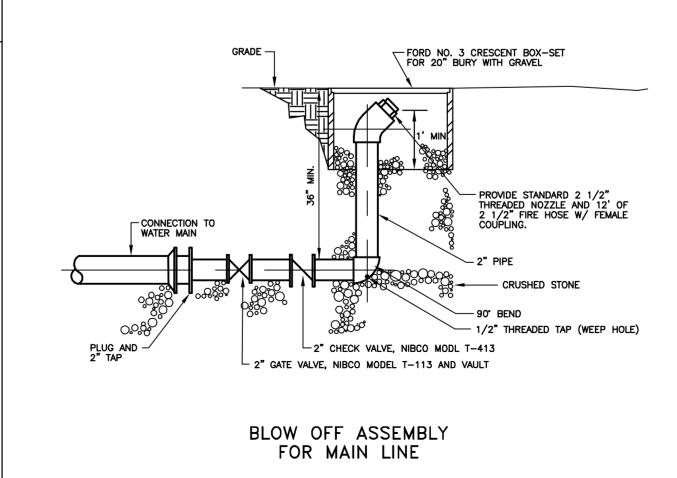
- A) VAL-MATIC COMBINATION AIR RELEASE, AIR & VACUUM VALVE, SERIES 200 B) APPROVED EQUAL.
- FIRE HYDRANT AMERICAN FLOW CONTROL 5-1/4" B-84-B APPROVED EQUAL.
- A) INVENSYS 5/8"x3/4" TOUCHREAD 100 GALLON CAST IRON BOTTOM. B) APPROVED EQUAL

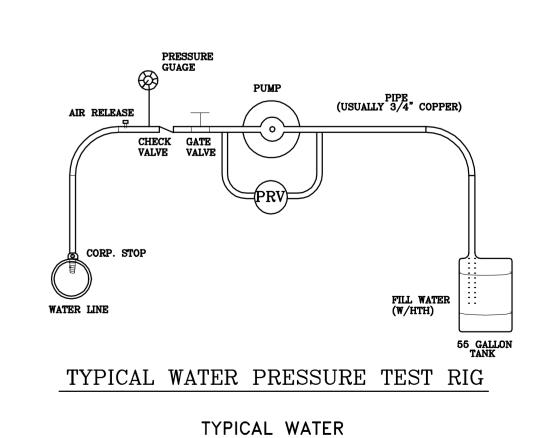
HAL T. BAILEY

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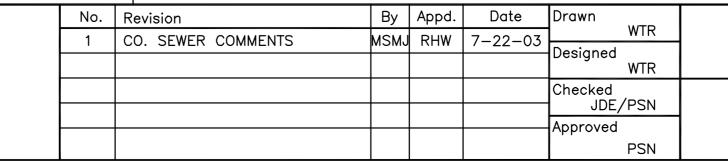




PRESSURE TEST RIG

ENGINEERING CONCEPTS, INC.

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SPICKARD TOWNHOMES	NO SCALE
BOTETOURT COUNTY, VIRGINIA	JANUARY 2001
•	PROJECT: 00023
STANDARD WATER	
DETAIL SHEET	6 of 10