NOTE: FOR HYDRANT, VALVE AND VALVE BOX SEE MATERIAL SPECIFICATIONS.

HYDRANT TO BE PLACED WITH STEAMER NOZZLE FACING STREET

DISTANCE FROM TOP OF LOWER BARREL TO GROUND LEVEL TO BE MINIMUM OF 2" MAXIMUM OF 6"

5'-0" FROM C OF MAIN TO TOP OF LOWER BARREL

MJ ANCHORING TEE (CLOW FIG. 1217 OR EQUAL) OR MJ ANCHORING COUPLING (CLOW FIG. 1211 OR EQUAL)

MJ ANCHORING COUPLING (CLOW FIG. 1211 OR EQUAL)

CONCRETE BLOCKING

NOTE: ALL EXPOSED BOLTS AND FITTINGS INCLUDING LOWER BARREL OF HYDRANT TO BE WRAPPED IN 8 MIL POLYETHYLENE.

CITY of LIMA, DEPT. of UTILITIES
WATERLINE GENERAL SPECIFICATIONS

TYPICAL HYDRANT INSTALLATION

DRAWN: DATE: DETAIL PAGE NUMBER 1
K-SHOEMAKER 12/15/99
HYDRANT TO BE PLACED WITH STEAMER NOZZLE FACING STREET

NOTE: FOR HYDRANT, VALVE AND VALVE BOX SEE MATERIAL SPECIFICATIONS.

DISTANCE FROM TOP OF LOWER BARREL TO GROUND LEVEL TO BE MINIMUM OF 2"
MAXIMUM OF 6"

5'-0' FROM 1/4 OF MAIN TO TOP OF LOWER BARREL

MJ ANCHORING HYDRANT TEE (CLOW FIG. 1224 OR EQUAL)

MJ ANCHORING COUPLING (CLOW FIG. 1211 OR EQUAL)

CONCRETE BLOCKING

NOTE: ALL EXPOSED BOLTS AND FITTINGS INCLUDING LOWER BARREL OF HYDRANT TO BE WRAPPED IN 8 MIL POLYETHYLENE.

CITY of LIMA, DEPT. of UTILITIES
WATERLINE GENERAL SPECIFICATIONS

HYDRANT INST. (COMB. HYD. TEE & 90° BEND)

DRAWN: K.SHOEMAKER
DATE: 12/15/99
DETAIL PAGE NUMBER 2
WATER LINE TRENCH DETAILS

NOTE: All water lines shall have a minimum of 4'-0" of cover and shall be laid 2 FT. behind the curb unless a waiver is given by the Department of Utilities. A minimum of 1 FT. clearance shall be required from any structure.

Contractor or developer shall place field stakes at 10 FT. offset showing center line and grade of water line. Inspectors will require contractor to adhere to approved plans and field staking in all cases unless changes are approved by Utilities Director or designated representative.

If construction is by Utilities Department personnel, street must be subgraded by contractor prior to water line construction.

All valves and fittings shall have polyethylene wrap applied prior to backfilling trench with either granular material or select soil.

LAWN AREA

Select Soil

4 FT. MIN. COVER

Polyethylene wrap shall be applied in all areas where corrosive soils are present.

UNDER PAVEMENT

BEDDING OF PIPE

COUPLINGS - NEVER ALLOW COUPLINGS TO REST ON OR TO SETTLE DOWN TO ORIGINAL TRENCH BOTTOM PIPE - MAKE CERTAIN THAT PIPE BARREL IS GIVEN AN EVEN BEARING FOR ITS FULL LENGTH

Laying conditions: In accordance with AWWA C600
Lawn area - Type 1 (flat bottom trench - select soil backfill)
Pavement area - Type 1 (flat bottom trench - 1ft. minimum granular with poly wrap and controlled density fill)
Rock area - Type 5 (pipe bedded in compacted granular to 1 ft. above pipe with poly wrap)

CITY of LIMA, DEPT. of UTILITIES
WATERLINE GENERAL SPECIFICATIONS
WATER LINE TRENCH DETAILS

DRAWN: K-SHOEMAKER 12/15/99
DATE: DETAIL PAGE NUMBER 3
NOTE: All backfill shall be compacted in 6" lifts to the top of the pipe by tamping. Above pipe compaction may be completed by some method or by jetting trench by acceptable method.
NOTE:
These illustrations for reference only.
Actual dimensions of thrust restraint to be determined by engineer or dept.
of utilities representative.

CITY of LIMA, DEPT. of UTILITIES
WATERLINE GENERAL SPECIFICATIONS

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TYPICAL VALVE AND DEAD END INSTALLATION

NOTE: FOR VALVE AND VALVE BOX
SEE MATERIAL SPECIFICATIONS

SEPARATE PLUG/CAP AND
POURED CONCRETE BLOCKING
WITH SLAB OF HARDWOOD TIMBER

INSTALL CORPORATION STOP
10" AHEAD OF PLUG/CAP
TO BE USED FOR BLOW-OFF

A MINIMUM OF ONE JOINT OF PIPE MUST
EXTEND OUT OF VALVE, (EXACT LENGTH
TO BE DETERMINED BY CITY OF LIMA, DEPT. OF
UTILITIES). THE PIPE SHALL BE CAPPED OR
PLUGGED AT END AND A THRUST BLOCK OF
CONCRETE PLACED AT PIPE END AGAINST UNDISTURBED
EARTH. IF SOIL IS INSUFFICIENT TO BLOCK DEAD END
A RESTRAINT SYSTEM ON THE PIPE, VALVE, FITTING
ETC. MUST BE EMPLOYED, WITH APPROVAL FROM
CITY OF LIMA, DEPT. OF UTILITIES.

MJ ANCHORING TEE
(CLOW FIG. 1217 OR EQUAL)
OR MJ ANCHORING COUPLING
(CLOW FIG. 1211 OR EQUAL)

NOTE: ALL EXPOSED BOLTS AND FITTINGS
INCLUDING PLUG/CAP AND BLOW-OFF
CORPORATION STOP TO BE WRAPPED IN
8 MIL POLYETHYLENE.

CITY of LIMA, DEPT. of UTILITIES
WATERLINE GENERAL SPECIFICATIONS

VALVE AND PLUGGED/CAPPED DEAD END

DRAWN: K.SHOEMAKER DATE: 12/15/99
DETAIL PAGE NUMBER 6
ALL PIPE, VALVES AND FITTINGS SHALL BE WRAPPED IN 8 MIL POLYETHYLENE FILM AS PER AWWA STANDARD C-105.

POLY WRAP TO INCLUDE SERVICE CLAMPS & CORPORATION STOP

POLY WRAP TO EXTEND UP TO UPPER BARREL OF HYDRANT

ALL WRAP TO BE TAPE AT PIPE END 12" FROM END OF FITTING

TAPE (TYP.)
ALL METERS SHALL HAVE STRAIGHT PIPE
EQUAL TO EIGHT (8) TIMES THE DIAMETER
OF THE PIPE ON THE INLET SIDE, AND STRAIGHT
PIPE EQUAL TO TWO (2) TIMES THE DIAMETER
OF THE PIPE ON THE OUTLET SIDE OF THE METER.

COVER SHALL BE OF REINFORCED CONCRETE
(6" MIN.) OR OF STEEL CAPABLE OF BEARING
ANY WEIGHT SUBJECTED.

PIT SHALL HAVE A DOUBLE DOOR LID AND BE ABLE
TO ACCOMMODATE REMOVAL OF METER AND BE
ABLE TO WITHSTAND THE WEIGHT OF TRAFFIC. PLEASE
CONTACT DEPT. OF UTILITIES FOR APPROVAL.

VALVES, PIPING & DRESSER COUPLING
FURNISHED BY CONSUMER.

SEE ADDITIONAL INFORMATION IN GENERAL SPECIFICATIONS
PAGE 12 & 13
ALL METERS SHALL HAVE STRAIGHT PIPE EQUAL TO EIGHT (8) TIMES THE DIAMETER OF THE PIPE ON THE INLET SIDE, AND STRAIGHT PIPE EQUAL TO TWO (2) TIMES THE DIAMETER OF THE PIPE ON THE OUTLET SIDE OF THE METER.

COVER SHALL BE OF REINFORCED CONCRETE (6" MIN.) OR OF STEEL CAPABLE OF BEARING ANY WEIGHT SUBJECTED.

PIT SHALL HAVE A DOUBLE DOOR LID AND BE ABLE TO ACCOMMODATE REMOVAL OF METER AND BE ABLE TO WITHSTAND THE WEIGHT OF TRAFFIC. PLEASE CONTACT DEPT. OF UTILITIES FOR APPROVAL.

VALVES, PIPING & DRESSER COUPLING FURNISHED BY CONSUMER.

SEE ADDITIONAL INFORMATION IN GENERAL SPECIFICATIONS PAGE 12 & 13

CITY of LIMA, DEPT. of UTILITIES WATERLINE GENERAL SPECIFICATIONS

DOMESTIC & DETECTOR CHECK PIT

DRAWN: K.SHOEMAKER  DATE: 12/15/99  DETAIL PAGE NUMBER 10
ALL METERS SHALL HAVE STRAIGHT PIPE EQUAL TO EIGHT (8) TIMES THE DIAMETER OF THE PIPE ON THE INLET SIDE, AND STRAIGHT PIPE EQUAL TO TWO (2) TIMES THE DIAMETER OF THE PIPE ON THE OUTLET SIDE OF THE METER.

COVER SHALL BE OF REINFORCED CONCRETE (6" MIN.) OR OF STEEL CAPABLE OF BEARING ANY WEIGHT SUBJECTED.

PIT SHALL HAVE A DOUBLE DOOR LID AND BE ABLE TO ACCOMMODATE REMOVAL OF METER AND BE ABLE TO WITHSTAND THE WEIGHT OF TRAFFIC, PLEASE CONTACT DEPT. OF UTILITIES FOR APPROVAL.

VALVES, PIPING & DRESSER COUPLING FURNISHED BY CONSUMER.

SEE ADDITIONAL INFORMATION IN GENERAL SPECIFICATIONS PAGE 12 & 13

CITY of LIMA, DEPT. of UTILITIES
WATERLINE GENERAL SPECIFICATIONS

DETECTOR CHECK PIT

DRAWN: K.ENEMAKER DATE: 12/15/99
DETAIL PAGE NUMBER 11
### Schlumberger NEPTUNE HP PROTECTUS III

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**Structural Specifications**

All meters shall have straight pipe equal to eight (8) times the diameter of the pipe on the inlet side, and straight pipe equal to two (2) times the diameter of the pipe on the outlet side of the meter.

Flanged pipe and fittings shall be used for meter setting and bypass.

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**Ground Level**

- **City Curb Box** or Valve W/Box
- **Cover** shall be of reinforced concrete (6" min.) or of steel capable of bearing any weight subjected.
- Pit shall have a double door lid and be able to accommodate removal of meter and be able to withstand the weight of traffic. Please contact Dept. of Utilities for approval.
- Valves, piping & dresser coupling furnished by consumer.

See additional information in General Specifications Page 12 & 13

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**City of Lima, Dept. of Utilities**

**Waterline General Specifications**

**Fire Meter Pit**

**Drawing Details**:
- **Drawn by**: K. Shoemaker
- **Date**: 12/15/99
- **Detail Page Number**: 12
NOTE:
SEE ADDITIONAL INFORMATION IN GENERAL SPECIFICATIONS PAGE 12 & 13.
MOUNTING DIAGRAM FOR:

5/8" METER
3/4" METER
1" METER
DOMESTIC USE & LAWN SPRINKLER USE.
CENTER LINE OF METER & TAIL PIECES TO BE A MINIMUM OF 4" FROM OUTSIDE WALL.
CENTER LINE OF METER & TAIL PIECES TO BE A MIN. OF 24" AND A MAX. 48" ABOVE FLOOR.
ALL INSIDE METERS REQUIRE REMOTE READING RECEPTACLE TO BE INSTALLED BY WATER DISTRIBUTION PERSONNEL.

OVERHEAD VIEW

INLET PIPING TO BE TYPE (K) OR TYPE (L) COPPER
X = METER LAYING LENGTH
5/8" METER — 7.1/2"
3/4" METER — 9"
1" METER — 10 3/4"

CITY of LIMA, DEPT. of UTILITIES
WATERLINE GENERAL SPECIFICATIONS
BASEMENT METER INSTALLATION

NOTE:
FOR METER LAYING LENGTH OF 1 1/2" & 2" METERS CONTACT CITY OF LIMA WATER DISTRIBUTION

REMOTE READING RECEPTACLE
FROM CITY WATER SUPPLY
TO DOMESTIC SERVICE
TAIL PIECES (2) SUPPLIED BY CITY OF LIMA WATER DISTRIBUTION
MOUNT METER HORIZONTAL WITH FACE UP

NOTE:
SEE ADDITIONAL INFORMATION IN GENERAL SPECIFICATIONS PAGE 12 & 13.
NOTE:
SEE ADDITIONAL INFORMATION IN GENERAL SPECIFICATIONS PAGE 12 & 13.

NOTE:
SOME TYPES & SIZES OF MAINLINE MATERIAL & TAPS MAY REQUIRE A DOUBLE STRAP SERVICE CLAMP.
MOUNTING DIAGRAM FOR:

1 1/2” METER DOMESTIC USE
2” METER
CENTER LINE OF METER AND ELIPTICAL FLANGES TO BE A MINIMUM OF 6” FROM WALL.
CENTER LINE OF METER ABOVE FLOOR TO BE A MAX. OF 48”.

ALL INSIDE METERS REQUIRE REMOTE READING RECEPTACLE, TO BE INSTALLED BY WATER DISTRIBUTION PERSONNEL.

NOTE:
INLET AND OUTLET PIPING MAY REQUIRE SUPPORT.

FILE NAME: DPN16
CITY of LIMA, DEPT. of UTILITIES
WATERLINE GENERAL SPECIFICATIONS
1 1/2” & 2” METER INSTALLATION

DRAWN: K.SHOEMAKER  DATE: 6/29/00
DETAIL PAGE NUMBER 16