



**PUBLIC WORKS**  
Engineering

**DATE:** October 28, 2025

**TO:** PAUL ZACHARY,  
PUBLIC WORKS DEPUTY  
DIRECTOR

**FROM:** HAS H. SOMDECERFF,  
PUBLIC WORKS DESIGN  
MANAGER

The Specification Review Committee recommends and asks the Public Works Deputy Director to approve the following:

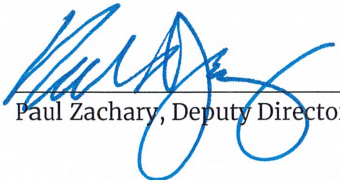
1. Approve Modification to Standard Detail 553 - 4" - 10" Double Check Detector and Vault Assembly.

Summary of change: Tapping Sleeve and Valve has been deleted.  
Allowance through technical variance only.  
Added a prohibition on combined use through  
one meter.

Please call Marqua Jimmerson at (918) 596-7355 If you have any questions.

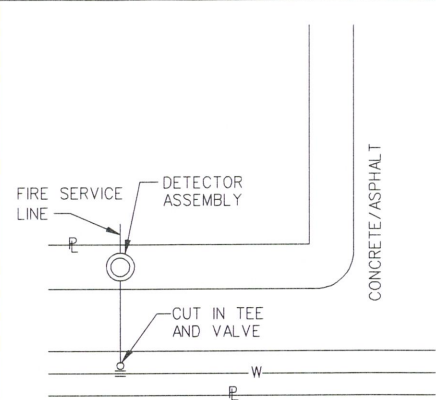
Thank you,

APPROVED:

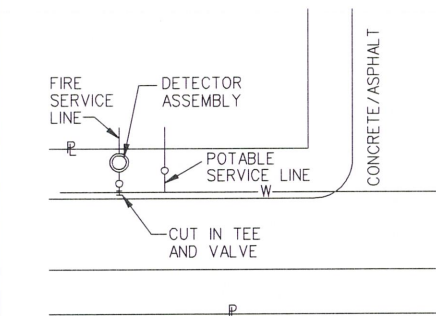
  
Paul Zachary, Deputy Director

  
Date

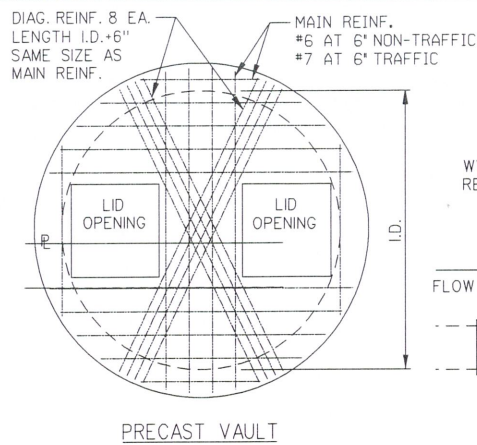
Cc: Public Works Engineering Services Specification Review Committee



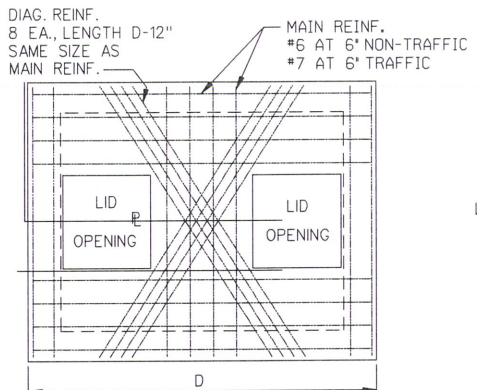
TYPICAL LOCATION  
LONG SERVICE



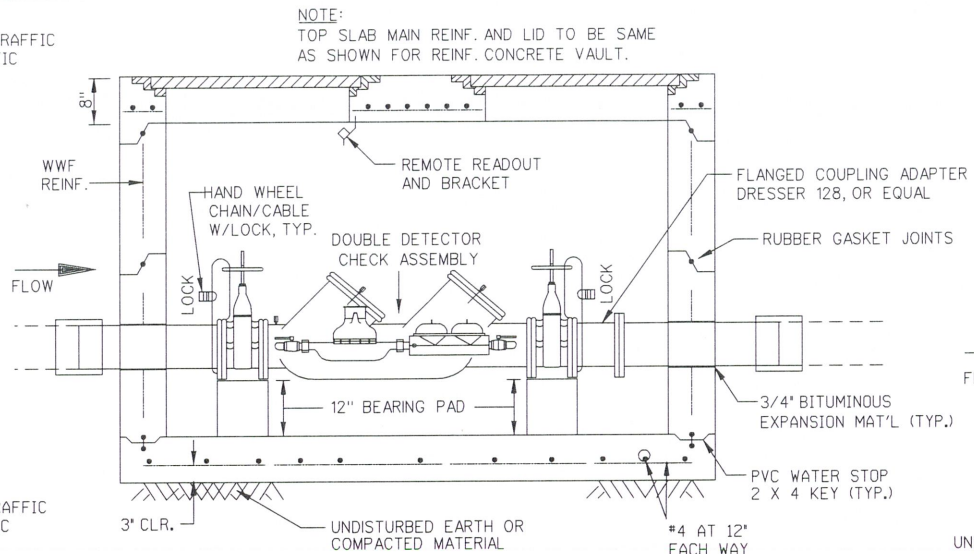
TYPICAL LOCATION  
SHORT SERVICE



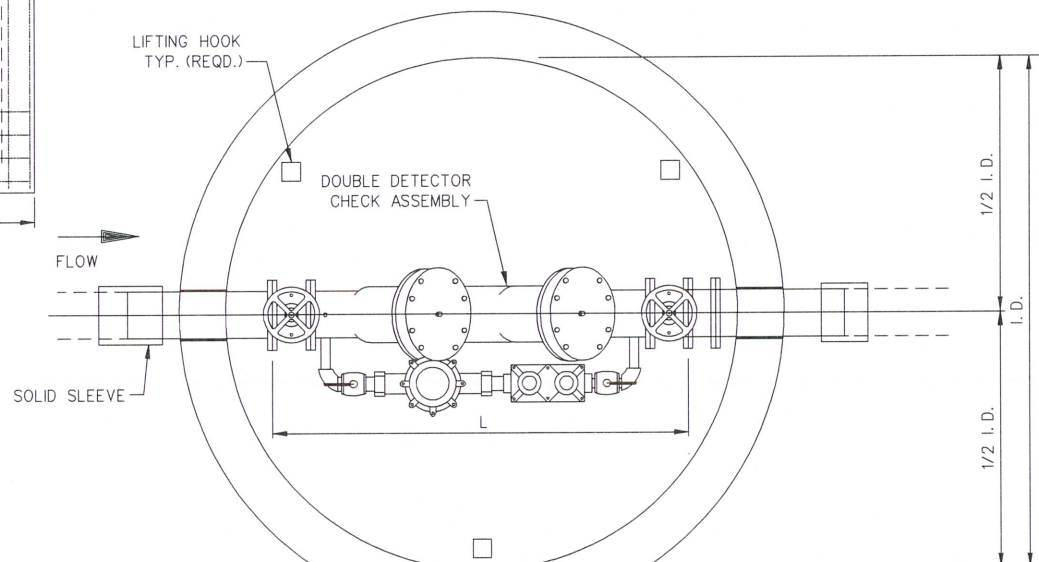
PRECAST VAULT



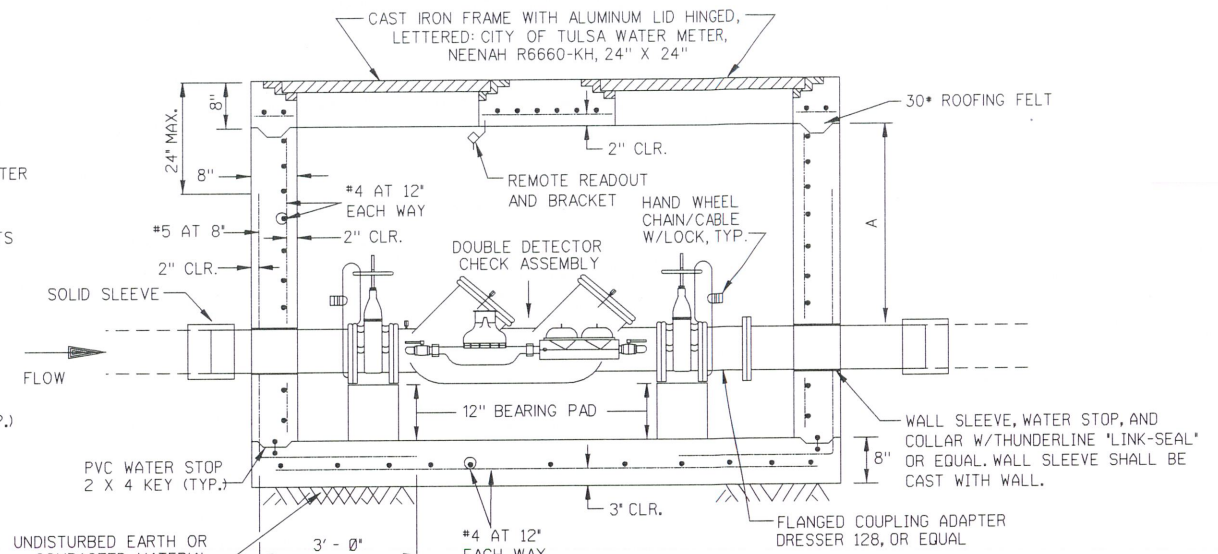
CAST-IN-PLACE VAULT  
TOP SLAB REINF. PLAN



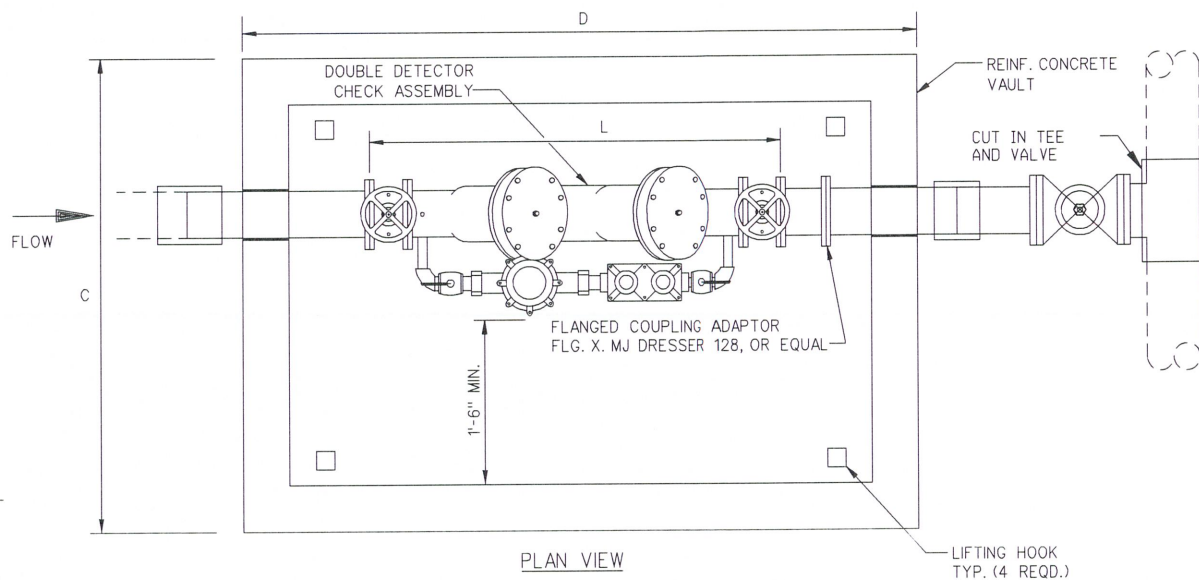
SECTION VIEW



PLAN VIEW  
ALTERNATE PRECAST CONCRETE VAULT



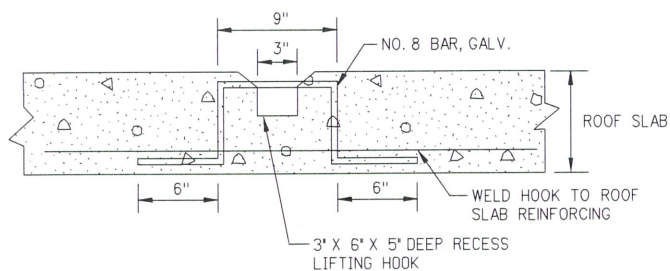
SECTION VIEW



PLAN VIEW  
REINFORCED PRECAST CONCRETE VAULT

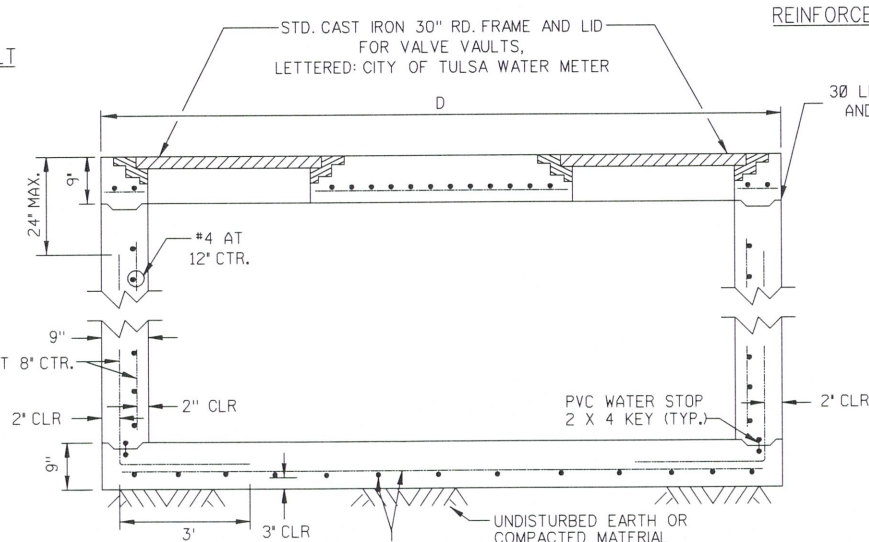
NOTE:

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FURNISH FITTINGS COMPATIBLE WITH THE TYPE OF PIPE FURNISHED.
- PRECAST CONCRETE VAULT SECTIONS SHALL CONFORM TO ANSI/ASTM C478.
- NOTICE SHALL BE GIVEN TO THE ENGINEERING SERVICES DEPARTMENT 48 HOURS IN ADVANCE SO THAT A REPRESENTATIVE OF THE DEPARTMENT MAY WITNESS THE POURING OF THE VAULT AND INSPECT THE MATERIALS. A REPORT SHALL BE FURNISHED ON THE 7 DAY AND 28 DAY STRENGTH OF THE CONCRETE WHICH SHALL BE AT LEAST 4000 PSI. REINFORCING STEEL SHALL BE GR. 60. BOLTS AND NUTS SHALL CONFORM TO ASTM A-307 GR. B, AND ASTM A-563 GR. A RESPECTIVELY. STRUCTURAL STEEL SHALL BE ASTM A-36.
- WHERE RESTRAINED JOINTS ARE REQUIRED, THEY SHALL BE EBAAMEGALUG SERIES 1100 OR EQUAL.
- DOUBLE CHECK DETECTOR ASSEMBLY CONSISTS OF A DOUBLE CHECK VALVE, TWO RESILIENT WEDGED GATE VALVES, AND A PARALLEL METER ASSEMBLY WITH DOUBLE CHECK VALVE. THE ASSEMBLY SHALL BE TESTED BY A CITY OF TULSA APPROVED BACK FLOW ASSEMBLY TESTER BEFORE IT WILL BE ACCEPTED.
- USE DUCTILE IRON PIPING AND DI/CI FITTINGS FROM THE MAIN LINE TAPPING SLEEVE TO DOWNSTREAM FROM THE METER CHECK VALVE AT THE CONNECTING SLEEVE. PIPE SHALL BE WRAPPED WITH POLYETHYLENE FILM AND TAPED.
- DRAWINGS NOT TO SCALE.
- TAPPING SLEEVE AND VALVE CONNECTIONS ARE APPROVED ON AN AS NEEDED BASIS THROUGH A TECHNICAL VARIANCE.
- A COMBINATION OF FIRE, DOMESTIC, AND LANDSCAPE METERS IS PROHIBITED EACH DEMAND REQUIRES A SEPARATE SERVICE CONNECTION.



LIFTING HOOK DETAIL

NOTE: IN SIDEWALKS, COVER HOOK OPENING WITH A STEEL PLATE. SECURE WITH SCREWS AND EXPANSION SLEEVE ANCHORS.



SECTION VIEW  
VALVE VAULT FOR TRAFFIC LOADS

| LINE AND DET. CHECK SIZE | DIM. A MIN. | DIM. C MIN. | DIM. D* MIN. | PRECAST CONC. I. D., MIN. |
|--------------------------|-------------|-------------|--------------|---------------------------|
| 4"                       | 3'          | 5'- 6"      | L + 40"      | L + 24"                   |
| 6"                       | 3'          | 5'- 9"      | L + 40"      | L + 24"                   |
| 8"                       | 4'          | 6'- 0"      | L + 40"      | L + 24"                   |
| 10"                      | 5'          | 6'- 3"      | L + 40"      | L + 24"                   |

L = LAYING LENGTH OF ASSEMBLY INCLUDING VALVES  
MIN. WALL THICKNESS OF PRECAST VAULT = (1/12 X I.D.) + 1"  
MIN. I.D. FOR PRECAST VAULT SHALL BE 72"  
\* MINIMUM DIM. D FOR CAST-IN-PLACE VAULT SHALL BE 88"

**TJH**  
CITY ENGINEER  
  
**tyg**  
DESIGN MANAGER

| REVISION | BY | DATE |
|----------|----|------|
|          |    |      |
|          |    |      |
|          |    |      |

CITY OF TULSA

4"-10" DOUBLE DETECTOR CHECK  
AND VAULT ASSEMBLY

DATE: MAY 2025

STD. 553