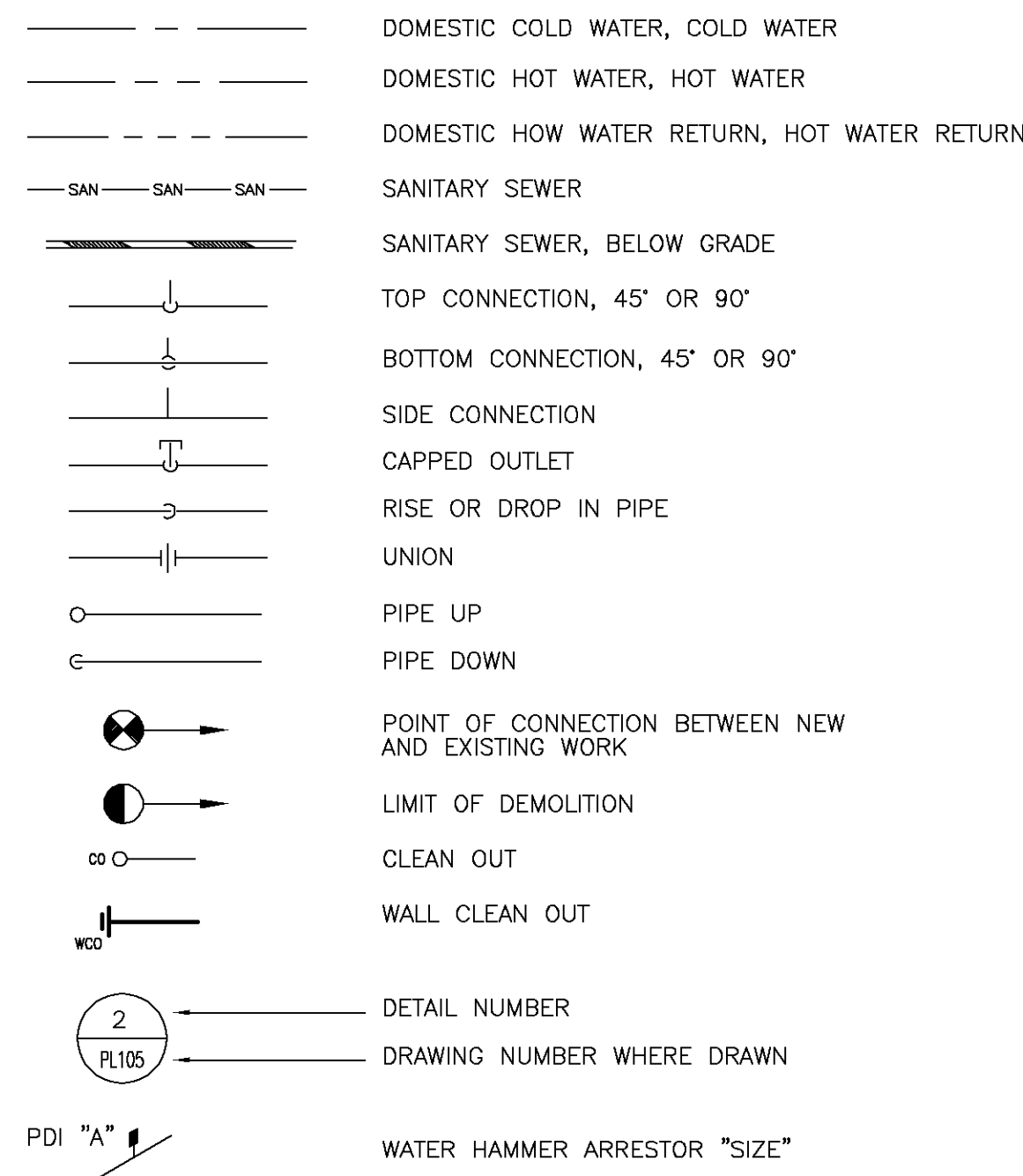


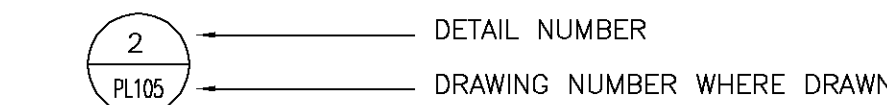
## PLUMBING ABBREVIATIONS

|        |   |                      |   |
|--------|---|----------------------|---|
| A/E    | ARCHITECT / ENGINEER  | KW                   | KILOWATT  |
| AFF    | ABOVE FINISH FLOOR  | KWHR                 | KILOWATT-HOUR                                   |
| AG     | AIR GAP   |                      |   |
| AP     | ACCESS PANEL  | L/S                  | LITER PER SECOND                                |
| ASHRAE | AMERICAN SOCIETY HEATING,<br>REFRIGERATION, AIR CONDITIONING<br>ENGINEERS | LAV                  | LAVATORY  |
| ASME   | AMERICAN SOCIETY MECHANICAL<br>ENGINEERS                                  | PA                   | PASCAL  |
| ASPE   | AMERICAN SOCIETY PLUMBING<br>ENGINEERS                                    | PD                   | PRESSURE DROP OR DIFFERENCE                     |
|        |   | PDI                  | PLUMBING AND DRAINAGE<br>INSTITUTE              |
| C      | CELSIUS   | PPM                  | PARTS PER MILLION                               |
| CI     | CAST IRON   | PSI                  | POUNDS PER SQUARE INCH                          |
| CO     | CLEANOUT  | PW                   | POTABLE WATER                                   |
|        |   | (N)                  | RELOCATED                                       |
| D/W    | DOMESTIC COLD WATER   | ROF                  | ROOF DRAIN                                      |
| DHW    | DOMESTIC HOT WATER  |                      |   |
| DHWR   | DOMESTIC HOT WATER RETURN   | SAN                  | SANITARY SEWER                                  |
| DHWR   | DOMESTIC WATER RETURN   | SMACNA               | SHEET METAL AND AIR<br>CONDITIONING CONTRACTORS |
| DNS    | DOWN  | NATIONAL ASSOCIATION |   |
| DOE    | DEPARTMENT OF ENERGY  | SQFT                 | SQUARE FEET                                     |
| DWG    | DRAWING   |                      |   |
| DWL    | DRAIN WASTE VENT  | TYP                  | TYPICAL   |
| E      | ELEVATION   | UPC                  | UNIFORM PLUMBING CODE                           |
| EPA    | ENVIRONMENTAL PROTECTION<br>AGENCY  | M                    | METER   |
| EPACT  | ENERGY POLICY ACT   | MAV                  | MANUAL AIR VENT                                 |
| ESC    | ESCHWEHRN   | MER                  | MECHANICAL EQUIPMENT<br>ROOM                    |
| (F)    | EXISTING  | MOU                  | MEMORANDUM OF<br>UNDERSTANDING                  |
| F      | FAHRENHEIT  | MSB                  | MOP SERVICE BASIN                               |
| FZD    | FLOOR CLEANOUT  |                      |   |
| FD     | FLOOR DRAIN   | NIC                  | NOT IN CONTRACT                                 |
| FU     | FIXTURE UNITS   | NOM.A.               | NOMINAL   |
| GAL    | GALLON  | NTC                  | NOT TO SCALE                                    |
| GPH    | GALLONS PER HOUR  | OD                   | OUTSIDE DIAMETER                                |
| GM     | GALLONS PER MINUTE  | V                    | VENT  |
|        |   | VTR                  | VENT THROUGH ROOF                               |
| H&CW   | HOT AND COLD WATER  |                      |   |
| HB     | HOSE BIBB   | W                    | WASTE   |
| HD     | HUB DRAIN   | W/                   | WITH  |
| HEX    | HEAT EXCHANGER  | WC                   | WATER CLOSET                                    |
| HP     | HOT POWER   | WCD                  | WALL CLEANOUT                                   |
| HS     | HAND SINK   | WH                   | WALL HYDRANT                                    |
| HST    | HOT WATER STORAGE TANK<br>(DOMESTIC)                                      | WHA                  | WATER HAMMER ARRESTER                           |
|        |   | WSA                  | WASTE STACK                                     |
| HWB    | HOT WATER BOILER  |                      |   |
| HWCP   | HOT WATER CIRCULATING PUMP  |                      |   |
| HWP    | HOT WATER PUMP  |                      |   |
| HYD    | HYDRANT   |                      |   |
|        |   |                      |   |
| INV    | INVERT  |                      |   |
| IPC    | INTERNATIONAL PLUMBING CODE   |                      |   |

## PLUMBING SYMBOLS



### DRAWING SYMBOLS



## PLUMBING PUMP SCHEDULE

[illegible]

## ELECTRIC WATER HEATER SCHEDULE

[illegible]

### PLUMBING FIXTURE SCHEDULE

| MARK  | DESCRIPTION                | WASTE PIPE |      | VENT PIPE |      | COLD WATER |      | HOT WATER |      | WASTE<br>FIXTURE<br>UNITS | WATER<br>FIXTURE<br>UNITS | WRIST<br>BLADE<br>HANDLES | ELECTRIC<br>SENSOR | REMARKS                                     |
|-------|----------------------------|------------|------|-----------|------|------------|------|-----------|------|---------------------------|---------------------------|---------------------------|--------------------|---|
|       |                            | IN         | [mm] | IN        | [mm] | IN         | [mm] | IN        | [mm] |                           |                           |                           |                    |   |
| P-103 | WATER CLOSET.<br>WALL HUNG | 3          | [75] | 2         | [59] | 1.25       | [31] |           |      | 6                         | 10                        | N/A                       | YES                |   |
| P-104 | WATER CLOSET.<br>WALL HUNG | 3          | [75] | 2         | [50] | 1.25       | [31] |           |      | 6                         | 10                        | N/A                       | YES                | ADAAG COMPLIANT                             |
| P-202 | URNAL WALL HUNG            | 2          | [50] | 1.5       | [38] | .75        | [19] |           |      | 2                         | 5                         | N/A                       | YES                | ADAAG COMPLIANT                             |
| P-413 | LAVATORY                   | 2          | [50] | 1.5       | [38] | .5         | [13] | .5        | [13] | 2                         | 2                         | N/A                       | NO                 | SELF RIMMING, ADAAG COMPLIANT               |
| P-528 | SINK                       | 2          | [50] | 1.5       | [38] | .5         | [13] | .5        | [13] | 2                         | 2                         | N/A                       | NO                 | SINGLE BOWL, STAINLESS STEEL                |
| P-531 | SINK                       | 2          | [50] | 2         | [59] | .5         | [13] | .5        | [13] | 3                         | 2                         | N/A                       | NO                 | DOUBLE BOWL, STAINLESS STEEL W/DRAIN BOARDS |
| P-811 | WATER SUPPLY BOX           | -          | -    | -         | -    | .5         | [13] | -         | -    | -                         | 0.25                      | N/A                       | NO                 | WATER SUPPLY FOR ICE MAKER                  |

### AIR COMPRESSOR SCHEDULE

[illegible]

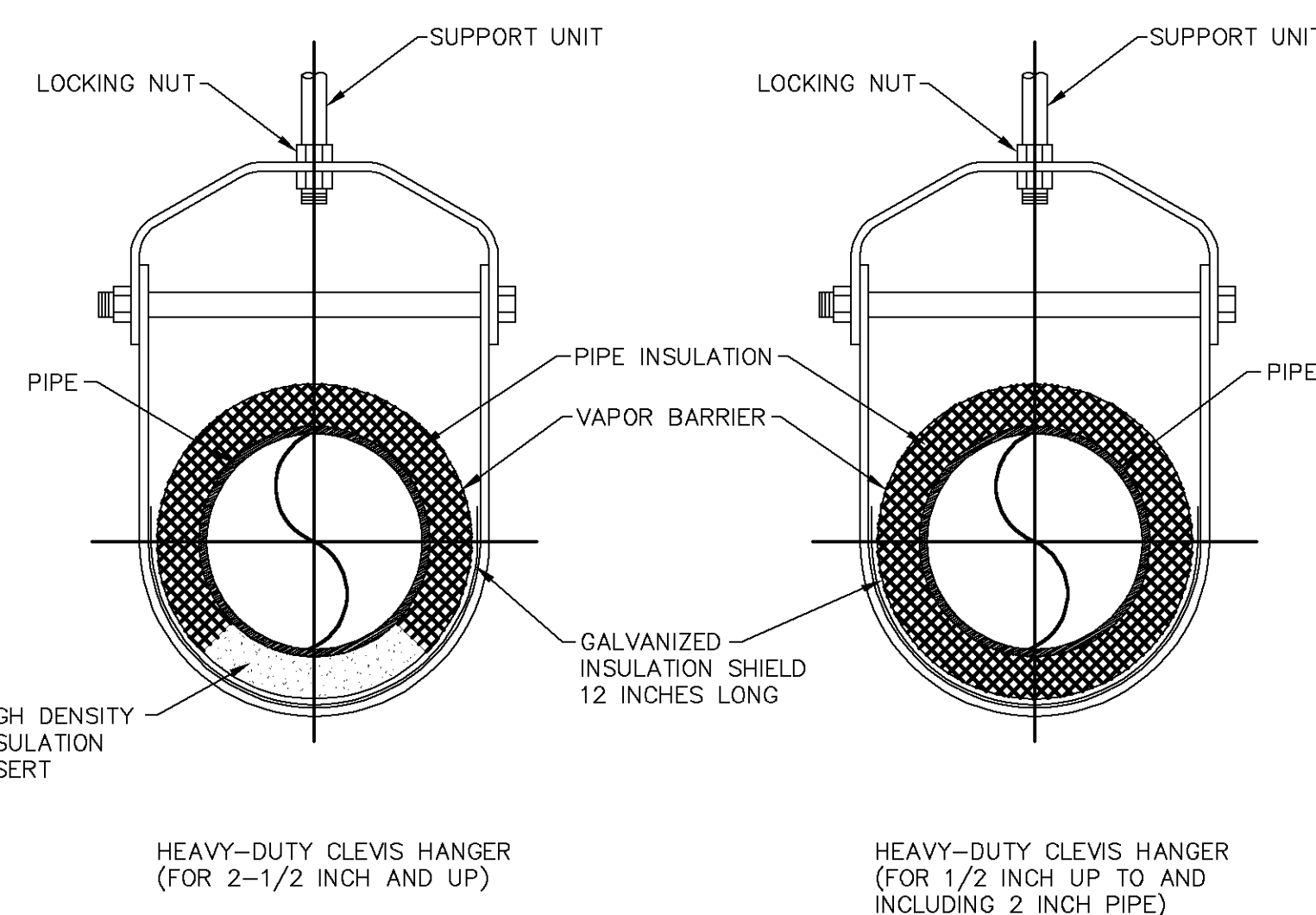
## CONSULTANTS:

|                                      |          |
|--------------------------------------|----------|
|                                      |          |
|                                      |          |
|                                      |          |
|                                      |          |
|                                      |          |
| 100% CONSTRUCTION DOCUMENTS FOR BID  | 04-12-13 |
| 95% CONSTRUCTION DOCUMENTS SUBMITTAL | 03-12-13 |
| 50% CONSTRUCTION DOCUMENTS SUBMITTAL | 02-08-13 |
| Revisions:                           | Date     |

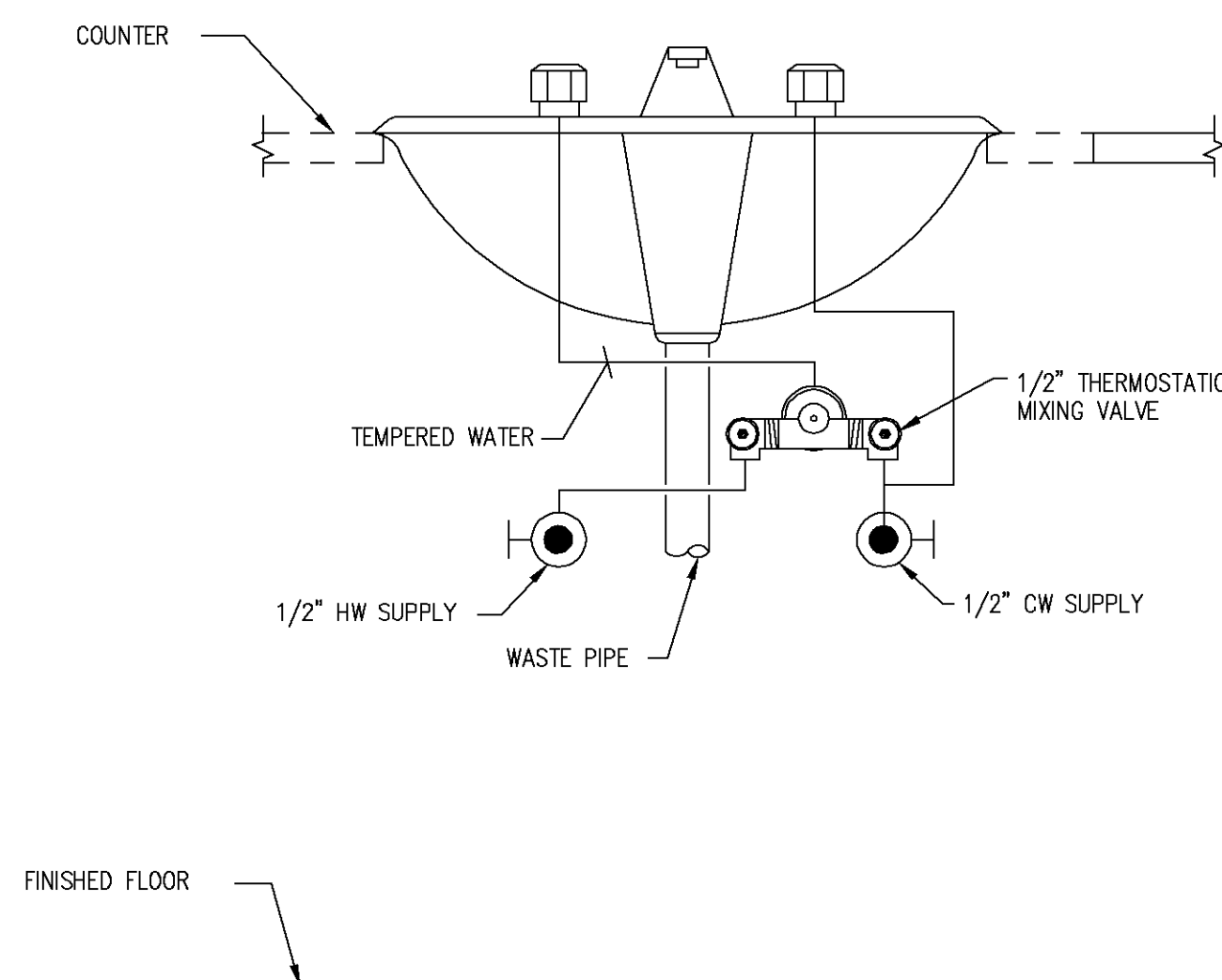
## ARCHITECT/ENGINEERS:

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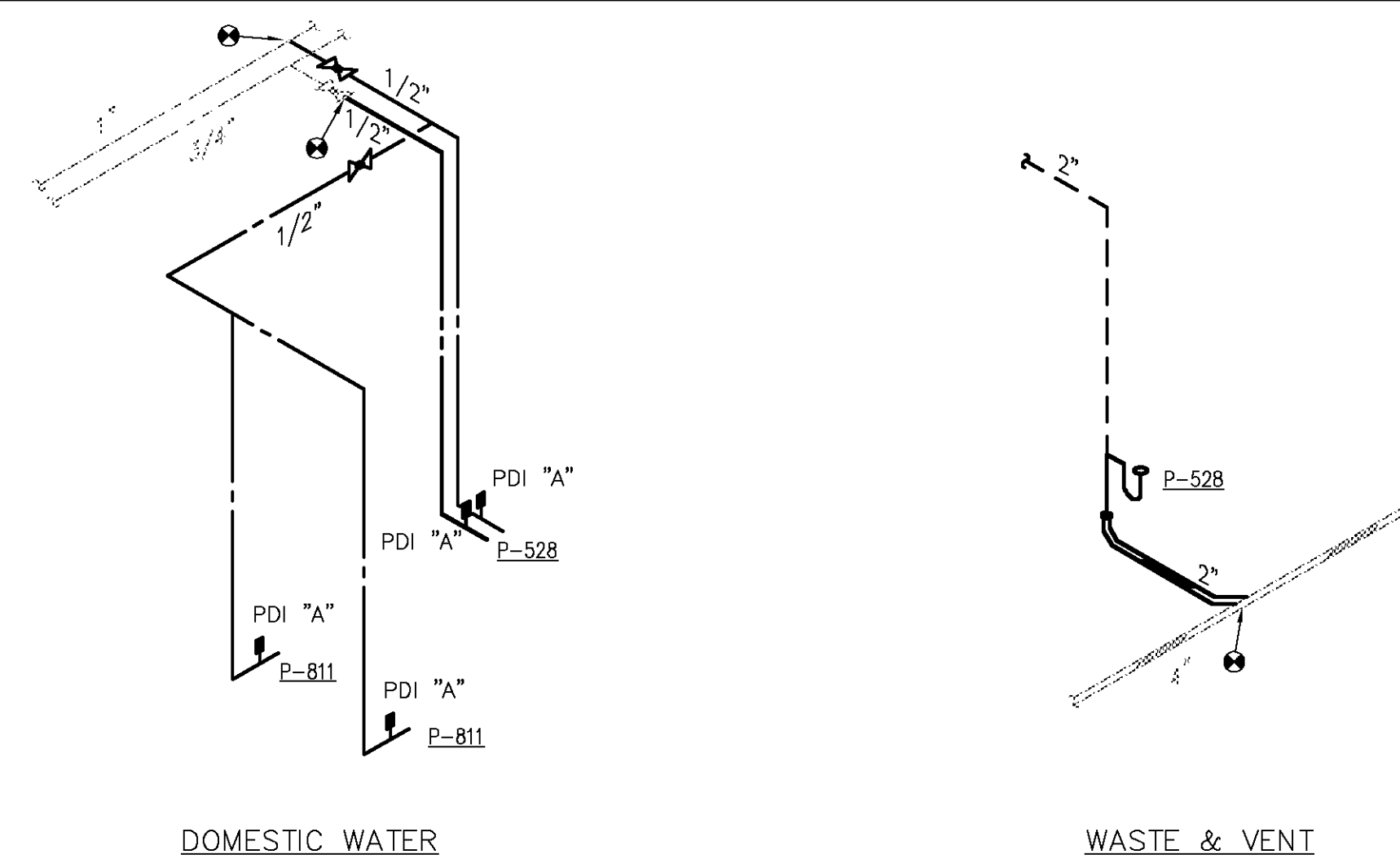
# Klubers



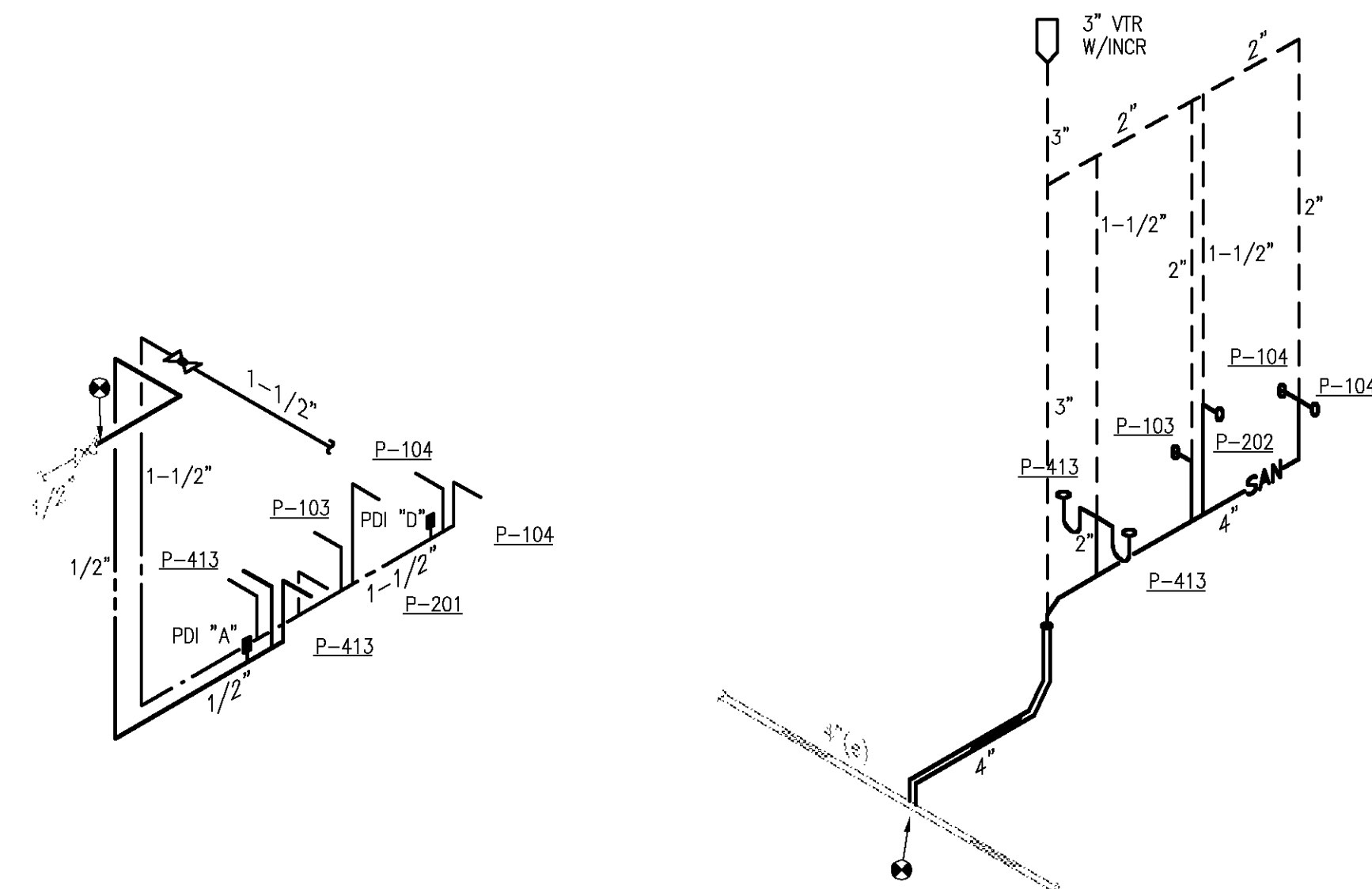
## PIPE HANGER DETAILS



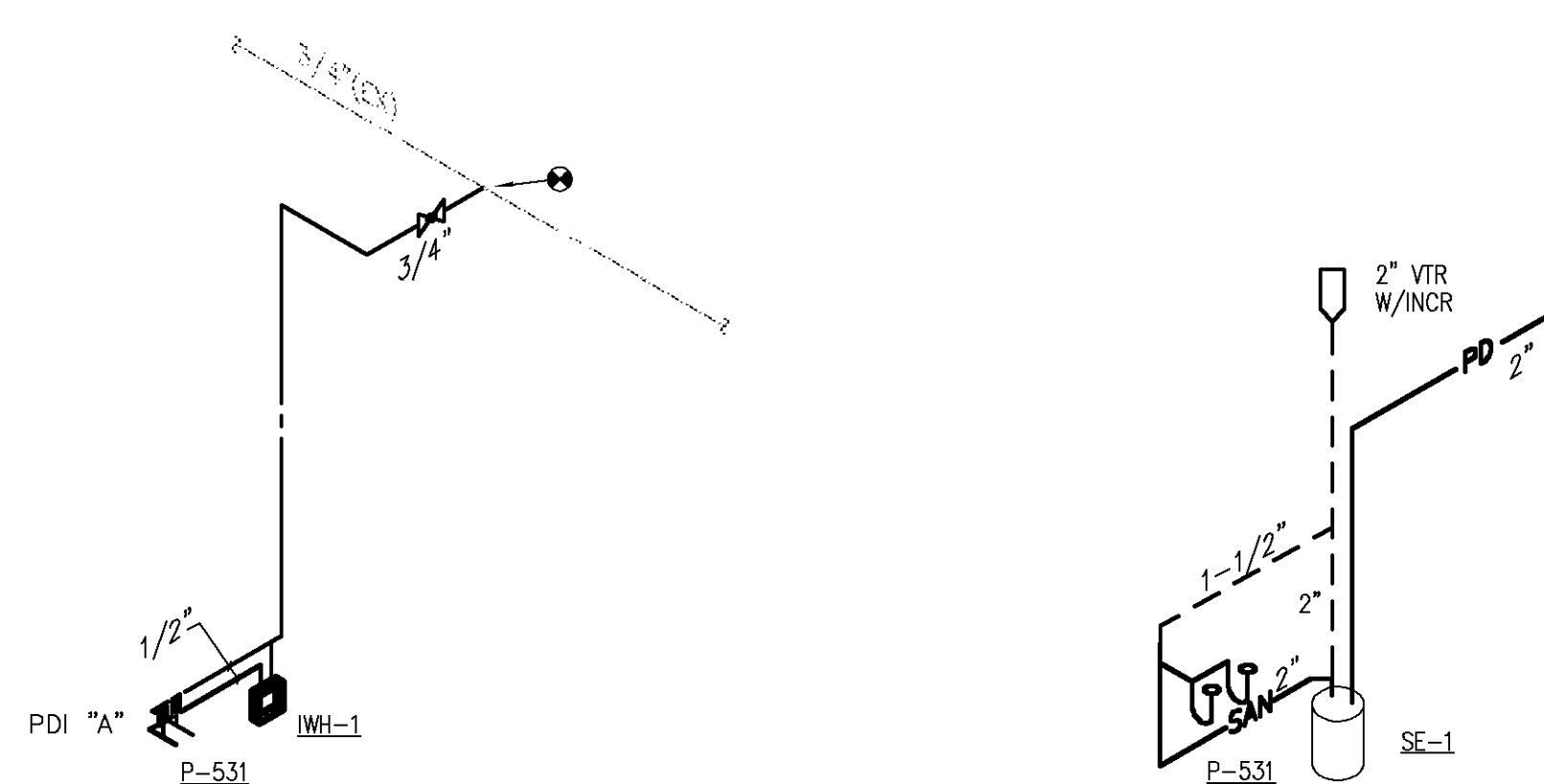
### LOCAL MIXING VALVE DETAIL



### RISER DIAGRAM



## RISER DIAGRAM



## RISER DIAGRAM

