KINGS COUNTY FIRE DEPARTMENT
COMMUNITY RISK REDUCTION BUREAU
280 North Campus Drive
Hanford, CA 93230
Phone (559) 852-2885
William Lynch, Fire Chief
Blake Adney, Fire Marshal

SWIMMING POOL FIRE DEPARTMENT CONNECTION

The following are the requirements for the use of swimming pools for fire suppression in the local response area that do not have pressurized water systems within Kings County. Please contact our department if there are any questions PRIOR to installation. While all of these points may not apply to your situation, it is for your information and review. Violations of the following are enforced under the authority of the California Fire Code (CFC), Public Resource Code, and National Fire Protection Association (NFPA) and in accordance with the Kings County Ordinance Code.

1. All residential and commercial structures shall meet NFPA 1142 fire flow requirements or as specified by the Fire Department.

   Exceptions:

   a) This shall not apply to pole barns, detached carports, and other small non-enclosed structures.

   b) Structures falling within this exception shall not have more than two sides enclosed and shall not be located within 25 feet from adjacent structures.

   c) R-3 occupancies which are single story with a square footage at or less than 2,499 square feet; and for R-3 occupancies which are two story, at or less than 2,999 square feet.

   d) Mobile homes shall not have to adhere to NFPA 1142.

Even if these exceptions are met, the Fire Department reserves the right to require a water storage tank or pool system due to the projected fire flow requirements of the property.

2. **Pumper Connections:**

   a) The Fire Department Connection (FDC) shall be equipped with a 4-1/2” male coupling. (National Hose Thread) NFPA 24-5.9.2.2

   b) The FDC shall be placed at least 40’ from the building and no more than 150’ from furthest portion of the structure.

c) The FDC shall not be less than 24” or more than 36” from final grade.

d) The FDC and piping shall be supported in an approved manner.

e) FDC shall be protected by barrier posts if deemed necessary. NFPA 24-12.2.7

3. Materials NFPA 1142-8.3.2 &NFPA 24-10.1.1.1:

a) Piping shall be listed for fire protection service and comply with AWWA standards. Piping shall be designed to withstand a working pressure of at least 150 psi. (PVC minimum of Schedule 40 for underground sections only.)

b) All joints and fittings shall be approved and listed.

c) Caps shall be required and may be of brass or polyurethane. They must be properly secured and arranged for easy removal by Fire Department. NFPA 24-5.9.1.4

d) Underground piping, if applicable, shall be no less than 6” in diameter. NFPA 24-5.2.1.2

e) All bends and changes in direction of the piping shall be supported with thrust blocks. (If using Schedule 40 PVC pipe for the underground, the thrust block must completely surround the galvanized elbow joint to prevent movement.)

f) A maximum of 4-90 degree elbows shall be permitted. NFPA 1142-A.8.3.7

g) Pool suction strainer capable of flowing 1,000 gallons per minute.

h) It is recommended that a tracer wire is installed with the underground piping.

4. Access:

a) The Fire Department Connections shall be accessible to all fire apparatus at all times (all weather road). Location shall not interfere with nearby objects including buildings, fences, posts or other obstructions. There shall be at least 3’ of clearance in all directions and the connection shall face the engine access as directed by the Fire Department.

b) All roadways shall have an unobstructed width of no less than 20’ easement with an all-weather surface, exclusive of shoulders, capable of supporting fire department apparatus and 13’ 6” in vertical clearance. CFC 503.2.1

c) The FDC shall be located within 8’ of fire apparatus access road.

5. General requirements:

a) Plans shall be submitted to Fire Department PRIOR to installation. These plans shall include piping details (class & type), lengths, joint information, size and location of pool, type & location of valves, FDC locations & measurements. **A CERTIFICATE FROM THE CONTRACTOR STATING THE SPECIFIC GALLONAGE OF THE POOL AT OPERATING CAPACITY IS REQUIRED.**

b) Pipe depth shall be at least 3 feet (36 inches).

c) The water shall be onsite and in service prior to combustible material on site.

6. Testing:

a) Provide a copy of **Contractors Material & Test Certificate** furnished by the installing contractor.

b) Trench shall be backfilled between joints before testing to prevent movement of the pipe. All joints shall be visible during testing.

c) All new service mains shall be tested hydrostatically at not less than 50 psi for 2 hours.

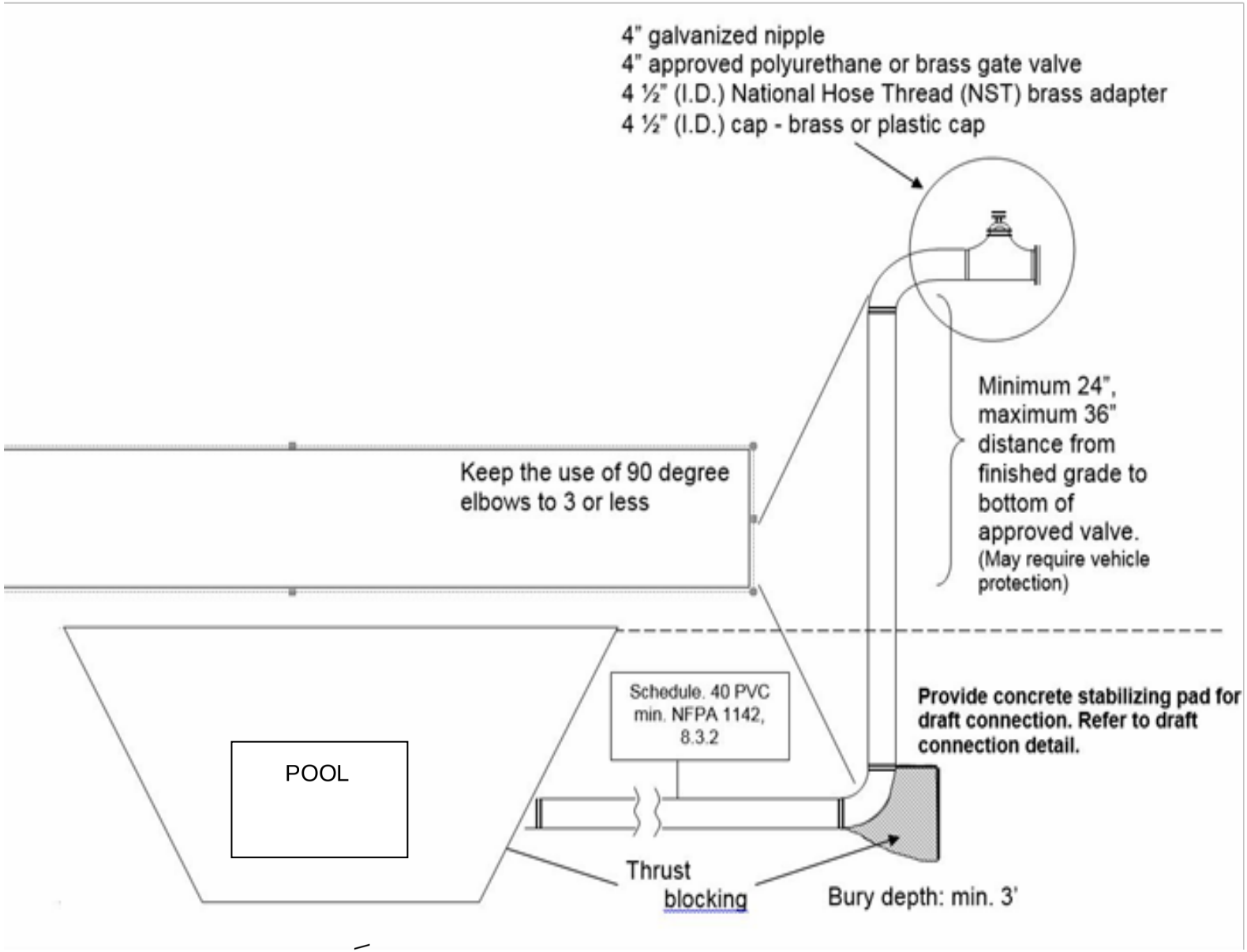
d) Testing shall be done in the presence or direction of the Fire Department.

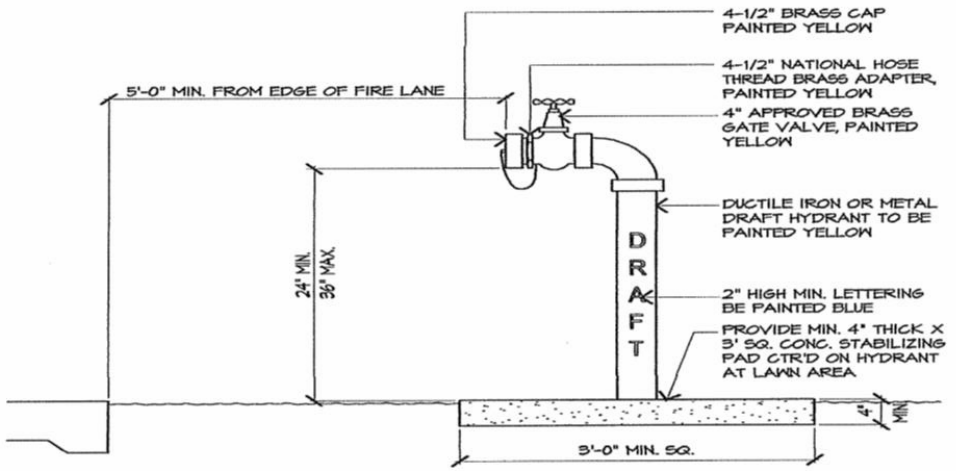
e) All control valves and FDC's shall be fully opened and closed under system pressure.

Contact the Fire Department at (559) 852-2881 for the following inspections:

1. Rough inspection- To check clearances of connections
   Fire apparatus access and road conditions
   Pressure test of underground

2. Final Inspection- Concrete pad at grade.
   "DRAFT" stenciled on FDC in Blue.
   FDC painted yellow
   Barrier posts protection


4" galvanized nipple
4" approved polyurethane or brass gate valve
4 ½" (I.D.) National Hose Thread (NST) brass adapter
4 ½" (I.D.) cap - brass or plastic cap
Minimum 24", maximum 36" distance from finished grade to bottom of approved valve.
(May require vehicle protection)
Keep the use of 90 degree elbows to 3 or less
Schedule. 40 PVC min. NFPA 1142, 8.3.2
POOL
Provide concrete stabilizing pad for draft connection. Refer to draft connection detail.
Thrust blocking
Bury depth: min. 3'

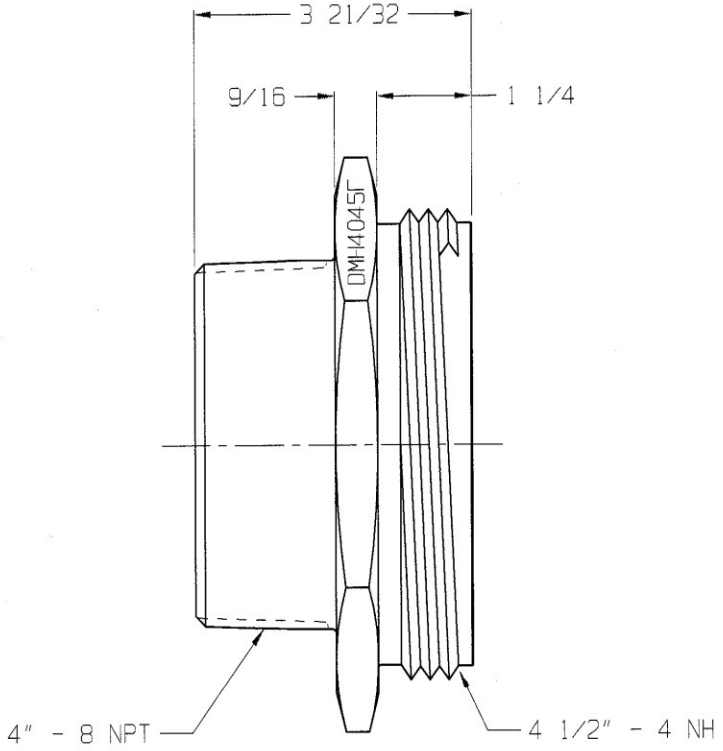


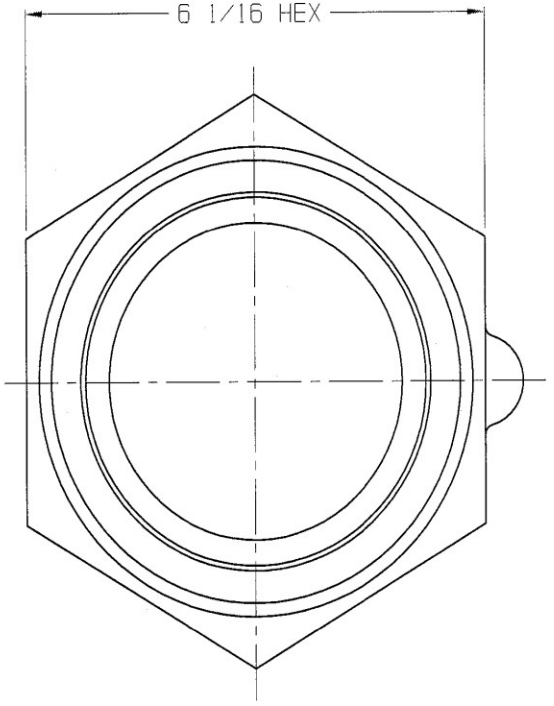
DRAFT CONNECTION DETAIL

SCALE: 3/4" = 1'-0"

DMH4045F | 8-8-08

CUSTOMER DWG





CUSTOMER DWG

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DIXON
The Right Connection™

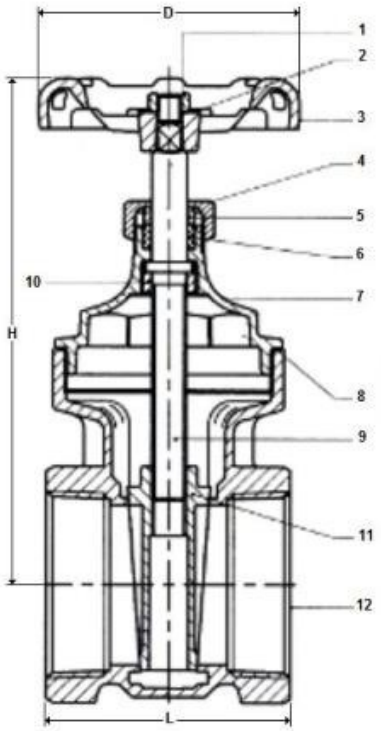
DIXON VALVE & COUPLING CO. U. S. A.			
TITLE: DOUBLE MALE HEX NIPPLE 4" NPT x 4 1/2" NST			
DRAWN BY: 08/08/97	CHECKED BY: 8-8-97	APPROVAL:	
MAT'L: BRASS	DMH4045F		

514T or 514 C Full Port Gate Valve

514 T Full Port Gate

DIMENSIONS

Size	Part #	D	H	L
1/4"	514T01	2.09	2.92	1.71
3/8"	514T02	2.09	2.92	1.71
1/2"	514T03	2.09	2.92	1.71
3/4"	514T04	2.52	3.31	1.81
1"	514T05	2.48	3.90	2.13
1-1/4"	514T06	2.72	4.61	2.25
1-1/2"	514T07	3.15	5.08	2.44
2"	514T08	3.53	5.99	2.70
2-1/2"	514T09	3.98	7.88	3.70
3"	514T10	4.37	8.83	4.02
4"	514T11	5.00	9.89	4.53



MATERIAL SPECIFICATIONS

No.	Part	Material	ASTM Spec
1	Wheel Nut	Hot Rolled	SAE 1010R
2	Name Plate	Aluminum	A1100
3	Handwheel	Cast Iron	JIS ZZ2202
4	Packing Nut	Brass	B16 C36000
5	Gland Ring	Brass	B16 C36000
6	Gland Packing	Graphite	LK 33 NAFG
7	Bonnet	Brass	B584 C85710
8	Packing	Fiber "H"	Non Asbestos
9	Stem	Brass 1/4" - 2"	B16 C36000
		Brass 2-1/2" - 2"	B584 C85710
10	Lock Nut	Brass	B16 C36000
11	Disc	Brass	B584 C85710
12	Body	Brass	B584 C85710