SANTA FE COUNTY FIRE DEPARTMENT
Phone: 505-995-6523
Fax: 505-992-3073
22 Bisbee Court
Santa Fe, NM 87508

Fire Prevention Division

There is an old saying:

"Where there is water……

…….there is life."

The trick is to figure out how to make it useable for fighting fires. We at Santa Fe County Fire Department Fire Prevention Division are here to assist you in adapting the dry hydrant concept to fit local needs, whatever they may be.

The examples enclosed in this packet are drawn from various companies, and provide some of the solutions that are available for rural water supply for fire suppression. These aren't to be used as blueprints, because specific dimensions and fittings will, of course, vary depending on the contractor and specific installations.

However, for installations to be useable for fire suppression purposes, certain site access, locations, dimensions and fittings do need to be specific.

We request that as your project moves forward that you keep us advised in the design and construction stages so that we may assist you to prevent any problems and delays when the project is done and it is time to do the acceptance tests.

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Dry Hydrant Installation Requirements and Guidelines

Shall comply with Article 9, Section 903 - *Water Supplies and Fire Hydrants of the 1997 Uniform Fire Code, inclusive to all sub-sections and current standards, practice and rulings of the Santa Fe County Fire Marshal*

Required cistern and draft hydrant(s) shall be in place, tested, approved and operable prior to the start of any building construction.

Plans and location for said system shall be submitted prior to installation for approval by this office and shall meet all minimum requirements of the Santa Fe County Fire Department. *It shall be the responsibility of the developer to notify the Fire Prevention Division when the system and hydrants are ready to be tested.*

Water storage may be accomplished with any type of approved water containment system such as prefabricated above or below ground storage tanks, dug in place cisterns, or swimming pools.

If an existing swimming pool is utilized for fire protection storage this office will need to survey the feasibility of the site to check for access by fire apparatus that can weigh in excess of 35,000 pounds.

If multiple tanks are manifolded together to achieve the storage capacity requirements, a minimum of 6 inch piping shall be used for the connections.

If a water storage system is utilized that is above the level of the proposed hydrant and will produce a positive pressure of 1psi and no more than 30psi a conventional hydrant shall be required to provide a positive shutoff and drain system to prevent the possibility of freezing.

To enable the water storage level to be readily visible, the water storage system shall incorporate the use of a float-type or other type tank water level monitoring system.

Any other storage included in the system capacity such as irrigation or storage for automatic fire sprinkler system s*hall be above and beyond what is required for fire protection.*

The water level shall be maintained by an external water source (well), or by a water shuttle system (trucked).

If filled by a well, the water storage system shall incorporate the use of a tank water level monitoring system which maintains the minimum required water for fire protection needs at all times. When the storage tank water level exceeds the required limits, power to the domestic water pump shall be automatically disconnected.

The Developer, Homeowners and/or the Homeowners Association shall be responsible to maintain, in an approved working order, the water system for the duration of the subdivision/development.

The responsible party, as indicated above, shall be responsible to call for and submit to the Santa Fe County Fire Department for an annual testing of the fire protection system and shall comply with Santa Fe County Fire Department testing and marking requirements.

For drafting operations the required draft hydrant shall be fitted with 6 inch NST female swivel thread with a protective plug that shall not be more than 3 feet center above finished grade. The lowest point of the storage to the hydrant port shall not be more than 11 feet in height.

Fire hydrant locations shall be no further than 10 feet from the edge of the approved access roadways with the steamer connections facing towards the driving surface. An all-weather surface shall be provided between the driving surface and the draft hydrant.

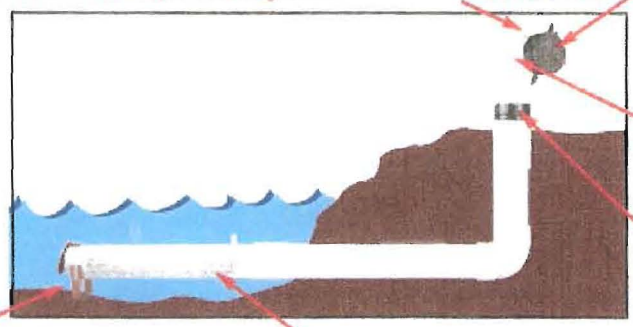
Final placement of the fire hydrants shall be coordinated and approved by the Santa Fe County Fire Department prior to installation.

Final fire hydrant locations shall be located in full view for incoming emergency responders. Landscape vegetation, utility pedestals, walls, fences, poles and the like shall not be located within a three foot radius of the hydrant per Article 10, Sections 1001.7.1 and 1001.7.2 of the 1997 UFC.

Aluminum components are hardcoat anodized to MIL-A-8625 Type III, Class 1. *NO PLAIN ANODIZE PAINTED OR POWDER COATED FINISHES ON CONNECTIONS!!*

Swivel connections are made with 6262-T9 aluminum roller bearings. *NO PLASTIC BEARINGS!!*

Adapters, caps, plugs and swivels are machined from tough 6061-T6 aluminum seamless extrusions. (Exception: the 4½" and 6" dry hydrant caps are cast aluminum.) *NO PLASTIC CAPS OR PLUGS!!*



All PVC elbows are heavy duty Schedule 40 to ASTM D2466.

Our Style 132-CS dry hydrant swivel allows full 360 degree rotation to allow access from any side

All *bronze* construction of Style 134 supports resists corrosion indefinitely.

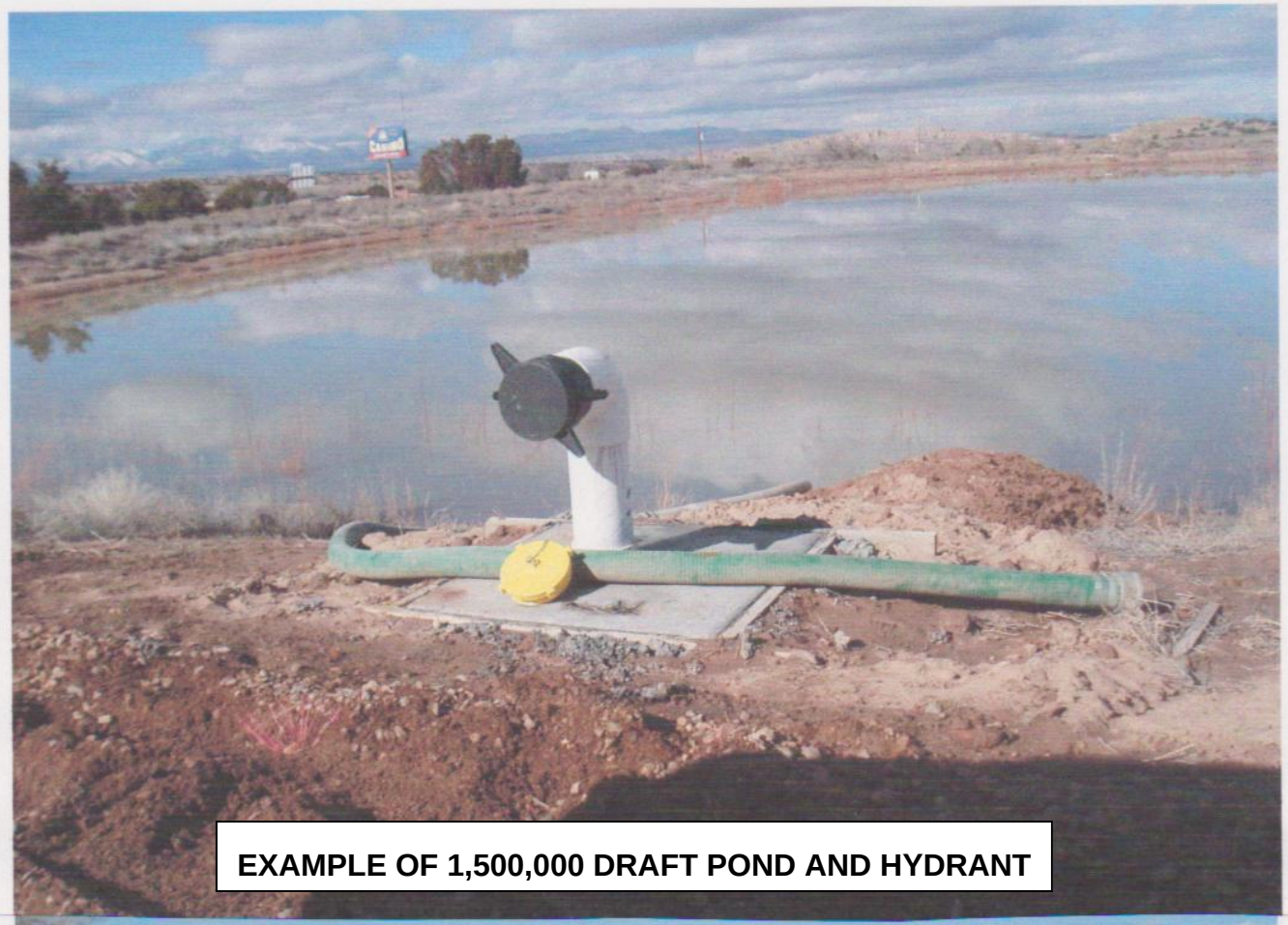
Style 133 strainer made of Schedule 40 PVC pipe to ASTM D1785. Outboard end has *brass* clappered end cap on standard 6" underwater strainer.

Each component of the water delivery system is sold separately. You purchase locally the straight sections of PVC pipe needed, saving money and freight. All adapters in the Maxi-Flow system are fitted, secured and vacuum tested to assure vacuum-tight joints. You can count on your Maxi-Flow system for years of trouble free operation. We welcome your calls for technical assistance.

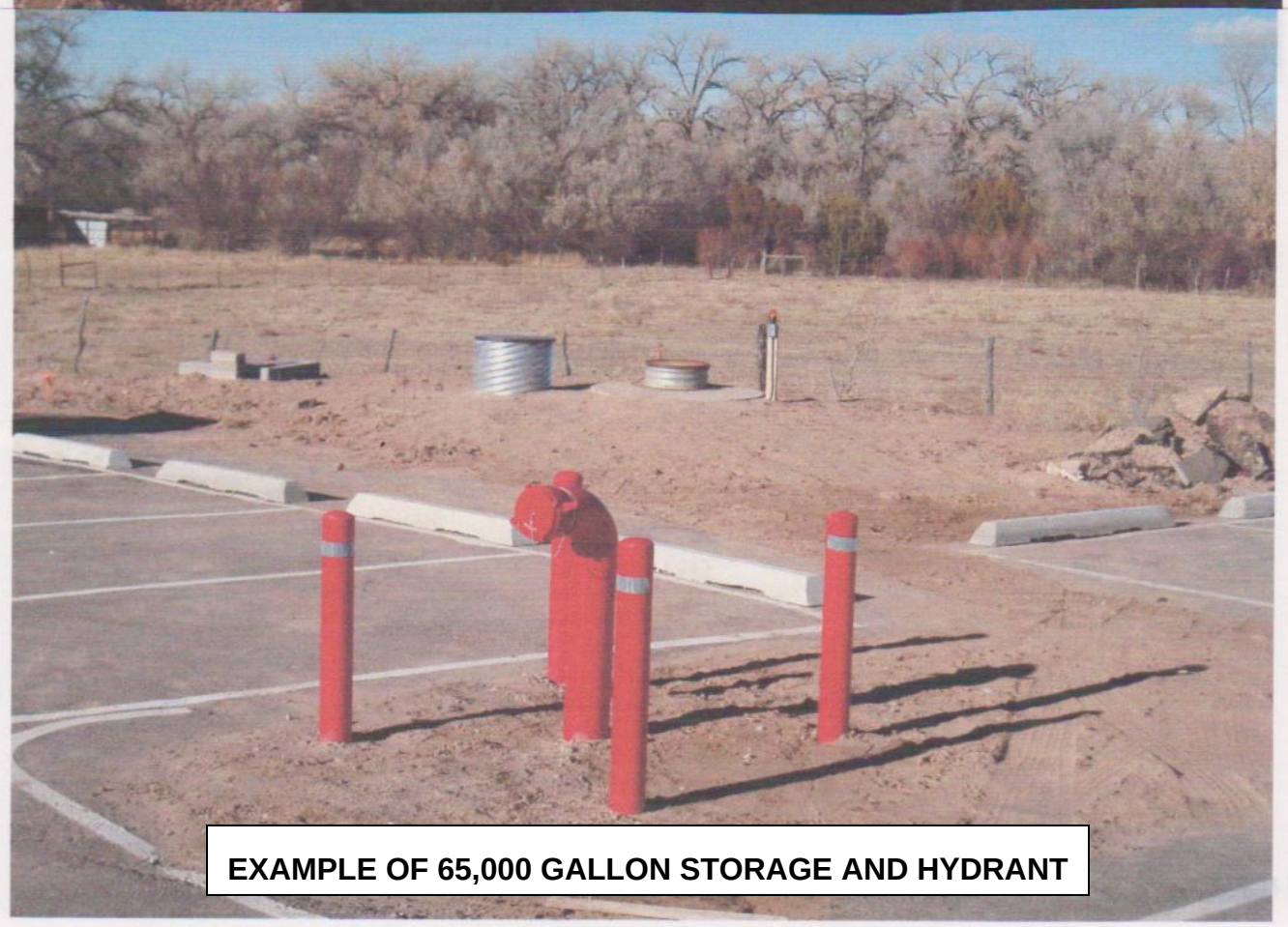
STYLE 130

STYLE 132-F

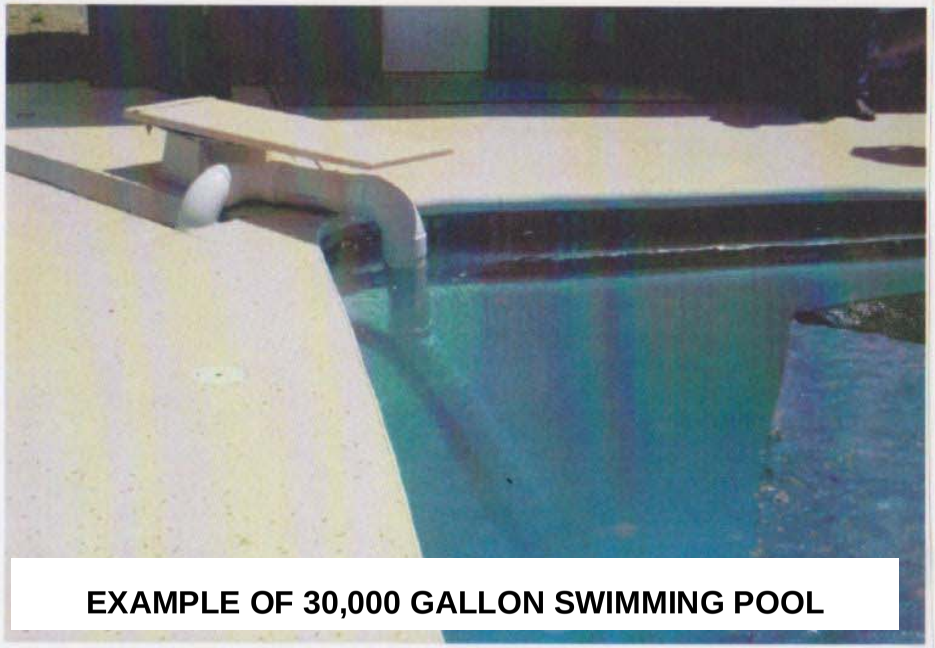
STYLE - 132-CS SWIVEL



EXAMPLE OF 1,500,000 DRAFT POND AND HYDRANT

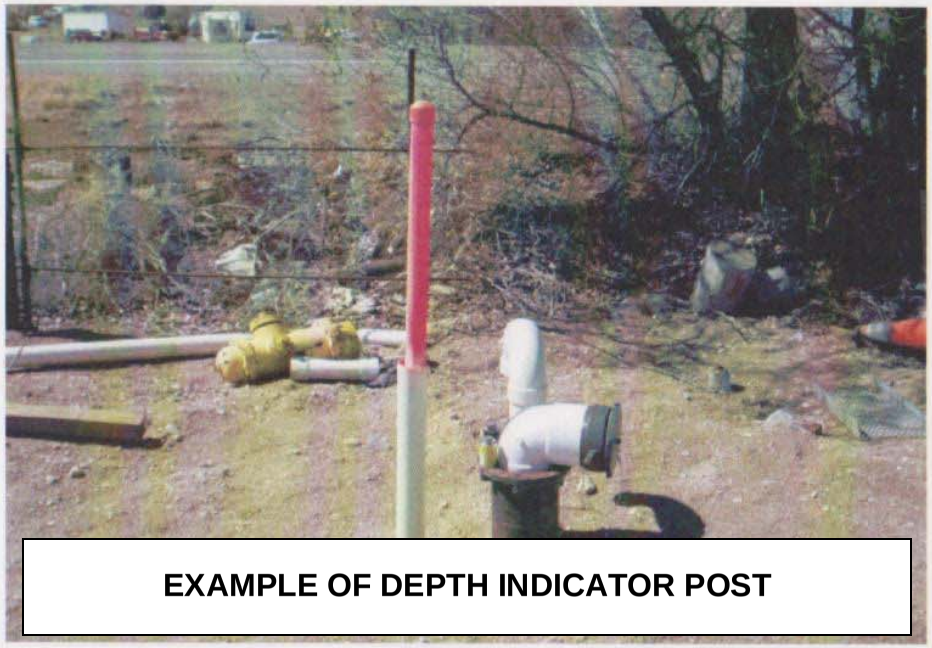


EXAMPLE OF 65,000 GALLON STORAGE AND HYDRANT

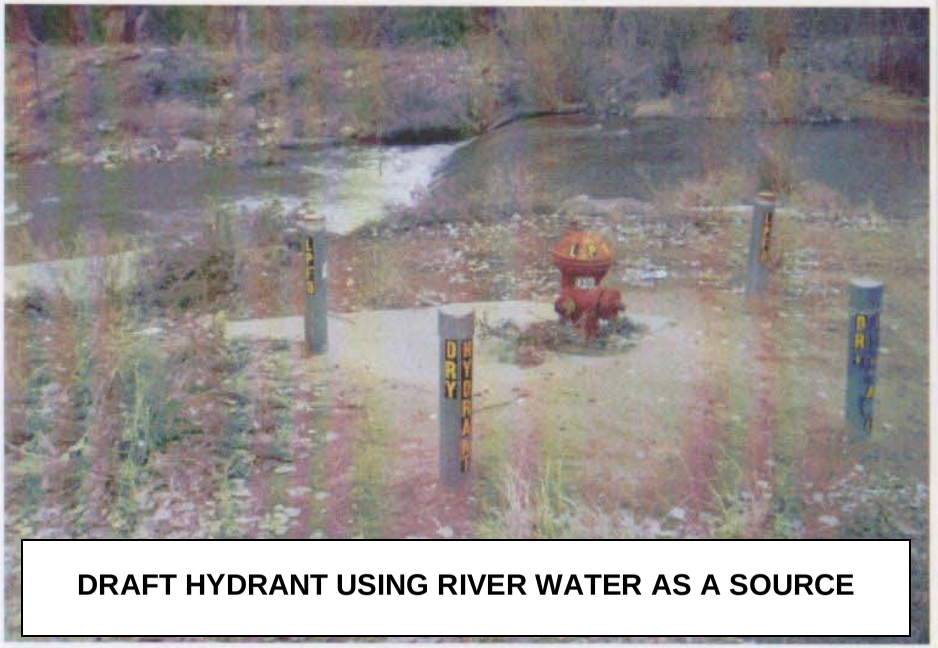


EXAMPLE OF 30,000 GALLON SWIMMING POOL

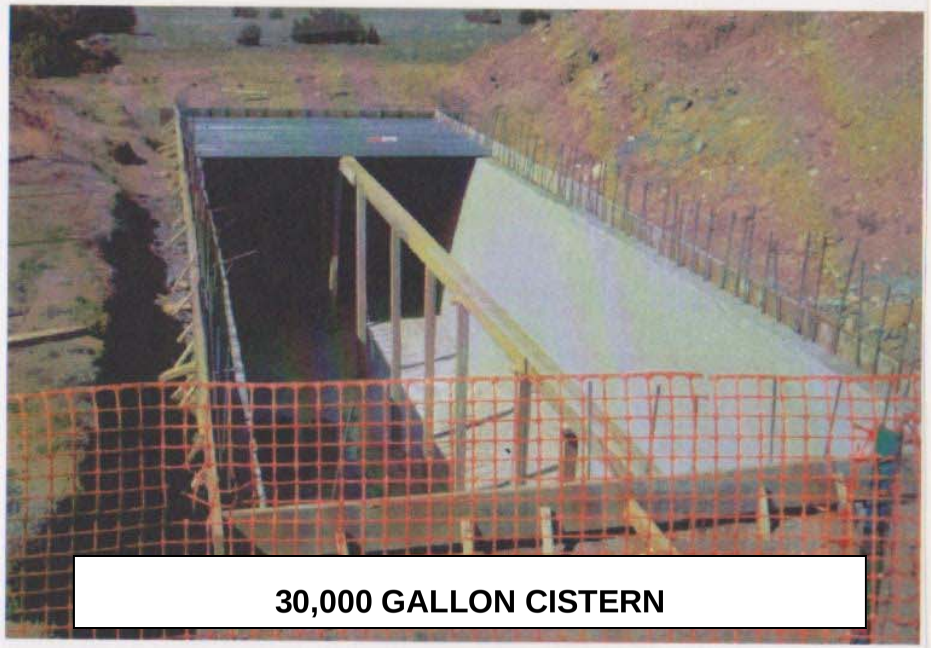
10’ CLEARANCE NEEDED FROM HYDRANT TO TRUCK



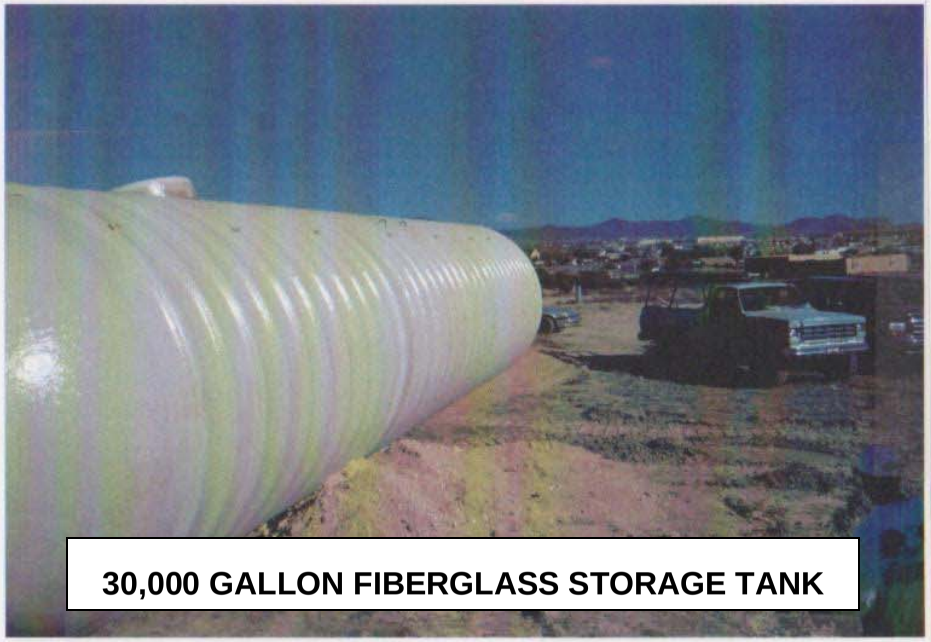
EXAMPLE OF DEPTH INDICATOR POST



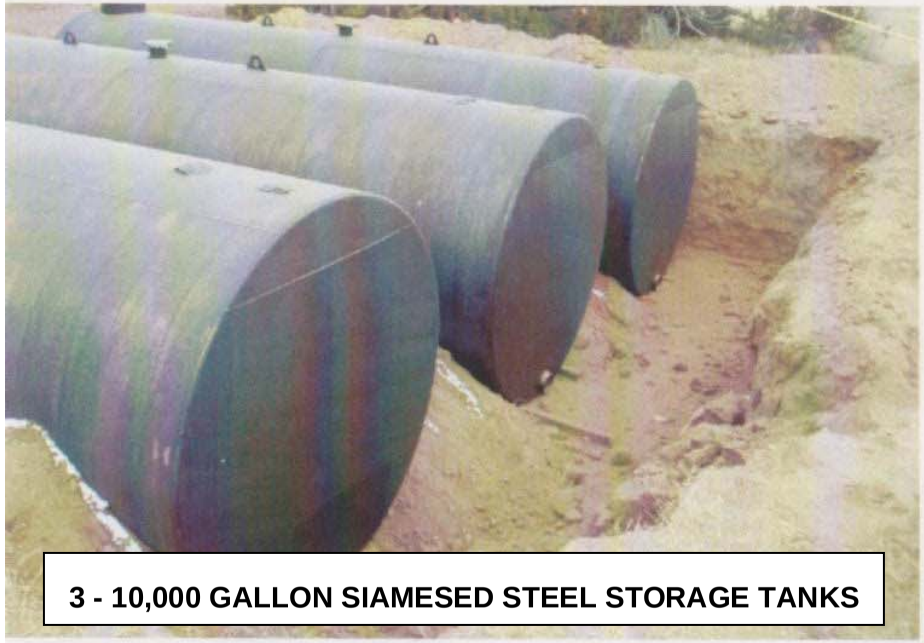
DRAFT HYDRANT USING RIVER WATER AS A SOURCE



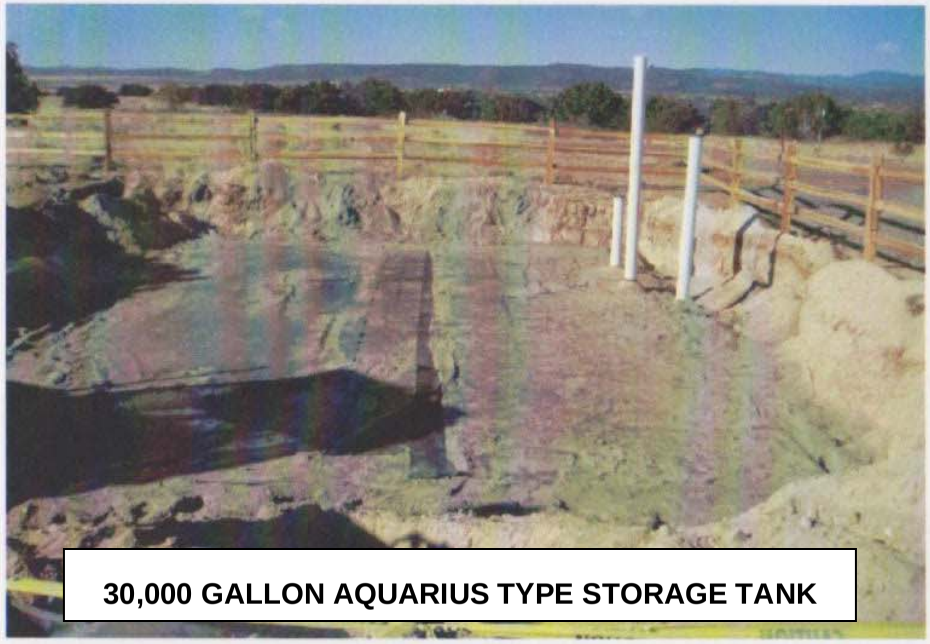
30,000 GALLON CISTERN



30,000 GALLON FIBERGLASS STORAGE TANK

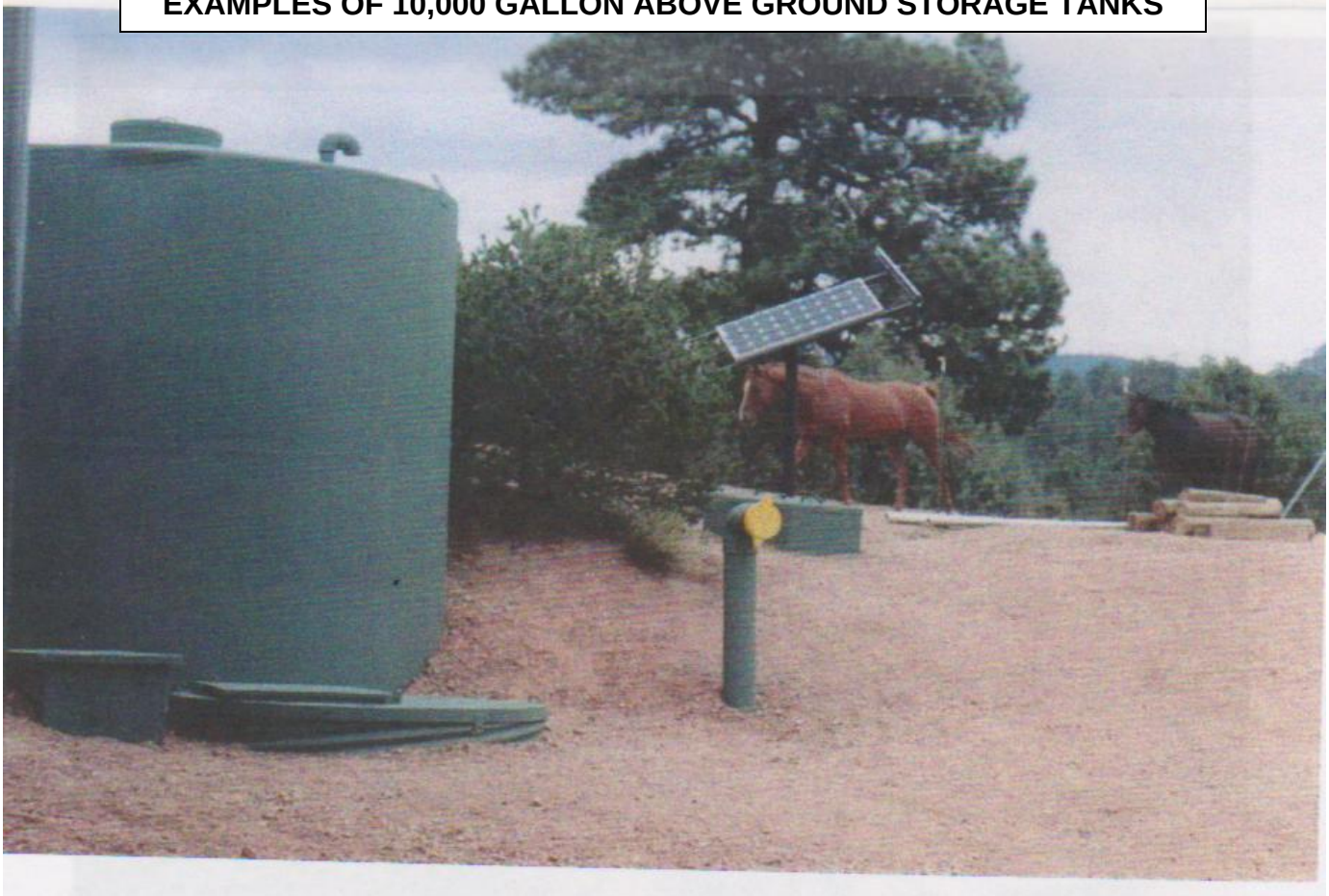


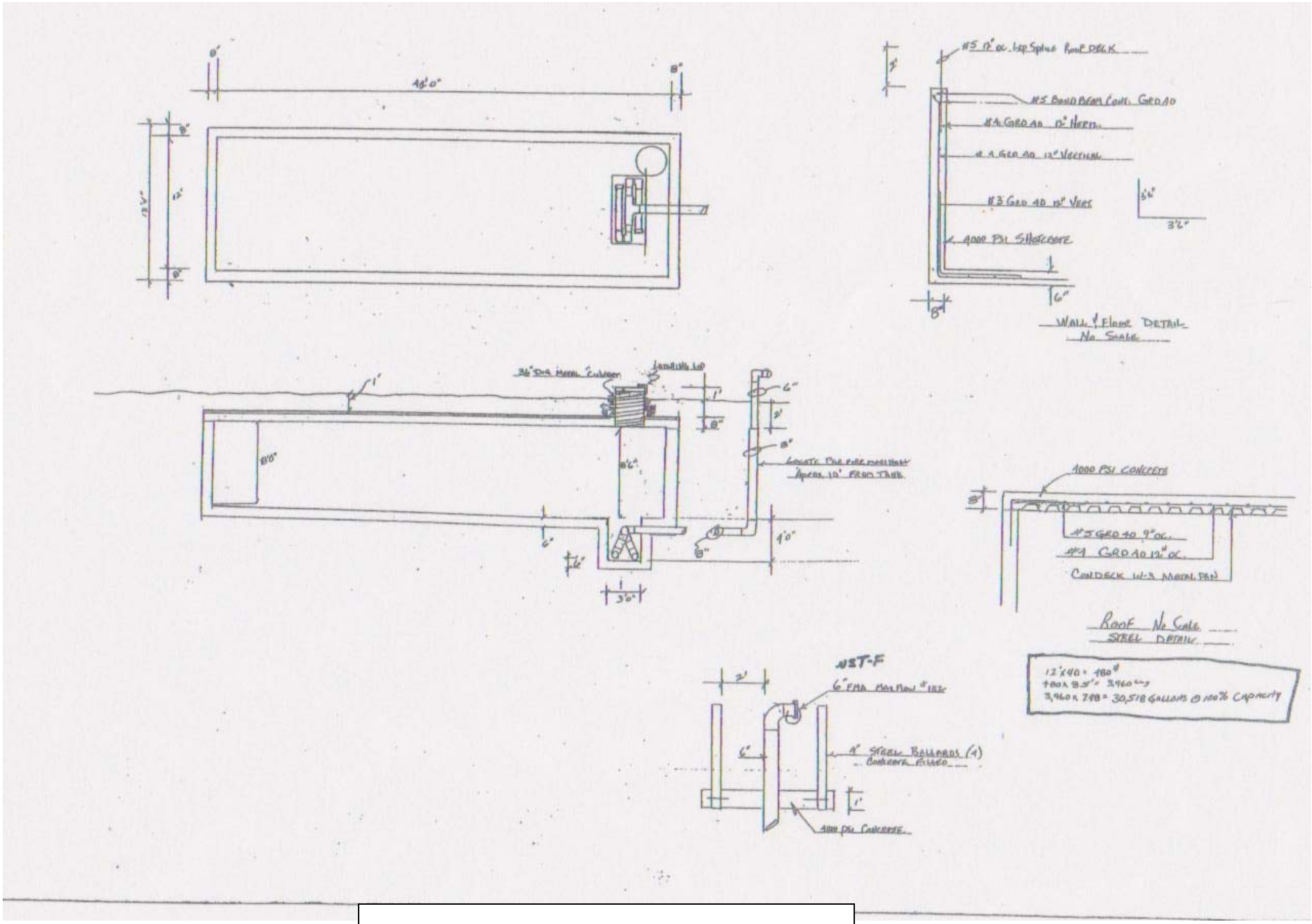
3 - 10,000 GALLON SIAMESED STEEL STORAGE TANKS



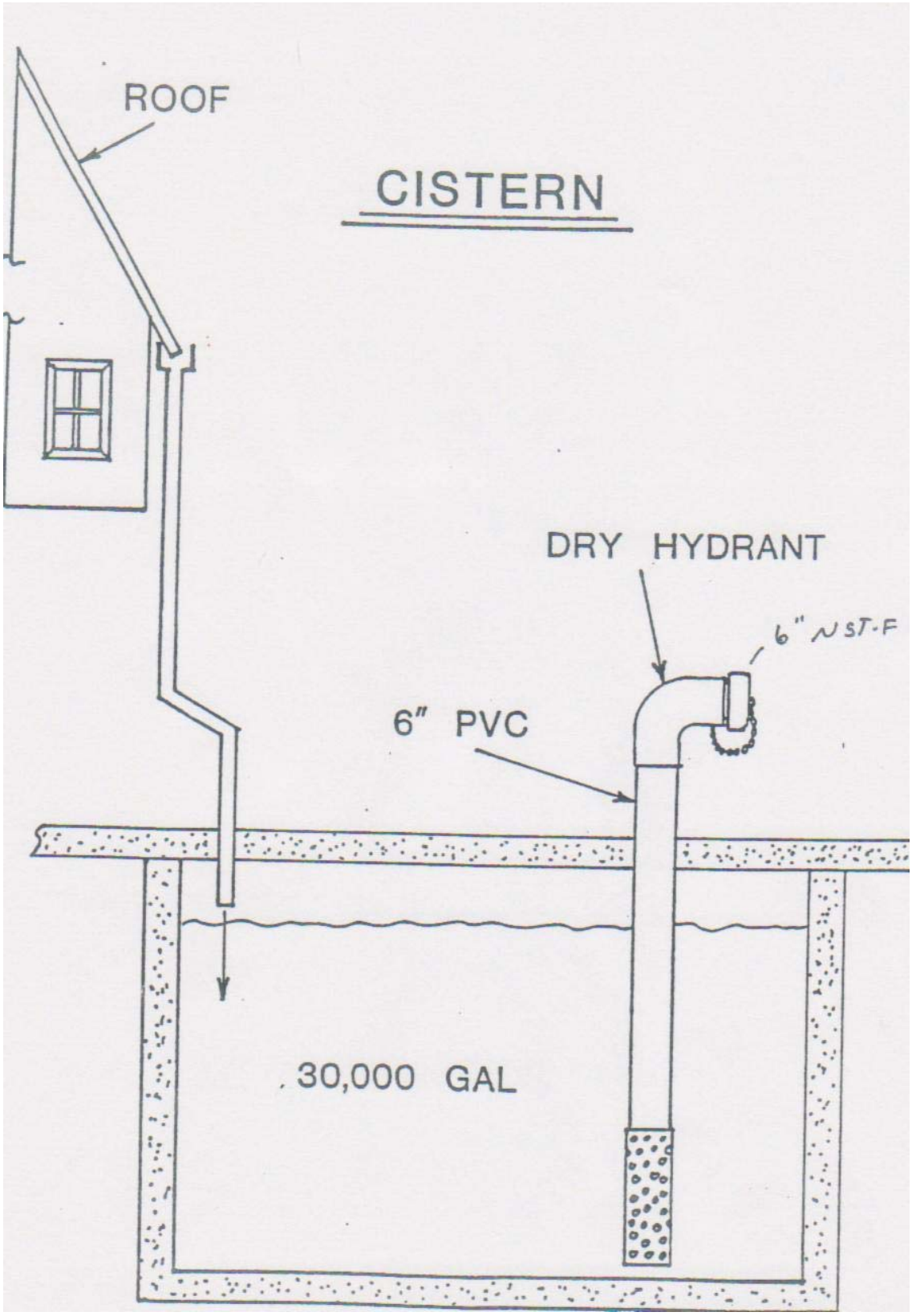
30,000 GALLON AQUARIUS TYPE STORAGE TANK

EXAMPLES OF 10,000 GALLON ABOVE GROUND STORAGE TANKS

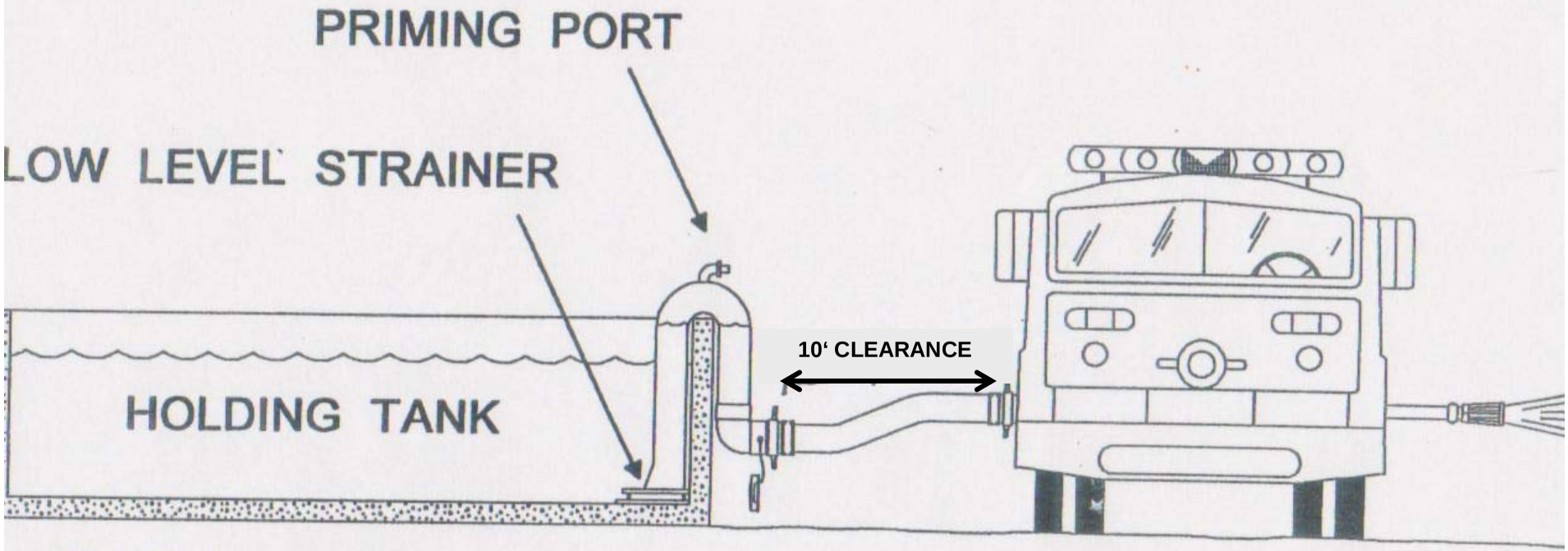




30,000 GALLON STORAGE CISTERN


ROOF
CISTERN
DRY HYDRANT
6" NST-F
6" PVC
30,000 GAL

OVER THE TOP - DRY HYDRANT



KIT COMPONENTS

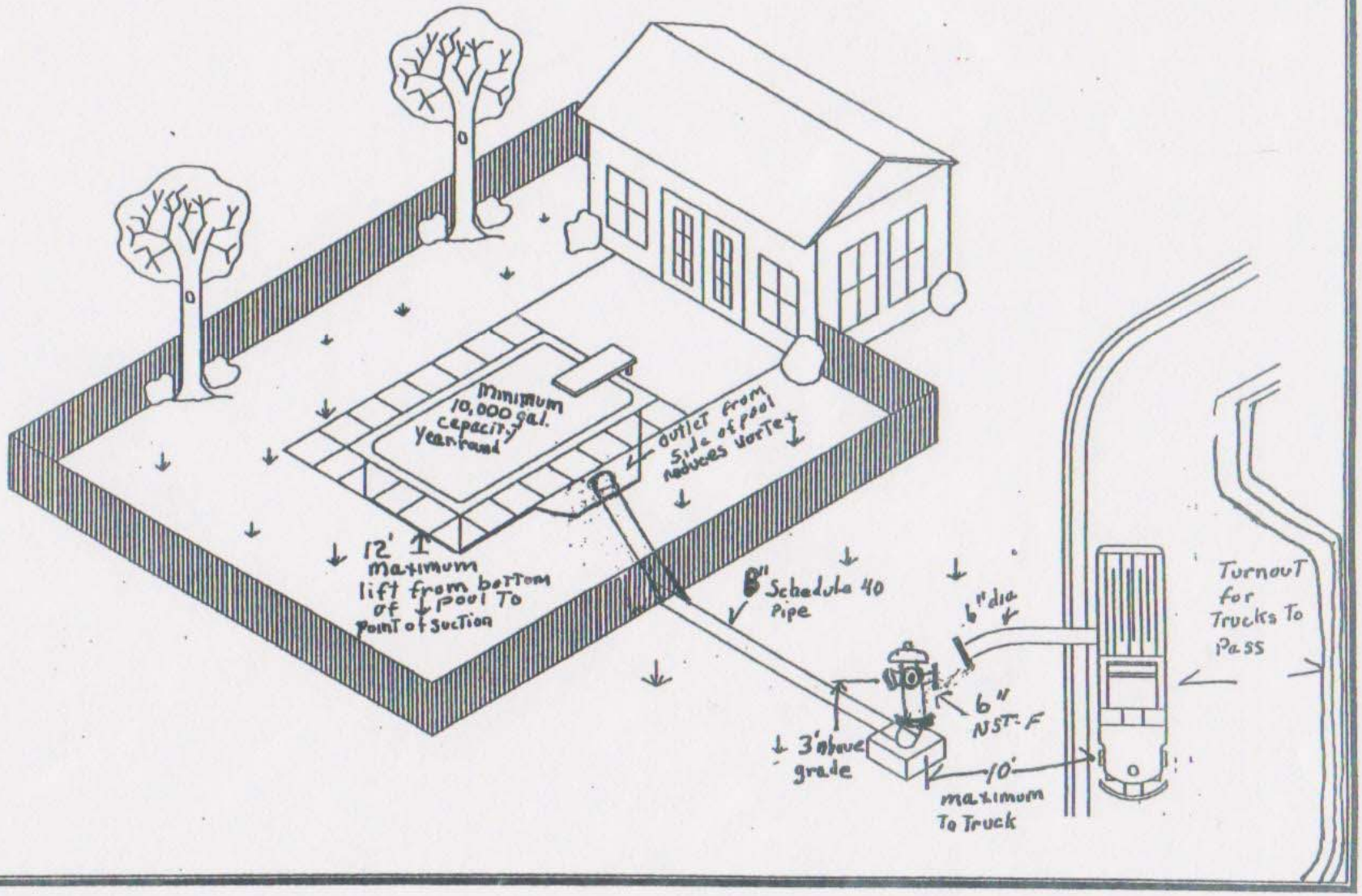
. DRY HYDRANT HEAD → 6" NST-F
. LOW LEVEL STRAINER
. PRIMING TUBE ASS'Y
. (2) 90 DEG. ELBOWS

ACCESSORIES

6" SCHEDULE 40 PIPE / FT.
DOUBLE FEMALE L/H ADAPTERS
MALE / FEMALE L/H ADAPTERS
FLEXIBLE SUCTION HOSE
PRIMING PUMP ASSEMBLY

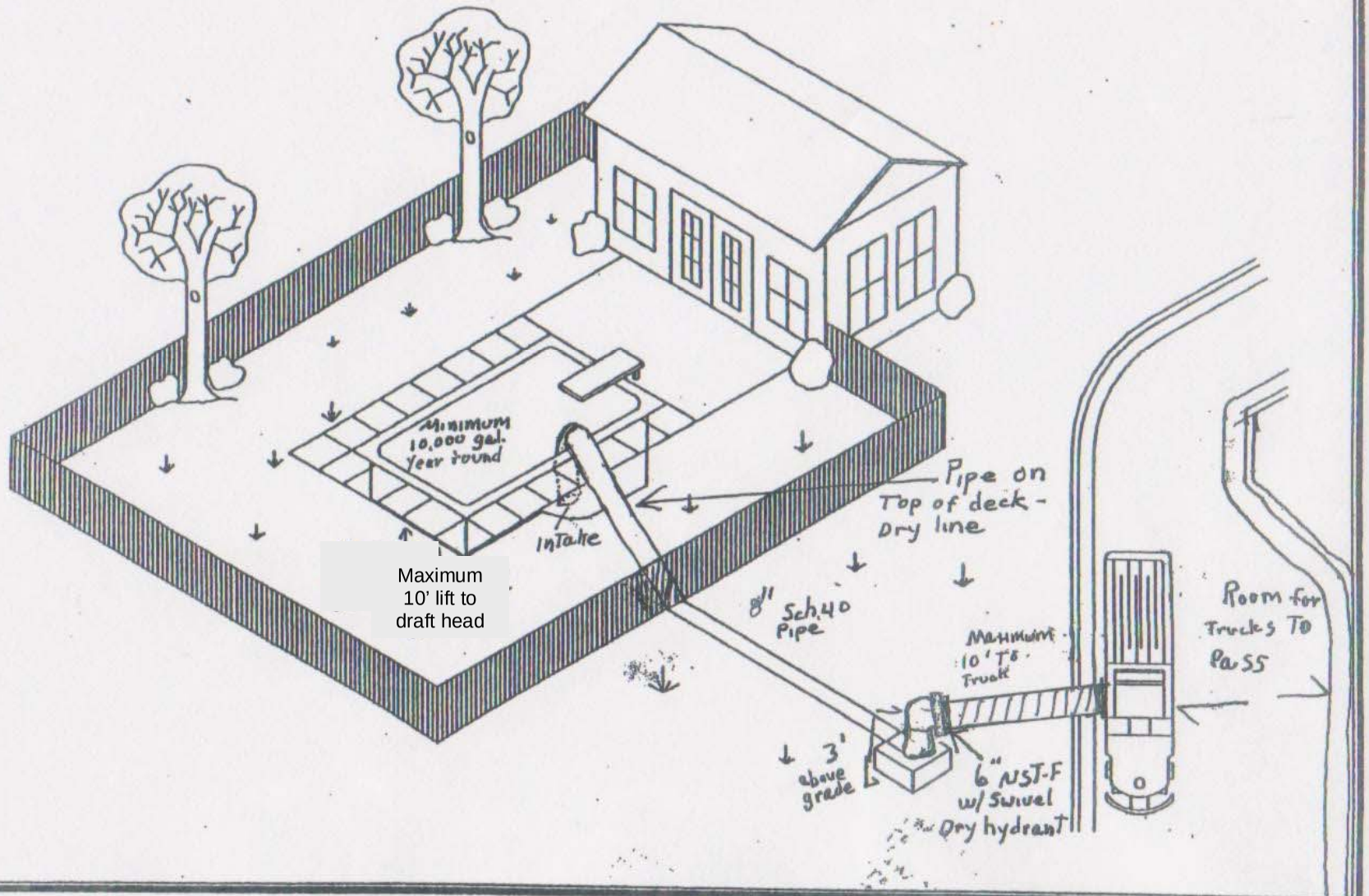
SWIMMING POOLS

(POOL KEPT FULL YEAR ROUND)



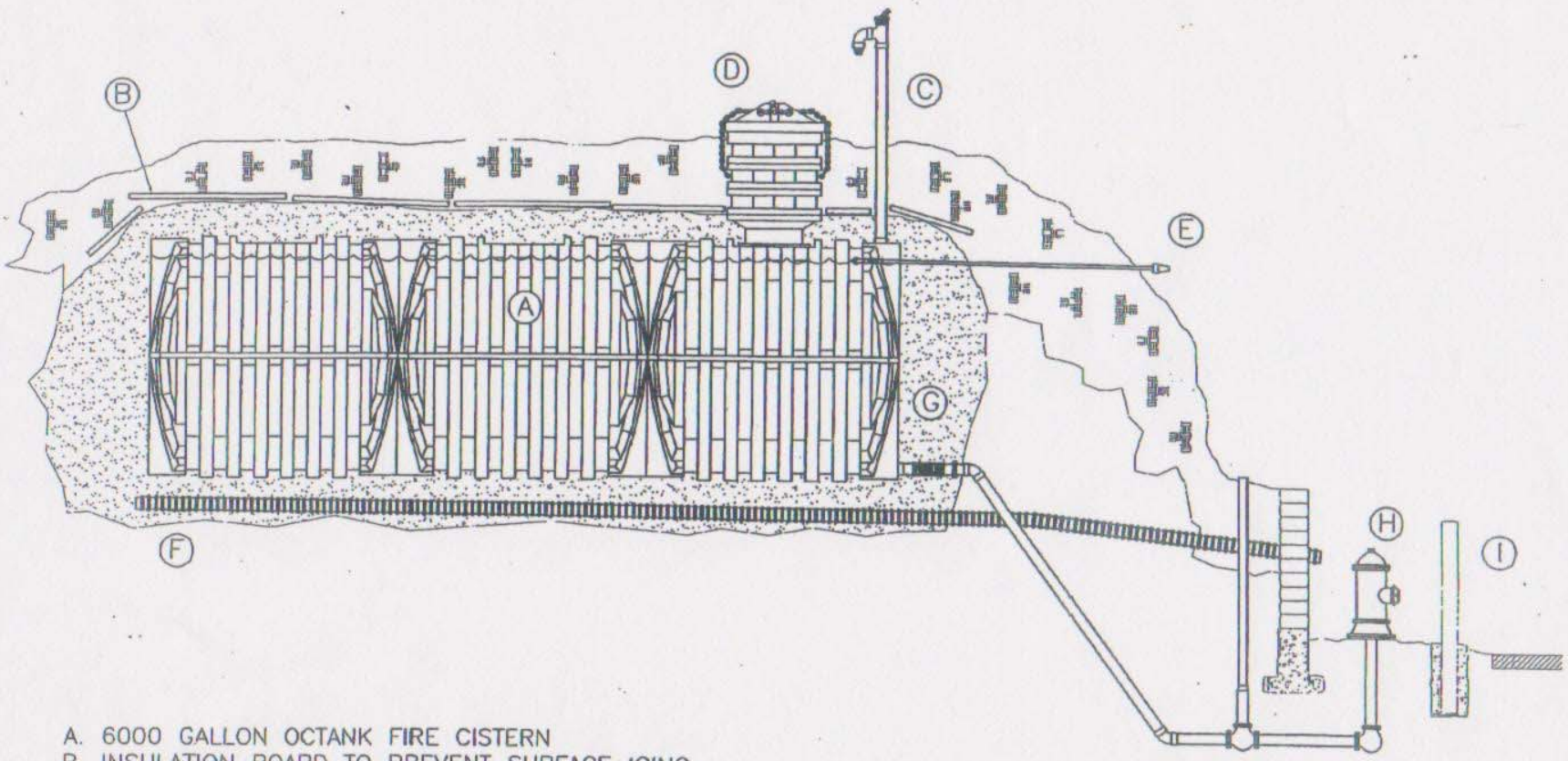
SWIMMING POOLS

(POOL KEPT FULL YEAR ROUND)



GRAVITY FLOW FIRE CISTERN

TANK INSTALLED INTO HILLSIDE
ABOVE STANDARD IRON HYDRANT



A. 6000 GALLON OCTANK FIRE CISTERN
B. INSULATION BOARD TO PREVENT SURFACE ICING
C. VENT ASSEMBLY WITH LOCKING INSPECTION CAP
D. MANWAY EXTENSION WITH LOCKING COVER
E. OVERFLOW TO DAYLIGHT
F. BED UNDER DRAIN FOR GROUND WATER RELIEF
G. FLEXIBLE TANK–TO–PIPE COUPLING AT TANK DISCHARGE
H. CITY STYLE DRY BARREL FIRE HYDRANT
I. CONCRETE FILLED PIPE BOLLARDS TO PROTECT LOADING AREA

GRAVITY DISCHARGE TO
FIRE HYDRANT

FIRE PROTECTION SYSTEM #1

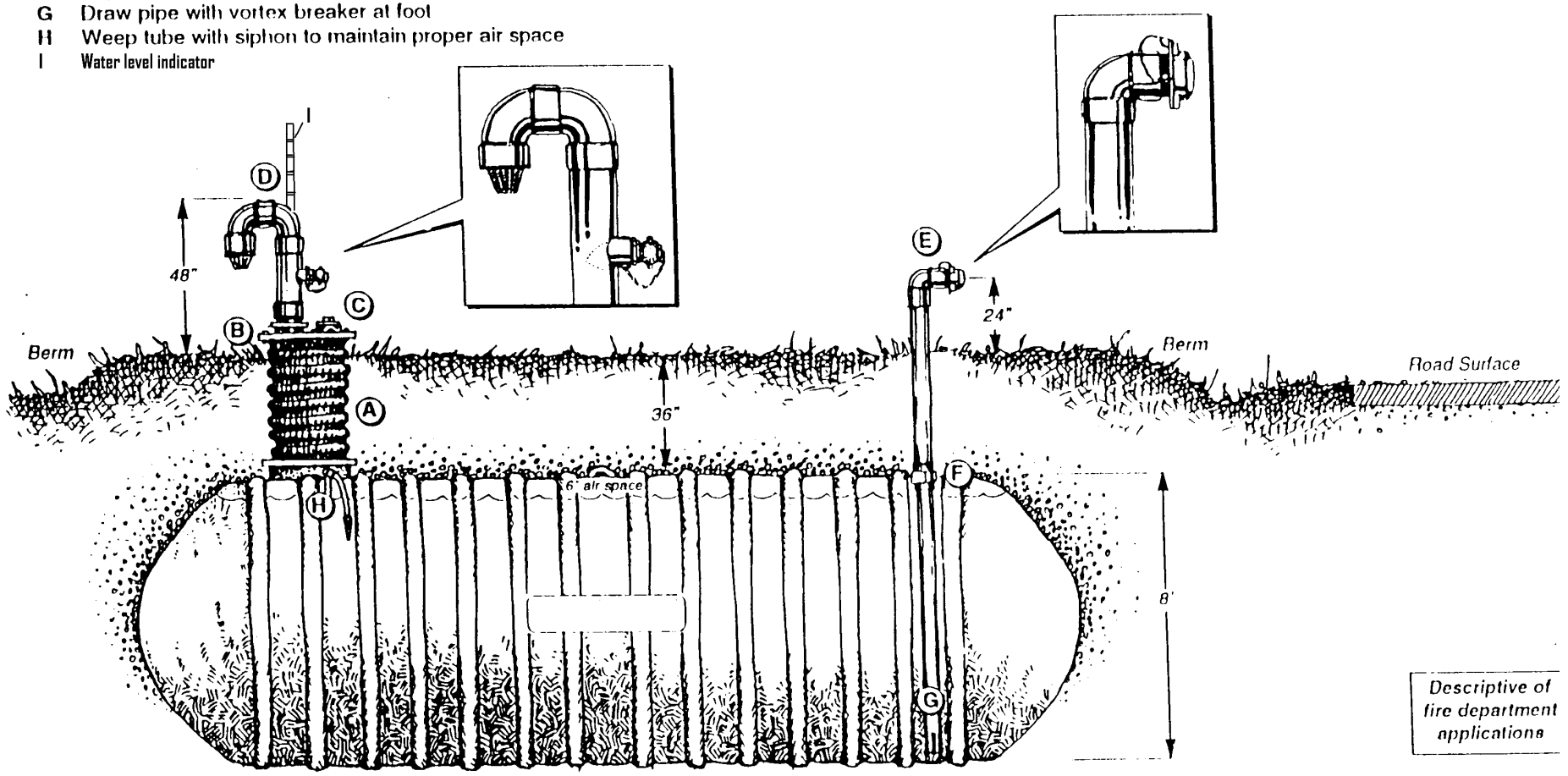
STANDARD DRY HYDRANT DRAFT

Components

- **A** Manway extension to grade (optional)
- **B** Bolted steel cover
- **C** Lockable level inspection port or level indicator dial
- **D** Combination vent / refill, 2.5" NST-F swivel & plug
- **E** Dry hydrant head with dust cap, 6" NST-F
- **F** 6" pipe coupling molded into tank shell
- **G** Draw pipe with vortex breaker at foot
- **H** Weep tube with siphon to maintain proper air space
- **I** Water level indicator

Notes

1. *Refill through dry hydrant or combination vent (50 PSI max)*
2. *Lift for 8 ft. diameter tank = 10 vertical feet to hydrant head*
3. *Manway access is **not** required / optional accessory*
4. *Order check valve in weep tube for potable water applications*



Descriptive of fire department applications

FIRE PROTECTION SYSTEM

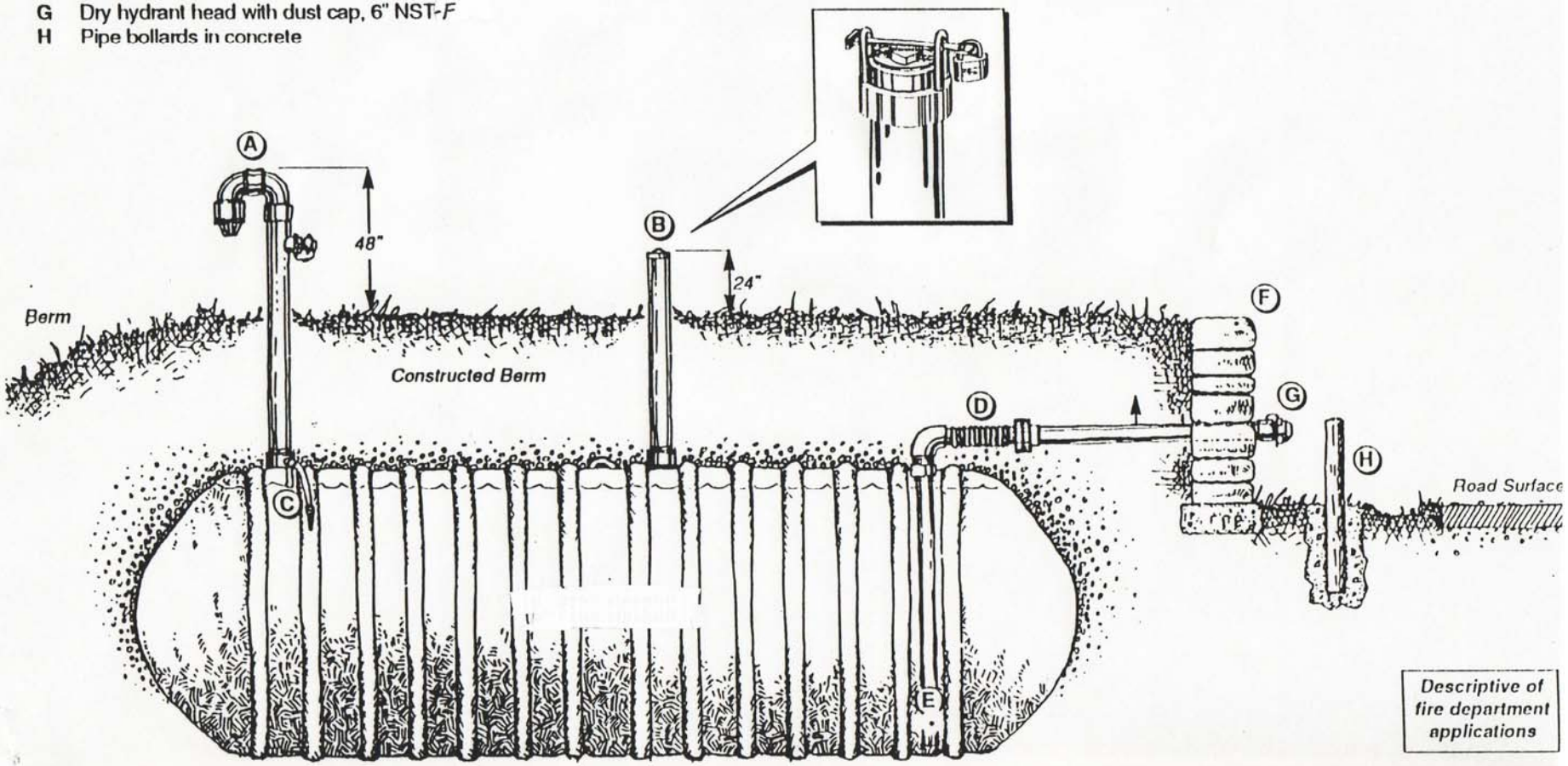
DRAFT - MINIMUM LIFT

Components

- **A** Combination vent / refill, 2.5" NST-F swivel & plug
- **B** Lockable level inspection port or level indicator dial
- **C** Weep tube with siphon to maintain proper air space
- **D** Flex coupling aimed slightly up hill for drain back to tank
- **E** Draw pipe with vortex breaker at foot
- **F** Retaining wall
- **G** Dry hydrant head with dust cap, 6" NST-*F*
- **H** Pipe bollards in concrete

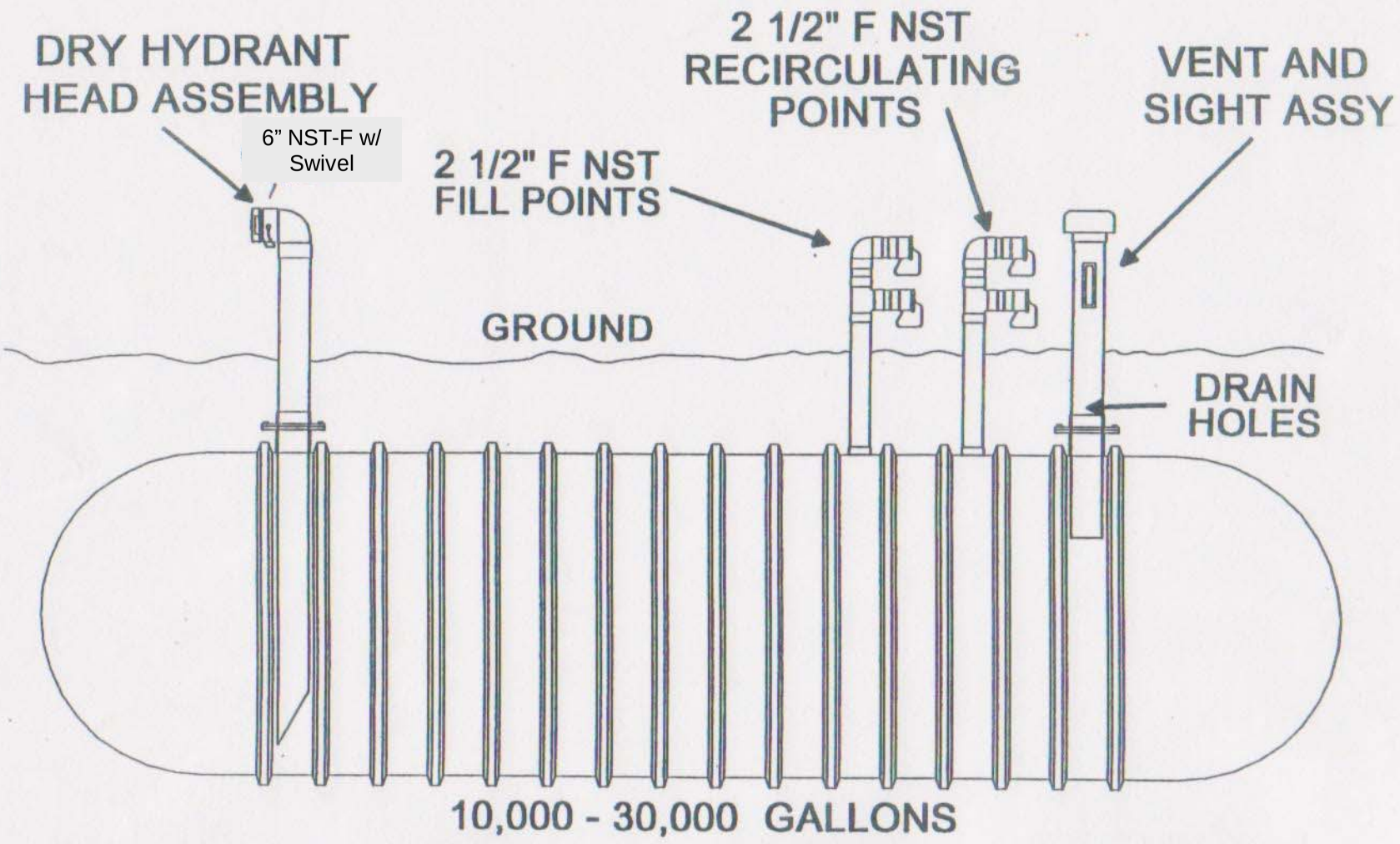
Notes

1. *Refill through dry hydrant or combination vent (50 PSI max)*
2. *Best draft design for high elevation, minimum lift required*
3. *Always keep vent head above anticipated snow level*
4. *Discharge pipe must angle up for drain back toward tank*
5. *Manway access is **not** required / optional accessory*



Descriptive of fire department applications

UNDERGROUND TANK



UGTANK1-#B4

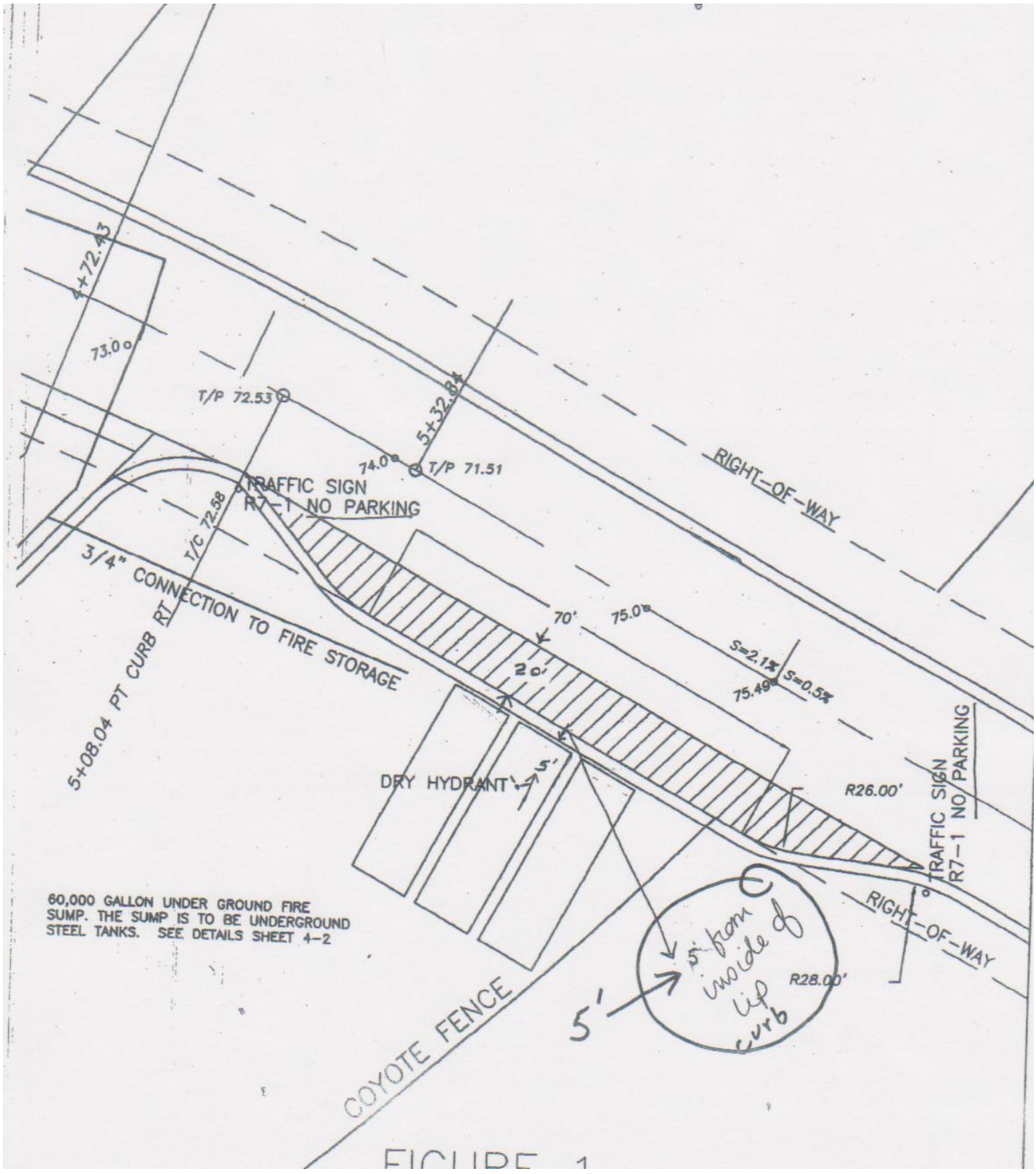


FIGURE 1

EXAMPLE OF DRAFT HYDRANT PULL-OUT