Permit. rcra. 915244. 1986-11-23. Part_373_ Permit_App_Drawing_ Addendum

**

EXPANDED PCB WORK AREA

CONTAINMENT SYSTEM CALCULATIONS - DIKE "A"

CONTAINMENT VOLUME = DIKED VOLUME

= [(75 FT)(22.5 FT) + (36.5 FT)(18.5 FT) + (14.5)(17)] (0.67 FT) $\times 7.48 \frac{\text{GAL}}{\text{CU FT}} = 13.077 \text{ GAL}.$

10% CONTAINER STORAGE \leftarrow DIKED VOLUME

CONTAINER STORAGE \leftarrow 13,077 GAL

0.10

CONTAINER STORAGE \leftarrow 130,770 GAL.

CONTAINMENT SYSTEM CALCULATIONS - DIKE "B"

CONTAINMENT VOLUME = DIKED VOLUME

= $\left[(23 \text{ FT})(23 \text{ FT})(1.67 \text{ FT}) - 2 \left(\frac{\pi (9 \text{ FT})^2}{4} \right) (1.67 \text{ FT}) \right] \frac{7.48 \text{ GAL}}{\text{CU FT}}$ = 5,020 GAL.

CONTAINMENT SYSTEM CALCULATIONS - DIKE "C"

CONTAINMENT VOLUME = DIKED VOLUME

= $[(22 \text{ FT})(22 \text{ FT})(1 \text{ FT}) - (3.5 \text{ FT})(1 \text{ FT})(1 \text{ FT}) - 4 (1 \text{ FT})(6 \text{ FT})(1 \text{ FT})] \frac{7.48 \text{ GAL}}{\text{CU FT}} = 3.415 \text{ GAL}.$

PCB STORAGE AREA

MAXIMUM NO. OF CONTAINERS - 75

CONTAINER HEIGHT - 35 IN.

CONTAINER VOLUME - 55 GAL.

TOTAL STORAGE VOLUME - 4,125 GAL.

CONTAINMENT SYSTEM CALCULATIONS - DIKE "D"

CONTAINMENT VOLUME =

DIKED VOLUME - CONTAINER VOLUME

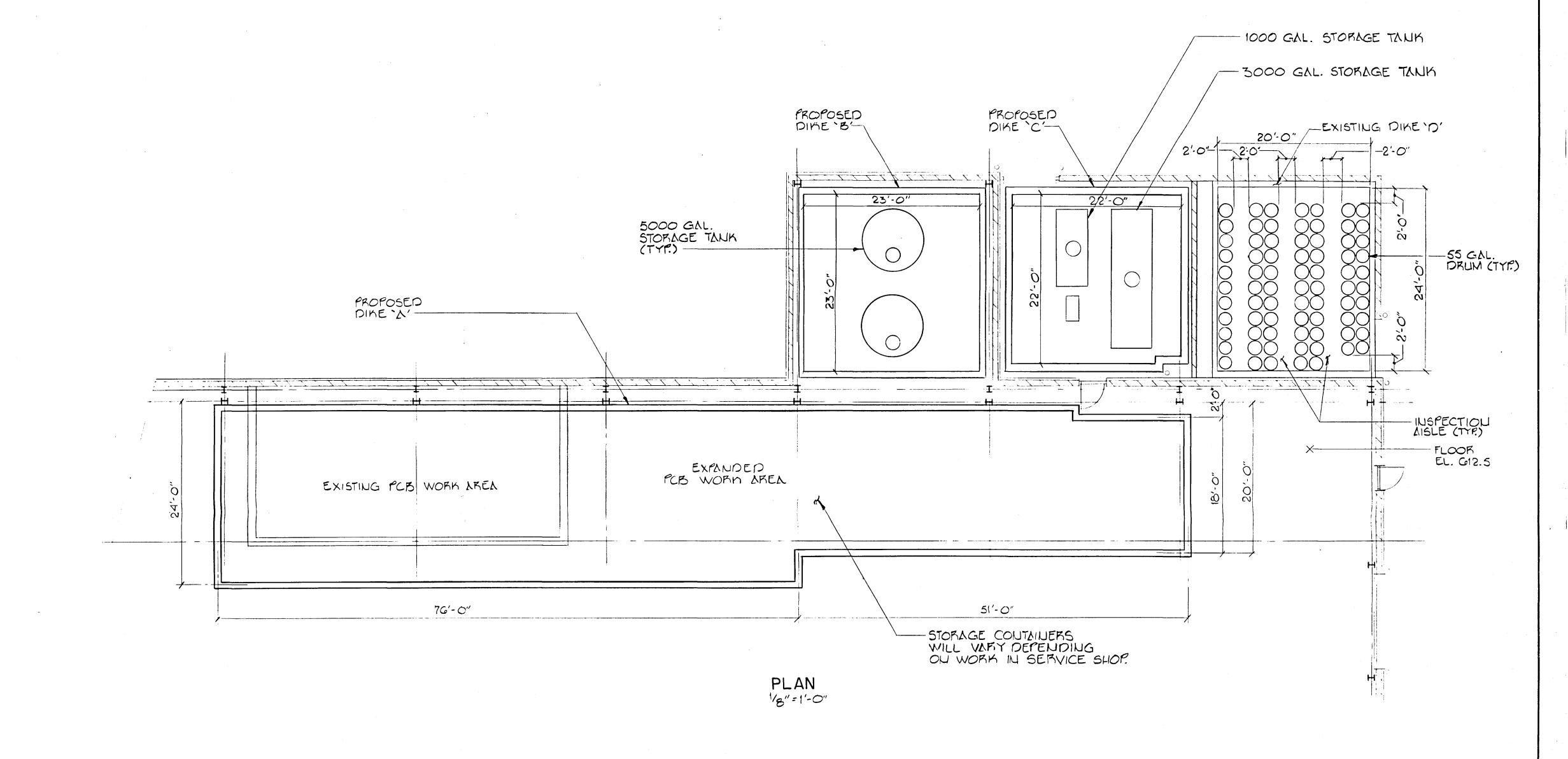
= (20 FT) (24 FT) (2 FT) $\left(\frac{7.48 \text{ GAL}}{\text{CU FT}}\right)$

(75 DRUMS) (55 GAL) $\left(\frac{2 \text{ FT}}{35 \text{ IN}}\right) \left(\frac{12 \text{ IN}}{\text{FT}}\right)$

CONTAINMENT VOLUME - 4,352 GAL.

10% OF STORAGE VOLUME = 10% (4,125 GAL)

= 413 GAL.



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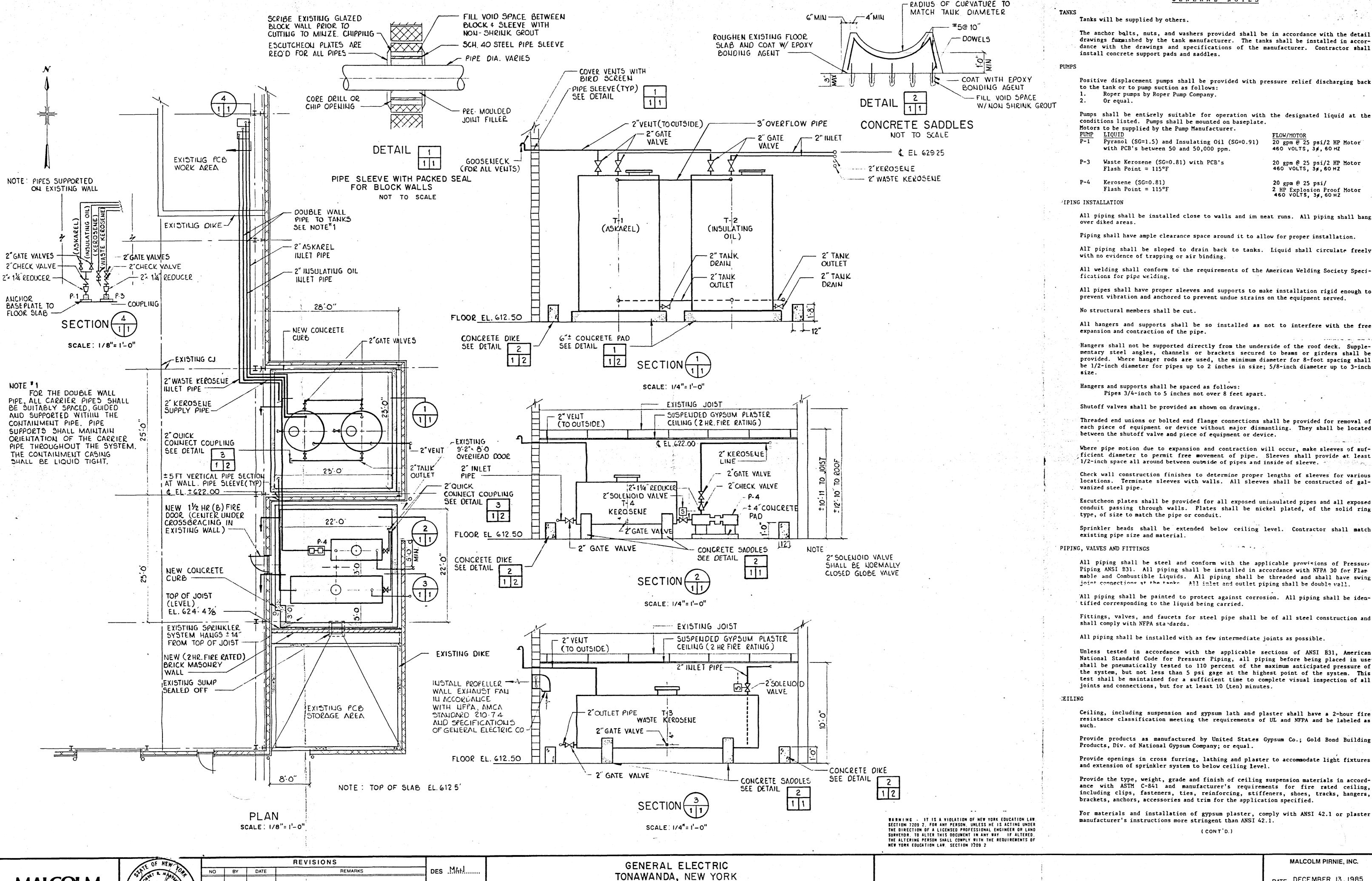
 GENERAL ELECTRIC TONAWANDA, NEW YORK

APPARATUS & ENGINEERING SERVICE DIVISION

INDOOR PCB WORK AREA CONTAINER STORAGE

SCALE AS INDICATED

10 CA OIL STORAGE B G F (0)KEROSENE STORAGE PCB STORAGE AREA WASTE OIL STORAGE STORAGE AREA PCB WORK AREA FLOOR DRAINS OFFICE 350'-0" REVISIONS GENERAL ELECTRIC TONAWANDA, NEW YORK MALCOLM PIRNIE BUFFALO SERVICE SHOP APPARATUS & ENGINEERING SERVICE DIVISION SCALE: 1/16"=1'-0"



GENERAL NOTES

Tanks will be supplied by others.

The anchor bolts, nuts, and washers provided shall be in accordance with the detail drawings furnished by the tank manufacturer. The tanks shall be installed in accordance with the drawings and specifications of the manufacturer. Contractor shall install concrete support pads and saddles.

Positive displacement pumps shall be provided with pressure relief discharging back to the tank or to pump suction as follows: Roper pumps by Roper Pump Company.

Or equal.

Pumps shall be entirely suitable for operation with the designated liquid at the conditions listed. Pumps shall be mounted on baseplate. Motors to be supplied by the Pump Manufacturer.

Pyranol (SG=1.5) and Insulating Oil (SG=0.91) with PCB's between 50 and 50,000 ppm.

20 gpm @ 25 psi/2 HP Motor 460 VOLTS, 3, 60 HZ

Waste Kerosene (SG=0.81) with PCB's Flash Point = 115°F

20 gpm @ 25 psi/2 HP Motor 460 VOLTS, 3#, 60 HZ

P-4 Kerosene (SG=0.81) Flash Point = 115°F

20 gpm @ 25 psi/ 2 HP Explosion Proof Motor 460 VOLTS, 3, 60 HZ

PIPING INSTALLATION

All piping shall be installed close to walls and im neat runs. All piping shall hang over diked areas.

Piping shall have ample clearance space around it to allow for proper installation.

All' piping shall be sloped to drain back to tanks. Liquid shall circulate freely with no evidence of trapping or air binding.

All welding shall conform to the requirements of the American Welding Society Specifications for pipe welding.

All pipes shall have proper sleeves and supports to make installation rigid enough to prevent vibration and anchored to prevent undue strains on the equipment served.

No structural members shall be cut.

All hangers and supports shall be so installed as not to interfere with the free expansion and contraction of the pipe.

Hangers shall not be supported directly from the underside of the roof deck. Supplementary steel angles, channels or brackets secured to beams or girders shall be provided. Where hanger rods are used, the minimum diameter for 8-foot spacing shall be 1/2-inch diameter for pipes up to 2 inches in size; 5/8-inch diameter up to 3-inch

Hangers and supports shall be spaced as follows:

Pipes 3/4-inch to 5 inches not over 8 feet apart.

Shutoff valves shall be provided as shown on drawings.

Threaded end unions or bolted end flange connections shall be provided for removal of each piece of equipment or device without major dismantling. They shall be located between the shutoff valve and piece of equipment or device.

ficient diameter to permit free movement of pipe. Sleeves shall provide at least 1/2-inch space all around between outside of pipes and inside of sleeve. Check wall construction finishes to determine proper lengths of sleeves for various

vanized steel pipe. Escutcheon plates shall be provided for all exposed uninsulated pipes and all exposed

conduit passing through walls. Plates shall be nickel plated, of the solid ring type, of size to match the pipe or conduit.

Sprinkler heads shall be extended below ceiling level. Contractor shall match existing pipe size and material.

PIPING, VALVES AND FITTINGS

All piping shall be steel and conform with the applicable provisions of Pressure Piping ANSI B31. All piping shall be installed in accordance with NFPA 30 for Flam mable and Combustible Liquids. All piping shall be threaded and shall have swing joint connections at the tanks. All inlet and outlet piping shall be double wall.

All piping shall be painted to protect against corrosion. All piping shall be identified corresponding to the liquid being carried.

Fittings, valves, and faucets for steel pipe shall be of all steel construction and shall comply with NFPA standards.

All piping shall be installed with as few intermediate joints as possible.

Unless tested in accordance with the applicable sections of ANSI B31, American National Standard Code for Pressure Piping, all piping before being placed in use shall be pneumatically tested to 110 percent of the maximum anticipated pressure of the system, but not less than 5 psi gage at the highest point of the system. This test shall be maintained for a sufficient time to complete visual inspection of all joints and connections, but for at least 10 (ten) minutes.

Ceiling, including suspension and gypsum lath and plaster shall have a 2-hour fire resistance classification meeting the requirements of UL and NFPA and be labeled as

Provide products as manufactured by United States Gypsum Co.; Gold Bond Building Products, Div. of National Gypsum Company; or equal.

Provide openings in cross furring, lathing and plaster to accommodate light fixtures and extension of sprinkler system to below ceiling level.

Provide the type, weight, grade and finish of ceiling suspension materials in accordance with ASTM C-841 and manufacturer's requirements for fire rated ceiling, including clips, fasteners, ties, reinforcing, stiffeners, shoes, tracks, hangers, brackets, anchors, accessories and trim for the application specified.

For materials and installation of gypsum plaster, comply with ANSI 42.1 or plaster manufacturer's instructions more stringent than ANSI 42.1.

(CONT'D.)

MALCOLM PIRNIE

APPARATUS & ENGINEERING SERVICE DIVISION

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LIQUID WASTE STORAGE FACILITIES

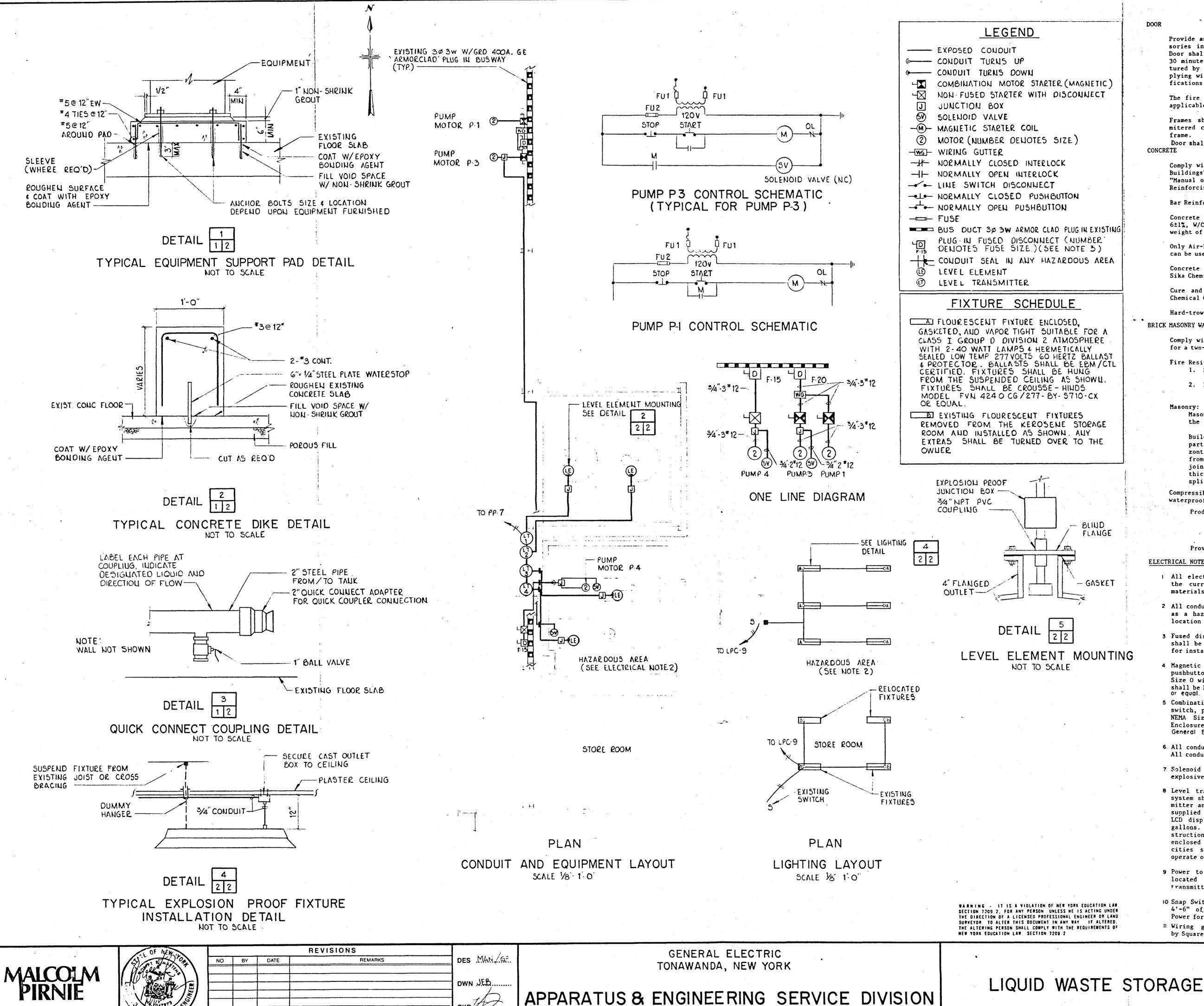
SCALE AS INDICATED

MALCOLM PIRNIE, INC.

DATE DECEMBER 13, 1985

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DWG NO. 968 P-85.00 I-0



GENERAL NOTES (CONT'D)

Provide an 8 ft x 3-1/2 ft self-closing UL 1-1/2 Hr (B) fire door, frame and accessories installed in accordance with NFPA 80, Standard for Fire Doors and Windows. Door shall have a temperature rise rating of not more than 450°F or 650°F maximum to 30 minutes of exposure. hollow metal door, frames and accessories shall be manufactured by a single firm specializing in the production of this type of work and complying with all applicable standards of the Steel Door Institute recommended specifications for Standard Steel Doors and Frames (S.D.1 100).

The fire door and frame shall have recognized testing laboratory labels, indicating applicable fire rating of both door and frame.

Frames shall be fabricated c. full-welded unit construction. Provide reinforced mitered corners that are continuously welded for the full depth and width of the

Door shall have a 10" x 10" wire glass window.

Comply with latest editions of ACI 301, "Specifications for Structural Concrete for Buildings"; ACI 318, "Building Code Requirements for Reinforced Concrete"; ACI 315, "Manual of Standard Practice for Detailing Reinforced Concrete Structures"; Concrete Reinforcing Steel Institute, Manual of Standard Practice.

Bar Reinforcing - ASTM A615, Grade 60

Concrete - 4000 psi @ 28 days, Type III; with 3000 psi minimum @ 7 days, Air content 6±1%, W/C .45 by weight; ASTM C 33; No. 57 & 67 coarse aggregate, slump 3±1 inches, weight of concrete W-145 pcf.

Only Air-Entraining Admixtures; ASTM C 260, and Water-Reducing Admixtures; ASTM C 494

Concrete epoxy bonding agent shall be two-part polysulfide type; Sikadur Hi-Mod by Sika Chemical Corporation or as approved.

Cure and Hardening Compound; ASTM C 309 (silicate-based); Eucosil by The Euclid Chemical Company or as approved. Cover with polyethylene sheet for seven (7) days.

Hard-trowel all exposed concrete surfaces.

BRICK MASONRY WALL (Non-load Bearing)

Comply with applicable requirements for materials and installation established by UL for a two-hour fire rating.

Fire Resistant Mortar:

1. Standard: UL, Design numbers 0901, 0902, 0903, 0904, 0905, 0906, 0907

2. Proportion: Use one (1) part Portland cement, three (3) parts clean sand, and fifteen (15) percent hydrated lime (by cement volume).

Masonry shall match color, texture and size of existing brick and comply with the requirements of UL for the type required.

Build full height of story to underside of structure above. Wedge non-bearing partitions with tile, slate or metal. Insert compressible filler in all horizontal and vertical joints where masonry terminates. Insert filler 3/4 inches from both faces of masonry. Use filler twice as thick as the widest part of the joint. Thickness of filler shall be a minimum of 1.5 times the compressed thickness. Compress filler to less than thickness of joint and insert. At splices, overlay strips by three inches and compress ends to form tight joint.

Compressible Filler: Use foamed polyurethane strip saturated with polybutylene

waterproofing material. Product and Manufacturer: Provide one of the following:

Polytite by Sandell Manufacturing Co.

Compriband by Secoa Corp., Division of Phoenix Building Products, Inc.

Provide standard type anchoring devices for facing and back-up involved.

ELECTRICAL NOTES

- 1 All electrical work, materials and equipment shall be installed in accordance with the current standards and recommendations of the National Electrical Code. All materials shall be new and shall bear the label of the Underwriters Laboratories Inc.
- 2 All conduit, cable lighting and electrical equipment installed in any area designated as a hazardous area shall meet the requirements of a Class 1, Division 2, Group D location and shall be installed per Article 501 of the National Electrical Code.
- 3 Fused disconnects, where shown, shall be 36 3W plug-in rated at 30 amperes. Fuses shall be one-time non-time delay sized as indicated. Disconnects shall be suitable for installing in the existing 400 amp G.E. armor-clad plug in busway.
- 4 Magnetic Starter for Pump Motor P-4 shall be non-fusible with disconnect switch, pushbuttons, control transformer, and relays as indicated. Starter shall be NEMA Size 0 with 3-pole overload protection properly sized for the pump motor. Enclosure shall be NEMA 12, with external reset, Series CR308 model B204 AEA by General Electric
- 5 Combination starters for pumps P-1 and P-3 shall be combination type with disconnect switch, pushbuttons, control transformer, and relays as indicated. Starter shall be NEMA Size 0, with 3-pole overload protection, properly sized for the motors. Enclosures shall be NEMA 12 with external resets, Series CR 387, Mag Break by General Electric or equal.
- 6 All conduit shall be heavy wall, rigid galvanized steel, meeting ANSI Standard C80.1. All conductors shall be Type THWN/THHN (75°C wet, 90°C dry), rated 600 VAC.
- 7 Solenoid valves shall operate on 120 VAC and shall be suitable for installation in explosive atmospheres.
- 8 Level transmitters shall be furnished and installed where shown. The tank level system shall consist of a tank-mounted ultrasonic level element and a remote transmitter and controller. All wiring between the transmitter and level element shall be supplied by the level transmitter manufacturer. The transmitter shall have a local LCD display and be capable of converting the level into an equivalent volume in gallons. The display shall read in gallons. The level element shall be PVC construction suitable for installation in explosive atmospheres. Transmitter shall be enclosed in a NEMA 4X enclosure mounted where shown. All tank dimensions and capacities shall be obtained from the tank manufacturer. Level transmitters shall operate on 120 VAC. Transmitter shall be LEV-L-SCAN-J by Sam-Tec Inc., or equal.
- 9 Power to the level transmitter shall be obtained from existing power panel PPlocated outside the Instrument Repair Room approximately 200 feet from the transmitters.
- 10 Snap Switch shall be single pole AC toggle, rated at 120/277 VAC, 20 ampere, mounted 4'-6" off finished floor. The Storage Room switch is existing and shall remain Power for lighting shall remain from lighting panel LPC Circuit #9. II Wiring gutter shall be square duct 4" x 4" with closing plates Model LD41
- by Square D or equal.

LIQUID WASTE STORAGE FACILITIES

DATE DECEMBER 13, 1985

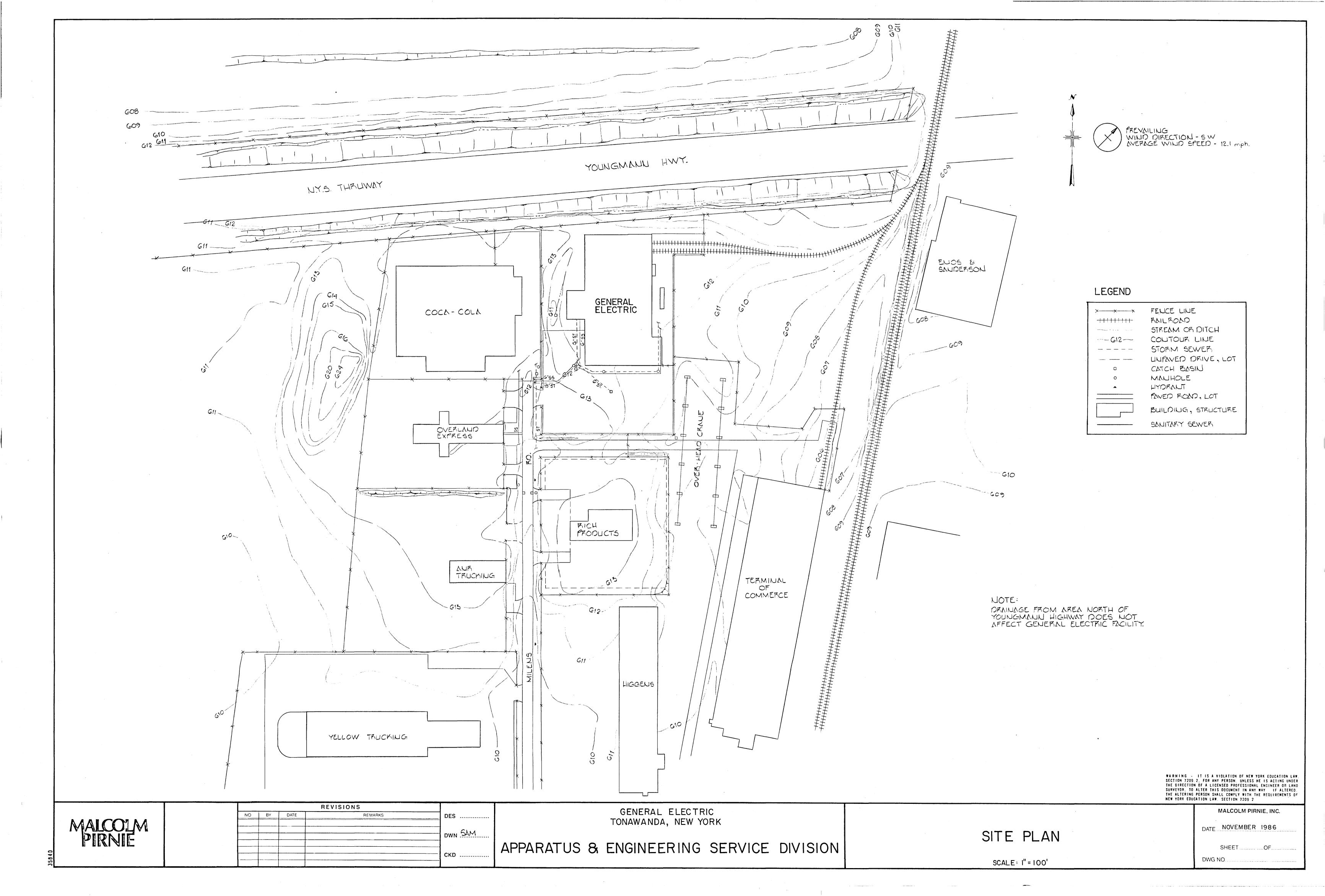
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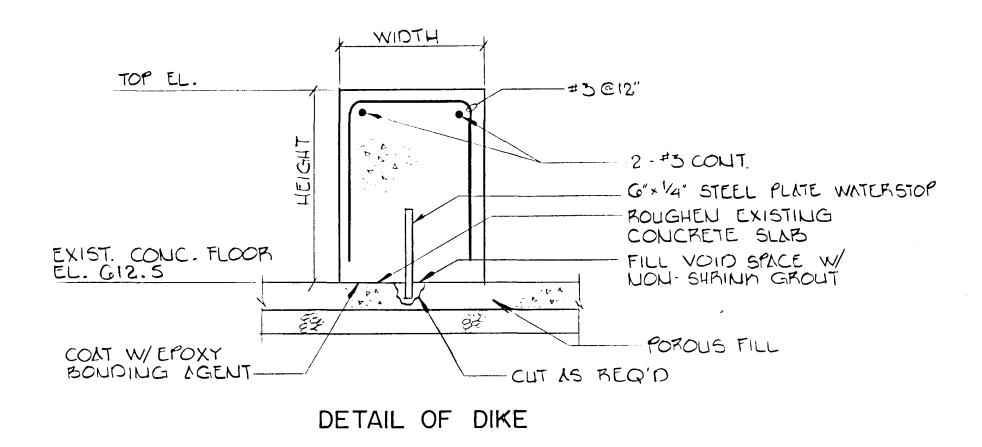
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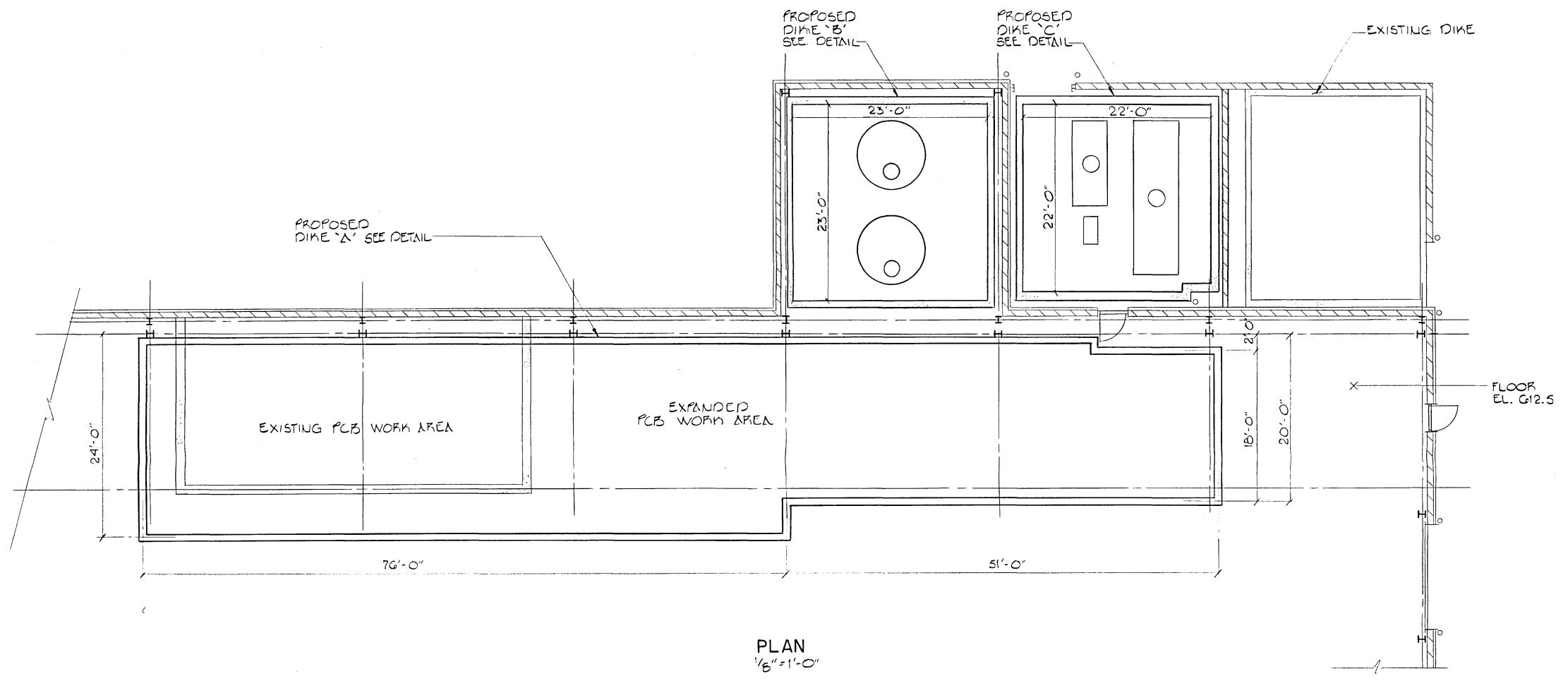
PIRNIE

SCALE AS INDICATED





	HEIGHT	HTOIW	TOP EL.
DIKEK	8"	9″	G13.17
DIKE'B'	1'-8"	1'-0"	G14.17
DIKE'C'	1'-0"	1' -0"	G13.5



NOTE: SPECIFICATIONS FOR THE CONCRETE, WATERSTOPS, SEALANTS, AND COATINGS ARE INCLUDED WITH THE DRAWINGS FOR THE LIQUID WASTE STORAGE FACILITIES.

MALCOLM PIRNIE GENERAL ELECTRIC TONAWANDA, NEW YORK

APPARATUS & ENGINEERING SERVICE DIVISION

INDOOR PCB WORK AREA

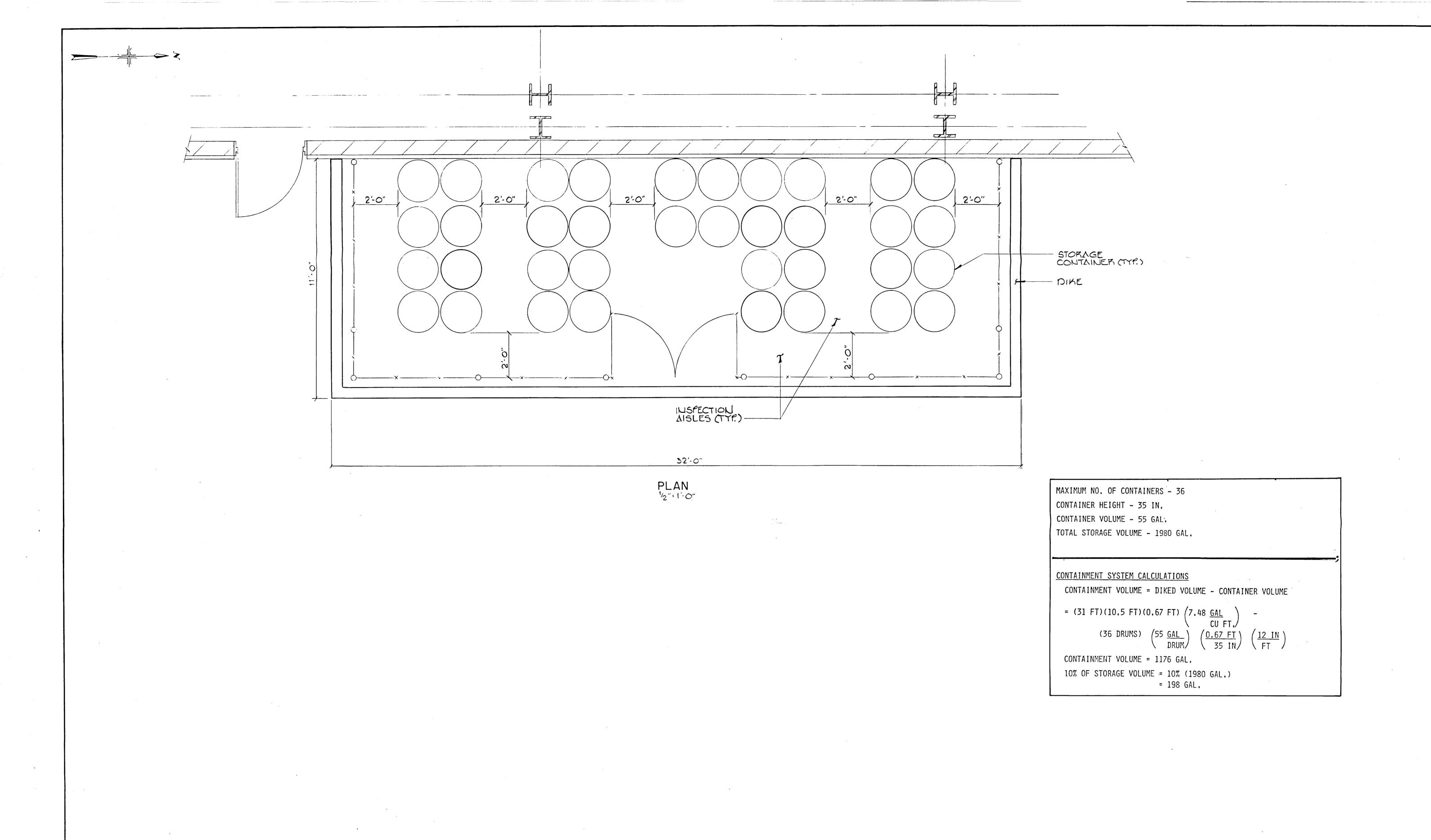
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MALCOLM PIRNIE, INC.

DATE NOVEMBER 1986

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APPARATUS & ENGINEERING SERVICE DIVISION

OUTDOOR RCRA STORAGE AREA CONTAINER STORAGE

SCALE AS INDICATED

MALCOLM PIRNIE, INC.

DATE NOVEMBER 1986

SHEET DWG NO

