TERA, inc.

6440 Hillcroft, Suite 200
P.O. Box 740038, Houston, Texas 77274, Tel. 713/772-0876, Fax: 713/981-7713

April 22, 1992
92-400-36

Mr. Bob Wachsmuth
SAFETY-KLEEN CORP.
2750 Thompson Creek Road
Pomona, California 91767

Subject: Certification of H-3 Flammable Storage Building at the Safety-Kleen Albuquerque, New Mexico, Branch

Dear Mr. Wachsmuth:

On April 9, 1992, Bob Speake of TERA, Inc., inspected the Safety-Kleen branch facilities at Albuquerque, New Mexico (EPA No. NMD 00804294).

This letter is to certify that on April 9, 1992 we found the H-3 Flammable Class 1B Storage Building to be as described in the attached certification report.

The H-3 Building secondary containment capacity is 965-gallons. Hazardous waste storage for this building is therefore limited to 9,650-gallons to comply with 40 CFR 264.175(b)(3)). We observe that the building is currently permitted to store 1092 gallons of Class 1B hazardous waste.

Please let me know if you have any questions regarding this certification. Thank you.

Very truly yours,

TERA, Inc.

Robert C. Speake
Senior Engineer

John W. Cox, Ph.D., P.E., CHMM
Vice President

CERTIFIED HAZARDOUS MATERIALS MANAGER
JOHN W. COX
2331
CHMM

JOHN WEST COX
NEW MEXICO
10317
REGISTERED PROFESSIONAL ENGINEER

RCS/JWC/lf
Attachments: Two (2) copies certification report
Copies to: Three (3) to New Mexico Environment Department (Dr. Herbert Grover)
One (1) to Safety-Kleen Albuquerque Branch Manager (Ralph)
One (1) to Safety-Kleen EHS (Jennifer Jendras)
One (1) to Safety-Kleen Tech Services (Wayne Olson)

TERA Report No. 92-400-36

CERTIFICATION OF H-3 FLAMMABLE STORAGE BUILDING
ALBUQUERQUE, NEW MEXICO

For

SAFETY-KLEEN CORP.
Elgin, Illinois

TERA, inc.

TERA, inc.

6440 Hillcroft, Suite 200
P.O. Box 740038, Houston, Texas 77274, Tel. 713/772-0876, Fax: 713/981-7713

92-400-36

CERTIFICATION

I have supervised the installation assessment dated April 22, 1992, of the H-3 Flammable Class IB Storage Building at the Safety-Kleen Corporation facility in Albuquerque, New Mexico. The EPA ID Number for this facility is: NMD 000804294.

With regard to this duty, I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all related attachments and that, based on my observations and my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

John W. Cox

Registered Professional Engineer

New Mexico No. 10317

TERA, Inc.

P. O. Box 740038

Houston, Texas 77274

Signed: _____

Date: _____

JOHN WEST COX
NEW MEXICO
10317
REGISTERED PROFESSIONAL ENGINEER

92-400-36

CERTIFICATION OF H-3 FLAMMABLE STORAGE BUILDING
ALBUQUERQUE, NEW MEXICO

* * *

For

SAFETY-KLEEN CORP.
Elgin, Illinois

* * *

By

TERA, Inc.
Houston, Texas

April 1992

TABLE OF CONTENTS

Title	Page No.
INSTALLATION CERTIFICATION H-3 FLAMMABLE STORAGE BUILDING . . .	1
A. SECONDARY CONTAINMENT	1
1. Building and Secondary Containment Dimensions . . .	2
2. Secondary Containment System Description	2
3. Secondary Containment Coating	3
4. Secondary Containment Design	3
5. Secondary Containment Volume	4
6. Prevention of Run-On into the Secondary Containment System	5
B. AISLE SPACE	5
C. 50-FOOT BUFFER ZONE	7
D. DESIGN SPECIFICATIONS	7
1. Prevention of Accidental Ignition or Reaction of Ignitable Wastes	8
2. Precautions to Prevent Extreme, Violent, Toxic or Uncontrolled Reactions	9

INSTALLATION CERTIFICATION
H-3 FLAMMABLE STORAGE BUILDING

This report documents and certifies the installation of the H-3 Flammable Storage Building (hereinafter called "H-3 Building") at the Safety-Kleen Corp. facility in Albuquerque, New Mexico. The EPA ID number for this facility is NMD 000804294. This certification was performed and this report was written to address the requirements of 40 CFR 264.17, 264.35, 264.175(b), and 264.176 and the corresponding provisions of Part V of the New Mexico Hazardous Waste Management Regulations, as well as the requirements of the compliance schedule for the H-3 Building in the permit issued November 29, 1991 by the New Mexico Environment Department. Each item in this compliance schedule will be separately addressed below. Text in small print is quoted from the compliance schedule.

* * * * * * * * * * *

I.I.1 Prior to operation of the Double-Walled Underground Waste Solvent Storage Tank and its ancillary equipment, and the H-3 Flammable Storage Building, the Permittee shall submit as-built plans of both units and any ancillary equipment.

In conformance to item I.I.1.a, as-built plans of the waste solvent storage tank system were submitted to the New Mexico Environment Department with the RCRA tank system installation assessment, TERA Report No. 92-403-19, dated March 5, 1992.

A. SECONDARY CONTAINMENT

I.I.1.b. At a minimum, these plans for the H-3 Flammable Storage Building shall indicate:

A. SECONDARY CONTAINMENT (Continued)

i. The dimensions of the building, including the secondary containment capacity as required by HWMR-6, Pt. V, sec. 264.175(b)

Each subparagraph of the regulation quoted above is addressed separately below. Drawings, manufacturer's literature, and inspection photographs are attached to this report (as plates) for further reference.

1. Building and Secondary Containment Dimensions

The dimensions of the building and its secondary containment are shown on Safety-Kleen drawing number 700801-6000-01, which is Plate 4 of this report. Inspection revealed that the major as-built dimensions of the building and its secondary containment closely follow those shown on the design drawings, except as shown on Plates 4 and 8.

2. Secondary Containment System Description

The H-3 Building secondary containment system consists of a four inch high reinforced concrete curbing below the reinforced masonry walls, a reinforced concrete slab which slopes down in all directions towards the center floor trench, and two exterior rollup door trenches, with underground piping between the door and center trenches. The two exterior swinging doors have automatic closers and watertight seals. (See Plate 4).

A. SECONDARY CONTAINMENT (Continued)

3. Secondary Containment Coating (HWMR-6, Pt. V, Sec. 64.175(b)(1))

Inspection showed that the reinforced concrete floor slab in the H-3 Building has been coated. According to the contractor, it was coated with the Dupont industrial coating described in Plate 13. This coating is free of cracks or gaps and appears to be sufficiently impervious to contain leaks or spills until any material collected can be detected and removed. Stainless steel liners have been installed in the floor trenches. According to the contractor, the trenches were coated with the aforementioned industrial coating before the liners were installed and the joints between the liners and the reinforced concrete were sealed with the Sika joint sealant described in Plate 14. Thus, the secondary containment appears to satisfy the spill containment provisions of HWMR-6, Pt. V, sec. 264.175(b)(1).

4. Secondary Containment Design (HWMR-6, Pt. V, Sec. 264.175(b)(2))

This secondary containment system is designed to collect a spill via a flow over the slab into the center floor trench. The entrance to the pipe exiting the center trench (and discharging into the firewater storage tank) was designed to be above the outlet pipes from the door trenches (see Section A, Plate 4 and Section B-B, Plate 5). This arrangement allows a spill to back up from the center trench, through the piping interconnecting the three trenches, and into the door trenches. The total volume (in all three trenches) was designed to be 10% of the permitted capacity of the building without overflowing into the firewater storage

A. SECONDARY CONTAINMENT (Continued)

4. Secondary Containment Design (HWMR-6, Pt. V, Sec 264.175(b)(2)) (Continued)

tank (which is underground and thus not as readily accessible as the floor trenches are for visual monitoring for the presence of hazardous waste. Such monitoring is required by Section 80.301(1)4 of The Uniform Fire Code, the city's fire code).

Inspection by TERA on April 9, 1992 revealed that the outlet pipe from the center trench was not installed above the door trench pipes as designed (See Plate 4 and Photo B on Plate 18). The contractor corrected this deficiency during April 10-13, 1992 as shown on Plates 8 and 19. A 90-degree elbow was installed to elevate the mouth of the center trench outlet pipe above the entrances to the door trench outlet pipes. A square of sheet metal was fastened to the underside of the grate to cover the open mouth of the pipe, which now faces upward. Thus, the firewater collection tank remains isolated from a potential 10% hazardous waste spill within the warehouse. With these modifications, the H-3 Building's secondary containment now appears to satisfy the design requirements of HWMR-6, Pt. V, sec. 264.175 (b)(2).

5. Secondary Containment Volume (HWMR-6, Pt. V, Sec. 264.175(b)(3))

A table showing the as-built volume of the building's secondary containment (i.e two door trenches and the center trench) in on Plate 8. The total volume of the secondary containment is 965 gallons, which is about 88 percent of the 1092-gallon hazardous waste storage capacity for which the

A. SECONDARY CONTAINMENT (Continued)

5. Secondary Containment Volume (HWMR-6, Pt. V, Sec. 264.175(b)(3)) (Continued)

building is currently permitted. Thus, the secondary containment system has substantial reserve capacity: in fact, the center trench alone has sufficient capacity to store more than a 10% spill under the current permit. TERA concludes that the H-3 Building's secondary containment satisfies the capacity requirements of HWMR-6, Pt. V, sec. 264.175 (b)(3).

6. Prevention of Run-On into the Secondary Containment System (HWMR-6, Pt. V, Sec 264.175(b)(4))

Since the building is roofed to prevent run-on from outside the building, its secondary containment system satisfies the requirements of HWMR-6, Pt. V, sec. 264.175(b)(4).

B. AISLE SPACE

I.I.1.b. At a minimum, these plans for the H-3 Flammable Storage Building shall indicate:

ii. The aisle space as required by HWMR-6, Pt. V, sec. 264.35.

Plate 15 is a floor plan of the H-3 Building showing the aisle space required by the City of Albuquerque fire code (i.e. the Uniform Fire Code). Storage in the warehouse is limited to piles or palletized containers by the 0.25 gpm/sq. ft. capacity of the ceiling sprinkler system (UFC Tables 79.203-C through F). For containers up to 5-gallon capacity, storage height is limited to 6.5 feet (UFC Table 79.203-A). For larger containers, storage height is limited to one container high by the capacity of the

B. AISLE SPACE (Continued)

sprinkler system (UFC Table 79.203-C). The maximum size of container that can be stored in the warehouse is 60 gallons (UFC sect. 79.201(a)).

Based on Safety-Kleen's intent, declared in the permit application, to store hazardous waste in the H-3 Building in 5-gallon pails and 16-gallon drums, the theoretical building storage capacity for the layout shown on Plate 15, is between 4,752 and 10,560 gallons; a table of calculations for these limits is on Plate 15. The lower limit is based on 100 percent storage in 16-gallon drums; the upper limit is based on 100 percent storage in 5-gallon pails. However, the upper limit must be reduced to 9,650-gallons, based on secondary containment capacity (see subparagraph 1A5 above).

Warehouse aisle space, as shown on Plate 15, satisfies UFC sections 79.203(b), 79.204(b), and 80.304. These code provisions apply to flammable or combustible hazardous liquids storage warehouses. The main aisle is to be eight feet wide; side aisles are four feet wide. Aisles also provide access to exit doors, wall or floor-mounted components of the sprinkler system, the ventilating fan, wall-mounted fire extinguishers, and wall switches, as required by the fire code.

The aisle space provided on Plate 15 allows sufficiently-unobstructed movement of personnel and equipment to any area of the warehouse in the event of a fire, spill, or another emergency. Thus, the layout shown on Plate 15 appears to satisfy HWMR-6 sec. 264.35.

C. 50-FOOT BUFFER ZONE

> I.I.1.b. At a minimum, these plans for the H-3 Flammable Storage Building shall indicate:
>
> iii. The location of the storage unit in relation to the property boundary in order to determine if there is a 50-foot buffer zone, as required by HWMR-6, Pt. V, sec. 264.176.

Plate 3 is a site plan marked with the actual distances from the walls of the H-3 Building to the perimeter property fence. In every case, these distances exceed 50 feet.

D. DESIGN SPECIFICATIONS

> I.I.1.b. At a minimum, these plans for the H-3 Flammable Storage Building shall indicate:
>
> iv. The design specifications that address the general requirements for handling ignitable wastes, as required by local and federal fire codes and by HWMR-6, Pt. V, sec. 264.17.

The H-3 Flammable Storage Building was designed to conform to the requirements of the City of Albuquerque fire and building codes, which are the Uniform Fire and Building Codes, respectively. Section 79.204 of the fire code regulates the design of hazardous liquids storage warehouses like the H-3 Building. Chapter 9 of the building code details the requirements for Group H occupancies. Other chapters of these codes were adhered to in the detailed design of the various building components required by these codes.

Construction notes were provided in the design (Plate 2) to require contractor conformance to the city's building and fire codes. The city's Certificate of Occupancy (Plate 23) provides evidence that these codes were followed for both design and construction of the H-3 Building. Discussed below are the design features of the building addressed in the regulation quoted above.

D. DESIGN SPECIFICATIONS (Continued)

1) Prevention of Accidental Ignition or Reaction of Ignitable Wastes (HWMR-6, Pt. V, Sec. 264.17(a))

The building has the required 50 foot buffer from all property boundaries (Plate 3). It is also separated from the attached H-7 Return and Fill Shelter by a four-hour area separation wall which has the required 3-hour rollup door assembly (Plates 4 and 16); the two-hour roof/ceiling assembly (Plate 7) is a part of the required area separation between the H-3 and H-7 occupancies.

An explosion-proof electrical system has been provided for the H-3 Building (Plates 9 and 10) to prevent accidental ignition of hazardous wastes due to sparks.

An explosion-proof ventilator fan designed for continuous operation (Plates 4 and 17) has been provided to prevent the buildup of vapors which could cause a spontaneous ignition; outside air supply for this fan comes through the louver in the bottom half of the west entrance door (Plates 17 and 18). According to the contractor, the 90-minute battery pack installed on the north wall of the building (Plate 17) provides the emergency power to the ventilator fan in the event of power failure, as required by the city fire code.

To minimize the danger of a fire caused by radiant heat, the H-3 Building is windowless, has normally closed swinging and rollup doors, and its exterior is painted a light beige color to reflect sunlight (Plates 16 and 17).

D. DESIGN SPECIFICATIONS (Continued)

2) Precautions to prevent extreme, violent, toxic, or uncontrolled reactions (HWMR-6, Pt. V, Sec. 264.17(b))

In addition to the safety features described above, a ceiling automatic sprinkler system has been provided to suppress fires within the warehouse (Plates 11, 12, and 20). The contractor states that the 90-minute battery pack mentioned above also furnishes emergency power to the sprinkler system in the event of power failure. Ten pound dry chemical fire extinguishers have been provided just inside both entrance doors to provide a backup to the automatic sprinkler system.

An emergency ventilator fan cutoff switch has been installed outside the west entrance door (Plates 4 and 17) to reduce the flow of oxygen into the building in the event of fire.

TABLE OF CONTENTS

Title	Plate No.
Construction Plans Cover Sheet	1
Notes and Specifications *	2
Partial Site Plan *	3
Flammable Storage Building Plan, Sections and Details *	4
Miscellaneous Structural Details *	5
Miscellaneous Masonry Details *	6
Roof Detail	7
As-Built Drawing of H-3 Building Secondary Containment *	8
Partial Electrical Site Plan *	9
Flammable Storage Building, Return/Fill Shelter, Electrical Plan *	10
Fire Protection Plan *	11
Sprinkler System Design Calculations	12
DuPont 25P and Imron 326 Coating Data	13
SikaFlex 1a Joint Sealant Data	14
H-3 Building Aisle Space Layout	15
Photographs *	16
City of Albuquerque Certificate of Occupancy	23

* As-Built

SAFETY-KLEEN CORP.

777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708/ 697-8460

SERVICE CENTER BRANCH
2720 GIRARD AVE.
ALBUQUERQUE, NM

DESIGNED BY:

TERA, inc.
HOUSTON, TEXAS PHONE 713/ 772-0876

JOB NO. 91-141

GENERAL NOTES

THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORPORATION. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.

GENERAL NOTES

1. WHERE CONFLICTS OCCUR BETWEEN THE CODES, REGULATIONS, INDUSTRY STANDARDS, AND MANUFACTURER'S RECOMMENDATIONS SPECIFIED FOR THIS PROJECT, THE MOST RESTRICTIVE PROVISIONS SHALL APPLY UNLESS OTHERWISE APPROVED IN WRITING BY SAFETY-KLEEN'S PROJECT MANAGER. WHERE CONFLICTS OCCUR IN THESE DRAWINGS BETWEEN DRAWINGS AND NOTES, NOTES SHALL GOVERN.
2. ALL ITEMS REFERENCED BY A SAFETY-KLEEN PART NUMBER SHALL BE FURNISHED BY SAFETY-KLEEN AND INSTALLED BY CONTRACTOR.
3. CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL LOCAL AND STATE PERMITS AND ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE BUILDING AND SAFETY CODES. ALL WORK SHALL BE PERFORMED IN A PROFESSIONAL AND TIMELY MANNER. SAFETY-KLEEN SHALL BE RESPONSIBLE FOR ALL ENVIRONMENTAL OPERATING PERMITS.
4. EACH SUB-CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES AND PERMITS OBTAINED BY OR UNDER THE DIRECTION OF THE CONTRACTOR.
5. CERTIFICATE OF INSURANCE SHALL BE REQUIRED PRIOR TO COMMENCEMENT OF WORK (LIABILITY, WORKMAN'S COMPENSATION, ETC.).
6. CONTRACTOR SHALL VISIT SITE TO VERIFY CONDITIONS TO BE CONSIDERED IN THE QUOTATION FOR WORK.
7. ALL WORK IS TO BE COORDINATED WITH AND APPROVED BY SAFETY-KLEEN PROJECT MANAGER.
8. SEE INDIVIDUAL DRAWINGS AND MASONRY NOTES SECTION FOR FIRE PROTECTION REQUIREMENTS.
9. SEE DRAWING NO. 6003 FOR A LIST OF SAFETY-KLEEN DRAWINGS THAT ARE INCORPORATED INTO AND MADE A PART OF THIS DESIGN BY REFERENCE. SHOULD THESE DRAWINGS CONFLICT WITH SAFETY-KLEEN DRAWINGS, THESE DRAWINGS SHALL GOVERN.
10. CONTRACTOR SHALL REPLACE OR REPAIR, AT NO ADDITIONAL COST, ANY WORK FOUND TO BE DEFECTIVE.
11. THE OWNER RESERVES THE RIGHT TO MAKE ALL INSPECTIONS AND TESTS HE DEEMS NECESSARY, REGARDLESS OF WHETHER SPECIFIED ELSEWHERE. CONTRACTOR SHALL FURNISH ANY NECESSARY LABOR OR ACCESS TO ASSIST THE DESIGNATED TESTING AGENCY IN OBTAINING AND HANDLING SAMPLES AT THE PROJECT OR OTHER SOURCES OF MATERIALS.
12. CONTRACTOR SHALL SUBMIT FOR APPROVAL MANUFACTURER'S CATALOG CUTS FOR THE FOLLOWING ITEMS: EXHAUST FANS, MAJOR ELECTRICAL SYSTEM COMPONENTS (SEE DRAWINGS 8000 AND 8001), STAIR HANDRAILS, ROOF TRUSSES, LINTELS, SWINGING DOORS AND HARDWARE, ROLLUP DOORS, ROOF PANELS, CONCRETE COATINGS, CRACK SEALANTS, CONCRETE MASONRY UNITS, SECONDARY CONTAINMENT PIPING, AND ALL SUBSTITUTES FOR MATERIALS SPECIFIED HEREIN AS "OR APPROVED EQUALS".
13. IT IS THE INTENT OF THESE DOCUMENTS THAT THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, TOOLS FOR THE COMPLETE INSTALLATION OF ALL WORK SHOWN ON THE PLANS AND/OR DESCRIBED HEREIN, INCLUDING ALL DEVICES, CONTROLS AND APPURTENANCES REQUIRED TO SET NEW SYSTEMS INTO OPERATION, EXCEPT AS NOTED AT NOTE 2 ABOVE.
14. SHOULD CONDITIONS NECESSITATE ANY REARRANGEMENTS, SUBMIT SHOP DRAWINGS SHOWING THE CHANGES BEFORE PROCEEDING WITH THE WORK. IF SUCH CHANGES ARE APPROVED BY SAFETY-KLEEN, THEY SHALL BECOME A PART OF THE CONTRACT AFTER THEIR APPROVAL.

SITEWORK

1. PREPARATION OF SUBGRADE:
   - A. ALL VEGETATION, GRAVEL, TRASH AND DEBRIS IN THE AREA TO RECEIVE CONCRETE SHALL BE REMOVED.
   - B. THE CONTRACTOR SHALL REMOVE ANY MUCK AND SPONGY OR UNSTABLE MATERIALS WHICH WILL NOT CONSOLIDATE, AS DETERMINED BY THE OWNER, AND REFILL THE SPACE WITH ACCEPTABLE MATERIAL, COMPACTED AS DESCRIBED BELOW.
   - C. THE AREA TO RECEIVE CONCRETE SHALL BE ROUGH GRADED, AS CLOSE AS POSSIBLE, TO THE LINES AND GRADES SHOWN ON THE PLAN, ALLOWING FOR THICKNESS OF THE CONCRETE SLAB AND AGGREGATE BASE.
   - △1 D. THE TOP 6" OF NATURAL GROUND AND CUT SECTIONS TO BE COMPACTED SHALL BE SCARIFIED, WETTED OR DRIED TO PRODUCE SUBGRADE WITHIN 2% OPTIMUM MOISTURE CONTENT, AND COMPACTED TO A DENSITY OF NOT LESS THAN 98% OF MAXIMUM LABORATORY DRY DENSITY AS DETERMINED IN ACCORDANCE WITH ASTM D698 (STANDARD PROCTOR COMPACTION TEST).
   - E. ALL FOOTINGS SHALL BEAR ON UNDISTURBED SOIL OR COMPACTED FILL. MINIMUM SOIL BEARING PRESSURE TO BE 2,500 PSF.
2. COMPACTED FILLS AND BACKFILLS:
   - A. FILL AND BACKFILL MATERIAL NEEDED TO BRING THE SUBGRADE UP TO THE NECESSARY CONTOURS SHALL BE A BANK-RUN SAND, OR OTHER SUITABLE MATERIAL, FREE FROM CLAY LUMPS, RUBBISH, ORGANIC MATERIAL, OR OTHER DELETERIOUS SUBSTANCES. NOT MORE THAN 10% BY WEIGHT SHALL PASS THE 200 MESH SIEVE. THE OWNER SHALL BE THE JUDGE OF THE SUITABILITY OR UNSUITABILITY OF MATERIALS FOR USE IN FILLS AND BACKFILLS. SUPPLIER'S LABORATORY ANALYSIS OF BACKFILL MATERIAL SHALL BE FURNISHED FOR OWNERS APPROVAL.
   - B. FILL AND BACKFILL SHALL BE PLACED IN 8" LIFTS (MAX. LOOSE MATERIAL THICKNESS), WETTED OR DRIED TO PRODUCE BACKFILL WITHIN 2% OPTIMUM MOISTURE CONTENT, AND COMPACTED TO A DENSITY OF NOT LESS THAN 95% OF STANDARD PROCTOR DENSITY (ASTM D698) FOR CONCRETE PAVING AREAS, AND A DENSITY OF NOT LESS THAN 98% FOR AREAS UNDER FLOOR SLABS.
   - C. SUBGRADE/FILL SHALL BE FINE GRADED TO PRODUCE THE DRAINAGE SHOWN ON THE PLAN.
   - D. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXCAVATED MATERIAL NOT SUITED OR REQUIRED FOR BACKFILL.

CONCRETE CONSTRUCTION

1. MATERIALS, MIXING, PLACEMENT, FINISHING TOLERANCES AND ALL OTHER UNSPECIFIED DETAILS SHALL BE IN ACCORDANCE WITH ACI 318 – 89.
2. THE MOISTURE BARRIER SHALL BE PLACED JUST PRIOR TO THE INSTALLATION OF THE REBAR. MOISTURE BARRIER SHALL BE 20 MIL POLYETHYLENE SHEETING. OVERLAP SHEETS AT JOINTS A MINIMUM OF 2 FEET AND TURN UP AT EDGES 2" TAKE CARE TO PREVENT DAMAGE TO BARRIER DURING INSTALLATION OF REBAR AND CONCRETE.
3. REINFORCING STEEL SHALL BE ASTM A-615, GRADE 60. BAR SUPPORTS SHALL BE PLASTIC OR GALVANIZED CHAIRS. SPLICES COVERAGE, PLACING AND OTHER DETAILS SHALL BE IN ACCORDANCE WITH ACI 318 – 89.
4. △1 FOR CONCRETE PAVING, CONCRETE SHALL BE A MINIMUM OF 3000 PSI AT 28 DAYS. FOR STRUCTURAL CONCRETE, CONCRETE SHALL BE A MINIMUM OF 4000 PSI AT 28 DAYS. CONCRETE TO RECEIVE COATING MUST NOT CONTAIN ANY ACCELERATORS OR CURING COMPOUNDS. COARSE AGGREGATE SHALL CONFORM TO #57, ASTM C-33.
5. CURING OF FLOOR SLAB SHALL BE BY PONDING OR CONTINUOUS SPRINKLING, OR BY THE APPLICATION OF ABSORPTIVE MATS OR FABRIC KEPT CONTINUOUSLY WET. CURING TIME SHALL BE A MINIMUM OF 4 DAYS.
6. CONCRETE FLOORS SHALL HAVE A CLASS 'A' FLOATED FINISH AND "PLANENESS OF SURFACE" SHALL BE CHECKED AND CORRECTED AS NECESSARY.
7. AT FLOOR SLAB/WALLS, EXPANSION JOINT FILLER SHALL BE FOR THE FULL DEPTH OF THE CONCRETE. NO JOINT SEALER IS TO BE USED, U.N.O. PREMOLDED EXPANSION JOINT FILLER SHALL CONFORM TO ONE OF THE FOLLOWING:
   - (A) " SPECIFICATIONS FOR PREFORMED EXPANSION JOINT FILLERS FOR CONCRETE PAVING AND STRUCTURAL CONSTRUCTION (NONEXTRUDING AND RESILIENT BITUMINOUS TYPES)" (ASTM D1751).
   - (B) " SPECIFICATIONS FOR PREMOLDED EXPANSION JOINT FILLERS FOR CONCRETE PAVING AND STRUCTURAL CONSTRUCTION (NONEXTRUDING AND RESILIENT NONBITUMINOUS TYPES)" (ASTM D1752)

CONCRETE COATING

GENERAL:

1. ALL GUIDELINES AND INFORMATION AS PRESENTED IN THE MATERIAL'S TECHNICAL BULLETIN AND ALL MANUFACTURER'S RECOMMENDATIONS CONCERNING APPLICATION TECHNIQUES SHALL BE STRICTLY FOLLOWED.
2. THE CONTRACTOR SHALL SUBMIT A WRITTEN APPLICATION PLAN DESCRIBING, IN DETAIL, THE PROCEDURES, METHODS AND MATERIALS TO BE USED IN PREPARING THE CONCRETE SURFACES AND APPLYING THE COATING.

SURFACE PREPARATION:

1. ALL SURFACES TO BE COATED SHALL BE ABRASIVE BLASTED (OTHER METHODS, SUCH AS ACID ETCHING AND NEUTRALIZING MAY BE USED, CONSULT WITH COATING REPRESENTATIVE) TO REMOVE ALL SURFACE LAITANCE, DIRT, LOOSE OR UNSOUND MATERIAL, OIL, GREASE, OR OTHER CONTAMINANTS.
2. ALL CRACKS AND CAVITIES SHALL BE CHIPPED OR GROUND SO THAT THEIR SIDES FORM APPROXIMATELY A 45-DEGREE ANGLE TO THE EXPOSED SURFACE. CHIPPED OR GROUND AREAS SHALL BE RE-BLASTED TO REMOVE ANY NEWLY EXPOSED UNSOUND MATERIAL. THE FINISHED CONCRETE SURFACE SHALL BE SMOOTHER THAN THE INTENDED APPLICATION THICKNESS OF THE COATING.
3. ALL JOINT CRACKS, CAVITIES AND VOIDS IN CONCRETE SHALL BE FILLED USING AN APPROVED EPOXY PUTTY, SUCH AS GULF COAST PAINT CF-620, OR APPROVED EQUAL. ALL MANUFACTURER'S RECOMMENDATIONS CONCERNING SURFACE PREPARATION, USE OF PRIMER, TEMPERATURE CONSIDERATIONS, WAXING AND APPLICATION, ETC. SHALL BE STRICTLY FOLLOWED. AT TEMPERATURE CRACKS, WORK PUTTY APPROXIMATELY 1/2" INTO THE CRACK PRIOR TO FILLING 45-DEGREE ANGLE VOID. IF ANY CRACKS GREATER THAN 1/8" WIDE ARE FOUND, OWNER SHALL BE CONSULTED AS TO METHOD OF REPAIR PRIOR TO PROCEEDING WITH COATING APPLICATION.
4. ALL WELDS SHOULD BE GROUND TO REMOVE ALL EXCESS SLAG, SHARP EDGES, LAPS, UNDERCUTS AND OTHER SURFACE IRREGULARITIES. RELATIVELY SMOOTH, RIPPLE FINISHED WELDS ARE ACCEPTABLE.
5. TO PREVENT OXIDATION AND RUST, BLAST CLEAN ONLY AS MUCH METAL AS WILL BE COATED IN THE SAME DAY. THE CONTRACTOR SHALL MAKE EVERY REASONABLE EFFORT TO CLEAN THE BACK OF METAL ITEMS EMBEDDED IN CONCRETE (WHERE THERE ARE VOIDS TO RESTORE). HOWEVER, DUE TO WORKING ROOM LIMITATIONS, A "NEAR WHITE METAL FINISH" SHALL NOT BE REQUIRED ON THE BACK OF EMBEDDED ITEMS.
6. IT IS THE INTENTION OF THESE SPECIFICATIONS TO PROVIDE AN EVEN, STRAIGHT SURFACE, FREE FROM SURFACE DEFECTS AND IRREGULARITIES, FOR THE APPLICATION OF THE EPOXY COATING.

APPLICATION:

1. NEW CONCRETE SHALL BE IN PLACE FOR A MINIMUM OF 45 DAYS (OR PER COATING MANUFACTURER'S RECOMMENDATIONS, IF LONGER) PRIOR TO PLACEMENT OF COATING.
2. BASE COAT SHALL BE DUPONT 25-P EPOXY SHALE GRAY (OR APPROVED EQUAL), 5 MILS D.F.T. SURFACE COAT SHALL BE DUPONT IMRON SHALE GRAY (OR APPROVED EQUAL), 2 MILS D.F.T. THE SURFACE COAT SHALL BE APPLIED WITHIN 48 HOURS OF APPLICATION OF BASE COAT.
3. WHERE CALLED FOR ON THE DRAWINGS, SCRIM CLOTH SHALL BE APPLIED BETWEEN COATS AND SHALL CONTINUE OVER THE TOP WITH THE COATING, 2". WHERE NEEDED, INSTALL MORE THAN ONE WIDTH OF CLOTH TO COVER CRACK WHILE MAINTAINING VERTICAL ALIGNMENT OF CLOTH.

PAINTING

1. MASONRY BLOCK WALLS: ONE COAT S.W. BLOCK FILLER. TWO COATS S.W. OIL BASE ENAMEL. COLOR – LIGHT TAN TO MATCH EXISTING BUILDINGS ON SITE.
2. METAL DOORS AND FRAMES AND ROOF FLASHING: TWO COATS S.W. OIL ENAMEL. COLOR TO MATCH TRIM ON EXISTING BUILDINGS ON SITE.
3. ALL MISCELLANEOUS STEEL ITEMS: ONE COAT S.W. STEEL PRIMER, TWO COATS S.W. INDUSTRIAL ENAMEL. FACTORY COATS MAY BE TOUCHED-UP.

INSTALLATION OF UNDERGROUND LIQUID STORAGE SYSTEMS

1. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS APPLICABLE TO THIS PROJECT, INCLUDING THE STATE OF NEW MEXICO REGULATIONS FOR UNDERGROUND STORAGE TANKS. TANK INSTALLER MUST BE A CERTIFIED INSTALLER UNDER PART XIV OF THE LATTER REGULATIONS.
2. THE CONTRACTOR SHALL SUBMIT A RECOMMENDED SCHEDULE OF INSPECTIONS AND SYSTEM TESTS BEFORE BEGINNING THIS WORK.
3. SOLVENT STORAGE TANKS TO BE FURNISHED BY SAFETY-KLEEN AND INSTALLED BY CONTRACTOR. THESE 12,000 GALLON GLASTEEL TANKS, MANUFACTURED BY MODERN WELDING CO., INC. NEWARK, OH, ARE DOUBLE-WALL FRP-CLAD CARBON STEEL, AND ARE FABRICATED TO THE STANDARDS OF UL-58 "STEEL UNDERGROUND TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS. SEE S-K DRAWINGS STD-1009, 1010, AND 1011. UNLESS OTHERWISE NOTED, ALL TANK SYSTEM COMPONENTS SHOWN ON THESE DRAWINGS TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
4. THE FIRE WATER CONTAINMENT TANK SHALL BE SINGLE WALL CARBON STEEL, CLAD WITH DIELECTRIC COATING, WITH SACRIFICIAL ANODES, MANUFACTURED TO THE STANDARDS OF STI-P3 OF THE STEEL TANK INSTITUTE, AND SHALL HAVE A MINIMUM CAPACITY OF 6,000 GALLONS. TANK SHALL HAVE A 24" MANWAY AND FOUR NOZZLES AS FOLLOWS: ONE 3" FOR VENT PIPE, ONE FOR 6" FOR FILL LINE, AND TWO 4" BLIND SPARES. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL SHOP DRAWINGS OF THE PROPOSED TANK AND MANUFACTURER'S DATA DOCUMENTING ITS FABRICATION AND THE REQUIRED MANUFACTURING AND PRODUCTION TESTS. CONTRACTOR SHALL CHECK SACRIFICIAL ANODES FOR PROPER CONNECTIONS PRIOR TO INSTALLATION.
5. CONTRACTOR MAY, WITH SAFETY-KLEEN'S CONSENT, SUBSTITUTE A FIREWATER CONTAINMENT TANK CONSTRUCTED OF A MATERIAL OTHER THAN CARBON STEEL, PROVIDED SAID ALTERNATE TANK IS MANUFACTURED TO A RECOGNIZED NATIONAL STANDARD AND THE CONTRACTOR SUBMITS DOCUMENTATION OF ITS MANUFACTURE, MANUFACTURING AND PRODUCTION TESTING, INTERNAL COMPATIBILITY WITH THE POTENTIAL FIREWATER CONTAINMENTS, AND PROTECTION AGAINST BUOYANCY AND EXTERNAL CORROSION.
6. FOR TANK INSTALLATION, CONTRACTOR SHALL FOLLOW ARTICLE 79, DIVISION VI OF THE UNIFORM FIRE CODE, 1991 EDITION; PEI/RP100-90 "RECOMMENDED PRACTICES FOR INSTALLATION OF UNDERGROUND LIQUID STORAGE SYSTEMS", AND MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION GUIDANCE NOT COVERED IN THE ABOVE STANDARDS OR THESE CONSTRUCTION DOCUMENTS.
7. THE CARBON STEEL TANKS ARE SHIPPED BY THE MANUFACTURER COATED WITH A NON-METALLIC COATING SO THAT NO METAL IS EXPOSED AND TANKS ARE ISOLATED FROM ELECTRICAL CURRENTS. CONTRACTOR SHALL NOT INSTALL THESE TANKS UNTIL AN INITIAL INSPECTION OF THIS COATING HAS BEEN CONDUCTED. SPECIAL HANDLING OF THESE TANKS MUST BE OBSERVED BY THE CONTRACTOR DURING INSTALLATION TO INSURE THAT THE COATING IS NOT DAMAGED.
8. AFTER BEING INSTALLED BUT BEFORE BEING COVERED, TANKS SHALL PASS THE TIGHTNESS TEST REQUIRED BY UFC-91, SECTION 79.605 OR MANUFACTURER'S RECOMMENDATIONS, IF STRICTER.
9. UPON COMPLETION OF INSTALLATION, TANK OPERATIONAL SYSTEM TESTS SHALL BE CONDUCTED BY THE CONTRACTOR PER RECOMMENDATIONS OF MANUFACTURERS OF TANKS, PUMPS, HIGH LEVEL ALARM SYSTEM, LEAK DETECTION SYSTEM, AND OTHER TANK SYSTEM COMPONENTS.

MECHANICAL

1. CLEAN AND USED SOLVENT STORAGE TANKS TO BE PIPED AND INSTALLED PER SAFETY-KLEEN STANDARD DRAWINGS STD-1009, 1010 AND 1011 UNLESS OTHERWISE NOTED. SWING JOINTS AS SHOWN ON STANDARD DRAWINGS SHALL NOT BE PERMITTED. SECONDARY CONTAINMENT PIPING SHALL BE FURNISHED FOR SOLVENT PIPING OUTSIDE OF OTHER SECONDARY CONTAINMENT AREAS. S/C PIPING AND FITTINGS SHALL BE THAT MANUFACTURED BY TOTAL CONTAINMENT, INC. EXTON, PA. S/C PIPING SHALL SLOPE TOWARD THE TANKS AS SPECIFIED ON DRAWING STD-1009. BEFORE BEING COVERED, SECONDARY CONTAINMENT PIPING SHALL PASS THE TIGHTNESS TEST REQUIRED BY ARTICLE 79.708, UFC-91.
2. USED SOLVENT TRANSFER PUMP TO BE PIPED AND INSTALLED PER SAFETY-KLEEN STANDARD DRAWING #D11150 UNLESS OTHERWISE NOTED.
3. PARTICULAR ATTENTION IS CALLED TO THE INSTALLATION PROCEDURES SUPPLIED BY THE MANUFACTURERS OF SYSTEM COMPONENTS.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING ALL NEW MECHANICAL SYSTEMS. WHERE A TESTING PROCEDURE HAS NOT BEEN SPECIFIED HEREIN, FOLLOW MANUFACTURER'S RECOMMENDATIONS.
5. AUTOMATIC SPRINKLER SYSTEM IN H-3 BUILDING: SEE NOTE 5, DRAWING 6000. △1
6. EXHAUST FANS TO BE INSTALLED WITH THE BOTTOM EDGE 12" ABOVE BUILDING FLOORS.

ELECTRICAL

SEE DRAWING NOS. 8000 & 8001.

REINFORCED MASONRY

1. REINFORCED MASONRY CONSTRUCTION SHALL FOLLOW THE REQUIREMENTS OF UBC-91 CHAPTER 24. COMPRESSIVE STRENGTH OF REINFORCED MASONRY ASSEMBLAGE SHALL BE A MINIMUM OF 2,000 PSI AT 28 DAYS. ALL MATERIALS USED SHALL CONFORM TO THE STANDARDS OF SECTIONS 2402. CONSTRUCTION PRACTICES SHALL COMPLY WITH SECTION 2404. SPECIAL ATTENTION SHALL BE PAID TO SECTION 2404(c) FOR CONSTRUCTION WHEN AIR TEMPERATURE IS BELOW 40° F.
2. THE CONTRACTOR SHALL CONDUCT THE MASONRY PRISM TESTING REQUIRED BY SECTION 2405(c) OR, IN LIEU OF SUCH TESTING, SHALL PROVIDE FOR SAFETY-KLEEN REVIEW, PRIOR TO DELIVERY OF THE MATERIALS TO THE JOB SITE, LETTERS FROM SUPPLIERS OF EACH OF THE FOLLOWING MATERIALS CERTIFYING THAT THE MATERIALS MEET THE FOLLOWING QUALITY AND STRENGTH REQUIREMENTS:
   - A. CONCRETE MASONRY UNITS SHALL SATISFY ASTM C-90 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,800 PSI.
   - B. GROUT SHALL SATISFY UBC STANDARD 24-22 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,800 PSI.
   - C. DEFORMED BARS SHALL BE ASTM A-615 GRADE 60, HAVING A MINIMUM ALLOWABLE TENSILE STRESS OF 24,000 PSI.
   - D. JOINT REINFORCEMENT SHALL SATISFY ASTM A-82 AND SHALL HAVE A MINIMUM ALLOWABLE TENSILE STRESS OF 30,000 PSI.
   - E. METAL TIES AND ANCHORS SHALL HAVE A MINIMUM ALLOWABLE TENSILE STRESS OF 30,000 PSI AND SHALL HAVE A CORROSION-RESISTANT COATING.
3. MORTAR SHALL BE TYPE M OR S. MORTAR AND GROUT PROPORTIONS AND PROPERTIES SHALL CONFORM TO SECTION 2403.
4. REINFORCEMENT SHALL CONFORM TO THE SPECIAL REQUIREMENTS OF SECTION 2407(h) FOR SEISMIC ZONES 1 AND 2.
5. VERTICAL REINFORCEMENT SHALL BE GRADE 60 DEFORMED BARS, LOCATED IN GROUTED CELLS AS FOLLOWS:
   - △1 A. ONE NO. 6 AT 24 INCHES ON CENTER, CONTINUOUS BETWEEN FOUNDATION WALL AND TOP OF WALL, THROUGHOUT THE LENGTH OF ALL WALLS. EACH BAR SHALL BE EMBEDDED A MINIMUM OF 24 INCHES INTO THE FOUNDATION WALLS AND SHALL PROJECT A MINIMUM OF 54 INCHES ABOVE THE BASE OF THE WALL BEFORE BEING SPLICED. LAP SPLICES SHALL HAVE A MINIMUM LENGTH OF 47 INCHES. ALL VERTICAL BARS SHALL BE HELD IN-PLACE BY GALVANIZED BAR POSITIONERS AT ENDS AND MID-LENGTHS OF BARS.
   - △1 B. INCREASE BAR SIZE TO NO. 8 IN MID-REGION OF EAST AND WEST WALLS (FIVE FEET EACH SIDE OF CENTERLINE). OTHER DETAILS OF REINFORCEMENT TO BE THE SAME AS NOTE A.
   - C. ONE NO. 4 AT BOTH ENDS OF EACH WALL AND AT BOTH SIDES OF EACH OPENING, EXTENDING, WHERE APPROPRIATE, 24 INCHES PAST THE OPENING.
   - △1 D. EACH BAR SHALL BE PLACED AT MID-DEPTH OF THE WALL, ±1/2 INCH.
   - E. EACH BAR SHALL BE PLACED ±1 INCH LONGITUDINALLY IN THE WALL.
6. HORIZONTAL REINFORCEMENT SHALL BE:
   - △1 A. TWO NO. 4 GRADE 60 DEFORMED BARS IN GROUTED BOND BEAM AT TOP OF WALLS. BOND BEAM SHALL BE CONTINUOUS AROUND THE PERIMETER OF THE BUILDINGS OR BETWEEN SUPPORTS. LAP SPLICES SHALL HAVE A MINIMUM LENGTH OF 27 INCHES. ALL HORIZONTAL BARS SHALL BE HELD IN-PLACE BY GALVANIZED BAR POSITIONERS AT ENDS AND MID-LENGTHS OF BARS.
   - △1 B. NO. 9 GA. JOINT REINFORCEMENT SPACED AT 16 INCHES ON VERTICAL CENTERS. LAP SPLICES SHALL HAVE A MINIMUM LENGTH OF 12 INCHES.
   - C. ONE NO. 4 GRADE 60 DEFORMED BAR AT THE TOPS OF ALL OPENINGS AND AT THE BOTTOM OF EXHAUST FAN OPENINGS. THESE BARS SHALL EXTEND, WHERE APPROPRIATE, 24 INCHES PAST THE OPENING.
7. △1 HORIZONTAL REINFORCEMENT TERMINATING NEAR CORNERS OF WALLS SHALL EXTEND A MINIMUM OF 24 INCHES AROUND THE CORNER.
8. △1 INSTALL CONTROL JOINT AT SE CORNER OF WAREHOUSE AT R/F SHELTER. SEE DRAWING 7001.

PLATE 2

NO.	DESCRIPTION	BY	CHK	APPR	DATE
01	REVISED MASONRY NOTES, MISC. AS NOTED	JFG	RCS	JWC	[illegible]
0	RELEASED FOR REGULATORY REVIEW & BIDDING	JFG	RCS	JWC	[illegible]

REVISIONS

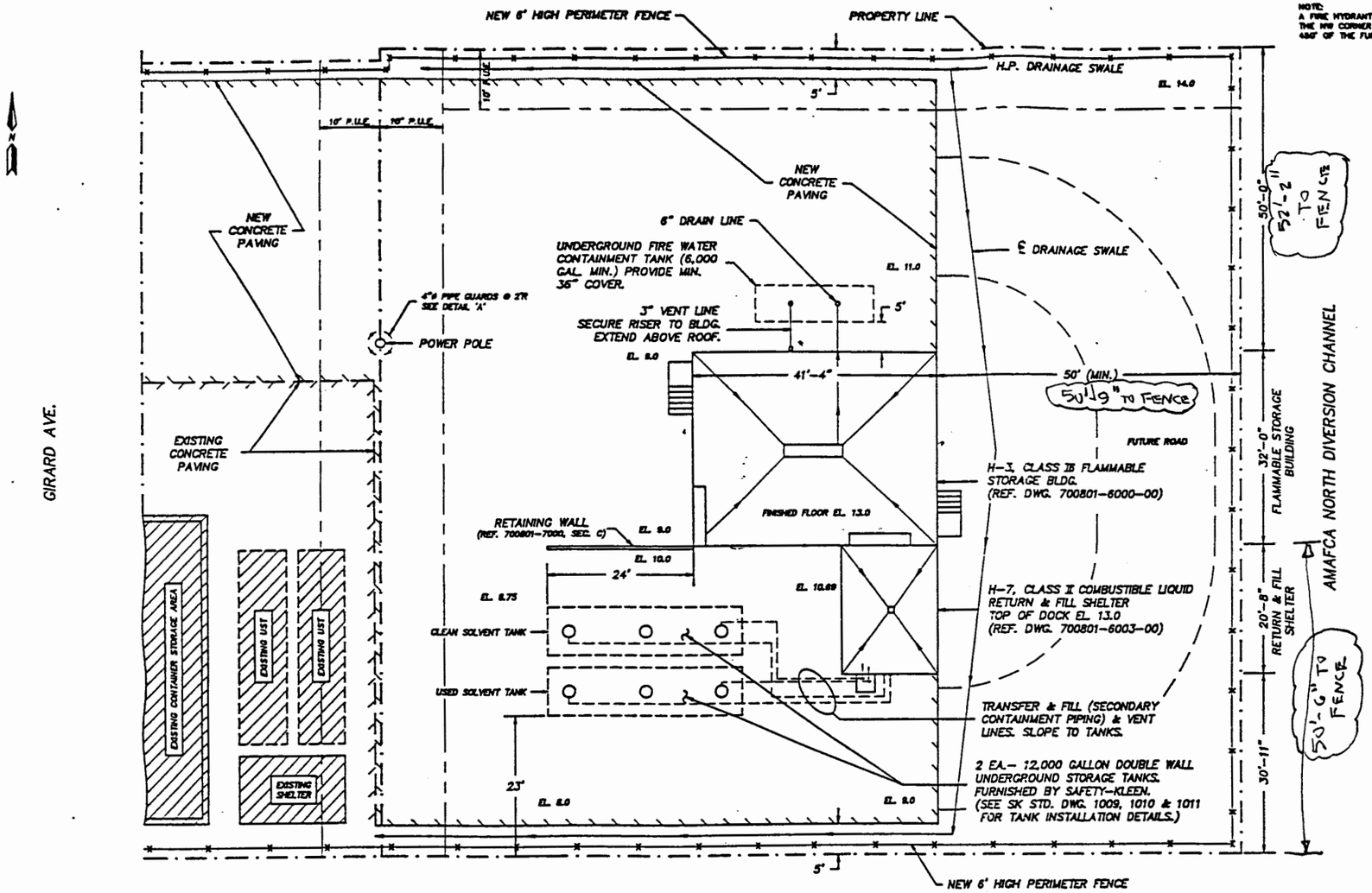
TITLE: NOTES & SPECIFICATIONS

SAFETY-KLEEN CORP.
[illegible]

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
NONE	J.F.G.				10/25/91

ALBUQUERQUE, NM

STD-DWG-REV NO. 700801-0001-01 SH. 1 OF 6



NOTE:
A FIRE HYDRANT IS LOCATED APPROX. 38' FROM THE NW CORNER OF THE PROPERTY AND IS WITHIN 400' OF THE FURTHEST POINT OF THE STORAGE BLDG.

GENERAL NOTES

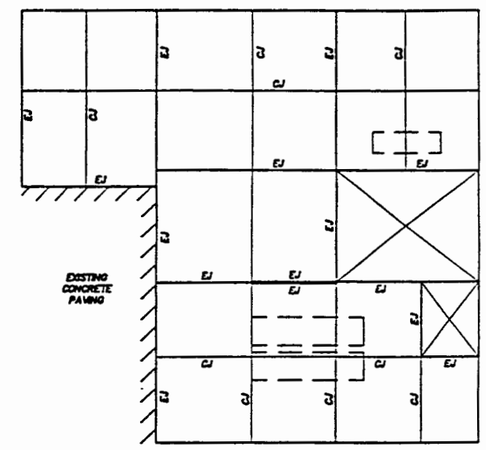
THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORPORATION. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.

NOTES:

1) NEW PERIMETER FENCE IS TO BE 6 FT.- 9 GUAGE. GALVANIZED CHAIN LINK W/ 3 STRANDS OF BARBED WIRE. LINE POST- 2" O.D. SS20, TOP RAIL- 1 5/8" O.D. SS20, TERMINAL AND END POST- 3" O.D. SS40, GATE POST- 4" O.D. SS40, PROVIDE BOTTOM TENSION WIRE, POST TO BE SET 24" IN CONCRETE. MAXIMUM SPACING OF LINE POSTS TO BE 10 FT. C.C. VERIFY LAYOUT WITH PROJECT MANAGER.

2) CONCRETE PAVEMENT: (APPROX. 1300 SY)

3000 PSI CONCRETE @ 28 DAYS.
8" CONCRETE SLAB WITH 6 X 6 X #8 WWF OVER 6" COMPACTED AGGREGATE BASE OVER COMPACTED SUBBASE. PROVIDE CONTROL/EXPANSION JOINTS AS SHOWN BELOW. SUB-GRADE AND FINAL GRADE IS THE RESPONSIBILITY OF THIS CONTRACTOR. VERIFY GRADES TO NATURAL DRAINAGE WITH PROJECT MANAGER. REF. SK DWG. D11322, DETAIL C2 FOR FURTHER DETAILS.

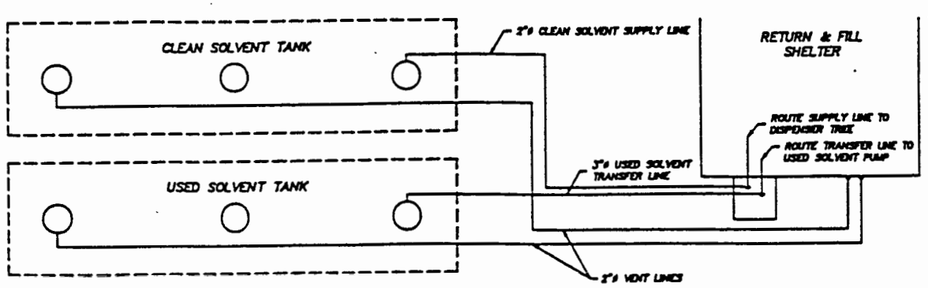


CONCRETE PAVING JOINT LAYOUT

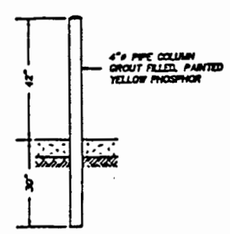
1" = 20'

EJ- EXPANSION JOINT
FOR EXPANSION JOINTS AT BUILDINGS, PROVIDE 1/2" PREFORMED EXPANSION JOINT MATERIAL AND JOINT SEALER.
FOR EXPANSION JOINTS IN PAVING, PROVIDE 1/2" PREFORMED EXPANSION JOINT MATERIAL, JOINT SEALER AND #4 SMOOTH DOWELS AT 24" CENTERS. COAT ONE END OF DOWELS WITH A NONBONDING AGENT.

CJ- CONTROL JOINT
PROVIDE 1/4" WIDE X 1" DEEP SAW CUT, FILL WITH JOINT SEALER.



PIPING SCHEMATIC



PIPE GUARD DETAIL 'A'

4 REQ.

NOTE:

H-3 AND H-7 BUILDINGS TO BE TYPE V-N CONSTRUCTION (UBC-91 TABLES 5-A THRU 5-D, 9-C AND 17-A), EXCEPT FOR THE FOLLOWING:

1. COMMON WALL BETWEEN H-3 AND H-7 BUILDINGS TO BE 4 HOUR AREA SEPARATION WALL WITH 3 HOUR OPENING. (UBC-91 505(f) AND 901(e))
2. ROOF/CEILING ASSEMBLY OF H-3 BUILDING TO BE 2 HOUR RATED. (UBC-91 505(f), EXCEPTION 1.)

PLATE 3

NO.	DESCRIPTION	BY	CHK	APPR	DATE
0	RELEASED FOR REGULATORY REVIEW & BIDDING	JFG	RCS	JMC	10/23/91

REVISIONS

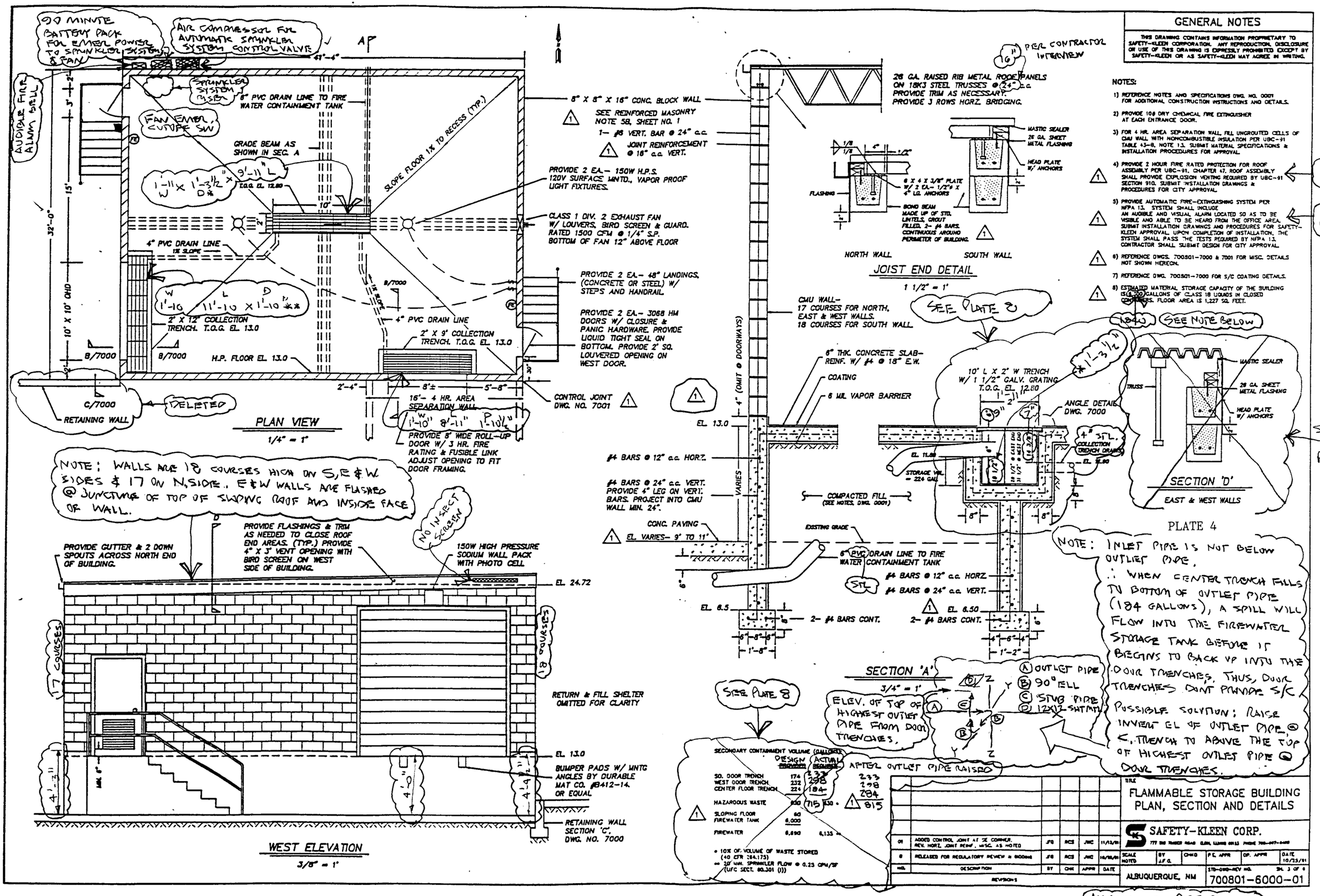
TITLE: PARTIAL SITE PLAN

SAFETY-KLEEN CORP.
777 SW TRUMAN ROAD ELGIN, ILLINOIS 60123 PHONE 708-697-8460

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
1" = 10'	J.F.G.				10/23/91

ALBUQUERQUE, NM

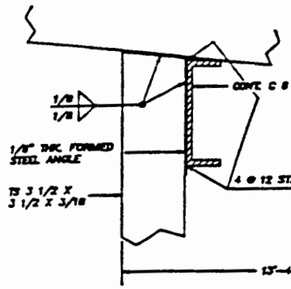
STD-DWG-REV NO. 700801-0005-00 SH. 2 OF 6



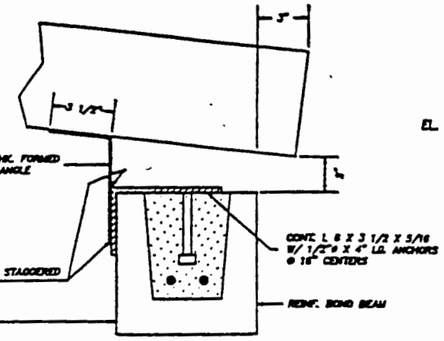
MARKED BY RCS DURING 4/9/92 SITE VISIT

GENERAL NOTES

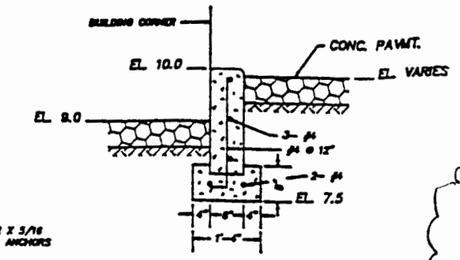
THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORPORATION. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.



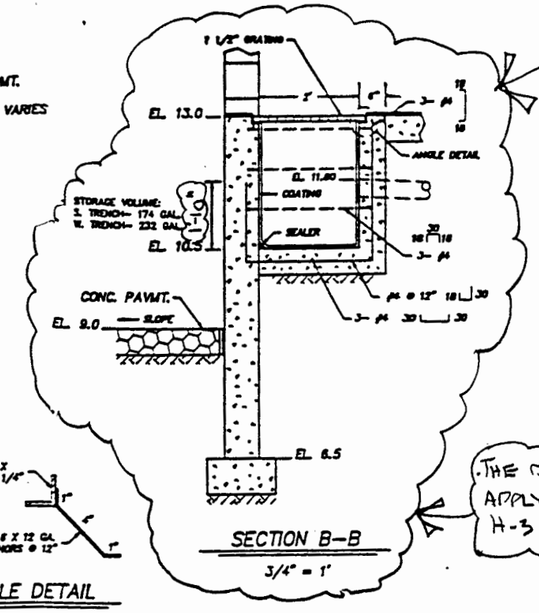
DETAIL 1
3" = 1'



DETAIL 2
3" = 1'

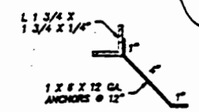


SECTION 'C'
3/4" = 1'
RETAINING WALL SECTION

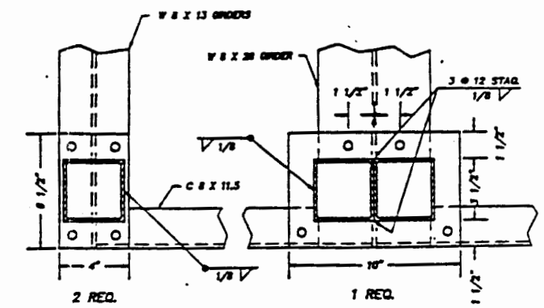


SECTION B–B
3/4" = 1'

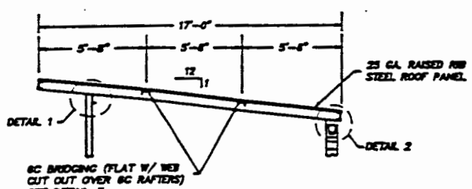
THE DETAILS APPLY TO THE H-3 BUILDING



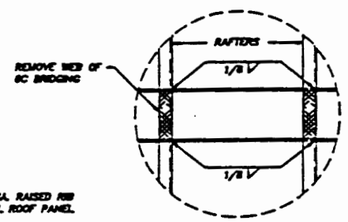
ANGLE DETAIL
3" = 1'
TYP. GRATING SEAT



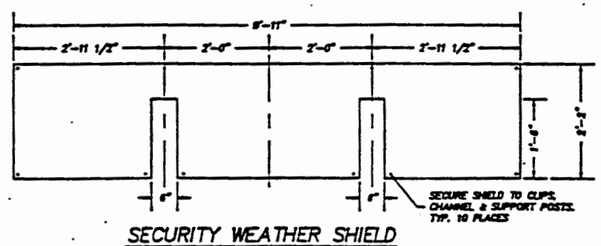
TS COLUMN BASE PLATES
3" = 1'
TS 3 1/2 X 3 1/2 X 3/16"
3/16" PLATE
1/2"ø BOLTS, OR WELDED



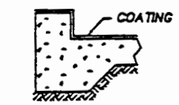
SECTION D–D
1/4" = 1'
INSTALL MACHINE SCREWS & OTHER ATTACHMENTS AS NEEDED TO PROVIVE A COMPLETE, SECURE ROOF SYSTEM.



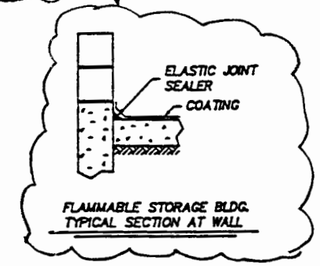
DETAIL 3
1 1/2" = 1'



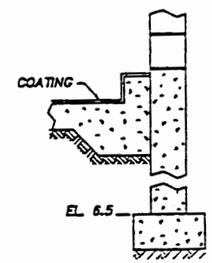
SECURITY WEATHER SHIELD
2 REQ.
26 GA. GALV. (& PAINTED) SHEET METAL



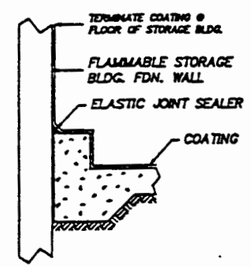
RETURN & FILL SHELTER
TYPICAL SECTION AT CURB



FLAMMABLE STORAGE BLDG.
TYPICAL SECTION AT WALL

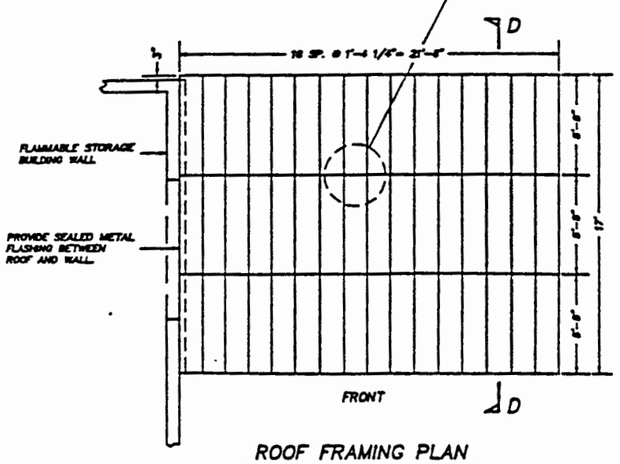


RETURN & FILL SHELTER
TYPICAL SECTION AT WALL

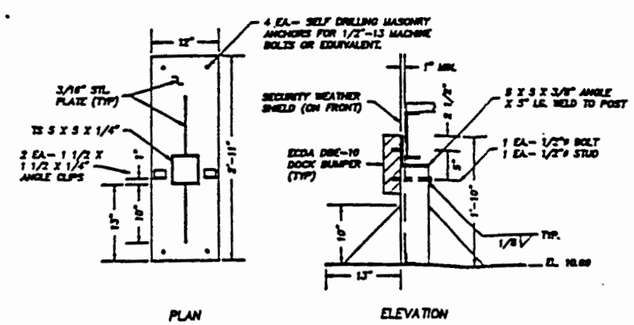


RETURN & FILL SHELTER
(REF. SECTION 'B', DWG. 6003)

TYPICAL COATING DETAILS
N.T.S.
SEE DWG. NO. 0001 FOR SPECS. AND DETAILS



ROOF FRAMING PLAN
RETURN & FILL SHELTER
1/4" = 1'
ALL MEMBERS ARE 6" X 1 1/2" X 16 GA. COLD ROLLED CHANNEL



TYP. TRUCK BUMPER POST
1" = 1'
4 REQ.

MARKED BY RCS DURING 4/9/92 SITE VISIT

PLATE 5

NO.	DESCRIPTION	BY	CHK	APPR	DATE
01	ADDED DETAIL 3	JFC	RCS	JMC	11/13/91
0	RELEASED FOR REGULATORY REVIEW & BIDDING	JFC	RCS	JMC	10/25/91

REVISIONS

TITLE: MISC. STRUCTURAL DETAILS

SAFETY-KLEEN CORP.

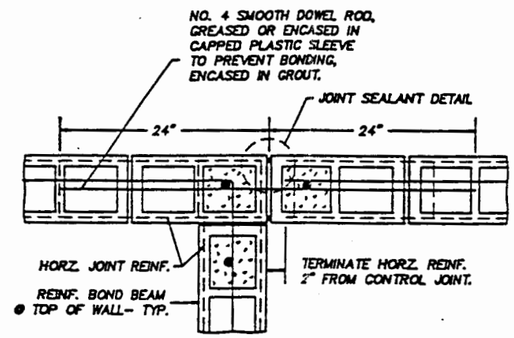
SCALE NOTED	BY JFC	CHKD	P.E. APPR	OP. APPR	DATE 10/25/91

ALBUQUERQUE, NM

STD-DWG-REV NO. 700801–7000–01 SHL 5 OF 8

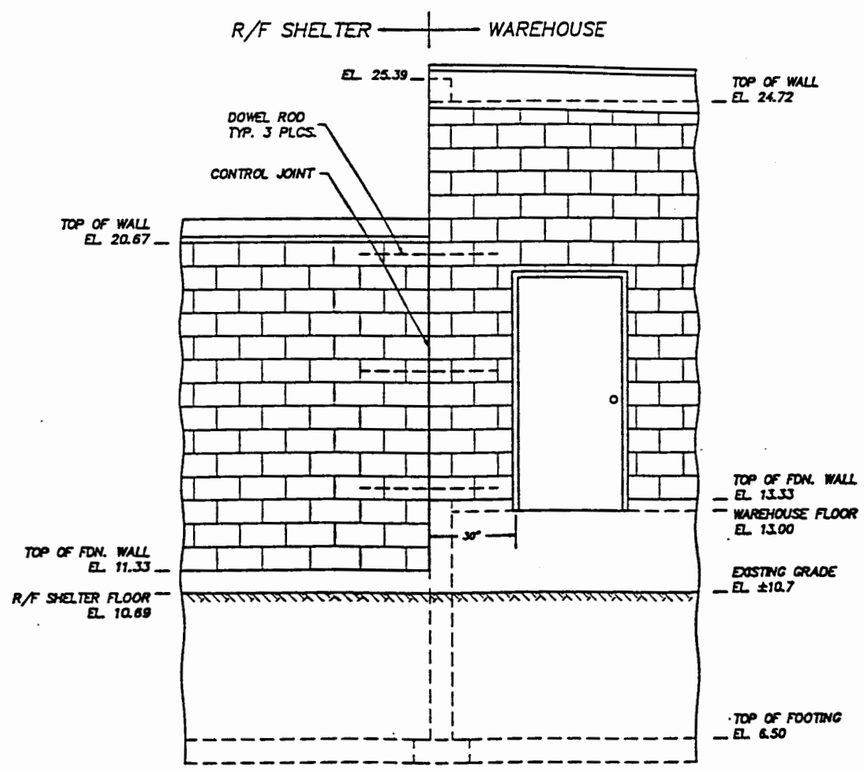
GENERAL NOTES

THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORPORATION. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.



TYPICAL SECTION @ CONTROL JOINT

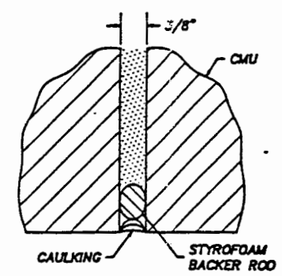
1 1/2" = 1'



PARTIAL EAST ELEVATION

1/2" = 1'

(LANDING AND STAIRS NOT SHOWN)



JOINT SEALANT DETAIL

FULL SCALE

PLATE 6

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	RELEASED FOR BIDDER REVIEW	JPS	RCS	JRC	11/13/91

REVISIONS

TITLE: MISC. MASONRY DETAILS

SAFETY-KLEEN CORP.

SCALE NOTED	BY J.F.G.	CHKD	P.E. APPR	OP. APPR	DATE 11/13/91

ALBUQUERQUE, NM

STD-DWG-REV NO. 700801-7001-00

SH. 6 OF 6

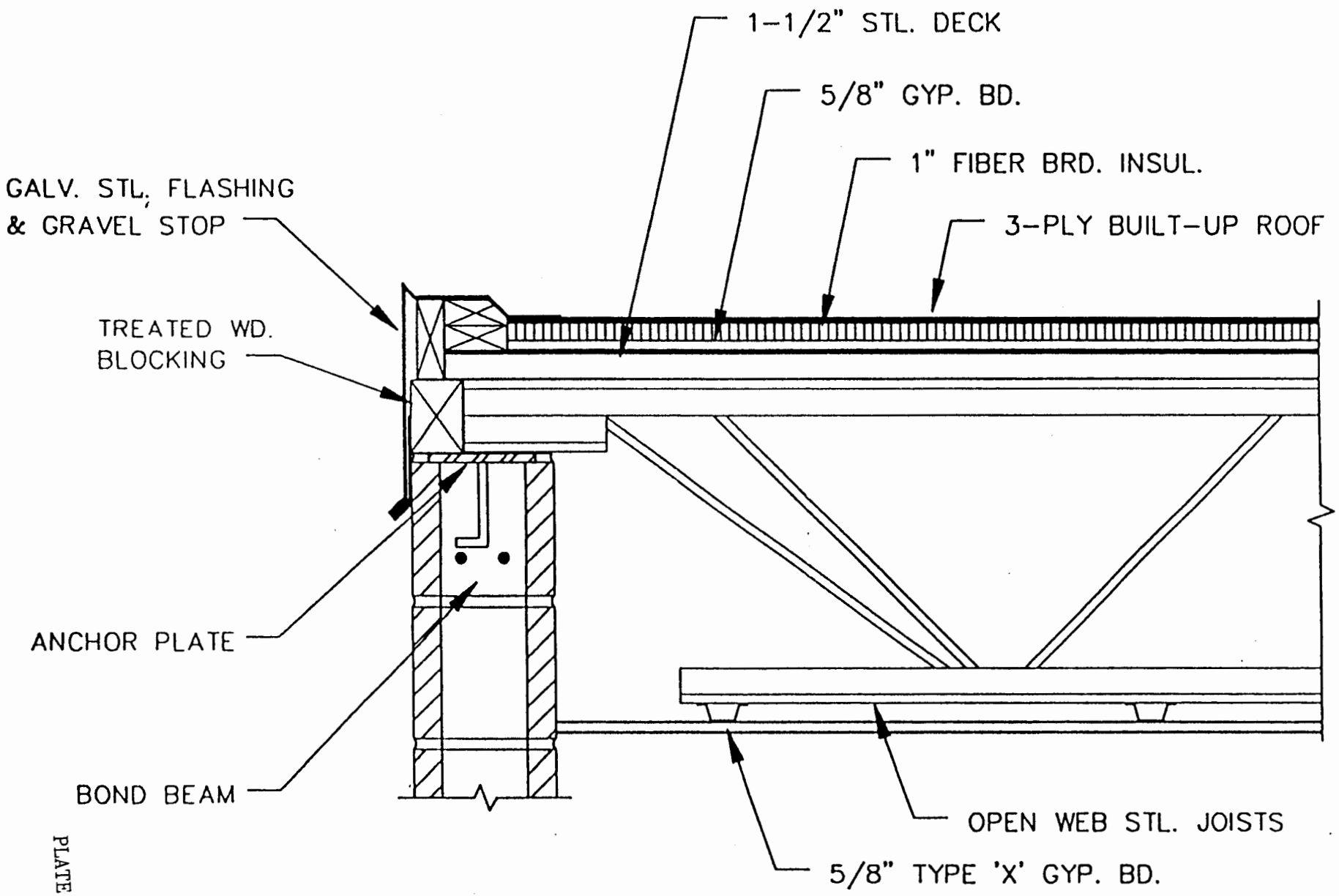


PLATE 7

PROVIDED BY VAN GILBERT, ARCHITECT, ALBUQUERQUE, NM

ROOF DETAIL

1½" = 1'-0"

SUBJECT: AS BUILT DRAWING OF H-3 BLDG S/C

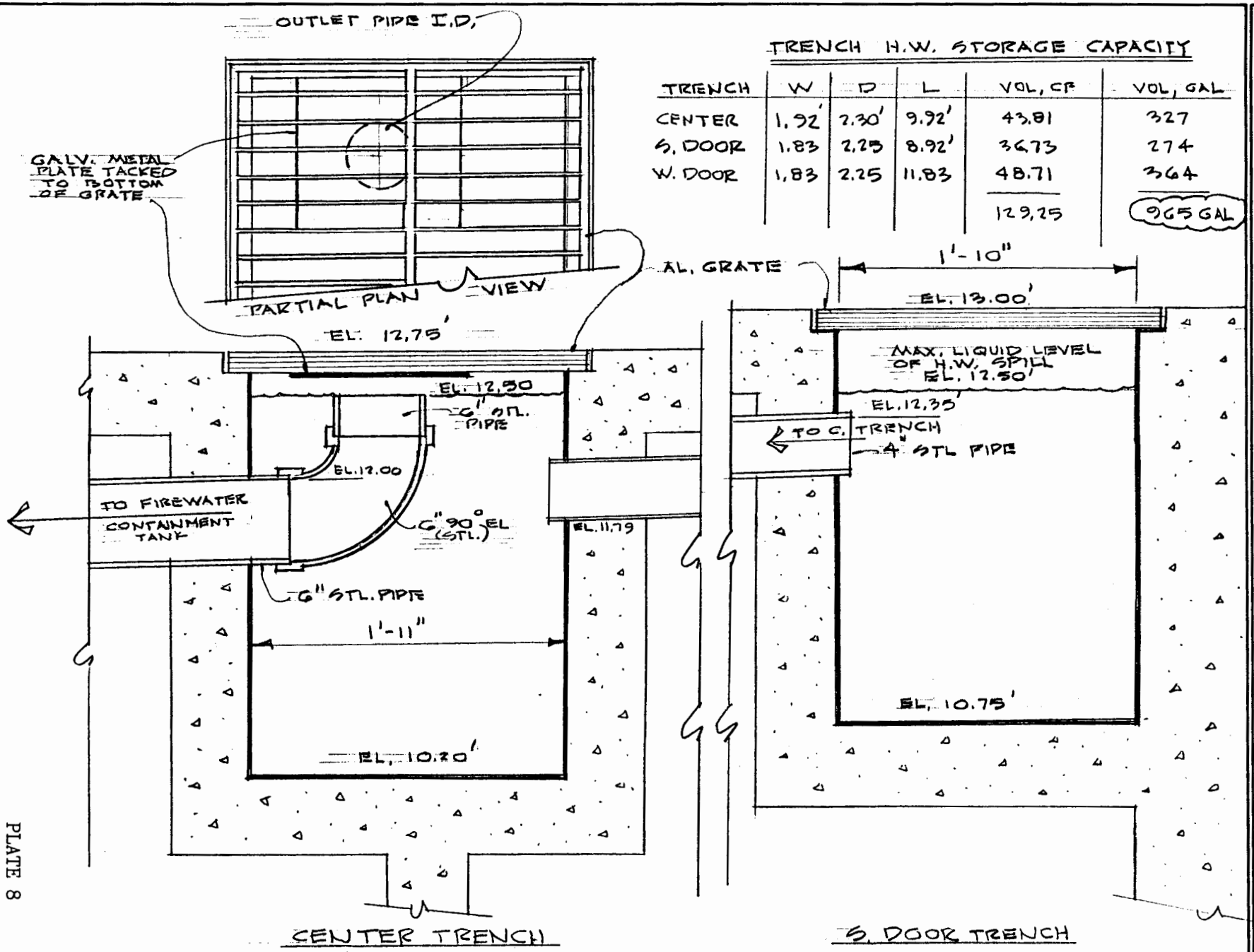
BY: RCS DATE: 4/9/92

TERA, inc.

JOB NO.: 92-400-36

FILE: SK/ALBUQ/WHSE I/A

SHEET: 1 OF: 1



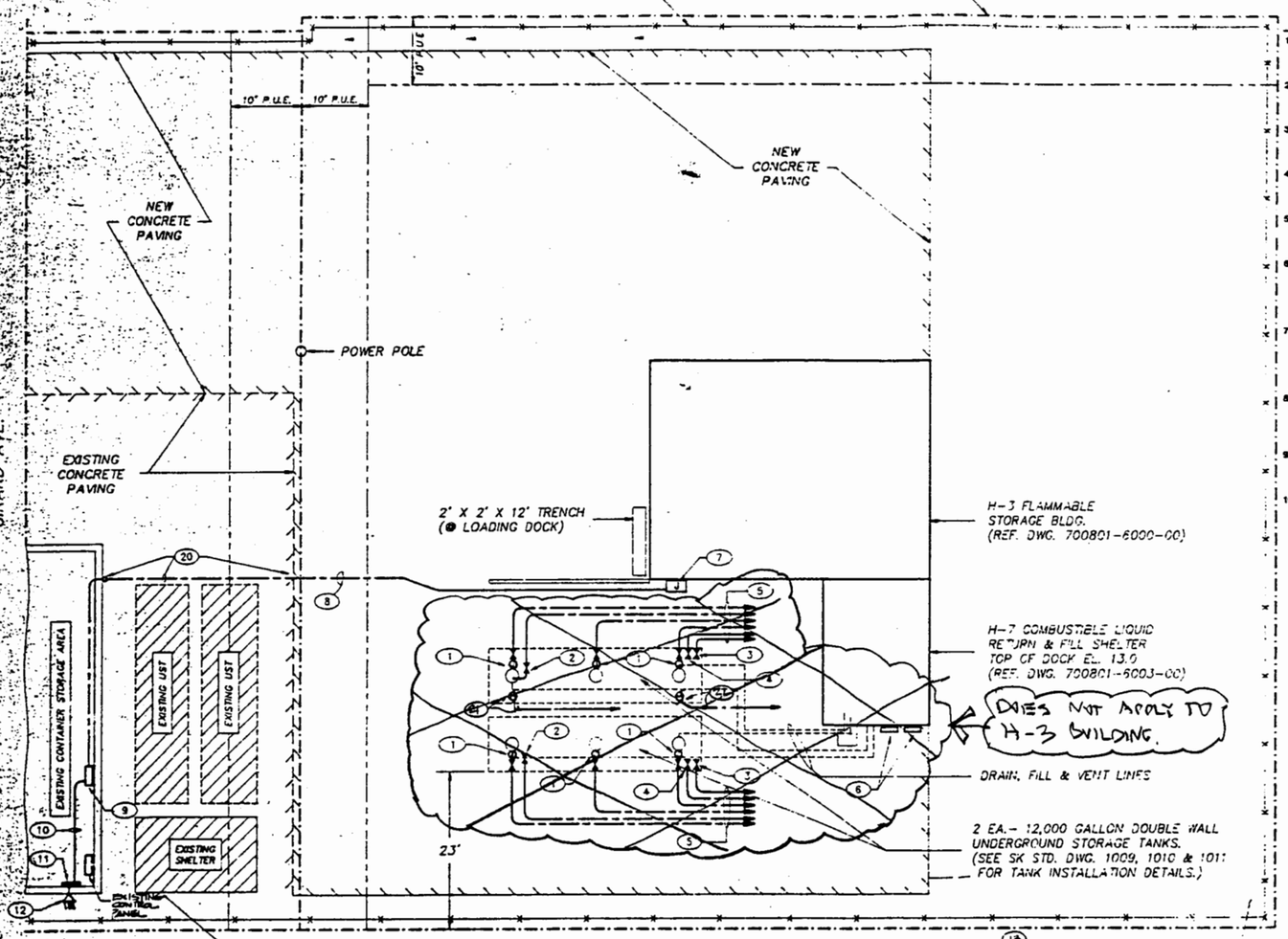
TRENCH H.W. STORAGE CAPACITY

TRENCH	W	D	L	VOL, CF	VOL, GAL
CENTER	1.92'	2.30'	9.92'	43.81	327
S. DOOR	1.83	2.25	8.92'	36.73	274
W. DOOR	1.83	2.25	11.83	48.71	364
				129.25	965 GAL

TRANSVERSE SECTION
SCALE 1/10" = 1"

PLATE 8

Form TRA-1.02 (8/83)



ELECTRICAL SITE PLAN

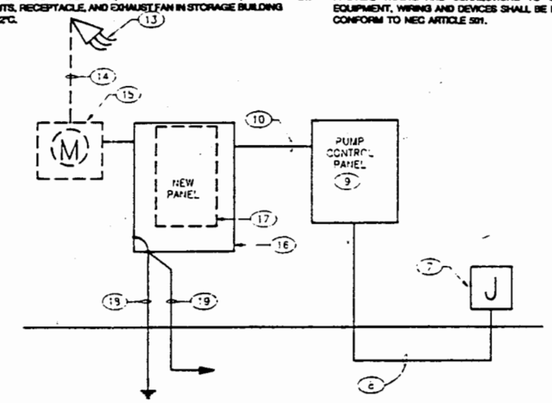
SCALE: 1" = 10'-0"

GENERAL NOTES

THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORPORATION. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.

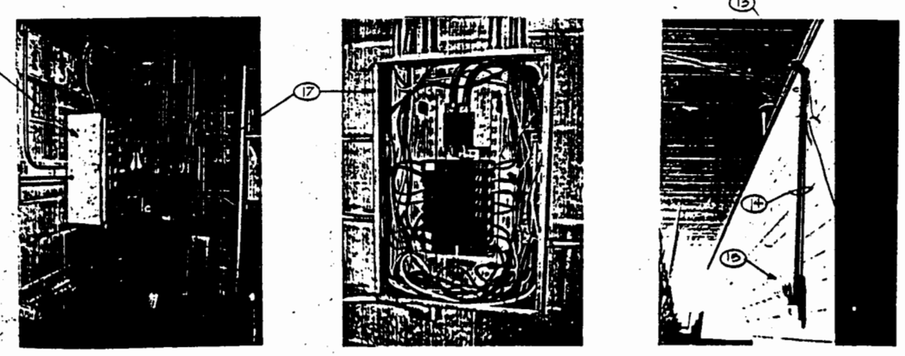
Keyed Notes

1. J-BOX FOR CONNECTION TO MANWAY LEAK MONITOR. REFER TO DRAWING STD-1009-02 FOR DETAILS. PROVIDE EXPLOSION PROOF JUNCTION BOX, EYS FITTING AND WIRING PER NEC ARTICLE 501.
2. PROVIDE WIRING AND CONNECTION TO HIGH LEVEL PROBE. REFER TO DRAWING STD-1009-02 FOR DETAILS. PROVIDE EXPLOSION PROOF EYS FITTING AND WIRING PER NEC AND ARTICLE 501.
3. PROVIDE WIRING AND CONNECTION TO TANK LEAK DETECTOR (LIQUID PROBE). REFER TO DRAWING STD-1009-02 FOR DETAILS. PROVIDE EXPLOSION PROOF EYS FITTING AND WIRING PER NEC AND ARTICLE 501.
4. PROVIDE PROVISION FOR FUTURE MONITORING DEVICE (SPARE). REFER TO DRAWING STD-1009-02 FOR DETAILS. PROVIDE EXPLOSION PROOF EYS FITTING PER NEC AND ARTICLE 501.
5. EXTEND 3/4" PVC CONDUIT, MINIMUM 18" BELOW GRADE TO RECEIVER SYSTEM AND TANK LEVEL AND ALARM PANEL. KEYED NOTE 6. PROVIDE DETECTOR WIRING PER THE MANUFACTURER'S REQUIREMENTS.
6. RECEIVER SYSTEM AND TANK LEVEL AND ALARM PANELS. REFER TO DRAWING #013120 FOR DETAILS. INSTALL PER THE RECOMMENDATIONS AND REQUIREMENTS OF THE MANUFACTURER. ALL WIRING AND DEVICES SHALL BE EXPLOSION PROOF AND SHALL BE IN INSTALLED ACCORDANCE WITH NEC ARTICLE 501.
7. PROVIDE AND INSTALL 18"X18"X8" S.C. JUNCTION BOX, NEMA 4X CONSTRUCTION UP 48" ABOVE FINISH GRADE. INSTALL IN LOCATION AS DIRECTED BY OWNER. PROVIDE EYS (SEAL) EXPLOSION PROOF FITTINGS ON ALL CONDUIT EXTENDING FROM BELOW GRADE TO EXPLOSION PROOF AREAS PER NEC ARTICLE 501.
8. EXTEND 21#6 PLUS 5#6 GR IN 2"C TO CONTROL PANEL IN EXISTING BUILDING. ALL CONDUCTORS SHALL BE PROPERLY TAGGED AND LABEL ACCORDING TO FUNCTION AND TERMINATION. ALL WIRING SHALL BE COLOR CODED, CONTINUOUSLY THROUGH-OUT RUN OF BRANCH CIRCUIT.
9. PUMP CONTROL PANEL. REFER TO DRAWING #011530 FOR DETAILS. PUMP CONTROL PANEL FURNISHED BY OWNER AND INSTALLED AND CONNECTED BY THIS CONTRACTOR.
10. 3#6 + 1#6 GR (PUMP CONTROL PANEL) AND 5#6 + 3#12 GR (BRANCH CIRCUITS FOR LIGHTS, RECEPTACLE, AND EXHAUST FAN IN STORAGE BUILDING AND SHELTER) IN 2"C.
11. REMOVE EXISTING PANEL AND INSTALL NEW PANEL. REFER TO POWER RISER DIAGRAM THIS SHEET FOR DETAILS.
12. EXISTING SERVICE ENTRANCE EQUIPMENT. REFER TO POWER RISER DIAGRAM THIS SHEET FOR DETAILS.
13. EXISTING WEATHERHEAD AND CONNECTION TO OVERHEAD SERVICE REMAINS.
14. EXISTING RISER, 3#1 AL IN 2"C, REMAINS.
15. EXISTING 100A METER AND METER SOCKET REMAINS.
16. PROVIDE AND INSTALL NEW PANEL. PANEL SHALL BE RATED 120/240V, SINGLE PHASE, THREE WIRE, 225A ML, 100A/2P MAIN BREAKER, SURFACE MOUNTED, TOP FEED, WITH TWENTY FOUR (24) 20A/1P BREAKERS, TWO (2) 30A/2P BREAKERS, TWO (2) 40A/2P BREAKERS, AND TEN (10) 1P SPACE ONLY. RECONNECT ALL EXISTING BRANCH CIRCUITS AND NEW BRANCH CIRCUITS. PROVIDE CONDUIT EXTENSION FOR ALL EXISTING CONDUITS AND RETERMINATE AT NEW PANEL. PROVIDE ALL JUNCTION BOXES, CONDUIT, WIRE, NIPPLES, CONNECTORS, ETC. TO RETERMINATE EXISTING CONDUIT. FIELD VERIFY REQUIREMENTS PRIOR TO BID. REFER TO PHOTOGRAPH DETAILS THIS SHEET. PANEL SHALL BE SQUARE "D" NQOD, OR EQUAL.
17. REMOVE EXISTING PANEL. REFER TO PHOTOGRAPH DETAILS THIS SHEET. THIS CONTRACTOR SHALL PREPARE FOR A POWER OUTAGE AT THE CONVENIENCE OF THE OWNER. THE POWER OUTAGE SHALL BE SCHEDULED IN WRITING, SEVEN DAYS IN ADVANCE WITH THE OWNER AND SHALL BE ON PREMIUM TIME (AFTER NORMAL WORKING HOURS, WEEKEND, OR HOLIDAY). ALL WORK SHALL BE COMPLETED PRIOR TO RE-ENERGIZATION OF COMMERCIAL POWER. THIS CONTRACTOR SHALL BE RESPONSIBLE TO REIMBURSE PUBLIC SERVICE COMPANY OF NEW MEXICO (PNM) FOR TIME AND EXPENSES SHOULD THE SERVICES OF PNM BE REQUIRED. VERIFY WITH PNM PRIOR TO BID.
18. PROVIDE NEW 1#2 BSD (CU) SERVICE GROUND IN 1"C PER NEC.
19. PROVIDE NEW 1#2 BSD (CU) EQUIPMENT GROUND IN 1"C PER NEC.
20. SAW CUT EXISTING CONCRETE APRON AND INSTALL NEW BRANCH CIRCUITS. PATCH TO MATCH EXISTING.
21. PROVIDE WIRING AND CONNECTIONS TO CLEAN SOLVENT PUMP. ALL EQUIPMENT, WIRING AND DEVICES SHALL BE EXPLOSION PROOF AND SHALL CONFORM TO NEC ARTICLE 501.



POWER RISER DIAGRAM

NOT TO SCALE



PHOTOGRAPH DETAILS

AS MARKED UP BY RCG DURING 4/9/92 SITE VISIT.

PLATE 9

TELCON ENGINEERING INC.
CONSULTING ELECTRICAL ENGINEERS
4800 JUAN TABO NE, SUITE A,
ALBUQUERQUE, NEW MEXICO 87111
(505) 292-3202 - FAX (505) 292-3904

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				

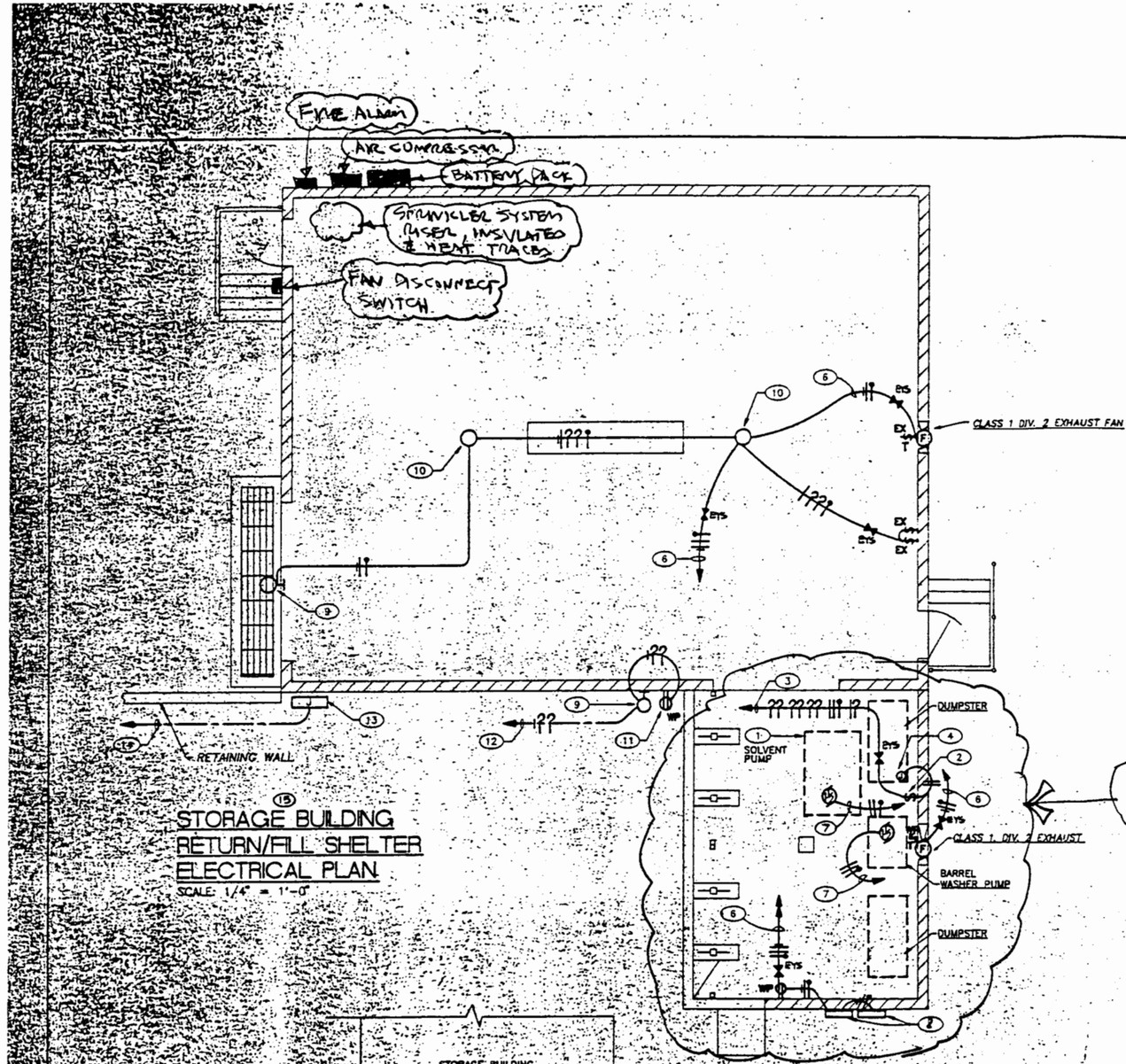
TITLE: PARTIAL ELECTRICAL SITE PLAN

SAFETY-KLEEN CORP.
777 BIG TIMBER ROAD ELGIN, ILLINOIS 60123 PHONE 708-697-6400

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
1/4"=1'-0"	C.L.D		F.J.T		10/4/91

ALBUQUERQUE, NM

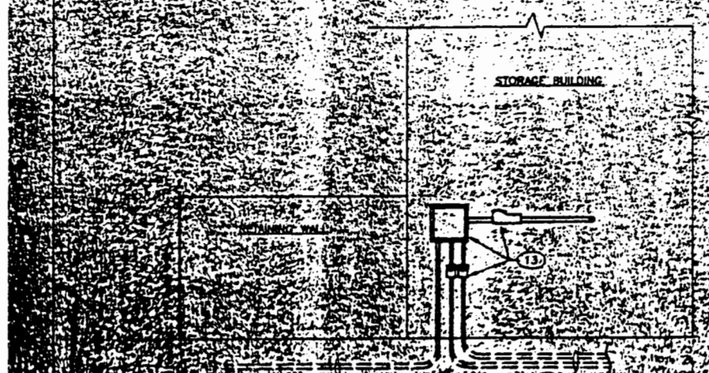
STD-DWG-REV NO. SH. 2 OF 3



DOES NOT APPLY TO H-3 BUILDING

STORAGE BUILDING RETURN/FILL SHELTER ELECTRICAL PLAN

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



ELEVATION AT STORAGE BUILDING

SYMBOL LEGEND

SYMBOL	DESCRIPTION
	CEILING OR WALL BRACKET FIXTURE, SEE FIXTURE SCHEDULE.
	FLUORESCENT OUTLET AND FIXTURE, SEE FIXTURE SCHEDULE.
$	SINGLE POLE WALL SWITCH, UP +48", "3" INDICATES THREE-WAY.
	THERMAL O.L. SWITCH.
	JUNCTION BOX FLUSH IN WALL WITH CONNECTION TO EQUIPMENT.
	DUPLEX CONVENIENCE OUTLET, UP +42" OR AS INDICATED.
	THERMOSTAT, UP 48" UNLESS OTHERWISE INDICATED.
	ELECTRIC PANEL, SEE PANEL SCHEDULE FOR CHARACTERISTICS.
	MOTOR CONNECTION WITH HP INDICATED. "F" INDICATES FRACTIONAL.
	BRANCH CIRCUIT IN WALLS OR CEILING WITH CONDUCTORS INDICATED.
	BRANCH CIRCUIT IN WALLS OR UNDER FLOOR WITH CONDUCTORS INDICATED.
	HOME RUN TO PANEL WITH BRANCH CIRCUIT NUMBERS INDICATED.

Keyed Notes

1. DIRTY SOLVENT PUMP. COORDINATE LOCATION IN FIELD PRIOR TO ROUGH-IN. ALL WIRING AND DEVICES FOR PUMP SHALL BE EXPLOSION PROOF AND SHALL CONFORM TO NEC ARTICLE 501.
2. PROVIDE FIVE (5) EXPLOSION PROOF SWITCHES; TWO (2) FOR CLEAN SOLVENT PUMPS, ONE (1) FOR DIRTY SOLVENT PUMP, ONE (1) FOR BARREL WASH PUMP, AND ONE (1) JOG SWITCH. ALL WIRING AND DEVICES SHALL BE EXPLOSION PROOF AND SHALL CONFORM TO NEC ARTICLE 501. PROVIDE ENGRAVED LAMINATED NAMEPLATE FOR EACH MOTOR AND LABEL RESPECTIVELY. REFER TO DRAWINGS #011632 FOR DETAILS AND REQUIREMENTS.
3. EXTEND BRANCH CIRCUIT WIRING FOR CLEAN AND DIRTY PUMPS TO PUMP CONTROL PANEL IN EXISTING BUILDING. REFER TO DRAWINGS #011632 FOR PUMP CONTROL PANEL WIRING DIAGRAMS AND DETAILS.
4. J-BOX FOR CONNECTION TO FLOAT SWITCH IN DUMPSTER. REFER TO DRAWING #011413 FOR DETAILS. ALL WIRING AND DEVICES SHALL BE EXPLOSION PROOF AND SHALL CONFORM TO NEC ARTICLE 501.
5. NOT USED.
6. EXTEND BRANCH CIRCUIT INDICATED TO PANEL "SP" IN EXISTING BUILDING, THROUGH JUNCTION BOX, NOTE 13.
7. EXTEND BRANCH CIRCUIT INDICATED TO PUMP CONTROL SWITCH. REFER TO KEYED 2.
8. RECEIVER SYSTEM AND TANK PANEL FOR HIGH LEVEL ALARMS AND LEAK ALARMS. REFER TO DRAWING #013639 FOR DETAILS.
9. PROVIDE AND INSTALL WALL PACK FIXTURE 12' BELOW TOP OF PARAPET OF BUILDING. WALL PACK FIXTURE SHALL BE BENJAMIN #OWW-139-HS-MT, SIMILAR AND EQUAL WITH 1/150WHPS LAMP.
10. PROVIDE AND INSTALL FIXTURE, BENJAMIN #XXS-150-120D SIMILAR AND EQUAL, SURFACE MOUNT, EXPLOSION PROOF, WITH 1/150WHPS LAMP.
11. INSTALL WEATHERPROOF DUPLEX RECEPTACLE UP 48" ABOVE FINISH FLOOR. DUPLEX RECEPTACLE SHALL BE CONTROLLED FROM PUMP CONTROL PANEL.
12. EXTEND CONTROL WIRING TO PUMP CONTROL PANEL IN EXISTING BUILDING. EXTEND BRANCH CIRCUITS TO JUNCTION BOX, KEYED NOTE 13.
13. PROVIDE AND INSTALL 18"X18"X8" S.C. JUNCTION BOX, NEMA 4X CONSTRUCTION UP 48" ABOVE FINISH GRADE. INSTALL IN LOCATION AS DIRECTED BY OWNER. PROVIDE EYS (SEAL) EXPLOSION PROOF FITTINGS ON ALL CONDUIT EXTENDING FROM BELOW GRADE TO EXPLOSION PROOF AREAS PER NEC ARTICLE 501.
14. EXTEND 2#4 PLUS 5#6 GR IN 2"C TO CONTROL PANEL IN EXISTING BUILDING. ALL CONDUCTORS SHALL BE PROPERLY TAGGED AND LABEL ACCORDING TO FUNCTION AND TERMINATION. ALL WIRING SHALL BE COLOR CODED, CONTINUOSLY THROUGH-OUT RUN OF BRANCH CIRCUIT.
15. ALL EQUIPMENT AND DEVICES WITHIN STORAGE BUILDING AND RETURN/FILL SHELTER SHALL BE EXPLOSION PROOF AND SHALL CONFORM TO NEC ARTICLE 501.

AS MARKED UP BY RCS DURING 4/9/92 SITE VISIT

GENERAL NOTES

THIS DRAWING CONTAINS INFORMATION PROPRIETARY TO SAFETY-KLEEN CORPORATION. ANY REPRODUCTION, DISCLOSURE OR USE OF THIS DRAWING IS EXPRESSLY PROHIBITED EXCEPT BY SAFETY-KLEEN OR AS SAFETY-KLEEN MAY AGREE IN WRITING.

PLATE 10

TELCON ENGINEERING INC.
CONSULTING ELECTRICAL ENGINEERS
4800 JUAN TABO NE, SUITE A, ALBUQUERQUE, NEW MEXICO 87111
(505) 292-3202 — FAX (505) 292-3904

NO.	DESCRIPTION	BY	CHK	APPR	DATE
	REVISIONS				

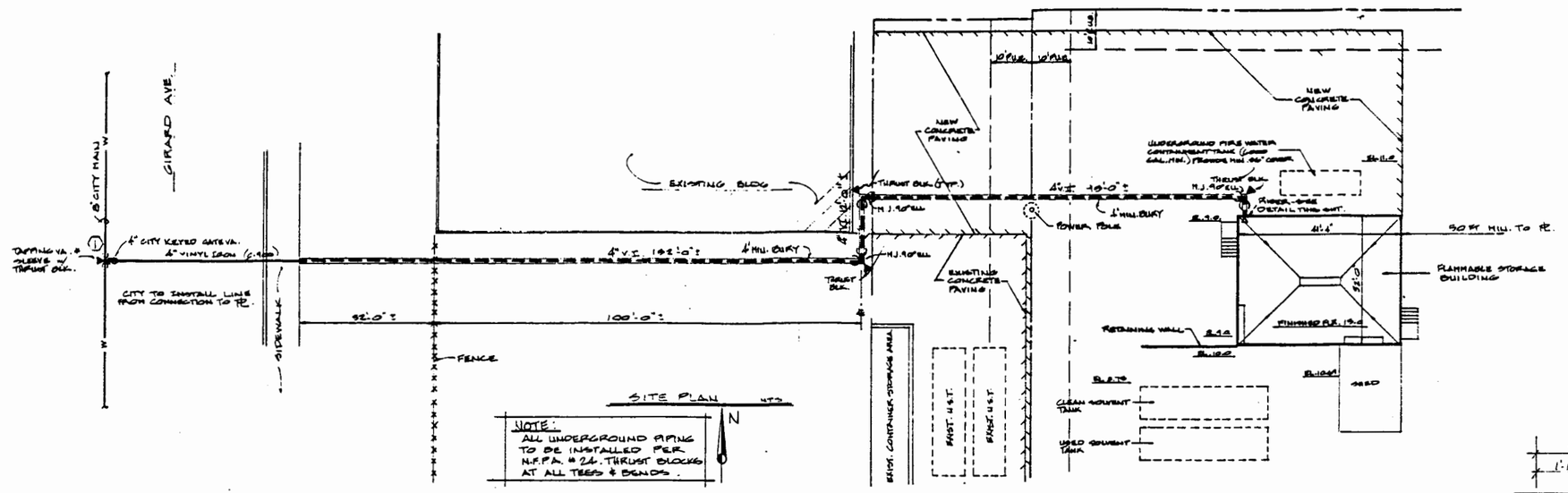
TITLE: FLAMMABLE STORAGE BUILDING RETURN/FILL SHELTER ELECTRICAL PLAN

SAFETY-KLEEN CORP.
777 E. TRIGER ROAD ELGIN, ILLINOIS 60123 PHONE 708-697-6400

SCALE	BY	CHKD	P.E. APPR	OP. APPR	DATE
NOTED	C.L.B	F.J.T	F.J.T		10/4/91

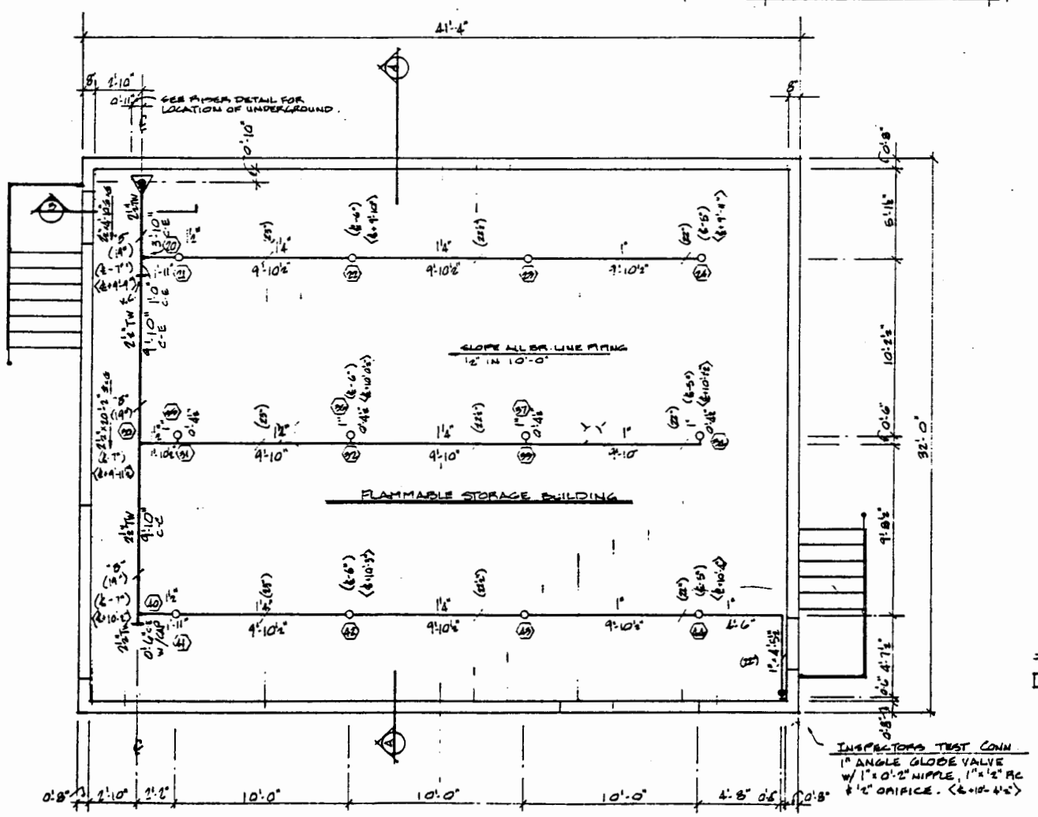
ALBUQUERQUE, NM

STD-0198-RLV NO. SH. 2 OF 2

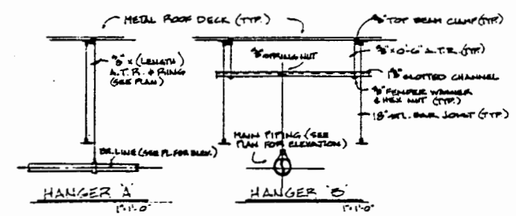


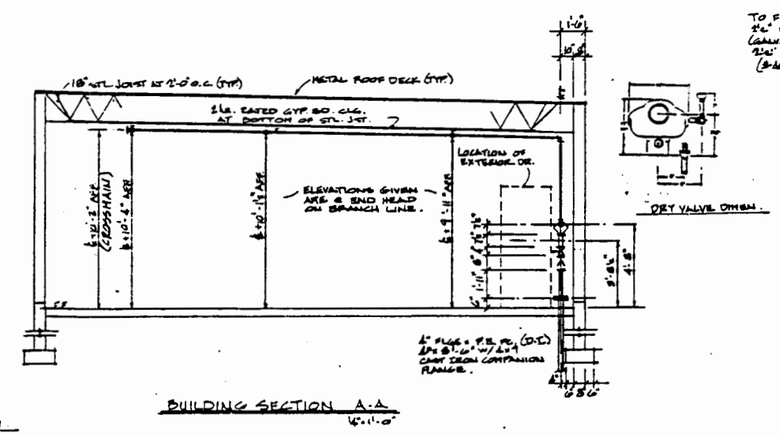
SITE PLAN

NOTE:
ALL UNDERGROUND PIPING TO BE INSTALLED PER N.F.P.A. # 24. THRUST BLOCKS AT ALL TEES & BENDS.

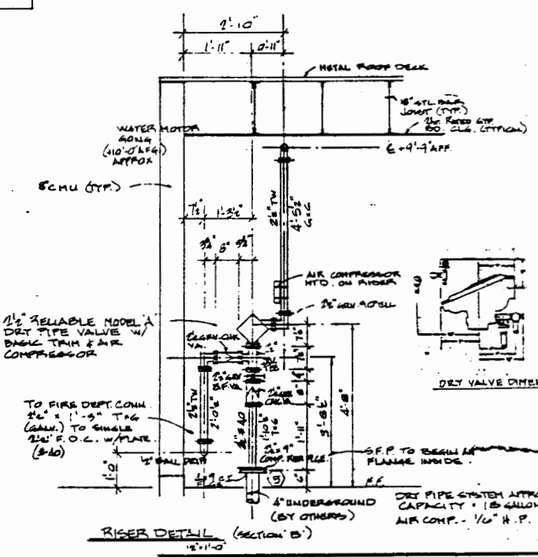


SPRINKLER PIPING PLAN





BUILDING SECTION A-A



RISER DETAIL (SECTION 'B')

SPRINKLER SYSTEM - GENERAL NOTES:

1. (&+) - DENOTES & OF PIPE ABOVE FINISH FLOOR.
2. (&-) - DENOTES & OF PIPE BELOW BOTTOM OF JOIST.
3. HANGER 'A' - 3/8" TOP BEAM CLAMP W/ 3/8" (LENGTH SHOWN) ALL THREAD ROD & RING ALL LINE HANGERS TO BE TYPE 'A' U.O.N. (SEE DETAIL).
4. HANGER 'B' - TRAPEZE TYPE (SEE DETAIL.)
5. ALL PIPING 2" & SMALLER TO BE ALLIED X-L, U.O.N.
6. ALL PIPING 2½" & LARGER TO BE SCH. #10 THINWALL, U.O.N.
7. ○ - DENOTES HYDRAULIC REFERENCE POINT.
8. S.F.P. TO BEGIN AT FLANGE INSIDE THE BLDG.
9. ALL INSTALLATION TO BE PER N.F.P.A.
10. 2 hr. RATED GYP. BD. CLG. AT BOTTOM OF STEEL JOISTS.

SFP Southwest Fire Protection Inc.

CONTRACT NAME: SAFETY - KLEEN CORPORATION
2120 GIRARD NE
ALBUQUERQUE, NEW MEXICO
CONTRACT WITH: HANNA PLUMB. & HTG.
DESCRIPTION: FIRE PROTECTION PLAN

SCALE: SHOWN
DRAWN BY: K.C.
CHECKED BY: J.D.
DATE: 1-21-98

SYSTEM DESIGN DATA
HAZARD: ORDINARY
DENSITY: .20
AREA OF APPLICATION: 1500 SQ. FT.
WATER SUPPLY: 850 GPM AT 85.1 PSI AT 39 NECS
DESIGN AREA: 1767 SQ. FT.
SPRINKLERS: 102
SYSTEM DEMAND: 900 GPM
.93
85
850

THESE PLANS PREPARED AT: ALBUQUERQUE
DRAWING NO.: 1 of 1
REVISION NO.: 92-171-1

COORDINATION RECORD

CONTR. NAME	REP. OWN. REV./DATE	NAME	TELEPHONE

SYSTEM TYPE: WET ☐ DRY ☐ DELUGE ☐ PRE-ACTION ☐

APPROVALS: ☐ WRB ☐ WRI ☐ FMC ☐ ___ ☐ ___

SPRINKLERS						
TYPE	ORIF	TEMP	FINISH	CANOPY	EVAL	QTY
MAL F-500	½"	165°	BRS	–	O	12

TYPICAL FIRE SAFETY

IMPORTANT

In hazardous subject to freezing conditions, it is the owner's responsibility to provide heat throughout wet pipe sprinkler systems areas and to maintenance, for dry pipe damage and other types of various sprinkling water supplies or sprinkler systems.

PLATE 11

System [illegible] NFPA 3-
[illegible] 1-27-92

HYDRAULIC DESIGN INFORMATION SHEET

NAME SAFETY-KLEEN CORP. DATE 1/21/92
LOCATION 2720 GIRARD AVE., N.E., ALBUQ., N.M.
BUILDING FLAMMABLE STORAGE BUILDING SYSTEM NO.
CONTRACTOR SOUTHWEST FIRE PROTECTION INC. CONTRACT NO.
CALCULATED BY STEPHEN DYER. DRAWING NO.
CONSTRUCTION: [ ] COMBUSTIBLE [X] NON-COMBUSTIBLE CEILING HEIGHT 12'-6" FT.
OCCUPANCY

SYSTEM DESIGN

[ ] NFPA 13: [ ] LT. HAZ. ORD. HAZ. GP. [ ] 1 [ ] 2 [ ] 3 [ ] EX. HAZ.
[ ] NFPA 231 [ ] NFPA 231C: FIGURE : CURVE
[ ] OTHER (Specify) .25 OVER THE ENTIRE AREA OR 3000 ☐
[ ] SPECIFIC RULING MADE BY DATE

AREA OF SPRINKLER OPERATION 1,224 ☐
DENSITY .25 G.P.M.
AREA PER SPRINKLER 102 ☐
HOSE ALLOWANCE GPM: INSIDE
HOSE ALLOWANCE GPM: OUTSIDE 500
RACK SPRINKLER ALLOWANCE

SYSTEM TYPE
[ ] WET [X] DRY [ ] DELUGE [ ] PRE-ACTION

SPRINKLER OR NOZZLE
MAKE GRINNELL MODEL F-950
SIZE 1/2" K-FACTOR 5.6
TEMPERATURE RATING 165°

CALCULATION SUMMARY

GPM REQUIRED 350 PSI REQUIRED 86.9 AT BASE OF RISER
"C" FACTOR USED: HWC OVERHEAD 100 UNDERGROUND 140

WATER SUPPLY

WATER FLOW TEST
DATE & TIME JAN 16, 1992
STATIC PSI 95 P.S.I.
RESIDUAL PSI 89 P.S.I.
GPM FLOWING 850 G.P.M.
ELEVATION 5297 FT.

PUMP DATA
RATED CAPACITY
AT PSI
ELEVATION

TANK OR RESERVOIR
CAPACITY
ELEVATION

WELL
PROOF FLOW GPM

LOCATION IN 8" WATER MAIN
SOURCE OF INFORMATION CITY OF ALBQ. - SEE LETTER.

COMMODITY STORAGE

COMMODITY CLASS LOCATION
STORAGE HEIGHT AREA AISLE WIDTH
STORAGE METHOD: SOLID PILED % PALLETIZED % RACK %

RACK
[ ] SINGLE ROW [ ] CONVENTIONAL PALLET [ ] AUTOMATIC STORAGE [ ] ENCAPSULATED
[ ] DOUBLE ROW [ ] SLAVE PALLET [ ] SOLID SHELVING [ ] NON-ENCAPSULATED
[ ] MULTIPLE ROW [ ] OPEN

FLUE SPACING IN INCHES
LONGITUDINAL TRANSVERSE

CLEARANCE FROM TOP OF STORAGE TO CEILING
FT. IN.

HORIZONTAL BARRIERS PROVIDED

FORM H-1 PRINTED IN U.S.A. FOR NAS & FCA, INC. P.O. BOX 719, MT. KISCO, N.Y. 10549

PLATE 12a

CONTRACT NAME SAFETY KLEEN CORP. SHEET 1 OF 2

STEP NO	NOZZLE IDENT. AND LOCATION	FLOW IN G.P.M.	PIPE SIZE	PIPE FITTINGS AND DEVICES	EQUIV. PIPE LENGTH	FRICTION LOSS P.S.I./FOOT	PRESSURE SUMMARY	NORMAL PRESSURE	NOTES	REF. STEP
14	K= 5.6	q Q 25.5	SCH #40 1"		L 10 F — T 10	.285	Pt 21.0 Pe — Pf 2.85	Pt Pv Pn	C=100	
13	K= 5.6	q 27.3 Q 52.8	1¼"		L 10 F — T 10	.291	Pt 23.85 Pe — Pf 2.91	Pt Pv Pn		
42	K= 5.6	q 29.0 Q 81.8	1¼		L 10 F — T 10	.653	Pt 26.76 Pe Pf 6.53	Pt Pv Pn		
41	K= 5.6	q 32.3 Q 114.1	1½	T= 8 E = 4	L 2.33 F 12.0 T 14.33	.567	Pt 33.29 Pe .32 Pf 8.13	Pt Pv Pn	0'-9" X .433 (P=)	
10		q ↓ Q 114.1	T.W 2½		L 10 F — T 10	.052	Pt 41.74 Pe — Pf .52	Pt Pv Pn	@ X-MAIN	
30		q Q			L F T		Pt 42.26 Pe Pf	Pt Pv Pn	@ POINT 30	
4	K= 5.6	q Q 25.5	1"	E=2	L 10.5 F 2 T 12.5	.285	Pt 21.0 Pe — Pf 3.6	Pt Pv Pn		
33		q Q			L F T		Pt 24.6 Pe Pf	Pt Pv Pn		
7	K= 5.6	q Q 25.5	1"	E=2 T=5	L .5 F 7 T 7.5	.285	Pt 21.0 Pe — Pf 2.14	Pt Pv Pn		
3		q 26.3 Q 51.8	1¼		L 10 F — T 10	.281	Pt 23.14 Pe — Pf 2.81	Pt 24.6 Pv Pn	Q UP= $\sqrt{\frac{24.6}{23.14}}$ X 25.5	
		q 27.8 Q 79.6	1¼		L 10 F — T 10	.615	Pt 27.41 Pe Pf 6.15	Pt Pv Pn	ADD TYP. LINE SEE 37 TO 33 QUP. $\sqrt{\frac{27.41}{23.14}}$ X 25.5	
							Pt 33.56			

HYDRAULIC CALCULATION WORK SHEET

RM 18-3 PRINTED IN U.S.A. FOR NAS & FCA. INC., P.O. BOX 71 PLATE 12b 1549

CONTRACT NAME SAFETY KLEEN CORP. SHEET 2 OF 2

SYS. NO.	NOZZLE IDENT. AND CATION	FLOW IN G.P.M.	PIPE SIZE	PIPE FITTINGS AND DEVICES	EQUIV. PIPE LENGTH	FRICTION LOSS P.S.I./FOOT	PRESSURE SUMMARY	NORMAL PRESSURE	NOTES	REF. STEP
31		q 30.7 Q 110.3	1½	E=4 T=8	L 2.2 F 12 T 14.2	.531	Pt 33.56 Pe .25 Pf 7.54	Pt Pv Pn	ADD TYP. LINE SEE 37-3.3 Q-UP $\sqrt{\frac{33.56}{23.14}} \times 25.5$	
30		q 114.1 Q 224.4	T.W 2½		L 11 F — T 11	.180	Pt ~~41.35~~ Pe Pf 1.98	Pt 42.26 Pv Pn	@ 30 ADD G.P.M + HIGHEST PSI = 42.26	
29		q Q			L F T		Pt 44.24 Pe Pf	Pt Pv Pn	@ 20	
24	K= 5.6	q Q 25.5	1"		L 10 F — T 10	.285	Pt 21.0 Pe — Pf 2.85	Pt Pv Pn		
23	K= 5.6	q 27.3 Q 52.8	1¼		L 10 F — T 10	.291	Pt 23.85 Pe Pf 2.91	Pt Pv Pn		
22	K= 5.6	q 29.0 Q 81.8	1¼		L 10 F — T 10	.653	Pt 26.76 Pe Pf 6.53	Pt Pv Pn		
21	K= 5.6	q 32.3 Q 114.1	1½	T=8	L 2.0 F 4 T 6.0	.567	Pt 33.29 Pe .07 Pf 3.46	Pt Pv Pn		
20		q Q 125.2			L F T		Pt 36.76 Pe Pf	Pt Pv Pn	Q UP $\sqrt{\frac{44.24}{36.76}} \times 114.1$ 125.2	
5		q 224.4 Q 349.6	T.W. 2½	DPI=28 Z LTE= 8 CHK= 17 BV= 7	L 15.17 F 57.0 T 72.17	.410	Pt 44.24 Pe 4.40 Pf 29.59	Pt Pv Pn	10.17 X .433	
2		q ↓ Q 350	C=140 4	1E= 24 GV=4	L 265.0 F 28.0 T 293.0	.0295	Pt 78.23 Pe Pf 8.64	Pt Pv Pn	@ BASE OF RISER	
		q 500 Q 850			L F T		Pt 86.87 Pe Pf Pt	Pt Pv Pn	ADD. OUTSIDE HOSE = 500 G.P.M.	

HYDRAULIC CALCULATION WORK SHEET

CONTRACT NAME: SAFETY KLEEN CORP. NO:

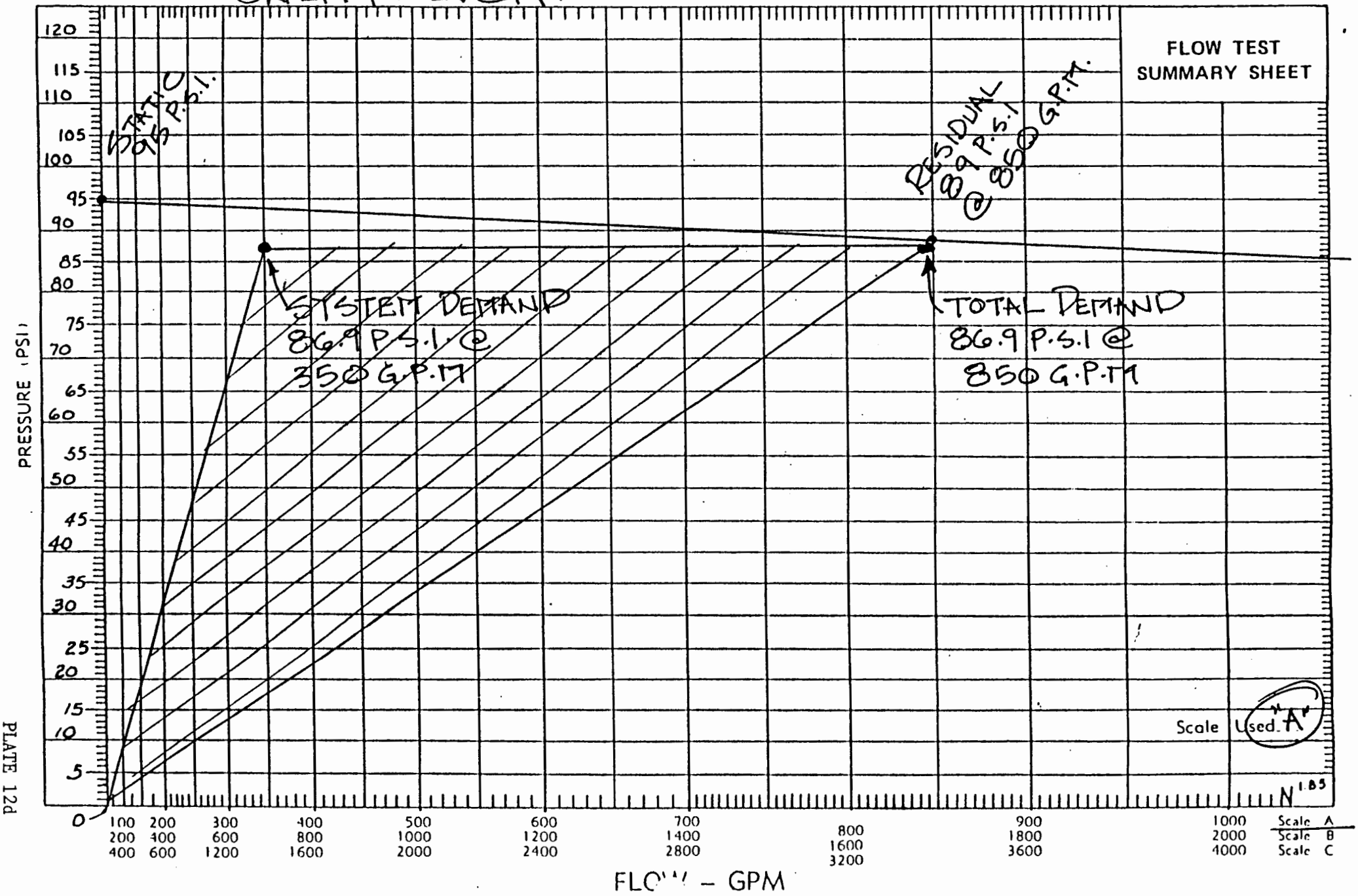


PLATE 12d

FORM H-2

PRINTED IN U.S.A. FOR NAS & FCA, INC., P.O. BOX 719, MT. O, N.Y. 10549

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

16 JAN, 1992

MR. RANDAL CARLTON
SOUTHWEST FIRE PROTECTION
1204 FOURTH ST., NW
ALBUQUERQUE, NM 87102

RE: REQUEST FOR WATER FLOW TEST AT SAFETY-KLEEN CORP.
2720 GIRARD AVE., NE

Dear MR. CARLTON,

The City's Computer Model of the master waterline system indicates that the residual hydraulic grade line (HGL) in the 8 inch water line in GIRARD at 850 GPM is 5297 feet above mean sea level (MSL). This is equal to a residual pressure of approximately 89 psig with respect to the waterline elevation of 5091 feet above MSL.

The static pressure in this line is approximately 95 psig.

Cordially,

Stuart Reeder

G. Stuart Reeder, P.E.
Computer Modeling Manager
Utility Development Division
Public Works Department

PLATE 12e

xc: Sam Cummins, Manager, UDD
wp+3279

H-16
ZONE 2E

DU PONT 25P

high solids epoxy mastic

Type:
Epoxy/Amine Modified Polyamide

Description:
Du Pont 25P is a two package (1:1 mix), high solids, high build, VOC Conforming (2.2 lbs./gal), multi-use epoxy mastic coating. It provides outstanding application properties — no induction time, long pot life, can be applied in hot or cold weather, faster dry times, excellent film build on *both* flat surfaces and edges, goes over hand-cleaned rusty surfaces, can be applied over damp surfaces, most other coatings, and can be top-coated with a wide range of coatings. Its performance and durability are excellent under all conditions and environments.

Suggested Uses:
25P is a multi-use product suitable for application in a variety of situations.

- As a single coat in non-corrosive environments (5-8 mils DFT).
- As a single coat in corrosive environments (10-12 mils DFT).
- As a primer in 2 or 3 coat systems (3-8 mils DFT).
- As an intermediate or mid-coat in a 3 coat system (4-6 mils DFT).
- Provides excellent durability and adhesion over steel, galvanized steel, masonry — concrete, and wood.

Recommended For Immersion Service:
25P is recommended for immersion service in near neutral, fresh, or salt water exposures. It is not recommended for use with potable water. It may be used for fire water towers, ballast tanks, barge and ship hulls, clarifiers, waste water treatment plants, offshore structures, pier pilings and supports, and other areas where a high level of water resistance is required.

Compatibility With Other Coatings:

- 25P is highly compatible with all generic types of coatings.
- It can be applied over most coatings in sound condition such as Ganicin® inorganic/organic zincs, Corlar® epoxies, Imron® polyurethanes, Du Pont 50P, Dulux® alkyds, vinyls, chlorinated rubbers, acrylics, and latexes. If in doubt, apply a test patch before painting.
- It can be topcoated by itself and other coating types listed above.

Resistance:

Acids:	Very good	Solvents:	Excellent
Alkalis:	Excellent	Abrasion:	Excellent
Humidity:	Excellent	Weather:	Very good (Will chalk on exterior exposure)
Salts:	Excellent		
Ammonia:	Excellent		

Maximum Service Temperature:
200°F (93°C) in continuous service
300°F (148°C) in intermittent heat

Volume Solids (Mixed):
70% Avg.

Weight Solids (Mixed):
82% Avg.

Weight Per Gallon (Mixed):
11.8 Lb. Avg. 5.4 Kg. Avg.

Suggested Film Build (DFT):
— Single Coat — 5-8 mils in non-corrosive environment
10-12 mils in corrosive environment and immersion service
— Primer — 3-8 mils
— Mid Coat — 4-6 mils

Coverage Per Gallon:
1122 Ft^2 @ 1 mil DFT
224 Ft^2 @ 5 mils DFT
112 Ft^2 @ 10 mils DFT

Gloss:
Satin Finish

Colors:
Standard — White, Cirrus Gray, Shale Gray, Clay Tan, Red Oxide, Aluminum
Custom Color — See Color Spectrum Color Wheel

PLATE 13a

DU PONT 25P

high solids epoxy mastic

Flash Point (Tag Closed Cup):
25P Bases > 100°F
VF-525 < 73°F

Surface Preparation:
For atmospheric service an SSPC-SP-6 (Commercial) is preferred for optimal performance. If not possible or practical, then hand tool clean to an SSPC-SP-2 or power tool clean to an SSPC-SP-3. For immersion service a SSPC-SP-5 is required.

Activator:
Add 1 part VF-525 Activator to 1 part 25P Base. Mix until thoroughly blended. You may begin painting immediately — there is no induction time.

Pot Life:
8 hours at 70°F-90°F when reduced 15% by volume with Y-32035 or RTO1P thinner.

Shelf Life:
12 Months Minimum

Reduction:
2-5% of Y-32035 is required under normal conditions. For maximum pot life, reduce 15% by volume with Y-32035 or RTO1P.
Use T-8054 thinner in hot or windy conditions for spray application. Reduce 10-15% with RTO1P thinner when applying by roller or brush in hot or windy conditions.
If more than 25% reduction is required, consult your local Du Pont representative.

Application Thinners:
Normal Conditions — Y-32035
Hot or Windy Conditions — T-8054 (spray)
Hot or Windy Conditions — RTO1P (roll or brush).

Clean Up Thinners:
T-8054 or MEK

Packaging:
1 & 5 Gallon Containers

Shipping Weight (lbs.):

	BASE	ACTIVATOR
1 Gallon Container	14	11
5 Gallon Container	68	55

Application Conditions:
Do not apply if material, substrate, or ambient temperature is below 35°F (2°C) or above 100°F (43°C).

Dry Times (Hours):
@ 5 mils DFT 50% R.H.

	50°F (10°C)	70°F (21°C)	90°F (32°C)
To Touch	3-4	2-3	1-2
To Handle	8	4	2
To Recoat	5	3	2
Full Cure	14 Days	7 Days	4 Days

Application Equipment:
Apply by brush, roll, or spray.
ROLL: ¼"-½" lambs wool or synthetic roll cover such as One Coater. Keep roll wet. Roll in one direction, rewet, then cross roll.

Air Spray:

	Binks	DeVilbiss	Graco
Spray Gun:	#18 or #62	JGA502 or MBC510	800 or 900
Fluid Nozzle:	66 or 67	E or D	04 or 086
Air Cap:	66 or 67PB	704, 765 or 78	02, 03 or 952

Airless Spray:
Pump: 30:1 Bulldog (Graco)
High Pressure Filter: 60 mesh
Fluid Hose: ⅜" x 150' max.
Note: If more than 100', use 45:1 King and to ½" x 100' plus ⅜" x 50'
Airless Gun: Graco 207945, 208663
Tips: .015"-.027"
Minimum pressure to avoid fingering: 2000 psi

Additional Comments:
1. VOC = 2.2 lbs./gal. (avg.)
2. Custom Color Bases are short filled to allow for colorant addition.
   1LB25P — Light Base (124 oz./gal.)
   2MB25P — Medium Base (120 oz./gal.)
   3DB25P — Deep Base (116 oz./gal.)
   4NB25P — Neutral Base (112 oz./gal.)
3. Consult the Material Safety Data Sheet prior to use.

IMRON 326

polyurethane enamels

APPLICATION INSTRUCTIONS

Surface Preparation:
Newly primed surfaces should be clean and dry. If contaminated, detergent/water wash, then blow dry. Previously painted surfaces should have all loose paint removed and the edges feathered. Prime bare spots with appropriate primer.

Activation:
Thoroughly mix 4 parts of enamel, then add 1 part of VG-Y-511 activator while stirring. No induction period is necessary.

Pot Life:
16 hours @ 77°F

Reduction:
No reduction should be necessary. However, if conditions require the addition of thinner, Y-32035 (or Y-32401 in hot or windy weather) may be used up to 20% by volume. If more than 20% is required, contact your Du Pont representative for specific recommendations.

Storage Conditions:
Store in a dry, well ventilated area. Storage temperatures should be between -30°F (-34°C) and 120°F (48°C).

Application Conditions:
Do not apply if material, substrate, or ambient temperature is less than 45°F (7°C) or above 110°F (43°C). For best results, temperature should be between 60°F (16°C) and 85°F (35°C). The substrate must be at least 5°F (3°C) above the dew point. Relative humidity should be below 90%.
*See additional comment #2

Cure Times At Recommended Thickness
(Hours @ 50% R.H.):

	50°F	70°F	90°F
Dry to Touch	24	6	2
Dry to Handle	120	48	24
Dry to Recoat*	48	16	2
Full Cure	300	168	72

*See additional comment #3

Application Equipment:
Apply by brush, roll or spray.

Roll:
¼"–¾" lambs wool or synthetic roll cover such as One Coater®. Keep roll wet. Roll in one direction, rewet, then cross roll.

Conventional Air Spray:

	Binks	DeVilbiss	Graco
Spray Gun:	18	JGA502 or MBC510	800
Fluid Nozzle:	66	E or F	03 or 04
Air Cap:	63PB	704 or 765	02, 021 or 03

Airless Spray:
Pump: 30.1 Bulldog (Graco)
High Pressure Filter: 60 Mesh
Fluid Hose: ⅜" x 150' max.
Airless Gun: Graco 208663
Tips: .015"–.025"
Minimum pressure to avoid fingering: 2000 psi

Air Assisted Airless:
Pump: 12:1 Senator (Graco)
Gun: 217292
Tips: .023"–.029"

Additional Comments:
1. Formulated with Rule 66 non-photochemically reactive solvents.
2. For application between 35°F–45°F, add 189 S or VH-Y-691 at the rate of 4 oz./activated gallon.
3. May be recoated by spray when tack free.
4. Some colors are certified by the U.S.D.A. for use in meat and poultry processing. Check with your Du Pont representative for the current list of approved colors.
5. Moisture or condensation on uncured material will decrease gloss.

[illegible]

DU PONT

IMRON 326

polyurethane enamels

Type:
A 2-Package Aliphatic Polyurethane

Description:
A polyurethane enamel based on patented Du Pont resin technology to be mixed with VG-Y-511 activator for use over Imron®, Du Pont 25P, Corlar®, or Dulux® primers and enamels. May also be applied directly over itself without special surface preparation or over old coatings (including alkyds) that are in sound condition. Imron® 326 is designed for areas requiring a topcoat with long lasting gloss and color retention along with a high degree of chemical, solvent, and abrasion resistance.

Suggested Uses:
The unique properties of Imron® 326 enamel topcoat make it an excellent choice for industrial, commercial, institutional, and architectural applications where long lasting beauty, durability, and ease of use are desired. Imron® 326 is recommended for interior or exterior use on structural steel, walls, ceilings, doors, trim, piping, tanks, pumps, motors, equipment, stairs, towers, handrails, siding, etc. in a large number of industries and exposures, some of which are:

- Chemical Plants
- Oil Refineries
- Pulp & Paper Mills
- Food Processing Plants
- Power Plants
- Steel Mills
- Mining
- Waste Treatment Facilities
- Bridges
- Offshore structures
- Port Authorities
- Office Buildings
- Schools
- Shopping Centers

Not Recommended For:
Immersion service

Compatibility With Other Coatings:
Imron® 325 can be applied over most coatings in sound condition such as Du Pont 25P Epoxy Mastic, Imron® Polyurethanes, Corlar® Epoxies, Dulux® Alkyds, acrylics, and latexes. If in doubt, apply a test patch before painting.

Dry Film Characteristics:
Acids — Excellent
Alkalis — Excellent
Humidity — Excellent
Salts — Excellent
Weather — Excellent
Solvents — Very Good
Color and Gloss Retention — Excellent
Abrasion and Mechanical Abuse — Excellent

Maximum Service Temperature:
200°F (93°C) in continuous service.
300°F (148°C) in intermittent heat.
Some yellowing of light colors may occur at elevated temperatures.

Volume Solids (Mixed):
38% Avg.

Weight Solids (Mixed):
50% Avg.

Weight Per Gallon (Mixed):
10.5 Lb. Avg. 4.8 Kg. Avg.

Suggested Film Thickness:
5 mils (125 μm) wet 2 mils (50μm) dry

Theoretical Coverage Per Gallon:*
610 Ft^2 (14.9m^2/L) @ 1 mil
305 Ft^2 (7.5m^2/L) @ 2 mils
suggested dry film thickness
*Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements.

Gloss:
High

Colors:
See color card for availability of standard colors. For special colors, contact your Du Pont representative.

Flash Point (Tag Closed Cup):
20°–73°F (–7° to 23°C)

Shelf Life:
12 months minimum

Application Thinners:
Y-32035 or Y-32401

Clean Up Thinners:
Y-32035 or MEK

Packaging:
Pigmented portion — 1's & 5's 80% full
Activator — Quarts: 80% Full
Gallons: Full

Shipping Weight (Lbs.):

Enamel	Activator
1 gallon containers — 9	1 quart containers — 2
5 gallon containers — 46	1 gallon containers — 8

PLATE 13d

Sikaflex®-1a

Elastomeric sealant/adhesive

Technical Data

Description: Sikaflex-1a is a premium-grade, high-performance, moisture-cured, 1-component, polyurethane-base, non-sag elastomeric sealant.

Where to Use:

- Designed for all types of joints where maximum depth of sealant will not exceed ½ in.
- Excellent for small joints and fillets...windows, door frames, reglets, flashing, and many construction adhesive applications.
- Suitable for vertical and horizontal joints; readily placeable at 40F.
- Has many applications as an elastic adhesive between materials with dissimilar coefficients of expansion.

Advantages:

- Easy, low-cost, ready to use.
- Eliminates time, effort, and equipment for mixing, filling cartridges, pre-heating or thawing, and cleaning of equipment.
- High elasticity - cures to a tough, durable, flexible consistency with exceptional cut- and tear-resistance.
- Excellent adhesion - bonds to most construction materials...without primer in most cases.
- Long life.
- Excellent resistance to aging, weathering.
- Proven in tough climates around the world.
- USDA-approved: chemically acceptable to the U.S. Department of Agriculture for use in meat and poultry processing area.
- Odorless, non-staining..
- Paintable with water-, oil-, and rubber-base paints.
- Jet fuel resistant.
- Meets Federal Specification TT-S-00230C, Type II, Class A.
- Meets ASTM C-920, Type S, Grade NS, Class 25.
- Meets Canadian Standard 19-GP-16A, Type II.
- EPA-approved for potable-water contact.
- Urethane-based, suggested by EPA for radon reduction.

Coverage: 10.3-fl-oz cartridge seals 12.4 lineal ft of ½- x ¼-in. joint.
20-fl-oz uni-pac sausage seals 24 lineal ft of ½- x ¼-in. joint.

Packaging: Disposable 10.3-fl-oz, moisture-proof composite cartridges, 24/case, and uni-pac sausages, 20-fl-oz, 20/carton; Available on special order 1.8- and 4.5-gal pails, 50-gal drums, and 10.3-fl-oz uni-pac sausages.

Typical Technical Data Sikaflex-1a:
(Material and curing conditions 73F and 50% R.H.)

Colors:	White, colonial white, aluminum gray, limestone, black, dark bronze, capitol tan. Special architectural colors on request.	
Shelf Life:	10.3-fl-oz cartridges	12 months
	10.3- and 20-fl-oz uni-pac sausages	12 months
	1.8-gal pails	4 months
	4.5-gal pails	4 months
	50-gal drums	4 months
Storage Conditions:	Store at 40-95F. Condition material to 65-85F before using.	
Application Temperature:	40 to 100F. Sealant should be installed when joint is at mid-range of its anticipated movement.	
Service Range:	-40 to 167F	
Curing Rate:	Tack-free Time	6 to 8 hours (TT-S-00230C)
	Tack-free to touch	3 hours
	Final cure	5 to 8 days
Recovery	>90%	
Shore A Hardness (ASTM D-2240):		
21 day	40± 5	
Tensile Properties (ASTM D-412):		
21 day	Tensile Stress	140 psi
	Elongation at Break	700%
	Modulus of Elasticity 25%	40 psi
	50%	60 psi
	100%	80 psi
Lap-Shear Strength (ASTM D-1002), modified, glass substrate		
21 day	50F	120 psi
	73F	125 psi
	122F	125 psi

Adhesion in Peel (TT-S-00230C):

Substrate	**Peel Strength**	**Adhesion Loss**
Aluminum	25 lb	10%
Glass	20 lb	5%
Concrete	20 lb	0%

Weathering Resistance:	Excellent
Ozone Resistance:	Exceptional
Chemical Resistance:	Good resistance to water, diluted acids, and diluted alkalines. Consult Technical Service for specific data.
Radon Reduction:	Approximately 97% reduction in radon. Independent laboratory evaluation. Actual results available upon request, consult Technical Service.

How To Use

Surface Preparation: Clean all surfaces. Joint walls must be sound, clean, dry, frost-free, and free of oil and grease. Curing compound residues and any other foreign matter must be thoroughly removed. Install bond breaker tape or backer rod to prevent bond at base of joint.

Priming: Priming is not usually necessary. Most substrates only require priming if testing indicates a need or where sealant will be subjected to water submersion after cure.
Consult Sikaflex Primer Technical Data Sheet or Technical Service for additional information on priming.

Application: Recommended application temperatures: 40-100F. For cold weather application, store units at approximately 70F; remove just prior to using.
For best performance, Sikaflex-1a should be gunned into joint when joint slot is at mid-point of its designed expansion and contraction.
Place nozzle of gun into bottom of the joint and fill entire joint. Keep the nozzle in the sealant, continue on with a steady flow of sealant preceding the nozzle to avoid air entrapment.
Avoid overlapping of sealant to eliminate entrapment of air. Tool as required.
For use in horizontal joints in traffic areas, the absolute minimum depth of the sealant is ½ in. and closed cell backer rod is recommended over open cell to offer greater support.

Limitations:

- Allow 1-week cure at standard conditions when using Sikaflex-1a in total water-immersion situations.
- Avoid exposure to high levels of chlorine.
- Maximum depth of sealant must not exceed ½ in.; minimum depth is ¼ in.
- Maximum expansion and contraction should not exceed 25% of average joint width.
- Do not cure in the presence of curing silicone sealants.
- Avoid contact with alcohol, and other solvent cleaners, during cure.
- Do not apply when moisture-vapor-transmission condition exists, from the substrate, as this can cause bubbling within the sealant.
- Use opened cartridges and uni-pac sausages the same day.
- When applying sealant, avoid air-entrapment.
- Since system is moisture-cured, permit sufficient exposure to air.
- White color tends to yellow slightly when exposed to ultra-violet rays.
- The ultimate performance of Sikaflex-1a depends on good joint design and proper application with joint surfaces properly prepared.
- Minimum depth of sealant in horizontal joints subject to traffic is ½ in.

Caution:

FHSLA Toxicity Test (16 CFR 1500)	**FHSLA Toxicity Category**
Primary skin irritant	Skin irritant
Eye irritant	Eye irritant
Acute oral toxicity	Non-toxic orally
Acute inhalation	Not toxic by inhalation
Acute dermal toxicity	Not toxic dermally

Combustible: Keep away from open flames and high heat. Contains xylene; avoid breathing vapors. Use with adequate ventilation.

Irritant: Avoid skin and eye contact. Use of NIOSH/MSA approved organic vapor respirator, safety goggles, and chemical-resistant gloves recommended. Remove contaminated clothing and shoes.

First Aid: In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes; contact physician. Wash clothing before re-use. Discard contaminated shoes.

Clean Up: Uncured material can be removed with approved solvent. Cured material can only be removed mechanically. For spillage, collect, absorb, and dispose of in accordance with applicable local, state, and federal regulations.

KEEP CONTAINER TIGHTLY CLOSED **KEEP OUT OF REACH OF CHILDREN**
NOT FOR INTERNAL CONSUMPTION **FOR INDUSTRIAL USE ONLY**
CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION

'SIKA WARRANTS ITS PRODUCTS TO BE FREE OF MANUFACTURING DEFECTS AND THAT THEY WILL MEET SIKA'S CURRENT PUBLISHED PHYSICAL PROPERTIES WHEN APPLIED IN ACCORDANCE WITH SIKA'S DIRECTIONS AND TESTED IN ACCORDANCE WITH ASTM AND SIKA STANDARDS. THERE ARE NO OTHER WARRANTIES BY SIKA OF ANY NATURE WHATSOEVER, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IN CONNECTION WITH THIS PRODUCT. SIKA CORPORATION SHALL NOT BE LIABLE FOR DAMAGES OF ANY SORT, INCLUDING REMOTE OR CONSEQUENTIAL DAMAGES, RESULTING FROM ANY CLAIMED BREACH OF ANY WARRANTY, WHETHER EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR FROM ANY OTHER CAUSE WHATSOEVER. SIKA SHALL ALSO NOT BE RESPONSIBLE FOR USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT HELD BY OTHERS.'

Executive Office: P.O. Box 297, Lyndhurst, NJ 07071 - Tel 201-933-8800 - FAX 201-933-9379

Regional* and District Sales Offices

CA, San Diego	619-741-9291	MD, Baltimore	301-583-1861	PA, Carnegie	412-279-1176
*CA, Santa Fe Springs	213-941-0231	*MI, Southfield	313-354-6555	PA, King of Prussia	215-783-5604
CA, Union City	415-487-2294	MN, Anoka	612-427-1652	SC, Spartanburg	803-573-8867
CO, Denver	303-458-7452	MO, Kansas City	816-921-1022	TX, Greenville	214-454-6030
CT, Hartford	203-560-2124	MO, St. Louis	314-231-5499	TX, Houston	713-461-3010
FL, N. Miami Beach	305-940-1959	*NJ, Lyndhurst	201-933-8800	TX, Plano	214-424-7744
*FL, Tampa	813-933-5259	NY, Albany	518-452-7453	VA, Midlothian	804-379-9843
GA, Atlanta	404-761-7143	NC	803-581-0223	VT, Montpelier	802-229-4905
IL, St. Charles	708-513-0570	OH, Brooklyn Heights	216-749-7225	WA, Seattle	206-762-3829
IN, Indianapolis	317-843-0274	*OH, Columbus	614-476-3335	WI, Milwaukee	414-272-3100
MA, Boston	617-247-3922				

Export Division

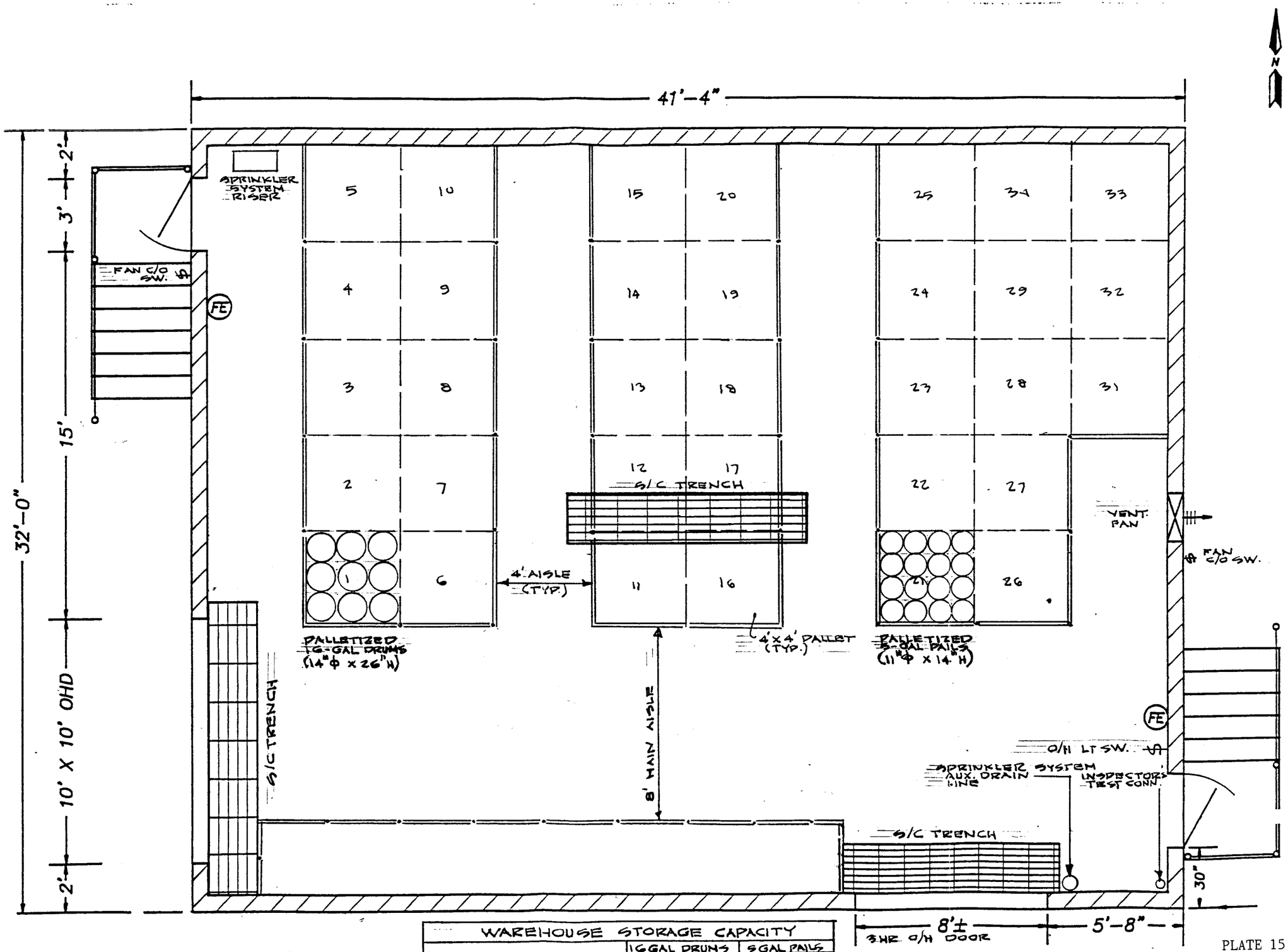
NJ, Lyndhurst ..... 201-933-8800 Telefax 201-804-1020

Drawer 297. Sika and Sikaflex are registered trademarks. Made in USA. Printed in USA. June, 1990.

March, 1990

PLATE 14d

SIKA CORPORATION
products/systems/services...worldwide



H-3 BUILDING
AISLE SPACE

WAREHOUSE STORAGE CAPACITY	16 GAL DRUMS	5 GAL PAILS
PALLETS	33	33
CONTAINERS / PALLET	x 9	x 16
CONTAINERS	297	528
GALLONS / CONTAINER	x 16	x 5
GALLONS / LAYER	4,752	2640
LAYERS	x 1	x 4
GALLONS	4,752 *	10,560 **

*LIMITED BY 0.25 GPM/SF SPKLR. SYS. CAPACITY TO 1 DRUM HIGH, (UFC TABLE 79.203C)

**LIMITED BY 6.5' MAX. PILE HT. TO 4 DRUMS HIGH (UFC TABLES 79.203 A & C)

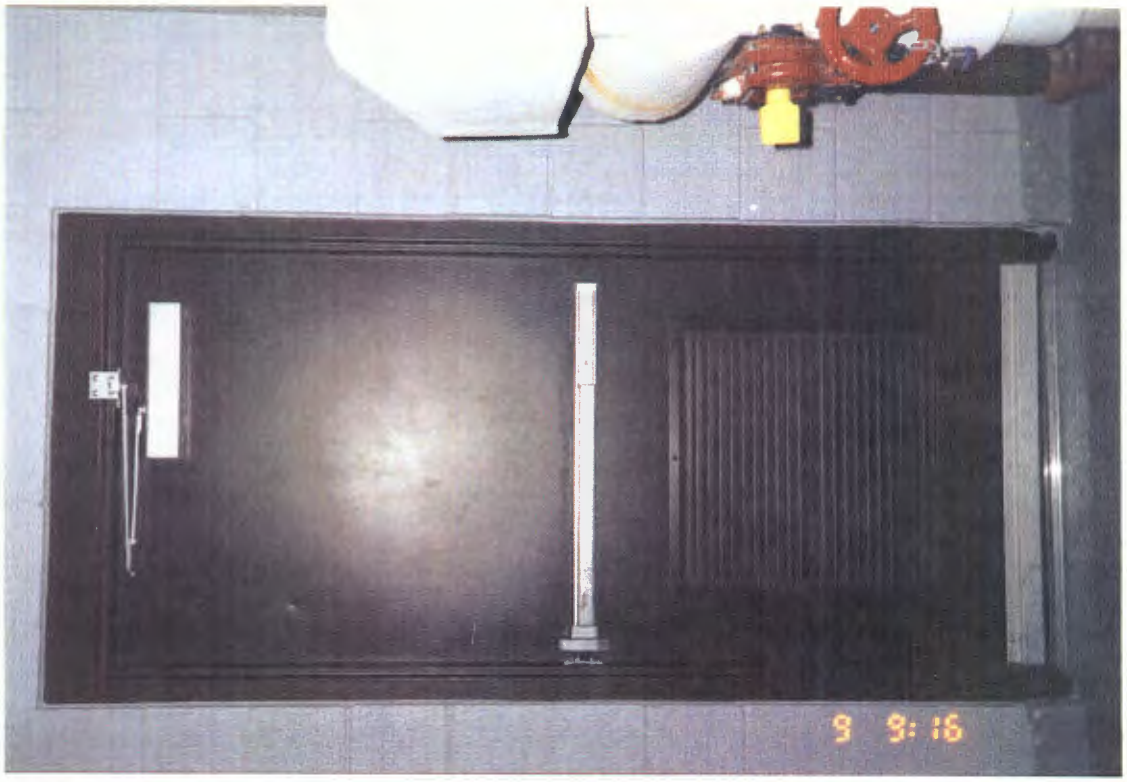
PLATE 15

FRONT OF H-3 BUILDING (RETURN AND FILL SHELTER AT RIGHT)

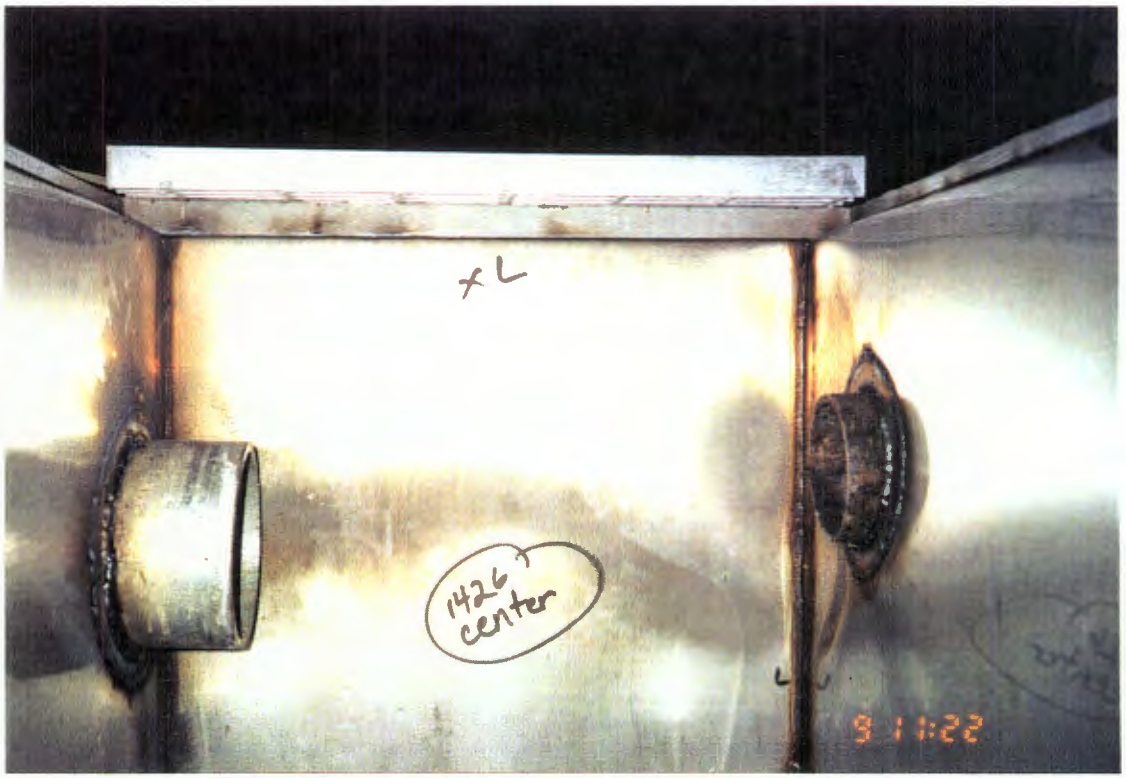
THREE HOUR FIRE DOOR

REAR OF H-3 BUILDING (VENTILATOR FAN AT RIGHT)

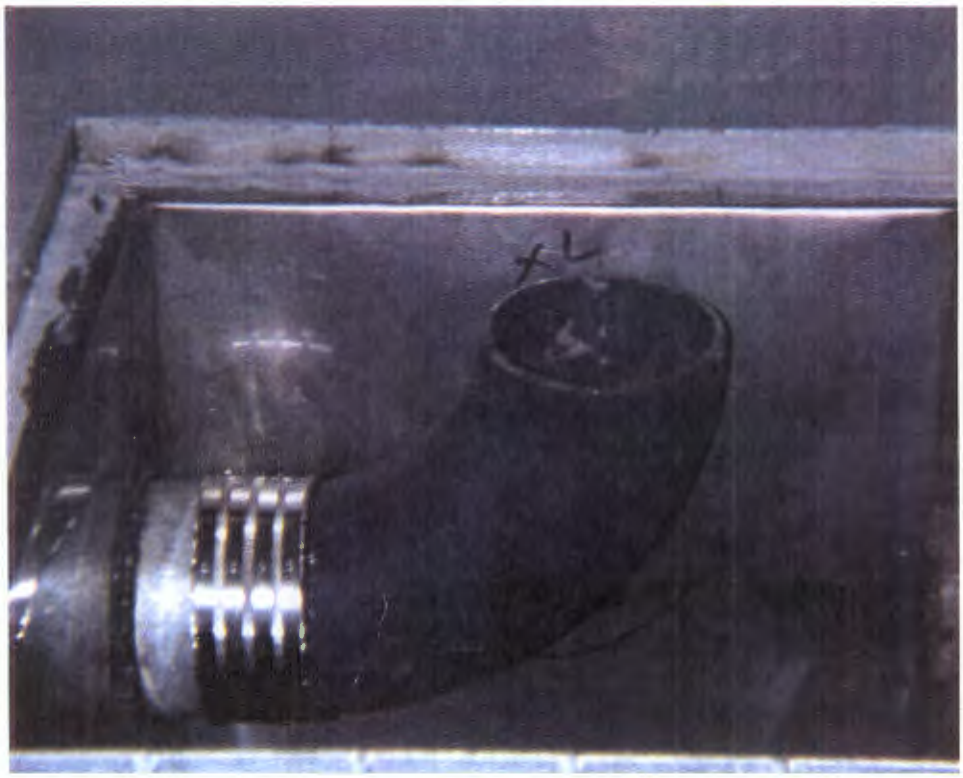
FRONT OF H-3 BUILDING (EMERGENCY POWER PANEL, ALARM, AIR COMPRESSOR FOR SPRINKLER SYSTEM, AND FIRE DEPARTMENT HOSE CONNECTION AT LEFT)



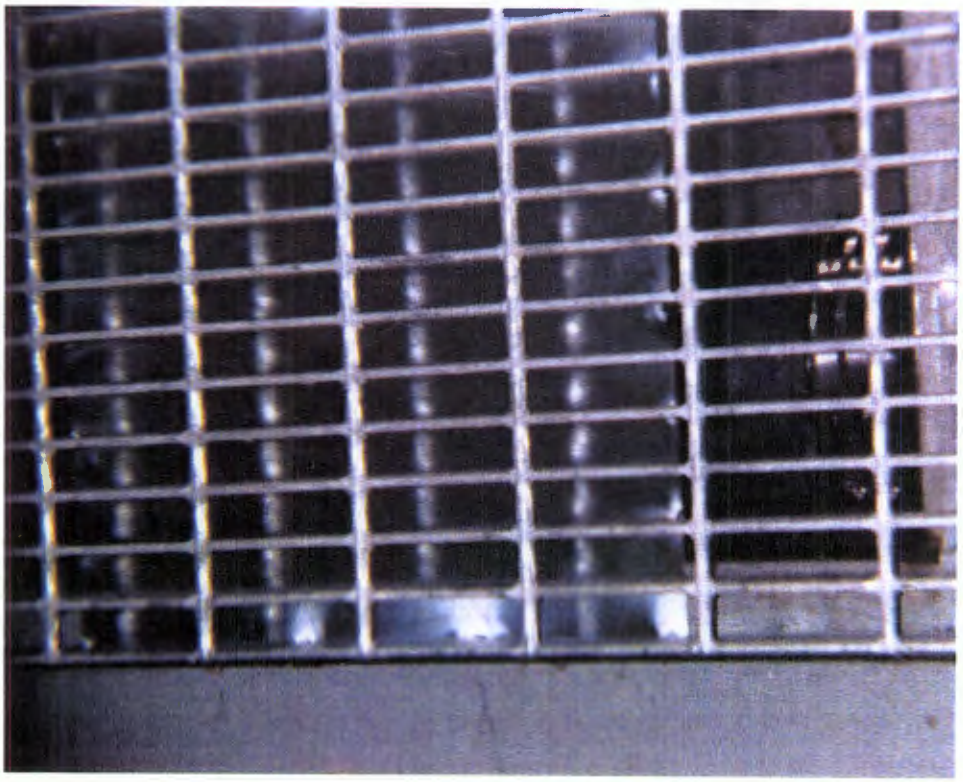
EXTERIOR SWINGING DOOR W/AUTOMATIC CLOSER, PANIC BAR, AND TIGHT SEAL AT BOTTOM (SPRINKLER SYSTEM RISER AT RIGHT)



INTERIOR OF CENTER TRENCH (OUTLET PIPE TO FIREWATER CONTAINMENT TANK AT LEFT. INLET PIPE FROM SOUTH DOOR TRENCH AT RIGHT) (PICTURE TAKEN PRIOR TO MODIFICATION OF OUTLET PIPE)



OUTLET PIPE (AFTER MODIFICATION) FROM CENTER TRENCH
TO FIREWATER CONTAINMENT TANK



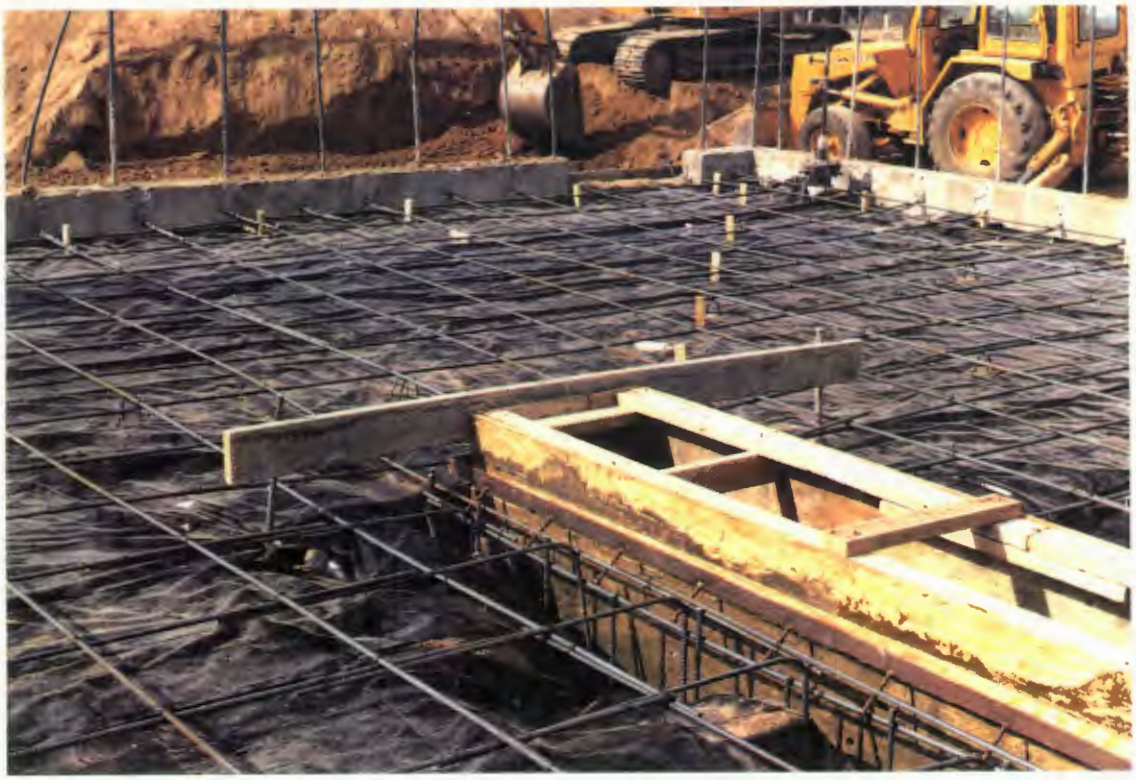
SHEET METAL FASTENED TO BOTTOM OF CENTER TRENCH GRATE
(COVERS MOUTH OF OUTLET PIPE)

INTERIOR OF SOUTH DOOR TRENCH (OUTLET PIPE TO CENTER TRENCH) AT RIGHT)

AUTOMATIC SPRINKLER SYSTEM RISER

FIRE DEPARTMENT CONNECTION (AT NW CORNER OF H-3 BUILDING)

FLOOR TRENCH REINFORCEMENT



H-3 BUILDING FLOOR SLAB REINFORCEMENT

REINFORCEMENT IN CONCRETE MASONRY WALLS

Certificate of Occupancy

City of Albuquerque
Land Resources and Regulation Department
Code Administration Division

This Certificate, issued pursuant to the requirements of Section 308 of the Albuquerque Uniform Administrative Code, certifies that at the time of issuance this structure was in compliance with the above code and other technical codes and city ordinances regulating building construction or use.

Building Address 2720 Girard Blvd. NE Zip

Portion of Building Storage Building (Return & Fill Shelter Only)

Use Classification Commercial (Liquid Storage) Bldg. Permit No. 9109460

Occupancy Group H.3/H.2 Type of Construction V-N Land Use Zone M-1

Owner of Building Safety-Kleen Corporation Address 2720 Girard Blvd. NE Albuquerque, NM 87111

David L. Steele
CHIEF BUILDING OFFICIAL

By: Vickie Chavez

Date: April 8, 1992

POST IN A CONSPICUOUS PLACE

PLATE 23