



SECOND FLOOR GUEST ROOM RENOVATION PALISADES CONFERENCE CENTER

ROUTE 9W PALISADES, N.Y. 10964

AREA OF WORK

Date Issued to Skanska

No. Date Revisions

Consultant

ALAN W. KRAMER, P.E. CONSULTING ENGINEER

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THE SWITZER GROUP, INC.

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Drawing Title

MECHANICAL FLOOR & PART PLANS

Date

09/20/02

09/20/02

1021519

Soale

Drawn By

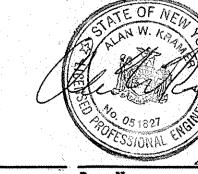
AS NOTED

Proj. Mgr.

Checked By

CGM

Seal



Floor No.

2ND M

PLUMBING SPECIFICATIONS

1. GENERAL CONDITIONS

- a. The entire installation shall conform with the rules and regulations of the New York State Building and Plumbing Code, IBM Palisades site standards and all other agencies having jurisdiction.
- b. This contractor shall obtain and pay for all permits and approvals required to perform the work.
- c. This contractor is responsible for initiating. maintaining and supervising all safety precautions in accordance with O.S.H.A. requirements.

2. WORK INCLUDED

- a. This contractor shall furnish all supervision, labor, materials, equipment and appliances required for a complete plumbing and drainage installation as shown on the drawings, including but not limited to the following principal items:
- 1. Relocation and/or replacement of existing Plumbing fixtures.
- 2. Ssanitary drainage and vent piping.
- 3. Hot and cold water piping to new fixtures.
- 4. Rough—in and final connections to plumbing
- 5. All necessary hangers and incidentals as required to make each system complete.
- 6. Insulation of hot and cold water piping.
- 7. Tests and adjustments of each system to have the same in perfect operating condition, all to the satisfaction of the Owner.
- 8. All valves, check valves, stops, fittings, etc.
- 9. Guarantees and service for a period of one year

3. WORK BY OTHERS

a. Painting. 4. WORK IN CONNECTION WITH OTHER TRADES

- a. This Contractor shall coordinate his work in a effort to minimize conflicts with other trades.
- b. This Contractor is hereby cautioned that the work shown on these plans is to be performed on an occupied facility. This work shall not interfere with the operation of the facility. Access to the facility & building the by Mechanical Contractor shall be as directed by the
- c. This Contractor shall be responsible for coordinating all work under this section with other contractors and trades affected by his work. All work shall be coordinated prior to installation.

5. REMOVAL OF DEBRIS

a. This Contractor shall periodically collect all refuse and debris resulting from his work and shall be removed from the jobsite by this Contractor

6. LAWS, ORDINANCES AND PERMITS

- a. All work shall comply with the NYS Plumbing Code, National Board of Fire Underwriters, IBM Palisades site standards, and any local authorities having jurisdiction.
- b. Contractor shall obtain all final approvals and certificates from all authorities having jurisdiction and pay all fees required.

7. DISCREPANCIES

- a. All peculiarities and limitations of space available for the installation of materials and equipment shall be reported to the Engineer, before commencing with
- b. Once work has commenced it is an indication that the Contractor has assumed full responsibility

- a. This Contractor shall visit the premises to determine the actual conditions involved in this installation. Contractor shall check the layout of the systems with the field conditions.
- b. This Contractor will be responsible for inspecting the building construction shafts, plenums, equipment rooms, etc., to insure that all areas are suitable for the construction intended. When, in the opinion of the Contractor the building conditions will effect system's performance, he will report same to the

9. DRAWINGS AND SPECIFICATIONS

a. The drawings and specifications shall be considered cooperative so that anything shown on one or described in the other shall be furnished and installed as though called for in both.

- a. This Contractor shall test all materials and equipmen furnished or installed under this contract to see that they operate properly, quietly, and in a satisfactory manner and are free from defects of any description.
- b. All equipment shall be started-up, tested, adjusted and generally de-bugged in accordance with manufacturer's specification and recommendations.
- c. This Contractor shall check all equipment for proper system operation.
- d. All defective material and workmanship disclosed by the tests shall be removed and replaced with new, and
- e. Furnish necessary equipment, material and labor for inspecting and testing plumbing and piping system as required by local authorities and to demonstrate satisfactory function and tightness.
- f. All piping chall be tested prior to encasement by other

11. SHOP DRAWINGS

- a. Before fabricating any work, this Contractor shall prepare and submit for approval, equipment cuts for all plumbing equipment installed on the project.
- b. The number of copies of each submittal shall be as directed by the Owner.
- c. At the completion of the project, provide two (2) sets of clean "as-built" drawings to the Owner.
- d. Approval of manufacturer's drawings shall not relieve this Contractor of the responsibility to adhere to the intent of the plans and specifications, or the necessity to fit the required apparatus into the space
- e. This Contractor shall submit manufacturers shop drawings and/or catalog cuts of all equipment including fixtures, valves, piping, etc. and shall submit samples whenever requested to do so by the

13. SCHEDULING

13. GUARANTEES

final acceptance.

water flows clear.

- a. All work to be performed by this Contractor under this contract shall be performed in accordance with the schedule to be determined by the Owner. This Contractor must adjust his schedule, and its manpower requirements to conform with the Owner's schedule.
- b. All preparatory work possible shall be performed prior to the delivery or relocation of equipment. All equipment shall be connected, tested, and left ready for operation as soon as possible after installation.

a. All installations, materials, equipment and work furnished and performed under these specifications shall be guaranteed for one year from the date of the

b. The guarantee shall cover all workmanship, materials and equipment.

14. CLEANING

- a. Cleaning: Clean all pipes and fittings internally before installation. Wipe tubing and fittings clean. After testing, flush all systems completely until
- b. Disinfection of Domestic Water Systems Piping:

hours before flushing.

- 1. After testing all domestic water system piping shall be disinfected in one of the following
- manners, before piping is placed in operation: a. The system or part thereof shall be filled with a solution containing 50 parts per million of available chlorine and allowed to stand for 24
- b. The system or part thereof shall be filled with a solution containing 200 parts per million of available chlorine and allowed to stand for 1

15. CROSS CONNECTIONS

a. No fixture or item of shall be connected directly with the water supply system in such a manner that the cross connection between domestic water supply and drainage system can exist and permit the backflow o sewage or contaminated water to enter or pollute the water supply. This Contractor shall install suitable and approved vacuum breaking devices and/or check valves at points above the overflow of the fixtures or equipment requiring water connections below the

16. PIPING SYSTEMS

- a. General
- 1. All piping shall be run in a neat workmenlike manner, parallel to outside walls, evenly spaced, square, straight, plumb and so as to provide minimum interference with the building function
- 2. All supply valves shall have removable seats.
- 3. Provide heavy gauge plated floor and wall escutcheons.
- 4. Care shall be exercised to locate all piping and suspended equipment as tight to the structure as possible.
- 5. Take care to prevent contact between pipes and building structure which could cause noises upon
- 6. All piping shall be anchored and supported in a manner so as to maintain the required pitch of lines, prevent vibration and allow for expansion and contraction in the desired direction. Hangers and supports shall be of adequate size and capacity to carry the piping, its contents and insulation.
- 7. Furnish and install sleeves where pipes pass through walls, floors, roofs or partitions. Sleeves shall be standard steel pipe to accommodate pipe and covering. Where pipes pass thru Fire Rated Construction the annular space between the pipe and sleeve shall be filled with Fire Retardent

b. Sanitary Drain and Vent Piping

- 1. Furnish and install a system of sanitary drainage piping and vent piping from all water consuming fixtures and equipment as shown on the drawings and as herein specified.
- 2. Furnish and install cleanouts in interior house drains at maximum intervals of 50 feet and at the base of all stacks and at all changes in direction.
- 3. Cleanouts shall be the same size as the pipe but need not be larger than 4 inches. Cleanouts shall be Wade W-6000 or approved equal.
- 4. Sanitary drain and Vent piping shall be Cast Iron piping with No-Hub stainless steel couplings.
- 5. Where drain or vent piping is installed through masonry floors or partitions sleeves shall be provided. This Contractor shall provide a firestopping material to fill the annular space between the sleeve.

c. Hot and Cold Water Piping

- 1. This Contractor shall furnish and install a complete system of water distribution piping to all water consuming fixtures and equipment as shown on the plans.
- 2. Piping shall be type L hard drawn copper tubing. with brazed no lead fittings.
- 3. Valves shall be Jenkins Fig. 32A or approved equal
- 4. This contractor shall coordinate piping runs with other Contractors to provide sufficient clearance
- around Mechanical and Electrical equipment. 5. Water piping to all submerged connections or hose valves shall be equipped with approved vacuum

dishwashers and clothes washing machines.

6. Separate hot and cold water piping by at least 6 inches wherever possible.

breakers and check valves. Included in this work are all

17. FIXTURES

- a. Install plumbing fixtures where indicated on the plans Before installing fixtures, contractor shall flush lines. remove drips and other foreign matter. Fixture installation shall be complete with all hangers, piping, lockshield stops, fittings, traps, vents,
- b. Finish of exposed piping in all finished areas shall be as approved by the Architect.
- c. See Architectural drawings for locations and mounting heights of all plumbing fixtures including handicapped
- d. Each fixture shall have separate control valves or stops located so as to be accessible.

a. General

18. INSULATION

- 1. This Contractor shall furnish and install insulation as indicated on the drawings and as herein specified.
- 2. Apply insulation only after all tests have been completed. Use insulation and finish materials including adhesives, cements and mastics which conform to the requirements of all codes and ordinances having jurisdiction and installed in accordance with the manufacturers recommendations.
- 3. Fire Hazard Rating not to exceed 25 for flame spread and 50 for fuel contributed and smoke
- 4. Exposed fittings shall be covered with molded plastic covers with self sealing edges.

5. Insulation shall be Manville or approved equal

b. Hot and Cold Water Piping: 1/2 inch thick, heavy density fiberglass pipe insulation, with white flame retardent vapor barrier jacket of aluminum foil laminated to kraft paper. Seal all joints and seal strips with vapor barrier adhesive compound. Fittings shall be covered to an equal thickness and finished in accordance with manufacturer's recommendations.

19. INSERTS, HANGERS, SUPPORTS AND BRACKETS

- This Contractor shall furnish and install all inserts. hangers, supports, brackets, etc. as indicated on the drawings and as herein specified, and as required to suit
- a. Where thermal movement in the pipe line will occur, the pipe hanger assembly must be capable of supporting the line in all operating conditions. b. Piping supports shall be attached to floors and walls

by Hilti or approved equal. Installation methods shall

with suitable hangers and attachments as manufactured

be in accordance with the manufacturers recommendations. c. Supplementary Steel, where required for the installation of Mechanical work herein specified,

shall be furnished by this Contractor.

B-LINE B22 SERIES

B-LINE B2000 SERIES CLAMP

PIPE SUPPORT DETAIL

STEEL CHANNEL ----ANCHORED TO WALL

MAXIMUM 6'-0" ON CNTR

- d. Pipe Hangers for horizontal piping, unless otherwise noted, shall be of the clevis type, similar to Fee & Mason figure 239. Provide copper plated hangers for copper piping and steel hangers for steel and Cast
- e. Support piping within 1 foot of each horizontal elbow and maximum spacing of the hangers shall be in accordance with the Mechanical Pipe joint

SPRINKLER SPECIFICATIONS

1. GENERAL

- a. All new connections to existing system shall be made in an approved manner.
- b. Locations and sizes of existing piping and sprinkler heads shall be verified on the job by the
- c. This Contractor shall not interrupt any of the existing building services nor interfere with the operation of the building in any way without the
- permission of the Owner. d. Where new work makes temporary shutdowns of service unavoidable, shutdowns shall be made at night or at
- such time as will cause the least interference with the established operating routine of the building, without additional cost to the Owner. e. This Contractor shall arrange to work continuously
- including overtime, if required, to assure that service will be shutdown only during the time actually required to make the necessary connections to existing work.
- f. All shutdowns of the existing system shall be coordinated with the Owner at least 48 hours in
- g. The drawings are generally diagrammatic and are intended to convey the Scope of Work and indicate general arrangement of the equipment, piping, etc. This Contractor shall prepare working drawings and Hydraulic Calculations to confirm and establish pipe sizes and location of heads, required flows and pressures.

2. SCOPE OF WORK

a. This Contractor shall furnish all labor, materials, equipment. Contractor services and permits necessary for the complete removal, relocation, reconnection and installation of new automatic wet pipe sprinkler heads including piping, hangers and testing as indicated on the drawings and as herein specified.

3. WORK BY OTHERS

- a. Patching of General Construction work
- 4. DRAWINGS AND SPECIFICATIONS
- a. The drawings and specifications shall be considered cooperative so that anything shown on one or described in the other shall be furnished and installed as though called for in both.

5. REMOVAL OF DEBRIS

- a. This Contractor shall periodically collect all refuse and debris resulting from his work, and shall store same in areas designated by the Owner.
- b. Refuse and debris shall be removed from the jobsite by the General Contractor.

6. RULES AND REGULATIONS

- a. All Sprinkler work and materials shall be installed in strict conformity with all requirements of the New York State Building code, National Fire Prevention Association (NFPA), IBM Palisades Site Standards and all codes and authorities having
- b. This Contractor shall obtain and pay for all licenses, permits and certificates required

- a. This Contractor shall visit the premises to determine the actual conditions involved in this installation. Contractor shall check the layout of the systems with the field conditions.
- b. This Contractor shall verify the actual locations where new Sprinkler work will connect to the existing system, and for clearances with structural members. All costs of any kind whatsoever which are incurred through limitations of the existing conditions shall be included in the this Contractor's bid.
- c. The drawings show the general arrangement of the existing Sprinkler work and indicates points of connection to existing pipes and suggests routing of new piping. However, it is not the intention of the drawings to show every offset, obstruction or structural condition, it shall be the responsibility of this Contractor to install the work in such a manner that it will conform to the

8. DISCREPANCIES

- a. All peculiarities and limitations of space available for the installation of materials and equipment shall be reported to the Engineer, before commencing
- with any work.
- 9. GUARANTEE, MAINTENANCE AND SERVICE a. This contractor shall guarantee all work for a period of one year from date of acceptance of the
- b. The quarantee shall cover all workmanship, materials c. The contractor shall provide all service to the

owner as may be required. Service calls under this

augrantee shall be made on during normal working

1. SIZE HANGER AND CLAMP TO ADEQUATELY SUPPORT LOAD

(REFER TO B-LINE HANGER CATALOG).

hours and shall be performed at no charge to the 10. COOPERATION WITH OTHER TRADES

ANCHOR

a. This Contractor shall coordinate his work in an effort to minimize conflicts with other trades.

11. SPRINKLER HEADS

- a. All sprinkler heads shall be UL, FM, NFPA and New York State approved and shall be ordinary temperature rating (160 degree Fahrenheit to 165 degree Fahrenheit), unless otherwise noted on the drawing and/or where higher degree ratings are required to prevent accidental discharge of the heads.
- b. All new heads shall be 1/2" standard sprinkler, closed fusible link spray type, with 1/2" discharge orifice, cast brass in unfinished areas and chrome plated cast brass in finished greas.
- c. All new exposed sprinkler heads shall be chrome plated pendant mounted Reliable Model G or approved
- d. All new concealed sprinkler heads shall be Reliable

Model G1 or approved equal.

e. Sprinkler heads shall be as manufactured by Reliable Automatic Sprinkler Company, Central Sprinkler Company or approved equal

12. IDENTIFICATION

a. This Contractor shall furnish and install identification signs for inspector test valves and system drain valves as required and in accordance with the requirements of the New York State Building Code and NFPA No. 13 and similar to Reliable Automatic Sprinkler Company, style A and B.

13. HANGERS AND BRACKETS

- a. Sprinkler piping shall be supported from the structure in accordance with the requirements of the New York State Building Code and the NFPA. Hangers and supports shall be specifically approved for use in sprinkler systems.
- b. Where overhead construction does not permit fastening of hanger rods, provide supplemental steel
- framing as required and approved. c. No Sprinkler piping shall be supported from other trades or other piping. Hangers shall be of heavy gauge construction suitable for the size of pipe to be supported. All materials shall be wrought or
- malleable iron or steel. d. All hangers and supports including rods, inserts, etc. shall be dipped in zinc chromate primer prior
- e. Pipe supports shall be as manufactured by F&S, F&M. Grinnel or approved equal.

14. PIPING

This Contractor shall furnish and install piping as shown on the floor plans and as herein specified.

York State Building Code and the NFPA.

- a. All pipes, fittings and other appurtenances shall be of the material and weights as required by the New
- b. The complete Sprinkler system shall be pitched down to low points to facilitate draining. Where required, this Contractor shall furnish and install drain valves in the new and existing system.
- c. Pipes passing through fire rated walls shall be provided with a metal pipe sleeve. Space between the pipe and the interior of the sleeve shall be packed with a fire rated material of equal rating to that
- d. Sprinkler piping shall be ASTM A120 schedule 40 seamless steel pipe with ASTM A234 standard weight, cast iron, threaded or flanged sprinkler fittings. black steel screwed fittings.

e. The Contractor may substitute Victaulic pipe couplings and fittings with the approval of the

15. TESTING a. Upon completion of the installation work, this Contractor shall prepare the Certificate of Materials and Tests, and shall secure the final

inspection and approval by all agencies having

iurisdiction including the local fire marshall. b. This Contractor shall test all materials and equipment furnished or installed under this contract in accordance with the New York State Building Code

and the NFPA.

- 16. SHOP DRAWINGS AND SUBMITTALS a. This Contractor shall, at his own cost and expense, furnish to the Architect copies of detailed shop drawings, if required for the work to be performed. Said detailed shop drawings are to be prepared by a competent draftsperson. The Contractor shall
- distribute copies of the shop drawings to all other trades as required. b. This Contractor shall submit manufacturers short drawings and/or catalog cuts of all equipment including sprinkler heads, valves, etc. and shall

submit samples whenever requested to do so by the

SLAB ABOVE

RED HEAD TYPE

-SLEEVE ANCHOR

THREADED ROD

CLEVIS HANGER

- B-LINE FIG B3100 OR APPROVED EQUAL

OR APPROVED EQUAL

LENGTH AS REQUIRED

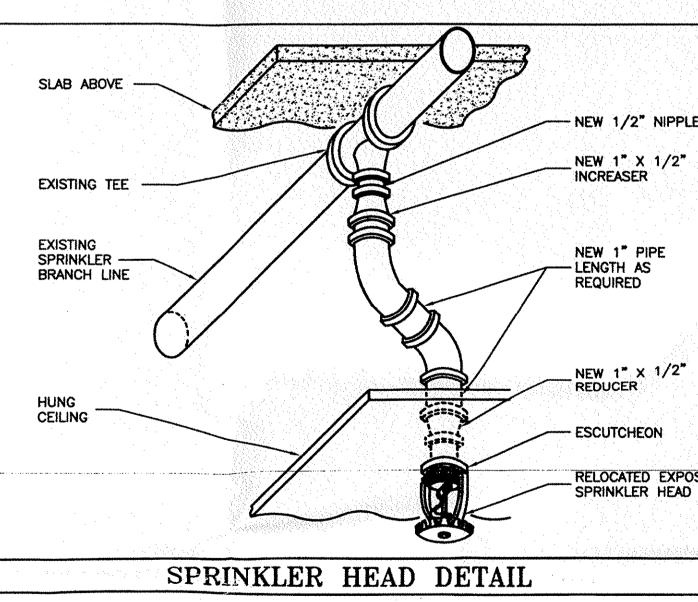
17. AS-BUILT DRAWINGS

a. This Contractor shall furnish an "As Built" package to the Owner for the piping, sprinkler heads, etc.
"As Built" package shall include (6) blueprints

and one mylar reproducible.

PIPE HANGING DETAIL

18. FIRE STOPPING a. All sprinkler piping passing through walls shall have the space between wall & pipe on sleeve & pipe sealed with NYS approved fire stopping material.



____ COLD WATER PIPING HOT WATER PIPING -----No. Date Issue CLEANOUT FLEXIBLE TUBING 10/3/02 ISSUED TO SKANSKA EXISTING SPRINKLER HEAD TO REMAIN, ? DENOTES HEAD TYPE EXISTING SPRINKLER HEAD TO BE DEMOLISHED NEW EXPOSED SPRINKLER HD NEW UPRIGHT SPRINKLER HD NEW PENDANT SPRINKLER HD NEW CONCEALED SPRINKLER HD ---- EXISTING SPRINKLER PIPE **ABBREVIATIONS** DOMESTIC HOT WATER EXIST EXISTING DCW DOMESTIC COLD WATER SPRINKLER No. Date Revisions EXPOSED SPRINKLER HEAD UPRIGHT SPRINKLER HEAD PENDANT SPRINKLER HEAD CONCEALED SPRINKLER HEAD

SYMBOLS

NEW PIPING

BALL VALVE

GATE VALVE

CHECK VALVE

PIPING DROP/RISE

EXISTING PIPING TO REMAIN

PIPING TO BE REMOVED

SECOND FLOOR GUEST

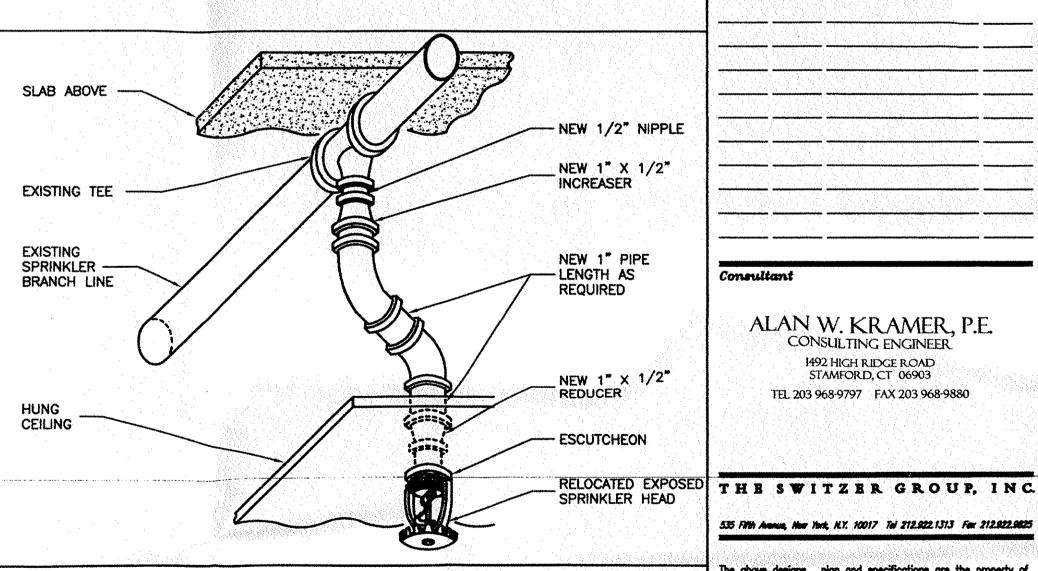
ROOM RENOVATION

PALISADES CONFERENCE

CENTER

ROUTE 9W

PALISADES, N.Y. 10964



SUPER-FLO ADJUSTABLE TO DRAIN FINISED FLASHING -STRAINER 12 1/2"

FLOOR DRAIN DETAIL

Drawing Title MECHANICAL DETAILS AND SPECIFICATIONS

2ND

Job No.

Dwg No.

ALAN W. KRAMER, P.E.

1492 HIGH RIDGE ROAD

STAMFORD, CT 06903

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