PIPING NOTES
REFER TO SPECIFICATION SECTION 13150 FOR DETAILS

1. PIPING:

1a. ALL PIPING SHALL BE IN ACCORDANCE WITH THE WISCONSIN STATE PLUMBING CODE AND WISCONSIN DEPARTMENT OF PUBLIC HEALTH CODE. THE A.S.T.M. DESIGNATION NUMBER D-1785, AND THE NSF SEAL FOR POTABLE WATER.

1b. ALL PIPING DESIGNED FOR 6'/SECOND MAXIMUM SUCTION, 8'/SECOND MAXIMUM PRESSURE, AND 3'/SECOND MAXIMUM GRAVITY.

1c. MAIN DRAIN PIPING SHALL CARRY 100% OF RECIRCULATION RATE AT A VELOCITY NOT TO EXCEED 5'/SECOND.

1d. ALL ZERO DEPTH GUTTER, GUTTER AND INLET RETURN PIPING MUST BE LAID ON A GRADE SO IT WILL DRAIN TO THE SURGE TANK COMPLETELY BY GRAVITY TO PREVENT DAMAGE DURING FREEZING WEATHER. MAIN DRAIN LINE PIPING MUST BE LAID ON A GRADE SO:
(A) ALL PIPING FROM BENEATH THE POOL TO THE ELEVATION CHANGE SHALL PITCH TO DRAIN TO THE POOL MAIN DRAIN SUMPS AND;
(B) ALL PIPING FROM THE ELEVATION CHANGE TO THE SURGE TANK SHALL PITCH TO DRAIN TO THE SURGE TANK.
IN ALL INSTANCES WHERE GRAVITY DRAINAGE IS NOT PROVIDED; THE CONTRACTOR SHALL INSTALL DRAIN VALVES SO THAT ALL LINES CAN BE DRAINED COMPLETELY TO SURGE TANK OR ANOTHER APPROVED LOCATION. DRAINAGE PLUGS SHALL BE PROVIDED IN THE PIPING SYSTEM TO ALLOW FOR DRAINING OF POOL PIPING. CONTRACTOR SHALL PROVIDE OPERATION AND WINTERIZATION INSTRUCTIONS TO OWNER.

1e. ALL ELEVATIONS TO BE FIELD VERIFIED TO ALLOW FOR PROPER PITCH AND DRAINAGE. PITCH ~APPROX. 1" / 10'-0". POOL CONTRACTOR SHALL MAKE EVERY EFFORT TO CURTAIL THE USE OF FITTINGS TO REDUCE HEAD.

1f. THIS DRAWING IS INTENDED FOR SCHEMATIC USE ONLY!! FINAL LOCATIONS SHALL BE FIELD VERIFIED WITH ALL OTHER TRADES, BY CONTRACTOR.

1g. CONTRACTOR SHALL COORDINATE ALL WORK WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL AND STRUCTURAL DRAWINGS.

2. DRAINS:

2a. ALL DRAIN FITTINGS TO CARRY 100% OF RECIRCULATION RATE AT A VELOCITY NOT TO EXCEED 1.5'/SECOND THROUGH THE CLEAR AREA OF THE GRATE.

3. PRESSURE GAUGES:

3a. PRESSURE GAUGES TO BE INSTALLED ON ALL PUMP DISCHARGES. COMPOUND GAUGES TO BE INSTALLED ON ALL PUMP SUCTION.

4. VALVES:

4a. PROVIDE BACKWATER VALVES & GEAR OPERATED SUB-SURFACE BUTTERFLY VALVES WITH VALVE EXTENSION FOR ALL POOL & SURGE TANK DRAIN LINES.

4b. EACH VALVE SHALL HAVE A PERMANENT IDENTIFYING LABEL OR TAG ATTACHED TO IT. THE SEQUENCE OF OPERATION, BRIEFLY STATED, SHALL BE PROMINENTLY DISPLAYED.

5. FLOWMETERS:

5a. FLOWMETER SHALL BE PROVIDED IN THE RECIRCULATION PUMP DISCHARGE LINE AND EACH INLET RETURN LINE. INSTALL ON A STRAIGHT LENGTH OF PIPE AT A DISTANCE OF AT LEAST 10 PIPE DIAMETERS DOWNSTREAM AND 5 PIPE DIAMETERS UPSTREAM FROM ANY VALVE, ELBOW OR OTHER SOURCE OF TURBULENCE OR PER MANUFACTURER'S SPECIFICATIONS.

5b. MAIN FLOWMETER SHALL BE USED TO MONITOR BACKWASH RATE.

6. FILTERS:

6a. FILTER SHALL BE PROVIDED WITH THE FOLLOWING APPROPRIATELY LOCATED ACCESSORIES: PRESSURE GAUGES, BACKWASH SIGHT GLASS ON WASTE DISCHARGE LINE AND VALVED AIR RELIEF PIPING, VALVED DRAIN LINE.

7. HEATERS:

7a. EQUIPPED WITH THERMOMETERS, 80-240 DEGREES F WITH 2 DEGREE GRADUATIONS; AUTOMATIC TEMPERATURE LIMITING DEVICE; FLOW SWITCH; HEATER BYPASS VALVE; ALL INFLUENT/EFFLUENT HEATER PIPING TO BE METALLIC; PRESSURE RELIEF VALVE TO BE PROVIDED AND PIPED TO WITHIN 6" OF FLOOR. THE AUTOMATIC TEMPERATURE SWITCH ON THE POOL HEATER SHALL BE SET FOR A MAXIMUM OF 100 DEGREES. FURNISH AND INSTALL THERMOMETERS IN INLET AND OUTLET PIPING TO HEATER AND DOWNSTREAM IN THE BLENDED WATER SYSTEM.

PIPING NOTES	PL200-2
	SCALE: NONE

ARROWS DENOTE DIRECTION OF FLOW

INLET SUPPLY
ACTIVITY SUPPLY
ACTIVITY SUPPLY 2
GEYSER SUPPLY

SLIDE SUPPLY
FLUME SUPPLY

GUTTER DRAIN LINE
MAIN DRAIN LINE

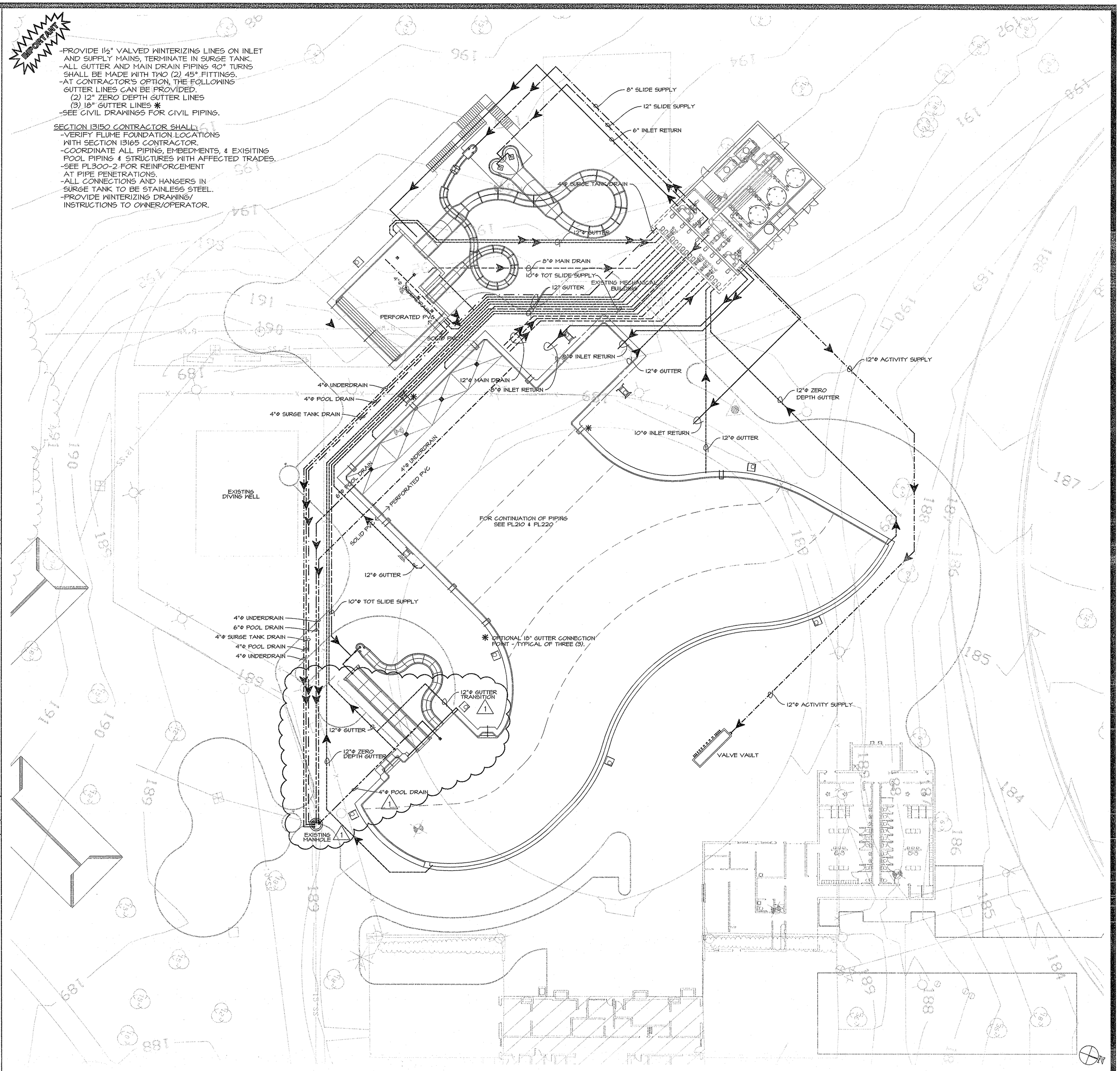
POOL UNDERDRAIN
POOL DRAIN
SURGE TANK DRAIN

PIPING SCHEMATIC LINETYPE KEY	PL200-3
	SCALE: NONE

IMPORTANT

- PROVIDE 1½" VALVED WINTERIZING LINES ON INLET AND SUPPLY MAINS, TERMINATE IN SURGE TANK.
- ALL GUTTER AND MAIN DRAIN PIPING 90° TURNS SHALL BE MADE WITH TWO (2) 45° FITTINGS.
- AT CONTRACTOR'S OPTION, THE FOLLOWING GUTTER LINES CAN BE PROVIDED.
  (2) 12" ZERO DEPTH GUTTER LINES
  (3) 18" GUTTER LINES ✱
- SEE CIVIL DRAWINGS FOR CIVIL PIPING.

SECTION 13150 CONTRACTOR SHALL
- VERIFY FLUME FOUNDATION LOCATIONS WITH SECTION 13165 CONTRACTOR.
- COORDINATE ALL PIPING, EMBEDMENTS, & EXISITING POOL PIPING & STRUCTURES WITH AFFECTED TRADES.
- SEE PL300-2 FOR REINFORCEMENT AT PIPE PENETRATIONS.
- ALL CONNECTIONS AND HANGERS IN SURGE TANK TO BE STAINLESS STEEL.
- PROVIDE WINTERIZING DRAWING/ INSTRUCTIONS TO OWNER/OPERATOR.



AQUATIC AREA SITE PLAN	PL200-1
FOR SCHEMATIC USE ONLY	SCALE: 1/16"=1'-0"

GRAEF ANHALT SCHLOEMER and Associates Inc.

345 North 95th Street
Milwaukee, Wisconsin 53226
414 259-1500
FAX 259-0037

Other Offices Located in:

Green Bay, Wisconsin
Madison, Wisconsin
Chicago, Illinois
Colorado Springs, Colorado

WATER TECHNOLOGY, INC.
Aquatic Designers and Engineers
Atlanta, GA • Beaver Dam, WI • Cedar Rapids, IA
P.O. Box 494 / W3664 Beaverland Parkway
Reliner Dam, Wisconsin 53916
Voice: 414-887-7272 Fax: 414-887-7999

©Copyright WATER TECHNOLOGY, INC. 1995
This Document and the ideas, renderings and other contents contain therein are the sole property of Water Technology, Inc. and may not be disseminated, copied, reproduced or otherwise used without prior written consent of Water Technology, Inc.

WTI PROJECT # 95023

PROJECT NAME:
GREENFIELD AQUATIC CENTER

SHEET TITLE:
AQUATIC SITE PIPING PLAN

NO.	DATE	REVISIONS	BY
2	01/02/96	REISSUED	SMF
1	07/10/95	ADDENDUM #1	SMF

PROJECT NUMBER:
DATE: 01/02/96
DRAWN BY: SMF
CHECKED BY: DGM
PROJECT MANAGER: DGM
FILE NAME:

SHEET NUMBER
42277 PL200

13-A17-220 P-14-4-34