

RIVER RUN WASTEWATER TREATMENT PLANT

WORCESTER COUNTY, MARYLAND

GENERAL NOTES

- EXISTING UTILITY LOCATIONS ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION, AND ARE SHOWN ONLY FOR THE CONTRACTOR'S CONVENIENCE. THE CONTRACTOR SHALL VERIFY TO HIS OWN SATISFACTION LOCATION, SIZE, MATERIALS, AND DEPTHS OF ALL UTILITIES PRIOR TO EXCAVATION. CONTRACTOR SHALL CALL "MISS UTILITY" AT 1-800-441-8355 AT LEAST 48 HOURS PRIOR TO EXCAVATION.
- AERIAL PHOTOGRAPHIC SURVEY WAS PERFORMED BY KARY CONSULTANTS, GREAT FALLS, VA., MARCH 1990 AND UPDATED BY MECHANICAL ENGINEERING CONSULTANTS, INC., WASHINGTON, D.C., FEBRUARY 1994. PROPERTY LINES AND RIGHT OF WAY LINES ARE SHOWN FROM INFORMATION SUPPLIED BY L.E. BUNTING SURVEYS, INC.
- FITTINGS SHOWN ON PLANS ILLUSTRATE ANTICIPATED SIZE AND ANGLE OF DEFLECTION. THIS INFORMATION IS SHOWN FOR GENERAL INFORMATION AND IS NOT GUARANTEED. ACTUAL SIZE AND ANGLE MAY VARY DUE TO FIELD CONDITIONS. THE CONTRACTOR SHALL NOT BE ENTITLED TO ADDITIONAL COMPENSATION FOR CHANGES RESULTING FROM SUCH CONDITIONS.
- FORCE MAINS AND OTHER PRESSURE SEWER PIPING SHALL BE INSTALLED WITH THE DEPTH OF BURY AS INDICATED ON PROFILE DRAWINGS, OR WHERE NO PROFILE DRAWING IS PROVIDED, SHALL BE INSTALLED WITH 3'-1/2' FEET OF COVER OR AS DETAILED. CONTRACTOR SHALL NOT CREATE HIGH POINTS IN THE FORCE MAINS.
- MAINTAIN MINIMUM 10 FOOT HORIZONTAL SEPARATION BETWEEN WATER PIPING AND SEWER OR SLUDGE PIPING. MAINTAIN MIN. VERTICAL CLEARANCE OF 1 FOOT BETWEEN SINKER OR WATER PIPE AND CULVERT PIPES, HEADWALLS, OTHER UTILITIES, AND STRUCTURES.
- THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY DEVIATION FROM THIS PLAN.
- THE ONE-HUNDRED YEAR FLOOD PLAIN IS ESTIMATED TO BE ELEVATION 7.0, OR LESS, BASED ON THE FLOOD INSURANCE RATE MAP, WORCESTER COUNTY, MARYLAND. PANELS 25 OF 256 COMMUNITY PANEL NO. 08083. EFFECTIVE FEB. 15, 1979. ONE-HUNDRED YEAR FLOOD AREAS ARE DESIGNATED ZONE A; FLOOD HAZARD FACTORS NOT DETERMINED.
- SYSTEM DESIGN BASED ON THE FOLLOWING:
 - RESIDENTIAL UNITS.....350 UNITS x 300 GPD = 105,000 GPD
 - COMMERCIAL/INDUSTRIAL UNITS.....10 UNITS x 3,850 GPD = 38,500 GPD
 - 110 SEATS.....135 GPD x 110 = 14,850 GPD
 - ADD'L. FLOW FOR CHINA SERVICE = 2,150 GPD
 - POOL/BATH HOUSE - 100 PERSONS x 10 GPD = 1,000 GPDTOTAL FLOW GENERATION = 112,000 GPD

THE TOTAL FLOW OF 112,000 GPD WILL BE TREATED IN AN AERATED LAGOON. FLOWS WILL BE DISINFECTED FOR TWO SOURCE DISPOSAL INCLUDING SPRAY AND SUBSURFACE. ALL RESIDENTIAL UNITS SHALL UTILIZE EXISTING PDS FOR DISPOSAL (Q = 12,300 GPD), THEREFORE FLOW TO SPRAY IRRIGATION = 112,000 - 12,300 = 99,700 GPD.

- STORAGE FACILITIES:

IRRIGATION STORAGE WILL INCLUDE THE FOLLOWING VOLUME:
99,700 GPD x 60 DAYS = 5,982,000 GPD (5.98 MG)

- TREATMENT ASSUMPTIONS:

INFLUENT BOD₅ = 220 MG/L
INFLUENT TSS = 220 MG/L
INFLUENT NH₃ = 25 MG/L
EFFLUENT BOD₅ = 30 MG/L
EFFLUENT TSS = 30 MG/L
EFFLUENT COLOUR = < 3 JPN**

** SPRAY TSS MAY NOT EXCEED 90 MG/L
** FARMWAY AREAS ONLY

- TREATMENT DESIGN

TYPE - EXTENDED REMOVAL/ACTIVATED SLUDGE LAGOON WITH INTEGRAL CARRIER FOR SLUDGE SEPARATION AND RECYCLE.
DESIGN CRITERIA -
F/M RATIO = 0.05
SRT = 1.42 DAYS
HRT = 40-60 DAYS

SLUDGE HOLDING/DECANT
TYPICAL SLUDGE CONCENTRATION - 3 TO 5% FOR LIQUID DISPOSAL
VOLUME = 3,700 CF

- AERATED LAGOON BASIN

DEPTH = 10 FEET
REACTOR VOLUME = 12,600 ACRES
CLARIFIER DESIGN - 300 GPD/FT
REACTOR LOADING - 5.0 #BOD/1000 CF

- SPRAY IRRIGATION

AREA OF SPRAY AT 27 WEEK ANNUAL AVERAGE:
1 ACRE APPLICATION = 64.83 x 43,560 = 2,824 MG/YR
1 ACRE APPLICATION = 64.83 x 43,560 = 2,824 MG/YR

DESIGN VOLUME = 99,700 GPD x 485 = 38,359 MG/YR
SPRAY AREA REQUIRED - 2,824 = 12.68 ACRES

RESERVE REQD. WITHOUT PDU'S - 0.25 x 12.68 = 3.22 ACRES

RESERVE REQD. WITH PDU'S - 112,000 x 3.22 AC = 3,167 ACRES

AREAS PROVIDED - (SEE PLAN)
TOTAL AREA = 12.68 ACRES
RESERVE = 6.88 ACRES

THEREFORE, EXPANSION AREAS EXIST TO REPLACE PDU'S IN THE FUTURE.

- SPRAY APPLICATION PROCESS

6 ZONES (4 WOODED, 2 FARMWAY)

APPLICATION RATE ON EACH WOODED SITE IS 2.35 INCHES, 1 DAY PER WEEK, FROM 6 PM TO 6 PM HOURS WITH 6 DAY REST.
FARMWAY IRRIGATION INCLUDES 1.5 HOURS OF SPRAY FOR 6 DAYS WITH 1 DAY REST. TOTAL APPLICATION = 2.35 INCH.

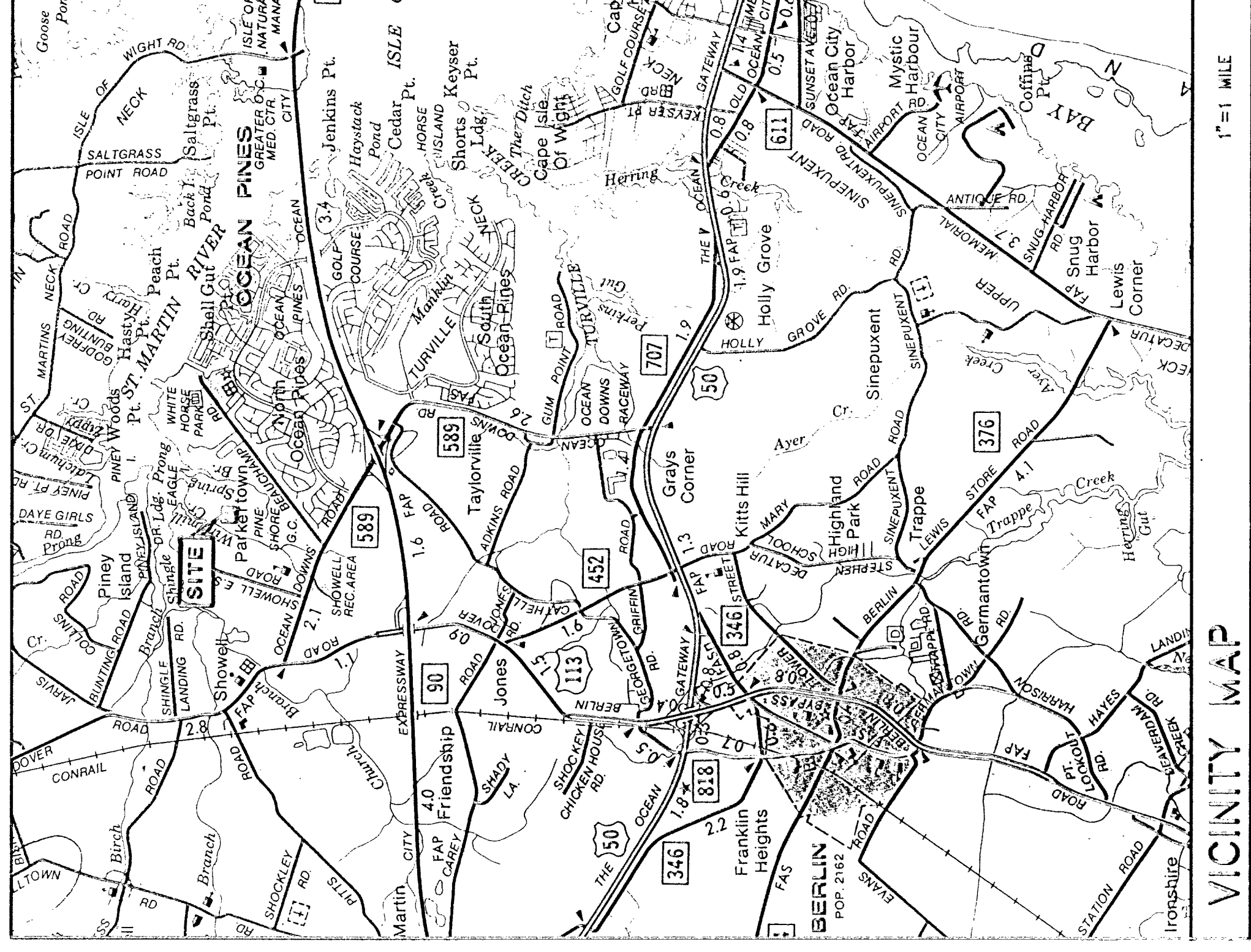
MAXIMUM APPLICATION RATE = 0.25"/HR.

PUMPING RATE = 243 GPM (ALL ZONES)

APPLICATION PROCESS ALLOWS FOR NO SPRAY ON 1 DAY OF INCLEMENT WEATHER PLUS ADJUSTMENT RECOVERY OF 60-DAY STORAGE VOLUME.

INDEX OF DRAWINGS:

- TITLE SHEET
- SITE PLAN
- TREATMENT PLANT PLANS & DETAILS
- SECTIONS & PROFILES
- TREATMENT LAGOON/CLARIFIER DETAILS
- DETAILS
- CHLORINE BUILDING PLAN & DETAILS
- REINFORCEMENT DETAILS
- LAGOON DETAILS
- SEDIMENT CONTROL PLAN
- SEDIMENT CONTROL DETAILS
- ELECTRICAL DETAILS

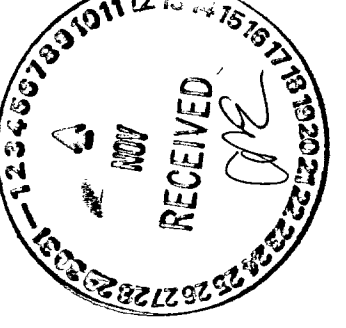


dbf
DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS, ENGINEERS & SURVEYORS
SALESBRURY, MARYLAND 21801

CONTRACT NO. 523A001

MAY, 1994

THESE PLANS HAVE BEEN REVIEWED AND APPROVED
FOR THE COUNTY OF WORCESTER
AND WASTEWATER SERVICES
[Signature]
DIRECTOR, DEPARTMENT OF WATER
AND WASTEWATER SERVICES



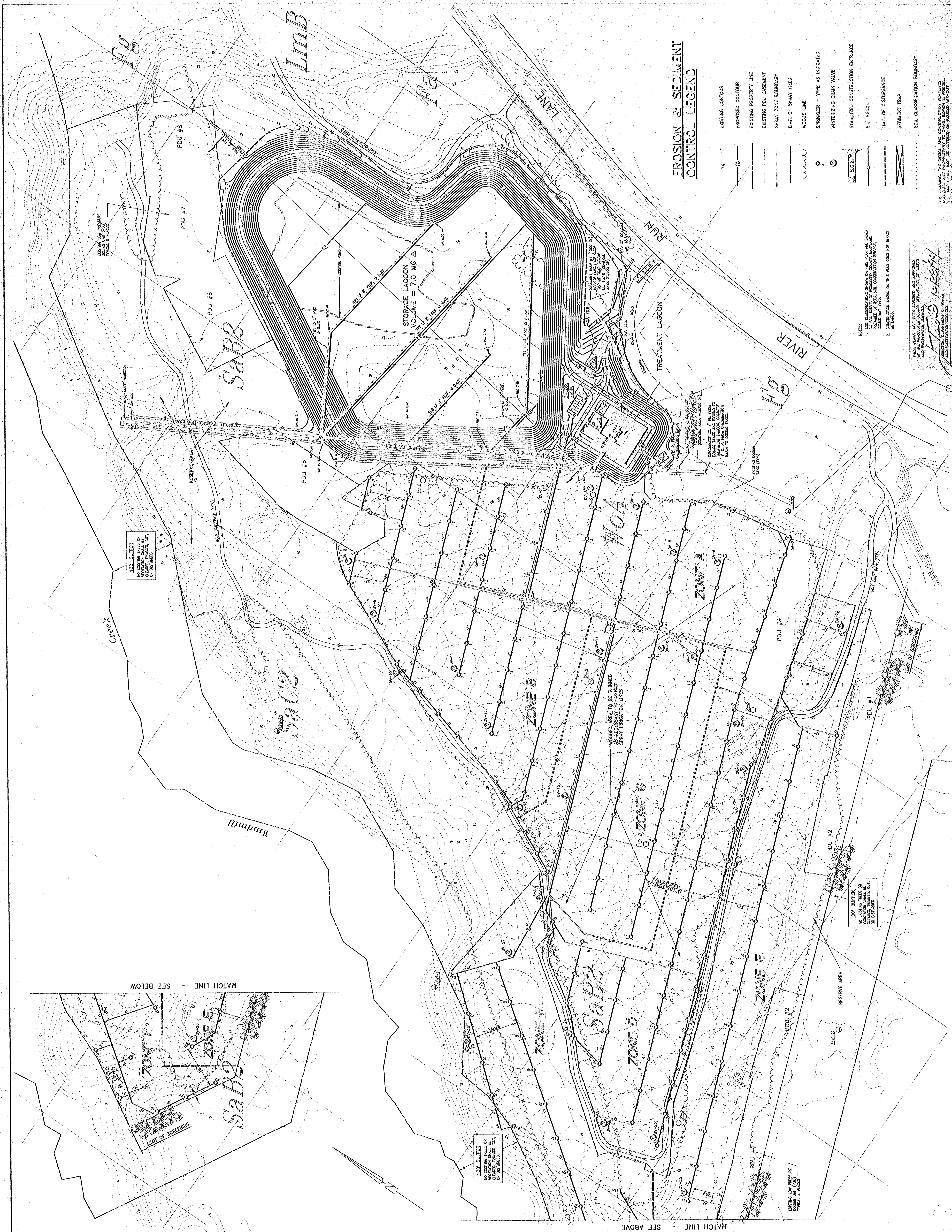
INSPECTORS FIELD Copy

EROSION & SEDIMENT CONTROL LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING PROPERTY LINE
- EXISTING POU EASEMENT
- SPRAY ZONE BOUNDARY
- LIMIT OF SPRAY FIELD
- WOODS LINE
- SPRINKLER - TYPE AS INDICATED
- WATERING DRAIN VALVE
- STABILIZED CONSTRUCTION ENTRANCE
- SILT FENCE
- LIMIT OF DISTURBANCE
- SEDIMENT TRAP
- SOIL CLASSIFICATION BOUNDARY

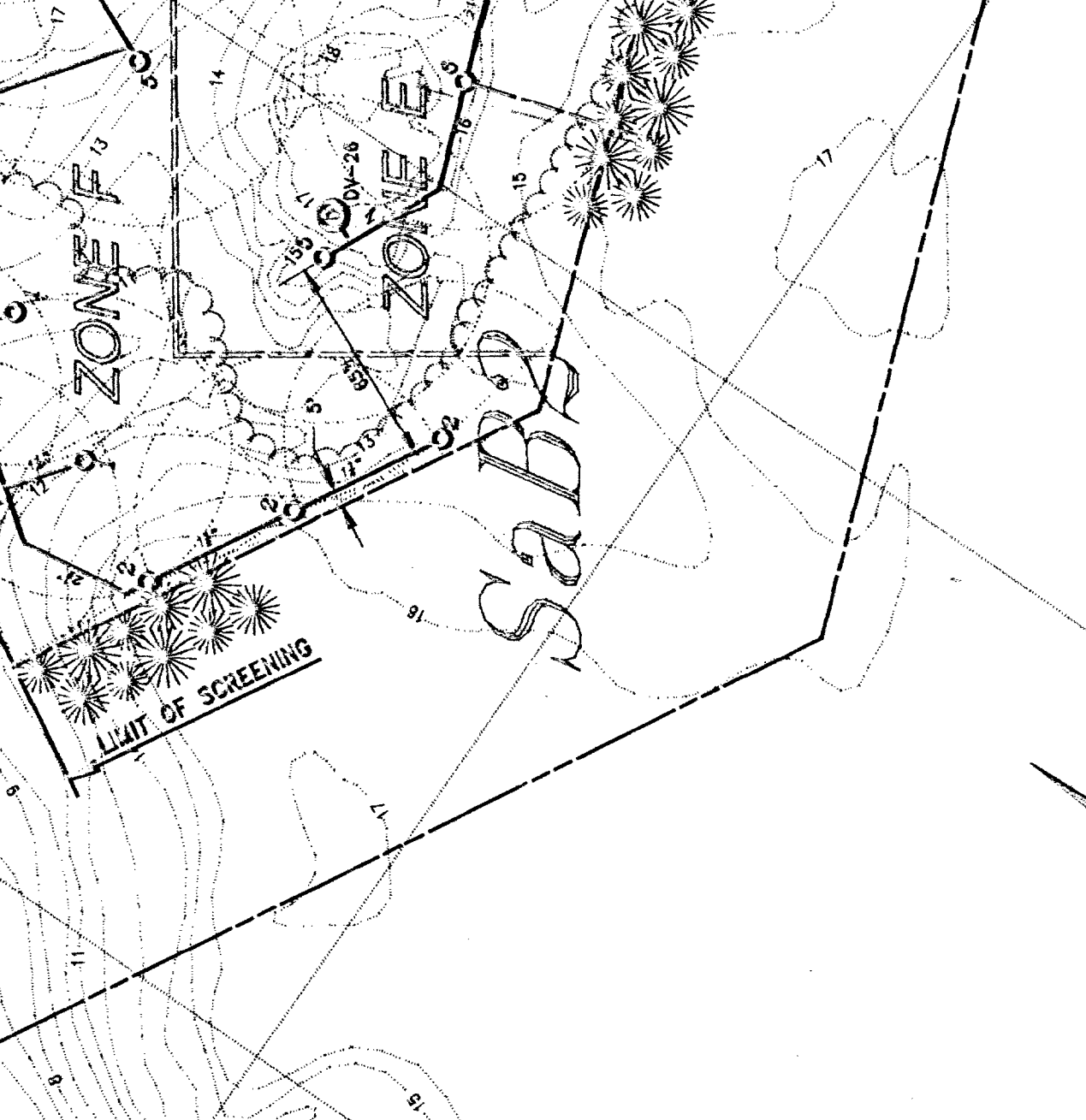
NOTES:
1. SOIL CLASSIFICATIONS SHOWN ON THIS PLAN ARE BASED ON THE MARYLAND COUNTY DEPARTMENT OF WATER AND WASTEWATER SERVICES RECORDS.
2. CONSTRUCTION SHOWN ON THIS PLAN DOES NOT IMPACT WATERSHED.

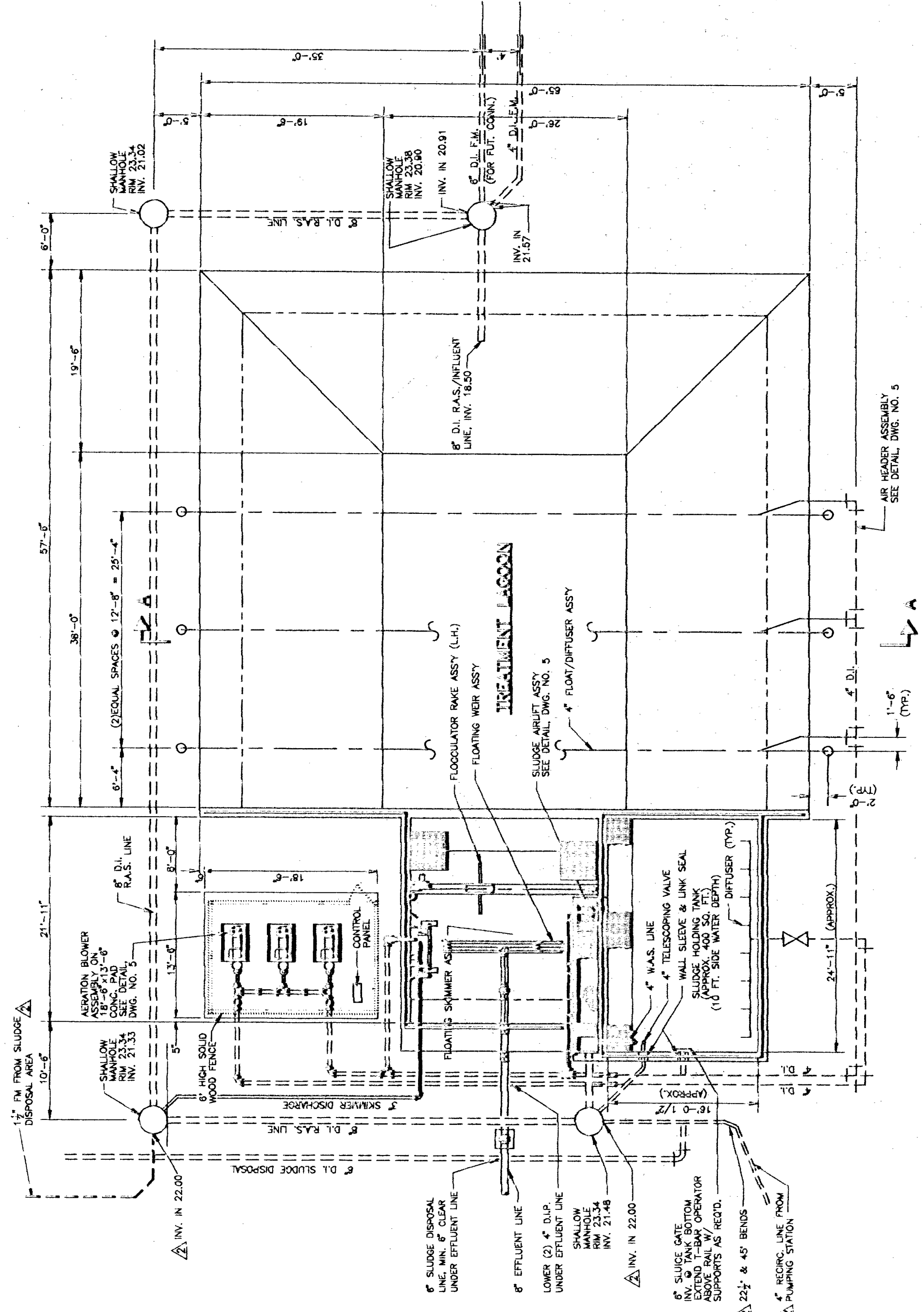
THESE PLANS HAVE BEEN REVIEWED AND APPROVED BY THE MARYLAND COUNTY DEPARTMENT OF WATER AND WASTEWATER SERVICES.
DATE: MAY 1984
PROJECT: W23AC01
DRAWING: 10



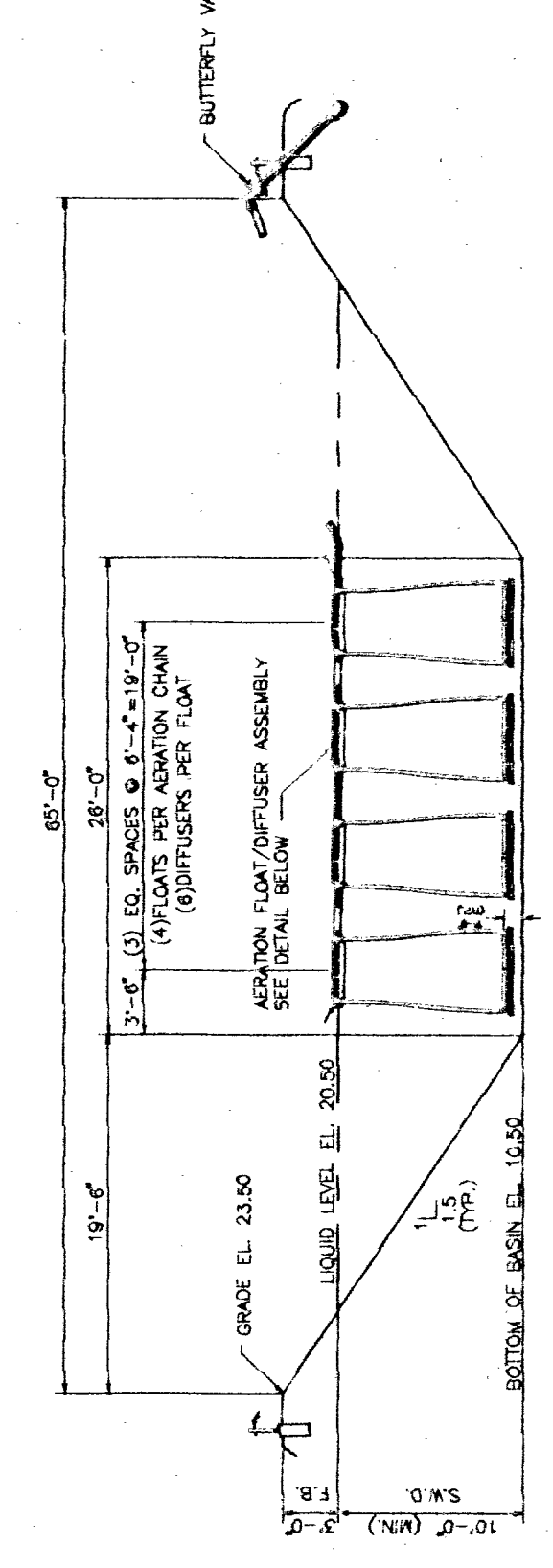
MATCH LINE - SEE BELOW

MATCH LINE - SEE ABOVE

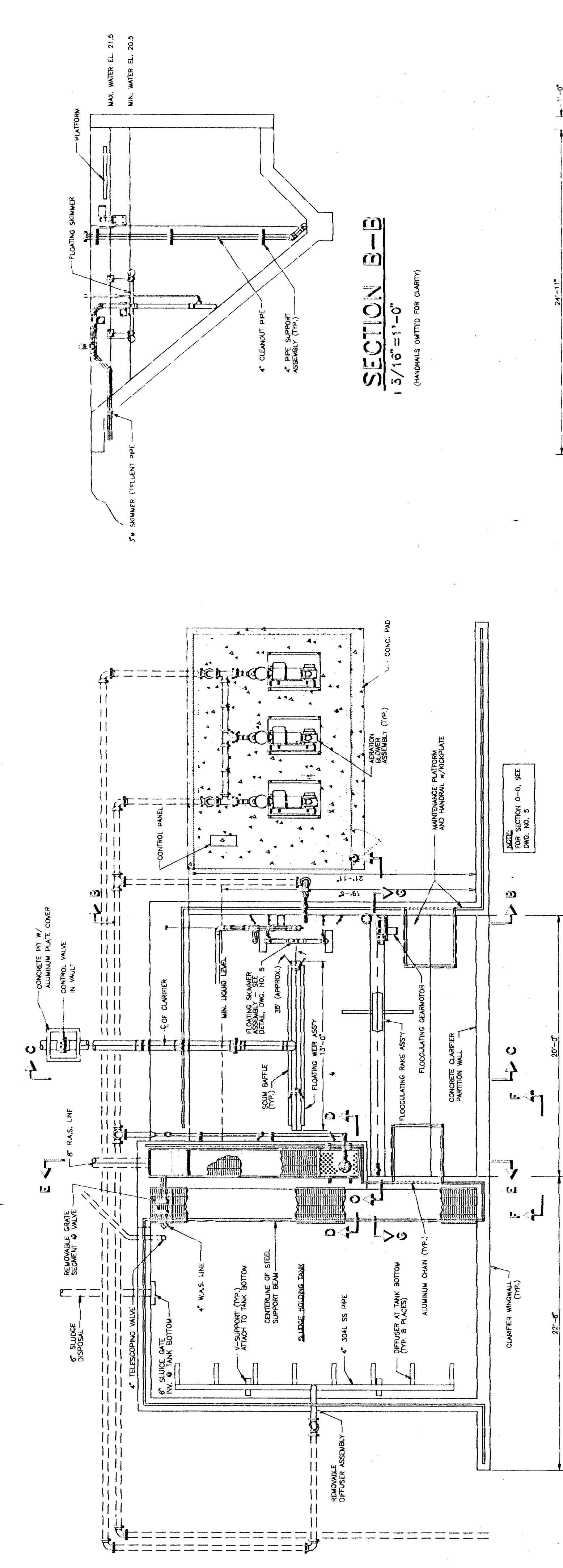




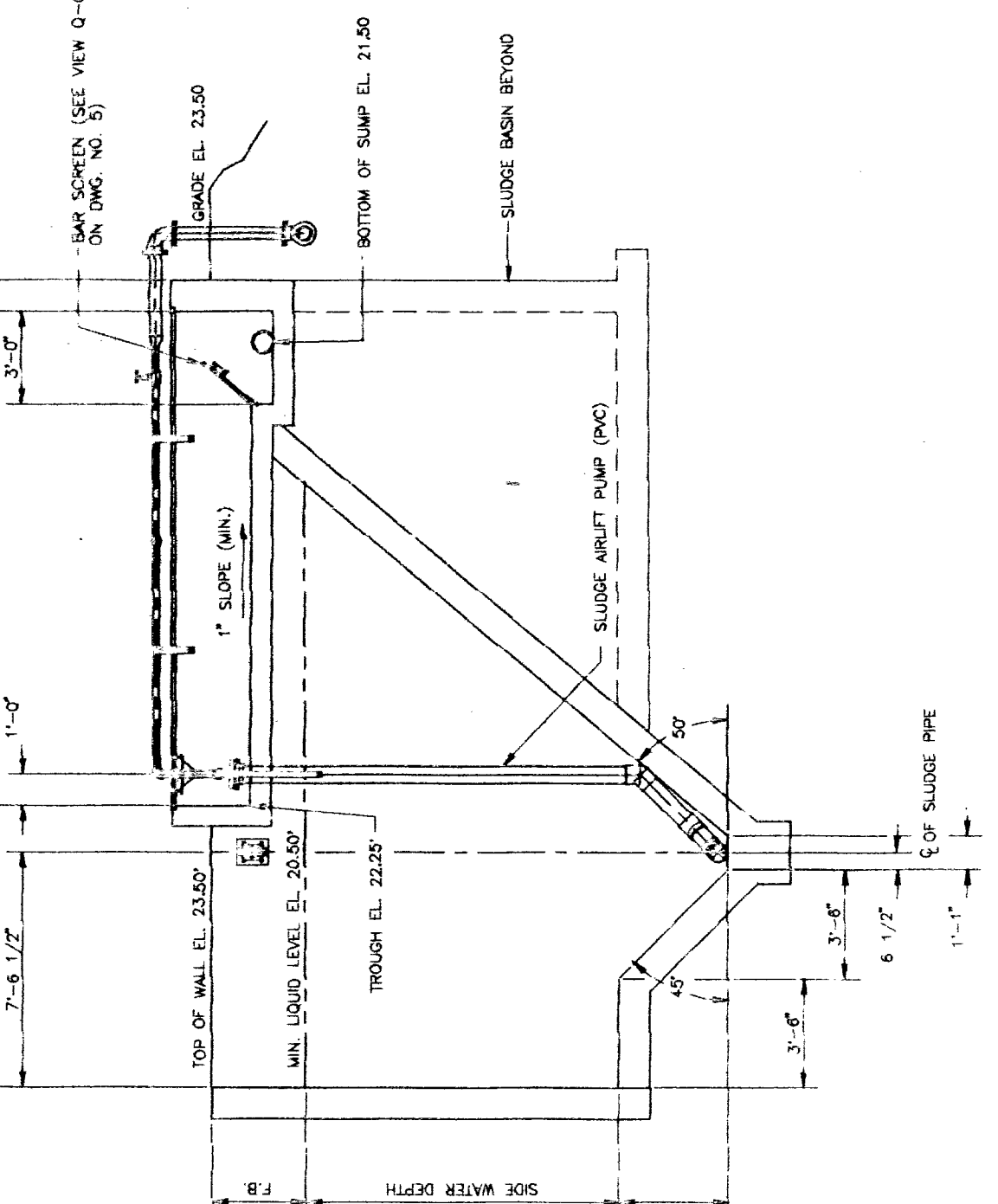
TREATMENT LAGOON PLAN
1"=10"



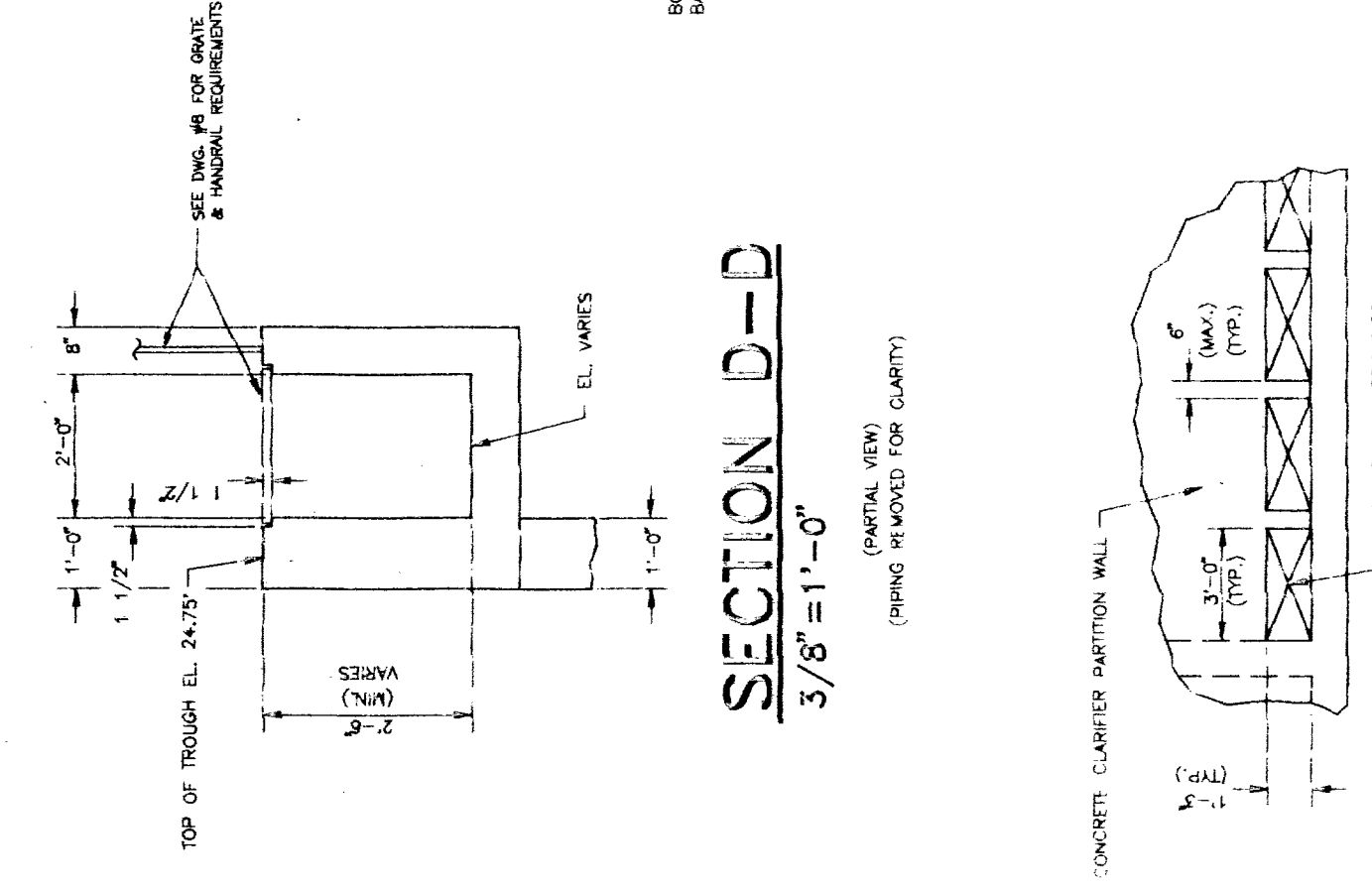
SECTION A-A
1"=10"



CLARIFIER PLAN
3/16"=1'-0"



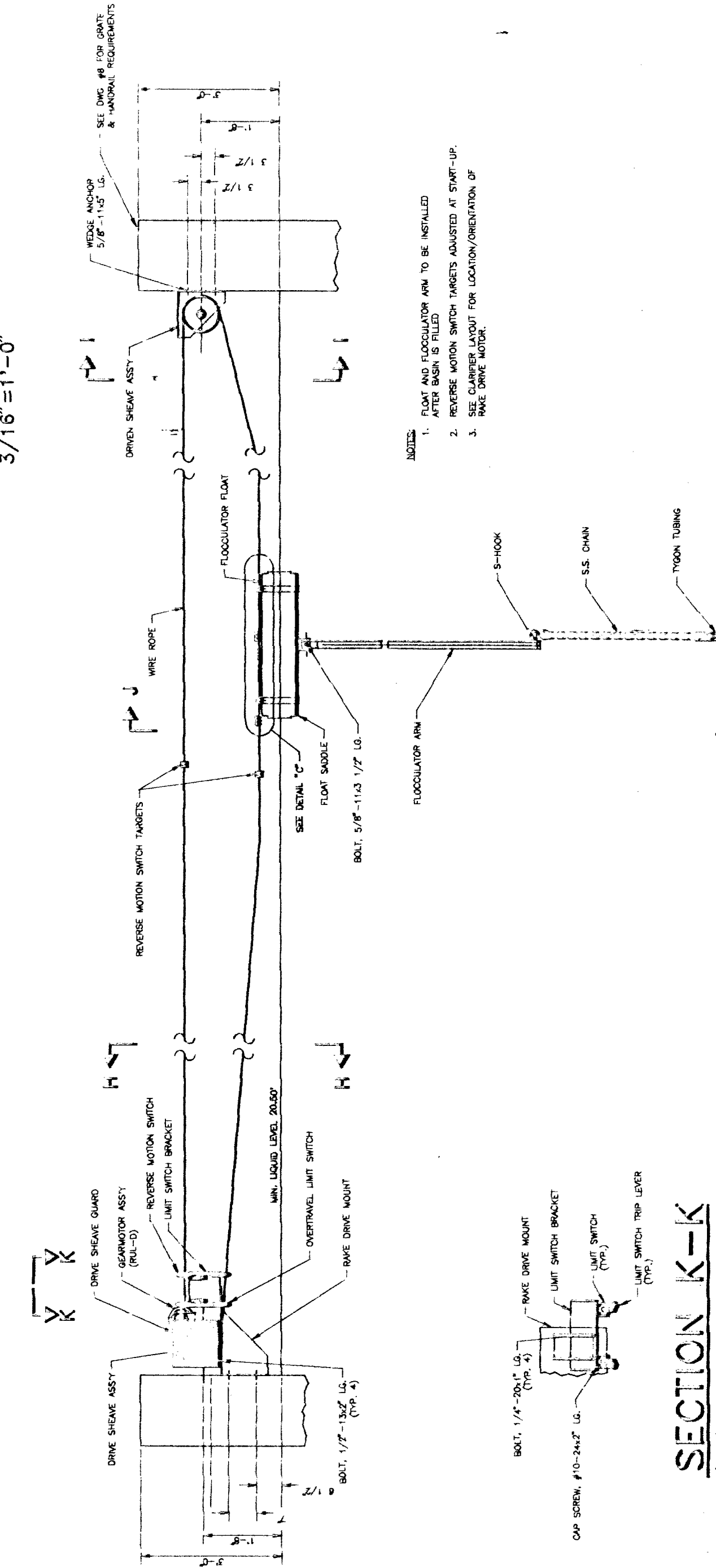
SECTION B-B
1 3/16"=1'-0"



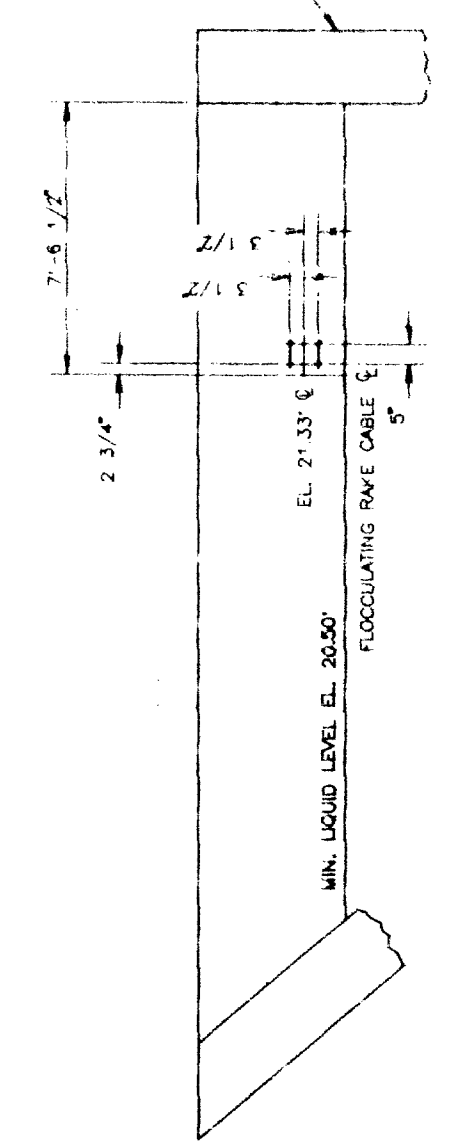
SECTION D-D
3/8"=1'-0"

SECTION C-C
3/16"=1'-0"

SECTION F-F
3/16"=1'-0"

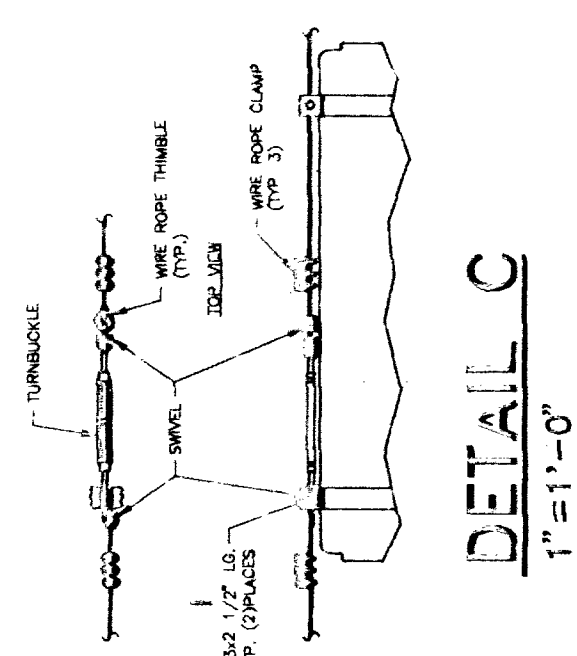


SECTION G-G
1/2"=1'-0"

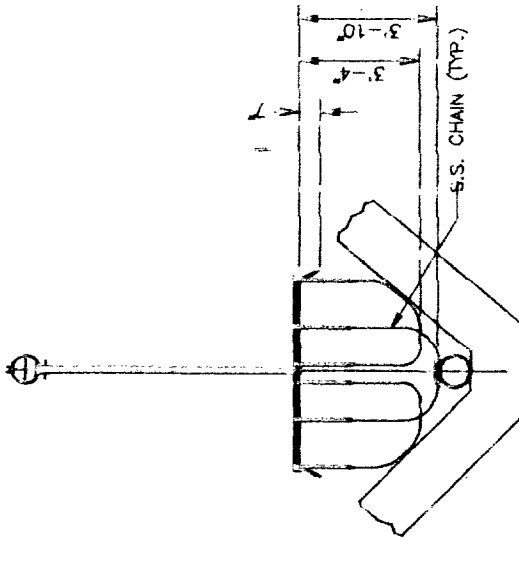


SECTION H-H
3/16"=1'-0"

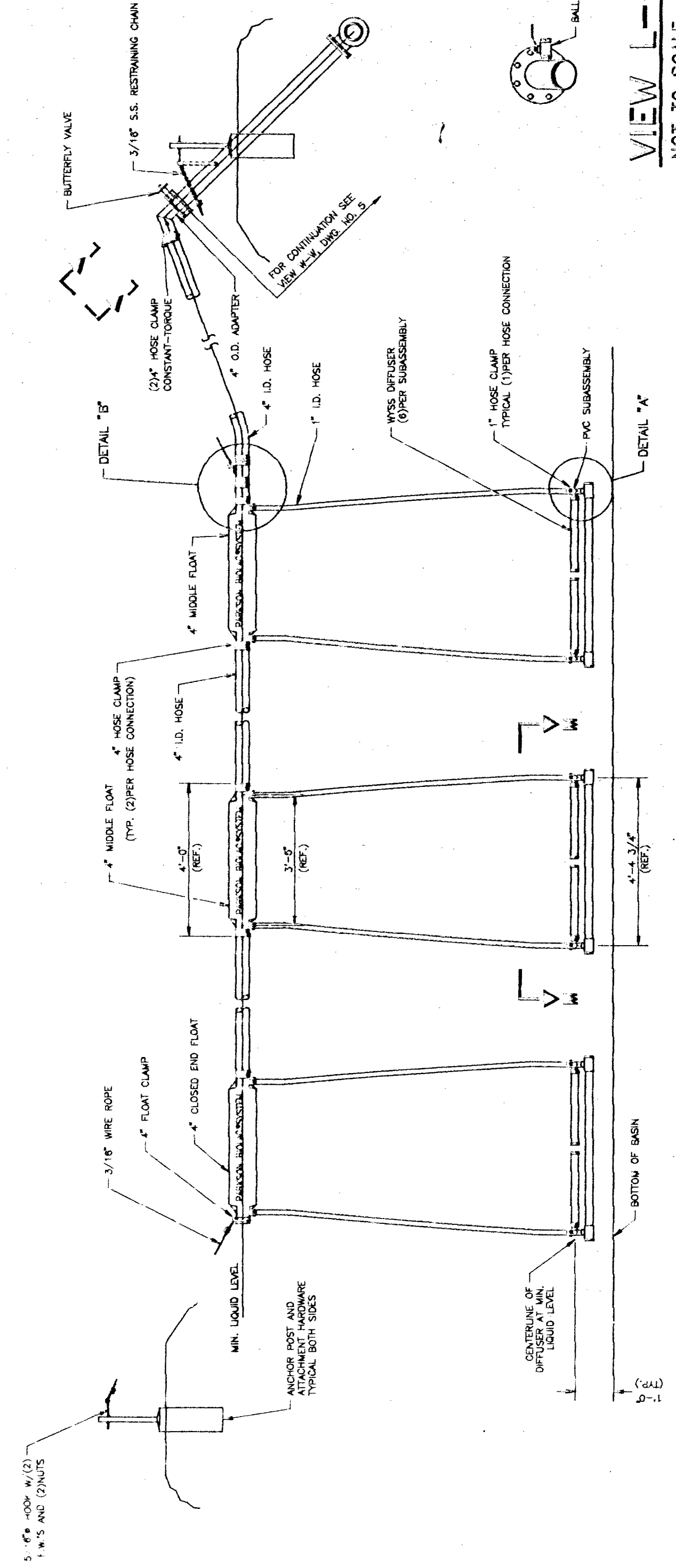
SECTION E-E
3/16"=1'-0"



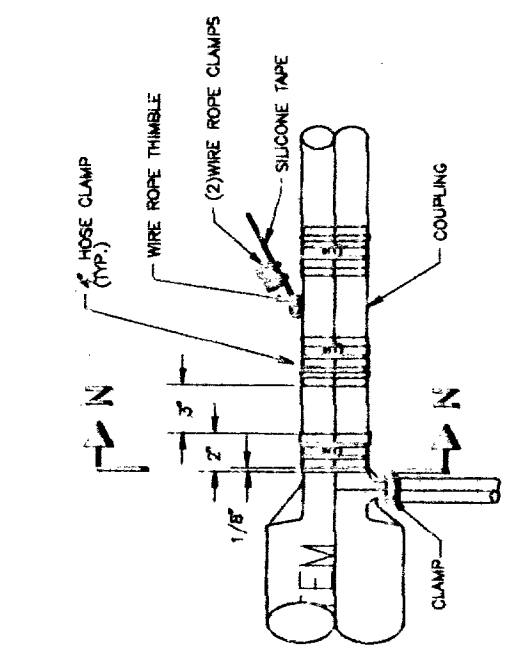
DETAIL C
1"=1'-0"



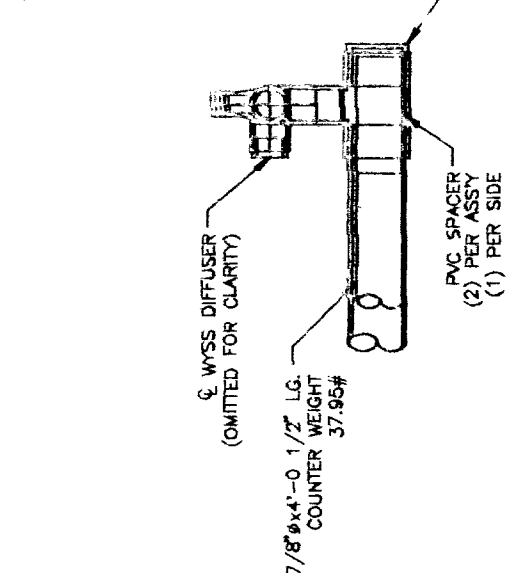
SECTION J-J
3/16"=1'-0"



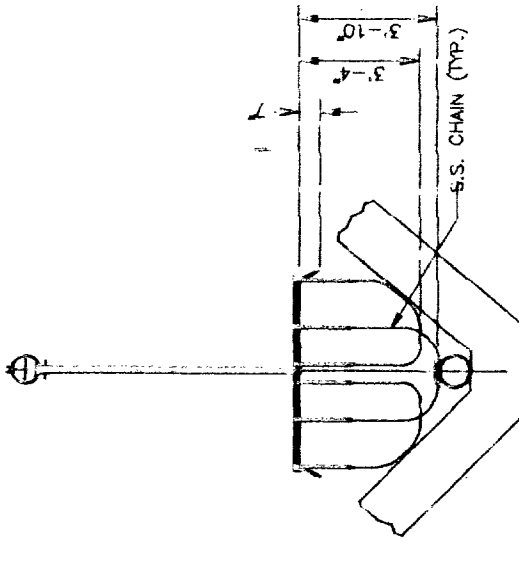
AERATION FLOAT/DIFFUSER ASSEMBLY
3/8"=1'-0"



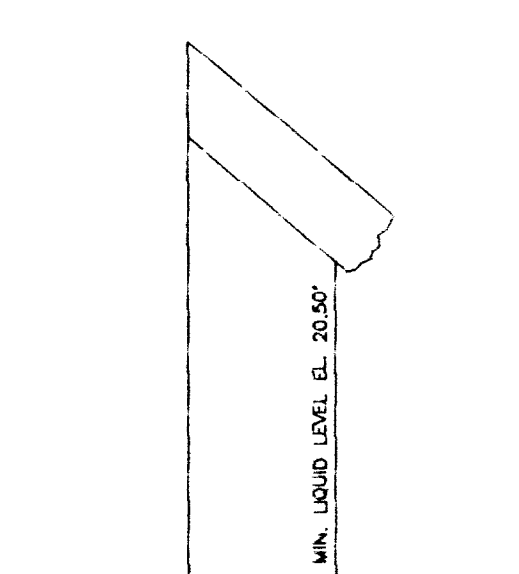
DETAIL B
1"=1'-0"



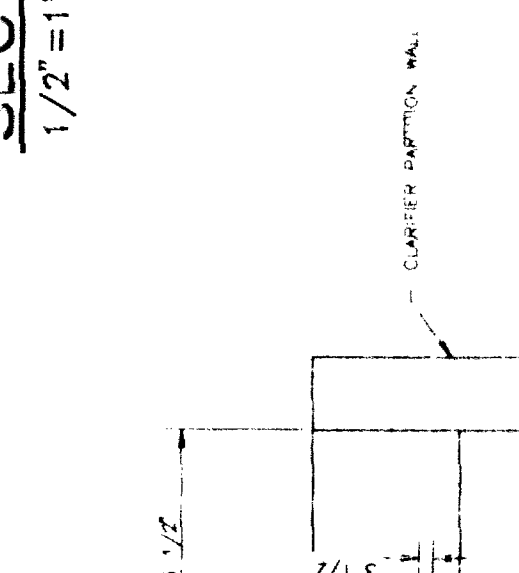
DETAIL A
1"=1'-0"



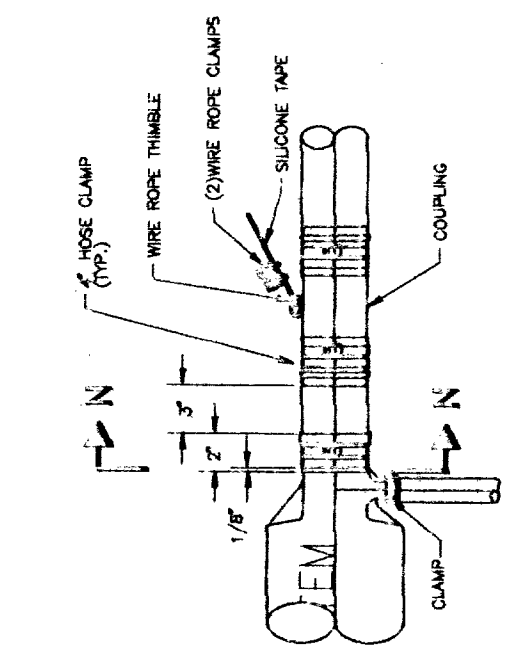
SECTION I-I
3/16"=1'-0"



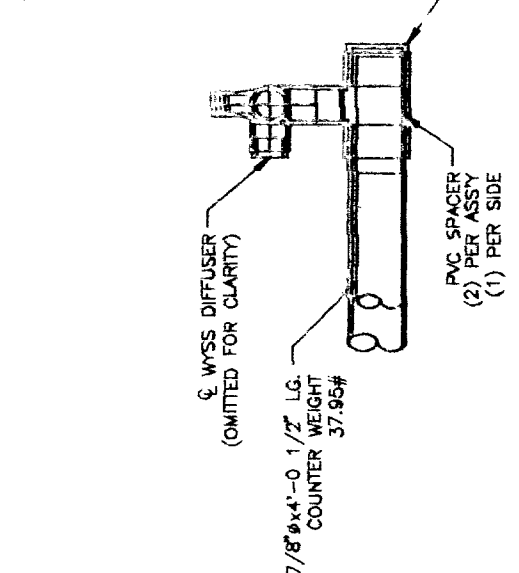
SECTION K-K
NOT TO SCALE



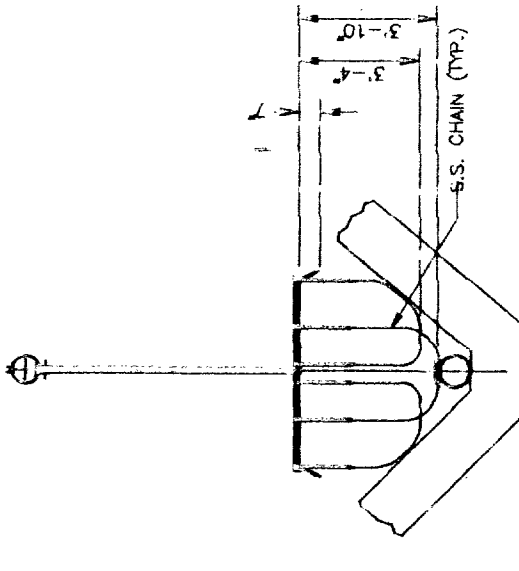
VIEW L-L
NOT TO SCALE



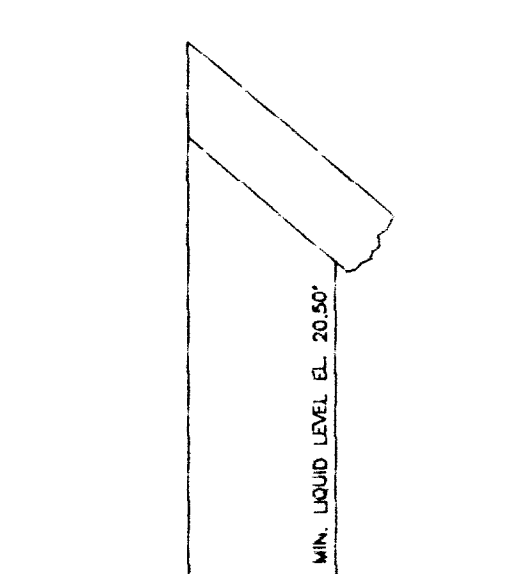
VIEW M-M
3/8"=1'-0"



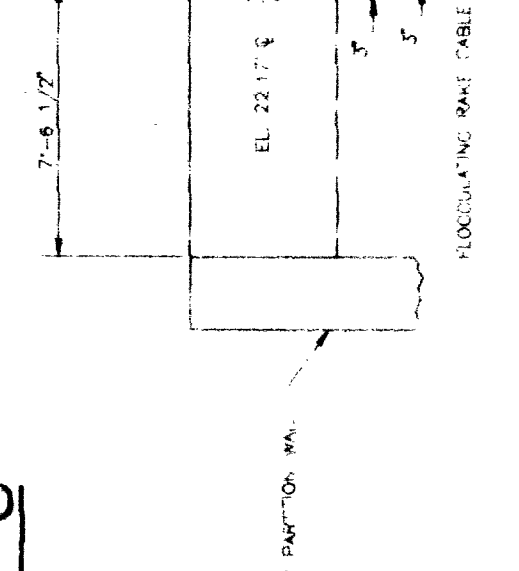
DETAIL N-N
NOT TO SCALE



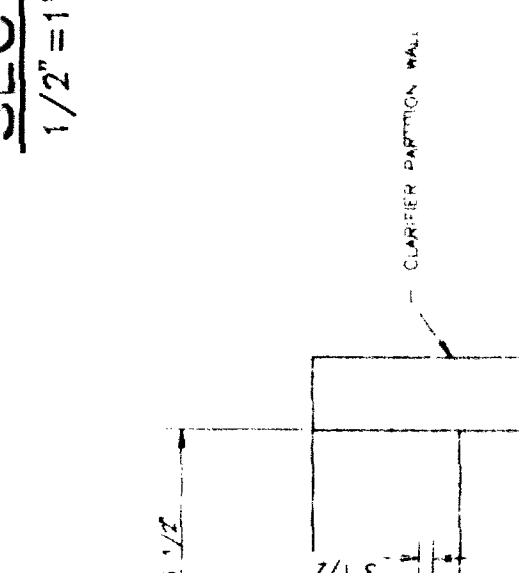
SECTION U-U
3/16"=1'-0"



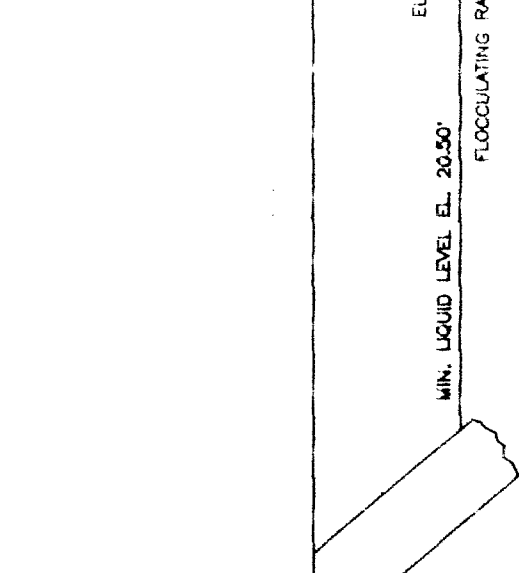
SECTION V-V
3/16"=1'-0"



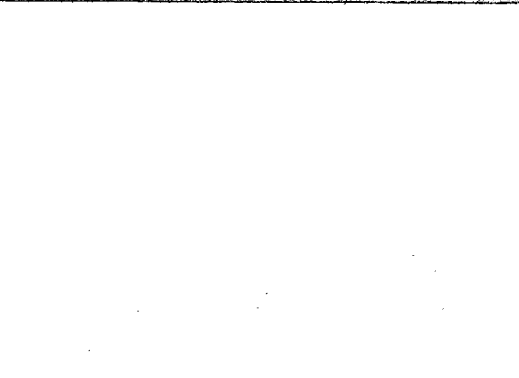
SECTION W-W
3/16"=1'-0"



SECTION X-X
3/16"=1'-0"

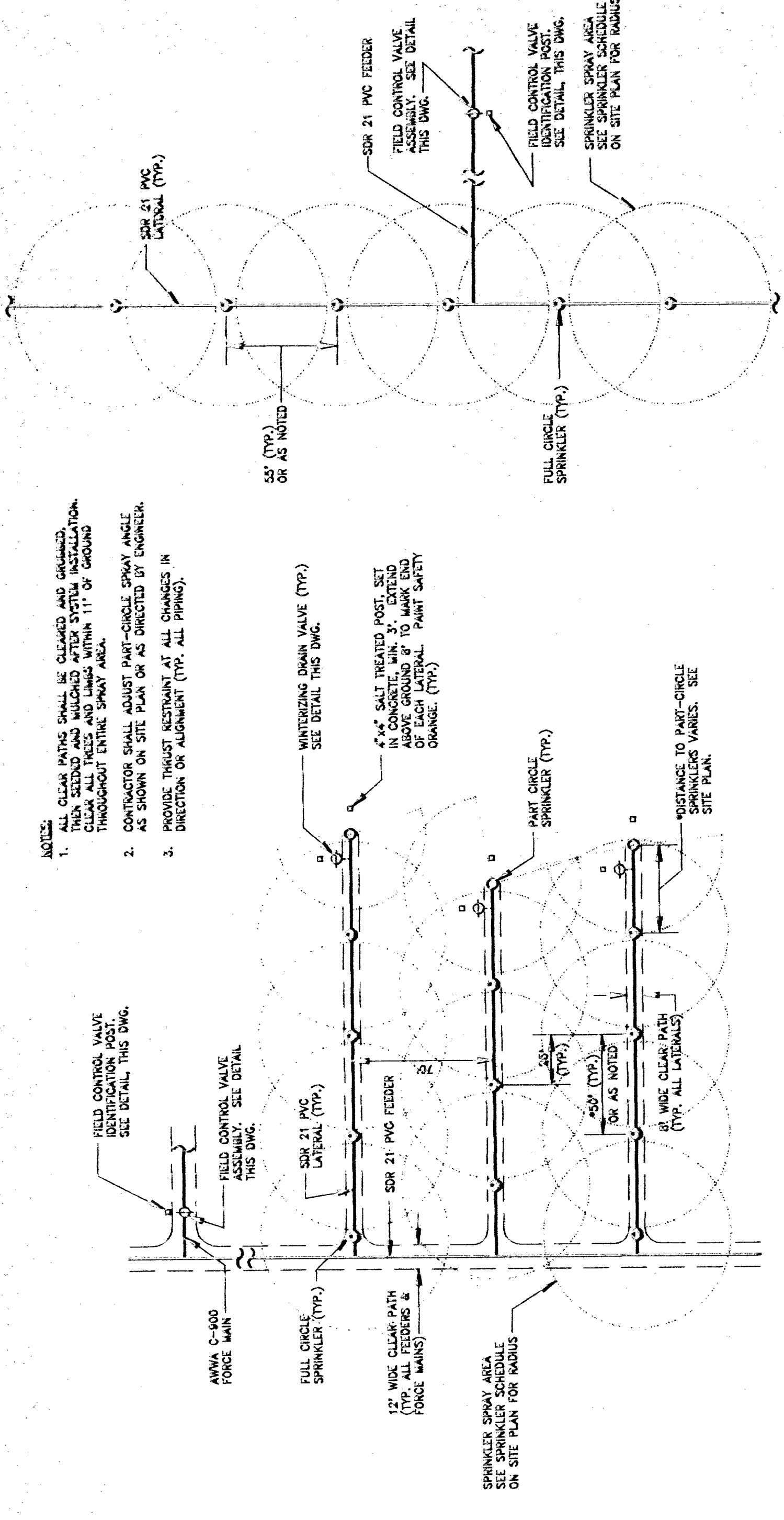


SECTION Y-Y
3/16"=1'-0"

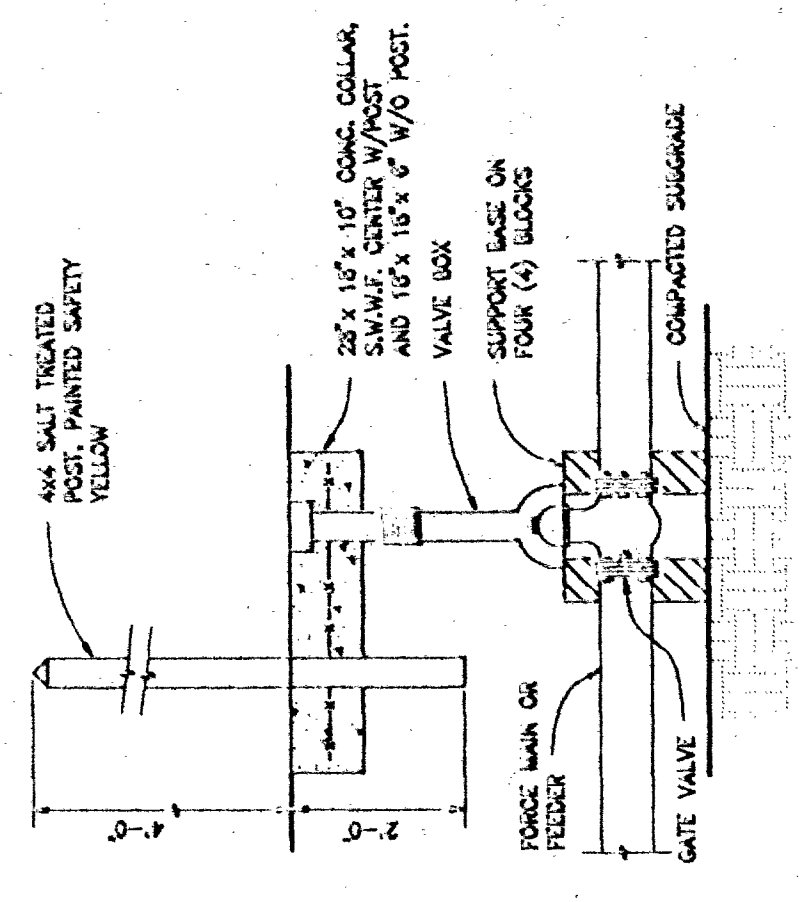
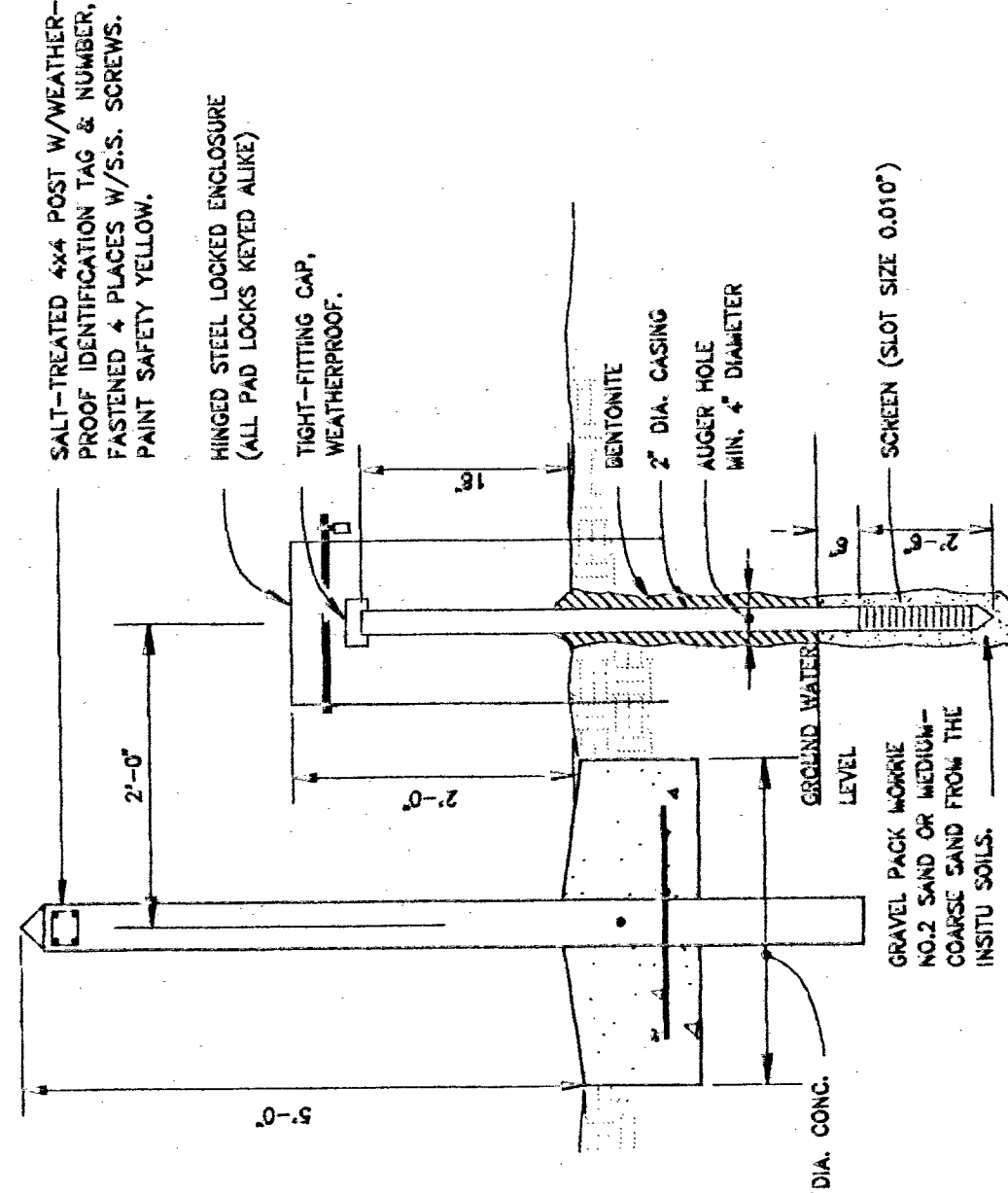
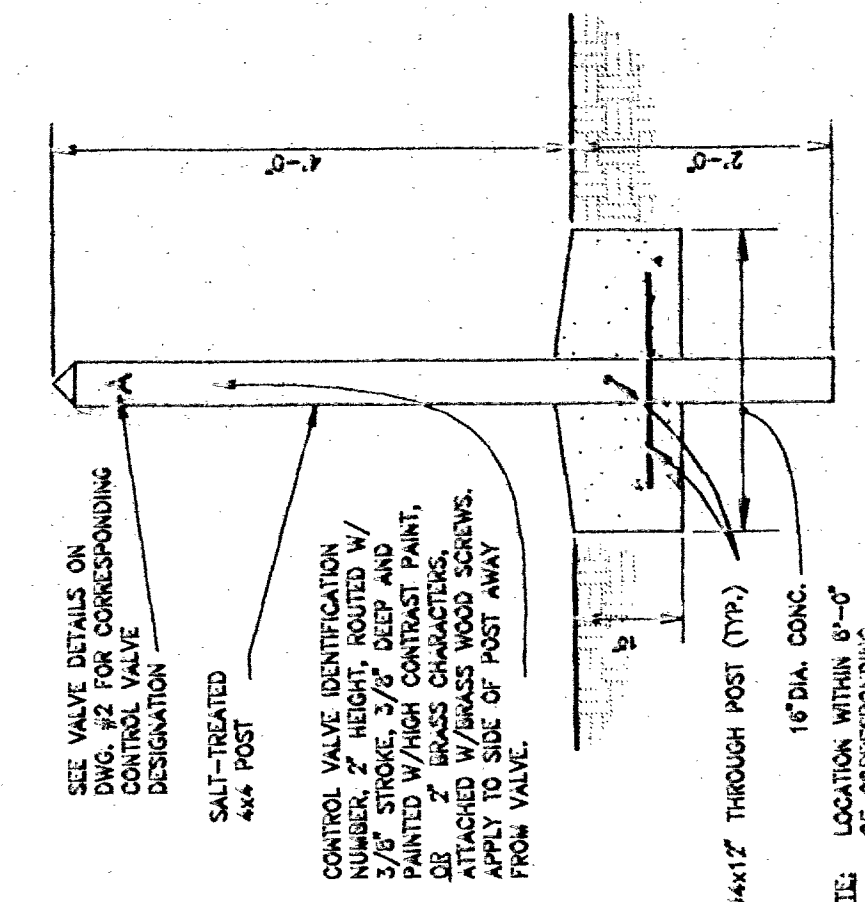


SECTION Z-Z
3/16"=1'-0"

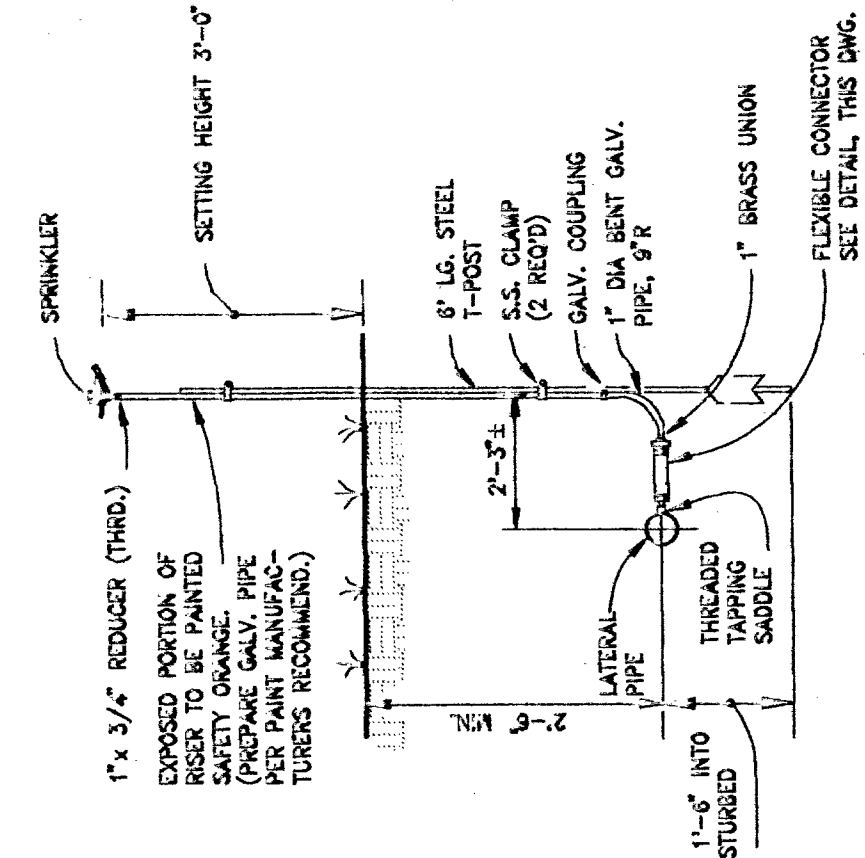
- NOTES
1. CLEAR PAVES SHALL BE CLEANED AND GRADED TO EXISTING GRADE AFTER PAVING OPERATION. EXISTING GRADE SHALL BE MAINTAINED WITHIN 1" OF GRADE THROUGHOUT ENTIRE SPRAY AREA.
 2. CONTRACTOR SHALL ADJUST PAVE-CIRCLE SPRAY ANGLE AS SHOWN ON SITE PLAN OR AS DIRECTED BY ENGINEER.
 3. PROVIDE THIRST RESTRAINT AT ALL CHANGES IN DIRECTION OR ALIGNMENT (TYP. ALL PIPES).



TYPICAL SPRAY FIELD LAYOUT DETAIL
1"=50'

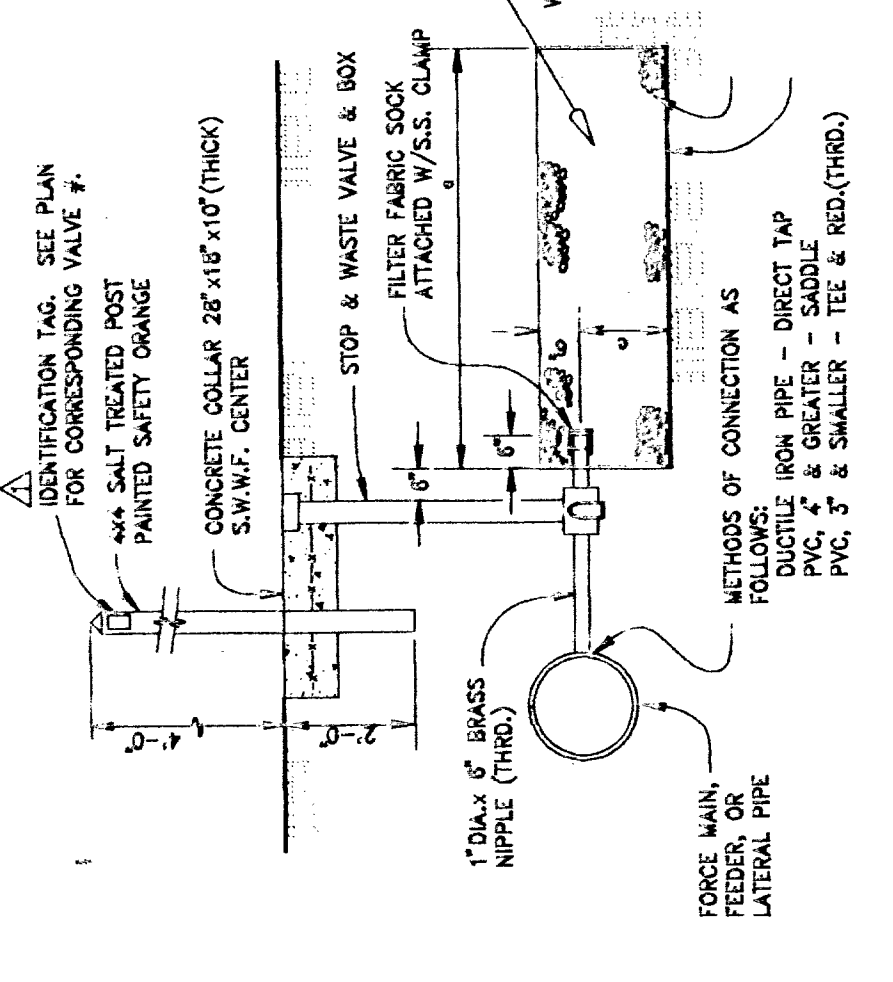


GATE VALVE DETAIL
NOT TO SCALE



FLEXIBLE CONNECTOR DETAIL
NOT TO SCALE

DRAIN VALVE LOCATION	DIMENSIONS		
	a	b	c
FIELD CONTROL VALVES	0'	4'	2'
LATERALS	4'	2'	1'

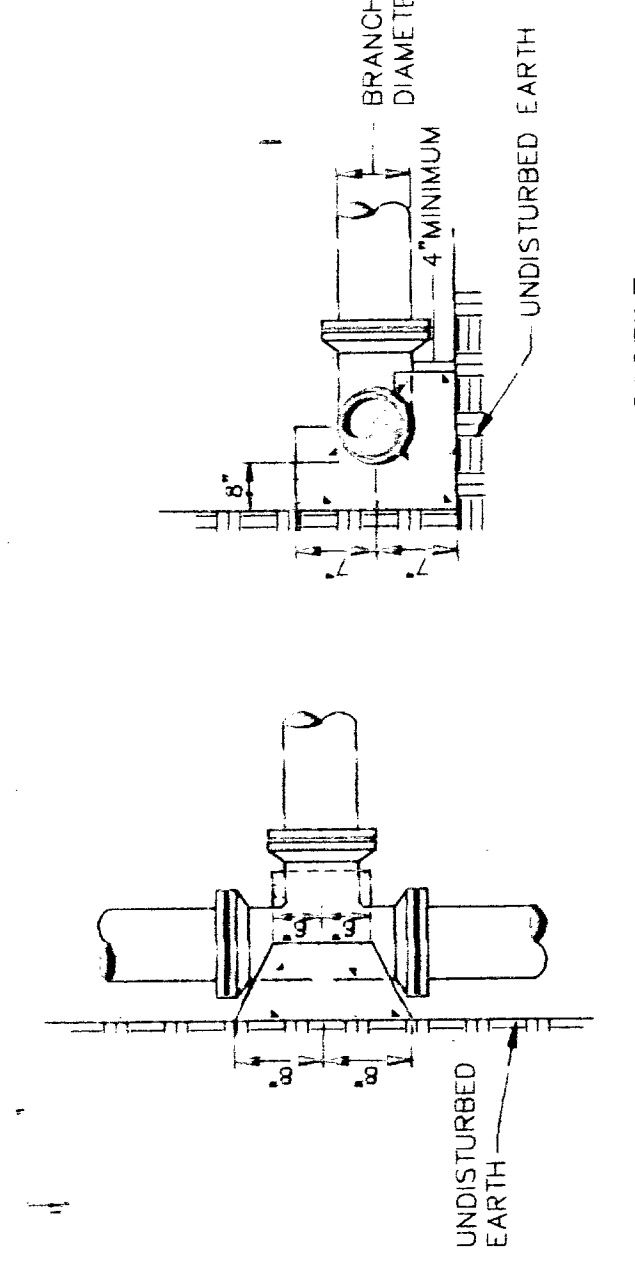


SAMPLE TAP DETAIL
NOT TO SCALE

SPRINKLER TYPES 1, 2, 3, & 4
NOT TO SCALE

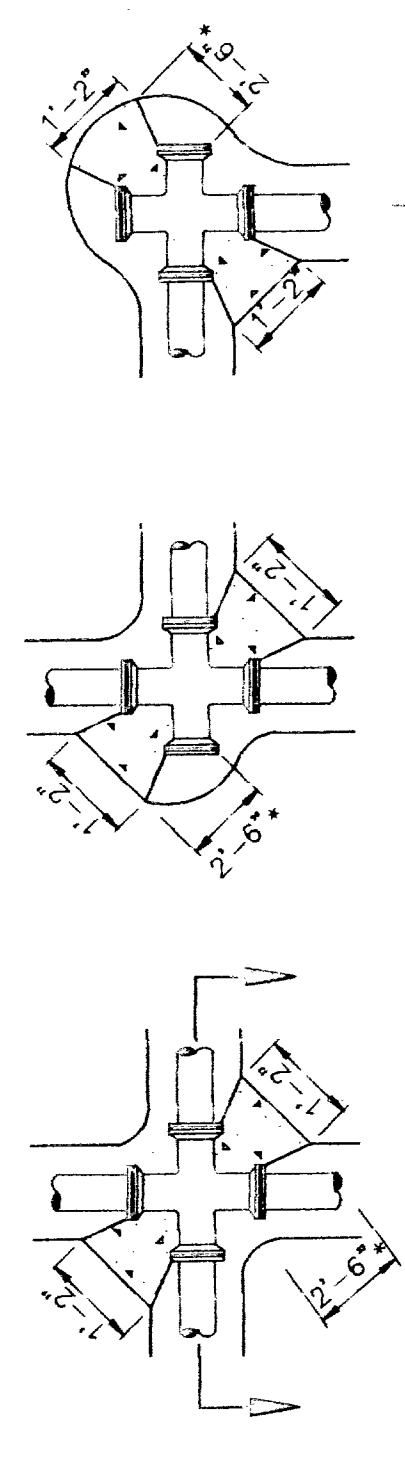
SPRINKLER DETAIL
NOT TO SCALE

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAMS, BOWEN & FREED, INC. AND SHALL BE KEPT IN CONFIDENCE AND NOT REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT WRITTEN PERMISSION.



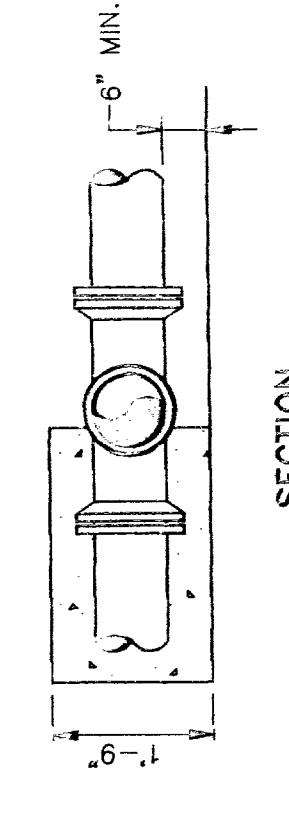
BEND	DIMENSION SCHEDULE		
	11 1/4"	22 1/2"	45"
A	6"	9"	1'-3"
B	7"	7"	2'-0"
C	4"	4"	6"
D	7"	8"	1'-5"

HORIZONTAL BENDS



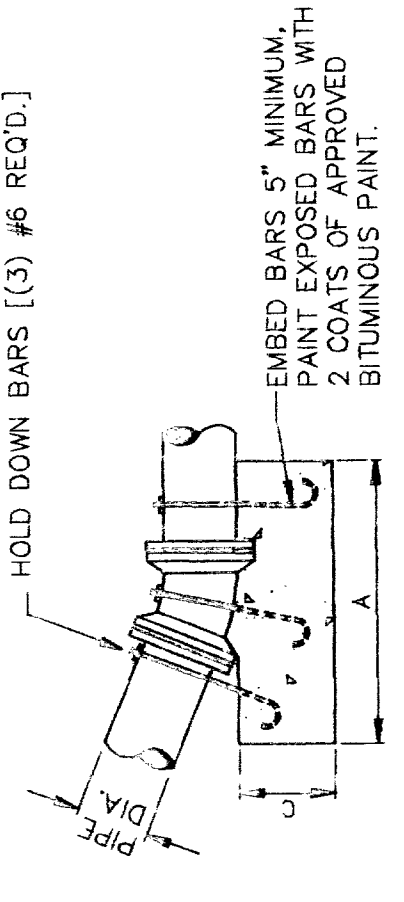
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VERTICAL DOWNWARD BENDS



BEND	DIMENSION SCHEDULE		
	11 1/4"	22 1/2"	45"
A	6"	9"	1'-3"
B	7"	7"	2'-0"
C	4"	4"	6"
D	7"	8"	1'-5"

VERTICAL UPWARD BENDS



BUTTRESS DETAILS
NOT TO SCALE

THIS PLAN HAS BEEN REVIEWED AND APPROVED BY THE WORCESTER COUNTY DEPARTMENT OF WATER AND WASTEWATER SERVICES.

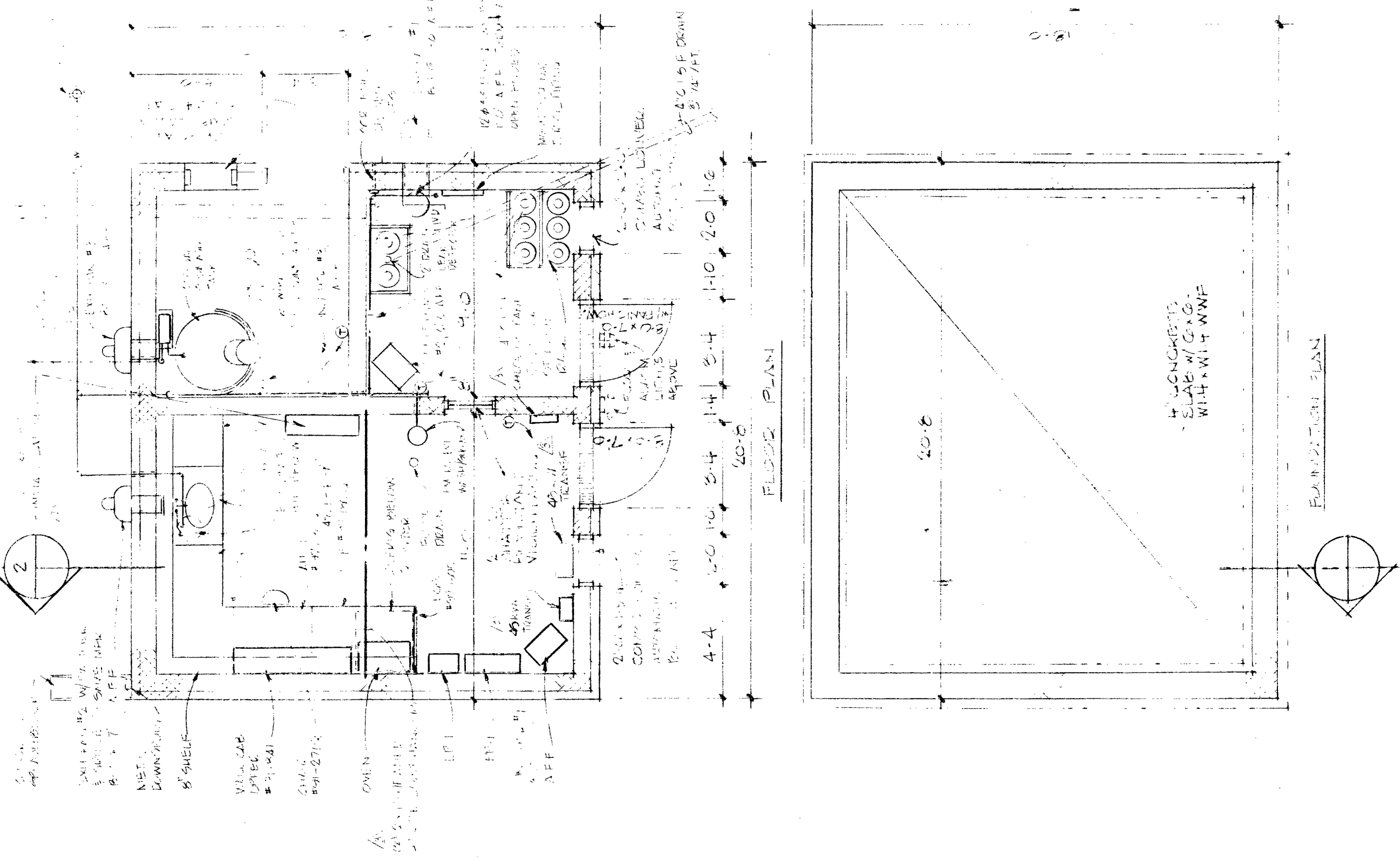
10/28/84

UNIT HEATER SCHEDULE

NO.	CAPACITY	VOLTAGE
1	2.0 KW	120 V. 1Ø 60 HZ
2	5.0 KW	480 V. 3Ø 60 HZ
3	7.0 KW	277 V. 3Ø 60 HZ

EXISTING PWS SCHEDULE

NO.	QTY	QTY	VOLUME
1	9.25 MAF	111.0	120 V. 1Ø 60 HZ
2	260.5 MAF	105.0	120 V. 1Ø 60 HZ
3	107.8 MAF	119.2	120 V. 1Ø 60 HZ



LAB/CHLORINE BUILDING

1/4" = 1'-0"

STRUCTURAL NOTES

- Design Loads
Roof Live Load 20 PSF
Wind 20 PSF
- General
The structural components and construction shall be in accordance with Standard Building Code - Latest Edition, all indicated below and elsewhere on these plans. Contractor to coordinate with other trades for proper installation of mechanical and electrical equipment.
- Foundation
Foundations shall be designed for soil bearing capacity of 2000 PSF. If material of at least this capacity is not encountered at indicated depth, contractor shall be responsible for determining and installing appropriate foundation. Bearing walls for footings and slabs to be undisturbed or compacted fill. Foundations shall be designed for a minimum of 95% of the Modified Proctor Maximum Dry Density (ASTM D-1557).
- Formwork-in-Place Concrete
All concrete material, mixing, and placement shall be in accordance with Standard Building Code - Latest Edition, all indicated below and elsewhere on these plans. Contractor to coordinate with other trades for proper installation of mechanical and electrical equipment.
Footings 2000 PSI
Slabs 4000 PSI
Concrete Fill 4000 PSI
Test per ASTM C-94
Welded Wire Fabric - ASTM A-185, Grade 60 and 48,000 PSI
Crack all joints.
- Rebar
Rebar material and workmanship shall comply with recommendations of ACI.
Horizontal reinforcing to be 9-gauge true bar-o-well or equal at 16-inch spacing.
Vertical reinforcing to be located as indicated on plans. Cores with vertical rebar to be completely filled with pea gravel concrete.
- Finish Materials
Finish materials and construction procedures shall be in accordance with applicable standards.

SOUTH ELEVATION

1/4" = 1'-0"

EAST ELEVATION

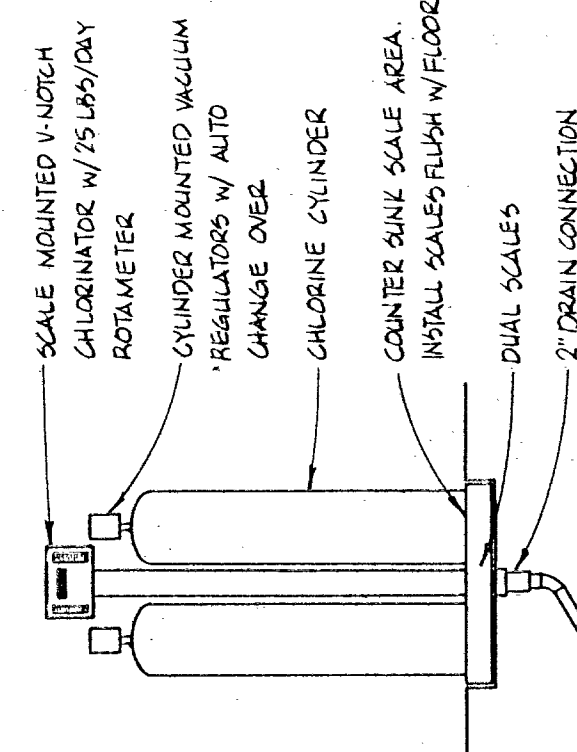
1/4" = 1'-0"

NORTH ELEVATION

1/4" = 1'-0"

WEST ELEVATION

1/4" = 1'-0"



DUAL CYLINDER

1/2" = 1'-0"

SCALES DETAIL

1/2" = 1'-0"

SECTION 1

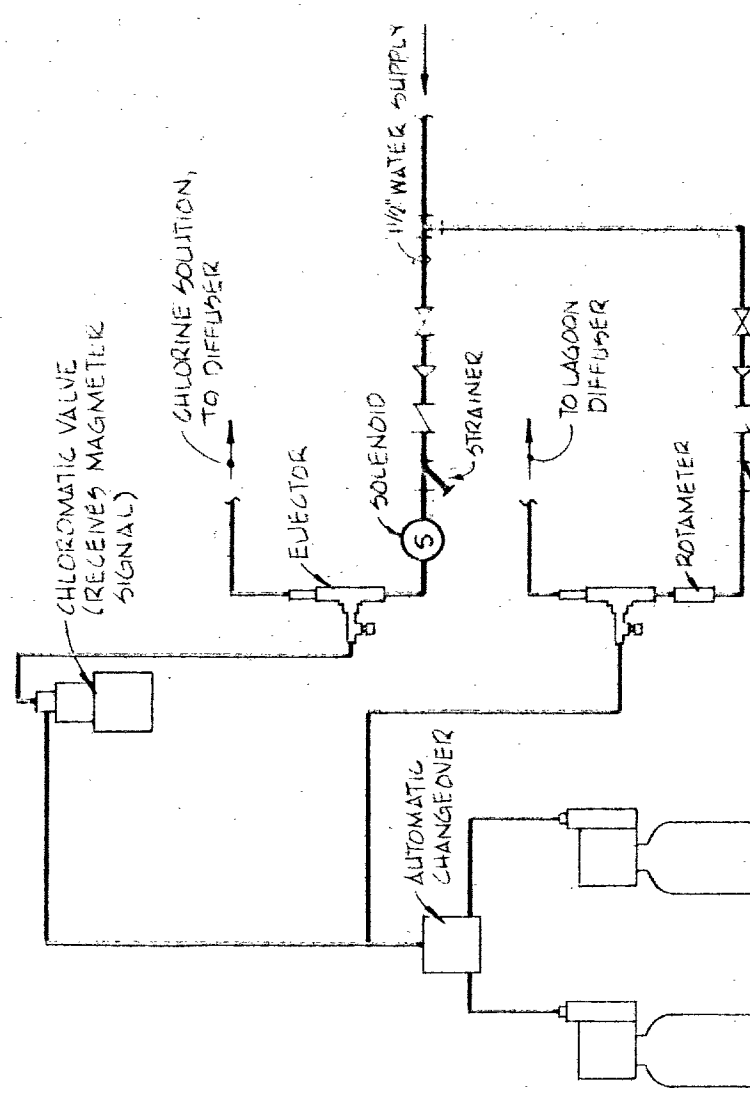
3/4" = 1'-0"

SECTION 2

1/2" = 1'-0"

CHLORINE PIPING SCHEMATIC

NOT TO SCALE



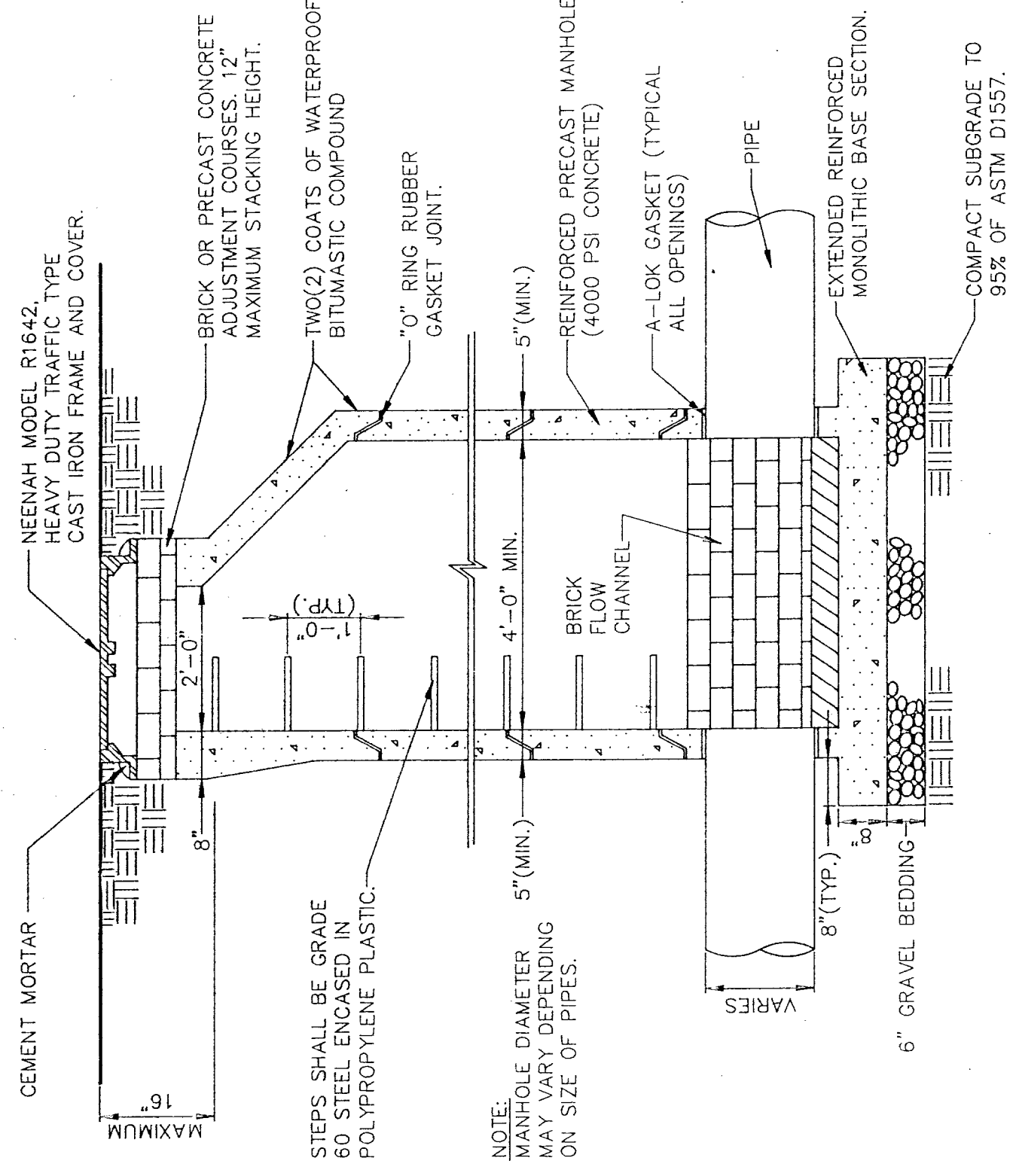
CHLORINE PIPING SCHEMATIC

NOT TO SCALE

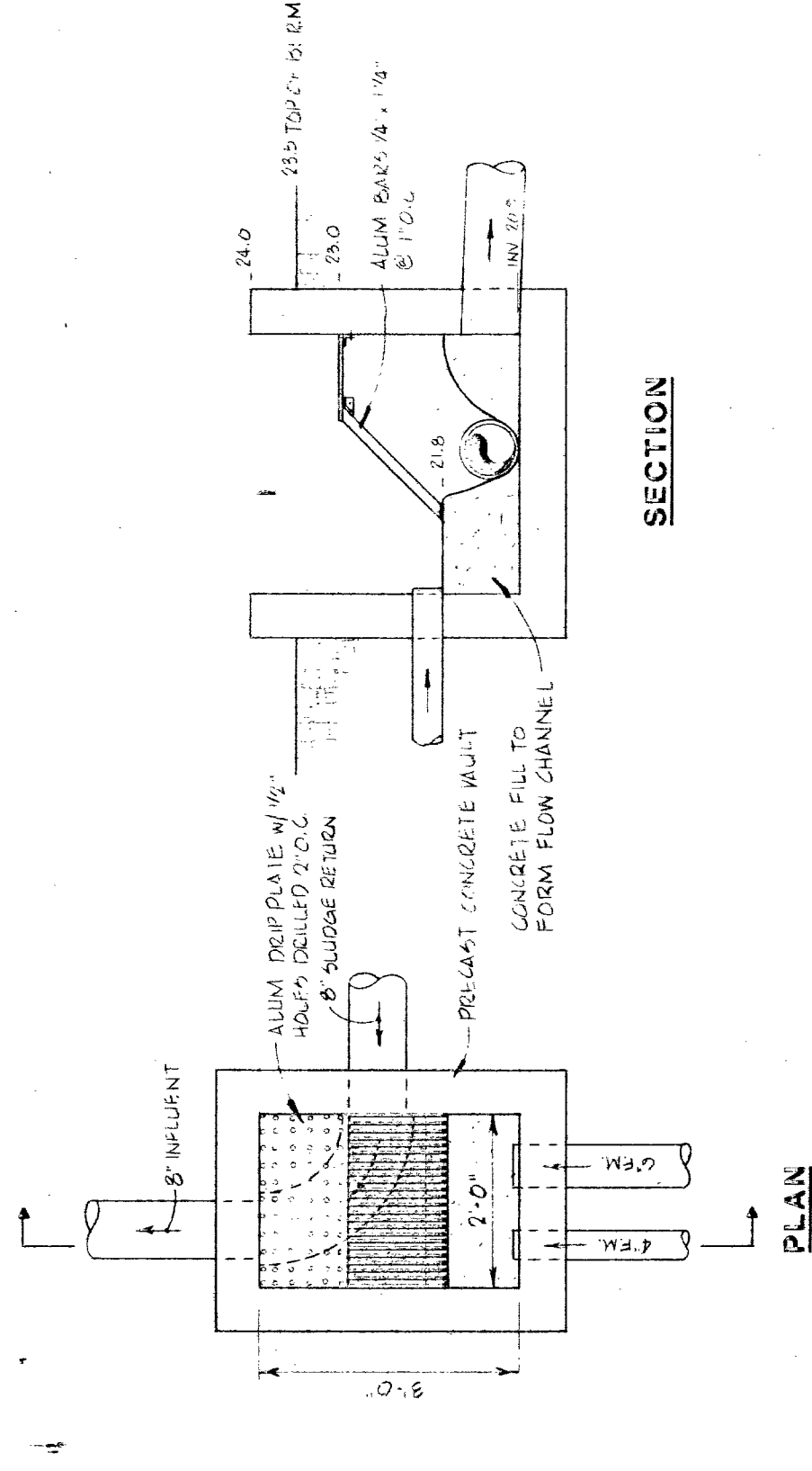
THESE PLANS HAVE BEEN REVIEWED AND APPROVED BY THE WORCESTER COUNTY DEPARTMENT OF WATER AND WASTEWATER SERVICES.

J. Lewis

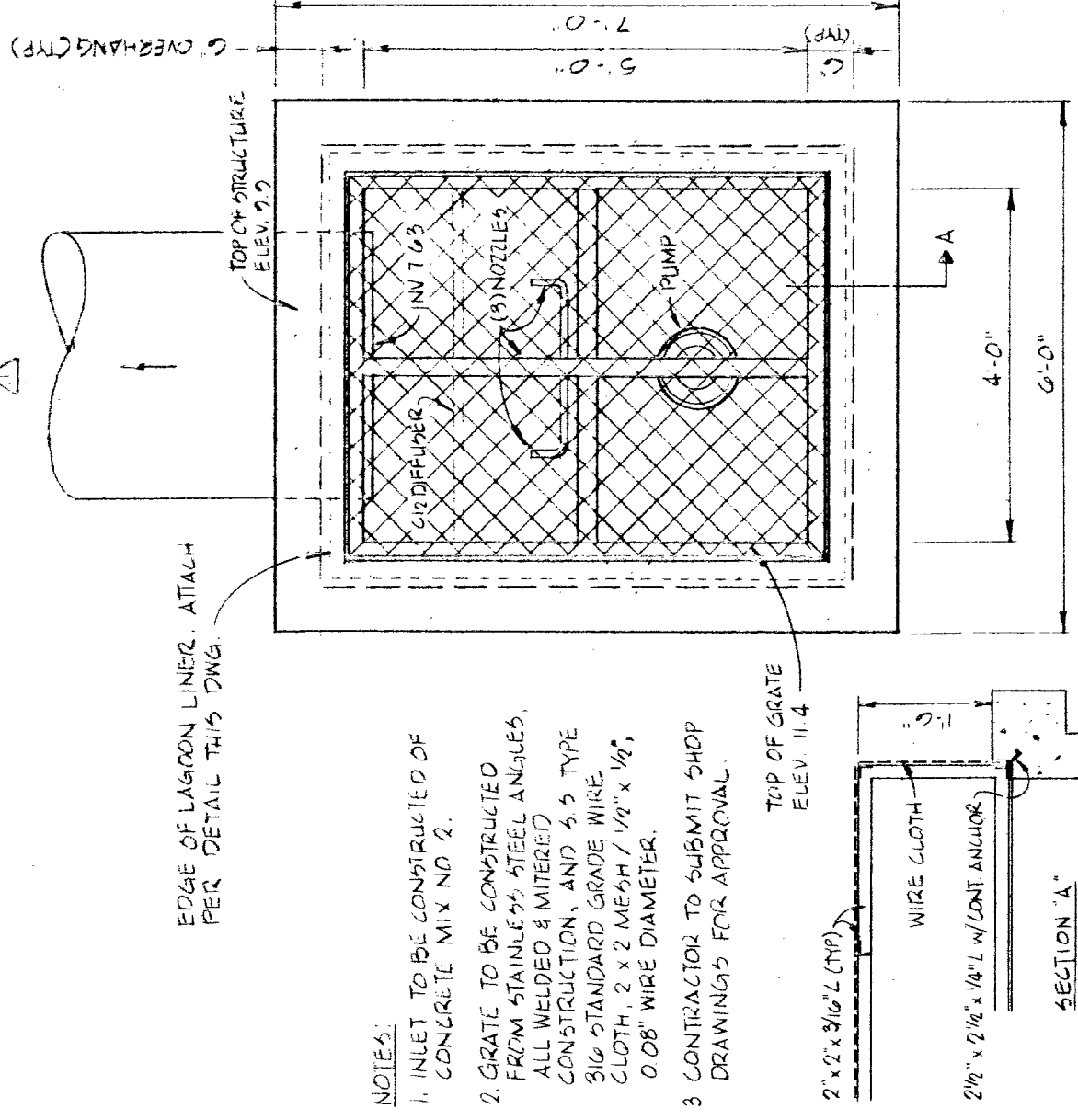
WATER AND WASTEWATER SERVICES



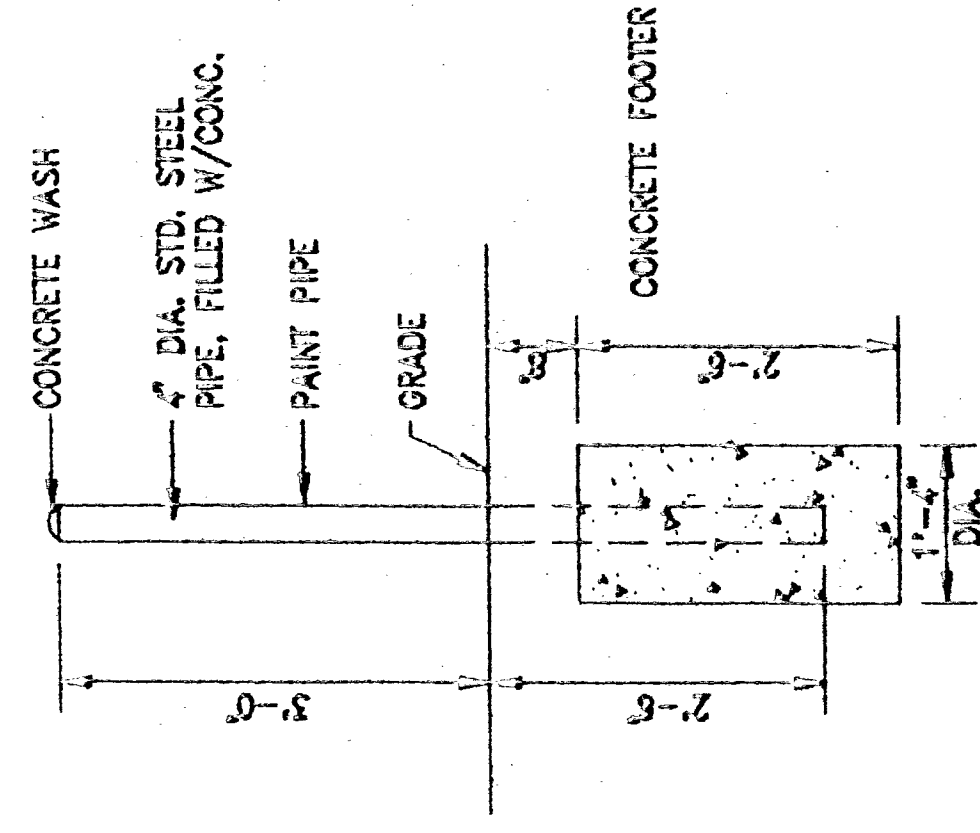
PRECAST MANHOLE DETAIL



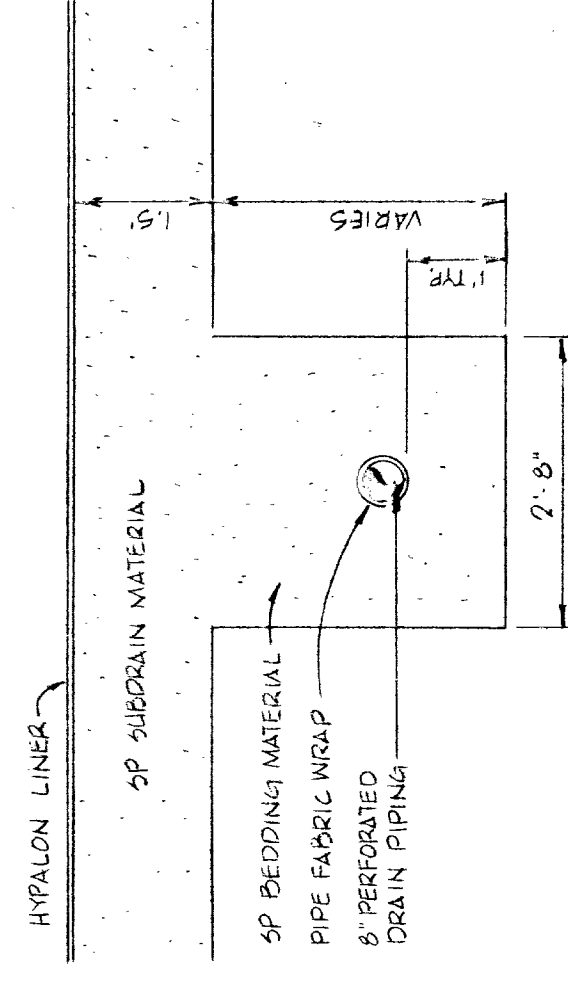
INFLUENT MANHOLE



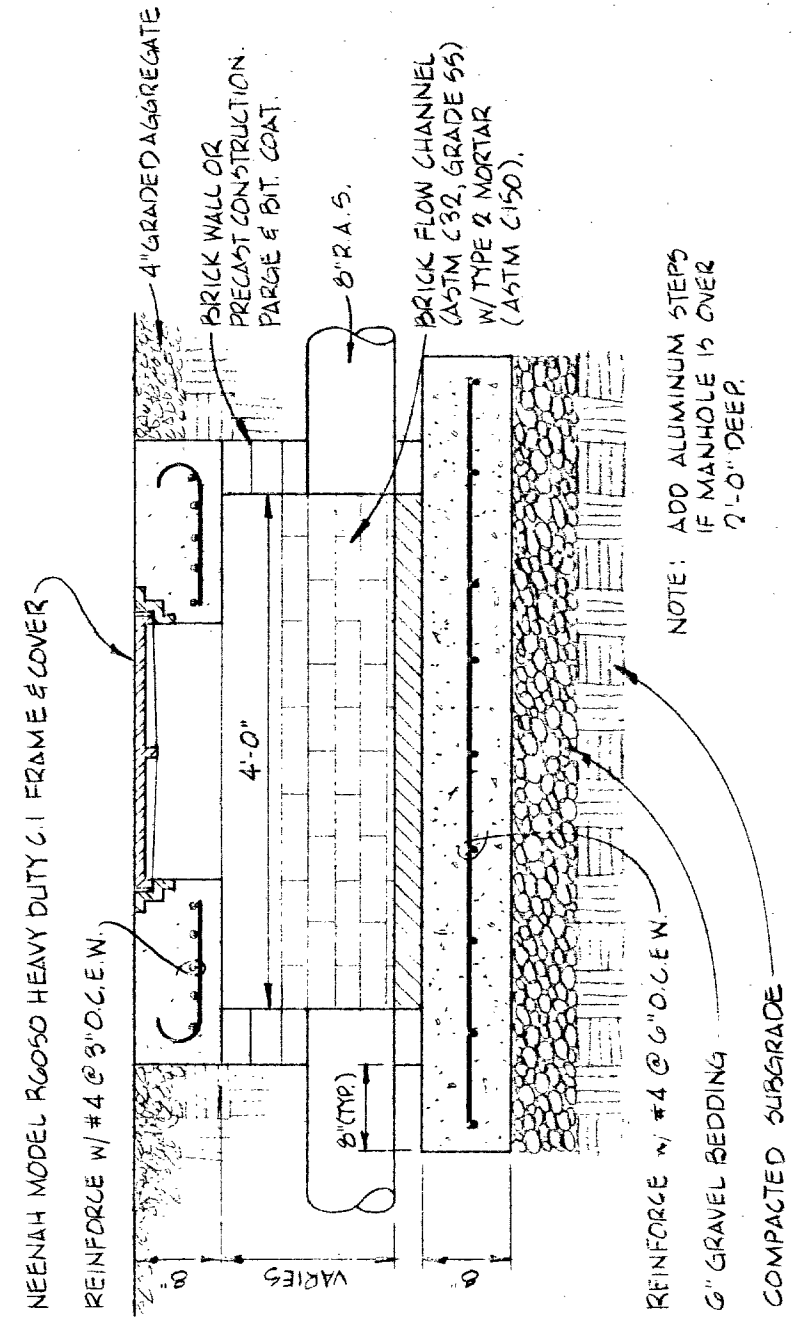
PUMP STATION INLET STRUCTURE



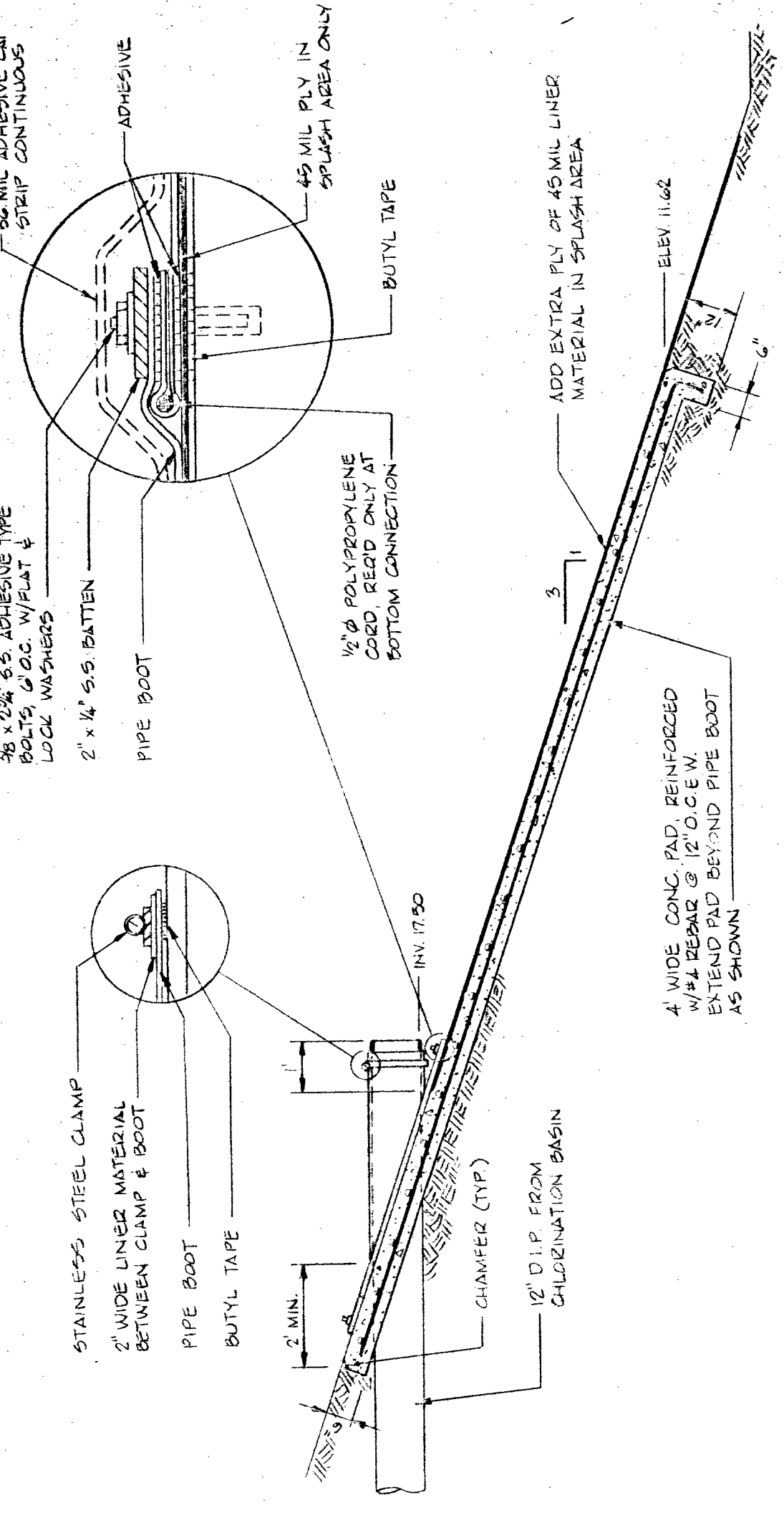
BOLLARD DETAIL



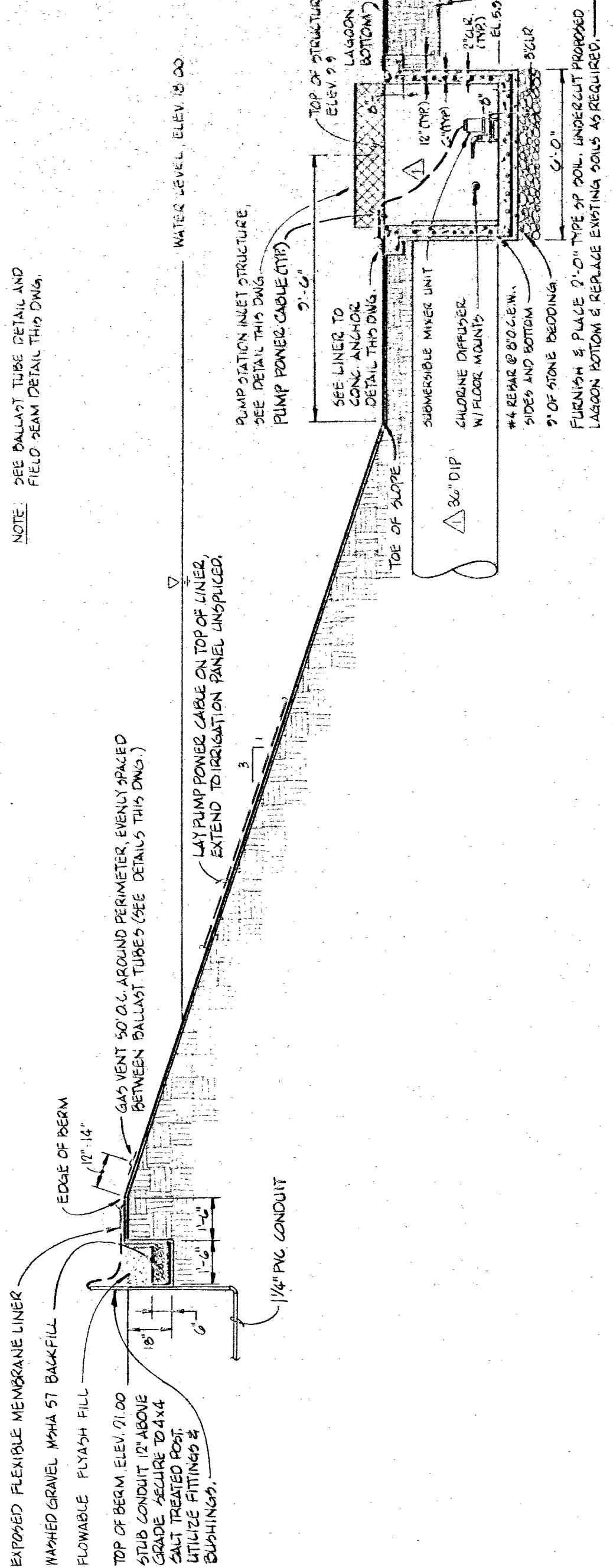
SUBDRAIN PIPING DETAIL



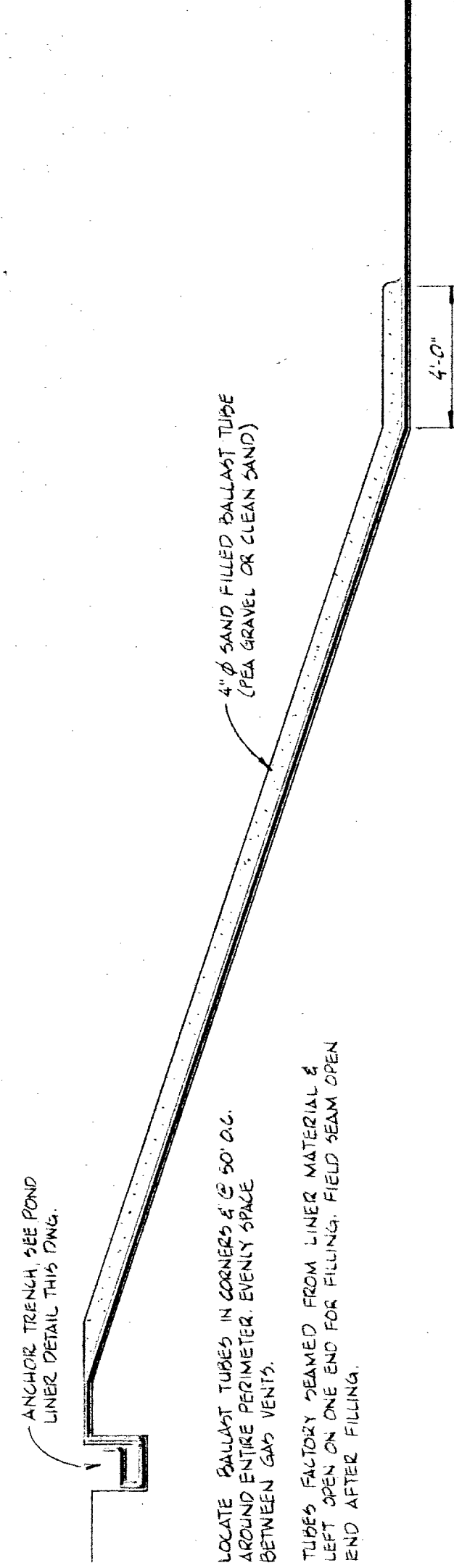
SHALLOW MANHOLE DETAIL



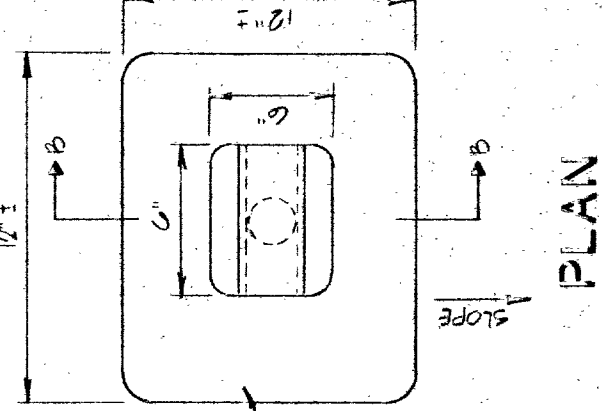
TYPICAL FACTORY FABRICATED PIPE BOOT



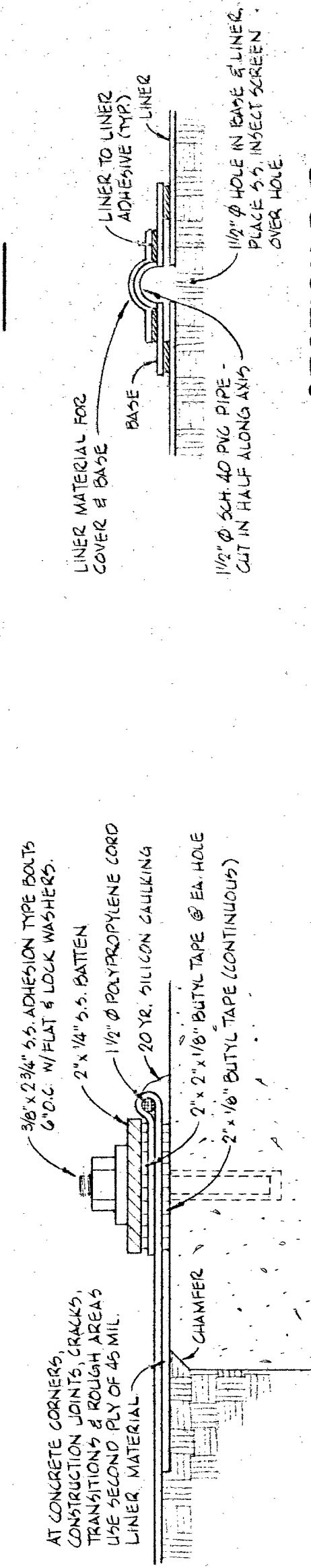
LAGOON LINER & PUMP STATION INLET DETAIL



BALLAST TUBE DETAIL



TYPICAL FIELD SEAM



SECTION B-B

GAS VENT DETAIL

TYPICAL LINER TO CONCRETE ANCHOR DETAIL

ANCHOR DETAIL

THIS PLAN HAS BEEN REVIEWED AND APPROVED BY THE WORCESTER COUNTY DEPARTMENT OF WATER AND WASTEWATER SERVICES

1/25/2014

WATER AND WASTEWATER SERVICES

DAVIS, BOWEN & FRIEDEL, INC.
ARCHITECTS, ENGINEERS & SURVEYORS
SALISBURY, MARYLAND 21801

LAGOON DETAILS

RIVER RUN WASTEWATER TREATMENT PLANT
WORCESTER COUNTY, MARYLAND

DATE: MAY 1994
SCALE: NONE
DWG. BY: WDM
PROJ. NO: 923A001
DWG. NO:

THIS DRAWING, THE DESIGN AND CONSTRUCTION FEATURES DISCLOSED ARE PROPRIETARY TO DAVIS, BOWEN & FRIEDEL, INC. AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION.

COMPILED BY: 1/25/2014

EROSION AND SEDIMENT CONTROL NOTES

1. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION.
2. A PERIODIC MAINTENANCE OF ALL SEDIMENT CONTROL MEASURES SHALL BE REQUIRED TO INSURE EFFECTIVE SEDIMENT CONTROL. INSPECTION OF ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MADE WEEKLY AND AFTER EACH RAINFALL.
3. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION IS ESTABLISHED.
4. ALL AREAS NOT COVERED BY BUILDING OR PAVEMENT WILL BE SEEDED USING PERMANENT SEED MIXTURE SHOWN ON THE PLAN. THE SOIL CONSERVATION DISTRICT RESERVES THE RIGHT TO REQUIRE ADDITIONAL SEDIMENT AND EROSION MEASURES DURING THE CONSTRUCTION OF THIS PROJECT.
5. SEEDING (PERMANENT):
 - A. SHALL BE CONDUCTED BETWEEN FEBRUARY 1 - APRIL 30 OR AUGUST 15 - OCTOBER 31.
 - B. SEED BED PREPARATION: APPLY 25 LBS. OF 10-10-10 FERTILIZER PER 1000 SQ. FT.; HARROW OR DISC INTO SOIL TO A DEPTH OF 3 TO 4 INCHES; APPLY PULVERIZED GROUND Limestone AT 92 LBS. PER 1000 SQ. FT.
 - C. SEEDING: APPLY 5.0 LBS. PER 1000 SQ. FT. OF KENTUCKY 31 TALL FESCUE ON A MOST SEED BED WITH SUITABLE EQUIPMENT. MINIMUM COVERAGE 1/4 INCH.
 - D. MULCHING: IMMEDIATELY AFTER SEEDING, UNIFORMLY MULCH ENTIRE AREA WITH UNWEATHERED SHALL GRAIN STRAW AT A RATE OF 1-1/2 TO 2 TONS PER ACRE. MULCH TO BE ANCHORED WITH MULCH ANCHORING TOOL ON THE CONTOUR OR ASPHALT TIE-DOWN METHODS.
7. TEMPORARY STABILIZATION:
 - A. PROVIDE SEED BED AS IN 6(B)
 - B. PROVIDE TEMPORARY SEEDINGS WITH 150 LBS. PER ACRE ANNUAL RYE SEED.
 - C. MULCH PER U.S.C.S. JOB SHEET MD-6 DATED 6/19/86.
8. IF TEMPORARY STABILIZATION IS REQUIRED, PERMANENT SEEDING SHALL BE PERFORMED DURING THE NEXT APPLICABLE PERIOD PER PARAGRAPH 6(A) ABOVE.
9. ALL FILL SLOPE AREAS SHOWN HEREON ARE TO BE STABILIZED PER PARAGRAPHS 6 OR 7 ABOVE IMMEDIATELY AFTER COMPLETION OF GRADING OPERATIONS FOR THESE SLOPES.
10. THE SITE CONTRACTOR MUST NOTIFY THE MARYLAND DEPARTMENT OF ENVIRONMENT IN WRITING FIVE (5) DAYS PRIOR TO ANY DISRUPTION OF THE CONSTRUCTION. FAILURE TO DO SO CONSTITUTES A VIOLATION OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

SEDIMENT CONTROL SEQUENCE OF CONSTRUCTION

1. MINIMIZE CLEARING AND GRADING OPERATIONS TO AREAS NECESSARY FOR IMMEDIATE CONSTRUCTION ACTIVITY.
2. RESTABILIZE DISTURBED AREAS AS SOON AS POSSIBLE.
3. INSTALL SILT FENCE AND STABILIZED CONSTRUCTION ENTRANCE.
4. EXCAVATE STORAGE LAGOON AND TREATMENT LAGOON. INSTALL UNDERDRAIN SYSTEM AND RIPRAP OUTLET. STABILIZE OUTSLOPES PER EROSION AND SEDIMENT CONTROL NOTE NO. 6 OR 7. EXCAVATED MATERIAL UNSUITABLE FOR FILL SHALL BE TRUCKED TO AN APPROVED DISPOSAL SITE.
5. CONSTRUCT TREATMENT BUILDINGS AND INSTALL UNDERGROUND SPRAY IRRIGATION LINES.
6. FINE GRADE AND PLACE GRAVEL DRIVES AS SHOWN.
7. UPON COMPLETION OF CONSTRUCTION, RESTORE ALL DISTURBED AREAS NOT OCCUPIED BY BUILDING OR PAVEMENT AS FOLLOWS:
 - A. 10% TO 15% LBS. PER 1000 SQ. FT.
 - B. 10% TO 15% FERTILIZER @ 25 LBS. PER 1000 SQ. FT.
 - C. KENTUCKY 31 FESCUE @ 5 LBS. PER 1000 SQ. FT.
8. AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED, REMOVE SEDIMENT FROM SEDIMENT TRAPS, REMOVE SILT FENCE, AND RESTORE AREA TO FINISHED SITE ELEVATIONS. SEED AND MULCH.
9. FOLLOWING WITHIN SOIL DISTURBED OR REDISTURBED: REINSTATE OR TEMPORARY STABILIZATION. Dikes, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1), AND 12 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. THE REQUIREMENTS OF THIS NOTE SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION OF THE PROJECT. ALL AREAS CURRENTLY BEING USED FOR MATERIAL STORAGE OR FOR THOSE AREAS ON WHICH ACTUAL CONSTRUCTION ACTIVITIES ARE CURRENTLY BEING PERFORMED, MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO INSURE THAT STABILIZED AREAS REMAIN EFFECTIVE THROUGHOUT THE CONSTRUCTION OF THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

DEVELOPER'S CERTIFICATION

ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE IN ACCORDANCE WITH THIS EROSION AND SEDIMENT CONTROL PLAN AND THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. I HEREBY CERTIFY THAT THE DEVELOPMENT AND CONSTRUCTION HAS BEEN MONITORED AND MAINTAINED IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PLAN AND THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. I HAVE BEEN ADVISED BY THE STATE OF MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DIVISION OF WATER AND WASTEWATER SERVICES, THAT THE EROSION AND SEDIMENT CONTROL PLAN HAS BEEN REVIEWED AND APPROVED BY THE STATE OF MARYLAND DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES, DIVISION OF WATER AND WASTEWATER SERVICES, AND THAT THE EROSION AND SEDIMENT CONTROL PLAN IS IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.

LEWIS S. MELTZER, PRESIDENT
RIVER RUN DEVELOPMENT ASSOCIATES
150 MAIN STREET
MINSCOLA, NY 11801
516-747-4300 EXT. 147

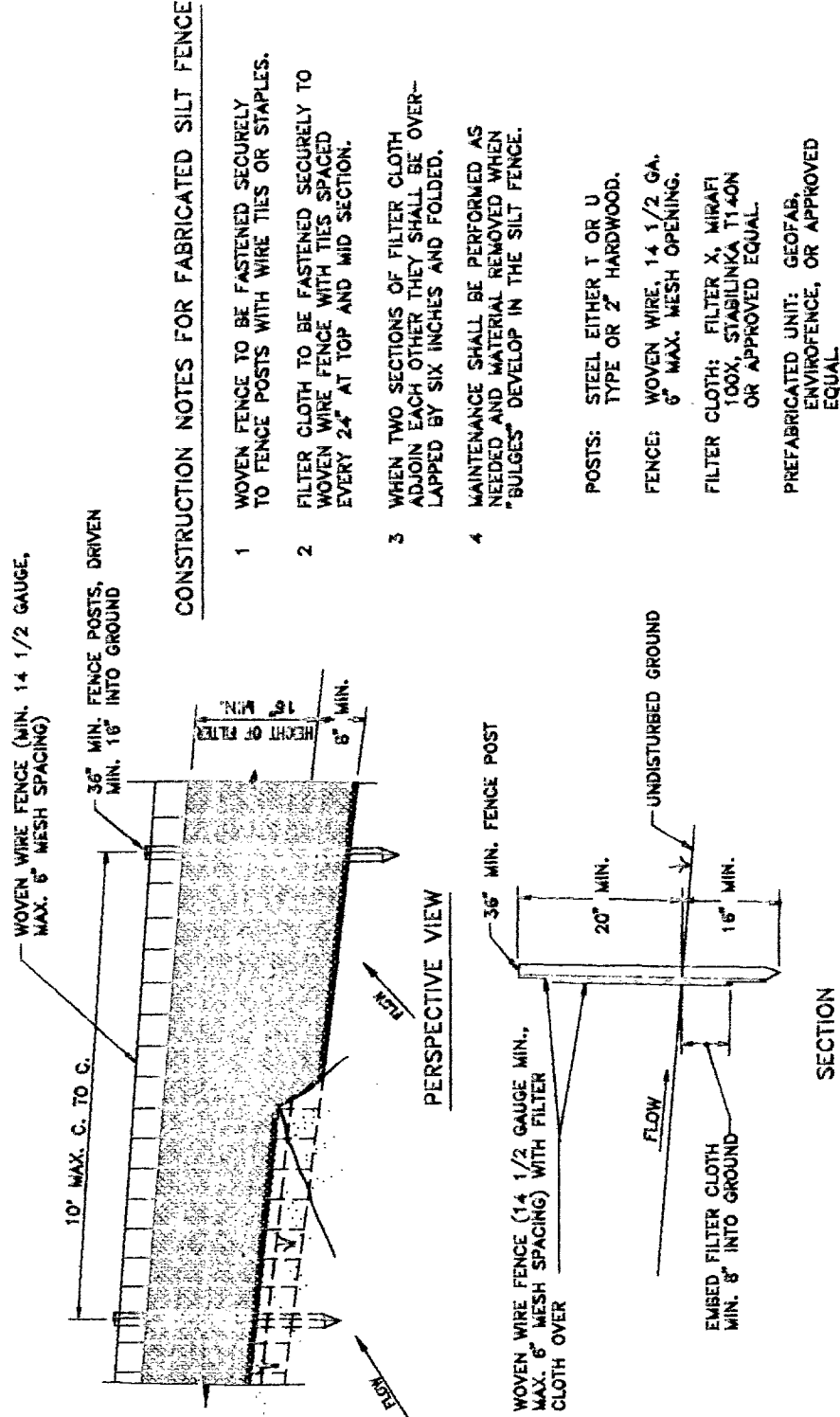
RESPONSIBLE PERSONNEL CERTIFICATION

ALL RESPONSIBLE PERSONNEL (ONE MINIMUM INVOLVED IN THE CONSTRUCTION PROJECT) WILL HAVE A CERTIFICATE OF ATTENDANCE FROM THE DEPARTMENT OF NATURAL RESOURCES, STATE OF MARYLAND APPROVED TRAINING PROGRAM FOR SOIL EROSION AND SEDIMENT CONTROL.

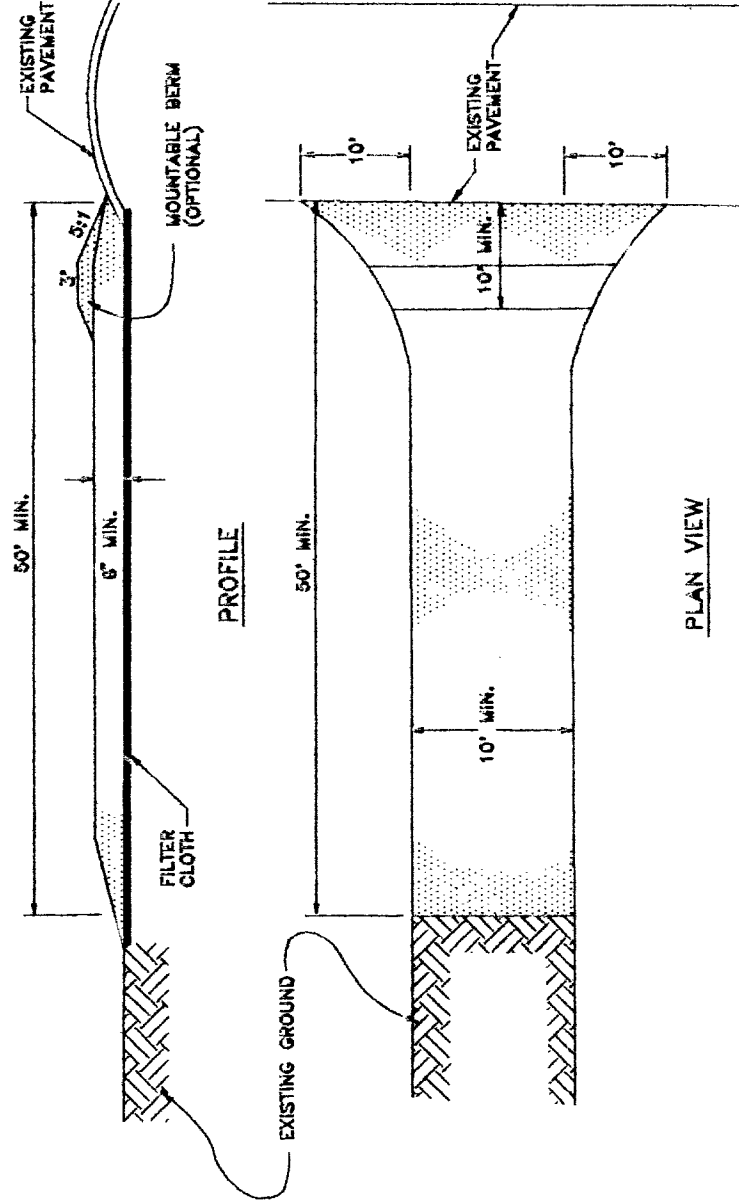
LEWIS S. MELTZER, PRESIDENT
RIVER RUN DEVELOPMENT ASSOCIATES
150 MAIN STREET
MINSCOLA, NY 11801
516-747-4300 EXT. 147

THE WORCESTER COUNTY SOIL CONSERVATION DISTRICT APPROVES THIS PLAN.

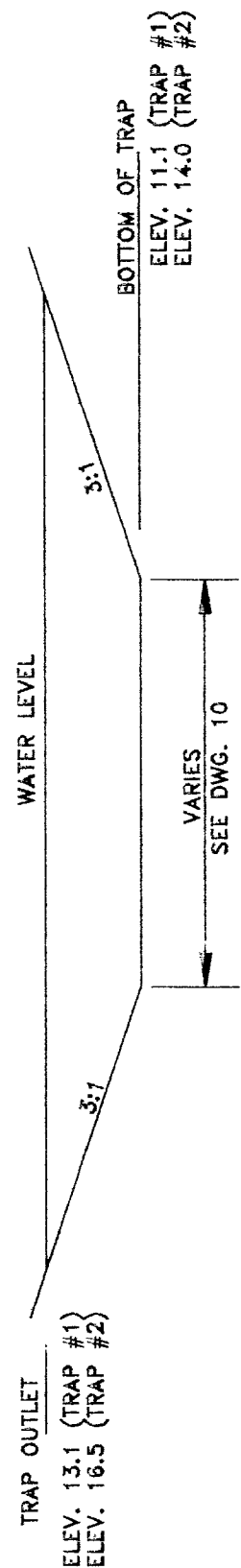
CHAIRMAN: WORCESTER COUNTY SOIL CONSERVATION DISTRICT
REVIEWED BY: RESPONSIBLE PERSONNEL CERT. DATE



SILT FENCE



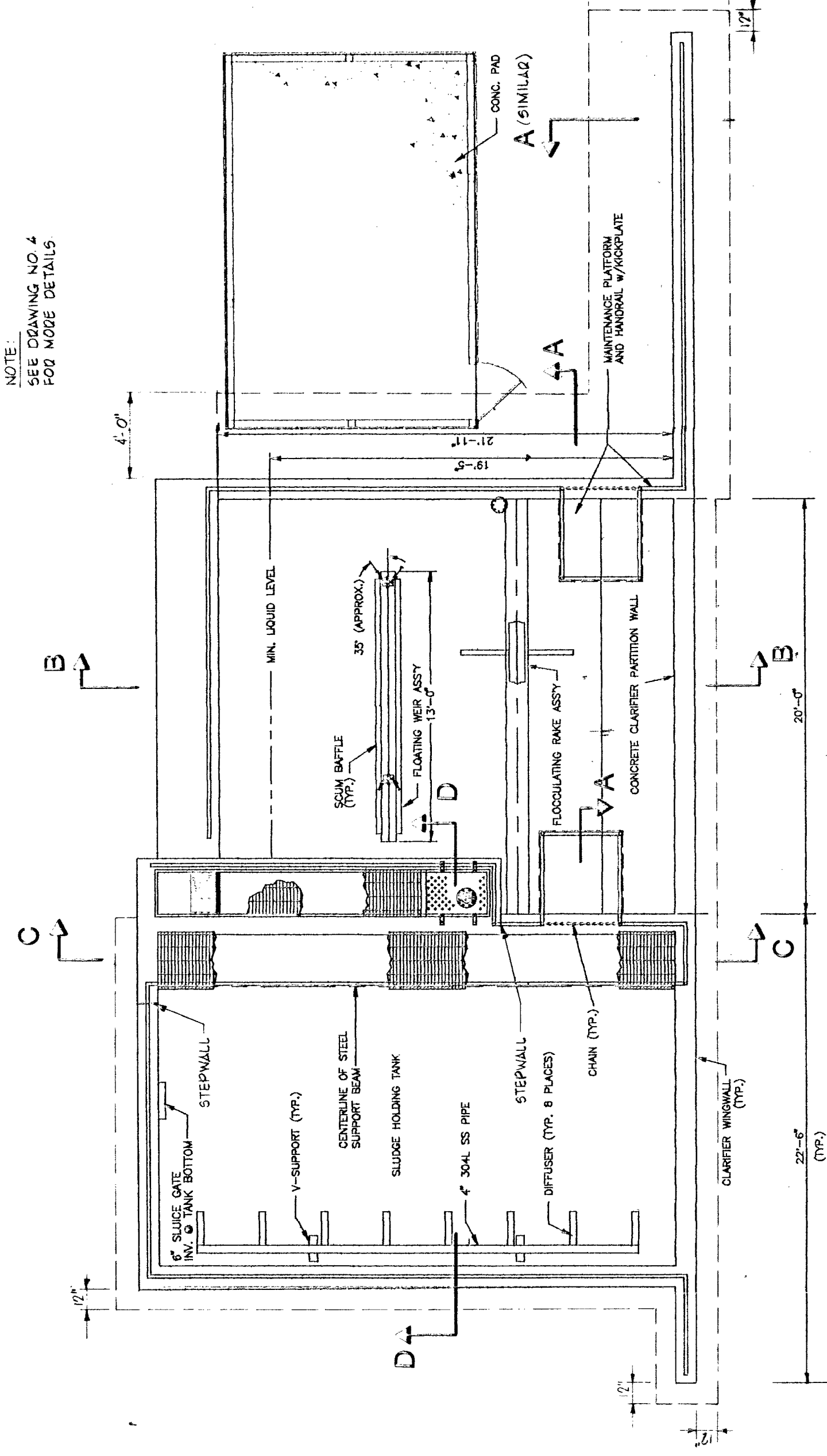
SEDIMENT TRAP DETAIL



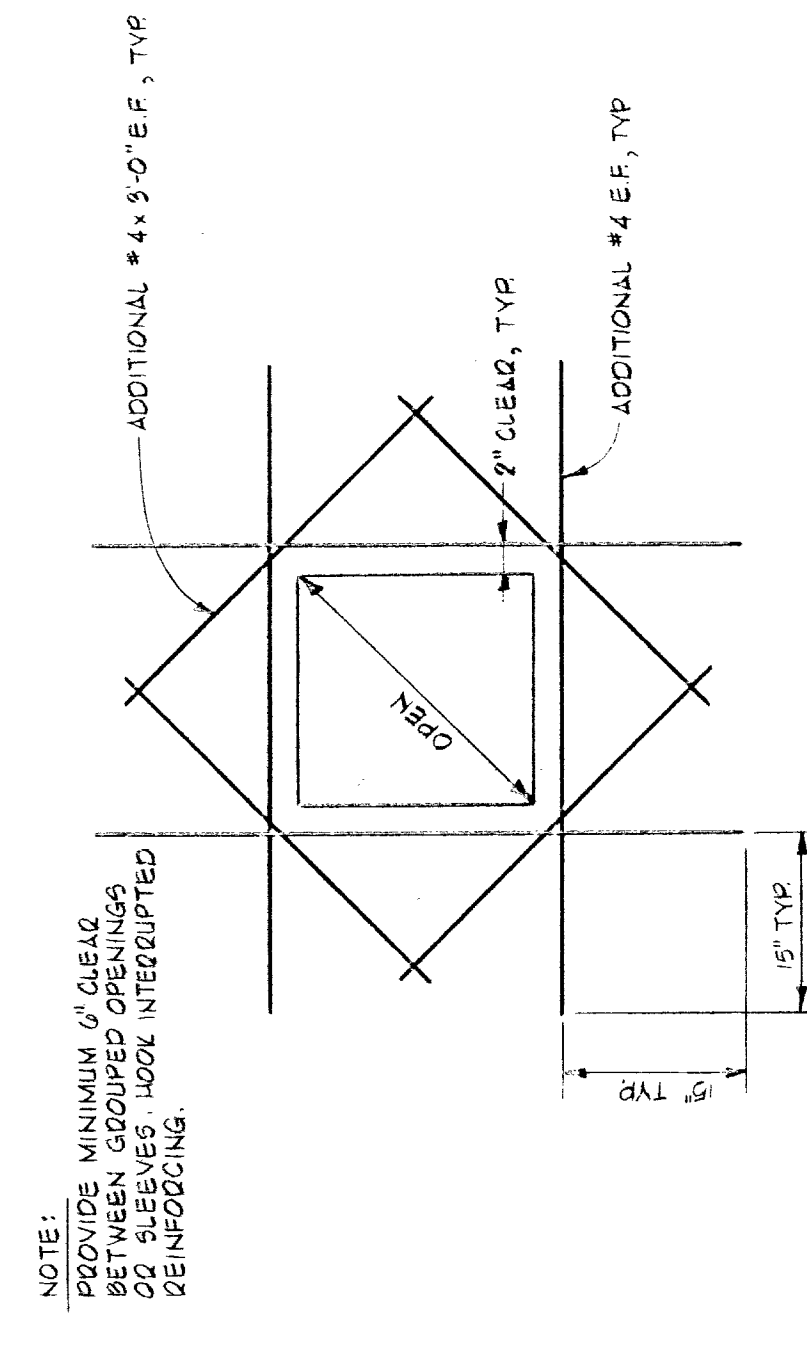
STABILIZED CONSTRUCTION ENTRANCE

1. FENCE SET 10' FROM 2' FENCE IS REQUIRED ON INTERIOR OPPOSITE ENDPOINT.
2. FENCE SET 10' FROM 2' FENCE IS REQUIRED ON INTERIOR OPPOSITE ENDPOINT.
3. FENCE SET 10' FROM 2' FENCE IS REQUIRED ON INTERIOR OPPOSITE ENDPOINT.
4. FENCE SET 10' FROM 2' FENCE IS REQUIRED ON INTERIOR OPPOSITE ENDPOINT.
5. FENCE SET 10' FROM 2' FENCE IS REQUIRED ON INTERIOR OPPOSITE ENDPOINT.
6. FENCE SET 10' FROM 2' FENCE IS REQUIRED ON INTERIOR OPPOSITE ENDPOINT.
7. FENCE SET 10' FROM 2' FENCE IS REQUIRED ON INTERIOR OPPOSITE ENDPOINT.
8. FENCE SET 10' FROM 2' FENCE IS REQUIRED ON INTERIOR OPPOSITE ENDPOINT.
9. FENCE SET 10' FROM 2' FENCE IS REQUIRED ON INTERIOR OPPOSITE ENDPOINT.

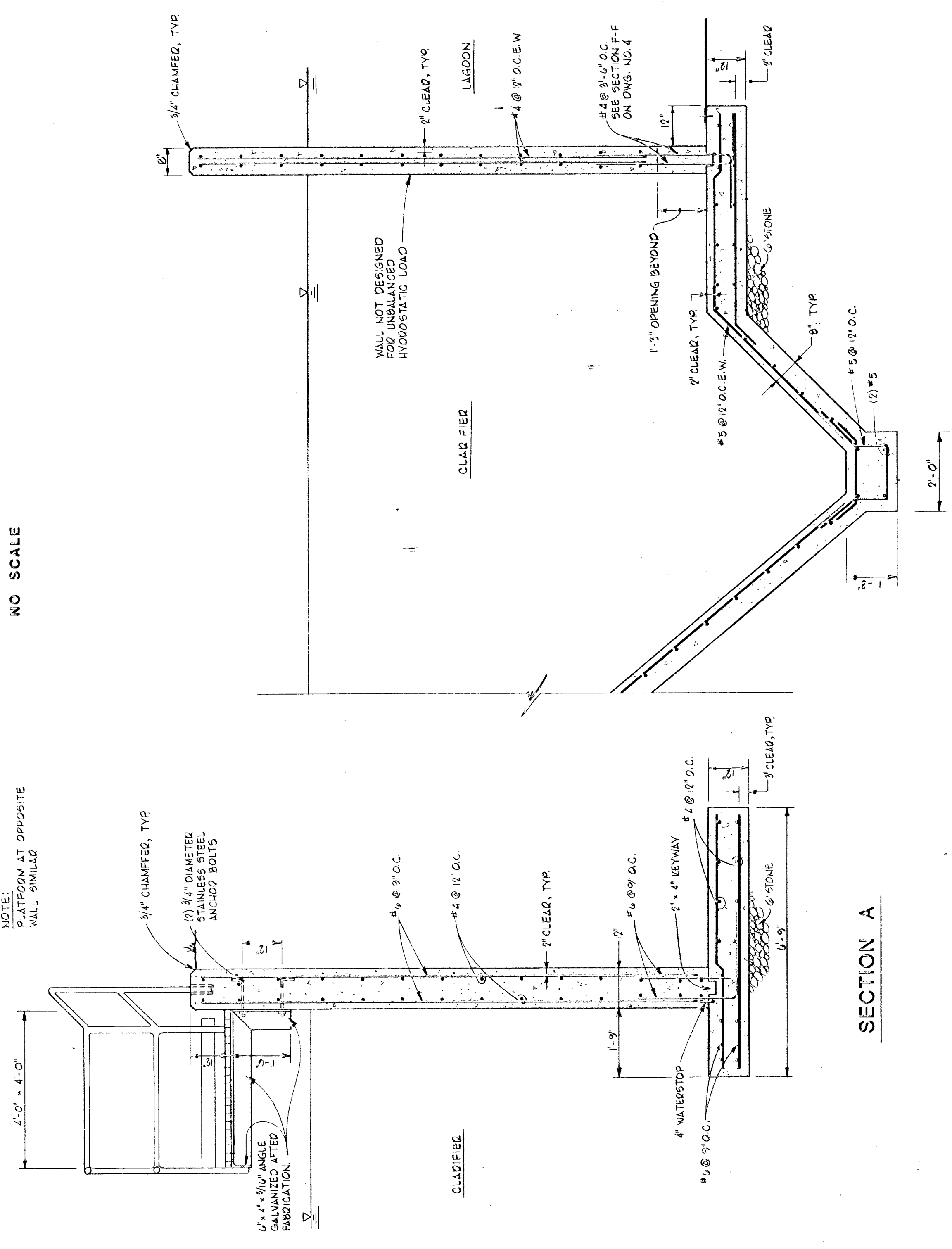
THESE PLANS HAVE BEEN REVIEWED AND APPROVED BY THE MARYLAND DEPARTMENT OF WATER AND WASTEWATER SERVICES.



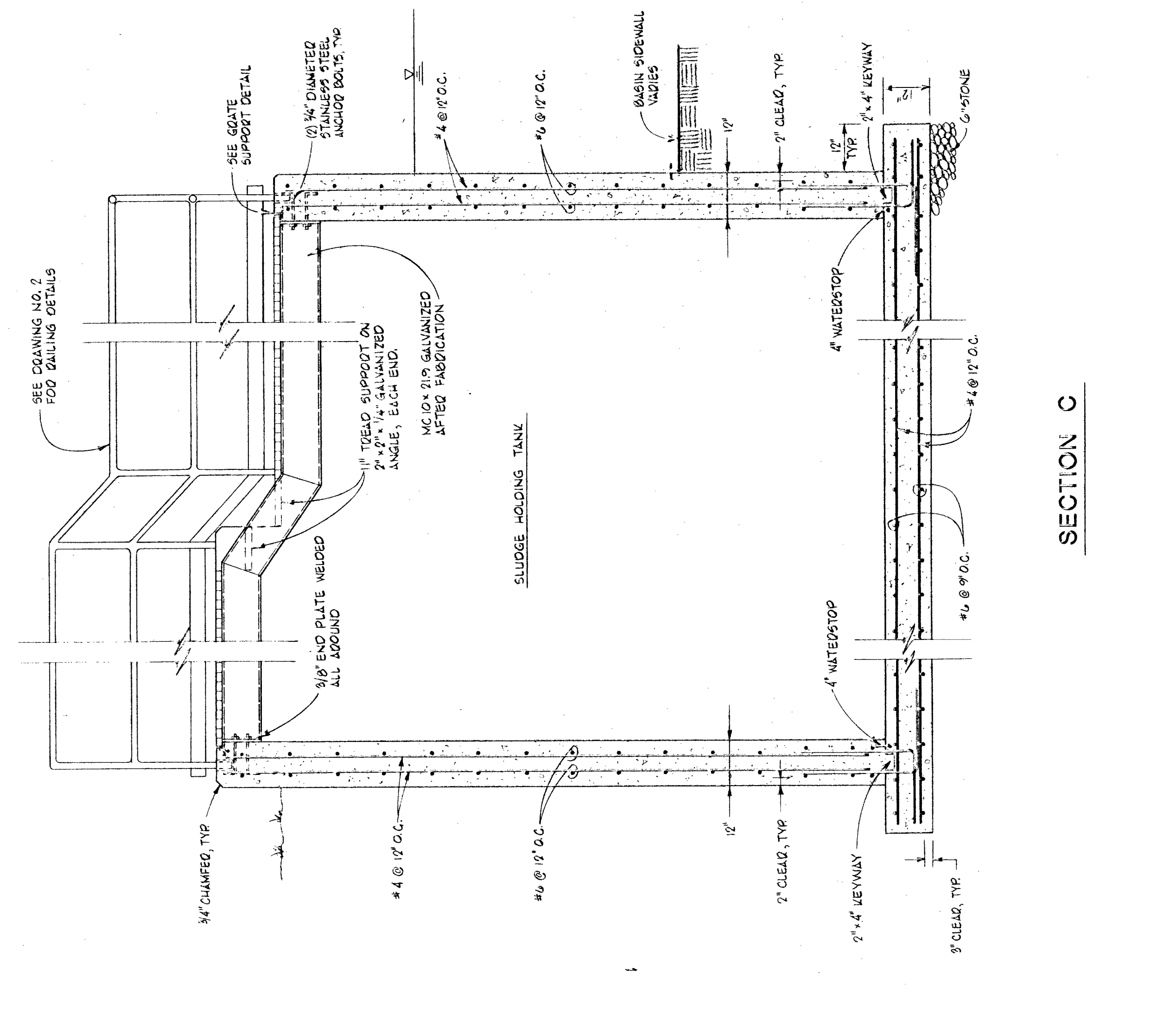
CLARIFIER PLAN
3/16" = 1'-0"



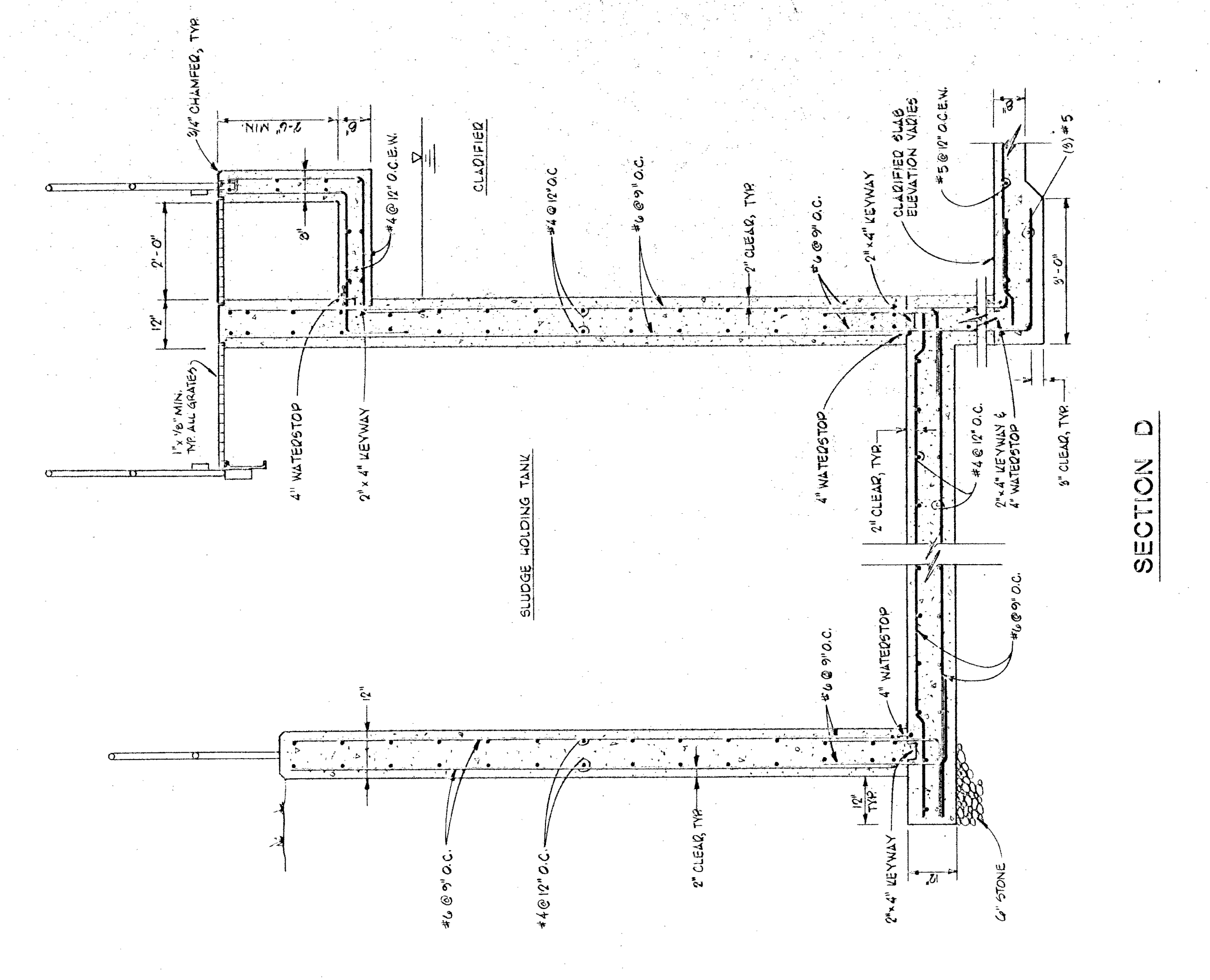
SLAB & WALL OPENING
NO SCALE



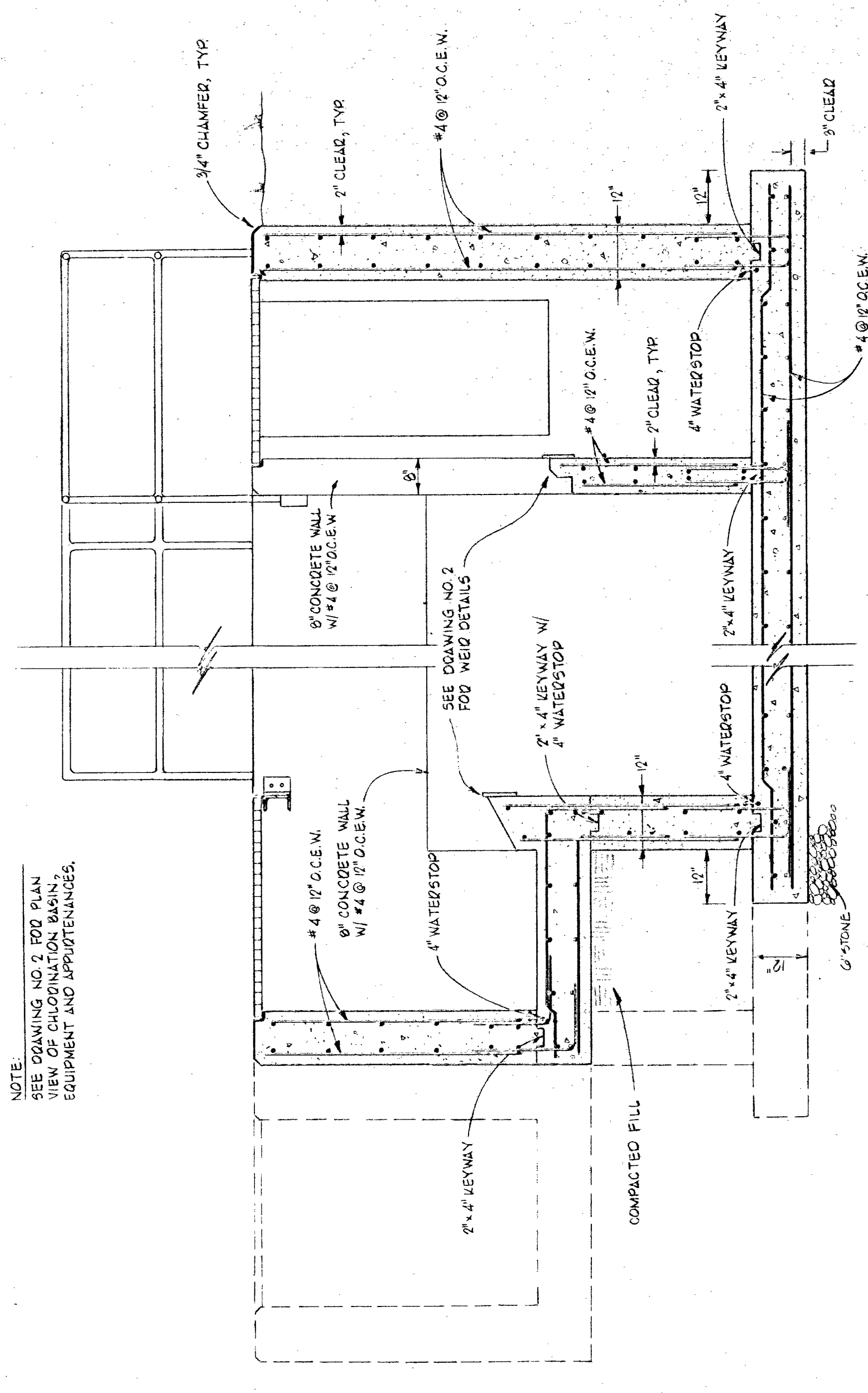
SECTION A



SECTION C

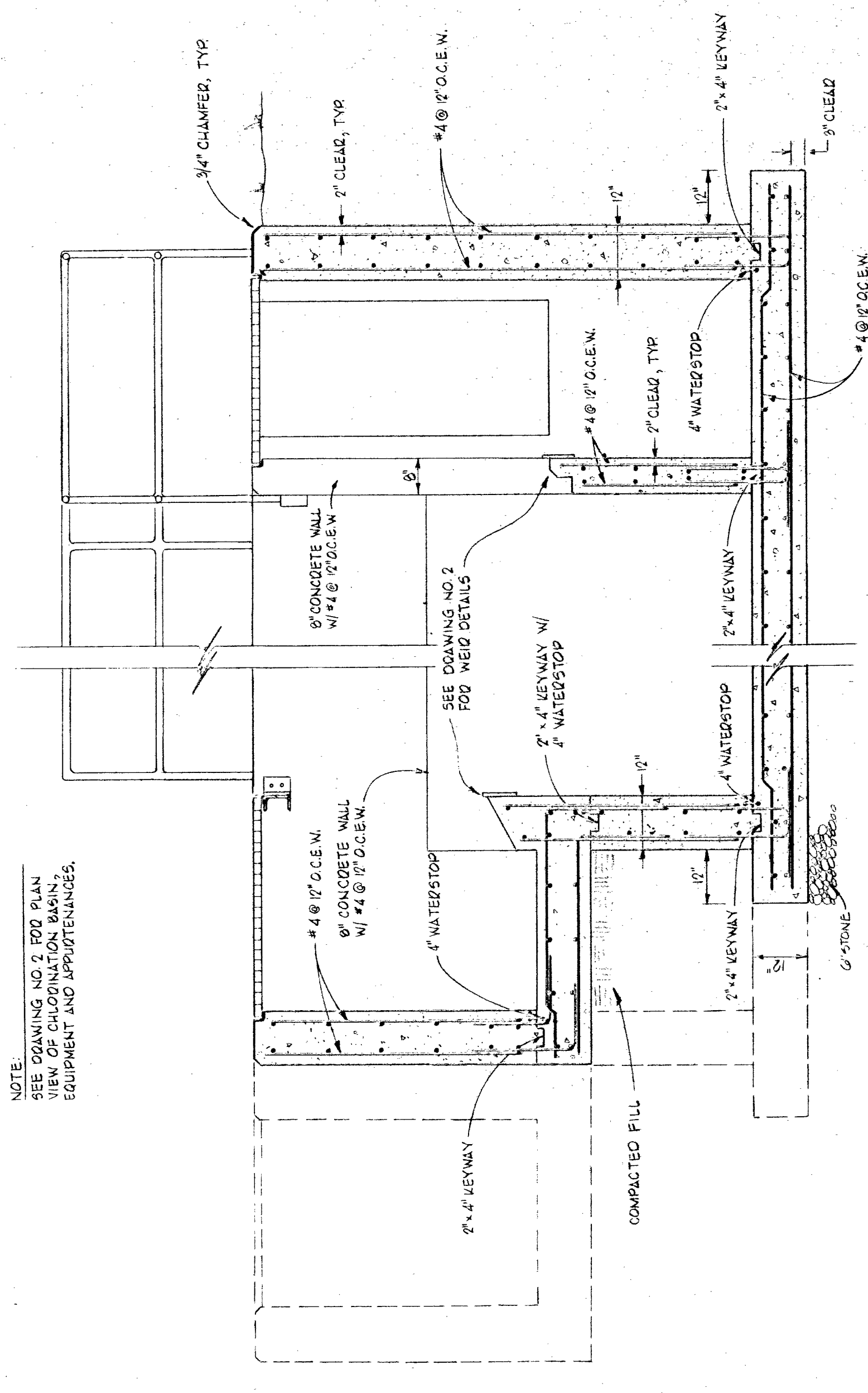


SECTION D



SECTION B-B (DWG. NO. 2)

CHLORINATION BASIN
1/2" = 1'-0"



SECTION C-C (DWG. NO. 2)

THIS PLAN MAY BE REVISED AND AMENDED IN THE FUTURE WITHOUT NOTICE TO THE CLIENT AND WITHOUT NOTICE TO THE ENGINEER AND ARCHITECT.

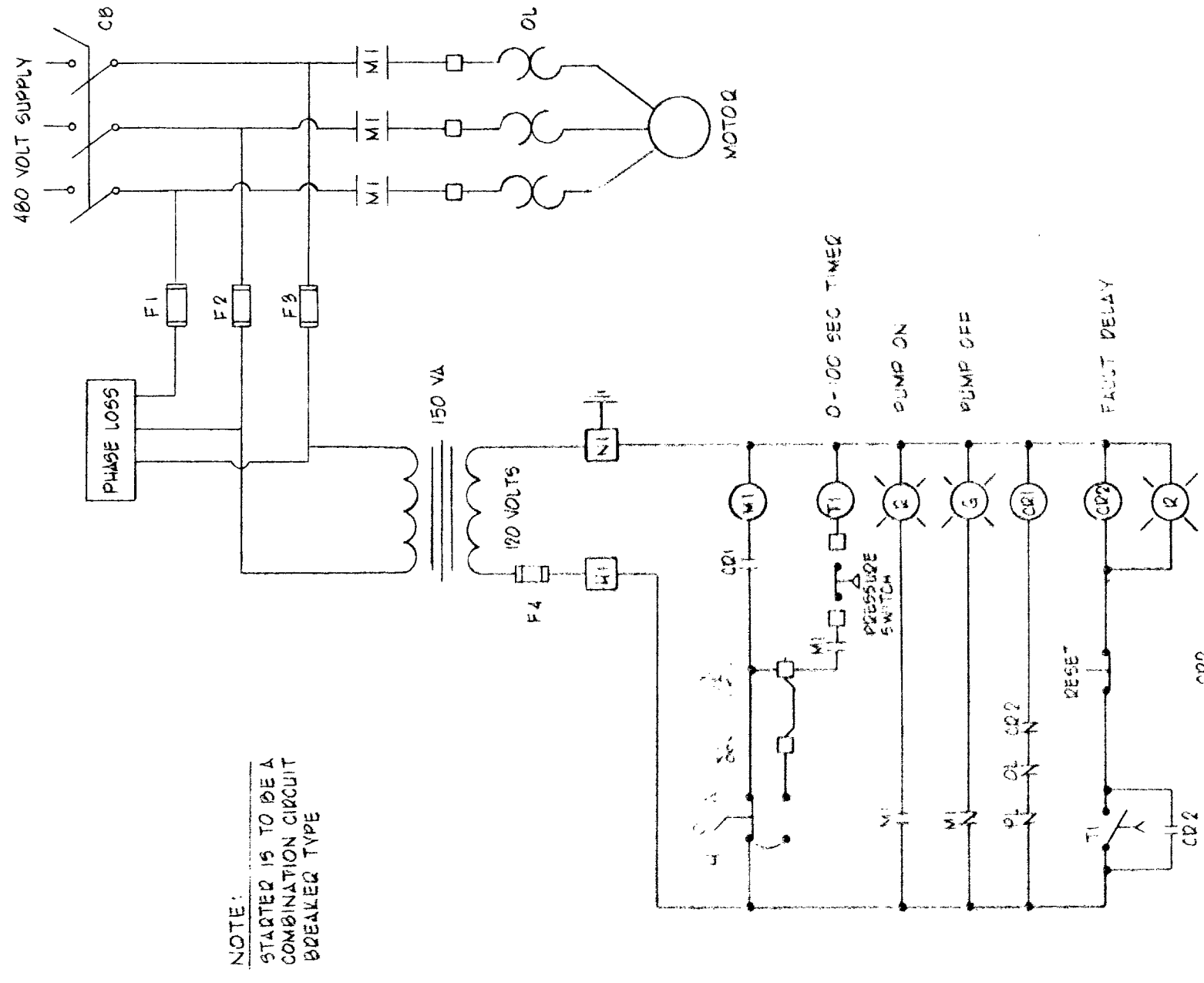
SECTION B

RIVER RUN WASTEWATER TREATMENT PLANT
WORCESTER COUNTY, MARYLAND

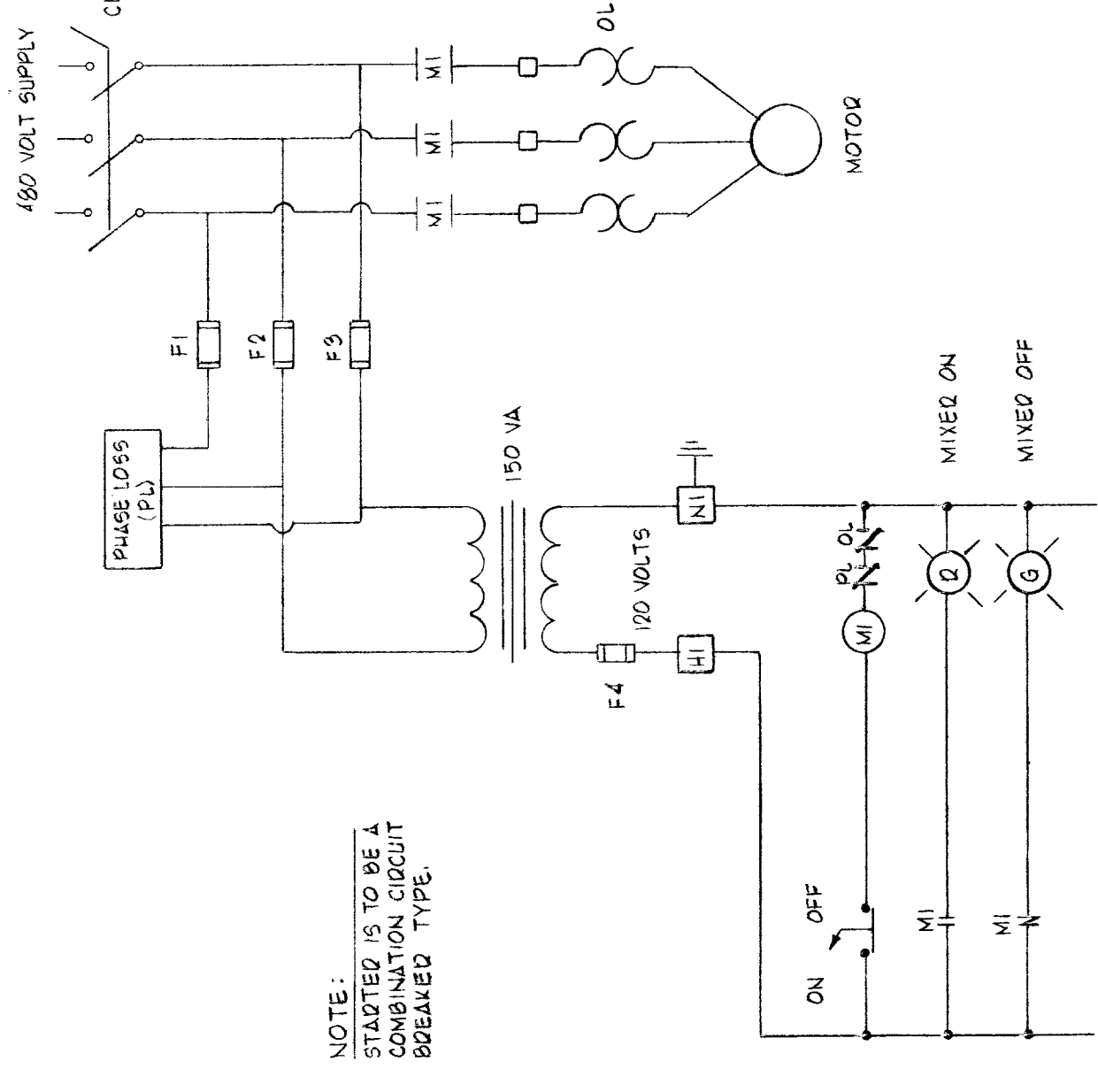
DATE MAY 1994
SCALE AS SHOWN
DRAWN BY DLS
PROJECT NO. 923A001
DWG. NO. 0

DAVIS, BOWEN & FRIEDL, INC.
ARCHITECTS, ENGINEERS & SURVEYORS
SALISBURY, MARYLAND 21801

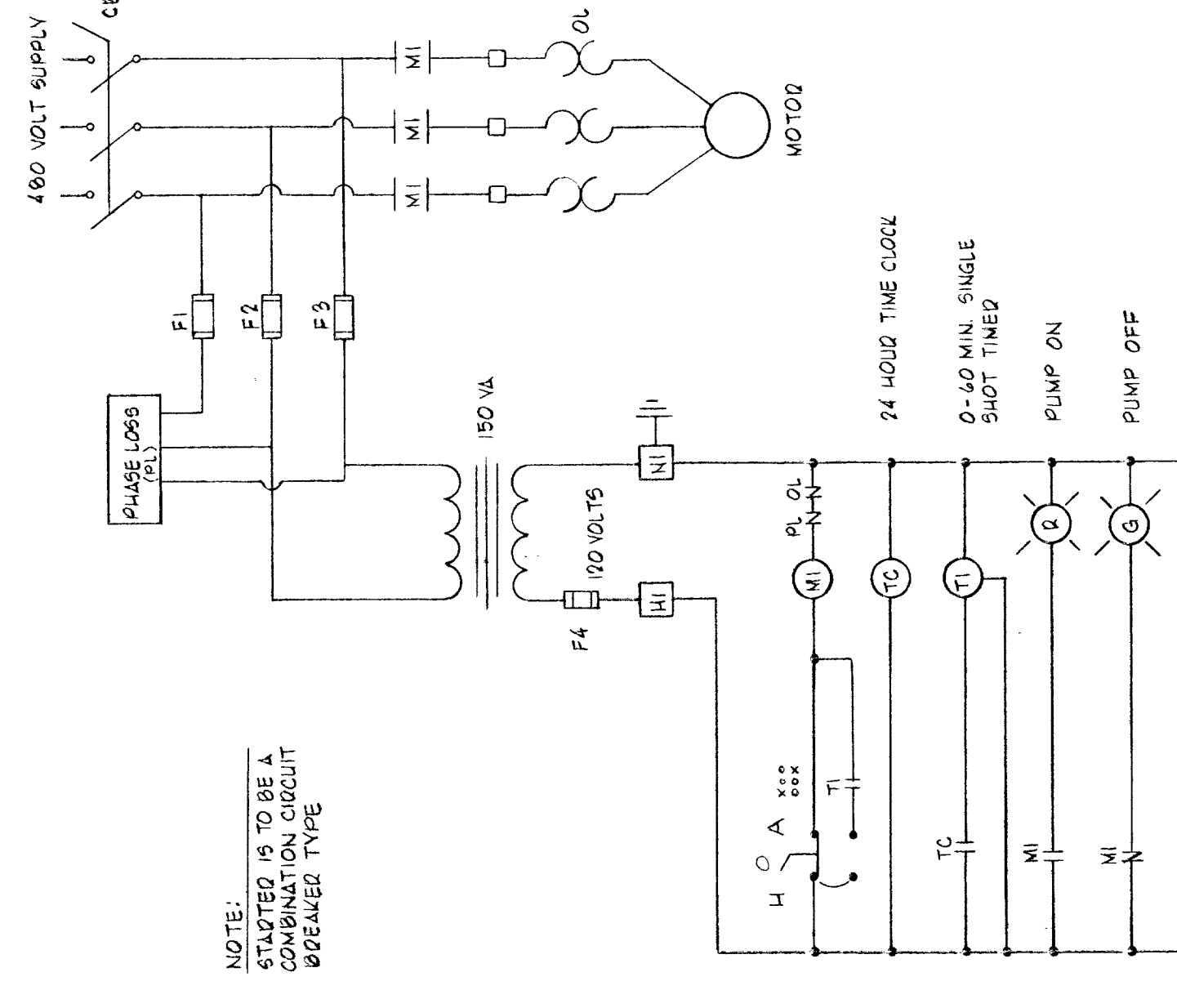
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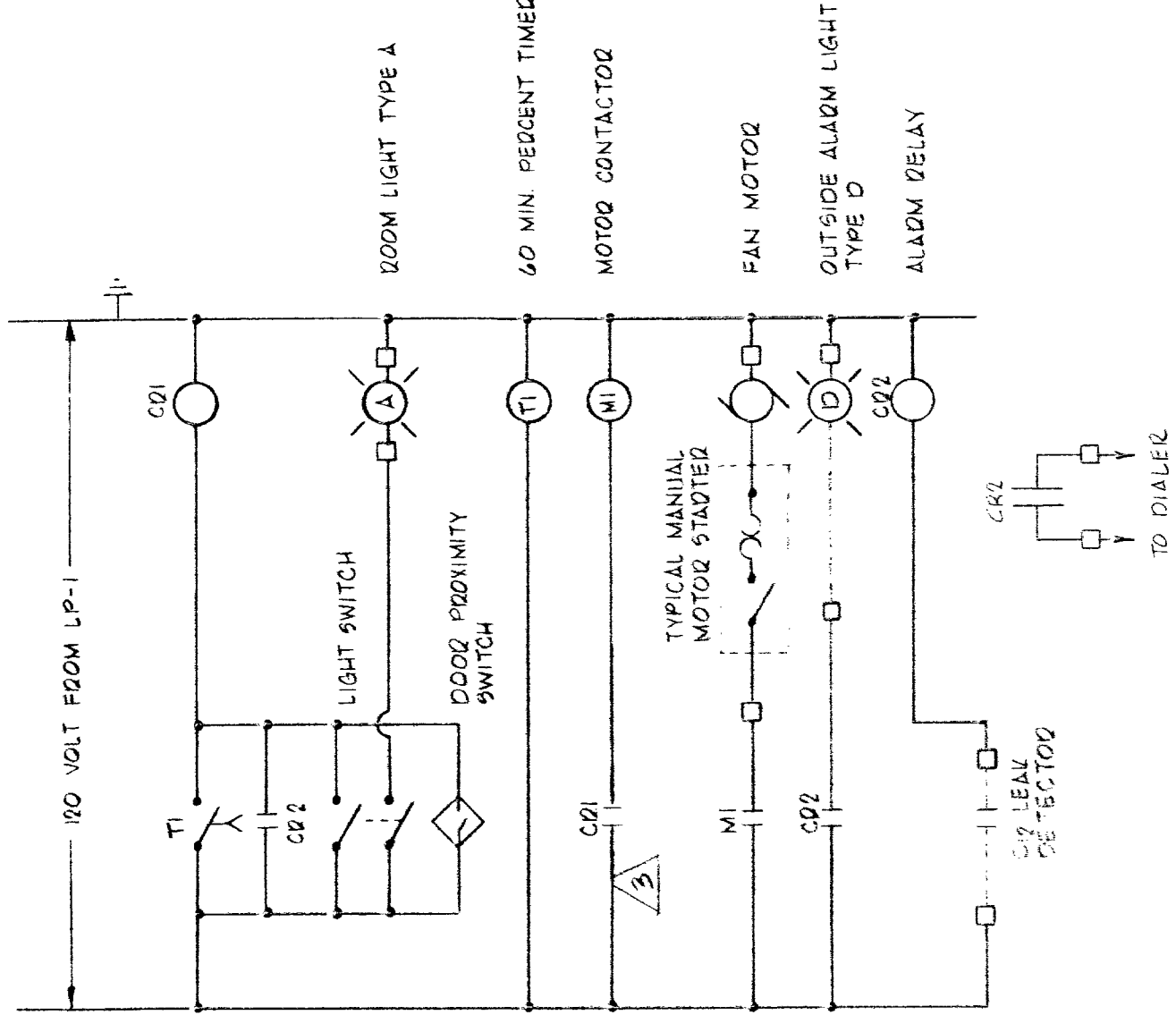
TYPICAL PUMP STARTER DETAIL
NO SCALE



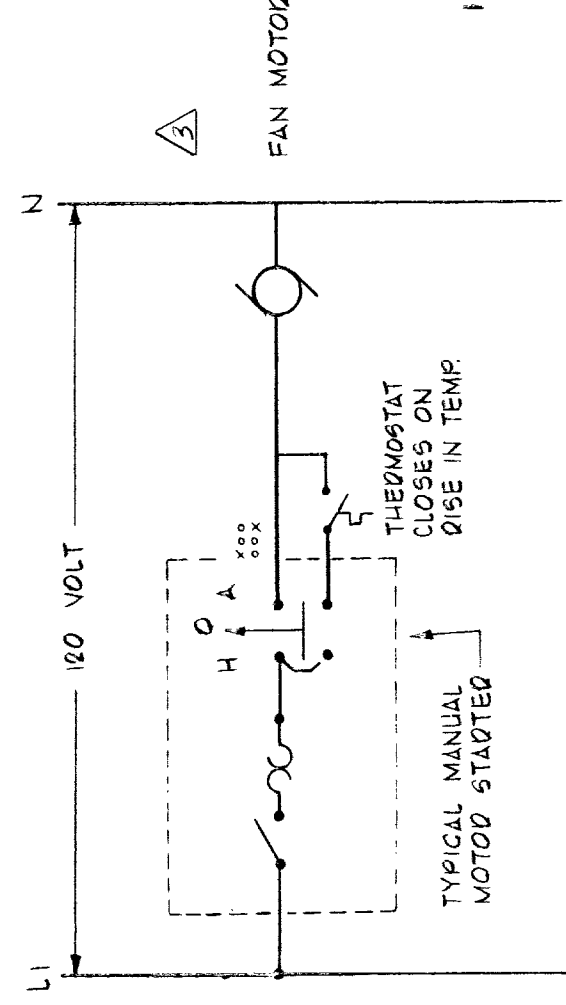
MIXER & INLET MOTOR STARTER DETAIL
NO SCALE



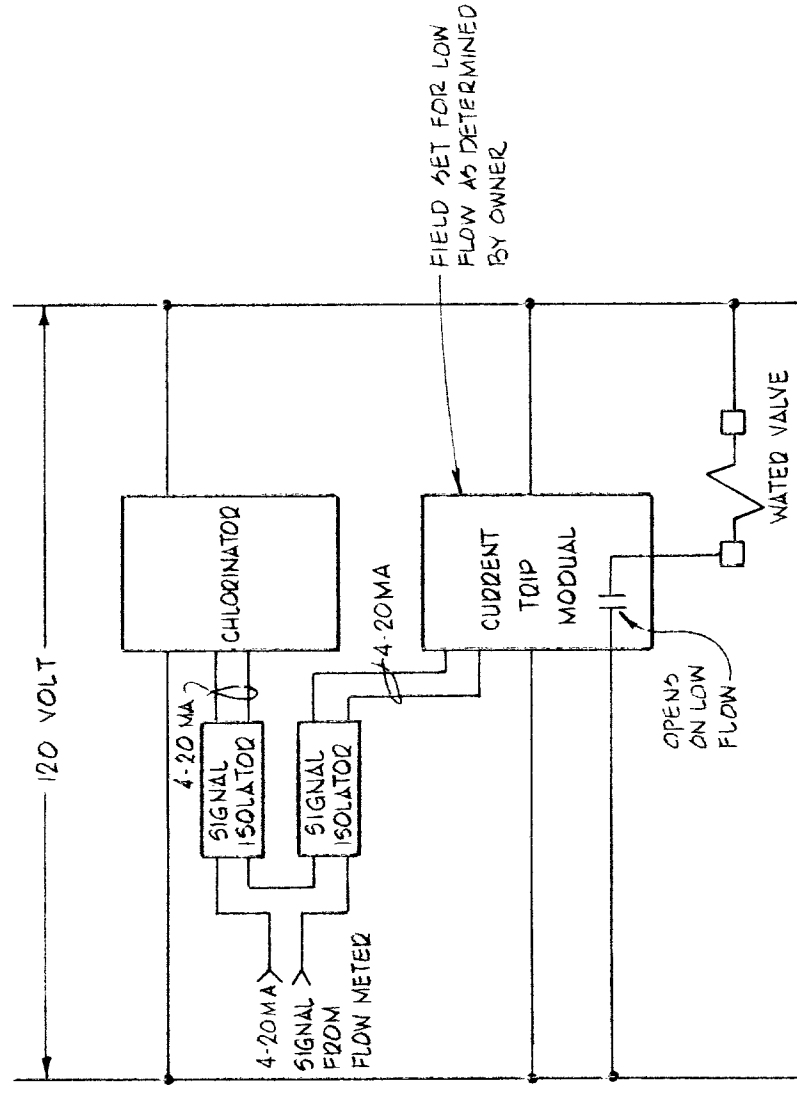
DOSING PUMP STARTER DETAIL
NO SCALE



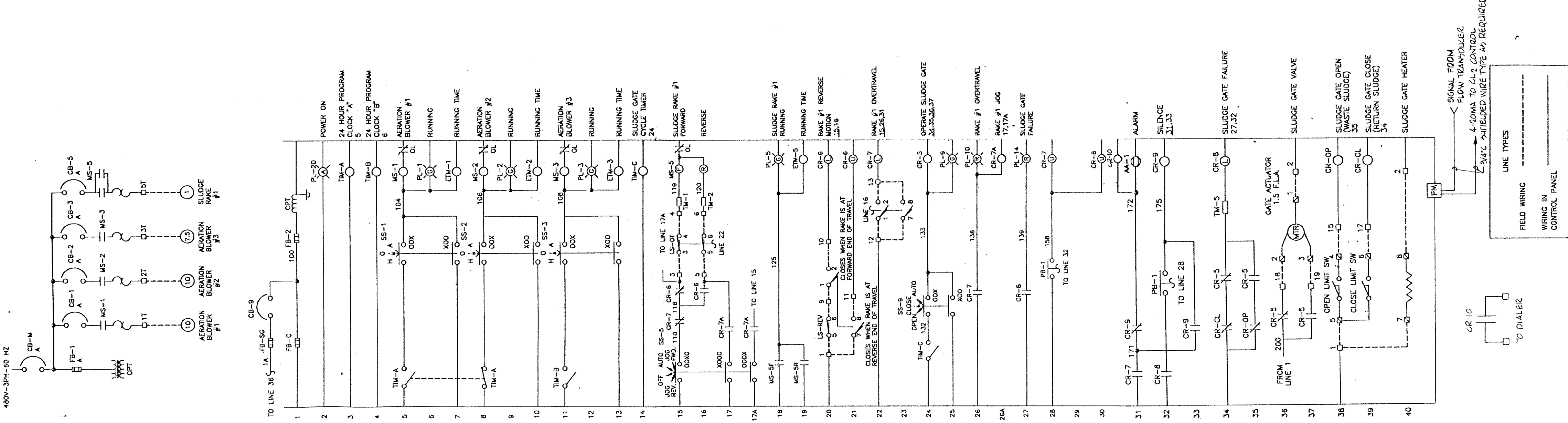
CHLORINE ROOM VENTILATION CONTROL PANEL
NO SCALE



TYPICAL EXHAUST FAN CONTROL DIAGRAM
NO SCALE

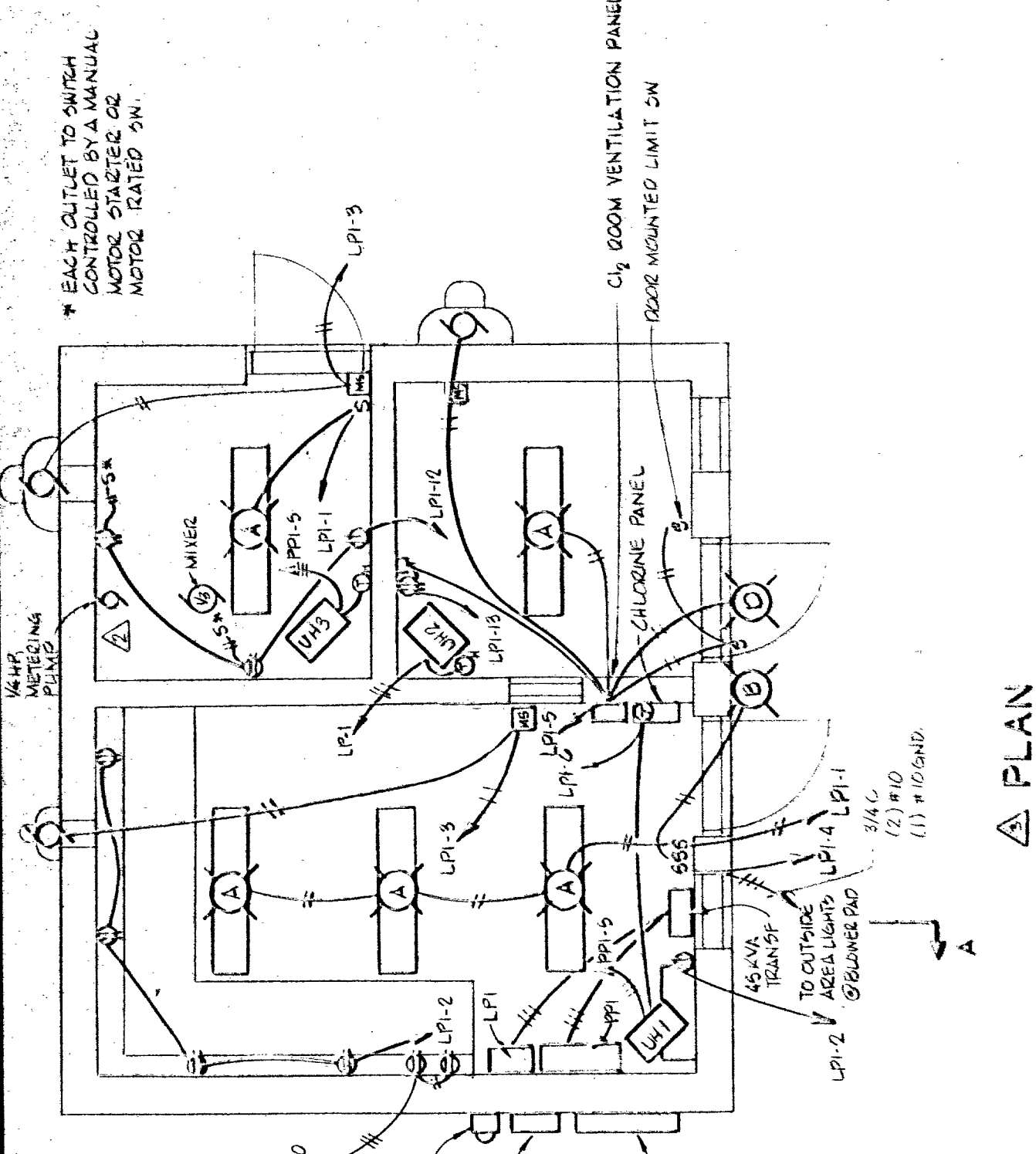


CHLORINATOR CONTROL DETAIL
NO SCALE

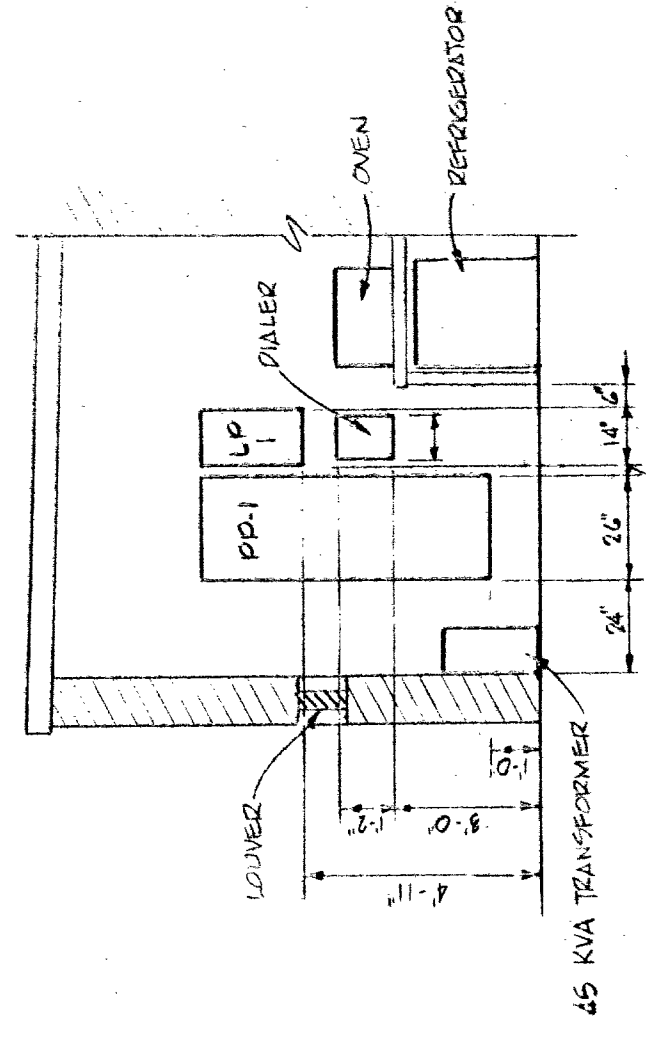


CONTROL PANEL SCHEMATIC
NO SCALE

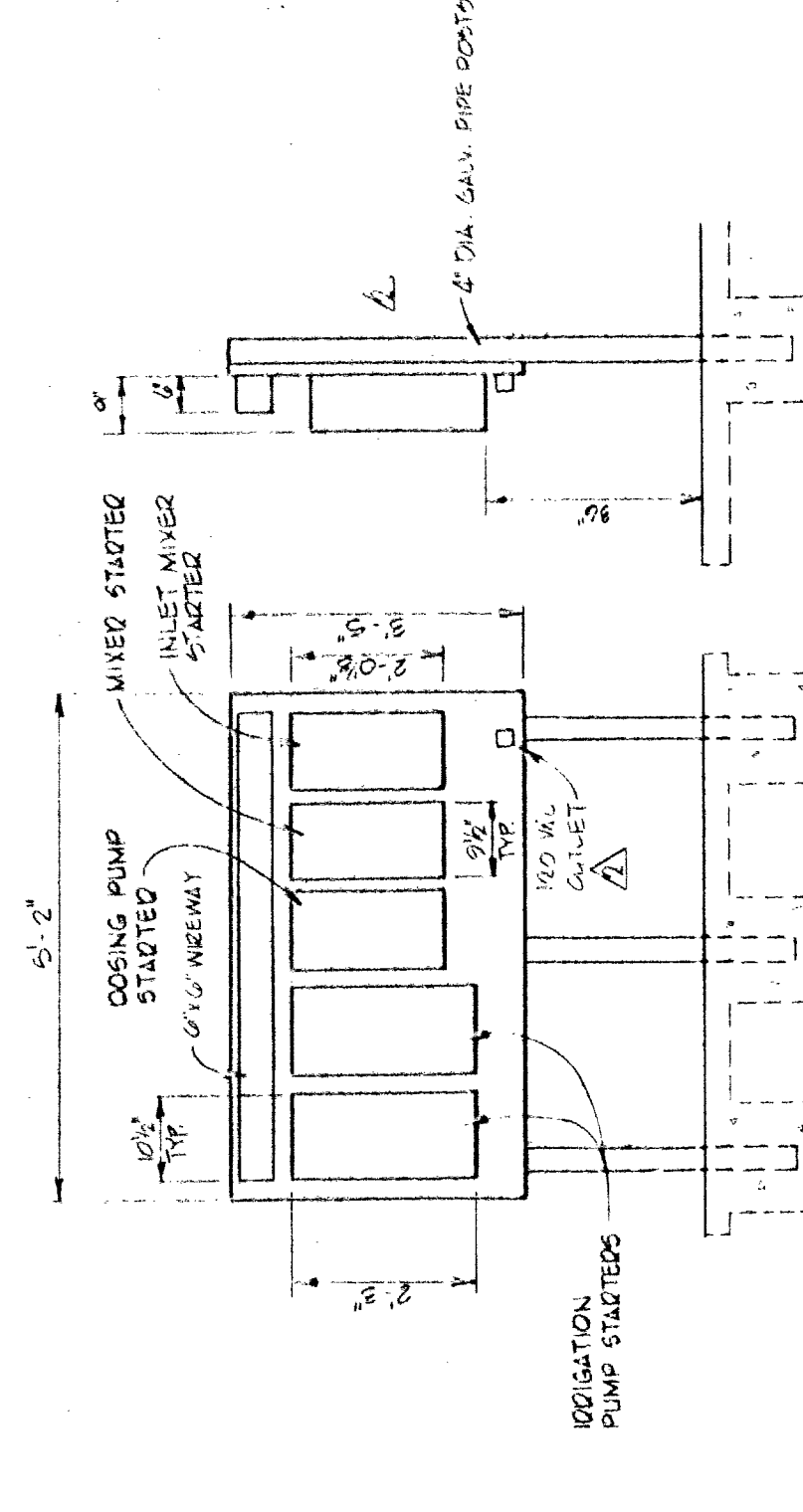
THESE PLANS HAVE BEEN REVIEWED AND APPROVED BY THE WORCESTER COUNTY DEPARTMENT OF WATER AND WASTEWATER SERVICES.
J. L. [Signature]
DIRECTOR, DEPARTMENT OF WATER AND WASTEWATER SERVICES



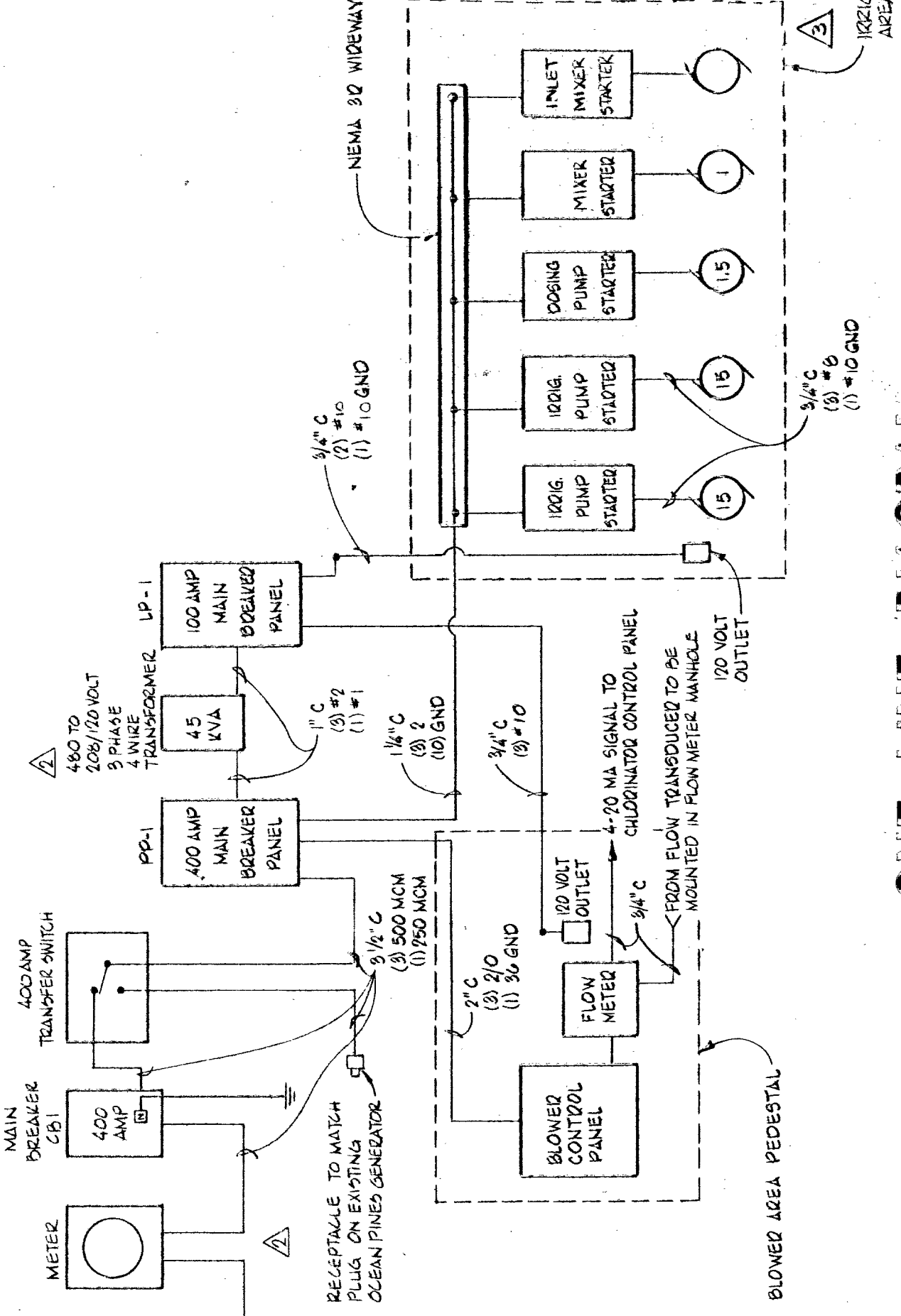
PLAN



SECTION A
LAB/CHLORINE BUILDING
1/4" = 1'-0"

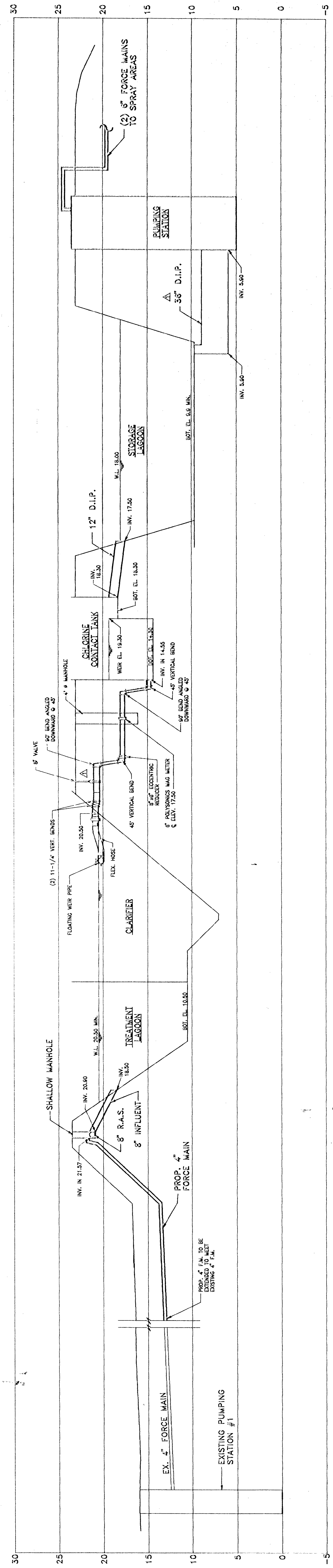


PUMP STARTER PEDESTAL DETAIL
NO SCALE

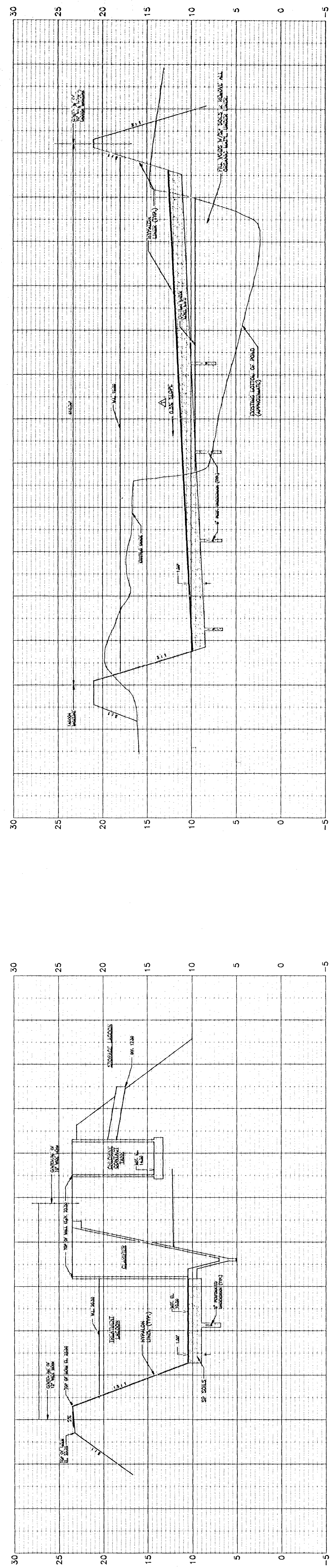


ONE LINE DIAGRAM
NO SCALE

THESE PLANS HAVE BEEN REVIEWED AND APPROVED BY THE WORCESTER COUNTY DEPARTMENT OF WATER AND WASTEWATER SERVICES.
J. L. [Signature]
DIRECTOR, DEPARTMENT OF WATER AND WASTEWATER SERVICES

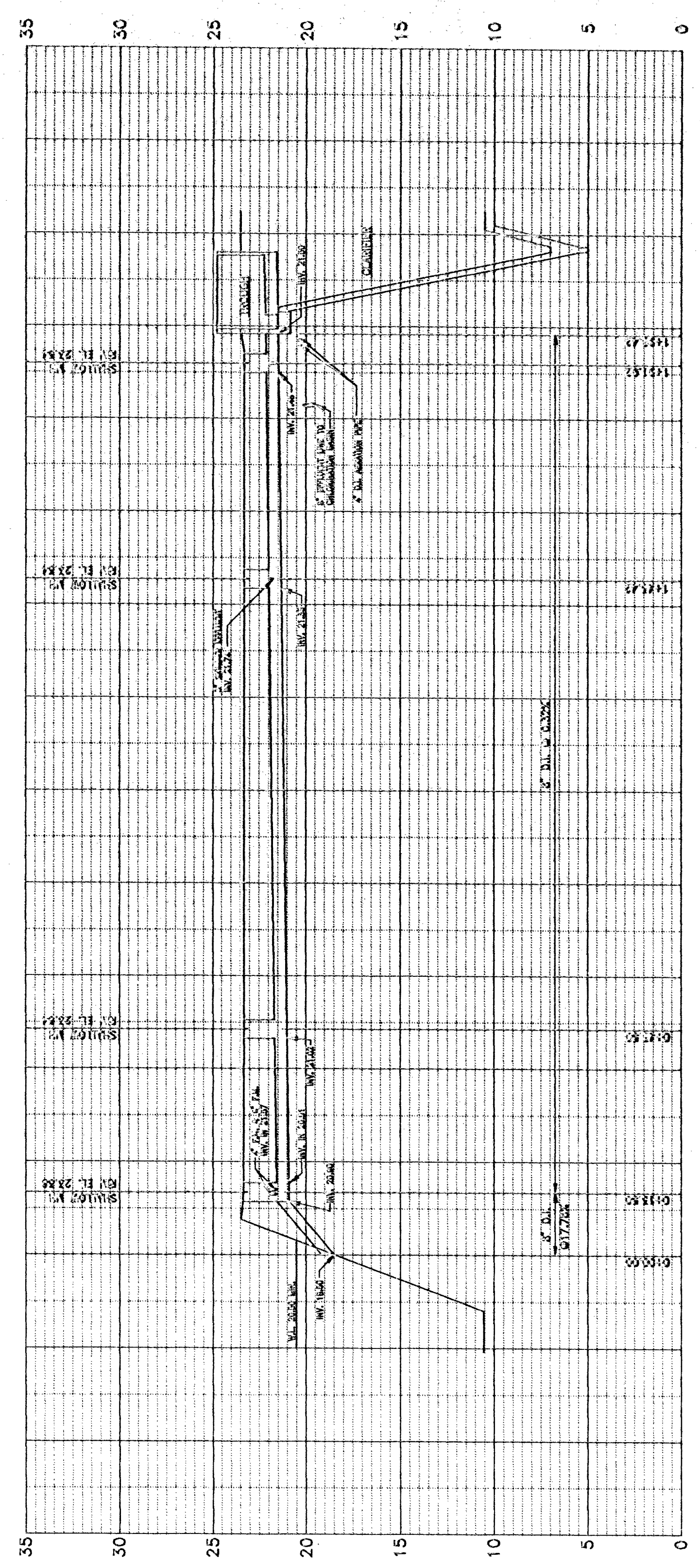


HYDRAULIC PROFILE
NOT TO SCALE HORIZ.
1\"/>



SECTION - TREATMENT SYSTEM
1\"/>

SECTION - STORAGE LAGOON
1\"/>



SECTION - SLUDGE RETURN (R.A.S.) LINE
1\"/>

THESE PLANS HAVE BEEN REVIEWED AND APPROVED
BY THE ENGINEER IN CHARGE OF THE
WATER AND WASTEWATER DIVISION OF THE
COUNTY DEPARTMENT OF WATER
AND WASTEWATER SERVICES

[Signature]
COUNTY DEPARTMENT OF WATER
AND WASTEWATER SERVICES

