

EASTSIDE WASTEWATER TREATMENT PLANT

FOR

CITY OF JOLIET , ILLINOIS

PHASE V

NITRIFICATION

FEBRUARY, 1988

CONTRACT 2-88

RECORD DRAWINGS DECEMBER 1991

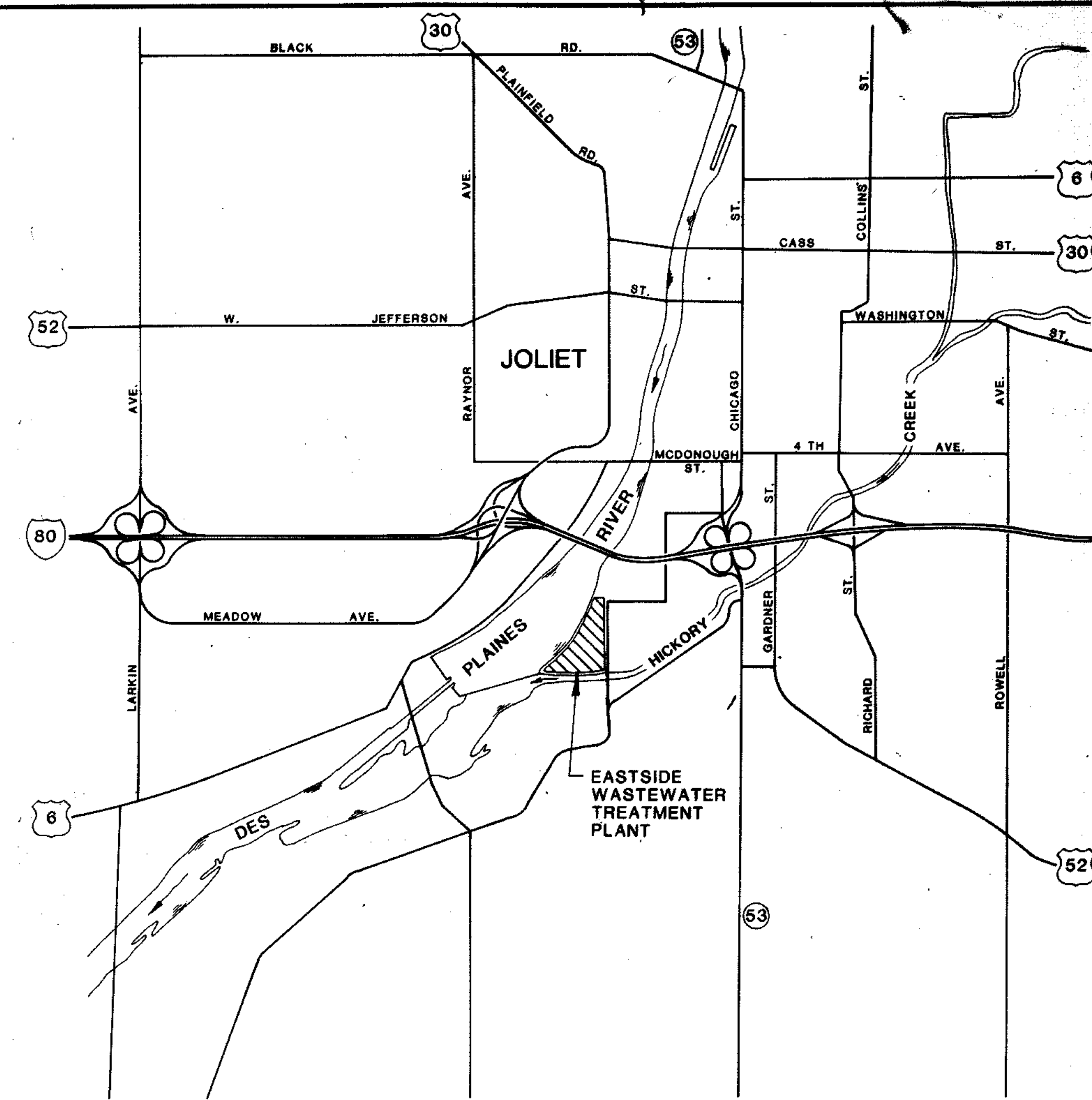
RECORD DRAWINGS DECEMBER, 1991

NOTE: THESE RECORD PLANS WERE PREPARED FROM INFORMATION SUPPLIED
BY THE GENERAL CONTRACTOR'S RECORD PLANS KEPT AT THE
CONSTRUCTION SITE DURING CONSTRUCTION.


STRAND
ASSOCIATES, INC.
CONSULTING ENGINEERS
Madison, Wisconsin

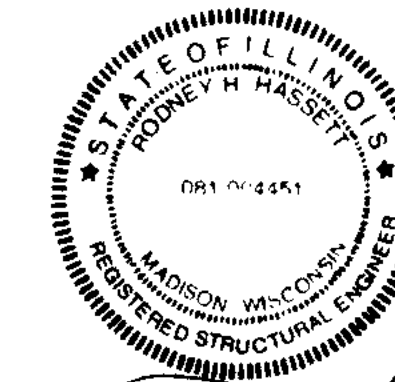
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SITE LOCATION MAP
1" = 2000

| | |
|------------------------|------|
| OVERLAY IDENTIFICATION | DATE |
| COMPOSITE | DATE |
| OVERLAY | DATE |
| SCREEN | DATE |
| PROJECT NO. | DATE |



Theodore J. Richards

Rodney H. Hesse

← R RECORD DRAWING 11-91 JKP

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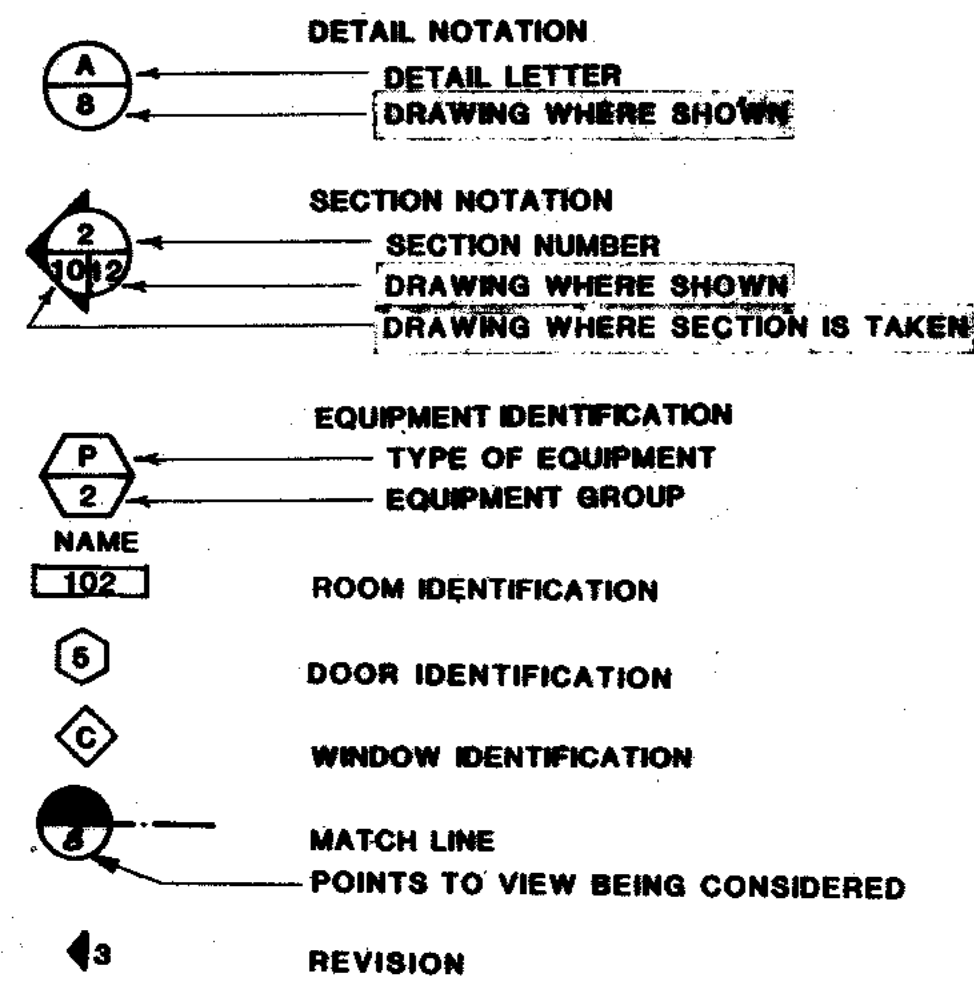
CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
DRAWING LIST AND SITE LOCATION MAP

SCALE AS SHOWN

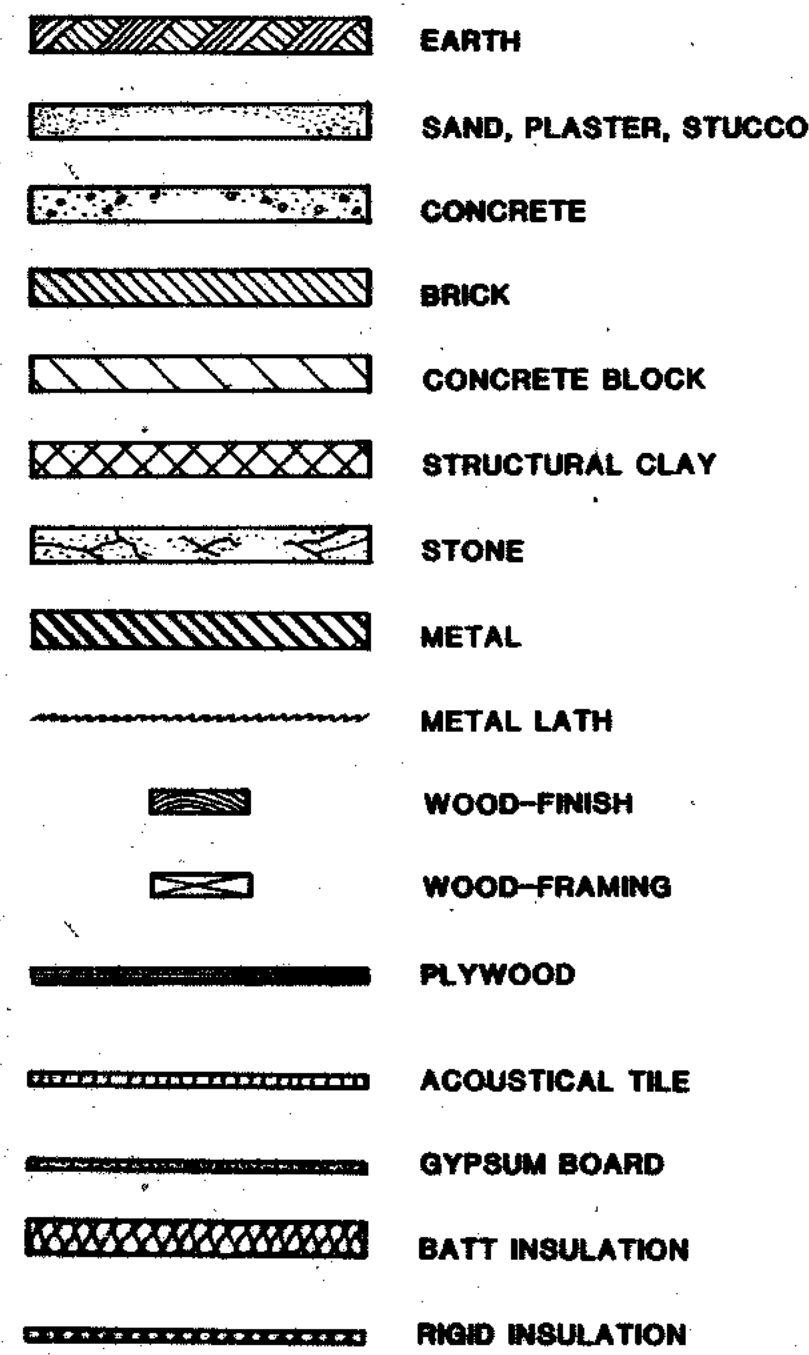
DATE

DRAWING NO.
255-230-61

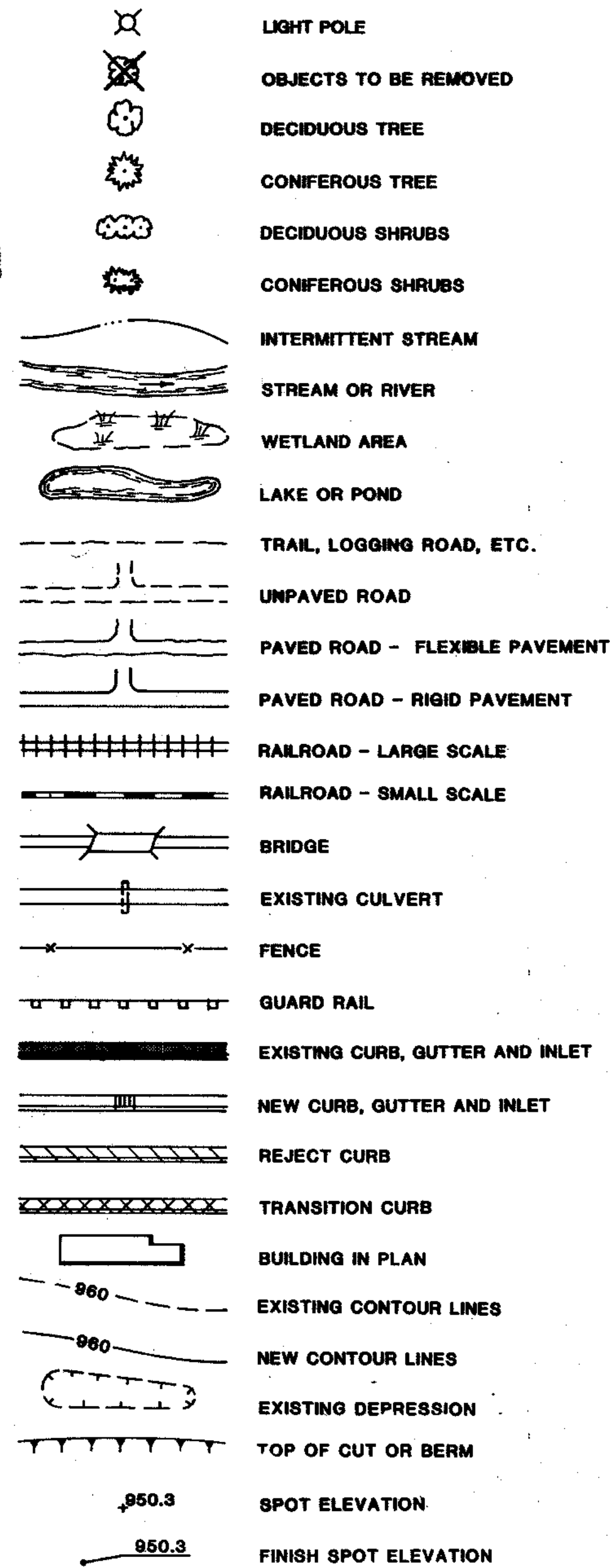
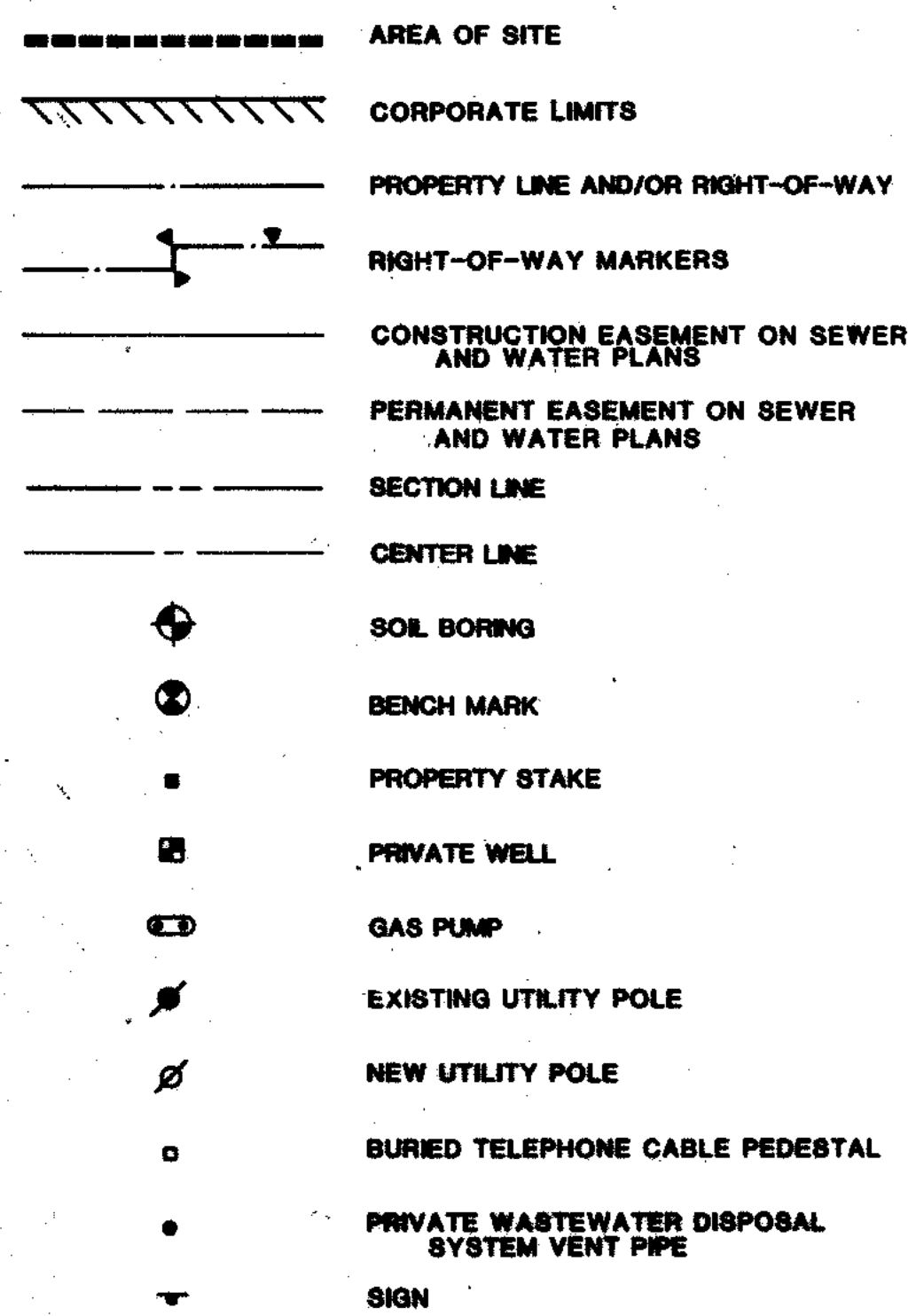
DRAFTING SYMBOLS



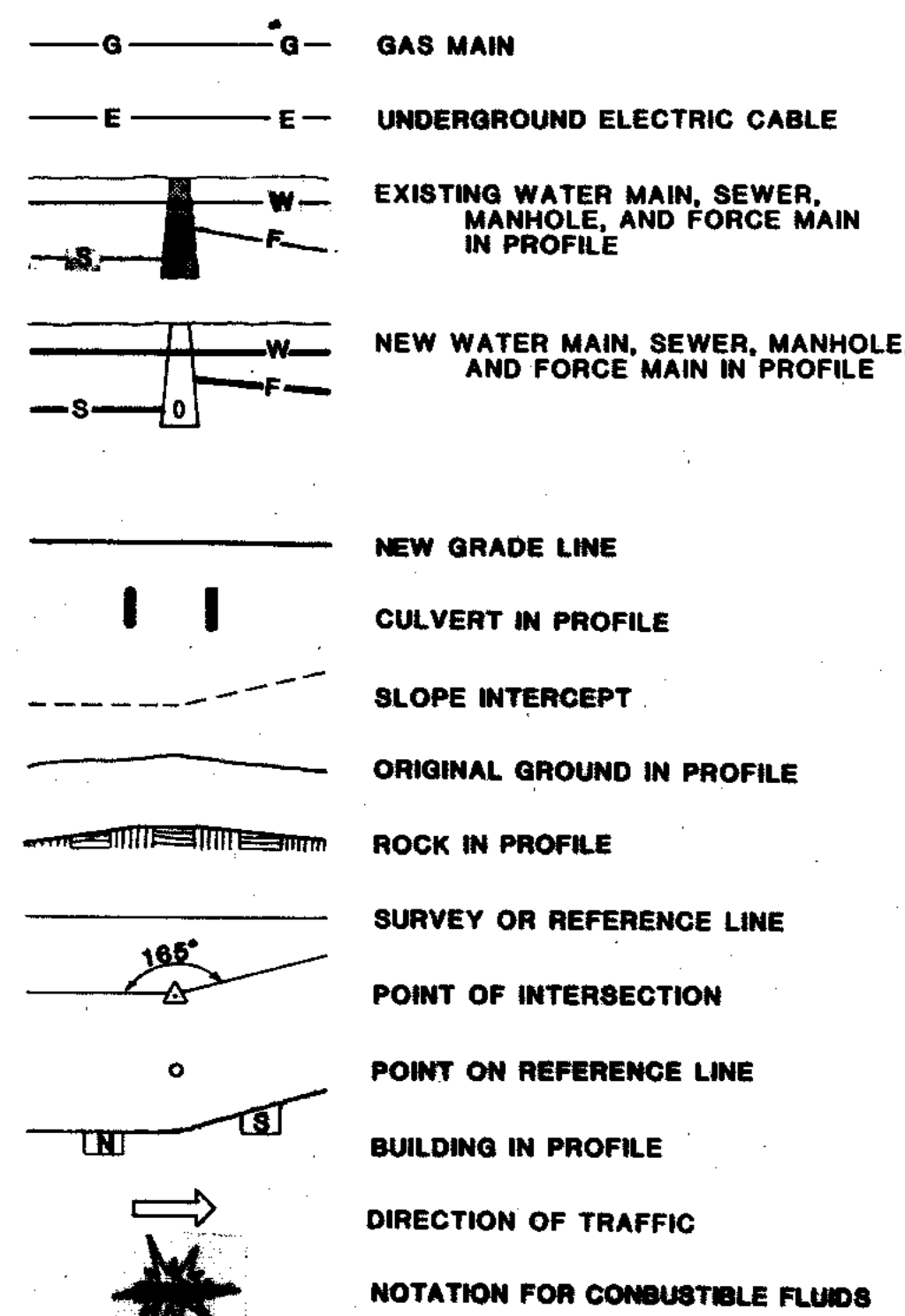
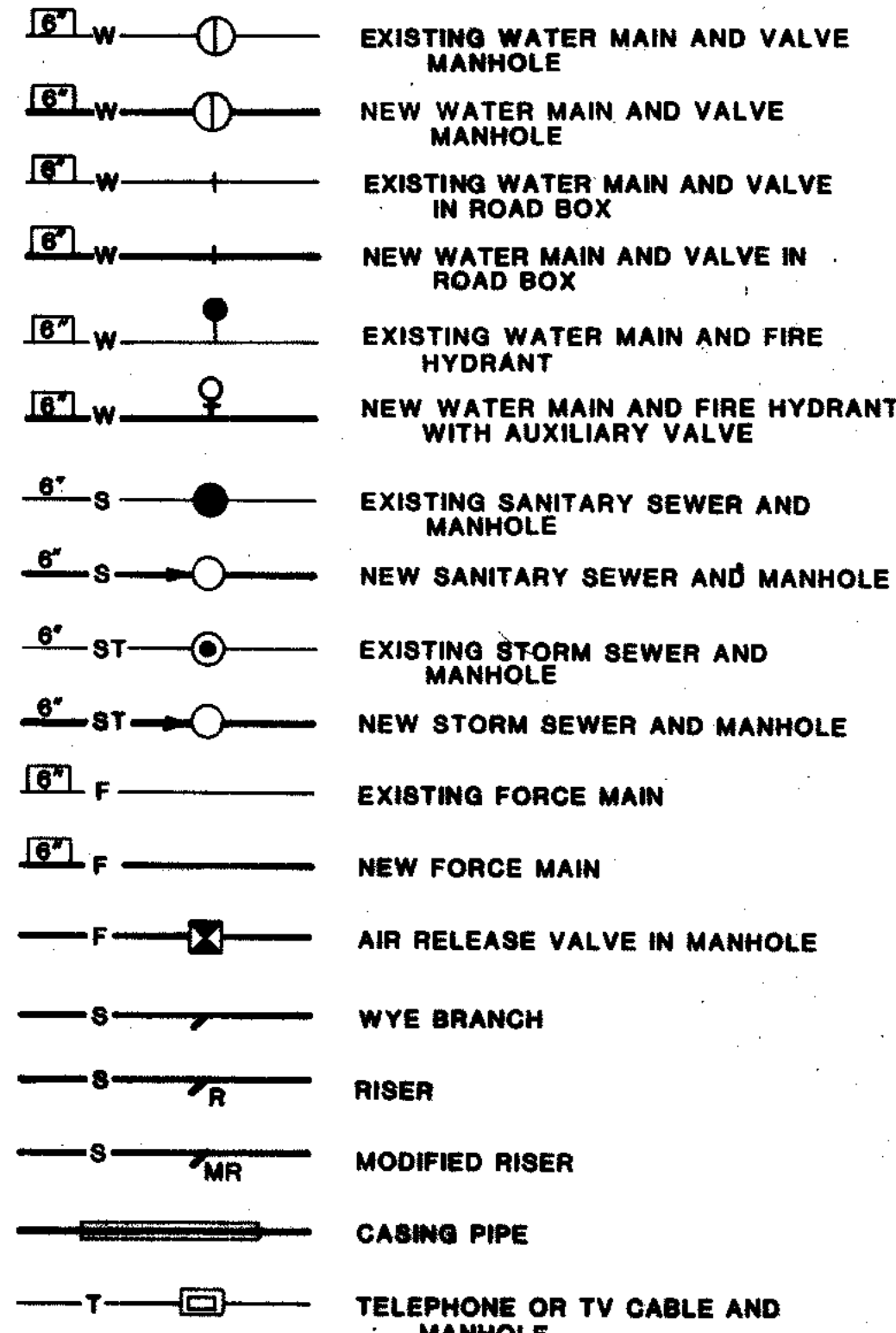
ARCHITECTURAL SYMBOLS



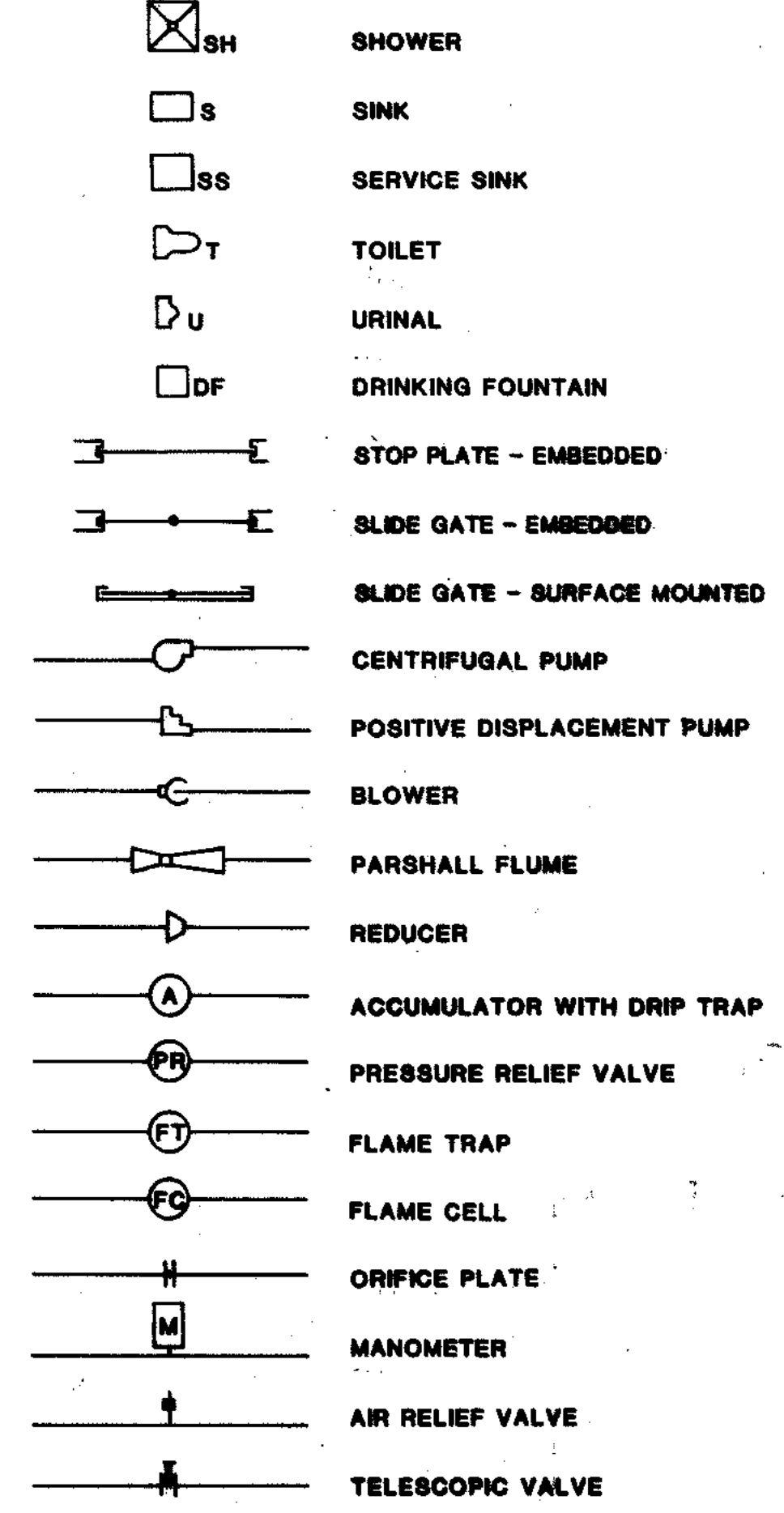
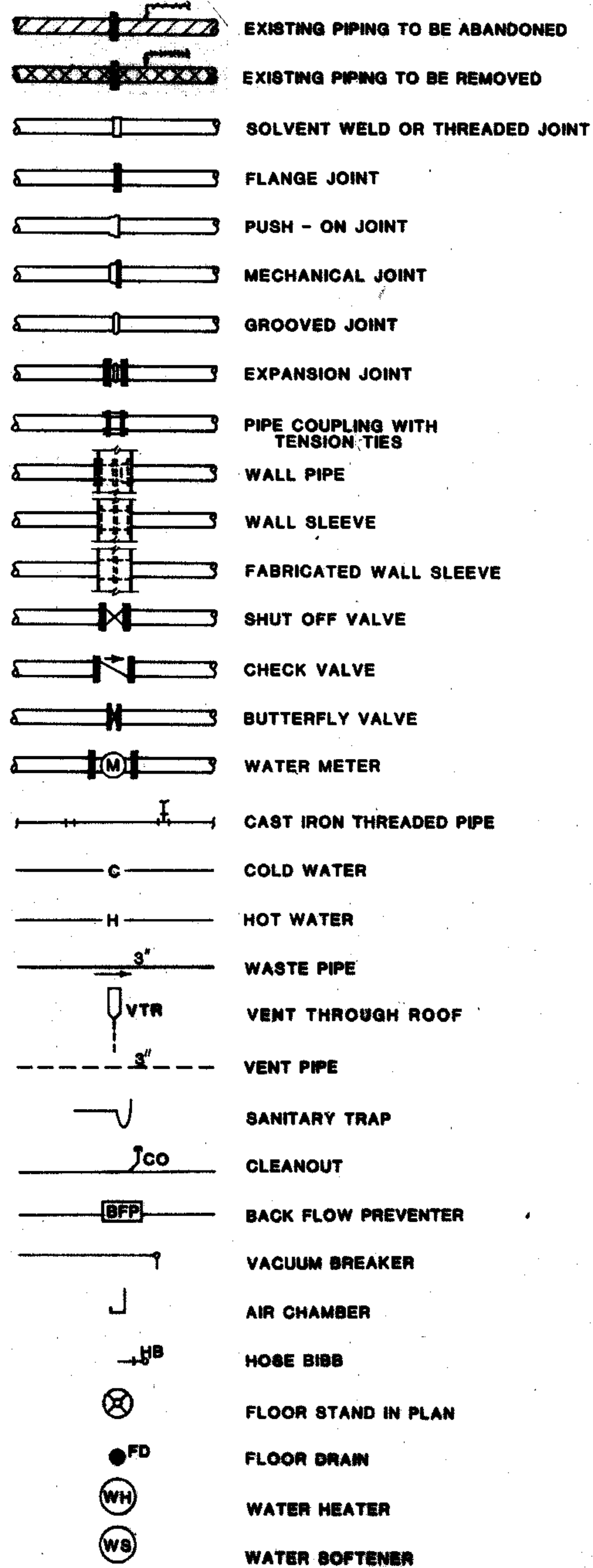
TOPOGRAPHIC SYMBOLS



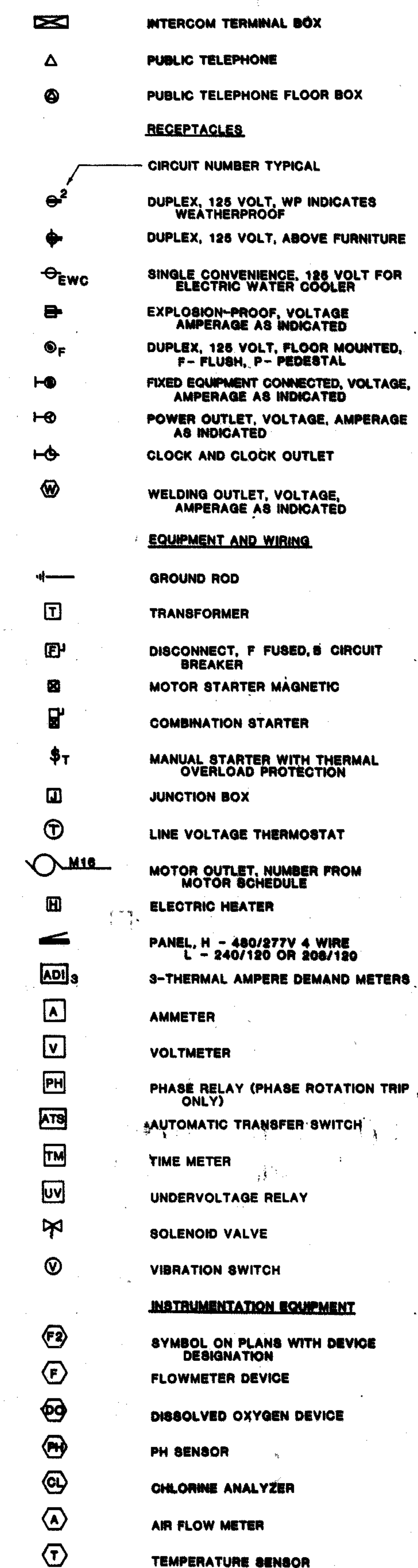
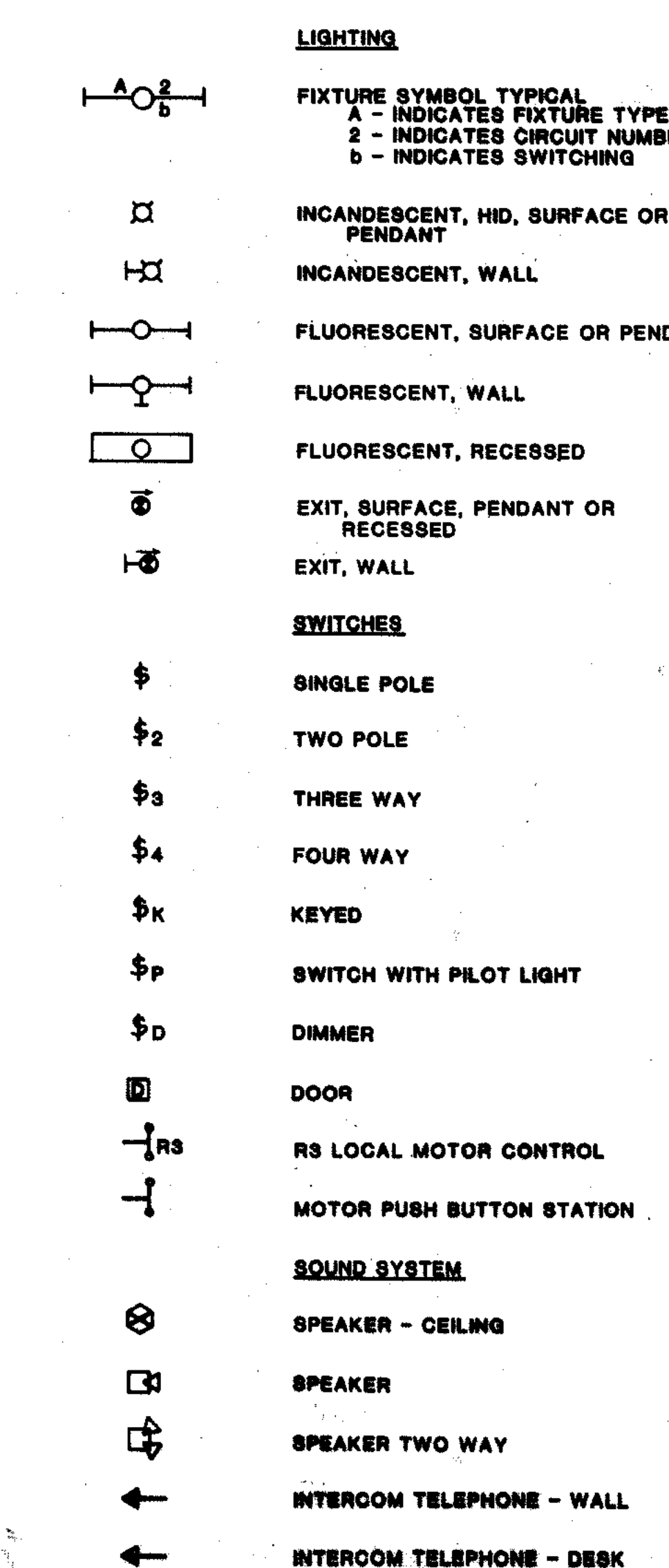
UNDERGROUND UTILITY SYMBOLS



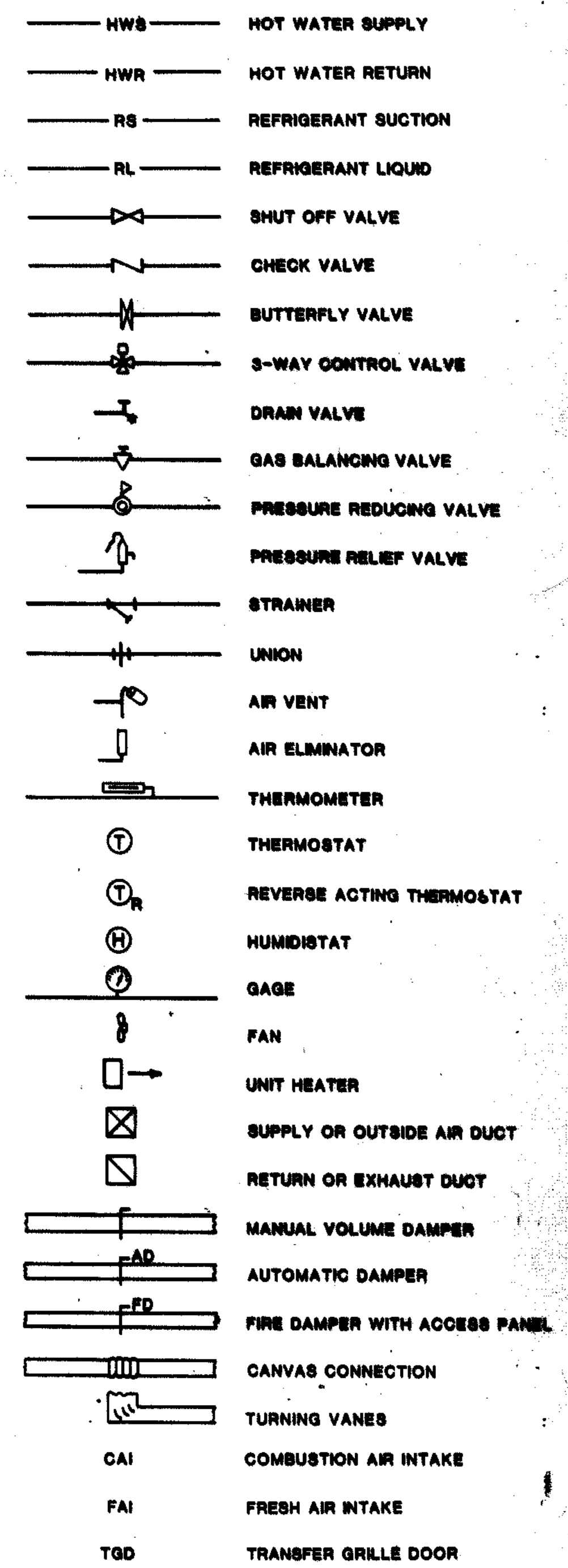
PIPING SYMBOLS



ELECTRICAL SYMBOLS



HEATING AND VENTILATING SYMBOLS

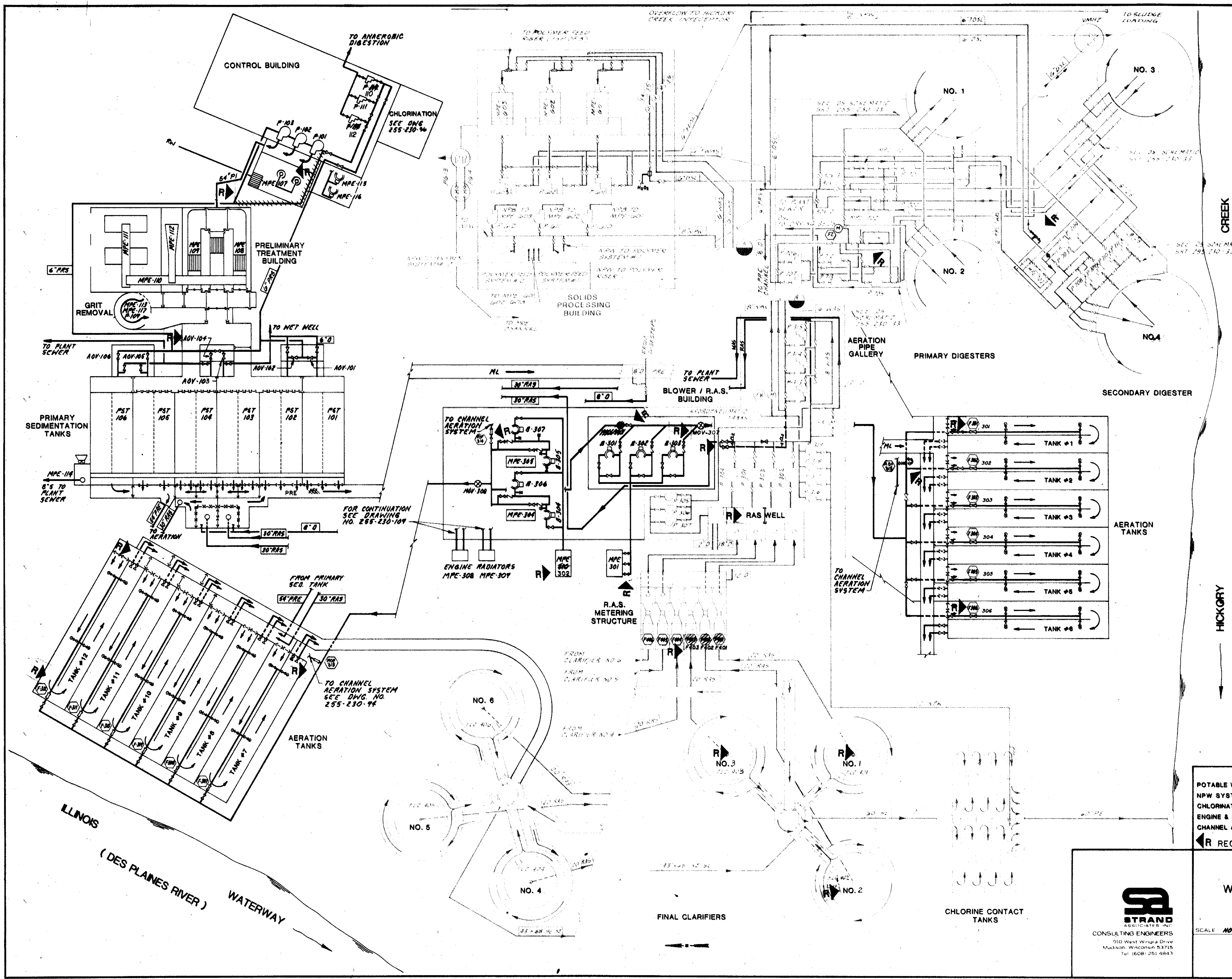


CITY OF JOLET EASTSIDE WASTEWATER TREATMENT PLANT STANDARD SYMBOLS

SCALE: _____ **DATE:** _____

DRAWING NO. 255-230

STRAND ASSOCIATES, INC. CONSULTING ENGINEERS
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FLUID ABBREVIATIONS

- A Aeration
- ACP Air Compressor
- CG Chlorine Gas
- CS Chlorine Solution
- D Drain
- DGD Digester Gas Distribution
- DGM Digester Gas Mixing
- DS Digester Supernatant
- DSL Digested Sludge
- EGR Engine Cooling Return
- ECS Engine Cooling Supply
- G Natural Gas
- IW Injector Water Supply
- ML Mixed Liquor
- NPB Non-Potable Booster
- NPW Non-Potable Water
- PE Plant Effluent
- PEC Polyelectrolyte Chemical
- PI Plant Influent
- PRE Primary Effluent
- PRF Process Return Flows
- PRI Primary Influent
- PRS Primary Sludge
- PS Plant Sanitary Sewer
- PSS Plant Storm Sewer
- PW Potable Water
- RC Recycle
- RAS Return Activated Sludge
- S Scum
- SA Sample
- SE Secondary Effluent
- SPO Sump Pump Discharge
- SMS Seal Water Supply
- TDSL Thickened Digester Sludge
- TWAS Thickened Waste Activated Sludge
- VT Vent
- WAS Waste Activated Sludge

EQUIPMENT ABBREVIATIONS

- AHU Air Handling Unit
- B Blower
- F Flow Meter
- FLC Final Clarifier Drive
- MOV Motor Operated Valve
- MPE Miscellaneous Process Equipment
- GBT Grinding Thickener
- P Pump
- PST Primary Sedimentation Tank Drive
- UH Unit Heater
- AOV Air Operated Valve

PIPE MATERIAL ABBREVIATIONS

- BI Black Iron Pipe
- CI Cast Iron Pipe
- CP Copper Piping
- DI Ductile Iron Pipe
- GI Galvanized Iron Pipe
- GLDI Glass Lined Ductile Iron Pipe
- PDP Perforated Drain Pipe
- PVC PVC Pipe
- RCP Reinforced Concrete Pipe
- SS Stainless Steel Pipe
- HE Horizontal Elliptical Concrete Pipe

OTHER SCHEMATIC DIAGRAMS

- POTABLE WATER SYSTEM (SEE DWG NO. 255-230-113)
- NPW SYSTEM (SEE DWG NO. 255-230-113)
- CHLORINATION SYSTEM (SEE DWG NO. 255-230-97)
- ENGINE & BLOWER PIPING SCHEMATIC (SEE DWG NO. 255-230-109)
- CHANNEL AERATION SYSTEM (SEE DWG NO. 255-230-94)

RECORD DRAWING 1/3/91 DJP

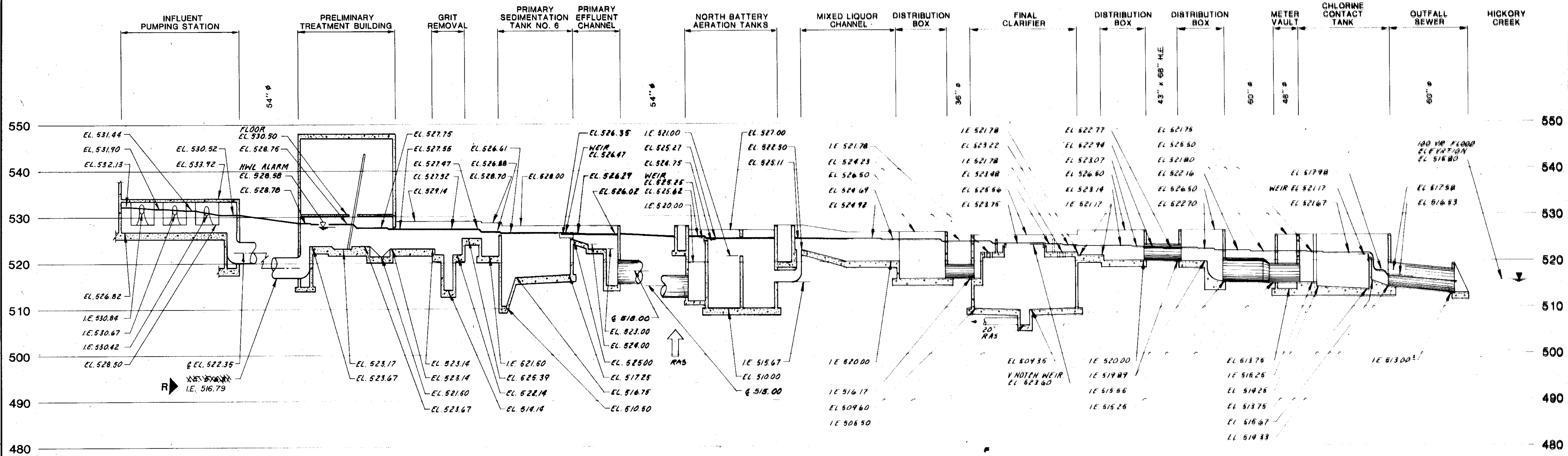
**CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
SCHEMATIC FLOW DIAGRAM**



SCALE NO SCALE DATE

DRAWING NO
255-230-63

| | | | | |
|------------------------|------|------|------|------|
| OVERLAY IDENTIFICATION | 30-4 | 30-4 | 30-4 | 30-4 |
| PROJECT NO. | 30-4 | 30-4 | 30-4 | 30-4 |
| DATE | | | | |



HYDRAULIC PROFILE
1" = 10' 0" VERT

NOTE: HYDRAULIC PROFILE CALCULATED FOR A DESIGN MAXIMUM DAILY FLOW OF 45.6 MGD WITH ALL TANKS IN SERVICE, MAXIMUM RAS FLOW OF 22.6 MGD.

DESIGN CRITERIA

DESIGN LOADS AND FLOWS

Flow:

| | |
|---------------------------|----------|
| Design Average Daily Flow | 18.2 mgd |
| Annual Average Daily Flow | 13.1 mgd |
| Peak Hourly | 45.5 mgd |

Loads:

| Parameter | @ 18.2 mgd | | @ 13.1 mgd | |
|------------------|------------|------|------------|------|
| | lb/day | mg/L | lb/day | mg/L |
| BOD ₅ | 41,000 | 270 | 23,300 | 213 |
| TSS | 42,500 | 290 | 30,000 | 275 |
| TKN | 5,500 | 36 | 2,500 | 23 |

Loads Including Recycle:

| Parameter | @ 18.2 mgd | | @ 13.1 mgd | |
|------------------|------------|------|------------|------|
| | lb/day | mg/L | lb/day | mg/L |
| BOD ₅ | 42,340 | 279 | 24,156 | 221 |
| TSS | 45,758 | 302 | 31,990 | 293 |
| TKN | 5,942 | 39 | 2,781 | 25 |

Effluent Limits:

| Parameter | Concentration Limits (mg/L) | | |
|---------------------|-----------------------------|----------------|---------------|
| | Monthly Average | Weekly Average | Daily Maximum |
| | BOD ₅ | 20 | 30 |
| Suspended Solids | 25 | 38 | 50 |
| Fecal Coliform | -- | -- | 400/100 ml |
| Chlorine Residual | 0.75 | -- | -- |
| NH ₃ -N: | | | |
| April - October | | | 2.5 |
| November - March | | | 4.0 |

SLUDGE QUANTITY AND QUALITY

| | MAXIMUM MONTHLY DAY | | | |
|---------------------------|---------------------|--------------|----------------|-----------------------|
| | Dry Weight (lbs) | Volume (gal) | Percent Solids | volatile Solids (lbs) |
| Primary Sludge | 29,763 | 89,300 | 4% | 22,522 |
| Thickened WAS | 17,538 | 35,200 | 6% | 13,553 |
| TOTAL | 47,301 | 124,900 | 4.6% | 36,075 |
| Thickened Digested Sludge | 25,542 | 38,300 | 6.7% | 19,716 |
| AVERAGE DAY | | | | |
| | Dry Weight (lbs) | Volume (gal) | Percent Solids | volatile Solids (lbs) |
| Primary Sludge | 20,787 | 62,500 | 4% | 15,590 |
| Thickened WAS | 8,732 | 17,000 | 6% | 6,549 |
| TOTAL | 29,519 | 79,500 | 4.5% | 22,139 |
| Thickened Digested Sludge | 15,940 | 23,900 | 6.8% | 9,560 |

UNIT DESIGN DATA

PHASE III

Final Clarifiers:

| | |
|-------------------------|--|
| Type - Existing | Circular, peripheral feed, suction sludge withdrawal |
| Type - New | Circular, peripheral feed, suction sludge withdrawal |
| Number - Existing | 3 |
| Number - New | 3 |
| Size, each - Existing | 100 ft dia x 12 ft S.W.D. |
| Size, each - New | 100 ft dia x 14 ft S.W.D. |
| Area, each | 7,850 sq ft |
| Volume, each - Existing | 94,000 cu ft |
| Volume, each - New | 119,000 cu ft |
| Area, total | 47,190 sq ft |
| Volume, total | 612,000 cu ft |
| Surface Overflow Rate | 18.132 mgd |
| | 45.432 mgd |
| Solids Loading Rate | 14.6 lbs/day/sq ft |
| Detention Time | 6.1 hrs |
| | 2.4 hrs |

Effluent Metering: Existing.

| | |
|------|---------------------|
| Type | Mag. meter, in line |
| Size | 48-inch dia |

WAS Thickening:

| | |
|-----------------|---|
| Type | Gravity Belt Thickener |
| Number of Units | 2, 1 Standby shared with Digested Sludge Thickening |
| Unit Size | 2 meters |
| Loading Rate | 1,200 lb/hr/unit |

Primary Anaerobic:

| | |
|-----------------------------------|---|
| Number - Existing | 2 |
| Type | Heated and completely mixed, circular with floating cover |
| Size - Existing | 45' dia x 25' S.W.D., added 7' to bottom of cone |
| Volume, each - Existing | 11,275 mg |
| Volume, total | 22,550 mg |
| Available for storage | 11,275 mg |
| Volume, each - Existing/secondary | 11,275 mg |
| Volume, total | 22,550 mg |
| Available for storage | 11,275 mg |
| Loading Rate @ Design Conditions | 16 lbs TKN/1,000 cu ft/day |
| Solids Retention Time | 21 days |

Secondary Anaerobic Digestion:

| | |
|--------------------------|--|
| Type | Circular with floating cover |
| Number | 1 |
| Size | 95' dia x 27' S.W.D., added 7' to bottom of cone |
| Volume, total | 1,066 mg |
| fixed | 0.44 mg |
| available for storage | 1.22 mg |
| Storage @ Q = 23,800 gpd | 51 days |

Sludge Drying Beds (existing):

| | |
|--------------------------|-------------------------------|
| Type | Partially paved, underdrained |
| Number | 12 |
| Size | 40 ft x 132 ft |
| Area, each | 5,280 sq ft |
| Area, total | 63,400 sq ft |
| Storage @ Q = 23,800 gpd | 17 days |

Additional Sludge Storage:

| | |
|--------------------------|--|
| Location | Joliet Westside Wastewater Treatment Plant |
| Volume Available | 500,000 gallons |
| Storage @ Q = 23,800 gpd | 21 days |

Sludge Disposal:

| | |
|--------|-----------------------------------|
| Liquid | Contract haul to land application |
| Dried | Contract haul to land application |

PHASE IV NITRIFICATION

Influent Pumps (existing):

| | |
|-----------------|---------------------------|
| Number | 3 |
| Type | Vertical Centrifugal |
| Capacity, rated | 1 @ 27 mgd, 2 @ 22.75 mgd |
| firm | 45.5 mgd |

Screening:

| | |
|--------|----------------------------------|
| Type | Mechanically cleaned |
| Number | 2, with manual bypass bar screen |
| Size | 5'-3" ft width, 3/4" bar opening |

Grit Removal Facility:

| | |
|-----------------|--------------------------|
| Type | Vortex-type grit removal |
| Number | 1 |
| Size | 20' dia |
| Capacity, each | 50 mgd |
| Grit classifier | Dewatering screw |

Primary Sedimentation Sedimentation Tanks:

| | |
|------------------------------------|---|
| Number - Existing | 4 |
| Type | Rectangular, with chain and scraper sludge collectors |
| Size, each | 33.5 ft x 131 ft x 9.5 ft S.W.D. |
| Surface Area, total | 4,338 sq ft |
| Weir length, each tank | 26,030 sq ft |
| Weir length, total | 400 lin ft |
| Detention Time @ Q = 18,664 | 2.4 hours |
| Surface Overflow Rate @ Q = 18,664 | 717 gpd/sq ft |
| Weir Overflow @ Q = 18,664 | 7,800 gpd/LF |

Primary Sludge Pumping:

| | |
|----------------|------------------------|
| Pump Type | Air Operated Diaphragm |
| Number | 3 |
| Capacity, each | 150 gpm |

Activated Sludge System Process:

| | |
|---------------------------------------|--------------------------------------|
| Type | Single stage including nitrification |
| Design Loading Rate | 15 lbs/1,000 cu ft/day |
| BOD ₅ loading @ Q = 18,664 | 29,638 lbs/day (controls for design) |
| TKN loading @ Q = 45,964 | 31,800 lbs/day |
| TKN loading @ Q = 18,664 | 6,942 lbs/day |
| Aeration Volume Required | 1,976,000 cu ft |

Activated Sludge System Aeration Basins:

| | |
|---|-------------------------------|
| Number of tanks - existing | 6 |
| Number of tanks - new | 18 |
| Size, each | 185 ft x 30 ft x 15 ft S.W.D. |
| Volume, each | 83,250 cu ft |
| Volume, total | 1,998,000 cu ft |
| BOD ₅ loading @ Q = 18,664 mgd | 14.8 lbs/1,000 cu ft/day |
| BOD ₅ loading @ Q = 45,964 mgd | 15.9 lbs/1,000 cu ft/day |
| TKN loading @ Q = 18,664 mgd | 3.0 lbs/1,000 cu ft/day |
| Detention Time @ Q = 18,664 mgd | 19.22 hr |
| Detention Time @ Q = 45,964 mgd | 7.80 hr |

Air Requirements:

| | |
|---|---------------------------------|
| Oxygen Demands @ Q = 45,964 mgd | 31,800 lbs O ₂ /day |
| BOD ₅ @ 1 lb O ₂ /lb BOD ₅ applied | 41,000 lbs O ₂ /day |
| NOD @ 6.9 lb O ₂ /lb TKN applied | 28,000 lbs O ₂ /day |
| Endogenous Respiration @ 0.1 lbs O ₂ /lb MLVSS | 100,800 lbs O ₂ /day |
| Total | 200,600 lbs O ₂ /day |

Aeration Devices:

| | |
|---|--------------------------------|
| Type | Fine bubble membrane diffusers |
| Estimated overall transfer efficiency air requirements | 7.9% |
| Air requirements @ Q = 45,964 mgd with 20% fouling factor | 68,200 cfm |

Blower Equipment:

| | |
|-------------------------------------|------------------------|
| Blower Capacity (firm) | 50,200 cfm (outlet) |
| Number = Existing | 3 |
| Number = New | 4 |
| Type = Existing | Positive Displacement |
| Type = New | Positive Displacement |
| Capacity = Existing, each | 14,800 cfm |
| Capacity = New, Engine Driven, each | 5,200 cfm |
| Capacity = New, Motor Driven, each | 11,500 cfm |
| Drives = Existing No. 1 | 600 hp/400 hp |
| Drives = Existing No. 2 | 600 hp |
| Drives = Existing No. 3 | 600 hp |
| Drives = New No. 4 | 600 hp TWO SPEED MOTOR |
| Drives = New No. 5 | Engine (225 hp) 246 HP |
| Drives = New No. 6 | Engine (225 hp) 246 HP |
| Drives = New No. 7 | 600 hp/400 hp |
| Drives = New No. 8 | 600 hp TWO SPEED MOTOR |
| Pressure Control | 8.0 psid, maximum |
| Control | O, 0, paced or manual |

Chlorination:

| | |
|-----------------|------------------------------------|
| Type | Vacuum solution feed by gas |
| Number of units | 3 (2 + 1 for RAS) |
| Capacity | 2,000 lbs/day - maximum capacity |
| Feed unit, each | 1 @ 2,000 lbs/day, 2 @ 500 lbs/day |
| Dosage Rate | 6 mg/L |
| Control | Flow paced |

OVERLAY IDENTIFICATION
 COMPOSITE HP-N HP-2 HP-1 HP-2
 OVERLAY HP-N HP-1 HP-2
 SCREEN
 PROJECT NO.
 DATE

RECORD DRAWING 1/3/91 DJP



CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
HYDRAULIC PROFILE
AND DESIGN CRITERIA

255-230-64

R "Area available after May 15, 1990" as follows:

"A four sided area east of the new north aeration tank battery, and north of the primary tanks, bounded on three sides by plant roads, and on the east side by the plant fence is available after May 1, 1989 except for the area of an existing construction storage shed and 20-foot clear all around the shed."

"An area approximately 240 ft x 200 ft is available for Contractor's use within the fenced plant site. The area is the area north of the northern sludge drying beds. This is an area north of the BM#5 location."

The Owner has available at its Westside Wastewater Treatment Plant an area for storing materials. For purposes of this contract, that area is considered part of the available lands."

Note: Copies of a location plan and site plan for this facility are attached to this addendum.

"Work limits" as follows:

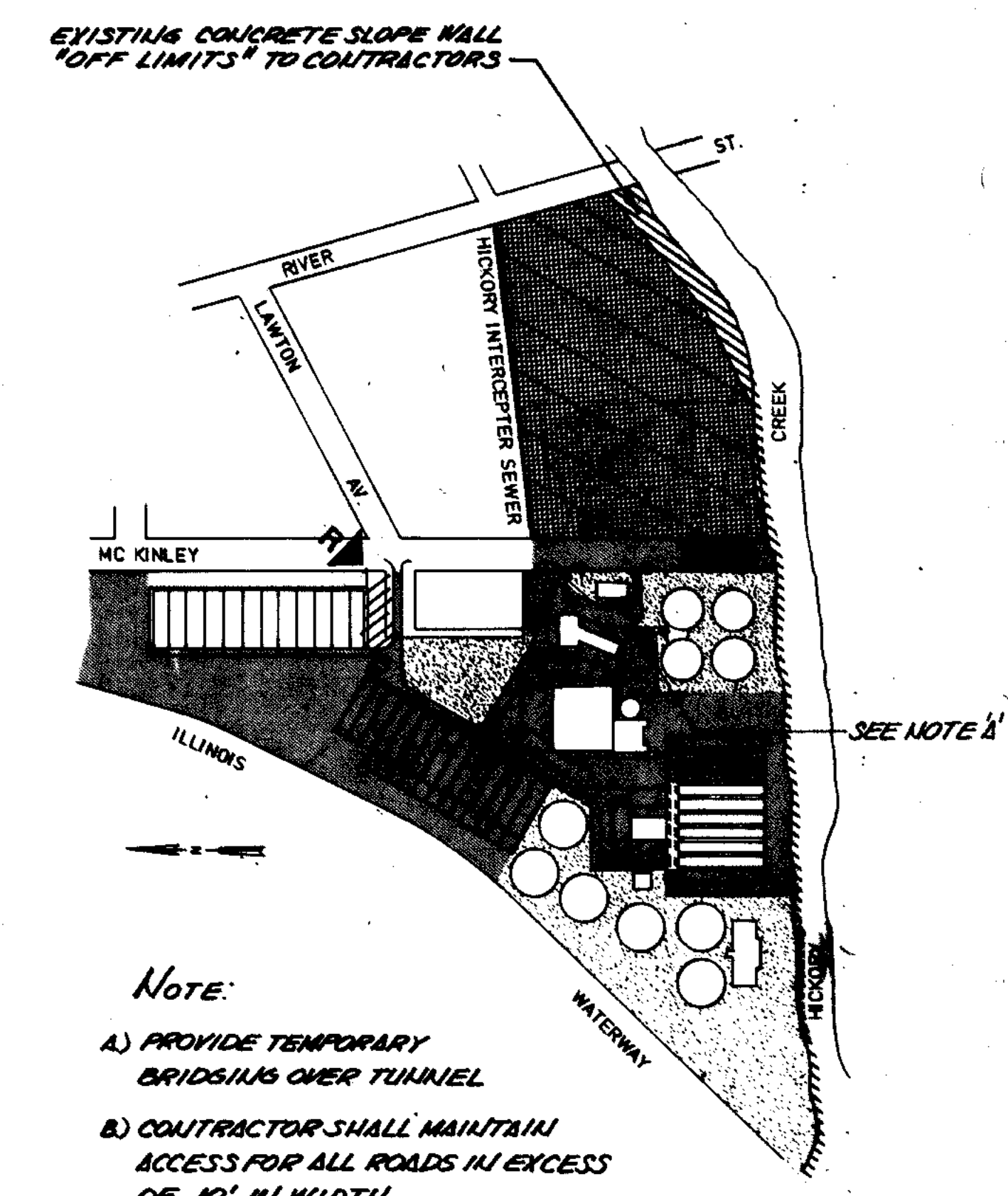
The location of the New Blower Building, "EE" will be available after January 31, 1989.

The location of the new south battery aeration tanks numbers 1 and 2, and eastward in the direction of the digester tanks will be available after January 31, 1989."

INDEX OF NEW FACILITIES

- AA MAIN CONTROL BUILDING ADDITIONS
- BB PRIMARY TANKS
- CC GRIT REMOVAL
- DD AERATION TANKS
- EE BLOWER BUILDING
- FF PRELIMINARY TREATMENT BUILDING
- GG SCUM SCREENING BUILDING

- XX CONTRACTOR ACCESS PROHIBITED
- ↘ CONTRACTOR ACCESS ALLOWED



- WORK LIMITS
- ▨ CITY LOADING AREA
- AREA AVAILABLE AFTER MAY 15, 1990.
- AREA AVAILABLE FOR CONTRACTOR'S USE WHILE THIS TEMPORARY CONSTRUCTION EASEMENT

AVAILABLE LANDS
 1" = 300'
 R RECORD DRAWING 1/3/91 DJP

| | | | |
|----------------------|------|----|----|
| OVERLAY MODIFICATION | DATE | BY | PP |
| PROJECT NO. | DATE | BY | PP |
| DATE | | | |

INDEX OF EXISTING FACILITIES

- A CONTROL AND ADMINISTRATION BUILDING
- B PRIMARY TANKS
- C CHLORINE CONTACT TANK (BY-PASS)
- D NITRIFICATION / AERATION TANKS
- E BLOWER BUILDING
- F FINAL CLARIFIER #1-8
- G DISTRIBUTION BOX
- H CHLORINE CONTACT TANK
- I OUTFALL STRUCTURE
- J DIGESTER CONTROL BUILDING
- K PRIMARY DIGESTER #1-3
- L SECONDARY DIGESTER
- M GAS STORAGE TANK
- N ELECTRIC SERVICE STATION
- O SLUDGE BEDS
- P METAL GARAGE
- Q TUNNEL
- R SOLIDS PROCESS BUILDING
- S RETURN ACTIVATED SLUDGE WELL
- T WASTE GAS BURNER

- BM-#1 NW BOLT HYDRANT WEST SIDE OF MC KINLEY ST. NORTH OF MAIN ENTRANCE TO PLANT EL. 523.41
- BM-#2 "D" CUT IN CONCRETE AT NW CORNER OF CHLORINE CONTACT TANKS EL. 525.46
- BM-#3 I.D.O.T. DIV. WATERWAYS BRASS DISC IN OUTFALL HEADWALL AT CREEK EL. 519.37
- BM-#4 "D" CUT IN CONCRETE AT NW CORNER OF MAINWAY SIDEWALK NORTH OF S.A.T. #4 EL. 527.01
- BM-#5 "D" CUT IN CONCRETE NW CORNER OF WEST END BED DIVIDER OF SLUDGE BEDS FURTHEST NORTH EL. 524.48



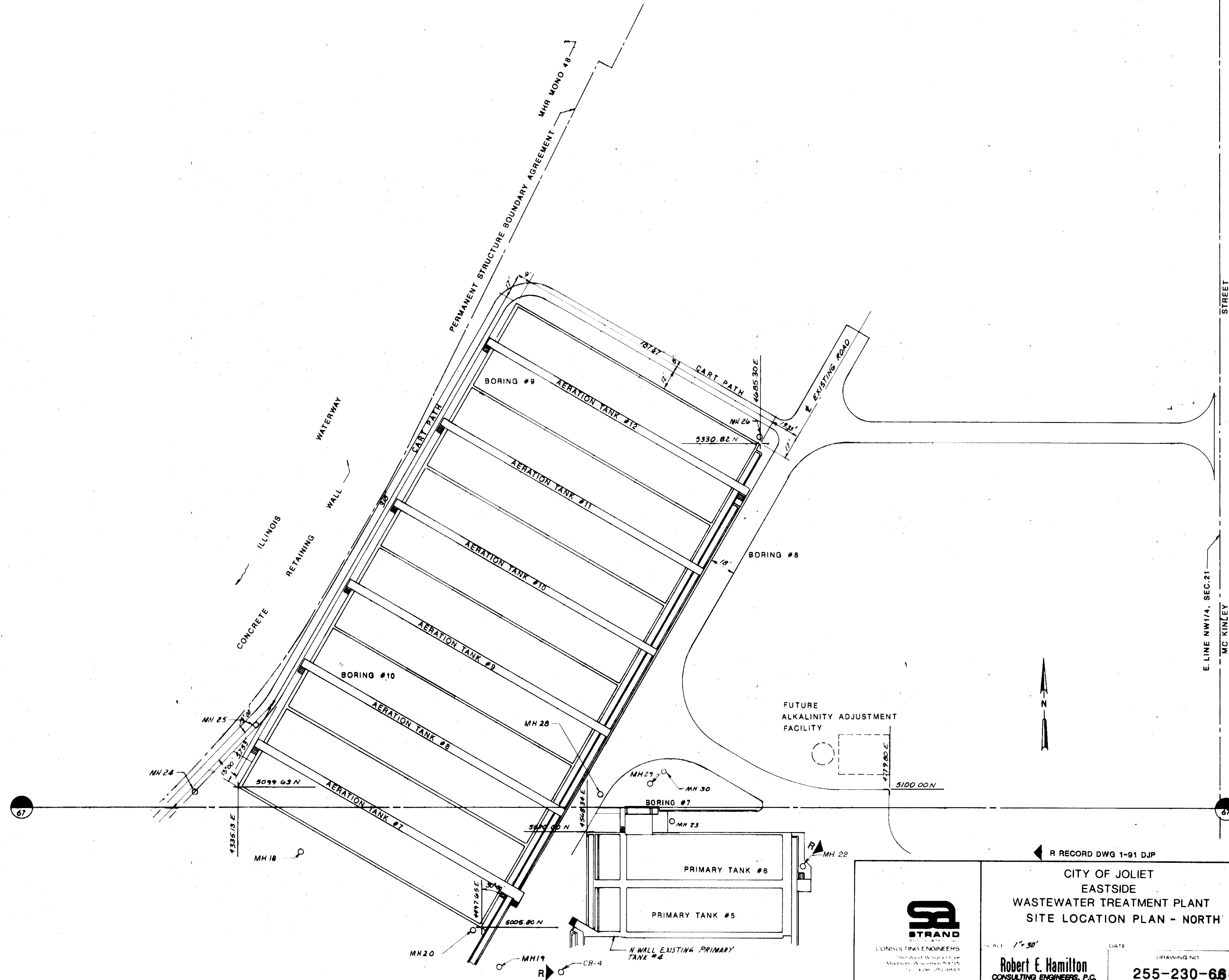
THIS DRAWING NO. 255-230-65 THRU 255-230-73 PREPARED UNDER THIS PROFESSIONAL SEAL.
 SIGNATURE DATE 1/20/91

| | | |
|---|---|-----------------------------------|
| STRAND CONSULTING ENGINEERS 900 West Waukegan Drive Madison, Wisconsin 53715 TEL: 608-251-4881 | CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT PLOT PLAN | |
| | SCALE 1" = 60' Robert E. Hamilton CONSULTING ENGINEER, P.C. JOLIET, ILLINOIS 60438 | DATE DRAWING NO. 255-230-65 |

| | | | | | |
|------------------------|------|----|------|----|------|
| OVERLAY IDENTIFICATION | DATE | BY | DATE | BY | DATE |
| COMPOSITE | 7/8 | EE | 7/8 | PE | 7/8 |
| OVERLAY | | | | | |
| SCREEN | | | | | |
| PROJECT NO. | | | | | |
| DATE | | | | | |

MANHOLE COORDINATES

| | | |
|-------|------------|------------|
| MH 18 | 5,058.00 N | 4,374.15 E |
| MH 19 | 4,979.00 N | 4,509.15 E |
| MH 20 | 5,003.00 N | 4,492.14 E |
| MH 22 | 5,047.00 N | 4,716.80 E |
| MH 23 | 5,076.00 N | 4,625.00 E |
| MH 24 | 5,096.00 N | 4,306.00 E |
| MH 25 | 5,140.83 N | 4,346.83 E |
| MH 26 | 5,335.50 N | 4,685.30 E |
| MH 27 | 4,995.50 N | 4,716.81 E |
| MH 28 | 5,095.00 N | 4,577.00 E |
| MH 29 | 5,102.50 N | 4,611.00 E |
| MH 30 | 5,110.00 N | 4,621.00 E |
| CB-1 | 4,826.00 N | 4,301.00 E |
| CB-4 | 4,977.00 N | 4,538.00 E |



STRAND
CONSULTING ENGINEERS
100 WEST WASHINGTON
MADISON, WISCONSIN 53703
TEL: 608-255-1111

R RECORD DWG 1-91 DJP

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
SITE LOCATION PLAN - NORTH

SCALE: 1" = 30'

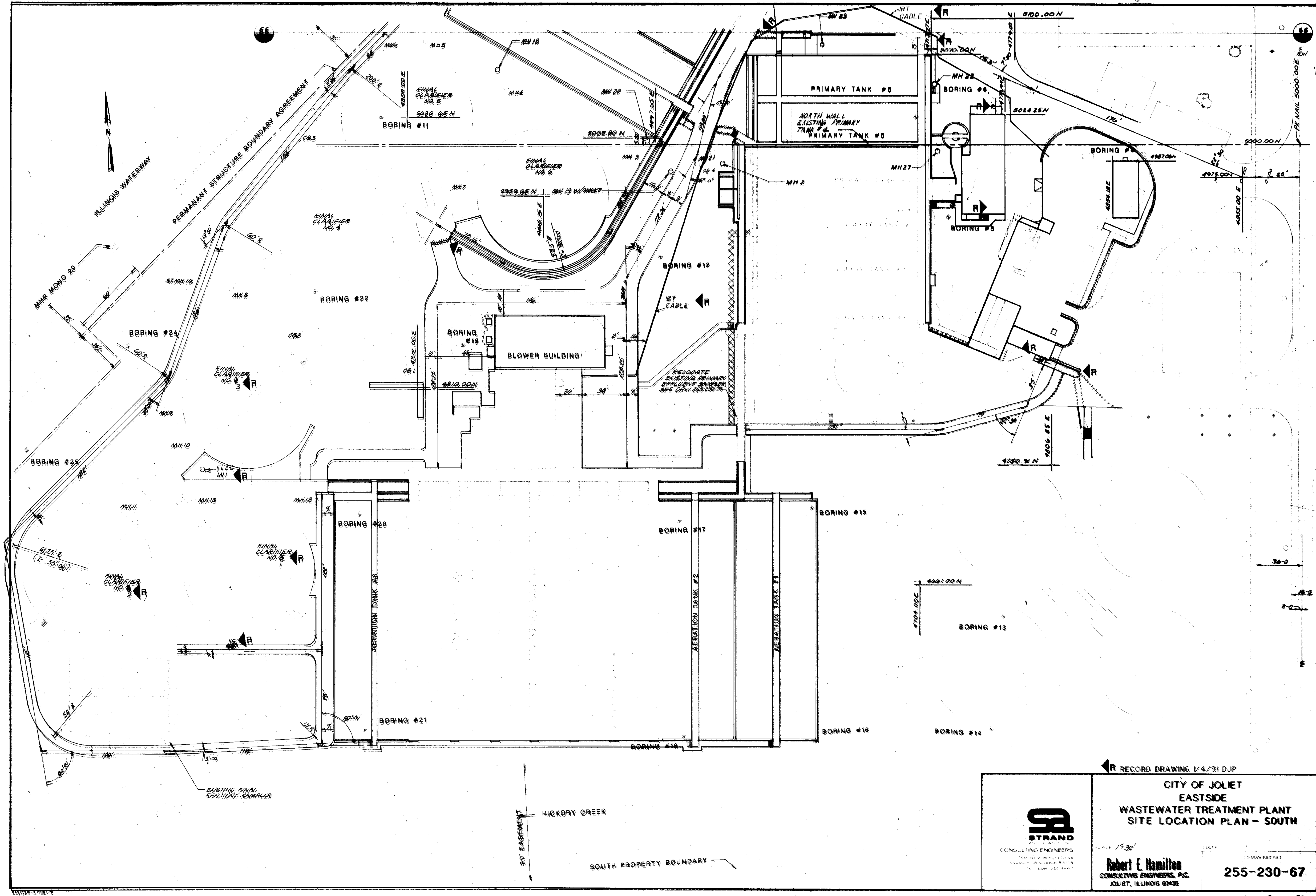
DATE: _____

Robert E. Hamilton
CONSULTING ENGINEERS, P.C.
JOLIET, ILLINOIS 60438

DRAWING NO.
255-230-66

SHEET 7 OF 77

| | | |
|-----------|------|----|
| COMPOSITE | DATE | BY |
| REVISION | DATE | BY |
| APPROVAL | DATE | BY |
| DATE | | |



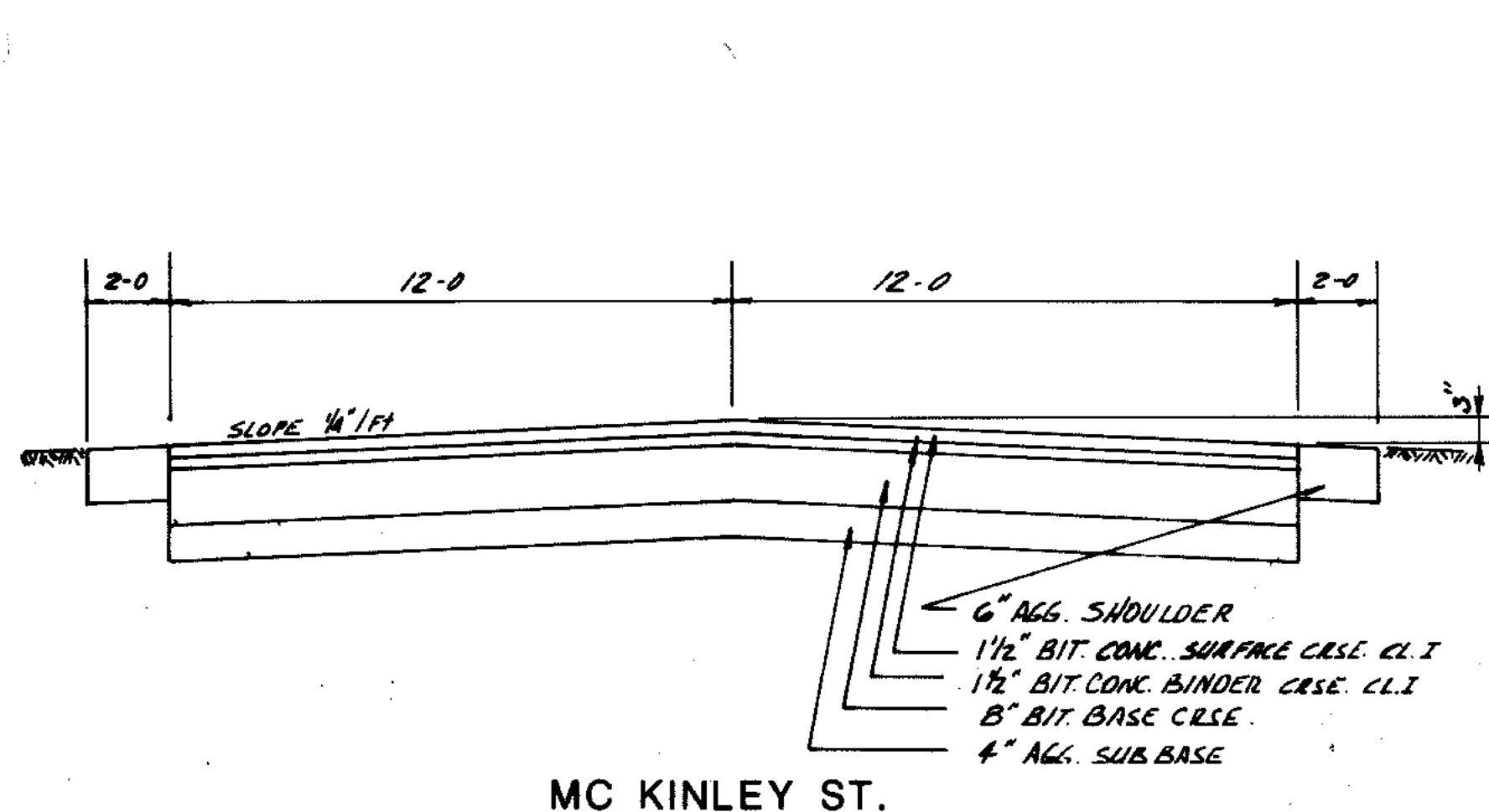
RECORD DRAWING 1/4/91 DJP

CITY OF JOLET
 EASTSIDE
 WASTEWATER TREATMENT PLANT
 SITE LOCATION PLAN - SOUTH

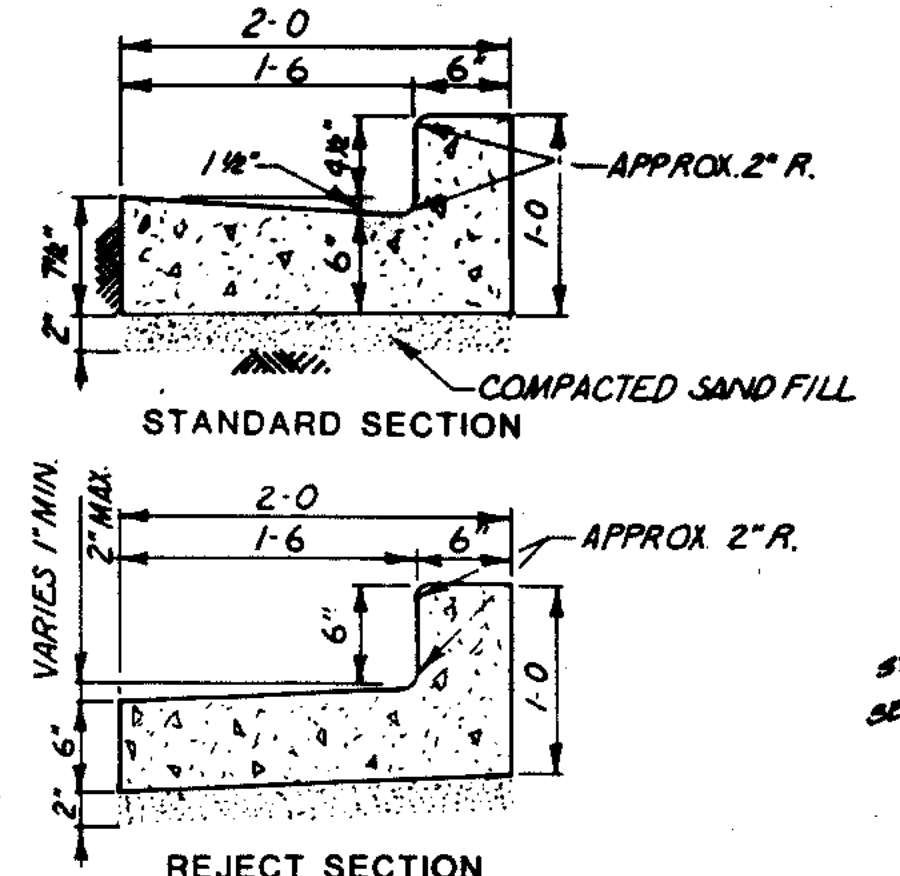
STRAND
 CONSULTING ENGINEERS
 110 West Adams Street
 Chicago, Wisconsin 53115
 TEL: 408-251-0447

Robert E. Hamilton
 CONSULTING ENGINEERS, P.C.
 JOLET, ILLINOIS 62438

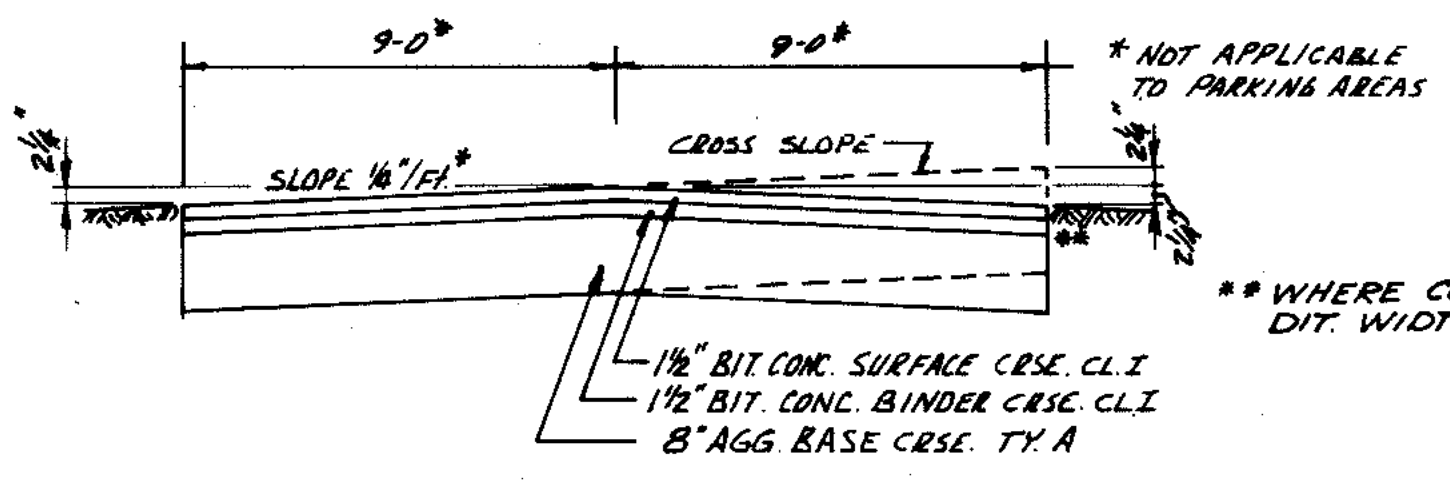
DATE: 1/4/91
 DRAWING NO:
255-230-67



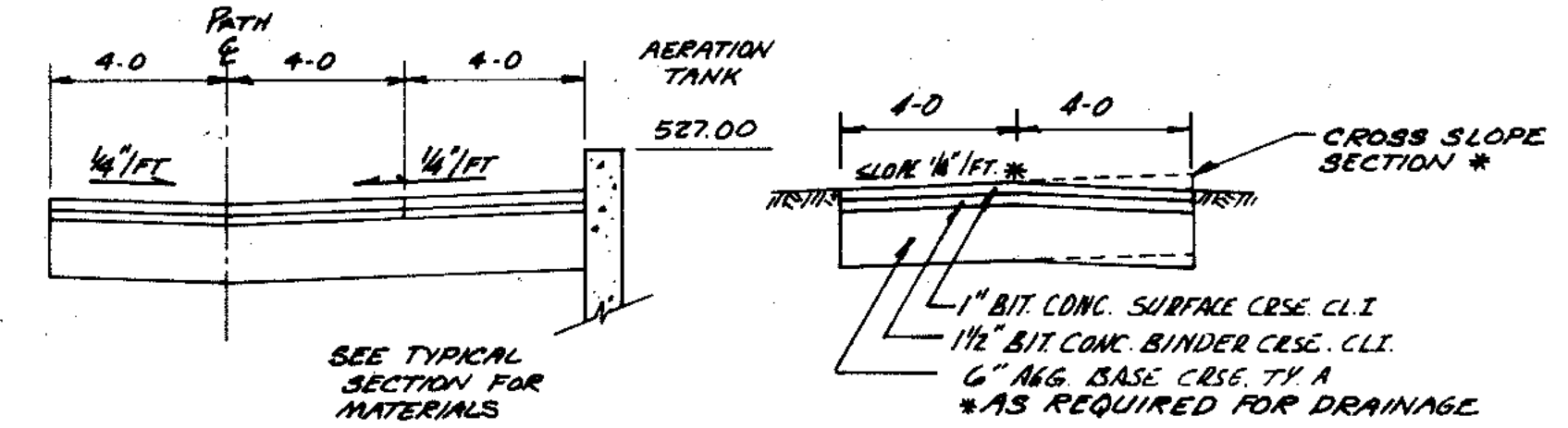
MC KINLEY ST.



CONCRETE CURB & GUTTER
NO SCALE



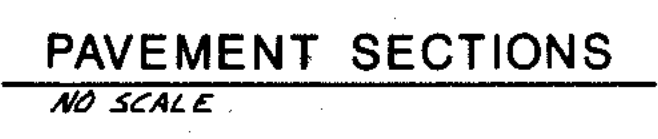
PLANT DRIVES AND PARKING AREAS



CART PATHS



CARTPATH SWALE SECTION

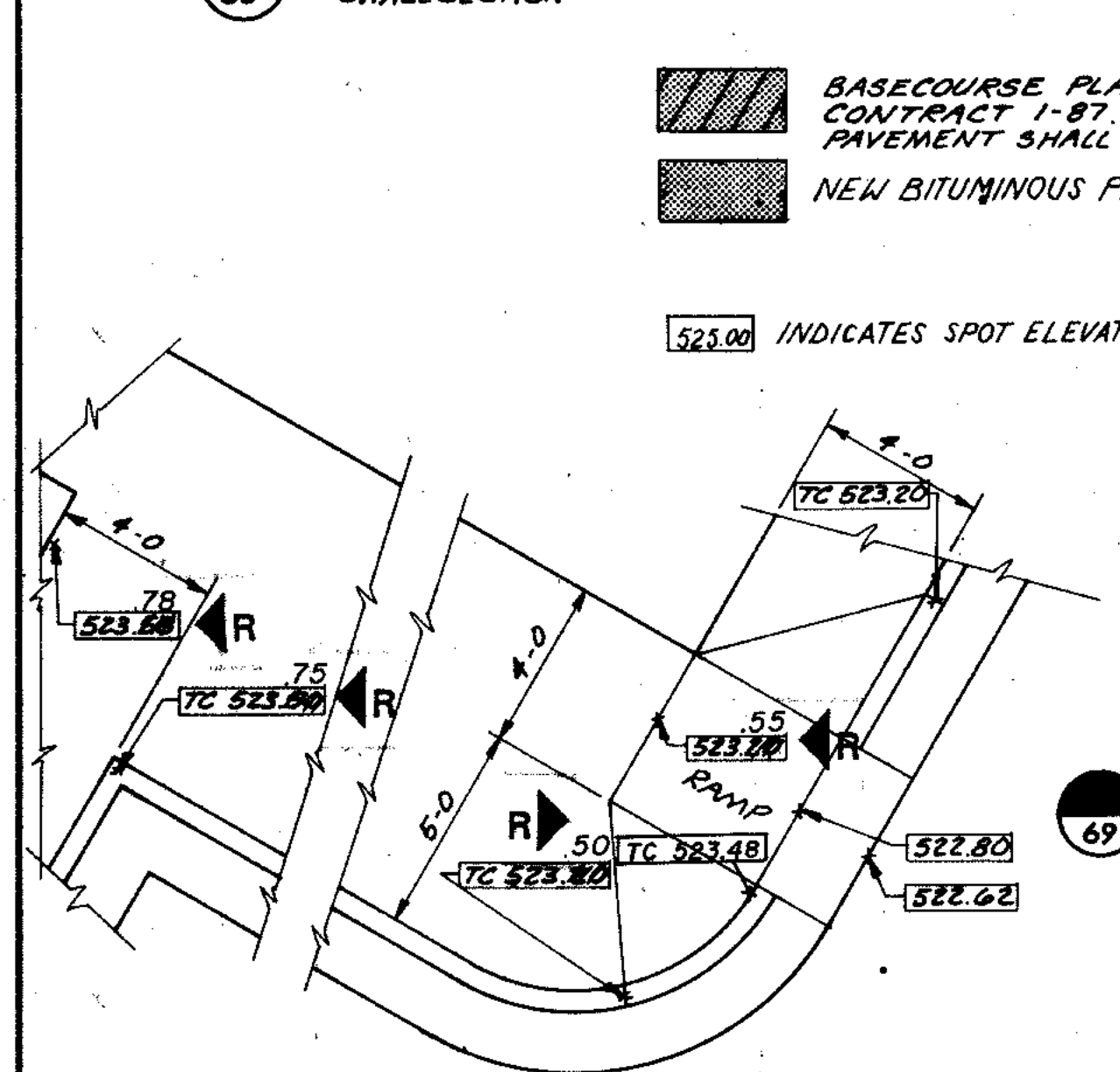


PAVEMENT SECTIONS
NO SCALE

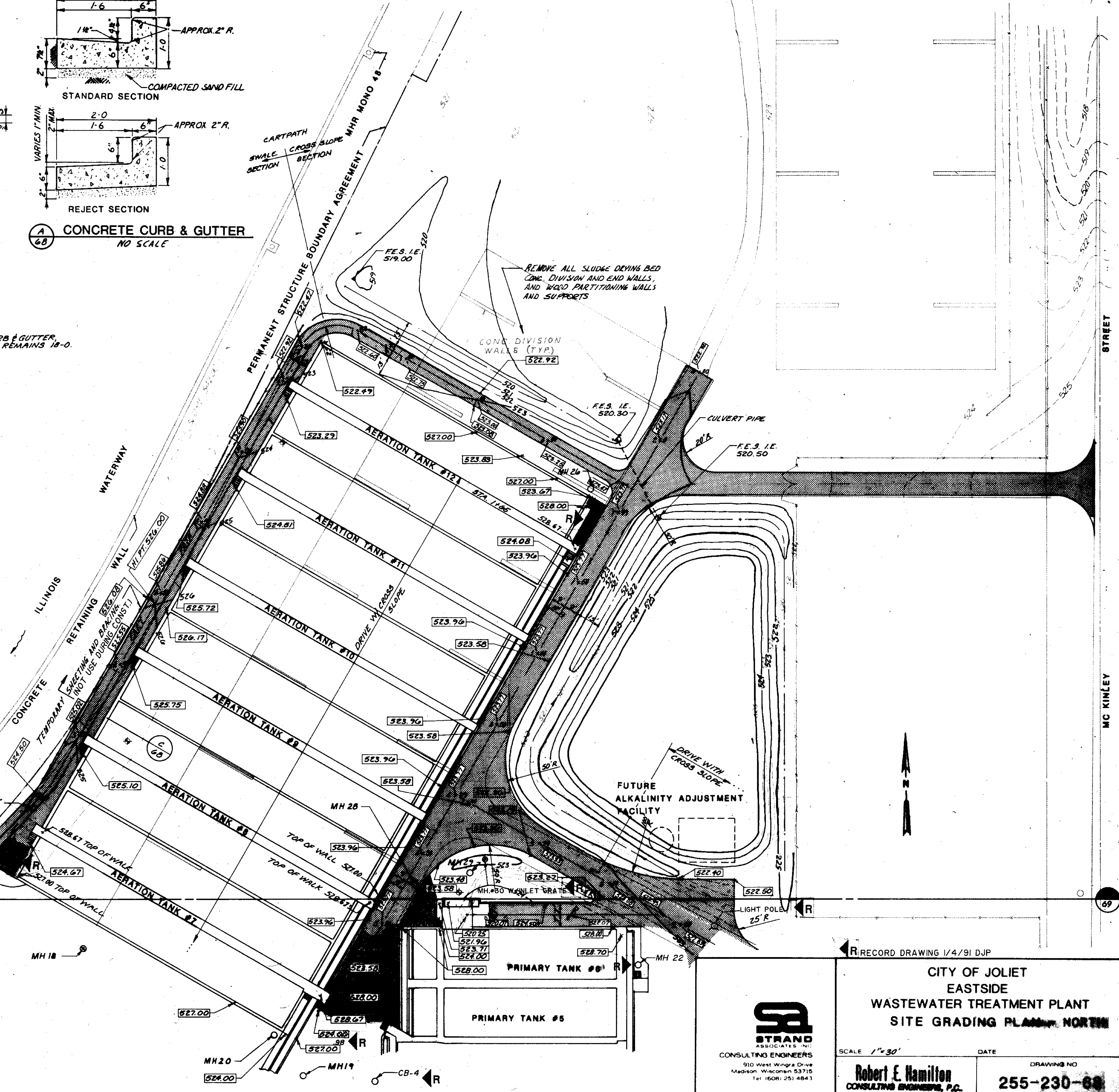
BASECOURSE PLACED UNDER CONTRACT 1-87. NEW BITUMINOUS PAVEMENT SHALL BE BY THIS CONTRACTOR

NEW BITUMINOUS PAVEMENT

523.00 INDICATES SPOT ELEVATION



RAMP DETAIL
1/4" = 1'-0"



| | | | |
|-----------|------|----|-----|
| OVERLAY | DATE | BY | CHK |
| COMPOSITE | DATE | BY | CHK |
| OVERLAY | DATE | BY | CHK |
| SCREEN | DATE | BY | CHK |

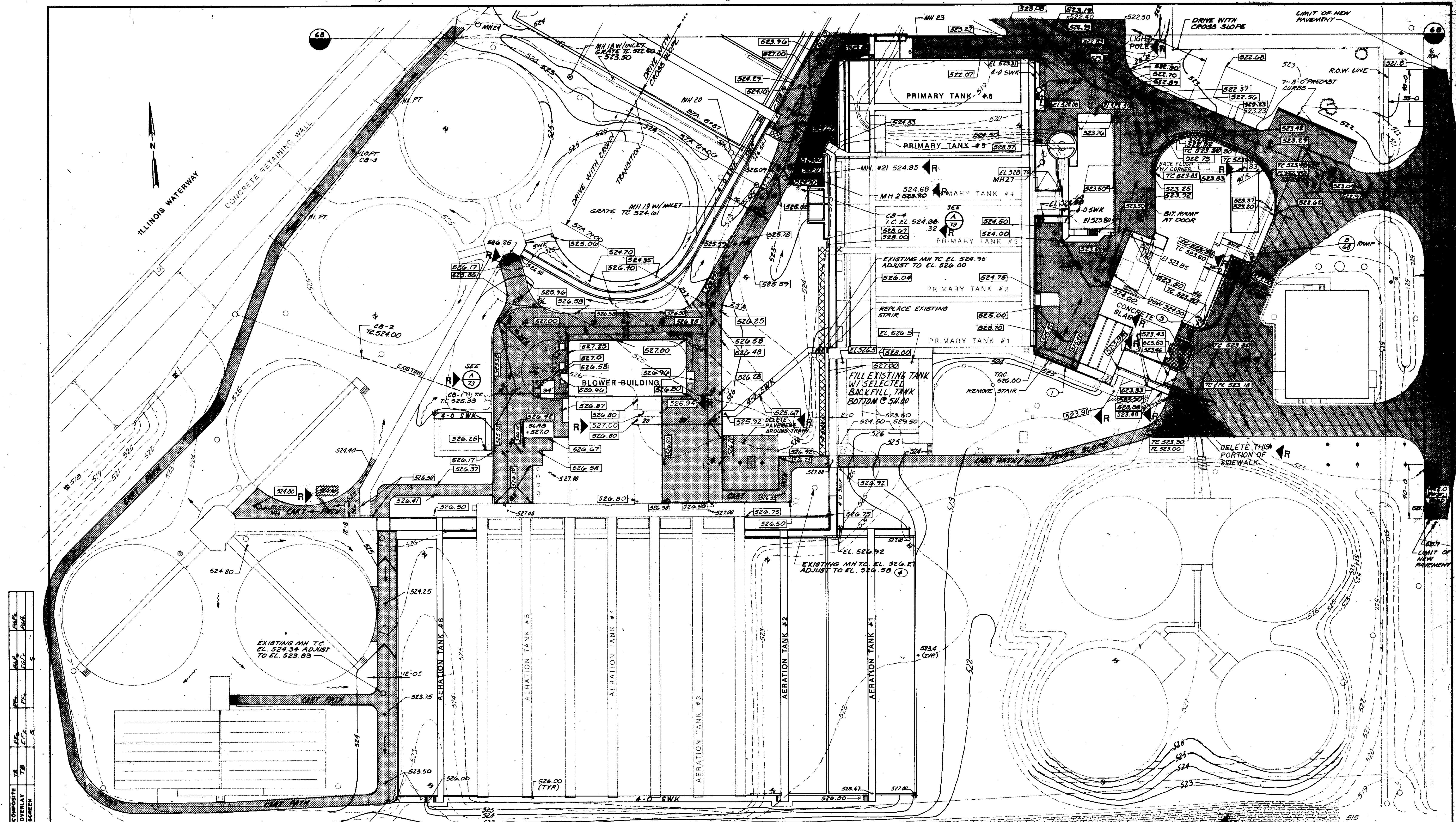
RECORD DRAWING 1/4/91 DJP

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
SITE GRADING PLAN - NORTH

STRAND
ASSOCIATES, INC.
CONSULTING ENGINEERS
910 West Wingo Drive
Madison, Wisconsin 53715
Tel: (608) 251-4841

Robert E. Hamilton
CONSULTING ENGINEER, P.E.
JOLIET, ILLINOIS 60438

SCALE 1" = 30'
DATE _____
DRAWING NO. 255-230-68



| | |
|--------------------------|------|
| COMPOSITE IDENTIFICATION | DATE |
| OVERLAY | DATE |
| NO. | DATE |
| PROJ. NO. | DATE |
| DATE | |

- NOTE:
- NEW REJECT SECTION CURB T.C. EL. 526.0 TO MATCH EXISTING SIDEWALK SOUTH OF CURB. SEE FOR CONCRETE CURB / BUTTER DETAIL.
 - ALL RADIUS TO BACK OF CURB
 - TAPER TOP OF CURB FROM 0" AT GARAGE DOOR TO TYPICAL SECTION 10' OUT. SEE SHEET 103 PLAN FOR DETAIL IN THIS AREA.
 - CONTRACTOR SHALL ADJUST EXISTING MH CASTINGS AS REQUIRED TO MATCH NEW GRADES.

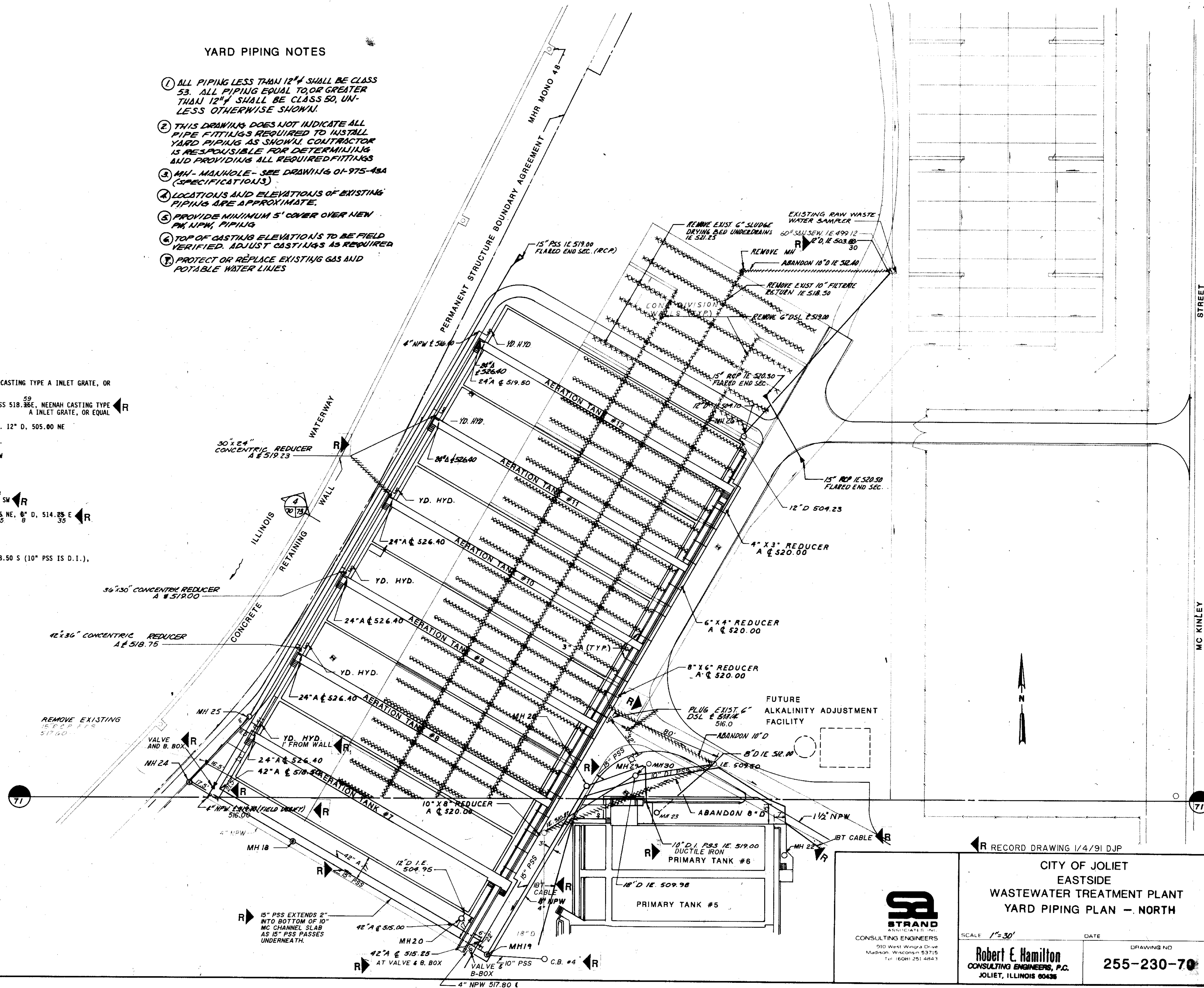
| | | | |
|---|--|---|-------------|
| <p>STRAND CONSULTING ENGINEERS 910 West Wright Drive Madison, Wisconsin 53715 Tel: (608) 251-4841</p> | | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT SITE GRADING PLAN - SOUTH</p> | |
| | | <p>SCALE 1" = 30'</p> | <p>DATE</p> |
| <p>Robert E. Hamilton CONSULTING ENGINEERS, P.C. JOLIET, ILLINOIS 60438</p> | | <p>255-230-88</p> | |

YARD PIPING NOTES

- ① ALL PIPING LESS THAN 12" SHALL BE CLASS 53. ALL PIPING EQUAL TO, OR GREATER THAN 12" SHALL BE CLASS 50, UNLESS OTHERWISE SHOWN.
- ② THIS DRAWING DOES NOT INDICATE ALL PIPE FITTINGS REQUIRED TO INSTALL YARD PIPING AS SHOWN. CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND PROVIDING ALL REQUIRED FITTINGS.
- ③ MH - MANHOLE - SEE DRAWING 01-975-48A (SPECIFICATIONS)
- ④ LOCATIONS AND ELEVATIONS OF EXISTING PIPING ARE APPROXIMATE.
- ⑤ PROVIDE MINIMUM 5' COVER OVER NEW P.W. NPW, PIPING.
- ⑥ TOP OF CASTING ELEVATIONS TO BE FIELD VERIFIED. ADJUST CASTINGS AS REQUIRED.
- ⑦ PROTECT OR REPLACE EXISTING GAS AND POTABLE WATER LINES.

MANHOLE SCHEDULE

| | | | | |
|-----|------|--------|------------|---|
| 18. | T.C. | 522.50 | I.E. | 15" PSS, 517.70 NW, SE, NEENAH CASTING TYPE A INLET GRATE, OR EQUAL |
| 19. | T.C. | 524.61 | I.E. | 15" PSS, 517.94 NW, NE, 1E 10" PSS 518.36E, NEENAH CASTING TYPE A INLET GRATE, OR EQUAL |
| 20. | T.C. | 524.00 | CENTERLINE | 3/4" CP. A, 512.25 SW, I.E. 12" D, 505.00 NE |
| 22. | T.C. | 524.00 | I.E. | 8" D, 513.50 E, 6" D, 515.75 S. |
| 23. | T.C. | 520.13 | I.E. | 8" D, 514.75 NE, 6" D, 515.00 W |
| 24. | T.C. | 523.72 | I.E. | 15" PSS, 517.58 NE, SE, 15" PSS |
| 25. | T.C. | 524.38 | I.E. | 15" PSS, 517.69 NE, SW |
| 26. | T.C. | 523.60 | I.E. | 12" D, 504.88 NE, 12" D, 504.88 SW |
| 27. | T.C. | 528.50 | I.E. | 6" D, 514.85 N, S, 6" D, 514.85 NE, 8" D, 514.85 E |
| 28. | T.C. | 523.60 | I.E. | 15" PSS, 518.15 NE, SW |
| 29. | T.C. | 523.30 | I.E. | 18" D, 510.08 SW, 509.98 NE |
| 30. | T.C. | 522.75 | I.E. | 15" PSS, 518.20 SW, 10" PSS, 518.50 S (10" PSS IS D.I.), NEENAH CASTING TYPE A INLET GRATE, OR EQUAL. |



| | | | | |
|------------------------|-----------|------|----|-------|
| OVERLAY IDENTIFICATION | COMPOSITE | DATE | BY | CHKD. |
| OVERLAY | 7/8 | 7/8 | FF | FF |
| OVERLAY | 7/8 | 7/8 | FF | FF |
| OVERLAY | 7/8 | 7/8 | FF | FF |
| OVERLAY | 7/8 | 7/8 | FF | FF |

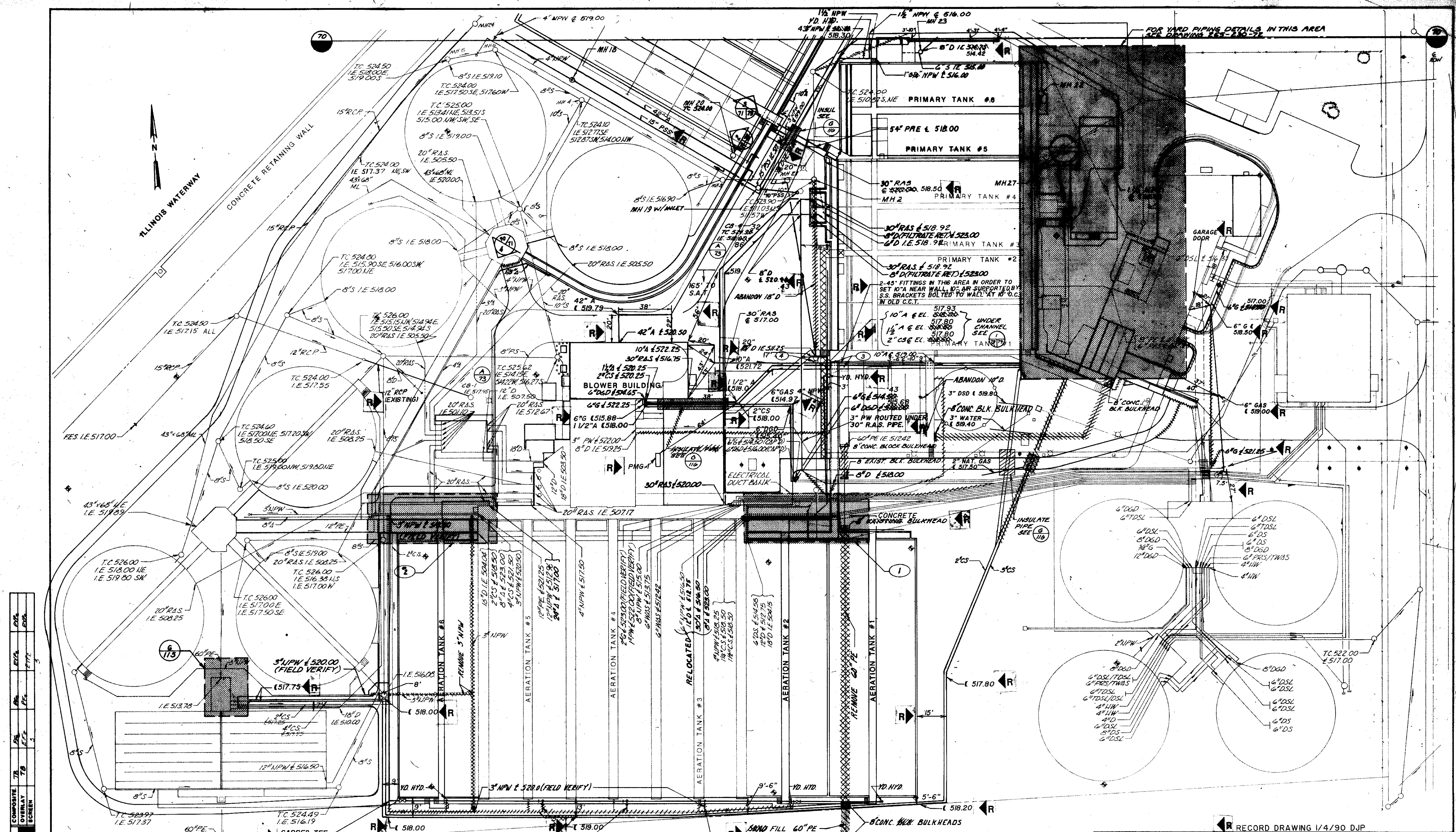
RECORD DRAWING 1/4/91 DJP

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
YARD PIPING PLAN - NORTH

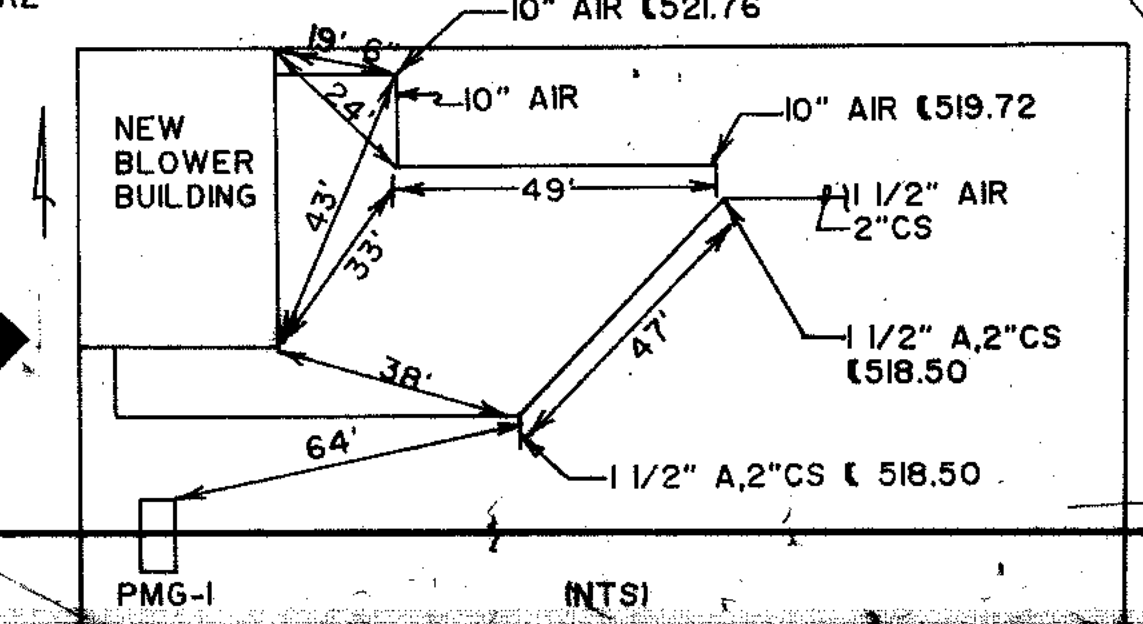
STRAND
 ASSOCIATES, INC.
 CONSULTING ENGINEERS
 910 West Winger Drive
 Madison, Wisconsin 53715
 Tel: (608) 251-4843

SCALE 1" = 30'
Robert E. Hamilton
 CONSULTING ENGINEERS, P.C.
 JOLIET, ILLINOIS 60438

DRAWING NO
255-230-70



| | | | | | | | | | |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| COMPOSITE | 7/8 | 7/8 | 7/8 | 7/8 | 7/8 | 7/8 | 7/8 | 7/8 | 7/8 |
| OVERLAY | | | | | | | | | |
| PROJECT NO. | | | | | | | | | |
| DATE | | | | | | | | | |



- NOTES**
- 1 SEE DRAWING 255-230-84 FOR LARGER SCALE DRAWING
 - 2 SEE DRAWING 255-230-85 FOR ENLARGMENT
 - 3 DEMO EXISTING C.C.T. EFFLUENT CHANNEL I.E. 518.00 AS REQUIRED TO BASE NEW PIPING.
 - 4 SECTION (2) ALSO FOR 10" AIR MAIN AT E. EL. 518.00, LOW POINT ON MAIN. 3/4" C.P. TO MH @ E. EL. 517.00 WITH STRAINER ASSEMBLY, ETC. IN M.H.

RECORD DRAWING 1/4/90 DJP

**CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT/
YARD PIPING PLAN - SOUTH**

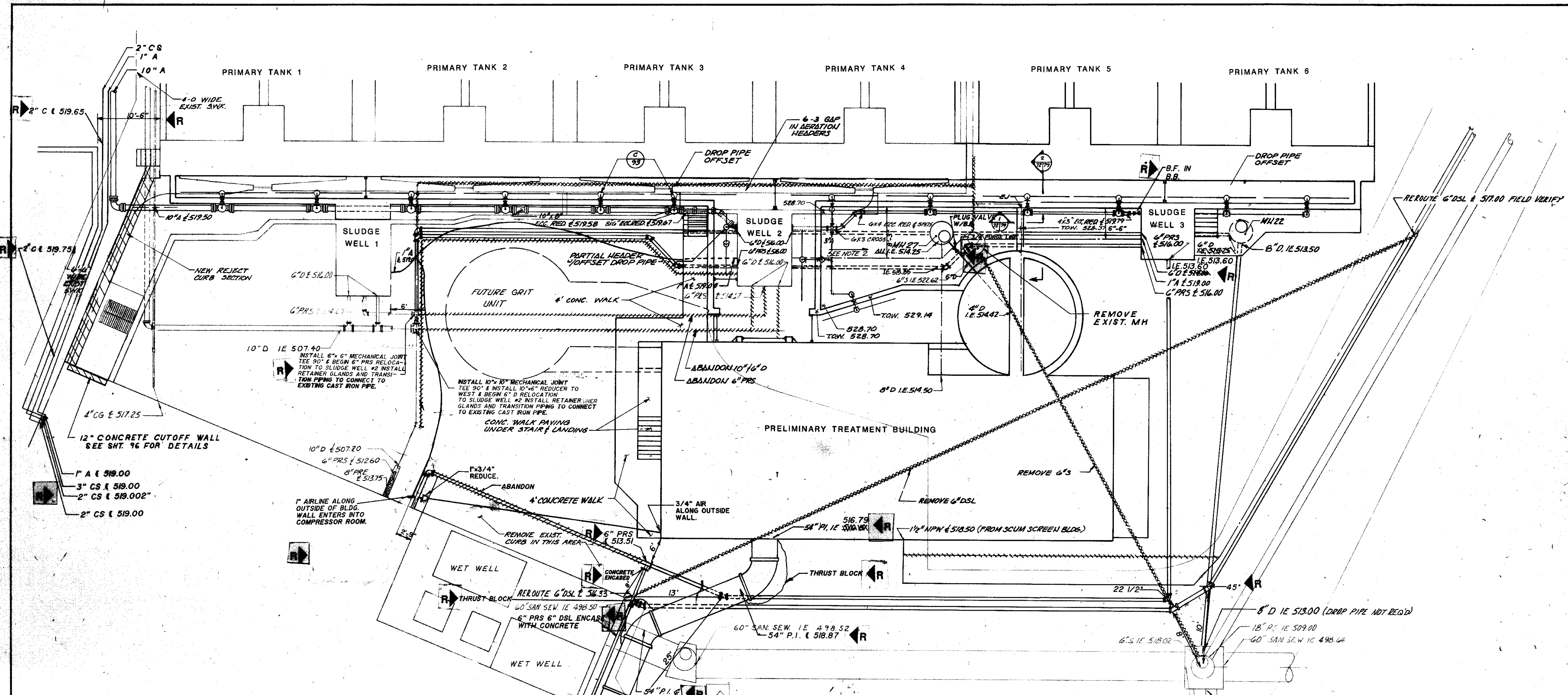
STRAND
ASSOCIATES INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel: (608) 251-4841

SCALE 1"=30'

DATE

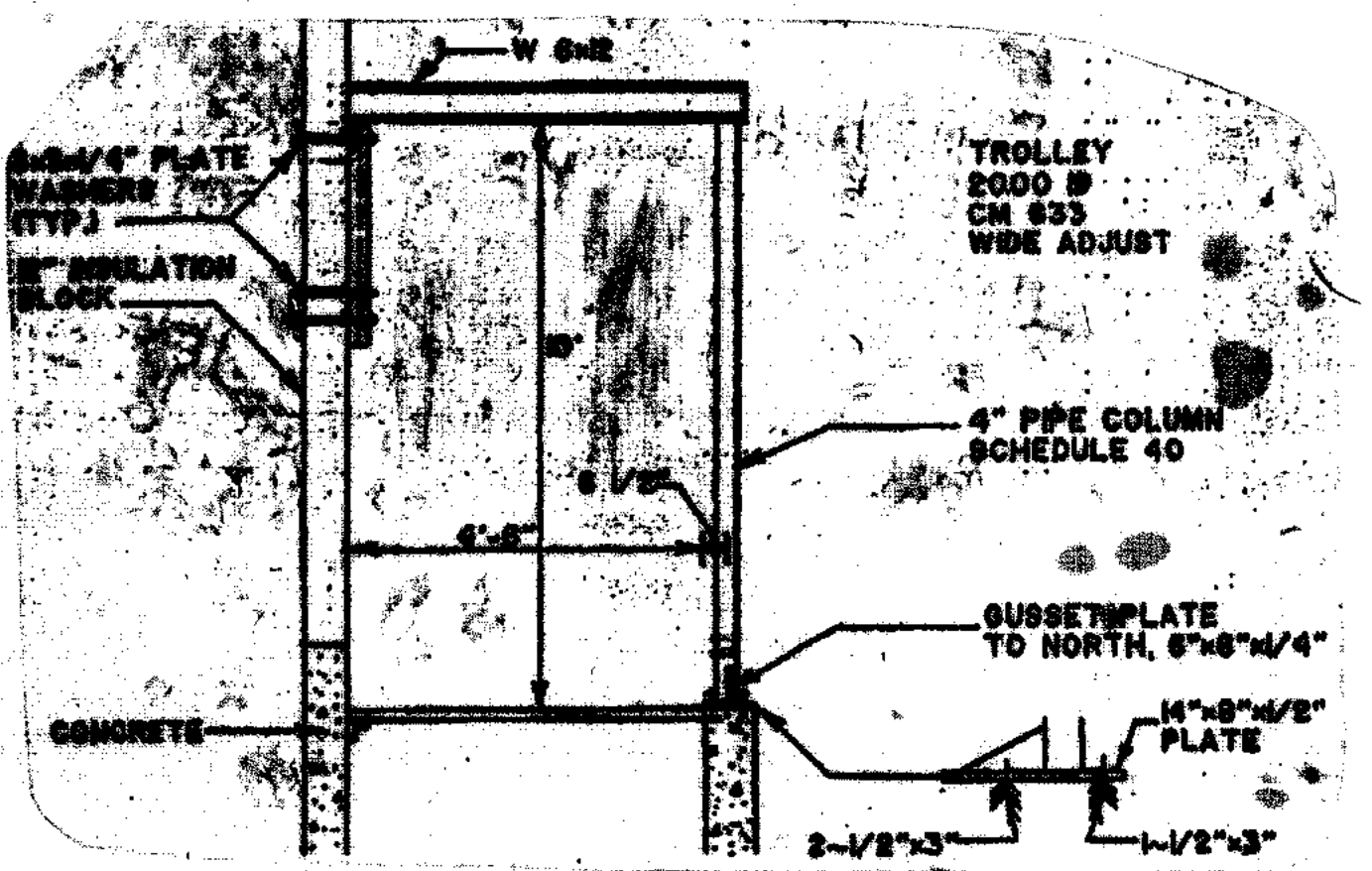
DRAWING NO
255-230-73

SHEET 12 OF 19

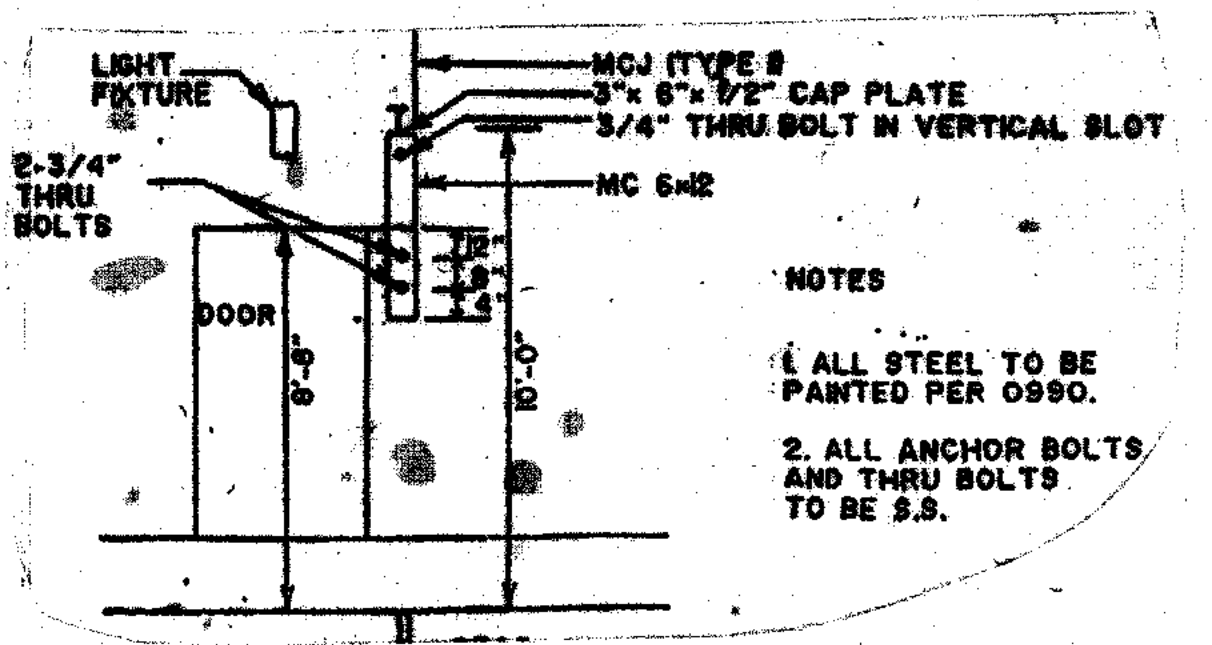


NOTE:

- SEE SHEET 255-230-83 FOR 1/4" SCALE DETAILS OF SLUDGE WELLS 1, 2, 3
- SLOPE 5" CONC. SLAB 1/8" FROM EL. 528.70 TO 528.37 AT WALL



ELEVATION LOOKING SOUTH



NOTES:

- ALL STEEL TO BE PAINTED PER 0990.
- ALL ANCHOR BOLTS AND THRU BOLTS TO BE S.S.

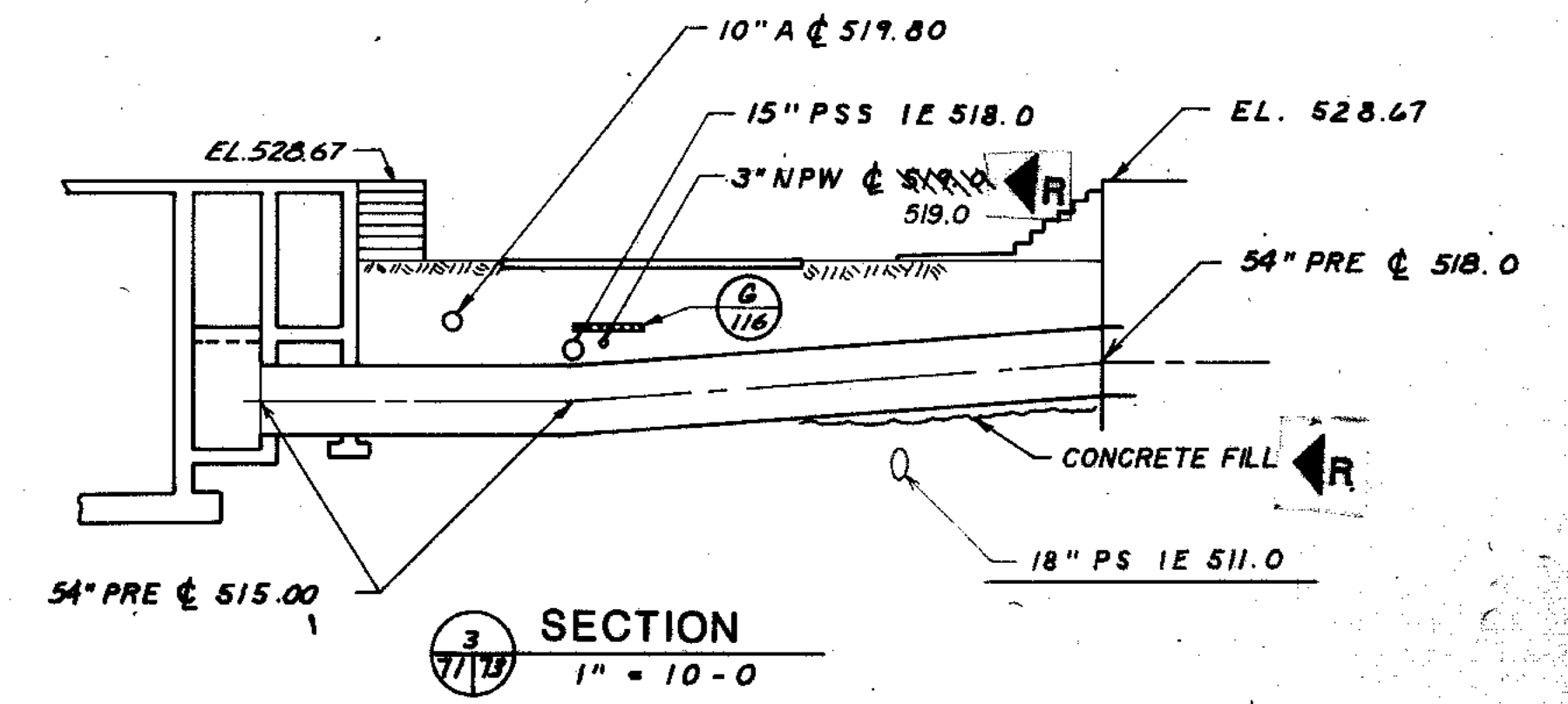
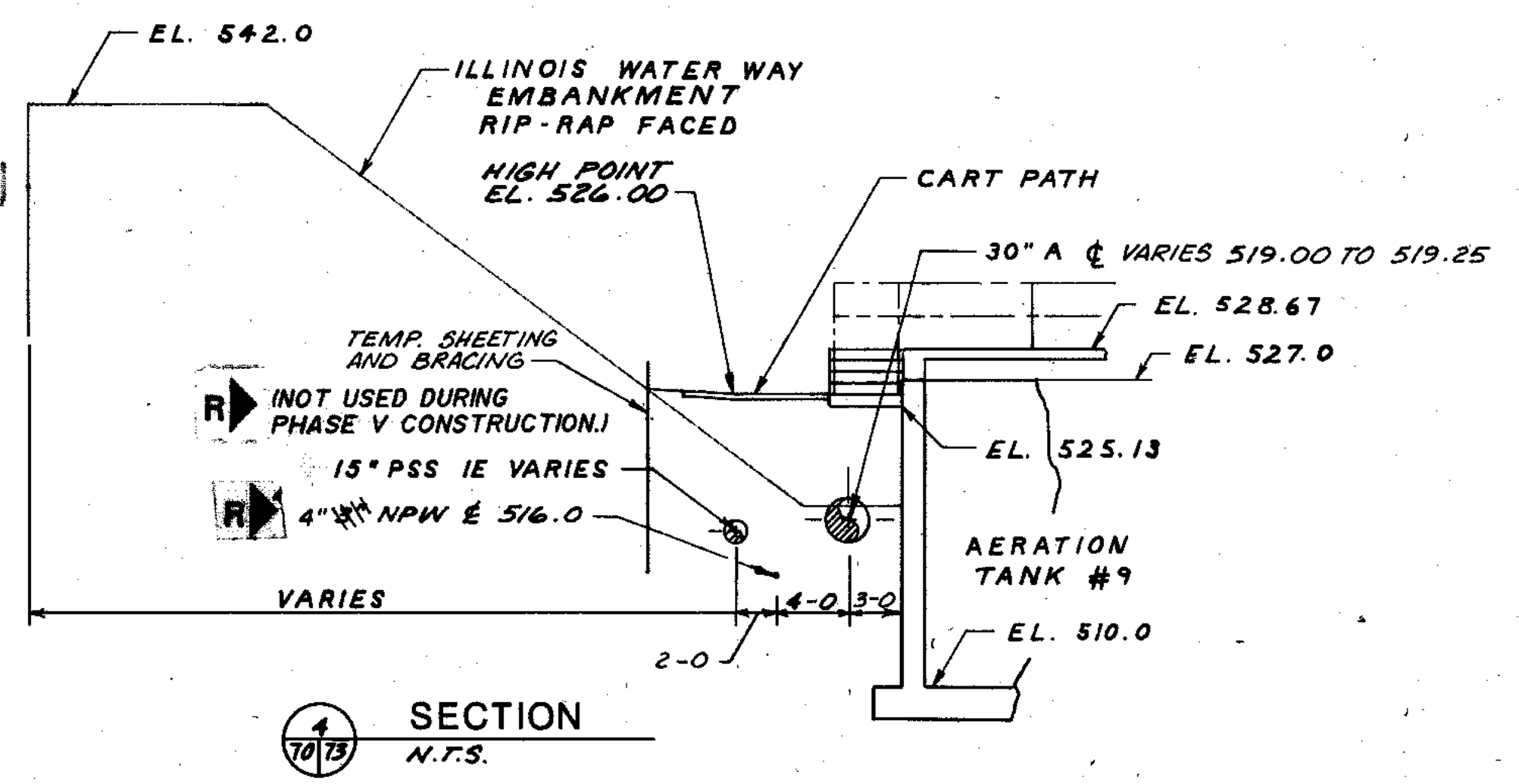
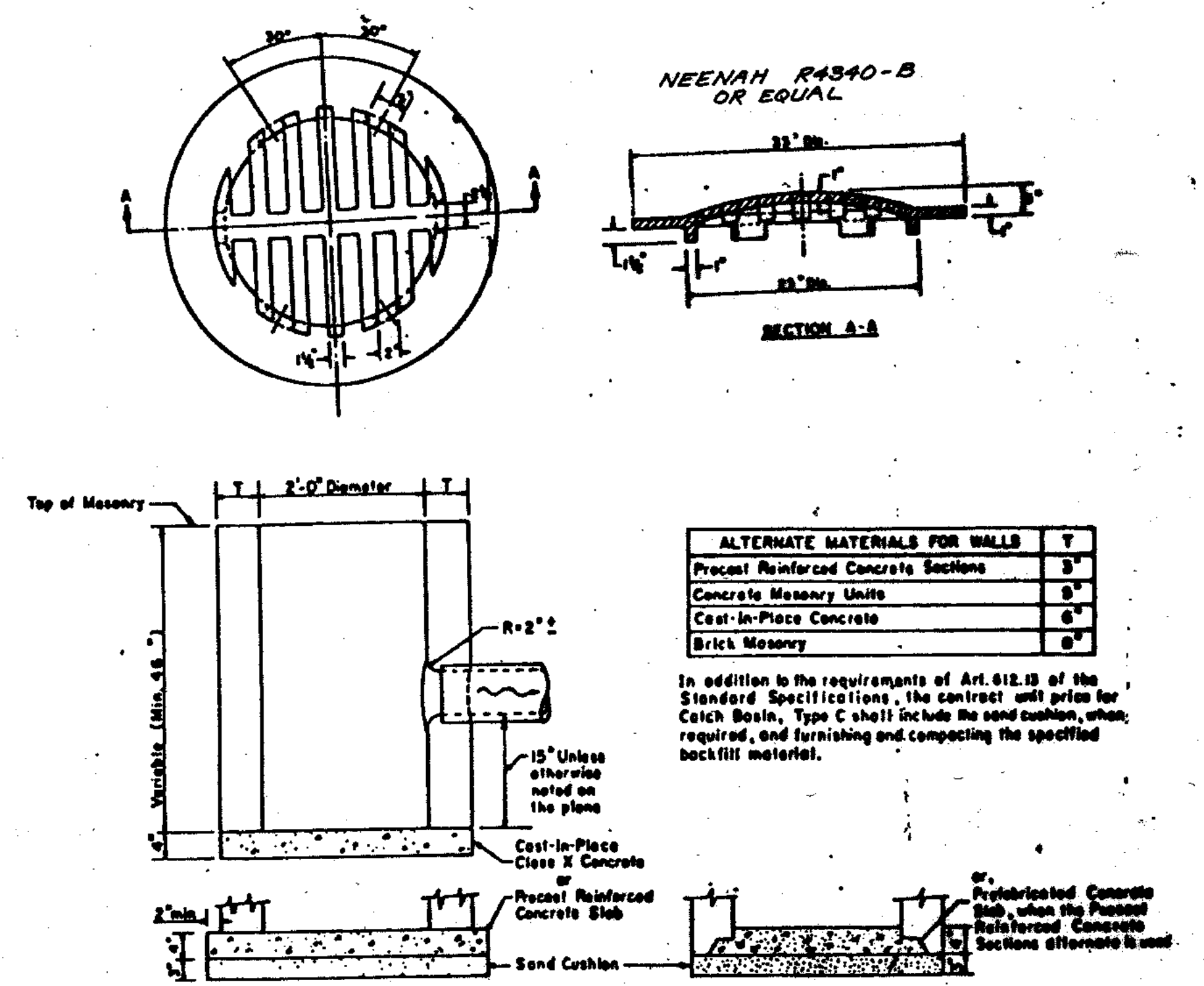
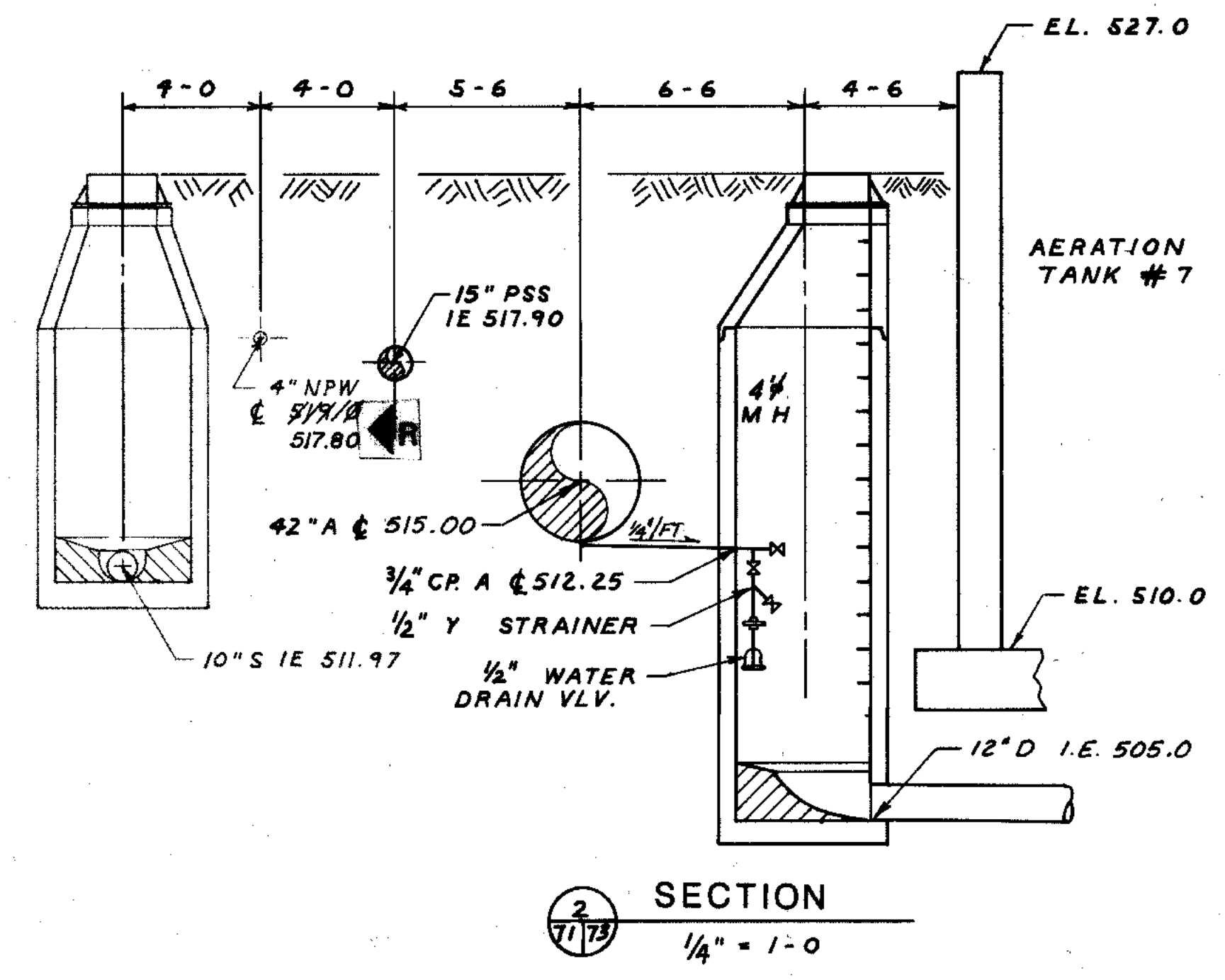
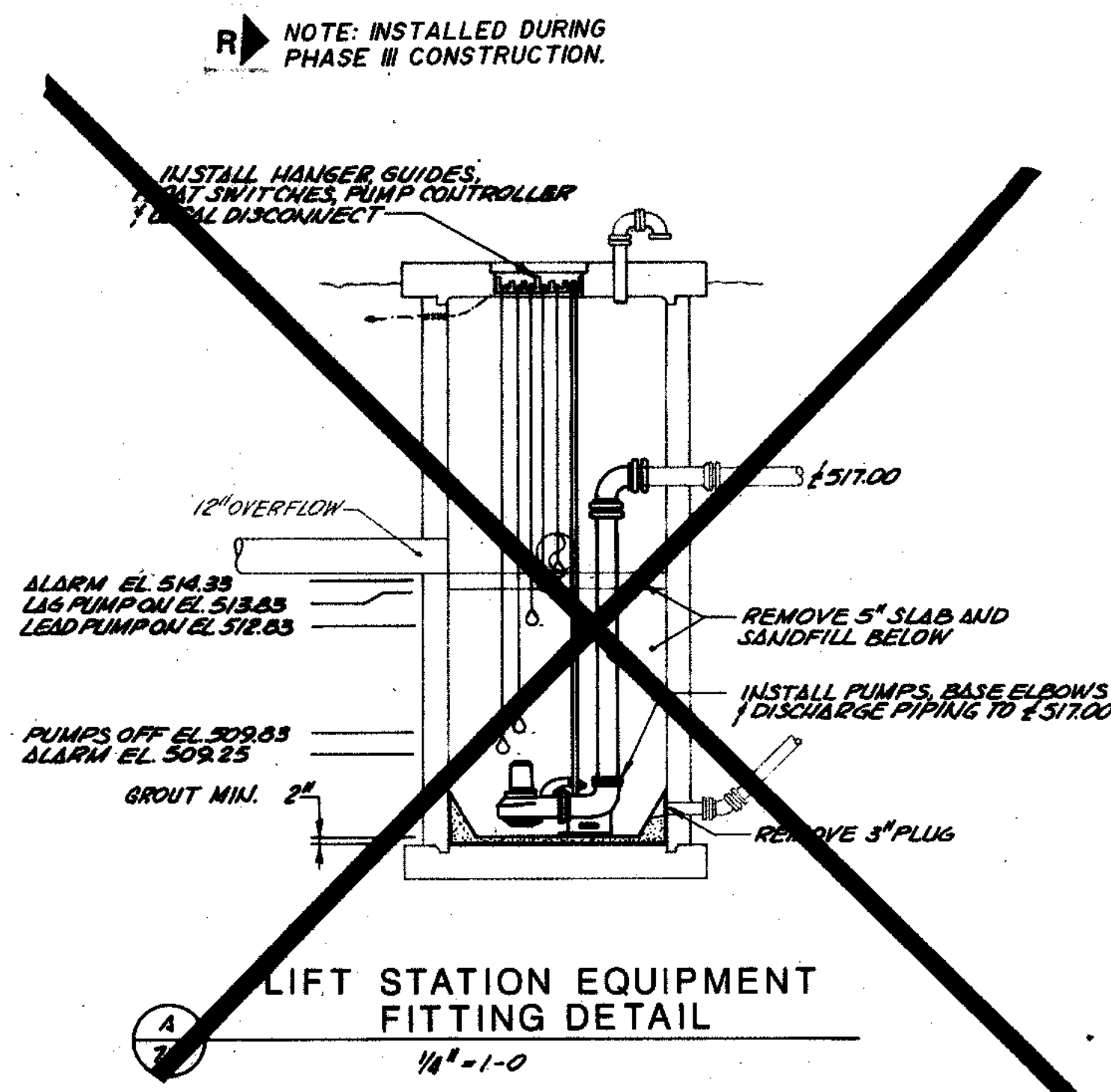
ELEVATION LOOKING EAST

HOIST RAIL (F) NTS 109

| | | | | |
|------------------------|-----------|----|------|------|
| OVERLAY IDENTIFICATION | COMPOSITE | TR | BY | DATE |
| OVERLAY | 78 | BY | DATE | |
| SCREEN | | BY | DATE | |
| PROJECT NO. | | | | |
| DATE | | | | |

RECORD DRAWING 1/4/91 DJP

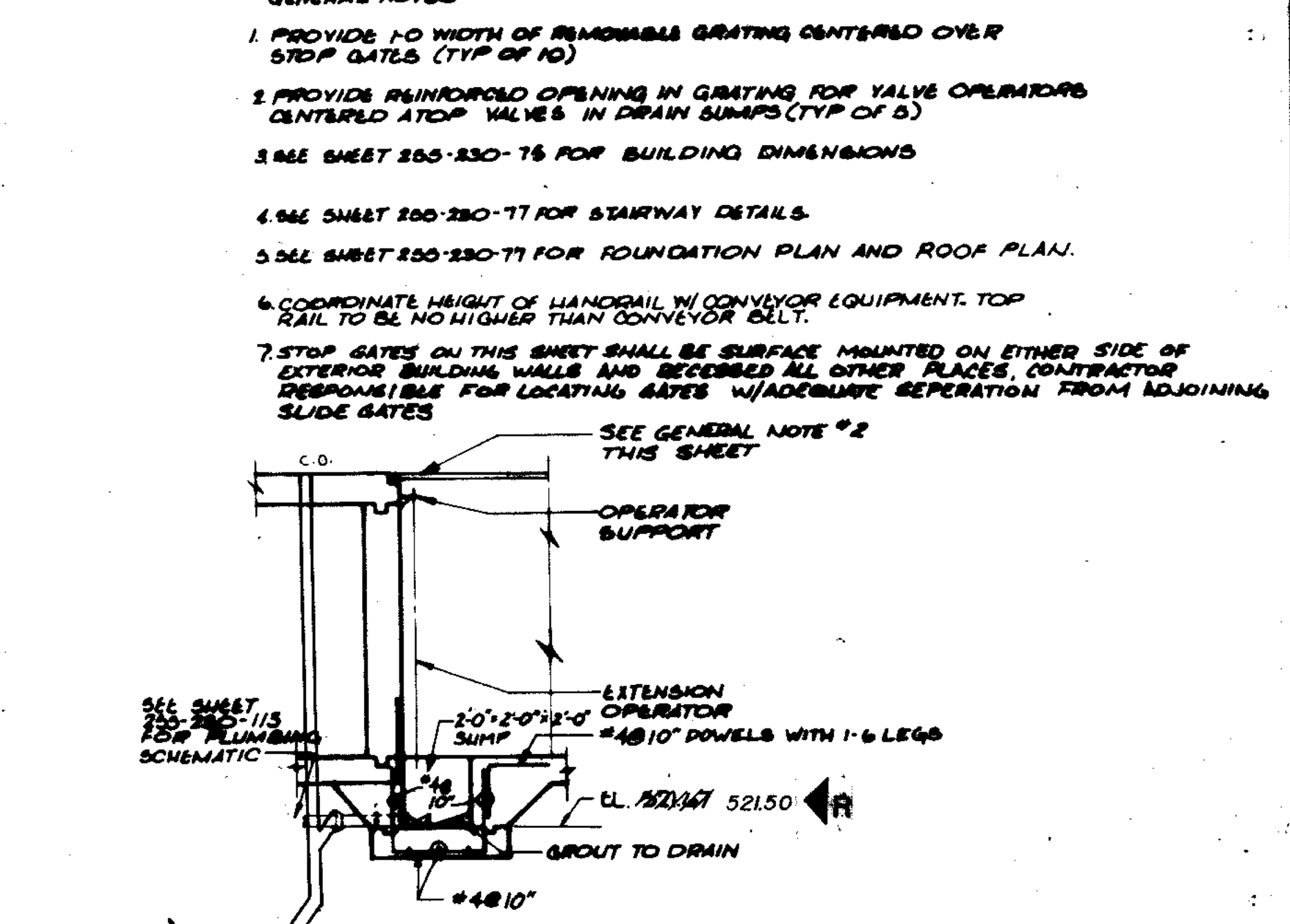
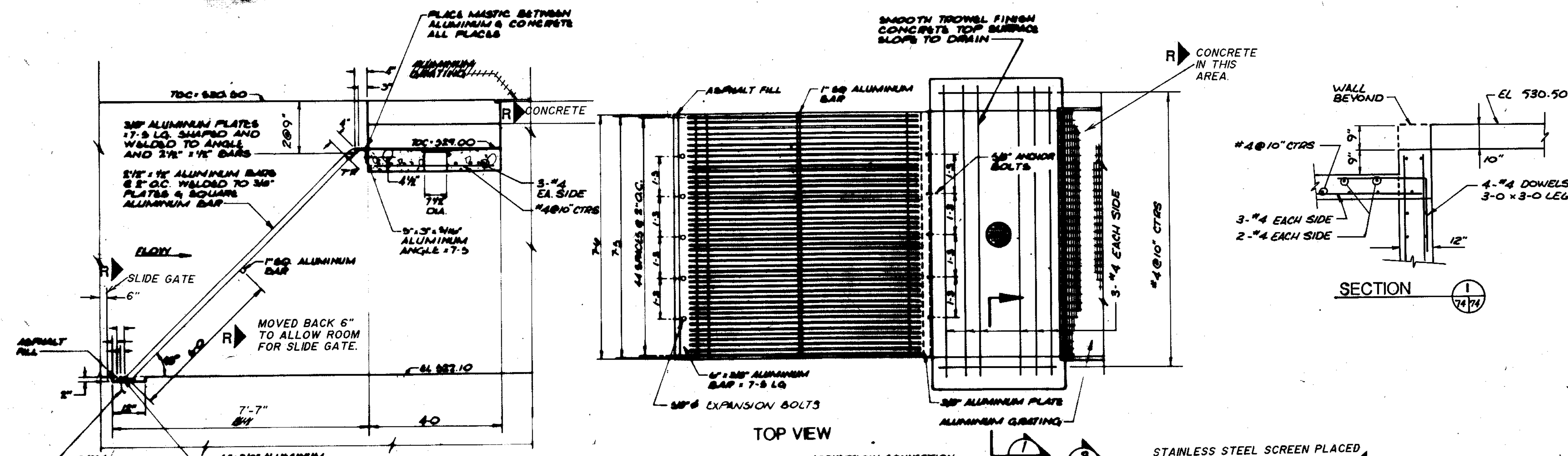
| | | |
|---|---|---------------------------------|
| 910 West Wmaga Drive Madison, Wisconsin 53715 Tel: (608) 251-4943 | CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT YARD PIPING DETAILS - 1/8" SCALE PLAN | |
| | SCALE 1/8" = 1'-0" | DATE |
| | Robert E. Hamilton CONSULTING ENGINEERS, P.C. JOLIET, ILLINOIS 60435 | DRAWING NO 255-230-72 |



| | |
|------------------------|------|
| OVERLAY IDENTIFICATION | DATE |
| COMPOSITE OVERLAY | 7/9 |
| SCREEN | 7/9 |
| PROJECT NO. | 79 |
| DATE | |

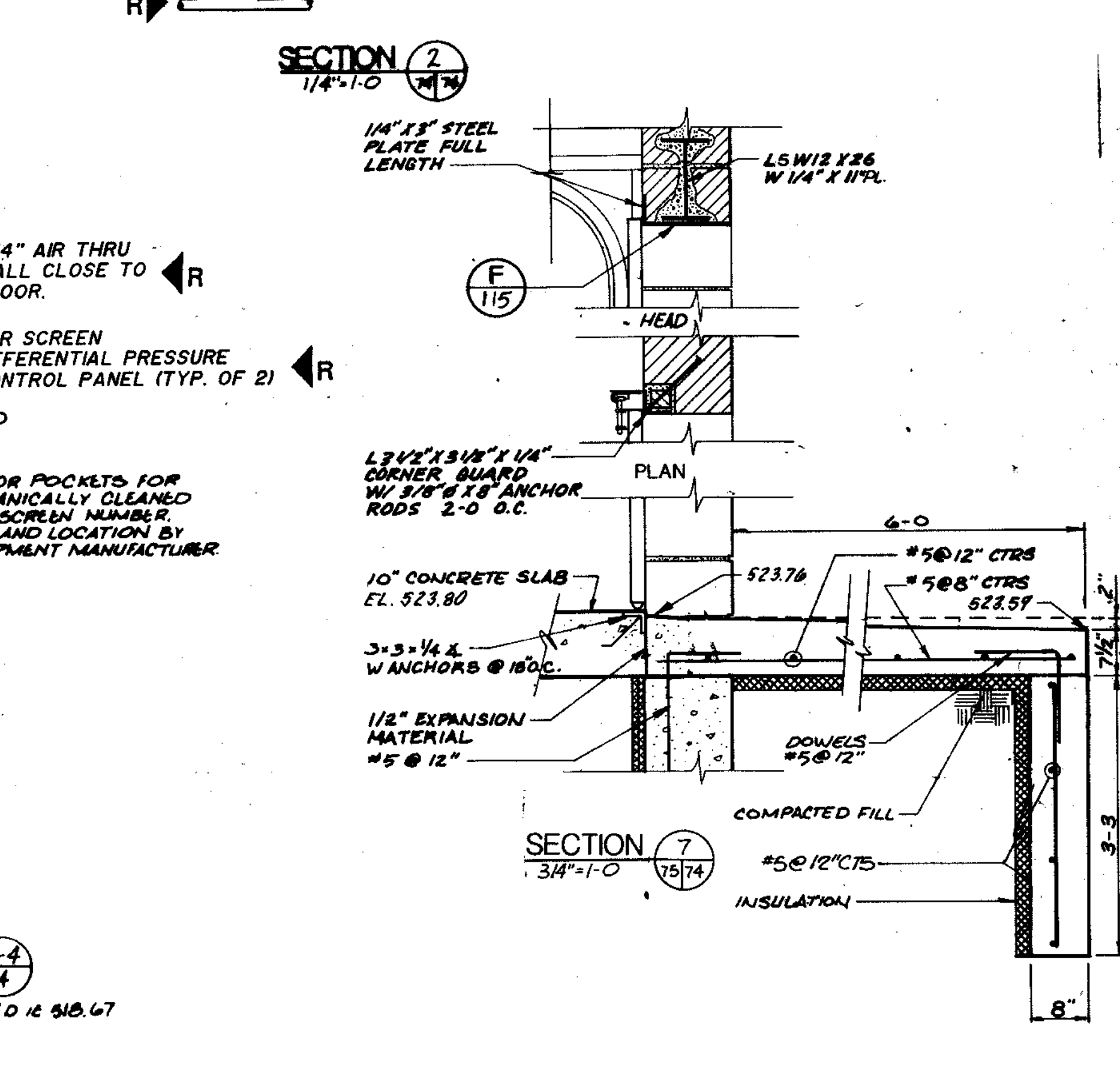
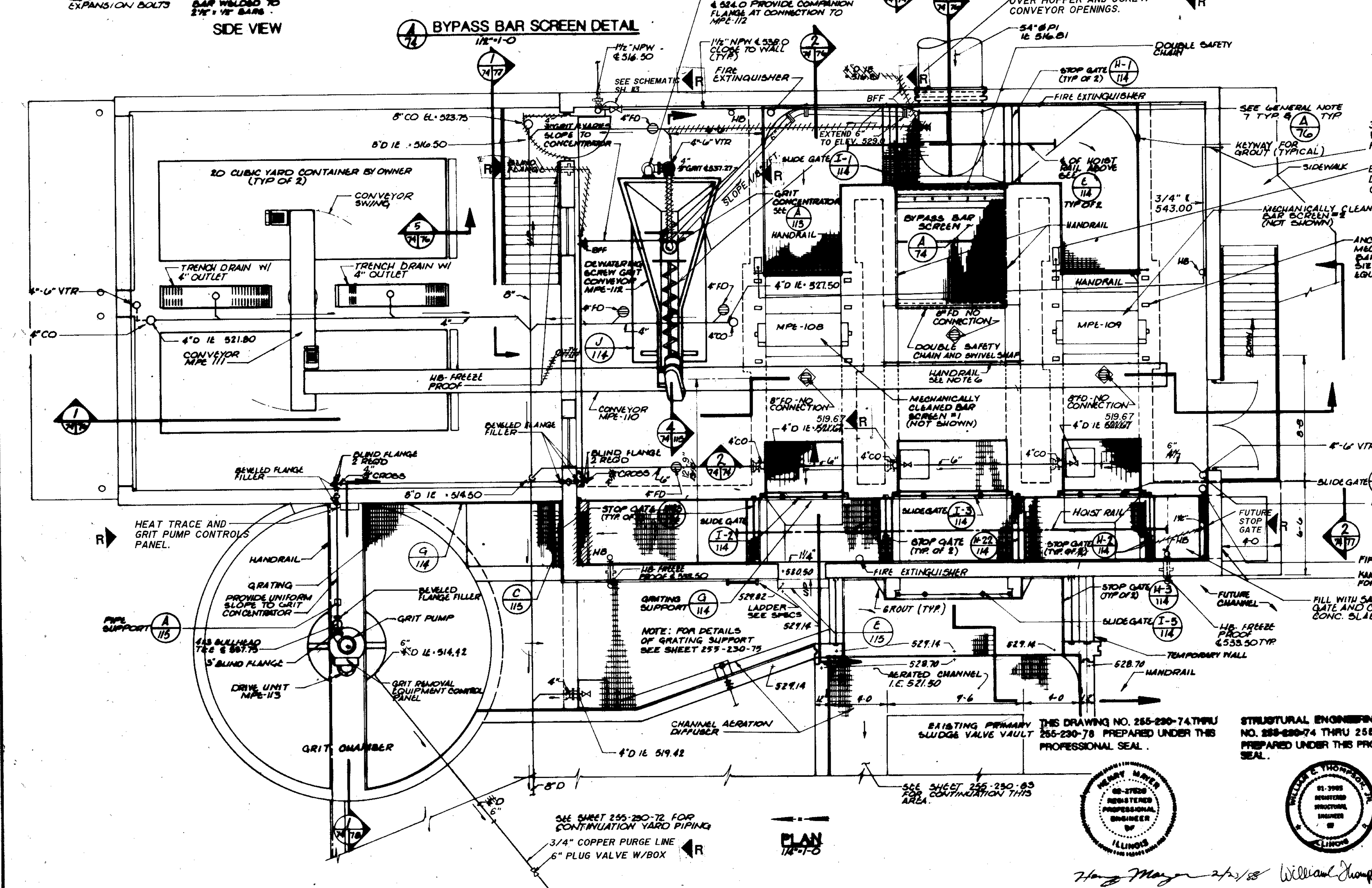
RECORD DRAWING 1/4/91 DJP

| | | |
|--|--|---|
| <p>STRAND ASSOCIATES INC. CONSULTING ENGINEERS 910 West Wingra Drive Madison, Wisconsin 53715 Tel. (608) 261-4843</p> | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT YARD PIPING SECTIONS AND DETAILS</p> | |
| | <p>SCALE AS SHOWN</p> <p>Robert E. Hamilton CONSULTING ENGINEERS, P.C. JOLIET, ILLINOIS 60438</p> | <p>DATE</p> <p>DRAWING NO 255-230-73</p> |



GENERAL NOTES:

1. PROVIDE 1-0 WIDTH OF REMOVABLE GRATING CENTERED OVER STOP GATES (TYP OF 10)
2. PROVIDE REINFORCED OPENING IN GRATING FOR VALVE OPERATORS CENTERED AT TOP VALVES IN DRAIN SUMPS (TYP OF 5)
3. SEE SHEET 255-230-75 FOR BUILDING DIMENSIONS
4. SEE SHEET 255-230-77 FOR STAIRWAY DETAILS
5. SEE SHEET 255-230-77 FOR FOUNDATION PLAN AND ROOF PLAN.
6. COORDINATE HEIGHT OF HANDRAIL W/ CONVEYOR EQUIPMENT. TOP RAIL TO BE NO HIGHER THAN CONVEYOR BELT.
7. STOP GATES ON THIS SHEET SHALL BE SURFACE MOUNTED ON EITHER SIDE OF EXTERIOR BUILDING WALLS AND RECEIVED ALL OTHER PLACES. CONTRACTOR RESPONSIBLE FOR LOCATING GATES W/ADEQUATE SEPERATION FROM ADJOINING SLIDE GATES



NOTE: SLIDE GATES TO BE MODIFIED TO DUAL OPERATORS WITH SIDE MOUNTED HANDWHEELS

THIS DRAWING NO. 255-230-74 THRU 255-230-78 PREPARED UNDER THE PROFESSIONAL SEAL OF

STRUCTURAL ENGINEERING ON DRAWING NO. 255-230-74 THRU 255-230-78 PREPARED UNDER THIS PROFESSIONAL SEAL.



STRAND ASSOCIATES INC.
CONSULTING ENGINEERS
910 West Wings Drive
Madison, Wisconsin 53715
Tel. (608) 251-4841

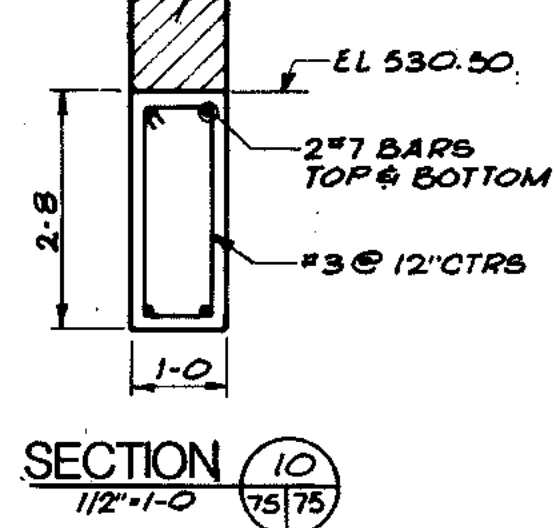
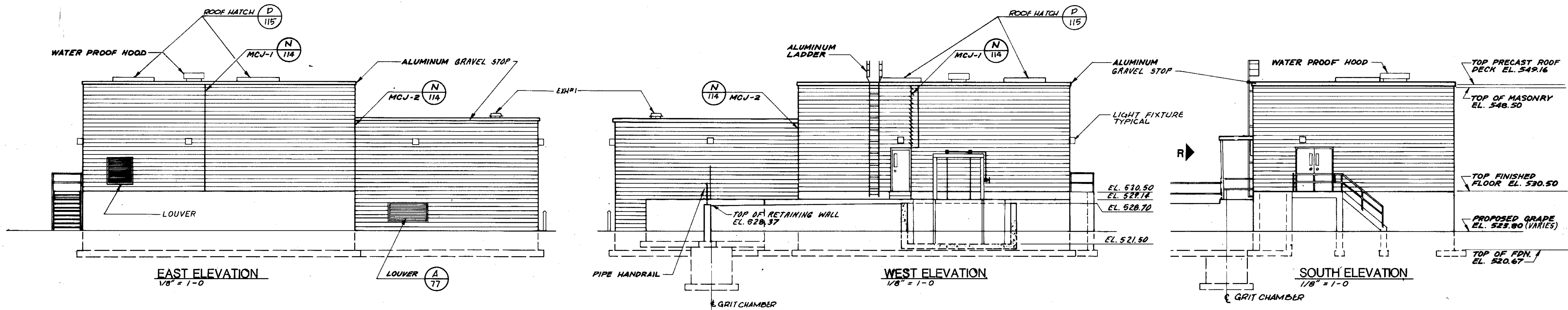
CITY OF JOLET
EASTSIDE
WASTEWATER TREATMENT PLANT
PRELIMINARY TREATMENT BUILDING
PLAN & SECTIONS

SCALE AS NOTED DATE
Bolling Consultants
15100 Center 7th, Littleton, Colorado 80120
Tel. 303-755-1000
DRAWING NO.
255-230-74

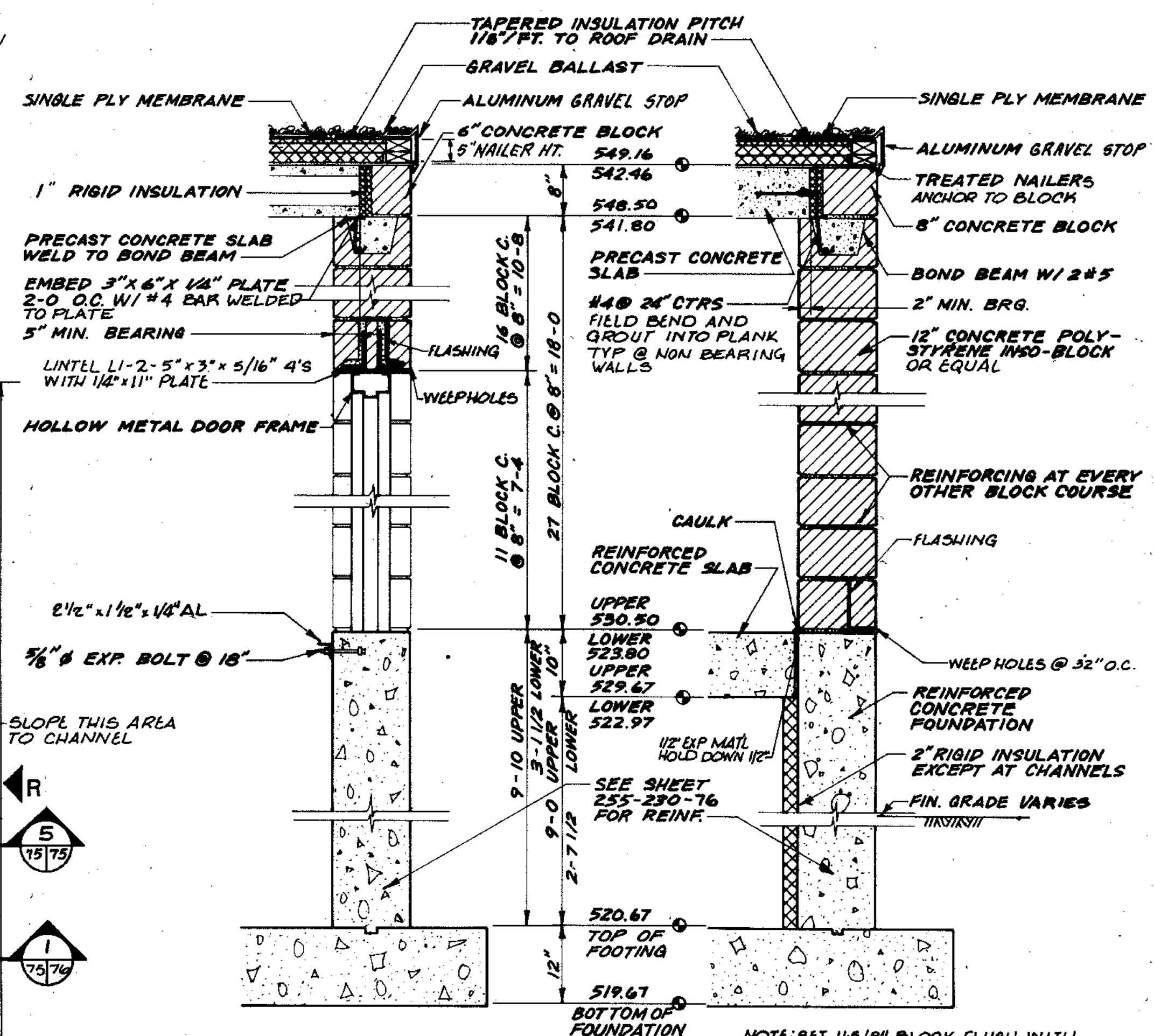
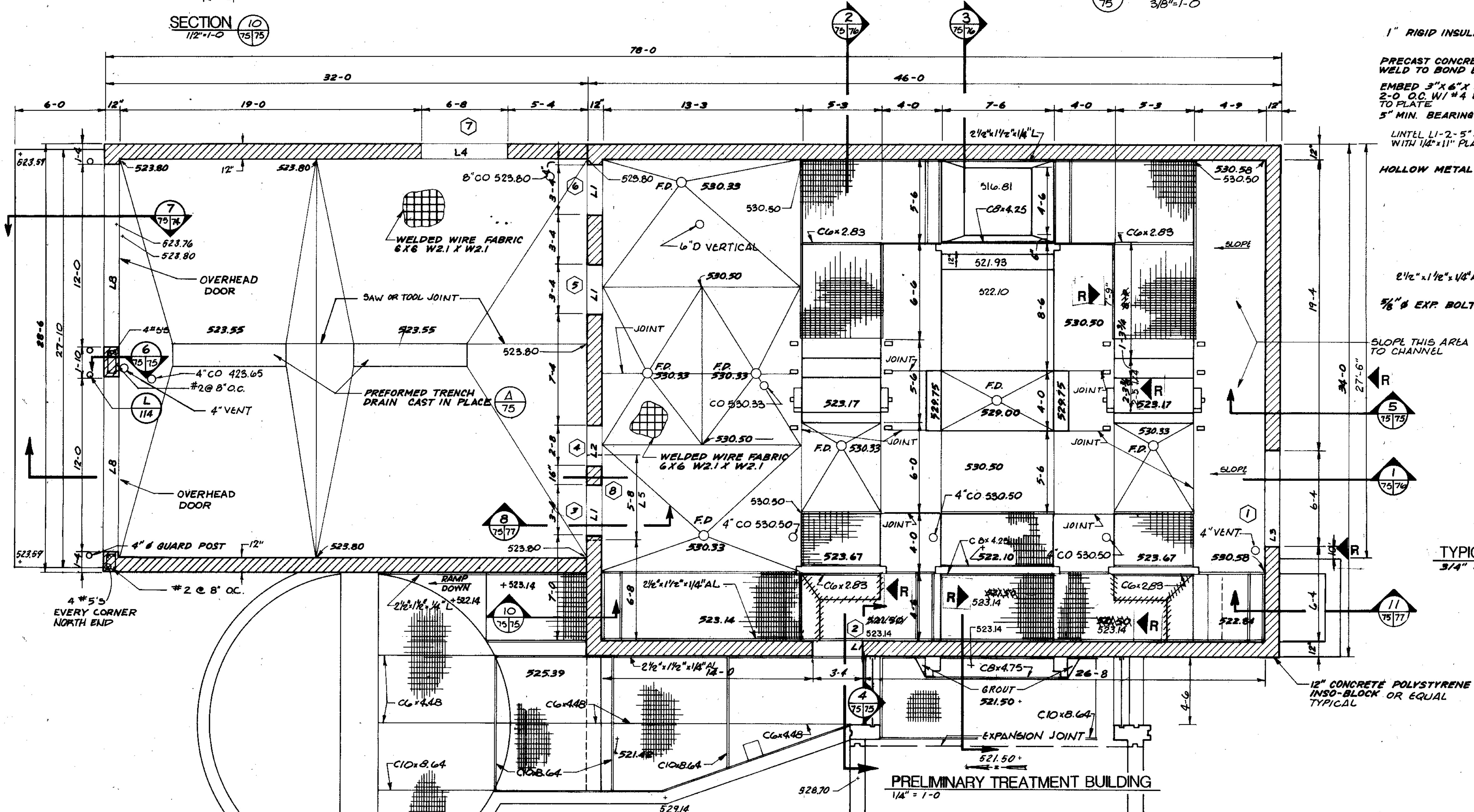
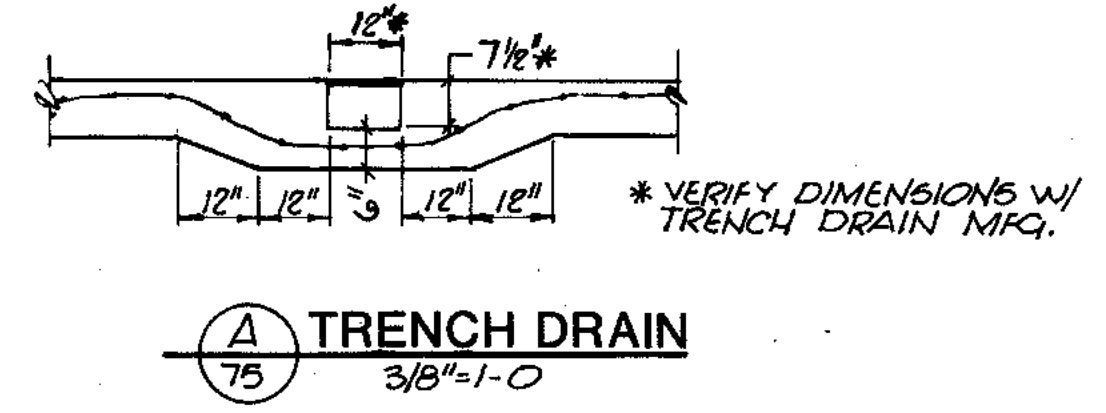
Henry Mayer 2/2/88 William Thompson 2/2/88

PLAN 1/4"-1'-0"

SEE SHEET 255-230-72 FOR CONTINUATION YARD PIPING
3/4" COPPER PURGE LINE
6" PLUG VALVE W/BOX



- GENERAL NOTES:**
1. SEE SHEET 255-230-100 FOR OPENING SCHEDULE.
 2. SEE SHEET 255-230-77 FOR STAIRWAY DETAIL.
 3. SEE (P 115) FOR LINTEL DETAILS



| | | | | | |
|-------------|------------|------------|------------|------------|------------|
| COMPOSITE | P18-105-75 | P18-105-75 | P18-105-75 | P18-105-75 | P18-105-75 |
| OVERLAY | P18-105-75 | P18-105-75 | P18-105-75 | P18-105-75 | P18-105-75 |
| PROJECT NO. | | | | | |
| DATE | | | | | |

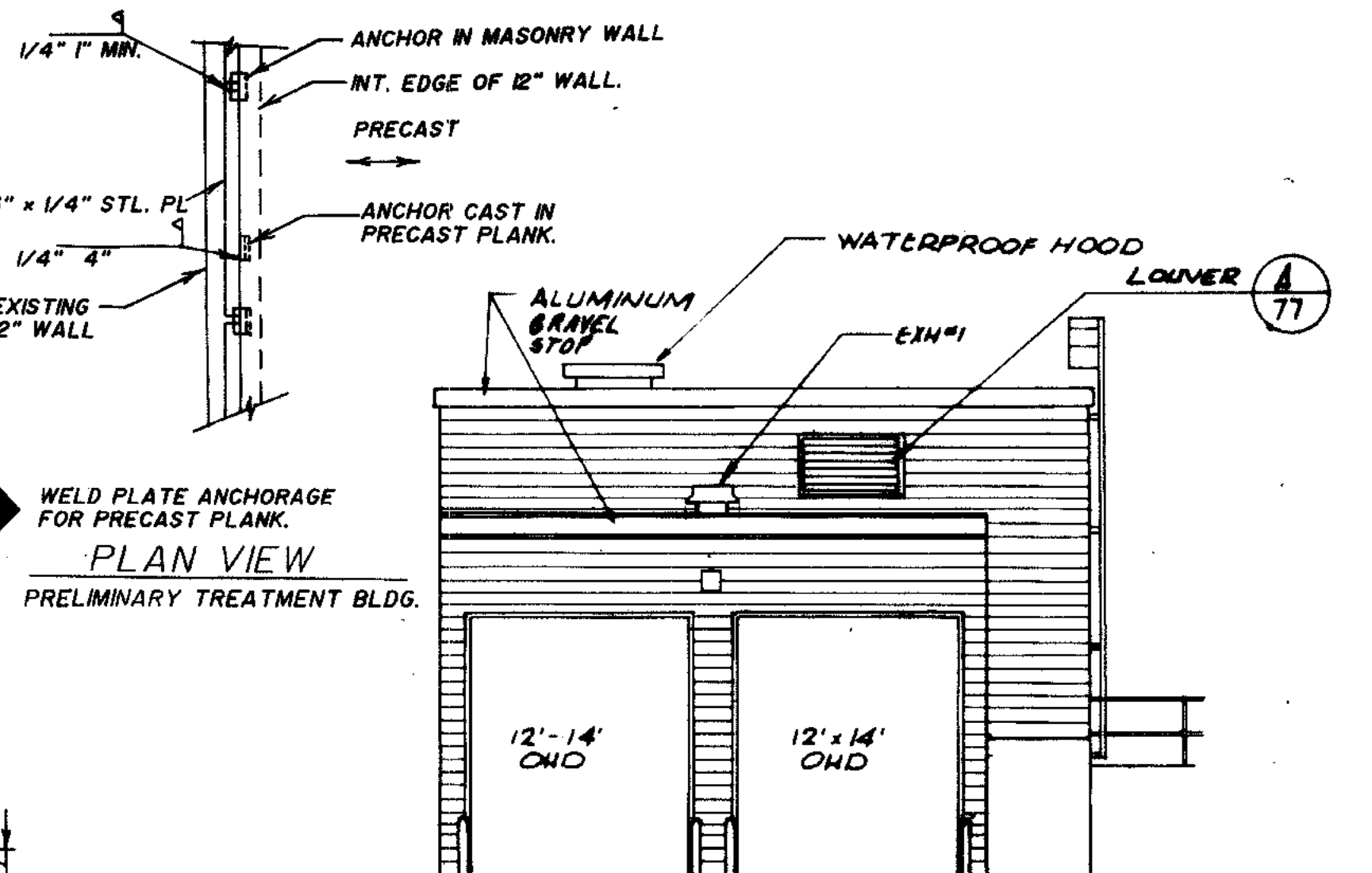
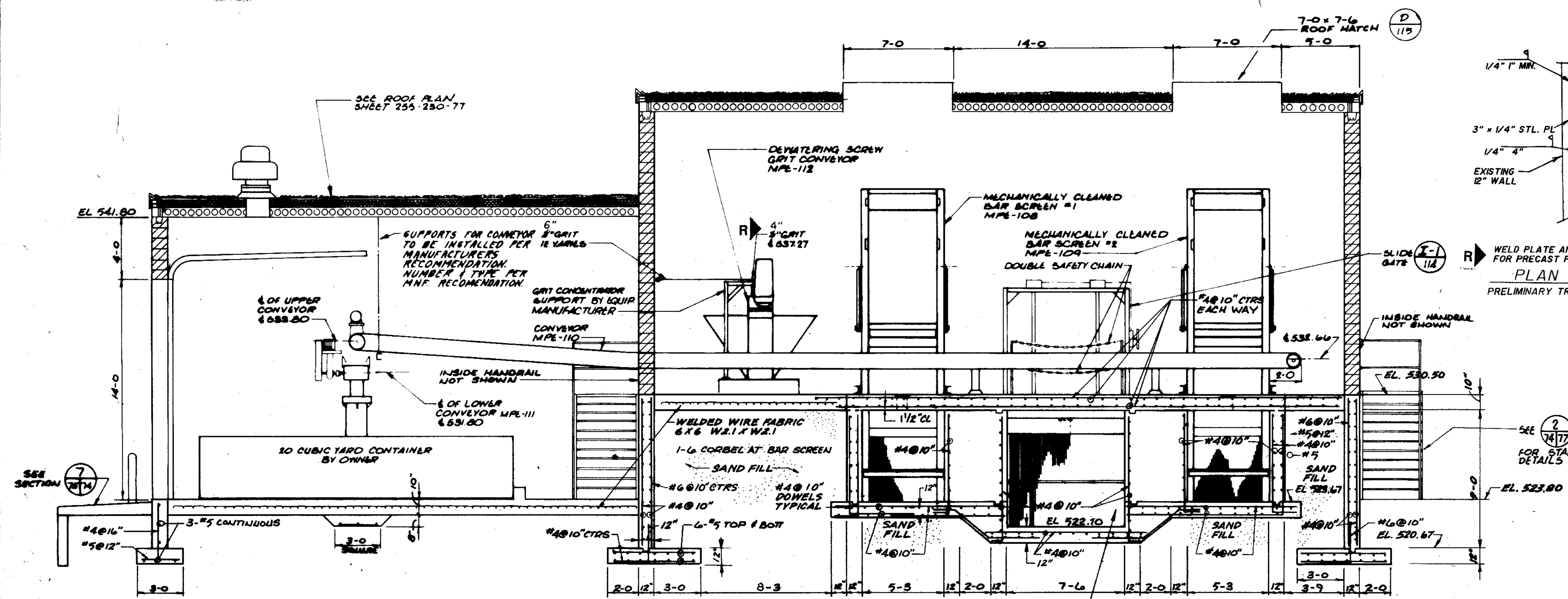
STRAND ASSOCIATES INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

Being Consultants
1800 West Center / N. Larkin Avenue at Plainfield Road /
Joliet, IL 60435 (815) 729-1800

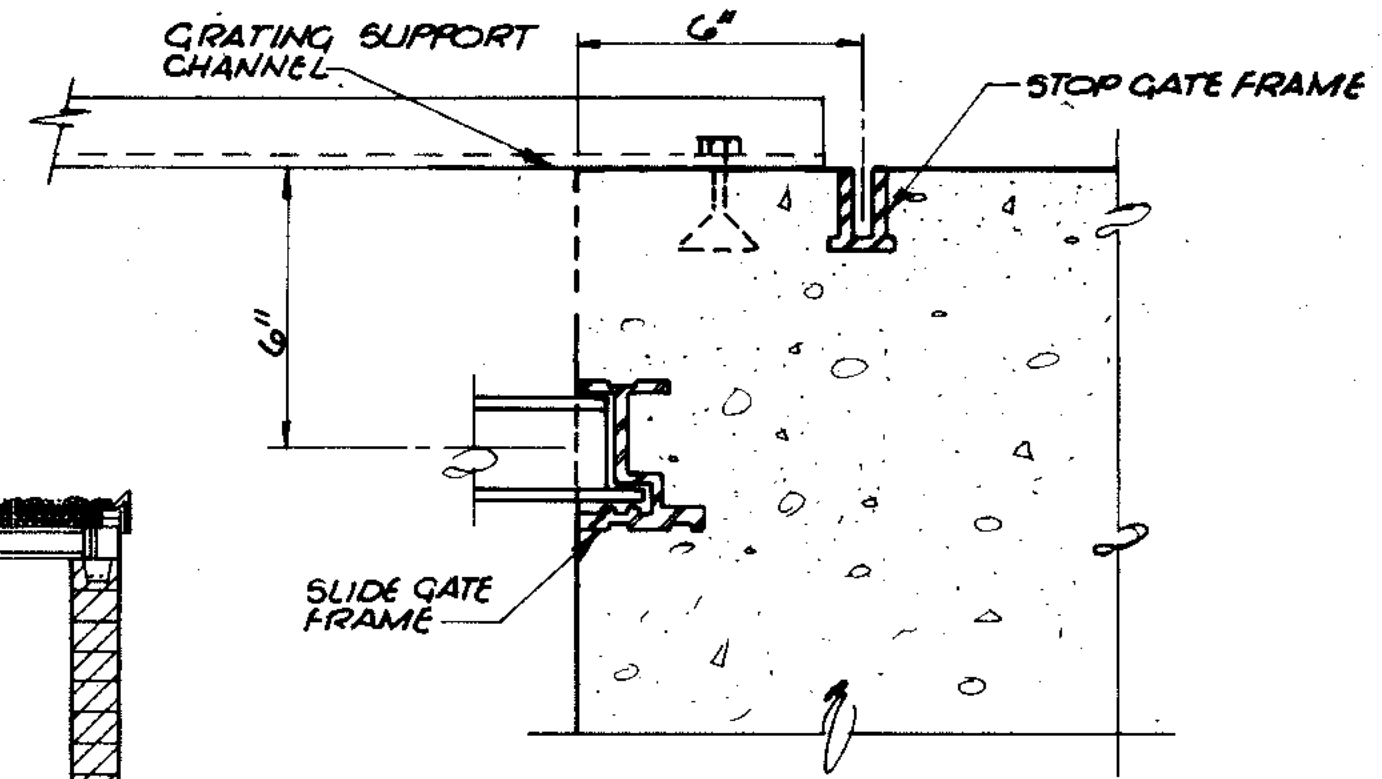
CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
PRELIMINARY TREATMENT BUILDING
ARCHITECTURAL PLAN, SECTIONS & ELEVATIONS

SCALE: AS NOTED DATE: _____ DRAWING NO: _____

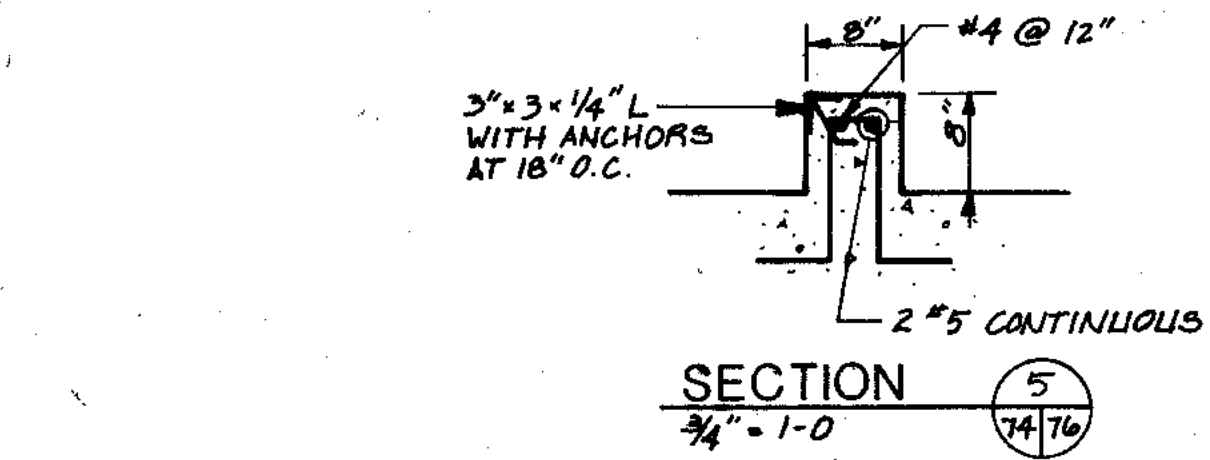
255-230-75



NORTH ELEVATION
1/8" = 1'-0"

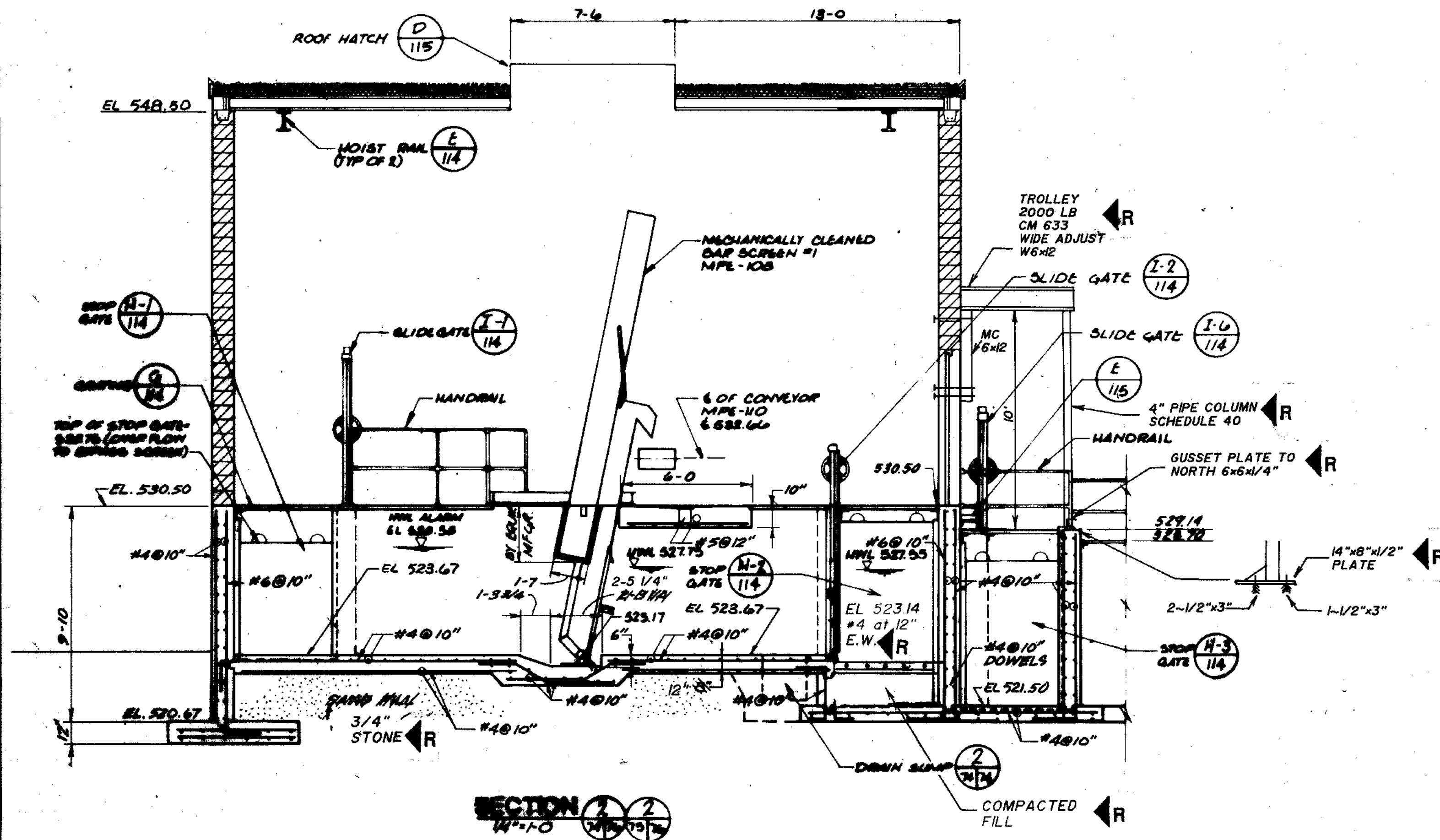


DETAIL A
3/4" = 1'-0"

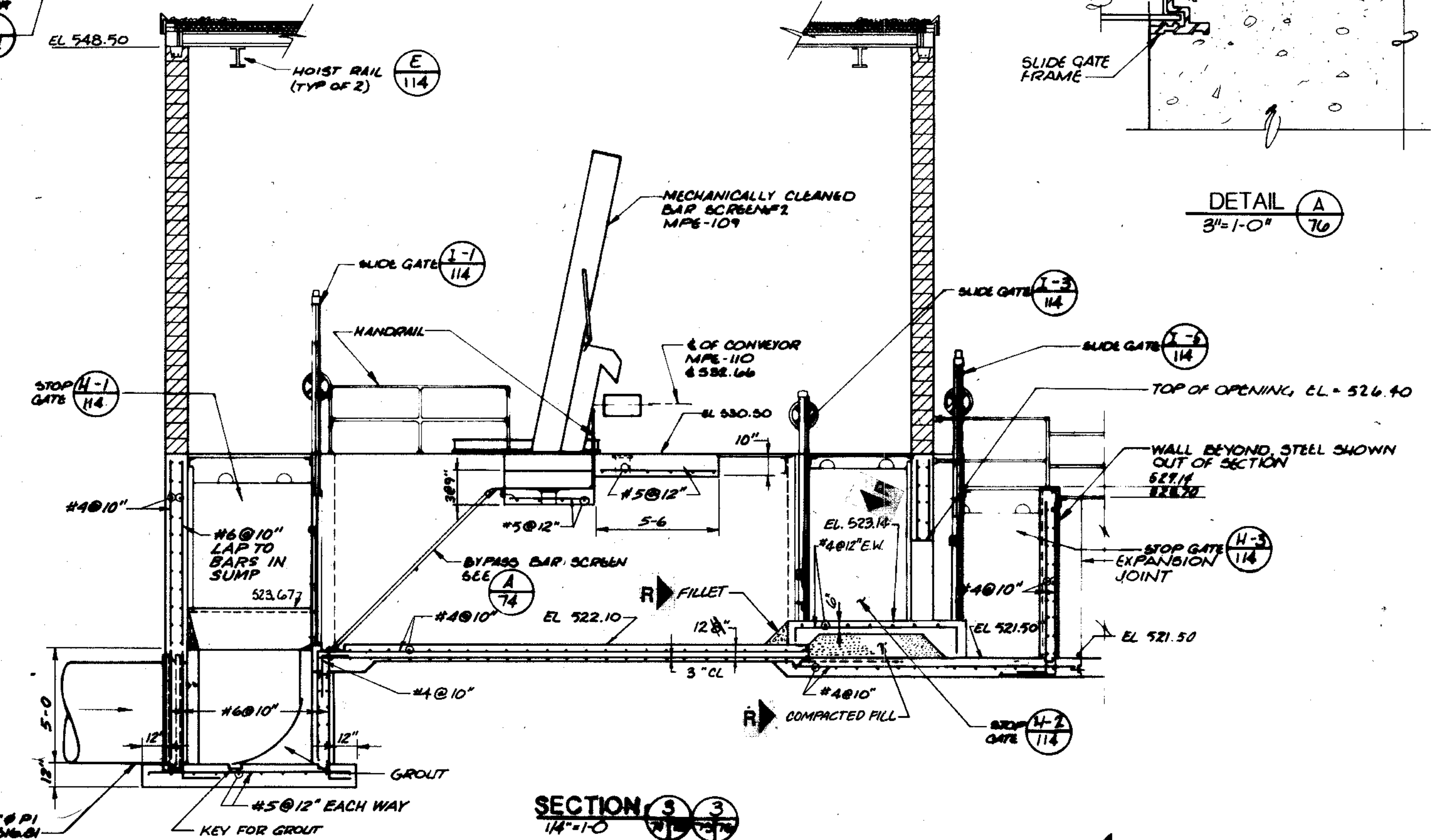


SECTION 5
3/4" = 1'-0"

SECTION 1
1/4" = 1'-0"



SECTION 2
1/4" = 1'-0"



SECTION 3
1/4" = 1'-0"

← R RECORD DRAWING 1-91 D.J.P.

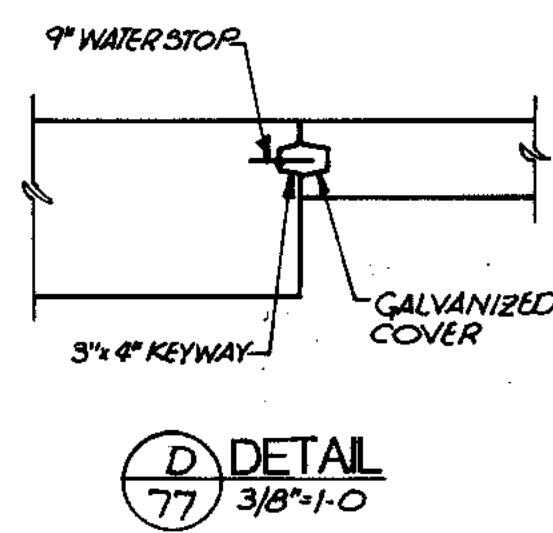
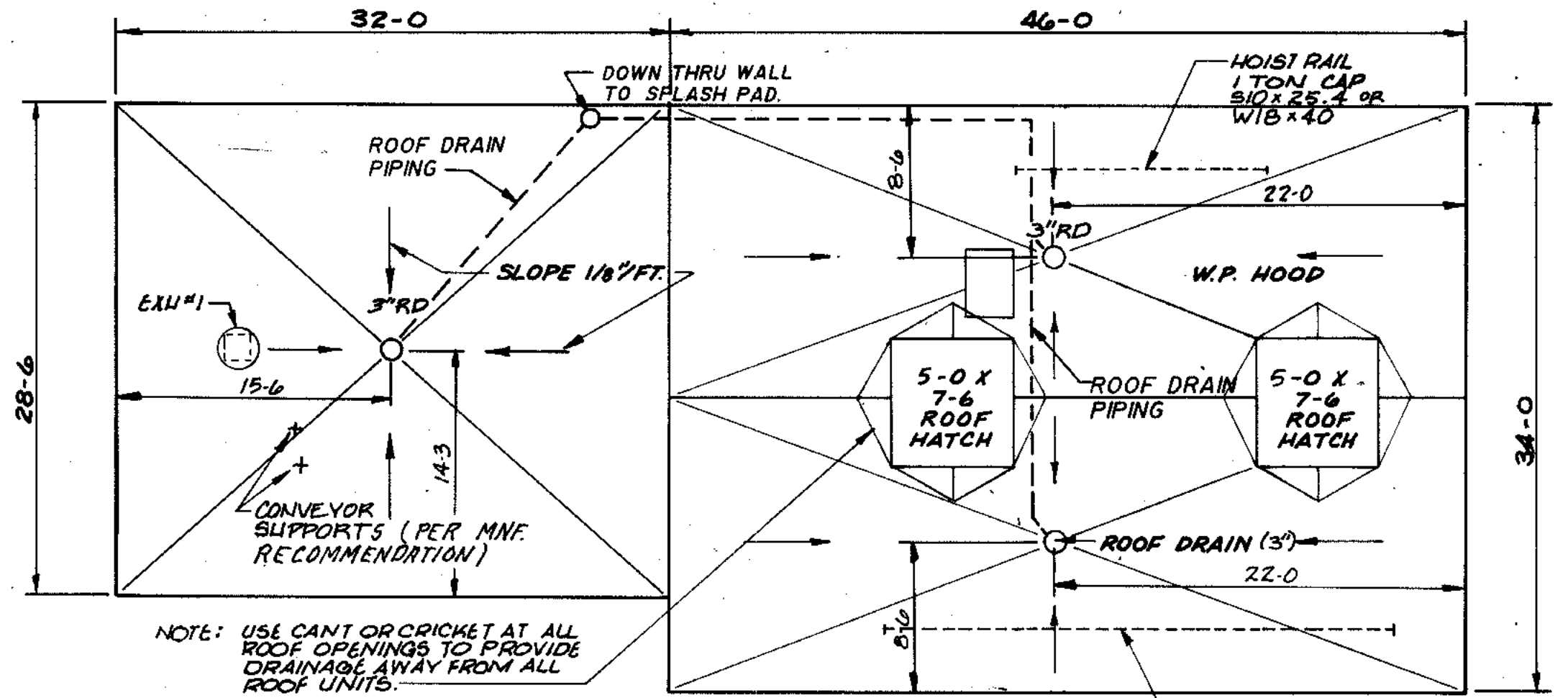
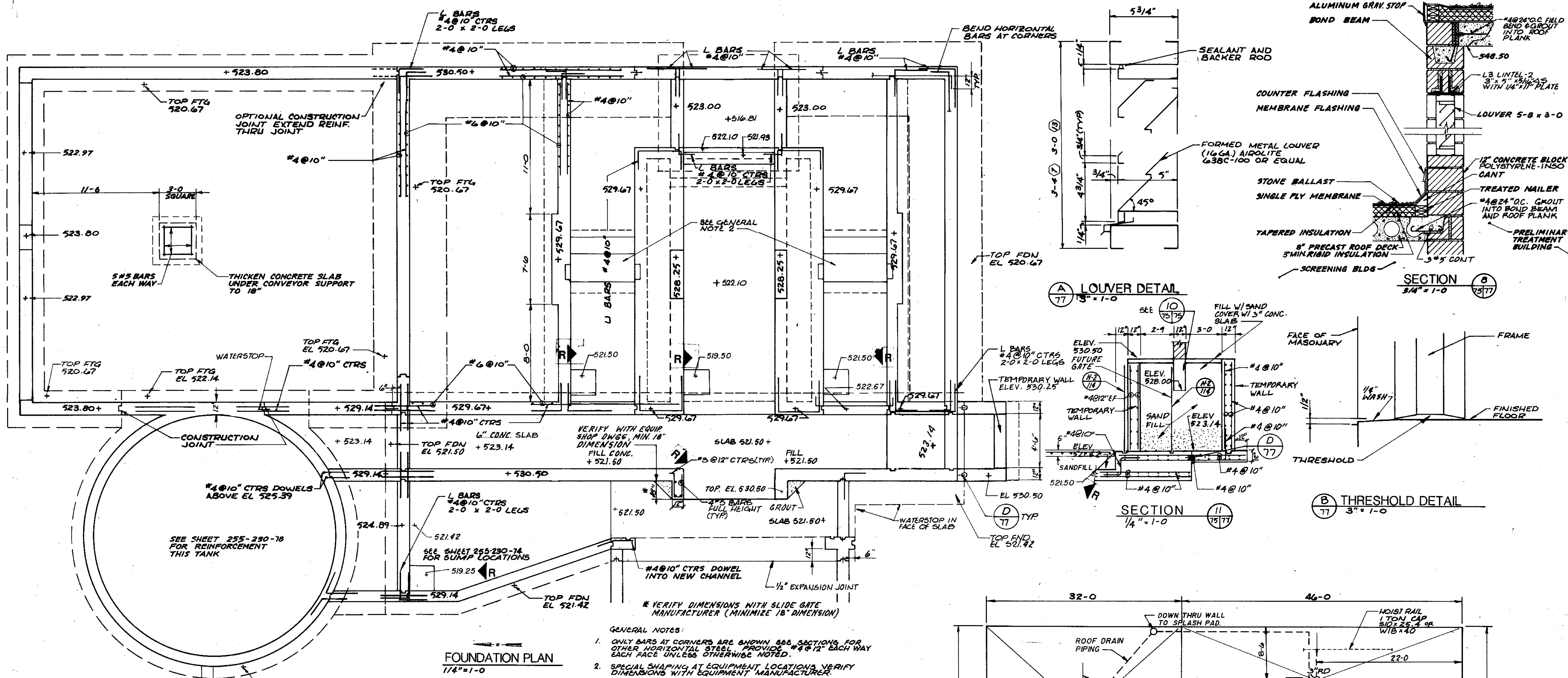


CONSULTING ENGINEERS
1115 WEST WASHINGTON ST.
MILWAUKEE, WISCONSIN 53233
TEL: 254-3841

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
PRELIMINARY TREATMENT BUILDING
SECTIONS & DETAILS

DATE: _____ DRAWING NO: _____
255-230-78
 SHEET 17 OF 20

| | | |
|-------------|-----------|------------|
| COMPOSITE | PTB-NS-77 | DAN-SFK-77 |
| OVERLAY | PTB-NS-77 | DAN-SFK-77 |
| PROJECT NO. | | |
| DATE | | |



RECORD DRAWING 1/4/91 DJP

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
PRELIMINARY TREATMENT BUILDING
STRUCTURAL FOUNDATION & DETAILS

SCALE: AS NOTED

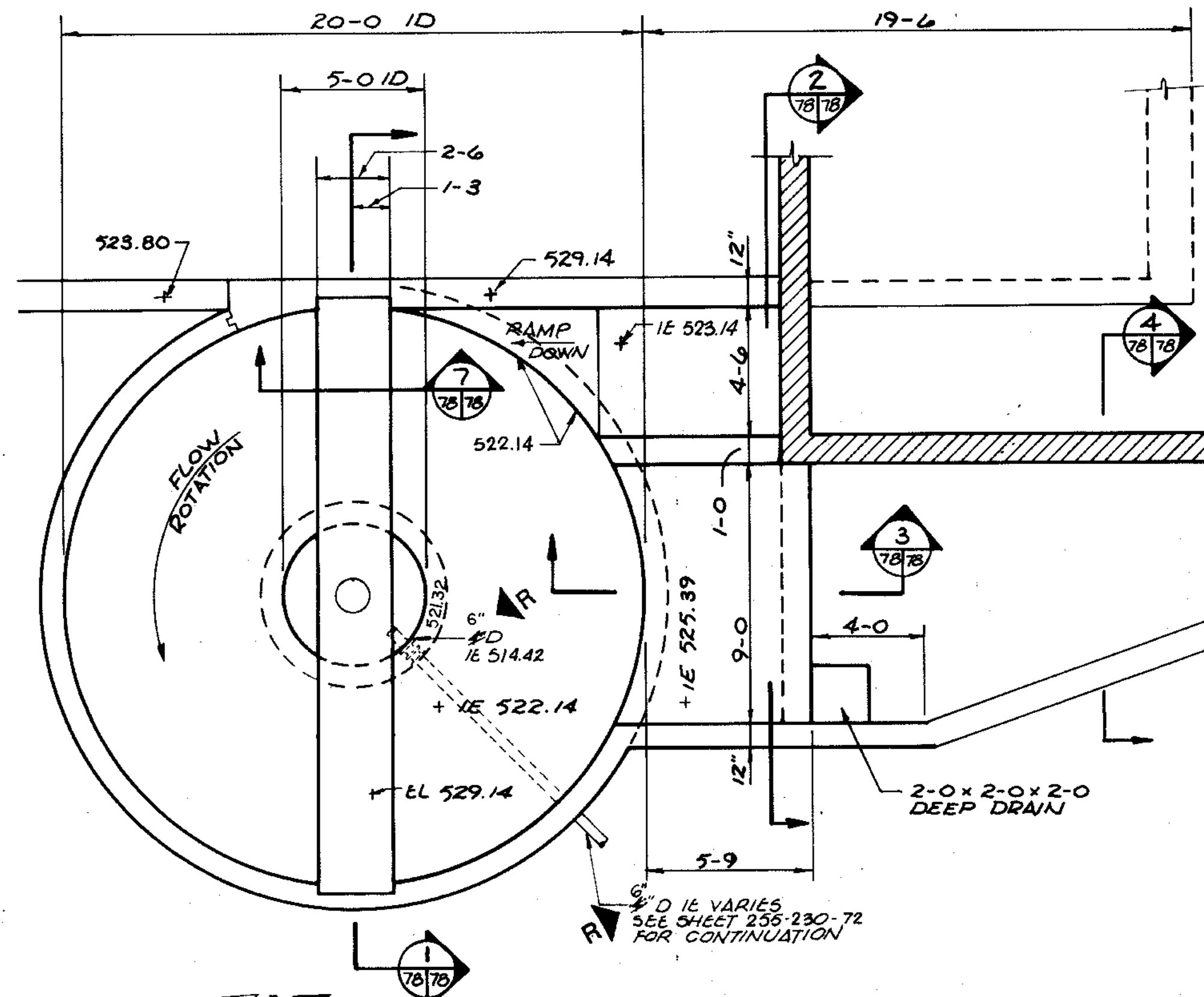
DATE: _____

DRAWING NO: _____

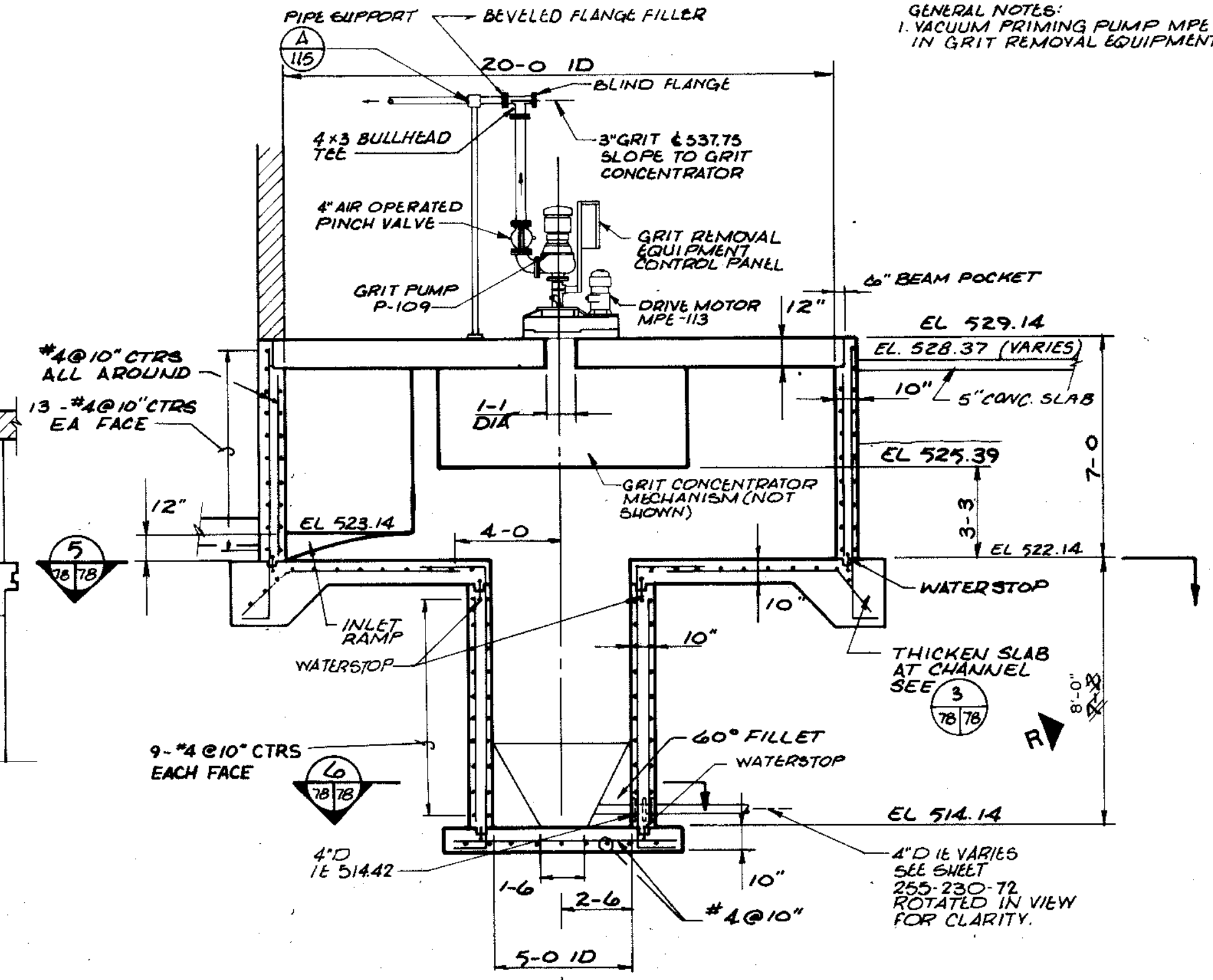
STRAND ASSOCIATES, INC.
CONSULTING ENGINEERS
910 West Winger Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

Beling Consultants
Hilcrest Center / N. Larkin Avenue at Plainfield Road
Joliet, IL 60435

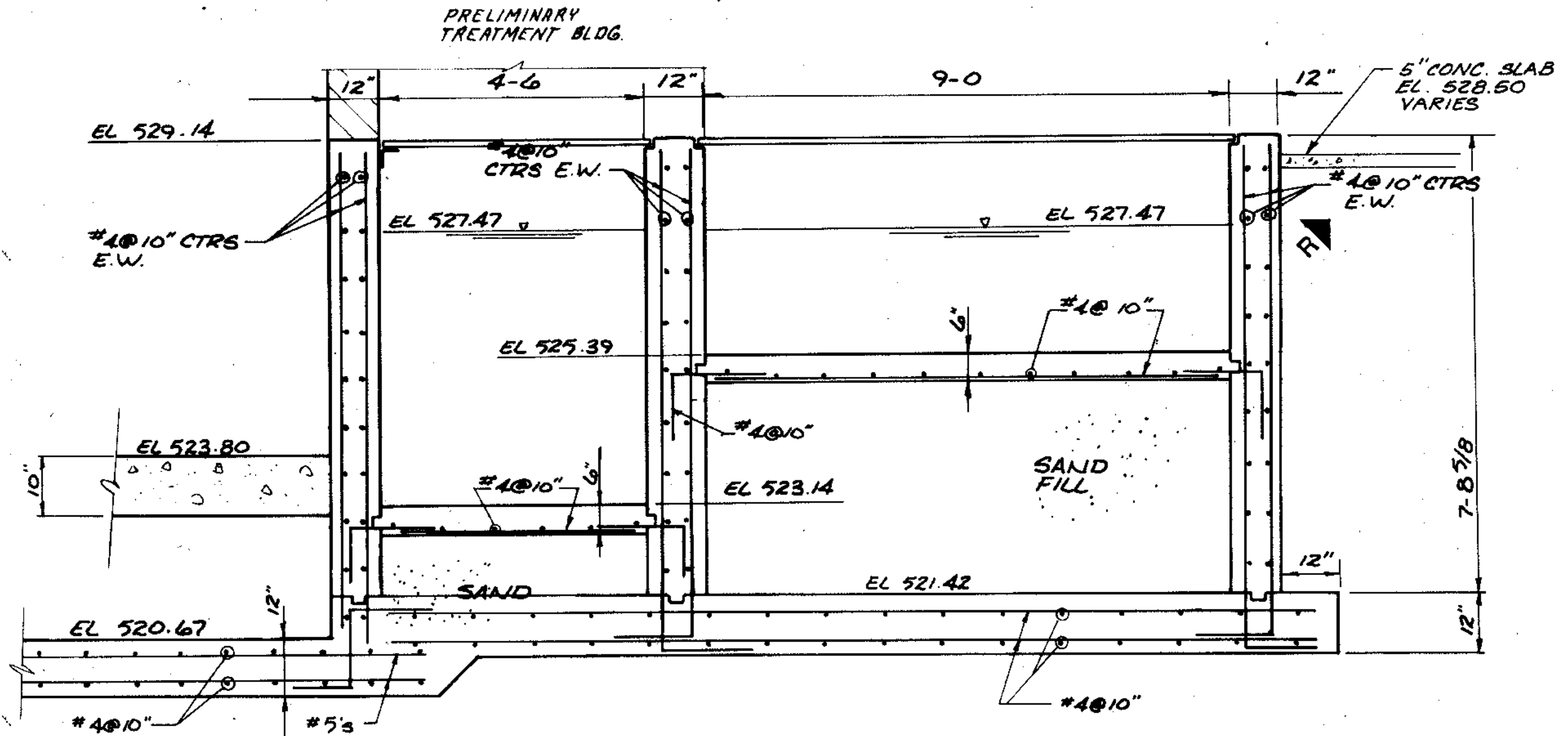
255-230-77



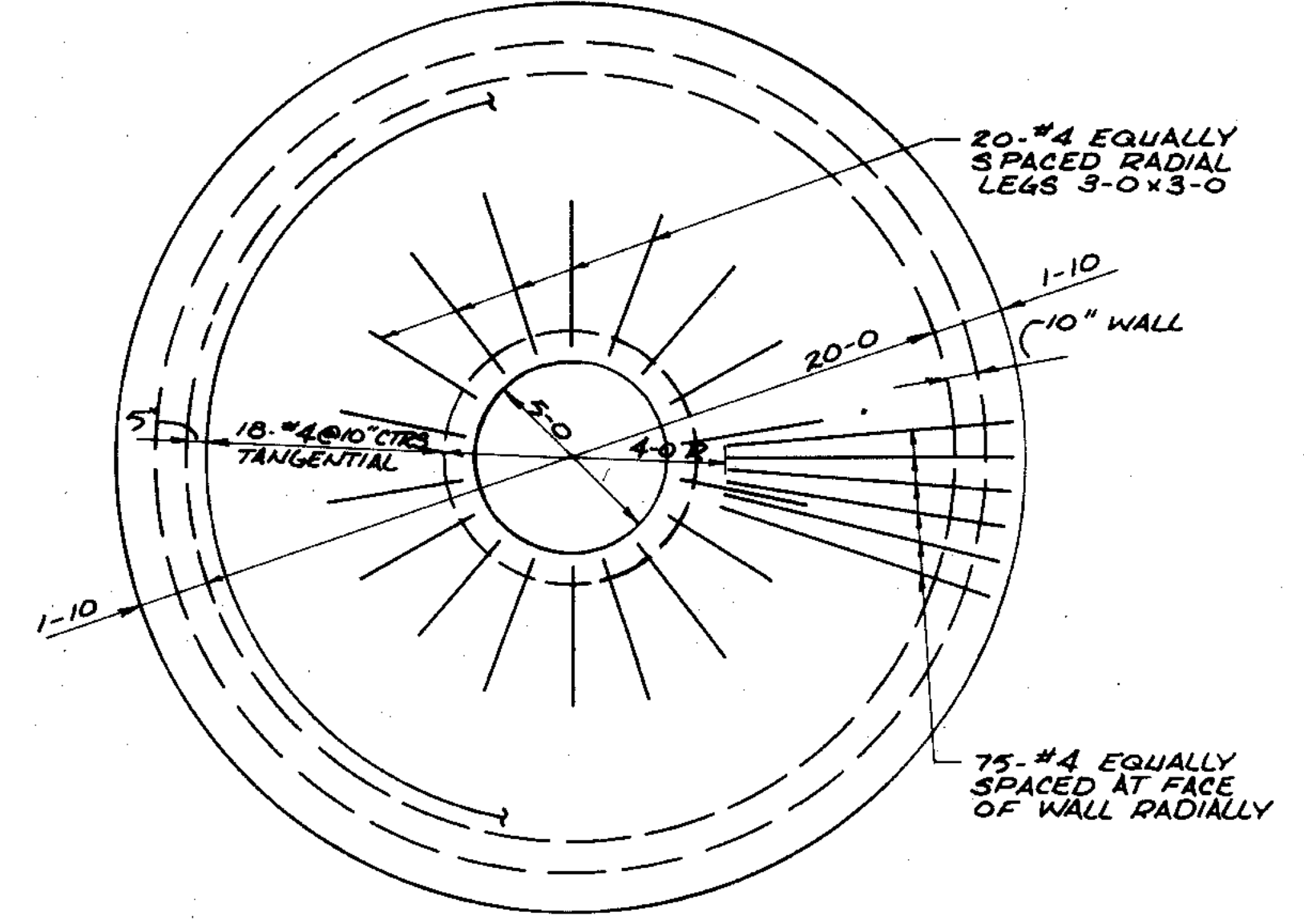
GRIT REMOVAL TANK
1/4" = 1'-0"



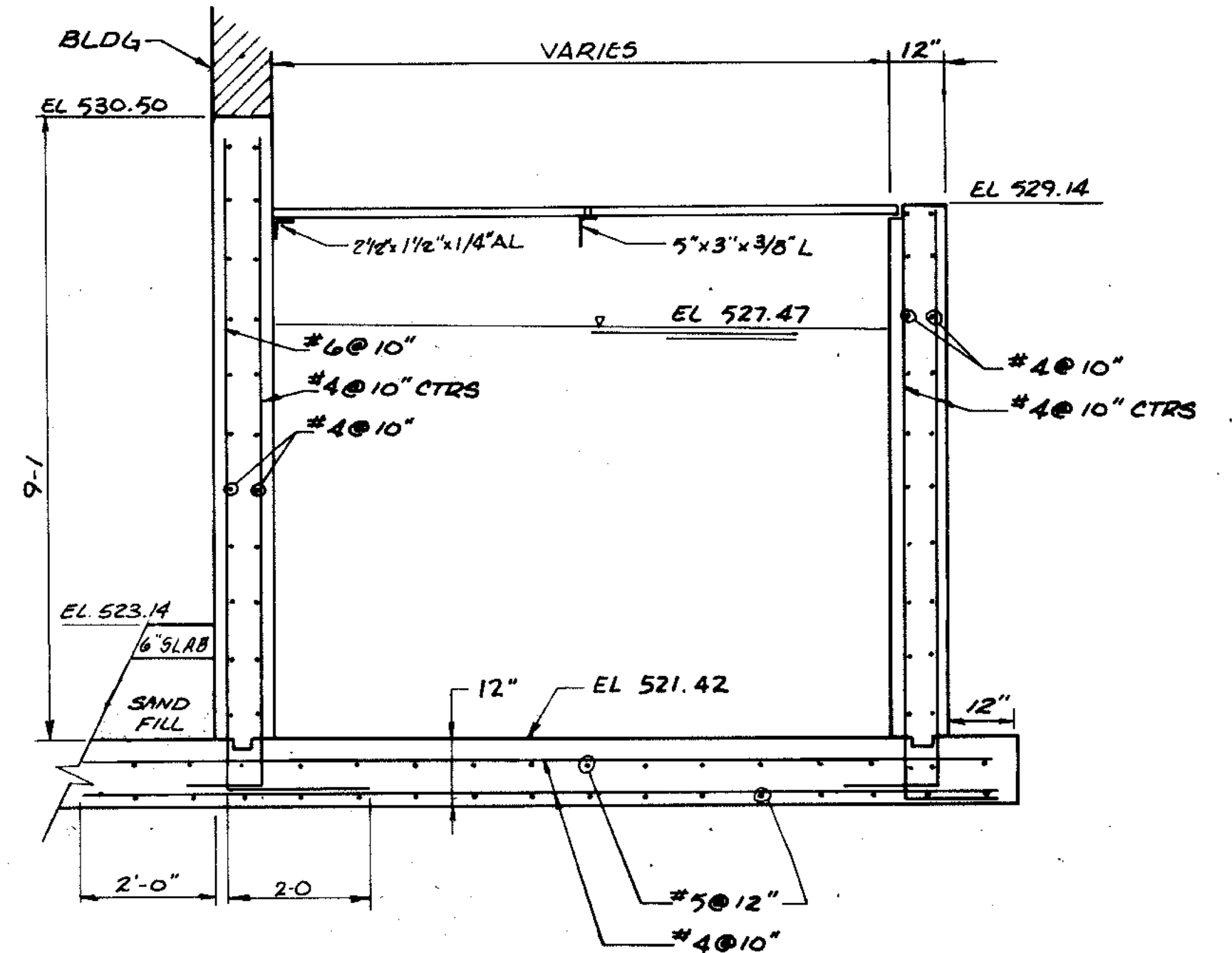
SECTION
1/4" = 1'-0"



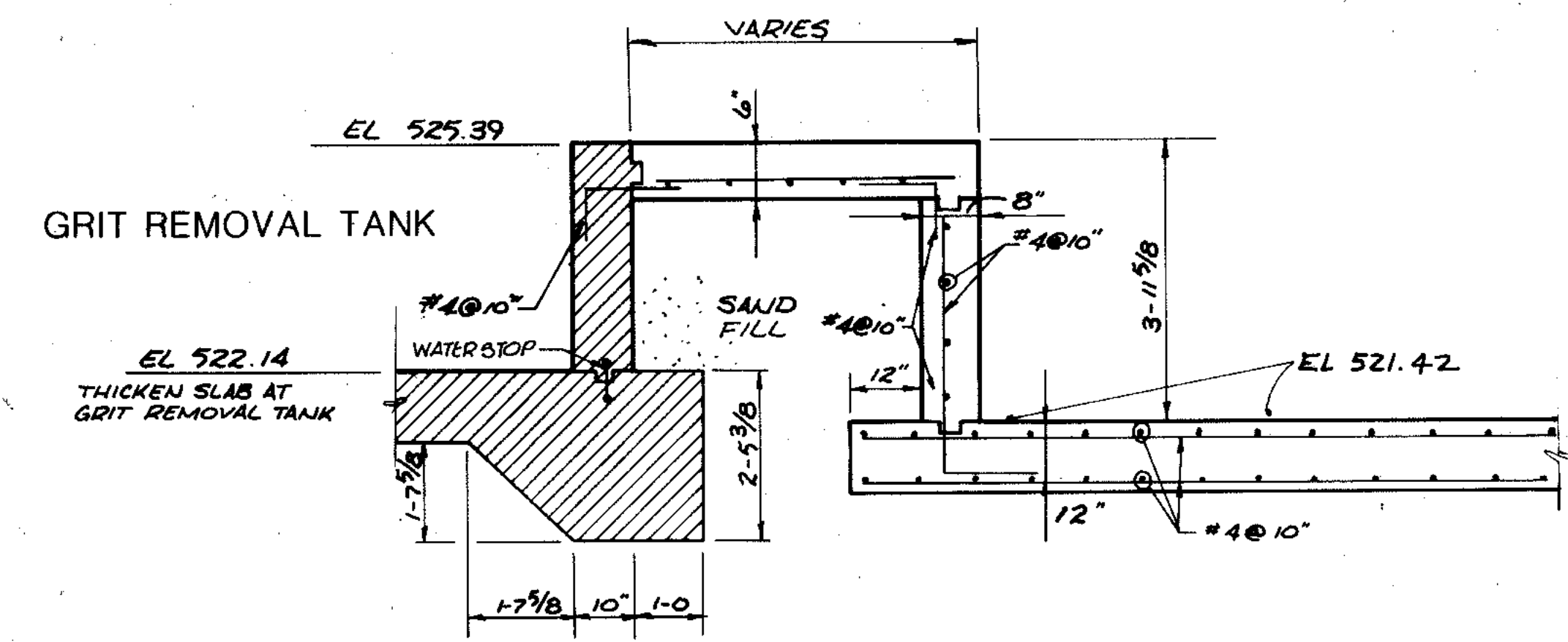
SECTION
1/2" = 1'-0"



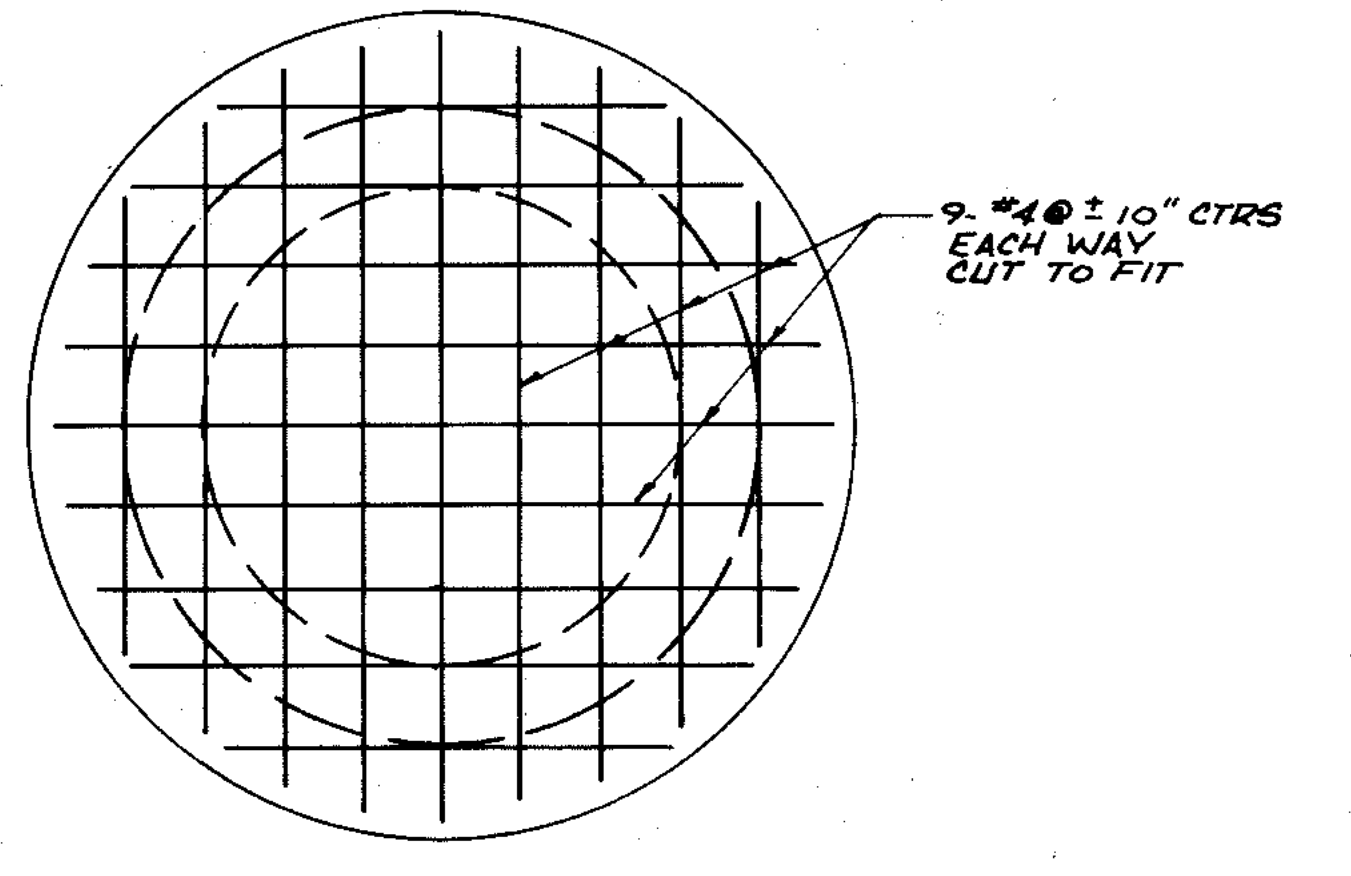
SECTION
1/4" = 1'-0"



SECTION
1/2" = 1'-0"



SECTION
1/2" = 1'-0"



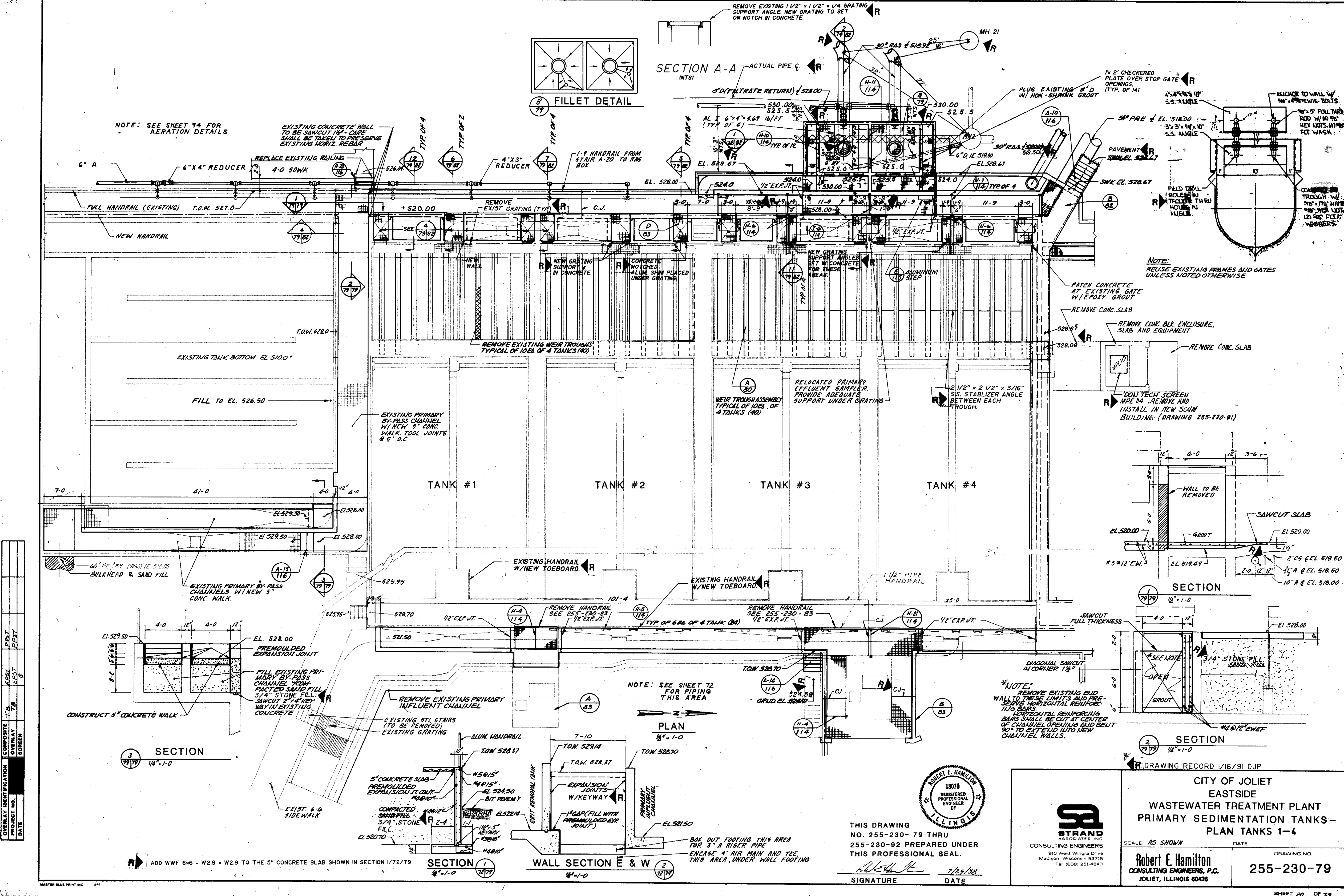
SECTION
1/2" = 1'-0"

GENERAL NOTES:
1. VACUUM PRIMING PUMP MPE-117 TO BE LOCATED IN GRIT REMOVAL EQUIPMENT CONTROL PANEL

| | | | | |
|------------------------|-----------|-----------|-------------|-----------|
| OVERLAY IDENTIFICATION | COMPOSITE | PG. EQ-78 | PG. DIA. 78 | PG. ST-78 |
| PROJECT NO. | OVERLAY | PG. EQ-78 | PG. DIA. 78 | PG. ST-78 |
| DATE | SCREEN | | | |

DRAWING RECORD 1/4/91 DJP

| | | |
|---|---|---------------------------------|
| STRAND ASSOCIATES INC. CONSULTING ENGINEERS 910 West Wyngra Drive Madison Wisconsin 53715 Tel: (608) 251-4941 | CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT GRIT CHAMBER PLAN & SECTIONS | |
| | SCALE AS NOTED DATE | DRAWING NO 255-230-78 |



NOTE: SEE SHEET 74 FOR AERATION DETAILS

EXISTING CONCRETE WALL TO BE SAWCUT IN CARE SHALL BE TAKEN TO PRESERVE EXISTING HORIZ. REBAR

SECTION A-A - ACTUAL PIPE & INTS

FILLET DETAIL

NOTE: REUSE EXISTING FRAMES AND GATES UNLESS NOTED OTHERWISE

NOTE: SEE SHEET 72 FOR PIPING THIS AREA

NOTE REMOVE EXISTING EVID WALL TO THESE LIMITS AND PRESERVE HORIZONTAL REINFORCING BARS. HORIZONTAL REINFORCING BARS SHALL BE CUT AT CENTER OF CHANNEL OPENING AND BENT 90° TO SET INTO NEW CHANNEL WALLS.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| COMPOSITE | 7A | 7B | 7C | 7D | 7E | 7F | 7G | 7H | 7I | 7J | 7K | 7L | 7M | 7N | 7O | 7P | 7Q | 7R | 7S | 7T | 7U | 7V | 7W | 7X | 7Y | 7Z | |
| OVERLAY IDENTIFICATION | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PROJECT NO. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DATE | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SECTION 3 1/4" - 1-0

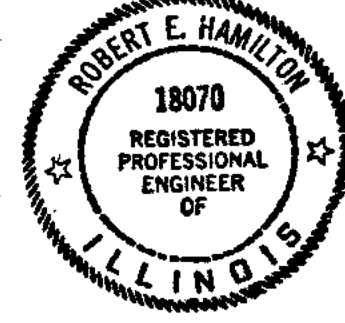
PLAN 1/8" - 1-0

SECTION 2 1/4" - 1-0

SECTION 1 1/4" - 1-0

WALL SECTION E & W 1/4" - 1-0

THIS DRAWING NO. 255-230-79 THRU 255-230-92 PREPARED UNDER THIS PROFESSIONAL SEAL.



SIGNATURE DATE



CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
PRIMARY SEDIMENTATION TANKS -
PLAN TANKS 1-4

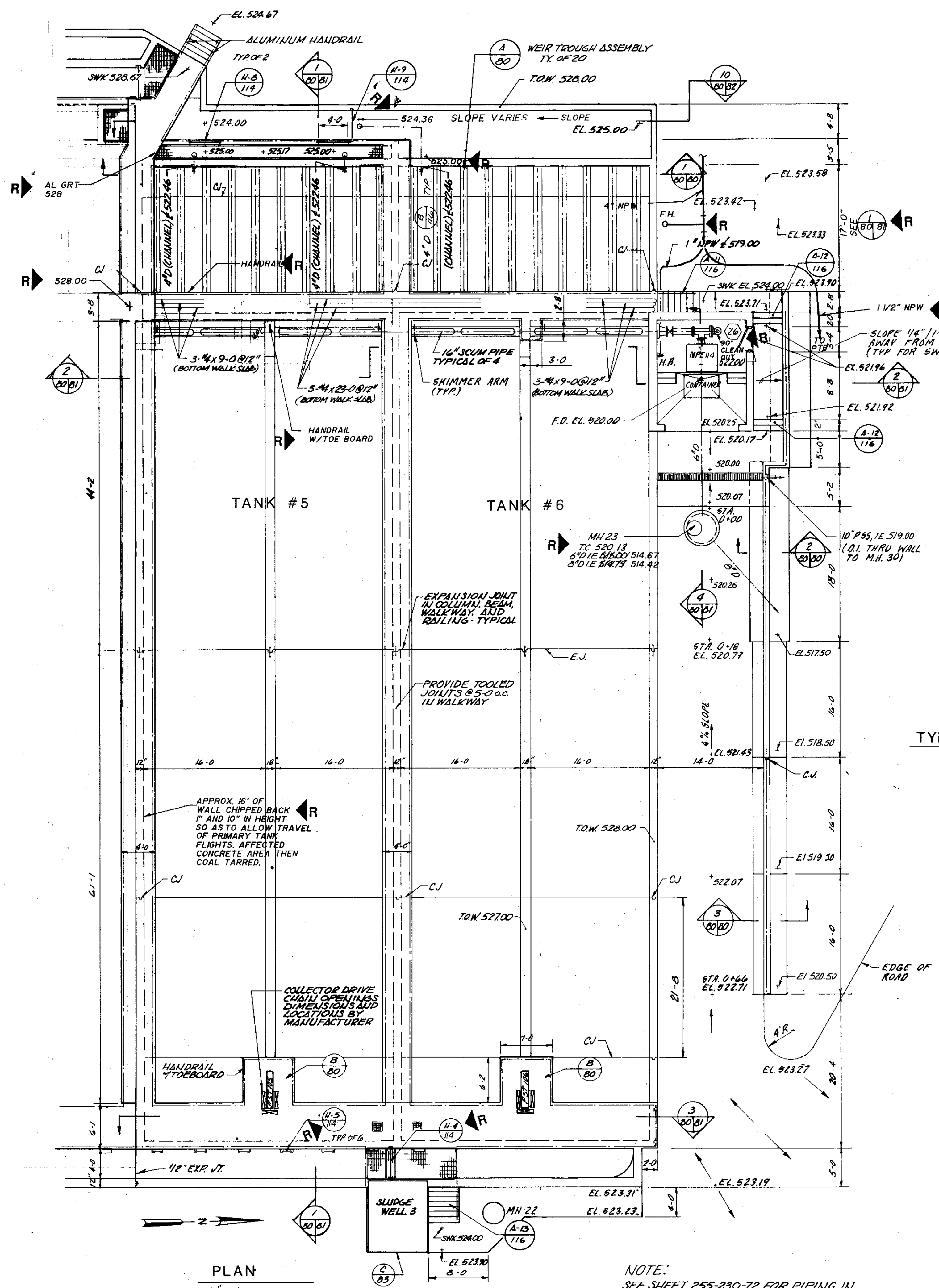
SCALE AS SHOWN DATE

Robert E. Hamilton
CONSULTING ENGINEERS, P.C.
JOLIET, ILLINOIS 60435

DRAWING NO. 255-230-79

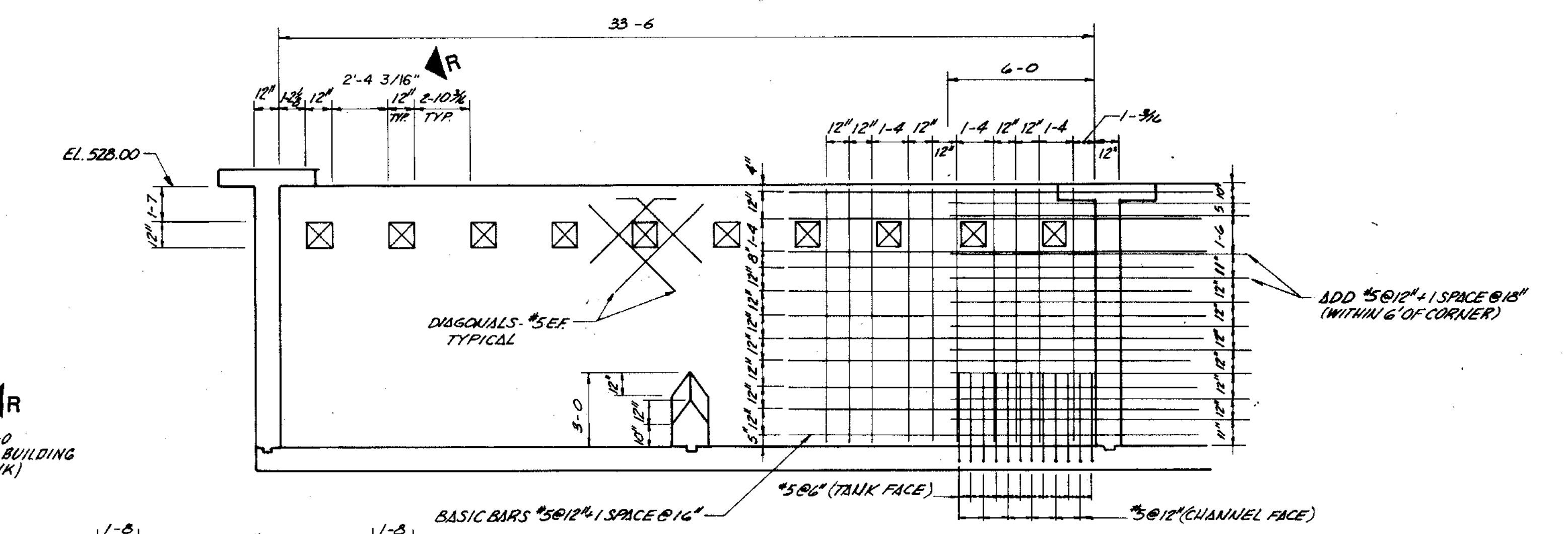
SHEET 20 OF 79

| OVERLAY IDENTIFICATION | 7B | EST. | DATE |
|------------------------|----|------|------|
| PROJECT NO. | | | |
| DATE | | | |

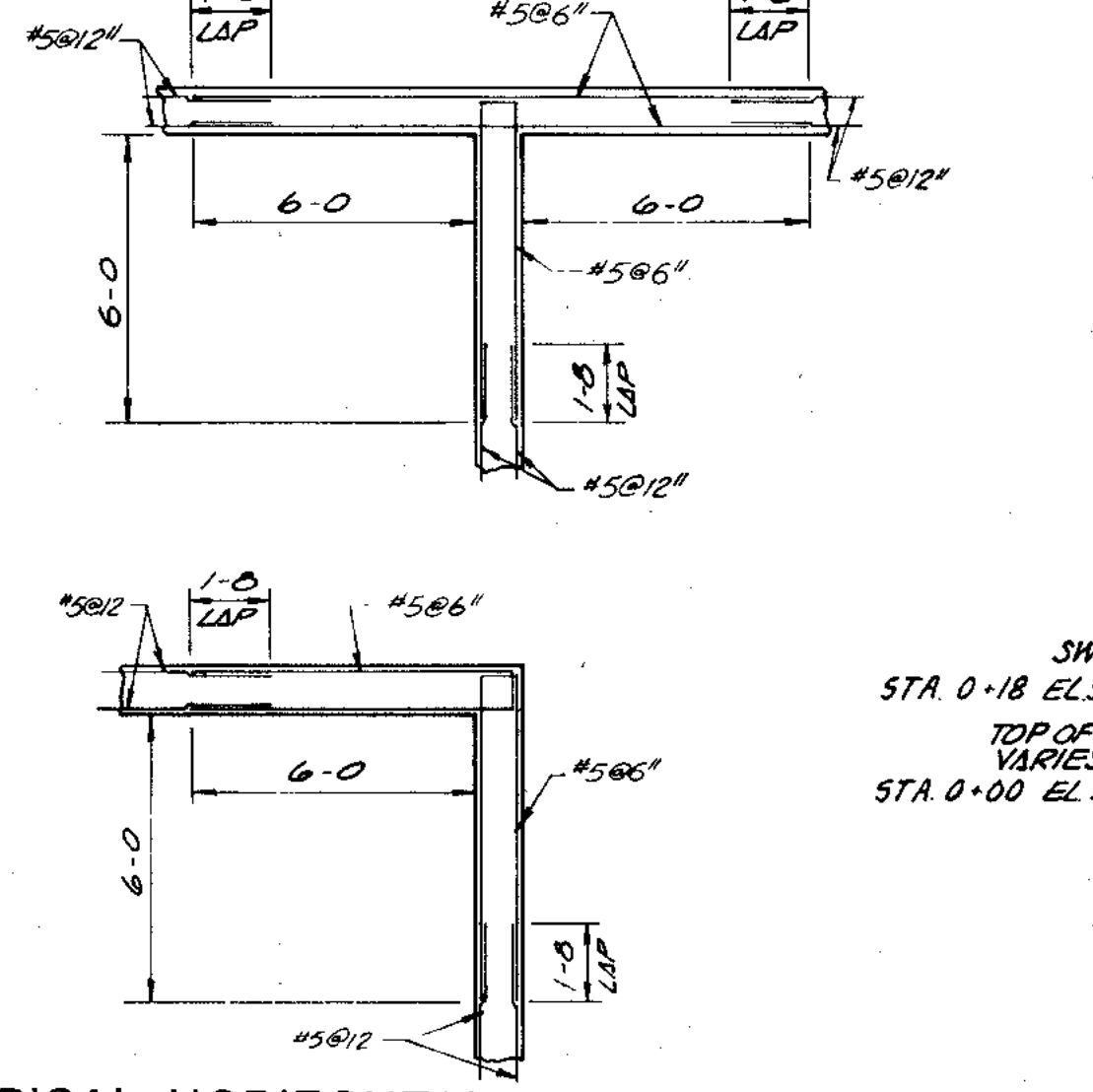


PLAN
1/8" = 1'-0"

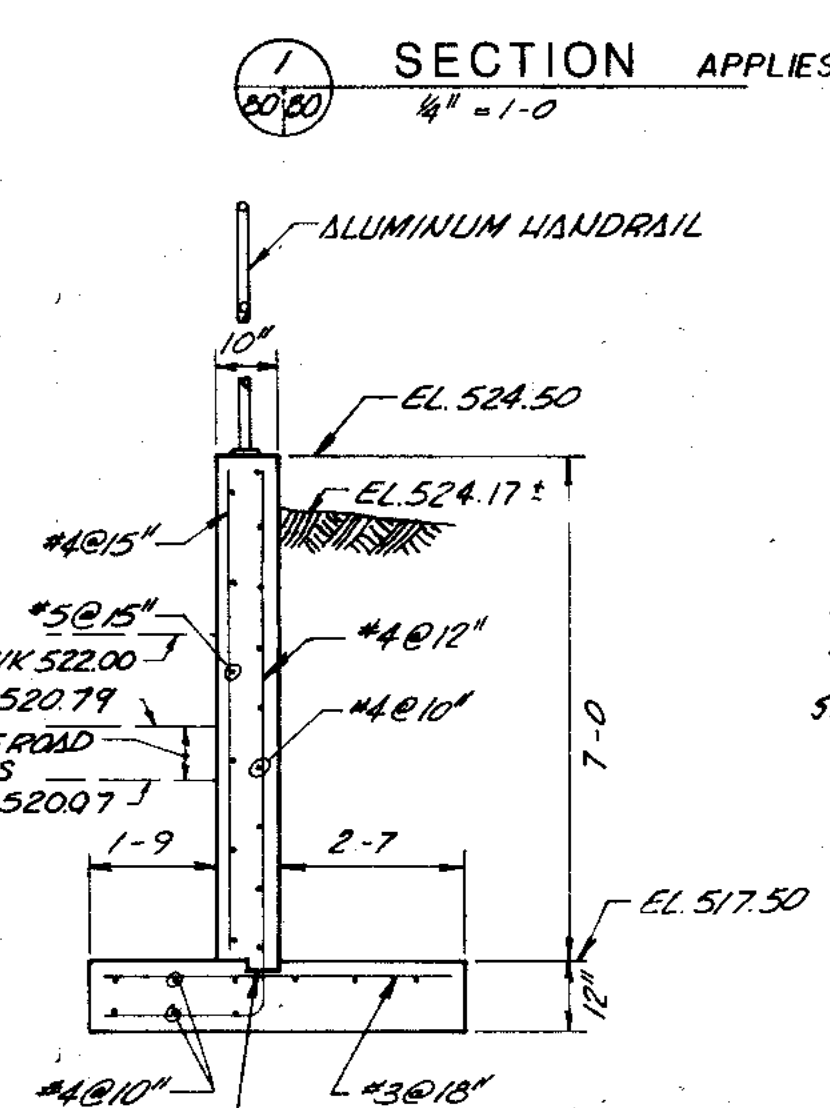
NOTE:
SEE SHEET 255-230-72 FOR PIPING IN AREA EAST OF PRIMARYS



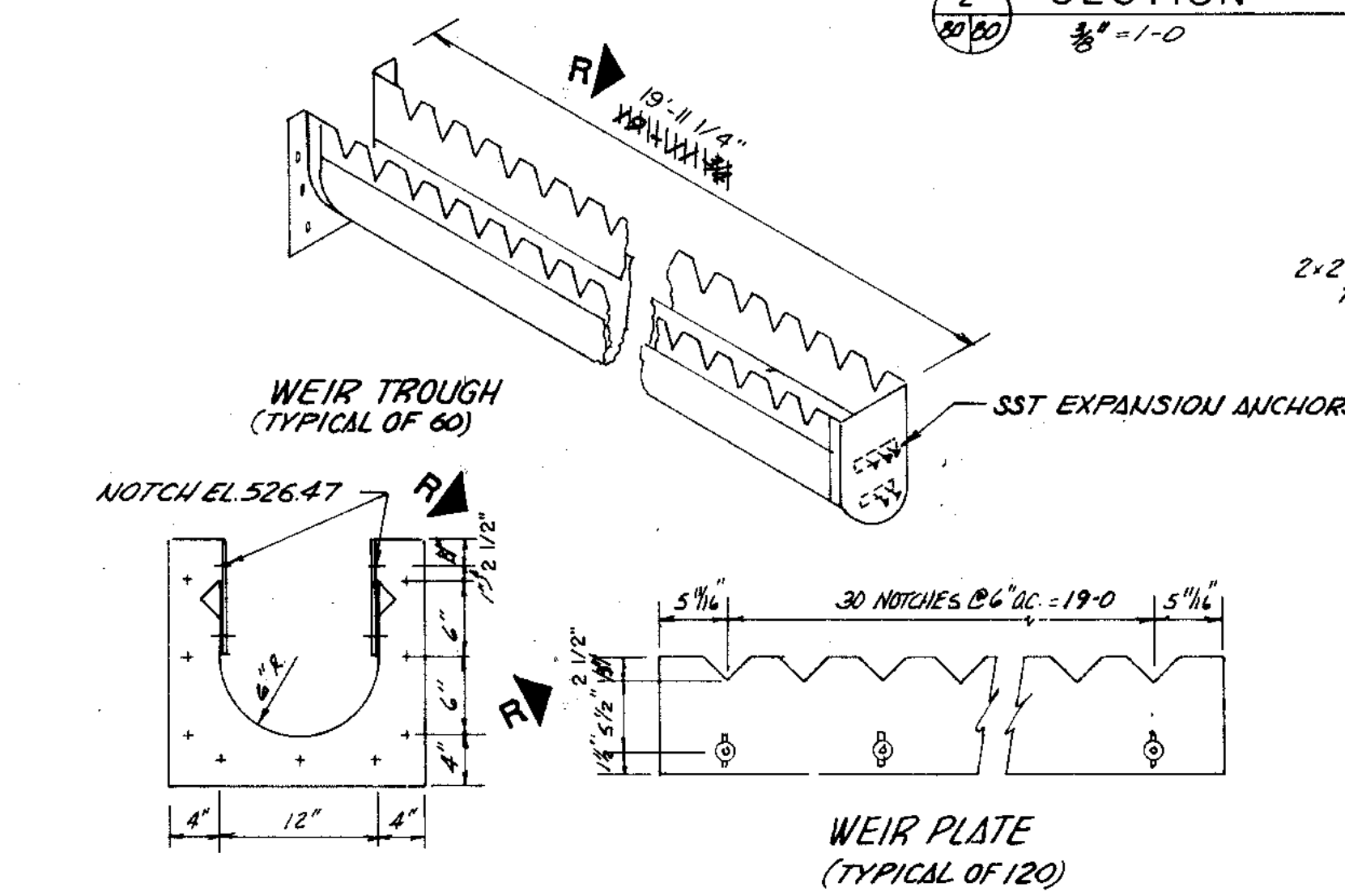
SECTION 1 APPLIES TO TANK #5 ONLY.
1/4" = 1'-0"



TYPICAL HORIZONTAL REINFORCING
1/4" = 1'-0"



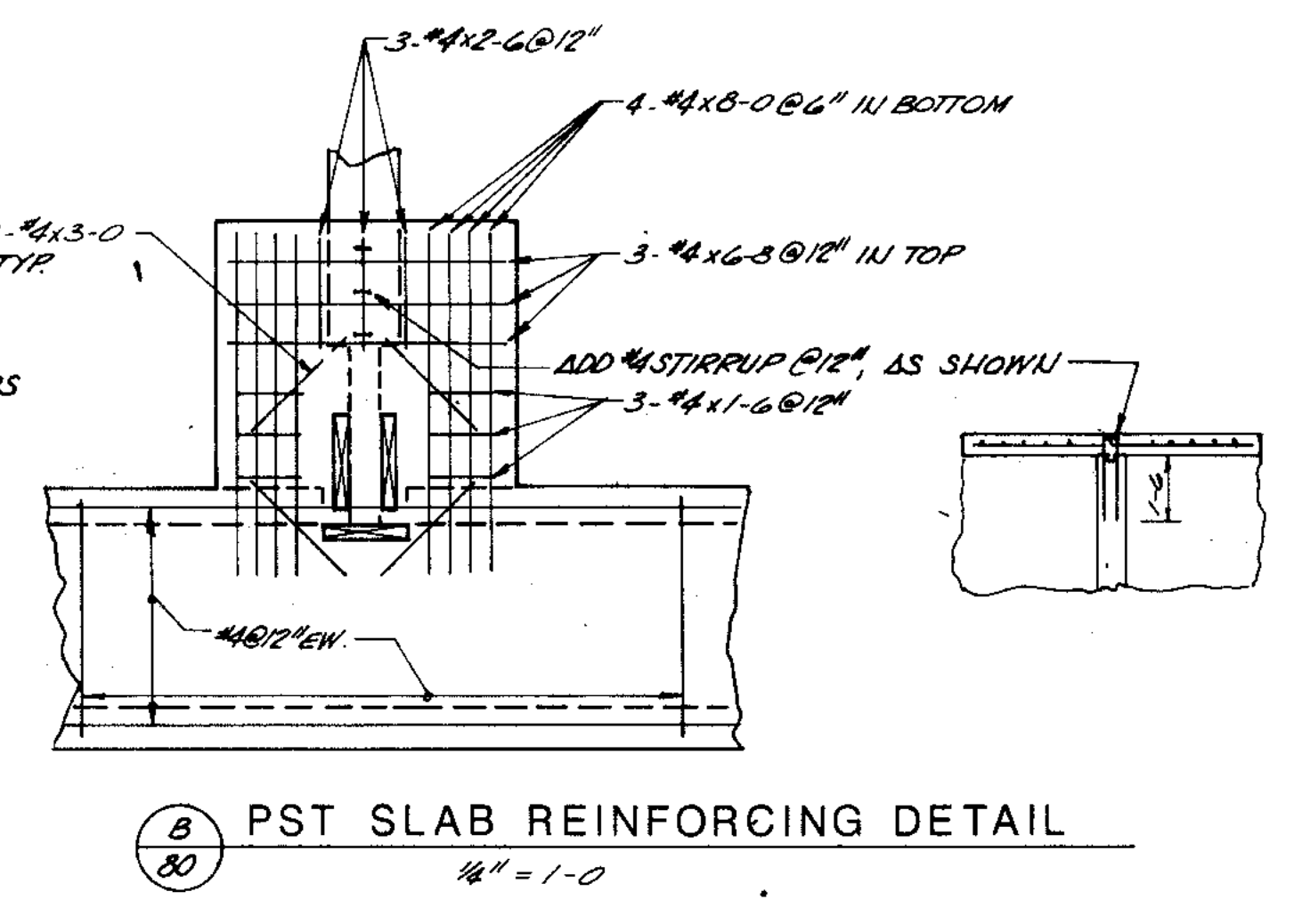
SECTION 3
3/8" = 1'-0"



DETAIL A
NO SCALE

ENTIRE WEIR ASSEMBLY SHALL BE WATER-TIGHT USING NEOPRENE GASKETS AT WEIR-TO TROUGH CONNECTION AND TROUGH-TO-WALL CONNECTION. NEOPRENE SHALL BE 1/8-INCH THICK AND AS SPECIFIED IN SECTION 1047.0 OF THE SPECIFICATIONS.

CHANGE THE END PLATE DETAIL, SUCH THAT THE EAST END OF THE TROUGHS ARE SUPPORTED ON A SEPARATE ANGLE OF THE SAME MATERIAL AS THE TROUGH CONFORMING TO THE BOTTOM OF THE TROUGH AND BOLTED TO THE CONCRETE BEAM. BOLT THE TROUGH TO THE ANGLE WITH SLOTTED HOLES IN THE ANGLE AND PROVIDE 1/8-INCH NEOPRENE BETWEEN THE ANGLE AND THE TROUGH.




DETAIL B
1/4" = 1'-0"

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
PRIMARY SEDIMENTATION TANKS -
PLAN NEW TANKS 5-6

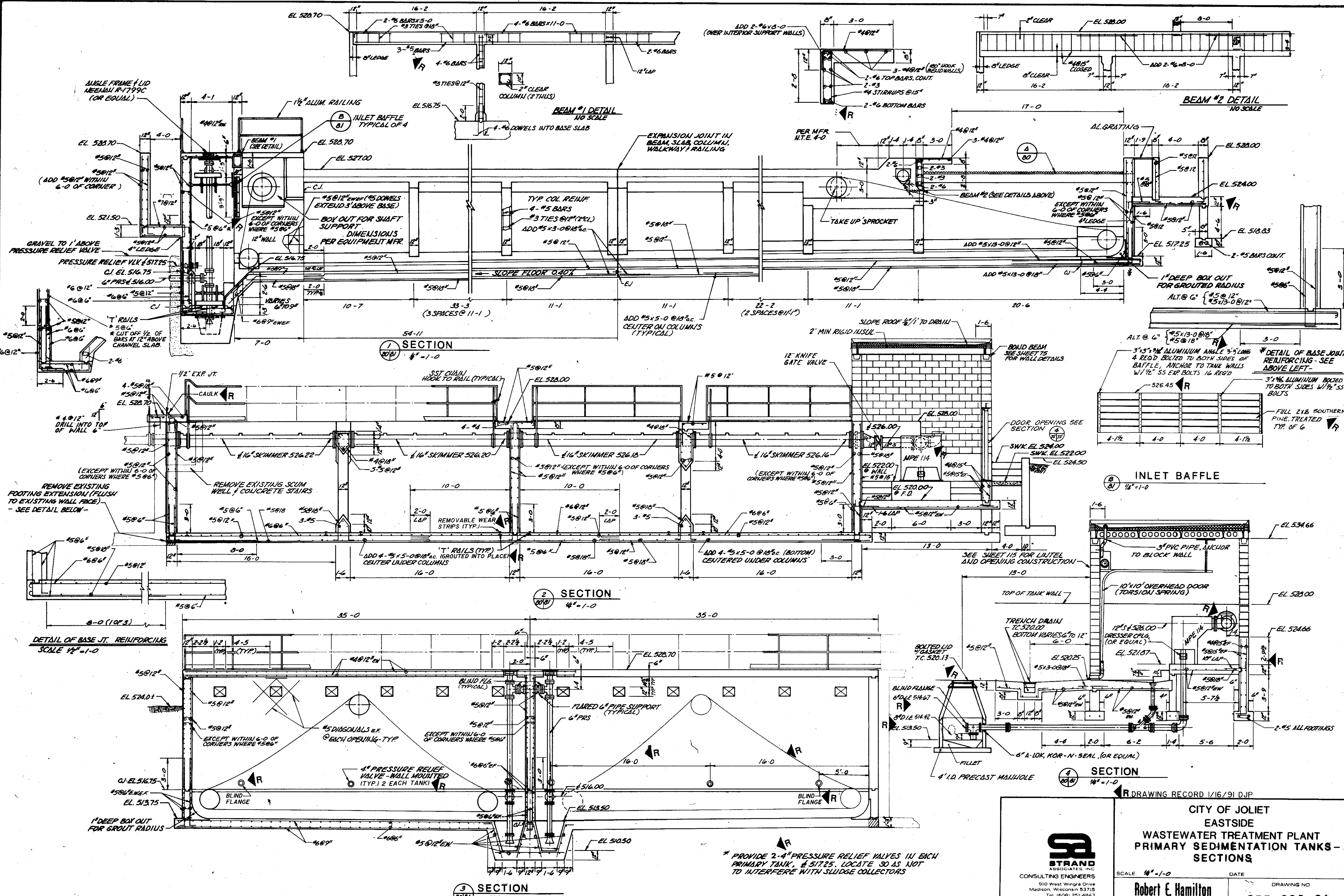
| | |
|-----------------------------------|--|
| <p>SCALE AS SHOWN</p> <p>DATE</p> | <p>DRAWING NO</p> <p>255-230-80</p> |
|-----------------------------------|--|

DRAWING RECORD 1/16/91 DJP




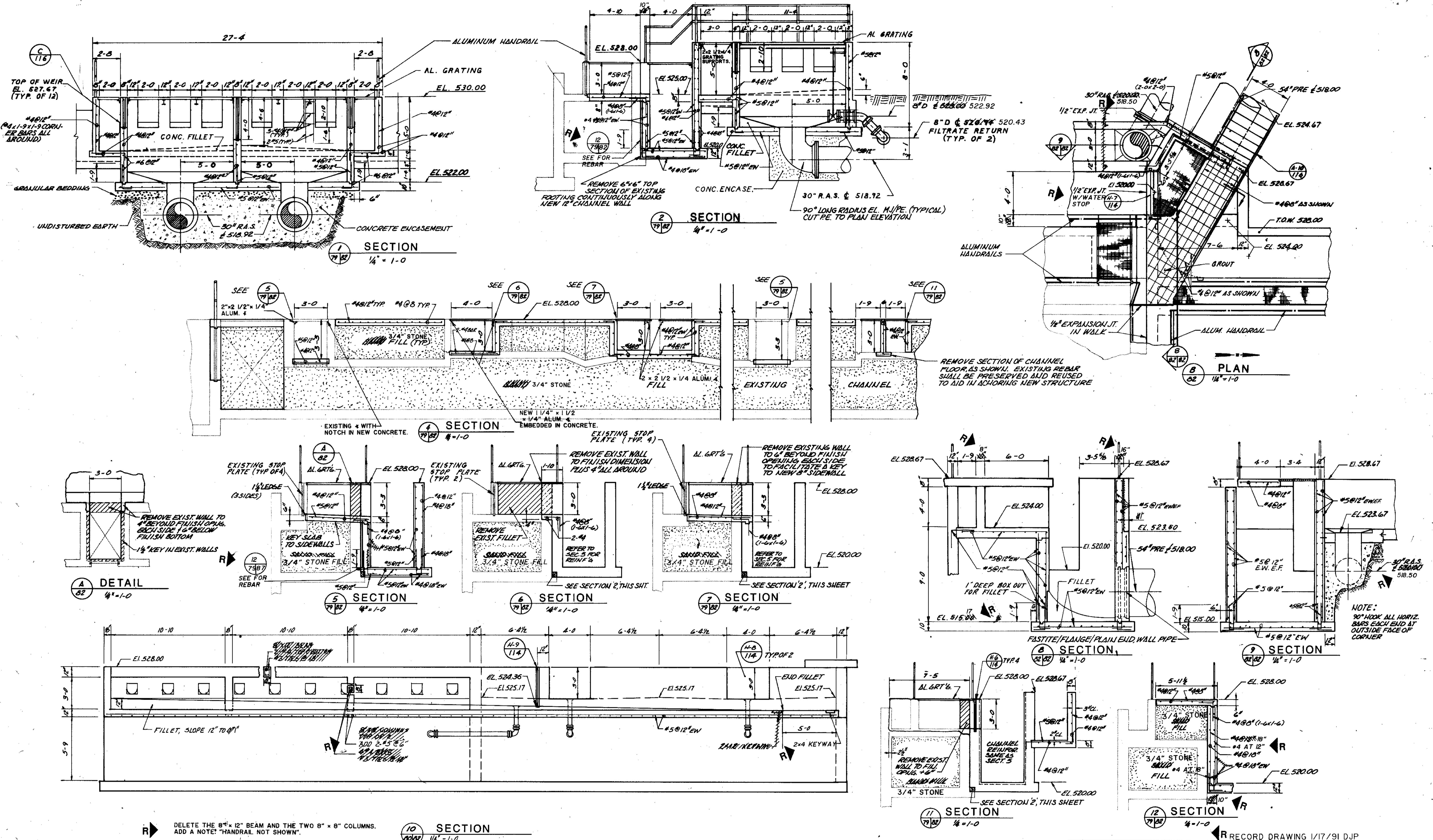
910 West Wingra Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

Robert E. Hamilton
CONSULTING ENGINEER, P.C.
JOLIET, ILLINOIS 60435



COMPOSITE 1/2" DESIG
 OVERLAY 7/8 EASID
 SCREEN DATE

| | | |
|--|--|----------------------------------|
|  STRAND ASSOCIATES, INC. CONSULTING ENGINEERS 910 West Wingra Drive Madison, Wisconsin 53715 Tel: (608) 251-4843 | CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT PRIMARY SEDIMENTATION TANKS - SECTIONS | |
| | SCALE 1/4" = 1'-0" DATE _____ | |
| | Robert E. Hamilton CONSULTING ENGINEERS, P.C. JOLIET, ILLINOIS 60438 | DRAWING NO. 255-230-81 |



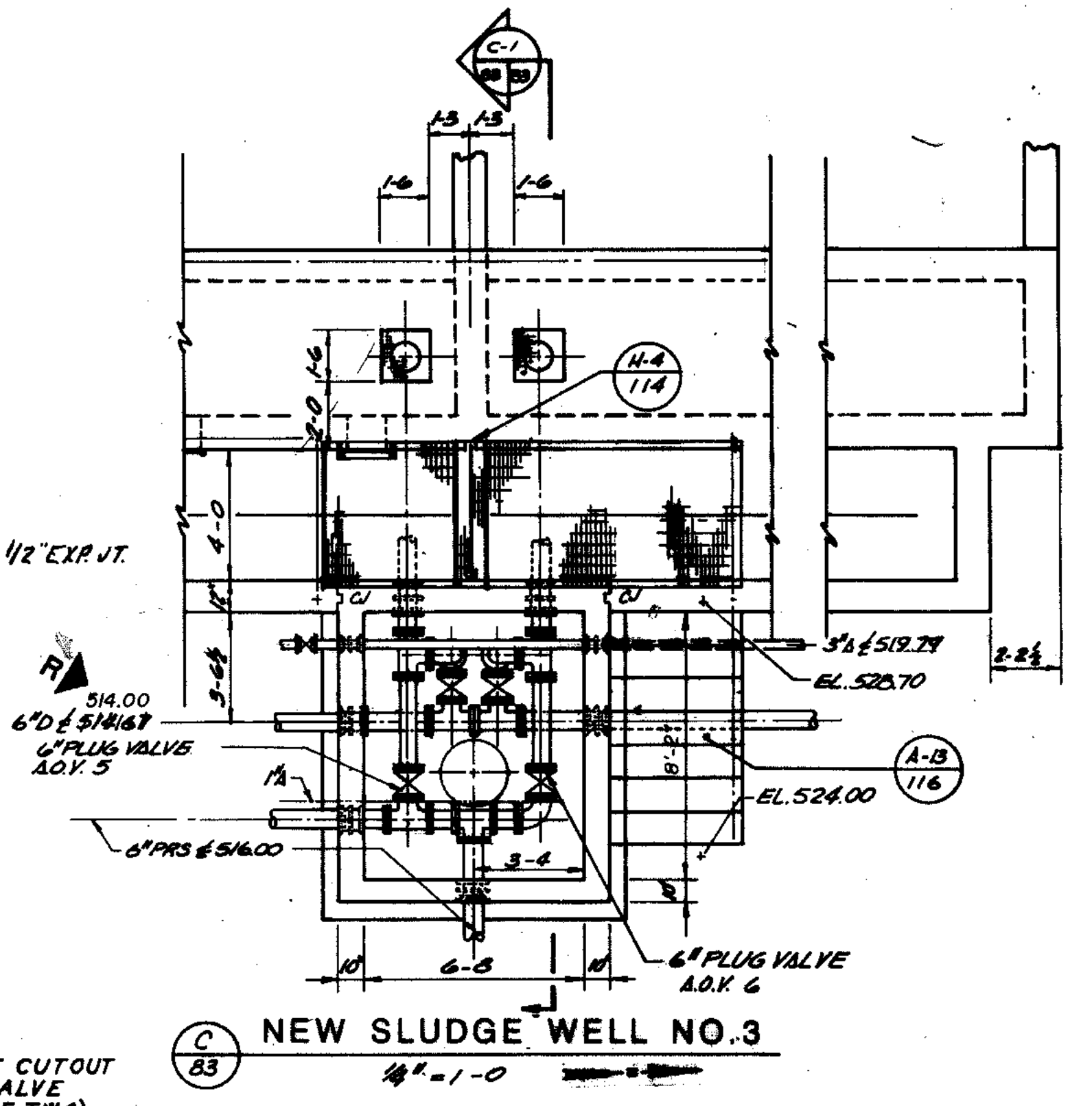
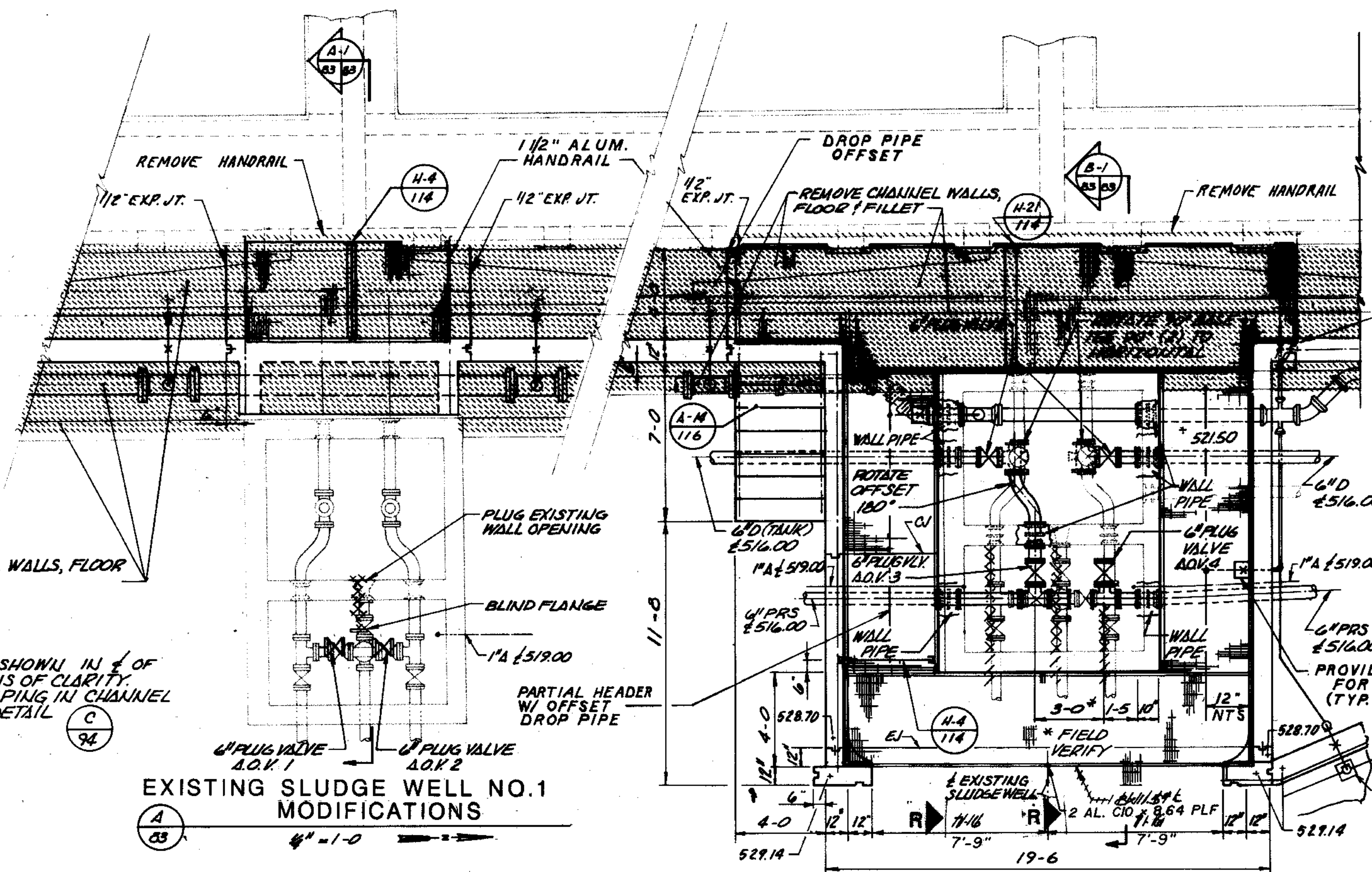
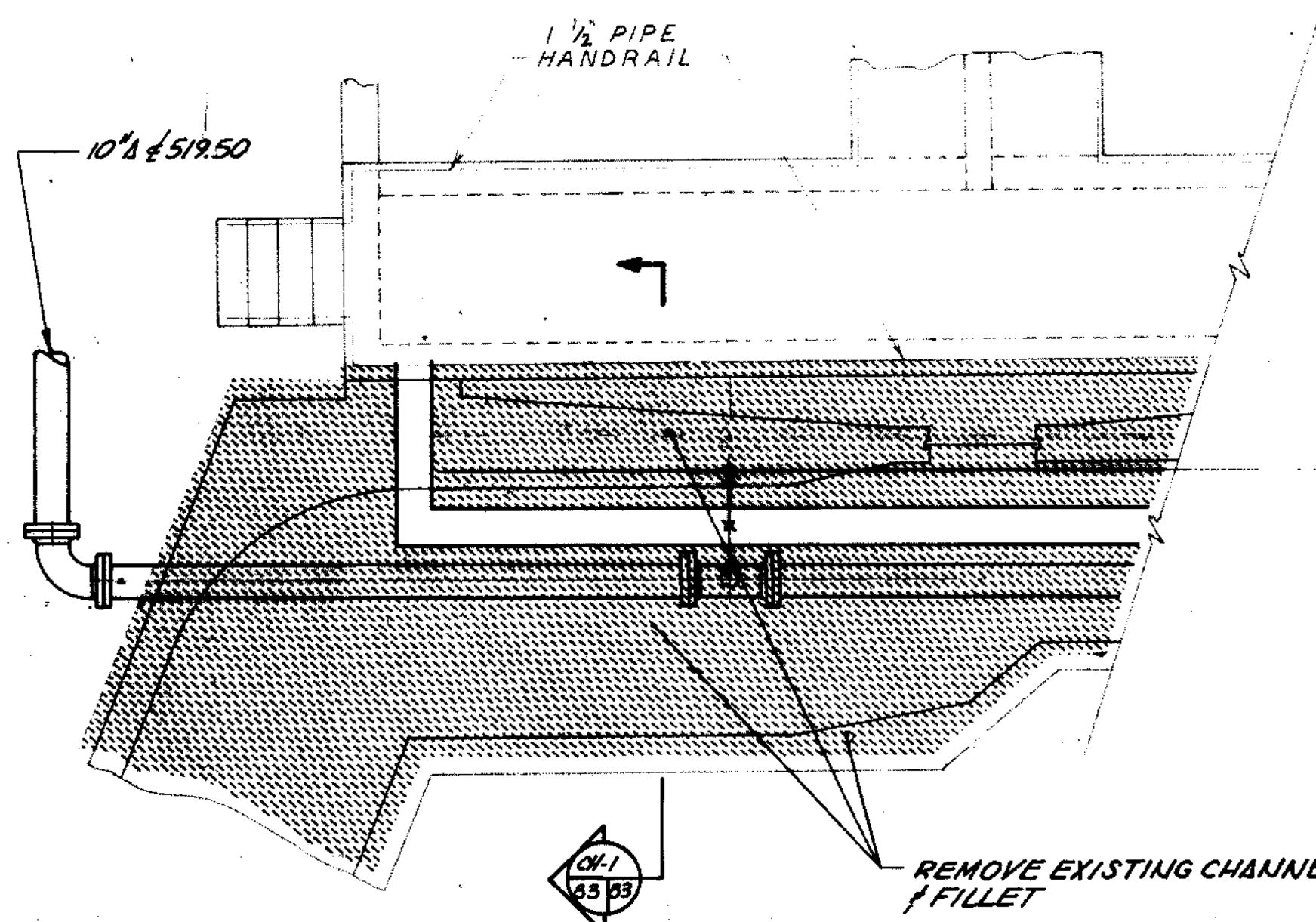
| | | | |
|-----------|------|----|------|
| COMPOSITE | DATE | BY | CHKD |
| OVERLAY | DATE | BY | CHKD |
| SCREEN | DATE | BY | CHKD |

R DELETE THE 8" x 12" BEAM AND THE TWO 8" x 8" COLUMNS. ADD A NOTE: "HANDRAIL NOT SHOWN".

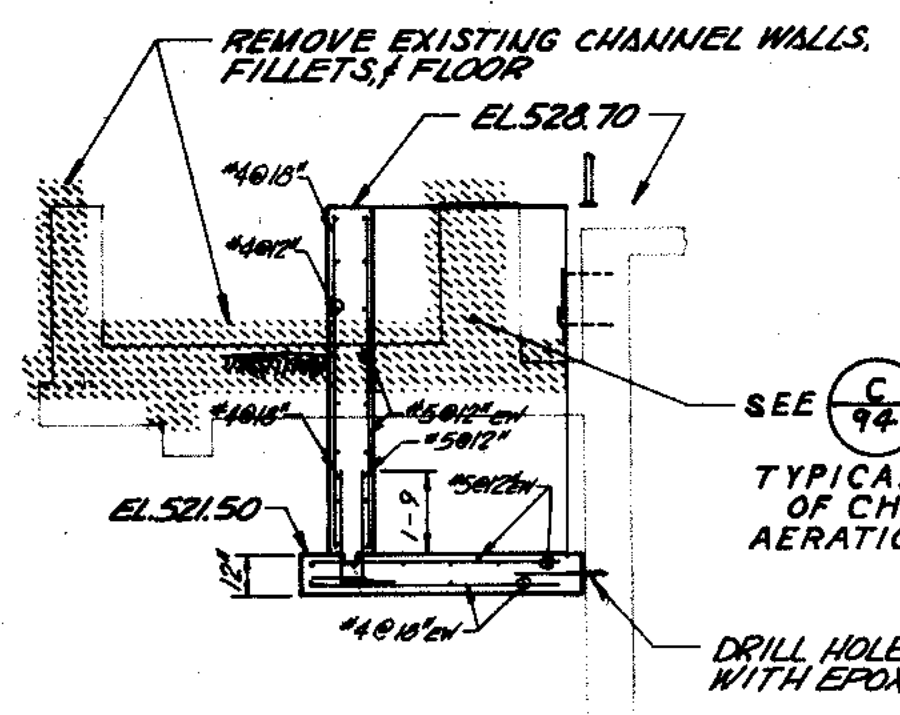
10 SECTION
1/4" = 1'-0"

R RECORD DRAWING 1/17/91 DJP

| | | |
|--|--|-----------------------------------|
| <p>STRAND ASSOCIATES INC. CONSULTING ENGINEERS 910 West Wingo Drive Madison, Wisconsin 53715 Tel (608) 251-4843</p> | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT PRIMARY SEDIMENTATION TANKS MODIFICATIONS TO EXISTING - SECTIONS</p> | |
| | SCALE | DATE |
| | <p>Robert E. Hamilton CONSULTING ENGINEERS, P.C. JOLIET, ILLINOIS 60438</p> | <p>DRAWING NO. 255-230-82</p> |



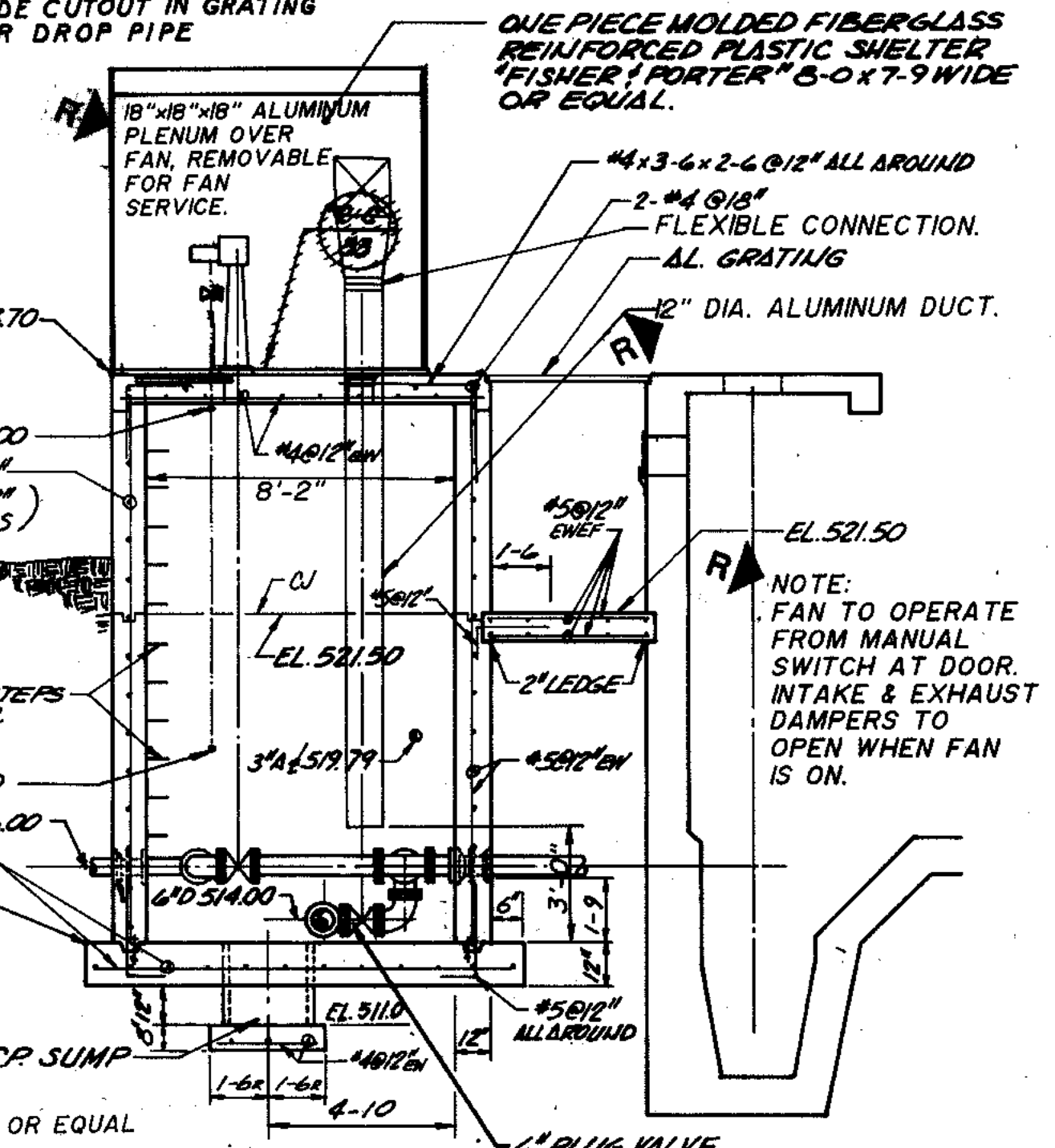
NOTE:
DIFFUSER PIPING IS SHOWN IN $\frac{1}{4}$ OF CHANNEL FOR REASONS OF CLARITY. ACTUAL DIFFUSER PIPING IN CHANNEL SHALL CONFORM TO DETAIL.



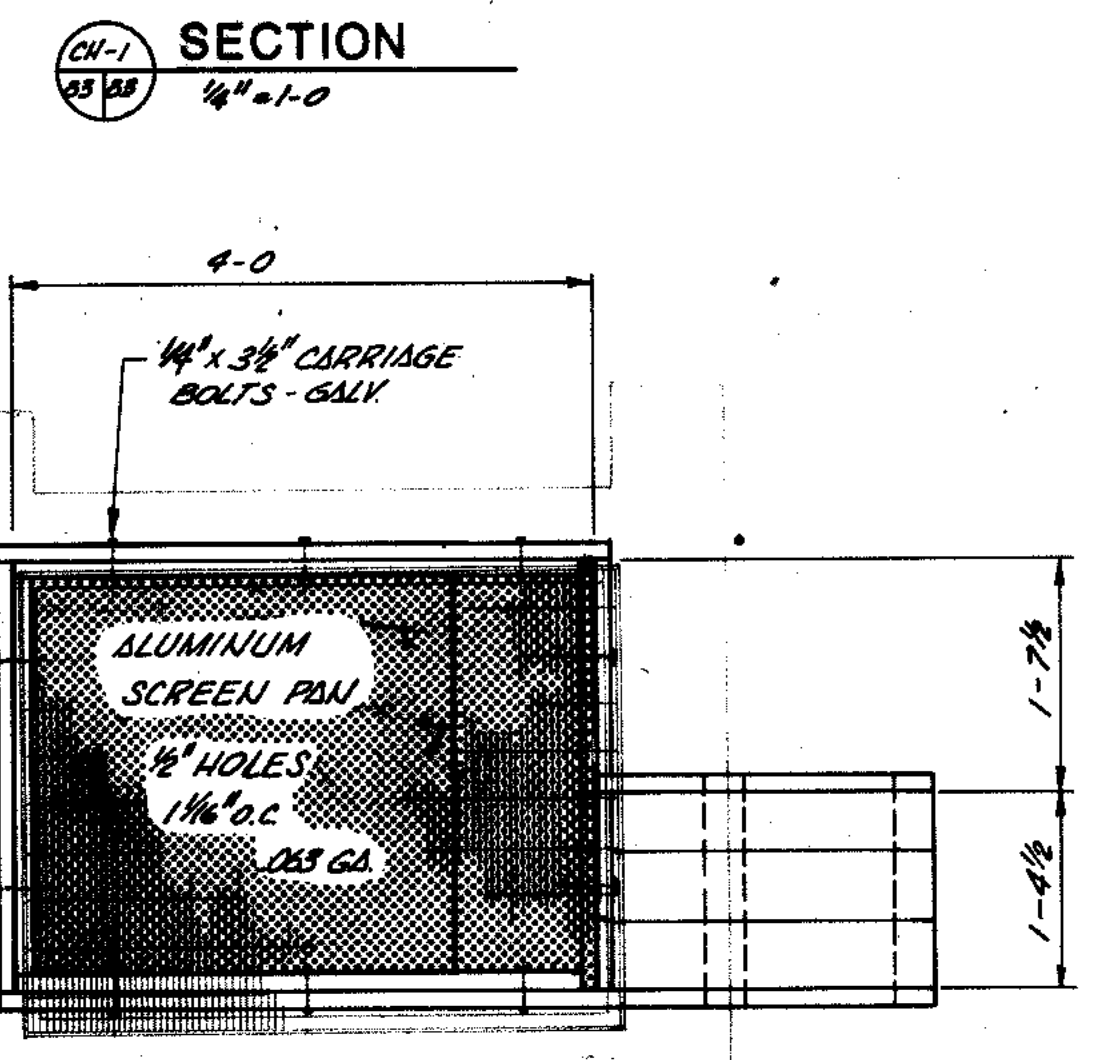
SEE **C-94** FOR TYPICAL DETAIL OF CHANNEL AERATION PIPING

EXISTING SLUDGE WELL NO. 1 MODIFICATIONS

EXISTING SLUDGE WELL NO. 2 MODIFICATIONS

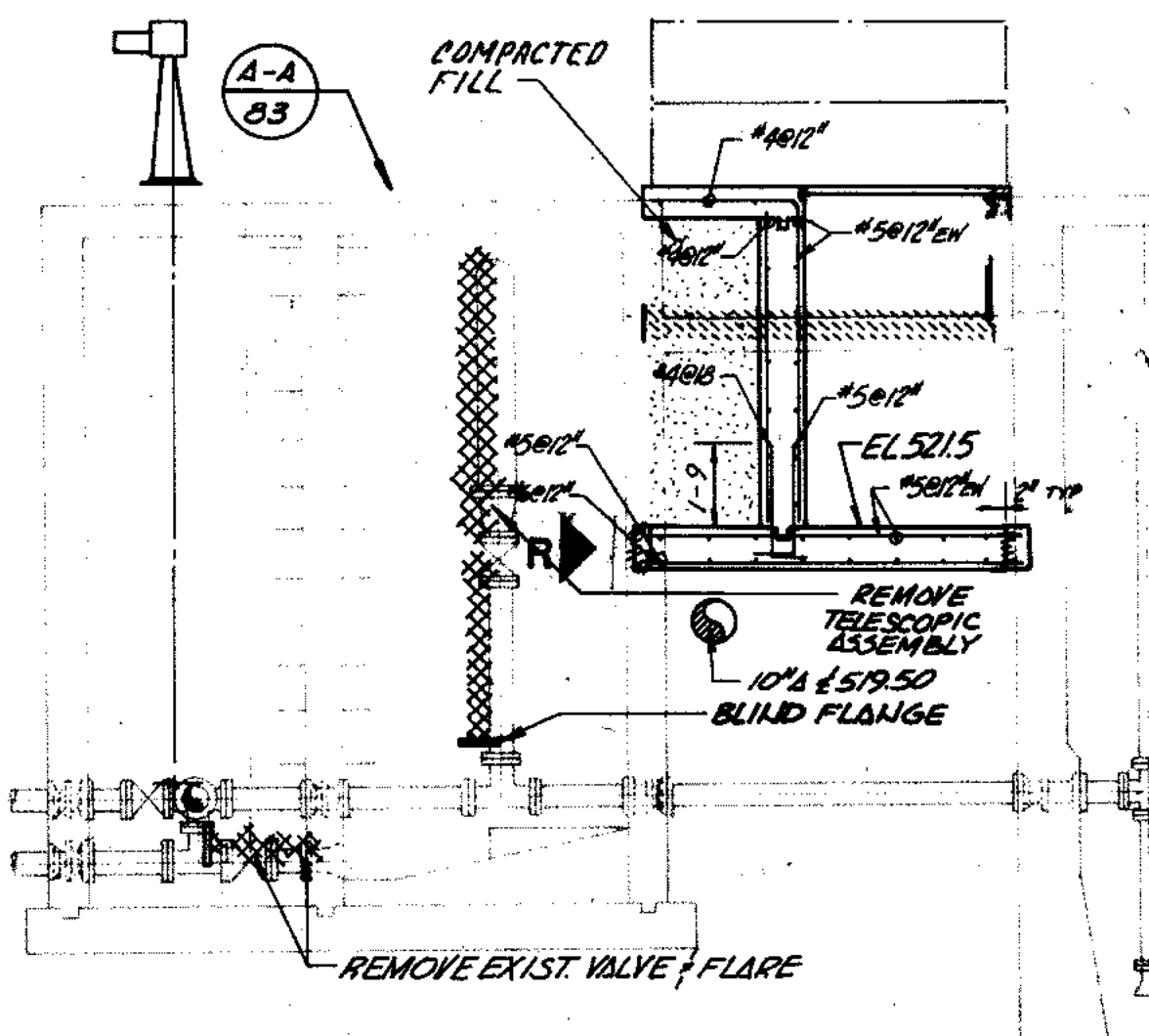


NOTE: FAN TO OPERATE FROM MANUAL SWITCH AT DOOR. INTAKE & EXHAUST DAMPERS TO OPEN WHEN FAN IS ON.

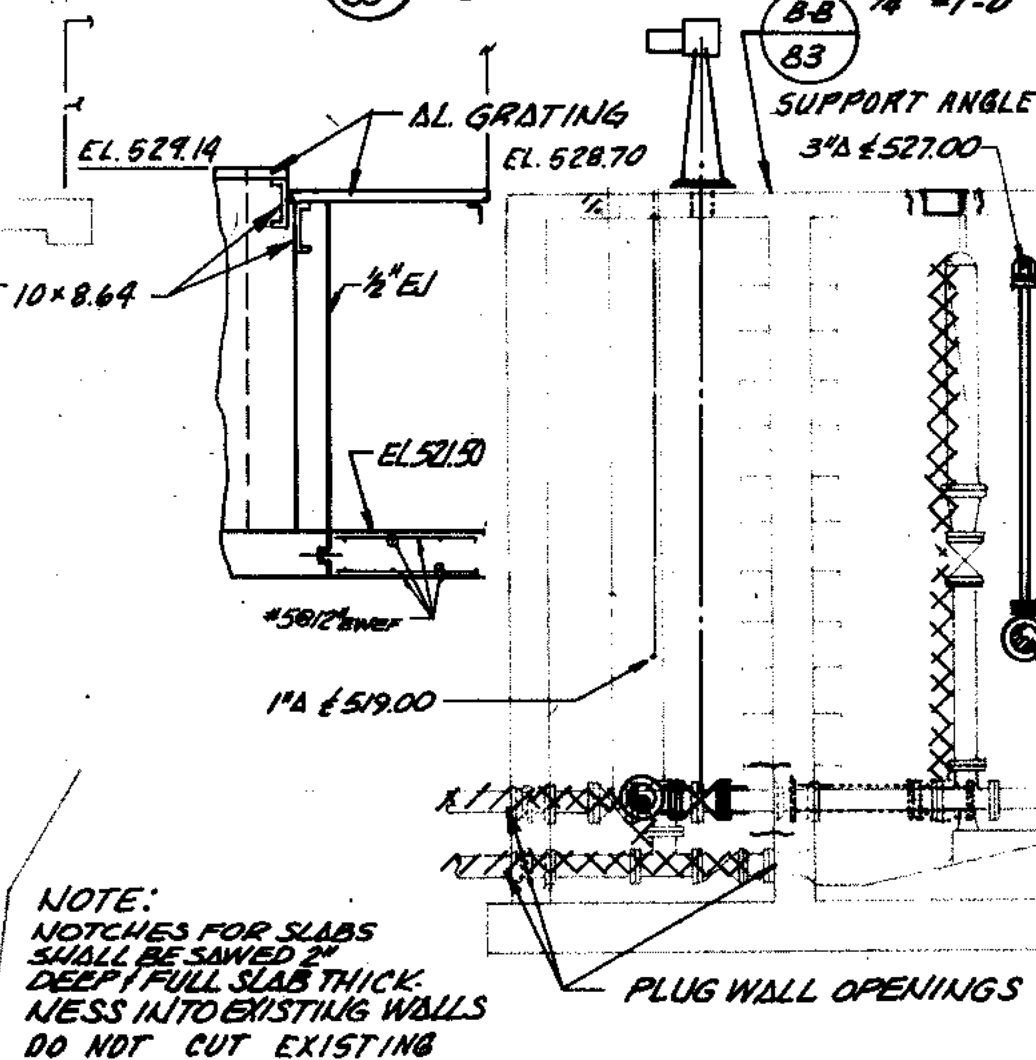


NOTE: CONSTRUCT FRAME OF PRESERVATIVE TREATED 2"x4" & 2"x6" LUMBER

NOTE: SEE SHEET 79 FOR LOCATION



NOTE: EXISTING FRAME ENCLOSURES ON SLUDGE WELLS #1, 2 SHALL REMAIN



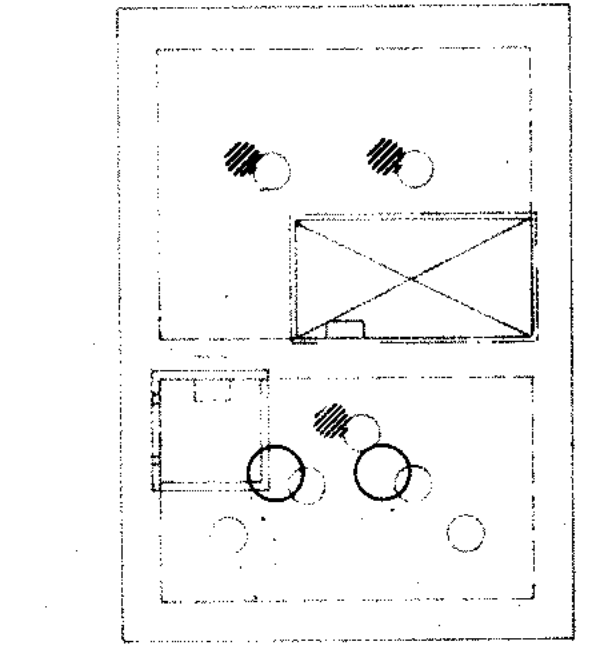
NOTE: NOTCHES FOR SLABS SHALL BE SAVED DEEP FULL SLAB THICK. MESS INTO EXISTING WALLS DO NOT CUT EXISTING REINFORCING.

NOTE: REMOVE REINFORCING TO 6\"/>

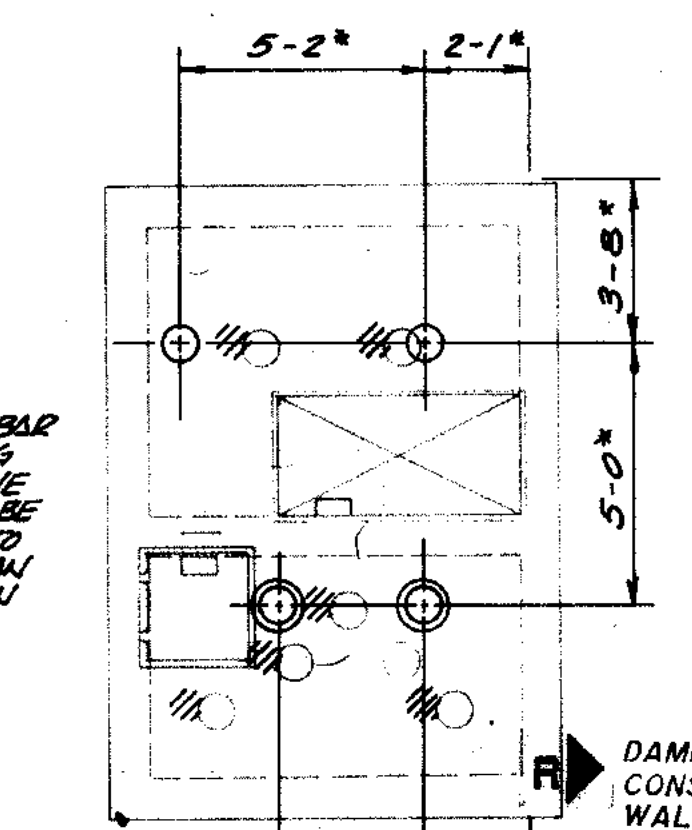
EXHAUST FAN, GREENHECK OR EQUAL SDE-12-24A, 1/4 HP TE MOTOR, 115V, SINGLE PHASE, 500 CFM @ 3/8\"/>

FIXTURE TYPE K TO BE APPLETON VPA 10756 OR EQUAL W/100W LAMPS. ONE ON BLDG. CEILING, ONE BELOW SLAB. PROVIDE CCT FROM PNL LP-6-40 FOR FAN, LOUVER, RECT. AND LIGHTS. MOUNT SWITCHES & RECT. IN CAST BOX 3-6 AFF OUTSIDE BLDG. NEAR DOOR. ALL ELECTRICAL WORK INSIDE ENCLOSURE AND IN SLUDGE WELL SHALL BE NEMA 4x.

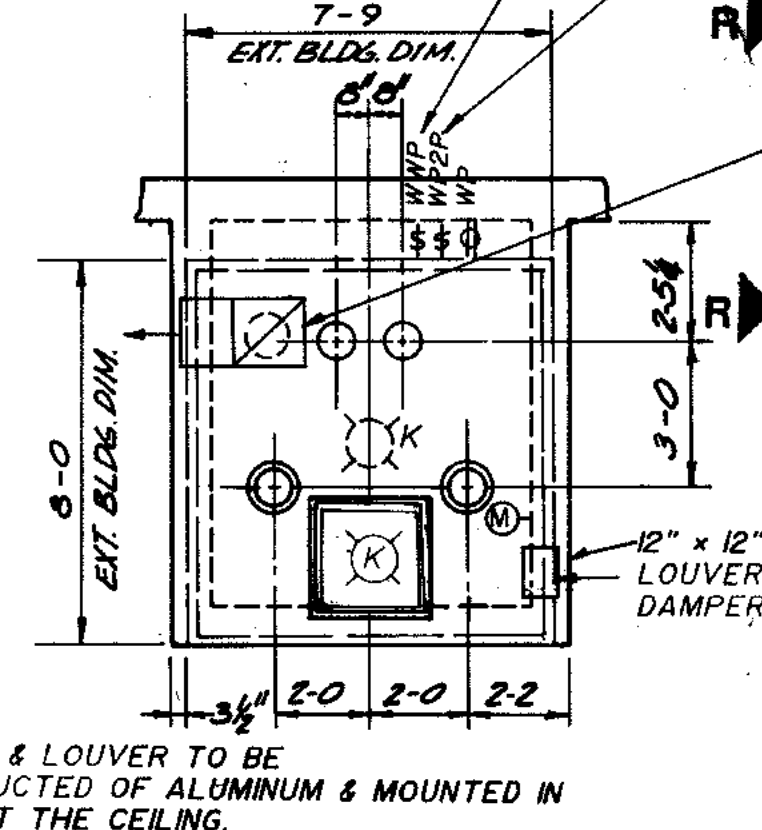
NOTE: IF EXISTING REBAR IS CUT IN ORDERING NEW HOLES THE CONCRETE SHALL BE REMOVED BACK TO A POINT WHERE AN ADEQUATE LAP CAN BE PROVIDED



SLUDGE WELL NO. 1 PLAN @ EL. 528.70



SLUDGE WELL NO. 2 PLAN @ EL. 528.70



SLUDGE WELL NO. 3 PLAN @ EL. 528.70

TEMPORARY SCUM SCREEN DETAIL

| | |
|------------------------|------|
| OVERLAY IDENTIFICATION | DATE |
| DESIGN | DATE |
| PERMIT | DATE |
| REVISION | DATE |
| PROJECT NO. | DATE |
| DATE | |

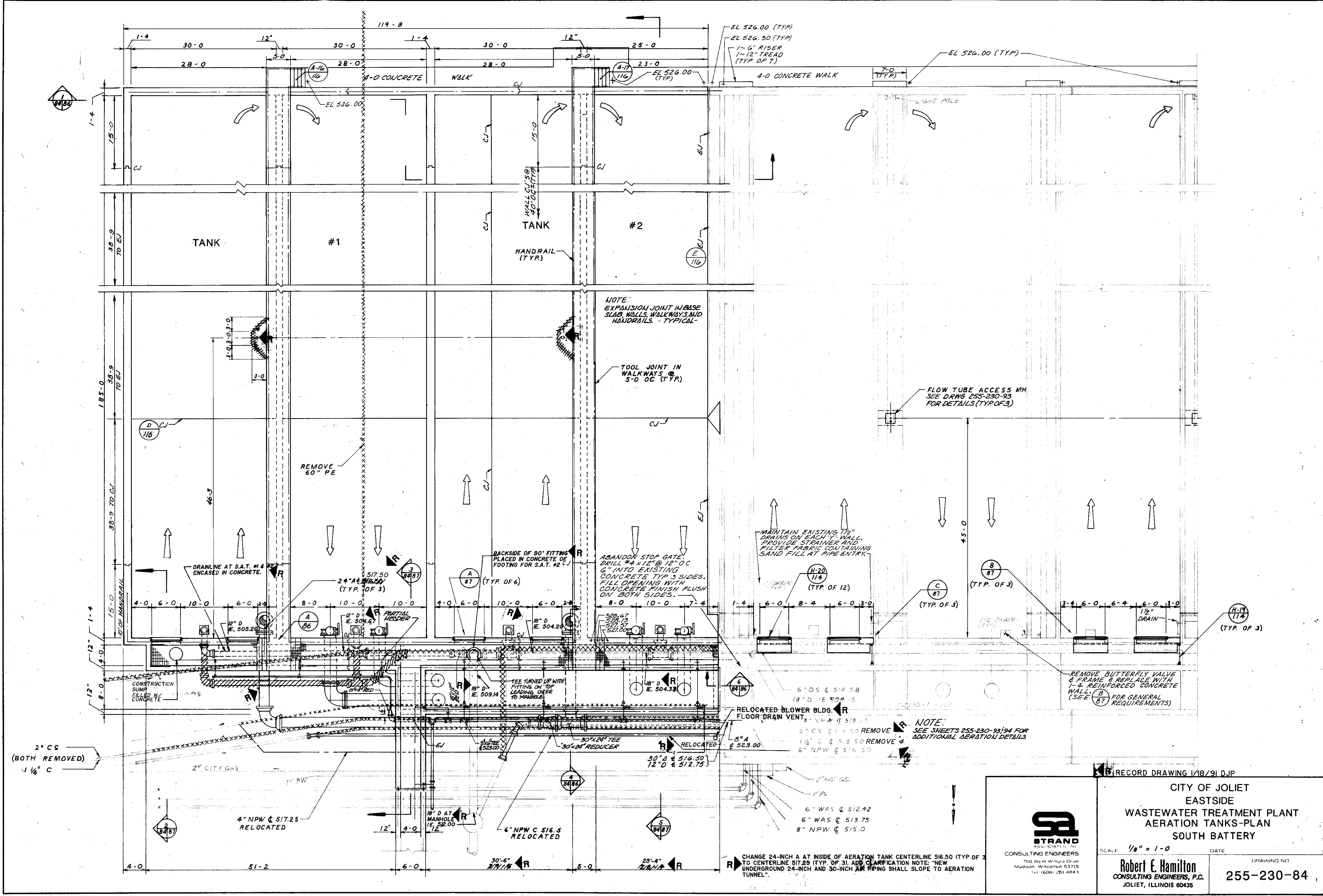
RECORD DRAWING 1/17/91 DJP

STRAND ASSOCIATES INC.
CONSULTING ENGINEERS
910 West Winger Drive
Madison, Wisconsin 53715
Tel. (608) 251-4843

CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT PRIMARY SLUDGE VALVE VAULTS - PLANS & SECTIONS

SCALE: $\frac{1}{4}'' = 1'-0''$ DATE: _____
Robert E. Hamilton
CONSULTING ENGINEER, P.C.
JOLIET, ILLINOIS 62438
DRAWING NO. **255-230-84**

| | | | | |
|-------------|----|------|----|------|
| COMPOSITE | 7A | FATP | 7B | FATP |
| OVERLAY | 7C | FATP | 7D | FATP |
| SCREEN | 7E | FATP | 7F | FATP |
| PROJECT NO. | | | | |
| DATE | | | | |



RECORD DRAWING 1/18/91 DJP

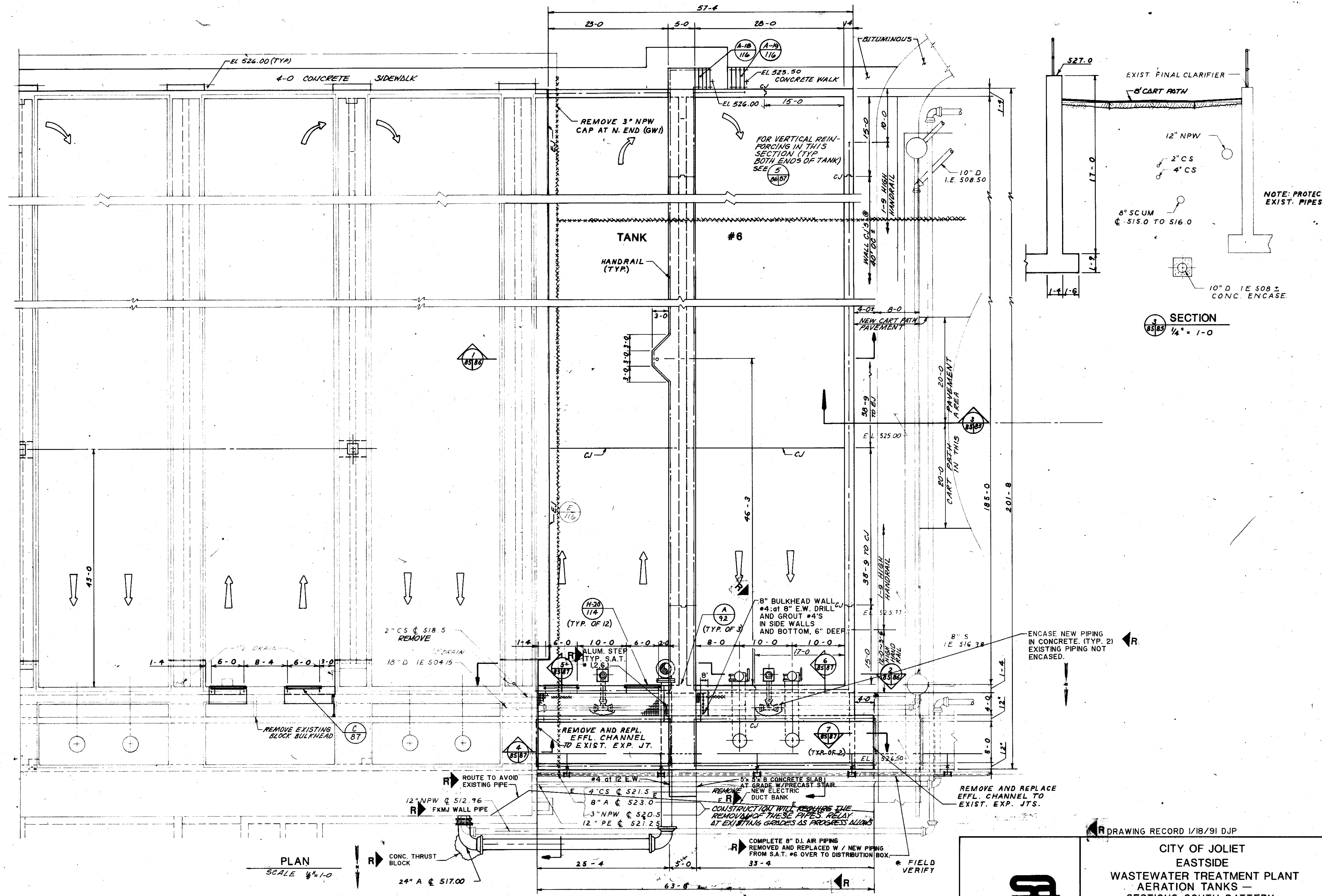
CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
AERATION TANKS-PLAN
SOUTH BATTERY

SCALE 1/8" = 1'-0" DATE

Robert E. Hamilton
CONSULTING ENGINEERS, P.C.
JOLIET, ILLINOIS 60435

DRAWING NO.
255-230-84

STRAND
ASSOCIATED, INC.
CONSULTING ENGINEERS
910 West Windsor Drive
Madison, Wisconsin 53715
Tel: (608) 261-4841



| | |
|-----------|------|
| COMPOSITE | DATE |
| OVERLAY | DATE |
| REVISION | DATE |
| BY | DATE |
| BY | DATE |
| BY | DATE |

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

NOTE:
SEE SHEET 255-230-93 FOR ADDITIONAL
AERATION DETAILS

NOTE: THERE IS A CONCRETE ENCASED ELECTRICAL DUCT BANK CONTAINING FOUR, 3-INCH CONDUITS LOCATED APPROXIMATELY 11-FEET EAST OF THE WESTERN EDGE OF THE AERATION PIPE GALLERY. THE DUCT BANK RUNS NORTH AND SOUTH AND THE BOTTOM OF THE DUCT BANK IS LOCATED AT APPROXIMATELY ELEVATION 521.00. CARE SHOULD BE TAKEN DURING INSTALLATION OF PIPING IN THIS AREA NOT TO DAMAGE THE DUCT BANK.

NOTE: DRAIN LINE FOR S.A.T. #6 ENCASED IN CONCRETE AT NEW TEES FOR MUD VALVES ONLY.

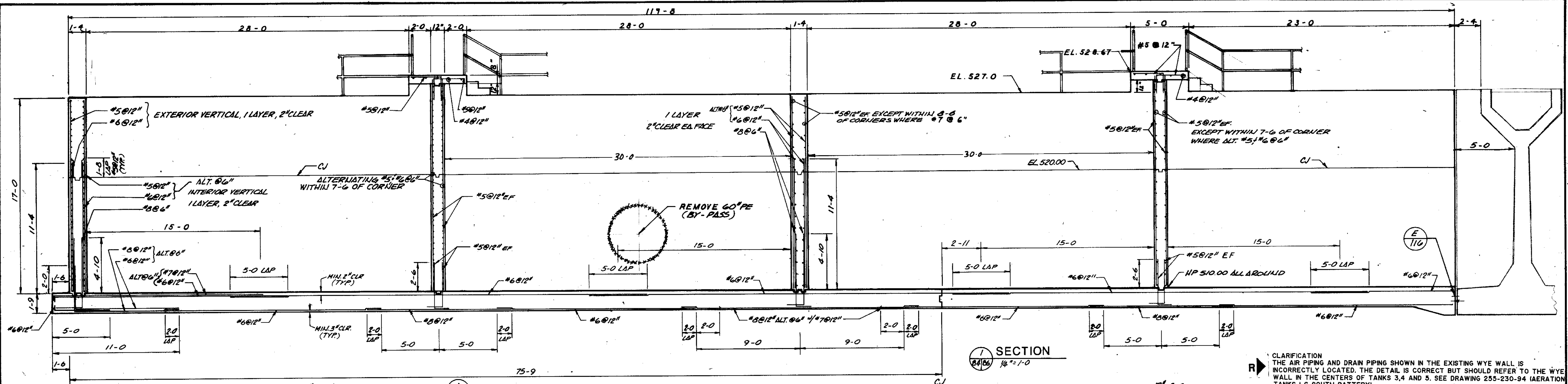


CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
AERATION TANKS —
SECTIONS SOUTH BATTERY

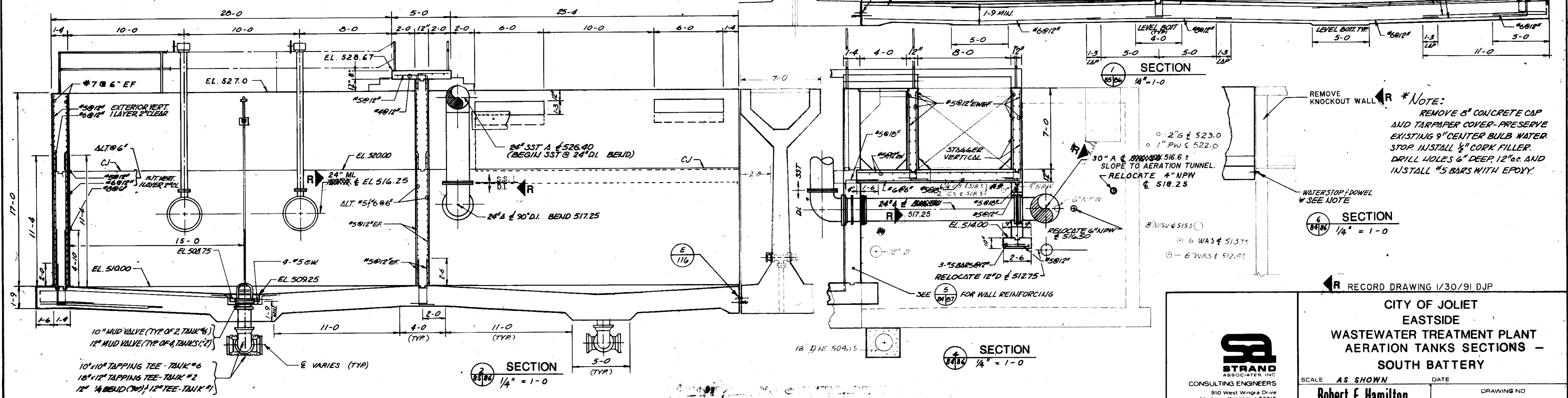
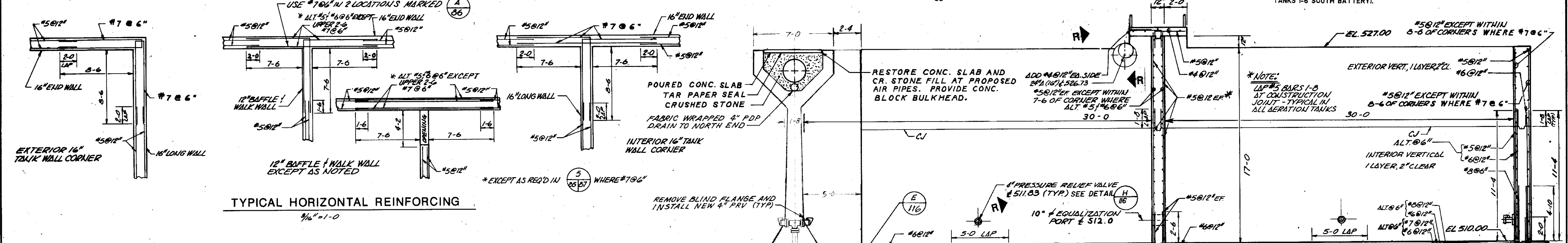
SCALE AS SHOWN DATE DRAWING NO.

Robert E. Hamilton
CONSULTING ENGINEERS, P.C.
JOLIET, ILLINOIS 60435

255-230-85



CLARIFICATION
 R THE AIR PIPING AND DRAIN PIPING SHOWN IN THE EXISTING WYE WALL IS INCORRECTLY LOCATED. THE DETAIL IS CORRECT BUT SHOULD REFER TO THE WYE WALL IN THE CENTERS OF TANKS 3, 4 AND 5. SEE DRAWING 235-230-94 (AERATION TANKS 1-6 SOUTH BATTERY).



*NOTE:
 REMOVE 8\"/>

| | |
|---------------|----|
| COMPOSITE NO. | 78 |
| OVERLAY NO. | 79 |
| DATE | |

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
AERATION TANKS SECTIONS -
SOUTH BATTERY

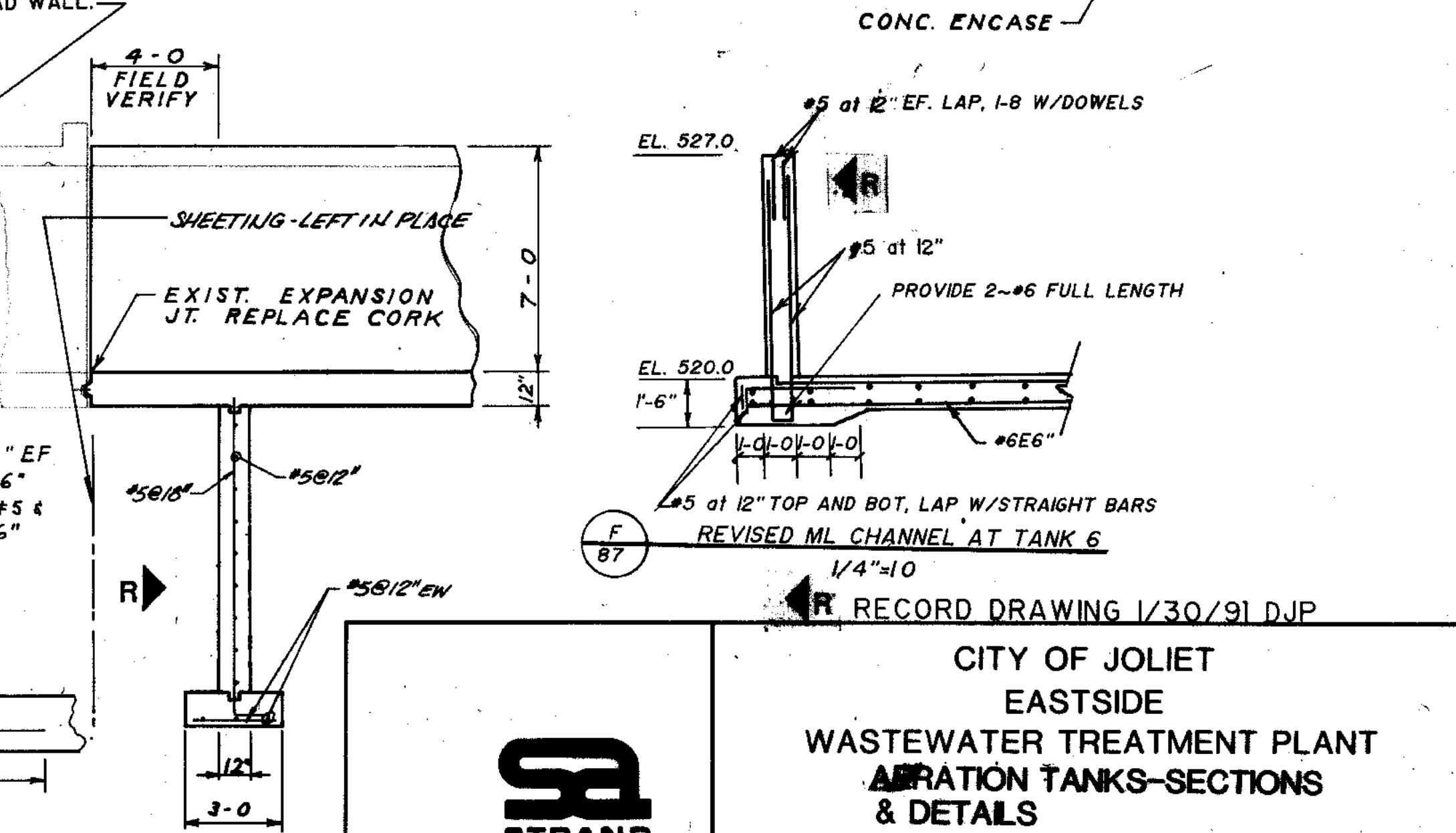
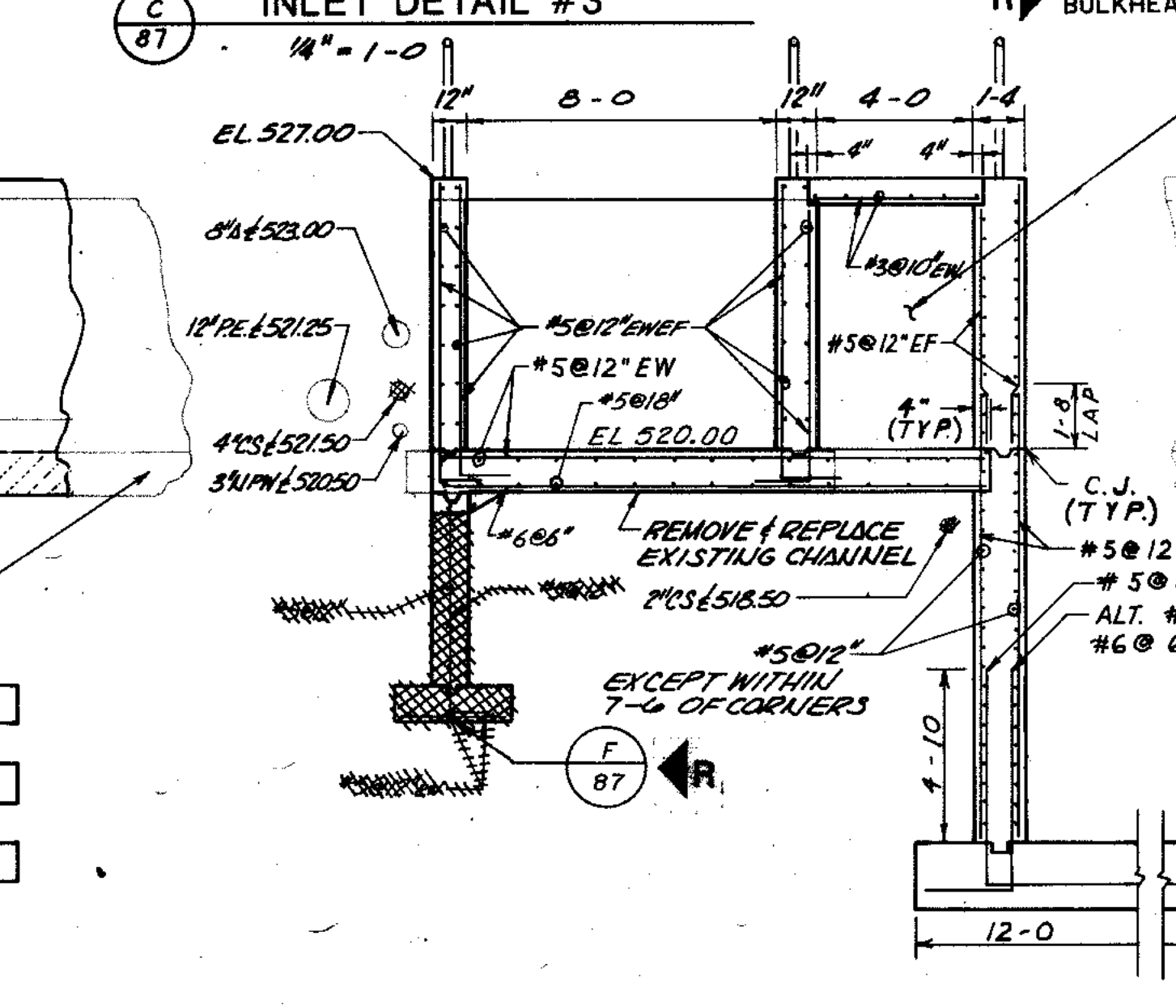
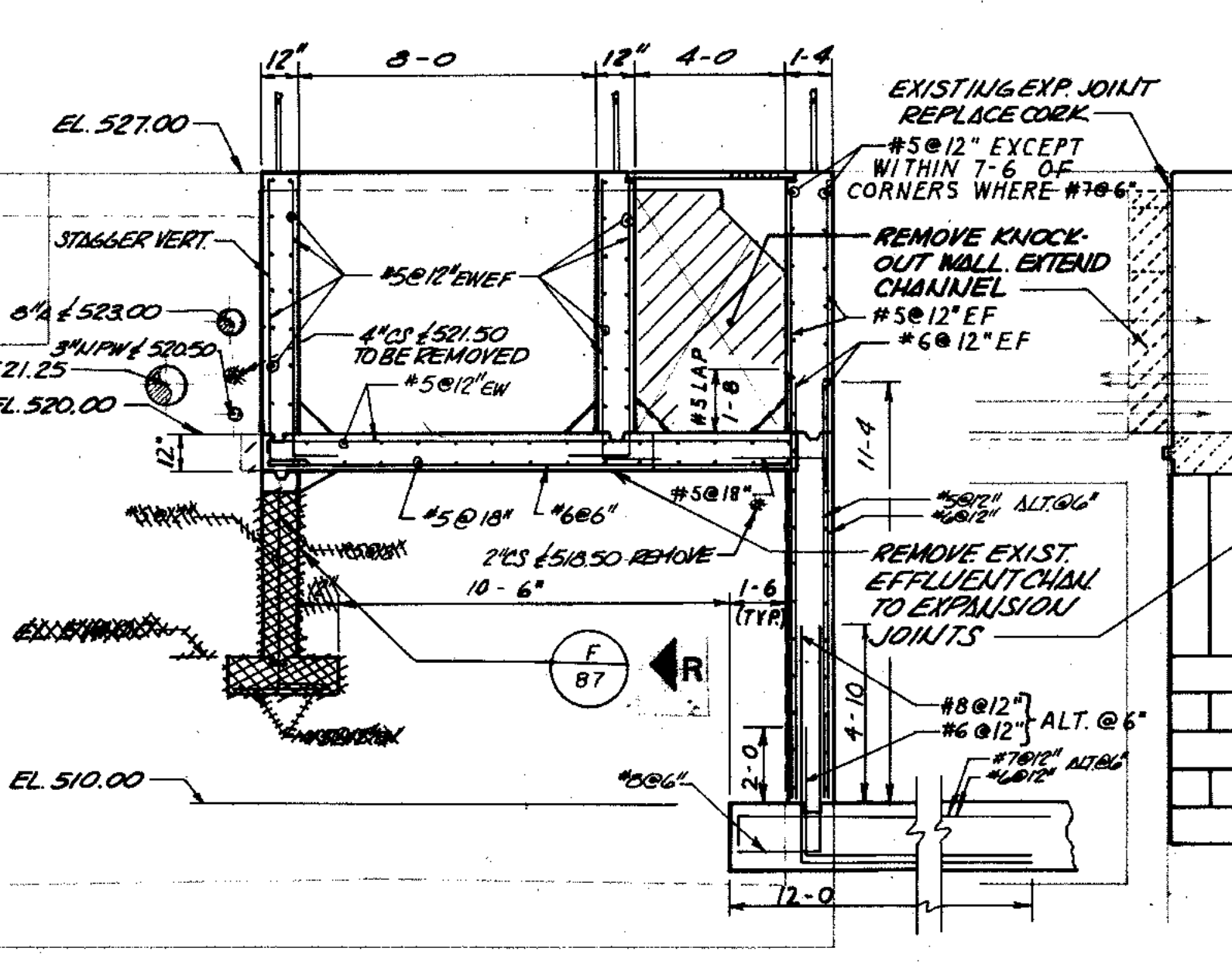
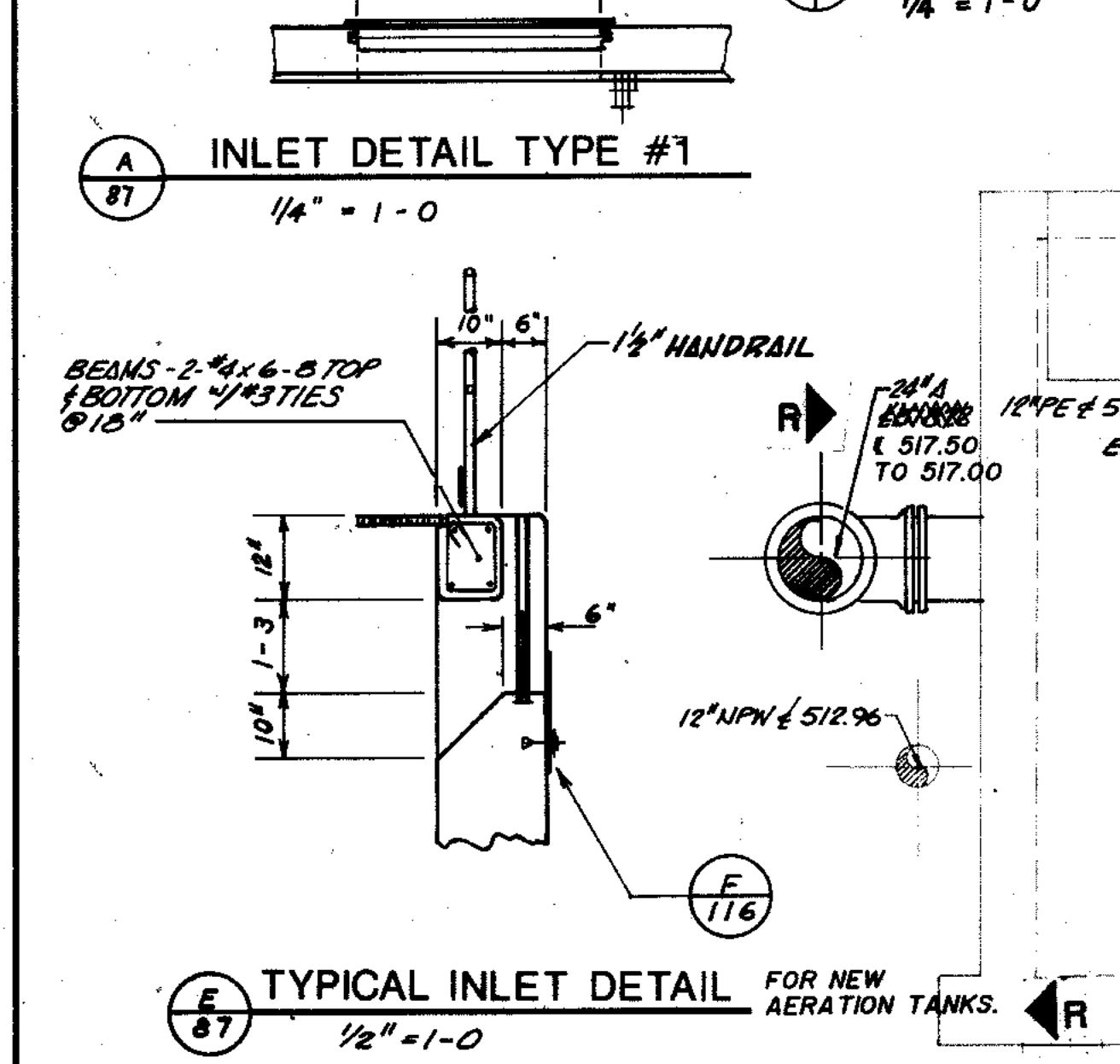
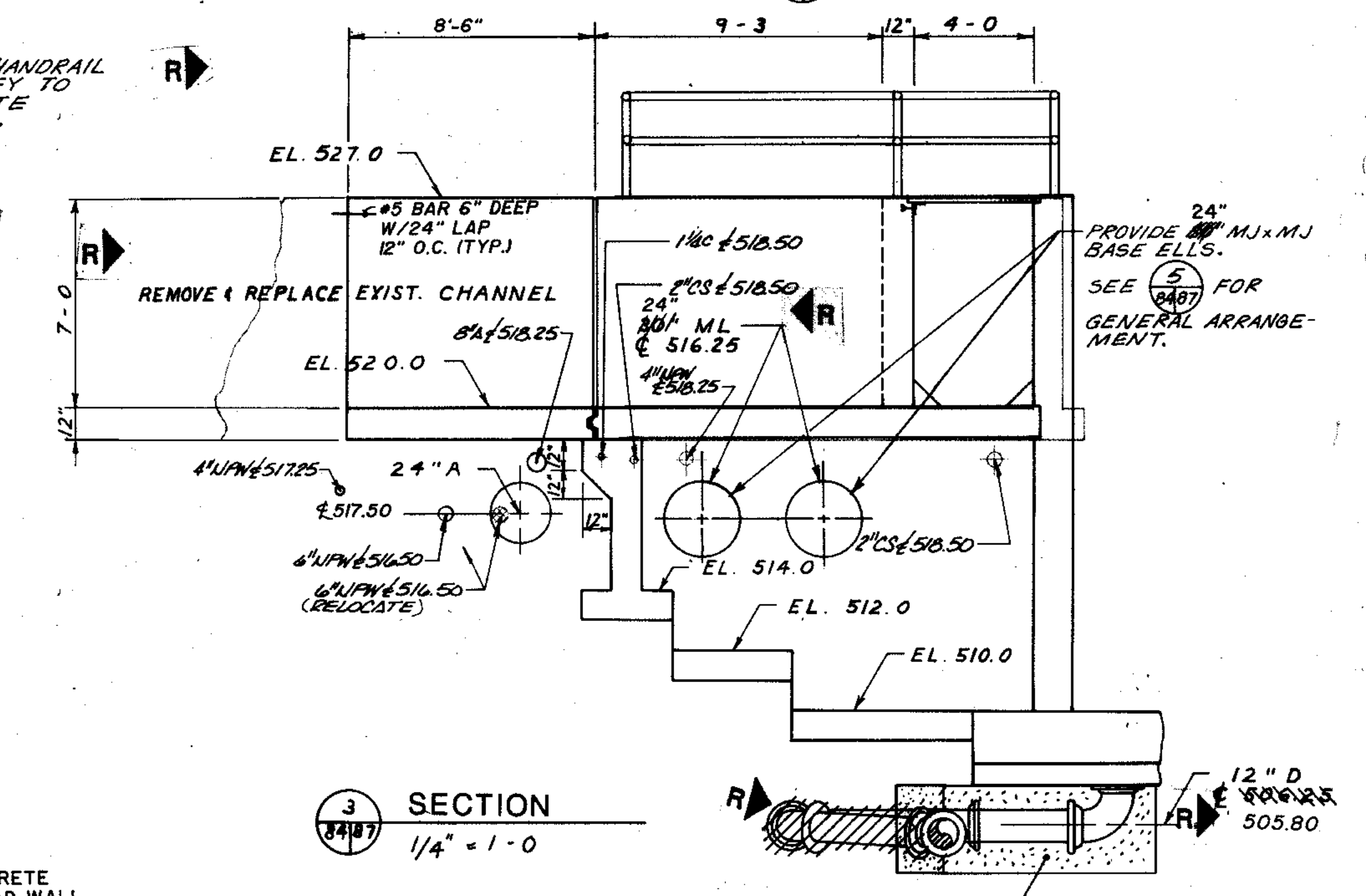
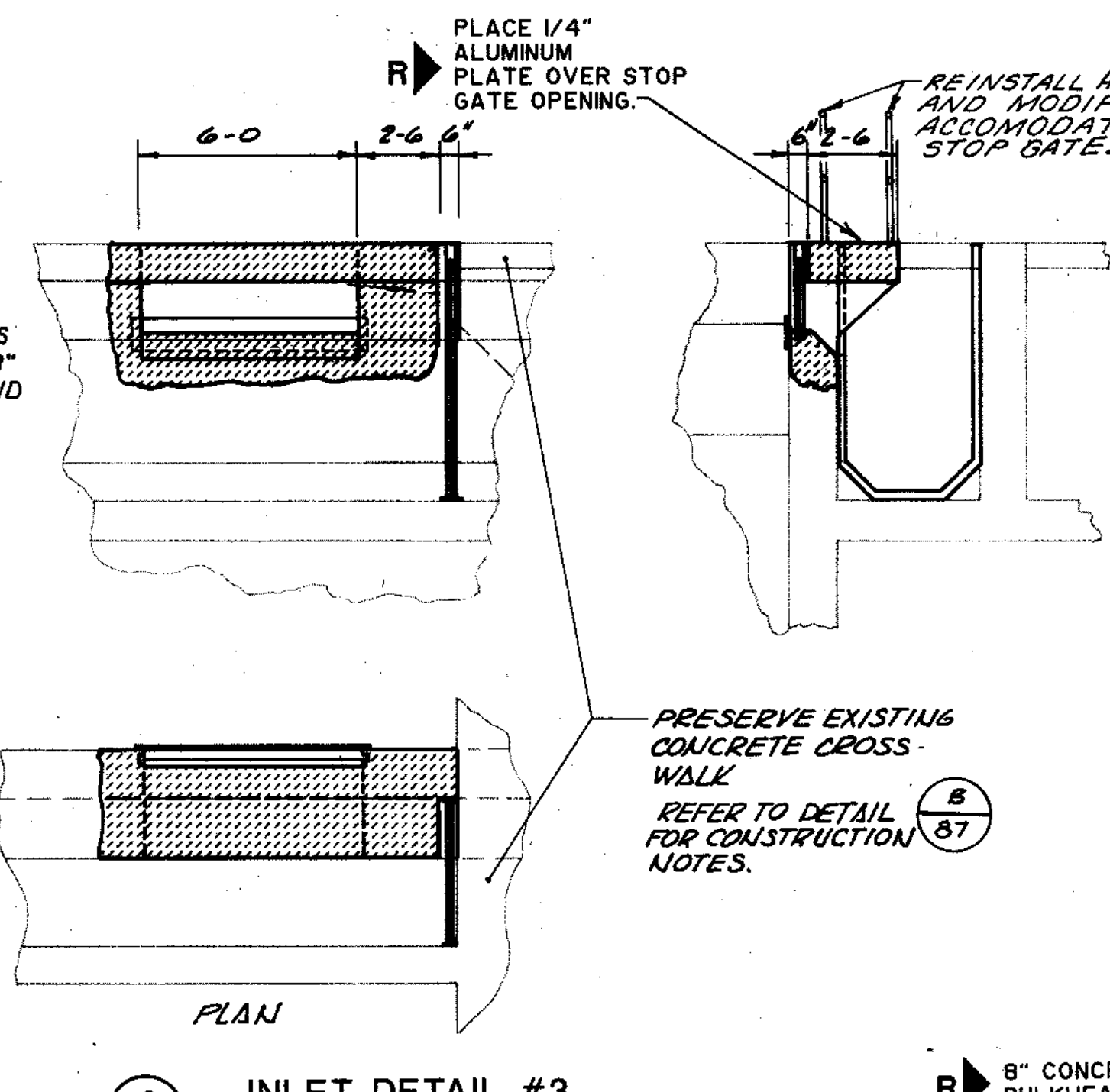
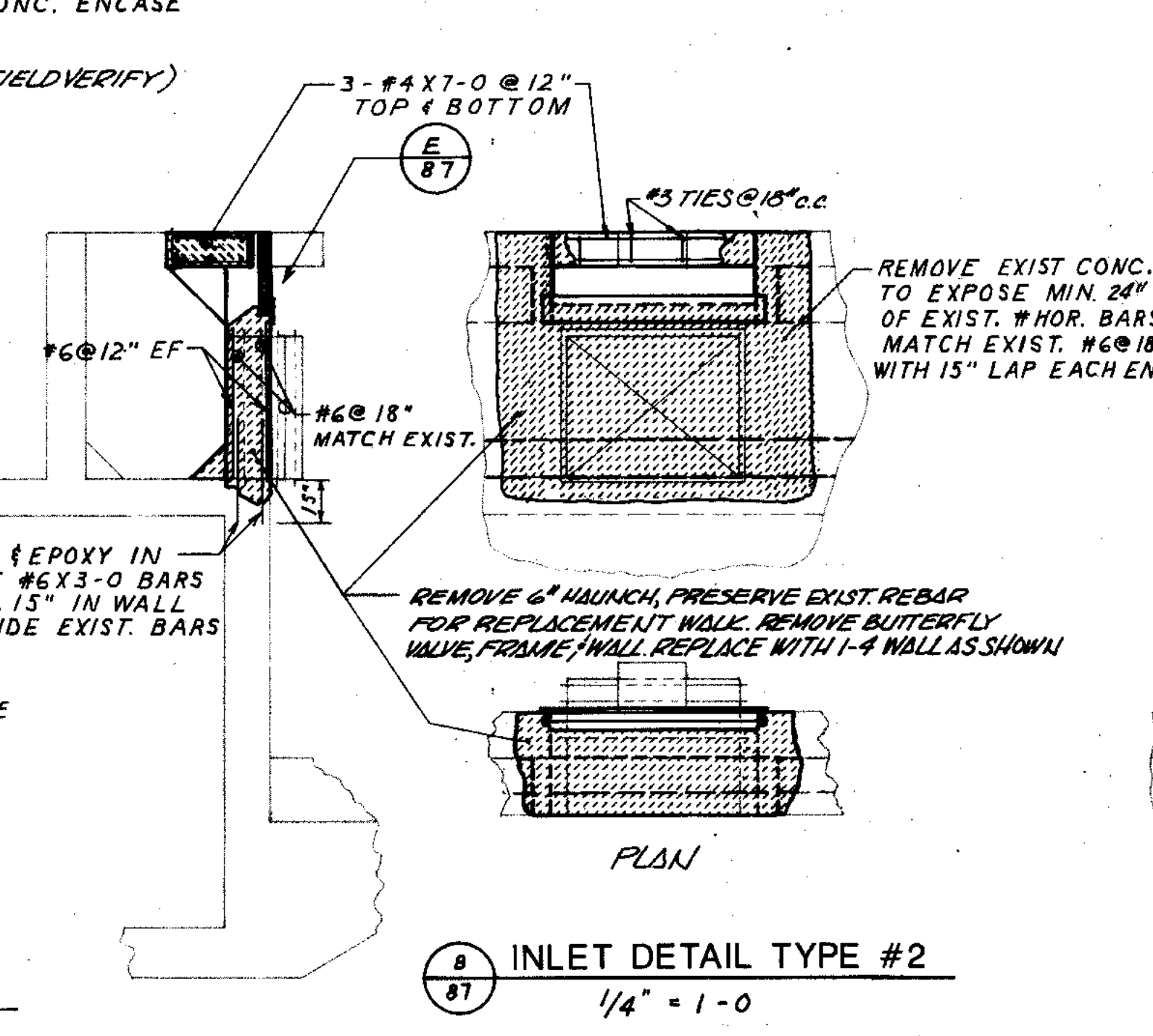
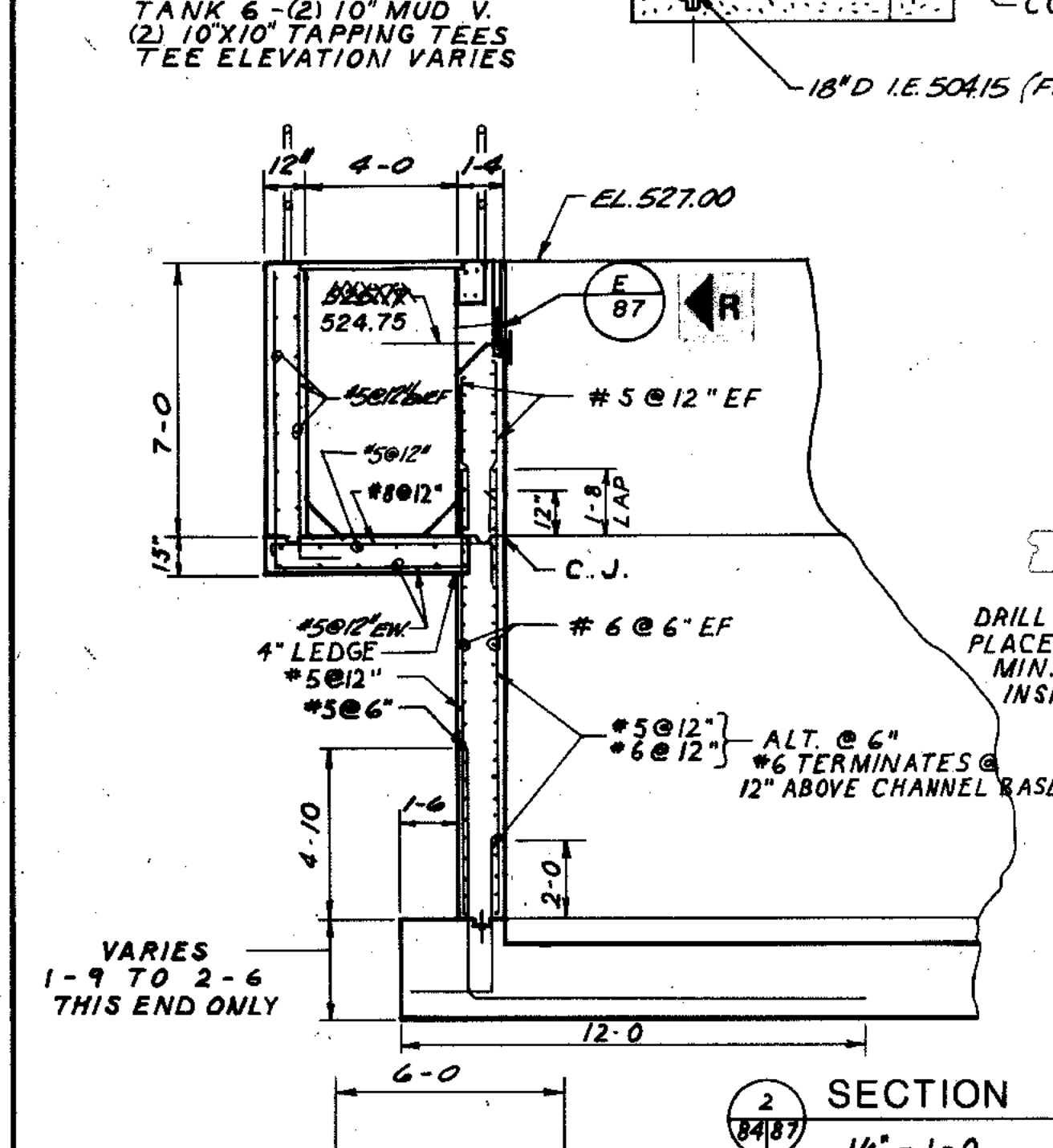
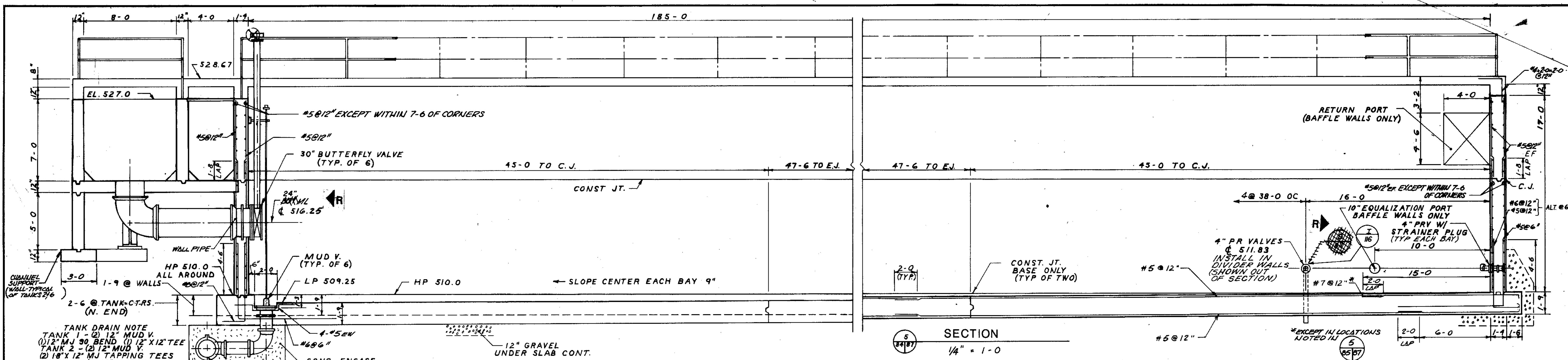
STRAND
 ASSOCIATES, INC.
 CONSULTING ENGINEERS

910 West Winger Drive
 Madison, Wisconsin 53715
 Tel. (608) 251-4843

Robert E. Hamilton
 CONSULTING ENGINEERS, P.C.
 JOLIET, ILLINOIS 60435

SCALE AS SHOWN DATE _____ DRAWING NO. _____

255-230-88



SECTION 1 1/4" = 1-0

SECTION 2 1/4" = 1-0

SECTION 3 1/4" = 1-0

SECTION 4 1/4" = 1-0

SECTION 5 1/4" = 1-0

SECTION 6 1/2" = 1-0

SECTION 7 1/4" = 1-0

SECTION 8 1/4" = 1-0

SECTION 9 1/4" = 1-0

NOTE: REINF. BARS END WALL TANK #2 @ #6 TYPICAL BETWEEN EXIST. E.J. AND WALK WALL (2 LOCATIONS EACH TANK)
 REINF. BARS END WALL TANK #9 @ #10 TYPICAL BETWEEN E.J. AND WALK WALL (2 LOCATIONS EACH TANK)

| | |
|-------------|----------|
| COMPOSITE | DATE |
| OVERLAY | 7/8 |
| PROJECT NO. | 778 |
| DATE | 10/25/91 |

STRAND ASSOCIATES INC.
 CONSULTING ENGINEERS
 910 West Wingra Drive
 Madison, Wisconsin 53715
 Tel. (608) 251-4843

CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT AERATION TANKS-SECTIONS & DETAILS

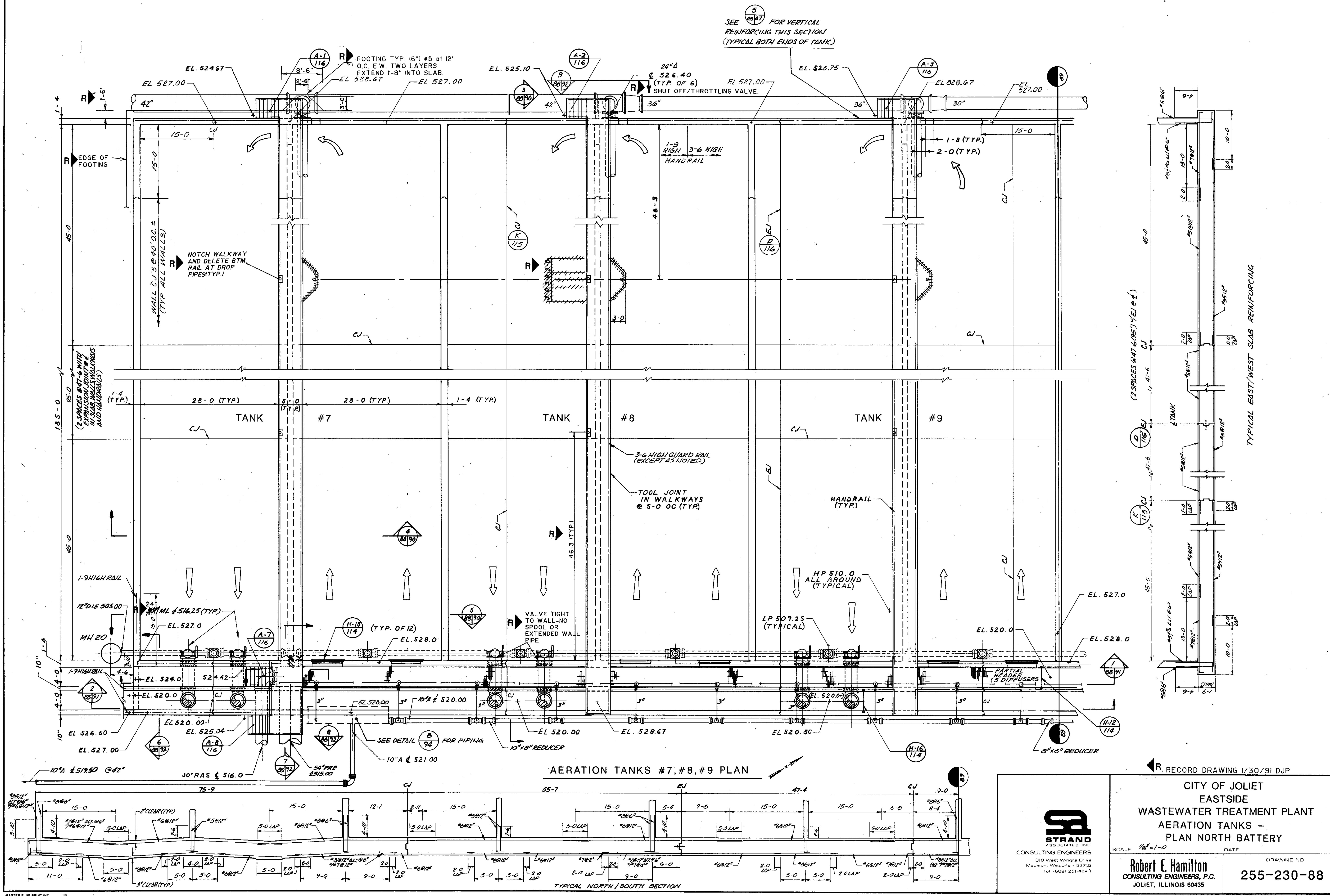
SCALE AS SHOWN DATE

Robert E. Hamilton
 CONSULTING ENGINEERS, P.C.
 JOLIET, ILLINOIS 60435

DRAWING NO. **255-230-87**

SHEET 20 OF 20

| | |
|-------------|--------|
| COMPOSITE | 72 |
| OVERLAY | ATJL-5 |
| SCREEN | ATJL-5 |
| PROJECT NO. | |
| DATE | |




SEE 5 FOR VERTICAL REINFORCING THIS SECTION (TYPICAL BOTH ENDS OF TANK)

TYPICAL EAST/WEST SLAB REINFORCING

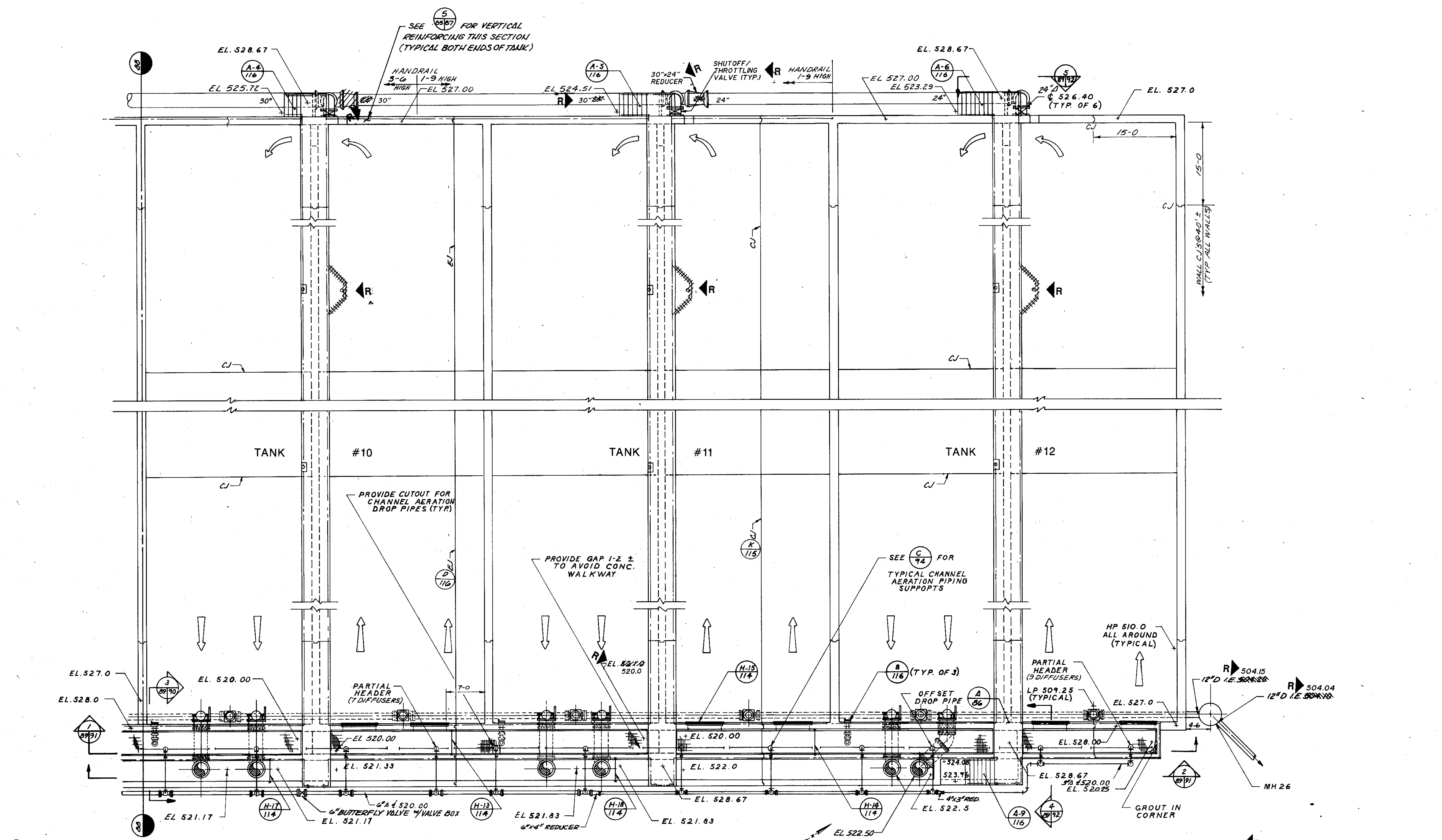
AERATION TANKS #7, #8, #9 PLAN

TYPICAL NORTH/SOUTH SECTION

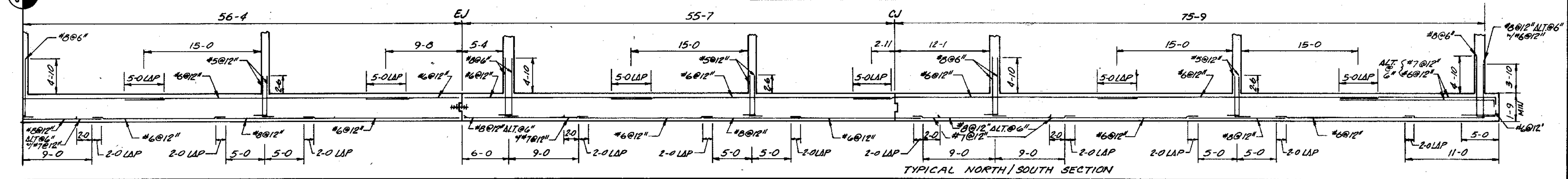
RECORD DRAWING 1/30/91 DJP

| | | |
|---|---|----------------------------------|
|  <p>STRAND ASSOCIATED INC. CONSULTING ENGINEERS 910 West Wmgra Drive Madison, Wisconsin 53715 Tel (608) 251-4843</p> | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT AERATION TANKS - PLAN NORTH BATTERY</p> | |
| | <p>SCALE 1/8"=1'-0"</p> | <p>DATE</p> |
| | <p>Robert E. Hamilton CONSULTING ENGINEERS, P.C. JOLIET, ILLINOIS 60435</p> | <p>DRAWING NO 255-230-88</p> |

| | | |
|--------------------------|-----|-------|
| COMPOSITE IDENTIFICATION | 7/8 | AT/AB |
| OVERLAY | 7/8 | AT/AB |
| PROJECT NO. | | |
| DATE | | |



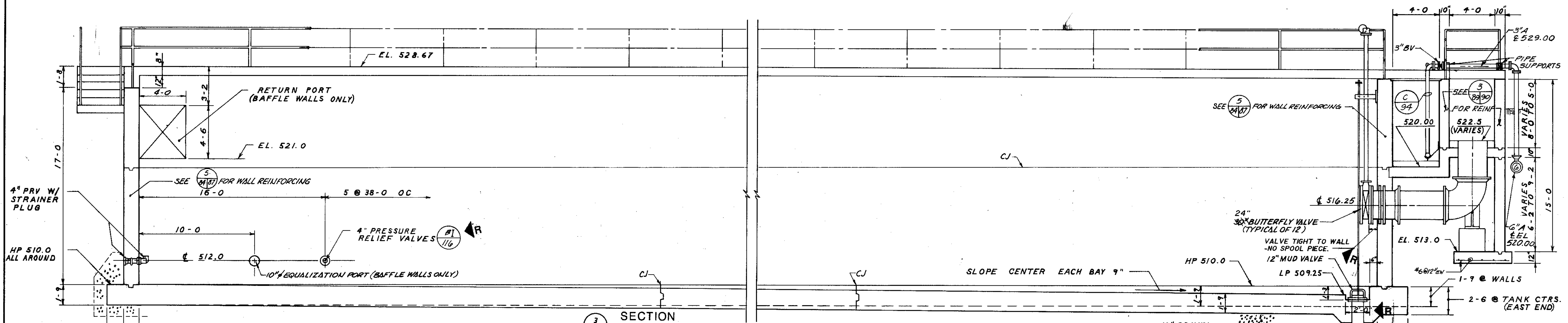
AERATION TANKS #10, #11, #12 PLAN



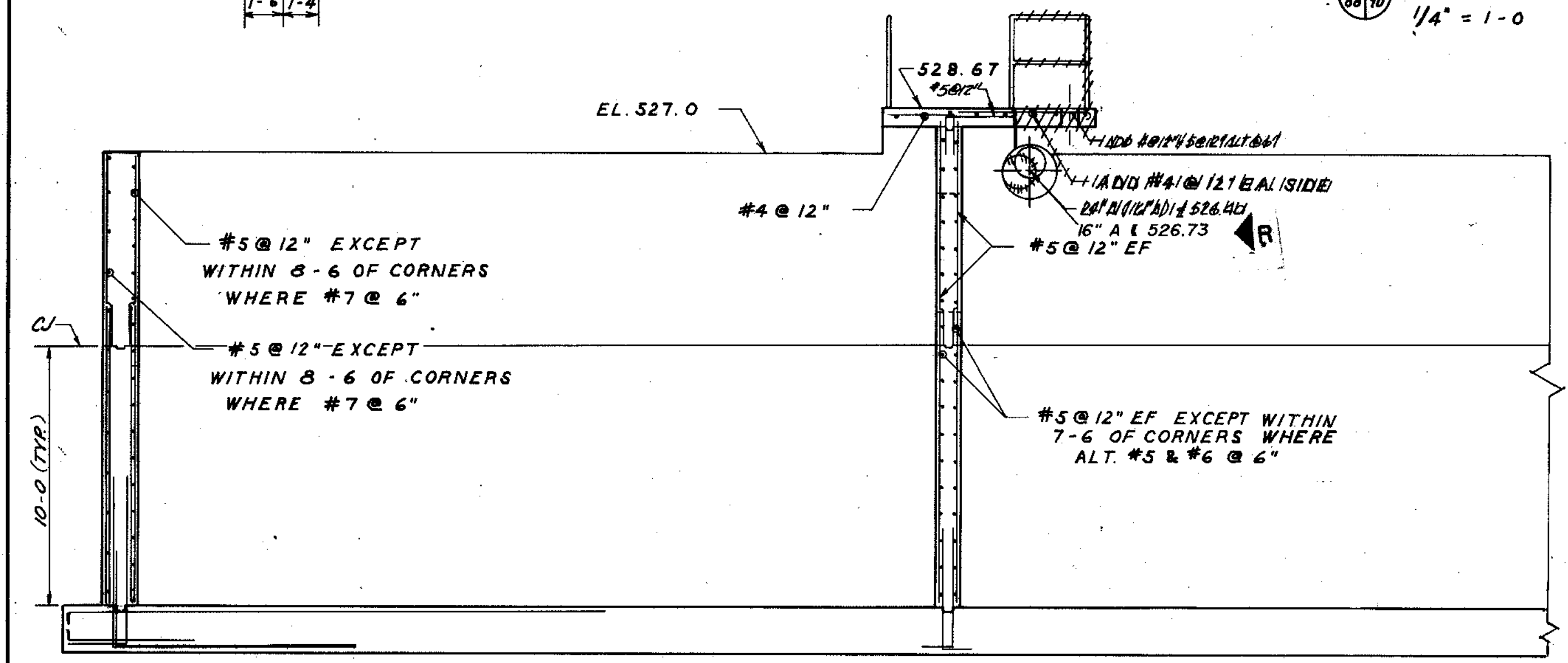
TYPICAL NORTH/SOUTH SECTION

RECORD DRAWING 1/31/91 DJP

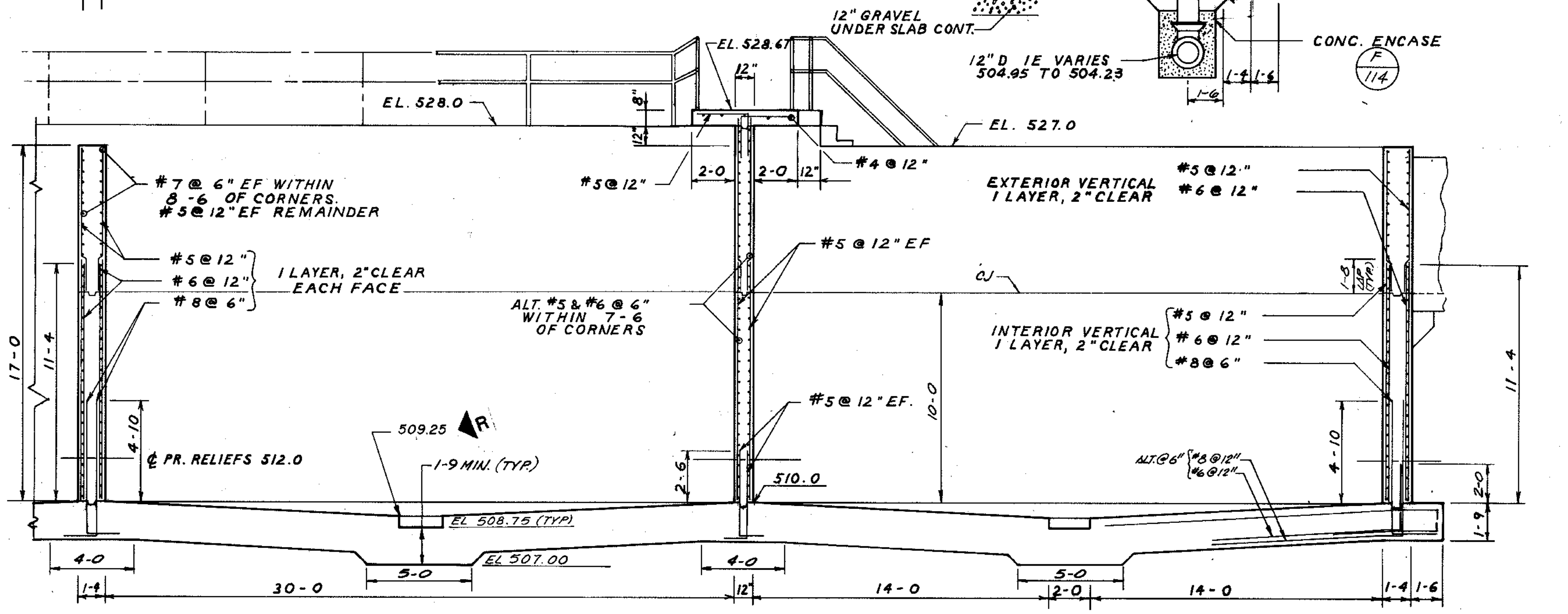
| | | |
|--|---|--|
| <p>STRAND ASSOCIATES INC. CONSULTING ENGINEERS 910 West Wingra Drive Madison, Wisconsin 53715 Tel: (608) 251-4843</p> | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT AERATION TANKS - PLAN NORTH BATTERY</p> | |
| | <p>SCALE: 1/8" = 1'-0"</p> | <p>DATE</p> |
| | <p>Robert E. Hamilton CONSULTING ENGINEERS, P.C. JOLIET, ILLINOIS 60435</p> | <p>DRAWING NO. 255-230-89</p> |
| | <p>SHEET 30 OF 30</p> | |



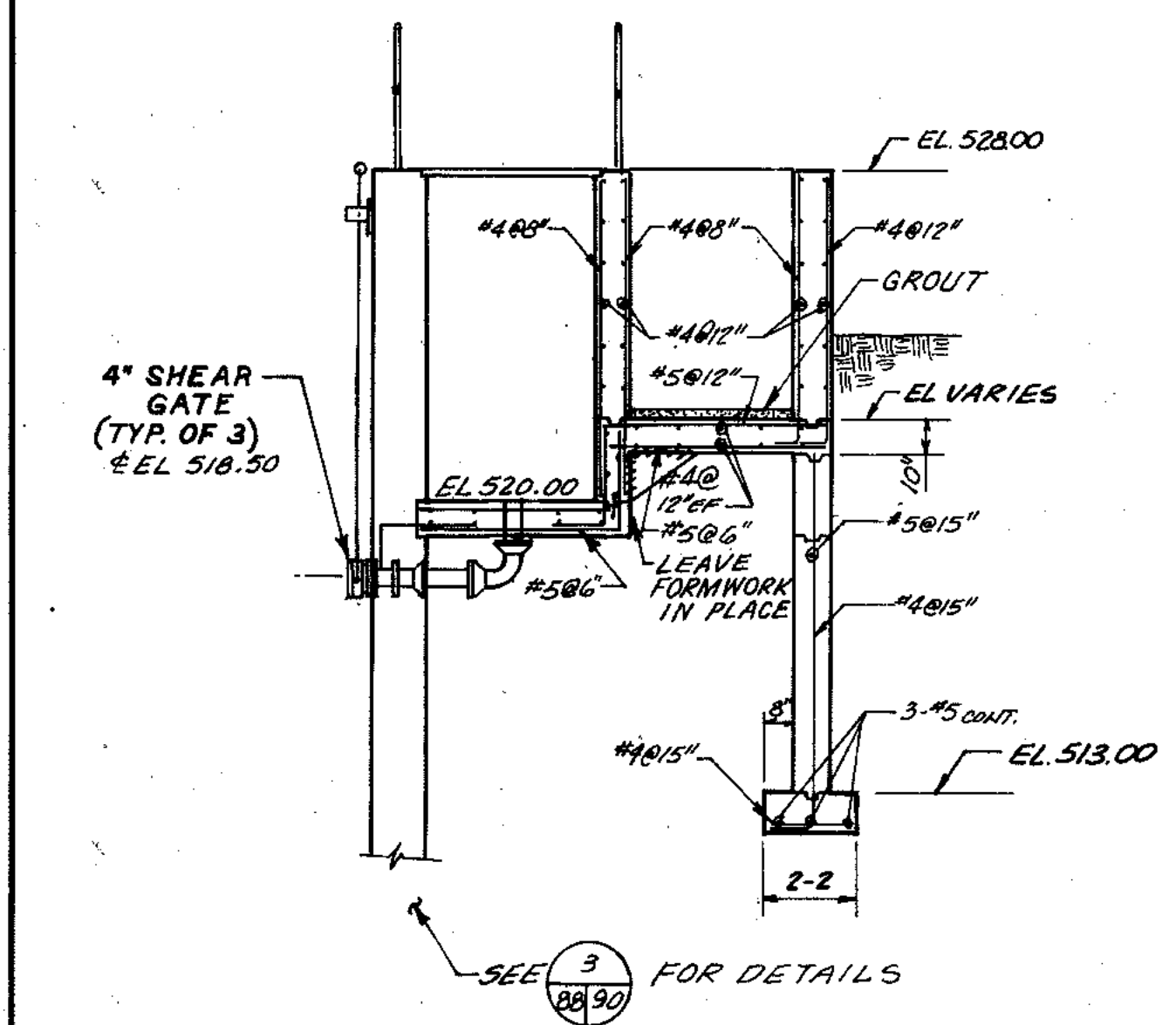
SECTION 3
1/4" = 1'-0"



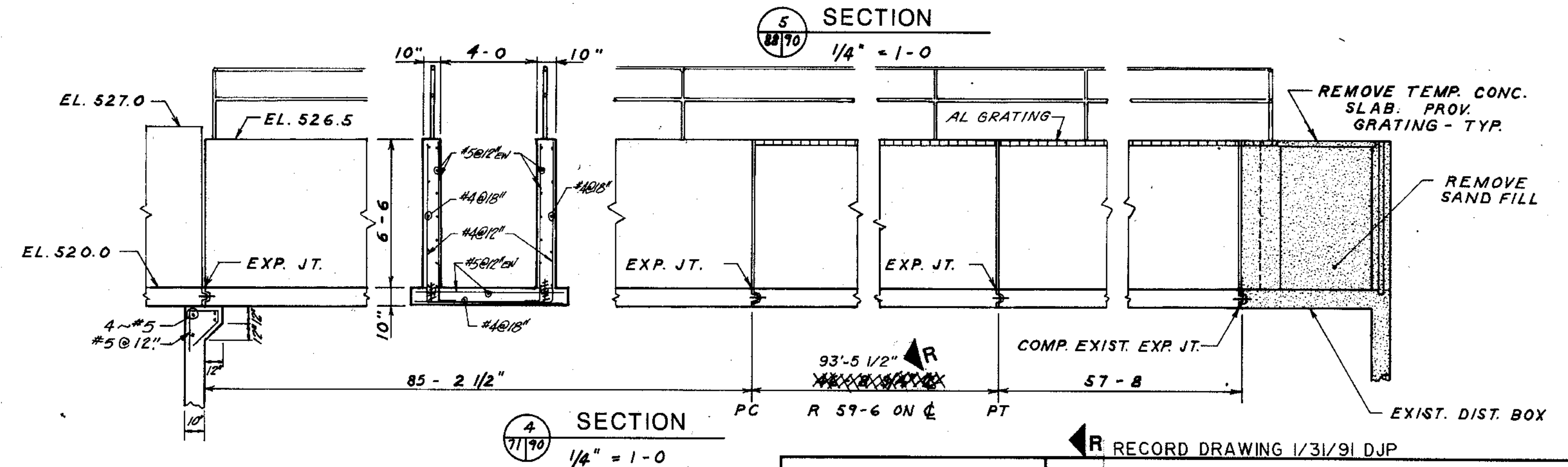
SECTION 4
1/4" = 1'-0"



SECTION 5
1/4" = 1'-0"



SECTION 3
1/4" = 1'-0"



SECTION 4
1/4" = 1'-0"

| | | | |
|------------------------|-----------|---------|--------|
| OVERLAY IDENTIFICATION | COMPOSITE | OVERLAY | SCREEN |
| PROJECT NO. | 79 | | |
| DATE | | | |

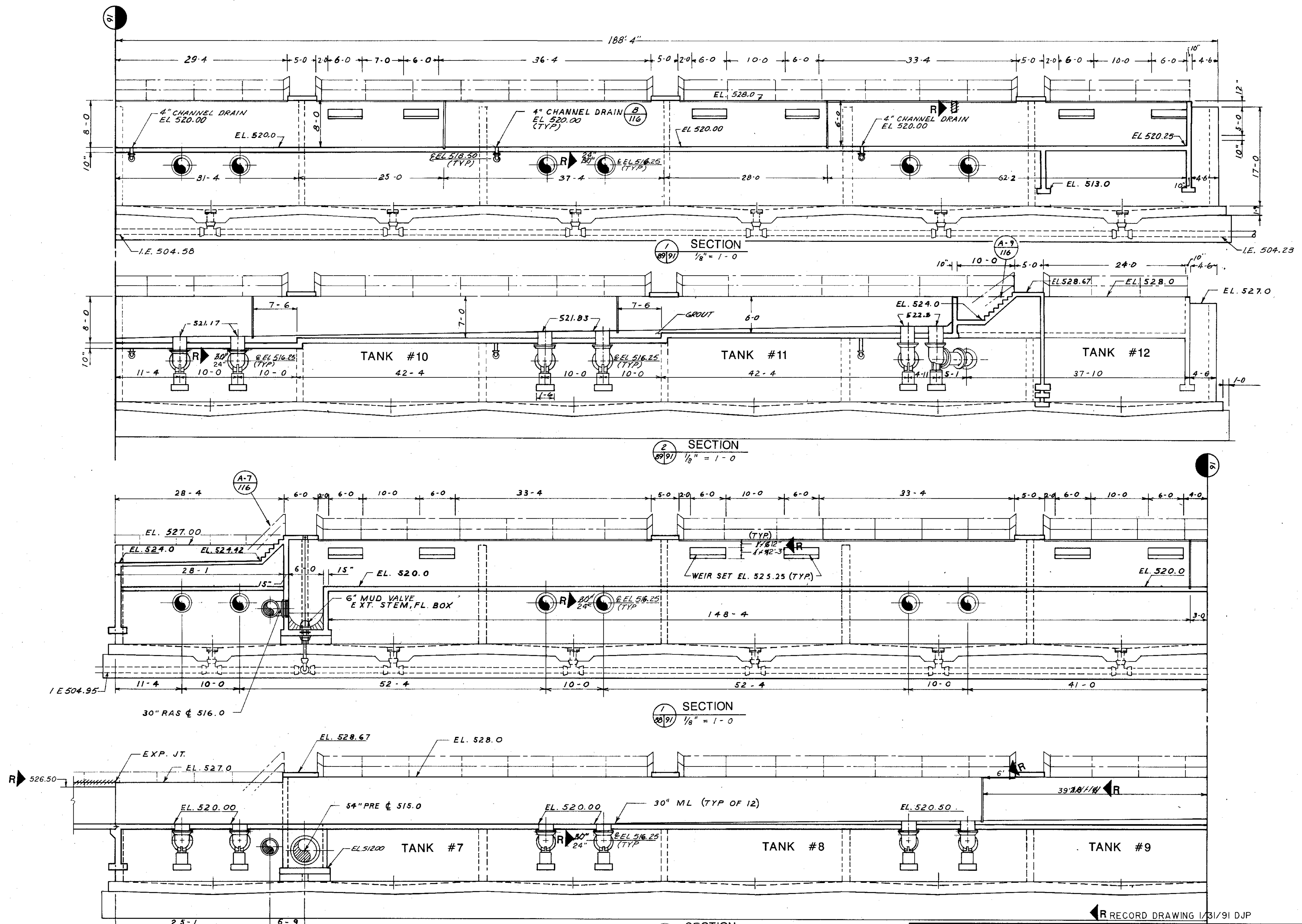
STRAND ASSOCIATES INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
AERATION TANKS-SECTIONS-1
NORTH BATTERY

SCALE AS SHOWN DATE

Robert E. Hamilton
CONSULTING ENGINEERS, P.C.
JOLIET, ILLINOIS 60435

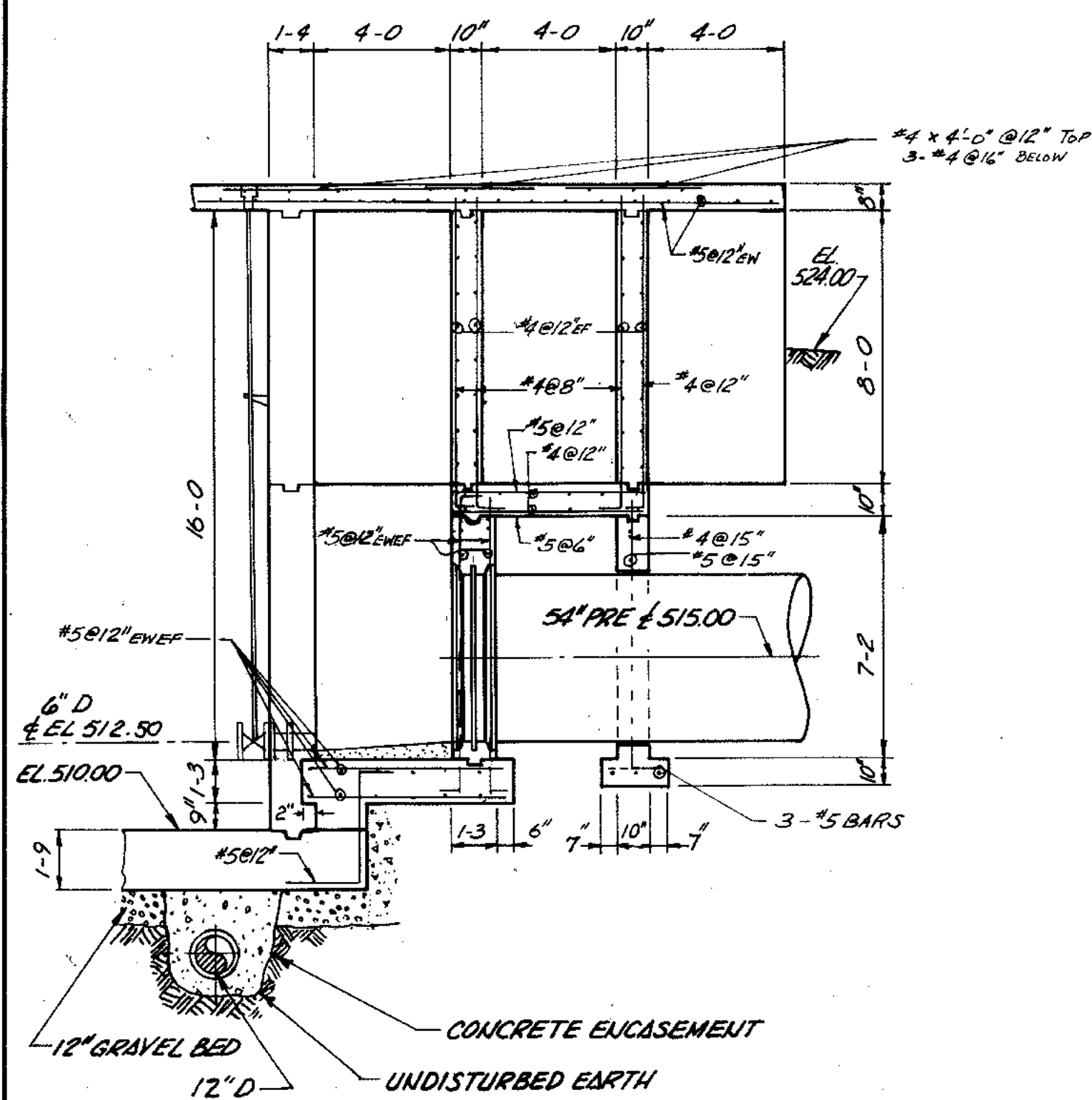
DRAWING NO
255-230-90



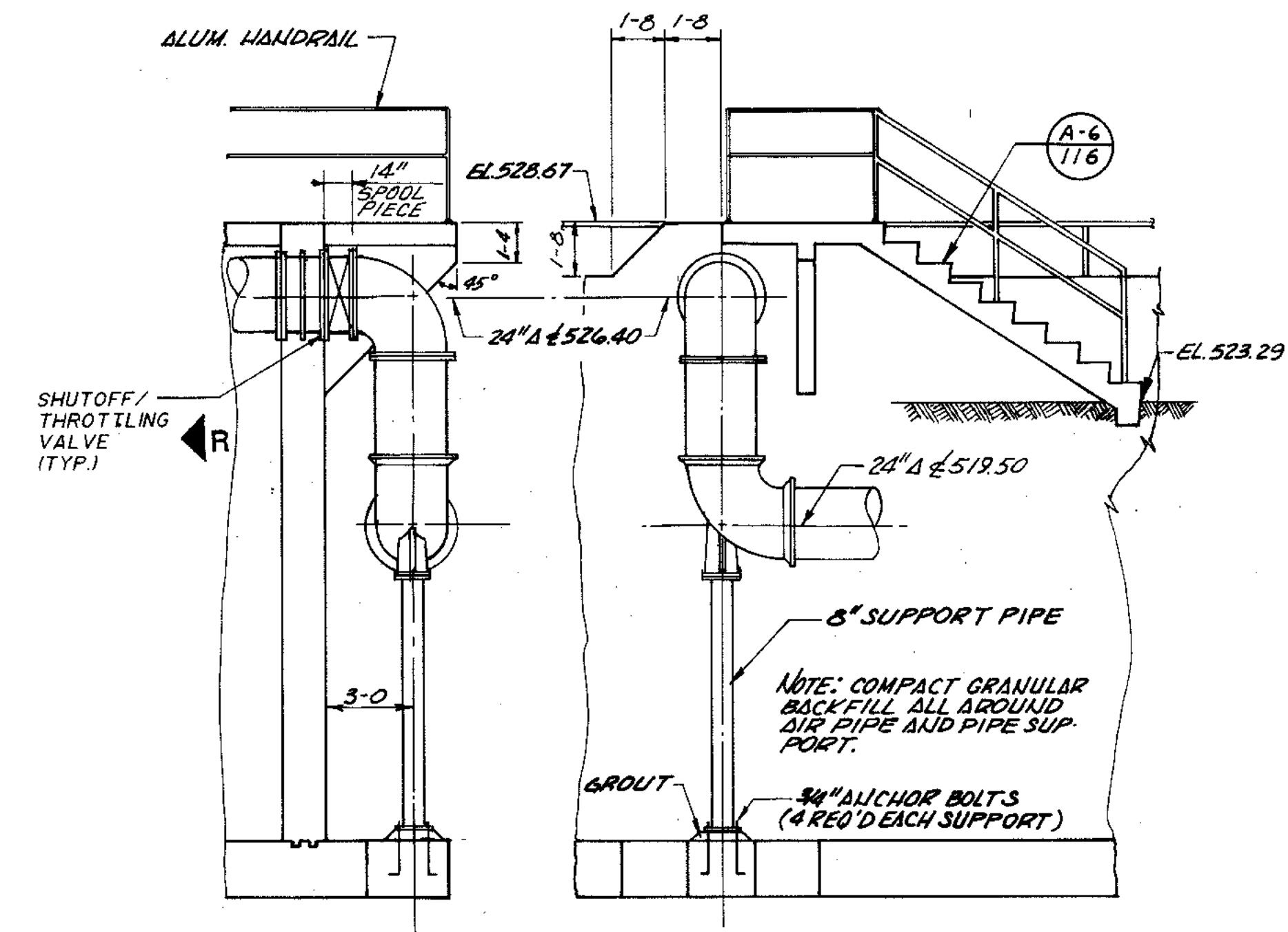
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|------------------------|------|
| OVERLAY IDENTIFICATION | DATE |
| COMPOSITE | 7/2 |
| OVERLAY | 7/8 |
| SCREEN | 8/25 |
| PROJECT NO. | |
| DATE | |

RECORD DRAWING 1/31/91 DJP

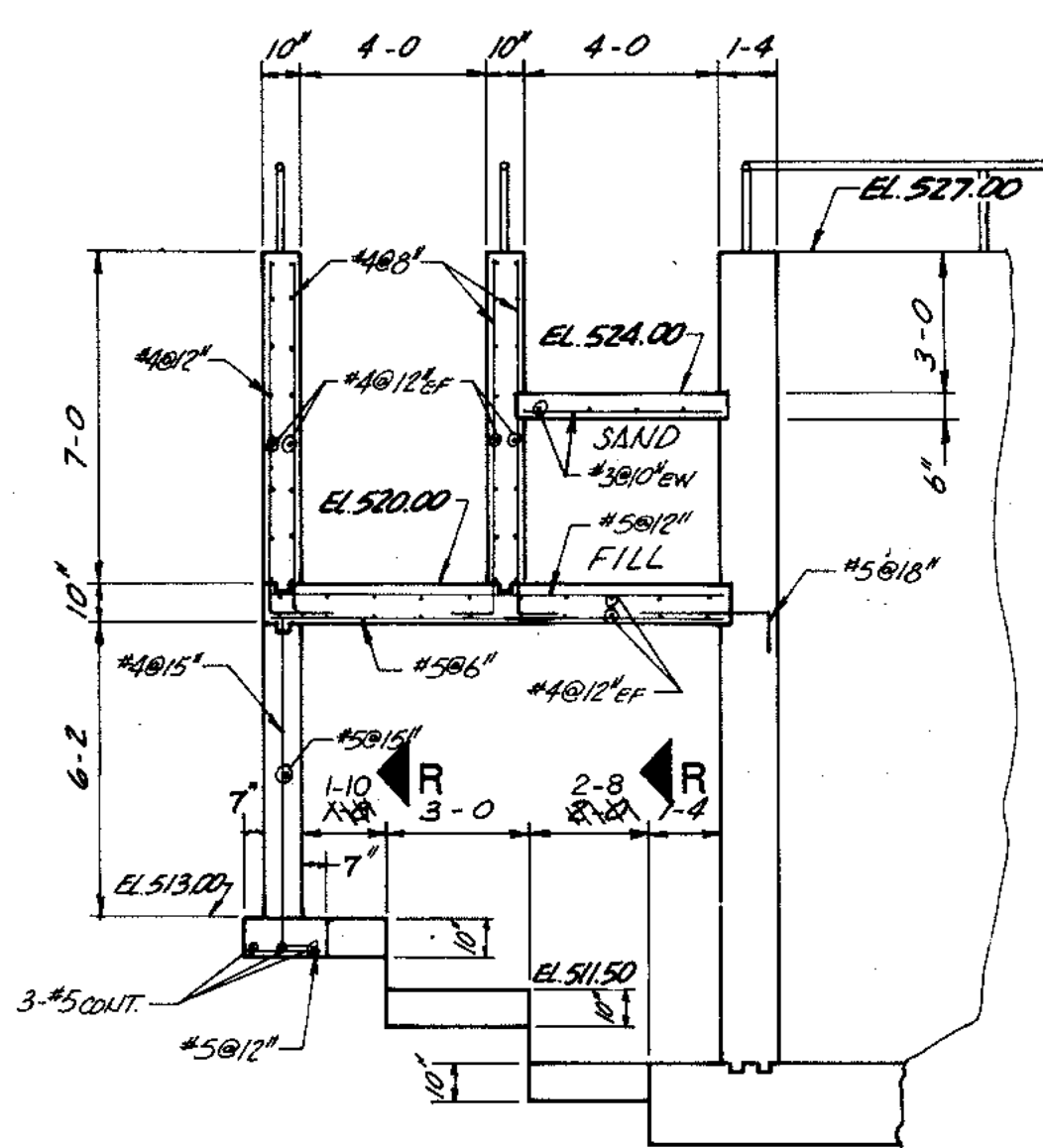
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|--|---|-------------------------------|
| <p>STRAND ASSOCIATED INC. CONSULTING ENGINEERS 910 West Winger Drive Madison, Wisconsin 53715 Tel: (608) 251-4943</p> | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT AERATION TANKS-SECTIONS-2 NORTH BATTERY</p> | |
| | <p>SCALE AS SHOWN</p> | <p>DATE</p> |
| <p>Robert E. Hamilton CONSULTING ENGINEERS, P.C. JOLIET, ILLINOIS 60435</p> | | <p>JULIET, ILLINOIS 60435</p> |



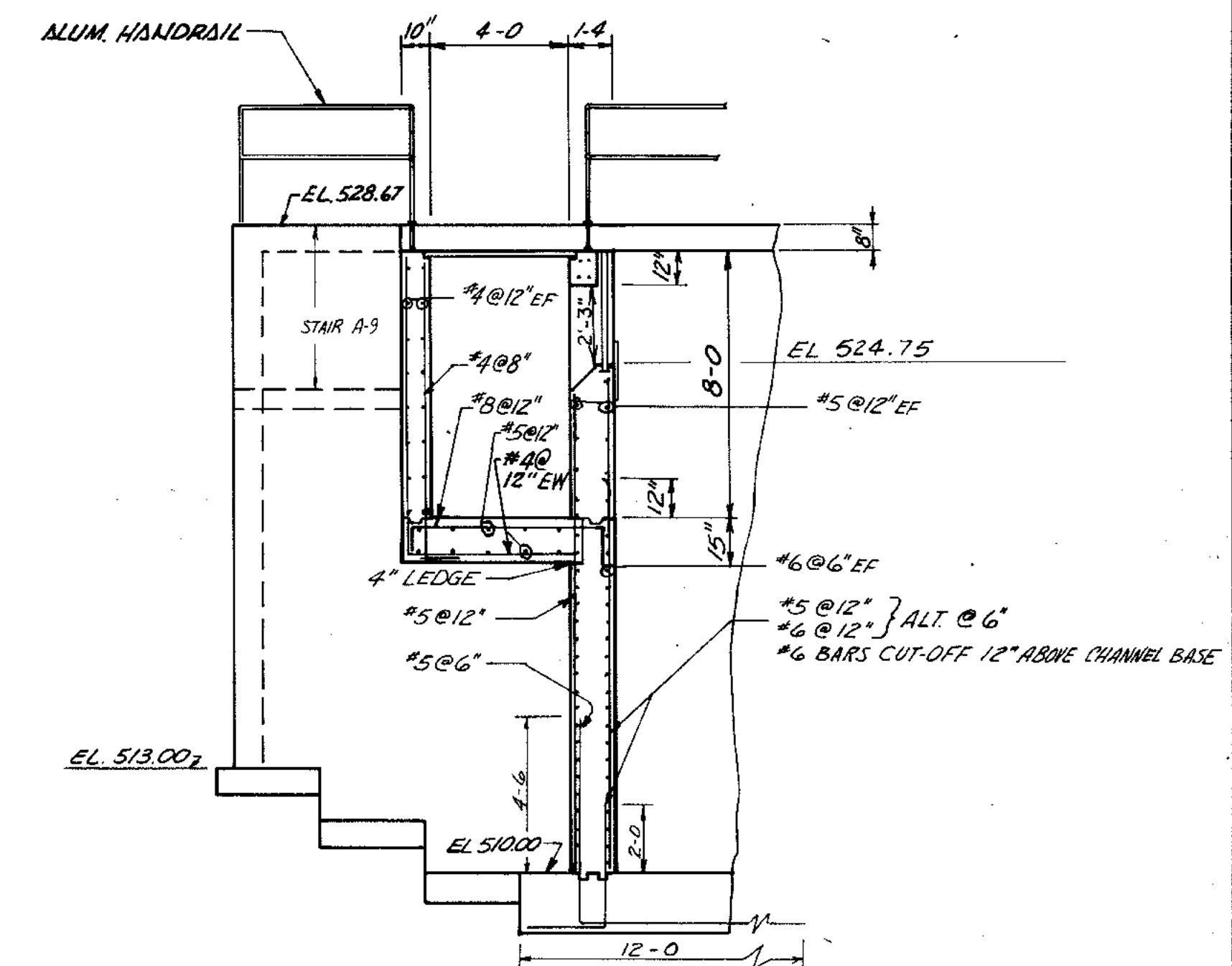
SECTION 7
1/4" = 1-0



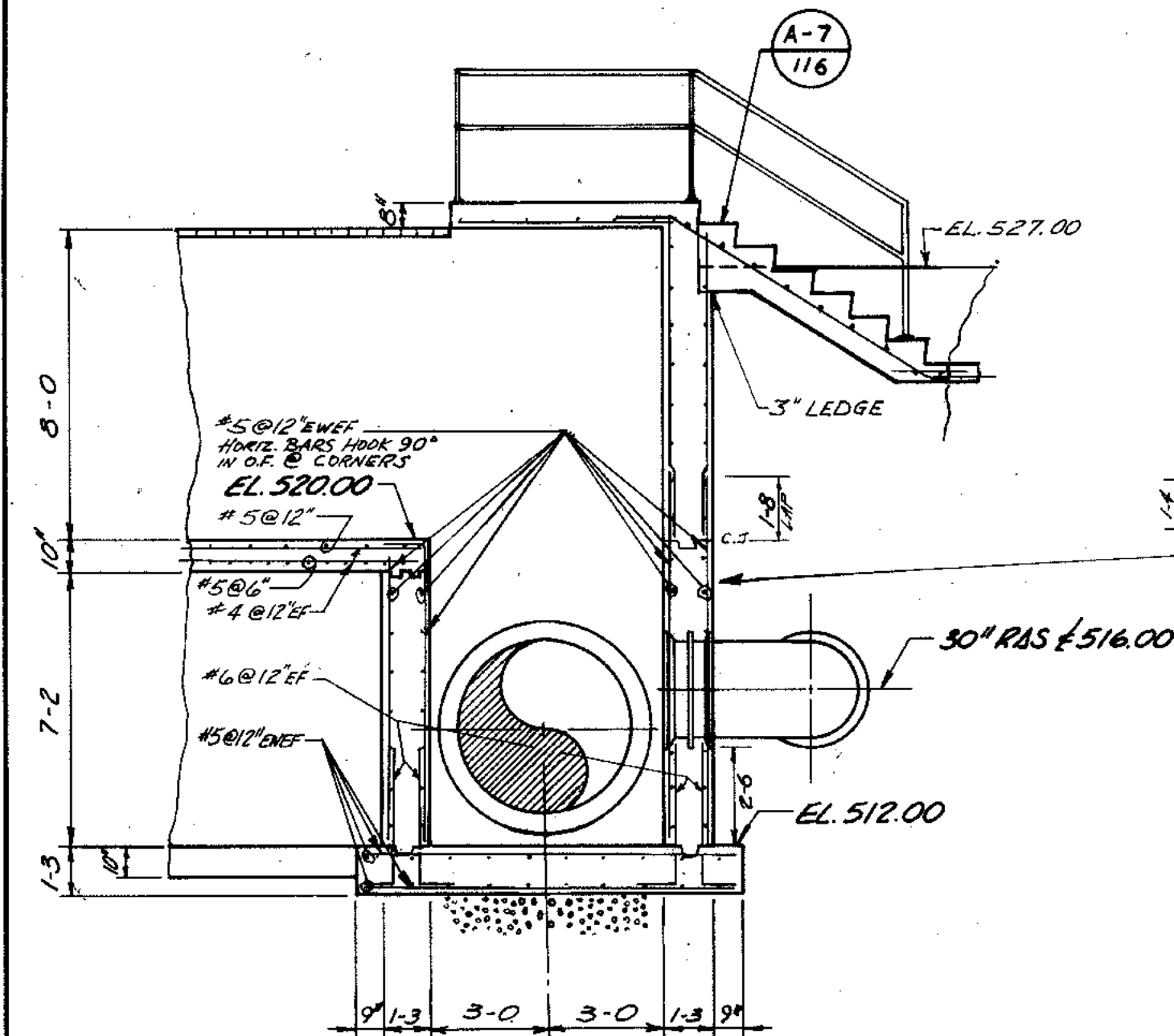
SECTION 5
1/4" = 1-0



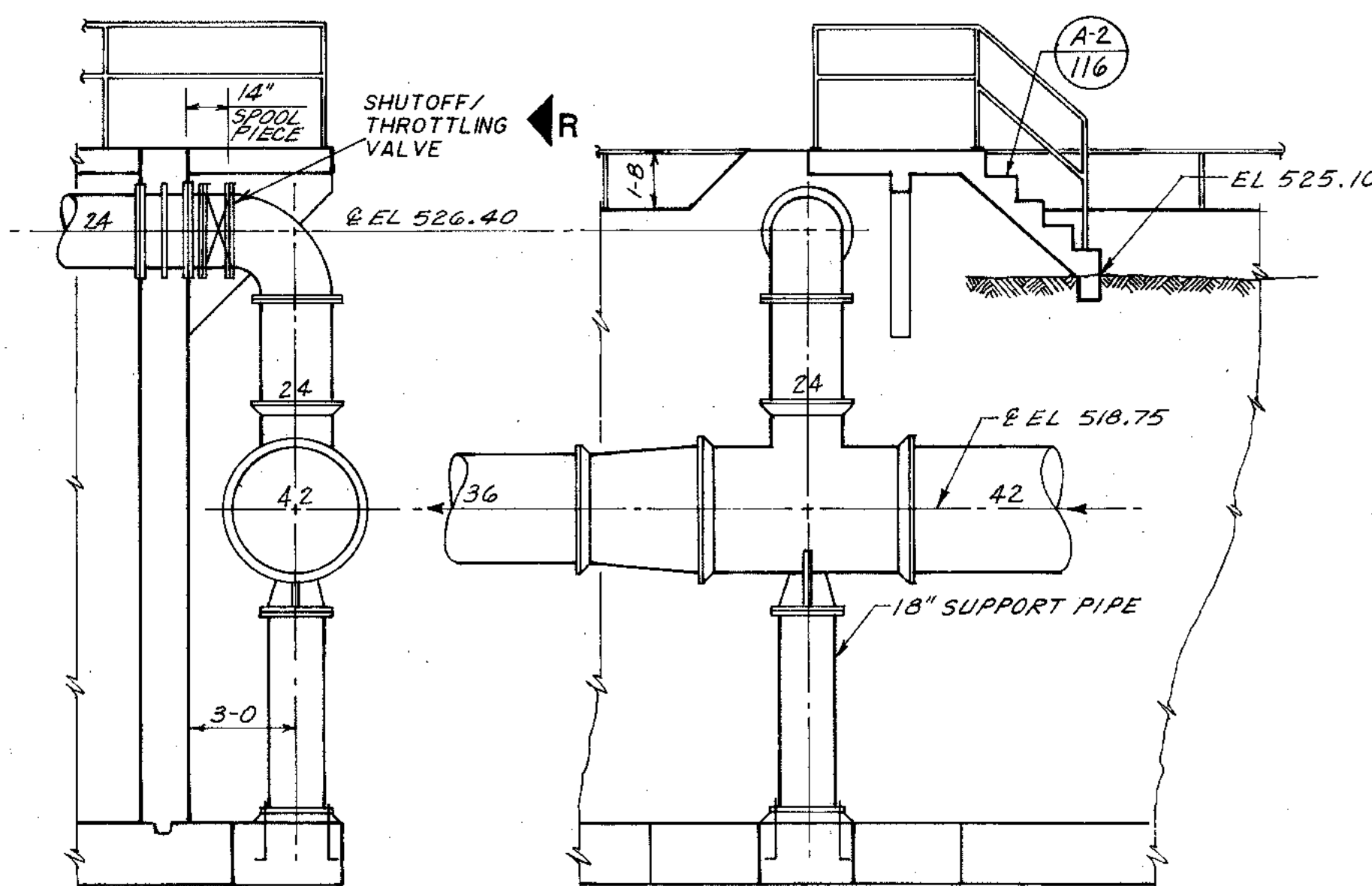
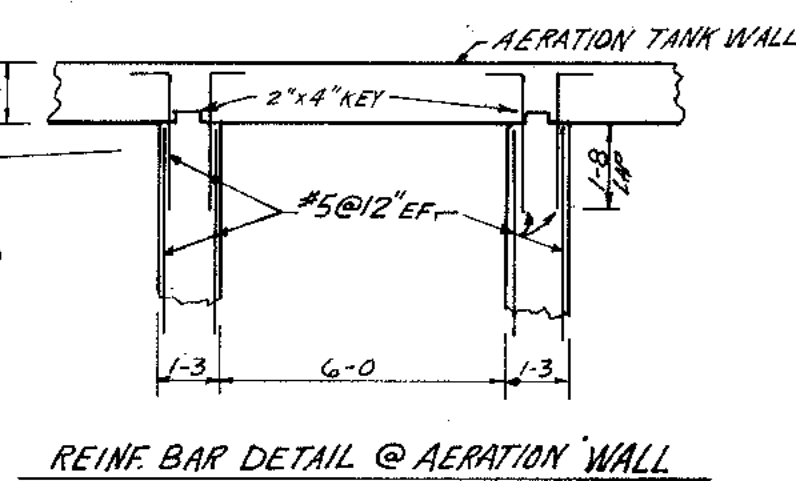
SECTION 6
1/4" = 1-0



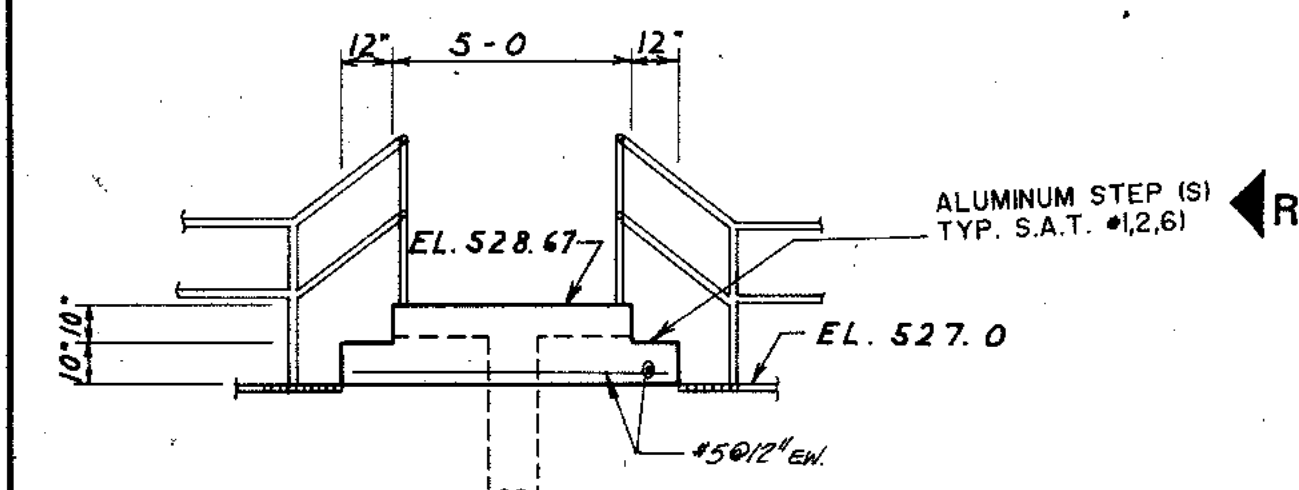
SECTION 4
1/4" = 1-0



SECTION 8
1/4" = 1-0



SECTION 9
1/4" = 1-0



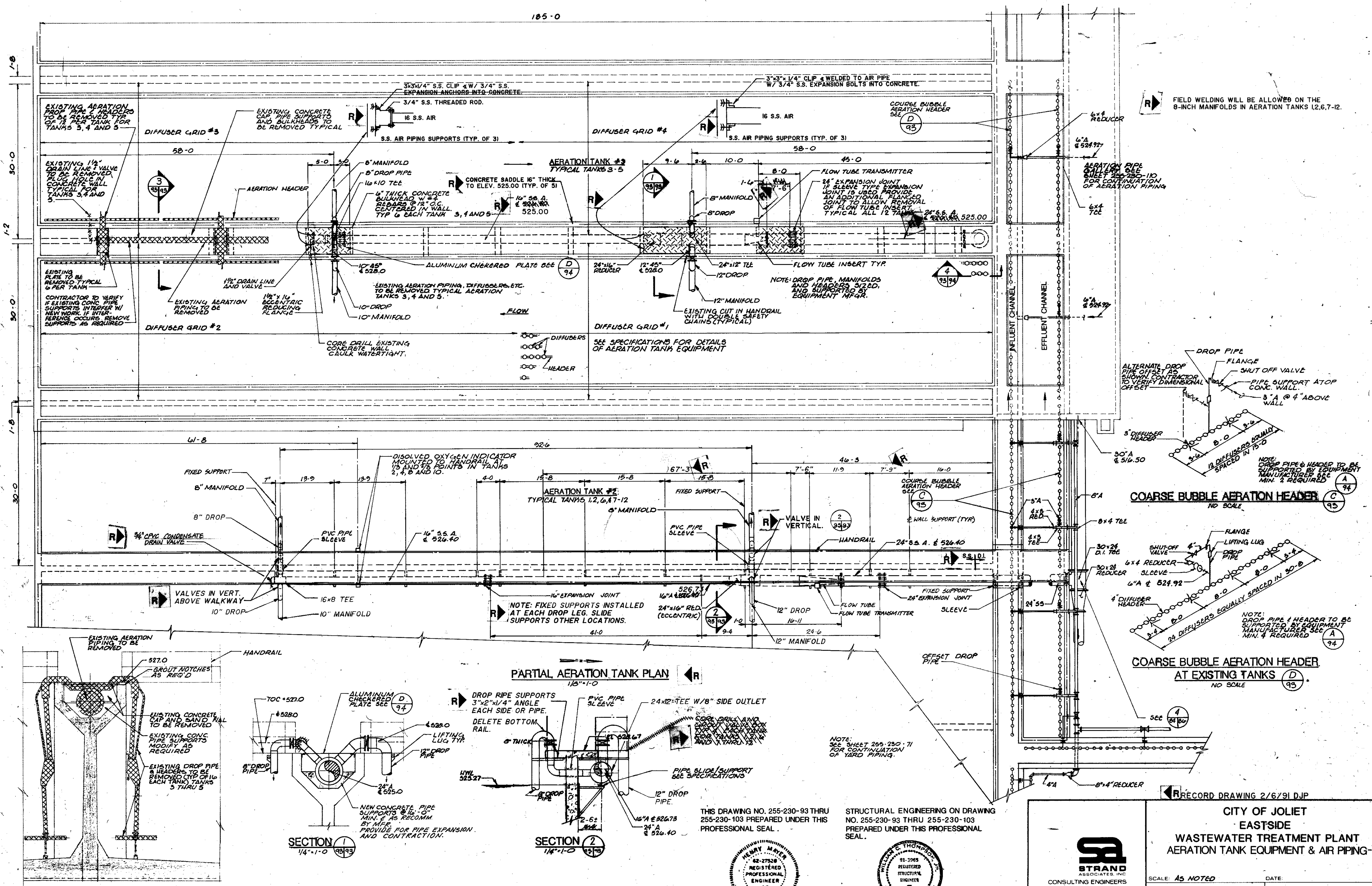
SECTION A
1/4" = 1-0

R CLARIFICATION
ALL PIPING OUTSIDE OF THE AERATION TANK SHALL BE UNLINED DUCTILE IRON AS SPECIFIED IN IBI. B. OF THE SPECIFICATIONS.

| | | |
|------------------------|-----------|---------|
| OVERLAY IDENTIFICATION | COMPOSITE | DATE |
| PROJECT NO. | 78 | 8/28/92 |
| DATE | 78 | 8/28/92 |
| | 78 | 8/28/92 |
| | 78 | 8/28/92 |

R RECORD DRAWING 1/31/91 DJP.

| | | |
|---|---|----------------------------------|
| | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT AERATION TANKS - SECTIONS & DETAILS</p> | |
| | <p>SCALE: AS SHOWN</p> | <p>DATE</p> |
| <p>910 West Wingra Drive Madison, Wisconsin 53715 Tel: (608) 251-4843</p> | <p>Robert E. Hamilton CONSULTING ENGINEERS, P.C. JOLIET, ILLINOIS 60435</p> | <p>DRAWING NO 255-230-92</p> |



FIELD WELDING WILL BE ALLOWED ON THE 8-INCH MANIFOLDS IN AERATION TANKS 1,2,6,7-12.

ALTERNATE DROP PIPE OFFSET AS SHOWN. CONTRACTOR TO VERIFY DIMENSIONAL OFFSET.

COARSE BUBBLE AERATION HEADER (C) 95

COARSE BUBBLE AERATION HEADER AT EXISTING TANKS (D) 93

PARTIAL AERATION TANK PLAN

SECTION 1

SECTION 2

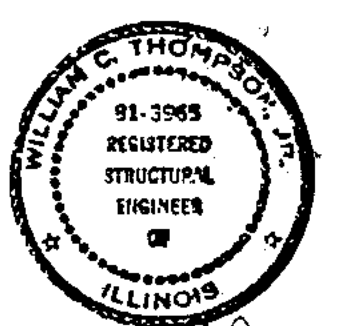
SECTION 3

NOTE: SEE SHEET 255-230-04 THRU 255-230-07 FOR STRUCTURAL MODIFICATIONS OF EXISTING AERATION TANKS 3,4, AND 5.

NOTE: SEE SHEET 255-230-08 THRU 255-230-12 FOR AERATION TANK DIMENSIONS AND REINFORCING STEEL FOR NEW AERATION TANKS 1,2,6 AND 7 THRU 12.

THIS DRAWING NO. 255-230-93 THRU 255-230-103 PREPARED UNDER THIS PROFESSIONAL SEAL.

STRUCTURAL ENGINEERING ON DRAWING NO. 255-230-93 THRU 255-230-103 PREPARED UNDER THIS PROFESSIONAL SEAL.



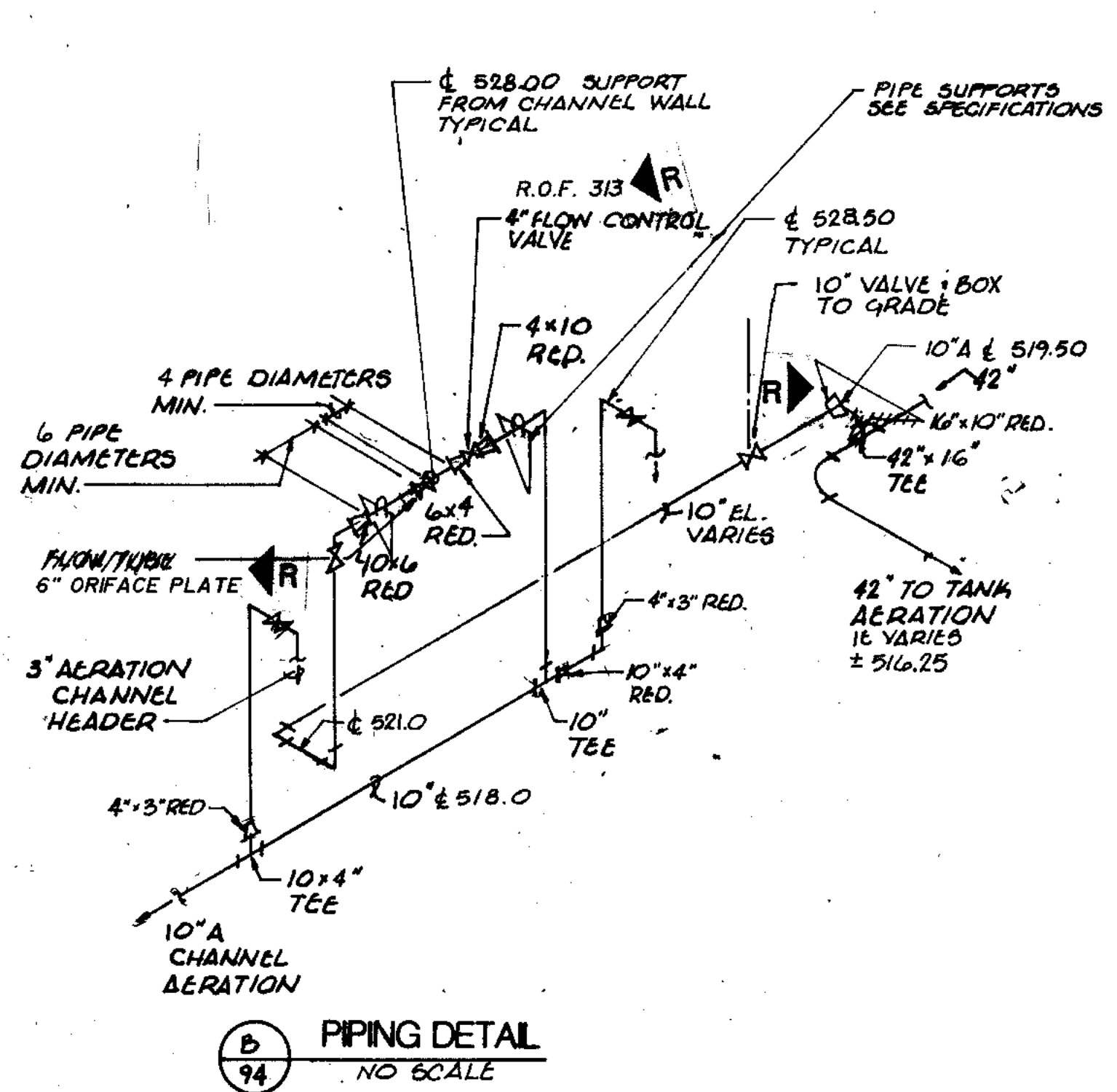
RECORD DRAWING 2/6/91 DJP

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
AERATION TANK EQUIPMENT & AIR PIPING-1

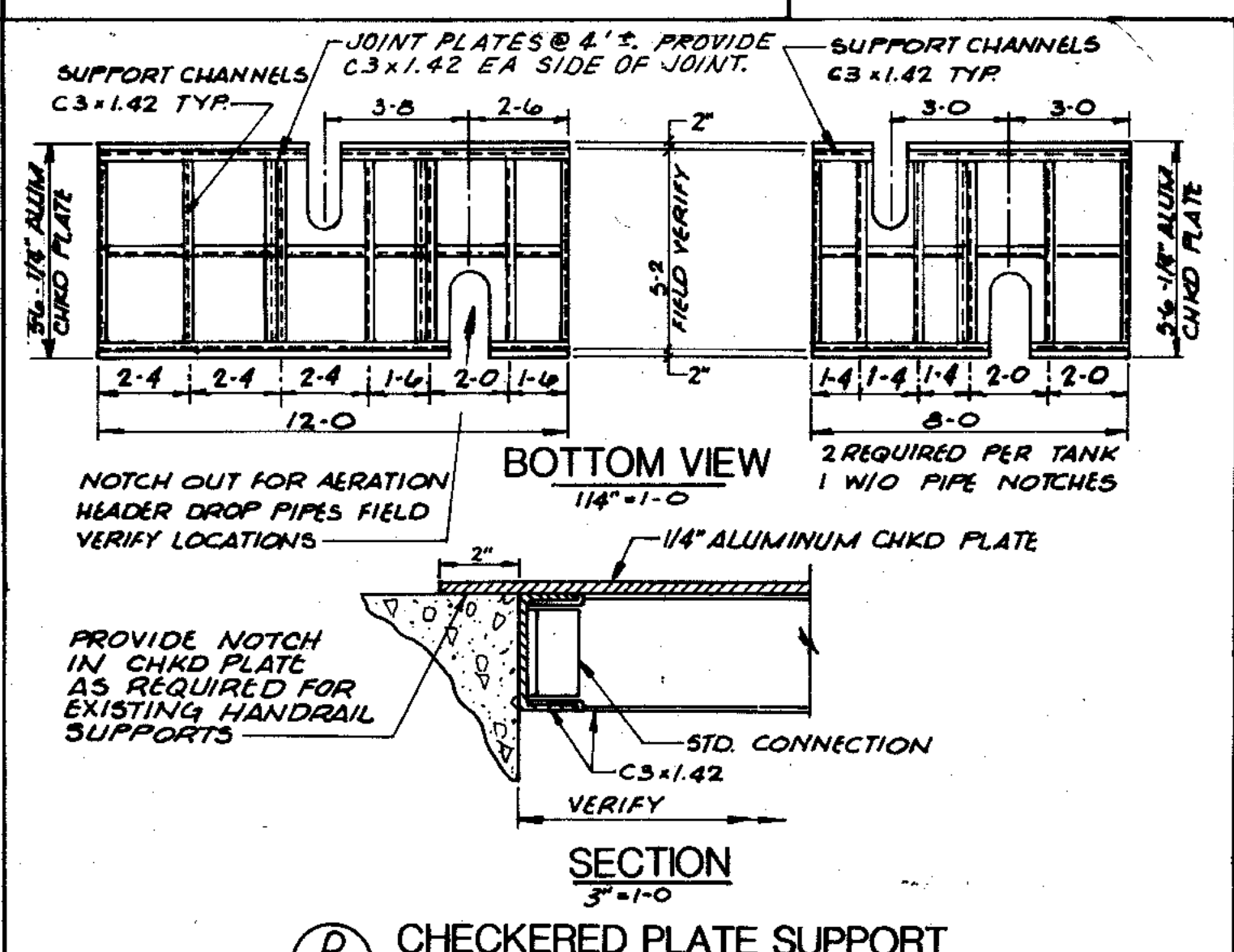
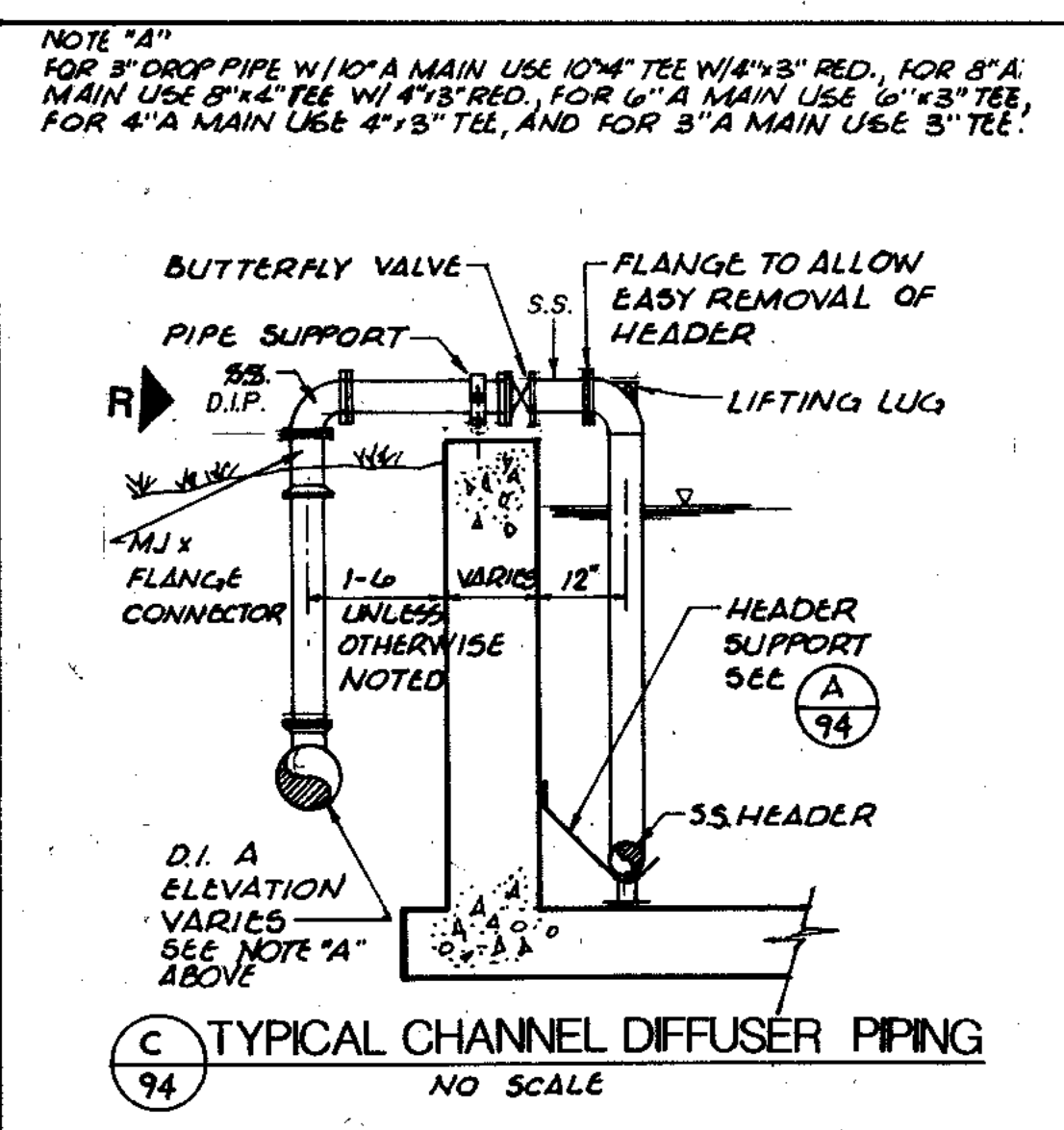
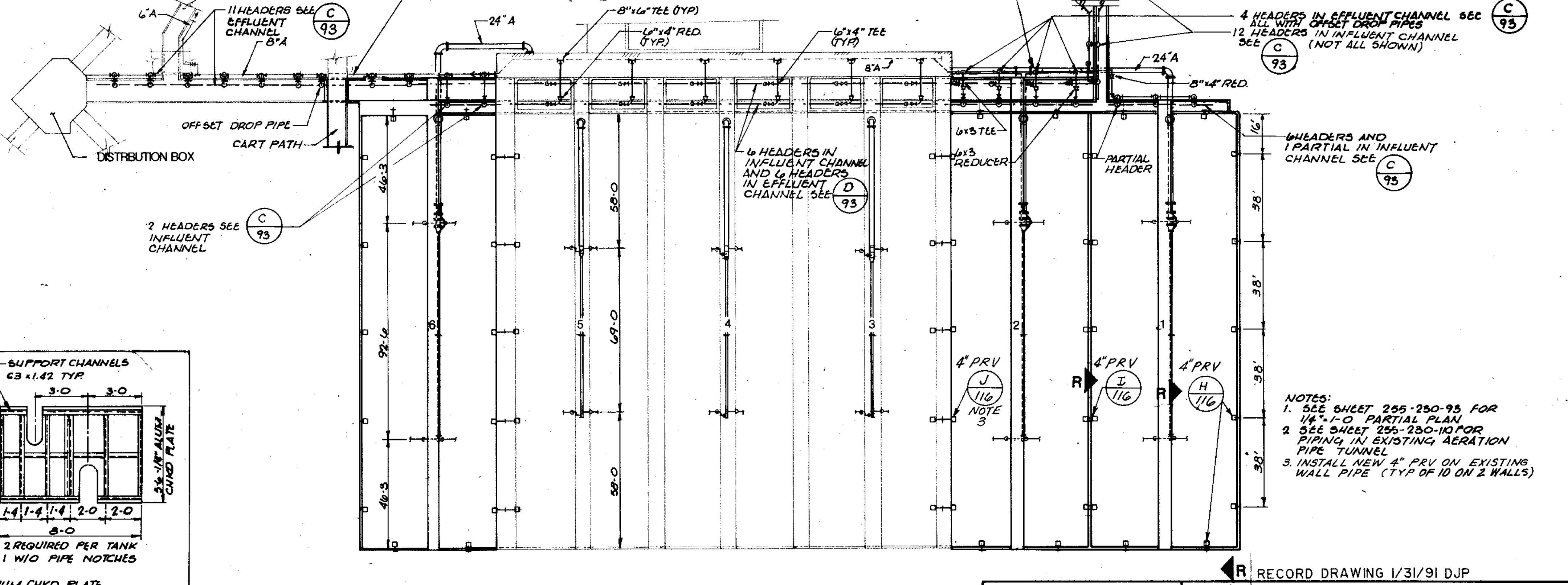
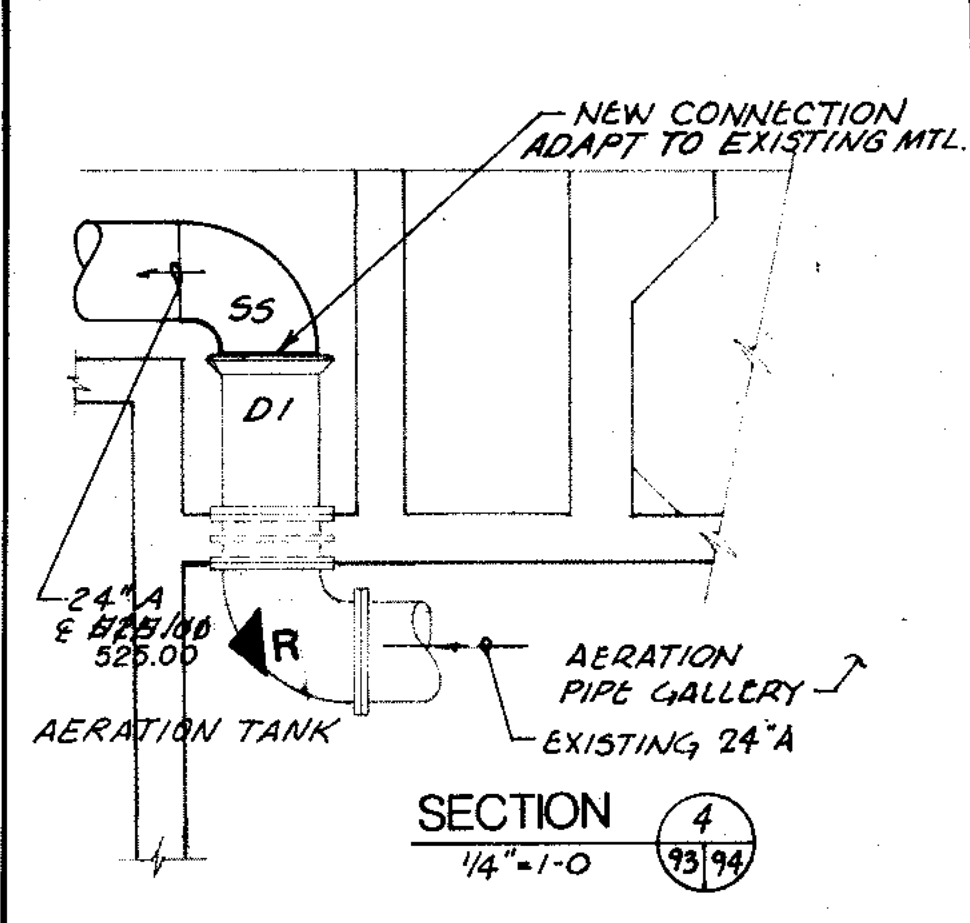
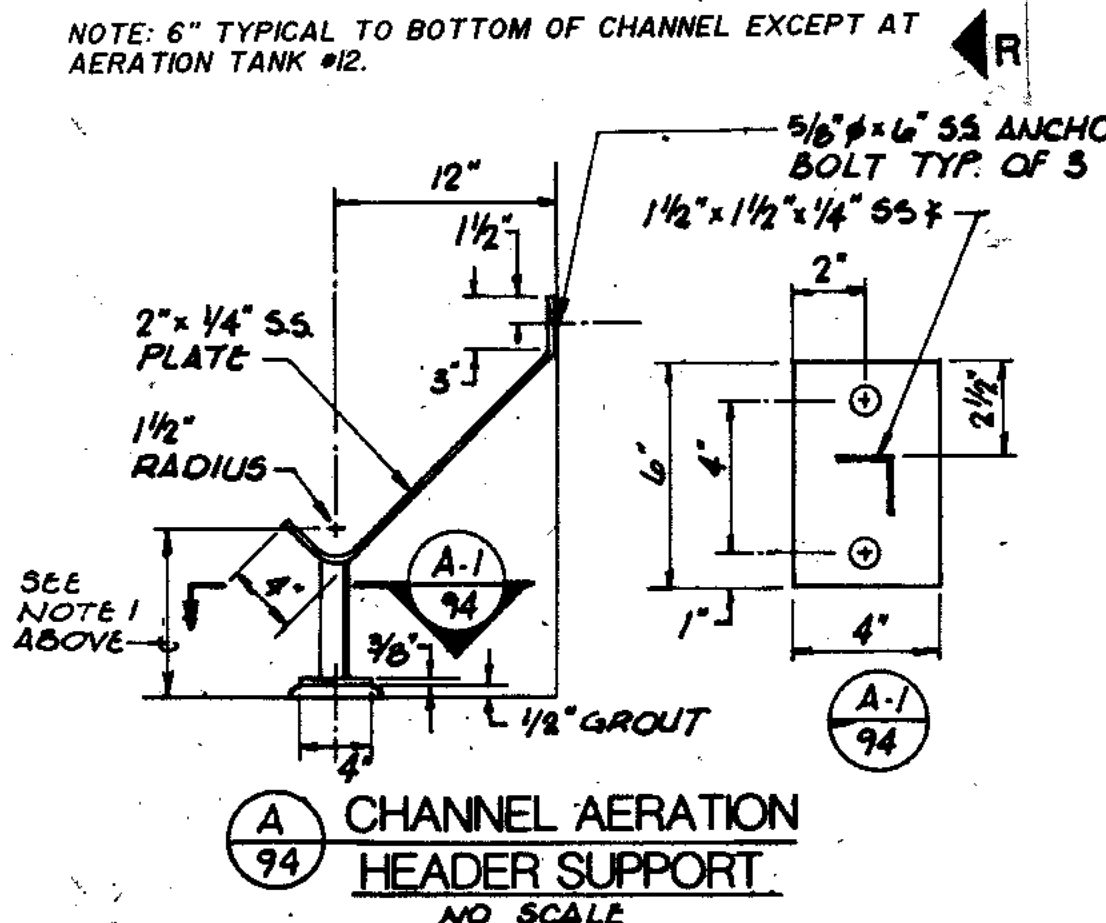
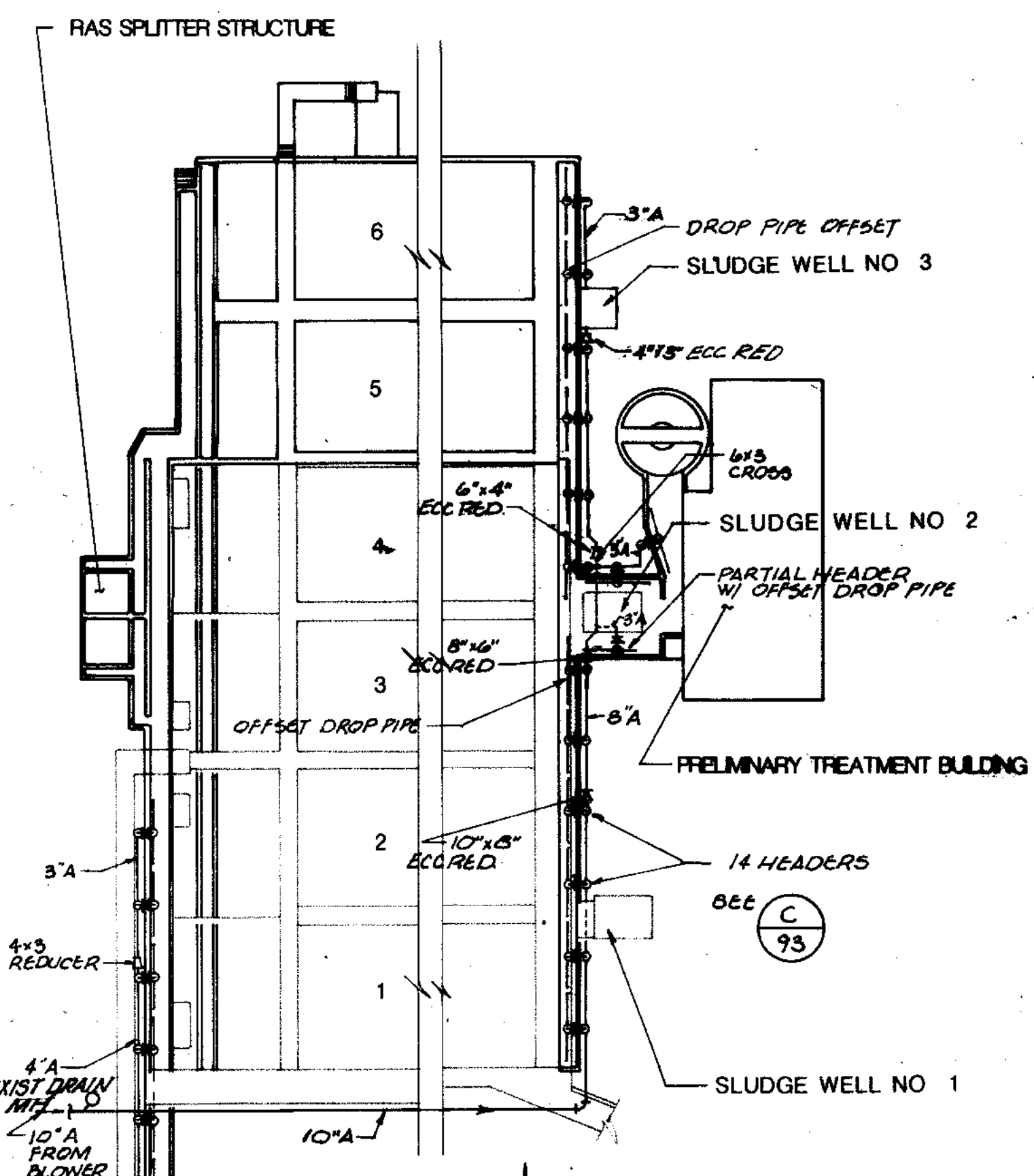
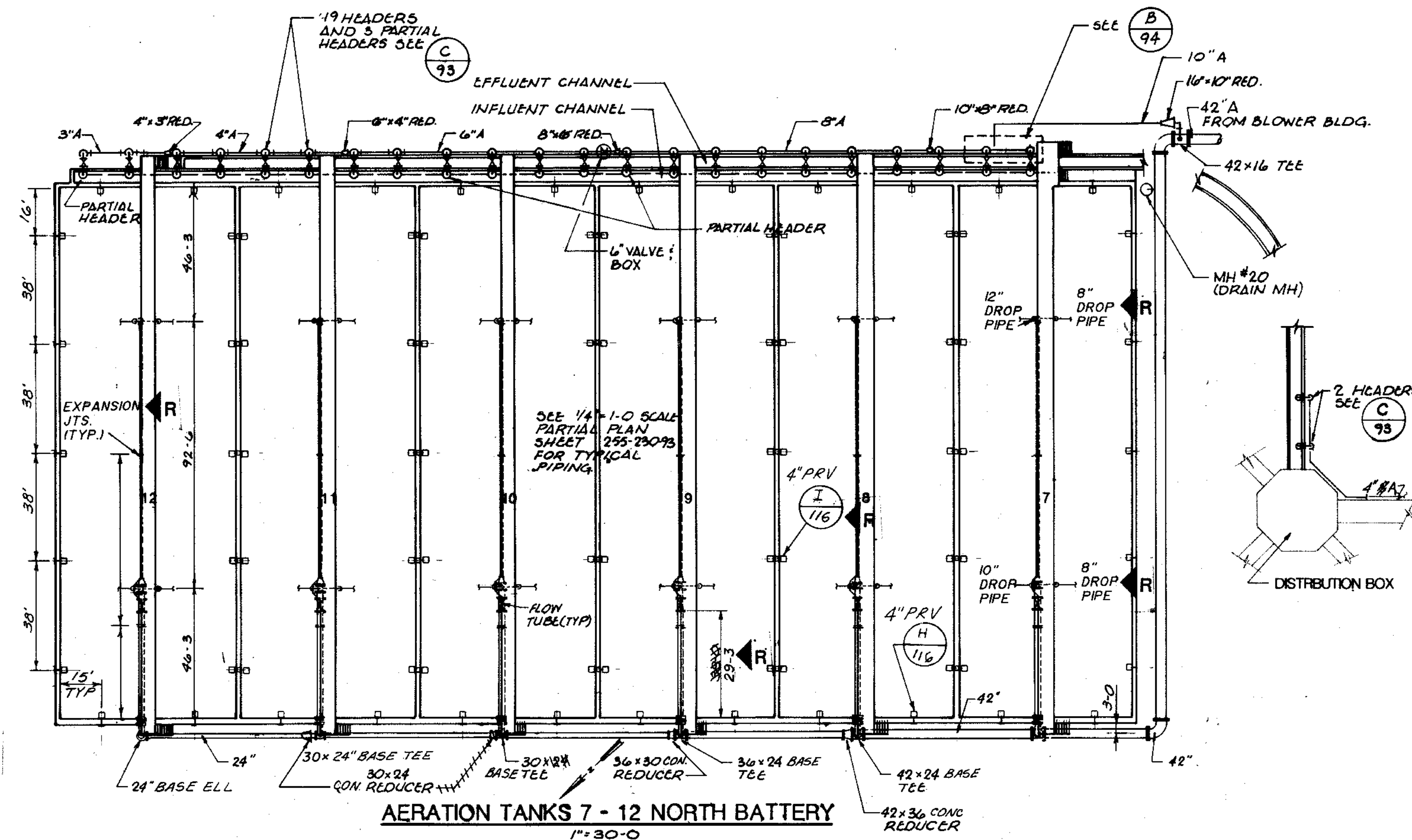
SCALE: AS NOTED DATE: DRAWING NO: 255-230-93

Beijing Consultants
11111 Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435 (815) 729-1800

OVERLAY IDENTIFICATION
COMPOSITE AT 60-95 AT 17-93
OVERLAY AT 60-95 AT 17-93
PROJECT NO. 5
DATE



ALL PIPING 10-INCH AND SMALLER SHOWN IN DETAIL B/94 SHALL BE UNLINED DUCTILE IRON AS SPECIFIED IN 1511.B. OF THE SPECIFICATIONS.



NOTES:
 1. SEE SHEET 255-250-95 FOR 1/4\"/>

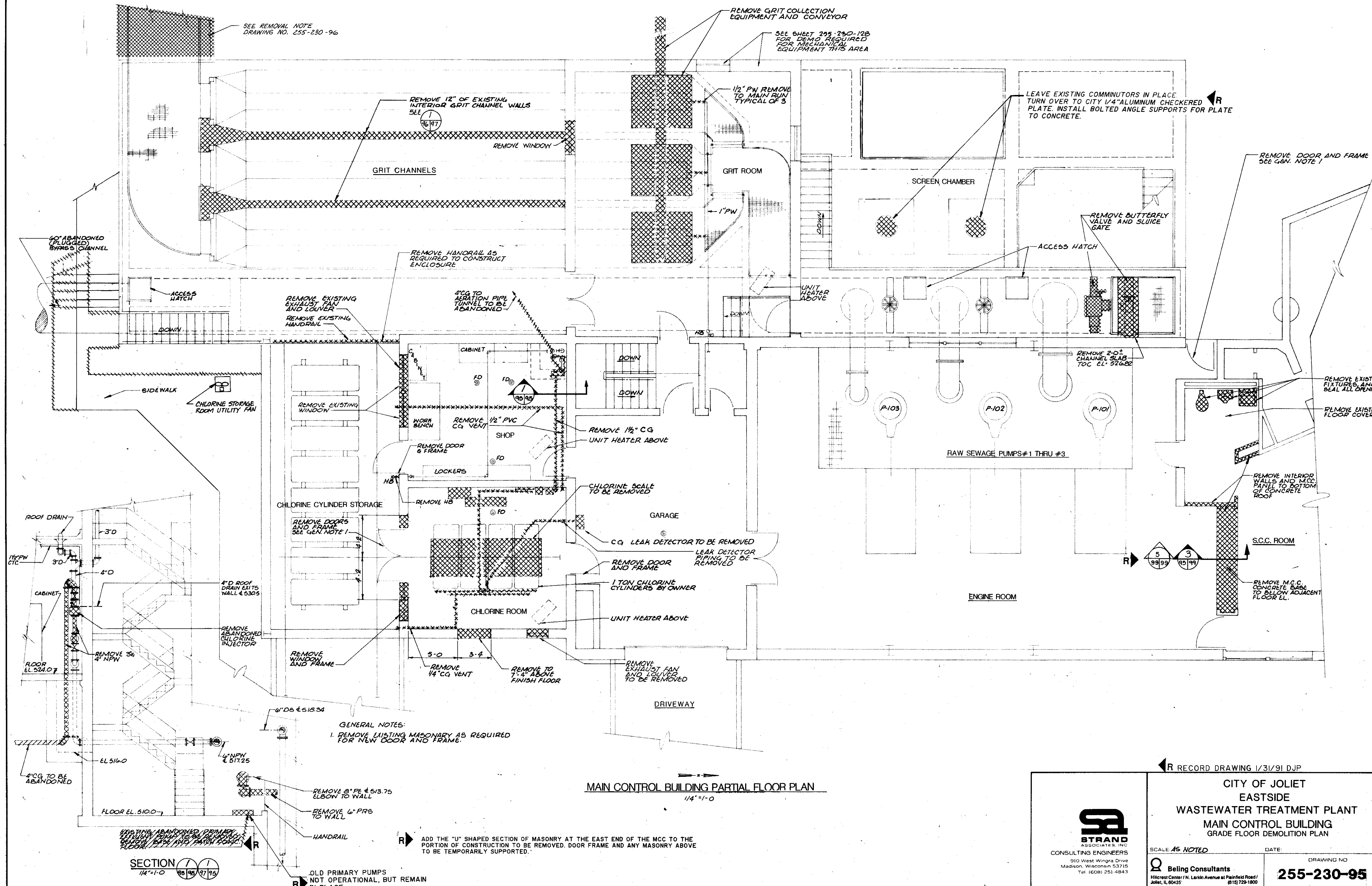
CITY OF JOLIET
 EASTSIDE
 WASTEWATER TREATMENT PLANT
 AERATION TANK EQUIPMENT & AIR PIPING-2

STRAND
 CONSULTING ENGINEERS
 900 West Wabasha Drive
 Madison, Wisconsin 53715
 TEL: 608 251-0441

Beijing Consultants
 11000 Center / N. Larkin Avenue at Pleasant Road
 Joliet, IL 60435

255-230-94

COMPOSITE OVERLAY SCREEN
 PROJECT NO. AT-67-94
 DATE AT-68-94
 AT-71-94
 AT-74-94



| | | | | | | | | | | | | | | | | | | | | | |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----|
| OVERLAY IDENTIFICATION | MCB-41-95 | MCB-42-95 | MCB-43-95 | MCB-44-95 | MCB-45-95 | MCB-46-95 | MCB-47-95 | MCB-48-95 | MCB-49-95 | MCB-50-95 | MCB-51-95 | MCB-52-95 | MCB-53-95 | MCB-54-95 | MCB-55-95 | MCB-56-95 | MCB-57-95 | MCB-58-95 | MCB-59-95 | MCB-60-95 | |
| OVERLAY NO. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| DATE | | | | | | | | | | | | | | | | | | | | | |

SECTION 1/1
1/4" = 1'-0" 05/95 07/95

MAIN CONTROL BUILDING PARTIAL FLOOR PLAN
1/4" = 1'-0"

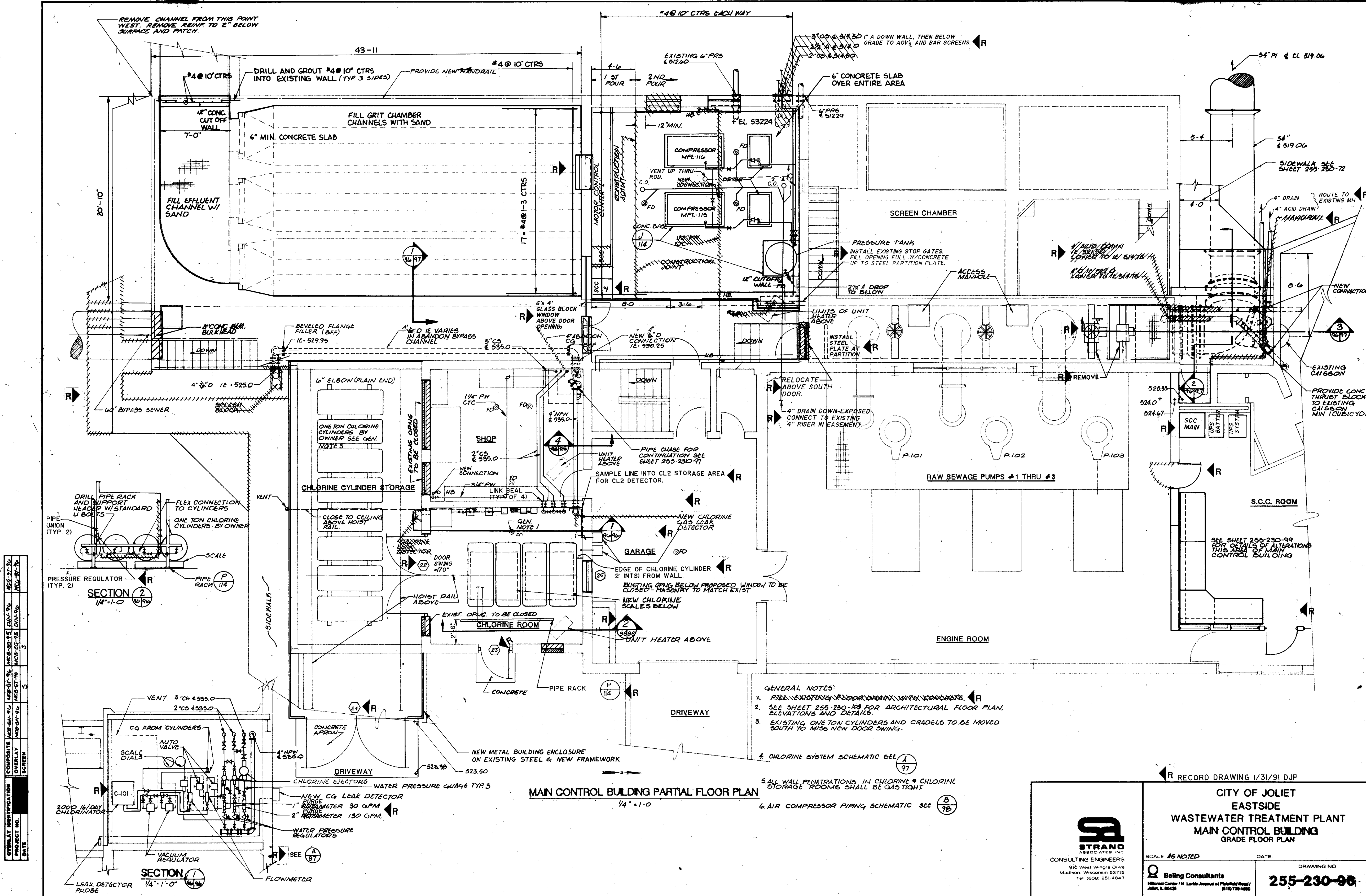
GENERAL NOTES:
1. REMOVE EXISTING MASONRY AS REQUIRED FOR NEW DOOR AND FRAME.

ADD THE "U" SHAPED SECTION OF MASONRY AT THE EAST END OF THE MCC TO THE PORTION OF CONSTRUCTION TO BE REMOVED. DOOR FRAME AND ANY MASONRY ABOVE TO BE TEMPORARILY SUPPORTED.

OLD PRIMARY PUMPS NOT OPERATIONAL, BUT REMAIN IN PLACE.

RECORD DRAWING 1/31/91 DJP

| | | | |
|--|---|---------------------------------|----------------------------------|
| 910 West Wingra Drive Madison, Wisconsin 53715 Tel. (608) 251-4843 | CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT MAIN CONTROL BUILDING GRADE FLOOR DEMOLITION PLAN | SCALE: AS NOTED DATE: | DRAWING NO. 255-230-95 |
| | Beling Consultants 1100 West Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435 / (815) 729-1800 | | |



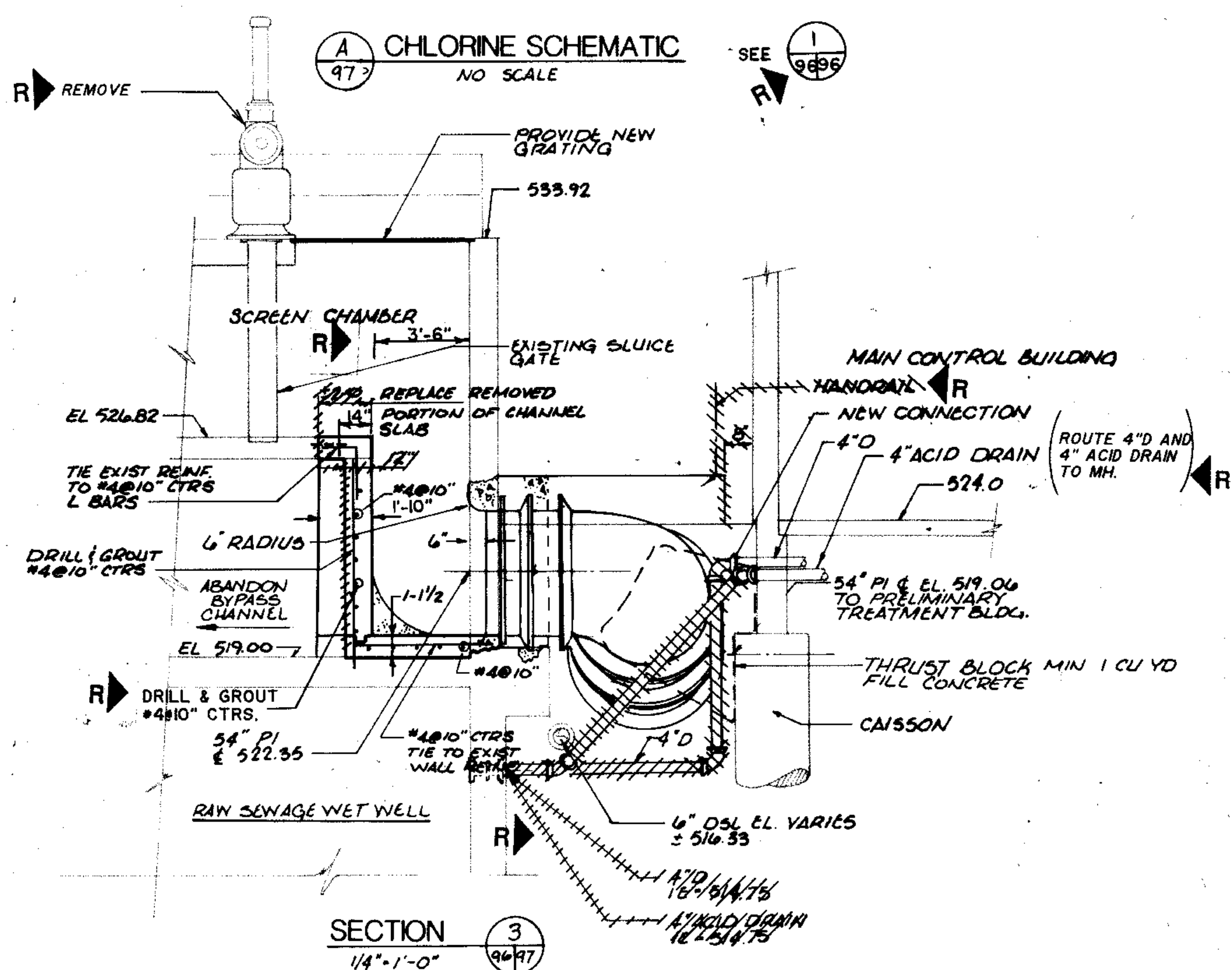
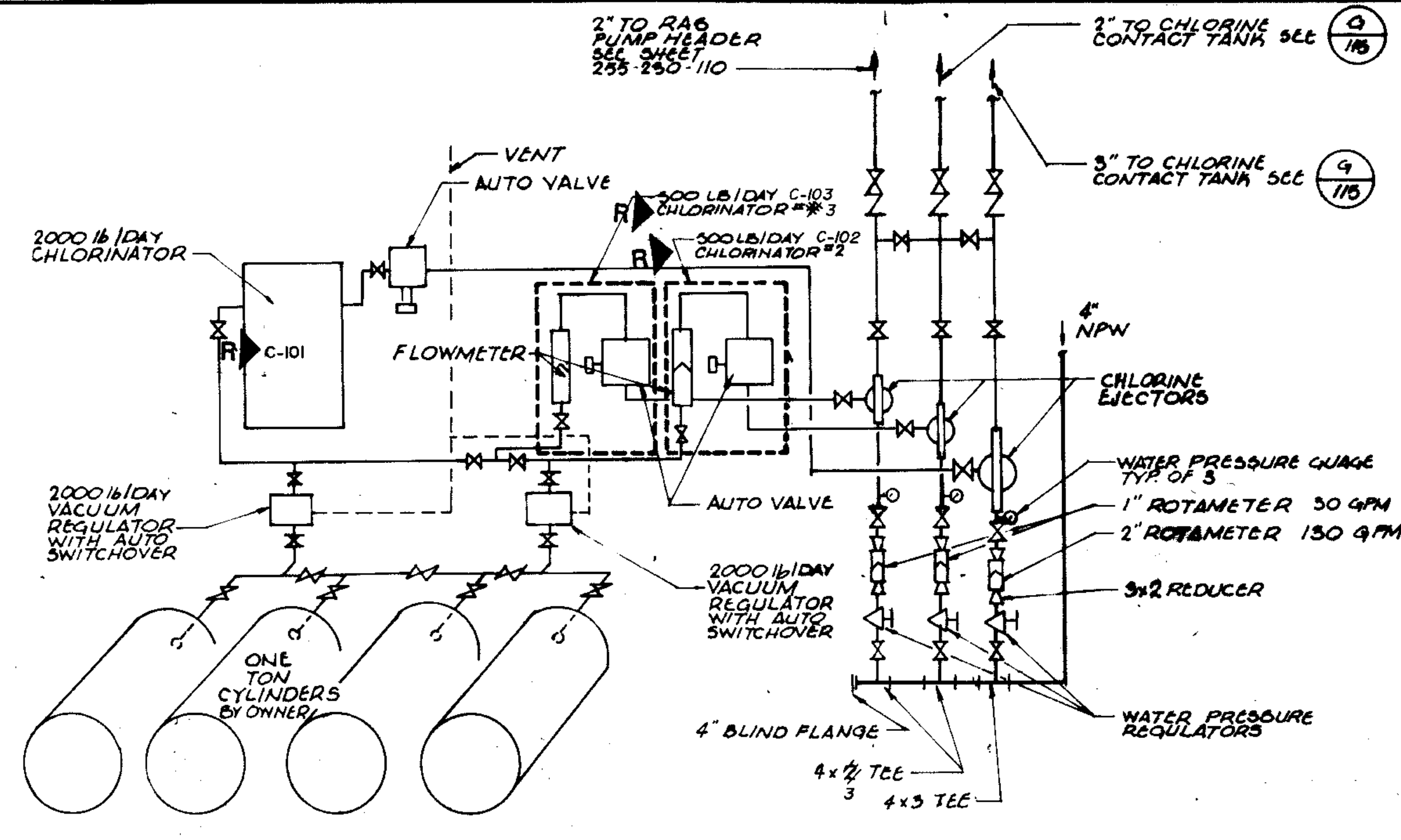
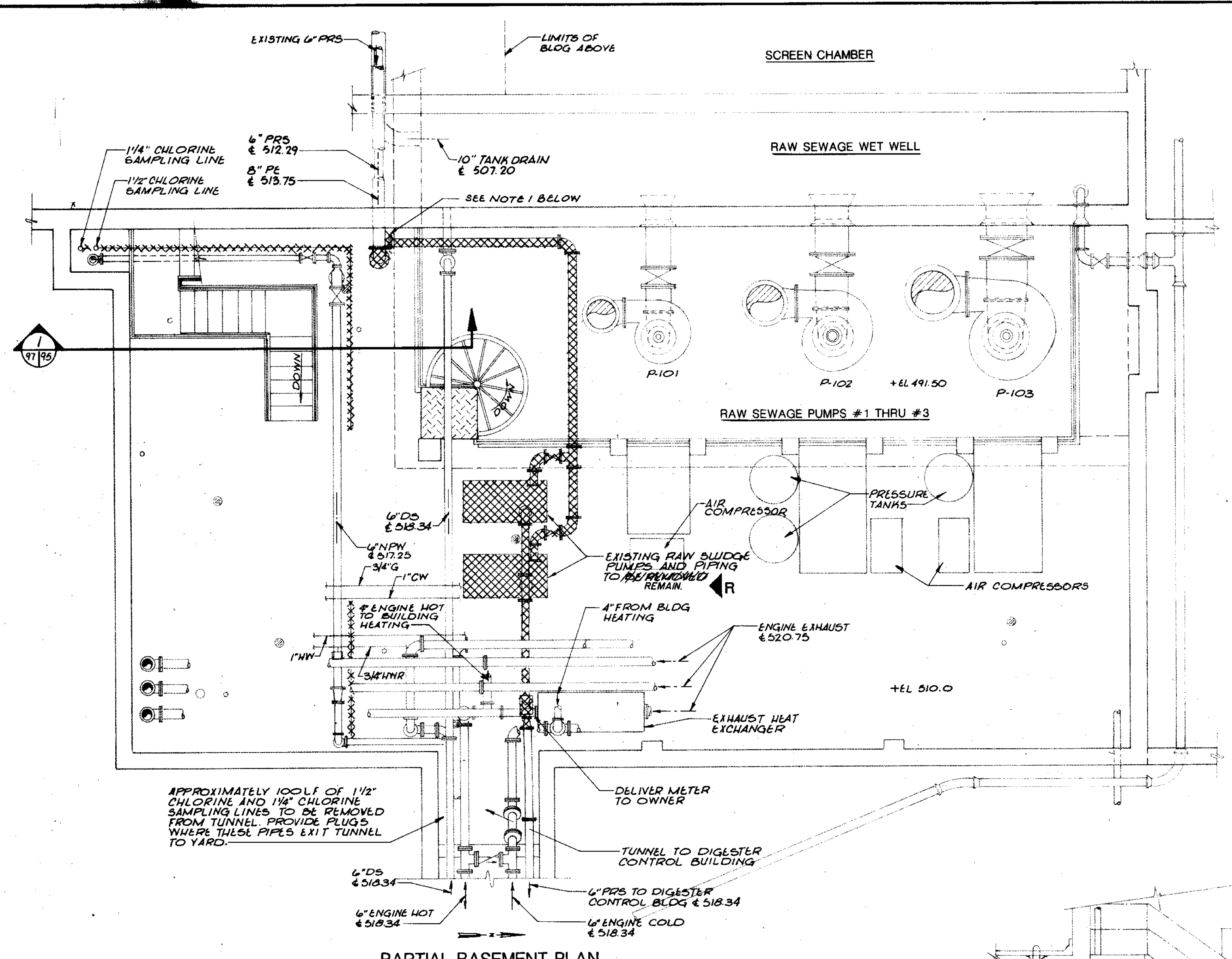
| | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|
| COMPOSITE | 10/21/91 | 10/21/91 | 10/21/91 | 10/21/91 | 10/21/91 |
| DESIGNED BY | W. J. GREEN | W. J. GREEN | W. J. GREEN | W. J. GREEN | W. J. GREEN |
| CHECKED BY | W. J. GREEN | W. J. GREEN | W. J. GREEN | W. J. GREEN | W. J. GREEN |
| DATE | 10/21/91 | 10/21/91 | 10/21/91 | 10/21/91 | 10/21/91 |

- GENERAL NOTES:
- SEE SHEET 255-230-103 FOR ARCHITECTURAL FLOOR PLAN, ELEVATIONS AND DETAILS.
 - EXISTING ONE TON CYLINDERS AND CRADLES TO BE MOVED SOUTH TO MISS NEW DOOR SWING.
 - CHLORINE SYSTEM SCHEMATIC SEE (A) 97
 - ALL WALL PENETRATIONS IN CHLORINE & CHLORINE STORAGE ROOMS SHALL BE GAS TIGHT.
 - AIR COMPRESSOR PIPING SCHEMATIC SEE (B) 98

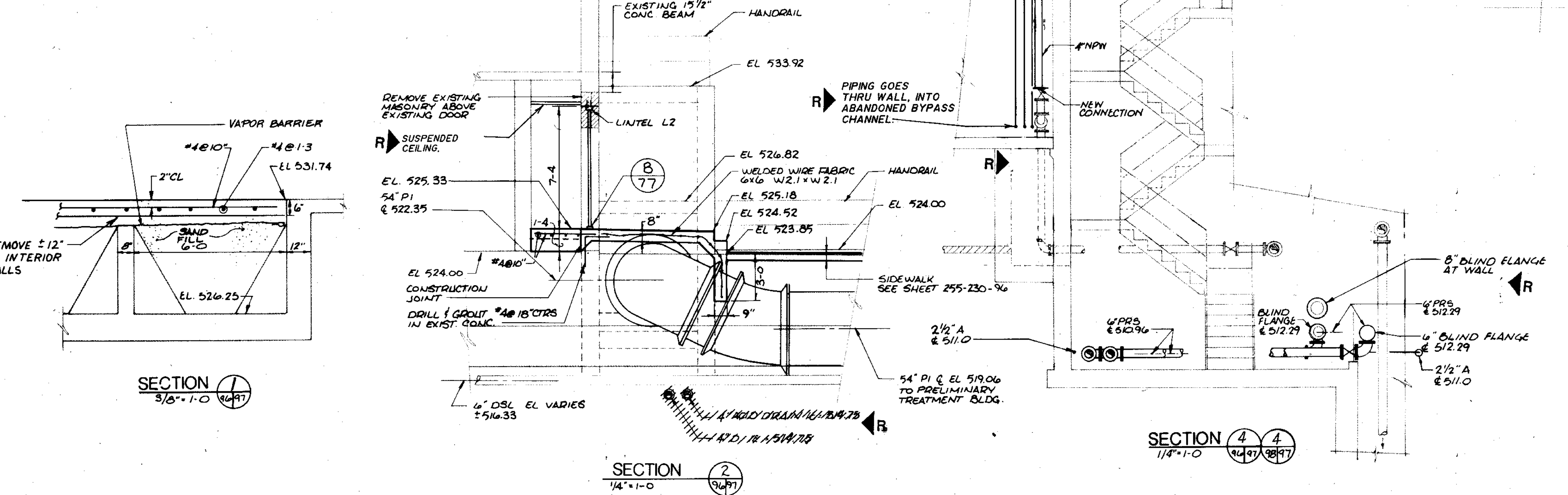
MAIN CONTROL BUILDING PARTIAL FLOOR PLAN
1/4" = 1'-0"

RECORD DRAWING 1/31/91 DJP

| | | | |
|--|--|----------------------------------|--|
| CONSULTING ENGINEERS 910 West Wingle Drive Madison, Wisconsin 53715 Tel: (608) 251-4843 | CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT MAIN CONTROL BUILDING GRADE FLOOR PLAN | | |
| | SCALE: AS NOTED | DATE: | |
| | Bellini Consultants 1100 West Center St. North Avenue at Parkland Road Joliet, IL 60438 | DRAWING NO. 255-230-98 | |
| | SHEET 37 OF 79 | | |

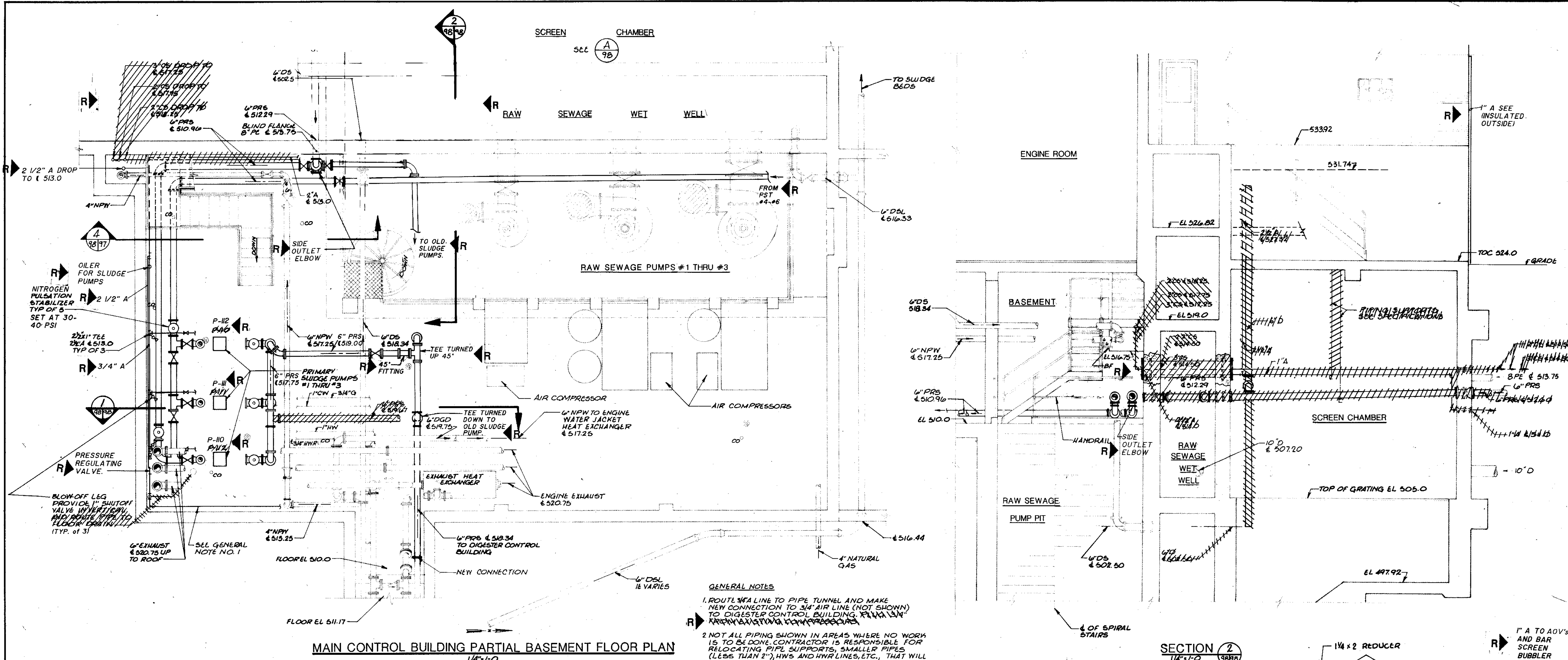


NOTE:
 1. CONTRACTOR SHALL PROVIDE CROSS CONNECTION WITH VALVE BETWEEN EXISTING RAW SLUDGE SUCTION PIPE AND NEW SLUDGE SUCTION LINE FROM PRIMARIES TO ALLOW USE OF EXISTING RAW SLUDGE PUMPS DURING CONSTRUCTION.



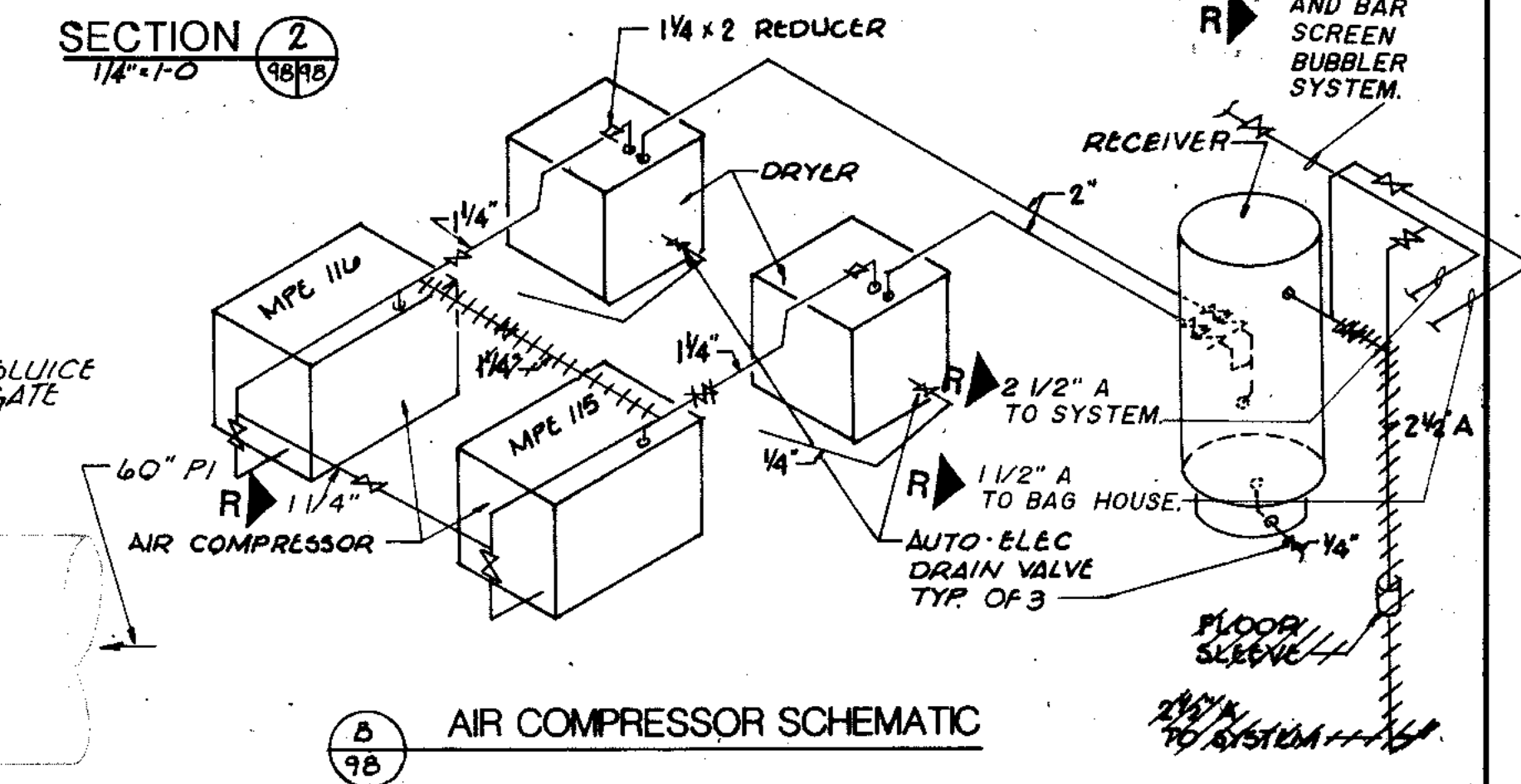
| | | |
|---|--|---------------------------------|
| 910 West Wingo Drive Madison, Wisconsin 53715 Tel: (608) 251-4841 | CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT MAIN CONTROL BUILDING BASEMENT FLOOR DEMOLITION PLAN | |
| | SCALE AS NOTED DATE | DRAWING NO 255-230-97 |

| | | |
|-----------|------|----|
| COMPOSITE | DATE | BY |
| OVERLAY | DATE | BY |
| SCREEN | DATE | BY |

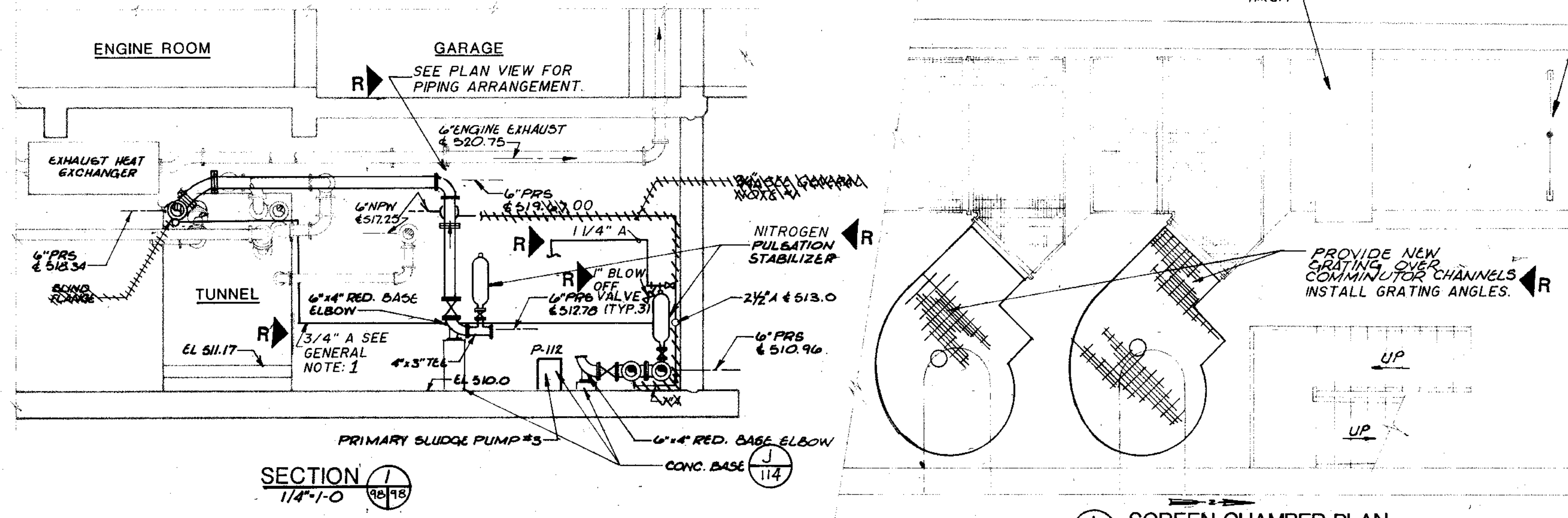


MAIN CONTROL BUILDING PARTIAL BASEMENT FLOOR PLAN
1/4" = 1'-0"

GENERAL NOTES
 1. ROUTE 3/4" AIR LINE TO PIPE TUNNEL AND MAKE NEW CONNECTION TO 3/4" AIR LINE (NOT SHOWN) TO DIGESTER CONTROL BUILDING. REMOVE EXISTING COMPRESSOR.
 2. NOT ALL PIPING SHOWN IN AREAS WHERE NO WORK IS TO BE DONE. CONTRACTOR IS RESPONSIBLE FOR RELOCATING PIPE SUPPORTS, SMALLER PIPES (LESS THAN 2") HWS AND HWY LINES, ETC., THAT WILL INTERFERE WITH NEW WORK.



AIR COMPRESSOR SCHEMATIC
SECTION 2
1/4" = 1'-0"



SCREEN CHAMBER PLAN
SECTION 1
1/4" = 1'-0"

| | | | | | |
|------------------------|-----------|-------------|-------------|-------------|-------------|
| OVERLAY IDENTIFICATION | COMPOSITE | ACB-8-11-92 | ACB-8-11-92 | ACB-8-11-92 | ACB-8-11-92 |
| PROJECT NO. | OVERLAY | ACB-8-11-92 | ACB-8-11-92 | ACB-8-11-92 | ACB-8-11-92 |
| DATE | BOREEN | | | | |

STRAND ASSOCIATES, INC.
CONSULTING ENGINEERS
910 West Wingo Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

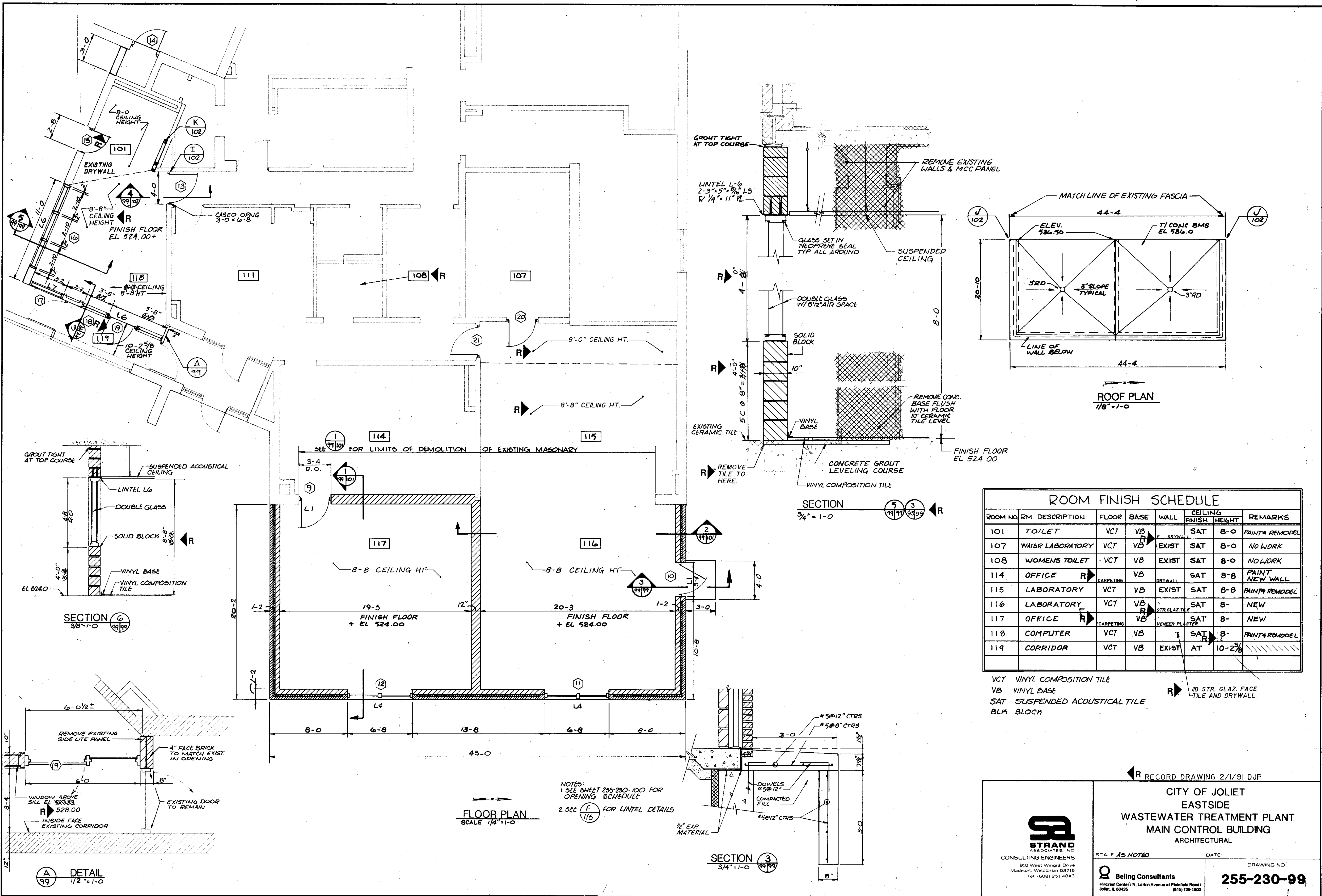
City of Joliet
EASTSIDE
WASTEWATER TREATMENT PLANT
MAIN CONTROL BUILDING
BASEMENT FLOOR PLAN & SECTIONS

SCALE AS NOTED
DATE

Belting Consultants
Hilcrest Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435

DRAWING NO. **255-230-98**

DRAWING RECORD 2/1/91 DJP



ROOM FINISH SCHEDULE


| ROOM NO. | RM. DESCRIPTION | FLOOR | BASE | WALL | CEILING FINISH | HEIGHT | REMARKS |
|----------|------------------|-------|------|-----------------|----------------|----------|-----------------|
| 101 | TOILET | VCT | VB | F. DRYWALL | SAT | 8-0 | PAINT & REMODEL |
| 107 | WATER LABORATORY | VCT | VB | EXIST | SAT | 8-0 | NO WORK |
| 108 | WOMENS TOILET | VCT | VB | EXIST | SAT | 8-0 | NO WORK |
| 114 | OFFICE | R | VB | DRYWALL | SAT | 8-8 | PAINT NEW WALL |
| 115 | LABORATORY | VCT | VB | EXIST | SAT | 8-8 | PAINT & REMODEL |
| 116 | LABORATORY | VCT | VB | STR. GLAZ. TILE | SAT | 8- | NEW |
| 117 | OFFICE | R | VB | VENEER PLASTER | SAT | 8- | NEW |
| 118 | COMPUTER | VCT | VB | T | SAT | 8- | PAINT & REMODEL |
| 119 | CORRIDOR | VCT | VB | EXIST | AT | 10-2 5/8 | /// |

VCT VINYL COMPOSITION TILE
 VB VINYL BASE
 SAT SUSPENDED ACOUSTICAL TILE
 BLK BLOCK

R 1/8\"/>

RECORD DRAWING 2/1/91 DJP

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
MAIN CONTROL BUILDING
 ARCHITECTURAL



STRAND
ASSOCIATES, INC.
CONSULTING ENGINEERS
910 West Wmrga Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

SCALE AS NOTED

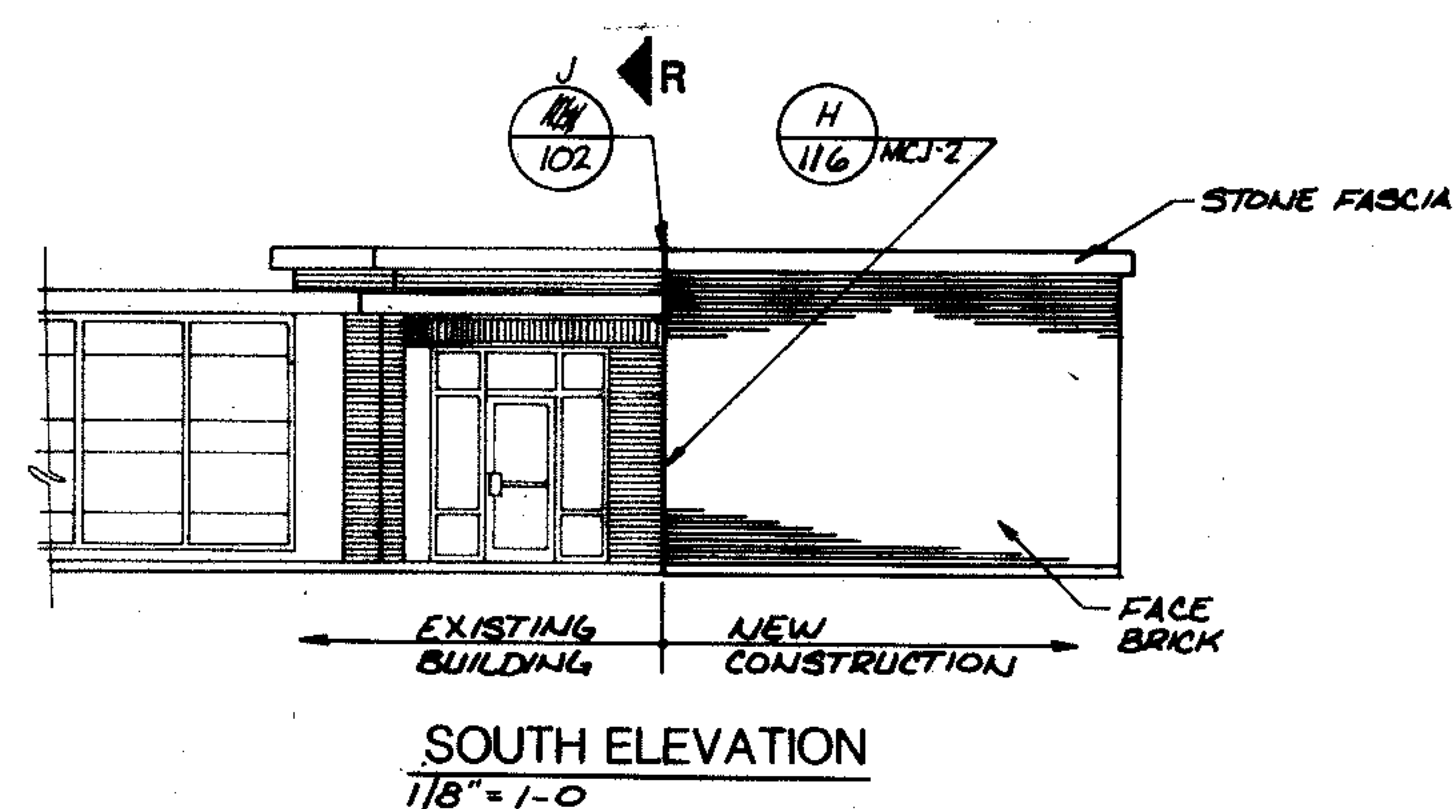
Beiling Consultants
Hilcrest Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435

DATE: _____

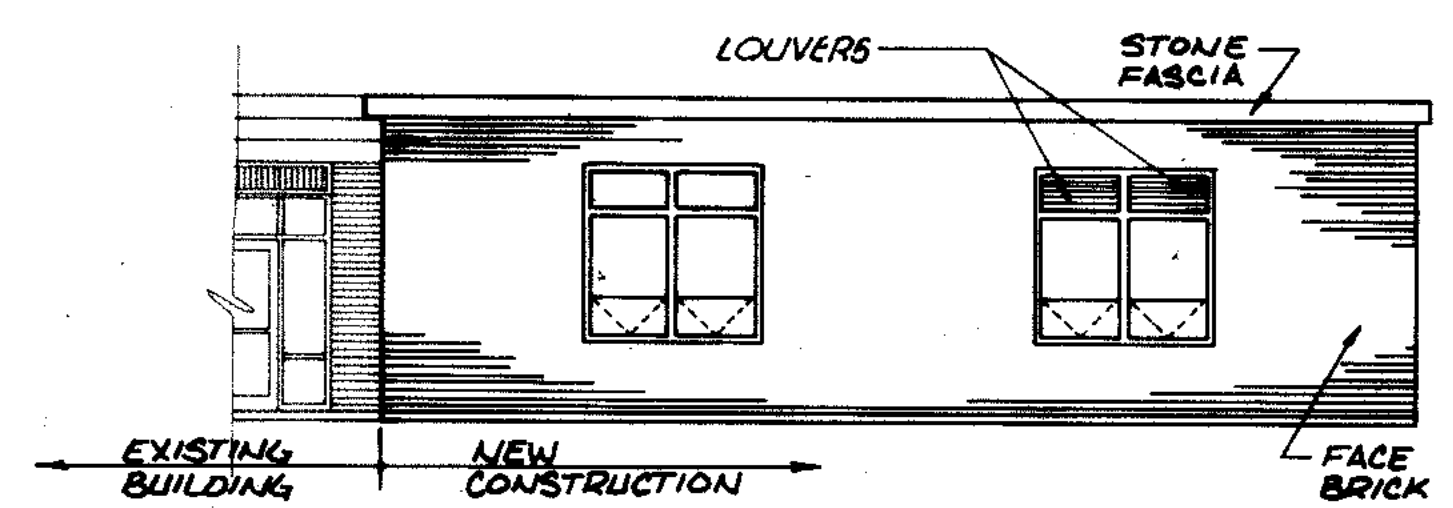
DRAWING NO: _____

255-230-99

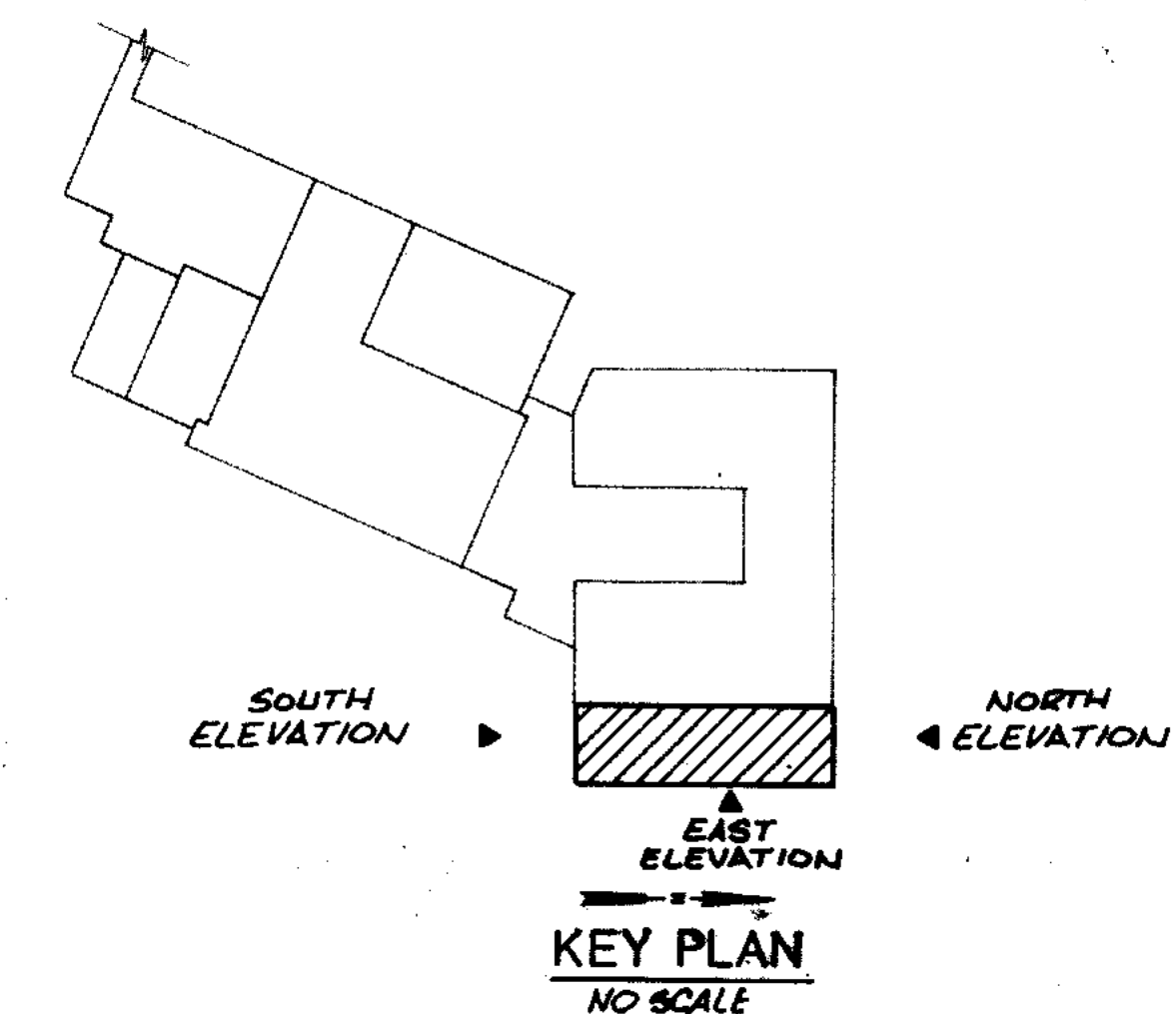
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 PROJECT NO. _____
 DATE _____



SOUTH ELEVATION
1/8" = 1'-0"

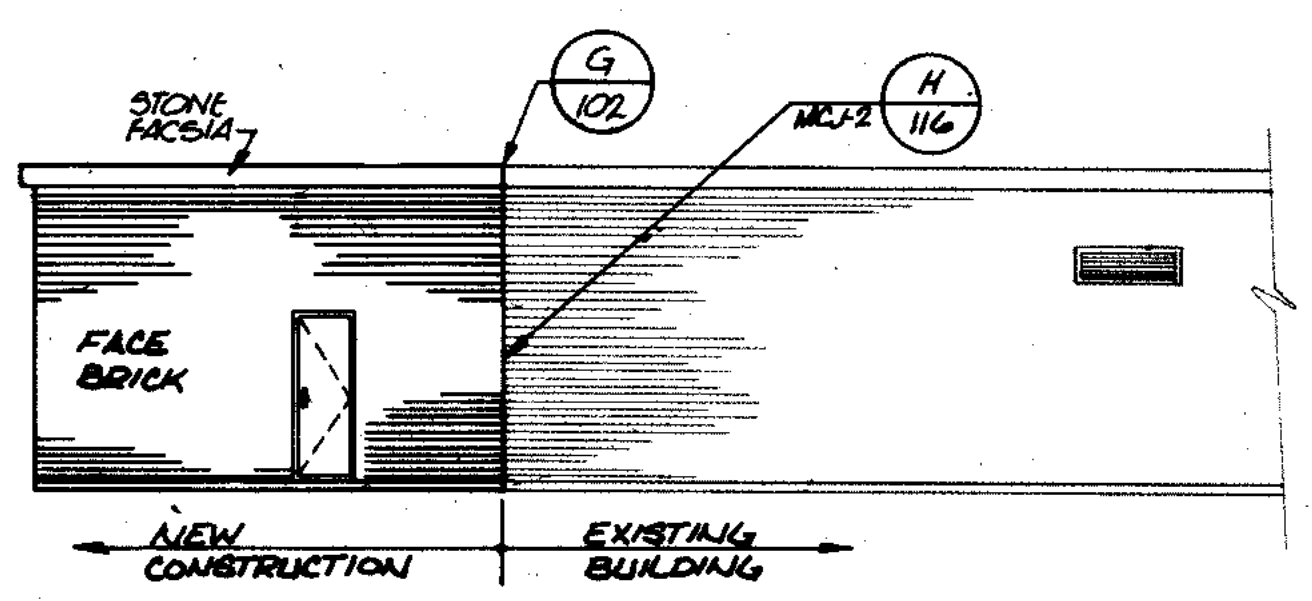


EAST ELEVATION
1/8" = 1'-0"

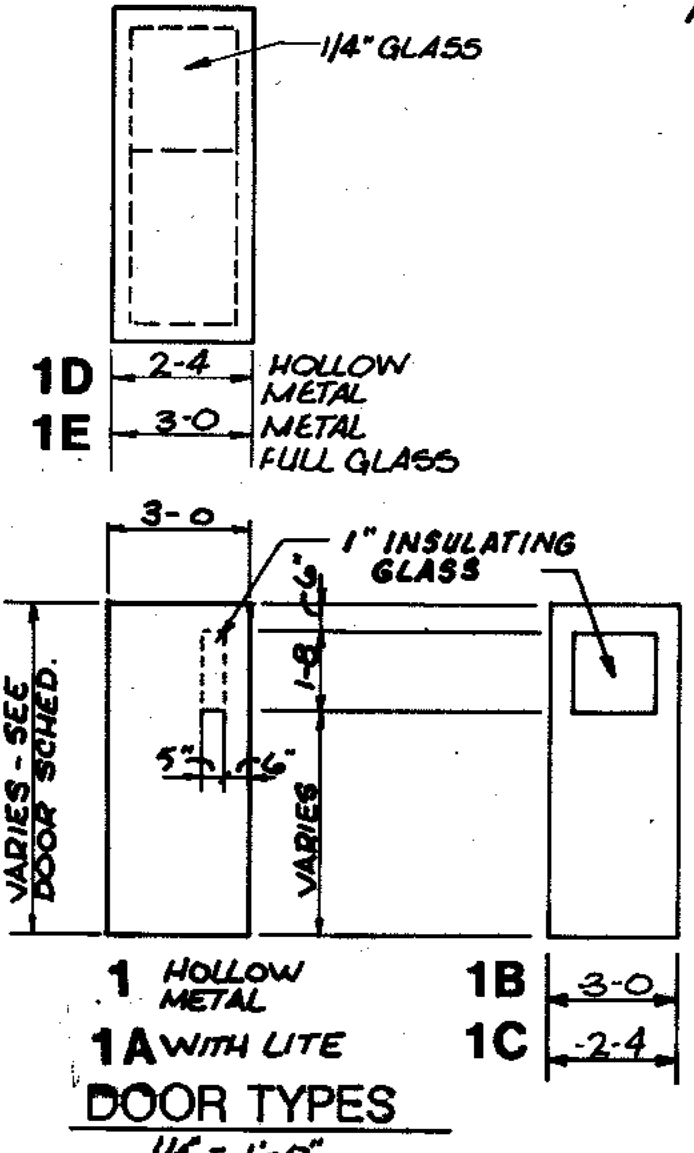


KEY PLAN
NO SCALE

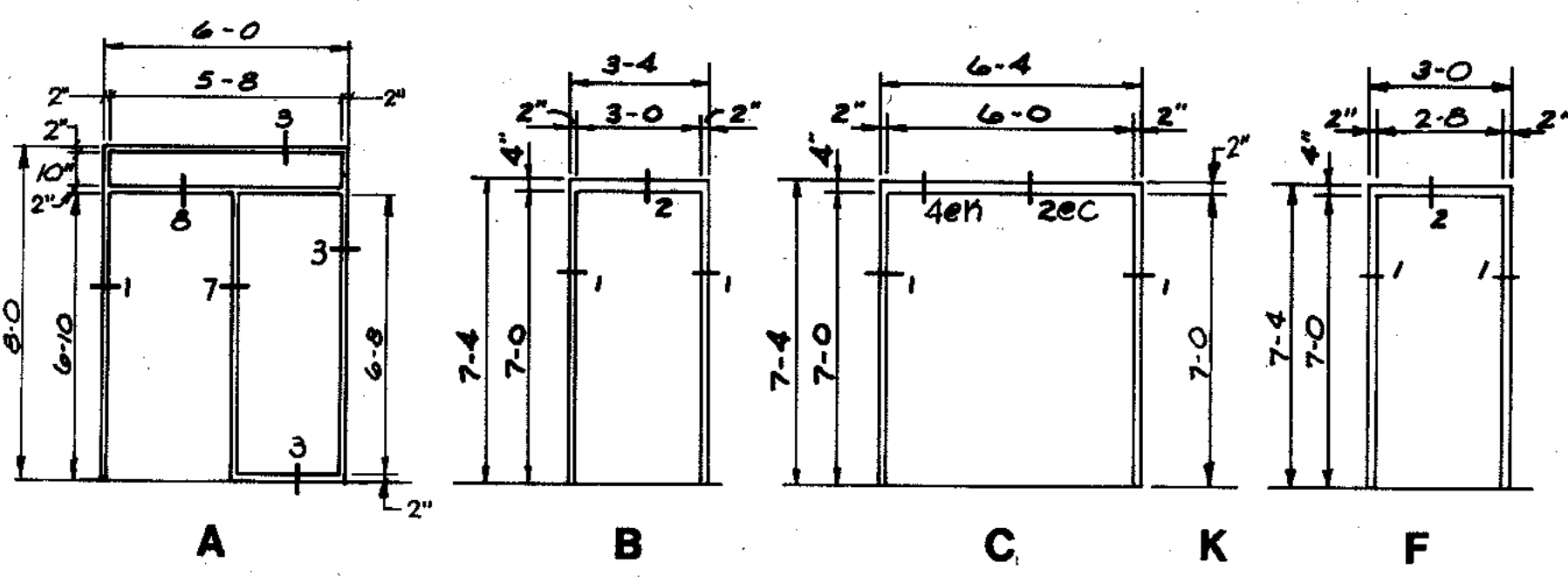
| OPENING SCHEDULE | | | | | | | | | |
|------------------|-------------|------------------------|------|---------------------|--------------|------|--------------|-------------|--------------------------------------|
| LOUVER / WINDOW | | DOOR | | FRAME | | | | | |
| NO. | ITEM | SIZE | TYPE | SIZE | MATERIAL | TYPE | MATERIAL | THRESH. | REMARKS |
| 1 | | | 1A | 3-0 x 7-0 x 1 3/4" | ALUMINUM | C | ALUMINUM | DTL (B) (7) | PAIR LH ACTIVE |
| 2 | | | 1A | 3-0 x 7-0 x 1 3/4" | ALUMINUM | B | ALUMINUM | DTL (B) (7) | |
| 3 | WINDOW | 3-4 x 4-0 | | | | E | ALUMINUM | | |
| 4 | SEE REMARKS | 2-8 x 2-8* | | | | | | | CONVEYOR OPENING NO FRAME |
| 5 | WINDOW | 3-4 x 4-0 | | | | E | ALUMINUM | | |
| 6 | | | 1B | 3-0 x 7-0 x 1 3/4" | ALUMINUM | B | ALUMINUM | | |
| 7 | LOUVER | 6-8 x 3-4 | | | | | | | PRELIMINARY TREATMENT BUILDING |
| 8 | LOUVER | 5-8 x 3-0 | | | | | | | PRELIMINARY TREATMENT BUILDING |
| 9 | | | I | 3-0 x 7-0 x 1 3/4" | HOLLOW METAL | B | HOLLOW METAL | | |
| 10 | | | 1A | 3-0 x 7-0 x 1 3/4" | HOLLOW METAL | B | HOLLOW METAL | DTL (B) (7) | PANIC HARDWARE |
| 11 | WINDOW | 2-8 x 4-6-8 | | | | D | ALUMINUM | | LOUVER IN TOP OF PANEL |
| 12 | WINDOW | 2-8 x 4-6-8 | | | | D | ALUMINUM | | |
| 13 | | | 1B | 3-0 x 6-8 x 1 3/4" | HOLLOW METAL | B | HOLLOW METAL | | |
| 14 | | | 1C | 2-8 x 7-0 x 1 3/4" | HOLLOW METAL | F | HOLLOW METAL | | INSTALL IN EXISTING OPENING |
| 15 | | | 1D | 2-4 x 6-8 | HOLLOW METAL | | EXISTING | | REMOVE DOOR AND INSTALL NEW DOOR |
| 16 | WINDOW | 9-2 x 4-8 | | | | H | | | DOUBLE GLASS |
| 17 | WINDOW | 3-2 x 4-8 | | | | J | | | DOUBLE GLASS |
| 18 | WINDOW | 3-2 x 4-8 | | | | J | | | DOUBLE GLASS |
| 19 | WINDOW | 5-8 x 0-10 / 2-6 x 6-8 | 1E | 3-0 x 6-10 x 1 3/4" | HOLLOW METAL | A | HOLLOW METAL | DTL (B) (7) | COMBINATION UNIT 1" INSULATING GLASS |
| 20 | | | 1B | 3-0 x 6-8 x 1 3/4" | HOLLOW METAL | | EXISTING | | PANIC HARDWARE |
| 21 | | | 1B | 3-0 x 6-8 x 1 3/4" | HOLLOW METAL | | EXISTING | | PANIC HARDWARE |
| 22 | | | 1F | 4-0 x 12-0 | FIBERGLASS | G | HOLLOW METAL | | LH ACTIVE |
| 23 | | | 1A | 3-0 x 7-0 | HOLLOW METAL | B | HOLLOW METAL | DTL (B) (7) | PANIC HARDWARE |
| 24 | | | 1G | 5-0 x 11-0 | FIBERGLASS | I | HOLLOW METAL | DTL (B) (7) | BOTH PAIR ACTIVE |
| 25 | WINDOW | 3-4 x 4-0 | | | | E | ALUMINUM | | |
| 26 | | | 1A | 3-0 x 7-0 x 1 3/4" | ALUMINUM | B | ALUMINUM | DTL (B) (7) | |
| 27 | | | 1A | 3-0 x 7-0 x 1 3/4" | HOLLOW METAL | K | HOLLOW METAL | DTL (B) (7) | PAIR BOTH ACTIVE |
| 28 | | | | 12-0 x 14-0 | | | | | FRAMED OPENING BY BLDG MFR |
| 29 | | | | 12-0 x 14-0 | | | | | FRAMED OPENING BY BLDG MFR |
| 30 | | | 1A | 3-0 x 7-0 x 1 3/4" | HOLLOW METAL | K | HOLLOW METAL | DTL (B) (7) | PAIR BOTH ACTIVE |



NORTH ELEVATION
1/8" = 1'-0"

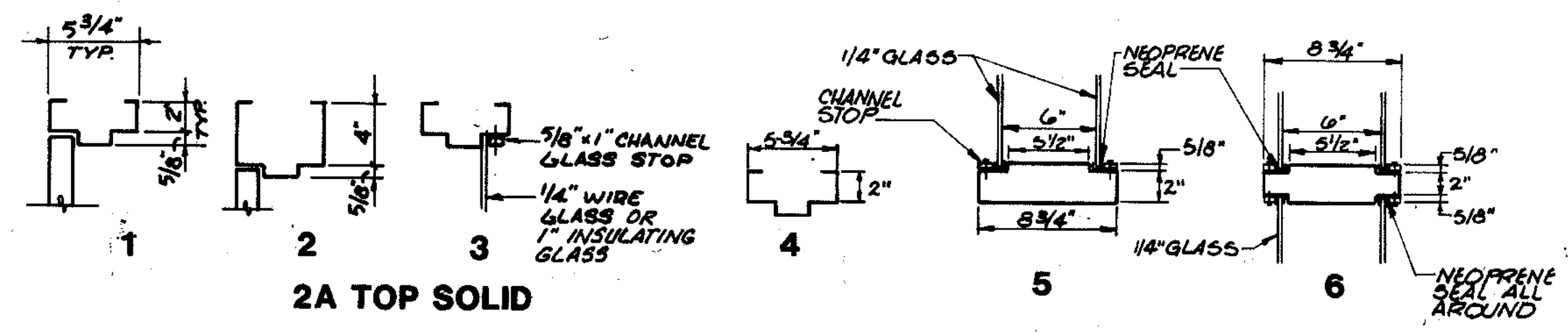


DOOR TYPES
1/4" = 1'-0"

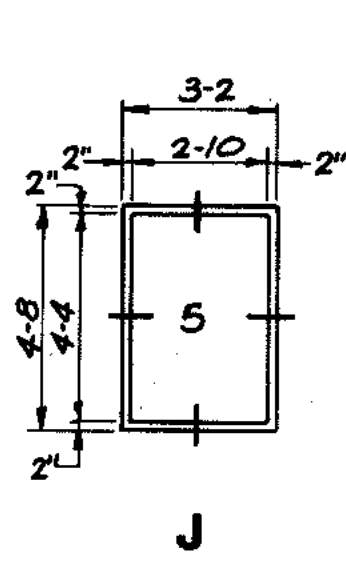


METAL DOOR FRAME TYPES
1/4" = 1'-0"

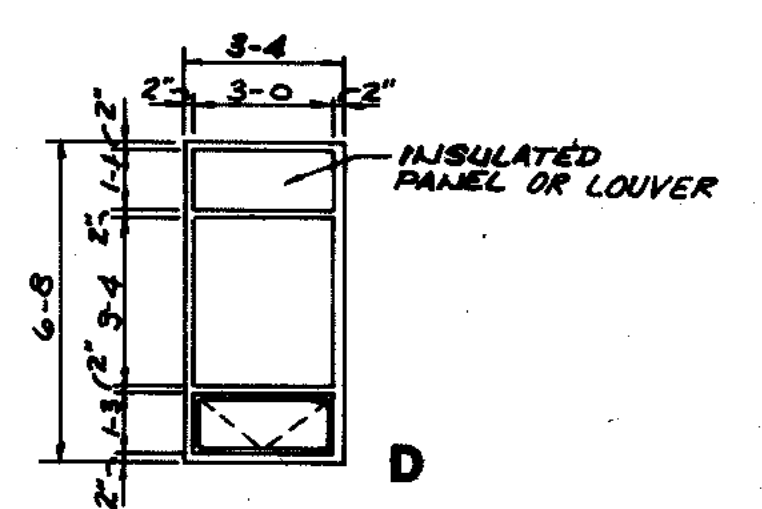
CHANGE THE WIDTH OF FRAME "A" FROM 6'-0" TO 5'-8" WITH DOOR WIDTH REMAINING 3'-0".



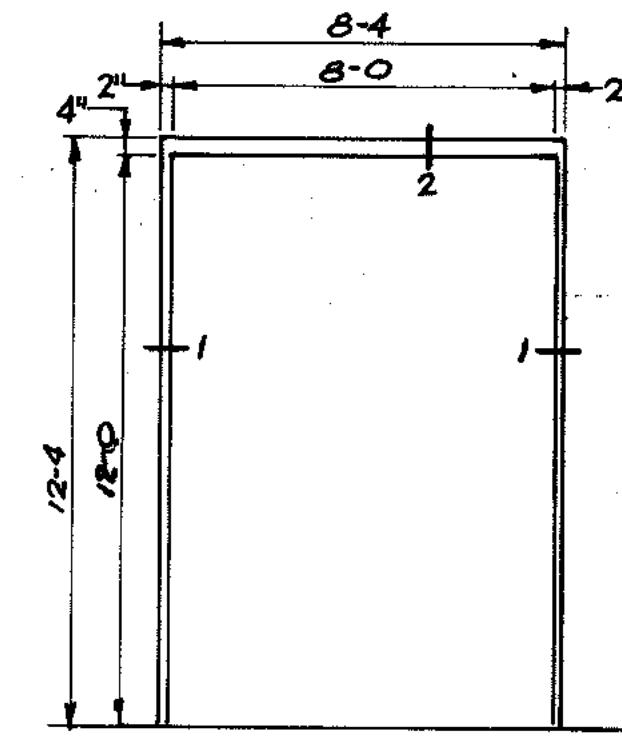
METAL DOOR FRAME DETAILS
1/2" = 1'-0"



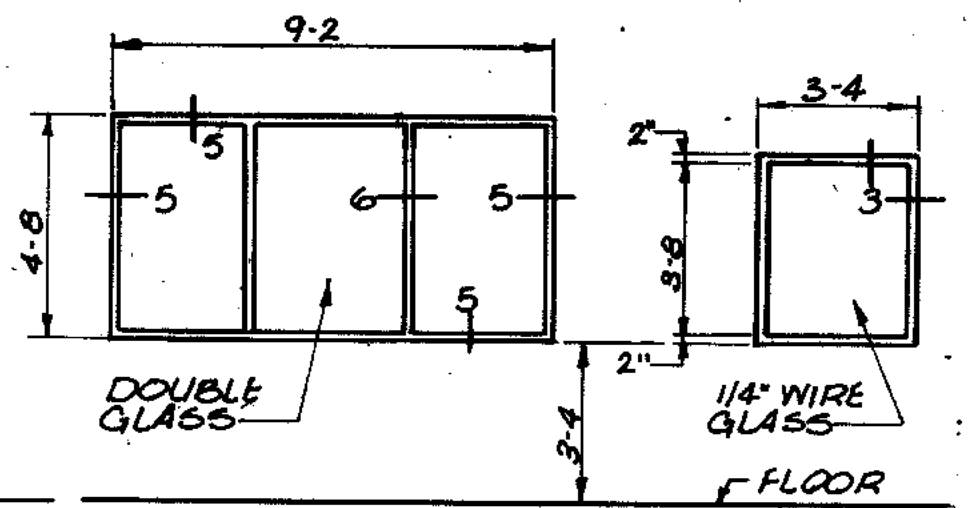
J



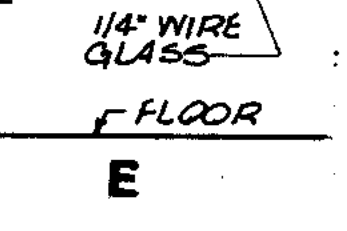
ALUMINUM WINDOW ELEVATION
1/4" = 1'-0"



G

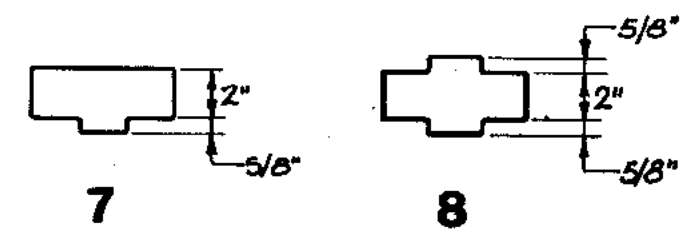


H

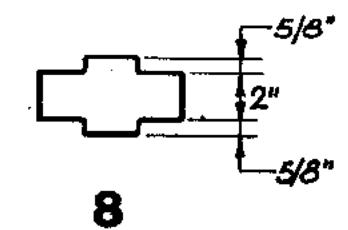


E

OBSERVATION WINDOW ELEVATION
1/4" = 1'-0"



7



8

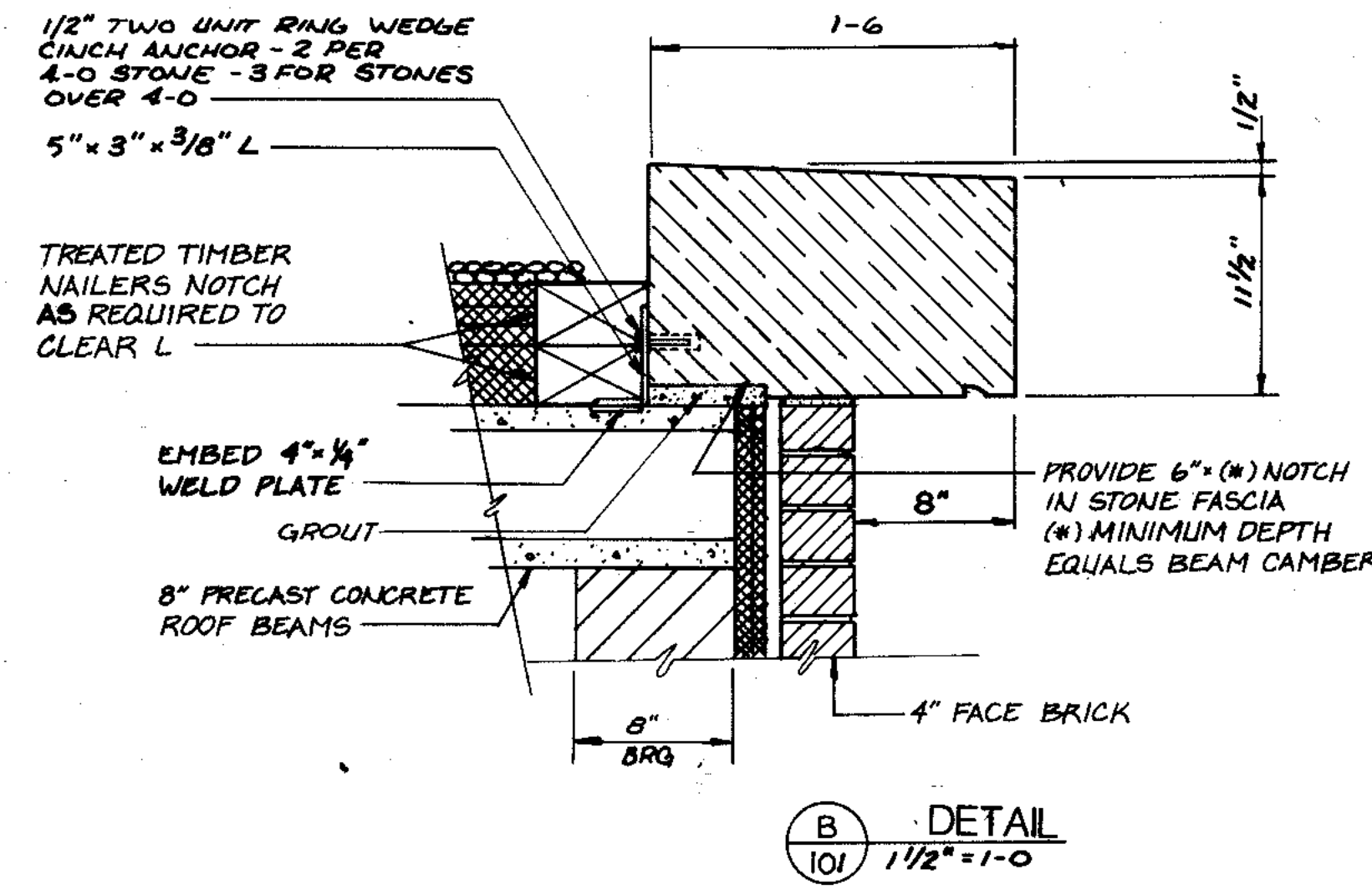
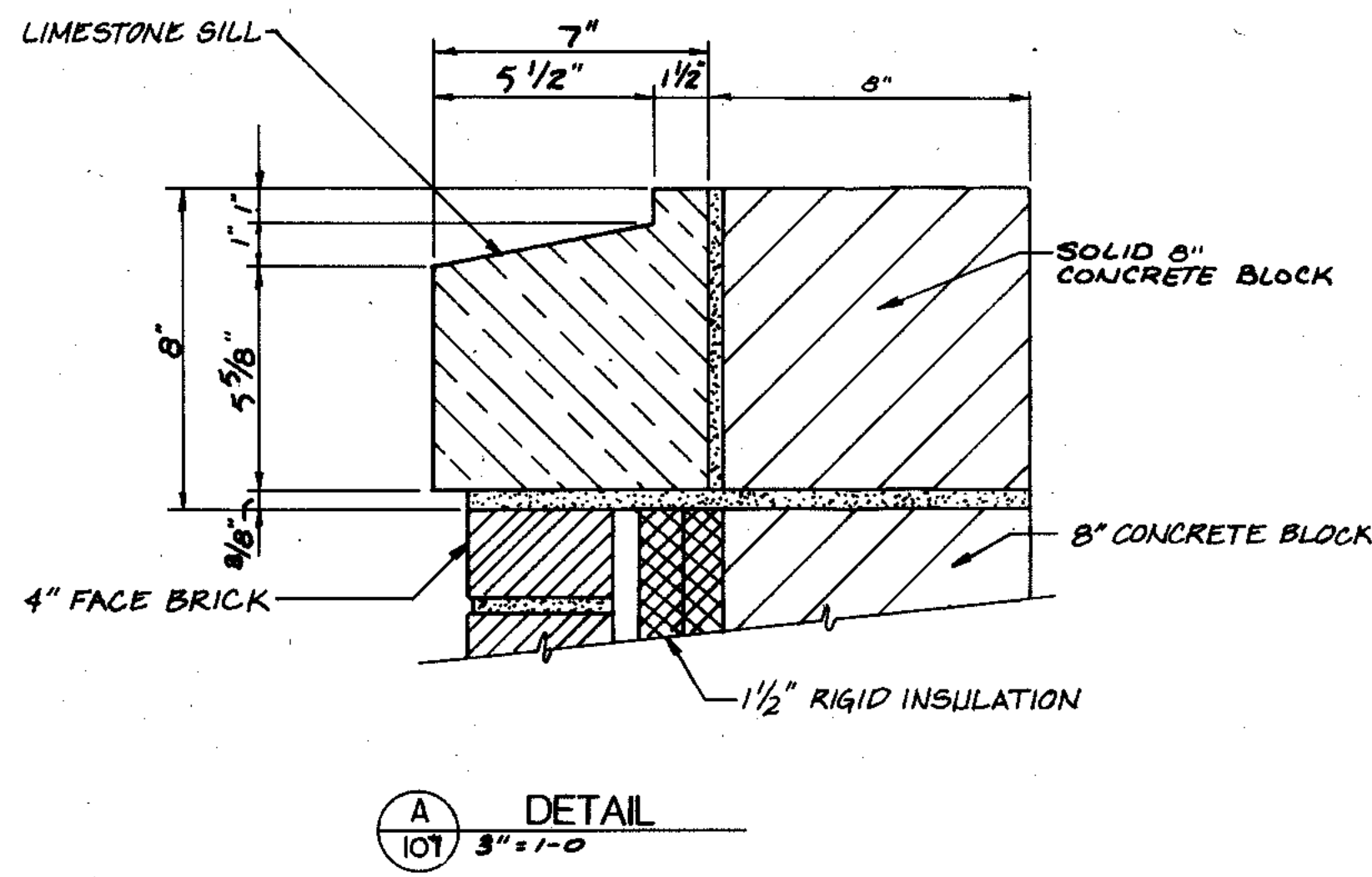
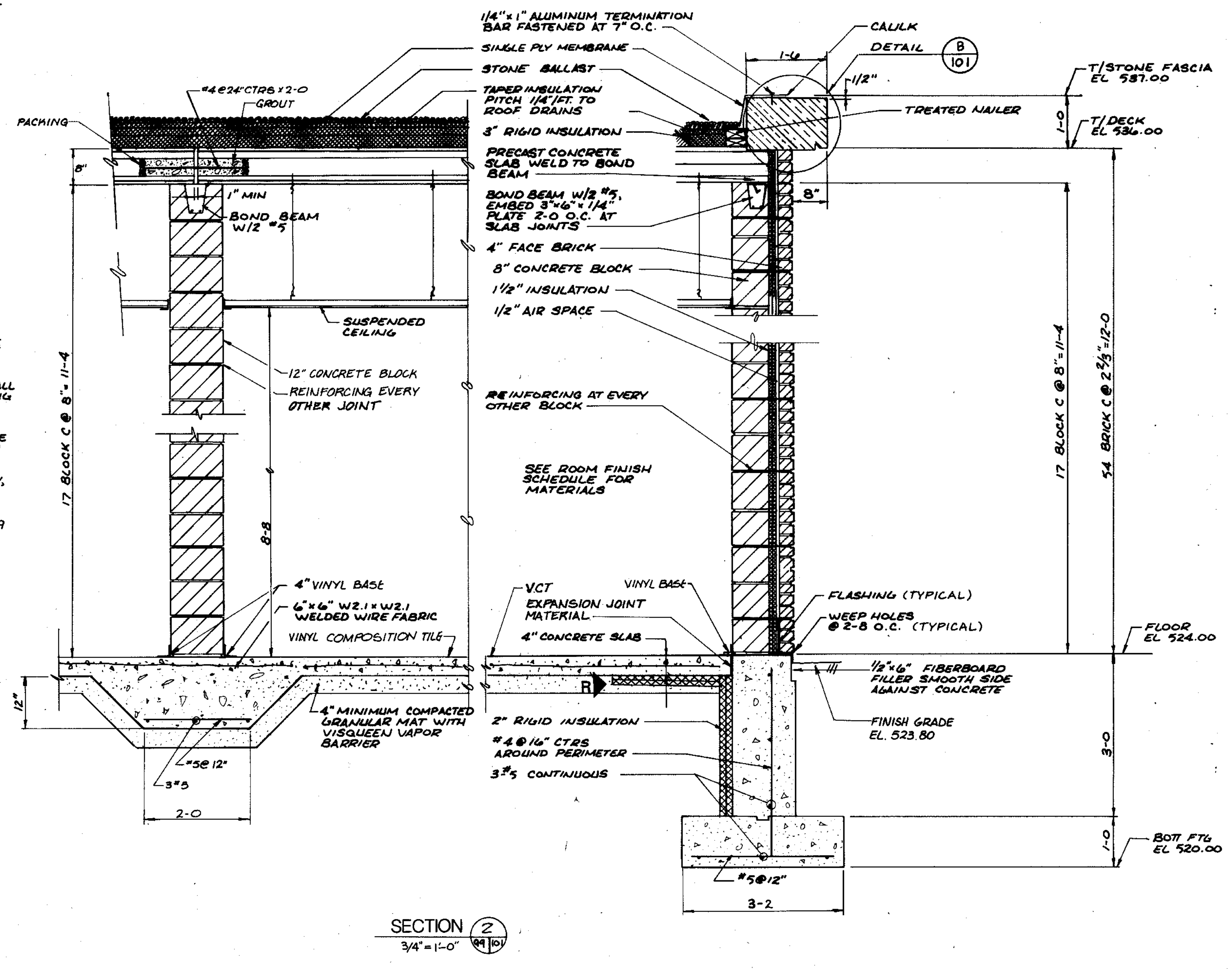
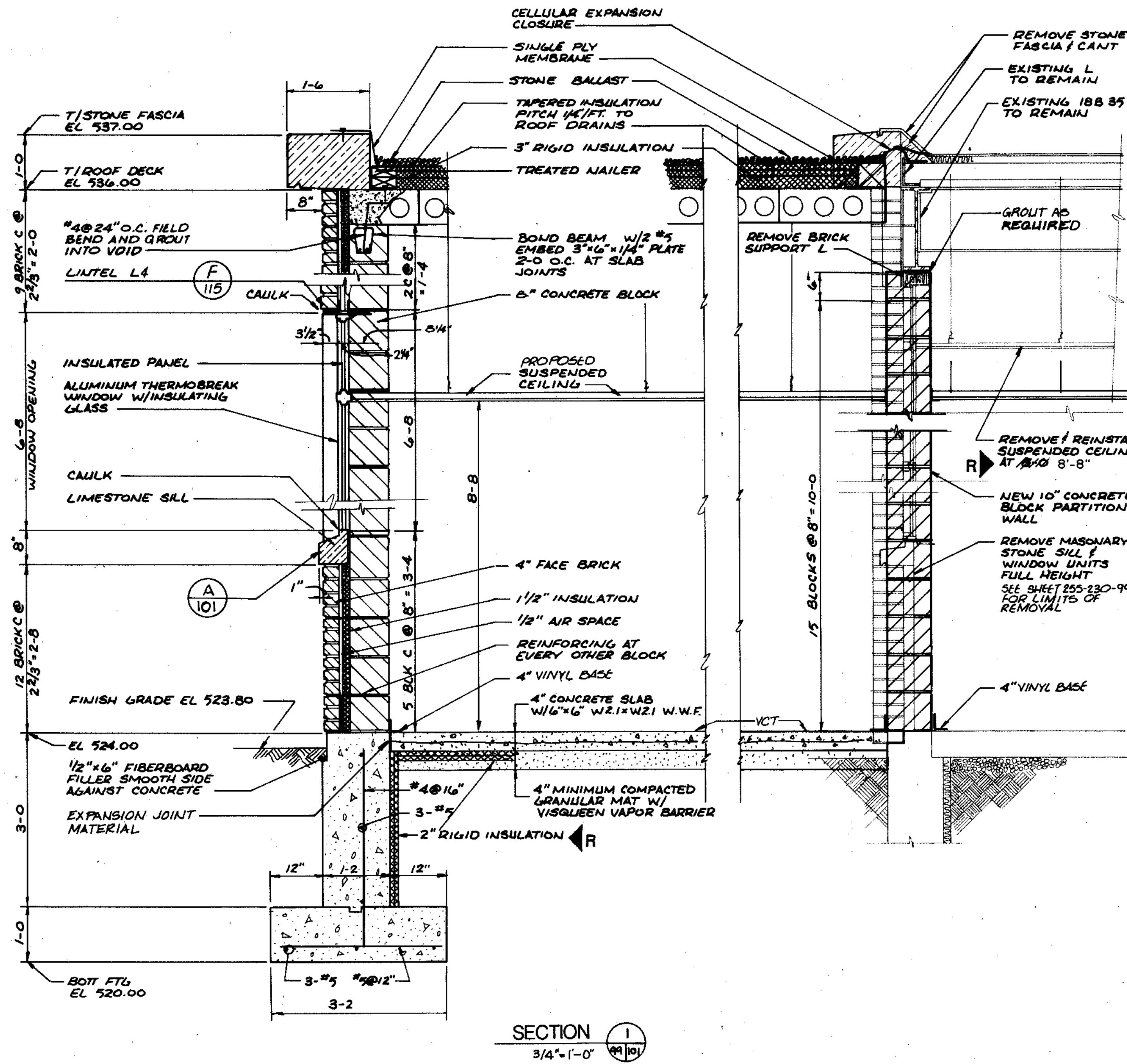
* VERIFY W/ EQUIPMENT MANUFACTURER
NOTE: SEE HEATING & VENTILATING SHEETS FOR LOUVER SECS

OVERLAY IDENTIFICATION
COMPOSITE
OVERLAY
PROJECT NO.
DATE

RECORD DRAWING 2/1/91 DJP

| | | | |
|---|---|-----------------------------------|-----------------------------------|
| STRAND ASSOCIATES, INC. CONSULTING ENGINEERS 910 West Wrigley Drive Madison, Wisconsin 53715 Tel: (608) 251-4843 | CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT MAIN CONTROL BUILDING ELEVATIONS & DETAILS | SCALE AS NOTED DATE: | DRAWING NO. 255-230-100 |
| | Beijing Consultants 1100 West Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435 | DRAWING NO. 255-230-100 | |

| | | | |
|-------------|------------|---------|-----------|
| COMPOSITE | MC6-N5-101 | DAU-101 | MS-ES-101 |
| OVERLAY | MS-NS-101 | DAU-101 | MS-ES-101 |
| PROJECT NO. | | | |
| DATE | | | |



RECORD DRAWING 5/23/91 DJP

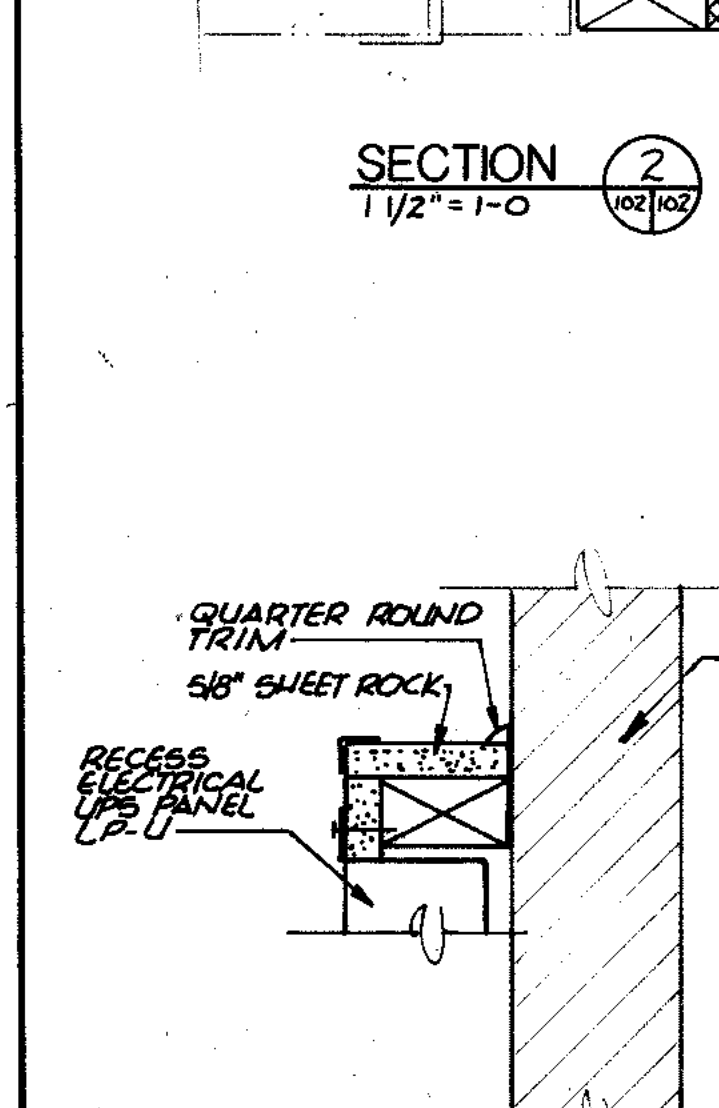
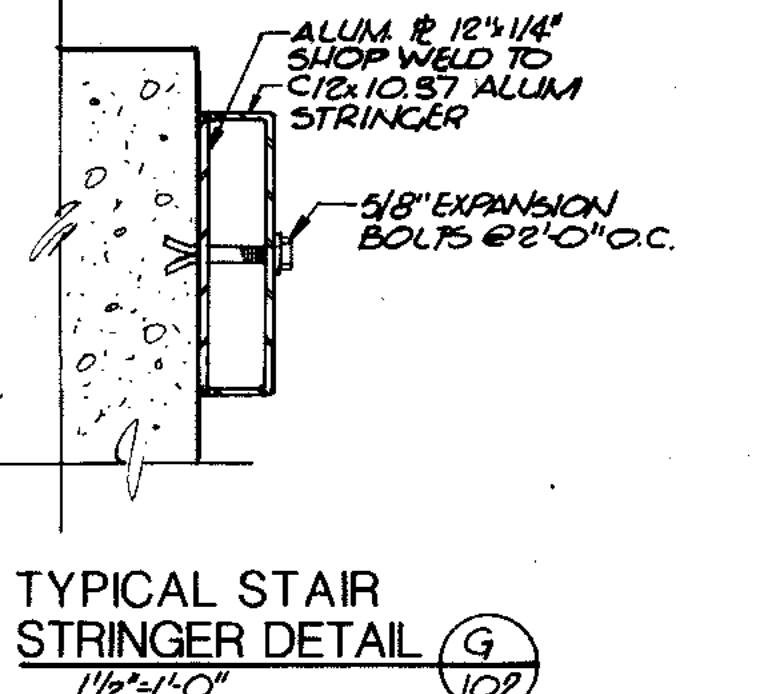
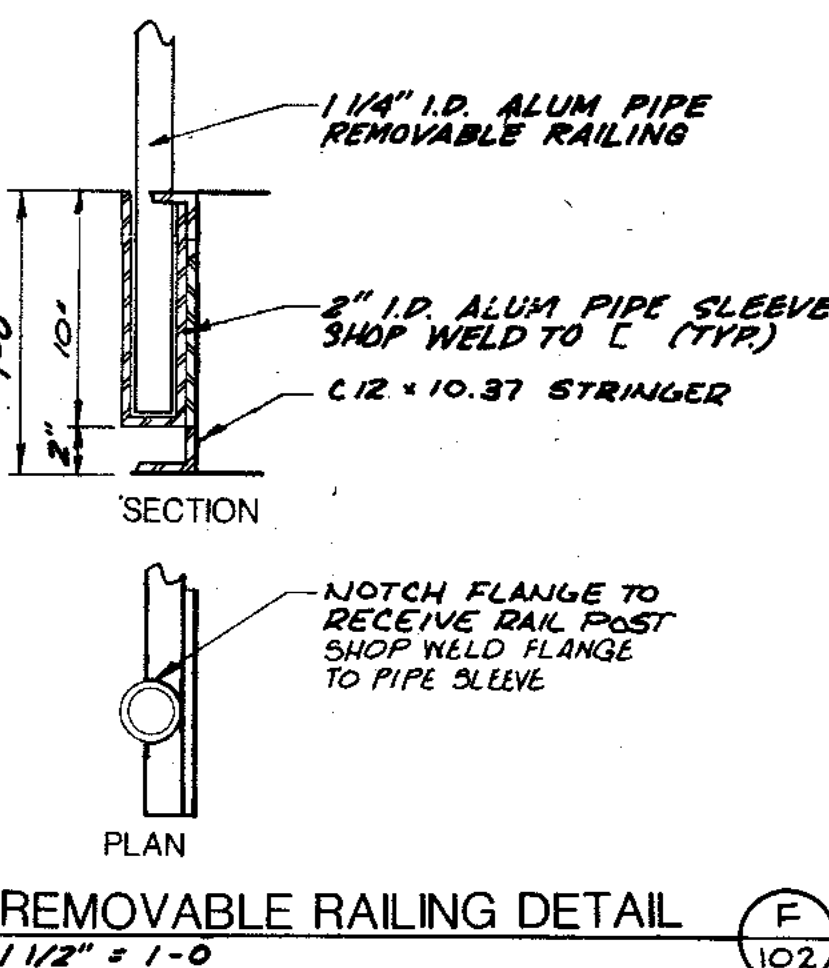
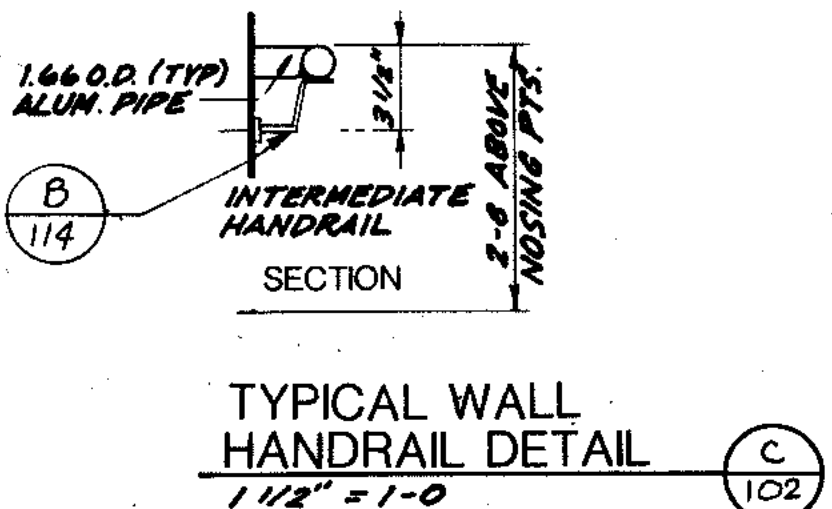
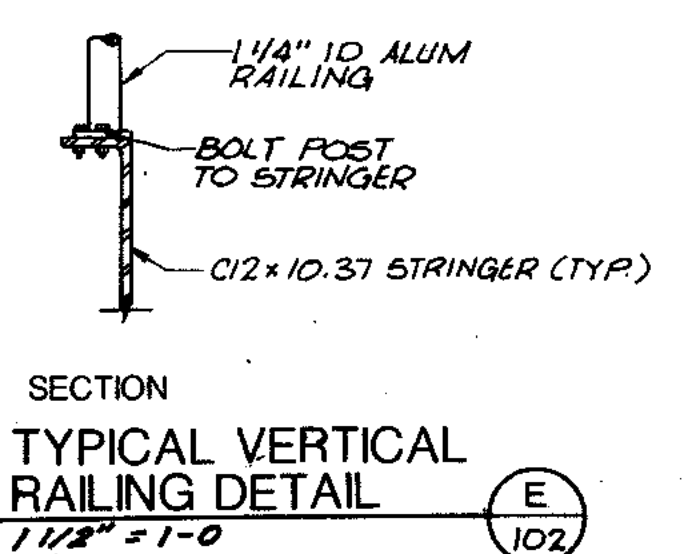
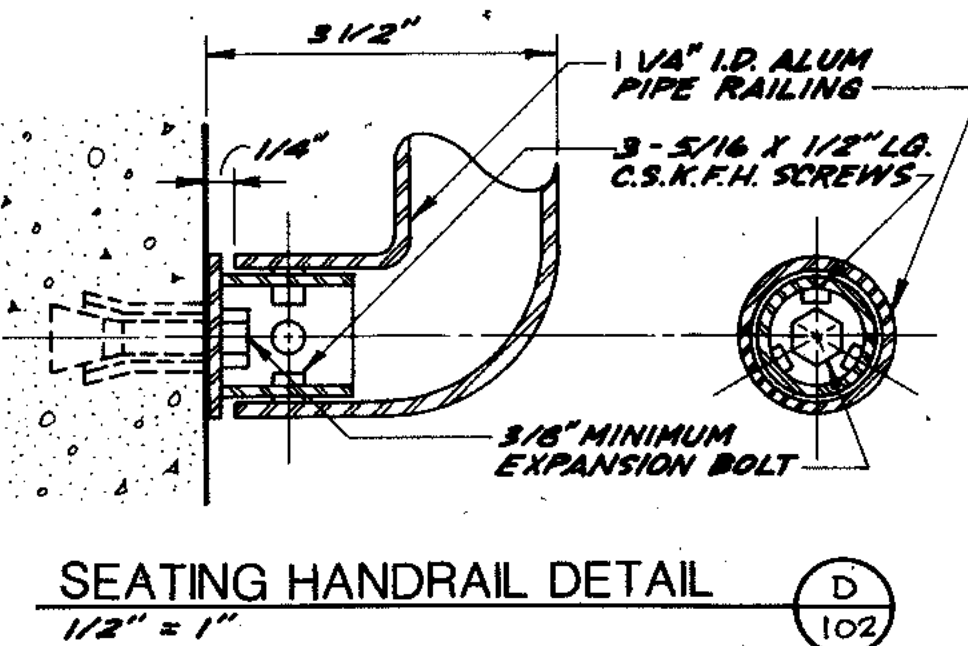
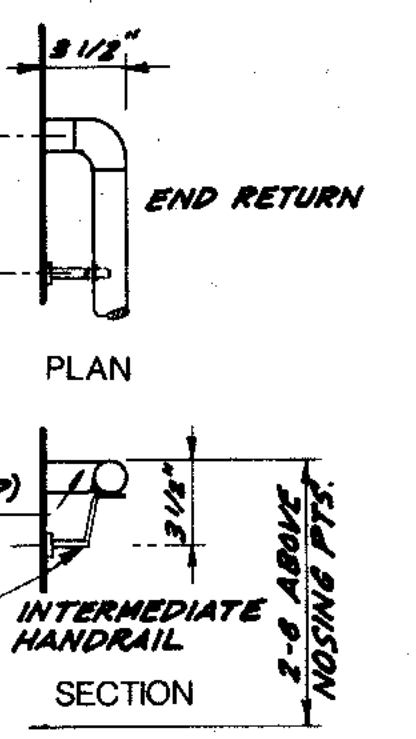
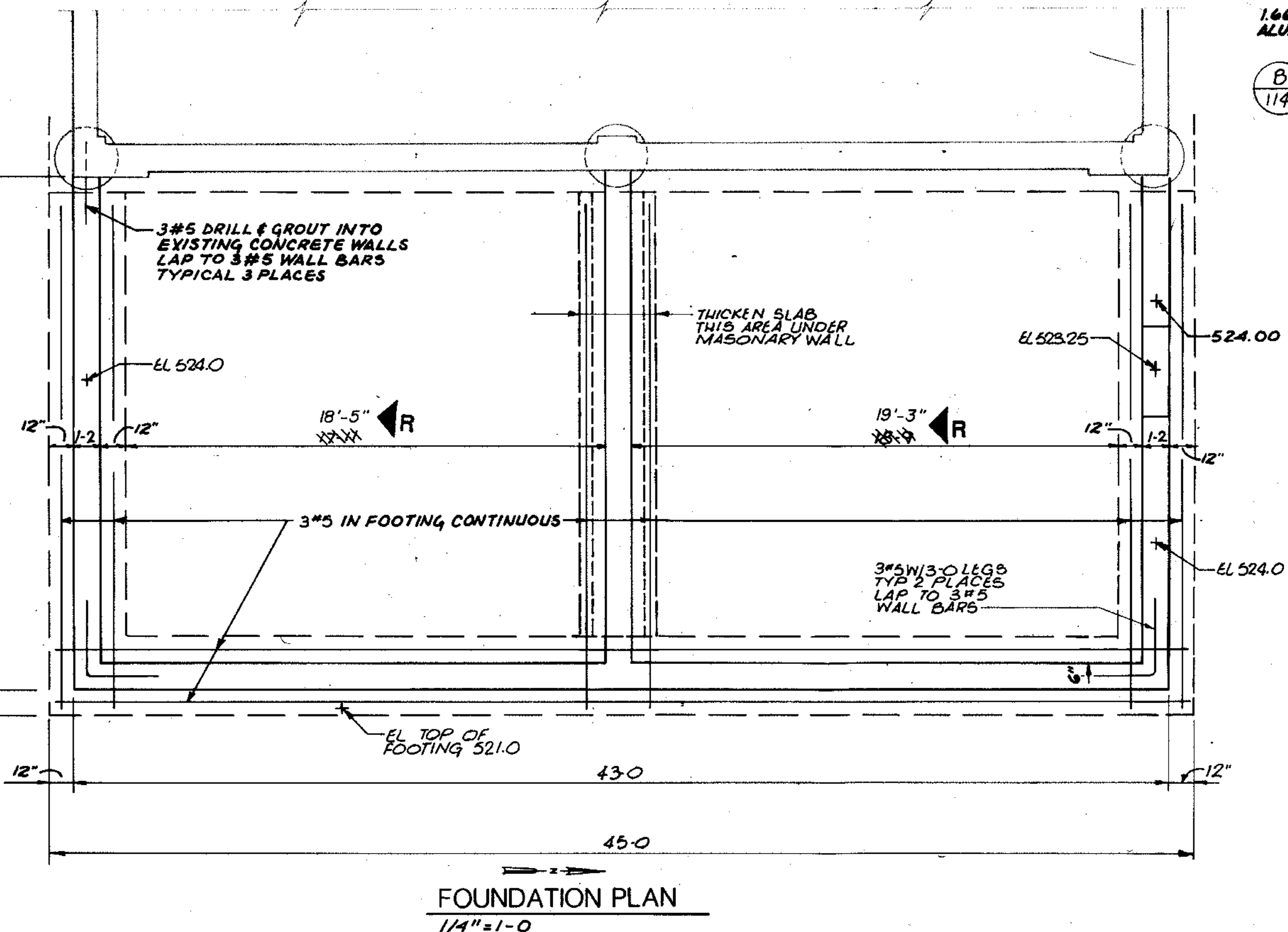
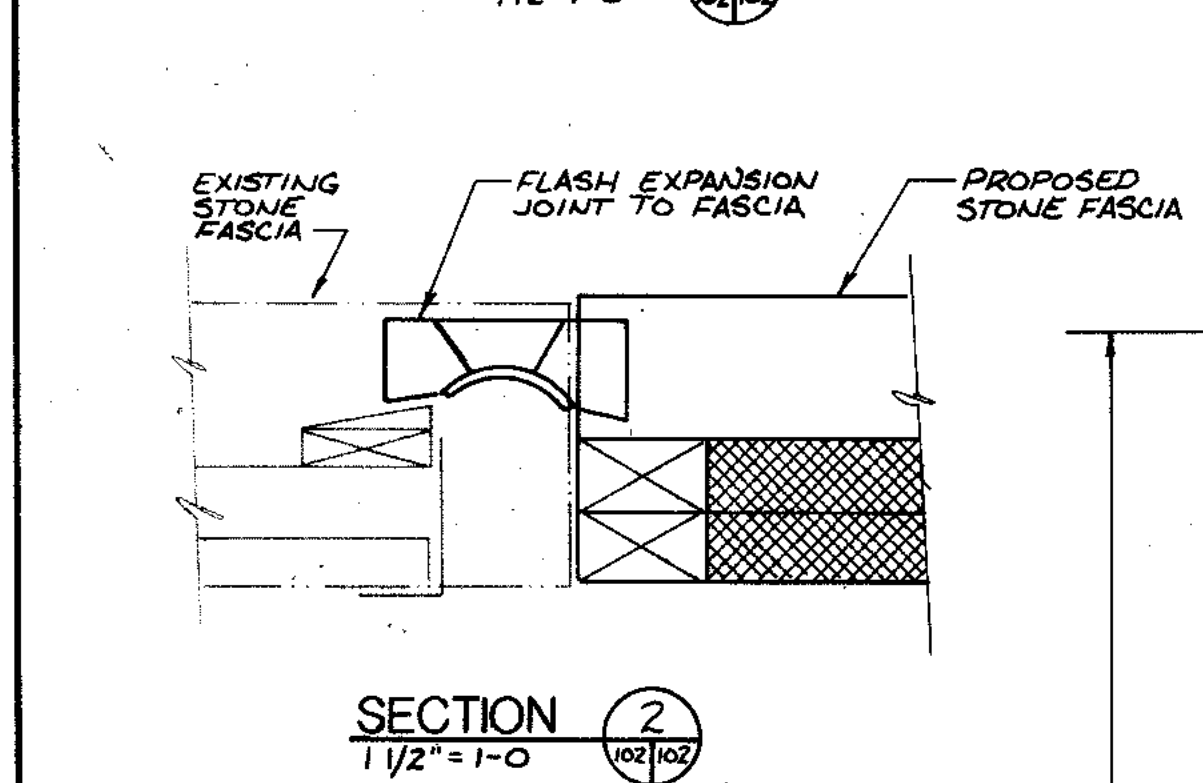
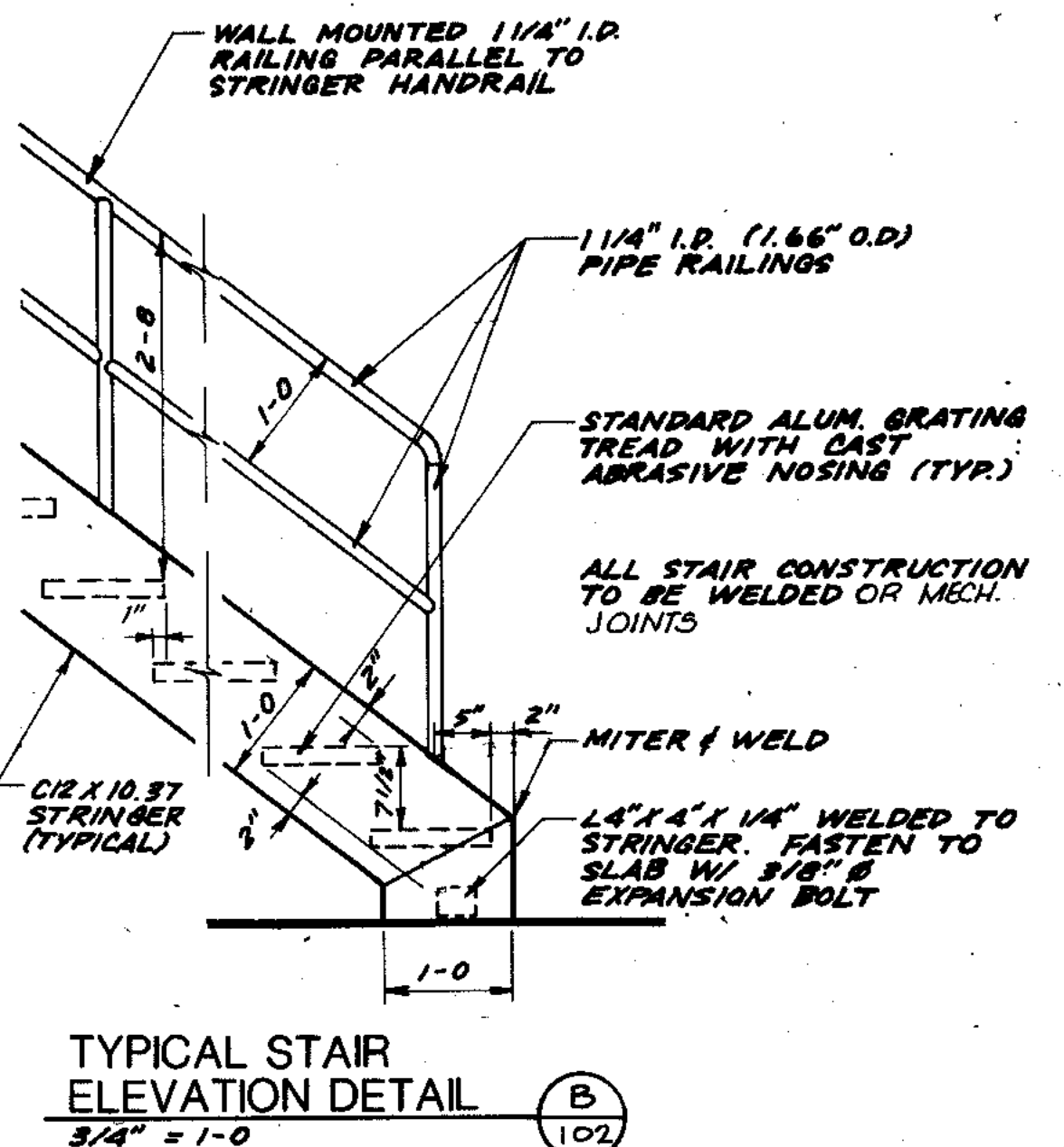
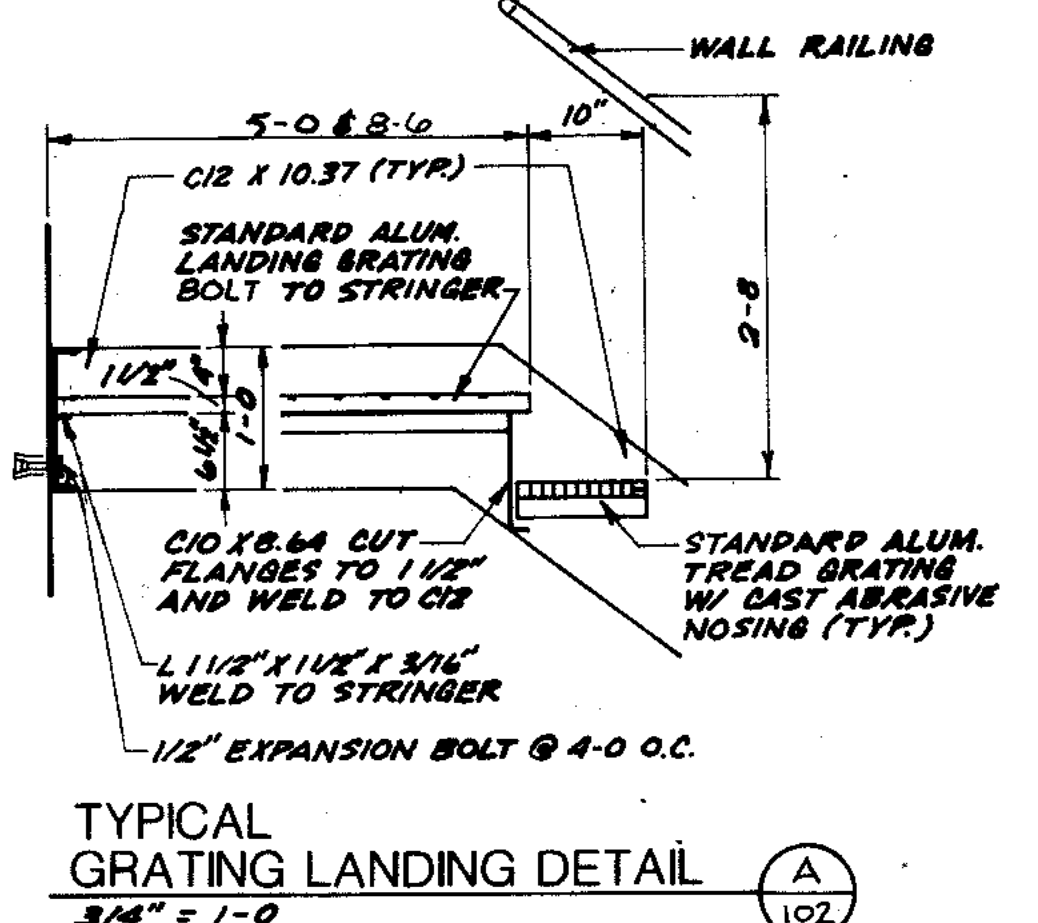
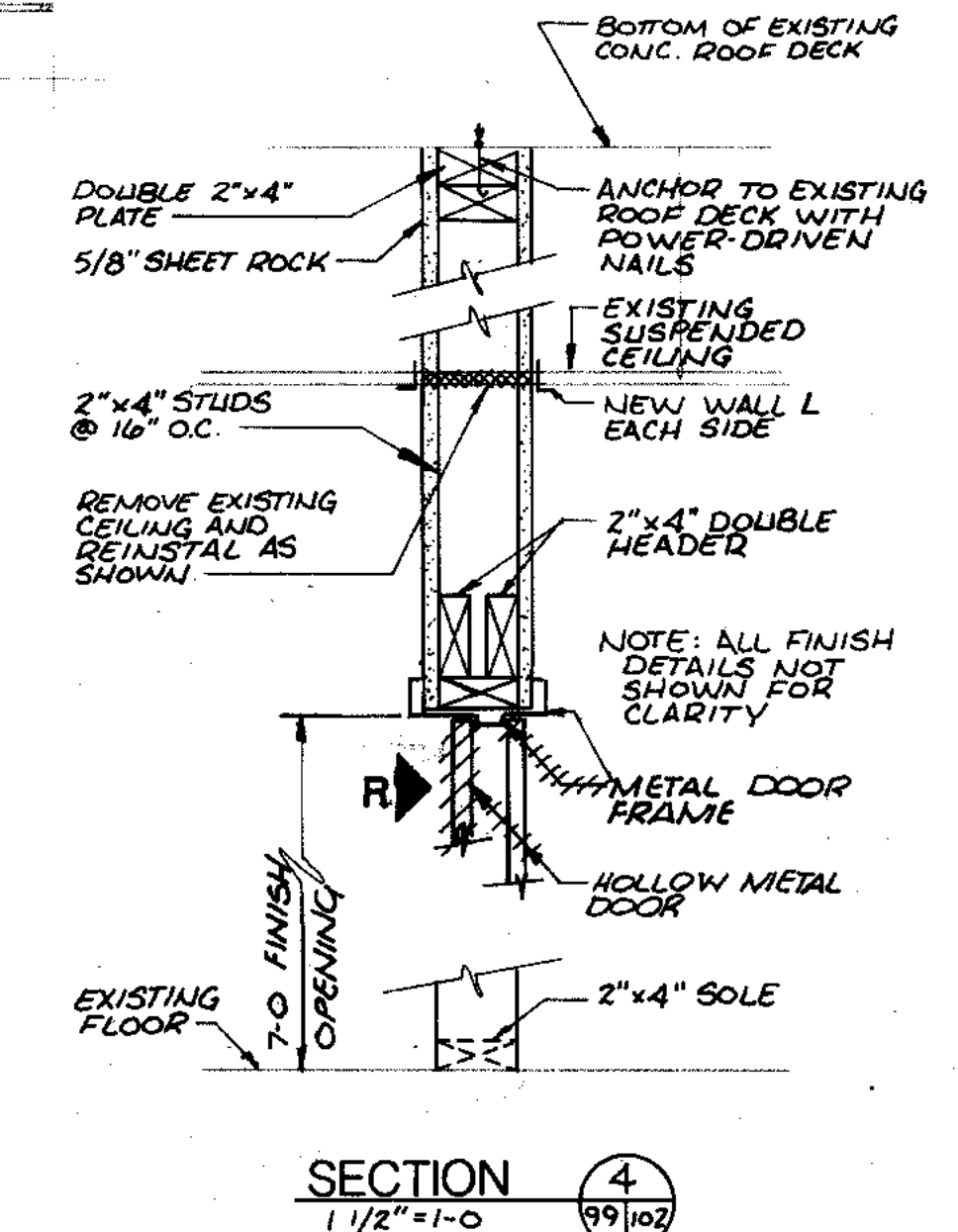
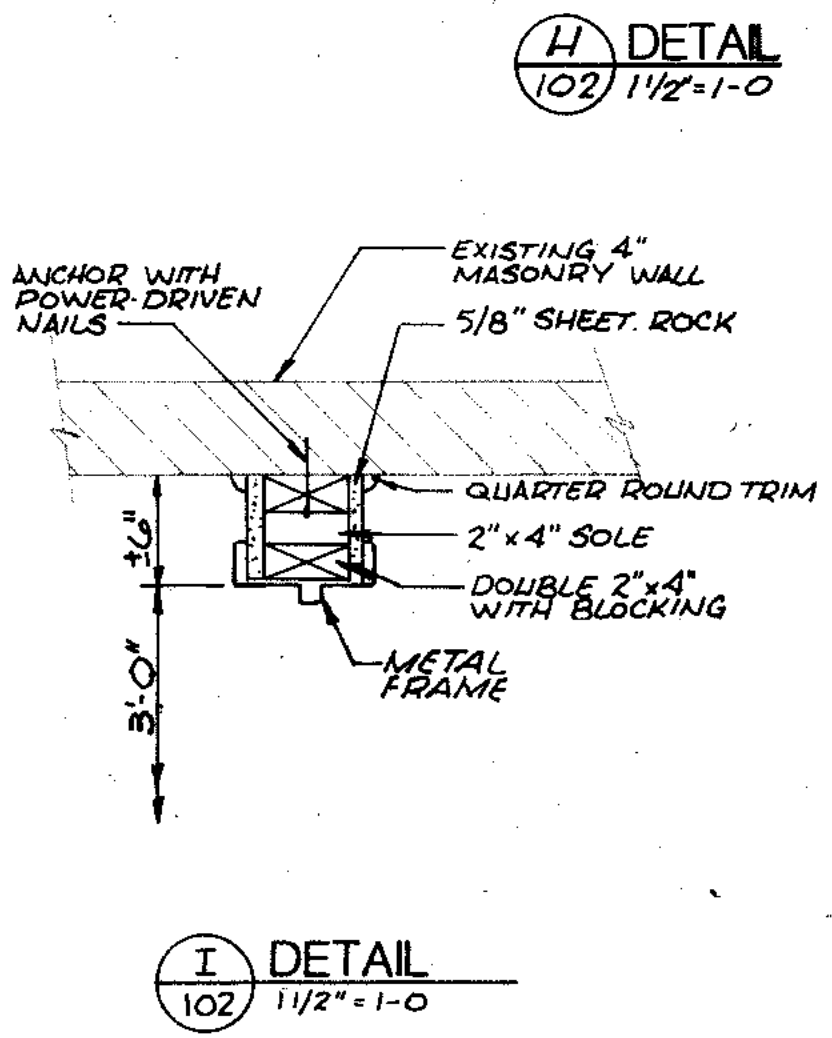
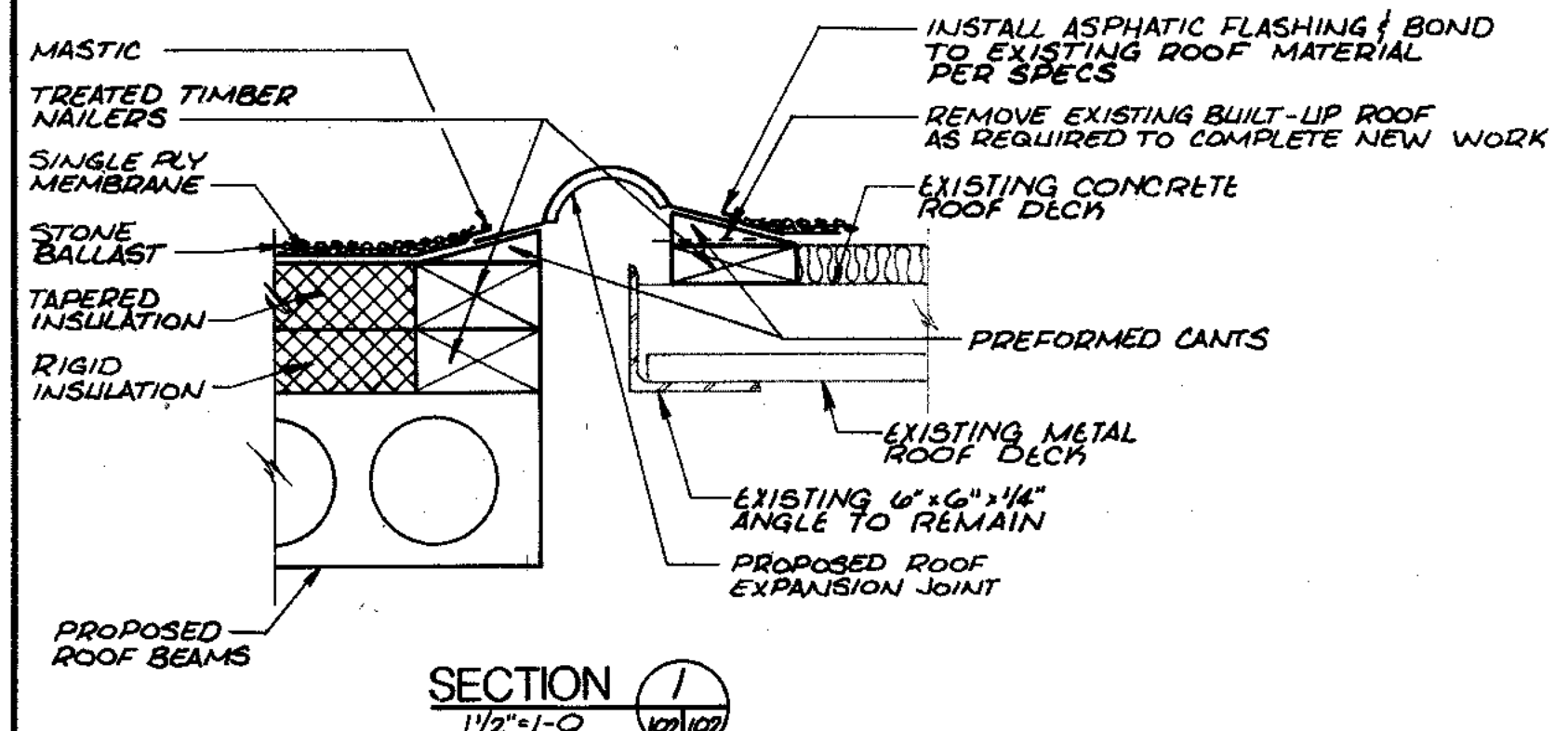
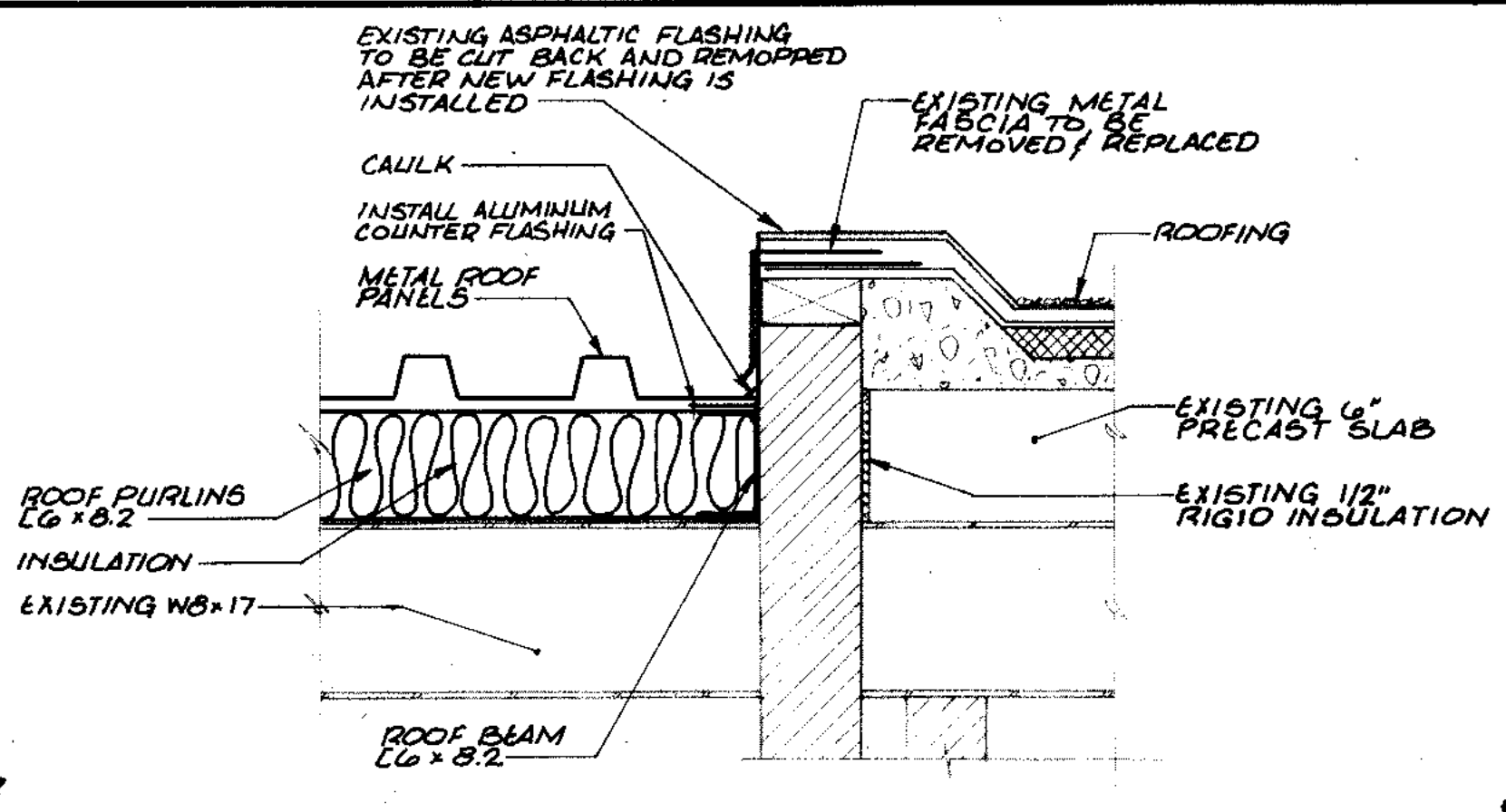
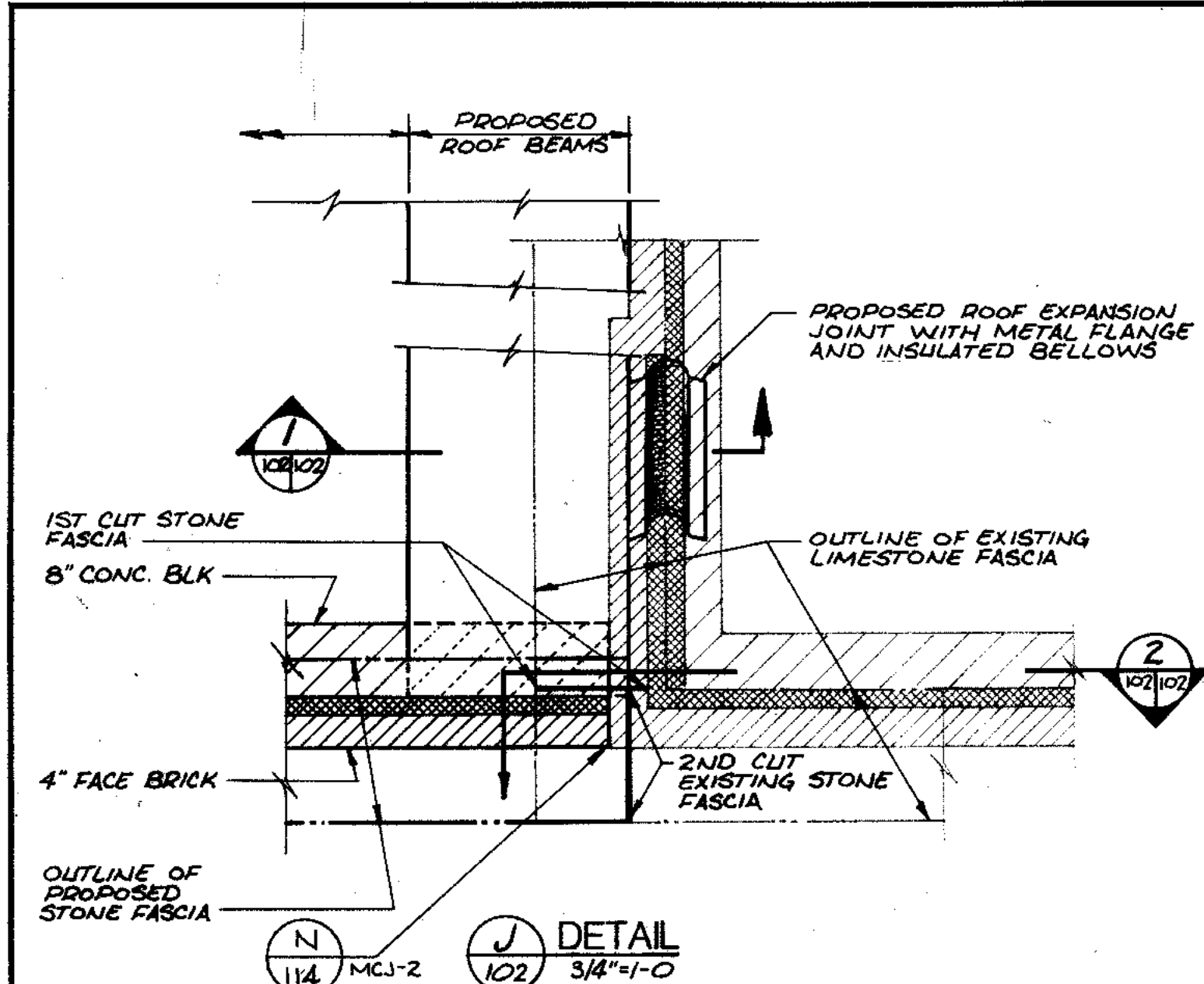
CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
MAIN CONTROL BUILDING
SECTIONS & DETAILS

STRAND ASSOCIATES INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

SCALE AS NOTED DATE

Belting Consultants
Hilcrest Center / N. Larkin Avenue at Plainfield Road /
Joliet, IL 60435

DRAWING NO
255-230-101



NOTE: PROVIDE 2" x 4" FURRING AROUND RECESSED ELECTRICAL PANEL - FULL HEIGHT W/ 5/8" SHEET ROCK.

| | | | |
|-----------|----------------|----------------|----------------|
| COMPOSITE | M.C.B.-N.L.102 | M.C.B.-N.L.102 | M.C.B.-N.L.102 |
| OVERLAY | M.C.B.-N.L.102 | M.C.B.-N.L.102 | M.C.B.-N.L.102 |
| SCREEN | | | |
| DATE | | | |

RECORD DRAWING 3-01 DJP

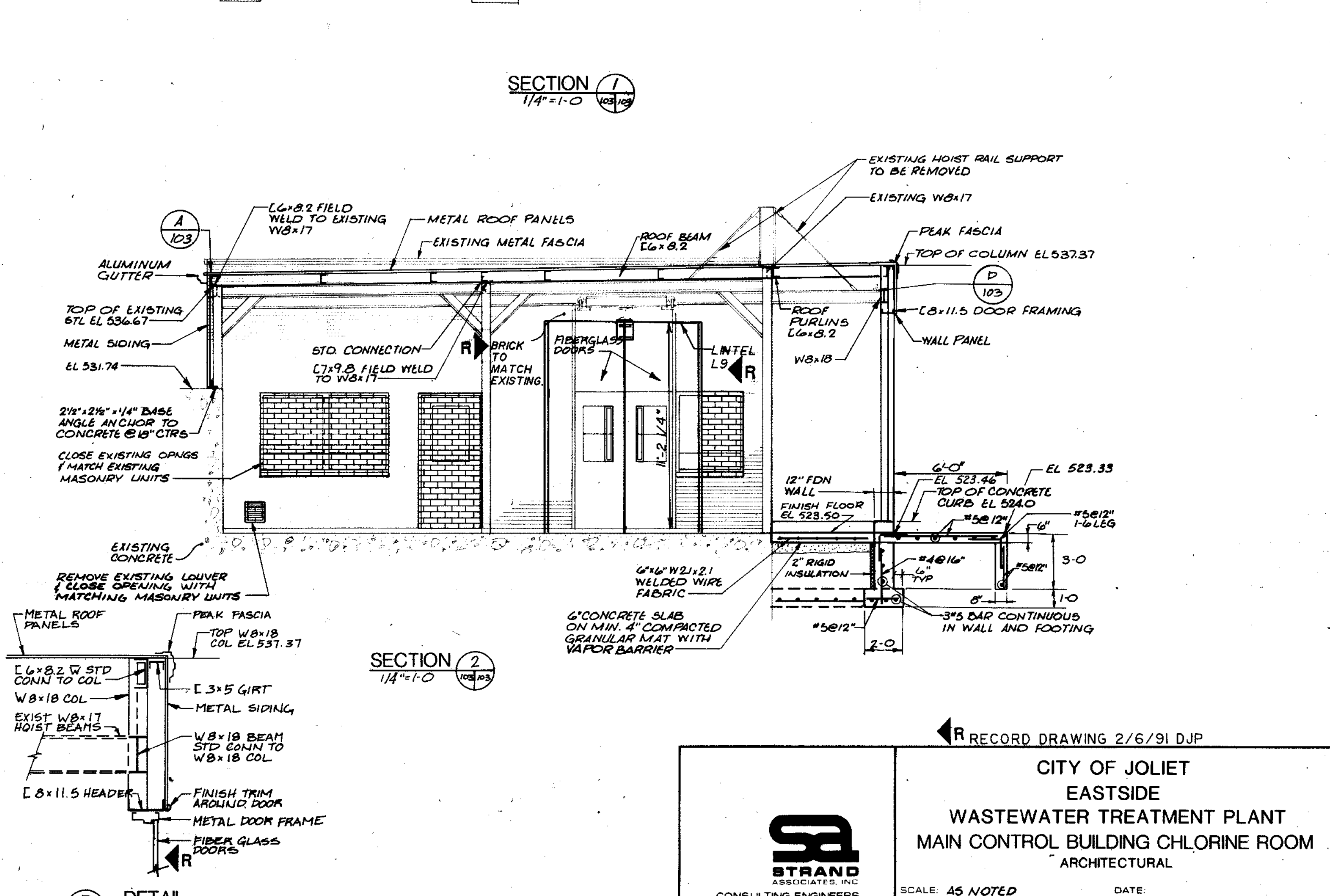
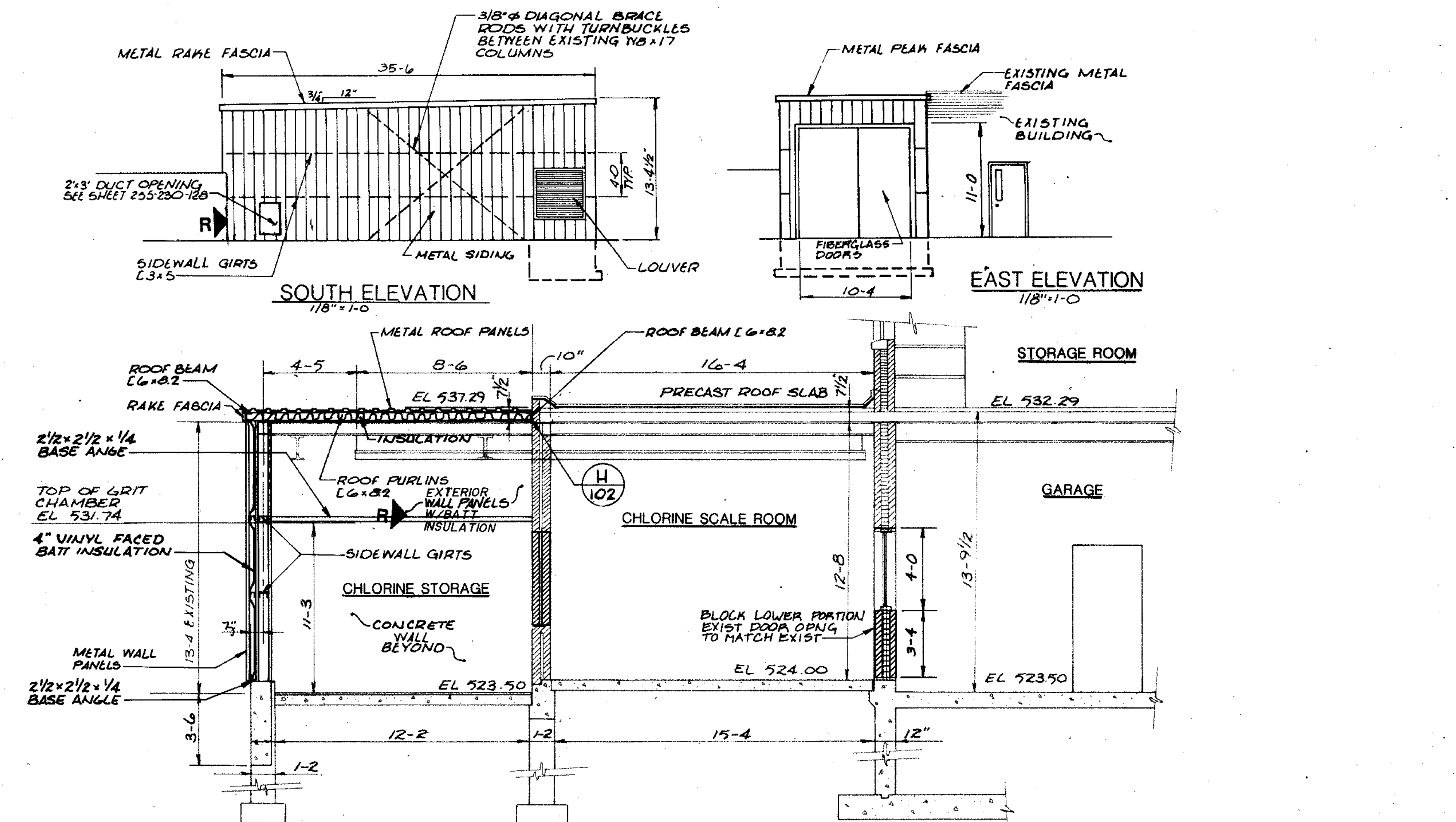
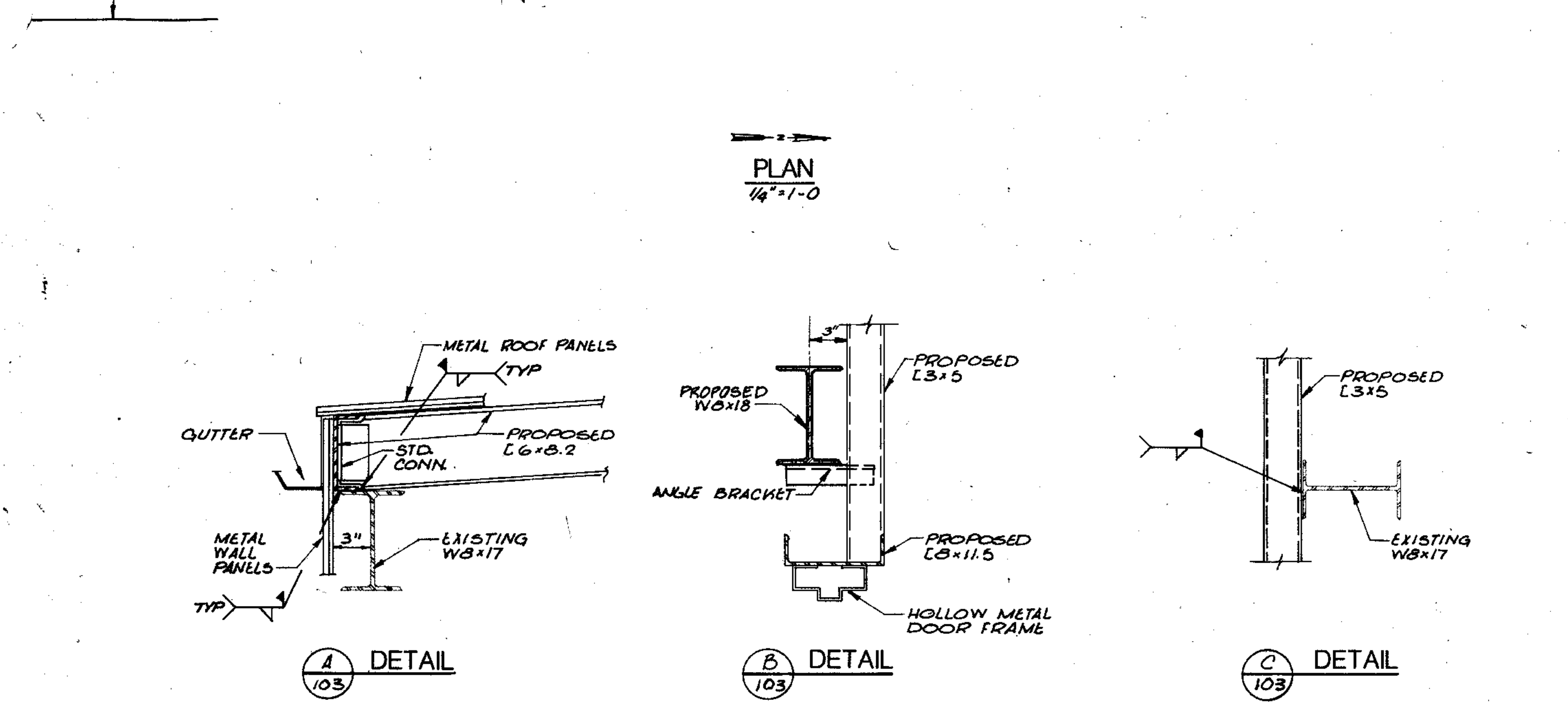
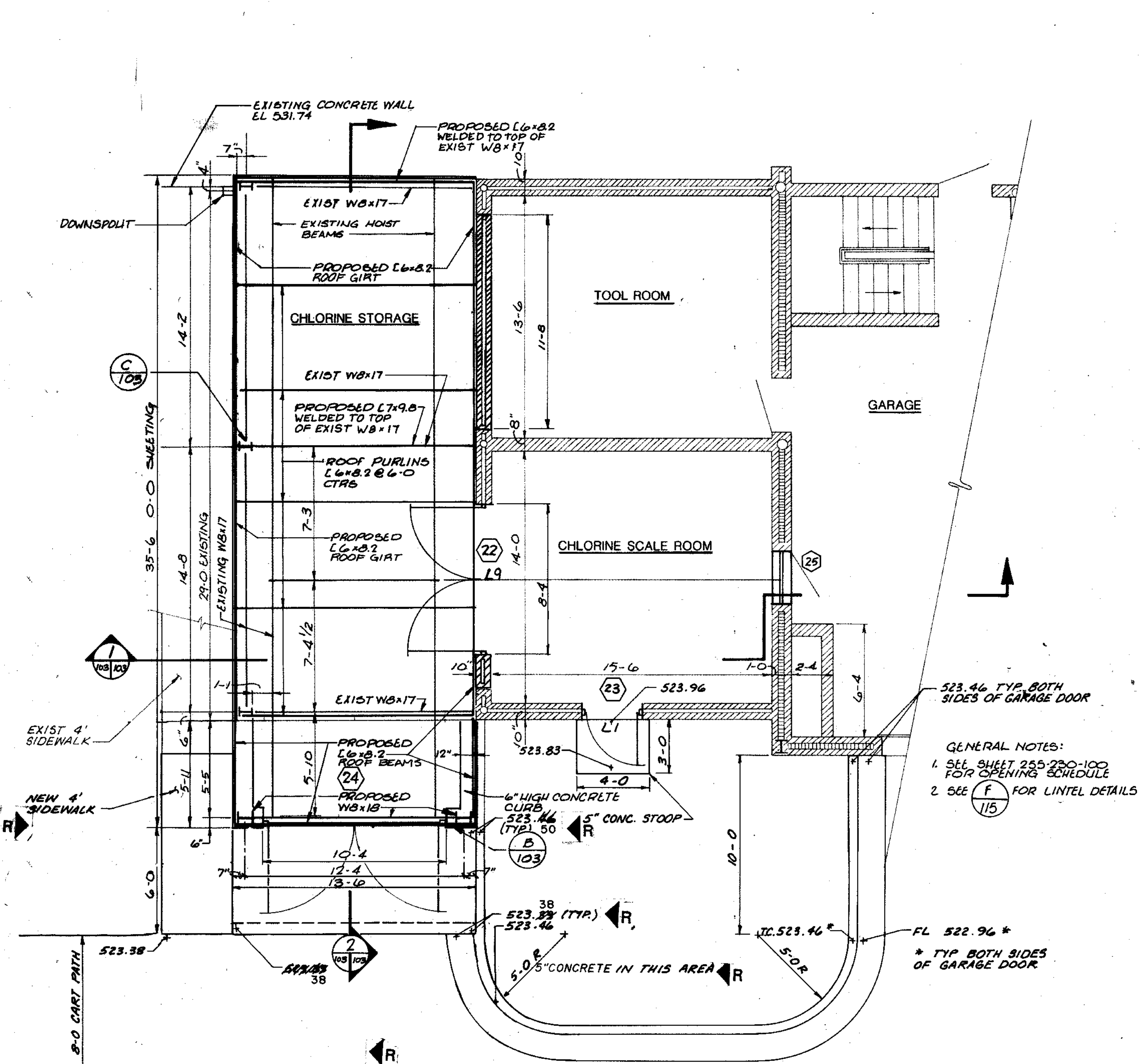
910 West Wmgra Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
MAIN CONTROL BUILDING
STRUCTURAL FOUNDATION & DETAILS

SCALE: AS NOTED DATE: DRAWING NO. **255-230-102**

Beijing Consultants
Hilcrest Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435
(815) 729-1800

| | |
|-------------|------------------|
| COMPOSITE | CB-EG-103-ES-103 |
| OVERLAY | CB-EG-103-ES-103 |
| PROJECT NO. | 5 |
| DATE | |



RECORD DRAWING 2/6/91 DJP

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
MAIN CONTROL BUILDING CHLORINE ROOM
ARCHITECTURAL

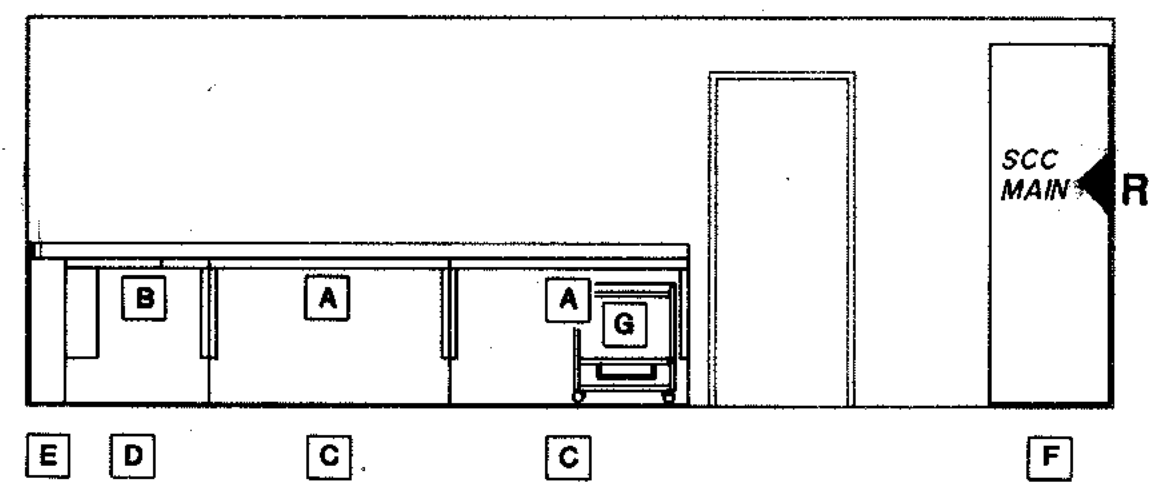
SCALE: AS NOTED DATE: _____

DRAWING NO. 255-230-103

STRAND ASSOCIATES, INC. CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

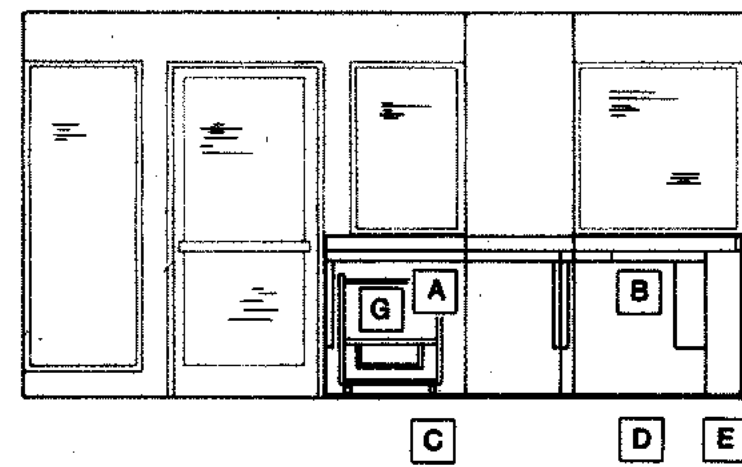
Beiling Consultants
Hilcrest Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435

SHEET 44 OF 70

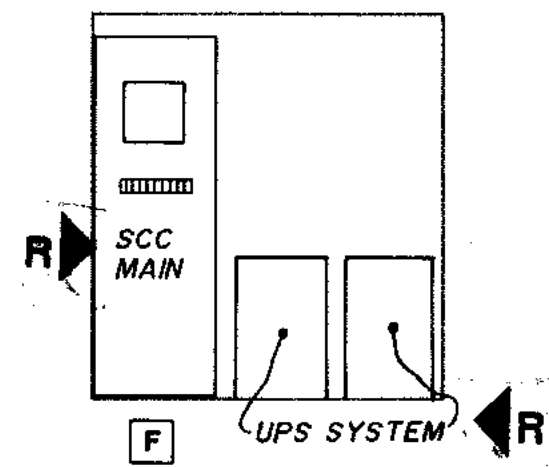


SOUTH

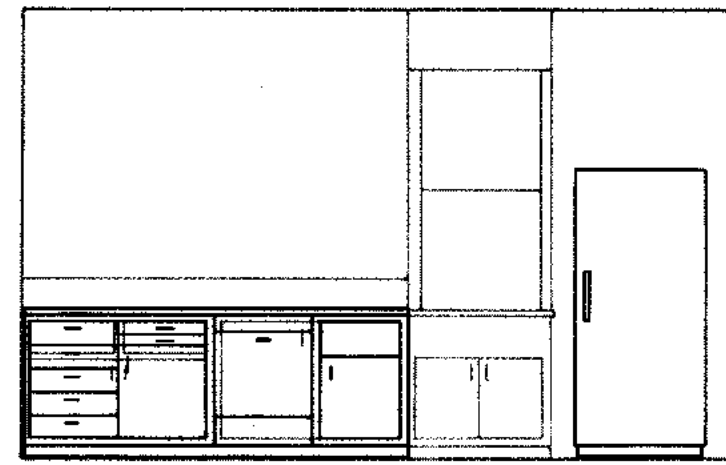
R COUNTER TOP HEIGHT 30"



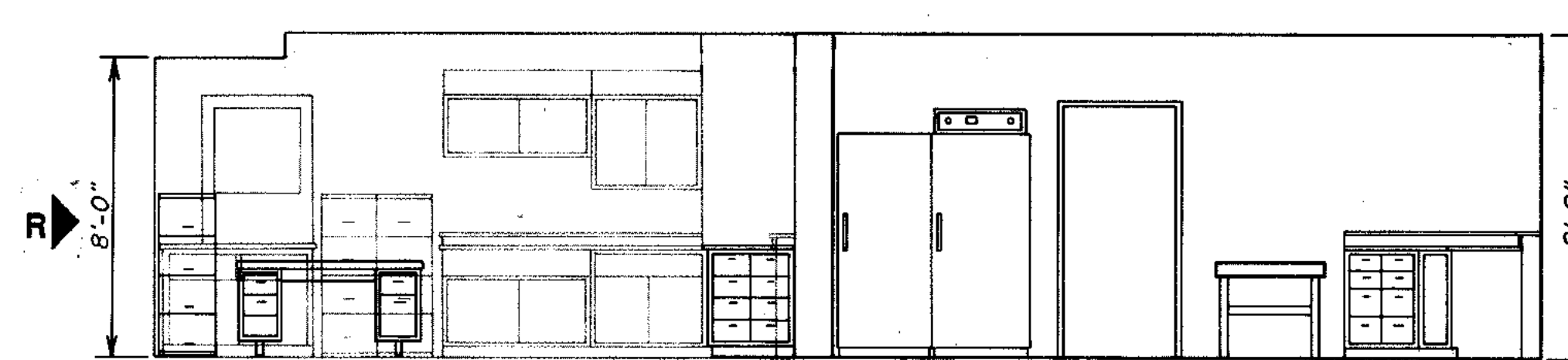
EAST



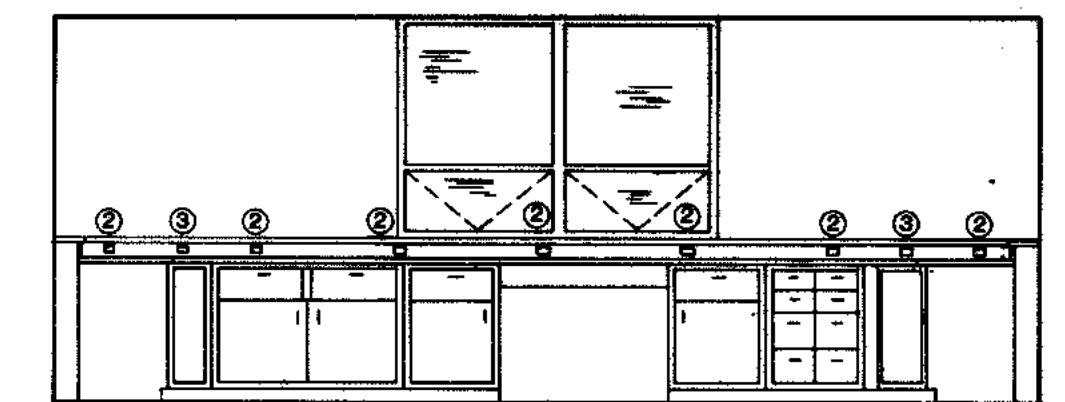
WEST



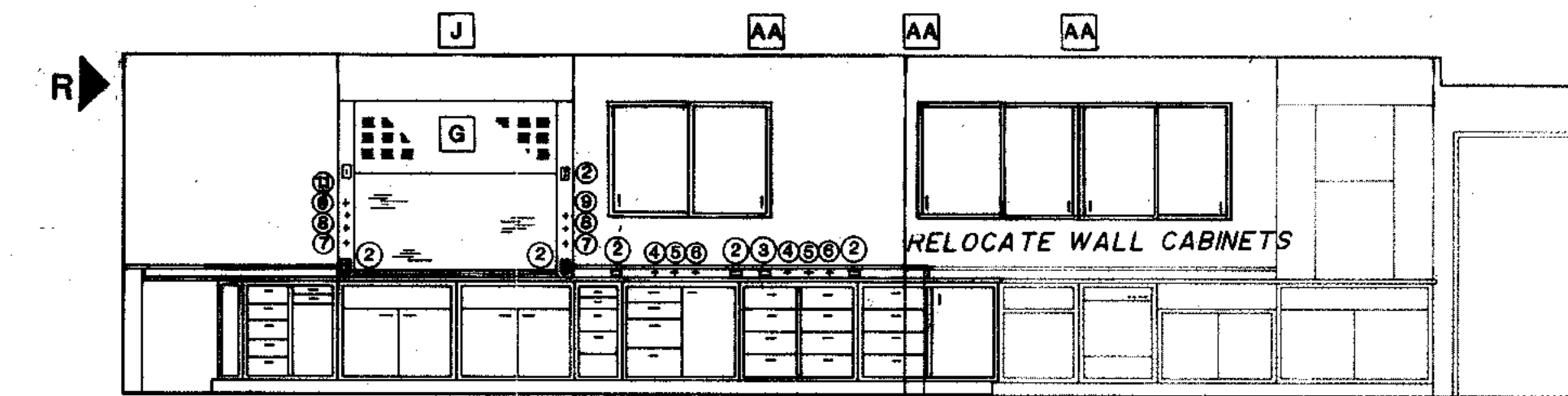
WATER LAB SOUTH



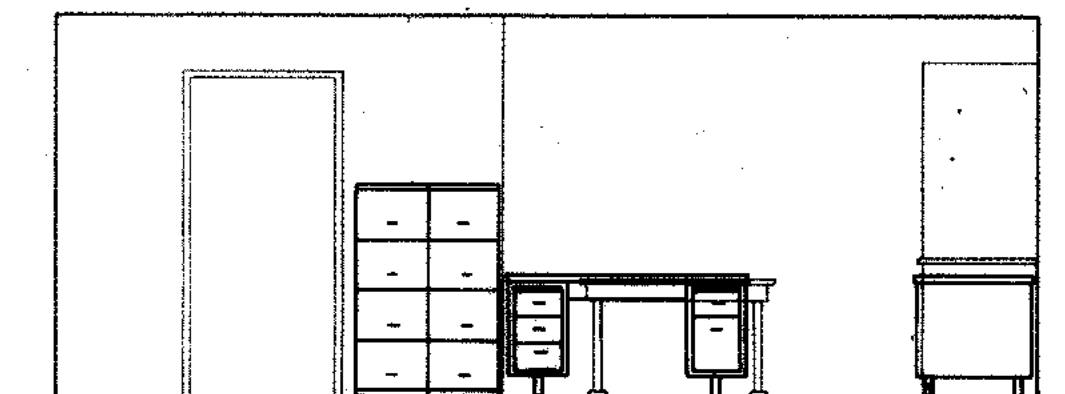
NORTH



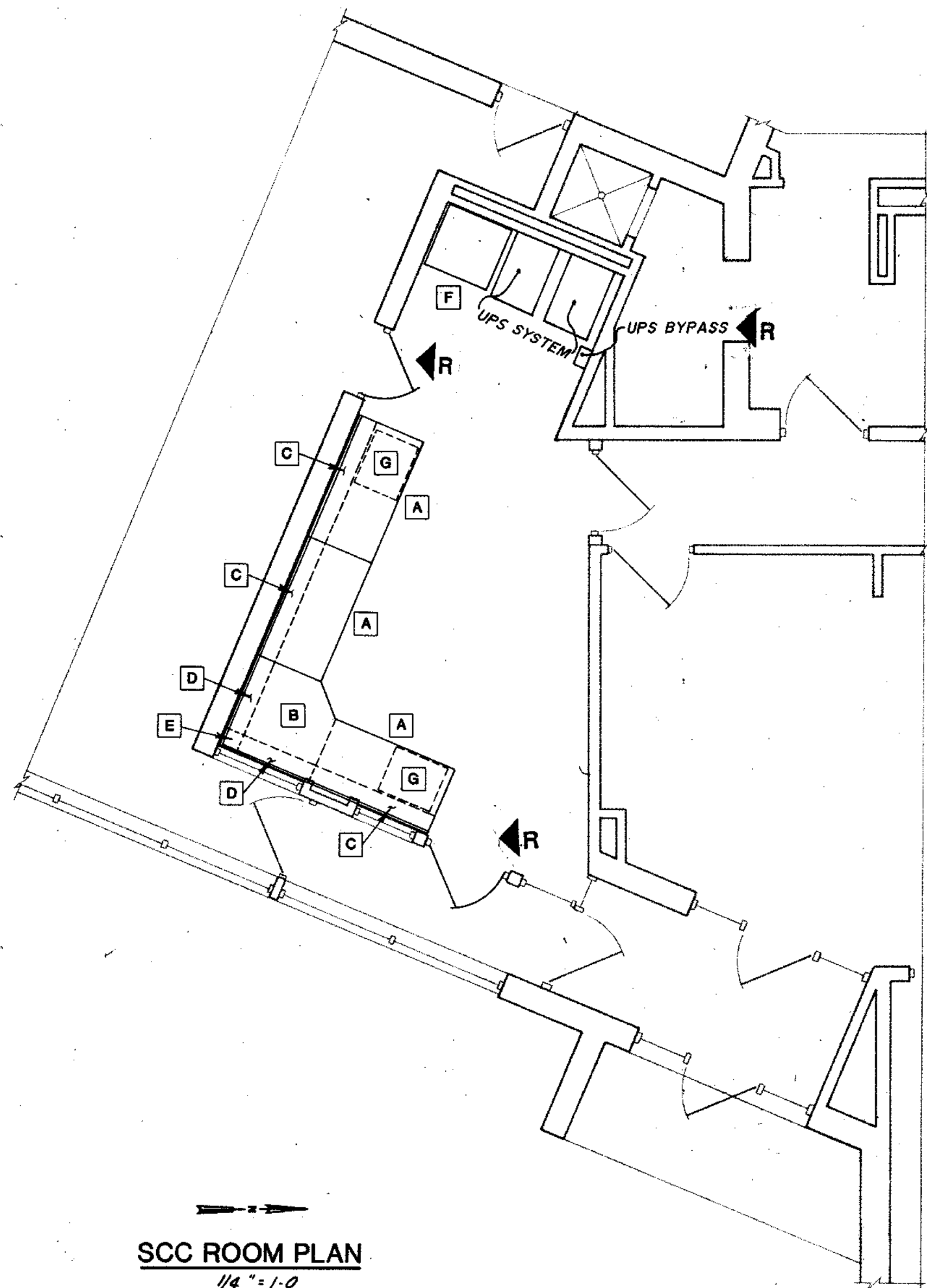
EAST



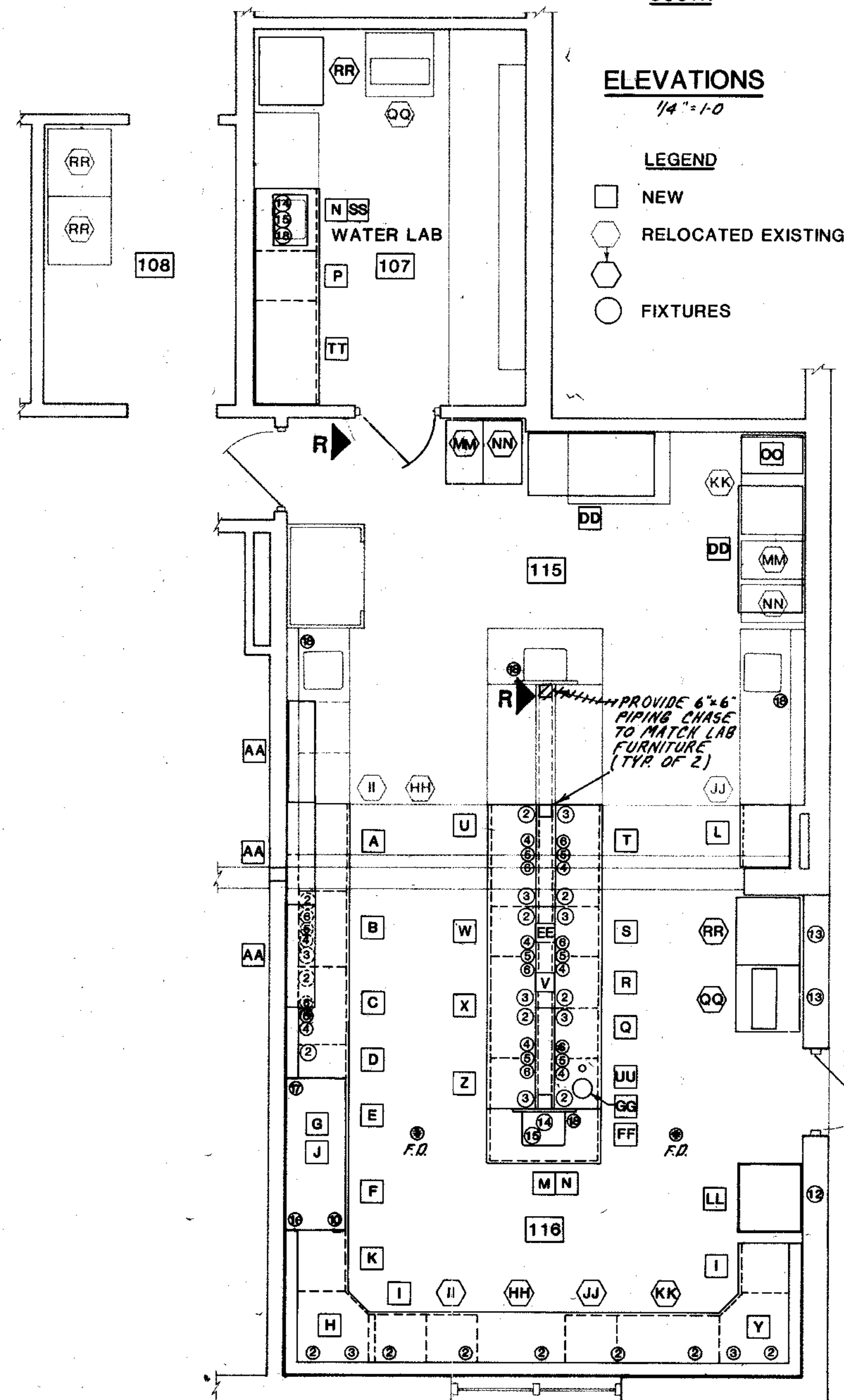
SOUTH



WEST



SCC ROOM PLAN
1/4" = 1'-0"



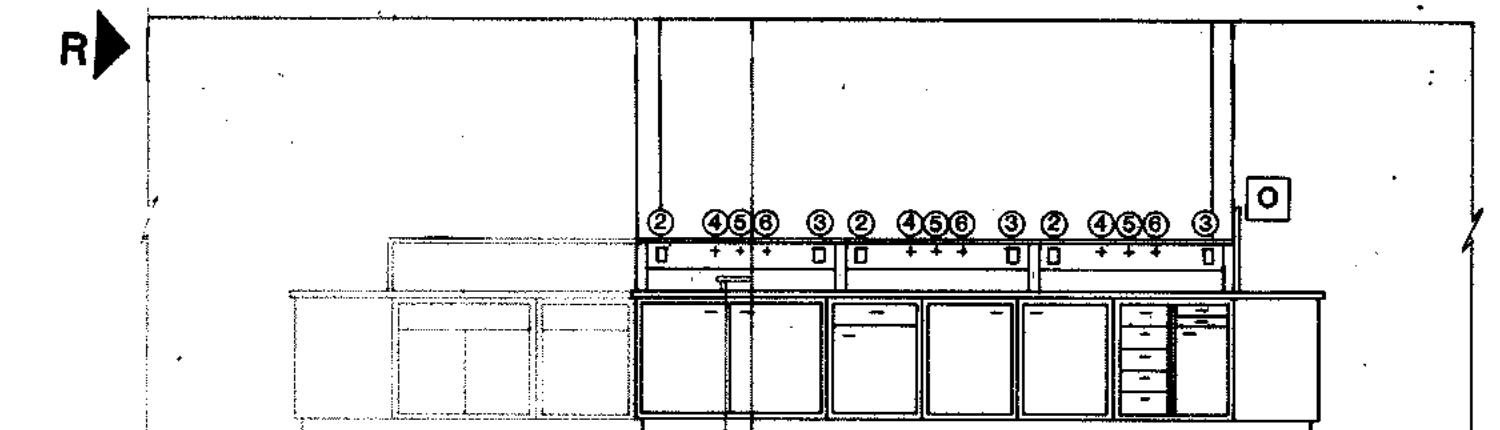
LABORATORY PLAN
1/4" = 1'-0"

ELEVATIONS

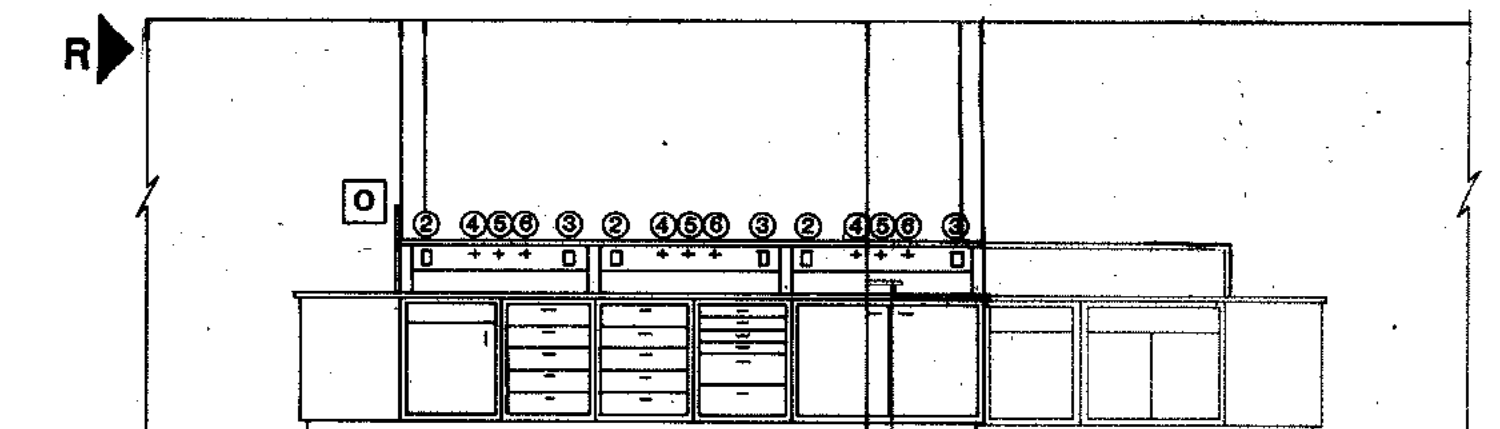
1/4" = 1'-0"

LEGEND

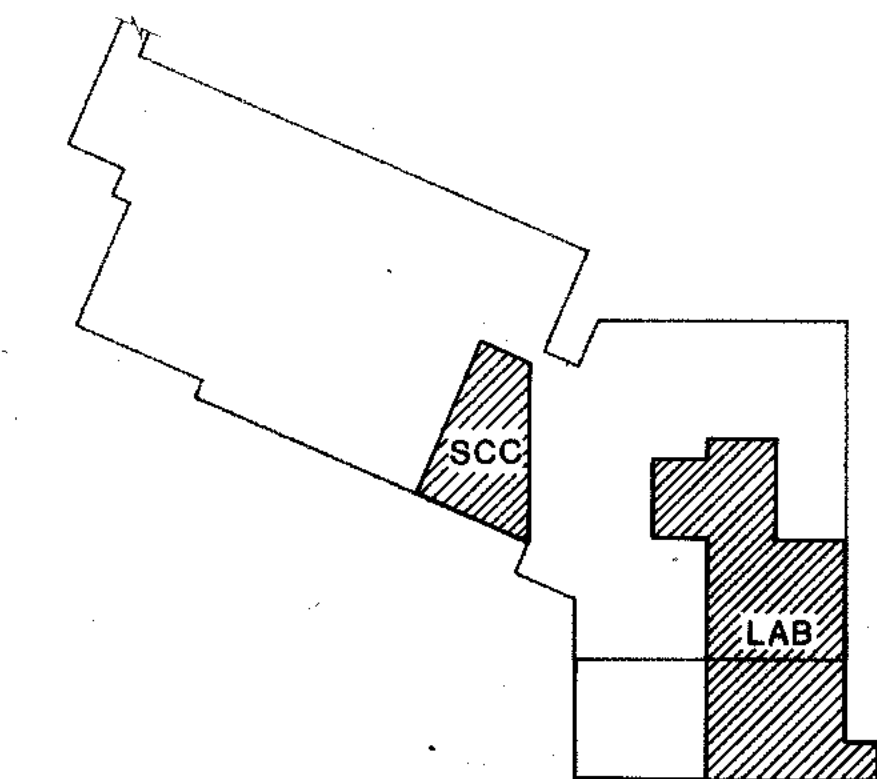
- NEW
- RELOCATED EXISTING
- FIXTURES



ISLAND NORTH



ISLAND SOUTH



LOCATION PLAN

R RECORD DRAWING 5/22/91 DJP

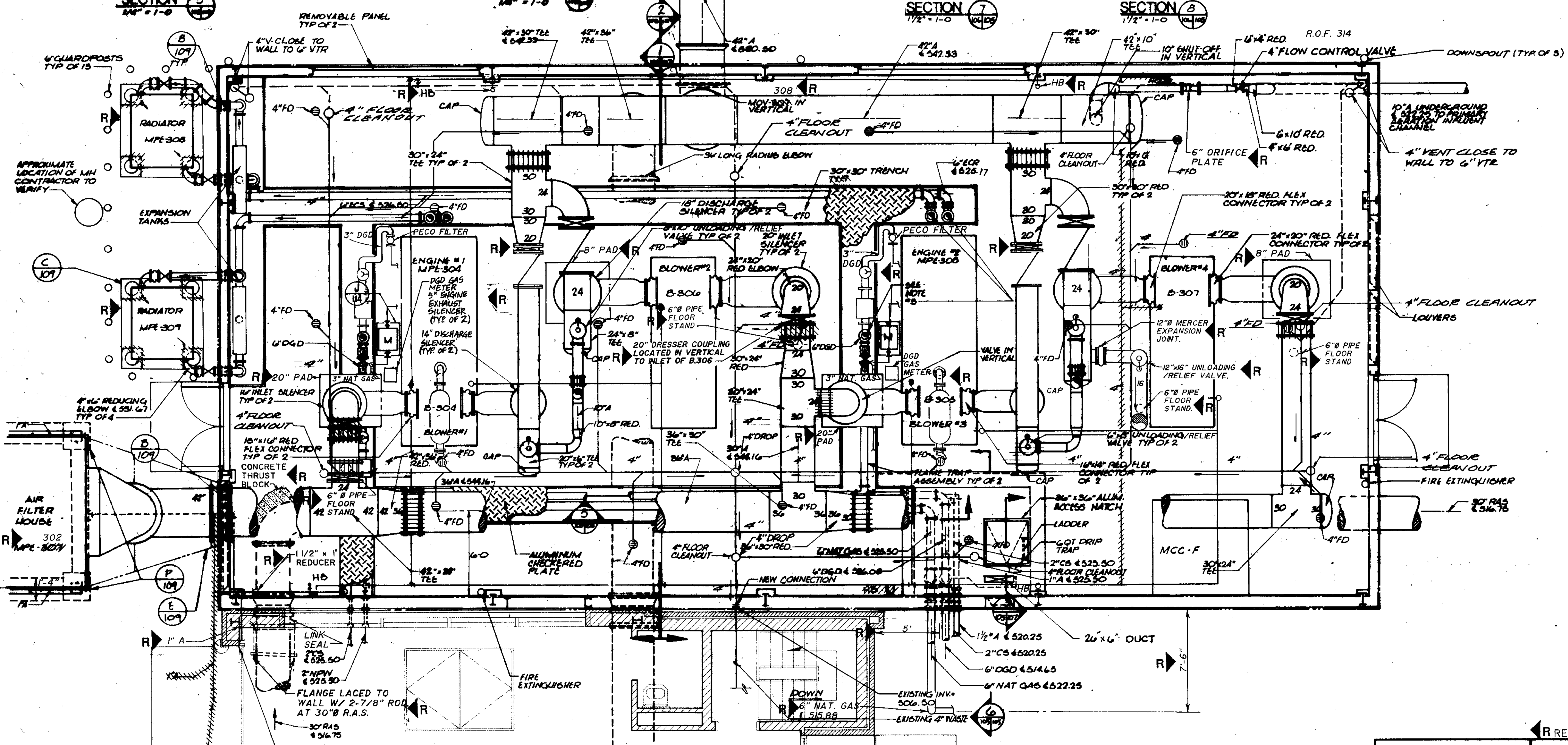
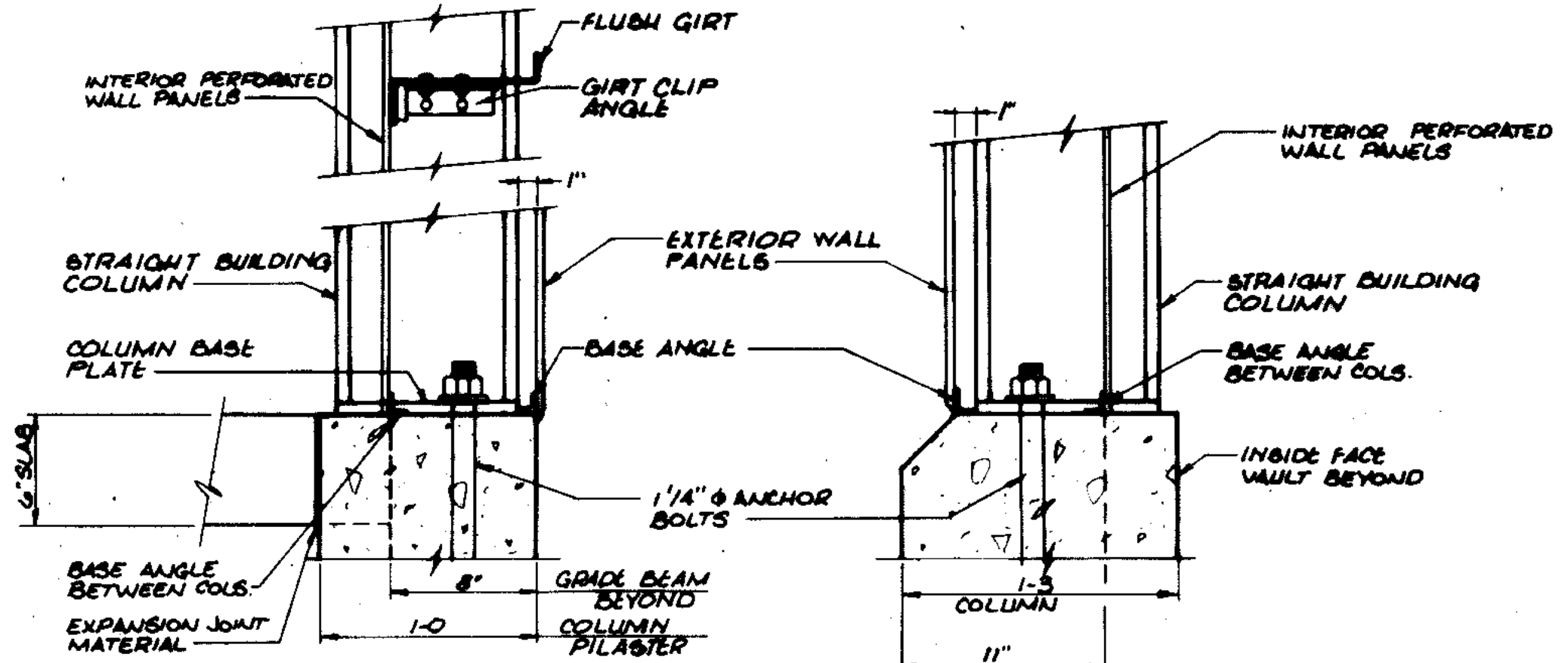
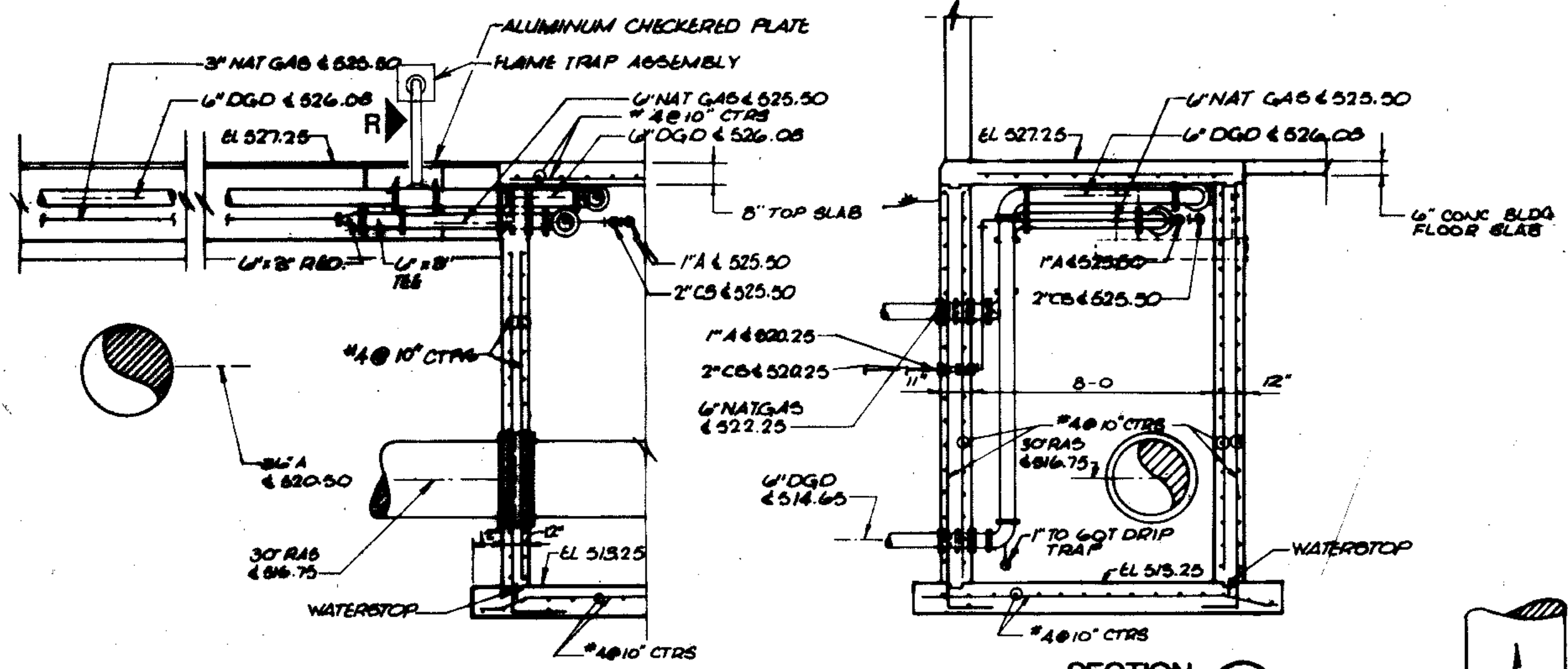
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| OVERLAY IDENTIFICATION | MC2C | BC2A |
| PROJECT NO. | MC2C | BC2A |
| DATE | | |

STRAND
ASSOCIATES INC
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel. (608) 251-4843

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
MAIN CONTROL BUILDING
LAB / SCC ROOM FURNITURE

SCALE: DATE:
DRAWING NO.
255-230-104

- GENERAL**
1. SEE SHEET 255-230-113 FOR DIMENSIONS AND TYPICAL WALL SECTIONS.
 2. SEE SHEET 255-230-113 FOR DIMENSIONS AND TYPICAL WALL SECTIONS.
 3. ALL FINAL CONNECTIONS TO ENGINES BY EQUIPMENT MANUFACTURER.
 4. FOR ALL WALL PENETRATIONS THROUGH EXISTING BUILDINGS SEE 6.
 5. SEE 115 FOR BLOWER BASE MOUNTING DETAILS.



EXISTING BLOWER BUILDING

ROUTE 1'A INSIDE BLOWER BLDG. ABOVE GARAGE DOOR OVER TO MPE 301 CONTROL PANE LOCATED ON INTERIOR WEST WALL.

THIS DRAWING NO. 255-230-105 THRU 255-230-115 PREPARED UNDER THIS PROFESSIONAL SEAL.

STRUCTURAL ENGINEERING ON DRAWING NO. 255-230-105 THRU 255-230-115 PREPARED UNDER THIS PROFESSIONAL SEAL.



Henry May 2/23/88 William Thompson 2/23/88

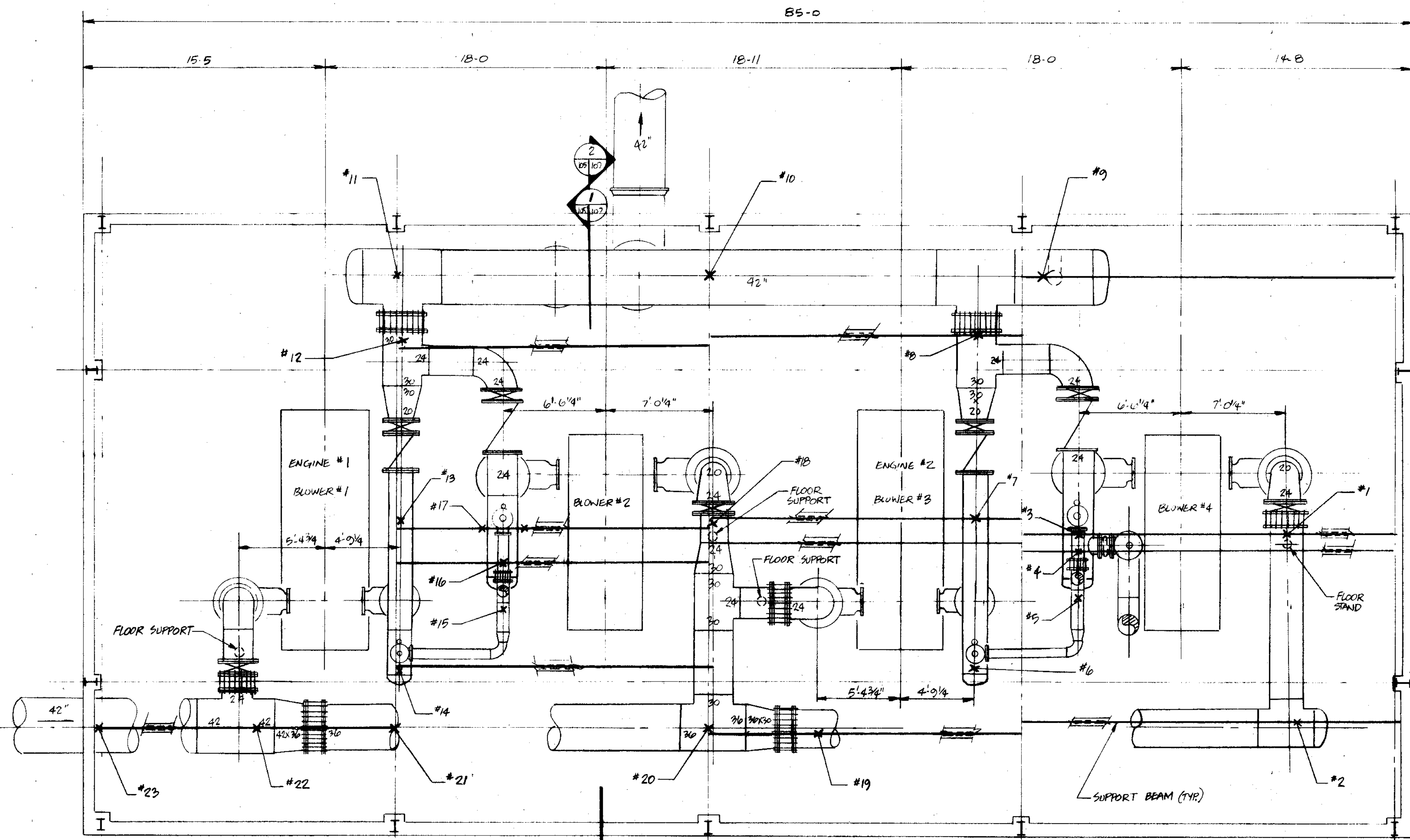
RECORD DRAWING 5/22/91 DJP

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
BLOWER BUILDING
PLAN AND SECTION



SCALE AS SHOWN DATE: _____

255-230-105




BLOWER BUILDING PLAN

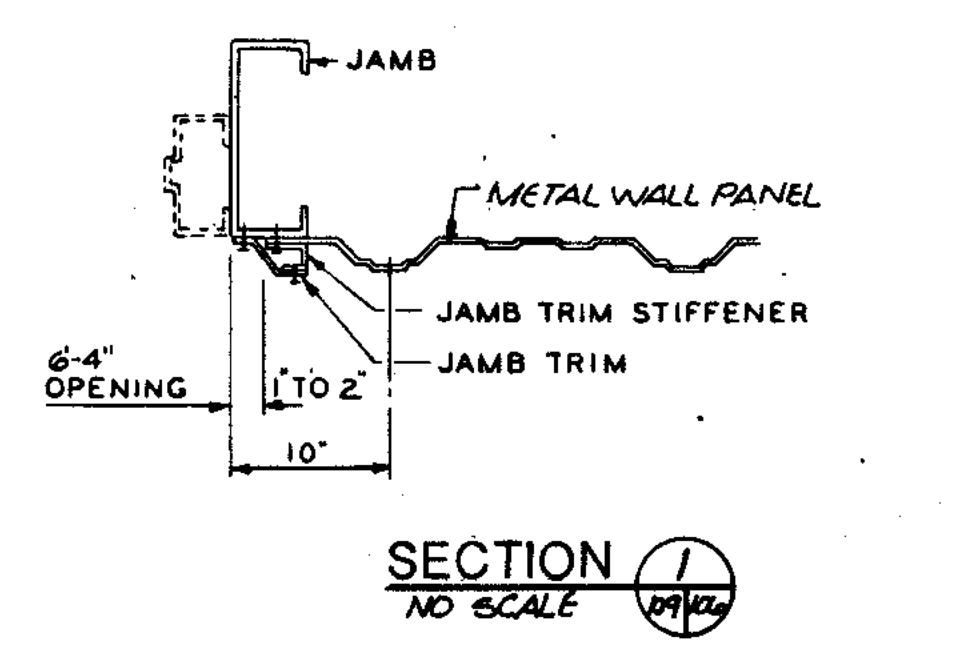
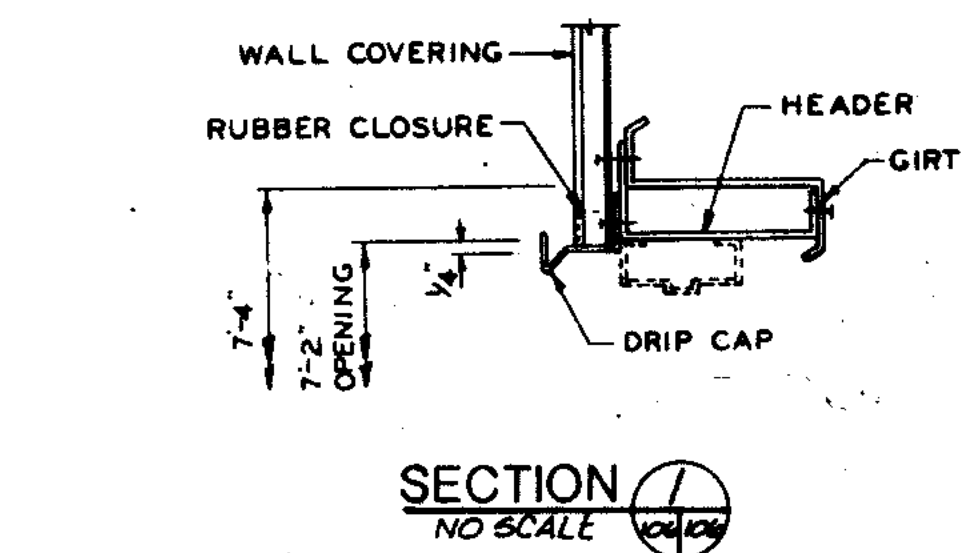
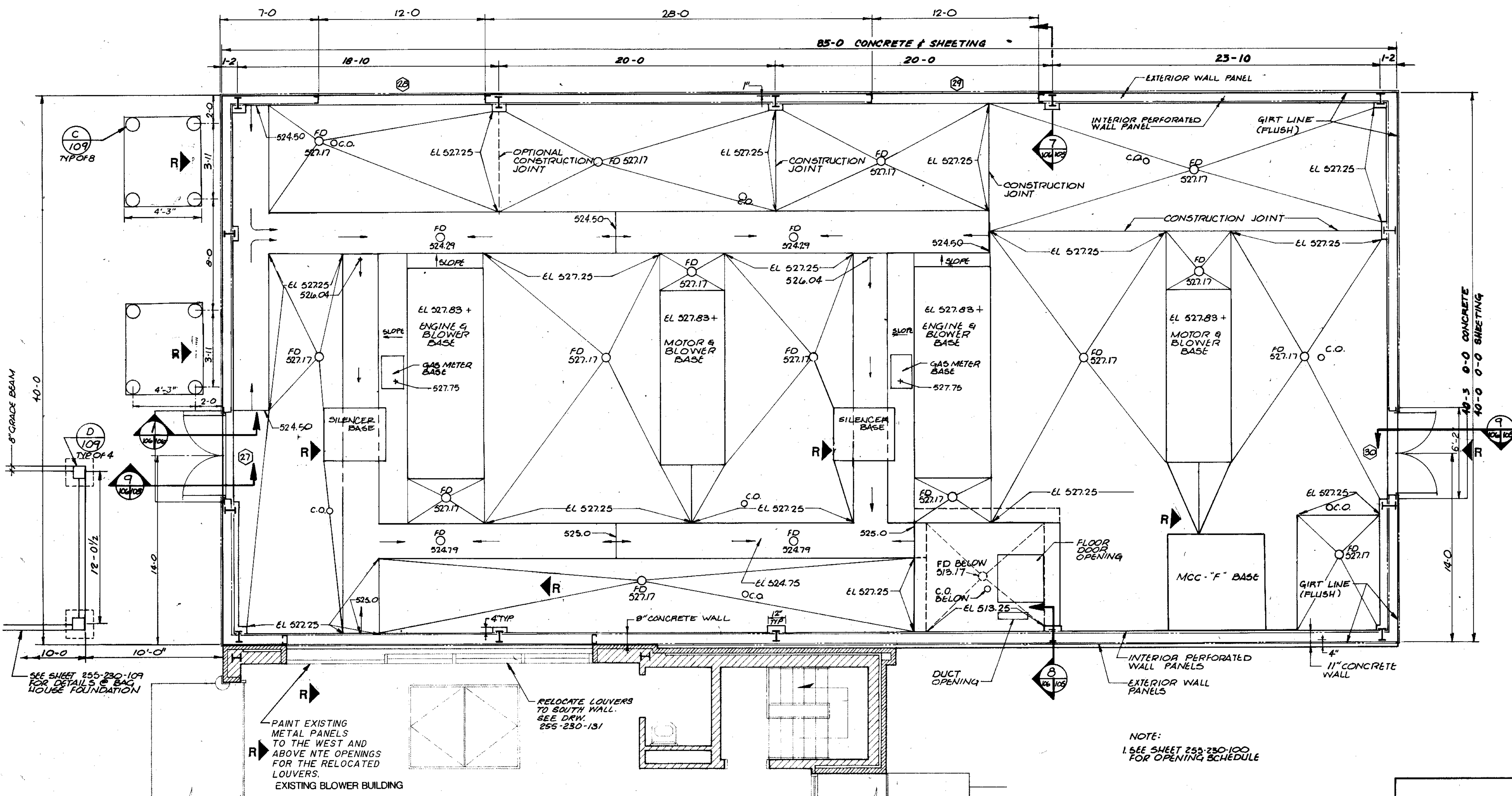
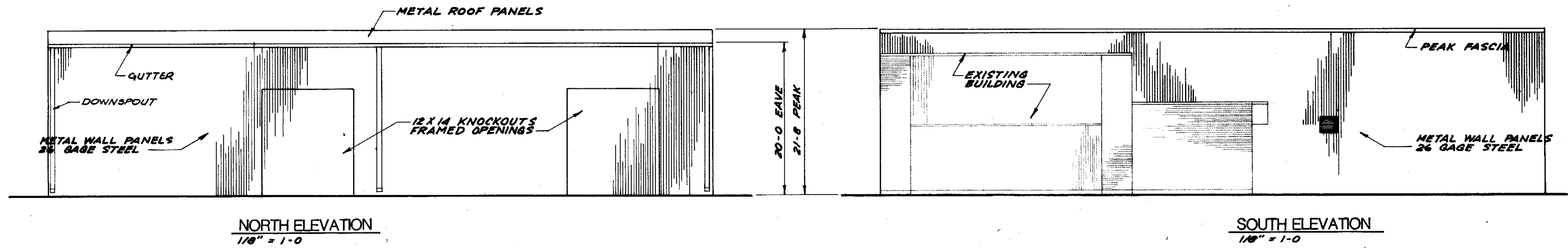
1/4" = 1'-0"

| SUPPORT LOAD TABLE | |
|--------------------|-------------|
| NO. | LOAD 1078 # |
| 1 | |
| 2 | 3167 |
| 3 | 4353 |
| 4 | 816 |
| 5 | 854 |
| 6 | 1913 |
| 7 | 1984 |
| 8 | 1500 |
| 9 | 4933 |
| 10 | 4884 |
| 11 | 4661 |
| 12 | 1500 |
| 13 | 1984 |
| 14 | 1913 |
| 15 | 854 |
| 16 | 816 |
| 17 | 4353 |
| 18 | 1865 |
| 19 | 2630 |
| 20 | 3393 |
| 21 | 2850 |
| 22 | 2829 |
| 23 | 1373 |

NOTE: APPROXIMATE LOCATIONS OF SUPPORT BEAMS AND LOADING.

RECORD DRAWING 11-91 JKP

| | | |
|--|---|---|
|  <p>STRAND ASSOCIATES, INC. CONSULTING ENGINEERS 910 West Wingra Drive Madison, Wisconsin 53715 Tel. (608) 251-4843</p> | <p align="center">CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT BLOWER BUILDING AIR PIPING PLAN</p> | |
| | <p>SCALE: AS NOTED</p> <p>DES. BY OWN. BY JKP CHK. BY APP. BY</p> | <p>DATE: 5-29-90</p> <p>DRAWING NO. 200-230-105A</p> |



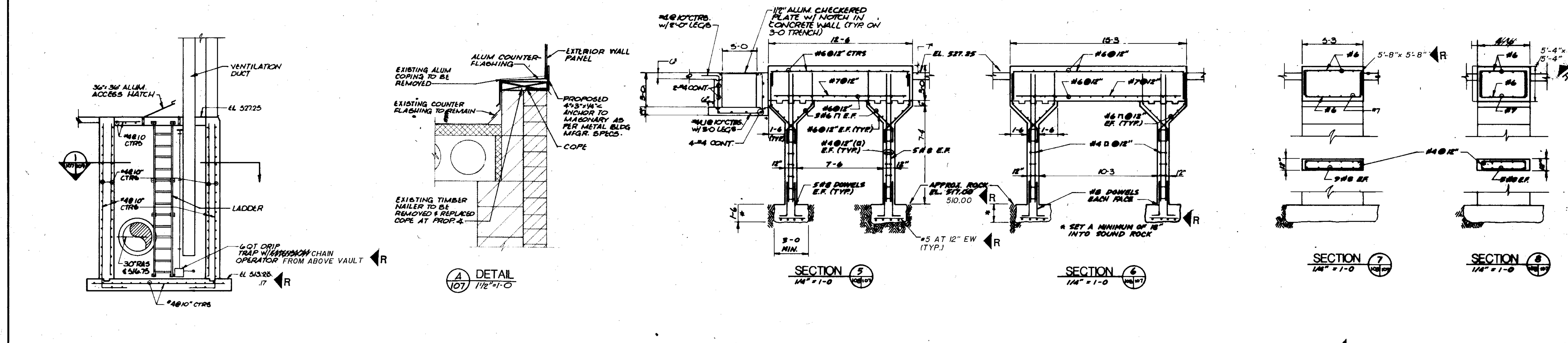
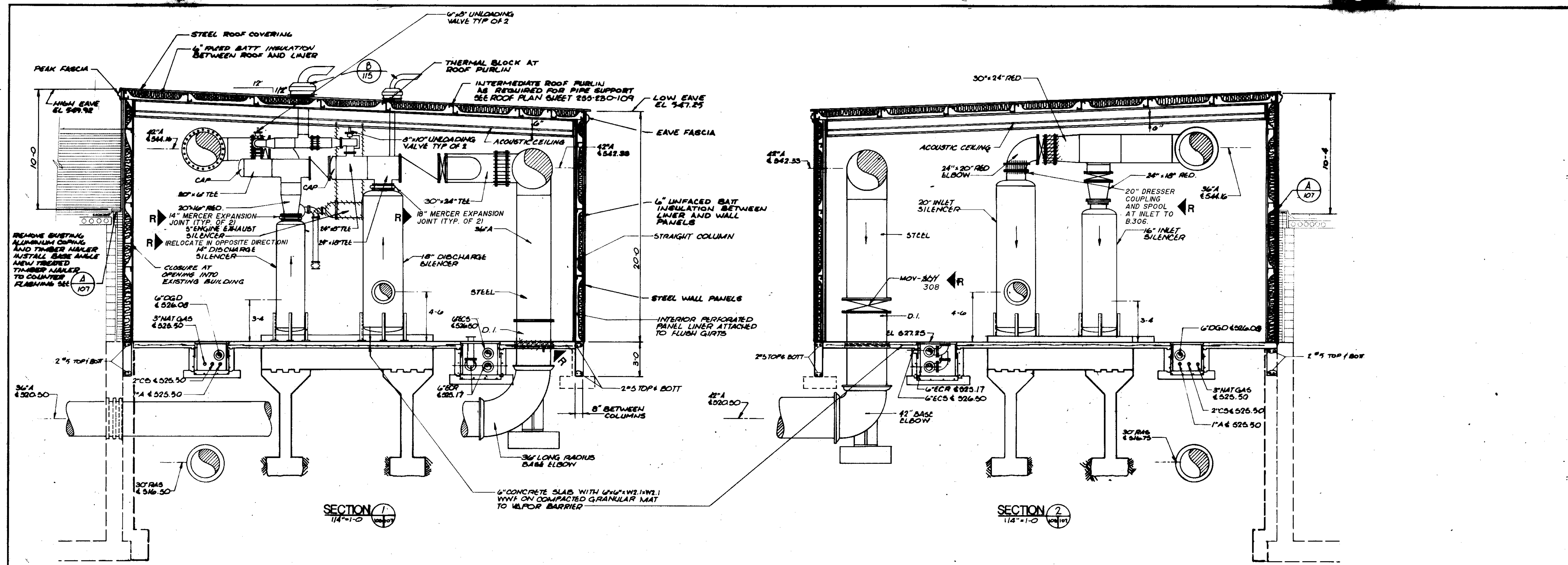
| | | | | | | |
|-------------|--------|--------|--------|--------|--------|--------|
| COMPOSITE | 55-104 | 55-104 | 55-104 | 55-104 | 55-104 | 55-104 |
| OVERLAY | 55-104 | 55-104 | 55-104 | 55-104 | 55-104 | 55-104 |
| PROJECT NO. | 55-104 | 55-104 | 55-104 | 55-104 | 55-104 | 55-104 |
| DATE | | | | | | |

NOTE:
SEE SHEET 255-230-100
FOR OPENING SCHEDULE

RECORD DRAWING 2/6/91 DJP

| | | |
|---|---|-----------------------------------|
| 910 West Wingo Drive Madison, Wisconsin 53715 Tel. (608) 251-4943 | CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT BLOWER BUILDING PLAN ARCHITECTURAL PLAN & ELEVATIONS | |
| | SCALE: AS NOTED DATE: | DRAWING NO. 255-230-106 |

PLAN
1/4" = 1'-0"



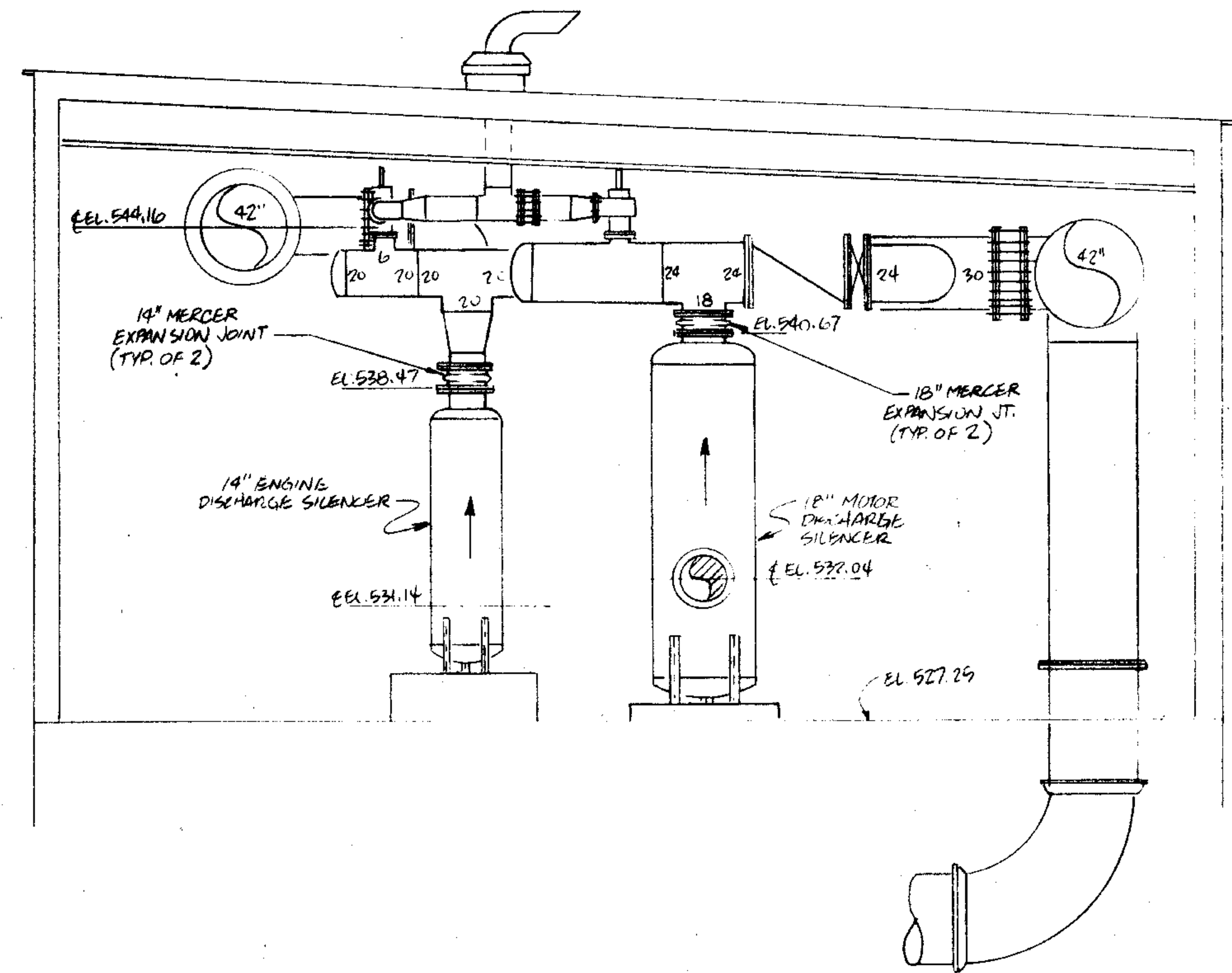
| | | | | | |
|-------------|-------------|----------|----------|----------|----------|
| COMPOSITE | 08-28-97 | 08-28-97 | 08-28-97 | 08-28-97 | 08-28-97 |
| OVERLAY | 08-28-97 | 08-28-97 | 08-28-97 | 08-28-97 | 08-28-97 |
| SCREEN | 08-28-97 | 08-28-97 | 08-28-97 | 08-28-97 | 08-28-97 |
| PROJECT NO. | 255-230-107 | | | | |
| DATE | 08-28-97 | | | | |

RECORD DRAWING 2/6/91 DJP

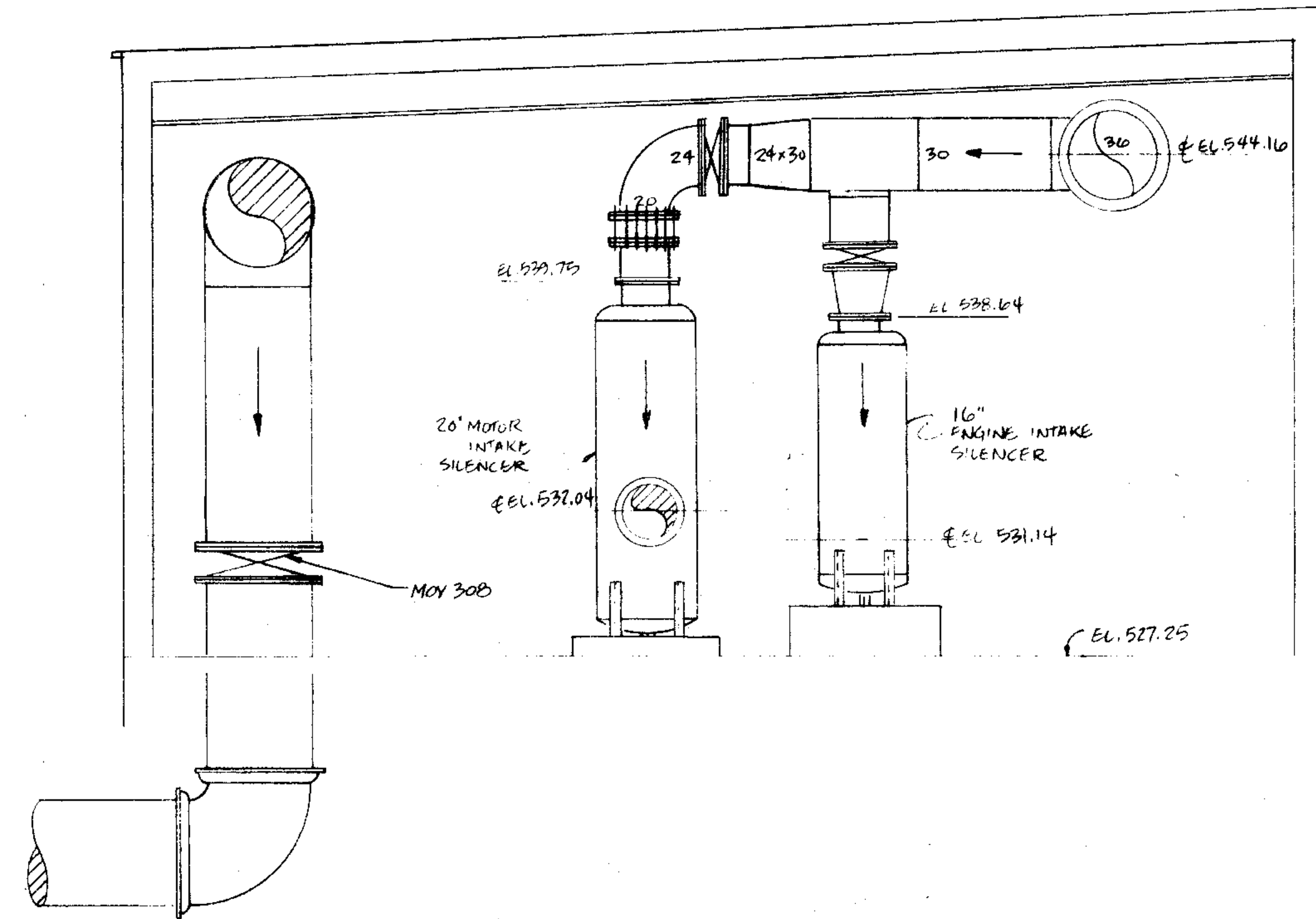
CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
BLOWER BUILDING
SECTIONS

STRAND
ASSOCIATES, INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel: (608) 251-4941

SCALE AS NOTED DATE _____ DRAWING NO. **255-230-107**



SECTION 1
1/4" = 1'-0" (105/107)



SECTION 2
1/4" = 1'-0" (105/107)

RECORD DRAWING 11-91 JKP

STRAND
ASSOCIATES, INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel: (608) 291-4843

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
BLOWER BUILDING
AIR PIPING SECTIONS

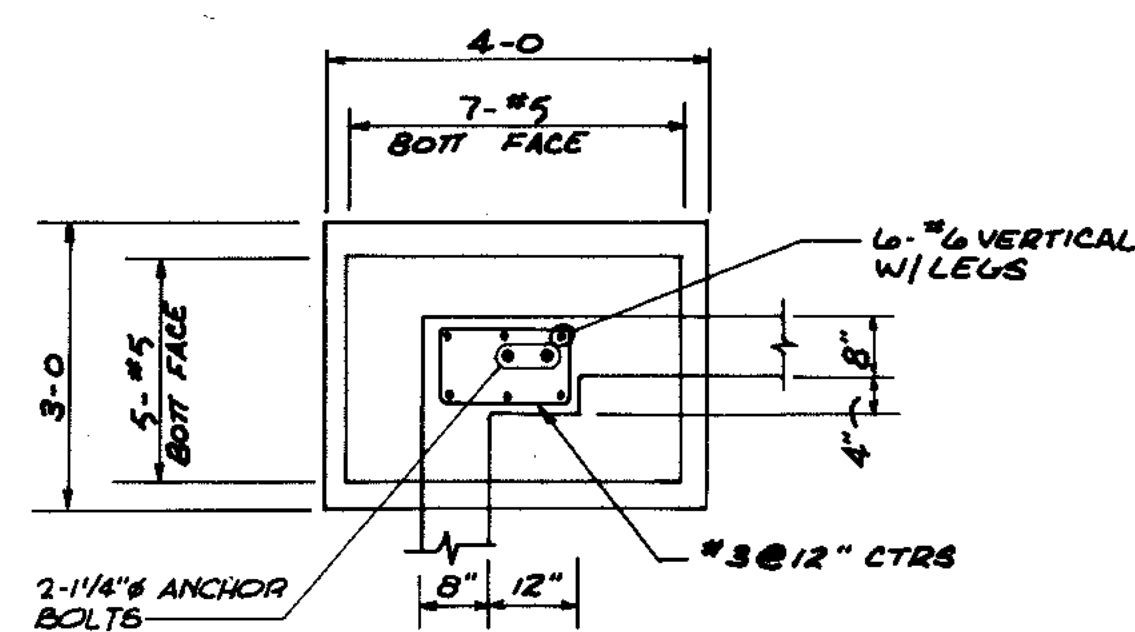
SCALE: AS NOTED

DATE: 5-29-90

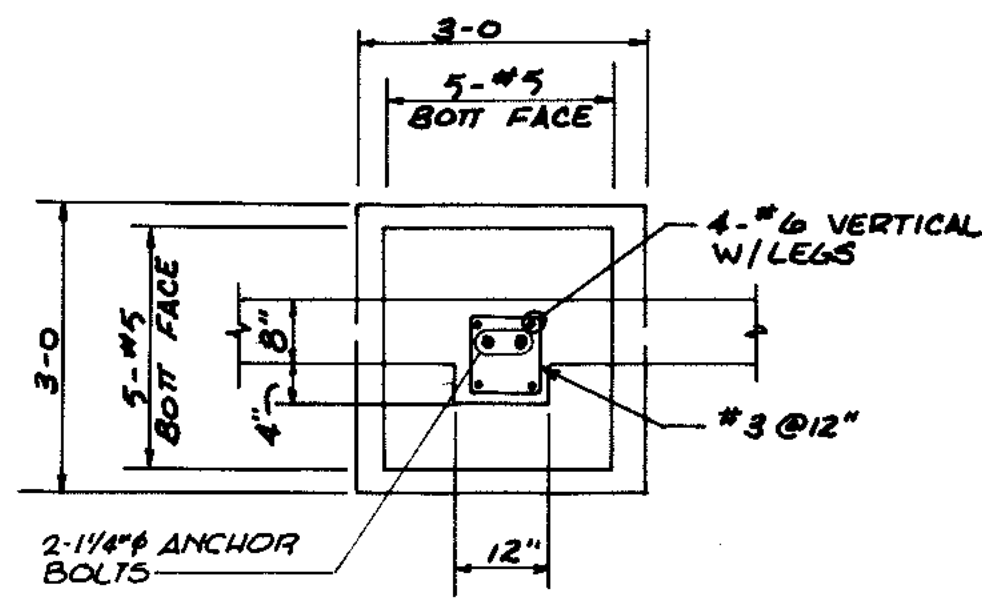
DES. BY
DWN. BY JKP
CHK. BY
APP. BY

DRAWING NO.

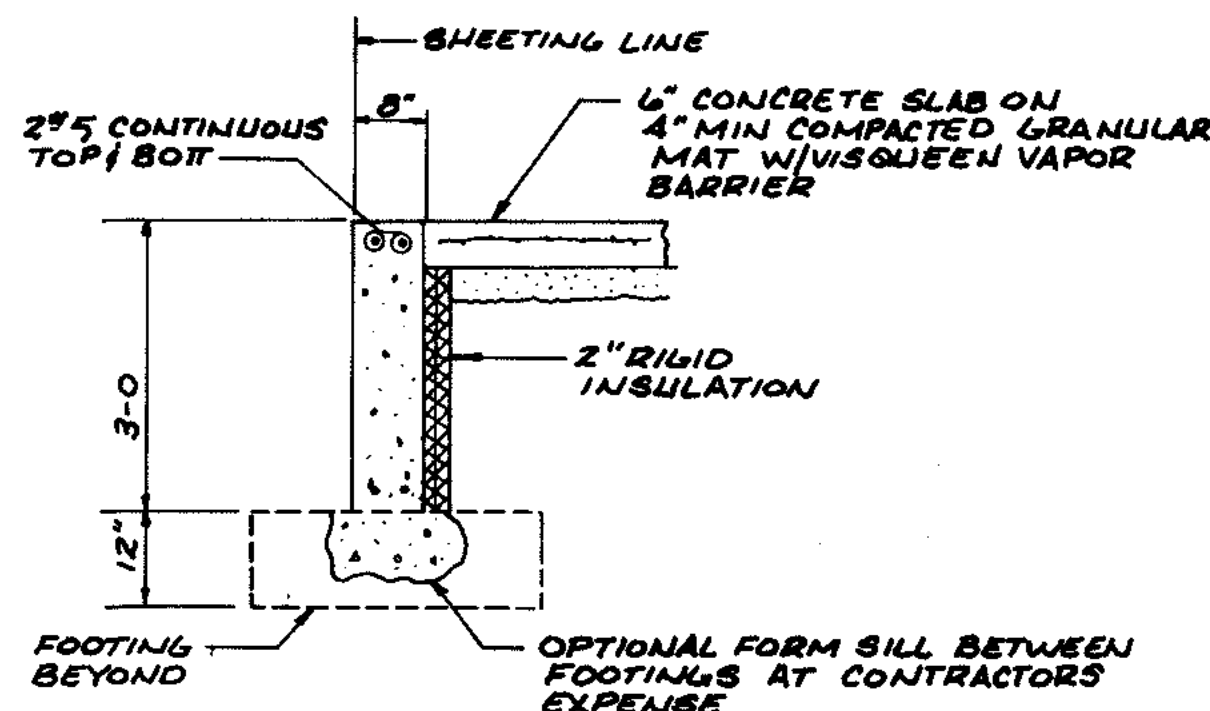
255-230-107A



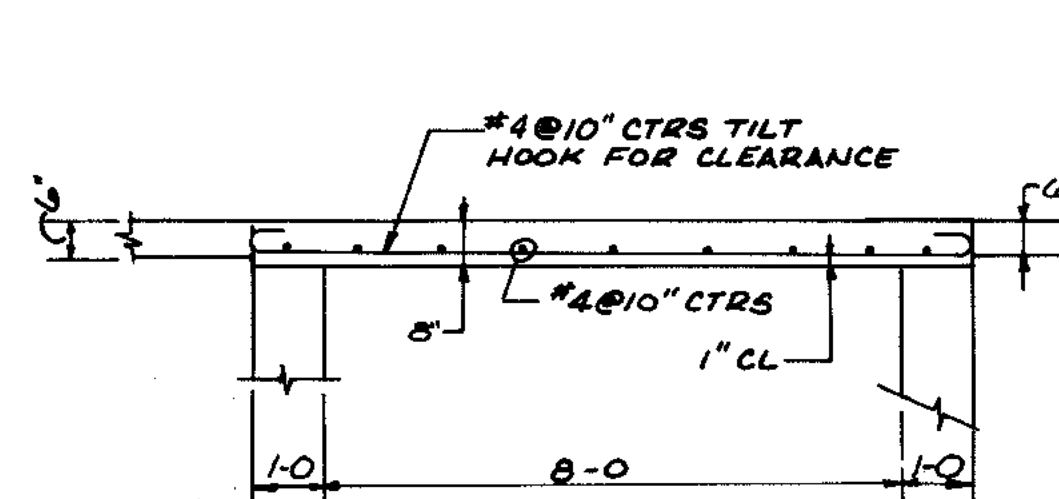
A DETAIL
1/8" = 1'-0"



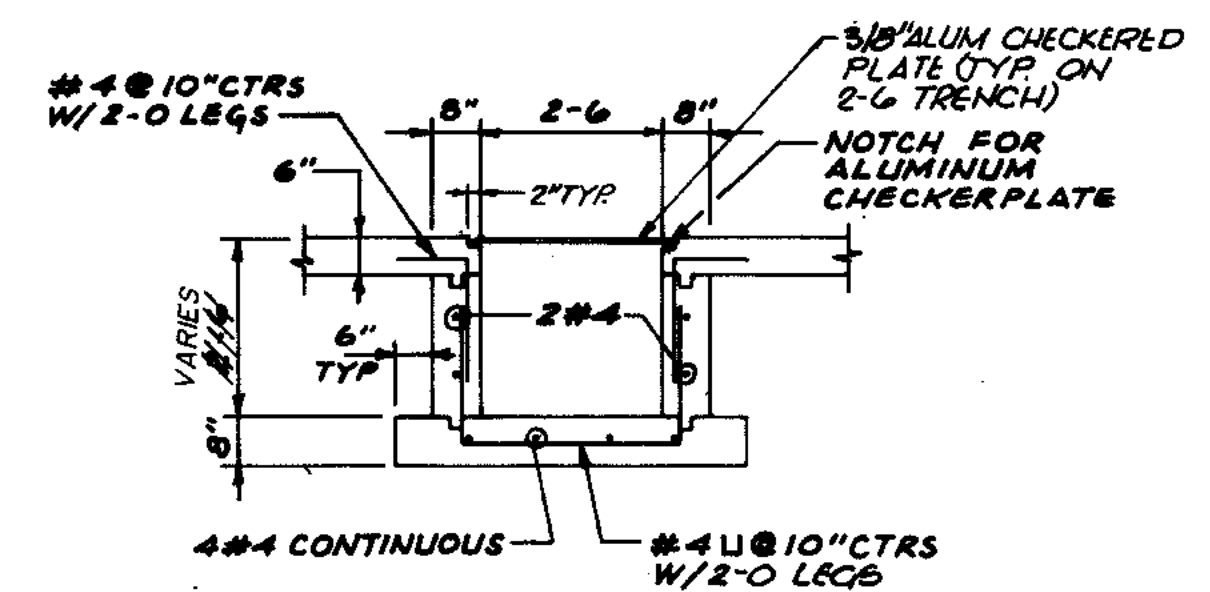
B DETAIL
1/8" = 1'-0"



SECTION
1/8" = 1'-0"

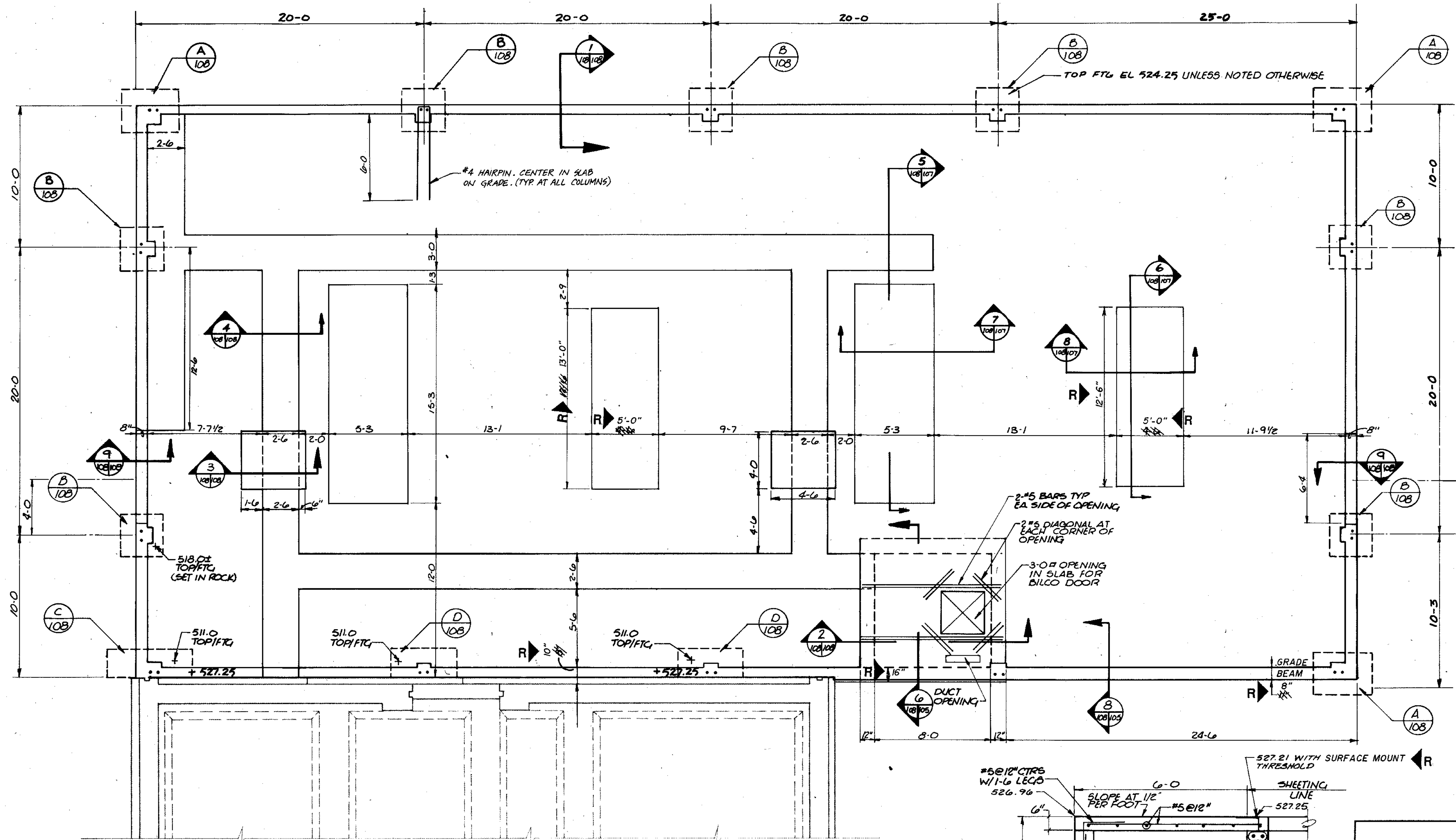


SECTION
3/8" = 1'-0"

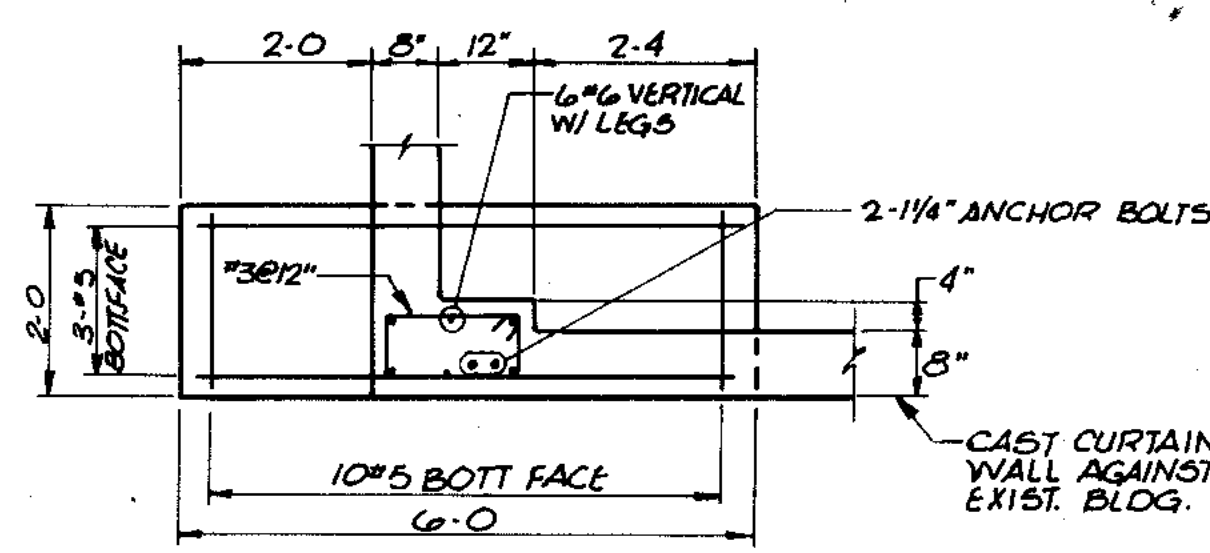


SECTION
3/8" = 1'-0"

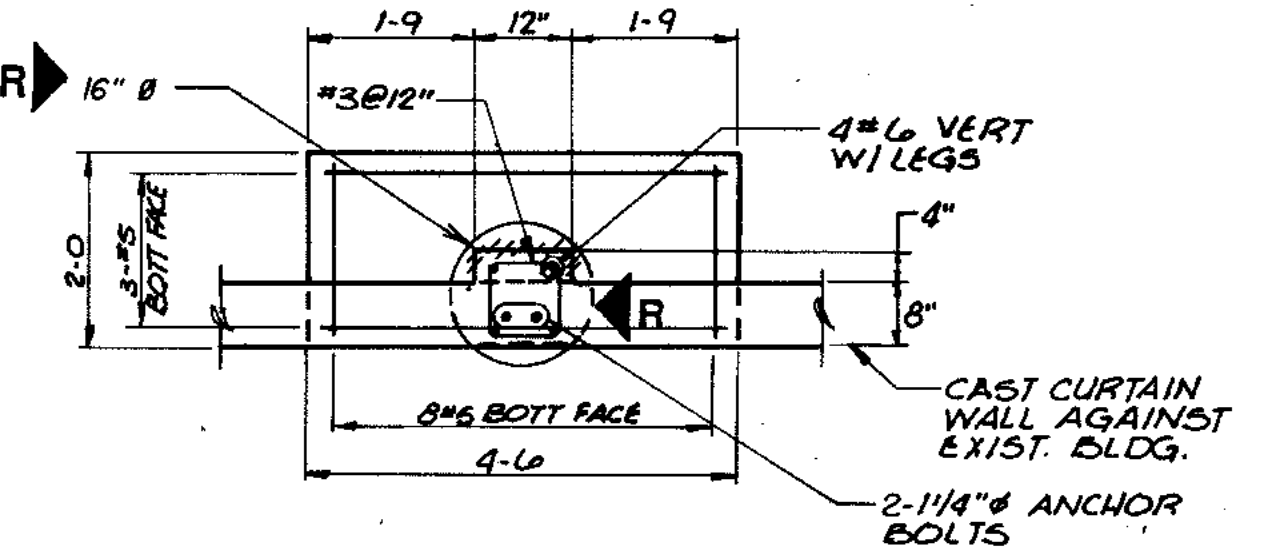
NOTE: COAT ALL ALUMINUM SURFACES WHICH COME IN CONTACT WITH CONCRETE SURFACES WITH MASTIC.



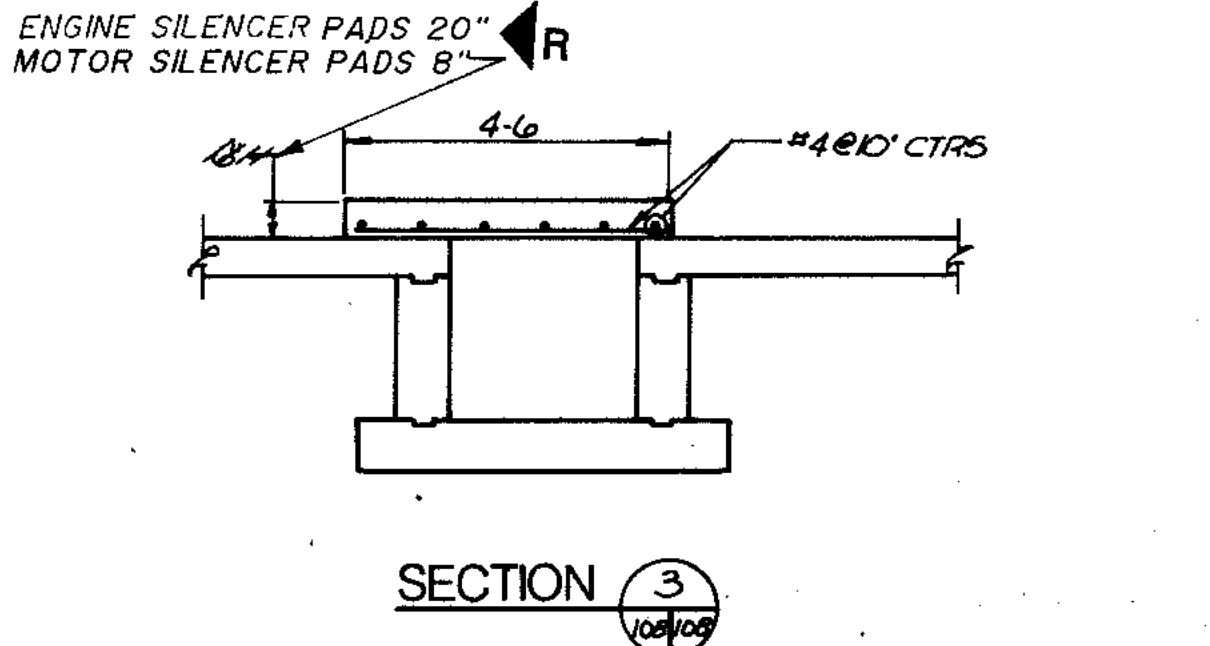
FOUNDATION PLAN
1/4" = 1'-0"



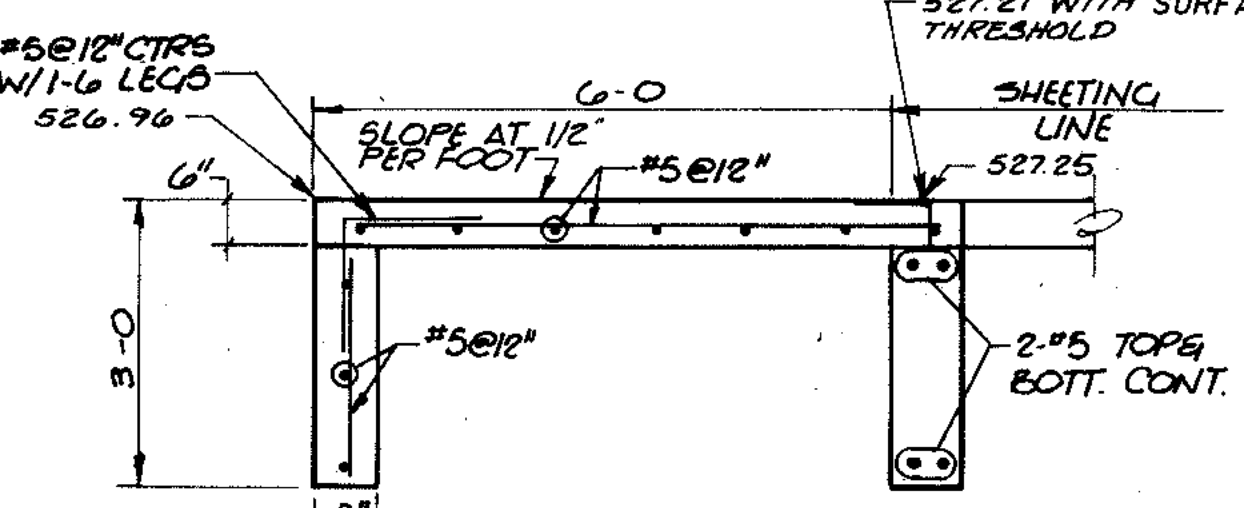
C DETAIL
1/8" = 1'-0"



D DETAIL
1/8" = 1'-0"



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



SECTION
9
1/8" = 1'-0"

| | | | | | | | | | | | | | | | |
|------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| OVERLAY IDENTIFICATION | COMPOSITE | 1/27-ED | 1/28-ED | 1/29-ED | 1/30-ED | 1/31-ED | 1/32-ED | 1/33-ED | 1/34-ED | 1/35-ED | 1/36-ED | 1/37-ED | 1/38-ED | 1/39-ED | 1/40-ED |
| PROJECT NO. | 108 | | | | | | | | | | | | | | |
| DATE | 5/91 | | | | | | | | | | | | | | |

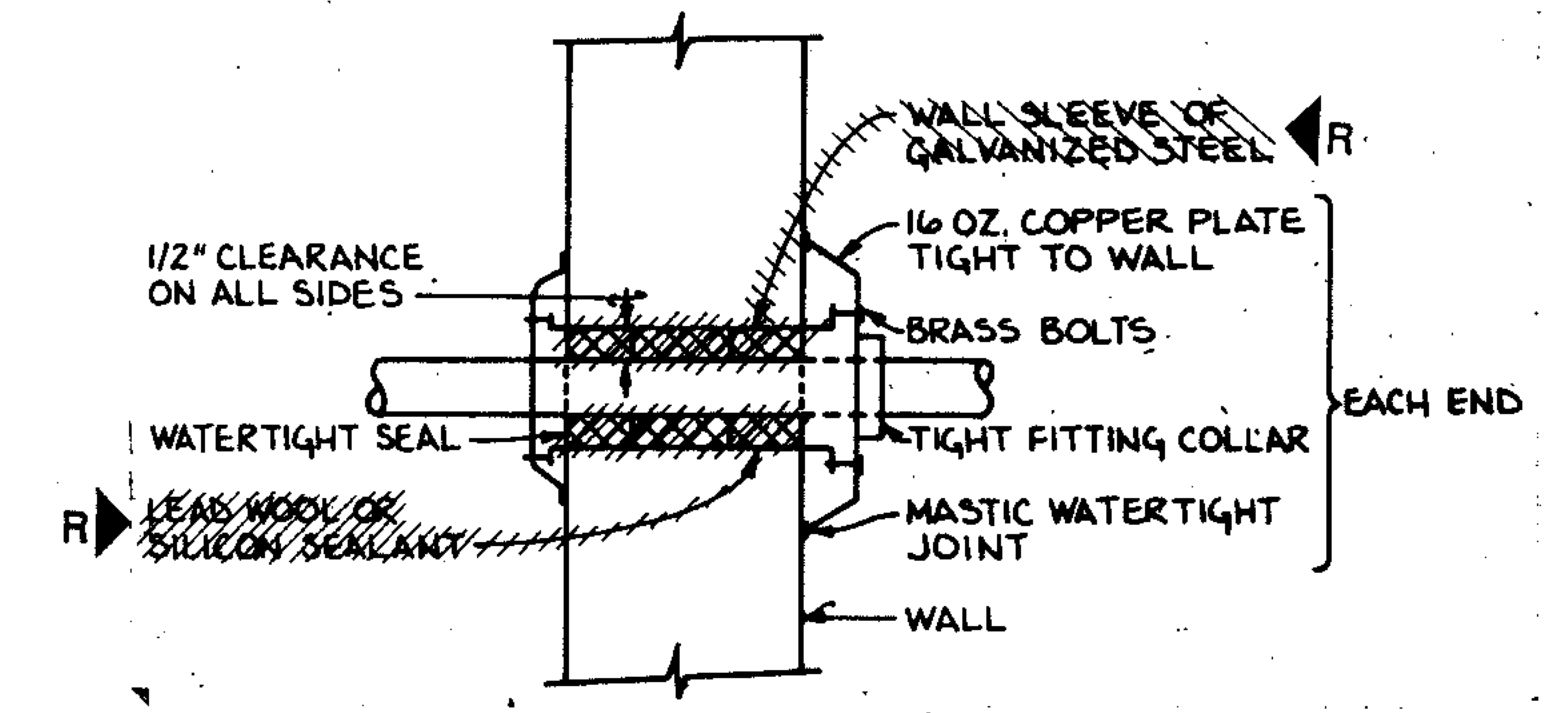
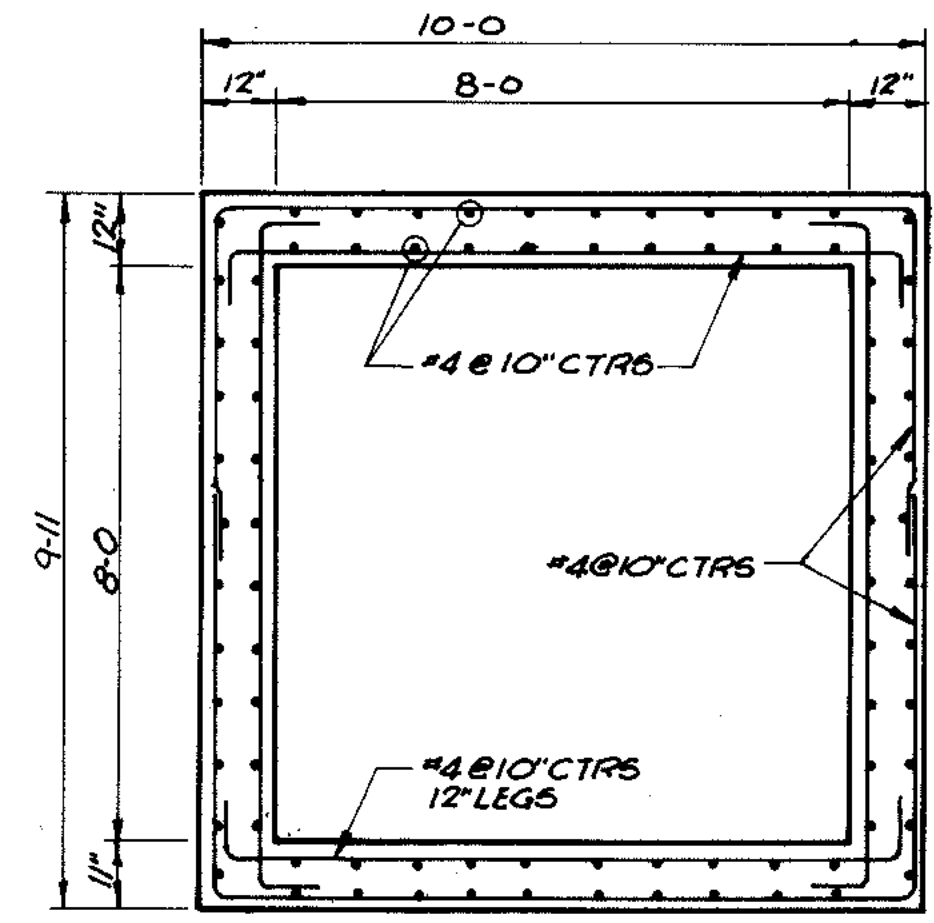
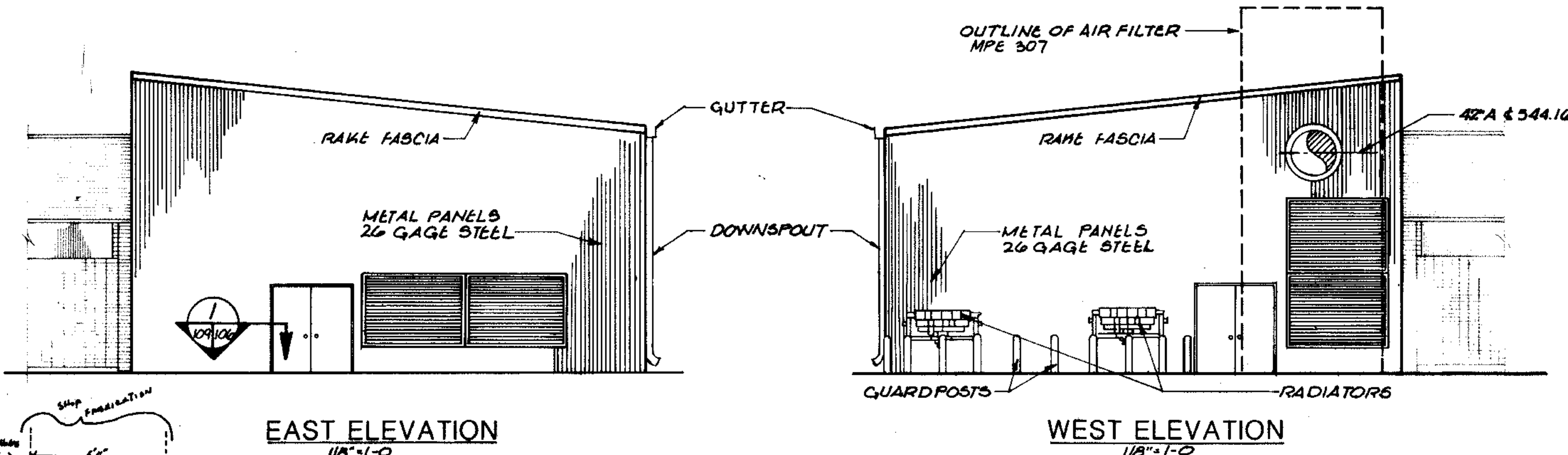
STRAND
ASSOCIATES INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
BLOWER BUILDING
STRUCTURAL PLANS & DETAILS

SCALE AS NOTED DATE

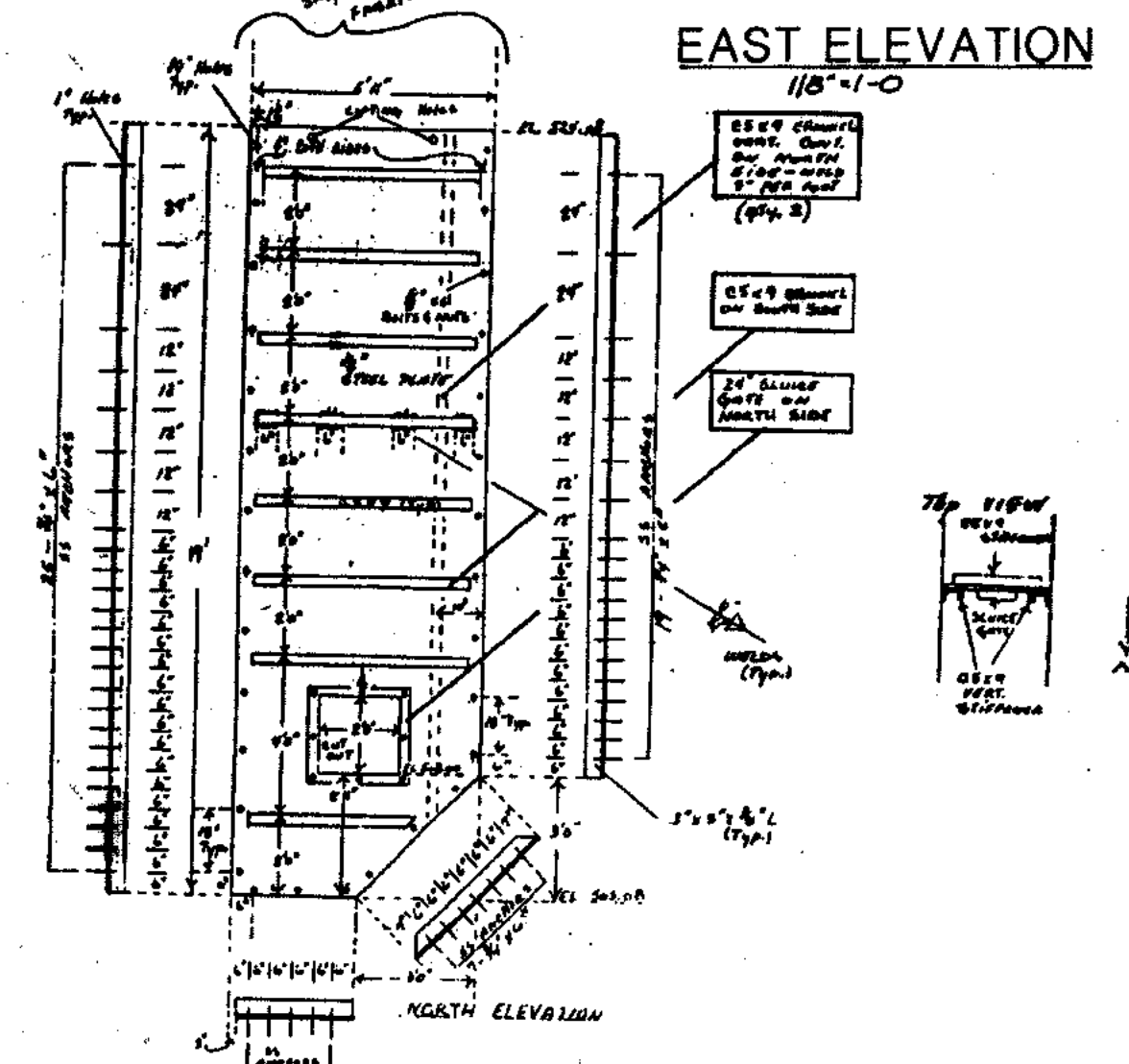
Beiling Consultants
Hilcrest Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435

DRAWING NO
255-230-108

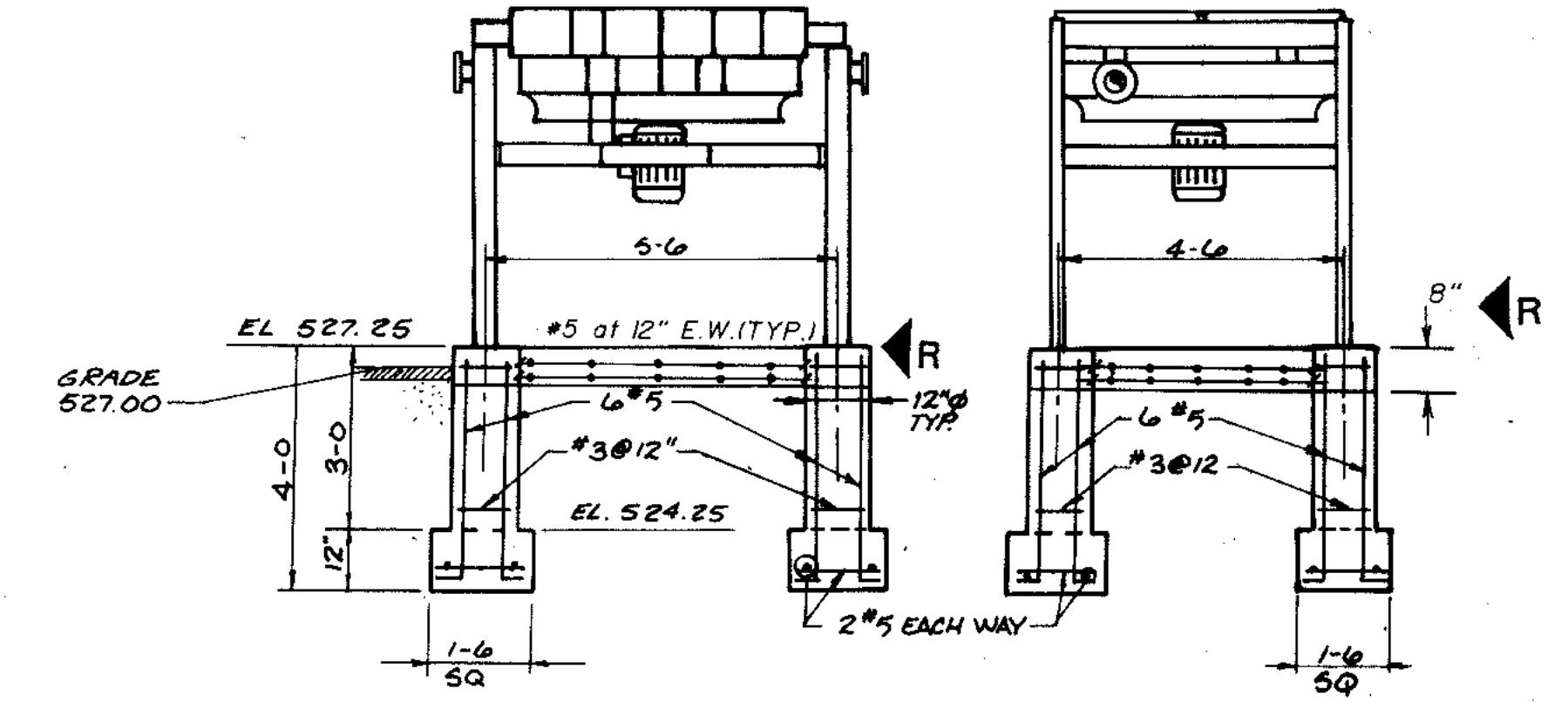


SECTION 1
3/8" = 1'-0"

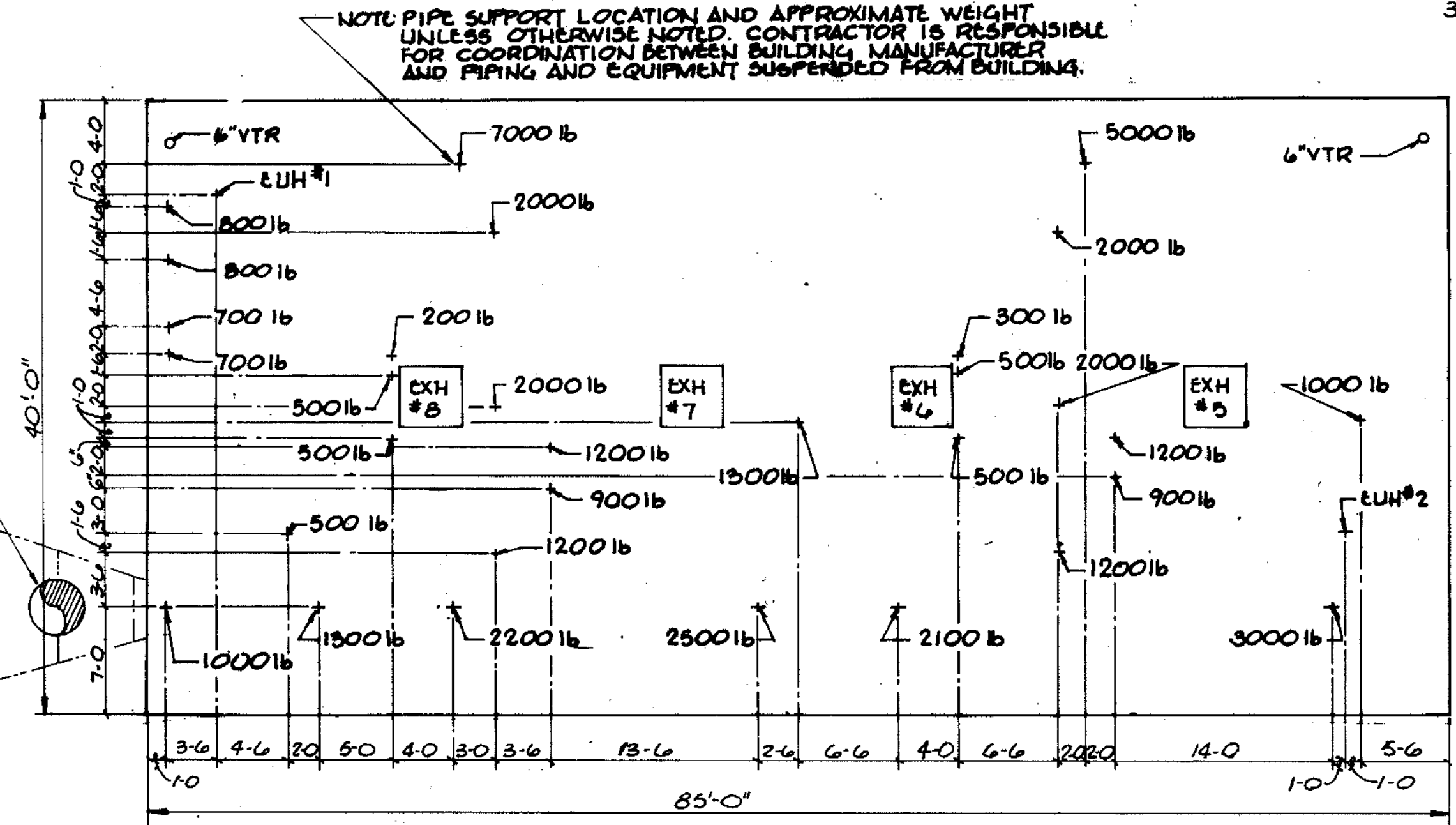
DETAIL B
NO SCALE



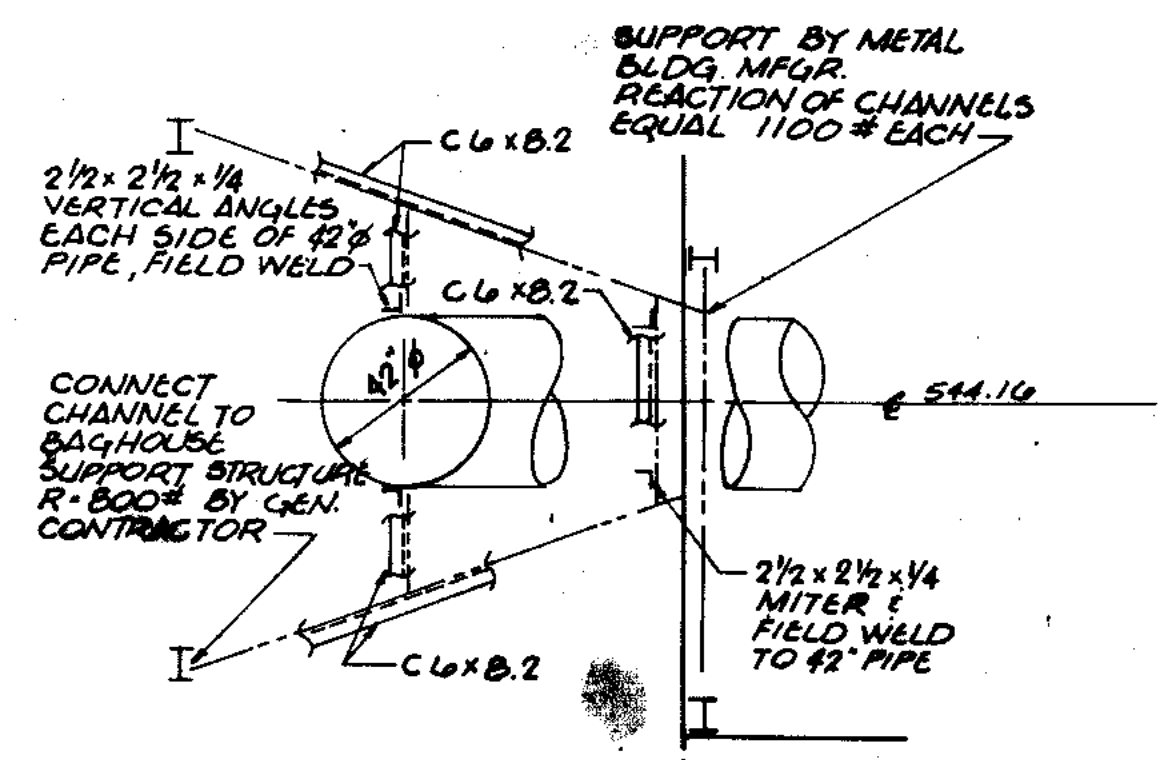
WEST ELEVATION
1/8" = 1'-0"



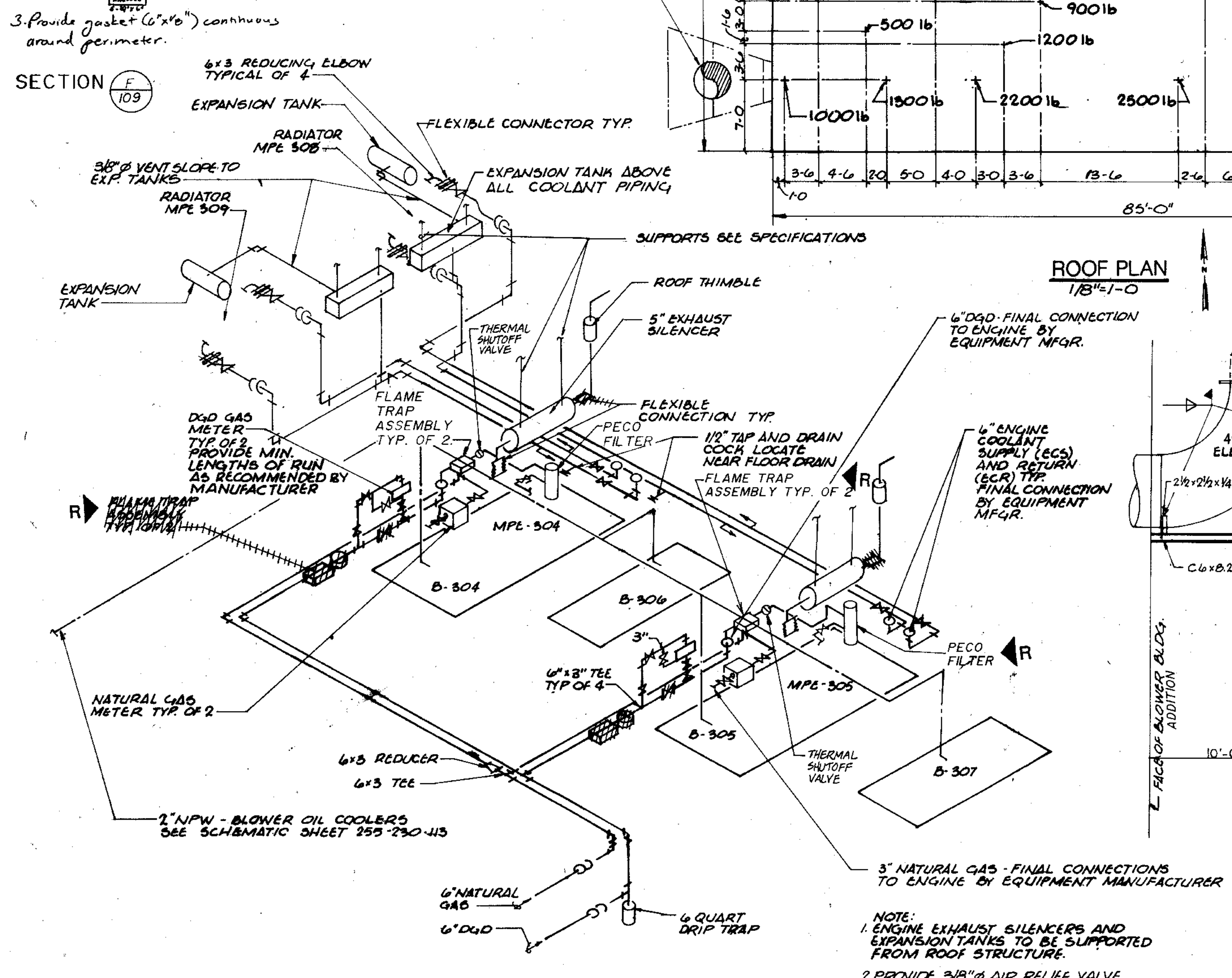
DETAIL C
3/8" = 1'-0"



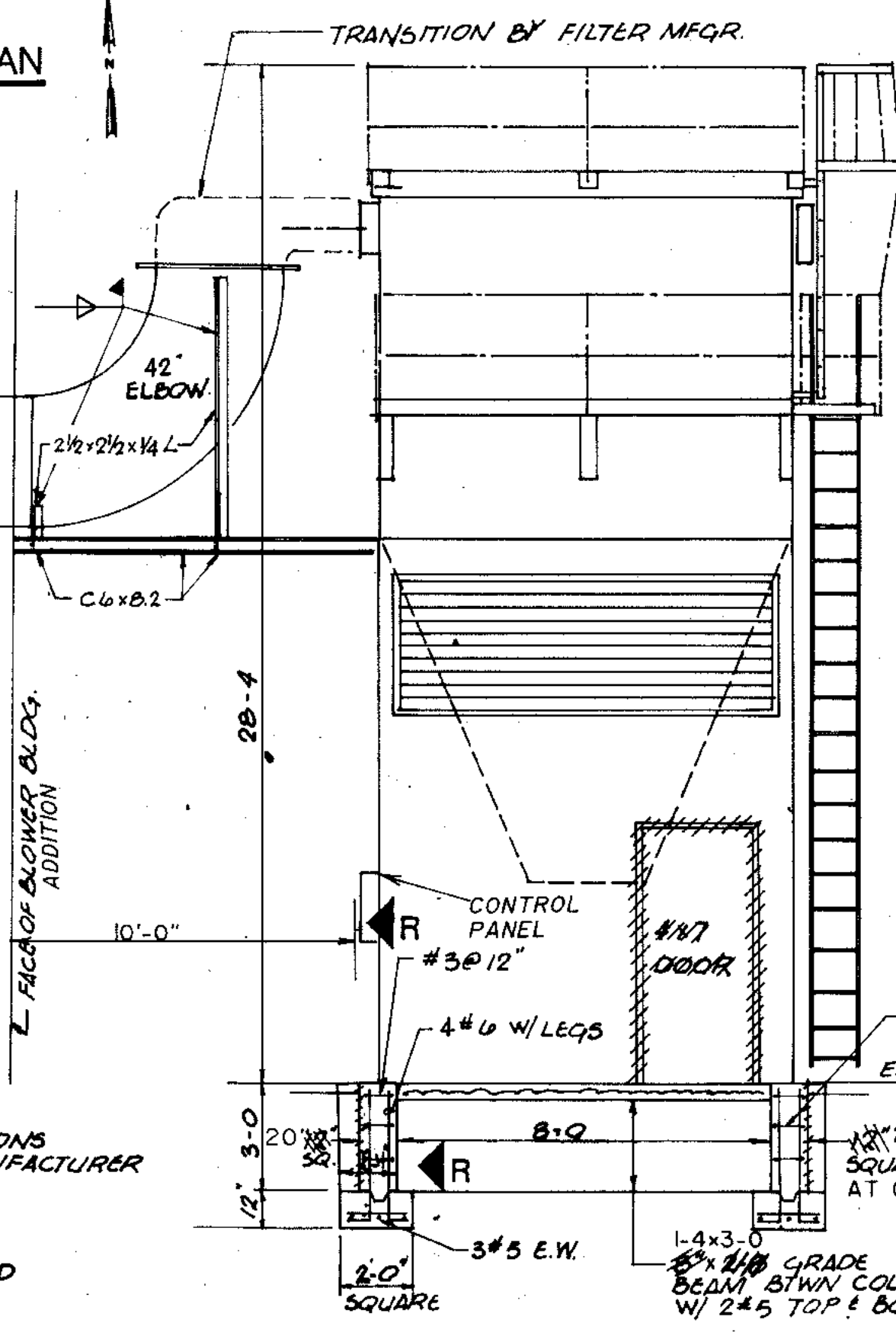
ROOF PLAN
1/8" = 1'-0"



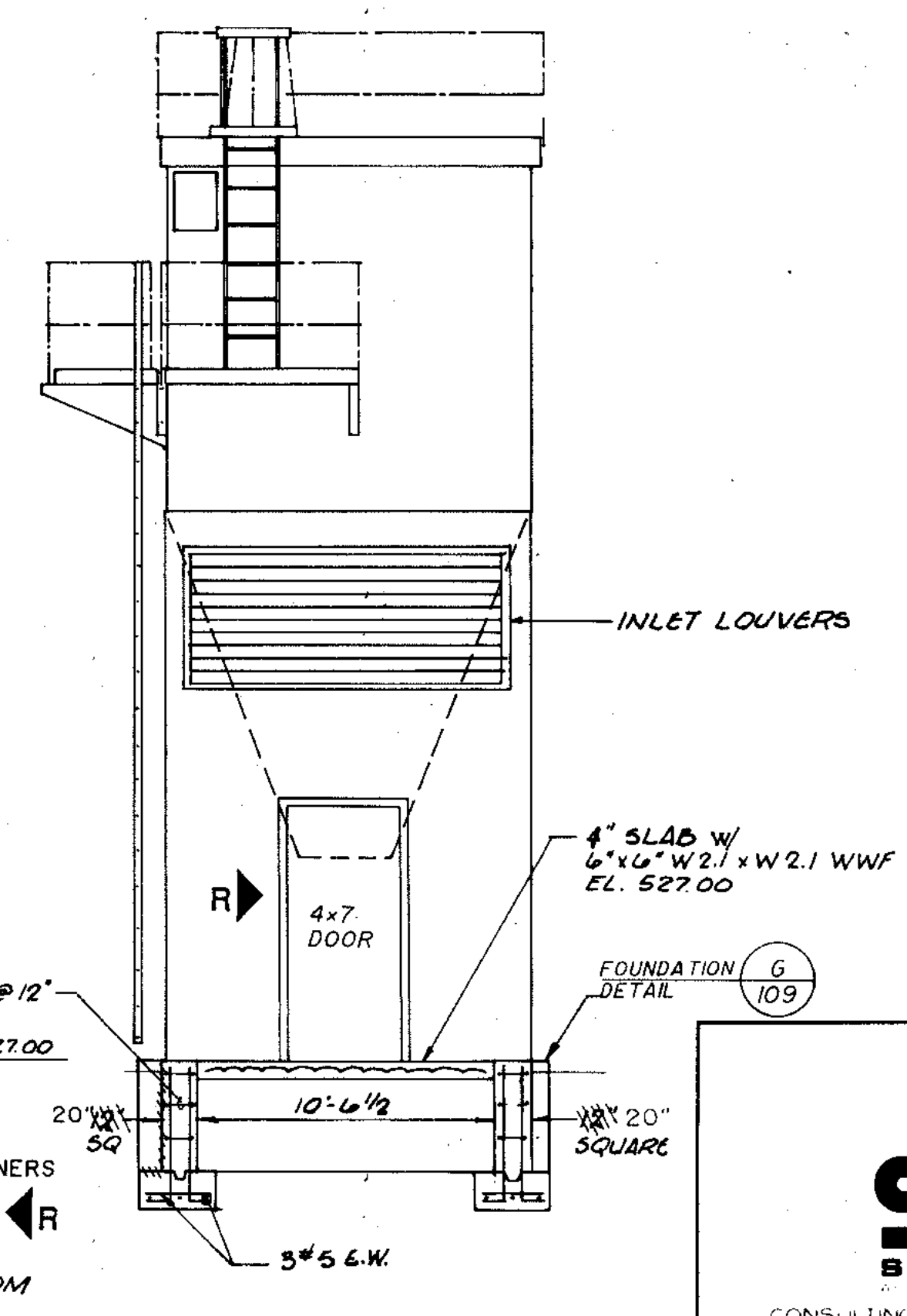
DETAIL E
1/4" = 1'-0"



ENGINE AND BLOWER PIPING SCHEMATIC
NO SCALE



DETAIL D
NO SCALE



AIR FILTER FOUNDATION DETAIL
1/4" = 1'-0"

| | | |
|-------------|---------|--------|
| COMPOSITE | OVERLAY | SCREEN |
| PROJECT NO. | DATE | |

RECORD DRAWING 2/4/91 DJP

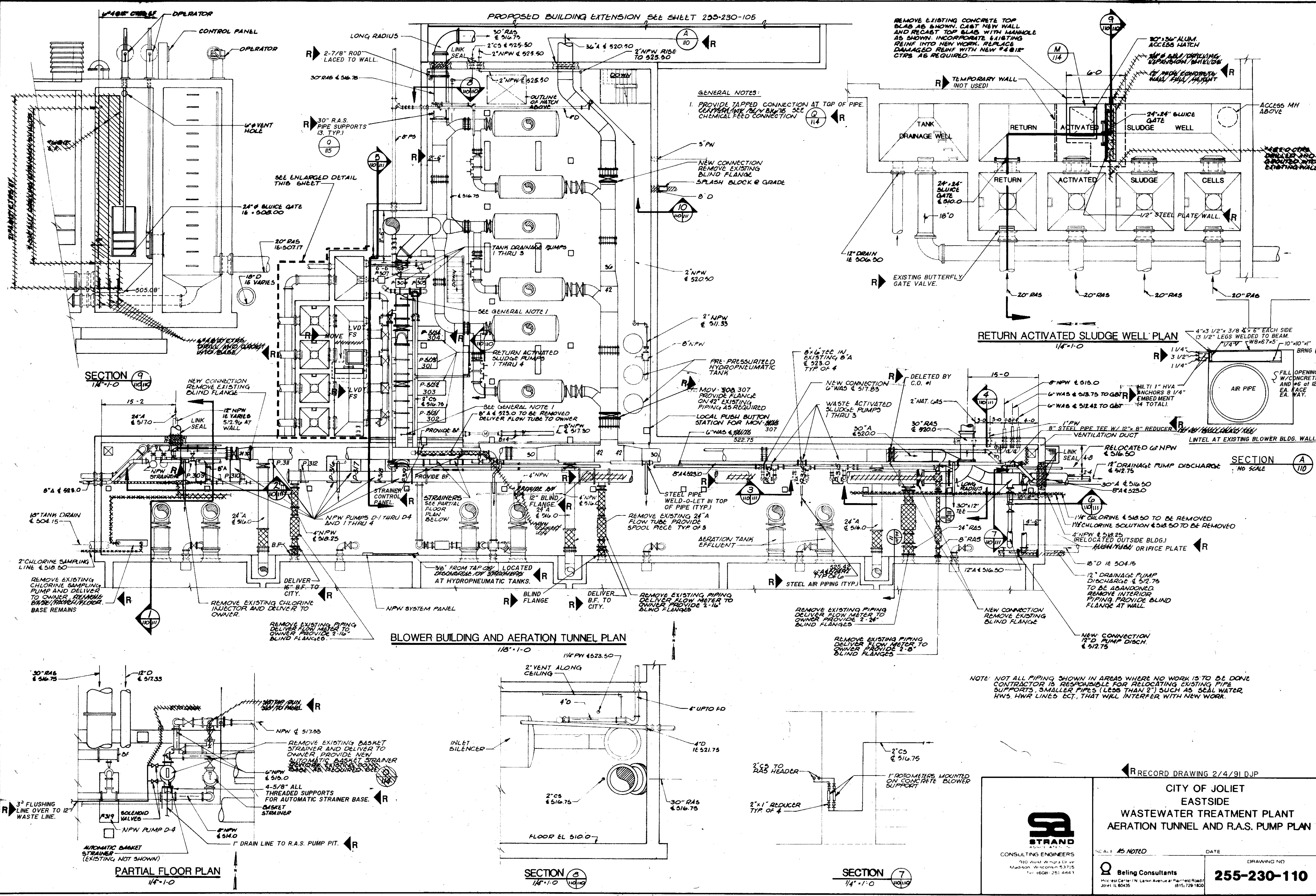
CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
BLOWER BUILDING DETAILS

BRAND
CONSULTING ENGINEERS

As NOTED

Belling Consultants
1100 West Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435

255-230-109



GENERAL NOTES:
 1. PROVIDE TAPPED CONNECTION AT TOP OF PIPE. CENTERLINE ONLY UNLESS OTHERWISE NOTED. SEE CHEMICAL FEED CONNECTION.

REMOVE EXISTING CONCRETE TOP SLAB AS SHOWN. CAST NEW WALL AND RECAST TOP SLAB WITH MANHOLE AS SHOWN. INCORPORATE EXISTING REIN INTO NEW WORK. REPLACE DAMAGED REIN WITH NEW #4 @ 18" CTRS AS REQUIRED.

RETURN ACTIVATED SLUDGE WELL PLAN
 1/4" = 1'-0"

BLOWER BUILDING AND AERATION TUNNEL PLAN
 1/8" = 1'-0"

PARTIAL FLOOR PLAN
 1/4" = 1'-0"

NOTE: NOT ALL PIPING SHOWN IN AREAS WHERE NO WORK IS TO BE DONE. CONTRACTOR IS RESPONSIBLE FOR RELOCATING EXISTING PIPE SUPPORTS. SMALLER PIPES (LESS THAN 2") SUCH AS SEAL WATER, HWS, HWR LINES ECT. THAT WILL INTERFERE WITH NEW WORK.

| | | | | | |
|-----------|----------|----------|----------|----------|------|
| COMPOSITE | AT-U-110 | AT-N-110 | AT-E-110 | AT-S-110 | DATE |
| OVERLAY | AT-U-110 | AT-N-110 | AT-E-110 | AT-S-110 | DATE |
| SCREEN | | | | | |

RECORD DRAWING 2/4/91 DJP

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
AERATION TUNNEL AND R.A.S. PUMP PLAN

SCALE: AS NOTED

DATE: _____

DRAWING NO: **255-230-110**

DATE: _____

BY: **Beleg Consultants**

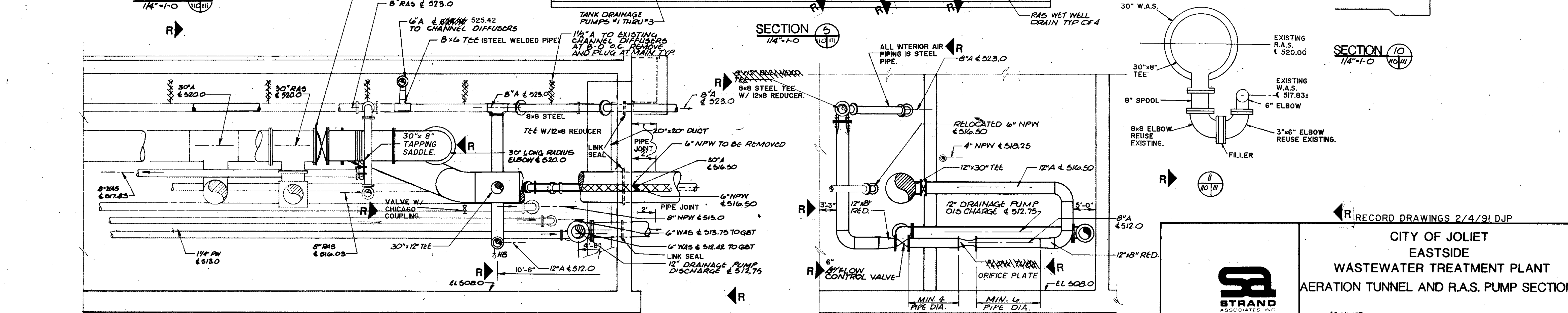
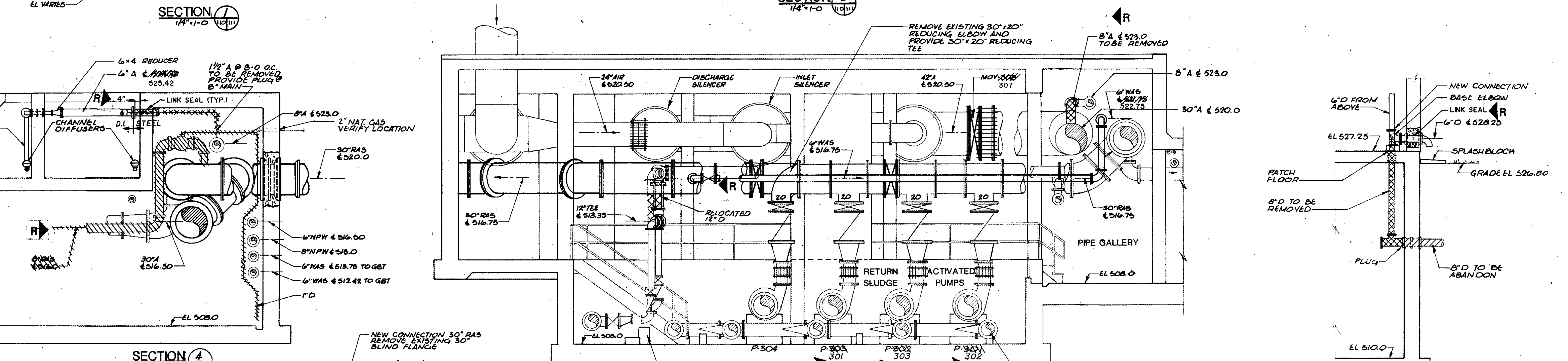
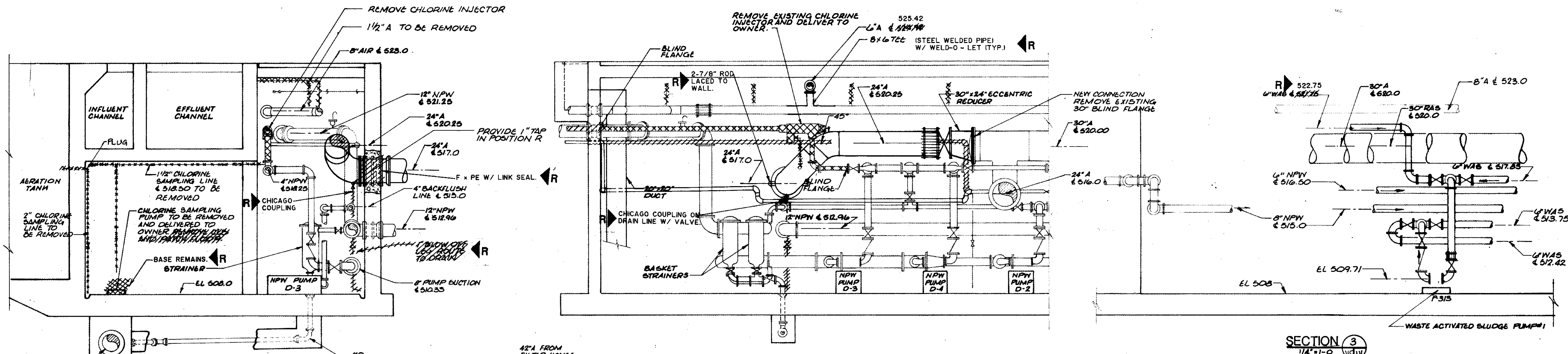
PROJECT: _____

DATE: _____



STRAND
 CONSULTING ENGINEERS
 910 West Waukegan Dr
 Madison, Wisconsin 53715
 Tel: (608) 251-4843

Beleg Consultants
 2041 W. Lincoln Avenue
 Joliet, IL 60435



| | | | |
|-------------|---------|------|-------|
| COMPOSITE | AT-N-11 | DATE | 11/11 |
| OVERLAY | AT-M-11 | DATE | 11/11 |
| SCREEN | AT-E-11 | DATE | 11/11 |
| PROJECT NO. | 5 | | |
| DATE | | | |

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
AERATION TUNNEL AND R.A.S. PUMP SECTIONS

RECORD DRAWINGS 2/4/91 DJP

STRAND
ASSOCIATES INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

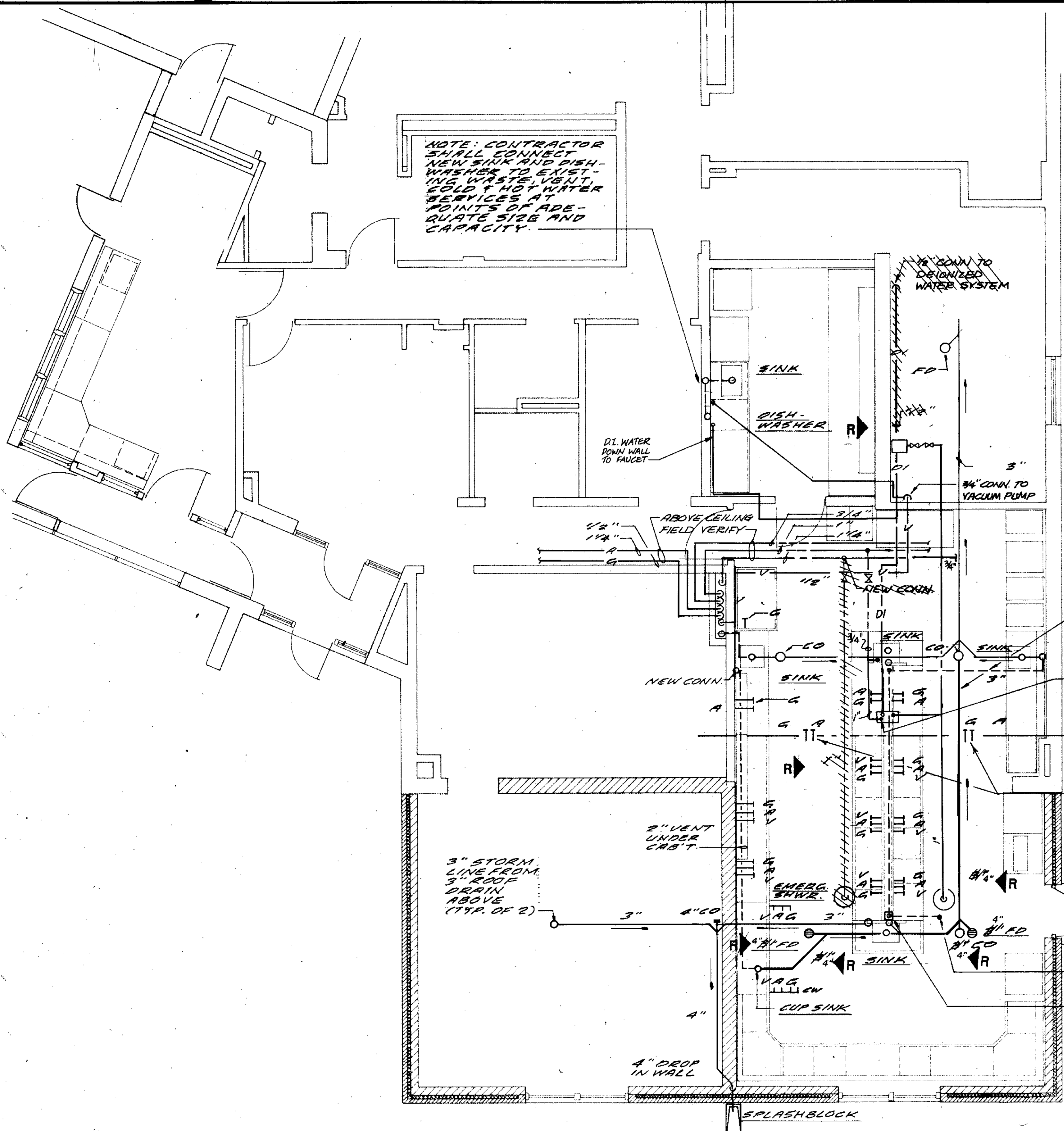
SCALE AS NOTED

DATE

DRAWING NO
255-230-111

DATE

NOTE: CONTRACTOR SHALL CONNECT NEW SINK AND DISH-WASHER TO EXISTING WASTE VENT SLOD & HOT WATER SERVICES AT POINTS OF ADE-QUATE SIZE AND CAPACITY.



CUT & PATCH TO MATCH FLOOR FOR INSTALLATION OF VENT AND MISC. SERVICES. - SEE PIPING SCHEMATIC.

DROP IN PIPE CHASE

PIPING & EQUIPMENT WEST OF LINE EXISTING UNLESS OTHERWISE INDICATED.

PIPING & EQUIPMENT EAST OF LINE NEW.

EXIST. A/G, VENT & WATER PIPING TO BE REMOVED

RAISE 3" VENT IN PIPING CHASE

| | | | |
|-------------|-------|-----------|--------|
| COMPOSITE | P-112 | ENCLOSURE | PAGE 2 |
| OVERLAY | P-112 | ENCLOSURE | PAGE 2 |
| SCREEN | | | |
| PROJECT NO. | | | |
| DATE | | | |

MAIN CONTROL BUILDING PLAN 2
1/4" = 1'-0"

THIS DRAWING NUMBER
255-230-112 THROUGH
255-230-113 PREPARED
UNDER THIS PROFESSIONAL
SEAL
Patrick J. Henry
SIGNATURE



5-23-88
DATE

STRAND ASSOCIATES INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel. (608) 251-4843

RECORD DRAWING 9/9/91 DJP

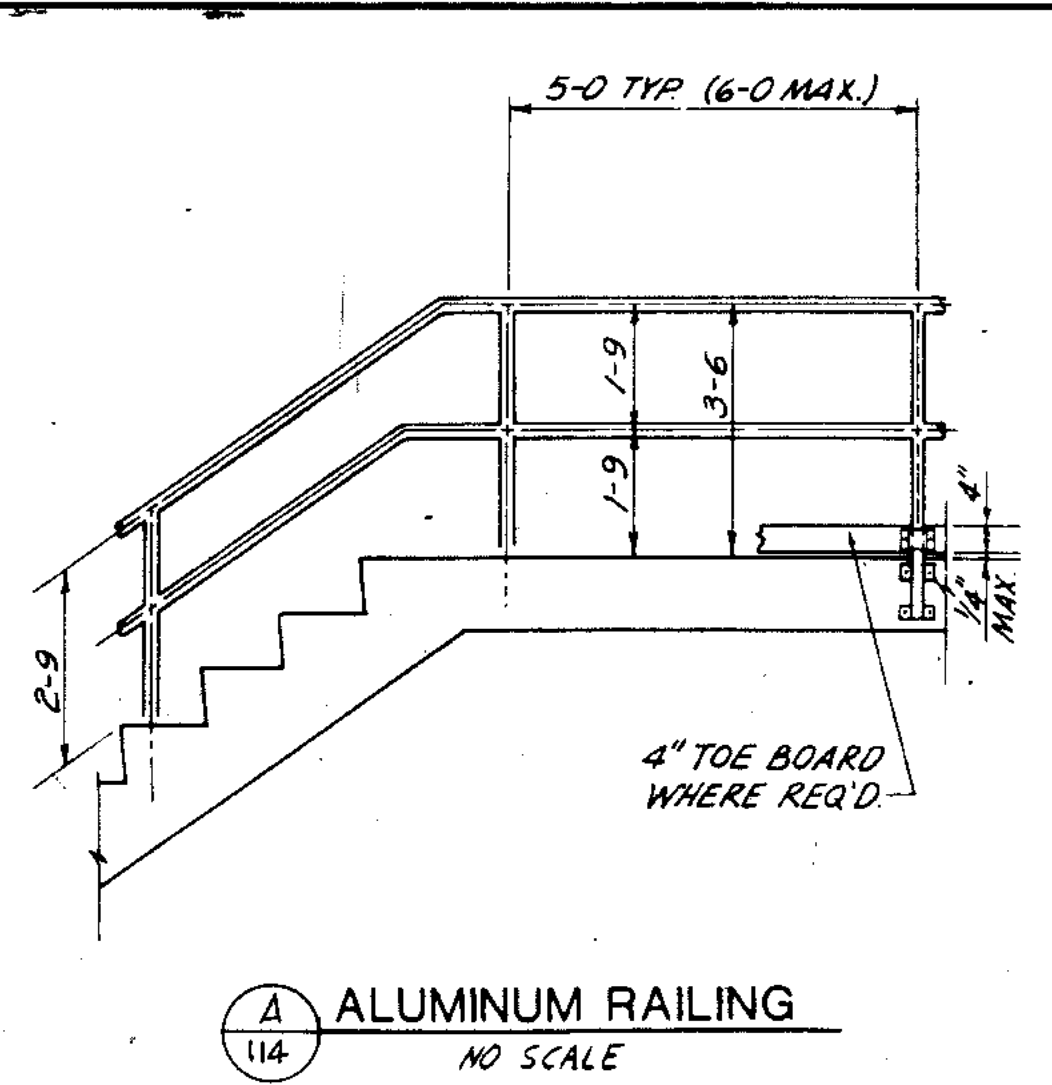
**CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
MAIN CONTROL BUILDING**

LAB / SCC ROOM PLUMBING

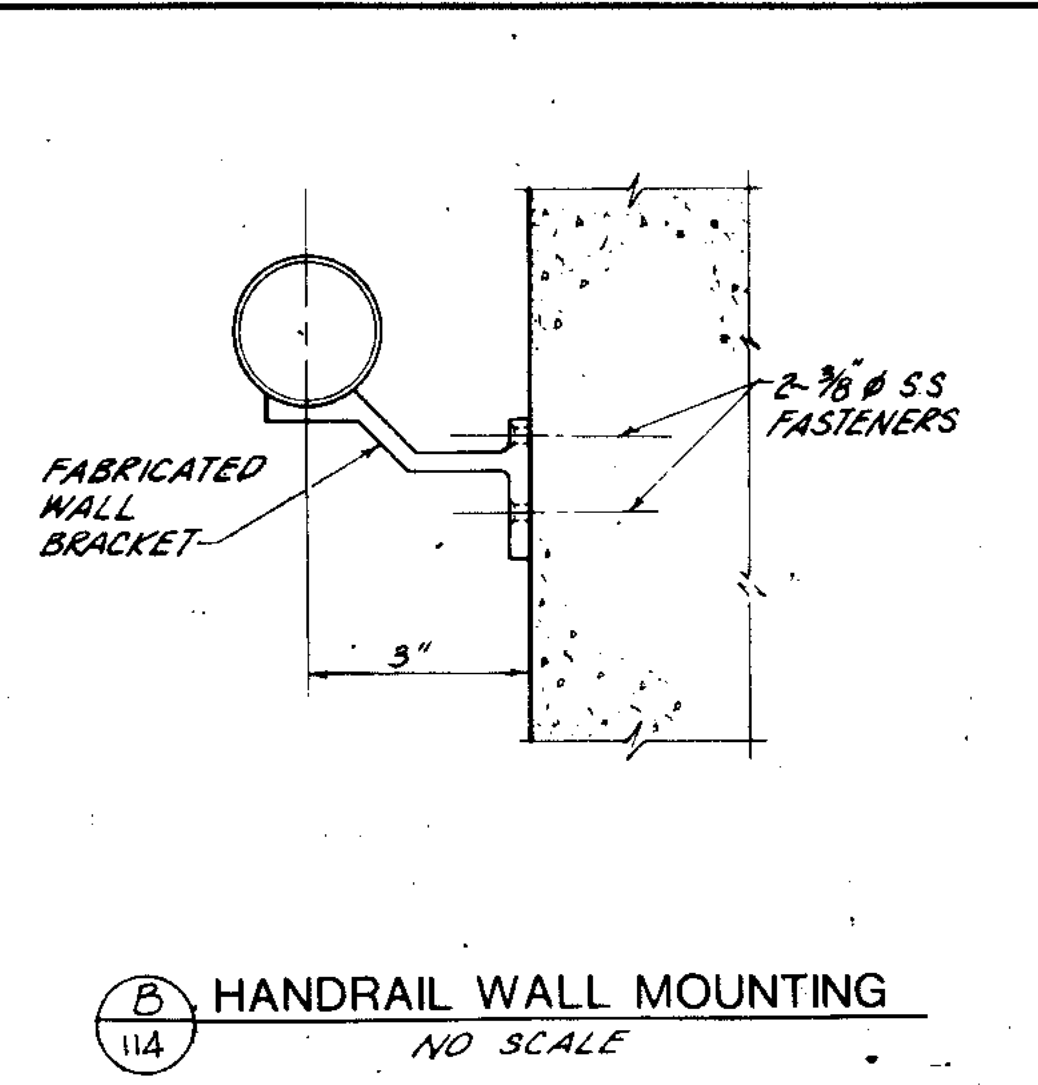
SCALE AS NOTED DATE DATE DRAWING NO.

Beijing Consultants
1100 West Center / N. Larkin Avenue / Joliet, IL 60435 (617) 750-1222

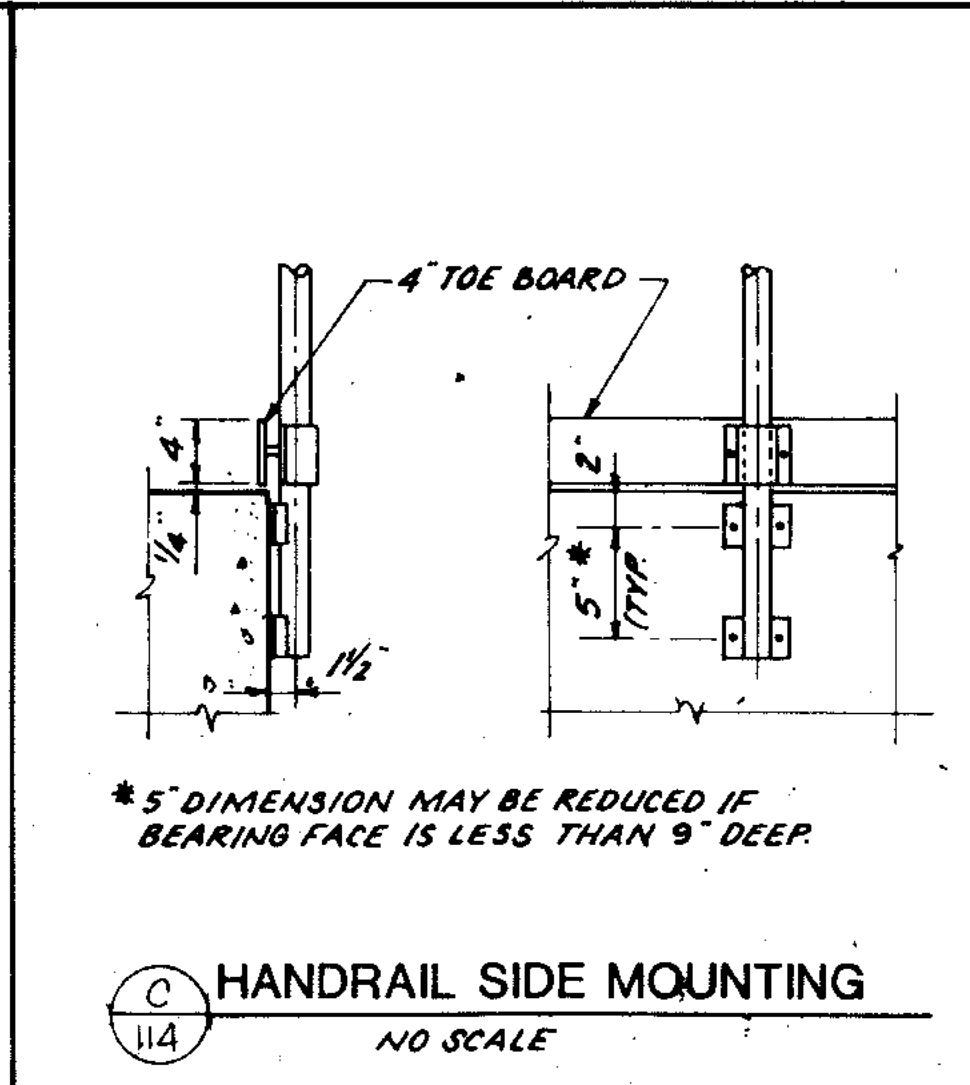
255-230-112



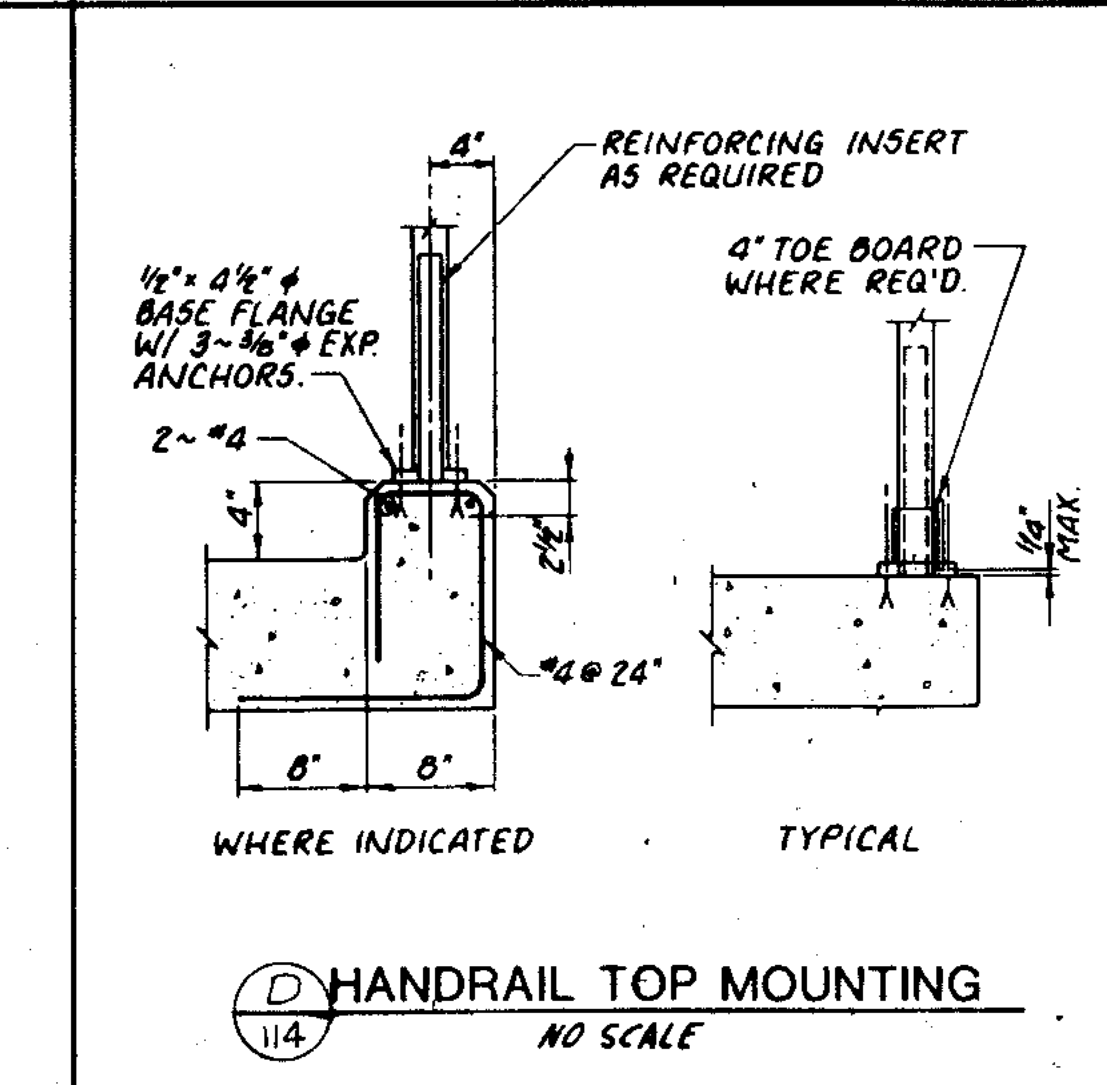
A ALUMINUM RAILING
NO SCALE



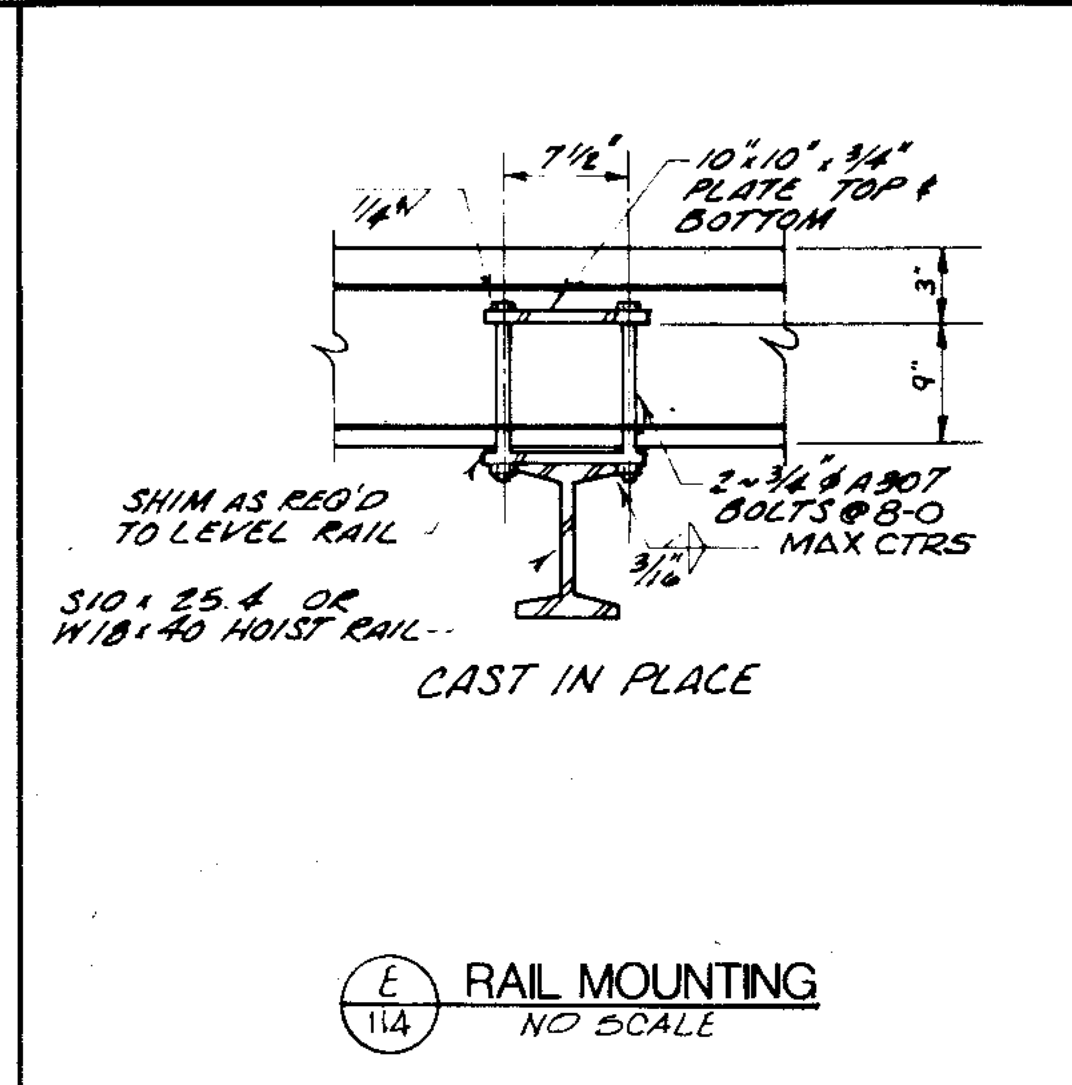
B HANDRAIL WALL MOUNTING
NO SCALE



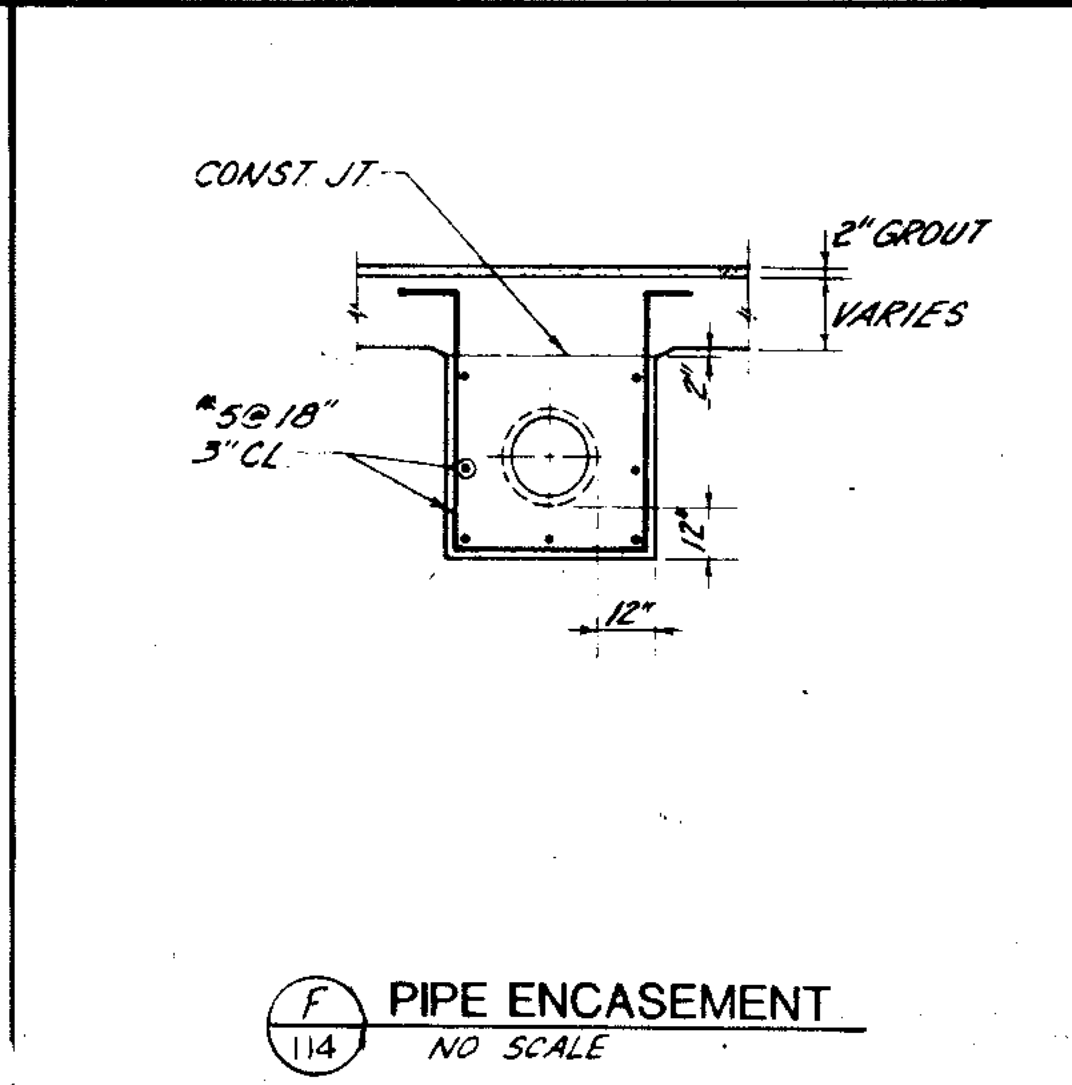
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NO SCALE



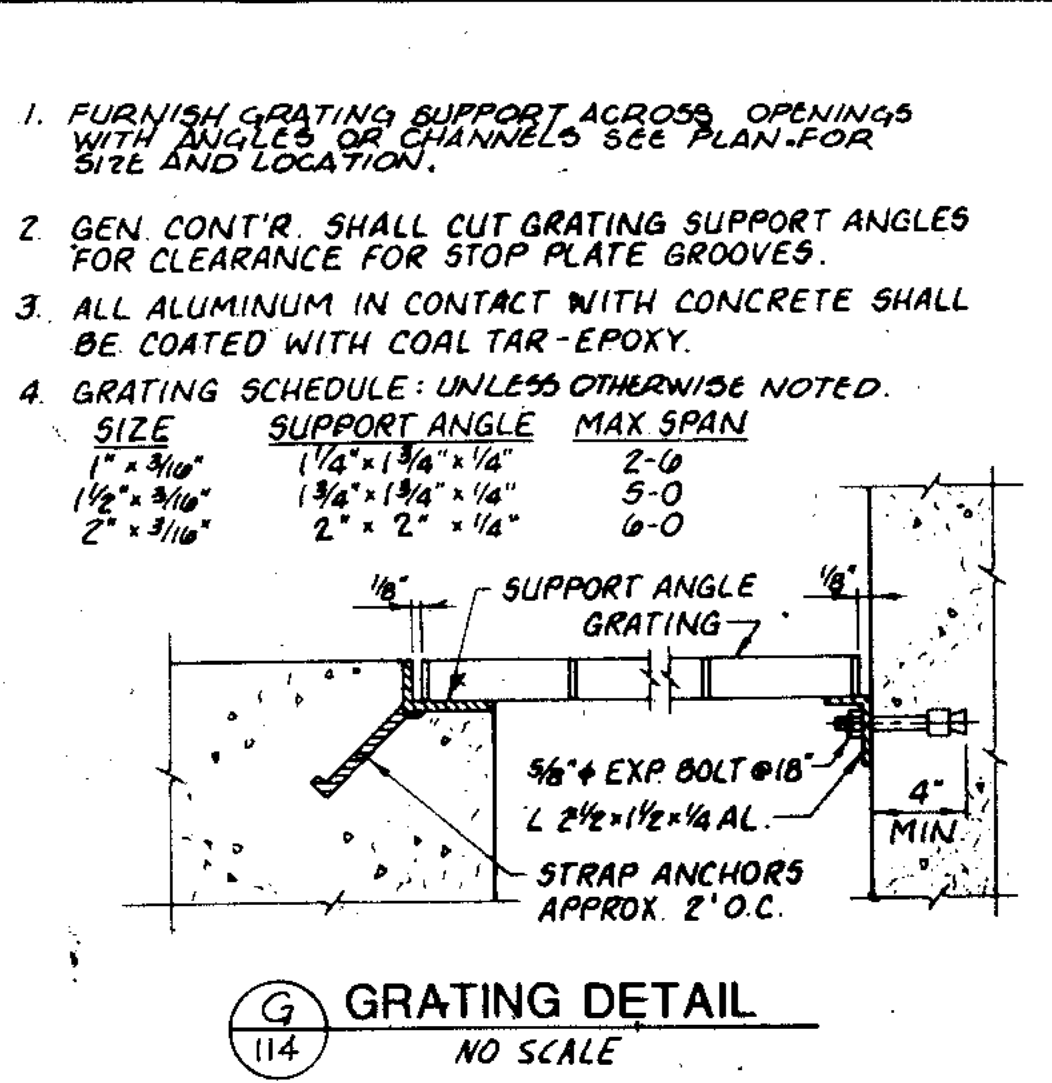
D HANDRAIL TOP MOUNTING
NO SCALE



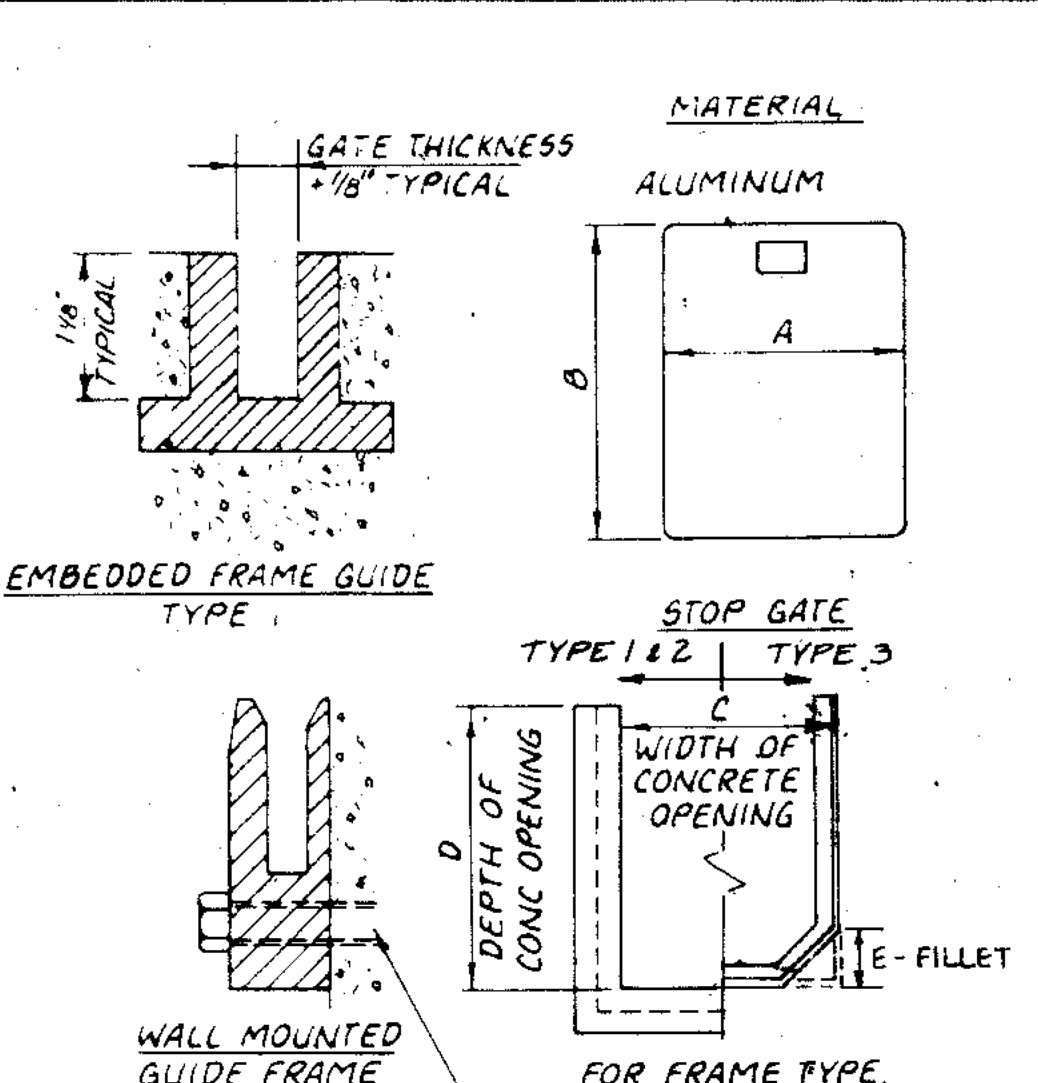
E RAIL MOUNTING
NO SCALE



F PIPE ENCASEMENT
NO SCALE



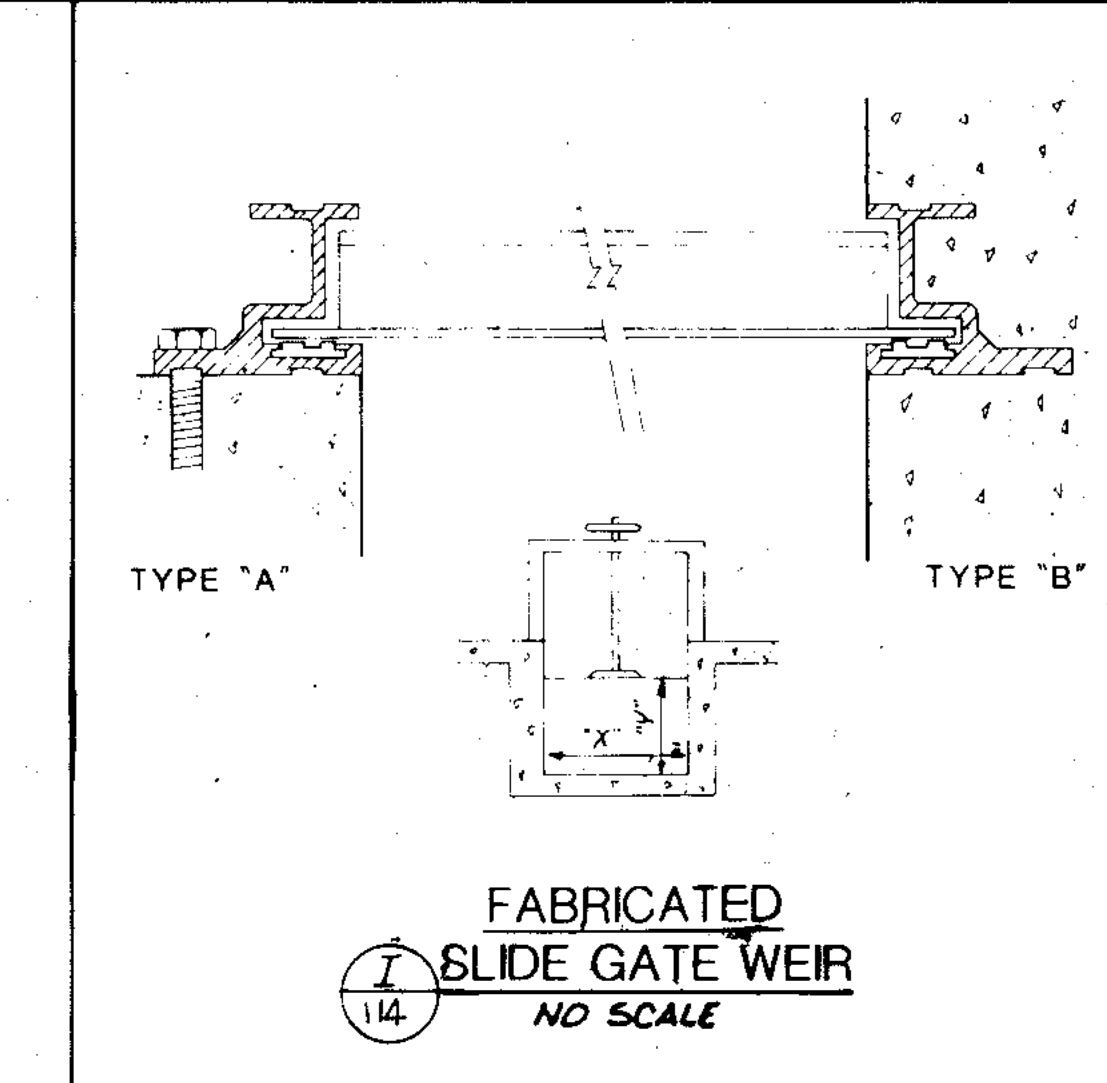
G GRATING DETAIL
NO SCALE



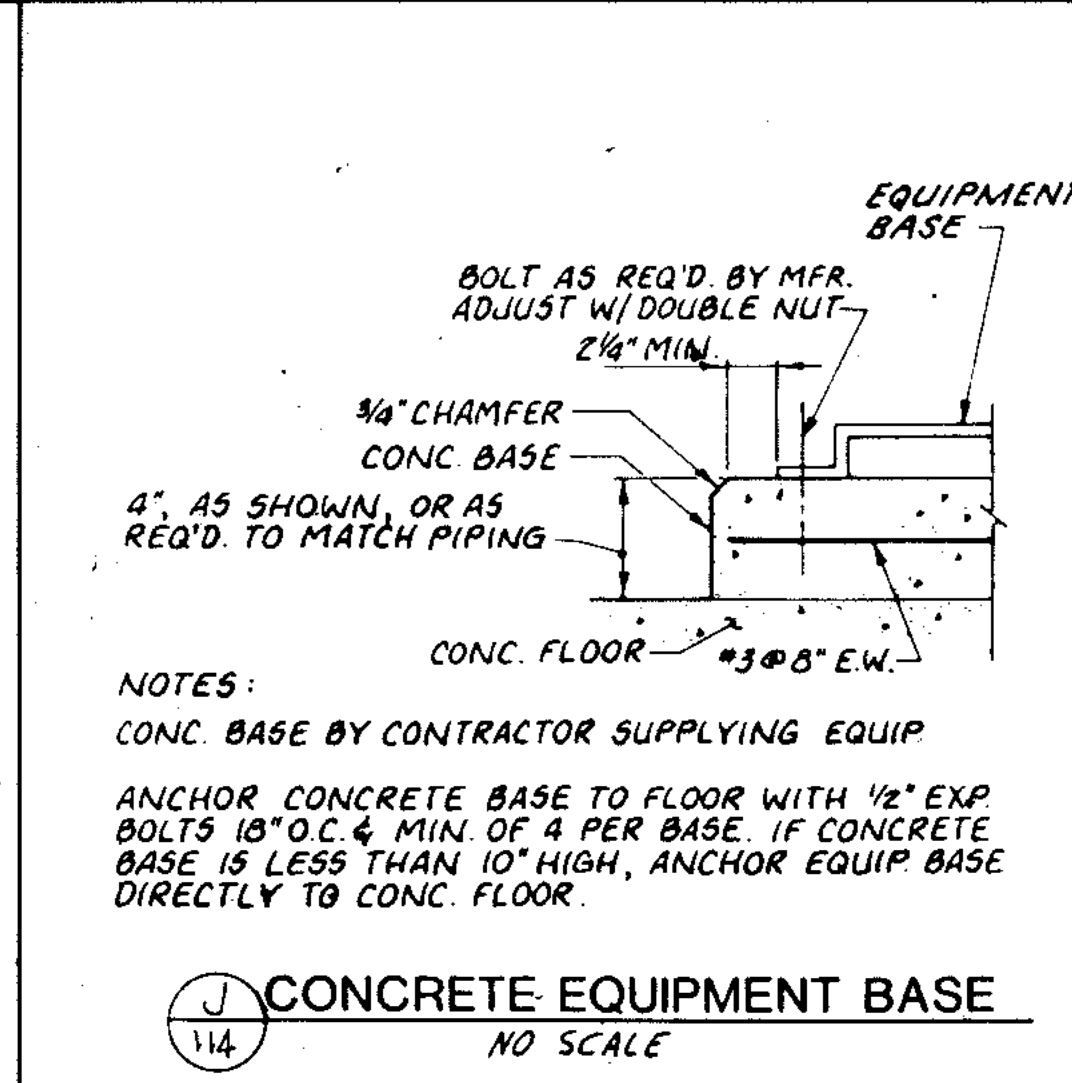
H STOP GATE STIFFENER SCHEDULE
NO SCALE

| REFERENCE SHEET NUMBER | GATE NUMBER | THICKNESS | STOP GATE | | GUIDE FRAMES | | | |
|------------------------|-------------|-----------|------------|------|--------------|-------|-----|----------|
| | | | A | B | C | D | E | |
| 74 | 1 | 1/4 | 6-6 3/4 | 5-3 | 2-3 | 2-1/2 | 5-6 | 6-7 1/2 |
| 74 | 2 | 1/4 | 4-6 3/4 | 7-0 | 2-3 | 1-1/2 | 4-6 | 7-6 1/2 |
| 74 | 3 | 1/4 | 4-6 3/4 | 7-4 | 2-3 | 2-1/2 | 4-6 | 7-6 |
| 79,80 | 4 | 1/2 | 4-0 3/4 | 6-8 | 2-3 | 3-1/4 | 4-0 | 7-0 3/4 |
| 79,80 | 5 | 1/2 | 1-2 | 1-0 | 1-2 | 2 | 1-0 | 2-0 |
| 79 | 6 | 1/4 | 1-9 3/4 | 2-10 | 2 | 1-4 | 1-9 | 3-0 |
| 79,82 | 7 | 1/4 | 4-2 | 7-6 | 2-3 | 4 | 4-0 | 8-8-8 |
| 80,82 | 8 | 1/4 | 4-2 | 3-1 | 2-3 | 2 | 4-0 | 3-0 |
| 80,82 | 9 | 1/4 | 4-2 | 3-9 | 2-3 | 1 | 4-0 | 3-7 1/2 |
| 79 | 10 | 1/4 | 2-2 | 2-8 | 1-1 | 1-2 | 2-0 | 2-10 |
| 79 | 11 | 1/4 | 2-2 | 3-0 | 2-2 | 1 | 2-0 | 4-0 |
| 88 | 12 | 1/4 | 4-2 | 6-2 | 2-3 | 1 | 4-0 | 7-10 1/2 |
| 89 | 13 | 0 | USE NO. 12 | - | - | 1 | 4-0 | 7-10 1/2 |
| 89 | 14 | 0 | USE NO. 12 | - | - | 1 | 4-0 | 7-10 1/2 |
| 88,89 | 15 | 1/4 | 6-2 | 2-5 | 2-3 | 1-2 | 6-0 | 3-3 |
| 88 | 16 | 1/4 | 4-2 | 5-6 | 2-3 | 1 | 4-0 | 8-0 |
| 89 | 17 | 0 | USE NO. 16 | - | - | 1 | 4-0 | 6-10 |
| 89 | 18 | 0 | USE NO. 16 | - | - | 1 | 4-0 | 6-2 |
| 84 | 19 | 1/4 | 3-11 1/4 | 6-0 | 2-3 | 3 | 4-0 | 6-10 9' |
| 84,85 | 20 | 1/4 | 6-2 | 2-4 | 2-3 | 1-2 | 6-0 | 2-3 |
| 79,83 | 21 | 1/4 | 5-5 1/4 | 6-1 | 2-3 | 1-3 | 5-6 | 7-0 1/2 |
| 74 | 22 | 1/4 | 4-6 3/4 | 7-0 | 2-3 | 2 | 4-6 | 9-0 |
| 74 | 23 | 1/4 | 4-6 3/4 | 6-4 | 2-3 | 2 | 4-6 | 7-2 1/2 |

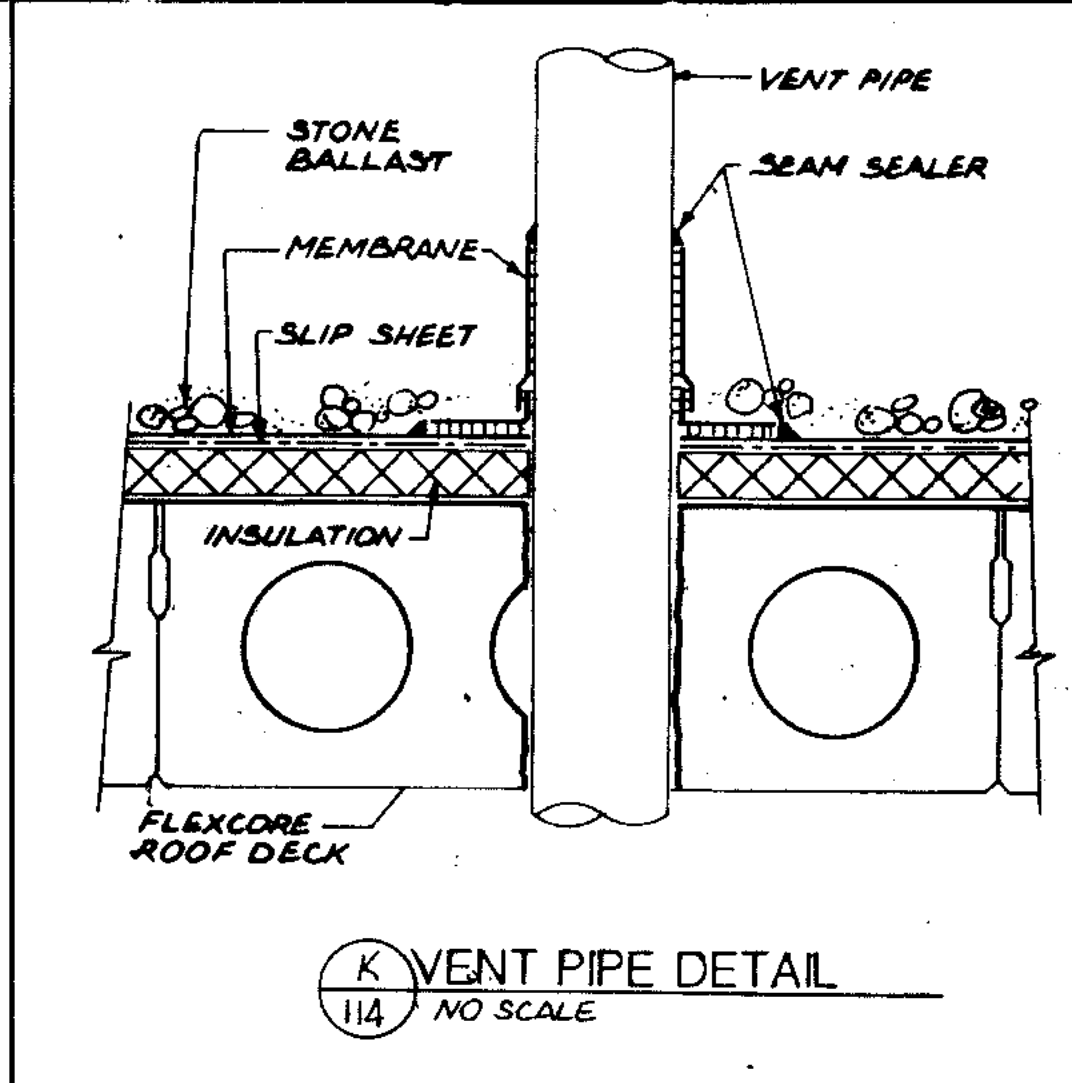
H STOP GATE STIFFENER SCHEDULE
NO SCALE



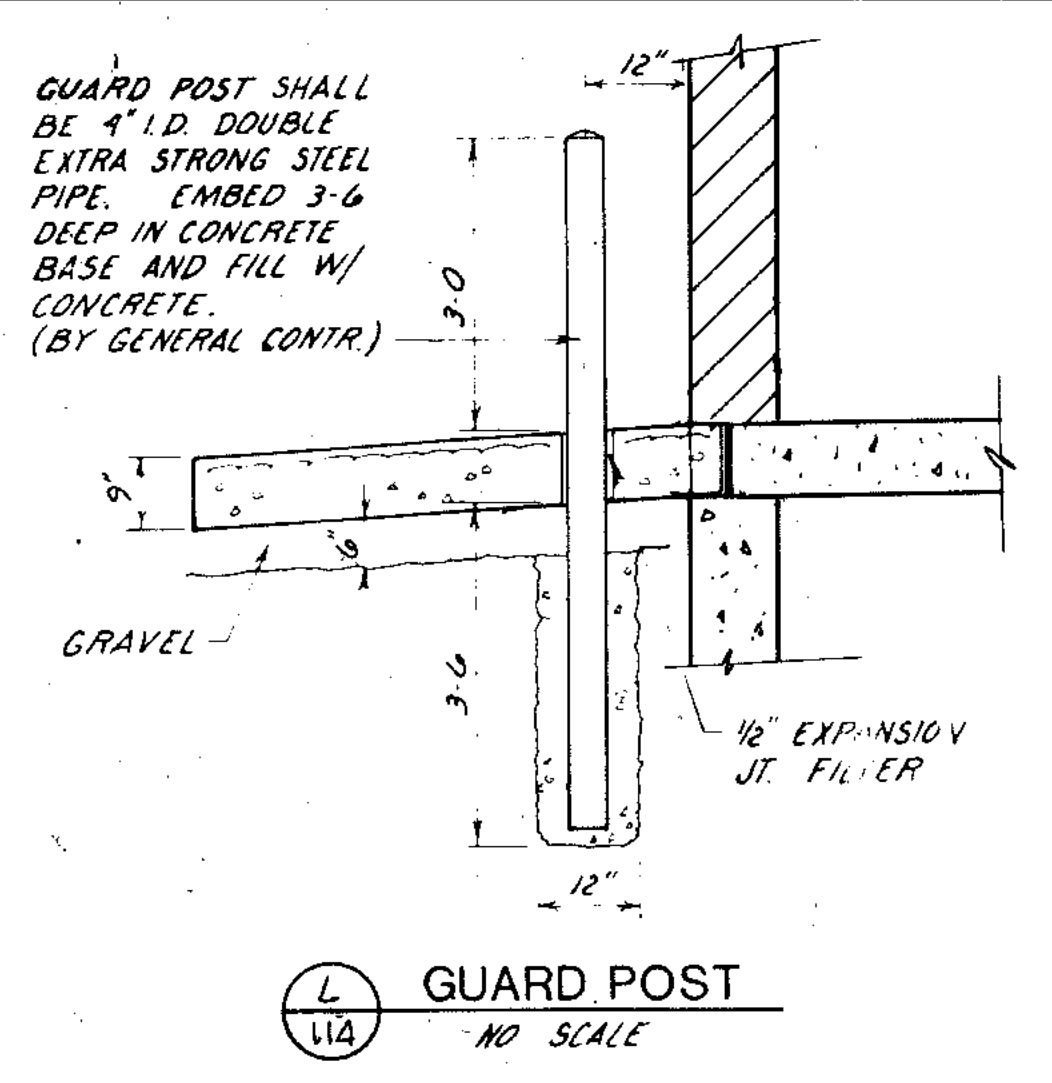
I FABRICATED SLIDE GATE WEIR
NO SCALE



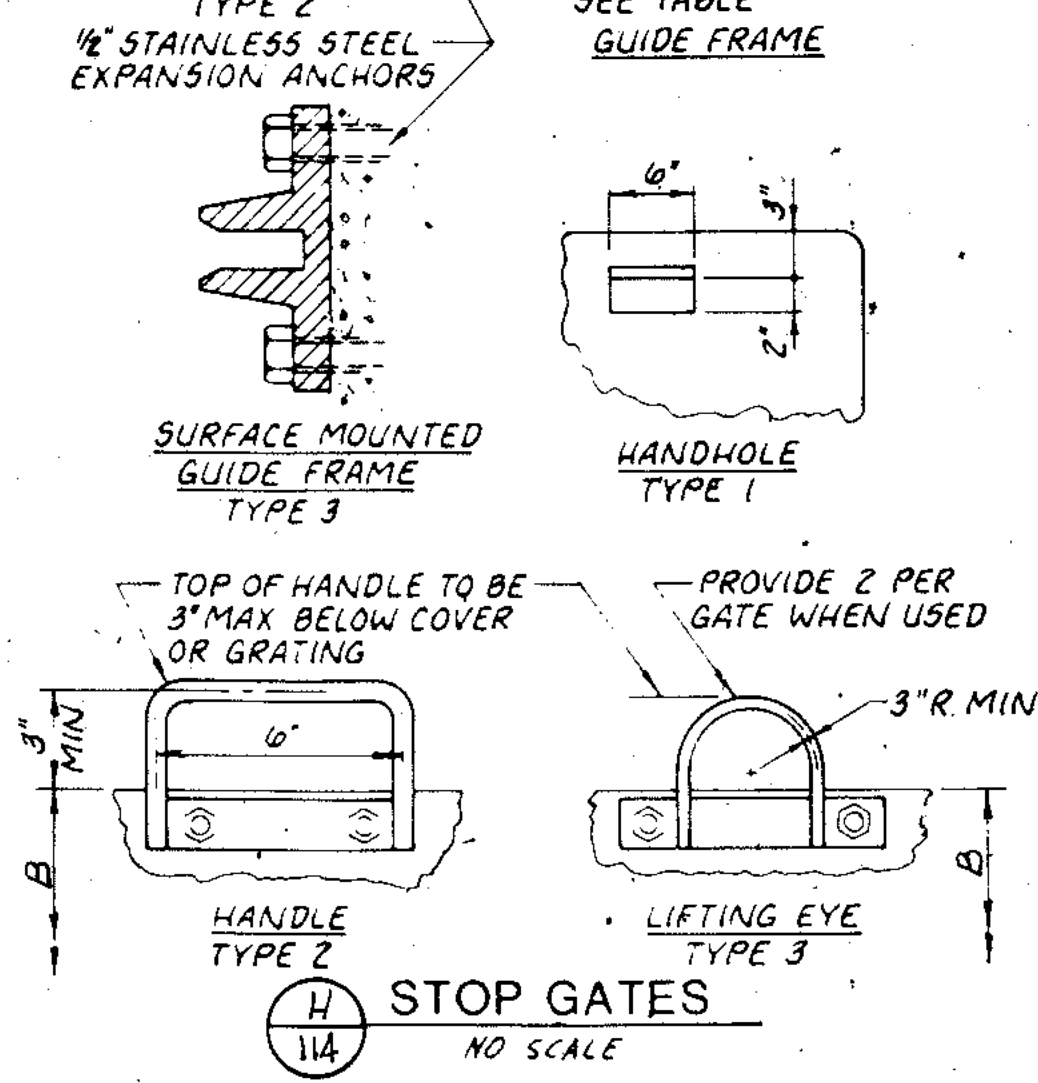
J CONCRETE EQUIPMENT BASE
NO SCALE



K VENT PIPE DETAIL
NO SCALE



L GUARD POST
NO SCALE



M REINFORCEMENT AT CONCRETE OPENINGS
NO SCALE

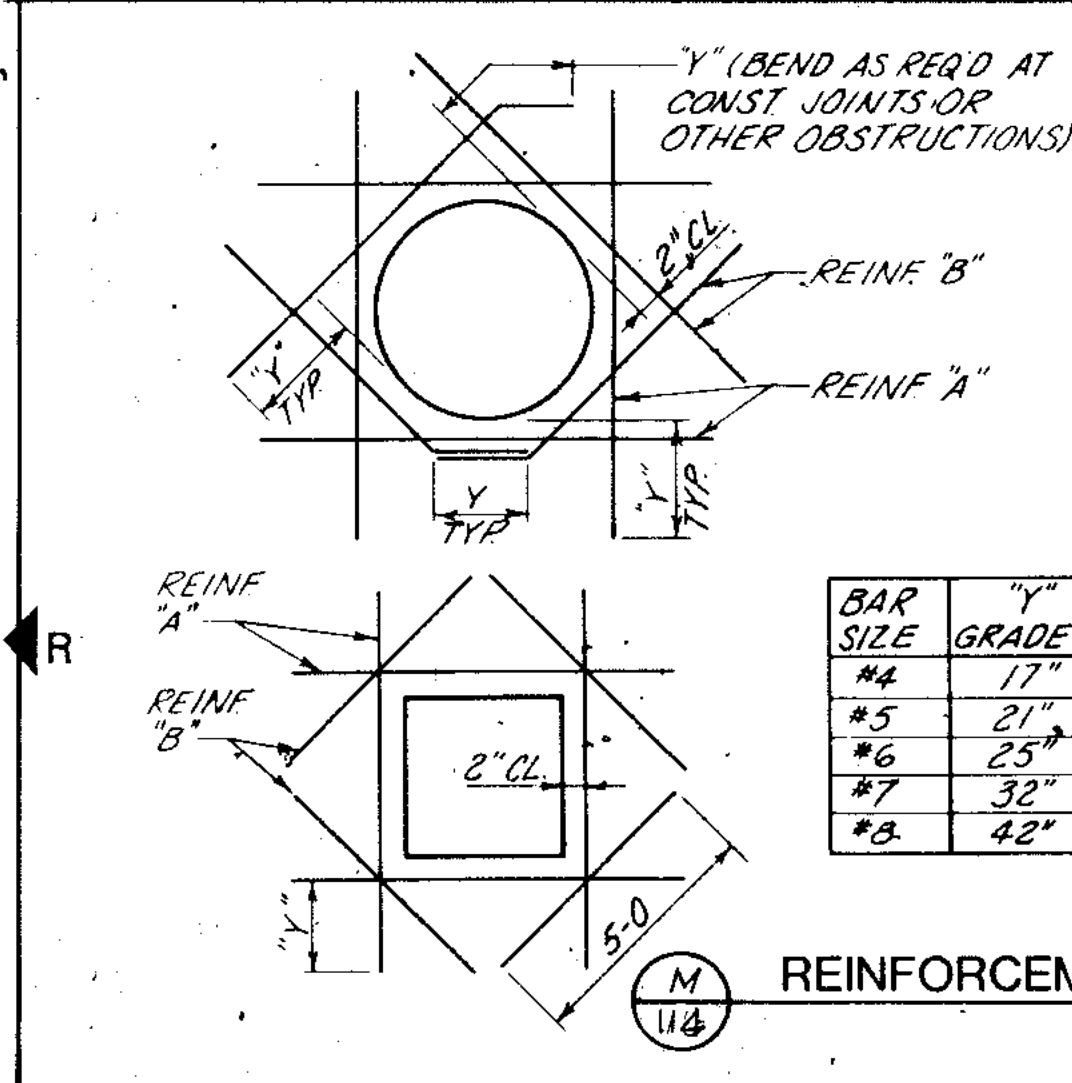
H STOP GATE STIFFENER SCHEDULE

| GATE WIDTH | ANGLE | NO. REQ'D | LOCATION |
|------------|-----------------|-----------|--------------------|
| 2-0 | NONE | - | - |
| 3-0 | 2x2x1/4 | 1 | BOTTOM |
| 4-0 | 3x3x1/4 | 2 | BOTTOM & TOP |
| 5-0 | 3 1/2x3 1/2x3/8 | 2 | BOTTOM & TOP |
| 6-0 | 4x4x1/2 | 3 | BOTT. MIDDLE & TOP |
| 6-0* | 3x3x1/4 | 1 | MIDDLE |

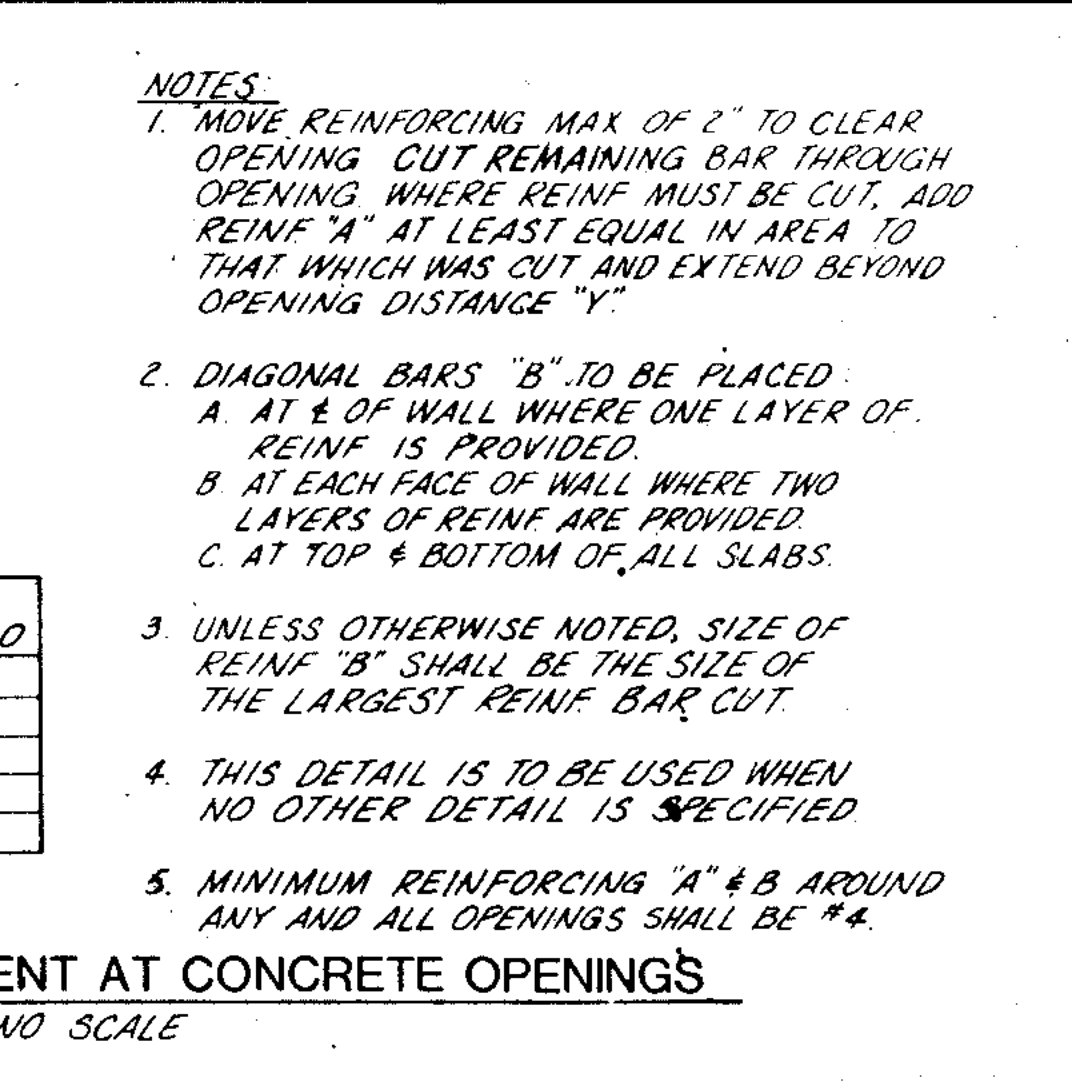
H STOP GATE STIFFENER SCHEDULE
NO SCALE

| REFERENCE SHEET NUMBER | GATE NUMBER | DIMENSION 'X' | DIMENSION 'Y' | LIFTING MECH. W/ WHEEL CRANK | MOUNTING TYPE SIDES | MOUNTING TYPE IN-LETT | REMARKS |
|------------------------|-------------|---------------|---------------|------------------------------|---------------------|-----------------------|---------|
| 74 | 1 | 7-6 | 6-8 | W | B | B | * ** |
| 74 | 2 | 5-3 | 4-2 | W | B | B | * |
| 74 | 3 | 7-6 | 5-9 | W | B | B | * |
| 74 | 4 | 5-3 | 4-2 | W | B | B | * |
| 74 | 5 | 7-6 | 6-5 | W | A | B | * ** |
| 79 | 6 | 4-0 | 7-6 | W | B | B | * |

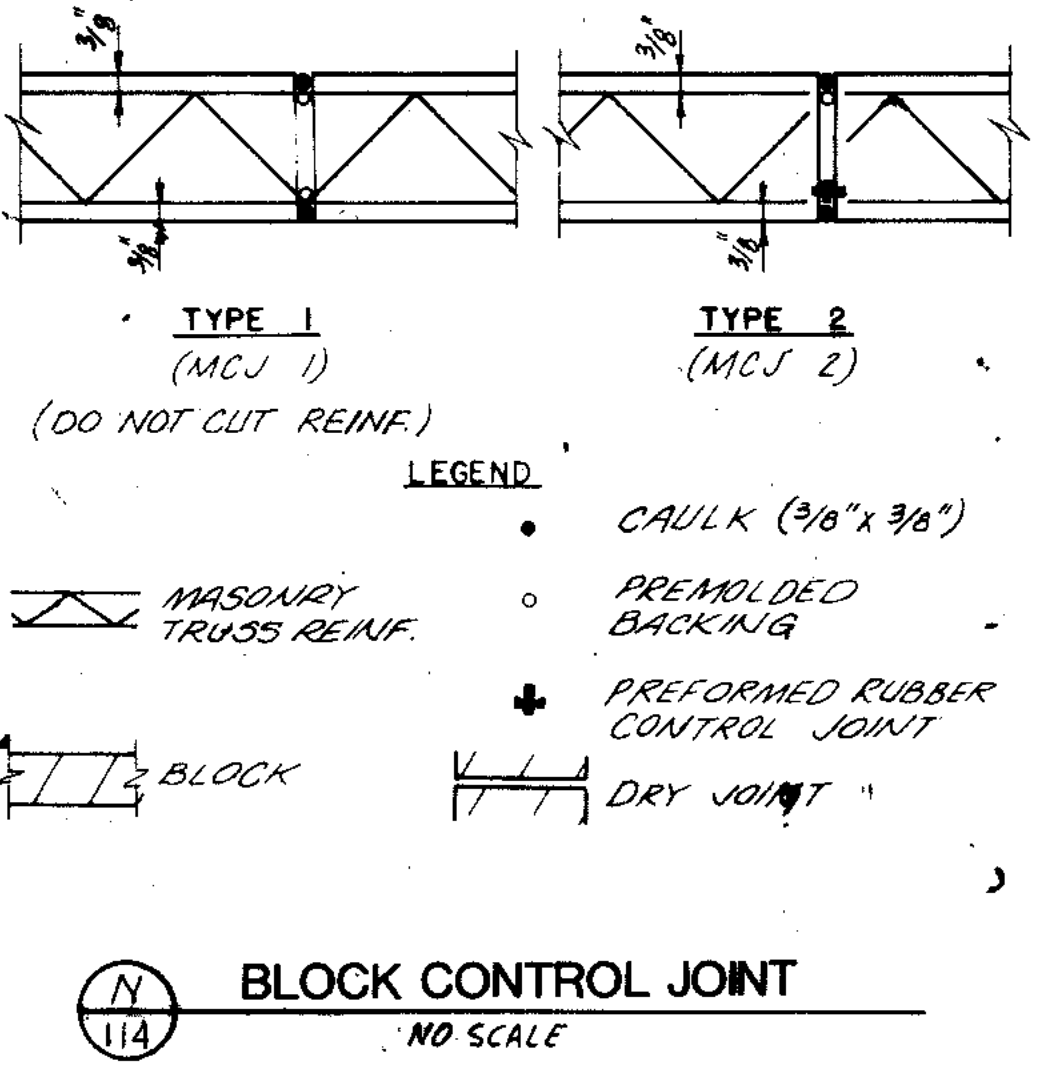
H STOP GATE STIFFENER SCHEDULE
NO SCALE



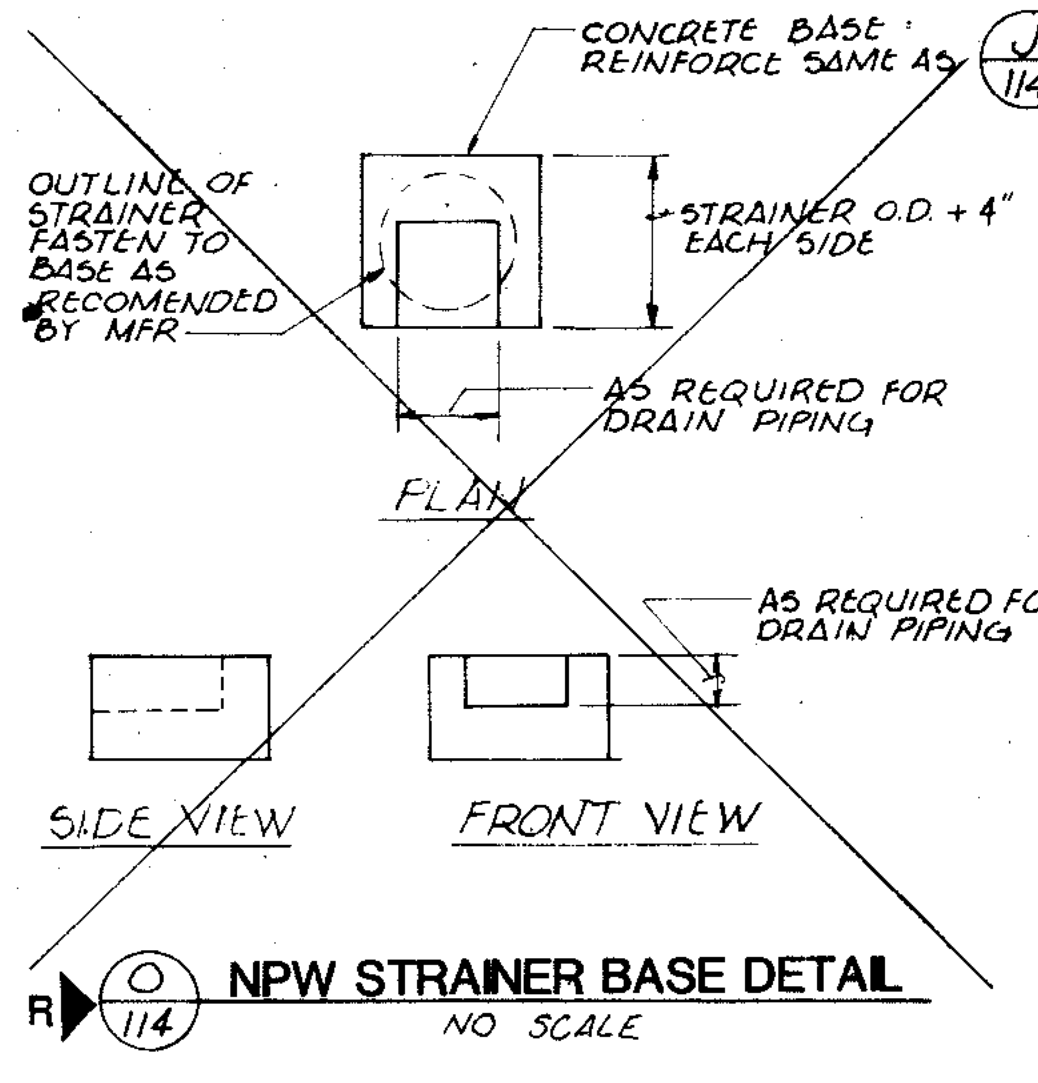
N BLOCK CONTROL JOINT
NO SCALE



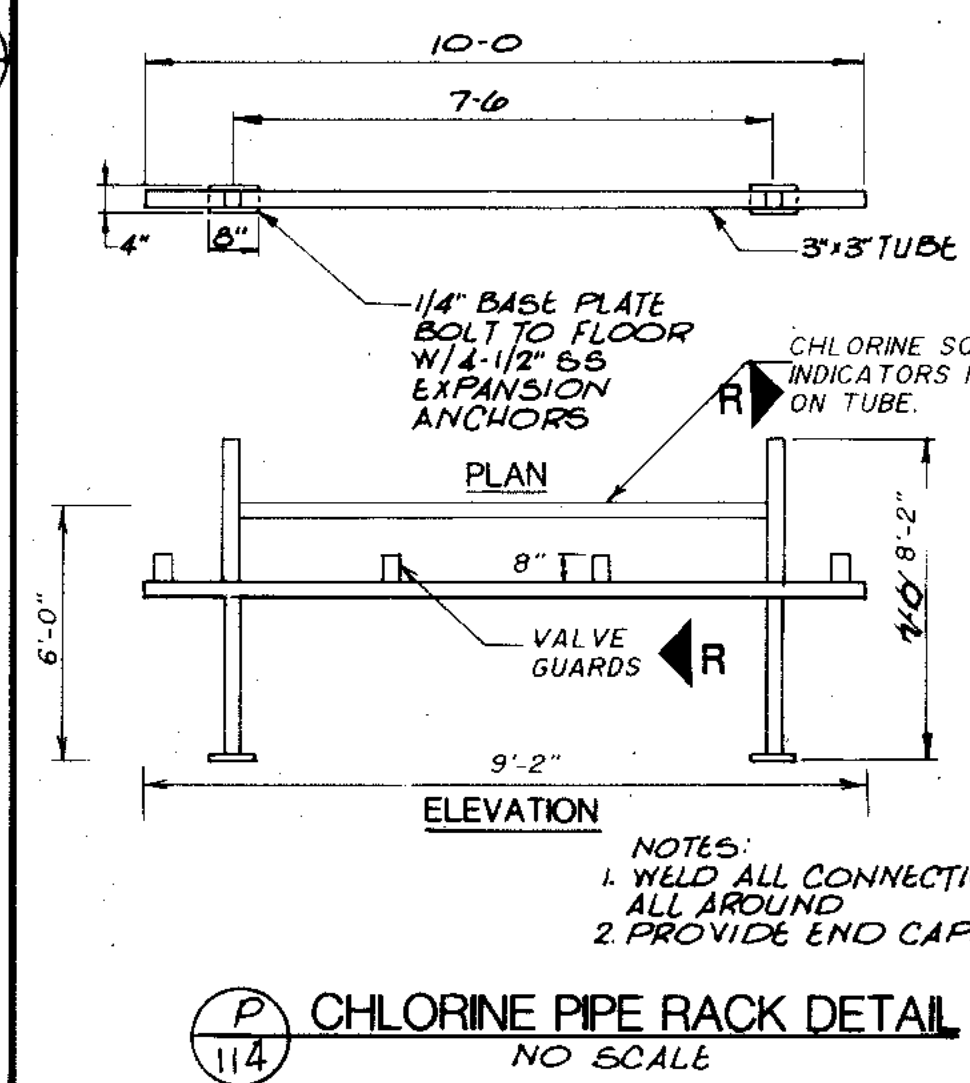
O NPW STRAINER BASE DETAIL
NO SCALE



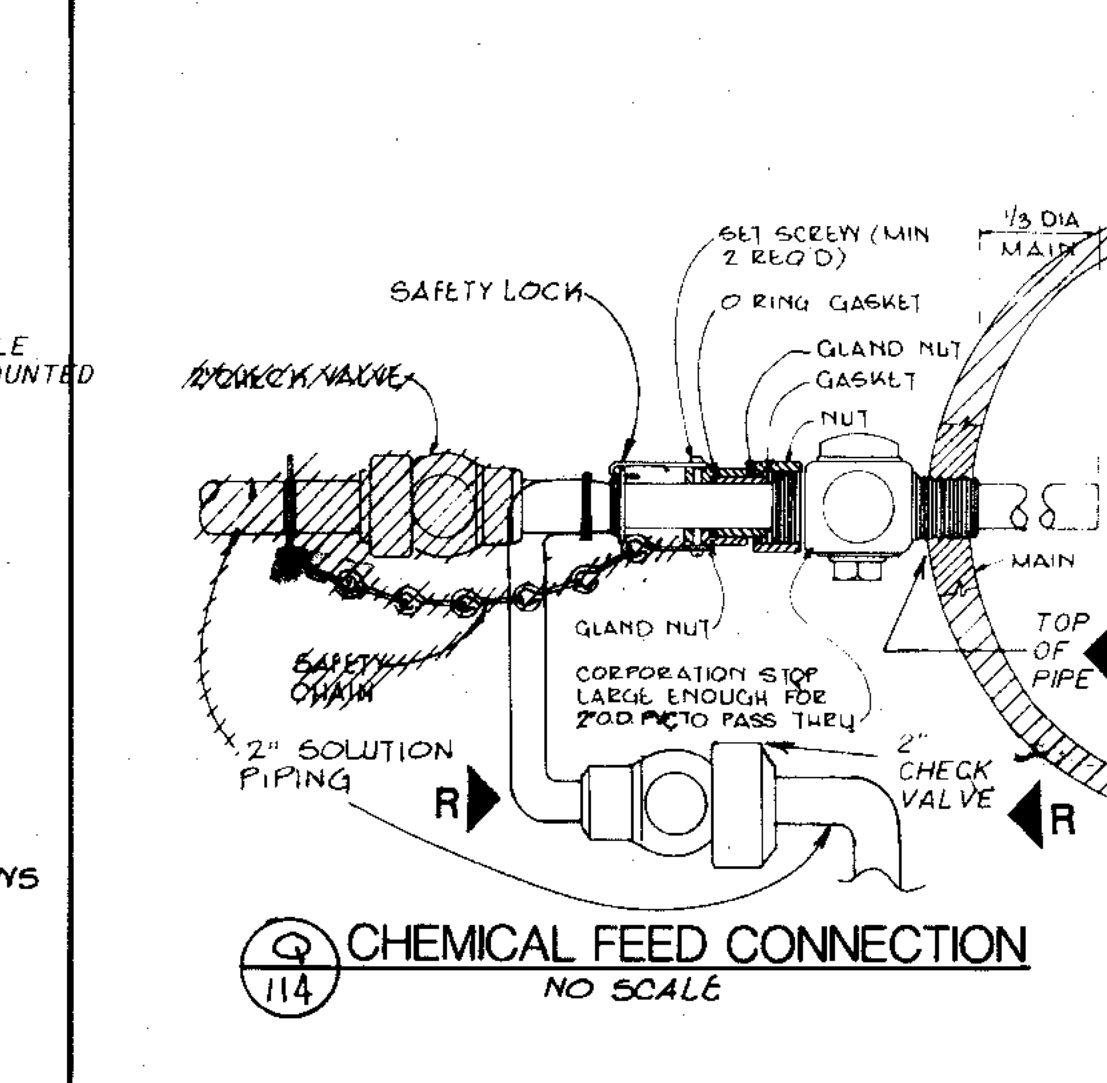
P CHLORINE PIPE RACK DETAIL
NO SCALE



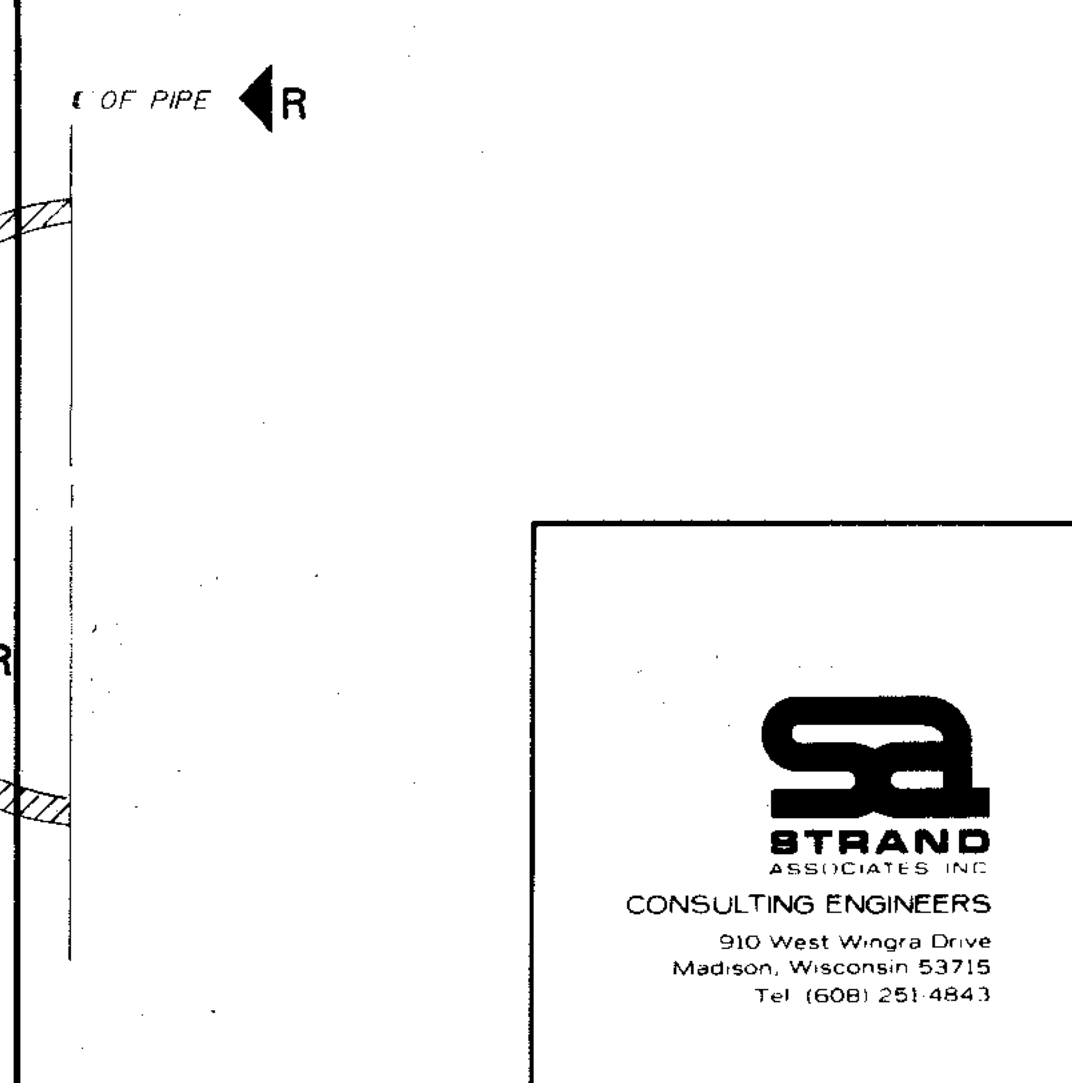
Q CHEMICAL FEED CONNECTION
NO SCALE



R RECORD DRAWINGS
NO SCALE



S CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT TYPICAL DETAILS-1
NO SCALE



T CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT TYPICAL DETAILS-1
NO SCALE

RECORD DRAWINGS 2/4/91 DJP

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
TYPICAL DETAILS-1

SCALE AS NOTED

DATE

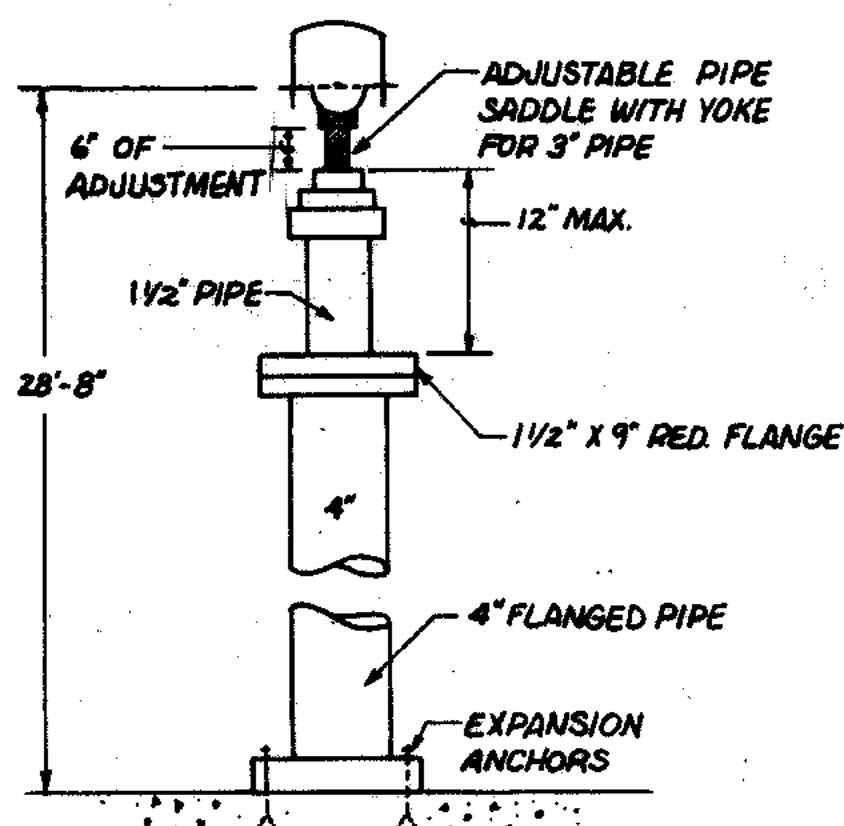
DRAWING NO

255-230-114

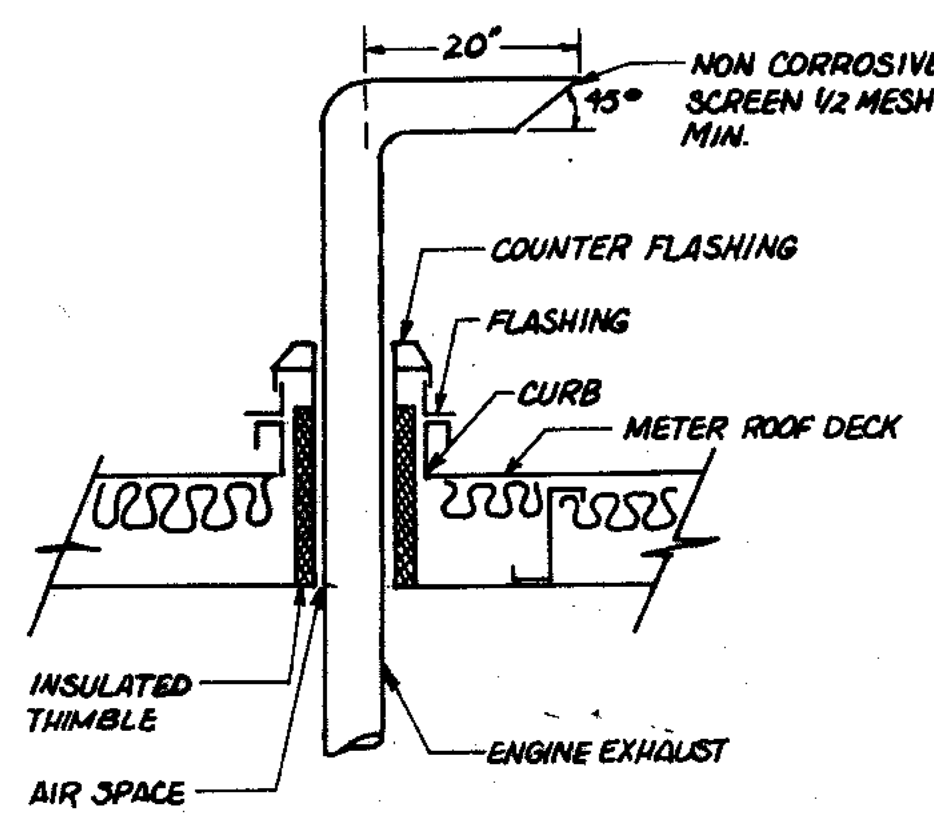
STRAND ASSOCIATES INC. CONSULTING ENGINEERS
910 West Wmgra Drive
Madison, Wisconsin 53715
Tel (608) 251-4843

Belting Consultants
Hilcrest Center / N. Larkin Avenue at Plainfield Road
Joliet, IL 60435

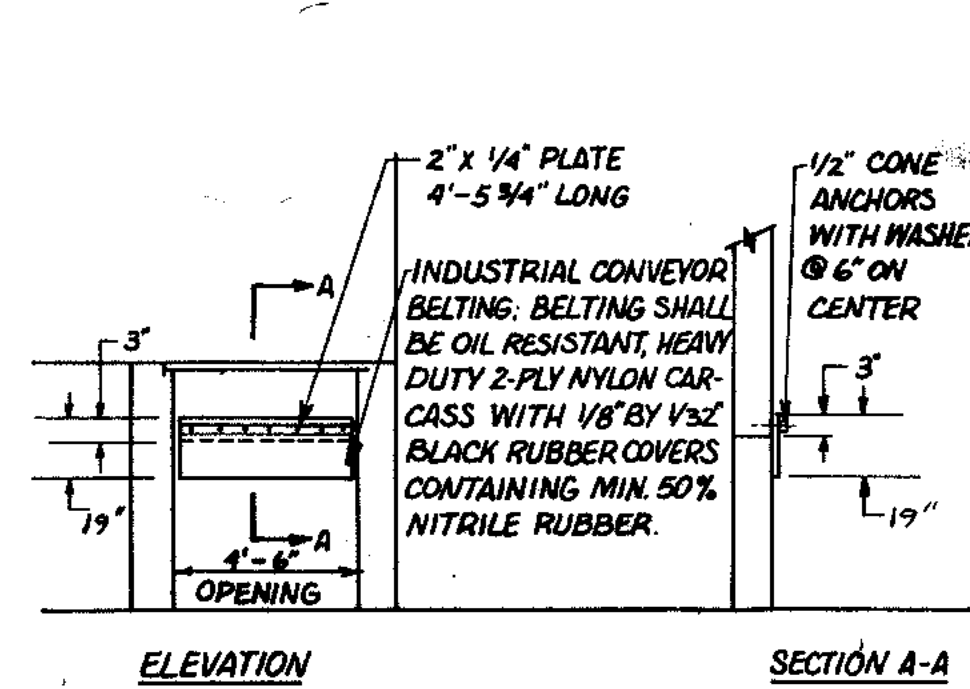
OVERLAY IDENTIFICATION COMPOSITE OVERLAY SCREEN PROJECT NO. DATE



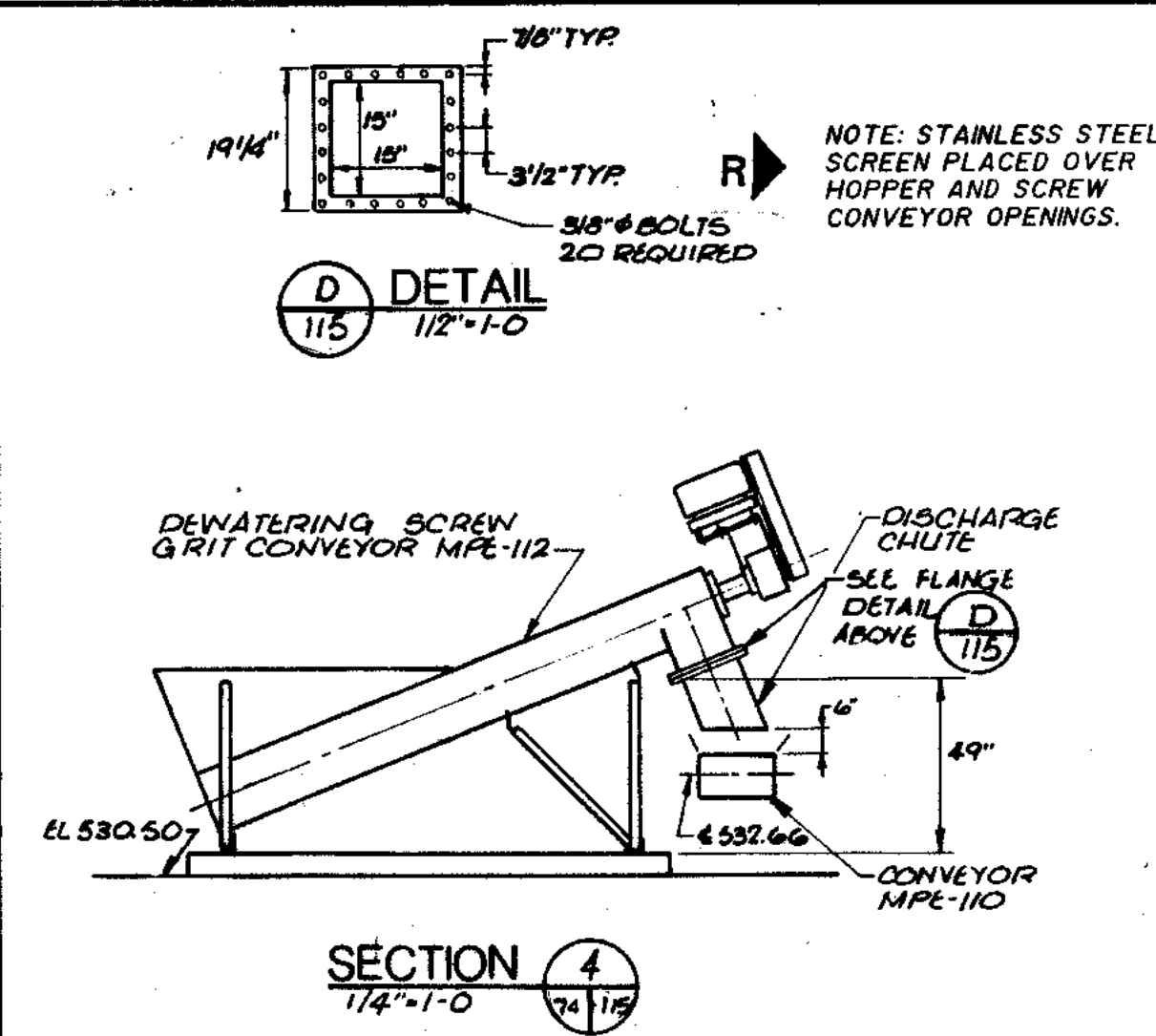
A PIPE SUPPORT
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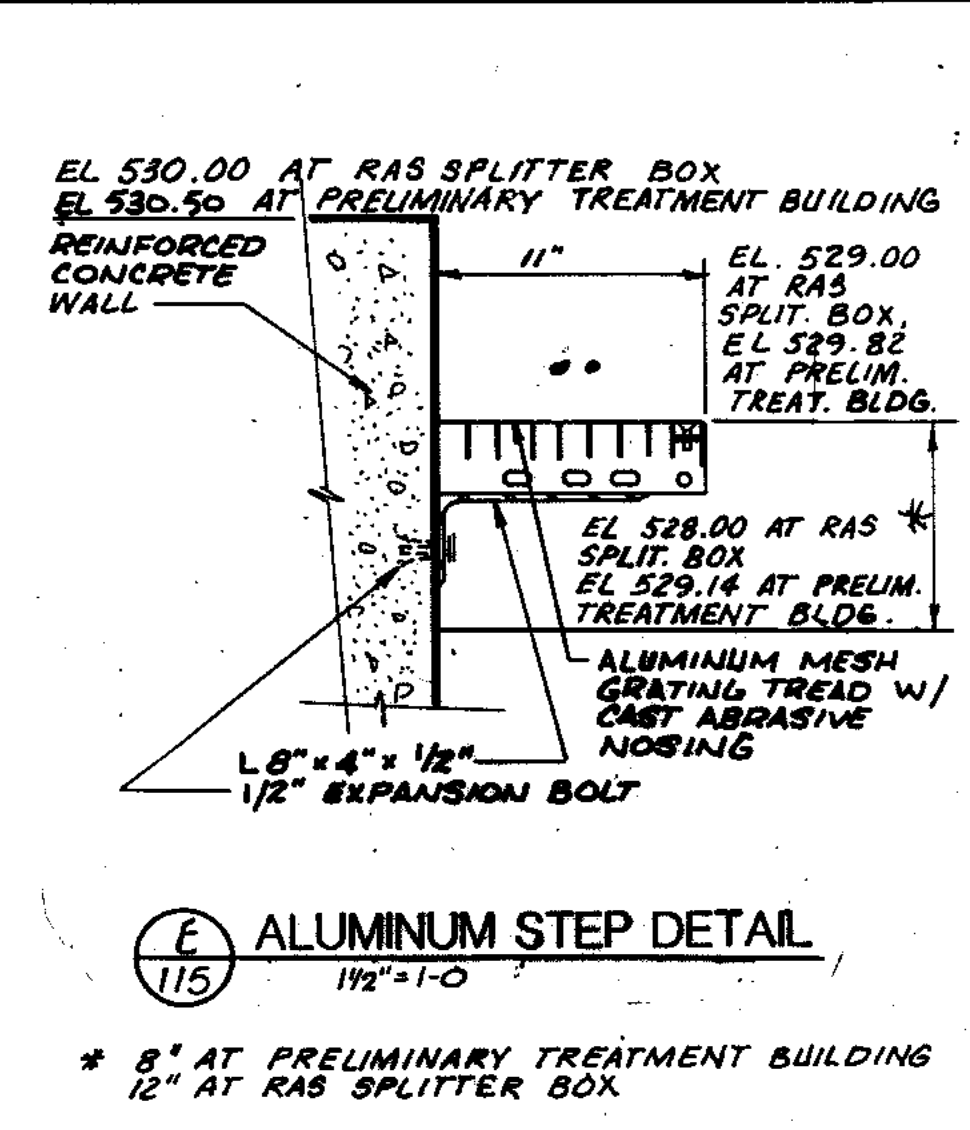
B ROOF THIMBLE DETAIL
NO SCALE



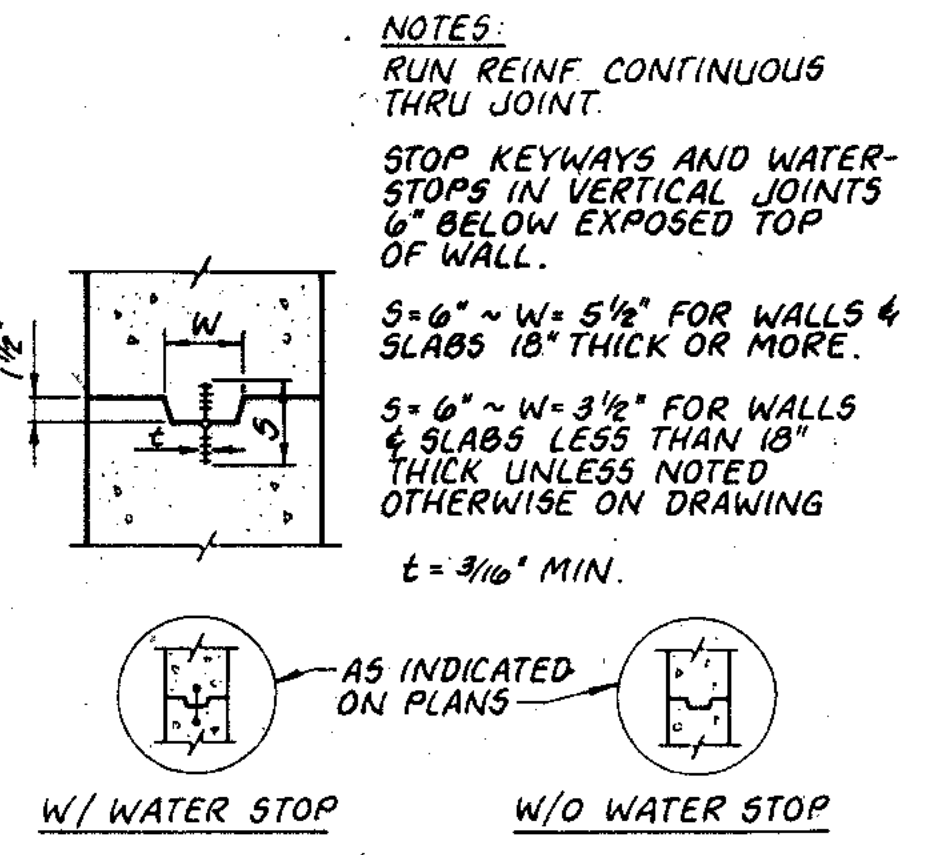
C WEATHER GATE DETAIL
NO SCALE



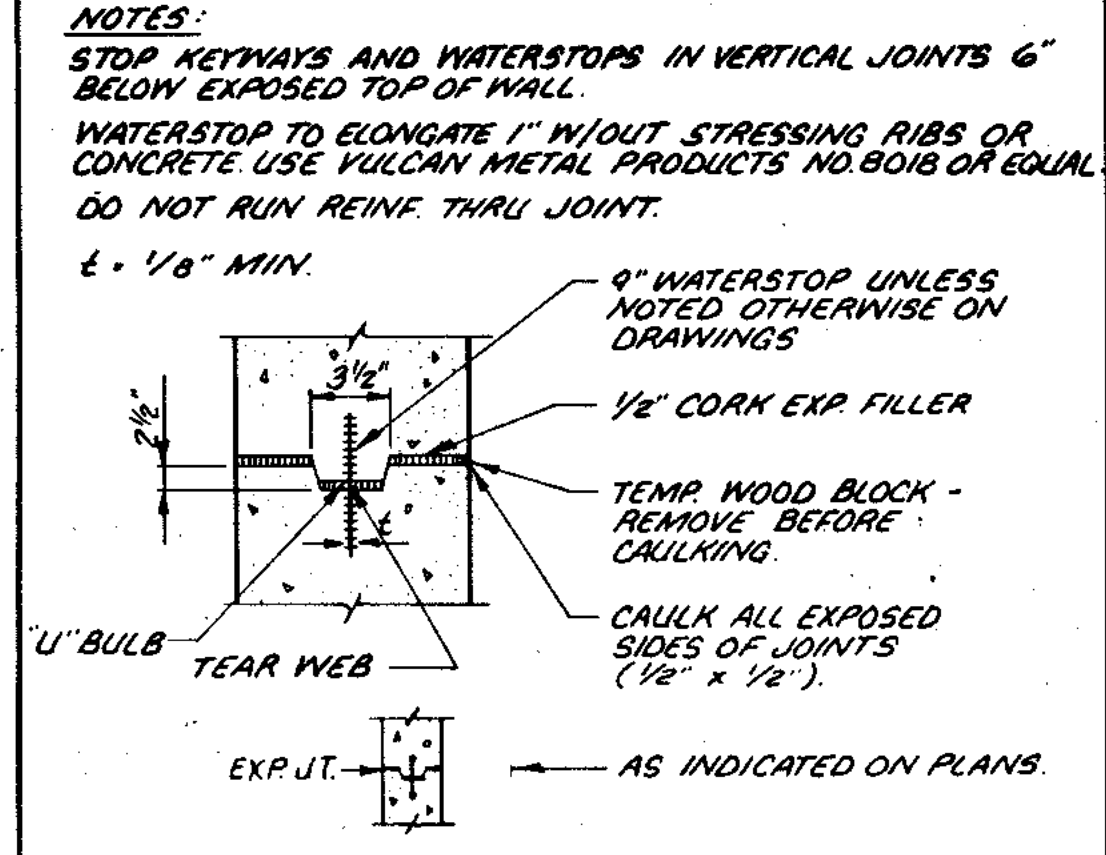
D ROOF HATCH
NO SCALE



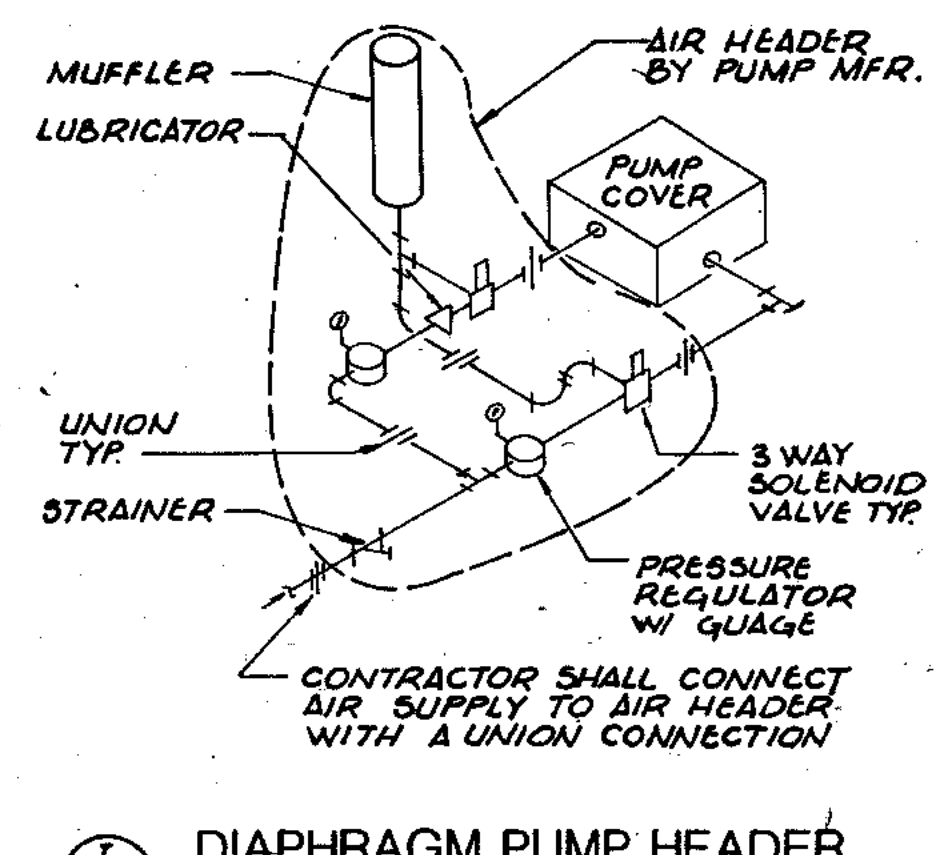
E ALUMINUM STEP DETAIL
NO SCALE



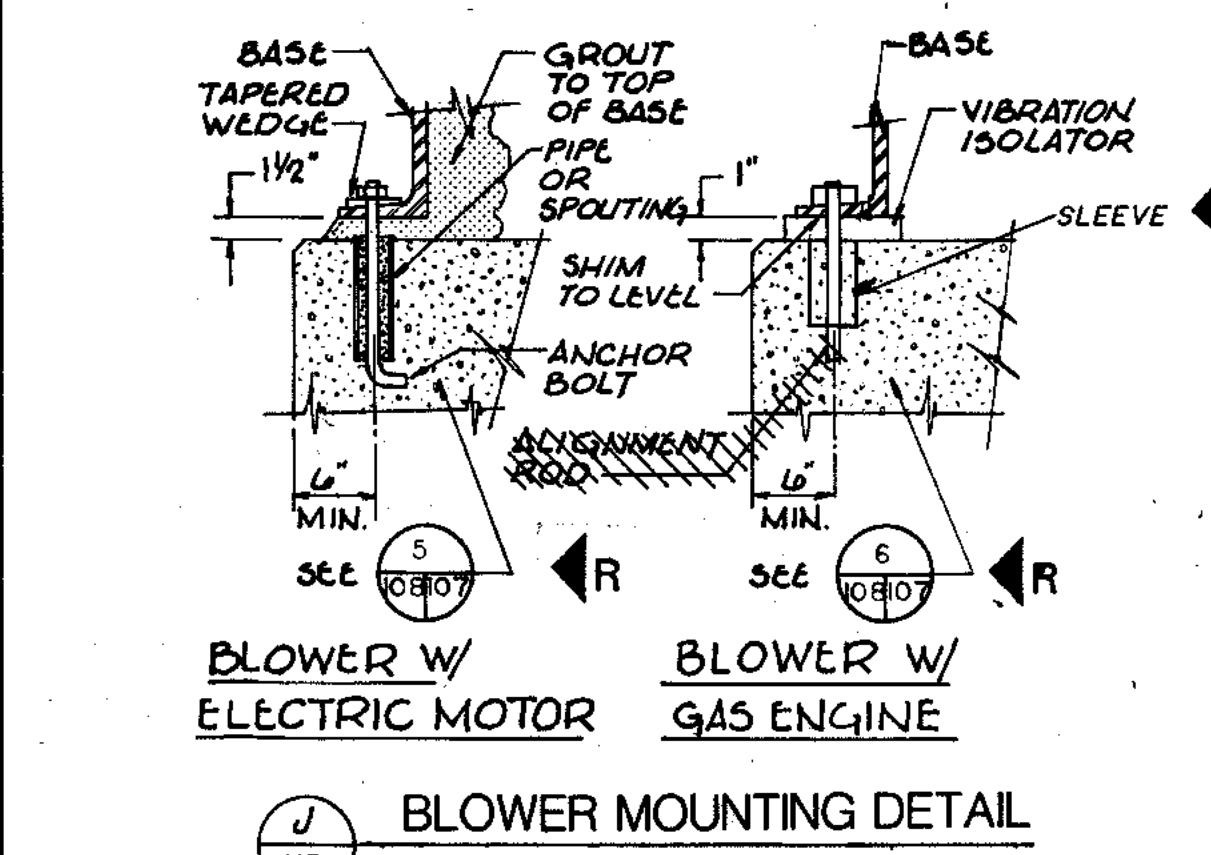
K CONSTRUCTION JOINT
NO SCALE



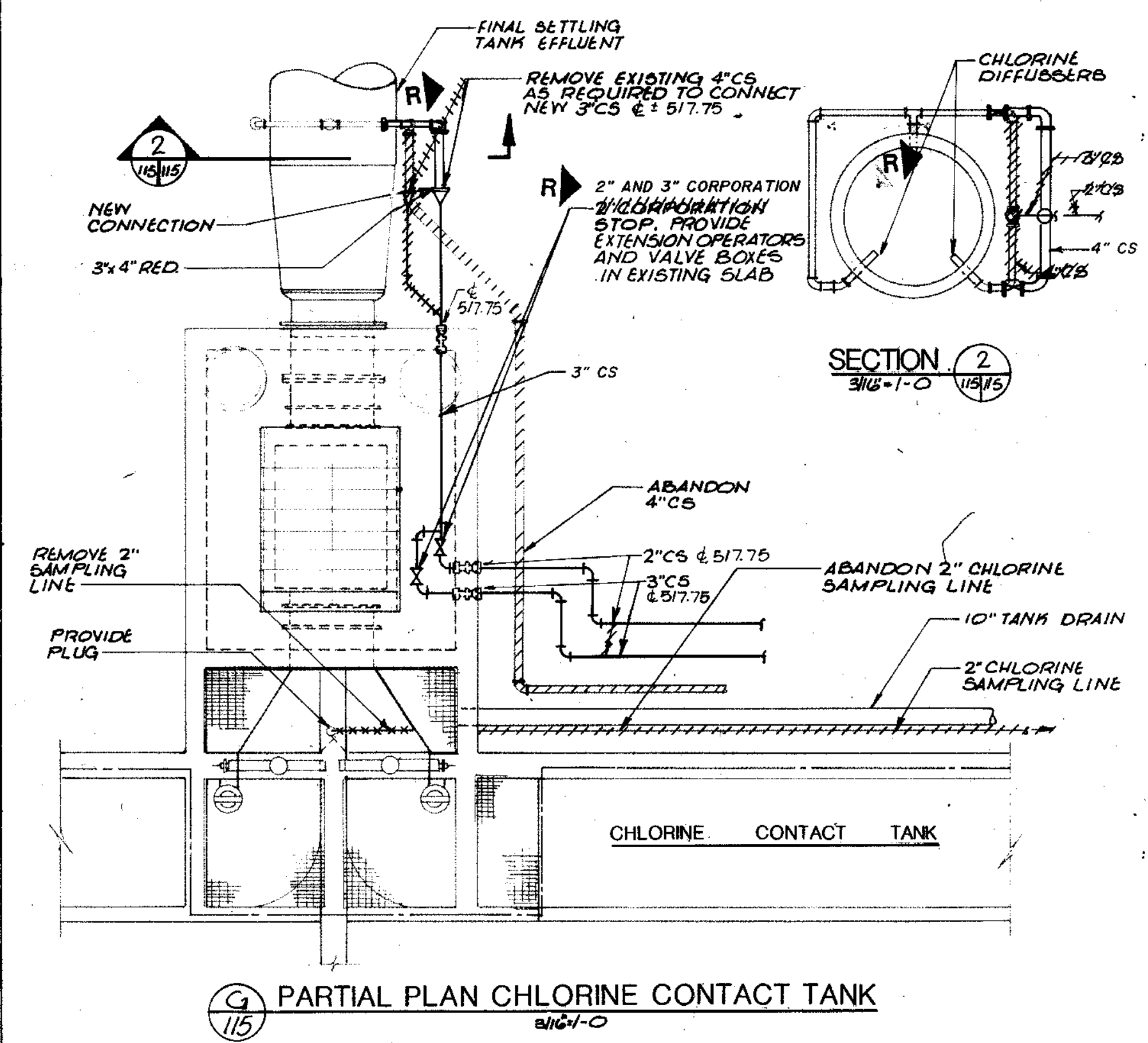
L EXPANSION JOINT
NO SCALE



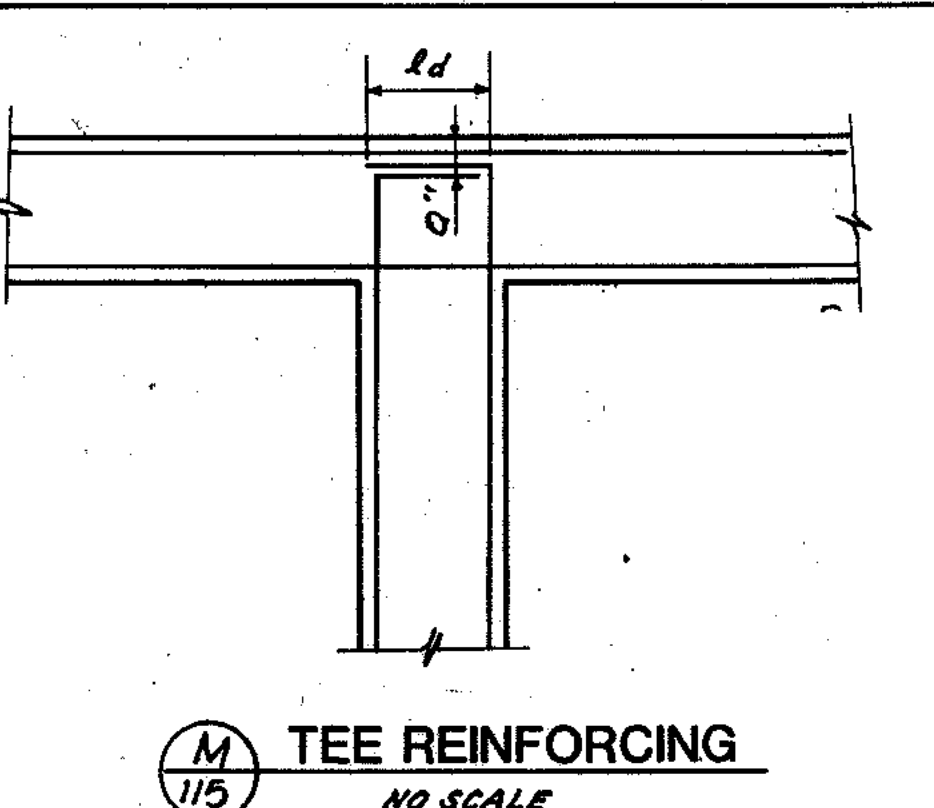
I DIAPHRAGM PUMP HEADER
NO SCALE



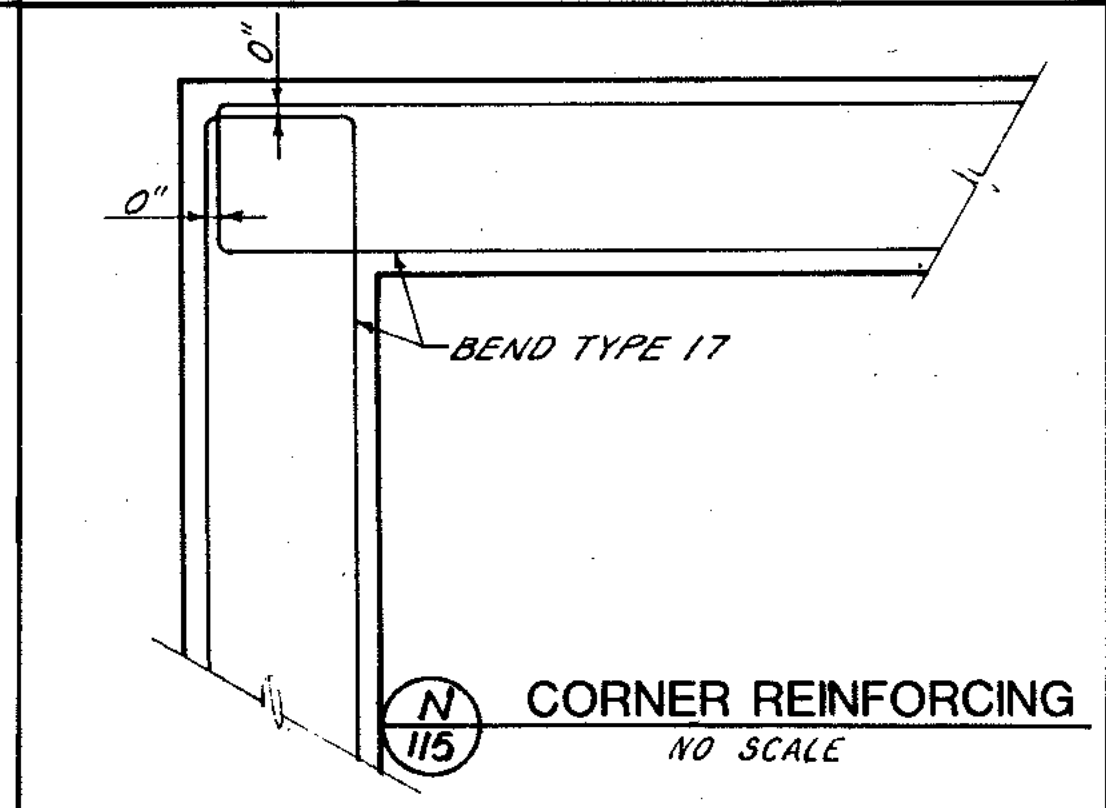
J BLOWER MOUNTING DETAIL
NO SCALE



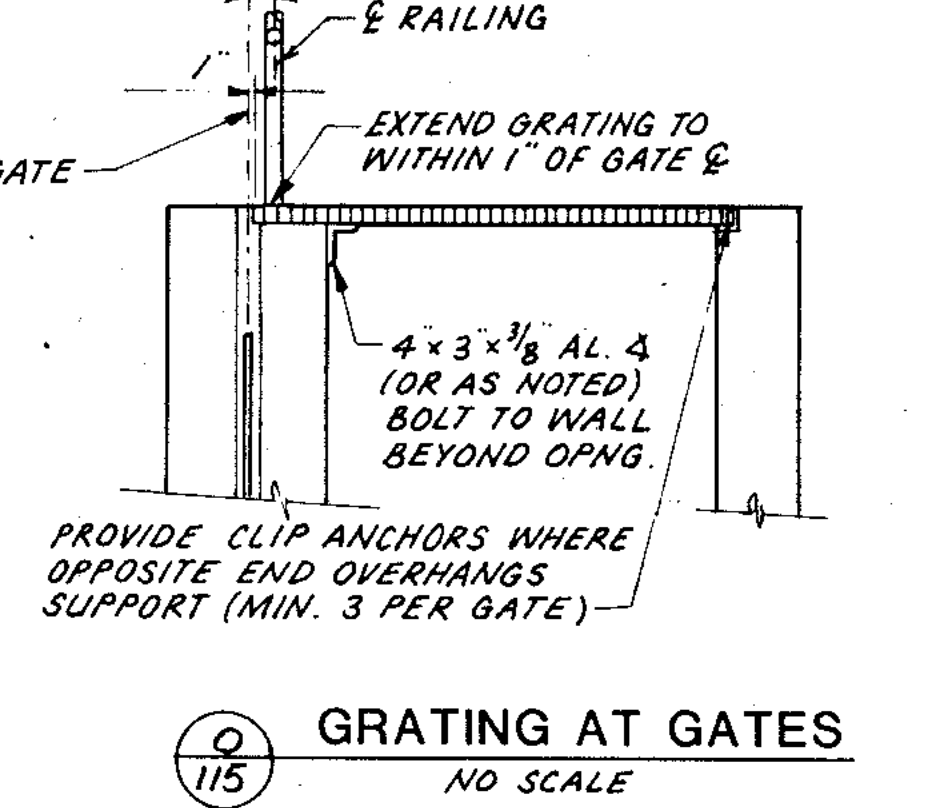
G PARTIAL PLAN CHLORINE CONTACT TANK
NO SCALE



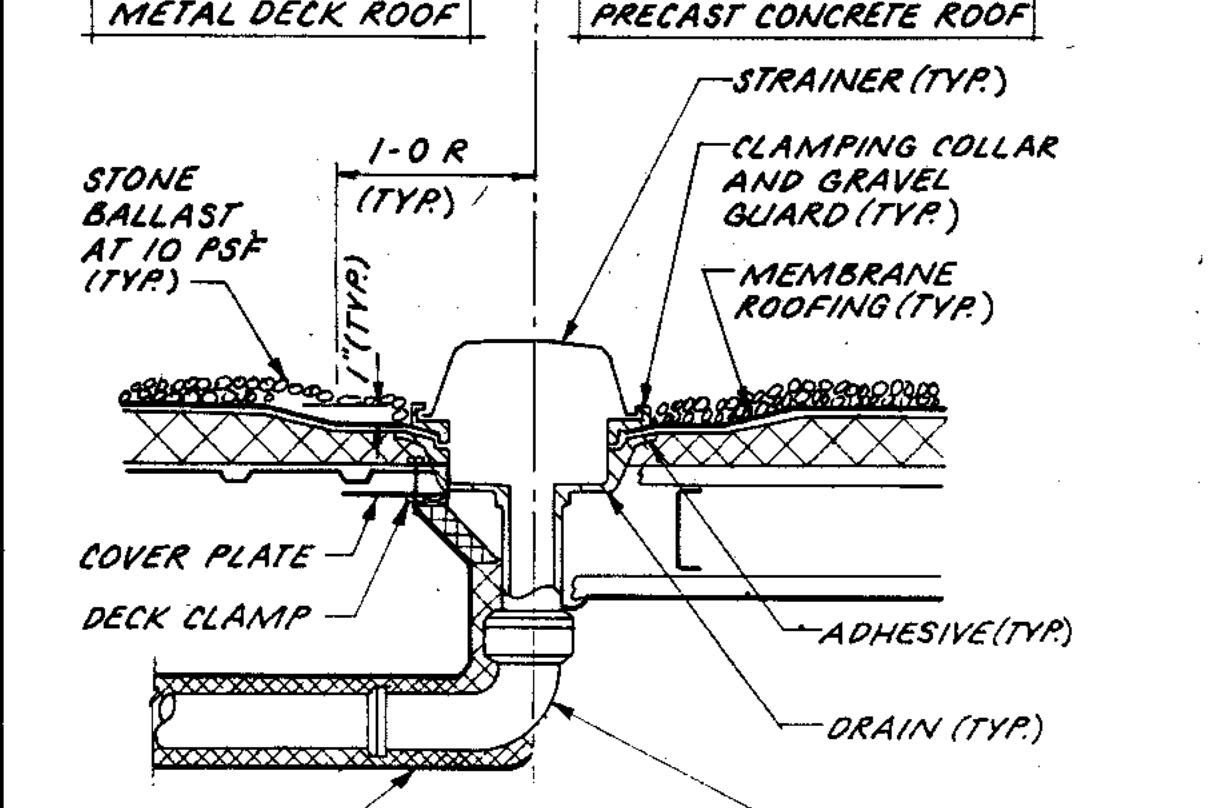
M TEE REINFORCING
NO SCALE



N CORNER REINFORCING
NO SCALE



O GRATING AT GATES
NO SCALE



P ROOF DRAIN
NO SCALE

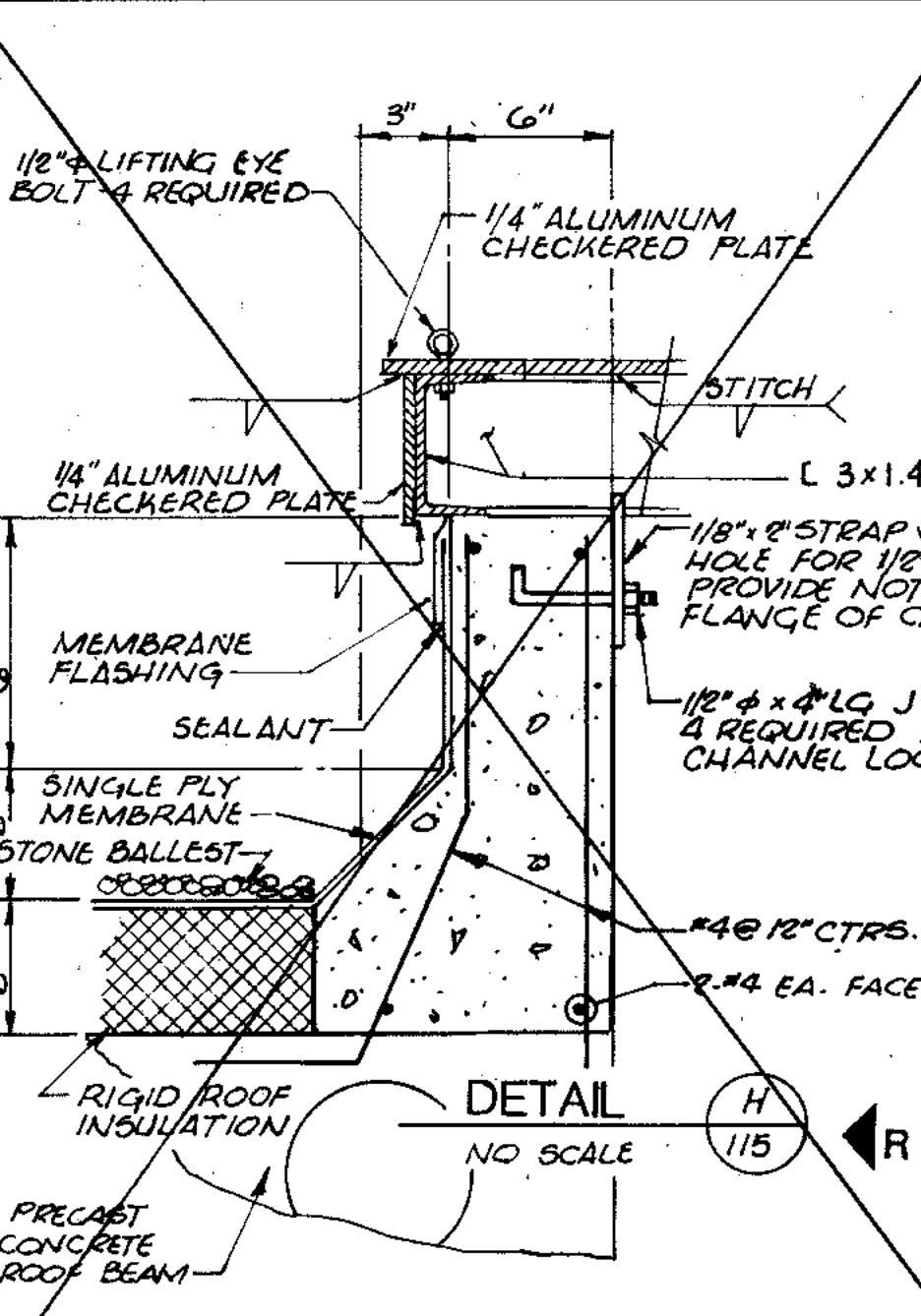
| LINTEL | RCH OPNG | LOCATION |
|--------|----------|-----------------------|
| L1 | 3-4 | 2, 3, 5, 6, 9, 10, 23 |
| L2 | 2-8 | 4 |
| L3 | 6-4 | 7, 11, 12 |
| L4 | 6-8 | 8 |
| L5 | 5-8 | 16, 18 |
| L6 | 4-2 | 17 |
| L7 | 3-2 | 17 |
| L8 | CHD | |
| L9 | 8-4 | 22 |

LINTEL SCHEDULE.

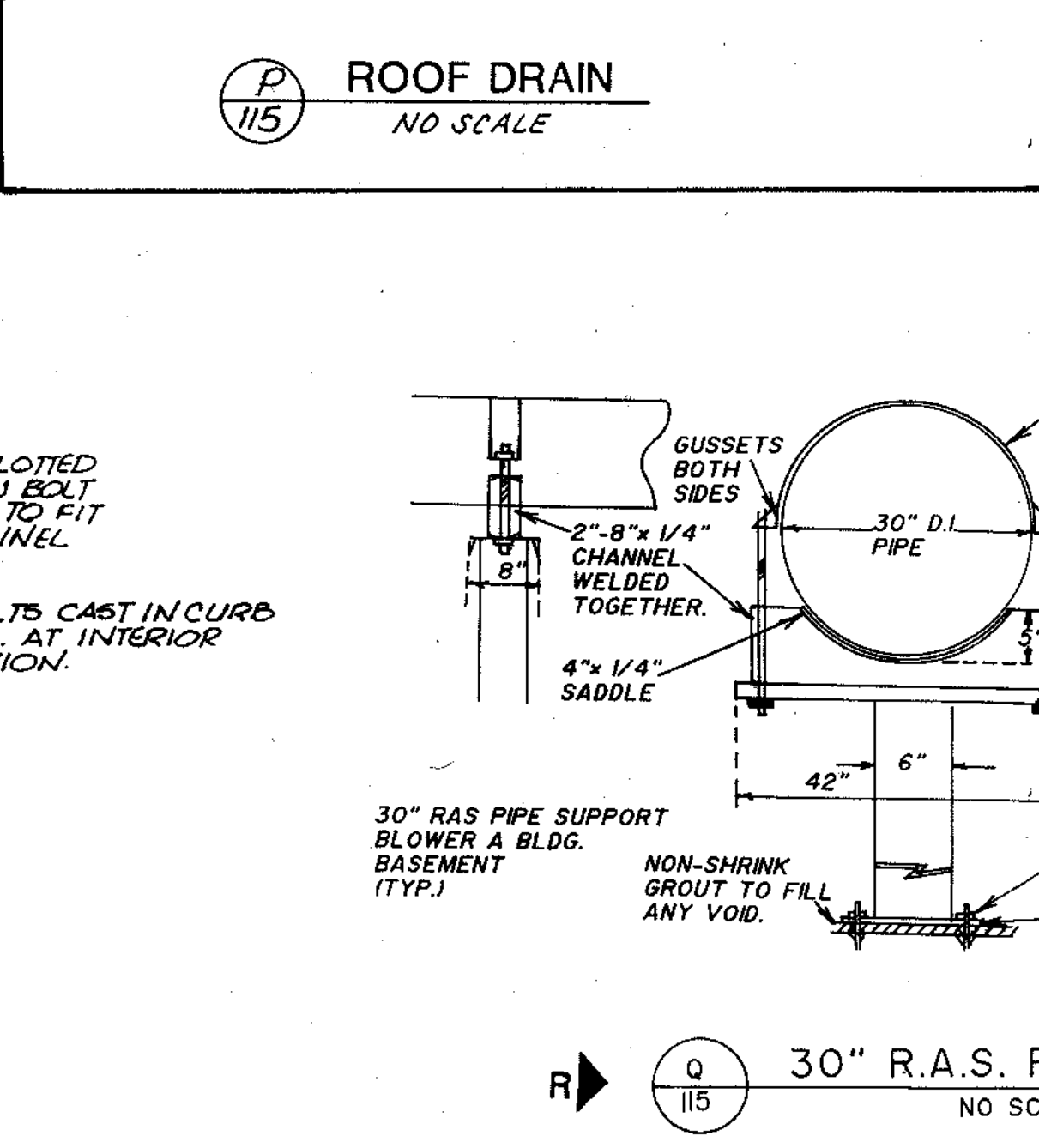
| WALL & OPENING | MISC. LINTEL SECTIONS |
|----------------|------------------------------|
| 8\"/> | OPTIONAL LINTEL BLOCK 2-#5 |
| 12\"/> | FILL W/ CONC. STEEL #3 5\"/> |
| TYPE LITHRUL | 3/8\"/> |

- NOTES:**
- LINTELS ARE REQUIRED OVER ALL MASONRY OPENINGS.
 - LINTELS SHALL HAVE A MINIMUM BEARING OF 8\"/>
 - GROUT MASONRY FULL 16\"/>

F LINTEL DETAILS
NO SCALE



H DETAIL
NO SCALE



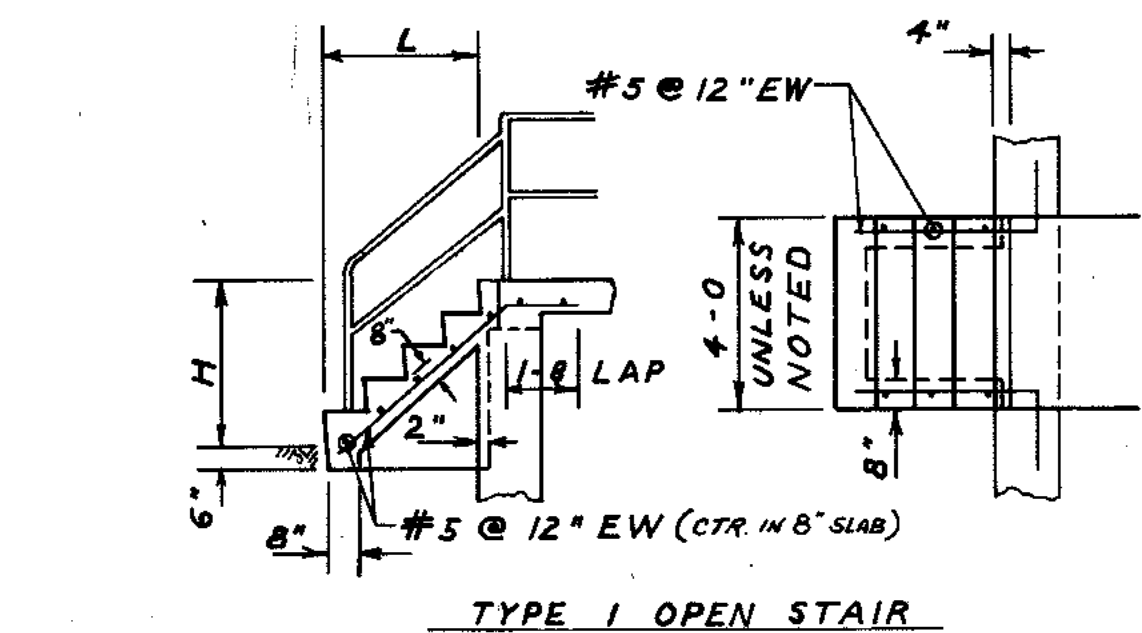
Q 30\"/>

COMPOSITE TD-115 TO E-115
 OVERLAY TD-115 TO E-115
 PROJECT NO. TD-115
 DATE

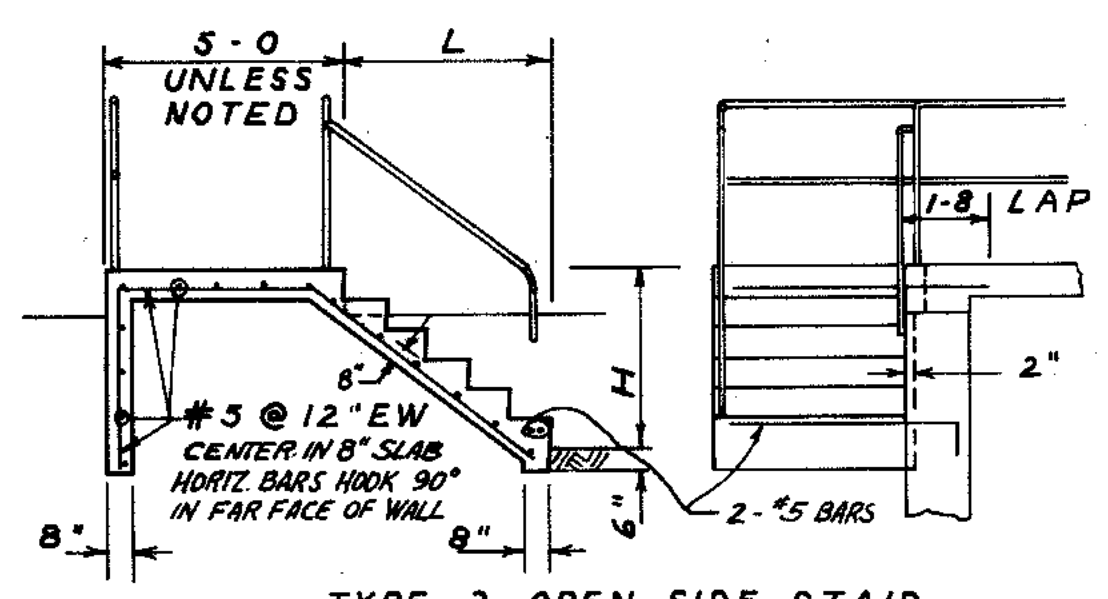


CITY OF JOLIET
 EASTSIDE
 WASTEWATER TREATMENT PLANT
 TYPICAL DETAILS-2

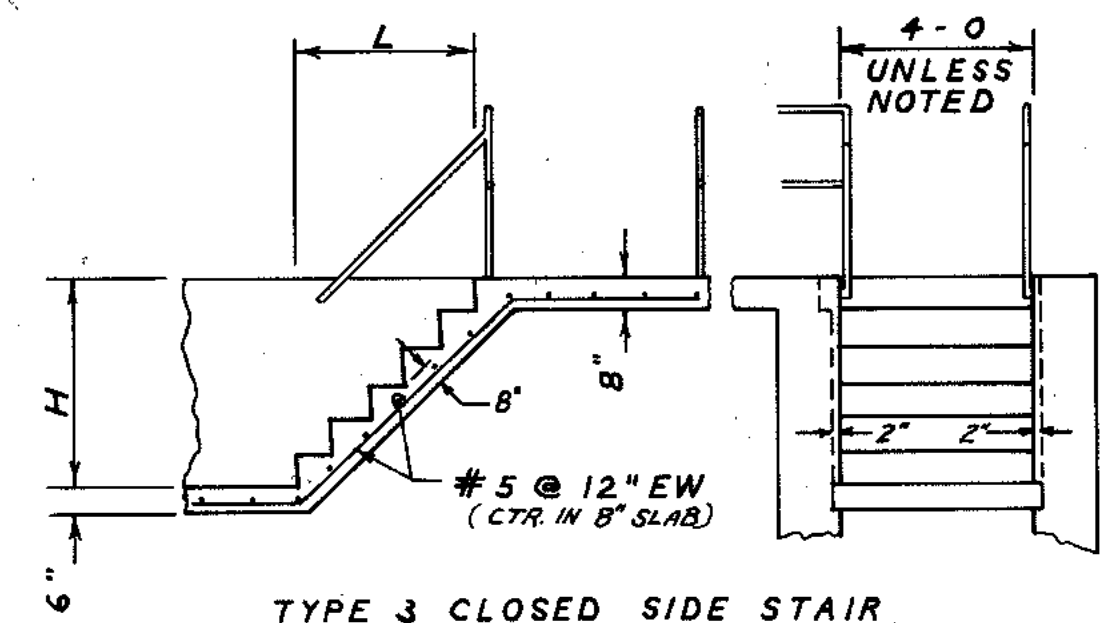
AS NOTED
 Being Consultants
 Hillcrest Center N. Larkin Avenue at Plainfield Road
 Joliet, IL 60435
255-230-115



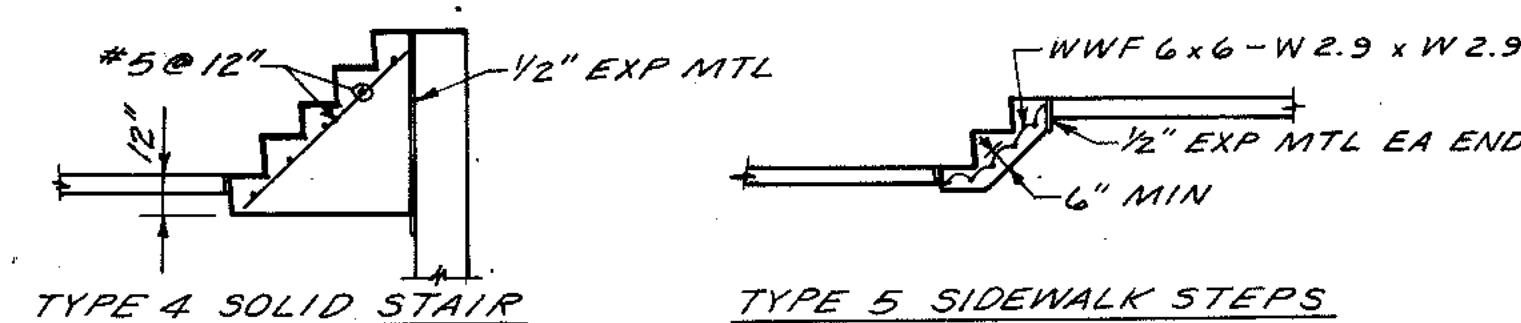
TYPE 1 OPEN STAIR



TYPE 2 OPEN SIDE STAIR



TYPE 3 CLOSED SIDE STAIR



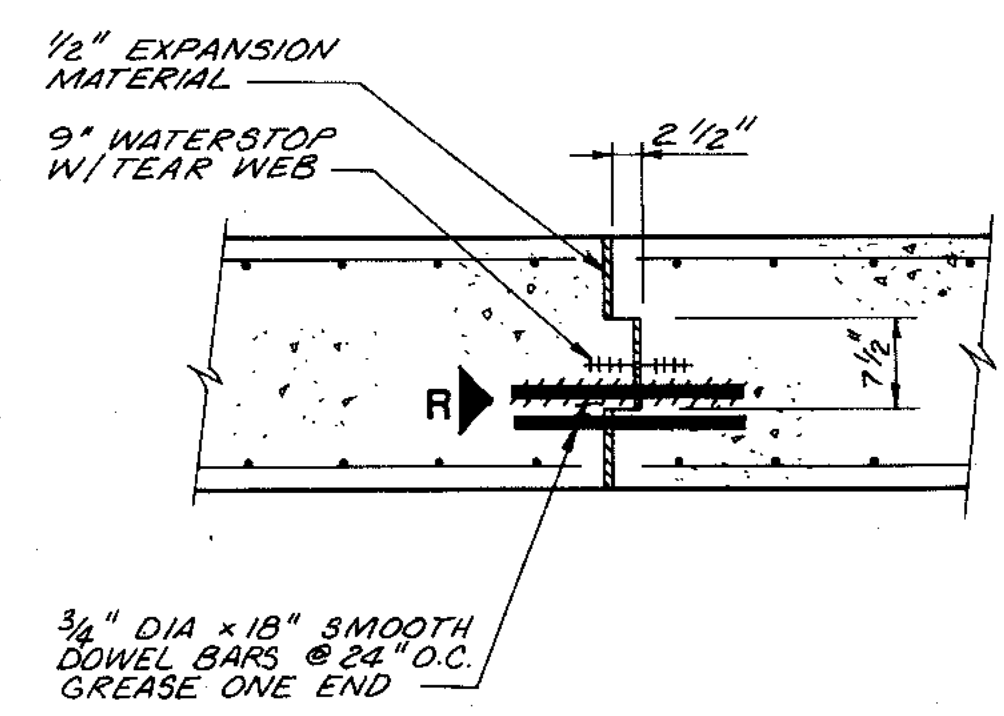
TYPE 4 SOLID STAIR

TYPE 5 SIDEWALK STEPS

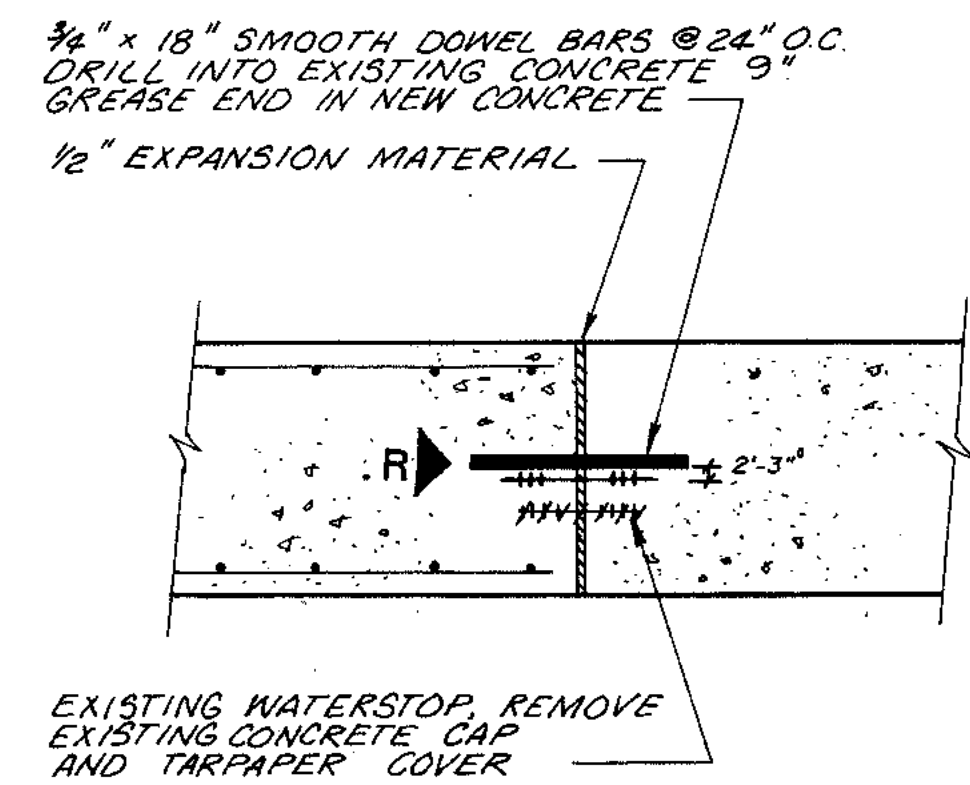
| REFERENCE SHEET | STAIR NO. | STAIR TYPE | RISE | | RUN | | |
|-----------------|-----------|------------|--------------|-----------------------|-------------|--------------------|---------|
| | | | NO. OF RISES | RISE (N) ± H (FT.-IN) | NO. OF RUNS | RUN (N) L (FT.-IN) | |
| 88 | 1 | 2 | 7 | 6 7/8 4-0 | 6 | 12 | 6-0 |
| 88 | 2 | 2 | 6 | 7 1/8 3-7 | 5 | 11 1/2 | 4-9 1/2 |
| 88 | 3 | 2 | 5 | 7 2-11 | 4 | 12 | 4-0 |
| 89 | 4 | 2 | 5 | 7 1/8 2-11 1/2 | 4 | 11 1/2 | 3-10 |
| 89 | 5 | 2 | 7 | 7 1/8 4-2 | 6 | 11 1/2 | 5-9 |
| 89,92 | 6 | 2 | 9 | 7 1/8 5-4 1/2 | 8 | 11 1/2 | 7-8 |
| 88,91,92 | 7 | 3 | 7 | 7 1/4 4-3 | 6 | 11 1/2 | 5-9 |
| 88 | 8 | 2 | 7 | 6 1/4 3-7 1/2 | 6 | 12 | 6-0 |
| 89,91 | 9 | 2 | 8 | 7 4-8 | 7 | 12 | 7-0 |
| 79,82 | 10 | 1 | 8 | 6 4-0 | 7 | 12 | 7-0 |
| 80 | 11 | 4 | 8 | 6 4-0 | 7 | 12 | 7-0 |
| 80 | 12 | 5 | 3 | 7 1-9 | 2 | 11 | 1-10 |
| 80,83 | 13 | 4 | 8 | 7 4-8 | 7 | 12 | 7-0 |
| 79,83 | 14 | 4 | 8 | 6 1/2 4-2 | 7 | 12 | 7-0 |
| 79 | 15 | 3 | 3 | 6 1-6 | 2 | 12 | 2-0 |
| 84 | 16 | 2 | 5 | 6 2-8 | 4 | 12 | 4-0 |
| 84 | 17 | 2 | 5 | 6 2-8 | 4 | 12 | 4-0 |
| 85 | 18 | 2 | 5 | 6 2-8 | 4 | 12 | 4-0 |
| 85 | 19 | 5 | 5 | 6 2-6 | 4 | 12 | 4-0 |
| 79 | 20 | 1 | 4 | 5 1-11 1/2 | 3 | 12 | 3-0 |

NOTE: 1" NOSE, RISE = RUN + 1

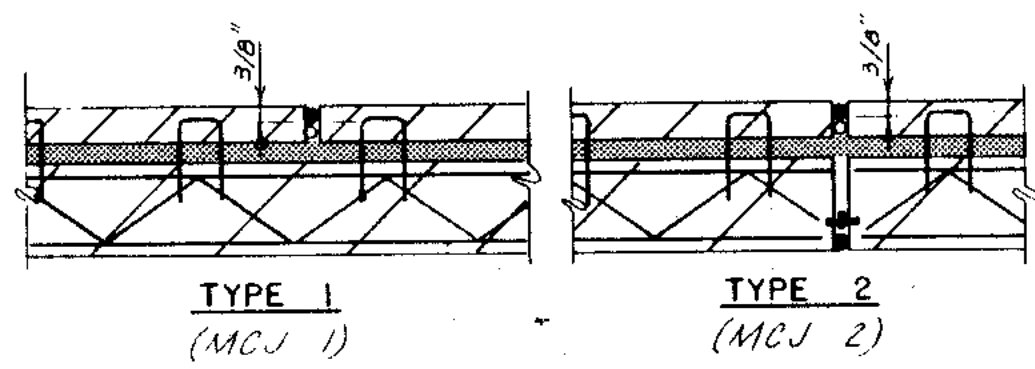
A STAIR SCHEDULE & DETAILS
NO SCALE



EXPANSION JOINT
D NEW CONCRETE TO NEW CONCRETE
NO SCALE

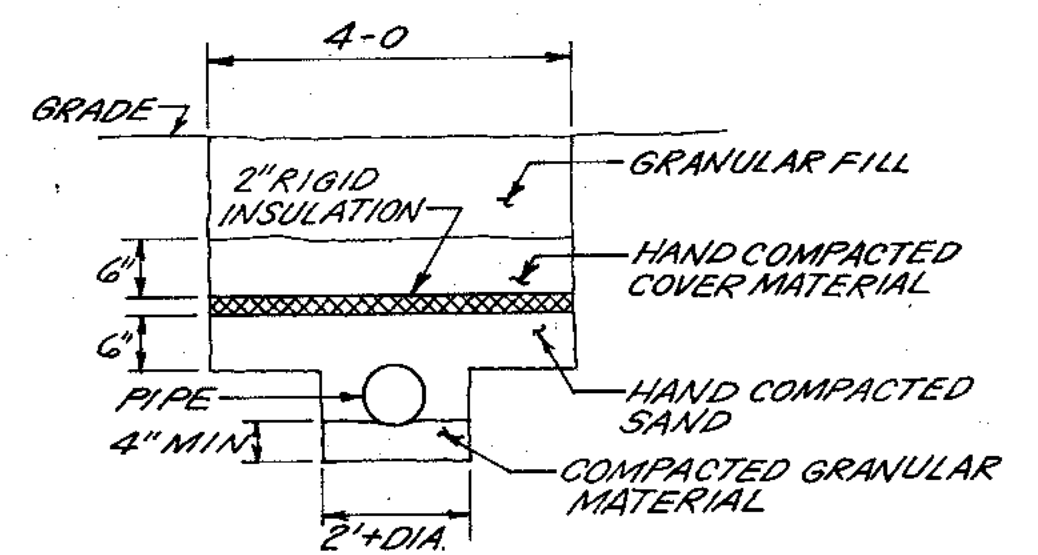


EXPANSION JOINT
E NEW CONCRETE TO EXISTING CONCRETE
NO SCALE



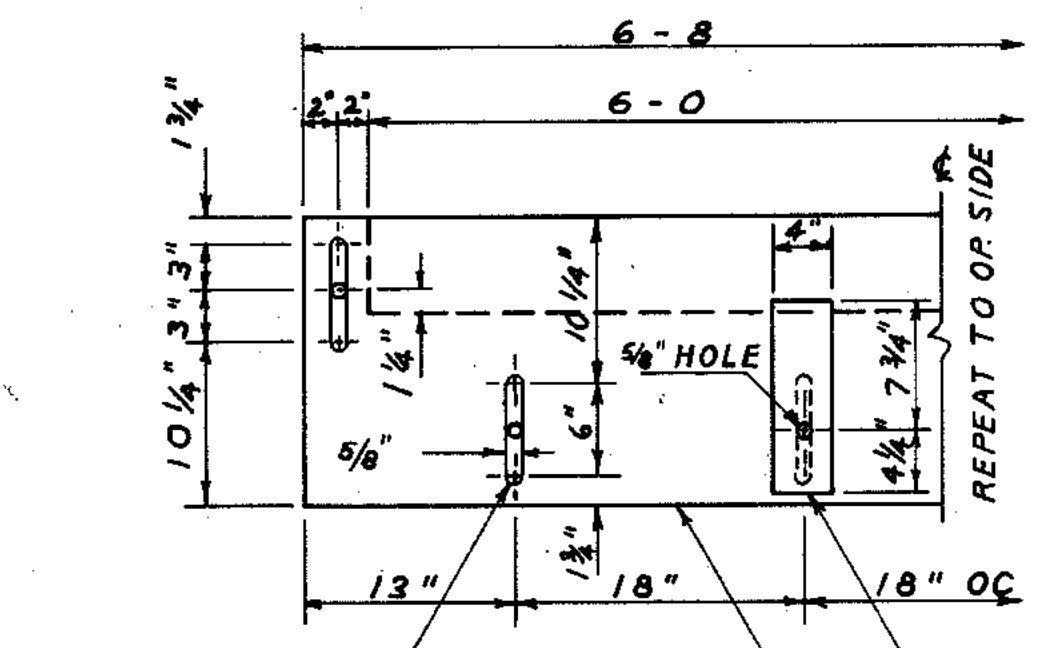
MAIN CONTROL BUILDING
MASONRY CONTROL JOINT
K NO SCALE

- LEGEND
- INSULATION
 - MASONRY TRUSS REINF.
 - BRICK
 - BLOCK
 - CAULK (3/8" x 3/8")
 - PREMOLDED BACKING
 - PREFORMED RUBBER CONTROL JOINT
 - DRY JOINT



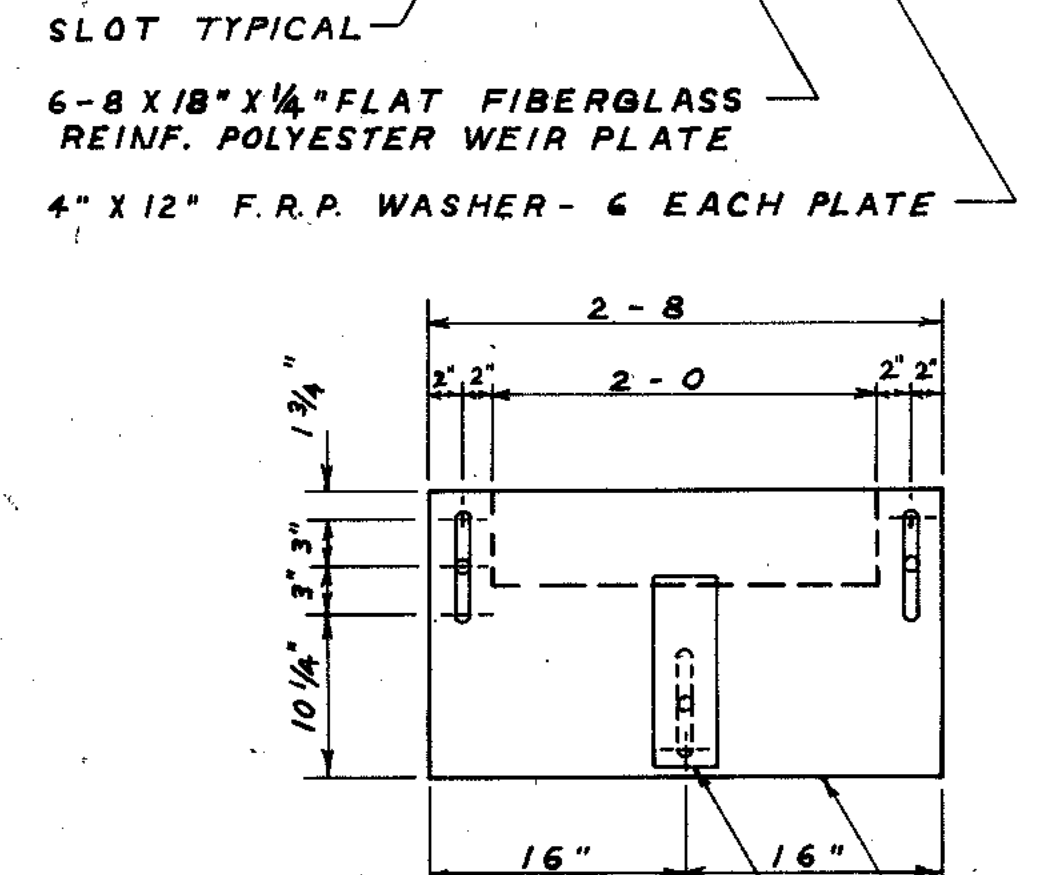
G UNDERGROUND PIPE INSULATION
NO SCALE

NOTE: INSULATION REQUIRED ON ALL PIPES HAVING LESS THAN 4'-0" OF COVER, OR WHERE NOTED ON DRWS.



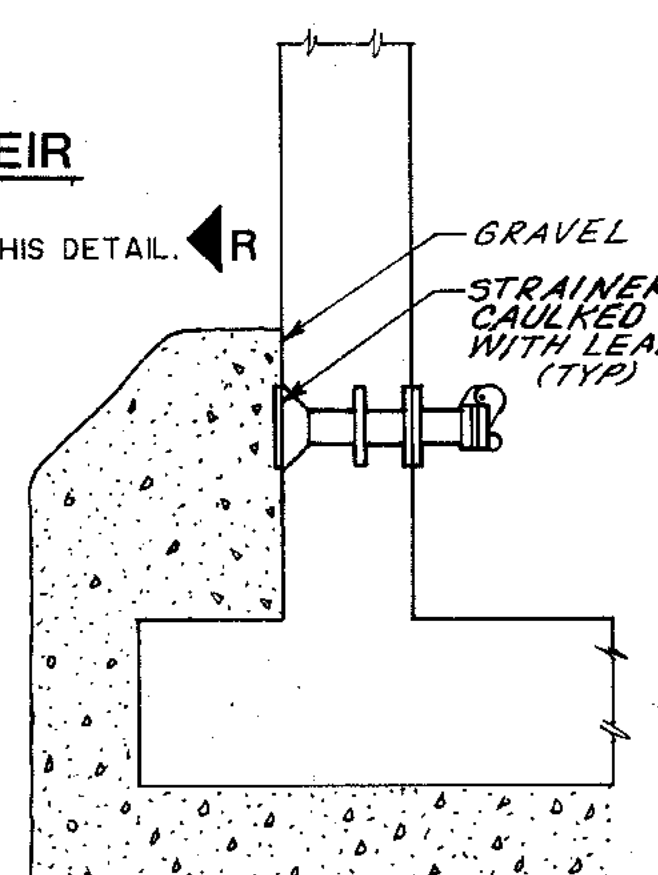
F AERATION TANK INFLUENT WEIR
NO SCALE

PROVIDE 24 AERATION TANK INFLUENT WEIRS AS SHOWN IN THIS DETAIL.

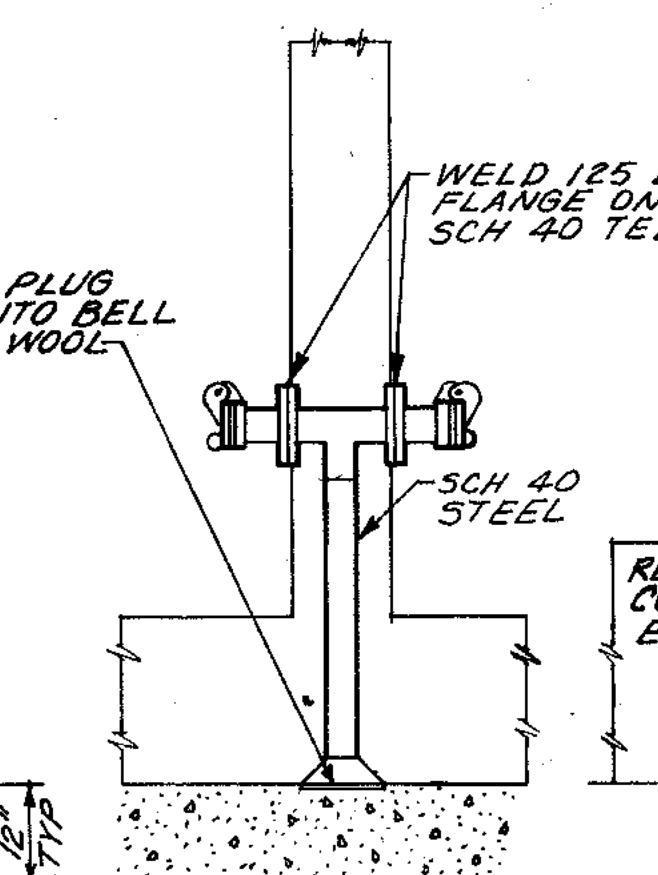


C RAS CONTROL WEIRS
NO SCALE

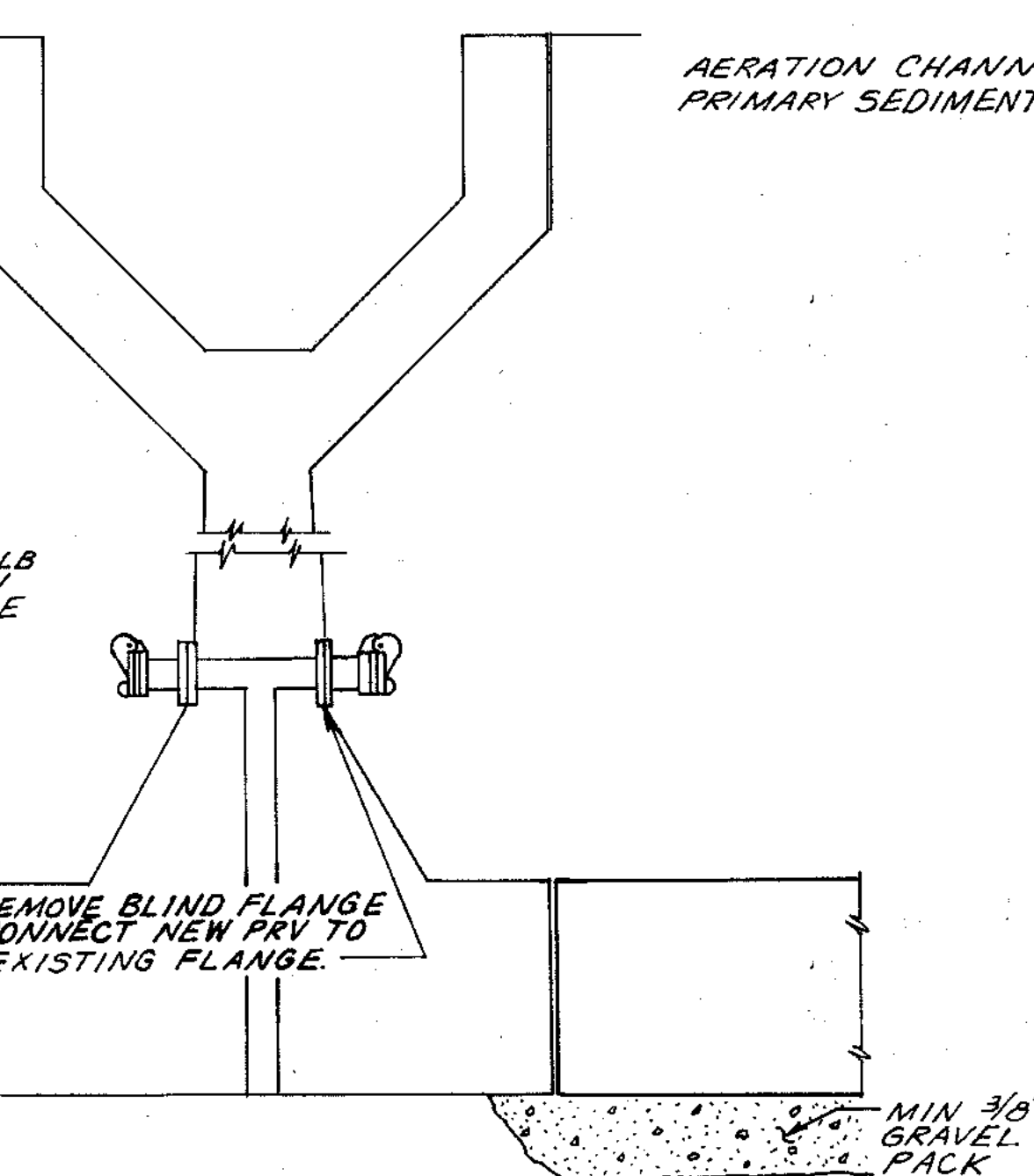
PROVIDE 12 RAS CONTROL WEIRS AS SHOWN IN THIS DETAIL.



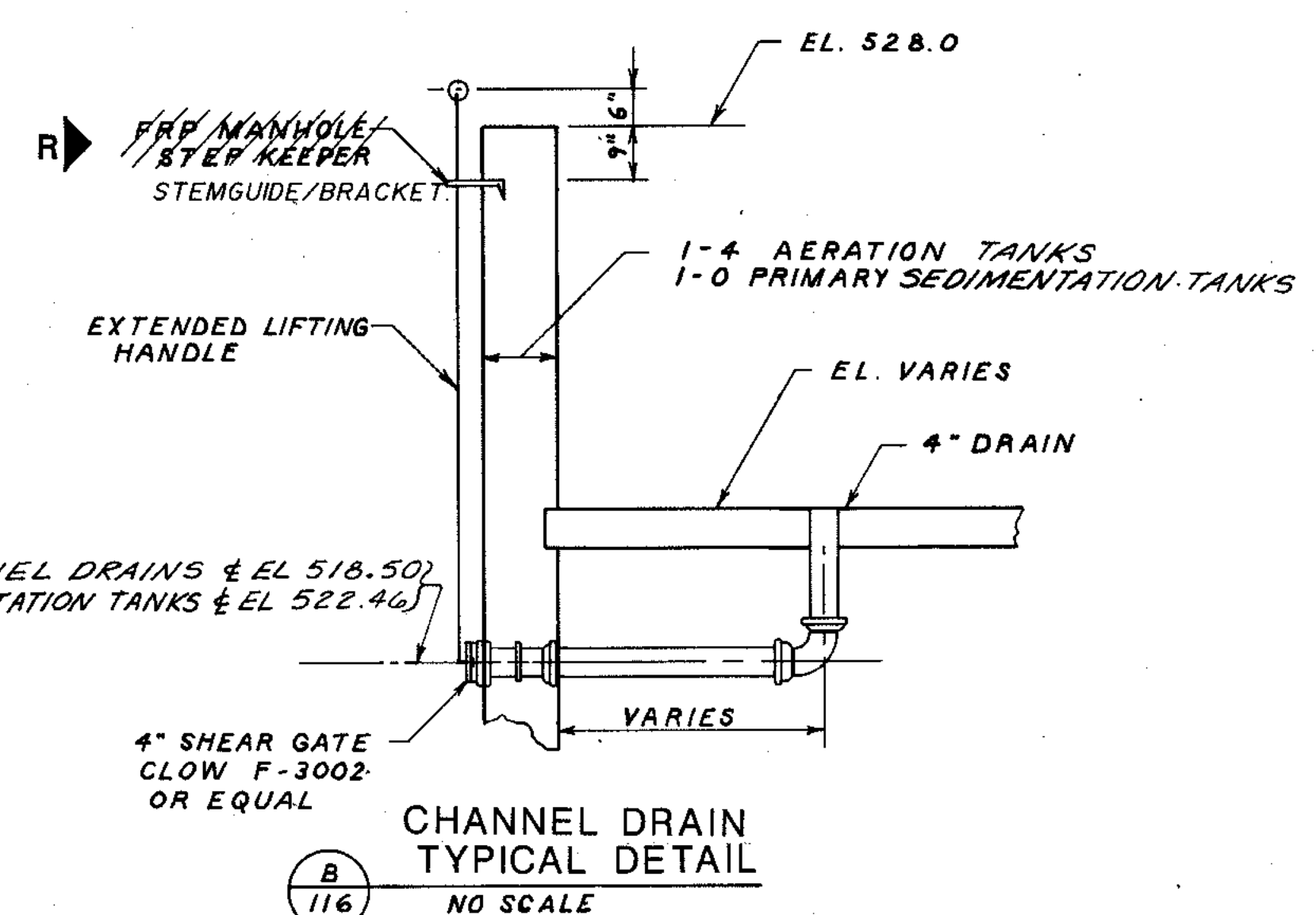
H PRV EXTERIOR WALL
NO SCALE



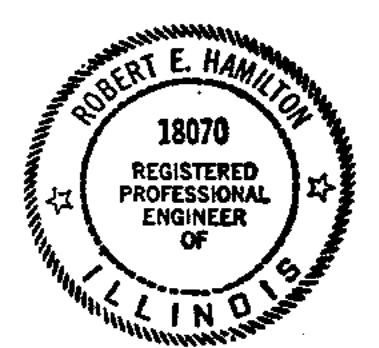
I PRV INTERIOR WALL
NO SCALE



J PRV NEW CONNECTION TO EXISTING
NO SCALE



B CHANNEL DRAIN TYPICAL DETAIL
NO SCALE



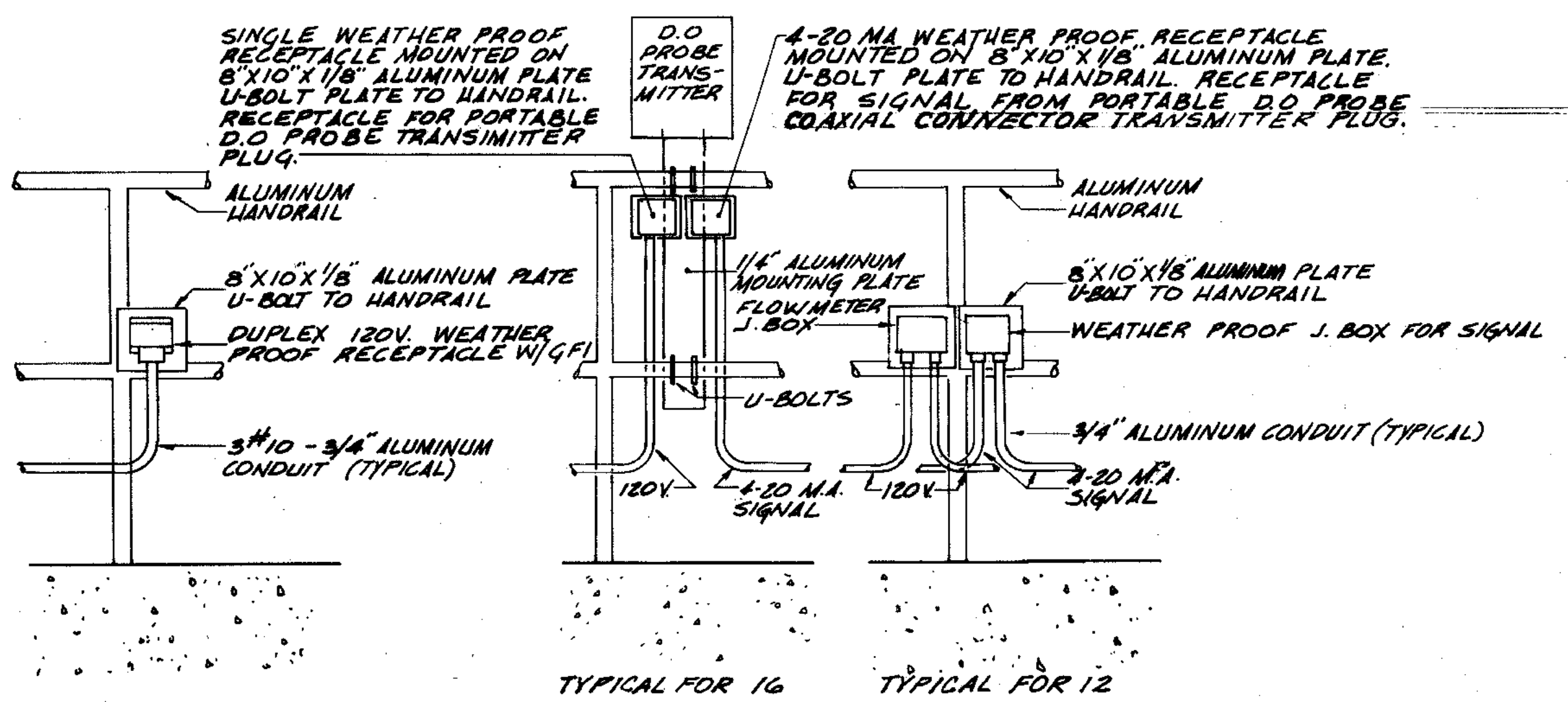
THIS DRAWING NO. 255-230-116 PREPARED UNDER THIS PROFESSIONAL SEAL
SIGNATURE: [Signature] DATE: 7/29/88
R RECORD DRAWINGS 2/4/91 DJP

STRAND ASSOCIATES, INC. CONSULTING ENGINEERS
910 West Wingo Drive, Madison, Wisconsin 53715, Tel: (608) 251-4843

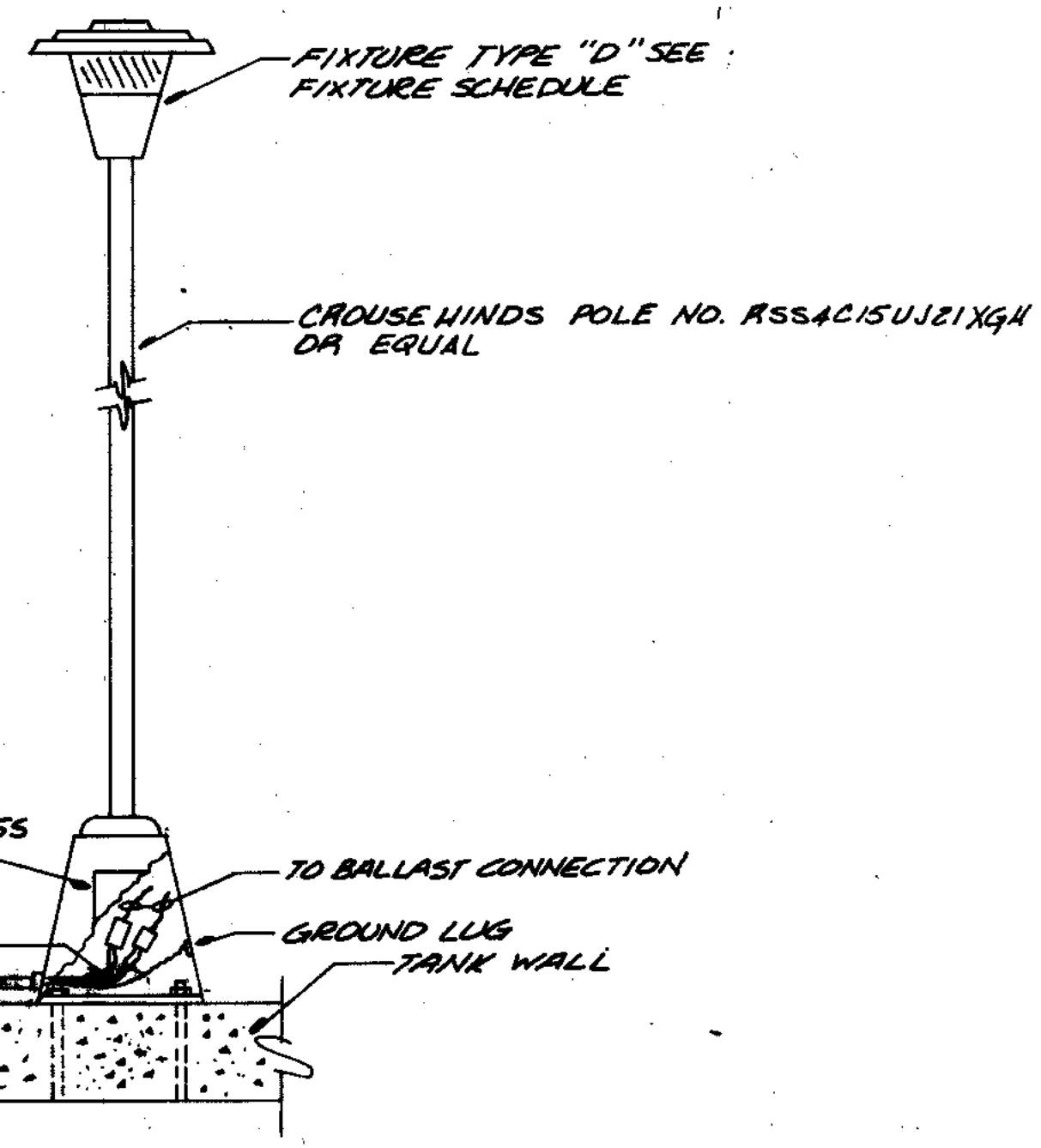
CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT TYPICAL DETAILS-3
SCALE AS SHOWN DATE [] DRAWING NO. 255-230-116 SHEET 37 OF 79

| | |
|------------------------|-----------|
| OVERLAY IDENTIFICATION | COMPOSITE |
| PROJECT NO. | TA 3 |
| DATE | 7/28 |
| | 7/28 |

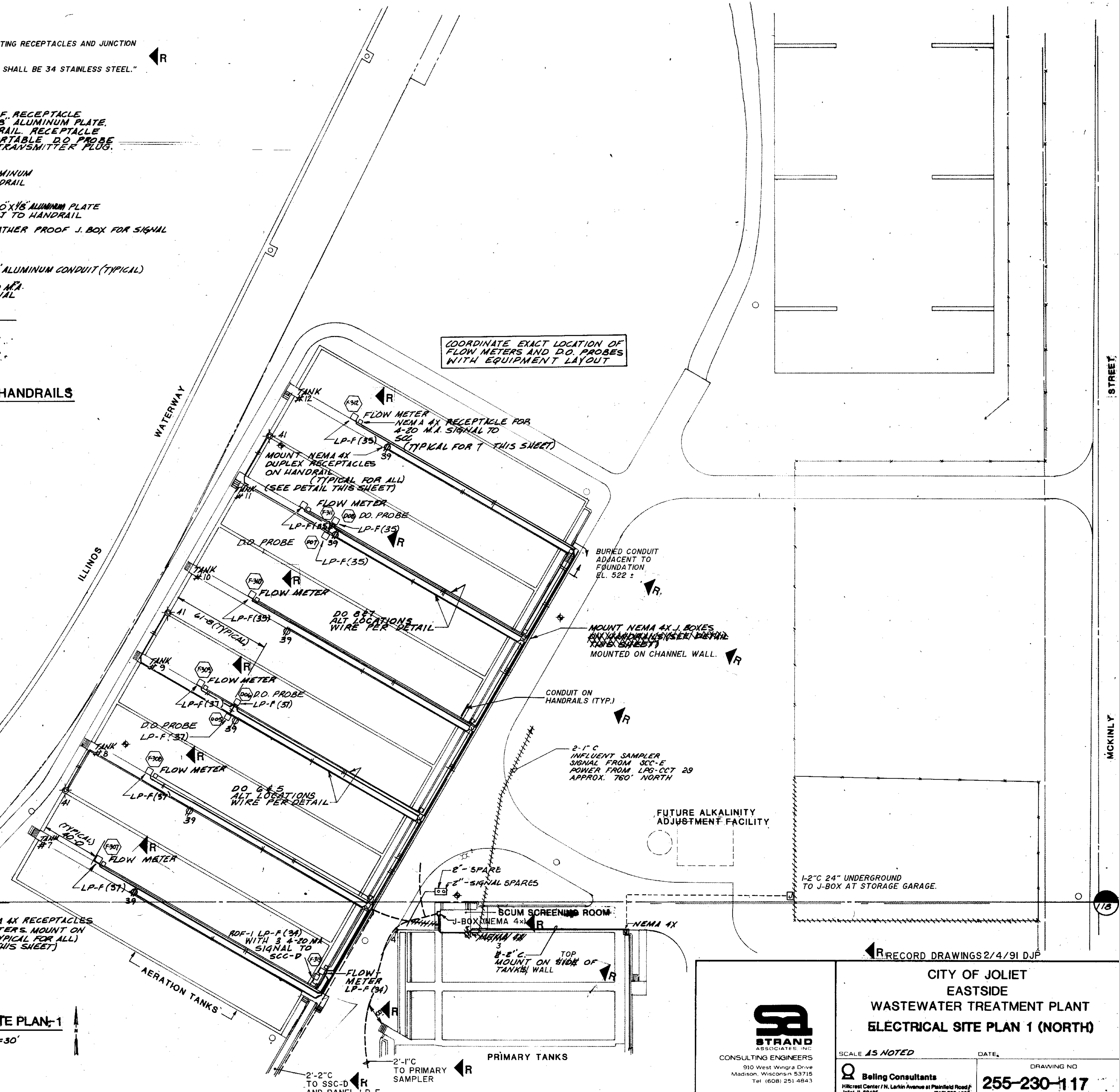
ADD THE FOLLOWING NOTE TO DETAILS FOR MOUNTING RECEPTACLES AND JUNCTION BOXES ON HANDRAILS.
ALL FASTENERS FOR RECEPTACLES AND CONDUIT SHALL BE 316 STAINLESS STEEL.



DETAILS FOR MOUNTING RECEPTACLES AND JUNCTION BOXES ON HANDRAILS
NO SCALE (TYPICAL FOR ALL)



FIXTURE TYPE 'D' POLE MOUNTING DETAIL
NO SCALE



PROVIDE NEMA 4X RECEPTACLES FOR FLOW METERS. MOUNT ON HANDRAILS (TYPICAL FOR ALL) (SEE DETAIL THIS SHEET)



THIS DRAWING NUMBER 255-230-117 THROUGH 255-230-134 PREPARED UNDER THIS PROFESSIONAL SEAL

Patrick J. Henry
SIGNATURE

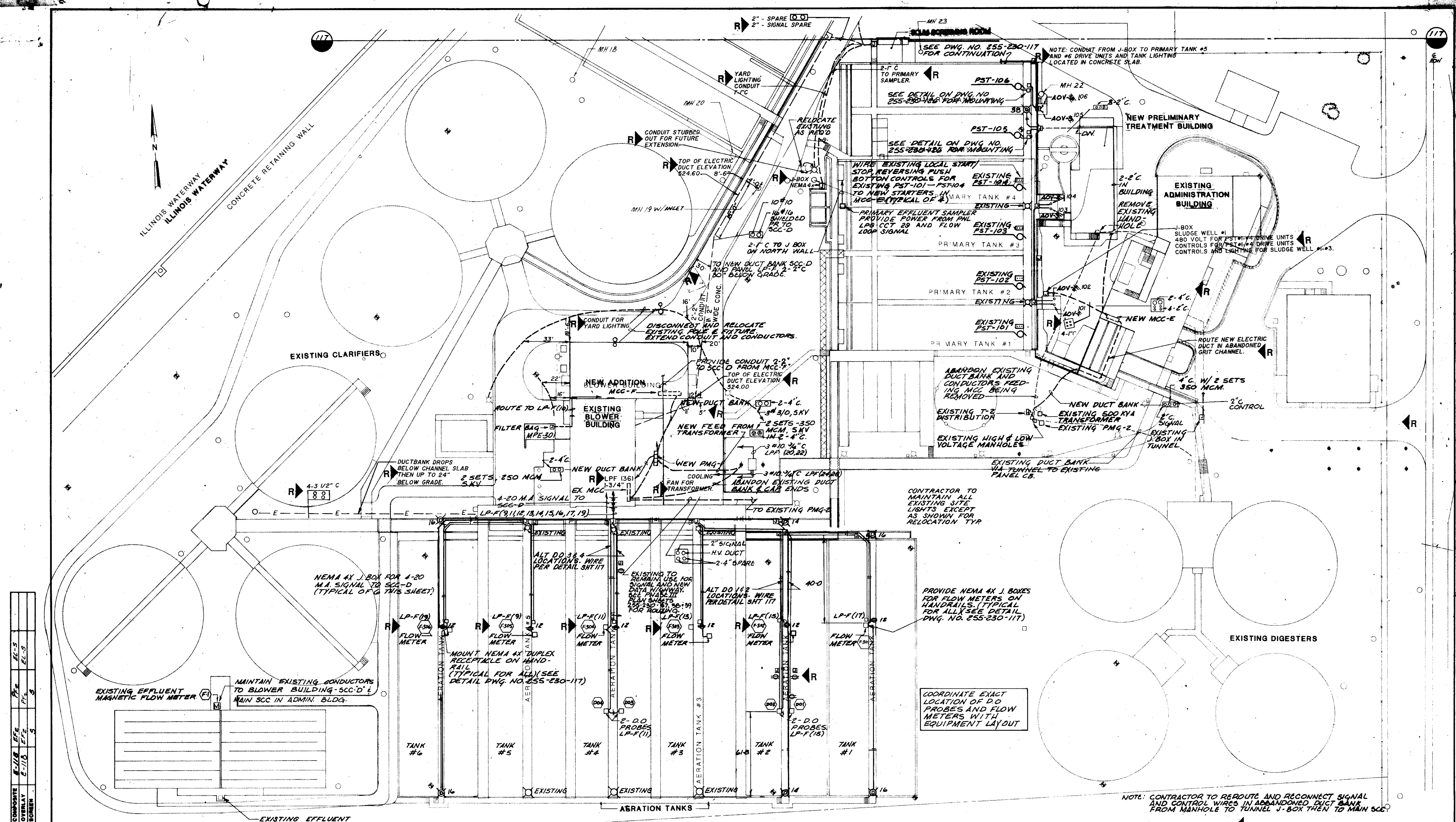
MAY 23, 1988
DATE

SITE PLAN-1
1"=30'

RECORD DRAWINGS 2/4/91 DJP

| | | |
|---|--|-----------------------------------|
| STRAND ASSOCIATES INC. CONSULTING ENGINEERS 910 West Wingra Drive Madison, Wisconsin 53715 Tel: (608) 251-4843 | CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT ELECTRICAL SITE PLAN 1 (NORTH) | |
| | SCALE AS NOTED DATE: | DRAWING NO. 255-230-117 |

Beiling Consultants
1100 West Center / N. Larkin Avenue at Plainfield Road
Joliet, IL 60435



| | | | | |
|-------------|-------|-----|------|-------|
| COMPOSITE | E-118 | EFF | PL-2 | E-1-3 |
| OVERLAY | E-118 | EFF | PL-2 | E-1-3 |
| SCREEN | | | | |
| PROJECT NO. | | | | |
| DATE | | | | |

SITE PLAN-2
1" = 30'

ADD THE FOLLOWING NOTE RELATING TO AN EXISTING LIGHT POLE NORTH AND EAST OF THE EXISTING ADMINISTRATION BUILDING.
 "RELOCATE EXISTING YARD LIGHT IMMEDIATELY NORTHEAST OF THE NEW PARKING AREA LOCATED SOUTHEAST OF THE METAL GARAGE.
 CONTRACTOR TO COORDINATE WITH OWNER ON THE RELOCATION OF SLUDGE PUMP CONTROLS AND CABLE TV. RELOCATION OF SLUDGE PUMP CONTROLS AND CABLE TV: RELOCATE TO NORTH SIDE OF ADMINISTRATION BUILDING. RELOCATE LIGHT CCT DOWN DRIVE AREA 20-FEET EAST OF EXISTING LAB IN ADMINISTRATION BUILDING."

| | |
|---|---|
| <p>STRAND ASSOCIATES INC. CONSULTING ENGINEERS 910 West Wingo Drive Madison, Wisconsin 53715 Tel: (608) 251-4943</p> | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT ELECTRICAL SITE PLAN 2 (SOUTH)</p> |
| | <p>SCALE AS NOTED DATE</p> <p> Beijing Consultants 11000 Center / N. Larkin Avenue at Plainfield Road Joliet, IL 60435</p> |
| <p>DRAWING NO.</p> <p>255-230-118</p> | <p>SHEET 59 OF 70</p> |

NOTE: CONTRACTOR TO REROUTE AND RECONNECT SIGNAL AND CONTROL WIRES IN ABANDONED DUCT BANK FROM MANHOLE TO TUNNEL J-BOX THEN TO MAIN SCC.

COORDINATE EXACT LOCATION OF D.O. PROBES AND FLOW METERS WITH EQUIPMENT LAYOUT

CONTRACTOR TO MAINTAIN ALL EXISTING SITE LIGHTS EXCEPT AS SHOWN FOR RELOCATION TYP

DISCONNECT AND RELOCATE EXISTING PNL & WIRING. EXTEND CONDUIT AND CONDUCTORS.

EXISTING CLARIFIERS

NEW PRELIMINARY TREATMENT BUILDING

EXISTING ADMINISTRATION BUILDING

NEW ADDITION MCG-F

EXISTING BLOWER BUILDING

NEW MCC-E

EXISTING T-2 DISTRIBUTION

EXISTING HIGH & LOW VOLTAGE MANHOLES

EXISTING DUCT BANK WILL REMAIN TO EXISTING PANEL CB.

EXISTING 500 KVA TRANSFORMER

EXISTING PMG-2

EXISTING J-BOX IN TUNNEL

EXISTING 350 MCM

EXISTING 4" C. W/ 2 SETS

EXISTING 2" C. CONTROL

EXISTING 2" C. CONTROL

EXISTING 2" C. CONTROL

EXISTING 2" C. CONTROL

EXISTING 2" C. CONTROL

EXISTING 2" C. CONTROL

EXISTING 2" C. CONTROL

EXISTING 2" C. CONTROL

EXISTING 2" C. CONTROL

EXISTING 2" C. CONTROL

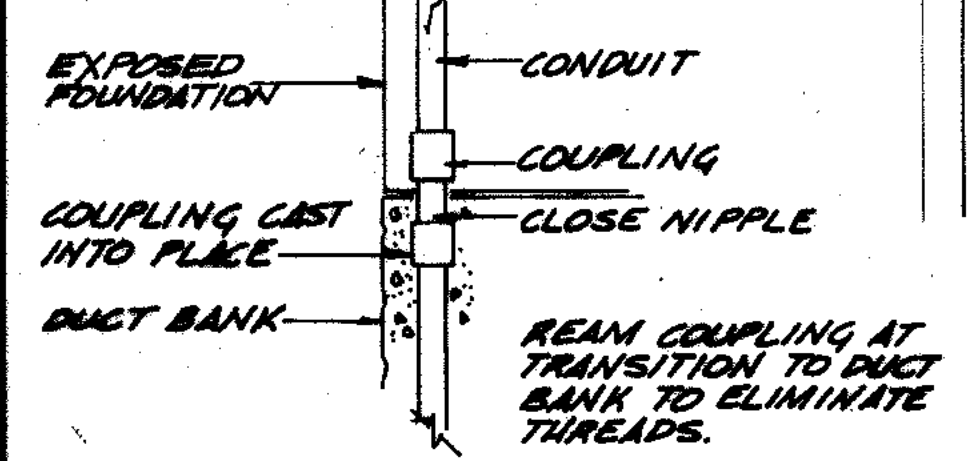
9-1 1/4" C. BETWEEN PULL BOX AT MAIN BUILDING AND PULL BOX AT PRIMARY SETTLING TANKS. CONDUIT IS ROUTED 30" BELOW GRADE IN 3" OF CONCRETE.

EXISTING PULL BOX FOR CONDUCTORS FOR EXISTING PST101 - PST104. ABANDON EXISTING CONDUIT AND CONDUCTORS FROM PULL BOX TO REMOVED MCC. FROM EXISTING PULL BOX, EXTEND CONDUIT AND CONDUCTORS FOR PST101 - PST104 TO NEW MCC-E CUBICLES 20, 21, 22, 23. SEE DWG. NO. 255-230-124 FOR NEW STARTER AND BREAKER SIZES AND CONTROL DEVICES.

NOTE 1: DISCONNECT AND REMOVE EXISTING LIGHT FIXTURES AND ALL ASSOCIATED CONDUIT AND CONDUCTORS

NOTE 2: DISCONNECT AND REMOVE EXISTING CONDUIT AND CONDUCTORS FROM EXISTING EQUIPMENT TO BE REMOVED UNDER THIS CONTRACT.

NOTE 3: DISCONNECT AND REMOVE EXISTING CONDUIT AND CONDUCTORS FEEDING AC-1, AC-2 & AC-3. DISCONNECT AND REMOVE EXISTING REMOVE STARTERS FOR AC-1 & AC-3. ROUTE NEW CONDUIT AND CONDUCTORS FROM MCC-E TO EXISTING J. BOX, DISCONNECT AND ASSOCIATED CONTROL WIRING TO BE REUSED. AC-1, AC-2 AND AC-3 ARE LOCATED IN BASEMENT.



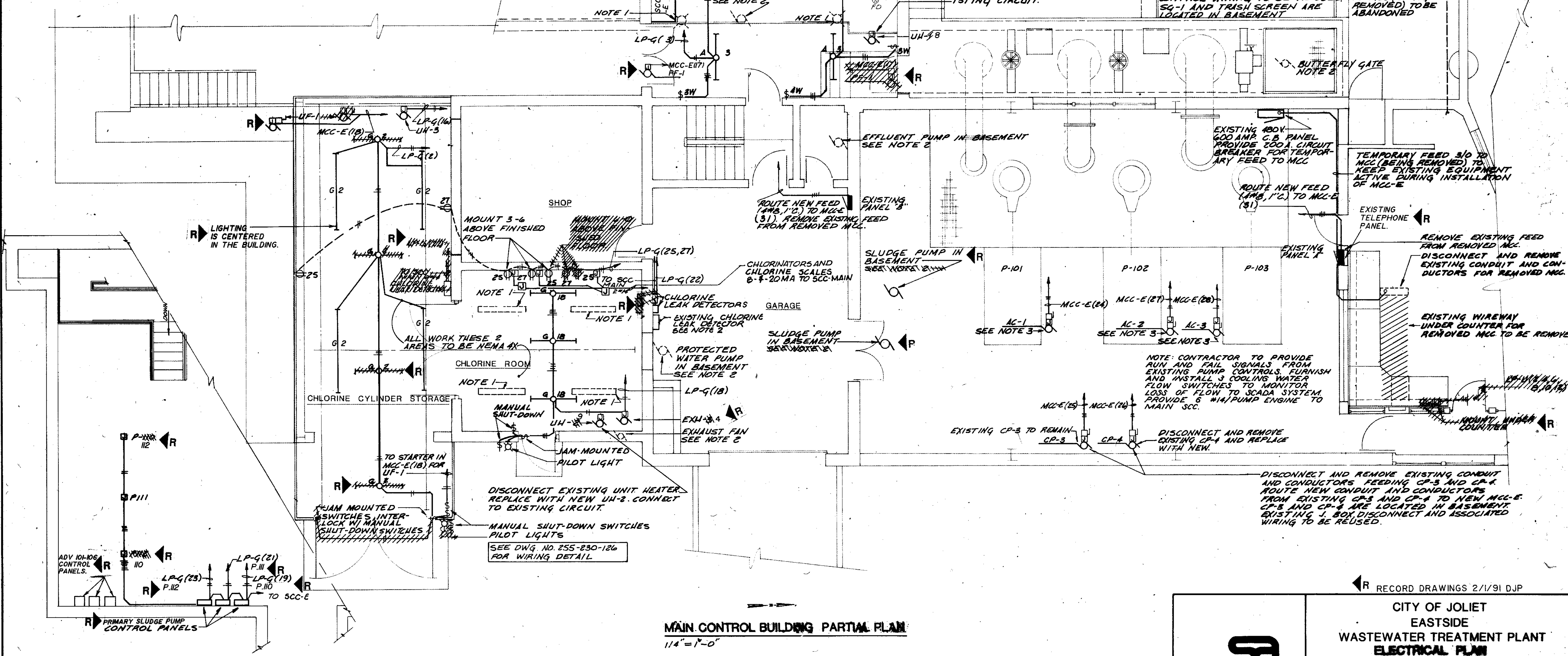
CONDUIT TO DUCT BANK TRANSITION DETAIL

CONDUIT 1 - 4" CONDUIT TO MCC-E CIRCUITS 1,2,3,4,5,13,14,15.
 CONDUIT 2 - 4" CONDUIT TO MCC-E CIRCUITS 10,11,12,16.
 CONDUIT 3 - 2" CONDUIT TO LP-G FOR 120V. CIRCUITS.
 CONDUIT 4 - 2" SPARE CONDUIT STUB INTO BUILDING & CAP.
 CONDUIT 5 - 2" CONDUIT TO SOUND SYSTEM.
 CONDUIT 6 - 2" CONDUIT TO CONTROLS IN SCC ROOM.
 NOTE: ROUTE CONDUIT UNDER SLAB, THROUGH WALL. PROVIDE FLEXIBLE SEALANT AT WALL PENETRATION. ROUTE CONDUIT EXPOSED ON OUTSIDE OF WALL AND DOWN TO DUCT BANK. SEE DETAIL AT LEFT FOR ENTRY INTO DUCT BANK.

NOTE 1: GRIT COLLECTOR SEE NOTE 2

MPE 105, 106: HIGH DISCHARGE PRESSURE SHUT DOWN 145 PSI
 HIGH TEMPERATURE SHUT DOWN 250°F.

NO SCALE



MAIN CONTROL BUILDING PARTIAL BASEMENT PLAN

MAIN CONTROL BUILDING PARTIAL PLAN

1/4" = 1'-0"

| | | | | |
|------------------------|-----------|--------|-------|--------|
| OVERLAY IDENTIFICATION | COMPOSITE | 8-1/93 | MCC-E | ENERGY |
| PROJECT NO. | OVERLAY | 8-1/93 | MCC-E | ENERGY |
| DATE | SCREEN | | | |

RECORD DRAWINGS 2/1/91 DJP

CITY OF JOLIET
 EASTSIDE
 WASTEWATER TREATMENT PLANT
 ELECTRICAL PLAN
 MAIN CONTROL BUILDING

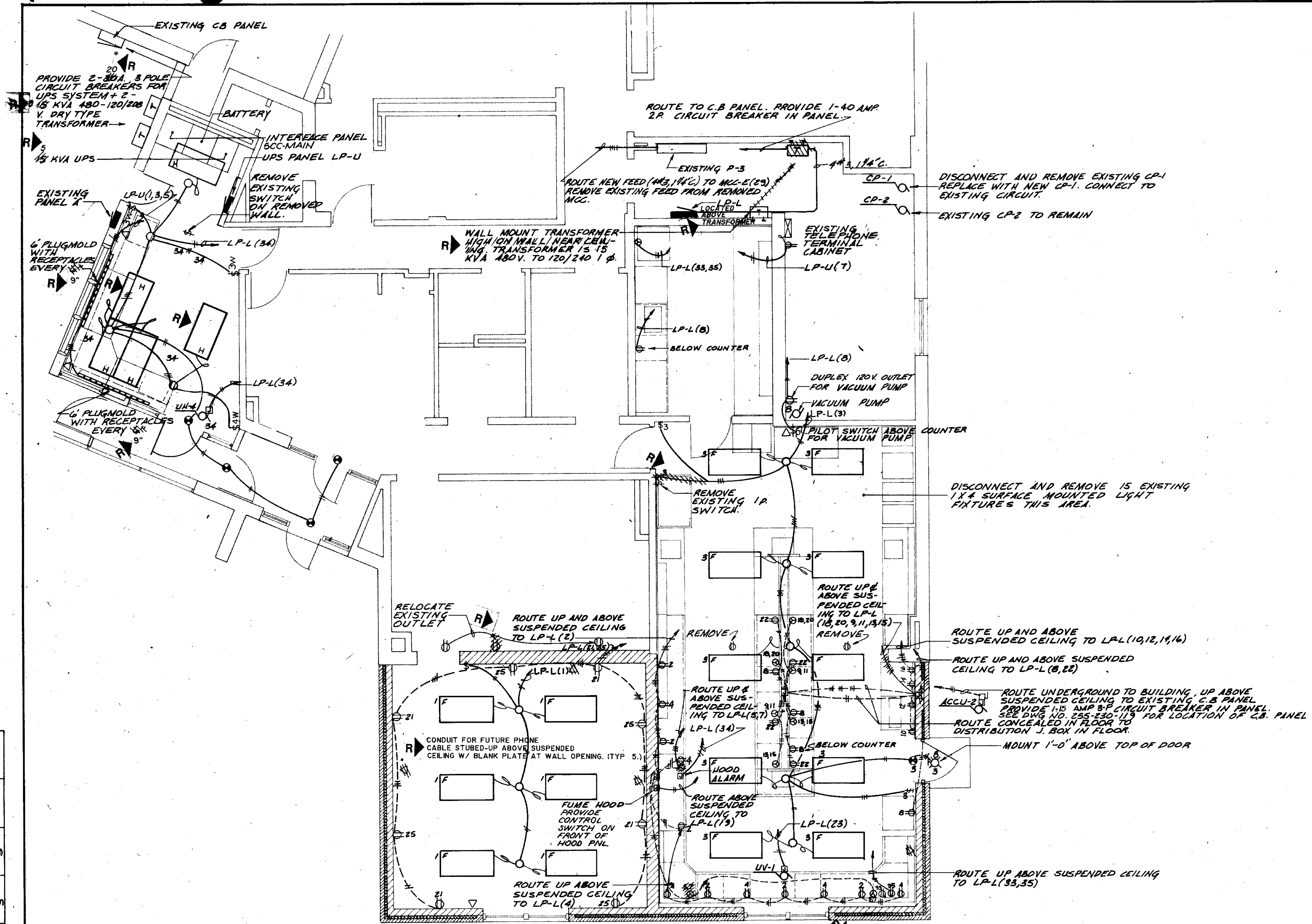
SCALE: AS NOTED DATE: DRAWING NO.

STRAND ASSOCIATES INC.
 CONSULTING ENGINEERS
 910 West Wingra Drive
 Madison, Wisconsin 53715
 Tel. (608) 251-4843

Being Consultants
 1100 North Center / N. Larkin Avenue at Pleasant Street
 Joliet, IL 60435

255-230-124

SHEET 09 OF 27



NOTE: SEE DRAWING NO. 255-230-104 FOR MOUNTING OF RECEPTABLES IN LAB.

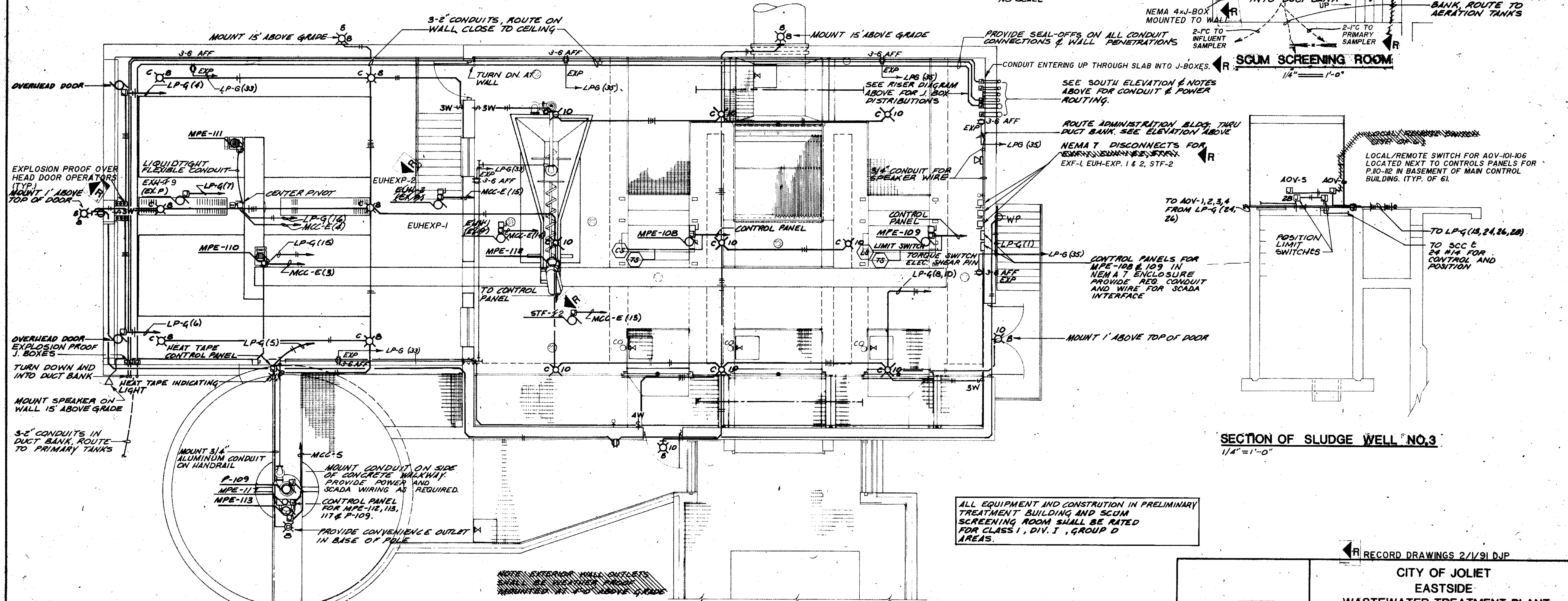
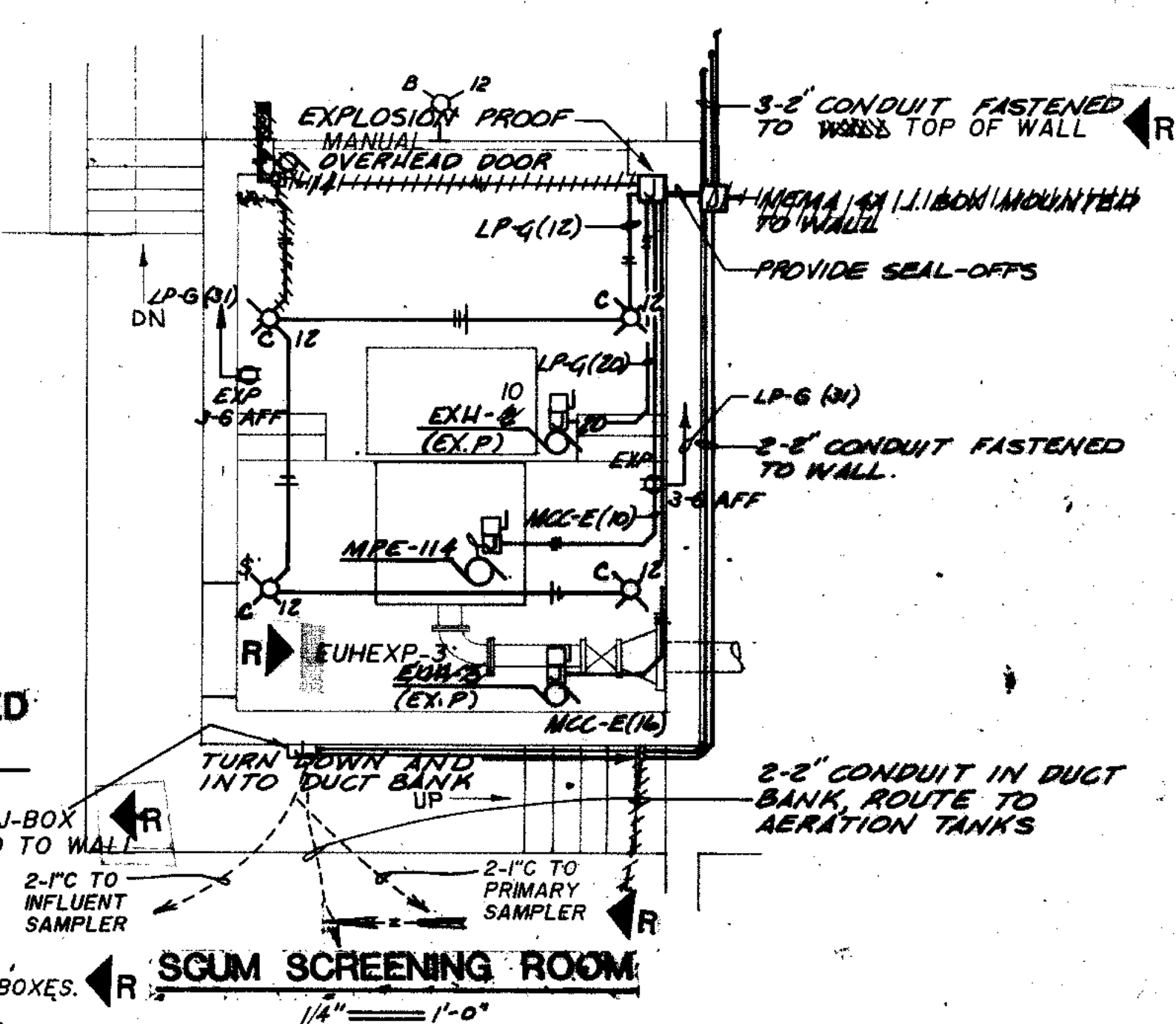
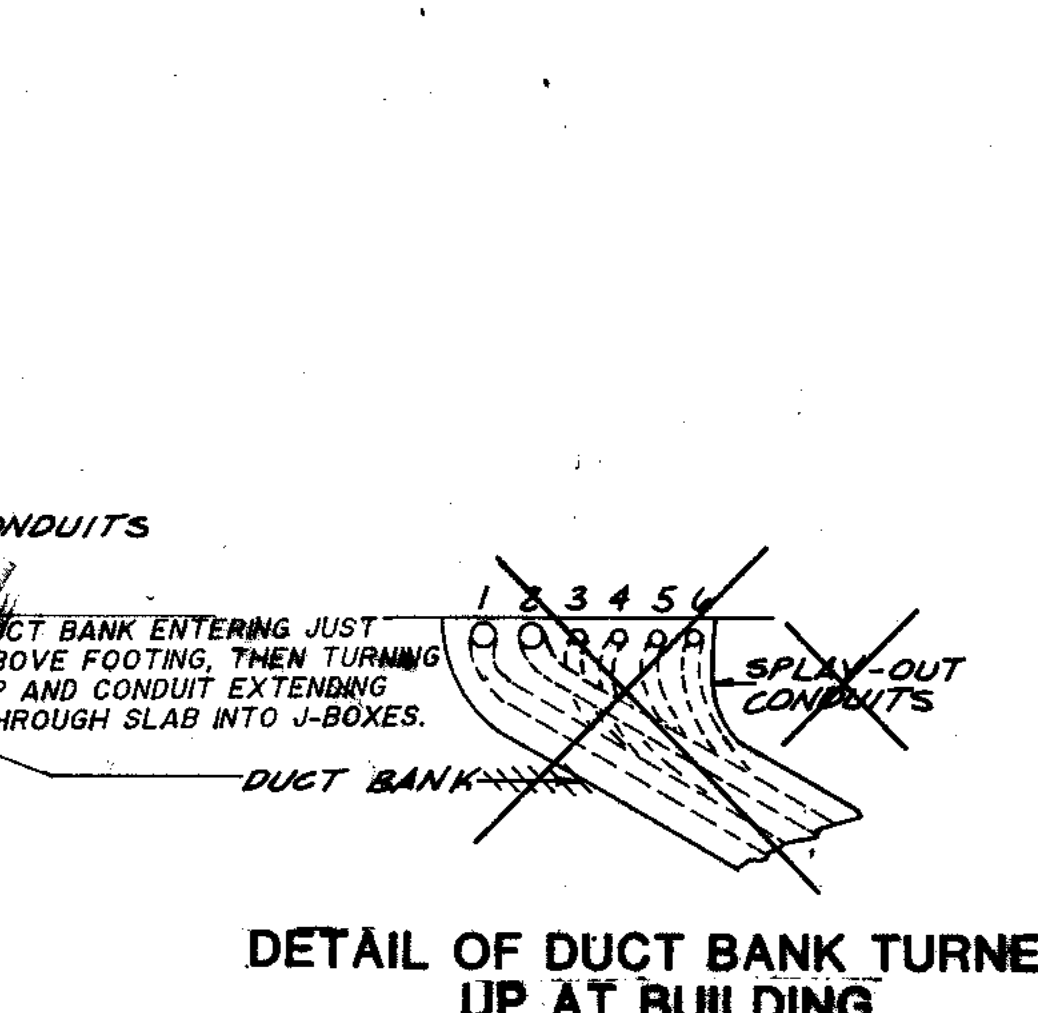
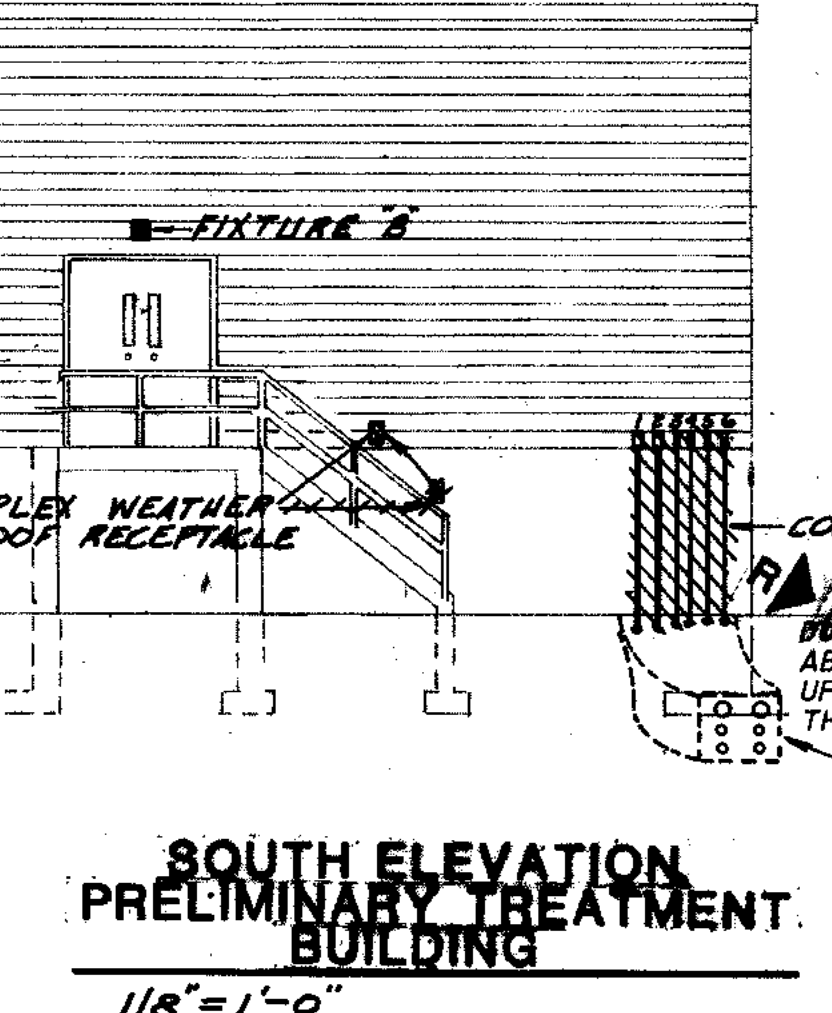
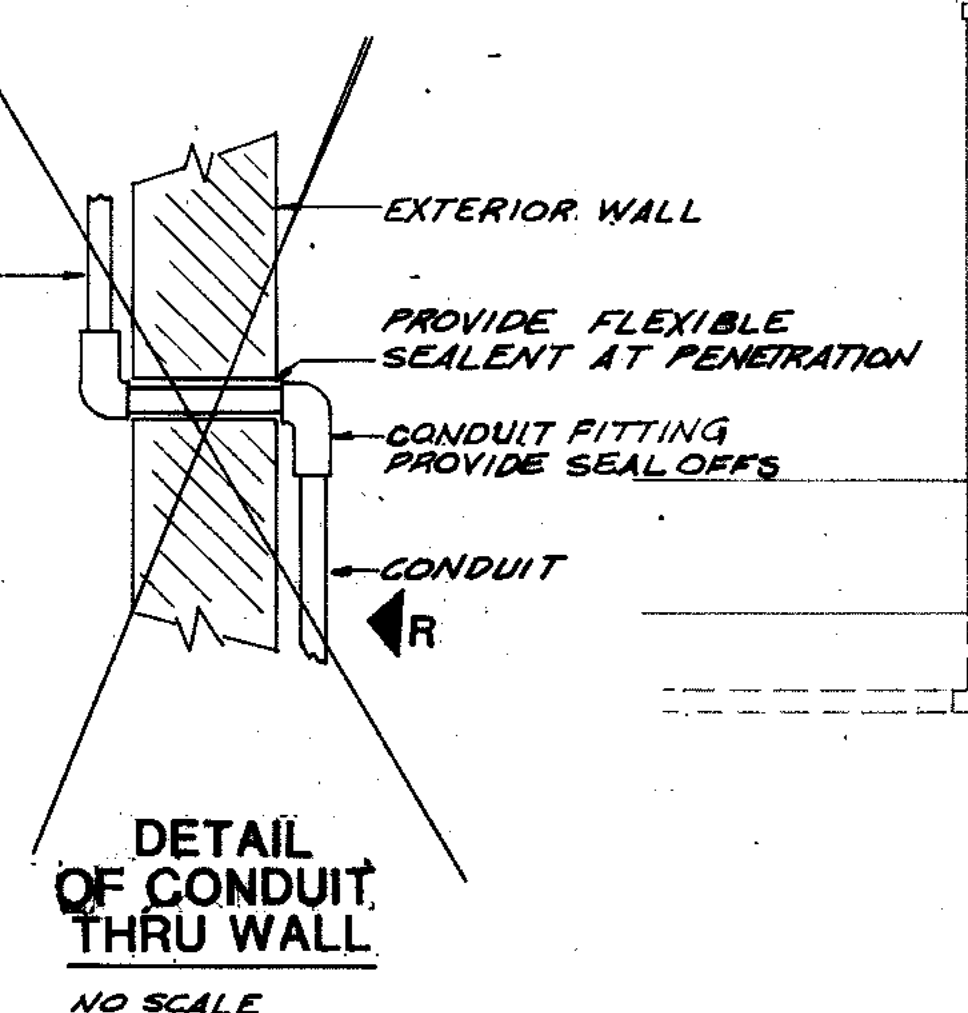
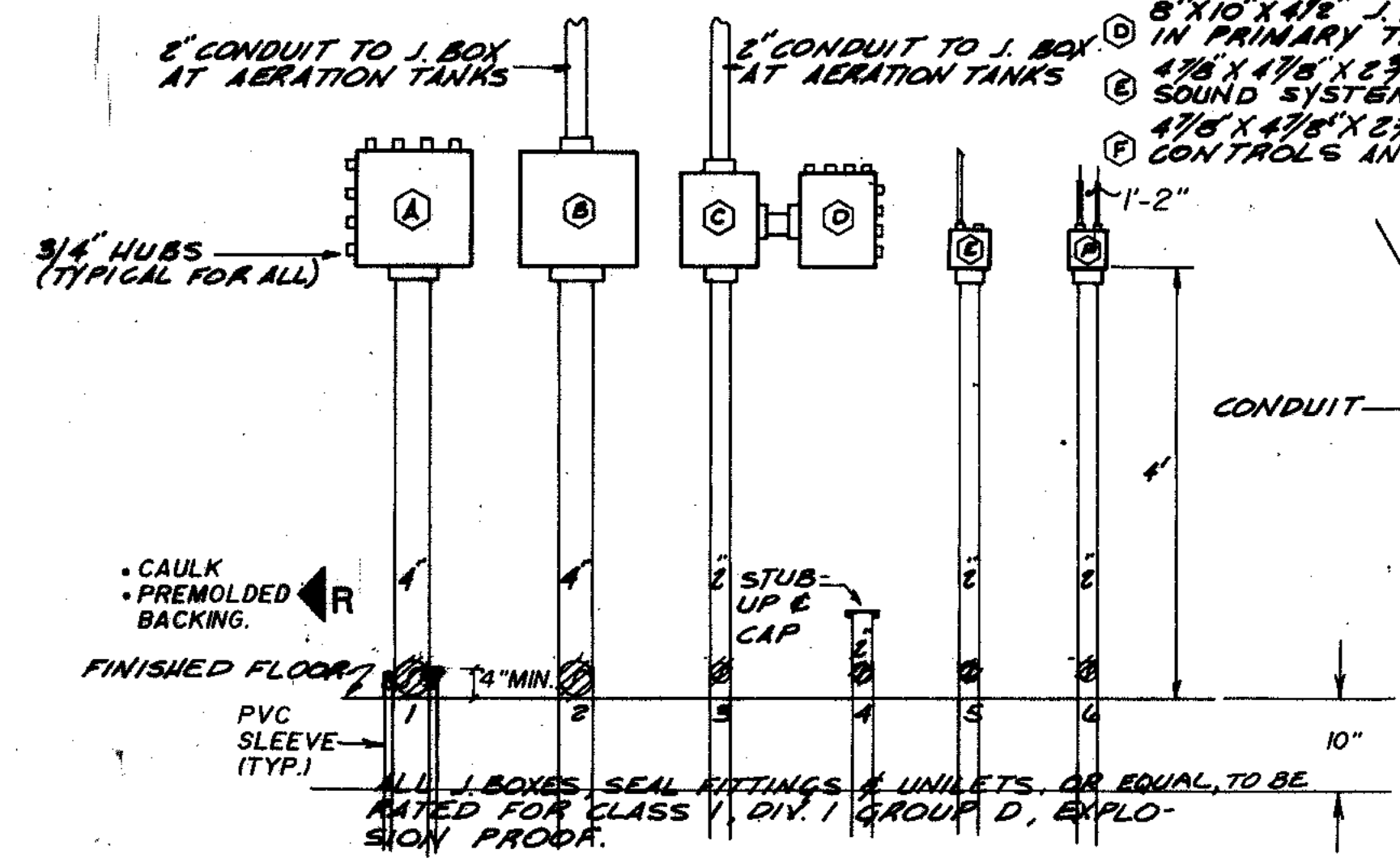
MAIN CONTROL BUILDING, PLAN 2
1/4"=1'-0"

| | | | | |
|-------------|-------|-------|--------|--------|
| COMPOSITE | E-120 | MLC-E | FACB-E | EMCB-E |
| OVERLAY | E-100 | MLC-E | FACB-E | EMCB-E |
| SCREEN | | | | |
| PROJECT NO. | | | | |
| DATE | | | | |

RECORD DRAWINGS 2/1/91 DJP

| | | |
|---|---|-----------------------|
| <p>910 West Wingra Drive Madison, Wisconsin 53715 Tel. (608) 251-4843</p> | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT ELECTRICAL PLAN MAIN CONTROL BUILDING-2</p> | |
| | <p>SCALE AS NOTED</p> | <p>DATE:</p> |
| <p> Belting Consultants 1100 West Center / N. Larkin Avenue at Pleasant Road Joliet, IL 60435</p> | | <p>SHEET 67 OF 70</p> |

- Ⓐ 12'X12'X5 1/2" J. BOX FOR 480V EQUIPMENT IN PRIMARY TREATMENT BUILDING
- Ⓑ 12'X12'X5 1/2" J. BOX FOR 480V EQUIPMENT AT PRIMARY TANKS AND SCUM SCREENING ROOM
- Ⓒ 8'X10'X4 1/2" J. BOX FOR 120V EQUIPMENT AT SCUM SCREENING ROOM AND THE PRIMARY AND AERATION TANKS
- Ⓓ 8'X10'X4 1/2" J. BOX FOR 120V EQUIPMENT IN PRIMARY TREATMENT BUILDING
- Ⓔ 475'X475'X2 3/4" J. BOX FOR SOUND SYSTEM
- Ⓕ 475'X475'X2 3/4" J. BOX FOR CONTROLS AND FLOW METERS



ALL EQUIPMENT AND CONSTRUCTION IN PRELIMINARY TREATMENT BUILDING AND SCUM SCREENING ROOM SHALL BE RATED FOR CLASS I, DIV. I, GROUP D AREAS.

| | | | |
|----------|--------|-----|------|
| REVISION | DATE | BY | CHKD |
| 1 | 5/1/99 | PTB | EPB |
| 2 | 5/1/99 | PTB | EPB |
| 3 | 5/1/99 | PTB | EPB |
| 4 | 5/1/99 | PTB | EPB |
| 5 | 5/1/99 | PTB | EPB |
| 6 | 5/1/99 | PTB | EPB |
| 7 | 5/1/99 | PTB | EPB |
| 8 | 5/1/99 | PTB | EPB |
| 9 | 5/1/99 | PTB | EPB |
| 10 | 5/1/99 | PTB | EPB |
| 11 | 5/1/99 | PTB | EPB |
| 12 | 5/1/99 | PTB | EPB |
| 13 | 5/1/99 | PTB | EPB |
| 14 | 5/1/99 | PTB | EPB |
| 15 | 5/1/99 | PTB | EPB |
| 16 | 5/1/99 | PTB | EPB |
| 17 | 5/1/99 | PTB | EPB |
| 18 | 5/1/99 | PTB | EPB |
| 19 | 5/1/99 | PTB | EPB |
| 20 | 5/1/99 | PTB | EPB |

RECORD DRAWINGS 2/1/91 DJP

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
ELECTRICAL POWER & LIGHTING
PRELIMINARY TREATMENT BUILDING

SCALE: AS NOTED DATE: _____

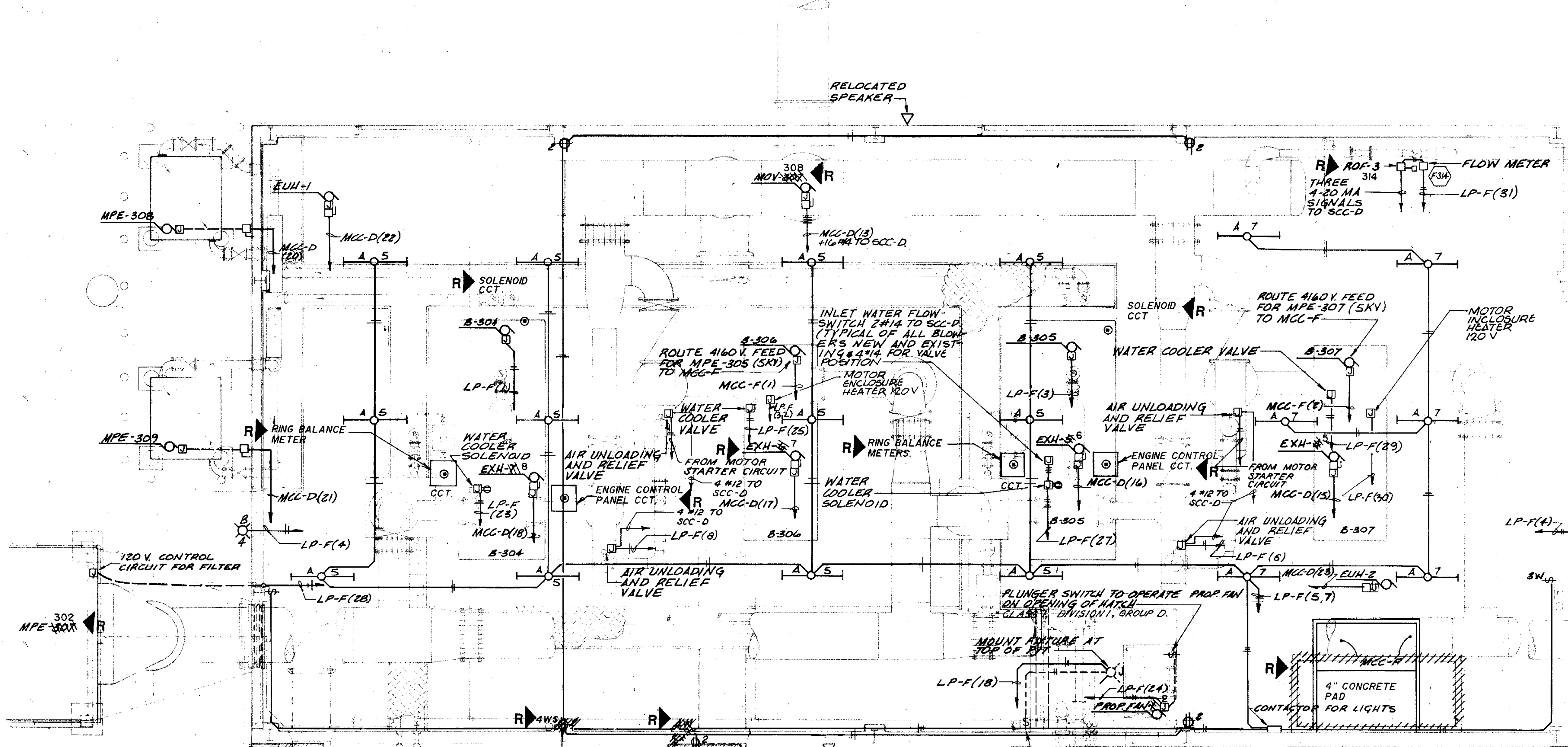
STRAND ASSOCIATES, INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

Beiling Consultants
Fillmore Center / N. Larkin Avenue at Pleasant Road /
Joliet, IL 60435

DRAWING NO. 255-230-121

SHEET 02 OF 70

| | | |
|------------------------|-------|-----|
| OVERLAY IDENTIFICATION | E-122 | EBA |
| PROJECT NO. | E-122 | EBA |
| DATE | 8/84 | EBA |
| COMPOSITE | | |
| OVERLAY | | |
| SCREEN | | |



NOTE: CONCRETE ELECTRICAL DUCT PASSES UNDERNEATH BAGHOUSE MPE 302 FOUNDATION.

CONTRACTOR TO COORDINATE AND RECONNECT LOUVERS ON SOUTH WALL OF EXISTING BLOWER BLDG AS REQ'D. REMOVE EXISTING ABANDONED CONDUITS AND WIRE.

RELOCATE EXISTING SPEAKER TO NORTH SIDE OF ADDITION. EXTEND CONDUIT AND CONDUCTORS TO NEW LOCATION.

RECEPTACLES SHALL BE MOUNTED 54" ABOVE FINISHED FLOOR

CONNECT MOTOR BEARING OVERTEMP AND WINDING TEMPERATURE RELAYS (B-306 & B-307) TO MOTOR PROTECTORS IN MCC-F AND SCC-D

CONNECT ENGINE CONTROL PANEL (B-304 & B-306) REMOTE CONTROL AND ALARMS TO SCC-D/F

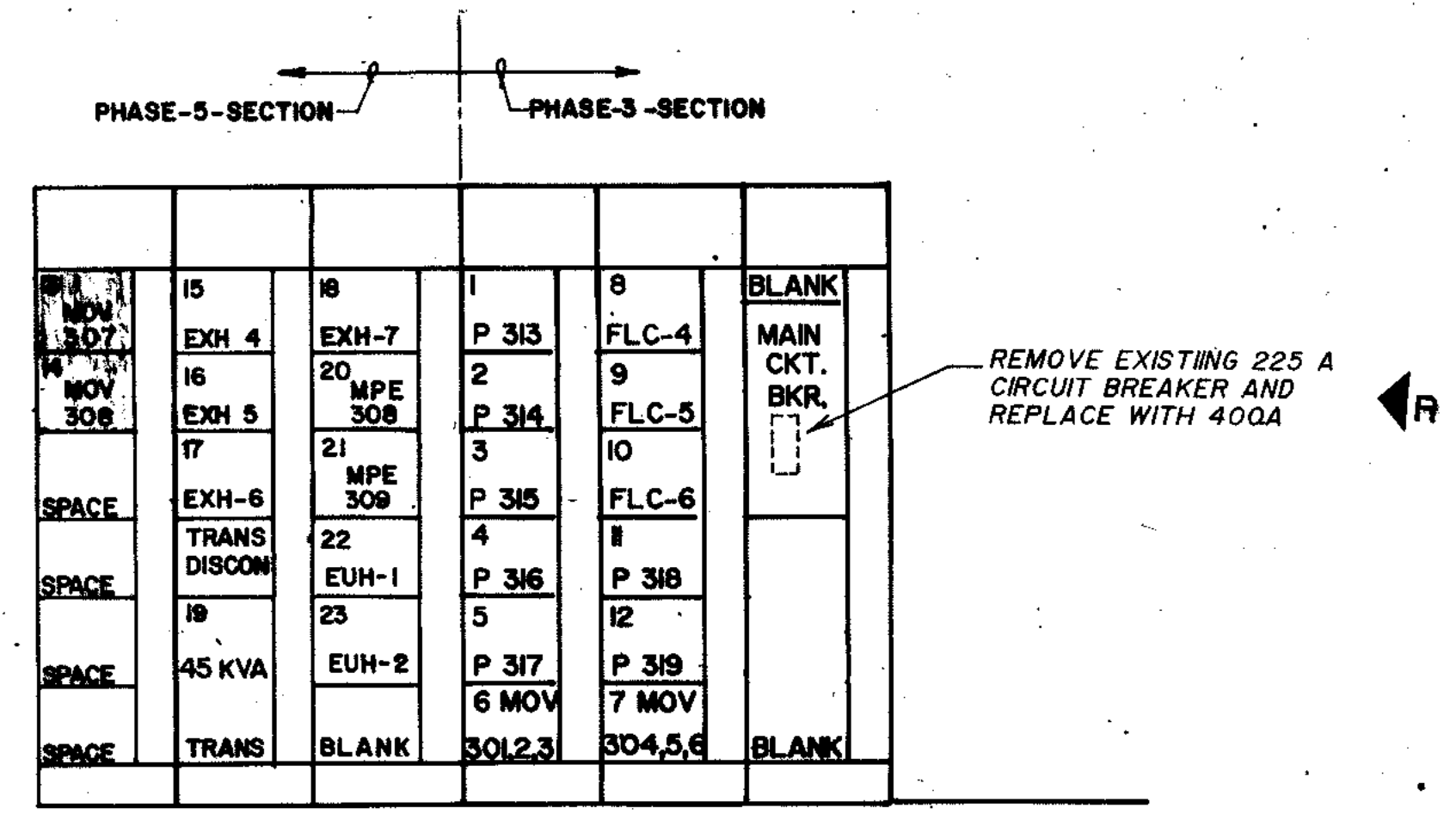
SEE NO LISTING FOR ALL REQUIRED ADDITIONAL INTERFACE WIRING.

TYPE A FIXTURES IN THIS BLDG TO BE PENDANT MOUNTED JUST BELOW SUSPENDED CEILING FROM PURLIN/UNISTRUT STRUCTURE BY CONTRACTOR. METAL ROOF SHALL NOT BE PENETRATED.

BLOWER BUILDING PLAN
1/4" = 1'-0"

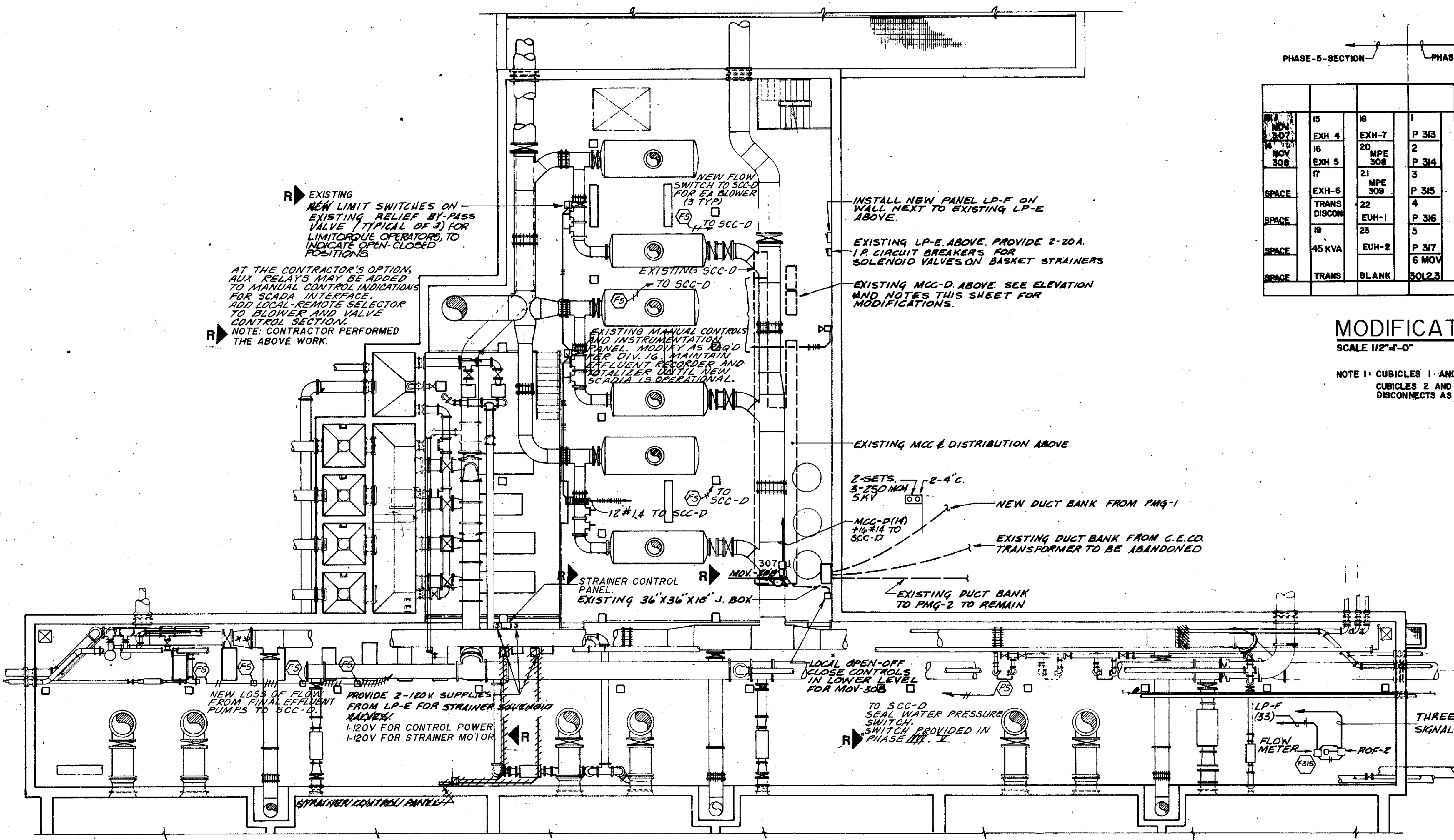
RECORD DRAWINGS 2/1/91 DJP

| | | |
|--|---|-----------------------------------|
| 910 West Wingra Drive Madison, Wisconsin 53715 Tel: 608/251-4843 | CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT ELECTRICAL POWER & LIGHTING BLOWER BUILDING ADDITION | |
| | SCALE: 1/4" = 1'-0" DATE: | DRAWING NO: 255-230-122 |



MODIFICATIONS TO MCC-D
SCALE 1/2"=1'-0"

NOTE 1: CUBICLES 1- AND 3-12 ARE EXISTING STARTERS AND DISCONNECTS. CUBICLES 2 AND 13-23 ARE NEW. PROVIDE NEW STARTERS AND DISCONNECTS AS PER MCC-D SCHEDULE DWG. NO. 235-230-123.



BLOWER BUILDING AND AERATION PIPE GALLERY
1/8"=1'-0"

| | | |
|------------------------|-----------|-------|
| OVERLAY IDENTIFICATION | COMPOSITE | C-123 |
| PROJECT NO. | OVERLAY | C-123 |
| DATE | SCREEN | 5 |

RECORD DRAWINGS 2/1/91 DJP

| | | |
|---|---|-----------------------|
| <p>STRAND ASSOCIATES INC. CONSULTING ENGINEERS 910 West Wingra Drive Madison, Wisconsin 53715 Tel: (608) 251-4943</p> | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT ELECTRICAL PLAN BLOWER BUILDING AND AERATION PIPE GALLERY</p> | |
| | <p>SCALE: AS NOTED</p> | <p>DATE</p> |
| <p>Beijing Consultants Hilcrest Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435</p> | <p>DRAWING NO. 255-230-123</p> | <p>SHEET 64 OF 79</p> |

MOTOR AND MOTOR CONTROL CENTER SCHEDULE

CONTROL DEVICES (OIL TIGHT, HEAVY DUTY)

| EQUIPMENT NUMBER | EQUIPMENT AND NAMEPLATE TITLES | | EQUIPMENT LOCATION | PANEL MCC | MOTOR INFORMATION | | | | MOTOR STARTER INFORMATION | | | | CONTROL & INTERLOCKS | | | | SUP. CONTROL CENTER INDICATION | REMARKS | | | | |
|------------------|---|---|--------------------------------|-----------|-------------------|-------|----------------|-----|---------------------------|------|------|-----------|----------------------|---------------------------|-------------|---------------------------|--|---------------|---------------|--------------------|--|---|
| | FIRST LINE SECOND LINE WHEN EQUIPMENT NUMBER IS INDICATED | SECOND LINE THIRD LINE WHEN EQUIPMENT NUMBER IS INDICATED | | | HP / KW | VOLTS | F.L.I. IN AMPS | RPM | KVAR REQD | SIZE | TYPE | BKR. TYPE | 1 IN AMPS | CONTROL DEVICE (SEE INFO) | DESCRIPTION | FURN. BY | | | WIRED BY | POWER CONDUIT WIRE | | |
| MPE-108 | BAR SCREEN NO.1 | | PRELIMINARY TREATMENT BUILDING | E-1 | 15 HP | 460 | 2.6 | | | | | I | FVR | M | 15 | ETM L-R F-O-R H-O-A,R,G,B | CONTROL FROM CONTROL PANEL | 1100 | 1800 | 3#12, 3/4" C. | A, B | LOCAL MANUAL REVERSING ONLY, SEE NOTE 1 TIMER OVERRIDE OF PRESSURE SWITCH, TORQUE OVERLOAD ALARM |
| MPE-109 | BAR SCREEN NO.2 | | PRELIMINARY TREATMENT BUILDING | E-2 | 15 HP | 460 | 2.6 | | | | | I | FVR | M | 15 | ETM L-R F-O-R H-O-A,R,G,B | CONTROL FROM CONTROL PANEL | 1100 | 1800 | 3#12, 3/4" C. | A, B | SAME AS MPE-108, SEE NOTE 1 |
| MPE-110 | CONVEYOR NO.1 | | PRELIMINARY TREATMENT BUILDING | E-3 | 3 HP | 460 | 4.8 | | | | | I | FVNR | M | 15 | L-R ETM H-O-A,R,G | INTERLOCK WITH MPE-108, 109, 112 | 1100 | 1800 | 3#12, 3/4" C. | A, B | TIME DELAY SHUTOFF W/ SAFETY STOP SWITCH NOA SWITCH, ZERO SPEED SWITCH. SEE NOTE 2 |
| MPE-111 | CONVEYOR NO.2 | | PRELIMINARY TREATMENT BUILDING | E-4 | 1 HP | 460 | 1.8 | | | | | I | FVNR | M | 15 | L-R ETM H-O-A,R,G | INTERLOCK WITH MPE-108, 109, 112 | 1100 | 1800 | 3#12, 3/4" C. | A, B | LOCAL TIME DELAY SHUT-OFF. SEE NOTE 2 SAFETY STOP SWITCH, CONTROLLED W/ CONVEYOR LOCAL H-O-A SWITCH, ZERO SPEED SWITCH |
| MPE-112 | GRIT CLASSIFIER | | PRELIMINARY TREATMENT BUILDING | E-30 | 3 HP | 460 | 4.8 | | | | | | | | | | CONTROL FROM CONTROL PANEL | 1100 | 1800 | 3#12, 3/4" C. | A, B | CONTROL FROM CONTROL PANEL INTERMITTANT WITH GRIT PUMP INTERLOCK TO RUN WITH GRIT PUMP |
| MPE-113 | MECHANICAL GRIT DRIVE UNIT | | PRELIMINARY TREATMENT BUILDING | E-30 | 2 HP | 460 | 3.4 | | | | | | | | | | CONTROL FROM CONTROL PANEL | 1100 | 1800 | 3#12, 3/4" C. | A, B | STARTER IN CONTROL PANEL CONTINUOUS OPERATION |
| P-109 | GRIT PUMP | | PRELIMINARY TREATMENT BUILDING | E-30 | 7.5 HP | 460 | 11 | | | | | | | A | 30 | L-R ETM H-O-A,R,G | CONTROL FROM CONTROL PANEL | 1100 | 1800 | 3#10, 3/4" C. | A, B | NOTE 3 STARTER IN CONTROL PANEL TIMER CONTROL, CALL TO RUN CONTACT |
| MPE-117 | PUMP PRIME | | PRELIMINARY TREATMENT BUILDING | E-30 | 1/20 HP | 120 | 1 | | | | | | | | | | LOCATED IN CONTROL PANEL | 1100 | 1800 | 3#12, 3/4" C. | B | CONTROL TRANSFORMER, CONTROLS AND POWER TRANSFORMER ARE LOCATED IN CONTROL PANEL |
| MPE-115 | AIR COMPRESSOR NO.1 | | MAIN CONTROL BLDG. | E-8 | 50 HP | 460 | 65 | | | | | | | A | 110 | | LOW AIR PRESSURE SWITCH CONTROL FROM CONTROL PANEL | 1500 | 1800 | 3#3, 1" C. | A,B,B | FEEDS PANELS A,B & G SEE NOTE 3 PROVIDE AUXILIARY CONTACT FOR O.L. STARTER IN CONTROL PANEL INTERLOCK WITH AIR DRYER NO.1 |
| MPE-116 | AIR COMPRESSOR NO.2 | | MAIN CONTROL BLDG. | E-9 | 50 HP | 460 | 65 | | | | | | | A | 100 | | CONTROL FROM CONTROL PANEL | 1500 | 1800 | 3#3, 1" C. | A,B | PROVIDE AUXILIARY CONTACT FOR O.L. STARTER IN CONTROL PANEL INTERLOCK WITH AIR DRYER NO.2 |
| MPE-105 | AIR DRYER NO.1 | | MAIN CONTROL BLDG. | E-6 | 15 HP | 460 | 2.5 | | | | | I | FVNR | M | 15 | ETM H-O-A,R,G | CONTROL FROM CONTROL PANEL | 1500 | 1800 | 3#12, 3/4" C. | A, B | PROVIDE AUXILIARY CONTACT FOR O.L. INTERLOCK WITH AIR COMPRESSOR NO.1 |
| MPE-106 | AIR DRYER NO.2 | | MAIN CONTROL BLDG. | E-19 | 15 HP | 460 | 2.6 | | | | | I | FVNR | M | 15 | ETM H-O-A,R,G | CONTROL FROM CONTROL PANEL | 1500 | 1800 | 3#12, 3/4" C. | A, B | PROVIDE AUXILIARY CONTACT FOR O.L. INTERLOCK WITH AIR COMPRESSOR NO.2 |
| MPE-114 | SCUM SCREEN | | SCUM SCREENING ROOM | E-10 | 1/2 | 460 | 11 | | | | | I | 2 SPD | M | 15 | ETM HI-LOW-OFF,R,G | LOCAL CONTROL | 1100 | 1800 | 6#12, 3/4" C. | A, B | DUAL SPEED, EXISTING EQUIPMENT |
| PST-105 | PRIMARY SETTLING TANK DRIVE | | PRIMARY TREATMENT | E-11 | 1/2 HP | 460 | 1 | | | | | I | FVR | M | 15 | ETM F-O-R,R,G,LR | | 1600 | 1600 | 3#12, 3/4" C. | A, B | REVERSING SWITCH AT MOTOR LOCAL PUSH BUTTON CONTROLLER 3 LIMIT SWITCHES AT DRIVE TO SHUT DOWN MOTOR |
| PST-106 | PRIMARY SETTLING TANK DRIVES | | PRIMARY TREATMENT | E-12 | 1/2 HP | 460 | 1 | | | | | I | FVR | M | 15 | ETM F-O-R,R,G,LR | | 1600 | 1600 | 3#12, 3/4" C. | A, B | REVERSING SWITCH AT MOTOR LOCAL PUSH BUTTON CONTROLLER 3 LIMIT SWITCHES AT DRIVE TO SHUT DOWN MOTOR |
| STF-2 | STRAIGHT THROUGH FAN | | PRELIMINARY TREATMENT BUILDING | E-13 | 1 HP | 460 | 1.8 | | | | | I | 2 SPD | M | 15 | ETM H-O-A,R,G | | 1700 | 1600 | 3#12, 3/4" C. | | EXPLOSION PROOF |
| EUH EXP-1 | EXPLOSION PROOF ELECTRIC UNIT HTR. | | PRELIMINARY TREATMENT BUILDING | E-14 | 12.5 KW | 460 | 15 | | | | | I | FVNR | M | 20 | ETM H-O-A,R,G | | 1700 | 1600 | 3#12, 3/4" C. | | CONTACTOR & CONTROL TRANSFORMER BY DIV. 1700 SEE SPECIFICATIONS |
| EUH EXP-2 | EXPLOSION PROOF ELECTRIC UNIT HTR. | | PRELIMINARY TREATMENT BUILDING | E-15 | 10 KW | 460 | 12 | | | | | I | FVNR | M | 20 | ETM H-O-A,R,G | | 1700 | 1600 | 3#12, 3/4" C. | | CONTACTOR & CONTROL TRANSFORMER BY DIV. 1700 SEE SPECIFICATIONS |
| EUH EXP-3 | EXPLOSION PROOF ELECTRIC UNIT HTR. | | SCUM SCREENING ROOM | E-16 | 10 KW | 460 | 12 | | | | | I | FVNR | M | 20 | ETM H-O-A,R,G | | 1700 | 1600 | 3#12, 3/4" C. | | CONTACTOR & CONTROL TRANSFORMER BY DIV. 1700 SEE SPECIFICATIONS |
| PF-1 | PROPELLER FAN | | EXIST. GRIT REMOVAL | E-17 | 3 HP | 460 | 4.8 | | | | | I | 2 SPD | M | 15 | ETM H-O-A,R,G | | 1700 | 1600 | 6#12, 3/4" C. | | CONTACTOR & CONTROL TRANSFORMER BY DIV. 1700 SEE SPECIFICATIONS |
| UF-1 | UTILITY FAN | | CHLORINE STORAGE | E-18 | 15 HP | 460 | 2.6 | | | | | I | FVNR | M | 15 | ETM H-O-A,R,G | | 1700 | 1600 | 3#12, 3/4" C. | | PROVIDE CONTACTOR & CONTROL TRANSFORMER TO INTERLOCK WITH REMOTE SWITCH, BY DIV. 1700 SEE SPECIFICATIONS |
| PST-101 | PRIMARY SETTLING TANK DRIVE | | PRIMARY TREATMENT | E-20 | 1/2 HP | 460 | 1 | | | | | I | FVR | M | 15 | ETM F-O-R,R,G,LR | | EXISTING 1600 | 3#12, 3/4" C. | A, B | EXISTING EQUIPMENT, SEE NOTE 4 | |
| PST-102 | PRIMARY SETTLING TANK DRIVE | | PRIMARY TREATMENT | E-21 | 1/2 HP | 460 | 1 | | | | | I | FVR | M | 15 | ETM F-O-R,R,G,LR | | EXISTING 1600 | 3#12, 3/4" C. | A, B | EXISTING EQUIPMENT, SEE NOTE 4 | |
| PST-103 | PRIMARY SETTLING TANK DRIVE | | PRIMARY TREATMENT | E-22 | 1/2 HP | 460 | 1 | | | | | I | FVR | M | 15 | ETM F-O-R,R,G,LR | | EXISTING 1600 | 3#12, 3/4" C. | A, B | EXISTING EQUIPMENT, SEE NOTE 4 | |
| PST-104 | PRIMARY SETTLING TANK DRIVE | | PRIMARY TREATMENT | E-23 | 1/2 HP | 460 | 1 | | | | | I | FVR | M | 15 | ETM F-O-R,R,G,LR | | EXISTING 1600 | 3#12, 3/4" C. | A, B | EXISTING EQUIPMENT, SEE NOTE 4 | |
| AC-1 | AIR COMPRESSOR NO. 1 | | MAIN CONTROL BLDG. | E-24 | 10 HP | 460 | 14 | | | | | I | FVNR | M | 30 | ETM H-O-A,R,G | | EXISTING 1600 | 3#10, 3/4" C. | | INTERLOCK STARTER W/ EXISTING REMOTE PRESS. SWITCH EXISTING EQUIPMENT, SEE NOTE 4 | |

| PUSHBUTTONS | | INDICATING LIGHTS PUSH TO TEST, TRANSFER TYPE | |
|--|-------------------------|--|-------------------------------|
| 1 START | 7 FAST | R RED (FAIL) | |
| 2 STOP | 8 SLOW | G GREEN (RUN) | |
| 3 LOCK OUT STOP | 9 JOG FWD. | A AMBER (CALL) | |
| 4 TEST | 0 JOG REV. | B BLUE | |
| 5 FORWARD | 2 SPECIAL | W WHITE | |
| 6 REVERSE | M MAINT. CONT. | C CLEAR | |
| SELECTOR SWITCHES | | BREAKER TYPE, CODE | SUPERVISORY INDICATION KEY |
| H-A HAND-AUTO | T-A TEST-AUTO | A AMB. COMP. | A STATUS |
| H-L HIGH-LOW | F-R FORW.-REV. | M MAG. ONLY | B FAILURE |
| U-D UP-DOWN | O-O ON-OFF | N NON AUTO | C CALL TO RUN |
| H-O-A HAND-OFF-AUTO | R3 LOCKOUT STOP AT | P TRI PAC | F FAIL |
| F-O-R FORW.-OFF-REV. | MOTOR | H MARK 75 | D HIGH LEVEL |
| ETM ELAPSED TIME METER | LR LOCAL / REMOTE (SCC) | S STATIC TRIP | E LOW LEVEL |
| NOTE 1. PROVIDE 250VA CONTROL TRANSFORMER. PROVIDE AUXILIARY CONTACT | | | |
| NOTE 2. PROVIDE 3 WIRE CONTROL FROM MCC | | | |
| NOTE 3. PROVIDE 3 SEPERATE FEEDS FROM TRANSFORMER: 2-4#8 TO EXISTING PANELS A & B AND 4#3/0 TO NEW PANEL LP-G | | | |
| NOTE 4. PROVIDE NEW STARTER, BREAKER AND CONTROLS IN MCC-E | | | |
| NOTE 5. ELECTRICAL CONTRACTOR TO WIRE LIMIT SWITCHES, CONTROL WIRING, LOCAL ALARMS, AND ALARMS NOT SPECIFIED FOR SCC | | | |
| NOTE 6. ELECTRICAL CONTRACTOR TO VERIFY CONTROL WIRING REQUIRED FOR SUPPLIED EQUIPMENT. | | | |

RECORD DRAWINGS 2/1/91 DJP

**CITY OF JOLET
EASTSIDE
WASTEWATER TREATMENT PLANT
MOTOR & MCC 'E' SCHEDULE**

| | | |
|--|----------------------|-----------------------------------|
| CONSULTING ENGINEERS 910 West Wingra Drive Madison, Wisconsin 53715 Tel. (608) 251-4843 | SCALE: NONE DATE: | DRAWING NO. 250-230-121 |
|--|----------------------|-----------------------------------|

CONTINUED ON NEXT SHEET

SHEET 65 OF 79

MOTOR AND MOTOR CONTROL CENTER SCHEDULE

100 FLA

CONTROL DEVICES (OIL TIGHT, HEAVY DUTY)

| EQUIPMENT NUMBER | EQUIPMENT AND NAMEPLATE TITLES | | EQUIPMENT LOCATION | PANEL MCC | MOTOR INFORMATION | | | | MOTOR STARTER INFORMATION | | | | CONTROL & INTERLOCKS | | | | SUP. CONTROL CENTER INDICATION | REMARKS | |
|------------------|---|---|--------------------------|-----------|-------------------|-------|----------------|-----|---------------------------|----------|------|----------------------------------|---|-------------|----------|-----------------|--------------------------------|---|--------------------|
| | FIRST LINE SECOND LINE WHEN EQUIPMENT NUMBER IS INDICATED | THIRD LINE WHEN EQUIPMENT NUMBER IS INDICATED | | | HP / KW | VOLTS | F.L.I. IN AMPS | RPM | KVAR REQD | SIZE | TYPE | BREAKER | CONTROL DEVICE (SEE INFO) | DESCRIPTION | FURN. BY | WIRED BY | | | POWER CONDUIT WIRE |
| | | | | | | | | | | | | | | | | | | | |
| B-306 | BLOWER | | BLOWER BUILDING ADDITION | F-1 | 500 HP | 460 | 720 | H 3 | FVNR | AIR TRIP | 90 | ETM H-O-A,B,L,R SEE NOTE 5 | UNLOADING VALVE & OIL COOLER SOLENOID | 1600 | 1600 | 3#10, 1 1/4" C. | A,B | SEE NOTE 1 INTERLOCK WITH MOTORIZED LOWER AND EXHAUST | |
| B-307 | BLOWER | 2 SPEED | BLOWER BUILDING ADDITION | F-2 | 500 HP | 460 | 450/720 | H 3 | 2 SPD | AIR TRIP | 90 | ETM H-O-A,B,L,R SEE NOTE 6 | UNLOADING VALVE, TIME DELAY & OIL COOLER SOLENOID | 1600 | 1600 | 3#10, 1 1/4" C. | A,A,B | SEE NOTE 1 PROVIDE TIME DELAY FOR HIGH SPEED TO LOW SPEED INTERLOCK WITH MOTORIZED LOWER AND EXHAUST | |

| PUSHBUTTONS | | INDICATING LIGHTS |
|-----------------|----------------|-------------------|
| 1 START | 7 FAST | R RED (FAIL) |
| 2 STOP | 8 SLOW | G GREEN (RUN) |
| 3 LOCK OUT STOP | 9 JOG FWD. | A AMBER (CALL) |
| 4 TEST | 0 JOG REV. | B BLUE |
| 5 FORWARD | Z SPECIAL | W WHITE |
| 6 REVERSE | M MAINT. CONT. | C CLEAR |

| SELECTOR SWITCHES | | BREAKER TYPE, CODE | SUPERVISORY INDICATION KEY |
|------------------------|--------------------------|--------------------|----------------------------|
| H-A HAND-AUTO | T-A TEST-AUTO | A AMB. COMP. | A STATUS |
| H-L HIGH-LOW | F-R FORW.-REV. | M MAG. ONLY | B FAILURE |
| U-D UP-DOWN | O-O ON-OFF | N NON AUTO | C CALL TO RUN |
| H-O-A HAND-OFF-AUTO | R3 LOCKOUT STOP AT MOTOR | P TRI PAC | F FAIL |
| F-O-R FORW.-OFF-REV. | LR LOCAL / REMOTE (SCC) | H MARK 75 | D HIGH LEVEL |
| ETM ELAPSED TIME METER | | S STATIC TRIP | E LOW LEVEL |

EXISTING MOTOR AND MOTOR CONTROL CENTER SCHEDULE MCC-D (ADDED EQUIPMENT)

100 FLA (ADDED TO EXISTING)

| | | | | | | | | | | | | | | | | | | | | |
|---------|---------------------------|--|-------------------------------------|------|--------|-----|-----|--|--|--|--|---|----|-----------|--|------|------|-------------|------|---|
| MOV-307 | MOTOR OPERATED VALVE | | BLOWER BUILDING | D-13 | 1.5 HP | 460 | 2.6 | | | | | A | 15 | H-O-A,R,G | | 1600 | 1600 | 3#10, 1" C. | A, B | MAINTAINED OPEN-CLOSE SIGNAL FROM SCC. LOCAL OPEN-STOP-CLOSE AND LOCAL / REMOTE SWITCHES. |
| MOV-308 | MOTOR OPERATED VALVE | | BLOWER BUILDING | D-14 | 1.5 HP | 460 | 2.6 | | | | | A | 15 | H-O-A,R,G | | 1600 | 1600 | 3#10, 1" C. | A, B | MAINTAINED OPEN-CLOSE SIGNAL FROM SCC. LOCAL OPEN-STOP-CLOSE AND LOCAL / REMOTE SWITCHES. |
| EXH-3.5 | EXHAUST FAN | | BLOWER BUILDING ADDITION | D-15 | 1.5 HP | 460 | 2.6 | | | | | | 15 | H-O-A,R,G | | 1700 | 1600 | 3#10, 1" C. | | |
| EXH-3.6 | EXHAUST FAN | | BLOWER BUILDING ADDITION | D-16 | 1.5 HP | 460 | 2.6 | | | | | | 15 | H-O-A,R,G | | 1700 | 1600 | 3#10, 1" C. | | |
| EXH-3.7 | EXHAUST FAN | | BLOWER BUILDING ADDITION | D-17 | 1.5 HP | 460 | 2.6 | | | | | | 15 | H-O-A,R,G | | 1700 | 1600 | 3#10, 1" C. | | |
| EXH-3.8 | EXHAUST FAN | | BLOWER BUILDING ADDITION | D-18 | 1.5 HP | 460 | 2.6 | | | | | | 15 | H-O-A,R,G | | 1700 | 1600 | 3#10, 1" C. | | |
| | 480-120/208V. TRANSFORMER | | MCC-D | D-19 | 45 KVA | 460 | 54 | | | | | | | | | | 1600 | IN MCC. | | FEEDS LP-F |
| MPE-308 | REMOTE RADIATOR | | OUTSIDE OF BLOWER BUILDING ADDITION | D-20 | 10 HP | 460 | 14 | | | | | | 30 | H-O-A,R,G | | 1600 | 1600 | 3#10, 1" C. | A,B | INTERLOCK TO RUN WITH ENGINE B-308 |
| MPE-309 | REMOTE RADIATOR | | OUTSIDE OF BLOWER BUILDING ADDITION | D-21 | 10 HP | 460 | 14 | | | | | | 30 | H-O-A,R,G | | 1600 | 1600 | 3#10, 1" C. | A,B | INTERLOCK TO RUN WITH ENGINE B-309 |
| EUH-1 | ELECTRIC UNIT HTR. | | BLOWER BUILDING ADDITION | D-22 | 15 KW | 460 | 18 | | | | | | 30 | H-O-A,R,G | | 1700 | 1600 | 3#10, 1" C. | | STARTER IN UNIT BY MANUFACTURER |
| EUH-2 | ELECTRIC UNIT HTR. | | BLOWER BUILDING ADDITION | D-23 | 15 KW | 460 | 18 | | | | | | 30 | H-O-A,R,G | | 1700 | 1600 | 3#10, 1" C. | | STARTER IN UNIT BY MANUFACTURER |

NOTE 1. PROVIDE ALLEN-BRADLEY BULLETIN 1406 PROGRAMABLE MOTOR PROTECTION FOR MOTORS. EQUIPMENT SHALL BE BUILT INTO CUBICLE FOR MOTOR STARTERS. THE PMP SHALL CONSIST OF 3 MODULES 1. PROTECTIVE MODULE, REMOTE RTD MODULE, AND PROGRAMMER/MONITOR W/ INSTRUMENT OPTION, OR EQUAL.

NOTE 2. PROVIDE NEW STARTER, BREAKER AND CONTROLS IN MCC-E

NOTE 3. ELECTRICAL CONTRACTOR TO WIRE LIMIT SWITCHES, CONTROL WIRING, LOCAL ALARMS AND ALARMS NOT SPECIFIED FOR SCC.

NOTE 4. ELECTRICAL CONTRACTOR TO VERIFY CONTROL WIRING REQUIRED FOR SUPPLIED EQUIPMENT.

NOTE 5. R, G, 1, 2, OPEN, CLOSE

NOTE 6. R, G, G, 7, 8, 2, OPEN, CLOSE

MOTOR AND MOTOR CONTROL CENTER SCHEDULE MCC-E CONTINUED

| | | | | | | | | | | | | | | | | | | | | |
|------|----------------------|--|--------------------|------|----------|-----|-----|--|--|--|--|--|----|------------------------|--|---------------|------|----------------|--|--|
| CP-3 | CIRCULATING PUMP | | MAIN CONTROL BLDG. | E-25 | 1 1/2 HP | 460 | 1.7 | | | | | | 15 | H-O-A,R,G | | EXISTING 1600 | 1600 | 3#12, 3/4" C. | | EXISTING EQUIPMENT, SEE NOTE 2 |
| CP-4 | CIRCULATING PUMP | | MAIN CONTROL BLDG. | E-26 | 3/4 HP | 460 | 1.4 | | | | | | 15 | H-O-A,R,G | | EXISTING 1600 | 1600 | 3#12, 3/4" C. | | EXISTING EQUIPMENT, SEE NOTE 2 |
| AC-2 | AIR COMPRESSOR NO.2 | | MAIN CONTROL BLDG. | E-27 | 3 HP | 460 | 4.8 | | | | | | 15 | H-O-A,R,G | | EXISTING 1600 | 1600 | 3#12, 3/4" C. | | EXISTING EQUIPMENT, SEE NOTE 2 |
| AC-3 | AIR COMPRESSOR NO.3 | | MAIN CONTROL BLDG. | E-28 | 10 HP | 460 | 14 | | | | | | 30 | H-O-A,R,G | | EXISTING 1600 | 1600 | 3#10, 3/4" C. | | EXISTING EQUIPMENT, SEE NOTE 2 |
| | FEEDER FOR PANEL P-3 | | MAIN CONTROL BLDG. | E-29 | 14 KW | 460 | 40 | | | | | | | | | | 1600 | 4#3, 1 1/4" C. | | EXISTING PANEL, PROVIDE NEW BREAKER |
| | PANELS A AND B | | MAIN CONTROL BLDG. | E-31 | 14 KW | 208 | 40 | | | | | | | | | | 1600 | 4#8, 1" C. | | 2 BREAKER CUBICLE EXISTING PANEL, PROVIDE NEW BREAKERS |
| SG-1 | SLUICE GATE NO. 1 | | MAIN CONTROL BLDG. | E-32 | 5 HP | 460 | 7.6 | | | | | | 15 | OPEN-CLOSE-STOP, R,G,A | | EXISTING 1600 | 1600 | 3#10, 1" C. | | EXISTING EQUIPMENT, SEE NOTE 2 EXISTING REMOTE CONTROL PANEL |
| | TRASH SCREEN | | MAIN CONTROL BLDG. | E-33 | 1 HP | 460 | 1.8 | | | | | | 15 | OPEN-CLOSE-STOP, R,G,A | | EXISTING 1600 | 1600 | 3#10, 1" C. | | EXISTING EQUIPMENT, SEE NOTE 2 CONTROLS IN EXISTING METERING PANEL. |

RECORD DRAWING 2/28/91 DJP



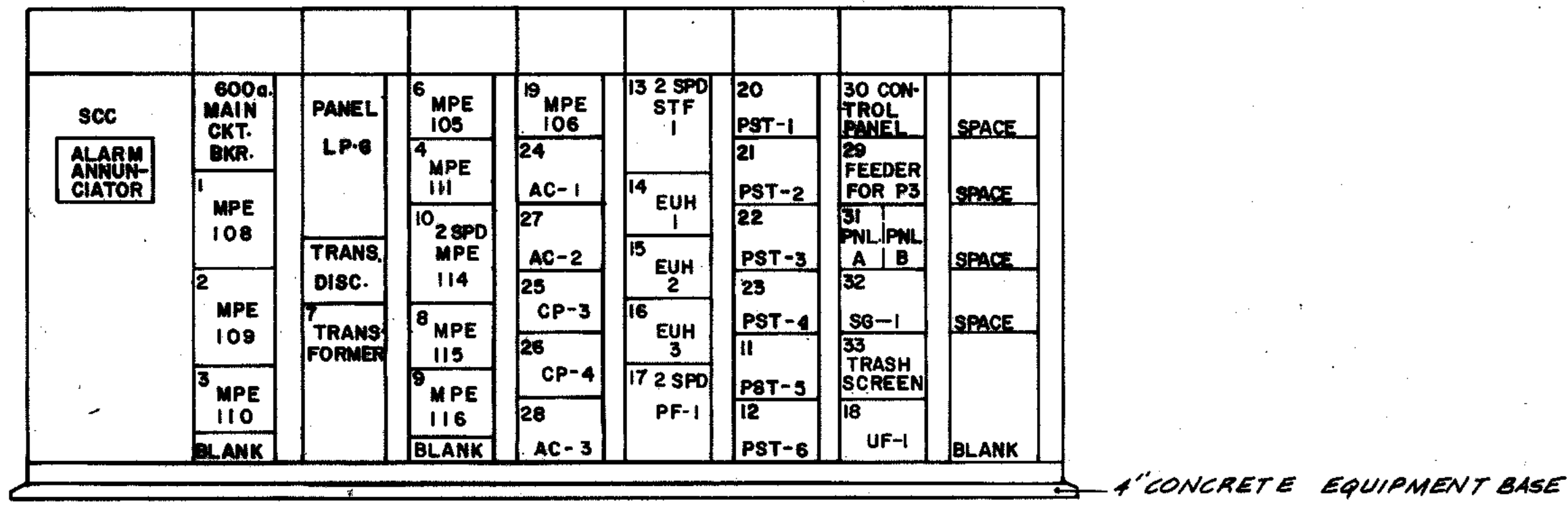
CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
MOTOR & MCC 'F' SCHEDULE

CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel. (608) 251-4843

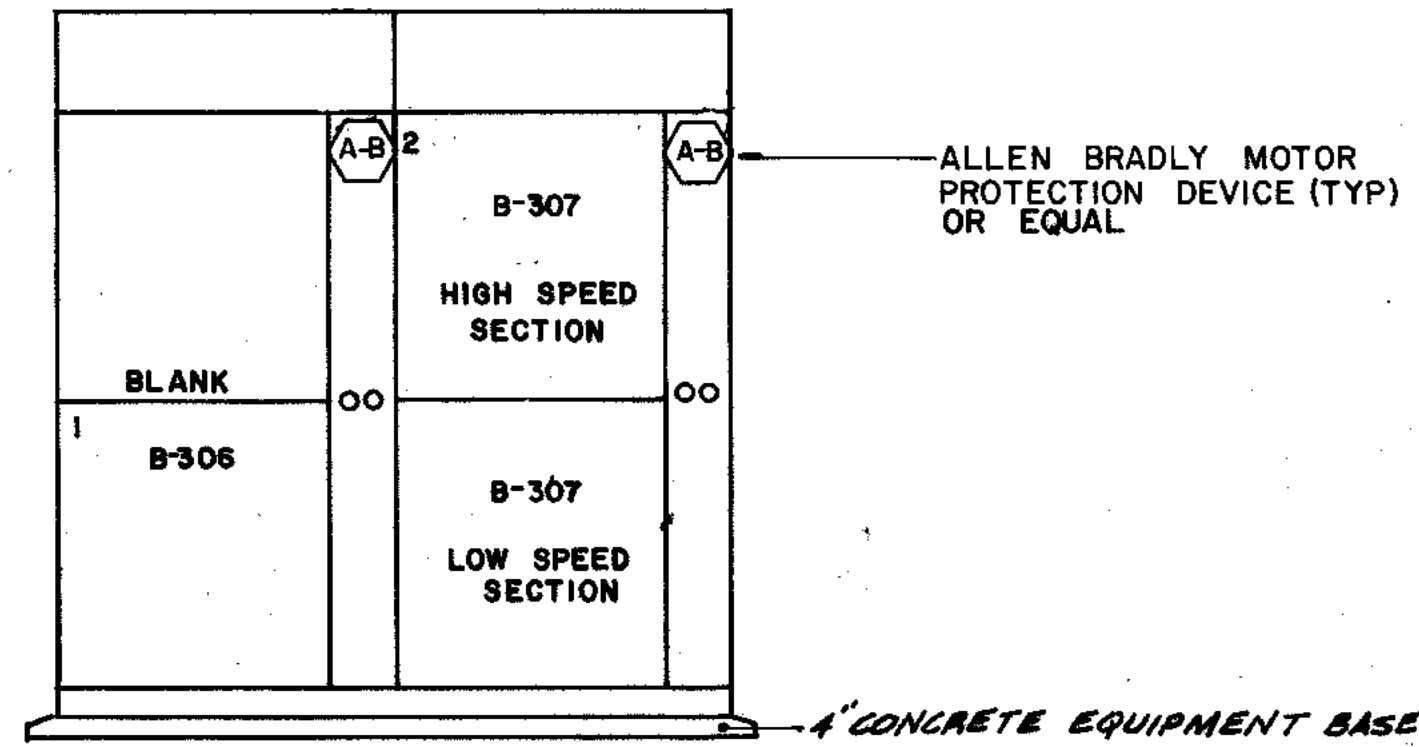
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Belting Consultants
1810 West Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60438

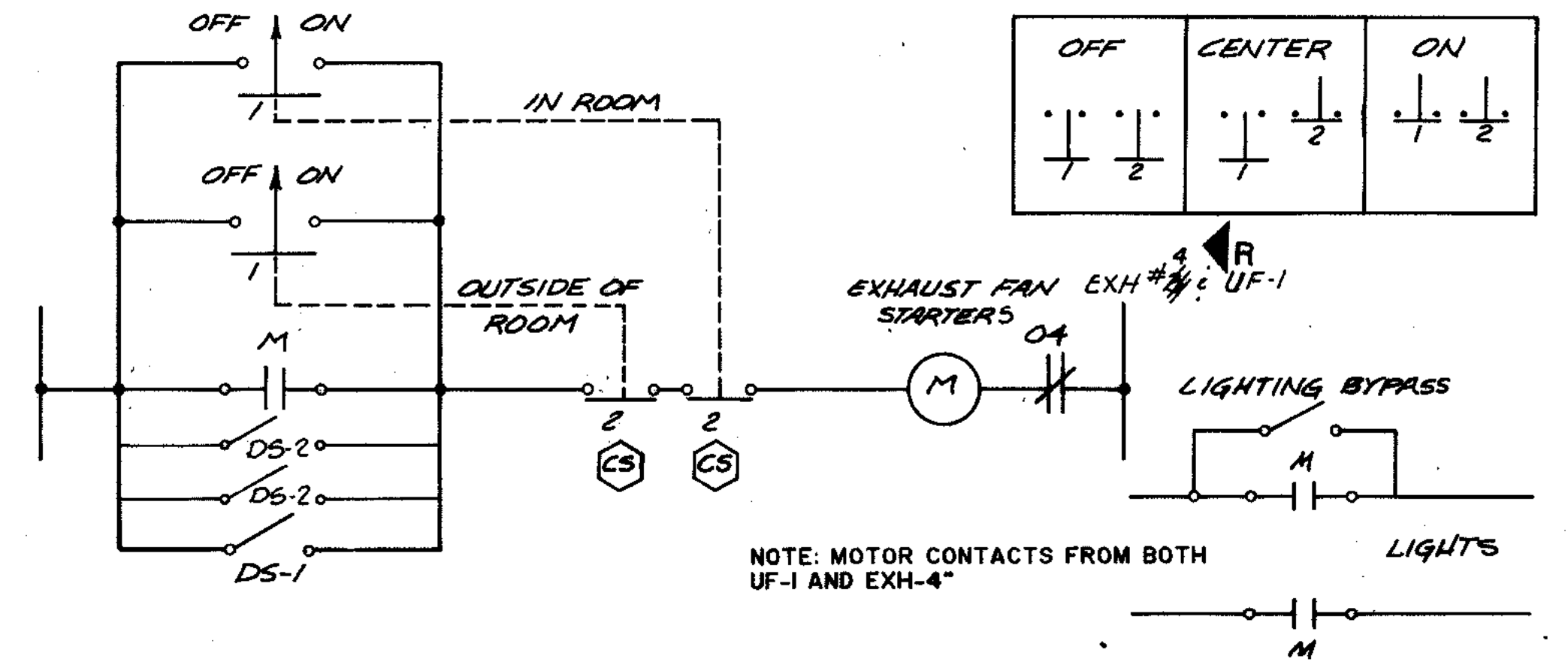
DRAWING NO.
255-230-125



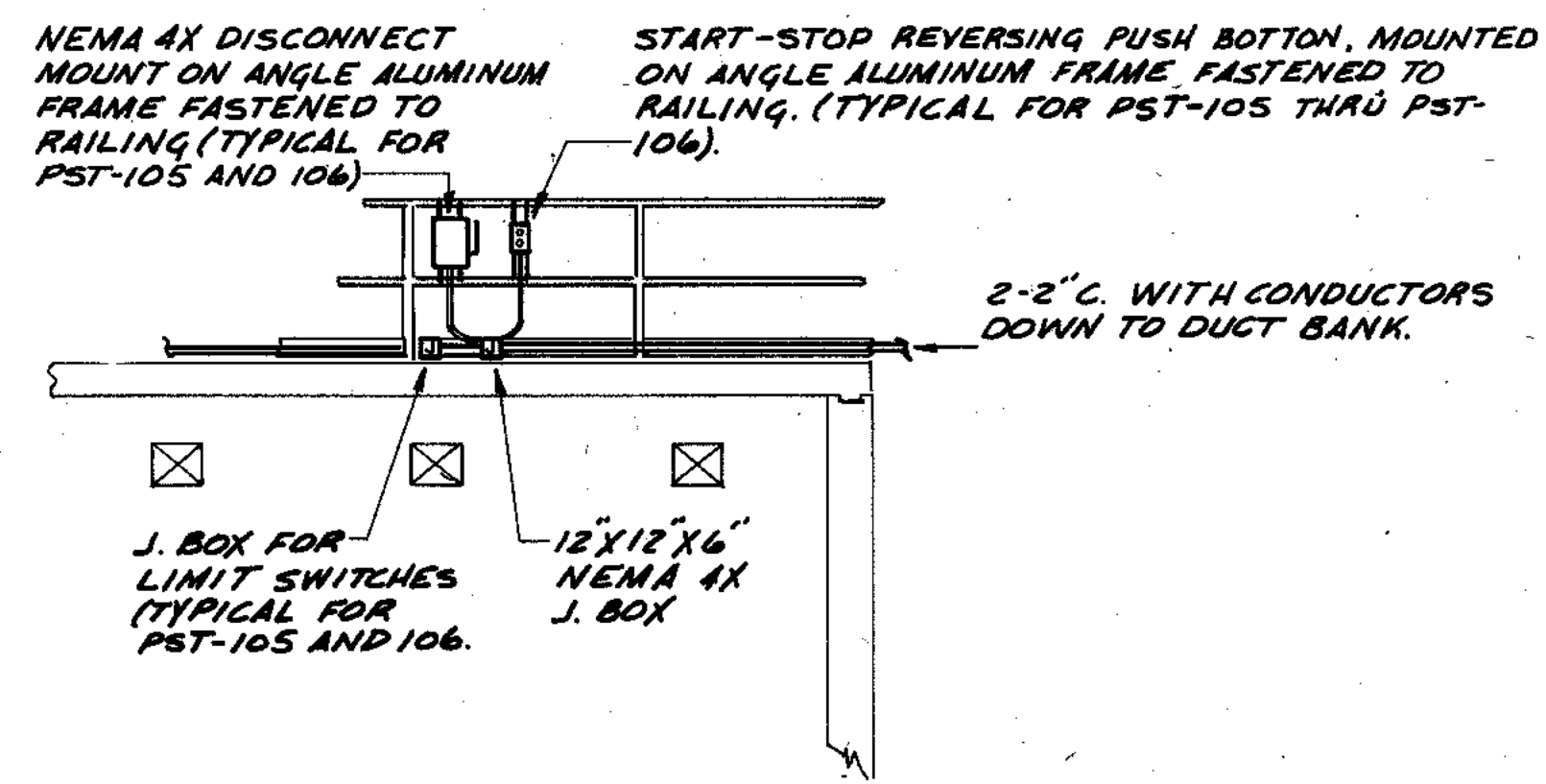
ELEVATION MCC-E
1/2" = 1'-0"



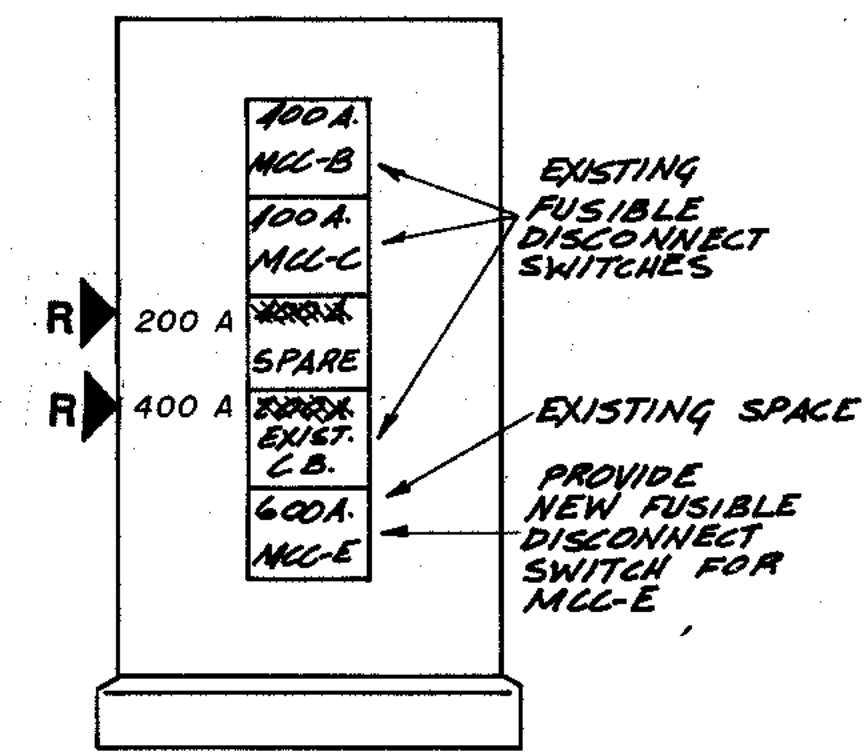
ELEVATION MCC-F
1/2" = 1'-0"



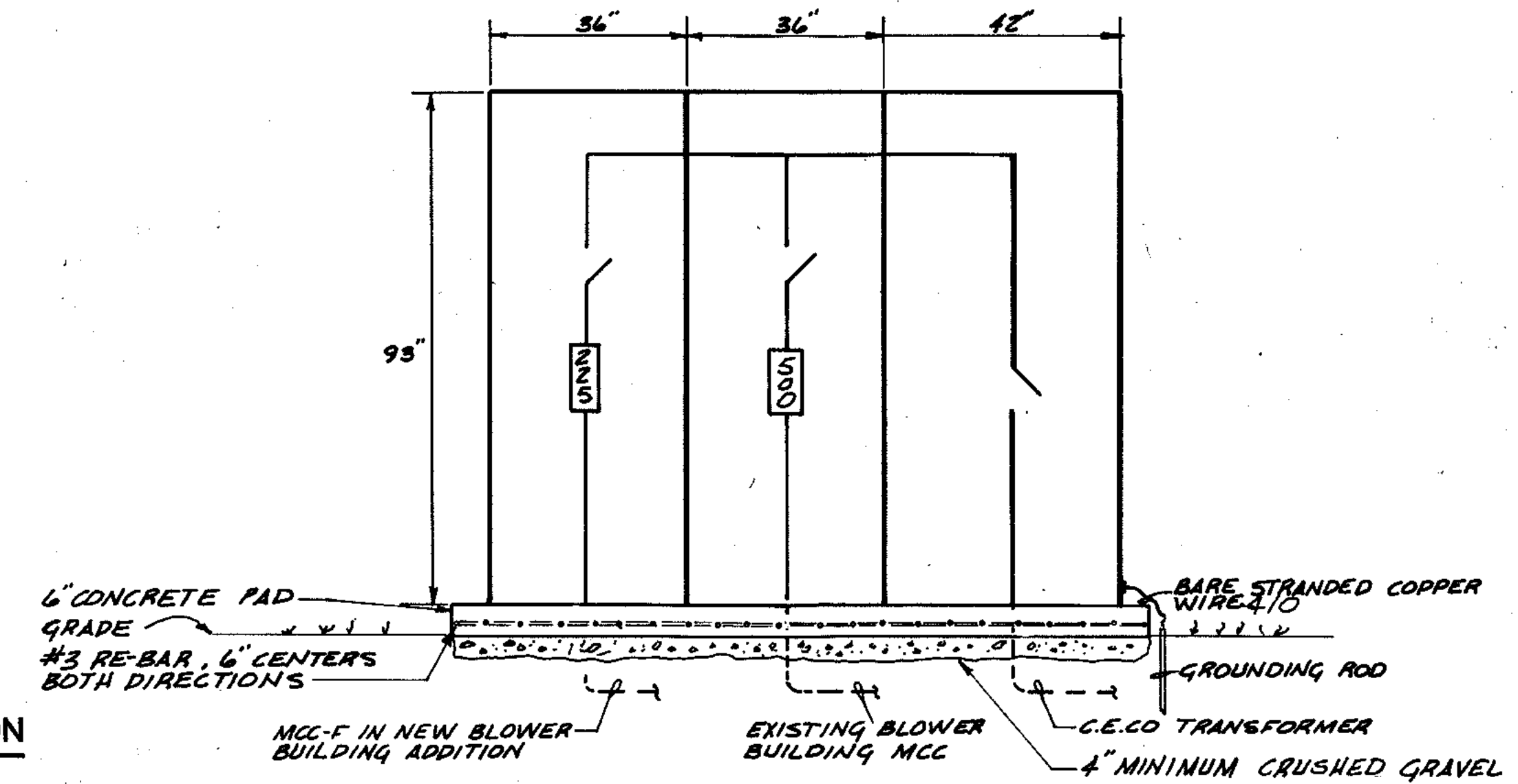
CHLORINE ROOM ELECTRICAL CONTROL
NO SCALE



DETAIL, CONTROL MOUNTING PRIMARY CLARIFIER & POWER DISTRIBUTION
1/4" = 1'-0"



ELEVATION OF EXISTING T-2 DISTRIBUTION
1/2" = 1'-0"



ELEVATION NEW PMG-1
1/2" = 1'-0"

OVERLAY IDENTIFICATION
COMPOSITE
OVERLAY
SCREEN
PROJECT NO. E-126
DATE E-126
E/S
E/S

RECORD DRAWING 2/1/91 DJP

STRAND ASSOCIATES INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
ELECTRICAL- DETAILS

SCALE AS NOTED DATE

Beiling Consultants
Historic Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435 (815) 29-1800

DRAWING NO. **255-230-126**

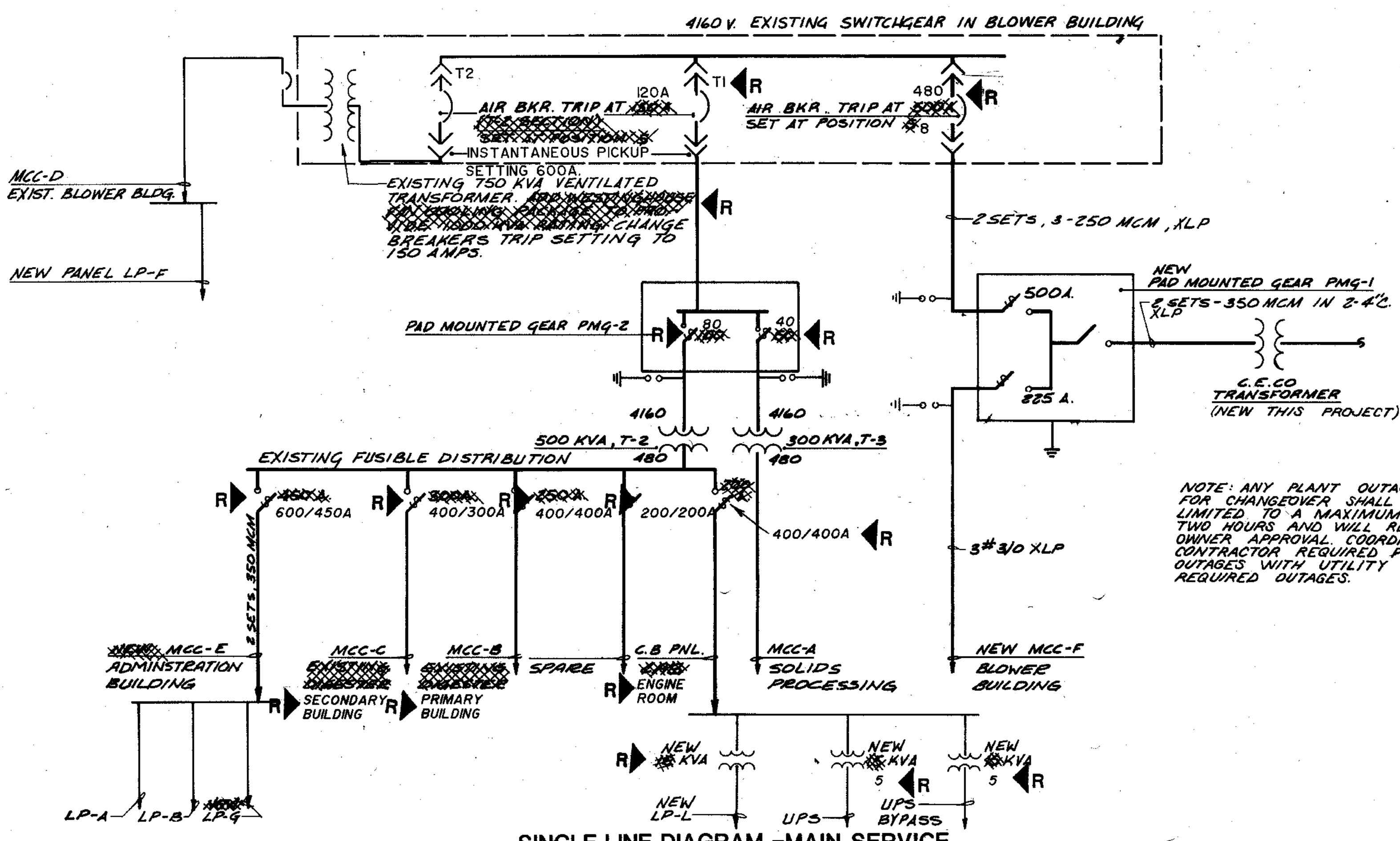
| LIGHTING FIXTURE SCHEDULE (SEE NOTE 1) | | | | | |
|--|--------------------------------|------------------|-----------------------|---------------------------------|---------------------------------|
| FIXTURE TYPE | LAMPS IN FIXTURE NO./TYPE/SIZE | FIXTURE MOUNTING | MANUFACTURER OR EQUAL | CATALOG NO. | REMARKS |
| A | 2 / F / 40 | SURFACE | DAY-BRITE | VII240-4-ESB | 120 VOLT |
| B | 1 / HPS / 70 | SURFACE | KENALL | 5020-120V .W/PHOTOCELL NO. 9051 | |
| C | 1 / MH / 100 | PENDENT | APPLETON | CMP 1075-120 | 120 VOLT |
| D | 1 / MH / 175 | 15' POLE | CROUSE-HINDS | PT07MHW255A-120 | W/PHOTOCELL AND INTEGRAL FUSING |
| F | 3 / F / 40 | RECESSED | DAY-BRITE | SQ243-SRA12D-ESB | 120 VOLT |
| G | 2 / F / 40 | SURFACE | LPI | PMB240-D | 120 VOLT W/ESB |
| EXIT | 2 / AG / 4 | SURFACE | SILTRON | UX-ESC-SR-120 | W/BATTERY BACK-UP |
| H | 3 / F / 40 | RECESSED | DAY-BRITE | AG243-APS24D-120V | PARABOLIC LENS |
| J | 1 / INC / 150 | PENDENT | APPLETON | AP 1575 | 120 VOLT |

| SERVICE: 120/240 V, 1Ø, 3W | | PANEL LP-U | | MOUNTING: RECESSED | | |
|----------------------------|------|-----------------|------|--------------------|-----------------|----------------------|
| MAIN BREAKER: 20A | | ENCLOSURE: NEMA | | MAIN BUS: 100A | | |
| LOCATION: CONTROL ROOM | | | | FEEDER: 3-1/4" C | | |
| CIRCUIT USE | L | VA | A P | SN | CIRCUIT USE | |
| COMPUTER RECPT. | 1800 | | 20/1 | 1 | COMPUTER RECPT. | |
| COMPUTER RECPT. | 1800 | | 20/1 | 2 | COMPUTER RECPT. | |
| PHONE RECPT. | 1800 | | 20/1 | 3 | SCC-D | |
| MAIN SCC | 500 | | 20/1 | 4 | SCC-E | |
| SPARE | | | 20/1 | 5 | SCC-B & C | |
| SPARE | | | 20/1 | 6 | SCC-A | |
| SPACE | | | 20/1 | 7 | SPACE | |
| TOTAL PHASE A | | 2300 | | 5632 VA | 3332 | CONN. LOAD = 44.1 A |
| TOTAL PHASE B | | 1800 | | 5132 VA | 3332 | CL - 25% = A |
| TOTAL PHASE C | | | | 5132 VA | 3332 | SPARE 25% = 11.1 A |
| TOTAL CONNECTED LOAD | | | | 15896 VA | | FEEDER LOAD = 55.2 A |

| SERVICE: 120/208 3Ø 4W | | PANEL LP-F | | MOUNTING: SURFACE | | |
|---|------|-----------------|------|-------------------|-----------------------|---------------------|
| MAIN BREAKER: 125 | | ENCLOSURE: NEMA | | MAIN BUS: 100A | | |
| LOCATION: EAST WALL OF BLOWER BLDG. NEAR LP-E | | | | FEEDER: 4" C | | |
| CIRCUIT USE | L | VA | A P | SN | CIRCUIT USE | |
| B-304 PACKAGE | 500 | | 20/1 | 1 | EXTERIOR LIGHTS | |
| B-305 PACKAGE | 500 | | 20/1 | 2 | RECEPTACLES | |
| LIGHTS | | | 20/1 | 3 | SPARE | |
| LIGHTS | 900 | | 20/1 | 4 | SPARE | |
| FLOW METER | 500 | | 20/1 | 5 | FILTER BAG MPE-301 | |
| FLOW METER & R.O. | 500 | | 20/1 | 6 | AGERATION TANK REAR | |
| FLOW METER | 500 | | 20/1 | 7 | AGERATION TANK LIGHTS | |
| FLOW METER & D.O. | 500 | | 20/1 | 8 | AGERATION TANK LIGHTS | |
| FLOW METER | 500 | | 20/1 | 9 | PIT LIGHT | |
| FLOW METER | 500 | | 20/1 | 10 | COCO COOLING FAN | |
| PROP. FAN-2 | 500 | | 20/1 | 11 | COCO COOLING FAN | |
| EXH-5,6,7,8 DAMPERS | 500 | | 20/2 | 12 | SPARE | |
| B306 LOSS OF FLOW | 500 | | 20/1 | 13 | SPARE | |
| LOSS OF FLOW SWITCHES | 500 | | 20/1 | 14 | FILTER CONTROL MPE302 | |
| B307 LOSS OF FLOW | 500 | | 20/1 | 15 | MOTOR HEATER B307 | |
| ROF-314 | 500 | | 20/1 | 16 | MOTOR HEATER B306 | |
| ROF-315 | 500 | | 20/1 | 17 | ROF-313 | |
| E-301,308,309,DO 7+8 | 500 | | 20/1 | 18 | PMG-1 | |
| F-302,311,312,DO 5&6 | 500 | | 20/1 | 19 | AUTOMATIC STRAINER | |
| REC. AERATION TANKS | 1200 | | 20/1 | 20 | RAS FLOW METERS | |
| SITE LIGHTS | 600 | | 20/1 | 21 | WASTE FLOW METERS | |
| TOTAL PHASE A | | 3900 | | 11100 VA | 7200 | CONN. LOAD = 92 A |
| TOTAL PHASE B | | 4800 | | 10300 VA | 6100 | CL - 25% = A |
| TOTAL PHASE C | | | | 9200 VA | 4900 | SPARE 25% = 23 A |
| TOTAL CONNECTED LOAD | | | | 23600 VA | | FEEDER LOAD = 115 A |

| SERVICE: 120/240 V, 1Ø | | PANEL LP-L | | MOUNTING: SURFACE | | |
|------------------------|------|-----------------|------|----------------------|----------------------|----------------------|
| MAIN BREAKER: 100 | | ENCLOSURE: NEMA | | MAIN BUS: 100A | | |
| LOCATION: LAB | | | | FEEDER: 3" C, 1/4" C | | |
| CIRCUIT USE | L | VA | A P | SN | CIRCUIT USE | |
| UV-1 | 1200 | | 20/1 | 1 | RECEPTACLES | |
| LAB LIGHTS | 1600 | | 20/1 | 2 | RECEPTACLES | |
| RECEPTACLES | 400 | | 20/2 | 3 | SPARE | |
| " | 400 | | 20/1 | 4 | RECEPT. & W/ PUMP | |
| RECEPTACLES | 400 | | 20/2 | 5 | DISTILLATION UNIT | |
| " | 400 | | 20/2 | 6 | " | |
| RECEPTACLES | 400 | | 20/2 | 7 | RECEPTACLE | |
| " | 400 | | 20/2 | 8 | RECEPTACLE | |
| SPACE | | | 20/2 | 9 | RECEPTACLES | |
| FUME HOOD | 1864 | | 20/1 | 10 | " | |
| RECEPTACLE | 720 | | 20/1 | 11 | RECEPTACLE | |
| RECEPTACLE | | | 20/1 | 12 | SPARE | |
| OFFICE LIGHTS | 720 | | 20/1 | 13 | RECEPTACLE WATER LAB | |
| SPARE | | | 20/1 | 14 | DISH WASHER | |
| SPACE | | | 20/1 | 15 | SPACE | |
| SPACE | | | 20/1 | 16 | SPACE | |
| RECEPTACLE | 400 | | 20/2 | 17 | UH-3 & LIGHTS | |
| " | 400 | | 20/2 | 18 | SPACE | |
| SPACE | | | 20/1 | 19 | SPACE | |
| SPACE | | | 20/1 | 20 | SPACE | |
| SPACE | | | 20/1 | 21 | SPACE | |
| TOTAL PHASE A | | 4240 | | 9136 VA | 4896 | CONN. LOAD = 75.6 A |
| TOTAL PHASE B | | 4564 | | 8628 VA | 4064 | CL - 25% = A |
| TOTAL PHASE C | | | | VA | | SPARE 25% = 19.0 A |
| TOTAL CONNECTED LOAD | | | | 17764 VA | | FEEDER LOAD = 94.6 A |

| SERVICE: 120/208 3Ø 4W | | PANEL LP-G | | MOUNTING: IN MCC-E | | |
|--------------------------|------|-----------------|------|--------------------|---------------------------|---------------------|
| MAIN BREAKER: 225 | | ENCLOSURE: NEMA | | MAIN BUS: 100A | | |
| LOCATION: MCC-E | | | | FEEDER: 4" C | | |
| CIRCUIT USE | L | VA | A P | SN | CIRCUIT USE | |
| RECPT. PREL. TRTMT. | 600 | | 20/1 | 1 | LIGHTS & DAMPER CHLOR. | |
| LIGHTS & RECPT. MCC ROOM | 1000 | | 20/1 | 2 | DOOR OPERATOR PREL | |
| HEAT TAPE | | | 20/1 | 3 | DOOR OPERATOR PREL | |
| EXH-9 PREL. TRTMT. | 864 | | 20/1 | 4 | PREL. TRTMT. LIGHTS | |
| WET WELL LIGHTS | 1800 | | 20/1 | 5 | PREL. TRTMT. LIGHTS | |
| SLUICE GATE RECPT. | | | 20/1 | 6 | LIGHTS SCUM BLDG. | |
| PRIMARY TANK LIGHTS | 600 | | 20/1 | 7 | STORAGE GARAGE | |
| MPE-10 & III CONTROL | 500 | | 20/1 | 8 | UH-10 CHLOR. STORAGE | |
| SPARE | | | 20/1 | 9 | LIGHTS & EXH. 4 CHLOR. RM | |
| P-10-III-12 | 500 | | 20/1 | 10 | EXH. 10 SCUM BLDG. | |
| AOV 101-106 | 500 | | 20/1 | 11 | CHLORINE LEAK DET. | |
| STF 2 DAMPER | | | 20/1 | 12 | CHLOR. STORAGE RM. HOIST | |
| RECPT. CHLOR. ROOM | 600 | | 20/1 | 13 | CHLOR. STORAGE RM. HOIST | |
| RECPT. CHLOR. ROOM | 600 | | 20/1 | 14 | CHLOR. STORAGE RM. HOIST | |
| SAMPLERS | | | 20/1 | 15 | CHLOR. STORAGE RM. HOIST | |
| RECEPTACLES SCUM | 400 | | 20/1 | 16 | AUTOMATIC DRAIN & DAMPERS | |
| RECEPTACLES PREL. TREAT. | 600 | | 20/1 | 17 | SLUDGE WELL #1 | |
| RECEPTACLES PREL. TREAT. | 800 | | 20/1 | 18 | SLUDGE WELL #2 | |
| PANEL A | | | 20/1 | 19 | SLUDGE WELL #3 | |
| " | | | 20/1 | 20 | PANEL B | |
| " | | | 20/1 | 21 | " | |
| " | | | 20/1 | 22 | " | |
| TOTAL PHASE A | | 3564 | | 8020 VA | 4456 | CONN. LOAD = 103 A |
| TOTAL PHASE B | | 4700 | | 8956 VA | 4256 | CL - 25% = A |
| TOTAL PHASE C | | | | 12,320 VA | 6820 | SPARE 25% = 25 A |
| TOTAL CONNECTED LOAD | | | | 23,296 VA | | FEEDER LOAD = 126 A |



NOTE: ANY PLANT OUTAGE FOR CHANGEOVER SHALL BE LIMITED TO A MAXIMUM OF TWO HOURS AND WILL REQUIRE OWNER APPROVAL COORDINATE CONTRACTOR REQUIRED PLANT OUTAGES WITH UTILITY REQUIRED OUTAGES.

NOTE 1: EQUIPMENT MANUFACTURERS NAME AND MODEL NUMBERS ARE LISTED FOR REFERENCE AND INFORMATION PURPOSES. ITEMS OF EQUAL QUALITY ARE ACCEPTABLE.

OVERLAY IDENTIFICATION: COMPOSITE E-127 SLD, OVERLAY E-127 SLD, PROJECT NO., DATE

STRAND ASSOCIATES, INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel: (608) 251-4943

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
ELECTRICAL POWER SYSTEM
1-LINE AND PANELS

DATE: NONE

DATE: _____

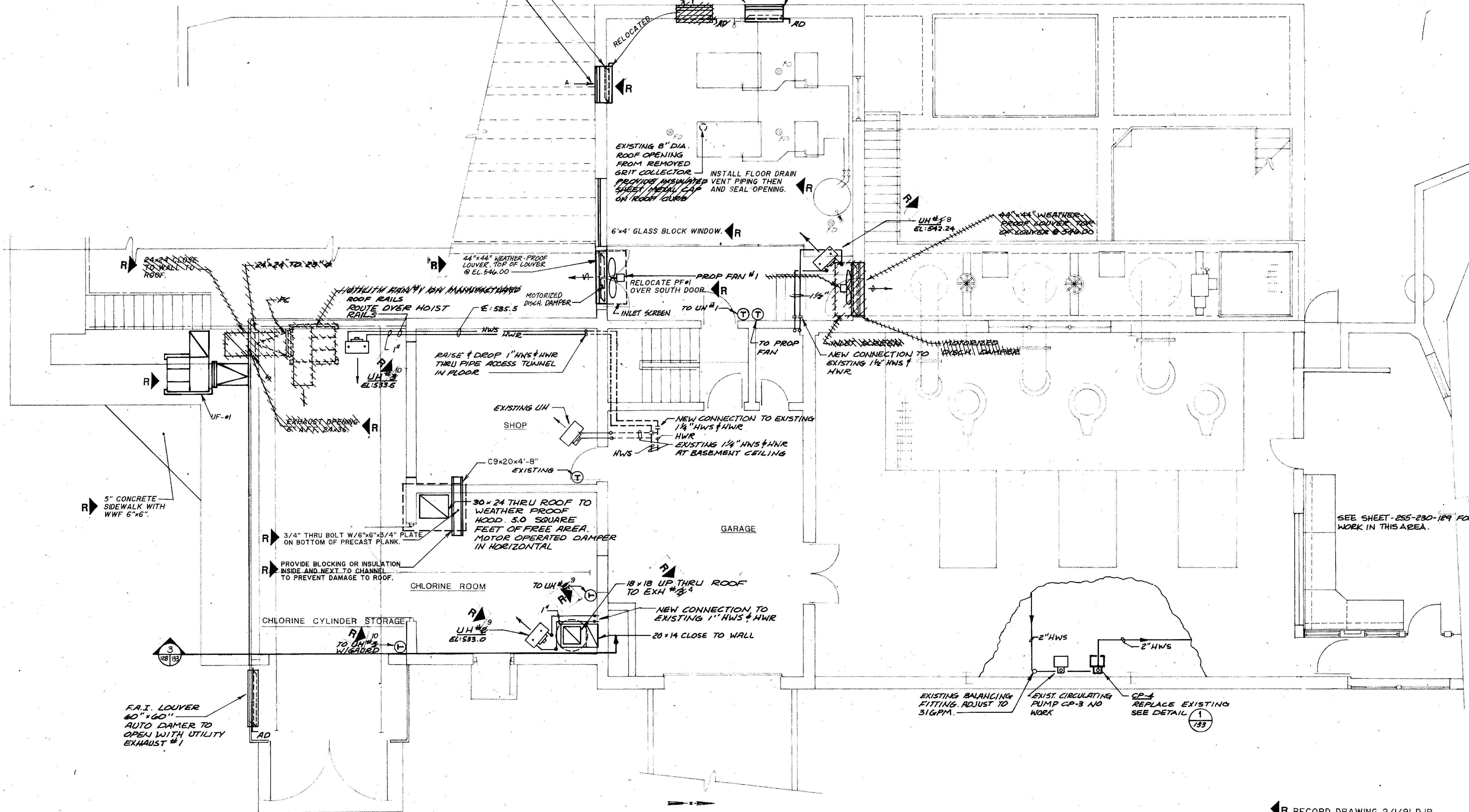
DRAWING NO: 255-230-127

| | | | | | |
|------------------------|-----------|--------|--------|----------|----------|
| OVERLAY IDENTIFICATION | COMPOSITE | HY-128 | PL-128 | HY-128-1 | HY-128-1 |
| PROJECT NO. | OVERLAY | HY-128 | PL-128 | HY-128-1 | HY-128-1 |
| DATE | SCREEN | | | | |

F.A.I. LOUVER - 40" x 112" INSTALLED IN EXISTING WINDOW OPENING. AUTO DAMPER TO OPEN ON LOW SPEED - PROP. FAN #1

F.A.I. LOUVER - 40" x 112" INSTALLED IN EXISTING WINDOW OPENING. AUTO DAMPER TO OPEN ON LOW SPEED - PROP. FAN #1

CONTRACTOR TO REMOVE BLOCKED UP PORTION OF WINDOW AND MODIFY OPENING TO RECEIVE LOUVER



SEE SHEET - 255-230-129 FOR WORK IN THIS AREA.

MAIN CONTROL BLDG PLAN 1
SCALE: 1/4" = 1'-0"

THIS DRAWING NUMBER 255-230-128 THROUGH 255-230-134 PREPARED UNDER THIS PROFESSIONAL SEAL

Patrick J. Henry, Sr.
SIGNATURE

MAY 23, 1988
DATE



STRAND ASSOCIATES, INC.
CONSULTING ENGINEERS

910 West Wingra Drive
Madison, Wisconsin 53715
Tel. (608) 251-4843

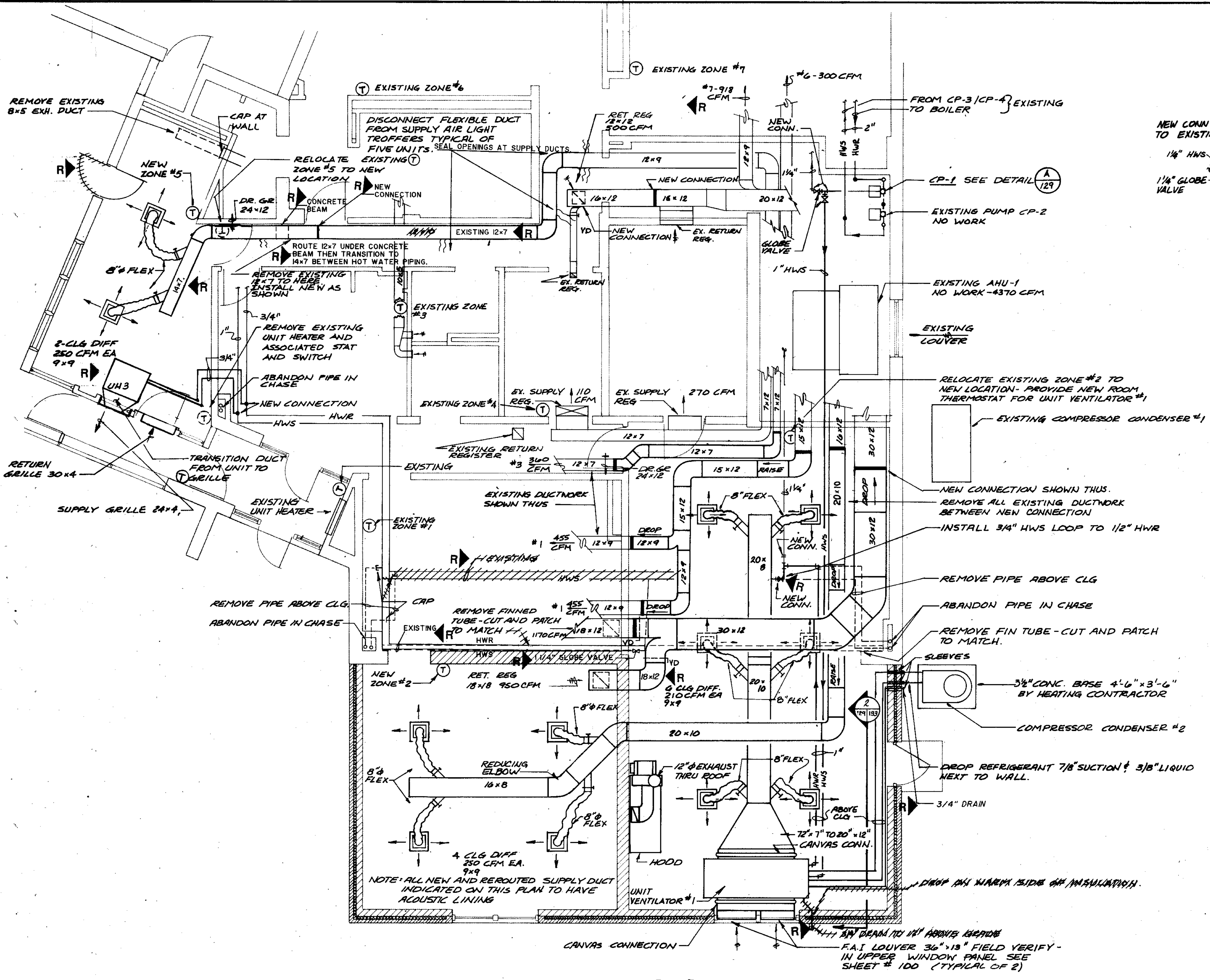
RECORD DRAWING 2/1/91 DJP

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
HEATING & VENTILATING
MAIN CONTROL BLDG. PLAN 1

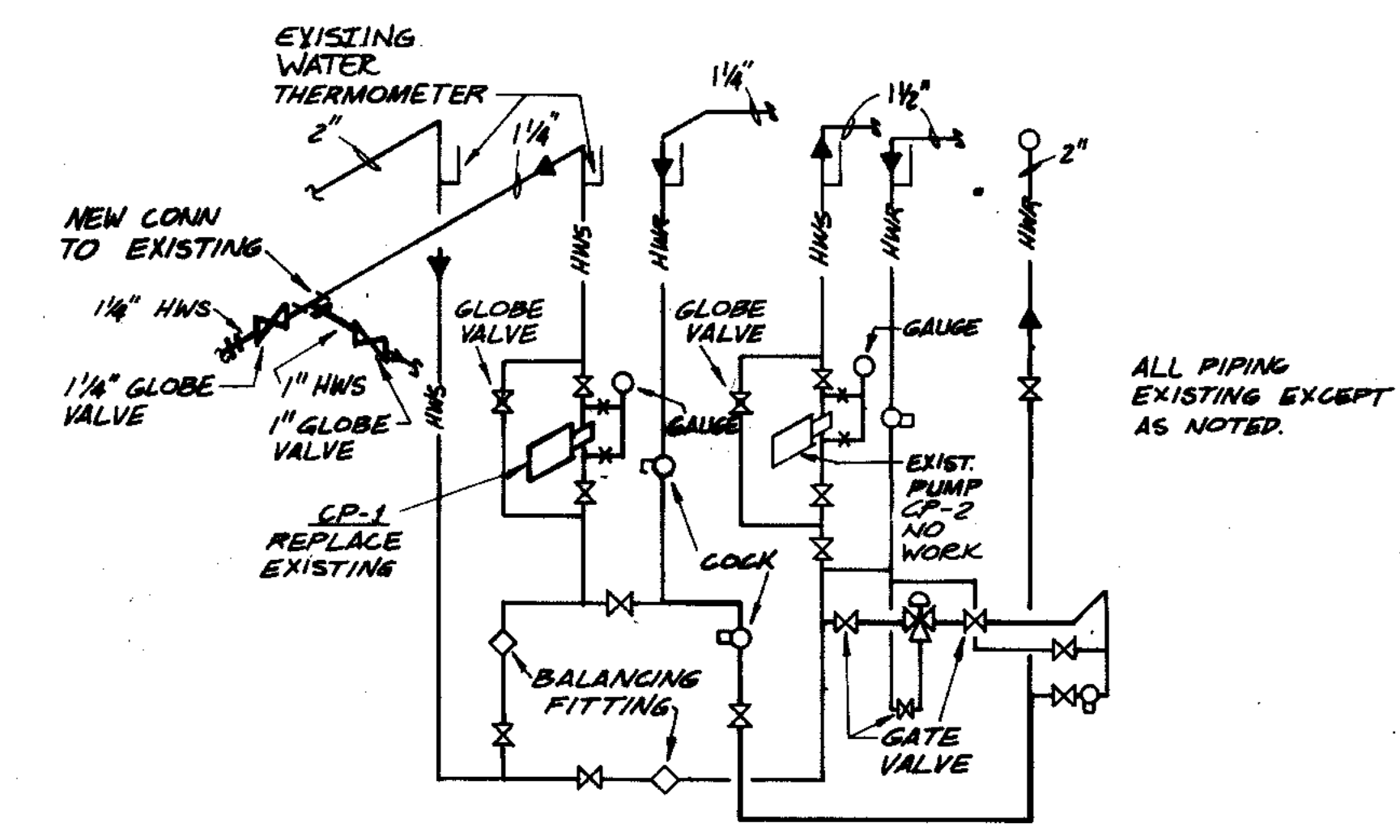
SCALE: AS NOTED DATE: DRAWING NO.

Beijing Consultants
1100 West Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435

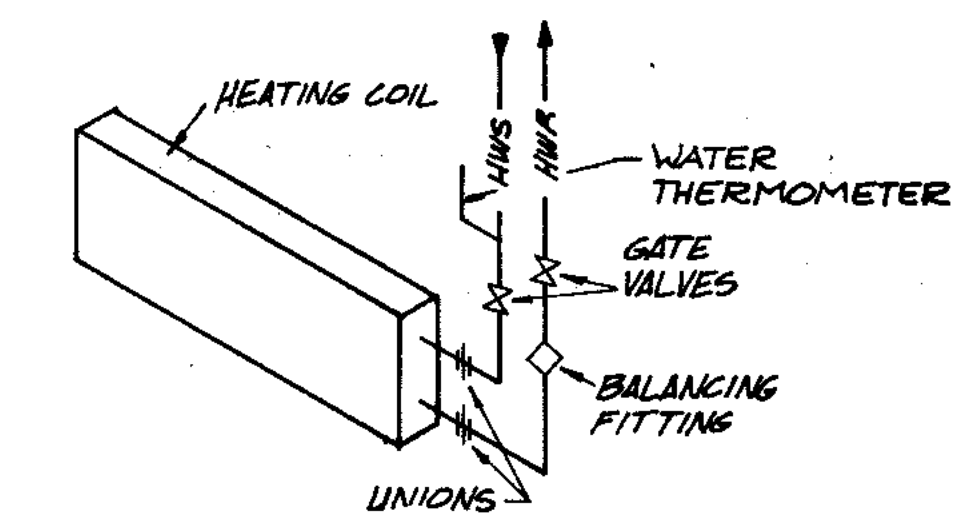
250-230-128



MAIN CONTROL BUILDING PLAN 2
1/4" = 1'-0"



CIRCULATING PUMPS & EXISTING HOT WATER PIPING SCHEMATIC
NO SCALE

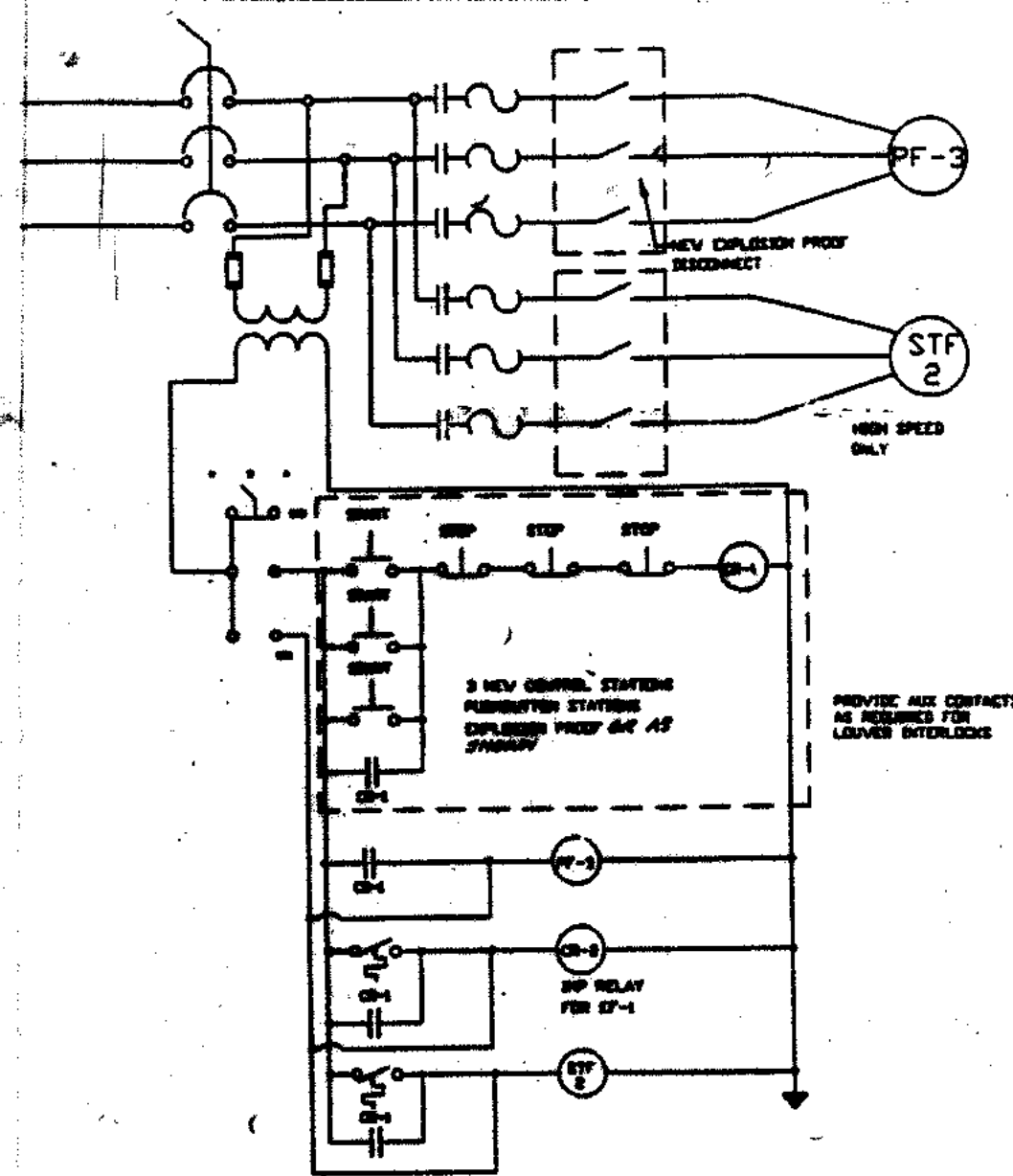


HOT WATER PIPING - CABINET UNIT HEATER UNIT VENTILATOR

| | | | | |
|------------------------|-----------|--------|----------|----------|
| OVERLAY IDENTIFICATION | COMPOSITE | NO. 01 | DATE | 11/11/91 |
| OVERLAY | NO. 02 | DATE | 11/11/91 | |
| OVERLAY | NO. 03 | DATE | 11/11/91 | |
| OVERLAY | NO. 04 | DATE | 11/11/91 | |
| OVERLAY | NO. 05 | DATE | 11/11/91 | |

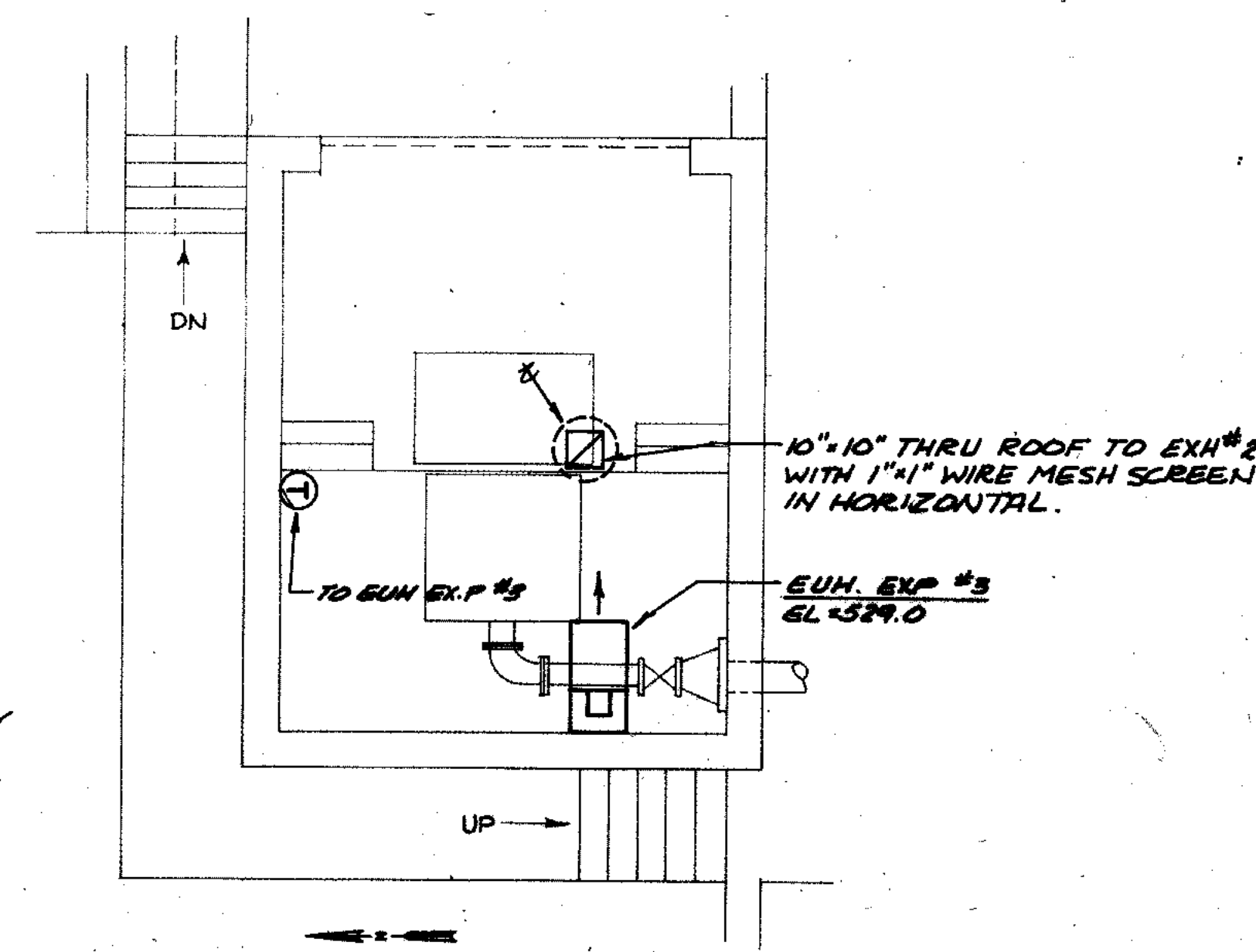
RECORD DRAWING 2/1/91 DJP

| | | |
|---|---|-------------|
| <p>STRAND ASSOCIATES, INC. CONSULTING ENGINEERS 910 West Winger Drive Madison, Wisconsin 53715 Tel: (608) 251-4843</p> | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT HEATING & VENTILATING MAIN CONTROL BLDG PLAN 2</p> | |
| | <p>SCALE AS NOTED</p> | <p>DATE</p> |
| <p> Belting Consultants 1800 West Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435</p> | <p>DRAWING NO. 255-230-129</p> | |



HEAVY CROSSING WIRE 2-WIRE STARTER FOR OPERATION OF STF-2 AND PF-3. FOR THE FAN, INSTALL ALL CONTROL RELAYS IN BOX-C. BOX SHALL BE 1/4" WIRE.

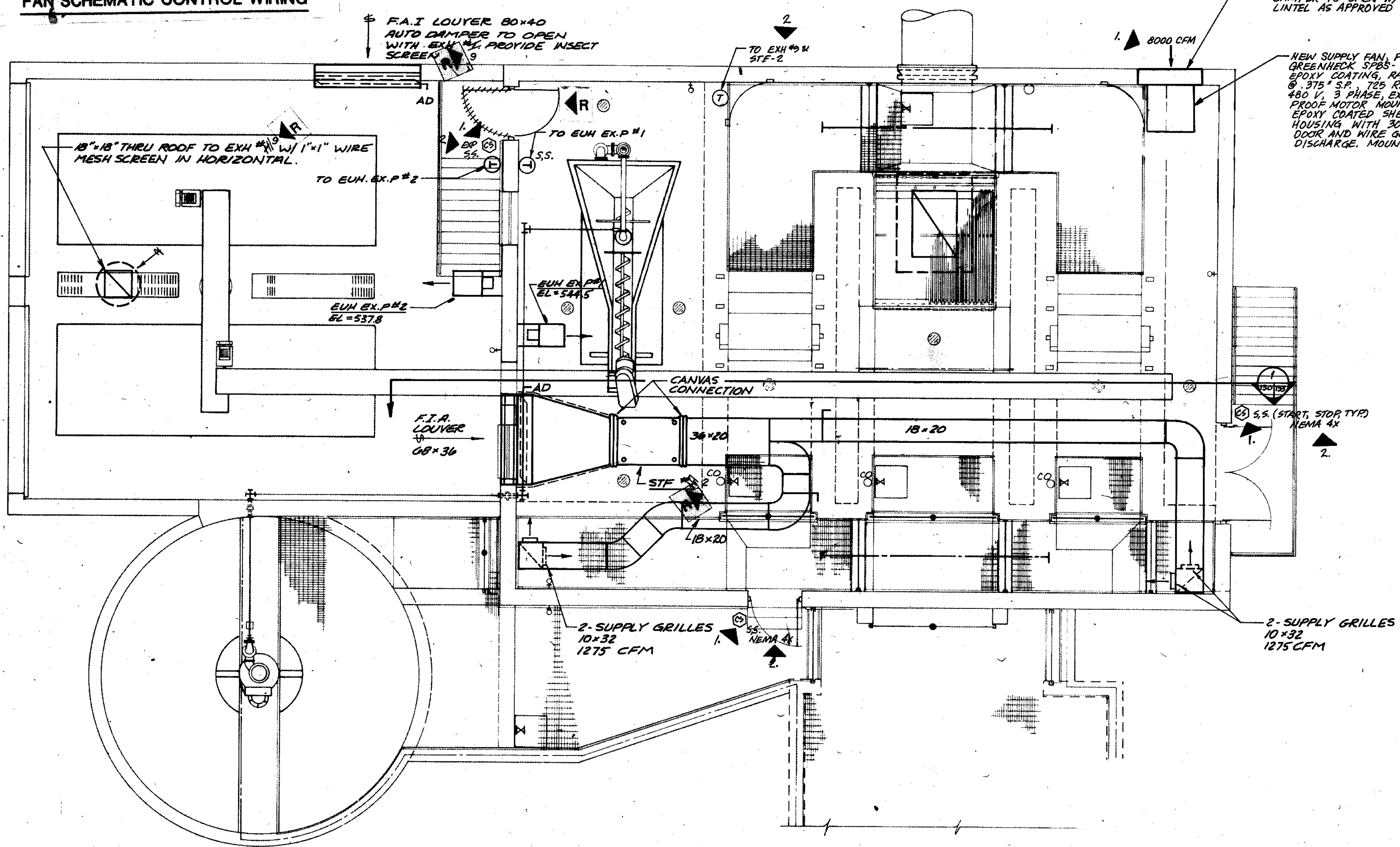
FAN SCHEMATIC CONTROL WIRING



SCUM SCREENING ROOM

1/4" = 1'-0"

- ELECTRICAL NOTES:**
1. ALL WIRING AND EQUIPMENT IN BUILDING TO BE SUITABLE FOR CLASS I DIVISION I GROUP D HAZARDOUS LOCATION.
 2. PROVIDE 120 VOLT DAMPER POWER FROM L.P.G.



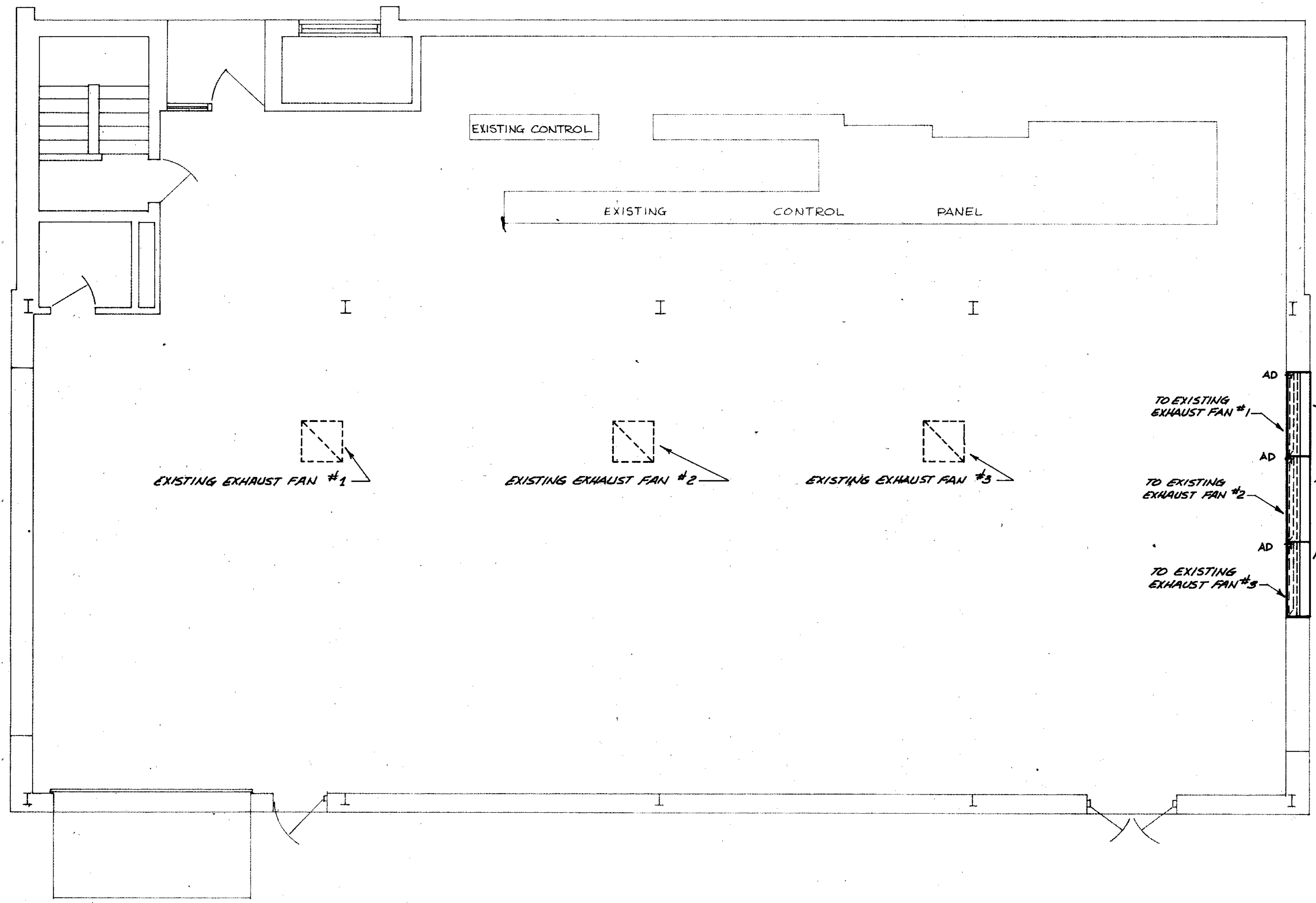
PRELIMINARY TREATMENT BUILDING

1/4" = 1'-0"

| | | |
|-------------------|-------|---------|
| COMPOSITE NO. 150 | PTB-2 | AVPTB-2 |
| OVERLAY NO. 150 | PTB-2 | AVPTB-2 |
| PROJECT NO. | | |
| DATE | | |

RECORD DRAWING 2/1/91 DJP


| | | |
|---|---|-----------------------|
| <p>STRAND ASSOCIATES, INC. CONSULTING ENGINEERS 910 West Wmgra Drive Madison, Wisconsin 53715 Tel. (608) 251-4843</p> | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT HEATING & VENTILATING PRELIMINARY TREATMENT BLDG PLAN</p> | |
| | <p>SCALE AS NOTED</p> | <p>DATE</p> |
| <p>Being Consultants 1100 West Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60435</p> | <p>DRAWING NO. 255-230-130</p> | <p>SHEET 71 OF 70</p> |



EXISTING F.A.I LOUVERS RELOCATED FROM NORTH WALL. RECONNECT AUTO DAMPERS TO EXISTING ROOF EXHAUST FAN AND CONTROLS, AS SHOWN ON DRAWINGS. MODIFY EXISTING INSULATED METAL PANNEL AS REQUIRED

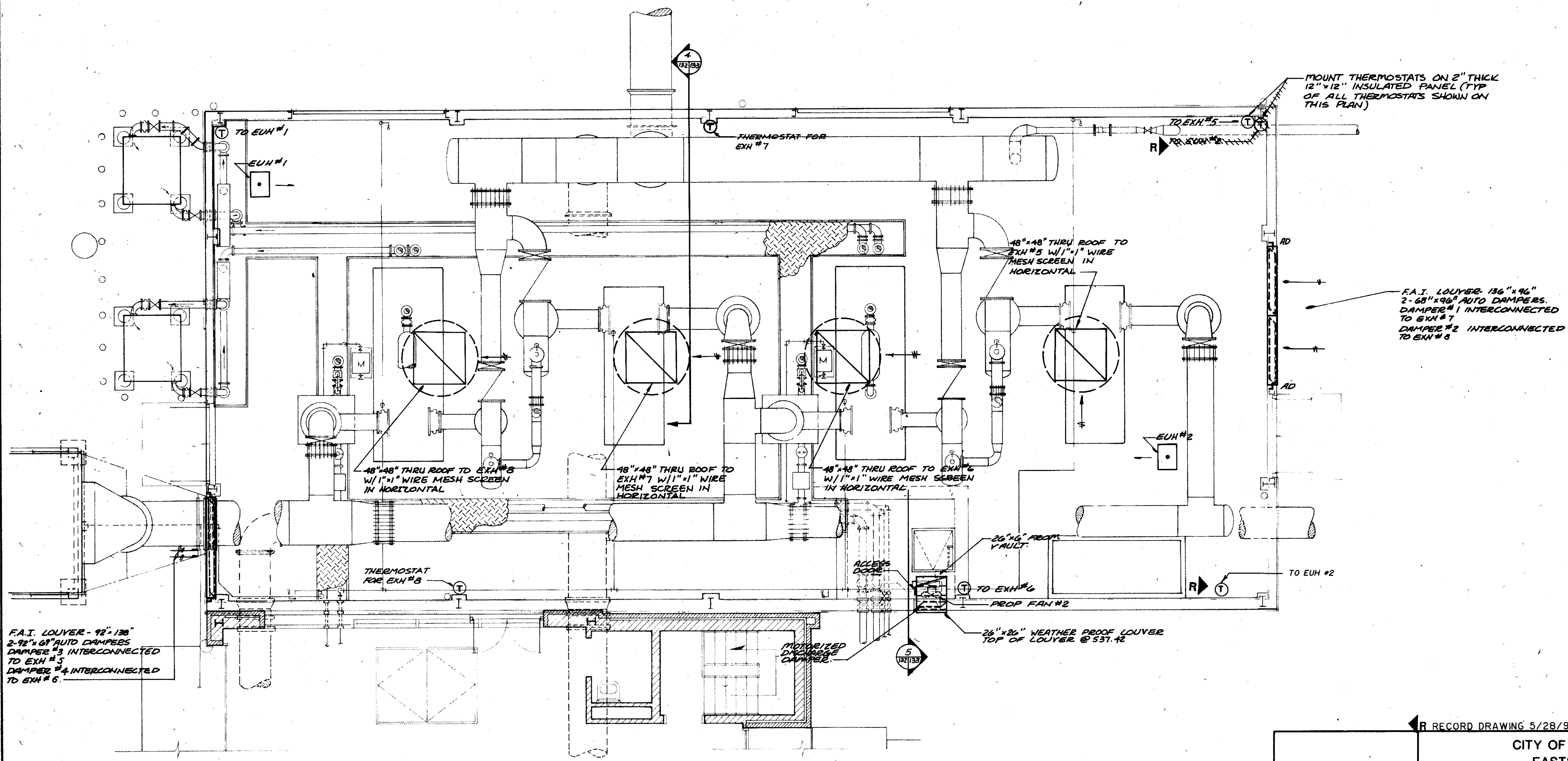
| | | | |
|------------------------|-------------|------|--------|
| COMPOSITE | HY-151 | EBB | HY-EBB |
| OVERLAY | HY-131 | EBB | HY-EBB |
| SCREEN | | S | |
| OVERLAY IDENTIFICATION | PROJECT NO. | DATE | |

EXISTING BLOWER BLDG
1/4" = 1'-0"

| | | |
|--|---|-----------------------------------|
|  STRAND ASSOCIATES, INC. CONSULTING ENGINEERS 910 West Wingra Drive Madison, Wisconsin 53715 Tel. (608) 251-4843 | CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT HEATING & VENTILATING EXISTING BLOWER BUILDING | |
| | SCALE: AS NOTED DATE: | DRAWING NO. 255-230-131 |

Beijing Consultants
Hilcrest Center / N. Larkin Avenue at Pleasant Road
Joliet, IL 60435
(815) 820-8888

| | | | | | |
|------------------------|-----------|--------|-----|--------|-----|
| OVERLAY IDENTIFICATION | COMPOSITE | 1/1/82 | 2/4 | 1/1/82 | 2/4 |
| PROJECT NO. | OVERLAY | HV-152 | 254 | HV-152 | 254 |
| DATE | SCREEN | | 0 | | 0 |



F.A.I. LOUVER - 92" x 136"
2-92" x 61" AUTO DAMPERS
DAMPER #3 INTERCONNECTED
TO EXH #3
DAMPER #4 INTERCONNECTED
TO EXH #4

MOUNT THERMOSTATS ON 2" THICK
12" x 12" INSULATED PANEL (TYP
OF ALL THERMOSTATS SHOWN ON
THIS PLAN)

F.A.I. LOUVER - 136" x 96"
2-65" x 96" AUTO DAMPERS.
DAMPER #1 INTERCONNECTED
TO EXH #1
DAMPER #2 INTERCONNECTED
TO EXH #2

SEE SHEET 131 FOR CONTINUATION.

BLOWER BUILDING PLAN

1/4" = 1'-0"

RECORD DRAWING 5/28/91 DJP

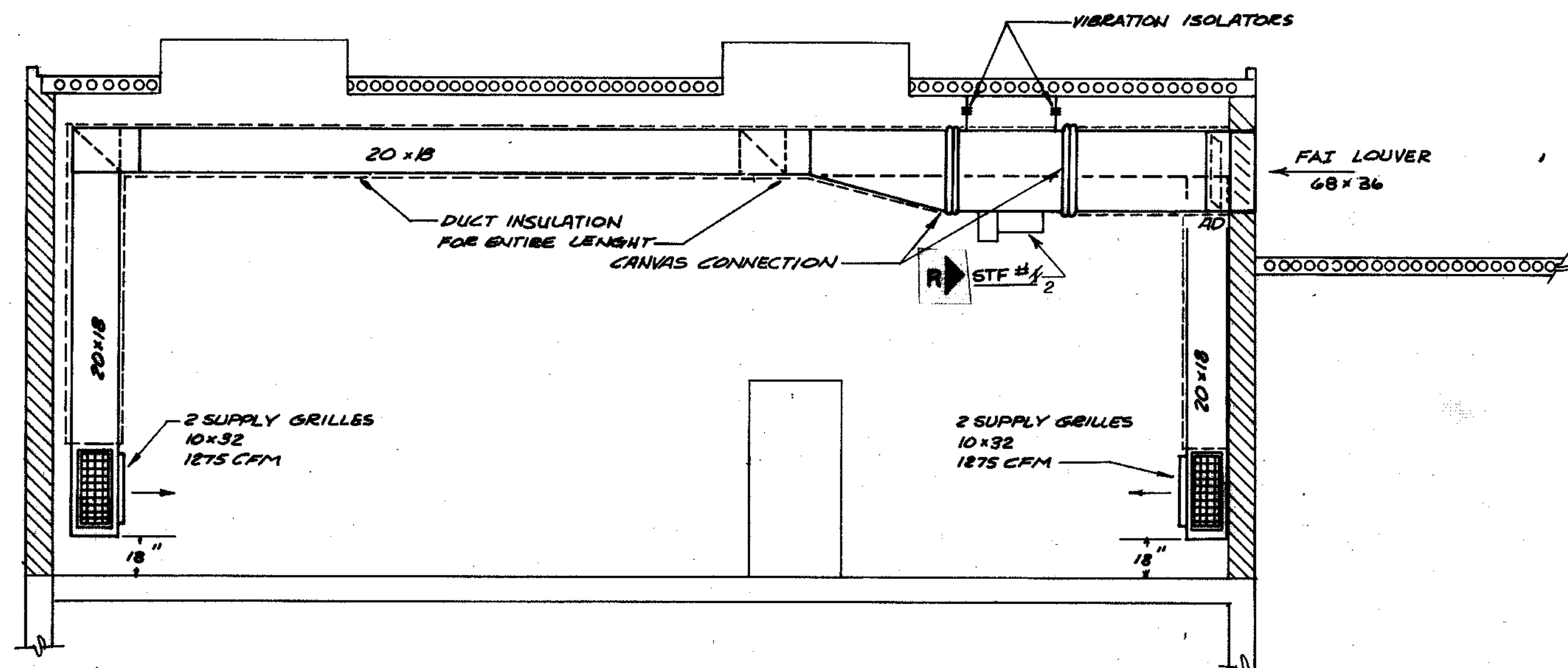
| | | |
|---|--|---|
| <p>STRAND ASSOCIATES, INC. CONSULTING ENGINEERS 910 West Wingra Drive Madison, Wisconsin 53715 Tel. (608) 251-4843</p> | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT HEATING & VENTILATING BLOWER BLDG ADDITION</p> | |
| | <p>SCALE: _____ DATE: _____</p> | <p>DRAWING NO: 255-230-132</p> |
| <p> Beijing Consultants 1100 West Center / N. Larkin Avenue at Plainfield Road / Joliet, IL 60438 (615) 729-1800</p> | | |

PLUMBS AND CIRCULATORS (SEE NOTE 1)

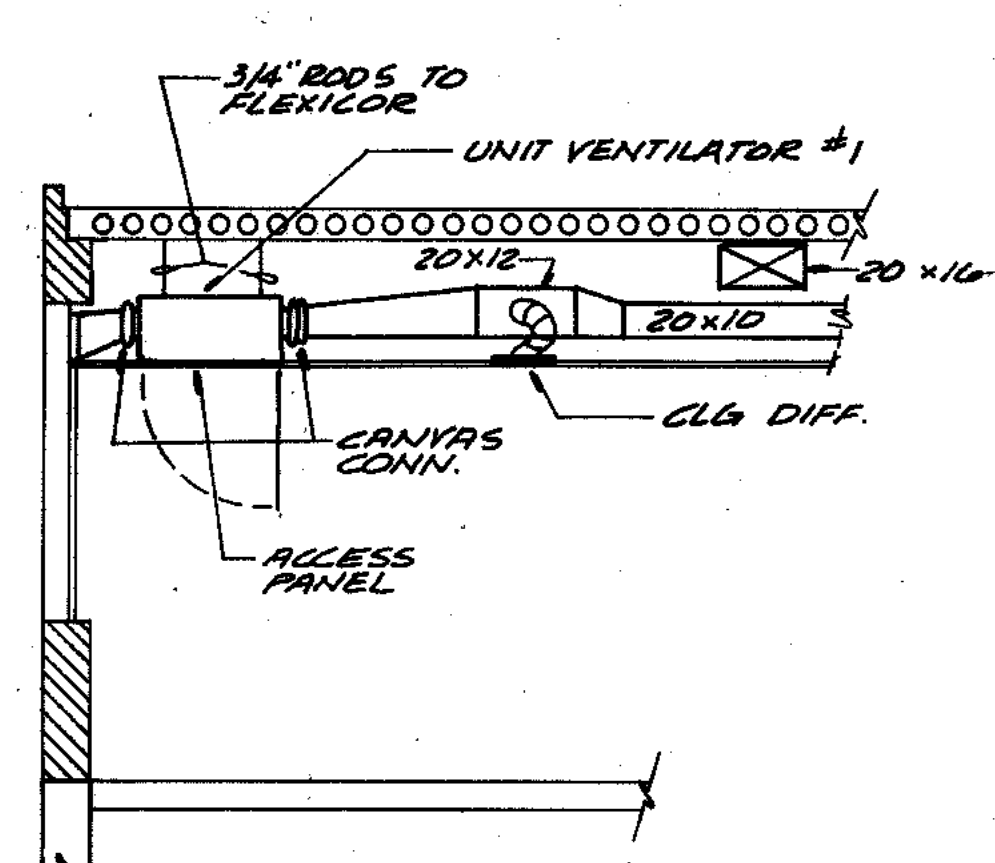
| UNIT NO. | LOCATION | SERVICE | GPM | HEAD FT. OF H ₂ O | OPER. TEMP °F | RPM | MOTOR | | | TYPE | MFR OR EQUAL | MODEL | SIZE | |
|----------|--------------|---------------|-----|------------------------------|---------------|------|-------|-------|----|------|--------------|-------|-------|--------|
| | | | | | | | H.P. | VOLTS | PH | | | | | |
| CP-4 | BSMT-M.C.B. | SECONDARY HWS | 31 | 29 | 200° | 1750 | 1 | 480 | 3 | 60 | INLINE | BFG | PD 38 | 3 |
| CP-1 | MECH.-M.C.B. | SECONDARY HWS | 10 | 9 | 200° | 1750 | 1/4 | 120 | 1 | 60 | INLINE | BFG | HV | 1 1/2" |

M.C.B. - MAIN CONTROL BLDG. - REPLACE EXISTING UNITS.

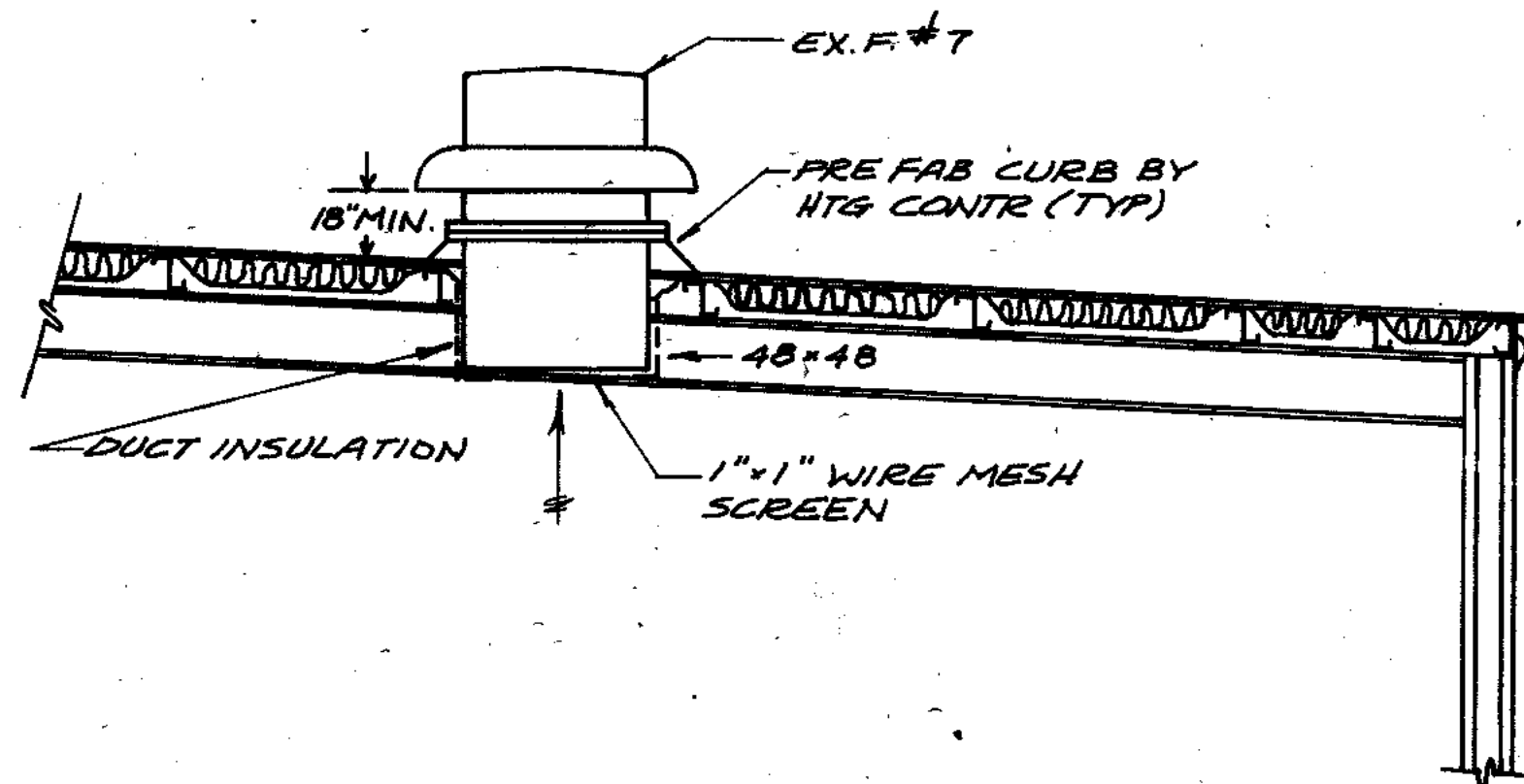
NOTE 1: EQUIPMENT MANUFACTURERS NAME AND MODEL NUMBERS ARE LISTED FOR REFERENCE AND INFORMATION PURPOSES. UNITS OF EQUAL QUALITY ARE ACCEPTABLE.



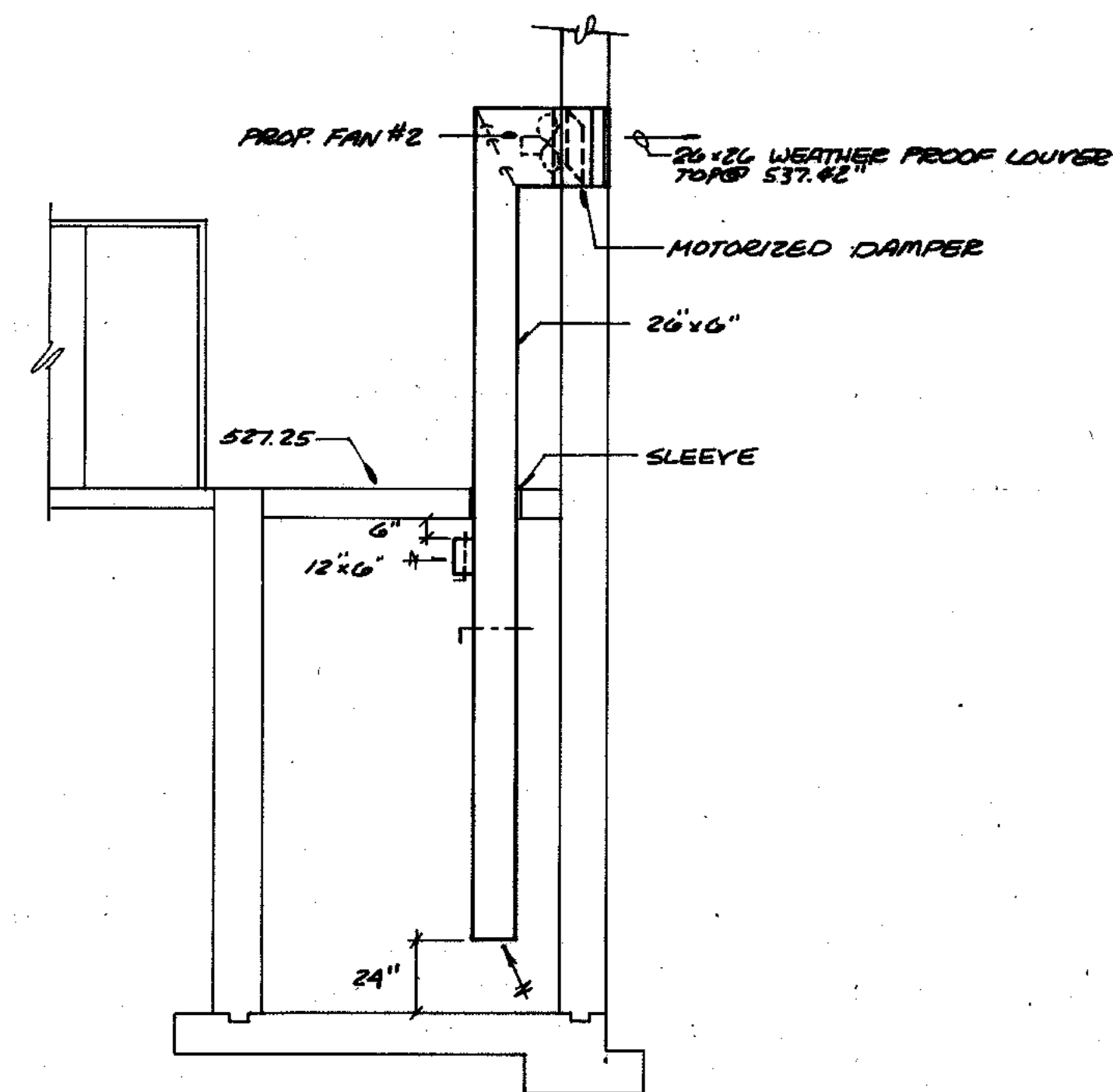
SECTION 1
1/4" = 1'-0"



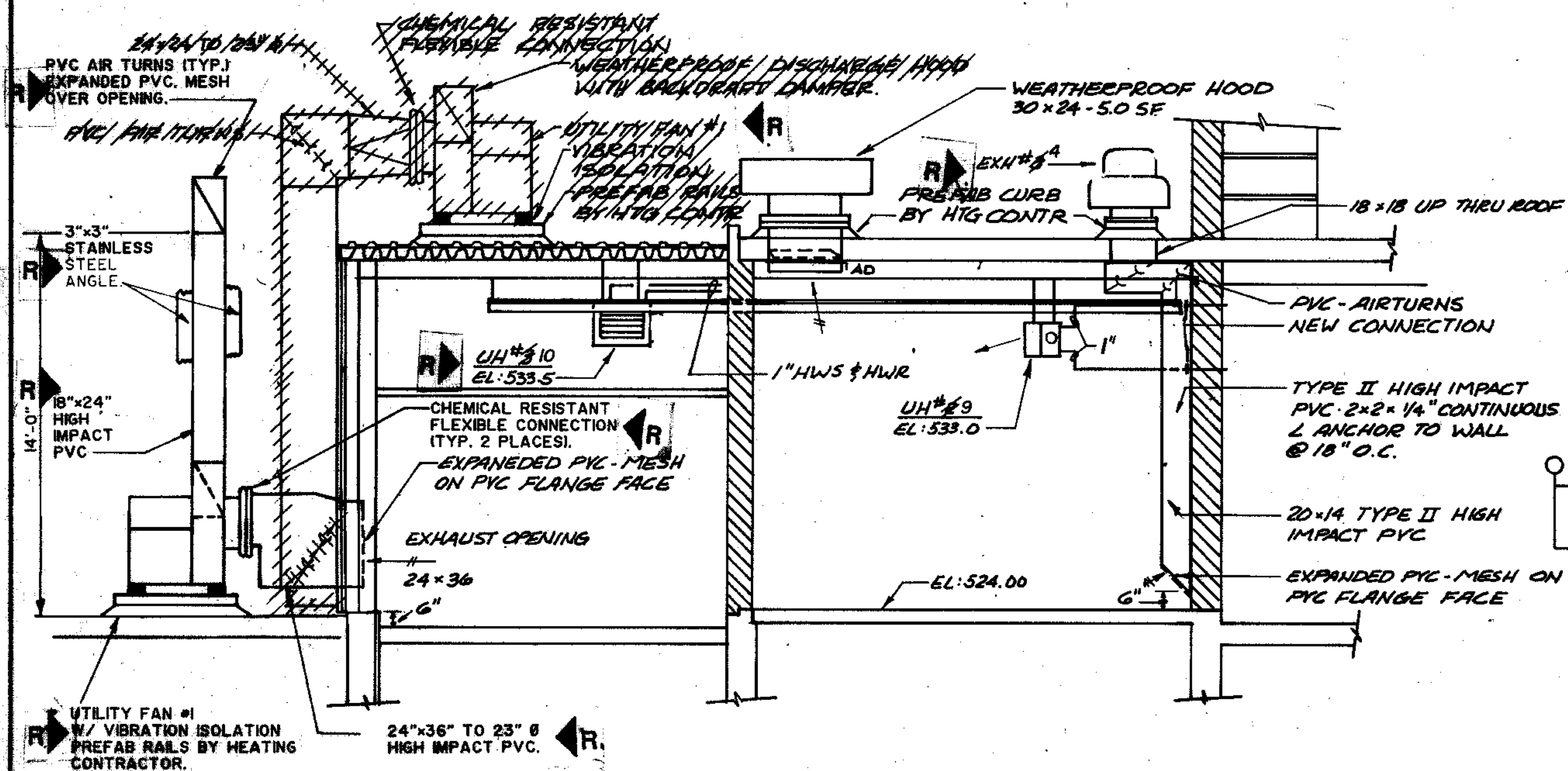
SECTION 2
1/4" = 1'-0"



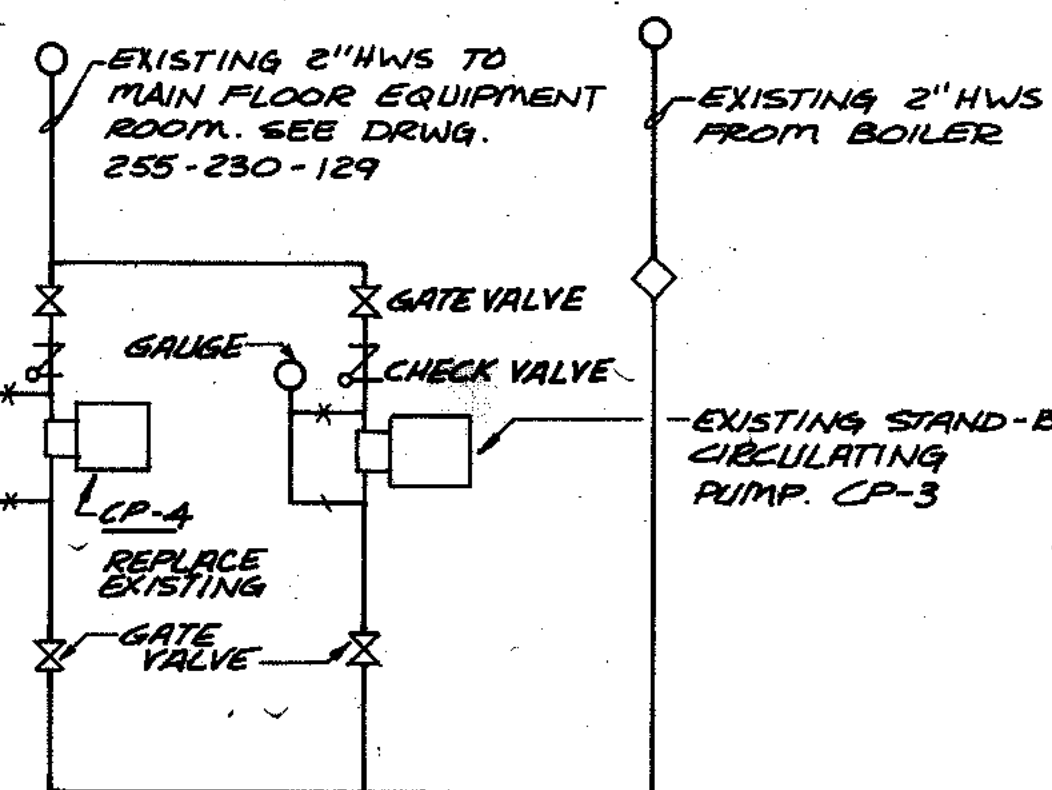
SECTION 4
1/4" = 1'-0"



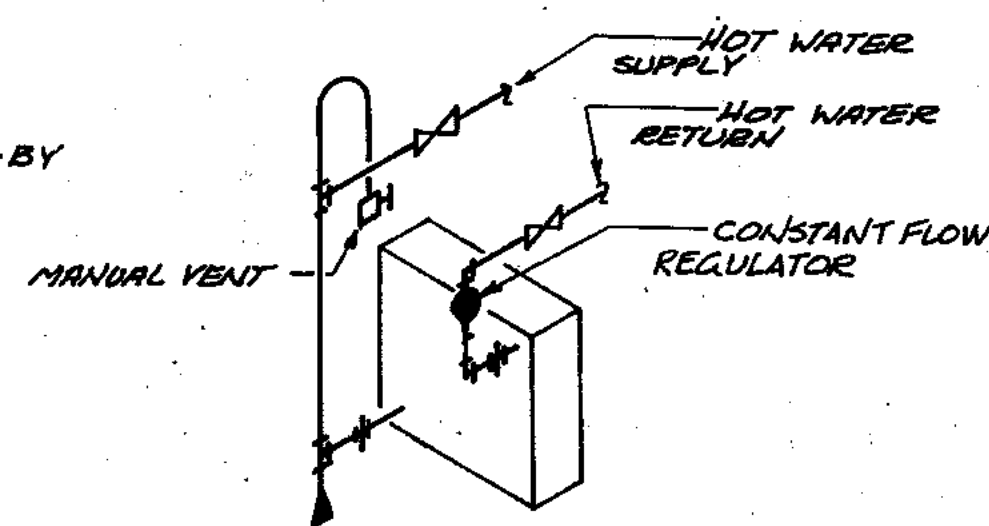
SECTION 5
1/4" = 1'-0"



SECTION 3
1/4" = 1'-0"



1/183 CIRCULATING PUMPS & HOT WATER PIPING SCHEMATIC
NO SCALE



DETAIL OF PIPING TO HORIZONTAL UNIT HEATER
NO SCALE

OVERLAY INVESTIGATION
PROJECT NO.
DATE

RECORD DRAWING 2/1/91 DJP

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
HEATING & VENTILATING
DETAILS & SECTIONS

SCALE: AS NOTED DATE

STRAND ASSOCIATES, INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel. (608) 251-4843

Beiling Consultants
Hilcrest Center / N. Larkin Avenue at Pleasant Runway
Joliet, IL 60435

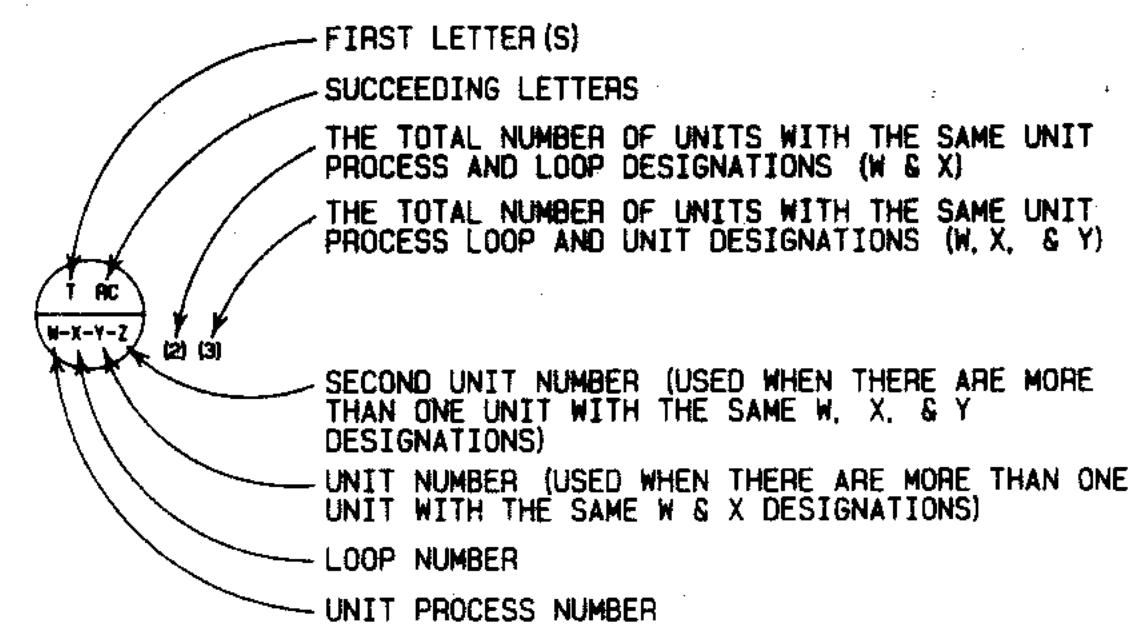
DRAWING NO.
255-230-133

INSTRUMENT SOCIETY OF AMERICA TABLE

| LETTER | FIRST LETTER (S) | | SUCCEEDING LETTERS | | |
|--------|--------------------------------|--------------|-----------------------------|--|------------------|
| | PROCESS OR INITIATING VARIABLE | MODIFIER | READOUT OR PASSIVE FUNCTION | OUTPUT FUNCTION | MODIFIER |
| A | ANALYSIS (+) | | ALARM | | |
| B | BURNER FLAME | | USERS CHOICE (+) | USERS CHOICE (+) | USERS CHOICE (+) |
| C | CONDUCTIVITY | | | CONTROL | |
| D | DENSITY (S.G.) | DIFFERENTIAL | | | |
| E | VOLTAGE | | PRIMARY ELEMENT | | |
| F | FLOW RATE | RATIO | | | |
| G | GAUGE | | GLASS | GATE | |
| H | HAND (MANUAL) | | | | HIGH |
| I | CURRENT | | INDICATE | | |
| J | POWER | SCAN | | | |
| K | TIME OR SCHEDULE | | | CONTROL STATION | |
| L | LEVEL | | LIGHT (PILOT) | | LOW |
| M | MOTION | | | | MIDDLE |
| N | USERS CHOICE (+) | | USERS CHOICE (+) | USERS CHOICE (+) | USERS CHOICE (+) |
| O | USERS CHOICE (+) | | ORIFICE | | |
| P | PRESSURE (OR VACUUM) | | POINT (TEST CONNECTION) | | |
| Q | QUANTITY OR EVENT (+) | INTEGRATE | INTEGRATE | | |
| R | | | RECORD OR PRINT | | |
| S | SPEED OR FREQUENCY | SAFETY | | SWITCH | |
| T | TEMPERATURE | | | TRANSMIT | |
| U | MULTIVARIABLE (+) | | MULIFUNCTION (+) | | |
| V | VISCOSITY | | | VALVE | |
| W | WEIGHT OR FORCE | | WELL | | |
| X | UNCLASSIFIED (+) | | UNCLASSIFIED (+) | UNCLASSIFIED (+) | UNCLASSIFIED (+) |
| Y | USERS CHOICE (+) | | | RELAY OR COMPUTE (+) | |
| Z | POSITION | | | DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT | |

(+) WHEN USED, EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL. SEE ABBREVIATIONS AND LETTER SYMBOLS.

INSTRUMENT IDENTIFICATION



TT FIELD MOUNTED INSTRUMENT

I/P REAR-OF-PANEL MOUNTED INSTRUMENT

FY PANEL MOUNTED INSTRUMENT

FIC PANEL MOUNTED INSTRUMENT

SPECIAL CASES

GL ON AND OFF EVENT LIGHTS

OC OPENED AND CLOSED POSITION LIGHTS

OC OPENED AND CLOSED POSITION SWITCHES

HS ON-OFF HAND SWITCH, MAINTAINED CONTACT SWITCH (CONTROLLED DEVICE WILL RESTART ON RETURN OF POWER AFTER POWER FAILURE).

HS STOP-START HAND SWITCH MOMENTARY CONTACT SWITCHES (CONTROLLED DEVICE WILL NOT RESTART ON RETURN OF POWER AFTER POWER FAILURE).

HS STOP-START HAND SWITCH MOMENTARY CONTACT SWITCHES (CONTROLLED DEVICE WILL NOT RESTART ON RETURN OF POWER AFTER POWER FAILURE).

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HS STOP-START HAND SWITCH MOMENTARY CONTACT SWITCHES (CONTROLLED DEVICE WILL NOT RESTART ON RETURN OF POWER AFTER POWER FAILURE).

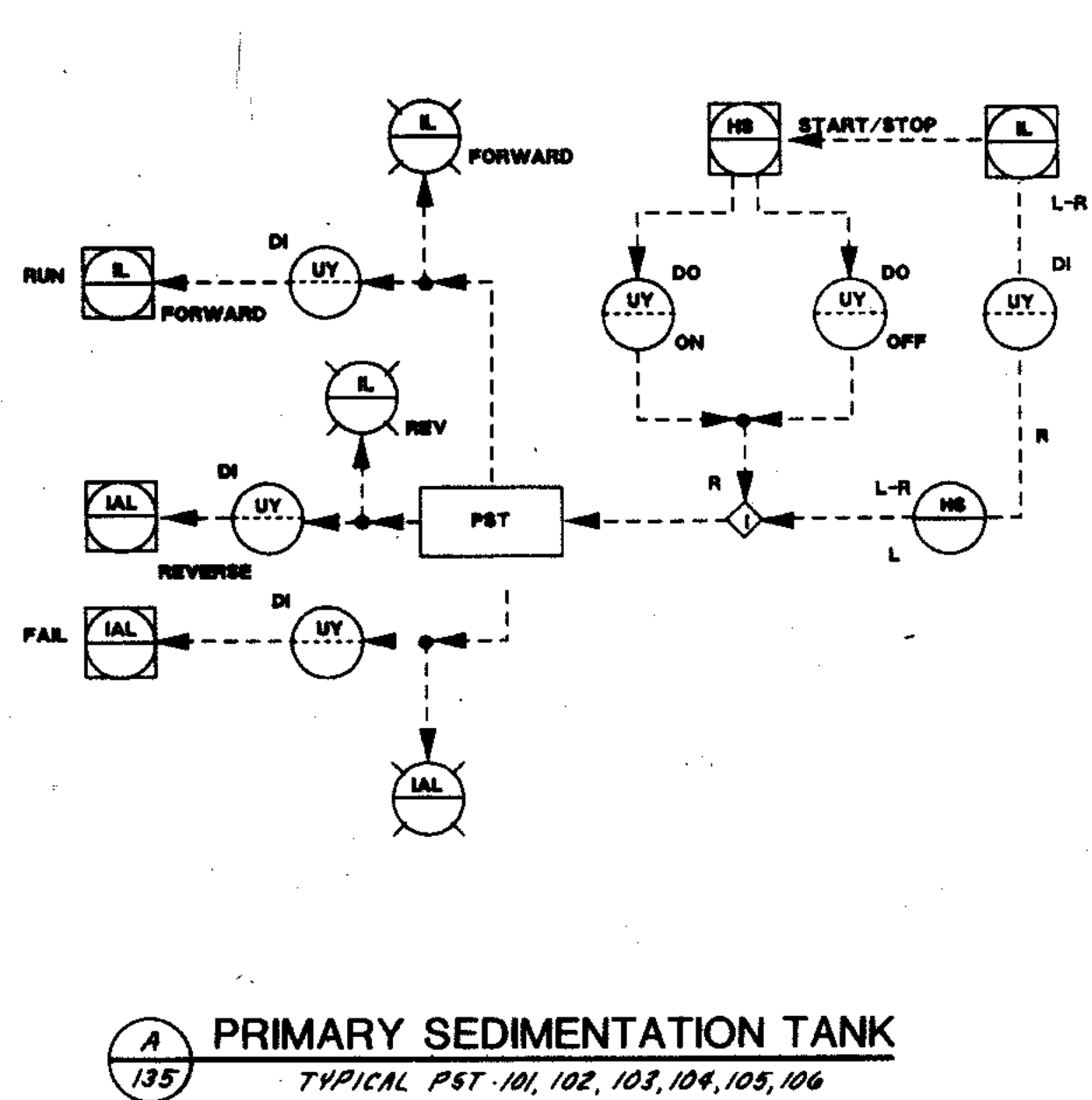
HS STOP-START HAND SWITCH MOMENTARY CONTACT SWITCHES (CONTROLLED DEVICE WILL NOT RESTART ON RETURN OF POWER AFTER POWER FAILURE).

HS STOP-START HAND SWITCH MOMENTARY CONTACT SWITCHES (CONTROLLED DEVICE WILL NOT RESTART ON RETURN OF POWER AFTER POWER FAILURE).

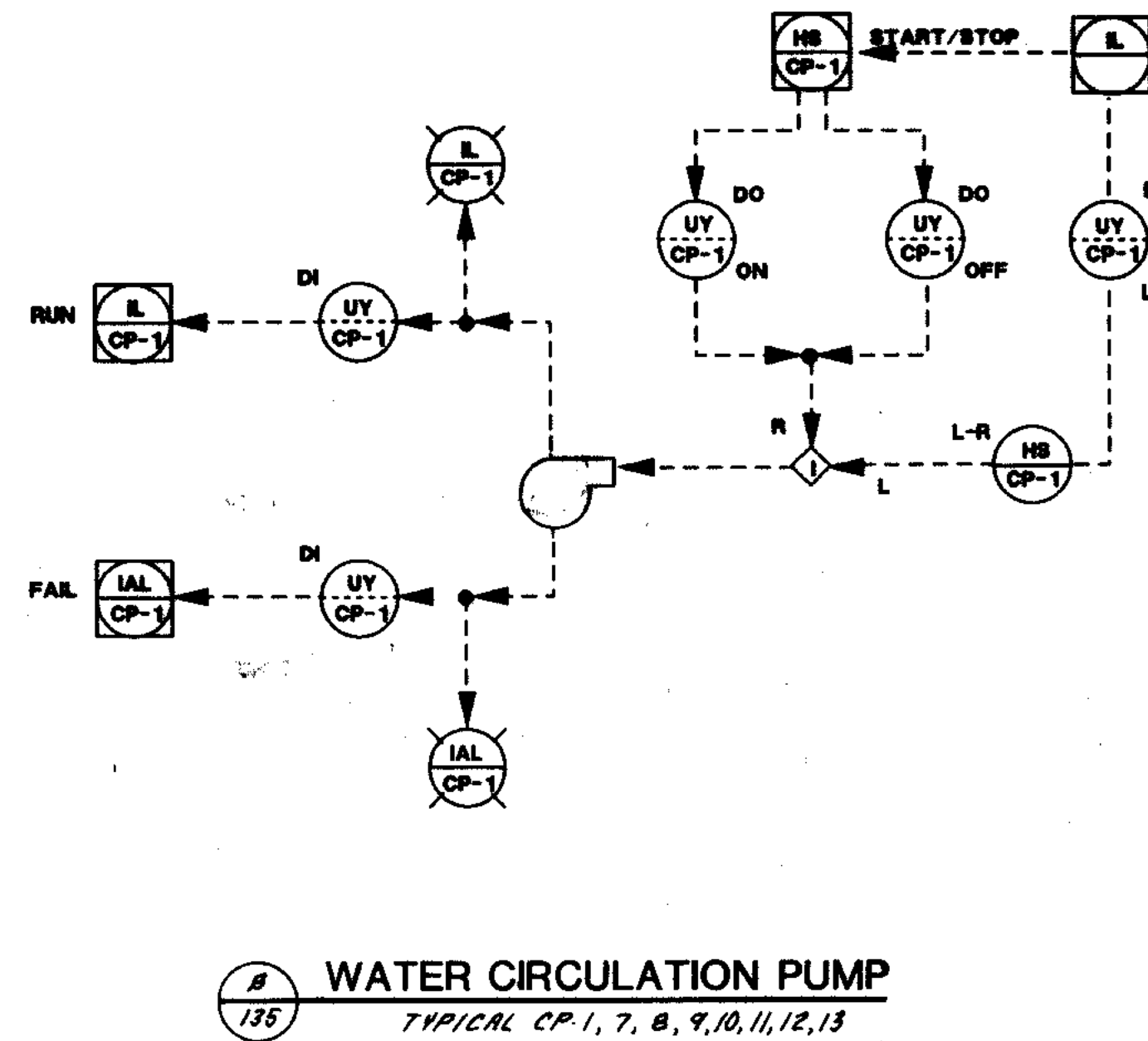
HS STOP-START HAND SWITCH MOMENTARY CONTACT SWITCHES (CONTROLLED DEVICE WILL NOT RESTART ON RETURN OF POWER AFTER POWER FAILURE).

HS STOP-START HAND SWITCH MOMENTARY CONTACT SWITCHES (CONTROLLED DEVICE WILL NOT RESTART ON RETURN OF POWER AFTER POWER FAILURE).

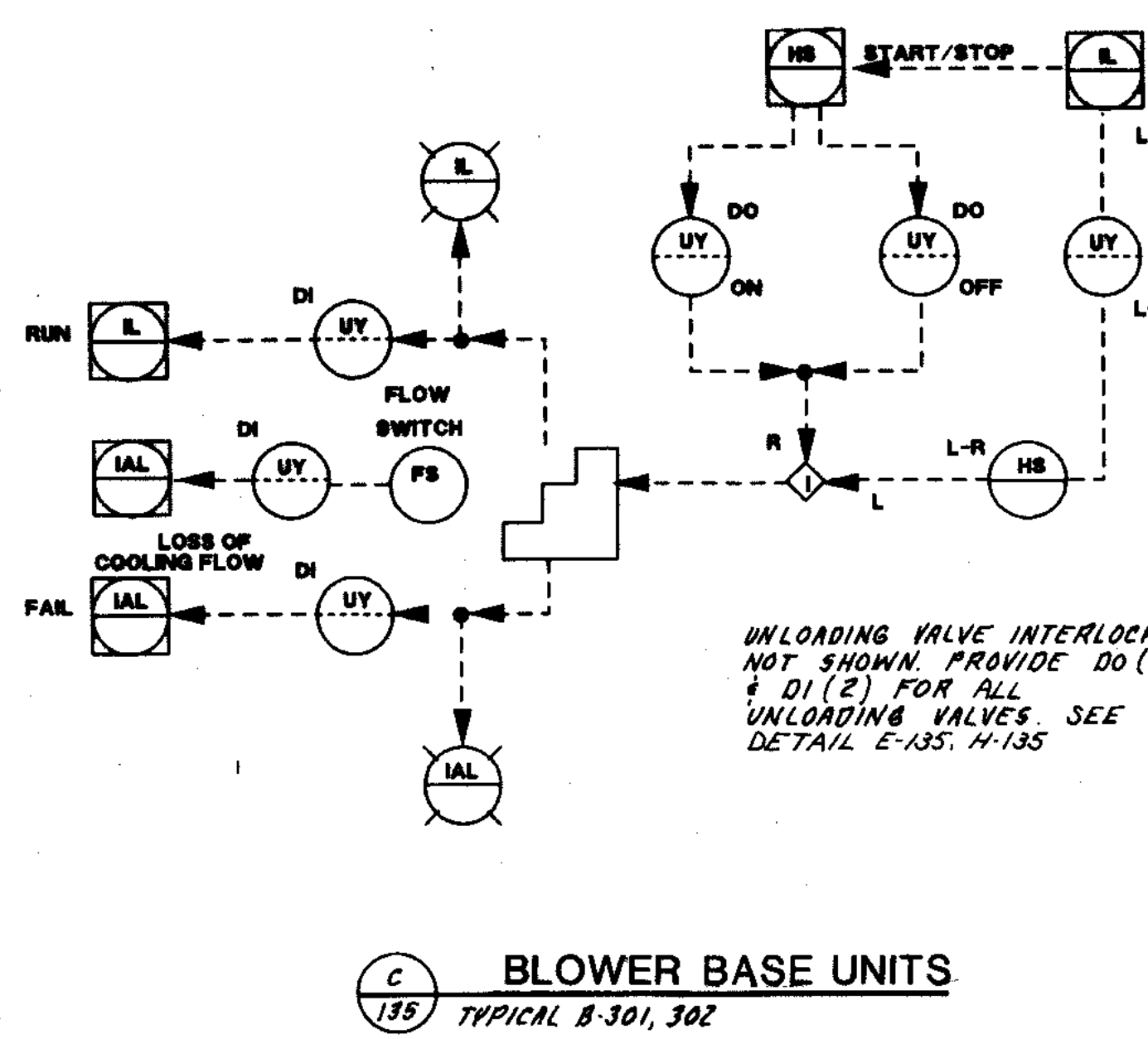
HS STOP-START HAND SWITCH MOMENTARY CONTACT SWITCHES (CONTROLLED DEVICE WILL NOT RESTART ON RETURN OF POWER AFTER POWER FAILURE).



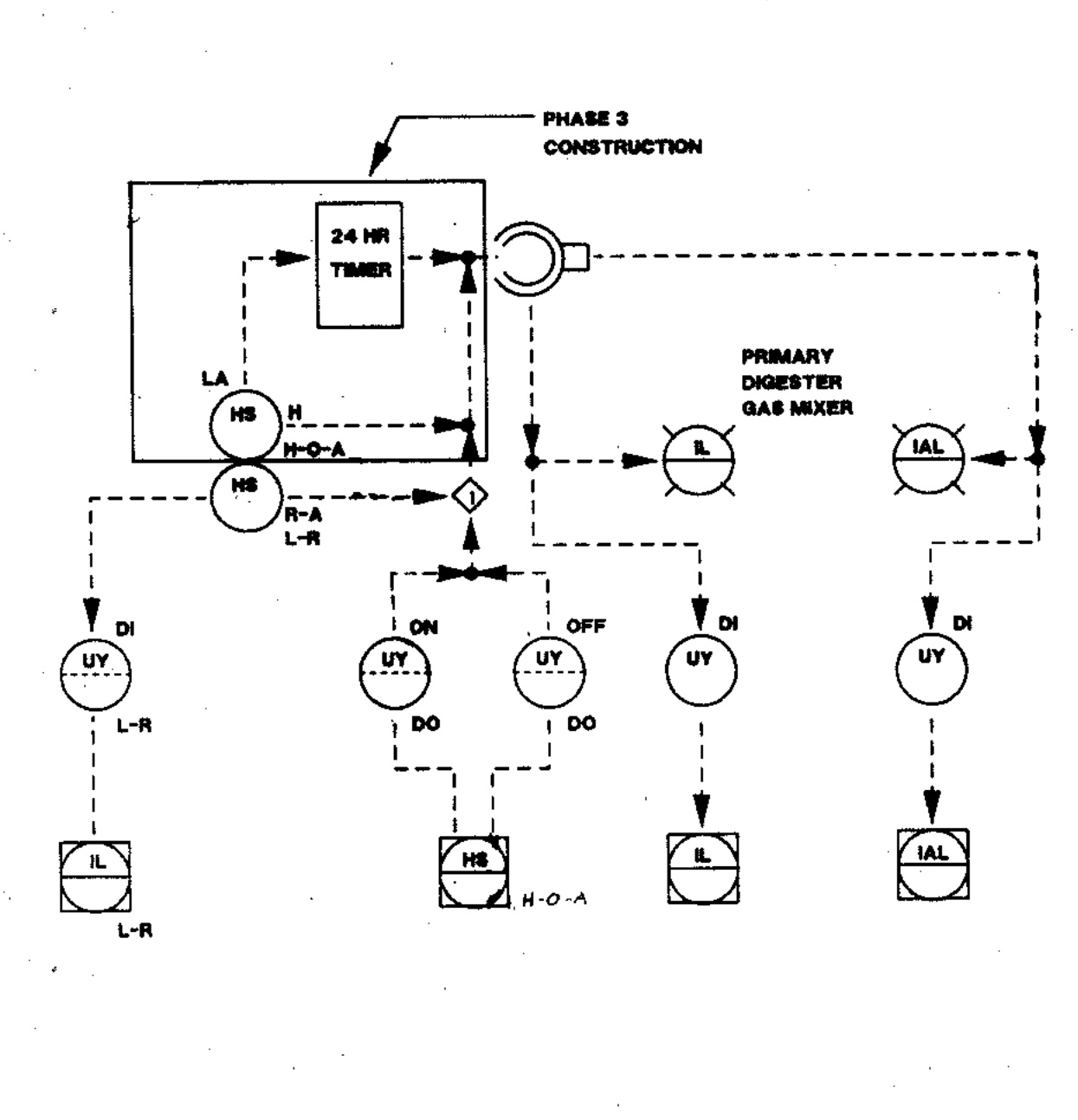
A PRIMARY SEDIMENTATION TANK
TYPICAL PST-101, 102, 103, 104, 105, 106



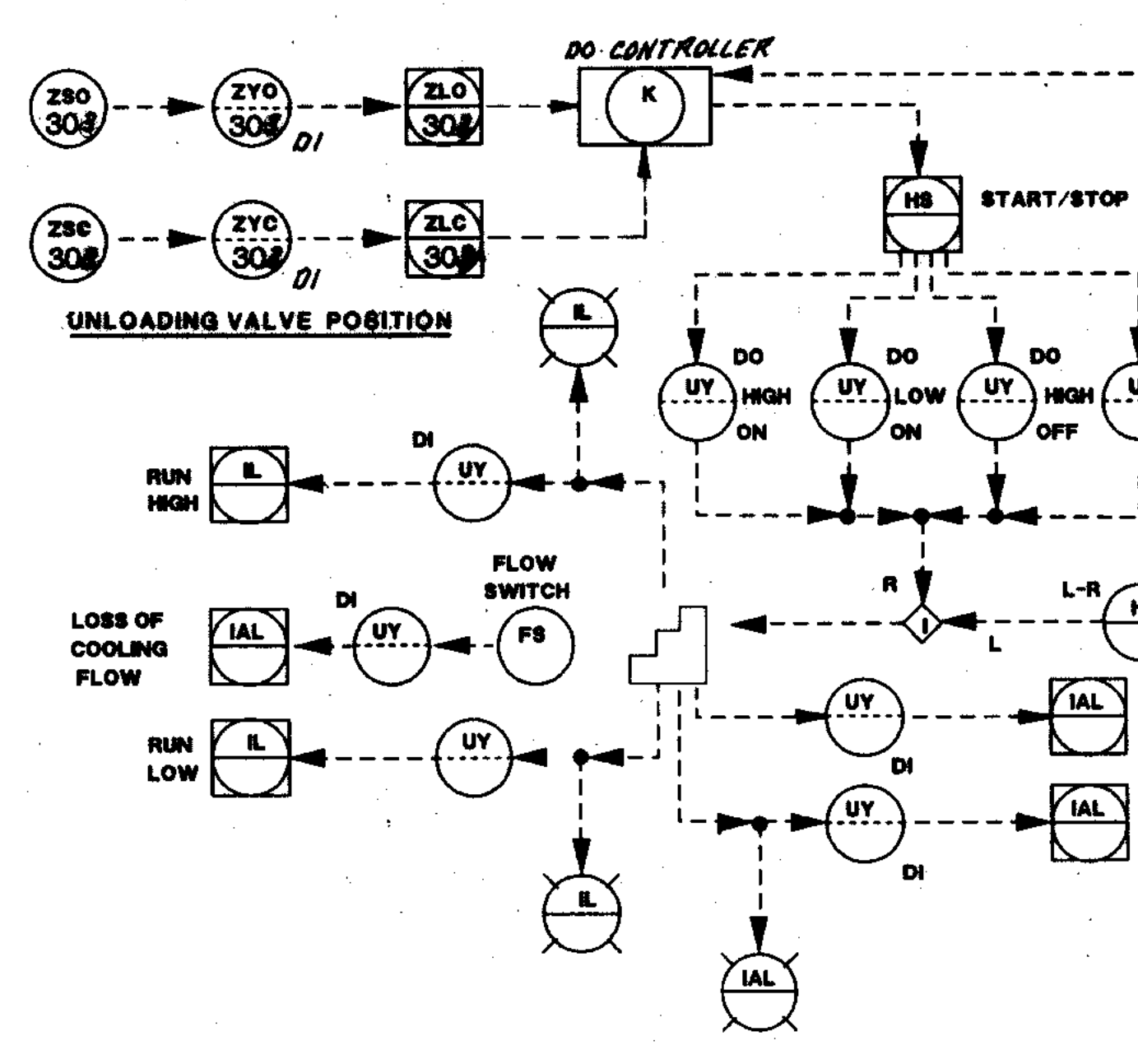
B WATER CIRCULATION PUMP
TYPICAL CP-1, 7, 8, 9, 10, 11, 12, 13



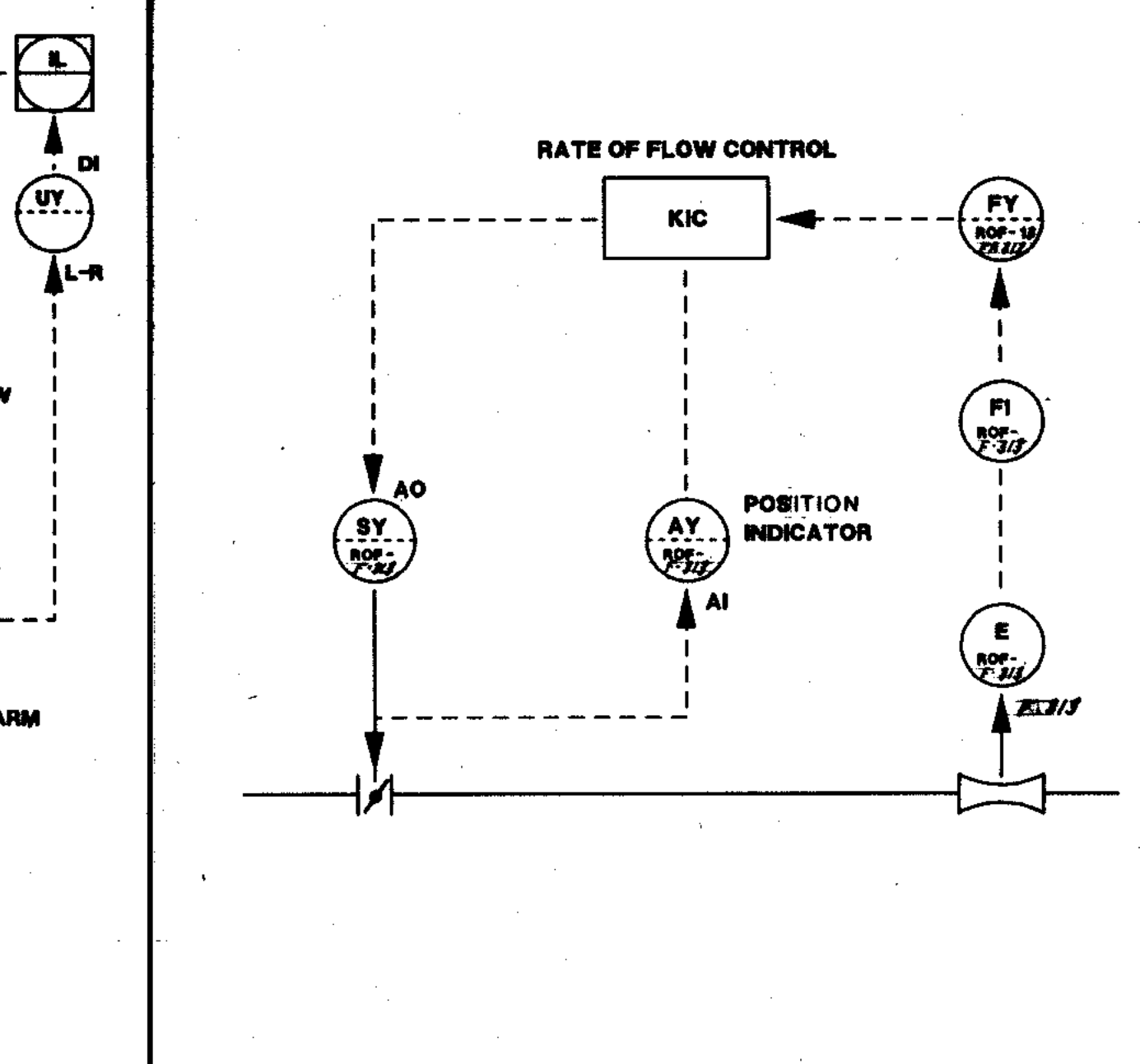
C BLOWER BASE UNITS
TYPICAL B-301, 302



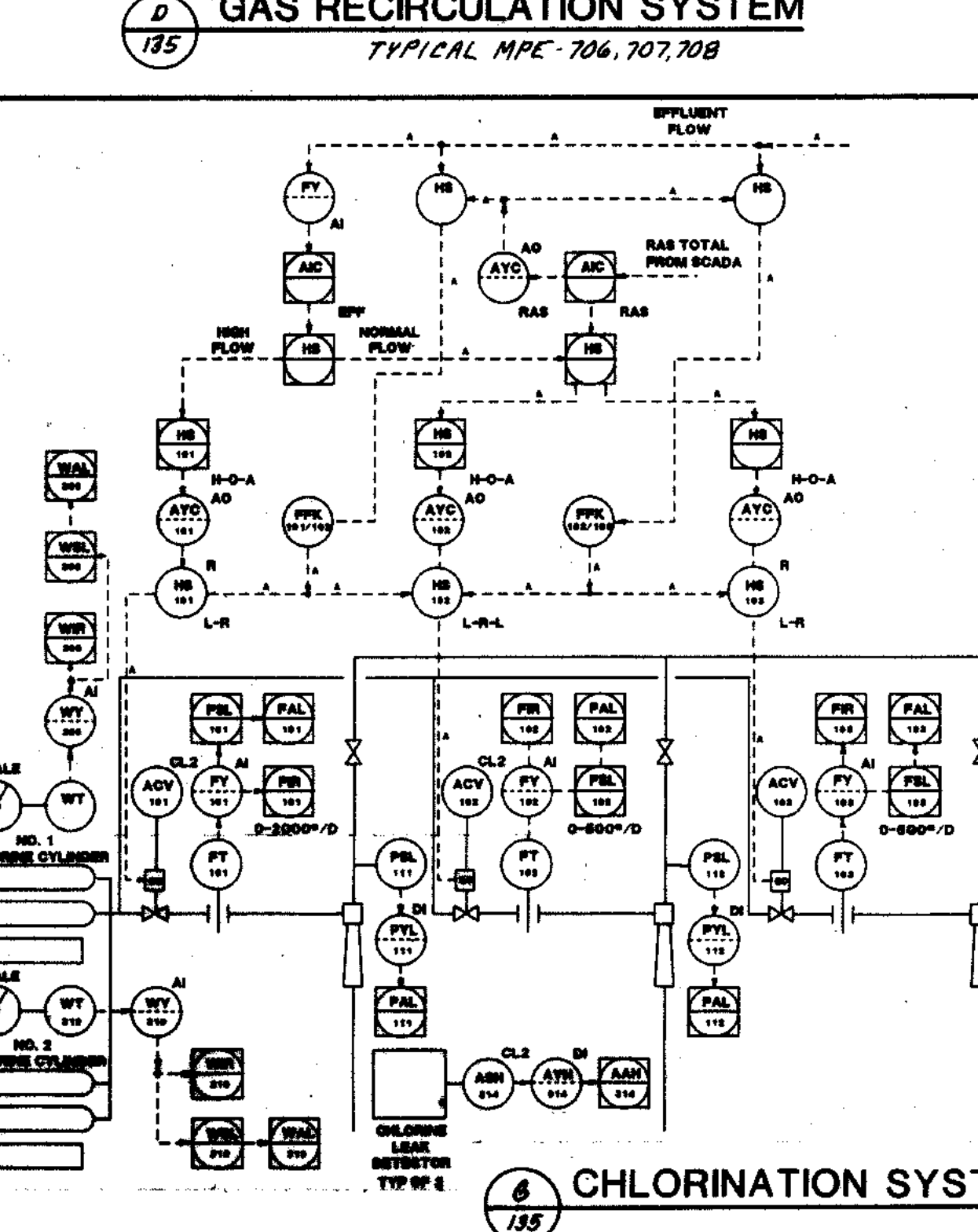
D GAS RECIRCULATION SYSTEM
TYPICAL MPE-706, 707, 708



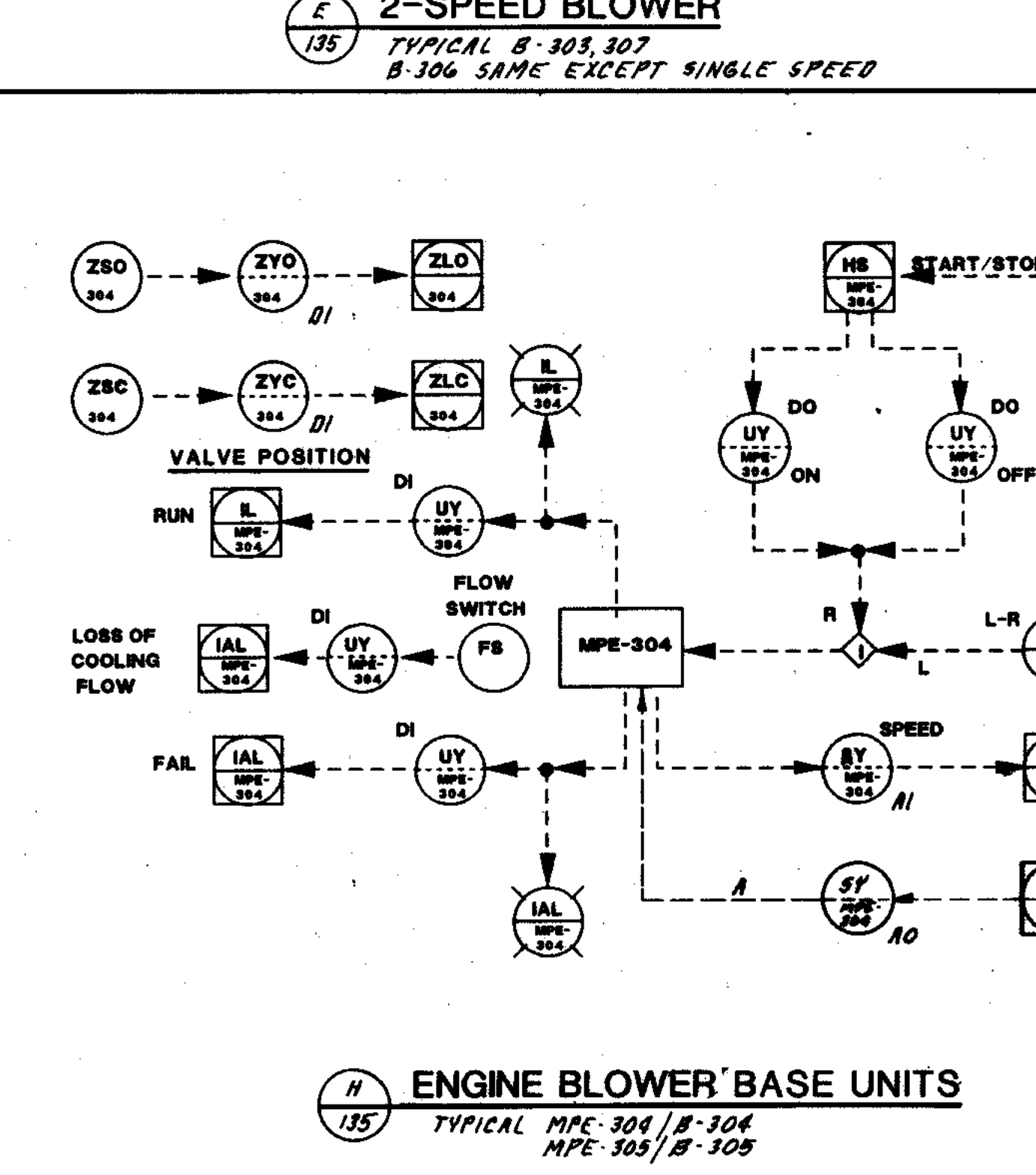
E 2-SPEED BLOWER
TYPICAL B-303, 307
B-306 SAME EXCEPT SINGLE SPEED



F RATE OF FLOW CONTROLLER
TYPICAL ROF-F-313, 314, 315



G CHLORINATION SYSTEM
TYPICAL MPE-304/B-304, MPE-305/B-305



H ENGINE BLOWER BASE UNITS
TYPICAL MPE-304/B-304, MPE-305/B-305

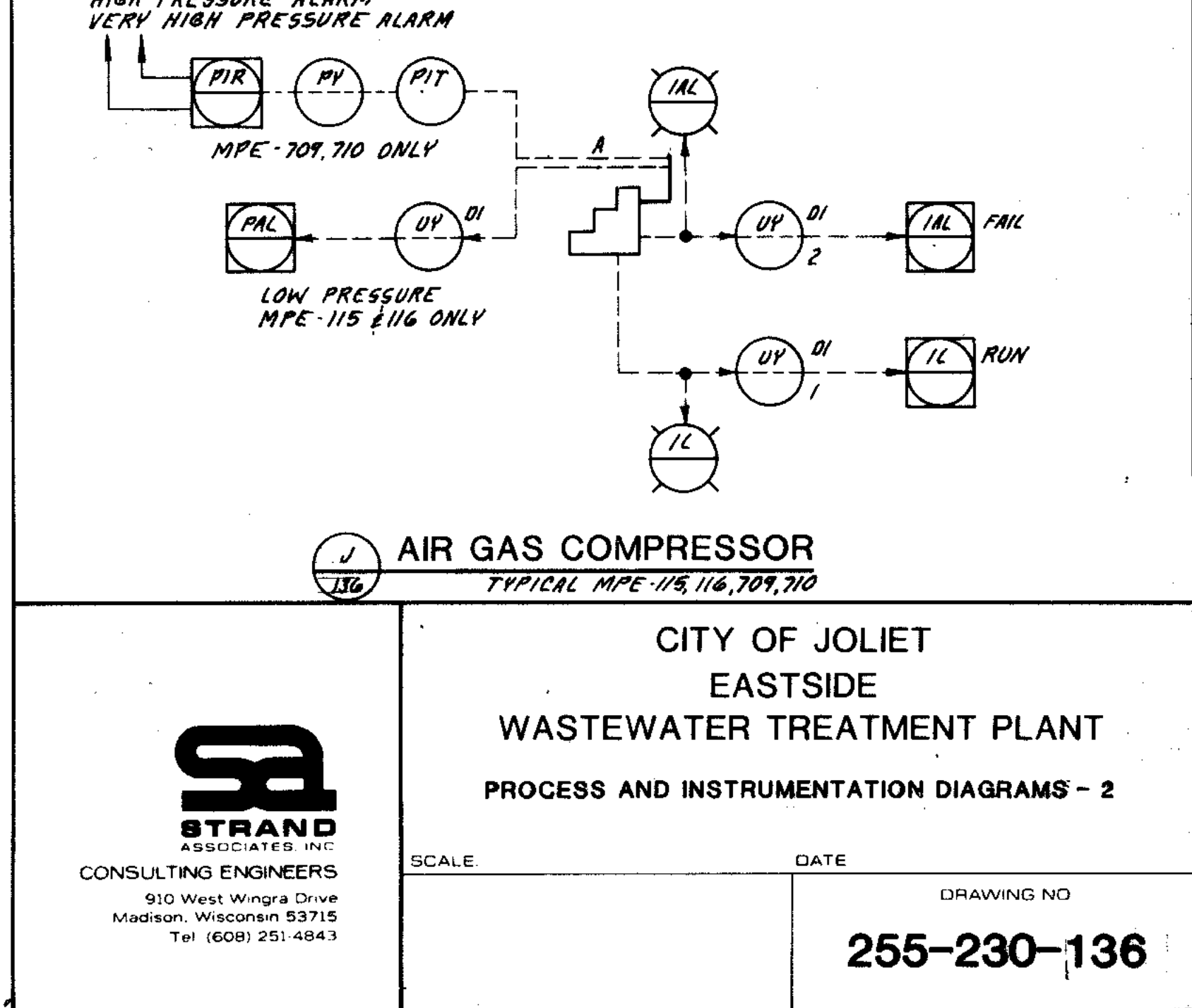
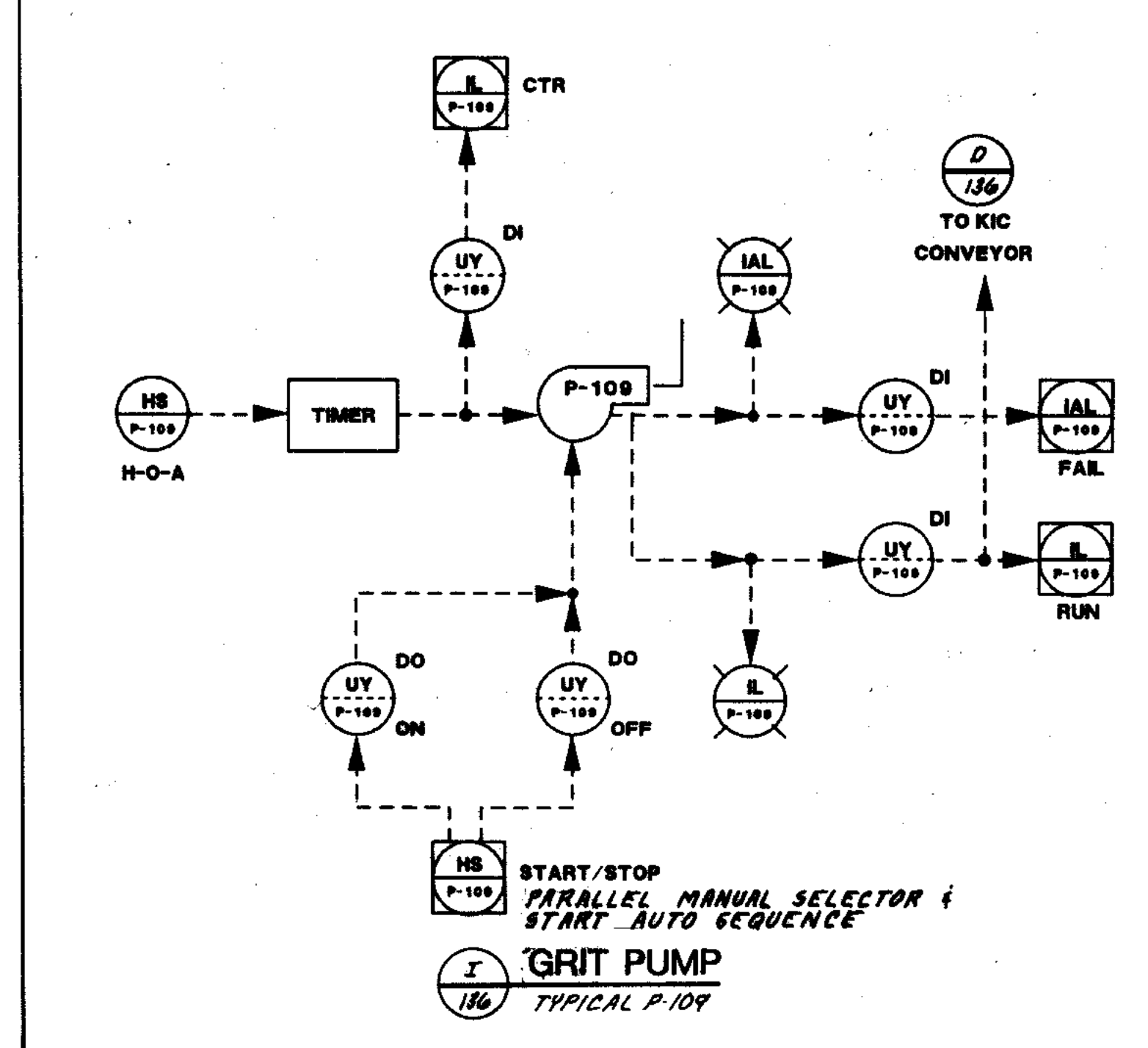
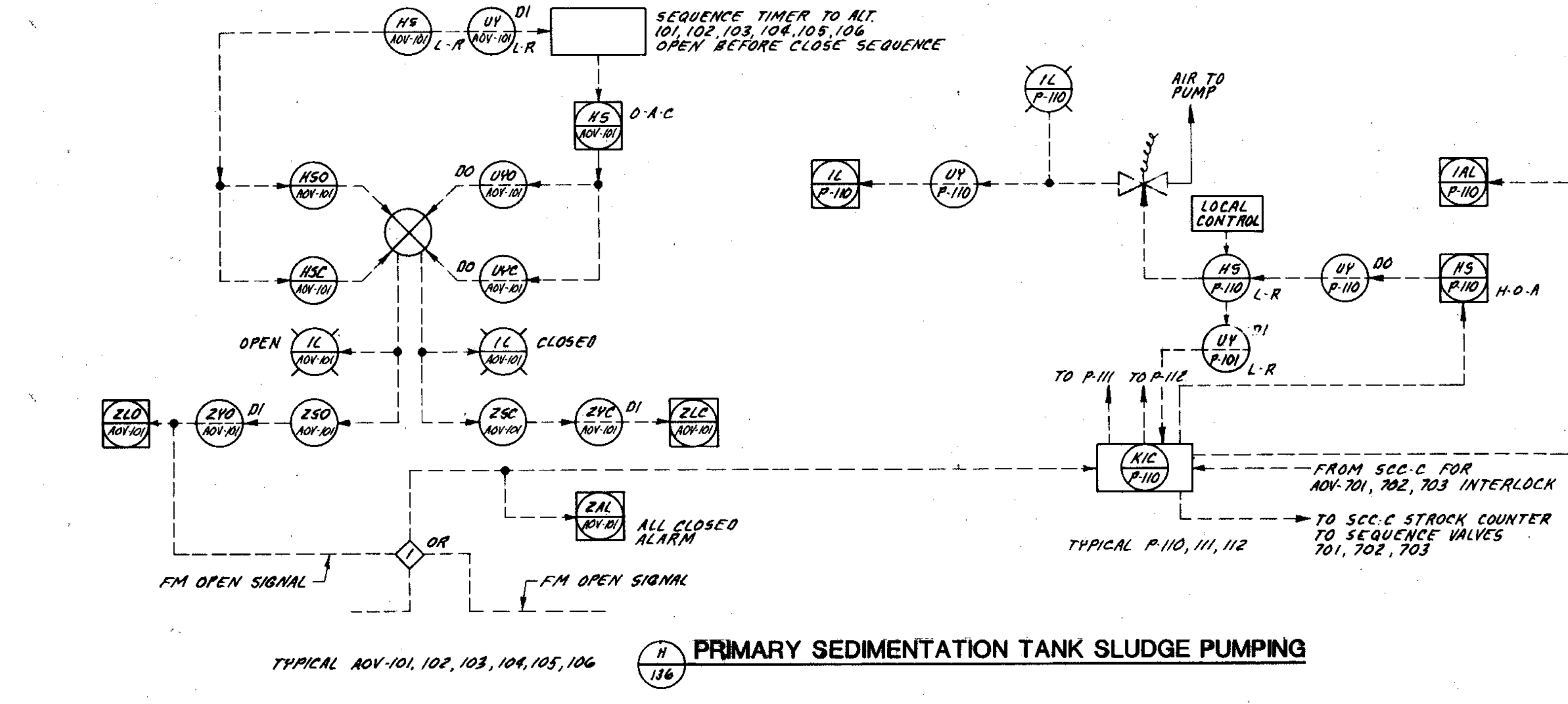
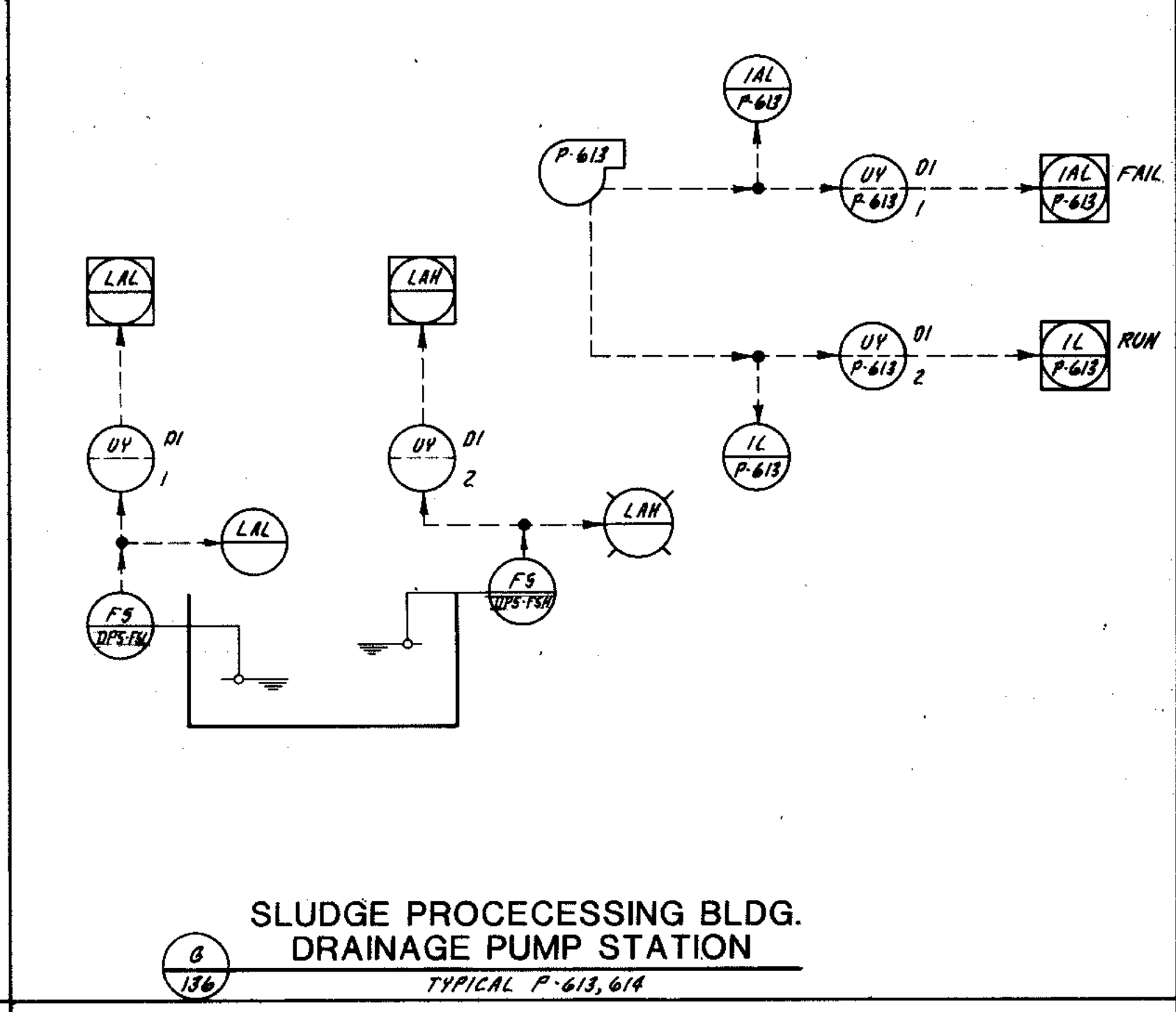
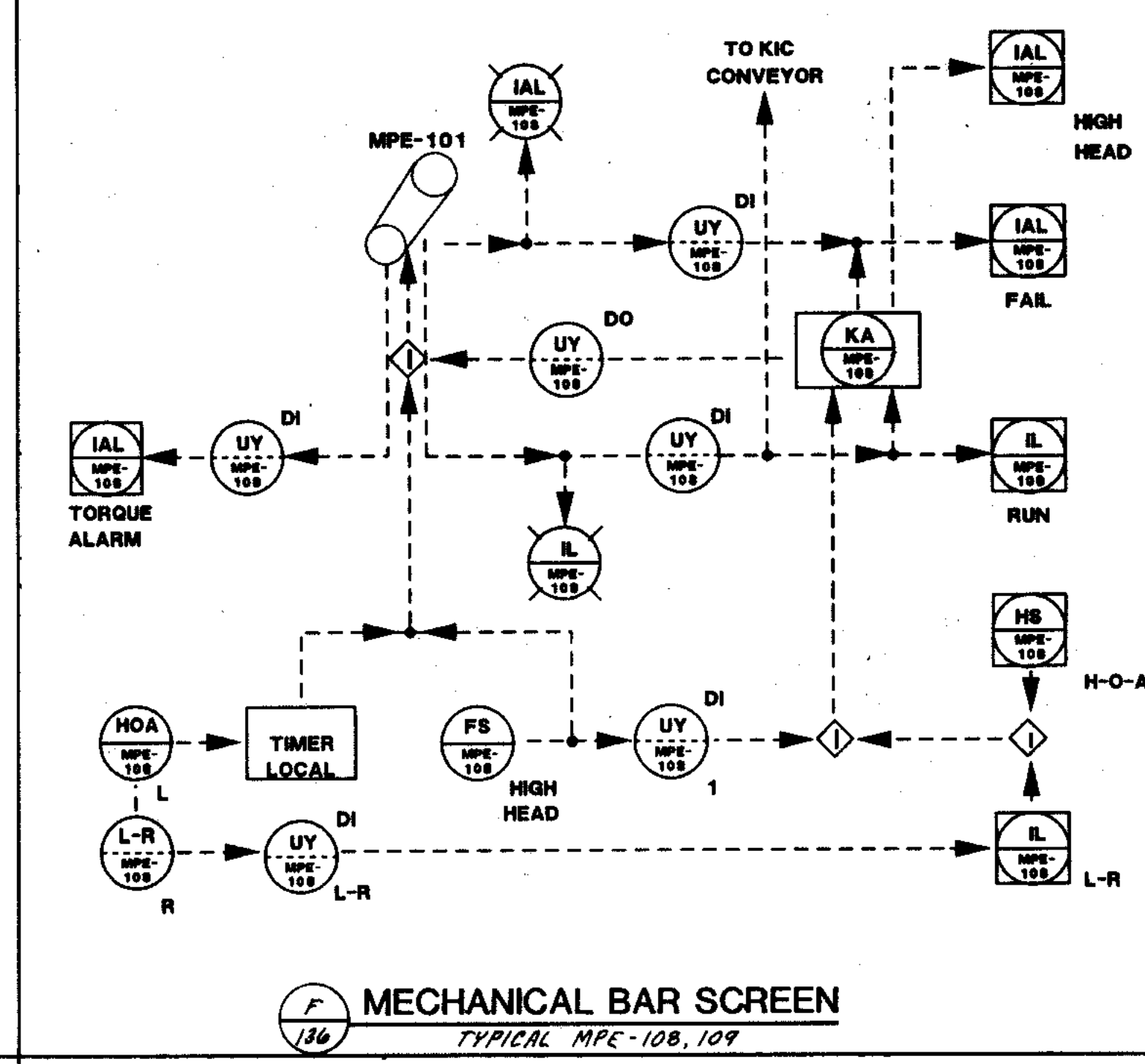
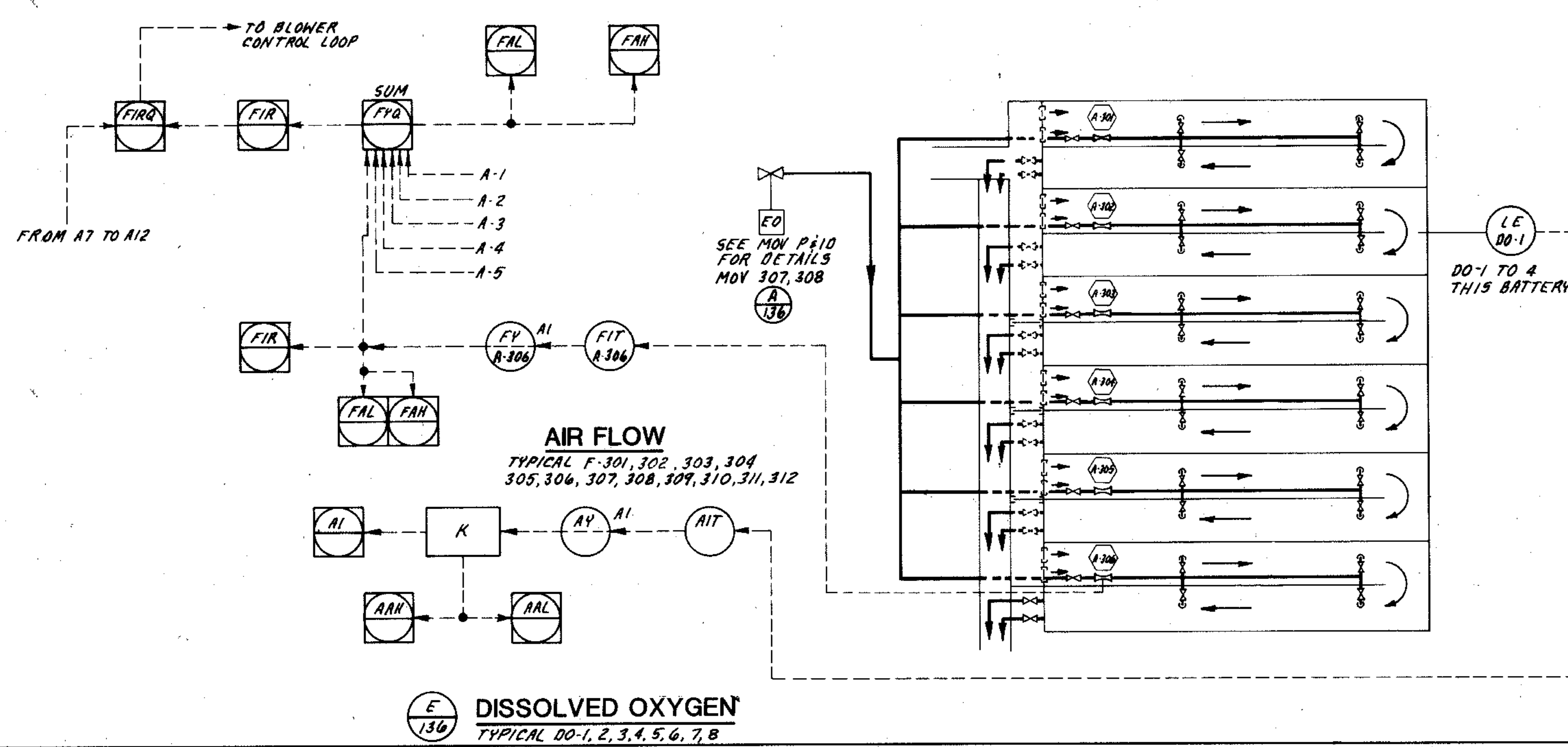
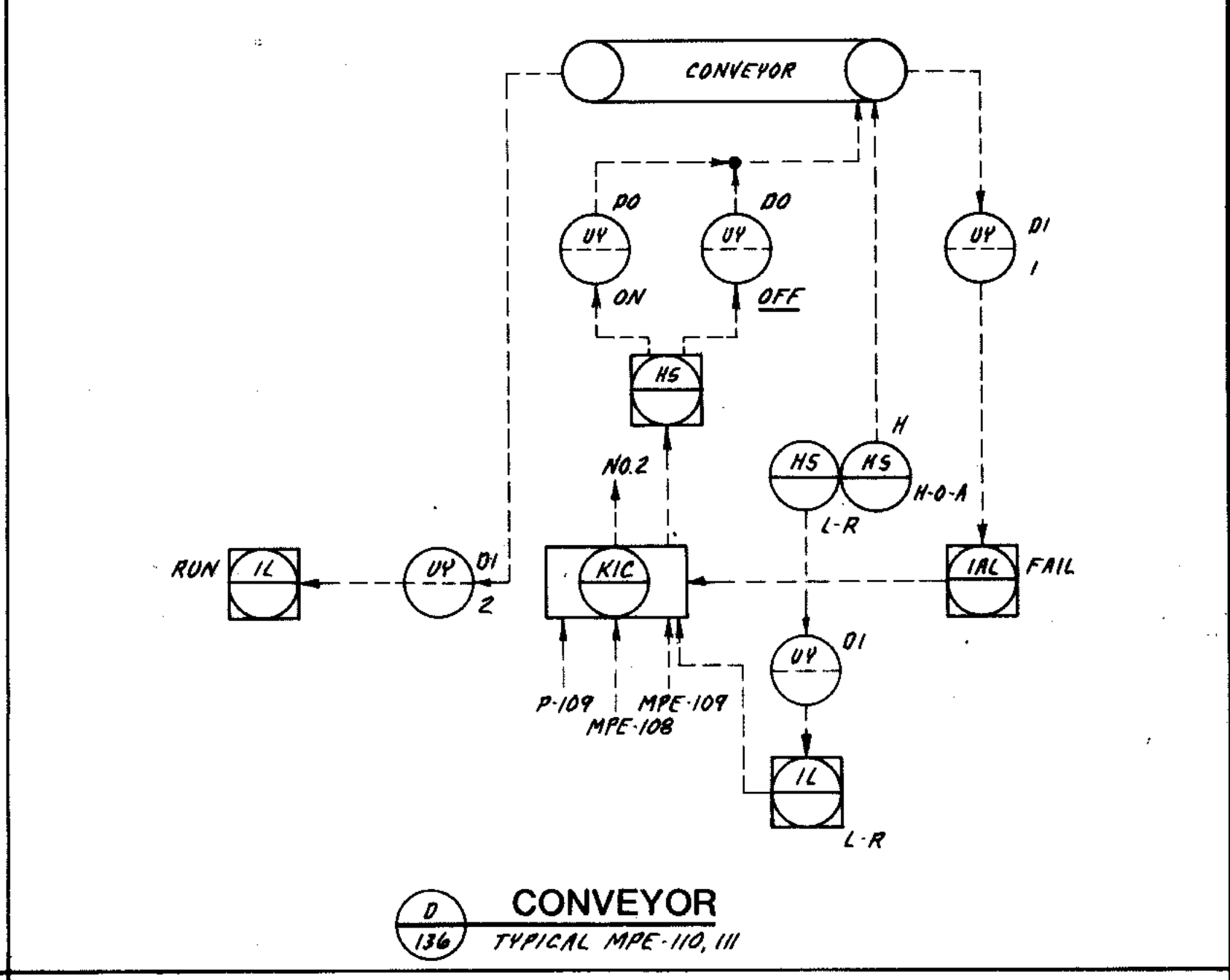
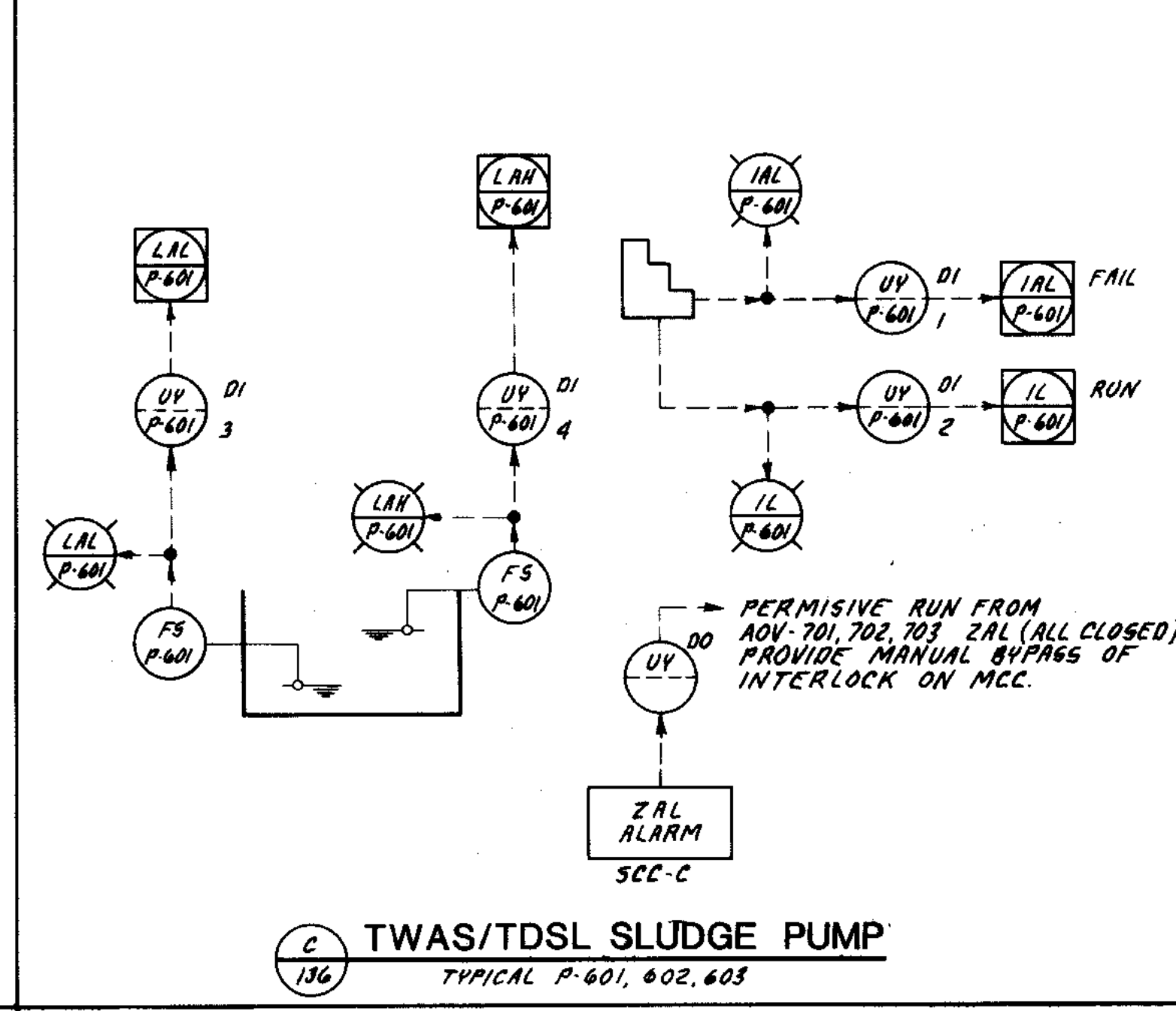
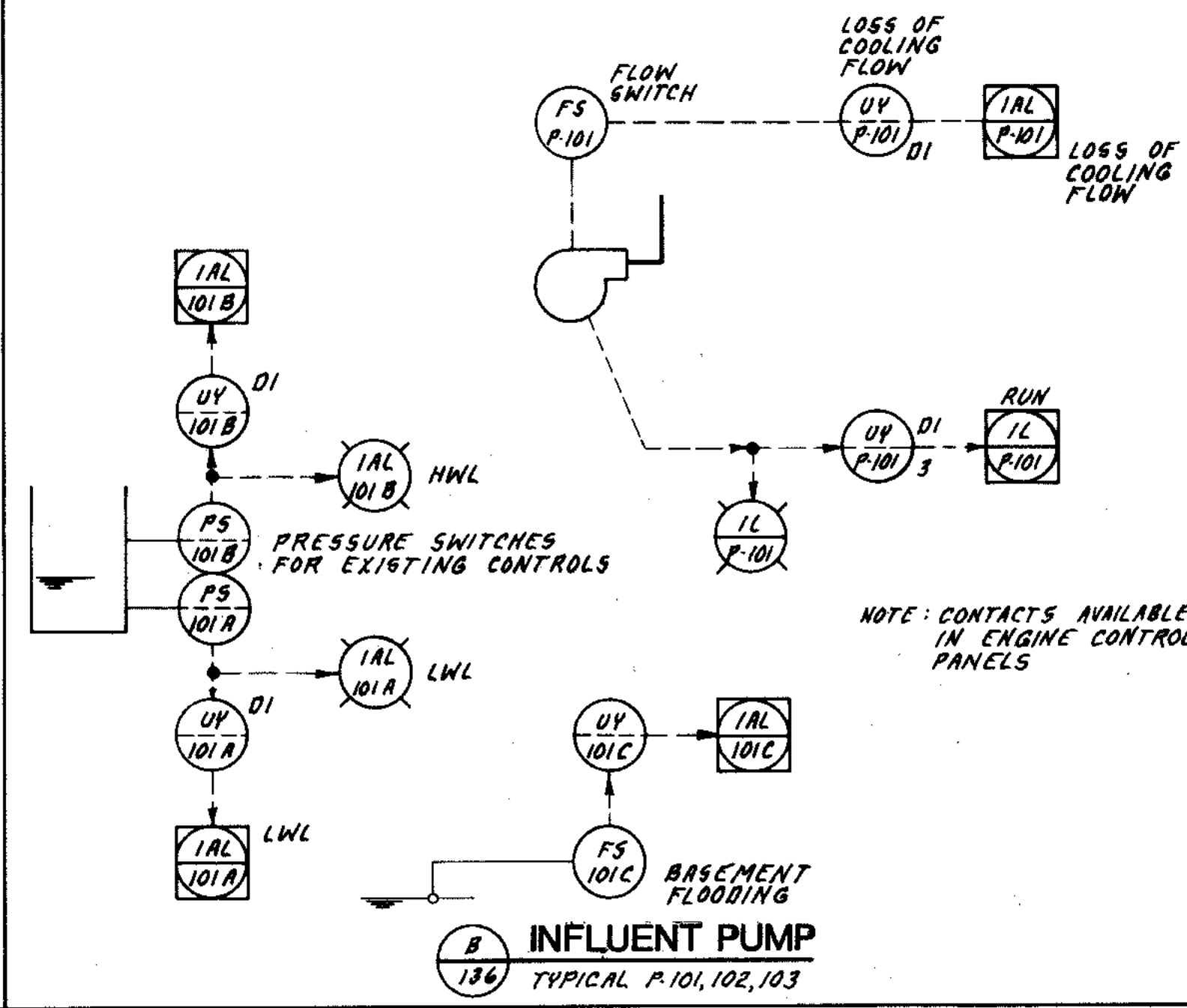
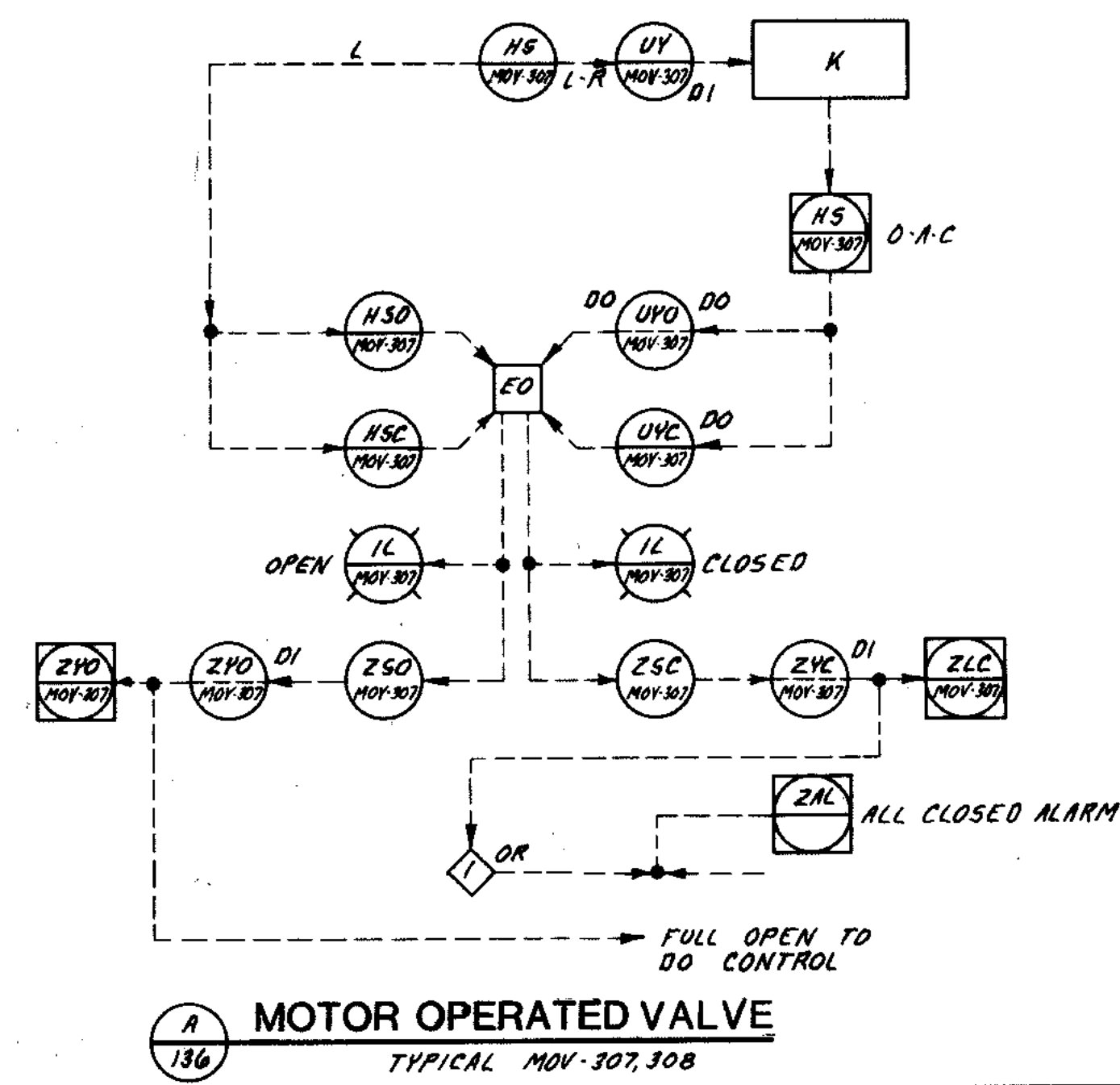
STRAND ASSOCIATES INC.
CONSULTING ENGINEERS
910 West Wings Drive
Madison, Wisconsin 53715
Tel: (608) 251-4843

CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
ISA TABLE
AND
PROCESS AND INSTRUMENTATION DIAGRAMS - 1

SCALE _____ DATE _____

DRAWING NO
255-230-135

OVERLAY IDENTIFICATION
 COMPOSITE
 PROJECT NO.
 DATE



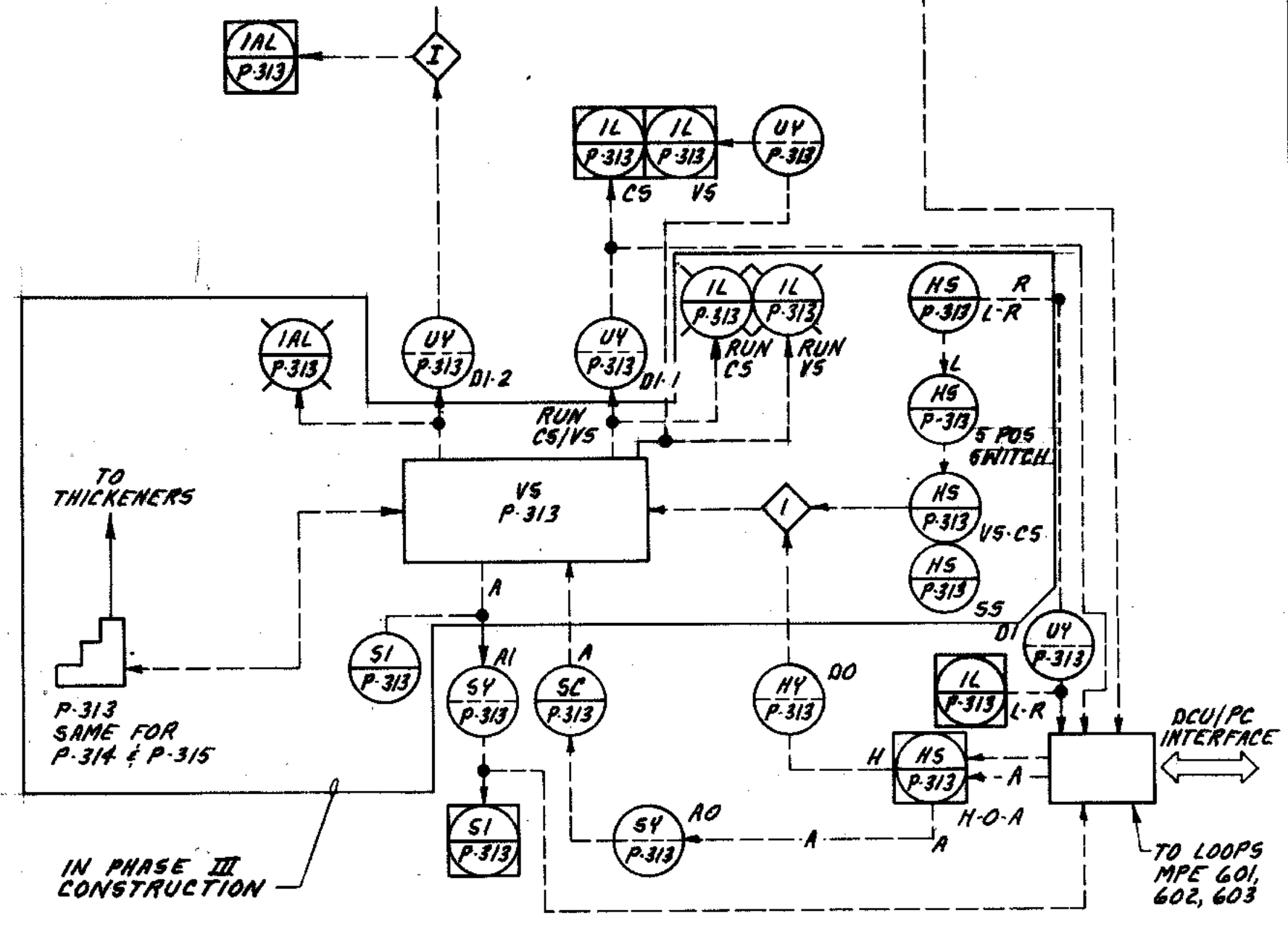
OVERLAY IDENTIFICATION
COMPOSITE
OVERLAY
PROJECT NO.
DATE

STRAND ASSOCIATES INC.
CONSULTING ENGINEERS
910 West Wingra Drive
Madison, Wisconsin 53715
Tel (608) 251-4843

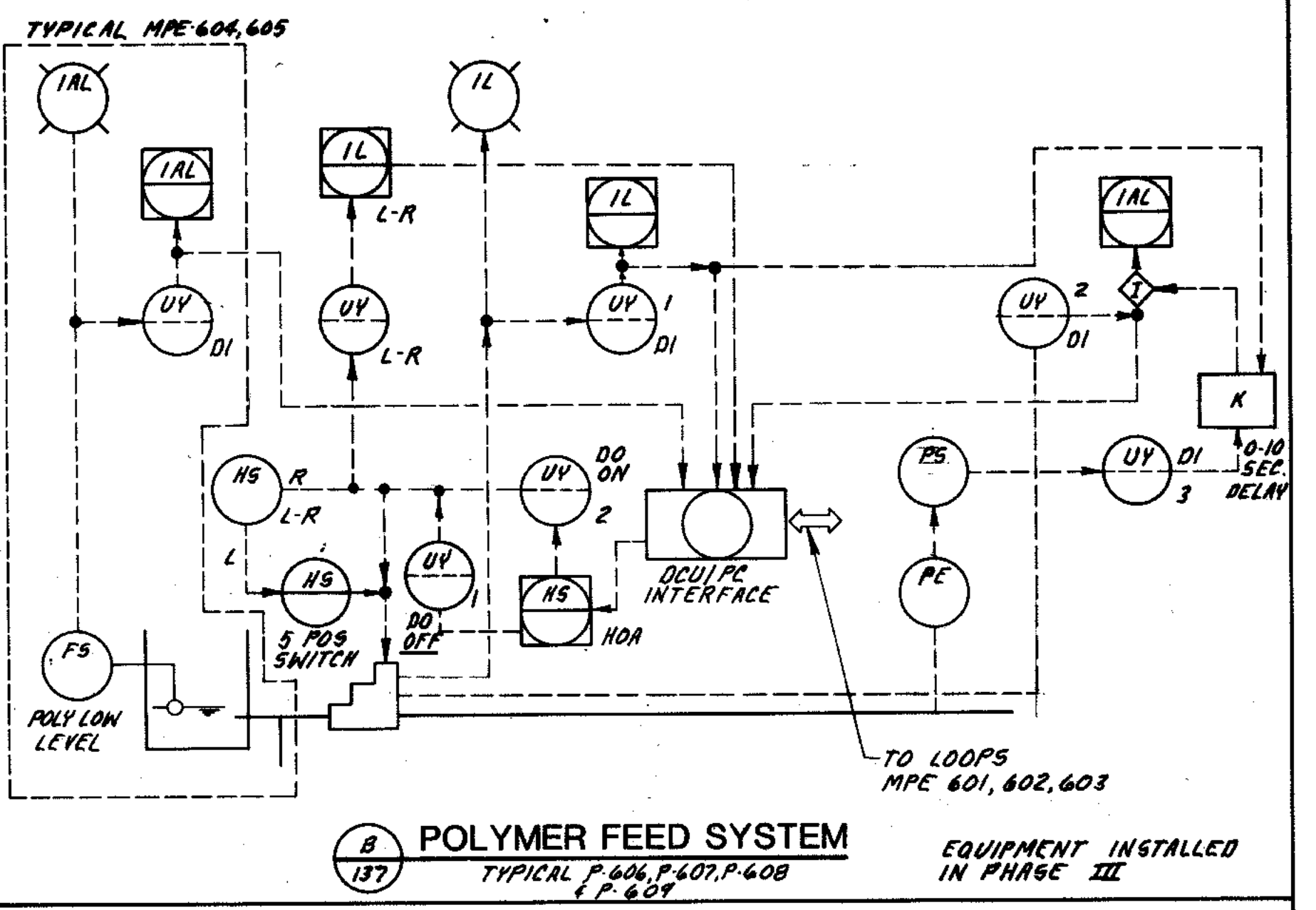
CITY OF JOLIET
EASTSIDE
WASTEWATER TREATMENT PLANT
PROCESS AND INSTRUMENTATION DIAGRAMS - 2

SCALE: _____ DATE: _____ DRAWING NO: _____

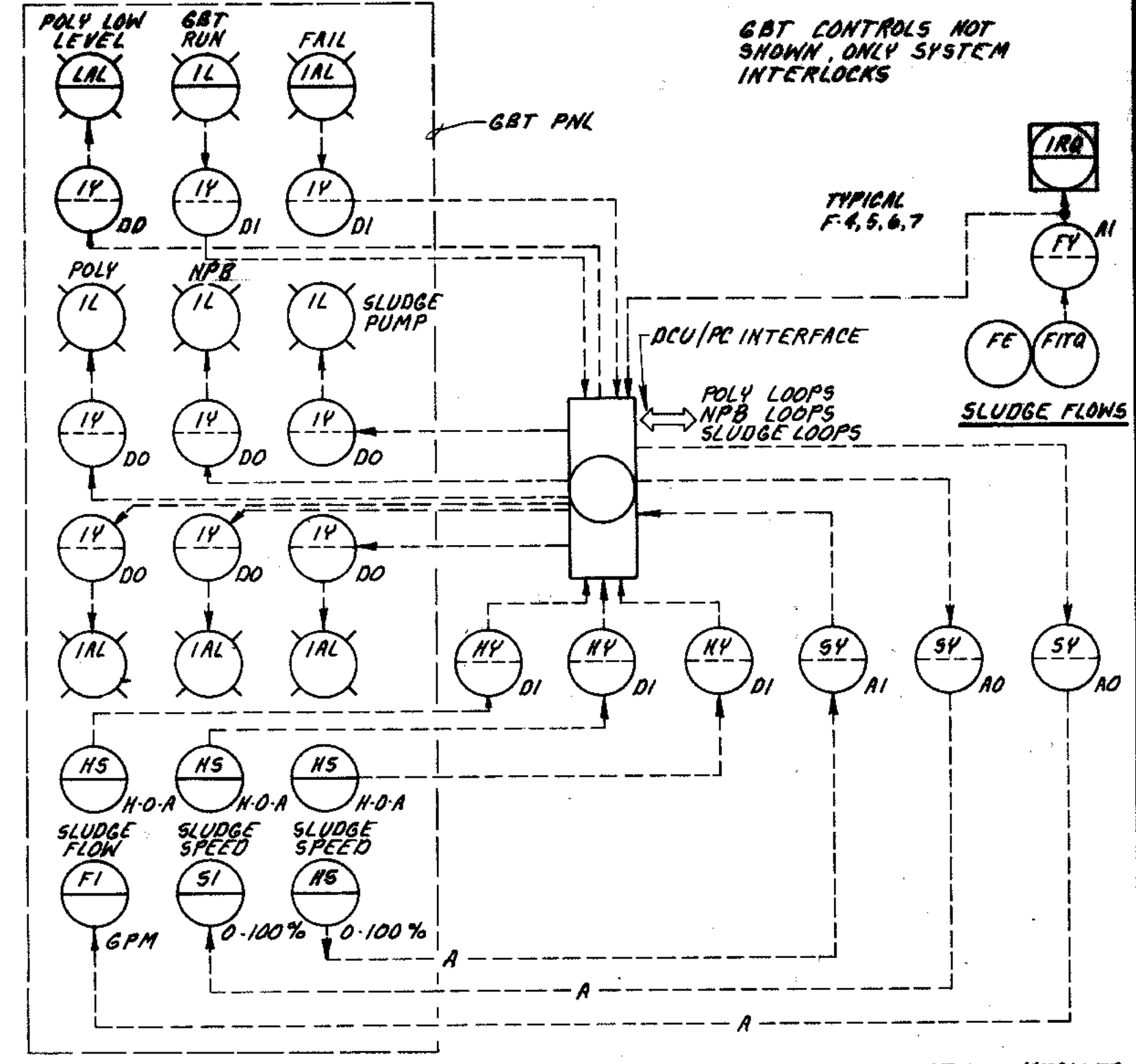
255-230-136



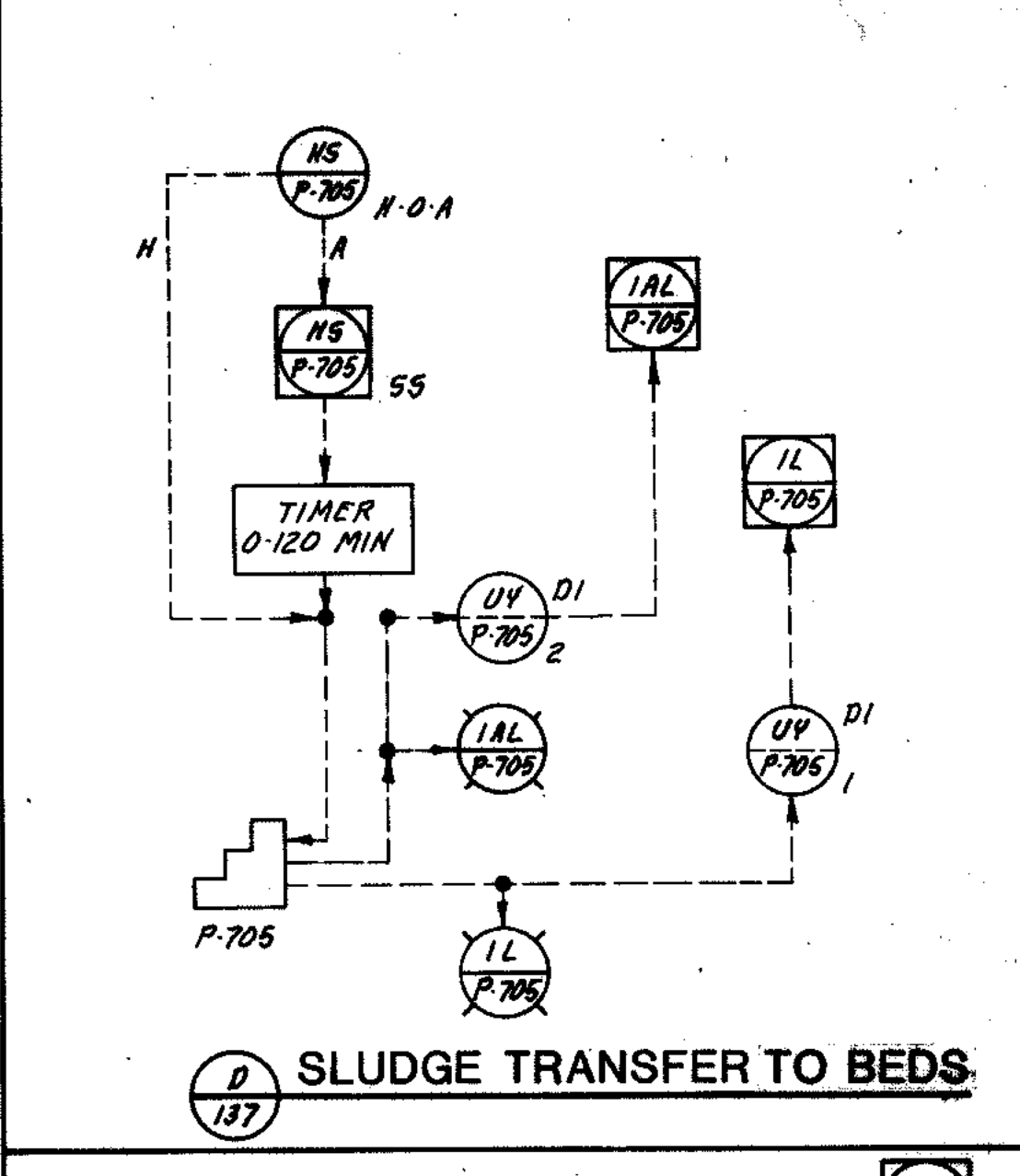
A WASTE ACTIVATED SLUDGE
 (DIGESTED SLUDGE, THICKENED DIGESTED SLUDGE)
 P-313 SHOWN, TYPICAL FOR P-314, P-315, P-306, P-707, P-710, P-711
 DRIVES & HARD WIRE INTERLOCKS INSTALLED IN PHASE III



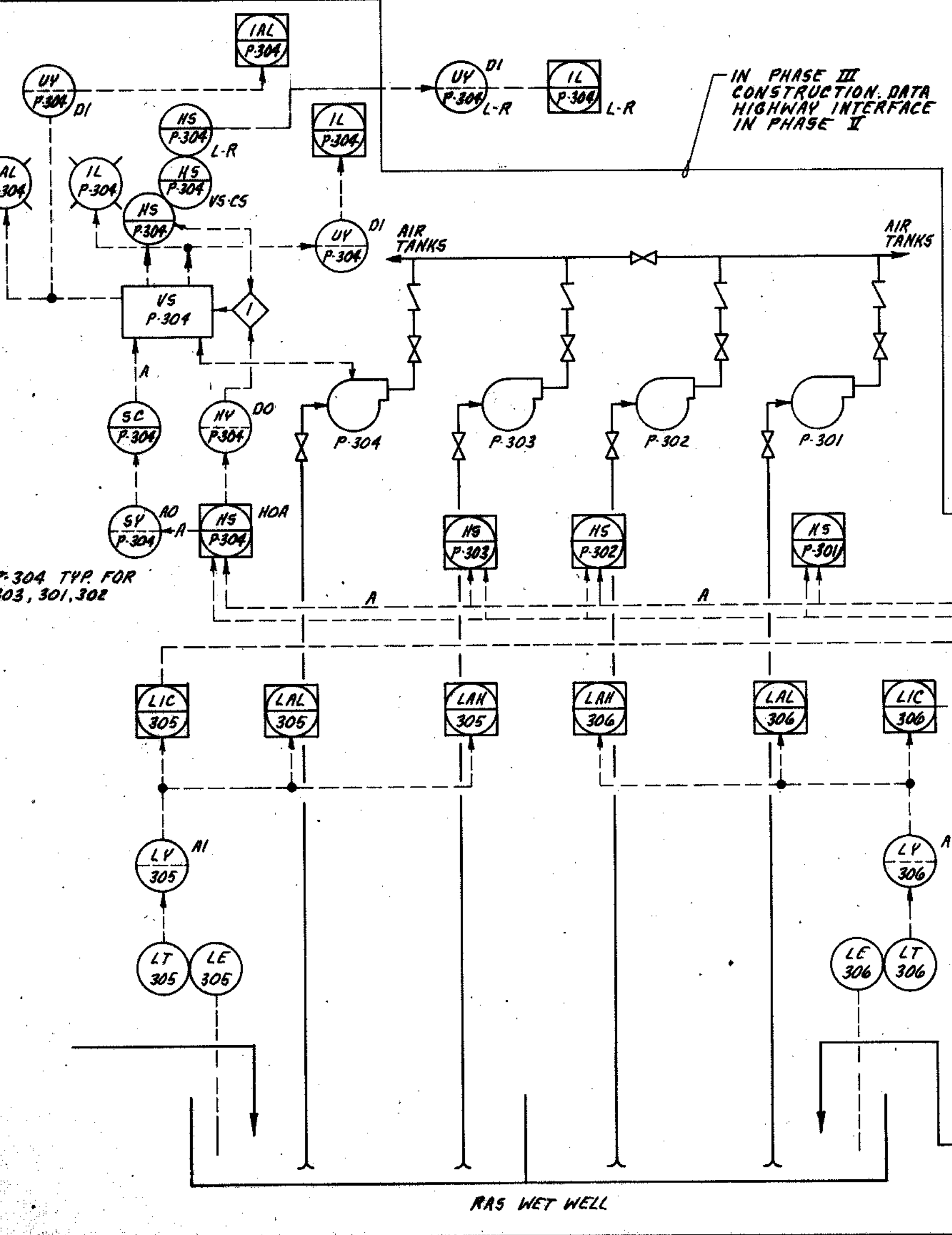
B POLYMER FEED SYSTEM
 TYPICAL P-604, P-607, P-608 & P-609
 EQUIPMENT INSTALLED IN PHASE III



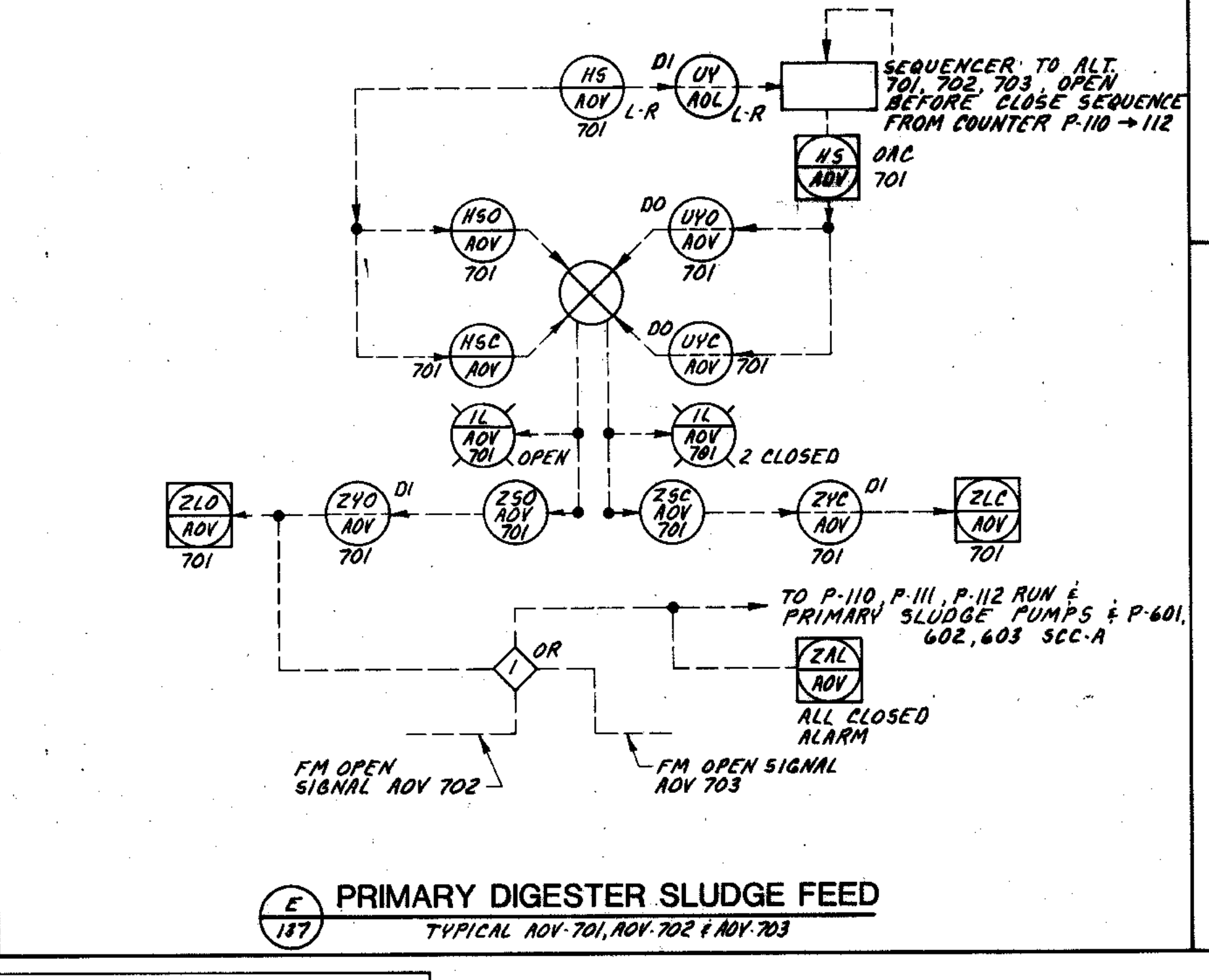
C GRAVITY BELT THICKENER
 TYP. LOOPS 601, 602, 603
 EQUIPMENT INSTALLED IN PHASE III



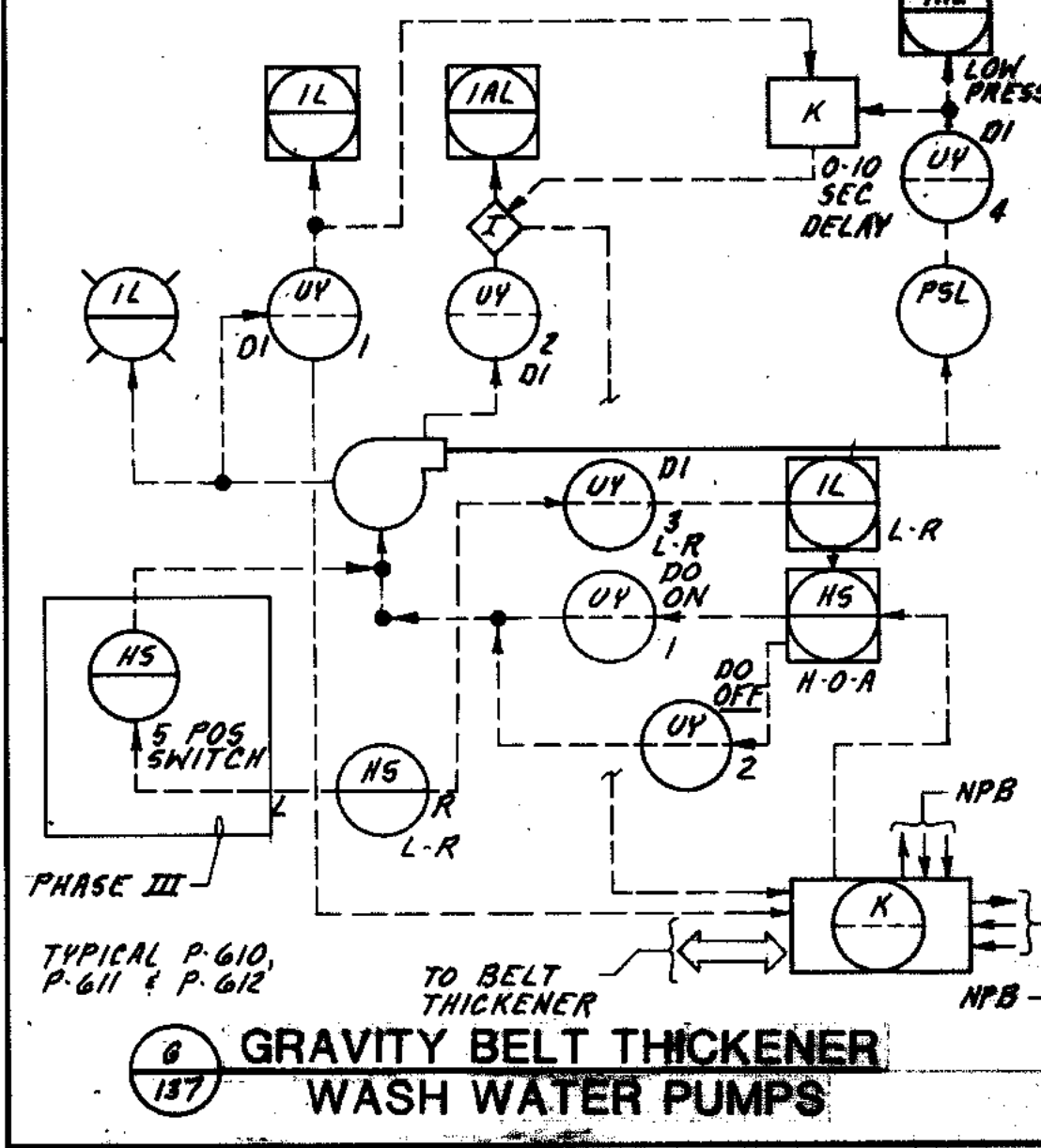
D SLUDGE TRANSFER TO BEDS
 TYPICAL P-705
 EQUIPMENT INSTALLED IN PHASE III



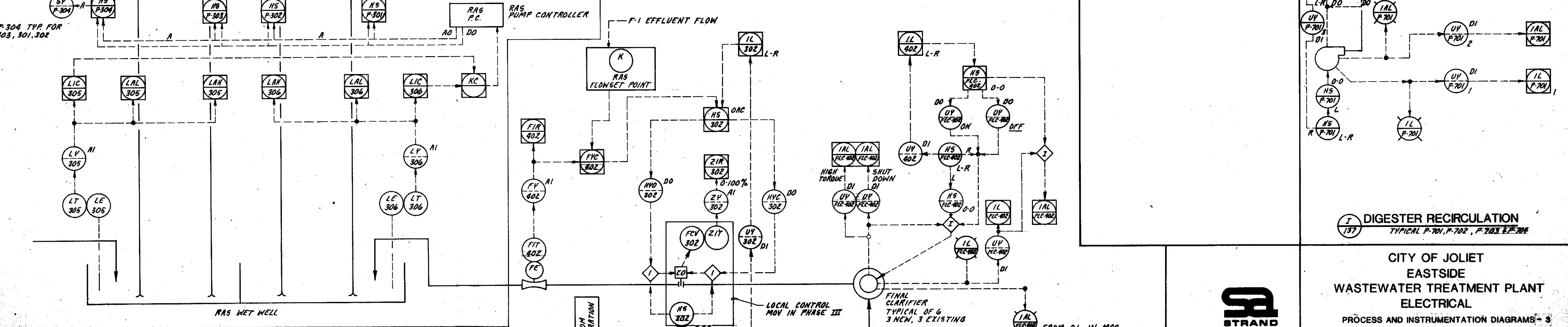
E PRIMARY DIGESTER SLUDGE FEED
 TYPICAL ADV-701, ADV-702 & ADV-703
 EQUIPMENT INSTALLED IN PHASE III



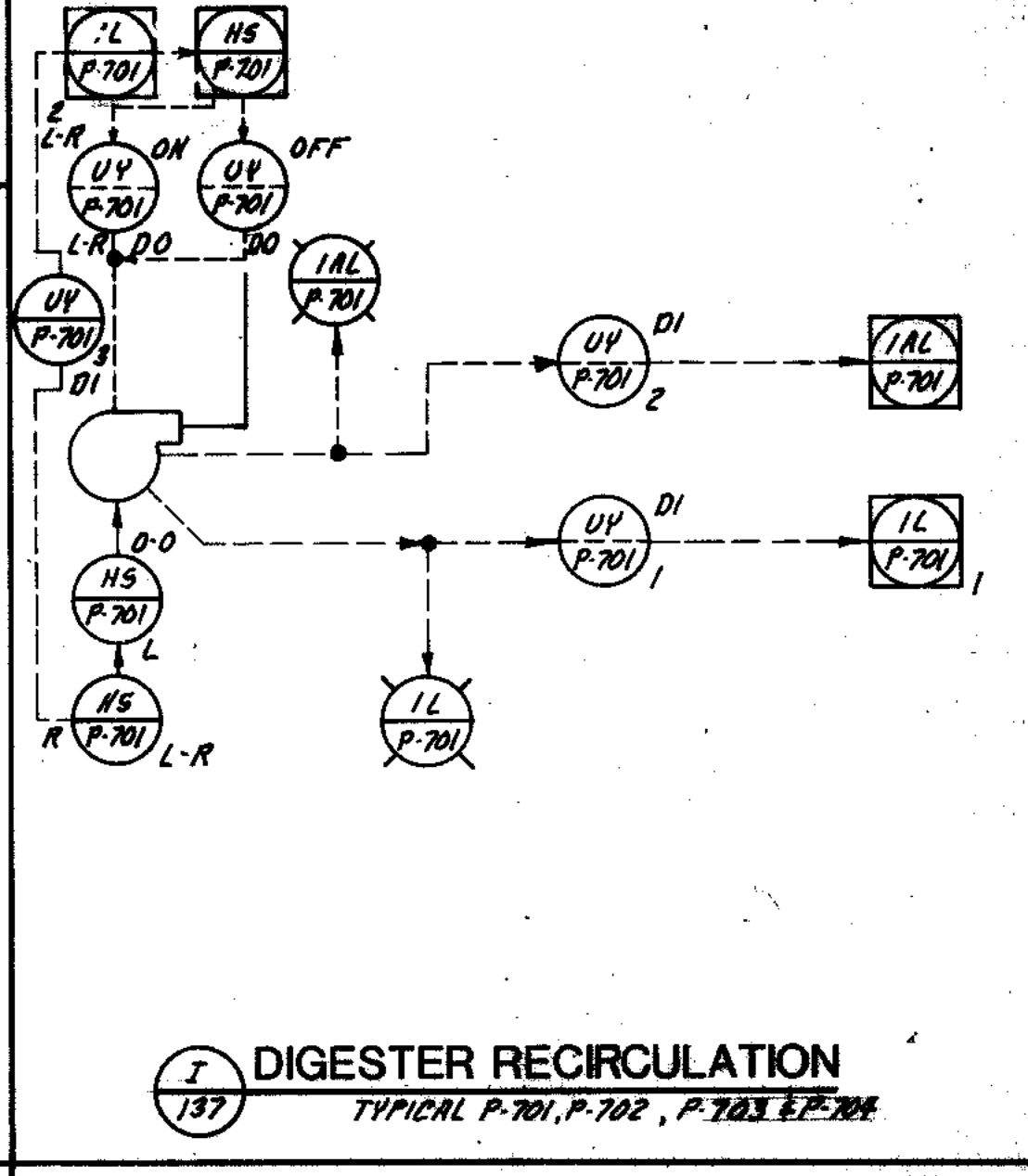
F SLUDGE TRUCK LOADING
 TYPICAL P-706, P-707, P-708, P-709, P-710
 EQUIPMENT INSTALLED IN PHASE III



G GRAVITY BELT THICKENER WASH WATER PUMPS
 TYPICAL P-610, P-611 & P-612
 EQUIPMENT INSTALLED IN PHASE III



H RETURN ACTIVATED SLUDGE
 TYPICAL FLC-401 TO 406, F-401 TO 406, P-301 TO 304 & MOV-301 TO 306 (TYP.)
 EQUIPMENT INSTALLED IN PHASE III

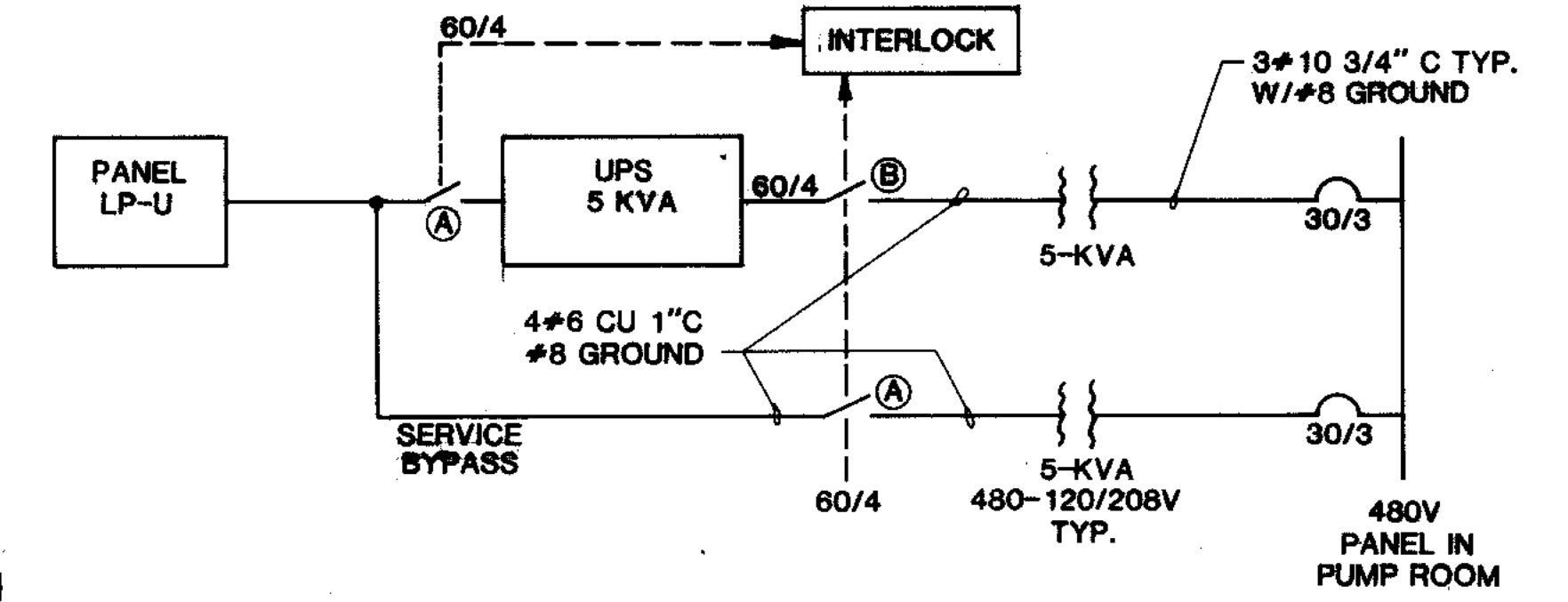
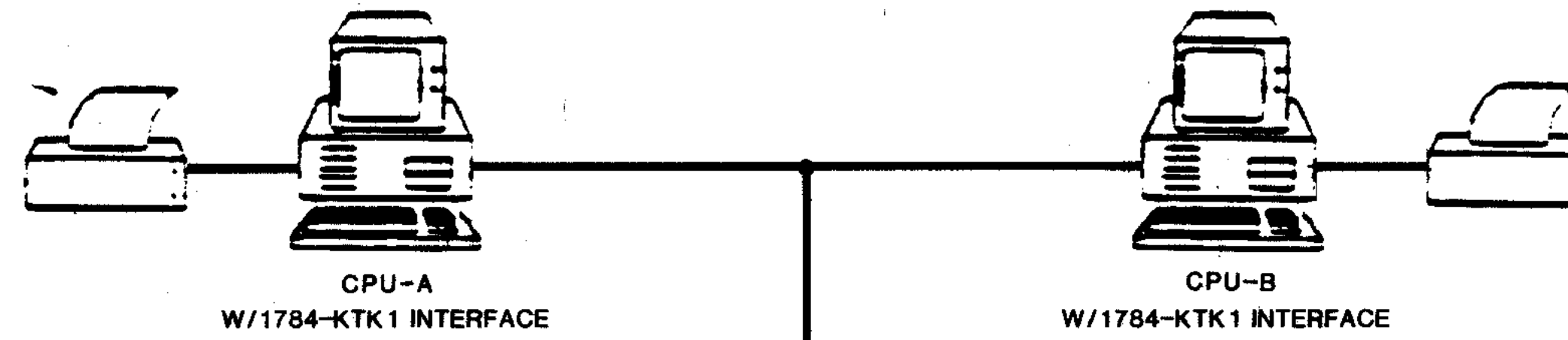


I DIGESTER RECIRCULATION
 TYPICAL P-701, P-702, P-703 & P-704
 EQUIPMENT INSTALLED IN PHASE III

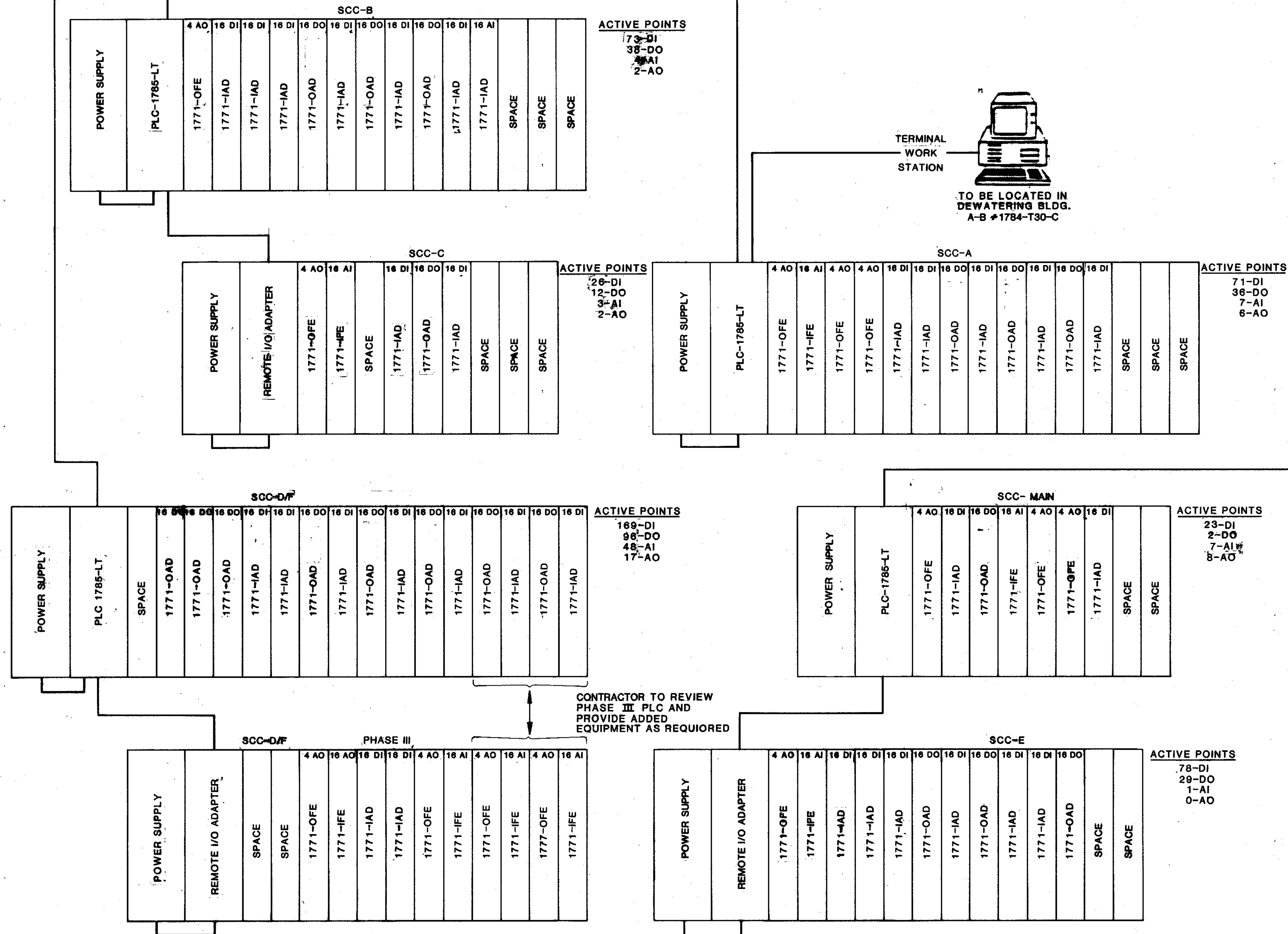
COMPOSITE OVERLAY SHEET
 DATE: 11/15/93
 DRAWN BY: J. J. BROWN
 CHECKED BY: J. J. BROWN
 APPROVED BY: J. J. BROWN



CITY OF JOLET EASTSIDE WASTEWATER TREATMENT PLANT ELECTRICAL
 PROCESS AND INSTRUMENTATION DIAGRAMS - 3
 SCALE: NO SCALE DATE: _____
 DRAWING NO: 255-230-137
 SHEET 78 OF 79



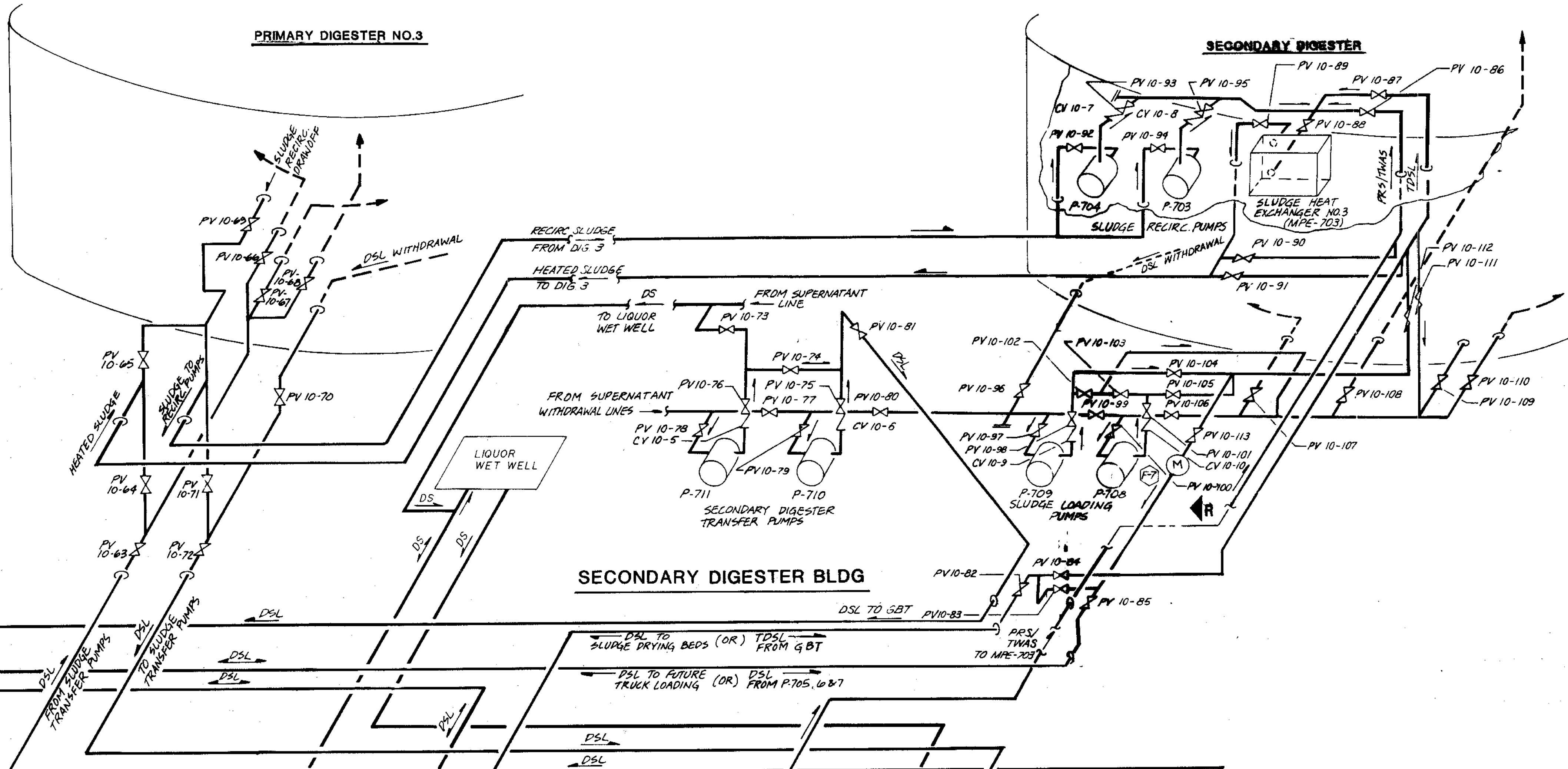
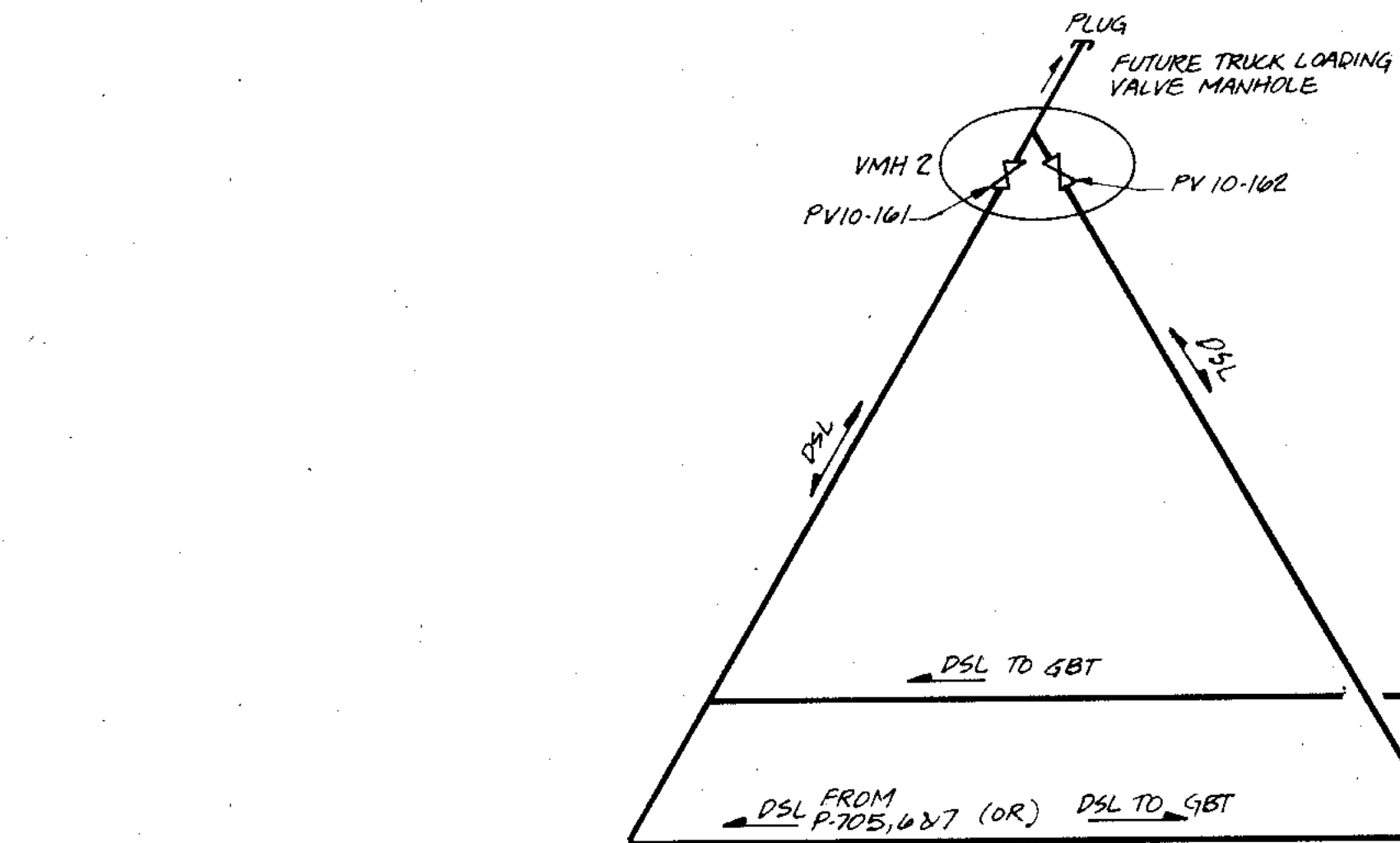
BELDEN #9463
TWINAXIAL CABLE OR EQUAL



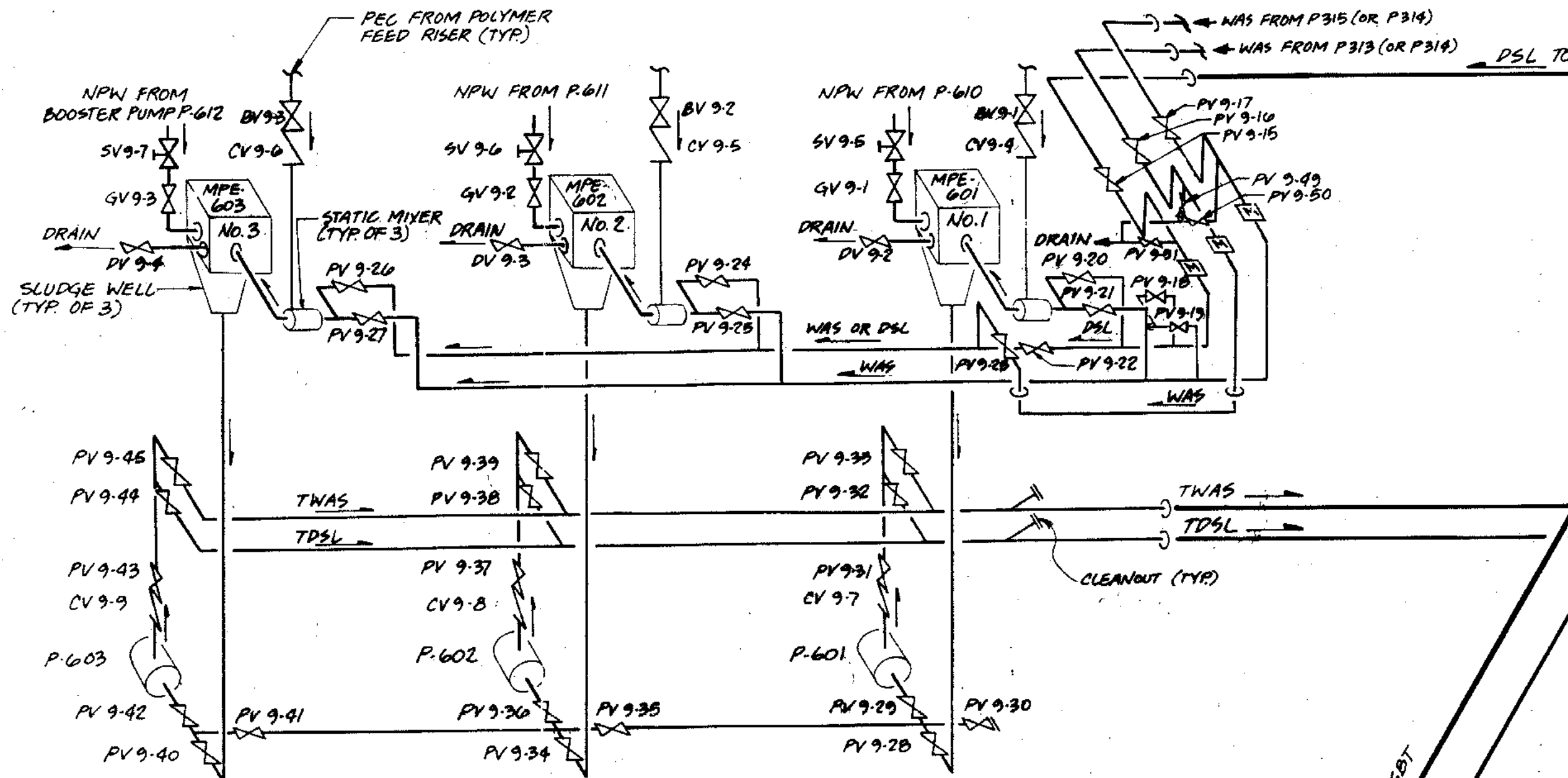
| | | |
|---|---|-----------------------|
| <p>STRAND ASSOCIATES, INC. CONSULTING ENGINEERS 910 West Wings Drive Madison, Wisconsin 53715 Tel. (608) 251-4843</p> | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT</p> <p>PROCESS AND INSTRUMENTATION DIAGRAMS - 4</p> | |
| | <p>SCALE: NO SCALE</p> | <p>DATE:</p> |
| <p>DRAWING NO.</p> <p>255-230-138</p> | | <p>SHEET 29 OF 29</p> |

PRIMARY DIGESTER NO.3

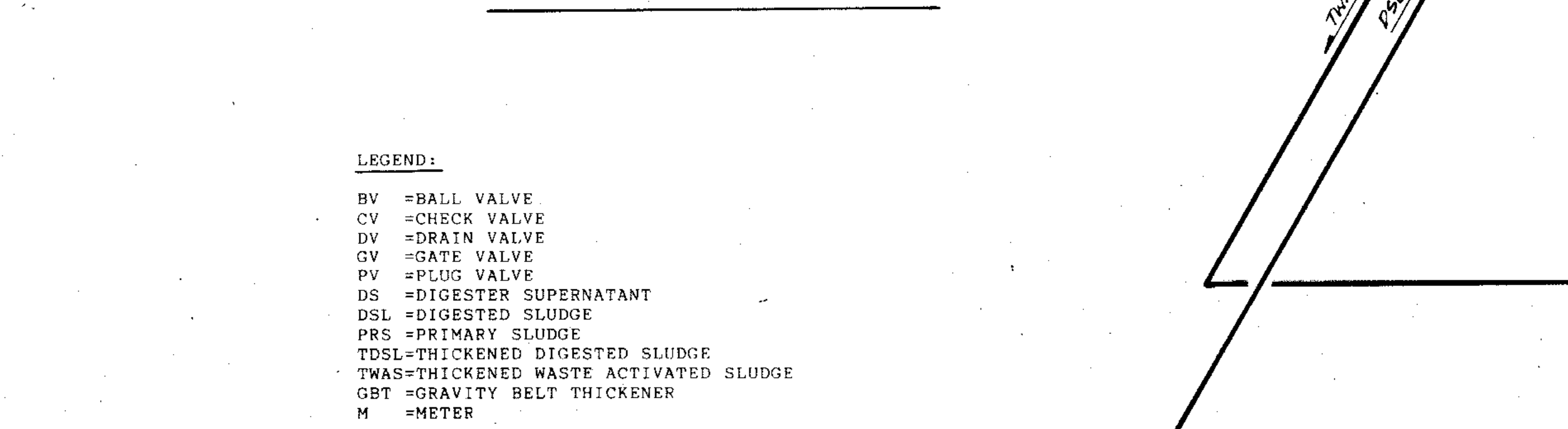
SECONDARY DIGESTER



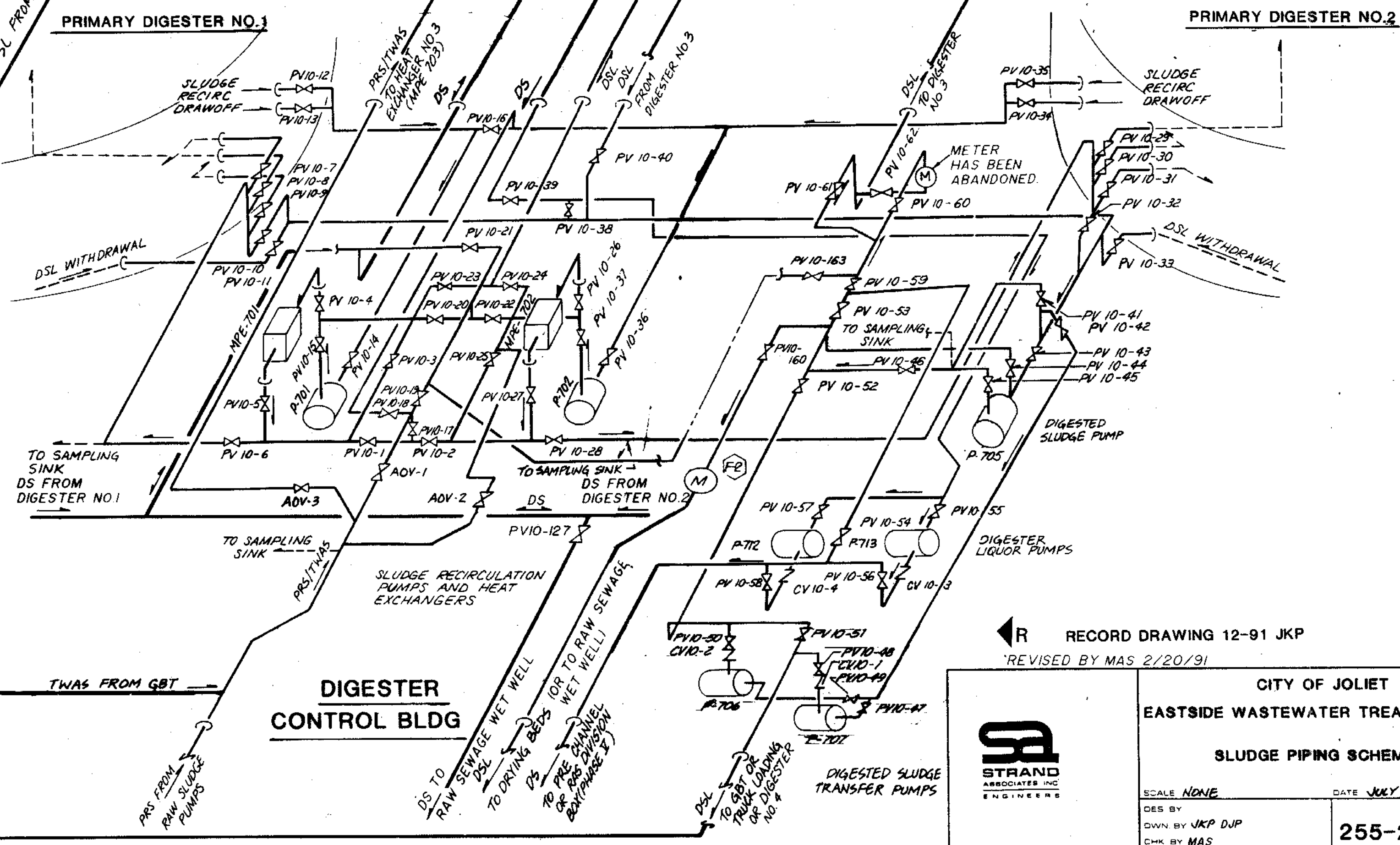
GRAVITY BELT THICKENERS



SOLIDS PROCESSING BLDG



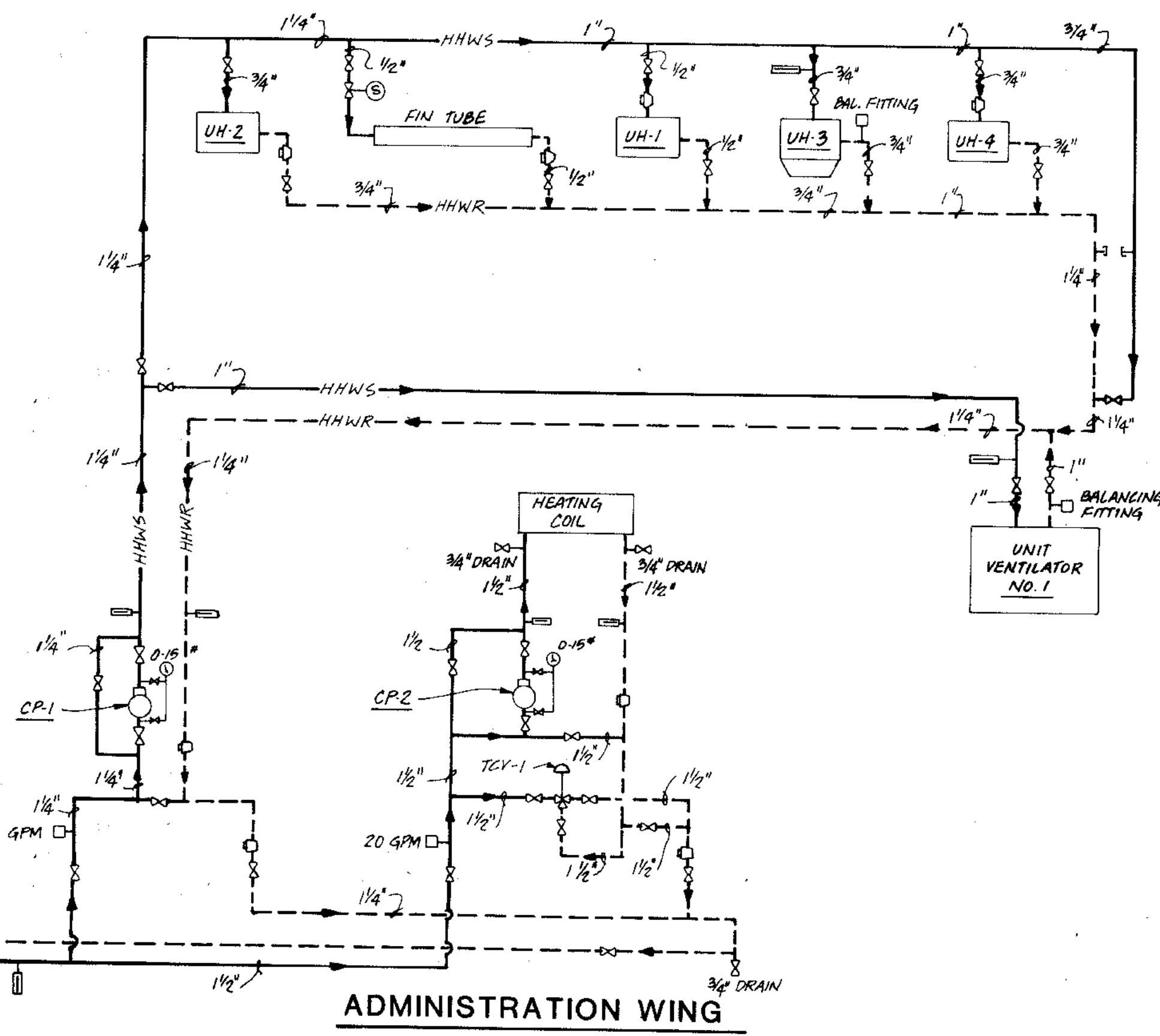
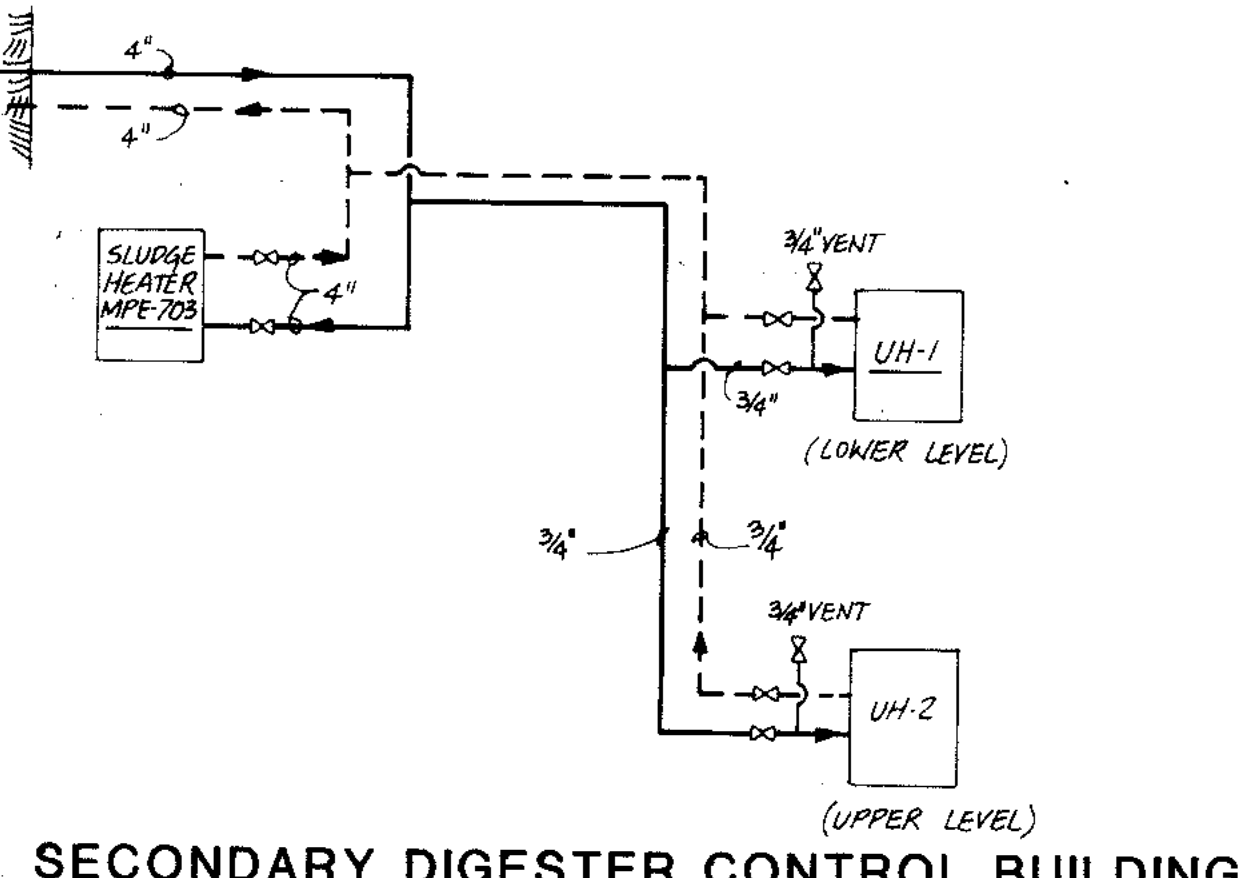
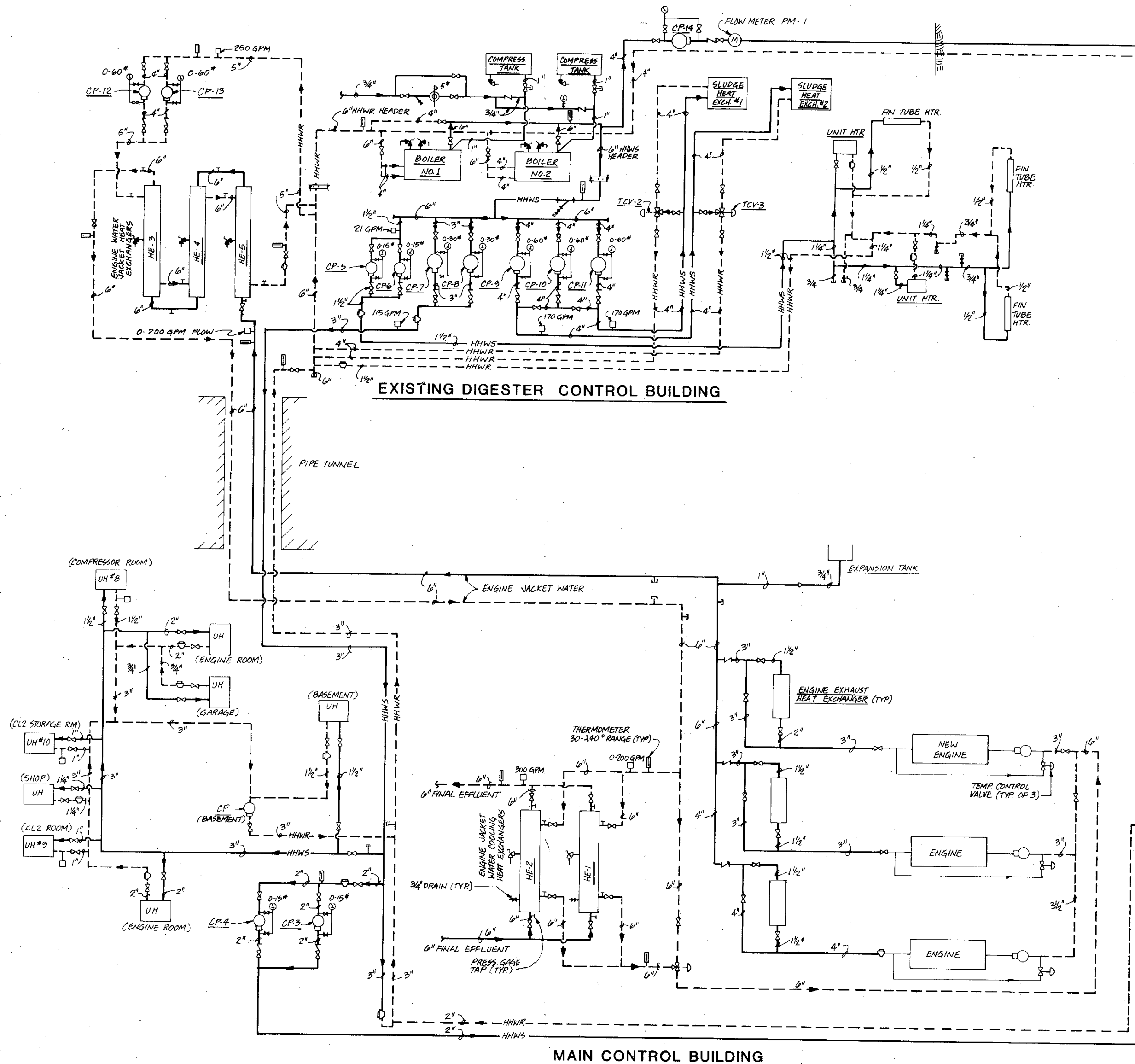
- LEGEND:
- BV = BALL VALVE
 - CV = CHECK VALVE
 - DV = DRAIN VALVE
 - GV = GATE VALVE
 - PV = PLUG VALVE
 - DS = DIGESTER SUPERNATANT
 - DSL = DIGESTED SLUDGE
 - PRS = PRIMARY SLUDGE
 - TDSSL = THICKENED DIGESTED SLUDGE
 - TWAS = THICKENED WASTE ACTIVATED SLUDGE
 - GBT = GRAVITY BELT THICKENER
 - M = METER



RECORD DRAWING 12-91 JKP
REVISED BY MAS 2/20/91



CITY OF JOLIET
EASTSIDE WASTEWATER TREATMENT PLANT
SLUDGE PIPING SCHEMATIC
SCALE NONE
DATE JULY, 1990
DES BY JKP
OWN BY JKP DWP
CHK BY MAS
APP BY MAS
255-230-139



RECORD DRAWING 12-91 JKP

| | | |
|--|--|---------------------------|
| <p>STRAND ASSOCIATES, INC. CONSULTING ENGINEERS 910 West Wings Drive Madison, Wisconsin 53715 Tel. (608) 251-4843</p> | <p>CITY OF JOLIET EASTSIDE WASTEWATER TREATMENT PLANT HOT WATER PIPING FLOW DIAGRAM</p> | |
| | <p>SCALE: NONE</p> | <p>DATE: JUNE, 1990</p> |
| | <p>DES. BY</p> | <p>DRAWING NO.</p> |
| | <p>OWN. BY JKP</p> | <p>255-230-140</p> |
| <p>CHK. BY</p> | | |
| <p>APP. BY</p> | | |