

HARBOR

PARKING

CONTOUR 603 CONTROL LINE

SERVICE BUILDING

EL. 606.00

EL. 606.00

SINK TO MATCH PILING CAP

TOP GROUND TO MATCH PILING CAP

1720.0 N

540.0 E

1705.0 N

380.0 E

1600.0 N

380.0 E

CROWN ALL FINGERS TO DRAIN

NORTH LINE CHURCH SANCTUARY TO BE STAYED BY OWNER

PROPOSED

BORROW PIT OR EXCESS FILL AREA

CONSTRUCTION LIMITS

CONSTRUCTION LIMITS

BIRD SANCTUARY

SANDY POINT

CHANNEL

DREDGED BOTTOM EL. 593

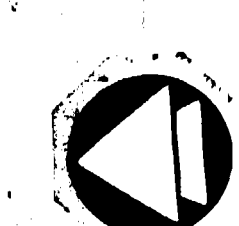
NO. 3  
N 1999.92  
E 1.00

NO. 2  
N 1000.63  
E 1.00

BENCHMARK: EL. 619.06  
USGS BRASS CAP @ S.E. CORNER  
E 24th ST. & 4th AVE E  
MON. N 1314.49

- LEGEND
- ▲ CENTER LINE
  - CONTROL POINTS
  - CONTOUR 603 CONTROL POINTS
  - PROPOSED CONTOUR ELEVATION
  - PROPOSED SPOT ELEVATION
  - SHEET PILING
  - CONSTRUCTION LIMITS
  - ACCESS
  - SERVICE AREA
  - CRADLE STORAGE AREA
  - PARKING LOTS
  - SIDE WALK
  - BIT CURB
  - SOIL BORING

APPROXIMATE LOCATION OF  
CLOQUET WATER SUPPLY LINE  
AND SUPERIOR POWER & LIGHT CO.  
ELECTRICAL CABLES



REVISIONS

I hereby certify that this drawing was prepared by me or under my direct supervision and that I am a duly registered ENGINEER under the laws of the WISCONSIN

*James J. Kelly*  
Signature  
Date 12/12/78 Reg. No. E 10216

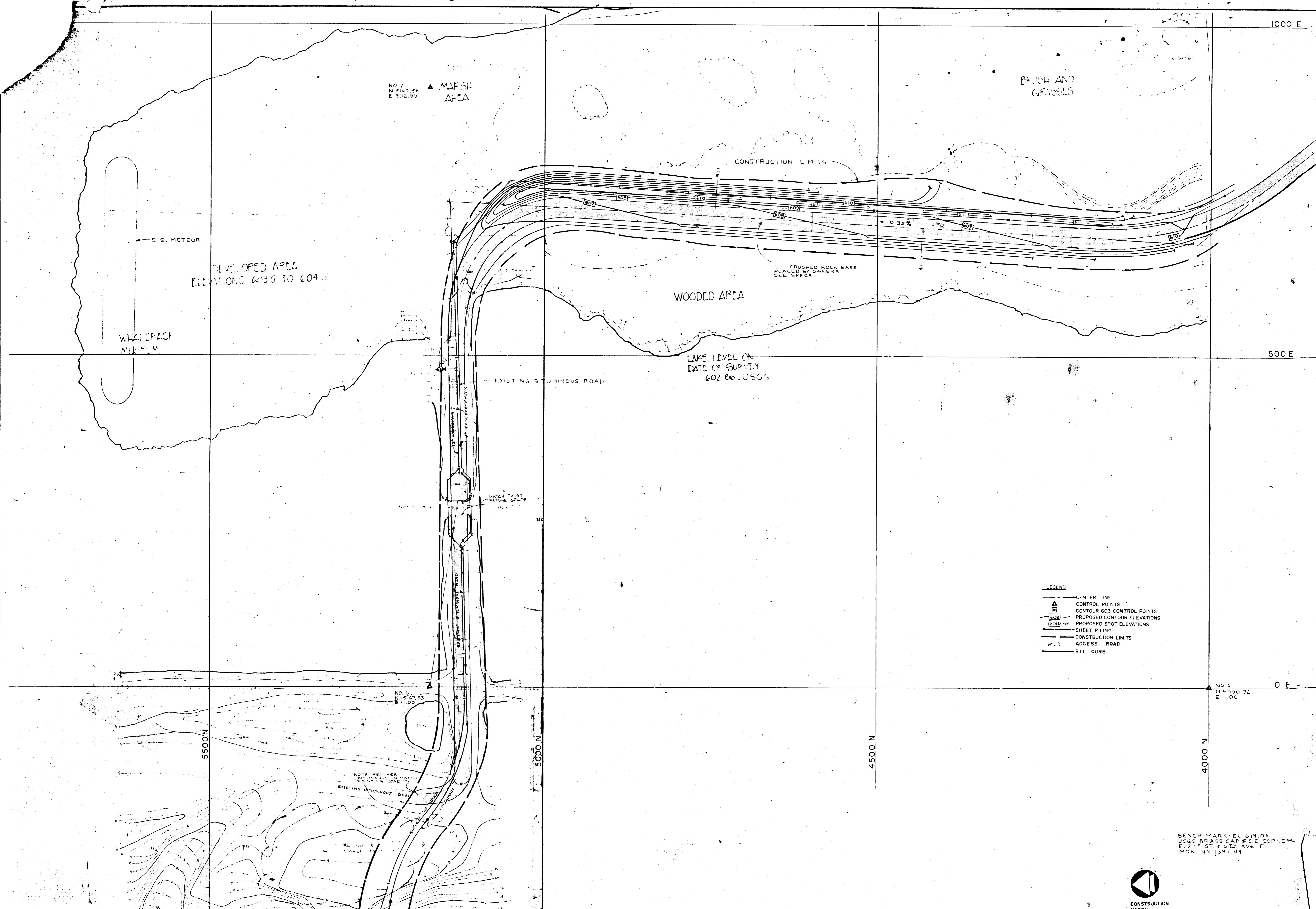
**CLARK ENGINEERING CO.**  
CONSULTING ENGINEERS  
2815 WAYATA BOULEVARD  
MINNEAPOLIS, MINNESOTA 55405

drawn by J.R.S.  
checked by B.R.K.  
date 12/12/78  
comm no 7666

sheet title  
**SITE GRADING PLAN**

scale 1" = 50'  
TRUE  
north

**BARKERS ISLAND AND MARINA PHASE 2**  
CITY OF SUPERIOR, WISCONSIN  
E D A PROJECT N° 00 01-01467



NO. 7  
N 5167.56  
E 902.99

▲ MARSH AREA

BRUSH AND GRASSES

DEVELOPED AREA  
ELEVATIONS 6035 TO 6045

WHALEFAC  
MUSEUM

WOODED AREA

LAKE LEVEL ON  
DATE OF SURVEY  
602.86 USGS

EXISTING BITUMINOUS ROAD

MATCH EXIST  
BRIDGE GRADE

LEGEND

- CENTER LINE
- ▲ CONTROL POINTS
- CONTROL POINTS
- PROPOSED CONTROL POINTS
- 608 PROPOSED CONTOUR ELEVATIONS
- 601 PROPOSED SPOT ELEVATIONS
- SHEET PILING
- CONSTRUCTION LIMITS
- ACCESS ROAD
- BIT. CURB

NO. 6  
N 5167.53  
E 1100

NO. 5  
N 4000.72  
E 1.00

NOTE FEATHER  
MATCH  
EXISTING ROAD

EXISTING BITUMINOUS ROAD

BRUSH &  
SMALL

EXISTING 21" SAN. SEWER

BENCH MARK - EL 619.06  
USGS BRASS CAP 6" S.E. CORNER  
E. 2ND ST. & 6TH AVE. E.  
MON. N. 1394.49



I hereby certify that this drawing was prepared by me or under my direct supervision and that I am a duly registered ENGINEER under the laws of the State of WISCONSIN

*James P. Kelly*  
Signature

Date 12/18/78 Reg. No. 510216

**CLARK ENGINEERING CO.**  
CONSULTING ENGINEERS  
2815 WATZATA BOULEVARD  
MINNEAPOLIS, MINNESOTA 55405

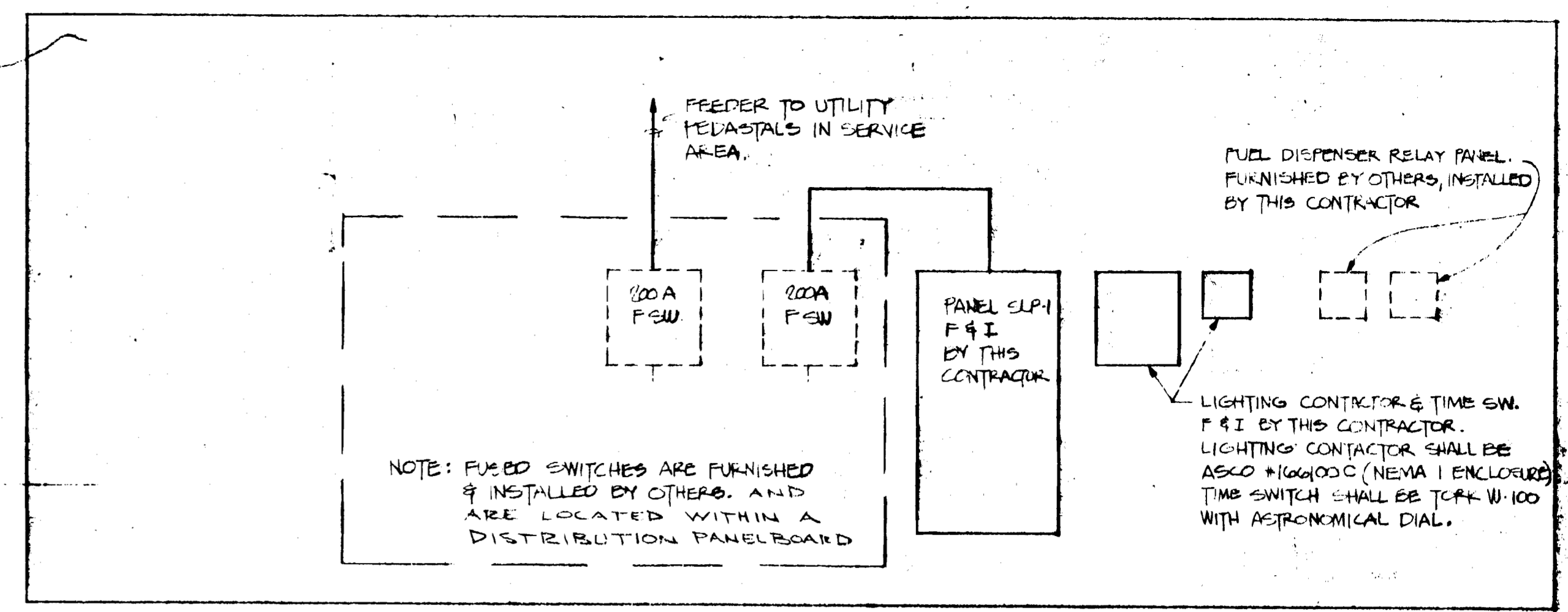
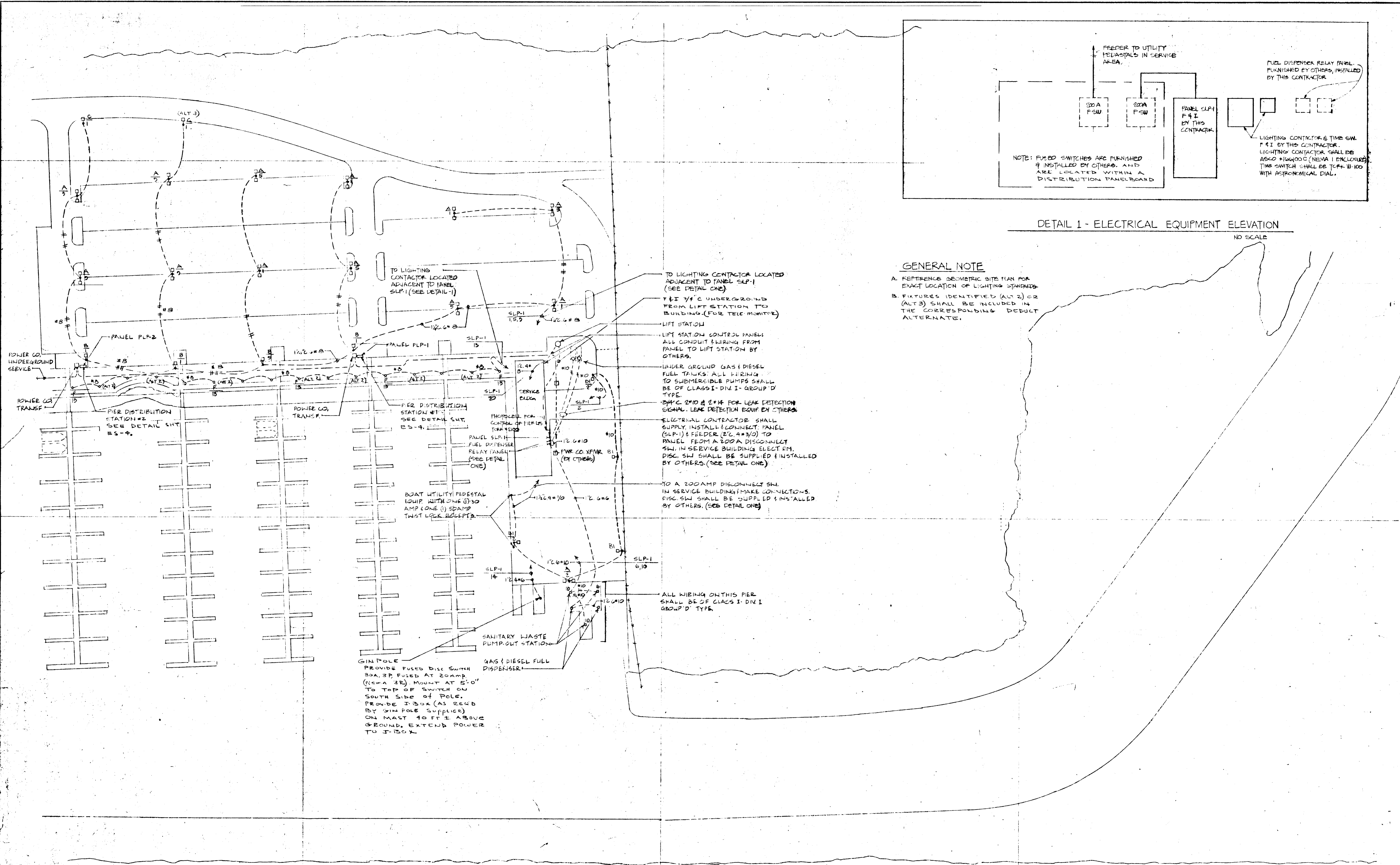
Drawn by J.R.S.  
Checked by B.R.K.  
Date 12/12/78  
Comm. no. 7666

SHEET TITLE  
**SITE GRADING PLAN**

Scale 1" = 50'  
NORTH

**BARKERS ISLAND MARINA PHASE 2**  
CITY OF SUPERIOR, WISCONSIN  
EDA PROJECT # 06-01-01467

C



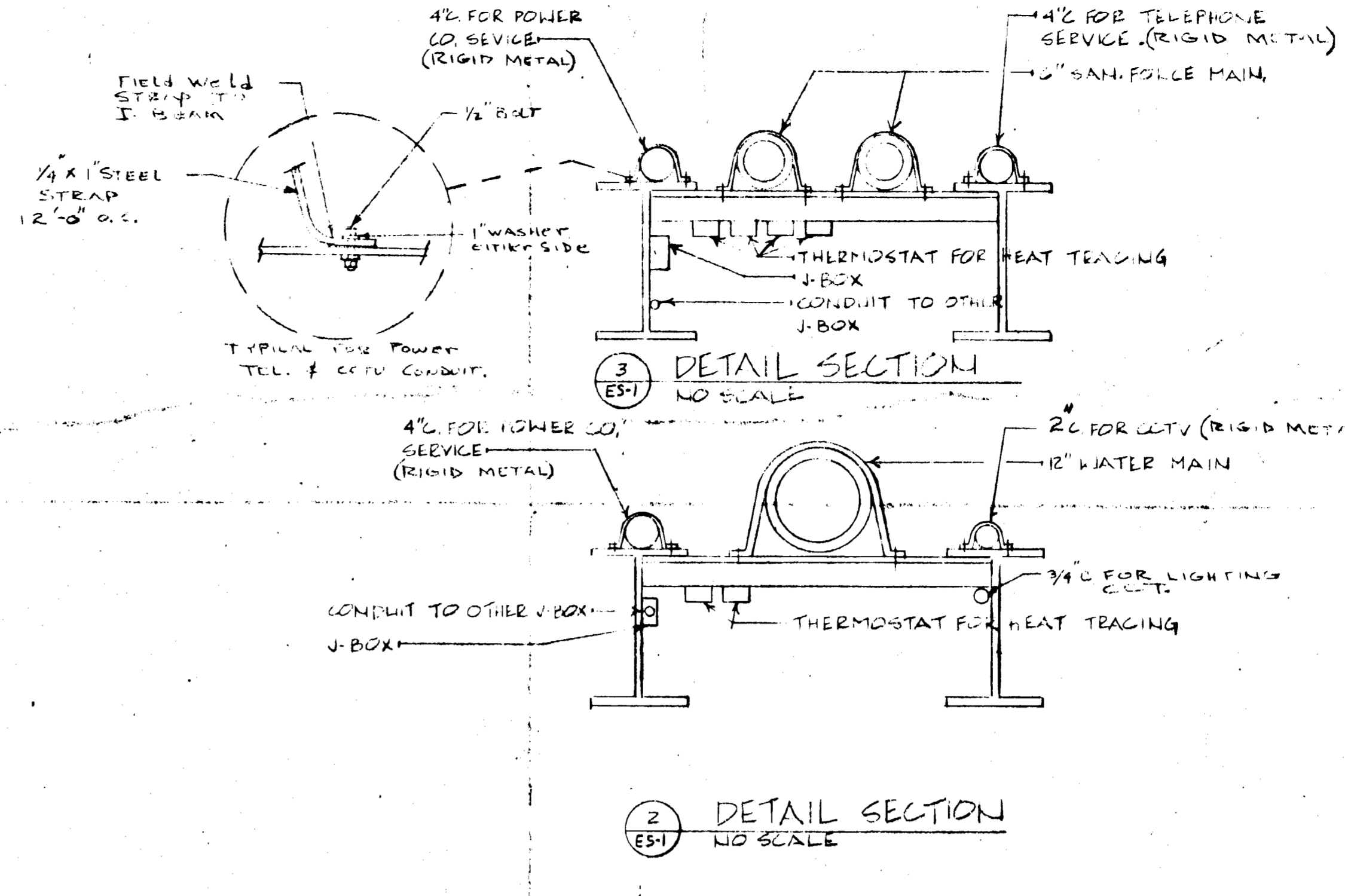
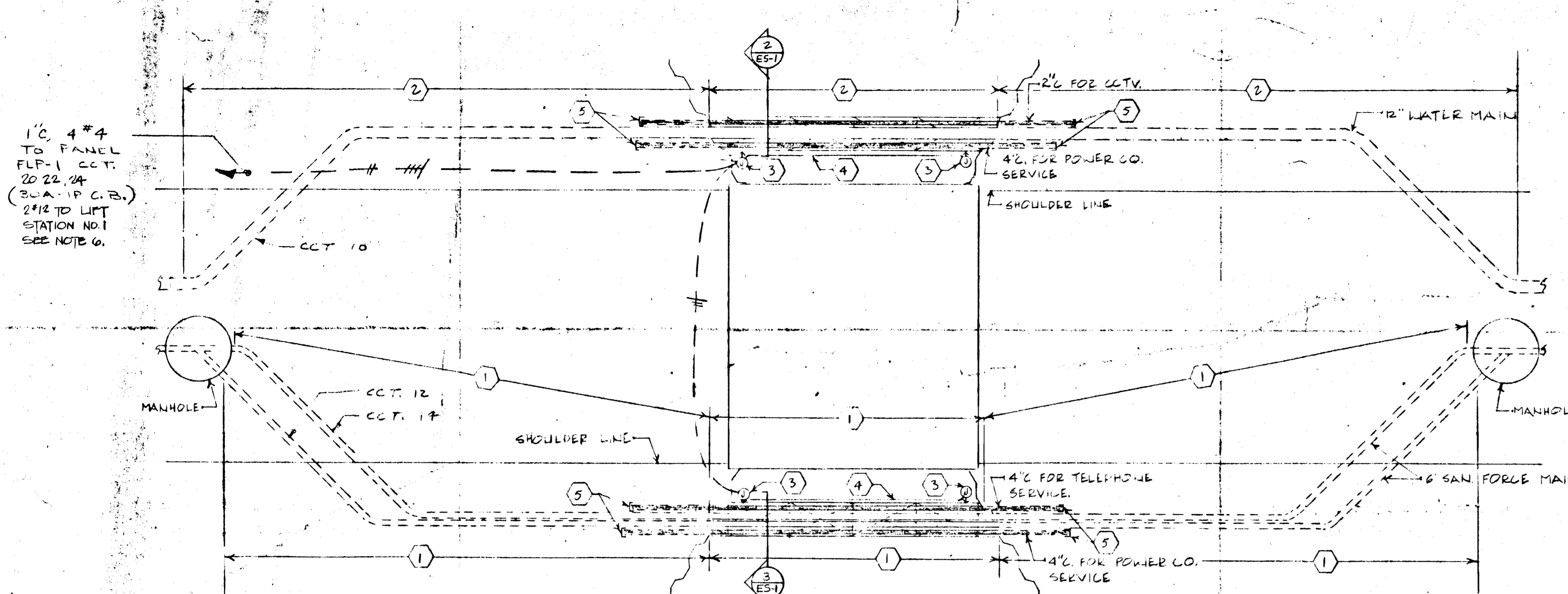
DETAIL 1 - ELECTRICAL EQUIPMENT ELEVATION  
NO SCALE

**GENERAL NOTE**

- A. REFERENCE GEOMETRIC SITE PLAN FOR EXACT LOCATION OF LIGHTING STANDARDS.
- B. FIXTURES IDENTIFIED (ALT 2) OR (ALT 3) SHALL BE INCLUDED IN THE CORRESPONDING DEDUCT ALTERNATE.

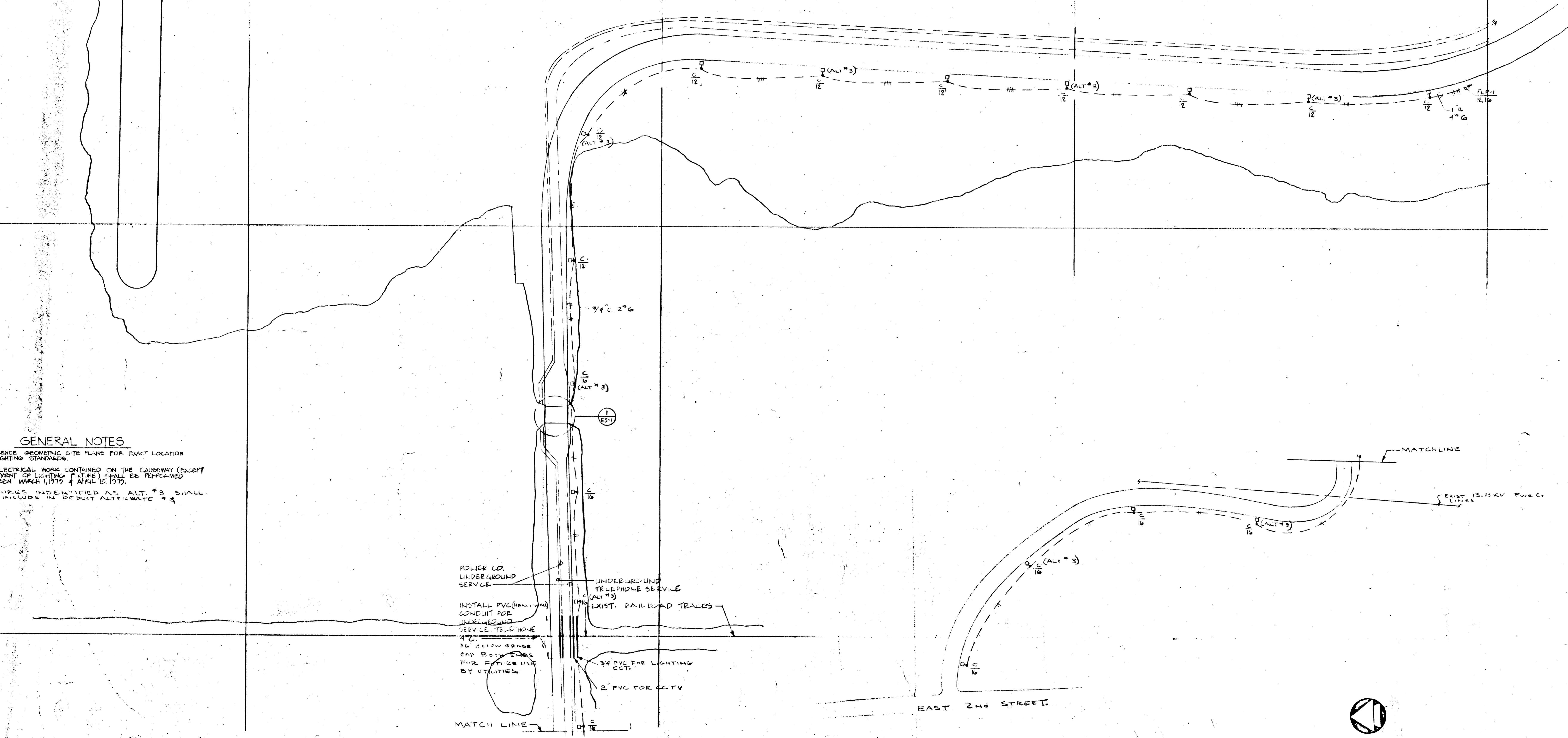
- TO LIGHTING CONTRACTOR LOCATED ADJACENT TO PANEL SLP-1 (SEE DETAIL ONE)
- 1/2" 1/2" UNDERGROUND FROM LIFT STATION TO BUILDING (FOR TELC MONITOR)
- LIFT STATION
- LIFT STATION CONTROL PANEL: ALL CONDUIT EXITING FROM PANEL TO LIFT STATION BY OTHERS.
- UNDER GROUND GAS & DIESEL FUEL TANKS: ALL FIRING TO SUBMERSIBLE PUMPS SHALL BE OF CLASS I-DIV I-GROUP D TYPE.
- 2" PVC 2" ID & 2" ID FOR LEAK DETECTION SIGNAL. LEAK DETECTION EQUIP BY OTHERS.
- ELECTRICAL CONTRACTOR SHALL SUPPLY, INSTALL & CONNECT PANEL (SLP-1) & FEEDER (2" 4" 3/4") TO PANEL FROM A 200A DISCONNECT SW. IN SERVICE BUILDING ELECTR. DISC. SW. SHALL BE SUPPLIED & INSTALLED BY OTHERS. (SEE DETAIL ONE)
- TO A 200AMP DISCONNECT SW. IN SERVICE BUILDING MAKE CONNECTIONS. DISC. SW. SHALL BE SUPPLIED & INSTALLED BY OTHERS. (SEE DETAIL ONE)
- ALL WIRING ON THIS PIER SHALL BE OF CLASS I-DIV I GROUP D TYPE.

**GIN POLE**  
PROVIDE FUSED DISC SW WITH 30A, 3P FUSED AT 20AMP (NEMA 3B). MOUNT AT 5'-0" TO TOP OF SWITCH ON SOUTH SIDE OF POLE. PROVIDE J-BOX (AS REQ'D BY GIN POLE SUPPLIER) ON MAST 10 FT. ABOVE GROUND. EXTEND POWER TO J-BOX.



- ELECTRICAL NOTES**
- Supply, install and connect heat tracing, thermostat, and low temperature sensor to this length of pipe. Heat trace to be Chemlex SATV 120V rated at 8W/lineal foot. Thermostat shall be Chemlex E-109 with remote sensor. Install heat tracing with 2 lineal feet of tape spiral wrapped per lineal foot of pipe. Thermostat and low temp. sensor shall be installed on pipe crossing frame. See Detail 1. See Note 6 regarding low temperature sensor.
  - Supply, install and connect heat tracing, thermostat and low temperature sensor to this length of pipe. Heat trace to be Chemlex SATV 120V rated at 8W/lineal foot. Thermostat shall be Chemlex E-109 with remote sensor. Install heat tracing with 1-1/2 lineal feet of tape spiral wrapped per lineal foot of pipe. Thermostat and low temp. sensor shall be installed on pipe crossing frame. See Detail. See Note 6 regarding low temperature sensor.
  - Install junction box to underside of pipe crossing frame. See Detail.
  - Mount conduit on pipe crossing frame.
  - Extend conduit 5'-0" into grade and down 3'-0" below grade.
  - Wire all low temperature sensing devices in parallel for a common signal to the lift station No. 1. Run #12 to lift station No. 1 for telemetering by others. Coordinate with lift station contractor.

UTILITY CROSSING AT BRIDGE DETAIL  
NO SCALE



**GENERAL NOTES**

- REFERENCE GEOMETRIC SITE PLANS FOR EXACT LOCATION OF LIGHTING STANDARDS.
- ALL ELECTRICAL WORK CONTAINED ON THE CAUSEWAY (EXCEPT PLACEMENT OF LIGHTING FIXTURE) SHALL BE PERFORMED BETWEEN MARCH 1, 1979 & APRIL 15, 1979.
- FIXTURES IDENTIFIED AS ALT. #3 SHALL BE INCLUDED IN PRODUCT ALT. #3.

POWER CO. UNDERGROUND SERVICE  
INSTALL PVC (HEAVY WALL) CONDUIT FOR UNDERGROUND SERVICE TELEPHONE SERVICE TELEPHONE SERVICE 36\"/>



REVISIONS

**MICHAUD-COOLEY-HALLBERG-ERICKSON & ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
310 PLYMOUTH BUILDING • MINNEAPOLIS, MINN. 55402  
(612) 339-4441

I hereby certify that this drawing was prepared by me or under my direct supervision and that I am a duly registered ENGINEER under the laws of the State of WISCONSIN.  
Date: 12/12/78 Reg. No. E.0210

**CLARK ENGINEERING CO.**  
CONSULTING ENGINEERS  
2815 WAYZATA BOULEVARD  
MINNEAPOLIS, MINNESOTA 55405

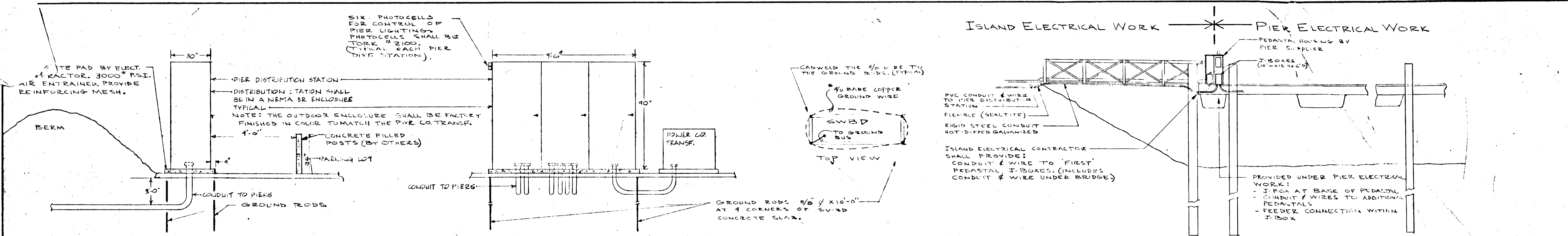
drawn by B.W.  
checked by S.C.H.  
date DEC. 12, 1978  
comm. no. 02419

sheet title  
**ISLAND ELECT. SITE PLAN**

scale 1"=50'  
TRUE  
north

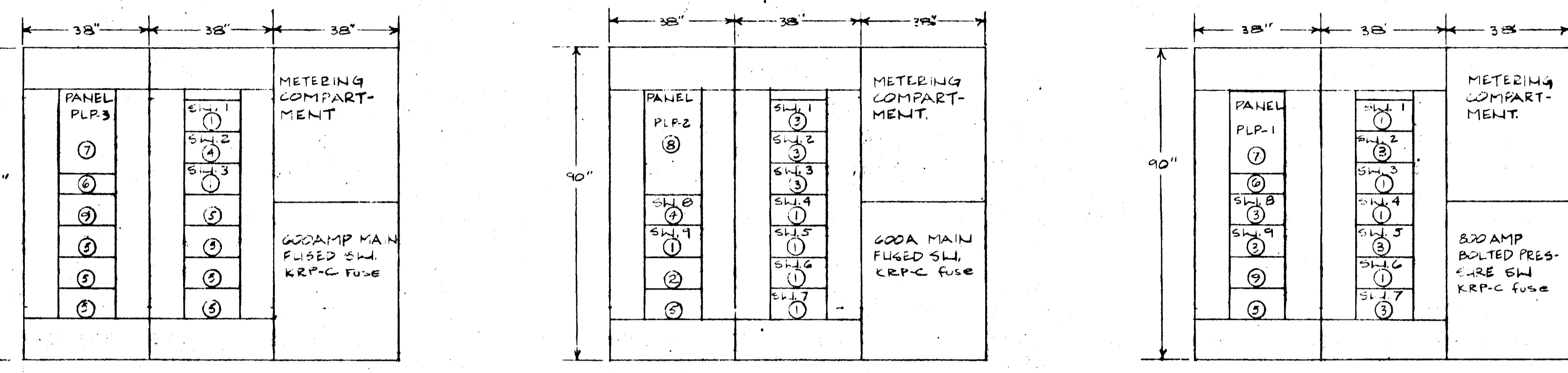
**BARKERS ISLAND MARINA PHASE 2**  
CITY OF SUPERIOR, WISCONSIN  
EDA PROJECT # 06-01-01467

ES-1  
of sheets



**FUSIBLE SWITCH SCHEDULE**

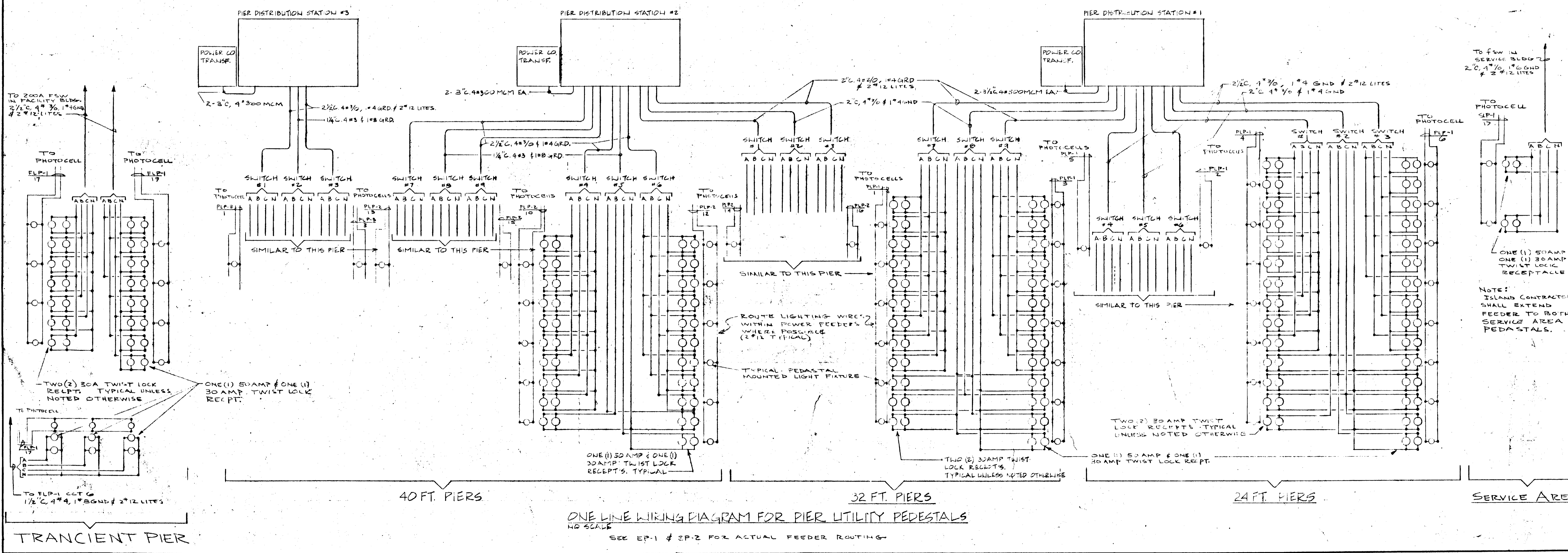
ITEM NO	SWITCH SIZE	FUSE SIZE	FUSE TYPE	NOTES
1	200A	200A	LPN-R	
2	100A	100A	KTN-R FEEDS PANEL	
3	200A	175A	LPN-R	
4	200A	100A	LPN-R	
5	200A			SPACE
6	2-32A			SPACE
7				RECT PANEL
8				RECT PANEL
9	100A	50A	KTN-R FEEDS PANEL	



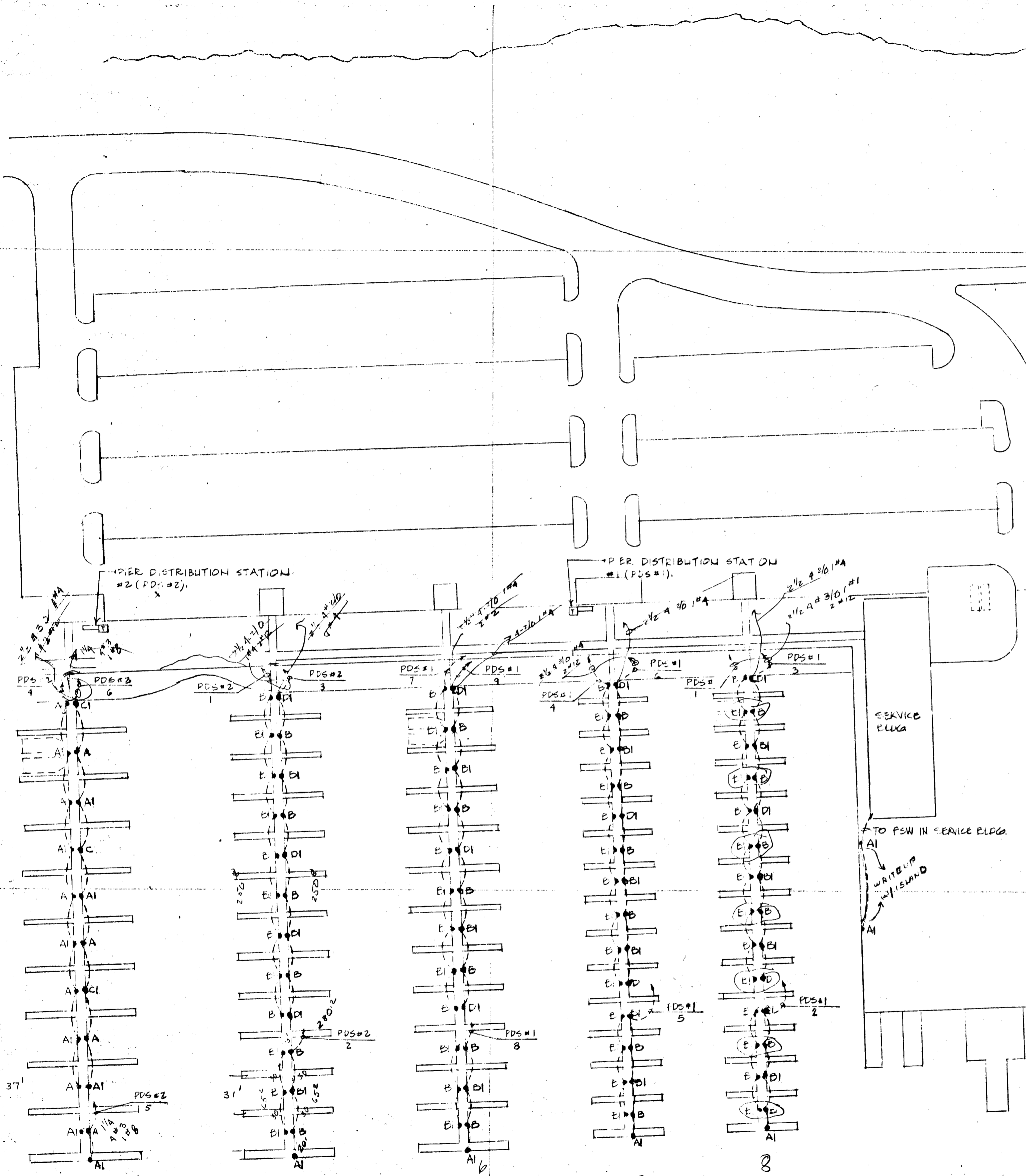
NOTE: BUSING FOR DISTRIBUTION STATION SHALL BE 600AMP THRU-OUT.  
**PIER DISTRIBUTION STATION #3**  
 SCALE: NONE

NOTE: BUSING FOR DISTRIBUTION STATION SHALL BE 600A THRU-OUT.  
**PIER DISTRIBUTION STATION #2**  
 SCALE: NONE

NOTE: BUSING FOR DISTRIBUTION STATION SHALL BE 600AMP THRU-OUT.  
**PIER DISTRIBUTION STATION #1**  
 SCALE: NONE

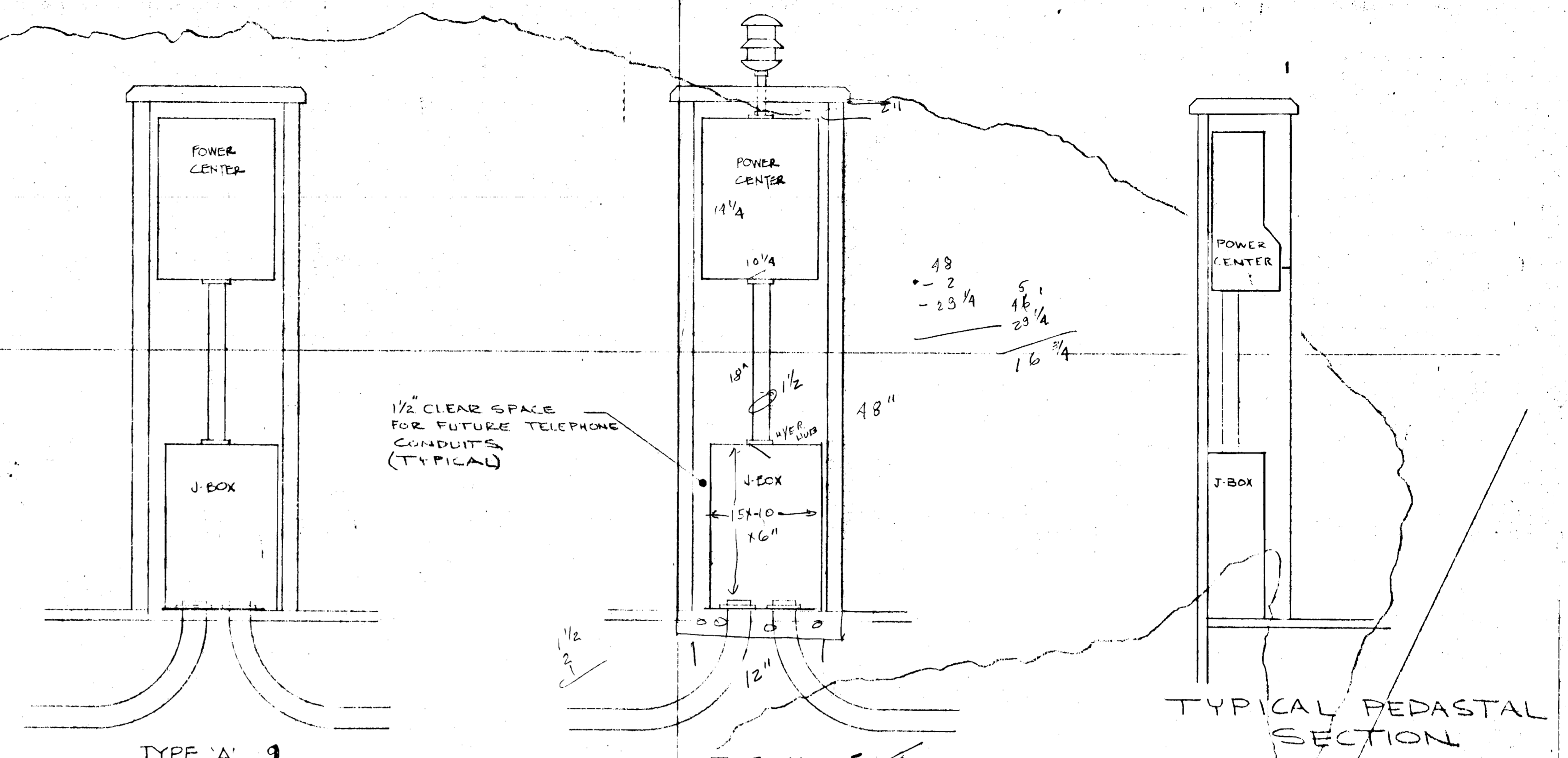


**ONE LINE WIRING DIAGRAM FOR PIER UTILITY PEDESTALS**  
 NO SCALE  
 SEE EP-1 & EP-2 FOR ACTUAL FEEDER ROUTING



2508	112	4	1160
2508	580	200	1160
108	1	200	320
108	260	130	240
108	30	15	60
602	140	70	280
602	140	70	280
201	50	25	100
3408	1780	1050	3620

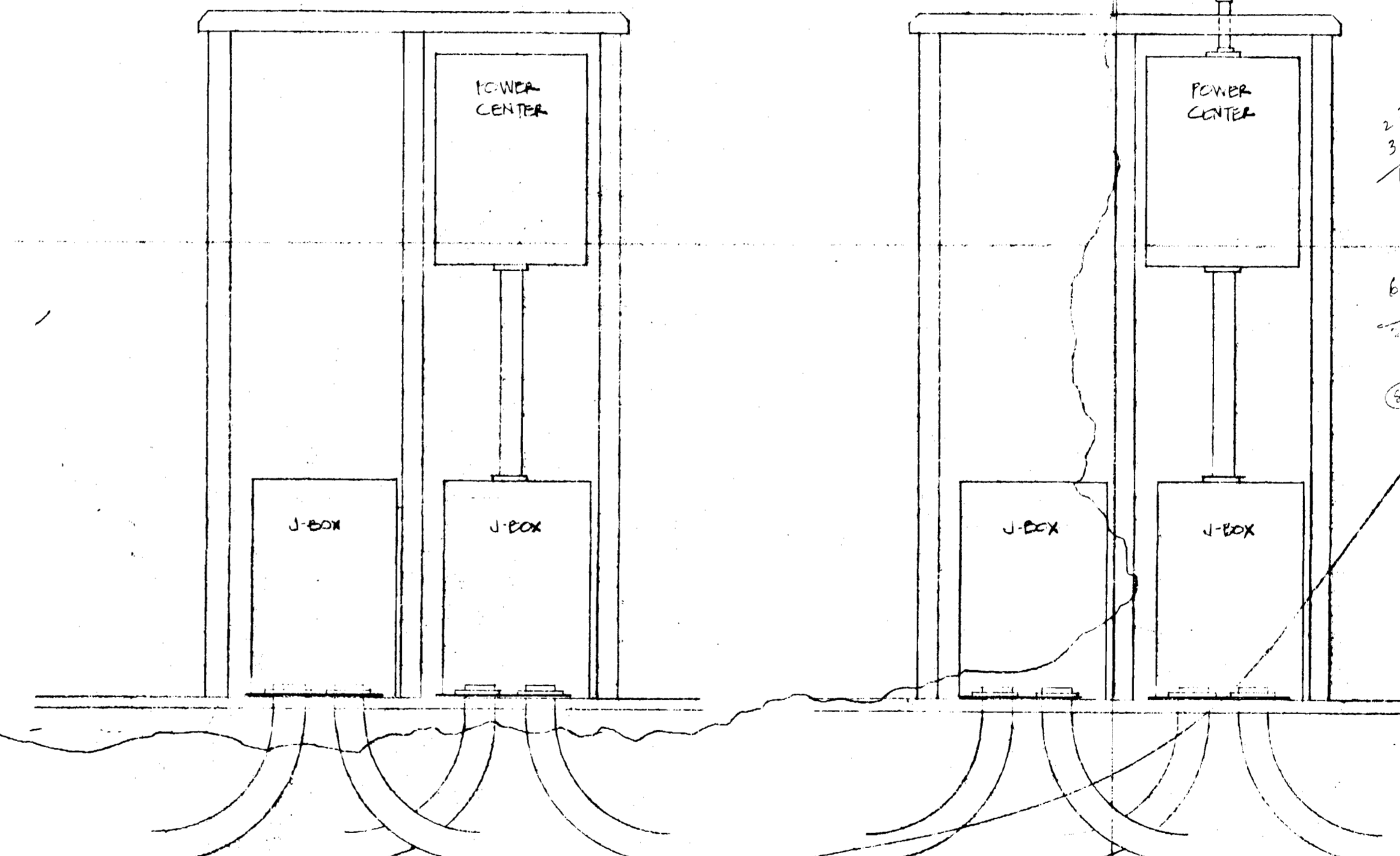
ALT 3  
 7' 8" ONLY  
 (-6 B) (-4 B) X 2  
 PRODUCT 24 B 24 B 1



TYPE 'A' 3  
 RECEIPT: 1-30A  
 1-30A  
 TYPE 'B' 57  
 RECEIPT: 2-30A  
 37  
 27  
 25  
 57  
 170

TYPE 'A1' 35  
 RECEIPT: 1-30A  
 1-30A  
 TYPE 'B1' 19  
 RECEIPT: 2-30A  
 37  
 27  
 25  
 57  
 170

- NOTES:**
- A. SEE SPECIFICATION 4850 FOR INFORMATION ON THE POWER CENTERS, J-BOXES & PEDAESTAL LIGHTS.
  - B. ALL RECEIPTICLES SHALL BE 2IN SWIVE CASKING, THROTTLOCK 120V, CORROSION RESISTANT  
30A - HUBBELL 26CM10  
20A - HUBBELL 26CM70
  - C. J-BOX AT BASE OF PEDAESTAL SHALL BE 10"W X 15"H X 6"D SEE SPEC. SECTION 4850.



TYPE 'C' 3  
 RECEIPT: 1-30A  
 1-30A  
 TYPE 'D' 2  
 RECEIPT: 2-30A

TYPE 'C1' 6  
 RECEIPT: 1-30A  
 1-30A  
 TYPE 'D1' 11  
 RECEIPT: 2-30A

- 2-OUTLET POWER CENTER  
 2-30 - CC-80LA - 250 1/2 BOTTOM BLAUETOP  
 CC-82LF 1-30-150 1/2 BOTTOM BLANK  
 CA-82LF 1-30-150 1/2 BOTTOM BLANK  
 CA-82LF

	A	B	C	D	LIGHTS
	23	57	3	2	357
	35	49	6	11	43
	64	106	9	13	6
					11
					101

PEDESTAL DETAILS - ELECTRICAL EQUIPMENT

NO SCALE



CONSTRUCTION NORTH

REVISIONS


**MICHAUD-COOLEY HALLBERG-ERICKSON & ASSOCIATES, INC.**  
 CONSULTING ENGINEERS  
 310 PLYMOUTH BUILDING - MINNEAPOLIS, MINN. 55402  
 (612) 339-4941

I hereby certify that this drawing was prepared by me or under my direct supervision and that I am a duly registered Professional Engineer under the laws of the State of Wisconsin.

Signature: *[Signature]*  
 Date: 2/1/77  
 Reg. No. E-02110

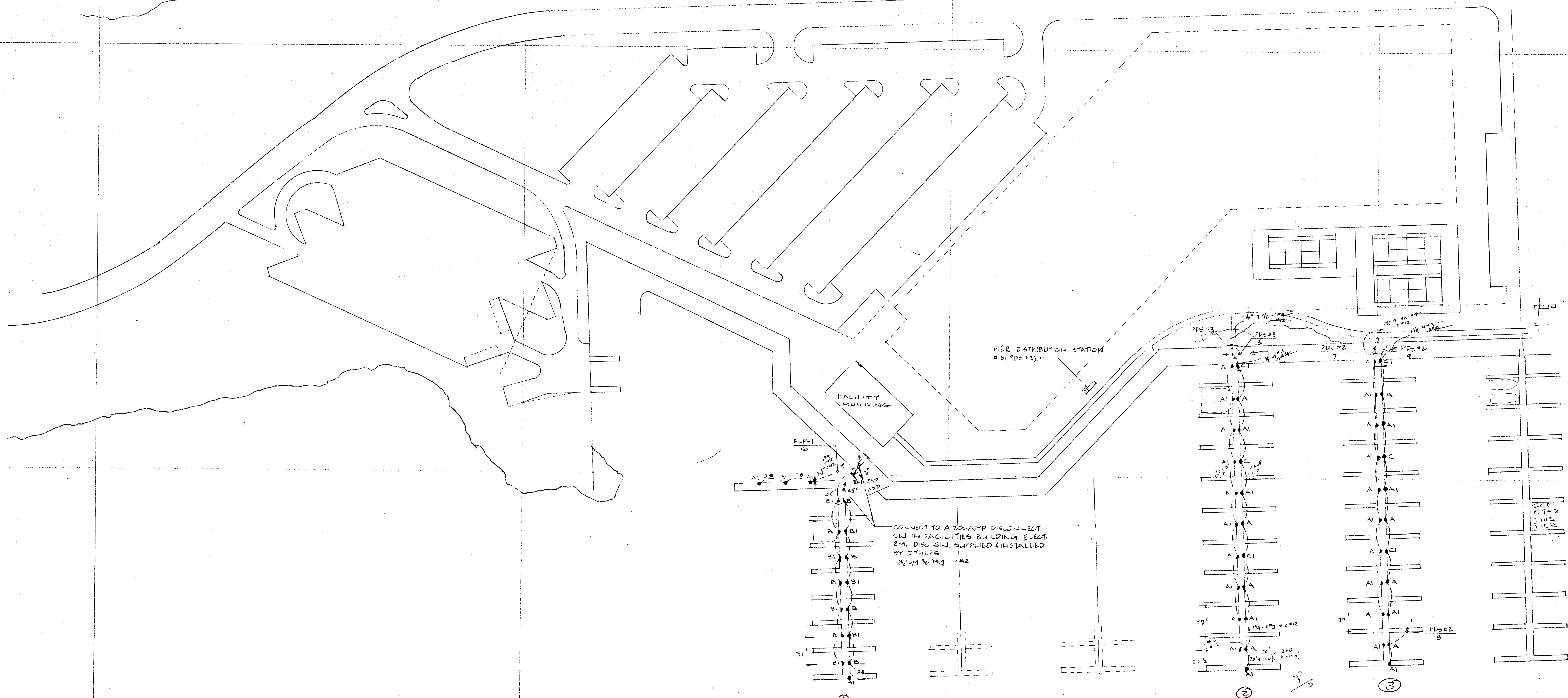
**CLARK ENGINEERING CO.**  
 CONSULTING ENGINEERS  
 2815 WAYZATA BOULEVARD  
 MINNEAPOLIS, MINNESOTA 55408

Drawn by: B.W. KL
Checked by: CLH
Date: 2/1/77
Comm. no. 02-412

SHEET TITLE  
**ELECTRICAL PIER PLAN**

**BARKERS ISLAND MARINA PHASE 2**  
 CITY OF SUPERIOR, WISCONSIN  
 E.D.A. PROJECT N° 06-01-01467

EP-2  
 of sheets

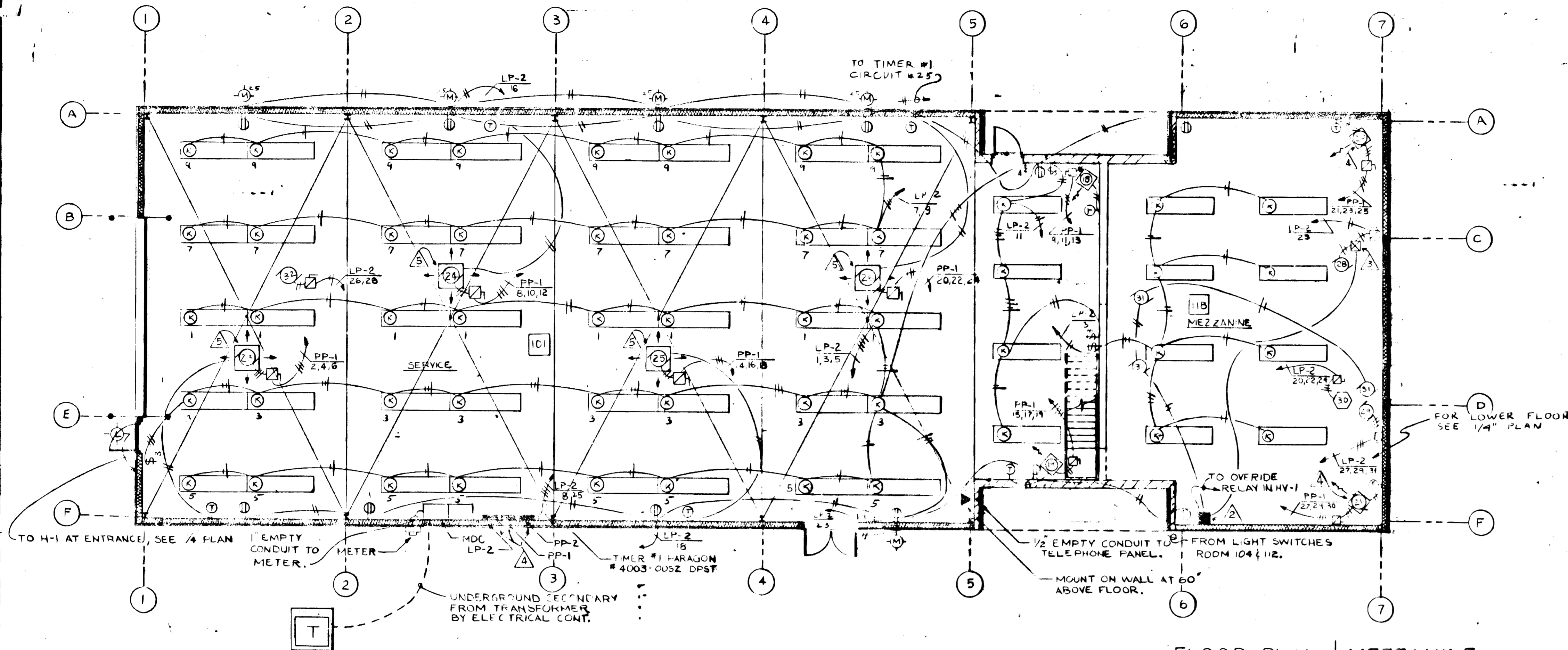


A	A1	B	B1	C	C1	D	D1	
18	22	7	7	2	4			27
9	13	50	42	1	2	2	10	35
27	35	57	49	3	6	2	17	57
		106		3		13		49
12								3
+2								11
								190
								2
								192

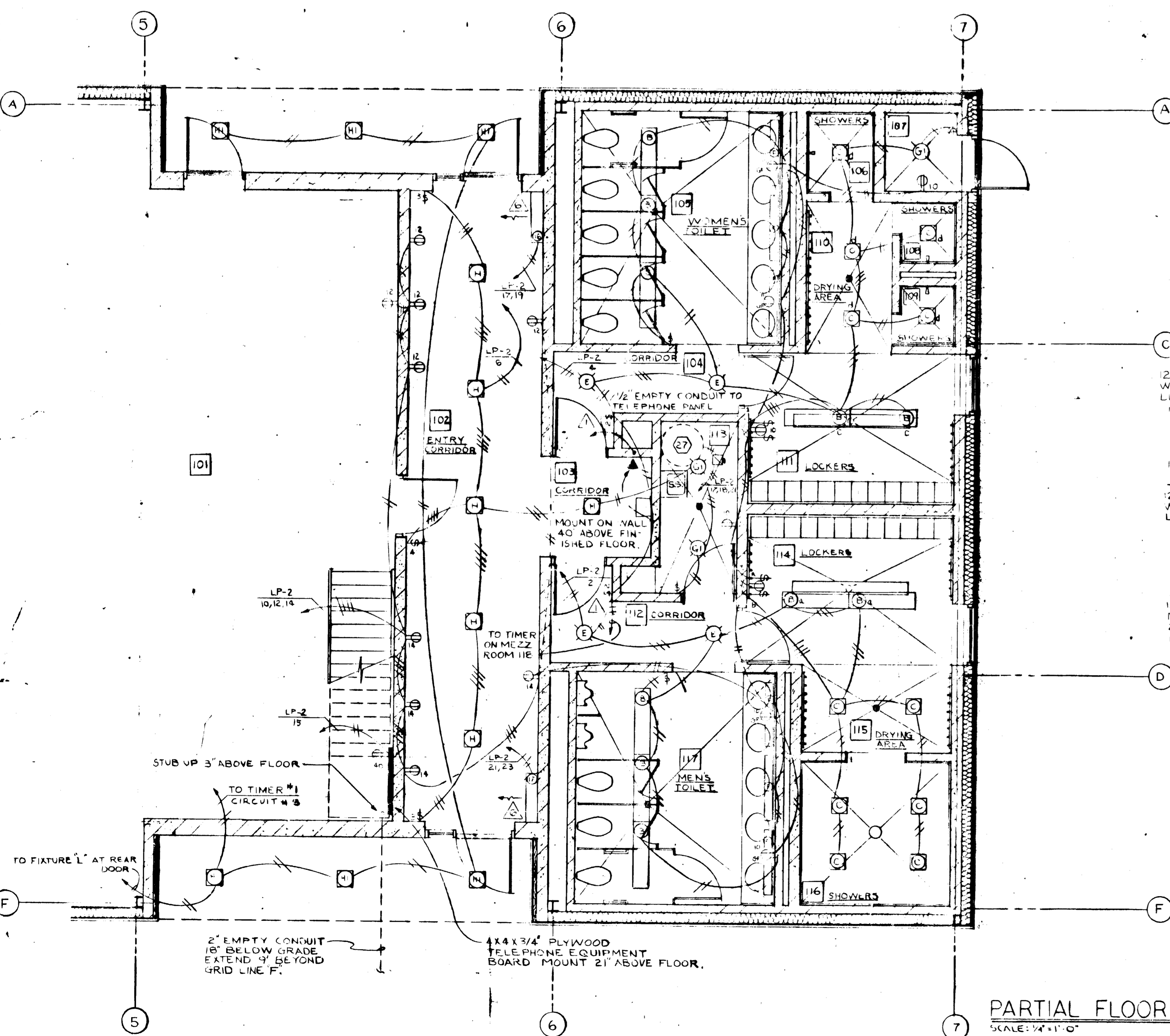
PERFORMANCE BAND



CONSTRUCTION NORTH



FLOOR PLAN & MEZZANINE  
SCALE: 1/8" = 1'-0"

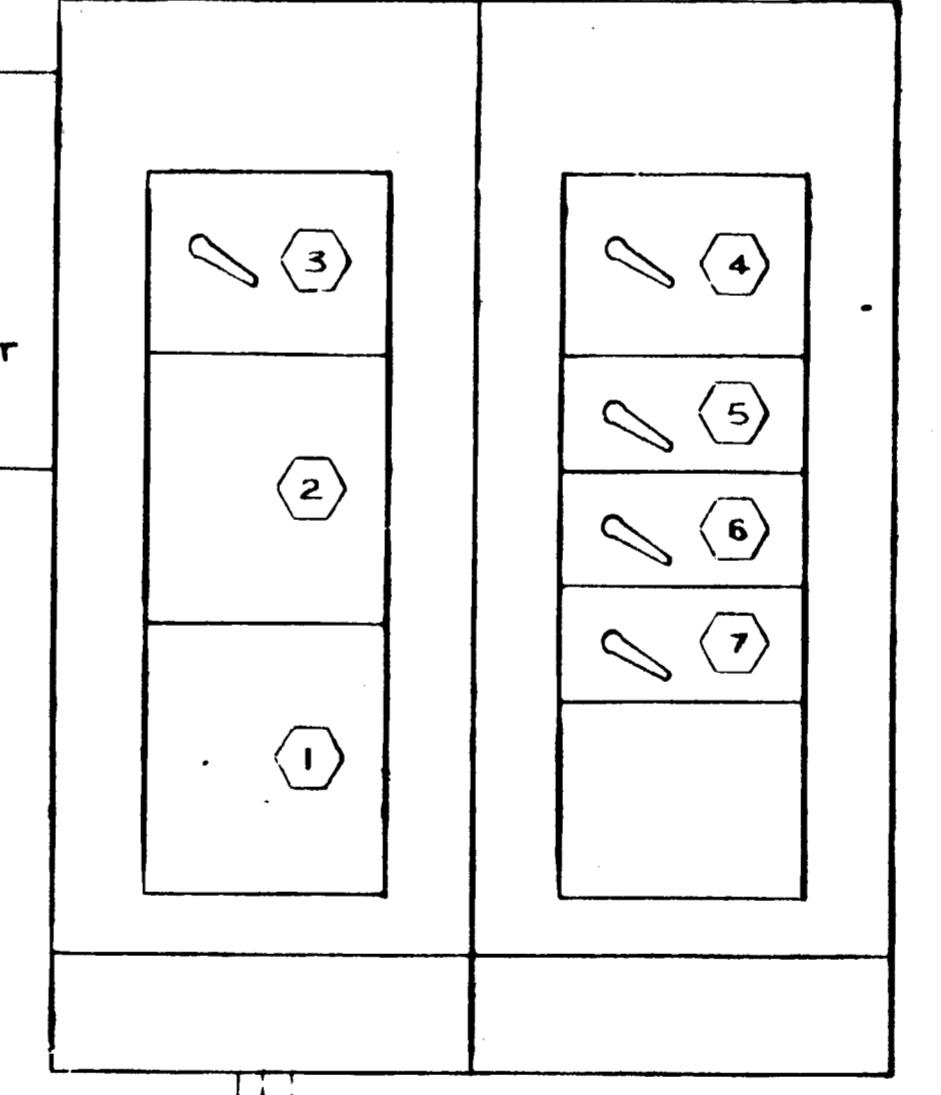


PARTIAL FLOOR PLAN  
SCALE: 1/4" = 1'-0"

- NOTES
- ▲ 1st poles for lights, 2nd poles wired in parallel for timer.
  - ▲ Provide off delay timer Paragon #502-132-00 with NEMA Type 3 Cast #500 set for ten minute delay. Connect times to motorized dampers. Starter for DP-1 and blowers control override delay in HV-1.
  - ▲ Provide starter for PP-1 (motor 28). Verify starter size with mechanical contractor.
  - ▲ Verify mounting with Architects.
  - ▲ To be mounted to purlins.
  - ▲ To be mounted above base.
  - ▲ All outlet boxes on metal walls to be attached to the room side of metal as there are no studs in these walls.

PANEL SCHEDULE

- LP-2  
20/208V 3/4 WIRE SURFACE MOUNT WITH LOCKABLE COVER, 400A MAIN LUGS AND:  
18-20A-1P CIRCUIT BREAKERS  
1-70A-3P CIRCUIT BREAKER  
1-100A-3P CIRCUIT BREAKER  
1-125A-3P CIRCUIT BREAKER  
1-15A-2P CIRCUIT BREAKER  
13-SPACES
- PP-1  
20/208V 3/4 WIRE SURFACE MOUNT WITH LOCKABLE COVER, 400A MAIN LUGS AND:  
2-20A-2P CIRCUIT BREAKERS  
4-30A-3P CIRCUIT BREAKERS  
3-60A-3P CIRCUIT BREAKERS  
1-70A-3P CIRCUIT BREAKER  
14-SPACES
- PP-2  
120/208V 3/4 WIRE SURFACE MOUNT WITH LOCKABLE COVER, 200A MAIN LUGS AND 42 SPACES FOR FUTURE EQUIPMENT.



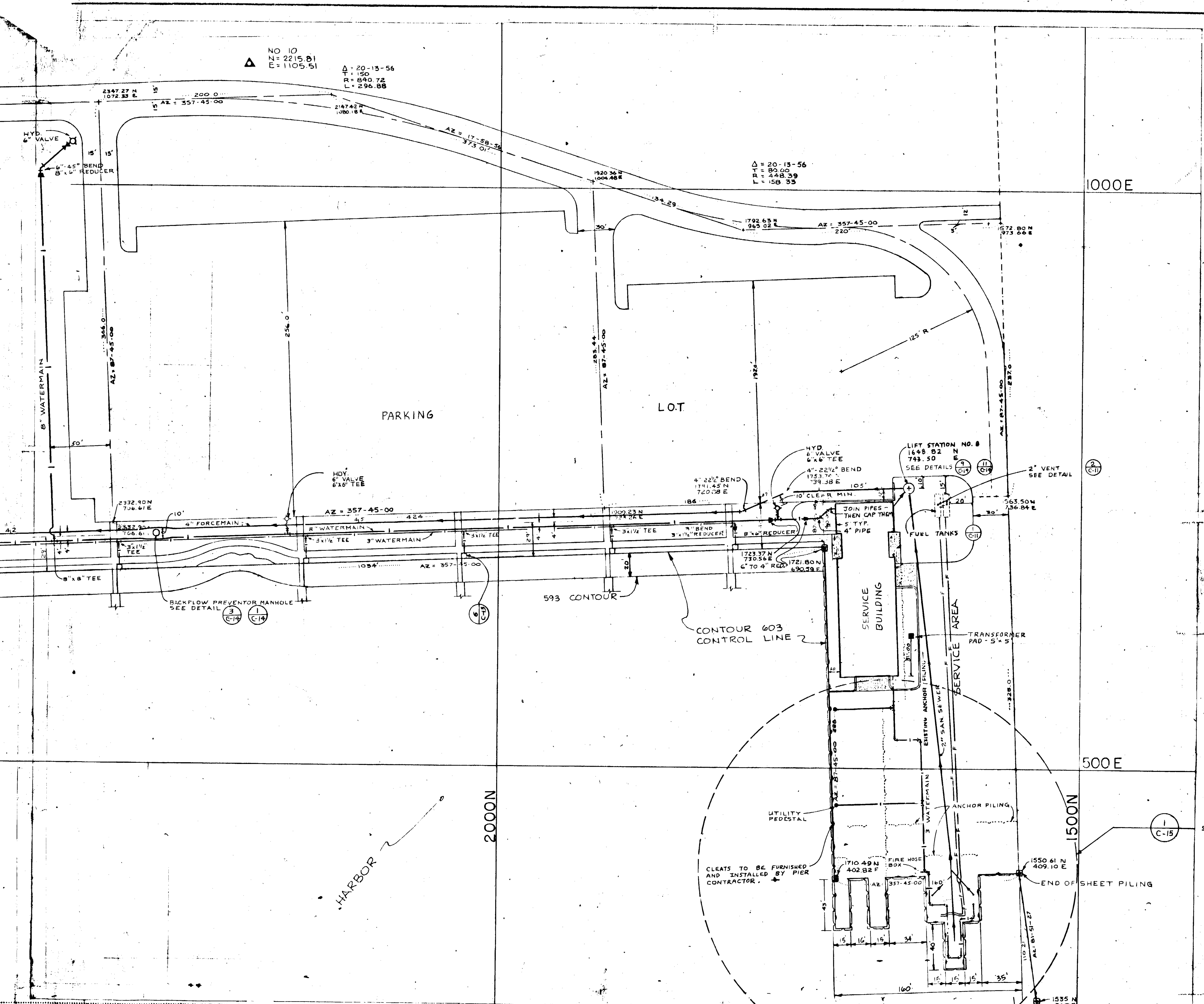
- 1 UNDERGROUND PULL SECTION.
  - 2 C.T. SECTION.
  - 3 400A 3P SWITCH & FUSE FOR PANEL LP-2.
  - 4 400A 3P SWITCH & FUSE FOR PANEL PP-1.
  - 5 200A 3P SWITCH & FUSE FOR PANEL PP-2.
  - 6 200A 3P SWITCH & FUSE FOR SITE LIGHTING.
  - 7 200A 3P SWITCH & FUSE FOR SITE LIGHTING.
- FOR CONNECTIONS BY OTHERS.

M.D.C. RISER  
NO SCALE

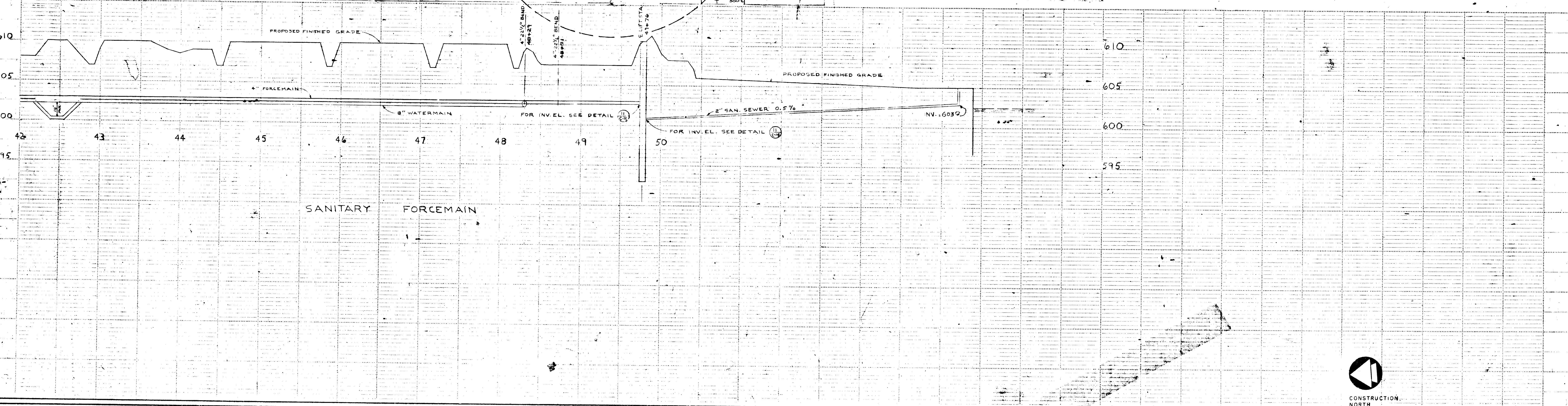


<p>REVISIONS</p>	<p>TAC ENGINEERING CO., INC. CONSULTING ENGINEERS 9909 SMETANA ROAD HOPKINS, MINNESOTA 55343 TELEPHONE 812-933-2201</p>	<p>KILSTOFFE ASSOCIATES ERWIN H. KILSTOFFE A.A. FRED A. POISSON ASSOC. ARCHITECTURE SPACE PLANNING INTERIOR DESIGN TEL. 953-419-0577 WATZATA MEDICAL BLDG. 270 NORTH CENTRAL WATZATA 1, MINN. 55127</p>	<p>CLARK ENGINEERING CO. CONSULTING ENGINEERS JULEVARD MINNESOTA 55408</p>	<p>drawn by: TJS checked by: TJS date: 1/17/78 sheet: 117 scale: AS SHOWN</p>	<p>Project No. 196-L-0467 City of Superior, Wisconsin 123</p>
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- LEGEND**
- SANITARY SEWER FORCEMAIN
  - WATERMAIN
  - FUEL LINE
  - HYDRANT
  - VALVE
  - REDUCER
  - UTILITY PEDESTAL
  - △ CONTROL POINT
  - SHEET PILING
  - CENTER LINE
  - CONTOUR 603 CONTROL LINE



I hereby certify that this drawing was prepared by me or under my direct supervision and that I am a duly registered ENGINEER under the laws of the State of WISCONSIN.

*James P. Kelly*  
Signature  
Date 12/22/78 Reg. No. 515018

**CLARK ENGINEERING CO.**  
CONSULTING ENGINEERS  
3815 MAYATA BOULEVARD  
WINNEAPOLIS, MINNESOTA 55405

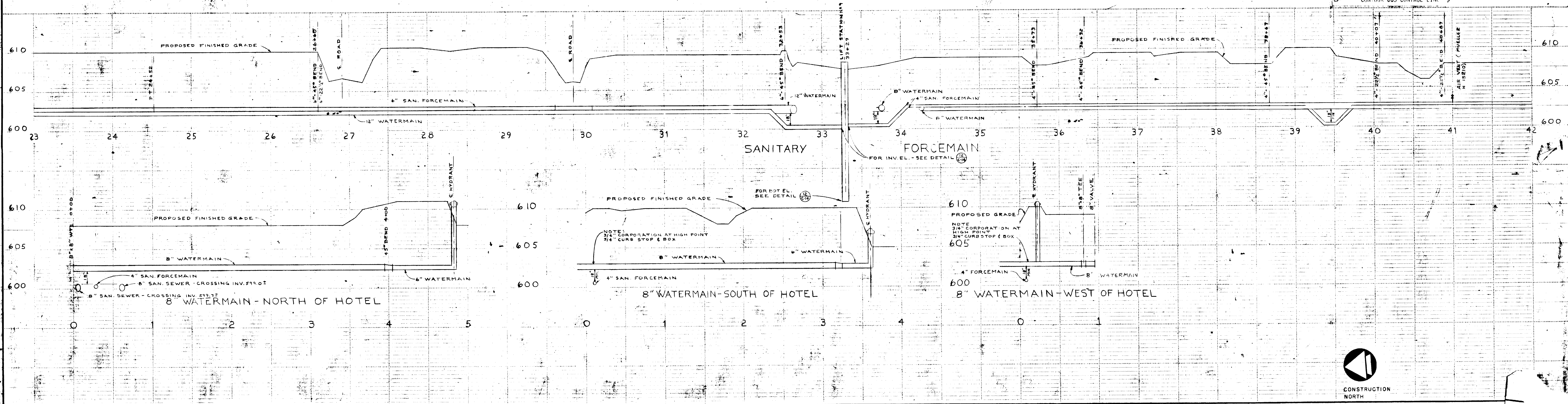
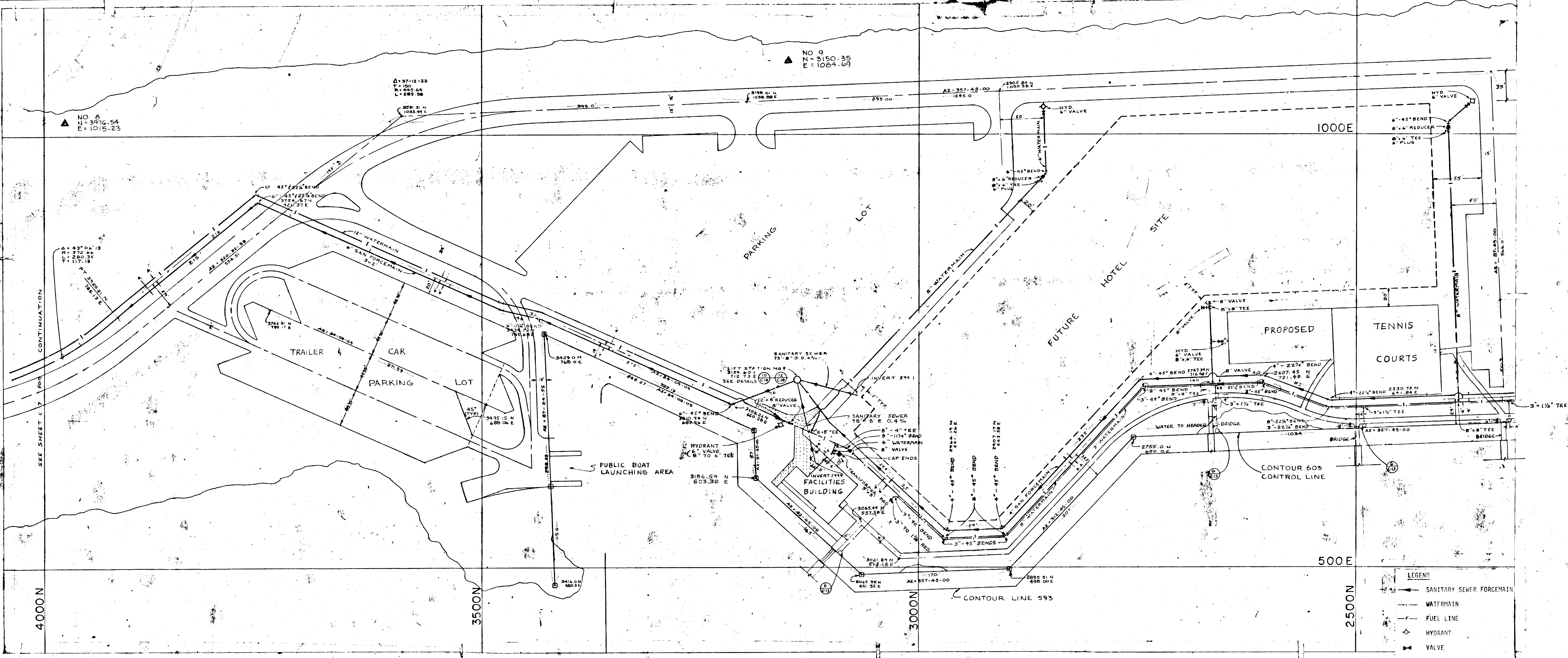
Drawn by J.R.S. & D.E.M.  
Checked by B.R.K.  
Date 12/12/78  
DWG. NO. 7866

Sheet title  
**WATERMAIN AND SANITARY FORCEMAIN**  
PLAN AND PROFILE

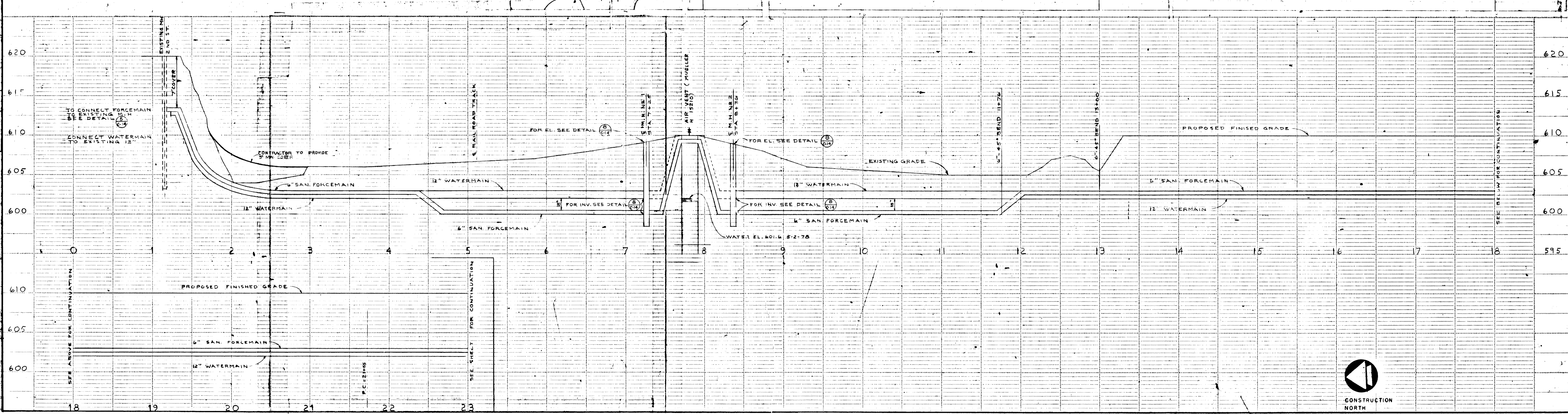
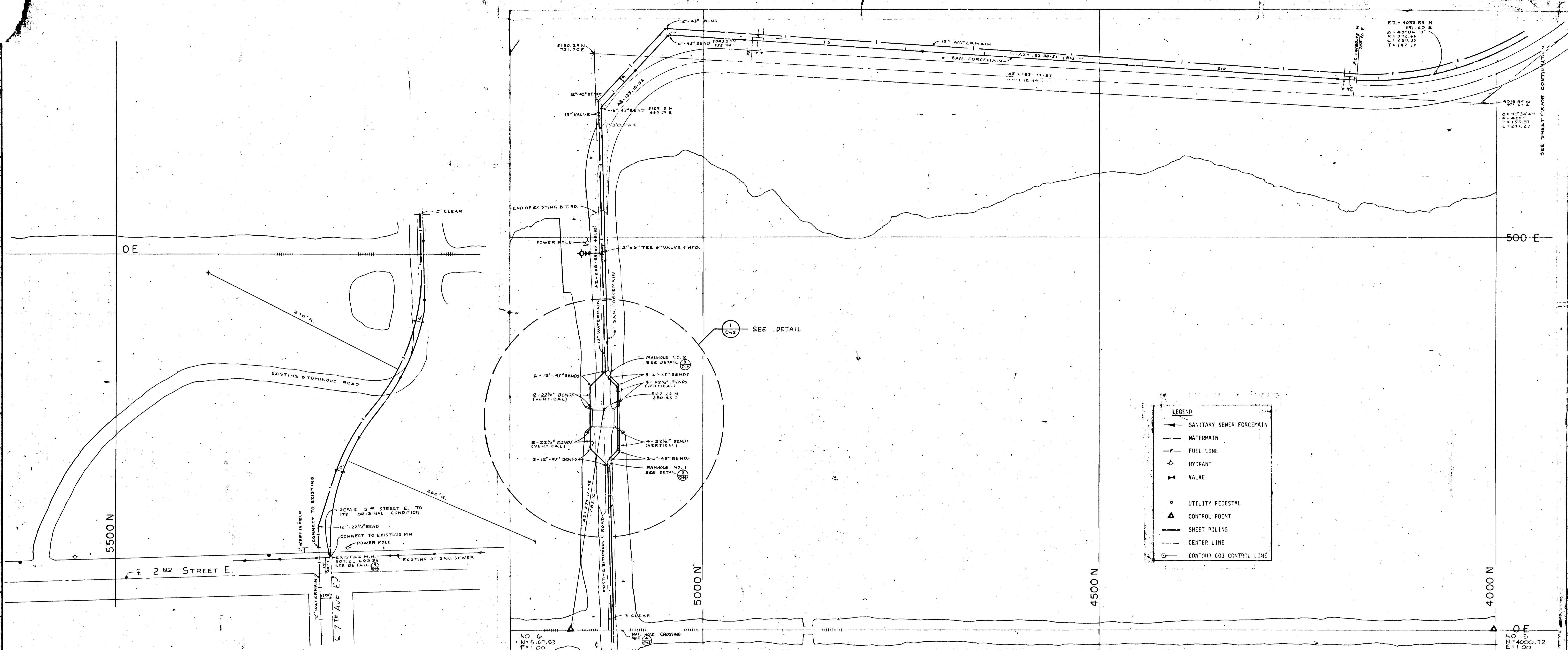
Scale 1" = 50'  
NORTH

**BARKERS ISLAND MARINA PHASE 2**  
CITY OF SUPERIOR, WISCONSIN  
E.D.A. PROJECT NO. 06 OF 67

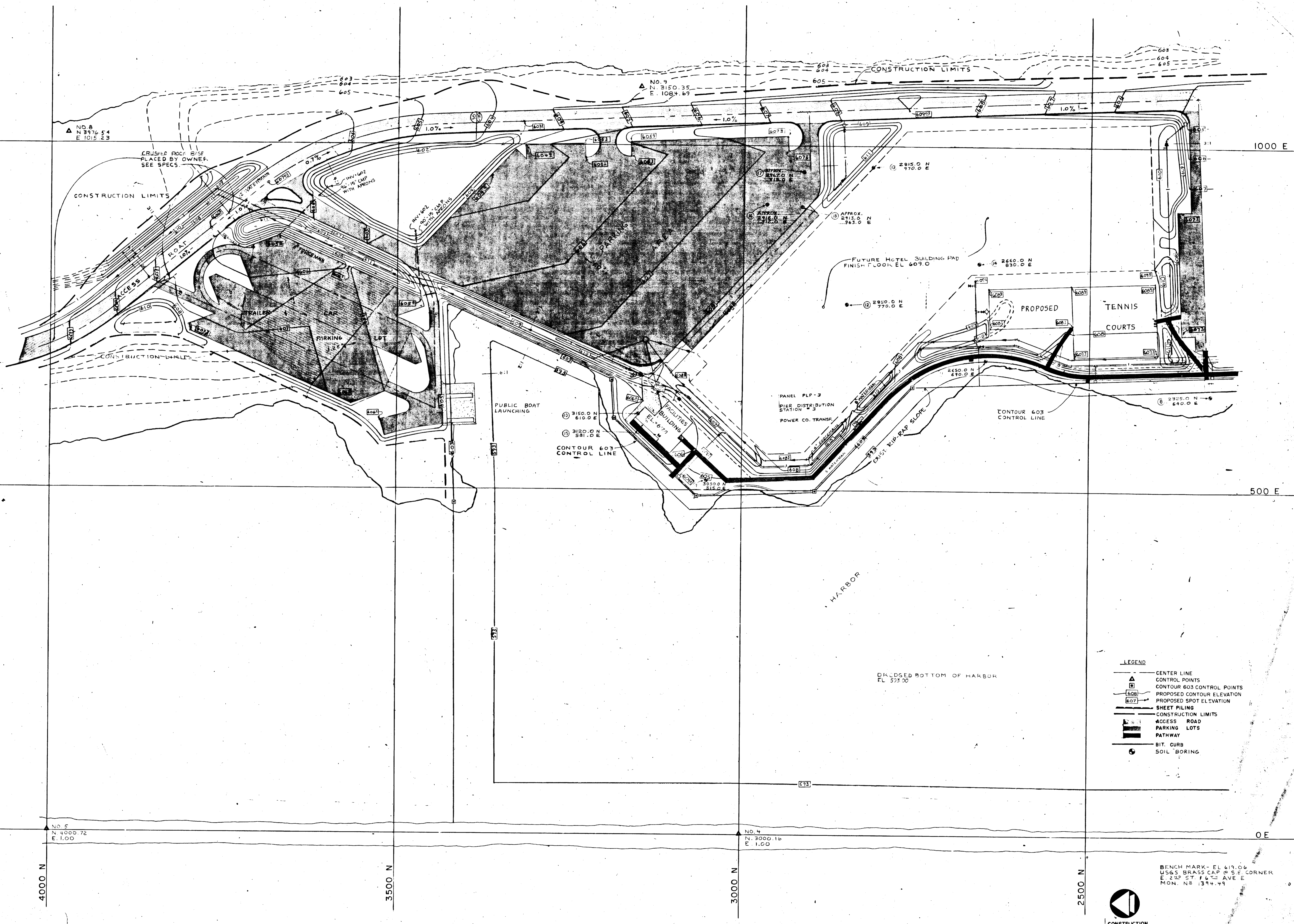
**C-9**



REVISIONS NO. 8 N = 3816.54 E = 1016.23	NO. 9 N = 3150.35 E = 1084.65	I hereby certify that this drawing was prepared by me or under my direct supervision and that I am a duly registered ENGINEER under the laws of the State of WISCONSIN.	Signature Date 12/12/78 Reg. No. E 10216	<b>CLARK ENGINEERING CO.</b> CONSULTING ENGINEERS 2815 WAYZATA BOULEVARD MINNEAPOLIS, MINNESOTA 55415	Drawn by checked by date comm. no.	SHEET TITLE <b>WATERMAIN AND SANITARY FORCEMAIN</b> PLAN AND PROFILE	scale <b>1" = 50'</b> TRUE CONSTRUCTION NORTH	<b>BARKERS ISLAND MARINA PHASE 2</b> CITY OF SUPERIOR, WISCONSIN EDA PROJECT NO. 06-01-0146	<b>8</b>



REVISIONS NO. 6 N: 5167.53 E: 1.00	I hereby certify that this drawing was prepared by me or under my direct supervision and that I am a duly registered ENGINEER under the laws of the State of WISCONSIN.	Signature: <i>James P. Kelly</i> Date: 12/12/78, Reg. No. E 10216	<b>CLARK ENGINEERING CO.</b> CONSULTING ENGINEERS 2815 WAYZATA BOULEVARD MINNEAPOLIS, MINNESOTA 55405	drawn by: J.R.S. * D.E.M. checked by: B.R.K. date: 12/12/78 comm. no.: 7666	sheet title: WATERMAIN AND SANITARY FORCEMAIN PLAN AND PROFILE	scale: 1"=50' NORTH	<b>BARKERS ISLAND MARINA PHASE 2</b> CITY OF SUPERIOR, WISCONSIN EDA PROJECT NO. 06-01-01467	<b>C-7</b> of sheets
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- LEGEND**
- CENTER LINE
  - △ CONTROL POINTS
  - CONTOUR 603 CONTROL POINTS
  - 608 PROPOSED CONTOUR ELEVATION
  - 607 PROPOSED SPOT ELEVATION
  - SHEET PILING
  - CONSTRUCTION LIMITS
  - ACCESS ROAD
  - PARKING LOTS
  - PATHWAY
  - BIT. CURB
  - SOIL BORING



BENCH MARK - EL 619.06  
 USGS BRASS CAP # 5 E CORNER  
 E 25<sup>TH</sup> ST # 4<sup>TH</sup> AVE E  
 MON. NS 1394.49

I hereby certify that this drawing was prepared by me or under my direct supervision and that I am a duly registered ENGINEER under the laws of the State of WISCONSIN  
 Date 12/12/78, Reg. No. F 10216

**CLARK ENGINEERING CO.**  
 CONSULTING ENGINEERS  
 2815 WAYZATA BOULEVARD  
 MINNEAPOLIS, MINNESOTA 55405

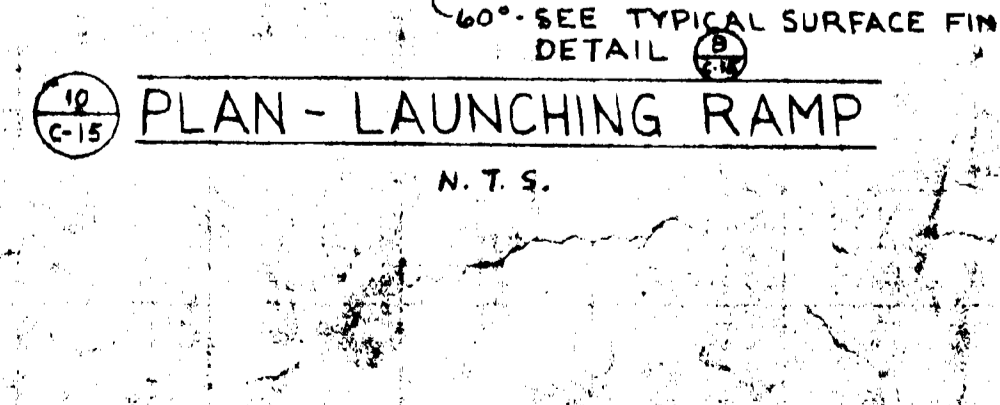
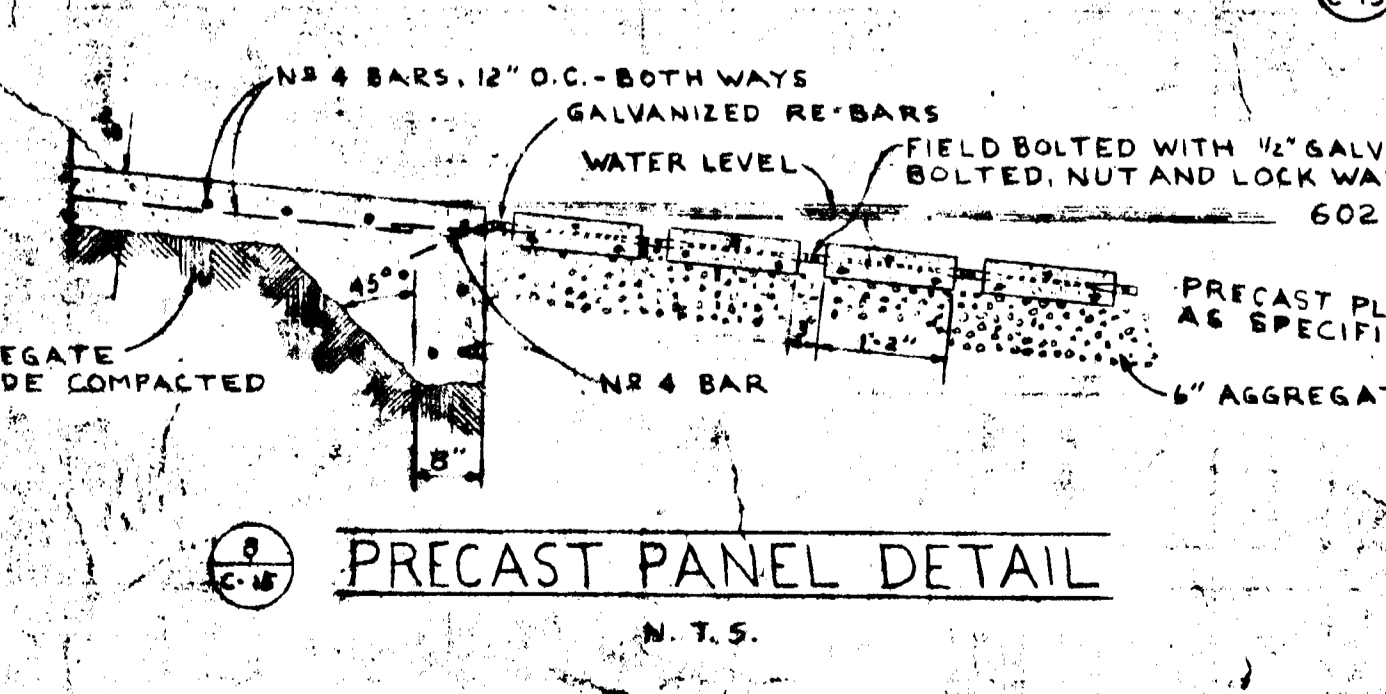
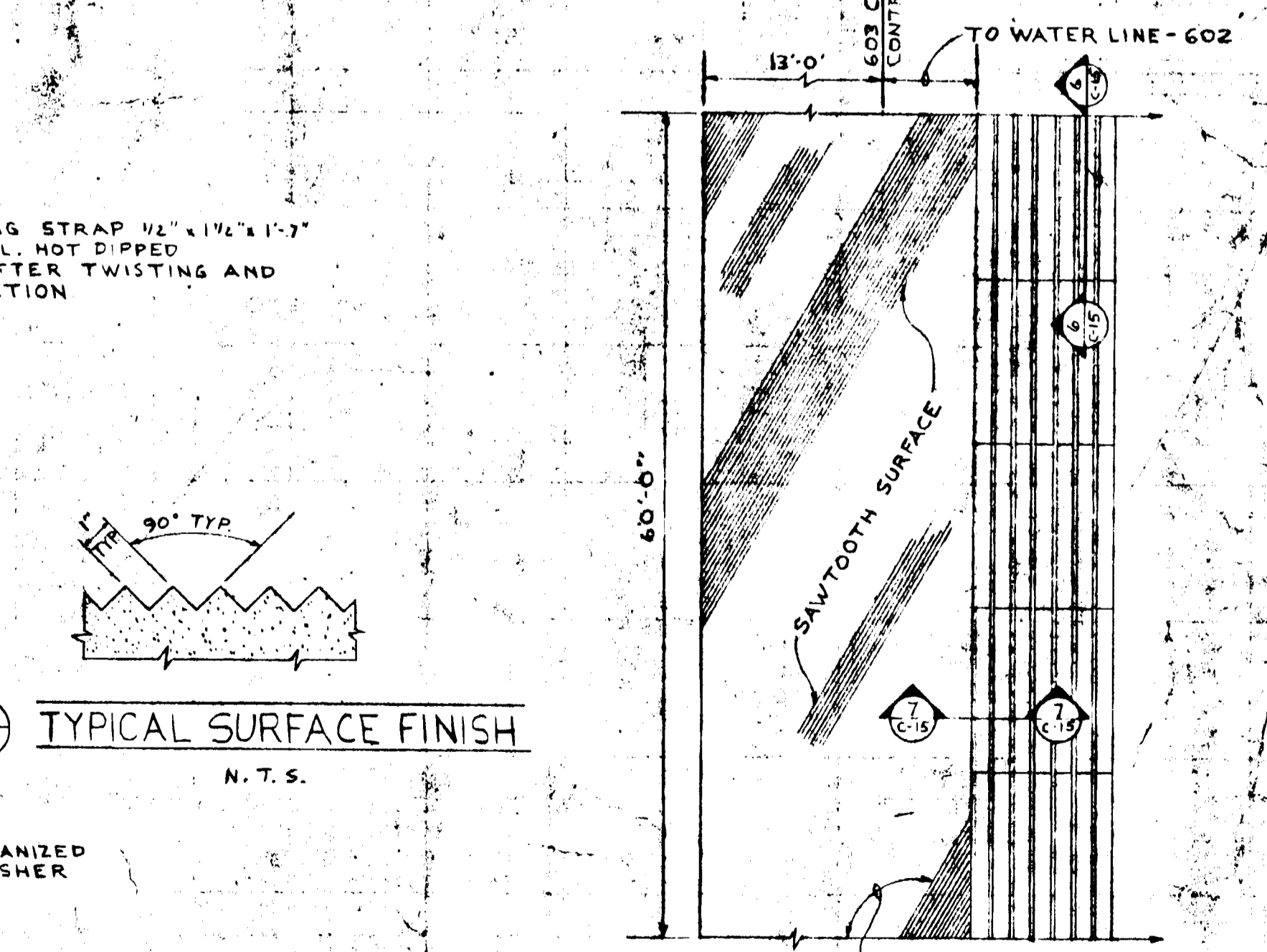
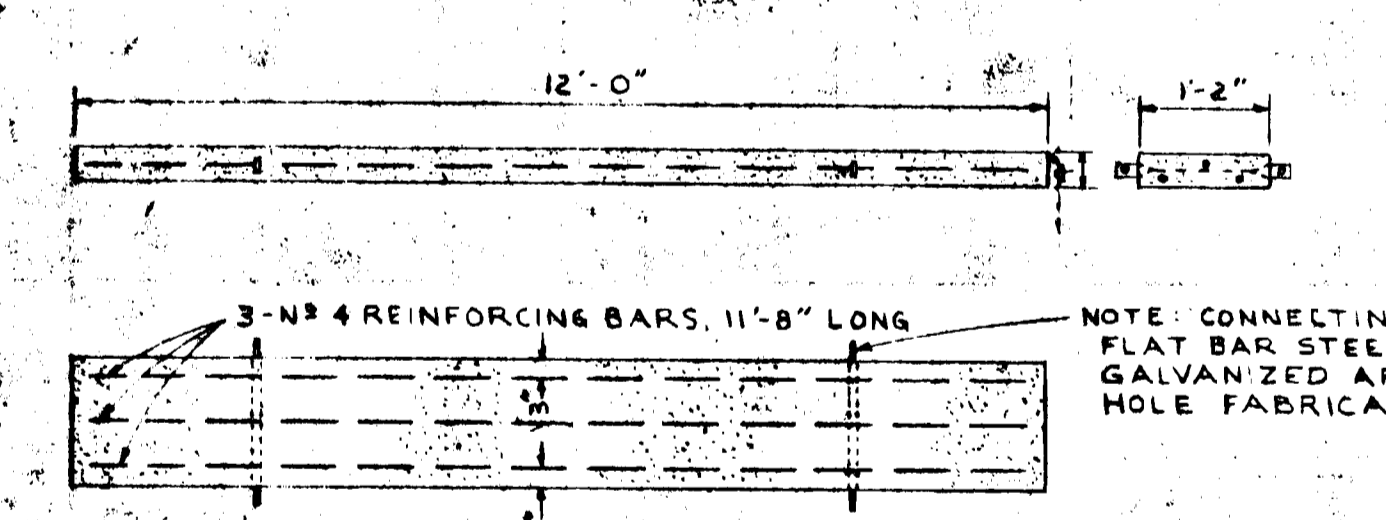
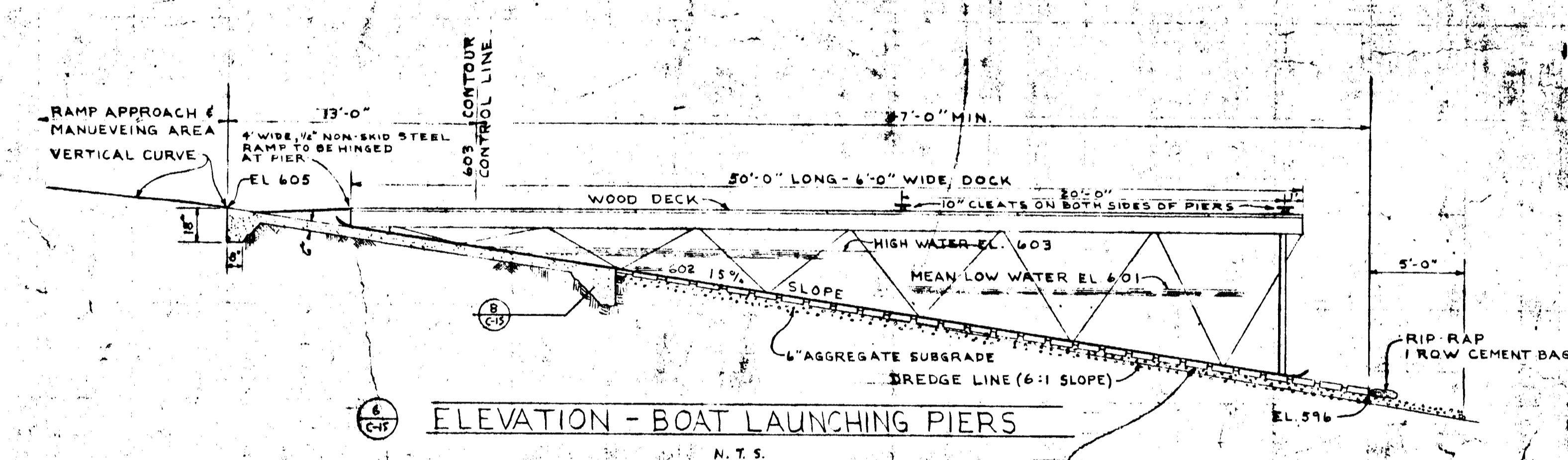
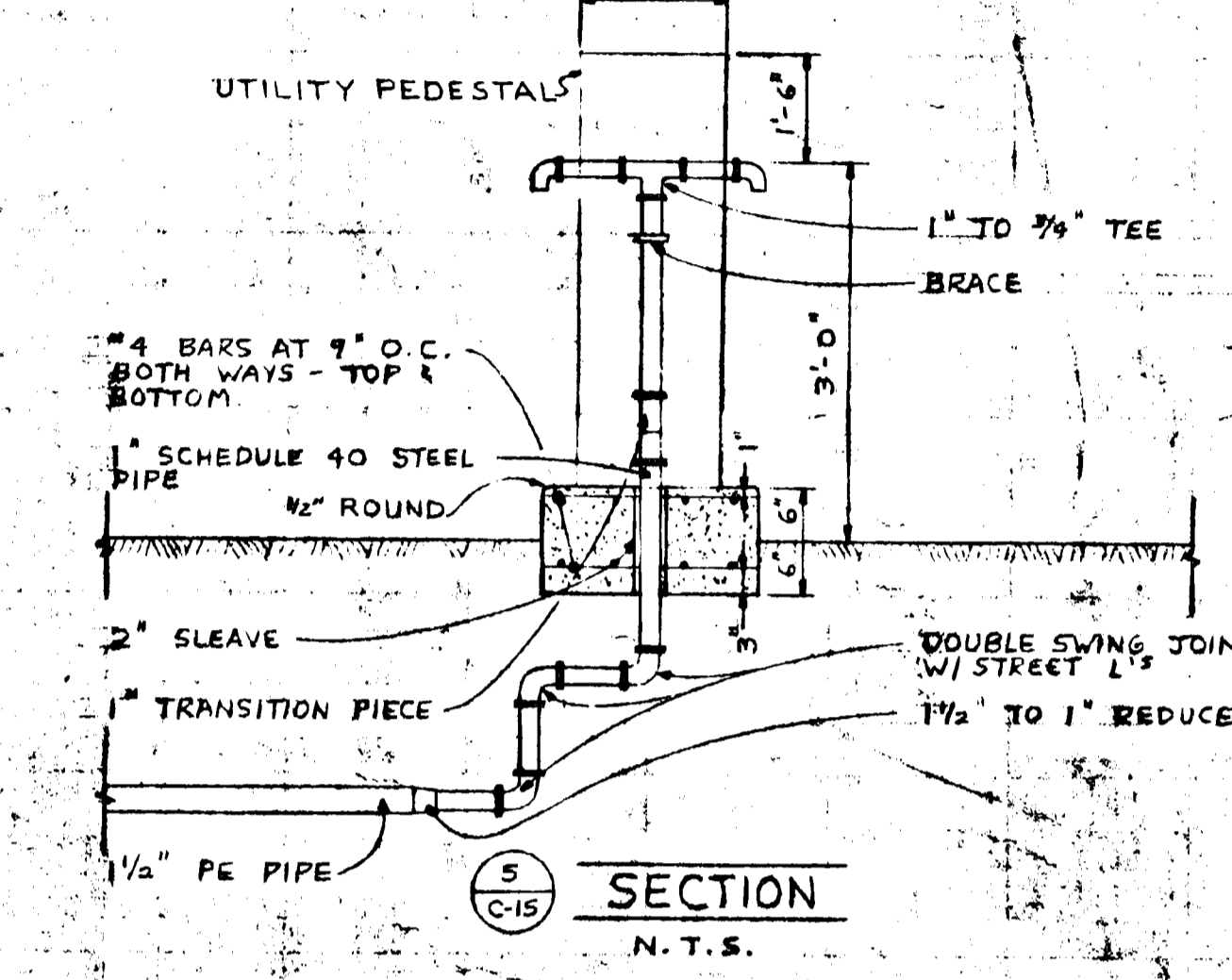
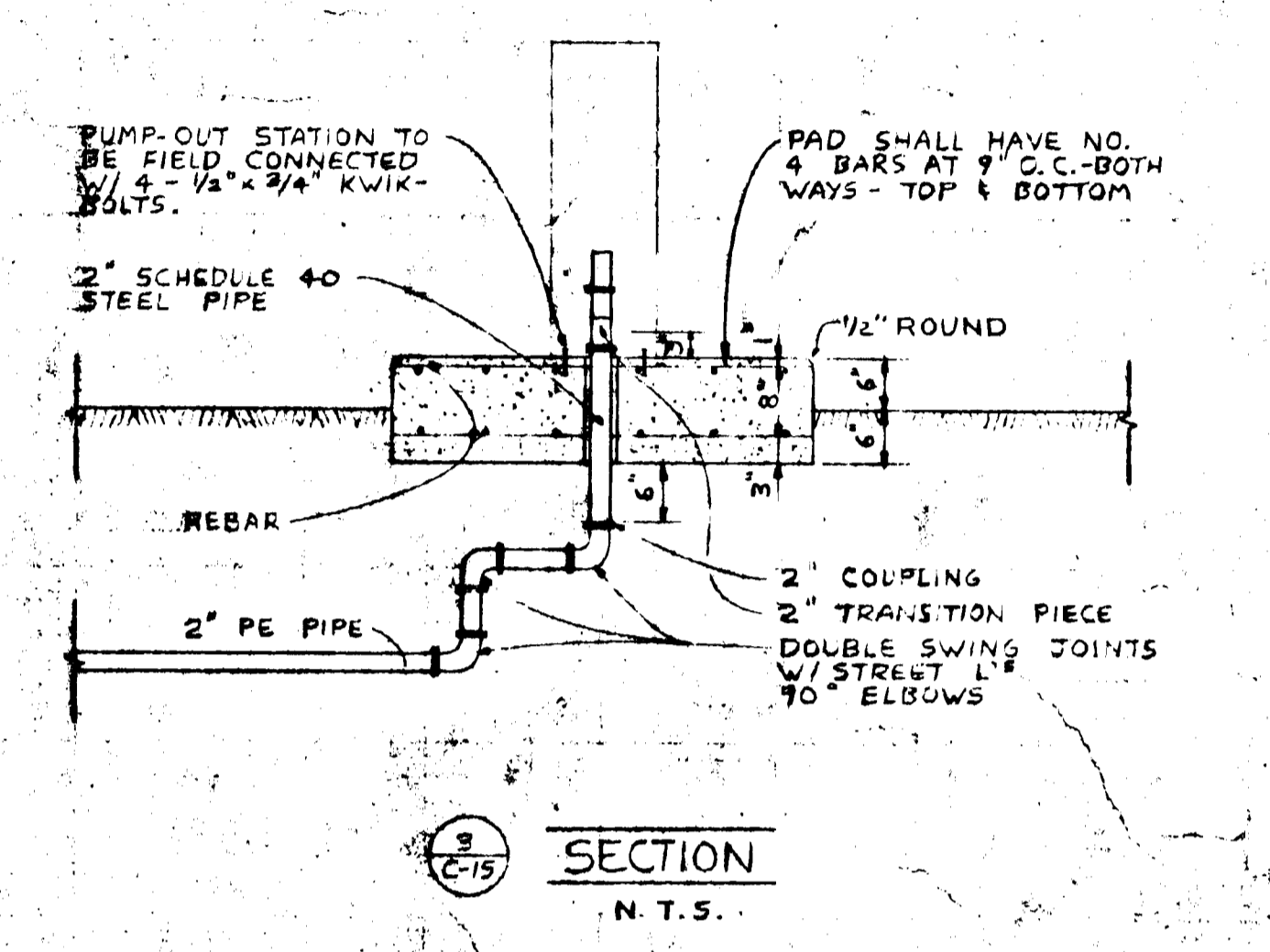
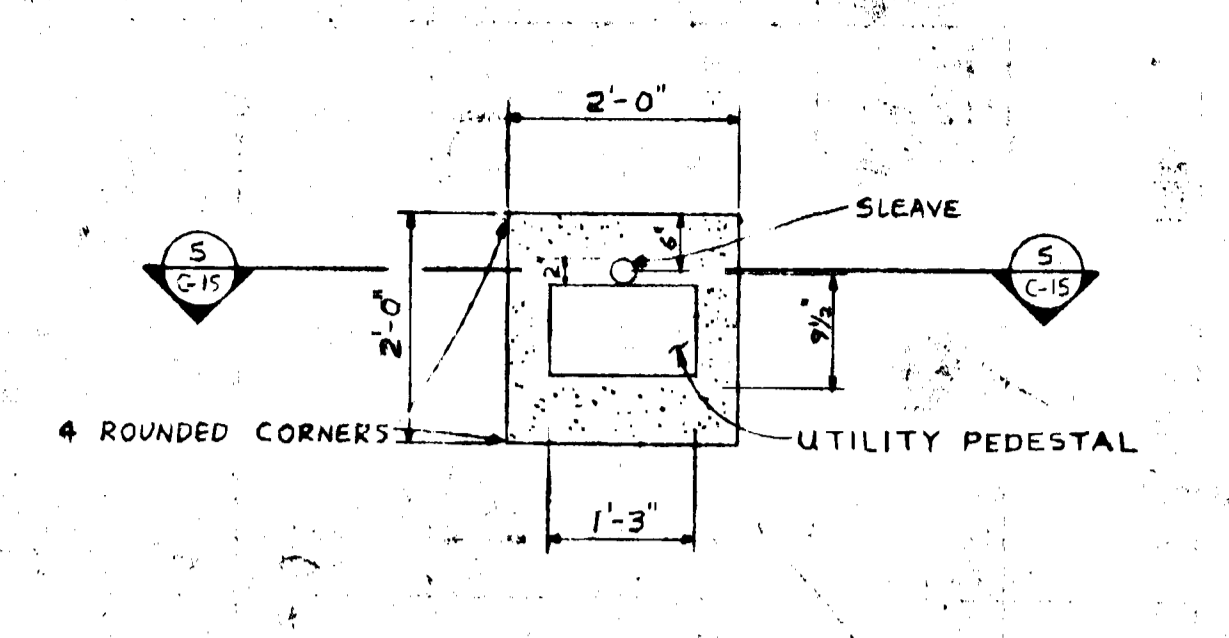
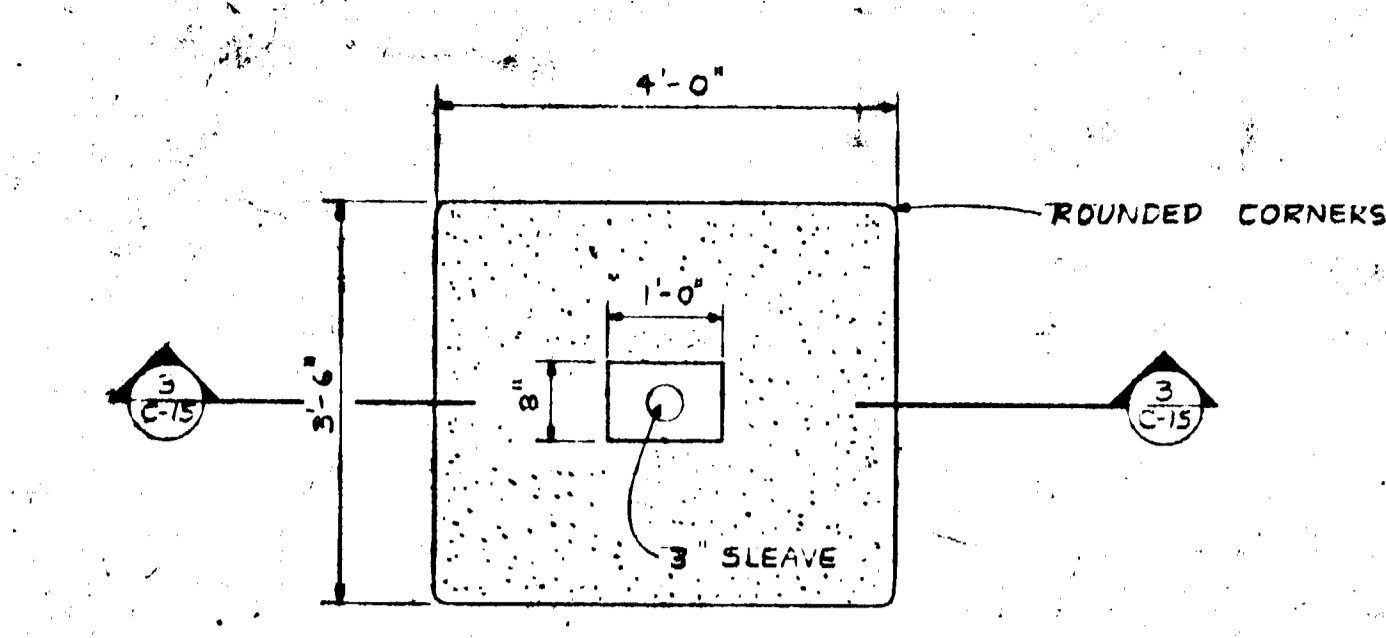
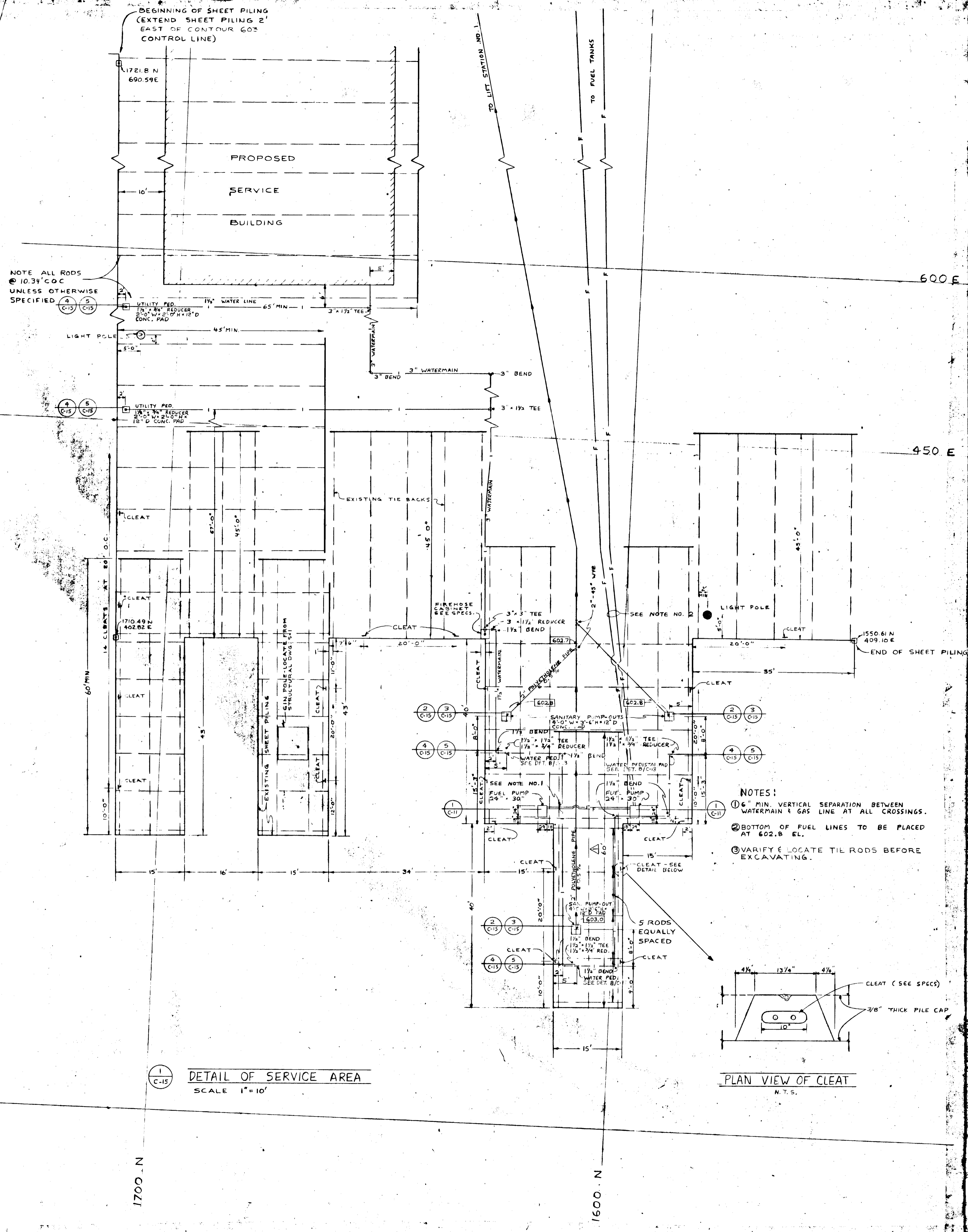
Drawn by J.R.S.  
 Checked by B.R.K.  
 Date 12/12/78  
 Comm. no. 7666

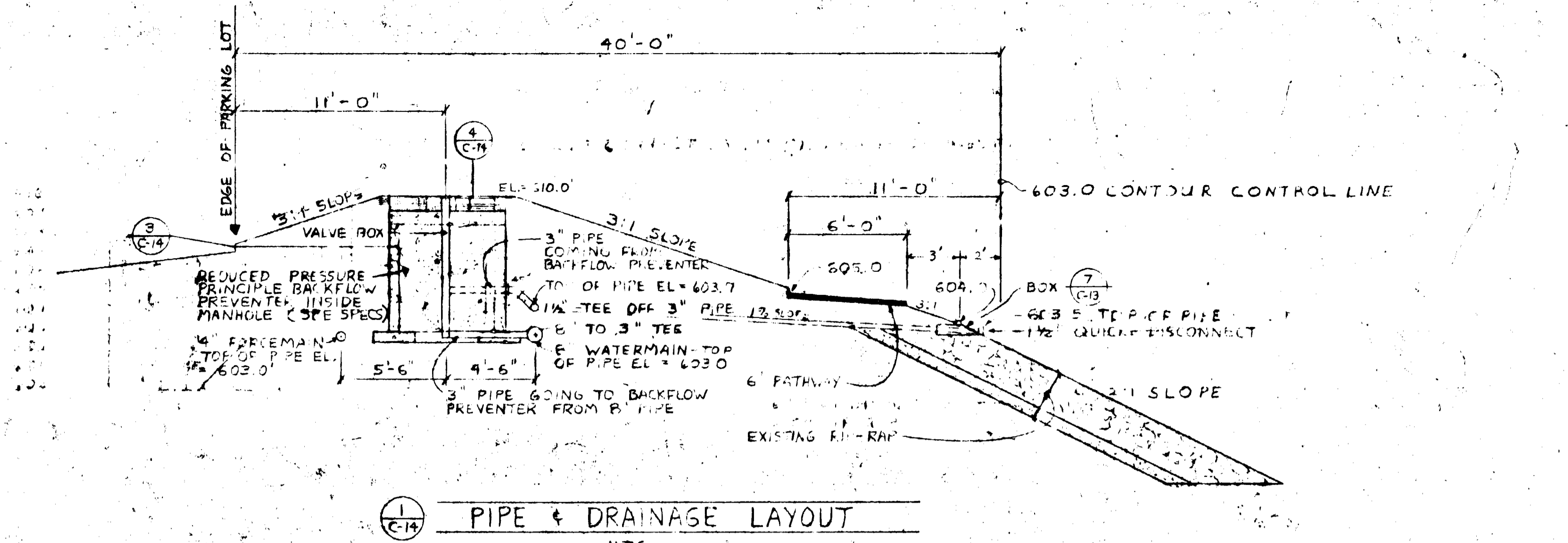
Sheet title  
**SITE GRADING PLAN**

Scale 1" = 50'  
 TRUE  
 north

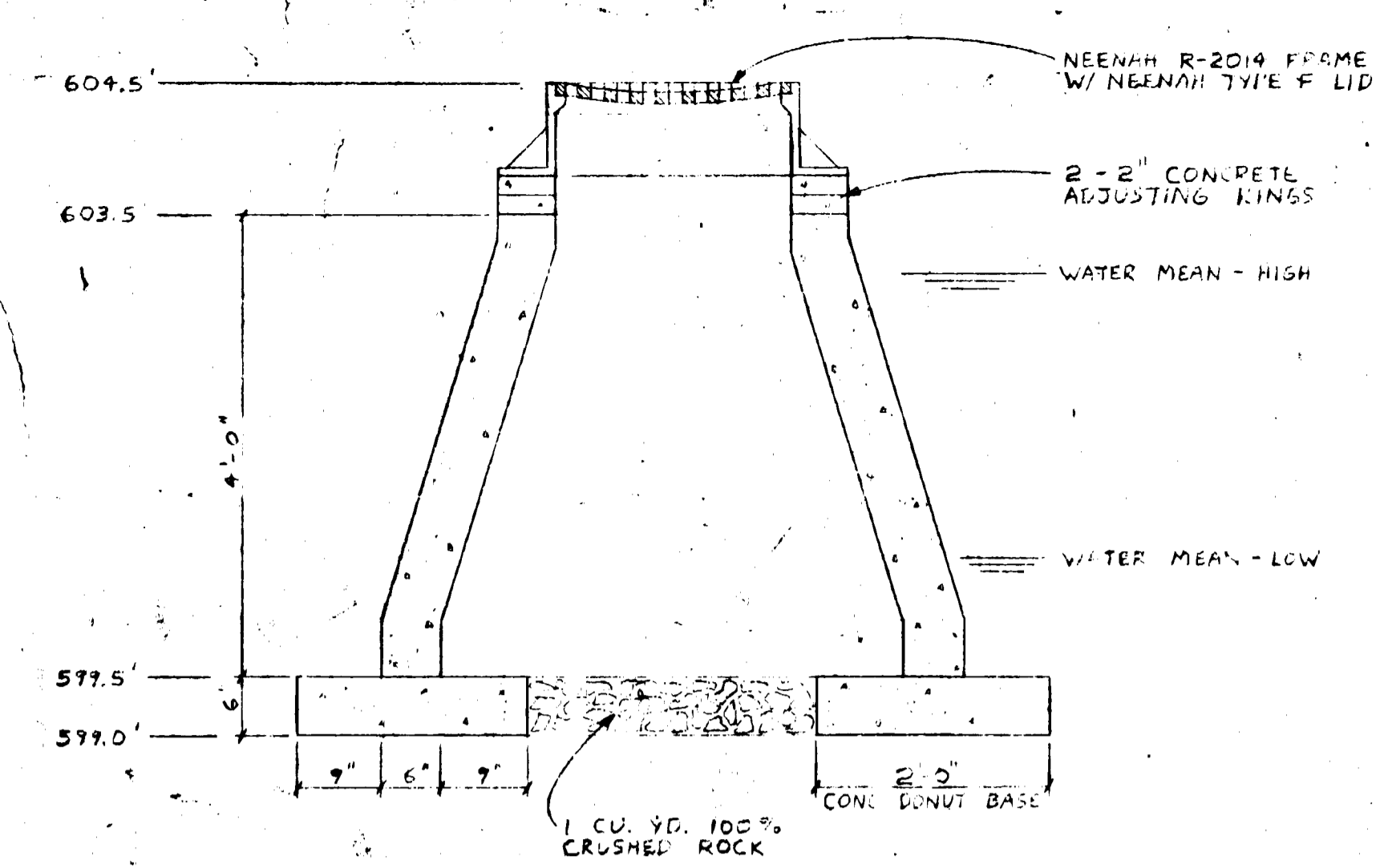
**BARKERS ISLAND MARINA PHASE 2**  
 CITY OF SUPERIOR, WISCONSIN  
 E.D.A. PROJECT # 08-01-0146

**C-5**  
 of sheets 1

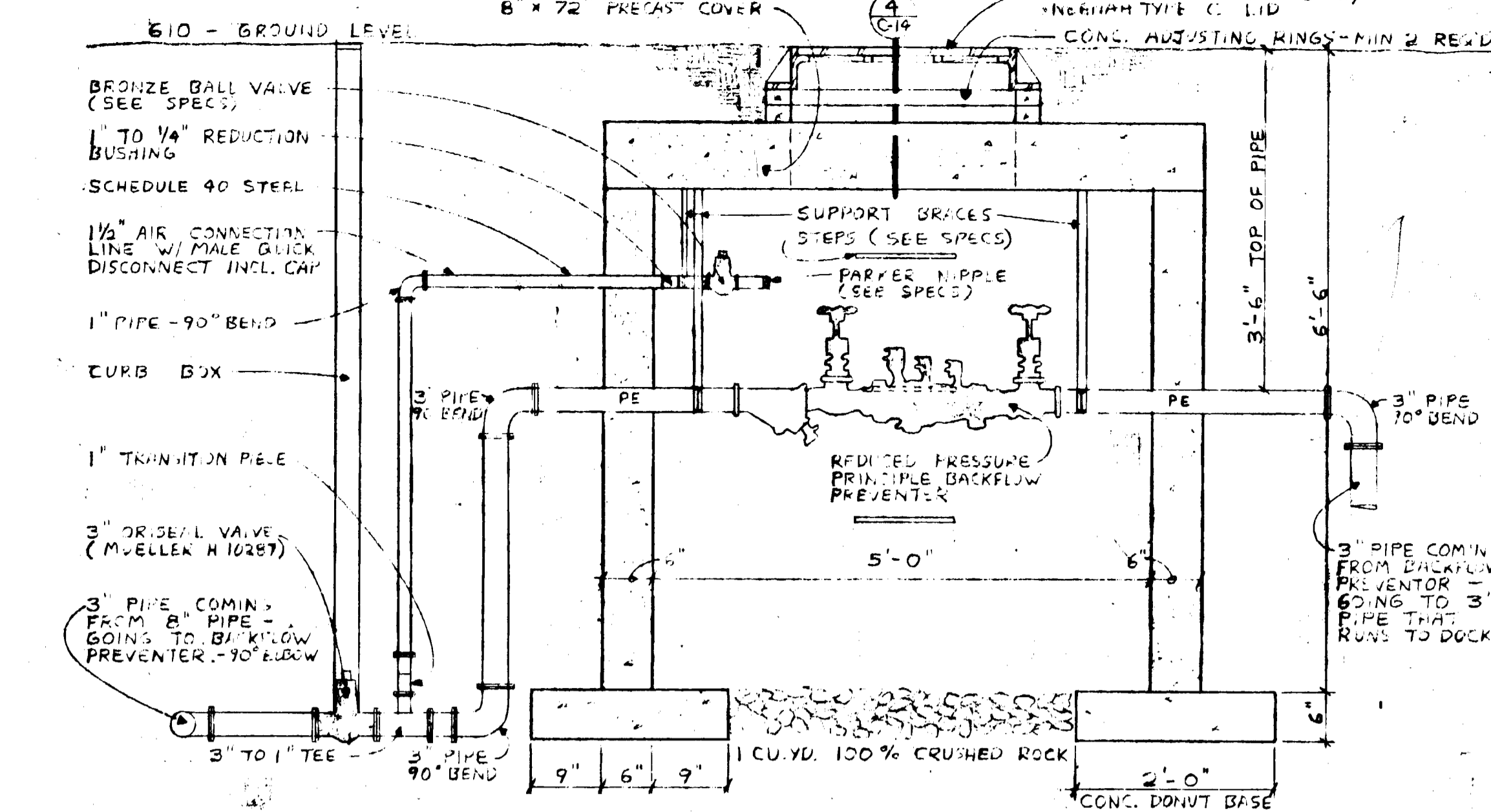




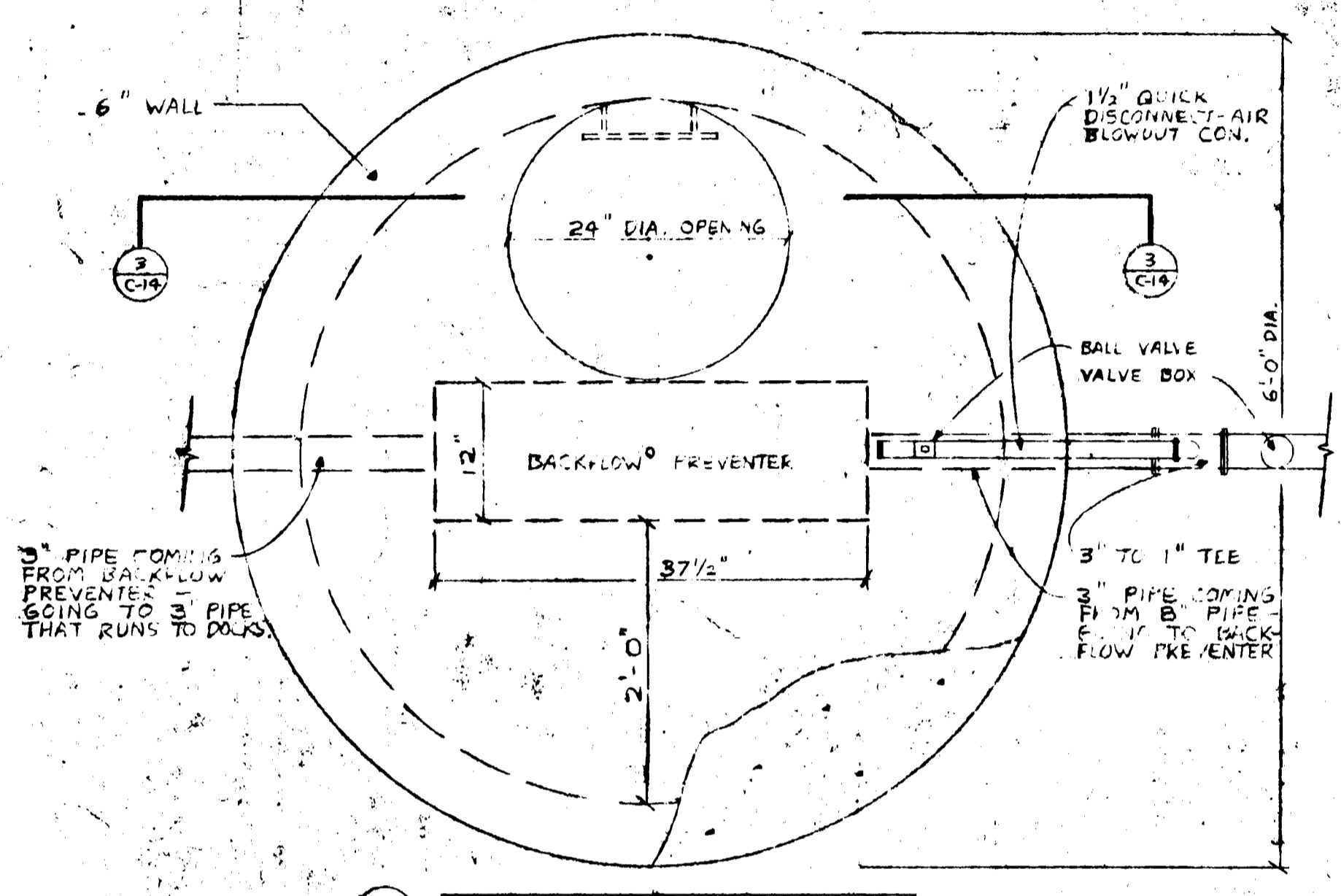
1 C-14 PIPE & DRAINAGE LAYOUT  
N.T.S.



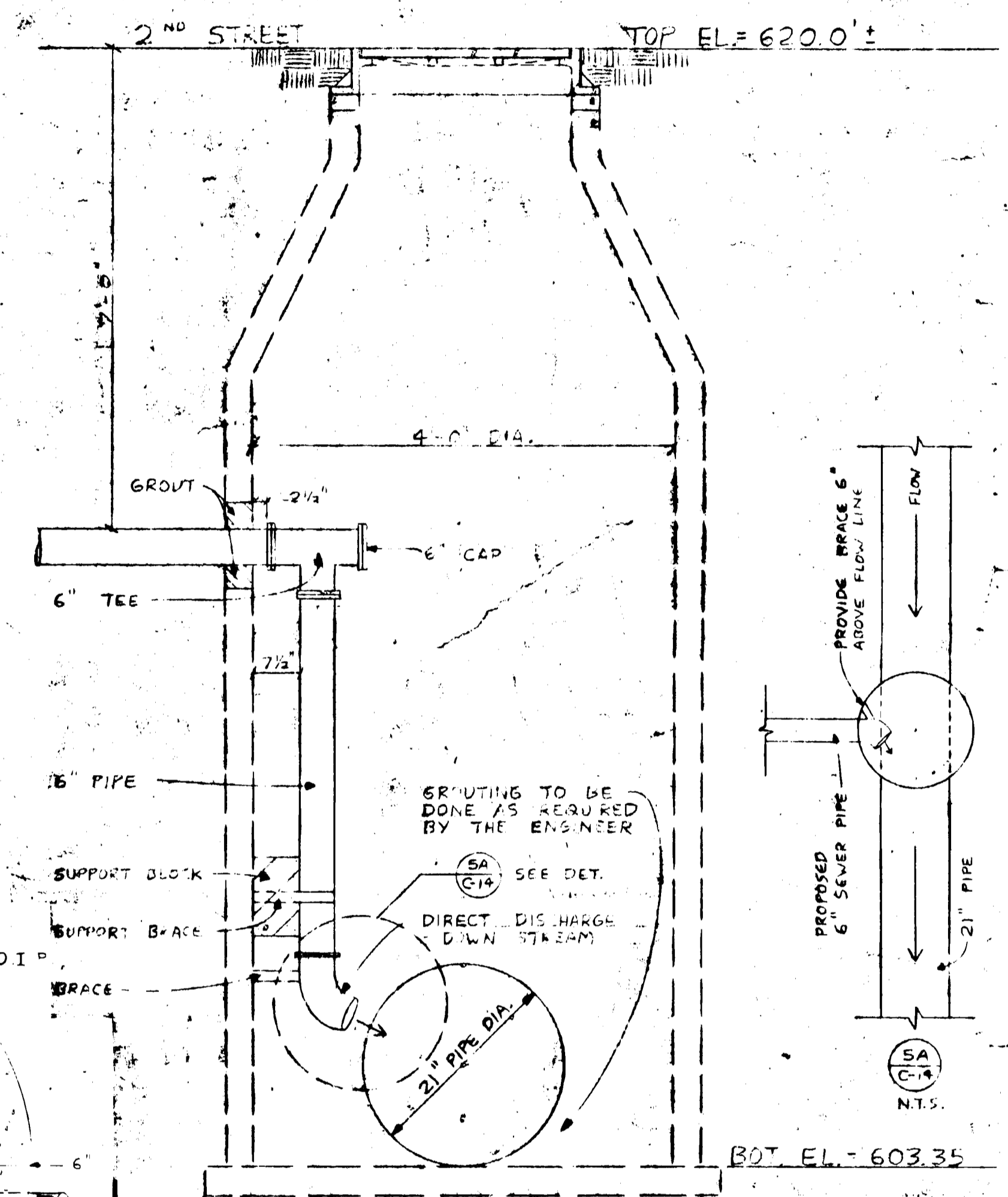
2 C-14 DRY WELL  
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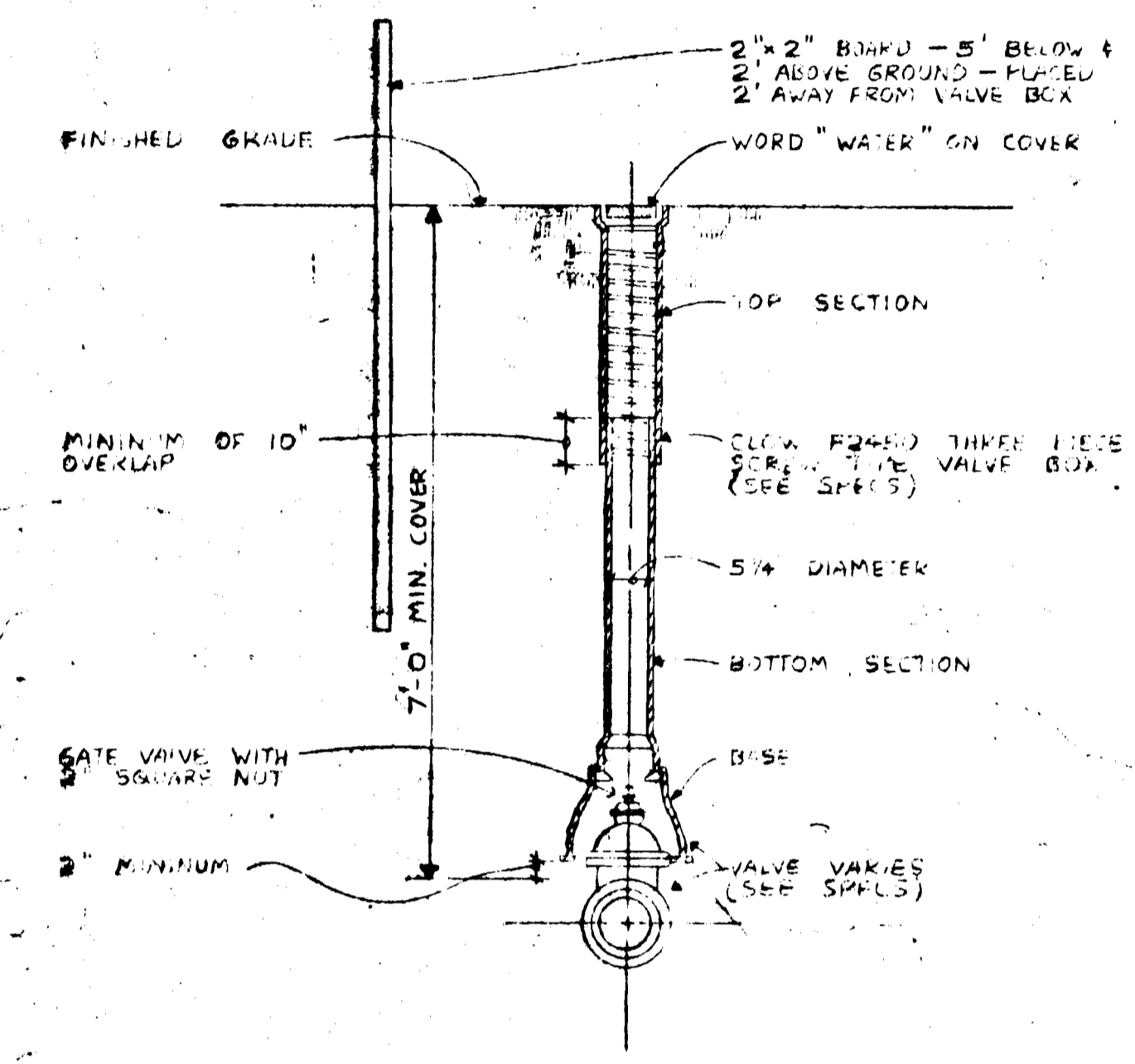
3 C-14 MANHOLE SECTION  
N.T.S.



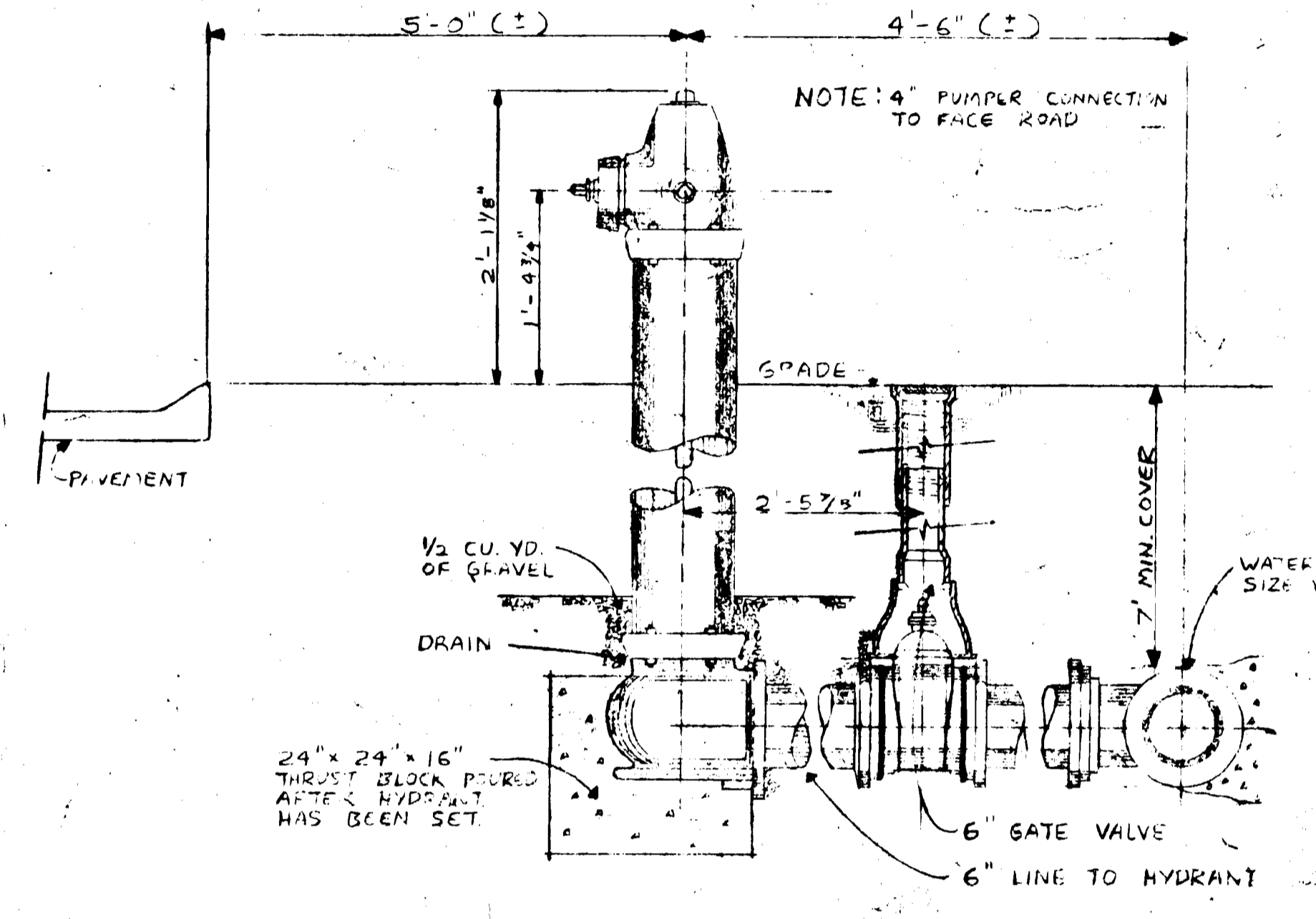
4 C-14 MANHOLE COVER  
N.T.S.



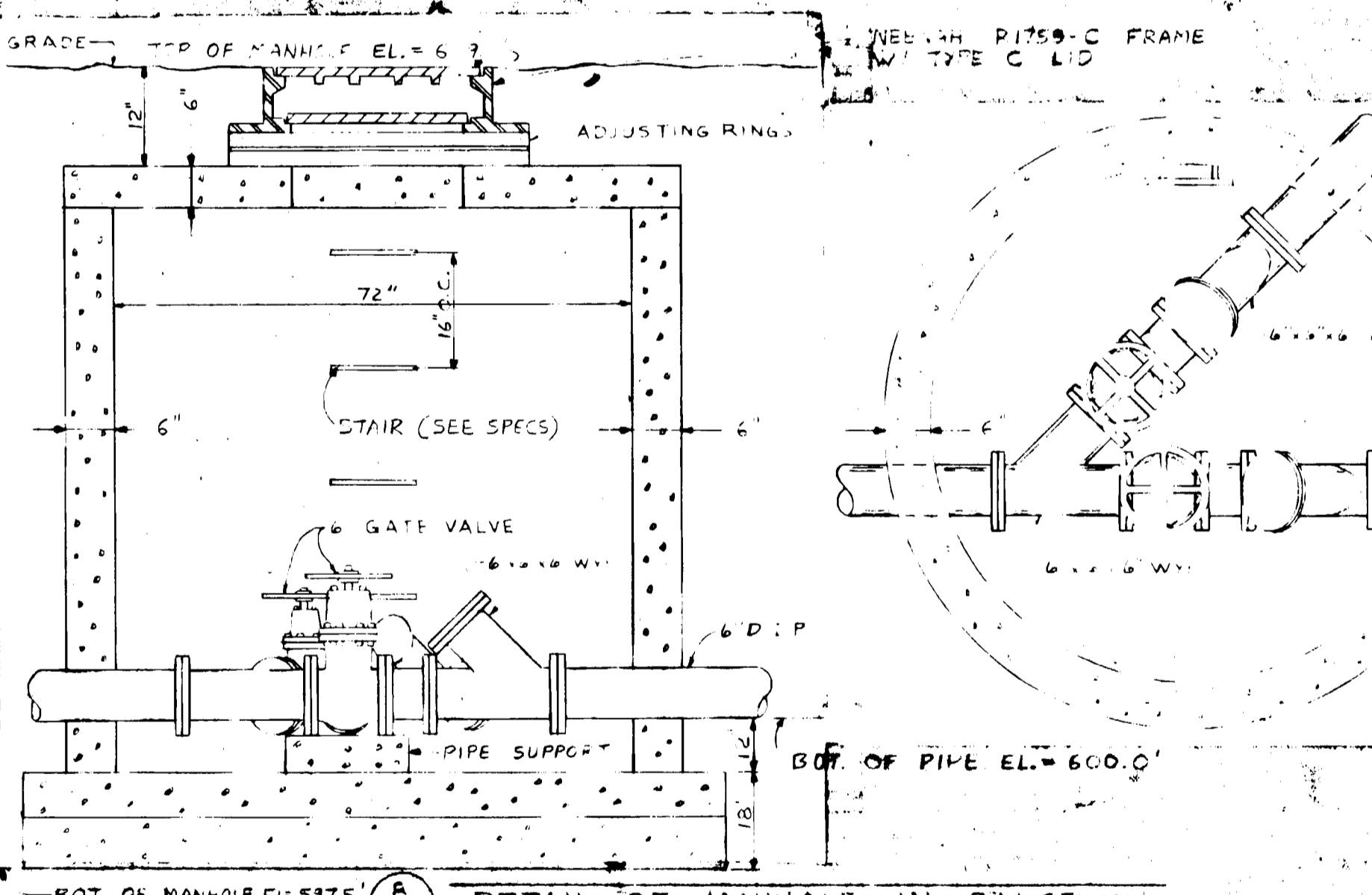
5 C-14 EXISTING SANITARY SEWER M.H.  
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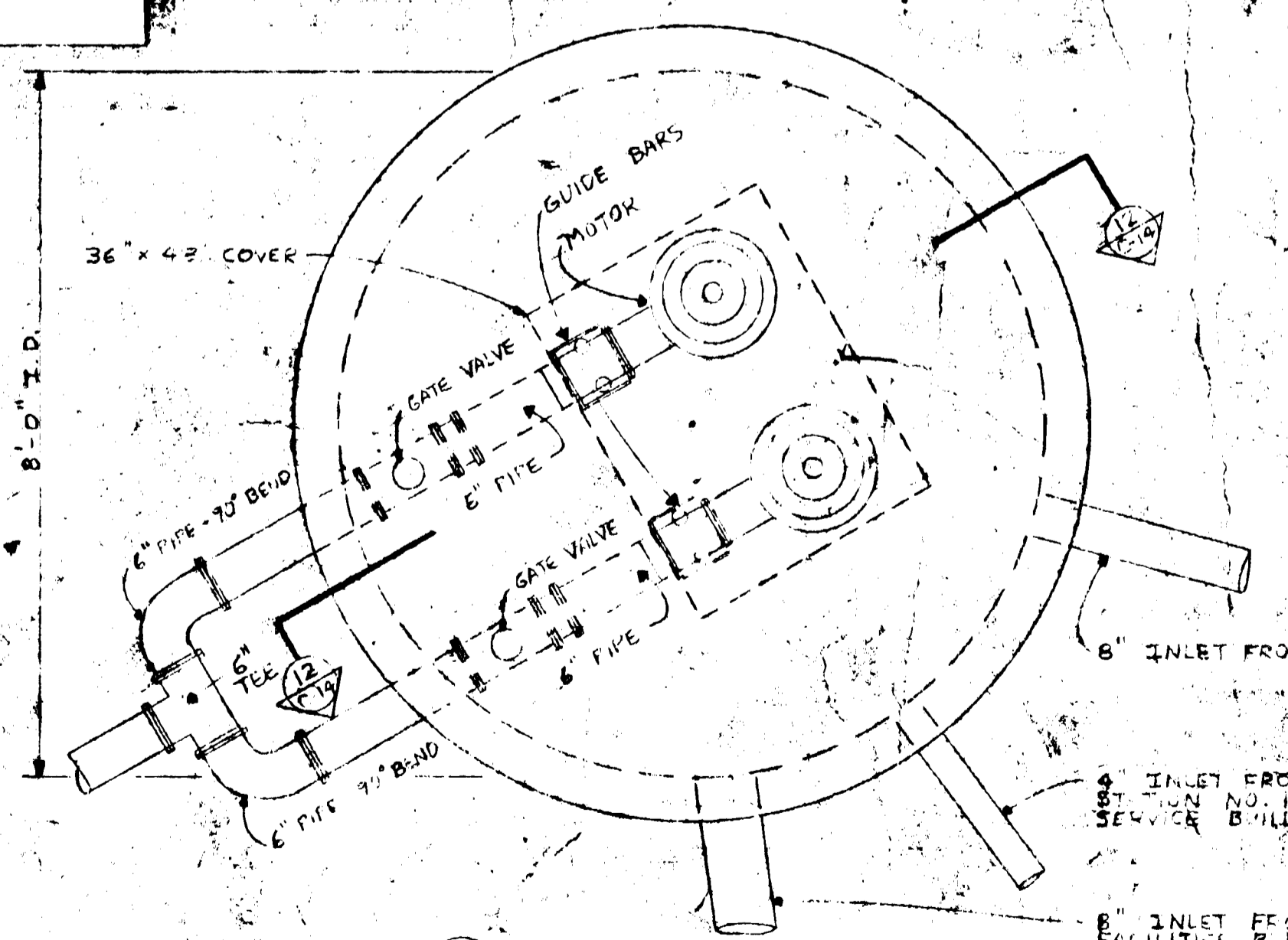
6 C-14 TYPICAL VALVE BOX DETAIL  
N.T.S.



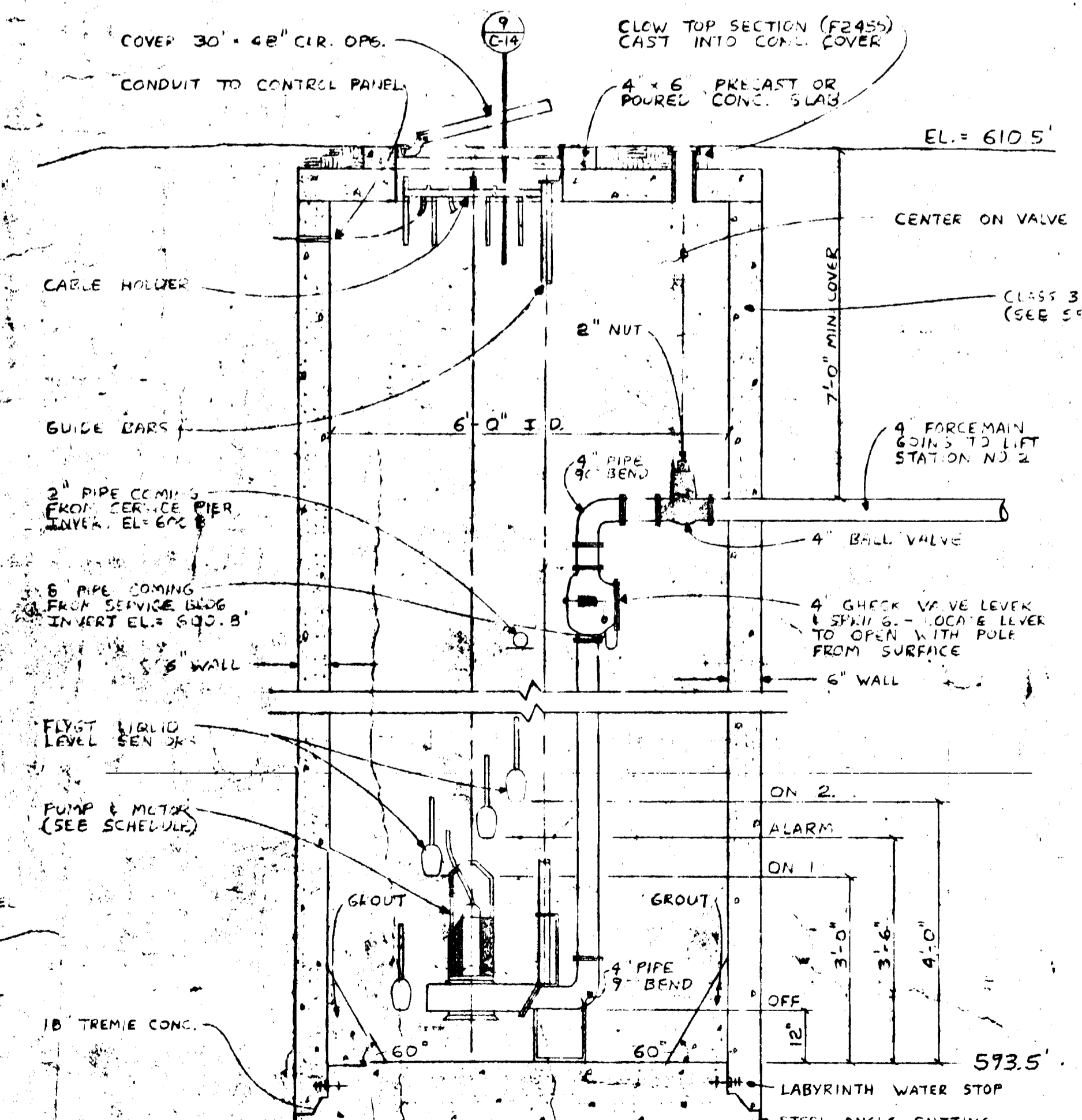
7 C-14 TYPICAL HYDRANT & GUARD POST DETAIL  
N.T.S.



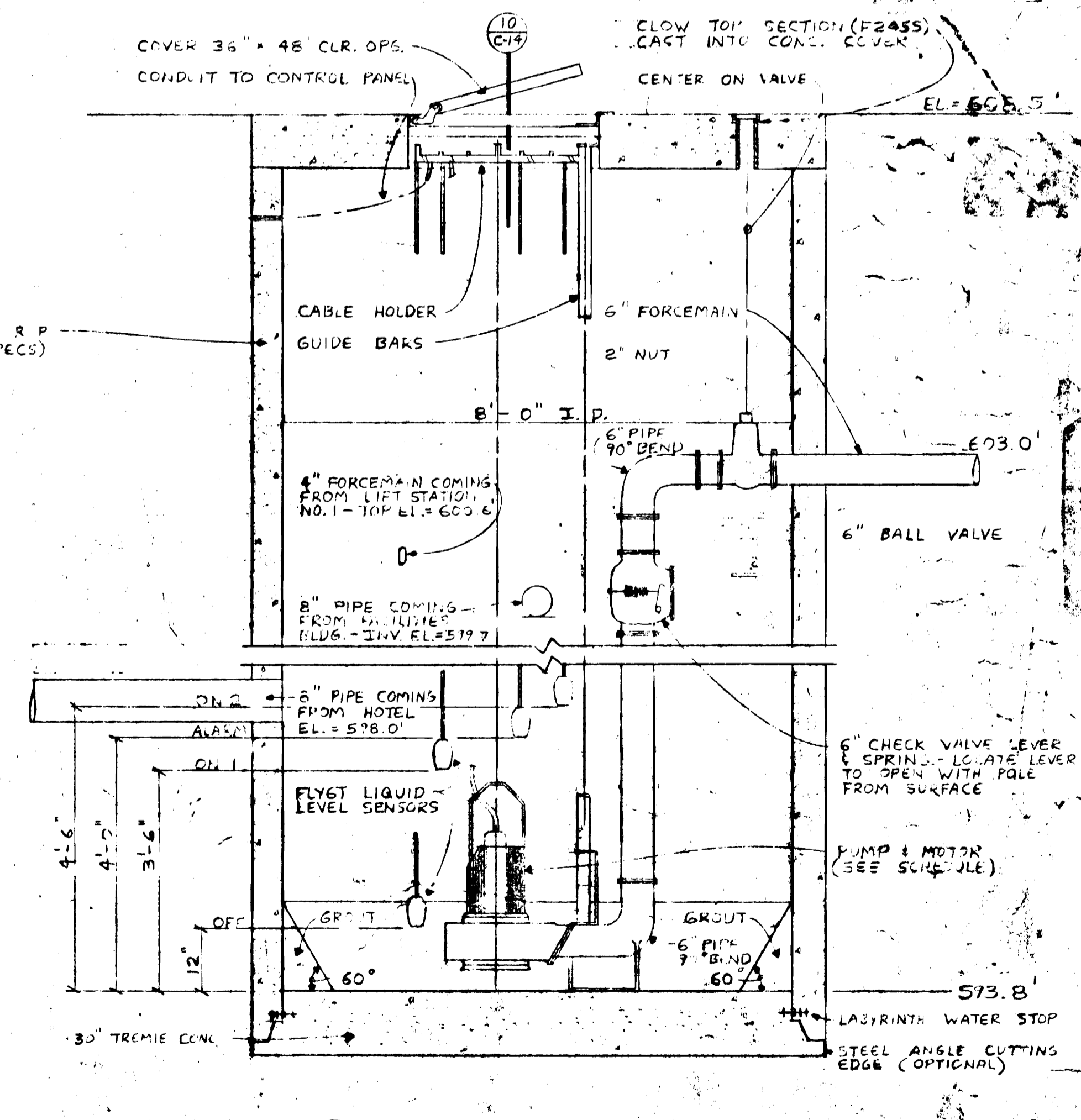
8 C-14 DETAIL OF MANHOLE IN CAUSEWAY  
N.T.S.



9 C-14 TOP VIEW PLAN L.S. NO. 8  
N.T.S.

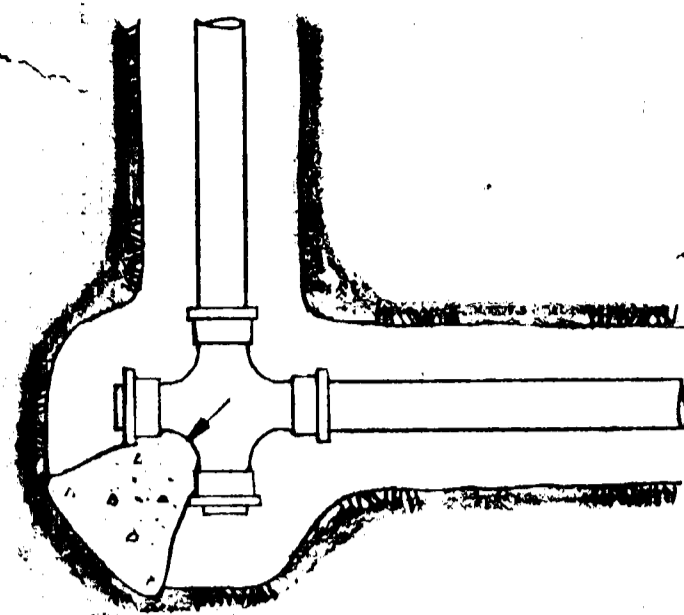


11 C-14 LIFT STATION NO. 8  
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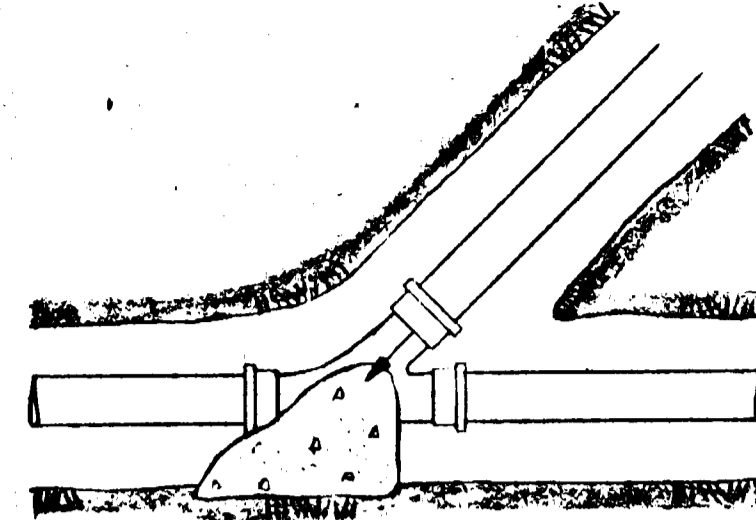


12 C-14 LIFT STATION NO. 9  
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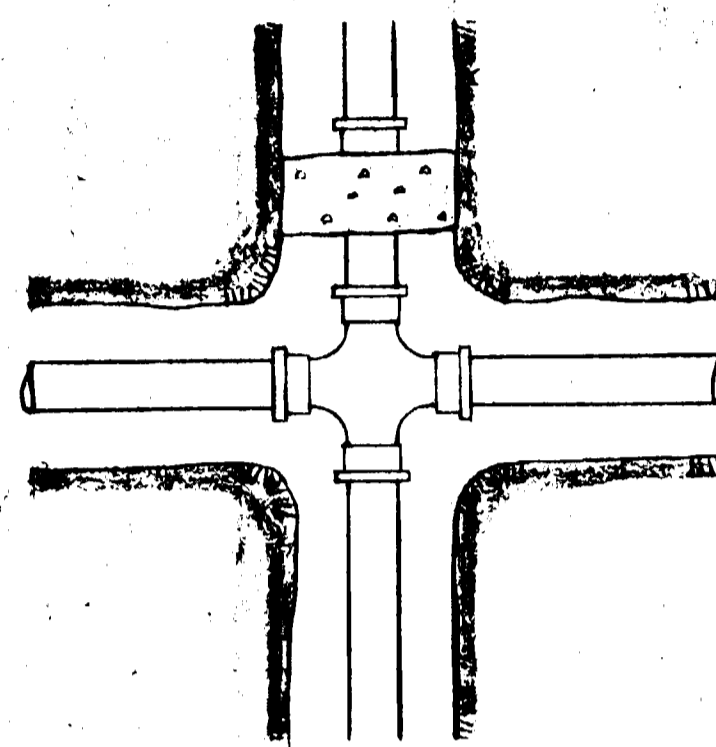
LOCATION OF THRUST BLOCKS



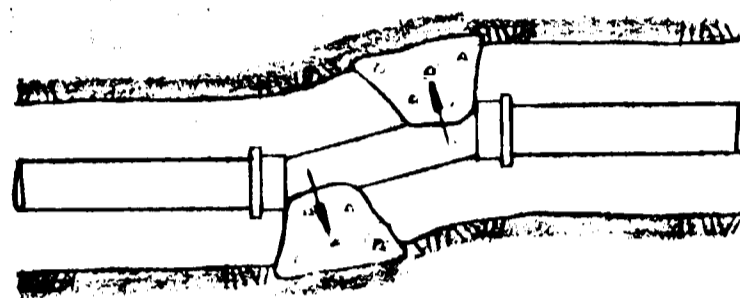
2-WAY TEE



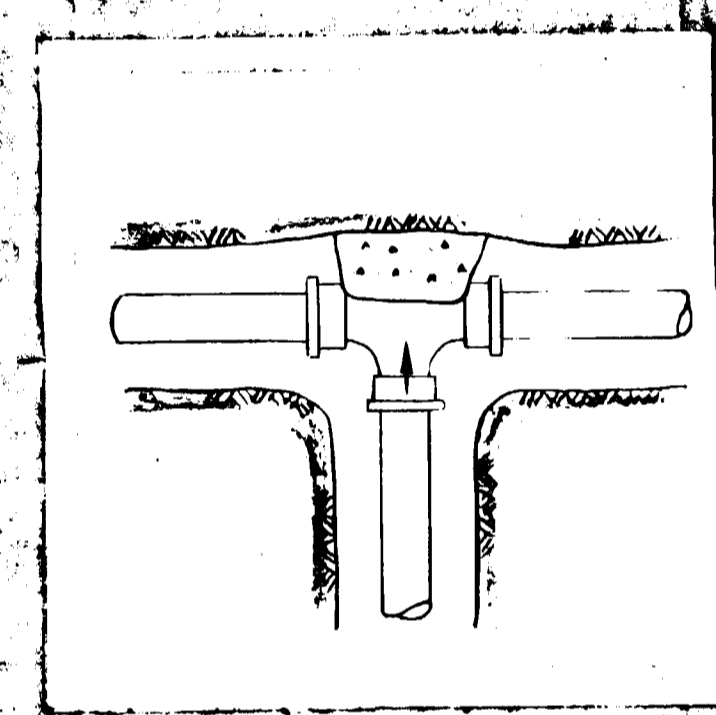
WYE



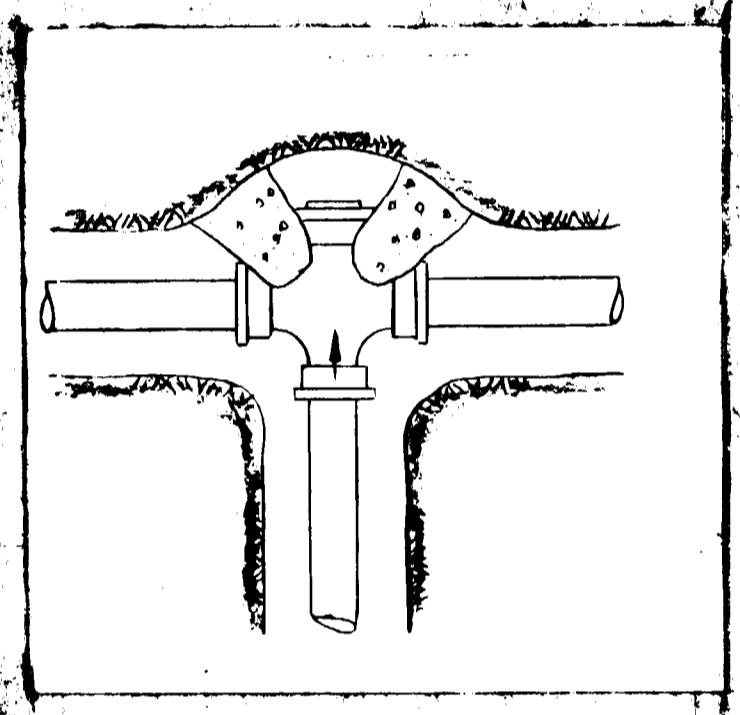
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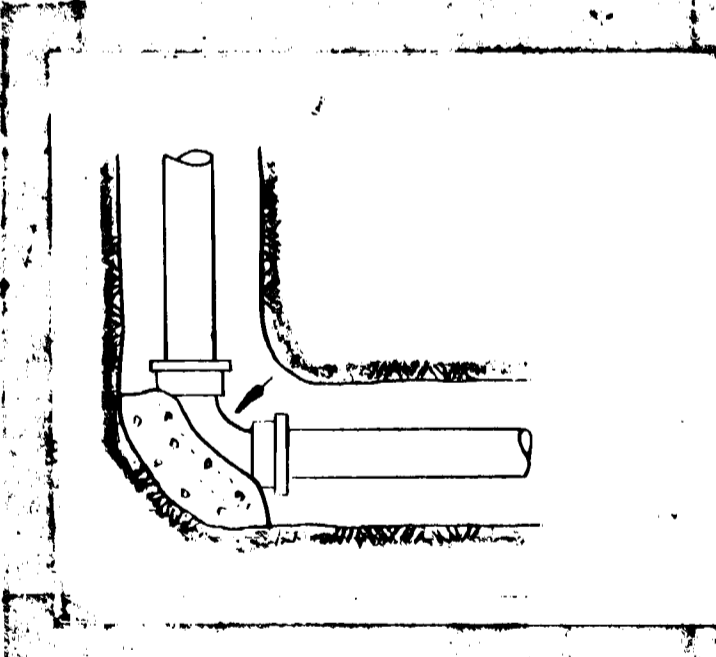
OFFSET



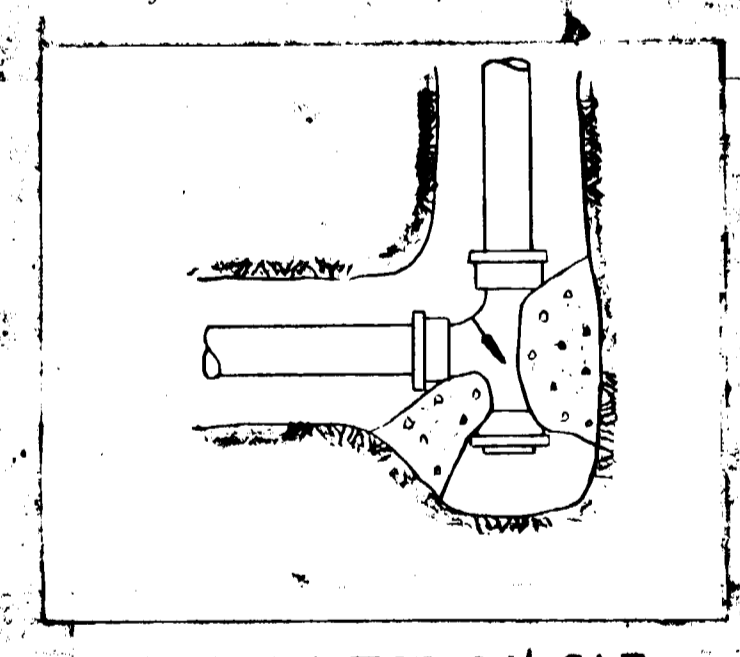
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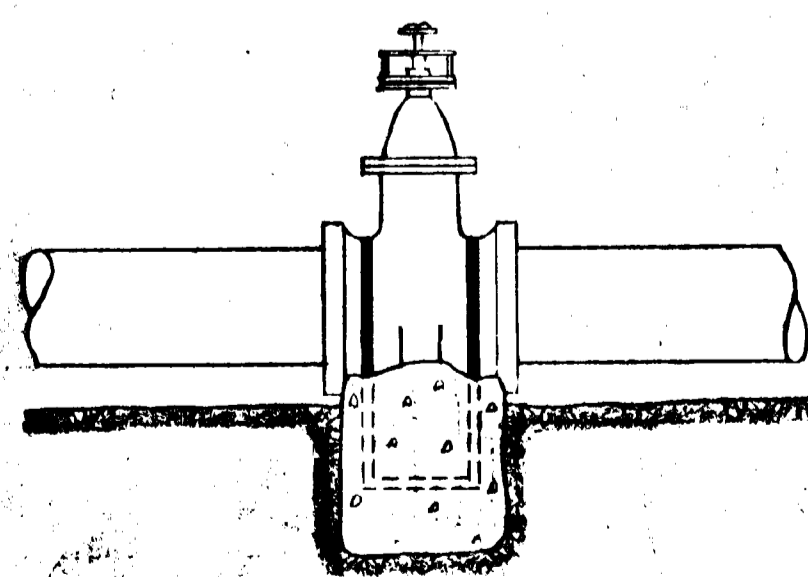
3-WAY TEE W/CAP



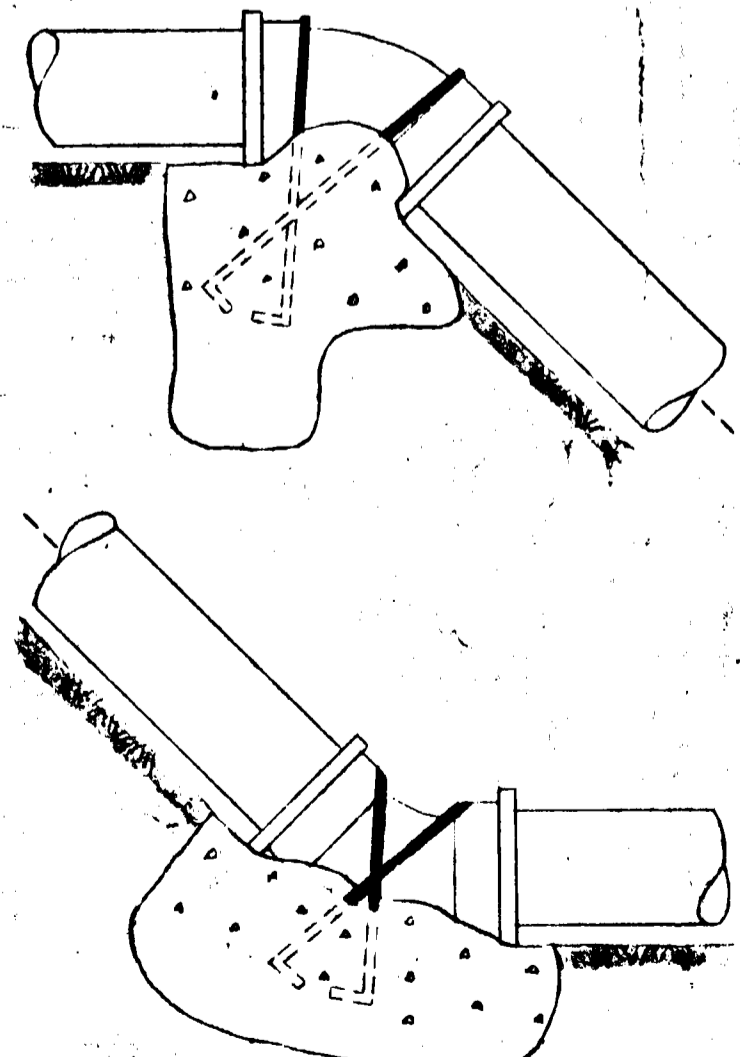
ELBOW



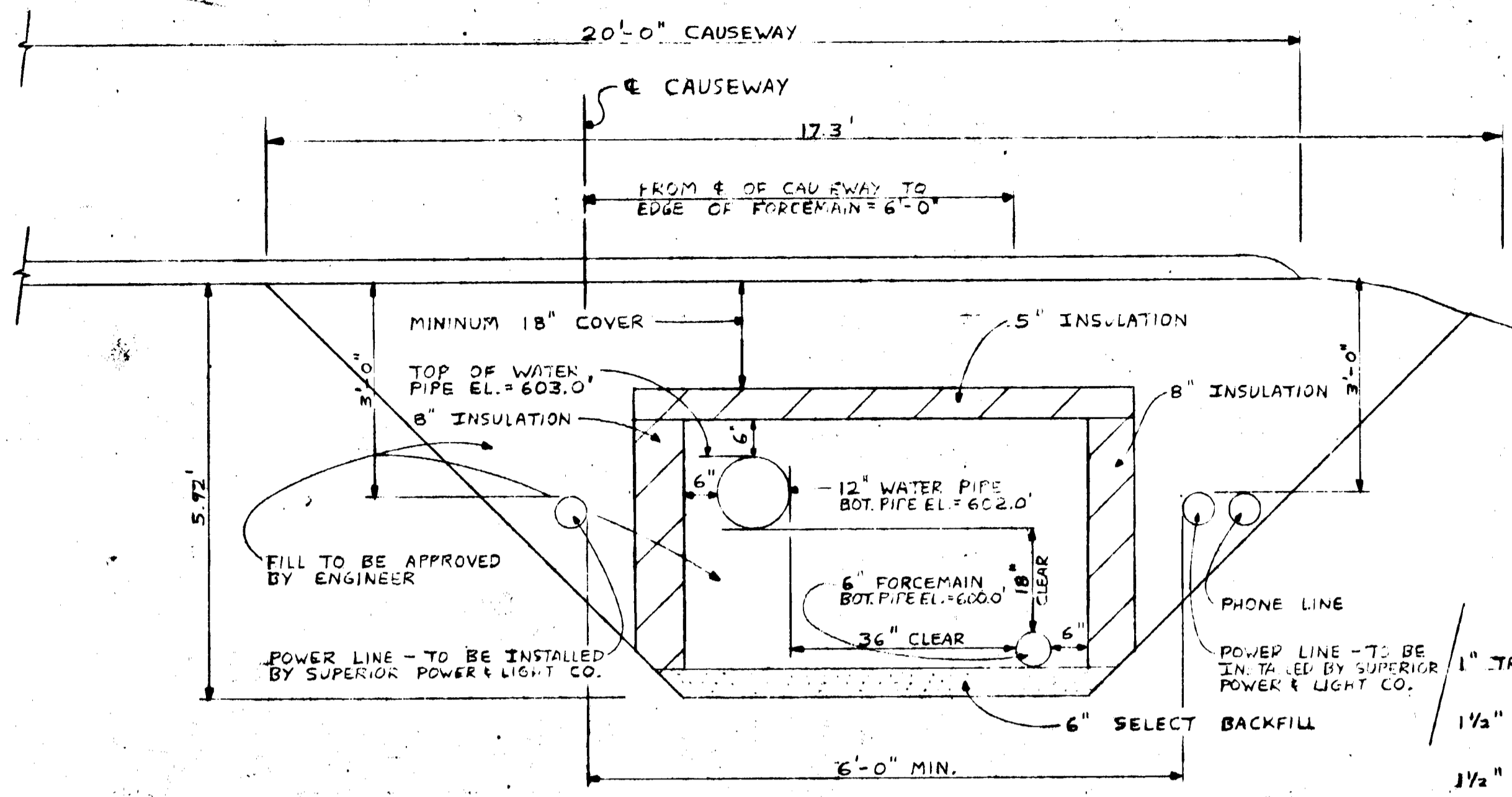
2-WAY TEE W/CAP



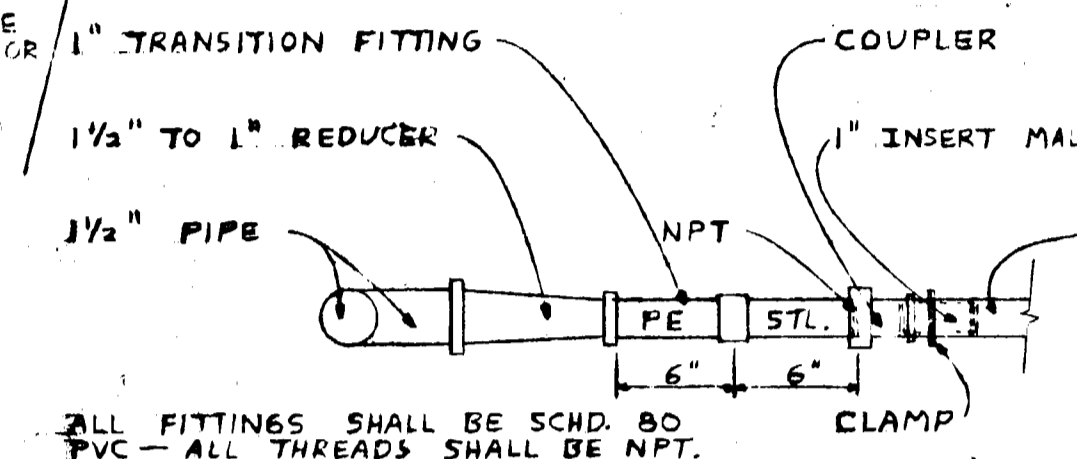
GATE VALVE



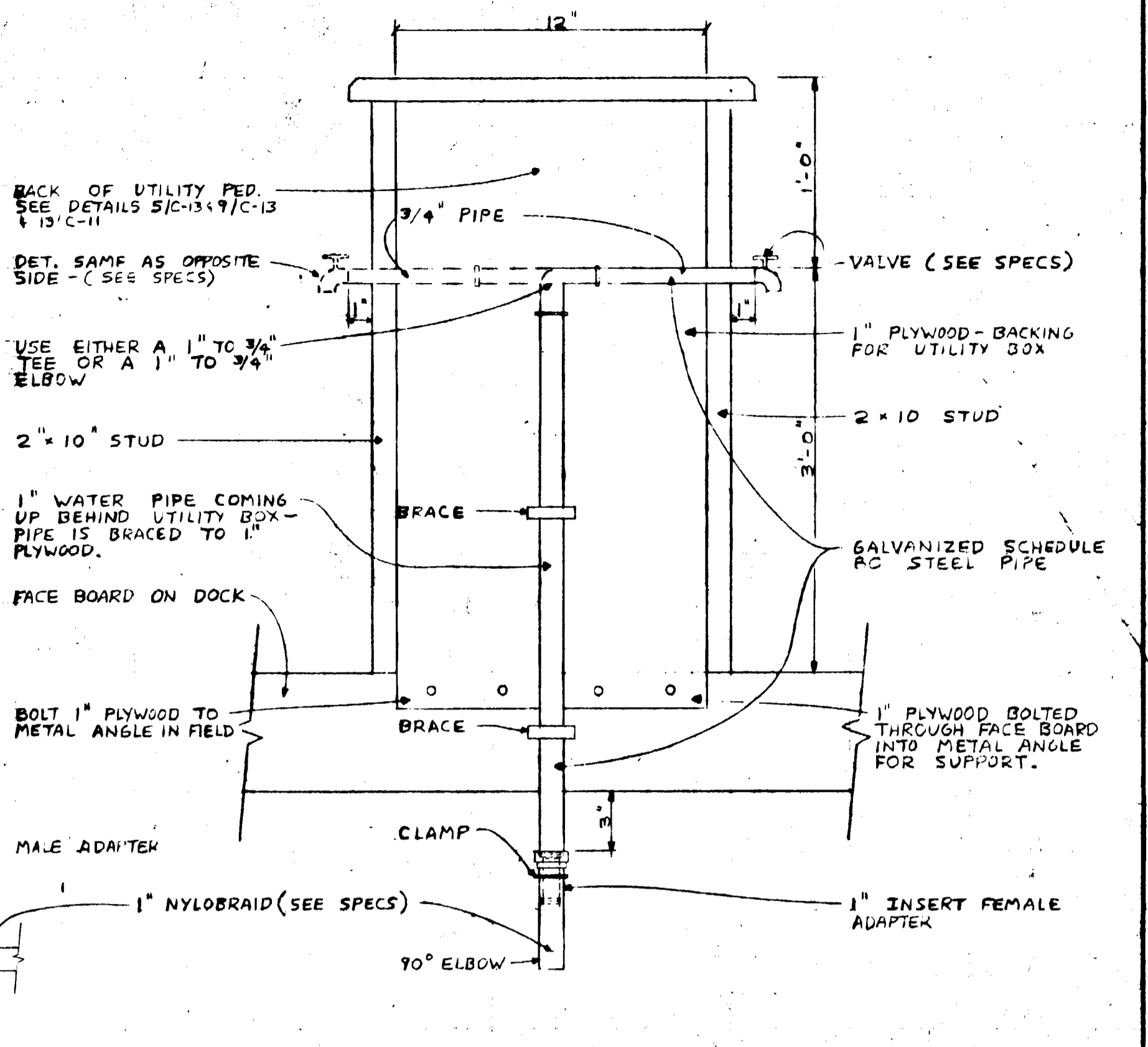
VERTICAL CURVE



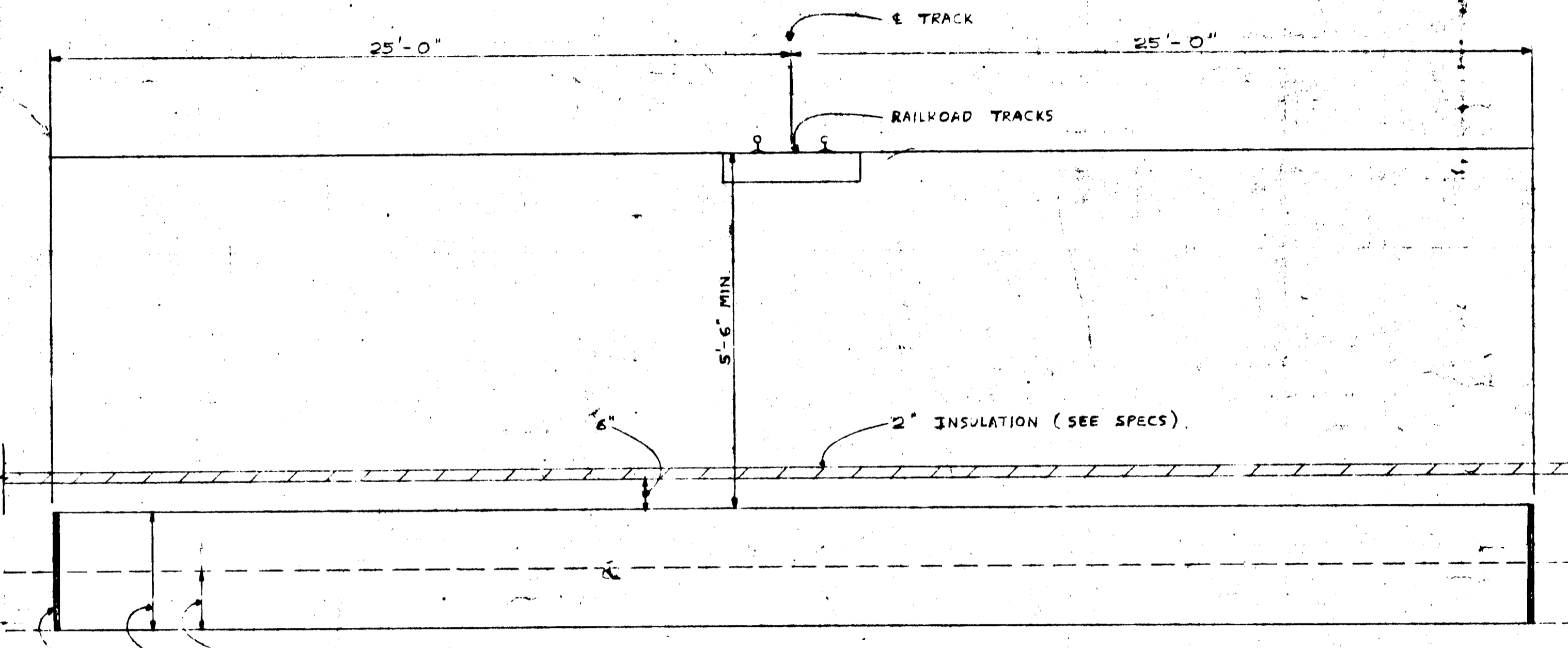
1 TYPICAL CROSS-SECTION IN ROADWAY  
SCALE: 1" = 20"



2 WATER LINE TO PEDESTAL  
N.T.S.

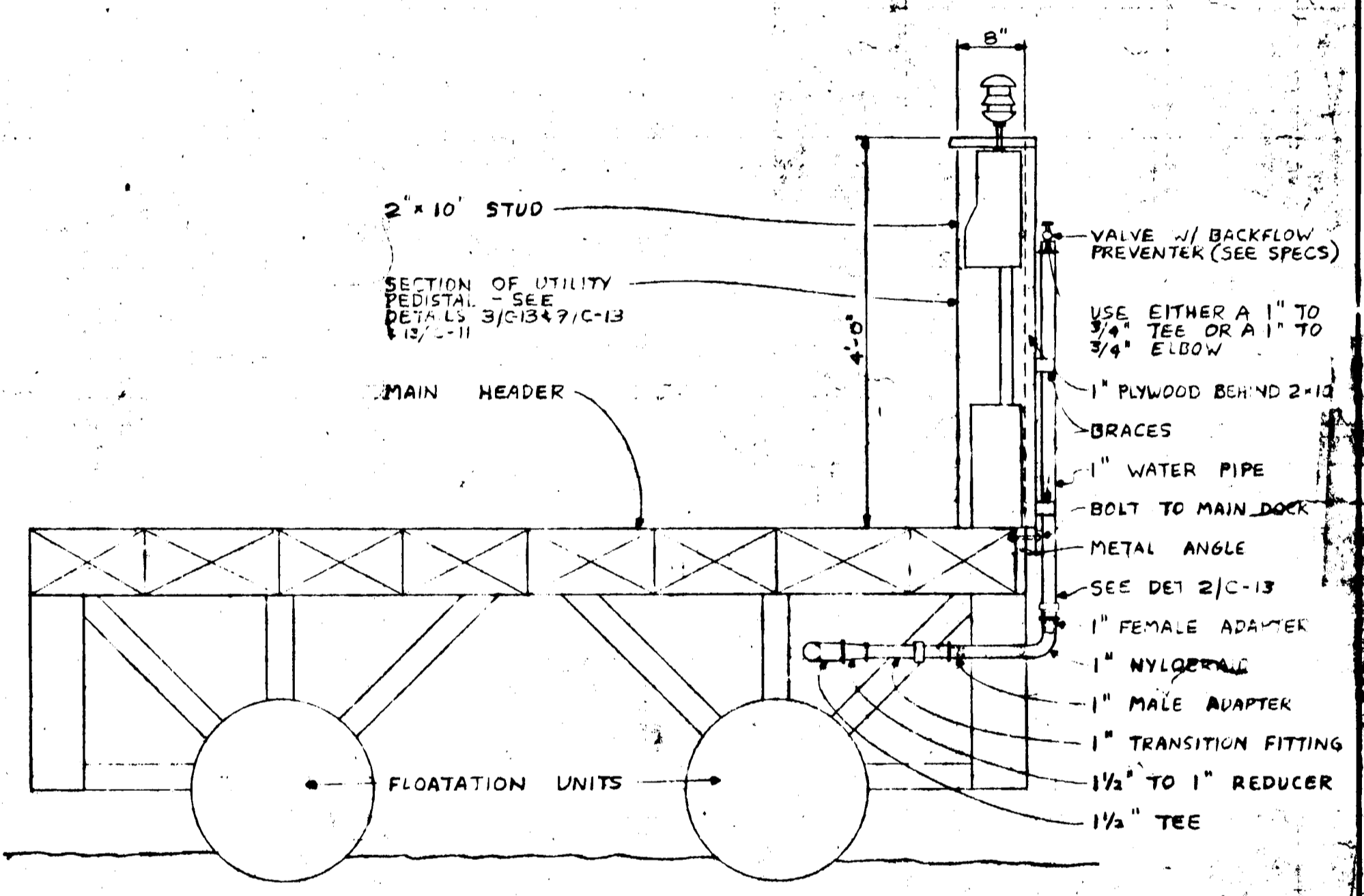


3 SECTION AT PEDESTAL  
N.T.S.

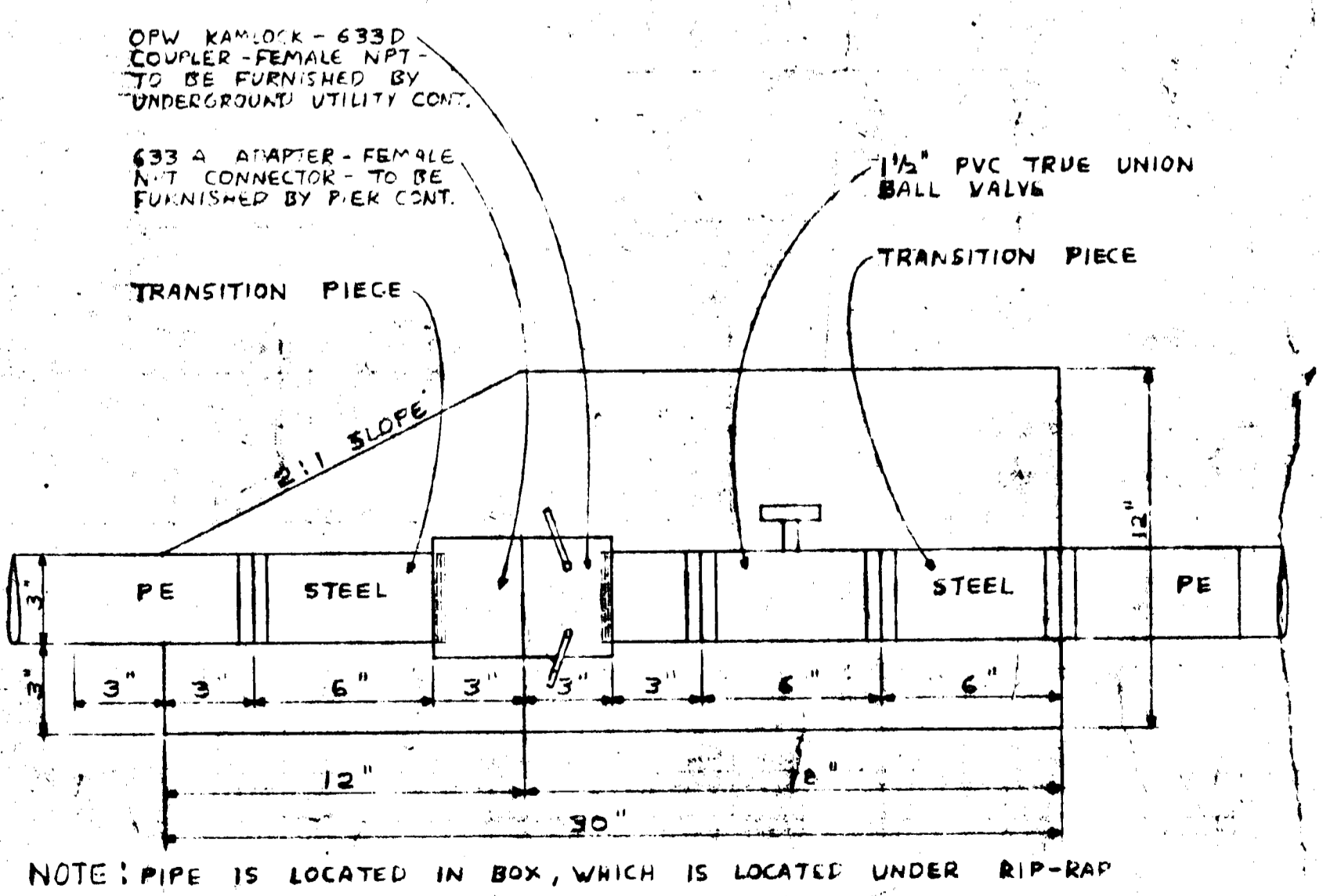


4 PIPE LINES UNDER RAILWAY  
SCALE: 1" = 20"

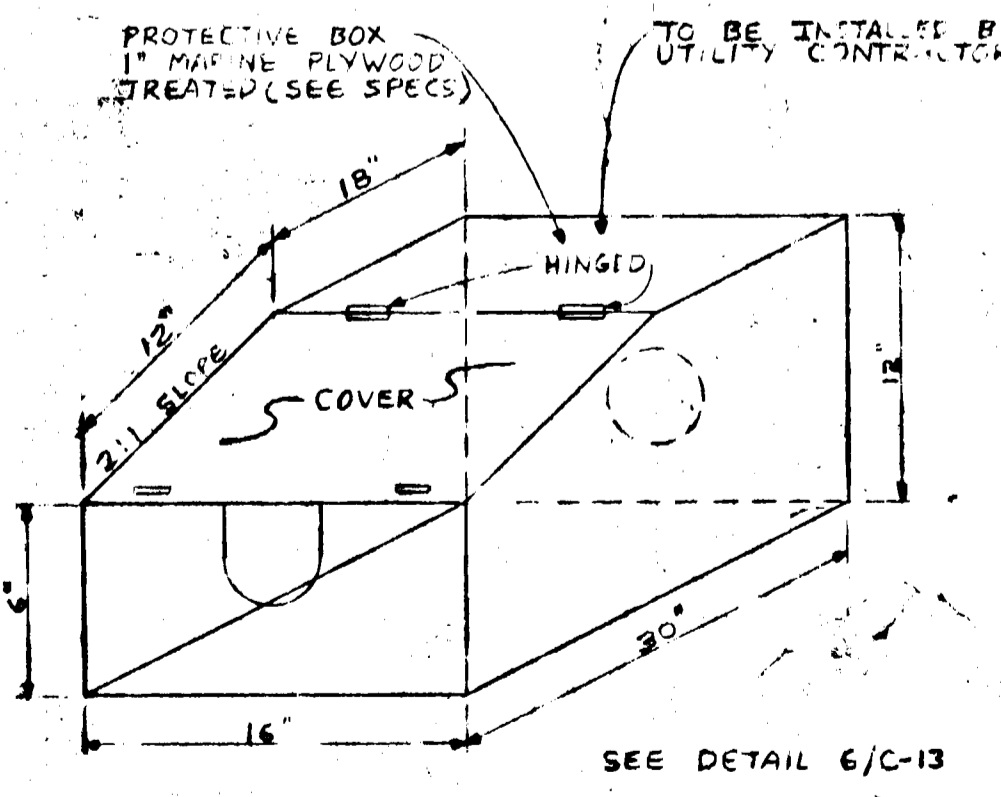
NOTE: WHERE THE ENDS OF THE CASING ARE BELOW GR. NO. THEY SHALL BE SUITABLY PROTECTED AGAINST THE ENTRANCE OF DIRT OR OTHER MATERIAL BUT SHALL NOT BE TIGHTLY SEALED.



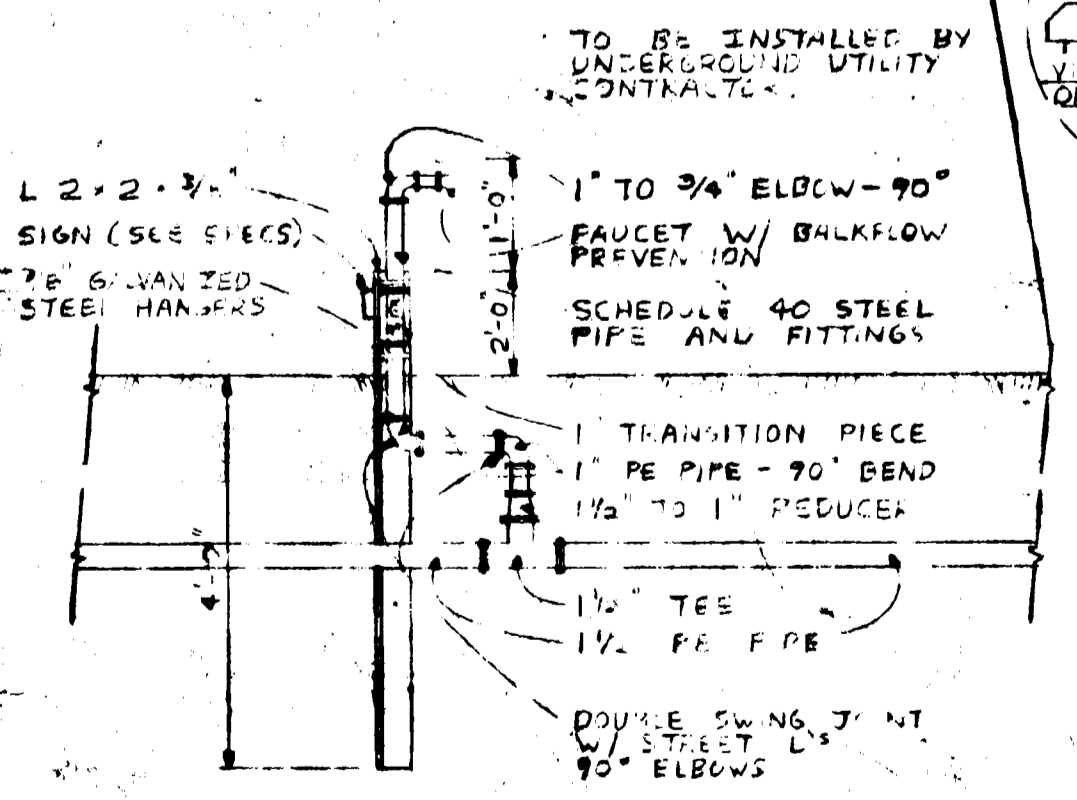
5 SECTION AT PEDESTAL  
N.T.S.



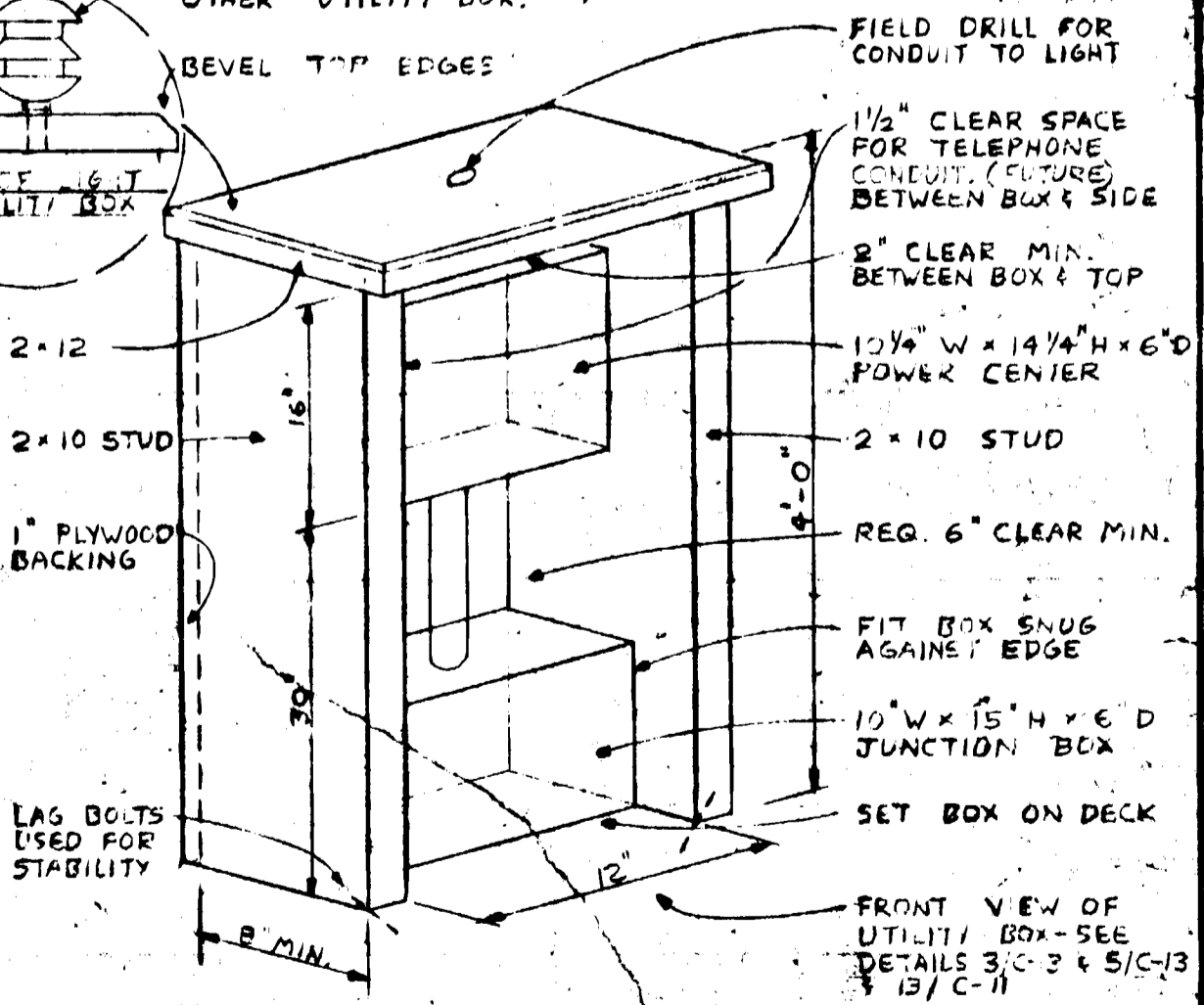
6 PIPE GOING THROUGH RIP-RAP  
N.T.S.



7 ISOMETRIC  
N.T.S.



8 WATER PUMP-OUT IN SERVICE AREA  
N.T.S.



9 PEDESTAL  
N.T.S.

revisions

I hereby certify that this drawing was prepared by me or under my direct supervision and that I am a duly registered engineer under the laws of the State of WISCONSIN

Signature: *Clark*  
Date: 12/12/78 REG. NO. 12316

CLARK ENGINEERING CO.  
CONSULTING ENGINEERS  
2015 WAZATA BOULEVARD  
MINNEAPOLIS, MINNESOTA 55405

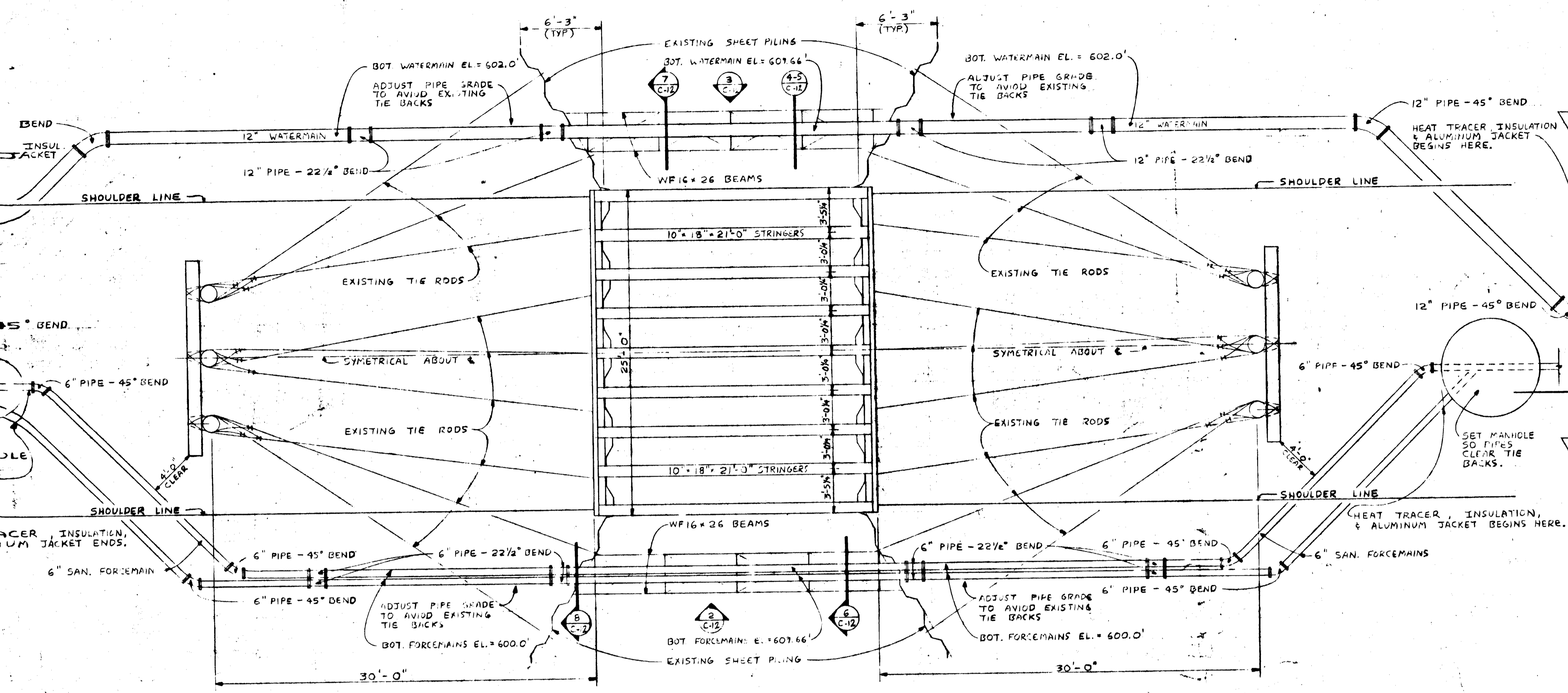
drawn by: D.E.M.  
checked by: B.R.K.  
date: 12/12/78  
comm. no. 7666

DETAILS

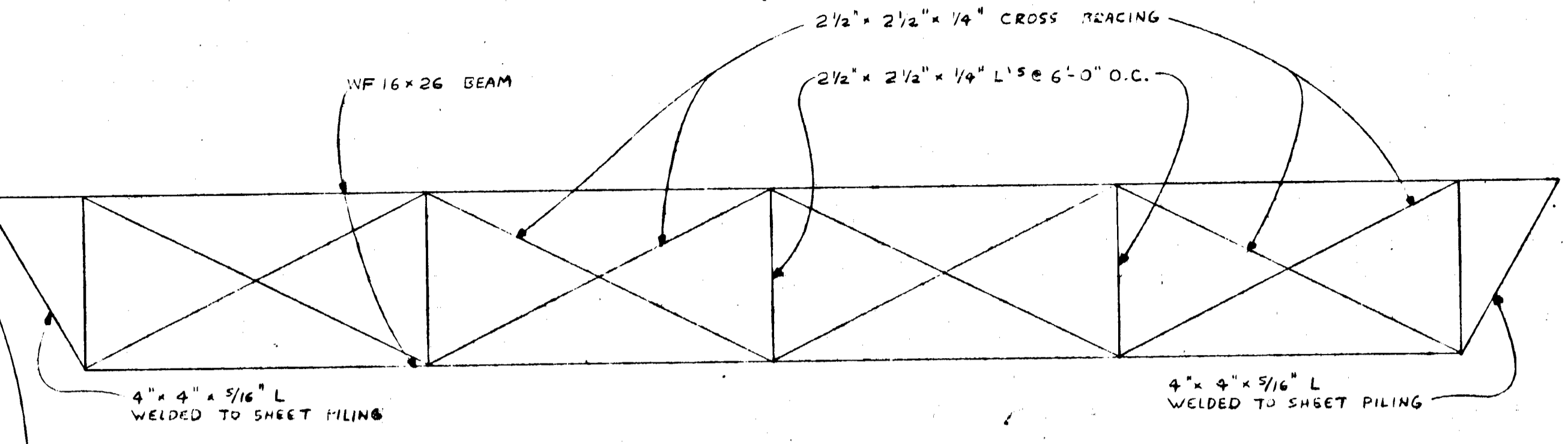
scale: north

BARKERS ISLAND  
MARINA PHASE 2  
CITY OF SUPERIOR WISCONSIN  
EDA PROJECT NO. 06-01-01467

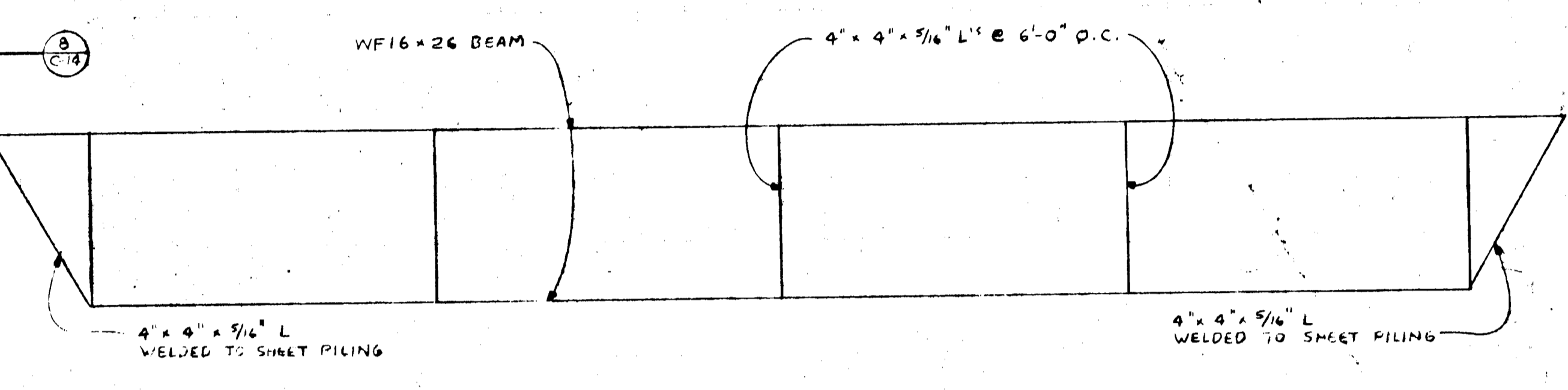
C-13  
of sheets



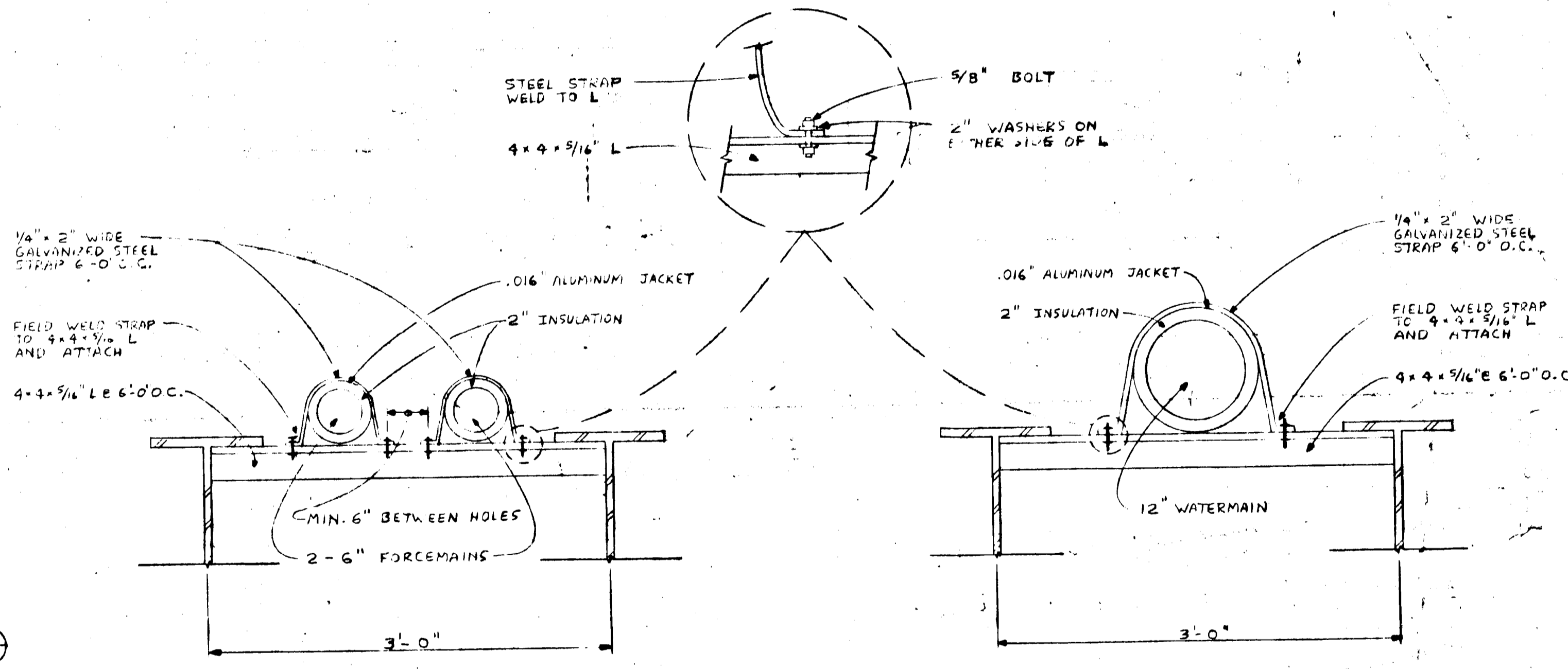
1 PLAN OF UTILITY CROSSINGS  
N.T.S.



4 BOT. VIEW OF PIPE FRAME  
N.T.S.

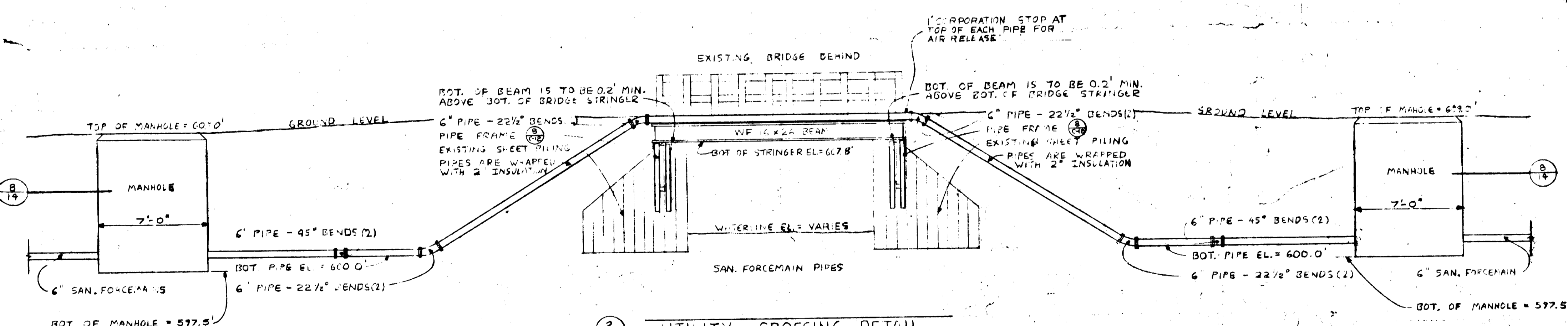


5 TOP VIEW OF PIPE FRAME  
N.T.S.

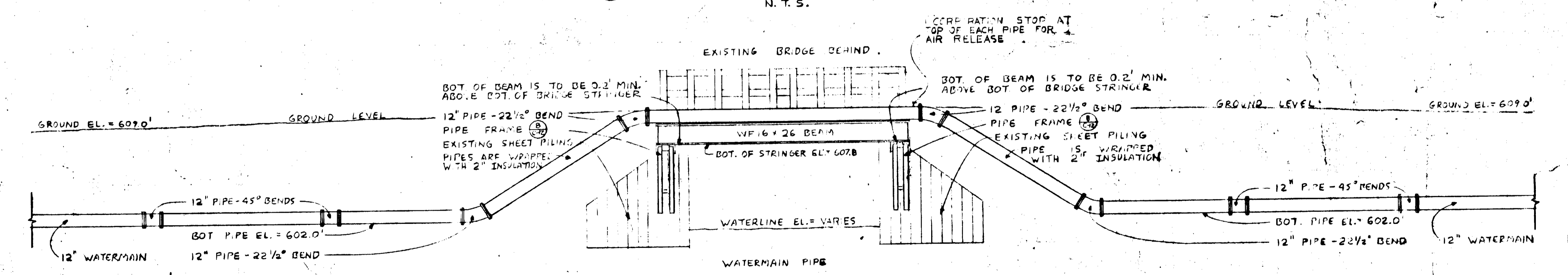


6 SECTION OF FORCEMAIN FRAME  
N.T.S.

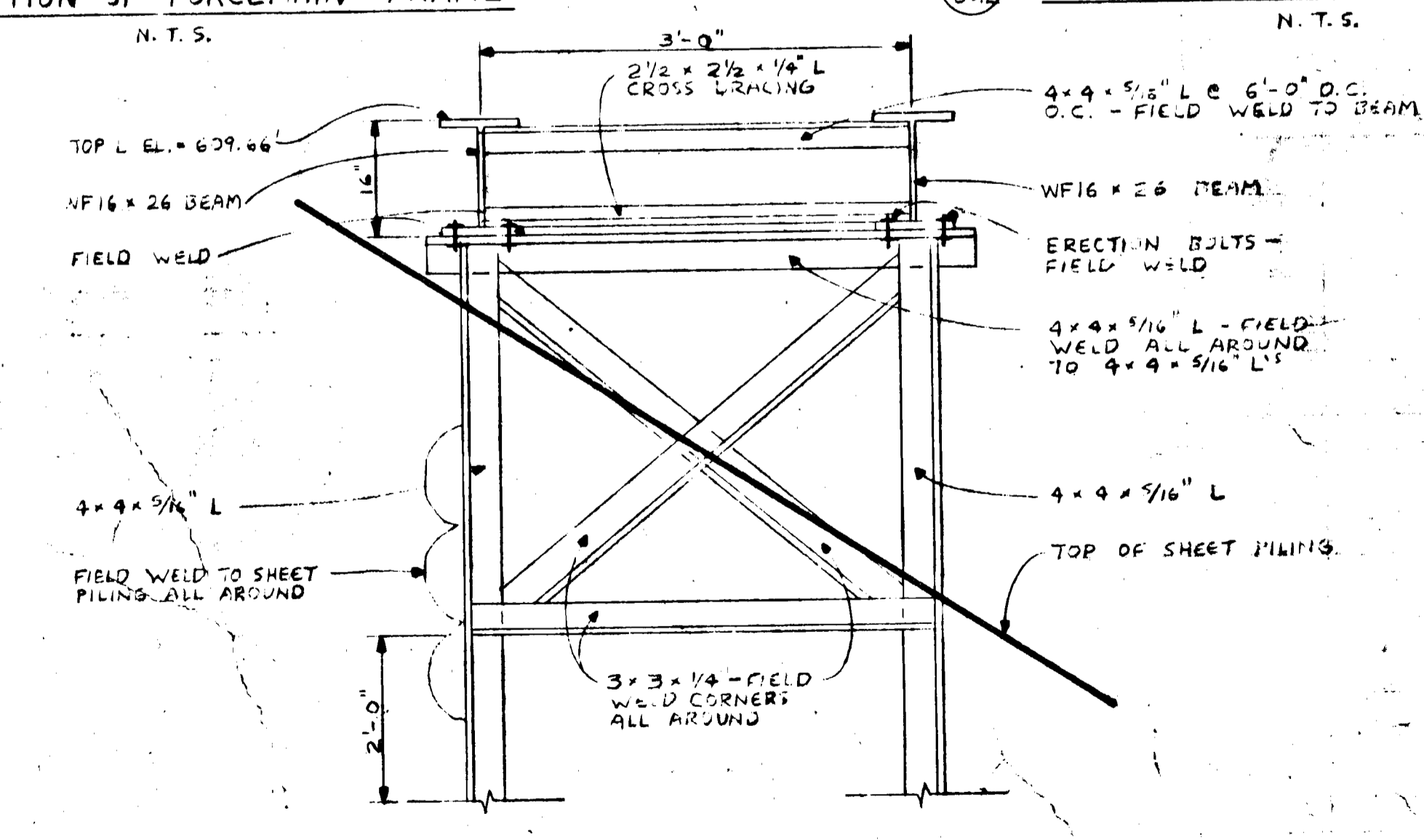
7 SECTION OF WATERMAIN FRAME  
N.T.S.



2 UTILITY CROSSING DETAIL  
N.T.S.



3 UTILITY CROSSING DETAIL  
N.T.S.



8 PIPE FRAMING DETAIL  
N.T.S.

Revisions

NO.	DATE	DESCRIPTION

I hereby certify that this drawing was prepared by me or under my direct supervision and that I am a duly registered ENGINEER under the laws of the State of WISCONSIN.

Signature: *[Signature]*  
Date: 12/12/78 REG. NO. E 10216

**CLARK ENGINEERING CO.**  
CONSULTING ENGINEERS  
2815 WAZATA BOULEVARD  
MINNEAPOLIS, MINNESOTA 55405

Drawn by: D.E.M.  
Checked by: B.R.K.  
Date: 12/12/78  
Comm. no.: 7566

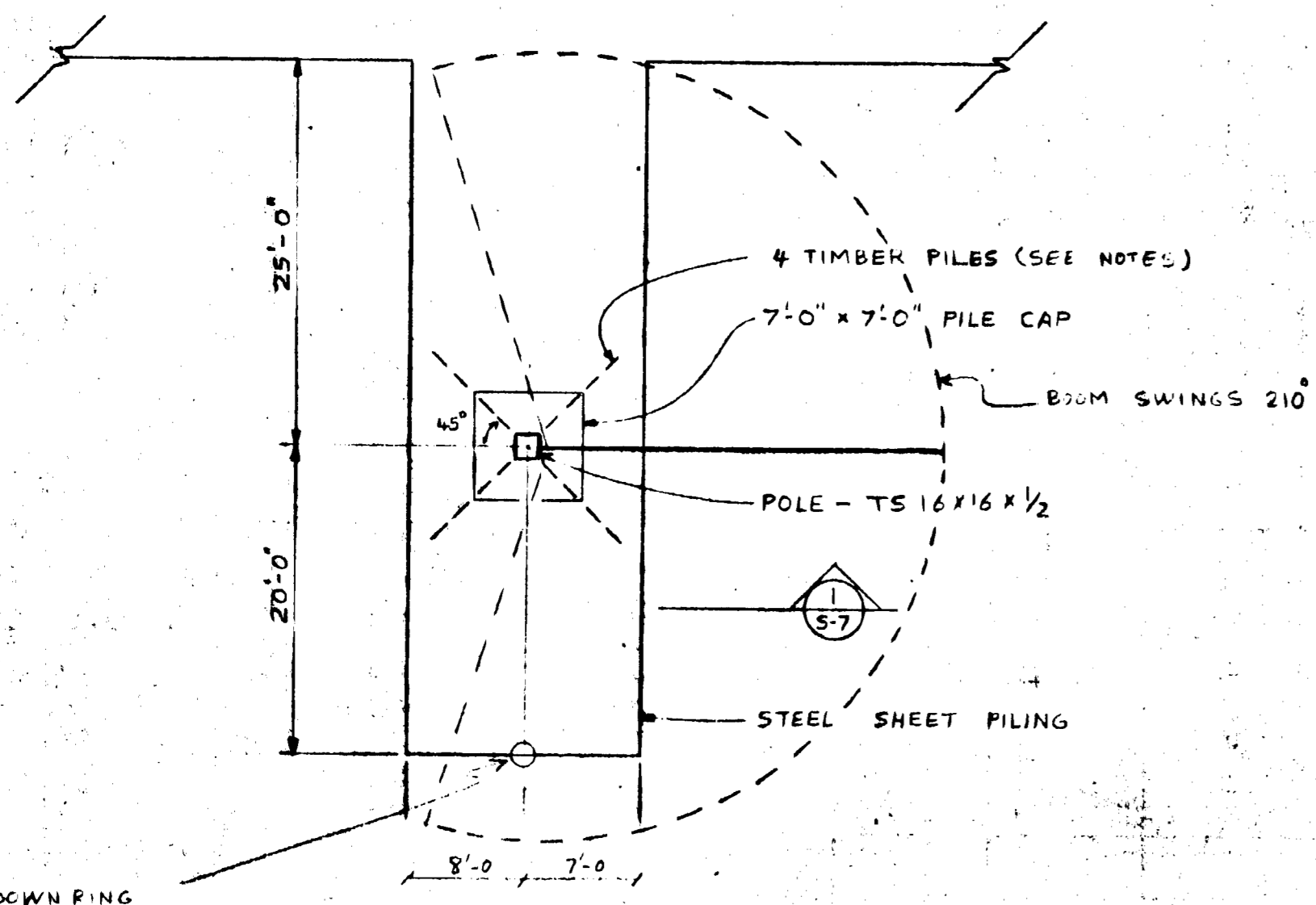
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Sheet Title: **DETAILS**

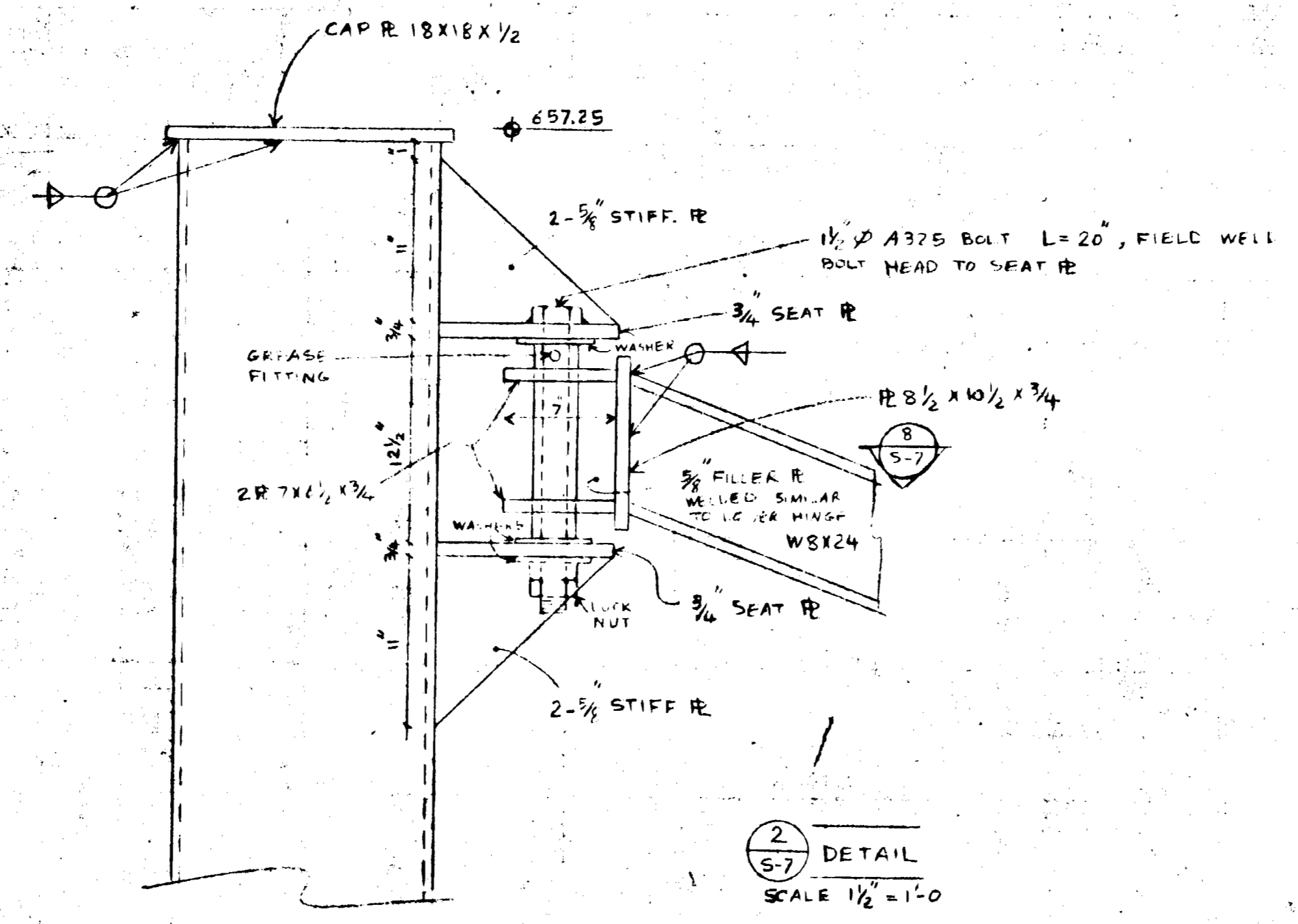
Project: **BARKERS ISLAND MARINA PHASE 2**  
City of Superior, Wisconsin  
E.O.A. Project No. 13-01-01467

Sheet No.: **C-12** of 12

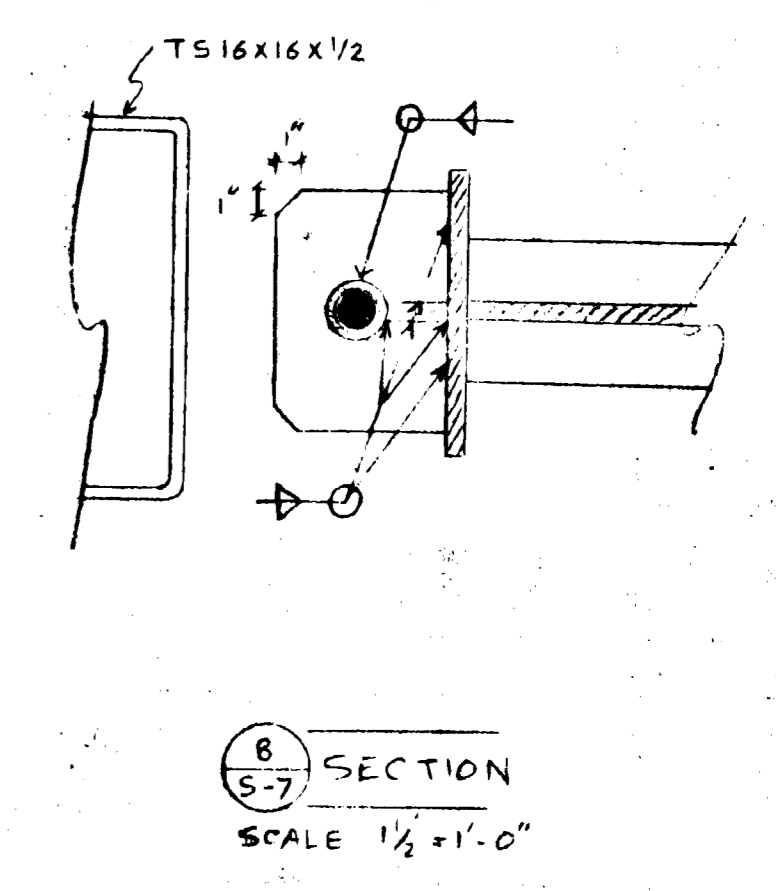




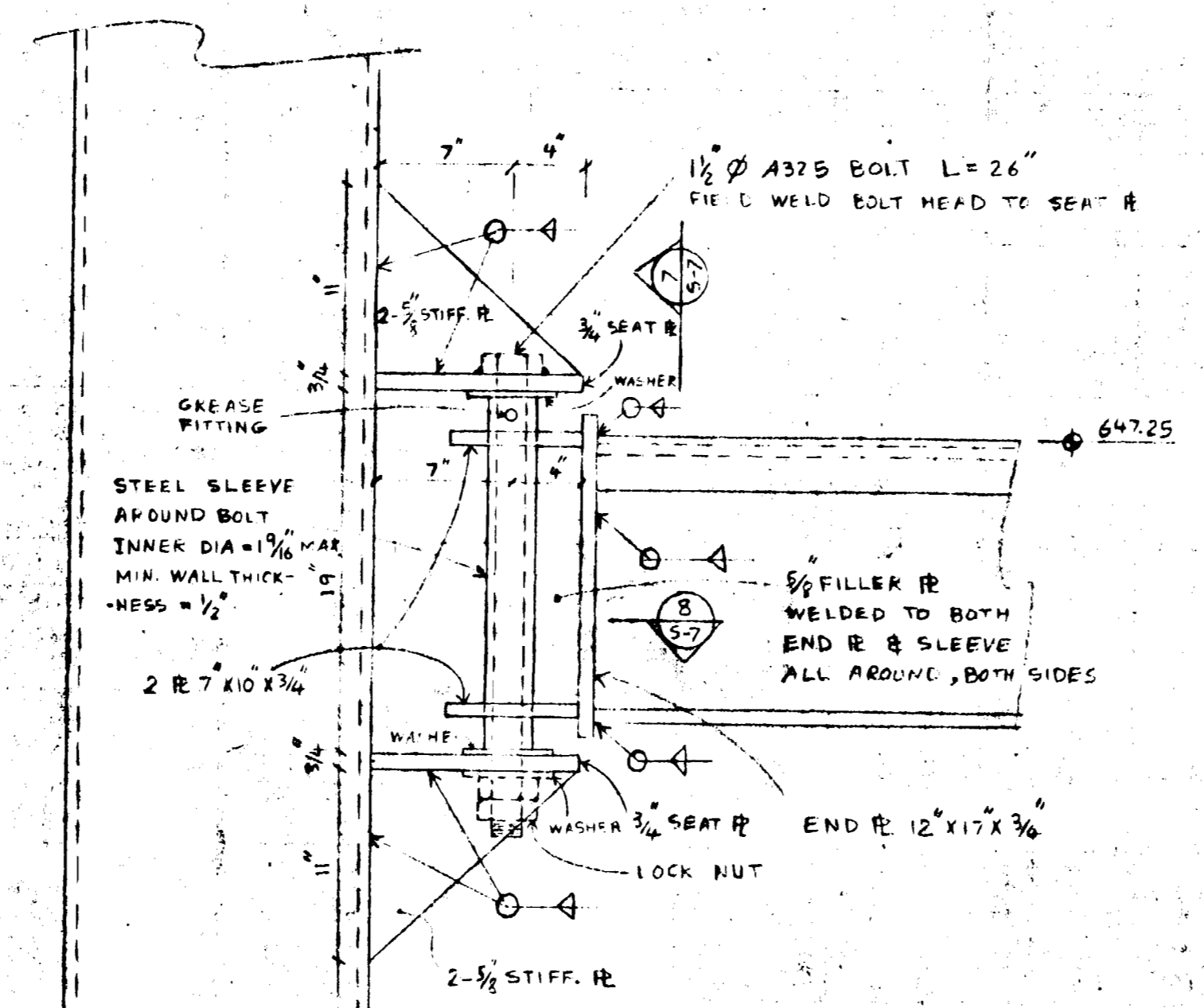
GIN POLE PLAN  
SCALE: 1" = 10'



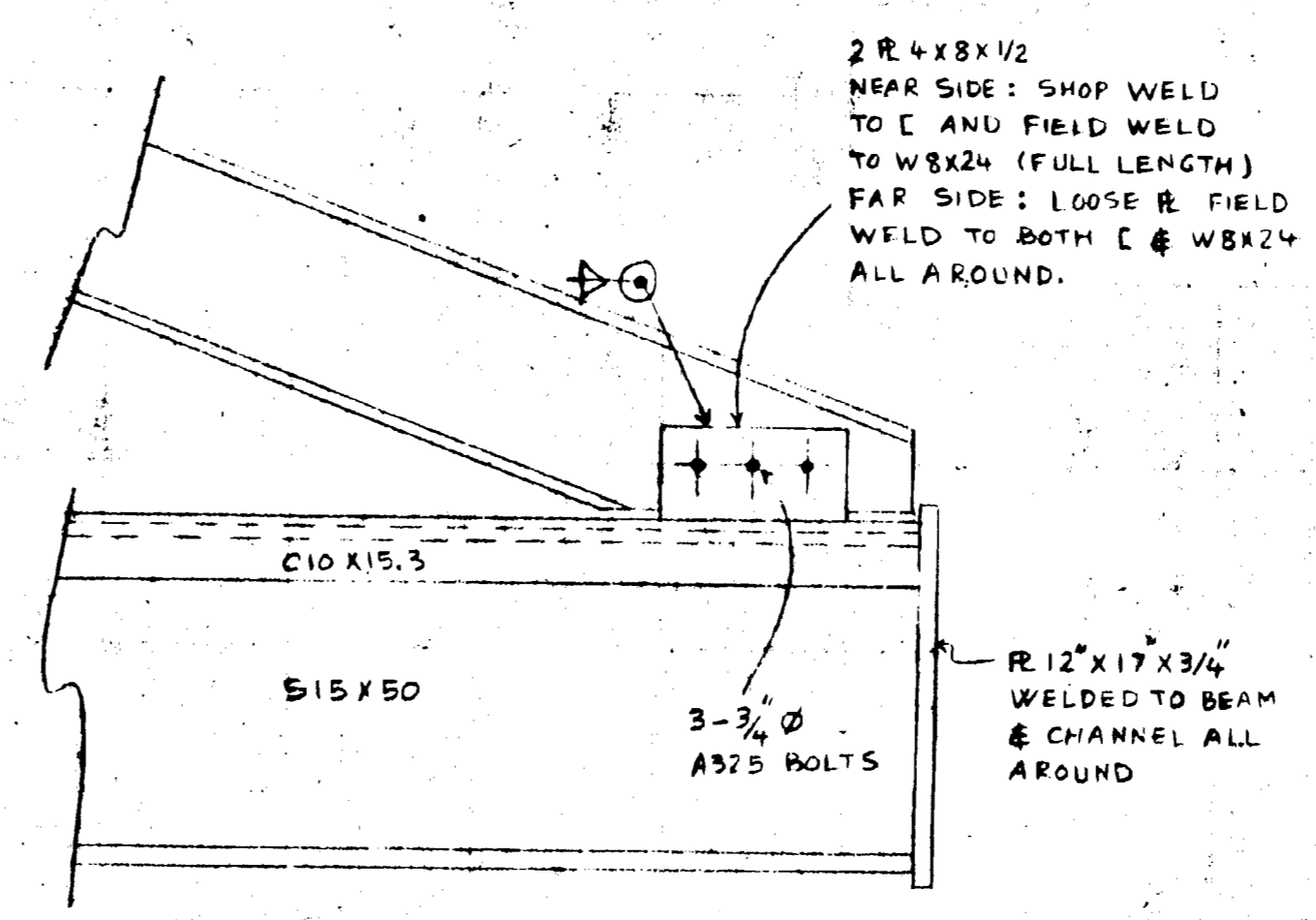
2  
5-7  
DETAIL  
SCALE 1/2" = 1'-0"



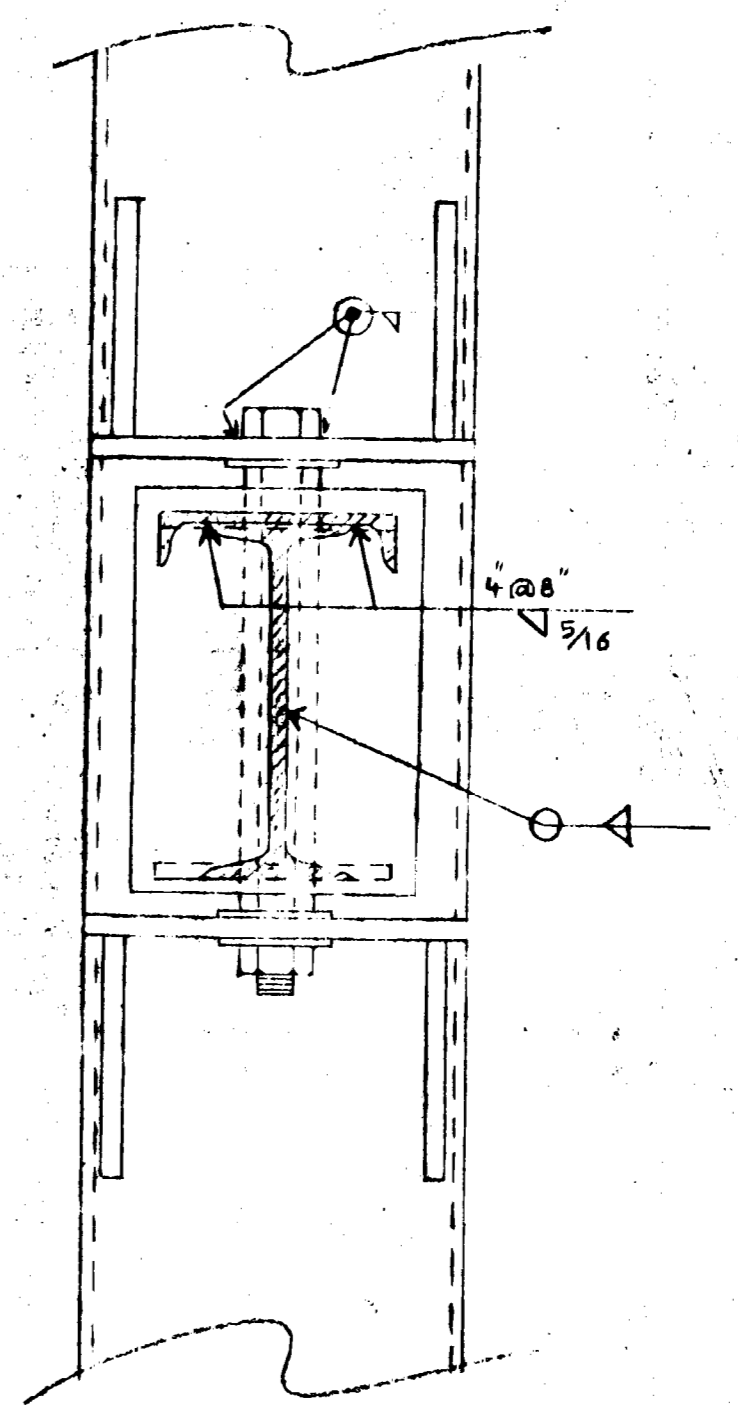
8  
5-7  
SECTION  
SCALE 1/2" = 1'-0"



4  
5-7  
DETAIL  
SCALE 1/2" = 1'-0"



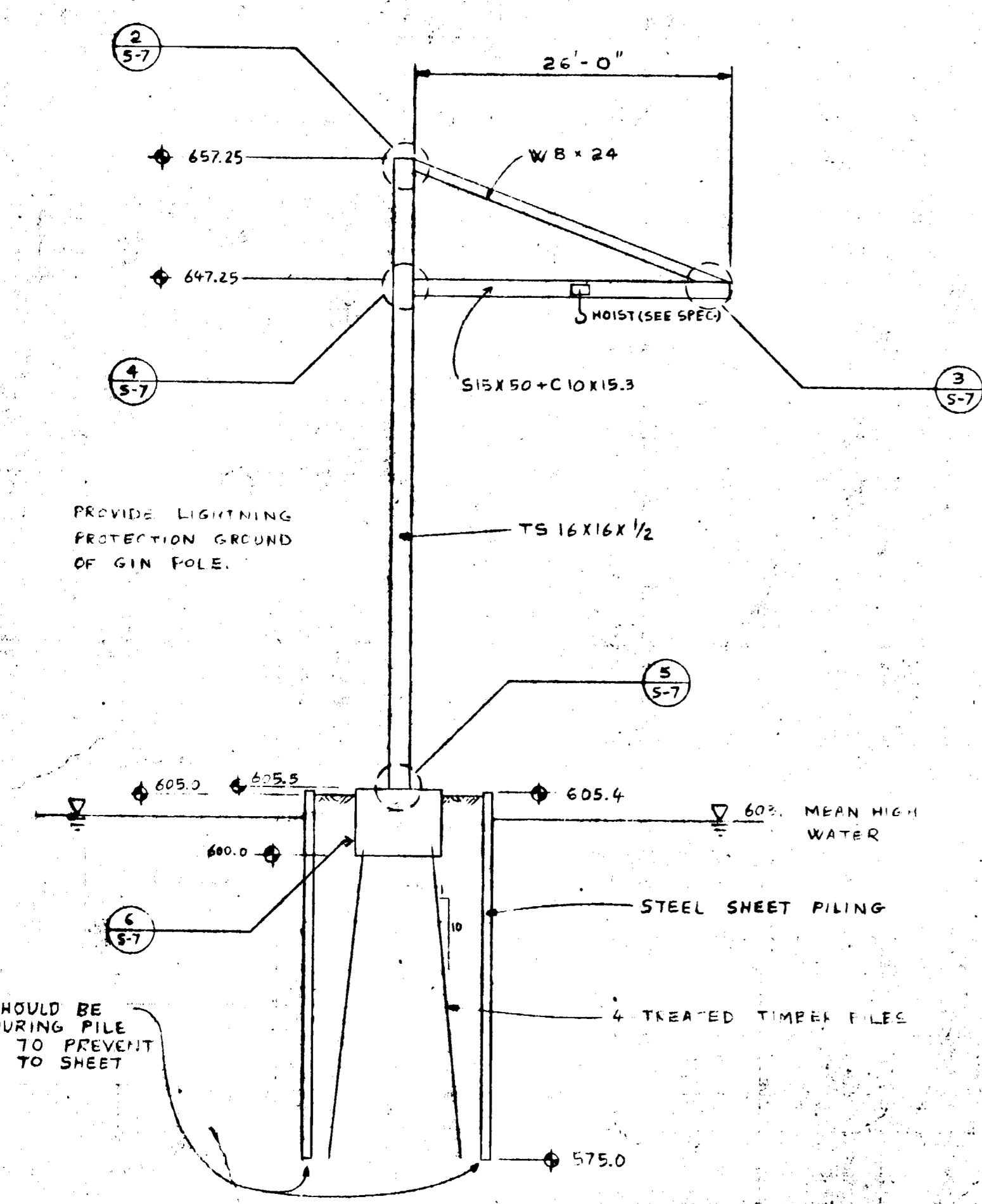
3  
5-7  
DETAIL  
SCALE 1/2" = 1'-0"



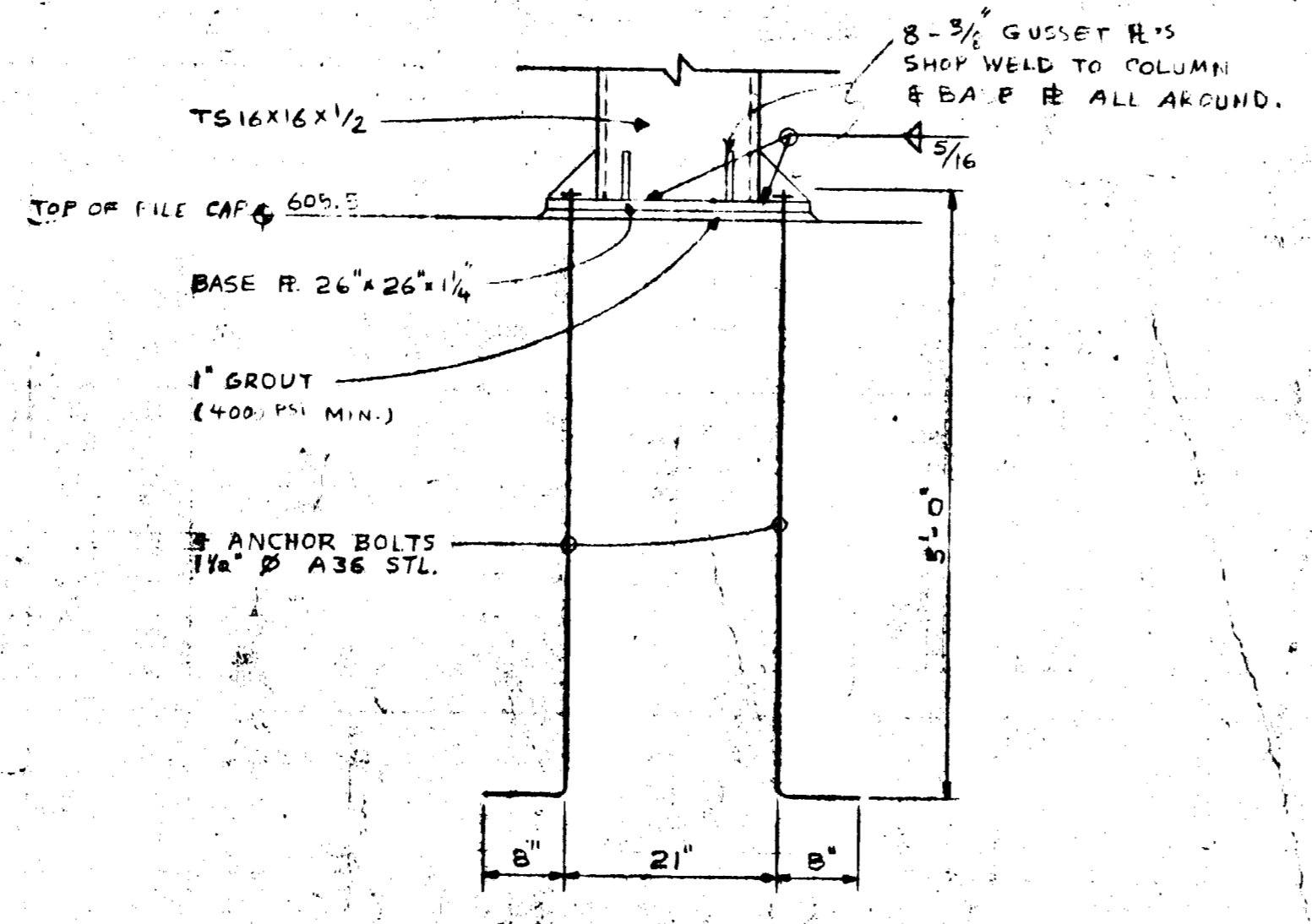
7  
5-7  
SECTION  
SCALE 1/2" = 1'-0"

STRUCTURAL NOTES

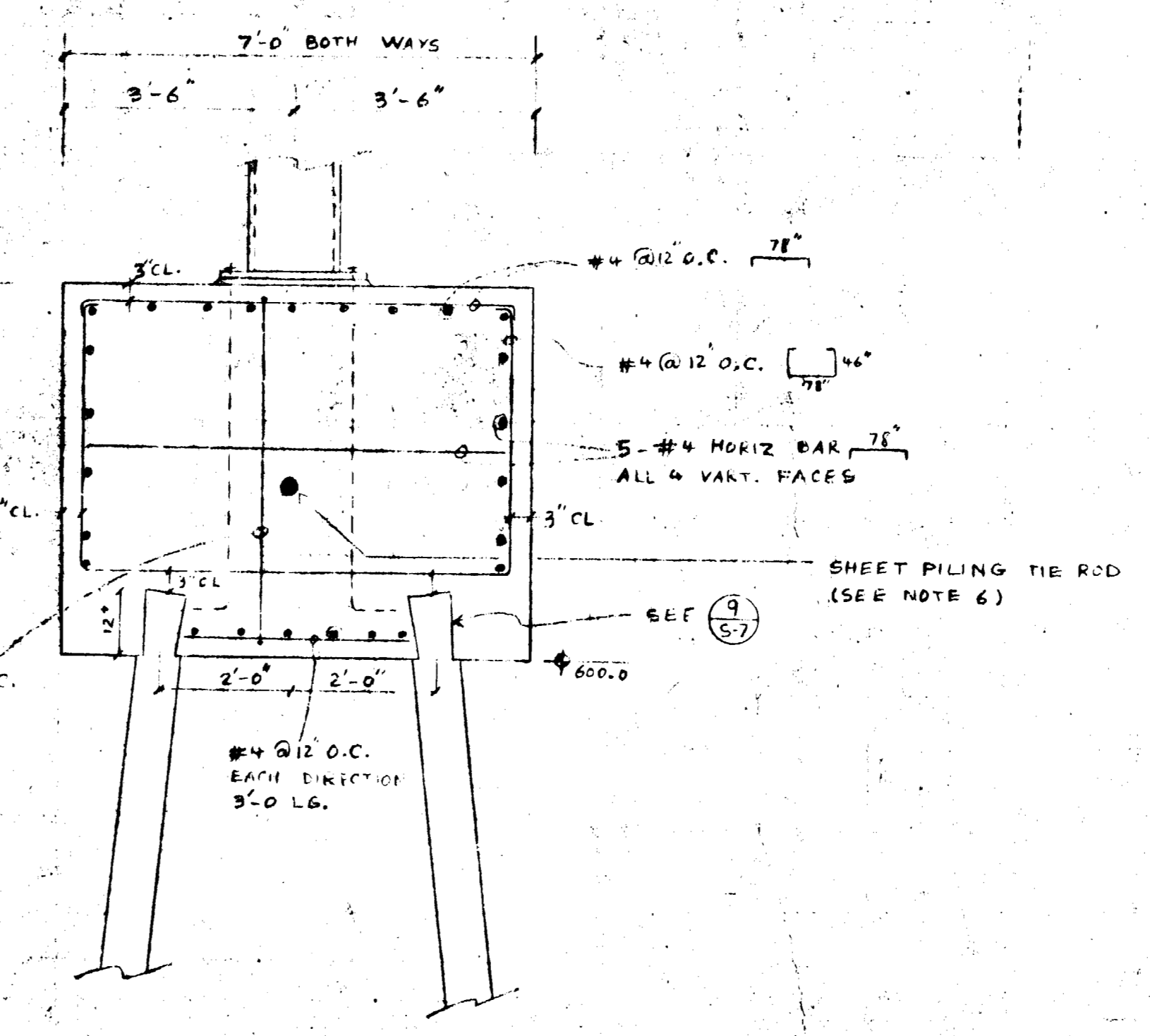
- STRUCTURAL STEEL
  - STEEL TUBE COLUMN MIN F<sub>y</sub> = 46 KSI
  - ALL OTHERS ASTM A36
  - BOLTS, HIGH STRENGTH ASTM A325
  - CONCRETE REINF. ASTM A618 GRADE 60
  - ALL WELDS 3/16 E70XX
- CONCRETE
  - f'<sub>c</sub> = 3000 PSI @ 28 DAYS (SEE SPECS.)
- ALL PILES TO BE 25 TON TREATED TIMBER PILES W/ MIN 15" DIA. BUTT. & MIN 7" DIA TIP. (SEE BLDG. SPECS.)
- PILE TIP SHALL BE MIN. 26'-0" BELOW CUT OFF ELEV. (SEE SPECS.)
- CUT OFF ELEV. 601.0
- CARE SHOULD BE TAKEN DURING EXCAVATION & CONSTRUCTION OF PILE CAP TO PREVENT DAMAGE TO TIE ROD.
- THE STRUCTURAL MEMBERS OF THE GIN POLE SHALL BE HOT DIPPED ZINC COATED IN ACCORDANCE WITH LATEST ASTM SPEC REQUIREMENTS PRIOR TO ASSEMBLY. ALL WELDS OVER GALVANIZED MATERIAL SHALL BE THOROUGHLY CLEANED AND COATED WITH 2 COATS OF COLD GALVANIZING COMPOUND.



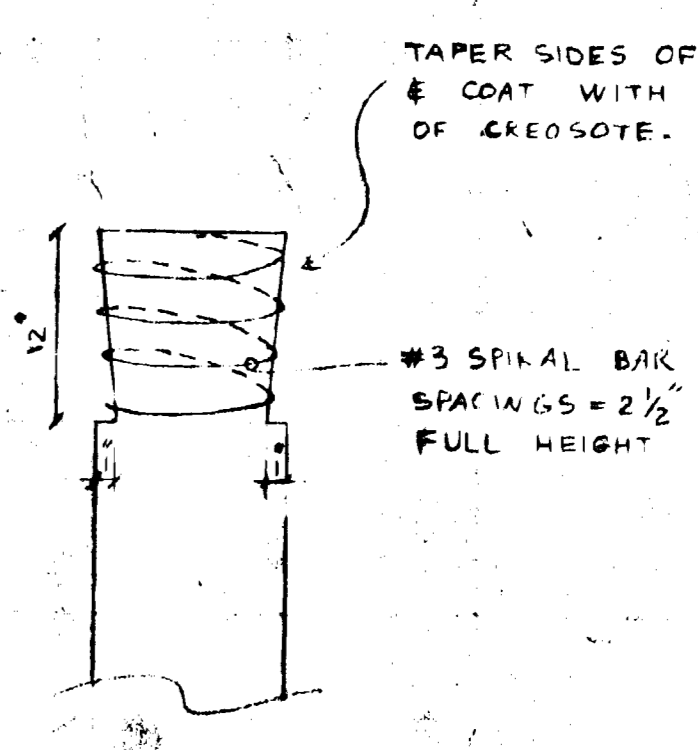
1  
5-7  
SECTION  
SCALE: 1" = 10'



5  
5-7  
DETAIL  
SCALE: 3/4" = 1'-0"

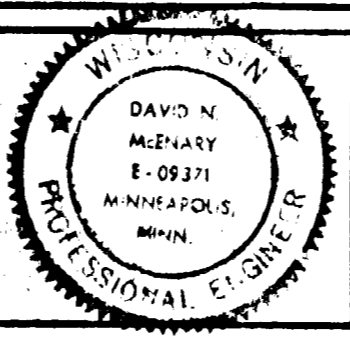


6  
5-7  
DETAIL  
SCALE 1/2" = 1'-0"



9  
5-7  
DETAIL

revisions



I hereby certify that this plan, specifications, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Wisconsin.  
Date 12-12-78  
David N. Murphy  
Reg. No. E 9371

**CLARK ENGINEERING CO.**  
CONSULTING ENGINEERS  
2815 WAZATA BOULEVARD  
MINNEAPOLIS, MINNESOTA 55405

drawn by H.S. D.E.M.  
checked by F.G.F. J.W.W.  
date 12/12/78  
comm. no. 2978

sheet title  
**GIN POLE PLAN**  
DETAILS

scale AS NOTED

**BARKERS ISLAND MARINA PHASE 2**  
CITY OF SUPERIOR, WISCONSIN  
E D A PROJECT NO. 06-01-01467

**S 7**  
of 7 sheets