



Central Guam Reservoirs – Manenggon Reservoir No. 2 and Tamuning Reservoir No. 2
GWA Project No. W14-006-BND
IFB-01-ENG-2023
GWA RFI Response No. 1 to Contractor Inquiries

This Addendum and/or Response to Request for Information (RFI) is issued to modify the previously issued bid documents and/or given for informational purposes and to the extent the responses below modify the bid documents, please treat them as an amendment to the IFB. The following responses are in response to RFIs received.

	DATE	QUESTION/INQUIRY AS SUBMITTED:	GWA RESPONSE:
1	12/13/2022	Specification 003140 – Please confirm whether pipe and miscellaneous metals for the prestressed tank are required to be Buy American?	Buy American Requirements apply to all reinforcement steel under this contract. See Specification, Rev A, 016000, 1.2, D.
2	12/13/2022	Specification 003140 – Please confirm a warranty period for the prestressed concrete of 1 year is acceptable?	See Specification, Rev A, 033140, 1.8, F.
3	12/13/2022	Specification 00900 & Section 033140 – Please confirm that the experience qualifications set forth in Section 033140-4, paragraph 1.4 shall be submitted with the Bid?	Yes, experience requirements set forth in Specification, Rev A, 033140, 1.4, shall be submitted with the Bid.
4	12/13/2022	Specification 099000 – 3.1 – A – Page 13. Please confirm whether the tank roofs (Flat or Dome) will require an exterior coating.	Dome roof will require exterior coating. See Tamuning Reservoir plan – Rev A, C-511. Flat roof will not require exterior coating.
5	12/13/2022	Section 03100 – 3.2 – C states that concrete forms should not be removed until concrete has reached a compression strength of 2500psi. There has been success in removing the wall forms after 36 hours on previous GWA projects. Please have the Project Engineer review and confirm that the wall	See Specification, Rev A, Section 031000, 3.2, C.

		forms may be removed after 36 hours or a minimum compression strength of 2500 psi is achieved, whichever occurs first.	
6	12/13/2022	Section 033000 – 3.5 – states that concrete units shall have cured for 7 days for hydraulic structures before the contiguous unit placed. Please note that it is standard prestressed tank industry practice to a wall section back against a previous wall section after the wall has experienced 36 hours of cumulative curing time above 50°F. The prestressed tank wall is supported on neoprene bearing pads that allow curing to occur without restraint. Please have the Project Engineer review and confirm that a 36 hour pour-back time between adjacent wall sections is acceptable for use on this project.	See Specification, Rev A, Section 033000, 3.5, A.
7	12/13/2022	Tamuning #2 - Sheet S-101 indicates the drain pipe is 12" diameter while S-504 indicates 18". Please confirm the drain pipe size.	See Tamuning Reservoir plan – Rev A, Sheet S-101.
8	12/13/2022	Tamuning # 2 & Manenggon- Sheets S-506, detail E shows a grating at the 4x8 access hatch. We noted in Section 055000 – 2.7 – B states a net is required at all hatch openings. Please confirm whether a metal grating or polyester net will be required.	See Tamuning Reservoir plan – Rev A, Sheet S-506 and Specification, Rev A, 055000, 2.7, B.
9	12/14/2022	Tamuning #2 – Civil Sheets C-106, C-109, etc. show a finish floor elevation of 196.0 and an overflow elevation of 236.0 resulting in 40'-0" from floor to overflow. In the tank details, this overflow dimension is shown as 41'-0" with a 40'-0" operating depth. In addition, drawing S-101 shows an operating depth of 40'-0" in section 3 shows a finish floor of 196.0 and and overflow elevations 235.0 which is 39'-0". Please confirm the tank finish floor elevation, operating depth and overflow depth.	See Tamuning Reservoir plan – Rev A, Sheet C-106, C-107, C-108, C-109, S-101.
10	12/14/2022	Tamuning # 2 – Sheet S-101 depicts a thicker structural floor in section 3, however a 6" membrane slab is called out as well as shown on drawing S-201. Please confirm a 6" membrane slab may be utilized on the Tamuning tank.	Install 6" slab per plan.
11	12/14/2022	Tamuning #2 – Sheet S-504 shows angles support on the 2" washdown pipe. Please confirm if this is needed on the ¾" sensing line in Tamuning. Also please confirm if these supports are required	No angle support for the sensing line on either reservoir. Angle supports are required for the Tamuning and

		for the washdown pipe and sensing line on the Manenggong tank.	Manenggong reservoirs washdown lines.
12	12/14/2022	Tamuning # 2 - Sheets S-506, detail 1 shows a grating inside the hatch. Please confirm grating is not needed on the Tamuning dome tank as it would be sloped with the dome and maybe a safety hazard.	See Tamuning Reservoir plan – Rev A, Sheet S-506.
13	12/15/2022	Due to the upcoming holidays quotations from equipment suppliers and local subcontractors will be delayed. We would like to request for four (4) weeks extension of bid due.	Bid acceptance has been extended from December 28, 2022 to January 20, 2023 at 10 a.m. ChST. Submit one original and one copy of bid documents. See Addendum No. 1.
14	12/15/2022	Please confirm that the period of performance will exclude the permit application duration due to the lengthy process and that the NTP will be issued after obtaining the required permits.	The permit application process is part of the period of performance. Should permit process be delayed for an extended period at no fault of the Contractor, extension shall be considered.
15	12/15/2022	Our subcontractor who specializes in building prestressed concrete tanks gave us a rough timeline on the construction of the 2MG Manenggong reservoir no. 2 and 3MG Tamuning reservoir no. 2 for 35 weeks and 40 weeks, respectively. With this information would GWA be considering in extending the period of performance for this project?	See Specification, Rev A, 011000, 1.3.
16	12/15/2022	Please clarify the extent of GWA participation for the utility outages.	Once a complete outage request has been submitted by the Contractor, GWA operations and engineering will review the request and approve or reject the request. If an outage has been approved, GWA, in general, will <ul style="list-style-type: none"> • GWA will issue a public outage notice. • GWA operations will perform necessary work to shut down the system for the Contractor to perform the work. There may be instances where Contractor will need to assist GWA operations, i.e. installing a saddle for pressure monitoring, uncovering bury valves. • GWA engineering and Construction Manager will monitor and inspect the outage work. This includes

			<p>pre-inspection of the site and material prior to the outage.</p> <ul style="list-style-type: none"> After Contractor has completed the work, GWA operations will place the system back online. Typically, restoration will take several hours and the Contractor is expected to stay onsite to correct any work deficiencies that may occur during restoration.
17	12/15/2022	Please specify which materials will be included in the Buy American Act for this Central Reservoirs bid.	See Item No. 1.
18	12/15/2022	<p>Due to the overgrowths during the site visit, we were unable to see the facilities to be demolished.</p> <p>Please provide drawings or dimension for the existing steel tank for demolition.</p>	See Attachment to RFI Responses No. 1.
19	12/15/2022	Please confirm as mentioned during the site visit that debris for the demolished Pulantat tank will be treated and disposed as regular construction debris.	See Manenggon plans – Rev A, Sheet D-101, Notes 10 and 11.
20	12/15/2022	Please confirm if there is any working hour restriction from Leo Palace during the construction phase. Will they be allowing weekend work?	<p>See General Conditions, Article 7, 7.02 Labor; Working Hours and Specification, Rev A, 01100, 1.5, C for weekend work.</p> <p>Contractor may submit a request to perform work outside the regular working hours or on Saturdays, Sundays, or Legal holidays. There has been no weekend or hour restrictions set by Leo Palace. If there any changes, GWA will notify the Contractor.</p>
21	12/15/2022	<p>It was mentioned during the site visit that Leo Palace operation can not be disrupted by the work done for Manenggon reservoir no. 2.</p> <p>Please confirm as mentioned during the site visit that utility outages for the Manenggon reservoir site can only be done at night.</p>	<p>Manenggon Reservoir outages will have to be closely coordinated with GWA and Leo Palace. It can be assumed that all outages will be conducted at night to minimize impact to all customers in the affected area, including the satellite station.</p> <p>Please note the requirements for outage work at the Manenggon Reservoir site set forth in Specification 011000, 1.5, D, 3, which states,</p> <ul style="list-style-type: none"> “Leo Palace Resort requires about 8,000 gallons per day for the cooling towers. The Contractor shall

			provide a water, possibly by water truck, for Leo Palace use during any service outage for the resort. The Contractor shall coordinate with Leo Palace staff through the Contracting Officer.”
22	12/15/2022	Is there any associated fees to Leo Palace during the construction of Manenggon reservoir no. 2?	None.
23	12/15/2022	Please confirm that security requirement for the Manenggon reservoir no. 2 site will be only after working hours.	See Specification, Rev A, 015000, 1.16, A, B, and C for security program requirements. Specification 015000, Rev A, 1.16, C, Security Service states, “Employ uniformed guard service to provide guards on Site during nonworking hours, weekends, and holidays.”
24	12/15/2022	Reference bid item 5.20 Cleaning of existing tank, OSHA will not be allowing any moveable scaffoldings for the inspection. Fixed scaffold will be required. Please confirm this is acceptable.	Contractor must provide documentation that moveable scaffolding is not allowed in the reservoirs. If OSHA will not be allowing moveable scaffolding for inspection, the Contractor shall have appropriate staff to move fixed scaffolding to different locations inside the tank per GWA and inspector’s directive.
25	12/15/2022	Please confirm that archeological monitoring will only be required for Manenggon reservoir no. 2 site.	Archeological monitoring is required for Manenggon Reservoir No. 2 and Tamuning Reservoir No. 2 site ground disturbing activities. See Specification 011000, Rev A, 1.9, D.
26	12/15/2022	Additive Bid - Access pump station - Item 6.2 Temporary pump system, generator and container, for uniformity of bid scope please provide details and requirements for temporary pumping system.	See Manenggon Reservoir plan – Rev A, M-101: Temporary Pump Station Mechanical Piping Plan.
27	12/15/2022	Please confirm as mentioned during the site visit that the portion of land owned by Guam International Airport can be utilised by contractor as part of their lay down area. Please confirm the location for the laydown area for Tamuning reservoir no. 2.	See RFI Response No. 1 Attachment: Figure 8411830-TUMON1-FIG2-R7. Contractor may use area within the proposed property line for laydown area. Please note that the Contractor must provide access to GWA for the existing in-service tank throughout construction. Should the area not be adequate for laydown area, it is the

			Contractor's responsibility to find a suitable location offsite.
28	12/15/2022	Please confirm that security requirement for the Tamuning reservoir no. 2 site will be only after working hours.	See Specification, Rev A, 015000, 1.16, A, B, and C for security program requirements. Specification, Rev A, 015000, 1.16, C, Security Service states, "Employ uniformed guard service to provide guards on Site during nonworking hours, weekends, and holidays."
29	12/15/2022	Drawing D-102 and note 4 shows sawcut and pavement restoration limits along route 10A and on Route 1. DPW requires a full lane width restoration on primary roads. Please clarify and confirm the limits of asphalt restoration shown.	Requirements from DPW are shown on the plans per prior meetings with them; however, DPW requirements may change. If required, GWA and the Contractor shall negotiate a change for any additional DPW requirements.
30	12/15/2022	Drawing C-505 detail 3/C-505 and 4/C-505 shows asphalt pavement detail section. Please confirm asphalt friction course layer is not required.	Asphalt friction course is required. See addition of DPW road restoration detail on Tamuning Reservoir plan – Rev A, Sheet C-505.
31	12/15/2022	Drawing D-103 general note 4, calls for notification of owner when hazardous materials are found. Note 4 also states that hazardous materials shall be removed and disposed of. Please confirm that any hazardous material found during construction and not identified in the drawings and/or specification shall be considered a change.	Any hazardous waste not shown would be an unforeseen condition that would be considered a change.
32	12/15/2022	Drawing D-102 and D-103 note 8 emphasizes particular care when excavating in and around existing utility. Drawing D-102 and D-103 does not show any existing underground fiber optic line. Please confirm.	We believe the fiber optic lines are shown as GTA or TEL line type. General Construction Note 8 of Tamuning Reservoir plan – Rev A, Sheet C-001 states that utilities shall be considered approximate and not necessarily complete. It is the sole responsibility of the Contractor to independently verify the accuracy of all utility locations.
33	12/15/2022	Drawing C-527 Well abandonment details. 1. What is the static water level of the well? 2. What are the casings made of, PVC, steel....? 3. What is the diameter of the casing?	For bidding purposes, assume well depth of 200' and 4" PVC casing.
34	12/15/2022	Sheet S-103 reflected ceiling plan and curb detail, note 4 calls for "Install Carbon Fiber Fabric (C), (D)". Please clarify the area or extent to be applied with Filter fabric in ceiling and roof. Confirm if hatch area in reflected ceiling is the area of fabric and applied to the same area on the roof.	The carbon fiber is the hatched area. It is applied to the ceiling only, not the roof.
35	12/15/2022	Please provide outage fee or per hour services of GWA employee.	For outages outside normal working hours and weekends as

			<p>specified, the labor and equipment cost are as follows.</p> <ul style="list-style-type: none"> • Operator: \$25.00/HR • Leader Operator: \$30.00/HR • Engineer: \$40/HR • Vehicle: \$55/HR • Valve Exercising Machine: \$75.00/HR • Water Tanker: \$75.00/HR <p>Note the following:</p> <ul style="list-style-type: none"> • GWA shall determine appropriate staff for each outage. • Costs are estimated based on projected time for completion, but may increase if completion time goes beyond Contract time. • Costs are estimates and may change due to employee classification and equipment availability. • Labor, materials, and equipment will be billed to the Contractor. • Adhere to Contract documents.
36	12/15/2022	<p>Subcontractor (DN Tanks) provided below schedule</p> <ul style="list-style-type: none"> <input type="checkbox"/> Notice to Proceed 2/1/2023 <input type="checkbox"/> Tank Design Submittal from DN 3/1/2023 <input type="checkbox"/> Client Approval of Design 3/22/2023 <input type="checkbox"/> DN mobilize to prepared tank pad 5/1/2023 <input type="checkbox"/> Manenggon Tank Construction 32 wks <input type="checkbox"/> Tamuning Tank Construction 35 wks <p>Please consider adjusting the completion date of the project.</p>	See Specification, Rev A, 011000, 1.3.
37	12/15/2022	<p>We respectfully request a 4-week bid extension from December 28, 2022, to January 25, 2023. The additional time is necessary for completing all the quantity takeoffs and to requesting pricing from the vendors.</p>	<p>Bid acceptance has been extended from December 28, 2022 to January 20, 2023 at 10 a.m. ChST. Submit one original and one copy of bid documents.</p> <p>See Addendum No. 1.</p>

Bidders are also notified to visit GWA website: www.guamwaterworks.org/bids to ensure that addenda to the IFB, answers to questions, and reminders are communicated to all bidders throughout the solicitation process.



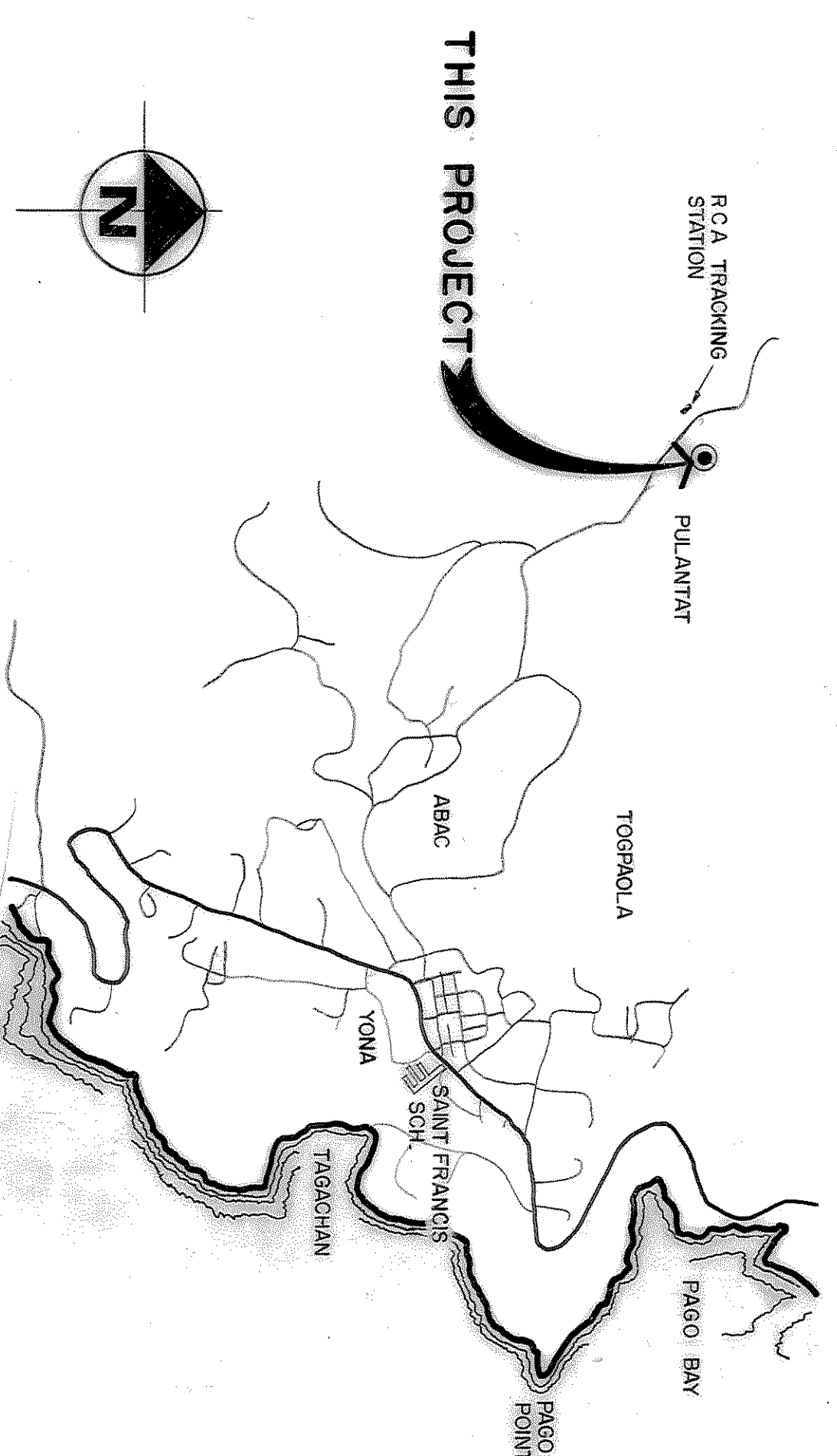
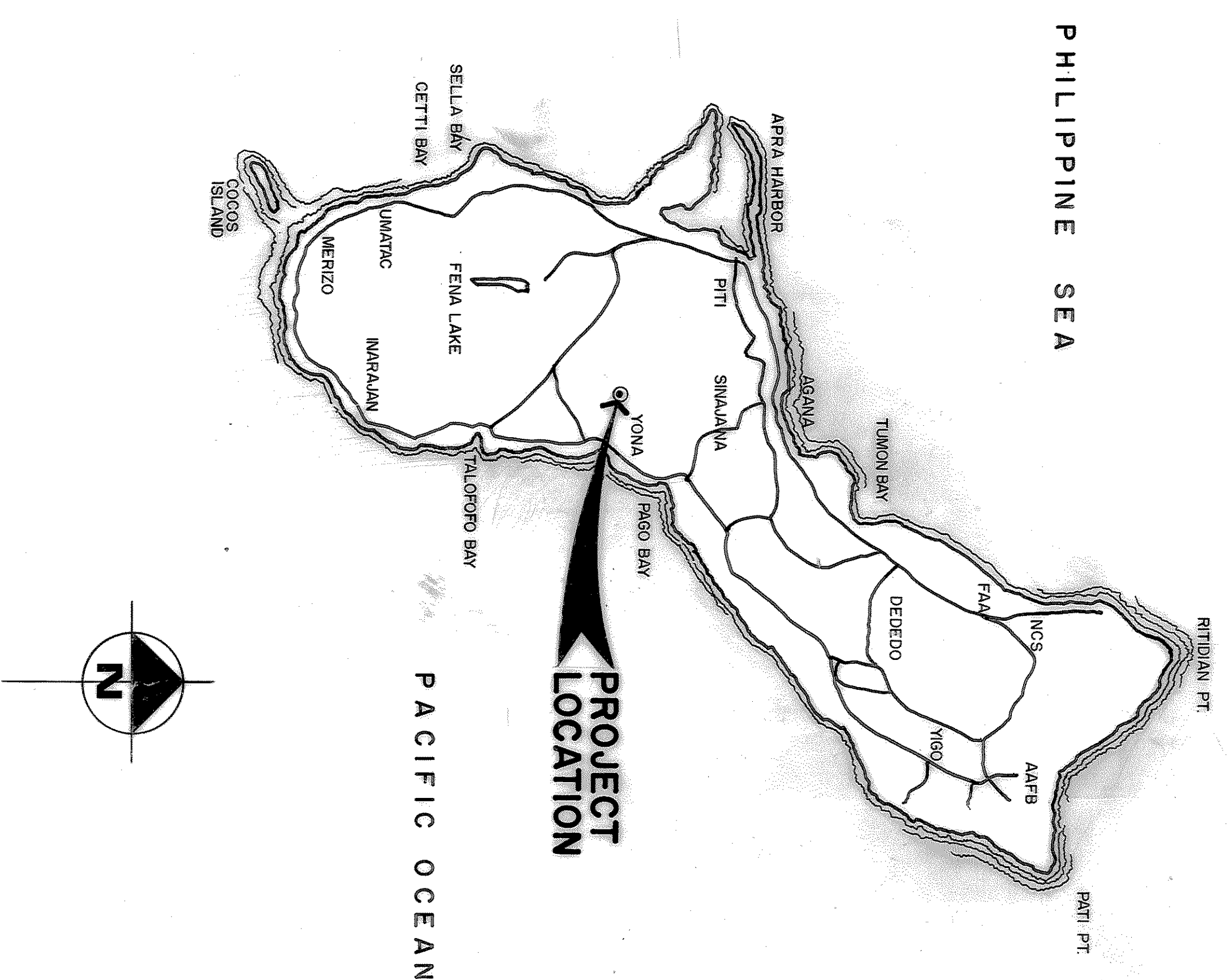
MIGUEL C. BORTALLO, P.E.
General Manager

MCB; gy

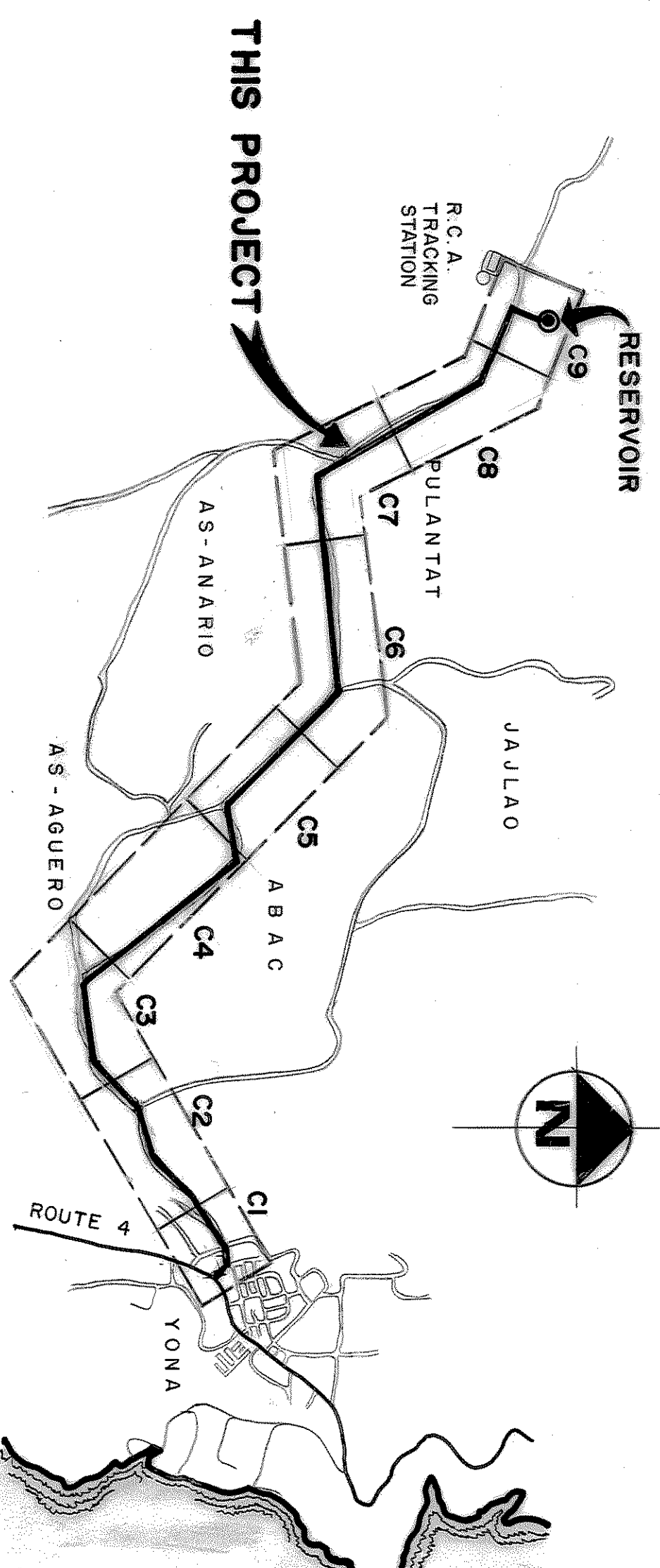
location map

vicinity map

index of drawings



index map



SHEET NO.	DRAWING NO.	TITLE OF DRAWINGS
1	TI	COVER SHEET
2	C1	PLAN AND PROFILE (STA. 0+00 - STA. 10+15±) LINE "A" (STA. 0+00 - STA. 2+00) " " " "
3	C2	PLAN AND PROFILE (STA. 2+00 - STA. 13+00) " " " "
4	C3	PLAN AND PROFILE (STA. 13+00 - STA. 25+50) " " " "
5	C4	PLAN AND PROFILE (STA. 25+50 - STA. 38+00) " " " "
6	C5	PLAN AND PROFILE (STA. 38+00 - STA. 51+00) " " " "
7	C6	PLAN AND PROFILE (STA. 51+00 - STA. 64+00) " " " "
8	C7	PLAN AND PROFILE (STA. 64+00 - STA. 75+00) " " " "
9	C8	PLAN AND PROFILE (STA. 75+00 - STA. 88+00) " " " "
10	C9	PLAN AND PROFILE (STA. 88+00 - STA. 93+12.5) " " " "
11	C10	STANDARD WATER DETAILS
12	C11	SITE AND GRADING PLAN, SECTION, LEGEND & BORING LOGS
13	C12	SITE DETAILS, ROAD PROFILE AND TANK SECTION
14	C13	FENCE DETAILS
15	C14	RESERVOIR TANK - FOUNDATION PLAN, SECTION & DETAILS
16	C15	RESERVOIR TANK DETAILS
17	C16	LADDER AND RAILING DETAILS
18	C17	

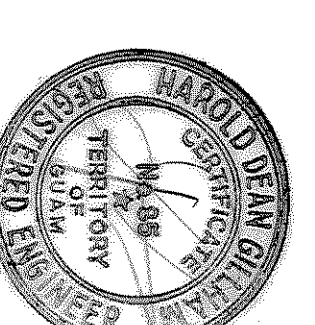
symbols & abbr.

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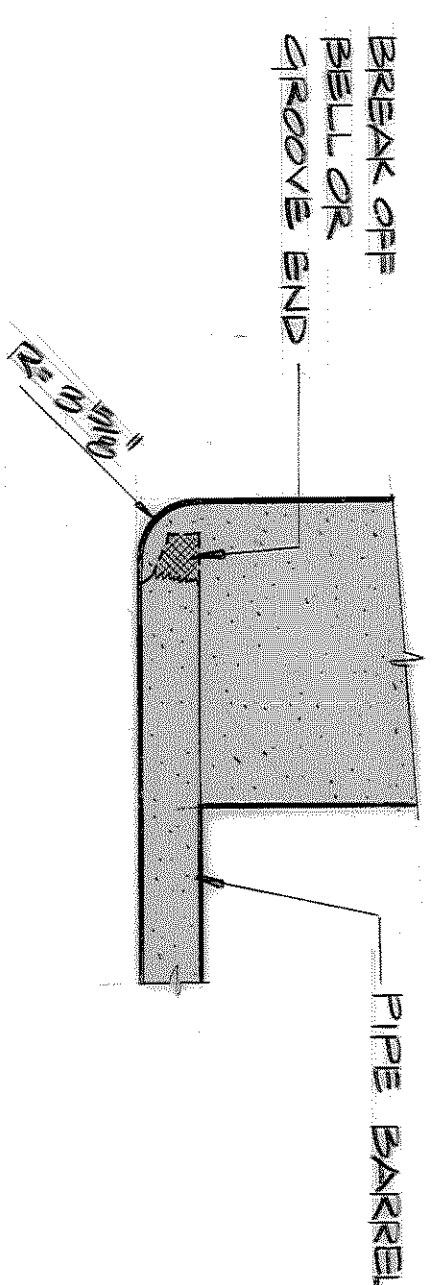
APPROVED BY

GOVERNMENT OF GUAM
PUBLIC UTILITY AGENCY OF GUAM
YONA RESERVOIR
COVER SHEET

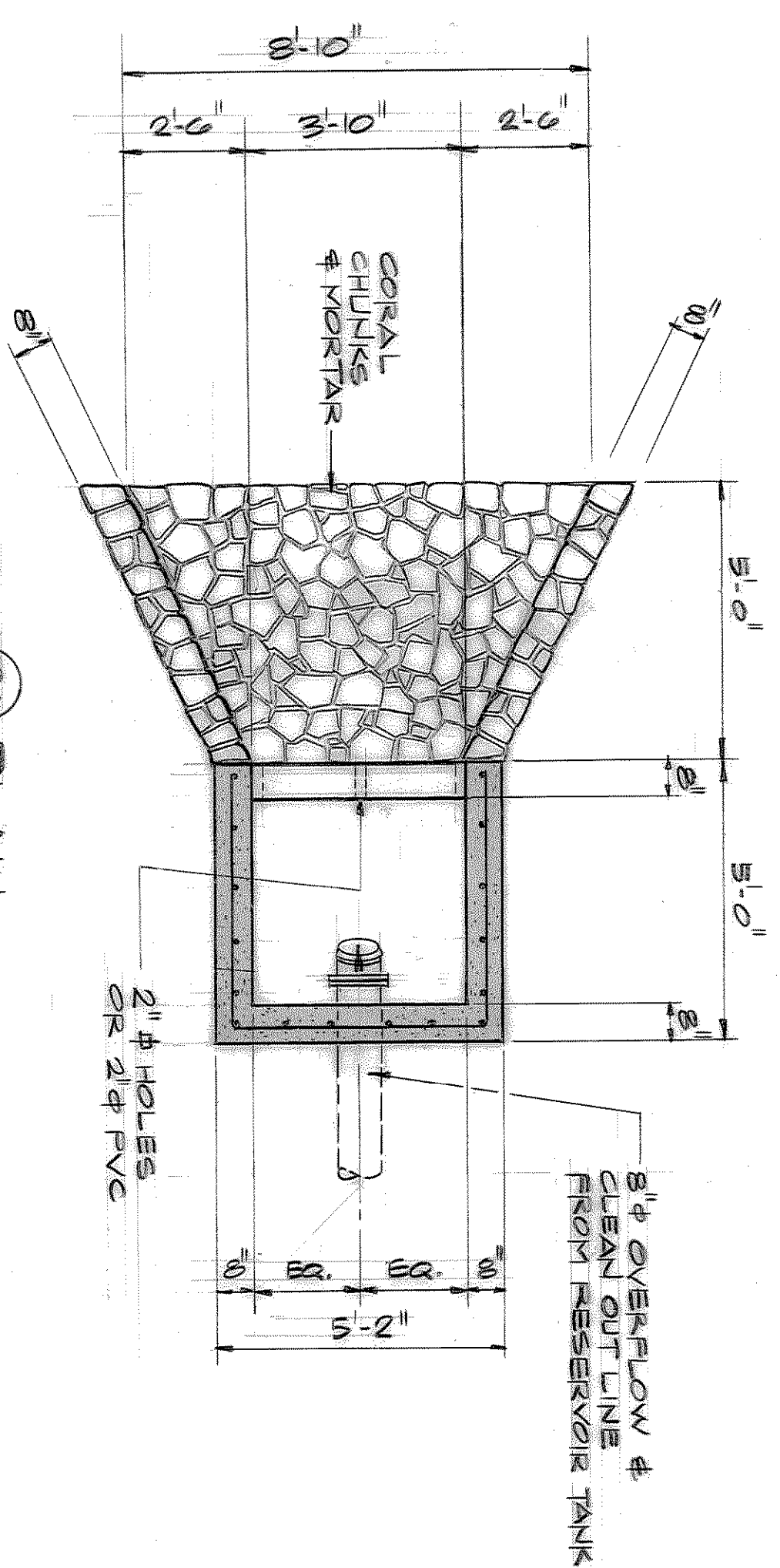
GILLHAM, KOEBIG & KOEBIG, INC.
ENGINEERS • ARCHITECTS • PLANNERS
SUITE 230 JULALE CENTER
AGANA, GUAM



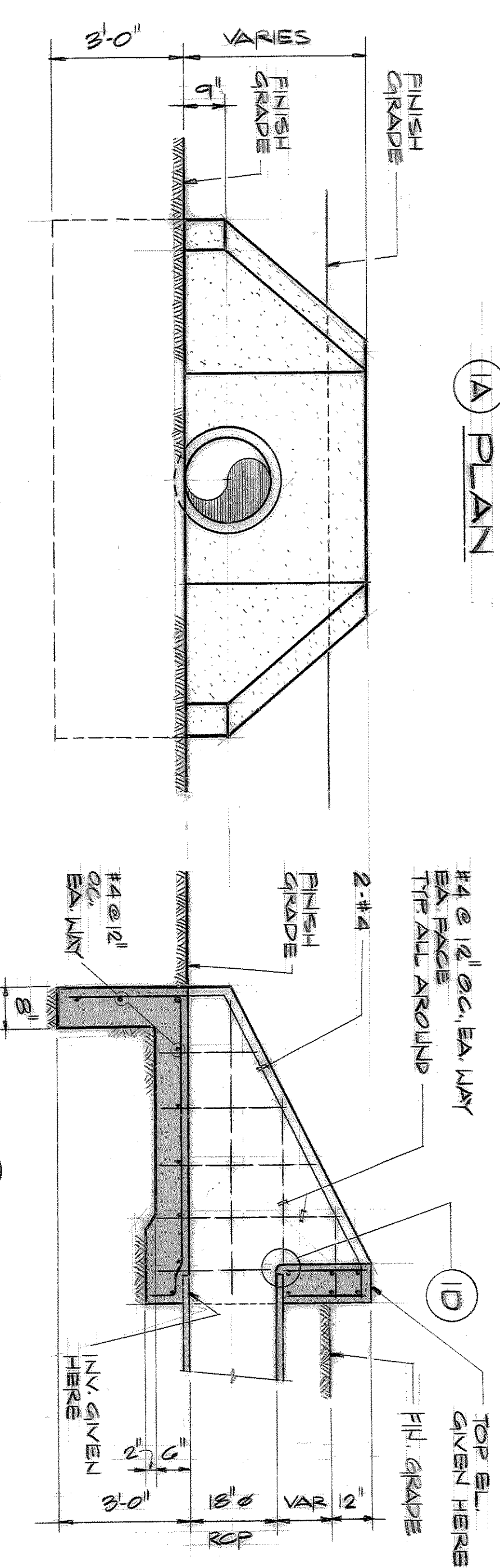
GILLIAM, KOEHRIG & KOEHRIG, INC. P.O. BOX 3007 AGANA, GUAM 96910 ENGINEERS - ARCHITECTS - PLANNERS		DES PD DWN BK OR H/K SUBMITTED BY DATE	
GOVERNMENT OF GUAM PUBLIC UTILITY AGENCY OF GUAM		DATE 11/27/61	
YONA RESERVOIR COVER SHEET		RECOMMENDED BY DATE 11/27/61	
SCALE: 1" = 10' 1/2" PLANS DRAWING NO. 808020100 WHEN ORDERED		PROJECT ENGINEER CHIEF ENGINEER DRAWING NUMBER 808020100 TI	



UPSTREAM HEADWALL ONLY

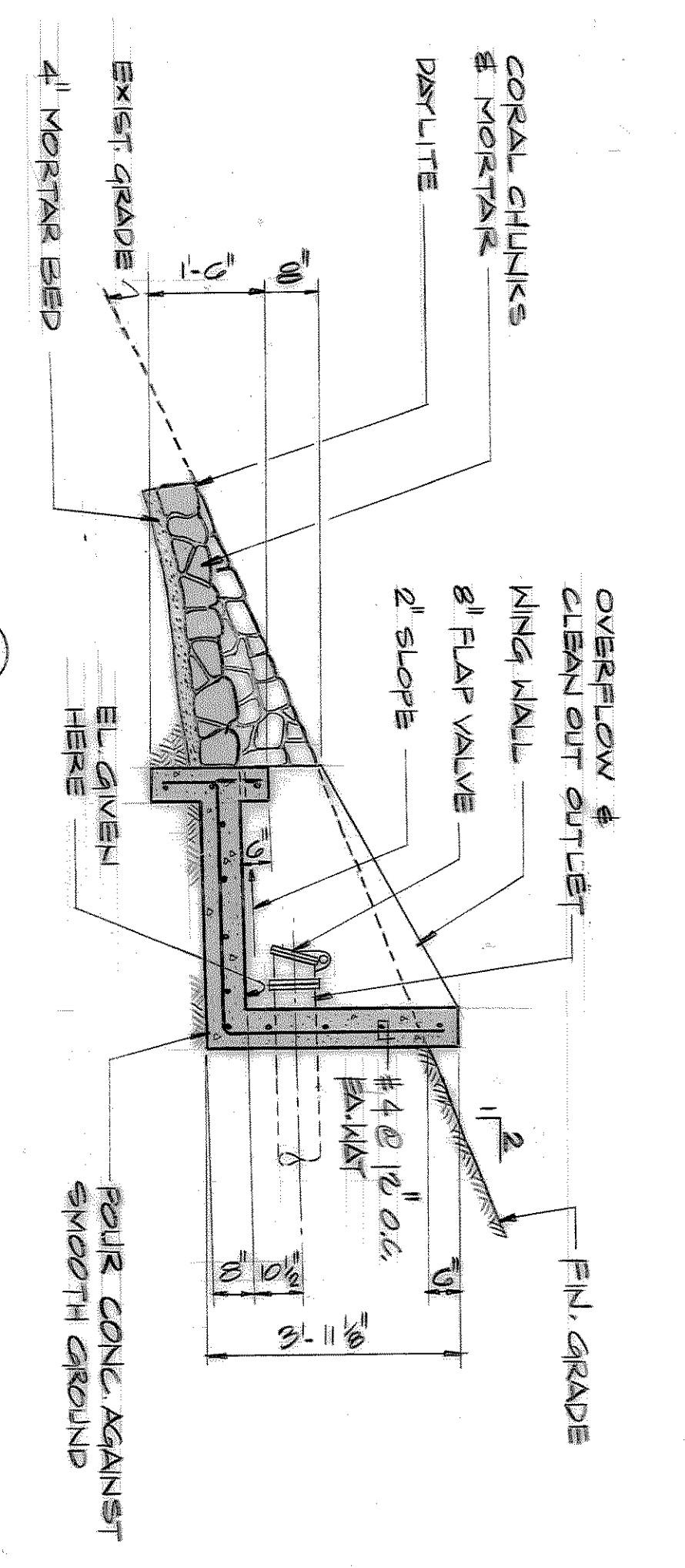


2A PLAN

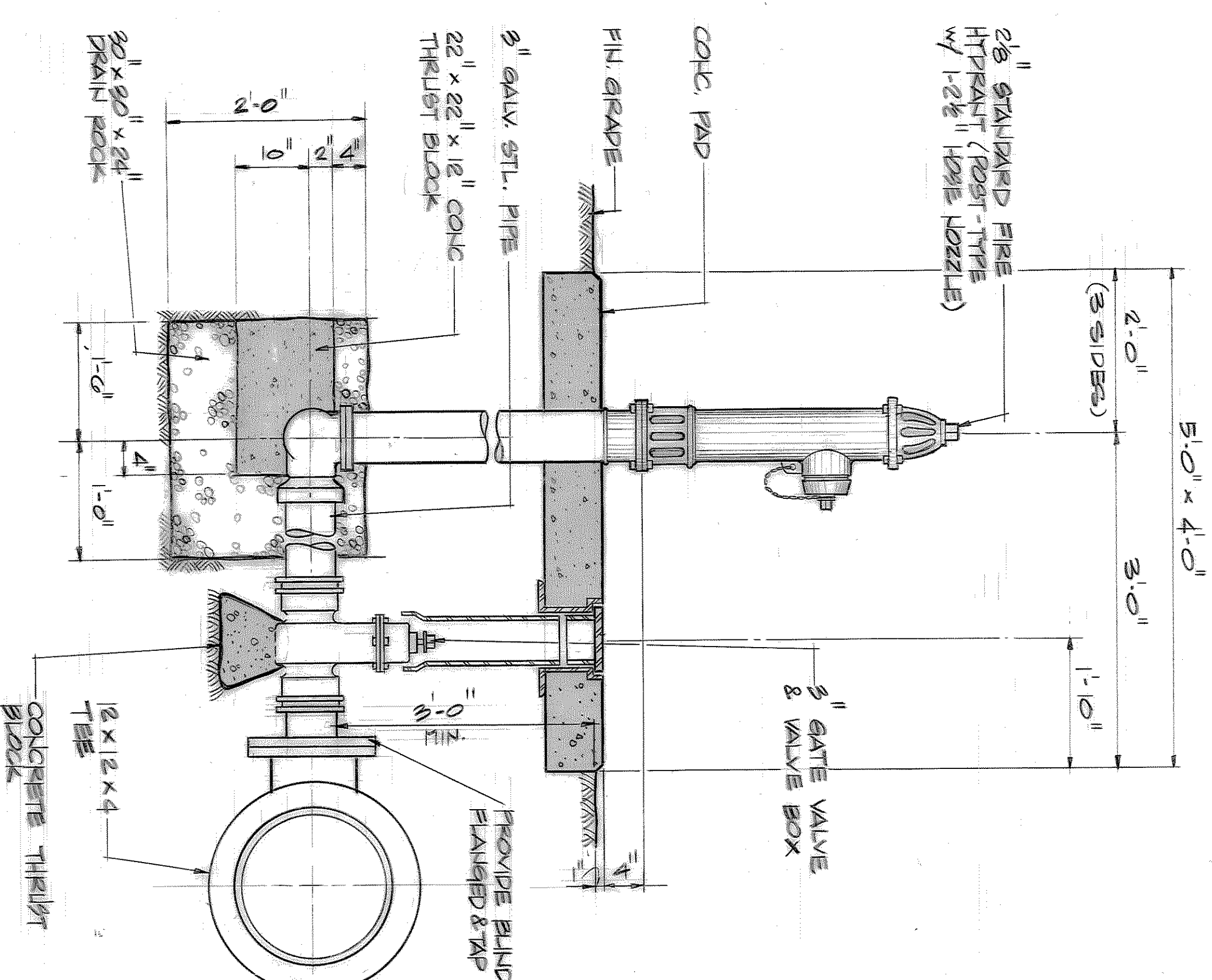


IB ELEVATION

Section C



2B SECTION

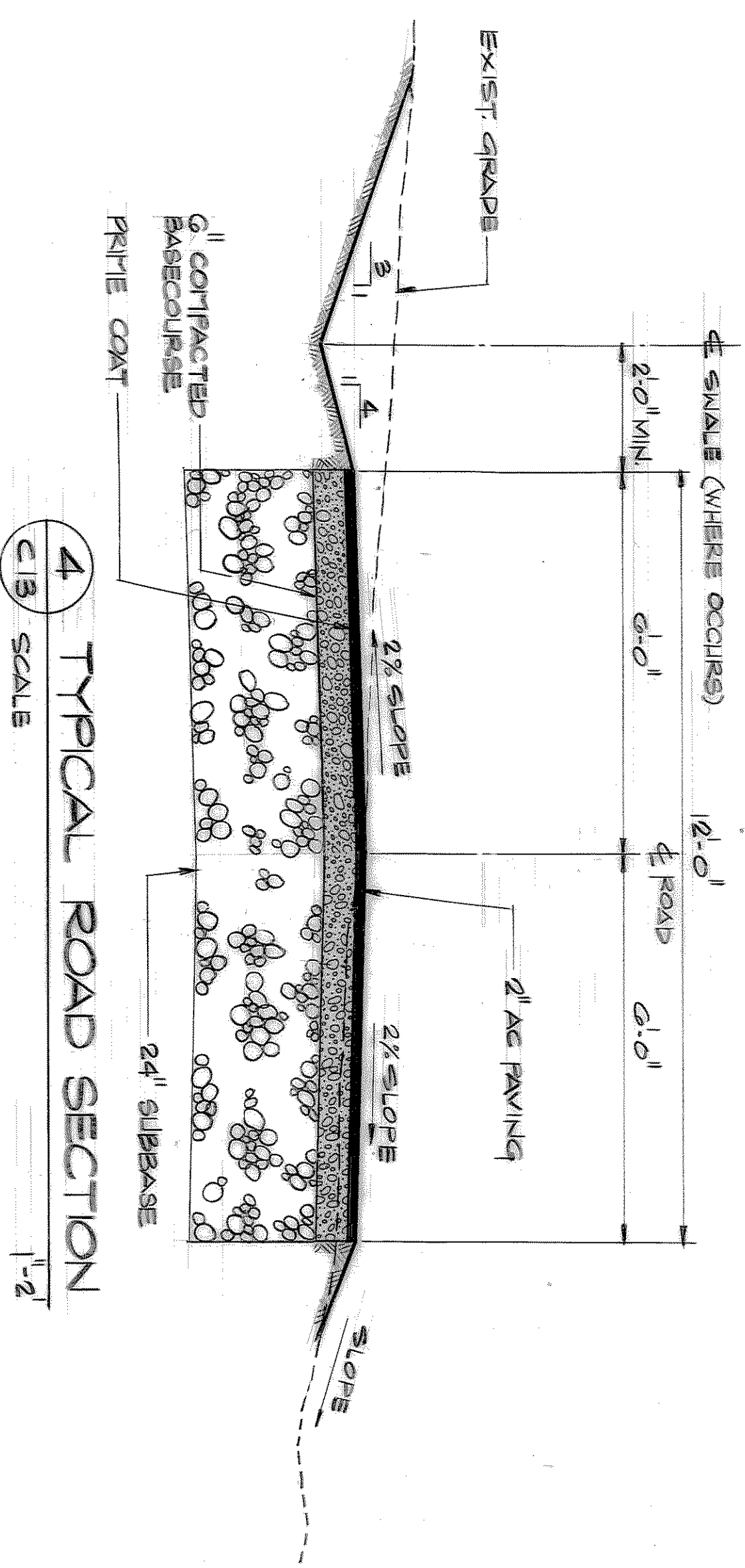


3
C/B

FIRE HYDRANT

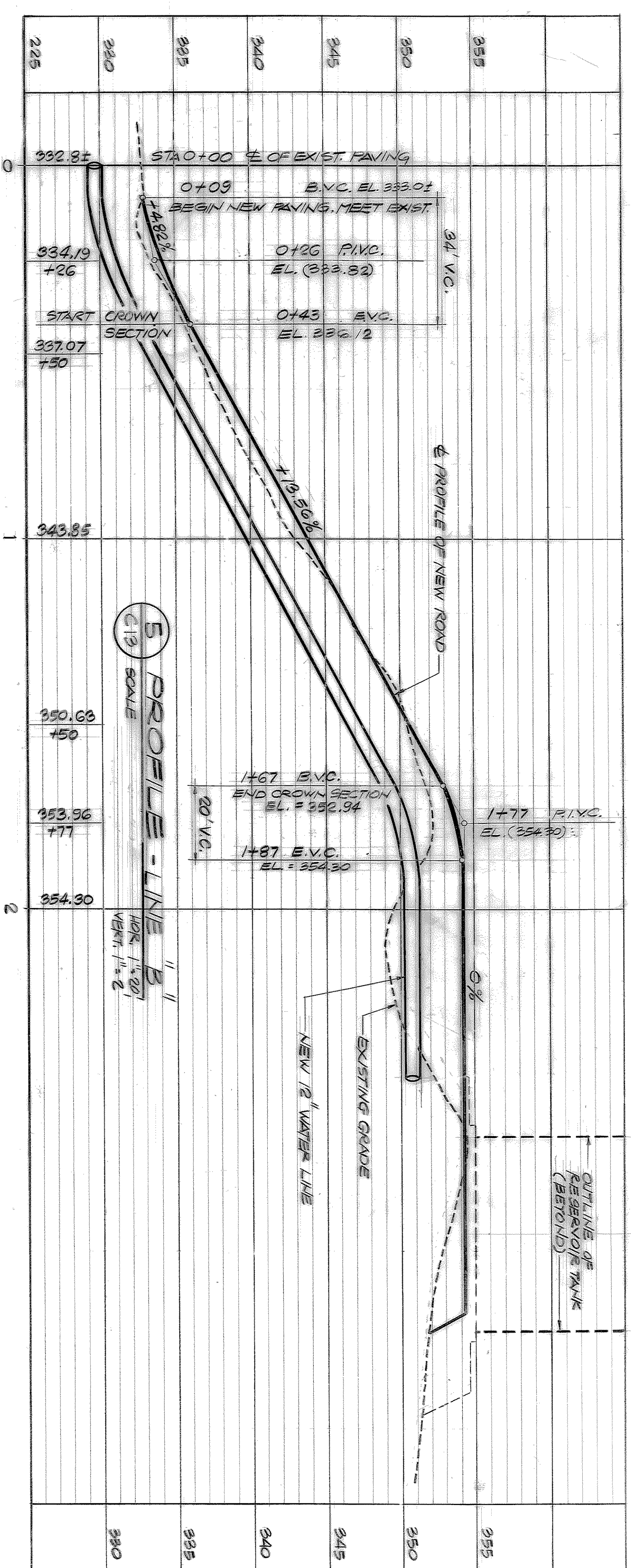
NOT TO SCALE

1 CULVERT DETAILS
CS NOT TO SCALE



4 TYPICAL ROAD SECTION

2 HEADMALL DETAILS
C/B SCALE 3/16"=1'-0"



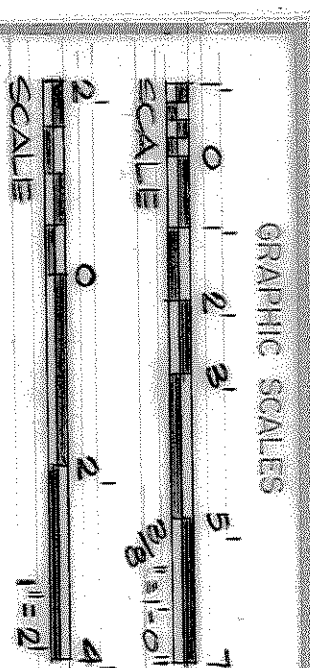
5 PROFILE - LINE B
C13 SCALE
HOK 11:20
VERT 11:20

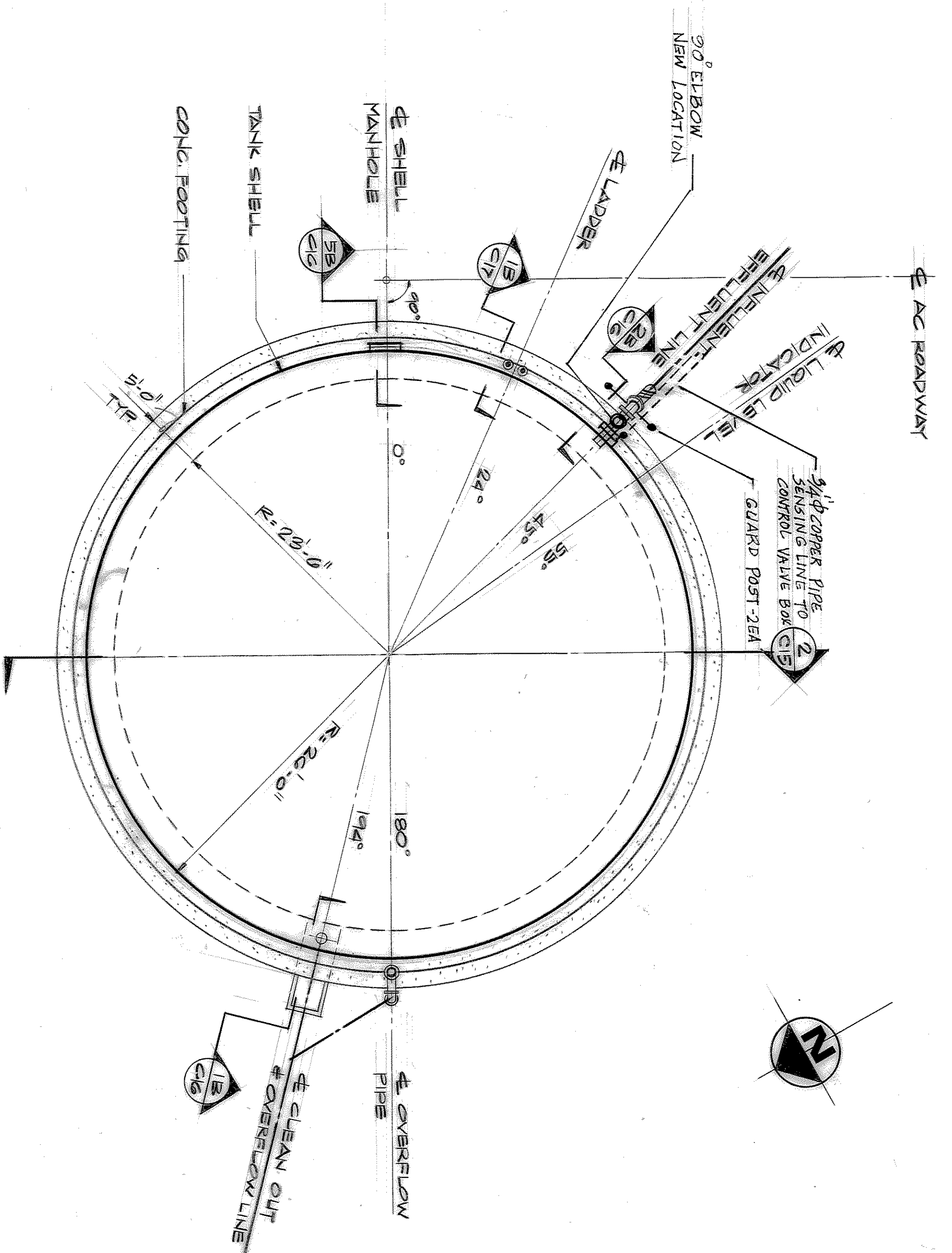
Diagram illustrating a cross-section of a tank section, showing the relationship between the reservoir, security fence, fill material, and the new concrete headwall (in foreground). The diagram includes elevation markers (340, 345, 350, 355) and labels for various components:

- RESERVOIR
- SECURITY FENCE
- FILL MATERIAL
- NEW CONC. HEADWALL (IN FOREGROUND)
- COMPACTED FILL (MATCHED POSTERIORLY)
- EXCAVATE TO E.L. 350
- EXIST. GRADE

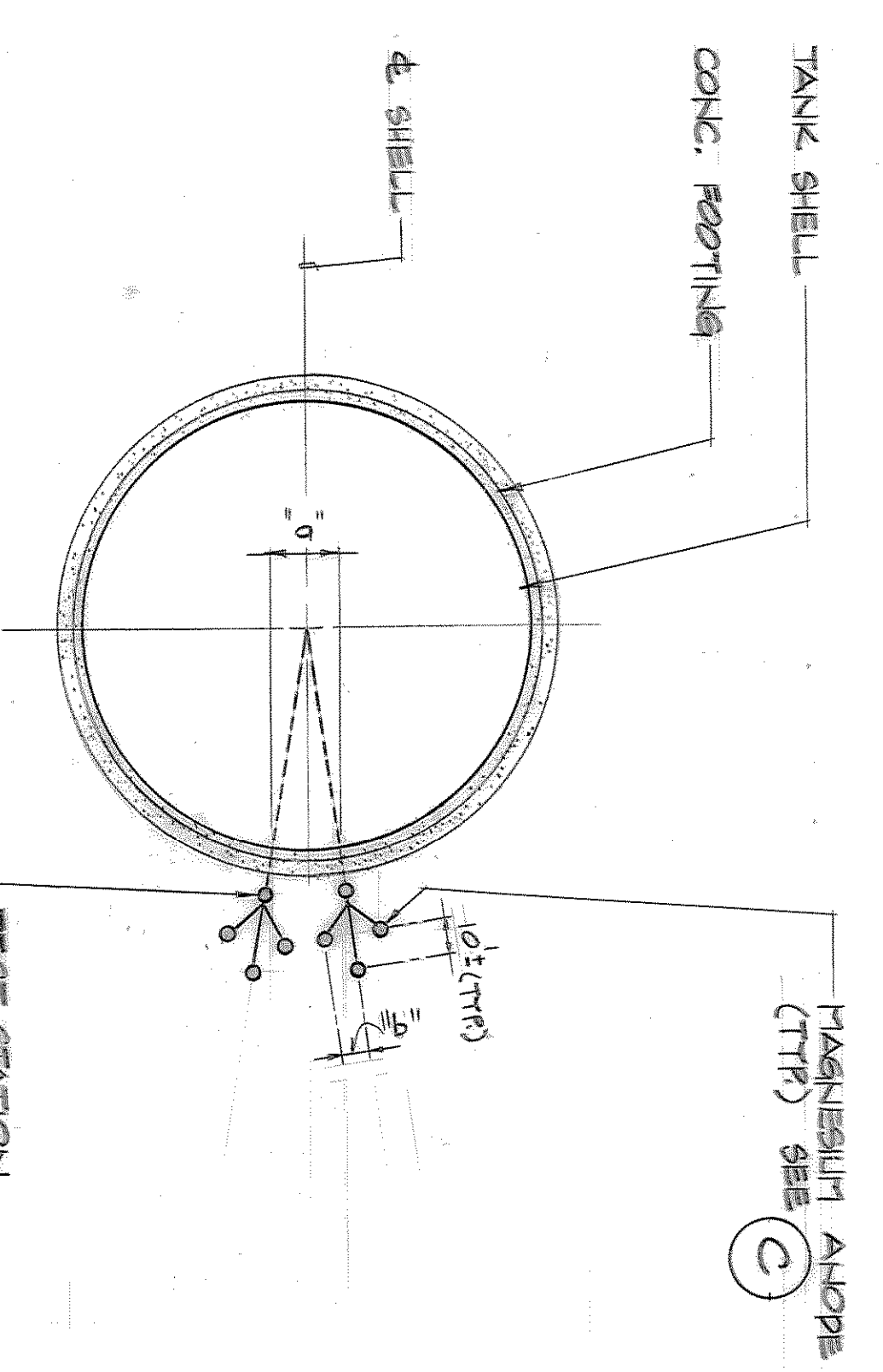
6 TANK SECTION
C13 SCALE
HOR. 1" = 50'
VERT. 1" = 5'

6 TANK SECTION
C13 SCALE HORZ. 1" = 20'

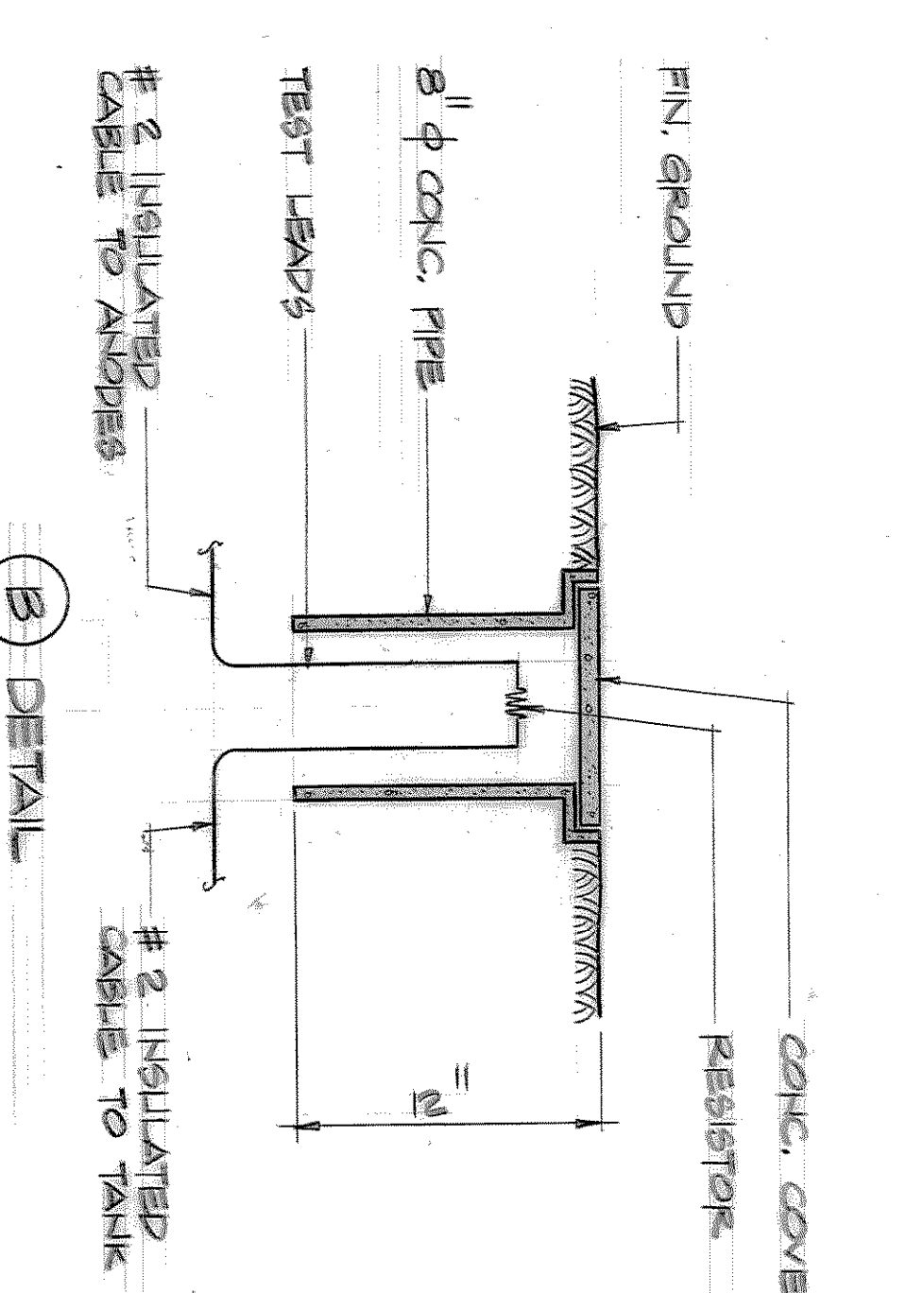
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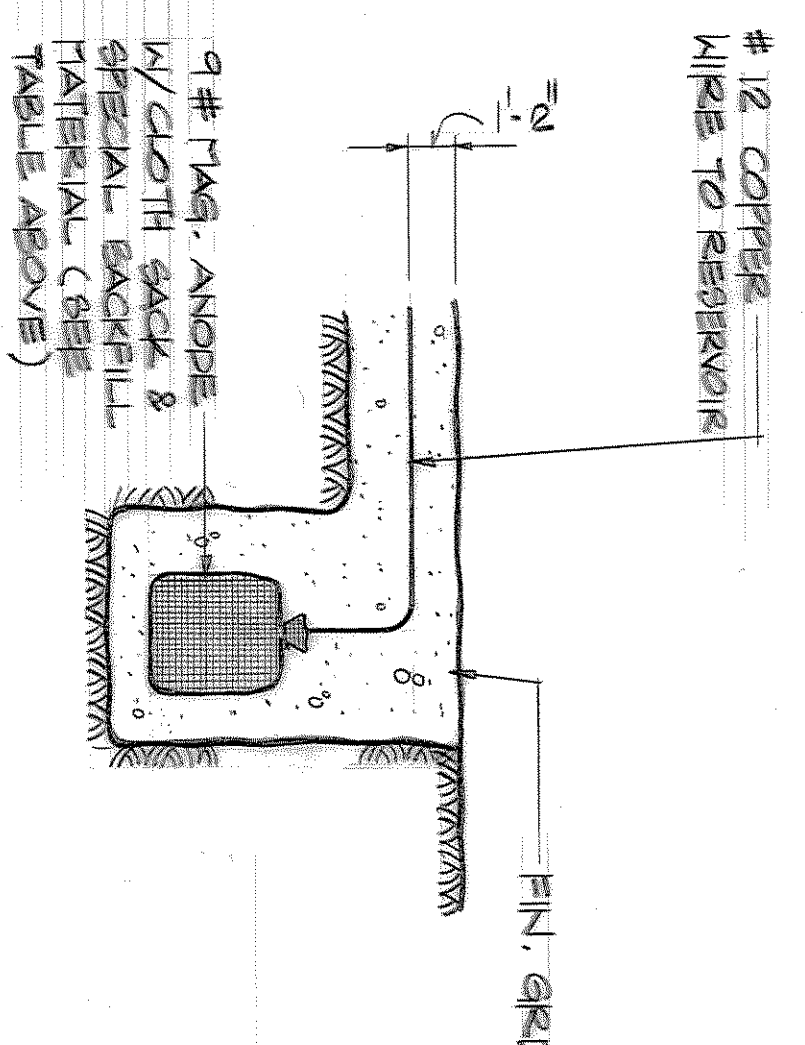
1 FOUNDATION PLAN
SCALE 1/8\"/>



A PLAN



B DETAIL



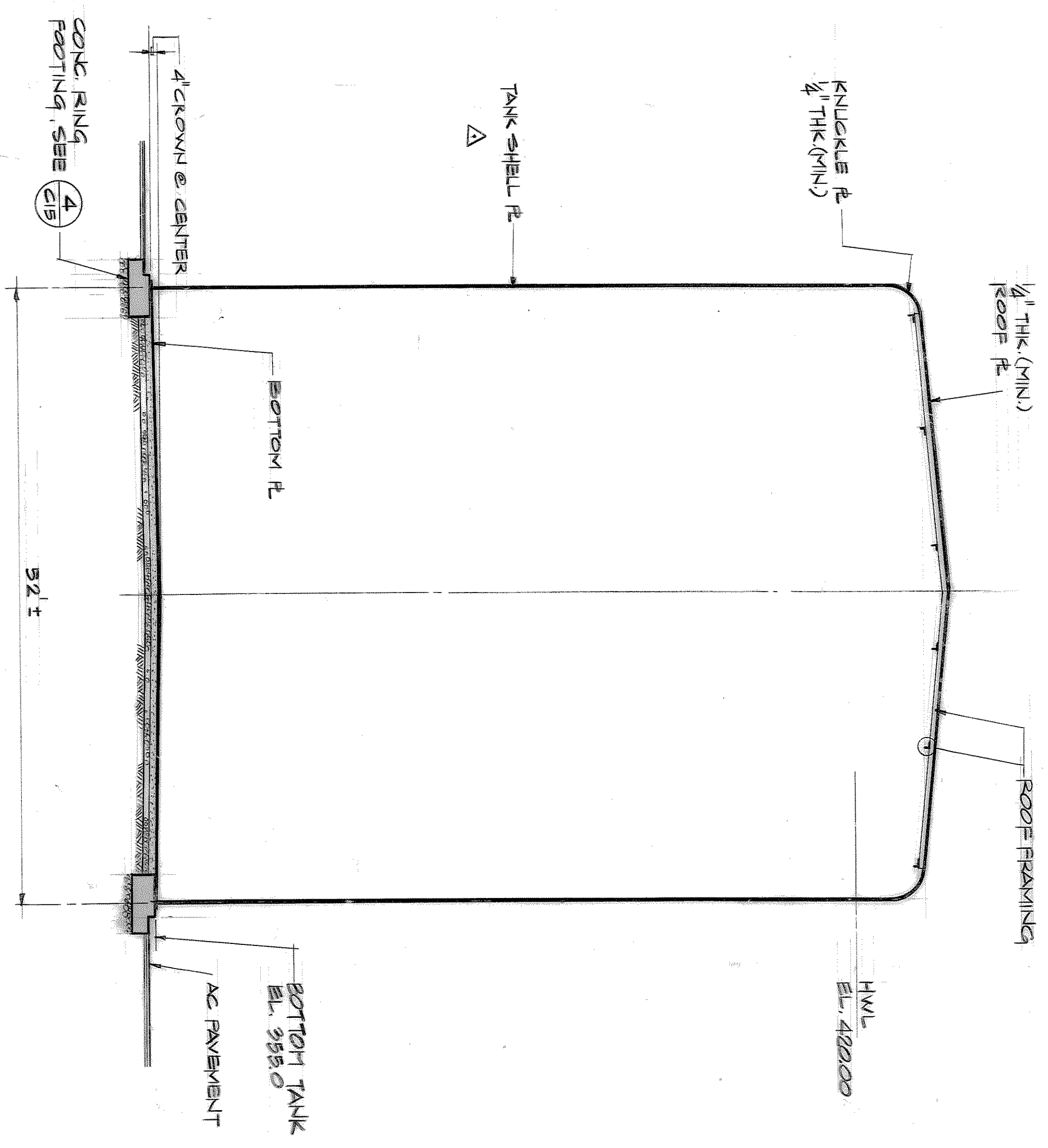
C DETAIL

NO.	RESERVE ANODE EACH	TOTAL POUNDS	1\"/>
1	YONA	15	9
			83
			96

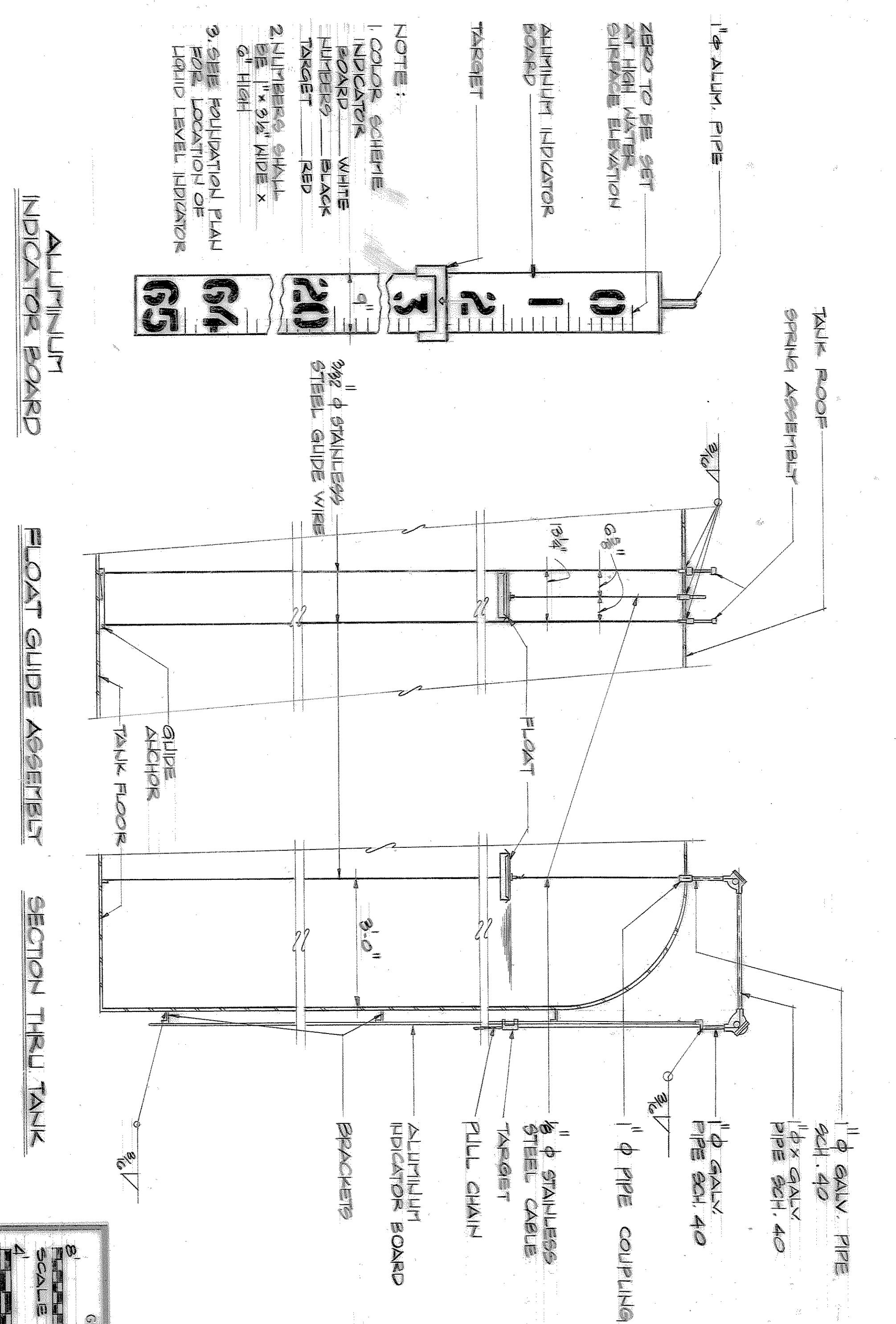
GENERAL NOTES:

1. APPLICABLE CODES:
 - a. ACI 318-77
 - b. ALL APPLICABLE AWWA STANDARDS. DESIGN REQUIREMENTS SHALL BE AS PER AWWA D100-79
2. DESIGN LOADS:
 - a. WIND $V = 0.00250 V^2$
 - b. SEISMIC $V = 1.55 \text{ MPH}$
 - c. DEAD LOAD 20 PSF
 - d. ROOF LIVE LOAD 20 PSF
 - e. MISCELLANEOUS LOAD $AS \text{ REQUIRED BY AWWA}$
3. SOIL PROPERTIES ARE AS PER SOIL INVESTIGATION BY GEO-ENGINEERING & TESTING, INC. DATED 10 JANUARY 81
 - a. SOIL BEARING CAPACITY 4000 PSI
 - b. COEFFICIENT OF FRICTION 0.40
 - c. LATERAL PASSIVE PRESSURE 400 PSF
4. PROVIDE VENT IN ACCORDANCE WITH AWWA D100-79 STANDARD.
5. RESERVOIR TANK AND ALL EXTERIOR SURFACES TO BE PAINTED.
6. ALL INTERIOR METAL SURFACES TO BE COATED AS PER SPEC.
7. ALL DIMENSIONS ARE APPROXIMATE. EXACT DIMENSIONS TO BE PER MANUFACTURER'S STD.
8. PROVIDE INSULATION JOINTS BETWEEN ALL DISSIPILAR MATERIALS.

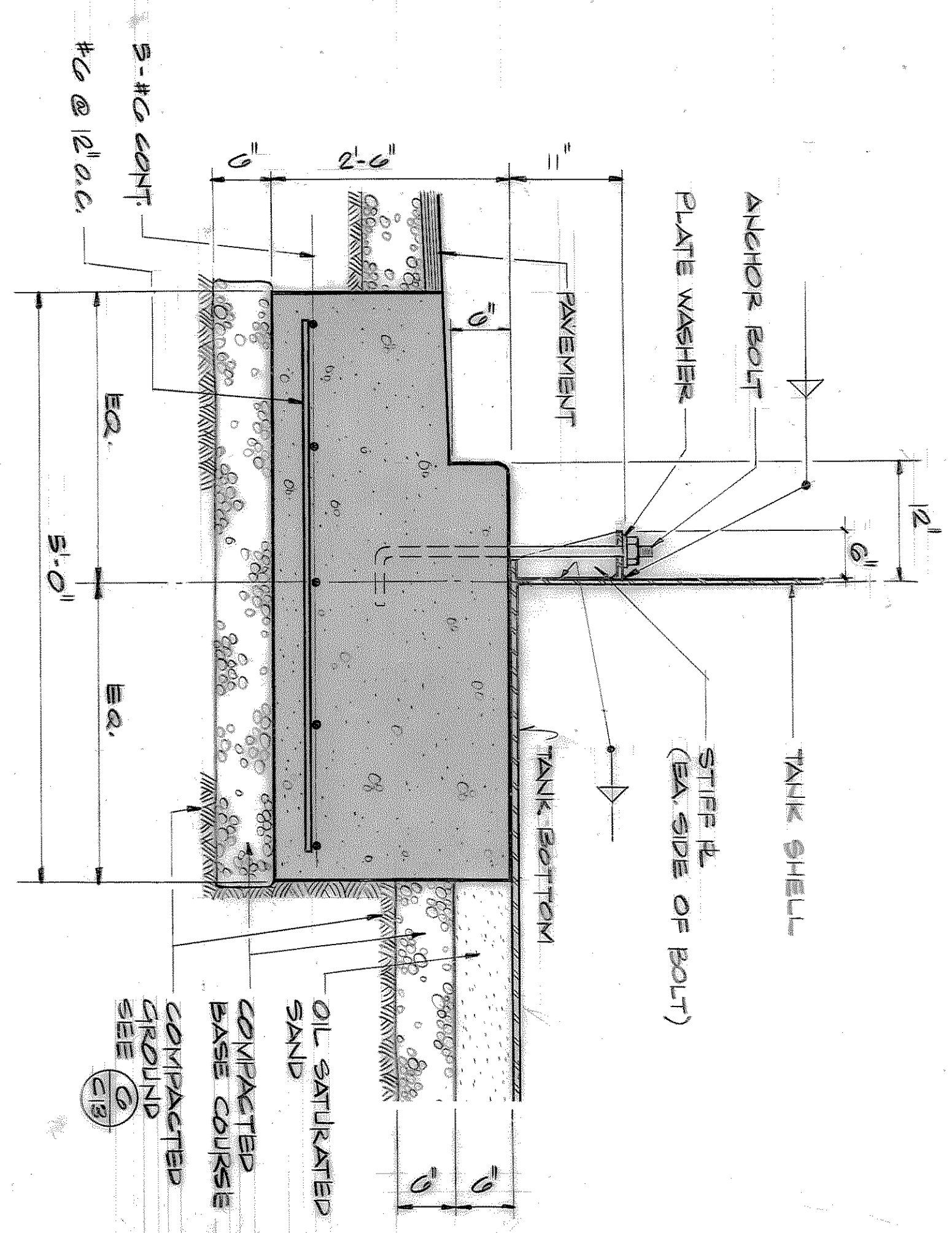
5 CATHODIC PROTECTION DETAIL
SCALE NONE



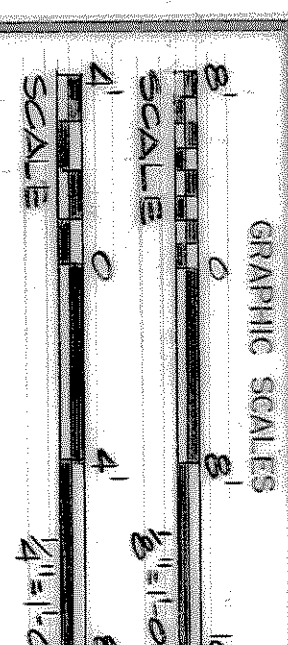
2 SECTION
SCALE 1/8\"/>



3 LIQUID LEVEL INDICATOR
SCALE NOT TO SCALE



4 DETAIL REINF. AND SIZE OF FBN
SCALE 1/4\"/>

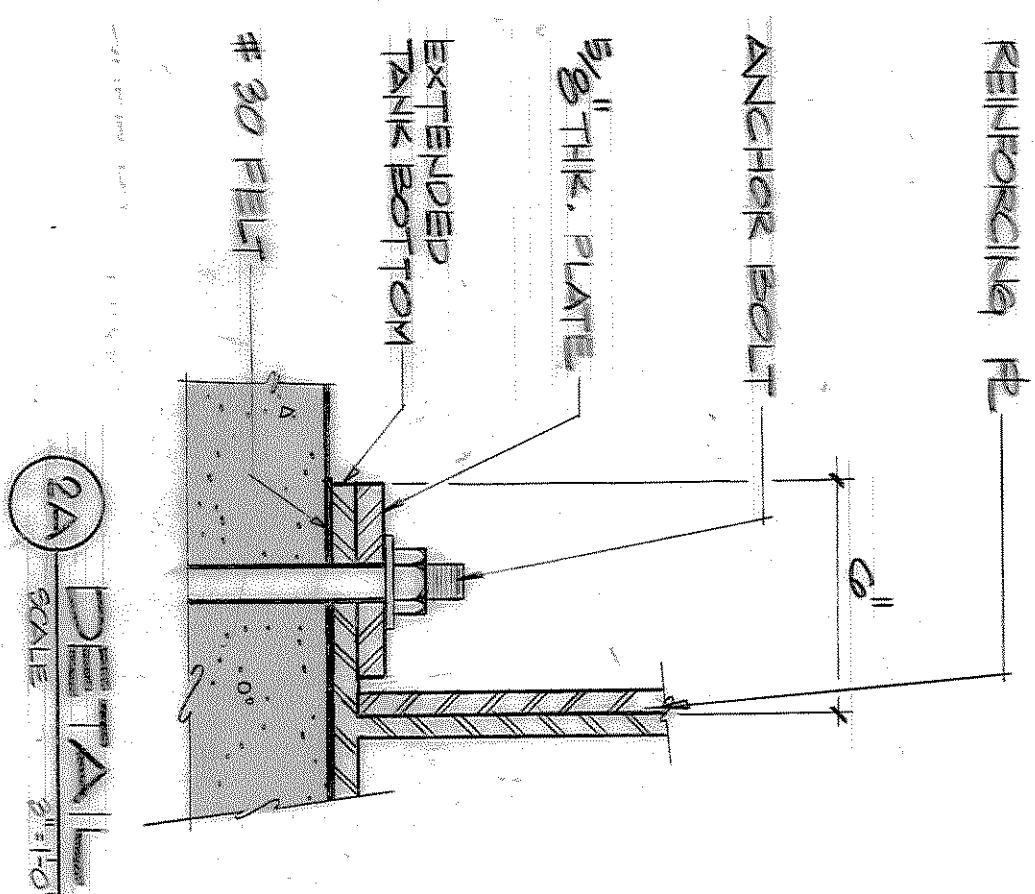


		PROJECT ENGINEER DATE 11/1/81 PROJECT MANAGER DATE 11/1/81	
DESIGNED BY DATE 11/1/81		CHECKED BY DATE 11/1/81	
APPROVED BY DATE 11/1/81		RECOMMENDED BY DATE 11/1/81	
PROJECT NO. 8080201800		DRAWING NO. C15	
SHEET NO. 16 OF 15		SCALE: AS SHOWN	

RESERVOIR TANK - FOUNDATION PLAN,
SECTION AND DETAILS

YONA RESERVOIR

GOVERNMENT OF GUAM
PUBLIC UTILITY AGENCY OF GUAM



Technical drawing of a model rocket engine, showing a side view and a plan view.

Side View Labels:

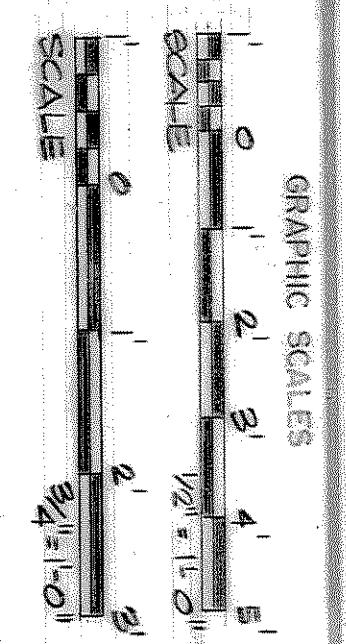
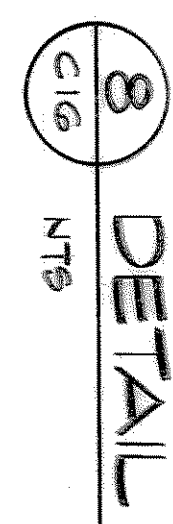
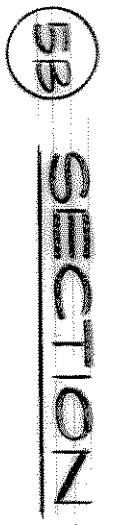
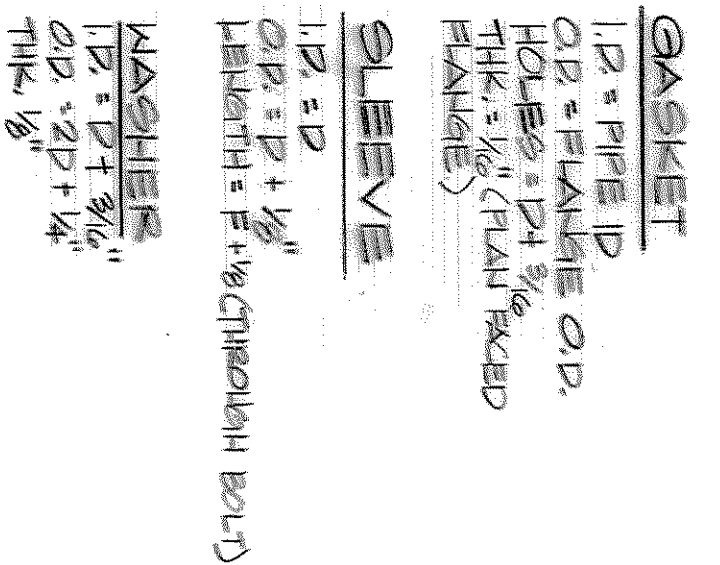
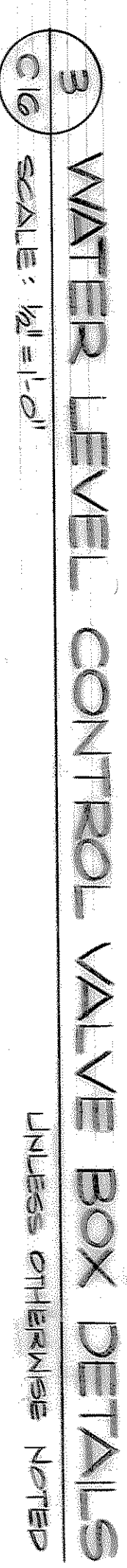
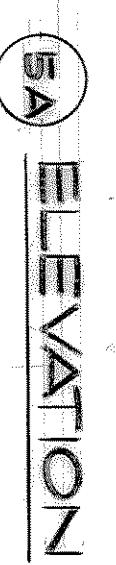
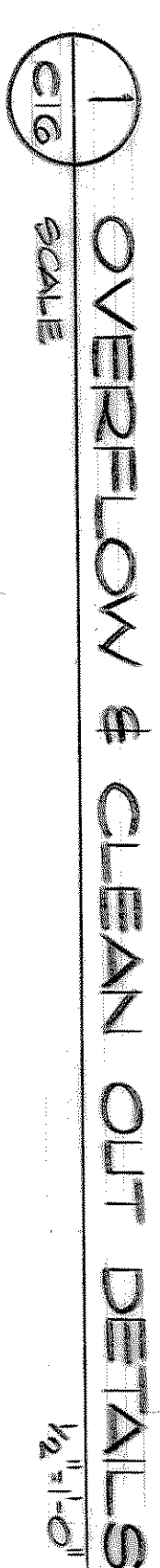
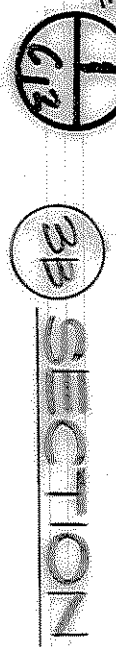
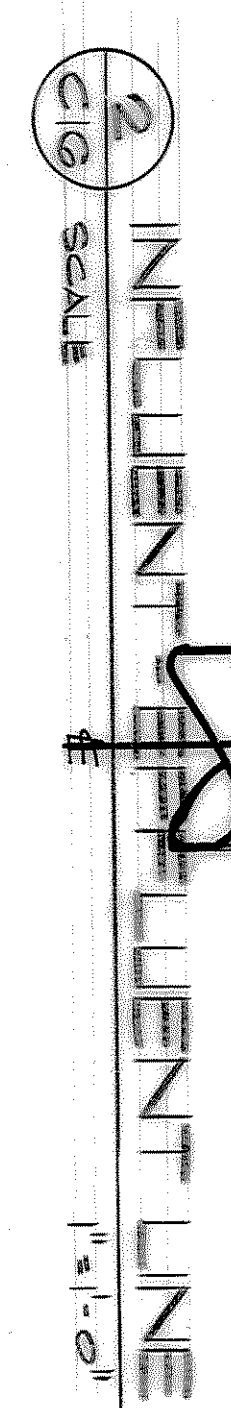
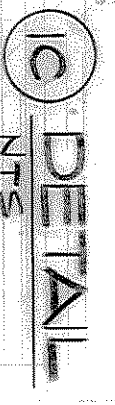
- 1: Nozzle
- 2: Throat
- 3: Combustion Chamber
- 4: Nozzle Extension

Plan View Labels:

- 5: Nozzle
- 6: Throat
- 7: Combustion Chamber
- 8: Nozzle Extension

Dimensions:

- Overall Length: 3'-0"
- Overall Width: 2'-0"
- Internal Component Length: 1'-0"
- Internal Component Width: 1'-0"
- Internal Component Height: 1'-0"
- Internal Component Diameter: 1'-0"



DESCRIPTION	APPROVED
<p>GOVERNMENT OF GUAM PUBLIC UTILITY AGENCY OF GUAM</p>	


RESERVOIR TANK DETAILS

4 INSULATING FLANGE ASSEMBLY
c/c DETAIL

5 SHELL MANHOLE DETAILS
C6 SCALE 3/4"=1'

8
CIG

DETAIL
NTS



JOB ORDER NO.	80802018	DRAWING NUMBER	CR
DATE	11/24/81	RECOMMENDED BY	M. M. G. 11/24/81
		CHIEF ENGINEER	
		SCALE:	1" = 10'-0"
		PLG DRAWING NO.	
		EXPEND.	
		PROJECT ENGINEER	11/24/81
			11/24/81

DATE	11/24/61
RECOMMENDED BY	M. D. C. J. O. P. E.
CHIEF ENGINEER	
PUMP DRAWING NO.	
SCALE:	
JOB ORDER NO.	80802018C
DRAWING NUMBER	
DATE	7.05

