



elf aquitaine norge a/s

CDP 1

SUBSEA

AS BUILT FILE

VOLUME 2

1. GENERAL DRAWINGS

DRAWING TITLE

E.A.N DRAWING No

- FRIGG FIELD - PLAN VIEW	FF 91 36 35 - 1036
- PIPE LINE LAYOUT	FF 91 36 35 - 1037
- CDP 1 ISOMETRIC VIEW	FF 91 36 35 - 1038
- GENERAL ELEVATION AA	FF 91 36 35 - 1039
- COMPARISON BETWEEN LEVELS	FF 91 36 35 - 1040
- STEEL COLUMNS LAYOUT	FF 91 36 35 - 1041
- SECTION THROUGH STRUCTURE	FF 91 36 35 - 1042
- RISER IDENTIFICATION AND CONDUCTOR GUIDE NUMBERING	FF 91 36 35 - 1043
- DECK PLAN VIEW AT LEVEL + 127.40 WITH CRANES CAPACITY	FF 91 36 35 - 1044
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CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR:

[illegible][illegible]

						 elf	Job no.	Installation CDP 1	System UNDERWATER
1	11/83	UPDATED					Scale /	FRIGG FIELD. PLAN VIEW NORTH SEA BLOCK 10/1	
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no. FF	91-36-35-1036	Rev. 1
Contractor JVD-1029.10-01						4001 Stavanger	FRIGG FIELD		

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR:

[illegible][illegible]

						 elf	Job no.	Installation CDP 1	System UNDERWATER		
1	11/83	UPDATED					Scale 1:1500	PIPE LINE LAYOUT AND PLATFORM ORIENTATION			
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF <u>91-36-35-1037</u>		Rev 1	Sheet /
Contractor JVD.1029-10-02						p.o.box 168 4001 Stavanger	FRIGG FIELD				

TO TP1

LEGEND

	CONCRETE BLOCK 25 T
	CONCRETE BLOCK 18 T
	GROUT BAG
	MATTRESS
	GREASE BOX
	GROUT BAG NOT IN USE
	HYPERBARIC WELDING POSITION (HW N°2)
	UNBURIED LINE
	BURIED LINE OR LINE IN TRENCH
	RIP RAP
28m CLEARANCE UNDER BRIDGE	

J4 8" KILL LINE

R5 26" GAS LINE

R6 26" GAS LINE

19° 37' 41" GRID NORTH
NORTH PLATE

TO QP

3" POWER CABLE

1" 5/8" TELECOM CABLE

M5
M6
M7
M8
M9
M10
M11
M13
M14

M15

BCDP1

BCDP1

CONDENSATE LINE

M6

M7

M8

M10

M11

M12

28m

28m

28m

DECK FLARE

FLARE

* CDP1

elf
aquitaine
norge a/s



p.o. box 168
4001 Stavanger

FRIGG FIELD

Job no.

Installation
CDP 1

System
UNDERWATER

Scale
1/1500

PIPE LINE LAYOUT
AND PLATFORM ORIENTATION

Dwgr. no

FF 91.36.35-1037

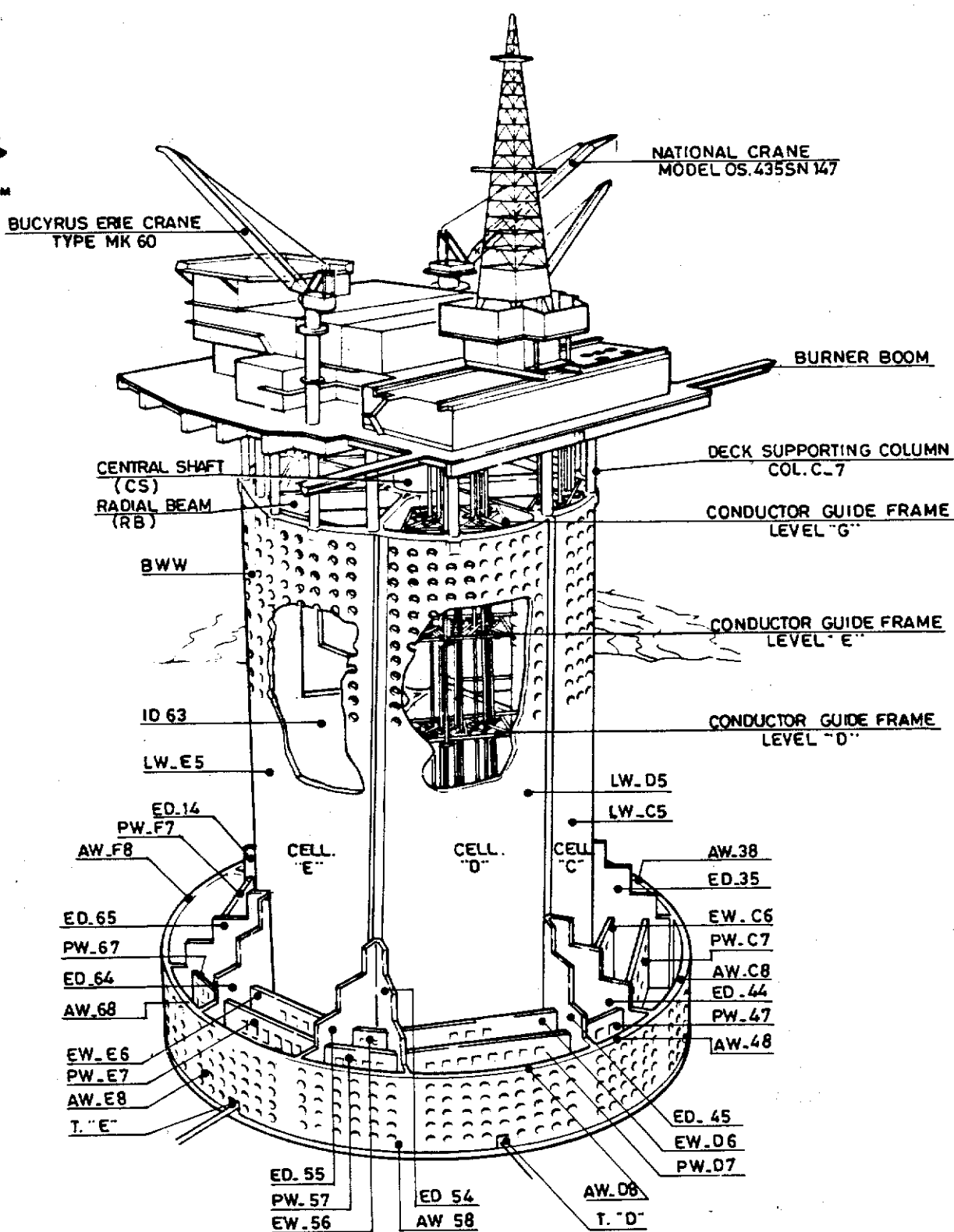
Rev.

1

Sheet

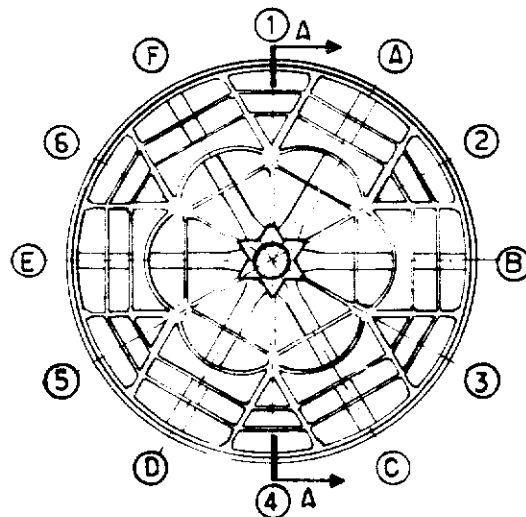
1 1.83 UPDATED S.S JLC
Rev. Date DESCRIPTION by app.

Contractor JVD 1029 10-02

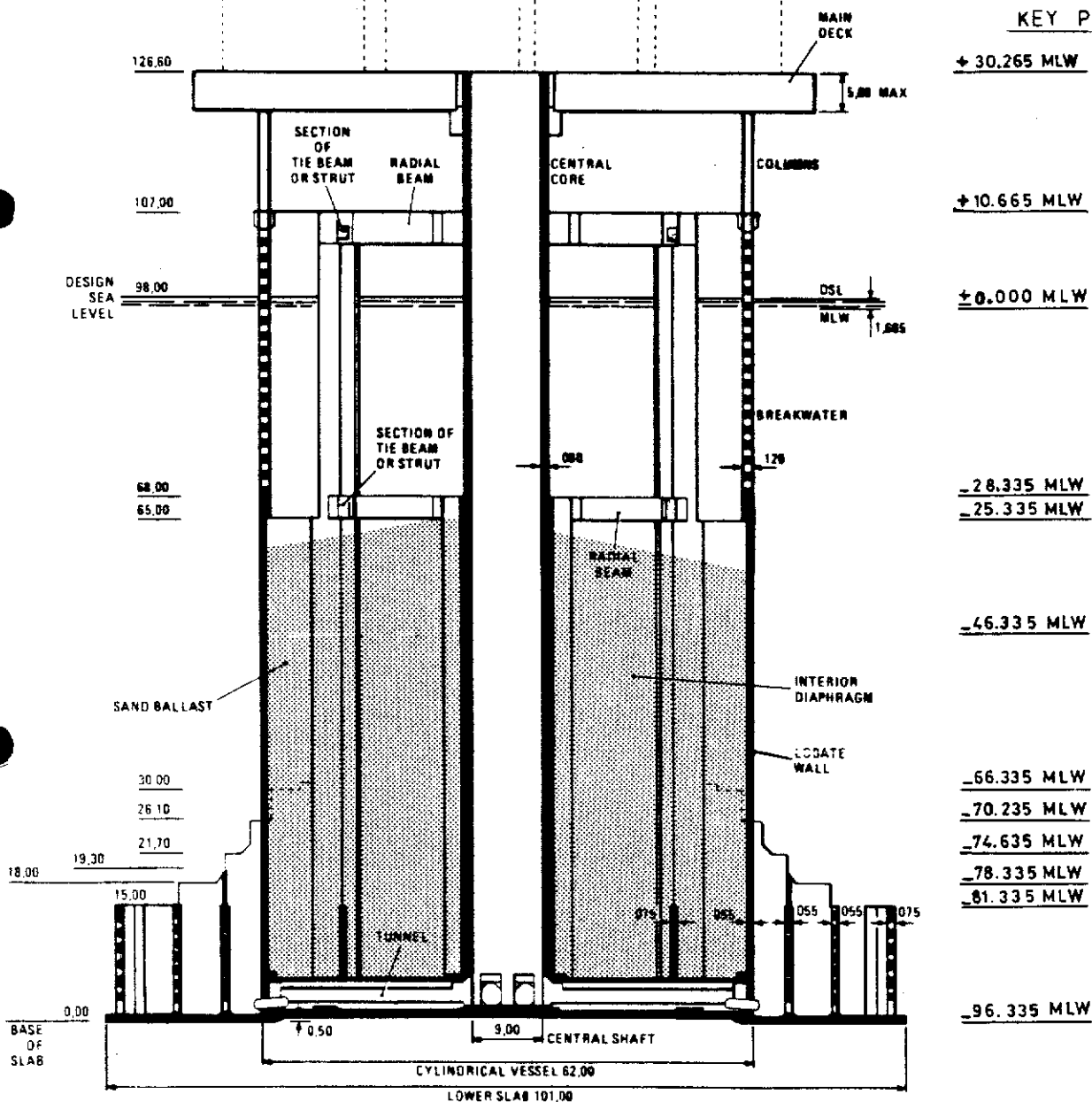


				elf				Job no.		Installation CDP 1		System UNDERWATER	
				aquitaine				Scale /		CDP 1 - ISOMETRIC VIEW			
3		UPDATED		MIRA									
e		DESCRIPTION		by		app.		Dwgr. no.		REV		Sheet	
								FF 91_36_35_1038		1		/	
				p.o.box 168		4001 Stavanger		FRIGG FIELD					

GRD NORTH
19°37'
PLAT. NORTH

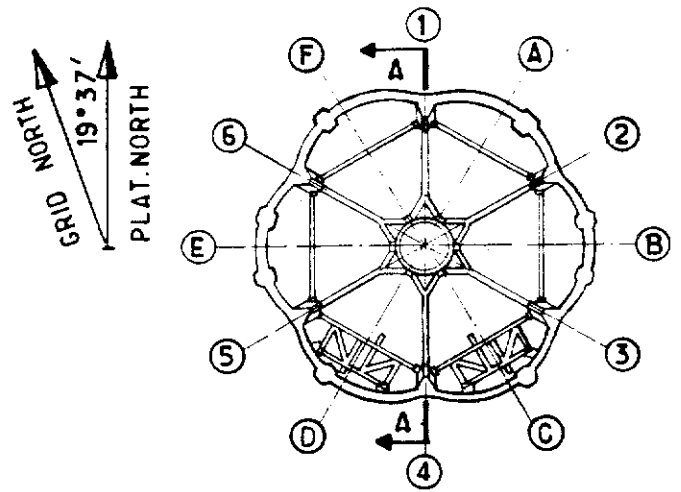


KEY PLAN

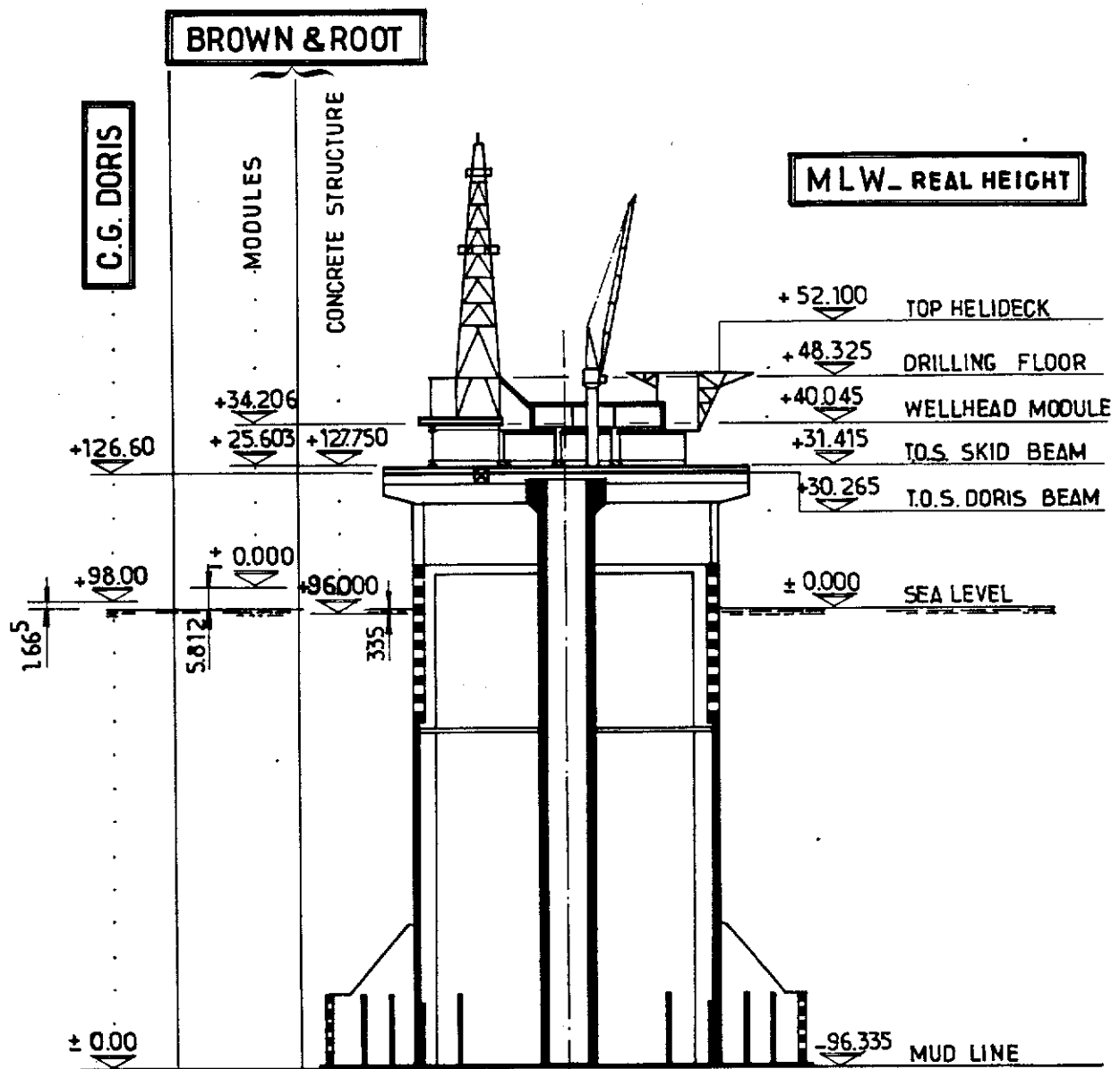


ELEVATION A.A

				elf aquitaine norge a/s		Job no.	Installation CDP 1	System UNDERWATER
1	11.83	UPDATED	S.S JLC	p.o.box 168		Scale	GENERAL ELEVATION A.A	
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no.	FF 91.36.35 - 1039	Rev 1
Contractor JVD 1029 10_04				4001 Stavanger		FRIGG FIELD		Sheet

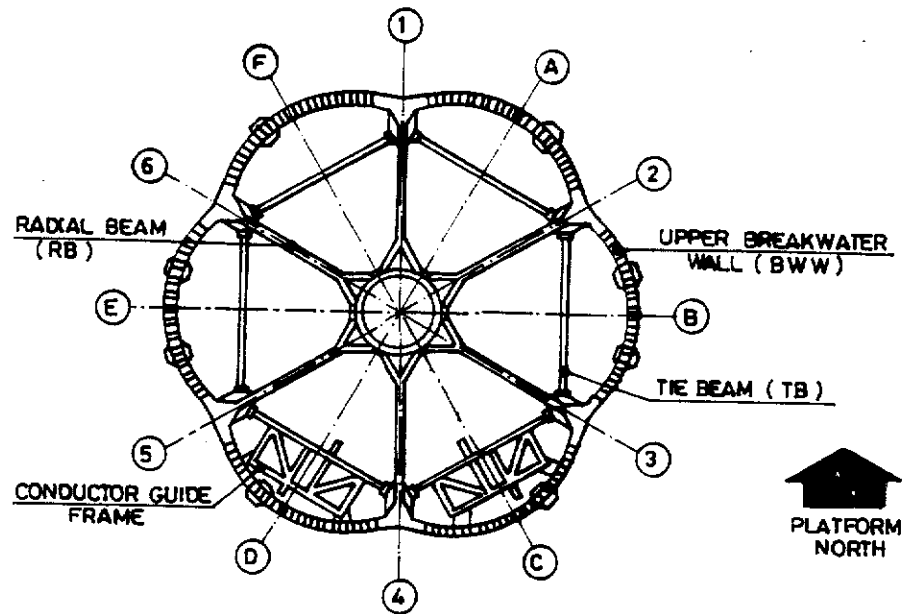


KEY PLAN

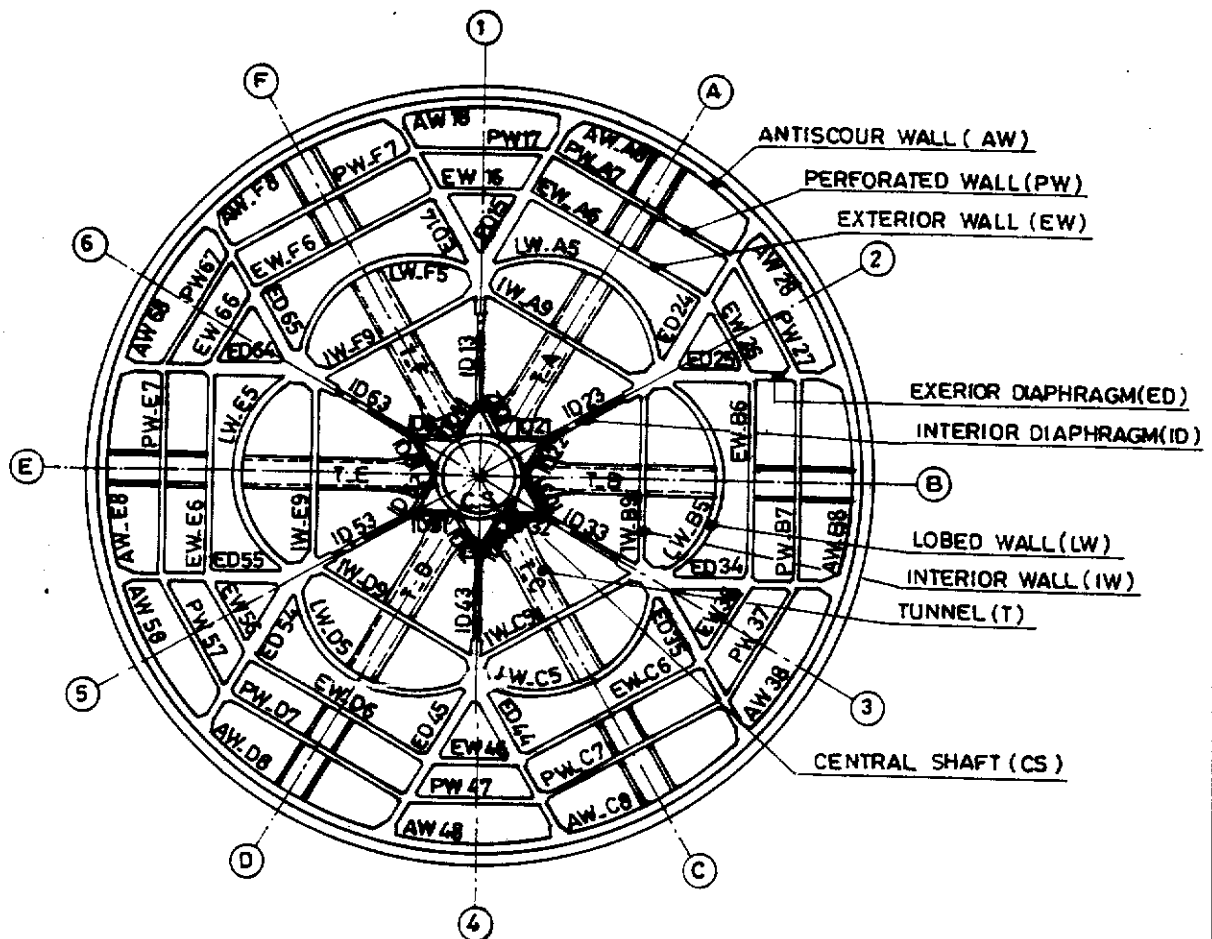


ELEVATION A-A

				elf		Job no.	Installation	System
				aquitaine			CDP 1	UNDERWATER
1	11.83	UPDATED	S.S JLC	norge a/s		Scale	COMPARISON BETWEEN LEVELS	
Rev.	Date	DESCRIPTION	by app.	p.o.box 168		NONE		
Contractor JVD.1029.10. 05				4001 Stavanger		Dwgr. no.	FF 91.36.35.1040	Rev. 1
				FRIGG FIELD				Sheet

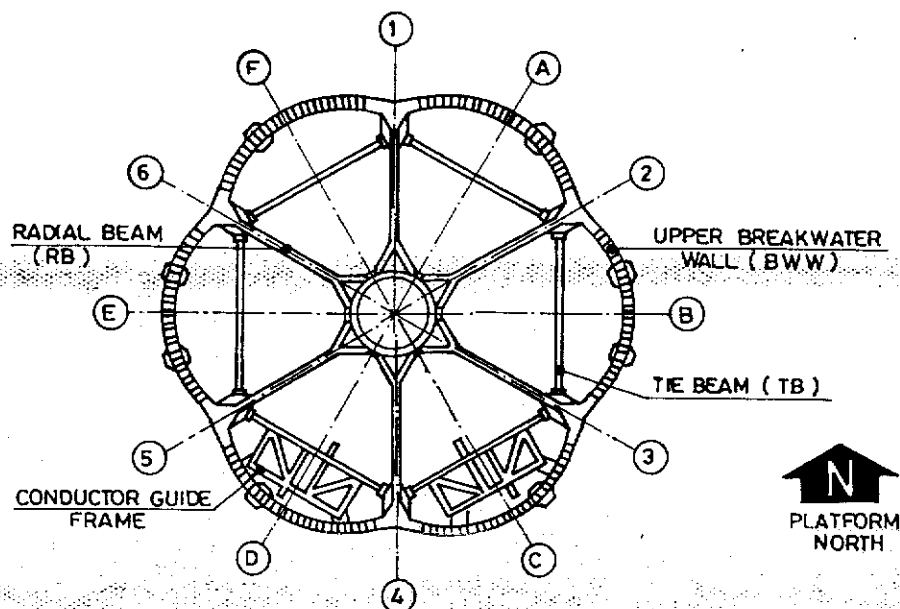


PLAN AT LEVEL +105 m.

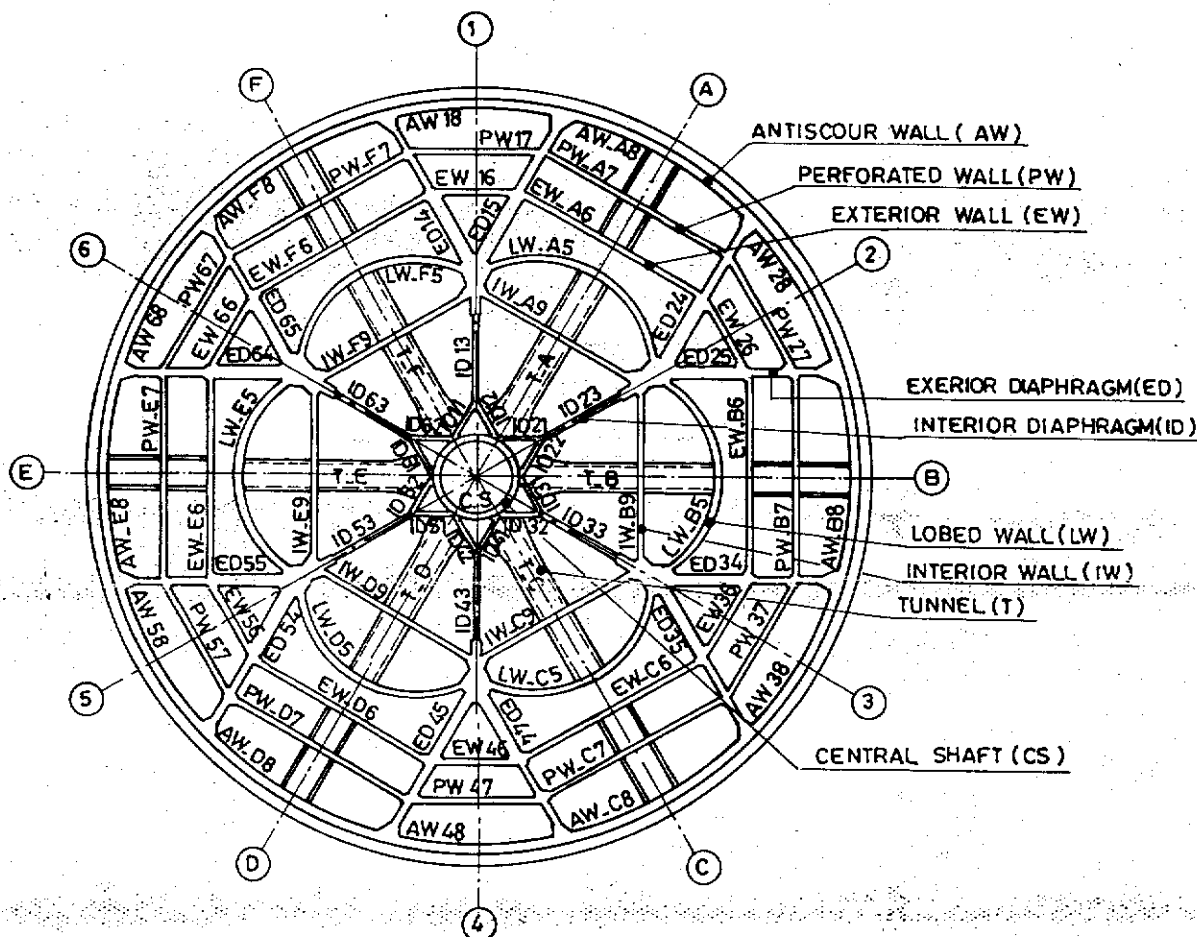


PLAN AT LEVEL +10 m.

				elf		Job no.	Installation	System
				aquitaine			CDP 1	UNDERWATER
				norge a/s		Scale	SECTION THROUGH STRUCTURE	
				p.o.box 168		Dwgr. no	FF 91_36_35_1042	
Contractor JVD.1029. 10. 07				4001 Stavanger			1	
1	12/83	UPDATED	mins	J.L.C.				
Rev.	Date	DESCRIPTION	by	app.				

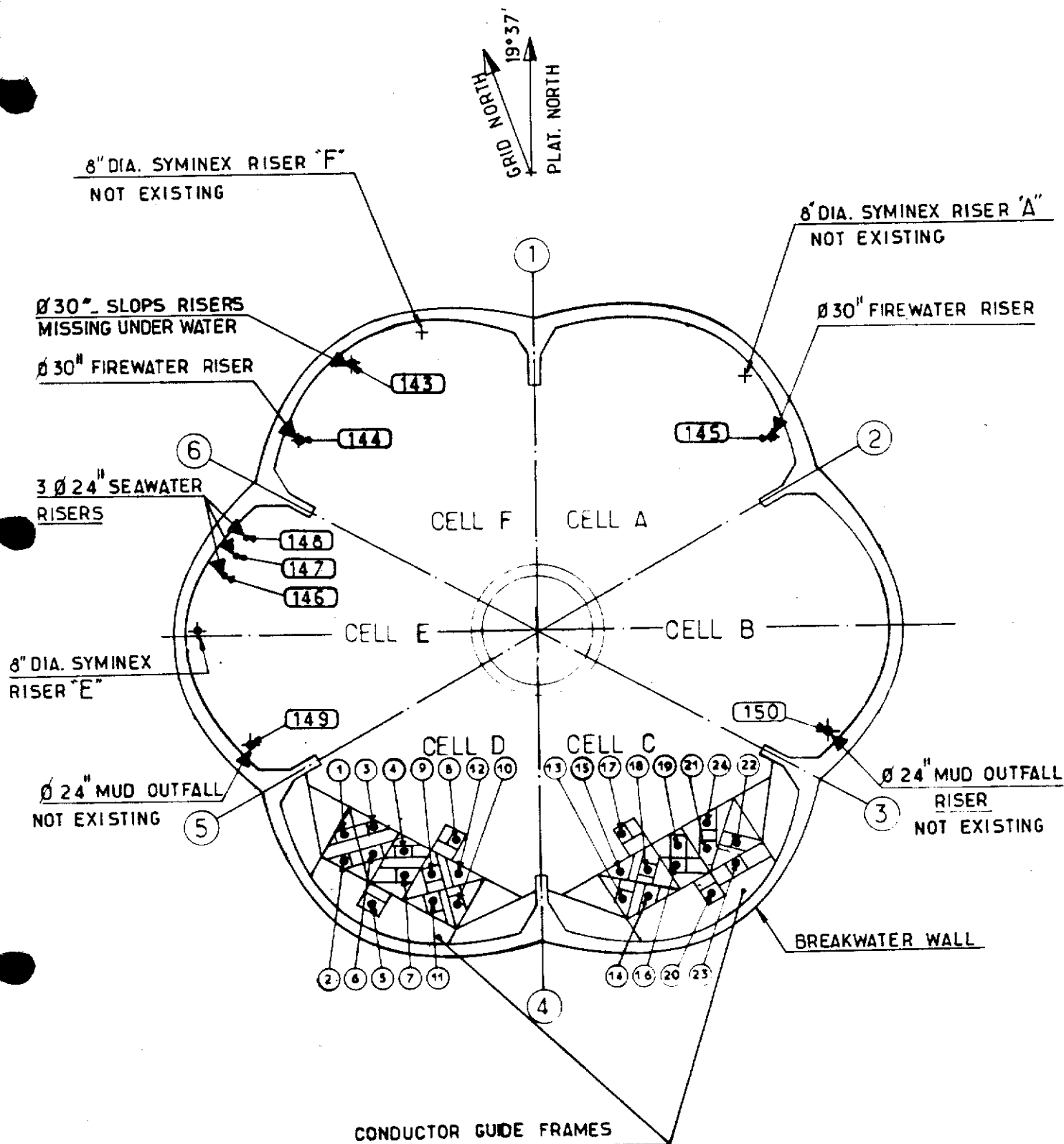


PLAN AT LEVEL + 105 m.



PLAN AT LEVEL + 10 m.

					elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER
1	12/83	UPDATED	mirro	JLL			Scale /	SECTION THROUGH STRUCTURE	
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		
Contractor JVD.1029. 10.07					4001 Stavanger	FRIGG FIELD	FF 91.36.35.1042	1	/



**SECTION AT LEVEL + 107.00 m.
(TOP OF BREAKWATER WALL)**

elf aquitaine norge a/s p.o. box 168 4001 Stavanger				elf		Job no.	Installation CDP 1	System UNDERWATER
1	12/83	UPDATED	HC	HC		Scale	RISER IDENTIFICATION AND CONDUCTOR GUIDE NUMBERING	
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no	FF 91_36_35_1043	Rev. 1
Contractor JVD_1029_10_08				FRIGG FIELD				Sheet

MAXI. RADIUS (MAIN HOIST)
38m. : 125 FEET

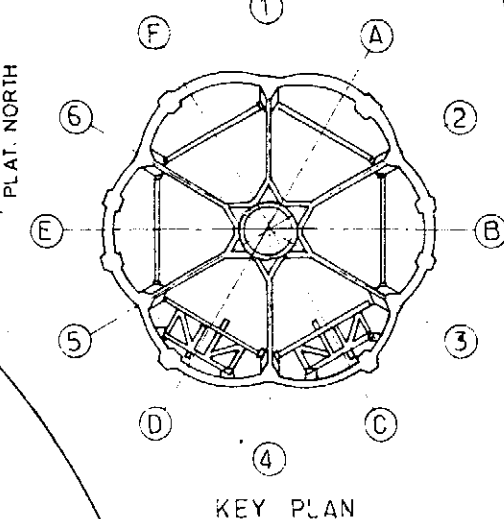
MINI. RADIUS (MAIN HOIST)
7.6m : 25 FEET

MINI. RADIUS (MAIN HOIST)
9.1m. : 30 FEET

"NATIONAL" CRANE
MODEL OS. 435 SN 147

BUCYRUS ERIE CRANE
TYPE MK 60

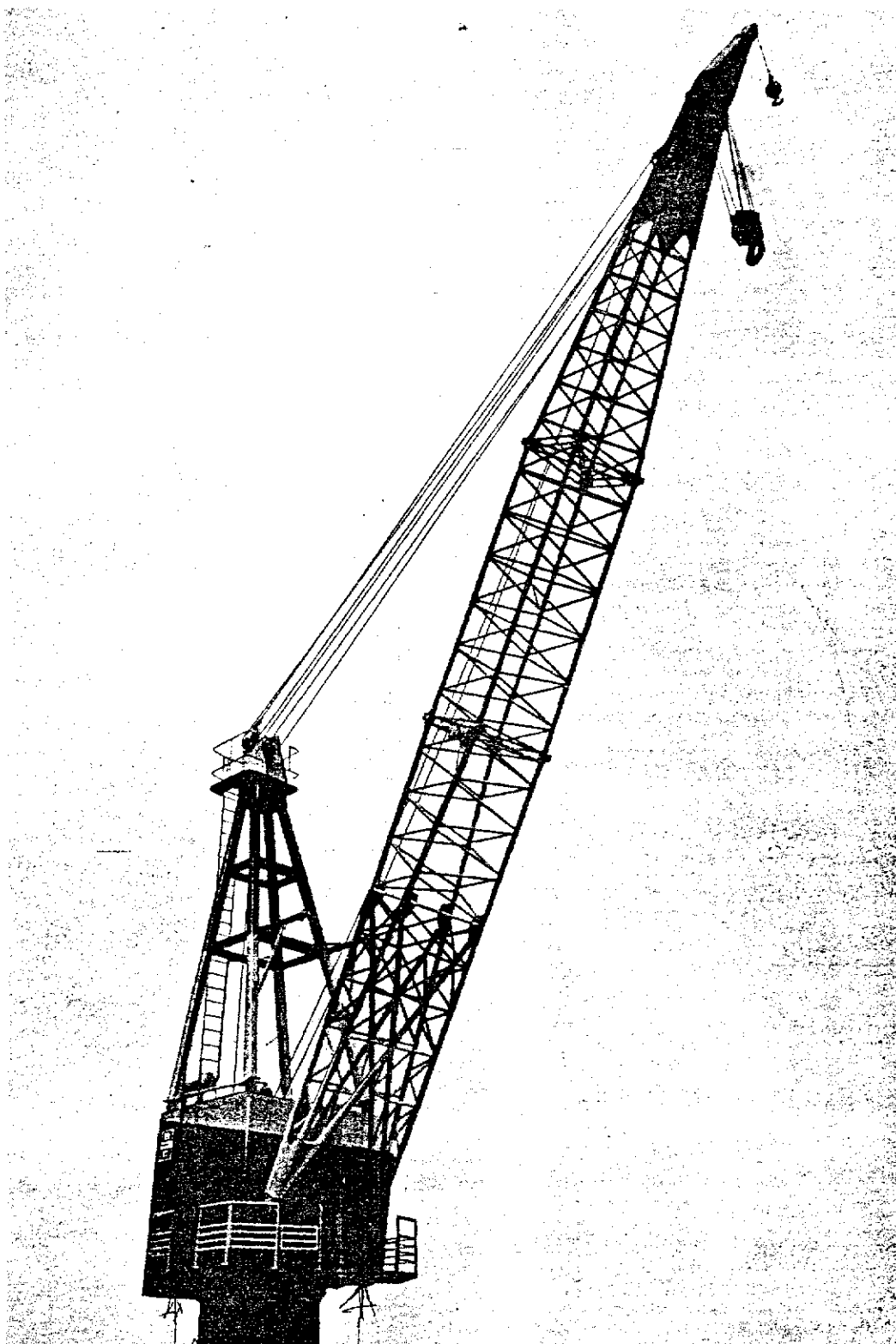
MAXI. RADIUS (MAIN HOIST)
38m. : 125 FEET



SEE LOAD CHARTS ATTACHED

			elf aquitaine norge a/s p.o. box 168 4001 Stavanger		elf	Job no.	Installation CDP 1	System UNDERWATER
1	12/83	UPDATED	mir	JLD		Scale 1: 400	DECK PLAN VIEW AT LEVEL 127.40 AND CRANE CAPACITY	
Contractor JVD 1029.10.09			FRIGG FIELD			Dwgr. no FF 91_36_35_1044	1	

MK-60 MARINE CRANE



BUCYRUS-ERIE



BUCYRUS-ERIE COMPANY

General Offices: South Milwaukee, Wisconsin, U. S. A.

It is the policy of Bucyrus-Erie Company to improve its products continually. The right is reserved to make changes in specifications or design which in the opinion of this company are in accord with this policy, or which are necessitated by the unavailability of materials. The description herein is for the purpose of identifying the type of machine, and does not limit or extend the express warranty provisions in any contract of sale.

B

BUCYRUS-ERIE

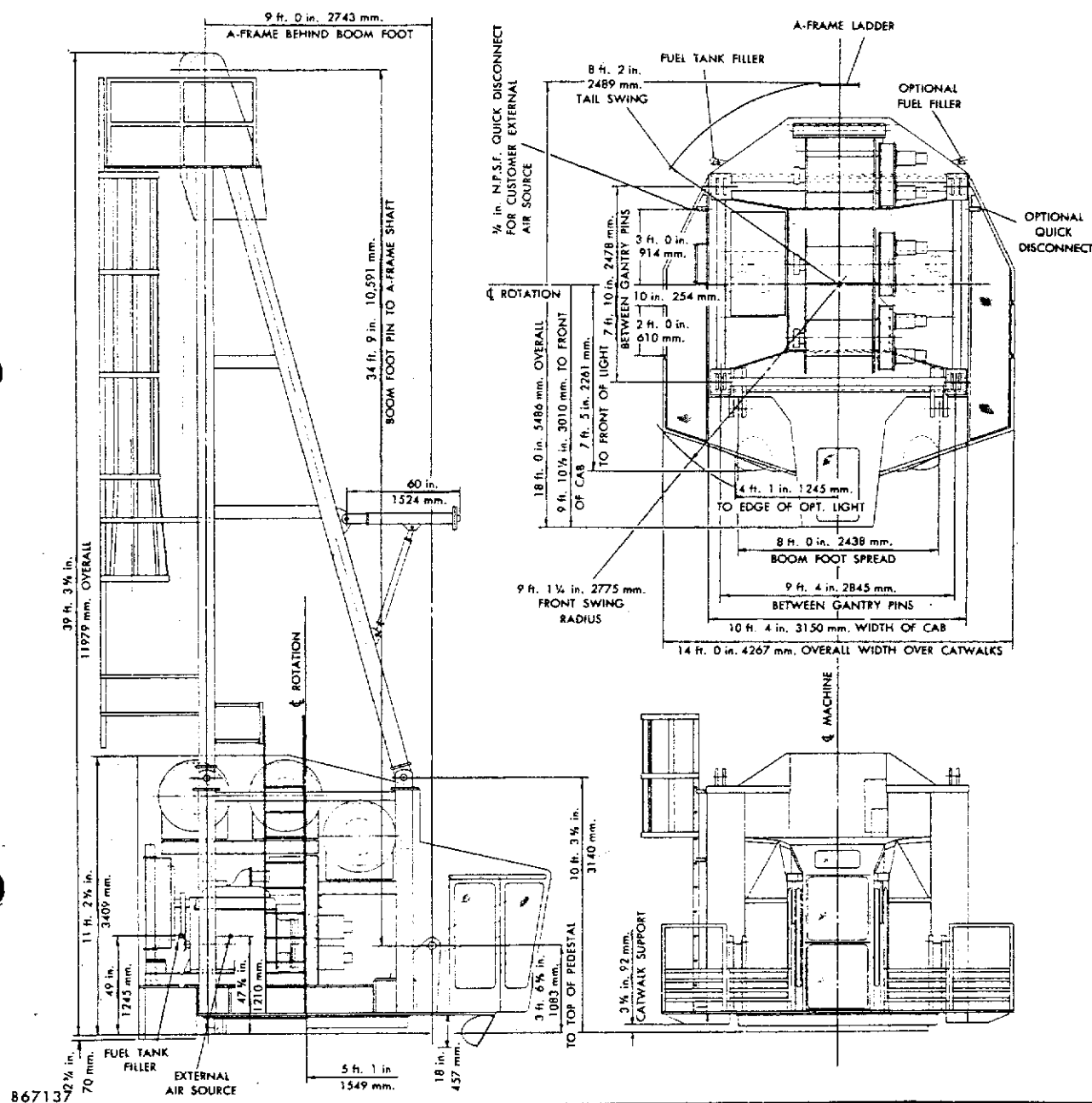
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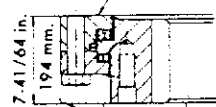
MK-60

MARINE CRANE

SPECIFICATIONS



SWING CIRCLE BEARING

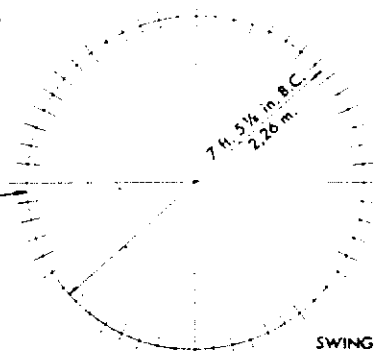


PEDESTAL

3 1/4 in.
MINIMUM
83 mm.

7 ft. 5 1/4 in. B.C.
2,26 m.

56 — 1 1/2 in. (38 mm.)
CADMIUM PLATED
GRADE 8 FINISH BOLTS

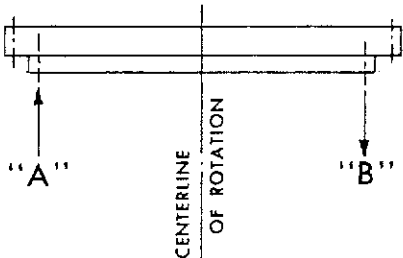


SWING CIRCLE MOUNTING FLANGE
BOLT CIRCLE

MK-60 MARINE CRANE

HOIST DRUMS							
DRUM	Model Number	Layer Of Rope	Pitch Diameter In Inches	Pull In Pounds	Line Speed (Feet Per Minute) Full Load		Rope Capacity In Feet
					Normal	High	
Main 7/8 in. Rope	24	1 st.	17½	24,000	129	258	165
		3 rd.	21	20,000	155	310	544
		5 th.	24½	17,000	181	362	988
Whip 7/8 in. Rope	24	1 st.	17½	12,900	259	—	165
		2 nd.	19¼	12,000	285	—	347

ENGINE SPECIFICATIONS						
Make	Model	Type	Cylinders	Bore x Stroke	Displacement	Horse Power (Net)
General Motors	12V-71N	Diesel	12	4¼ in. x 5 in.	852 cu. in.	390 @ 2100 rpm.

MAXIMUM PEDESTAL REACTIONS						
		Boom Length (feet)	Radius (feet)	Load In Pounds	"A" In Pounds	"B" In Pounds
		60	55	61,000	415,000	555,000
		80	50	66,000	412,000	561,000
		100	55	56,000	412,000	555,000
		120	55	54,000	406,000	551,000

WEIGHTS IN POUNDS (APPROXIMATE)				
Type	Net	Working	Export Shipping	Ships Option Tons
Crane 60 ft. Boom	78,600	80,900	88,000	205
COMPONENTS				
A-Frame — 9,760	60 ft. Boom — 15,600		100 ft. Boom — 23,760	
Upper Works — 53,240	80 ft. Boom — 19,680		120 ft. Boom — 27,840	

MK-60 MARINE CRANE

MAXIMUM ALLOWABLE LOADS IN POUNDS								
MAIN HOIST								
LIFTING CAPACITIES SHOWN AT ZERO DEGREES LIST								
Radius In Feet	60 Ft. Boom		80 Ft. Boom		100 Ft. Boom		120 Ft. Boom	
	Boom Angle Degrees	Load Pounds	Boom Angle Degrees	Load Pounds	Boom Angle Degrees	Load Pounds	Boom Angle Degrees	Load Pounds
15	80	116,000						
20	76	108,000	79	107,000	80	105,000		
25	71	102,000	76	100,000	79	98,000	80	95,000
30	65	95,000	72	94,000	76	92,000	78	90,000
35	60	89,000	68	87,000	73	86,000	76	83,000
40	54	82,000	64	80,000	70	78,000	73	76,000
45	49	75,000	60	73,000	66	70,000	71	68,000
50	42	68,000	56	66,000	63	62,000	68	60,000
55	33	61,000	51	59,000	60	56,000	65	54,000
60	24	55,000	47	52,000	57	50,000	63	48,000
65	0	45,000	41	47,000	53	45,000	60	44,000
70			36	42,000	50	41,000	57	40,000
75			29	38,000	46	36,000	54	35,000
80			21	34,000	41	31,000	51	30,000
85			0	28,000	37	28,000	48	26,000
90					32	24,000	45	23,000
95					26	21,000	41	19,000
100					18	17,000	38	16,000
105					0	14,000	34	13,000
110							30	10,000
115							25	8,000
120							18	7,000
125							0	6,000

43 M.TONS
41
37.6
34.5
31
27.2
24.5
22
20
18
15.8
13.6
11.9
10.5
8.6
7.3
5.9
4.5
3.6
3.1
2.7

Ratings established in compliance with A.B.S. Requirements for Certification of Cargo Gear
June 1970 revision and A.P.I. Specification for Offshore Cranes, 2C, Second Edition of Feb. 1972.

WHIP HOIST		
Lifting Cap. Shown at 0 Degrees List		
Radius In Feet	Boom Angle Degrees	Max. Load Single Part Line Pounds
20 To 105	80 To 37	12,000
110 115 120 125 130	32 28 23 16 0	10,000 8,000 7,000 6,000 5,000

machined joints. Three boom point sheaves and one whip sheave mounted on sealed anti-friction bearings. Four boom point sheaves optional. Spring cushion boom stops are standard. An automatic boom angle limit device is optional.

RECOMMENDED HOIST TACKLE

Main Hoist Unit:

Loads Over (in lbs.)	14,500	31,840	50,000	65,000
Parts of Line	2	3	4	5
Loads Over (in lbs.)	81,000	95,000	102,000	
Parts of Line	6	7	8	

Load Deduct Information:

Weight of hook blocks, hooks and slings is to be considered as part of allowable load.

60 ton three sheave swivel hook block	780 lbs.
50 ton two sheave swivel hook block	535 lbs.
20 ton single sheave hook block	440 lbs.
8½ ton weighted hook	330 lbs.

Machine Equipment:

Main Hoist — Model No. 24 with two hydraulic motors.
Whip Hoist — Model No. 24 with one hydraulic motor.
Boom Hoist — Model No. 24 with two hydraulic motors.
Two hydraulic swing units.

Specifications For Ropes (optional):

Main Hoist Rope — ¾ inch, 6 x 25 construction, extra improved plow steel, independent wire rope center.
Whip Hoist Rope — ¾ inch, 19 x 75 construction, non-rotating.
Boom Hoist Rope — ¾ inch, 6 x 25 construction, extra improved plow steel, independent wire rope center. Boom suspension is 6-part continuous reeving.

MARINE CRANE SERVICE

Allowable loads shown in tables apply only to machines with all components in first class condition and which are built and/or recommended by Bucyrus-Erie Co.

Load ratings shown in these tables make no allowance for such factors as list, winds, or sea conditions. Loads shall be reduced to take these conditions into account.

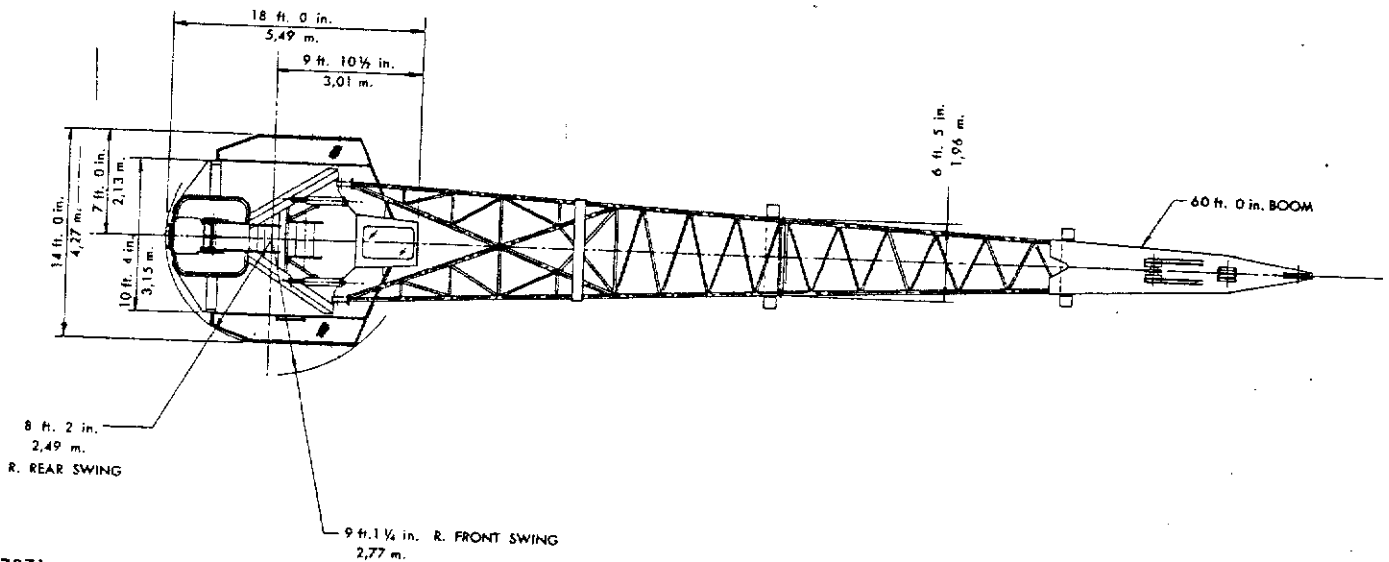
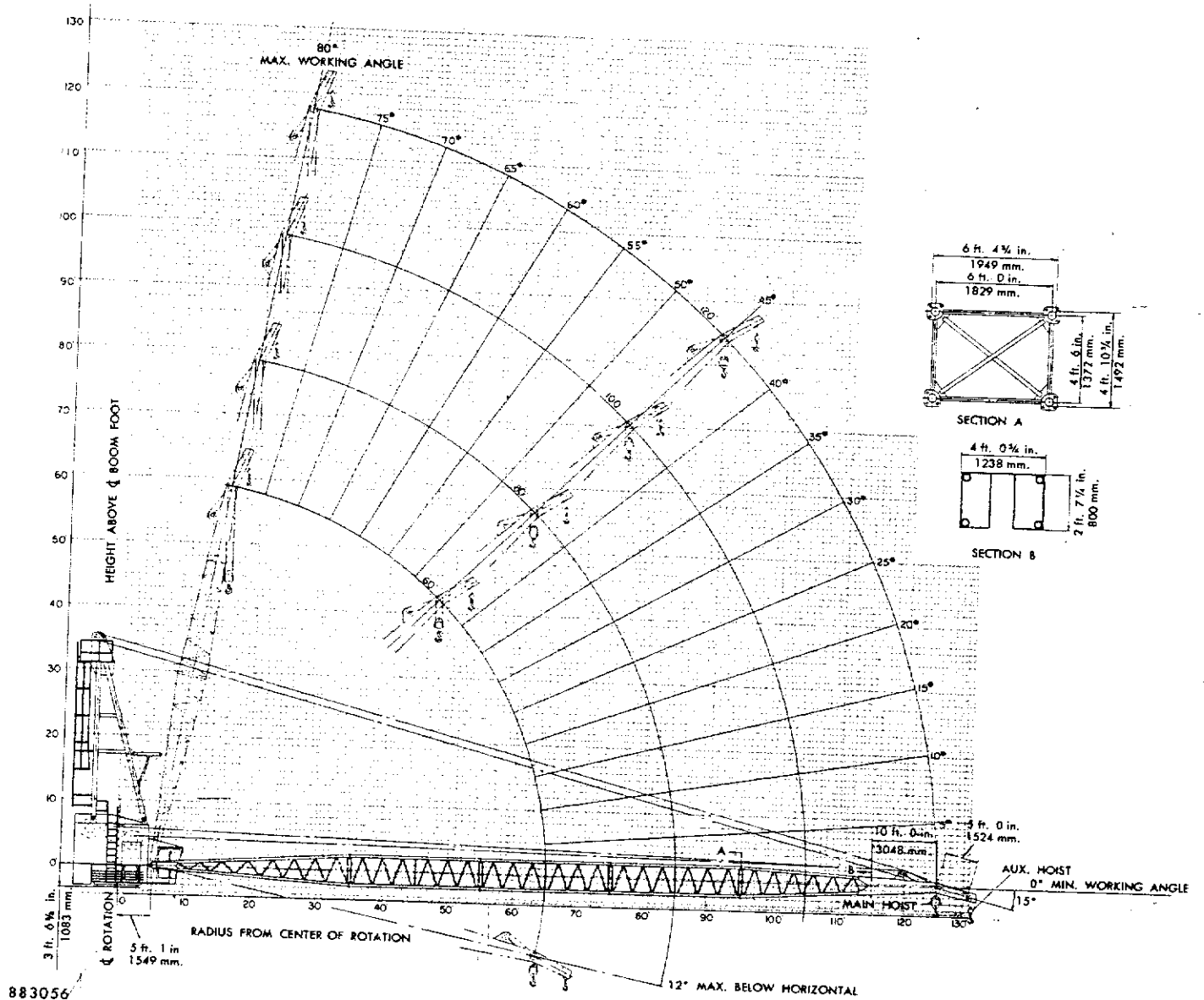
Radii specified are loaded radii. Loads must be freely suspended. Proper care must be exercised by the operator at all times to avoid shock or side loadings on the boom.

Load includes blocks, hooks, slings and all other equipment used to handle objects being lifted.

BOOM CONSTRUCTION

Wide-foot heavy duty tubular marine boom, 60 foot basic with integral 5 foot whip extension. Insert sections 10 and 20 feet long are available. Sections connected with eight bolts, butt type.

MK-60 MARINE CRANE



MK-60 MARINE CRANE

Revolving Structure:

The main revolving frame consists of an H-shaped all-welded deep box structure, sealed on the underside by a heavy steel plate. Extra-heavy boom foot supports are welded directly to the main revolving frame box section for maximum rigidity. Revolving frame overhang beyond the swing circle is minimized to reduce acceleration stresses induced by severe sea states.

The lower A-frame structure welds directly to the main revolving frame box section and consists of heavy wall square structural steel tubing. Heavy-duty fitted-pin connections are provided at the top of the vertical tubes for attachment of the upper A-frame structure. A heavy structural steel framework is welded into the lower A-frame structure to provide a firm base for the hydraulic hoist units.

The upper A-frame structure is also of heavy wall square structural steel tubing, and pins to the lower A-frame structure to allow for unit shipping and easy assembly. An external ladder with safety cage and service deck provide for convenient access to the boom hoist equipment at the top of the A-frame.

All parts of the revolving structure with the exception of pins and shafts are manufactured from easily-welded low alloy steels.

Power:

General Motors Model 12V71N Diesel engine rated 390 HP @ 2100 RPM. Standard equipment includes: radiator, oil cooler, tachometer, emergency stop, asbestos covered exhausts, spark arrest mufflers, and air start from an outside air source. Fuel tank capacity is 195 gallons.

Hydraulic Pumps:

Three (3) Sundstrand variable displacement piston pumps mounted to heavy duty gear case — one for main or whip hoist; one for boom hoist; one for swing.

Controls:

Controls are mechanical push-pull connection between the three (3) operator's levers and pump control levers. They are spring-centered, dead-man type. Foot pedal in addition to hand lever provided on boom hoist control and engine throttle.

Swing Circle:

The swing circle is a sealed unit with precision roller bearings, and is grease lubricated. An integral gear rack engages the swing pinion to rotate the revolving structure. Flanged pedestal adapters are available as optional equipment.

Cab and House:

Except for hoist drum barrels, all deck machinery is fully enclosed by a heavy gage steel cab. General maintenance and repairs can be conducted within the protected interior of the cab. The center-mounted operator's cab provides exceptional visibility and includes a glare-proof overhead window as well as a floor mounted window for excellent straight-down visibility. A comfortable adjustable bucket seat is standard equipment. Standard equipment includes: air-operated signal horn, windshield wipers, catwalks and railings, and safety cages on ladders. Cab heaters and similar operator conveniences are available as optional equipment.

Swing:

Dual independent deck-mounted swing drive units provide continuous rotation through spur and planetary gear reductions. They are fully enclosed and run in oil. An environment-proof closed hydraulic system using piston pump and motor equipment provides smooth stepless control of swing acceleration, deceleration, and dynamic braking. Operator controlled swing brakes and a positive house lock are also provided.

Main and Whip Hoists:

The main and whip hoists are Bucyrus-Erie Company hydraulic hoist units. These hoist units have wide drums with deep flanges to provide large cable capacity.

The hoist units are powered by environment-proof closed hydraulic systems using piston pumps and motors, providing infinitely variable speed control and full reversing (power-controlled load lowering) characteristics. A dual range speed feature is provided on the main hoist.

All hoist units incorporate an automatic brake which is spring set and hydraulically released.

Standard main hoist reeving accommodates a maximum of six parts of line using three sheaves in the boom point, all mounted on sealed anti-friction bearings. Optional equipment includes provision for up to eight parts of line to obtain maximum heavy-lift capacity.

The whip hoist minimizes cable over-wrap and provides high speed for personnel and light load handling.

Boom Hoist:

The boom hoist is an independently controlled Bucyrus-Erie Company hydraulic hoist unit, powered by an environment-proof closed hydraulic system using piston pump and motor equipment. It provides infinitely variable speed control and full reversing (power-controlled lowering) characteristics. All gears are enclosed and run in oil.

An automatic brake together with an automatic locking pawl, which are spring set and hydraulically released, are provided.

Environmental Protection:

Standard features have been incorporated to protect against the ocean environment. Inorganic zinc primers are used on all exposed surfaces. Epoxy and Acrylic top-coats are used for lasting protection. All exposed hardware is cadmium plated. The boom and A-frame structure use tubular steel construction to prevent accumulation of corrosive sea water. All joints on these structures are coped

and seal-welded. The closed hydraulic drive system when properly maintained provides complete protection from the environment. All gears except swing pinion are enclosed and run in oil.

Optional Equipment:

Boom Inserts — 10 ft. and 20 ft.
Automatic Boom Angle Limiter.
Automatic Two-Block Limiter.
Water Cooled Manifolds.
Lighting Equipment.
Heater/Defroster.
Hook Blocks.
Wire Ropes.
Load and Radius Indicators.
Lifting Spreaders with Slings.

Above items are available for National Electric Code, 1971 Class I, Group D installations.

MARINE CRANE RATING **NATIONAL SUPPLY COMPANY**

MODEL OS-435, SN147

BOOM LENGTH=36.58 m.
JIB LENGTH= 2.44 m.

RATINGS FOR MAIN HOIST REQUIRE 4 LINE REEVING
RATINGS LISTED ARE MAX. ALLOWABLE LOAD ON HOOK.
WEIGHT OF HOOK AND SHEAVES: MAIN HOIST = 600 kg
WHIP HOIST = 200 kg.

WIRE ROPE SPECIFICATIONS
BOOM HOIST = 26 mm DIAMETER, 6 X 25 MINIMUM
BREAKING STRENGTH= 46,900 kg.
MAIN HOIST = 22 mm DIAMETER, DYFORM 17 MIN.
BREAKING STRENGTH= 35,000 kg.
WHIP HOIST = 26 mm. DIAMETER, 26 (10/5) & (5/5/1)
BREAKING STRENGTH= 46,000 kg.

WHIP HOIST • 200 kg.															
SIGNIFICANT WAVE HEIGHT	WIND VELOCITY	DYNAMIC RATINGS, MAIN HOIST, kgs.					SIGNIFICANT WAVE HEIGHT	WIND VELOCITY	DYNAMIC RATINGS, WHIP HOIST, kgs.						
		0 DECK TO DECK	.3 m	1 m	2 m	4 m			7 m	0 DECK TO DECK	.3 m	1 m	2 m	4 m	7 m
RADIUS m. ft.	BOOM ANGLE	6.7 m/sec	6.7 m/sec	8.3 m/sec	10.7 m/sec	13.8 m/sec	17 m/sec	RADIUS m. ft.	BOOM ANGLE	6.7 m/sec	6.7 m/sec	8.3 m/sec	10.7 m/sec	13.8 m/sec	17 m/sec
19.1 (30)	78°	29700	27260	21600	17820	13740	10300	9.1 (30)	79°	7200	6500	5100	3800	2800	1800
10.6 (35)	75°	29700	27400	21800	18000	13970	10300	2.1 (40)	74°	7200	6500	5100	3800	2800	1800
12.1 (40)	73°	29700	27500	22000	18200	14050	10300	5.2 (50)	70°	7200	6500	5100	3800	2800	1800
13.6 (45)	70°	29700	27580	22130	18300	14050	10300	16.7 (55)	67°	7200	6500	5100	3800	2800	1800
15.2 (50)	68°	29700	27670	22140	18300	14050	10300	18.2 (60)	65°	7200	6500	5100	3800	2800	1800
16.7 (55)	65°	29700	27670	22140	18300	14050	10300	19.7 (65)	62°	7200	6500	5100	3800	2800	1800
18.2 (60)	63°	26900	24000	20460	16460	11970	8500	21.2 (70)	60°	7200	6500	5100	3800	2800	1800
19.7 (65)	60°	24450	21730	18320	14700	10610	7500	22.7 (75)	57°	7200	6500	5100	3800	2800	1800
21.2 (70)	57°	22400	19800	16500	13240	9850	6760	24.2 (80)	54°	7200	6500	5100	3800	2800	1800
22.7 (75)	54°	20600	18140	14970	11970	8820	6040	25.8 (85)	52°	7200	6500	5100	3800	2800	1800
24.2 (80)	51°	19000	16700	13650	10880	7800	5370	27.3 (90)	49°	7200	6500	5100	3800	2800	1800
25.8 (85)	48°	17600	15420	12470	9960	7120	4900	28.8 (95)	46°	7200	6500	5100	3800	2800	1800
27.3 (90)	45°	16330	14290	11470	9180	6530	4420	30.3 (100)	42°	7200	6500	5100	3800	2800	1800
28.8 (95)	41°	15200	13290	10600	8480	6030	4060	31.8 (105)	39°	7200	6500	5100	3800	2800	1800
30.3 (100)	38°	14200	12430	9840	7890	5580	4260	33.3 (110)	35°	7200	6500	5100	3800	2800	1800
31.8 (105)	33°	13300	11600	9200	7350	5220	4060	34.8 (115)	31°	7200	6500	5100	3800	2800	1800
33.3 (110)	29°	12400	10930	8620	6890	4900	3800	36.4 (120)	26°	7200	6500	5100	3800	2800	1800
34.8 (115)	23°	11700	10300	8120	6330	4570	3540	37.9 (125)	20°	7200	6500	5100	3800	2800	1800
36.4 (120)	16°	10980	9800	7700	6250	4500	3250	40.2 (125)	12°	7200	6500	5100	3800	2800	1800
37.9 (125)	0°	10700	9600	7660	6440	4500	3050	40.2 (125)	0°	7200	6500	5100	3800	2800	1800

CAUTION

THE OPERATION OF THE CRANE DURING PERIODS OF HIGH WIND VELOCITY IS DANGEROUS. DAMAGE MAY BE DONE TO THE CRANE STRUCTURE OR SUSPENDED LOADS BEING TOWED. HYDRAULIC PRESSURE EXCEEDS 2000 PSI.

WHIP HOIST • 26 mm. DIAMETER, 26 (10/5) & (5/5/1)

BREAKING STRENGTH= 35,000 kg.

BREAKING STRENGTH= 46,000 kg.

WHIP HOIST • 200 kg.

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BREAKING STRENGTH= 46,000 kg.

WHIP HOIST • 200 kg.

BREAKING STRENGTH= 35,000 kg.

CAUTION

THE OPERATION OF THE CRANE DURING PERIODS OF HIGH WIND VELOCITY IS DANGEROUS. DAMAGE MAY OCCUR FROM HIGH STRESS ON THE CRANE STRUCTURE OR SUSPENDED LOADS BEING TOSSED ABOUT AND COLLIDING WITH THE CRANE OR OTHER STRUCTURES. IF HYDRAULIC PRESSURE EXCEEDS 240 BARS (3500 PSI) ON MAIN OR WHIP HOISTS SWITCH TO LOW SPEED SETTING TO FACILITATE LIFT.

DYNAMIC LOAD RATING CHART MK 60 MARINE CRANE PLATFORM MOUNTED

**120 FOOT TUBULAR BOOM
0° LIST**

250 TO 300 FEET MAXIMUM HOOK TRAVEL

MARINE CRANE SERVICE

Maximum Allowable Dynamic Loads shown apply only to machines with all components in first class condition built or recommended by Bucyrus-Erie Company.

Maximum Allowable Dynamic Loads shown are limited by hydraulic or structural competence. These loads contain a deration from static ratings to account for the Dynamic conditions imposed upon a platform mounted crane lifting loads from the deck of a vessel in the Sea States shown.

Extreme care must be exercised to prevent the load from fouling on the ship. No account can be made for this condition in the ratings.

The ratings shown are contingent on experienced personnel hitching the loads and operating the crane.

The hoist lines must be vertical when starting the lift.

Load radius is the horizontal distance from the axis of rotation before loading to the center of the vertical hoist line or tackle with load applied.

LOAD RATING DEDUCT DATA

Weight of hooks, hook blocks, slings and all other load handling devices, except the hoist rope, shall be considered part of the load.

Hooks and hook block weights:

25 ton single sheave hook block weighs	630 lbs.
35 ton double sheave hook block weighs	1225 lbs.
50 ton triple sheave hook block weighs	1725 lbs.
60 ton four sheave hook block weighs	2100 lbs.
8 1/2 ton weighted hook weighs	350 lbs.

MACHINE EQUIPMENT

Main Hoist: Model #24 with two hydraulic motors.

Whip Hoist: Model #24 with one hydraulic motor.

Swing Unit: 2-Model 270-2 with one hydraulic motor per unit.

Main hoist wire rope: 3/4" dia., 6 x 25, EIPS, IWRC, 79,600 lbs. breaking strength.

Whip hoist wire rope: 3/4" dia., 6 x 25, EIPS, IWRC, 79,600 lbs. breaking strength.

Boom hoist wire rope: 1" dia., 6 x 25, EIPS, IWRC, 103,400 lbs. breaking strength.

See Instruction Manual for complete wire rope specifications and correct reeving of all wire ropes.

* Derating is based on $\bar{H}/\bar{T}$, the wave instrument reading.

Caution is advised in correlating $\bar{H}/\bar{T}$ with other sea descriptions shown.

MK60 Marine Crane Serial Number 136574, 136578, 1365772, 1365777, 136125, 136583

DO NOT DEFACE OR REMOVE THIS LOAD CHART FROM THE MACHINE.

LOAD CHARTS ARE REQUIRED BY LAW.

FOR STATIC ALLOWABLE LOADS,

REFER TO CHART 741789K1 & 741064K1

835199-1

MAXIMUM ALLOWABLE DYNAMIC LOADS — MARINE CRANE SERVICE

CAUTION: WEIGHT OF HOOKS, HOOK BLOCKS, SLINGS, AND ALL OTHER LOAD HANDLING DEVICES, EXCEPT THE HOIST ROPE, SHALL BE CONSIDERED PART OF THE LOAD.

BEAUFORT WIND 3

SEA STATE 1-2

SIGNIFICANT WAVE 1 FT.

4 PART MAIN HOIST

LOAD RADIUS IN FEET	BOOM ANGLE IN DEGREES	LOAD IN TONS	LOAD IN POUNDS
25	80	24,5	54,000
30	78	24,5	54,000
35	76	24,5	54,000
40	73	24,5	54,000
45	71	24,5	54,000
50	68	24,5	54,000
55	65	23,1	51,000
60	63	20,8	46,000
65	60	18,6	42,000
70	57	17,7	39,000
75	54	15,4	34,000
80	51	13,1	29,000
85	48	11,3	25,000
90	45	9,9	22,000
95	41	8,1	18,000
100	38	6,8	15,000
105	34	5,4	12,000
110	30	4,5	10,000
115	25	3,6	8,000
120	18	3,1	7,000
125	0	2,7	6,000

WHIP HOIST 1 PART LINE

LOAD RADIUS IN FEET	BOOM ANGLE IN DEGREES	LOAD IN TONS	LOAD IN POUNDS
30 TO 105	80 TO 37	5,4	12,000

MAXIMUM ALLOWABLE LOADS FOR RADII 110 FEET OR GREATER ARE THE SAME AS THOSE SHOWN ABOVE FOR MAIN HOIST LINE SERVICE.

BEAUFORT WIND 4

SEA STATE 2-3

SIGNIFICANT WAVE 2.9 FT.

4 PART MAIN HOIST

LOAD RADIUS IN FEET	BOOM ANGLE IN DEGREES	LOAD IN TONS	LOAD IN POUNDS
25	80	24,5	54,000
30	78	24,5	54,000
35	76	24,5	54,000
40	73	24,5	54,000
45	71	23,1	51,000
50	68	20,8	46,000
55	65	18,6	42,000
60	63	16,7	37,000
65	60	15,4	34,000
70	57	14,0	31,000
75	54	12,2	27,000
80	51	10,4	23,000
85	48	9,0	20,000
90	45	8,1	18,000
95	41	6,8	15,000
100	38	5,4	12,000
105	34	4,5	10,000
110	30	3,6	8,000
115	25	2,7	6,000
120	18	2,4	5,500
125	0	2,2	5,000

WHIP HOIST 1 PART LINE

LOAD RADIUS IN FEET	BOOM ANGLE IN DEGREES	LOAD IN TONS	LOAD IN POUNDS
30 TO 100	80 TO 41	5,4	12,000

MAXIMUM ALLOWABLE LOADS FOR RADII 105 FEET OR GREATER ARE THE SAME AS THOSE SHOWN ABOVE FOR MAIN HOIST LINE SERVICE.

Form No. 0015 Randaberg Trykk A/s

**DYNAMIC LOAD RATING CHART
MK 60 MARINE CRANE**

**PLATFORM MOUNTED
120 FOOT TUBULAR BOOM
0° LIST
250 TO 300 FEET MAXIMUM HOOK TRAVEL**

MAXIMUM ALLOWABLE DYNAMIC LOADS — MARINE CRANE SERVICE

CAUTION: WEIGHT OF HOOKS, HOOK BLOCKS, SLINGS, AND ALL OTHER LOAD HANDLING DEVICES, EXCEPT THE HOIST ROPE, SHALL BE CONSIDERED PART OF THE LOAD.

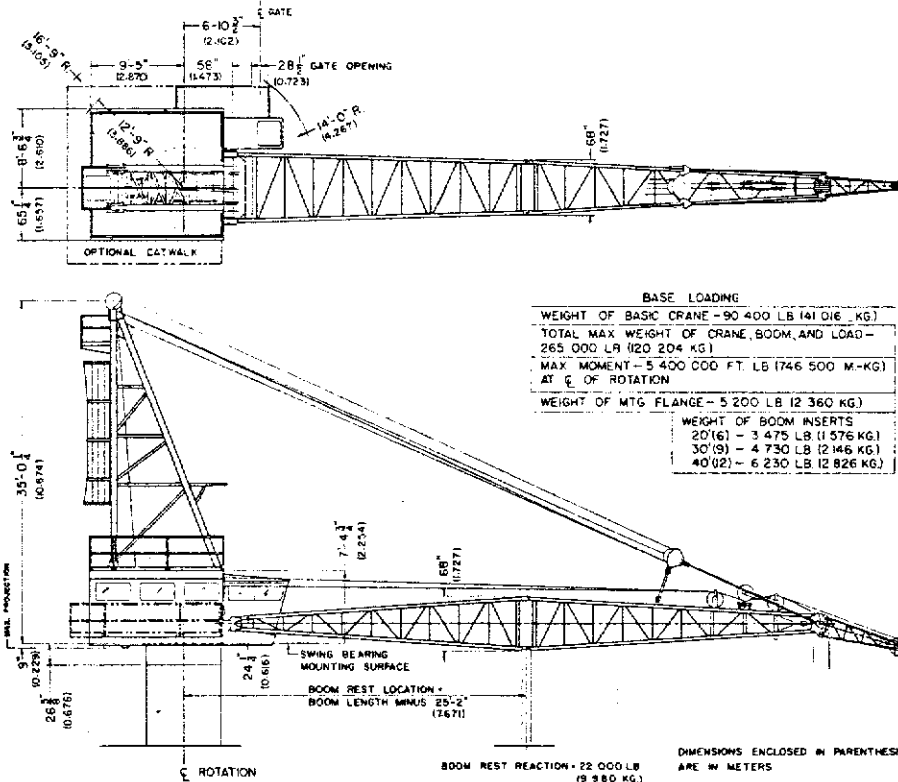
BEAUFORT WIND 5			
SEA STATE 4-5			
SIGNIFICANT WAVE 6.9 FT.			
4 PART MAIN HOIST			
LOAD RADIUS IN FEET	BOOM ANGLE IN DEGREES	LOAD IN TONS	LOAD IN POUNDS
25	80	17.2	38,000
30	78	17.2	38,000
35	76	17.2	38,000
40	73	17.2	38,000
45	71	16.3	36,000
50	68	14.5	32,000
55	65	13.1	29,000
60	63	11.8	26,000
65	60	10.8	24,000
70	57	9.9	22,000
75	54	8.6	19,000
80	51	7.2	16,000
85	48	6.3	14,000
90	45	5.4	12,000
95	41	4.5	10,000
100	38	4.0	9,000
105	34	3.1	7,000
110	30	2.4	5,500
115	25	2.0	4,500
120	18	1.8	4,000
125	0	1.8	4,000
WHIP HOIST 1 PART LINE			
LOAD RADIUS IN FEET	BOOM ANGLE IN DEGREES	LOAD IN TONS	LOAD IN POUNDS
30 TO 75	80 TO 57	5.4	12,000
80 TO 90	54 TO 48	4.9	11,000
MAXIMUM ALLOWABLE LOADS FOR RADIUS 95 FEET OR GREATER ARE THE SAME AS THOSE SHOWN ABOVE FOR MAIN HOIST LINE SERVICE.			

BEAUFORT WIND 6			
SEA STATE 5-6			
SIGNIFICANT WAVE 13 FT.			
4 PART MAIN HOIST			
LOAD RADIUS IN FEET	BOOM ANGLE IN DEGREES	LOAD IN TONS	LOAD IN POUNDS
25	80	11.3	25,000
30	78	11.3	25,000
35	76	11.3	25,000
40	73	11.3	25,000
45	71	11.3	25,000
50	68	9.9	22,000
55	65	9.0	20,000
60	63	8.1	18,000
65	60	7.2	17,000
70	57	7.2	16,000
75	54	6.3	14,000
80	51	5.4	12,000
85	48	4.5	10,000
90	45	4.0	9,000
95	41	3.4	7,500
100	38	2.7	6,000
105	34	2.2	5,000
110	30	1.8	4,000
115	25	1.3	3,000
120	18	1.3	3,000
125	0	1.3	3,000
WHIP HOIST 1 PART LINE			
LOAD RADIUS IN FEET	BOOM ANGLE IN DEGREES	LOAD IN TONS	LOAD IN POUNDS
30 TO 45	80 TO 72	4.9	11,000
50 TO 70	70 TO 60	4.5	10,000
75 TO 90	57 TO 48	4.0	9,000
MAXIMUM ALLOWABLE LOADS FOR RADIUS 95 FEET OR GREATER ARE THE SAME AS THOSE SHOWN ABOVE FOR MAIN HOIST LINE SERVICE.			

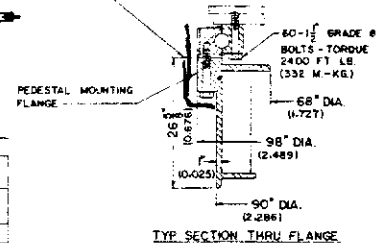
BEAUFORT WIND 7			
SEA STATE 6-7			
SIGNIFICANT WAVE 23 FT.			
4 PART MAIN HOIST			
LOAD RADIUS IN FEET	BOOM ANGLE IN DEGREES	LOAD IN TONS	LOAD IN POUNDS
25	80	6.8	15,000
30	78	6.8	15,000
35	76	6.8	15,000
40	73	6.8	15,000
45	71	6.8	15,000
50	68	6.8	15,000
55	65	6.3	14,000
60	63	5.9	13,000
65	60	5.1	12,000
70	57	4.9	11,000
75	54	4.4	9,500
80	51	3.8	8,000
85	48	3.1	7,000
90	45	2.7	6,000
95	41	2.2	5,000
100	38	1.8	4,000
105	34	1.5	3,500
110	30	1.1	2,500
115	25	0.9	2,000
120	18	0.9	2,000
125	0	0.9	2,000
WHIP HOIST 1 PART LINE			
LOAD RADIUS IN FEET	BOOM ANGLE IN DEGREES	LOAD IN TONS	LOAD IN POUNDS
30 TO 50	80 TO 70	3.8	8,500
55 TO 65	68 TO 62	3.6	8,000
70 TO 85	60 TO 51	3.1	7,000
MAXIMUM ALLOWABLE LOADS FOR RADIUS 90 FEET OR GREATER ARE THE SAME AS THOSE SHOWN ABOVE FOR MAIN HOIST LINE SERVICE.			



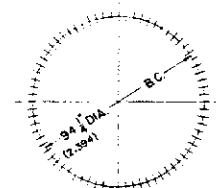
NATIONAL OS-435 HYDRAULIC PEDESTAL CRANE



NOTE: MOUNTING FLANGE MUST BE FLAT WITHIN $\pm .016"$ AND WITHOUT TWIST AFTER WELDING TO PEDESTAL (REF. ARMCO GAINESVILLE PLANT TECHNICAL STANDARD TD-16000) SHW. SWING BEARING FLAT WITHIN $\pm .005"$



TYP. SECTION THRU FLANGE



SWING BOLT CIRCLE 72-11" GRADE 8 BOLTS EQUALLY SPACED TORQUE TO 3000 FT. LB (413 M.-KG.)

ROTATING FRAME

All-welded, deep beam construction. Completely enclosed to afford sheltered access to machinery. Entrances to enclosed machinery compartment are from the cab and the outside.

MAIN AND FAST LINE HOIST

Both have two stage planetary reduction systems completely enclosed. Oil-tight gear case lubricates gears and bearings during drum rotation. Power controlled load lowering is standard.

One variable displacement axial piston pump powers individual reversible motors on each drum.

BOOM HOIST

Two stage planetary reduction system within drum. Automatic lock pawl provided as safety feature. Power controlled load lowering is standard.

The reversible motor, on the drum, is powered by a variable displacement axial piston pump.

SWING

Reversible motor drive through a four-stage reduction system with anti-friction bearings. Oil-tight gear case. Gears and bearings have forced lubrication. The swing brake is mounted on the gear reducer input shaft.

SWING BEARING

A forged alloy steel ball bearing, with the ball races hardened and ground. Gear teeth integral part of outer race.

BRAKES

The drum brakes are external band-type with single point adjustment, spring set and hydraulically released.

The swing brake is disc type, spring set and hydraulically released.

CAB

The cab is heavy gage steel, rubber cushion mounted, and extends forward of the frame to give the operator excellent visibility in all directions. The full height, self latching, hinged door swings to the rear. Cab interior includes adjustable seat and full instrument panel with controls positioned for ease of operation.

BOOM

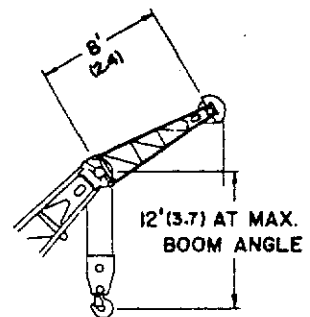
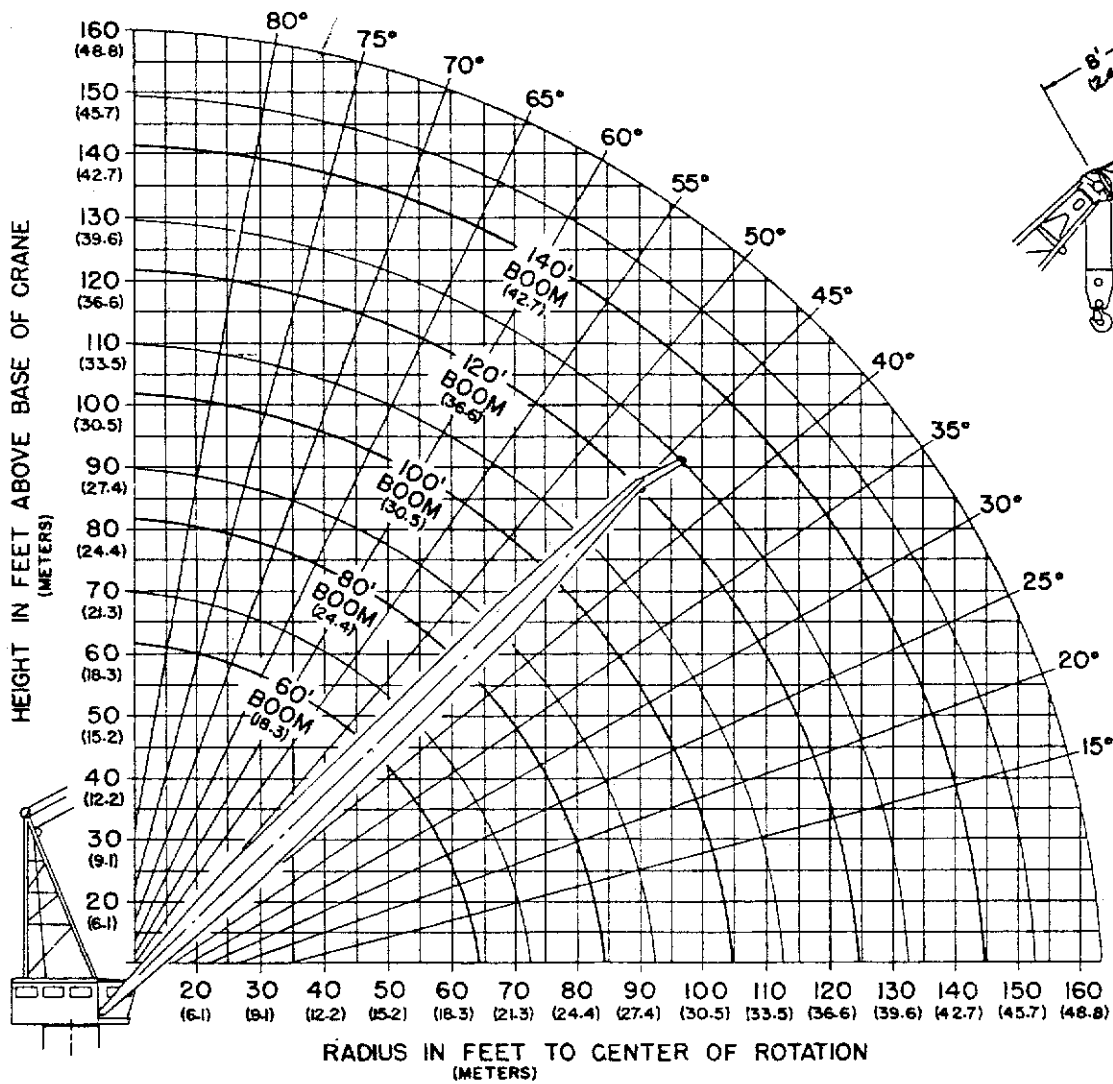
A 60-foot lattice type, tubular steel boom incorporating high strength low alloy steels with an eight foot offset sheave extension is standard. The open throat boom point has five sheaves, with one sheave in the offset extension. All sheaves roller bearing mounted. The wide boom foot spread allows for the list conditions that are present in offshore applications.

GANTRY

The high gantry arrangement affords greater capacity at shallow boom angles.

Manufacturer reserves the right to change specifications and/or design without notice.

RANGE DIAGRAM



HOIST DRUMS

DRUM	WIRE ROPE DIA in (mm)	DRUM PITCH DIA in (mm)	LAYER- OF ROPE	LINE SPEED				ROPE CAPACITY ft (m)
				LOW SPEED		HIGH SPEED		
				ft/min	(m/min)	ft/min	(m/min)	
Main Hoist	7/8 (22.2)	19.9 (505)	1st	218	(66)	264	(80)	210 (64)
		22.9 (582)	3rd	252	(77)	305	(93)	670 (204)
		30.4 (772)	8th	334	(102)	405	(123)	2 100 (640)
Whip Line Hoist	1 (25.4)	20.0 (508)	1st	220	(67)	266	(81)	180 (55)
		23.5 (597)	3rd	258	(79)	312	(95)	590 (180)
		32.1 (815)	8th	352	(107)	426	(130)	1 600 (488)
Boom Hoist	1 (25.4)	20.0 (508)	1st	240	(73)	—		83 (25)
		23.5 (597)	3rd	282	(86)	—		272 (83)
		32.1 (815)	6th	385	(117)	—		600 (224)

MAIN HOIST

PARTS OF LINE	MAXIMUM RATED HOOK LOAD				**HOOK SPEED				MAX HOOK TRAVEL ft (m)
	*LOW SPEED		HIGH SPEED		LOW SPEED		HIGH SPEED		
	lbs	(kg)	lbs	(kg)	ft/min	(m/min)	ft/min	(m/min)	
1	15 000	(6 800)	12 000	(5 400)	252	(77)	305	(93)	2 090 (637)
2	37 000	(16 750)	25 500	(11 550)	126	(38)	152	(46)	1 045 (319)
3	55 400	(25 100)	38 500	(17 450)	84	(26)	102	(31)	695 (212)
4	73 300	(33 250)	51 100	(23 150)	63	(19)	76	(23)	520 (159)
5	91 000	(41 250)	63 500	(28 800)	50	(15)	60	(18)	415 (127)
6	108 200	(49 050)	75 700	(34 300)	42	(13)	50	(15)	350 (107)
7	124 600	(56 500)	86 700	(39 200)	36	(11)	43	(13)	300 (91)
8	141 500	(64 150)	98 300	(44 550)	31	(10)	37	(11)	260 (80)
9	157 900	(71 600)	109 800	(49 800)	28	(9)	34	(10)	230 (70)
10	174 000	(78 900)	121 200	(54 900)	25	(8)	30	(9)	210 (64)

*Based on 7/8" 6x26 EIPS IWRC Cable (Breaking Strength: 79 600 lbs (36 100 kg)) and ABS Factors of Safety

**Based on 3rd Layer

WHIP LINE HOIST

Breaking Strength	84 400 lb (38 250 kg)
Max. Hook Load (Low Speed)*	15 600 lb (7 050 kg)
Max. Hook Load (High Speed)	12 700 lb (5 750 kg)
Hook Speed (Low)**	258 ft/min (79 m/min)
Hook Speed (High)**	312 ft/min (95 m/min)
Whip Line Drum Capacity	1600 ft (488 m)

*Based on 1" 19x7 EIPS Non-Rotating Cable and ABS Factors of Safety

**Based on 3rd Layer

BOOM HOIST

HOIST CABLE	PENDANT LINE
1" 6x26 EIPS Cable 10 Parts Reeving	Two - 2 1/4" 6x19 EIPS Cables
Breaking Strength 103 400 lb (46 900 kg)	Breaking Strength Each 494 000 lb (224 050 kg)

SWING SPEED

2.7 RPM

POWER

MAKE MODEL TYPE	CAT D343A-TA Diesel	GM 12V-71 Diesel
CYLINDERS	6	12
BORE X STROKE, in	5.4 x 6.5	4 1/4 x 5
DISPLACEMENT, cu in	893	852
ENGINE SPEED	1800 RPM HIGH IDLE	1800 RPM HIGH IDLE
FUEL TANK CAPACITY	130 Gals (492 liters)	130 Gals (492 liters)
CRANKCASE CAPACITY	11 1/2 Gals (44 liters)	8 1/2 Gals (32 liters)
COOLING SYSTEM CAPACITY	20 1/2 Gals (78 liters)	31 1/2 Gals (119 liters)
STARTING	24V DC or Air	24V DC or Air

RATED MAIN HOIST HOOK LOAD* (ABS)						
RADIUS ft (m)	80 ft (24.4 m) BOOM		100 ft (30.5 m) BOOM		120 ft (36.6 m) BOOM	
	BOOM ANGLE	LOAD UP TO 3° LIST lb (kg)	BOOM ANGLE	LOAD UP TO 3° LIST lb (kg)	BOOM ANGLE	LOAD UP TO 3° LIST lb (kg)
20 (6.1)	79°	168 500 (76 400)				
25 (7.6)	75°	156 000 (70 750)	78°	139 500 (63 250)		
30 (9.1)	72°	146 300 (66 350)	75°	129 000 (58 500)	78°	115 900 (52 550)
35 (10.7)	68°	138 800 (62 950)	73°	121 100 (54 900)	76°	107 300 (48 650)
40 (12.2)	64°	125 800 (57 050)	69°	114 500 (51 900)	73°	101 700 (46 100)
45 (13.7)	60°	110 700 (50 200)	66°	108 700 (49 300)	71°	96 000 (43 500)
50 (15.2)	56°	99 600 (45 150)	63°	97 700 (44 300)	68°	91 200 (41 350)
55 (16.8)	51°	89 800 (40 700)	60°	87 900 (39 850)	65°	85 800 (38 900)
60 (18.3)	46°	81 400 (36 900)	57°	79 500 (36 050)	63°	77 500 (35 150)
65 (19.8)	41°	74 300 (33 700)	53°	72 800 (33 000)	60°	70 700 (32 050)
70 (21.3)	36°	68 500 (31 050)	49°	66 700 (30 250)	57°	64 700 (29 300)
75 (22.9)	29°	63 200 (28 650)	45°	61 400 (27 850)	54°	59 400 (26 900)
80 (24.4)	20°	57 600 (26 100)	41°	56 800 (25 750)	51°	55 100 (24 950)
85 (25.9)			37°	53 100 (24 050)	48°	51 100 (23 150)
90 (27.4)			32°	49 400 (22 400)	45°	47 500 (21 500)
95 (29.0)			26°	45 700 (20 700)	41°	44 200 (20 000)
100 (30.5)			18°	39 400 (17 850)	38°	41 300 (18 700)
105 (32.0)					33°	38 700 (17 550)
110 (33.5)					29°	34 900 (15 800)
115 (35.0)					23°	30 400 (13 750)
120 (36.6)					16°	25 900 (11 700)

*Rated Load is Weight of Load to be Lifted. Do not Subtract Weight of Hoisting Tackle.

RATED WHIP LINE LOAD* (ABS)	
LOW SPEED	15 600 LB (7 050 kg)
HIGH SPEED	12 700 LB (5 750 kg)

*Rated Whip Line Load is Weight of Load to be Lifted. Do not Subtract Weight of Tackle.

2. CONCRETE WORK DETAILS

DRAWING TITLE	E.A.N DRAWING No
- CENTRAL SHAFT AND TUNNELS	FF 91 36 35 - 1050
2.1. - RADIAL BEAM 1 LEVEL + 107 m - RADIAL BEAM 2 LEVEL + 107 m - RADIAL BEAM 3 LEVEL + 107 m - RADIAL BEAM 4 LEVEL + 107 m - RADIAL BEAM 5 LEVEL + 107 m - RADIAL BEAM 6 LEVEL + 107 m - RADIAL BEAM 1 LEVEL + 68 m - RADIAL BEAM 2 LEVEL + 68 m - RADIAL BEAM 3 LEVEL + 68 m - RADIAL BEAM 4 LEVEL + 68 m - RADIAL BEAM 5 LEVEL + 68 m - RADIAL BEAM 6 LEVEL + 68 m	FF 91 36 35 - 1051 FF 91 36 35 - 1052 FF 91 36 35 - 1053 FF 91 36 35 - 1054 FF 91 36 35 - 1055 FF 91 36 35 - 1056 FF 91 36 35 - 1057 FF 91 36 35 - 1058 FF 91 36 35 - 1059 FF 91 36 35 - 1060 FF 91 36 35 - 1061 FF 91 36 35 - 1062
2.2. - INTERIOR DIAPHRAGM ID 13 VIEW FROM CELL A - INTERIOR DIAPHRAGM ID 13 VIEW FROM CELL F - INTERIOR DIAPHRAGM ID 23 - INTERIOR DIAPHRAGM ID 33 VIEW FROM CELL B - INTERIOR DIAPHRAGM ID 33 VIEW FROM CELL C - INTERIOR DIAPHRAGM ID 43 VIEW FROM CELL C - INTERIOR DIAPHRAGM ID 43 VIEW FROM CELL D - INTERIOR DIAPHRAGM ID 53 VIEW FROM CELL D - INTERIOR DIAPHRAGM ID 53 VIEW FROM CELL E - INTERIOR DIAPHRAGM ID 63	FF 91 36 35 - 1063 FF 91 36 35 - 1064 FF 91 36 35 - 1065 FF 91 36 35 - 1066 FF 91 36 35 - 1067 FF 91 36 35 - 1068 FF 91 36 35 - 1069 FF 91 36 34 - 1070 FF 91 36 35 - 1071 FF 91 36 35 - 1072
2.3. - LOBED WALL AND BREAKWATER WALL	FF 91 36 35 - 1073
2.4. - EXTERIOR DIAPHRAGM ED 14 - EXTERIOR DIAPHRAGM ED 24 - EXTERIOR DIAPHRAGM ED 34 - EXTERIOR DIAPHRAGM ED 44 - EXTERIOR DIAPHRAGM ED 54 - EXTERIOR DIAPHRAGM ED 64 - EXTERIOR DIAPHRAGM ED 15	FF 91 36 35 - 1074 FF 91 36 35 - 1075 FF 91 36 35 - 1076 FF 91 36 35 - 1077 FF 91 36 35 - 1078 FF 91 36 35 - 1079 FF 91 36 35 - 1080

2. CONCRETE WORK DETAILS

DRAWING TITLE

E.A.N DRAWING No

- EXTERIOR DIAPHRAGM ED 25
- EXTERIOR DIAPHRAGM ED 35
- EXTERIOR DIAPHRAGM ED 45
- EXTERIOR DIAPHRAGM ED 55
- EXTERIOR DIAPHRAGM ED 65

FF 91 36 35 - 1081
 FF 91 36 35 - 1082
 FF 91 36 35 - 1083
 FF 91 36 35 - 1084
 FF 91 36 35 - 1085

RESERVED

FF 91 36 35 - 1086

RESERVED

FF 91 36 35 - 1087

RESERVED

FF 91 36 35 - 1088

RESERVED

FF 91 36 35 - 1089

- 2.5. - PERFORATED WALL PW A 7
- PERFORATED WALL PW B 7
 - PERFORATED WALL PW C 7
 - PERFORATED WALL PW D 7
 - PERFORATED WALL PW E 7
 - PERFORATED WALL PW F 7

FF 91 36 35 - 1090
 FF 91 36 35 - 1091
 FF 91 36 35 - 1092
 FF 91 36 35 - 1093
 FF 91 36 35 - 1094
 FF 91 36 35 - 1095

- EXTERIOR WALL EW A 6
- EXTERIOR WALL EW B 6
- EXTERIOR WALL EW C 6
- EXTERIOR WALL EW D 6
- EXTERIOR WALL EW E 6
- EXTERIOR WALL EW F 6

FF 91 36 35 - 1096
 FF 91 36 35 - 1097
 FF 91 36 35 - 1098
 FF 91 36 35 - 1099
 FF 91 36 35 - 1100
 FF 91 36 35 - 1101

- 2.7. - PERFORATED WALL PW 17
- PERFORATED WALL PW 27
 - PERFORATED WALL PW 37
 - PERFORATED WALL PW 47
 - PERFORATED WALL PW 57
 - PERFORATED WALL PW 67

FF 91 36 35 - 1102
 FF 91 36 35 - 1103
 FF 91 36 35 - 1104
 FF 91 36 35 - 1105
 FF 91 36 35 - 1106
 FF 91 36 35 - 1107

2. CONCRETE WORK DETAILS

DRAWING TITLE	E.A.N DRAWING No
2.8. - EXTERIOR WALL EW 16 - EXTERIOR WALL EW 26 - EXTERIOR WALL EW 36 - EXTERIOR WALL EW 46 - EXTERIOR WALL EW 56 - EXTERIOR WALL EW 66	FF 91 36 35 - 1108 FF 91 36 35 - 1109 FF 91 36 35 - 1110 FF 91 36 35 - 1111 FF 91 36 35 - 1112 FF 91 36 35 - 1113
2.9. - OUTSIDE TUNNEL A SECTIONS - OUTSIDE TUNNEL B SECTIONS - OUTSIDE TUNNEL E SECTIONS - OUTSIDE TUNNEL F SECTIONS	FF 91 36 35 - 1114 FF 91 36 35 - 1115 FF 91 36 35 - 1116 FF 91 36 35 - 1117
2.10. - SECTION THROUGH TUNNEL C - SECTION THROUGH TUNNEL D	FF 91 36 35 - 1118 FF 91 36 35 - 1119
2.11. - LOBED WALL LW A 5 EXTERIOR VIEW - LOBED WALL LW B 5 EXTERIOR VIEW - LOBED WALL LW C 5 EXTERIOR VIEW - LOBED WALL LW D 5 EXTERIOR VIEW - LOBED WALL LW E 5 EXTERIOR VIEW - LOBED WALL LW F 5 EXTERIOR VIEW - RESERVED - RESERVED - RESERVED - RESERVED	FF 91 36 35 - 1120 FF 91 36 35 - 1121 FF 91 36 35 - 1122 FF 91 36 35 - 1123 FF 91 36 35 - 1124 FF 91 36 35 - 1125 FF 91 36 35 - 1126 FF 91 36 35 - 1127 FF 91 36 35 - 1128 FF 91 36 35 - 1129

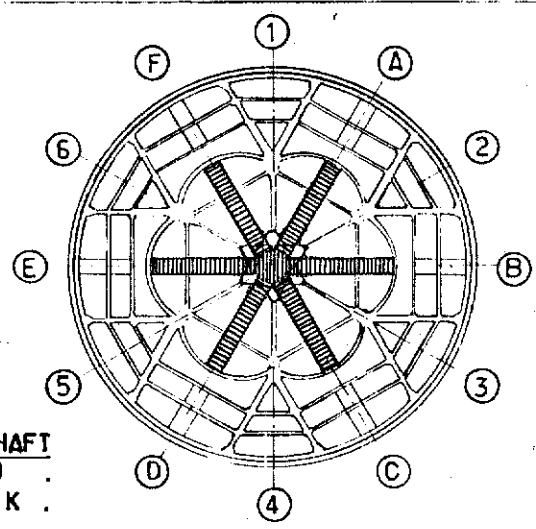
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(+126.60)

EL: +10.665 MLW
(+107.00)

EL: -28.335 MLW
(+68.00)

RADIAL BEAMS

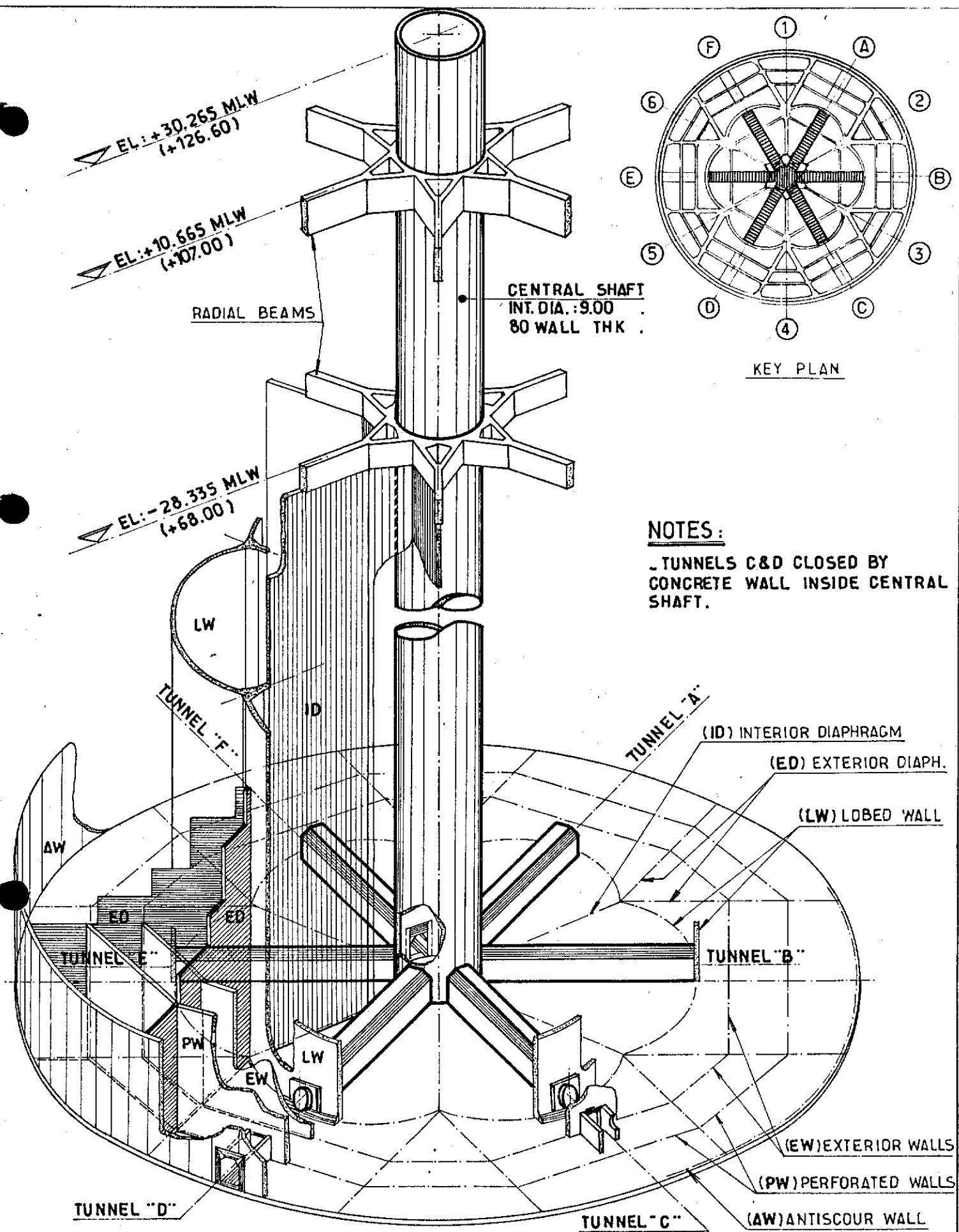
CENTRAL SHAFT
INT. DIA.: 9.00
80 WALL THK.



KEY PLAN

NOTES:

TUNNELS C&D CLOSED BY
CONCRETE WALL INSIDE CENTRAL
SHAFT.



						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation	System
								CDP 1	UNDERWATER	
1	10/83	UPDATED	mirr	ELC	Scale			CONCRETE WORK DETAIL		
Rev.	Date	DESCRIPTION	by	app.	-	CENTRAL SHAFT & TUNNELS				
Contractor JVD 1029_20_ 01							Dwgr. no.	FF 91_36_35_1050	Rev	Sheet
									1	/

Form 1029 112

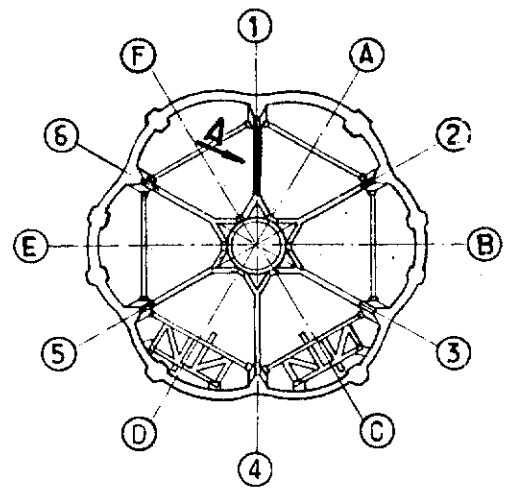
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

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						 elf	Job no.	Installation CDP 1	System UNDERWATER
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Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF 91.36.35-1050	Rev. 1
Contractor JVD.1029-01						4001 Stavanger	FRIGG FIELD		

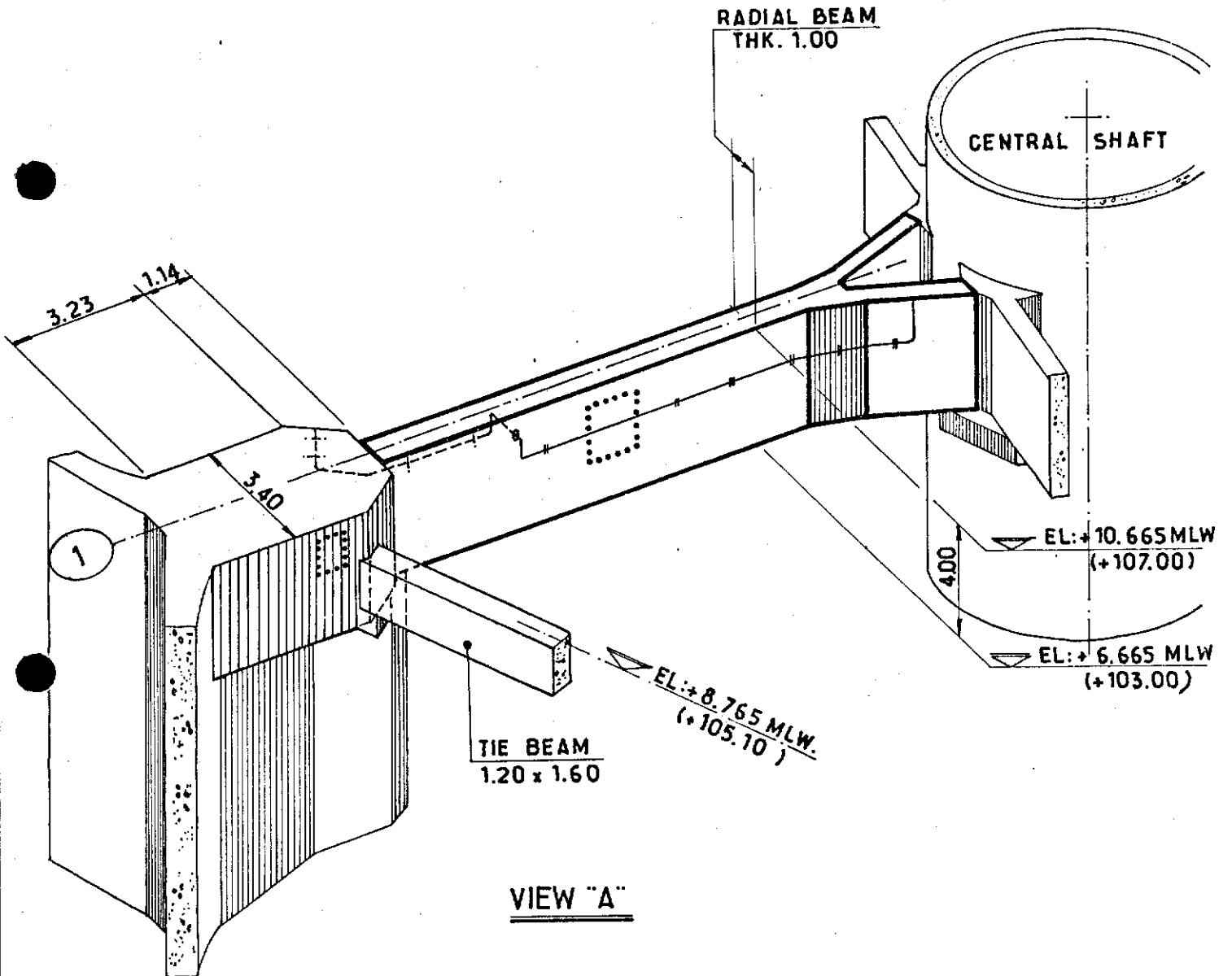
GRID NORTH
19° 37'
PLAT. NORTH



KEY PLAN

RADIAL BEAM
THK. 1.00

CENTRAL SHAFT



VIEW "A"

				elf aquitaine norge a/s p.o. box 168 4001 Stavanger		elf		Job no.	Installation CDP 1	System UNDERWATER
1	10/83	UPDATED	mira	JLL				Scale	CONCRETE WORK RADIAL BEAM ①	LEVEL +107.00
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.	FF 91_36_35_1051	Rev. 1
Contractor JVD 1029		20_02		4001 Stavanger		FRIGG FIELD				Sheet

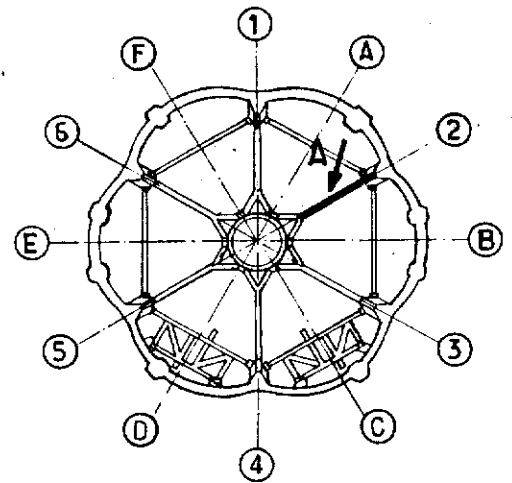
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REFERENCE DRAWING LIST FOR: CONCRETE WORK

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						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/89	UPDATED						Scale	CONCRETE WORK RADIAL BEAM ① - LEV. +07.00	
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev	Sheet
		Contractor JVD. 1029-20-02				FRIGG FIELD	FF 91-36-35-1051		1	/

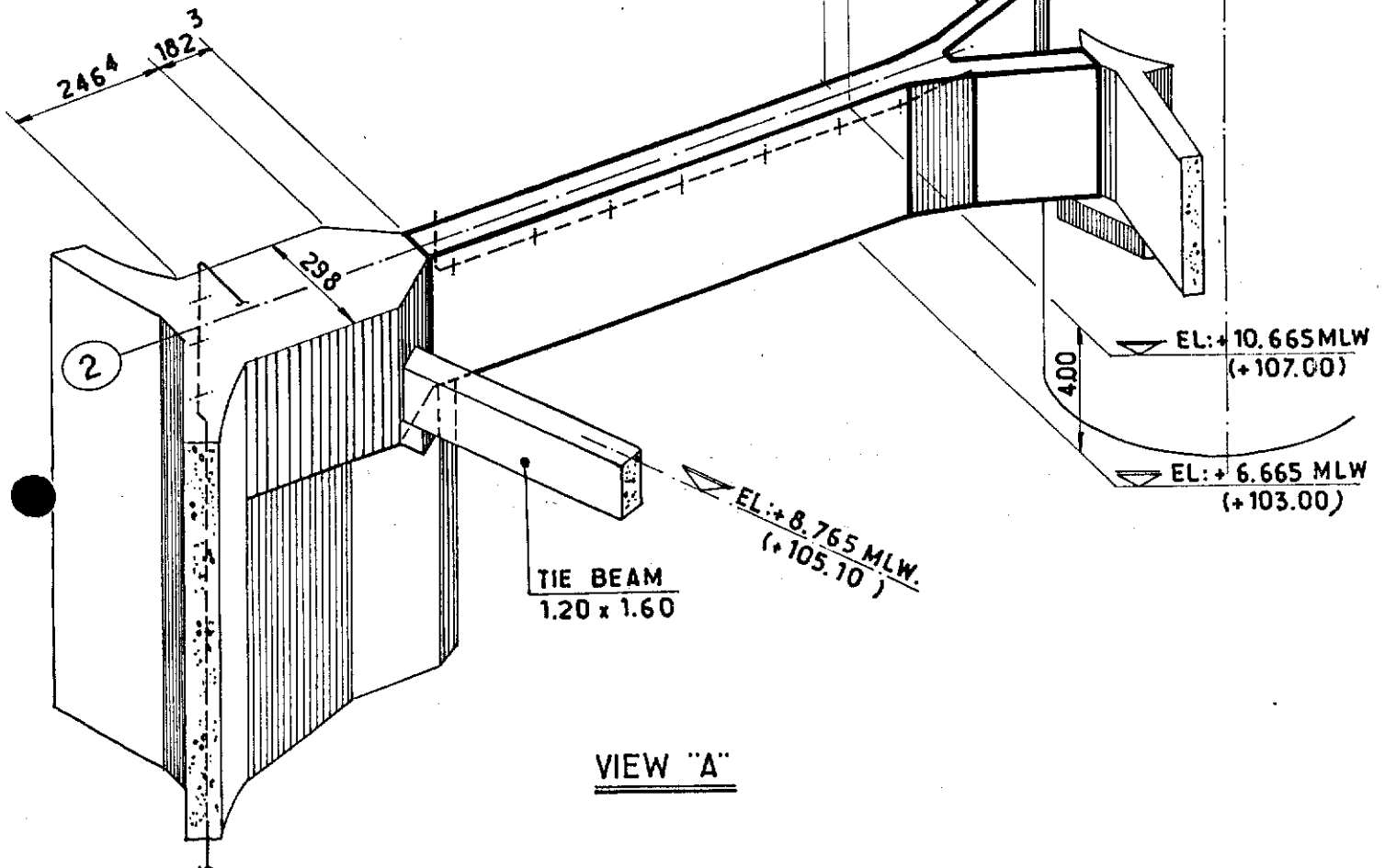
GRID NORTH
19° 37'
PLAT. NORTH



KEY PLAN

RADIAL BEAM
THK. 1.00

CENTRAL SHAFT



VIEW "A"

				elf aquitaine norge a/s p.o.box 168 4001 Stavanger		 elf FRIGG FIELD	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	UPDATED	mind JLC	Scale /	CONCRETE WORK RADIAL BEAM ② _ LEVEL+107.00				
Rev.	Date	DESCRIPTION	by	app.	Dwgr. no. FF		91_36_35_1052	Rev 1	Sheet /
Contractor JVD 1029 20_03									

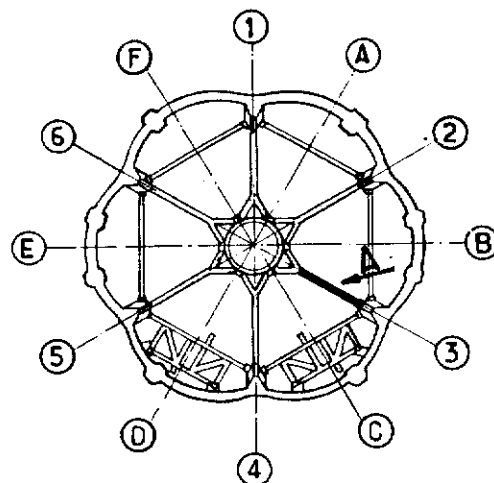
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

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elf aquitaine norge a/s p.o.box 168 4001 Stavanger					elf	Job no.	Installation CDP 1	System UNDERWATER		
1	6/89	UPDATED				Scale	CONCRETE WORK RADIAL BEAM ② - 15V. +17.00			
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no.	FF 91-36-35-1072		Rev	Sheet
Contractor JVD. 1029. 20-03									1	/

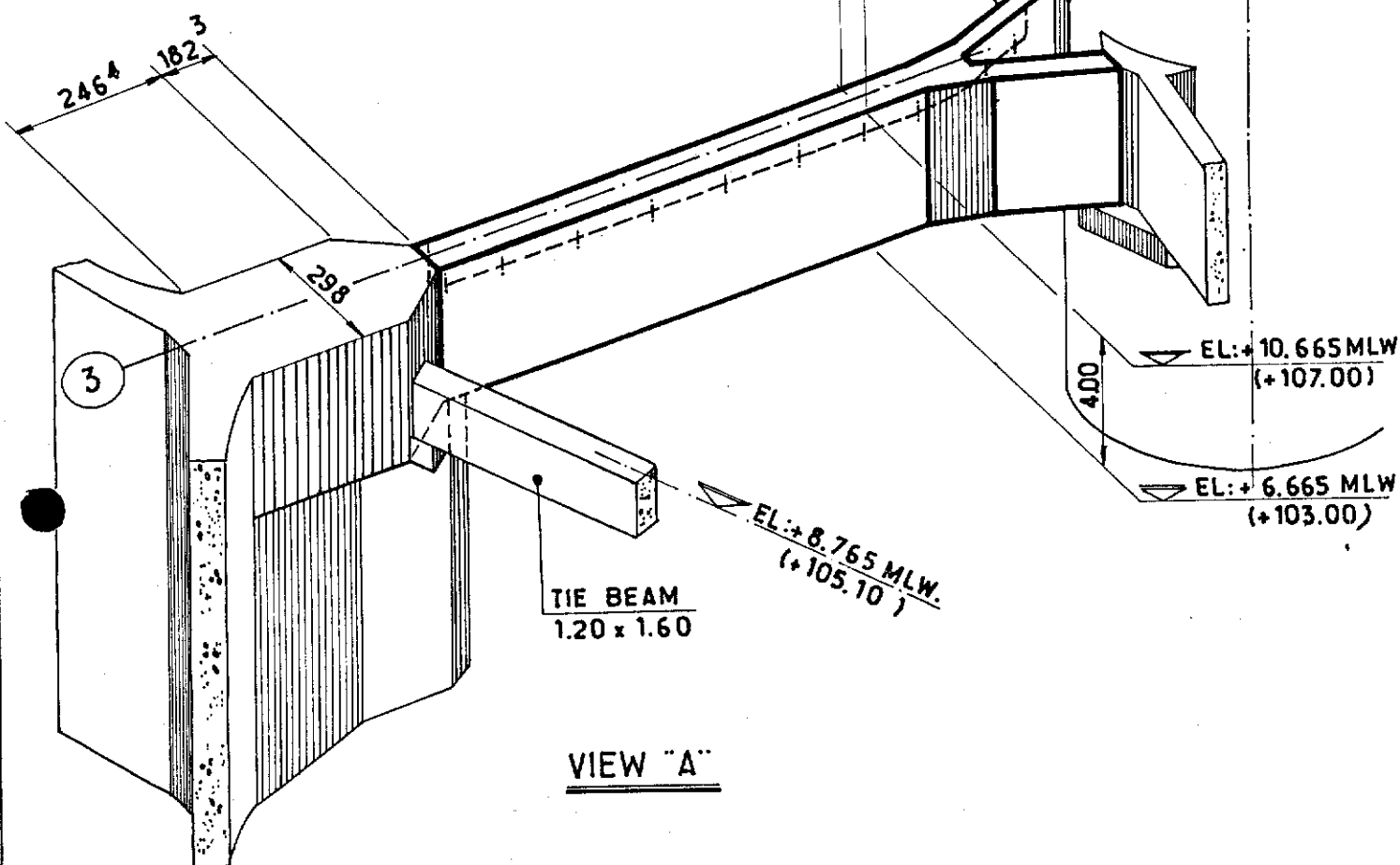
GRD NORTH
19°37'
PLAT. NORTH



KEY PLAN

RADIAL BEAM
THK. 1.00

CENTRAL SHAFT



VIEW "A"

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1	10/83	UPDATED	mir	JLL			Scale /	CONCRETE WORK RADIAL BEAM (3)	LEVEL +107.00
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no. FF	91_36_35_1053	Rev 1
Contractor JVD 1029 20_04					FRIGG FIELD				

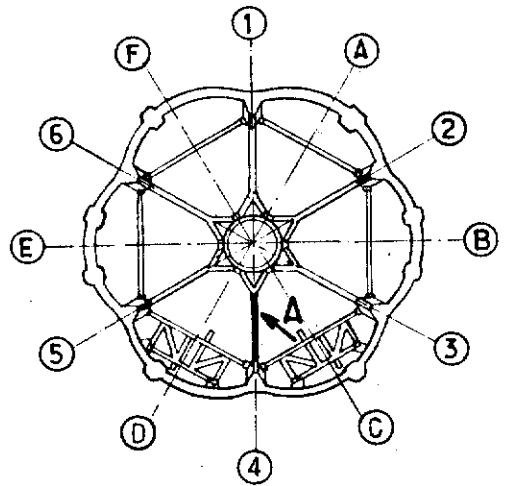
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1 10/89 UPDATED									Scale		CONCRETE WORK RADIAL BEAM ③ - LEV. +17.00						
Rev.		Date		DESCRIPTION		by		app.		Dwgr. no.		FF 91-36-35-1053		Rev 1		Sheet /	
Contractor JVD. 1029. 20-04										FRIGG FIELD							

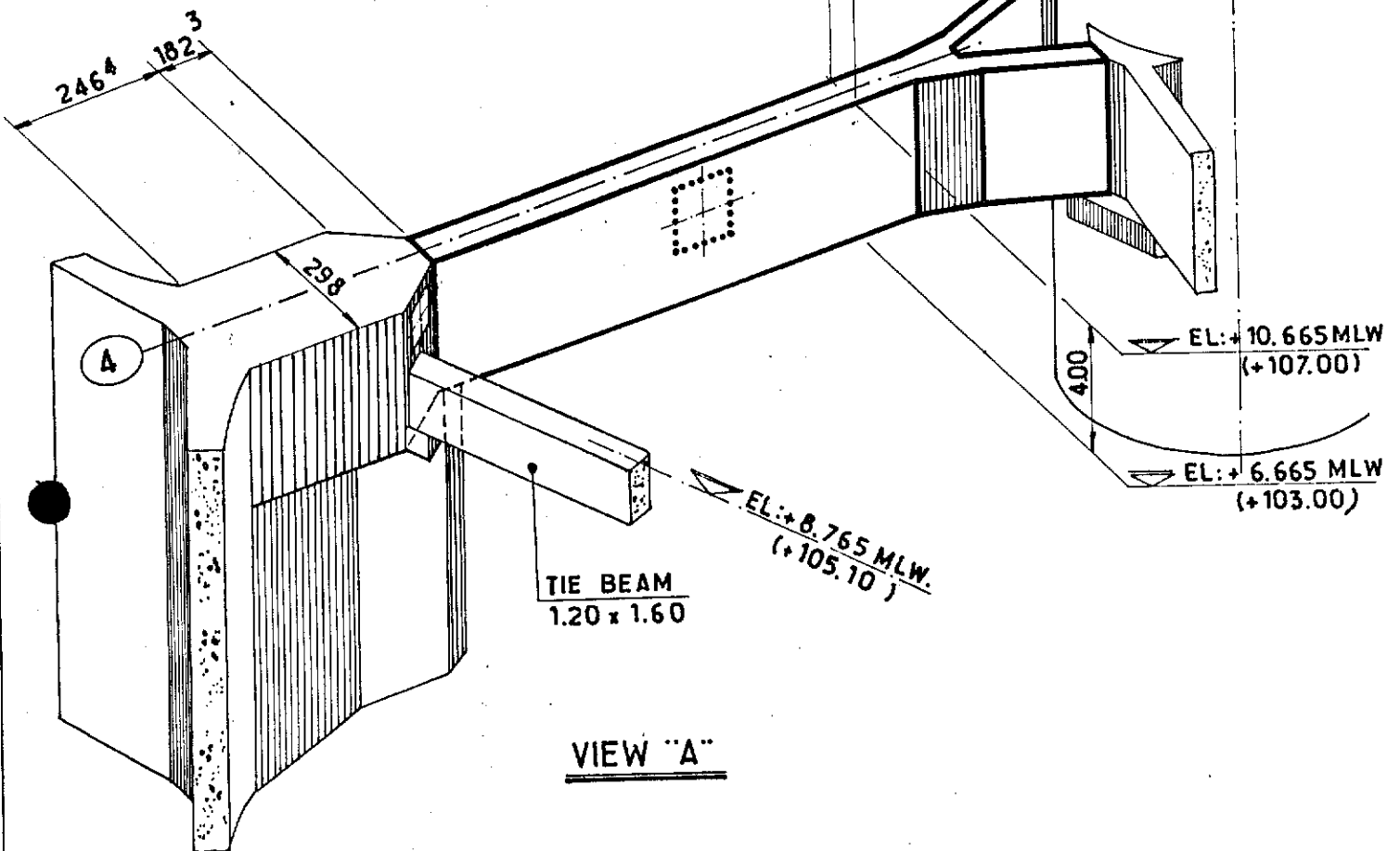
GRID NORTH
19° 37'
PLAT. NORTH



KEY PLAN

RADIAL BEAM
THK. 1.00

CENTRAL SHAFT



VIEW "A"

TIE BEAM
1.20 x 1.60

				elf aquitaine norge a/s		Job no.	Installation CDP 1	System UNDERWATER
1	10/83	UPDATED	mirr J/LC	p.o.box 168		Scale	CONCRETE WORK RADIAL BEAM ④	LEVEL +107.00
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no.	FF 91_36_35_1054	Rev. 1
Contractor JVD 1029 20_05				4001 Stavanger		FRIGG FIELD		Sheet

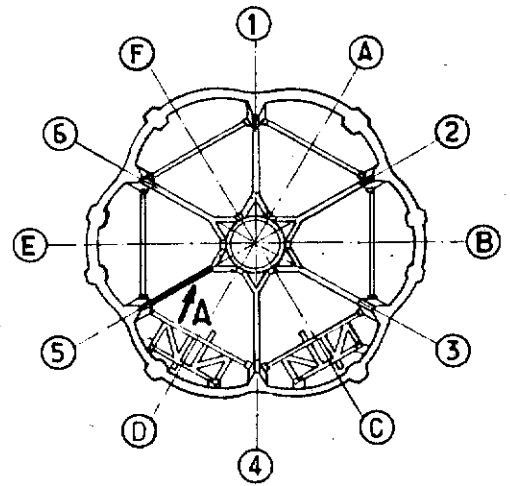
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

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elf aquitaine norge a/s p.o.box 168 4001 Stavanger  elf FRIGG FIELD					Job no.	Installation CDP 1	System UNDERWATER		
1 10/89 UPDATED					Scale	CONCRETE WORK RADIAL BEAM ④-LEV. +17.00			
Rev.	Date	DESCRIPTION	by	app.	Dwgr. no.	FF 91-36-35-1054		Rev	Sheet
Contractor JVD. 1029. 20-05							1		/

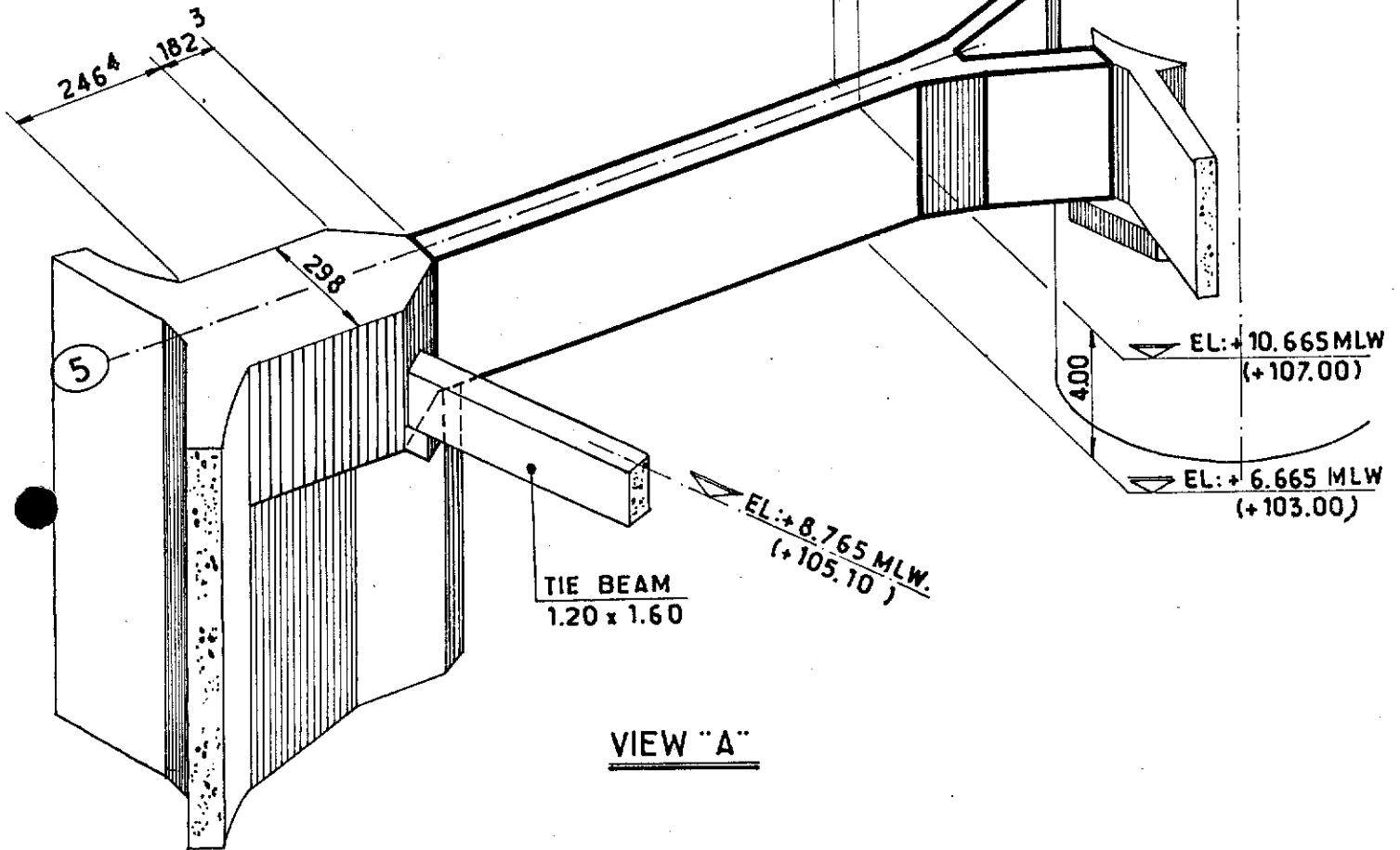
HURD NORTH
19° 37'
PLAT. NORTH



KEY PLAN

RADIAL BEAM
THK. 1.00

CENTRAL SHAFT



VIEW "A"

				elf aquitaine norge a/s		 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	UPDATED	mirro	FLC	p.o.box 168		Scale	CONCRETE WORK RADIAL BEAM ⑤	LEVEL +107.00
Rev.	Date	DESCRIPTION	by	app.	4001 Stavanger		Dwgr. no.	FF 91_36_35_1055	Rev. 1
Contractor JVD 1029 20_06				FRIGG FIELD					Sheet

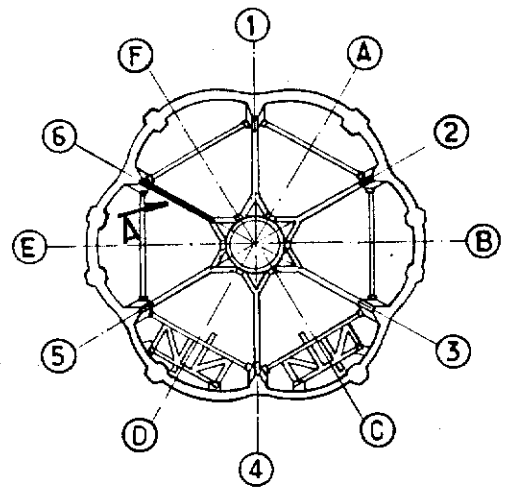
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

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1 10/89 UPDATED									Scale		CONCRETE WORK RADIAL BEAM ③ - 15V. + 07.00							
Rev.		Date		DESCRIPTION		by		app.		Dwgr. no.					Rev		Sheet	
Contractor JVD. 1029. 20-06					4001 Stavanger		FRIGG FIELD		FF		91-36-35-1055			1		/		

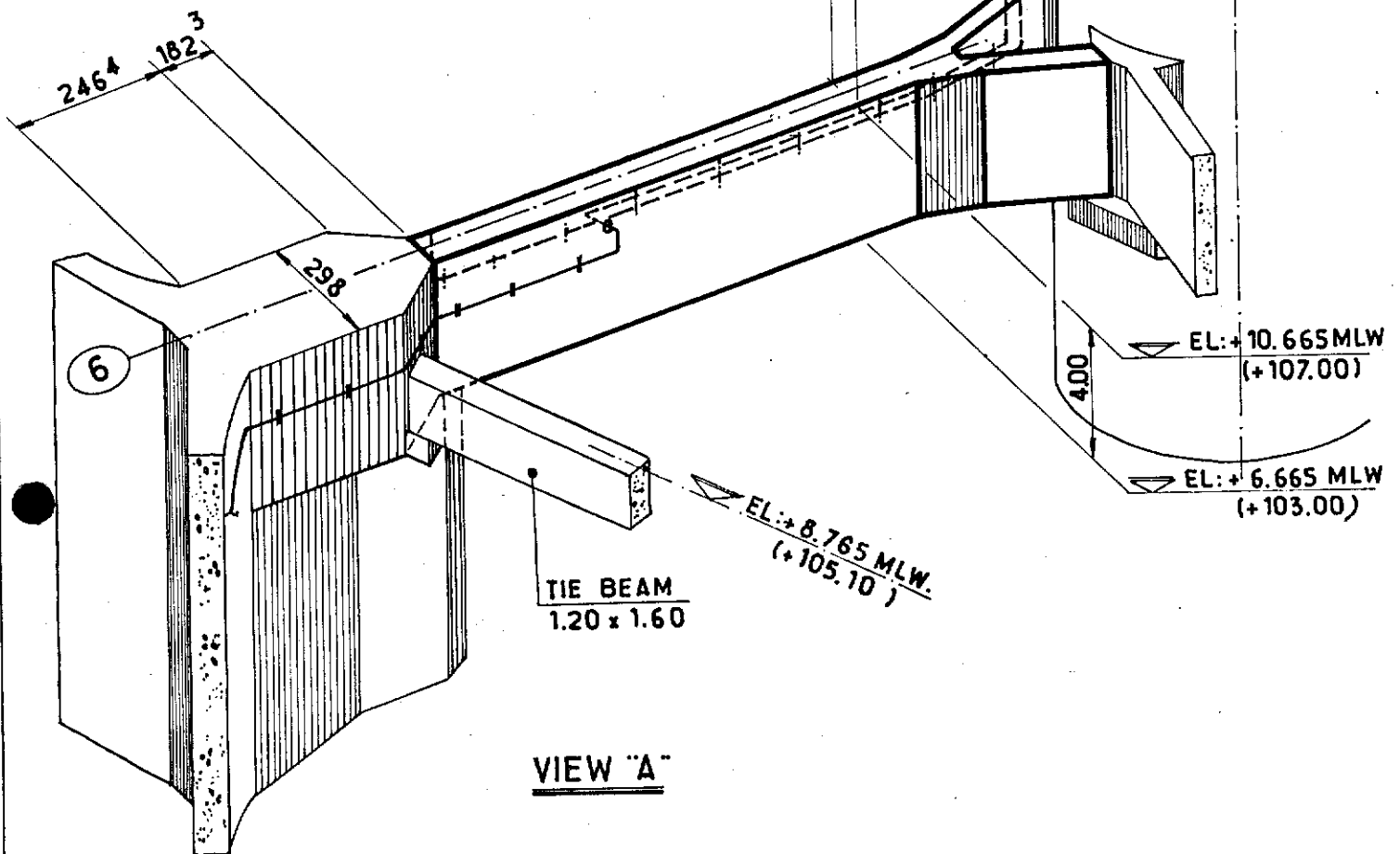
GRID NORTH
19° 37'
PLAT. NORTH



KEY PLAN

RADIAL BEAM
THK. 1.00

CENTRAL SHAFT



VIEW "A"

					elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER	
1	10/83	UPDATED	mirro	JLC			Scale /	CONCRETE WORK RADIAL BEAM ⑥ _ LEVEL +107.00		
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF 91_36_35_1056	Rev 1	Sheet /
Contractor JVD 1029 20_07						FRIGG FIELD				

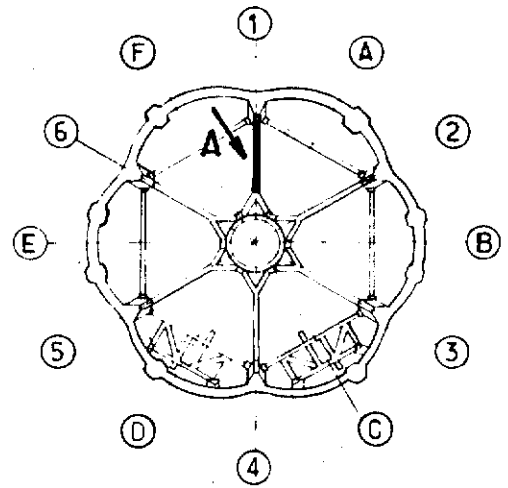
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

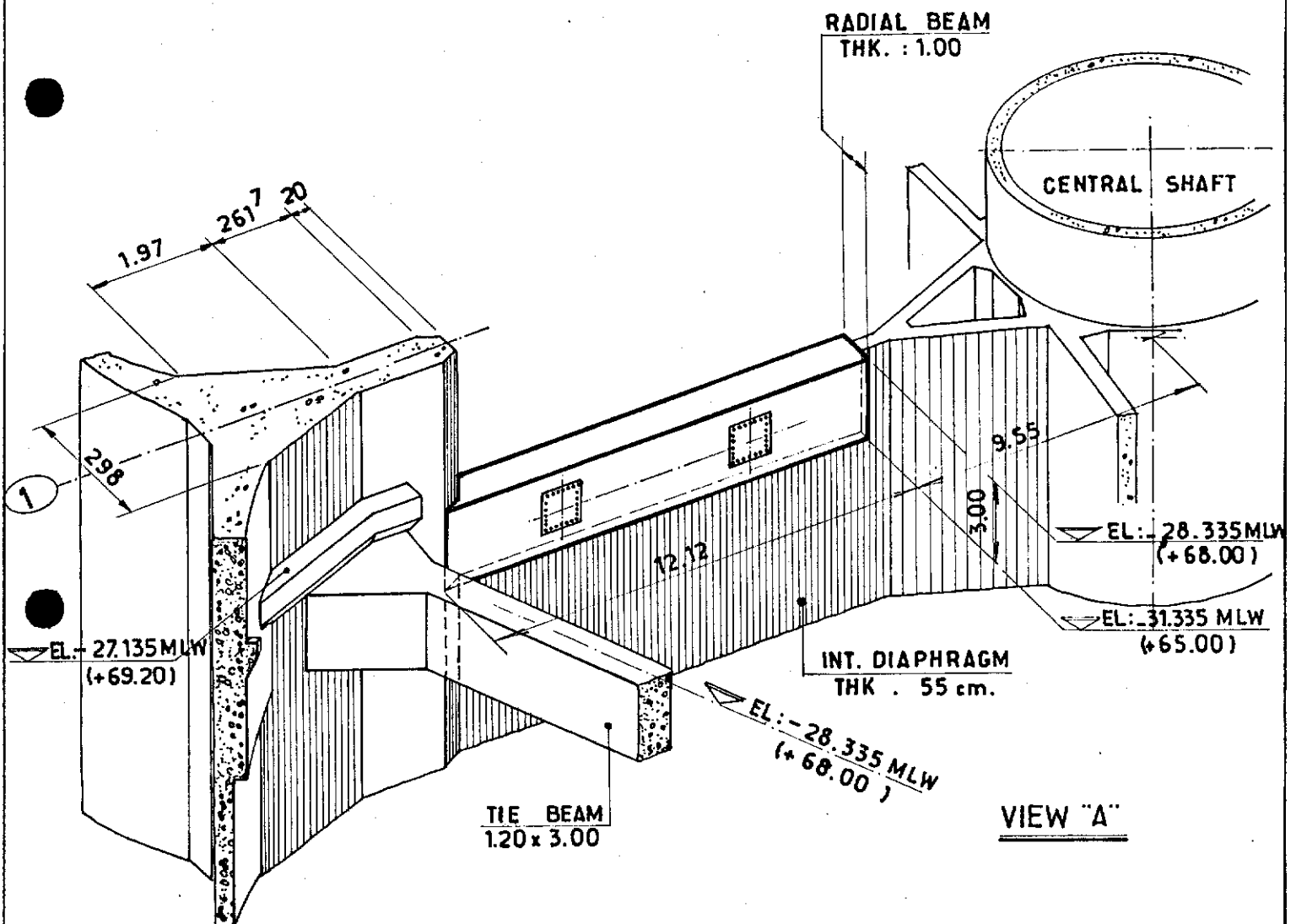
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 elf aquitaine norge a/s p.o.box 168 4001 Stavanger				 elf		Job no.		Installation CDP 1		System UNDERWATER			
1 10/89 UPDATED				Scale		CONCRETE WORK RADIAL BEAM ○ - lev. +17.00							
Rev. Date DESCRIPTION by app.				Dwgr. no.		FF 91-36-35-1056				Rev 1		Sheet /	
Contractor JVD. 1029. 20-07				FRIGG FIELD									

GRID NORTH
19° 37'
PLAT. NORTH



KEY PLAN



				elf aquitaine norge a/s		Job no.	Installation CDP 1	System UNDERWATER
1	10/83	UPDATED	mirre JLC	p.o.box 168		Scale	CONCRETE WORK RADIAL BEAM ①	LEV. +68.00
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no.	FF 91.36.35.1057	1
Contractor JVD 1029 20.08				4001 Stavanger		FRIGG FIELD		

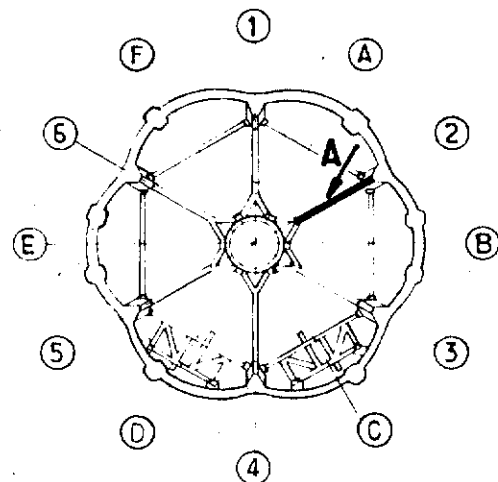
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

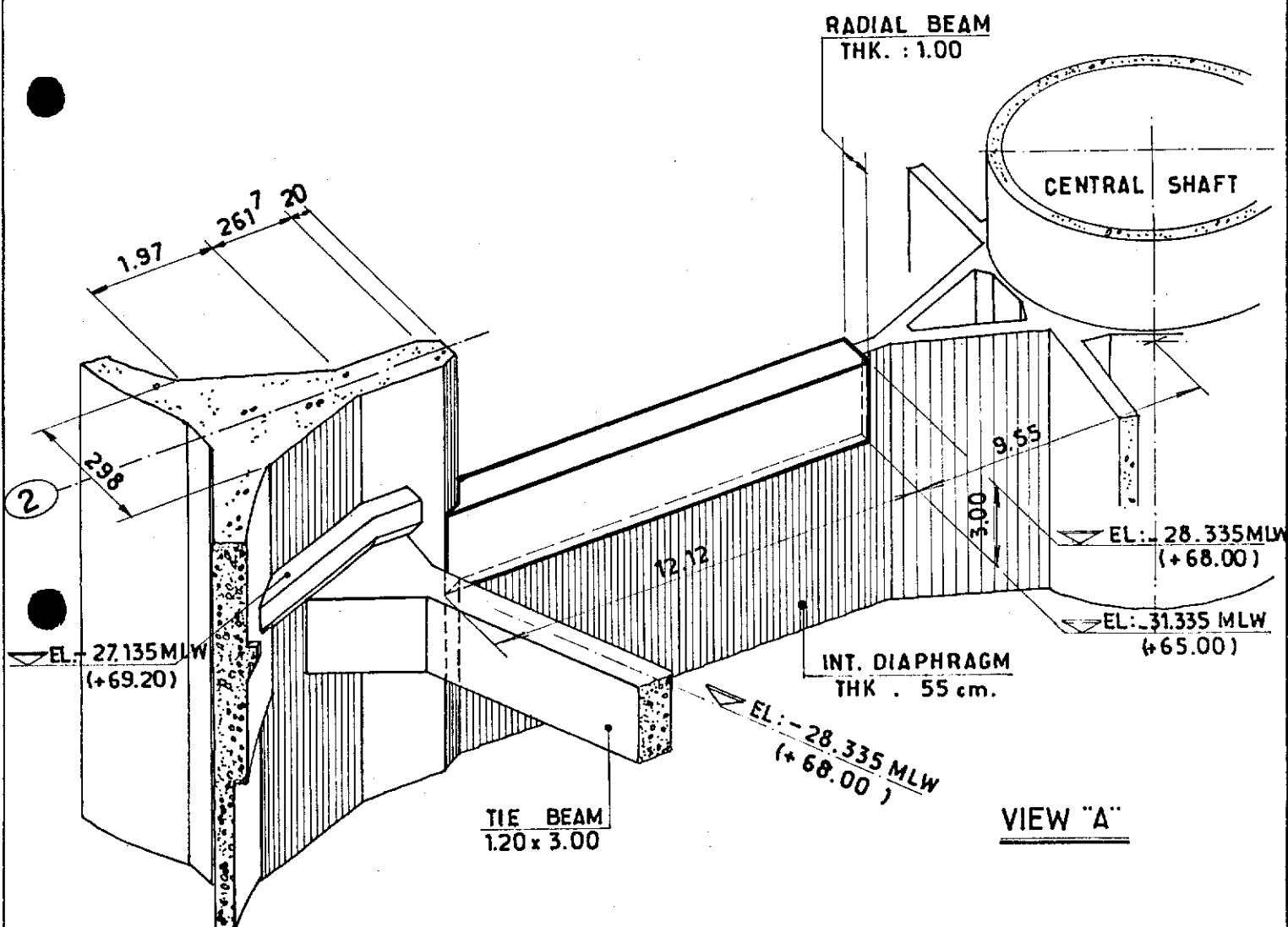
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						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf FRIGG FIELD	Job no.	Installation	System	
								CDP 1	UNDERWATER		
1	10/83	UPDATED						Scale	CONCRETE WORK RADIAL BEAM ① - LEV. +68.00		
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029-20-08								FF	91.36-35.1057	1	/

HITRON DIRG
19° 37'
PLAT. NORTH



KEY PLAN



VIEW "A"

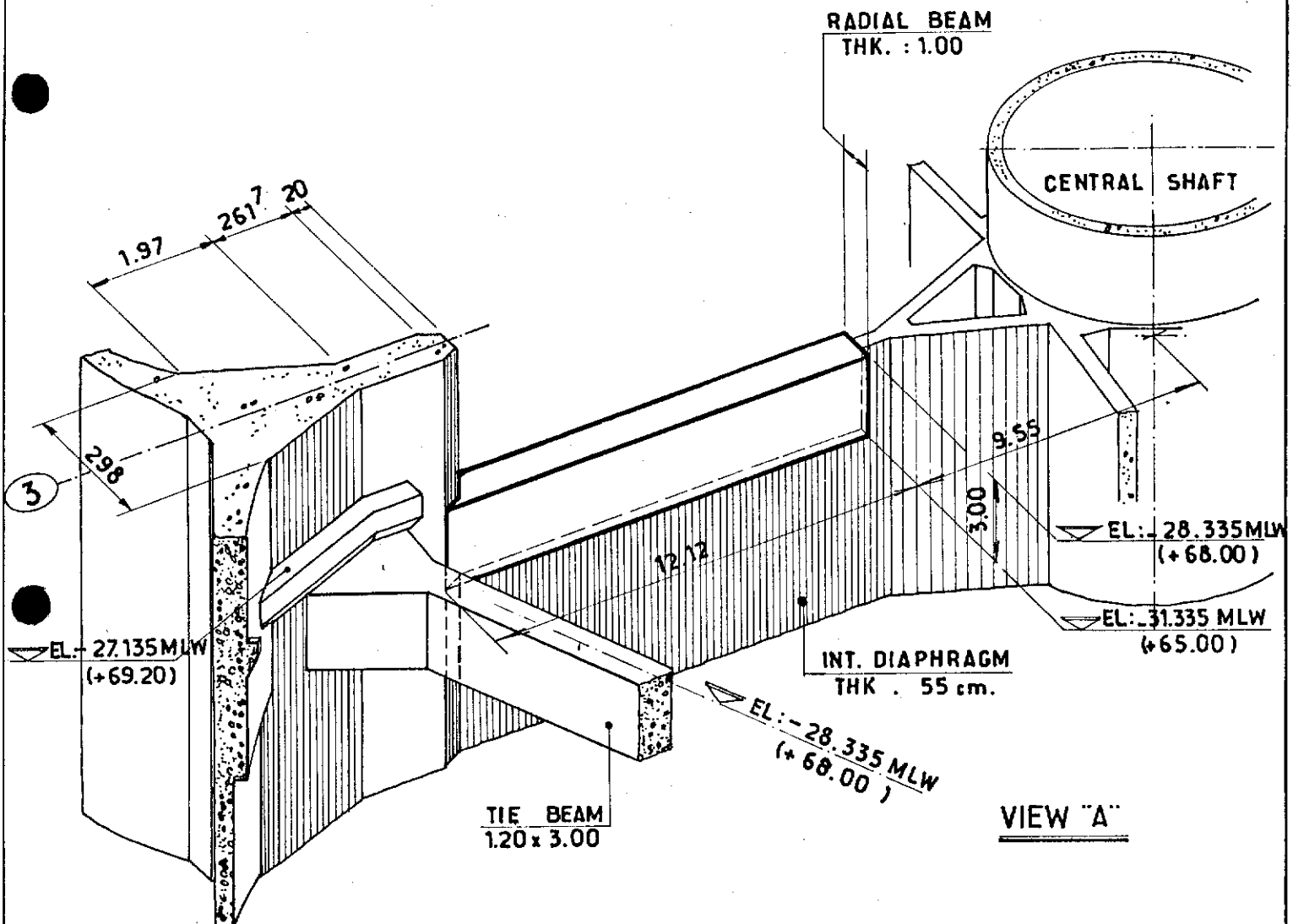
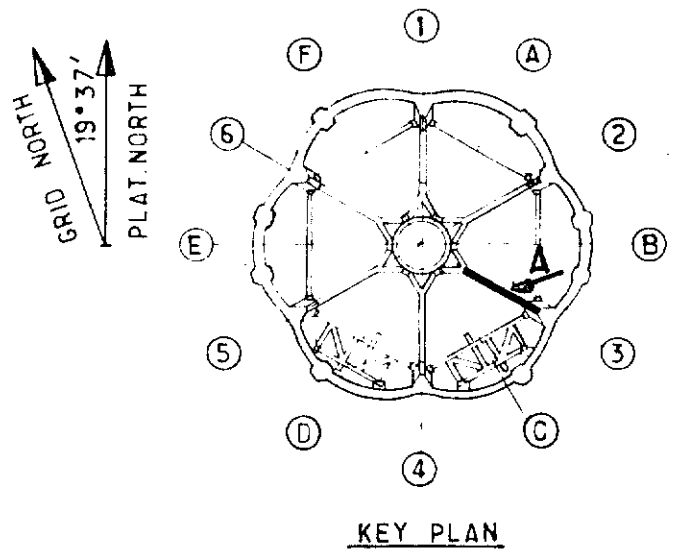
			elf aquitaine norge a/s		 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	UPDATED	micro	J.L.C.		Scale	CONCRETE WORK RADIAL BEAM ②	LEV. +68.00
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no.	FF 91.36.35.1058	
Contractor JVD 1029 20_09			4001 Stavanger		FRIGG FIELD			

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

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Rev.	Date	DESCRIPTION	by	app.			Scale	CONCRETE WORK RADIAL BEAM ② - LEV. +6800	
Contractor JVD. 1029-20-09						p.o.box 168 4001 Stavanger	Dwgr. no. FF 91-36-35-1058	Rev. 1	Sheet /



				elf aquitaine norge a/s		Job no.		Installation CDP 1		System UNDERWATER	
1	10/83	UPDATED	mirro JLC	p.o. box 168		Scale		CONCRETE WORK		LEV. +68.00	
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no.		RADIAL BEAM ③			
Contractor JVD 1029				20_10	4001 Stavanger	FRIGG FIELD		FF 91_36_35_1059		1	

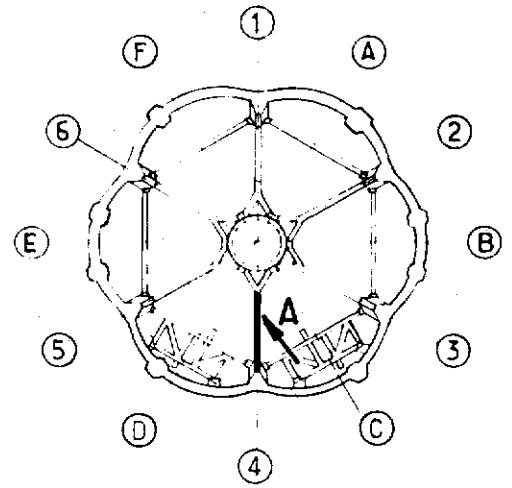
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

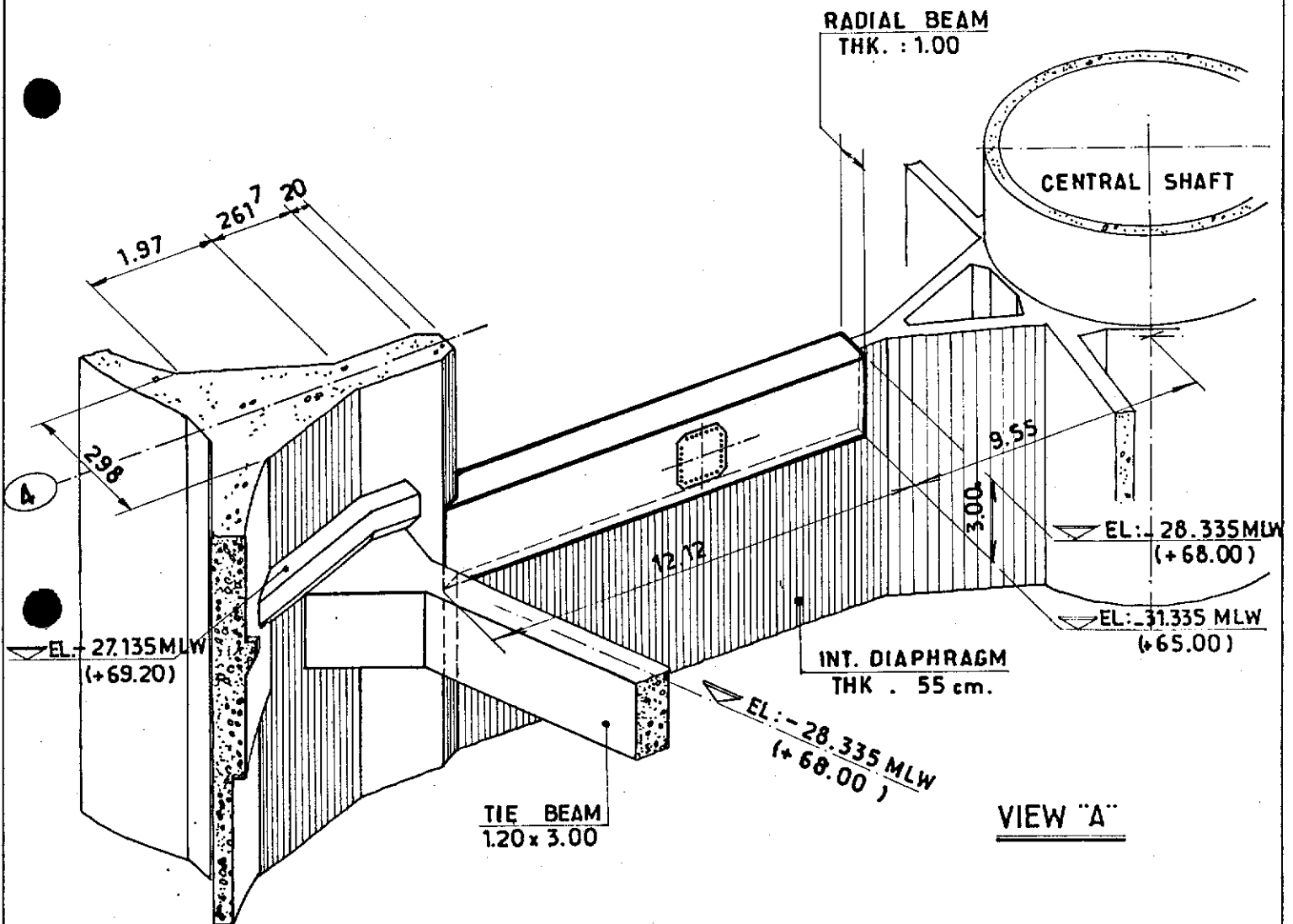
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						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER	
	1	10/83	UPDATED					Scale	CONCRETE WORK RADIAL BEAM ③ - LEV. +6800		
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.		Rev.	Sheet
								FF	91-36-35-1059	1	/
Contractor JVD. 1029-20-10						4001 Stavanger	FRIGG FIELD				

GRID NORTH
19° 37'
PLAT. NORTH



KEY PLAN



				elf aquitaine norge a/s		Job no.	Installation CDP 1	System UNDERWATER
1	UPDATED	micro	JAC	p.o. box 168		Scale	CONCRETE WORK RADIAL BEAM 4	LEV. +68.00
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no.	FF 91_36_35_1060	1
Contractor JVD 1029 20_11				4001 Stavanger		FRIGG FIELD		

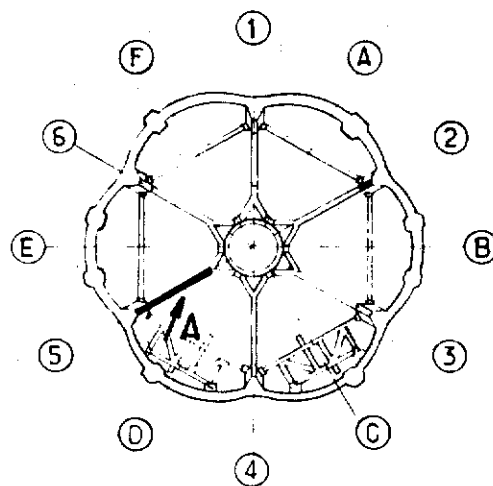
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

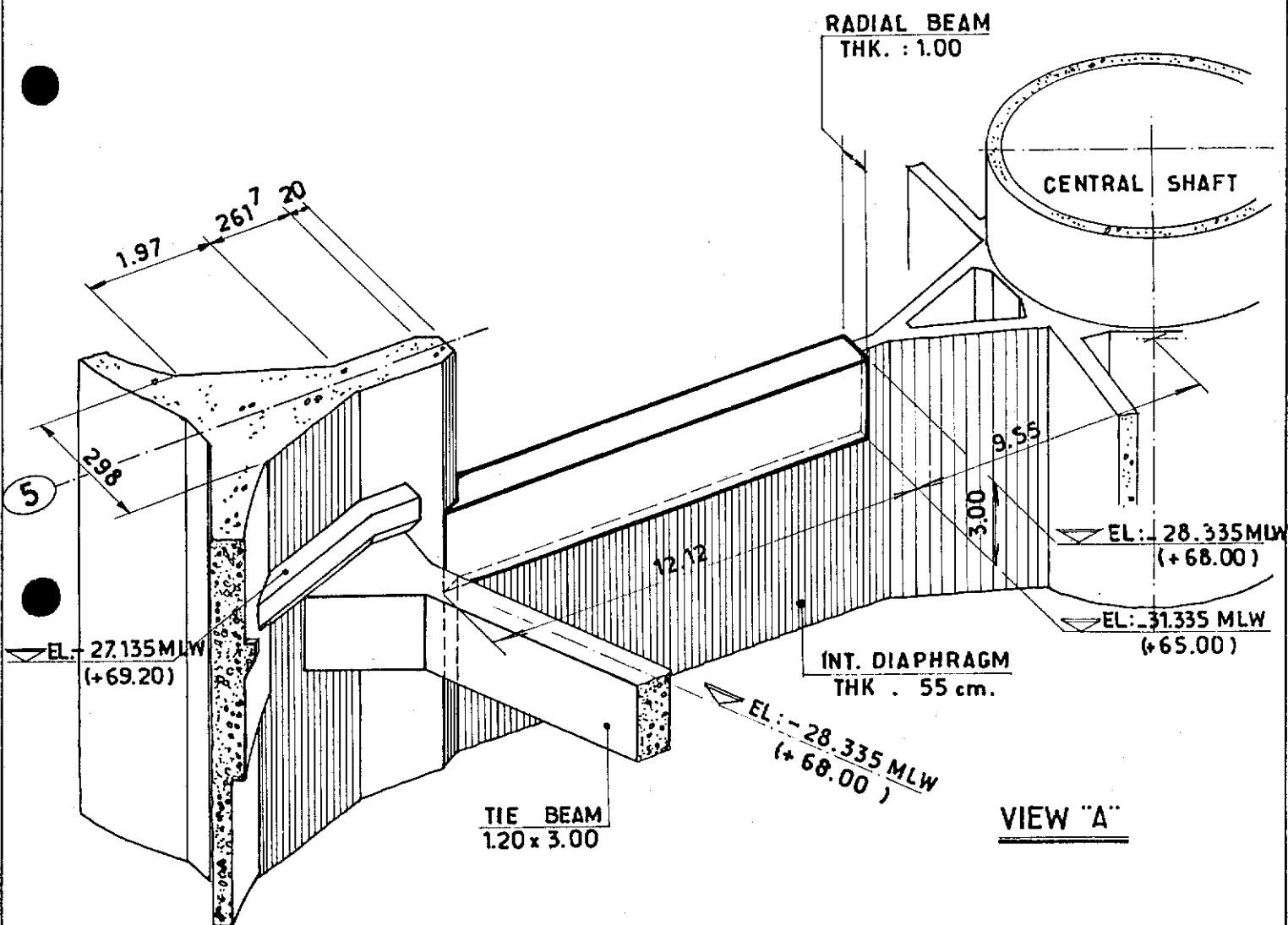
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					elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER	
	1	10/83	UPDATED					Scale	CONCRETE WORK RADIAL BEAM ④ - LEV. +6800	
	Rev.	Date	DESCRIPTION	by			app.	Dwgr. no.	FF 91-36-35-1060	Rev. 1
Contractor JVD-1029-20-11					4001 Stavanger	FRIGG FIELD				

GRID NORTH
19° 37'
PLAT. NORTH



KEY PLAN



VIEW "A"

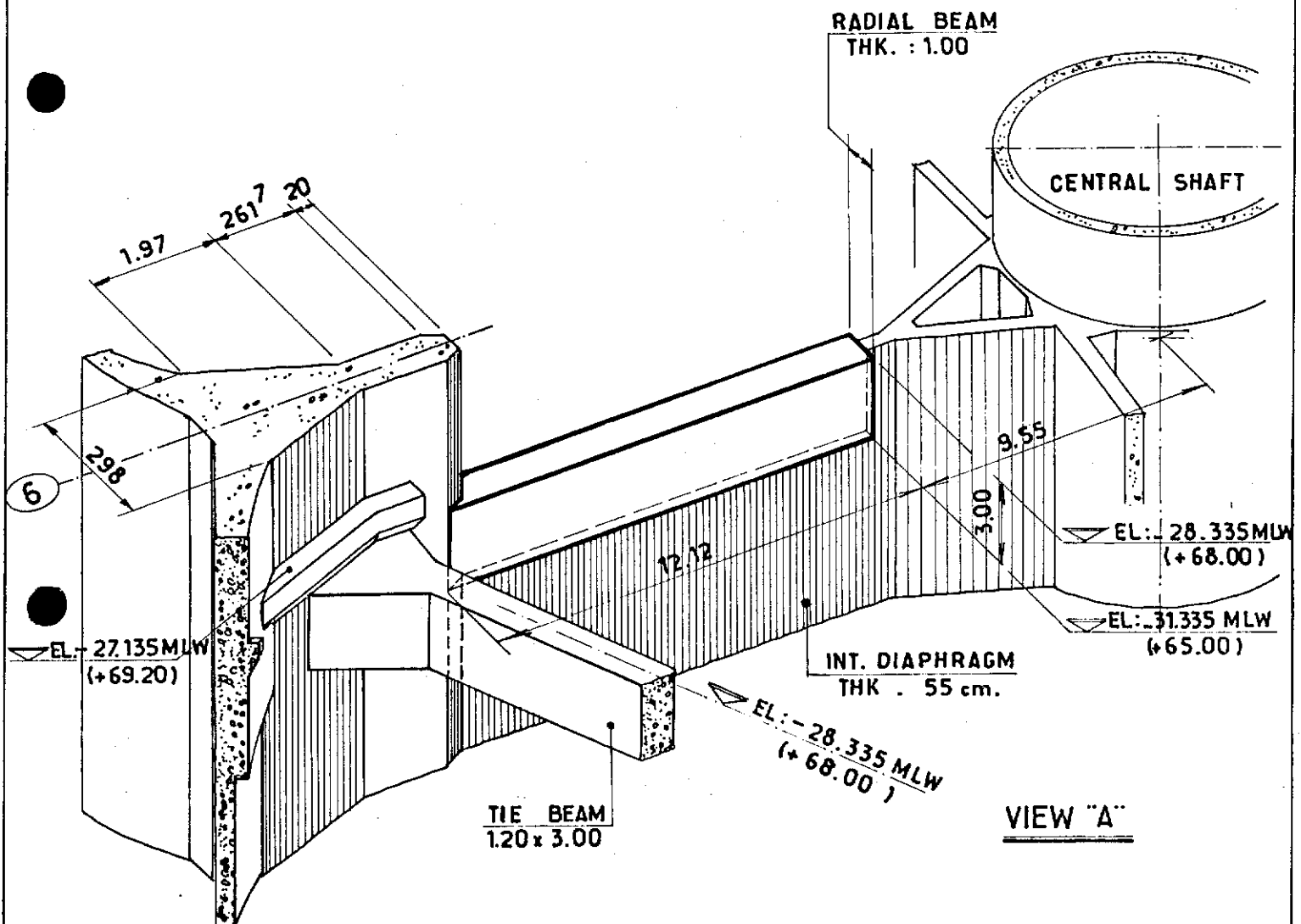
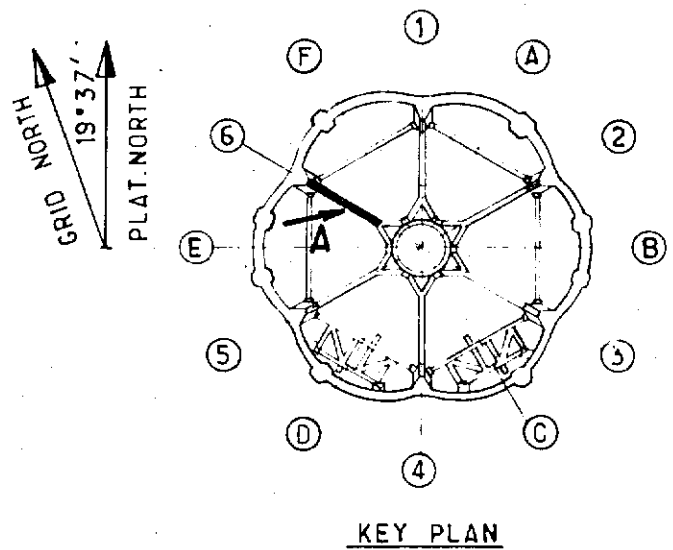
				elf aquitaine norge a/s		Job no.		Installation CDP 1		System UNDERWATER	
1	10/83	UPDATED	mirg LLC	p.o. box 168		Scale —		CONCRETE WORK RADIAL BEAM ⑤		LEV. +68.00	
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no.		FF 91.36.35.1061		1	
Contractor JVD 1029 20.12				4001 Stavanger		FRIGG FIELD					

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

					elf aquitaine norge a/s p.o.box 168 4001 Stavanger		 elf		Job no.		Installation CDP 1		System UNDERWATER	
1 10/83 UPDATED					Scale		CONCRETE WORK RADIAL BEAM ⑤ - LEV. +6800							
Rev. Date DESCRIPTION by app.														
Contractor JVD-1029-20-12					Dwgr. no. FF 91-36-35-1061		Rev. 1		Sheet /					



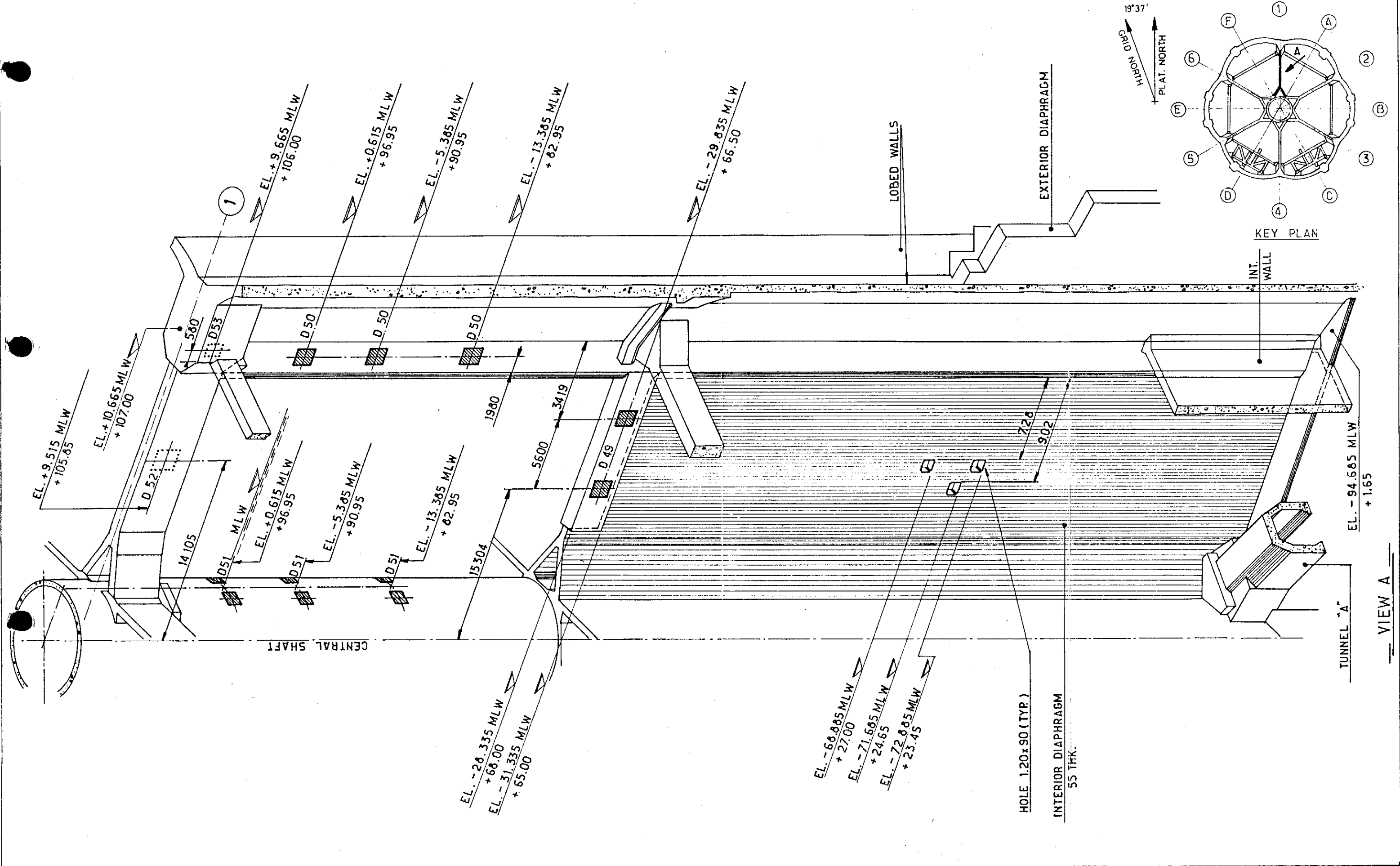
						 elf	Job no.	Installation CDP 1	System UNDERWATER
1		UPDATED	mirg J.LC				Scale —	CONCRETE WORK RADIAL BEAM ⑥	LEV. +68.00
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no. FF 91.36.35.1062	Rev. 1	Sheet /
Contractor JVD 1029 20.13						4001 Stavanger	FRIGG FIELD		

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

						 elf	Job no.	Installation CDP 1	System UNDERWATER	
1	10/83	UPDATED					Scale	CONCRETE WORK RADIAL BEAM (S) - LEV. +6800		
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029-20-13						4001 Stavanger	FF	91-36-35-1062	1	/



NOTES	FOR DETAIL OF BASE PLATE D 49			SEE SK. FF 91-36-35-1294		
	_____ " _____ D 50			_____ " _____ 1295		
	_____ " _____ D 51			_____ " _____ 1132		
	_____ " _____ D 52			_____ " _____ 1296		
	_____ " _____ D 53			_____ " _____ 1297		
1 11 83 REDRAWN			JIC JIC			
Rev. Date		DESCRIPTION		by app.		
Contractor JVD 1029-20_14			4001 Stavanger			
elf aquitaine norge a/s			p.o. box 168			
			FRIGG FIELD			
Job no.		Installation CDP 1		System UNDERWATER		
Scale		INTERIOR DIAPHRAGM I.D 13		VIEW FROM CELL "A"		
Dwgr. no		FF 91-36-35-1063		Sheet 1		

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: STEEL WORKS IN CONCRETE

[illegible][illegible]

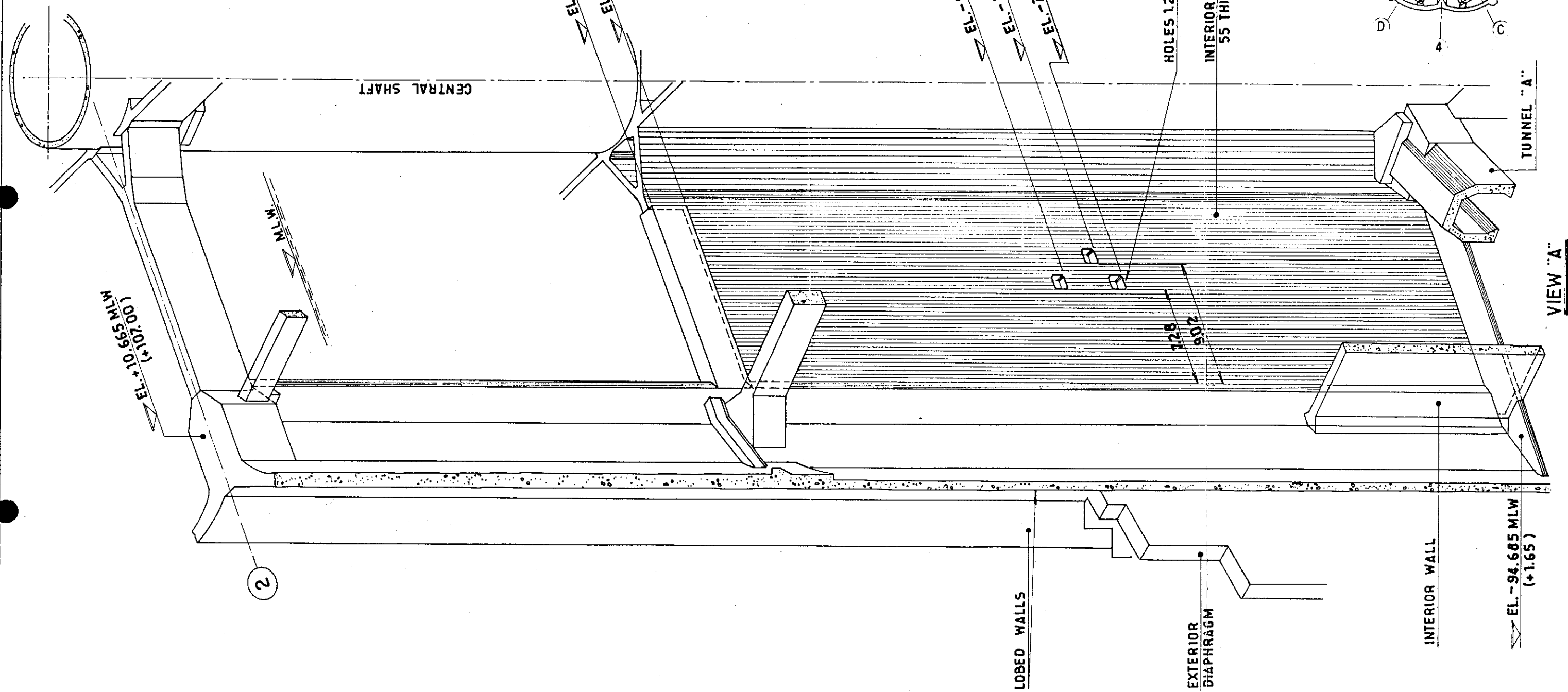
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1 11/83 REDRAWN										Scale		INTERIOR DIAPHRAGM I.D. 13 VIEW FROM CELL. "A"			
Rev. Date DESCRIPTION by app.										Dwgr. no. FF 91.36.35-1063		Rev. 1		Sheet /	
Contractor JVD.1029.20.14				4001 Stavanger				FRIGG FIELD							

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: STEEL WORKS IN CONCRETE

[illegible][illegible]

					elf aquitaine norge a/s p.o.box 168 4001 Stavanger		Job no.	Installation CDP 1	System UNDERWATER
	1	11/83	REDRAWN					Scale	INTERIOR DIAPHRAGM I.D. 13 VIEW FROM CELL. "F"
Rev.	Date	DESCRIPTION	by	app.	FRIGG FIELD	Dwg. no.	FF 91-36-35-1064	Rev.	1
Contractor JVD. 1029. 20-15									



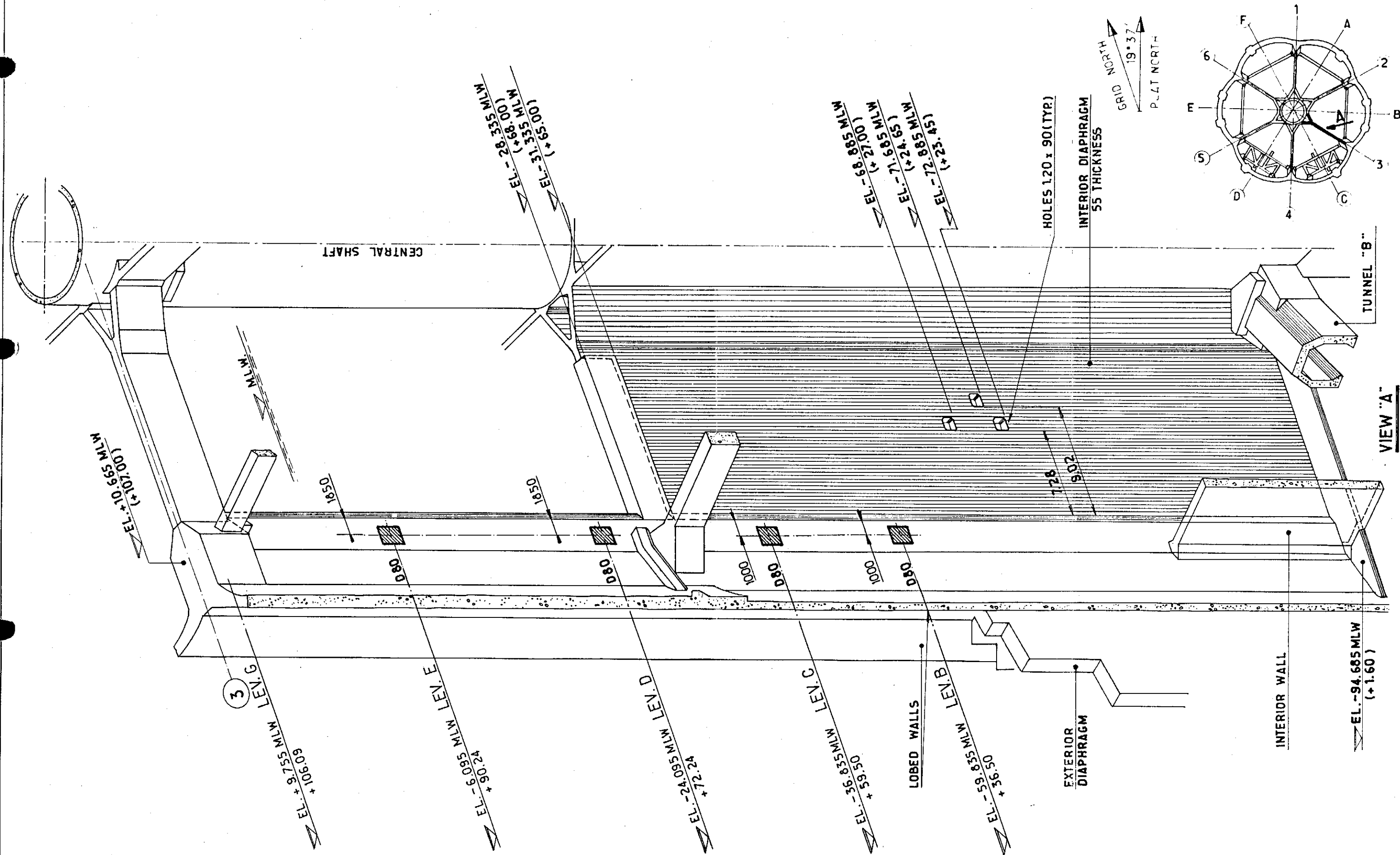
NOTES:

				elf aquitaine norge a/s			Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mira	JLC	p.o. box 168		Scale 1/	INTERIOR DIAPHRAGM I.D. 23	
Contractor JVD1029 20_16				4001 Stavanger		Dwgr no FF	91. 36. 35. 1065	1	

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: STEEL WORKS IN CONCRETE

[illegible][illegible][illegible]



NOTES:

FOR DETAILS OF PLATES D80 SEE SECTION 3

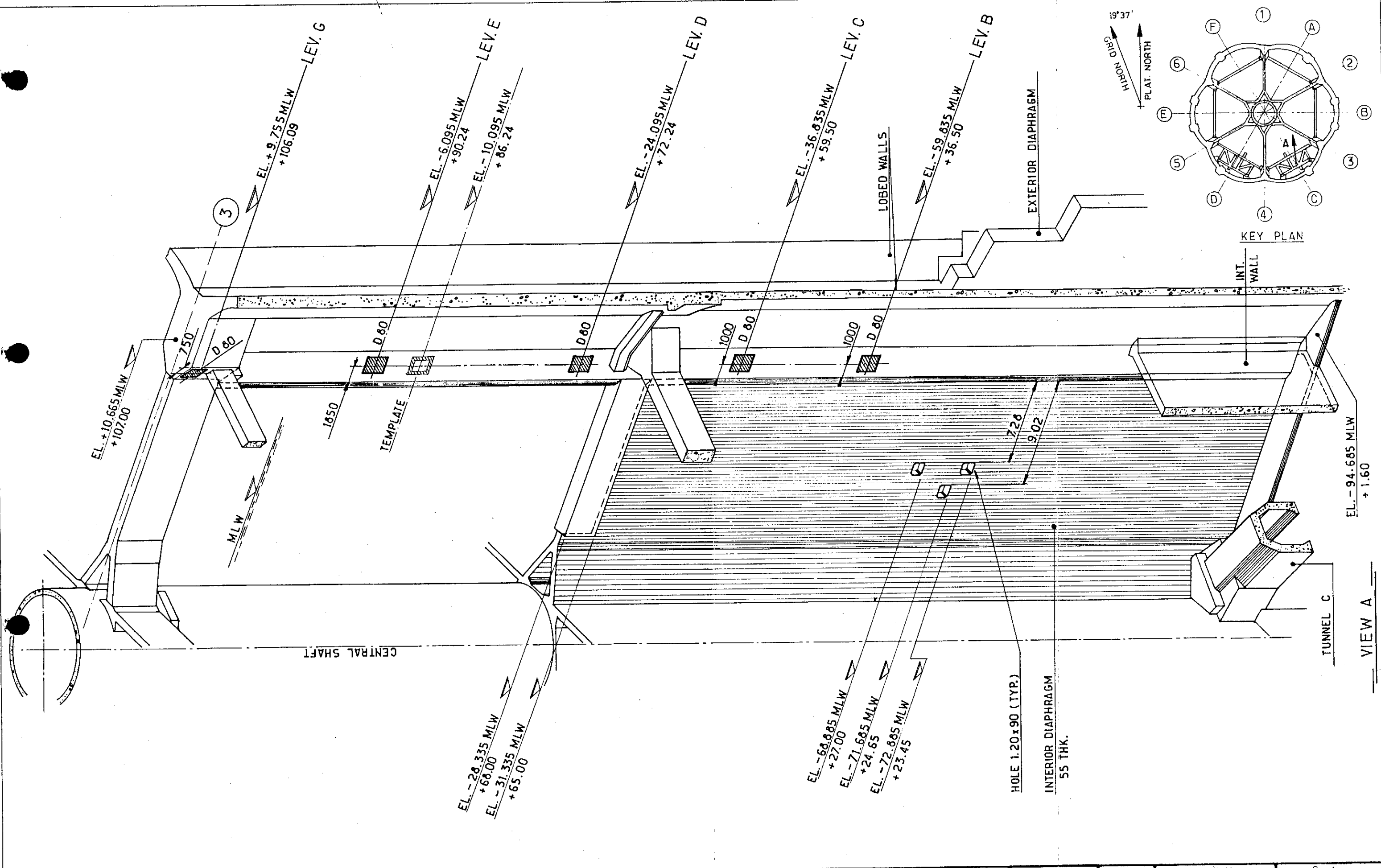
elf aquitaine norge a/s p.o. box 168 4001 Stavanger				Job no. Installation CDP 1		System UNDERWATER	
1	10/83	REDRAWN	mirra	3.16	Scale	INTERIOR DIAPHRAGM I.D 33 VIEW FROM CELL "B"	
Rev.	Date	DESCRIPTION	by	app	Dwgn no.	FF 91_36_35_1066	Rev.
Contractor JVD1029. 20_17				4001 Stavanger		1	Sheet

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: STEEL WORKS IN CONCRETE

[illegible][illegible]

					elf aquitaine norge a/s p.o.box 168 4001 Stavanger		Job no.	Installation CDP 1	System UNDERWATER	
	1	11/83	REDRAWN					Scale	INTERIOR DIAPHRAGM I.D. 33 VIEW FROM CELL. "B"	
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev.	Sheet
Contractor JVD.1029.20-17					4001 Stavanger	FRIGG FIELD	FF	91-36-35-1066	1	/



NOTES FOR DETAIL OF CORBEL PLATES D 80 SEE SECTION 3 FOR DETAIL OF TEMPLATE SEE SK. FF. 91.36.35.1157						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation	System
								CDP 1	UNDERWATER	
	1	11-83	REDRAWN	MC	MC			Scale	INTERIOR DIAPHRAGM ID 33	
	Rev.	Date	DESCRIPTION	by	app.			VIEW FROM CELL "C"		
	Contractor JVD 1029-20-18							FRIGG FIELD		Dwgr. no.

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: STEEL WORKS IN CONCRETE

[illegible][illegible]

							Job no.	Installation CDP 1	System UNDERWATER	
	1	11/83	REDRAWN				Scale	INTERIOR DIAPHRAGM I.D. 33 VIEW FROM CELL "C"		
	Rev.	Date	DESCRIPTION	by	app.		Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029. 20 - 18						4001 Stavanger	FF	91-36-35-1067	1	/

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: STEEL WORKS IN CONCRETE

[illegible][illegible]

					 elf	Job no.	Installation CDP 1	System UNDERWATER	
1	11/83	REDRAWN				Scale	INTERIOR DIAPHRAGM I.D. 43 VIEW FROM CELL. "C"		
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no.		Rev.	Sheet
Contractor JVD-1029, 20 - 19					4001 Stavanger	FF	91-36.35-1068	1	/

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: STEEL WORKS IN CONCRETE

[illegible][illegible]

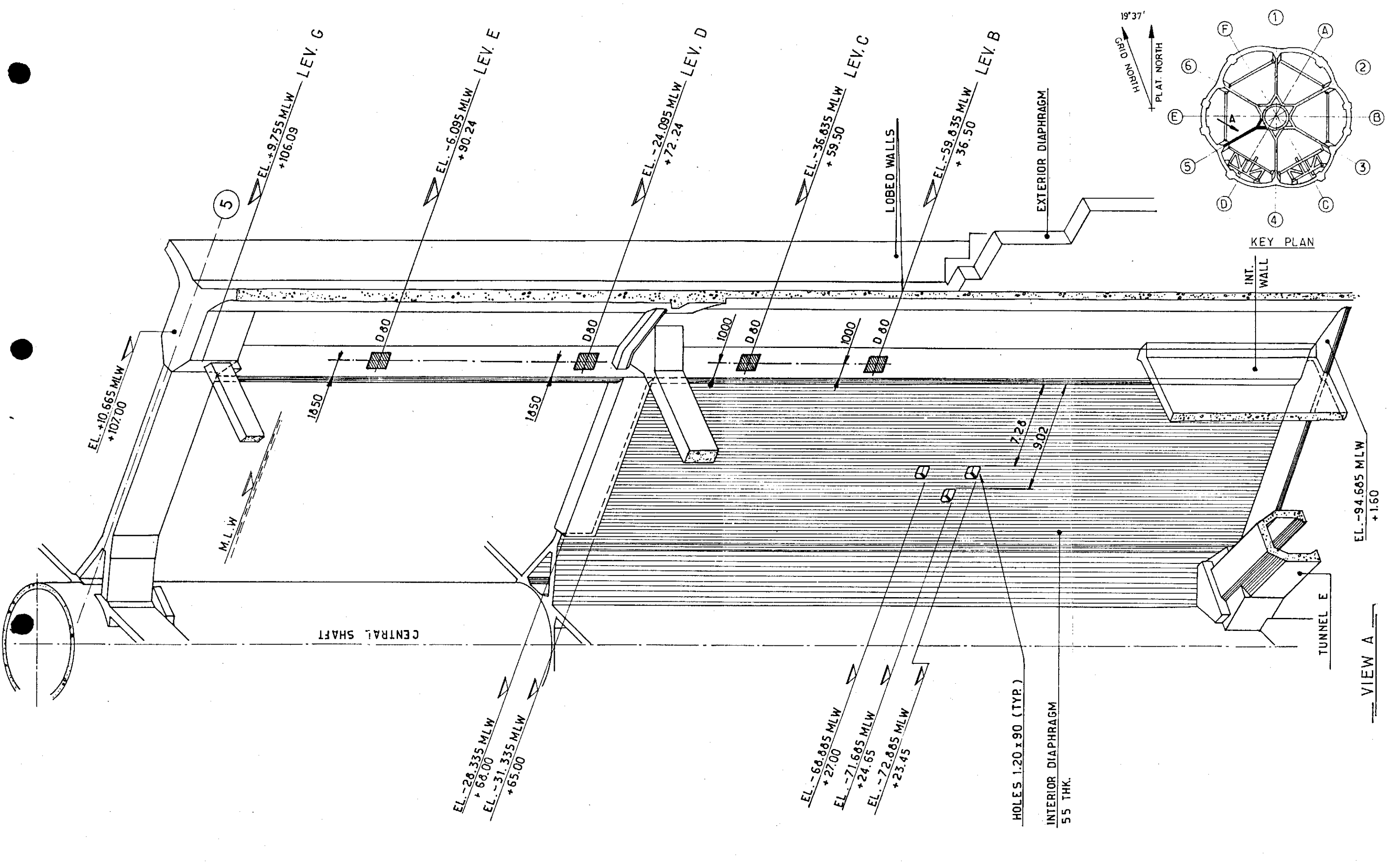
					 elf	Job no.	Installation CDP 1	System UNDERWATER		
1	11/83	REDRAWN				Scale	INTERIOR DIAPHRAGM I.D.43 VIEW FROM CELL. "D"			
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no.	FF 91-36.35-1069		Rev. 1	Sheet /
Contractor JVD.1029.20-20					4001 Stavanger	FRIGG FIELD				

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: STEEL WORKS IN CONCRETE

[illegible][illegible]

						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation COP 1	System UNDERWATER	
	1	11/83	REDRAWN					Scale	INTERIOR DIAPHRAGM I.D. 53 VIEW FROM CELL. "D"		
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.		Rev.	Sheet
Contractor JVD.1029. 20-21						4001 Stavanger	FRIGG FIELD	FF	91.36.35-1070	1	/



NOTES

FOR DETAIL OF BACKING PLATES D 80 SEE SECTION 3.

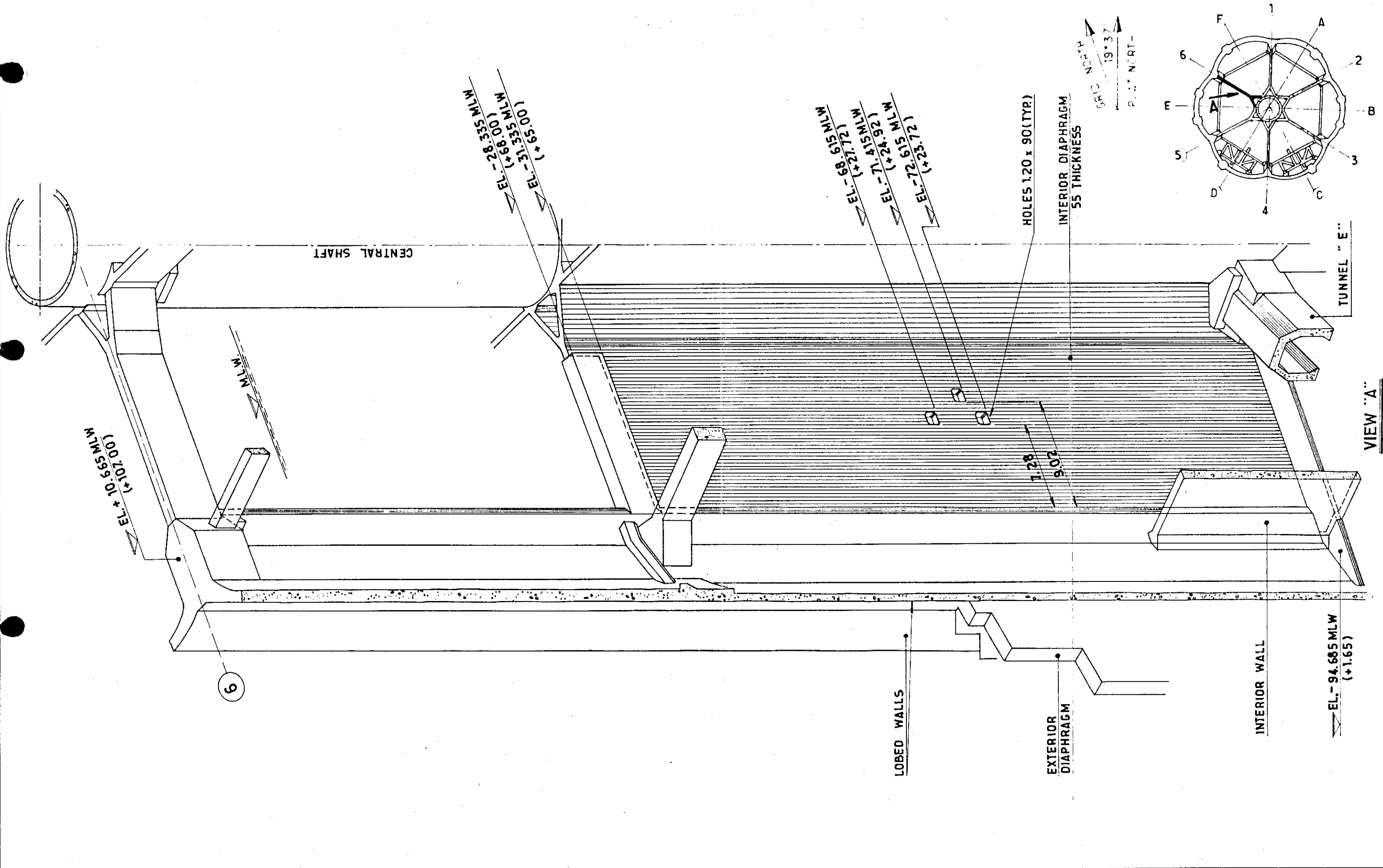
				elf aquitaine norge a/s		 FRIGG FIELD	Job no.	Installation CDP 1	System UNDERWATER
1	11-83	RE DRAWN	JLC	JLC	p.o.box 168		Scale	INTERIOR DIAPHRAGM I.D 53 VIEW FROM CELL "E"	
Contractor JVD 1029-20. 22				4001 Stavanger		Dwgr. no	FF 91-36-35-1071	Rev	Sheet
								1	

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: STEEL WORKS IN CONCRETE

[illegible][illegible]

						elf aquitaine norge a/s p.o.box 168 4001 Stavanger		Job no.	Installation CDP 1	System UNDERWATER	
	1	11/83	REDRAWN					Scale	INTERIOR DIAPHRAGM I.D. 53 VIEW FROM CELL. "E"		
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029. 20. 22						4001 Stavanger	FRIGG FIELD	FF	91.36.35-1071	1	/



NOTES:														elf				Job no.		Installation COP 1		System DIA 63			
														elf		aquitaine		Scale		INTERIOR DIAPHRAGM I.D. 63					
										1		10/83		REDRAWN		mira		HLC		norge a s					
										Rev		Date		DESCRIPTION		by		app		p.o. box 103		Dev. no.			
										Contractor		JVD 1029 20_ 23						4001 Stavanger		FF		91_36_35.1072		1	

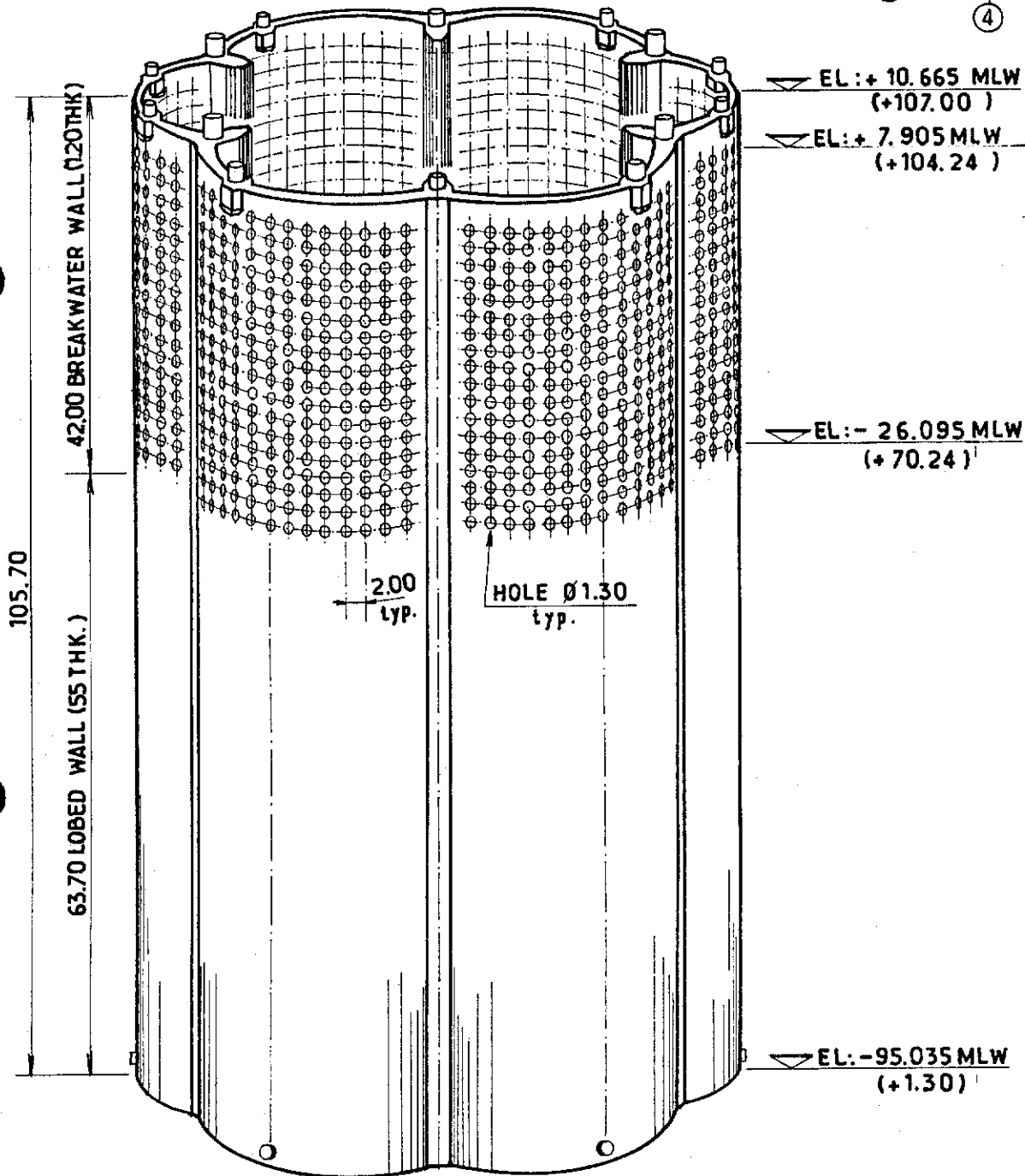
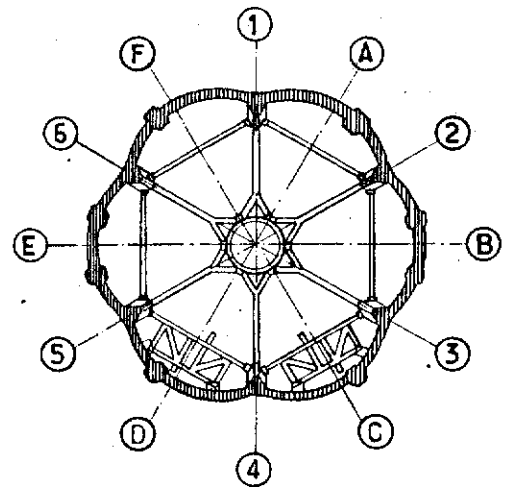
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: STEEL WORKS IN CONCRETE

[illegible][illegible]

					elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER
1	8/83	REDRAWN					Scale	INTERIOR DIAPHRAGM I.D. 63 VIEW FROM CELL. "E"	
Rev.	Date	DESCRIPTION	by	app.	Contractor JVD. 1029. 20 - 23	FRIGG FIELD	Dwgr. no.	Rev.	Sheet
							FF 91-36-35-1072	1	/

GRID NORTH
19° 37'
PLAT. NORTH



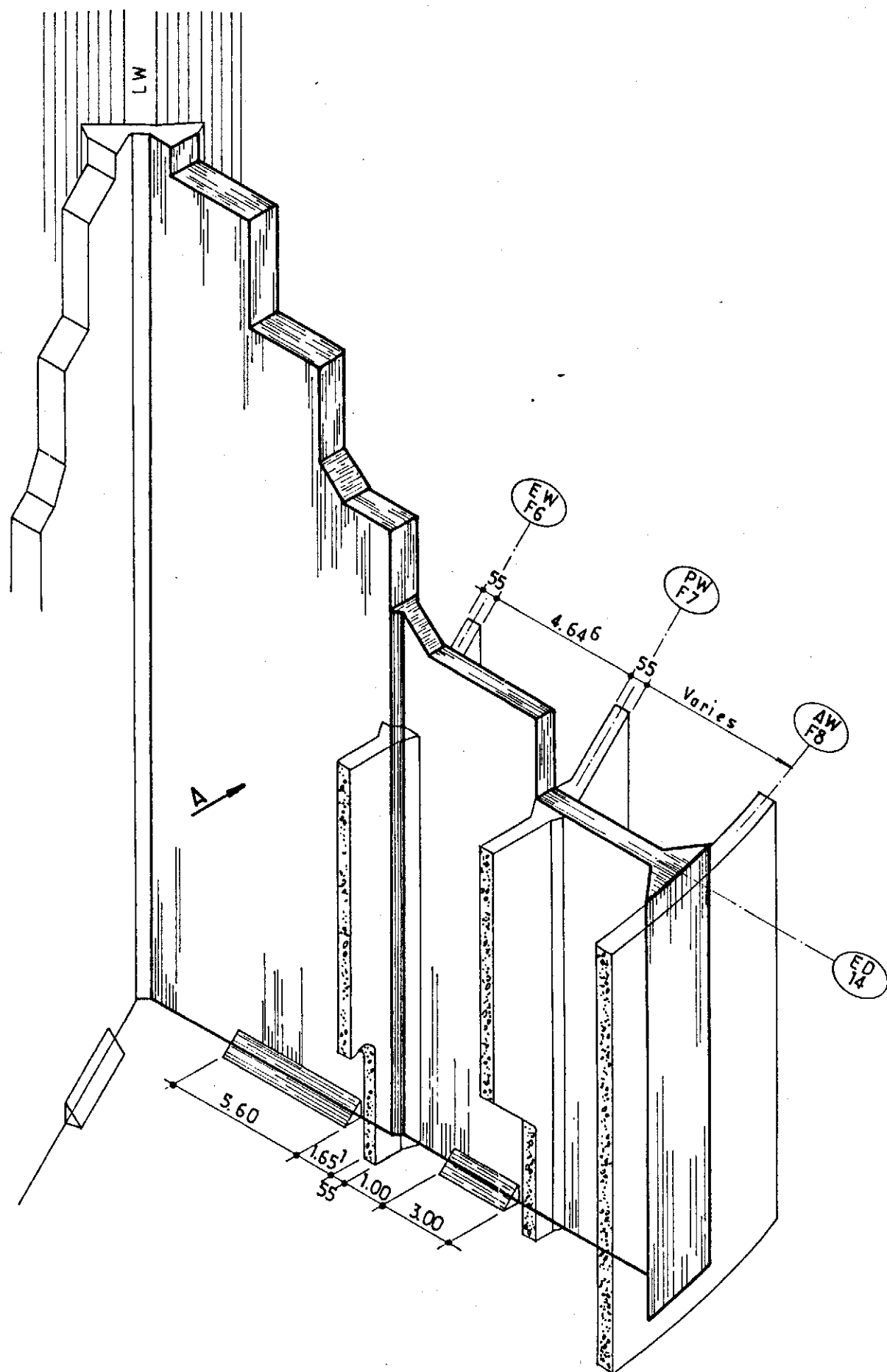
						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER	
1	10/83	UPDATED	Mira	JLC				Scale	CONCRETE WORK LOBED WALL & BREAKWATER WALL		
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.	FF 91_36_35.1073	Rev.	Sheet
Contractor JVD1029.20.24					4001 Stavanger	FRIGG FIELD				1	/

CDP 1 AS BUILT DRAWINGS

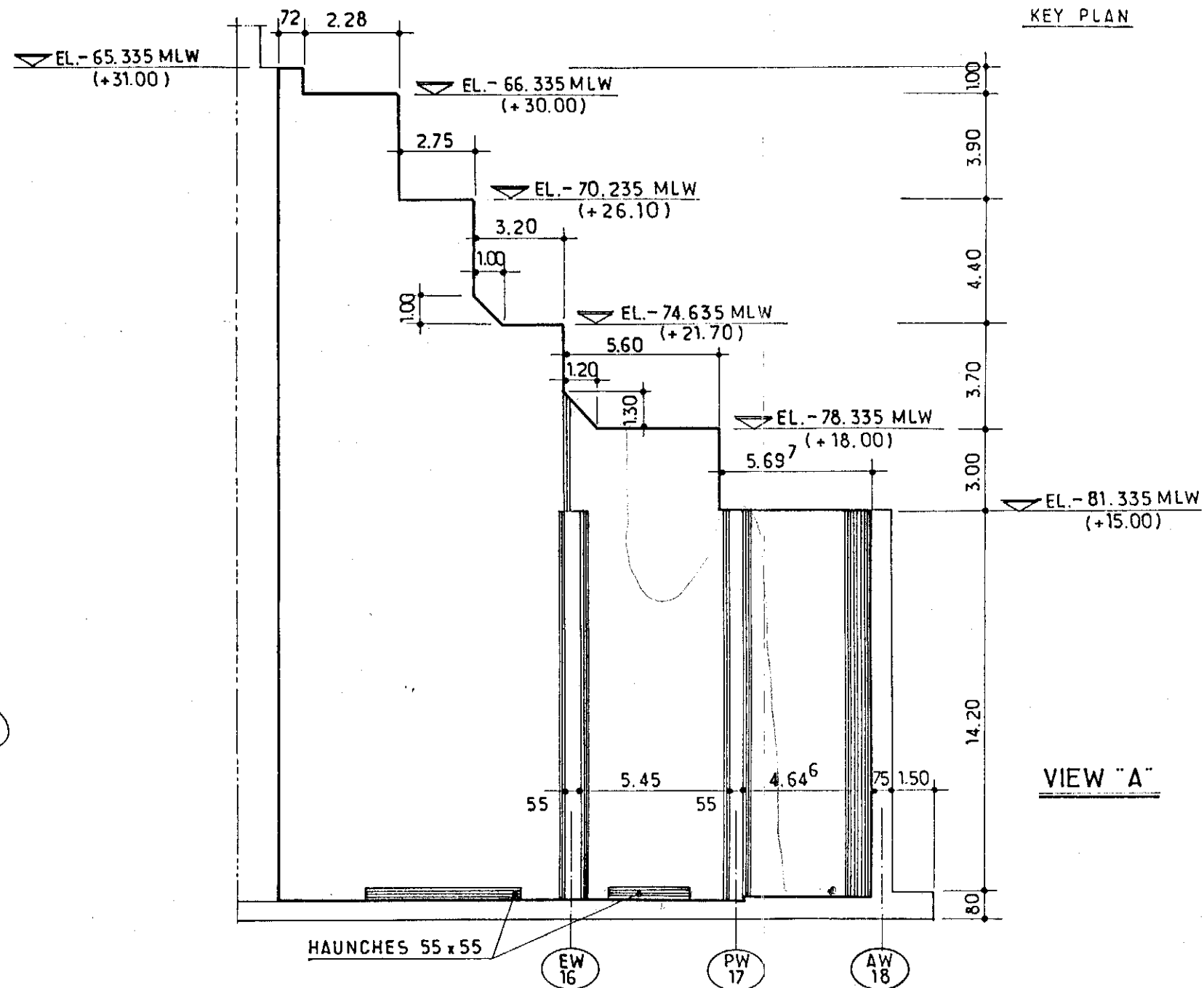
REFERENCE DRAWING LIST FOR: CONCRETE WORK

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1	10/83	UPDATED						Scale	CONCRETE WORK LOBED WALL & BREAKWATER WA	
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.	FF 91-26-35-1073	Rev 1
Contractor JYD 1029- 20-24							FRIGG FIELD			



FOR REPAIR OF DIAPHRAGM SEE SECTION 12



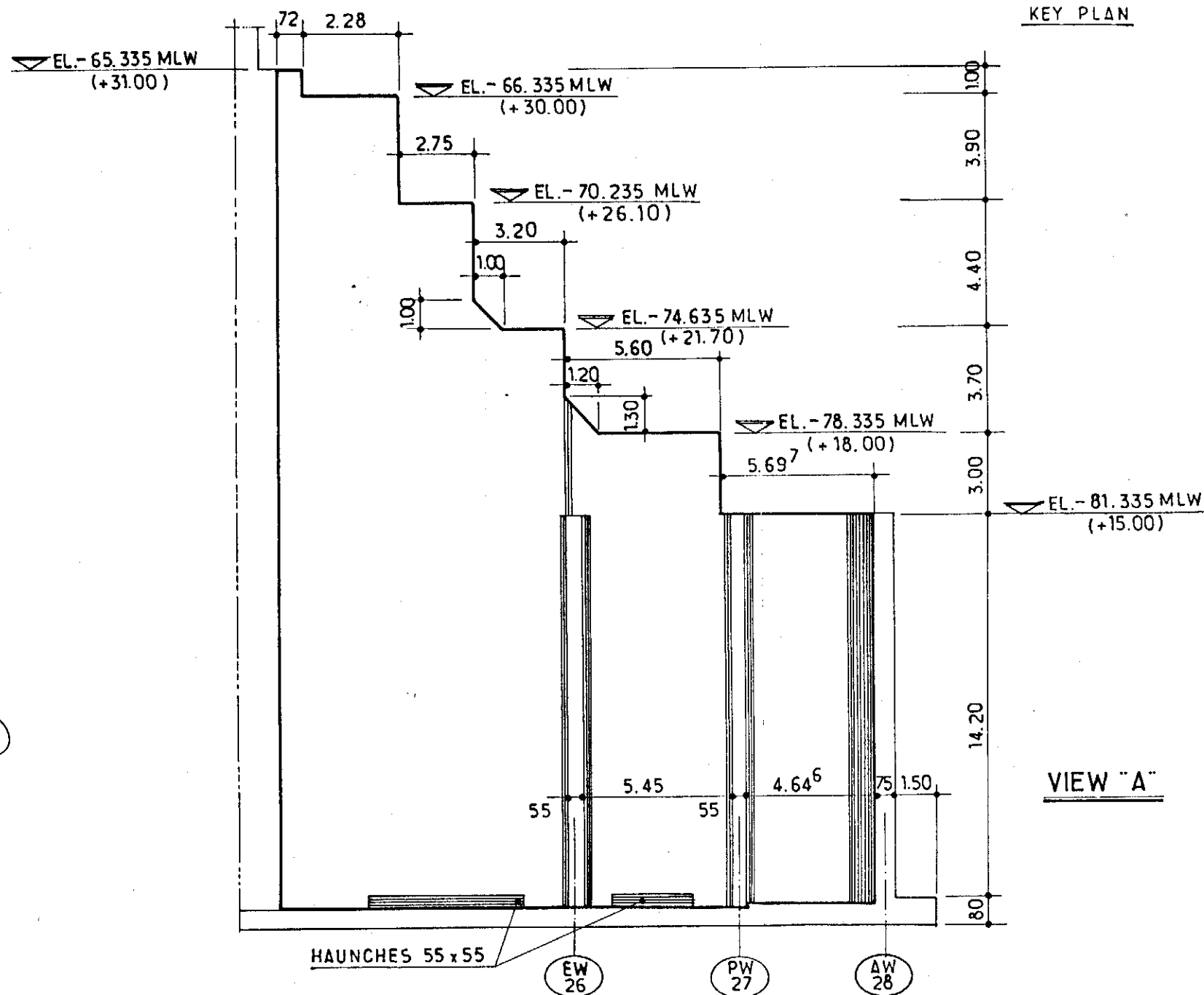
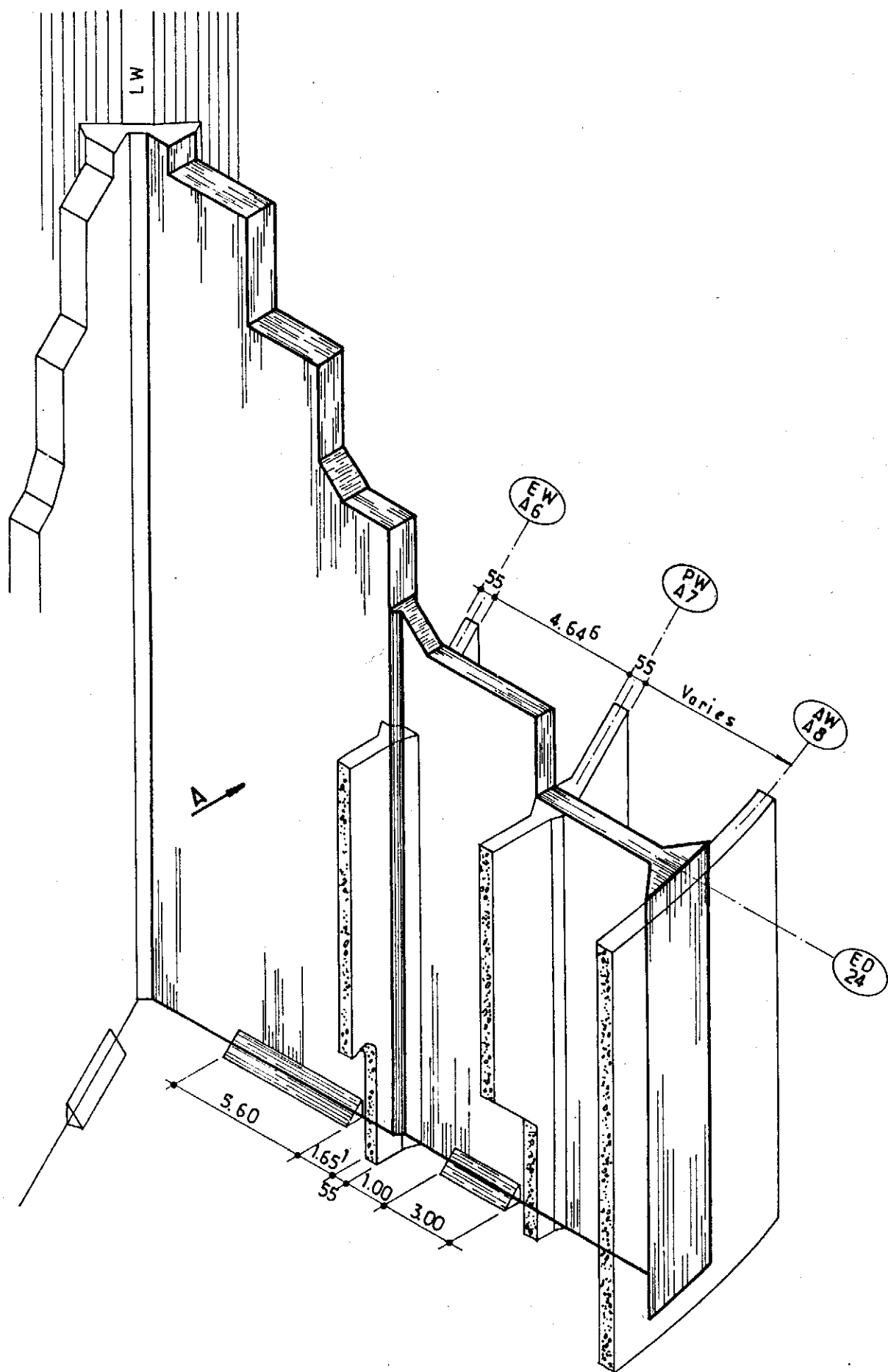
					elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation	System			
								CDP 1	UNDERWATER			
1	10/83	REDRAWN	mira	J/LC			Scale	CONCRETE WORKS				
Rev.	Date	DESCRIPTION	by	app.			1:200	EXTERIOR DIAPHRAGM ED: 14				
Contractor JVD 1029. 20. 25							Dwgr. no	FF 90.36.35. 1074			1	

CDP 1 AS BUILT DRAWINGS

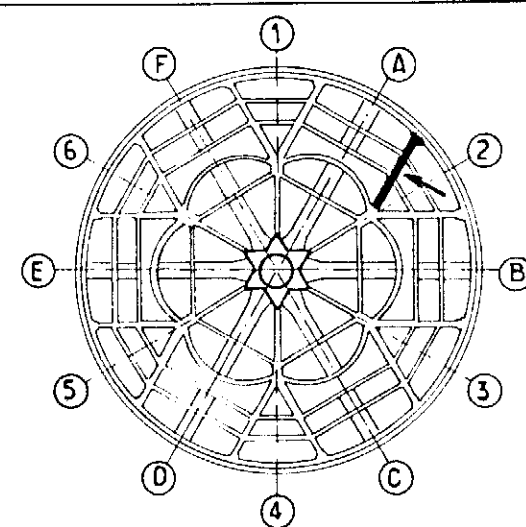
REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN			Scale			CONCRETE WORK EXTERIOR DIAPHRAGM ED: 14		
Rev.	Date	DESCRIPTION	by	app.	Dwgr. no.			FF 91.36-35-1074	Rev. 1	Sheet /
Contractor JVD-1029-20-25						4001 Stavanger	FRIGG FIELD			



GRID NORTH
19° 37' PLAT. NORTH



KEY PLAN

VIEW "A"

				elf aquitaine norge a/s		elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mir	J.L.C.	p.o. box 168		Scale 1:200	CONCRETE WORKS EXTERIOR DIAPHRAGM ED:24	
Contractor JVD 1029.20.26				4001 Stavanger		FRIGG FIELD	Dwgr. no. FF 90.36.35.1075	1	

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

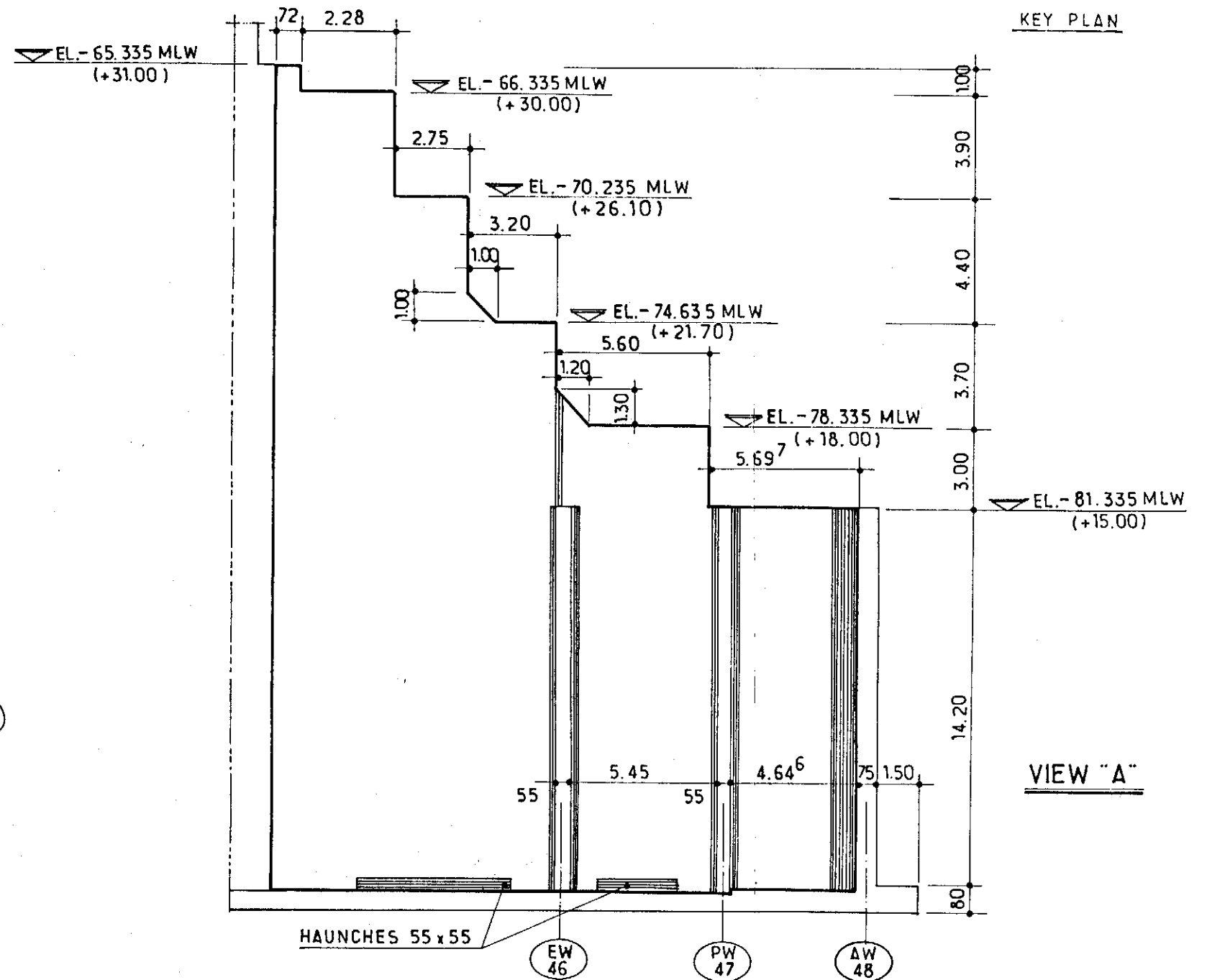
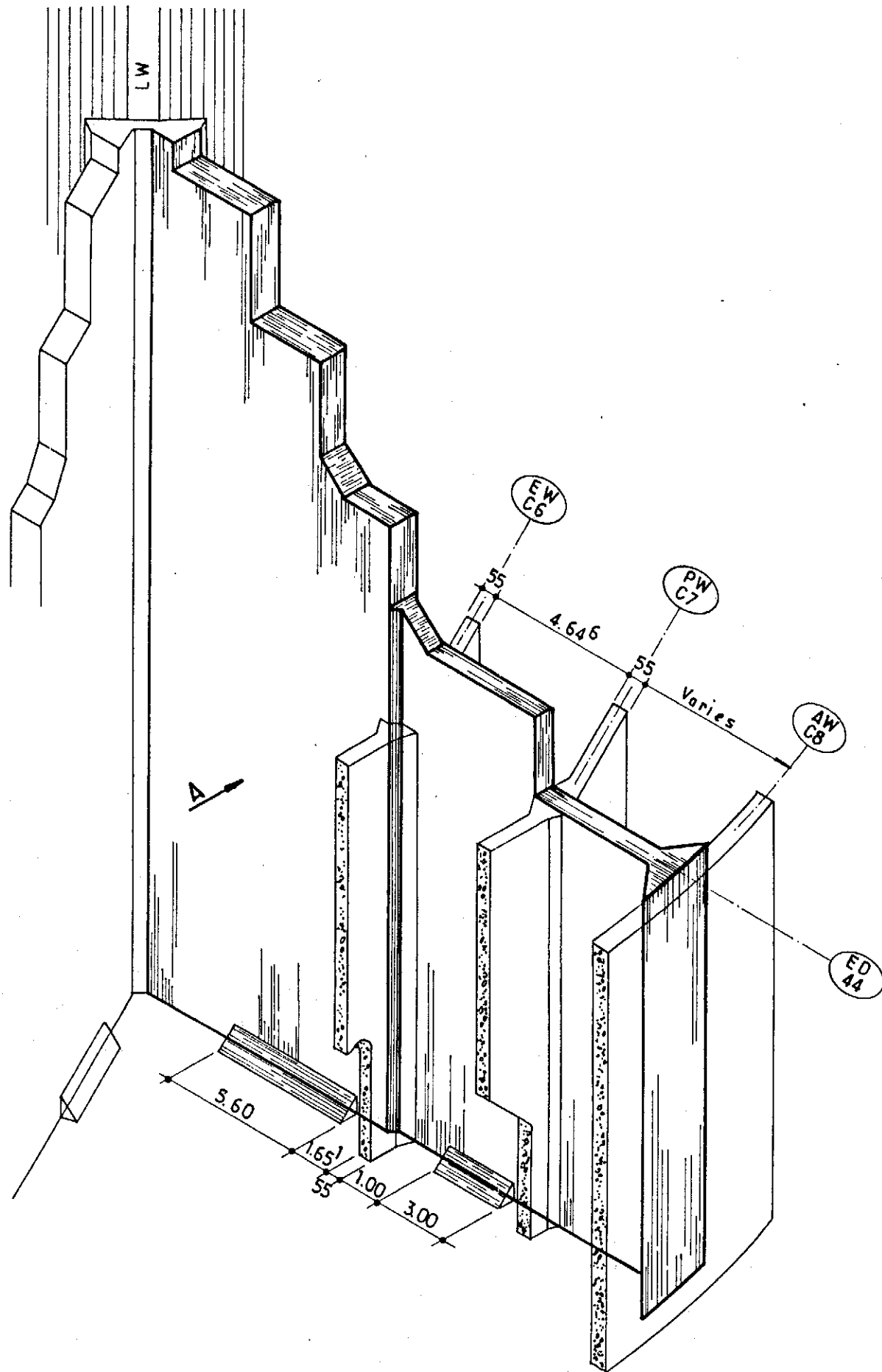
1 10/83 REDRAWN Rev. Date DESCRIPTION by app.				elf aquitaine norge a/s p.o.box 168 4001 Stavanger		 elf		Job no. Installation CDP 1		System UNDERWATER	
Scale CONCRETE WORK EXTERIOR DIAPHRAGM ED: 24				Dwgr. no. FF 91.36-35-1075		Rev 1		Sheet /			
Contractor JVD.1029-20-26				FRIGG FIELD							

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER	
	1	10/83	REDRAWN					Scale	CONCRETE WORK EXTERIOR DIAPHRAGM ED: 34		
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029-20-27						4001 Stavanger	FRIGG FIELD	FF	91-36-35-1076	1	/



FOR REPAIR OF THIS DIAPHRAGM SEE SECTION 12

				elf aquitaine norge a/s		elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mir	J.L.C.	p.o. box 168		Scale 1:200	CONCRETE WORKS EXTERIOR DIAPHRAGM ED: 44	
Contractor JVD 1029.20.28				4001 Stavanger		FRIGG FIELD	Dwgr. no.	FF 90.36.35.1077	1

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

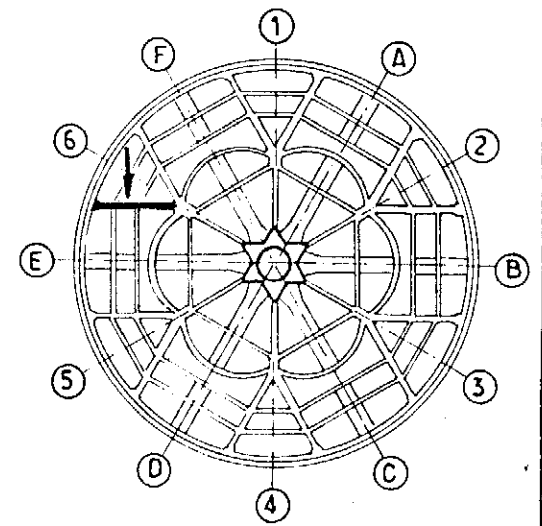
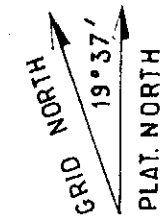
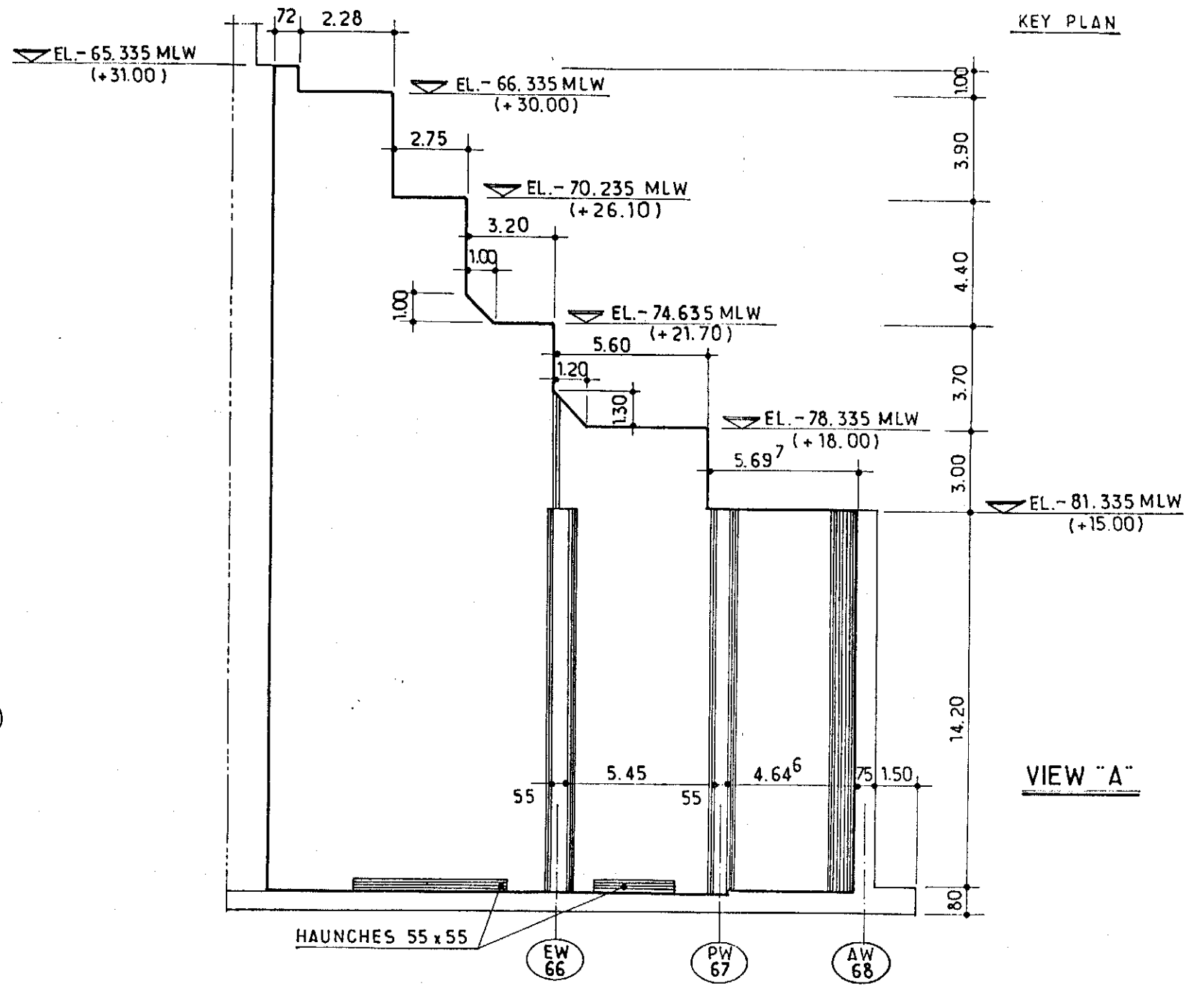
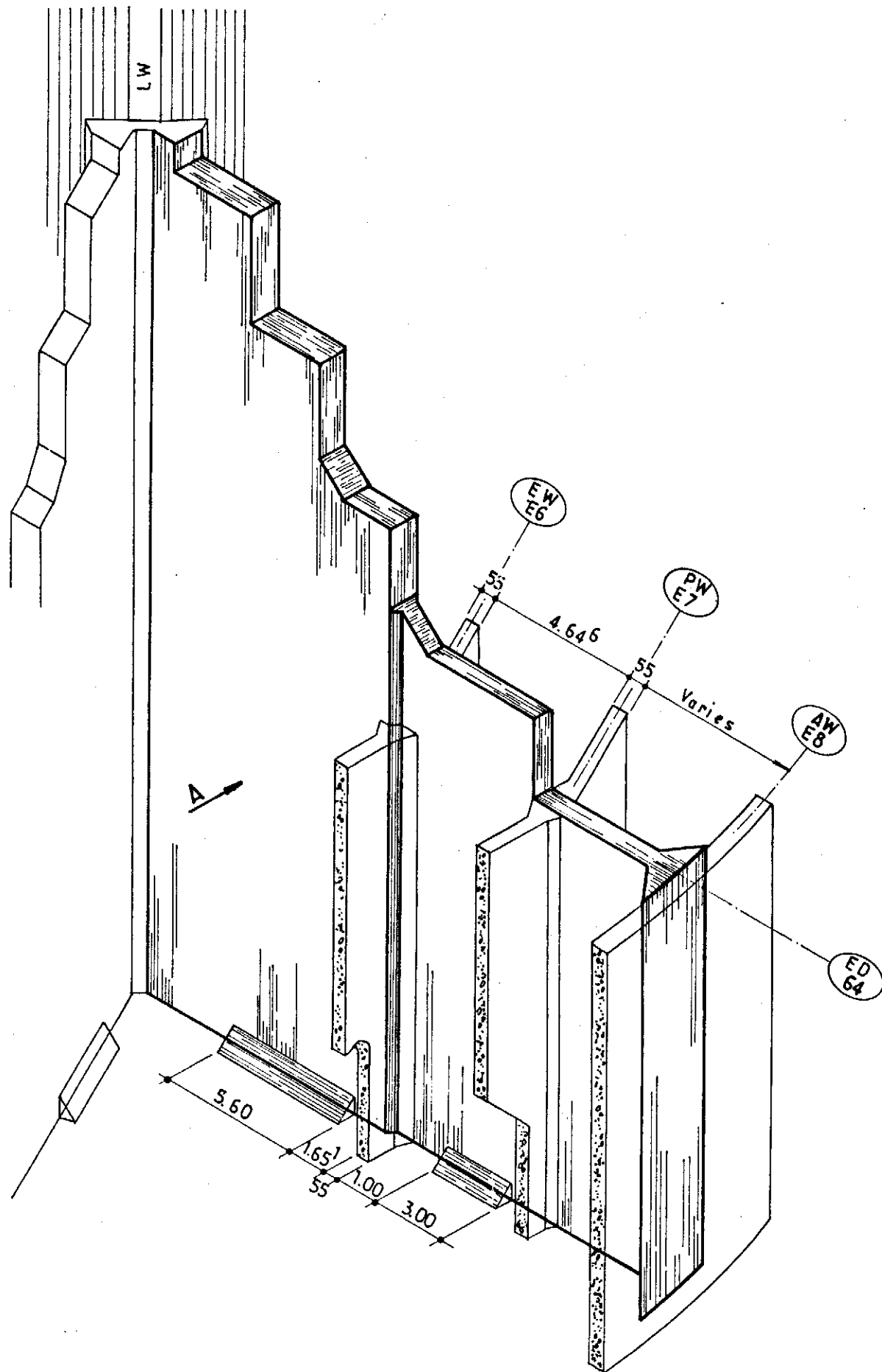
					elf aquitaine norge a/s p.o.box 168 4001 Stavanger				Job no. Installation CDP 1		System UNDERWATER				
1 10/83 REDRAWN									Scale CONCRETE WORK EXTERIOR DIAPHRAGM ED:44						
Rev.		Date		DESCRIPTION		by		app.		Dwgr. no.		Rev.		Sheet	
Contractor JVD-1029-20-28					4001 Stavanger		FRIGG FIELD		FF 91.36-35-1077		1		/		

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

 elf aquitaine norge a/s p.o.box 168 4001 Stavanger					Job no.		Installation CDP 1		System UNDERWATER	
 elf					Scale		CONCRETE WORK EXTERIOR DIAPHRAGM ED:54			
Contractor JVD-1029-20-29					Dwgr. no. FF 91.36-35-1078		Rev. 1		Sheet /	



KEY PLAN

VIEW "A"

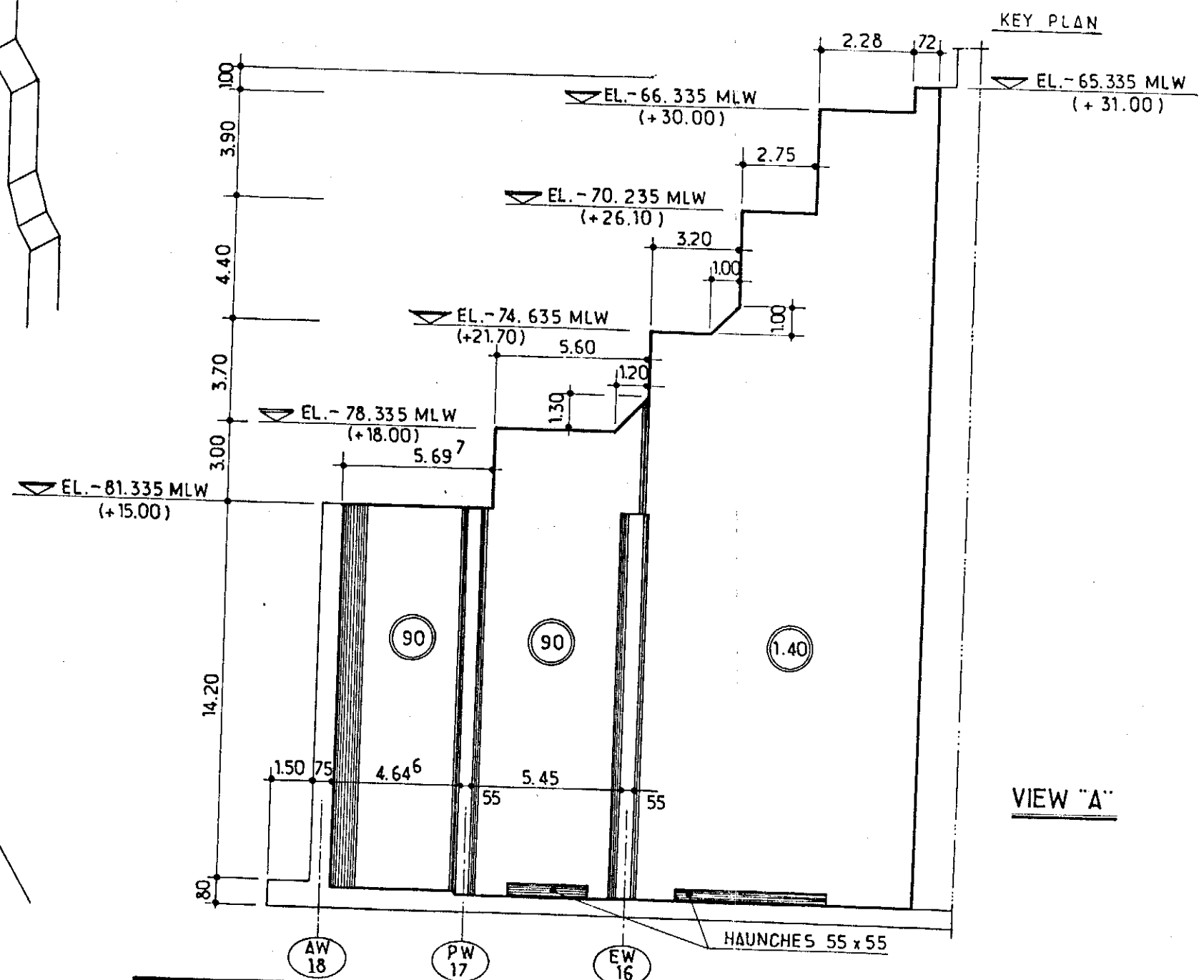
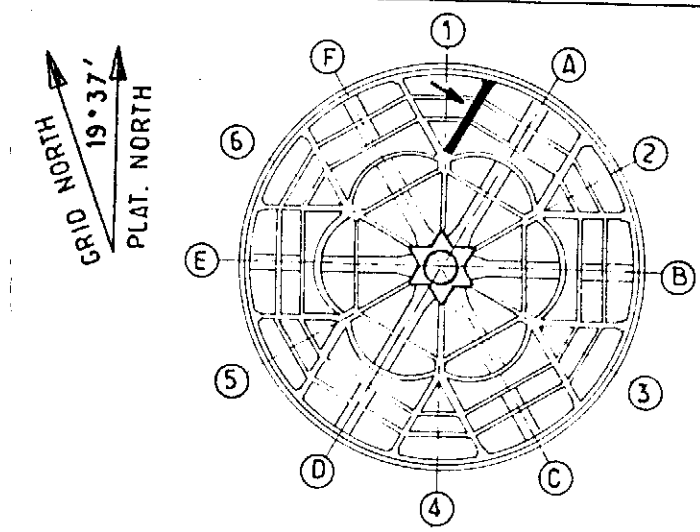
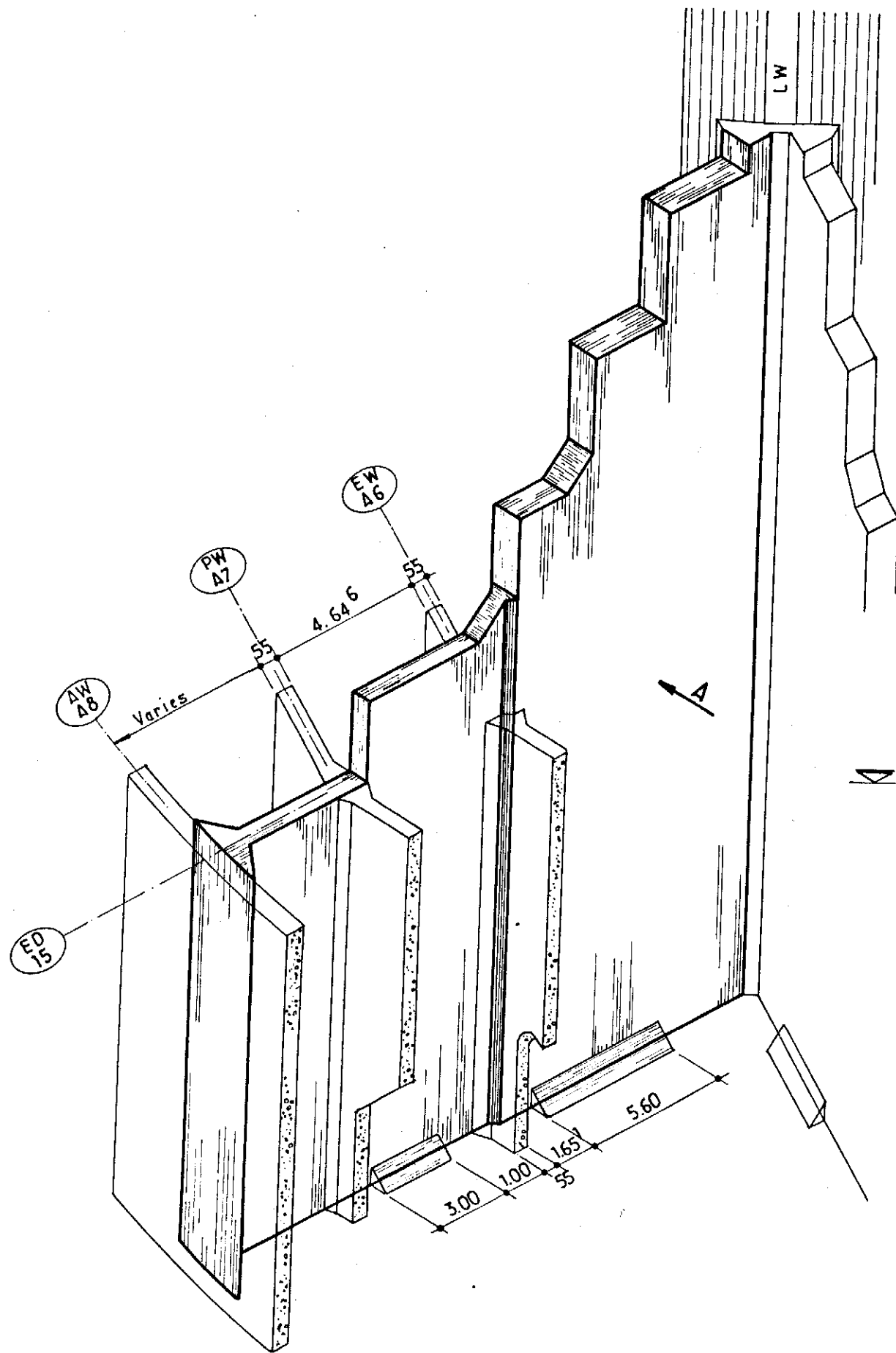
				elf aquitaine norge a/s		elf	Job. no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mira	J.L.C.	p.o. box 168		Scale 1:200	CONCRETE WORKS EXTERIOR DIAPHRAGM ED: 64	
Rev.	Date	DESCRIPTION	by	app.	Contractor JVD 1029.20.30	4001 Stavanger	Dwgr. no.	FF 90.36.35.1079	1
							FRIGG FIELD		

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

 elf aquitaine norge a/s p.o.box 168 4001 Stavanger					Job no.		Installation CDP 1		System UNDERWATER	
 elf					Scale		CONCRETE WORK EXTERIOR DIAPHRAGM ED:64			
Contractor JVD.1629-20-30					Dwgr. no. FF <u>91.36-35-1079</u>		Rev 1		Sheet /	



						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf FRIGG FIELD	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mira	J.L.C.	Scale 1:200			CONCRETE WORKS EXTERIOR DIAPHRAGM ED: 15		
Rev.	Date	DESCRIPTION	by	app.	Dwgr. no FF			90_36_35_1080	1	
Contractor JVD 1029.20.31										

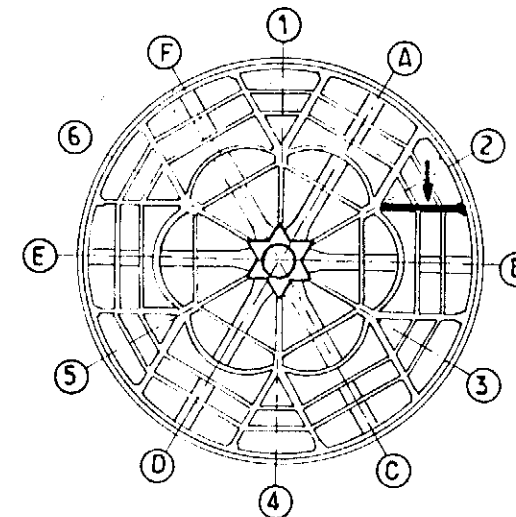
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

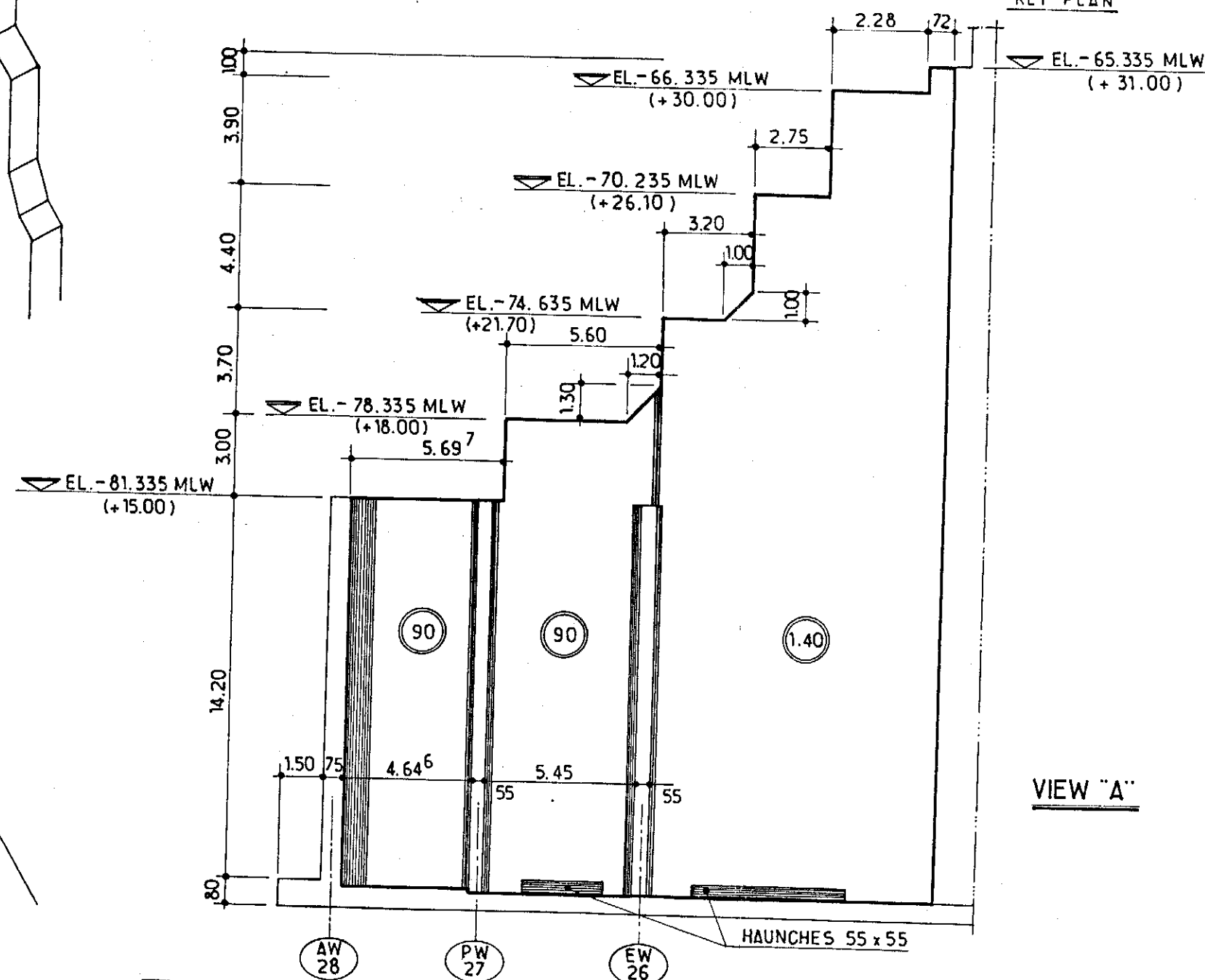
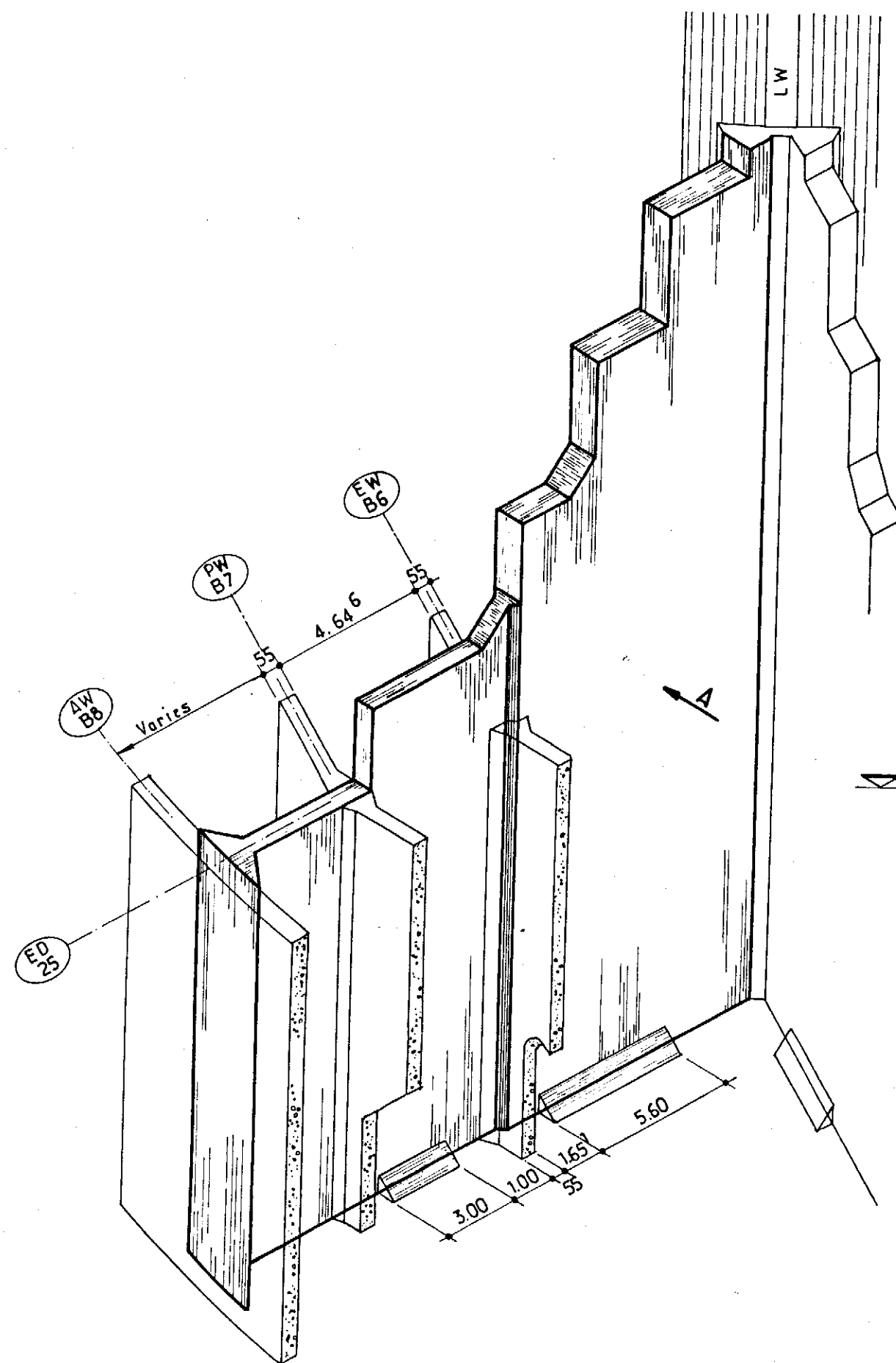
[illegible][illegible]

					elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation COP 1	System UNDERWATER		
1	10/83	REDRAWN					Scale	CONCRETE WORK EXTERIOR DIAPHRAGM ED: 15			
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF 91.36-35-1080		Rev.	Sheet
Contractor JVD-1029-20-31					4001 Stavanger	FRIGG FIELD					

GRID NORTH
19° 37'
PLAT. NORTH



KEY PLAN



VIEW "A"

				elf aquitaine norge a/s		elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mir	J-LC	p.o. box 168		Scale 1:200	CONCRETE WORKS EXTERIOR DIAPHRAGM ED:25	
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF 90_36_35_1081	1
Contractor JVD 1029. 20_32					4001 Stavanger	FRIGG FIELD			

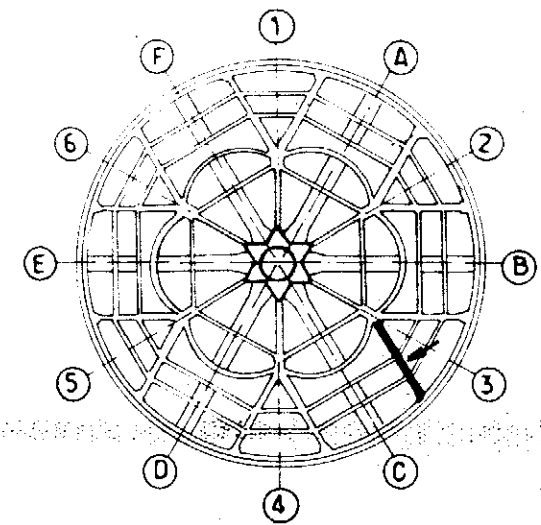
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

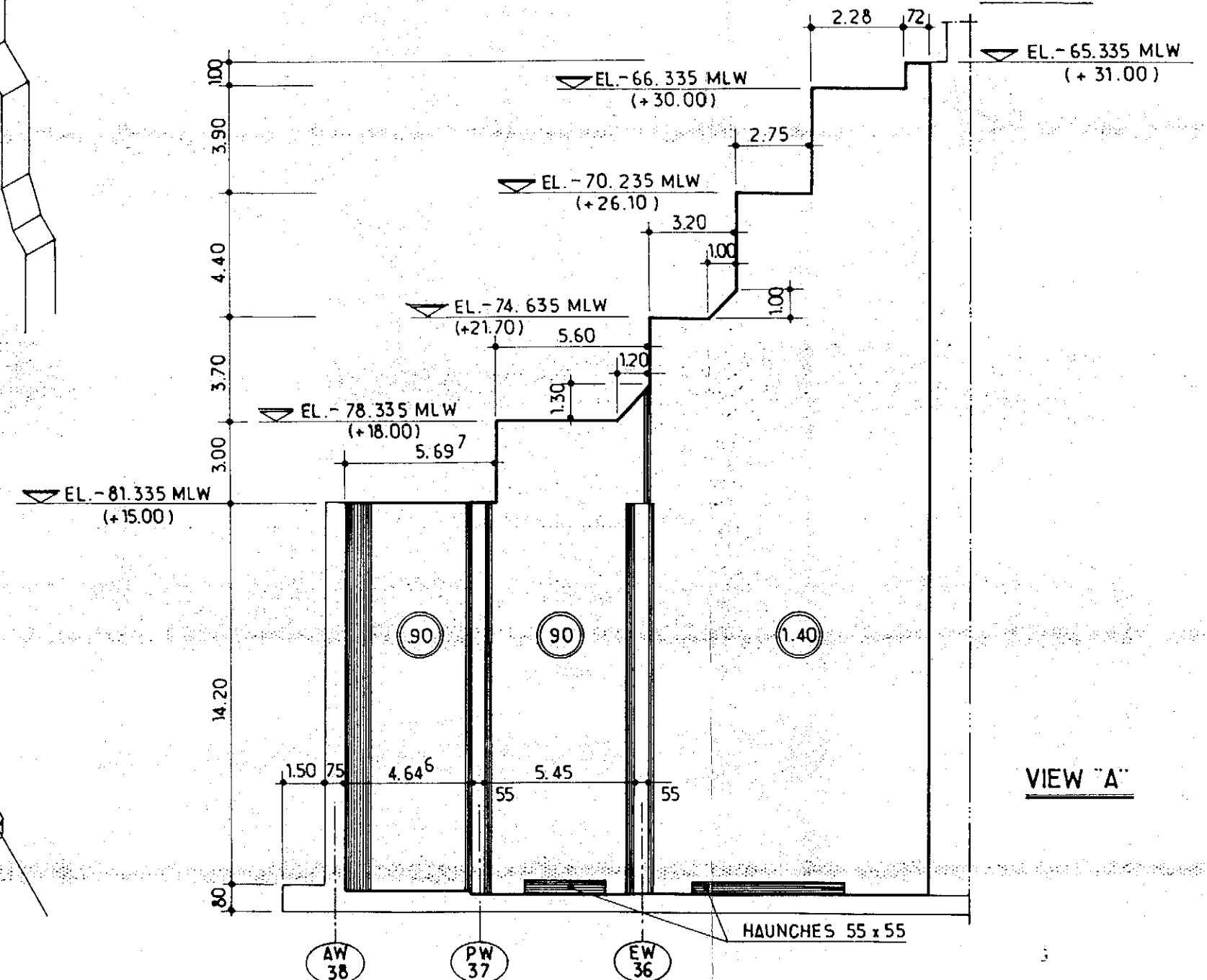
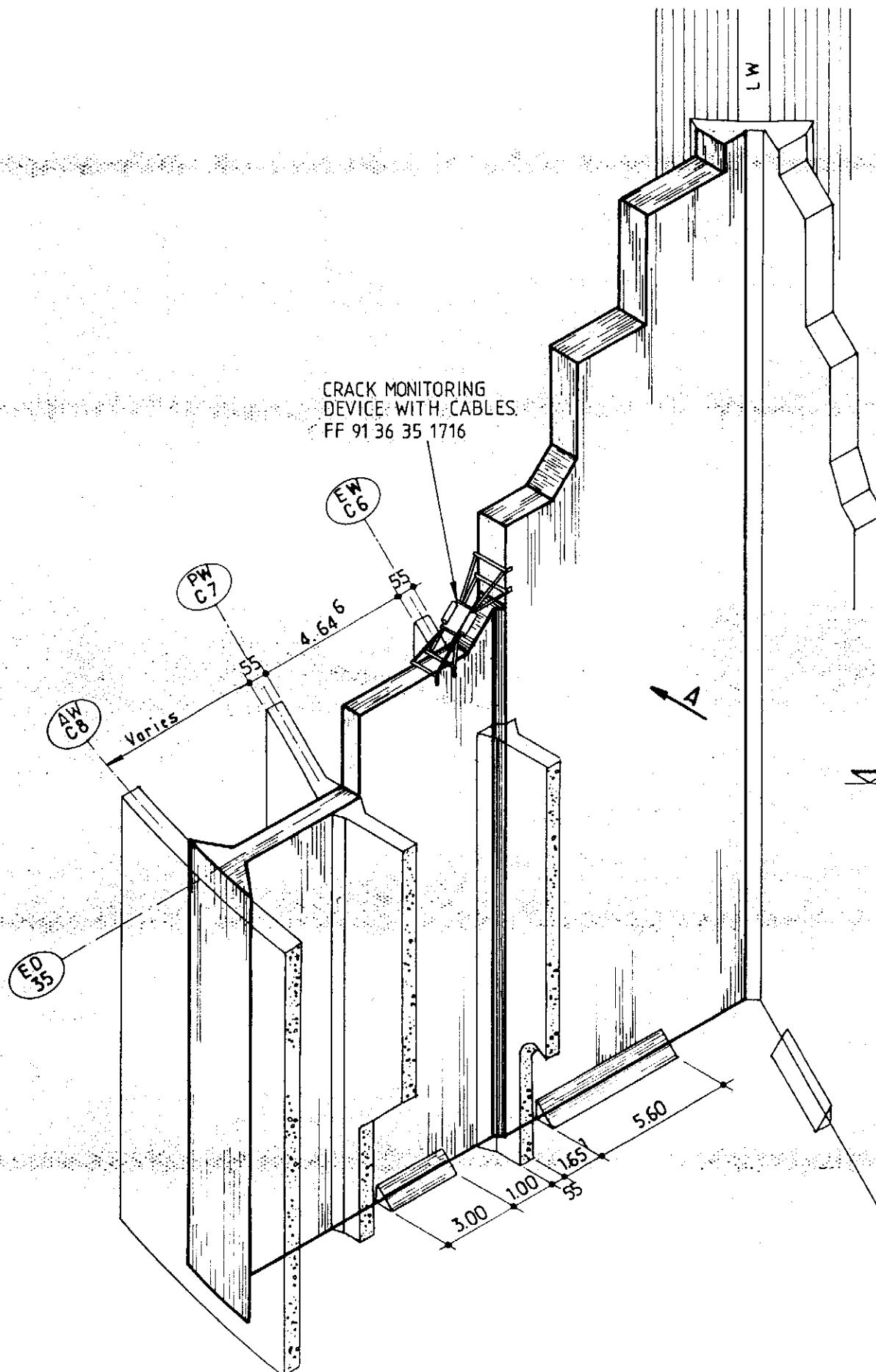
[illegible][illegible]

						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER	
1	10/83	REDRAWN						Scale	CONCRETE WORK EXTERIOR DIAPHRAGM ED:25		
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029-20-32						4001 Stavanger	FRIGG FIELD	FF	91.36-35-1081	1	/

BRIG NORTH
19° 37'
PLAT. NORTH



KEY PLAN



FOR CABLE LAYOUT, SEE FF 91 36 35 1718.
FOR REPAIR OF THIS DIAPHRAGM SEE SECTION 12

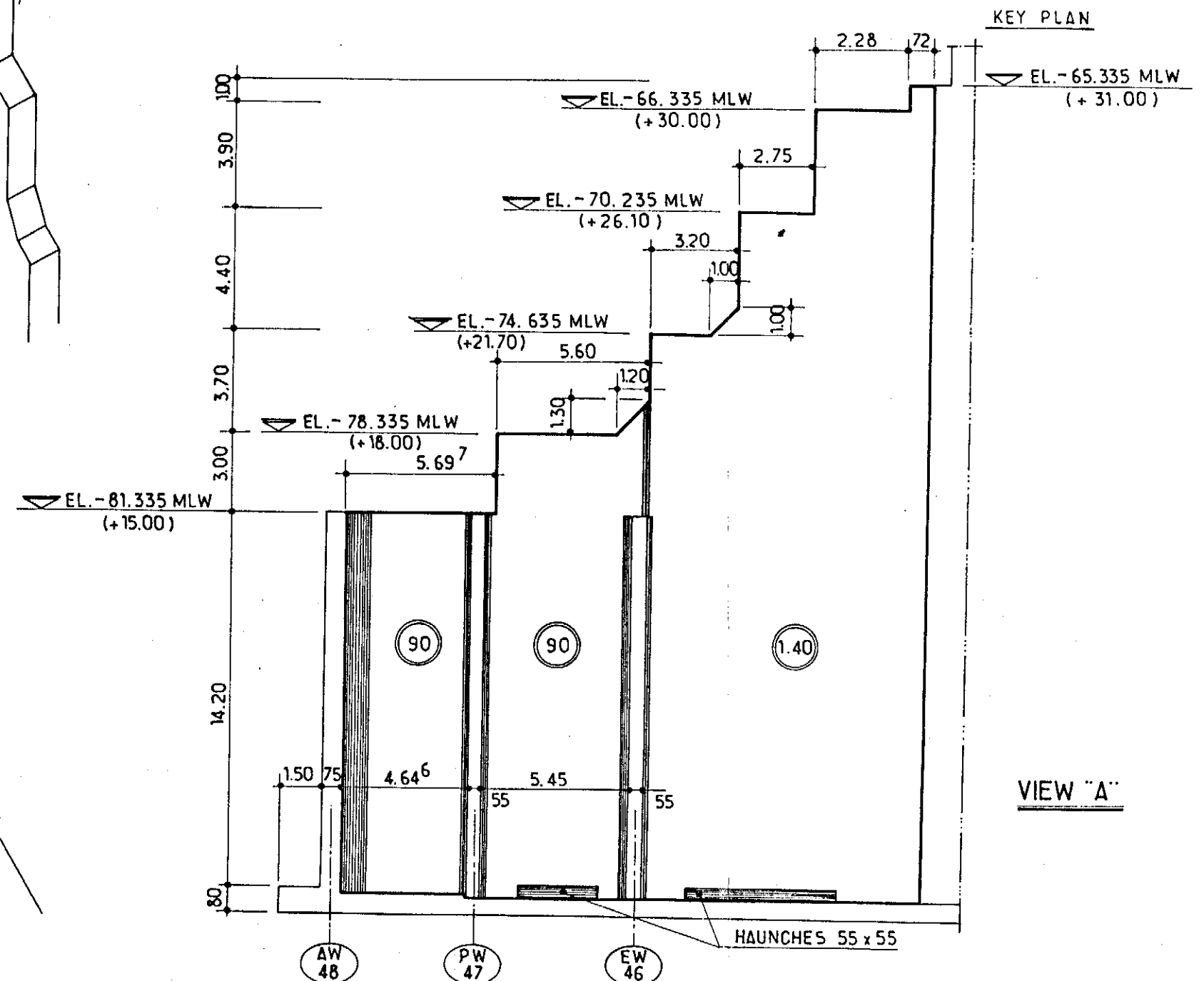
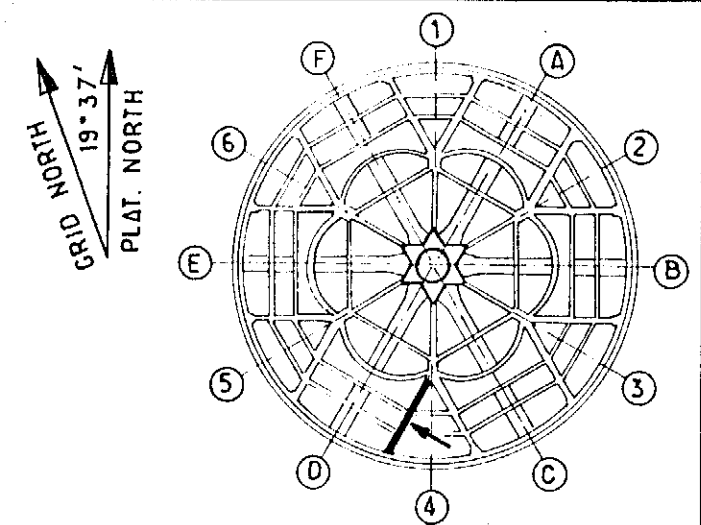
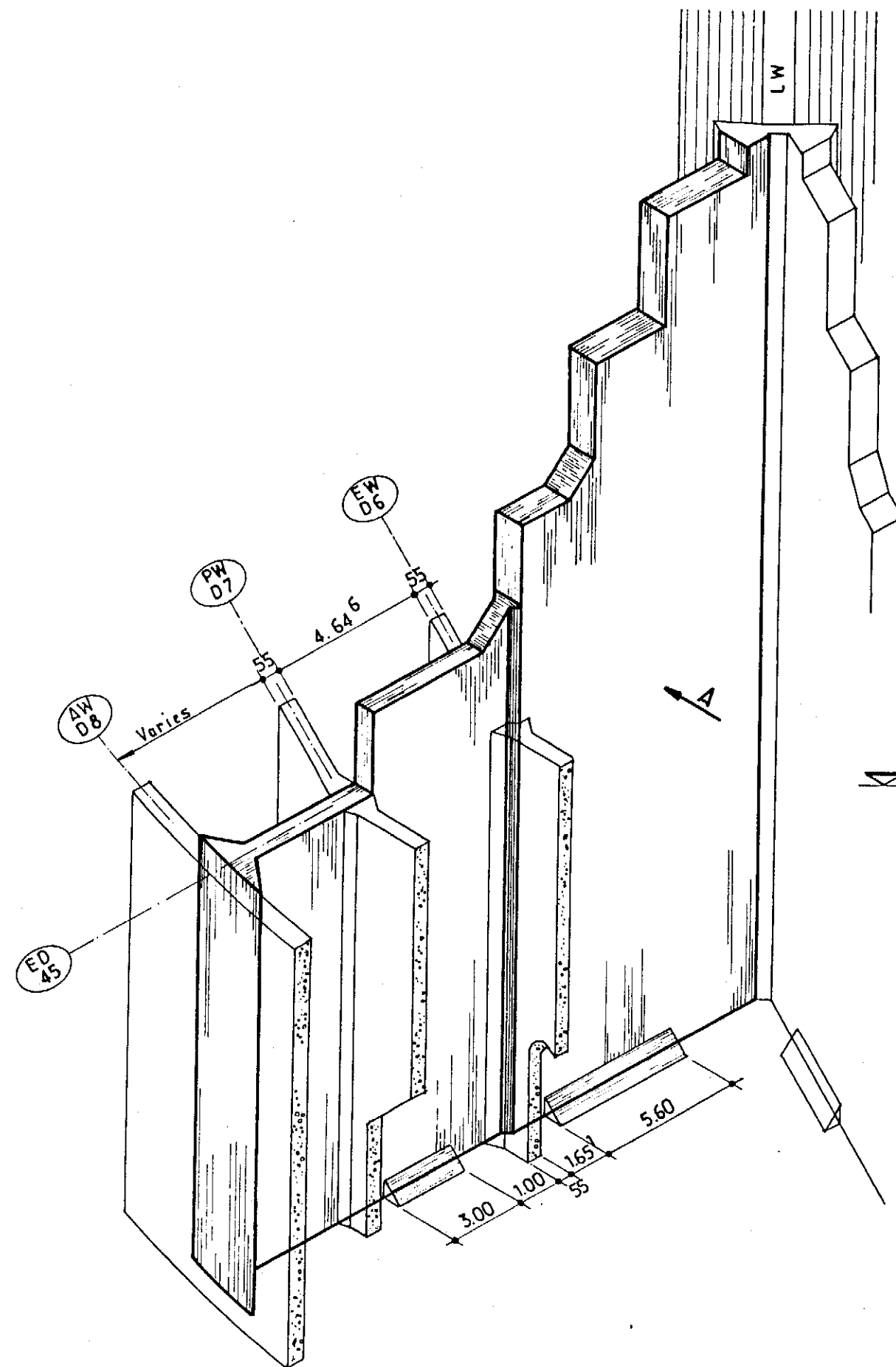
					elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf FRIGG FIELD	Job no.	Installation	System	
								CDP 1	UNDERWATER	
2	3.286	CRACK MONIT. DEVICE ADDED, REF. SST 5443	T.B.				Scale	CONCRETE WORKS		
1	10/83	REDRAWN	mir	J.LC			1:200	EXTERIOR DIAPHRAGM ED: 35		
Rev. Date		DESCRIPTION		by	app.	Dwgr. no	FF 91-36-35-1082		2	
Contractor JVD 1029-20-33										

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

						 elf	Job no.	Installation CDP 1	System UNDERWATER	
1	10/83	REDRAWN					Scale	CONCRETE WORK EXTERIOR DIAPHRAGM ED:35		
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029-20-33						4001 Stavanger	FF	91.36-35-1082	1	/



elf aquitaine norge a/s				Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mira J.L.C.	Scale 1:200	CONCRETE WORKS EXTERIOR DIAPHRAGM ED: 45	
Rev.	Date	DESCRIPTION	by app.	Dwgr. no.	FF 90_36_35_1083	1
Contractor JVD 1029_20_34				4001 Stavanger	FRIGG FIELD	

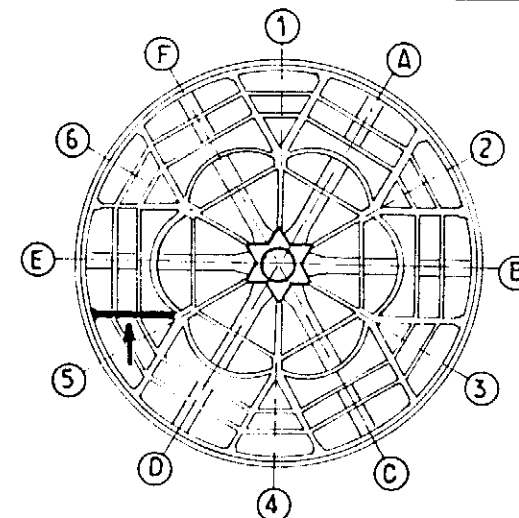
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

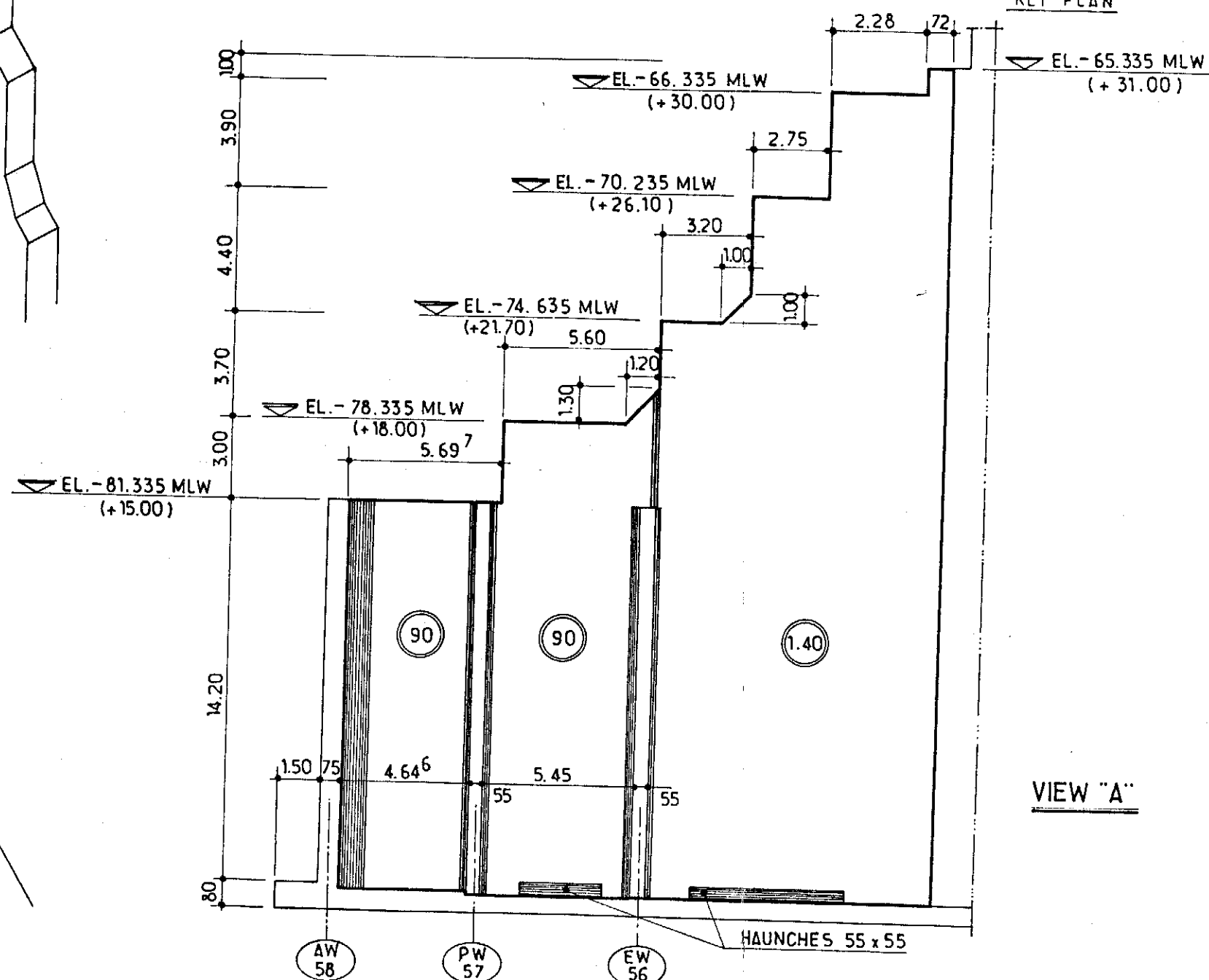
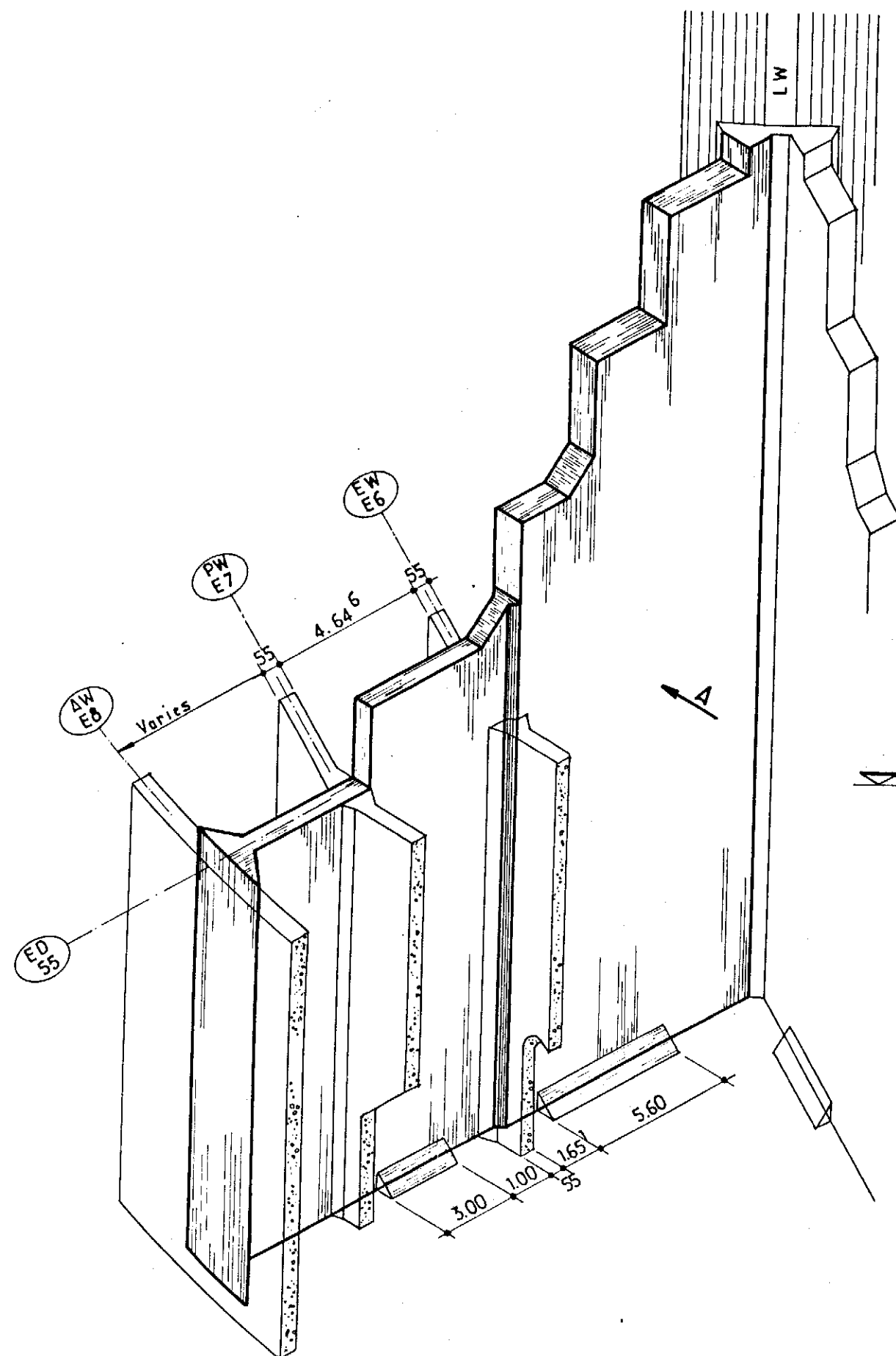
[illegible][illegible]

						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN			Scale			CONCRETE WORK EXTERIOR DIAPHRAGM ED:45		
Rev.	Date	DESCRIPTION	by	app.	Dwgr. no.				Rev.	Sheet
Contractor JVD-1029-20-34						4001 Stavanger	FRIGG FIELD	FF 91-36-35-1083	1	/

GRID NORTH
19° 37'
PLAT. NORTH



KEY PLAN



VIEW "A"

						 elf	Job no.	Installation CDP 1	System UNDERWATER		
1	10/83	REDRAWN	mirre	J.L.C.			Scale 1: 200	CONCRETE WORKS EXTERIOR DIAPHRAGM ED: 55			
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF 90_36_35_1084		1	
Contractor JVD 1029.20.35					4001 Stavanger	FRIGG FIELD					

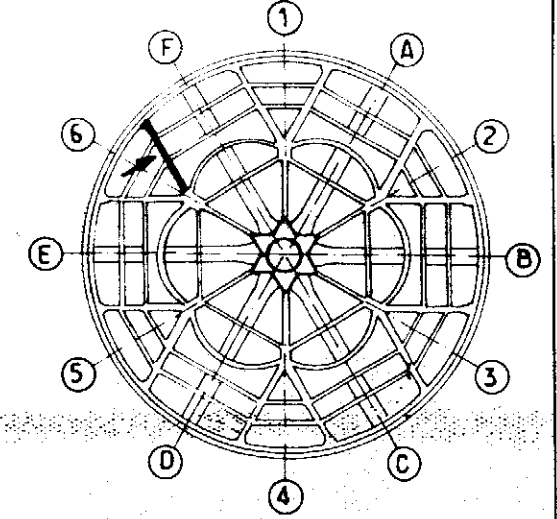
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

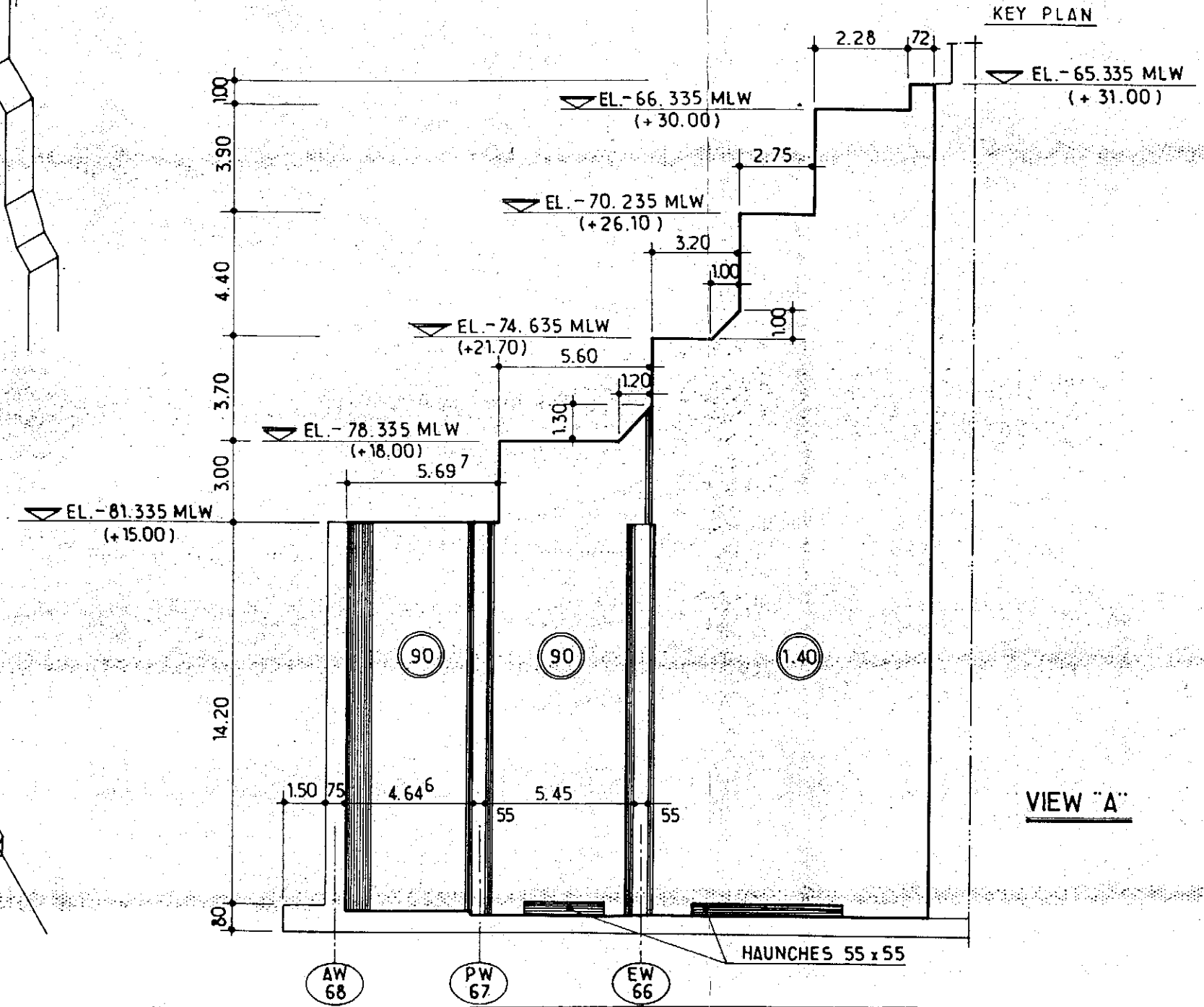
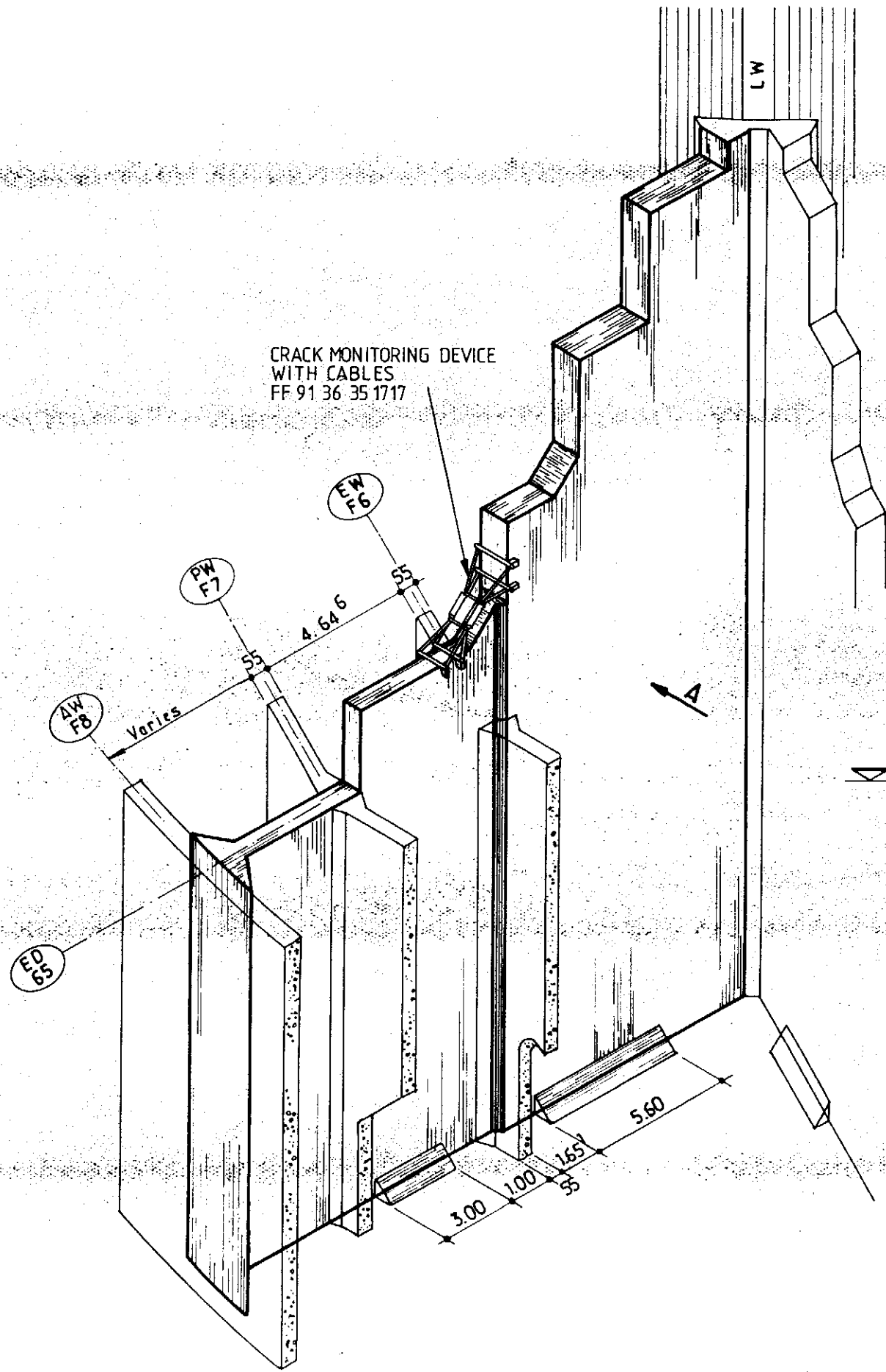
[illegible][illegible]

1 10/83 REDDRAWN Rev. Date DESCRIPTION by app. Contractor JVD. 1029-20-35									Job no. Installation CDP 1 System UNDERWATER		Scale CONCRETE WORK EXTERIOR DIAPHRAGM ED:55		Dwgr. no. FF 31.36-35-1084 Rev. 1 Sheet /	
elf aquitaine norge a/s									Job no. Installation CDP 1 System UNDERWATER		Scale CONCRETE WORK EXTERIOR DIAPHRAGM ED:55		Dwgr. no. FF 31.36-35-1084 Rev. 1 Sheet /	
elf aquitaine norge a/s									Job no. Installation CDP 1 System UNDERWATER		Scale CONCRETE WORK EXTERIOR DIAPHRAGM ED:55		Dwgr. no. FF 31.36-35-1084 Rev. 1 Sheet /	

GRD NORTH
19° 37'
PLAT. NORTH



KEY PLAN



VIEW "A"

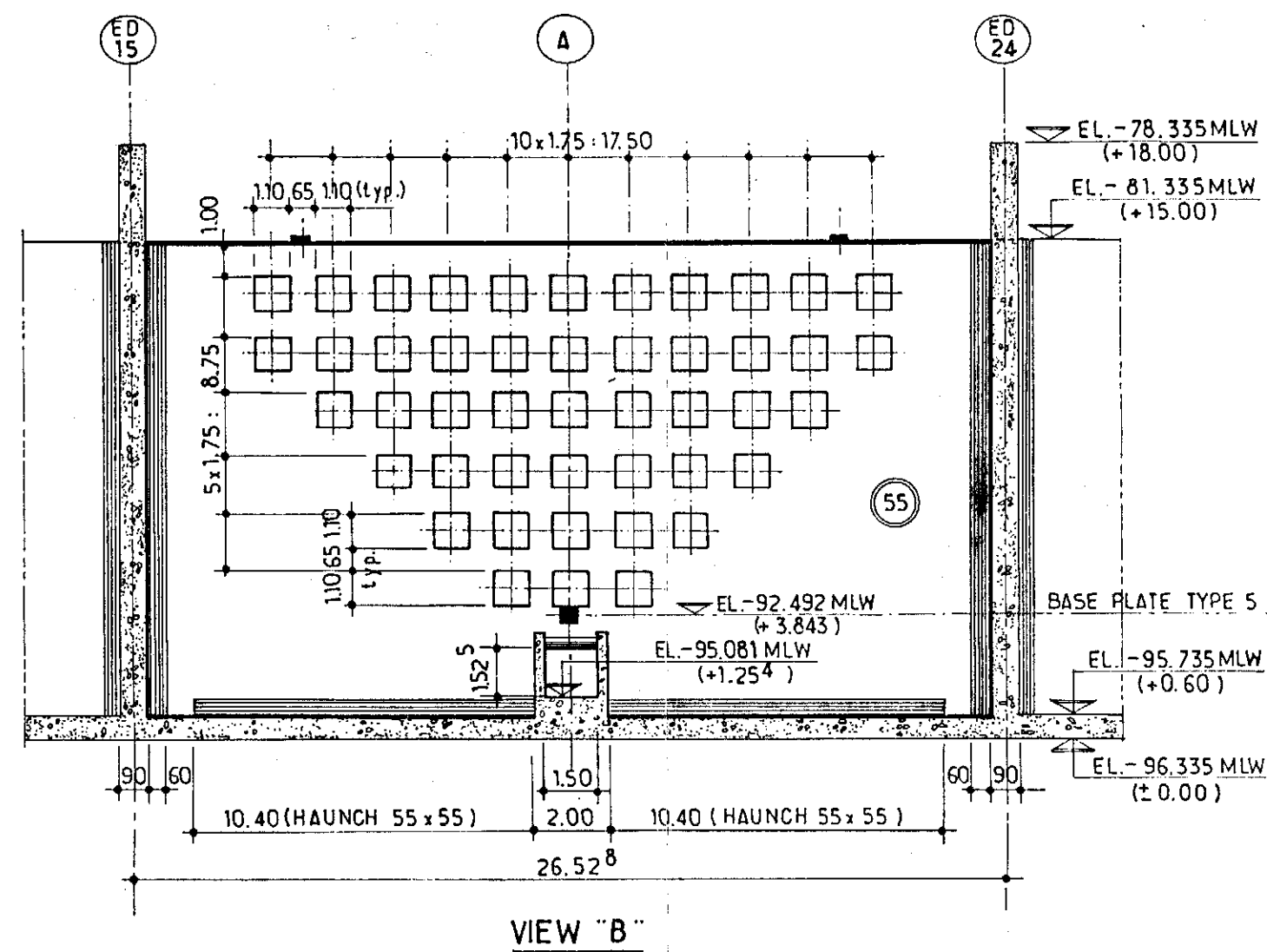
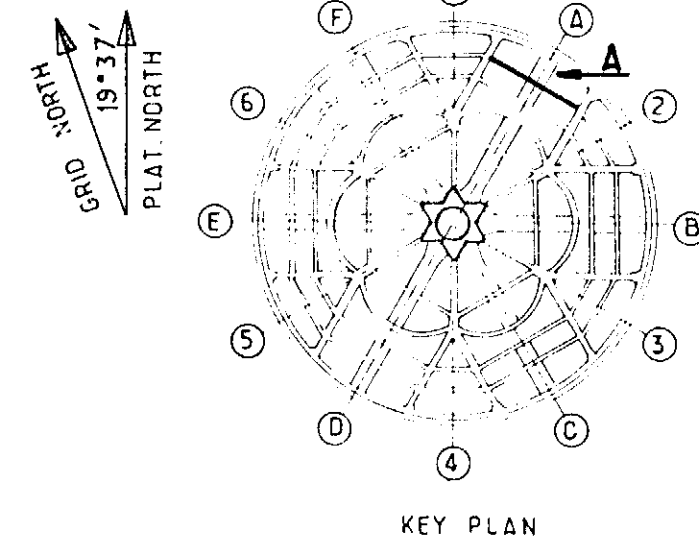
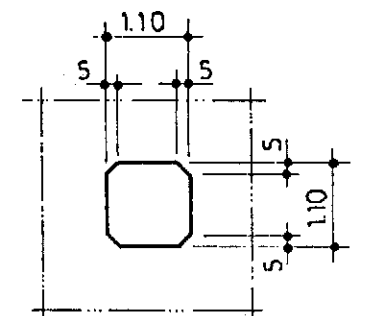
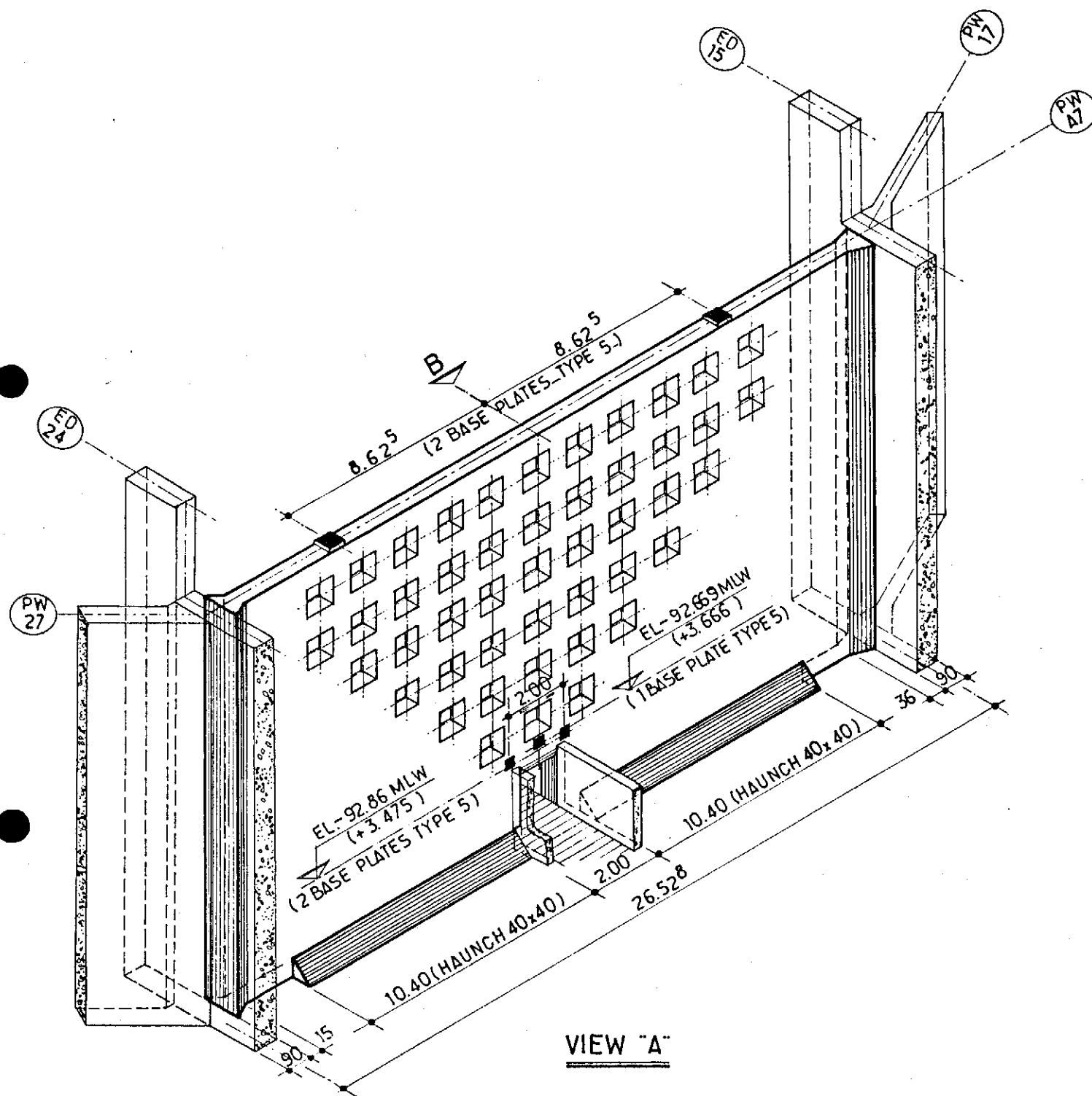
FOR CABLE LAYOUT, SEE FF 91 36 35 1718
FOR REPAIR OF THIS DIAPHRAGM SEE SECTION 12

						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation	System					
2	32.86	CRACK MONIT.DEVICE ADDED. REF. SST 5443	T.B.							CDP 1	UNDERWATER				
1	10/83	REDRAWN	mira	JLC					Scale	CONCRETE WORKS					
Rev.	Date	DESCRIPTION	by	app.					1:200	EXTERIOR DIAPHRAGM ED : 65					
								Dwgr. no							
Contractor						JVD 1029. 20 . 36		FRIGG FIELD	FF	91_36_35_1085			2	/	

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible][illegible]



NOTES:

FOR DETAILS OF BASE PLATE TYPE 5 SEE SK. FF. 91.36.35.1289

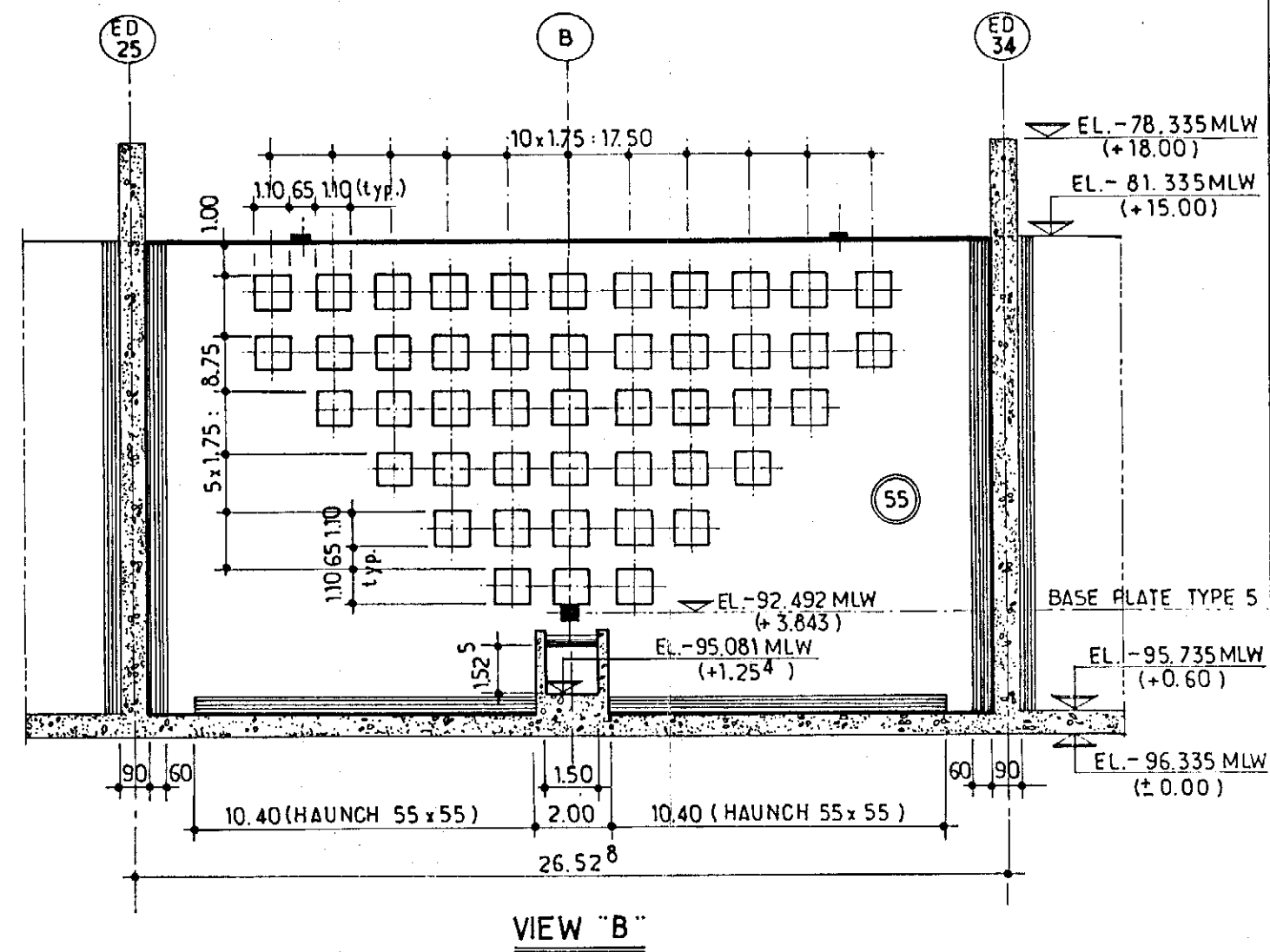
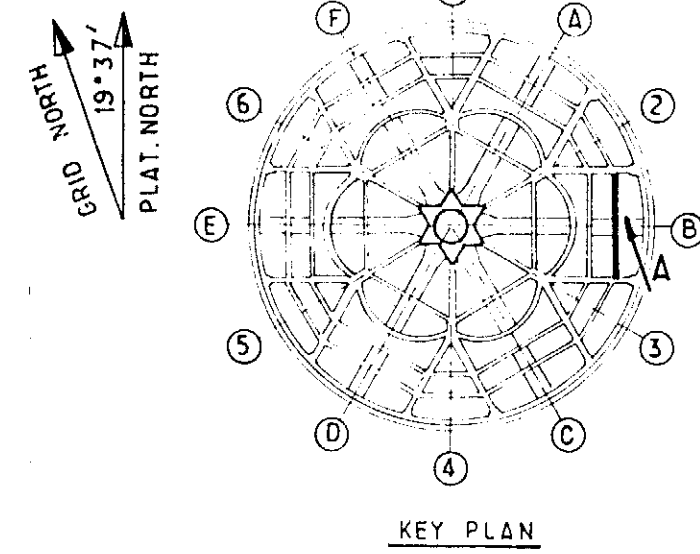
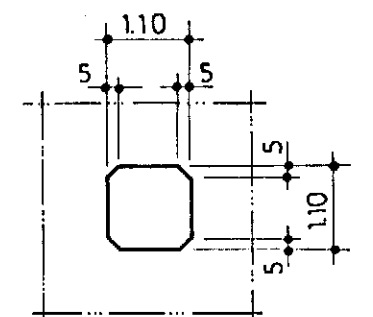
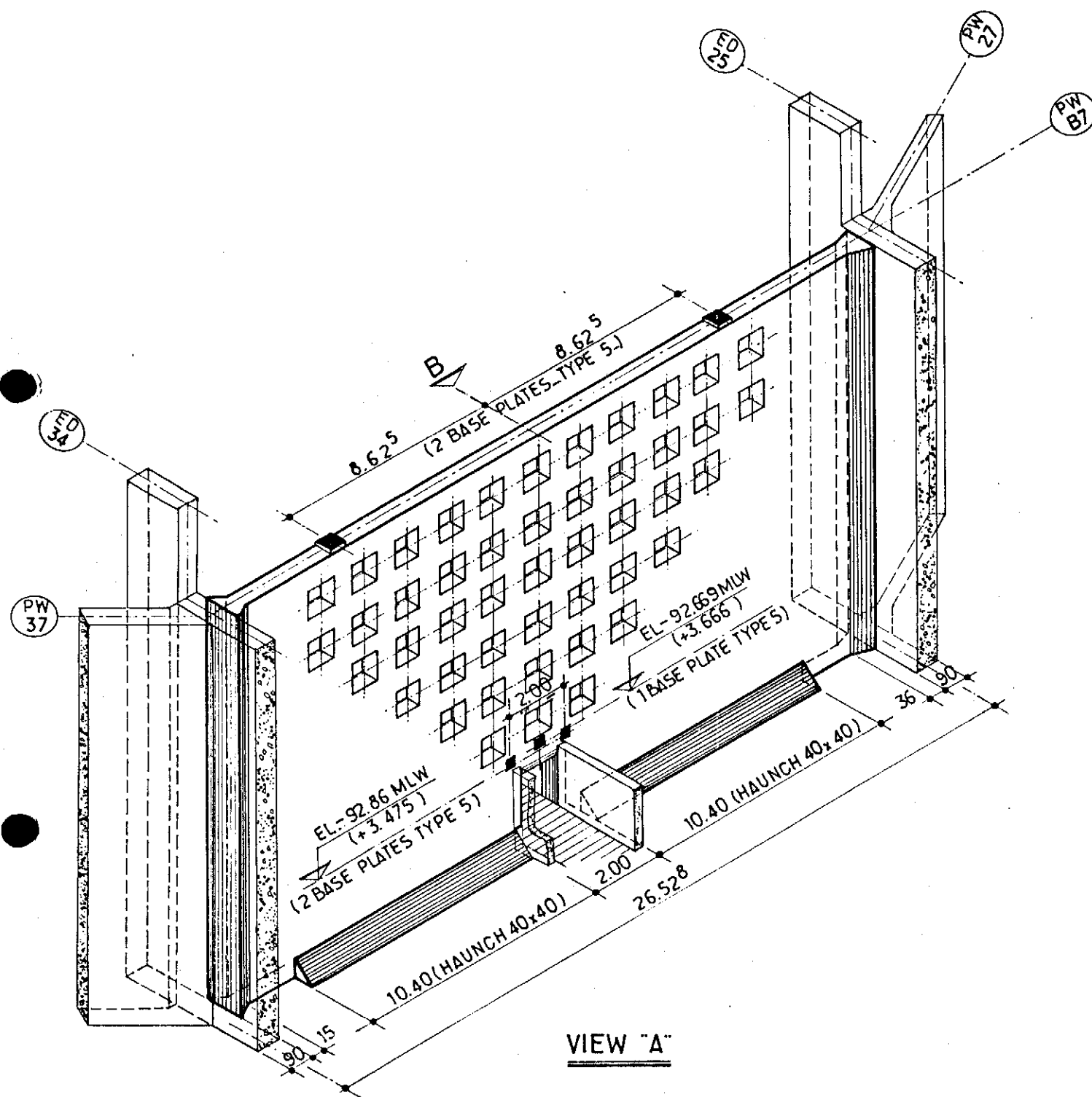
				elf aquitaine norge a/s		elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mir	JVC	p.o. box 168		Scale 1:200	PERFORATED WALL PW A7	
Contractor JVD 1029.20.41				4001 Stavanger		FRIGG FIELD	Dwgr. no.	FF 91.36.35.1090	1

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

						 elf	Job no.	Installation CDP 1	System UNDERWATER		
1	10/88	REDRAWN					Scale	CONCRETE WORK PERFORATED WALL : PW "A7 "			
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF 91.36-35-1090		Rev.	Sheet
Contractor JVD-1029-20-41						4001 Stavanger	FRIGG FIELD				



NOTES:
 FOR DETAILS OF BASE PLATE TYPE 5 SEE SK. FF. 91.36.35.1289

					 elf	Job no.	Installation CDP 1	System UNDERWATER		
1	10/83	REDRAWN	mirr	JLC		Scale 1:200	PERFORATED WALL. PW"B7"			
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no.	FF 91.36.35.1091		1	
Contractor JVD 1029.20.42						4001 Stavanger	FRIGG FIELD			

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

							Job no.	Installation CDP 1	System UNDERWATER
10/28	REDRAWN				Scale		CONCRETE WORK PERFORATED WALL : PW "B7"		
Rev.	Date	DESCRIPTION	by	app.	Dwgr. no.		FF 91.36-35.1091		
Contractor JVD. 1029-20-42					4001 Stavanger	FRIGG FIELD	Rev.	1	
							Sheet	/	

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

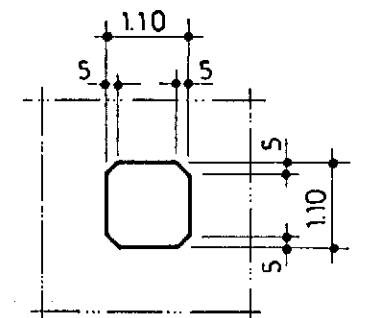
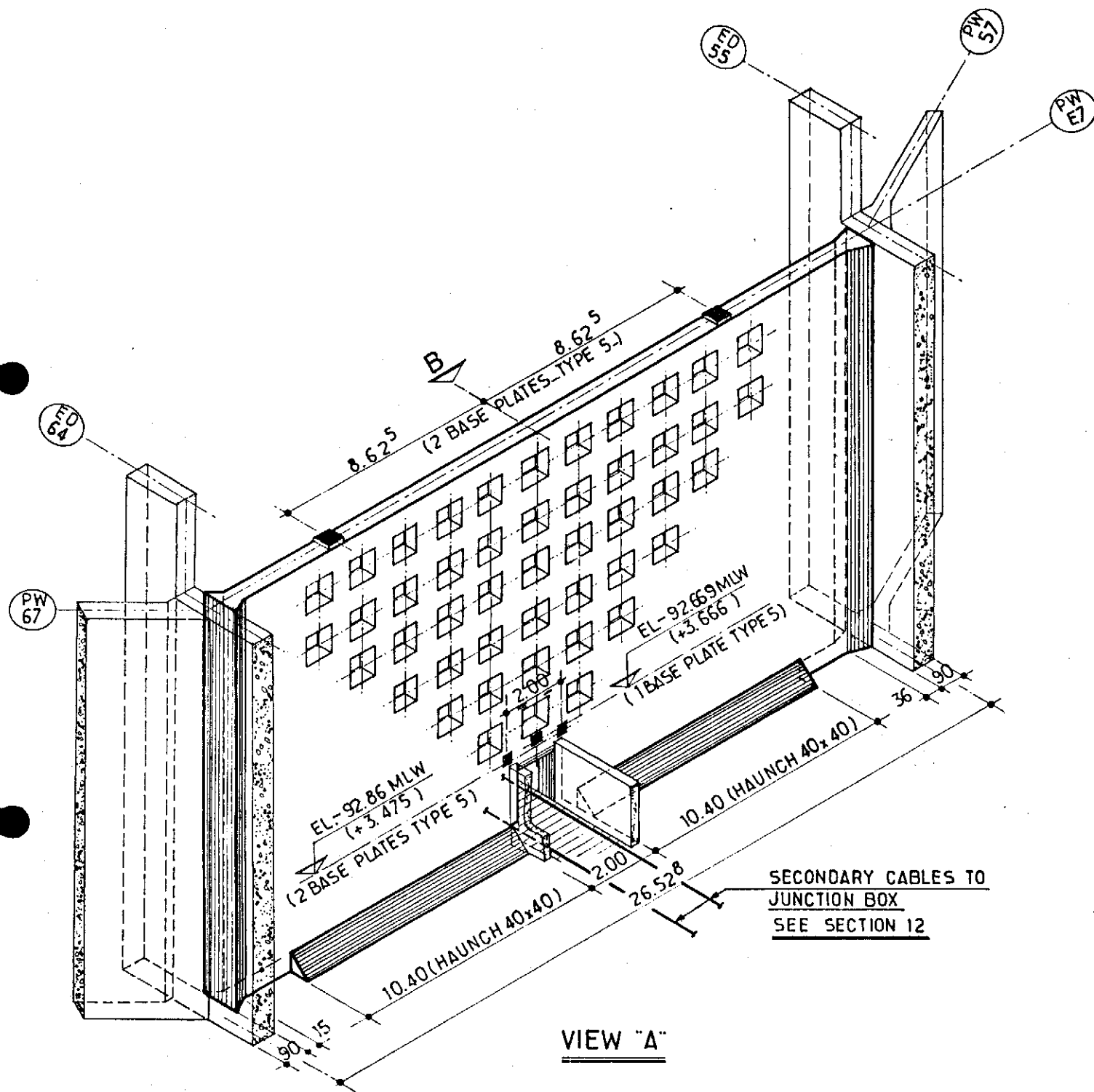
						 elf	Job no.	Installation CDP 1	System UNDERWATER		
1	10/82	REDRAWN					Scale	CONCRETE WORK PERFORATED WALL = PW "C7"			
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF 91.36-35.1092		Rev. 1	Sheet /
Contractor JVD. 1029-20-43						4001 Stavanger	FRIGG FIELD				

CDP 1 AS BUILT DRAWINGS

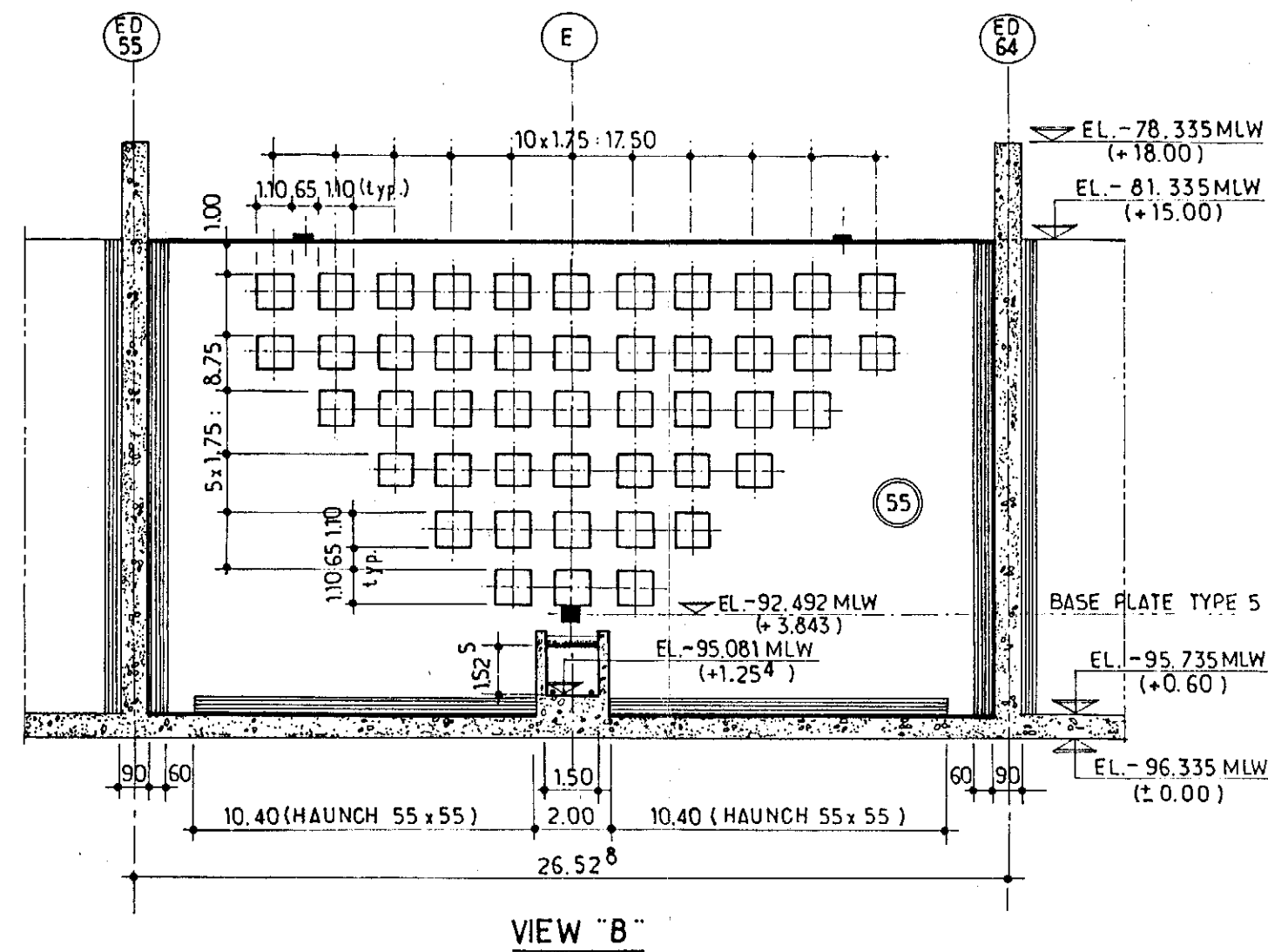
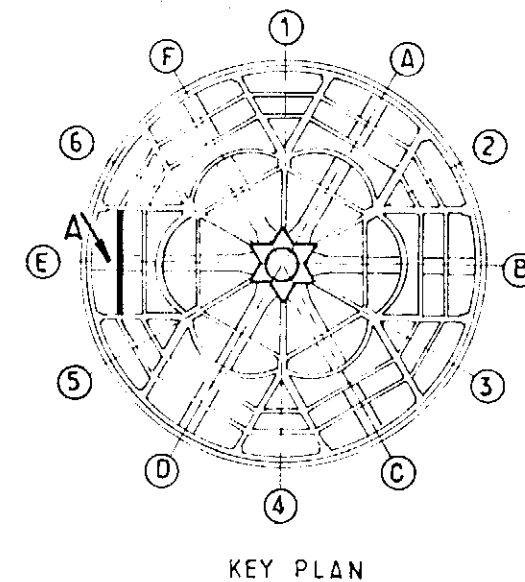
REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

						 elf	Job no.	Installation CDP 1	System UNDERWATER	
10/82	REDRAWN						Scale	CONCRETE WORK PERFORATED WALL : PW "D7"		
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029. 20. 44							FF	91. 36. 35. 1003	1	/
elf aquitaine norge a/s p.o.box 168 4001 Stavanger						FRIGG FIELD				



GRID NORTH
19° 37'
PLAT. NORTH



NOTES:

FOR DETAILS OF BASE PLATE TYPE 5 SEE SK. FF. 91_36_35_1289

SECONDARY CABLES TO
JUNCTION BOX
SEE SECTION 12

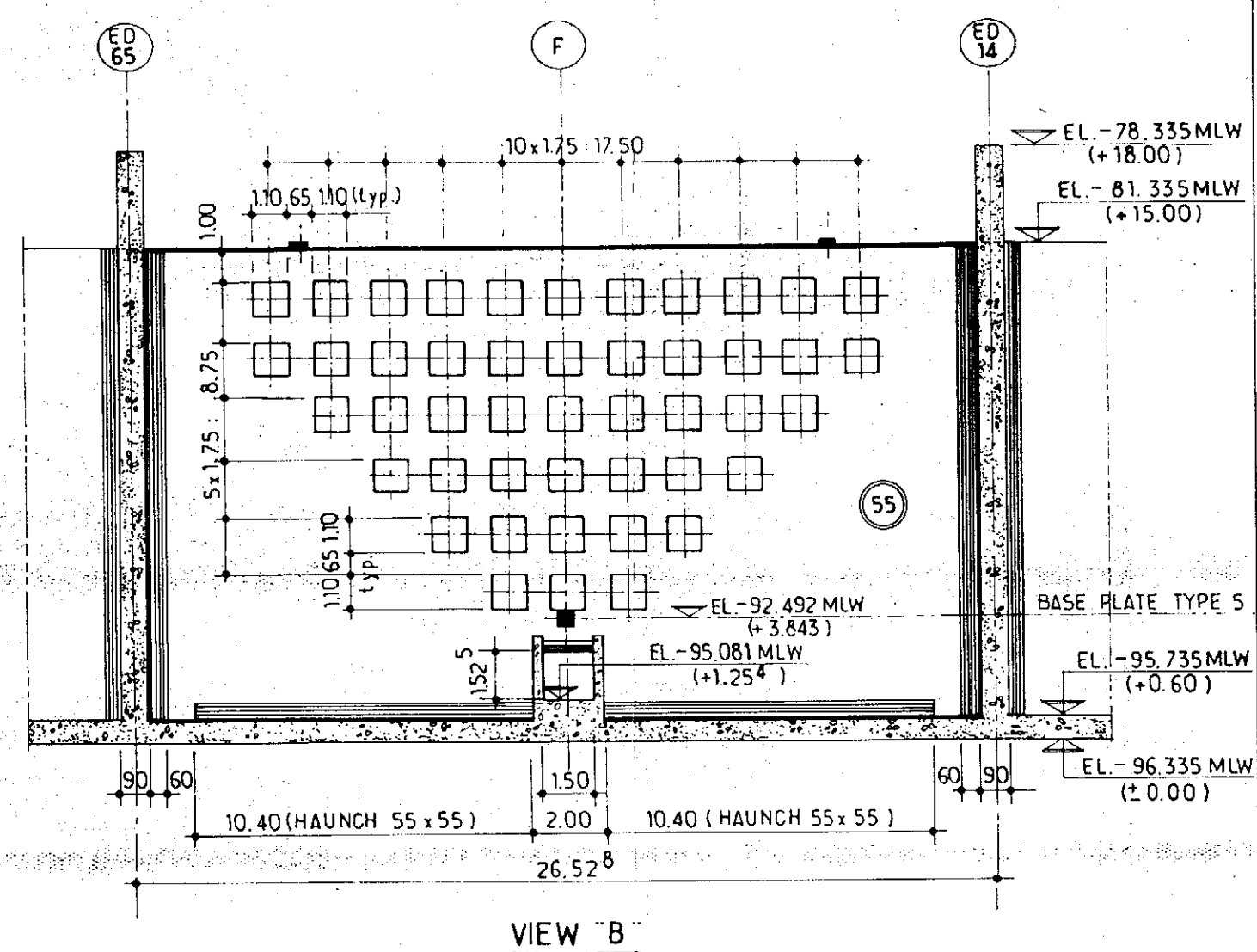
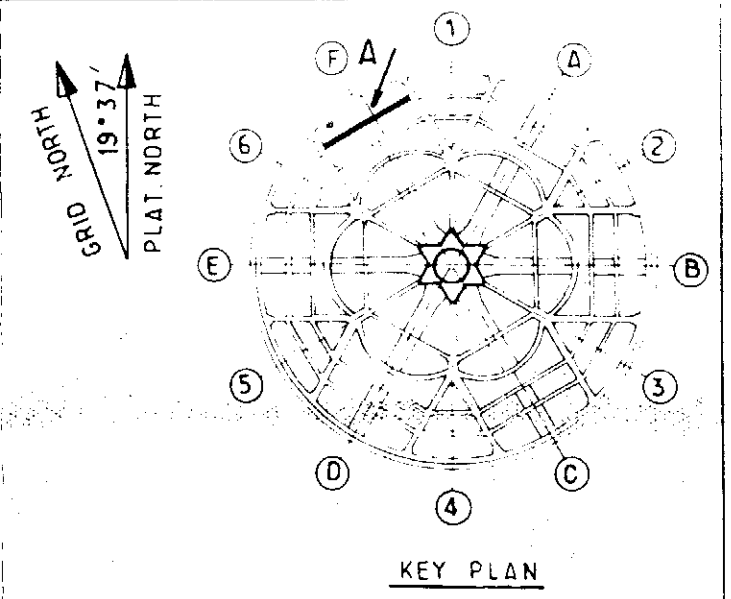
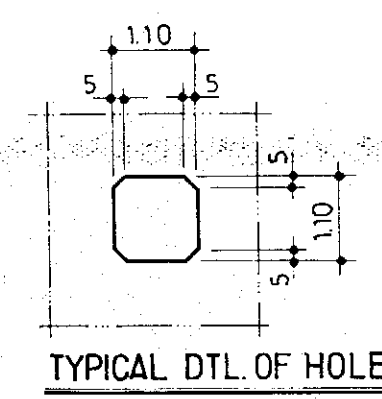
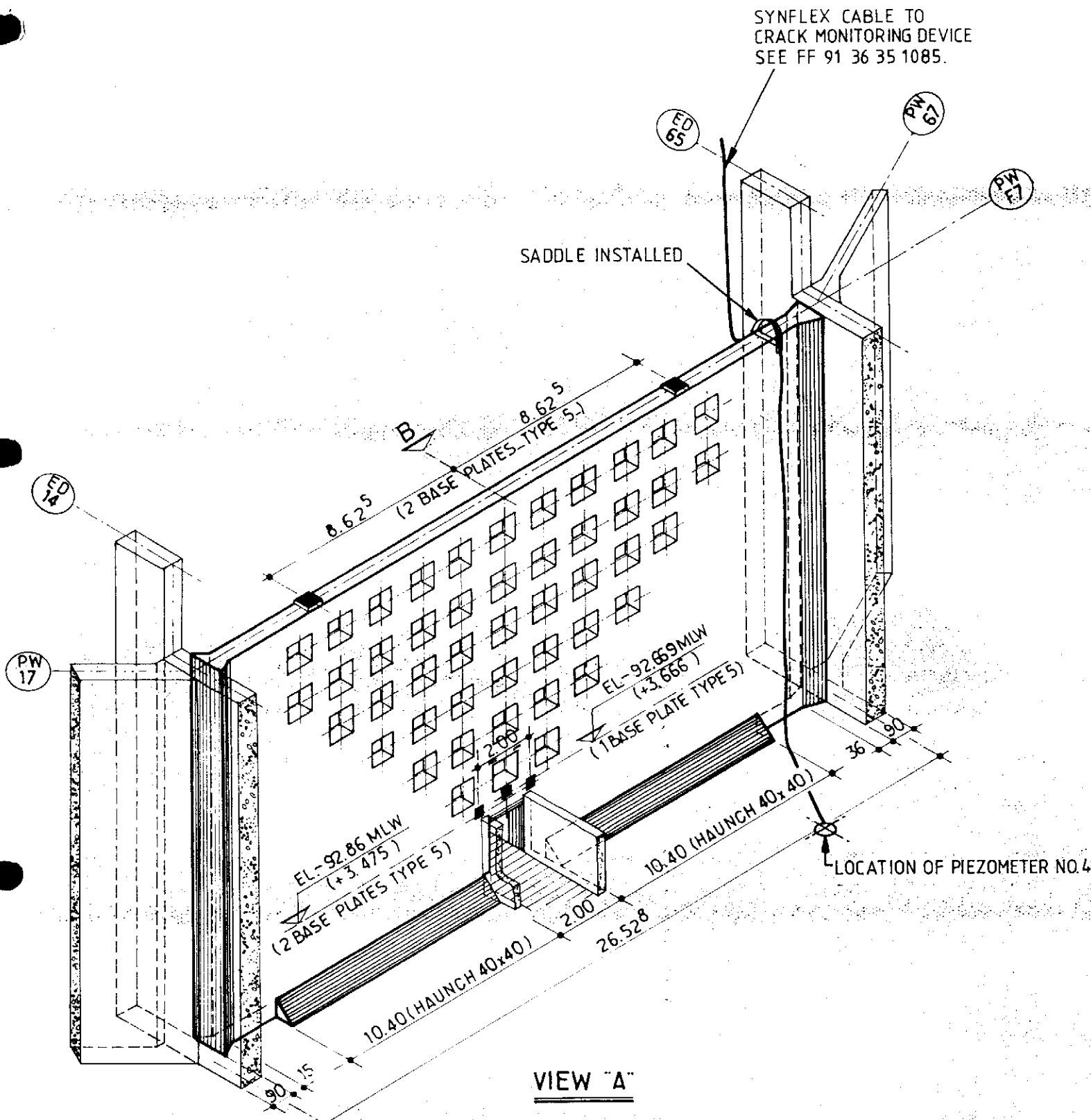
						 elf	Job no.	Installation CDP 1	System UNDERWATER		
1	10/83	REDRAWN	ming	JLL			Scale 1:200	PERFORATED WALL. PW"E7"			
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no	FF 91_36_35.1094		1	
Contractor JVD 1029_20_45					4001 Stavanger		FRIGG FIELD				

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

					elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER	
10/28	REDRAWN						Scale	CONCRETE WORK PERFORATED WALL : PW "E7"		
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029- 20-45					4001 Stavanger	FRIGG FIELD	FF	91.36-35-1094	1	/



NOTES:

FOR DETAILS OF BASE PLATE TYPE 5 SEE SK. FF. 91 36 35 1289

FOR CABLE LAYOUT, SEE FF 91 36 35 1718.

					elf aquitaine norge a s p.o. box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER	
2	3.2.86	CABLE ADDED REF SST 5443	T.B.				Scale 1:200	PERFORATED WALL - PW F7		
1	10/83	REDRAWN	mir	JLC			Dwg. no. FF 91.36.35.1095	2		
Rev.	Date	DESCRIPTION	by	app.						
Contractor		JVD 1029.20.46		4001 Stavanger		FRIGG FIELD				

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

						 elf	Job no.	Installation CDP 1	System UNDERWATER		
1	0/82	REDRAWN					Scale	CONCRETE WORK PERFORATED WALL : PW "F7"			
Re	Date	DESCRIPTION	by	app.			Dwgr. no.	FF 91.36-35.1095	Rev	1	Sheet /
Contractor JVD.1029-20-46						4001 Stavanger	FRIGG FIELD				

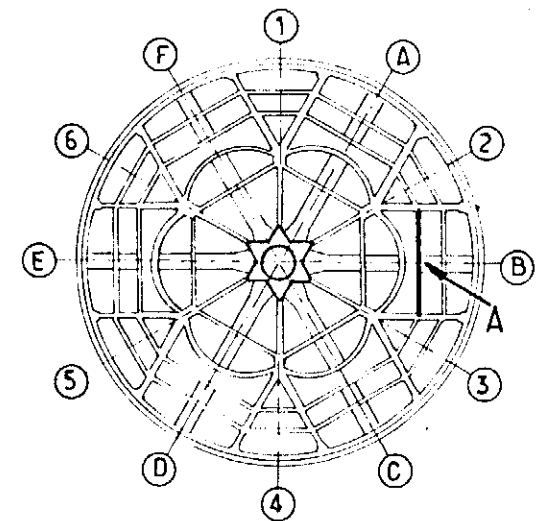
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

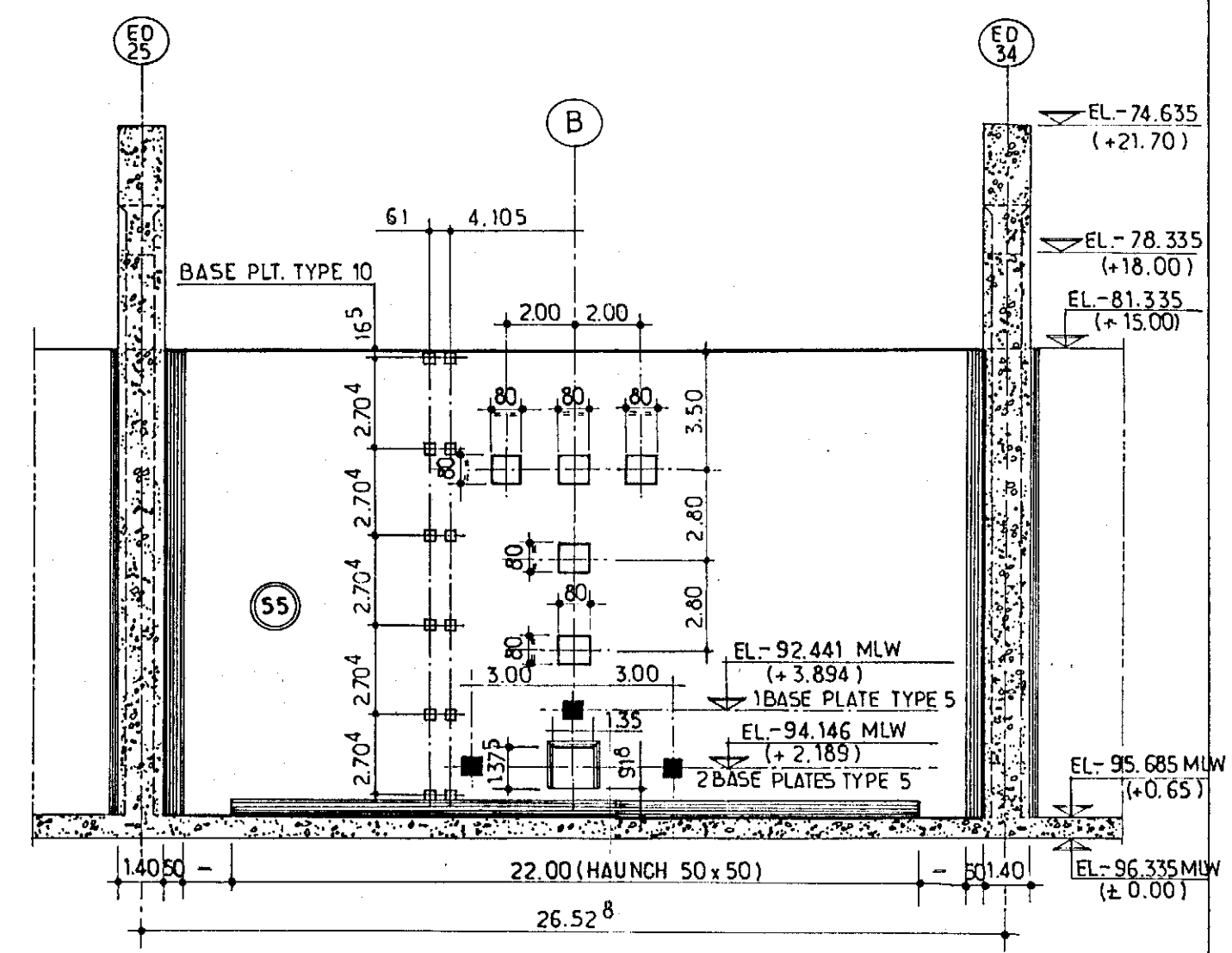
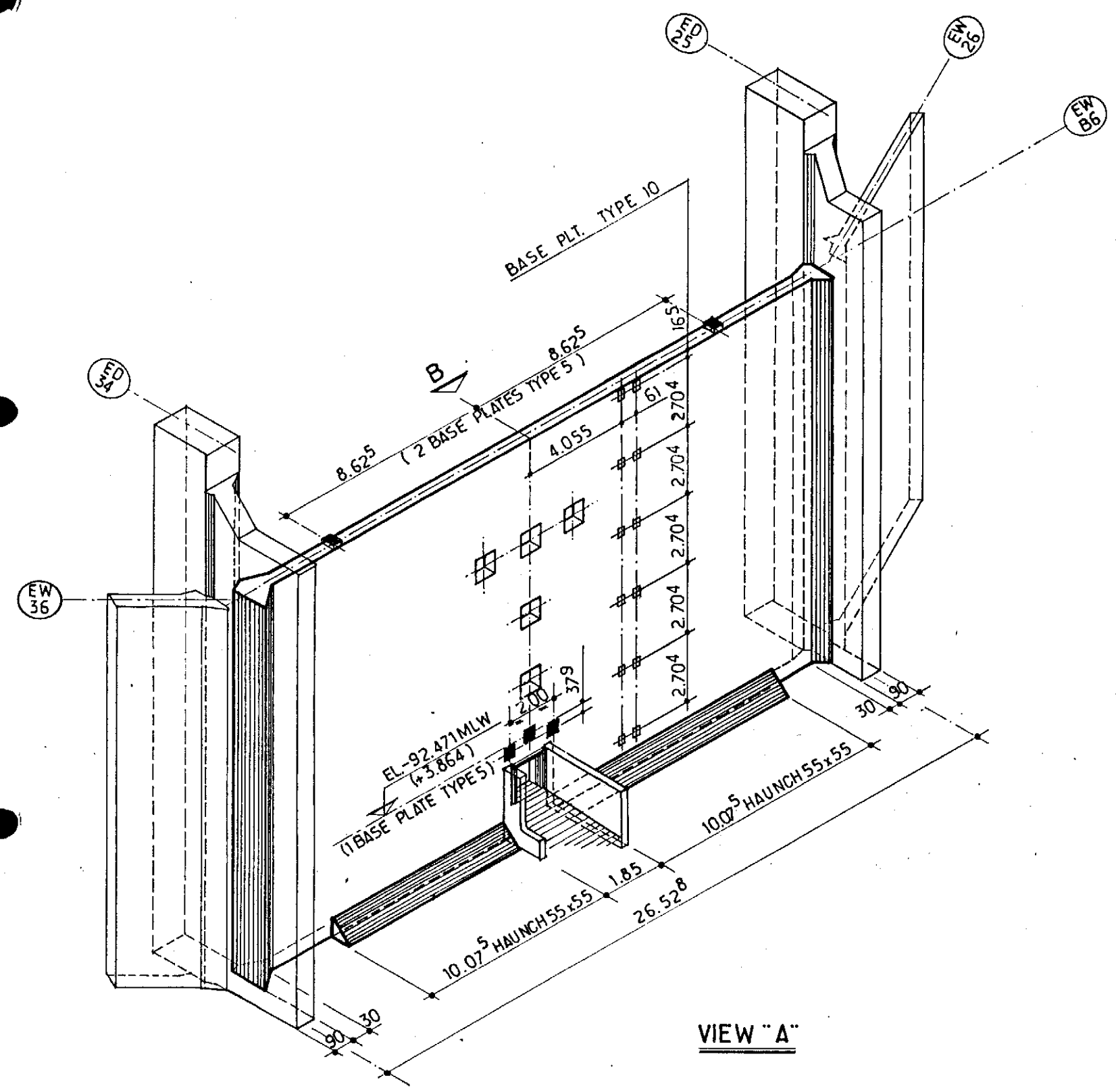
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						 elf	Job no.	Installation CDP 1	System UNDERWATER
10/83	REDRAWN				Scale		CONCRETE WORK EXTERIOR WALL - EW 'AG'		
Rev.	Date	DESCRIPTION	by	app.	Dwgr. no.			Rev.	Sheet
Contractor JVD. 1029-20.47					4001 Stavanger	FRIGG FIELD	FF	91.36.35.1096	1 /

HIRON
010
19°37'
PLAT. NORTH



KEY PLAN



NOTES:
FOR DETAILS OF BASE PLATE TYPE 5 SEE SK. F.F. 91.36.35.1289
TYPE 10 1291

elf aquitaine norge a/s p.o. box 168 4001 Stavanger				elf		Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mir	LLC		Scale 1:200	EXTERIOR WALL - EW "B6"	
Contractor JVD 1029.20.48				4001 Stavanger		Dwgr. no.	FF 91.36.35.1097	1
				FRIGG FIELD				

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

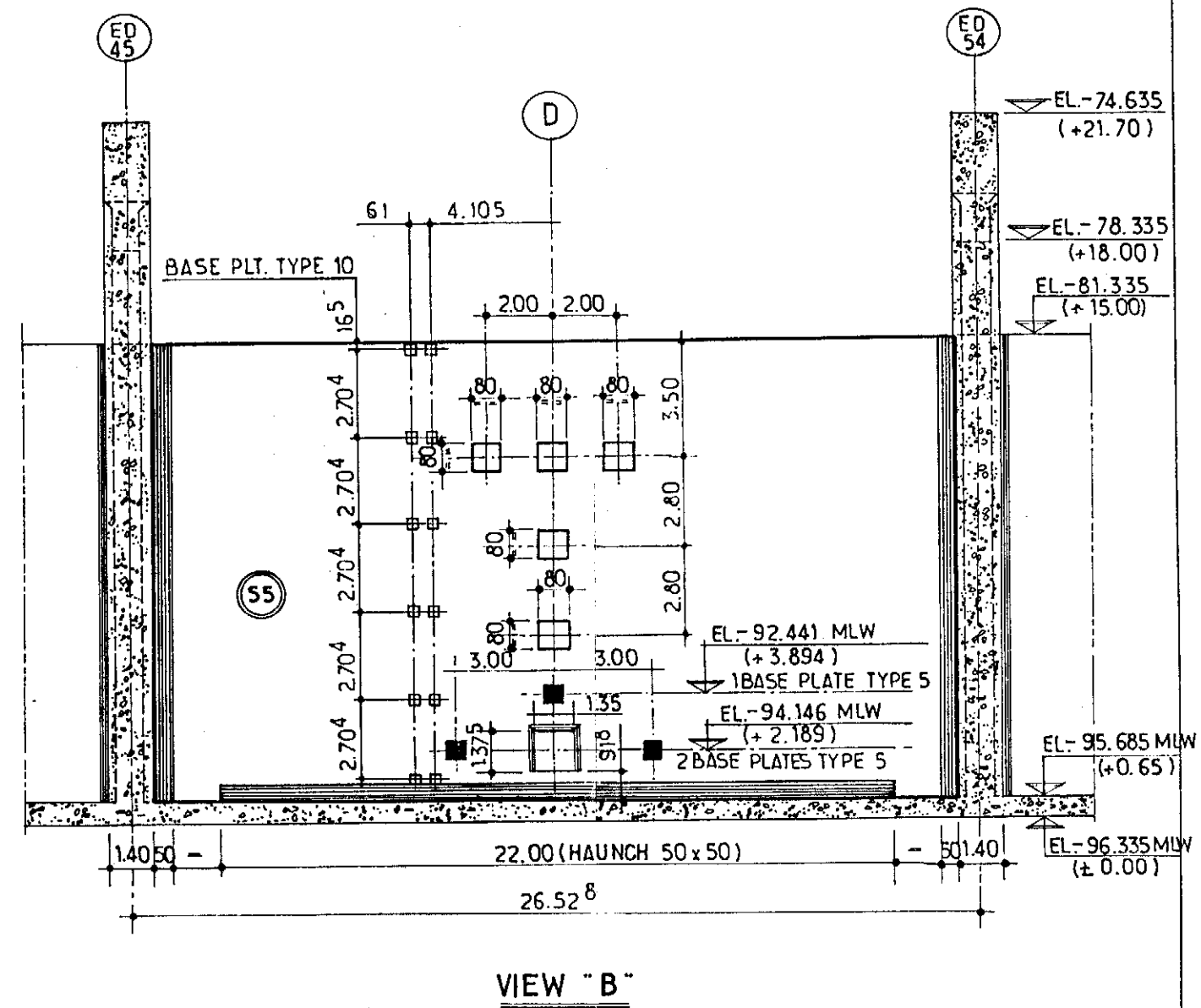
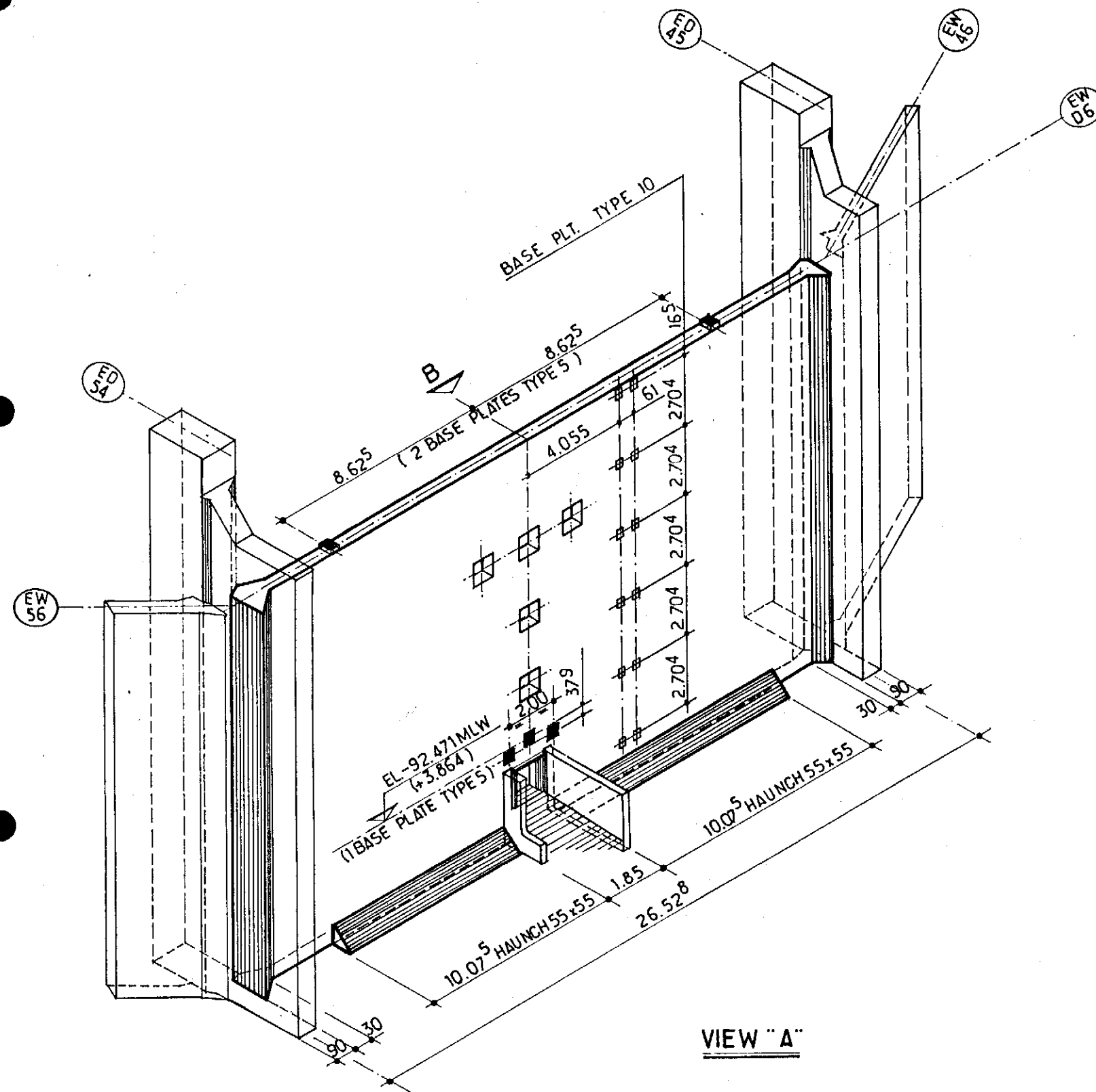
						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER	
1	10/83	REDRAWN						Scale	CONCRETE WORK EXTERIOR WALL - EW '86"		
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.		Rev.	Sheer
Contractor JVD. 1029-20.48						4001 Stavanger	FRIGG FIELD	FF	91-36-35-1097	1	/

CDP 1 AS BUILT DRAWINGS

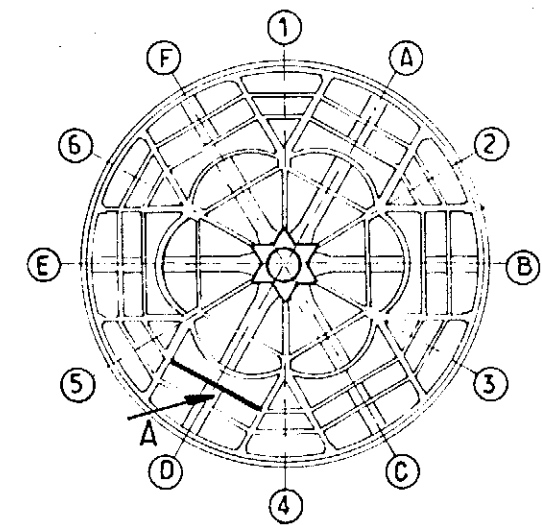
REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

						 elf	Job no.	Installation CDP 1	System UNDERWATER
10/23	REDRAWN				Scale		CONCRETE WORK EXTERIOR WALL - EW 56		
Rev.	Date	DESCRIPTION	by	app.	Dwgr. no.			Rev	Sheet
Contractor JVD. 1029-20.49					4001 Stavanger	FRIGG FIELD	FF	91.36.35-1098	1



GRD. NORTH
19°37'
PLAT. NORTH



NOTES:

FOR DETAILS OF BASE PLATE TYPE 5 SEE SK. F.F. 91.36.35.1289
TYPE 10 1291

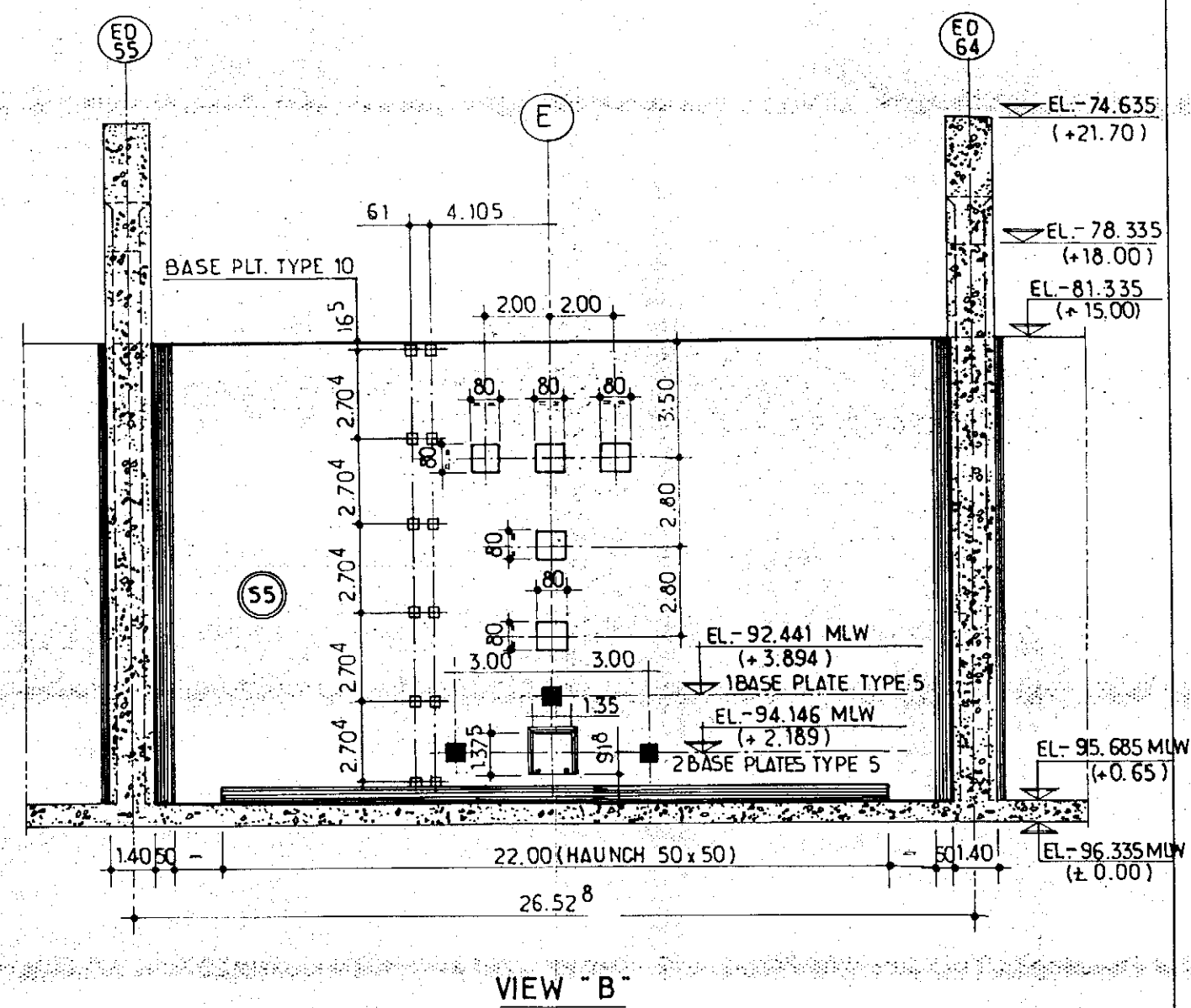
						 elf	Job no.	Installation CDP 1	System UNDERWATER		
1	10/83	REDRAWN	mira	JJC			Scale 1:200	EXTERIOR WALL - EW "D6"			
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no	FF 91_36_35_1099		1	/
Contractor JVD 1029.20.50					4001 Stavanger	FRIGG FIELD					

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

						 elf	Job no.	Installation CDP 1	System UNDERWATER	
10/83	REDRAWN						Scale	CONCRETE WORK EXTERIOR WALL - EW "D6"		
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029-20.50						4001 Stavanger	FF	91-36-35-1099	1	/



NOTES :

FOR DETAILS OF BASE PLATE TYPE 5 SEE SK. F.F. 91.36.35.1289
 TYPE 10 — 1291
 FOR CABLE LAYOUT, SEE FF 91 36 35 1718.

						Job no.	Installation CDP 1	System UNDERWATER	
2	32.86	CABLE ADDED. REF SST 5443	TB.			Scale 1:200	EXTERIOR WALL - EW "E6"		
1	10/83	REDRAWN	mm	LLC		Dwgr no	FF 91_36_35_1100		2
Rev.	Date	DESCRIPTION	by	app.					
Contractor JVD 1029.20.51					4001 Stavanger	FRIGG FIELD			

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

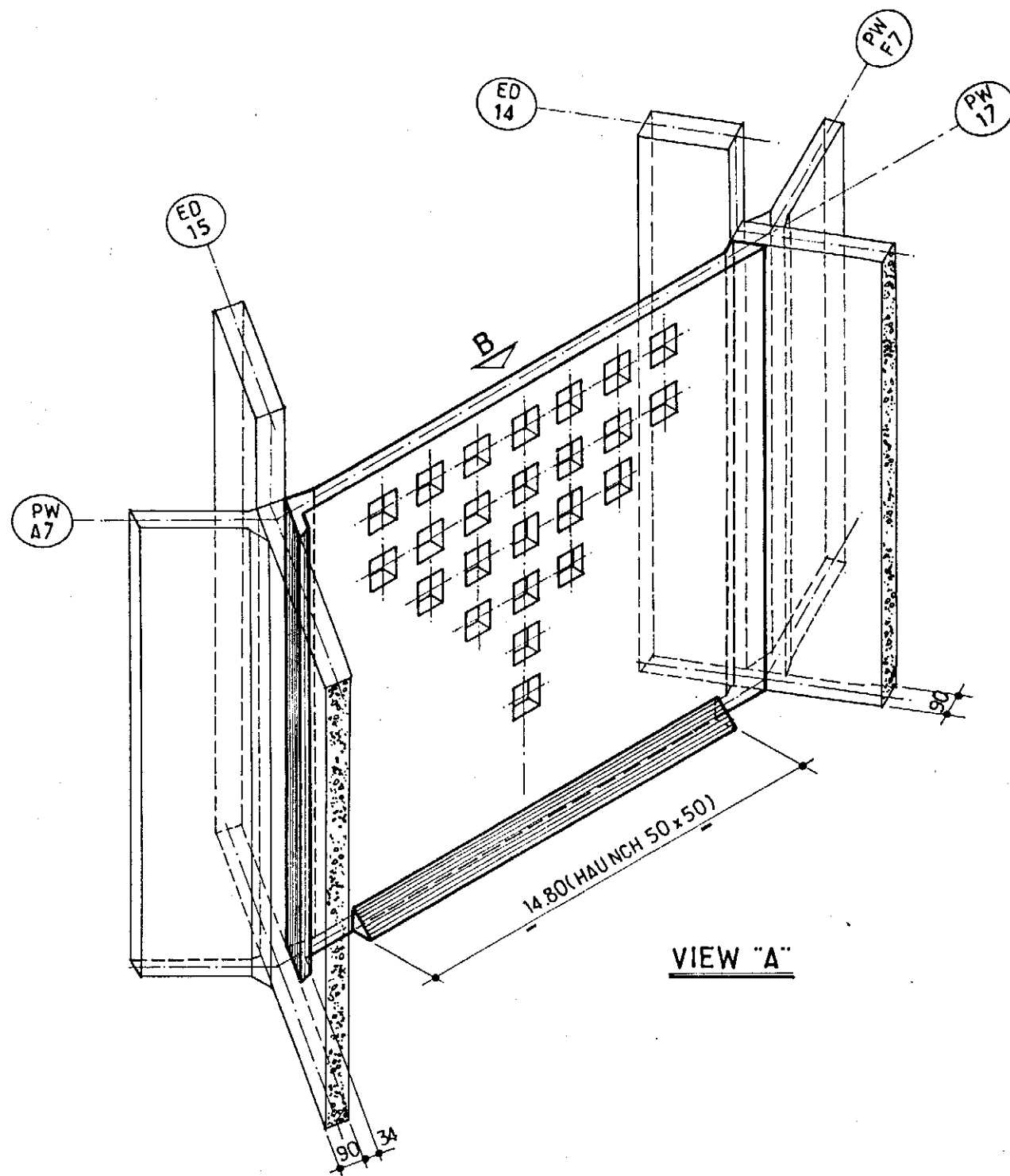
							Job no.	Installation CDP 1	System UNDERWATER	
							Scale	CONCRETE WORK EXTERIOR WALL - EW "EG"		
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev.	Sheet
	10/83	REDRAWN					FF	91-36-35-1100	1	/
Contractor JVD. 1029.20.51										

AS BUILT DRAWINGS

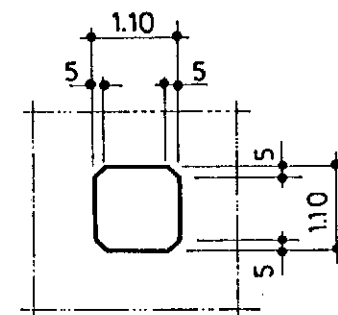
REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

							Job no.	Installation CDP 1	System UNDERWATER	
	10/83	REDRAWN					Scale	CONCRETE WORK EXTERIOR WALL - EW "F6"		
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029-20-52							FF	91-36-35-1101	1	/
elf aquitaine norge a/s p.o.box 168 4001 Stavanger						FRIGG FIELD				

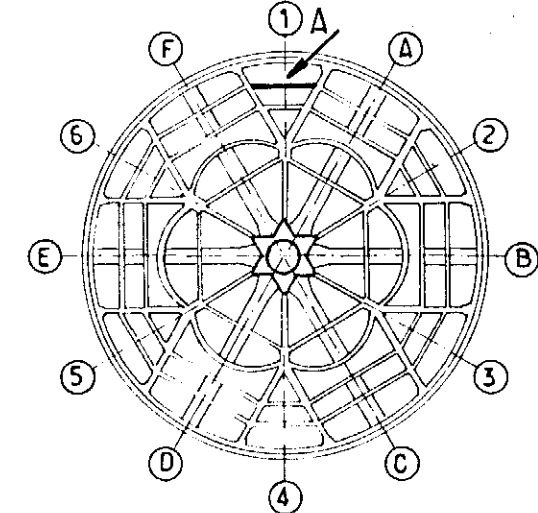


VIEW "A"

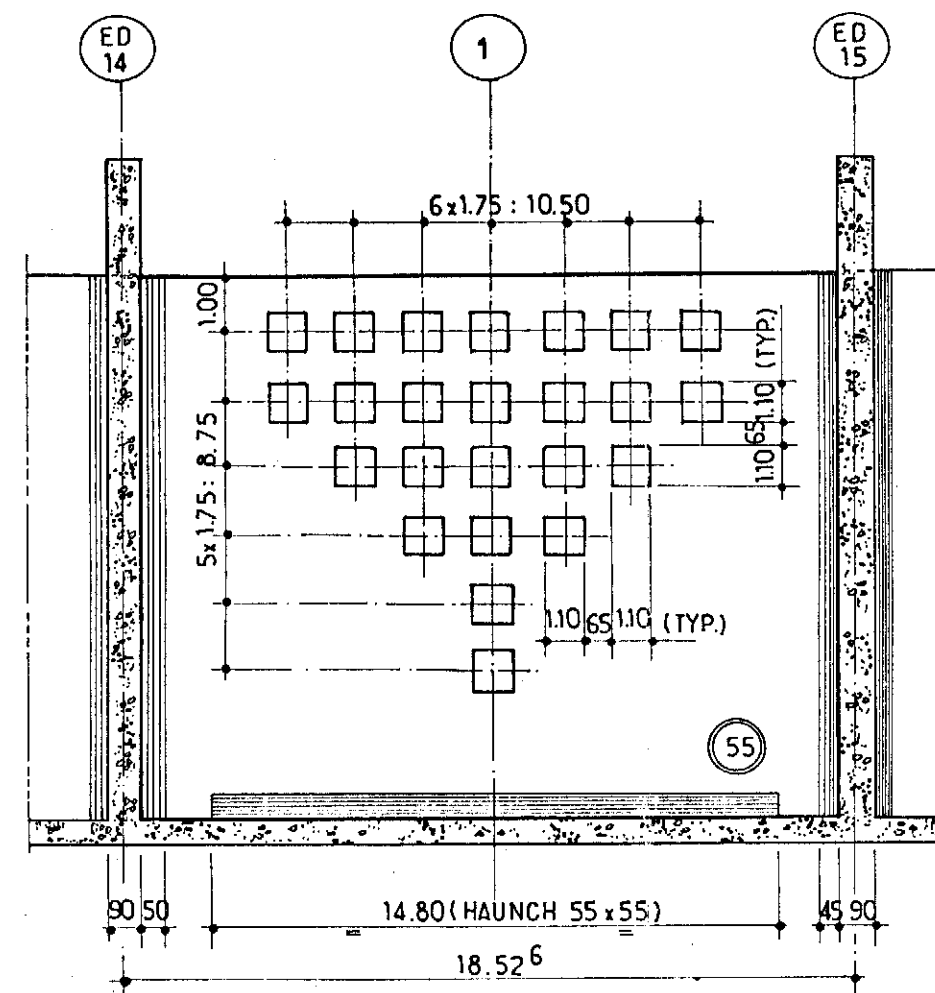


TYPICAL DTL. OF HOLE

GRID NORTH
19° 37'
PLAT. NORTH



KEY PLAN



VIEW "B"

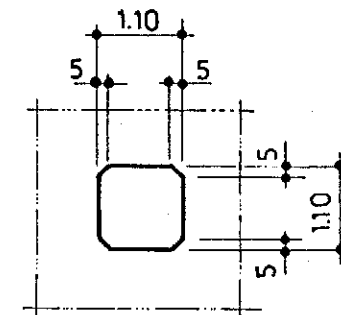
						 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mira	J-LC			Scale 1:200	PERFORATED WALL - PW " 17 "	
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no FF	91_36_35_1102	1
Contractor JVD 1029.20. 53						4001 Stavanger	FRIGG FIELD		

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

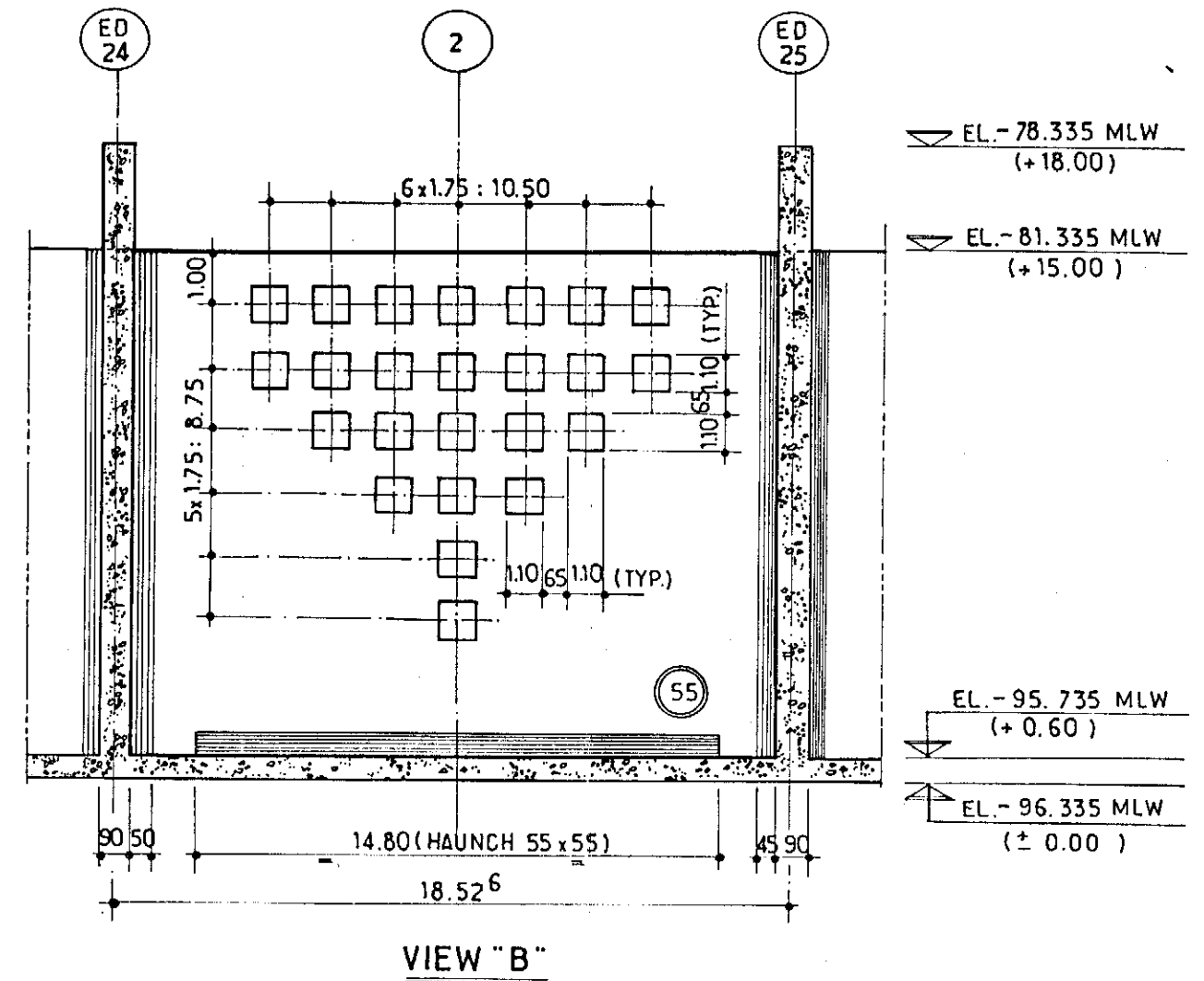
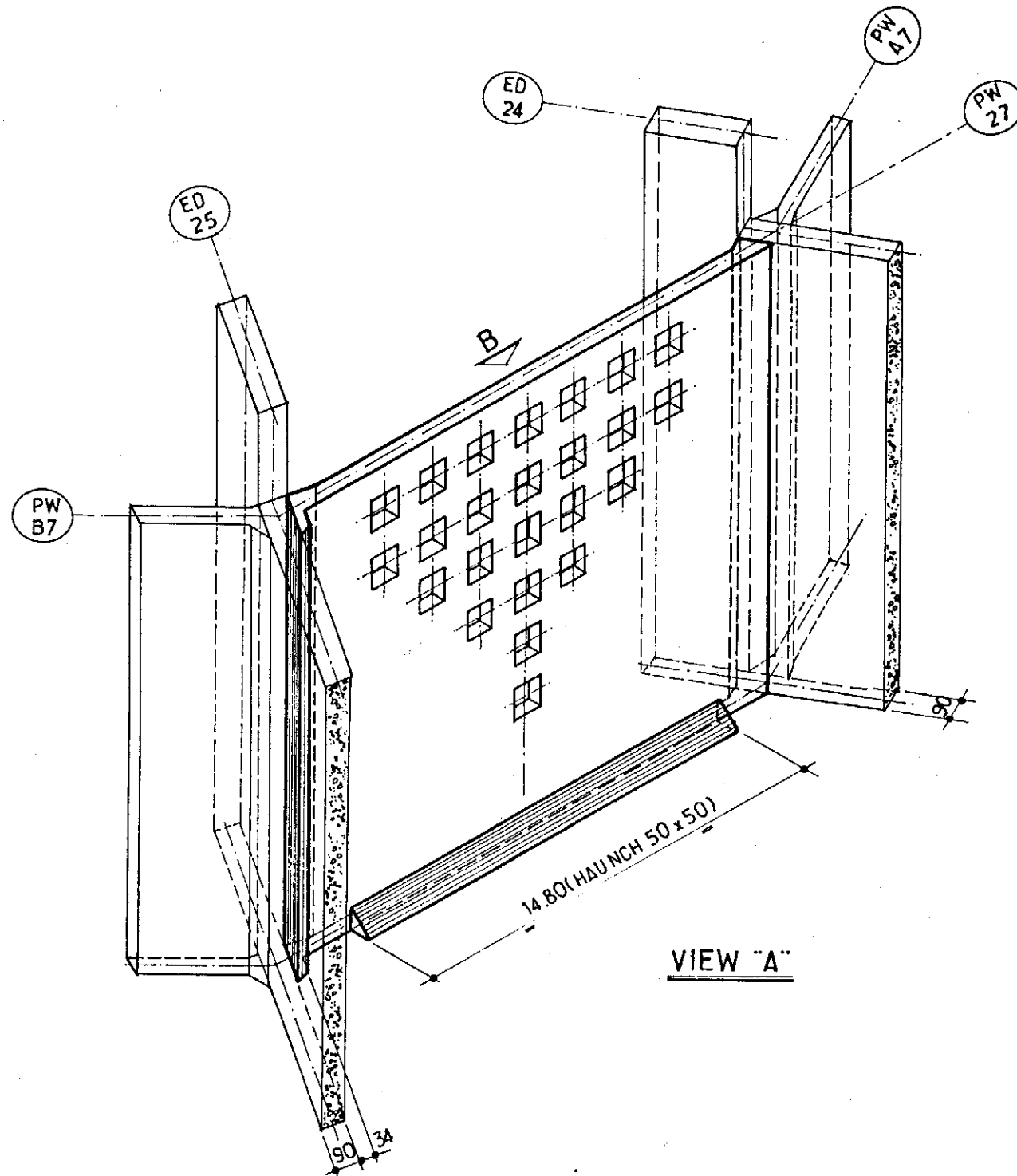
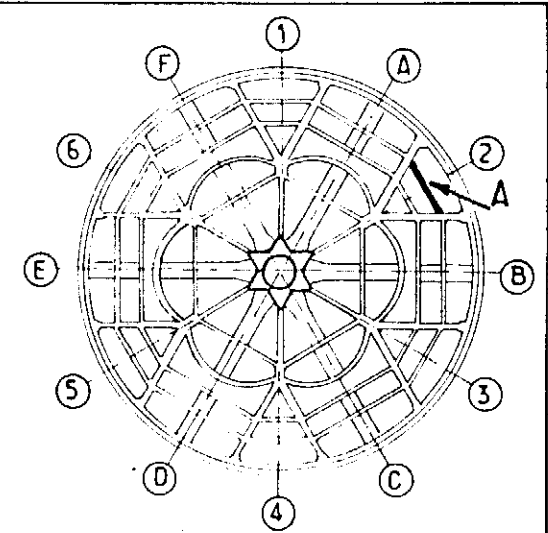
[illegible][illegible]

						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN			Scale			CONCRETE WORK PERFORATED WALL - PW "17"		
Rev.	Date	DESCRIPTION	by	app.	Dwgr. no.			FF 91-36-35-1102	Rev. 1	Sheet /
Contractor JVD 1029-20-53						4001 Stavanger	FRIGG FIELD			



TYPICAL DTL. OF HOLE

CDP 10 NORTH
19° 37'
PLAT. NORTH



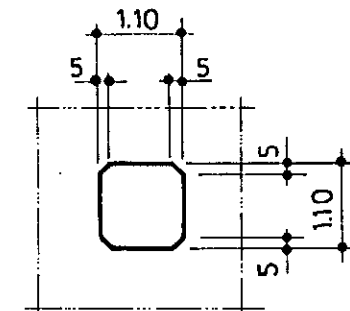
						 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mira	J.L.C.			Scale 1:200	PERFORATED WALL - PW "27"	
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no FF	91_36_35_1103	1
Contractor JVD 1029. 20. 54					4001 Stavanger		FRIGG FIELD		

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

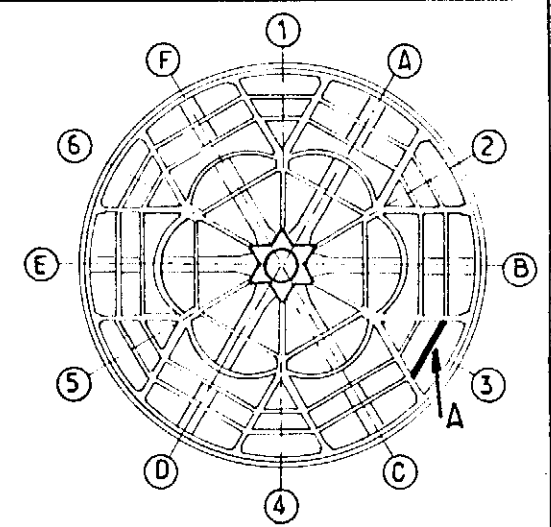
[illegible][illegible]

							Job no.	Installation CDP 1	System UNDERWATER
10/83	REDRAWN				Scale		CONCRETE WORK PERFORATED WALL - PW "27"		
JVD	Date	DESCRIPTION	by	app.	Dwgr. no.		FF 91-36-35-1103	Rev 1	Sheet /
Contractor JVD 1029.20-54					4001 Stavanger	FRIGG FIELD			

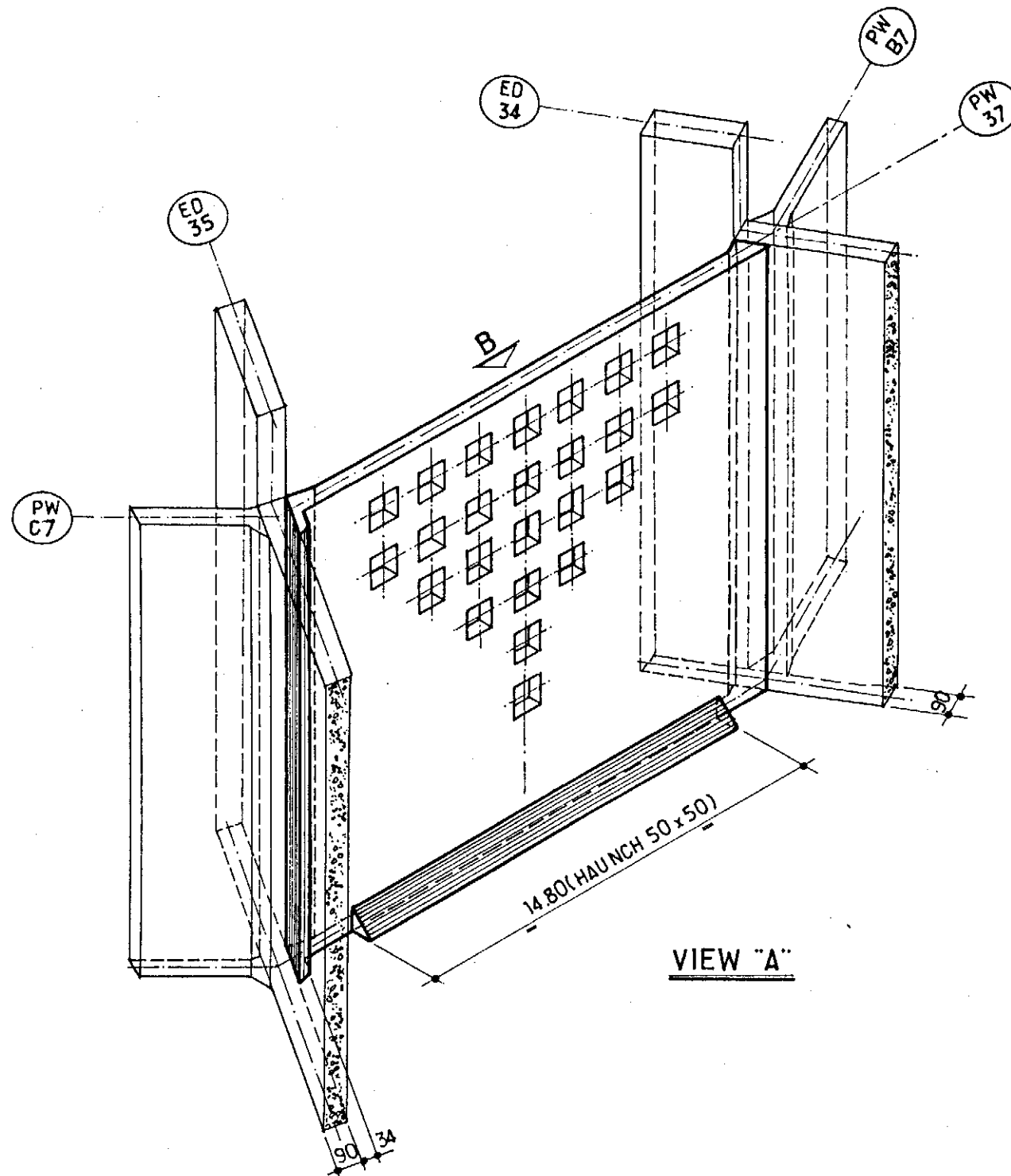


TYPICAL DTL. OF HOLE

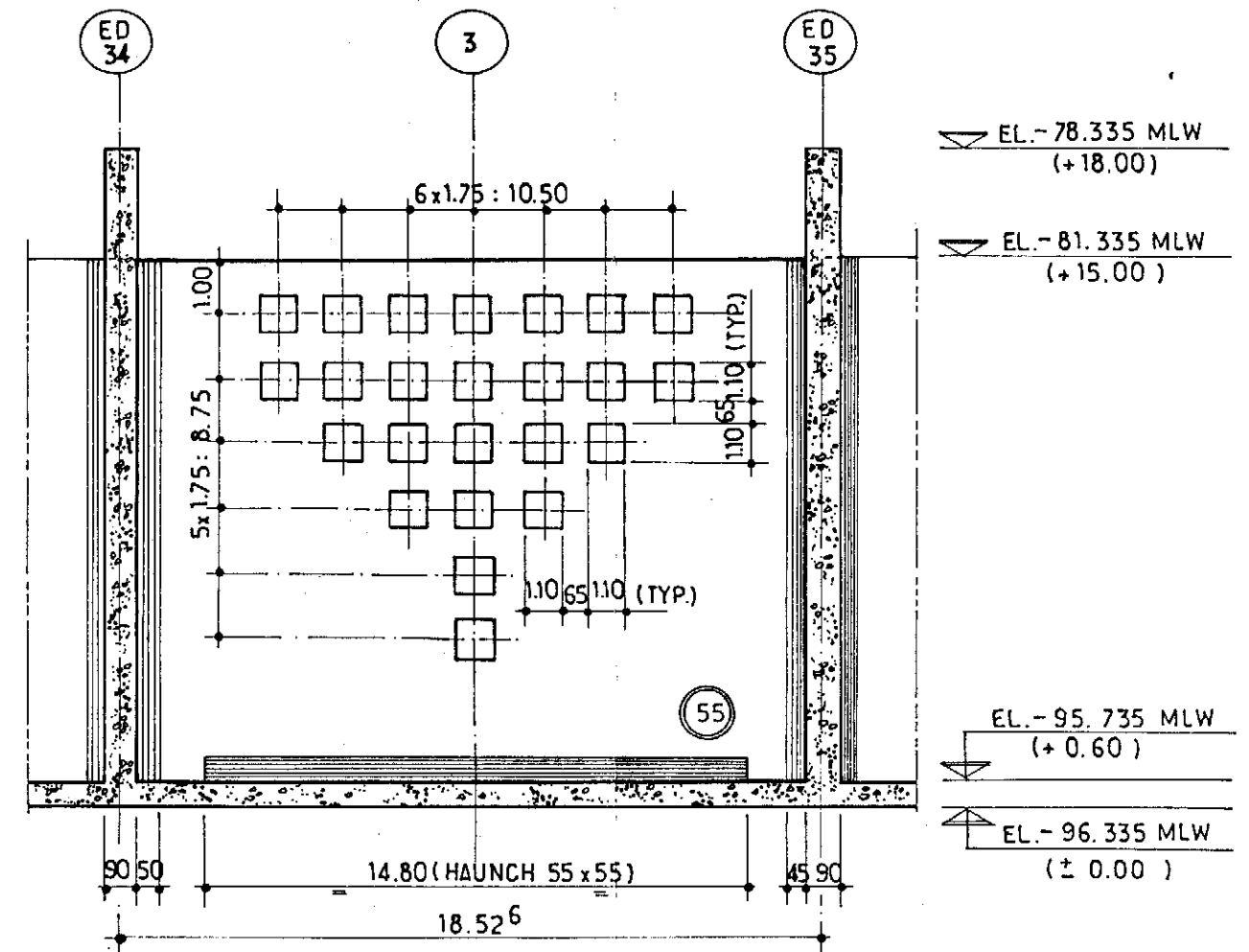
19° 37' NORTH
ORIGINAL



KEY PLAN



VIEW "A"



VIEW "B"

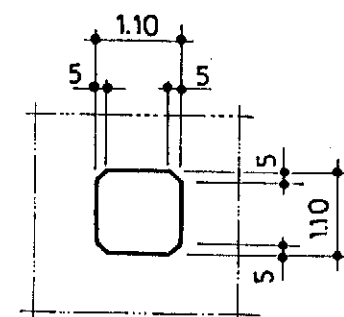
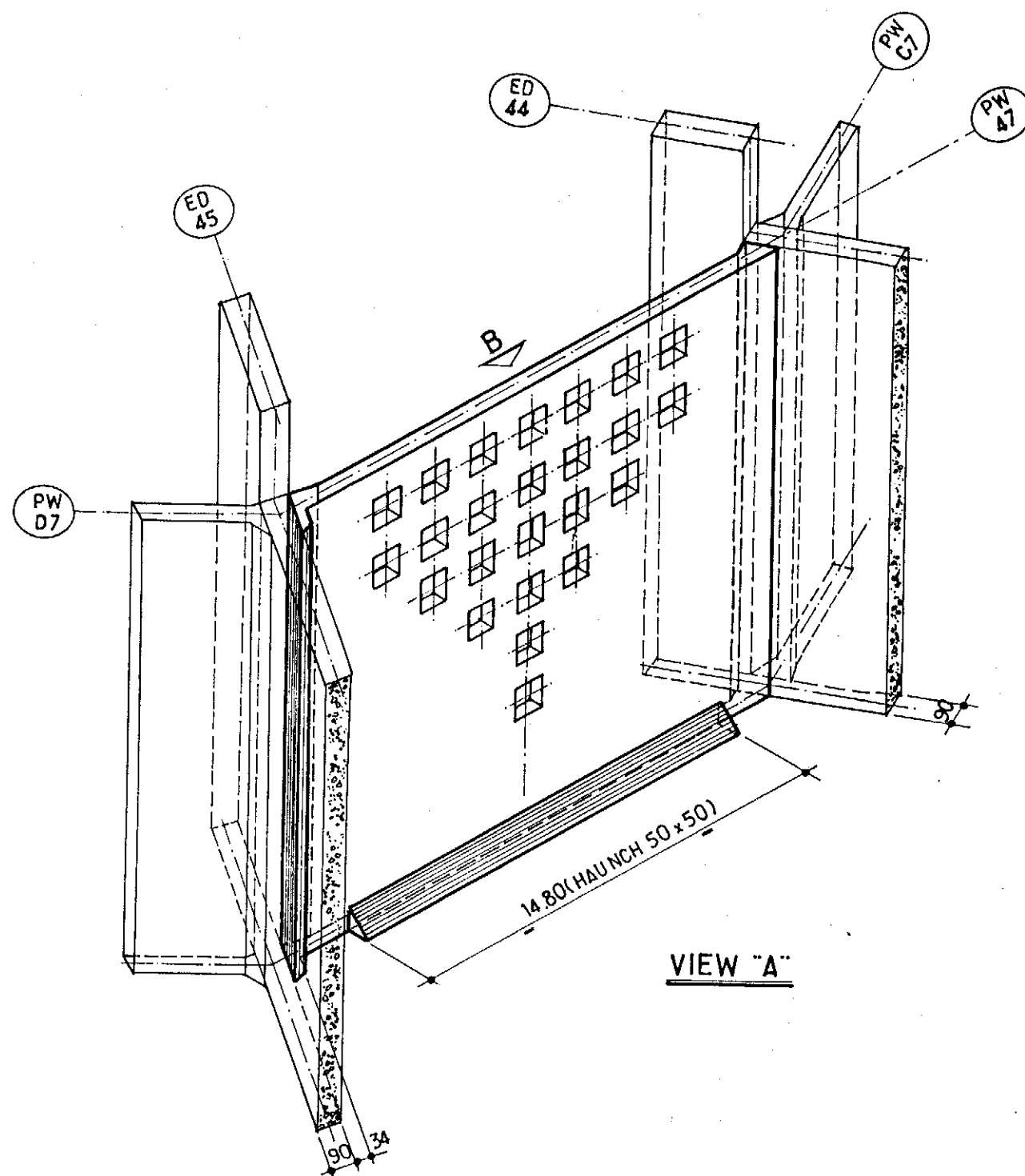
						 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mirro	J.L.C.			Scale 1:200	PERFORATED WALL - PW "37"	
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no		
Contractor JVD 1029. 20. 55						4001 Stavanger	FF	91.36.35.1104	1

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

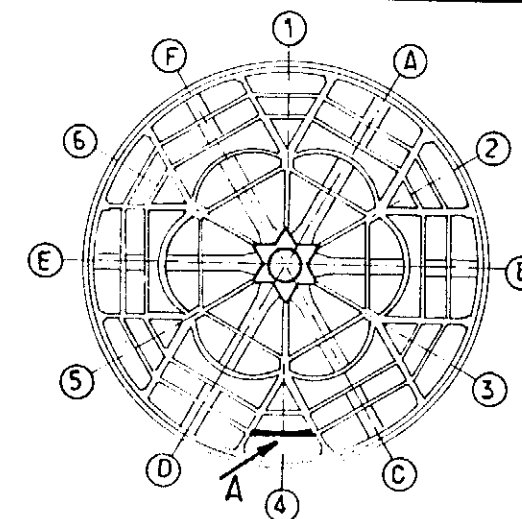
[illegible][illegible]

						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDDAWN						Scale	CONCRETE WORK PERFORATED WALL - PW "37"	
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.	FF 91-36-35-1104	Rev. 1
Contractor JVD 1029-20-55						4001 Stavanger	FRIGG FIELD			

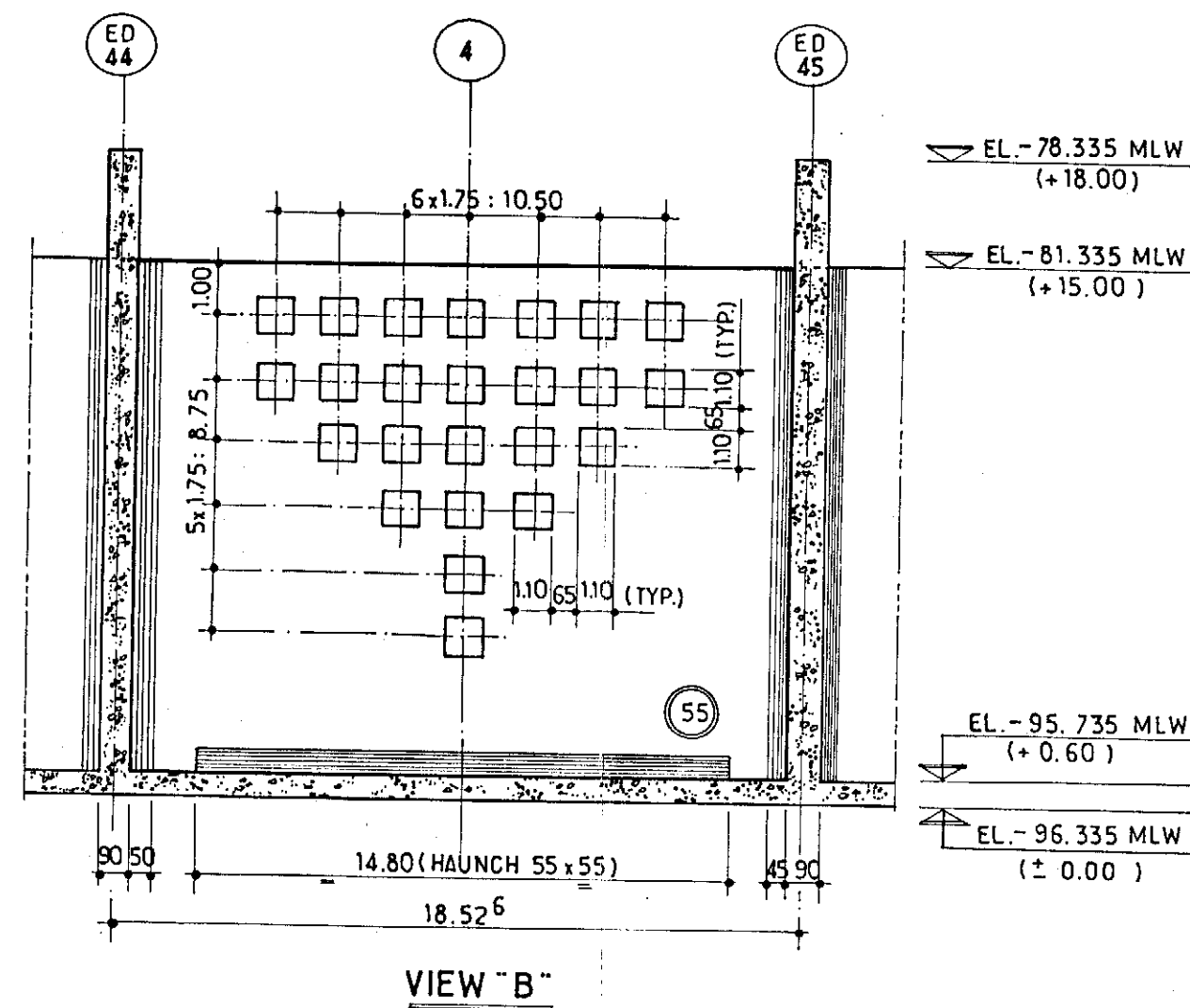


TYPICAL DTL. OF HOLE

GRID NORTH
19° 37'
PLAT. NORTH



KEY PLAN



				elf aquitaine norge a/s		elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	miral	JLC	p.o. box 168		Scale 1:200	PERFORATED WALL - PW "47"	
Contractor JVD 1029. 20. 56				4001 Stavanger		FRIGG FIELD	Dwgr. no. FF 91_36_35.1105	1	

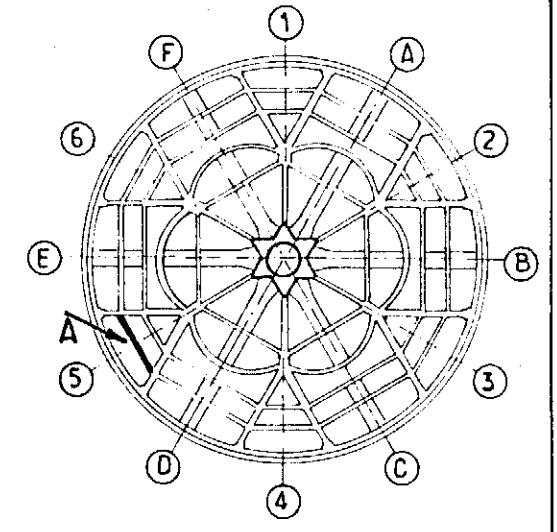
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

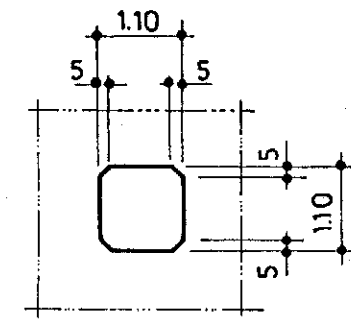
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						 elf	Job no.	Installation CDP 1	System UNDERWATER	
1	10/83	REDRAWN					Scale	CONCRETE WORK PERFORATED WALL - PW "47"		
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev.	Sheet
Contractor JVD 1029-20-56						4001 Stavanger	FF	91-36-35-1105	1	/

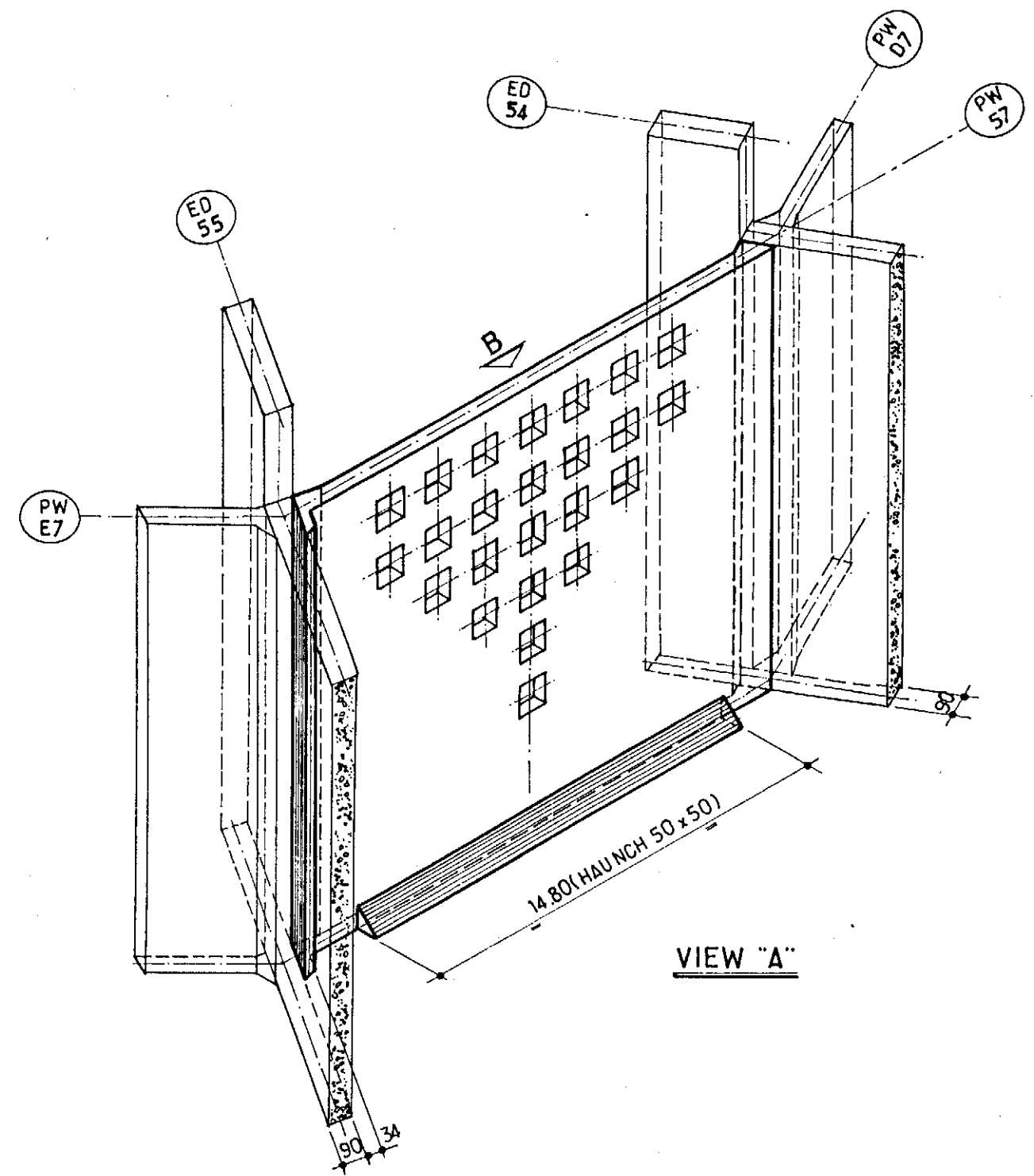
CURB NORTH
19° 37'
PLAT. NORTH



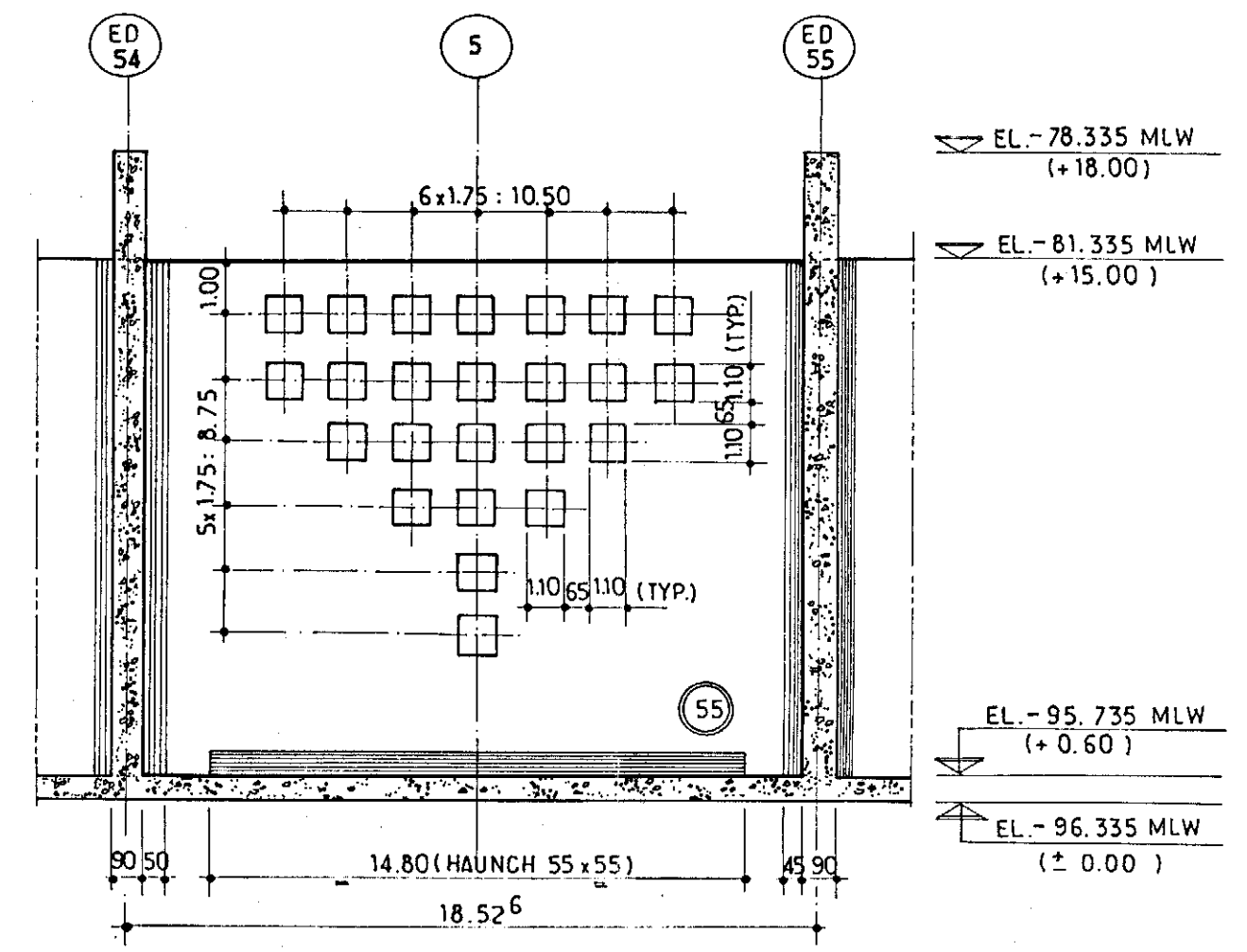
KEY PLAN



TYPICAL DTL. OF HOLE



VIEW "A"



VIEW "B"

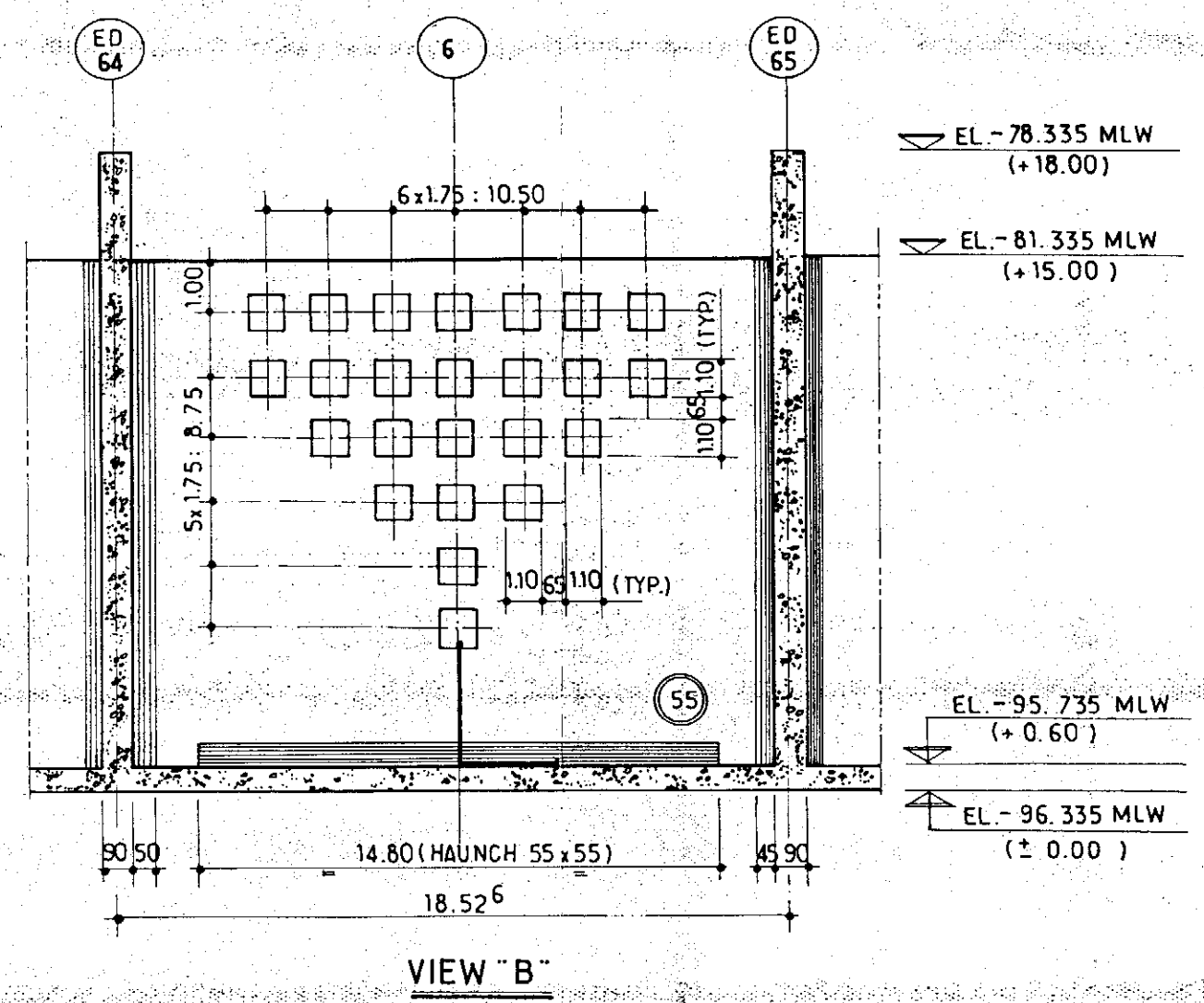
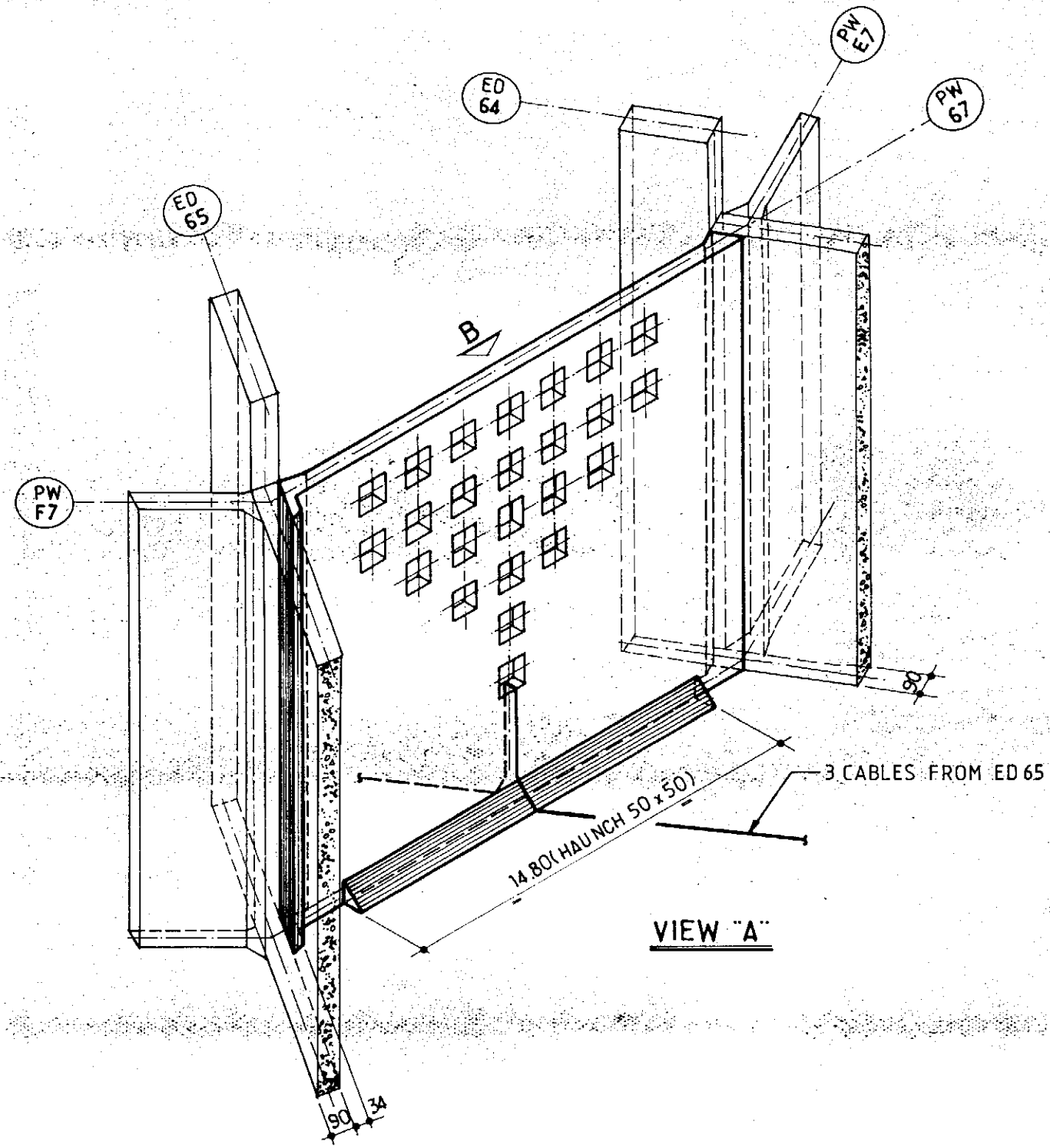
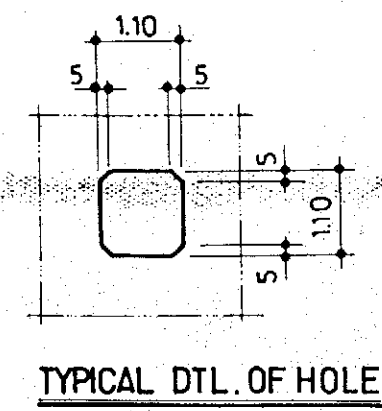
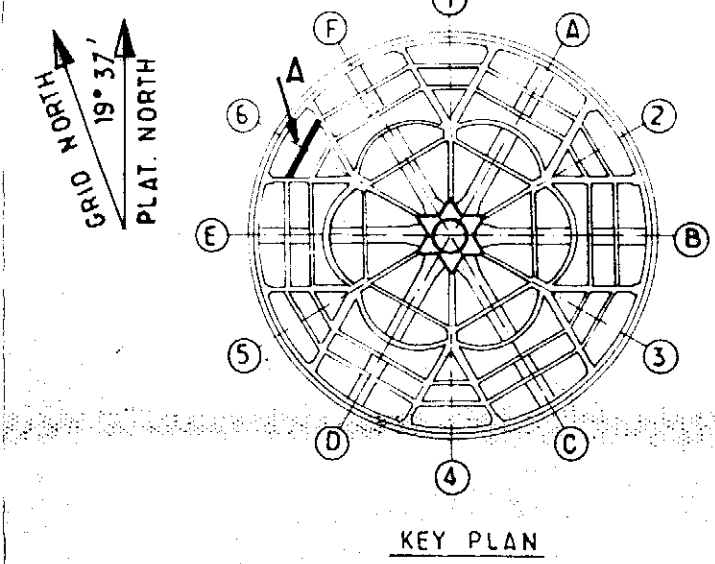
				elf aquitaine norge a/s		elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mirg	J-LC	p.o. box 168		Scale 1:200	PERFORATED WALL - PW "57"	
Contractor JVD 1029. 20.57				4001 Stavanger		FRIGG FIELD	Dwgr. no. FF 91.36.35.1106	1	

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER	
1	10/83	REDRAWN						Scale	CONCRETE WORK PERFORATED WALL - PW "57"		
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.		Rev.	Sheet
Contractor JVD 1029.20-57						4001 Stavanger	FRIGG FIELD	FF	91-36-35-1106	1	/



NOTE:
FOR CABLE LAYOUT, SEE FF 91 36 35 1718.

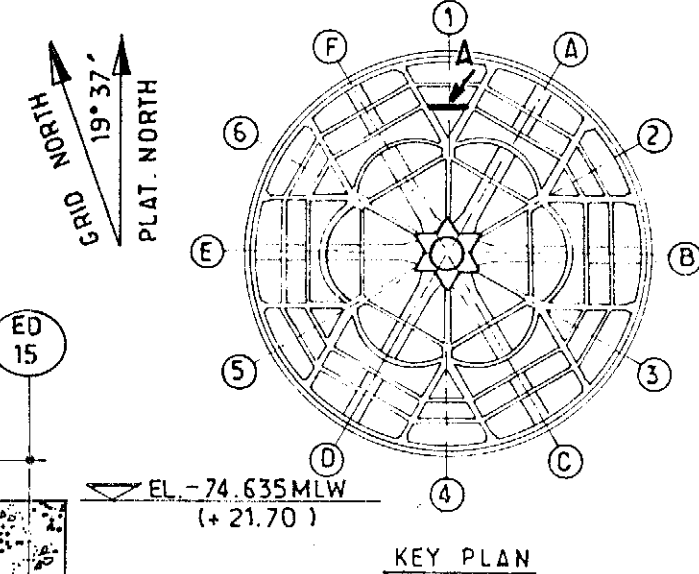
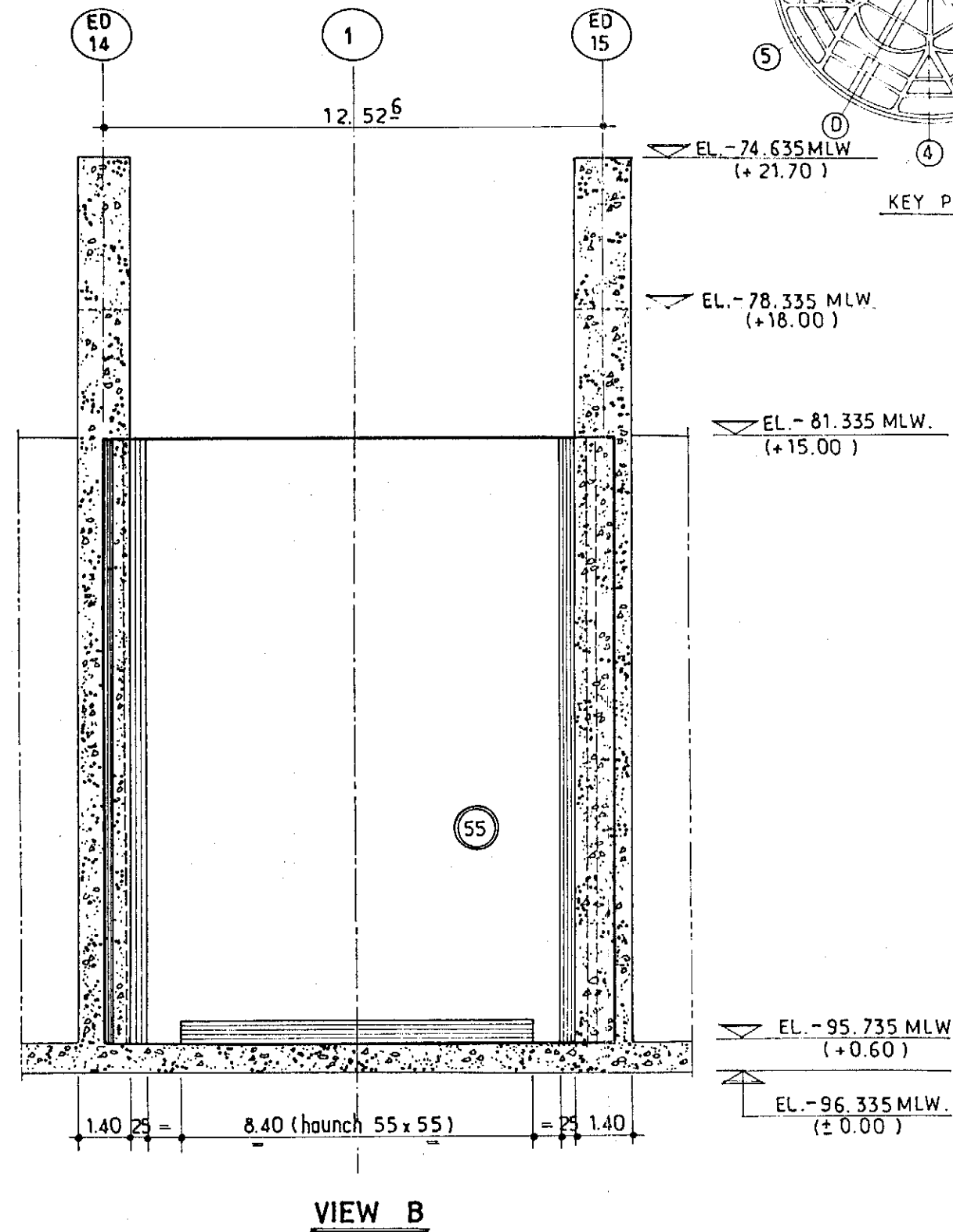
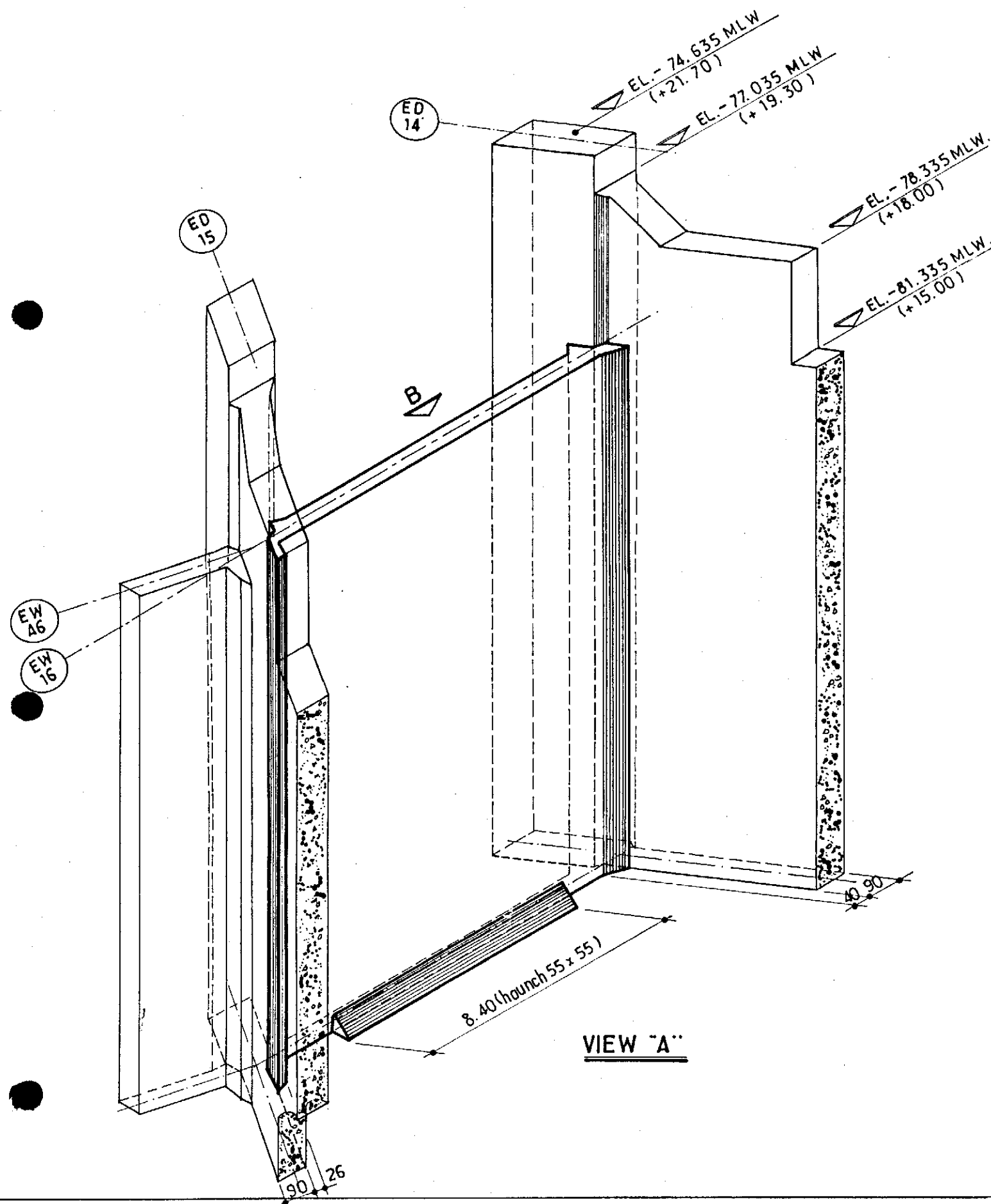
					elf aquitaine norge a/s p o. box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER
2	10/286	NOTE ADDED REF. TO SST 5443	T.B.				Scale 1:200	PERFORATED WALL - PW "67"	
1	10/83	REDRAWN	mirja JLL		p o. box 168 4001 Stavanger	elf	Dwgr. no FF 91_36_35_1107	2	
Rev.	Date	DESCRIPTION	by	app.					
Contractor JVD 1029_20.58									

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER
								Scale	CONCRETE WORK PERFORATED WALL - PW "67"	
								Dwgr. no.	FF 91-36-35-1107	Rev. 1
10/83	REDRAWN									
Rev.	Date	DESCRIPTION	by	app.						
Contractor JVD 1029-20-58							FRIGG FIELD			



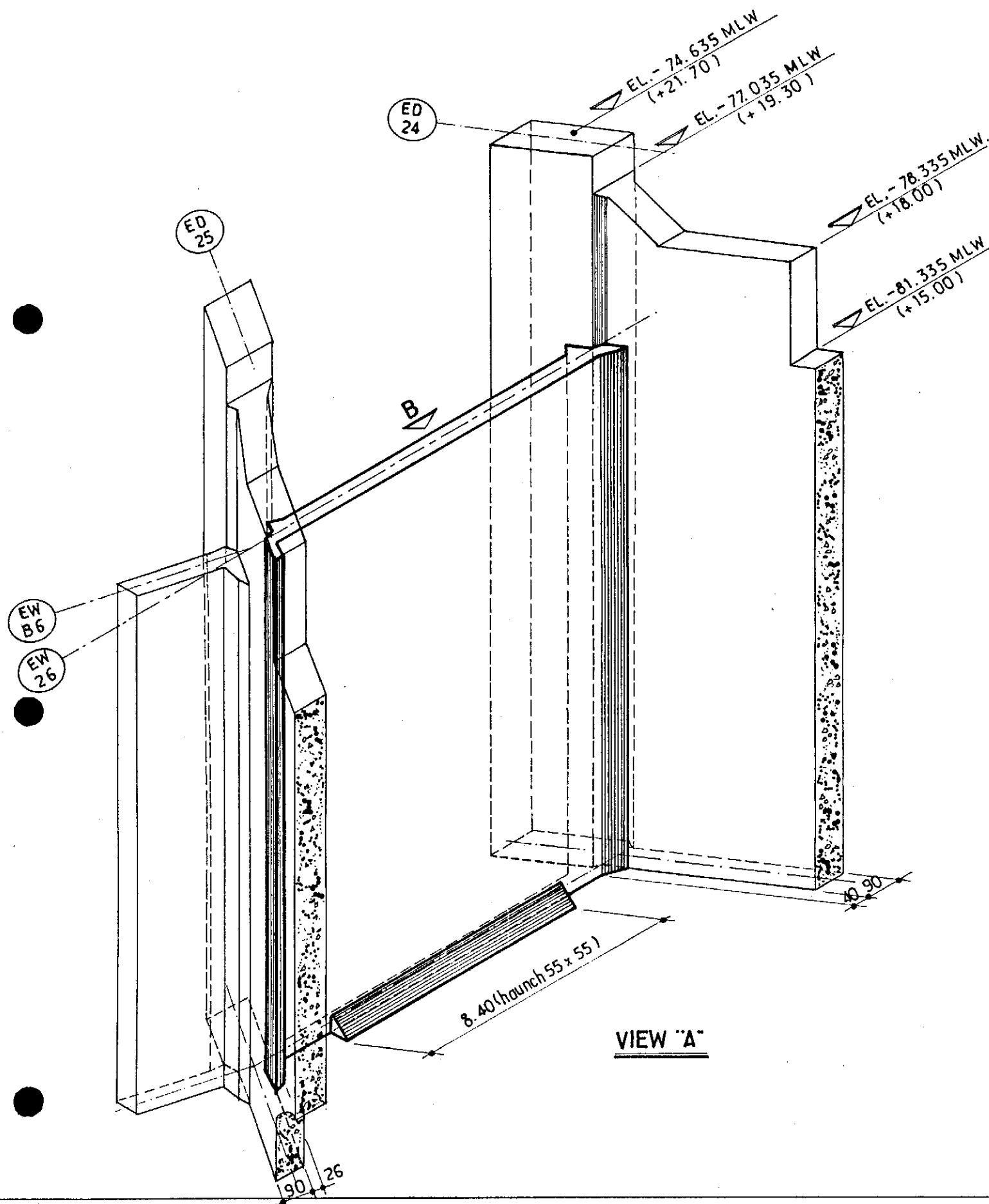
				elf aquitaine norge a/s		elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mira	JLC	p.o. box 168		Scale	EXTERIOR WALL - EW - 16"	
Rev. Date DESCRIPTION by app.				4001 Stavanger		FRIGG FIELD	Dwgr. no.	FF 91_36_35_1108	1
Contractor JVD 1029_20_59									

CDP 1 AS BUILT DRAWINGS

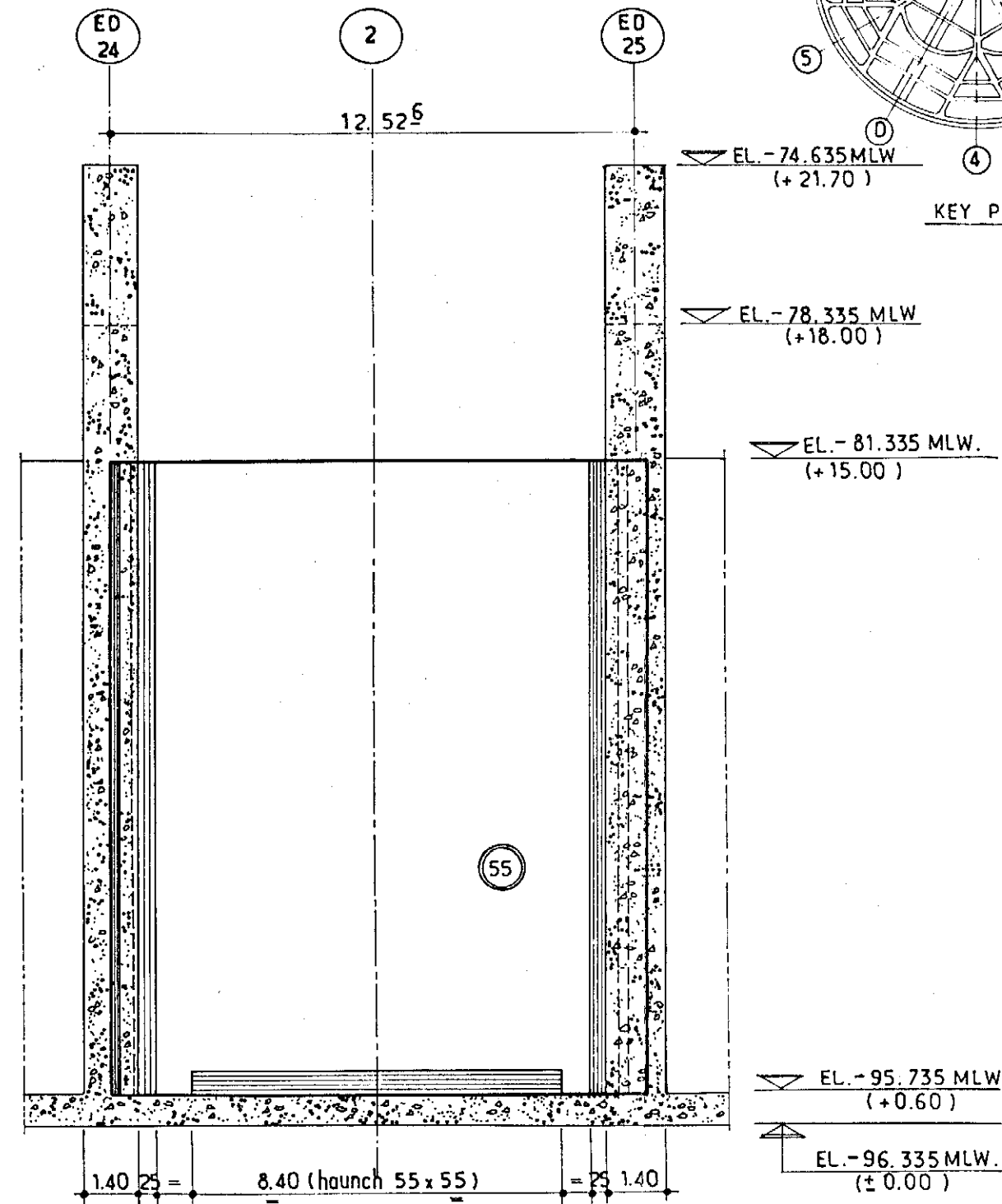
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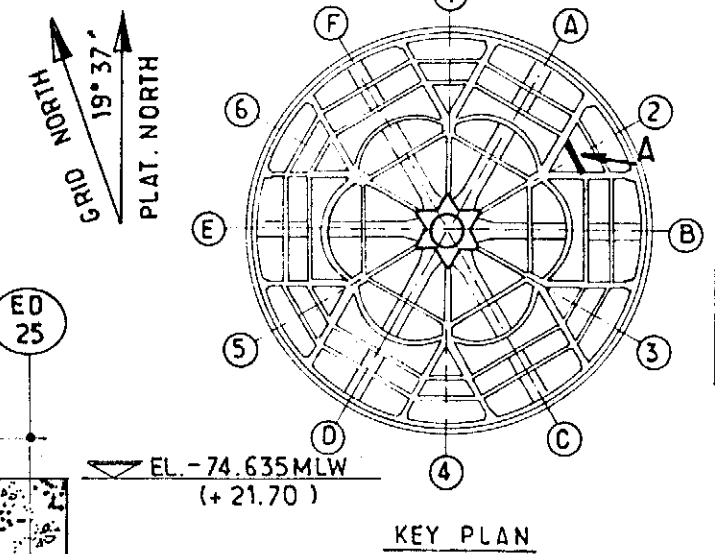
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1	10/83	REDRAWN					Scale	CONCRETE WORK EXTERIOR WALL 'EW 16"		
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029-20-59						4001 Stavanger	FF	91-36-35-1108	1	/



VIEW "A"



VIEW "B"



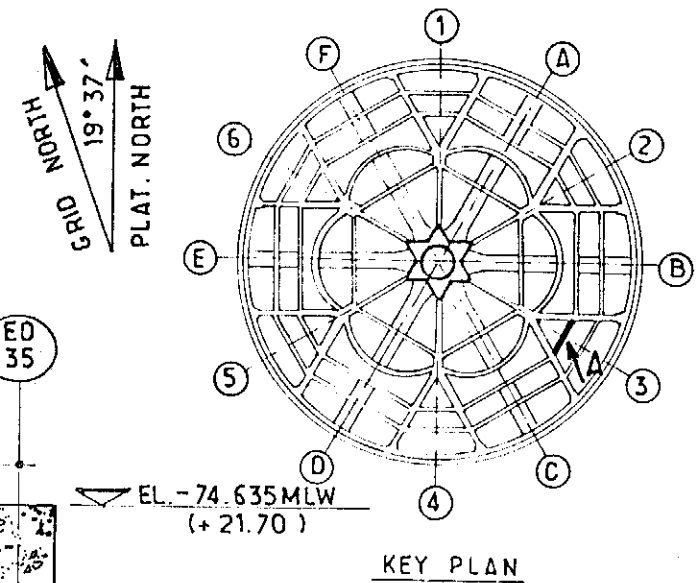
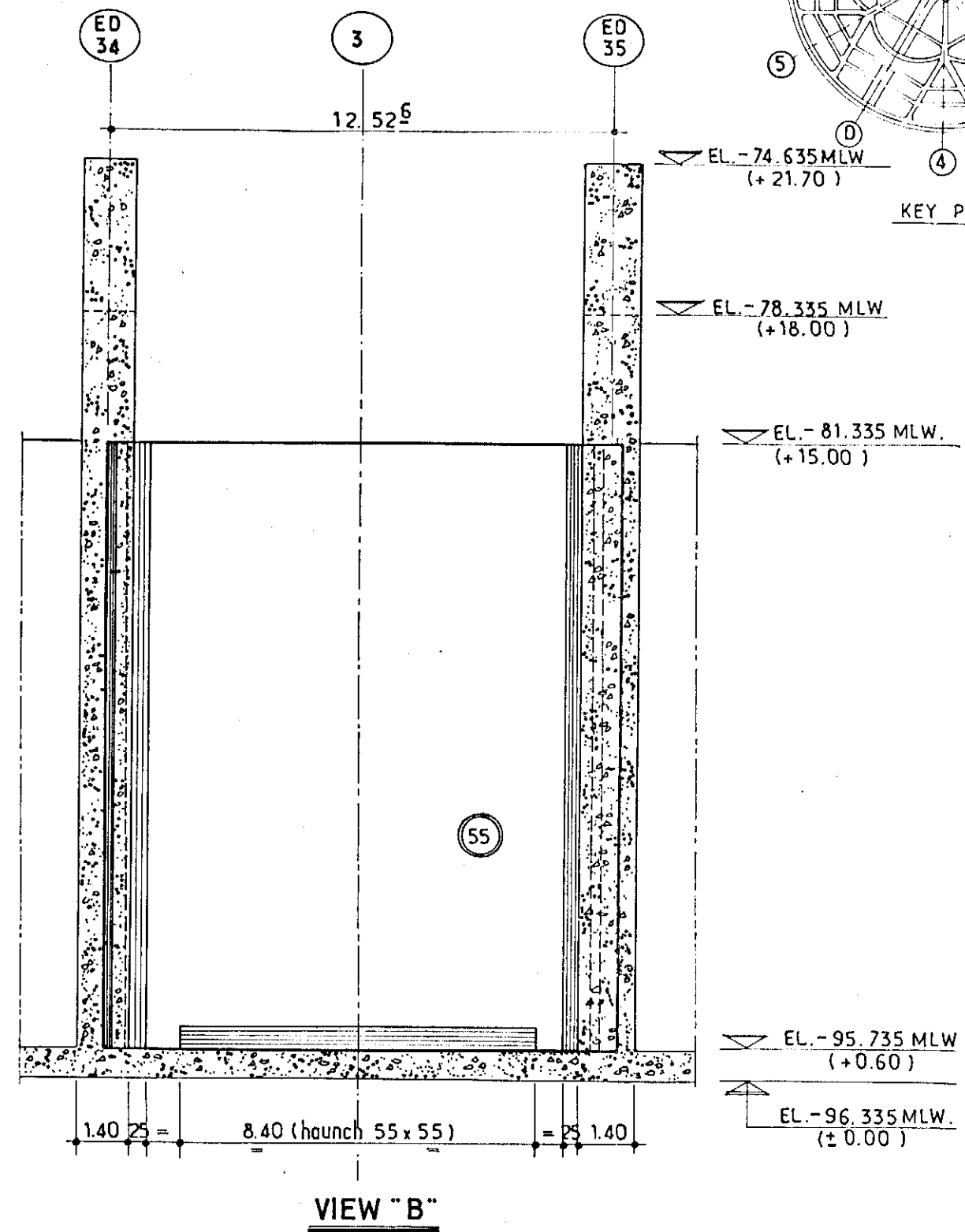
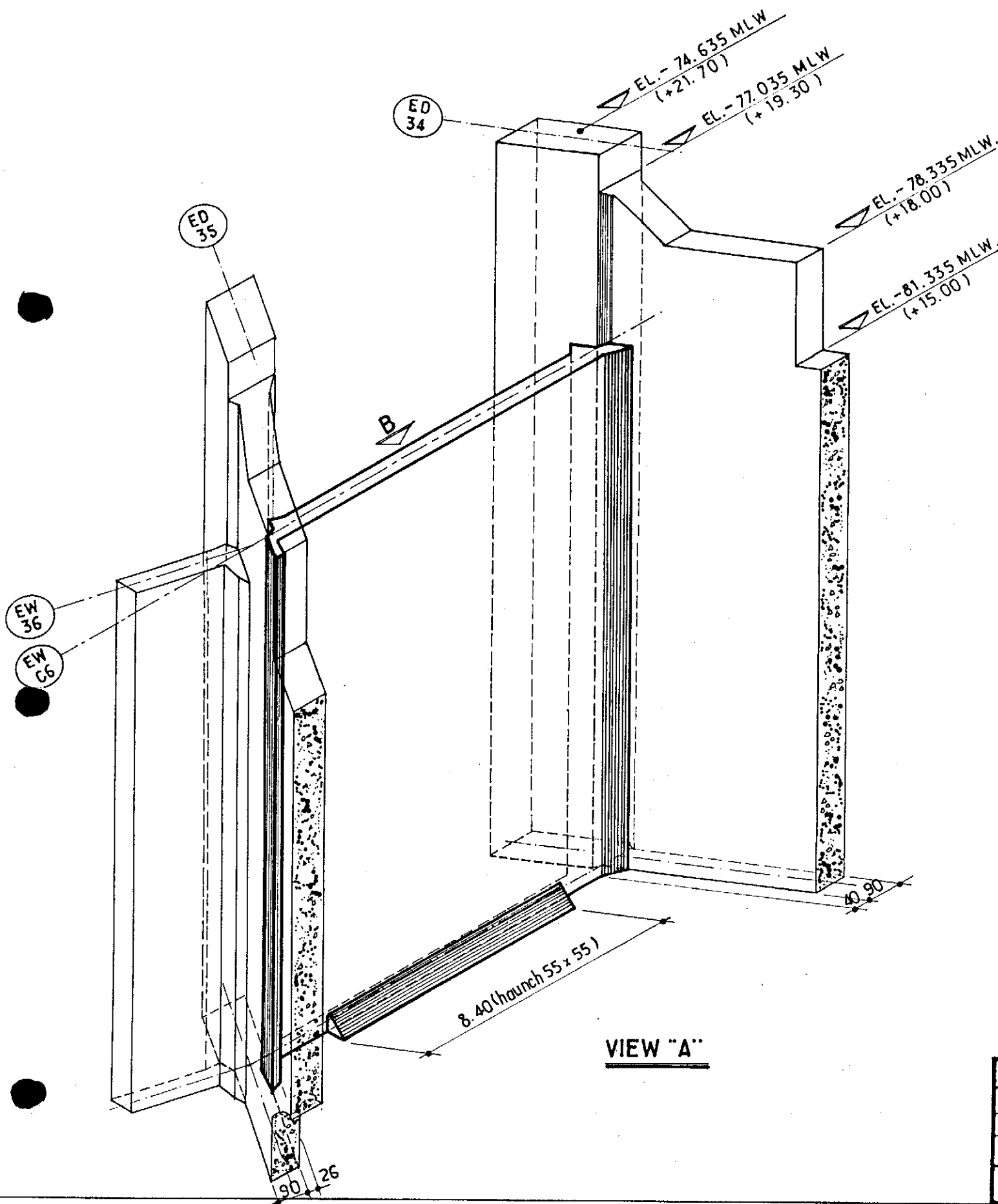
				elf		Job no.	Installation	System
				aquitaine			CDP 1	UNDERWATER
				norge a/s		Scale	EXTERIOR WALL - EW "26"	
				p.o. box 168		Dwgr. no	FF 91_36_35_1109	1
Rev.	Date	DESCRIPTION	by	app.				
1	10/83	REDRAWN	mira	JLC				
Contractor JVD 1029_20_60				4001 Stavanger		FRIGG FIELD		

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN			Scale			CONCRETE WORK EXTERIOR WALL 'EW 26'		
Rev.	Date	DESCRIPTION	by	app.	Dwgr. no.				Rev.	Sheet
Contractor JVD. 1029-20-60					4001 Stavanger	FRIGG FIELD	FF	91-36-35-1109	1	/



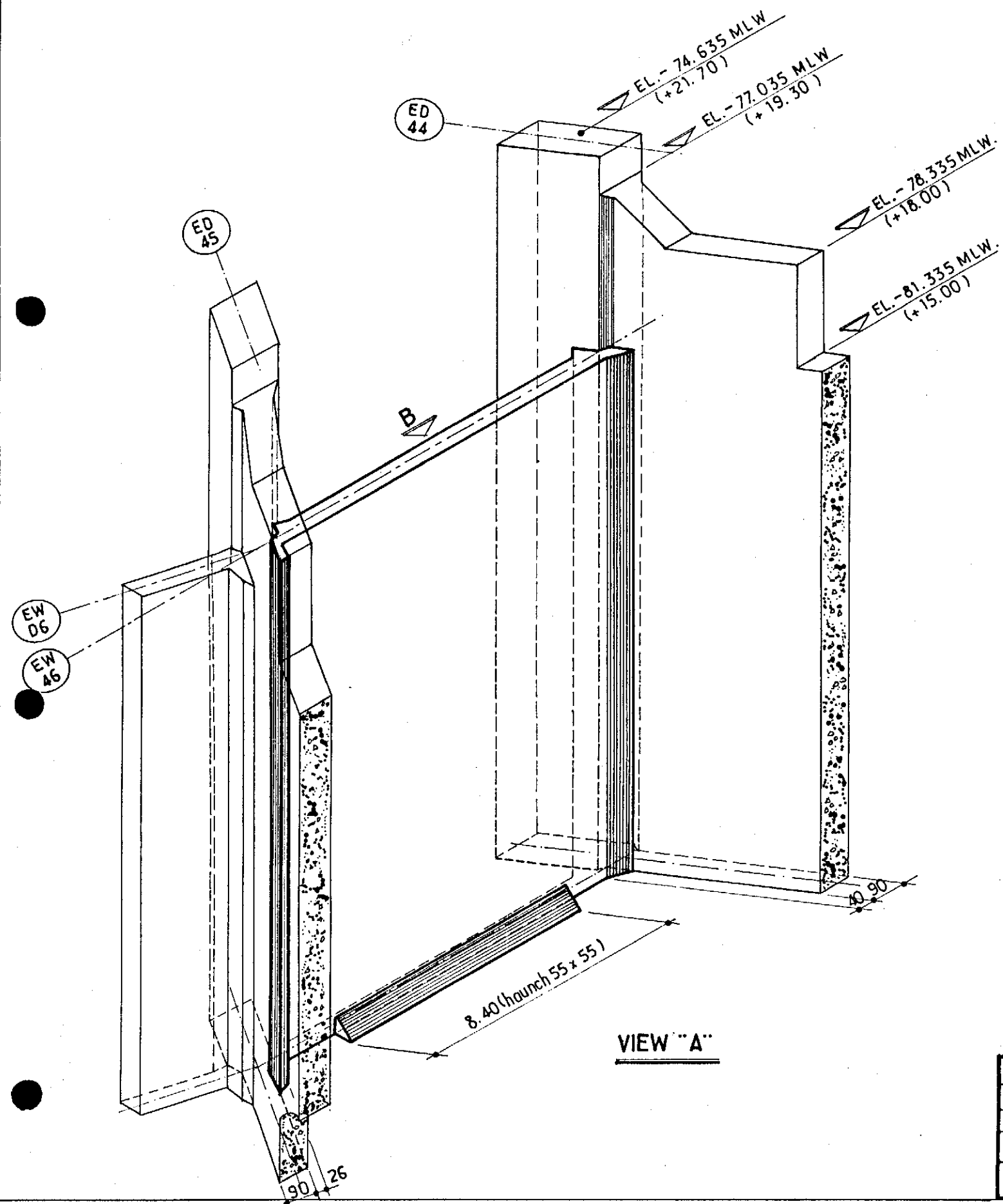
				elf aquitaine norge a/s		elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mira	JLC	p.o. box 168		Scale	EXTERIOR WALL. EW "36"	
Rev. Date		DESCRIPTION		by	app.	Contractor JVD 1029.20. 61		Dwgr. no.	FF 91_36_35. 1110
						4001 Stavanger		FRIGG FIELD	
								1	

CDP 1 AS BUILT DRAWINGS

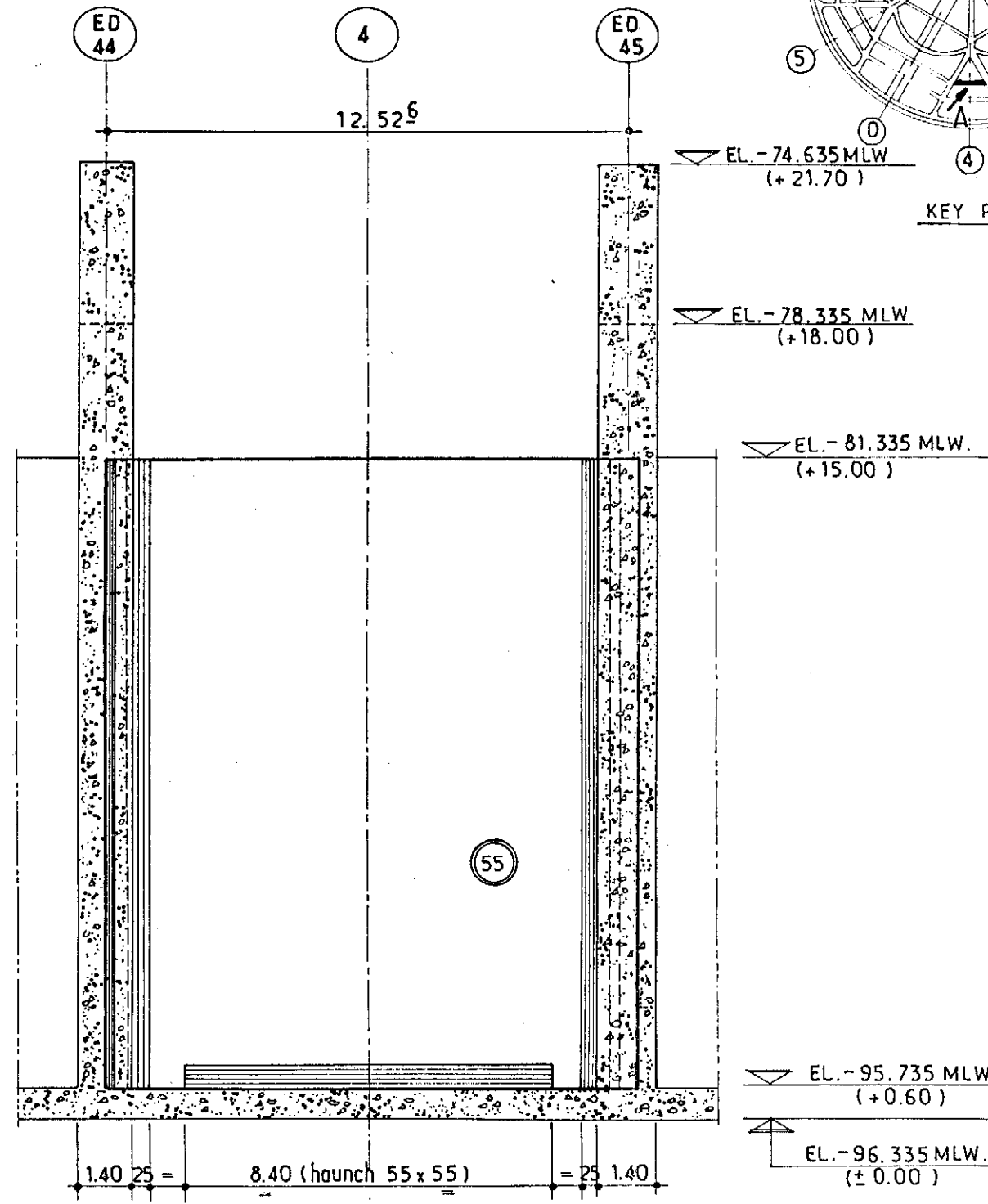
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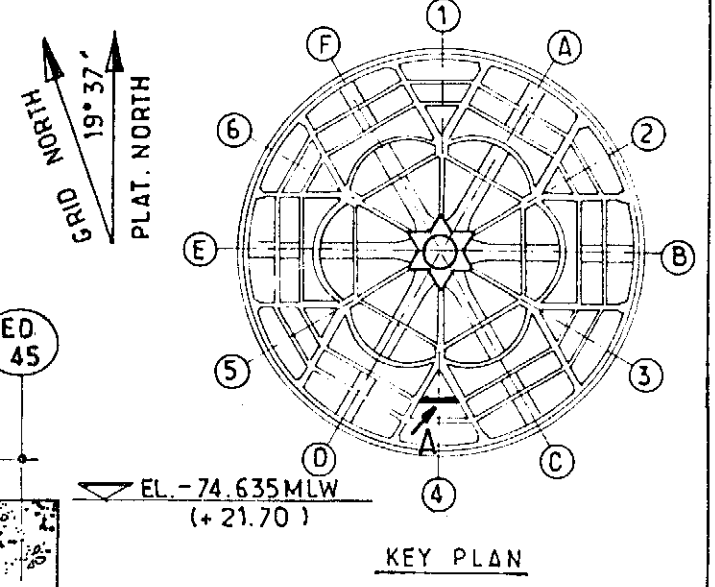
						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN						Scale	CONCRETE WORK EXTERIOR WALL 'EW/36'	
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.	FF 91-36-35-1110	Rev. 1
Contractor JVD. 1029-20-61							FRIGG FIELD			



VIEW "A"



VIEW "B"



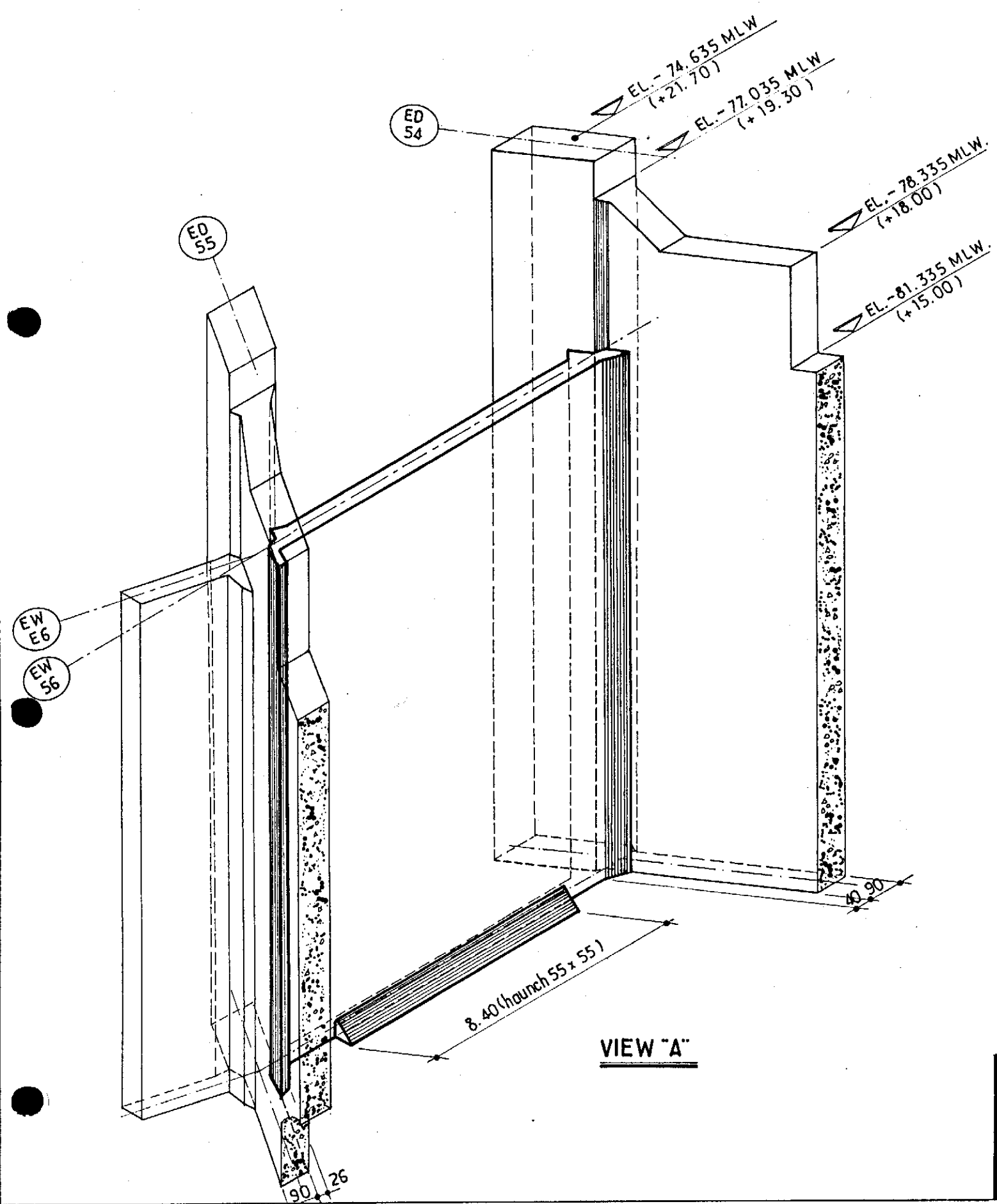
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1	10/83	REDRAWN	mind	J.L.L.	Scale /			EXTERIOR WALL - EW "46"		
Rev.	Date	DESCRIPTION	by	app.	Dwgr. no			FF 91_36_35_1111	1	/
Contractor JVD 1029.20. 62										

CDP 1 AS BUILT DRAWINGS

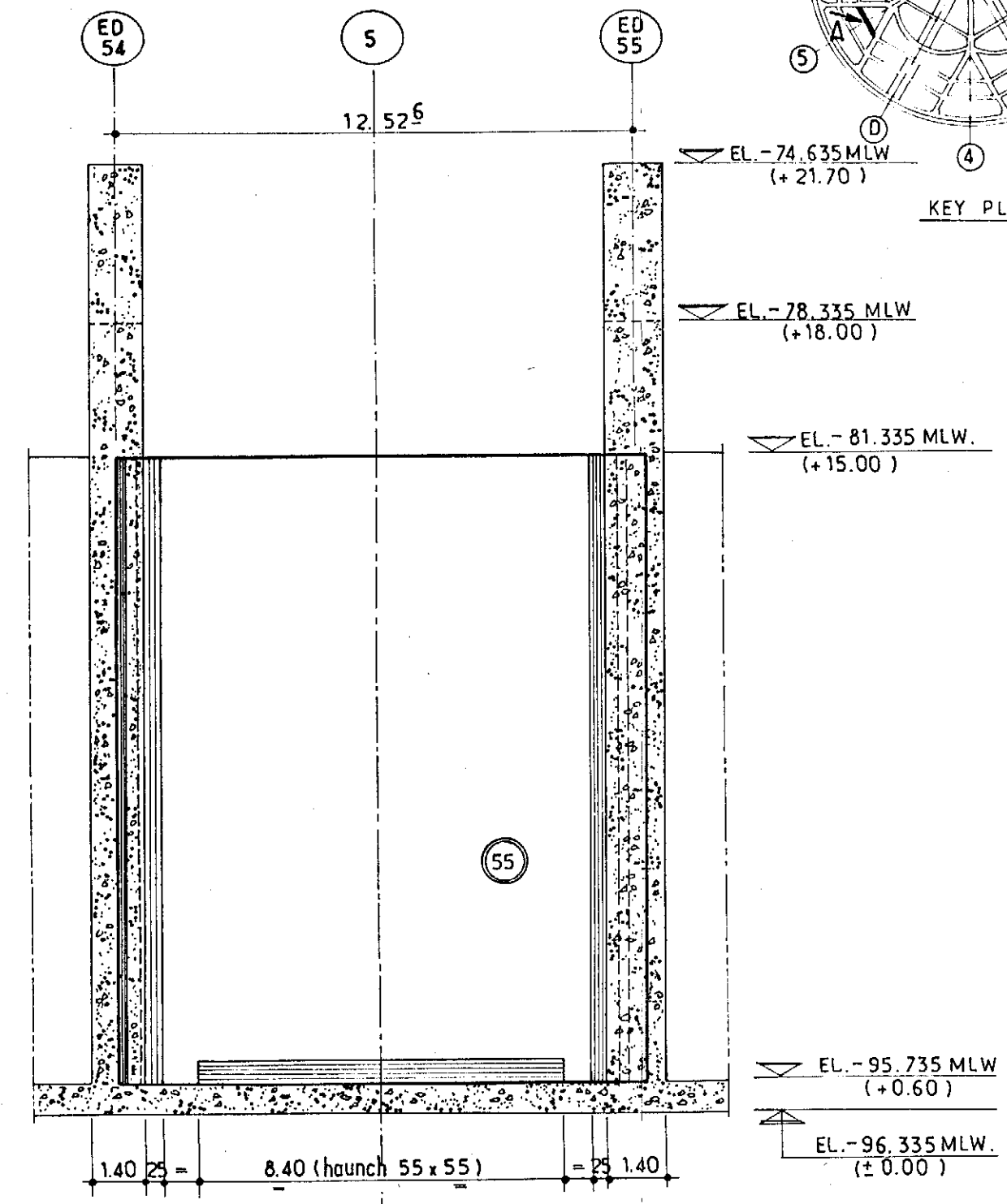
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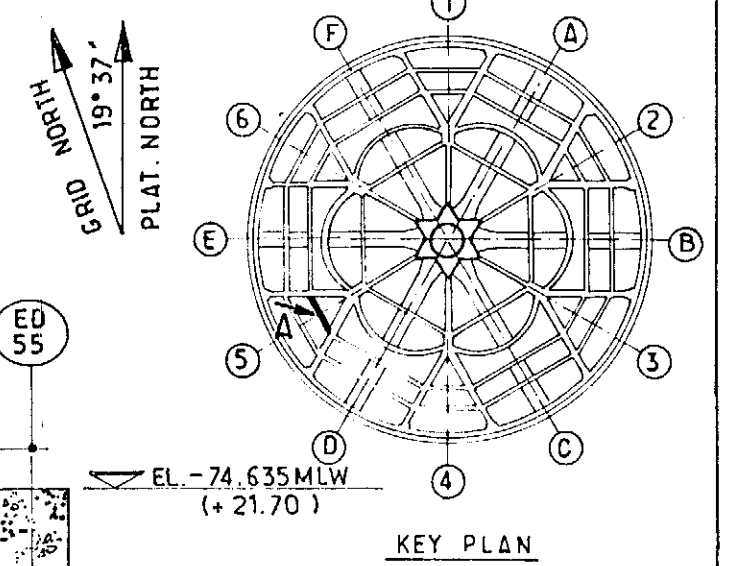
						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN						Scale	CONCRETE WORK EXTERIOR WALL 'EW46'	
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.	FF 91-36-35-1111	Rev. 1
Contractor JVD. 1029-20-62						4001 Stavanger	FRIGG FIELD			



VIEW "A"



VIEW "B"



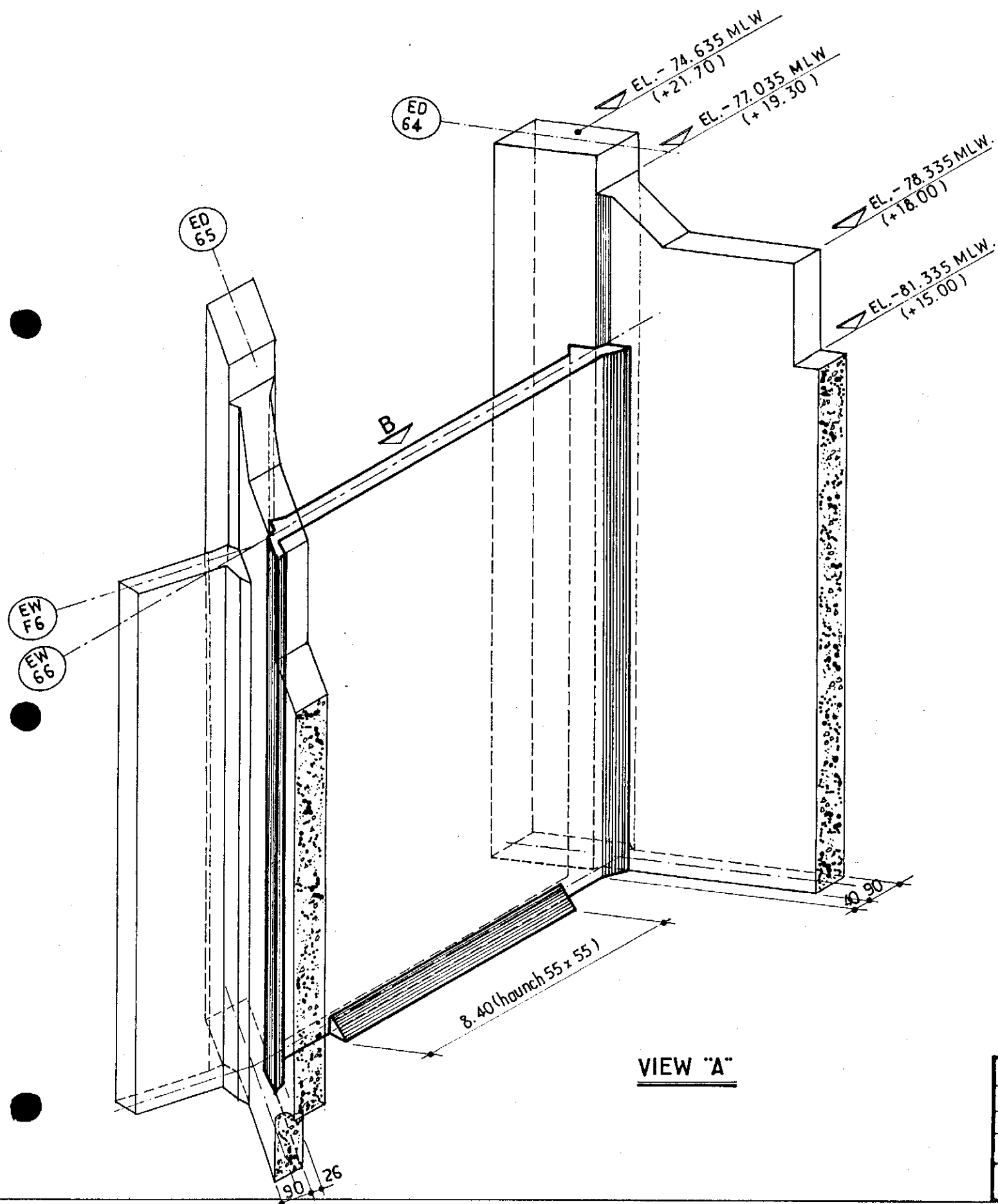
				elf aquitaine norge a/s		elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mira	J.L.L.	p.o. box 168		Scale	EXTERIOR WALL - EW "56"	
Rev.	Date	DESCRIPTION	by	app.	Contractor JVD 1029-20-63	4001 Stavanger	Dwgr. no	FF 91_36_35_1112	1
FRIGG FIELD									

CDP 1 AS BUILT DRAWINGS

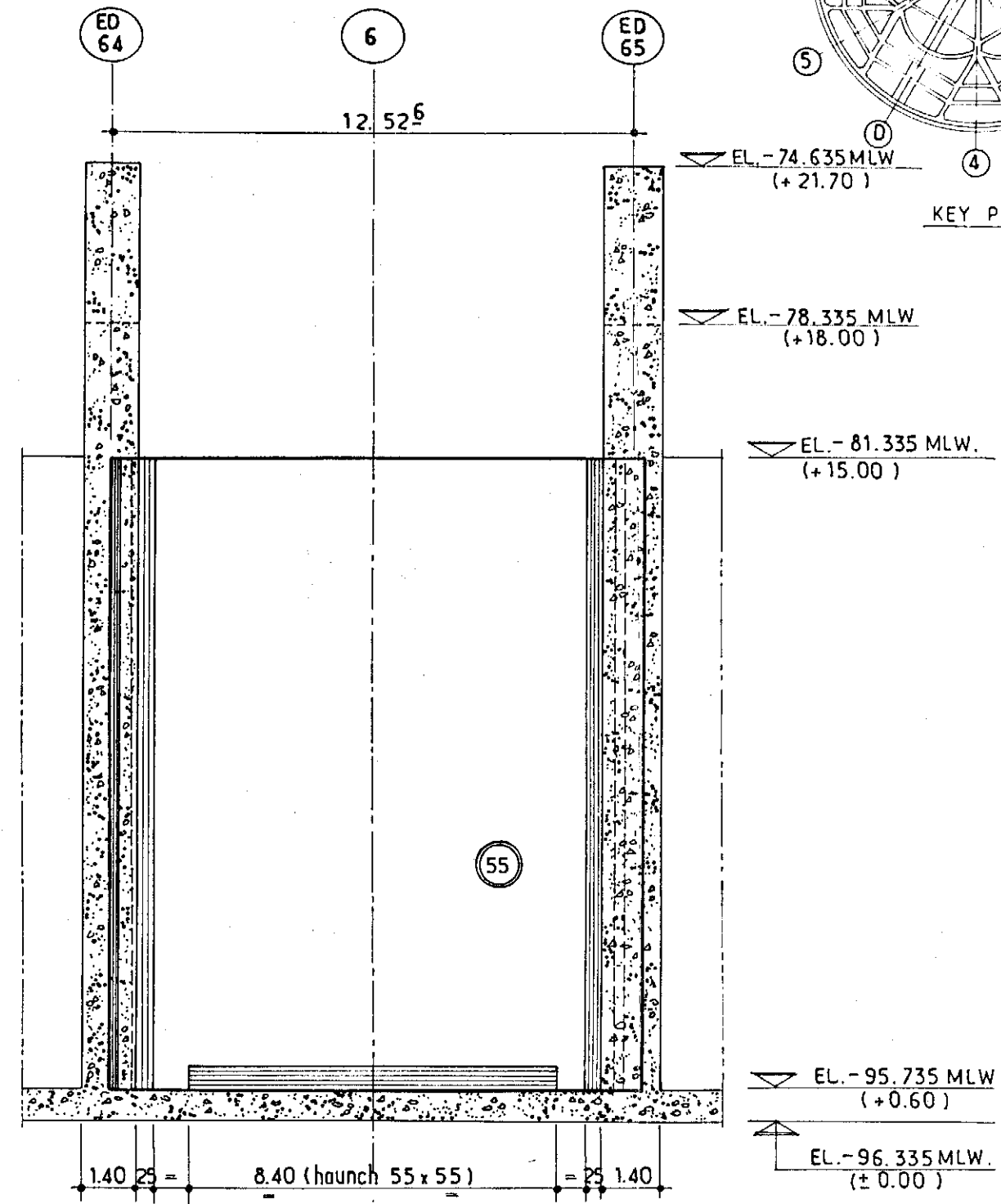
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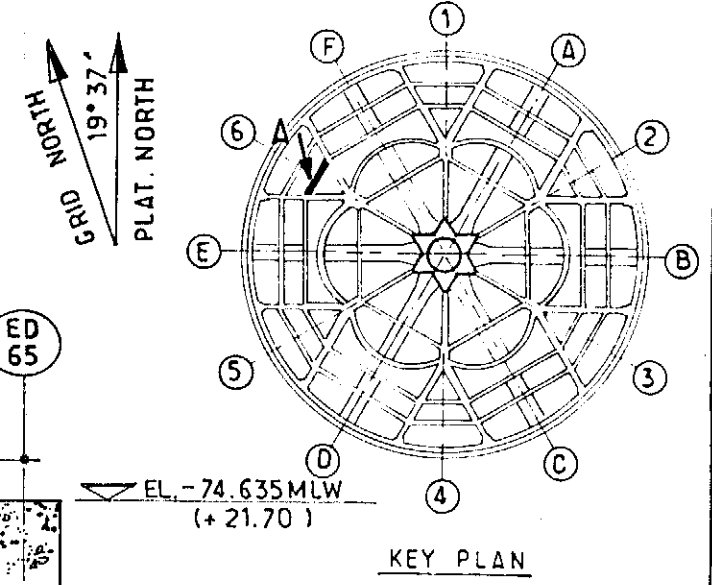
						 elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN					Scale	CONCRETE WORK EXTERIOR WALL 'EW/56'	
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF 91-36-35-1112	Rev. 1
Contractor JVD. 1029-20-63						4001 Stavanger	FRIGG FIELD		



VIEW "A"



VIEW "B"



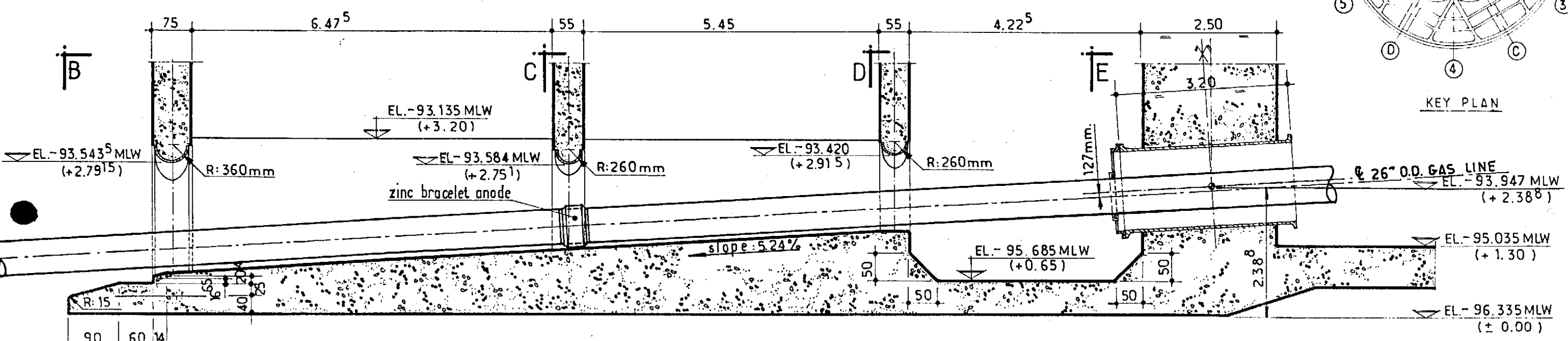
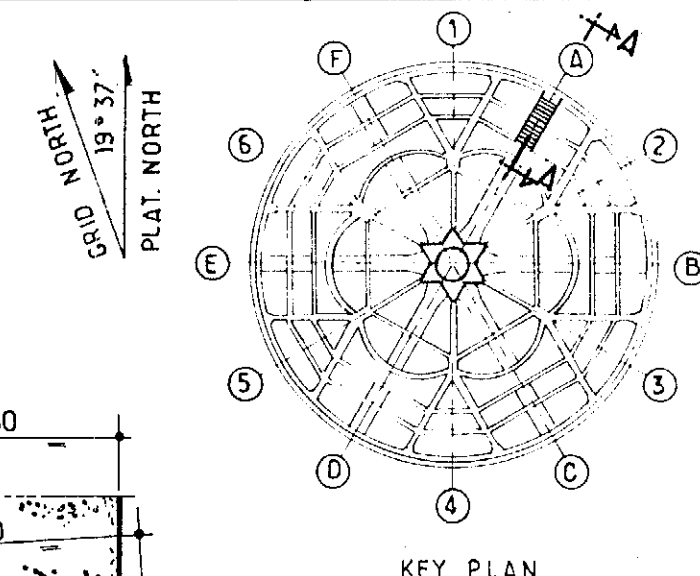
				elf aquitaine norge a/s			Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	ming J.L.C.	by	app.		Scale	EXTERIOR WALL - EW "66"	
Rev. Date DESCRIPTION				p.o. box 168			Dwgr. no.	FF 91_36_35. 1113	1
Contractor JVD 1029.20. 64				4001 Stavanger		FRIGG FIELD			

CDP 1 AS BUILT DRAWINGS

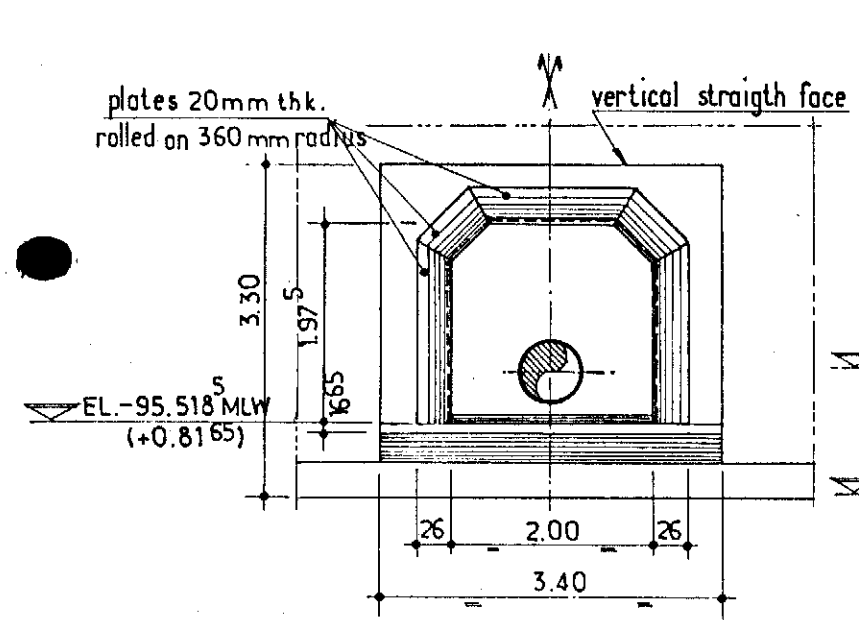
REFERENCE DRAWING LIST FOR: CONCRETE WORK

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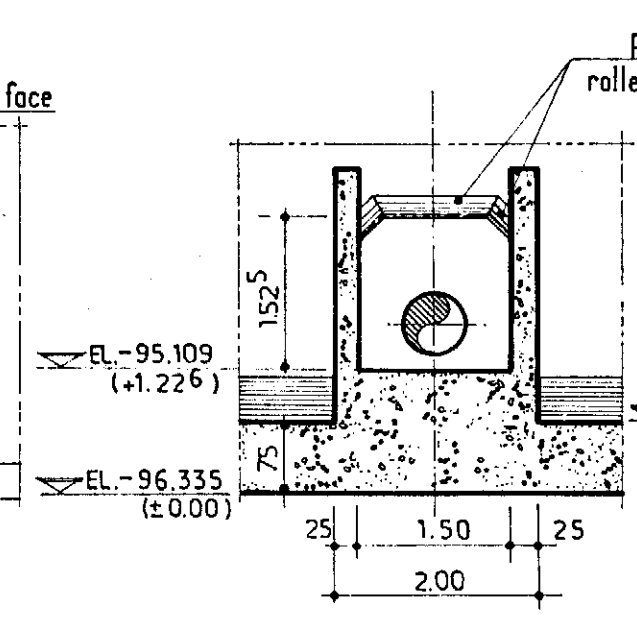
						elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER	
1	10/83	REDRAWN						Scale	CONCRETE WORK EXTERIOR WALL "EW 66"		
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029-20-64									FF 91-36-35-1113	1	/



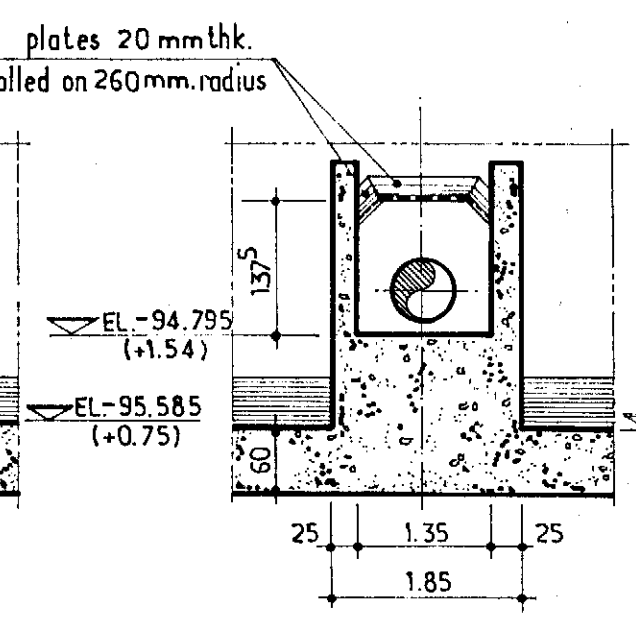
SECTION A-A



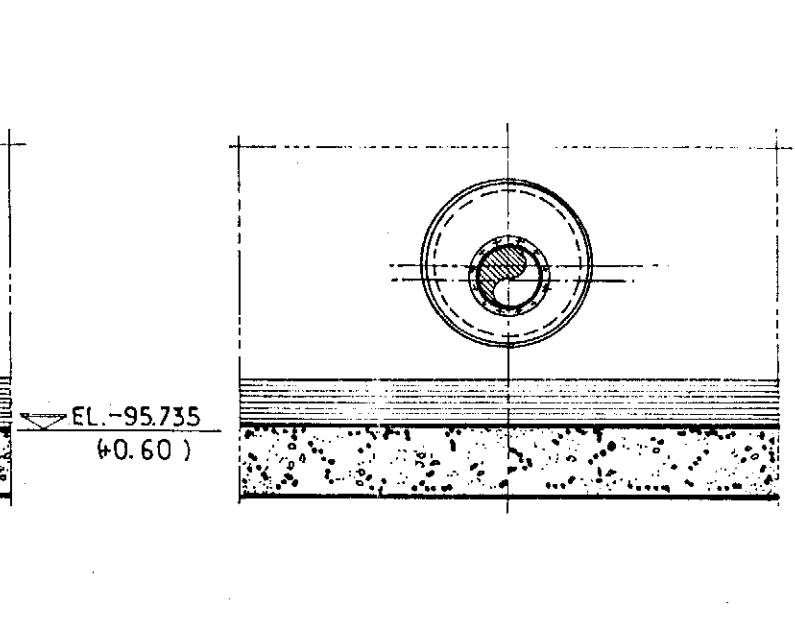
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

NOTES: - FOR CATHODIC PROTECTION (ZINC ANODE) SEE SK. F.F. 91_36_35_1622 and 1626
 - FOR SEAL CAISSON DETAILS SEE SK. F.F. 91_36_35_1656 and 1657

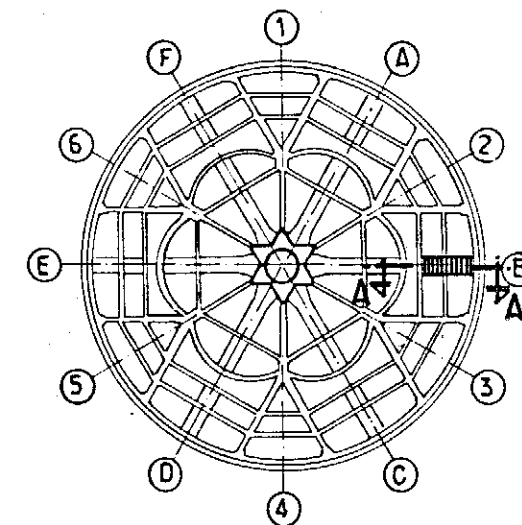
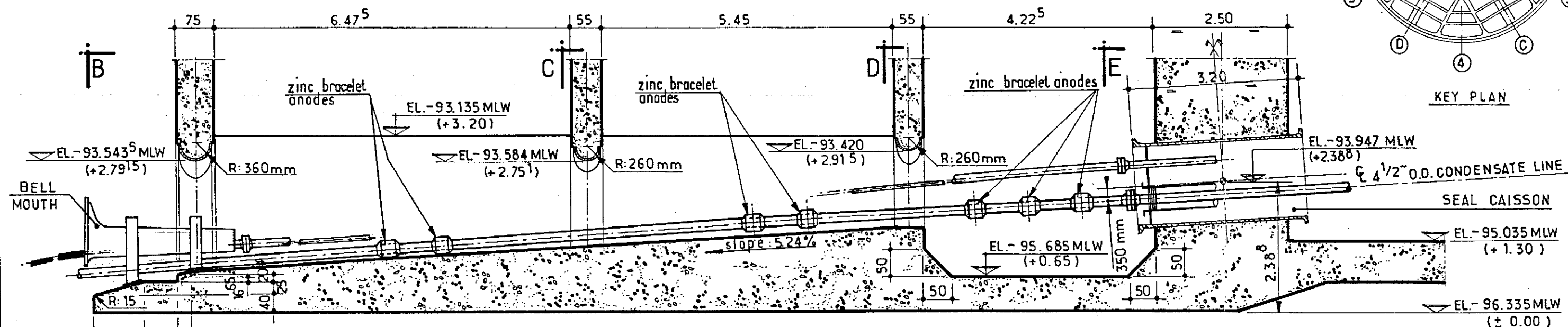
				elf aquitaine norge a/s			Job no.	Installation CDP 1	System UNDERWATER
1	10/83	REDRAWN	mirg J-LC	Rev. Date	DESCRIPTION	by app.	Scale 1:75	OUTSIDE TUNNEL "A" SECTIONS	
Contractor JVD 1029_20_65				p.o. box 168 4001 Stavanger		FRIGG FIELD	Dwgr. no. FF 91_36_35_1114	1	

CDP 1 AS BUILT DRAWINGS

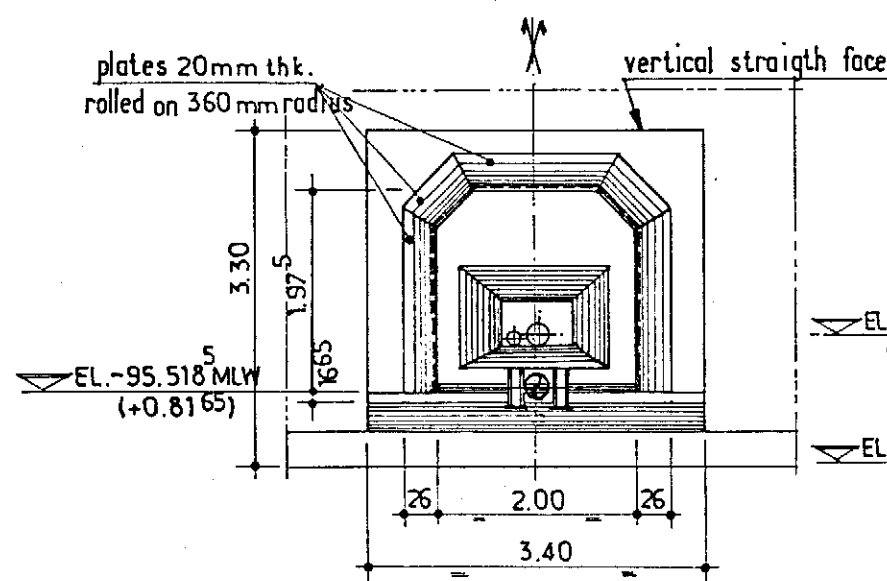
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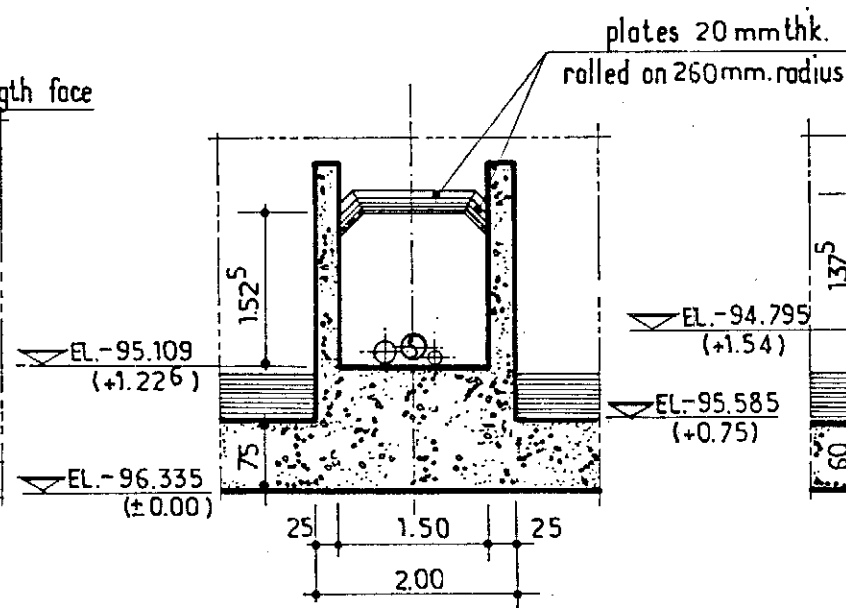
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1	10/83	UPDATED					Scale	OUTSIDE TUNNEL "A" SECTION		
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev.	Sheet
Contractor JVD-1029-20-65						p.o.box 168 4001 Stavanger	FF	91-36-35-1114	1	/



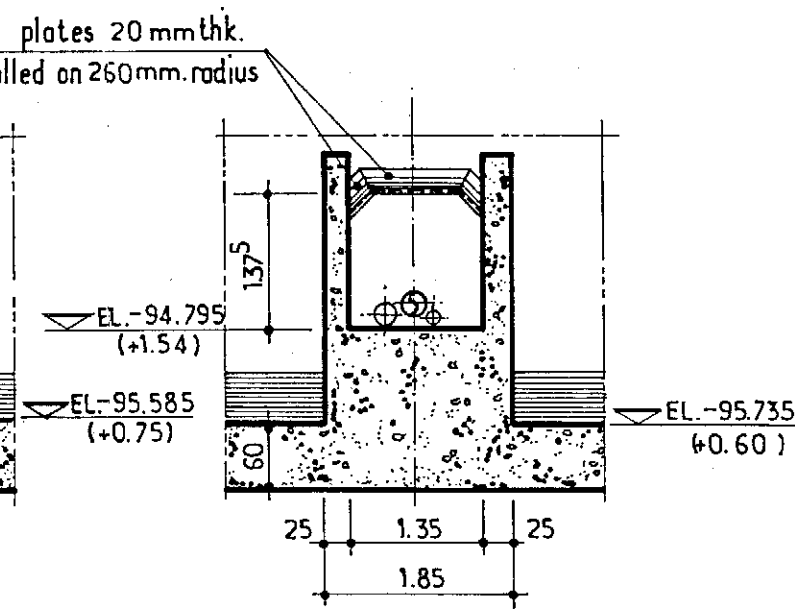
SECTION A.A



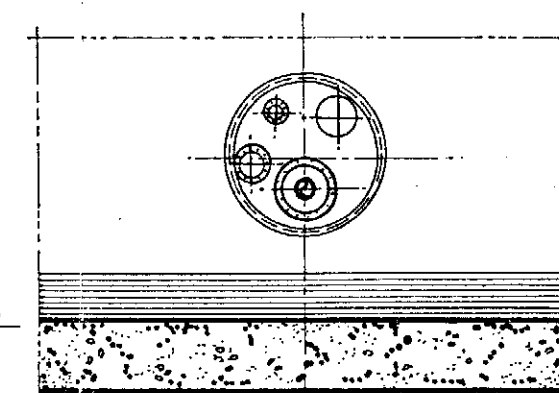
SECTION B.B



SECTION C.C



SECTION D.D



SECTION E.E

NOTES:

- FOR CATHODIC PROTECTION (ZINC ANODE) SEE SK. F.F. 91_36_35_1625 and 1628
- FOR SEAL CAISSON DETAILS SEE SK. F.F. 91_36_35_1658 to 1661
- FOR BELL MOUTH DETAILS SEE SK. F.F. 91_36_35_1307

1	10/83	REDRAWN	miria	J.L.L.
Rev.	Date	DESCRIPTION	by	app.
Contractor JVD 1029_20_66				

elf
aquitaine
norge a/s
p.o. box 168
4001 Stavanger

elf
FRIGG FIELD

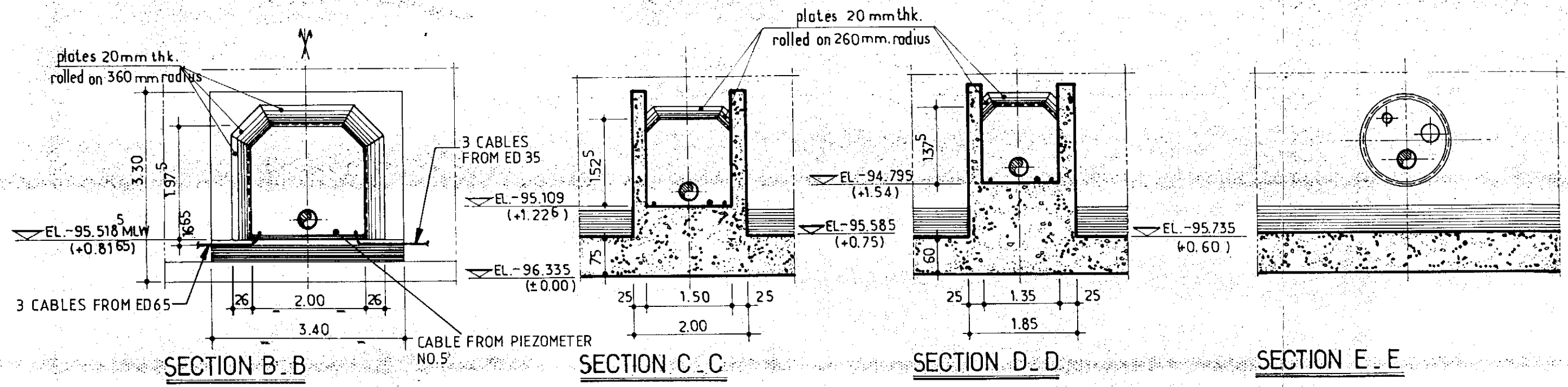
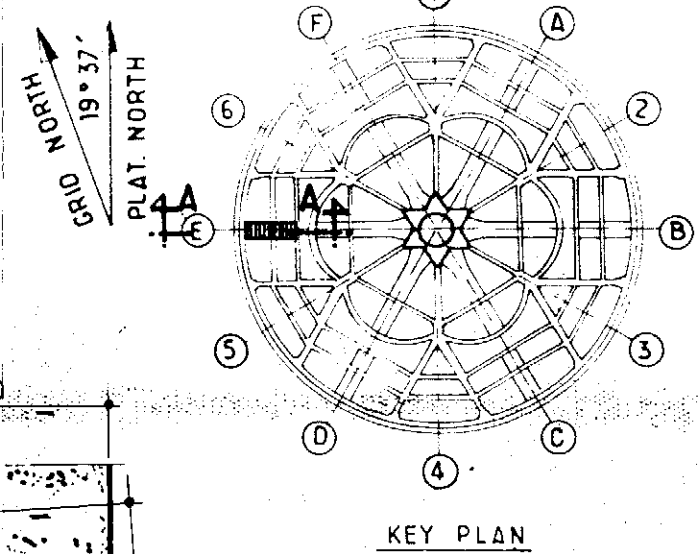
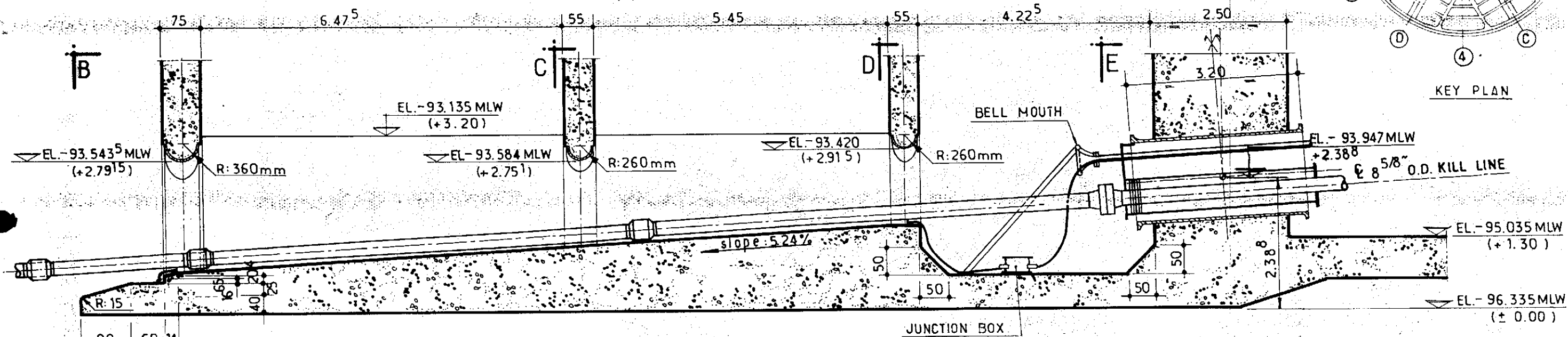
Job no.	Installation CDP 1	System UNDERWATER
Scale 1:75	OUTSIDE TUNNEL "B" SECTIONS	
Dwgr. no	FF 91_36_35_1115	1

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

						 elf	Job no.	Installation CDP 1	System UNDERWATER	
1	10/83	UPDATED					Scale	OUTSIDE TUNNEL "B" SECTION		
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev.	Sheet
Contractor		JVD-1029-20-66		4001 Stavanger		FRIGG FIELD	FF	91-36-35-1115	1	/



NOTES:

- FOR CATHODIC PROTECTION (ZINC ANODE) SEE SK. F.F. 91_36_35_1624 and 1627
- FOR SEAL CAISSON DETAILS SEE SK. F.F. 91_36_35_1672 to 1675
- FOR CABLE LAYOUT, SEE FF 91 36 35 1718

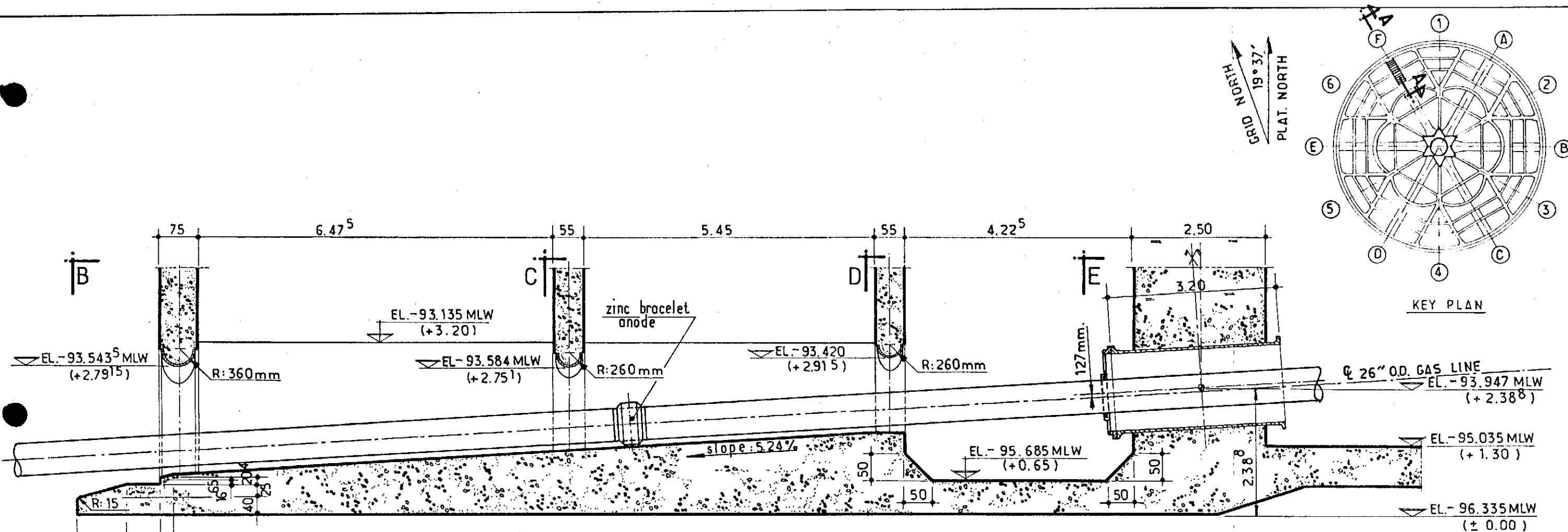
					elf aquitaine norge a/s p.o. box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER	
2	32.86	CABLE ADDED. REF. TO SST 5443	T.B.				Scale 1:75	OUTSIDE TUNNEL "E" SECTIONS		
1	10/83	REDRAWN	mira	J-LL			Dwgr. no.	FF 91_36_35_1116	2	
Rev.	Date	DESCRIPTION	by	app.			Contractor JVD 1029_20_67			

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

					elf			Job no.		Installation CDP 1		System UNDERWATER	
10/83 UPDATED					aquitaine norge a/s			Scale		OUTSIDE TUNNEL "E" SECTION			
Rev.		Date		DESCRIPTION		by		app.		p.o.box 168		Dwgr. no.	
										4001 Stavanger		FF 91-36-35-1116	
Contractor JVD-1029-20-67								FRIGG FIELD		Rev		Sheet	
										1		/	

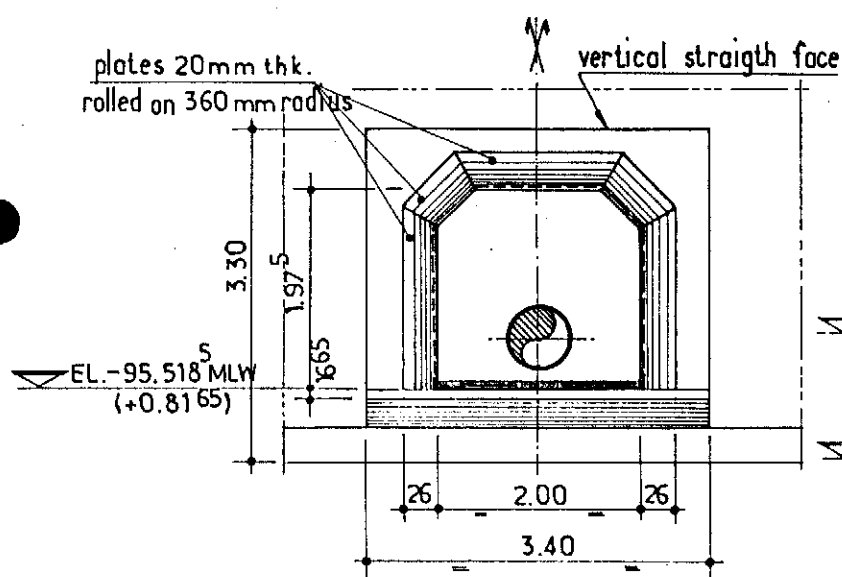


SECTION A.A

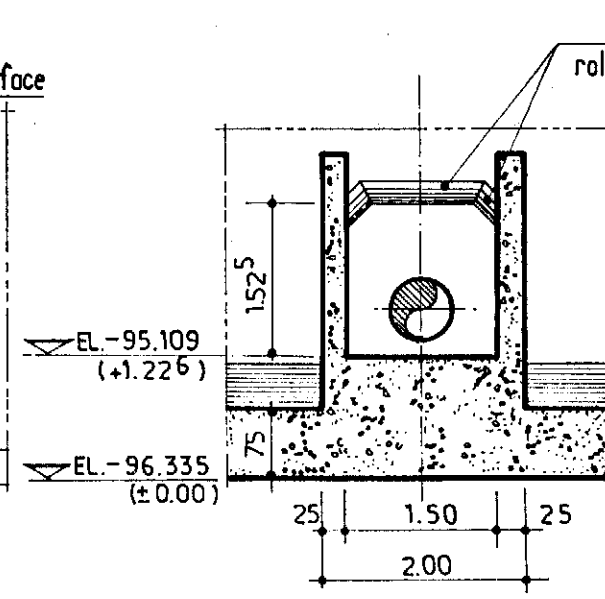
SECTION C.C

SECTION D.D

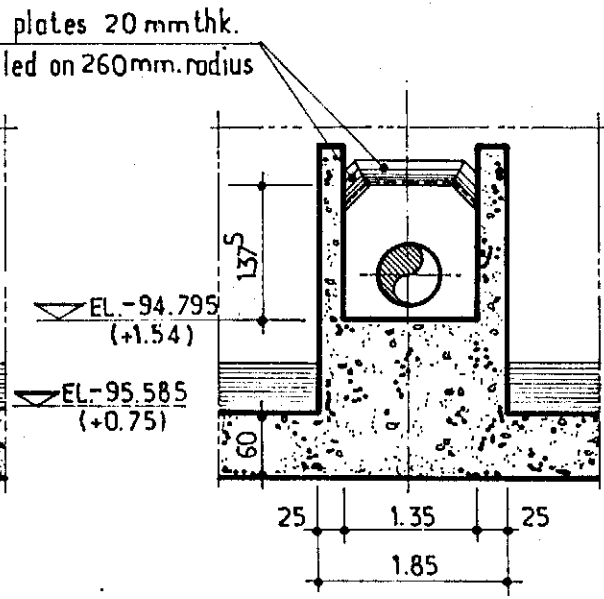
SECTION E.E



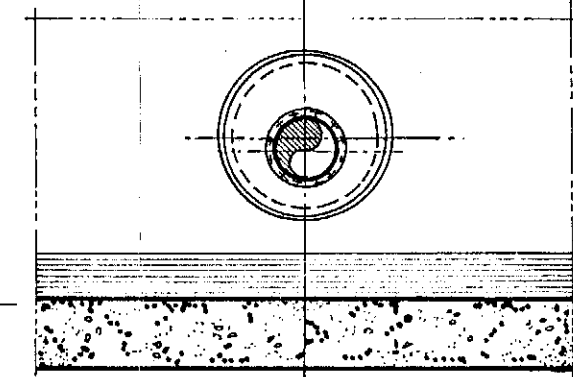
SECTION B.B



SECTION C.C



SECTION D.D



SECTION E.E

NOTES: - FOR CATHODIC PROTECTION (ZINC ANODE) SEE SK. F.F. 91_36_35_1623 and 1626
 - FOR SEAL CAISSON DETAILS SEE SK. F.F. 91_36_35_1678 and 1679

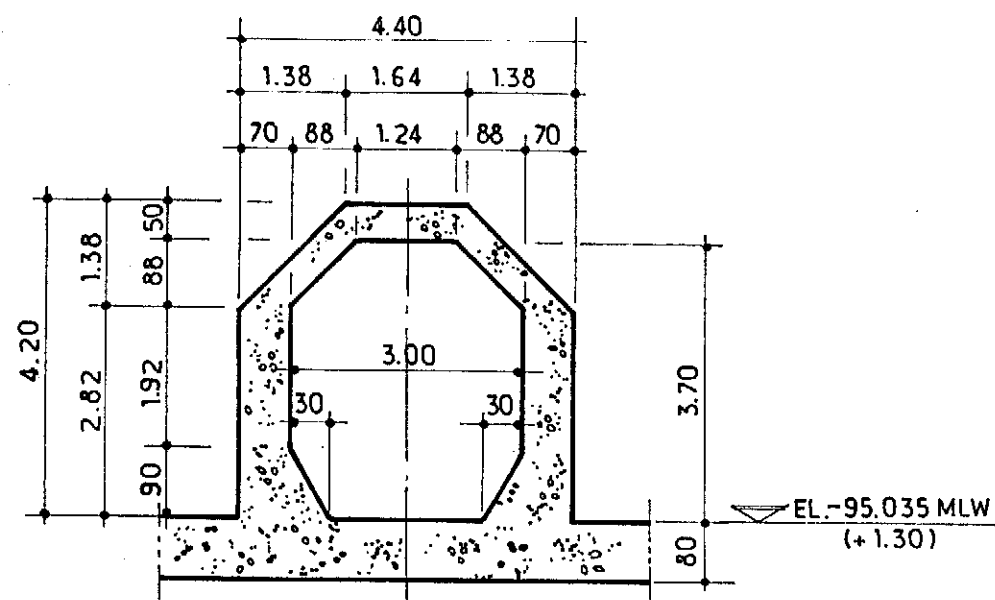
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1	10/83	REDRAWN	mir	J.L.C.			Scale 1:75	OUTSIDE TUNNEL "F" SECTIONS			
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no	FF 91_36_35_1117		Page 1	Changes
Contractor JVD 1029_20_68					4001 Stavanger		FRIGG FIELD				

CDP 1 AS BUILT DRAWINGS

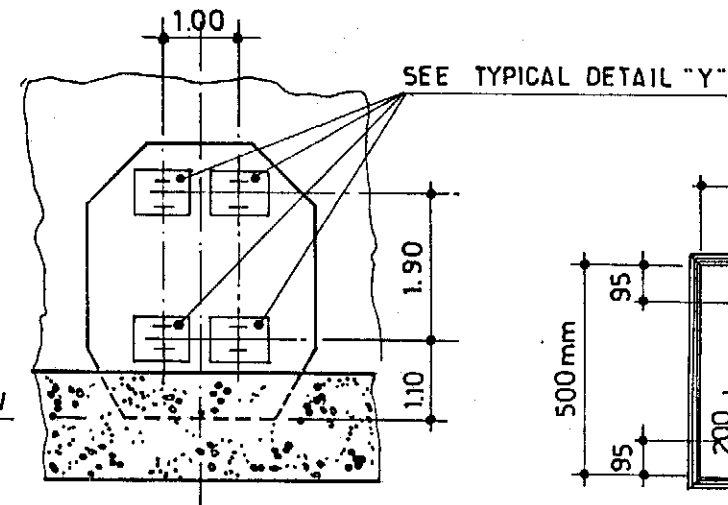
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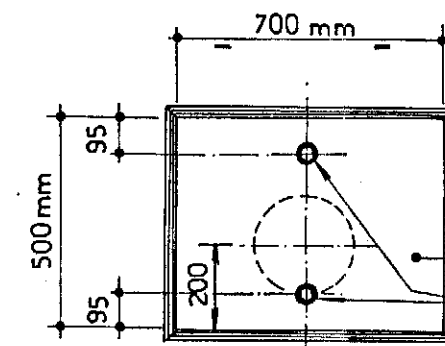
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1	10/83	UPDATED					Scale	OUTSIDE TUNNEL "F" SECTION	
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF 91-36-35-1117	Rev. 1
Contractor JVD-1029-20-68						4001 Stavanger	FRIGG FIELD		



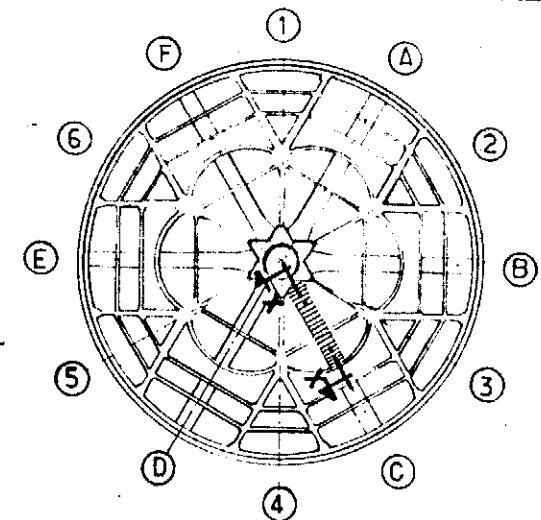
TYPICAL SECTION A-A



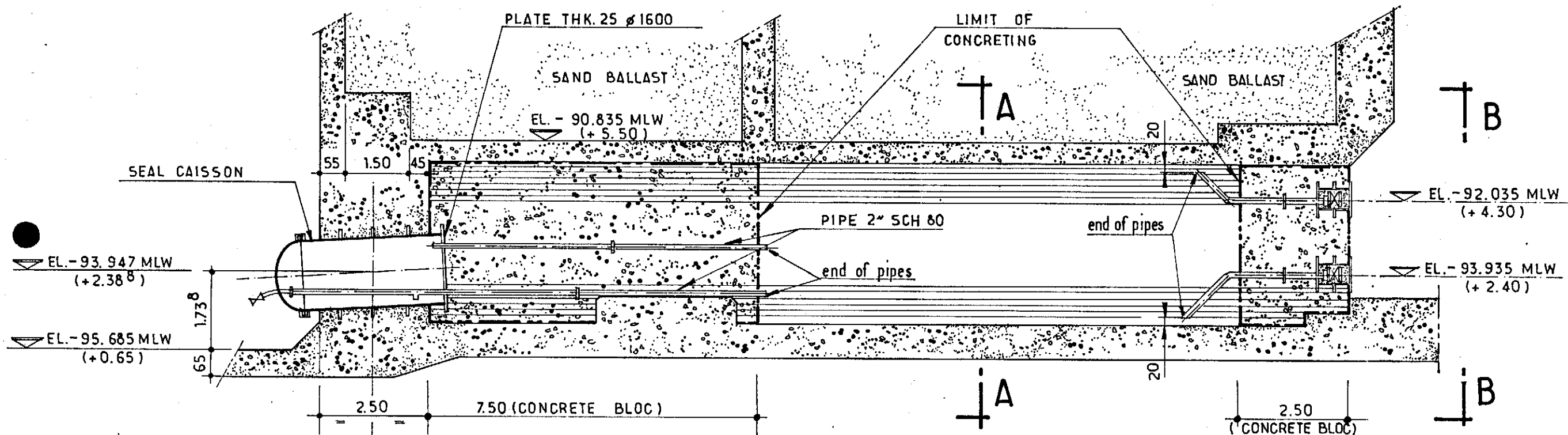
VIEW B-B



TYPICAL DETAIL "Y"
(ALL COTATION IN MILLIMETER)



steel plate 700x500x20 mm.
half screw end coupling 1"-3000 #
with hexagon head plug 1"-3000 #



SECTION X-X

NOTES: FOR SEAL CAISSON ON TUNNEL "C" SEE SK. FF. 91_36_35 1664 and 1665

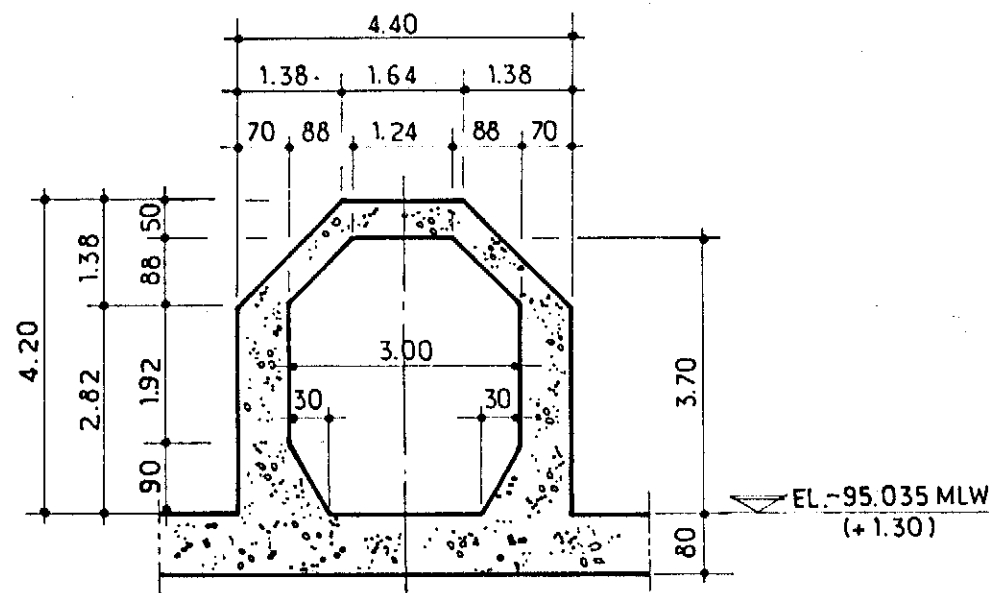
				elf aquitaine norge a/s		elf	Job no.	Installation CDP 1	System UNDERWATER
1	10/83	UPDATED	mirg	J.L.C.	p.o. box 168		Scale 1:100	SECTION THROUGH TUNNEL "C"	
Contractor JVD 1029.20.69				4001 Stavanger		FRIGG FIELD	Dwgr. no. FF 91_36_35_1118	1	Sheet

CDP 1 AS BUILT DRAWINGS

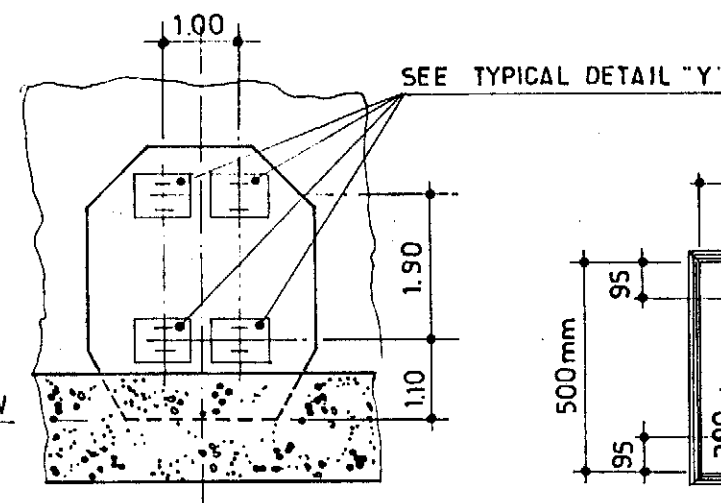
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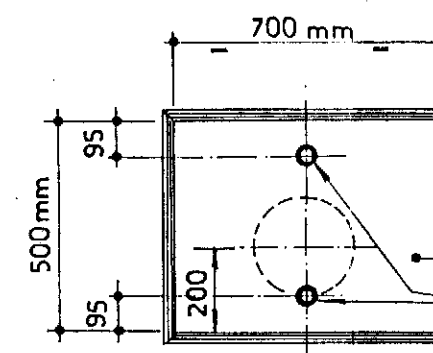
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Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev.	Sheet
Contractor JVD-1029-20-69						p.o.box 168 4001 Stavanger	FF	91-36.35-1118	1	/



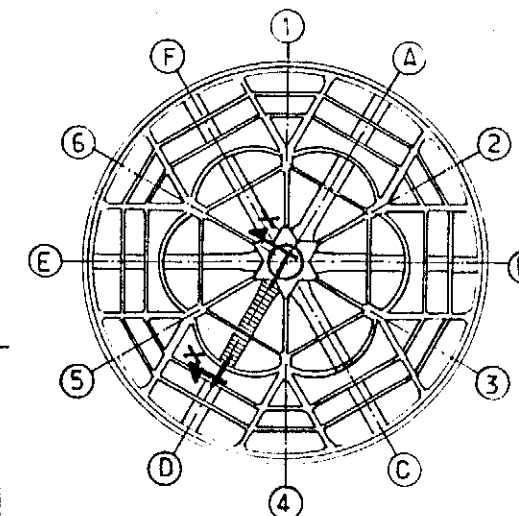
TYPICAL SECTION A_A



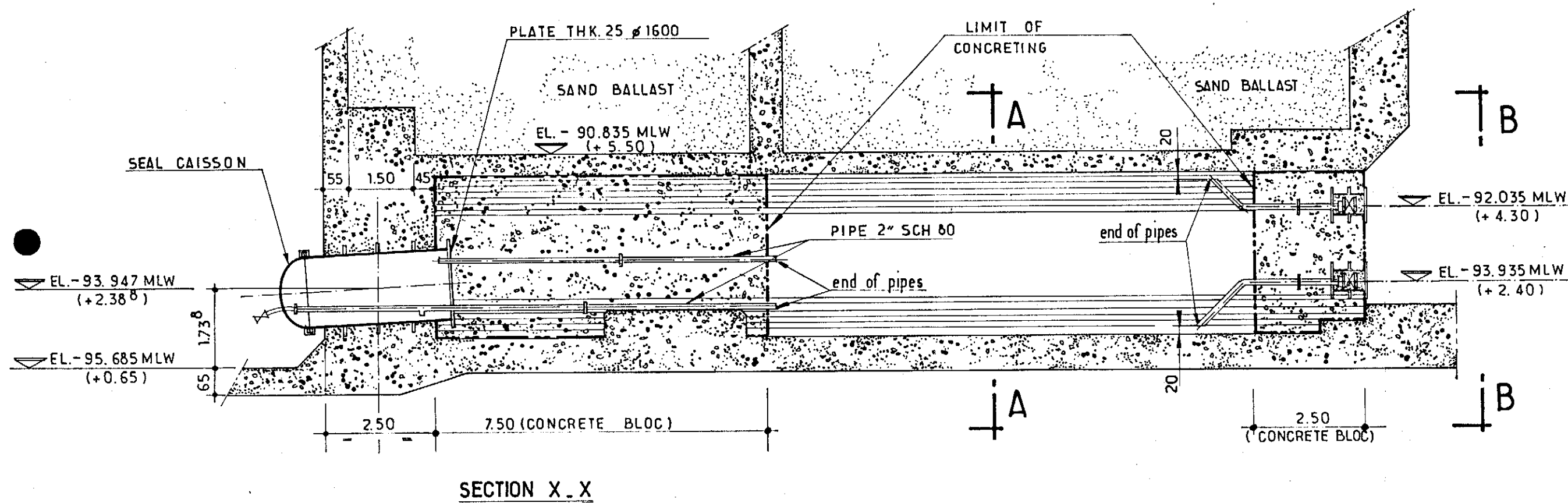
VIEW B_B



TYPICAL DETAIL "Y"
(ALL COTATION IN MILLIMETER)



steel plate 700x500x20 mm.
half screw end coupling 1"-3000 #
with hexagon head plug 1"-3000 #



SECTION X_X

NOTES: - FOR SEAL CAISSON IN TUNNEL "D" SEE SK. FF. 91_36_35_1668 and 1669

1	10/83	UPDATED	mir	J-LC
Rev.	Date	DESCRIPTION	by	app.
Contractor JVD 1029-20-70				

elf
aquitaine
norge a/s
p.o. box 168
4001 Stavanger



FRIGG FIELD

Job no.	Installation CDP 1	System UNDERWATER
Scale 1:100	SECTION THROUGH TUNNEL "D"	
Dwgr. no. FF 91_36_35_1119	1	

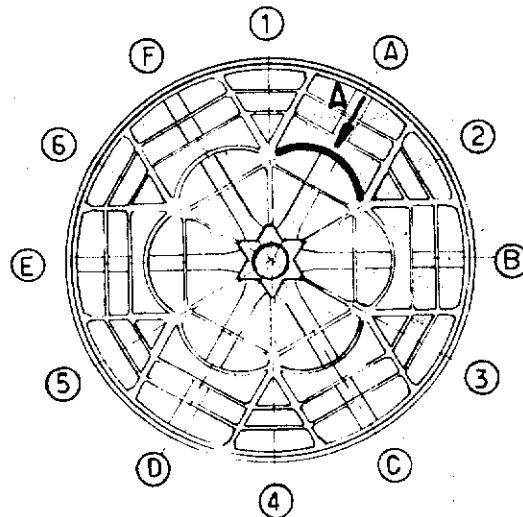
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

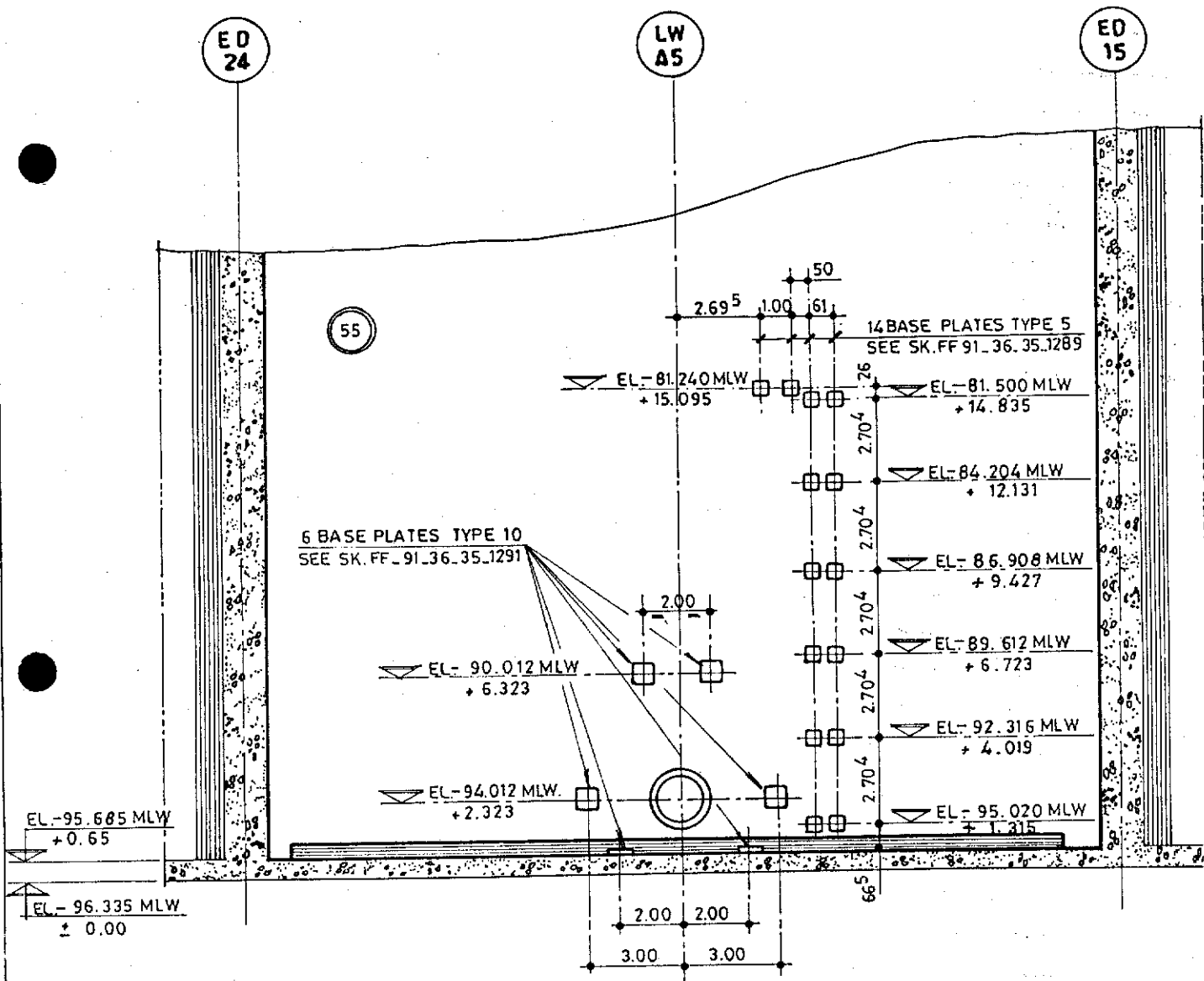
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Rev.	Date	DESCRIPTION	by	app.			Dwg. no.		Rev.	Sheet
Contractor JVD-1029.20-70						4001 Stavanger	FF	91.36.35.1119	1	/

GRID NORTH
19° 37' PLAT. NORTH



KEY PLAN



VIEW "A"

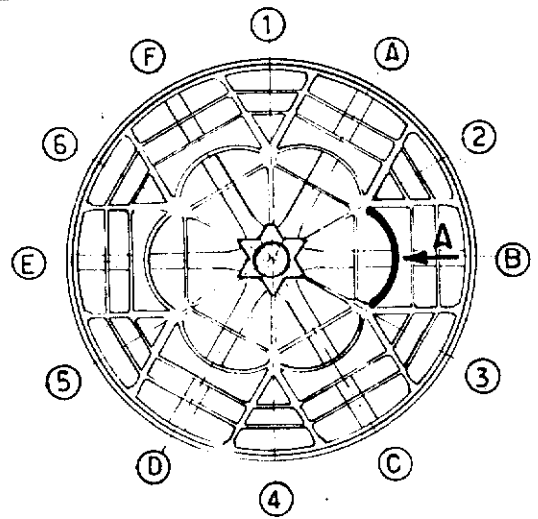
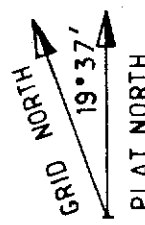
				elf aquitaine norge a/s p.o. box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER
1	12/83	REDRAWN	mire J-LL			Scale 1:200	LOBATE WALL - LW. "A5" EXTERIOR VIEW (PADEYE)	
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no. FF 91.36.35.1120	Rev 1	Sheet /
Contractor JVD 1029.20.71								

CDP 1 AS BUILT DRAWINGS

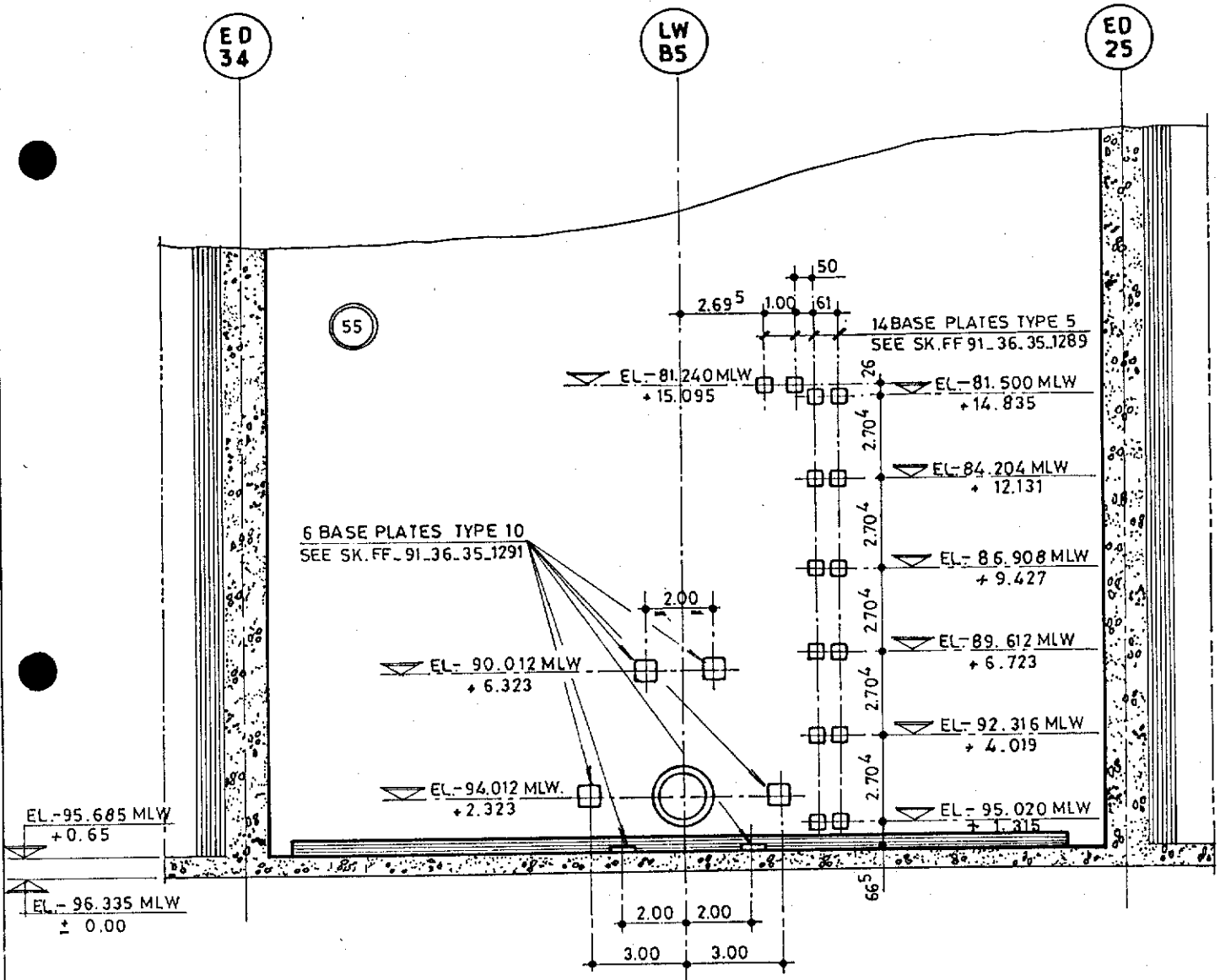
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1	12/83	REDRAWN						Scale	LOBATE WALL - LW "A5" EXTERIOR VIEW - (PADATE)		
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.		Rev.	Sheet
Contractor JVD. 1029. 20-71						4001 Stavanger	FRIGG FIELD	FF	91-36-35-120	1	/



KEY PLAN



VIEW "A"

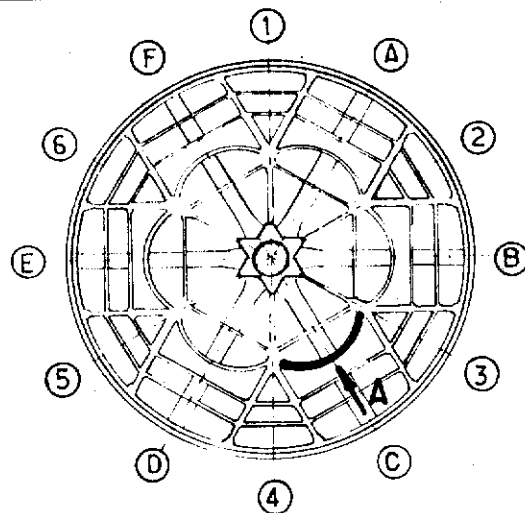
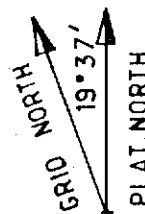
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1	12/83	REDRAWN	mira/lc			Scale 1:200	LOBATE WALL - LW. "B5" EXTERIOR VIEW (PADEYE)	
Rev.	Date	DESCRIPTION	by	app.		Dwgr. no.	FF 91_36_35_1121	Rev 1
Contractor JVD 1029_20_72				FRIGG FIELD				Sheet /

CDP 1 AS BUILT DRAWINGS

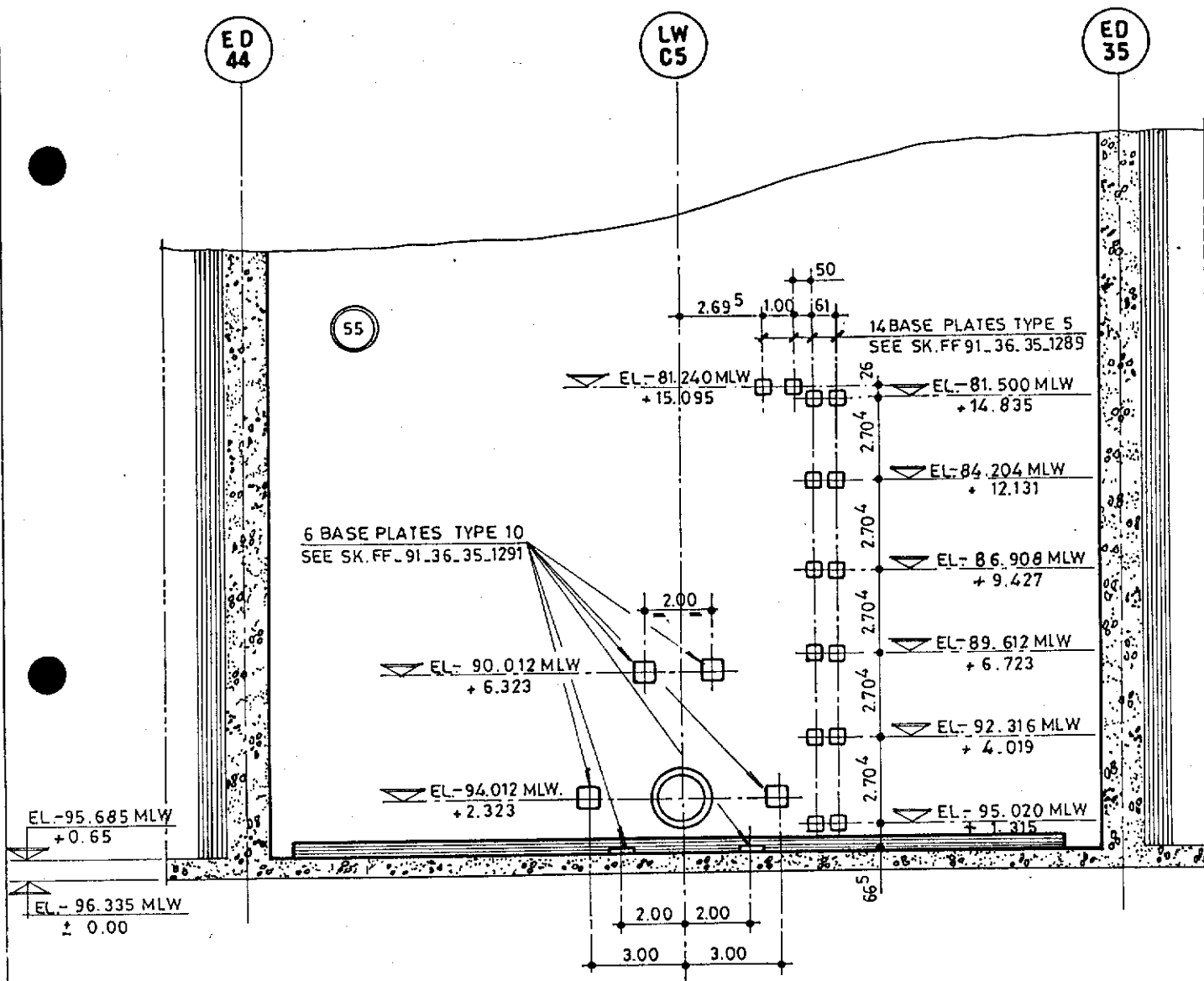
REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

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12/83	REDRAWN							Scale	LOBATE WALL - LW "BB" EXTERIOR VIEW - (PADATE)		
Rev.	Date	DESCRIPTION	by	app.				Dwgr. no.	FF 91-36.35-1121	Rev. 1	Sheet /
Contractor JVD 1029.20.72						FRIGG FIELD					



KEY PLAN



VIEW "A"

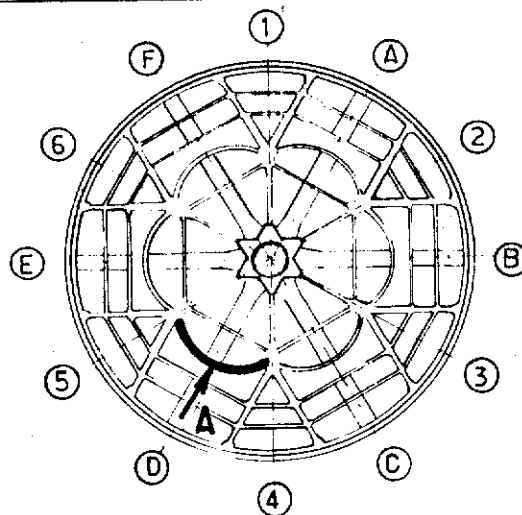
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1	12/83	REDRAWN	mirg	lil			Scale 1:200	LOBATE WALL - LW."C5" EXTERIOR VIEW (PADEYE)			
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF	91_36_35_1122	Rev 1	Sheet /
Contractor JVD 1029_20_73							FRIGG FIELD				

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

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1	2/83	REDRAWN					Scale	LOBATE WALL - LW "C5" EXTERIOR VIEW (PADATE)	
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF 91-36-35-1122	Rev. 1
Contractor JVD-1029-20-73						4001 Stavanger	FRIGG FIELD		



EO
54

LW
05

ED
45



6 BASE PLATES TYPE 10
SEE SK. FF_91_36_35_1291

14 BASE PLATES TYPE 5
SEE SK.FF 91.36.35.1289

EL. - 81.240 MLW
+ 15.095

EL. - 81.500 MLW
+ 14.835

EL-84.204 MLW
+ 12.131

2  EL: 86.908 MLW
+ 9.427

EL. 89.612 MLW
+ 6.723

EL = 92.316 MLW
+ 4.019

EL = 95.020 MLW
+ 1.315

EL: 90.012 MLW
+ 6.323

$$\frac{\text{---}}{\text{---}} \text{ EL. - 94.012 MLW. } \\ + 2.323$$

EL.-95.685 MLW
+0.65

EL. - 96.335 MLW
+ 0.00

VIEW "A"

						 elf	Job no.	Installation CDP 1	System UNDERWATER	
1	12/83	REDRAWN	mirg	1/10			Scale 1:200	LOBATE WALL - LW."DS" EXTERIOR VIEW (PADEYE)		
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.		Rev. 1	Sheet /
Contractor JVD 1029 - 20 - 74						4001 Stavanger	FRIGG FIELD		FF 91 - 36 - 35 - 1123	

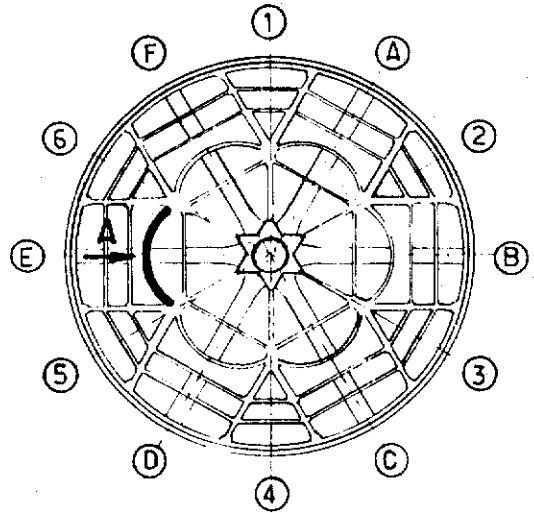
CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

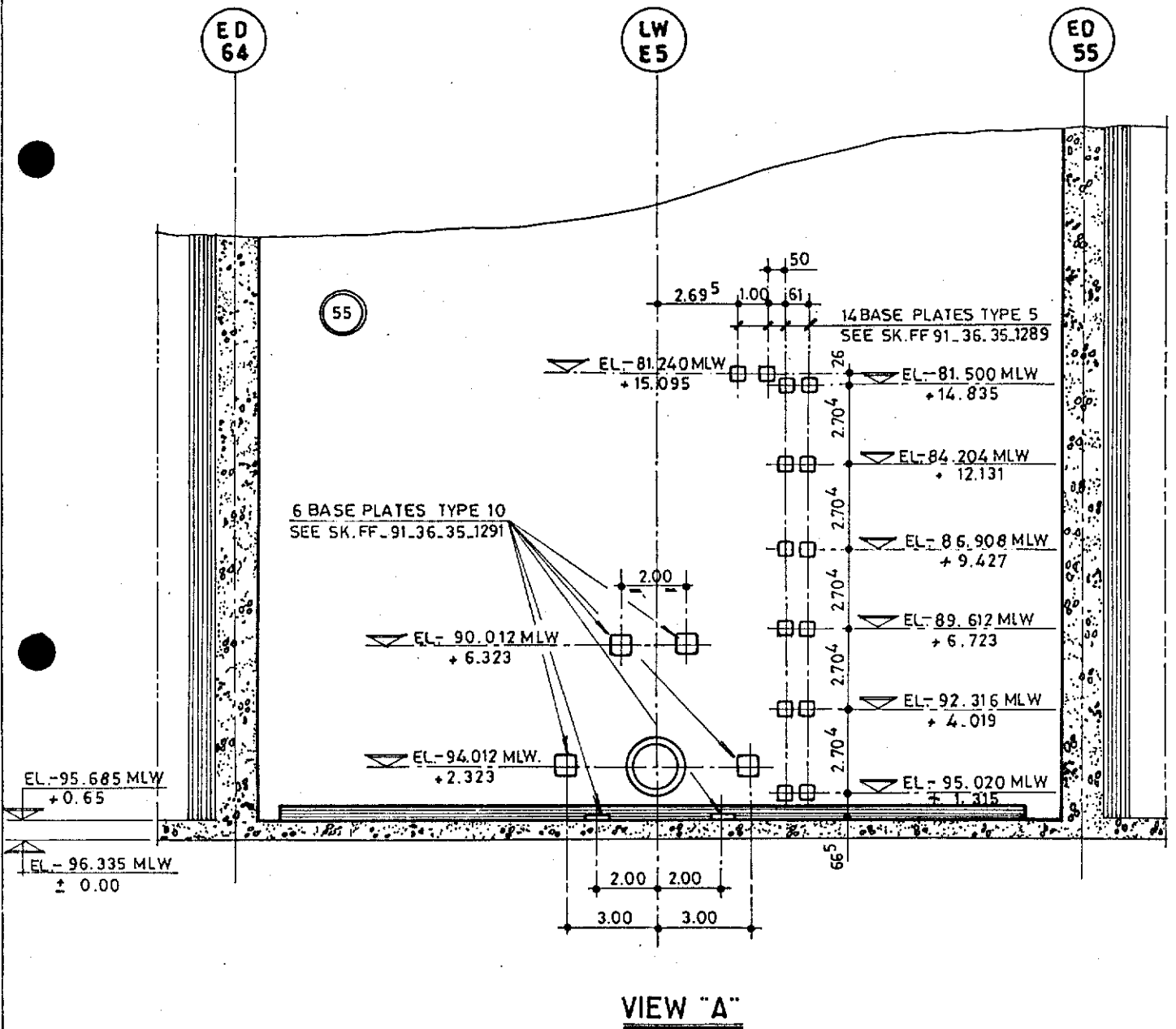
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Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF 91-36-35-1123	Rev. 1
Contractor JVD-1029-20-74						4001 Stavanger	FRIGG FIELD		

GRID NORTH
19° 37'
PLAT. NORTH



KEY PLAN



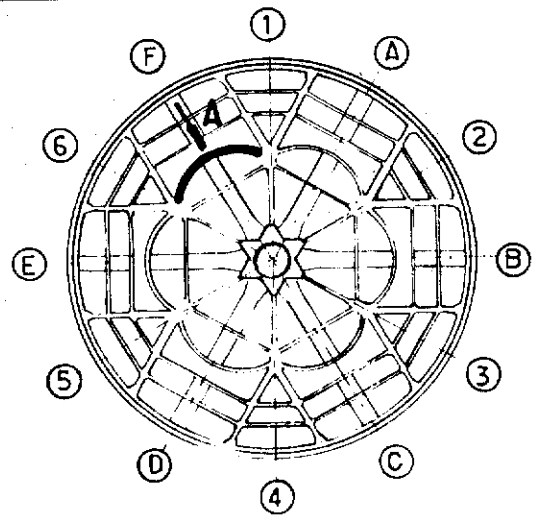
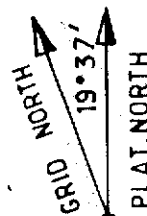
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1	12/83	REDRAWN	mirg	JLC			Scale 1:200	LOBATE WALL - LW."E5" EXTERIOR VIEW (PADEYE)			
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no. FF	91_36_35_1124		Rev 1	Sheet /
Contractor JVD 1029_20_75											

CDP 1 AS BUILT DRAWINGS

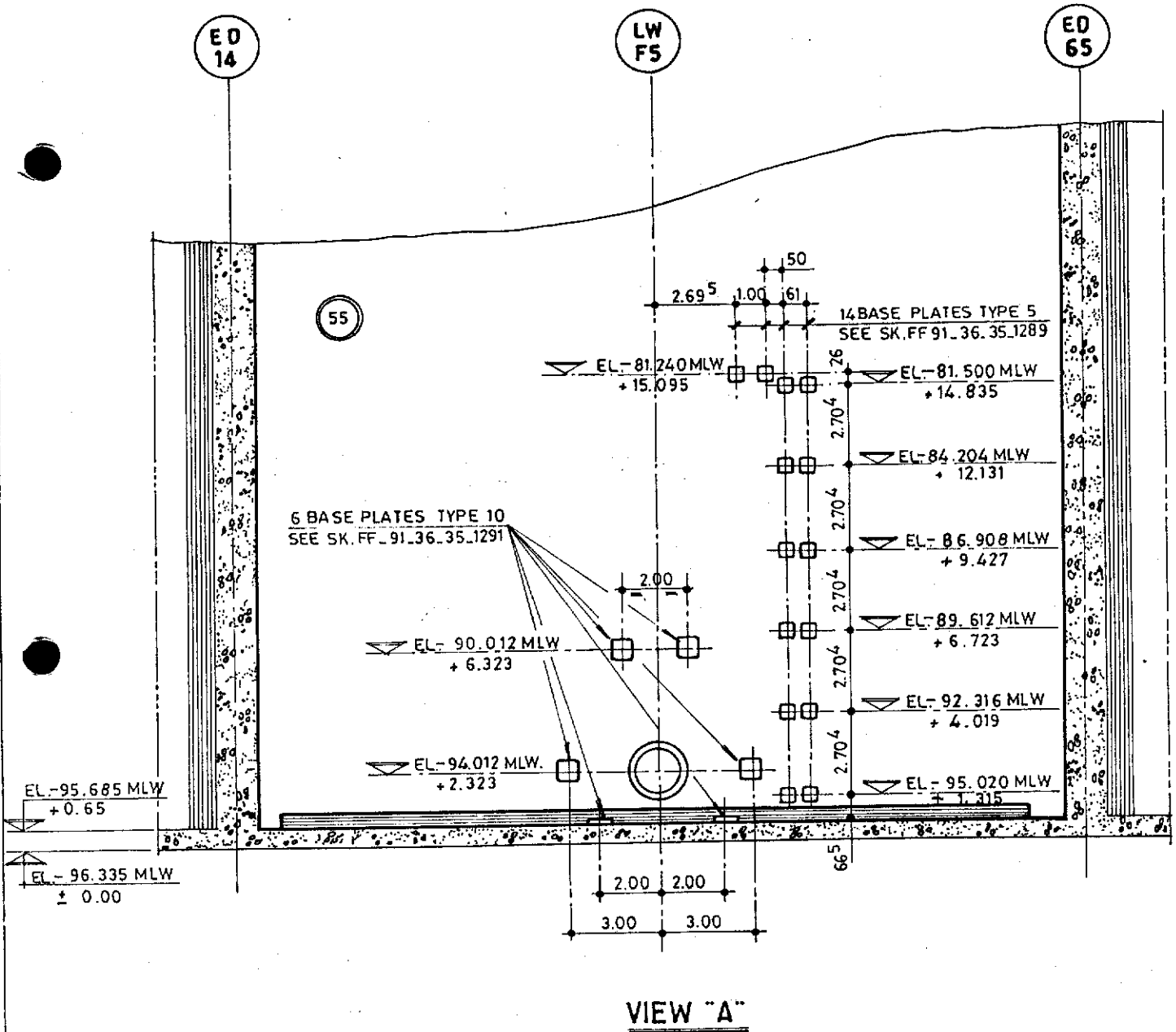
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Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF 91-36-35-1124	Rev. 1
Contractor JVD. 1029-20-75						p.o.box 168 4001 Stavanger	FRIGG FIELD		



KEY PLAN



					elf aquitaine norge a/s p.o.box 168 4001 Stavanger	 elf	Job no.	Installation CDP 1	System UNDERWATER		
1	12/83	REDRAWN	mirro	J-LC			Scale 1:200	LOBATE WALL - LW. "F5" EXTERIOR VIEW (PADEYE)			
Rev.	Date	DESCRIPTION	by	app.			Dwgr. no.	FF	91_36_35_1125	Rev. 1	Sheet /
Contractor JVD 1029_20_76					4001 Stavanger		FRIGG FIELD				

CDP 1 AS BUILT DRAWINGS

REFERENCE DRAWING LIST FOR: CONCRETE WORK

[illegible][illegible]

					 elf	Job no.	Installation CDP 1	System UNDERWATER	
1	12/83	REDRAWN				Scale	LOBATE WALL - LW "F5" EXTERIOR VIEW (PADATE)		
Rev.	Date	DESCRIPTION	By	App.		Dwgr. no.		Rev.	Sheet
Contractor JVD-1029-20-76						FF	91-36-35-1125	1	/