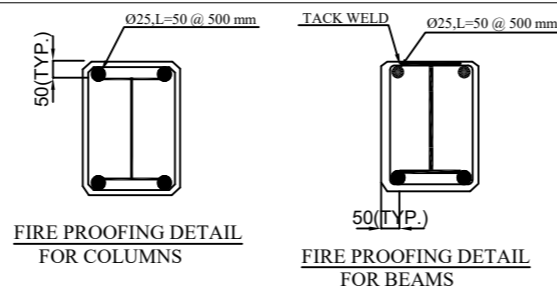


NOZZLE DATA (AE-2102)

MARK	QTY.	SIZE	RATING	FLANGE FACE	TYPE	SCH/THK	SERVICE
N1	1	4"	600#	RF/SMOOTH	ANSI B16.5 W.N.	80S	INLET
N2	1	4"	600#	RF/SMOOTH	ANSI B16.5 W.N.	80S	OUTLET
TI	2	1"	600#	RF/SMOOTH	ANSI B16.5 L.W.N.	14.3	TI (WITH BLIND)
PI	2	3/4"	600#	RF/SMOOTH	ANSI B16.5 L.W.N.	14.5	PI (WITH BLIND)
V	1	2"	600#	RF/SMOOTH	ANSI B16.5 L.W.N.	16.6	VENT (WITH BLIND)
D	1	2"	600#	RF/SMOOTH	ANSI B16.5 L.W.N.	16.6	DRAIN (WITH BLIND)

Max. Allowable Nozzle Loads (3xapi 681)

NOZZLE	FORCES (N)			Moments (N.M)		
	Fx	Fy	Fz	Mx	My	Mz
N1	10020	8010	10020	2430	3660	2430
N2	10020	8010	10020	2430	3660	2430



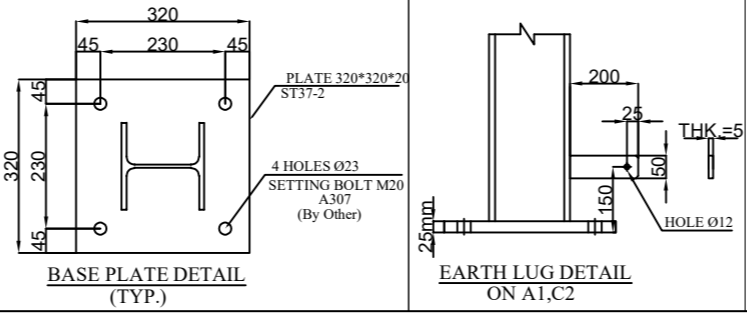
Fire proofing operation is performed for all beams, columns
Use Ø20mm steel bar welded to structural steel shapes length 50mm.

NOZZLE DATA (AE-2101)

MARK	QTY.	SIZE	RATING	FLANGE FACE	TYPE	SCH/THK	SERVICE
N1	1	6"	300#	RF/SMOOTH	ANSI B16.5 W.N.	80S	INLET
N2	1	6"	300#	RF/SMOOTH	ANSI B16.5 W.N.	80S	OUTLET
TI	2	1"	300#	RF/SMOOTH	ANSI B16.5 L.W.N.	14.3	TI (WITH BLIND)
PI	2	3/4"	300#	RF/SMOOTH	ANSI B16.5 L.W.N.	14.25	PI (WITH BLIND)
V	1	2"	300#	RF/SMOOTH	ANSI B16.5 L.W.N.	16.6	VENT (WITH BLIND)
D	1	2"	300#	RF/SMOOTH	ANSI B16.5 L.W.N.	16.6	DRAIN (WITH BLIND)

Max. Allowable Nozzle Loads (3xapi 681)

NOZZLE	FORCES (N)			Moments (N.M)		
	Fx	Fy	Fz	Mx	My	Mz
N1	12000	15090	15090	6420	9150	4890
N2	12000	15090	15090	6420	9150	4890



مطابق کامنت های قبلی : ارائه محاسبات سازه ای و ... از سوی سازنده پس از نهایی شدن نقشه ضروریست.
پاسخ آبان: پس از نهایی شدن مدرک General Arrangement Drawing ارائه می گردد.

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.	DESCRIPTION	CHECKED	REV. APPR.
V03	Nov.24	AFC	AMC	M.PAKHARIAN	M.SADIGHIAN	...			
V02	AUG.24	IFA	AMC	M.PAKHARIAN	M.SADIGHIAN	...			
V01	APR.24	IFA	AMC	M.PAKHARIAN	M.PAKHARIAN	...			
V00	FEB.24	IFA	AMC	M.PAKHARIAN	M.PAKHARIAN	...			

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS & GAS-CONDENSATE PIPELINES
PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES
EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY

DRAWING TITLE: General Arrangement Drawing AE-2101-A/B/C, AE-2102-A/B/C

SCALE: AS
DRAWING NO.: BK-GCS-AA-120-ME-DW-0001
SHEET NO.: OF 2
REV.: V03

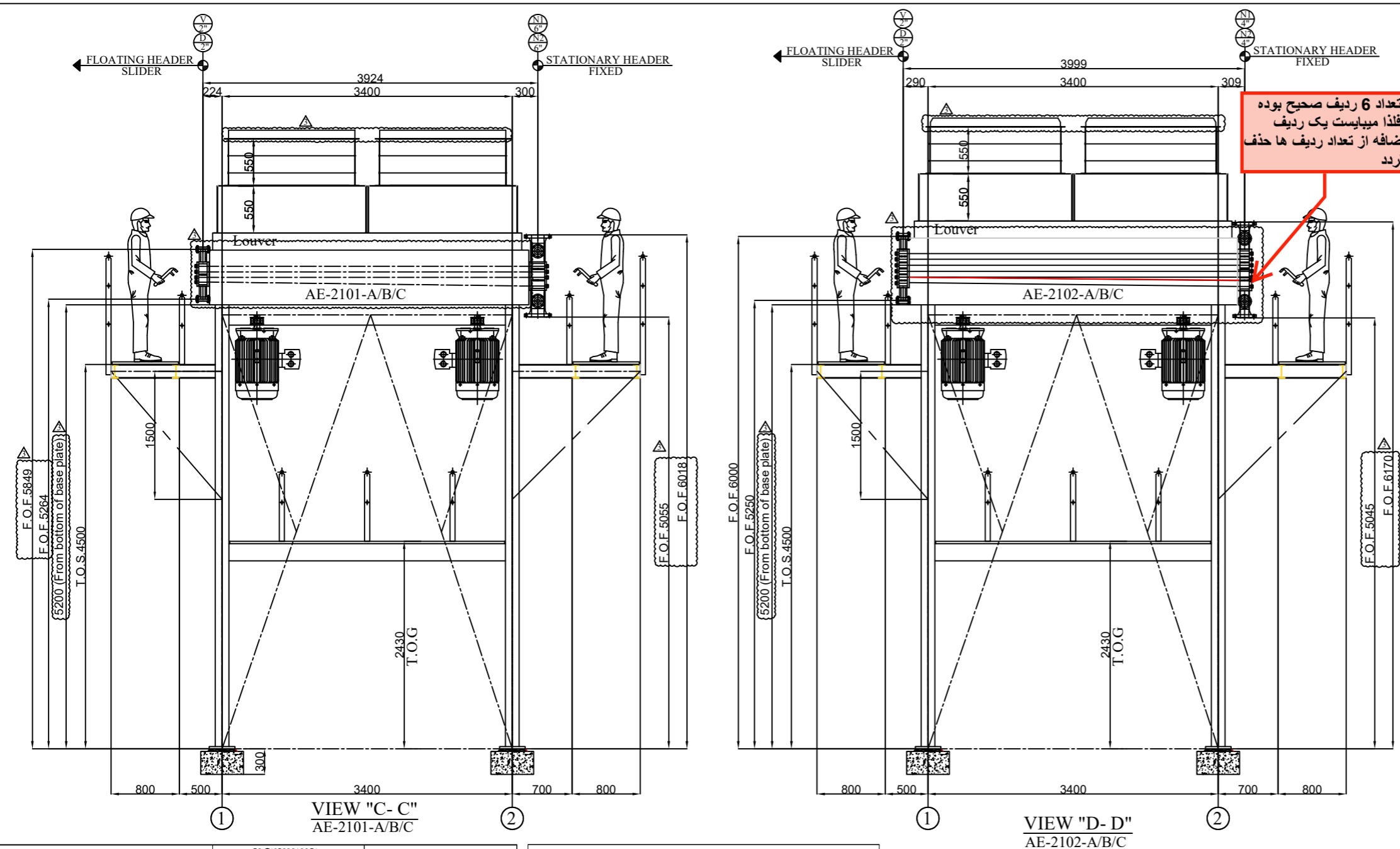
BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES GAS COMPRESSOR STATION

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION BY: DATE:

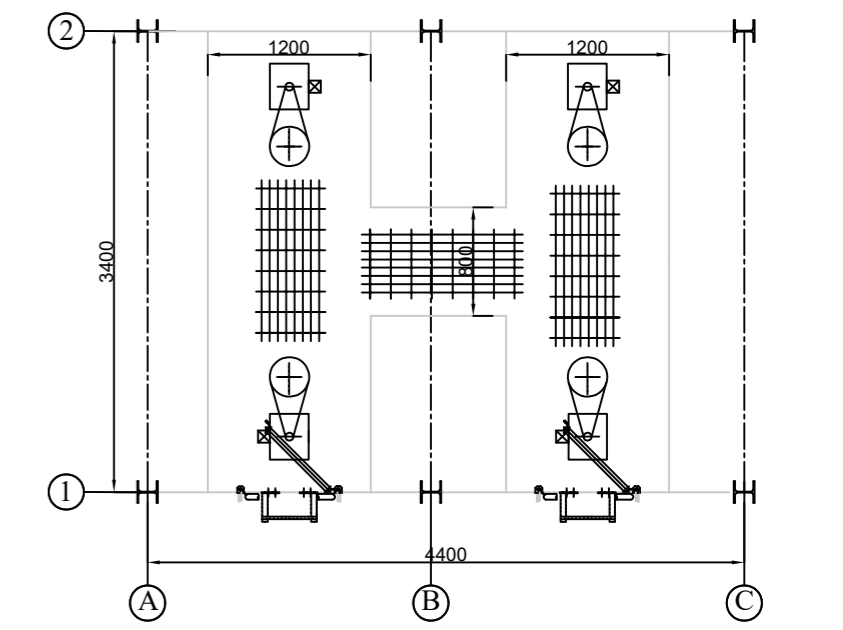
BUDGET REF. LOCATION SIZE CLASS SERIAL NO. SHEET REVISION





- NOTES :
- ALL DIMENSIONS AND COORDINATES ARE IN MILLIMETER.
 - ALL ELEVATIONS ARE IN MILLIMETER.
 - DESIGNED PER API-661 SEVENTH ED. 2013 AND ASME Sec. VIII, Div. 1, Ed. 2017. OVERALL TOLERANCES PER API-661, FIG.10 AND APPLICABLE SPECIFICATION.
 - Surface Preparation and Painting Procedure (w/ Paint Datasheet): BK-GCS-AA-120-QC-PR-0004
 - BUNDLE ARE FITTED WITH SLIDING PAD AND INLET HEADERS ARE FIXED IN FIN TUBE DIRECTION.
 - MECHANICAL EQUIPMENT : FAN-MANUALLY ADJUSTABLE BLADE PITCH (AP) 50% AUTO VARIABLE ADJUSTABLE PITCH (AVP) 50% SPEED REDUCER V-Belts
 - FAN BLADE ANGLES: ACCORDING TO FAN DATA SHEET: BK-GCS-AA-120-ME-DS-0001
 - TRANSPORTATION BOLTS SHALL BE REMOVED AFTER INSTALLATION. SEE Side Frame Drawing: BK-GCS-AA-120-ME-DW-0003
 - ABBREVIATIONS: T.O.S.: Top Of Steel B.O.B.P.: Bottom of Base Plate
T.O.G.: Top Of Grating F.O.F.: Face Of Flange
B.O.P.: Bottom of Pedestal

REFERENCE DOCUMENT	DOCUMENT No.
Process Data Sheet for AE-2101 (A/B/C)	BK-GCS-AA-120-PR-DS-0001
Process Data Sheet for AE-2102 (A/B/C)	BK-GCS-AA-120-PR-DS-0002
Fan Data Sheets	BK-GCS-AA-120-ME-DS-0001
Steel Structure Calculation Books	BK-GCS-AA-120-ST-CN-0001
Tube Bundle Drawing	BK-GCS-AA-120-ME-DW-0002
Side Frame Drawing	BK-GCS-AA-120-ME-DW-0003
Fan & Motor Support Drawing	BK-GCS-AA-120-ME-DW-0010
Plenum fan Ring Drawing	BK-GCS-AA-120-ME-DW-0006
Fan & Pulley Guard Drawing	BK-GCS-AA-120-ME-DW-0004
Shaft Housing Drawing	BK-GCS-AA-120-ME-DW-0008
Steel Structure Drawing	BK-GCS-AA-120-ST-DW-0001



MOTOR WALKWAY
At Elev. +2200

GENERAL DATA	AE-2101-A/B/C	AE-2102-A/B/C
DRAFT TYPE :	INDUCED	INDUCED
NUMBER OF BAY/UNIT	1	1
NUMBER OF BUNDLE / BAY	1	1
STRUCTURAL MOUNTING	GROUND	GROUND
DESIGN PRESSURE	22 (Barg)	62 (Barg)
TEST PRESSURE	28.60 (Barg)	80.60 (Barg)
DESIGN TEMPERATURE	155 °C	175 °C
FLUID NAME	Hydrocarbon	Hydrocarbon
TEMPERATURE IN / OUT	129 / 60 °C	148 / 60 °C
FOUILLING RESIST.	0.0002(m2-k/w)	0.0002(m2-k/w)
MATERIAL OF TUBE	SA-213 TP316L	SA-213 TP316L
OUTSIDE DIAMETER OF TUBE	25.4 mm	25.4 mm
MIN THK. OF TUBE	1.651 mm	1.651 mm
TUBE TO TUBESHEET JOINT TYPE	Expanded + Strength weld	Expanded + Strength weld
NUMBER OF TUBES / BUNDLE	104	156
TYPE OF FIN	EXTRUDED	EXTRUDED
MATERIAL OF FIN	ALUMINUM ALLOY 1060-O	ALUMINUM ALLOY 1060-O
OUTSIDE DIAMETER OF FIN	57.15 mm	57.15 mm
STOCK THIK	0.48 mm	0.48 mm
FPM	433.1	433.1
BARF / FINNED SURFACE PER UNIT	31.536 / 721.45 m2	48.548 / 1106.8 m2
TYPE OF HEADER	PLUG	PLUG
MATERIAL OF HEADER	SA-240 TP316L	SA-240 TP316L
GASKET MATERIAL	Solid Metal	Solid Metal
CORROSION ALLOWANCE	0	0
FAN SPECIFICATION : RPM / DIAMETER	696/1372 mm	658.6/1450 mm
FAN ABSORBED POWER	3.4 (Kw)	4.8 (Kw)
NUMBER OF BLADE/BLADE MATERIAL	4 / AL	5 / AL
AIR QUANTITY / FAN	12.09 m3/s	14.734 m3/s
STATIC PRESSURE	152.81 Pa	172.1 Pa
AIR TEMPERATURE IN/OUT	50.26 / 65.72 °C	50.26 / 69.32 °C
S.P.L. @ 1 m BESIDE FAN :	< 85 [dB(A)]	< 85 [dB(A)]
ELECTRIC MOTOR	EExd, IIB T3 (IP 55)	EExd, IIB T3 (IP 55)
VOLTS / CYCLES / PHASE	400-50-3	400-50-3
RPM / MOTOR POWER (Kw)	1500/5.5	1500/7.5
SPEED REDUCER TYPE	V-BELT	V-BELT
REDUCTION RATIO	2.16	2.28
STEAM COIL	NO	NO
LOUVER	Yes, (Manual)	Yes, (Manual)
VIBRATION SWITCH/NUMBER PER BAY	Yes, EExd, IIB T3 (IP 65) / 2	Yes, EExd, IIB T3 (IP 65) / 2
FIREPROOFING	YES	YES

DESIGN DATA TABLE	
ASCE7-10	CODE ACSE7-10
WIND SPEED	34 m/s
ZONE/SOIL TYPE	D
EXPOSURE	C
SDs/SD1/R/Ss/S	0.83/0.58/3.25/1.25/0.58
IMPORTANCE FACTOR	1
IMPORTANCE FACTOR	1.25
WEIGHT(KG)	
FAN+ FAN GUARD / BAY	400
MOTOR+ MOTOR SUPPORT / BAY	300
SHAFT HOUSING	
TOTAL EQUIPMENT WEIGHT	
WEIGHT(FABRICATED)	
WEIGHT(OPERATING)	4,749
WEIGHT(HYDROTEST)	5,024

FPM=400 صحیح می باشد.

در AE-2102 تعداد BLADE ها مطابق با آخرین ویرایش دیتاشیت فرآیندی ارسالی v04 تعداد 4 صحیح میباشد.

مطابق با دیتاشیت فرآیندی اصلاح گردد.

نسبت کاهش دور مطابق با آخرین ویرایش دیتاشیت فرآیندی AE-2101 برای عدد 2.39 و برای AE-2102 عدد 2.32 منظور گردد.

پاسخ آبان: اصلاح شد.

REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.	DESCRIPTION	CHECKED	REV. APPR.
V03	Nov.24	AFC	AM	M.PAKHARIAN	M.SADROGHIAN	00.00			
V02	AUG.24	IFA	AM	M.PAKHARIAN	M.SADROGHIAN	00.00			
V01	APR.24	IFA	AM	M.PAKHARIAN	M.PAKHARIAN	00.00			
V00	FEB.24	IFA	AM	M.PAKHARIAN	M.PAKHARIAN	00.00			

PROJECT NAME: BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES GAS & GAS-CONDENSATE PIPELINES

PROJECT NO.: 971020

EPC CONTRACTOR: HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES

EPD/EPC CONTRACTOR (GC): PETROIRAN DEVELOPMENT COMPANY

DRAWING TITLE: General Arrangement Drawing AE-2101-A/B/C, AE-2102-A/B/C

SCALE: AS

SIZE: A5

DRAWING NO.: BK-GCS-AA-120-ME-DW-0001

SHEET NO.: 2 OF 2

REV.: V03

NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED

APPROVED FOR CONSTRUCTION BY: DATE:

BUDGET REF. LOCATION SIZE CLASS SERIAL NO. SHEET REVISION

