Equipment Support Information

1. General
The customer shall be solely responsible, at its expense, for preparation of the site, including any required structural alterations. The site preparation shall be in accordance with this plan and specifications, the architectural/construction drawings and in compliance with all safety and building codes. The customer shall be solely responsible for obtaining all construction permits from jurisdictional authority.

2. Equipment Anchorage
Philips provides, with this plan and specifications, information relative to equipment size, weight, shape, anchoring hole locations and forces which may be exerted on anchoring fasteners. The customer shall be solely responsible, through the engineer of record for the building, to provide on the architectural/construction drawings, information regarding the approved method of equipment anchoring to floors, wall and/or ceiling of the building. Any anchorage test required by local authority shall be the customer's responsibility. Stud type anchor bolts should not be specified as they hinder equipment removal for service. Consult with Philips service prior to specifying anchor methods.

3. Floor Loading and Surface
Philips provides, with this plan and specifications, information relative to size, weight and shape of floor mounted equipment. The customer shall be solely responsible, through the engineer of record for the building, to provide on the architectural/construction drawings confirmation of the structural adequacy of the floor upon which the equipment will be placed. Any load test required by local authority, shall be the customer's responsibility.
The floor surface upon which Philips equipment is to be placed/anchored shall be flat and level to within plus or minus 1/16 inch (2mm) over a length of 39" (1m).

4. Ceiling Support Apparatus
a. Philips provides, with this plan and specifications, information relative to size, weight and shape of ceiling supported equipment. The customer shall be solely responsible, through the engineer of record for the building, to provide on the architectural/construction drawings, information regarding the approved method of structural support apparatus, fasteners and anchorage to which Philips will attach equipment. Any anchorage and/or load test required by local authority shall be the customer's responsibility.

b. Contractor to clearly mark Philips equipment longitudinal centerline on bottom of each structural support.

c. The structural support apparatus surface to which Philips equipment is to be attached, shall have horizontal equipment attachment surfaces parallel, square and level to within plus or minus 1/16" per 39" (2mm per meter).

d. Any drilling and/or tapping of holes required to attach Philips equipment to the structural support apparatus shall be the responsibility of the customer.

e. Fasteners/anchors (i.e., bolts, spring nuts, lock and flat washers) and strip closures shall be provided by the customer.

5. Lighting
Lighting fixtures shall be placed in such a position that they are not obscured by equipment or its movement, nor shall they interfere with Philips ceiling rails and equipment movement or otherwise adversely affect the equipment. Such lighting fixture locations shall be the sole responsibility of the customer.

6. Ceiling Obstructions
There shall be no obstructions that project below the finished ceiling in the area covered by ceiling suspended equipment travel.

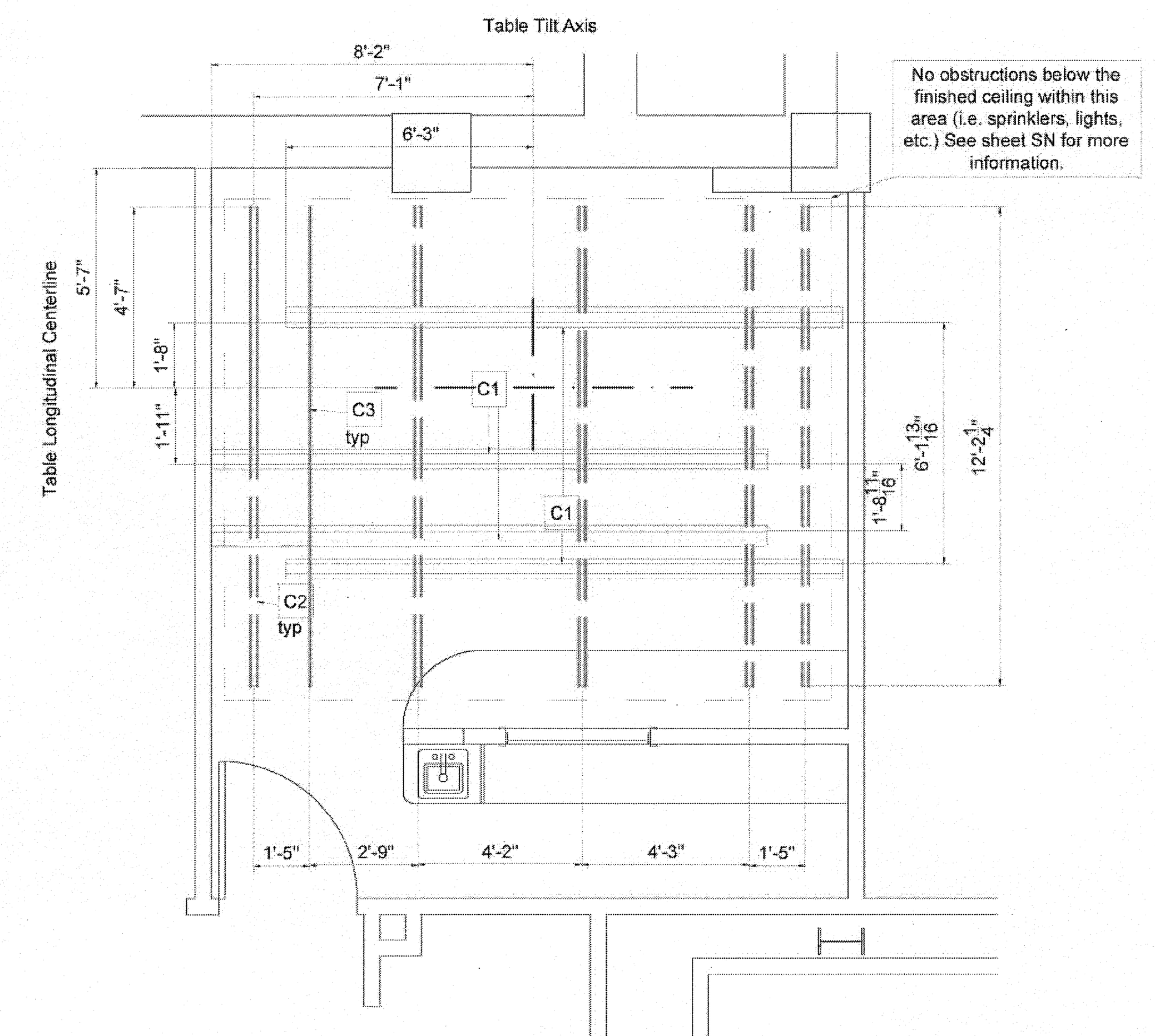
7. Seismic Anchorage (For Seismic Zones Only)
All seismic anchorage hardware, including brackets, backing plates, bolts, etc., shall be supplied and installed by the customer/contractor unless otherwise specified within the support legend on this sheet. Installation of electronic cabinets to meet seismic anchorage requirements must be accomplished using flush mounted expansion type anchor/bolt systems to facilitate the removal of a cabinet for maintenance. Do not use threaded rod/adhesive anchor systems. Consult with Philips regarding any anchor system issues.

8. Floor Obstructions/ Floor Coverings
There shall be no obstructions on the floor (sliding door tracks, etc.) in front of the Philips technical cabinets. Floor must be clear to allow cabinets to be pulled away from the wall for service.
Contractor to verify with Philips the preferred floor covering installation method.

PHILIPS

Project: EasyDiagnost Eleva, Maine Medical Center, Portland, ME - Room 5
Philips Contacts: Project Manager: Wayne Erwin; Contact Number: 207-651-0546; Email: wayne.erwin@philips.com
Project Details: Drawing Number N-EAS100612A; Date Drawn: 6/21/2010

SN



Ceiling Support Layout

Recommended Ceiling Height: 9' - 1" (tube arm up) / 10' - 4" (tube arm down)
Other ceiling heights may be acceptable, see Ceiling Height Guide - Sheet A2

Ceiling heights (from finished floor to finished ceiling) other than recommended may impact equipment functionality; consult with Philips.

Ceiling Support Legend

A Furnished and installed by Philips
B Furnished by customer/contractor and installed by customer/contractor
C Installed by customer/contractor
D Furnished by Philips and installed by contractor
E Existing
F Future
G Optional

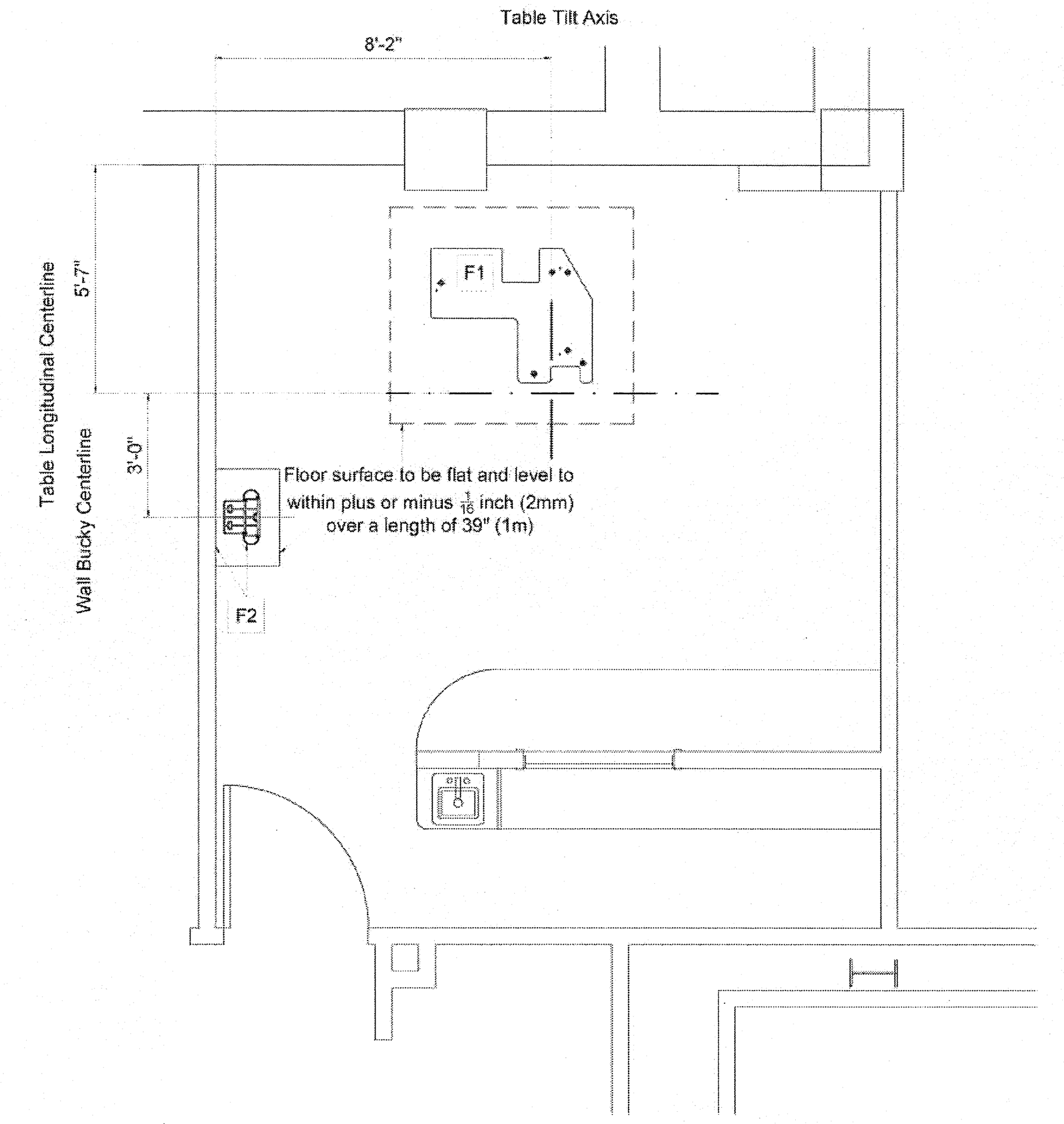
	Item Number	Description	Detail Sheet
A	C1	Philips Equipment Rails	SD2
E	C2	Existing Unistrut (or equal)	SD2
B	C3	Unistrut (or equal)	SD2

All dimensions must be off of the finished wall.

If a wall is furred out to hide electrical duct or boxes, the dimensions included in this plan must come off of the finished furred wall.

S2

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED.



Floor & Wall Support Layout

Recommended Ceiling Height: 9' - 1" (tube arm up) / 10' - 4" (tube arm down)
Other ceiling heights may be acceptable, see Ceiling Height Guide - Sheet A2

Ceiling heights (from finished floor to finished ceiling) other than recommended may impact equipment functionality; consult with Philips.

Floor & Wall Support Legend

A Furnished and installed by Philips
B Furnished by customer/contractor and installed by customer/contractor
C Installed by customer/contractor
D Furnished by Philips and installed by contractor
E Existing
F Future
G Optional

	Item Number	Description	Detail Sheet
D	F1	EasyDiagnost Floorplate	SD1
B	F2	Anchorage in wall and floor for Bucky Diagnost VS	SD1

Customer/Contractor shall recommend and/or provide equipment anchoring systems (I.E. "Hilti", "Redhead", etc.) based upon specified "pull" forces (See sheet SD1) and wall/ceiling/floor compositions.

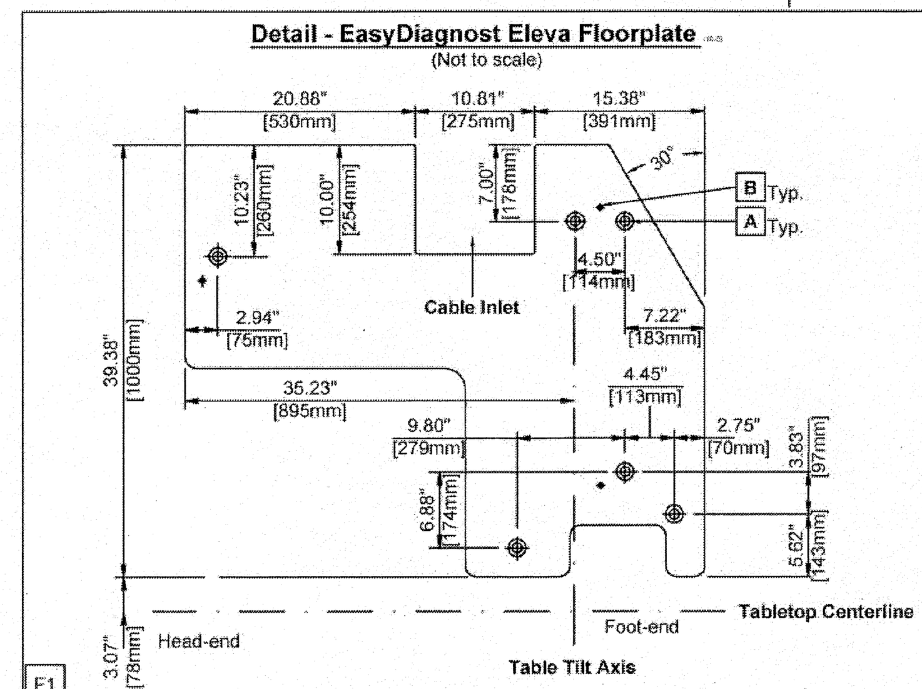
All dimensions must be off of the finished wall.

If a wall is furred out to hide electrical duct or boxes, the dimensions included in this plan must come off of the finished furred wall.

S1

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED.

Detail - EasyDiagnost Eleva Floorplate
(Not to scale)



Bolt Forces (floorplate to floor):
(Tension) Tmax. = 1098lbs/bolt
(Shear) Vmax. = 509lbs/bolt

A Six holes, 7/8" dia. c'bore 1 9/16" x 1/2" deep, for mounting floorplate to floor.

B Three holes, tapped M12, for mounting table to floorplate.

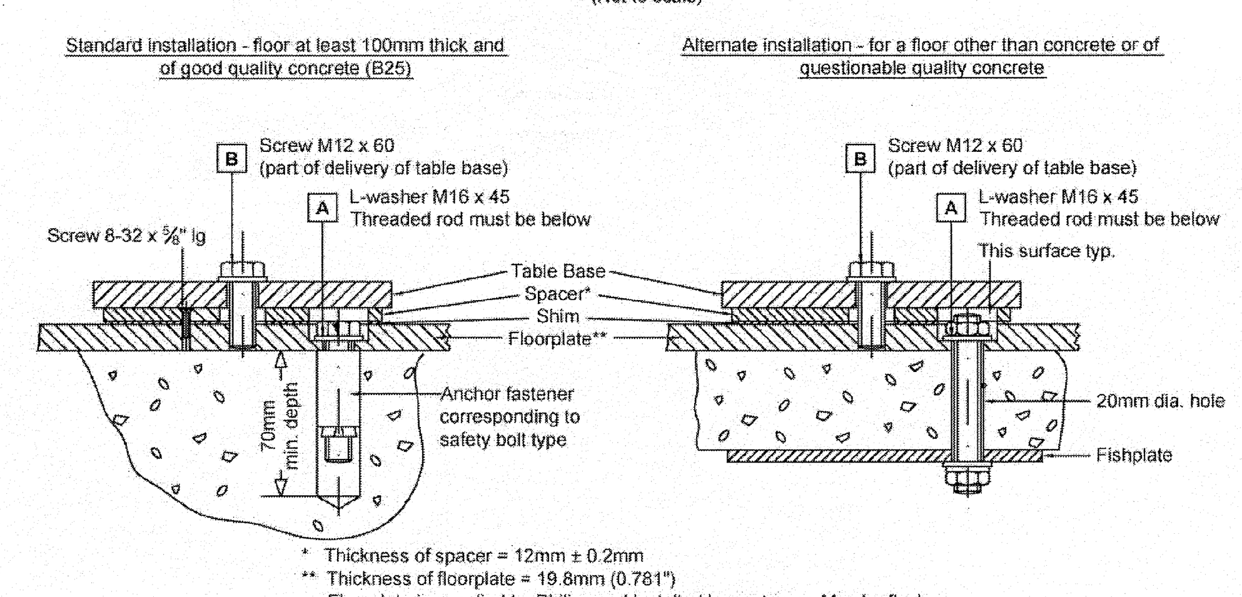
Notes

Floor anchors must NEVER be filed down and/or modified during installation.

Floor anchors must NEVER extend more than 0.25" (6.35mm)above floorplate.

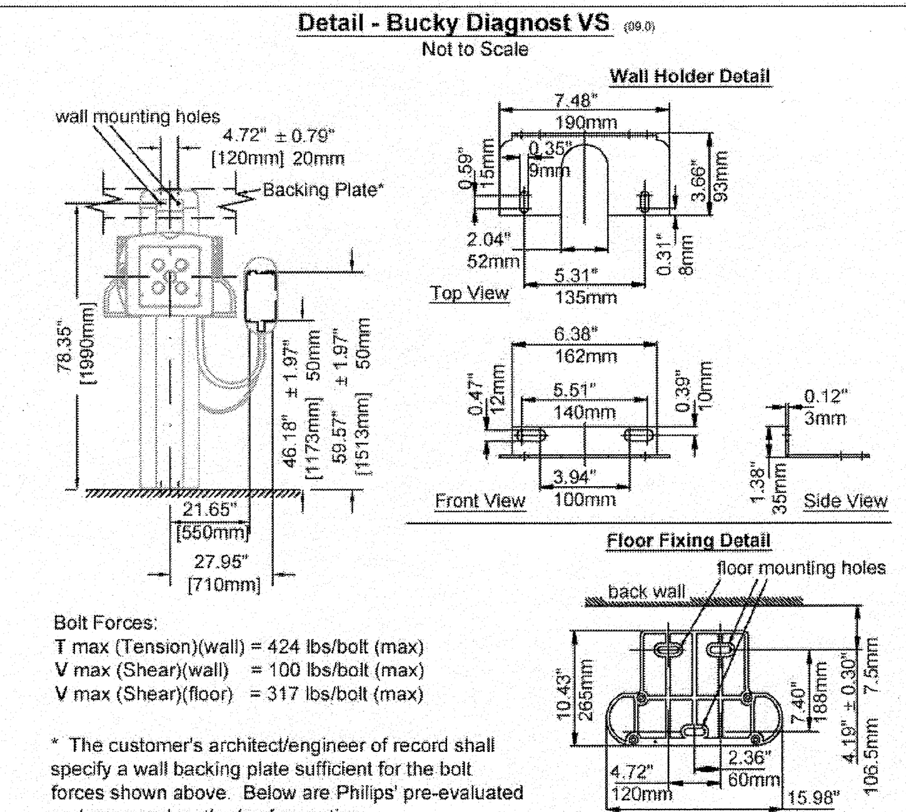
Customer/contractor shall recommend and/or provide equipment anchoring systems (i.e. "hilti", "redhead", etc) based upon specified pull forces and wall, ceiling, and/or floor compositions.

Detail - EasyDiagnost Eleva Floorplate Installation
(Not to scale)



* Thickness of spacer = 12mm ± 0.2mm
** Thickness of floorplate = 19.8mm (0.781")
Floorplate is supplied by Philips and installed by customer. May be flush or surface mounted. Must be level within 1.5mm (0.0625") across surface of plate.

Detail - Bucky Diagnost VS
Not to Scale



Bolt Forces:
T max (Tension)(wall) = 424 lbs/bolt (max)
V max (Shear)(wall) = 100 lbs/bolt (max)
V max (Shear)(floor) = 317 lbs/bolt (max)

* The customer's architect/engineer of record shall specify a wall backing plate sufficient for the bolt forces shown above. Below are Philips' pre-evaluated and approved methods of mounting:

Anchor Style	Anchor Size	Wall Support Size & Material
Through Bolt	3/8" diameter	~~Minimum 10 gauge steel plate [1], or~~ Minimum 4"x4" Douglas Fir # 2 grade
Self Drilling Tek Screw	# 14	Minimum 10 gauge steel plate [1]
Lag Screw	7/16"	Minimum 4"x4" Douglas Fir # 2 grade
Toggler Snaptoggle Anchor	3/8" diameter expansion screw	Minimum 10 gauge steel plate [1]

[1] Unistrut, angle, or c -channel material is preferred.

F2

SD1

THIS SHEET IS PART OF THE DOCUMENT SET LISTED ON SHEET C1 AND SHOULD NOT BE SEPARATED.

NOTE: THIS DRAWING WAS NOT PREPARED BY SMRT. IT IS PROVIDED FOR COORDINATION AND REFERENCE PURPOSES ONLY.

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PROJECT NORTH

Bramhall Radiology
FLUORO RENOVATIONS
PORTLAND, ME

CURRENT ISSUE STATUS: ISSUED FOR CONSTRUCTION 8.24.10

REV	DESCRIPTION	DATE
0	ISSUED FOR CONSTRUCTION	8.24.10

GRAPHIC SCALE: 0" 1"
SCALE:
PROJECT MANAGER: DJV
JC/DRAWN BY:
A/E OF RECORD: DJV
PROJECT NO: 09022-02
DATE: 8.24.10
SHEET TITLE: VENDOR EQUIPMENT DRAWINGS SHEET 3
SHEET No. Q- 003