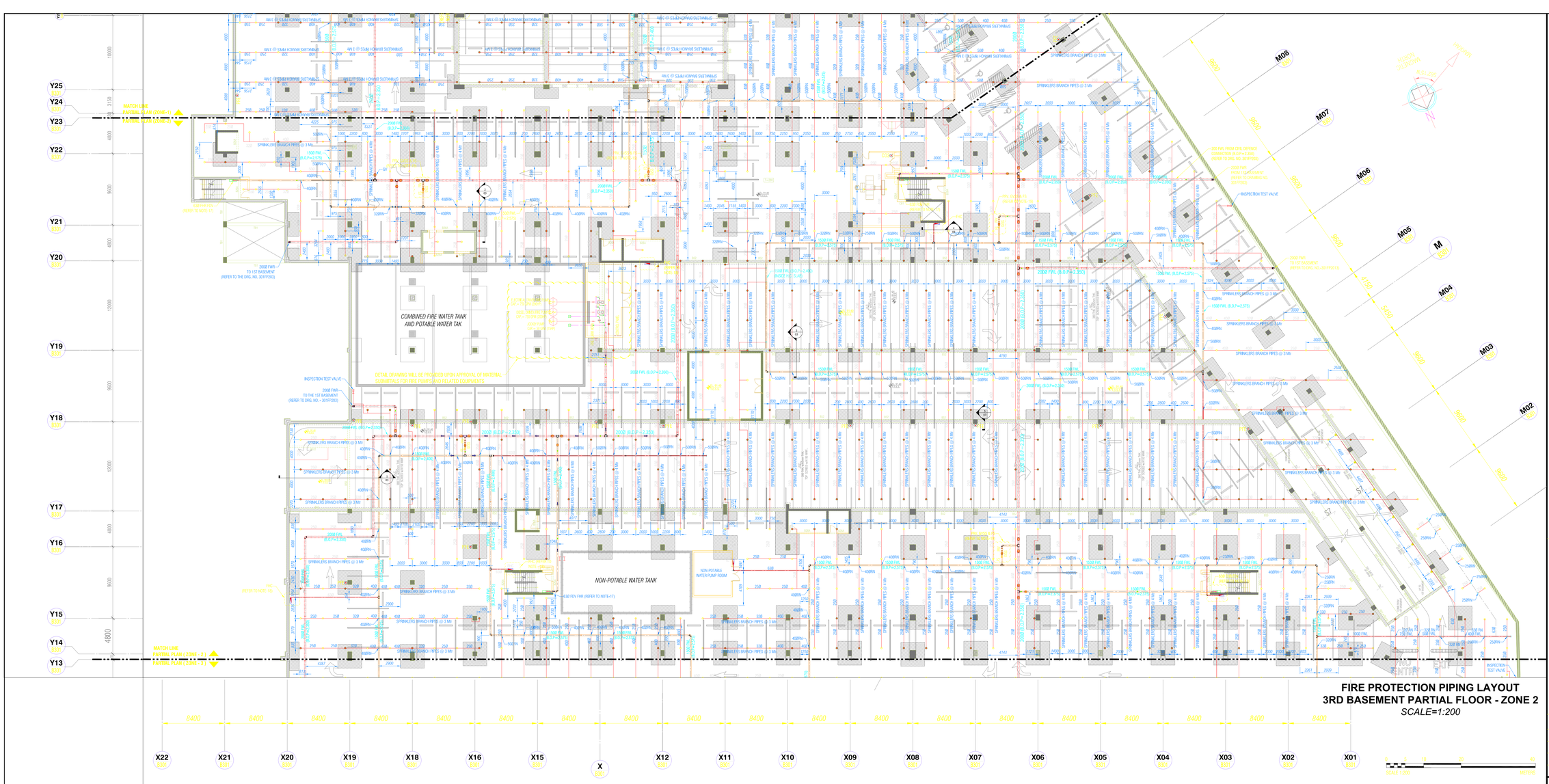


FIRE PROTECTION PIPING LAYOUT
3RD BASEMENT PARTIAL FLOOR - ZONE 2
SCALE=1:200

SCALE 1:200 METERS

NOTES:

01. ALL DIMENSIONS ARE IN MILLIMETERS AND ELEVATIONS IN METER UNLESS OTHERWISE SHOWN.
02. ALL PIPE SIZE SHOWN ARE NOMINAL PIPE DIAMETER IN MILLIMETERS.
03. ALL FIRE PROTECTION INSTALLATIONS SHALL CONFORM WITH NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND CIVIL DEFENCE REGULATIONS
04. FOR 2ND BASEMENT FRAMING PLAN REFER TO DRAWING NO. 301S102 (REV D DATED 2010)
05. FOR SCHEDULE OF FOOTINGS, SECTION AND DETAILS REFER TO DRAWING NO. 301S201 (REV D)
06. FOR SCHEDULE OF COLUMN REFER TO DRAWING NO. 301S301, 301S302, 301S303 & 301S304
07. FOR DRAINAGE SYSTEM 2ND BASEMENT (BELOW SLAB) REFER TO DRG. NO. -PC59-HC1-PB-002
08. FOR WATER SUPPLY SYSTEM 3RD BASEMENT (@CLG) REFER TO DRG. NO. -PC59-HC1-PB-003
09. FOR 3RD BASEMENT FLOOR ARCHITECTURAL PLAN REFER TO DRG. NO. 301A101 (REV C)
10. FOR 3RD BASEMENT HVAC PLAN REFER TO DRG. NO. 301M101 (REV C DATED 2010)
11. FOR 3RD BASEMENT LIGHTING PLAN REFER TO DRG. NO. 301E101 (REV C DATED 2010)
12. FOR 3RD BASEMENT FIRE ALARM & VOICE EVAC SYSTEM PLAN REFER TO DRG. NO. 301E401
13. ALL PIPES SHOWN ON THE DRAWING ARE ERW GALVANIZED PIPES PIPES CONFORM TO ASTM A53M SCH 40 AND FITTINGS GALVANIZED GROOVED AND GALVANIZED THREADED
14. ALL FIRE PROTECTION ACCESSORIES AND EQUIPMENTS SHOWN ON THIS DRAWING WILL BE AS PER APPROVED MATERIAL SUBMITTALS
15. PUMPS AND FIRE TANK ROOM DETAILED DRAWINGS WILL BE SUBMITTED FOR APPROVAL AFTER THE APPROVAL OF MATERIAL SUBMITTAL OF FIRE PUMPS AND ALL RELATED EQUIPMENTS
16. FOR SCHEDULE OF FIRE PUMPS AND CAPACITIES REFER TO PUMP ROOM DETAIL DRAWINGS (WILL BE SUBMITTED LATER)
17. DETAILS OF 630 FDV FHR WILL BE PROVIDED AFTER THE APPROVAL OF MATERIAL SUBMITTAL
18. DETAILS OF FHC WILL BE PROVIDED AFTER THE APPROVAL OF MATERIAL SUBMITTAL
19. DETAILS OF PRV, GVSS & FS WILL BE PROVIDED AFTER THE APPROVAL OF MATERIAL SUBMITTAL

SYMBOLS

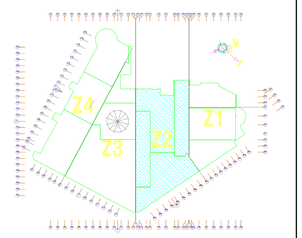
FIRE PROTECTION	TEE W/ GROOVED END	R	REDUCER
	GATE VALVE W/ GROOVED END		GATE VALVE
	45° ELBOW W/ GROOVED END		RISER NIPPLE (PLAN VIEW)
	30° LONG RADIUS BEND		

LEGENDS:

- 200Ø FIRE WATER MAIN LINE
- 150Ø FIRE WATER MAIN LINE
- FIRE WATER BRANCH LINE TO SPRINKLERS

ABBREVIATIONS:

CLG	CEILING	ST	STRAINER
CV	CHECK VALVE	IE	INVERT ELEVATION
DN	DOWN	IN	INLET
FC	FLEXIBLE CONNECTION	IV	ISRUATION VALVE
FADV	FIRE ALARM CHECK-VALVE	NTS	NOT TO SCALE
FCVA	FLOOR CONTROL VALVE ASSEMBLY	PFE	POTABLE FIRE EXTINGUISHER
FDV	FIRE DEPARTMENT VALVE	QCV	QUICK COUPLER VALVE
FHC	FIRE HOSE CABINET	RCV	REMOTE CONTROL VALVE
FHS	FIRE HOSE STATION	RN	RISER NIPPLE
FWL	FIRE WATER LINE	STD	STANDARD
FWR	FIRE WATER RISER	TYP	TYPICAL
FS	FLOW SWITCH	W	WITH
FWAC	FIRE WATER @ CEILING	"	INCH
FWDF	FIRE WATER DOWNFEED	Ø	DIAMETER
GV	GATE VALVE	&	AND
GVSS	GATE VALVE W/ SUPERVISORY SWITCH	°C	DEGREES CENTIGRADE
PG	PRESSURE GAUGE	@	AT
PRV	PRESSURE REDUCING VALVE	B.O.P	BOTTOM OF PIPE



REFERENCE DRAWINGS

REFERENCE DRAWING NO.	DRAWING DESCRIPTION
301S102	2ND BASEMENT FRAMING PLAN (REV D DATED 2010)
301A101	3RD BASEMENT FLOOR PLAN (REV C DATED 2010)
301FP201	3RD BASEMENT FIRE PROTECTION PLAN (REV C DATED 2010)

COORDINATION

CONCURRED BY TECHNICAL DEPARTMENT HEAD

CHECKED	ARCHITECTURAL	STRUCTURAL	ELECTRICAL	MECH. HVAC	PLUMBING	SURVEYING	COMMUNICATION	G.C.
SIGNATURE								

Rev. No.	Date	Description of Changes	Draw	Chkd.	Appr.
01	25/03/2010	REVISED AS PER CONSULTANT'S COMMENTS			
00	10/03/2010	SHOP DRAWING ISSUED FOR APPROVAL			

PROJECT TITLE

INFORMATION TECHNOLOGY AND COMMUNICATION COMPLEX CONVENTION HOTEL, PACKAGE-II
RIYADH - KINGDOM OF SAUDI ARABIA

CLIENT

Rayadah Investment Company
Post Box: 56850, Riyadh: 11564
Tel: 01-2059911, Fax: 01-2059922
E-mail: info@raid.com.sa

PROJECT MANAGER

HanmiParsons Co.Ltd.
9th Fl. City Air Tower Bldg.
159-9, Samsung-dong,Kangnam-gu
Seoul Korea 135-973
Tel: 822-3429-6352
Fax: 822-3429-6363/4
WWW: hanmiparsons.com

DESIGN/CONSULTANT

Zeinab Fatih Partnership Consultants Architectural Engineering

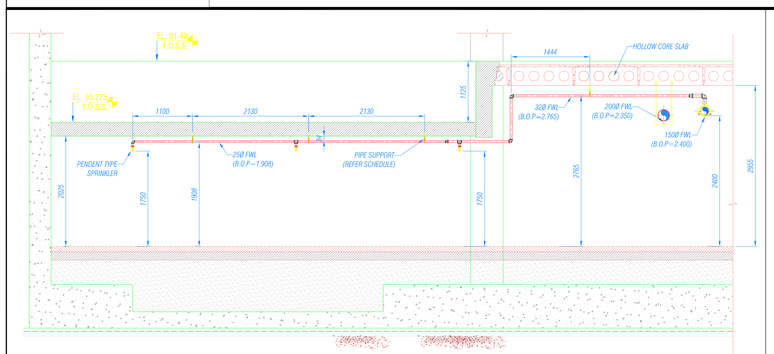
MAIN CONTRACTOR

CONTRACTING & CONSTRUCTION ENTERPRISES LTD.
P.O.Box. 250991
Riyadh : 11391
Kingdom of Saudi Arabia
Tel.(01) 416-1122, 464-2991, Fax.(01) 416-1988,
Email : cce@ccesaudi.com

DRAWING TITLE

FIRE PROTECTION PIPING LAYOUT
3RD BASEMENT PARTIAL FLOOR- ZONE 2

Drawing Type	Drawing No.		Sht. No.	Rev. No.
FIRE PROTECTION	PC59-HC,1-FP-001		03	01
Scale	Drawn By	Signature	Checked By	Signature
AS SHOWN	K.R.		K.H.	
Drawing Status	Issued For		Date	
SHOP DRAWING	APPROVAL		25/03/2010	



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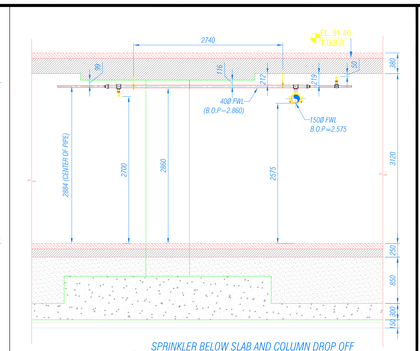

2 SECTION 2-2 (TYP.)
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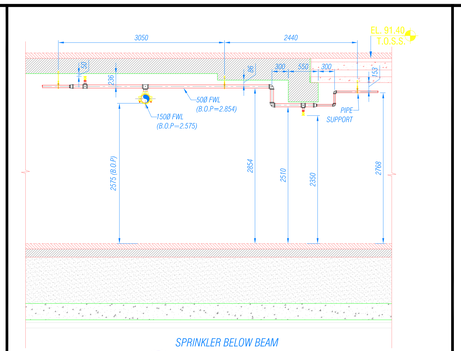
SPRINKLER BELOW SLAB AND COLUMN DROP OFF



3 SECTION 3-3 (TYP.)
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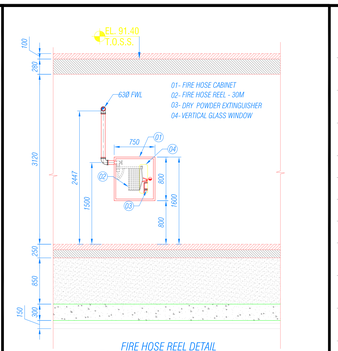
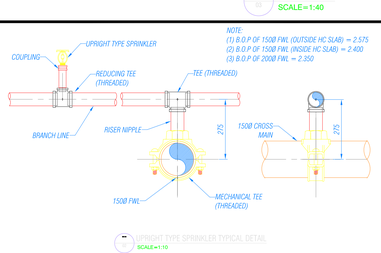
SPRINKLER BELOW BEAM



4 SECTION 3-3 (TYP.)
SCALE=1:40
FIRE HOSE REEL DETAIL

LEGENDS & SYMBOLS

- PFE — 4.50 kg MULTI-PURPOSE, TYPE ABC PORTABLE FIRE EXTINGUISHER
- CO2 — 4.50 kg CARBON DIOXIDE TYPE PORTABLE FIRE EXTINGUISHER
- WFE — 50 kg MULTI-PURPOSE, TYPE ABC WHEELED TYPE FIRE EXTINGUISHER
- PENDENT TYPE SPRINKLER HEAD
- UPRIGHT TYPE SPRINKLER HEAD
- CONCEALED TYPE SPRINKLER HEAD
- SIDE-WALL SPRINKLER 4.9 M, 32 GPM @16.0 PSI
- S1 — SIDE-WALL SPRINKLER-EXTENDED COVERAGE 5.5 M, 36 GPM @20.3 PSI
- S2 — SIDE-WALL SPRINKLER-EXTENDED COVERAGE 6.2 M, 40 GPM @25.0 PSI
- S3 — SIDE-WALL SPRINKLER-EXTENDED COVERAGE 6.7 M, 44 GPM @30.3 PSI
- S1 — SIDE-WALL SPRINKLER-EXTENDED COVERAGE 7.3 M, 48 GPM @38.0 PSI
- FM 200 NOZZLES
- QUICK COUPLER VALVE
- FIRE HOSE CABINET
- FIRE DEPARTMENT VALVE (DRY RISER) WITH 63Ø FIRE HOSE REEL
- FCVA — FLOOR CONTROL VALVE ASSEMBLY
- CLEAN AGENT CYLINDER
- FIRE ALARM BELL
- FIRE ALARM HORN
- CONTROL PANEL
- A M — ABORT & MANUAL SWITCH



UPRIGHT TYPE SPRINKLER TYPICAL DETAIL
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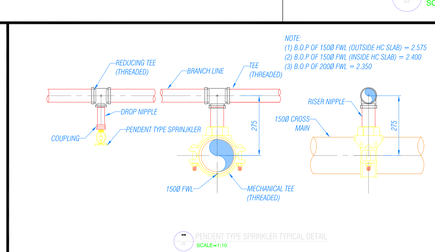

PENDENT TYPE SPRINKLER TYPICAL DETAIL
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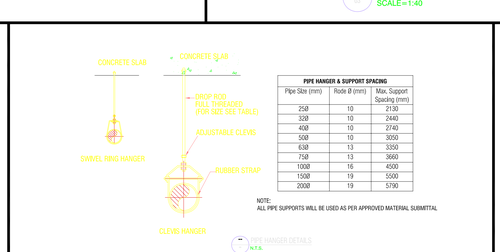
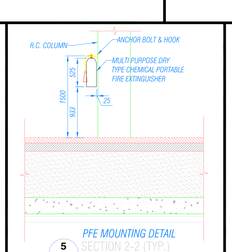


PIPE HANGER & SUPPORT SPACING		
Pipe Size (mm)	Rode Ø (mm)	Max. Support Spacing (mm)
25Ø	10	2130
32Ø	10	2440
40Ø	10	2740
50Ø	10	3050
63Ø	13	3350
75Ø	13	3660
100Ø	16	4500
150Ø	19	5500
200Ø	19	5790

NOTE:
ALL PIPE SUPPORTS WILL BE USED AS PER APPROVED MATERIAL SUBMITTAL

N.T.S. HANGER DETAILS



5 PFE MOUNTING DETAIL
SECTION 5-5 (TYP.)
SCALE=1:40