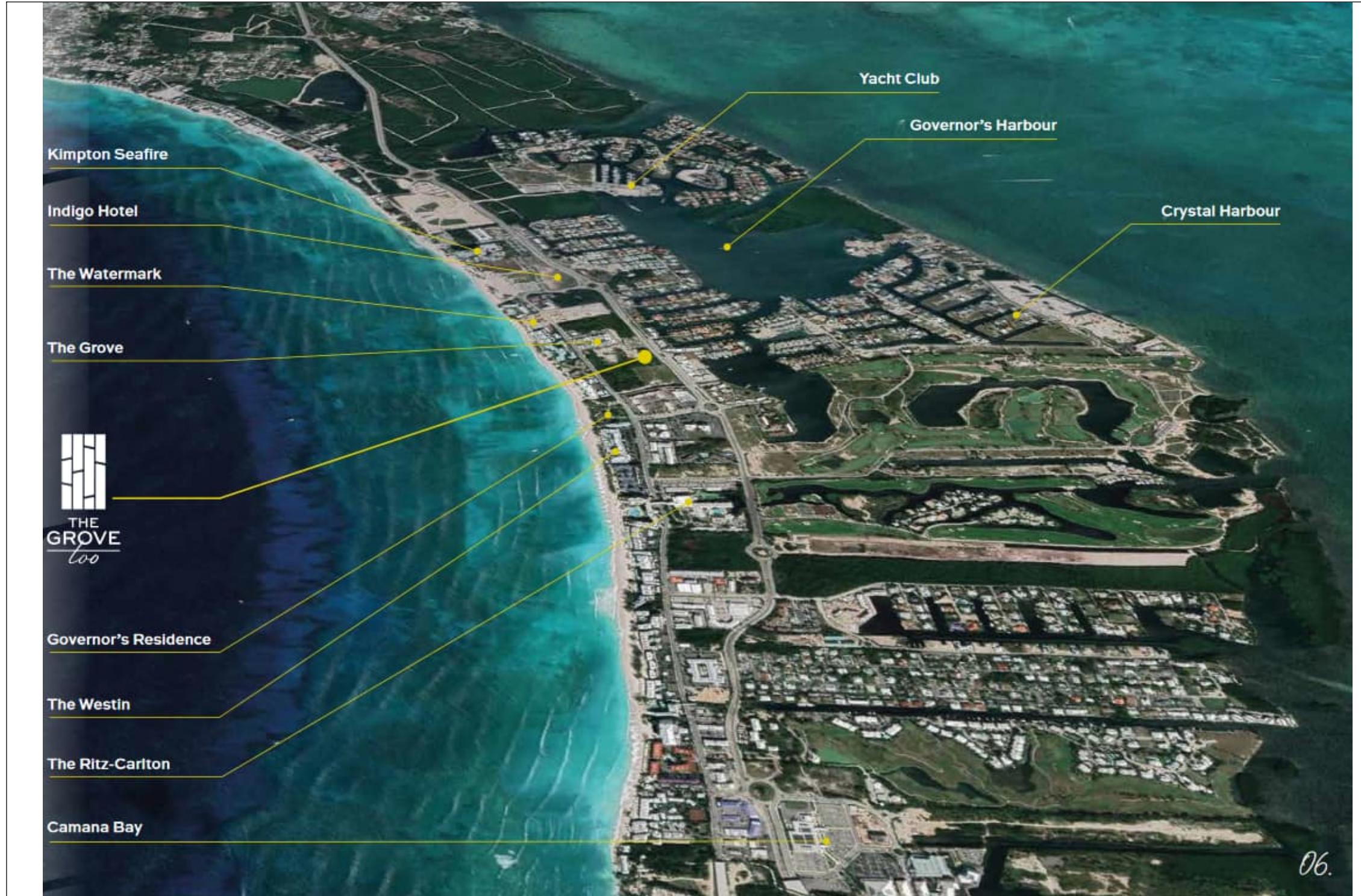


DESIGN NOTES (AS APPLICABLE)

1. SPRINKLER SHALL BE PERMITTED TO BE LOCATED NOT MORE THAN 9 FEET OFF OF ANY SINGLE WALL IN SMALL ROOMS PER NFPA 13, 8.6.3.2.4 AND AS DEFINED BY [REDACTED]
2. SPRINKLERS HAVE BEEN OMITTED FROM BATHROOMS NOT EXCEEDING 55 SQ. FT. PER NFPA 13, 8.6.3.2.1
3. SPRINKLERS HAVE BEEN OMITTED FROM NONCOMBUSTIBLE EXTERIOR OVERHANG PER NFPA 13, 8.6.3.2.2
4. SPRINKLERS HAVE BEEN OMITTED FROM VERTICAL SHAFTS PER NFPA 13, 8.6.3.2.1 AND 8.6.3.2.2
5. SPRINKLERS HAVE BEEN OMITTED FROM CONCEALED SPACES ENTIRELY FILLED WITH NONCOMBUSTIBLE INSULATION PER NFPA 13, 8.6.3.2.1.2.7.

LOCATION



The Grove Too

1358 W Bay Rd,
Grand Cayman KY1-1000,
Cayman Islands

BUILDING RENDER



FIRE SPRINKLER NOTES

1. MAX. SPRINKLER SPACING FOR STANDARD SPRAY UPRIGHT & PENDENT SPRINKLERS IS 15', 225 FT² FOR LIGHT HAZARD.
2. MAX. SPRINKLER SPACING FOR STANDARD SPRAY UPRIGHT & PENDENT SPRINKLERS IS 15', 130 FT² FOR ORDINARY HAZARD.
3. HAZARD.
4. MAX. SPRINKLER SPACING FOR RESIDENTIAL PENDENT SPRINKLERS IS 20' WITHIN RESIDENTIAL AREAS (UNO).
5. STANDARD SPRAY UPRIGHT & PENDENT SPRINKLER DEFLECTORS SHALL BE LOCATED BETWEEN 1" & 6" BELOW STRUCTURAL MEMBERS FOR OBSTRUCTED CONSTRUCTION.
6. STANDARD SPRAY UPRIGHT & PENDENT SPRINKLER DEFLECTORS SHALL BE LOCATED BETWEEN 1" & 12" BELOW FINISH CEILING FOR UNOBSTRUCTED CONSTRUCTION.
7. RESIDENTIAL PENDENT SPRINKLER DEFLECTORS SHALL BE LOCATED BETWEEN 1.25" & 4" BELOW FINISH CEILING FOR UNOBSTRUCTED CONSTRUCTION.
8. STANDARD SPRAY UPRIGHT, PENDENT, AND SIDEWALL SPRINKLERS SHALL BE INSTALLED IN ACCORDANCE WITH THE OBSTRUCTIONS RULES OF NFPA 13, 8.6.5 & 8.7.5.
9. RESIDENTIAL PENDENT SPRINKLERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS GUIDELINES, AND THE OBSTRUCTIONS RULES OF NFPA 13, 8.10.6.
10. SPRINKLERS SHALL BE PERMITTED TO BE OMITTED FROM CEILING POCKETS WHERE THE REQUIREMENTS OF NFPA 13, 8.6.7.2 ARE MET.

GENERAL NOTES

- FIRE PROTECTION SYSTEM TO COMPLY WITH NFPA 13, AND ALL APPLICABLE STATE AND LOCAL CODES.
- ALL WIRING AND MONITORING OF ALARMS AND CLEANING AND PAINTING OF PIPE IS BY OTHERS.
- PROVIDE STOCK OF EXTRA SPRINKLERS IN ACCORDANCE WITH NFPA [REDACTED] 9.
- ALL WIRING SHALL BE ACCOMPLISHED UNDER THE ELECTRICAL CONTRACT. COORDINATE ALL ELECTRICAL ITEMS WITH THE ELECTRICAL CONTRACTOR AND INSURE PROPER COORDINATION.
- ALL DRILLING AND BORING OF HOLES SHALL BE DONE IN STRICT ACCORDANCE WITH THE STRUCTURAL ENGINEERS REQUIREMENTS. DO NOT UNDER ANY CIRCUMSTANCES CUT, MODIFY OR OTHERWISE MODIFY PRE-MANUFACTURED TRUSSES.
- PIPE ROUTING SHALL BE STRICTLY ADHERED TO AND ANY ADDITIONAL OFFSETS OR FITTINGS REQUIRED FOR PROPER INSTALLATION, COORDINATION WITH OTHER TRADES, AND/OR TO MAINTAIN PROPER CLEARANCES SHALL BE PROVIDED. VERIFY EXISTING STRUCTURAL, MECHANICAL, ELECTRICAL INSTALLATIONS AND AVOID ANY/ALL OBSTRUCTIONS OR INTERFERENCES WITH FIRE PROTECTION PIPE ROUTING.
- FIRE STOP ALL PENETRATIONS OF SMOKE/FIRE WALLS, CEILINGS, FLOORS, ROOFS, ETC. FIRE STOPPING MATERIAL SHALL BE INSTALLED PER MANUFACTURERS INSTRUCTION. ALL FIRE STOP MATERIALS SHALL LISTED AS COMPATIBLE WITH CPVC.
- ACCESS PANELS TO ALL VALVES ABOVE NON-ACCESSIBLE CEILINGS AND CHASES ARE BY THE GENERAL CONTRACTOR.
- SPRINKLER HEADS ARE TO BE COORDINATED WITH ALL EXISTING/NEW DIFFUSERS, SPEAKERS, LIGHTING FIXTURES AND CEILING SYSTEMS WHERE POSSIBLE WITHOUT ADDING ADDITIONAL SPRINKLERS.
- VERIFY FINISH CEILING ELEVATION PRIOR TO INSTALLATION OF SPRINKLER HEADS.
- VERIFY LOCATION AND SIZE OF ALL OBSTRUCTIONS, LIGHT FIXTURES, CABINETS, HEAT SOURCES, SOFFITS, ETC...
- METHODS OF HANGING PIPES, HEADERS AND BRANCHLINES SHALL BE IN ACCORDANCE WITH NFPA 13 AND THE HANGER CHART.
- AUTOMATIC SPRINKLER TEMPERATURE RATINGS OF FUSIBLE ELEMENTS TO BE IN ACCORDANCE WITH NFPA 13.
- ALL MATERIALS AND DEVICES TO BE U.L. LISTED AND/OR FM APPROVED. ALL DEVICES SHALL BE NEW AND FREE OF DEFECTS.
- ALL SYSTEMS SHALL BE HYDROSTATICALLY TESTED AT 200 PSI FOR 2 HOURS.
- PROVIDE A PERMANENTLY ATTACHED PLACARD / SIGNAGE STATING THE REQUIRED DESIGN CRITERIA FOR EACH HYDRAULICALLY DESIGNED SYSTEM.
- SYSTEM PIPING TO BE OF STEEL PIPE AND IRON FITTINGS MEETING THE CRITERIA OF ASTM AND NFPA 13.
- A: ALL THREADED PIPE TO BE EDDYTHREAD 40 OR APPROVED EQUAL.
- B: ALL 4" AND SMALLER GROOVED PIPE TO BE EDDY FLOW OR APPROVED EQUAL.
- C: ALL 6" AND LARGER GROOVED PIPE TO BE SCHEDULE 10.
- D: CPVC PIPE AND FITTINGS MAY BE UTILIZED PURSUANT TO MANUFACTURERS LISTING.
- UNDERGROUND FIRE SERVICE SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 24 AND THE LOCAL AUTHORITY HAVING JURISDICTION (BY OTHERS).
- HAZARDOUS MATERIAL SHALL BE PLACED IN A SECURE (LOCKED) AREA AT THE COMPLETION OF EACH WORK DAY.
- ALL WORK SHALL BE INSTALLED IN A SAFE AND WORKMANLIKE MANNER. REPORT ANY UNSAFE ACTIVITY OR JOB-SITE HAZARD TO YOUR SUPERVISOR IMMEDIATELY.
- REPORT ALL INJURIES REQUIRING MEDICAL ATTENTION THE SAME BUSINESS DAY IN WHICH THEY OCCUR.
- SPRINKLER PIPE SIZING SHALL BE ESTABLISHED BY HYDRAULIC CALCULATIONS.
- CONTRACTOR IS RESPONSIBLE FOR THE PROPER DESIGN AND INSTALLATION OF THE FIRE SPRINKLER SYSTEM, INCLUDING COORDINATION OF THE WORK OF OTHER TRADES.

SCOPE OF WORK

THE WORK OF THIS CONTRACT INCLUDES PROVIDING ALL LABOR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY TO, AND CONSTRUCTION OF A THREE STORY MIXED USE BUILDING WITHIN THE 'SCOPE OF WORK' AREA, AND ASSOCIATED SITE WORK FOR UTILITIES AND ACCESSIBILITY IMPROVEMENTS. THE GENERAL CONTRACTOR SHALL THOROUGHLY REVIEW THE PLANS AND SPECIFICATIONS THEMSELV AND WITH ALL TRADES AND ACCEPTS THE MATERIALS, SYSTEMS, DETAILS, AND ASSEMBLIES AS BEING CONSTRUCTIBLE AND CAN BE WARRANTED FOR A TIME PERIOD CONSISTENT WITH INDUSTRY STANDARDS UNLESS A SPECIFIC TIME PERIOD IS NOTED HEREIN.

PROJECT INFORMATION

LIFE SAFETY ANALYSIS

OCCUPANCY CLASSIFICATION:
MIXED OCCUPANCY
Business Occupancy (B) Ground Floor UNITS A1, A2, B1, B2, Mercantile Occupancy (M) Ground Floor UNITS C1, C2, D1, D2 Residential Occupancy (R) Second Floor and Third Floor

CONSTRUCTION TYPE:
TYPE I B - SPRINKLERED

	MAX. ALLOWED	MAX PROVIDED
Building Height Above Grade	40'-0"	39'-7"
Number of Stories	3 STORIES	3 STORIES
Building Area (per floor)	Unlimited Area	Basement Level 83,747.55 sf Ground floor 28,038.72 sf Second floor 31,274.83 sf Third floor 31,274.83 sf TOTAL CONSTRUCTION AREA 174,336.93 sf

MEANS OF EGRESS CRITERIA

1. EXIT ACCESS TRAVEL DISTANCE
Business, Mercantile Maximum Allowed 250' Maximum Provided 64'
Residential Maximum Allowed 250' Maximum Provided 219'
2. OCCUPANT LOAD (as per 2009 IBC table 1004.1.1)

Parking	Basement	83,747.55 sf	200 sf/occupant	419 occupants
Business (B) - Mercantile (M) -	Ground Floor	17,741.00 sf	100 sf/occupant	178 occupants
	Ground Floor	9,659.00 sf	30 sf/occupant	302 occupants
	Overhangs, corridors and accessory areas	1,238.00 sf		
	Total area on Ground floor	28,038.72 sf		
Residential (R2) - Second floor	Apartments Area	24,563.26 sf		
	Apartments Balcony	5,923.29 sf		
	Corridors, Mechanical rooms, stairs and elevators	788.80 sf		
	Total area on second floor	31,274.83 sf	200 sf/occupant	157 occupants
Residential (R2) - Third floor	Apartments Area	24,563.26 sf		
	Apartments Balcony	5,923.29 sf		
	Corridors, Mechanical rooms, stairs and elevators	788.80 sf		
	Total area on third floor	31,274.83 sf	200 sf/occupant	157 occupants

3. EXIT CALCULATION
BASEMENT LEVEL 4 STAIRS PROVIDED WITH 45" WIDTH EACH FOR A TOTAL OF 180' AS PER 1005.1 THE MAXIMUM CAPACITY REQUIRED IS MAINTAINED IN ALL FLOORS.
UPPER FLOORS STAIR WIDTH PROVIDED 45" MIN. REQUIRED 44" AS PER 1007.3 EXCEPTION 1 - SECTION 1009 MINIMUM CORRIDOR WIDTH PROVIDED 6'-0"
GROUND FLOOR EXIT DOOR WIDTH 6'-0"
SECOND AND THIRD FLOOR RESIDENTIAL UNITS EXIT DOOR WIDTH 36"
SECOND AND THIRD FLOOR RESIDENTIAL UNITS ALL TO HAVE SLIDING DOORS FOR EXIT AT BALCONIES
4. MISCELLANEOUS
-RESIDENTIAL UNITS SEPARATION PROVIDED 4" SOLID CONCRETE WALL - 2.5" THICK PROVIDE 1 HR SEPARATION AS PER TABLE 720.1.2
-CORRIDOR SEPARATION PROVIDED 4" SOLID CONCRETE WALL - 0.5 HR REQUIRED AS PER 1018.1
-ENTRANCE DOORS TO BE 20MIN FIRE RATED AS PER 715.4
-AT LEAST ON ELEVATOR SERVING ALL FLOORS CAN ACCOMMODATE AN AMBULANCE STRETCHER 78MIN. INCHES IN A HORIZONTAL POSITION PER SECTION 3003.4.1
-ALL ELEVATORS CARS SHALL HAVE A SUPPORT RAIL ON AT LEAST ONE INTERIOR WALL. SUPPORT RAIL BE NO MORE THAN 1-1/2" IN THICK OR 2-1/2 INCHES DIAMETER. TO OF RAIL SHALL BE BETWEEN 31 AND 33 IN. ABOVE FINISH FLOOR.
-FIRE ALARM SYSTEM PROVIDED
-AS PER 711.2.4.3 FIRE SEPARATION FOR DWELLING UNITS REQUIRED IS 1HR IN BUILDINGS EQUIPPED WITH FIRE SPRINKLER SYSTEM.
-AS PER 708.4 VERTICAL SHAFT FIRE RESISTANCE RATING REQUIRED TO BE 1HR

PLUMBING FIXTURES CALCULATION
Business (B) - 178 occupants _ 5 water closets and 3 lavatories required
Mercantile (M) - 302 occupants _ 1 water closet and 1 lavatory required
PROVIDING 9 WATER CLOSETS AND 7 LAVATORIES PROVIDING 1 FAMILY WASHROOM

Building equipped with an approved automatic sprinkler system in accordance with section 903.3.1.1. Building area limitation permitted to be increased by an additional 200% Area 79,000 SF (as per table 503) X 2= AREA PERMITTED 158,000 SF
AREA PROPOSED 83,747.55 SF

PLANS NOTE

THESE PLANS CONFORM TO THE CONTRACT DOCUMENTS WHICH INCLUDE THE OWNER/CONTRACTOR AGREEMENT, THE DRAWINGS, AND ALL ADDENDA AND MODIFICATIONS ISSUED BY THE ARCHITECT PRIOR TO [REDACTED]

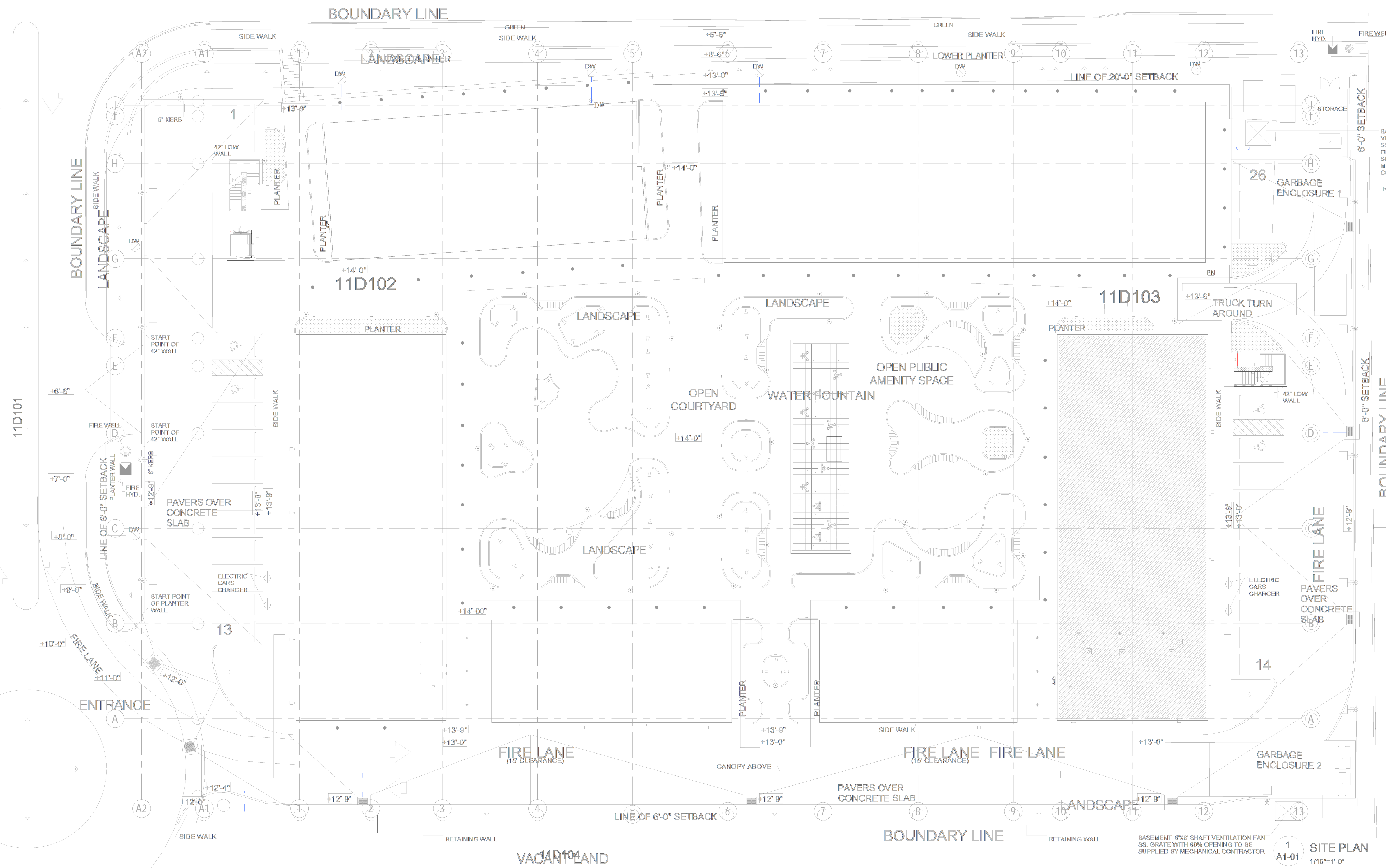
EARTHQUAKE PROTECTION NOTES

1. EARTHQUAKE PROTECTION SHALL BE IN ACCORDANCE WITH NFPA 13, AND ALL APPLICABLE STATE AND LOCAL CODES.
2. ALL PIPING USED FOR BRACES SHALL BE SCH-40 BLACK PIPE.
3. LATERAL SWAY BRACING SHALL BE SPACED AT THE INTERVALS SPECIFIED BY THE SWAY BRACING CALCULATIONS UP TO A MAXIMUM OF 40 FT. ON ALL FEED AND CROSS MAINS REGARDLESS OF SIZE AND ALL BRANCH LINES AND OTHER PIPING 2 1/2" AND LARGER.
4. THE DISTANCE BETWEEN THE LAST BRACE AND THE END OF THE PIPE SHALL NOT EXCEED 6 FT.
5. A 4-WAY BRACE SHALL BE PROVIDED AT ALL RISERS EXCEEDING 3'-0.
6. THE LAST LENGTH OF PIPE AT THE END OF A FEED OR CROSS MAIN SHALL BE PROVIDED WITH A LATERAL BRACE.
7. LATERAL BRACES SHALL BE ALLOWED TO ACT AS LONGITUDINAL BRACES IF THE ARE WITHIN 24 IN. OF THE CENTER LINE OF THE PIPING BRACED LONGITUDINALLY FOR LINES 2 1/2" AND GREATER IN DIAMETER.
8. WHERE FLEXIBLE COUPLINGS ARE INSTALLED ON MAINS OTHER THAN AS REQUIRED IN 9.3.2, A LATERAL BRACE SHALL BE PROVIDED WITHIN 24 IN. OF EVERY OTHER COUPLING, BUT NOT MORE THAN 40 FT. ON CENTER.
9. LONGITUDINAL SWAY BRACING SHALL BE SPACED AT THE INTERVALS SPECIFIED BY THE SWAY BRACING CALCULATIONS UP TO A MAXIMUM OF 80 FT. ON CENTER SHALL BE PROVIDED FOR FEED AND CROSS MAINS.
10. LONGITUDINAL BRACES SHALL BE PERMITTED TO SERVE AS LATERAL BRACES WHERE THEY ARE INSTALLED WITHIN 24 IN. OF THE PIPING THAT IS TO BE BRACED LATERALLY.
11. WHERE BRANCHLINES ARE INDIVIDUALLY SUPPORTED BY RODS EXCEEDING 6" MEASURED BETWEEN THE TOP OF THE PIPE AND THE POINT OF ATTACHMENT TO THE BUILDING STRUCTURE, BRANCHLINES SHALL BE RESTRAINED AT INTERVALS AS SPECIFIED ON SHEET FP-D4. BRANCHLINE RESTRAINTS SHALL BE INSTALLED WITHIN 6" OF A VERTICAL HANGER.
12. CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING PER NFPA 13.

COVER SHEET

<p>TRUE</p>	<p>STANDARD SYMBOLS</p> <ul style="list-style-type: none"> - HYDRAULIC NODE POINT - FIRE DEPT CONNECTION - CPVC FP PIPE - STEEL FP PIPING - UNDERGROUND FP PIPING 	<p>STANDARD SYMBOLS</p> <ul style="list-style-type: none"> - GLOBE UMC RISER - BUTTERFLY VALVE - CHECK VALVE - 0.5 4" GATE VALVE - BACKFLOW PREVENTER 	<p>STANDARD SPRINKLER SYMBOLS</p> <ul style="list-style-type: none"> - RESIDENTIAL PENDENT - EXTENDED COVERAGE PENDENT - UPRIGHT - SEM RECESSED PENDENT - CONCEALED PENDENT - DRY PENDENT - HORIZONTAL SIDEWALL - VERTICAL SIDEWALL 	<p>PLAN REVIEW STAMP</p>	<p>REVISION</p> <table border="1"> <thead> <tr> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>	DESCRIPTION	BY																					<p>DESIGNED BY:</p> <p>3D FIRE DESIGN LLC GERALD W. EBLEING, SET NICET LEVEL IV # 105930</p>	<p>DESIGNED BY:</p> <p>3D FIRE DESIGN LLC GERALD W. EBLEING, SET NICET LEVEL IV # 105930</p>	<p>A/E/STAMP:</p>	<p>CONTRACT NAME:</p> <p>The Grove Too 1358 W Bay Rd, Grand Cayman KY1-1000, Cayman Islands</p>	<p>SCALE:</p> <p>DESIGNED BY: GE CHECKED BY: TB CONTRACT NO: TG2 DATE: [REDACTED] 2:55:11 PM DRAWING NO: FPO</p>
DESCRIPTION	BY																															

ESTERLY TIBBETTS HIGHWAY



1 SITE PLAN
A1-01
1/16"=1'-0"

STANDARD SYMBOLS	STANDARD SYMBOLS	STANDARD SPRINKLER SYMBOLS	PLAN REVIEW STAMP	REVISION												
<ul style="list-style-type: none"> HYDRAULIC NODE POINT FIRE DEPT CONNECTION CPVC FP PIPE STEEL FP PIPING UNDERGROUND FP PIPING 	<ul style="list-style-type: none"> GLOBE UMC RISER BUTTERFLY VALVE CHECK VALVE 0.5 A.Y. GATE VALVE BACKFLOW PREVENTER 	<ul style="list-style-type: none"> RESIDENTIAL PENDENT EXTENDED COVERAGE PENDENT UPRIGHT SEMI RECESSED PENDENT CONCEALED PENDENT DRY PENDENT HORIZONTAL SIDEWALL VERTICAL SIDEWALL 		<table border="1"> <thead> <tr> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	DESCRIPTION	BY										
DESCRIPTION	BY															



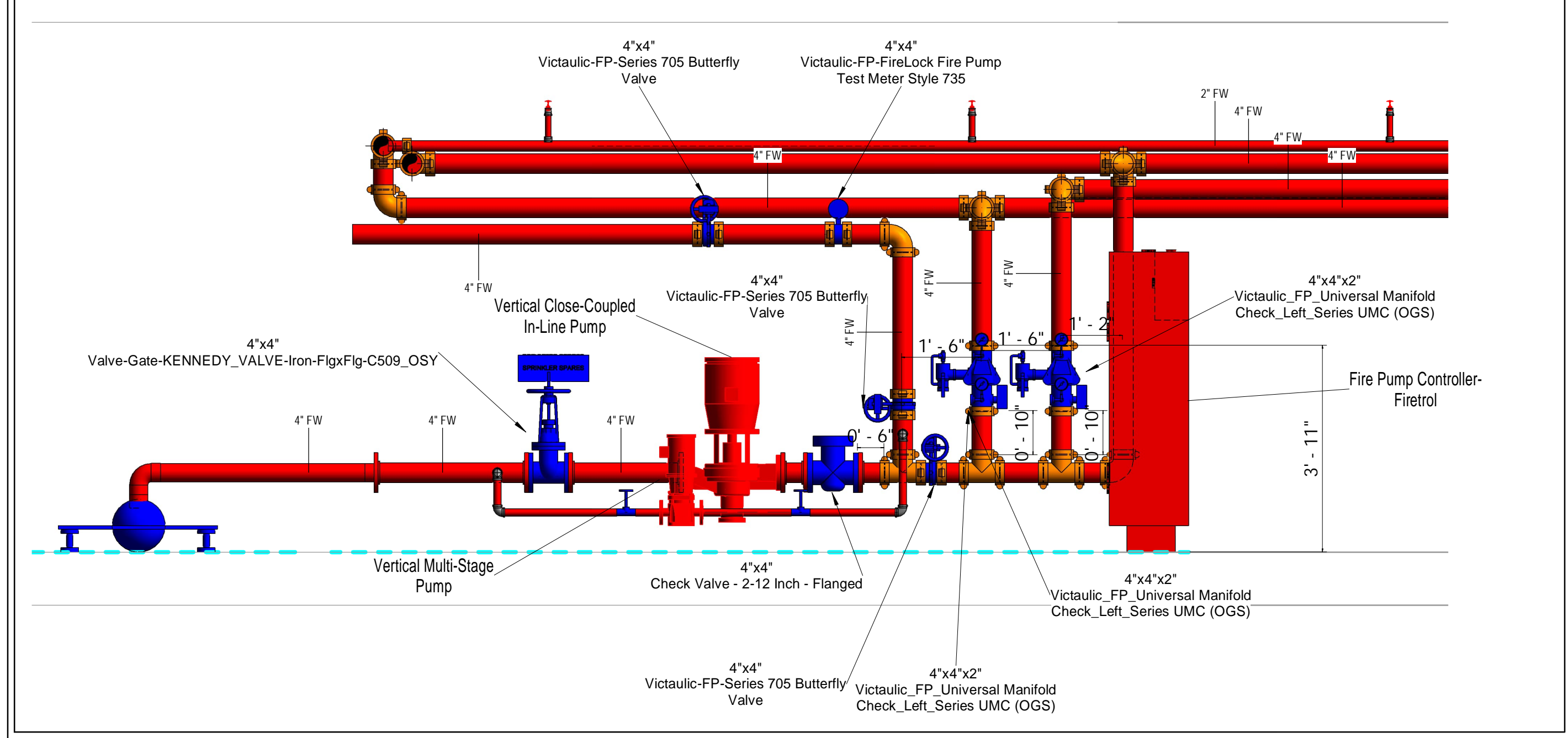
SITE PLAN

THE GROVE TOO
 1358 W Bay Rd,
 Grand Cayman KY1-1000,
 Cayman Islands
 P.O. BOX 11987
 GRAND CAYMAN, KY1-1010
 Cell: [REDACTED]
 email: [REDACTED]

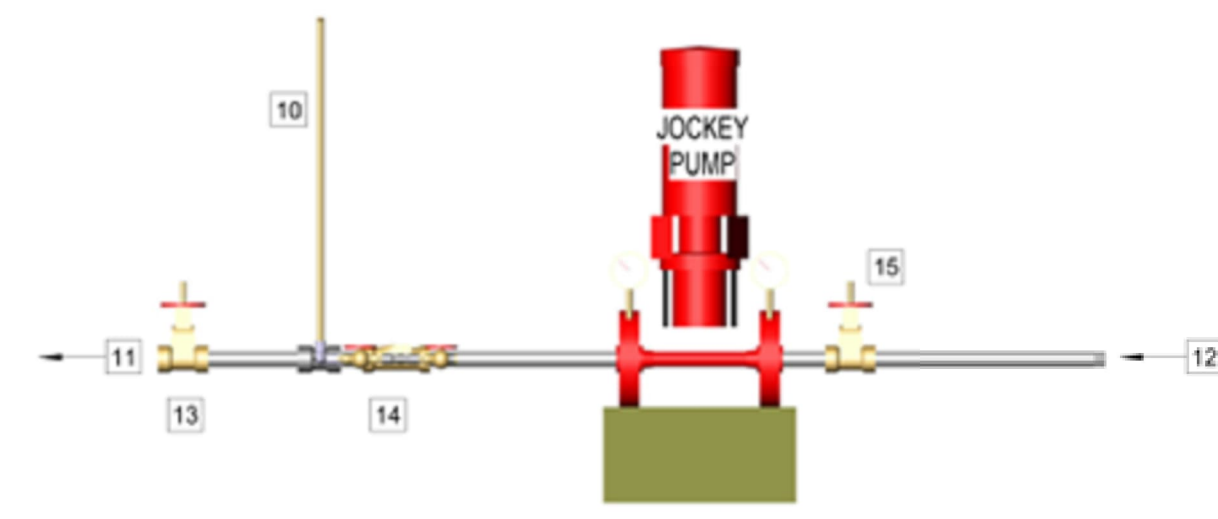
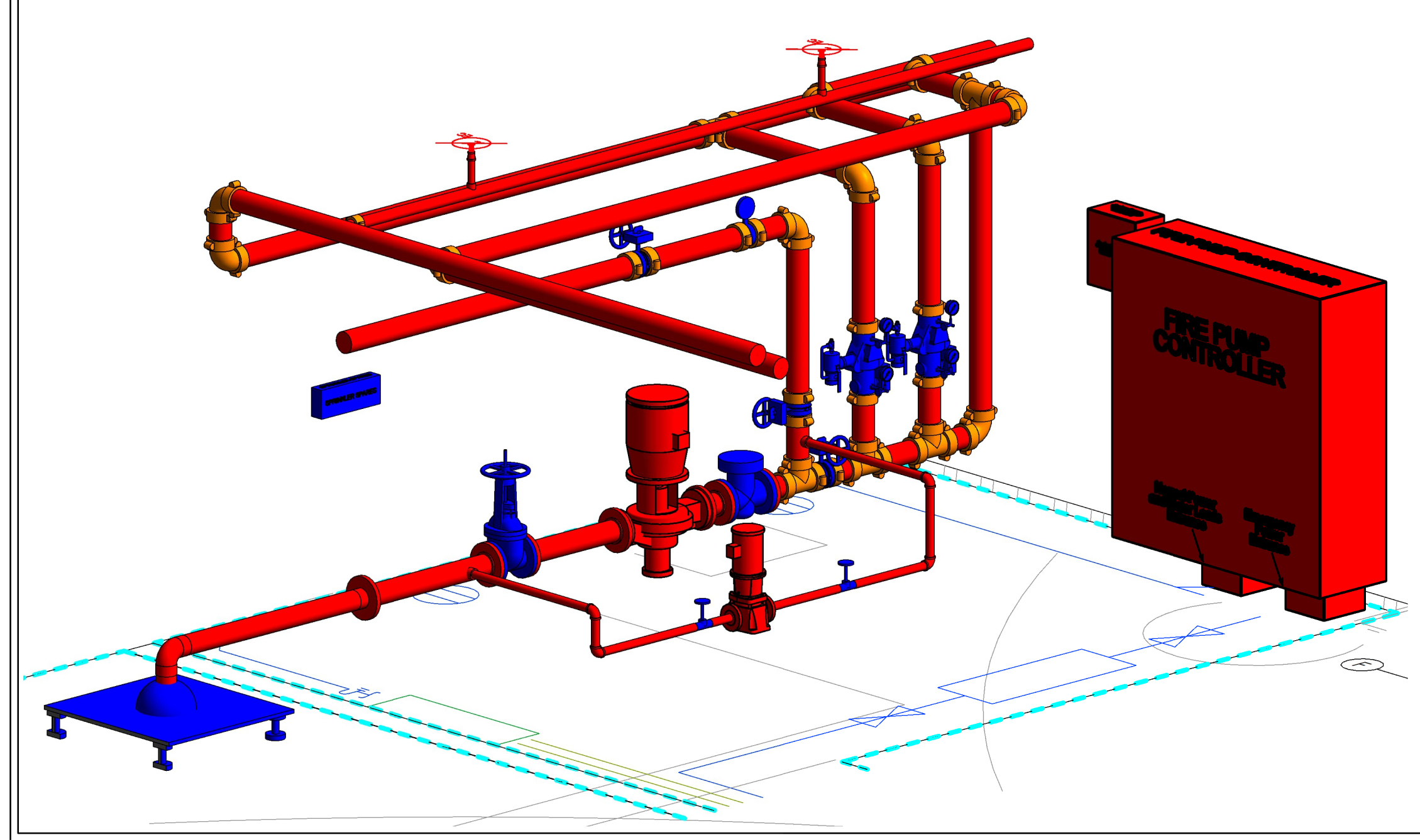
SCALE: 1/16" = 1'-0"
 DESIGNED BY: Author
 CHECKED BY: Checker
 CONTRACT NO: TG2
 DATE: [REDACTED] 2:56:40 PM
 DRAWING NO: FP1

C:\Users\Admin\Dropbox\3D FIRE PROJECTS\... Contrasting Ltd - Grand Cayman\THE GROVE TOO\FP1.rvt Software: REVIT/MicroBIM Fire

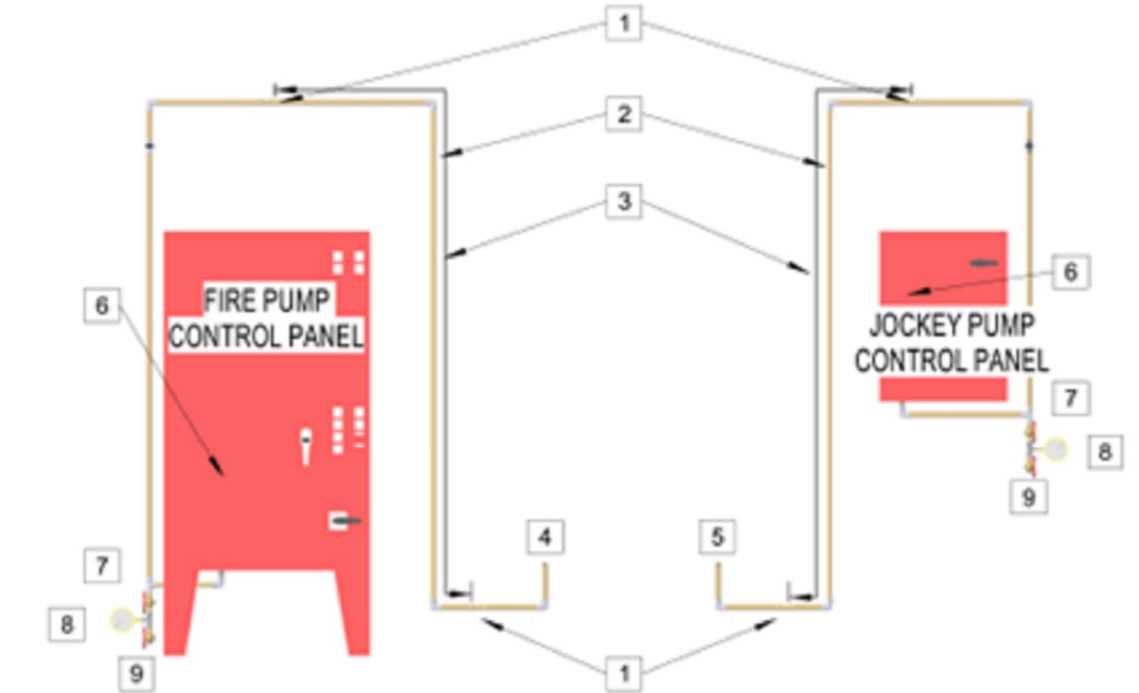
PUMP ROOM SECTION 1



PUMP ROOM ISO (3D)



JOCKEY PUMP INSTALLATION DETAIL



SENSING LINE DETAIL

JOCKEY PUMP NOTES

NUMBER	TEXT
1	1/2" BRASS SWING CHECK VALVE OR UNION WITH 3/32" HOLE IN CLAPPER
2	1/2" COPPER PIPING AND FITTINGS
3	MINIMUM OF 5' OF PIPING
4	1/2" TO FIRE PUMP
5	1/2" TO JOCKEY PUMP
6	PRESSURE SWITCH
7	1/2" GLOBE VALVE
8	1/4" PRESSURE GAUGE
9	1/2" GLOBE VALVE WITH 1/2" PLUG
10	1/2" COPPER PIPING TO JOCKEY PUMP CONTROLLER
11	1-1/4" DISCHARGE
12	1-1/4" DISCHARGE
13	1" MILWAUKEE BUTTERFLY VALVE
14	1" CHECK VALVE
15	1" OS&Y VALVE

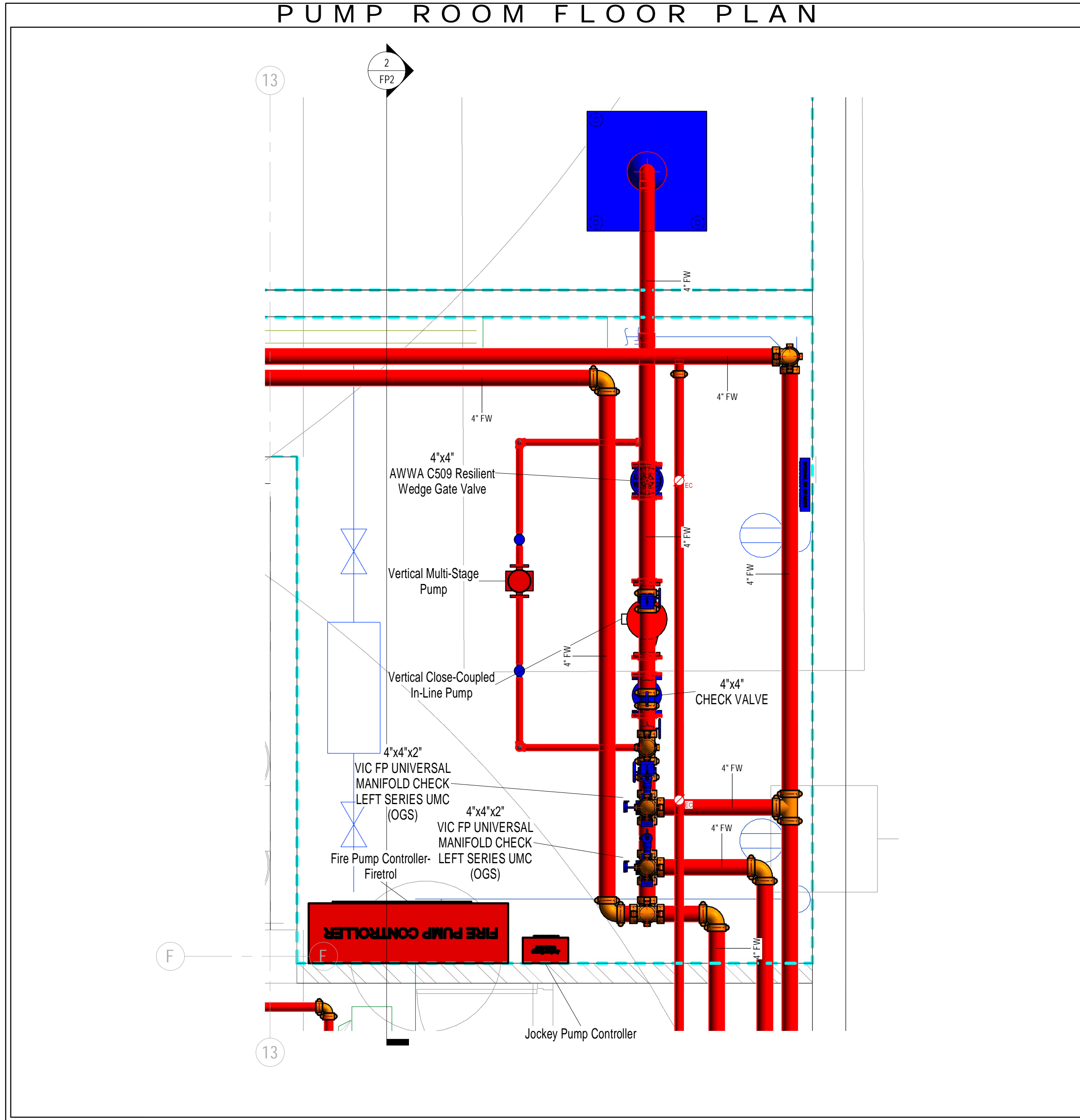
SPRINKLERS LEGEND - TOTAL

ja	NL	SY	SLE	Manufacturer	Sprinkler SIN	DESCRIPTION	THREA D SIZE	FINISH	K-Factor	Response	Temperature Rating	COUNT	Level
	⊙			VIKING	VK302	PENDANT BELOW CEILING SPRINKLER	1/2"	CHROME	5.6	Quick	155 °F	8	GROUND FLOOR
	R			VIKING	VH468	RESIDENTIAL PENDANT SPRAY BELOW CEILING SPRINKLER	1/2"	WHITE	4.9	Quick	155 °F	170	<varies>
	⊙			VIKING	VK300	EXPOSED UPRIGHT SPRINKLER	1/2"	BRASS	5.6	Quick	155 °F	269	
	⊙			VIKING	VK532	EXPOSED EC UPRIGHT SPRINKLER	3/4"	BRASS	11.2	Standard	155 °F	475	BASEMENT
	R			VIKING	VK484	RESIDENTIAL HORIZONTAL SIDEWALL SPRINKLER	1/2"	WHITE	4.2	Quick	155 °F	246	<varies>
	R			VIKING	VK305	HORIZONTAL SIDEWALL SPRINKLER	1/2"	BRASS	5.6	Quick	200 °F	3	BASEMENT
	EC			VIKING	VK630	EXTENDED COVERAGE HORIZONTAL SIDEWALL SPRINKLER	3/4"	CHROME	8	Quick	155 °F	32	GROUND FLOOR
Grand total: 1203													

FIRE PUMP NOTES

- FIRE PUMP SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 20.
- THE COMPLETE FIRE PUMP UNIT SHALL BE FIELD ACCEPTANCE TESTED FOR PROPER PERFORMANCE IN ACCORDANCE WITH THE PROVISIONS OF NFPA 20.
- PUMPS SHALL BE DEDICATED TO AND LISTED FOR FIRE PROTECTION SERVICE.
- PUMPS SHALL BE PROVIDED WITH A NAMEPLATE.
- A PRESSURE GAUGE HAVING A DIAL NOT LESS THAN 3.5" IN DIAMETER SHALL BE CONNECTED NEAR THE DISCHARGE AND SUCTION CASTINGS WITH A NOMINAL .25" GAUGE VALVE. THE DIAL SHALL INDICATE PRESSURE TO AT LEAST TWICE THE RATED WORKING PRESSURE OF THE PUMP, BUT NOT LESS THAN 200 PSI FOR THE DISCHARGE GAUGE.
- WHERE THE MINIMUM PUMP SUCTION PRESSURE IS BELOW 20 PSI UNDER ANY FLOW CONDITION, THE SUCTION GAUGE SHALL BE A COMPOUND PRESSURE AND VACUUM GAUGE.
- AN AUTOMATIC RELIEF VALVE LISTED FOR FIRE PROTECTION SERVICE SHALL BE INSTALLED AND SET BELOW THE SHUTOFF PRESSURE AT MINIMUM EXPECTED SUCTION PRESSURE.
- AN APPROVED OR LISTED SOURCE OF HEAT SHALL BE PROVIDED FOR MAINTAINING THE TEMPERATURE OF A PUMP ROOM OR PUMP HOUSE, WHERE REQUIRED, ABOVE 40°F.
- ARTIFICIAL & EMERGENCY LIGHTING SHALL BE PROVIDED IN THE PUMP ROOM OR PUMP HOUSE.
- PROVISIONS SHALL BE MADE FOR VENTILATION OF A PUMP ROOM OR PUMP HOUSE.
- PIPE, FITTINGS, HANGERS, AND SEISMIC BRACING FOR THE FIRE PUMP UNIT, INCLUDING SUCTION AND DISCHARGE PIPING, SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS OF NFPA 13.
- THE GAUGE PRESSURE AT THE SUCTION FLANGE SHALL NOT DROP BELOW -3 PSI WITH THE TANK AT ITS LOWEST WATER LEVEL AFTER THE MAXIMUM SYSTEM DEMAND AND DURATION HAVE BEEN SUPPLIED.
- FOR PUMP(S) TAKING SUCTION FROM A STORED WATER SUPPLY, A VORTEX PLATE SHALL BE INSTALLED AT THE ENTRANCE TO THE SUCTION PIPE.
- PUMP DISCHARGE PIPING SHALL BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH NFPA 13 AND NFPA 24.
- THE SUCTION VALVE AND DISCHARGE VALVE SHALL BE SUPERVISED IN THE OPEN POSITION.
- TEST OUTLET CONTROL VALVES SHALL BE SUPERVISED IN THE CLOSED POSITION.
- TWO CHECK VALVES SHALL BE INSTALLED IN EACH PRESSURE SENSING LINE LOCATED AT LEAST 5 FEET APART WITH A 0.09375 HOLE IN THE CLAPPER TO SERVE AS DAMPENING.
- ALL ELECTRICAL EQUIPMENT AND INSTALLATION METHODS SHALL COMPLY WITH NFPA 70.
- ELECTRIC DRIVES FOR PUMPS SHALL BE INSTALLED IN COMPLIANCE WITH CHAPTER 9 OF NFPA 20.
- ELECTRIC DRIVE CONTROLLERS AND ACCESSORIES SHALL BE INSTALLED IN COMPLIANCE WITH CHAPTER 10 OF NFPA 20.

PUMP ROOM FLOOR PLAN



SYSTEM MONITORING

VALVE MONITORING, WATER-FLOW ALARM, AND TROUBLE SIGNALS SHALL BE AUTOMATICALLY TRANSMITTED TO AN APPROVED CENTRAL STATION. THIS WORK IS BY OTHERS.

FIRE PUMP DATA

MAKE & MODEL	GENERIC
TYPE	VERTICAL IN-LINE
SIZE	N/A
RATING	500 GPM @ 100 PSI
RPM	TBD
ROTATION	RIGHT HAND / CLOCKWISE
SUCTION SIZE	4"
DISCHARGE SIZE	4"
IMPELLER	TBD
ESTIMATED WEIGHT	TBD
START PRESSURE (FIELD VERIFY)	TBD
STOP PRESSURE (FIELD VERIFY)	TBD

DRIVER DATA

TYPE	ELECTRIC
POWER	50.00 HP
PHASE	3 PHASE
HERTZ	60 HZ
VOLTS	208 V
RPM	3550
ESTIMATED WEIGHT	UNKNOWN

JOCKEY PUMP DATA

MAKE & MODEL	GENERIC
RATING	N/A
SUCTION & DISCHARGE SIZE	0 - 12.50 GPM
POWER	1"
PHASE	3 PHASE
VOLTS	208 V
START PRESSURE (FIELD VERIFY)	
STOP PRESSURE (FIELD VERIFY)	

MAKE & MODEL	GENERIC
VOLTAGE	208V
HP RANGE	3-60
SOFT START	NO
AUTOMATIC TRANSFER SWITCH	NO
REMOTE ALARMS	

FIRE PUMP PLAN



DESIGNED BY:

Gerald W. Ebeling

AHS STAMP:

CONTRACT NAME:

The Grove Too

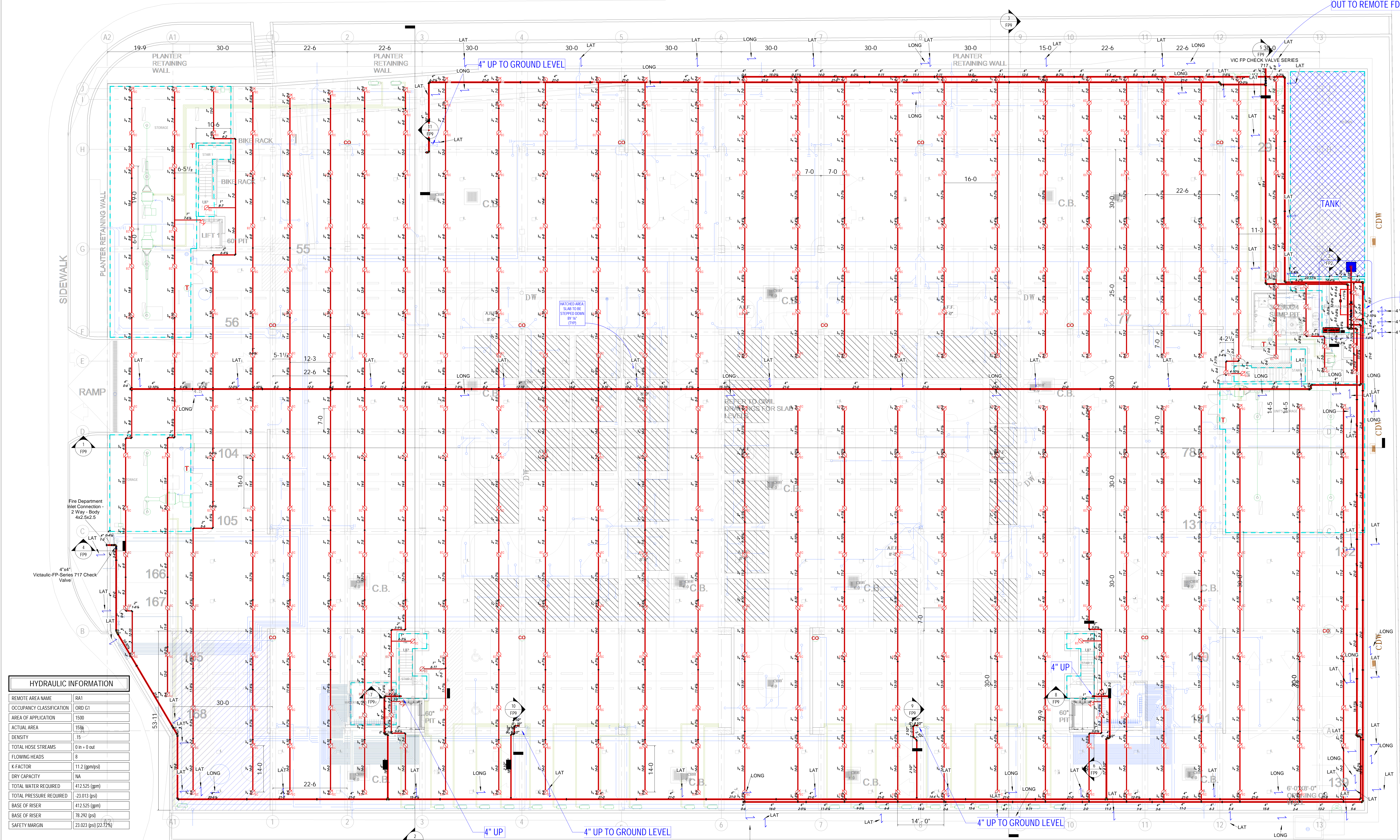
1358 W Bay Rd,
Grand Cayman KY1-1000,
Cayman Islands

P.O. BOX 11987
GRAND CAYMAN, KY1-1010
Call: [Redacted]
email: [Redacted]

SCALE:
1/2" = 1'-0"
DESIGNED BY:
Author
CHECKED BY:
Checker
CONTRACT NO:
TG2
DATE:
2:57:39 PM
DRAWING NO.
FP2

OUT TO REMOTE FDC

FIRE PUMP



HYDRAULIC INFORMATION	
REMOTE AREA NAME	RA1
OCCUPANCY CLASSIFICATION	ORD G1
AREA OF APPLICATION	1500
ACTUAL AREA	1596
DENSITY	15
TOTAL HOSE STREAMS	0 in + 0 out
FLOWING HEADS	8
K-FACTOR	11.2 (gpm/psi)
DRY CAPACITY	NA
TOTAL WATER REQUIRED	412,525 (gpm)
TOTAL PRESSURE REQUIRED	23.013 (psi)
BASE OF RISER	412,525 (gpm)
BASE OF RISER	78,292 (psi)
SAFETY MARGIN	23.023 (psi) (22.72%)

1 BASEMENT FP PLAN
3/32" = 1'-0"

SPRINKLERS LEGEND											
SY	IS, E	Manufacturer	Sprinkler SIN	DESCRIPTION	THREAD SIZE	FINISH	Level	K-Factor	Response	Temperature Rating	COUNT
EC		VIKING	VK32	EXPOSED EC UPRIGHT SPRINKLER	3/4"	BRASS	BASEMENT	11.2	Standard	155 °F	475
K		VIKING	VK305	HORIZONTAL SIDEWALL SPRINKLER	1/2"	BRASS	BASEMENT	5.6	Quick	200 °F	3

<p>TRUE</p>	<p>STANDARD SYMBOLS</p> <ul style="list-style-type: none"> HYDRAULIC NODE POINT FIRE DEPT CONNECTION CPVC FP PIPE STEEL FP PIPING UNDERGROUND FP PIPING 	<p>STANDARD SYMBOLS</p> <ul style="list-style-type: none"> GLOBE UMC RISER BUTTERFLY VALVE CHECK VALVE 0.5 A.Y. GATE VALVE BACKFLOW PREVENTER 	<p>STANDARD SPRINKLER SYMBOLS</p> <ul style="list-style-type: none"> RESIDENTIAL PENDENT EXTENDED COVERAGE PENDENT UPRIGHT SEMI RECESSED PENDENT CONCEALED PENDENT DRY PENDENT HORIZONTAL SIDEWALL VERTICAL SIDEWALL 	<p>PLAN REVIEW STAMP</p>	<p>REVISION</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DESCRIPTION	BY			
NO.	DESCRIPTION	BY									

DESIGNED BY:

3D
FIRE DESIGN, LLC
GERALD W. EBLEING, SET
NICET LEVEL IV # 105930

BASEMENT FIRE SPRINKLER PLAN

AHJ STAMP: _____

CONTRACT NAME: **The Grove Too**
1358 W Bay Rd,
Grand Cayman KY1-1000,
Cayman Islands

SCALE: 3/32" = 1'-0"

DESIGNED BY: _____
Author

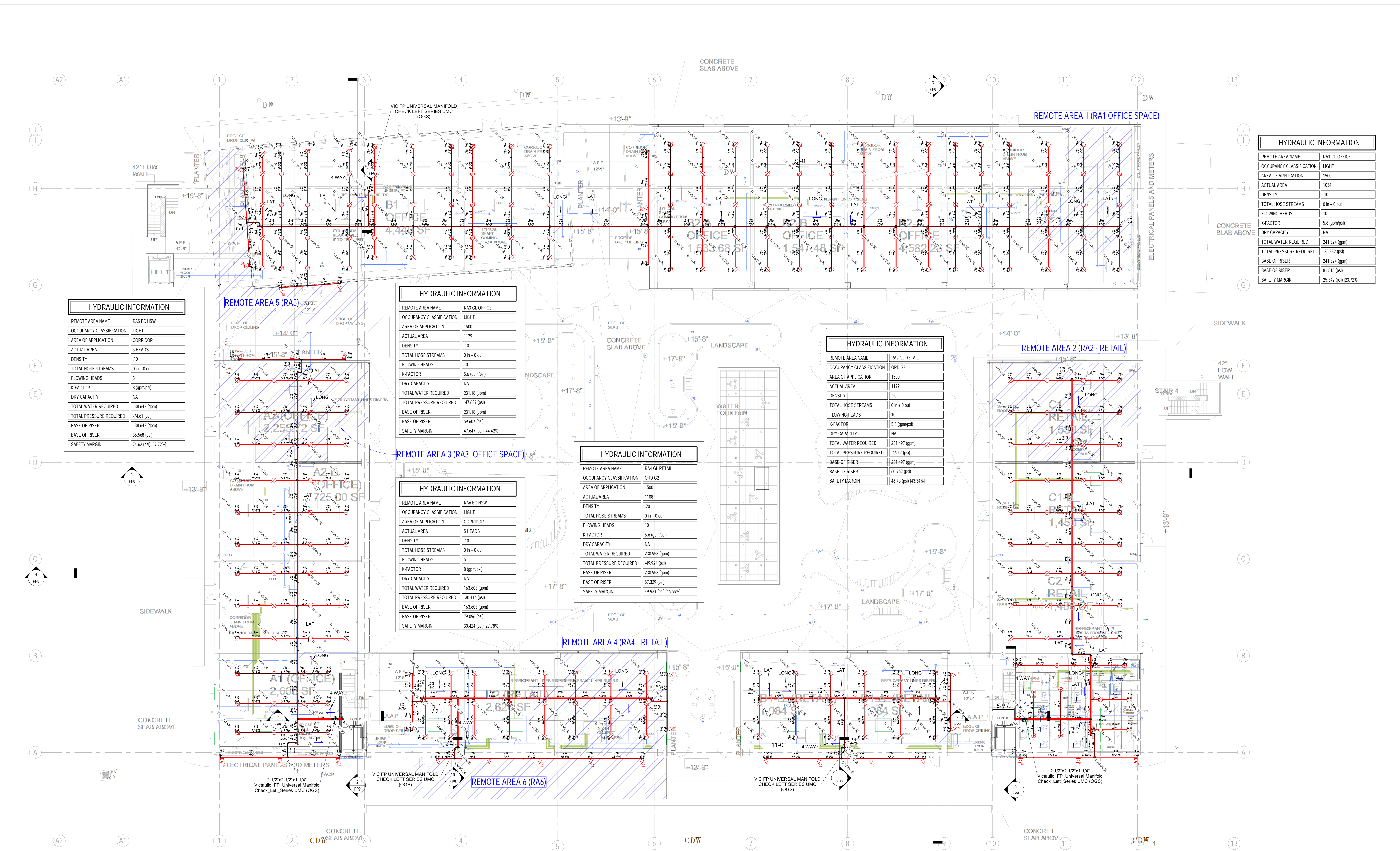
CHECKED BY: _____
Checker

CONTRACT NO: _____
TG2

DATE: _____ 2:59:47 PM

DRAWING NO: **FP4**

C:\Users\Admin\Desktop\FD\FIRE PROJECTS\THE GROVE TOO\FP4.FXD



HYDRAULIC INFORMATION	
REMOTE AREA NAME	RA1 GL OFFICE
OCCUPANCY CLASSIFICATION	LIGHT
AREA OF APPLICATION	1500
ACTUAL AREA	1034
DENSITY	10
TOTAL HOSE STREAMS	0 in + 0 out
FLOWING HEADS	10
K-FACTOR	5.6 (gpm/psi)
DRY CAPACITY	NA
TOTAL WATER REQUIRED	241.324 (gpm)
TOTAL PRESSURE REQUIRED	25.332 (psi)
BASE OF RISER	241.324 (gpm)
BASE OF RISER	81.515 (psi)
SAFETY MARGIN	25.342 (psi) [23.72%]

HYDRAULIC INFORMATION	
REMOTE AREA NAME	RA5 EC HSW
OCCUPANCY CLASSIFICATION	LIGHT
AREA OF APPLICATION	CORRIDOR
ACTUAL AREA	5 HEADS
DENSITY	10
TOTAL HOSE STREAMS	0 in + 0 out
FLOWING HEADS	5
K-FACTOR	8 (gpm/psi)
DRY CAPACITY	NA
TOTAL WATER REQUIRED	138.642 (gpm)
TOTAL PRESSURE REQUIRED	74.61 (psi)
BASE OF RISER	138.642 (gpm)
BASE OF RISER	35.568 (psi)
SAFETY MARGIN	74.62 (psi) [67.72%]

HYDRAULIC INFORMATION	
REMOTE AREA NAME	RA3 GL OFFICE
OCCUPANCY CLASSIFICATION	LIGHT
AREA OF APPLICATION	1500
ACTUAL AREA	1179
DENSITY	10
TOTAL HOSE STREAMS	0 in + 0 out
FLOWING HEADS	10
K-FACTOR	5.6 (gpm/psi)
DRY CAPACITY	NA
TOTAL WATER REQUIRED	231.18 (gpm)
TOTAL PRESSURE REQUIRED	47.637 (psi)
BASE OF RISER	231.18 (gpm)
BASE OF RISER	59.607 (psi)
SAFETY MARGIN	47.647 (psi) [44.42%]

HYDRAULIC INFORMATION	
REMOTE AREA NAME	RA6 EC HSW
OCCUPANCY CLASSIFICATION	LIGHT
AREA OF APPLICATION	CORRIDOR
ACTUAL AREA	5 HEADS
DENSITY	10
TOTAL HOSE STREAMS	0 in + 0 out
FLOWING HEADS	5
K-FACTOR	8 (gpm/psi)
DRY CAPACITY	NA
TOTAL WATER REQUIRED	163.603 (gpm)
TOTAL PRESSURE REQUIRED	30.414 (psi)
BASE OF RISER	163.603 (gpm)
BASE OF RISER	79.096 (psi)
SAFETY MARGIN	30.424 (psi) [27.78%]

HYDRAULIC INFORMATION	
REMOTE AREA NAME	RA4 GL RETAIL
OCCUPANCY CLASSIFICATION	ORD-G2
AREA OF APPLICATION	1500
ACTUAL AREA	1108
DENSITY	20
TOTAL HOSE STREAMS	0 in + 0 out
FLOWING HEADS	10
K-FACTOR	5.6 (gpm/psi)
DRY CAPACITY	NA
TOTAL WATER REQUIRED	230.958 (gpm)
TOTAL PRESSURE REQUIRED	49.934 (psi)
BASE OF RISER	230.958 (gpm)
BASE OF RISER	57.329 (psi)
SAFETY MARGIN	49.934 (psi) [46.55%]

HYDRAULIC INFORMATION	
REMOTE AREA NAME	RA2 GL RETAIL
OCCUPANCY CLASSIFICATION	ORD-G2
AREA OF APPLICATION	1500
ACTUAL AREA	1179
DENSITY	20
TOTAL HOSE STREAMS	0 in + 0 out
FLOWING HEADS	10
K-FACTOR	5.6 (gpm/psi)
DRY CAPACITY	NA
TOTAL WATER REQUIRED	231.497 (gpm)
TOTAL PRESSURE REQUIRED	46.47 (psi)
BASE OF RISER	231.497 (gpm)
BASE OF RISER	60.762 (psi)
SAFETY MARGIN	46.48 (psi) [43.34%]

HYDRAULIC INFORMATION	
REMOTE AREA NAME	RA2 GL RETAIL
OCCUPANCY CLASSIFICATION	ORD-G2
AREA OF APPLICATION	1500
ACTUAL AREA	1500
DENSITY	20
TOTAL HOSE STREAMS	0 in + 0 out
FLOWING HEADS	10
K-FACTOR	5.6 (gpm/psi)
DRY CAPACITY	NA
TOTAL WATER REQUIRED	231.497 (gpm)
TOTAL PRESSURE REQUIRED	46.47 (psi)
BASE OF RISER	231.497 (gpm)
BASE OF RISER	60.762 (psi)
SAFETY MARGIN	46.48 (psi) [43.34%]

1 GROUND FLOOR FP PLAN
3/32" = 1'-0"

SY	S/E	Manufacturer	Sprinkler S/N	DESCRIPTION	THREAD SIZE	FINISH	Level	K-Factor	Response	Temperature Rating	COUNT
1		VIKING	VK302	PENDANT BELOW CEILING SPRINKLER	1/2"	CHROME	GROUND FLOOR	5.6	Quick	155 °F	8
2		VIKING	VK300	EXPOSED UPRIGHT SPRINKLER	1/2"	BRASS	GROUND FLOOR	5.6	Quick	155 °F	255
3		VIKING	VK630	EXTENDED COVERAGE HORIZONTAL SIDEWALL SPRINKLER	3/4"	CHROME	GROUND FLOOR	8	Quick	155 °F	32
Grand Total: 295											

STANDARD SYMBOLS	STANDARD SYMBOLS	STANDARD SPRINKLER SYMBOLS	PLAN REVIEW STAMP	REVISION
HYDRAULIC NODE POINT	GLOBE UMC RISER	RESIDENTIAL PENDENT	BY	DESCRIPTION
FIRE DEPT CONNECTION	BUTTERFLY VALVE	EXTENDED COVERAGE PENDENT		
CPVC FP PIPE	CHECK VALVE	UPRIGHT		
STEEL FP PIPING	0.5 S.A.Y. GATE VALVE	SEMI RECESSED PENDENT		
UNDERGROUND FP PIPING	BACKFLOW PREVENTER	CONCEALED PENDENT		
		DRY PENDENT		
		HORIZONTAL SIDEWALL		
		VERTICAL SIDEWALL		

DESIGNED BY:

3D FIRE DESIGN LLC
 GERALD W. EBELING, SET
 NICET LEVEL IV # 105930

GROUND LEVEL FIRE SPRINKLER PLAN

CONTRACT NAME:
The Grove Too
 1358 W Bay Rd,
 Grand Cayman KY1-1000,
 Cayman Islands

SCALE:
 3/32" = 1'-0"

DESIGNED BY:
 Author

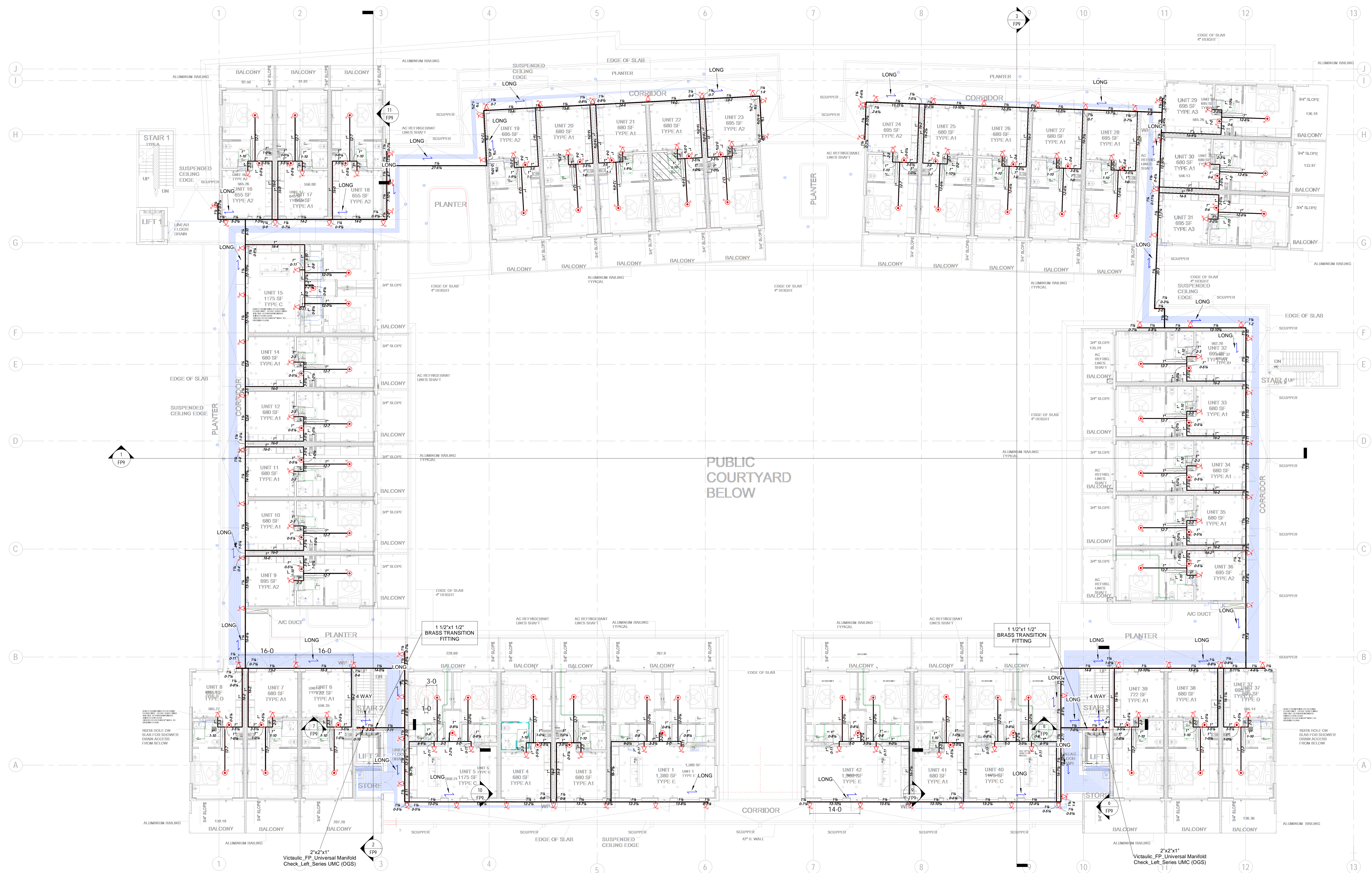
CHECKED BY:
 Checker

CONTRACT NO:
 TG2

DATE:
 3:01:47 PM

DRAWING NO:
FP5

C:\Users\Admin\Dropbox\3D FIRE PROJECTS\The Grove Too\THE GROVE TOO\FP-01.dwg



1 Level 2 FP PLAN
3/32" = 1'-0"

SPRINKLERS LEGEND

SY	IS, E	Manufacturer	Sprinkler SN	DESCRIPTION	THREAD SIZE	FINISH	Level	K-Factor	Response	Temperature Rating	COUNT
R		VIKING	VH468	RESIDENTIAL PENDANT SPRAY BELOW CEILING	1/2"	WHITE	Level 2	4.9	Quick	155 °F	85
R		VIKING	VK484	RESIDENTIAL HORIZONTAL SIDEWALL SPRINKLER	1/2"	WHITE	Level 2	4.2	Quick	155 °F	119

Grand total: 204

STANDARD SYMBOLS	STANDARD SYMBOLS	STANDARD SPRINKLER SYMBOLS	PLAN REVIEW STAMP	REVISION						
<ul style="list-style-type: none"> HYDRAULIC NODE POINT FIRE DEPT CONNECTION CPVC FP PIPE STEEL FP PIPING UNDERGROUND FP PIPING 	<ul style="list-style-type: none"> GLOBE UMC RISER BUTTERFLY VALVE CHECK VALVE 0.5 A-Y GATE VALVE BACKFLOW PREVENTER 	<ul style="list-style-type: none"> RESIDENTIAL PENDENT EXTENDED COVERAGE PENDENT UPRIGHT SEMI RECESSED PENDENT CONCEALED PENDENT DRY PENDENT HORIZONTAL SIDEWALL VERTICAL SIDEWALL 	<p>PLAN REVIEW STAMP</p> <p>REVISION</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DESCRIPTION	BY				<p>DESIGNED BY:</p> <p>3D FIRE DESIGN, LLC GERALD W. EBELING, SET NICET LEVEL IV # 105930</p>
NO.	DESCRIPTION	BY								

3D FIRE DESIGN, LLC
GERALD W. EBELING, SET
NICET LEVEL IV # 105930

DESIGNED BY:
GERALD W. EBELING
NICET LEVEL IV # 105930

2ND LEVEL FIRE SPRINKLER PLAN

AHS STAMP: _____

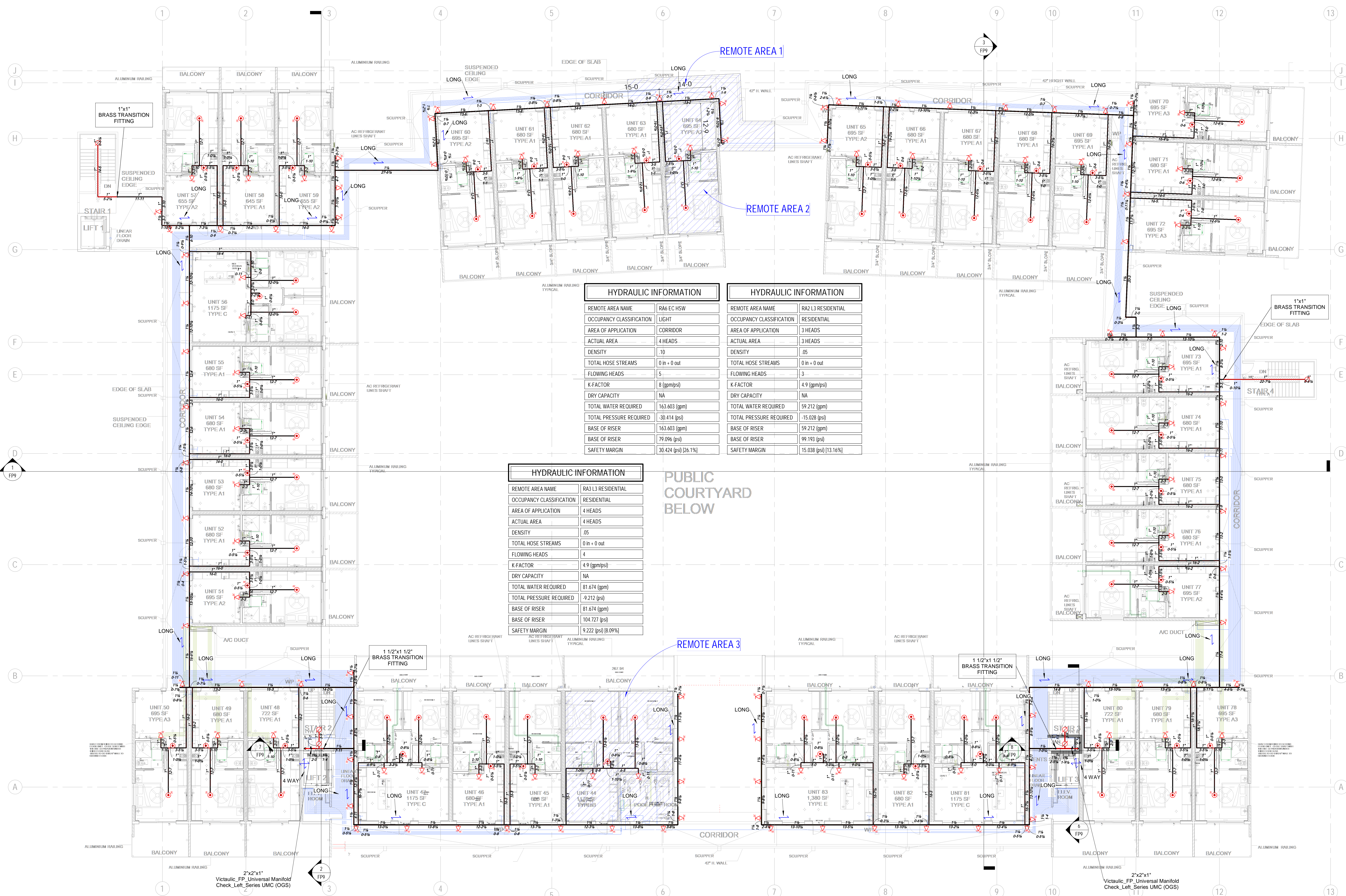
CONTRACT NAME:
The Grove Too
1358 W Bay Rd,
Grand Cayman KY1-1000,
Cayman Islands

SCALE:
3/32" = 1'-0"

DESIGNED BY:
Author
CHECKED BY:
Checker
CONTRACT NO:
TG2
DATE: 3/23/21 PM
DRAWING NO:
FP6

C:\Users\Admin\Dropbox\3D FIRE PROJECTS\1 - Grand Cayman\THE GROVE TOO\THE GROVE TOO FP.MXD

Software: REVIT/MicroBIM Fire



HYDRAULIC INFORMATION		HYDRAULIC INFORMATION	
REMOTE AREA NAME	RA6 EC HSW	REMOTE AREA NAME	RA2 L3 RESIDENTIAL
OCCUPANCY CLASSIFICATION	LIGHT	OCCUPANCY CLASSIFICATION	RESIDENTIAL
AREA OF APPLICATION	CORRIDOR	AREA OF APPLICATION	3 HEADS
ACTUAL AREA	4 HEADS	ACTUAL AREA	3 HEADS
DENSITY	.10	DENSITY	.05
TOTAL HOSE STREAMS	0 in + 0 out	TOTAL HOSE STREAMS	0 in + 0 out
FLOWING HEADS	5	FLOWING HEADS	3
K-FACTOR	8 (gpm/psi)	K-FACTOR	4.9 (gpm/psi)
DRY CAPACITY	NA	DRY CAPACITY	NA
TOTAL WATER REQUIRED	163.603 (gpm)	TOTAL WATER REQUIRED	59.212 (gpm)
TOTAL PRESSURE REQUIRED	-30.414 (psi)	TOTAL PRESSURE REQUIRED	-15.028 (psi)
BASE OF RISER	163.603 (gpm)	BASE OF RISER	59.212 (gpm)
BASE OF RISER	79.096 (psi)	BASE OF RISER	99.193 (psi)
SAFETY MARGIN	30.424 (psi) [26.1%]	SAFETY MARGIN	15.038 (psi) [13.16%]

HYDRAULIC INFORMATION	
REMOTE AREA NAME	RA3 L3 RESIDENTIAL
OCCUPANCY CLASSIFICATION	RESIDENTIAL
AREA OF APPLICATION	4 HEADS
ACTUAL AREA	4 HEADS
DENSITY	.05
TOTAL HOSE STREAMS	0 in + 0 out
FLOWING HEADS	4
K-FACTOR	4.9 (gpm/psi)
DRY CAPACITY	NA
TOTAL WATER REQUIRED	81.674 (gpm)
TOTAL PRESSURE REQUIRED	9.212 (psi)
BASE OF RISER	81.674 (gpm)
BASE OF RISER	104.727 (psi)
SAFETY MARGIN	9.222 (psi) [8.09%]

PUBLIC COURTYARD BELOW

1 Level 3 FP PLAN
3/32" = 1'-0"

SPRINKLERS LEGEND												
SY	S	E	Manufacturer	Sprinkler SIN	DESCRIPTION	THREAD SIZE	FINISH	Level	K-Factor	Response	Temperature Rating	COUNT
●	R		VIKING	VH468	RESIDENTIAL PENDANT SPRAY BELOW CEILING SPRINKLER	1/2"	WHITE	Level 3	4.9	Quick	155 °F	85
○	R		VIKING	VK300	EXPOSED UPRIGHT SPRINKLER	1/2"	BRASS	Level 3	5.6	Quick	155 °F	6
◀	R		VIKING	VK484	RESIDENTIAL HORIZONTAL SIDEWALL SPRINKLER	1/2"	WHITE	Level 3	4.2	Quick	155 °F	127

<p>STANDARD SYMBOLS</p> <ul style="list-style-type: none"> HYDRAULIC NODE POINT FIRE DEPT CONNECTION CPVC FP PIPE STEEL FP PIPING UNDERGROUND FP PIPING 	<p>STANDARD SYMBOLS</p> <ul style="list-style-type: none"> GLOBE UMC RISER BUTTERFLY VALVE CHECK VALVE 0.5 A-Y GATE VALVE BACKFLOW PREVENTER 	<p>STANDARD SPRINKLER SYMBOLS</p> <ul style="list-style-type: none"> RESIDENTIAL PENDENT EXTENDED COVERAGE PENDENT UPRIGHT SEMI RECESSED PENDENT CONCEALED PENDENT DRY PENDENT HORIZONTAL SIDEWALL VERTICAL SIDEWALL 	<p>PLAN REVIEW STAMP</p>	<p>REVISION</p>
--	---	--	--------------------------	-----------------

DESIGNED BY: Gerald W. Ebeling

3RD LEVEL FIRE SPRINKLER PLAN

FIRE DESIGN, LLC
GERALD W. EBELING, SET
NICET LEVEL IV # 105830

AHS STAMP: [Blank]

CONTRACT NAME: **The Grove Too**
1358 W Bay Rd,
Grand Cayman KY1-1000,
Cayman Islands

SCALE: 3/32" = 1'-0"

DESIGNED BY: Author

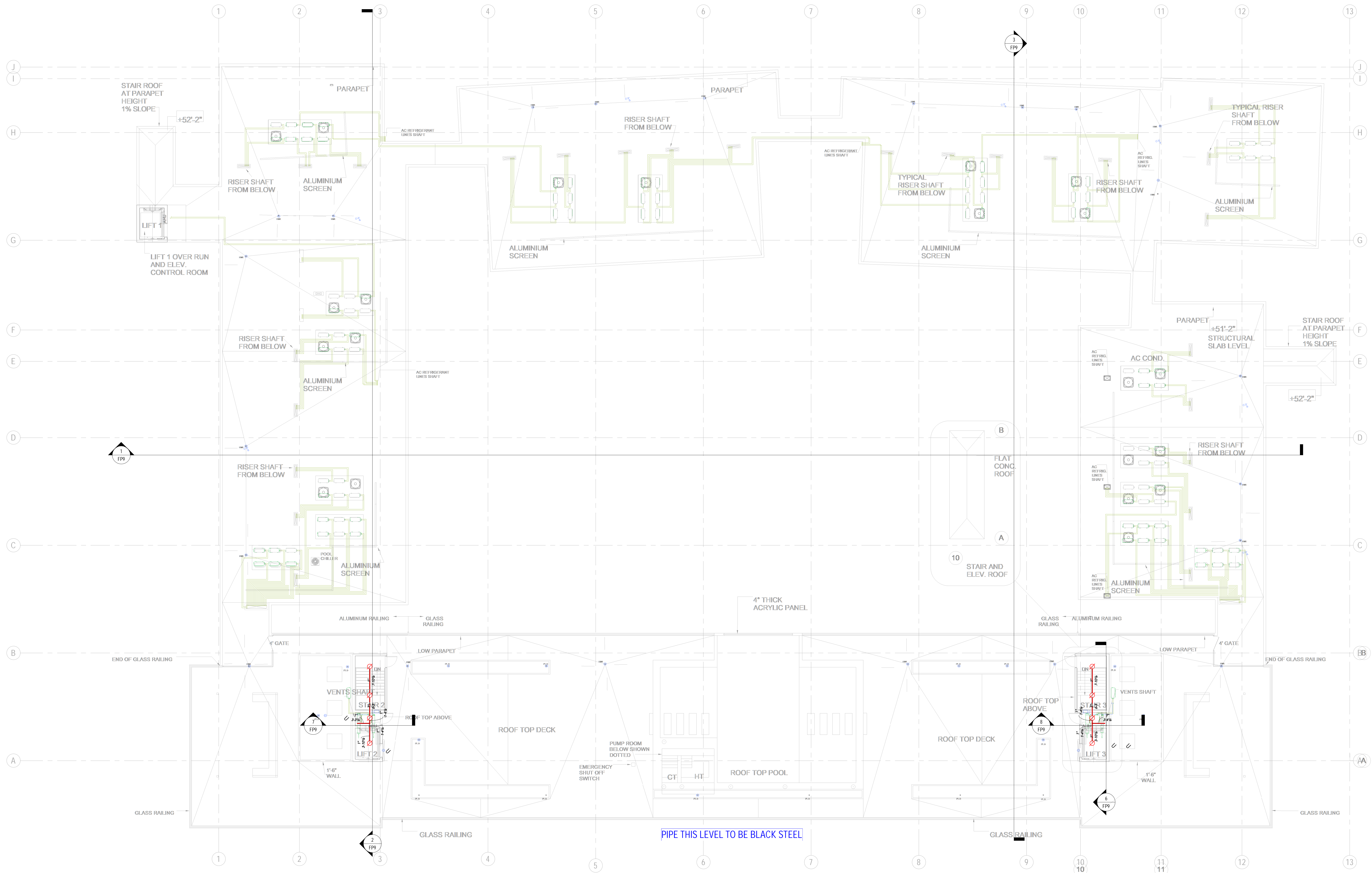
CHECKED BY: Checker

CONTRACT NO: TG2

DATE: 3:05:24 PM

DRAWING NO: **FP7**

C:\Users\Admin\Dropbox\3D FIRE PROJECTS\1 - Grand Cayman\THE GROVE TOO\FP7.rvt
Software: REVIT/MicroBIM Fire



1 ROOF LEVEL FP PLAN
3/32" = 1'-0"

SPRINKLERS LEGEND													
#	SY	IS	E	Manufacturer	Sprinkler SIN	DESCRIPTION	THREAD SIZE	FINISH	Level	K-Factor	Response	Temperature Rating	COUNT
1				Viking	WK300	EXPOSED UPRIGHT SPRINKLER	1/2"	BRASS	ROOF LEVEL	5.6	Quick	155° F	8
Grand total: 8													

<p>STANDARD SYMBOLS</p> <ul style="list-style-type: none"> HYDRAULIC NODE POINT FIRE DEPT CONNECTION CPVC FP PIPE STEEL FP PIPING UNDERGROUND FP PIPING 	<p>STANDARD SYMBOLS</p> <ul style="list-style-type: none"> GLOBE UMC RISER BUTTERFLY VALVE CHECK VALVE 0.5 A.Y. GATE VALVE BACKFLOW PREVENTER 	<p>STANDARD SPRINKLER SYMBOLS</p> <ul style="list-style-type: none"> RESIDENTIAL PENDENT EXTENDED COVERAGE PENDENT UPRIGHT SEMI RECESSED PENDENT CONCEALED PENDENT DRY PENDENT HORIZONTAL SIDEWALL VERTICAL SIDEWALL 	<p>PLAN REVIEW STAMP</p>	<p>REVISION</p> <table border="1"> <tr> <th>DESCRIPTION</th> <th>BY</th> </tr> <tr> <td> </td> <td> </td> </tr> </table>	DESCRIPTION	BY		
DESCRIPTION	BY							



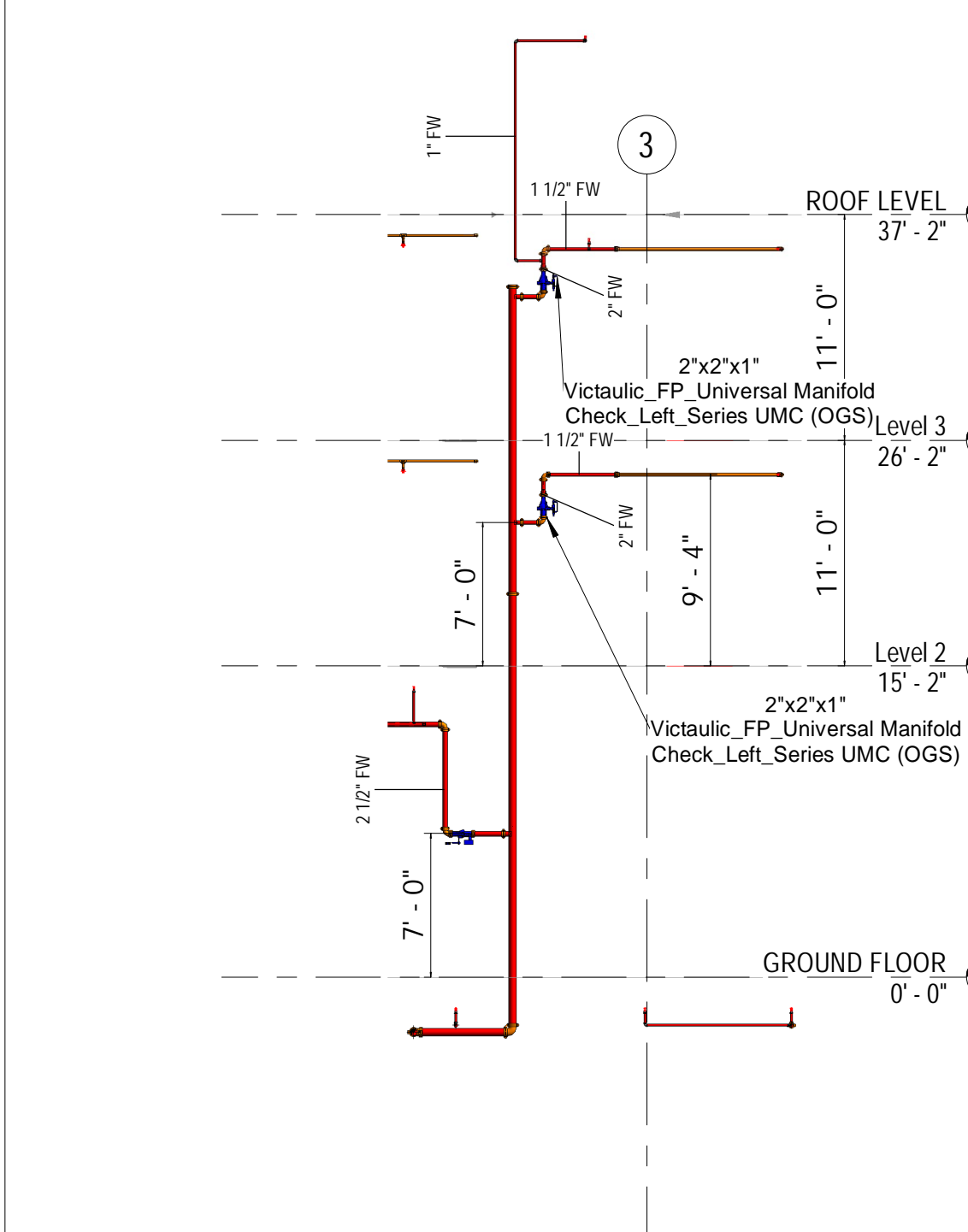
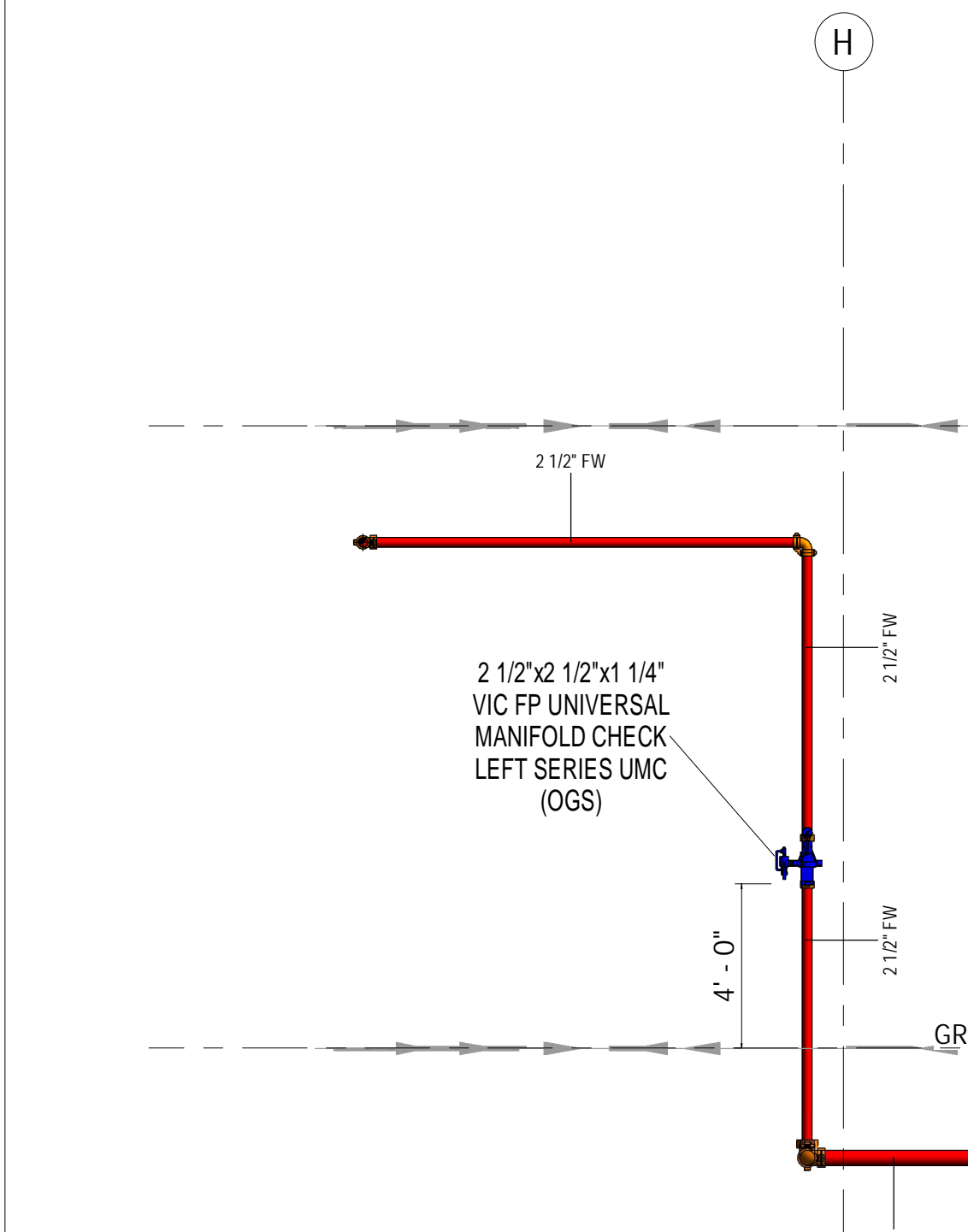
ROOF LEVEL FIRE SPRINKLER PLAN

CONTRACT NAME: **The Grove Too**
 1358 W Bay Rd,
 Grand Cayman KY1-1000,
 Cayman Islands
 P.O. BOX 11987
 GRAND CAYMAN, KY1-1010
 DATE: 3:07:05 PM
 DRAWING NO: **FP8**

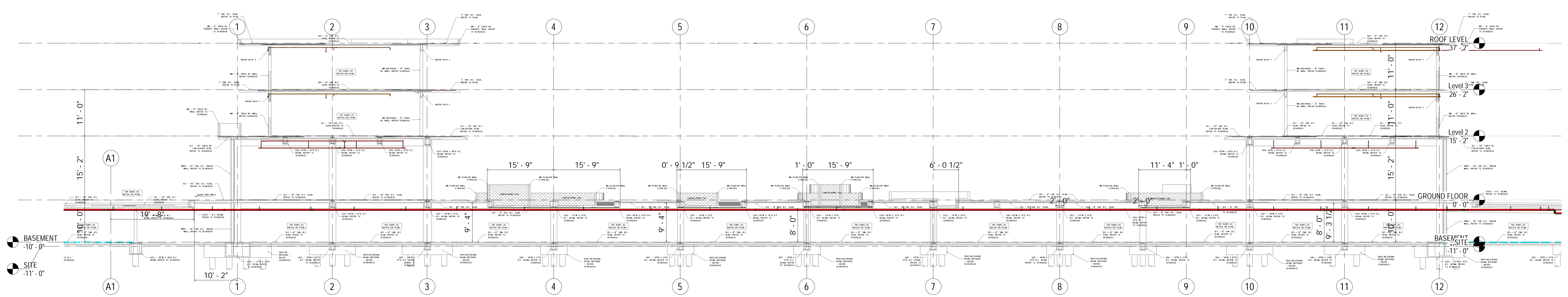
C:\Users\Admin\Dropbox\3D FIRE PROJECTS\1 - Grand Cayman\THE GROVE TOO\THE GROVE TOO FP.Plt
Software: REVIT/MicroBIM Fire

9 D1 RISER
1/8" = 1'-0"

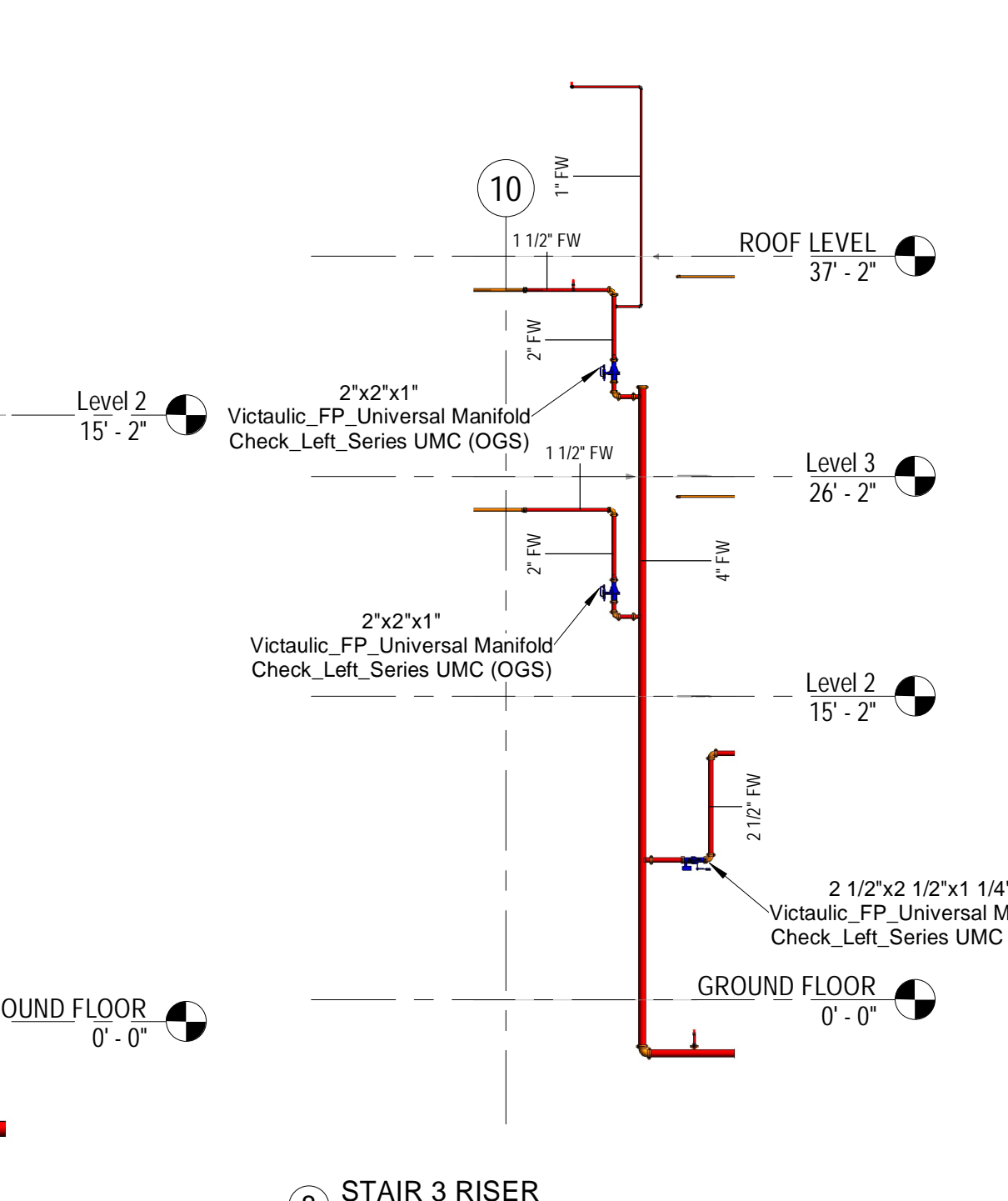
10 D2 RISER
1/8" = 1'-0"



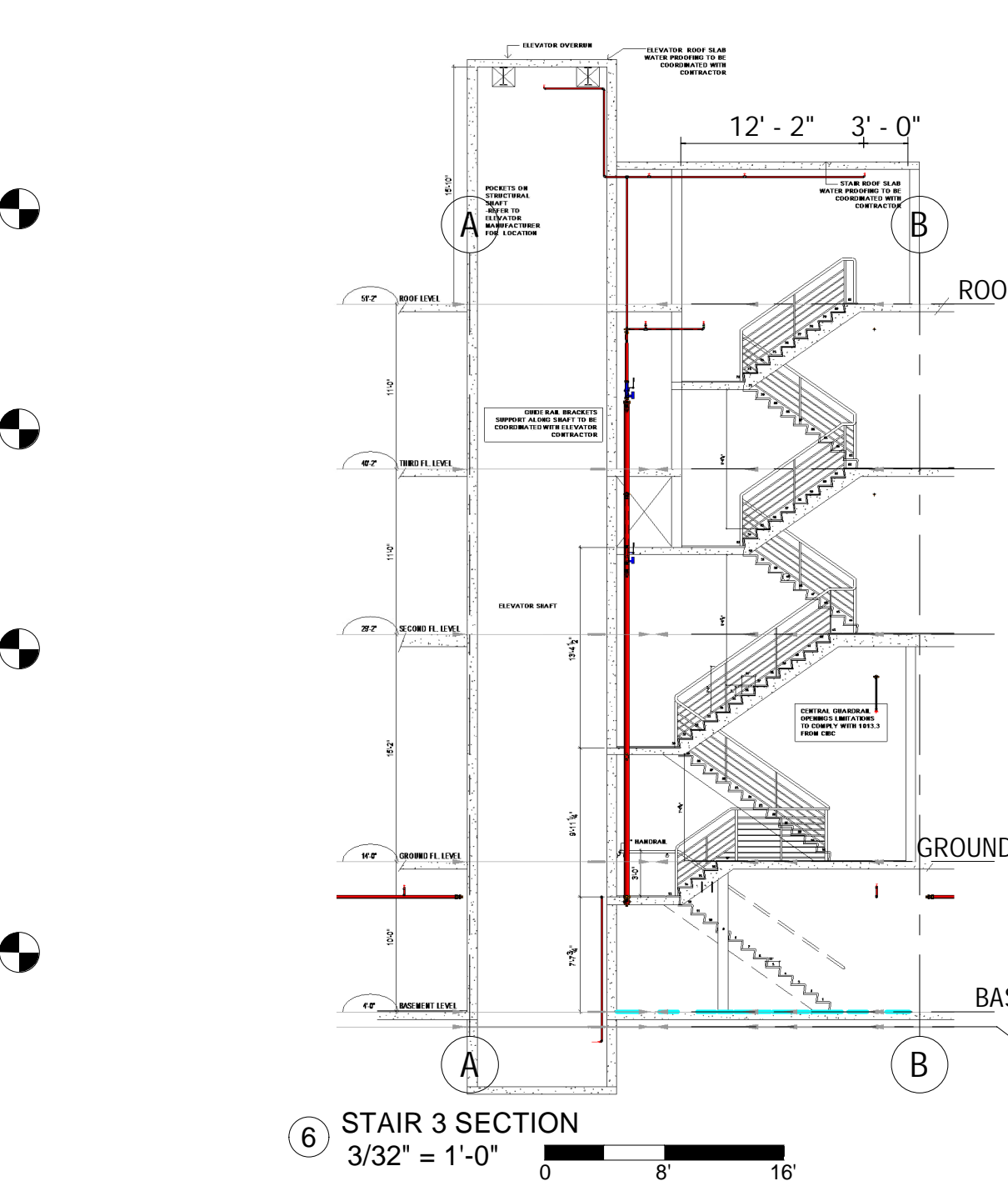
7 STAIR 2 RISER
1/8" = 1'-0"



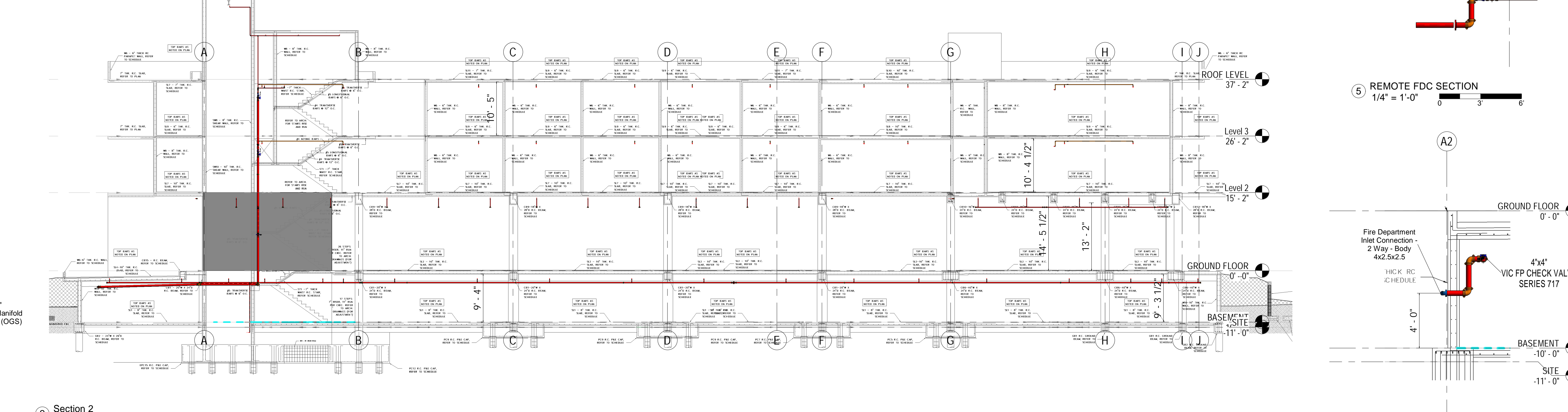
1 Section 1
3/32" = 1'-0"



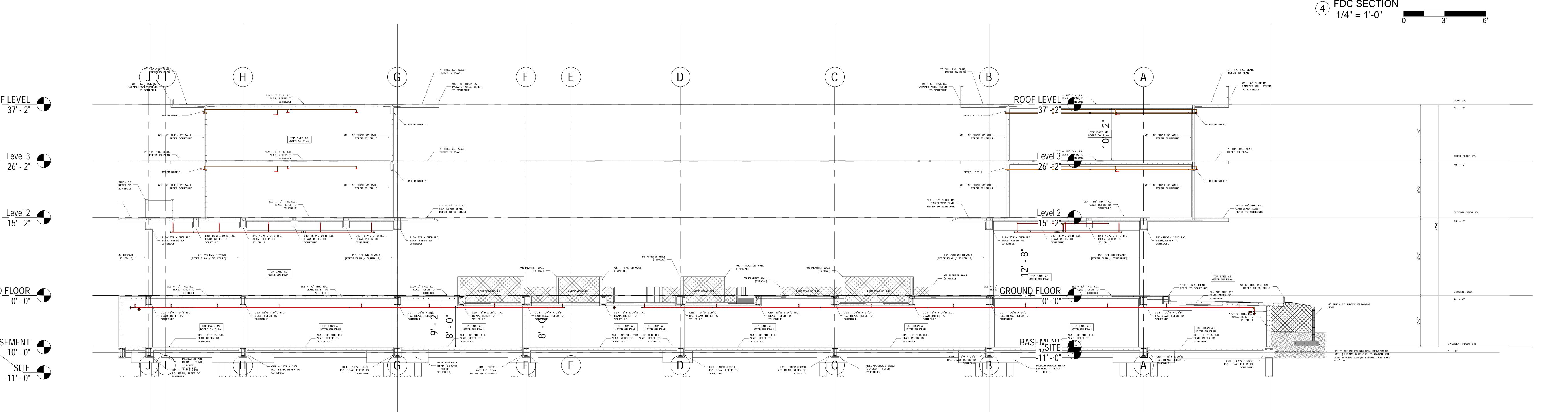
8 STAIR 3 RISER
1/8" = 1'-0"



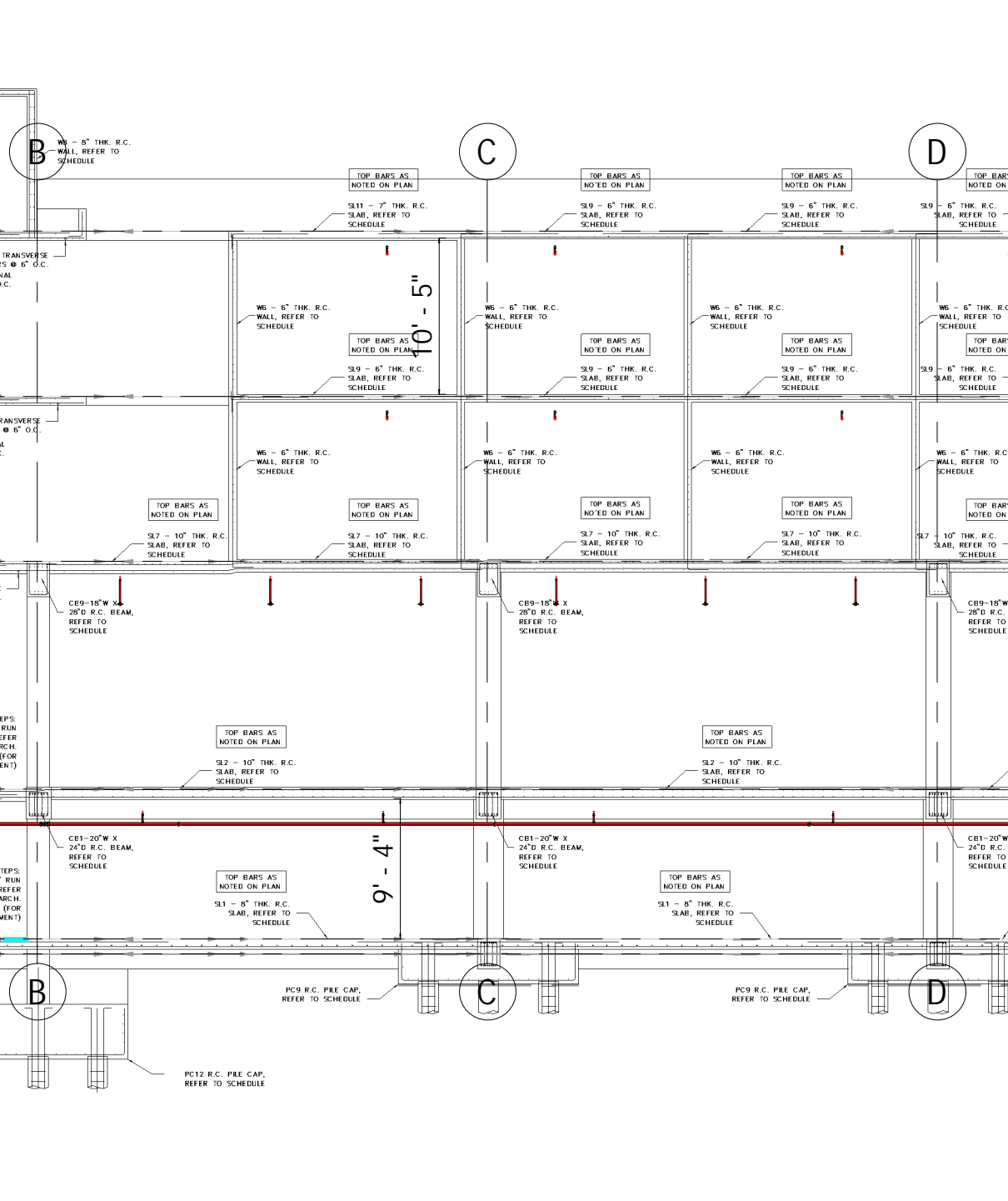
2 Section 2
3/32" = 1'-0"



3 Section 3
3/32" = 1'-0"



4 FDC SECTION
1/4" = 1'-0"



5 REMOTE FDC SECTION
1/4" = 1'-0"

STANDARD SYMBOLS	STANDARD SYMBOLS	STANDARD SPRINKLER SYMBOLS	PLAN REVIEW STAMP	REVISION
- HYDRAULIC NODE POINT	- GLOBE UMC RISER	- RESIDENTIAL PENDENT	[Stamp Area]	DESCRIPTION
- FIRE DEPT CONNECTION	- BUTTERFLY VALVE	- EXTENDED COVERAGE PENDENT		BY
- CPVC PIPE	- CHECK VALVE	- UPRIGHT		
- STEEL PIPE	- 0.5 A-Y GATE VALVE	- SEMI RECESSED PENDENT		
- UNDERGROUND PIPE	- BACKFLOW PREVENTER	- CONCEALED PENDENT		
		- DRY PENDENT		
		- HORIZONTAL SIDEWALL		
		- VERTICAL SIDEWALL		

DESIGNED BY:
Gerald W. Ebeling
NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGY
FIRE DESIGN, LLC
GERALD W. EBELING, SET
NICET LEVEL IV # 105930

SECTION PLANS

CONTRACT NAME:
The Grove Too
1358 W Bay Rd,
Grand Cayman KY1-1000,
Cayman Islands

SCALE:
As indicated

DESIGNED BY:
Author

CHECKED BY:
Checker

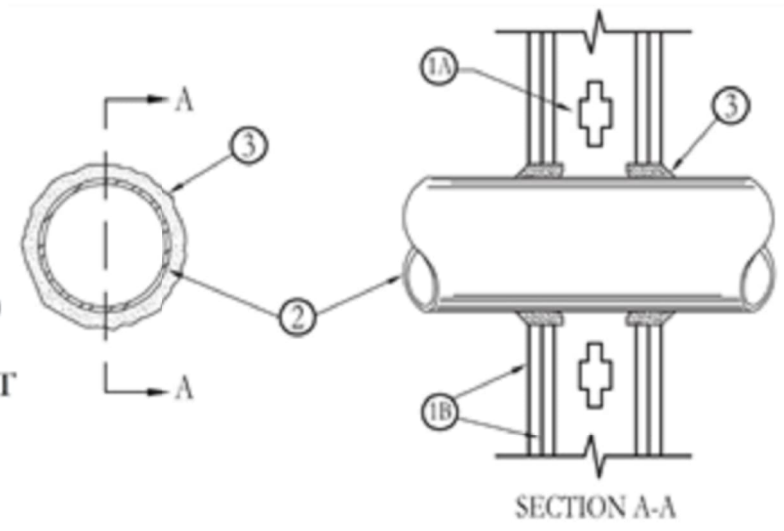
CONTRACT NO:
TG2

DATE:
3:11:40 PM

DRAWING NO:
FP9

C:\Users\Admin\Dropbox\FIRE PROJECTS\THE GROVE TOO\FP9.rvt

SYSTEM NO. W-L-1001
JUNE 15, 2005



F RATINGS - 1, 2, 3 AND 4 HR (SEE ITEMS 2 AND 3)
T RATINGS - 0, 1, 2, 3, AND 4 HR (SEE ITEM 3)
L RATING AT AMBIENT - LESS THAN 1 CFM/SQ FT
L RATING AT 400 F - LESS THAN 1 CFM/SQ FT

- WALL ASSEMBLY** - THE 1, 2, 3 OR 4 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - STUDS** - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 HR FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER SPACED 16 IN. (406 MM) OC WITH NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. (92 MM) DEEP CHANNELS SPACED MAX 24 IN. (610 MM) OC.
 - GYPSUM BOARD*** - NOM 1/2 OR 5/8 IN. (13 OR 16 MM) THICK, 4 FT. (122 CM) WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 26 IN. (660 MM).

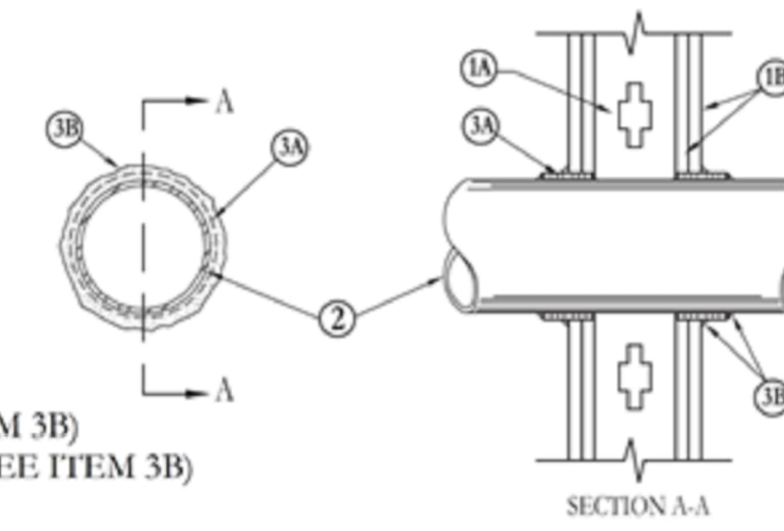
- THROUGH PENETRANT** - ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN OF 0 IN. (0 MM) (POINT CONTACT) TO MAX 2 IN. (51 MM). PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
 - STEEL PIPE** - NOM 24 IN. (610 MM) DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
 - IRON PIPE** - NOM 24 IN. (610 MM) DIAM (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 12 IN. (305 MM) DIAM (OR SMALLER) OR CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE.
 - CONDUIT** - NOM 6 IN. (152 MM) DIAM (OR SMALLER) STEEL CONDUIT OR NOM 4 IN. (102 MM) DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING.
 - COPPER TUBING** - NOM 6 IN. (152 MM) DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
 - COPPER PIPE** - NOM 6 IN. (152 MM) DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

SYSTEM NO. W-L-2003 CONTINUED

- F. CELLULAR CORE ACRYLONITRILE BUTADIENE STYRENE (CCABS) PIPE** - NOM 2 IN. (51 MM) DIAM (OR SMALLER) SCHEDULE 40 CELLULAR CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.
- FIRESTOP SYSTEM** - INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F AND T RATINGS FOR THE FIRESTOP SYSTEM ARE EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED. THE DETAILS OF THE FIRESTOP SYSTEM SHALL BE AS FOLLOWS.
 - FILL, VOID OR CAVITY MATERIALS* - WRAP STRIP** - NOM 1/4 IN. (6 MM) THICK INTUMESCENT ELASTOMERIC MATERIAL, FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN 2 IN. (51 MM) WIDE STRIPS, NOM 2 IN. (51 MM) WIDE STRIP TIGHTLY WRAPPED AROUND NONMETALLIC PIPE (FOIL SIDE OUT) WITH SEAM BUTTED. WRAP STRIP LAYER SECURELY BOUND WITH STEEL WIRE OR ALUMINUM FOIL TAPE AND SLID INTO ANNULAR SPACE APPROX 1-1/4 IN. (32 MM) SUCH THAT APPROX 3/4 IN. (19 MM) OF THE WRAP STRIP PROTRUDES FROM THE WALL SURFACE.
 - 3M COMPANY** - FS-195+
 - FILL, VOID OR CAVITY MATERIALS* - CAULK, SEALANT OR PUTTY** - MIN 5/8 IN. (16 MM) THICKNESS OF CAULK OR PUTTY APPLIED INTO ANNULAR SPACE BETWEEN WRAP STRIP AND PERIPHERY OF OPENING. A NOM 1/4 IN. (6 MM) DIAM BEAD OF CAULK OR PUTTY TO BE APPLIED TO THE WRAP STRIP/WALL INTERFACE AND TO THE EXPOSED EDGE OF THE WRAP STRIP LAYERS APPROX 3/4 IN. (19 MM) FROM THE WALL SURFACE.
 - 3M COMPANY** - CP 25WB+ CAULK OR MP+ STIX PUTTY, IC 15WB+ CAULK, FREDAM 150+ CAULK OR FB-3000 WT SEALANT. (NOTE: L RATINGS APPLY ONLY WHEN TYPE CP 25WB+ CAULK OR FB-3000 WT SEALANT IS USED. CP 25WB+ AND FREDAM 150+ NOT SUITABLE FOR USE WITH CPVC PIPES.)
 - FOIL TAPE** - (NOT SHOWN) - NOM 4 IN. (102 MM) WIDE, 3 MIL THICK ALUMINUM TAPE WRAPPED AROUND PIPE PRIOR TO THE INSTALLATION OF THE WRAP STRIP (ITEM 3A). MIN OF ONE WRAP, FLUSH WITH BOTH SIDES OF WALL AND PROCEEDING OUTWARD. TAPE IS NOT REQUIRED FOR PIPES SHOWN IN ITEMS 2A, 2B AND 2C.

*BEARING THE UL CLASSIFICATION MARK

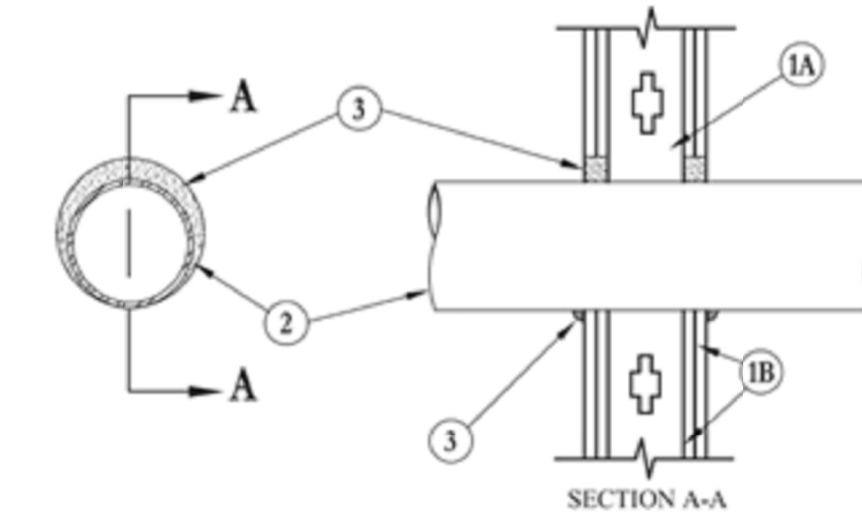
SYSTEM NO. W-L-2003
NOVEMBER 20, 2009



F RATINGS - 1 AND 2 HR (SEE ITEM 3)
T RATINGS - 1 AND 2 HR (SEE ITEM 3)
L RATING AT AMBIENT - 7 CFM/SQ FT (SEE ITEM 3B)
L RATING AT 400 F - LESS THAN 1 CFM/SQ FT (SEE ITEM 3B)

- WALL ASSEMBLY** - THE 1 OR 2 HR FIRE-RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300, U400 OR V400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - STUDS** - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER SPACED 16 IN. (406 MM) OC WITH NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. (92 MM) WIDE BY 1-3/8 IN. (35 MM) DEEP CHANNELS SPACED MAX 24 IN. (610 MM) OC.
 - GYPSUM BOARD*** - 5/8 IN. (16 MM) THICK, 4 FT (122 CM) WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300, U400 OR V400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 3-1/8 IN. (79 MM).
- THROUGH PENETRANTS** - ONE NONMETALLIC PIPE OR CONDUIT TO BE CENTERED IN THE THROUGH OPENING. THE ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND PERIPHERY OF OPENING SHALL BE MIN 1/4 IN. (6 MM) AND MAX 3/8 IN. (10 MM). PIPE OR CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF THE FLOOR-CEILING ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF NONMETALLIC PIPES OR CONDUITS MAY BE USED:
 - POLYVINYL CHLORIDE (PVC) PIPE** - NOM 2 IN. (51 MM) DIAM (OR SMALLER) SCHEDULE 40 SOLID CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEM.
 - RIGID NONMETALLIC CONDUIT++** - NOM 2 IN. (51 MM) DIAM (OR SMALLER) (SCHEDULE 40 OR 80) PVC CONDUIT INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NFPA NO. 70).
 - CHLORINATED POLYVINYL CHLORIDE (CPVC) PIPE** - NOM 2 IN. (51 MM) DIAM (OR SMALLER) SDR13.5 CPVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) PIPING SYSTEMS.
 - CELLULAR CORE POLYVINYL CHLORIDE (CCPVC) PIPE** - NOM 2 IN. (51 MM) DIAM (OR SMALLER) SCHEDULE 40 CELLULAR CORE PVC PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEM.
 - ACRYLONITRILE BUTADIENE STYRENE (ABS) PIPE** - NOM 2 IN. (51 MM) DIAM (OR SMALLER) SCHEDULE 40 SOLID CORE ABS PIPE FOR USE IN CLOSED (PROCESS OR SUPPLY) OR VENTED (DRAIN, WASTE OR VENT) PIPING SYSTEMS.

SYSTEM NO. W-L-1080
NOVEMBER 22, 1994



F RATING - 2 HR
T RATINGS - 0 AND 3/4 HR (SEE ITEM 2)

- WALL ASSEMBLY** - THE 2 HR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - STUDS** - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC WITH NOM 2 BY 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE CHANNELS SPACED MAX 24 IN. OC.
 - GYPSUM BOARD*** - TWO LAYERS OF NOM 5/8 IN. THICK GYPSUM WALLBOARD AS SPECIFIED IN THE INDIVIDUAL U300 AND U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 5-1/4 IN. DIAM OF CIRCULAR OPENING CUT THROUGH BOTH LAYERS OF GYPSUM WALLBOARD ON EACH SIDE OF WALL ASSEMBLY TO BE MIN 3/4 IN. TO MAX 1-1/2 IN. LARGER THAN OUTSIDE DIAM OF PIPE, CONDUIT OR TUBE. SIDE EDGE OF THROUGH OPENING TO BE MIN 3 IN. FROM NEAREST STUD IN WALL CAVITY.

- PIPE OR CONDUIT** - NOM 4 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE, NOM 4 IN. DIAM (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 4 IN. DIAM (OR SMALLER) CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE, NOM 4 IN. DIAM (OR SMALLER) STEEL CONDUIT, NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR NOM 2 IN. DIAM TYPE L (OR HEAVIER) COPPER TUBING. WHEN STEEL OR IRON PIPE, CONDUIT OR TUBE IS USED, T RATING OF FIRESTOP SYSTEM (ITEM 3) IS 3/4 HR. WHEN COPPER TUBING IS USED, T RATING OF FIRESTOP SYSTEM (ITEM 3) IS 0 HR. A MAX OF ONE PIPE, CONDUIT OR TUBE IS PERMITTED IN THE FIRESTOP SYSTEM. MAX ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBE AND EDGE OF OPENING IS 3/4 IN. MIN ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBE AND EDGE OF OPENING IS ZERO IN. (POINT CONTACT). PIPE, CONDUIT OR TUBE TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

- FILL, VOID OR CAVITY MATERIAL* - PUTTY** - PUTTY FILL MATERIAL INSTALLED TO FILL ANNULAR SPACE THROUGHOUT THICKNESS OF GYPSUM WALLBOARD LAYERS ON EACH SIDE OF WALL ASSEMBLY. A MIN 1/4 IN. DIAM BEAD OF PUTTY IS TO BE APPLIED TO THE WALL SURFACE WHERE THE PIPE, CONDUIT OR TUBE IS INSTALLED IN POINT CONTACT WITH THE EDGE OF THE THROUGH OPENING. PUTTY INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY.
 - 3M COMPANY** - MP+ STIX

*BEARING THE UL CLASSIFICATION MARKING

SYSTEM NO. F-C-1002 CONTINUED

- GYPSUM BOARD*** - THICKNESS, TYPE, NUMBER OF LAYERS AND FASTENERS SHALL BE AS SPECIFIED IN INDIVIDUAL WALL AND PARTITION DESIGN.
- THROUGH PENETRANTS** - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN 0 IN. (POINT CONTACT) TO MAX 1 IN. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPE, CONDUIT OR TUBING MAY BE USED:
 - STEEL PIPE** - NOM 10 IN. DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL PIPE.
 - IRON PIPE** - NOM 10 IN. DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.
 - CONDUIT** - NOM 6 IN. DIAM (OR SMALLER) STEEL CONDUIT, OR NOM 4 IN. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING.
 - COPPER TUBING** - NOM 4 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
 - COPPER PIPE** - NOM 4 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.
- FILL, VOID OR CAVITY MATERIAL* - CAULK OR SEALANT** - MIN 3/4 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR SOLE PLATE. MIN 5/8 IN. OR 1-1/4 IN. THICKNESS OF FILL MATERIAL, FOR 1 AND 2 HR RATED ASSEMBLIES, RESPECTIVELY, APPLIED WITHIN THE ANNULUS, FLUSH WITH BOTTOM SURFACE OF CEILING OR TOP PLATE. AN ADDITIONAL MIN 1/4 IN. CROWN OF FILL MATERIAL APPLIED TO PERIMETER OF PENETRANT AT ITS EGRESS FROM THE TOP OF FLOORING AND UNDERSIDE OF CEILING OR FROM TOP OF SOLE PLATE AND UNDERSIDE OF TOP PLATE.
 - 3M COMPANY** - CP 25WB+ CAULK OR FB-3000 WT SEALANT.

*BEARING THE UL CLASSIFICATION MARK

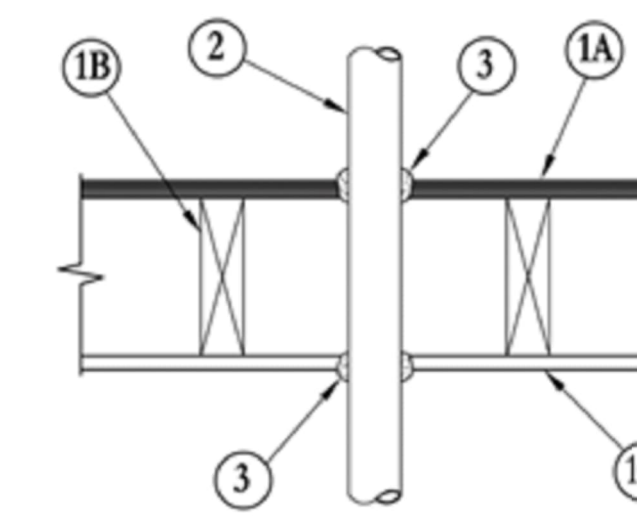
SYSTEM NO. W-L-1001 CONTINUED

- THROUGH PENETRATING PRODUCT* - FLEXIBLE METAL PIPING** - THE FOLLOWING TYPES OF STEEL FLEXIBLE METAL GAS PIPING MAY BE USED:
 - NOM 2 IN. (51 MM) DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.
 - OMEGA FLEX INC**
 - NOM 1 IN. (25 MM) DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.
 - TITIFLEX CORP A BUNDY CO**
 - NOM 1 IN. (25 MM) DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.
 - WARD MFG INC**
- FILL, VOID OR CAVITY MATERIAL* - CAULK OR SEALANT** - MIN 5/8, 1-1/4, 1-7/8 AND 2-1/2 IN. (16, 32, 48 AND 64 MM) THICKNESS OF CAULK FOR 1, 2, 3 AND 4 HR RATED ASSEMBLIES, RESPECTIVELY, APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. MIN 1/4 IN. (6 MM) DIAM BEAD OF CAULK APPLIED TO GYPSUM BOARD/PENETRANT INTERFACE AT POINT CONTACT LOCATION ON BOTH SIDES OF WALL. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

MAX PIPE OR CONDUIT DIAM IN. (MM)	F RATING HR	T RATING HR
1 (25)	1 OR 2	0+, 1 OR 2
1 (25)	3 OR 4	3 OR 4
4 (102)	1 OR 2	0
6 (152)	3 OR 4	0
12 (305)	1 OR 2	0

+WHEN COPPER PIPE IS USED, T RATING IS 0 HR.
3M COMPANY - CP 25WB+ CAULK OR FB-3000 WT SEALANT,
*BEARING THE UL CLASSIFICATION MARKING

SYSTEM NO. F-C-1002
SEPTEMBER 03, 2004
(FORMERLY SYSTEM NO. 169)

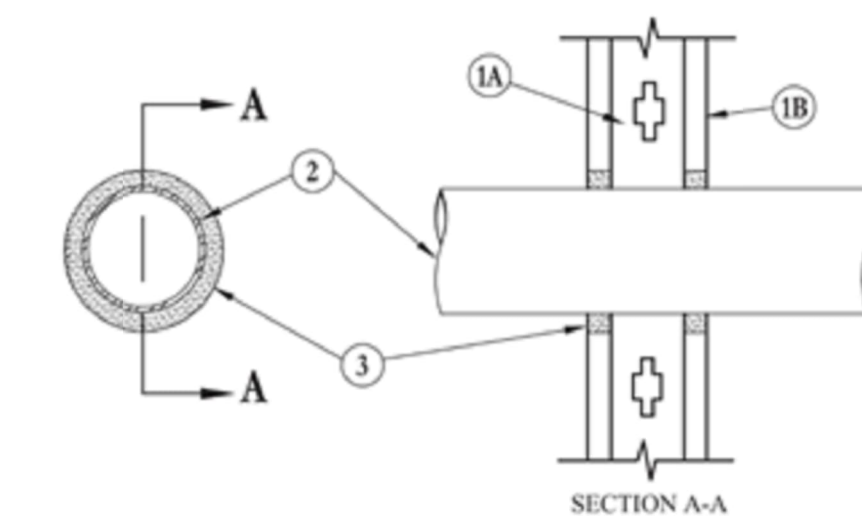


F RATINGS - 1 AND 2 HR (SEE ITEM 1)
T RATING - 1 HR

- FLOOR-CEILING ASSEMBLY** - THE 1 OR 2 HR FIRE-RATED WOOD JOIST FLOOR-CEILING ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE UL FIRE RESISTANCE DIRECTORY. THE 1 HR FIRE RATED ASSEMBLY SHALL BE CONSTRUCTED AS SPECIFIED IN DESIGN NO. L501, L512 OR L537. THE 2 HR FIRE RATED ASSEMBLY SHALL BE CONSTRUCTED AS SPECIFIED IN DESIGN NO. L505, L511 OR L536. **THE F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE FIRE RATING OF THE FLOOR-CEILING ASSEMBLY.** THE GENERAL CONSTRUCTION DETAILS OF THE FLOOR-CEILING ASSEMBLY ARE SUMMARIZED BELOW:
 - FLOORING SYSTEM** - LUMBER OR PLYWOOD SUBFLOOR WITH FINISH FLOOR OF LUMBER, PLYWOOD OR FLOOR TOPPING MIXTURE* AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. MAX DIAM OF OPENING IS 1 IN. LARGER THAN OUTSIDE DIAM OF PENETRANT.
 - WOOD JOISTS** - NOM 2 BY 10 IN. LUMBER JOISTS SPACED 16 IN. O.C. WITH NOM 1 BY 3 IN. LUMBER BRIDGING AND WITH ENDS FIRSTOPPED.
 - FURRING CHANNELS** (NOT SHOWN) - RESILIENT GALV. STEEL FURRING CHANNELS INSTALLED PERPENDICULAR TO WOOD JOISTS BETWEEN FIRST AND SECOND LAYERS OF WALLBOARD (ITEM 1D) IN 2 HR FIRE RATED ASSEMBLY. FURRING CHANNELS SPACED MAX 24 IN. O.C.
 - GYPSUM BOARD*** - NOM 4 FT WIDE BY 5/8 IN. THICK AS SPECIFIED IN THE INDIVIDUAL FLOOR-CEILING DESIGN. FIRST LAYER OF WALLBOARD NAILED TO WOOD JOISTS. SECOND LAYER OF WALLBOARD (2 HR FIRE RATED ASSEMBLY ONLY) SCREW-ATTACHED TO FURRING CHANNELS. MAX DIAM OF OPENING IS 1 IN. LARGER THAN OUTSIDE DIAM OF PENETRANT.

- CHASE WALL (OPTIONAL, NOT SHOWN)** - THE THROUGH PENETRANTS (ITEM NO. 2) MAY BE ROUTED THROUGH A FIRE-RATED SINGLE, DOUBLE OR STAGGERED WOOD STUD/GYPSUM WALLBOARD CHASE WALL HAVING A FIRE RATING CONSISTENT WITH THAT OF THE FLOOR-CEILING ASSEMBLY. THE CHASE WALL SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - STUDS** - NOM 2 BY 6 IN. OR DOUBLE NOM 2 BY 4 IN. LUMBER STUDS.
 - SOLE PLATE** - NOM 2 BY 6 IN. OR PARALLEL 2 BY 4 IN. LUMBER PLATES, TIGHTLY BUTTED.
 - TOP PLATE** - THE DOUBLE TOP PLATE SHALL CONSIST OF TWO NOM 2 BY 6 IN. OR TWO SETS OF PARALLEL 2 BY 4 IN. LUMBER PLATES, TIGHTLY BUTTED. MAX DIAM OF OPENING IS 5 IN..

SYSTEM NO. W-L-1084
JULY 29, 1995



F RATING - 1 HR
T RATING - 0 HR

- WALL ASSEMBLY** - THE FIRE RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - STUDS** - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE AND SPACED MAX 24 IN. OC.
 - GYPSUM BOARD*** - NOM 5/8 IN. THICK GYPSUM WALLBOARD, AS SPECIFIED IN THE INDIVIDUAL WALL AND PARTITION DESIGN. DIAM OF OPENING IS 1-1/2 IN. LARGER THAN THE OUTSIDE DIAM OF PIPE.

- THROUGH PENETRANT** - ONE METALLIC PIPE, CONDUIT OR TUBING TO BE CENTERED WITHIN THE FIRESTOP SYSTEM. AN ANNULAR SPACE OF 3/4 IN. IS REQUIRED WITHIN THE FIRESTOP SYSTEM. PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
 - STEEL PIPE** - NOM 12 IN. DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.
 - CONDUIT** - NOM 6 IN. DIAM (OR SMALLER) ELECTRICAL METALLIC TUBING OR STEEL CONDUIT.
 - COPPER TUBING** - NOM 6 IN. DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
 - COPPER PIPE** - NOM 6 IN. DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

- FILL, VOID OR CAVITY MATERIAL* - SEALANT** - MIN 5/8 IN. THICKNESS OF FILL MATERIAL APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL ASSEMBLY.
 - 3M COMPANY** - FB-2000+

*BEARING THE UL CLASSIFICATION MARKING

*BEARING THE UL CLASSIFICATION MARK

STANDARD SYMBOLS	STANDARD SYMBOLS	STANDARD SPRINKLER SYMBOLS	PLAN REVIEW STAMP	REVISION
<ul style="list-style-type: none"> (#) - HYDRAULIC NODE POINT - FIRE DEPT CONNECTION CPVC FP PIPE STEEL FP PIPING UNDERGROUND FP PIPING 	<ul style="list-style-type: none"> GLOBE UMC RISER BUTTERFLY VALVE CHECK VALVE O.S.A.V. GATE VALVE BACKFLOW PREVENTER 	<ul style="list-style-type: none"> RESIDENTIAL PENDENT EXTENDED COVERAGE PENDENT UPRIGHT SEMI RECESSED PENDENT CONCEALED PENDENT DRY PENDENT HORIZONTAL SIDEWALL VERTICAL SIDEWALL 		DESCRIPTION BY



RATED PENETRATIONS

AHJ STAMP:	CONTRACT NAME: The Grove Too 1358 W Bay Rd, Grand Cayman KY1-1000, Cayman Islands	SCALE:
DESIGNED BY: Gerald W. Ebeling	DESIGNED BY: Author	CONTRACT NO: TG2
CHECKED BY:	CHECKED BY: Checker	DATE: 3:11:44 PM
DRAWING NO: FP10		

TOLBrace™ Seismic Bracing Calculations V8.8.124

Project Address: THE GROVE TOO
1358 W BAY RD
GRAND CAYMAN, KY1-1000

Contractor: 3D FIRE DESIGN, LLC
Address: 16012 VALLEY VIEW FORNEY, TX 75126
Phone: 972-213-3210
Licence: 105930

Job # _____ Calculations based on 2019 NFPA Pamphlet #13

Brace Information		TOLCO™ Brace Components	
Maximum Brace Length	7' 0" (2.134 m)	TOLCO™ Component	Listed Load
Diameter of Brace	1"	Fig. 1001 Clamp	2000 lbs (907 kg)
Type of Brace	Sch.40	Fig.980 - 3/8" Universal Swive	1600 lbs (726 kg)
Angle of Brace	45° Min.	See Fastener Information	1414 lbs (641 kg)
Least Rad. of Gyration	0.42" (11 mm)	*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.	
L/R Value	200	Seismic Brace Assembly Detail	
Max Horizontal Load	1310 lbs (594 kg)		
Fastener Information			
Orientation to Connecting Surface NFPA Type B			
Fastener			
Type	DeWalt Power-Stud+ SD2 3/8in. x		
Diameter	3/8in.		
Length	2 3/8in.		
Maximum Load	323 lbs (147 kg)		
Brace Identification on Plans 4" WAY			
Prying Factor	1.29	Brace Type	Lateral [] Longitudinal [] 4-Way [X]

Sprinkler System Load Calculation (Fpw = CpWp)					
Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
4" (100 mm)	Sch. 10	15 ft (4.6 m)	15 ft (4.6 m)	11.78 lb/ft (17.53 kg/m)	177 lbs (80 kg)
Subtotal Weight: 177 lbs (80 kg)					
Wp (incl. 15%): 204 lbs (92 kg)					
Total (Fpw): 85 lbs (39 kg)					
Main Size	Type/Sch.	Spacing (ft)	Maximum Fpw per 18.5.5.2 (if applicable): N/A		

TOLBrace™ Seismic Bracing Calculations V8.8.124

Project Address: THE GROVE TOO
1358 W BAY RD
GRAND CAYMAN, KY1-1000

Contractor: 3D FIRE DESIGN, LLC
Address: 16012 VALLEY VIEW FORNEY, TX 75126
Phone: 972-213-3210
Licence: 105930

Job # _____ Calculations based on 2019 NFPA Pamphlet #13

Brace Information		TOLCO™ Brace Components	
Maximum Brace Length	7' 0" (2.134 m)	TOLCO™ Component	Listed Load
Diameter of Brace	1"	Fig. 3000 Clamp	700 lbs (318 kg)
Type of Brace	Sch.40	Fig.980 - 3/8" Universal Swive	1600 lbs (726 kg)
Angle of Brace	45° Min.	See Fastener Information	1131 lbs (513 kg)
Least Rad. of Gyration	0.42" (11 mm)	*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.	
L/R Value	200	Seismic Brace Assembly Detail	
Max Horizontal Load	1310 lbs (594 kg)		
Fastener Information			
Orientation to Connecting Surface NFPA Type B			
Fastener			
Type	DeWalt Power-Stud+ SD2 3/8in. x		
Diameter	3/8in.		
Length	2 3/8in.		
Maximum Load	323 lbs (147 kg)		
Brace Identification on Plans CPVC			
Prying Factor	1.29	Brace Type	Lateral [X] Longitudinal [] 4-Way []

Sprinkler System Load Calculation (Fpw = CpWp)					
Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
1.5" (40 mm)	CPVC	40 ft (12.2 m)	40 ft (12.2 m)	1.41666 lb/ft (2.11 kg/m)	57 lbs (26 kg)
Subtotal Weight: 57 lbs (26 kg)					
Wp (incl. 15%): 66 lbs (30 kg)					
Total (Fpw): 28 lbs (12 kg)					
Main Size	Type/Sch.	Spacing (ft)	Maximum Fpw per 18.5.5.2 (if applicable): 39 lb (17 kg)		

TOLBrace™ Seismic Bracing Calculations V8.8.124

Project Address: THE GROVE TOO
1358 W BAY RD
GRAND CAYMAN, KY1-1000

Contractor: 3D FIRE DESIGN, LLC
Address: 16012 VALLEY VIEW FORNEY, TX 75126
Phone: 972-213-3210
Licence: 105930

Job # _____ Calculations based on 2019 NFPA Pamphlet #13

Brace Information		TOLCO™ Brace Components	
Maximum Brace Length	7' 0" (2.134 m)	TOLCO™ Component	Listed Load
Diameter of Brace	1"	Fig. 4L Clamp	2000 lbs (907 kg)
Type of Brace	Sch.40	Fig.980 - 1/2" Universal Swive	2100 lbs (953 kg)
Angle of Brace	45° Min.	See Fastener Information	1485 lbs (674 kg)
Least Rad. of Gyration	0.42" (11 mm)	*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.	
L/R Value	200	Seismic Brace Assembly Detail	
Max Horizontal Load	1310 lbs (594 kg)		
Fastener Information			
Orientation to Connecting Surface NFPA Type B			
Fastener			
Type	DeWalt Power-Stud+ SD2 1/2in. x		
Diameter	1/2in.		
Length	3 3/4in.		
Maximum Load	645 lbs (293 kg)		
Brace Identification on Plans 4" LONG			
Prying Factor	1.29	Brace Type	Lateral [] Longitudinal [X] 4-Way []

Sprinkler System Load Calculation (Fpw = CpWp)					
Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
4" (100 mm)	Sch. 10	80 ft (24.4 m)	80 ft (24.4 m)	11.78 lb/ft (17.53 kg/m)	942 lbs (427 kg)
Subtotal Weight: 942 lbs (427 kg)					
Wp (incl. 15%): 1083 lbs (491 kg)					
Total (Fpw): 455 lbs (206 kg)					
Main Size	Type/Sch.	Spacing (ft)	Maximum Fpw per 18.5.5.2 (if applicable): N/A		

TOLBrace™ Seismic Bracing Calculations V8.8.124

Project Address: THE GROVE TOO
1358 W BAY RD
GRAND CAYMAN, KY1-1000

Contractor: 3D FIRE DESIGN, LLC
Address: 16012 VALLEY VIEW FORNEY, TX 75126
Phone: 972-213-3210
Licence: 105930

Job # _____ Calculations based on 2019 NFPA Pamphlet #13

Brace Information		TOLCO™ Brace Components	
Maximum Brace Length	7' 0" (2.134 m)	TOLCO™ Component	Listed Load
Diameter of Brace	1"	Fig. 1001 Clamp	2000 lbs (907 kg)
Type of Brace	Sch.40	Fig.980 - 1/2" Universal Swive	2100 lbs (953 kg)
Angle of Brace	45° Min.	See Fastener Information	1485 lbs (674 kg)
Least Rad. of Gyration	0.42" (11 mm)	*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.	
L/R Value	200	Seismic Brace Assembly Detail	
Max Horizontal Load	1310 lbs (594 kg)		
Fastener Information			
Orientation to Connecting Surface NFPA Type B			
Fastener			
Type	DeWalt Power-Stud+ SD2 1/2in. x		
Diameter	1/2in.		
Length	3 3/4in.		
Maximum Load	645 lbs (293 kg)		
Brace Identification on Plans 4" LAT			
Prying Factor	1.29	Brace Type	Lateral [X] Longitudinal [] 4-Way []

Sprinkler System Load Calculation (Fpw = CpWp)					
Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
4" (100 mm)	Sch. 10	20 ft (6.1 m)	20 ft (6.1 m)	11.78 lb/ft (17.53 kg/m)	236 lbs (107 kg)
2" (50 mm)	Sch. 10	239 ft (72.8 m)	239 ft (72.8 m)	4.22 lb/ft (6.28 kg/m)	1009 lbs (458 kg)
1" (25 mm)	Sch. 40	9 ft (2.7 m)	9 ft (2.7 m)	2.05 lb/ft (3.05 kg/m)	18 lbs (8 kg)
Subtotal Weight: 1263 lbs (573 kg)					
Wp (incl. 15%): 1452 lbs (659 kg)					
Total (Fpw): 610 lbs (277 kg)					
Main Size	Type/Sch.	Spacing (ft)	Maximum Fpw per 18.5.5.2 (if applicable): 1635 lb (741 kg)		

TOLBrace™ Seismic Bracing Calculations V8.8.124

Project Address: THE GROVE TOO
1358 W BAY RD
GRAND CAYMAN, KY1-1000

Contractor: 3D FIRE DESIGN, LLC
Address: 16012 VALLEY VIEW FORNEY, TX 75126
Phone: 972-213-3210
Licence: 105930

Job # _____ Calculations based on 2019 NFPA Pamphlet #13

Brace Information		TOLCO™ Brace Components	
Maximum Brace Length	7' 0" (2.134 m)	TOLCO™ Component	Listed Load
Diameter of Brace	1"	Fig. 1001 Clamp	2000 lbs (907 kg)
Type of Brace	Sch.40	Fig.980 - 3/8" Universal Swive	1600 lbs (726 kg)
Angle of Brace	45° Min.	See Fastener Information	1414 lbs (641 kg)
Least Rad. of Gyration	0.42" (11 mm)	*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.	
L/R Value	200	Seismic Brace Assembly Detail	
Max Horizontal Load	1310 lbs (594 kg)		
Fastener Information			
Orientation to Connecting Surface NFPA Type B			
Fastener			
Type	DeWalt Power-Stud+ SD2 3/8in. x		
Diameter	3/8in.		
Length	2 3/8in.		
Maximum Load	323 lbs (147 kg)		
Brace Identification on Plans 4" LAT MAIN ONLY			
Prying Factor	1.29	Brace Type	Lateral [X] Longitudinal [] 4-Way []

Sprinkler System Load Calculation (Fpw = CpWp)					
Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
4" (100 mm)	Sch. 10	40 ft (12.2 m)	40 ft (12.2 m)	11.78 lb/ft (17.53 kg/m)	471 lbs (214 kg)
Subtotal Weight: 471 lbs (214 kg)					
Wp (incl. 15%): 542 lbs (246 kg)					
Total (Fpw): 227 lbs (103 kg)					
Main Size	Type/Sch.	Spacing (ft)	Maximum Fpw per 18.5.5.2 (if applicable): 769 lb (348 kg)		

TOLBrace™ Seismic Bracing Calculations V8.8.124

Project Address: THE GROVE TOO
1358 W BAY RD
GRAND CAYMAN, KY1-1000

Contractor: 3D FIRE DESIGN, LLC
Address: 16012 VALLEY VIEW FORNEY, TX 75126
Phone: 972-213-3210
Licence: 105930

Job # _____ Calculations based on 2019 NFPA Pamphlet #13

Brace Information		TOLCO™ Brace Components	
Maximum Brace Length	7' 0" (2.134 m)	TOLCO™ Component	Listed Load
Diameter of Brace	1"	Fig. 4L Clamp	2000 lbs (907 kg)
Type of Brace	Sch.40	Fig.980 - 3/8" Universal Swive	1600 lbs (726 kg)
Angle of Brace	45° Min.	See Fastener Information	1414 lbs (641 kg)
Least Rad. of Gyration	0.42" (11 mm)	*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.	
L/R Value	200	Seismic Brace Assembly Detail	
Max Horizontal Load	1310 lbs (594 kg)		
Fastener Information			
Orientation to Connecting Surface NFPA Type B			
Fastener			
Type	DeWalt Power-Stud+ SD2 3/8in. x		
Diameter	3/8in.		
Length	2 3/8in.		
Maximum Load	323 lbs (147 kg)		
Brace Identification on Plans 2.5" LONG			
Prying Factor	1.29	Brace Type	Lateral [] Longitudinal [X] 4-Way []

Sprinkler System Load Calculation (Fpw = CpWp)					
Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
2.5" (65 mm)	Sch. 10	80 ft (24.4 m)	80 ft (24.4 m)	5.89 lb/ft (8.77 kg/m)	471 lbs (214 kg)
Subtotal Weight: 471 lbs (214 kg)					
Wp (incl. 15%): 542 lbs (246 kg)					
Total (Fpw): 227 lbs (103 kg)					
Main Size	Type/Sch.	Spacing (ft)	Maximum Fpw per 18.5.5.2 (if applicable): N/A		

TOLBrace™ Seismic Bracing Calculations V8.8.124

Project Address: THE GROVE TOO
1358 W BAY RD
GRAND CAYMAN, KY1-1000

Contractor: 3D FIRE DESIGN, LLC
Address: 16012 VALLEY VIEW FORNEY, TX 75126
Phone: 972-213-3210
Licence: 105930

Job # _____ Calculations based on 2019 NFPA Pamphlet #13

Brace Information		TOLCO™ Brace Components	
Maximum Brace Length	7' 0" (2.134 m)	TOLCO™ Component	Listed Load
Diameter of Brace	1"	Fig. 1001 Clamp	2000 lbs (907 kg)
Type of Brace	Sch.40	Fig.980 - 3/8" Universal Swive	1600 lbs (726 kg)
Angle of Brace	45° Min.	See Fastener Information	1414 lbs (641 kg)
Least Rad. of Gyration	0.42" (11 mm)	*Please Note: These calculations are for TOLCO™ components only. Use of any other components voids these calculations and the listing of the assembly.	
L/R Value	200	Seismic Brace Assembly Detail	
Max Horizontal Load	1310 lbs (594 kg)		
Fastener Information			
Orientation to Connecting Surface NFPA Type B			
Fastener			
Type	DeWalt Power-Stud+ SD2 3/8in. x		
Diameter	3/8in.		
Length	2 3/8in.		
Maximum Load	323 lbs (147 kg)		
Brace Identification on Plans 2.5" LAT			
Prying Factor	1.29	Brace Type	Lateral [X] Longitudinal [] 4-Way []

Sprinkler System Load Calculation (Fpw = CpWp)					
Diameter	Type	Length	Total Length	Weight Per Unit Length	Total Weight
2.5" (65 mm)	Sch. 10	35 ft (10.7 m)	35 ft (10.7 m)	5.89 lb/ft (8.77 kg/m)	206 lbs (93 kg)
1.25" (32 mm)	Sch. 10	156 ft (47.5 m)	156 ft (47.5 m)	2.52 lb/ft (3.75 kg/m)	393 lbs (178 kg)
1" (25 mm)	Sch. 40	31 ft (9.4 m)	31 ft (9.4 m)	2.05 lb/ft (3.05 kg/m)	64 lbs (29 kg)
Subtotal Weight: 663 lbs (301 kg)					
Wp (incl. 15%): 762 lbs (346 kg)					
Total (Fpw): 320 lbs (145 kg)					
Main Size	Type/Sch.	Spacing (ft)	Maximum Fpw per 18.5.5.2 (if applicable): 360 lb (163 kg)		

CONCRETE
All poured concrete shall be 4000 PSI compressive strength @ 28 days (ACI 318 - latest revision) unless noted otherwise.

Use type I cement conforming to ASTM C150.

Use aggregates that are clean, free of chlorides and conform to ASTM-33, max size 0.75.

Water-reducing admixtures may be used in concrete mix. Water used shall be clean and potable.

Contractor shall provide mix design information for each class of concrete to the Engineer for approval prior to commencing concrete works on site. Maximum water-cement ratio to be 0.46 for structural concrete. Minimum cement content shall be 650 pounds per cubic yard of concrete.

Design slump of concrete 4" - 6".

Air entrainment and fly ash allowed as per approval of the Engineer only.

All poured concrete shall be normal weight with the following minimum characteristic compressive strengths:

Foundations (Piles)	5000 psi
Foundations	4000 psi
Slabs on grade, structural beams, columns and suspended slabs	4000 psi
Sidewalks, non-structural elements	3000 psi
Concrete blinding	2000 psi

COMPLIANCE STATEMENT
DESIGN DATA

The details provided in these plans for this construction have been designed in accordance with the ANSI/ASCE 7-05 STANDARD with the following data:

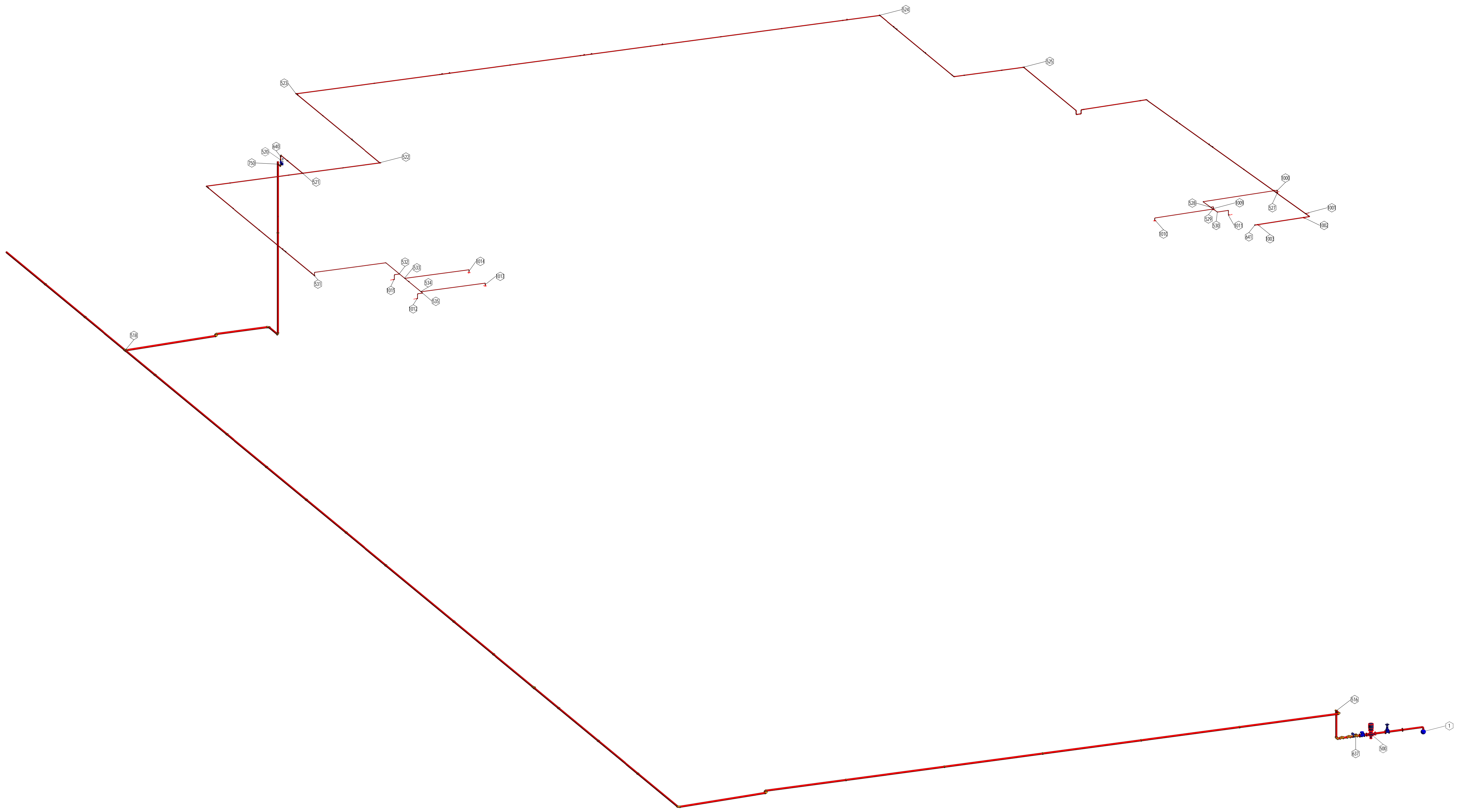
Basic Wind Speed (3 Second Gusts)	= 150 MPH
Exposure "C"	
Seismic Coefficient	= Ss = 0.659; S1 = 0.3; Site Classification = C
Minimum Uniform Distributed Live Load	= 40 PSF

If footings are to be placed on well compacted engineered fill, existing fill and peaty materials are to be removed from the proposed area prior to depositing of new fill.

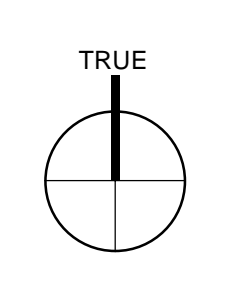
The general contractor shall provide all shoring, bracing, barricades, temporary fencing, partitions and excavations to accomplish all of the work in an approved manner. The general contractor shall be responsible for protecting all work during demolition and construction and against damage, breakage, collapse, distortion and misalignment.

The intent of the structural drawings is to show the main structural elements, including but not limited to: foundation design elements, lateral force resisting system, and gravity support members. Architectural plans, details and sections are shown incidentally; therefore, the architectural set must be used in conjunction with the structural drawings.

	STANDARD SYMBOLS - HYDRAULIC NODE POINT - FIRE DEPT CONNECTION - CPVC FP PIPE - STEEL FP PIPING - UNDERGROUND FP PIPING	STANDARD SYMBOLS - GLOBE UMC RISER - BUTTERFLY VALVE - CHECK VALVE - 0.5 A.Y. GATE VALVE - BACKFLOW PREVENTER	STANDARD SPRINKLER SYMBOLS - RESIDENTIAL PENDENT - EXTENDED COVERAGE PENDENT - UPRIP - SEMI RECESSED PENDENT - CONCEALED PENDENT - DRY PENDENT - HORIZONTAL SIDEWALL - VERTICAL SIDEWALL	PLAN REVIEW STAMP _____ REVISION <table border="1"> <tr><th>NO.</th><th>DESCRIPTION</th><th>BY</th></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>	NO.	DESCRIPTION	BY										 3D FIRE DESIGN, LLC GERALD W. EBLING, SET NICET LEVEL IV # 105930	DESIGNED BY: GERALD W. EBLING, SET NICET LEVEL IV # 105930	A/E/STAMP: _____ CONTRACT NAME: The Grove Too 1358 W Bay Rd, Grand Cayman KY1-1000, Cayman Islands	SCALE: _____ DESIGNED BY: Author CHECKED BY: Checker CONTRACT NO: TG2 DATE: _____ 3:11:48 PM DRAWING NO: FP11
NO.	DESCRIPTION	BY																		



C:\Users\Admin\Desktop\3D FIRE PROJECTS\3D Fire Project\The Grove Too\FP14.rvt
Software: REVIT/MicroBIM Fire



STANDARD SYMBOLS	STANDARD SYMBOLS	STANDARD SPRINKLER SYMBOLS	PLAN REVIEW STAMP	REVISION
# - HYDRAULIC NODE POINT	GLOBE UMC RISER	RESIDENTIAL PENDENT		DESCRIPTION
- FIRE DEPT. CONNECTION	BUTTERFLY VALVE	EXTENDED COVERAGE PENDENT		BY
- CPVC FP PIPE	CHECK VALVE	UPRIGHT		
- STEEL FP PIPING	0.5 A.Y. GATE VALVE	SEMI RECESSED PENDENT		
- UNDERGROUND FP PIPING	BACKFLOW PREVENTER	CONCEALED PENDENT		
		DRY PENDENT		
		HORIZONTAL SIDEWALL		
		VERTICAL SIDEWALL		

3D
FIRE DESIGN LLC
GERALD W. EBELING, SET
NICET LEVEL IV # 105830

DESIGNED BY:
NATIONAL INSTITUTE FOR CERTIFICATION
IN ENGINEERING TECHNOLOGIES
NICTE
Gerald W. Ebeling
L.F.T. IV
NICET LEVEL IV # 105830
2015-2022 (03/01/2022)
Gerald W. Ebeling, PE
Gerald W. Ebeling, PE
Gerald W. Ebeling, PE

3RD LEVEL CALC PLAN

AHJ STAMP:

CONTRACT NAME: **The Grove Too**
1358 W Bay Rd.
Grand Cayman KY1-1000,
Cayman Islands

P.O. BOX 11987
GRAND CAYMAN, KY1-1010
Cell: [redacted]
email: [redacted]

SCALE:

DESIGNED BY: [redacted]
Author

CHECKED BY: [redacted]
Checker

CONTRACT NO: TG2
DATE: [redacted] 3:11:58 PM
DRAWING NO: **FP14**