

FIRE PROTECTION GENERAL NOTES

1. FIRE PROTECTION SYSTEM SHALL COMPLY WITH THE LATEST EDITION OF NFPA # 13, 15, 25, 70, 72, & 101. LOCAL FIRE MARSHALS OFFICE, OWNERS INSURANCE CARRIER, ALL APPLICABLE STATE, LOCAL AND FEDERAL CODES AND REGULATIONS AND ANY OTHER AUTHORITIES HAVING JURISDICTION OVER THIS PROJECT. THIS SYSTEM SHALL BE INSTALLED BY A STATE OF FLORIDA CERTIFIED FIRE PROTECTION CONTRACTOR SKILLED AND LICENSED IN THIS PARTICULAR TRADE.

2. CONTRACTOR SHALL SUBMIT SIGNED AND SEALED SHOP DRAWINGS AND HYDRAULIC CALCULATIONS FOR APPROVAL BY THE AUTHORITIES HAVING JURISDICTION AND ENGINEER PRIOR TO COMMENCEMENT OF ANY WORK. THE DOCUMENTS SHALL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OUTLINED IN THESE DRAWINGS AND SPECIFICATIONS AND ALL APPLICABLE CODES ADOPTED BY THE STATE OF FLORIDA.

3. THE CONTRACTOR SHALL CONDUCT A HYDRANT FLOW TEST, WHICH SHALL BE THE BASIS FOR THE HYDRAULIC CALCULATIONS. CONTRACTOR SHALL EVALUATE THE WATER SUPPLY FOR EVIDENCE OF MICROBIAL INDUCED CORROSION (MIC) AND INCORPORATE ANY PREVENTIVE MEASURES AS REQUIRED.

4. THE CONTRACTOR SHALL PROVIDE ALL PERMITS, MATERIAL, LABOR, TRUCKING, HOISTING, ENGINEERING, SCAFFOLDING, POWER HOOK UPS, PROTECTION, SHOP DRAWINGS, TAXES, LAYOUT, EQUIPMENT, SUPERVISION, INSURANCE, ETC. NECESSARY FOR THE FURNISHING AND INSTALLATION OF ALL SPECIFIED AND RELATED WORK IN ACCORDANCE WITH THE CONTACT DRAWINGS AND SPECIFICATIONS.

5. THIS CONTRACTOR SHALL OBTAIN FINAL INSPECTION AND APPROVAL BY LOCAL FIRE DEPARTMENT, BLDG. DEPT., OWNERS INSURANCE CARRIER AND ARCHITECT/ENGINEER.

6. PROVIDE DETAIL AND INDICATE TYPE OF HANGERS TO BE INSTALLED FOR SPRINKLER PIPING. METHODS OF HANGING PIPES, HEADERS AND BRANCHES SHALL BE IN ACCORDANCE WITH N.F.P.A. 13. ALL HANGERS ON 4" PIPE AND LARGER SHALL BE CLEVIS-TYPE HANGERS. HANGERS SHALL NOT INTERFERE WITH ANY OTHER TRADE. POWDER DRIVEN STUDS SHALL NOT BE USED. ALL PIPING SUPPORTS AND HANGERS SHALL BE CORROSION RESISTANT, SIZED AND SPACED IN ACCORDANCE WITH NFPA #13.

7. BEFORE SUBMITTING PROPOSAL OR BID, EXAMINE ALL DRAWINGS AND SPECIFICATIONS RELATING TO THIS PROJECT, THE AMOUNT OF SPACE AVAILABLE FOR PIPING, EQUIPMENT AND CONNECTING SERVICES, THE SCOPE OF SITE OF THE WORK, THE REQUIREMENTS TO CORRELATE THE FIRE PROTECTION WORK WITH THAT OF OTHER TRADES AND THE TIME SCHEDULE NECESSARY TO PERFORM THAT WORK. CONTRACTOR SHALL VISIT THE SITE TO CHECK AND VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING TO INSURE THE COORDINATION OF THE FIRE SERVICES WITH EXISTING CONDITIONS. IN CASE OF DISPUTE OR DOUBT AS TO INTENT OF DRAWINGS OR SPECIFICATIONS, OBTAIN ARCHITECT/ENGINEER'S WRITTEN DECISION BEFORE PROCEEDING WITH BID OR WORK INVOLVED.

8. IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES FOUND BETWEEN THESE PLANS, OTHER ENGINEERING PLANS, THE ARCHITECTURAL PLANS AND/OR FIELD CONDITIONS PRIOR TO FINAL BID PRICE OR FINAL PERMITTING.

9. INDICATE CENTER TO CENTER DIMENSIONS AND/OR PIPE CUT LENGTHS AND NOMINAL PIPE DIAMETERS ON ALL PIPING. INDICATE PIPE TYPE, SCHEDULE OF WALL THICKNESS AND METHOD OF JOINING ON SHOP DRAWING.

10. CUTTING OF STRUCTURAL AND/OR ARCHITECTURAL MEMBERS SHALL BE DONE ONLY WITH THE WRITTEN APPROVAL OF THE ARCHITECT AND STRUCTURAL ENGINEER.

11. VERIFY STRUCTURAL, MECHANICAL, ELECTRICAL INSTALLATIONS AND AVOID ANVALL OBSTRUCTIONS OR INTERFERENCES WITH FIRE PROTECTION PIPE ROUTING.

12. ALL MATERIALS, WHERE APPLICABLE, SHALL BE U.L. LISTED AND FACTORY MUTUAL APPROVED FOR USE IN AUTOMATIC SPRINKLER SYSTEMS. ALL NEW PIPING SHALL BE HYDROSTATICALLY TESTED FOR TWO HOURS IN ACCORDANCE WITH NFPA #13. HYDROSTATIC TEST PRESSURE SHALL BE 200 PSI.

13. FIRE STOP ALL PENETRATIONS OF SMOKE/FIRE WALLS, CEILINGS, FLOORS, ROOFS, ETC., FLASH AND COUNTERFLASH ROOF PENETRATIONS. (SEE FIRE RATED PIPE PENETRATION DETAILS ON ARCHITECTURAL SHEETS).

14. COORDINATE ALL PIPE ROUTING WITH ALL OTHER TRADES TO AVOID DUCTWORK, LIGHTING, PIPING AND ANY BUILDING STRUCTURE. ROUTE ALL PIPING CONCEALED ABOVE CEILING, WITHIN CHASES OR CONCEALED WITHIN WALLS.

15. WELD-O-LETS SHALL BE TWO SIZES SMALLER THAN CROSSMAIN, NO LENGTH OF CROSSMAIN SHALL BE GREATER THAN 10'-0". ALL SPRINKLER PIPING & FITTINGS SHALL BE INSTALLED ABSOLUTELY RUST-FREE.

16. ALL SPRINKLER DROPS SHALL BE 1" SCHEDULE 40 BLACK STEEL PIPE WITH 1" X 1/2" THREADED REDUCER.

17. PIPE SHALL BE REAMED AND CLEANED BEFORE ASSEMBLY, AND AFTER ASSEMBLY THE ENTIRE PIPING SYSTEM SHALL BE FLUSHED CLEAN.

18. PROVIDE ACCESS PANELS TO ALL VALVES ABOVE NON-ACCESSIBLE CEILINGS AND CHASES.

19. PROVIDE SYSTEM(S) WITH FLUSHING CONNECTION(S).

20. INSPECTOR'S TEST VALVE SHALL NOT EXCEED 7 FEET ABOVE THE FINISHED FLOOR. PROVIDE SMOOTH BORE CORROSION RESISTANT OUTLET FOR INSPECTOR'S TEST GIVING FLOW EQUIVALENT TO 1 SPRINKLER.

21. THIS CONTRACTOR SHALL ASSIST IN PREPARATION OF COORDINATION DRAWINGS FOR ALL LEVELS WHICH INDICATE ALL THE ENGINEERING DISCIPLINES & FIRE PROTECTION PIPING.

22. FIRE SPRINKLER PIPING SHALL NOT TRAVEL OVER THE TOPS OF ELECTRICAL PANEL BOARDS.

23. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING HEIGHTS IN EACH AREA.

24. WET SYSTEM PIPING SHALL BE INSTALLED LEVEL TO DRAIN BACK TO THE SYSTEM RISER, IN ACCORDANCE WITH NFPA #13, 4-14.3.2. TRAPPED SECTIONS OF PIPING SHALL HAVE AUXILIARY DRAIN CONNECTIONS IN ACCORDANCE WITH 4-14.3.5

25. AUTOMATIC SPRINKLER TEMPERATURE RATINGS OF FUSIBLE ELEMENTS SHALL BE IN ACCORDANCE WITH N.F.P.A. 13. ALL SPRINKLERS SHALL HAVE CORROSIVE RESISTANT COATING WHERE EXPOSED TO ELEMENTS.

26. SPRINKLERS SHALL COVER THE ENTIRE AREA OF ALL STRUCTURAL MEMBERS. THE SPRAY PATTERN ON ANY SPRINKLER SHALL NOT BE BLOCKED BY WALL, PARTITIONS OR STRUCTURAL COMPONENTS.

27. ALL PENDENT SPRINKLERS SHALL BE CENTER OF TILE. UNLESS MAXIMUM DISTANCES FROM WALLS OR BETWEEN HEADS IS EXCEEDED, IF NOT POSSIBLE ALL SPRINKLER HEADS MOUNTED IN CEILING SHALL BE LOCATED A MINIMUM OF 4" AWAY FROM ANY WALLS, CEILING GRID MEMBERS, CEILING HEIGHT CHANGES OR ANY OTHER VERTICAL INTERSECTING STRUCTURAL SURFACE.

28. PROVIDE STOCK OF EXTRA SPRINKLERS IN ACCORDANCE WITH N.F.P.A. # 13.

29. PROVIDE SPRINKLERS ABOVE AND BELOW EXPOSED DUCTWORK 4 FEET OR WIDER.

30. PROVIDE HAZARD COVERAGE FOR THE FUNCTIONS FOR EACH AREA AS INDICATED ON PLANS OR REQUIRED BY NFPA.

31. INDICATE THE LOCATION AND SIZE OF BLIND SPACES AND CLOSETS.

32. PROVIDE HEAD GUARDS ON SPRINKLER HEADS IN ELECTRIC, TELEPHONE, AND MECHANICAL ROOMS.

33. SPRINKLER HEADS SHALL BE INSTALLED IN FULL ACCORDANCE WITH THE MANUFACTURES GUILD LINES.

34. CONTRACTOR SHALL PERFORM A HYDROSTATIC TEST OF THE SPRINKLER SYSTEM IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13. NOTIFY THE ARCHITECT, ENGINEER, OWNER AND UNDERWRITER PRIOR TO PERFORMING THE TEST WHO, AT THEIR OPTION, MAY DESIRE TO WITNESS THE TEST. TEST SHALL BE SATISFACTORY TO THE ARCHITECT, ENGINEER, OWNER, UNDERWRITER OR AUTHORITIES HAVING JURISDICTION. AFTER TESTING HAS BEEN COMPLETED, ALL VALVES SHALL BE LEFT IN THEIR RESPECTIVE NORMAL POSITIONS, AND THE OWNER AND HIS DULY APPOINTED REPRESENTATIVE SHALL BE INSTRUCTED IN THE CARE, OPERATION AND MAINTENANCE OF THE ENTIRE SYSTEM. ALL MATERIAL AND TEST CERTIFICATE SHALL BE COMPLETED AND TURN OVER TO THE OWNER'S REPRESENTATIVE AT THAT TIME.

35. FLUSHING CONNECTIONS TO BE PROVIDED AT REMOTE ENDS OF ALL CROSS MAINS.

36. PROJECT SPECIFICATIONS TAKE PRECEDENT OVER PLANS.

37. VERIFY UNDERGROUND FIRE MAIN LOCATIONS AND SIZE OF FIRE MAIN REQUIRED WITH PROJECT SITE PLAN.

38. UNFORESEEN CONDITIONS MAY EXIST. COOPERATION WITH OTHER TRADES IN ROUTING AND/OR BURIAL DEPTHS AS DETERMINED DURING CONSTRUCTION AND AS DIRECTED BY THE ARCHITECT MAY BE NECESSARY. IT IS INTENDED THAT SUCH DEVIATIONS SHALL BE CONSIDERED AS PART OF THIS CONTRACT. THIS CONTRACTOR IS TO FIELD VERIFY DIMENSIONS OF ALL SITE UTILITIES, ETC., PRIOR TO BID AND INCLUDE ANY DEVIATIONS IN THE CONTRACT.

39. THE CONTRACTOR WILL INSTALL A FIRE SAFETY PROGRAM TO ADDRESS ALL THE REQUIREMENTS SPECIFIED IN THE FLORIDA FIRE PREVENTION CODE, INCLUDING NFPA 241. THIS PROGRAM SHALL BE EFFECTIVE FOR THE DURATION OF ALL DEMOLITION, ALTERATION AND CONSTRUCTION OPERATIONS.

40. WORK SHALL BE PERFORMED, IN STRICT COMPLIANCE WITH THE ESTABLISHED WORK SCHEDULE BEING SET FORTH BY OWNER. COORDINATE ALL WORK WITH GENERAL CONTRACTOR. THIS CONTRACTOR SHALL FURNISH ADEQUATE FORCES, CONSTRUCTION PLANT AND EQUIPMENT, AND SHALL WORK SUCH HOURS, INCLUDING NIGHT SHIFTS, OVERTIME OPERATIONS, SUNDAYS AND HOLIDAYS IN ACCORDANCE WITH THE OWNER'S OPERATIONAL SCHEDULE AS LISTED IN DIVISION 1 OF THE SPECIFICATIONS. IF THE CONTRACTOR DOES NOT MAINTAIN THE CONSTRUCTION SCHEDULE BECAUSE OF INADEQUATE FORCES, SUPERVISION OR ANY OTHER REASON UNDER THE CONTRACTOR'S CONTROL, THE OWNER MAY REQUIRE THE CONTRACTOR TO INCREASE THE NUMBER OF SHIFTS AND/OR OVERTIME OPERATIONS, DAY OF WORK AND/OR THE AMOUNT OF CONSTRUCTION PLANT, AT NO ADDITIONAL COST TO THE OWNER UNDER THIS CONTRACT. FAILURE TO MAINTAIN THE CONSTRUCTION SCHEDULE DUE TO OWNER'S OPERATIONAL INTERFERENCES, WHICH WERE NOT IDENTIFIED IN OR PRIOR TO THE PRE-BID CONFERENCE, SHALL NOT BE THE CONTRACTOR'S LIABILITY.

FIRE SPRINKLER LEGEND

?? FIRE SPRINKLER HAZARD CLASSIFICATION OF ROOM

F1 KEY NOTE

FM FIRE MAIN (BELOW GRADE)

FL SPRINKLER PIPING (ABOVE GRADE)

COMBINATION SPRINKLER RISER

MAXIMUM DISTANCE BETWEEN HANGERS

NOMINAL PIPE SIZE (STEEL PIPE)	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"
	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"

PROJECT INFORMATION

PROJECT LOCATION: 4501 S LABURNUM AVE
RICHMOND, VA 23231

PROJECT NAME: PANDA EXPRESS

61G15-32 COMPLIANCE NOTES

61G15-32.003

1. SPRINKLER SYSTEM LAYOUT SHALL BE SUBMITTED BY A STATE OF VIRGINIA LICENSED FIRE PROTECTION CONTRACTOR. THIS BUILDING SHALL BE FULLY SPRINKLED BY A WET PIPE SPRINKLER SYSTEM. CONTRACTOR SHALL LAYOUT AND PROVIDE AUTOMATIC WET PIPE FIRE SPRINKLER SYSTEM ALL APPLICABLE CODES SET FORTH BY THE AUTHORITY HAVING JURISDICTION. DISCHARGE FROM INDIVIDUAL HEADS IN THE HYDRAULICALLY MOST REMOTE/DEMANDING AREA SHALL BE HYDRAULICALLY CALCULATED TO AN ACCEPTABLE MARGIN OF SAFETY NOT LESS THAN 10 PSI FOR GROWTH AND FLUCTUATION IN AVAILABLE SUPPLY OF AREA. FIRE SPRINKLER SYSTEM SHALL INCLUDE MATERIALS, ACCESSORIES, AND EQUIPMENT INSIDE AND OUTSIDE THE BUILDING TO PROVIDE A COMPLETE AND READY FOR USE SPRINKLER SYSTEM. LAYOUT AND PROVIDE THE SPRINKLER SYSTEM TO GIVE FULL CONSIDERATION TO BLIND SPACES, PIPING, ELECTRICAL EQUIPMENT, DUCTS, HVAC EQUIPMENT, ACCESS SPACE NEEDED FOR MAINTENANCE OF EQUIPMENT AND OTHER CONSTRUCTION AND EQUIPMENT IN ACCORDANCE WITH DETAILED WORKING DRAWINGS TO BE SUBMITTED FOR APPROVAL. LOCATE SPRINKLER HEADS IN A CONSISTENT PATTERN WITH CEILING GRID, LIGHTS, DIFFUSER, REGISTERS, GRILLES AND ARCHITECTURAL FEATURES. DEVICES AND EQUIPMENT FOR FIRE PROTECTION SERVICES SHALL BE U.L. LISTED AND F.M. APPROVED FOR USE IN WET PIPE SYSTEM.

2. THE AUTOMATIC FIRE SUPPRESSION SYSTEM SHALL BE TESTED IN ACCORDANCE WITH NFPA 13, CHAPTER 16 AND NFPA 25.

3. REFER TO HYDRAULIC DESIGN DATA LEGEND FOR HAZARD CLASSIFICATIONS AND REQUIRED DENSITIES.

4. 1) VIRGINIA STATEWIDE FIRE PREVENTION CODE, 2015
2) NFPA 13, 2013
3) NFPA 24, 2013
4) NFPA 25, 2014
5) VIRGINIA BUILDING CODE, 2015
6) LOCAL AND COUNTY CODES SET FORTH BY AUTHORITY HAVING JURISDICTION

5. NO ADDITIONAL STRUCTURAL SUPPORT WILL BE REQUIRED, BEYOND NORMAL PIPING SUPPORT REQUIREMENTS.

61G15-32.004

2A THIS WORK SHALL COVER MODIFICATION TO AN EXISTING WET SYSTEM.

2B INSTALLATION SHALL BE IN ACCORDANCE WITH N.F.P.A. 13, 2013 ED. FIRE PREVENTION CODE 2015, STATE AND LOCAL AUTHORITIES.

2C REFER TO HYDRAULIC DESIGN DATA LEGEND ON FLOOR PLANS.

2D REFER TO 61G15-32.003 COMPLIANCE NOTE #1 AND HYDRAULIC DESIGN DATA LEGEND ON FLOOR PLANS.

2E EXISTING SUPPLY MAIN TAPS INTO AN EXISTING WATER MAIN.

2F FLOW TEST NOTE:
CONTRACTOR SHALL PERFORM OR OBTAIN A CURRENT FLOW TEST FROM THE LOCAL UTILITIES PRIOR TO THE LAYOUT OF SHOP DRAWINGS. DATE OF FLOW TEST SHALL NOT EXCEED 6 MONTHS TO THE SUBMISSION OF SHOP DRAWINGS. FLOW TEST SHALL INCLUDE ALL INFORMATION AS INDICATED BELOW

HYDRANT ID
FLOW TEST DATE/TIME
HYDRANT LOCATION
STATIC GAUGE PRESSURE
RESIDUAL GAUGE PRESSURE
FLOW RATE:
SOURCE OF INFORMATION:

2G ALL VALVES CONTROLLING WATER SUPPLY SHALL HAVE A RED TAMPER PROOF COVER WHICH WILL ACTIVATE AN ALARM OF TROUBLE SIGNAL WHEN ADJUSTED.

2H VERIFY THAT UTILITY PURVEYOR CONTINUOUSLY MONITORS THE WATER SUPPLY FOR MICRO BIOLOGICAL CONTAMINANTS WITH MAY CAUSE MICROBIAL CORROSION.

2I EXISTING BUILDING SPRINKLER SYSTEM BACKFLOW HAS NOT CHANGED.

2J ALL YARD AND INTERIOR FIRE PROTECTION COMPONENTS SHALL BE NEW U.L. LISTED AND FM APPROVED.

HYDRAULIC DESIGN DATA

OCCUPANCY CLASSIFICATION LIGHT HAZARD

DESIGN AREAS A) OFFICES AND SIMILAR USE SPACE, RESTROOMS, AND CORRIDORS.

MAXIMUM COVERAGE 225 SQ. FT. PER SPRINKLER

TEMPERATURE RATING ORDINARY 155°, QUICK RESPONSE

DENSITY GPM/SQ. FT. 0.10 GPM OVER 1500 SQ. FT.

HOSE STREAM 100 GPM / DURATION 30 MINUTES

OCCUPANCY CLASSIFICATION ORDINARY HAZARD GROUP 1

DESIGN AREAS A) GENERAL STORAGE AREAS, (STORAGE LESS THAN 8' AND QUANTITY AND ARRANGEMENT NOT EXCEEDING THE LIMITATIONS OF MISCELLANEOUS STORAGE) B) RESTAURANT DINNING AND SERVICE AREAS, C) MECHANICAL & ELECTRICAL ROOMS.

MAXIMUM COVERAGE 130 SQ. FT. PER SPRINKLER

TEMPERATURE RATING ORDINARY 155°, QUICK RESPONSE

DENSITY GPM/SQ. FT. 0.15 GPM OVER 1500 SQ. FT.

HOSE STREAM 250 GPM / DURATION 60-90 MINUTES

OCCUPANCY CLASSIFICATION ORDINARY HAZARD GROUP 2

DESIGN AREAS A) GENERAL STORAGE AREAS, (STORAGE LESS THAN 12' AND QUANTITY AND ARRANGEMENT NOT EXCEEDING THE LIMITATIONS OF MISCELLANEOUS STORAGE) B) CUSTODIAL ROOMS, C) MERCANTILE, D) LOADING DOCK.

MAXIMUM COVERAGE 130 SQ. FT. PER SPRINKLER

TEMPERATURE RATING ORDINARY 155°, QUICK RESPONSE

DENSITY GPM/SQ. FT. 0.20 GPM OVER 1500 SQ. FT.

HOSE STREAM 250 GPM / DURATION 60-90 MINUTES



PANDA RESTAURANT GROUP INC.

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REVISIONS:

ISSUE DATE:

1	CHECK SET	10-23-20
2	PERMIT SET	03-15-21
3	BID SET	04-02-21

DRAWN BY: JAD

PANDA PROJECT #: S4-21-D7864

ARCH PROJECT #: P7350



PANDA EXPRESS

END CAP - TENANT BUILD OUT
4501 S LABURNUM AVE
RICHMOND VA, 23231

F-000

FIRE PROTECTION NOTES, SPEC'S & SCHEDULES

NOTES, SPEC'S AND SCHEDULES

1

Scale: NONE

F-001