

NOM. PIPE SIZE (in.)	90° BEND	45° BEND	22.5° BEND	11.25° BEND	SIZE ON SIZE TEE*	VALVE DEAD- END
4	26ft	11ft	5ft	3ft	18ft	61ft
6	36ft	15ft	7ft	4ft	43ft	86ft
8	46ft	19ft	9ft	5ft	68ft	112ft
10	55ft	23ft	11ft	6ft	91ft	135ft
12	64ft	27ft	13ft	7ft	114ft	159ft
14	73ft	30ft	15ft	7ft	137ft	182ft
16	81ft	34ft	16ft	8ft	159ft	205ft

NOTE: ANY JOINTS THAT FALL WITHIN THESE RECOMMENDED LENGTHS SHOULD BE RESTRAINED. (ON EACH SIDE OF BENDS, ON THE OUTLET OF TEES, AND BEFORE DEAD-ENDS.)

SAFETY FACTOR: 1.5:1 (BASED ON TEST PRESSURE)



- 1) ALL FIRE MAINS SHALL HAVE A MINIMUM OF 30" COVER FROM GRADE, 36" COVER UNDER DRIVEWAYS, AND 48" COVER UNDER RAILROAD TRACKS. PIPING SHALL BE INSTALLED TO PERMIT WORK IS COMPLETED.
- 2) WHERE FIRE AND SEWER MAINS CROSS WITH LESS THAN 18 INCHES CLEARANCE, OR 10 FEET HORIZONTAL CLEARANCE, ALL P.V.C. PIPE SHALL HAVE A 90° FOCAL SECTION FOR THE CROSSING. THE CROSSING SHALL BE CENTERED ON POINT OF CROSSING.
- 3) IF ANY UNREPAIRED, ALL FIRE MAINS TO BE DR11R, C-200 PVC WITH SLIP CONNECTIONS. BELL RESTRAINTS SHALL BE LOCATED AS NOTED ON THIS SHEET. PIPING USED AT STUD-IN-BE TO BE DUCTILE IRON PIPE. ALL PIPING SHALL BE PROTECTED BY ANOTHER TYPE OF FITTINGS TO BE DUCTILE IRON MECHANICAL JOINT TYPE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING UTILITY ONLY. IT SHALL BE THE FOREMAN'S RESPONSIBILITY TO VERIFY THE VERTICAL LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES, WHETHER SHOWN OR NOT (SEE NOTE #6).
- 4) ALL PIPING SHALL CALL OUT USING THE FOLLOWING SCHEDULE C.A.N.D.Y. AT 1-TWO-802-8881 48 HOURS (EXCLUDING SATURDAYS, SUNDAYS AND HOLIDAYS). THE CALL OUT SHALL BE FOR ACTUAL FIELD LOCATIONS OF ALL EXISTING UTILITIES.
- 5) ALL PIPING TO BE INSTALLED AND ANCHORED UTILIZING BELL END CAPS IN ACCORDANCE WITH THE CHART SHOWS ABOVE AND NFPA 24.
- 6) ALL PIPING TO BE PRESSURE TESTED AT 200 P.S.I. FOR 1 HOUR. ALL LEAKS MUST BE REPAIRED PRIOR TO PRESSURE TESTING. PRESSURE WHEN THE MAXIMUM STATIC PRESSURE IS IN EXCESS OF 150 P.S.I.
- 7) ALL PIPING TO BE FLUSH AND UNDERGROUND MAINS AND LEAD-INS.
- 8) RETURN ALL TEST PAPERS AND DIMENSIONED "AS BUILT" PLANS INDICATING ANY FIELD NOTES FOR THE PURPOSE OF RECORD DRAWING.
- 9) AFTER INSTALLATION, ALL RODS, NUTS, BOLTS, WASHERS AND BRACKET SHALL BE CLEANED OF ALL OIL, GREASE, LUBRICANTS, BITUMINOUS OR OTHER ACCEPTABLE CORROSION-RETARDING AGENTS.
- 11) ALL ELECTRICAL WIRING TO BE DONE BY OTHERS

A FLOW TEST WAS CONDUCTED ON DECEMBER 6, 2021
BY LAKE CITY

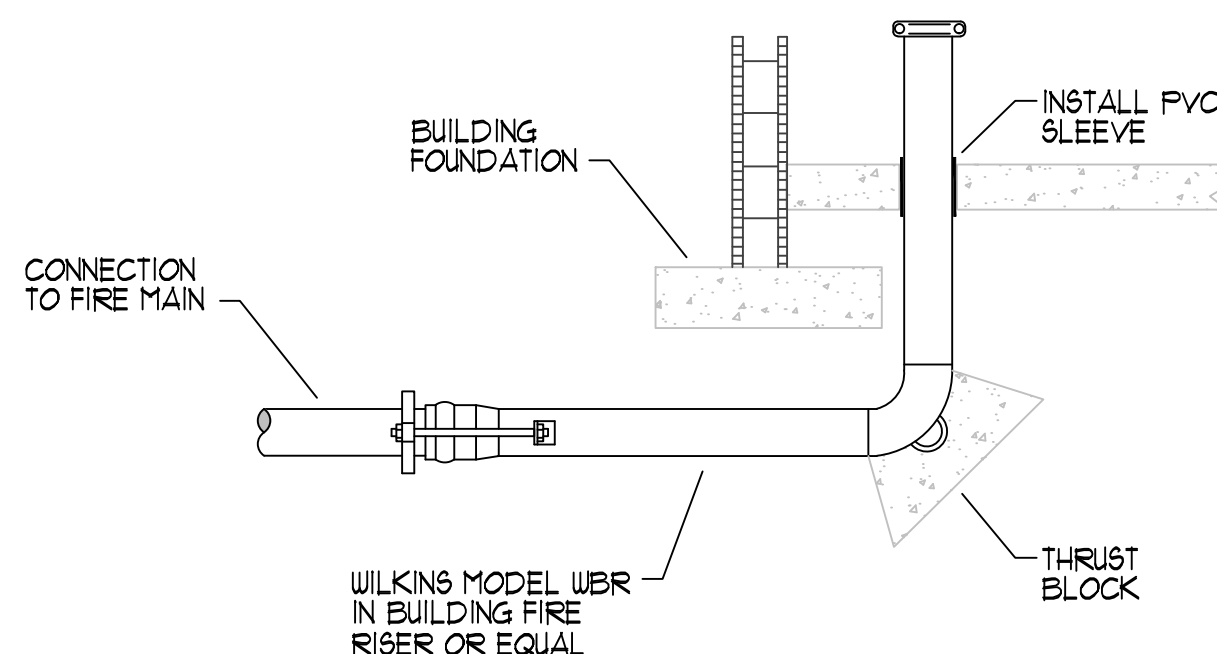
STATIC PRESSURE: 84 PSI
RESIDUAL PRESSURE: 73 PSI
FLOW AT TEST: 1055 GPM

SEE FIRE SPRINKLER PLANS FOR MORE DETAIL

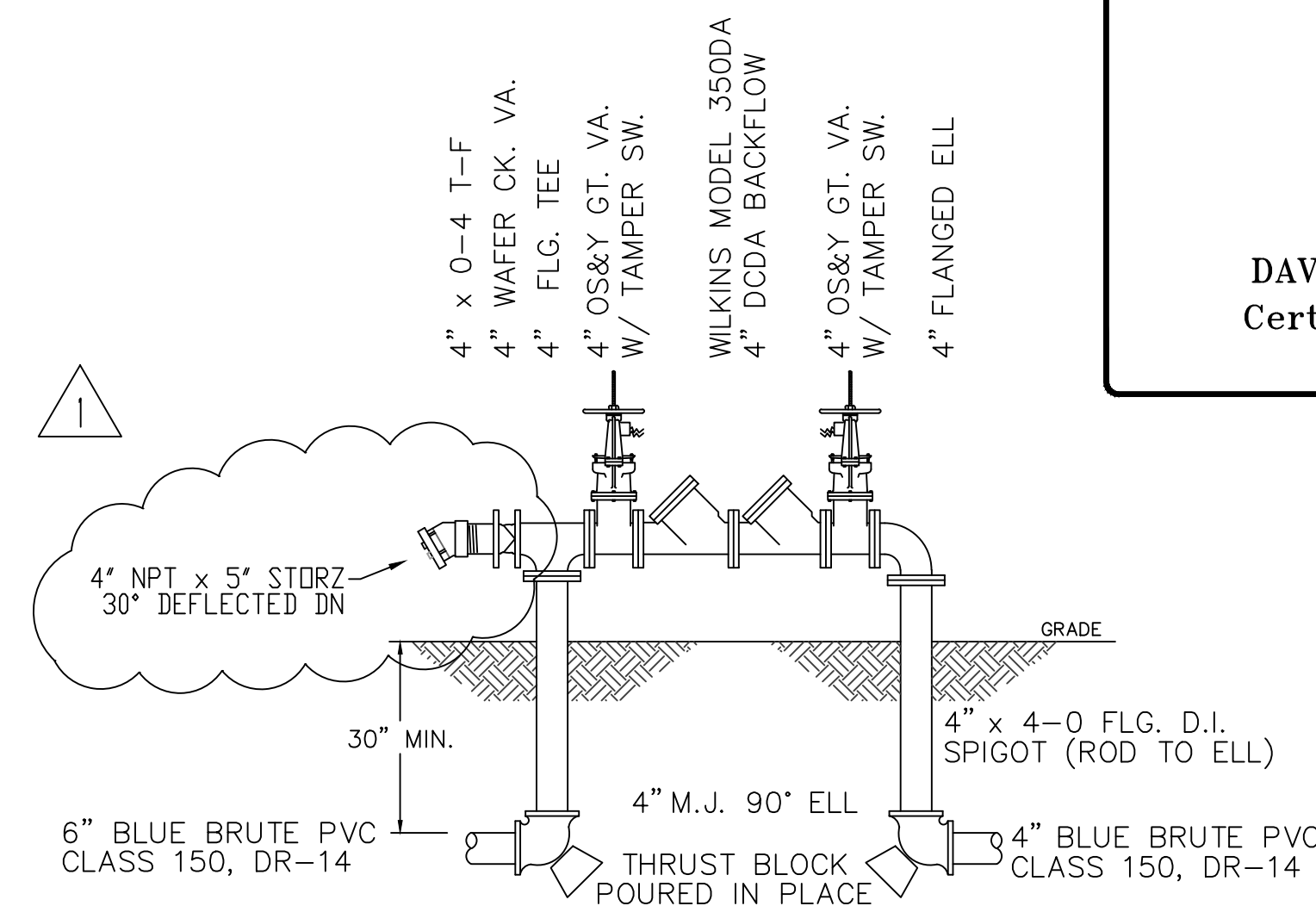
U1	CONNECT TO EXISTING 8" WATER MAIN WITH AN 8"x4" TAPPING VALVE AND SLEEVE.
U2	4" ZURN/WILKINS 350DA DCDA BACKFLOW PREVENTER WITH 4"x2 1/2"x2 1/2" FIRE DEPARTMENT CONNECTION
U3	WILKINS MODEL WBR 4" IN-BUILDING RISER (72"x72") FOREMAN TO COORDINATE LOCATION IN THE FIELD.
U4	4" POST INDICATOR VALVE
U5	4" GATE VALVE
U6	4"x4"x2" REDUCING TEE FOR DOMESTIC

W10 CONNECT TO EXISTING 8" WATER MAIN WITH AN 8"x6" TAPPING VALVE AND SLEEVE (BY OTHERS)

W11 NEW 6" FIRE HYDRANT ASSEMBLY WITH GATE VALVE (BY OTHERS)



N.T.S



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DAVID L. BLAKE, CET
Certification Number
103056

FORTITUDE
FIRE PROTECTION®

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HYDRAULIC CALCULATIONS	
DESIGN AREA #	
LOCATION	
DENSITY	
DESIGN AREA	
PSI READ • TEST	
GM READ • TEST	
OVERHEAD C-FACTOR	
UNDG C FACTOR	
# HEADS CALCULATED	

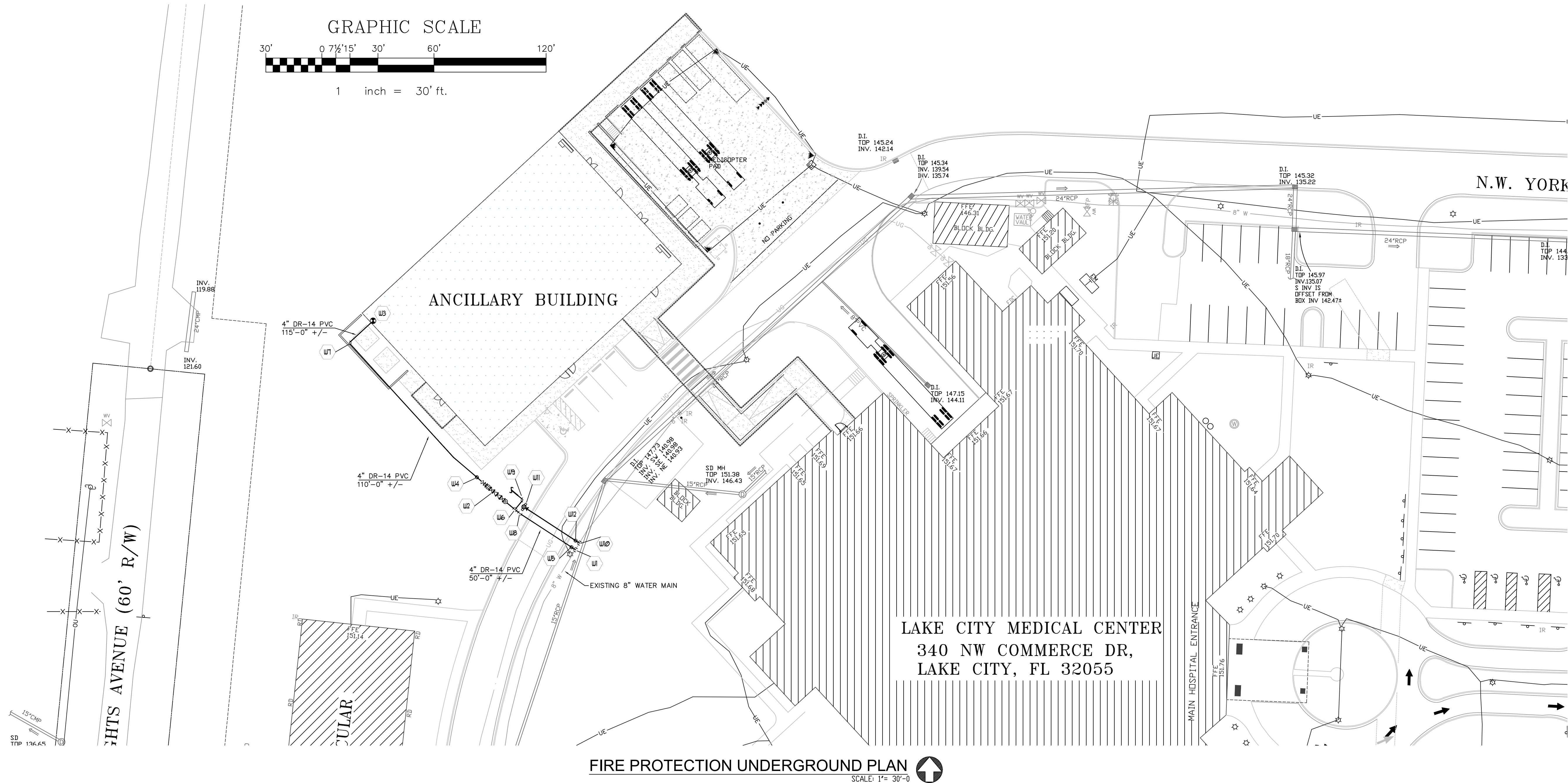
DESIGN CRITERIA	
DESIGN AREA	
SYSTEM	
TYPE OF SYSTEM	
DENSITY / G.P.M.	
DESIGN AREA S.F.	
AREA PER SPRINKLER	
SPRINKLER K FACTOR	
INSIDE HOSE	
OUTSIDE HOSE	

[illegible][illegible]

ANCILLARY BUILDING LAKE CITY MEDICAL CENTER 340 NW COMMERCE DR LAKE CITY, UTAH 84055		CONTRACT #781	
DRAWN BY: DAVID L. BLAKE, CET	DATE: JUNE 9, 2022	SCALE: AS NOTED	PROJECT: PASCO COUNTY
TOTAL SPINDLES ON JOB: 0	CONTRACT NO.		

SHEET NUMBER:

FP - 1 OF 1



FIRE PROTECTION UNDERGROUND PLAN

SCALE: 1" = 30'-