

BLOCK

LOT

ADDRESS (SITE)

PERMIT NO.

CITY OF ATLANTIC CITY
DIVISION OF CONSTRUCTIONCONSTRUCTION PERMIT
APPLICATION

Applicant Completes: Sections I, II, III (optional), IV, VI and VII

I. IDENTIFICATION

- Proposed Work-site at: Brick Plaza Shopping Center - Spaces 28, 29 & 29B
2. Name of Owner: Federal Realty Inv. Trust Tel. (215) 657-8740
- Address: 122-C Park Avenue Willow Grove, PA 19090
3. Ownership: Public ☐ Private ☒
4. Principal Contractor: Ford Fire Protection, Inc Tel. (609) 624-0100
- Address: 198 Kings Hwy Cape May Court House, NJ 08210
- License No. OR, if new home, Builder Reg. No. _____ Exp. Date _____
- Federal Emp. No. 22-3039429 Social Security No. _____
5. Architect or Engineer _____ Tel. (____) _____
- Address _____
6. Responsible Person in Charge of Work: Don Mayiford Tel. (609) 624-0100

II. PROPOSED WORK

1. ☐ Minor work (single trade)
2. ☐ Small Job (\$5,000 and no prior approvals)
3. ☐ New Building
4. ☐ Addition
5. ☐ Alteration
6. ☒ Fire Protection
7. ☐ Plumbing
8. ☐ Electrical
9. ☐ Elevator Devices
10. ☐ Asbestos Abatement
11. ☐ Demolition
- TOTAL COSTS

Est. Cost

15,477.00

OPTIONAL (for office use only)

Plans Rec'd By	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates Approval	Rejection	Re-viewer

III. DO YOU WANT: (optional) 1 ☐ Partial Releases 2 ☐ Prototype Processing

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

1. ☐ Elevators/Escalators/Lifts/
Dumbwaiters/Moving Walks
2. ☐ High Pressure Boilers
3. ☐ Pressure Vessels
4. ☐ Refrigeration Systems
5. ☐ Cross-Connections/Backflow Preventers
6. ☐ Hazardous Uses/Places of Assembly
7. ☐ Sprinklers
8. ☐ Smoke Control Systems in Open Wells
9. ☐ Underground Storage Tanks

V. FEE SUMMARY (for office use only)

		Update	Update
1. Building	\$		
2. Electrical			
3. Plumbing			
4. Fire Protection			
5. Elevator Devices			
6. Subtotal	\$		
7. Less 20% for State Plan Review			
8. Subtotal	\$		
9. DCA Training Fee			
10. Subtotal	\$		
11. Cert. of Occupancy			
12. Other			
13. TOTAL	\$		

VI. BUILDING/SITE CHARACTERISTICS

1. Number of Stories _____
2. Height of Structure _____ ft.
3. Area—Largest Floor _____ sq. ft.
4. New Building Area _____ sq. ft.
5. Volume of New Structure _____ cu. ft.
6. Construction Classification _____
7. Total Land Area Disturbed _____ sq. ft.
8. Flood Hazard Zone _____
9. Base Flood Elevation _____ ft.
10. Wetlands yes _____ sq. ft.
no _____
11. Max. Live Load _____
12. Max. Occupancy Load _____

(office use only)

VII. DESCRIPTION OF BUILDING USE

A. RESIDENTIAL

1. ☐ Hotels (R-1)
2. ☐ Multi-Family (R-2)
3. ☒ Two-Family (R-3) BOCA
4. ☐ Two-Family (R-4) CABO
5. ☐ One-Family (R-3) BOCA
6. ☐ One-Family (R-4) CABO

No of dwelling units:

Before Construction _____

After Construction _____

Net gain or loss _____

B. NON-RESIDENTIAL

1. State Specific Use:

2. Use Group:

3. Change in Use Group,
Indicate Former:

LDS BR 10404725

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

- A. ☐ I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

- B. ☐ I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(e)1.vii:

I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

- C. ☐ I further certify that I will perform or supervise the following work:

C.1. ☐ Building C.2. ☐ Fire Protection

I further certify that I will perform the following work:

C.3. ☐ Electrical C.4. ☐ Plumbing

- D. ☐ I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION

(to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:32-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals have been given, including such certification as the construction official may require.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

(☒) Check if contractor.

Agent Name Ford Fire Protection, Inc.

Address 198 Kings Hwy

Cape May Court House, NJ 08210

Telephone (609) 624-0100

Signature Sara Rafferty Date 5/31/95

OFFICE DATE RECEIVED: _____

VIII. PRIOR APPROVALS CHECKLIST (office use only)	LOCAL APPROVAL		COUNTY APPROVAL		REGIONAL APPROVAL		STATE APPROVAL		COMMENTS
	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	Prelimin. Initial	Final Date	
☐ Zoning Officer									
☐ Planning Board									
☐ Zoning Board									
☐ Sewer Authority									
☐ Water Authority									
☐ Fire Department									
☐ Police Department									
☐ Health Department									
☐ Soil Conservation									
☐ N.J. Dept. of Community Affairs									
☐ N.J. Department of Transportation									
☐ N.J. Dept. of Environmental Protection									
☐ Utility Dig No.									
☐									
☐									

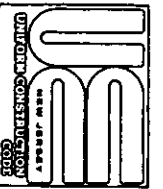
IX. SUBCODES AND SPECIAL REGULATIONS APPLICABLE (office use only—optional)

Name of Code & Edition	Name of Code & Edition	Other
Building _____	Energy _____	
Electrical _____	Barrier Free _____	
Plumbing _____	Flood Hazard _____	
Fire Protection _____	As Built Elevation Cert. _____	
Mechanical _____	Other _____	

X. CERTIFICATES ISSUED (office use only)

	DATE ISSUED	DATE EXPIRED	DATE REISSUED	DATE EXPIRED
☐ Temporary Certificate of Occupancy	No. _____	_____	_____	_____
☐ Temporary Certificate of Compliance	No. _____	_____	_____	_____
☐ Continued Certificate of Occupancy	No. _____	_____	_____	_____
☐ Certificate of Compliance	No. _____	_____	_____	_____
☐ Certificate of Occupancy	No. _____	_____	_____	_____
☐ Certificate of Approval	No. _____	_____	_____	_____

Township of Brick



**FIRE
SUBCODE**



Date Received
Date Issued
Control #
Permit #

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block _____ Lot _____
Work Site Location Brick Plaza Shopping Center
spaces 28, 29 & 29B
Owner in Fee Federal Realty Investment Trust
Address 122-C Park Avenue Willow Grove Shopping Center
Willow Grove, PA 19090
Tele. (215) 657-8740
Contractor Ford Fire Protection, Inc.
Address 198 Kings Hwy
Cape May Court House, NJ 08210
Tele. (609) 624-0100
Lic. No. _____
Federal Emp. No. 82-3039429 or Social Security No. _____

B. FIRE PROTECTION CHARACTERISTICS

Use Group _____ Present _____ Proposed _____
Const. Class. Present _____ Proposed _____
Heating Systems ☐ New ☐ Existing
Type: ☐ Gas ☐ Oil ☐ Electrical ☐ Solar
☐ Other _____
Location: _____
Total Est. Cost of Fire Prot. Work \$ 15,477.00 ☐ Other _____

JOB SUMMARY (Office Use Only)

PLAN REVIEW: _____ INSPECTIONS: _____
☐ No Plans Required _____ Type: _____ Failure Failure Approval Initial
Joint Plan Review Required: _____
☐ Bldg. ☐ Plumb. ☐ Elec. _____
☒ Fire Plans Approved _____
Date: 7/18/95 _____
Approved by: _____
SUBCODE APPROVAL: _____
☐ CO ☐ CCO ☐ CA _____
Date: _____
Approved by: _____
Other _____
Other _____
Other _____

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

John Kappeler
SIGNATURE

D. TECHNICAL SITE DATA Add to existing wet sprinkler system as per drawing #P-1

Water Supply Source _____
Method of Valve Supervision _____
Local Alarm Supervision _____
Central Supervision _____
Proprietary Supervision _____

Flammable Liquid Storage Tanks _____ () Capacity _____ Fuel _____
Combustible Liquid Storage Tanks _____ () Capacity _____ Fuel _____
L.P.G. Storage Tanks _____ () Capacity _____ Fuel _____
L.N.G. Storage Tanks _____ () Capacity _____ Fuel _____

Wet Sprinkler Heads _____ Number _____
Dry Sprinkler Heads _____
TOTAL _____
85-

Smoke Detectors _____
Heat Detectors _____
TOTAL _____

Stand Pipes _____
Kitchen Hood Exhaust Systems _____

Pre-Engineered Systems _____
CO₂ Suppression _____
Halon Suppression _____
Foam Suppression _____
Dry Chemical _____
Wet Chemical _____

Gas or Oil Fired Appliance _____
OTHER _____

Administrative Surcharge \$ _____
Paid ☐ Check # _____ Minimum Fee \$ _____
Collected by _____ TOTAL FEE \$ _____

FEE (Office Use Only)

2421-95

2421-95

R# 2190072



ELECTRICAL
SUBCODE
TECHNICAL SECTION



Date Received
Date Issued
Control #
Permit #

7788 31 93.0 357.7
FEE (Office Use Only)

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION WHEN CHANGING CONTRACTORS. NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 4808 611 1-9 10-1 10-2 10-3 4811
Work Site Location Unit #29-B (Next to HomeStyle Cafe) 12
Owner in Fee Federal Realty Investment Trust
Address 4808 Hampton Ave Suite 500
Bethesda Maryland 20814
Tele. () GARDEN STATE ELECTRICAL CONTRACTORS
Contractor P.O. BOX 148
Address MANASQUAN, NJ 08736
Tele. () 908 223-8600 D&L
Lic. No. 6720
Federal Emp. No. 222937324 or Social Security No. _____

B. ELECTRICAL CHARACTERISTICS

Use Group Present _____ Proposed _____
☐ Pole/Pad # _____ ☐ Temporary ☐ Other _____
Building Occupied as _____ Utility Co. _____
Est. Cost of Elec. Work \$ 2,200.00

JOB SUMMARY (Office Use Only)

PLAN REVIEW:	INSPECTIONS	Dates (Month/Day)
☐ No Plans Required	Type:	Failure Failure Approval Initial
Joint Plan Review Required:	Rough	
☐ Bldg. ☐ Plumb.	Temporary	<u>4.19.93</u> <u>6/10/94</u>
☐ Fire ☐ Elevator	Constr. Serv.	
☐ Elec. Plans Approved	TCO	
Date: _____	Other	
Approved by: _____	Service	<u>4.30.94</u> <u>7/20/96</u> <u>5/27/97</u>
SUBCODE APPROVAL	Final	<u>4.19.93</u> <u>6/10/94</u>
☐ CO ☐ CCO ☒ CA	Temp. Cut-in-Card Date Issued	<u>4.19.93</u> <u>6/10/94</u>
Date: _____	Final Cut-in-Card Date Issued	<u>7/20/96</u> <u>5/27/97</u>
Approved By: <u>Andrewson</u>		

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

☒ Licensed Electrical Contractor ☐ Exempt Applicant

Signature—Contractor Seal

D. TECHNICAL SITE DATA

NO.	SIZE	ITEM
		Fixtures (1)
		Receptacles (2)
		Switches (3)
		Total 1 + 2 + 3
		Kw Range
		Kw Oven(s)
		Kw Surface Unit
		hp Dishwasher
		hp Garbage Disposal
		Kw Dryer
		Kw A/C Unit
		Burglar Alarms
		Intercoms Panels
		Smoke Detectors
		hp Whirlpool/spa
		Pool Bonding
		hp Pool Filler Motor
		Pool Lights
		Kw Water Heater(s)
		Kw Central heat:
		oil, gas or elec.
		Kw Baseboard Heat Units
		Thermostats
		hp Heat Pump
		hp Pump(s)
		Amp Motor Control Center/Sub Panels
		Signs
		Light Standards
		hp Motors—Fractional H.P.
		hp Motors—All Others
		Kw Transformers
		Kw Generators
		1 <u>200</u> Amp Service Entrance <u>30</u>
		Other

Paid ☐ Check # <u>21166</u> Administrative Surcharge	\$ <u>33.00</u>
Minimum Fee	\$ <u>2.00</u>
DCA Training Fee	\$ <u>35.00</u>
Collected by: _____	TOTAL FEE

U.C.C. Form F-1208 S 1 White - Inspector Copy 2 Canary - Office Copy 3 Pink - Office Copy 4 Gold - Applicant Copy

Township of Briet
~~CHESAPEAKE~~
DIVISION OF CONSTRUCTION



PLUMBING
SUBCODE
TECHNICAL SECTION



Date Received
Date Issued
Control #
Permit #

9/25/95
2401-95

A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 671 Lot 8
Work Site Location Brick Plaza Shopping Center 194th
Owner in Fee Spaces 28, 29 & 29B
Address Federal Realty Investment Trust
122-C Park Ave Willow Grove Shopping Center
Willow Grove, PA 19090
Tele. (215) 657-8740
Contractor Ford Fire Protection, Inc
Address 198 Kings Hwy
Cape May Court House, NJ 08210
Tele. (609) 624-0100
Lic. No. _____
Federal Emp. No. 22-3639429 or Social Security No. _____

B. PLUMBING CHARACTERISTICS

Use Group _____ Present _____ Proposed _____
Building Sewer Size _____
Water Service Size _____
Estimated Cost of Plumbing Work \$ 1000.00 (Included in Fire Sub Code App)

JOB SUMMARY (Office Use Only)

PLAN REVIEW:		INSPECTIONS:	
		Type:	Dates (Month/Day)
		Slab	Failure Failure Approval Initial
☐ No Plans Required			
Joint Plan Review Required:			
☐ Bldg. ☐ Elec. ☐ Fire		Rough	
☐ Plumb. Plans Approved		Water	
Date: <u>7-19-95</u>		Sewer	
Approved by: <u>[Signature]</u>		Fixtures	
		Gas Equipment	
		Gas Final	
		Solar	
		TCO	

SUBCODE APPROVAL:
☐ CO ☐ CCO ☐ CA
Approved by: [Signature]
Date: 8-13-95

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

☒ Licensed Plumbing Contractor ☐ Exempt Applicant

Signature-Contractor Seal

D. TECHNICAL SITE DATA (List all fixtures.)

NO.	FIXTURE/EQUIPMENT	FEE (Office Use Only)
	Water Closet	
	Urinal/Bidet	
	Bath Tub	
	Lavatory	
	Shower	
	Floor Drain	
	Sink	
	Dishwasher	
	Drinking Fountain	
	Washing Machine	
	Hose Bibb	
	Gas Piping	
	Fuel Oil Piping	
	Water Heater	
	Steam Boiler	
	Hot Water Boiler	
	Sewer Pump	
	Interceptor/Separator	
	Backflow Preventer	
	Greasetrap	
	Water Cooled A/C	
	or Refrigeration Unit	
	Sewer Connection	
	Water Service Connection	
	Gas Service Connection	
	Active Solar System	
	Other	
	Administrative Surcharge	\$
	Paid ☐ Check # _____ Minimum Fee	\$
	Collected by: _____ TOTAL	\$ <u>35-</u>

FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

PAGE 1

~~~~~  
SYSTEM ANALYSIS TO SHOW MAXIMUM FLOW  
WITH ZERO PRESSURE REMAINING  
~~~~~

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

[] TEST AREA 1 [] TEST AREA 2 [] TEST AREA 3 ☒ REMOTE AREA

REF. PT.	K	ELEV. ft	FLOW gpm	PRESSURE psi
31	14.50	21.00	79.10	29.76
32	14.50	21.00	78.45	29.27
33	14.50	21.00	60.15	17.21
34	14.50	21.00	59.59	16.89
35	14.50	21.00	54.29	14.02
36	14.50	21.00	53.82	13.78

THE SPRINKLER SYSTEM FLOW IS 385.40 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 250.00 gpm

[] THE INSIDE HOSE [] RACK SPKLR'S.
[] YARD HYDT. FLOW IS 0.00 gpm

THE FOLLOWING PRESSURES & FLOWS OCCUR

---> AT REF. PT. 1 <---

STATIC PRESSURE	70.00 psi	
RESIDUAL PRESSURE	63.00 psi	AT 1200.00 gpm
TOTAL SYSTEM FLOW	635.40 gpm	
AVAILABLE PRESSURE	67.84 psi	AT 635.40 gpm
MIN. PRESS. REQUIRED	67.84 psi	AT 635.40 gpm
PRESSURE REMAINING	0.00 psi	

THE ABOVE RESULTS INCLUDE 5 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☒ BACKFLOW PREVENTER [] METER
[] DETECTOR CHECK VALVE [] OTHER DEVICE

ALBERT E. MERRILL, P.E.

137 S. COLOGNE AVENUE
ECG HARBOR CITY, NJ 08215
(609) 965-5842

A. E. Merrill
NEW JERSEY STATE LICENSE
20526

FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

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HYDRAULIC CALCULATIONS AT SPECIFIED FLOW

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

☐ TEST AREA 1 ☐ TEST AREA 2 ☐ TEST AREA 3 ☒ REMOTE AREA

REF. PT.	K	ELEV. ft	FLOW gpm	PRESSURE psi
31	14.50	21.00	71.66	24.42
32	14.50	21.00	71.06	24.02
33	14.50	21.00	54.37	14.06
34	14.50	21.00	53.85	13.79
35	14.50	21.00	48.99	11.41
36	14.50	21.00	48.60	11.23

THE SPRINKLER SYSTEM FLOW IS 348.52 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 250.00 gpm

☐ THE INSIDE HOSE ☐ RACK SPKLR'S.

☐ YARD HYDT. FLOW IS 0.00 gpm

THE FOLLOWING PRESSURES & FLOWS OCCUR

---> AT REF. PT. 1 <---

STATIC PRESSURE	70.00 psi	
RESIDUAL PRESSURE	63.00 psi	AT 1200.00 gpm
TOTAL SYSTEM FLOW	598.52 gpm	
AVAILABLE PRESSURE	68.07 psi	AT 598.52 gpm
MIN. PRESS. REQUIRED	58.46 psi	AT 598.52 gpm
PRESSURE REMAINING	9.61 psi	

THE ABOVE RESULTS INCLUDE 5 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☒ BACKFLOW PREVENTER	☐ METER
☐ DETECTOR CHECK VALVE	☐ OTHER DEVICE

FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

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FROM	TO	FLOW (gpm)	PIPE (ft)	EQV. ft.	H-W C	DIA. (in)	FRIC. (psi)	ELEV. (psi)	FROM (psi)	TO (psi)	DIFF (psi)
1	2	348.52	50.00	55.88	140	6.38	0.00	0.00	58.46	58.15	0.31
2	3	348.52	20.00	38.22	120	4.26	0.03	8.67	58.15	42.85	6.63
3	4	348.52	33.00	0.00	120	4.26	0.03	0.43	42.85	41.49	0.93
4	5	348.52	56.00	22.48	120	4.26	0.03	0.00	41.49	39.29	2.20
5	6	348.52	19.00	9.40	120	3.26	0.10	0.00	39.29	36.36	2.93
6	7	348.52	7.00	20.16	120	3.26	0.10	0.00	36.36	33.54	2.82
7	8	348.52	13.00	0.00	120	3.26	0.10	0.00	33.54	32.20	1.34
8	9	348.52	18.00	0.00	120	3.26	0.10	0.00	32.20	30.34	1.86
9	10	348.52	15.00	0.00	120	3.26	0.10	0.00	30.34	28.79	1.55
10	11	173.51	17.00	0.00	120	3.26	0.03	0.00	28.79	28.32	0.47
10	31	175.01	8.00	12.30	120	2.16	0.22	0.00	28.79	24.42	4.37
11	32	173.51	8.00	12.30	120	2.16	0.21	0.00	28.32	24.02	4.30
31	33	103.36	18.00	0.00	120	1.44	0.58	0.00	24.42	14.06	10.36
32	34	102.45	18.00	0.00	120	1.44	0.57	0.00	24.02	13.79	10.23
33	35	48.99	18.00	0.00	120	1.44	0.14	0.00	14.06	11.41	2.64
34	36	48.60	18.00	0.00	120	1.44	0.14	0.00	13.79	11.23	2.56
35	41	0.00	14.00	0.00	120	1.44	0.00	0.00	11.41	11.41	0.00
41	43	0.00	12.00	0.00	120	1.44	0.00	0.00	11.41	11.41	0.00
36	42	0.00	14.00	0.00	120	1.44	0.00	0.00	11.23	11.23	0.00
42	44	0.00	12.00	0.00	120	1.44	0.00	0.00	11.23	11.23	0.00

A MAX. VELOCITY OF 20.3 ft./sec. OCCURS BETWEEN REF. PT. 31 AND 33

Sprinkler-CALC Release 5.3
By Walsh Engineering Inc.
North Kingstown R.I. U.S.A.

FORD FIRE PROTECTION, INC.

198 KINGS HIGHWAY CAPE MAY COURT HOUSE, NJ 08210 (609)624-0100 (609)624-0635 FAX

HYDRAULIC CALCULATIONS

PREPARED FOR

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

WATER SUPPLY

STATIC PRESSURE (psi)	70
RESIDUAL PRESSURE (psi)	63
RESIDUAL FLOW (gpm)	1200

BOOSTER PUMPS

NUMBER OF BOOSTER PUMPS 0

SPRINKLERS

MINIMUM FLOW PER SPRINKLER	(gpm)	48.6
----------------------------	-------	------

THE

Figure 1 displays 40 small plots arranged in a 2x20 grid, showing the evolution of the probability distribution of the number of infected individuals over time. The top row shows the distribution at times $t=0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19$. The bottom row shows the distribution at times $t=20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39$. Each plot has 'Number of infected individuals' on the x-axis (0 to 100) and 'Probability' on the y-axis (0 to 1). The distributions start as a single peak at 0 and spread out over time, with some plots showing multiple peaks.

FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

PAGE 1

SYSTEM ANALYSIS TO SHOW MAXIMUM FLOW WITH ZERO PRESSURE REMAINING

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

☐ TEST AREA 1 ☐ TEST AREA 2 ☐ TEST AREA 3 ☒ REMOTE AREA

REF. PT.	K	ELEV. ft	FLOW gpm	PRESSURE psi
31	14.50	21.00	79.10	29.76
32	14.50	21.00	78.45	29.27
33	14.50	21.00	60.15	17.21
34	14.50	21.00	59.59	16.89
35	14.50	21.00	54.29	14.02
36	14.50	21.00	53.82	13.78

THE SPRINKLER SYSTEM FLOW IS 385.40 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 250.00 gpm

☐ THE INSIDE HOSE ☐ RACK SPKLR'S.

☐ YARD HYDT. FLOW IS 0.00 gpm

THE FOLLOWING PRESSURES & FLOWS OCCUR

---> AT REF. PT. 1 <---

STATIC PRESSURE	70.00 psi	
RESIDUAL PRESSURE	63.00 psi	AT 1200.00 gpm
TOTAL SYSTEM FLOW	635.40 gpm	
AVAILABLE PRESSURE	67.84 psi	AT 635.40 gpm
MIN. PRESS. REQUIRED	67.84 psi	AT 635.40 gpm
PRESSURE REMAINING	0.00 psi	

THE ABOVE RESULTS INCLUDE 5 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☒ BACKFLOW PREVENTER ☐ METER
☐ DETECTOR CHECK VALVE ☐ OTHER DEVICE

ALBERT E. MERRILL, P.E.

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FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

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HYDRAULIC CALCULATIONS AT SPECIFIED FLOW

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

☐ TEST AREA 1 ☐ TEST AREA 2 ☐ TEST AREA 3 ☒ REMOTE AREA

REF. PT.	K	ELEV. ft	FLOW gpm	PRESSURE psi
31	14.50	21.00	71.66	24.42
32	14.50	21.00	71.06	24.02
33	14.50	21.00	54.37	14.06
34	14.50	21.00	53.85	13.79
35	14.50	21.00	48.99	11.41
36	14.50	21.00	48.60	11.23

THE SPRINKLER SYSTEM FLOW IS 348.52 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 250.00 gpm

☐ THE INSIDE HOSE ☐ RACK SPKLR'S.

☐ YARD HYDT. FLOW IS 0.00 gpm

THE FOLLOWING PRESSURES & FLOWS OCCUR

---> AT REF. PT. 1 <---

STATIC PRESSURE	70.00 psi	
RESIDUAL PRESSURE	63.00 psi	AT 1200.00 gpm
TOTAL SYSTEM FLOW	598.52 gpm	
AVAILABLE PRESSURE	68.07 psi	AT 598.52 gpm
MIN. PRESS. REQUIRED	58.46 psi	AT 598.52 gpm
PRESSURE REMAINING	9.61 psi	

THE ABOVE RESULTS INCLUDE 5 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☒ BACKFLOW PREVENTER	☐ METER
☐ DETECTOR CHECK VALVE	☐ OTHER DEVICE

FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

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FROM	TO	FLOW (gpm)	PIPE (ft)	EQV. ft.	H-W C	DIA. (in)	FRIC. (psi)	ELEV. (psi)	FROM (psi)	TO (psi)	DIFF (psi)
1	2	348.52	50.00	55.88	140	6.38	0.00	0.00	58.46	58.15	0.31
2	3	348.52	20.00	38.22	120	4.26	0.03	8.67	58.15	42.85	6.63
3	4	348.52	33.00	0.00	120	4.26	0.03	0.43	42.85	41.49	0.93
4	5	348.52	56.00	22.48	120	4.26	0.03	0.00	41.49	39.29	2.20
5	6	348.52	19.00	9.40	120	3.26	0.10	0.00	39.29	36.36	2.93
6	7	348.52	7.00	20.16	120	3.26	0.10	0.00	36.36	33.54	2.82
7	8	348.52	13.00	0.00	120	3.26	0.10	0.00	33.54	32.20	1.34
8	9	348.52	18.00	0.00	120	3.26	0.10	0.00	32.20	30.34	1.86
9	10	348.52	15.00	0.00	120	3.26	0.10	0.00	30.34	28.79	1.55
10	11	173.51	17.00	0.00	120	3.26	0.03	0.00	28.79	28.32	0.47
10	31	175.01	8.00	12.30	120	2.16	0.22	0.00	28.79	24.42	4.37
11	32	173.51	8.00	12.30	120	2.16	0.21	0.00	28.32	24.02	4.30
31	33	103.36	18.00	0.00	120	1.44	0.58	0.00	24.42	14.06	10.36
32	34	102.45	18.00	0.00	120	1.44	0.57	0.00	24.02	13.79	10.23
33	35	48.99	18.00	0.00	120	1.44	0.14	0.00	14.06	11.41	2.64
34	36	48.60	18.00	0.00	120	1.44	0.14	0.00	13.79	11.23	2.56
35	41	0.00	14.00	0.00	120	1.44	0.00	0.00	11.41	11.41	0.00
41	43	0.00	12.00	0.00	120	1.44	0.00	0.00	11.41	11.41	0.00
36	42	0.00	14.00	0.00	120	1.44	0.00	0.00	11.23	11.23	0.00
42	44	0.00	12.00	0.00	120	1.44	0.00	0.00	11.23	11.23	0.00

A MAX. VELOCITY OF 20.3 ft./sec. OCCURS BETWEEN REF. PT. 31 AND 33

Sprinkler-CALC Release 5.3
By Walsh Engineering Inc.
North Kingstown R.I. U.S.A.

FORD FIRE PROTECTION, INC.

198 KINGS HIGHWAY CAPE MAY COURT HOUSE, NJ 08210 (609)624-0100 (609)624-0635 F
AX

HYDRAULIC CALCULATIONS

PREPARED FOR

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

WATER SUPPLY

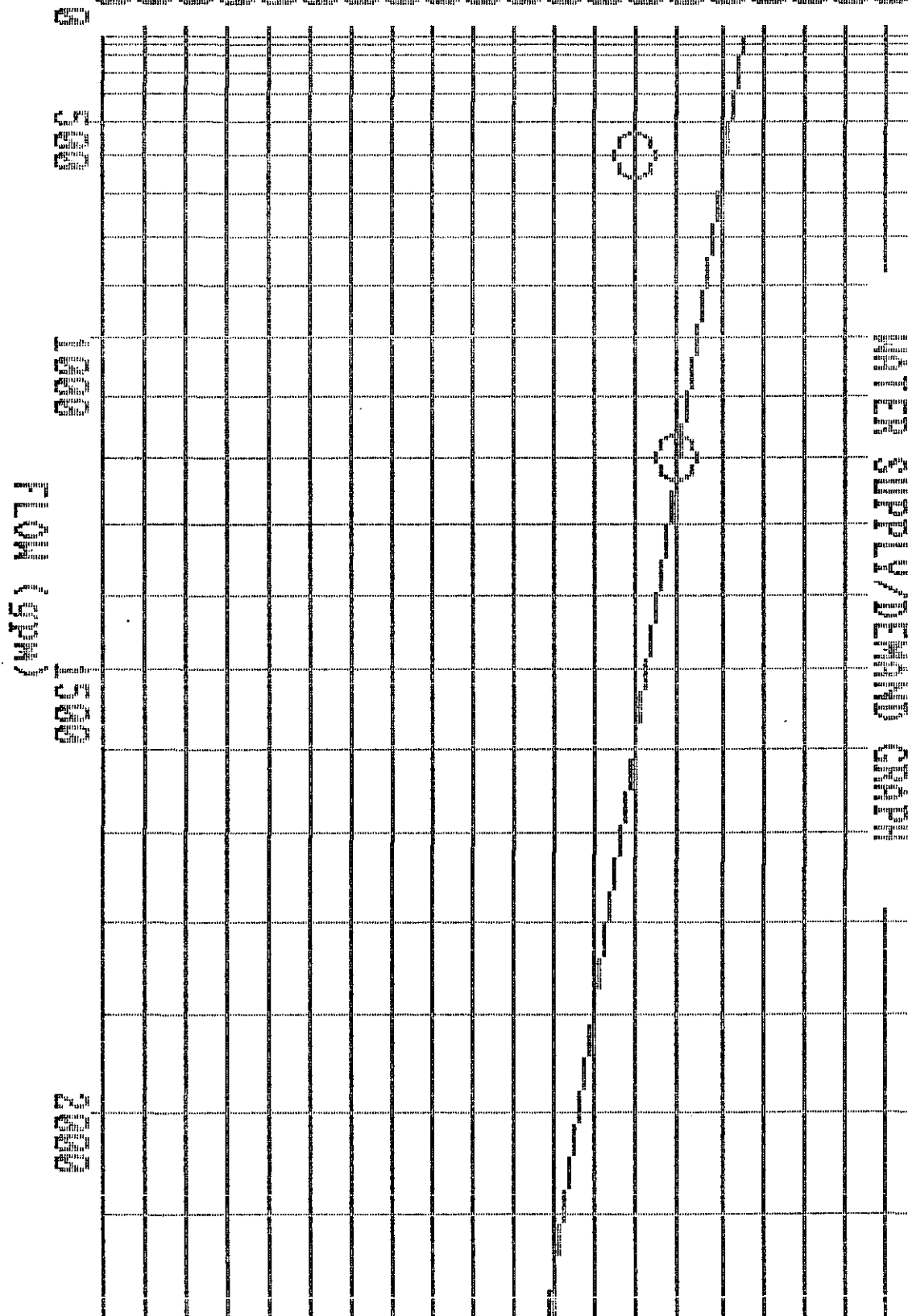
STATIC PRESSURE (psi)	70
RESIDUAL PRESSURE (psi)	63
RESIDUAL FLOW (gpm)	1200

BOOSTER PUMPS

NUMBER OF BOOSTER PUMPS 0

SPRINKLERS

MINIMUM FLOW PER SPRINKLER	(gpm)	48.6
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FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

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PAGE 1

SYSTEM ANALYSIS TO SHOW MAXIMUM FLOW WITH ZERO PRESSURE REMAINING

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

☒ TEST AREA 1 ☐ TEST AREA 2 ☐ TEST AREA 3 ☐ REMOTE AREA

REF. PT.	K	ELEV. ft	FLOW gpm	PRESSURE psi
41	14.50	21.00	56.05	14.94
42	14.50	21.00	55.94	14.88
43	14.50	21.00	52.27	13.00
44	14.50	21.00	52.17	12.94

THE SPRINKLER SYSTEM FLOW IS 216.44 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 250.00 gpm

☐ THE INSIDE HOSE ☐ RACK SPKLR'S.

☐ YARD HYDT. FLOW IS 0.00 gpm

THE FOLLOWING PRESSURES & FLOWS OCCUR

---> AT REF. PT. 1 <---

STATIC PRESSURE	70.00 psi	
RESIDUAL PRESSURE	63.00 psi	AT 1200.00 gpm
TOTAL SYSTEM FLOW	466.44 gpm	
AVAILABLE PRESSURE	68.78 psi	AT 466.44 gpm
MIN. PRESS. REQUIRED	68.78 psi	AT 466.44 gpm
PRESSURE REMAINING	0.00 psi	

THE ABOVE RESULTS INCLUDE 5 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☒ BACKFLOW PREVENTER
☐ DETECTOR CHECK VALVE

☐ METER
☐ OTHER DEVICE

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FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

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HYDRAULIC CALCULATIONS AT SPECIFIED FLOW

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

☒ TEST AREA 1 ☐ TEST AREA 2 ☐ TEST AREA 3 ☐ REMOTE AREA

REF. PT.	K	ELEV. ft	FLOW gpm	PRESSURE psi
41	14.50	21.00	31.80	4.81
42	14.50	21.00	31.71	4.78
43	14.50	21.00	29.46	4.13
44	14.50	21.00	29.40	4.11

THE SPRINKLER SYSTEM FLOW IS 122.36 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 250.00 gpm

☐ THE INSIDE HOSE ☐ RACK SPKLR'S.

☐ YARD HYDT. FLOW IS 0.00 gpm

THE FOLLOWING PRESSURES & FLOWS OCCUR

---> AT REF. PT. 1 <---

STATIC PRESSURE	70.00 psi	
RESIDUAL PRESSURE	63.00 psi	AT 1200.00 gpm
TOTAL SYSTEM FLOW	372.36 gpm	
AVAILABLE PRESSURE	69.20 psi	AT 372.36 gpm
MIN. PRESS. REQUIRED	32.72 psi	AT 372.36 gpm
PRESSURE REMAINING	36.48 psi	

THE ABOVE RESULTS INCLUDE 5 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☒ BACKFLOW PREVENTER	☐ METER
☐ DETECTOR CHECK VALVE	☐ OTHER DEVICE

FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

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FROM	TO	FLOW (gpm)	PIPE (ft)	EQV. ft.	H-W C	DIA. (in)	FRIC. (psi)	ELEV. (psi)	FROM (psi)	TO (psi)	DIFF (psi)
1	2	122.36	50.00	55.88	140	6.38	0.00	0.00	32.72	32.68	0.04
2	3	122.36	20.00	38.22	120	4.26	0.00	8.67	32.68	18.78	5.24
3	4	122.36	33.00	0.00	120	4.26	0.00	0.43	18.78	18.21	0.13
4	5	122.36	56.00	22.48	120	4.26	0.00	0.00	18.21	17.89	0.32
5	6	122.36	19.00	9.40	120	3.26	0.01	0.00	17.89	17.47	0.42
6	7	122.36	7.00	20.16	120	3.26	0.01	0.00	17.47	17.07	0.40
7	8	122.36	13.00	0.00	120	3.26	0.01	0.00	17.07	16.88	0.19
8	9	122.36	18.00	0.00	120	3.26	0.01	0.00	16.88	16.61	0.27
9	10	122.36	15.00	0.00	120	3.26	0.01	0.00	16.61	16.39	0.22
10	11	61.11	17.00	0.00	120	3.26	0.00	0.00	16.39	16.31	0.08
10	31	61.25	8.00	12.30	120	2.16	0.03	0.00	16.39	15.76	0.63
11	32	61.11	8.00	12.30	120	2.16	0.03	0.00	16.31	15.69	0.62
31	33	61.25	18.00	0.00	120	1.44	0.22	0.00	15.76	11.82	3.94
32	34	61.11	18.00	0.00	120	1.44	0.22	0.00	15.69	11.76	3.93
33	35	61.25	18.00	0.00	120	1.44	0.22	0.00	11.82	7.87	3.94
34	36	61.11	18.00	0.00	120	1.44	0.22	0.00	11.76	7.84	3.93
35	41	61.25	14.00	0.00	120	1.44	0.22	0.00	7.87	4.81	3.07
41	43	29.46	12.00	0.00	120	1.44	0.06	0.00	4.81	4.13	0.68
36	42	61.11	14.00	0.00	120	1.44	0.22	0.00	7.84	4.78	3.05
42	44	29.40	12.00	0.00	120	1.44	0.06	0.00	4.78	4.11	0.67

A MAX. VELOCITY OF 12.03 ft./sec. OCCURS BETWEEN REF. PT. 35 AND 41

Sprinkler-CALC Release 5.3
By Walsh Engineering Inc.
North Kingstown R.I. U.S.A.

FORD FIRE PROTECTION, INC.

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HYDRAULIC CALCULATIONS

PREPARED FOR

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

WATER SUPPLY

STATIC PRESSURE (psi)	70
RESIDUAL PRESSURE (psi)	63
RESIDUAL FLOW (gpm)	1200

BOOSTER PUMPS

NUMBER OF BOOSTER PUMPS 0

SPRINKLERS

MINIMUM FLOW PER SPRINKLER	(gpm)	29.4
----------------------------	-------	------

BRICK TWP.

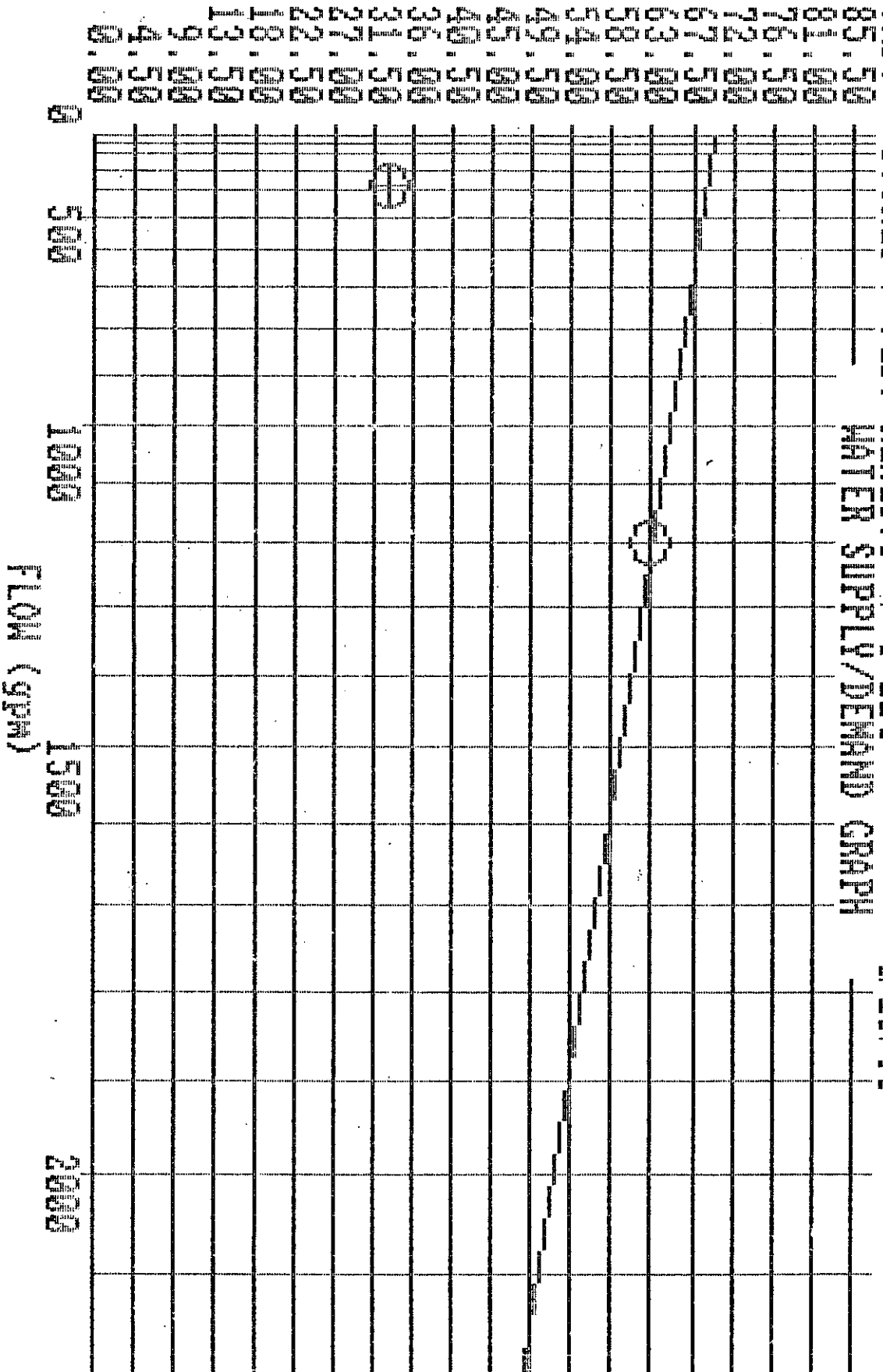
- STORES / FED.

REALITY / 6-124

WATER SUPPLY/DEMAND GRAPH

4/13/95

(psi)



FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

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~~~~~  
 SYSTEM ANALYSIS TO SHOW MAXIMUM FLOW  
 WITH ZERO PRESSURE REMAINING  
 ~~~~~

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

[] TEST AREA 1 [] TEST AREA 2 [] TEST AREA 3 ☒ REMOTE AREA

REF. PT.	K	ELEV. ft	FLOW gpm	PRESSURE psi
31	14.50	21.00	79.10	29.76
32	14.50	21.00	78.45	29.27
33	14.50	21.00	60.15	17.21
34	14.50	21.00	59.59	16.89
35	14.50	21.00	54.29	14.02
36	14.50	21.00	53.82	13.78

THE SPRINKLER SYSTEM FLOW IS 385.40 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 250.00 gpm

[] THE INSIDE HOSE [] RACK SPKLR'S.
 [] YARD HYDT. FLOW IS 0.00 gpm

THE FOLLOWING PRESSURES & FLOWS OCCUR
 ---> AT REF. PT. 1 <---

STATIC PRESSURE	70.00 psi	
RESIDUAL PRESSURE	63.00 psi	AT 1200.00 gpm
TOTAL SYSTEM FLOW	635.40 gpm	
AVAILABLE PRESSURE	67.84 psi	AT 635.40 gpm
MIN. PRESS. REQUIRED	67.84 psi	AT 635.40 gpm
PRESSURE REMAINING	0.00 psi	

THE ABOVE RESULTS INCLUDE 5 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☒ BACKFLOW PREVENTER [] METER
 [] DETECTOR CHECK VALVE [] OTHER DEVICE

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 NEW JERSEY STATE LICENSE
 # 20526

FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

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HYDRAULIC CALCULATIONS AT SPECIFIED FLOW

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

☐ TEST AREA 1 ☐ TEST AREA 2 ☐ TEST AREA 3 ☒ REMOTE AREA

REF. PT.	K	ELEV. ft	FLOW gpm	PRESSURE psi
31	14.50	21.00	71.66	24.42
32	14.50	21.00	71.06	24.02
33	14.50	21.00	54.37	14.06
34	14.50	21.00	53.85	13.79
35	14.50	21.00	48.99	11.41
36	14.50	21.00	48.60	11.23

THE SPRINKLER SYSTEM FLOW IS 348.52 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 250.00 gpm

☐ THE INSIDE HOSE ☐ RACK SPKLR'S.

☐ YARD HYDT. FLOW IS 0.00 gpm

THE FOLLOWING PRESSURES & FLOWS OCCUR

---> AT REF. PT. 1 <---

STATIC PRESSURE	70.00 psi	
RESIDUAL PRESSURE	63.00 psi	AT 1200.00 gpm
TOTAL SYSTEM FLOW	598.52 gpm	
AVAILABLE PRESSURE	68.07 psi	AT 598.52 gpm
MIN. PRESS. REQUIRED	58.46 psi	AT 598.52 gpm
PRESSURE REMAINING	9.61 psi	

THE ABOVE RESULTS INCLUDE 5 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☒ BACKFLOW PREVENTER ☐ METER
☐ DETECTOR CHECK VALVE ☐ OTHER DEVICE

FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95 .

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FROM	TO	FLOW (gpm)	PIPE (ft)	EQV. ft.	H-W C	DIA. (in)	FRIC. (psi)	ELEV. (psi)	FROM (psi)	TO (psi)	DIFF (psi)
1	2	348.52	50.00	55.88	140	6.38	0.00	0.00	58.46	58.15	0.31
2	3	348.52	20.00	38.22	120	4.26	0.03	8.67	58.15	42.85	6.63
3	4	348.52	33.00	0.00	120	4.26	0.03	0.43	42.85	41.49	0.93
4	5	348.52	56.00	22.48	120	4.26	0.03	0.00	41.49	39.29	2.20
5	6	348.52	19.00	9.40	120	3.26	0.10	0.00	39.29	36.36	2.93
6	7	348.52	7.00	20.16	120	3.26	0.10	0.00	36.36	33.54	2.82
7	8	348.52	13.00	0.00	120	3.26	0.10	0.00	33.54	32.20	1.34
8	9	348.52	18.00	0.00	120	3.26	0.10	0.00	32.20	30.34	1.86
9	10	348.52	15.00	0.00	120	3.26	0.10	0.00	30.34	28.79	1.55
10	11	173.51	17.00	0.00	120	3.26	0.03	0.00	28.79	28.32	0.47
10	31	175.01	8.00	12.30	120	2.16	0.22	0.00	28.79	24.42	4.37
11	32	173.51	8.00	12.30	120	2.16	0.21	0.00	28.32	24.02	4.30
31	33	103.36	18.00	0.00	120	1.44	0.58	0.00	24.42	14.06	10.36
32	34	102.45	18.00	0.00	120	1.44	0.57	0.00	24.02	13.79	10.23
33	35	48.99	18.00	0.00	120	1.44	0.14	0.00	14.06	11.41	2.64
34	36	48.60	18.00	0.00	120	1.44	0.14	0.00	13.79	11.23	2.56
35	41	0.00	14.00	0.00	120	1.44	0.00	0.00	11.41	11.41	0.00
41	43	0.00	12.00	0.00	120	1.44	0.00	0.00	11.41	11.41	0.00
36	42	0.00	14.00	0.00	120	1.44	0.00	0.00	11.23	11.23	0.00
42	44	0.00	12.00	0.00	120	1.44	0.00	0.00	11.23	11.23	0.00

A MAX. VELOCITY OF 20.3 ft./sec. OCCURS BETWEEN REF. PT. 31 AND 33

Sprinkler-CALC Release 5.3
By Walsh Engineering Inc.
North Kingstown R.I. U.S.A.

FORD FIRE PROTECTION, INC.

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HYDRAULIC CALCULATIONS

PREPARED FOR

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

WATER SUPPLY

STATIC PRESSURE (psi)	70
RESIDUAL PRESSURE (psi)	63
RESIDUAL FLOW (gpm)	1200

BOOSTER PUMPS

NUMBER OF BOOSTER PUMPS 0

SPRINKLERS

MINIMUM FLOW PER SPRINKLER	(gpm)	48.6
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BRICK TWP.

85.50

- STORES / FED.

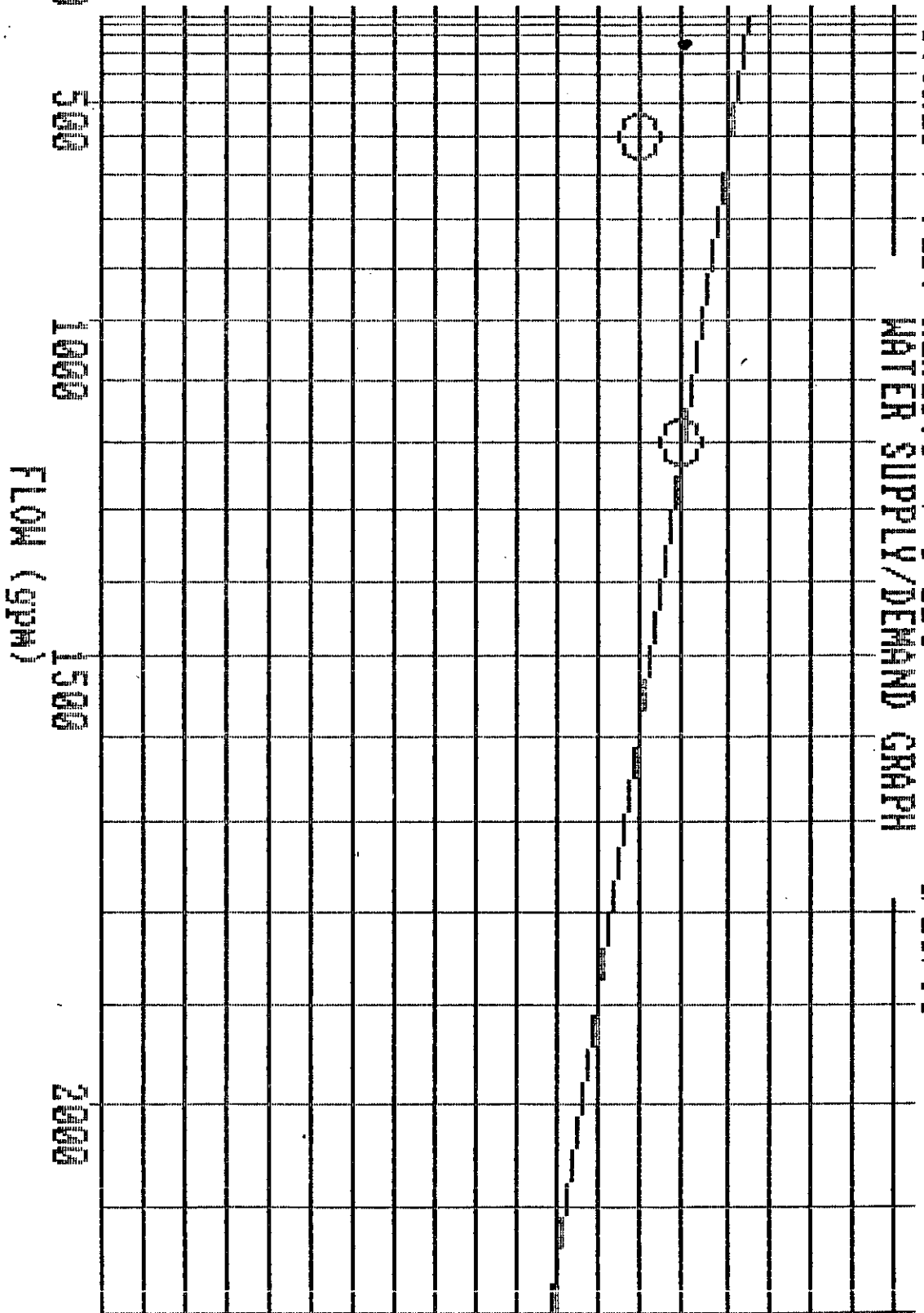
REALITY / 6-124

WATER SUPPLY/DEMAND GRAPH

4/13/95

RELIEF
(psi)

81.50
76.50
72.50
67.50
63.50
58.50
54.50
49.50
45.50
40.50
36.50
31.50
27.50
22.50
18.50
13.50
9.50
0.50



FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

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SYSTEM ANALYSIS TO SHOW MAXIMUM FLOW WITH ZERO PRESSURE REMAINING

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

☒ TEST AREA 1 ☐ TEST AREA 2 ☐ TEST AREA 3 ☐ REMOTE AREA

REF. PT.	K	ELEV. ft	FLOW gpm	PRESSURE psi
41	14.50	21.00	56.05	14.94
42	14.50	21.00	55.94	14.88
43	14.50	21.00	52.27	13.00
44	14.50	21.00	52.17	12.94

THE SPRINKLER SYSTEM FLOW IS 216.44 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 250.00 gpm

☐ THE INSIDE HOSE ☐ RACK SPKLR'S.

☐ YARD HYDT. FLOW IS 0.00 gpm

THE FOLLOWING PRESSURES & FLOWS OCCUR

---> AT REF. PT. 1 <---

STATIC PRESSURE	70.00 psi	
RESIDUAL PRESSURE	63.00 psi	AT 1200.00 gpm
TOTAL SYSTEM FLOW	466.44 gpm	
AVAILABLE PRESSURE	68.78 psi	AT 466.44 gpm
MIN. PRESS. REQUIRED	68.78 psi	AT 466.44 gpm
PRESSURE REMAINING	0.00 psi	

THE ABOVE RESULTS INCLUDE 5 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☒ BACKFLOW PREVENTER ☐ METER
☐ DETECTOR CHECK VALVE ☐ OTHER DEVICE

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HYDRAULIC CALCULATIONS AT SPECIFIED FLOW

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

☒ TEST AREA 1 ☐ TEST AREA 2 ☐ TEST AREA 3 ☐ REMOTE AREA

REF. PT.	K	ELEV. ft	FLOW gpm	PRESSURE psi
41	14.50	21.00	31.80	4.81
42	14.50	21.00	31.71	4.78
43	14.50	21.00	29.46	4.13
44	14.50	21.00	29.40	4.11

THE SPRINKLER SYSTEM FLOW IS 122.36 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 250.00 gpm

☐ THE INSIDE HOSE ☐ RACK SPKLR'S.

☐ YARD HYDT. FLOW IS 0.00 gpm

THE FOLLOWING PRESSURES & FLOWS OCCUR

---> AT REF. PT. 1 <---

STATIC PRESSURE	70.00 psi	
RESIDUAL PRESSURE	63.00 psi	AT 1200.00 gpm
TOTAL SYSTEM FLOW	372.36 gpm	
AVAILABLE PRESSURE	69.20 psi	AT 372.36 gpm
MIN. PRESS. REQUIRED	32.72 psi	AT 372.36 gpm
PRESSURE REMAINING	36.48 psi	

THE ABOVE RESULTS INCLUDE 5 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☒ BACKFLOW PREVENTER	☐ METER
☐ DETECTOR CHECK VALVE	☐ OTHER DEVICE

FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

PAGE 3

FROM	TO	FLOW (gpm)	PIPE (ft)	EQV. ft.	H-W C	DIA. (in)	FRIC. (psi)	ELEV. (psi)	FROM (psi)	TO (psi)	DIFF (psi)
1	2	122.36	50.00	55.88	140	6.38	0.00	0.00	32.72	32.68	0.04
2	3	122.36	20.00	38.22	120	4.26	0.00	8.67	32.68	18.78	5.24
3	4	122.36	33.00	0.00	120	4.26	0.00	0.43	18.78	18.21	0.13
4	5	122.36	56.00	22.48	120	4.26	0.00	0.00	18.21	17.89	0.32
5	6	122.36	19.00	9.40	120	3.26	0.01	0.00	17.89	17.47	0.42
6	7	122.36	7.00	20.16	120	3.26	0.01	0.00	17.47	17.07	0.40
7	8	122.36	13.00	0.00	120	3.26	0.01	0.00	17.07	16.88	0.19
8	9	122.36	18.00	0.00	120	3.26	0.01	0.00	16.88	16.61	0.27
9	10	122.36	15.00	0.00	120	3.26	0.01	0.00	16.61	16.39	0.22
10	11	61.11	17.00	0.00	120	3.26	0.00	0.00	16.39	16.31	0.08
10	31	61.25	8.00	12.30	120	2.16	0.03	0.00	16.39	15.76	0.63
11	32	61.11	8.00	12.30	120	2.16	0.03	0.00	16.31	15.69	0.62
31	33	61.25	18.00	0.00	120	1.44	0.22	0.00	15.76	11.82	3.94
32	34	61.11	18.00	0.00	120	1.44	0.22	0.00	15.69	11.76	3.93
33	35	61.25	18.00	0.00	120	1.44	0.22	0.00	11.82	7.87	3.94
34	36	61.11	18.00	0.00	120	1.44	0.22	0.00	11.76	7.84	3.93
35	41	61.25	14.00	0.00	120	1.44	0.22	0.00	7.87	4.81	3.07
41	43	29.46	12.00	0.00	120	1.44	0.06	0.00	4.81	4.13	0.68
36	42	61.11	14.00	0.00	120	1.44	0.22	0.00	7.84	4.78	3.05
42	44	29.40	12.00	0.00	120	1.44	0.06	0.00	4.78	4.11	0.67

A MAX. VELOCITY OF 12.03 ft./sec. OCCURS BETWEEN REF. PT'. 35 AND 41

Sprinkler-CALC Release 5.3
By Walsh Engineering Inc.
North Kingstown R.I. U.S.A.

FORD FIRE PROTECTION, INC.

198 KINGS HIGHWAY CAPE MAY COURT HOUSE, NJ 08210 (609)624-0100 (609)624-0635 FAX

HYDRAULIC CALCULATIONS

PREPARED FOR

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

WATER SUPPLY

STATIC PRESSURE (psi)	70
RESIDUAL PRESSURE (psi)	63
RESIDUAL FLOW (gpm)	1200

BOOSTER PUMPS

NUMBER OF BOOSTER PUMPS 0

SPRINKLERS

MINIMUM FLOW PER SPRINKLER (gpm) 29.4

BRICK TWP.

-

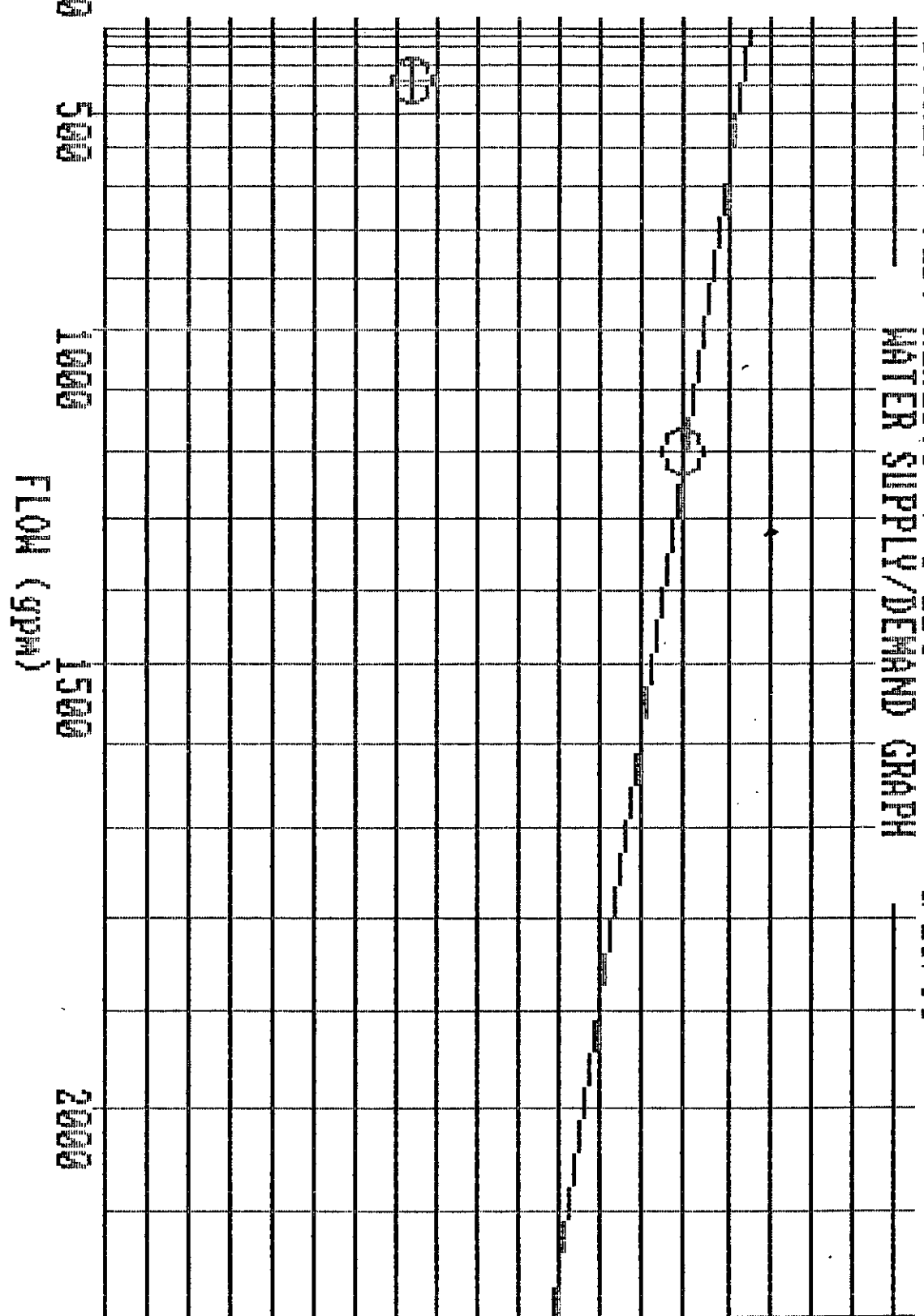
STORES / FED. REALITY / 6-124

4/13/95

WATER SUPPLY/DEMAND GRAPH

PRESSURE
(psi)

85.50
81.50
76.50
72.50
67.50
63.50
58.50
54.50
49.50
45.50
40.50
36.50
31.50
27.50
22.50
18.50
13.50
9.50
4.50
0.00



FLOW (gpm)

FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

PAGE 1

SYSTEM ANALYSIS TO SHOW MAXIMUM FLOW WITH ZERO PRESSURE REMAINING

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

☐ TEST AREA 1 ☐ TEST AREA 2 ☐ TEST AREA 3 ☒ REMOTE AREA

REF. PT.	K	ELEV. ft	FLOW gpm	PRESSURE psi
31	14.50	21.00	79.10	29.76
32	14.50	21.00	78.45	29.27
33	14.50	21.00	60.15	17.21
34	14.50	21.00	59.59	16.89
35	14.50	21.00	54.29	14.02
36	14.50	21.00	53.82	13.78

THE SPRINKLER SYSTEM FLOW IS 385.40 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 250.00 gpm

☐ THE INSIDE HOSE ☐ RACK SPKLR'S. IS 0.00 gpm

☐ YARD HYDT. FLOW

THE FOLLOWING PRESSURES & FLOWS OCCUR
---> AT REF. PT. 1 <---

STATIC PRESSURE	70.00 psi	
RESIDUAL PRESSURE	63.00 psi	AT 1200.00 gpm
TOTAL SYSTEM FLOW	635.40 gpm	
AVAILABLE PRESSURE	67.84 psi	AT 635.40 gpm
MIN. PRESS. REQUIRED	67.84 psi	AT 635.40 gpm
PRESSURE REMAINING	0.00 psi	

THE ABOVE RESULTS INCLUDE 5 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☒ BACKFLOW PREVENTER ☐ METER
☐ DETECTOR CHECK VALVE ☐ OTHER DEVICE

ALBERT E. MERRILL, P.E.

137 S. COLOGNE AVENUE
EGG HARBOR CITY, NJ 08215
(609) 965-6842

AL Merrill
NEW JERSEY STATE LICENSE
20526

FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

PAGE 2

HYDRAULIC CALCULATIONS AT SPECIFIED FLOW

THE FOLLOWING SPRINKLERS ARE OPERATING IN:

☐ TEST AREA 1 ☐ TEST AREA 2 ☐ TEST AREA 3 ☒ REMOTE AREA

REF. PT.	K	ELEV. ft	FLOW gpm	PRESSURE psi
31	14.50	21.00	71.66	24.42
32	14.50	21.00	71.06	24.02
33	14.50	21.00	54.37	14.06
34	14.50	21.00	53.85	13.79
35	14.50	21.00	48.99	11.41
36	14.50	21.00	48.60	11.23

THE SPRINKLER SYSTEM FLOW IS 348.52 gpm

THE OUTSIDE HOSE FLOW AT REFERENCE POINT NO. 1 IS 250.00 gpm

☐ THE INSIDE HOSE ☐ RACK SPKLR'S.

☐ YARD HYDT. FLOW IS 0.00 gpm

THE FOLLOWING PRESSURES & FLOWS OCCUR

---> AT REF. PT. 1 <---

STATIC PRESSURE	70.00 psi	
RESIDUAL PRESSURE	63.00 psi	AT 1200.00 gpm
TOTAL SYSTEM FLOW	598.52 gpm	
AVAILABLE PRESSURE	68.07 psi	AT 598.52 gpm
MIN. PRESS. REQUIRED	58.46 psi	AT 598.52 gpm
PRESSURE REMAINING	9.61 psi	

THE ABOVE RESULTS INCLUDE 5 psi FRICTION LOSS AT REF. PT. # 2 FOR A

☒ BACKFLOW PREVENTER
☐ DETECTOR CHECK VALVE

☐ METER
☐ OTHER DEVICE

FORD FIRE PROTECTION, INC.

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

PAGE 3

~~~~~											
FROM	TO	FLOW	PIPE	EQV.	H-W	DIA.	FRIC.	ELEV.	FROM	TO	DIFF
		(gpm)	(ft)	ft.	C	(in)	(psi)	(psi)	(psi)	(psi)	(psi)
~~~~~											
1	2	348.52	50.00	55.88	140	6.38	0.00	0.00	58.46	58.15	0.31
2	3	348.52	20.00	38.22	120	4.26	0.03	8.67	58.15	42.85	6.63
3	4	348.52	33.00	0.00	120	4.26	0.03	0.43	42.85	41.49	0.93
4	5	348.52	56.00	22.48	120	4.26	0.03	0.00	41.49	39.29	2.20
5	6	348.52	19.00	9.40	120	3.26	0.10	0.00	39.29	36.36	2.93
6	7	348.52	7.00	20.16	120	3.26	0.10	0.00	36.36	33.54	2.82
7	8	348.52	13.00	0.00	120	3.26	0.10	0.00	33.54	32.20	1.34
8	9	348.52	18.00	0.00	120	3.26	0.10	0.00	32.20	30.34	1.86
9	10	348.52	15.00	0.00	120	3.26	0.10	0.00	30.34	28.79	1.55
10	11	173.51	17.00	0.00	120	3.26	0.03	0.00	28.79	28.32	0.47
10	31	175.01	8.00	12.30	120	2.16	0.22	0.00	28.79	24.42	4.37
11	32	173.51	8.00	12.30	120	2.16	0.21	0.00	28.32	24.02	4.30
31	33	103.36	18.00	0.00	120	1.44	0.58	0.00	24.42	14.06	10.36
32	34	102.45	18.00	0.00	120	1.44	0.57	0.00	24.02	13.79	10.23
33	35	48.99	18.00	0.00	120	1.44	0.14	0.00	14.06	11.41	2.64
34	36	48.60	18.00	0.00	120	1.44	0.14	0.00	13.79	11.23	2.56
35	41	0.00	14.00	0.00	120	1.44	0.00	0.00	11.41	11.41	0.00
41	43	0.00	12.00	0.00	120	1.44	0.00	0.00	11.41	11.41	0.00
36	42	0.00	14.00	0.00	120	1.44	0.00	0.00	11.23	11.23	0.00
42	44	0.00	12.00	0.00	120	1.44	0.00	0.00	11.23	11.23	0.00

A MAX. VELOCITY OF 20.3 ft./sec. OCCURS BETWEEN REF. PT. 31 AND 33

Sprinkler-CALC Release 5.3
By Walsh Engineering Inc.
North Kingstown R.I. U.S.A.

FORD FIRE PROTECTION, INC.

198 KINGS HIGHWAY . CAPE MAY COURT HOUSE, NJ 08210 (609)624-0100 (609)624-0635 F
AX

HYDRAULIC CALCULATIONS

PREPARED FOR

BRICK TWP. - STORES / FED. REALITY / 6-124

4/13/95

WATER SUPPLY

STATIC PRESSURE (psi)	70
RESIDUAL PRESSURE (psi)	63
RESIDUAL FLOW (gpm)	1200

BOOSTER PUMPS

NUMBER OF BOOSTER PUMPS 0

SPRINKLERS

MINIMUM FLOW PER SPRINKLER	(gpm)	48.6
----------------------------	-------	------

BRICK

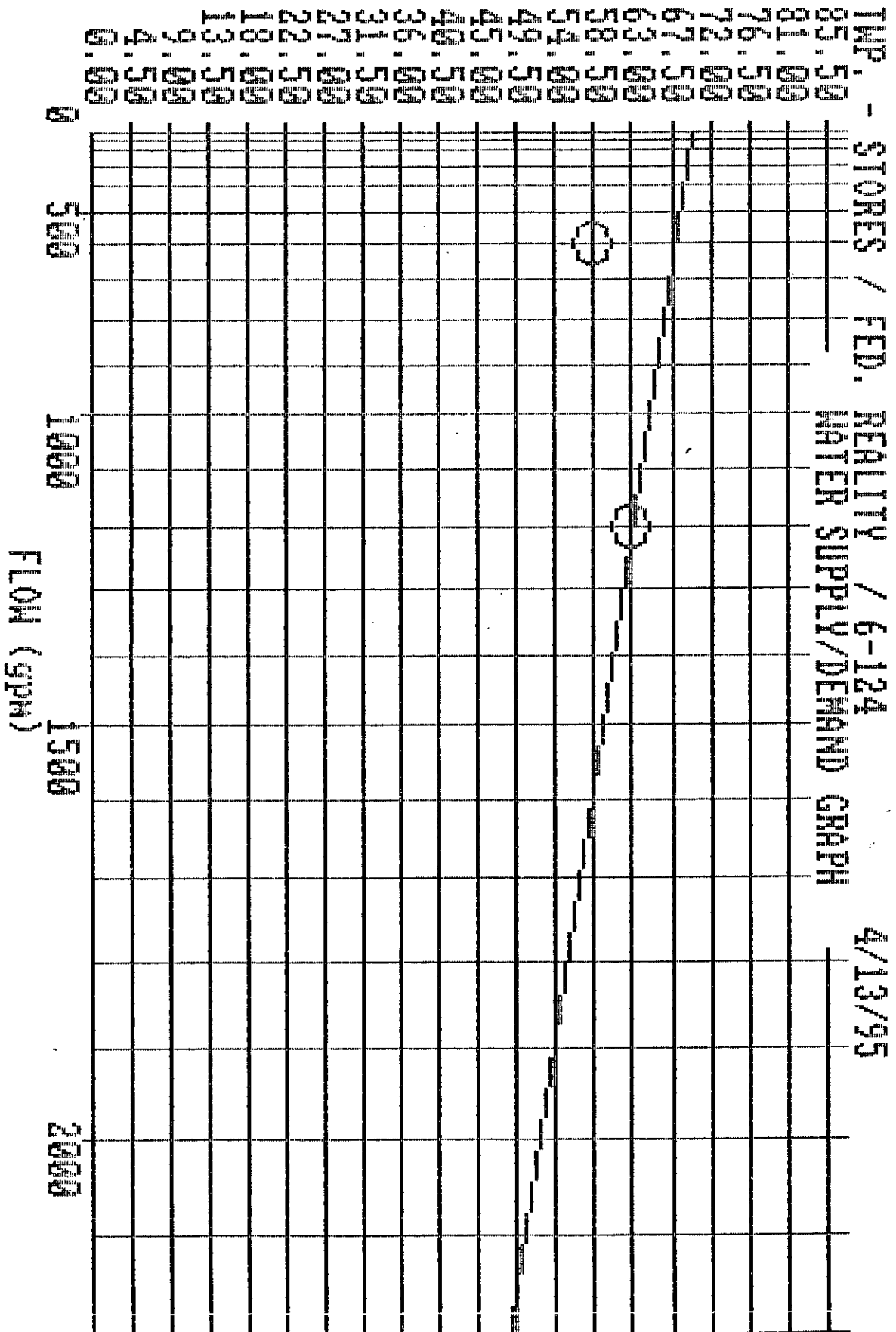
TEMP.

- STORES / FED.

REALITY / 6-124
WATER SUPPLY/DEMAND GRAPH

4/13/95

RELEASE
(psi)



FORD FIRE PROTECTION

198 KINGS HIGHWAY
CAPE MAY COURT HOUSE, NEW JERSEY 08210
609-624-0100

LETTER OF TRANSMITTAL

TO: Township of Brick
401 Chambersbridge Rd
Brick, NJ 08723

DATE	<u>4/19/95</u>	JOB NO.	<u>8036</u>
ATTENTION	<u>Fire SubCode Official - Ray Kar Kowski</u>		
RE	<u>Brick Plaza</u> <u>Spaces 28, 29 & 29B</u>		

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO	DESCRIPTION
2		FP-1	Sprinkler Drawing PE sealed
2			Hydraulic Calculations Remote Area PE sealed
2			Hydraulic Calculations Test Area PE sealed
1			Permit Application

THESE ARE TRANSMITTED as checked below:

- | | | |
|--|--|---|
| ☒ For approval | ☐ Approved as submitted | ☐ Resubmit _____ copies for approval |
| ☐ For your use | ☐ Approved as noted | ☐ Submit _____ copies for distribution |
| ☐ As requested | ☐ Change order | ☐ Return _____ corrected prints |
| ☐ For review and comment | ☐ _____ | |
| ☐ FOR BIDS DUE _____ 1991 | | ☐ PRINTS RETURNED AFTER LOAN TO US |

REMARKS _____

Please review for permit approval.

Please call if you have any questions. Thank You.

Silver Threads, Wholesale for Kids, Dollar Store

COPY TO File

SIGNED Joia Rafferty - Projects Admin.

IF ENCLOSURES ARE NOT AS NOTED, KINDLY NOTIFY US AT ONCE

FORD FIRE PROTECTION

198 KINGS HIGHWAY
CAPE MAY COURT HOUSE, NEW JERSEY 08210
609-624-0100

LETTER OF TRANSMITTAL

TO: Township of Brick
401 Chamberbridge Rd
Brick, NJ 08723

RECEIVED
JUN 8 1995
DIV. OF INSPECTION

DATE	5/31/95	JOB NO.	8036
ATTENTION	Art Cierzo		
RE	Brick Plaza Shopping Center Spaces 28, 29 & 29B		

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover via _____ the following items:

- ☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO	DESCRIPTION
2		FP-1	Sprinkler Drawing PE Sealed
2			Hydraulic Calculations Remote Area PE Sealed
2			Hydraulic Calculations Test Area PE Sealed
1			Permit Application w/ Jacket - Fire Subcode

THESE ARE TRANSMITTED as checked below:

- ☒ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Change order ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ 1991 ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

Please review for permit approval.

COPY TO File

SIGNED Jana Rafferty

34. Feet.

MINN. BASIC/NATIONAL BUILDING CODE

Plan Review #

Date

JURISDICTION Bruch Plaza

BUILDING LOCATION Bruch Plaza Shopping Center (City, County, Township, etc.)

Job Name Federal Realty (Street Address)

New Building ☐

Addition ☐

Alteration ☐

Other ☐

Construction Classification

Use Group M

Block 671

Lot 8

CORRECTION LIST

No.	DESCRIPTION	Page	Sec	Code Sect.	C
1	Backflow Preventer must be				
2	up to Code Double Check Valve				
3	& Reducing Pressures. Top there is				
4	a Creek less than 1700 ft Rear of				
5	Store, holding Heads. Two stores				
6	must be up to Code.				
7					
8					
9					
10					
11					
12					
13					
14					
15					

Walt LPT
Letter saying Backflow Preventer
in Backflow Preventer
Pressure Reducing

Other Comments:

Collected 6/2/95 7-11-95
Joe
Conte Bought
Plans in the end
of June. He says
Gandy

LETTER OF TRANSMITTAL**FORD FIRE PROTECTION**

198 KINGS HIGHWAY
CAPE MAY COURT HOUSE, NEW JERSEY 08210
609-624-0100

DATE	7/14/95	JOB NO.	8036
ATTENTION	Joseph Evaristo		
RE	Brick Plaza Shopping Center Spaces 28, 29 & 29B		

TO: Township of Brick Town Hall
401 Chambersbridge Rd
Brick, NJ 08723

WE ARE SENDING YOU ☐ Attached ☐ Under separate cover via _____ the following items:

- ☐ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO	DESCRIPTION
1			Plumbing Permit Application
3			Sketch of Reduced pressure backflow preventer (Addendum to Sprinkler dwg FP-1)

THESE ARE TRANSMITTED as checked below:

- ☐ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Change order ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ 1991 ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

To be processed with Fire Sub code Permit Application
already in your possession.

Per your request - installation of reduced pressure backflow
preventer

COPY TO File

SIGNED

Sara Rafferty

CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR ABOVEGROUND PIPING

PROCEDURE

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

PROPERTY NAME Brick Plaza (Security Pacific Financial) DATE 9-25-95

PROPERTY ADDRESS Cedar Bridge & Chamberbridge Rd.

PLANS	ACCEPTED BY APPROVING AUTHORITIES (NAMES) <u>Township of Brick</u>	
	ADDRESS	
	INSTALLATION CONFORMS TO ACCEPTED PLANS	☒ YES ☐ NO
	EQUIPMENT USED IS APPROVED	☒ YES ☐ NO

INSTRUCTIONS	IF NO, EXPLAIN DEVIATIONS	
	HAS PERSON IN CHARGE OF FIRE EQUIPMENT BEEN INSTRUCTED AS TO LOCATION OF CONTROL VALVES AND CARE AND MAINTENANCE OF THIS NEW EQUIPMENT?	
	☒ YES ☐ NO	
	IF NO, EXPLAIN	

INSTRUCTIONS	HAVE COPIES OF THE FOLLOWING BEEN LEFT ON THE PREMISES:		☒ YES ☐ NO
	1. SYSTEM COMPONENTS INSTRUCTIONS		☒ YES ☐ NO
	2. CARE AND MAINTENANCE INSTRUCTIONS		☒ YES ☐ NO
	3. NFPA 13A		☒ YES ☐ NO
			☒ YES ☐ NO

LOCATION OF SYSTEM	SUPPLIES BUILDINGS
--------------------	--------------------

SPRINKLERS	MAKE	MODEL	YEAR OF MANUFACTURE	ORIFICE SIZE	QUANTITY	TEMPERATURE RATING *
	<u>Central</u>	<u>Pendent</u>	<u>1995</u>	<u>3/4"</u>	<u>9</u>	<u>165°</u>

PIPE AND FITTINGS	Type of Pipe <u>Sch 40 Black steel</u>
	Type of Fittings <u>cast iron, malleable</u>

ALARM VALVE OR FLOW INDICATOR	ALARM DEVICE			MAXIMUM TIME TO OPERATE THROUGH TEST CONNECTION	
	TYPE	MAKE	MODEL	MIN.	SEC.
	<u>Flow Switch</u>	<u>Patten</u>	<u>VSR-F</u>		

DRY PIPE OPERATING TEST	DRY VALVE			O.O.D.		
	MAKE	MODEL	SERIAL NO.	MAKE	MODEL	SERIAL NO.
	TIME TO TRIP THRU TEST CONNECTION*	WATER PRESSURE	AIR PRESSURE	TRIP POINT AIR PRESSURE	TIME WATER REACHED TEST OUTLET*	ALARM OPERATED PROPERLY
	MIN. SEC.	PSI	PSI	PSI	MIN. SEC.	YES NO
	Without O.O.D.					
	With O.O.D.					

IF NO, EXPLAIN

ADDITIONAL EXPLANATION AND NOTES

CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR ABOVEGROUND PIPING

PROCEDURE

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job.

A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.

PROPERTY NAME BRICK PLAZA DATE 12-1-95

PROPERTY ADDRESS BRICKTOWN, NJ

ACCEPTED BY APPROVING AUTHORITIES (NAMES)
TOWNSHIP OF BRICK

ADDRESS
401 CHAMBERS BRIDGE RD BRICK NJ

INSTALLATION CONFORMS TO ACCEPTED PLANS ☒ YES ☐ NO

EQUIPMENT USED IS APPROVED ☒ YES ☐ NO

IF NO, EXPLAIN DEVIATIONS

HAS PERSON IN CHARGE OF FIRE EQUIPMENT BEEN INSTRUCTED AS TO LOCATION OF CONTROL VALVES AND CARE AND MAINTENANCE OF THIS NEW EQUIPMENT? ☒ YES ☐ NO

IF NO, EXPLAIN

HAVE COPIES OF THE FOLLOWING BEEN LEFT ON THE PREMISES:

1. SYSTEM COMPONENTS INSTRUCTIONS ☒ YES ☐ NO

2. CARE AND MAINTENANCE INSTRUCTIONS ☒ YES ☐ NO

3. NFPA 13A EXISTING SYSTEM EXTENSION ☒ YES ☐ NO

LOCATION OF SYSTEM
SUPPLIES BUILDINGS 28, 280, 29, 290

MAKE	MODEL	YEAR OF MANUFACTURE	ORIFICE SIZE	QUANTITY	TEMPERATURE RATING
<u>CENTRAL</u>	<u>ESLO</u>	<u>1995</u>	<u>.70</u>	<u>47</u>	<u>155</u>

PIPE AND FITTINGS
Type of Pipe Steel Sch 10 840

Type of Fittings BCI & Ductile (Grooved)

ALARM VALVE OR FLOW INDICATOR	EXISTING TYPE	ALARM DEVICE		MAXIMUM TIME TO OPERATE THROUGH TEST CONNECTION	
		MAKE	MODEL	MIN.	SEC.

DRY PIPE OPERATING TEST	DRY VALVE			O.O.D.					
	MAKE	MODEL	SERIAL NO.	MAKE	MODEL	SERIAL NO.			
	TIME TO TRIP THRU TEST CONNECTION*		WATER PRESSURE	AIR PRESSURE	TRIP POINT AIR PRESSURE	TIME WATER REACHED TEST OUTLET*		ALARM OPERATED PROPERLY	
	MIN.	SEC.	PSI	PSI	PSI	MIN.	SEC.	YES	NO
Without O.O.D.									
With O.O.D.									

IF NO, EXPLAIN

DELUGE & PREACTION VALVES	OPERATION							
	☐ PNEUMATIC ☐ ELECTRIC ☐ HYDRAULIC							
	PIPING SUPERVISED ☐ YES ☐ NO				DETECTING MEDIA SUPERVISED ☐ YES ☐ NO			
	DOES VALVE OPERATE FROM THE MANUAL TRIP AND/OR REMOTE CONTROL STATIONS ☐ YES ☐ NO							
	IS THERE AN ACCESSIBLE FACILITY IN EACH CIRCUIT FOR TESTING ☐ YES ☐ NO							
	IF NO, EXPLAIN							
	MAKE		MODEL		DOES EACH CIRCUIT OPERATE SUPERVISION LOSS ALARM		DOES EACH CIRCUIT OPERATE VALVE RELEASE	
					YES NO		YES NO	
TEST DESCRIPTION	HYDROSTATIC: Hydrostatic tests shall be made at not less than 200 psi (13.6 bars) for two hours or 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.2 bars) for two hours. Differential dry-pipe valve clappers shall be left open during test to prevent damage. All aboveground piping leakage shall be stopped.							
	PNEUMATIC: Establish 40 psi (2.7 bars) air pressure and measure drop which shall not exceed 1-1/2 psi (0.1 bars) in 24 hours. Test pressure tanks at normal water level and air pressure and measure air pressure drop which shall not exceed 1-1/2 psi (0.1 bars) in 24 hours.							
TESTS	ALL PIPING HYDROSTATICALLY TESTED AT <u>200</u> PSI FOR <u>2</u> HRS. IF NO, STATE REASON							
	DRY PIPING PNEUMATICALLY TESTED ☐ YES ☐ NO <u>NA</u> EQUIPMENT OPERATES PROPERLY ☒ YES ☐ NO							
	DO YOU CERTIFY AS THE SPRINKLER CONTRACTOR THAT ADDITIVES AND CORROSIVE CHEMICALS, SODIUM SILICATE OR DERIVATIVES OF SODIUM SILICATE, BRINE, OR OTHER CORROSIVE CHEMICALS WERE NOT USED FOR TESTING SYSTEMS OR STOPPING LEAKS? ☐ YES ☐ NO							
	DRAIN TEST		READING OF GAGE LOCATED NEAR WATER SUPPLY TEST CONNECTION: _____ PSI			RESIDUAL PRESSURE WITH VALVE IN TEST CONNECTION OPEN WIDE _____ PSI		
	UNDERGROUND MAINS AND LEAD IN CONNECTIONS TO SYSTEM RISERS FLUSHED BEFORE CONNECTION MADE TO SPRINKLER PIPING.							
	VERIFIED BY COPY OF THE U FORM NO. 858 ☐ YES ☐ NO				OTHER EXPLAIN			
	FLUSHED BY INSTALLER OF UNDERGROUND SPRINKLER PIPING ☐ YES ☐ NO							
BLANK TESTING GASKETS	NUMBER USED		LOCATIONS				NUMBER REMOVED	
	<u>0</u>							
WELDING	WELDED PIPING ☐ YES ☒ NO							
	IF YES...							
	DO YOU CERTIFY AS THE SPRINKLER CONTRACTOR THAT WELDING PROCEDURES COMPLY WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3 ☐ YES ☐ NO							
	DO YOU CERTIFY THAT THE WELDING WAS PERFORMED BY WELDERS QUALIFIED IN COMPLIANCE WITH THE REQUIREMENTS OF AT LEAST AWS D10.9, LEVEL AR-3 ☐ YES ☐ NO							
CUTOUTS (DISCS)	DO YOU CERTIFY THAT WELDING WAS CARRIED OUT IN COMPLIANCE WITH A DOCUMENTED QUALITY CONTROL PROCEDURE TO INSURE THAT ALL DISCS ARE RETRIEVED, THAT OPENINGS IN PIPING ARE SMOOTH, THAT SLAG AND OTHER WELDING RESIDUE ARE REMOVED, AND THAT THE INTERNAL DIAMETERS OF PIPING ARE NOT PENETRATED ☐ YES ☐ NO							
	DO YOU CERTIFY THAT YOU HAVE A CONTROL FEATURE TO ENSURE THAT ALL CUTOUTS (DISCS) ARE RETRIEVED? ☒ YES ☐ NO							
HYDRAULIC DATA NAMEPLATE	NAME PLATE PROVIDED		IF NO, EXPLAIN					
	☒ YES ☐ NO							
REMARKS	DATE LEFT IN SERVICE WITH ALL CONTROL VALVES OPEN: <u>12-1-95</u>							
SIGNATURES	NAME OF SPRINKLER CONTRACTOR <u>FORD FIRE PROTECTION INC</u>							
	TESTS WITNESSED BY							
	FOR PROPERTY OWNER (SIGNED)				TITLE		DATE	
	FOR SPRINKLER CONTRACTOR (SIGNED) <u>Don JARVIS</u>				TITLE <u>FOREMAN</u>		DATE <u>12-1-95</u>	

ADDITIONAL EXPLANATION AND NOTES

12-1-95 Witness Test By Joe L. Lantz Fire Sub. Cook