



SMITH FIRE SYSTEMS, INC.

1106 54th Avenue East • Tacoma, Washington 98424

(253) 926-1880 • FAX (253) 926-2350

CONTR. REG. NO. SMITHFS1360T

HYDRAULIC CALCULATION INFORMATION SHEET

PROJECT NAME **HAO MAI GARDENS**

JOB NO. **TC15002**

DATE **4-22-16**

ADDRESS **221 10TH AVE S**

BY **AARON N.**

SEATTLE, WA

SYSTEM DESIGNATION: **LEVEL 4 - WEST BUILDING**

HAZARD DESCRIPTION: **RESIDENTIAL**

HAZARD CLASS PER NFPA **13 : 2013**

SPECIFIC RULING:

RULING MADE BY: OF

DENSITY: **.10 GPM OVER THE MOST HYDRAULICALLY REMOTE 8 SPRINKLERS**

ALLOWANCES INCLUDED IN CALCULATIONS:

ADDED AT:

INSIDE HOSE GPM

OUTSIDE HOSE **100** GPM

SOURCE

IN-RACK SPRINKLER DEMAND GPM

SYSTEM TYPE: **WET**

TOTAL NUMBER OF SPRINKLERS THIS SYSTEM **62**

"C" FACTOR OVERHEAD : **150**

"C" FACTOR UNDERGROUND : **140**

MAXIMUM ACTUAL AREA OF COVERAGE PER SPRINKLER: **130** SQUARE FEET

SPRINKLER MANUFACTURER: **RELIABLE** MODEL: **F1/RES49** TEMPERATURE: **155 ° F**

K-FACTOR: **4.9** ORIFICE SIZE: **1/2"**

WATER SUPPLY:

ELEVATION OF TEST: **233'**

STATIC **82** PSI

DATE OF TEST: **1-29-12**

RESIDUAL **62** PSI

DATA PROVIDED BY: **SEATTLE PUBLIC UTILITIES**

FLOW **805** GPM

LOCATION OF TEST: **916 S. WASHINGTON ST**

BASE OF RISER DEMAND

118.0 GPM REQUIRED AT **26.6** PSI

(INCLUDING **0** GPM FOR HOSE STREAMS)

SUMMARY

218.0 GPM REQUIRED AT **52.2** PSI

AT CONNECTION TO **PUBLIC MAIN**

(INCLUDING **100** GPM FOR TOTAL HOSE STREAMS)



CERTIFICATE OF COMPETENCY STAMP



SMITH FIRE SYSTEMS, INC.

1106 54th Avenue East • Tacoma, Washington 98424

(253) 926-1880 • FAX (253) 926-2350

CONTR. REG. NO. SMITHFS1360T

HYDRAULIC CALCULATION INFORMATION SHEET

PROJECT NAME **HAO MAI GARDENS**

JOB NO. **TC15002**

DATE **4-22-16**

ADDRESS **221 10TH AVE S**

BY **AARON N.**

SEATTLE, WA

SYSTEM DESIGNATION: **LEVEL 5 - EAST BUILDING**

HAZARD DESCRIPTION: **RESIDENTIAL**

HAZARD CLASS PER NFPA **13 : 2013**

SPECIFIC RULING:

RULING MADE BY: OF

DENSITY: **.10 GPM OVER THE MOST HYDRAULICALLY REMOTE 8 SPRINKLERS**

ALLOWANCES INCLUDED IN CALCULATIONS:

ADDED AT:

INSIDE HOSE GPM

OUTSIDE HOSE **100** GPM

SOURCE

IN-RACK SPRINKLER DEMAND GPM

SYSTEM TYPE: **WET**

TOTAL NUMBER OF SPRINKLERS THIS SYSTEM **163**

"C" FACTOR OVERHEAD : **150**

"C" FACTOR UNDERGROUND : **140**

MAXIMUM ACTUAL AREA OF COVERAGE PER SPRINKLER: **130** SQUARE FEET

SPRINKLER MANUFACTURER: **RELIABLE** MODEL: **F1/RES49** TEMPERATURE: **155 ° F**

K-FACTOR: **4.9** ORIFICE SIZE: **1/2"**

WATER SUPPLY:

ELEVATION OF TEST: **233'**

STATIC **82** PSI

DATE OF TEST: **1-29-12**

RESIDUAL **62** PSI

DATA PROVIDED BY: **SEATTLE PUBLIC UTILITIES**

FLOW **805** GPM

LOCATION OF TEST: **916 S. WASHINGTON ST**

BASE OF RISER DEMAND

110.6 GPM REQUIRED AT **30.7** PSI

(INCLUDING **0** GPM FOR HOSE STREAMS)

SUMMARY

210.6 GPM REQUIRED AT **59.8** PSI

AT CONNECTION TO **PUBLIC MAIN**

(INCLUDING **100** GPM FOR TOTAL HOSE STREAMS)



CERTIFICATE OF COMPETENCY STAMP



SMITH FIRE SYSTEMS, INC.

1106 54th Avenue East • Tacoma, Washington 98424

(253) 926-1880 • FAX (253) 926-2350

CONTR. REG. NO. SMITHFS1360T

HYDRAULIC CALCULATION INFORMATION SHEET

PROJECT NAME **HAO MAI GARDENS**

JOB NO. **TC15002**

DATE **4-22-16**

ADDRESS **221 10TH AVE S**

BY **AARON N.**

SEATTLE, WA

SYSTEM DESIGNATION: **LEVEL 6 - EAST BUILDING**

HAZARD DESCRIPTION: **RESIDENTIAL**

HAZARD CLASS PER NFPA **13 : 2013**

SPECIFIC RULING:

RULING MADE BY: OF

DENSITY: **.10 GPM OVER THE MOST HYDRAULICALLY REMOTE 8 SPRINKLERS**

ALLOWANCES INCLUDED IN CALCULATIONS:

ADDED AT:

INSIDE HOSE GPM

OUTSIDE HOSE **100** GPM

SOURCE

IN-RACK SPRINKLER DEMAND GPM

SYSTEM TYPE: **WET**

TOTAL NUMBER OF SPRINKLERS THIS SYSTEM **163**

"C" FACTOR OVERHEAD : **150**

"C" FACTOR UNDERGROUND : **140**

MAXIMUM ACTUAL AREA OF COVERAGE PER SPRINKLER: **130** SQUARE FEET

SPRINKLER MANUFACTURER: **RELIABLE** MODEL: **F1/RES49** TEMPERATURE: **155 ° F**

K-FACTOR: **4.9** ORIFICE SIZE: **1/2"**

WATER SUPPLY:

ELEVATION OF TEST: **233'**

STATIC **82** PSI

DATE OF TEST: **1-29-12**

RESIDUAL **62** PSI

DATA PROVIDED BY: **SEATTLE PUBLIC UTILITIES**

FLOW **805** GPM

LOCATION OF TEST: **916 S. WASHINGTON ST**

BASE OF RISER DEMAND

110.6 GPM REQUIRED AT **30.7** PSI

(INCLUDING **0** GPM FOR HOSE STREAMS)

SUMMARY

210.6 GPM REQUIRED AT **63.8** PSI

AT CONNECTION TO **PUBLIC MAIN**

(INCLUDING **100** GPM FOR TOTAL HOSE STREAMS)



CERTIFICATE OF COMPETENCY STAMP



SMITH FIRE SYSTEMS, INC.

1106 54th Avenue East • Tacoma, Washington 98424

(253) 926-1880 • FAX (253) 926-2350

CONTR. REG. NO. SMITHFS1360T

HYDRAULIC CALCULATION INFORMATION SHEET

PROJECT NAME **HAO MAI GARDENS**

JOB NO. **TC15002**

DATE **4-22-16**

ADDRESS **221 10TH AVE S**

BY **AARON N.**

SEATTLE, WA

SYSTEM DESIGNATION: **LEVEL 7 - EAST BUILDING**

HAZARD DESCRIPTION: **RESIDENTIAL**

HAZARD CLASS PER NFPA **13 : 2013**

SPECIFIC RULING:

RULING MADE BY: OF

DENSITY: **.10 GPM OVER THE MOST HYDRAULICALLY REMOTE 8 SPRINKLERS**

ALLOWANCES INCLUDED IN CALCULATIONS:

ADDED AT:

INSIDE HOSE GPM

OUTSIDE HOSE **100** GPM

SOURCE

IN-RACK SPRINKLER DEMAND GPM

SYSTEM TYPE: **WET**

TOTAL NUMBER OF SPRINKLERS THIS SYSTEM **84**

"C" FACTOR OVERHEAD : **150**

"C" FACTOR UNDERGROUND : **140**

MAXIMUM ACTUAL AREA OF COVERAGE PER SPRINKLER: **130** SQUARE FEET

SPRINKLER MANUFACTURER: **RELIABLE** MODEL: **F1/RES49** TEMPERATURE: **155 ° F**

K-FACTOR: **4.9** ORIFICE SIZE: **1/2"**

WATER SUPPLY:

ELEVATION OF TEST: **233'**

STATIC **82** PSI

DATE OF TEST: **1-29-12**

RESIDUAL **62** PSI

DATA PROVIDED BY: **SEATTLE PUBLIC UTILITIES**

FLOW **805** GPM

LOCATION OF TEST: **916 S. WASHINGTON ST**

BASE OF RISER DEMAND

114.9 GPM REQUIRED AT **24.3** PSI

(INCLUDING **0** GPM FOR HOSE STREAMS)

SUMMARY

214.9 GPM REQUIRED AT **61.6** PSI

AT CONNECTION TO **PUBLIC MAIN**

(INCLUDING **100** GPM FOR TOTAL HOSE STREAMS)



CERTIFICATE OF COMPETENCY STAMP



SMITH FIRE SYSTEMS, INC.

1106 54th Avenue East • Tacoma, Washington 98424

(253) 926-1880 • FAX (253) 926-2350

CONTR. REG. NO. SMITHFS1360T

HYDRAULIC CALCULATION INFORMATION SHEET

PROJECT NAME **HOA MAI GARDENS**

JOB NO. **TC15002**

DATE **4-22-16**

ADDRESS **221 10TH AVE S**

BY **AARON N.**

SEATTLE, WA

SYSTEM DESIGNATION: **WETSTANDPIPE - STAIR 2**

STANDPIPE DESCRIPTION: **CLASS I MANUAL WET STANDPIPE W/ 2 1/2" HOSE VALVES**

STANDPIPE PER NFPA **14 : 2013 EDITION**

SPECIFIC RULING:

RULING MADE BY: **OF**

DESIGN CRITERIA: **MOST REMOTE HOSE STATION FLOWING 500 GPM AT 100 PSI PLUS 250 GPM FOR EACH ADDITIONAL STANDPIPE CONNECTION TO 1000 GPM MAX.**

ALLOWANCES INCLUDED IN CALCULATIONS:

ADDED AT:

INSIDE HOSE **250** GPM

96

INSIDE HOSE **250** GPM

97

OUTSIDE HOSE **0** GPM

SYSTEM TYPE: **STANDPIPE**

"C" FACTOR OVERHEAD : **120**

"C" FACTOR UNDERGROUND : **---**

WATER SUPPLY:

STATIC **175** PSI

PROVIDED BY:

FIRE DEPARTMENT

SYSTEM DEMAND AT FDC CONNECTION

1000 GPM REQUIRED AT 156.1 PSI



CERTIFICATE OF COMPETENCY STAMP



SMITH FIRE SYSTEMS, INC.

1106 54th Avenue East • Tacoma, Washington 98424
(253) 926-1880 • FAX (253) 926-2350
CONTR. REG. NO. SMITHFS1360T

HYDRAULIC CALCULATION INFORMATION SHEET

PROJECT NAME **HAO MAI GARDENS**

JOB NO. **TC15002**

DATE **4-22-16**

ADDRESS **221 10TH AVE S**

BY **AARON N.**

SEATTLE, WA

SYSTEM DESIGNATION: **LEVEL 0 DRY SYSTEM**

HAZARD DESCRIPTION: **PARKING - ORDINARY HAZARD GROUP 1**

HAZARD CLASS PER NFPA **13 : 2013**

SPECIFIC RULING:

RULING MADE BY: OF

DENSITY: **.15 GPM OVER THE MOST HYDRAULICALLY REMOTE 1950 SQ. FT.**

ALLOWANCES INCLUDED IN CALCULATIONS:

ADDED AT:

INSIDE HOSE GPM

OUTSIDE HOSE **250** GPM

SOURCE

IN-RACK SPRINKLER DEMAND GPM

SYSTEM TYPE: **DRY**

TOTAL NUMBER OF SPRINKLERS THIS SYSTEM **205**

"C" FACTOR OVERHEAD : **100**

"C" FACTOR UNDERGROUND : **140**

MAXIMUM ACTUAL AREA OF COVERAGE PER SPRINKLER: **130** SQUARE FEET

SPRINKLER MANUFACTURER: **RELIABLE** MODEL: **F156** TEMPERATURE: **155 ° F**

K-FACTOR: **5.6** ORIFICE SIZE: **1/2"**

WATER SUPPLY:

ELEVATION OF TEST: **233'**

STATIC **82** PSI

DATE OF TEST: **1-29-12**

RESIDUAL **62** PSI

DATA PROVIDED BY: **SEATTLE PUBLIC UTILITIES**

FLOW **805** GPM

LOCATION OF TEST: **916 S. WASHINGTON ST**

BASE OF RISER DEMAND

342.8 GPM REQUIRED AT **56.9** PSI

(INCLUDING **0** GPM FOR HOSE STREAMS)

SUMMARY

592.8 GPM REQUIRED AT **60.3** PSI

AT CONNECTION TO **PUBLIC MAIN**

(INCLUDING **250** GPM FOR TOTAL HOSE STREAMS)



CERTIFICATE OF COMPETENCY STAMP



SMITH FIRE SYSTEMS, INC.

1106 54th Avenue East • Tacoma, Washington 98424

(253) 926-1880 • FAX (253) 926-2350

CONTR. REG. NO. SMITHFS1360T

HYDRAULIC CALCULATION INFORMATION SHEET

PROJECT NAME **HAO MAI GARDENS**

JOB NO. **TC15002**

DATE **4-22-16**

ADDRESS **221 10TH AVE S**

BY **AARON N.**

SEATTLE, WA

SYSTEM DESIGNATION: **LEVEL 1 AMENITY SPACE**

HAZARD DESCRIPTION: **LIGHT HAZARD**

HAZARD CLASS PER NFPA **13 : 2013**

SPECIFIC RULING:

RULING MADE BY: OF

DENSITY: **.10 GPM OVER THE MOST HYDRAULICALLY REMOTE 900 SQ. FT.**

ALLOWANCES INCLUDED IN CALCULATIONS:

ADDED AT:

INSIDE HOSE GPM

OUTSIDE HOSE **100** GPM

SOURCE

IN-RACK SPRINKLER DEMAND GPM

SYSTEM TYPE: **WET**

TOTAL NUMBER OF SPRINKLERS THIS SYSTEM **231**

"C" FACTOR OVERHEAD : **150**

"C" FACTOR UNDERGROUND : **140**

MAXIMUM ACTUAL AREA OF COVERAGE PER SPRINKLER: **225** SQUARE FEET

SPRINKLER MANUFACTURER: **RELIABLE** MODEL: **F1FR56** TEMPERATURE: **155 ° F**

K-FACTOR: **5.6** ORIFICE SIZE: **1/2"**

WATER SUPPLY:

ELEVATION OF TEST: **233'**

STATIC **82** PSI

DATE OF TEST: **1-29-12**

RESIDUAL **62** PSI

DATA PROVIDED BY: **SEATTLE PUBLIC UTILITIES**

FLOW **805** GPM

LOCATION OF TEST: **916 S. WASHINGTON ST**

BASE OF RISER DEMAND

158.2 GPM REQUIRED AT **65.0** PSI

(INCLUDING **0** GPM FOR HOSE STREAMS)

SUMMARY

258.2 GPM REQUIRED AT **67.7** PSI

AT CONNECTION TO **PUBLIC MAIN**

(INCLUDING **100** GPM FOR TOTAL HOSE STREAMS)



CERTIFICATE OF COMPETENCY STAMP



SMITH FIRE SYSTEMS, INC.

1106 54th Avenue East • Tacoma, Washington 98424

(253) 926-1880 • FAX (253) 926-2350

CONTR. REG. NO. SMITHFS1360T

HYDRAULIC CALCULATION INFORMATION SHEET

PROJECT NAME **HAO MAI GARDENS**

JOB NO. **TC15002**

DATE **3-22-16**

ADDRESS **221 10TH AVE S**

BY **AARON N.**

SEATTLE, WA

SYSTEM DESIGNATION: **LEVEL 2 - EAST BUILDING**

HAZARD DESCRIPTION: **STORAGE**

HAZARD CLASS PER NFPA **13 : 2013**

SPECIFIC RULING:

RULING MADE BY: OF

DENSITY: **.20** GPM OVER THE MOST HYDRAULICALLY REMOTE **900 SQ. FT.**

ALLOWANCES INCLUDED IN CALCULATIONS:

ADDED AT:

INSIDE HOSE GPM

OUTSIDE HOSE **250** GPM

SOURCE

IN-RACK SPRINKLER DEMAND GPM

SYSTEM TYPE: **WET**

TOTAL NUMBER OF SPRINKLERS THIS SYSTEM **169**

"C" FACTOR OVERHEAD : **150**

"C" FACTOR UNDERGROUND : **140**

MAXIMUM ACTUAL AREA OF COVERAGE PER SPRINKLER: **130** SQUARE FEET

SPRINKLER MANUFACTURER: **RELIABLE** MODEL: **F1FR** TEMPERATURE: **155 ° F**

K-FACTOR: **8.0K** ORIFICE SIZE: **3/4"**

WATER SUPPLY:

ELEVATION OF TEST: **233'**

STATIC **82** PSI

DATE OF TEST: **1-29-12**

RESIDUAL **62** PSI

DATA PROVIDED BY: **SEATTLE PUBLIC UTILITIES**

FLOW **805** GPM

LOCATION OF TEST: **916 S. WASHINGTON ST**

BASE OF RISER DEMAND

242.2 GPM REQUIRED AT **40.0** PSI

(INCLUDING **0** GPM FOR HOSE STREAMS)

SUMMARY

492.2 GPM REQUIRED AT **59.5** PSI

AT CONNECTION TO **PUBLIC MAIN**

(INCLUDING **250** GPM FOR TOTAL HOSE STREAMS)

WASHINGTON STATE CERTIFICATE OF COMPETENCY FIRE PROTECTION SPRINKLER SYSTEMS	
Philip Stoehr 7792-0213-C Level 3 Smith Fire Systems, Inc. SMITHFS1360T	
<i>Philip Stoehr</i> Signature	4/22/16 Date
Expires 12/31/15	

CERTIFICATE OF COMPETENCY STAMP



SMITH FIRE SYSTEMS, INC.

1106 54th Avenue East • Tacoma, Washington 98424

(253) 926-1880 • FAX (253) 926-2350

CONTR. REG. NO. SMITHFS1360T

HYDRAULIC CALCULATION INFORMATION SHEET

PROJECT NAME **HAO MAI GARDENS**

JOB NO. **TC15002**

DATE **4-22-16**

ADDRESS **221 10TH AVE S**

BY **AARON N.**

SEATTLE, WA

SYSTEM DESIGNATION: **LEVEL 2 - WEST BUILDING**

HAZARD DESCRIPTION: **RESIDENTIAL**

HAZARD CLASS PER NFPA **13 : 2013**

SPECIFIC RULING:

RULING MADE BY: OF

DENSITY: **.10 GPM OVER THE MOST HYDRAULICALLY REMOTE 8 SPRINKLERS**

ALLOWANCES INCLUDED IN CALCULATIONS:

ADDED AT:

INSIDE HOSE GPM

OUTSIDE HOSE **100** GPM

SOURCE

IN-RACK SPRINKLER DEMAND GPM

SYSTEM TYPE: **WET**

TOTAL NUMBER OF SPRINKLERS THIS SYSTEM **143**

"C" FACTOR OVERHEAD : **150**

"C" FACTOR UNDERGROUND : **140**

MAXIMUM ACTUAL AREA OF COVERAGE PER SPRINKLER: **130** SQUARE FEET

SPRINKLER MANUFACTURER: **RELIABLE** MODEL: **F1/RES49** TEMPERATURE: **155 ° F**

K-FACTOR: **4.9** ORIFICE SIZE: **1/2"**

WATER SUPPLY:

ELEVATION OF TEST: **233'**

STATIC **82** PSI

DATE OF TEST: **1-29-12**

RESIDUAL **62** PSI

DATA PROVIDED BY: **SEATTLE PUBLIC UTILITIES**

FLOW **805** GPM

LOCATION OF TEST: **916 S. WASHINGTON ST**

BASE OF RISER DEMAND

114.6 GPM REQUIRED AT **36.7** PSI

(INCLUDING **0** GPM FOR HOSE STREAMS)

SUMMARY

214.7 GPM REQUIRED AT **53.9** PSI

AT CONNECTION TO **PUBLIC MAIN**

(INCLUDING **100** GPM FOR TOTAL HOSE STREAMS)



CERTIFICATE OF COMPETENCY STAMP



SMITH FIRE SYSTEMS, INC.

1106 54th Avenue East • Tacoma, Washington 98424

(253) 926-1880 • FAX (253) 926-2350

CONTR. REG. NO. SMITHFS1360T

HYDRAULIC CALCULATION INFORMATION SHEET

PROJECT NAME **HAO MAI GARDENS**

JOB NO. **TC15002**

DATE **4-22-16**

ADDRESS **221 10TH AVE S**

BY **AARON N.**

SEATTLE, WA

SYSTEM DESIGNATION: **LEVEL 3 - EAST BUILDING**

HAZARD DESCRIPTION: **RESIDENTIAL**

HAZARD CLASS PER NFPA **13 : 2013**

SPECIFIC RULING:

RULING MADE BY: OF

DENSITY: **.10 GPM OVER THE MOST HYDRAULICALLY REMOTE 8 SPRINKLERS**

ALLOWANCES INCLUDED IN CALCULATIONS:

ADDED AT:

INSIDE HOSE GPM

OUTSIDE HOSE **100** GPM

SOURCE

IN-RACK SPRINKLER DEMAND GPM

SYSTEM TYPE: **WET**

TOTAL NUMBER OF SPRINKLERS THIS SYSTEM **163**

"C" FACTOR OVERHEAD : **150**

"C" FACTOR UNDERGROUND : **140**

MAXIMUM ACTUAL AREA OF COVERAGE PER SPRINKLER: **130** SQUARE FEET

SPRINKLER MANUFACTURER: **RELIABLE** MODEL: **F1/RES49** TEMPERATURE: **155 ° F**

K-FACTOR: **4.9** ORIFICE SIZE: **1/2"**

WATER SUPPLY:

ELEVATION OF TEST: **233'**

STATIC **82** PSI

DATE OF TEST: **1-29-12**

RESIDUAL **62** PSI

DATA PROVIDED BY: **SEATTLE PUBLIC UTILITIES**

FLOW **805** GPM

LOCATION OF TEST: **916 S. WASHINGTON ST**

BASE OF RISER DEMAND

110.6 GPM REQUIRED AT **30.7** PSI

(INCLUDING **0** GPM FOR HOSE STREAMS)

SUMMARY

210.7 GPM REQUIRED AT **51.7** PSI

AT CONNECTION TO **PUBLIC MAIN**

(INCLUDING **100** GPM FOR TOTAL HOSE STREAMS)



CERTIFICATE OF COMPETENCY STAMP



SMITH FIRE SYSTEMS, INC.

1106 54th Avenue East • Tacoma, Washington 98424

(253) 926-1880 • FAX (253) 926-2350

CONTR. REG. NO. SMITHFS1360T

HYDRAULIC CALCULATION INFORMATION SHEET

PROJECT NAME **HAO MAI GARDENS**

JOB NO. **TC15002**

DATE **4-22-16**

ADDRESS **221 10TH AVE S**

BY **AARON N.**

SEATTLE, WA

SYSTEM DESIGNATION: **LEVEL 3 - WEST BUILDING**

HAZARD DESCRIPTION: **RESIDENTIAL**

HAZARD CLASS PER NFPA **13 : 2013**

SPECIFIC RULING:

RULING MADE BY: OF

DENSITY: **.10 GPM OVER THE MOST HYDRAULICALLY REMOTE 8 SPRINKLERS**

ALLOWANCES INCLUDED IN CALCULATIONS:

ADDED AT:

INSIDE HOSE GPM

OUTSIDE HOSE **100** GPM

SOURCE

IN-RACK SPRINKLER DEMAND GPM

SYSTEM TYPE: **WET**

TOTAL NUMBER OF SPRINKLERS THIS SYSTEM **62**

"C" FACTOR OVERHEAD : **150**

"C" FACTOR UNDERGROUND : **140**

MAXIMUM ACTUAL AREA OF COVERAGE PER SPRINKLER: **130** SQUARE FEET

SPRINKLER MANUFACTURER: **RELIABLE** MODEL: **F1/RES49** TEMPERATURE: **155 ° F**

K-FACTOR: **4.9** ORIFICE SIZE: **1/2"**

WATER SUPPLY:

ELEVATION OF TEST: **233'**

STATIC **82** PSI

DATE OF TEST: **1-29-12**

RESIDUAL **62** PSI

DATA PROVIDED BY: **SEATTLE PUBLIC UTILITIES**

FLOW **805** GPM

LOCATION OF TEST: **916 S. WASHINGTON ST**

BASE OF RISER DEMAND

118.0 GPM REQUIRED AT **26.6** PSI

(INCLUDING **0** GPM FOR HOSE STREAMS)

SUMMARY

218.1 GPM REQUIRED AT **48.2** PSI

AT CONNECTION TO **PUBLIC MAIN**

(INCLUDING **100** GPM FOR TOTAL HOSE STREAMS)

WASHINGTON STATE CERTIFICATE OF COMPETENCY FIRE PROTECTION SPRINKLER SYSTEMS	
Philip Stoehr 7792-0213-C Level 3 Smith Fire Systems, Inc. SMITHFS1360T	
<i>Philip Stoehr</i> Signature	4/22/16 Date
Expires 12/31/15	

CERTIFICATE OF COMPETENCY STAMP



SMITH FIRE SYSTEMS, INC.

1106 54th Avenue East • Tacoma, Washington 98424

(253) 926-1880 • FAX (253) 926-2350

CONTR. REG. NO. SMITHFS1360T

HYDRAULIC CALCULATION INFORMATION SHEET

PROJECT NAME **HAO MAI GARDENS**

JOB NO. **TC15002**

DATE **4-22-16**

ADDRESS **221 10TH AVE S**

BY **AARON N.**

SEATTLE, WA

SYSTEM DESIGNATION: **LEVEL 4 - EAST BUILDING**

HAZARD DESCRIPTION: **RESIDENTIAL**

HAZARD CLASS PER NFPA **13 : 2013**

SPECIFIC RULING:

RULING MADE BY: OF

DENSITY: **.10 GPM OVER THE MOST HYDRAULICALLY REMOTE 8 SPRINKLERS**

ALLOWANCES INCLUDED IN CALCULATIONS:

ADDED AT:

INSIDE HOSE GPM

OUTSIDE HOSE **100** GPM

SOURCE

IN-RACK SPRINKLER DEMAND GPM

SYSTEM TYPE: **WET**

TOTAL NUMBER OF SPRINKLERS THIS SYSTEM **163**

"C" FACTOR OVERHEAD : **150**

"C" FACTOR UNDERGROUND : **140**

MAXIMUM ACTUAL AREA OF COVERAGE PER SPRINKLER: **130** SQUARE FEET

SPRINKLER MANUFACTURER: **RELIABLE** MODEL: **F1/RES49** TEMPERATURE: **155 ° F**

K-FACTOR: **4.9** ORIFICE SIZE: **1/2"**

WATER SUPPLY:

ELEVATION OF TEST: **233'**

STATIC **82** PSI

DATE OF TEST: **1-29-12**

RESIDUAL **62** PSI

DATA PROVIDED BY: **SEATTLE PUBLIC UTILITIES**

FLOW **805** GPM

LOCATION OF TEST: **916 S. WASHINGTON ST**

BASE OF RISER DEMAND

110.6 GPM REQUIRED AT **30.7** PSI

(INCLUDING **0** GPM FOR HOSE STREAMS)

SUMMARY

210.6 GPM REQUIRED AT **55.7** PSI

AT CONNECTION TO **PUBLIC MAIN**

(INCLUDING **100** GPM FOR TOTAL HOSE STREAMS)



CERTIFICATE OF COMPETENCY STAMP