

# Report of Inspection/Test

Annual NFPA 25

07/23/2019

## Property

Duluth Transit Authority 2402 W Michigan St  
DUL003  
2402 West Michigan Street  
Duluth MN 55806

Conducted by: Sprinkler

A.G. O'Brien  
4907 Lightning Dr  
Hermantown MN 55811  
218-729-9662

Print Date: 07/23/2019

## Report of Inspection/Test General Questions

### OWNER SECTION

Is the building occupied?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Has the occupancy classification and hazard of contents remained the same since the last inspection?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Are all fire protection systems in service?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Has the system remained in service without modification since the last inspection?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Was the system free of actuations of devices or alarms since the last inspection?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		

### FIRE DEPARTMENT CONNECTION

Is the FDC plainly visible?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Is the FDC easily accessible?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Is the FDC swivels and couplings not damaged?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Are the FDC caps and plugs in place?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Are the FDC gaskets in place and in good condition?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Is the FDC check valve drip free?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Is the clapper and automatic drain valve in place and properly operating?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Is the FDC identification sign(s) in place?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA

### SPRINKLER HEADS

Are there the proper number and type of spare sprinklers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Are visible sprinklers in the proper position: upright, pendent, sidewall?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Are visible sprinklers free of corrosion and physical damage?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Is there proper clearance below the sprinklers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Are visible sprinklers free of foreign materials including paint?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Is there liquid in all visible glass bulb sprinklers?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Are there spare sprinklers and a sprinkler wrench?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Is the information sign attached and legible?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Are all the sprinklers dated 1920 or later?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Fast response sprinklers 20 or more years old replaced or successfully sample tested within last 10 years?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA

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Standard response sprinklers 50 or more years old replaced or successfully sample tested within last 10 years?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	Standard response sprinklers 75 or more years old replaced or successfully sample tested within last 5 years?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Dry-type sprinklers replaced or successfully sample tested within last 10 years?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	Have sprinklers subject to harsh environments been replaced or successfully sample tested in the last 5 years?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA

## PIPES

Is the visible pipe in good condition with no external corrosion?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Does visible pipe have no mechanical damage or leaks?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Does visible pipe have no external loads?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Are visible pipe hangers and seismic braces not damaged or loose?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Is the pipe through freezers free if any ice blockage?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Has an internal investigation of the pipe (remove a flushing connection and a sprinkler near the end of a branch line) been performed in the last 5 years? (If no conduct investigation)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA

## VALVE AREA

Are the control valves (including backflow preventer isolation valves) supervised with seals locked or is supervision in place?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Are the control valves (including backflow preventer isolation valves) supervised with seals free from leaks?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Are the control valves (including backflow preventer isolation valves) supervised with seals have appropriate wrenches?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Are the control valves (including backflow preventer isolation valves) supervised with seals properly identified?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Are the control valves (including valves on backflow preventers) with locks or electrical supervision in correct (open or closed) position?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Are all check valves externally inspected, operating properly, and are in good condition?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Are the gauges on system in good condition and showing normal water supply pressure?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Is the hydraulic name plate (calculated systems) attached securely to the riser and legible?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Have the mechanical waterflow alarm devices passed tests by opening inspector's test connection/bypass connection with alarms actuating and flow observed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Do valve supervisory switches indicate movement?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
The electrical waterflow alarm devices passed test by opening inspector's test connection/bypass connection with alarms actuating and flow observed?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Have post indicating valves been opened until spring or torsion felt in the rod and then closed back 1/4 turn?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
All control valves operated through full range and returned to normal position?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Have pressure reducing valves passed partial flow test?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA

## DRY VALVE

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Are enclosures around valves maintaining a minimum of 40 degrees F?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Are the gauges on systems without low pressure alarms in good condition and showing normal air and water pressure?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
For freezer systems, gauge near compressor reading the same as gauge near the dry-pipe valve?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Are they free from physical damage?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Are trim valves in appropriate (open or closed) position?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Is there no leakage in the intermediate chamber?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Are the gauges on systems with low pressure alarms in good condition and showing normal air and water pressure?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Has the dry-pipe valve passed inspection?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Is the priming level correct and has the low air pressure signal passed it's test?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Has the quick opening device passed the test?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA

## BACKFLOW PREVENTERS

Is relief port on RPZ device not discharging?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	Have backflow devices passed forward flow test?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
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## ALARMS

Are alarms and supervisory devices not damaged?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Do low temperature alarms look ok?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Have low temperature alarms passed test?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA		

## MAINTENANCE

Perform an obstruction investigation if any of the following were found: defective intake screen on pump supplied from open sources, obstructive material discharged during flow tests, foreign material in dry-type valves, foreign material in water during drain test or plugging of inspector's test connection, plugging of pipe or sprinklers found, failure to flush yard piping or surrounding mains following new installation or repairs, record of broken mains in the vicinity, abnormal frequent false-tripping of dry valves, system has just been returned to service after more than 1 year, there is a reason to think the system contains sodium silicate or its derivatives or highly corrosive fluxes in copper pipe, raw water was pumped into the fire department connection, pinhole leaks	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	If a sprinkler failed a sample test were all the sprinklers represented by that sample replaced?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
If sprinklers have been replaced, were they proper replacements?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	If conditions were found that required flushing, was flushing of the system conducted?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA

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Have adjusted, repaired, reconditioned, or replaced components had proper tests/inspections performed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	Was a drain test conducted after opening any closed valve? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Operating stem of all OS&Y valves lubricated, completely closed and reopened? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Sprinklers and spray nozzles protecting commercial cooking equipment and ventilating systems replaced except for bulb-type which show no signs of grease buildup? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
Are dry-pipe systems kept in dry condition? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Have auxiliary drains been emptied? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Perform an obstruction investigation if any of the following were found: defective intake screen on pump supplied from open sources, obstructive material discharged during flow tests, foreign material in dry-type valves, foreign material in water during drain test or plugging of inspector's test connection, plugging of pipe or sprinklers found, failure to flush yard piping or surrounding mains following new installation or repairs, record of broken mains in the vicinity, abnormal frequent false-tripping of dry valves, system has just been returned to service after more than 1 year, there is a reason to think the system contains sodium silicate or its derivatives or highly corrosive fluxes in copper pipe, raw water was pumped into the fire department connection, pinhole leaks, a 50% increase in time from the original system acceptance test required for water to reach the inspector's test connection during a full flow test <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA	Is interior of dry-pipe valves cleaned? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Have low points been drained before freezing weather? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	

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## Report of Inspection/Test for System - Dry System 1

### DRY VALVE

Have automatic air maintenance devices passed test?  Yes  
 No  
 NA

### DRY VALVE TRIP TEST

Dry Valve		Size: 4"		Year: 1979		Accelerator		Year: 2015	
Make		Model		Serial no.		Make		Serial no.	
reliable		D		2431		reliable		B1 118989	
	Time to Trip thru test pipe	Water Pressure	Air Pressure	Trip point air pressure	Time water reached test outlet	Alarm Operated			
Without Accelerator	N/A	N/A	N/A	N/A	N/A	Yes			
With Accelerator	5	110	47	20	PT	Yes			

### DRY VALVE TRIP TEST (cont)

Were results comparable to previous test?  Yes  No  NA  
Has it passed air leakage test?  Yes  No  NA

## Report of Inspection/Test for System - Dry system 2

### DRY VALVE

Have automatic air maintenance devices passed test?  Yes  
 No  
 NA

### DRY VALVE TRIP TEST

Dry Valve		Size: 4"		Year: 1980		Accelerator		Year: 2015	
Make		Model		Serial no.		Make		Serial no.	
reliable		D		2826		reliable		B1 118981	
	Time to Trip thru test pipe	Water Pressure	Air Pressure	Trip point air pressure	Time water reached test outlet	Alarm Operated			
Without Accelerator	N/A	N/A	N/A	N/A	N/A	Yes			
With Accelerator	4	110	48	44	pt	Yes			

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## DRY VALVE TRIP TEST (cont)

Were results comparable to previous test?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Has it passed air leakage test?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
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## Report of Inspection/Test for System - Dry system 3

### DRY VALVE

Have automatic air maintenance devices passed test?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
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### DRY VALVE TRIP TEST

Dry Valve			Size: 4"			Year: 1980			Accelerator			Year: 2015		
Make		Model		Serial no.			Make		Model		Serial no.			
reliable		D		2825			reliable		B1		113992			
	Time to Trip thru test pipe		Water Pressure		Air Pressure		Trip point air pressure		Time water reached test outlet		Alarm Operated			
Without Accelerator		N/A		N/A		N/A		N/A		N/A		Yes		
With Accelerator		4		110		48		42		PT		Yes		

### DRY VALVE TRIP TEST (cont)

Were results comparable to previous test?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA	Has it passed air leakage test?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
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## MAIN DRAIN FLOW TESTS

System	Initial static	Residual	Static	Seconds to Return to Initial Static	Flow Observed?	Are results comparable to previous test?
Wet System 1	130	90	110	5	Yes	Yes
Dry System 1	130	90	110	5	Yes	Yes
Dry system 2	130	90	110	5	Yes	Yes
Dry system 3	130	90	110	5	Yes	Yes

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## INSPECTORS TEST CONNECTION

System	Location	Description	Time to Alarm	Reported?	Smooth Orifice	Easily Accessible	Signs?	Pass?
Dry system 2	West side south wall	Main		Yes	Yes	Yes	Yes	Yes
Dry System 1	Center south wall	Main		Yes	Yes	Yes	Yes	Yes
Dry system 3	East side south wall	Main		Yes	Yes	Yes	Yes	Yes
Wet System 1	West wall by overhead door	Main		Yes	Yes	Yes	Yes	Yes

## VALVES

System	Description	Location	Valve Type	Size	Secured	Open	Easily Accessible	Signs	Exercised	Stems Lubricated	# of Turns
Dry system 2	Main	Riser	OS&Y	4 "	Monitored	Yes	Yes	Yes	Yes	Yes	
Dry System 1	Main	Riser	OS&Y	4 "	Monitored	Yes	Yes	Yes	Yes	Yes	
Dry system 3	Main	Riser	OS&Y	4 "	Monitored	Yes	Yes	Yes	Yes	Yes	
	Main #1	Mechanical room	OS&Y	4 "	Monitored	Yes	Yes	Yes	Yes	Yes	
Wet System 1	Wet system	Riser	OS&Y	4 "	Monitored	Yes	Yes	Yes	Yes	Yes	
	Main #2	Mechanical room	OS&Y	4 "	Monitored	Yes	Yes	Yes	Yes	Yes	

## DRAIN VALVES

System	Description	Location	Drain	Aux Drain Drained	Water Flow Observed
Wet System 1	Main drain	Riser	Globe Valve	Yes	Yes
Dry System 1	Main drain	Riser	Globe Valve	Yes	Yes
Dry system 2	Main drain	Riser	Globe Valve	Yes	Yes
Dry system 3	Main drain	Riser	Globe Valve	Yes	Yes

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## Deficiencies - General Questions

None

## Deficiencies - General Wet System Questions

None

## Deficiencies - General Dry System Questions

None

## Deficiencies - Wet System 1

None

## Deficiencies - Dry System 1

None

## Deficiencies - Dry system 2

None

## Deficiencies - Dry system 3

None

## Deficiencies - Inspectors Test Connection

None

## Deficiencies - Valves

None

## Deficiencies - Drain Valves

None



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## Inspector Signature

I state that the information on this form is correct at the time and place of my inspection, and all equipment tested at this time was left in operational condition upon completion of this inspection except as noted.

Inspector Name	Signature	Date Completed
Darin V		2019-07-23

## Client Signature

I state that the information on this form is correct at the time and place of my inspection, and all equipment tested at this time was left in operational condition upon completion of this inspection except as noted.

Client Name	Signature	Date Completed
Tom LaBorde		2019-07-23