MS-900 Self-Adhesive Pipe Markers

For indoor or outdoor line service identification and system color coding.

- Complies with the ASME A13.1 "Scheme for the Identification of Piping Systems" regarding color, label size and letter size
- Printed on premium-quality, fade-resistant, outdoor-grade vinyl with durable, indoor/outdoor adhesive
- Adheres well to pipe and insulation with only limited surface preparation
- Legend markers can be used with arrow tape or separate arrow markers to indicate flow direction
- Fast turnaround with off-the-shelf delivery on stock legends

See page 11 for MS-900 Arrow Tape and Color Banding Tape.

STYLE	PIPE DIAMETER with insulation	MARKER SIZE	LETTER SIZE
A	3/4" thru 2-1/4"	1" x 8"	3/4"
B	2-1/2" thru 7-7/8"	2-1/4" x 13"	1-3/4"
C	8" thru 10"	4" x 24"	2-1/2"
D	over 10"	4" x 32"	3-1/2"

LEGEND	BACKGROUND COLOR	STYLE A	B	C	D
2 PSI GAS	YELLOW	91100	92100		
2 PSI NATURAL GAS	YELLOW	91545	92545		
ACETYLENE GAS	YELLOW	91101	92101		
ACID	YELLOW	91102	92102		
ACID VENT	YELLOW	91400	92400		
ACID WASTE	YELLOW	91322	92322		
AIR	YELLOW	91103	92103		
AIR	BLUE	91211	92211		
AMMONIA	YELLOW	91105	92105		
ARGON	GREEN	91106	92106		
ARROWS →	YELLOW	91208	92208	93208	94208
ARROWS →	GREEN	91209	92209	93209	94209
ARROWS →	RED	91210	92210	93210	94210
ARROWS →	BLUE	91212	92212	93212	94212
ASBESTOS FREE INSULATION	BLUE	91107	92107		
BOILER BLOWDOWN	YELLOW	91108	92108		
BOILER FEED	YELLOW	91109	92109		
BOILER FEEDWATER	YELLOW	91110	92110	93110	94110
BREATHING AIR	BLUE	91401	92401		
CARBON DIOXIDE	YELLOW	91111	92111		
CARBON DIOXIDE	GREY	91112	92112		
CAUSTIC	YELLOW	91113	92113		
CHEMICAL FEED	YELLOW	91213	92213		
CHILLED WATER	GREEN	91114	92114	93114	94114
CHILLED WATER RETURN	GREEN	91115	92115	93115	94115
CHILLED WATER SUPPLY	GREEN	91116	92216	93116	94116
CHLORINE	YELLOW	91117	92117		
CHLORINE SOLUTION	YELLOW	91402	92402		
CIRCULATING WATER	GREEN	91118	92118		
CITY WATER	GREEN	91119	92119	93119	
CLEAN DRY AIR	BLUE	91403	92403		
COLD WATER	GREEN	91120	92120		
COLD WATER RETURN	GREEN	91121	92121		
COLD WATER SUPPLY	GREEN	91122	92122		
COMPRESSED AIR	YELLOW	91123	92123		
COMPRESSED AIR	BLUE	91284	92284		
CONDENSATE	YELLOW	91124	92124	93124	94124
CONDENSATE DRAIN	YELLOW	91285	92285		
CONDENSATE RETURN	YELLOW	91125	92125	93125	94125
CONDENSER WATER	GREEN	91128	92128	93128	94128
CONDENSER WATER RETURN	GREEN	91129	92129	93129	94129
CONDENSER WATER SUPPLY	GREEN	91130	92130	93130	94130

LEGEND	BACKGROUND COLOR	STYLE A	B	C	D
COOLING WATER	GREEN	91131	92131	93131	
COOLING WATER RETURN	GREEN	91286	92286		
COOLING WATER SUPPLY	GREEN	91287	92287		
DEIONIZED WATER	GREEN	91132	92132		
DEMINERALIZED WATER	GREEN	91214	92214		
DIESEL	YELLOW	91304	92304		
DISCHARGE	YELLOW	91134	92134		
DOMESTIC COLD WATER	GREEN	91136	92136	93136	
DOMESTIC HOT WATER	YELLOW	91135	92135	93135	
DOMESTIC HOT WATER RECIRC	YELLOW	91314	92314		
DOMESTIC HOT WATER RET	YELLOW	91288	92288		
DOMESTIC HOT WATER SUPPLY	YELLOW	91423	92423		
DOMESTIC WATER	GREEN	91325	92325		
DRAIN	GREEN	91137	92137	93137	
DRAIN	YELLOW	91215	92215	93215	
DUAL TEMP RETURN	YELLOW	91289	92289		
DUAL TEMP SUPPLY	YELLOW	91290	92290		
EVACUATION VACUUM	YELLOW	91404	92404		
EXHAUST	YELLOW	91139	92139		
EXHAUST AIR	YELLOW	91326	92326	93326	
FEEDWATER	YELLOW	91140	92140		
FILTERED WATER	GREEN	91253	92253	93253	94253
FIRE PROTECTION WATER	RED	91142	92142	93142	
FIRE SPRINKLER WATER	RED	91143	92143		
FREON	GREEN	91144	92144		
FUEL GAS	YELLOW	91145	92145		
FUEL OIL	YELLOW	91146	92146		
FUEL OIL RETURN	YELLOW	91332	92332		
FUEL OIL SUPPLY	YELLOW	91333	92333		
GAS	YELLOW	91147	92147		
GASOLINE	YELLOW	91148	92148		
GLYCOL	YELLOW	91149	92149	93149	
GLYCOL RETURN	YELLOW	91315	92315		
GLYCOL SUPPLY	YELLOW	91316	92316		
HALON	RED	91150	92150		
HEATING	YELLOW	91151	92151		
HEATING HOT WATER RET	YELLOW	91291	92291	93291	
HEATING HOT WATER SUP	YELLOW	91292	92292	93292	
HEATING RETURN	YELLOW	91152	92152	93152	
HEATING SUPPLY	YELLOW	91153	92153	93153	
HEATING WATER RETURN	YELLOW	91293	92293	93293	
HEATING WATER SUPPLY	YELLOW	91294	92294	93294	
HI PRESS AIR	YELLOW	91154	92154		
HI PRESS AIR	BLUE	91218	92218		

Phone/1.800.234.0135 | Fax/1.800.627.6432

Label and sign sizes, colors and content information and text size shall comply with specification section 210553.

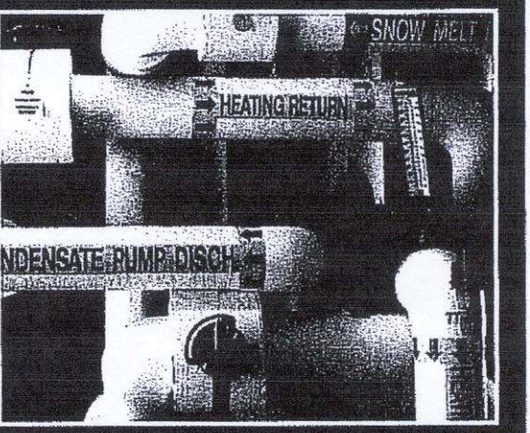
Valve tag information was not included in this submittal. Refer to specification section 210553.

TO ORDER STOCK MARKERS:
Specify part number and quantity of markers required. Combine total quantity of stock markers of all styles for best price. All markers are individual pieces.

STOCK PRICING PER MARKER				
Style	1-249	250-499	500-999	1,000+
A	$ 57	.45	.40	CALL FOR A QUOTE
B	1 30	1 22	1.06	
C	2.65	2.50	2 17	
D	3 96	3 89	3 69	

TO ORDER FLOW DIRECTION ARROWS:
Specify part number (on page 8) and quantity required. Combine total quantity of stock arrows of all styles for best price. All arrows are individual pieces and are half the length of the corresponding pipe markers.

ARROW PRICING PER MARKER				
Style	1-249	250-499	500-999	1,000+
A	$ 35	30	28	CALL FOR A QUOTE
B	.71	69	.64	
C	1.59	1 50	1 31	
D	1.98	1 97	1.85	



Arrow tape shown on page 11.

LEGEND	BACKGROUND COLOR	STYLE A	B	C	D
HI PRESS CONDENSATE	YELLOW	91126	92126	93126	94126
HI PRESS GAS	YELLOW	91155	92155		
HI PRESS STEAM	YELLOW	91156	92156	93156	94156
HOT GAS	YELLOW	91327	92327		
HOT WATER	YELLOW	91157	92157	93157	
HOT WATER RETURN	YELLOW	91158	92158	93158	
HOT WATER SUPPLY	YELLOW	91159	92159	93159	
120° HOT WATER	YELLOW	91425	92425		
140° HOT WATER	YELLOW	91426	92426		
160° HOT WATER	YELLOW	91427	92427		
HOUSE VACUUM	YELLOW	91405	92405	93405	
HYDRAULIC FLUID	YELLOW	91257	92257		
HYDROCHLORIC ACID	YELLOW	91160	92160		
HYDROGEN	YELLOW	91161	92161		
HYDROGEN PEROXIDE	YELLOW	91305	92305		
HYDROGEN SULFIDE	YELLOW	91306	92306		
INDUSTRIAL COLD WATER	GREEN	91295	92295		
INDUSTRIAL HOT WATER	YELLOW	91296	92296		
INDUSTRIAL WASTE	YELLOW	91328	92328		
INSTRUMENT AIR	GREEN	91162	92162	93162	
INSTRUMENT AIR	BLUE	91219	92219		
INSTRUMENT NITROGEN	BLUE	91406	92406		
LO PRESS AIR	GREEN	91163	92163		
LO PRESS CONDENSATE	YELLOW	91127	92127	93127	94127
LO PRESS GAS	YELLOW	91164	92164		
LO PRESS STEAM	YELLOW	91165	92165	93165	94165
LUBE OIL	YELLOW	91166	92166		
LUBE OIL RETURN	YELLOW	91407	92407		
LUBE OIL SUPPLY	YELLOW	91408	92408		
MAKE UP WATER	GREEN	91167	92167		
MED PRESS CONDENSATE	YELLOW	91409	92409	93409	94409
MED PRESS STEAM	YELLOW	91189	92189	93189	94189
MEDICAL AIR	YELLOW	91410	92410		
MEDICAL VACUUM	WHITE	91411	92411		
MILL AIR	BLUE	91260	92260	93260	
MILL WATER	GREEN	91261	92261	93261	94261
NATURAL GAS	YELLOW	91168	92168	93168	
NITROGEN	BLACK	91169	92169		
NITROGEN	BLUE	91317	92317		
NITROUS OXIDE	BLUE	91412	92412		
NON POTABLE WATER	YELLOW	91170	92170		
OIL	YELLOW	91171	92171		
OIL FREE AIR	BLUE	91413	92413		
OUTSIDE AIR	BLUE	91329	92329	93329	
OXYGEN	YELLOW	91172	92172		
OXYGEN	GREEN	91330	92330		
PLANT AIR	GREEN	91173	92173		
PLANT WATER	GREEN	91174	92174		
POTABLE WATER	GREEN	91175	92175		
POTABLE COLD WATER	GREEN	91414	92414		
POTABLE HOT WATER	YELLOW	91415	92415		
PROCESS WATER	YELLOW	91176	92176		
PROCESS WATER	GREEN	91220	92220		
PROCESS COOLING WATER RET	GREEN	91416	92416	93416	94416

LEGEND	BACKGROUND COLOR	STYLE A	B	C	D
PROCESS COOLING WATER SUP	GREEN	91417	92417	93417	94417
PROCESS VACUUM	YELLOW	91418	92418		
PROPANE GAS	YELLOW	91177	92177		
PUMPED CONDENSATE	YELLOW	91297	92297		
RAINWATER	GREEN	91419	92419		
RAW WATER	GREEN	91178	92178	93178	94178
RECIRCULATING HOT WATER	YELLOW	91424	92424		
REFRIGERANT	YELLOW	91179	92179		
REFRIGERANT LIQUID	YELLOW	91180	92180		
REFRIGERANT SUCTION	YELLOW	91181	92181		
RELIEF AIR	BLUE	91281	92281	93281	
RETURN AIR	BLUE	91282	92282	93282	
RETURN	YELLOW	91182	92182	93182	
RETURN	GREEN	91183	92183	93183	
ROOF DRAIN	GREEN	91184	92184	93184	
SANITARY DRAIN	GREEN	91236	92236	93236	
SANITARY SEWER	GREEN	91185	92185	93185	
SANITARY VENT	GREEN	91318	92318		
SANITARY WASTE	GREEN	91298	92298		
SEAL WATER	GREEN	91267	92267		
SERVICE AIR	YELLOW	91221	92221		
SLUDGE	YELLOW	91186	92186		
SODIUM HYDROXIDE	YELLOW	91310	92310		
SOFT WATER	GREEN	91187	92187		
STEAM	YELLOW	91188	92188	93188	94188
STORM DRAIN	GREEN	91299	92299	93299	
STORM SEWER	GREEN	91300	92300	93300	
STORM WATER	GREEN	91301	92301	93301	
SUCTION	YELLOW	91190	92190		
SULFURIC ACID	YELLOW	91191	92191		
SUMP PUMP DISCHARGE	YELLOW	91331	92331		
SUPPLY	YELLOW	91192	92192	93192	
SUPPLY	GREEN	91193	92193	93193	
SUPPLY AIR	BLUE	91283	92283	93283	
TEMPERED WATER	YELLOW	91302	92302		
TOLUENE	YELLOW	91194	92194		
TOWER WATER	GREEN	91195	92195	93195	
TOWER WATER RETURN	GREEN	91319	92319	93319	
TOWER WATER SUPPLY	GREEN	91320	92320	93320	
TREATED WATER	GREEN	91196	92196		
ULTRA PURE WATER	GREEN	91420	92420		
UTILITY NITROGEN	GREEN	91421	92421		
UTILITY WATER	GREEN	91422	92422		
VACUUM	GREEN	91197	92197	93197	
VACUUM	YELLOW	91198	92198		
VENT	GREEN	91199	92199	93199	
VENT	YELLOW	91200	92200	93200	
WAGD	PURPLE	91432	92432		
WASTE	YELLOW	91202	92202		
WASTE WATER	YELLOW	91201	92201		
WATER	GREEN	91203	92203	93203	
WATER	YELLOW	91204	92204	93204	
WELL WATER	GREEN	91321	92321		

Label and sign sizes, colors and content information and text size shall comply with specification section 210553.

Valve tag information was not included in this submittal. Refer to specification section 210553.

Auxiliary Drain
AHERN SINCE 1880
Control Valve
AHERN SINCE 1880
Main Control
AHERN SINCE 1880
Main Drain
AHERN SINCE 1880
Inspectors Test
AHERN SINCE 1880

WM TAO & ASSOCIATES
CONSULTING ENGINEERS

Shop Drawing Submittal Review

Transmitted To: Cannon Design

Date: December 15, 2016

Attention: **stl-cac@cannondesign.com**

Contact Person / WTA Field Inspector: Patrick Garner

Project Name: Webster University-**ISB**

Reviewed by: Mike Whitworth (WES)

Project No. WT 14127.01
WES 607

[ ] UPS [ ] Courier [X] **Email**

Copies	No.	Description
1 PDF	210553F01	(Submittal No.'s:)
		(Cannon #210553-002) - (Paric #15051-0355) – (WES #607)
		➢ **Identification for Fire Suppression Piping**

*Remarks: See Submittal Review from Webb Enginnering.

c: **Kelvin Patel**
Kpatel@cannondesign.com

[X] ***Reviewed**

[X] ***Amend and Resubmit**

[ ]

[X] ***Make Corrections As Noted, No Resubmittal Required**

Corrections or comments made on shop drawings during this review do not relieve contractor from compliance with requirements of drawings and specifications. This check is only for review of general conformance with the design concept of project and general compliance with information given in contract documents. Contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner.

WEBB ENGINEERING SERVICES INC.

1400 S. 3rd Street, Suite 201
St. Louis, Missouri 63104
Phone: (314) 588-0600
Fax: (314) 588-0604

Letter of Transmittal

To: wtashop@wmtao.com

From: Mike Whitworth

Date: December 11, 2016

Re: Webster University ISB

WES No: 607

☐ For your Files ☐ For Review ☐ Please Comment ☐ Please Reply

Item No.	Description	No. of Copies	Date
1	Shop Drawing Review – (210553-005) 210553 Identification for Fire Suppression Piping and Equipment	1	12/11/16

•Signature: Mike Whitworth

WEBB ENGINEERING SERVICES INC.
www.webb-engineering.com

1400 S. 3rd Street, Suite 201 • St. Louis, Missouri 63104 • 314.588.0600 • *fax* 314.588.0604

The review of this submittal is limited to the general conformance with the designated design concept and intent of this project and with the general compliance of the information provided in the contract documents. All comments, remarks and notations made on the submittal(s) as a result of this review do not relieve the contractor from full compliance with requirements of the contract documents. Approval for a specific item shall not include approval of an assembly of which the item is not a component. The contractor is solely responsible for rough-in and installation confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordination of this work with that of other trades on this project; and in a safe and satisfactory manner. All work shall be installed in full compliance with the manufacturer's recommendation, Federal, State and Local rules and regulation and the Authority Having Jurisdiction (AHJ) and applicable adopted codes and standards.

PROJECT NAME:	Webster University ISB
LOCATION:	St. Louis Missouri
CLIENT PROJ. NO.:	N/A
WES PROJ. NO.:	607
SPECIFICATION SECTION:	210553 Identification for Fire-Suppression Piping and Equipment
SUBMITTAL ITEM:	See Below -

CONTRACTOR:	J.F. Ahern Co.
CTR. SUBMITTAL #:	21 0553-005
SUBMITTAL DATE:	November 30, 2016
DATE RECEIVED:	December 07, 2016
RECEIVED VIA:	E-Mail
RECEIVED FROM:	WTA
DATE RETURNED:	DECEMBER 11, 2016
RETURNED VIA:	E-MAIL
RETRURNED TO:	WTASHOP@WMTAO.COM

STATUS KEY:

NO EXCEPTION TAKEN
MAKE CORRECTIONS NOTED, NO RESUBMITTAL:
AMEND AND RESUBMIT
REJECTED, SEE REMARKS:
REVIEWED ONLY

NEC	MCN	AAR	REJ	REV	ITEM	REMARKS
	X				Identification Labels and Signs Marking Services	1. Label and sign sizes, colors and content information and text size shall comply with specification section 210553.
		X			Valve Tags	1. Valve tag information was not included in this submittal. Refer to specification section 210553.

REVIEWED BY: Michael R. Whitworth DATE: December 11, 2016

THESE COMMENTS ARE TO BE ATTACHED TO ALL COPIES OF THE SHOP DRAWING REFERENCED ABOVE.

CANNONDESIGN

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB
PROJECT NAME

8274 BIG BEND BLVD
ADDRESS

NUMBER

WEBSTER UNIVERSITY
OWNER

CANNON DESIGN
ARCHITECT / ENGINEER

Joe Voypick
SUBMITTED BY

210553-005
CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

210553
SPECIFICATION SECTION / PARAGRAPH

Ahern Fire Protection
MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

◯ CRITICAL

ITEM BEING SUBMITTED (check only one)

- ◯ Shop Drawings
- ◯ Samples (_____ copies)
- ◯ LEED Submittal
- ◯ Certification / Qualifications
- ◯ Record Documents
- ◉ Product Data
- ◯ Coordination Drawing
- ◯ Calculations
- ◯ Schedules
- ◯ O&M Manuals
- ◯ Other _____

ITEM BEING SUBMITTED FOR (check only one)

◉ Action ◯ Information Only ◯ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

PARIC

PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

By:
Devin D. Gates

Joe Voypick
REVIEWED BY

11/30/16
DATE

To be completed by Reviewer

21 0553-005
CANNON DESIGN SUBMITTAL NUMBER

11/30/16
RECEIVED DATE

- ◯ A. No Exceptions Taken
  No further review of submittal is required.
- ◯ B. Make Corrections Noted
  Incorporate corrections in work; resubmission is not required.
- ◯ C. Revise and Resubmit
  Revise as noted, and resubmit for review.
- ◯ D. Rejected
  Submittal is not in compliance with Contract Documents; provide new submittal.
- ◯ E. For Record / Information Only
  Submittal was reviewed for Record / Information purposes only.
- ◯ F. Not Required for Review
  Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS ◯ See attached sheet(s) for additional comments

REVIEWED BY

DATE

77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0355

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 11/30/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

Fax;
314-241-2203

RE: Identification for Fire-Suppresssion Piping

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☑ Approval	☐ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	**SENT VIA:**	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☑ Other: Product Data	☐ Separate Cover Via:	☐ Due Date:

Item	*Package*	*Code*	*Rev.*	*Copies*	*Date*	*Description*	*Status*
Submittal		210553-005	1		11/30/2016	Identification for Fire-Suppresssion Piping	Submitted

NOTES:

CC:

Signed: _____

Devin Gates