

| FIRE ALARM SYSTEM<br>SEQUENCE OF<br>OPERATIONS |    |                         |                              |                                   |                                     |                             |                      |                               |                                     |                             |                     |              |                     |                                      |
|------------------------------------------------|----|-------------------------|------------------------------|-----------------------------------|-------------------------------------|-----------------------------|----------------------|-------------------------------|-------------------------------------|-----------------------------|---------------------|--------------|---------------------|--------------------------------------|
|                                                |    | SOUND EVACUATION SIGNAL | SOUND TROUBLE SIGNAL AT FACP | TRANSMIT ALARM TO CENTRAL STATION | TRANSMIT TROUBLE TO CENTRAL STATION | CLOSE MAGNETIC DOOR HOLDERS | SHUT DOWN FAN SYSTEM | RECALL ELEVATOR TO MAIN FLOOR | RECALL ELEVATOR TO ALTERNATE FLOORS | ACTIVATE ELEVATOR SHAFT FAN | CLOSE SMOKE DAMPERS | UNLOCK EXITS | ROLL DOWN FIRE DOOR | ENGLISH LANGUAGE DISPLAY ANNUNCIATOR |
|                                                |    | A                       | B                            | C                                 | D                                   | E                           | F                    | G                             | H                                   | I                           | L                   | K            | F                   | M                                    |
| SPRIKLER SYSTEM FLOW SWITCH                    | 01 | X                       |                              | X                                 |                                     | X                           |                      |                               |                                     |                             | X                   |              |                     | X                                    |
| SPRINKLER SYSTEM TAMPER SWITCH                 | 02 |                         | X                            |                                   | X                                   |                             |                      |                               |                                     |                             |                     |              |                     | X                                    |
| SPRINKLER DRY PIPE PRESURE SWITCH              | 03 | X                       |                              | X                                 |                                     | X                           |                      |                               |                                     |                             | X                   |              |                     | X                                    |
| COMMON AREA SMOKE DETECTORS                    | 04 | X                       |                              | X                                 |                                     | X                           |                      |                               |                                     |                             | X                   |              |                     | X                                    |
| ROOM SMOKE DETECTORS                           | 05 |                         |                              |                                   |                                     |                             |                      |                               |                                     |                             |                     |              |                     |                                      |
| DUCT HOUSING SMOKE DETECTORS                   | 06 | X                       |                              | X                                 |                                     | X                           | X                    |                               |                                     |                             |                     |              |                     | X                                    |
| HEAT DETECTORS                                 | 07 | X                       |                              | X                                 |                                     | X                           |                      |                               |                                     |                             | X                   |              |                     | X                                    |
| MANUAL PULL STATIONS                           | 08 | X                       |                              | X                                 |                                     | X                           |                      |                               |                                     |                             | X                   |              |                     | X                                    |
| 1ST FLOOR ELVATOR LOBBY'S SMOKE DETECTOR       | 09 |                         |                              |                                   |                                     |                             |                      |                               |                                     |                             |                     |              |                     |                                      |
| OTHER ELEVATOR LOBBY'S SMOKE DETECTORS         | 10 |                         |                              |                                   |                                     |                             |                      |                               |                                     |                             |                     |              |                     |                                      |
| ELEVATOR EQUIPMENT ROOM SMOKE DETECOTRS        | 11 |                         |                              |                                   |                                     |                             |                      |                               |                                     |                             |                     |              |                     |                                      |
| ELEVATOR SHAFT DETECTOR                        | 12 |                         |                              |                                   |                                     |                             |                      |                               |                                     |                             |                     |              |                     |                                      |
| DETECTOR NEXT TO FIRE DOORS                    | 13 | X                       |                              | X                                 |                                     |                             |                      |                               |                                     |                             | X                   |              | X                   |                                      |
|                                                | 14 |                         |                              |                                   |                                     |                             |                      |                               |                                     |                             |                     |              |                     |                                      |

GENERAL NOTES

MOUNTING HEIGHT REQUIREMENTS.

MOUNT HORN/STROBE AND STROBE UNITS 90 INCHES FROM THE FINISHED FLOOR AND NOT LESS THAN 6 INCHES FROM THE FINISHED CEILING TO THE TOP OF THE APPLIANCE DEVICE.

MOUNT MANUAL PULL STATION AT 48 INCHES TO THE TOP OF THE ROUGH-IN BOX

WIRING REQUIREMENTS.

MINIMUM OF 14 GAUGE - 2 CONDUCTORS, NO EXCEPTION.

ANALOG DETECTION DATA CIRCUIT WIRING TO BE MINIMUM OF 16 GAUGE - 2 CONDUCTORS TWISTED PAIR, NO SHIELD.

REMARKS.

MINIMUM GAUGE AND NUMBER OF CONDUCTORS, PLEASE REFER TO AND NEC FOR PROPER WIRE INSULATION TYPE OF CIRCUITS.

WHEN RUNNING THE ANALOG DATA WIRING MAINTAIN A DISTANCE OF 18 INCHES FROM ANY OTHER COMMUNICATION TYPE

WIRE COLOR CODE.

TWO CONDUCTORS:

RED POLARITY: POSITIVE

BLACK POLARITY: NEGATIVE

FOUR CONDUCTORS:

RED POLARITY: POSITIVE

BLACK POLARITY: NEGATIVE

BROWN POLARITY: POSITIVE

BLUE POLARITY: NEGATIVE

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DRAWN BY:KHGJ LE

APPROVED: \_\_\_\_\_

DATE: 03/02/99

SCALE: NST

PROJECT NUMBER  
99130

SHEET NUMBER  
1 OF 12

| SILENT KNIGHT FIRE ALARM LEGEND                                 |             |                                                           |                     |                                                                                      |                                          |
|-----------------------------------------------------------------|-------------|-----------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------|------------------------------------------|
| QUT                                                             | SYM         | DESCRIPTION                                               | PART NUMBER         | DIMENSIONS                                                                           | ROUGH IN BOX                             |
| 124                                                             | Ⓢ           | ANALOG PHOTOELECTRIC DETECTOR WITH BASE                   | SD505-APS/SD505-6AB | HEIGHT: 2 INCHES<br>DIAMETER: 9.9375 INCHES (HEAD)<br>DIAMETER: 9.9375 INCHES (BASE) | 4 SQUARE BOX WITH A 3-0 MUD RING         |
| 04                                                              | Ⓜ           | ANALOG RATE OF RISE HEAT DETECTOR WITH BASE               | SD505-AHS/SD505-6AB | HEIGHT: 2 INCHES<br>DIAMETER: 9.9375 INCHES (HEAD)<br>DIAMETER: 9.9375 INCHES (BASE) | 4 SQUARE BOX WITH A 3-0 MUD RING         |
| 42                                                              | Ⓛ           | SINGLE ACTION MANUAL PULL STATION WITH ADDRESSABLE MODULE | PS-SATK/SD500-MIM   | HEIGHT: 5 INCHES<br>WIDTH: 3.4 INCHES<br>DEPTH: 2.75 INCHES                          | 4 SQUARE BOX WITH A SINGLE GANG MUD RING |
| 07                                                              | Ⓛ<br>110 cd | COMBINATION HORN/STROBE UNIT                              | AS-24110W-FR        | HEIGHT: 4.8125 INCHES<br>WIDTH: 4.8125 INCHES<br>DEPTH: 1.22 INCHES                  | 4 SQUARE DEEP BOX                        |
| 33                                                              | Ⓛ<br>75 cd  | COMBINATION HORN/STROBE UNIT                              | AS-2475W-FR         | HEIGHT: 4.8125 INCHES<br>WIDTH: 4.8125 INCHES<br>DEPTH: 1.22 INCHES                  | 4 SQUARE DEEP BOX                        |
| 18                                                              | Ⓛ           | COMBINATION HORN/STROBE UNIT                              | AS-241575W-FR       | HEIGHT: 4.8125 INCHES<br>WIDTH: 4.8125 INCHES<br>DEPTH: 1.22 INCHES                  | 4 SQUARE DEEP BOX                        |
| 22                                                              | Ⓛ           | STROBE ONLY UNIT                                          | RSS-241575W-FR      | HEIGHT: 4.8125 INCHES<br>WIDTH: 4.8125 INCHES<br>DEPTH: 1.22 INCHES                  | 4 SQUARE DEEP BOX                        |
| 01                                                              | Ⓛ<br>Δ      | HORN ONLY UNIT WITH WEATHER PROOF BACK BOX                | AH-24WP-R           | HEIGHT: 4.125 INCHES<br>WIDTH: 4.125 INCHES<br>DEPTH: 1.125 INCHES                   | WEATHER RESISTANT BACK BOX               |
| 01                                                              | Ⓛ<br>Δ      | OUTSIDE BELL MINIMUM OF 10" IN DIAMETER                   | MG-B10-24R          | DIAMETER: 10 INCHES                                                                  | WEATHER RESISTANT BACK BOX               |
| 05                                                              | Ⓢ           | SYNCHRONIZATION MODULE                                    | DSM/SM-12/24-R      | HEIGHT: 4.28 INCHES<br>WIDTH: 4.28 INCHES<br>DEPTH: 0.4375 INCHES                    | 4 SQUARE DEEP BOX                        |
| 07                                                              | Ⓛ           | ADDRESSABLE NOTIFICATION MODULE                           | SD500-ANM           | HEIGHT: 4.875 INCHES<br>WIDTH: 4.875 INCHES<br>DEPTH: 1 INCH                         | 4 SQUARE DEEP BOX                        |
| 01                                                              | Ⓛ<br>FACP   | FIRE ALARM CONTROL PANEL                                  | 5820XL              | HEIGHT: 26.4 INCHES<br>WIDTH: 16 INCHES<br>DEPTH: 4.65 INCHES                        | SHIPPED WITH SURFACE MOUNTED ENCLOSURE   |
| 01                                                              | Ⓛ<br>FAXA   | FIRE ALARM KEYBOARD DISPLAY ANNUNCIATOR                   | 5860R               | HEIGHT: 7.375 INCHES<br>WIDTH: 9.125 INCHES<br>DEPTH: 1.5 INCHES                     | SHIPPED WITH FLUSH MOUNTED ENCLOSURE     |
| 03                                                              | Ⓛ<br>PWS    | POWER SUPPLY PANEL                                        | AS/PS5-BFS          | HEIGHT: 11 INCHES<br>WIDTH: 15 INCHES<br>DEPTH: 4 INCHES                             | SHIPPED WITH SURFACE MOUNTED ENCLOSURE   |
|                                                                 |             |                                                           |                     |                                                                                      |                                          |
|                                                                 |             |                                                           |                     |                                                                                      |                                          |
|                                                                 |             |                                                           |                     |                                                                                      |                                          |
|                                                                 |             |                                                           |                     |                                                                                      |                                          |
|                                                                 |             |                                                           |                     |                                                                                      |                                          |
| LONGVIEW SCHOOL DISTRICT - MINT VALLEY SCHOOL FIRE ALARM LEGEND |             |                                                           |                     |                                                                                      |                                          |

| SILENT KNIGHT FIRE ALARM LEGEND                                        |             |                                                           |                     |                                                                                      |                                          |
|------------------------------------------------------------------------|-------------|-----------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------|------------------------------------------|
| QUT                                                                    | SYM         | DESCRIPTION                                               | PART NUMBER         | DIMENSIONS                                                                           | ROUGH IN BOX                             |
| 18                                                                     | Ⓢ           | ANALOG PHOTOELECTRIC DETECTOR WITH BASE                   | SD505-APS/SD505-6AB | HEIGHT: 2 INCHES<br>DIAMETER: 9.9375 INCHES (HEAD)<br>DIAMETER: 9.9375 INCHES (BASE) | 4 SQUARE BOX WITH A 3-0 MUD RING         |
| 04                                                                     | Ⓜ           | ANALOG RATE OF RISE HEAT DETECTOR WITH BASE               | SD505-AHS/SD505-6AB | HEIGHT: 2 INCHES<br>DIAMETER: 9.9375 INCHES (HEAD)<br>DIAMETER: 9.9375 INCHES (BASE) | 4 SQUARE BOX WITH A 3-0 MUD RING         |
| 12                                                                     | Ⓛ           | SINGLE ACTION MANUAL PULL STATION WITH ADDRESSABLE MODULE | PS-SATK/SD500-MIM   | HEIGHT: 5 INCHES<br>WIDTH: 3.4 INCHES<br>DEPTH: 2.75 INCHES                          | 4 SQUARE BOX WITH A SINGLE GANG MUD RING |
| 05                                                                     | Ⓛ<br>110 cd | COMBINATION HORN/STROBE UNIT                              | AS-24110W-FR        | HEIGHT: 4.8125 INCHES<br>WIDTH: 4.8125 INCHES<br>DEPTH: 1.22 INCHES                  | 4 SQUARE DEEP BOX                        |
| 01                                                                     | Ⓛ<br>75 cd  | COMBINATION HORN/STROBE UNIT                              | AS-2475W-FR         | HEIGHT: 4.8125 INCHES<br>WIDTH: 4.8125 INCHES<br>DEPTH: 1.22 INCHES                  | 4 SQUARE DEEP BOX                        |
| 02                                                                     | Ⓛ           | COMBINATION HORN/STROBE UNIT                              | AS-241575W-FR       | HEIGHT: 4.8125 INCHES<br>WIDTH: 4.8125 INCHES<br>DEPTH: 1.22 INCHES                  | 4 SQUARE DEEP BOX                        |
| 03                                                                     | Ⓛ           | STROBE ONLY UNIT                                          | RSS-241575W-FR      | HEIGHT: 4.8125 INCHES<br>WIDTH: 4.8125 INCHES<br>DEPTH: 1.22 INCHES                  | 4 SQUARE DEEP BOX                        |
| 01                                                                     | Ⓛ<br>Δ      | OUTSIDE BELL MINIMUM OF 10" IN DIAMETER                   | MG-B10-24R          | DIAMETER: 10 INCHES                                                                  | WEATHER RESISTANT BACK BOX               |
| 01                                                                     | Ⓢ           | SYNCHRONIZATION MODULE                                    | DSM/SM-12/24-R      | HEIGHT: 4.28 INCHES<br>WIDTH: 4.28 INCHES<br>DEPTH: 0.4375 INCHES                    | 4 SQUARE DEEP BOX                        |
| 02                                                                     | Ⓛ<br>DT     | ADDRESSABLE DUCT SMOKE DETECTOR                           | SD500-ADH           | HEIGHT: 10 INCHES<br>WIDTH: 9.25 INCHES<br>DEPTH: 2.25 INCHES                        | 4 SQUARE DEEP BOX                        |
| 01                                                                     | Ⓛ<br>FACP   | FIRE ALARM CONTROL PANEL                                  | 5820XL              | HEIGHT: 26.4 INCHES<br>WIDTH: 16 INCHES<br>DEPTH: 4.65 INCHES                        | SHIPPED WITH SURFACE MOUNTED ENCLOSURE   |
| 01                                                                     | Ⓛ<br>FAXA   | FIRE ALARM KEYBOARD DISPLAY ANNUNCIATOR                   | 5860R               | HEIGHT: 7.375 INCHES<br>WIDTH: 9.125 INCHES<br>DEPTH: 1.5 INCHES                     | SHIPPED WITH FLUSH MOUNTED ENCLOSURE     |
|                                                                        |             |                                                           |                     |                                                                                      |                                          |
|                                                                        |             |                                                           |                     |                                                                                      |                                          |
|                                                                        |             |                                                           |                     |                                                                                      |                                          |
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|                                                                        |             |                                                           |                     |                                                                                      |                                          |
|                                                                        |             |                                                           |                     |                                                                                      |                                          |
| LONG VIEW SCHOOL DISTRICT - R.A. LONG ANNEX BUILDING FIRE ALARM LEGEND |             |                                                           |                     |                                                                                      |                                          |

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| REVISION          | 0 | 0 | 0 | 0 |
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| DRAWN BY: KHOI LE |   |   |   |   |
| APPROVED: _____   |   |   |   |   |
| DATE: 03/02/99    |   |   |   |   |
| SCALE: NST        |   |   |   |   |
| PROJECT NUMBER    |   |   |   |   |
| 99130             |   |   |   |   |
| SHEET NUMBER      |   |   |   |   |
| 2 OF 12           |   |   |   |   |

|                                 |  |
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| ADVANCED SERVICES CORPORATION   |  |
| PORTLAND, OREGON (503) 287-3889 |  |
| FIRE ALARM LEGEND & OPERATIONS  |  |
| LONGVIEW SCHOOL DISTRICT #122   |  |
| 2715 LILAC STREET               |  |
| LONGVIEW, WASHINGTON 98632      |  |

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ADVANCED SERVICES CORPORATION  
PORTLAND, OREGON (503) 287-3889

LONGVIEW, WASHINGTON 98632

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3 OF 12

NEW 4'X4'X4" CONCRETE VAULT WITH FULL SIZE DIAMOND PLATE COVER.

NEW 3" PVC C. ROUTED BEHIND PORTABLES AS SHOWN TO PREVENT EXTRA SIDEWALK CROSSINGS. STUB CONDUIT UNDER PORTABLES. (2) 3" PVC C. TO EACH.

NEW (2) 3" PVC C.

PORTABLE CLASSROOMS (1984)

ROUTE UP OUTSIDE INTO ATTIC. IN ATTIC, ROUTE TO ATTIC ACCESS.

ATTIC ACCESS

REMOVE EXISTING PATCH. PATCH TO MATCH EXISTING SIDEWALK.

ANNUNCIATOR WITH CONTROL (BOOKSHELF AND POSSIBLY THE EXISTING INTERCOM WILL BE MOVED BY THE SCHOOL).

ANNUNCIATOR (NO CONTROL)

CONTRACTOR TO SUPPLY THE REQUIRED CABLE OR CABLES (FROM THE FIRE ALARM CONTROL PANEL TO THE ADMINISTRATION ROOM) TO THE SCHOOL DISTRICT. THE CABLE(S) WILL BE INSTALLED BY THE SCHOOL DISTRICT. TERMINATED AT BOTH ENDS BY THE CONTRACTOR.

ALL EXTERIOR CONDUIT EXISTING. (2) 3" PVC C. UNLESS NOTED NEW. USE EMPTY DUCT FOR ROUTING OF FIRE ALARM SYSTEM BETWEEN BUILDINGS.

NEW, SAWCUT, INSTALL (2) 3" PVC C. STUBBED UNDER PORTABLE. PATCH TO MATCH EXISTING.

STUB INTO EXISTING VAULT, GROUT ALL PENETRATIONS.

PORTABLE CLASSROOM (1991) SEE DETAIL

PORTABLE CLASSROOM (1991) "DETAIL"

NOTE: MULTIPLE UNIT VENTILATORS ARE INSTALLED (NOT SHOWN FOR CLARITY). THESE UNITS REQUIRE NO CONNECTION TO FACP.

FIRE ALARM SYSTEM INSTALLED BY:  
RAWHIDE ELECTRIC  
906 NEW YORK AVE  
LONGVIEW, WASHINGTON 98632  
TELEPHONE: (360) 577-3860

MINT VALLEY SCHOOL FLOOR PLAN - FIRE ALARM

SCALE: 1/16"=1'



MINT VALLEY SCHOOL - FIRE ALARM  
LONGVIEW SCHOOL DISTRICT #122  
2715 LILAC STREET  
LONGVIEW, WASHINGTON 98632

| REVISION | DATE |
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DRAWN BY: KHOLE

APPROVED: \_\_\_\_\_

DATE: 03/02/99

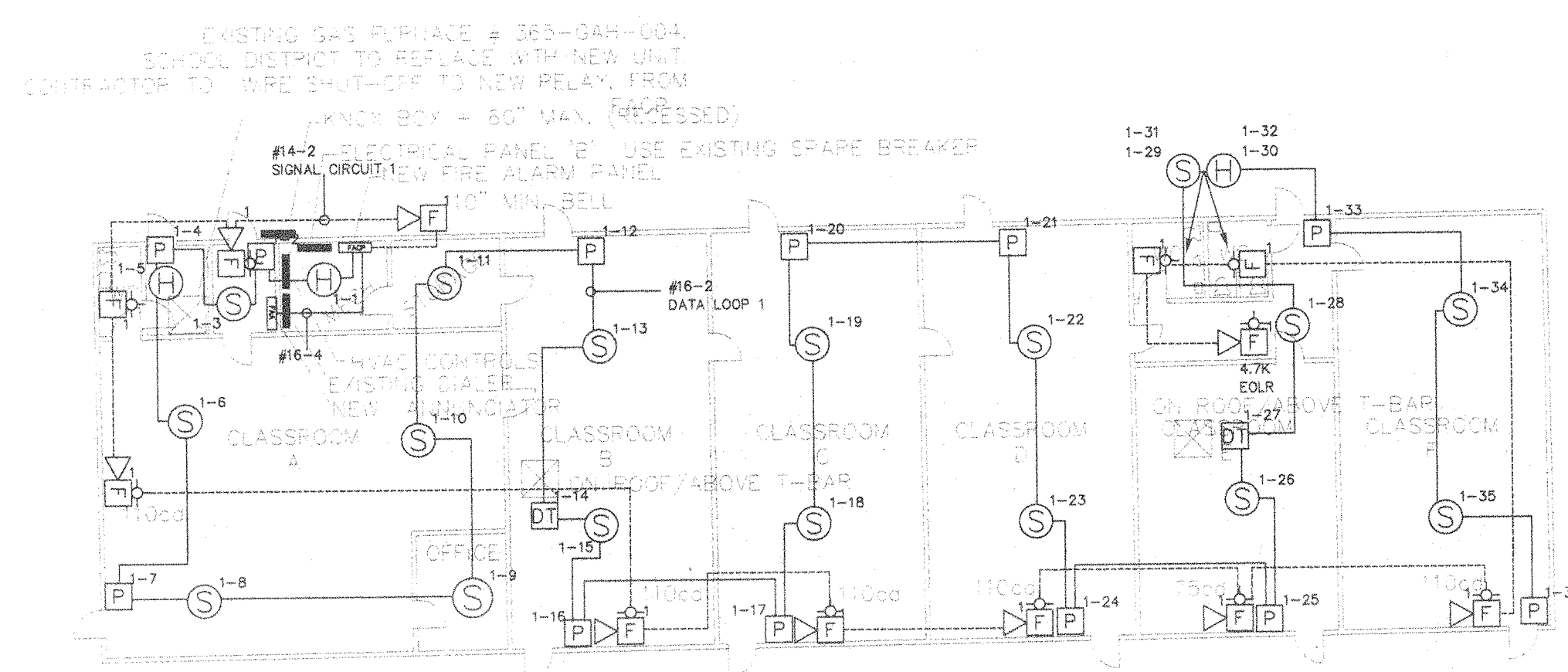
SCALE: 1/16"=1'

PROJECT NUMBER

99130

SHEET NUMBER

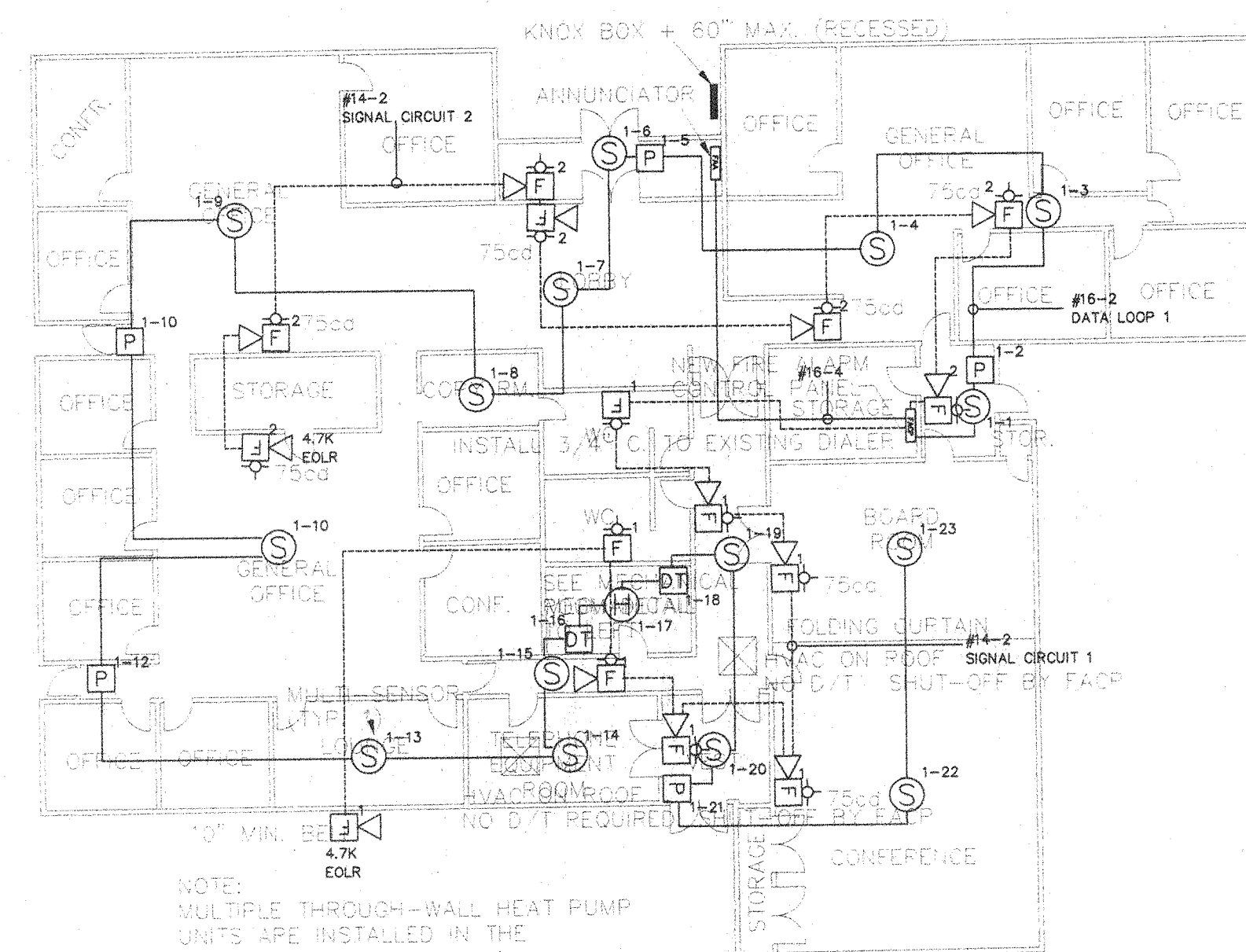
4 OF 12



R.A. LONG ANNEX BUILDING PLAN - FIRE ALARM

SCALE: 1/16" = 1'

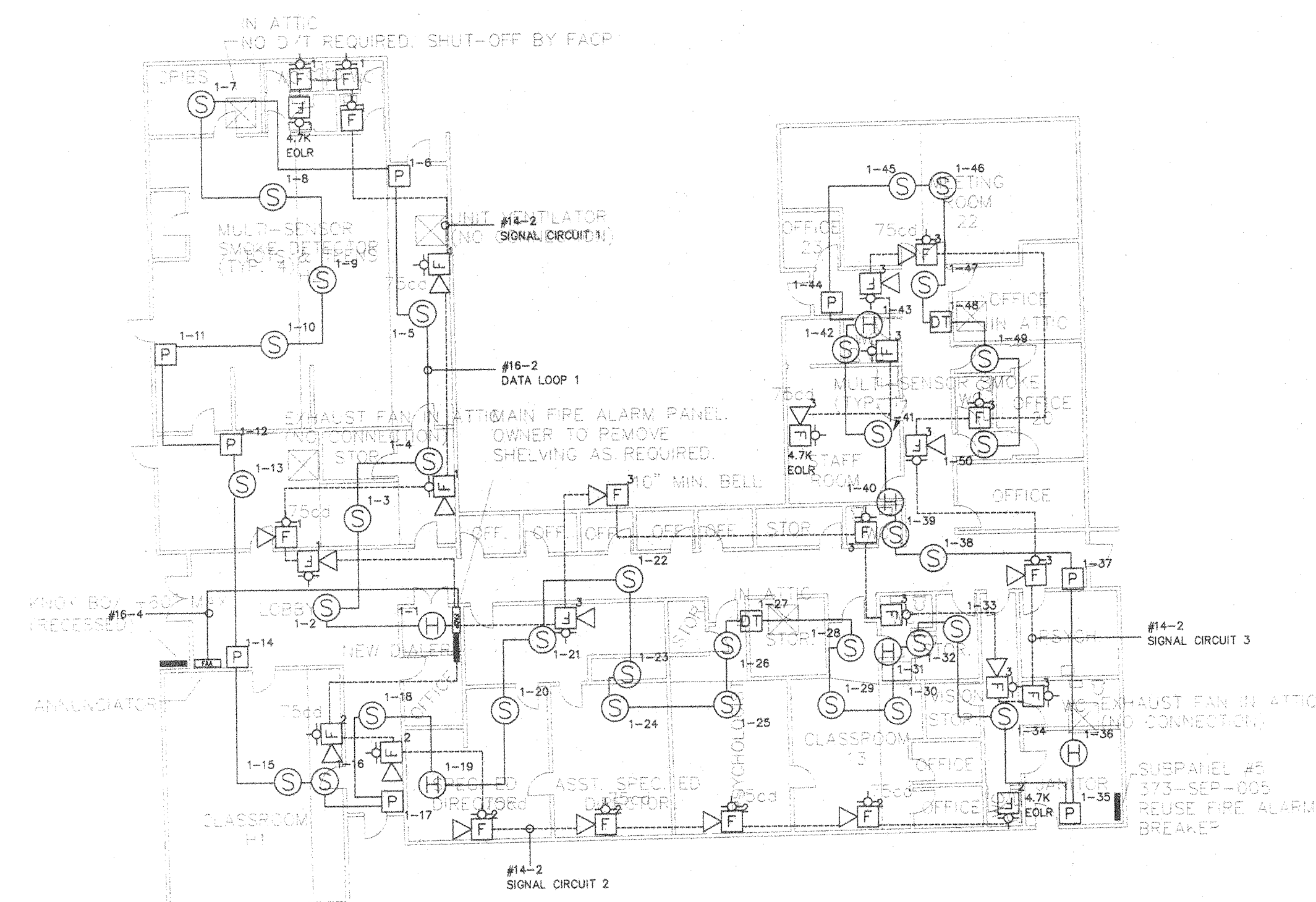
FIRE ALARM SYSTEM INSTALLED BY:  
 RAWHIDE ELECTRIC  
 906 NEW YORK AVE  
 LONGVIEW, WASHINGTON 98632  
 TELEPHONE: (360) 577-3860



NOTE:  
MULTIPLE THROUGH-WALL HEAT PUMP  
UNITS ARE INSTALLED IN THE  
ADMINISTRATION BUILDING (NOT SHOWN  
FOR CLARITY). THESE REQUIRE NO  
CONNECTION TO THE FACE.

ADMINISTRATION BUILDING PLAN — FIRE ALARM

SCALE: 1/16" = 1'



HARDING BUILDING PLAN - FIRE ALARM

SCALE: 1/16" = 1'

ATTACHMENT A - FOR REFERENCE ONLY

ADMIN, ANNEX, &amp; HARDING—FIRE ALARM

LONGVIEW SCHOOL DISTRICT #122

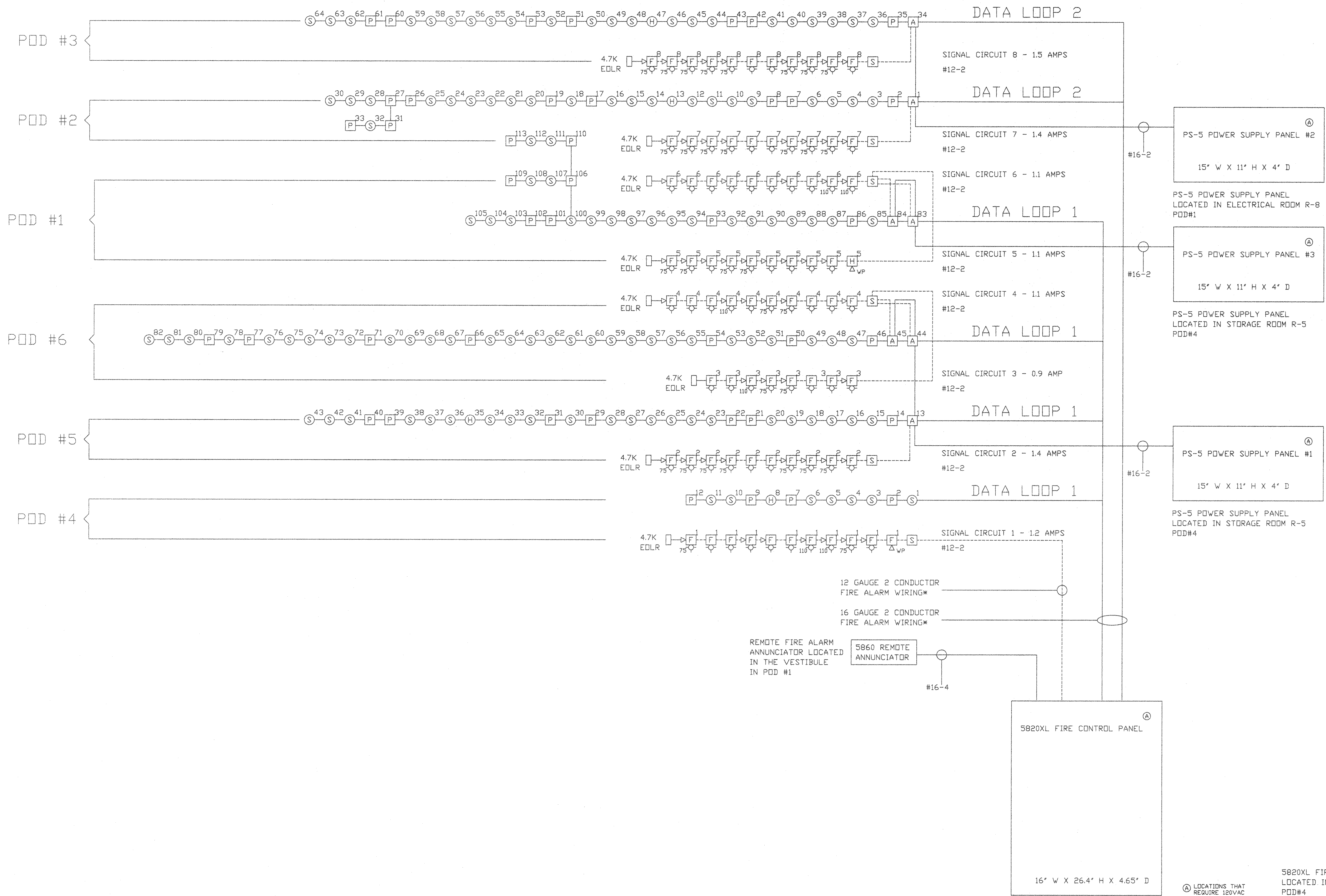
2715 LILAC STREET

LONGVIEW, WASHINGTON 98632

ADVANCED SERVICES CORPORATION

PORTLAND, OREGON (503) 287-3889

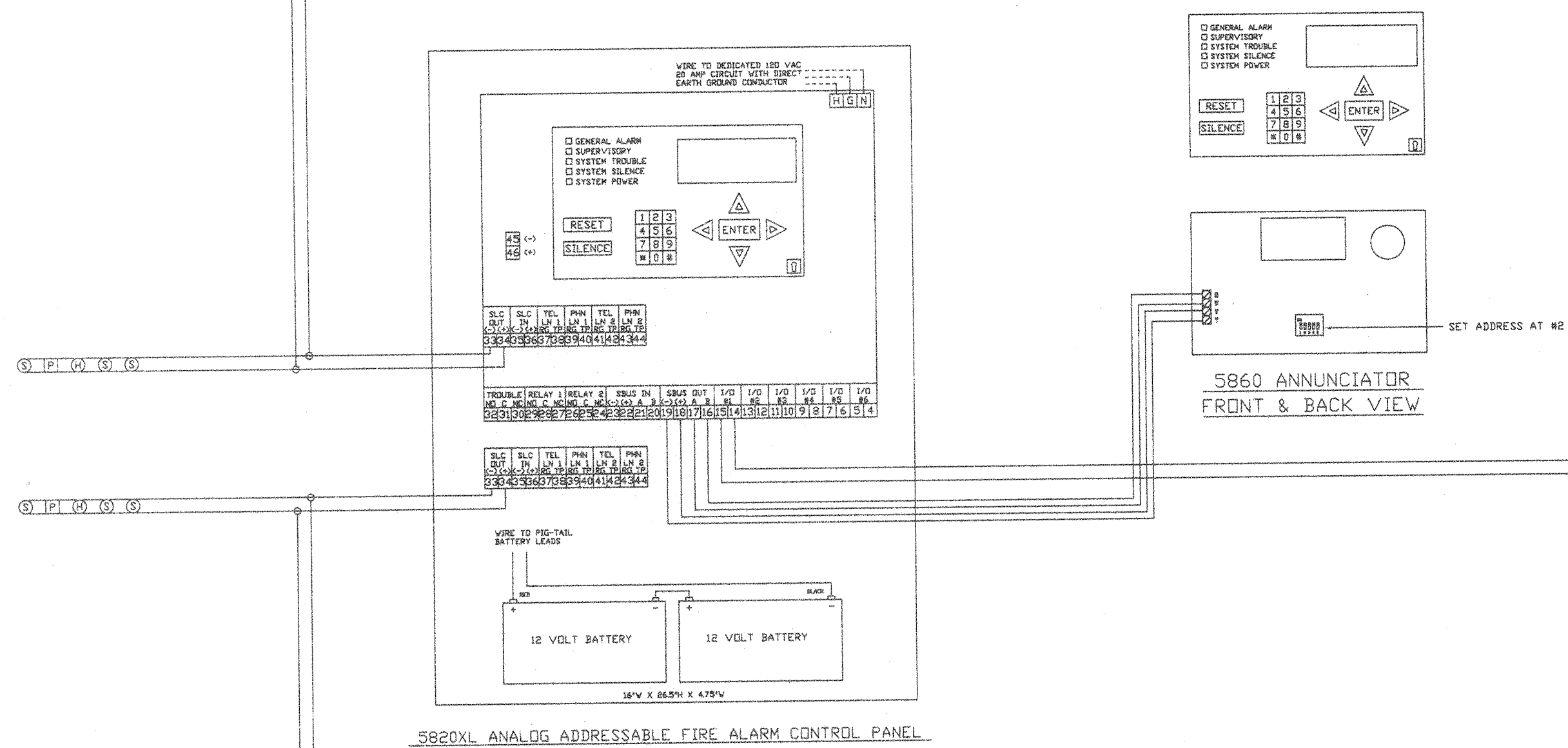
ATTACHMENT A - FOR REFERENCE ONLY



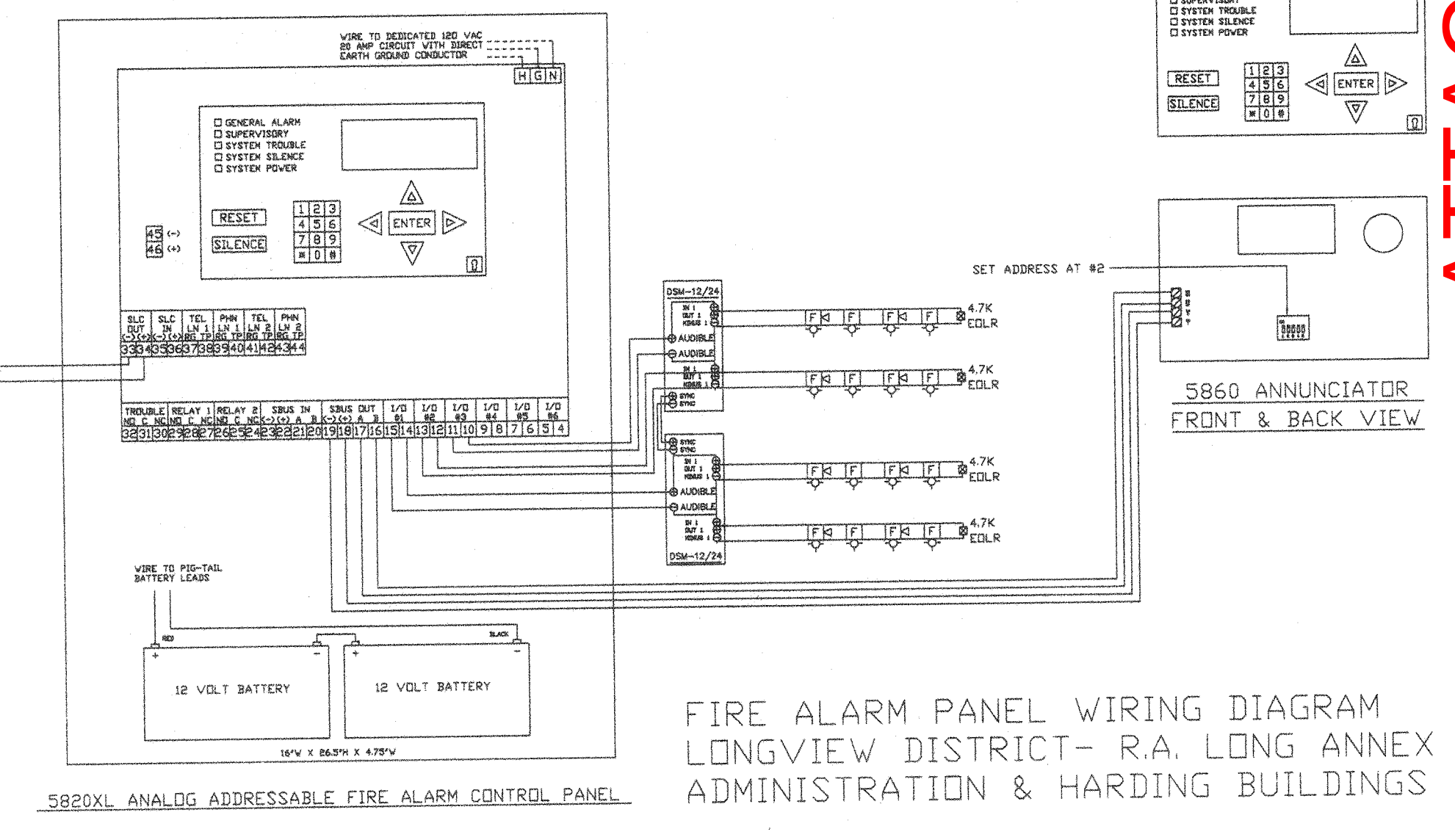
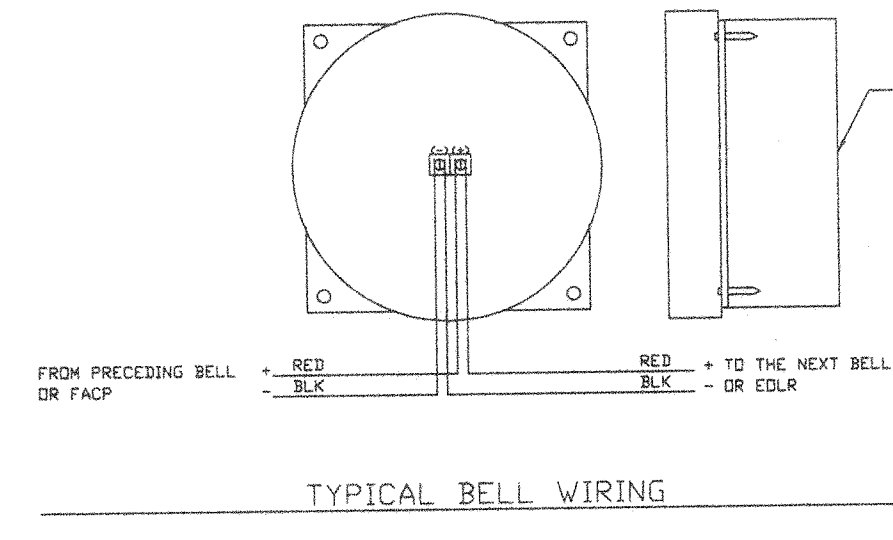
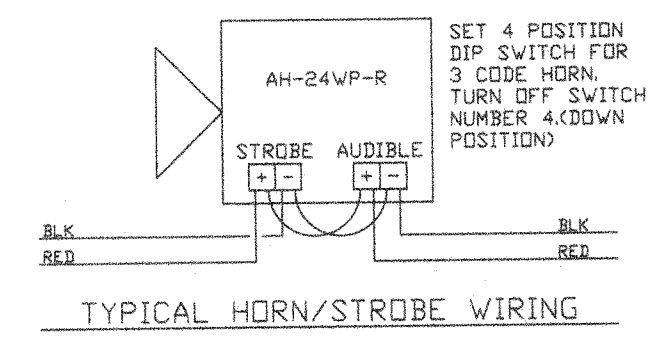
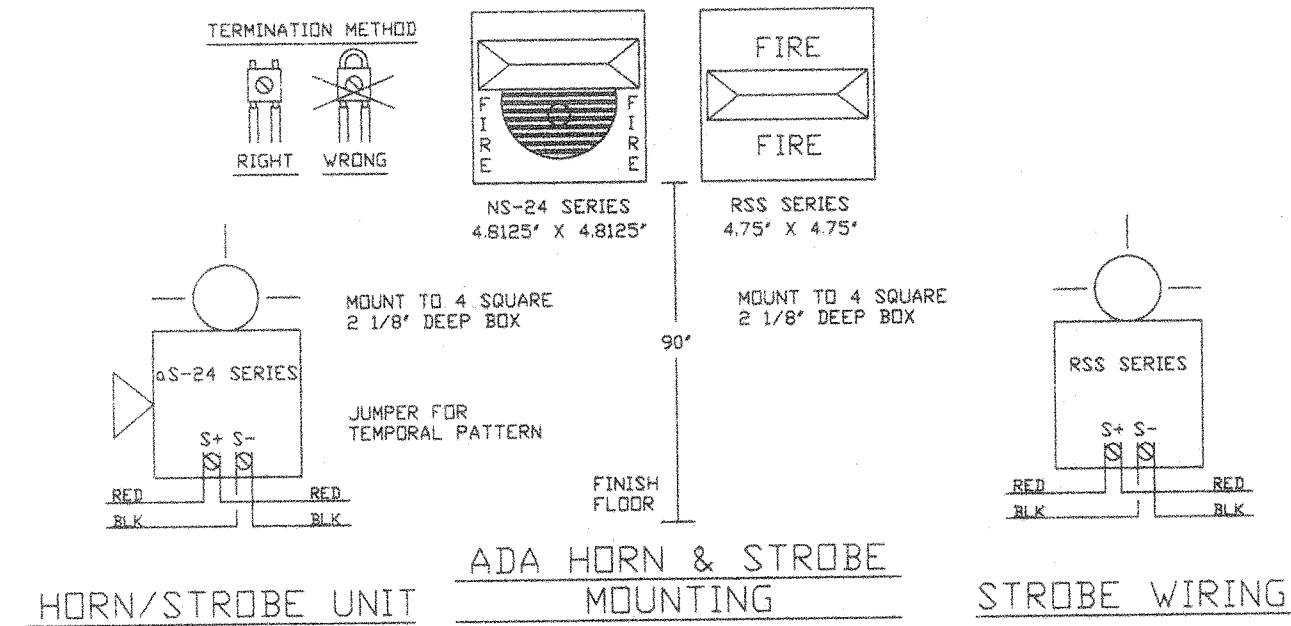
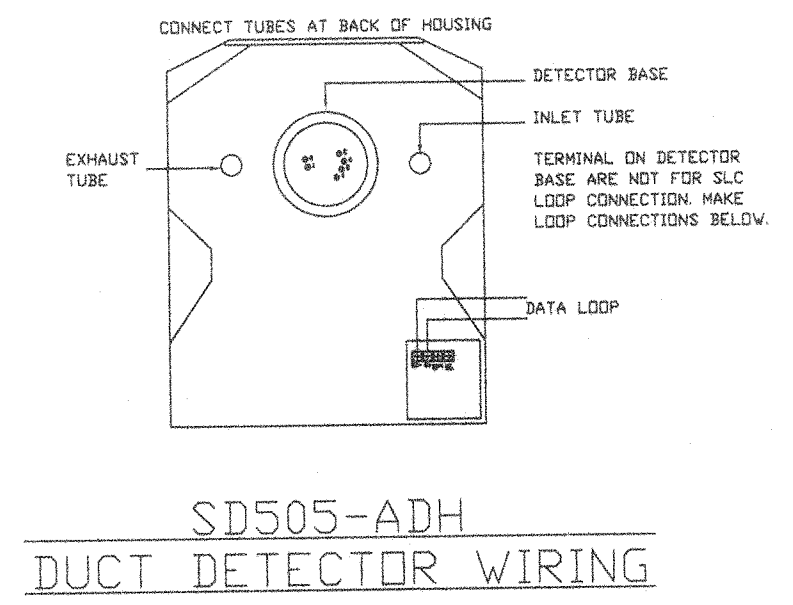
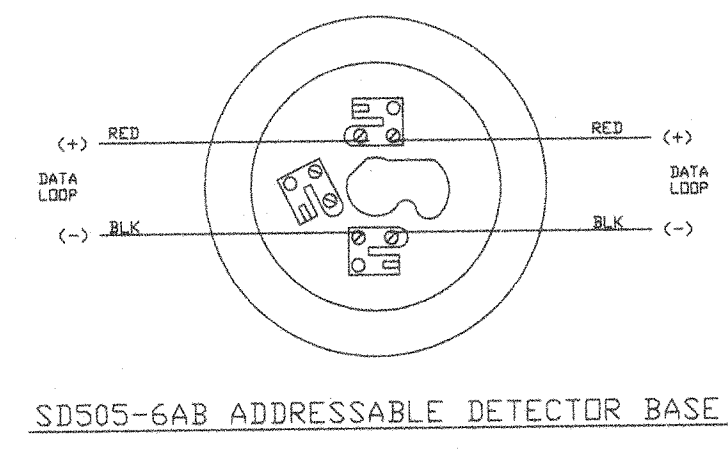
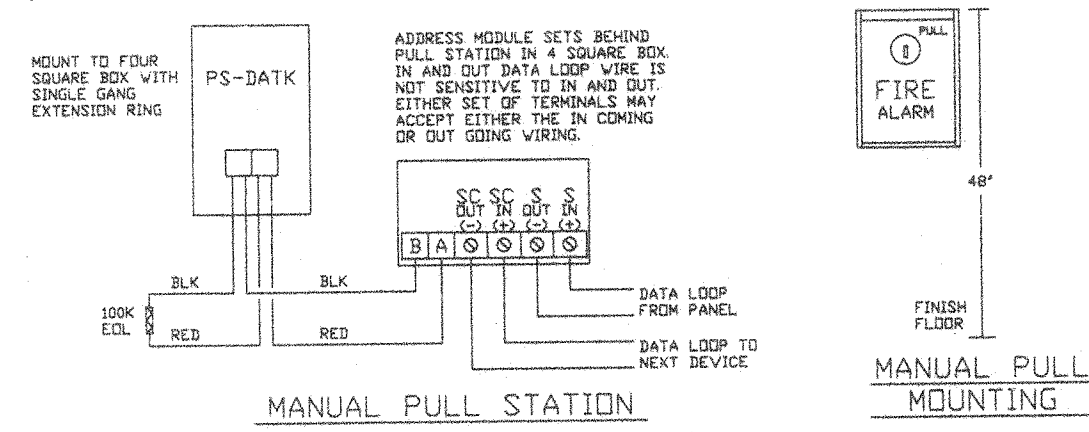
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| MINT VALLEY SCHOOL - FIRE ALARM |  |
| LONGVIEW SCHOOL DISTRICT #122   |  |
| 2715 LILAC STREET               |  |
| LONGVIEW, WASHINGTON 98632      |  |
| REVISION                        |  |
| DATE                            |  |
| DRAWN BY: KHOI LE               |  |
| APPROVED: _____                 |  |
| DATE: 03/02/99                  |  |
| SCALE: NTS                      |  |
| PROJECT NUMBER                  |  |
| 99130                           |  |
| SHEET NUMBER                    |  |
| 6 OF 12                         |  |

ADVANCED SERVICES CORPORATION  
PORTLAND, OREGON (503) 287-3889





FIRE ALARM PANEL WIRING DIAGRAM  
LONGVIEW DISTRICT- MINT VALLEY SCHOOL



FIRE ALARM PANEL WIRING DIAGRAM  
LONGVIEW DISTRICT- R.A. LONG ANNEX  
ADMINISTRATION & HARDING BUILDINGS

ATTACHMENT A - FOR REFERENCE ONLY

ADVANCED SERVICES CORPORATION  
PORTLAND, OREGON (503) 287-3889

MINT VALLEY SCHOOL - FIRE ALARM

LONGVIEW SCHOOL DISTRICT 3122  
2715 LILAC STREET  
LONGVIEW, WASHINGTON 98632

| DATE     | REVISION |
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| 03/02/99 | 1        |

DRAWN BY: KHDI LE

APPROVED: \_\_\_\_\_

SCALE: NTS

PROJECT NUMBER: 99130

SHEET NUMBER: 8 OF 12

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| VOLTAGE DROP CALCULATIONS (PANEL VOLTAGE = 24V; PANEL CURRENT 1.5A) |                                |                             |                                |                                     |
|---------------------------------------------------------------------|--------------------------------|-----------------------------|--------------------------------|-------------------------------------|
| COMPANY NAME                                                        | PANEL AND CIRCUIT              | TYPE OF DEVICE              | DISTANCE FR 1ST TO LAST DEVICE | VOLTAGE DROP AT THE END OF THE LINE |
| WHEELLOCK                                                           | 5B20XL PANEL<br><br>CIRCUIT 1  | 3 HORN/STROBE AS-241575W-FR | 290 FEET                       | 23.47                               |
|                                                                     |                                | 2 HORN/STROBE AS-2475W-FR   |                                |                                     |
|                                                                     |                                | 2 HORN/STROBE AS-24110W-FR  |                                |                                     |
|                                                                     |                                | 2 STROBE RSS-241575W-FR     |                                |                                     |
|                                                                     |                                | 1 HORN AH-24WP-R            |                                |                                     |
| WHEELLOCK                                                           | AS-P55-BFS #1<br><br>CIRCUIT 2 | 1 HORN/STROBE AS-241575W-FR | 310 FEET                       | 23.26                               |
|                                                                     |                                | 6 HORN/STROBE AS-2475W-FR   |                                |                                     |
|                                                                     |                                | 2 STROBE RSS-241575W-FR     |                                |                                     |
| WHEELLOCK                                                           | AS-P55-BFS #1<br><br>CIRCUIT 3 | 1 HORN/STROBE AS-241575W-FR | 280 FEET                       | 23.57                               |
|                                                                     |                                | 2 HORN/STROBE AS-2475W-FR   |                                |                                     |
|                                                                     |                                | 1 HORN/STROBE AS-24110W-FR  |                                |                                     |
|                                                                     |                                | 4 STROBE RSS-241575W-FR     |                                |                                     |
| WHEELLOCK                                                           | AS-P55-BFS #1<br><br>CIRCUIT 4 | 1 HORN/STROBE AS-241575W-FR | 310 FEET                       | 23.49                               |
|                                                                     |                                | 3 HORN/STROBE AS-2475W-FR   |                                |                                     |
|                                                                     |                                | 1 HORN/STROBE AS-24110W-FR  |                                |                                     |
|                                                                     |                                | 4 STROBE RSS-241575W-FR     |                                |                                     |
| WHEELLOCK                                                           | AS-P55-BFS #2<br><br>CIRCUIT 5 | 6 HORN/STROBE AS-241575W-FR | 480 FEET                       | 23.06                               |
|                                                                     |                                | 4 HORN/STROBE AS-2475W-FR   |                                |                                     |
|                                                                     |                                | 1 BELL MG-B10-24-R          |                                |                                     |
| WHEELLOCK                                                           | AS-P55-BFS #2<br><br>CIRCUIT 6 | 4 HORN/STROBE AS-241575W-FR | 480 FEET                       | 23.3                                |
|                                                                     |                                | 2 HORN/STROBE AS-24110W-FR  |                                |                                     |
|                                                                     |                                | 3 STROBE RSS-241575W-FR     |                                |                                     |
| WHEELLOCK                                                           | AS-P55-BFS #3<br><br>CIRCUIT 7 | 1 HORN/STROBE AS-241575W-FR | 300 FEET                       | 23.26                               |
|                                                                     |                                | 7 HORN/STROBE AS-2475W-FR   |                                |                                     |
|                                                                     |                                | 2 STROBE RSS-241575W-FR     |                                |                                     |
| WHEELLOCK                                                           | AS-P55-BFS #3<br><br>CIRCUIT 8 | 1 HORN/STROBE AS-241575W-FR | 400 FEET                       | 23.07                               |
|                                                                     |                                | 8 HORN/STROBE AS-2475W-FR   |                                |                                     |
|                                                                     |                                | 2 STROBE RSS-241575W-FR     |                                |                                     |

| DETECTION DEVICE ADDRESSES AND LOCATIONS |    |                  |                            |
|------------------------------------------|----|------------------|----------------------------|
| DEVICE ADDRESS                           |    | TYPE OF DEVICE   | LOCATION OF DEVICE         |
| 2                                        | 1  | NOTIFICATION MDL | PDD #3 VESTIBULE R-1       |
| 2                                        | 2  | MANUAL PULL      | PDD #3 VESTIBULE R-1       |
| 2                                        | 3  | PHOTO DETECTOR   | PDD #3 VESTIBULE R-1       |
| 2                                        | 4  | PHOTO DETECTOR   | PDD #3 CLASSROOM 7         |
| 2                                        | 5  | PHOTO DETECTOR   | PDD #3 CLASSROOM 7         |
| 2                                        | 6  | PHOTO DETECTOR   | PDD #3 CLASSROOM 7         |
| 2                                        | 7  | MANUAL PULL      | PDD #3 CLASSROOM 7 EXIT    |
| 2                                        | 8  | MANUAL PULL      | PDD #3 CLASSROOM 8 EXIT    |
| 2                                        | 9  | PHOTO DETECTOR   | PDD #3 CLASSROOM 8         |
| 2                                        | 10 | PHOTO DETECTOR   | PDD #3 CLASSROOM 8         |
| 2                                        | 11 | PHOTO DETECTOR   | PDD #3 CLASSROOM 8         |
| 2                                        | 12 | PHOTO DETECTOR   | PDD #3 CIRCUIT R-2         |
| 2                                        | 13 | HEAT DETECTOR    | PDD #3 ELECTRIC R-13       |
| 2                                        | 14 | PHOTO DETECTOR   | PDD #3 CLASSROOM 9         |
| 2                                        | 15 | PHOTO DETECTOR   | PDD #3 CLASSROOM 9         |
| 2                                        | 16 | PHOTO DETECTOR   | PDD #3 CLASSROOM 9         |
| 2                                        | 17 | MANUAL PULL      | PDD #3 CLASSROOM 9 EXIT    |
| 2                                        | 18 | PHOTO DETECTOR   | PDD #3 WORK ROOM R-10      |
| 2                                        | 19 | MANUAL PULL      | PDD #3 CLASSROOM 10 EXIT   |
| 2                                        | 20 | PHOTO DETECTOR   | PDD #3 CLASSROOM 10        |
| 2                                        | 21 | PHOTO DETECTOR   | PDD #3 CLASSROOM 10        |
| 2                                        | 22 | PHOTO DETECTOR   | PDD #3 CLASSROOM 10        |
| 2                                        | 23 | PHOTO DETECTOR   | PDD #3 CLASSROOM 11        |
| 2                                        | 24 | PHOTO DETECTOR   | PDD #3 CLASSROOM 11        |
| 2                                        | 25 | PHOTO DETECTOR   | PDD #3 CLASSROOM 11        |
| 2                                        | 26 | MANUAL PULL      | PDD #3 CLASSROOM 11 EXIT   |
| 2                                        | 27 | MANUAL PULL      | PDD #3 CLASSROOM 12 EXIT   |
| 2                                        | 28 | PHOTO DETECTOR   | PDD #3 CLASSROOM 12        |
| 2                                        | 29 | PHOTO DETECTOR   | PDD #3 CLASSROOM 12        |
| 2                                        | 30 | PHOTO DETECTOR   | PDD #3 CLASSROOM 12        |
| 2                                        | 31 | MANUAL PULL      | PDD #3 PORTABLE NORTH EXIT |
| 2                                        | 32 | PHOTO DETECTOR   | PDD #3 PORTABLE CLASSROOM  |

| DEVICE ADDRESS |    | TYPE OF DEVICE   | LOCATION OF DEVICE         |
|----------------|----|------------------|----------------------------|
| 2              | 33 | MANUAL PULL      | PDD #3 PORTABLE NORTH EXIT |
| 2              | 34 | NOTIFICATION MDL | PDD #2 VESTIBULE R-1       |
| 2              | 35 | MANUAL PULL      | PDD #2 VESTIBULE R-1       |
| 2              | 36 | PHOTO DETECTOR   | PDD #2 VESTIBULE R-1       |
| 2              | 37 | PHOTO DETECTOR   | PDD #2 SKYLIGHT            |
| 2              | 38 | PHOTO DETECTOR   | PDD #2 SKYLIGHT            |
| 2              | 39 | PHOTO DETECTOR   | PDD #2 CLASSROOM 1         |
| 2              | 40 | PHOTO DETECTOR   | PDD #2 CLASSROOM 1         |
| 2              | 41 | PHOTO DETECTOR   | PDD #2 CLASSROOM 1         |
| 2              | 42 | MANUAL PULL      | PDD #2 CLASSROOM 1 EXIT    |
| 2              | 43 | MANUAL PULL      | PDD #2 CLASSROOM 2 EXIT    |
| 2              | 44 | PHOTO DETECTOR   | PDD #2 CLASSROOM 2         |
| 2              | 45 | PHOTO DETECTOR   | PDD #2 CLASSROOM 2         |
| 2              | 46 | PHOTO DETECTOR   | PDD #2 CLASSROOM 2         |
| 2              | 47 | HEAT DETECTOR    | PDD #2 JANITOR ROOM        |
| 2              | 48 | PHOTO DETECTOR   | PDD #2 CLASSROOM 3         |
| 2              | 49 | PHOTO DETECTOR   | PDD #2 CLASSROOM 3         |
| 2              | 50 | PHOTO DETECTOR   | PDD #2 CLASSROOM 3         |
| 2              | 51 | MANUAL PULL      | PDD #2 CLASSROOM 3 EXIT    |
| 2              | 52 | PHOTO DETECTOR   | PDD #2 WORK ROOM R-10      |
| 2              | 53 | MANUAL PULL      | PDD #2 CLASSROOM 4 EXIT    |
| 2              | 54 | PHOTO DETECTOR   | PDD #2 CLASSROOM 4         |
| 2              | 55 | PHOTO DETECTOR   | PDD #2 CLASSROOM 4         |
| 2              | 56 | PHOTO DETECTOR   | PDD #2 CLASSROOM 4         |
| 2              | 57 | PHOTO DETECTOR   | PDD #2 CLASSROOM 5         |
| 2              | 58 | PHOTO DETECTOR   | PDD #2 CLASSROOM 5         |
| 2              | 59 | PHOTO DETECTOR   | PDD #2 CLASSROOM 5         |
| 2              | 60 | MANUAL PULL      | PDD #2 CLASSROOM 5 EXIT    |
| 2              | 61 | MANUAL PULL      | PDD #2 CLASSROOM 6 EXIT    |
| 2              | 62 | PHOTO DETECTOR   | PDD #2 CLASSROOM 6         |
| 2              | 63 | PHOTO DETECTOR   | PDD #2 CLASSROOM 6         |
| 2              | 64 | PHOTO DETECTOR   | PDD #2 CLASSROOM 6         |

| IFF-1000 FIRE ALARM CONTROL PANEL BATTERY CALCULATIONS |                     |                                  |                   |                    |                   |                    |       |
|--------------------------------------------------------|---------------------|----------------------------------|-------------------|--------------------|-------------------|--------------------|-------|
| QTY                                                    | PART NUMBER         | DESCRIPTION                      | WATT CURRENT SUPV | WATT CURRENT ALARM | WATT CURRENT SUPV | WATT CURRENT ALARM |       |
| 1                                                      | 5920XL              | FIRE ALARM CONTROL PANEL         | 0.14              | 0.26               | 0.14              | 0.26               |       |
|                                                        | 1 5860              | REMOTE ANNUNCIATOR               | 0.02              | 0.025              | 0.02              | 0.025              |       |
| 124                                                    | SD505-APS/SD505-6AB | ANALOG PHOTO SMOKE DETECTOR      | 0.00055           | 0.00055            | 0.0682            | 0.0682             |       |
| 4                                                      | SD505-AHS/SD505-6AB | ANALOG HEAT DETECTOR             | 0.00055           | 0.00055            | 0.0022            | 0.0022             |       |
| 42                                                     | PS-SATK/SD500-MIM   | ADDRESSABLE MANUAL PULL          | 0.00055           | 0.00055            | 0.0831            | 0.0831             |       |
| 7                                                      | SD505-ANM           | ADDRESSABLE NOTIFICATION MODULE  | 0.0006            | 0.00056            | 0.0042            | 0.0039             |       |
| 1                                                      | SM-12/24-R          | SYNCHRONIZATION MODULE           | 0.014             | 0.025              | 0.014             | 0.025              |       |
| 3                                                      | AS-241575V-FR       | HORN/STROBE 15/75 CD             |                   | 0.083              |                   | 0.24               |       |
| 2                                                      | AS-24755V-FR        | HORN/STROBE 75 CD                |                   | 0.156              |                   | 0.312              |       |
| 2                                                      | AS-24110V-FR        | HORN/STROBE 110 CD               |                   | 0.183              |                   | 0.366              |       |
| 3                                                      | RSS-241755V-FR      | STROBE 15/75 CD                  |                   | 0.065              |                   | 0.095              |       |
| 1                                                      | AH-24WP-R           | HORN WITH WEATHER PROOF BACK BOX |                   | 0.024              |                   | 0.12               |       |
| TOTAL CURRENT IN AMPS                                  |                     |                                  |                   |                    |                   | 0.272              | 1.553 |
| 60 HOUR WITH 5 MINUTE RING                             |                     |                                  |                   |                    |                   | 16.4340            |       |
| BATTERIES BEING PROVIDED ARE 17 AMP HOUR AT 24 VDC     |                     |                                  |                   |                    |                   |                    |       |

| AS/PS5-BFS PANEL #1 BATTERY CALCULATIONS          |                |                        |                 |                 |                 |                 |
|---------------------------------------------------|----------------|------------------------|-----------------|-----------------|-----------------|-----------------|
| QTY                                               | PART NUMBER    | DESCRIPTION            | NET DISCHG SUPV | NET DISCHG ALRM | NET DISCHG SUPV | NET DISCHG ALRM |
| 2                                                 | SH-12/24-R     | SYNCHRONIZATION MODULE | 0.014           | 0.025           | 0.028           | 0.050           |
| 5                                                 | AS-241575W-FR  | HDWN/STROBE 15/75 CD   |                 | 0.083           |                 | 0.415           |
| 11                                                | AS-2475W-FR    | HDWN/STROBE 75 CD      |                 | 0.156           |                 | 1.716           |
| 2                                                 | AS-24110W-FR   | HDWN/STROBE 110 CD     |                 | 0.183           |                 | 0.366           |
| 10                                                | RSS-241575W-FR | STROBE 15/75 CD        |                 | 0.065           |                 | 0.65            |
| TOTAL CURRENT IN AMPS                             |                |                        |                 |                 | 0.028           | 3.19            |
| 60 HOUR WITH 5 MINUTE RING                        |                |                        |                 |                 | 1.9517          |                 |
| BATTERIES BEING PROVIDED ARE 4 AMP HOUR AT 24 VDC |                |                        |                 |                 |                 |                 |

| AS/PSS-BFS PANEL #2 BATTERY CALCULATIONS          |                |                        |                  |                  |                  |                  |
|---------------------------------------------------|----------------|------------------------|------------------|------------------|------------------|------------------|
| QTY                                               | PART NUMBER    | DESCRIPTION            | NET CURRENT SUPV | NET CURRENT ALRM | NET CURRENT SUPV | NET CURRENT ALRM |
| 1                                                 | SW-12/24-R     | SYNCHRONIZATION MODULE | 0.014            | 0.025            | 0.014            | 0.025            |
| 9                                                 | AS-241S75W-FR  | HORN/STROBE 15/75 CD   |                  | 0.083            |                  | 0.74             |
| 4                                                 | AS-2475W-FR    | HORN/STROBE 75 CD      |                  | 0.156            |                  | 0.62             |
| 2                                                 | AS-24110W-FR   | HORN/STROBE 110 CD     |                  | 0.183            |                  | 0.36             |
| 4                                                 | RSS-241S75W-FR | STROBE 15/75 CD        |                  | 0.065            |                  | 0.26             |
| 1                                                 | MB-G10-24-R    | BELL WITH WBB          |                  | 0.03             |                  | 0.03             |
| TOTAL CURRENT IN AMPS                             |                |                        |                  |                  | 0.014            | 2.05             |
| 60 HOUR WITH 5 MINUTE RING                        |                |                        |                  |                  | 1.0144           |                  |
| BATTERIES BEING PROVIDED ARE 4 AMP HOUR AT P4 VDC |                |                        |                  |                  |                  |                  |

| AS/PS5-BFS PANEL #3 BATTERY CALCULATIONS          |                |                        |                  |                  |                  |
|---------------------------------------------------|----------------|------------------------|------------------|------------------|------------------|
| QTY                                               | PART NUMBER    | DESCRIPTION            | AMT CURRENT SUPV | AMT CURRENT ALRM | AMT CURRENT SUPV |
| 2                                                 | SM-12/24-R     | SYNCHRONIZATION MODULE | 0.014            | 0.025            | 0.058            |
| 2                                                 | AS-241575W-FR  | HORN/STROBE 15/75 CD   |                  | 0.083            | 0.166            |
| 15                                                | AS-2475W-FR    | HORN/STROBE 75 CD      |                  | 0.156            | 2.34             |
| 4                                                 | RSS-241575W-FR | STROBE 15/75 CD        |                  | 0.065            | 0.26             |
|                                                   |                |                        |                  |                  |                  |
|                                                   |                |                        |                  |                  |                  |
| TOTAL CURRENT IN AMPS                             |                |                        |                  |                  | 0.028            |
| 60 HOUR WITH 5 MINUTE RING                        |                |                        |                  |                  | 1.9194           |
| BATTERIES BEING PROVIDED ARE 4 AMP HOUR AT 24 VDC |                |                        |                  |                  |                  |

ATTACHMENT A - FOR REFERENCE ONLY

| DATE | REVISION |
|------|----------|
|      | 0        |
|      | 0        |
|      | 0        |
|      | 0        |

DRAWN BY: KHOI LE

APPROVED

DATE: 03/02/99

SCALE: NTS

PROJECT NUMBER

99130

SHEET NUMBER

ATTACHMENT A - FOR REFERENCE ONLY

| DETECTION DEVICE ADDRESSES AND LOCATIONS |         |                |                        |
|------------------------------------------|---------|----------------|------------------------|
| DEVICE ADDRESS                           |         | TYPE OF DEVICE | LOCATION OF DEVICE     |
| LOOP                                     | ADDRESS |                |                        |
| 1                                        | 1       | HEAT DETECTOR  | MECHANICAL ROOM        |
| 1                                        | 2       | MANUAL PULL    | LOBBY EXIT             |
| 1                                        | 3       | PHOTO DETECTOR | LOBBY                  |
| 1                                        | 4       | MANUAL PULL    | GAS FURNACE ROOM       |
| 1                                        | 5       | HEAT DETECTOR  | GAS FURNACE ROOM       |
| 1                                        | 6       | PHOTO DETECTOR | CLASSROOM A            |
| 1                                        | 7       | MANUAL PULL    | CLASSROOM A WEST EXIT  |
| 1                                        | 8       | PHOTO DETECTOR | CLASSROOM A            |
| 1                                        | 9       | PHOTO DETECTOR | OFFICE                 |
| 1                                        | 10      | PHOTO DETECTOR | CLASSROOM A            |
| 1                                        | 11      | PHOTO DETECTOR | STORAGE                |
| 1                                        | 12      | MANUAL PULL    | CLASSROOM B NORTH EXIT |
| 1                                        | 13      | PHOTO DETECTOR | CLASSROOM B            |
| 1                                        | 14      | DUCT DETECTOR  | CLASSROOM B            |
| 1                                        | 15      | PHOTO DETECTOR | CLASSROOM B            |
| 1                                        | 16      | MANUAL PULL    | CLASSROOM B SOUTH EXIT |
| 1                                        | 17      | MANUAL PULL    | CLASSROOM C SOUTH EXIT |
| 1                                        | 18      | PHOTO DETECTOR | CLASSROOM C            |
| 1                                        | 19      | PHOTO DETECTOR | CLASSROOM C            |
| 1                                        | 20      | MANUAL PULL    | CLASSROOM C NORTH EXIT |
| 1                                        | 21      | MANUAL PULL    | CLASSROOM D NORTH EXIT |
| 1                                        | 22      | PHOTO DETECTOR | CLASSROOM D            |
| 1                                        | 23      | PHOTO DETECTOR | CLASSROOM D            |
| 1                                        | 24      | MANUAL PULL    | CLASSROOM D SOUTH EXIT |
| 1                                        | 25      | MANUAL PULL    | CLASSROOM E SOUTH EXIT |
| 1                                        | 26      | PHOTO DETECTOR | CLASSROOM E            |
| 1                                        | 27      | DUCT DETECTOR  | CLASSROOM E            |
| 1                                        | 28      | PHOTO DETECTOR | TOILET                 |
| 1                                        | 29      | PHOTO DETECTOR | TOILET                 |
| 1                                        | 30      | HEAT DETECTOR  | TOILET                 |
| 1                                        | 31      | MANUAL PULL    | CLASSROOM E NORTH EXIT |
| 1                                        | 32      | PHOTO DETECTOR | CLASSROOM F            |
| 1                                        | 33      | PHOTO DETECTOR | CLASSROOM F            |
| 1                                        | 34      | MANUAL PULL    | CLASSROOM F            |

| VOLTAGE DROP CALCULATIONS (PANEL VOLTAGE = 24V; PANEL CURRENT 1.5A) |                               |                             |                                |                                     |
|---------------------------------------------------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------------------|
| COMPANY NAME                                                        | PANEL AND CIRCUIT             | TYPE OF DEVICE              | DISTANCE FR 1ST TO LAST DEVICE | VOLTAGE DROP AT THE END OF THE LINE |
| WHEELLOCK                                                           | 5820XL PANEL<br><br>CIRCUIT 1 | 2 HORN/STROBE AS-241575W-FR | 400 FEET                       | 22.39                               |
|                                                                     |                               | 1 HORN/STROBE AS-2475W-FR   |                                |                                     |
|                                                                     |                               | 5 HORN/STROBE AS-24110W-FR  |                                |                                     |
|                                                                     |                               | 3 STROBE RSS-241575W-FR     |                                |                                     |
|                                                                     |                               | 1 BELL MB-G10-24-R          |                                |                                     |

| IFP-1000 FIRE ALARM CONTROL PANEL BATTERY CALCULATIONS |                     |                                  |                      |                      |                      |                      |
|--------------------------------------------------------|---------------------|----------------------------------|----------------------|----------------------|----------------------|----------------------|
| QTY                                                    | PART NUMBER         | DESCRIPTION                      | UNIT CURRENT<br>SUPV | UNIT CURRENT<br>ALRM | UNIT CURRENT<br>SUPV | UNIT CURRENT<br>ALRM |
| 1                                                      | 5820XL              | FIRE ALARM CONTROL PANEL         | 0.14                 | 0.26                 | 0.14                 | 0.26                 |
| 1                                                      | 5860                | REMOTE ANNUNCIATOR               | 0.02                 | 0.025                | 0.02                 | 0.025                |
| 18                                                     | SD505-APS/SD505-6AB | ANALOG PHOTO SMOKE DETECTOR      | 0.00055              | 0.00055              | 0.0099               | 0.0099               |
| 4                                                      | SD505-AHS/SD505-6AB | ANALOG HEAT DETECTOR             | 0.00055              | 0.00055              | 0.0022               | 0.0022               |
| 12                                                     | PS-SATK/SD500-MIM   | ADDRESSABLE MANUAL PULL          | 0.00055              | 0.00055              | 0.0066               | 0.0066               |
| 2                                                      | SD505-ADH           | ADDRESSABLE DUCT HOUSING         | 0.00055              | 0.00055              | 0.0011               | 0.0011               |
| 1                                                      | SM-12/24-R          | SYNCHRONIZATION MODULE           | 0.014                | 0.025                | 0.014                | 0.025                |
| 2                                                      | AS-241575W-FR       | HORN/STROBE 15/75 CD             |                      | 0.083                |                      | 0.166                |
| 1                                                      | AS-2475W-FR         | HORN/STROBE 75 CD                |                      | 0.156                |                      | 0.156                |
| 5                                                      | AS-24110W-FR        | HORN/STROBE 110 CD               |                      | 0.183                |                      | 0.915                |
| 3                                                      | RSS-241575W-FR      | STROBE 15/75 CD                  |                      | 0.065                |                      | 0.195                |
| 1                                                      | MB-G10-24-R         | BELL WITH WEATHER PROOF BACK BOX |                      | 0.03                 |                      | 0.03                 |
| TOTAL CURRENT IN AMPS                                  |                     |                                  |                      |                      | 0.194                | 1.792                |
| 60 HOUR WITH 5 MINUTE RING                             |                     |                                  |                      |                      | 11.7803              |                      |
| BATTERIES BEING PROVIDED ARE 14 AMP HOUR AT 24 VDC     |                     |                                  |                      |                      |                      |                      |

LONGVIEW SCHOOL DISTRICT #122 - R.A. LONG ANNEX BUILDING

|                                                                                  |  |                                                                  |  |
|----------------------------------------------------------------------------------|--|------------------------------------------------------------------|--|
| FIRE ALARM DEVICE DESCRIPTIONS                                                   |  | ADVANCED SERVICES CORPORATION<br>PORTLAND, OREGON (503) 287-3889 |  |
| LONGVIEW SCHOOL DISTRICT #122<br>2715 LILAC STREET<br>LONGVIEW, WASHINGTON 98632 |  |                                                                  |  |
| REVISION                                                                         |  |                                                                  |  |
| DATE                                                                             |  |                                                                  |  |
| DRAWN BY: KHOL LE                                                                |  |                                                                  |  |
| APPROVED: _____                                                                  |  |                                                                  |  |
| DATE: 03/02/99                                                                   |  |                                                                  |  |
| SCALE: NTS                                                                       |  |                                                                  |  |
| PROJECT NUMBER<br>99130                                                          |  |                                                                  |  |
| SHEET NUMBER<br>10 OF 12                                                         |  |                                                                  |  |

| DETECTION DEVICE ADDRESSES AND LOCATIONS |         |                |                           |
|------------------------------------------|---------|----------------|---------------------------|
| DEVICE ADDRESS                           |         | TYPE OF DEVICE | LOCATION OF DEVICE        |
| LOOP                                     | ADDRESS |                |                           |
| 1                                        | 1       | PHOTO DETECTOR | EAST LOBBY                |
| 1                                        | 2       | MANUAL PULL    | EAST LOBBY EXIT           |
| 1                                        | 3       | PHOTO DETECTOR | HALL WAY OFFICE           |
| 1                                        | 4       | PHOTO DETECTOR | GENERAL OFFICE EAST       |
| 1                                        | 5       | MANUAL PULL    | MAIN LOBBY EXIT           |
| 1                                        | 6       | PHOTO DETECTOR | MAIN LOBBY                |
| 1                                        | 7       | PHOTO DETECTOR | MAIN LOBBY                |
| 1                                        | 8       | PHOTO DETECTOR | COPY ROOM                 |
| 1                                        | 9       | PHOTO DETECTOR | GENERAL OFFICE WEST       |
| 1                                        | 10      | PHOTO DETECTOR | GENERAL OFFICE EXIT NORTH |
| 1                                        | 11      | PHOTO DETECTOR | GENERAL OFFICE            |
| 1                                        | 12      | MANUAL PULL    | GENERAL OFFICE EXIT SOUTH |
| 1                                        | 13      | PHOTO DETECTOR | LOUNGE                    |
| 1                                        | 14      | PHOTO DETECTOR | TELEPHONE ROOM            |
| 1                                        | 15      | PHOTO DETECTOR | HALL WAY CONFERENCE       |
| 1                                        | 16      | DUCT DETECTOR  | MECHANICAL ROOM           |
| 1                                        | 17      | HEAT DETECTOR  | MECHANICAL ROOM           |
| 1                                        | 18      | DUCT DETECTOR  | MECHANICAL                |
| 1                                        | 19      | PHOTO DETECTOR | HALL WAY EAST             |
| 1                                        | 20      | PHOTO DETECTOR | VESTIBULE                 |
| 1                                        | 21      | MANUAL PULL    | VESTIBULE EXIT            |
| 1                                        | 22      | PHOTO DETECTOR | CONFERENCE ROOM           |
| 1                                        | 23      | PHOTO DETECTOR | BOARD ROOM                |

| VOLTAGE DROP CALCULATIONS (PANEL VOLTAGE = 24V; PANEL CURRENT 1.5A) |                   |                             |                                |                                     |
|---------------------------------------------------------------------|-------------------|-----------------------------|--------------------------------|-------------------------------------|
| COMPANY NAME                                                        | PANEL AND CIRCUIT | TYPE OF DEVICE              | DISTANCE FR 1ST TO LAST DEVICE | VOLTAGE DROP AT THE END OF THE LINE |
| WHEELLOCK                                                           | 5820XL PANEL      | 3 HORN/STROBE AS-241575W-FR | 290 FEET                       | 23.51                               |
|                                                                     |                   | 2 HORN/STROBE AS-2475W-FR   |                                |                                     |
|                                                                     |                   | 2 STROBE RSS-241575W-FR     |                                |                                     |
|                                                                     | CIRCUIT 1         | 1 BELL MB-G10-24-R          |                                |                                     |
| WHEELLOCK                                                           | 5820XL PANEL      | 2 HORN/STROBE AS-241575W-FR | 280 FEET                       | 23.23                               |
|                                                                     |                   | 5 HORN/STROBE AS-2475W-FR   |                                |                                     |

| IFP-1000 FIRE ALARM CONTROL PANEL BATTERY CALCULATIONS |                     |                                  |                      |                      |                      |                      |  |
|--------------------------------------------------------|---------------------|----------------------------------|----------------------|----------------------|----------------------|----------------------|--|
| QTY                                                    | PART NUMBER         | DESCRIPTION                      | UNIT CURRENT<br>SUPV | UNIT CURRENT<br>ALRM | UNIT CURRENT<br>SUPV | UNIT CURRENT<br>ALRM |  |
| 1                                                      | IFP-1000            | FIRE ALARM CONTROL PANEL         | 0.14                 | 0.26                 | 0.14                 | 0.26                 |  |
| 1                                                      | 5860                | REMOTE ANNUNCIATOR               | 0.02                 | 0.025                | 0.02                 | 0.025                |  |
| 15                                                     | SD505-APS/SD505-6AB | ANALOG PHOTO SMOKE DETECTOR      | 0.00055              | 0.00055              | 0.00825              | 0.00825              |  |
| 1                                                      | SD505-AHS/SD505-6AB | ANALOG HEAT DETECTOR             | 0.00055              | 0.00055              | 0.00055              | 0.00055              |  |
| 5                                                      | PS-SATK/SD500-MIM   | ADDRESSABLE MANUAL PULL          | 0.00055              | 0.00055              | 0.00275              | 0.00275              |  |
| 2                                                      | SD505-ADH           | ADDRESSABLE DUCT HOUSING         | 0.00055              | 0.00055              | 0.0011               | 0.0011               |  |
| 1                                                      | DSM-12/24-R         | SYNCHRONIZATION MODULE           | 0.014                | 0.025                | 0.014                | 0.025                |  |
| 5                                                      | AS-241575W-FR       | HORN/STROBE 15/75 CD             |                      | 0.083                |                      | 0.415                |  |
| 7                                                      | AS-2475W-FR         | HORN/STROBE 75 CD                |                      | 0.156                |                      | 1.092                |  |
| 2                                                      | RSS-241575W-FR      | STROBE 15/75 CD                  |                      | 0.065                |                      | 0.13                 |  |
| 1                                                      | MB-G10-24-R         | BELL WITH WEATHER PROOF BACK BOX |                      | 0.03                 |                      | 0.03                 |  |
| TOTAL CURRENT IN AMPS                                  |                     |                                  |                      |                      | 0.187                | 1.990                |  |
| 60 HOUR WITH 5 MINUTE RING                             |                     |                                  |                      |                      | 11.3681              |                      |  |
| BATTERIES BEING PROVIDED ARE 14 AMP HOUR AT 24 VDC     |                     |                                  |                      |                      |                      |                      |  |

LONGVIEW SCHOOL DISTRICT #122 - ADMINISTRATION BUILDING

ADVANCED SERVICES CORPORATION

PORTLAND, OREGON (503) 287-3889

FIRE ALARM DEVICE DESCRIPTIONS

LONGVIEW SCHOOL DISTRICT #122

2715 LILAC STREET

LONGVIEW, WASHINGTON 98632

REVISION

DATE

DRAWN BY:KHDI LE

APPROVED:

DATE: 03/02/99

SCALE: NTS

PROJECT NUMBER

99130

SHEET NUMBER

11 OF 12

| DETECTION DEVICE ADDRESSES AND LOCATIONS |         |                |                              |
|------------------------------------------|---------|----------------|------------------------------|
| DEVICE ADDRESS                           |         | TYPE OF DEVICE | LOCATION OF DEVICE           |
| LOOP                                     | ADDRESS |                |                              |
| 1                                        | 1       | HEAT DETECTOR  | JANITOR CLOSET LOBBY         |
| 1                                        | 2       | PHOTO DETECTOR | LOBBY                        |
| 1                                        | 3       | PHOTO DETECTOR | UNNAMED NORTH OF LOBBY       |
| 1                                        | 4       | PHOTO DETECTOR | UNNAMED NORTH OF LOBBY       |
| 1                                        | 5       | PHOTO DETECTOR | TOTS & TEENS H2              |
| 1                                        | 6       | MANUAL PULL    | TOTS & TEEN H2 NORTH EXIT    |
| 1                                        | 7       | PHOTO DETECTOR | CRIBS                        |
| 1                                        | 8       | PHOTO DETECTOR | TOTS & TEENS H2              |
| 1                                        | 9       | PHOTO DETECTOR | TOTS & TEENS H2              |
| 1                                        | 10      | PHOTO DETECTOR | TOTS & TEENS H2              |
| 1                                        | 11      | MANUAL PULL    | TOTS & TEENS H2 WEST EXIT    |
| 1                                        | 12      | MANUAL PULL    | UNNAMED NORTH OF LOBBY       |
| 1                                        | 13      | PHOTO DETECTOR | UNNAMED NORTH OF LOBBY       |
| 1                                        | 14      | MANUAL PULL    | LOBBY EXIT                   |
| 1                                        | 15      | PHOTO DETECTOR | CLASSROOM H1                 |
| 1                                        | 16      | PHOTO DETECTOR | CLASSROOM H1                 |
| 1                                        | 17      | MANUAL PULL    | SOUTH CORRIDOR EXIT          |
| 1                                        | 18      | PHOTO DETECTOR | SOUTH CORRIDOR               |
| 1                                        | 19      | HEAT DETECTOR  | ASST. SPEC. ED. DIRECTOR     |
| 1                                        | 20      | PHOTO DETECTOR | ASST. SPEC. ED. DIRECTOR     |
| 1                                        | 21      | PHOTO DETECTOR | UNNAMED ACCROSS FROM OFFICES |
| 1                                        | 22      | PHOTO DETECTOR | CENTRAL CORRIDOR             |
| 1                                        | 23      | PHOTO DETECTOR | UNNAME NEXT STORAGE ROOM     |
| 1                                        | 24      | PHOTO DETECTOR | ASST. SPEC. ED DIRECTOR      |
| 1                                        | 25      | PHOTO DETECTOR | PSYCHOLOGIST                 |
| 1                                        | 26      | PHOTO DETECTOR | CLASSROOM 13                 |
| 1                                        | 27      | DUCT DETECTOR  | STORAGE ROOM                 |
| 1                                        | 28      | PHOTO DETECTOR | CLASSROOM 13                 |
| 1                                        | 29      | PHOTO DETECTOR | CLASSROOM 13                 |
| 1                                        | 30      | PHOTO DETECTOR | CLASSROOM 13                 |
| 1                                        | 31      | HEAT DETECTOR  | UNNAMED                      |
| 1                                        | 32      | PHOTO DETECTOR | STORAGE ROOM                 |
| 1                                        | 33      | PHOTO DETECTOR | STORAGE ROOM                 |
| 1                                        | 34      | PHOTO DETECTOR | CORRIDOR IN FRONT OF JANITOR |
| 1                                        | 35      | MANUAL PULL    | JANITOR ROOM EXIT            |
| 1                                        | 36      | HEAT DETECTOR  | JANITOR ROOM                 |
| 1                                        | 37      | MANUAL PULL    | CENTRAL CORRIDOR EAST EXIT   |
| 1                                        | 38      | PHOTO DETECTOR | CENTRAL CORRIDOR EAST        |
| 1                                        | 39      | PHOTO DETECTOR | W.C ROOM                     |
| 1                                        | 40      | HEAT DETECTOR  | W.C ROOM                     |
| 1                                        | 41      | PHOTO DETECTOR | STAFF ROOM                   |
| 1                                        | 42      | PHOTO DETECTOR | W.C. ROOM                    |
| 1                                        | 43      | HEAT DETECTOR  | W.C. ROOM                    |
| 1                                        | 44      | MANUAL PULL    | EAST CORRIDOR WEST EXIT      |
| 1                                        | 45      | PHOTO DETECTOR | MEETING ROOM                 |
| 1                                        | 46      | PHOTO DETECTOR | MEETING ROOM                 |
| 1                                        | 47      | PHOTO DETECTOR | EAST CORRIDOR                |
| 1                                        | 48      | DUCT DETECTOR  | ATTIC                        |
| 1                                        | 49      | PHOTO DETECTOR | OFFICE 20                    |
| 1                                        | 50      | PHOTO DETECTOR | OFFICE 20                    |

| VOLTAGE DROP CALCULATIONS (PANEL VOLTAGE = 24V; PANEL CURRENT 15A) |                   |                             |                                |                                     |
|--------------------------------------------------------------------|-------------------|-----------------------------|--------------------------------|-------------------------------------|
| COMPANY NAME                                                       | PANEL AND CIRCUIT | TYPE OF DEVICE              | DISTANCE FR 1ST TO LAST DEVICE | VOLTAGE DROP AT THE END OF THE LINE |
| WHEELLOCK                                                          | 5820XL PANEL      | 2 HORN/STROBE AS-241575W-FR | 230 FEET                       | 23.53                               |
|                                                                    |                   | 2 HORN/STROBE AS-2475W-FR   |                                |                                     |
|                                                                    | CIRCUIT 1         | 4 STROBE RSS-241575W-FR     |                                |                                     |
| WHEELLOCK                                                          | 5820XL PANEL      | 1 HORN/STROBE AS-241575W-FR | 260 FEET                       | 23.34                               |
|                                                                    |                   | 5 HORN/STROBE AS-2475W-FR   |                                |                                     |
|                                                                    | CIRCUIT 2         | 1 STROBE RSS-241575W-FR     |                                |                                     |
| WHEELLOCK                                                          | 5820XL PANEL      | 4 HORN/STROBE AS-241575W-FR | 260 FEET                       | 23.34                               |
|                                                                    |                   | 3 HORN/STROBE AS-2475W-FR   |                                |                                     |
|                                                                    |                   | 5 STROBE RSS-241575W-FR     |                                |                                     |
|                                                                    | CIRCUIT 3         | 1 BELL MB-G10-24-R          |                                |                                     |

| IFP-1000 FIRE ALARM CONTROL PANEL BATTERY CALCULATIONS |                     |                                  |                      |                      |                      |                      |
|--------------------------------------------------------|---------------------|----------------------------------|----------------------|----------------------|----------------------|----------------------|
| QTY                                                    | PART NUMBER         | DESCRIPTION                      | UNIT CURRENT<br>SUPV | UNIT CURRENT<br>ALRM | UNIT CURRENT<br>SUPV | UNIT CURRENT<br>ALRM |
| 1                                                      | 5820XL              | FIRE ALARM CONTROL PANEL         | 0.14                 | 0.26                 | 0.14                 | 0.26                 |
| 1                                                      | 5860                | REMOTE ANNUNCIATOR               | 0.02                 | 0.025                | 0.02                 | 0.025                |
| 34                                                     | SD505-APS/SD505-6AB | ANALOG PHOTO SMOKE DETECTOR      | 0.00055              | 0.00055              | 0.0187               | 0.0187               |
| 6                                                      | SD505-AHS/SD505-6AB | ANALOG HEAT DETECTOR             | 0.00055              | 0.00055              | 0.0033               | 0.0033               |
| 8                                                      | PS-SATK/SD500-MIM   | ADDRESSABLE MANUAL PULL          | 0.00055              | 0.00055              | 0.0044               | 0.0044               |
| 2                                                      | SD505-ADH           | ADDRESSABLE DUCT HOUSING         | 0.00055              | 0.00055              | 0.0011               | 0.0011               |
| 2                                                      | DSM-12/24-R         | SYNCHRONIZATION MODULE           | 0.014                | 0.025                | 0.028                | 0.05                 |
| 8                                                      | AS-241575W-FR       | HORN/STROBE 15/75 CD             |                      | 0.083                |                      | 0.0664               |
| 9                                                      | AS-2475W-FR         | HORN/STROBE 75 CD                |                      | 0.156                |                      | 1.404                |
| 10                                                     | RSS-241575W-FR      | STROBE 15/75 CD                  |                      | 0.065                |                      | 0.065                |
| 1                                                      | MB-G10-24-R         | BELL WITH WEATHER PROOF BACK BOX |                      | 0.03                 |                      | 0.03                 |
| TOTAL CURRENT IN AMPS                                  |                     |                                  |                      |                      | 0.216                | 3.111                |
| 60 HOUR WITH 5 MINUTE RING                             |                     |                                  |                      |                      | 13.1944              |                      |
| BATTERIES BEING PROVIDED ARE 14 AMP HOUR AT 24 VDC     |                     |                                  |                      |                      |                      |                      |

LONGVIEW SCHOOL DISTRICT #122 - HARDING BUILDING

ATTACHMENT A - FOR REFERENCE ONLY

ADVANCED SERVICES CORPORATION  
PORTLAND, OREGON (503) 287-3889

FIRE ALARM DEVICE DESCRIPTIONS  
LONGVIEW SCHOOL DISTRICT #122  
2715 LILAC STREET  
LONGVIEW, WASHINGTON 98632

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