

ABUT. #1 ELEV. 205.000
ABUT. #2 ELEV. 204.500

**END SECTION AT GIRDER 3
ABUTMENT 1 (ONLY)**

LEGEND:

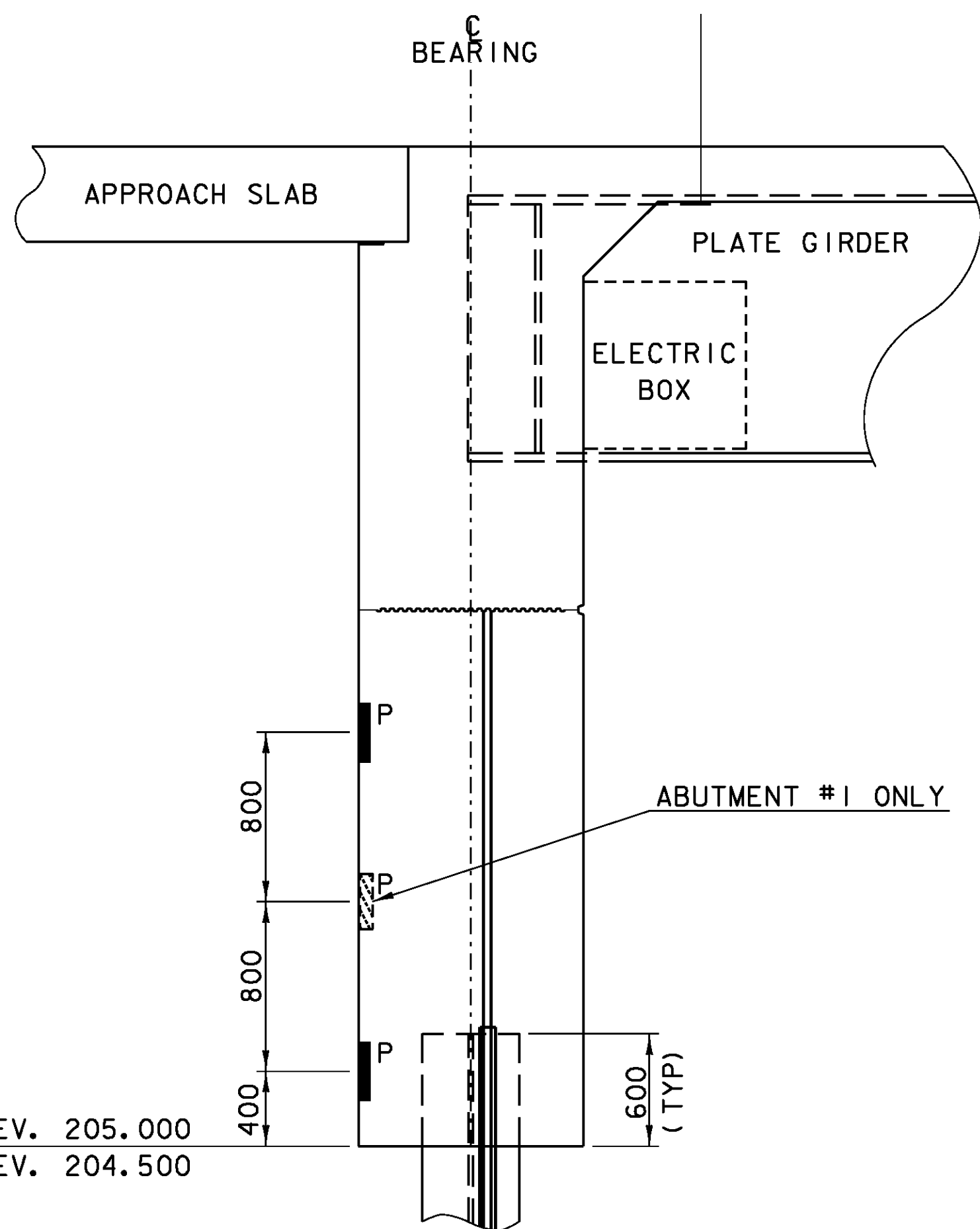
- P GEOKON MODEL NO. 4815 PRESSURE TRANSDUCER
- TILTMETER
- P GEOKON MODEL NO. 4815 PRESSURE TRANSDUCER ABUT. #1 ONLY

NOTES:

1. GAGES SHOULD BE ATTACHED BETWEEN 300 AND 600 ABOVE BOTTOM OF ABUTMENT. FINAL LOCATION DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER OR UMASS.
2. ONLY ONE TRANSVERSE CRACKMETER PER ABUTMENT, PLACED ON THE UPSTREAM PILES.
3. REFERENCE PILE SIZE SUBSTITUTIONS ARE ACCEPTABLE.

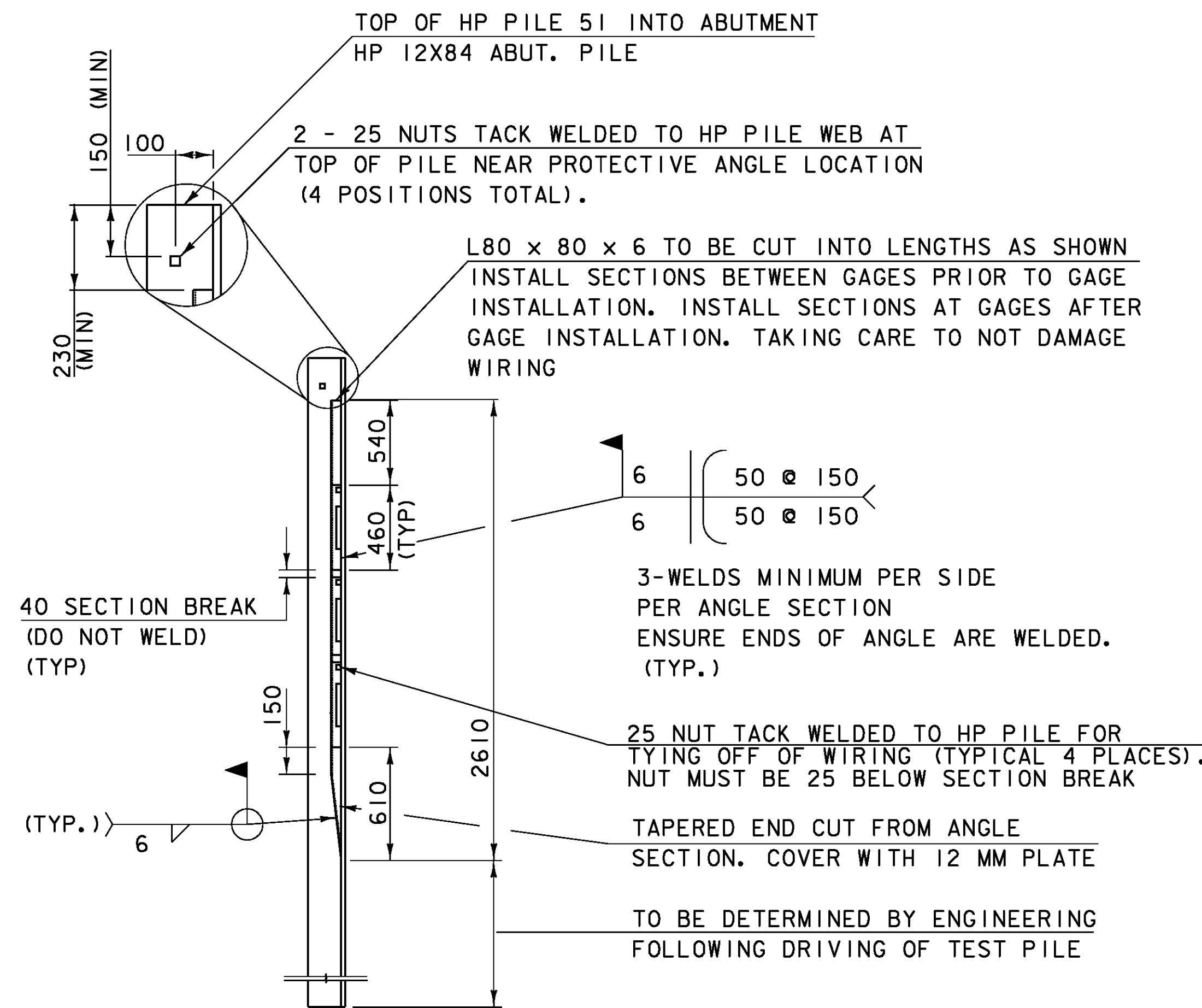
STRAIN GAGE PROTECTION NOTES:

1. CLAMP ALL ANGLE SECTIONS IN PLACE DURING WELDING OF ALTERNATE PIECES TO ENSURE PROPER FITUP. FITUP TOLERANCE IS +/- 2MM. ALL ANGLE CUTS MUST BE SAW CUT.
2. STRAIN GAUGE WIRES SHALL BE INSULATED USING NON-FLAMMABLE FIBERGLASS INSULATION COVERING LENGTH OF WIRE PRIOR TO WELDING PROTECTIVE ANGLES OVER THE GAUGE REGION. INSULATION SHALL BE SECURED TO AVOID SLIP DURING ANGLE INSTALLATION.
3. STRAIN GAUGE WIRES SHALL BE TIED TO NUTS WELDED BETWEEN STRAIN GAUGE LOCATIONS. THE GAUGE WIRES SHALL BE COILED AND PROPERLY SECURED PRIOR TO PILE DRIVING.
4. BENTONITE GROUT SHALL BE MIXED IN THE FOLLOWING RATIO: 1.3 GALLONS OF HIGH YIELD SODIUM BENTONITE CLAY (DRY), 7.5 GALLONS OF CEMENT AND 17.6 GALLONS OF WATER.
5. ALL BASE METAL FOR WELDS SHALL BE FREE OF DIRT AND GREASE. SURFACE PREPARATION METHODS MUST BE INCLUDED IN THE WELDING PROCEDURES AND APPROVED PRIOR TO WELDING.
6. EPOXY, PROPOXY 20 OR APPROVED EQUAL, WILL BE APPLIED TO THE GAUGE IN THE GROOVE WHERE IT ATTACHES TO THE VIBRATING WIRE ENCLOSURE AND UNDER A PEX CLAMP. SUFFICIENT TIME FOR CURING PER MANUFACTURER'S SPECIFICATIONS MUST BE PROVIDED PRIOR TO PILE DRIVING.
7. INCLINOMETER CASING MUST BE POSITIONED WITH ONE SET OF THE INSTRUMENT ALIGNMENT GROOVES RUNNING PERPENDICULAR TO THE CENTERLINE OF BEARING. DETAILS OF THE ALIGNMENT GROOVES CAN BE FOUND IN THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALLATION TO BE VERIFIED PRIOR TO GROUTING BY UMASS OR VTRANS.
8. PRIOR TO CONCRETE PLACEMENT INCLINOMETER GAUGES MUST BE INSTALLED IN CASING TO ENSURE FREE TRAVEL AROUND BENDS IN CASING.
9. INCLINOMETER PROTECTION ANGLE SHALL BE WELDED TO THE PILE BEFORE THE STRAIN GAUGE MOUNTING BLOCKS ARE WELDED TO THE PILE.
10. LOCTITE 222 THREADLOCKER OR APPROVED EQUAL SHALL BE USED ON THE STRAIN GAUGE SET SCREWS. ONCE INITIAL GAUGE READINGS ARE TAKEN, SUPER GLUE OR APPROVED EQUAL WILL BE APPLIED TO THE SET.
11. CONTRACTOR TO PROTECT WIRES DURING PILE CUTTING OPERATIONS.



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**TYPICAL END SECTION AT GIRDERS 1 & 5
ABUTMENT 1 & ABUTMENT 2**



STRAIN GAGE PROTECTION ON PILE
(ONLY HALF OF THE H-PILE IS SHOWN FOR CLARITY)
(SEE INSTRUMENTATION PLAN SHEET #3 FOR NUMBER OF GAUGES)

PROJECT: EAST MONTPELIER	PROJECT NO.: BRF 028-3(36)
DESIGN FILE NAME: /98b254/str/sb254instrum.dgn	PLOT DATE: 03-FEB-2009
IPARM FILE NAME: sb254pls.i	DRAWN BY: J. SALVATORI
DESIGNED BY: J. SALVATORI	CHECKED BY: J. LACROIX
SQUAD LEADER: K. HIGGINS	SHEET: 30 OF 68
INSTRUMENTATION PLAN SHEET #4	