



**City of Cambridge**  
Purchasing Department

Cynthia H. Griffin  
*Purchasing Agent*

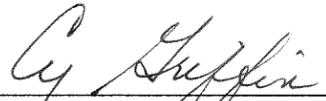
TO: ALL BIDDERS  
FROM: CITY OF CAMBRIDGE  
DATE: JANUARY 31, 2011  
RE: HARVARD TUNNEL STORMWATER PUMPS REPLACEMENT - FILE NO.  
5384

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Please include the attached drawings into your bid package.

Also, all the pumps should be explosion proof.

All other particulars remain unchanged.

  
\_\_\_\_\_  
CYNTHIA H. GRIFFIN  
PURCHASING AGENT

ADDENDUM NO. 1



## EXISTING PUMP STATION CONDITIONS

### 1.) HARVARD TUNNEL PUMP STATION

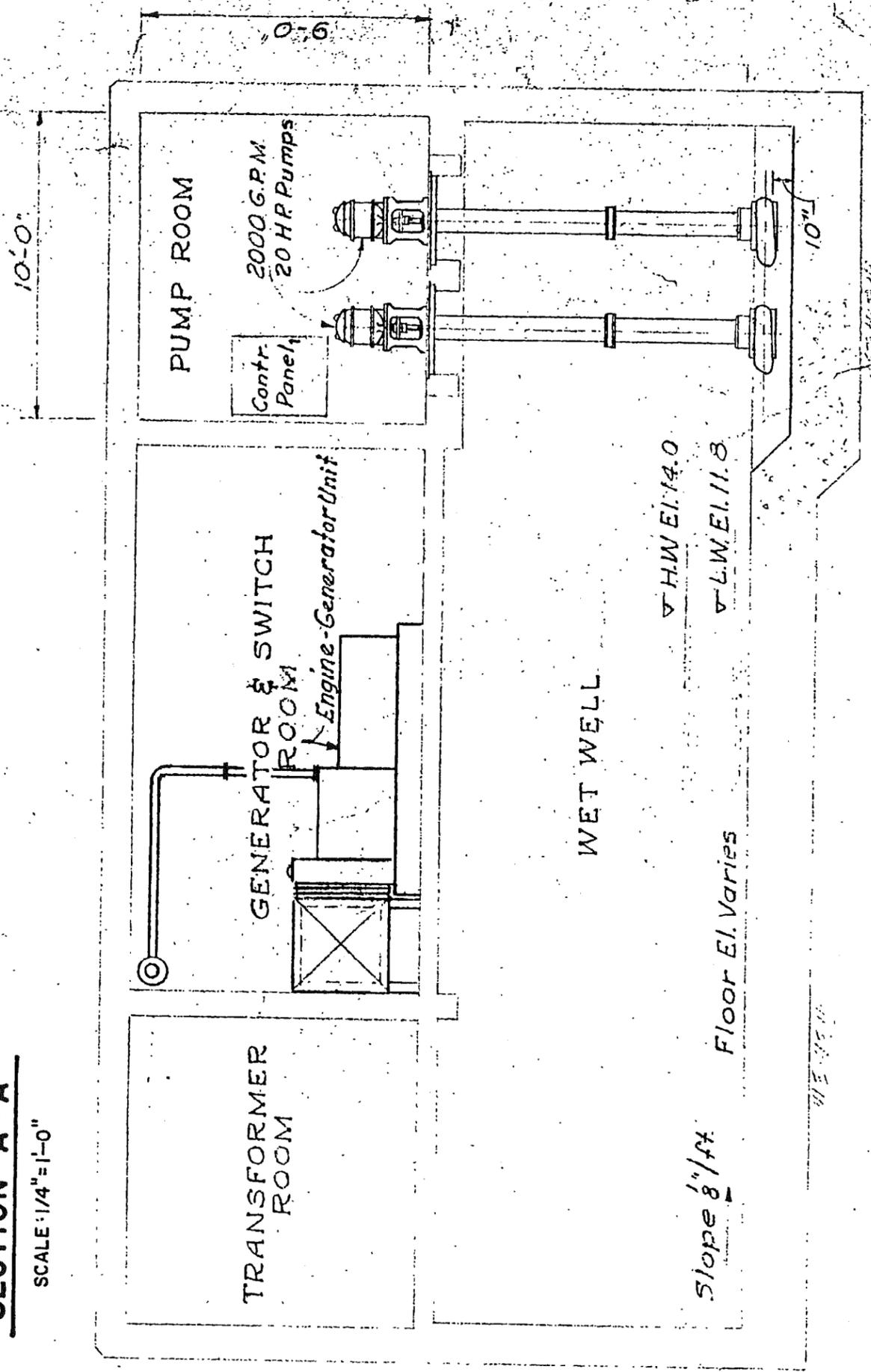
The Harvard Tunnel pump station is located on the East Side of the Harvard Tunnel underpass. The pump station is designed to regulate storm water runoff to the tunnel.

The floor elevation of the Pump station is five feet above the tunnel's road surface. The pumps are housed in a 10'x18'x9' reinforced concrete room and accessed from the tunnel by two black vented steel doors. Inside the room are one main switch and a pump control box on the wall facing the steel doors.

The two pumps are 10" discharge alternating float pumps running on 277/380 AC volts and 98 AC amps. The motor runs at 1800 rpm. The pumps appear to be in fair working order, but needs to be cleaned. The pumps were last serviced during August 1999.

**SECTION A-A**

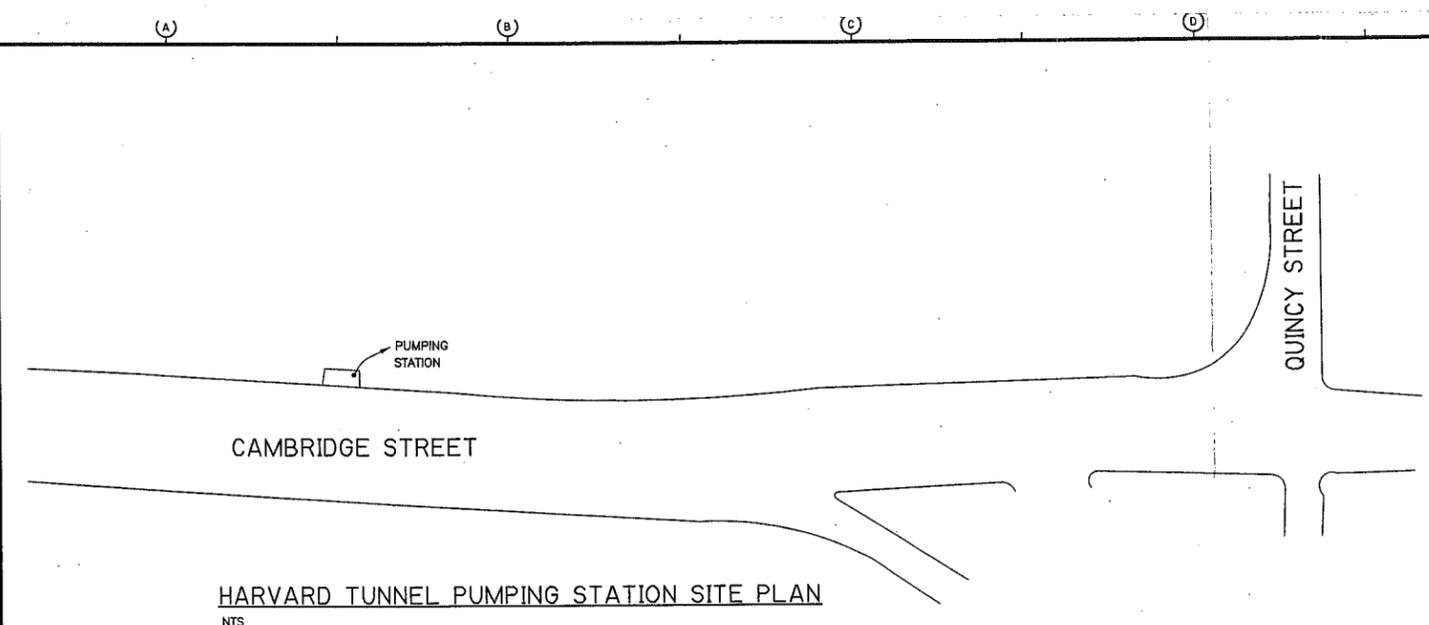
SCALE: 1/4" = 1'-0"



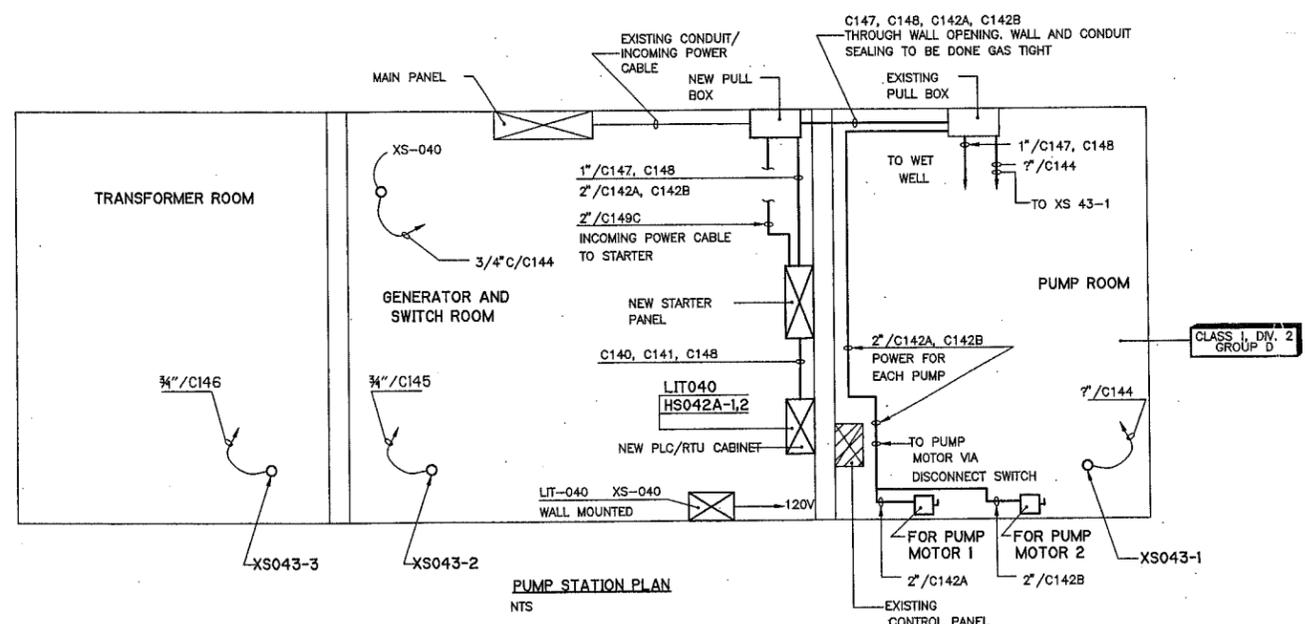
**SECTION B-B**

SCALE: 1/4" = 1'-0"

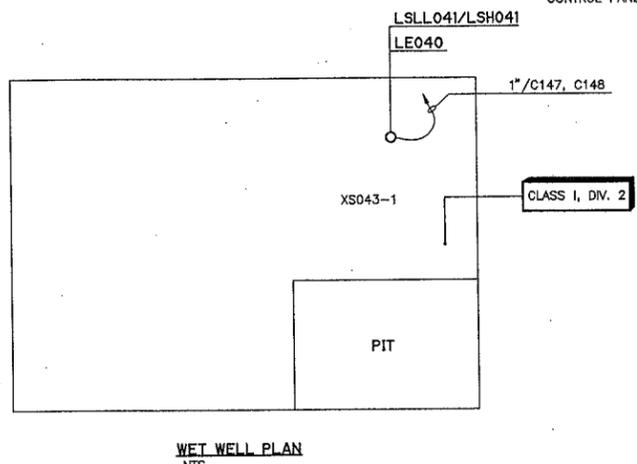
[ CAMBRIDGE, MA - DPW SCADA SYSTEM ]  
 Plotted by: SCHWARTZB Date: 12/23/03 3:57:34 PM  
 Filename: R:\0139\34019\ELEC\E-12.DWG Xref's: [GSD00000.]



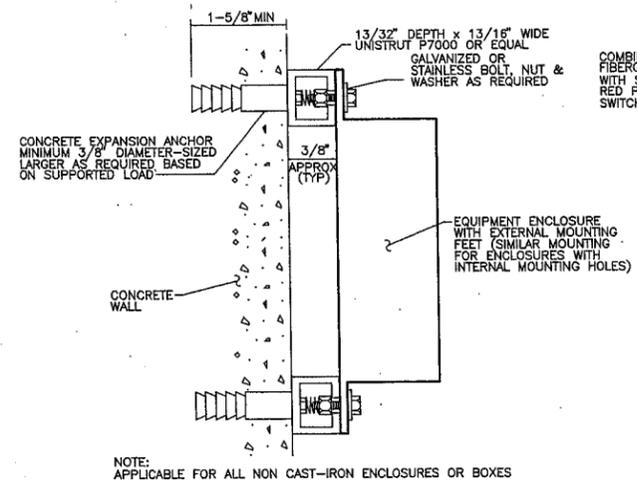
**HARVARD TUNNEL PUMPING STATION SITE PLAN**  
 NTS



**PUMP STATION PLAN**  
 NTS

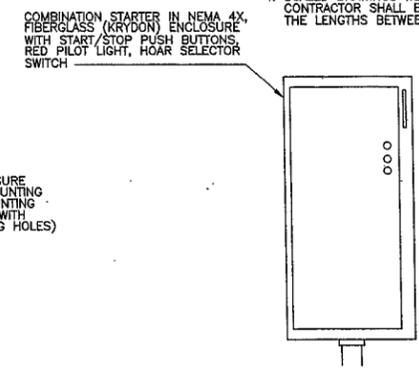


**WET WELL PLAN**  
 NTS



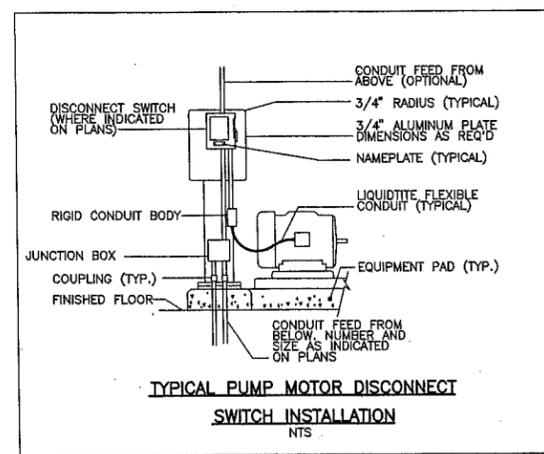
NOTE: APPLICABLE FOR ALL NON CAST-IRON ENCLOSURES OR BOXES

**EQUIPMENT ENCLOSURE MOUNTING ON CONCRETE WALL**  
 NTS

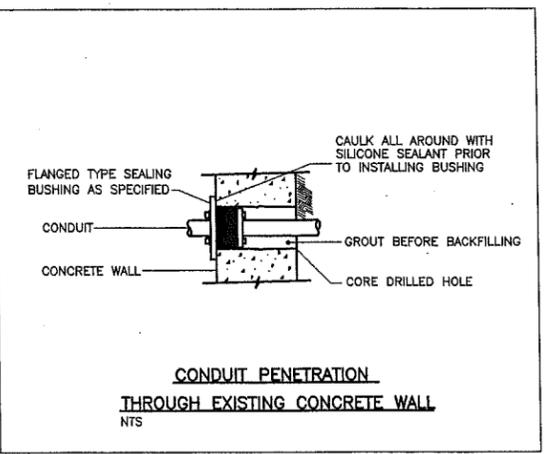


**FRONT VIEW OF STARTER**  
 NTS

**WALL MOUNTED EQUIPMENT/STARTER DETAILS**  
 NTS



**TYPICAL PUMP MOTOR DISCONNECT SWITCH INSTALLATION**  
 NTS



**CONDUIT PENETRATION THROUGH EXISTING CONCRETE WALL**  
 NTS

- NOTES:**
1. FOR CONTROL CIRCUIT DETAIL REFER CONTROL CIRCUIT DRAWING E-14.
  2. FOR CONDUIT/CABLE DETAIL REFER TO HARVARD TUNNEL PUMPING STATION BLOCK SCHEMATIC DRAWING NO. E-13.
  3. REFER TO DRAWING P&ID-5 FOR LOOP DETAILS.
  4. SCALED DRAWINGS WERE NOT PROVIDED. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LENGTHS BETWEEN EQUIPMENT

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: N. RAMESH  
 DRAWN BY: B. SCHWARTZ  
 SHEET CHK'D BY: VECCHIARELLO  
 CROSS CHK'D BY: R. MARTINO  
 APPROVED BY: VECCHIARELLO  
 DATE: DECEMBER 2003

CITY OF CAMBRIDGE, MASSACHUSETTS  
 DEPARTMENT OF PUBLIC WORKS  
**SCADA SYSTEM**

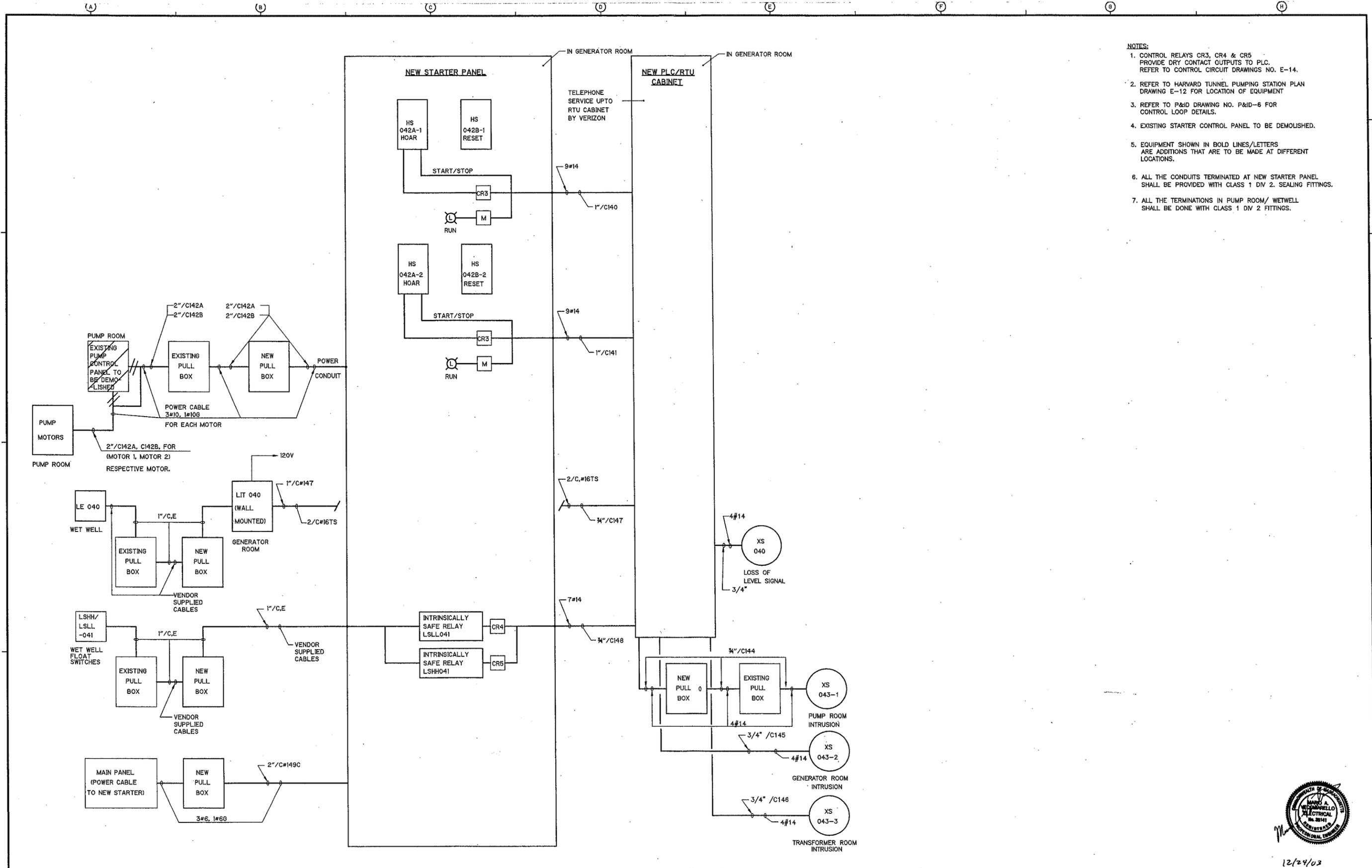
**HARVARD TUNNEL PUMPING STATION**  
**LAYOUT DRAWING**

PROJECT NO. 0139-34019  
 FILE NAME: E-12.DWG  
 SHEET NO. **E-12**  
 ACCESSION NO. 0139-66102



12/24/03

[ CAMBRIDGE, MA - DPW SCADA SYSTEM ]  
 Filename: R:\0139\34019\elec\E-13.DWG Xref's: [88000000, ] Plotted by: SCHWARTZB Time: 12/23/03 3:13:56 PM



- NOTES:
- CONTROL RELAYS CR3, CR4 & CR5 PROVIDE DRY CONTACT OUTPUTS TO PLC. REFER TO CONTROL CIRCUIT DRAWINGS NO. E-14.
  - REFER TO HARVARD TUNNEL PUMPING STATION PLAN DRAWING E-12 FOR LOCATION OF EQUIPMENT
  - REFER TO P&ID DRAWING NO. P&ID-6 FOR CONTROL LOOP DETAILS.
  - EXISTING STARTER CONTROL PANEL TO BE DEMOLISHED.
  - EQUIPMENT SHOWN IN BOLD LINES/LETTERS ARE ADDITIONS THAT ARE TO BE MADE AT DIFFERENT LOCATIONS.
  - ALL THE CONDUITS TERMINATED AT NEW STARTER PANEL SHALL BE PROVIDED WITH CLASS 1 DIV 2 SEALING FITTINGS.
  - ALL THE TERMINATIONS IN PUMP ROOM/ WETWELL SHALL BE DONE WITH CLASS 1 DIV 2 FITTINGS.

REV. NO.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: N. RAMESH  
 DRAWN BY: B. SCHWARTZ  
 SHEET CHK'D BY: VECCHIARELLO  
 CROSS CHK'D BY: R. MARTINO  
 APPROVED BY: VECCHIARELLO  
 DATE: DECEMBER 2003

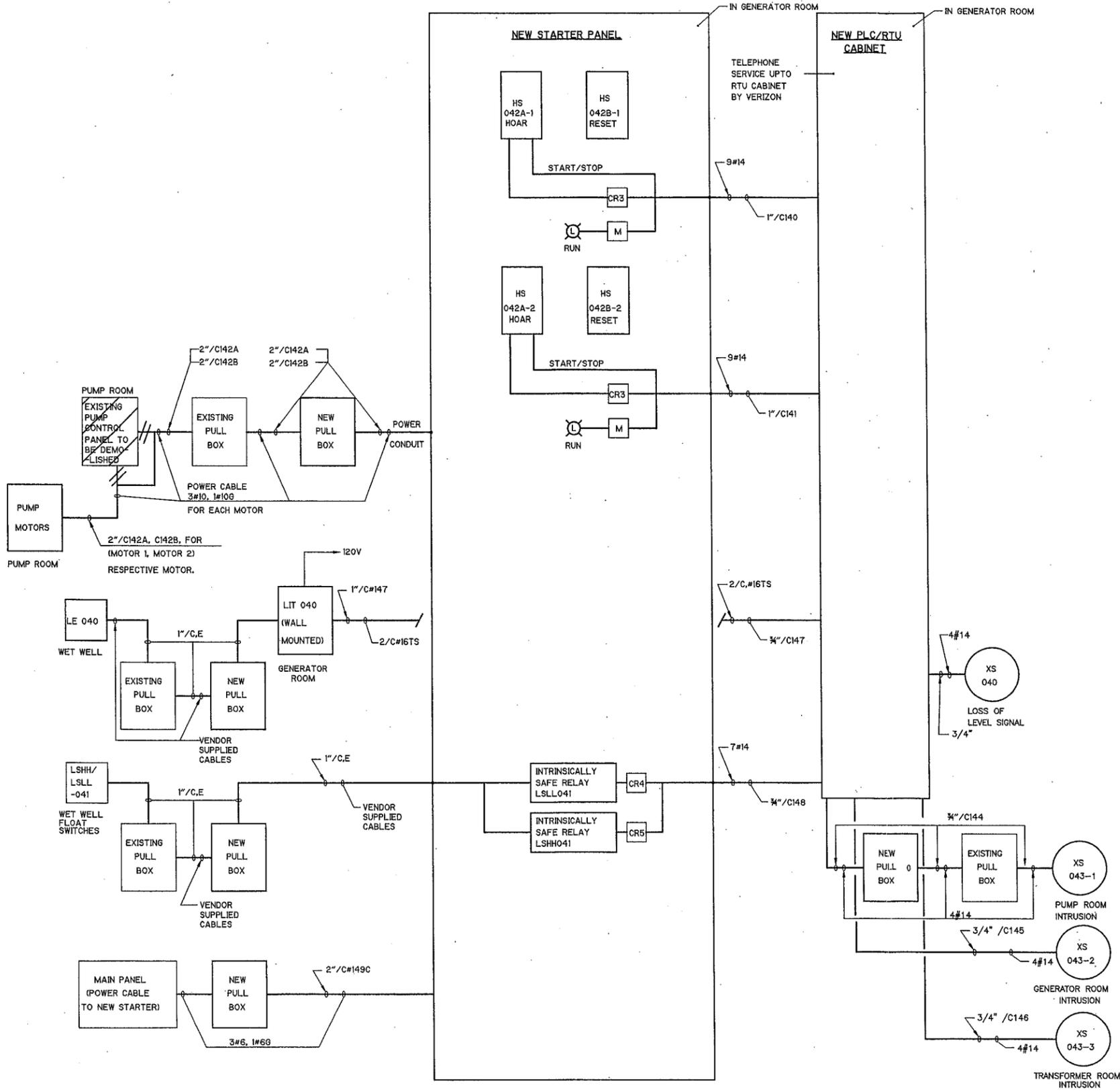
CITY OF CAMBRIDGE, MASSACHUSETTS  
 DEPARTMENT OF PUBLIC WORKS  
**SCADA SYSTEM**

**HARVARD TUNNEL PUMPING STATION**  
**BLOCK SCHEMATIC DRAWING (CONDUIT/CABLE**  
**ROUTING, EQUIPMENT LOCATION)**

PROJECT NO. 0139-34019  
 FILE NAME: E-13.DWG  
 SHEET NO. **E-13**  
 ACCESSION NO. 0139-66103



12/24/03



- NOTES:**
- CONTROL RELAYS CR3, CR4 & CR5 PROVIDE DRY CONTACT OUTPUTS TO PLC. REFER TO CONTROL CIRCUIT DRAWINGS NO. E-14.
  - REFER TO HARVARD TUNNEL PUMPING STATION PLAN DRAWING E-12 FOR LOCATION OF EQUIPMENT
  - REFER TO P&ID DRAWING NO. P&ID-6 FOR CONTROL LOOP DETAILS.
  - EXISTING STARTER CONTROL PANEL TO BE DEMOLISHED.
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DESIGNED BY: N. RAMESH  
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 SHEET CHECK'D BY: VECCHIARELLO  
 CROSS CHECK'D BY: R. MARTINO  
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CITY OF CAMBRIDGE, MASSACHUSETTS  
 DEPARTMENT OF PUBLIC WORKS

**SCADA SYSTEM**

**HARVARD TUNNEL PUMPING STATION**  
**BLOCK SCHEMATIC DRAWING (CONDUIT/CABLE**  
**ROUTING, EQUIPMENT LOCATION)**

PROJECT NO. 0139-34019  
 FILE NAME: E-13.DWG

SHEET NO.  
**E-13**

ACCESSION NO. 0139-66103



12/24/03