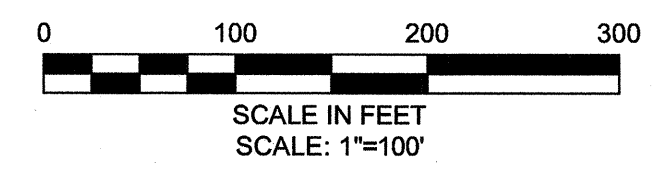
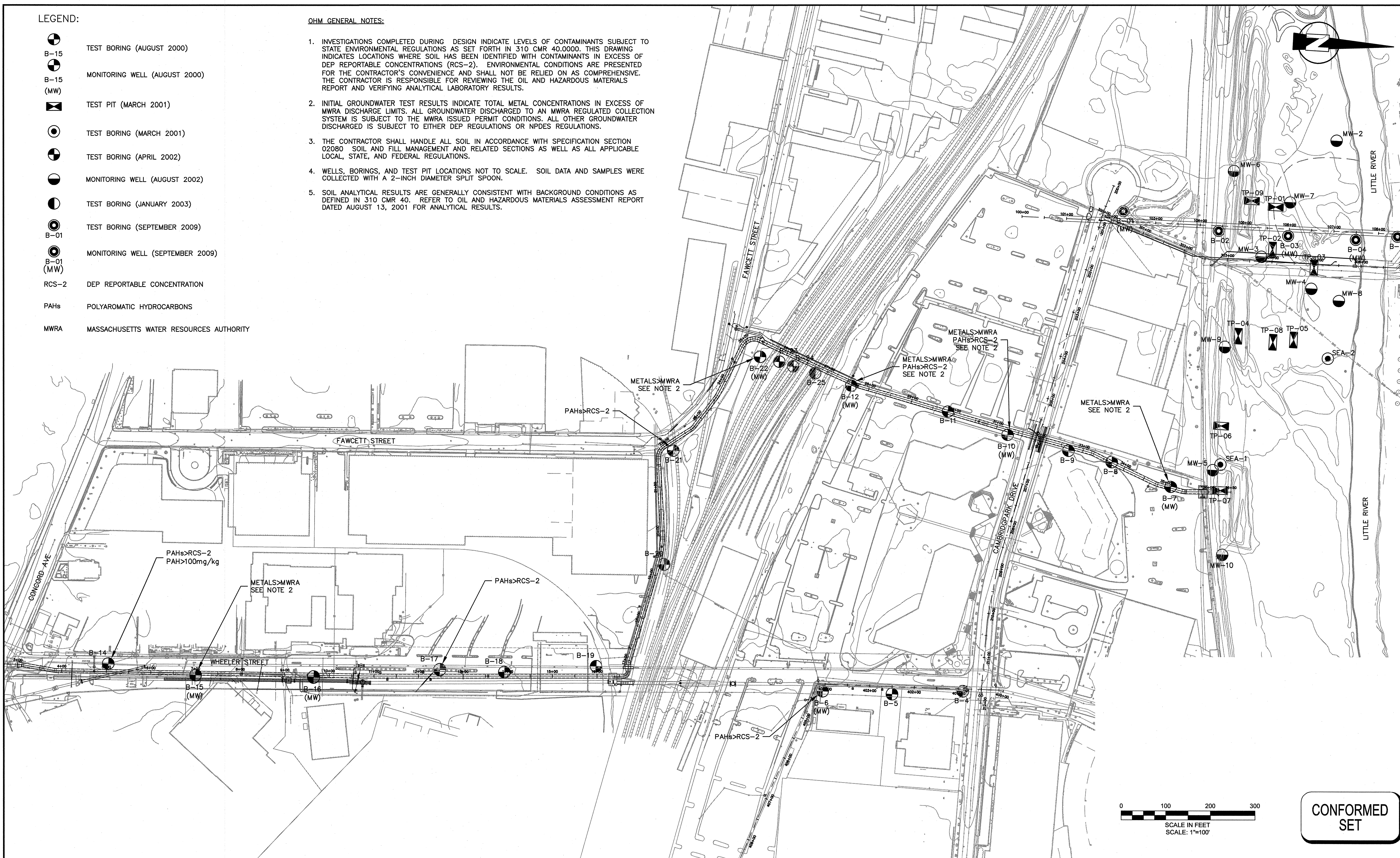


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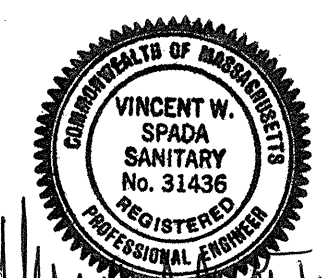
- TEST BORING (AUGUST 2000)
- MONITORING WELL (AUGUST 2000)
- TEST PIT (MARCH 2001)
- TEST BORING (MARCH 2001)
- TEST BORING (APRIL 2002)
- MONITORING WELL (AUGUST 2002)
- TEST BORING (JANUARY 2003)
- TEST BORING (SEPTEMBER 2009)
- MONITORING WELL (SEPTEMBER 2009)
- DEP REPORTABLE CONCENTRATION
- POLYAROMATIC HYDROCARBONS
- MASSACHUSETTS WATER RESOURCES AUTHORITY

OHM GENERAL NOTES:

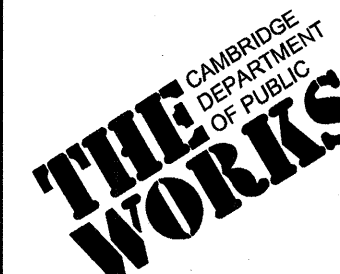
1. INVESTIGATIONS COMPLETED DURING DESIGN INDICATE LEVELS OF CONTAMINANTS SUBJECT TO STATE ENVIRONMENTAL REGULATIONS AS SET FORTH IN 310 CMR 40.0000. THIS DRAWING INDICATES LOCATIONS WHERE SOIL HAS BEEN IDENTIFIED WITH CONTAMINANTS IN EXCESS OF DEP REPORTABLE CONCENTRATIONS (RCS-2). ENVIRONMENTAL CONDITIONS ARE PRESENTED FOR THE CONTRACTOR'S CONVENIENCE AND SHALL NOT BE RELIED ON AS COMPREHENSIVE. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE OIL AND HAZARDOUS MATERIALS REPORT AND VERIFYING ANALYTICAL LABORATORY RESULTS.
2. INITIAL GROUNDWATER TEST RESULTS INDICATE TOTAL METAL CONCENTRATIONS IN EXCESS OF MWRA DISCHARGE LIMITS. ALL GROUNDWATER DISCHARGED TO AN MWRA REGULATED COLLECTION SYSTEM IS SUBJECT TO THE MWRA ISSUED PERMIT CONDITIONS. ALL OTHER GROUNDWATER DISCHARGED IS SUBJECT TO EITHER DEP REGULATIONS OR NPDES REGULATIONS.
3. THE CONTRACTOR SHALL HANDLE ALL SOIL IN ACCORDANCE WITH SPECIFICATION SECTION 02080 SOIL AND FILL MANAGEMENT AND RELATED SECTIONS AS WELL AS ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
4. WELLS, BORINGS, AND TEST PIT LOCATIONS NOT TO SCALE. SOIL DATA AND SAMPLES WERE COLLECTED WITH A 2-INCH DIAMETER SPLIT SPOON.
5. SOIL ANALYTICAL RESULTS ARE GENERALLY CONSISTENT WITH BACKGROUND CONDITIONS AS DEFINED IN 310 CMR 40. REFER TO OIL AND HAZARDOUS MATERIALS ASSESSMENT REPORT DATED AUGUST 13, 2001 FOR ANALYTICAL RESULTS.



CONFORMED SET

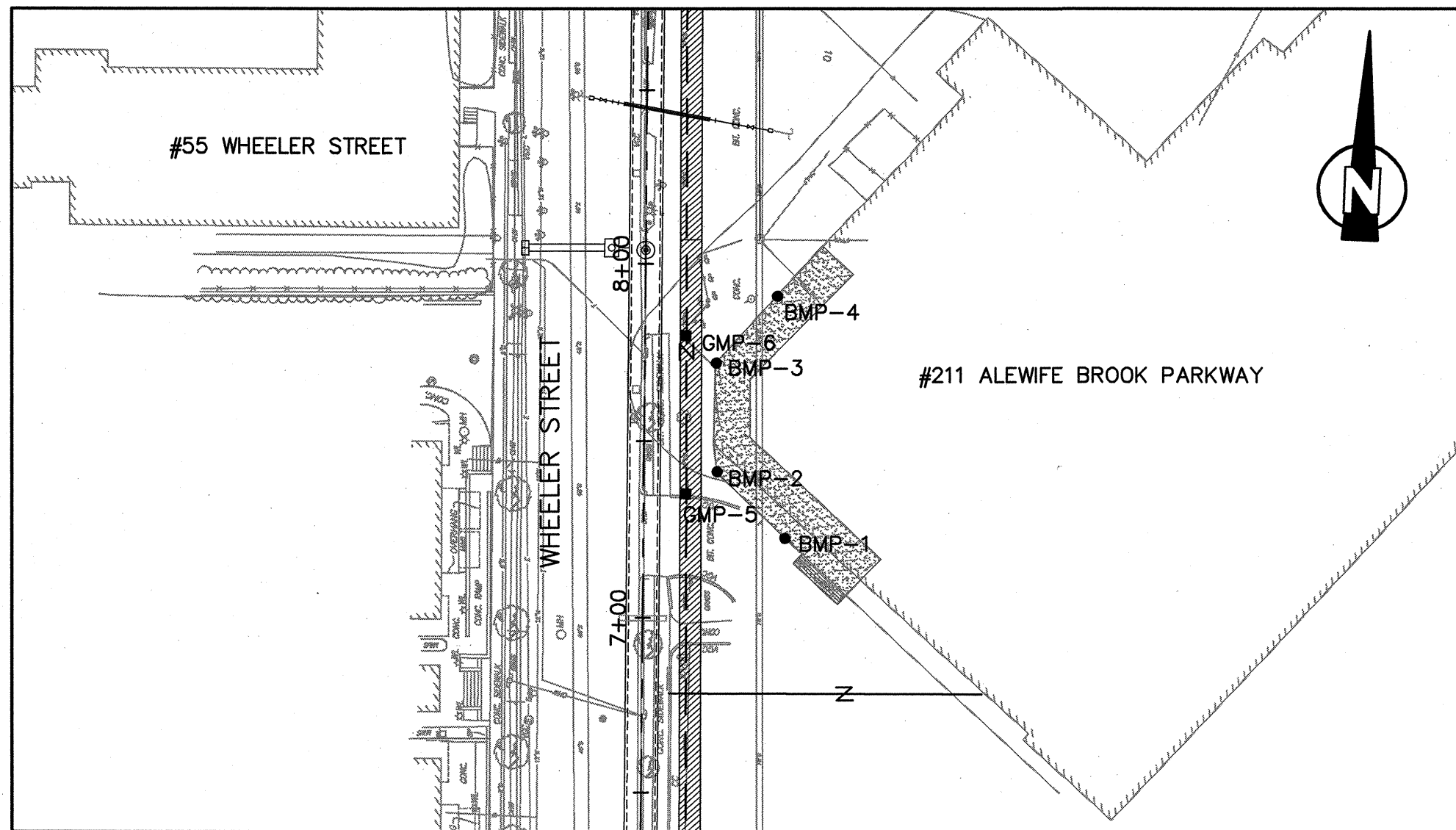


Scale	1"= 100'			
Date	SEPTEMBER 1, 2010			
Job No.	1998400.12			
Designed by	MPF			
Drawn by	NJE			
Checked by	FGA	No.	Description	Date
Approved by	VWS		REVISIONS	

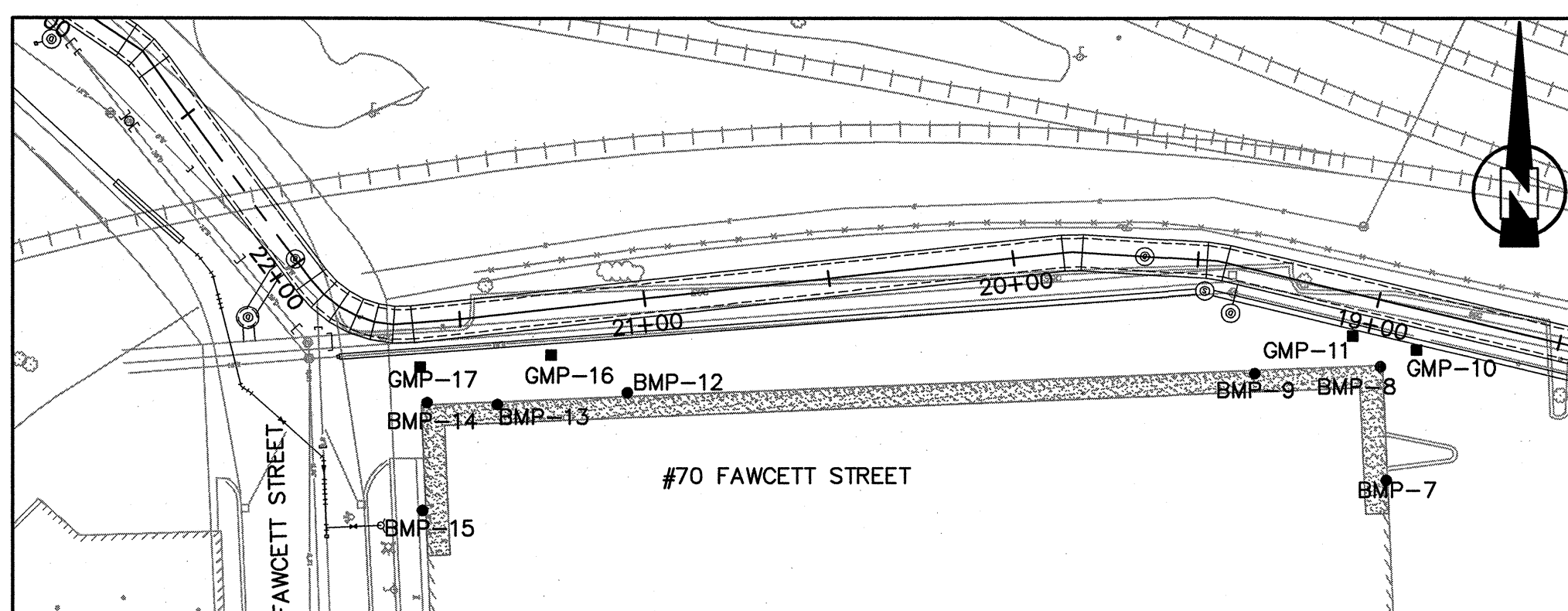


CITY OF CAMBRIDGE, MASSACHUSETTS
 CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS
 CONTRACT NO. 12
 OHM PLAN WITH BORING LOCATIONS

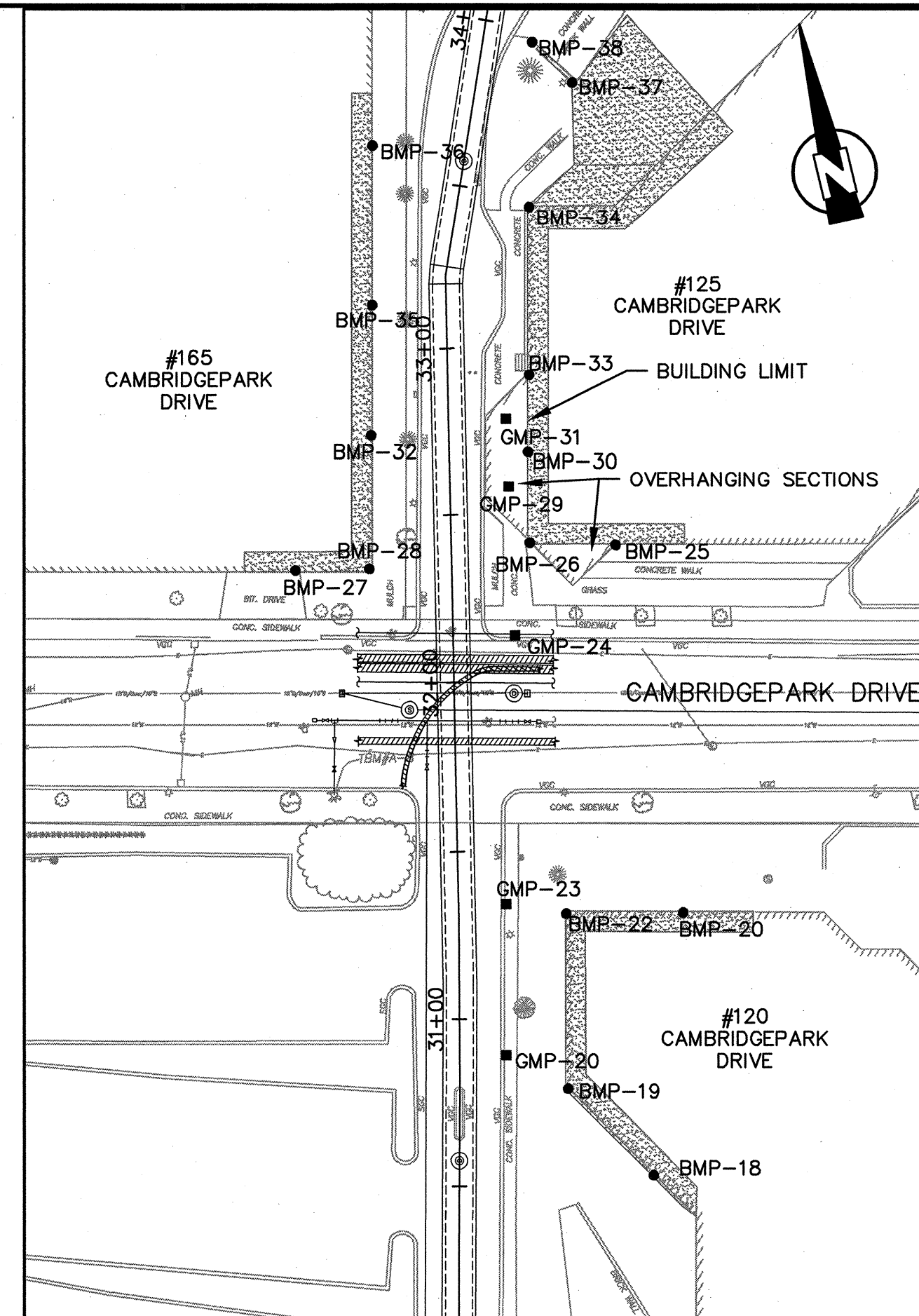
Sheet No. **G-3**
 File No.



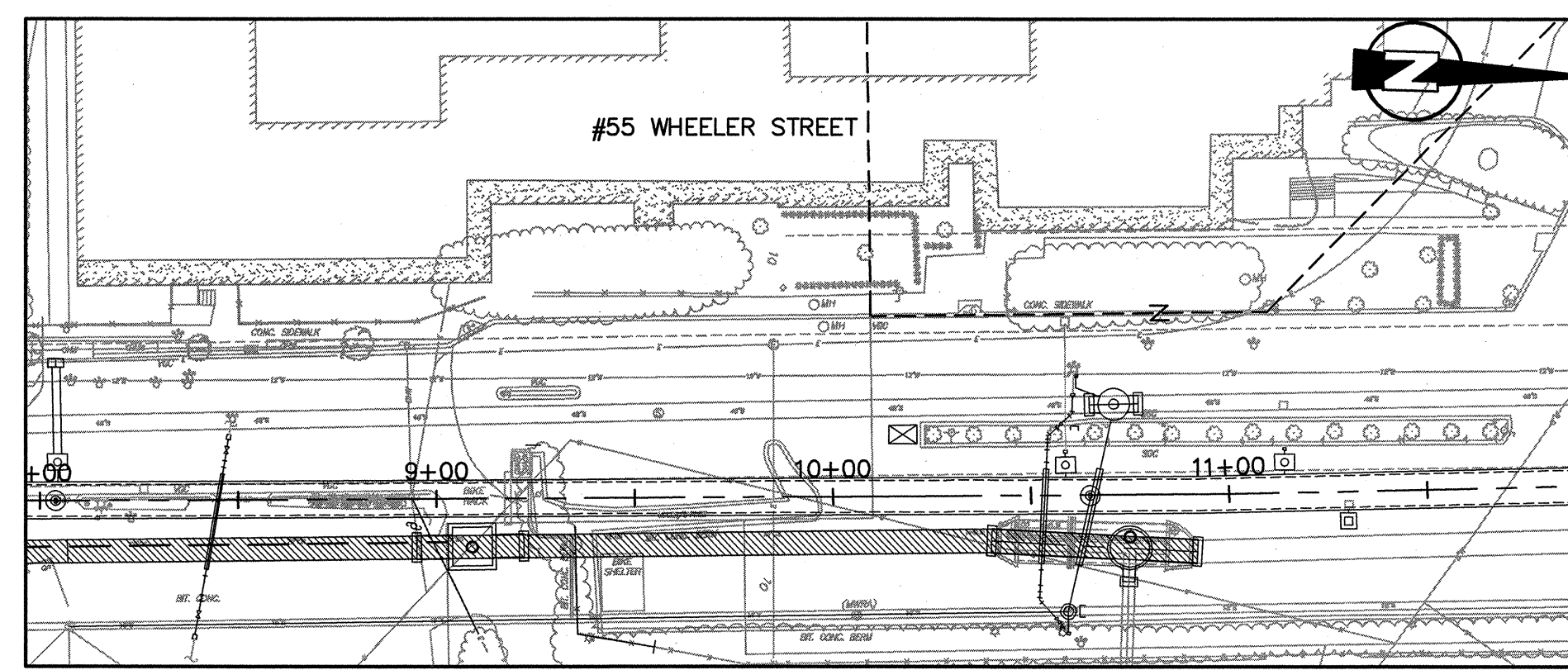
#211 ALEWIFE BROOK PARKWAY (FRONTAGE ON WHEELER STREET)
PLAN
 SCALE: 1"=40'



70 FAWCETT STREET
PLAN
 SCALE: 1"=40'



#165, #125 & #120 CAMBRIDGEPARK DRIVE
PLAN
 SCALE: 1"=40'



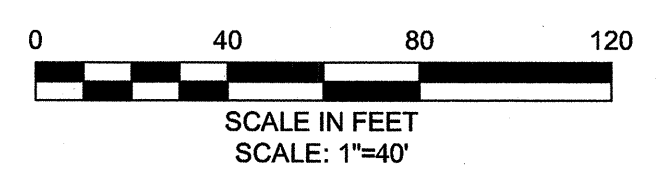
#55 WHEELER STREET
 PARKING AREA
PLAN
 SCALE: 1"=40'

LEGEND

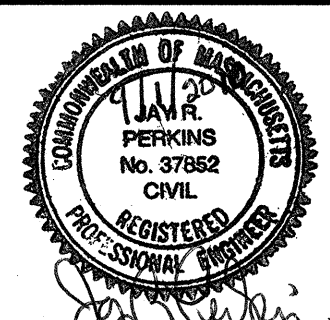
- - BUILDING DEFORMATION MONITORING POINT (BMP)
- - GROUND SURFACE DEFORMATION MONITORING POINT (GMP)
- ▨ - PRE-CONSTRUCTION EXTERIOR SURFACE AND VIBRATION MONITORING (BY CONTRACTOR'S INDEPENDENT CONSULTANT)

NOTES:

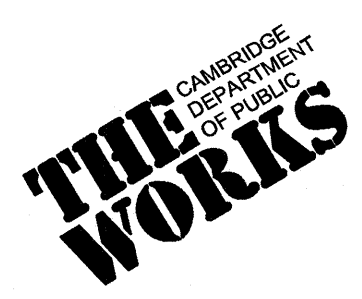
1. **EXCAVATION SUPPORT:** INSTALLATION OF THE TEMPORARY EXCAVATION SUPPORT SYSTEM SHALL BE BY DRILLED OR HYDRAULICALLY-PUSHED METHODS. NO VIBRATORY OR IMPACT HAMMERS SHALL BE USED TO INSTALL THE EXCAVATION SUPPORT SYSTEM ON THIS PROJECT. MONITORING POINTS ALONG THE EXCAVATION SUPPORT SYSTEM SHALL BE AT 15 FEET ON CENTER. THRESHOLD HORIZONTAL MOVEMENT SHALL BE 0.5 INCH AND LIMITING HORIZONTAL MOVEMENTS SHALL BE 1 INCH WHERE BUILDINGS ARE PRESENT WITHIN 25 FEET OF THE EXCAVATION. THRESHOLD HORIZONTAL MOVEMENT SHALL BE 1 INCH AND LIMITING MOVEMENT SHALL BE 2 INCHES WHERE NO BUILDINGS ARE PRESENT WITHIN 25 FEET OF THE EXCAVATION.
2. **VIBRATIONS:** THRESHOLD RESPONSE VALUE SHALL BE 0.8 IPS (INCHES PER SECOND) AND LIMITING RESPONSE VALUE SHALL BE 1 IPS AS MEASURED AT STREET LEVEL FOR ALL WOOD, STEEL, CONCRETE AND BRICK BUILDINGS SURROUNDING THE EXCAVATION. THRESHOLD AND LIMITING RESPONSE VALUES FOR HISTORICAL STONE STRUCTURES SHALL BE 0.3 IPS AND 0.5 IPS RESPECTIVELY.
3. **BUILDING DMPs:** THRESHOLD ANGULAR DISTORTION (BUILDING ROTATION) SHALL BE 1/1000 AND LIMITING ANGULAR DISTORTION SHALL BE 1/750 FOR WOOD, BRICK, STEEL AND CONCRETE BUILDINGS. THRESHOLD AND LIMITING RESPONSE VALUES FOR HISTORIC STONE STRUCTURES SHALL BE 1/1200 AND 1/900 RESPECTIVELY. WHERE THE ANGULAR DISTORTION IS DEFINED AS THE RATIO OF THE DIFFERENTIAL ELEVATION BETWEEN ANY TWO BUILDING POINTS OVER THE HORIZONTAL DISTANCE BETWEEN THOSE POINTS.
4. **GROUND SURFACE DMPs:** THRESHOLD SETTLEMENT VALUE SHALL BE 0.5 INCHES AND LIMITING SETTLEMENT VALUE SHALL BE 1 INCH FOR SIDEWALKS, PAVED SURFACES, AND GROUND SURFACES ADJACENT TO THE EXCAVATION.
5. BORING INFORMATION IS APPENDED IN THE CONTRACT SPECIFICATIONS.
6. BUILDING DEFORMATION MONITORING POINTS, GROUND SURFACE DEFORMATION MONITORING POINTS AND CRACK GAUGES SHALL BE INSTALLED BY THE CONTRACTOR AND MONITORED BY THE CONTRACTOR'S INDEPENDENT GEOTECHNICAL CONSULTANT.
7. ANY DAMAGE TO PUBLIC AND PRIVATE PROPERTIES, AS A DIRECT RESULT OF THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.



CONFORMED SET



Scale	AS NOTED			
Date	SEPTEMBER 1, 2010			
Job No.	1998400.12			
Designed by	JRP			
Drawn by	NJE			
Checked by	FGA	No.	Description	Date
Approved by	VWS		REVISIONS	



CITY OF CAMBRIDGE, MASSACHUSETTS
 CAMBRIDGEPARK DRIVE AREA DRAINAGE IMPROVEMENTS
 CONTRACT NO. 12
 GEOTECHNICAL INSTRUMENTATION
 AND MONITORING PLAN I

Sheet No. **G-4**
 File No.