



Washtenaw County Environmental Health Department

705 N. Zeeb Rd., P.O. Box 8645
Ann Arbor, Michigan 48107-8645
Phone (734) 222-3800
Fax (734) 222-3930



http://eWashtenaw.org

Table with 3 columns: WEL Non-Potable, WEL2010-00035 (Issue/Expire dates), Well Permit #: WEL2010-00035 (Parcel Number, Site Address, Township)

PROJECT NAME: DEWATERING WELL

PROJECT DESCRIPTION: PERMIT FOR DEWATERING (2-INCH) MONITORING WELL FOR NEW 730 CAR UNDERGROUND PARKING STRUCTURE

Directions to site:

Property Owner:

CITY OF ANN ARBOR
* PO BOX 8647
ANN ARBOR, MI 48107

Permit Applicant:

ANGELO IAFRATE CONSTRUCTION CO
26300 SHERWOOD
WARREN, MI 48091
PH2 810-343-3853

This permit is to install a non-potable well or direct-push well(s) in the approved location shown on the attached plot plan and in accordance with applicable County regulations and Michigan Water Well Construction and Pump Installation Code, Part 127, Act 368.

Type of Work : Non-Potable

Type of Well : DeWatering Well

PERMIT CONDITIONS

- 1 ___ Notify the Department by fax (734-222-3930) prior to beginning the installation.
___ A copy of this permit must be available on-site during drilling operations.
___ Submit a copy of a well log or drilling record with GPS coordinantes to the Department within 60 days of drilling.
___ Keep and retain all records related to sample data, physical measurements, and/or other data obtained as a result of drilling this well.
___ If, at any time, the well is not used for its intended use within one (1) year's time, the well must either be properly abandoned or registered with the Department.
___ This permit is valid for twelve (12) months.

NOTE - this permit is NOT transferable to another property or refundable.

Director: [Signature]

Date: 2/24/10 MM

2/24/10 2:53PM

Locations
 Plymouth
 Bay City
 Grand Rapids
 Kalamazoo
 Lansing
 Okemos
 Toledo
 Trossen City

PROJECT NAME
PROPOSED SLURRY WALL DEWATERING PLAN

FACILITY NAME & LOCATION
SOUTH FIFTH AVENUE UNDERGROUND PARKING GARAGE ANN ARBOR, MICHIGAN

SHEET NAME
SLURRY WALL ALIGNMENT AND SOIL CROSS SECTION

Permit No. **WEL2010-00035**
 Washtenaw County
 Environmental Health
 This plan has been approved this **24** day of **FEBRUARY**, 2010

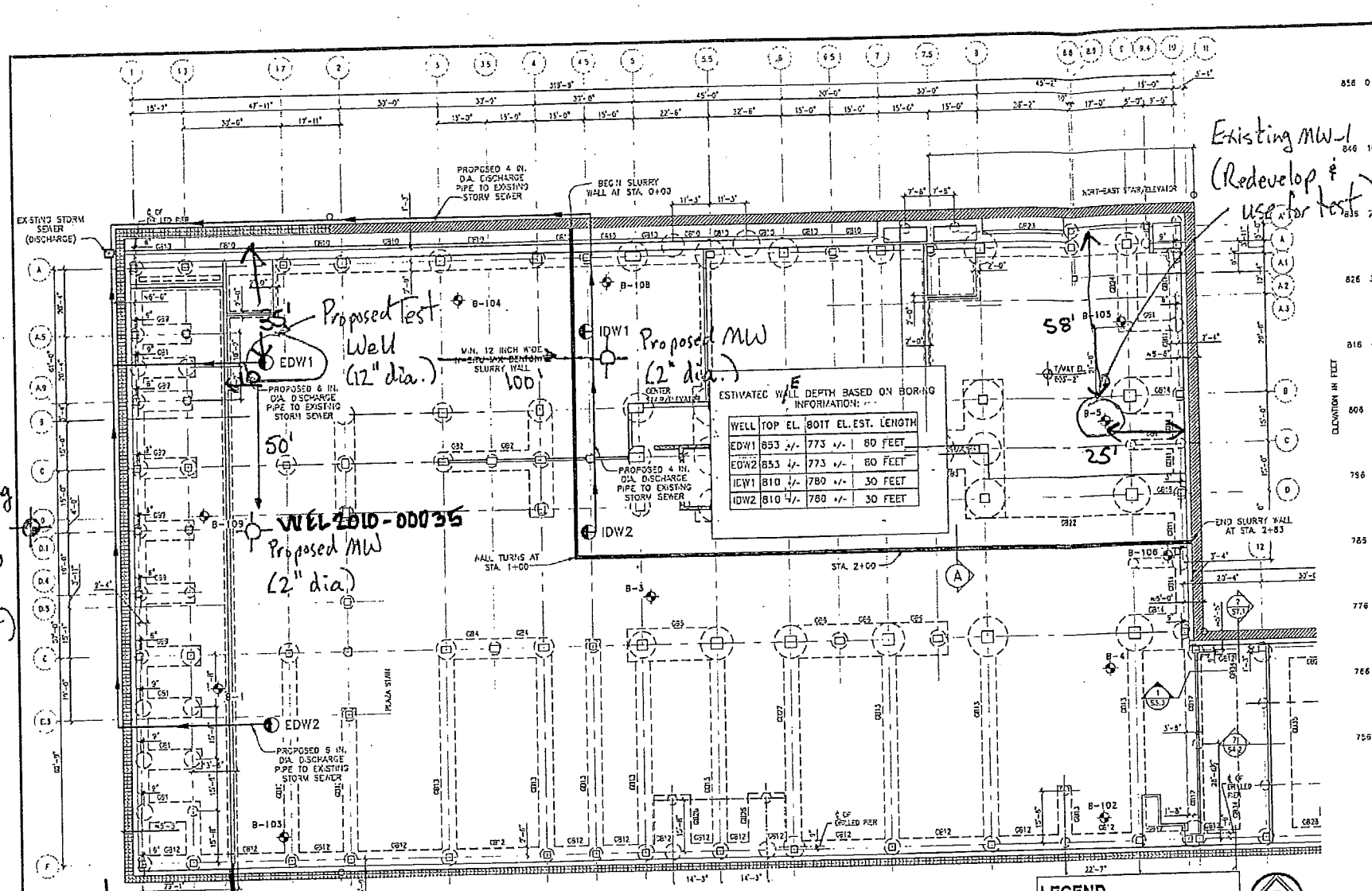
REVISIONS

REV.	ISSUED FOR	DATE	BY

DESIGNED BY: **CGM/JWR**
 CHECKED BY: **CGM/JWR**
 DATE: **11-24-09**
 FILE NAME: **PG60628A-02**

WARNING!
 THE LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS DRAWING ARE ONLY APPROXIMATE. NO GUARANTEE IS EITHER EXPRESSED OR IMPLIED AS TO THE COMPLETENESS OR ACCURACY THEREOF. THE CONTRACTOR SHALL BE EXCLUSIVELY RESPONSIBLE FOR OBTAINING THE EXACT UTILITY LOCATIONS AND ELEVATIONS PRIOR TO THE START OF CONSTRUCTION.

NO REPRESENTATIVE SHALL BE MADE WITHOUT THE PRIOR CONSENT OF SOIL AND MATERIALS ENGINEERS, INC.



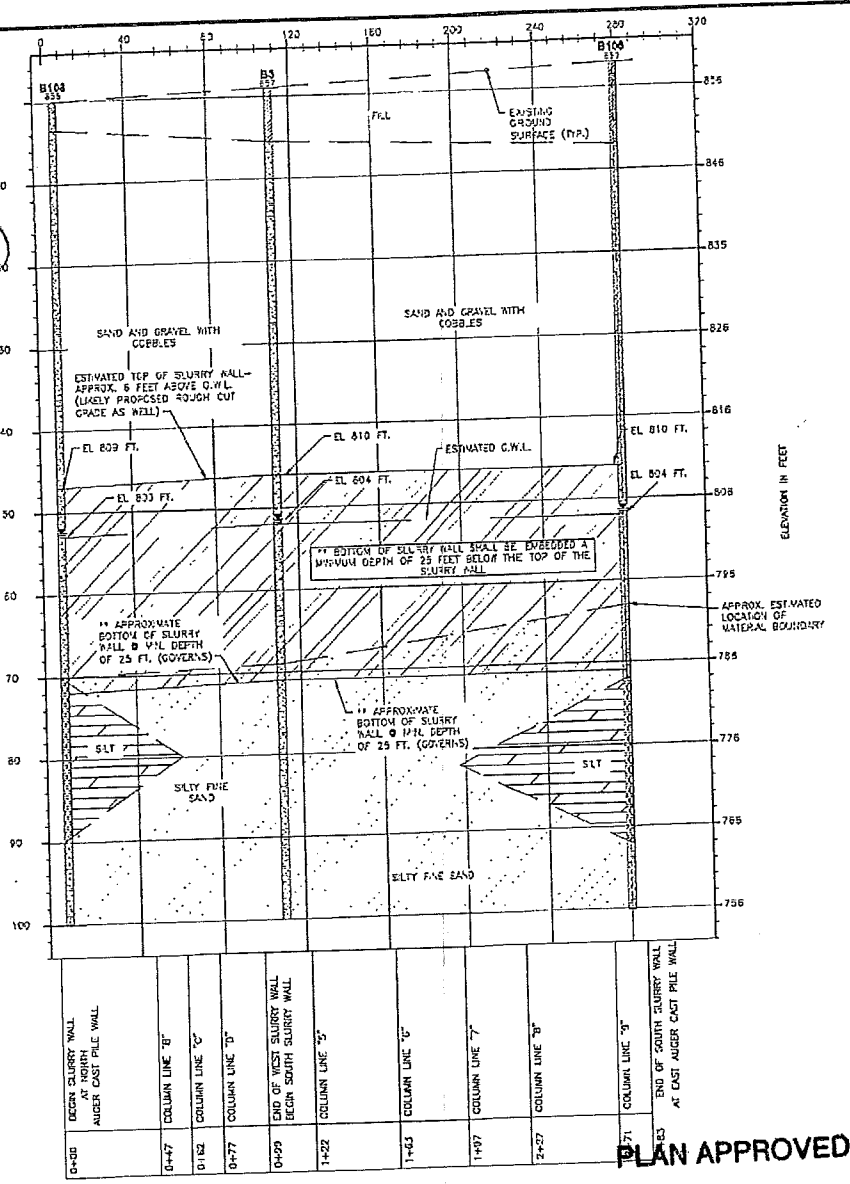
Existing MW-1
 (Redevelop & use for test)

Existing MW-2
 (Redevelop & use for test)

ESTIMATED WALL DEPTH BASED ON BORING INFORMATION:

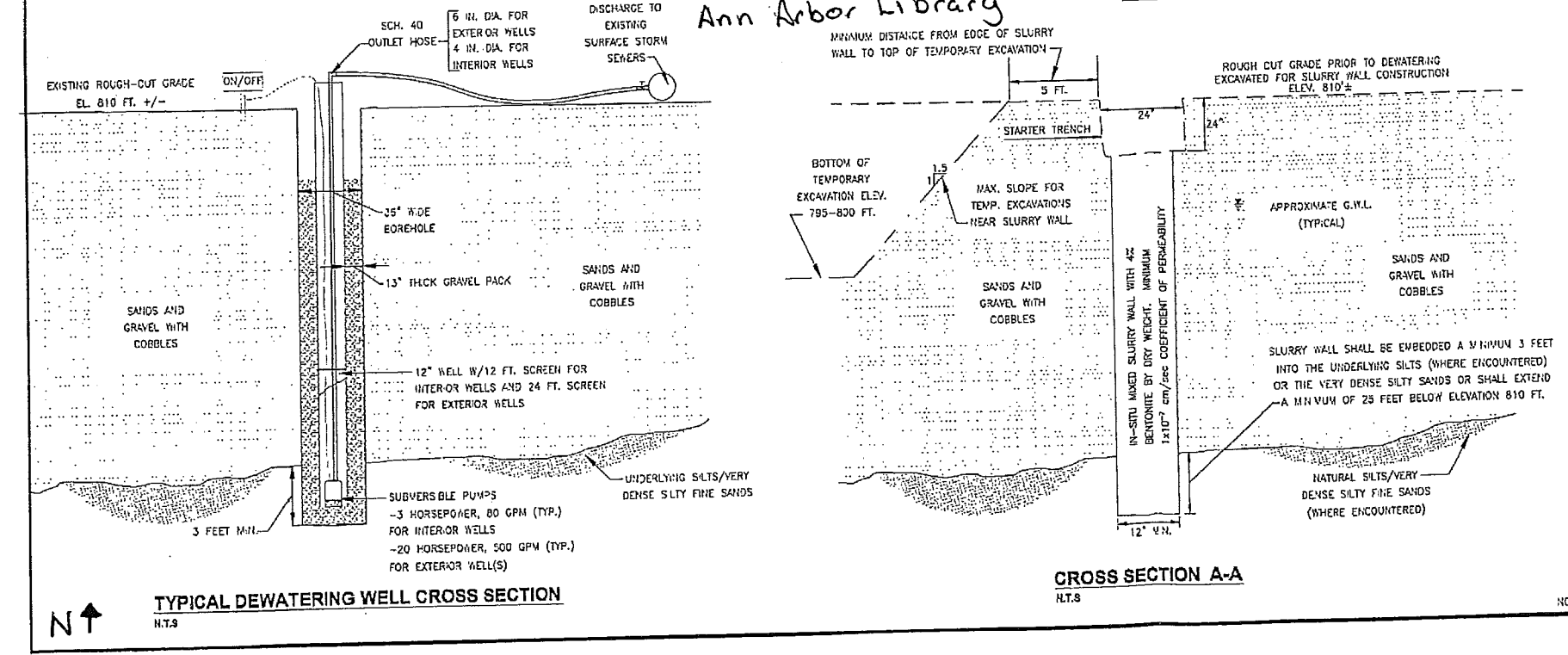
WELL TOP EL.	BOIT EL.	EST. LENGTH
EDW1 853 +/-	773 +/-	80 FEET
EDW2 853 +/-	773 +/-	80 FEET
ICW1 810 +/-	780 +/-	30 FEET
IDW2 810 +/-	780 +/-	30 FEET

LEGEND
 APPROXIMATE BORING LOCATION
 APPROXIMATE WELL LOCATION



PLAN APPROVED

Ann Arbor Library



SOIL CROSS SECTION ALONG SLURRY WALL

- NOTES:
- LEVEL OF UNDERLYING SILTS AND SILTY FINE SANDS BETWEEN PREVIOUS BORING LOCATIONS VARIES. ADDITIONAL BORINGS MUST BE PERFORMED TO FURTHER DELINEATE THE SOIL PROFILE NEAR/AT THE PROPOSED SLURRY WALL LOCATION. FINAL SLURRY WALL DEPTH TO BE ADJUSTED AFTER ADDITIONAL BORINGS ARE PERFORMED AT THE TIME OF SLURRY WALL CONSTRUCTION.
 - REFER TO SLURRY WALL LAYOUT PLAN FOR APPROXIMATE WALL LAYOUT.
 - ADDITIONAL EXTERIOR DEWATERING WELLS MAY NEED TO BE ADDED TO CONTROL GROUNDWATER LEVELS BASED UPON CONDITIONS ENCOUNTERED IN THE FIELD.
 - DEWATERING SHALL LOWER THE WATER TABLE AT LEAST 2 FEET BELOW THE BOTTOM OF GRADE BEAM ELEVATIONS (SEE SHEETS S2.01 AND S2.02).
 - THE DEWATERING SYSTEM SHALL REMAIN IN OPERATION UNTIL THE ENTIRE STRUCTURE IS CONSTRUCTED UP TO AN ELEVATION OF AT LEAST ELEVATION 810 FT.
 - THIS DEWATERING PLAN DOES NOT INCLUDE ANY DESIGN FOR SPECIAL HANDLING/DISPOSAL AND/OR TESTING OF ENVIRONMENTALLY IMPACTED SOILS/GROUNDWATER. IF ENVIRONMENTALLY IMPACTED SOILS/GROUNDWATER ARE ENCOUNTERED, ADDITIONAL DESIGN PLANS/DETAILS/PROTOCOLS WILL BE REQUIRED.

NOTE: BASE DRAWING INFORMATION TAKEN FROM EXISTING FOUNDATION PLAN PREPARED BY CARL WALKER, INC.