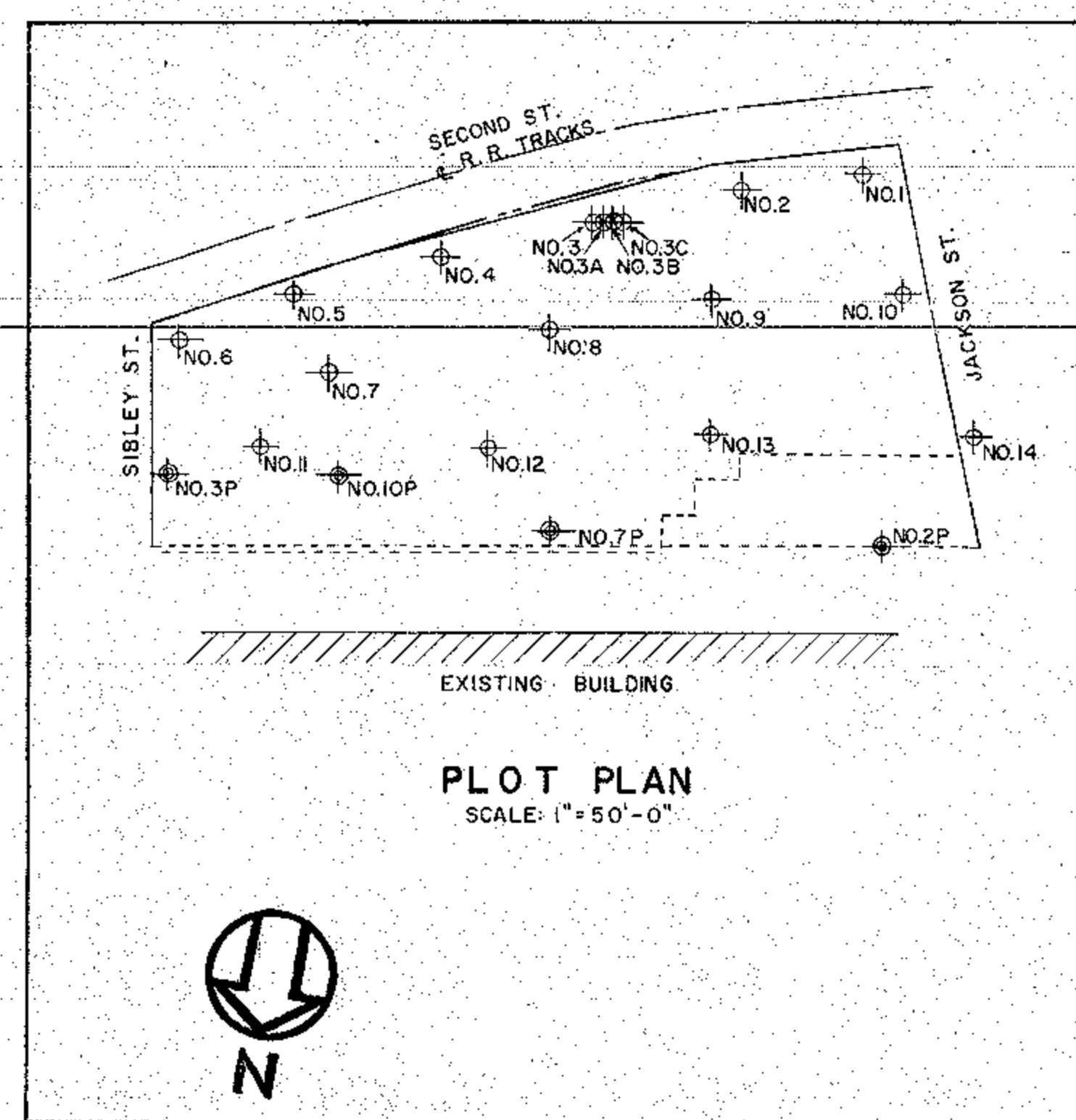
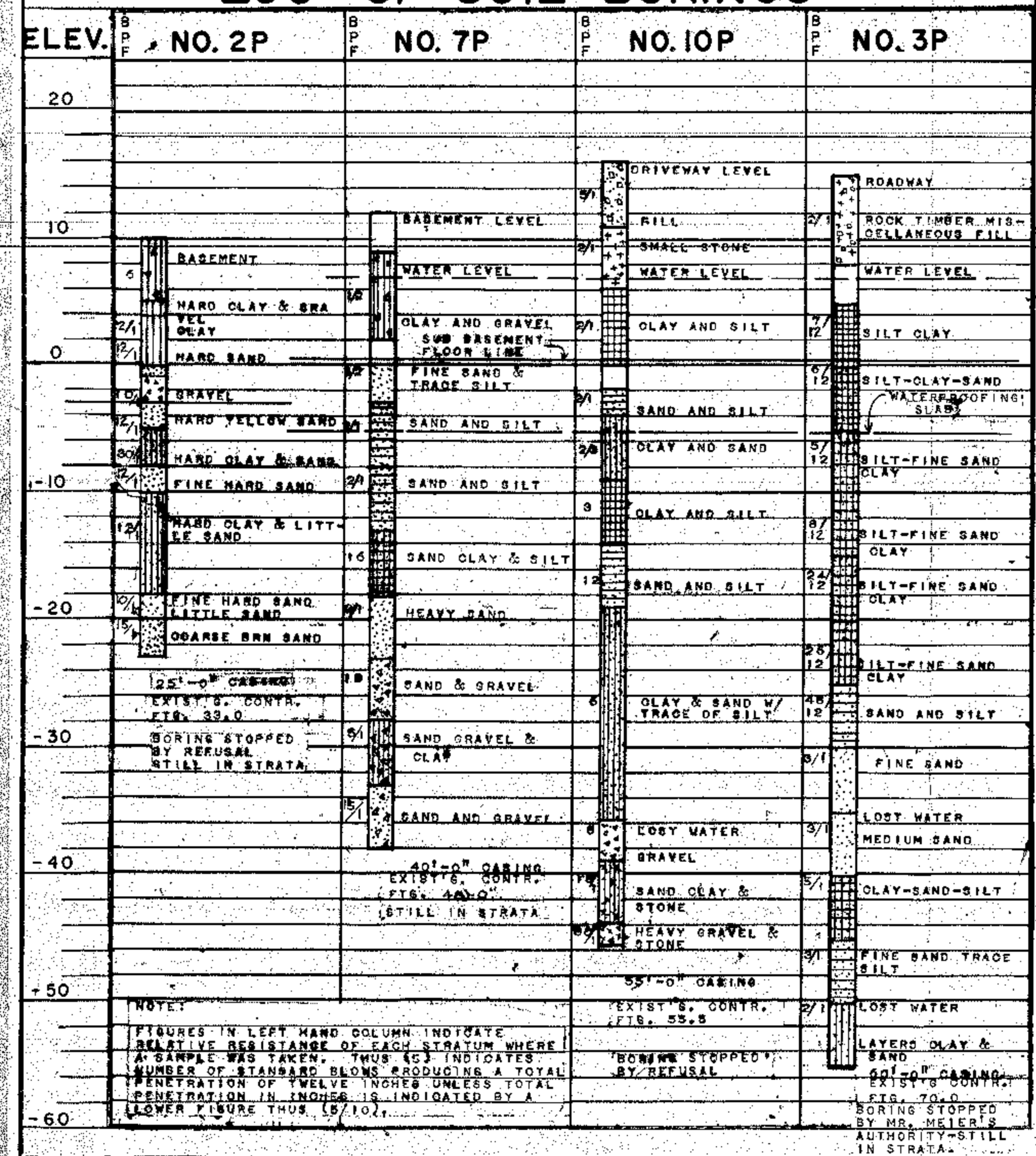


GENERAL SOIL NOTES:

- * INDICATES LOST CIRCULATING WATER.
- WATER LEVEL READINGS WERE TAKEN 24 HOURS AFTER COMPLETION OF BORING.
- INDICATES CORE DRILLING

A	INDICATES DEPTH OF CORE DRILLED, IN INCHES.
B	INDICATES AMOUNT OF CORE RECOVERED.

LOG OF SOIL BORINGS MADE BY GOW CO. (1932)



SOIL LABORATORY REPORT

DURING A PERIOD FROM FEBRUARY 1 TO FEBRUARY 5, 1960 AN INVESTIGATION WAS MADE OF THE SOIL CONDITIONS FOR THE PROPOSED UNITED STATES POST OFFICE AND CUSTOM HOUSE EXTENSION. FOURTEEN (14) FOUNDATION BORINGS (1 THROUGH 14) WERE PUT DOWN AT THE APPROXIMATE LOCATIONS SHOWN ON DRAWING NO. 7-1-1.

SOIL BORINGS 2P, 7P, 10P AND 3P WERE MADE IN 1932 BY THE GOW COMPANY AS PART OF THE ORIGINAL SOIL EXPLORATION.

SURFACE ELEVATIONS WERE REFERENCED TO CITY DATUM. ZERO ELEVATION CITY DATUM IS THE CONTROL POOL ELEVATION OF THE RIVER UNDER THE ROBERT STREET BRIDGE. THE LOGS OF THE BORINGS ARE SHOWN HERewith.

ALL OF THE BORINGS WERE CASED WITH 2-1/2 INCH PIPE WHICH WAS CLEANED AND ADVANCED BY STANDARD JETTING METHODS. SOIL SAMPLES WERE TAKEN WITH A 2-INCH O.D. SPLIT SAMPLER, AND THE BLOWS PER FOOT (BPF) AS GIVEN ALONG THE LEFT SIDE OF THE LOGS WERE RECORDED ON THIS SAMPLER DRIVEN BY A 140 LB. WEIGHT FALLING 30 INCHES.

THE SITE IS LOCATED CLOSE TO THE MISSISSIPPI RIVER IN A GLACIATED AREA. SURFACE OF THE SITE AREA VARIES ABOUT 3-1/2 FEET. FILL OF SAND, CINDER, GRAVEL AND CONCRETE EXISTS OVER MOST OF THE AREA TO ABOUT 16 FEET IN DEPTH. A LAYER OF SOFT GREEN SILT OCCURS BELOW MOST OF THIS FILL VARYING IN THICKNESS FROM 5 FEET AT BORING NO. 6 TO 42 FEET AT BORING NO. 7. LAYERS OF SAND AND SOME OF SILT OCCUR BELOW THE SOFT GREEN SILT DOWN TO THE SANDSTONE. ELEVATION OF SANDSTONE VARIES FROM MINUS 60 FEET AT BORING NO. 1 AND 14 TO ABOUT MINUS 75 FEET AT BORINGS NO. 3-C, 4, 5, 6, 7 AND 11. BOULDERS WERE ENCOUNTERED AT ALL LEVELS OF BORINGS DOWN TO THE SANDSTONE.

GROUND WATER ENTERED MOST OF THE FOUNDATION BORINGS NEAR ZERO ELEVATION. THESE LEVELS CAN BE EXPECTED TO VARY WITH THE SEASONS OF THE YEAR AND FROM ONE YEAR TO THE NEXT.

SOIL NOTES

- WATER LEVELS INDICATED ON SOIL LOGS ARE AS ACTUALLY MEASURED IN THE FIELD AND ARE ESTIMATED TO BE ABOUT AVERAGE CONDITION AT DATE OF MEASUREMENT. THESE LEVELS MAY HAVE SEASONAL VARIATIONS. CONTRACTORS SHALL INSTALL AND OPERATE A DETERMINING SYSTEM OF SUFFICIENT CAPACITY TO MAINTAIN CONSTRUCTION AREA FREE OF WATER AT ALL TIMES. CONTRACTOR SHALL SUBMIT A PLAN OF HIS DETERMINING SYSTEM TO THE ENGINEER FOR APPROVAL BEFORE STARTING CONSTRUCTION.
- SOIL DATA SHOWN IN LOGS ARE FOR BIDDERS INFORMATION. BIDDERS ARE ALERTED THAT SOIL BETWEEN BORINGS CAN VARY FROM THAT SHOWN ON PLANS. IDENTIFICATION OF SOIL MATERIALS BETWEEN BORINGS IN THE SUB-SURFACE STRATIFICATION IS A NECESSARY INTERPOLATION THAT CAN BE VERIFIED ONLY BY SITE EXCAVATION. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR EXCAVATING ALL SOIL MATERIALS AND SUBSEQUENT CONSTRUCTION REGARDLESS OF SOIL DENSITY OR GROUND WATER CONDITION. THE ONLY EXCEPTION PERMITTED WILL BE THE ENCOUNTERING OF SOLID ROCK.
- CONTRACTOR IS CAUTIONED TO EXAMINE SOIL LOG AND TAKE COGNIZANCE OF BLOWS PER FOOT ON SAMPLING TOOLS.
- SOIL SAMPLES ARE AVAILABLE FOR CONTRACTOR'S INSPECTION AT ARCHITECT'S OFFICE. SOIL BORINGS WERE MADE DURING A PERIOD FROM FEBRUARY 1 TO FEBRUARY 5, 1960.
- FAILURE OF THE CONTRACTOR TO EXAMINE SOIL SAMPLES OR TAKE PROPER COGNIZANCE OF SOIL DENSITIES SHALL NOT RELIEVE HIM OF ANY RESPONSIBILITY OF EXCAVATING DIFFICULT SOIL MATERIALS.

ELLERBE AND COMPANY
AND
BROOKS CAVIN
ARCHITECTS AND ENGINEERS
SAINT PAUL, MINNESOTA

MECHANICAL & ELECTRICAL DIVISION
ARCHITECTURAL & STRUCTURAL DIVISION

GENERAL SERVICES ADMINISTRATION
PUBLIC BUILDINGS SERVICE - WASHINGTON, D.C.

PROJECT U.S. POST OFFICE & CUSTOM HOUSE
LOCATION SAINT PAUL, MINNESOTA
STREET E. KELLOGG BLVD & JACKSON
PROJ. NO. 21900 FILE NO.
DRAWN BY D.B. J.K. CHECKED BY M.N. COB
DRAWING TITLE SOIL BORING LOGS
SOIL INFORMATION
DRAWING NUMBER 7-1-1 EXT. & REM.