



SURCHARGE TREATMENT OF THE FOUNDATION

- A. SCOPE OF THE SURCHARGE:** THE SURCHARGE SHALL COVER THE ROAD SECTIONS LISTED BELOW WITH THE MINIMUM PRESSURES LISTED FOR EACH SECTION. THESE PRESSURES ARE APPROXIMATELY EQUAL TO THE PRESSURES OF THE FINISH ROADWAY EMBANKMENT PLUS TWO FEET OF EARTH ABOVE THE FINISH GRADE. FOR ABUTMENT #2, THE MINIMUM SURCHARGE PRESSURE SHALL VARY LINEARLY BETWEEN STATIONS.
- | ABUTMENT | FROM | PRESSURE (PSF) | TO | PRESSURE (PSF) |
|----------|--------|----------------|--------|----------------|
| 1 | 140+50 | 2590 | 141+45 | 2590 |
| 2 | 143+55 | 1750 | 144+25 | 1330 |
- B. APPLICATION OF THE SURCHARGE LOAD:** IF THE APPLICATION OF THE SURCHARGE LOAD IS COMBINED WITH AND A PART OF THE CONSTRUCTION OF THE PERMANENT EMBANKMENT, THE SURCHARGE FILL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 203.11.
- C. DURATION OF THE SURCHARGE:** SURCHARGE LOADING AT BOTH ABUTMENTS SHALL BE MAINTAINED FOR 30 DAYS. HOWEVER, THIS SURCHARGE TIME COULD BE SHORTENED BY THE ENGINEER IF THE IN SITU GEOTECHNICAL INSTRUMENTATION INDICATES THAT EITHER THE SETTLEMENT HAS REACHED THE MAGNITUDE OUTLINED IN NOTE E BELOW OR IF THE INSTRUMENTATION READING TAKEN DOES NOT CHANGE FOR 7 CONSECUTIVE DAYS.
- D. THE MONITORING INSTRUMENTATION SHALL BE PAID FOR UNDER ITEMS 900.620 SPECIAL PROVISION (SETTLEMENT PLATFORM, TYPE I) AND 900.620 SPECIAL PROVISION (SETTLEMENT PLATFORM, TYPE IV). ALL OF THE OTHER WORK REQUIRED FOR SURCHARGING THE ROADWAY, INCLUDING FURNISHING THE LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE WORK SHALL BE PAID FOR UNDER ITEM 900.620 SPECIAL PROVISION (SURCHARGING).**
- E. THE MAGNITUDE OF THE SETTLEMENT:** IT WAS DETERMINED THAT THE ANTICIPATED AMOUNT OF SETTLEMENT VARIES FROM 5" AT ABUTMENT 2 TO 9" AT ABUTMENT 1. IT IS EXPECTED THAT OVER 90% OF THE ANTICIPATED FOUNDATION SETTLEMENT SHOULD OCCUR DURING THE SURCHARGING PROCESS WITH THE PRESSURES LISTED ABOVE.
- F. MONITORING/SETTLEMENT INSTRUMENTATION:**
1. THE SETTLEMENT OF THE FOUNDATION WILL BE MONITORED DURING THE SURCHARGE TREATMENT USING TYPE I AND TYPE IV SETTLEMENT PLATFORMS INSTALLED AT THE LOCATIONS SHOWN ABOVE. BOTH TYPE I AND TYPE IV SETTLEMENT PLATFORMS SHALL MEET THE GUIDELINES SPECIFIED IN STANDARD SHEET L-1, DETAIL SHEET 69, AND SECTION 900 OF THE SPECIAL PROVISIONS.
 2. FOR DETAILS OF SETTLEMENT PLATFORM, TYPE I, SEE STANDARD SHEET L-1.
 3. FOR DETAILS OF SETTLEMENT PLATFORM, TYPE IV, SEE DETAIL SHEET 69.
 4. THE FOLLOWING SETTLEMENT PLATFORM READINGS SHALL BE RECORDED AND PROVIDED TO THE ENGINEER: (FILL ELEVATIONS SHALL BE RECORDED WHENEVER READINGS ARE TAKEN)
 - a.) INITIAL READINGS SHALL BE TAKEN AT ALL SETTLEMENT PLATFORMS BEFORE ANY SURCHARGE LOAD IS APPLIED.
 - b.) IF THE SURCHARGE LOAD IS PLACED INCREMENTALLY, READINGS SHALL BE TAKEN FOR EVERY 350 PSF OF SURCHARGE PRESSURE PLACED.
 - c.) UPON COMPLETION OF SURCHARGE PLACEMENT OPERATIONS, SETTLEMENT PLATFORM READINGS SHALL BE TAKEN ONCE EVERY OTHER DAY FOR THE DURATION OF THE SURCHARGE TREATMENT.

INSTRUMENTATION SCHEDULE

SETTLEMENT PLATFORM LOCATIONS

PLATFORM	LOCATION	STATION	OFFSET	TYPE
S1	VT 100	140+60	20' -LEFT	I
S2	VT 100	141+25	℄	IV
S3	VT 100	143+75	℄	IV
S4	VT 100	144+00	20' -LEFT	I

THE CONTRACTOR MAY SUBMIT FOR APPROVAL AN ALTERNATE MEANS OF SURCHARGING AND/OR MONITORING THE SETTLEMENT IN THE LOCATIONS REFERENCED ABOVE.

ANTICIPATED SETTLEMENT AT

STA 141+25	STA 143+75
9 inches	5 inches

GEOTECHNICAL LAYOUT SHEET

PROJECT NAME:	STOCKBRIDGE
PROJECT NUMBER:	BRF 013-4 (21)
FILE NAME: /78f238/s+tr5/sf238geo.dgn	PLOT DATE: 06-FEB-2008
PROJECT LEADER: K. HIGGINS	DRAWN BY: G. SHANGRAW
DESIGNED BY: T. SUMNER	CHECKED BY: T. FILLBACH
sf238geo.i	SHEET 65 OF 144