



NORTH-SOUTH COMMUTER RAILWAY PROJECT (MALOLOS-TUTUBAN)

AUGUST 2020 – DECEMBER 2020



**VALENZUELA DEPOT
MALANDAY, VALENZUELA**



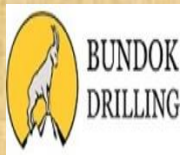
INSTALLATION OF GROUND ANCHOR @ DETENTION BASIN 1 & 2



**CLIENT: DEPARTMENT OF TRANSPORTATION / PHILIPPINE
NATIONAL RAILWAY**

MAIN CONTRACTOR: TAISEI-DMCI JOINT VENTURE

SUBCONTRACTOR: BUNDOK DRILLING SERVICES CORPORATION



ACCOMPLISHMENT REPORT



TOTAL ANCHORS	821
TOTAL INSTALLED	821
% ACCOMPLISHED	100%

DETENTION BASIN 1

ACCOMPLISHMENT REPORT



TOTAL ANCHORS	164
TOTAL INSTALLED	164
% ACCOMPLISHED	100%

DETENTION BASIN 2



ACCOMPLISHMENT REPORT



TOTAL NO. OF GROUND ANCHOR	985
TOTAL NO. OF GROUND ANCHOR INSTALLED	985
% ACCOMPLISHED	100%

TOTAL NO. GROUND ANCHOR FOR PULL-OUT TEST	49
TOTAL NO. GROUND ANCHOR TESTED	49
% ACCOMPLISHED	100%

DURATION OF PROJECT: AUGUST 6, 2020 – NOVEMBER 27, 2020



RESOURCES

EQUIPMENT

- I. RUBBER TIRE MOUNTED 4X4 HYDRAULIC PILING RIG
- II. DW150 CRAWLER TYPE DRILLING RIG
- III. 19T BOOM TRUCK
- IV. SUITABLE COMPRESORS
- V. GROUT MIXER & PUMP
- VI. TELEHANDLER FORKLIFT
- VII. 40FT CONTAINER VAN

RESOURCES

EQUIPMENT

I. RUBBER TIRE MOUNTED 4X4 HYDRAULIC PILING RIG



RESOURCES

EQUIPMENT

II. DW150 CRAWLER TYPE DRILLING RIG



RESOURCES

EQUIPMENT

III. 19T BOOM TRUCK



RESOURCES

EQUIPMENT

IV. COMPRESSOR



RESOURCES

EQUIPMENT

VI. TELEHANDLER FORKLIFT



RESOURCES

EQUIPMENT

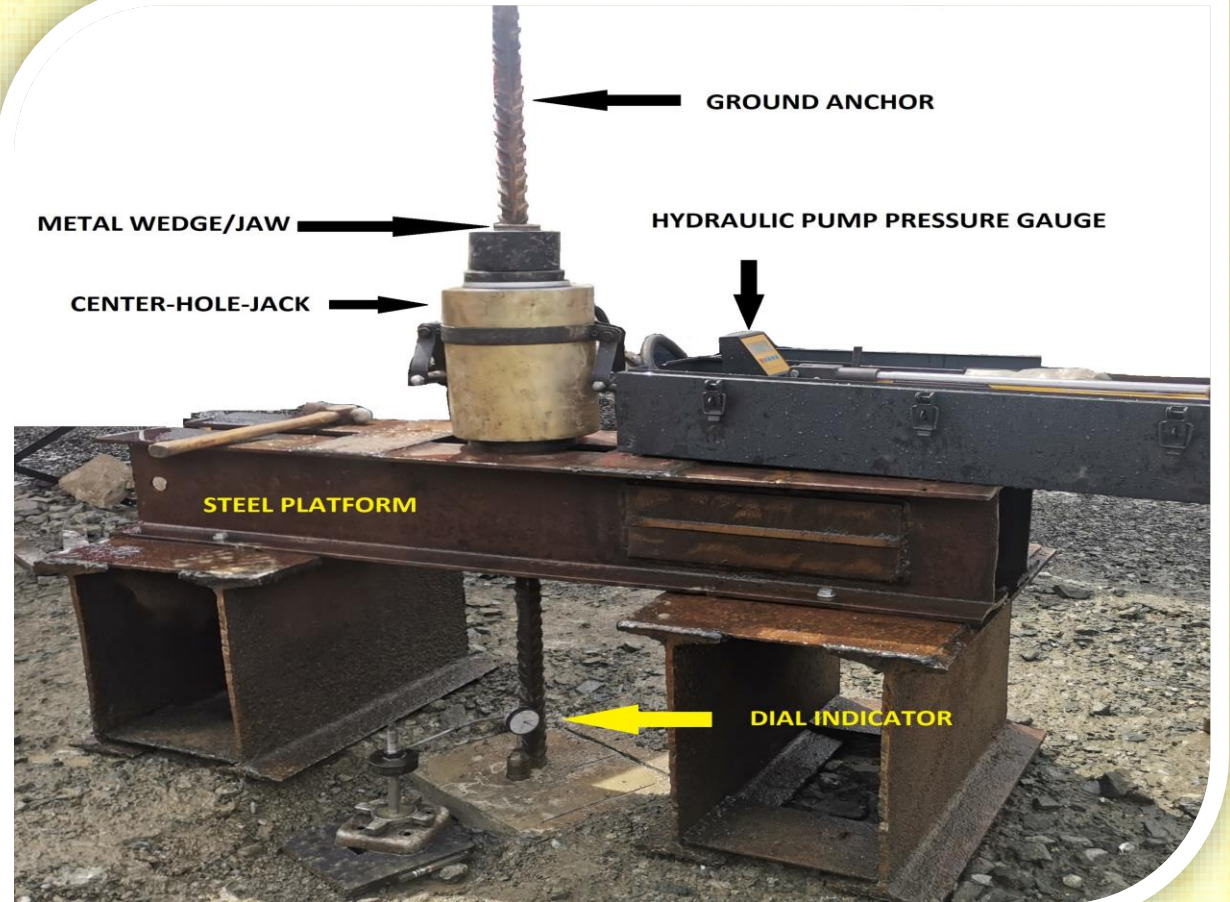
VI. 40FT CONTAINER VAN



RESOURCES

EQUIPMENT

VII. PULL-OUT TEST JACK



WORK PROCEDURE

I. MOBILISATION

II. DRILLING AND ANCHOR PREPARATION

III. GROUTING

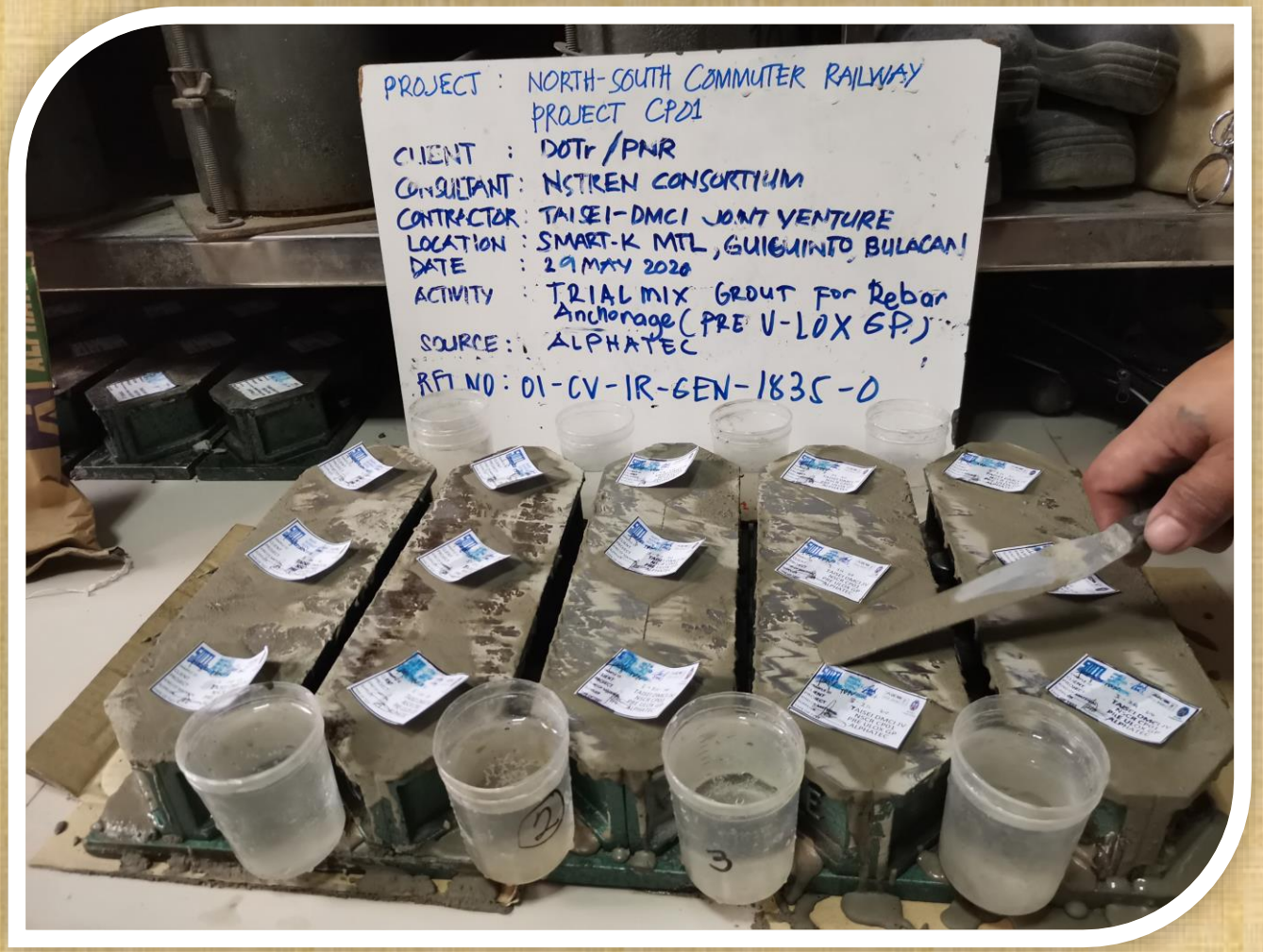
IV. INSTALLATION OF REBAR

V. GROUND ANCHOR PULL-OUT TEST

TRIAL MIX GROUT FOR REBAR ANCHORAGE



GROUT MIXING



GROUT SAMPLING

TRIAL MIX GROUT FOR REBAR ANCHORAGE



COMPRESSIVE STRENGTH TEST

THIRD PARTY ASSESSMENT INSPECTION OF EQUIPMENT



THIRD PARTY ASSESSMENT INSPECTION OF EQUIPMENT



MOCK-UP TEST



DRILLING OF HOLE



GROUT MIXING

MOCK-UP TEST



INJECTION OF CEMENTITIOUS GROUT

MOCK-UP TEST



INSTALLED REBAR ANCHOR



PULL-OUT TEST ASSEMBLY

MOCK-UP TEST



PULL-OUT TEST

MOBILISATION



DRILLING AND ANCHOR PREPARATION



DRILLING AND ANCHOR PREPARATION



DRILLING AND ANCHOR PREPARATION



DRILLING AND ANCHOR PREPARATION



DRILLING AND ANCHOR PREPARATION



INSTALLATION OF REBAR CENTRALIZER

GROUTING



INSTALLATION OF REBAR



INSTALLATION OF REBAR



PULL-OUT TEST



GROUND ANCHOR INSTALLED



GROUND ANCHOR INSTALLED



GROUND ANCHOR INSTALLED



GROUND ANCHOR INSTALLED



DETENTION BASIN 1

GROUND ANCHOR INSTALLED



DETENTION BASIN 2

PROJECT COMPLETED



INSTALLATION OF 985 GROUND ANCHOR

END