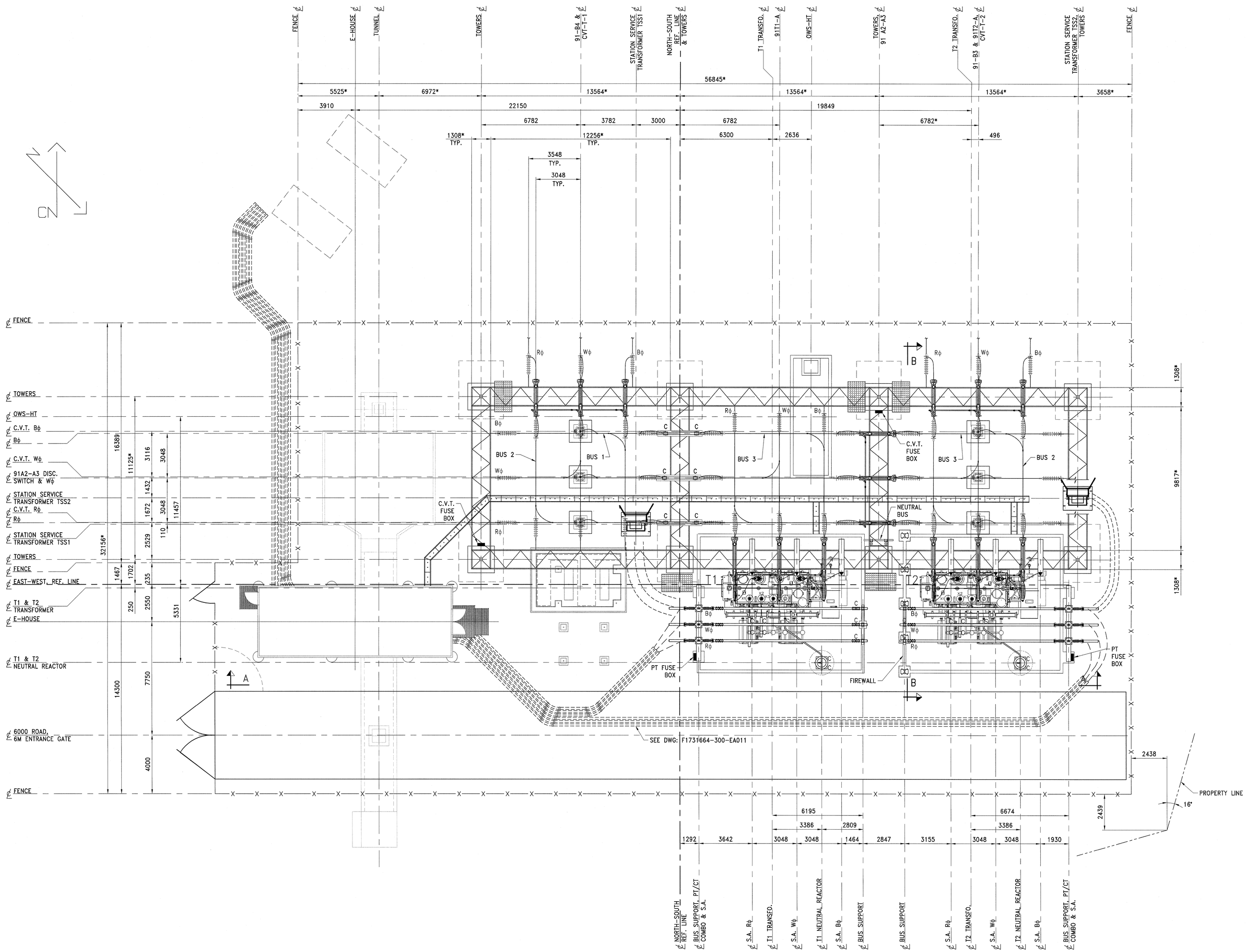



PLAN

PHASING DIAGRAM

R W B

B

W

R

## SAG BUS 1

CALCULATED SAGS (m) BASED ON 13mm ICE AND 90 km/h OF WIND: 115kV 1 X 795 kCMIL ACSR BETWEEN GIRDER ANCHOR POINTS. MAXIMAL HORIZONTAL TENSION 5.14N.

| SPAN (M) | 2.0 KN TENSION FOR 4% SAG, 795KCMIL ACSR AT 20 DEG. C | | | | | |
|---|---|---|---|---|---|---|
| 12.256M | TEMP °C | -40 | -20 | 0 | 20 | 40 |
| | SAG-OPERATION CONDITIONS (M) | 0.36 | 0.40 | 0.43 | 0.46 | 0.48 |

## SAG BUS 2

CALCULATED SAGS (m) BASED ON 13mm ICE AND 90 km/h OF WIND: 115kV 1 X 795 kCMIL ACSR BETWEEN GIRDER ANCHOR POINTS. MAXIMAL HORIZONTAL TENSION 6.0kN.

| SPAN (M) | 3.2 KN TENSION FOR 4%, 795KCMIL ACSR | | | | | |
|---|---|---|---|---|---|---|
| 9.817M | TEMP °C | -40 | -20 | 0 | 20 | 40 |
| | SAG-OPERATION CONDITIONS (M) | 0.29 | 0.32 | 0.34 | 0.37 | 0.39 |

## SAG BUS 3

CALCULATED SAGS (m) BASED ON 13mm ICE AND 90 km/h OF WIND: 115kV 1 X 795 kCMIL ACSR BETWEEN GIRDER ANCHOR POINTS. MAXIMAL HORIZONTAL TENSION 5.7kN.

| SPAN (M) | 2.3 KN MAX. TENSION FOR 4%, 795KCMIL ACSR | | | | | |
|---|---|---|---|---|---|---|
| 12.25M | TEMP °C | -40 | -20 | 0 | 20 | 40 |
| | SAG-OPERATION CONDITIONS (M) | 0.36 | 0.40 | 0.43 | 0.46 | 0.48 |

## NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. DIMENSIONS MARKED WITH '*' HAVE BEEN SOFT CONVERTED TO THE NEAREST MILLIMETER.

## REFERENCE DRAWINGS:

1. GENERAL LAYOUT & DETAILS ----------1796-D-C1
2. LAYOUT AND ELEVATIONS ----------1796-D-E4
3. 115/13.8KV STATION, ELEVATIONS, ELECTRICAL ARRANGEMENT ---F1731664-300-EA009
4. 115/13.8KV STATION, CABLE, CONDUITS, NEUTRAL & LIGHTING, PLAN & DETAILS, ELECTRICAL ARRANGEMENT ---F1731664-300-EA011
5. 115/13.8KV STATION, MAIN GROUNDING GRID, PLAN & DETAILS, ELECTRICAL ARRANGEMENT --F1731664-300-EA012

PROFESSIONALS:

| N° | DATE | TRANSMISSION | BY |
|---|---|---|---|

SMi THE S.M. GROUP INTERNATIONAL INC.
6205B Airport rd, Suite 205, Mississauga (Ontario) L4V 1E3
Tel. : 905 677 9009 / Fax. : 905 677 9014
www.groupesm.com

RELEASED FOR CONSTRUCTION

STAMP:

LICENSED PROFESSIONAL ENGINEER Y.Lessard 100128895 PROVINCE OF ONTARIO

CLIENT:

PROJECT:

MCMASTER UNIVERSITY-NF91

TITLE:

115/13.8KV STATION
BASIC LAYOUT
ELECTRICAL ARRANGEMENT

| PREPARED BY: | DATE: |
|---|---|
| Y.LESSARD | 2018-06-27 |
| DRAWN BY: | SCALE: |
| C.BAZINET | 1:100 |
| VERIFIED BY: | DISCIPLINE: |
| M. LAROCQUE | ELECTRICAL ARRANGEMENT |
| APPROVED BY: | CAD FILE NAME: |
| Y. LESSARD | F1731664-300-EA001.dwg |

| PROJECT N° | LOT | DWG # | REV. | PAGE: |
|---|---|---|---|---|
| F1731664 | 300 | EA001 | 00 | |