TABLE OF CONTENT

LIST OF TABLE

LIST OF FIGURE

LIST OF ABBREVIATION

Ac	: Composite beam cross section area
I_{c0}	: Momen inertia
Y_{ac}	: Center of gravity location a
Y_{bc}	: Center of gravity location b
h_o	: Total height composite beam
y	: Distance to base
M_{dg}	: Maximum moment
Pi	: Load
S	: Cross section modulus
A_g	: Cross-sectional area
M	: Maximum moment
P	: Load
S	: Cross section modulus
I	: Moment inertia
A	: Cross-sectional area
E	: Elasticity modulus
Wc	: Specific gravity concrete
Fc	: Concrete compressive strength (Mpa)
E	: Elastic modulus of concrete plate (Mpa)
n	: Comparison of elastic
Beff	: the width of the replacement concrete (m)
A	: cross section of prestressed beams
y	: Center of gravity
h	: total prestressed beam height (m)
Pn(max)	: Maximum axial load
h	: Total Height
fc’	: Concrete compressive strength
A_{gr}	: Melting strength
e_t	: Exsentrisitas
P_u	: Ultimate cross section

Pn (max) : Maximum axial load

A_g : Section area of coloumn

A_{st} : 1.5% x A_g

fc' : Concrete compressive strength

fy : Melting strength

P_u : Ultimate cross section

H_{ki} : critical horizontal component of the arch normal force [kN]

N_{ki} : critical normal force of the arch [kN]

q : uniform distributed arch loading [kN/m]

l : span length [m]

f : height of the arch [m]

s : half of the arch length [m]

j : angle between arch and deck

a : coefficient depending on number of hangers and ratio on f/l [-]

b : effective length factor (buckling factor); depending on parameters like number of hangers

b : plate width

d : concrete covers

f_y' : Concrete quality

Cw : drag coefficient

Vw : planned wind speed (m/sec)

TEW : Ultimate force wind load (kN)

Ab : coefficient area on the side of the bridge (m^2)

$C_{elastis}$: basic shear coefficient without ductility and risk factor (Z)

$C_{plastis}$: Basic shear coefficients including ductility and risk factors

A : Peak acceleration (PGA) in bedrock

R : Bedrock response

Z : reduction factor in relation to tenacity and risk

T'EQ : Base shear force in the direction being reviewed (Kn)

Kh : Coefficient of horizontal earthquake load

Kv : coefficient of vertical earthquake load

I : interest factor

C : basic shear coefficient

S : Building type factor

WT : Total nominal weight of the building including additional dead load.

g : Gravity acceleration (m / s)

KP : Stiffness of the joint as a horizontal force needed to make the deflection unit at the top of the pier (kN / m)

Ds : Structure Depth

L : Span Length

Eci : modulus of elasticity of concrete at time of transfer At 28 days

F'c : compressive strenght of concrete

A_g : gross area of girder section (in.^{2})

I_g : gross moment of inertia of girder about centroidal axis (in.^{4})

y_b : distance from neutral axis to extreme bottom fiber of PC girder

y_t : distance from neutral axis to extreme top fiber of PC girder (in.)

S_b : section modulus for bottom extreme fiber of section (in.^{3})

S_t : section modulus for top extreme fiber of section (in.^{3})

r : radius of gyration (in.)

S : spacing of girders or webs (ft)

L : individual span length (ft)

Pt : In the bottom prestress at the initial condition (kN)

e_s : Exentrisitas tendon

Wa : Section Propertise beam

A : Area (m^2)

P_o : Percentage of yield stress arising on steel (%)

n_s : Number of strands

P_{bs1} : A single drop of tendon (Kn)

y_d : Position of tendon in the middle of the span (m)

z_o : Distance from base to trajectory of core at center of span (m)

a : Set (m)

n_s : Number of strands

a’ : Position of the tendon at the pedestal (m)

y_b : The center of gravity to the bottom of girder (m)

y_d’ : Set (m)

Y : Tendon trajectory (m)

f : Eccentricity (m)

Ø : Track gauge (m)

L : Long (m)

Q_{pt} : Total prestress force in the initial (kN/m

P_t : Prestress force in the initial (kN

e_s : The distance of the weight of tendon to te center (m)

L : Long span of girder (m)

M_{bs} : Maksimum moment in the middle of the span (kNm)

Q_{bs} : Self weigh of girder (kN/m^3)

L : Long span of girder (m)

δ1 : Deflection at the initial state

Q_{pt} : Total prestress force in the initial (kN/m)

Q_{bs} : Self weigh of girder (kN/m^3)

L : Long span of girder (m)

E_c : Elastic modulus of concrete (kPa)

I_x : Moment of inertia to the line weight of girder (m^4)

Q_{peff} : Total prestress force in the end (kN/m)

P_{eff} : Prestress force in the end (kN)

e_s : The distance of the weight of tendon to the center (m)

L : Long span of girder (m