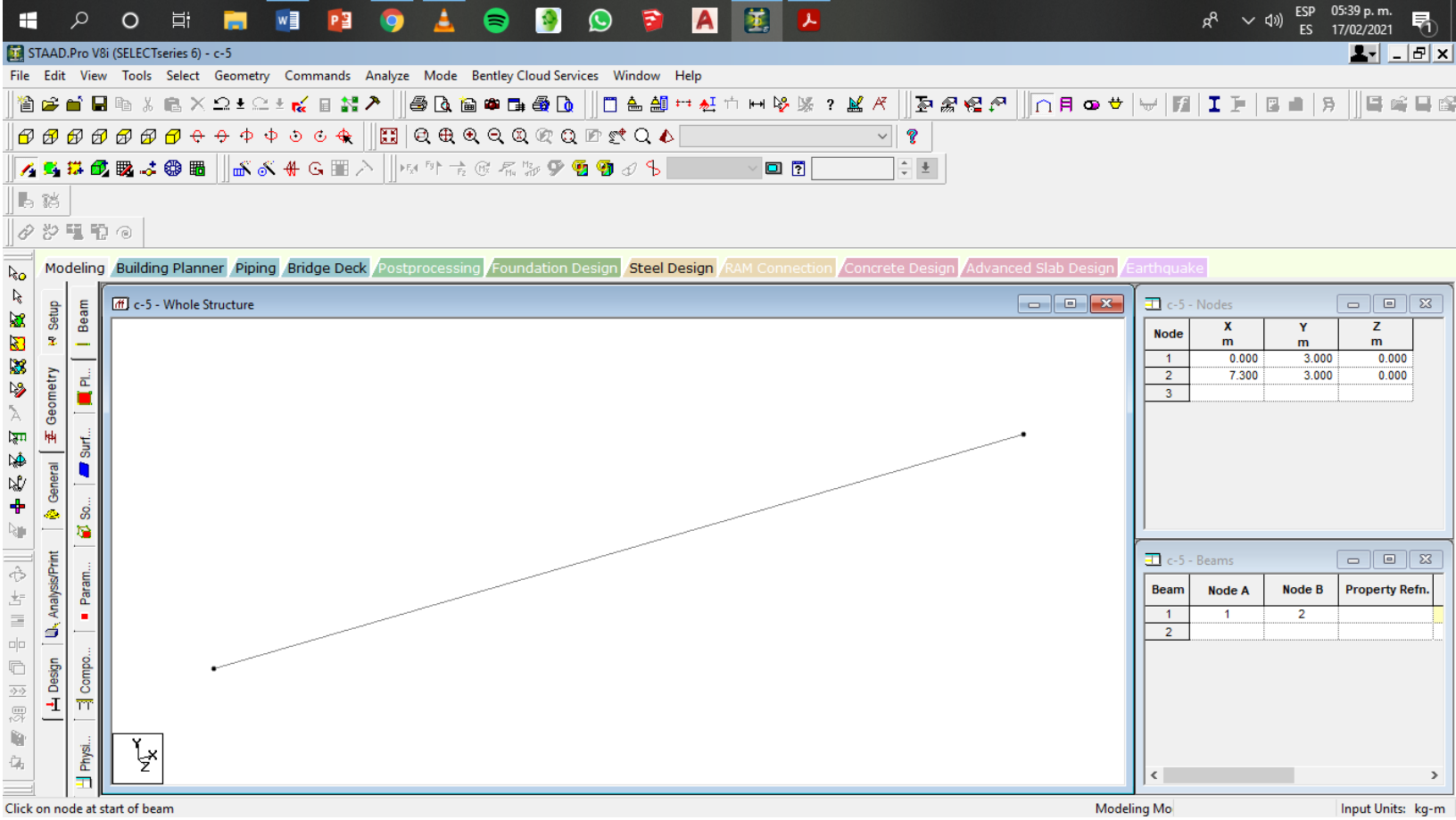
UDS UNIVERSIDAD DEL SURESTE

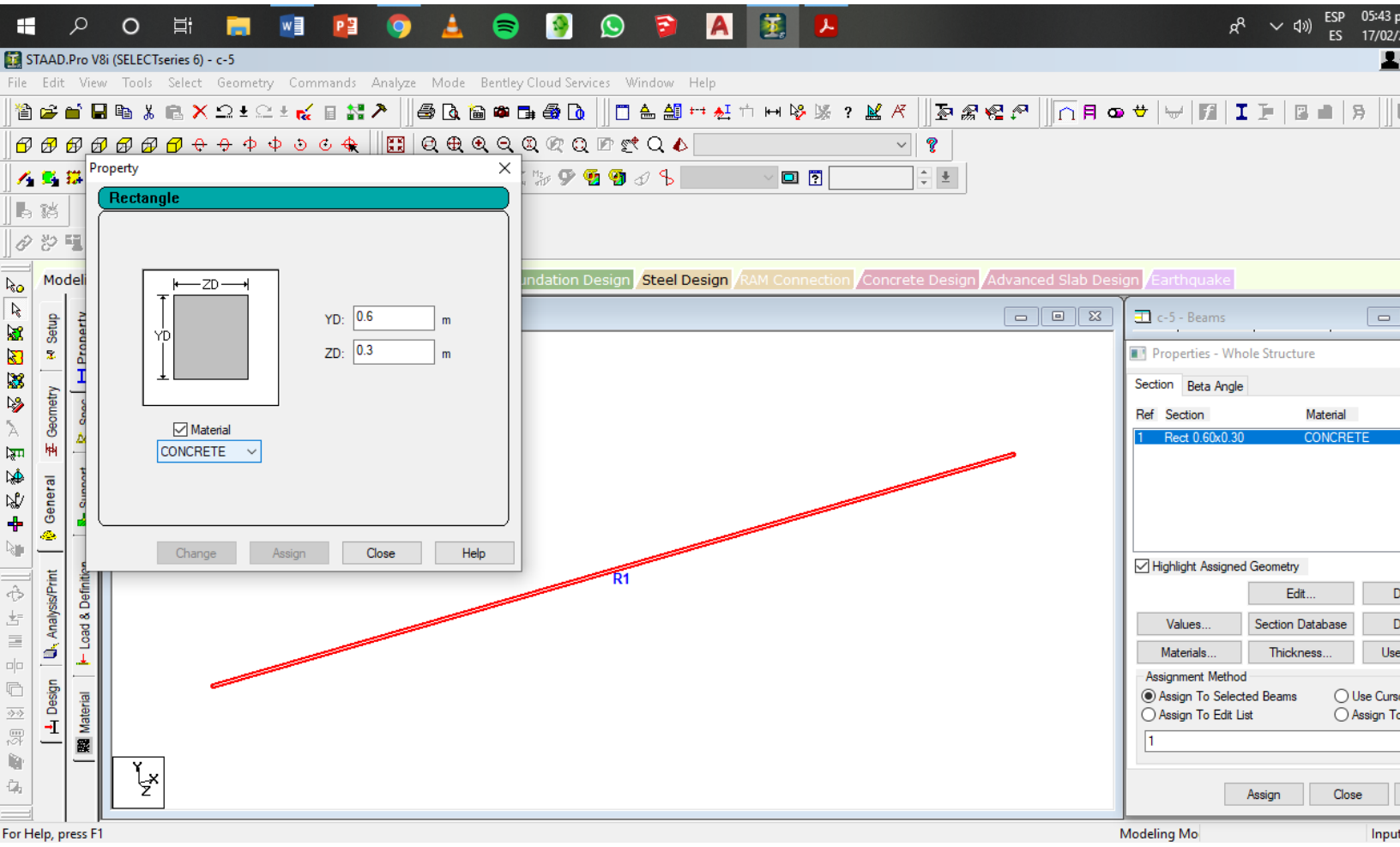
"Pasión por educar"

Examen

- Lic. Arquitectura
- 5to cuatrimestre
- Rudy Guillén Pohlenz
- PEDRO ALBERTO GARCIA LOPEZ
- ANALISIS DE ESTRUCTURAS

17/02/2021


STAAD.Pro V8i (SELECTseries 6) - c-5
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
c-5 - Whole Structure
c-5 - Nodes
Node X m Y m Z m
1 0.000 3.000 0.000
2 7.300 3.000 0.000
3
c-5 - Beams
Beam Node A Node B Property Refn.
1 1 2
2
Click on node at start of beam
Modeling Mo
Input Units: kg-m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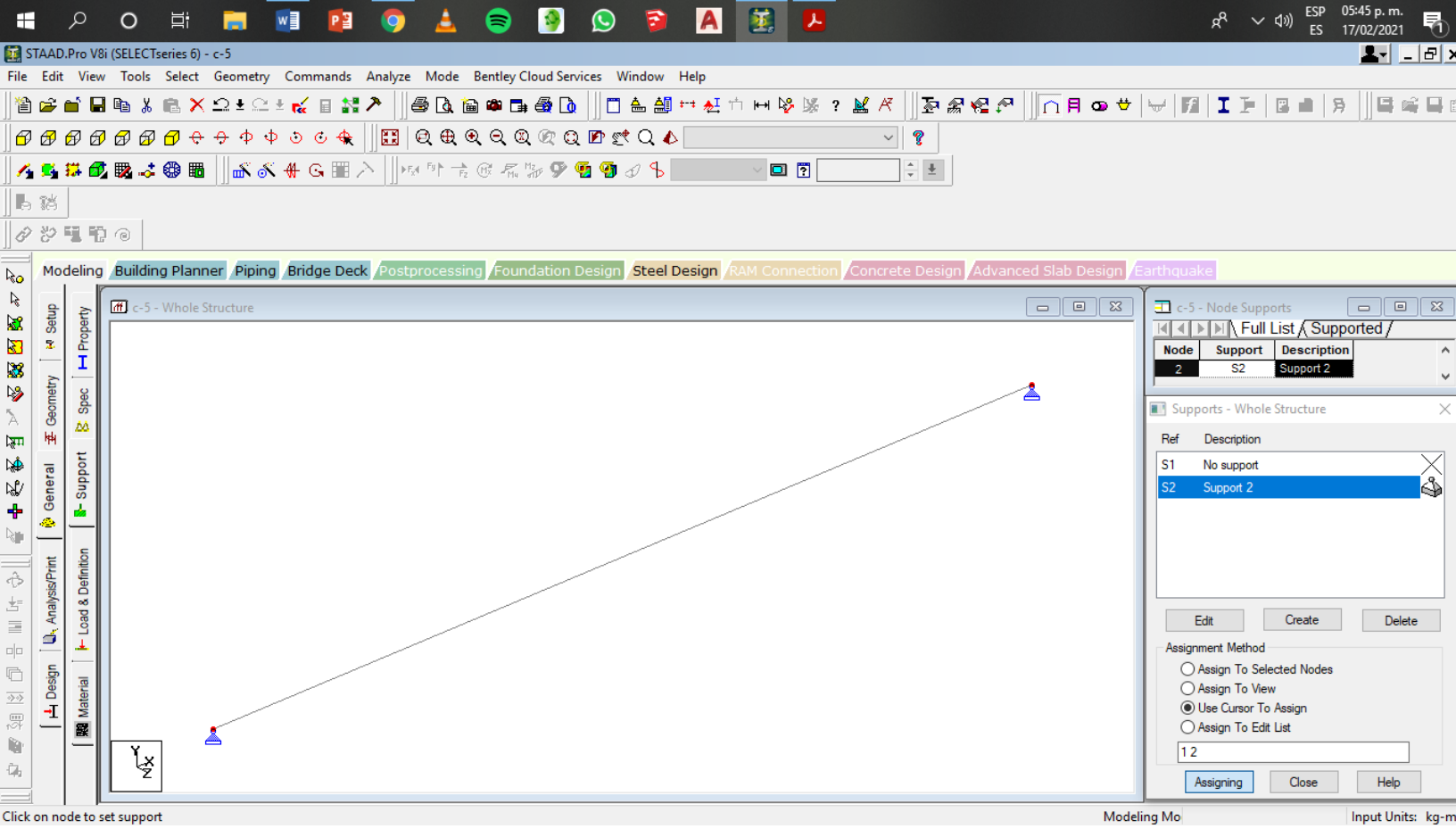
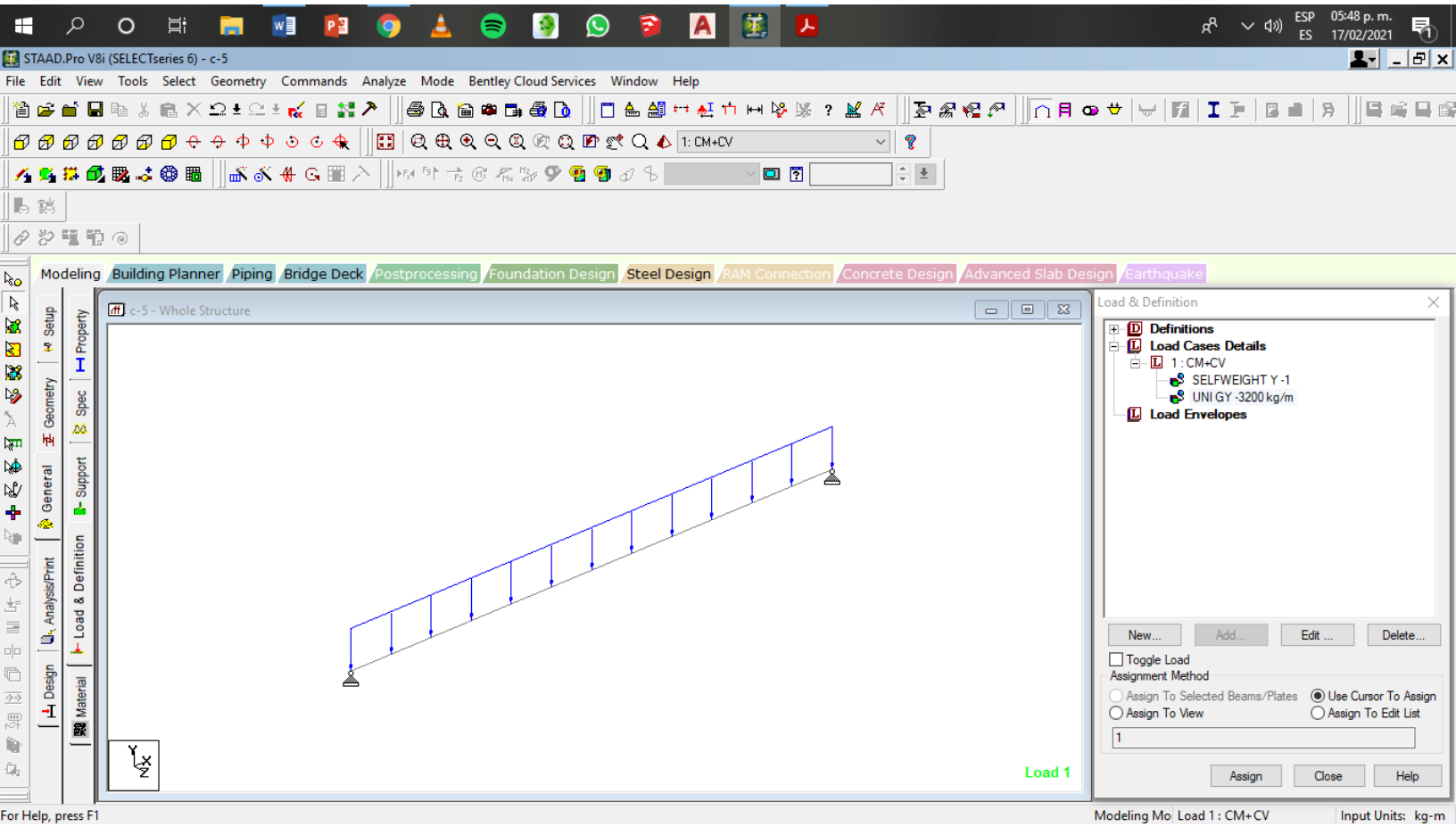
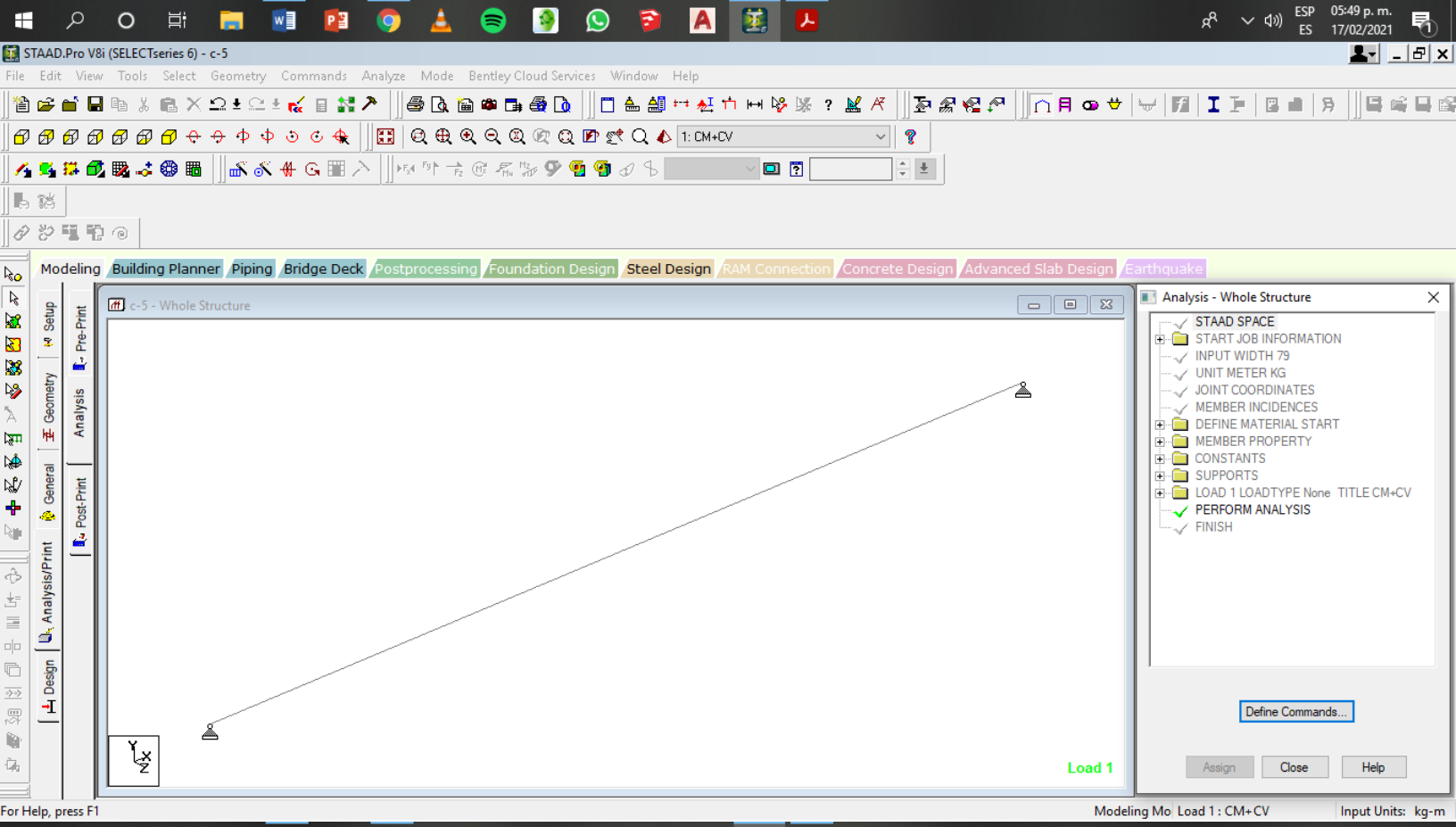
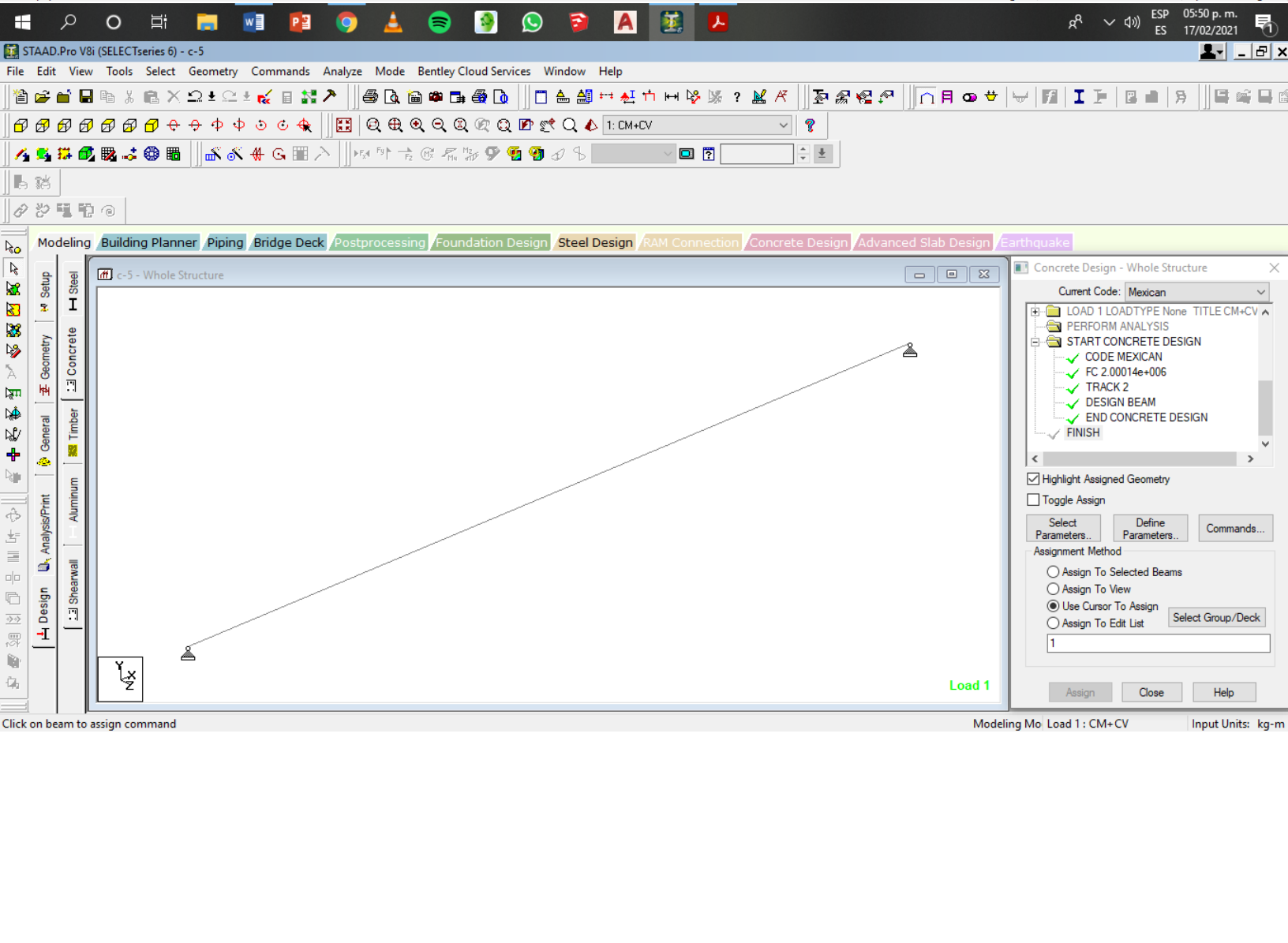
Property
Rectangle
ZD
YD
YD: 0.6 m
ZD: 0.3 m
Material
CONCRETE
Change Assign Close Help
Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
R1
c-5 - Beams
Properties - Whole Structure
Section Beta Angle
Ref Section Material
1 Rect 0.60x0.30 CONCRETE
Highlight Assigned Geometry
Edit...
Values... Section Database
Materials... Thickness...
Assignment Method
Assign To Selected Beams
Assign To Edit List
Assign Close
For Help, press F1
Modeling Mo


STAAD.Pro V8i (SELECTseries 6) - c-5
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
c-5 - Whole Structure
c-5 - Node Supports
Full List Supported
Node Support Description
2 S2 Support 2
Supports - Whole Structure
Ref Description
S1 No support
S2 Support 2
Edit Create Delete
Assignment Method
Assign To Selected Nodes
Assign To View
Use Cursor To Assign
Assign To Edit List
1 2
Assigning Close Help
Click on node to set support
Modeling Mo
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - c-5
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
1: CM+CV
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
c-5 - Whole Structure
Load 1
Load & Definition
Definitions
Load Cases Details
1 : CM+CV
SELFWEIGHT Y -1
UNI GY -3200 kg/m
Load Envelopes
New... Add... Edit ... Delete...
Toggle Load
Assignment Method
Assign To Selected Beams/Plates
Use Cursor To Assign
Assign To View
Assign To Edit List
1
Assign Close Help
For Help, press F1
Modeling Mo Load 1 : CM+CV
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - c-5
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
c-5 - Whole Structure
Load 1
Analysis - Whole Structure
STAAD SPACE
START JOB INFORMATION
INPUT WIDTH 79
UNIT METER KG
JOINT COORDINATES
MEMBER INCIDENCES
DEFINE MATERIAL START
MEMBER PROPERTY
CONSTANTS
SUPPORTS
LOAD 1 LOADTYPE None TITLE CM+CV
PERFORM ANALYSIS
FINISH
Define Commands...
Assign
Close
Help
For Help, press F1
Modeling Mo Load 1 : CM+CV
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - c-5
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
c-5 - Whole Structure
Load 1
Concrete Design - Whole Structure
Current Code: Mexican
LOAD 1 LOADTYPE None TITLE CM+CV
PERFORM ANALYSIS
START CONCRETE DESIGN
CODE MEXICAN
FC 2.00014e+006
TRACK 2
DESIGN BEAM
END CONCRETE DESIGN
FINISH
Highlight Assigned Geometry
Toggle Assign
Select Parameters..
Define Parameters..
Commands...
Assignment Method
Assign To Selected Beams
Assign To View
Use Cursor To Assign
Assign To Edit List
Select Group/Deck
Assign
Close
Help
Click on beam to assign command
Modeling Mo Load 1 : CM+CV
Input Units: kg-m

STAAD.Pro V8i (SELECTseries 6) - c-5

File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help

Modeling Building Planner Piping Bridge Deck

c-5 - Whole Structure

Setup Geometry General Analysis/Print Design Steel Concrete Timber Aluminum Shearwall

c-5.anl - STAAD Output Viewer

File Edit View Help

WARNING

***WARNING - INSTABILITY AT JOINT

NOTES

RESULTS

REQUIRED REINF. STEEL SUMMARY :

SECTION (MM)	REINF STEEL(+VE/-VE) (SQ. MM)		MOMENTS(+VE/-VE) (KNS-MET)		LOAD(+VE/-VE)	
0.00	0.00/	0.00	0./	0.00	0/	1
608.33	385.24/	0.00	73./	0.00	1/	0
1216.67	725.45/	0.00	132./	0.00	1/	0
1825.00	1009.45/	0.00	178./	0.00	1/	0
2433.33	1224.95/	0.00	211./	0.00	1/	0
3041.67	1360.17/	0.00	231./	0.00	1/	0
3650.00	1406.34/	0.00	237./	0.00	1/	0
4258.33	1360.17/	0.00	231./	0.00	1/	0
4866.67	1224.95/	0.00	211./	0.00	1/	0
5475.00	1009.45/	0.00	178./	0.00	1/	0
6083.33	725.45/	0.00	132./	0.00	1/	0
6691.67	385.24/	0.00	73./	0.00	1/	0
7300.00	0.00/	0.00	0./	0.00	0/	1

B E A M N O. 1 D E S I G N R E S U L T S - SHEAR

----------< PAGE 3 Ends Here >----------

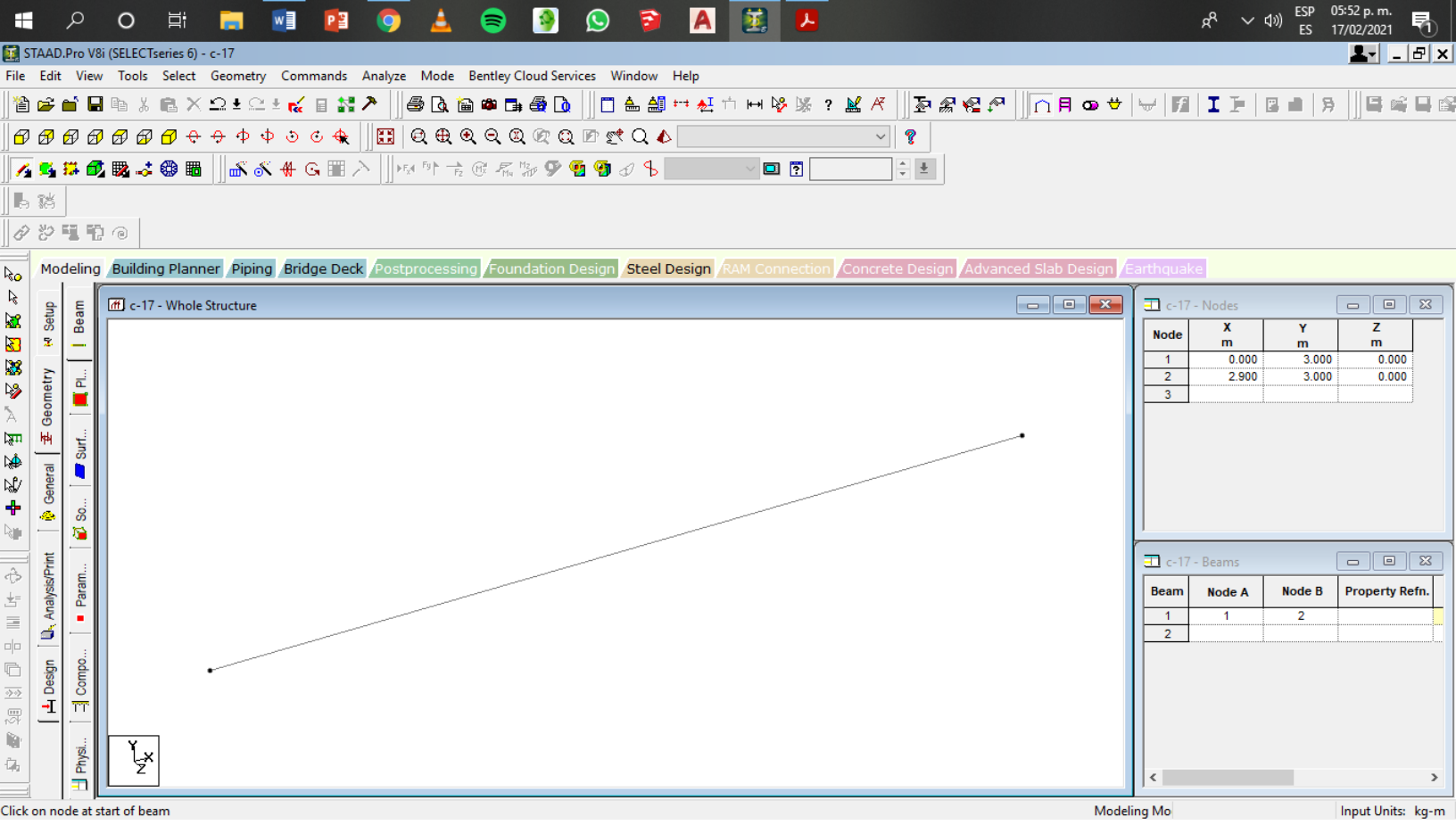
STAAD SPACE -- PAGE NO.

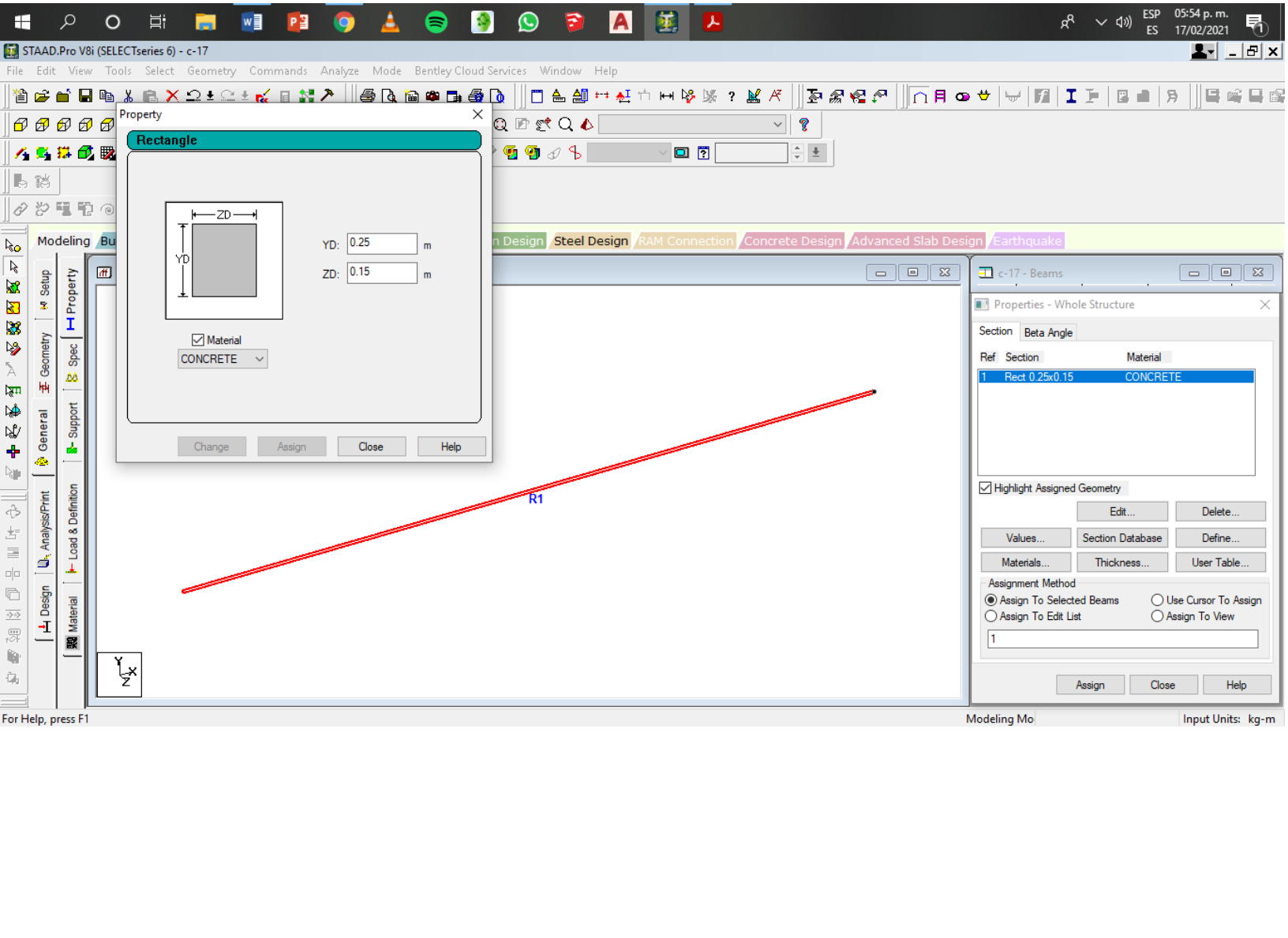
Total Page: 4 CAP NUM

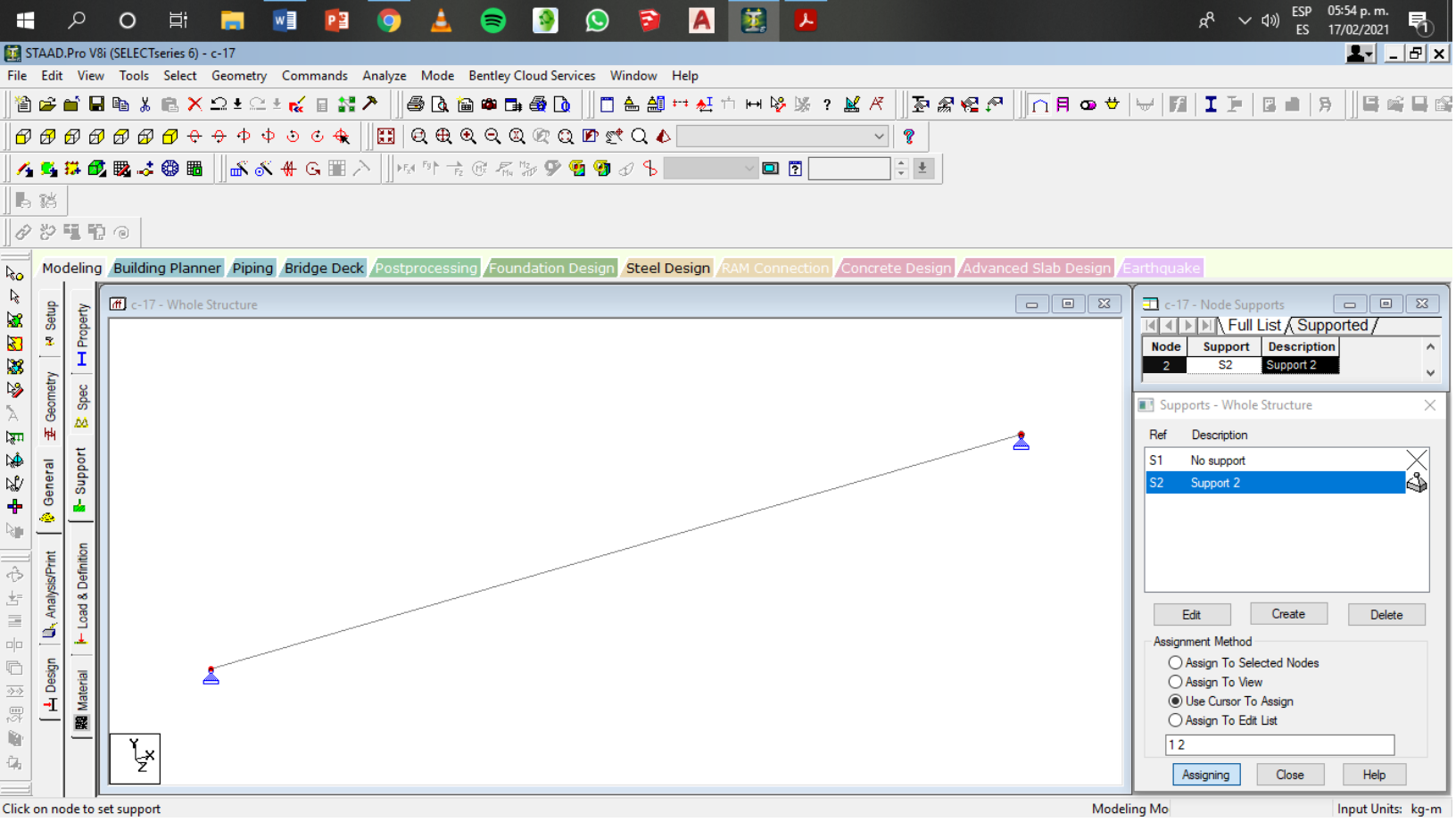
For Help, press F1

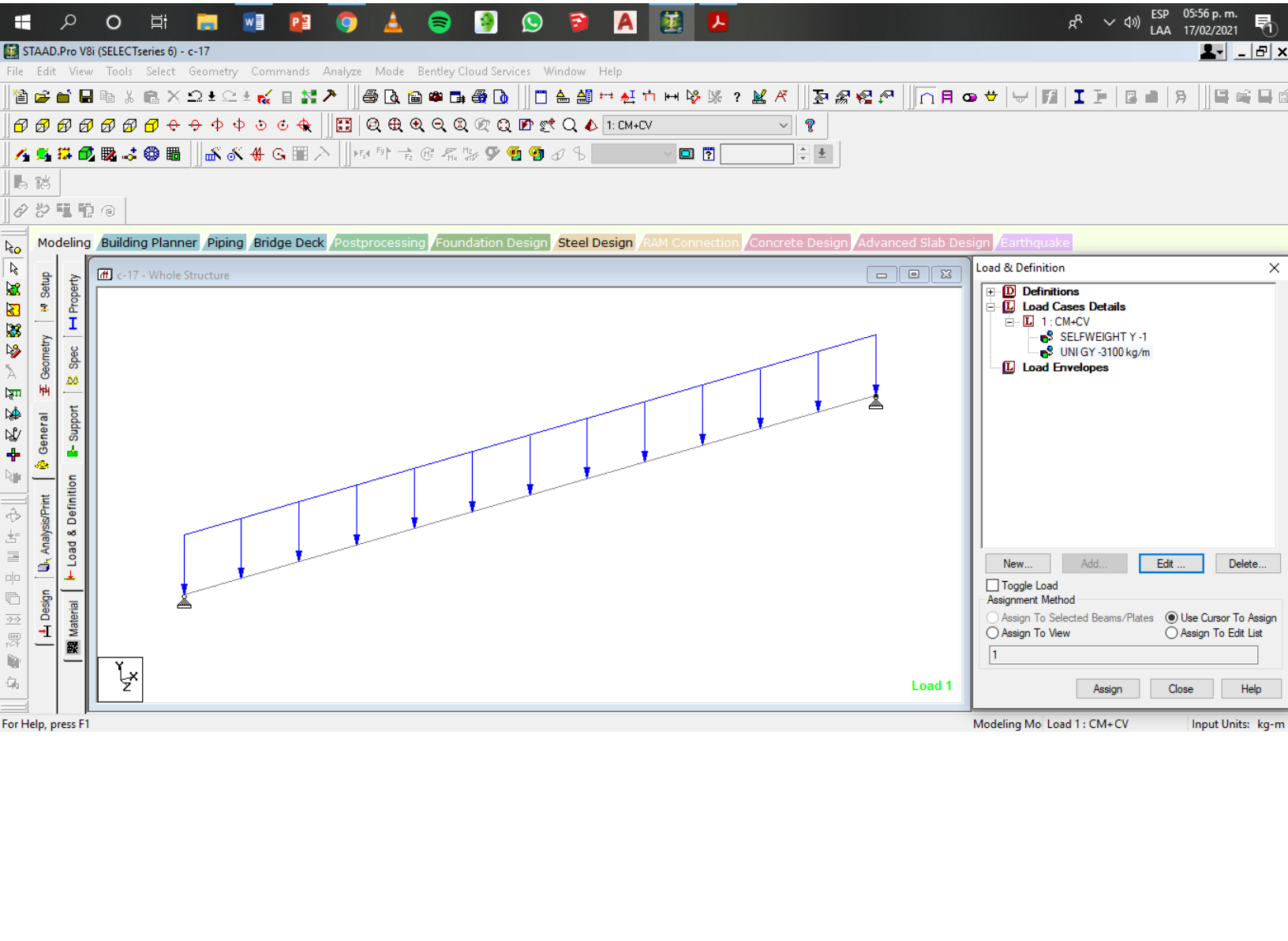
Modeling Mo Load 1 : CM+CV

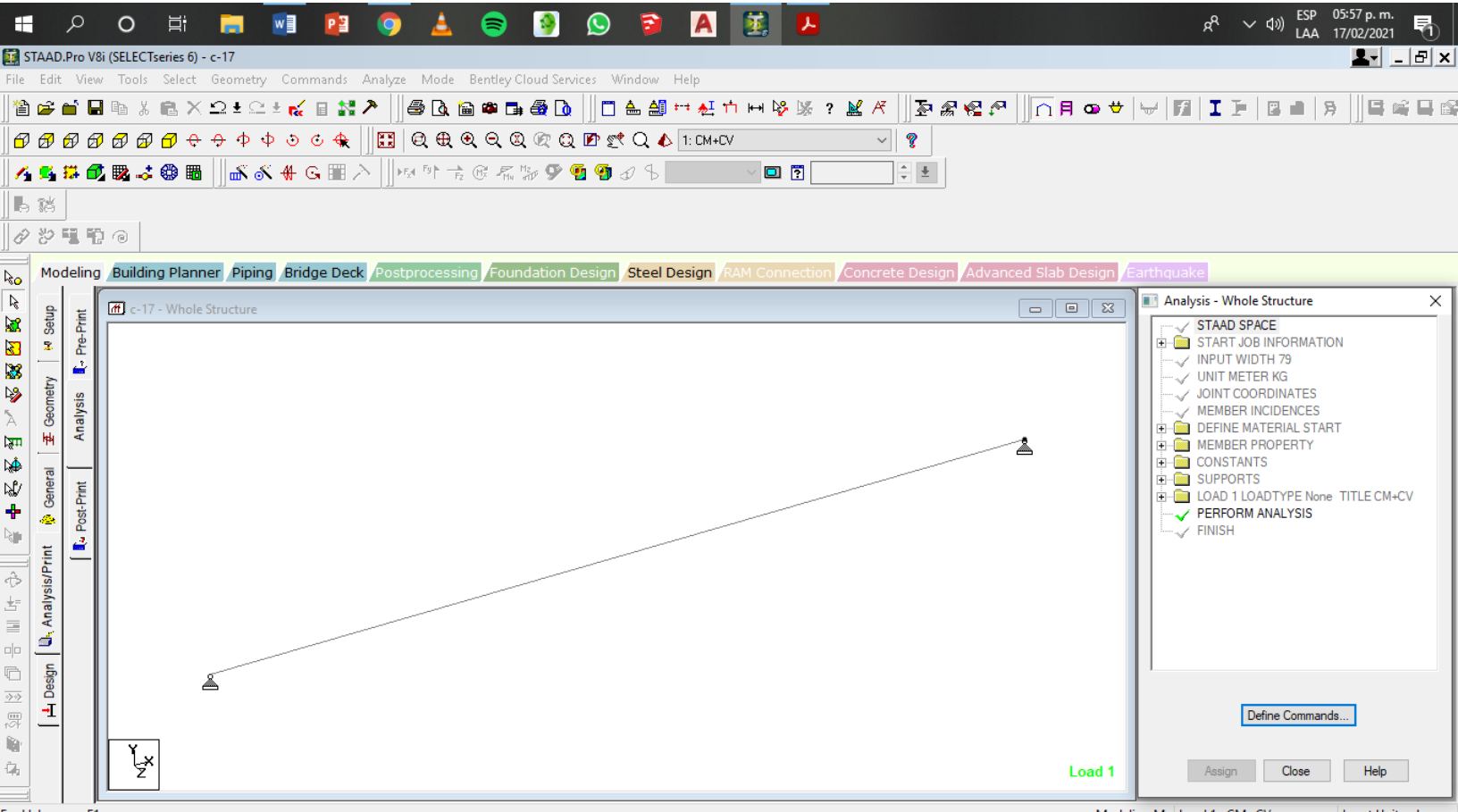
Input Units: kg-m

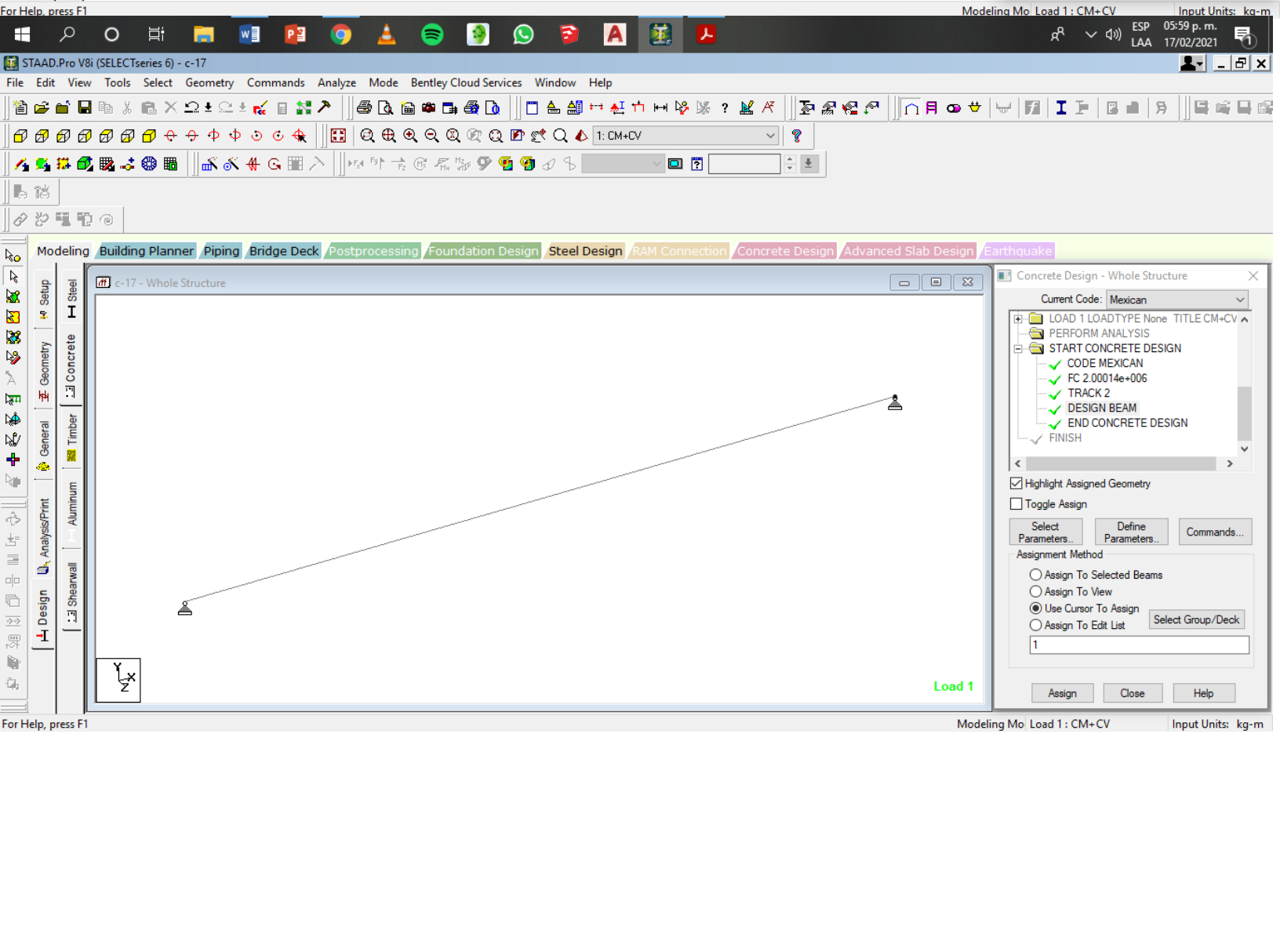

STAAD.Pro V8i (SELECTseries 6) - c-17
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
c-17 - Whole Structure
c-17 - Nodes
Node X m Y m Z m
1 0.000 3.000 0.000
2 2.900 3.000 0.000
3
c-17 - Beams
Beam Node A Node B Property Refn.
1 1 2
2
Click on node at start of beam
Modeling Mo
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - c-17
Property
Rectangle
ZD
YD
YD: 0.25 m
ZD: 0.15 m
Material
CONCRETE
Change Assign Close Help
R1
c-17 - Beams
Properties - Whole Structure
Section Beta Angle
Ref Section Material
1 Rect 0.25x0.15 CONCRETE
Highlight Assigned Geometry
Edit... Delete...
Values... Section Database Define...
Materials... Thickness... User Table...
Assignment Method
Assign To Selected Beams
Use Cursor To Assign
Assign To Edit List
Assign To View
Assign Close Help
For Help, press F1
Modeling Mo
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - c-17
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
c-17 - Whole Structure
c-17 - Node Supports
Full List Supported
Node Support Description
2 S2 Support 2
Supports - Whole Structure
Ref Description
S1 No support
S2 Support 2
Edit Create Delete
Assignment Method
Assign To Selected Nodes
Assign To View
Use Cursor To Assign
Assign To Edit List
1 2
Assigning Close Help
Click on node to set support
Modeling Mo
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - c-17
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
1: CM+CV
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
c-17 - Whole Structure
Load 1
Load & Definition
Definitions
Load Cases Details
1 : CM+CV
SELFWEIGHT Y -1
UNI GY -3100 kg/m
Load Envelopes
New... Add... Edit ... Delete...
Toggle Load
Assignment Method
Assign To Selected Beams/Plates
Use Cursor To Assign
Assign To View
Assign To Edit List
1
Assign Close Help
For Help, press F1
Modeling Mo
Load 1 : CM+CV
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - c-17
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
c-17 - Whole Structure
Analysis - Whole Structure
STAAD SPACE
START JOB INFORMATION
INPUT WIDTH 79
UNIT METER KG
JOINT COORDINATES
MEMBER INCIDENCES
DEFINE MATERIAL START
MEMBER PROPERTY
CONSTANTS
SUPPORTS
LOAD 1 LOADTYPE None TITLE CM+CV
PERFORM ANALYSIS
FINISH
Define Commands...
Assign
Close
Help
Load 1
For Help, press F1
Modeling Mo Load 1 : CM+CV
Input Units: kg-m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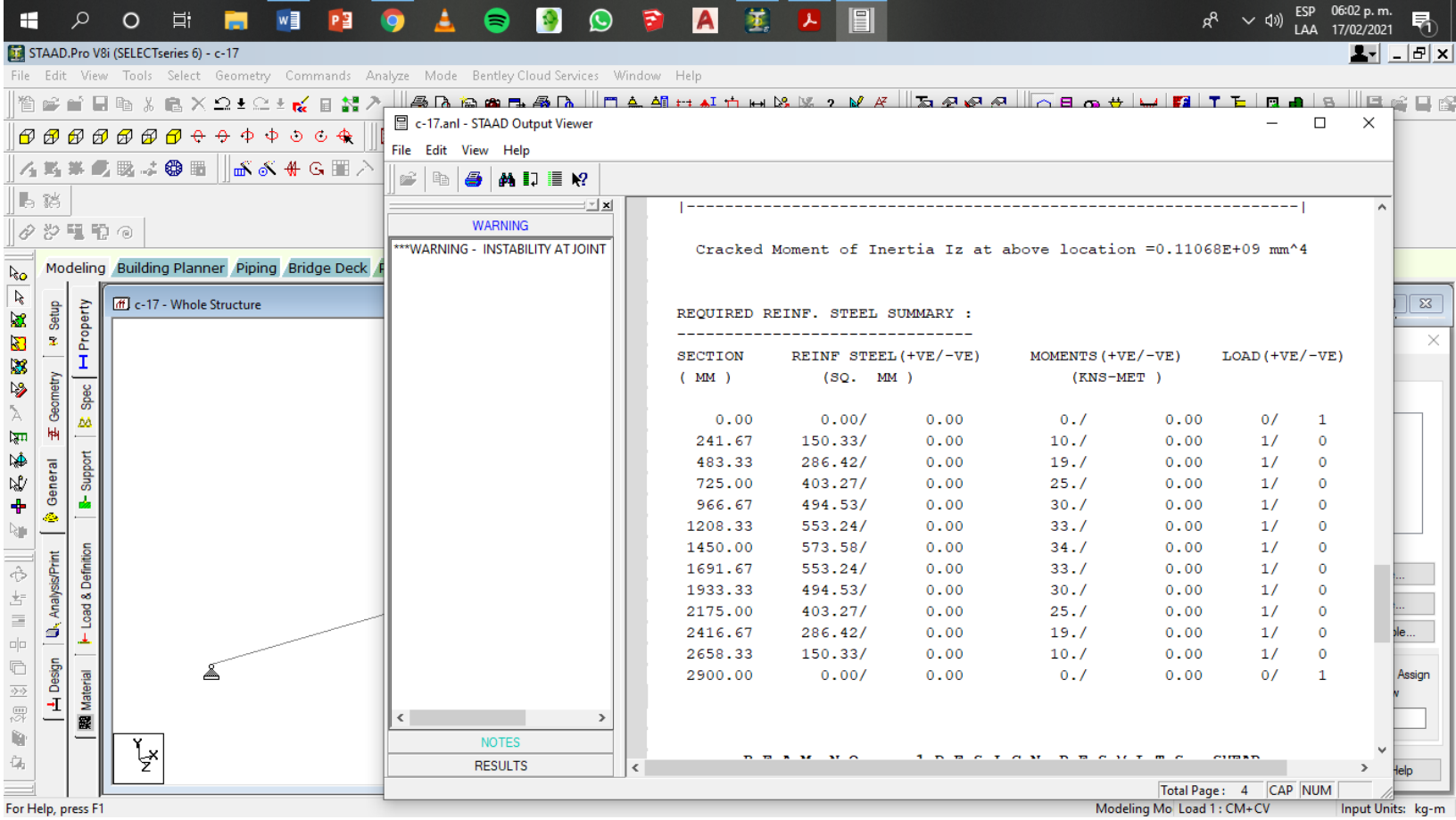
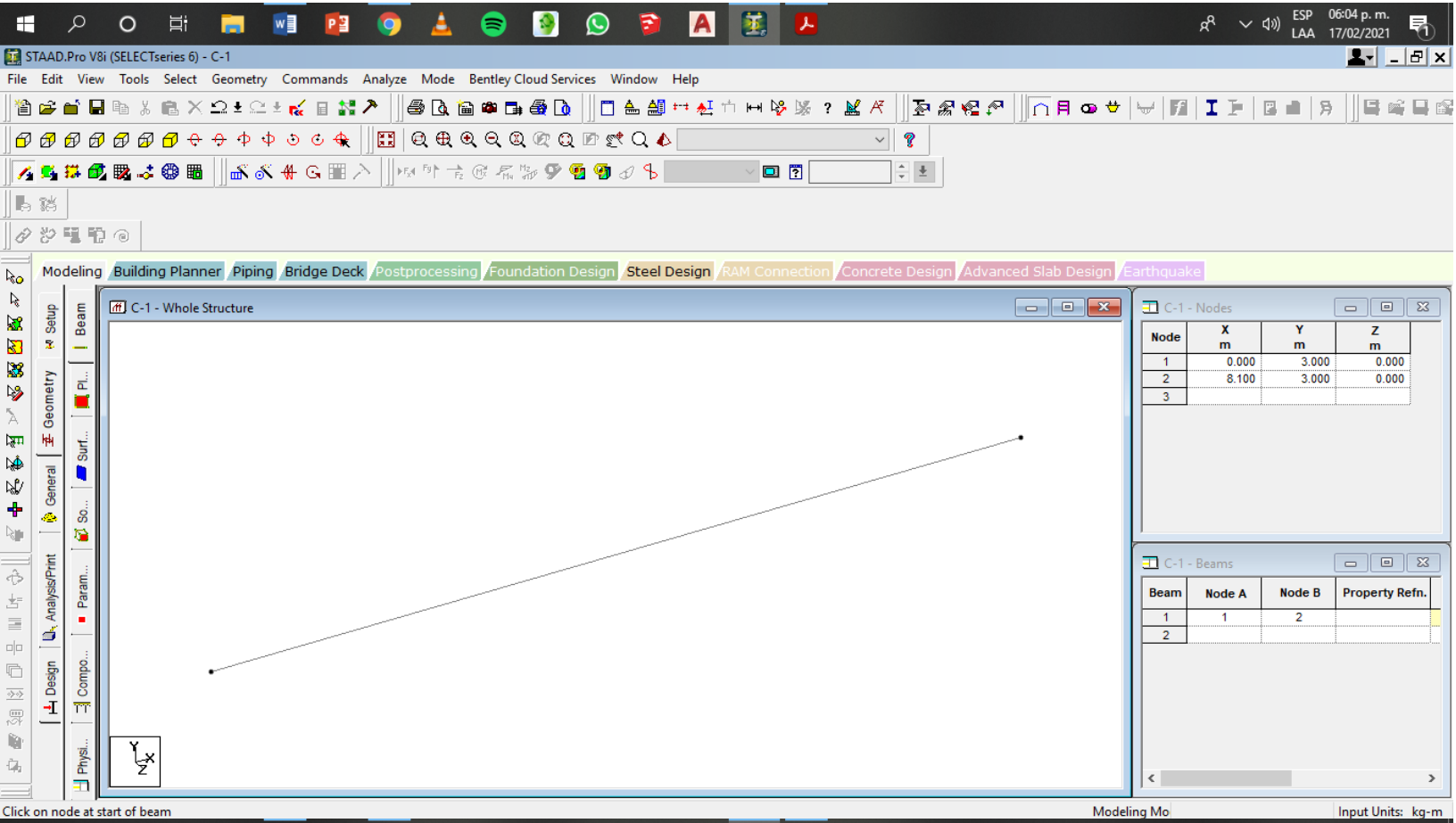
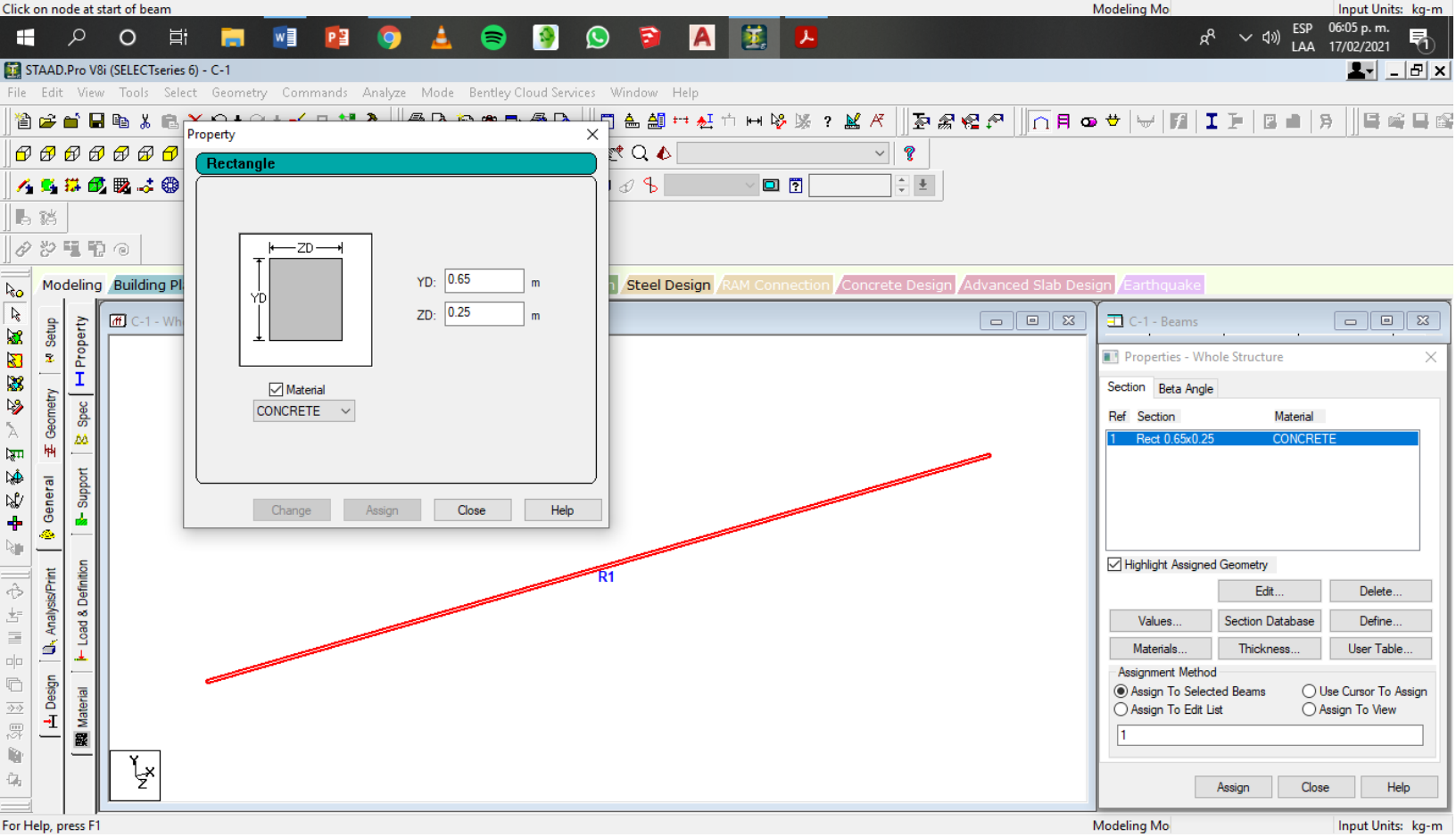
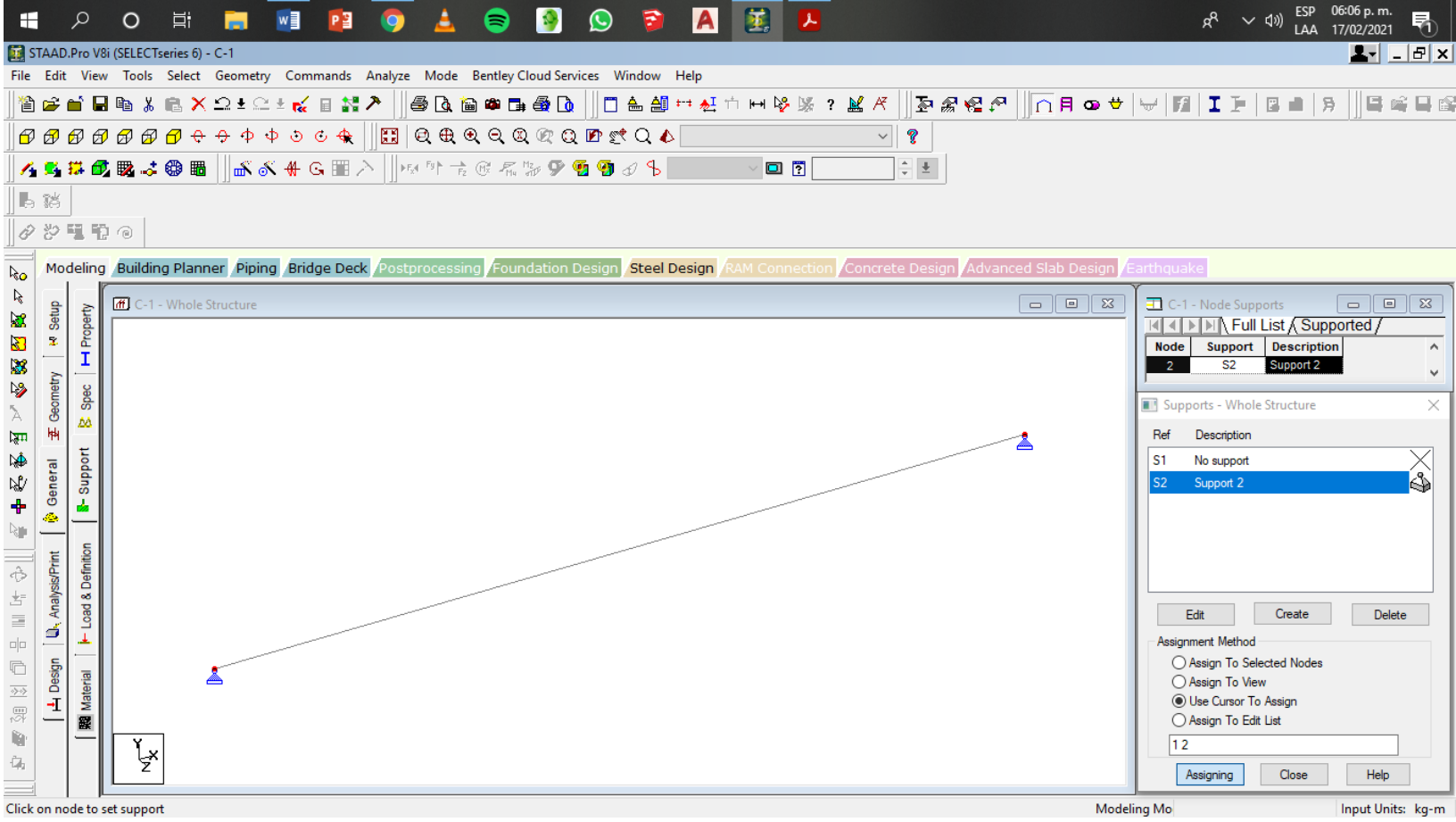
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
c-17 - Whole Structure
Concrete Design - Whole Structure
Current Code: Mexican
LOAD 1 LOADTYPE None TITLE CM+CV
PERFORM ANALYSIS
START CONCRETE DESIGN
CODE MEXICAN
FC 2.00014e+006
TRACK 2
DESIGN BEAM
END CONCRETE DESIGN
FINISH
Highlight Assigned Geometry
Toggle Assign
Select Parameters..
Define Parameters..
Commands...
Assignment Method
Assign To Selected Beams
Assign To View
Use Cursor To Assign
Assign To Edit List
Select Group/Deck
Assign
Close
Help
Load 1
For Help, press F1
Modeling Mo Load 1 : CM+CV
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - c-17
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
c-17.anl - STAAD Output Viewer
File Edit View Help
WARNING
***WARNING - INSTABILITY AT JOINT
NOTES
RESULTS
Cracked Moment of Inertia Iz at above location =0.11068E+09 mm^4
REQUIRED REINF. STEEL SUMMARY :
SECTION (MM) REINF STEEL(+VE/-VE) (SQ. MM) MOMENTS(+VE/-VE) (KNS-MET) LOAD(+VE/-VE)
0.00 0.00/ 0.00 0./ 0.00 0/ 1
241.67 150.33/ 0.00 10./ 0.00 1/ 0
483.33 286.42/ 0.00 19./ 0.00 1/ 0
725.00 403.27/ 0.00 25./ 0.00 1/ 0
966.67 494.53/ 0.00 30./ 0.00 1/ 0
1208.33 553.24/ 0.00 33./ 0.00 1/ 0
1450.00 573.58/ 0.00 34./ 0.00 1/ 0
1691.67 553.24/ 0.00 33./ 0.00 1/ 0
1933.33 494.53/ 0.00 30./ 0.00 1/ 0
2175.00 403.27/ 0.00 25./ 0.00 1/ 0
2416.67 286.42/ 0.00 19./ 0.00 1/ 0
2658.33 150.33/ 0.00 10./ 0.00 1/ 0
2900.00 0.00/ 0.00 0./ 0.00 0/ 1
Total Page : 4
CAP NUM
Modeling Building Planner Piping Bridge Deck
c-17 - Whole Structure
Setup Geometry General Analysis/Print Design
Property Spec Support Load & Definition Material
For Help, press F1
Modeling Mo Load 1 : CM+CV
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-1
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-1 - Whole Structure
C-1 - Nodes
Node X m Y m Z m
1 0.000 3.000 0.000
2 8.100 3.000 0.000
3
C-1 - Beams
Beam Node A Node B Property Refn.
1 1 2
2
Click on node at start of beam
Modeling Mo
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-1
Property
Rectangle
ZD
YD
YD: 0.65 m
ZD: 0.25 m
Material
CONCRETE
Change Assign Close Help
R1
C-1 - Beams
Properties - Whole Structure
Section Beta Angle
Ref Section Material
1 Rect 0.65x0.25 CONCRETE
Highlight Assigned Geometry
Edit... Delete...
Values... Section Database Define...
Materials... Thickness... User Table...
Assignment Method
Assign To Selected Beams Use Cursor To Assign
Assign To Edit List Assign To View
Assign Close Help
For Help, press F1
Modeling Mo
Input Units: kg-m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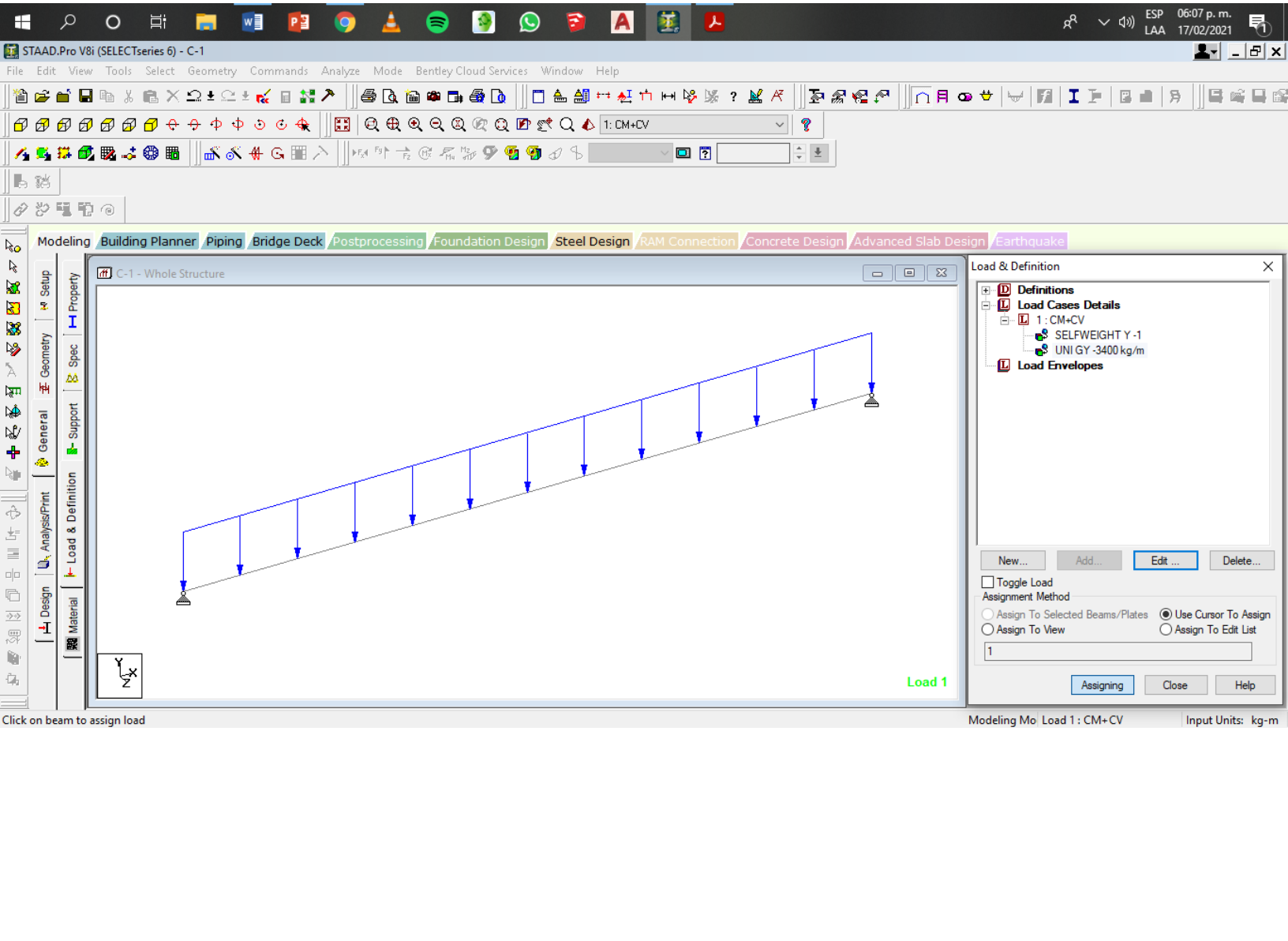
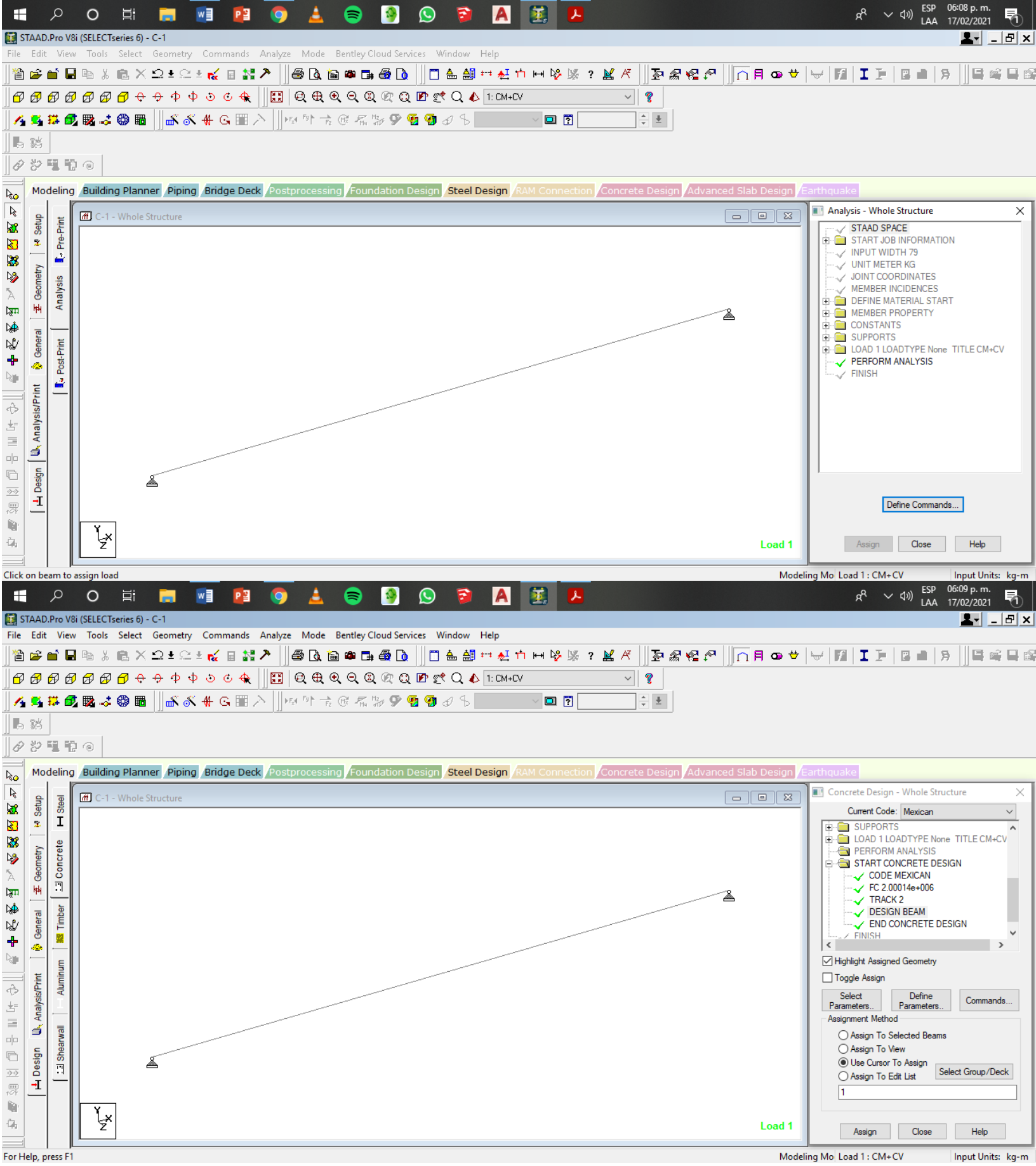
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-1 - Whole Structure
C-1 - Node Supports
Full List Supported
Node Support Description
2 S2 Support 2
Supports - Whole Structure
Ref Description
S1 No support
S2 Support 2
Edit Create Delete
Assignment Method
Assign To Selected Nodes
Assign To View
Use Cursor To Assign
Assign To Edit List
1 2
Assigning Close Help
Click on node to set support
Modeling Mo
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-1
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
1: CM+CV
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-1 - Whole Structure
Load 1
Load & Definition
Definitions
Load Cases Details
1 : CM+CV
SELFWEIGHT Y -1
UNI GY -3400 kg/m
Load Envelopes
New... Add... Edit ... Delete...
Toggle Load
Assignment Method
Assign To Selected Beams/Plates
Use Cursor To Assign
Assign To View
Assign To Edit List
1
Assigning Close Help
Click on beam to assign load
Modeling Mo Load 1 : CM+CV
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-1
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-1 - Whole Structure
Load 1
Analysis - Whole Structure
STAAD SPACE
START JOB INFORMATION
INPUT WIDTH 79
UNIT METER KG
JOINT COORDINATES
MEMBER INCIDENCES
DEFINE MATERIAL START
MEMBER PROPERTY
CONSTANTS
SUPPORTS
LOAD 1 LOADTYPE None TITLE CM+CV
PERFORM ANALYSIS
FINISH
Define Commands...
Assign
Close
Help
Click on beam to assign load
Modeling Mo Load 1 : CM+CV
Input Units: kg-m

STAAD.Pro V8i (SELECTseries 6) - C-1
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-1 - Whole Structure
Load 1
Concrete Design - Whole Structure
Current Code: Mexican
SUPPORTS
LOAD 1 LOADTYPE None TITLE CM+CV
PERFORM ANALYSIS
START CONCRETE DESIGN
CODE MEXICAN
FC 2.00014e+006
TRACK 2
DESIGN BEAM
END CONCRETE DESIGN
FINISH
Highlight Assigned Geometry
Toggle Assign
Select Parameters..
Define Parameters..
Commands...
Assignment Method
Assign To Selected Beams
Assign To View
Use Cursor To Assign
Assign To Edit List
Select Group/Deck
1
Assign
Close
Help
For Help, press F1
Modeling Mo Load 1 : CM+CV
Input Units: kg-m

STAAD.Pro V8i (SELECTseries 6) - C-1

File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help

Modeling Building Planner Piping Bridge Deck

C-1 - Whole Structure

Setup Geometry General Analysis/Print Design Steel Concrete Timber Aluminum Shearwall

C-1.anl - STAAD Output Viewer

File Edit View Help

WARNING

***WARNING - INSTABILITY AT JOINT

NOTES

RESULTS

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|-------------------------------------------------------------------|

  Cracked Moment of Inertia Iz at above location =0.31257E+10 mm^4


REQUIRED REINF. STEEL SUMMARY :
--------------------------------
SECTION      REINF STEEL(+VE/-VE)      MOMENTS(+VE/-VE)     LOAD(+VE/-VE)
( MM )          (SQ.  MM )                (KNS-MET )

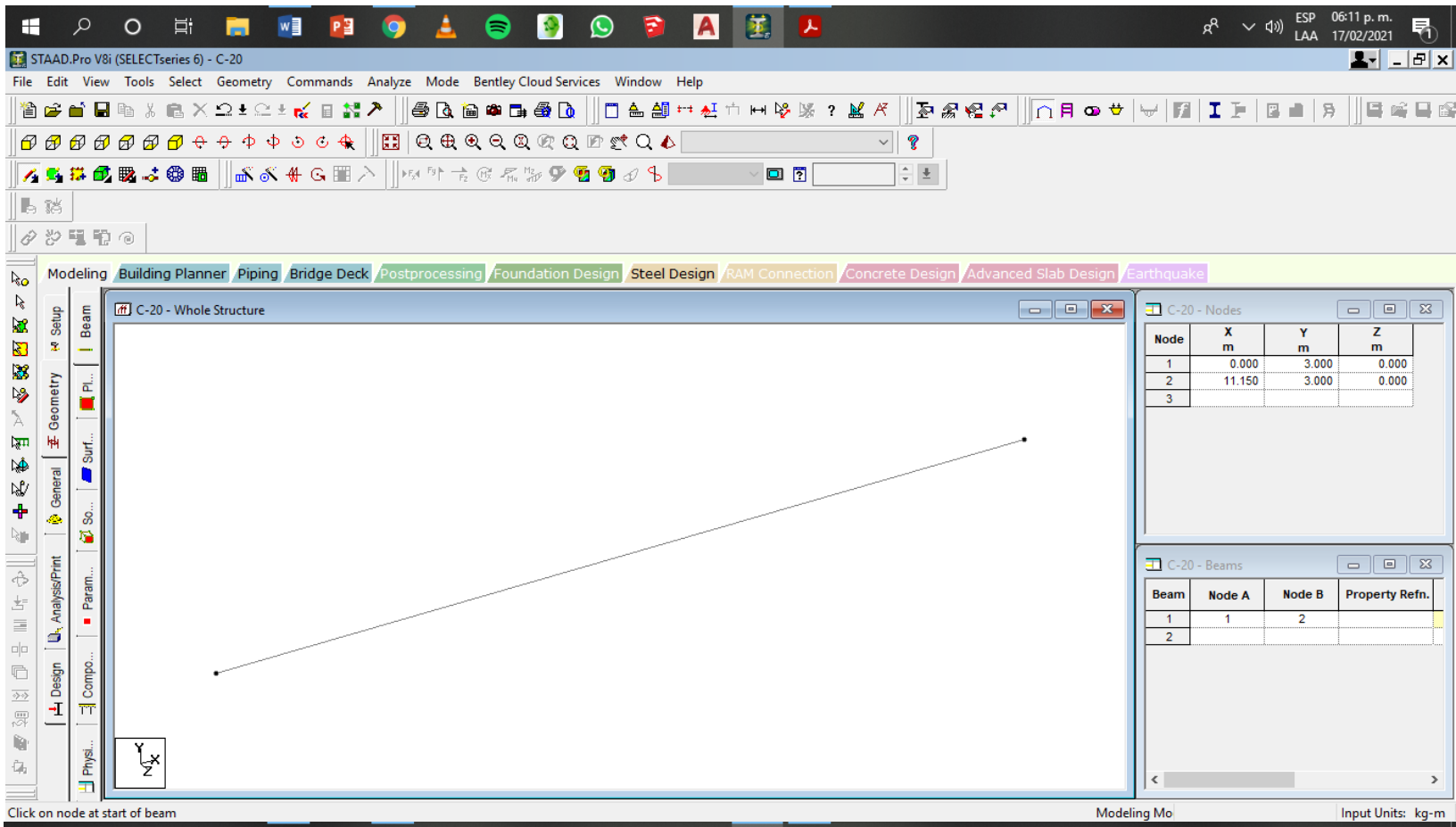
    0.00       0.00/      0.00          0./        0.00       0/    1
  675.00     455.32/      0.00         93./        0.00       1/    0
 1350.00     867.92/      0.00        169./        0.00       1/    0
 2025.00    1222.56/      0.00        229./        0.00       1/    0
 2700.00    1499.88/      0.00        271./        0.00       1/    0
 3375.00    1678.48/      0.00        296./        0.00       1/    0
 4050.00    1740.41/      0.00        305./        0.00       1/    0
 4725.00    1678.48/      0.00        296./        0.00       1/    0
 5400.00    1499.88/      0.00        271./        0.00       1/    0
 6075.00    1222.56/      0.00        229./        0.00       1/    0
 6750.00     867.92/      0.00        169./        0.00       1/    0
 7425.00     455.31/      0.00         93./        0.00       1/    0
 8100.00       0.00/      0.00          0./        0.00       0/    1
```

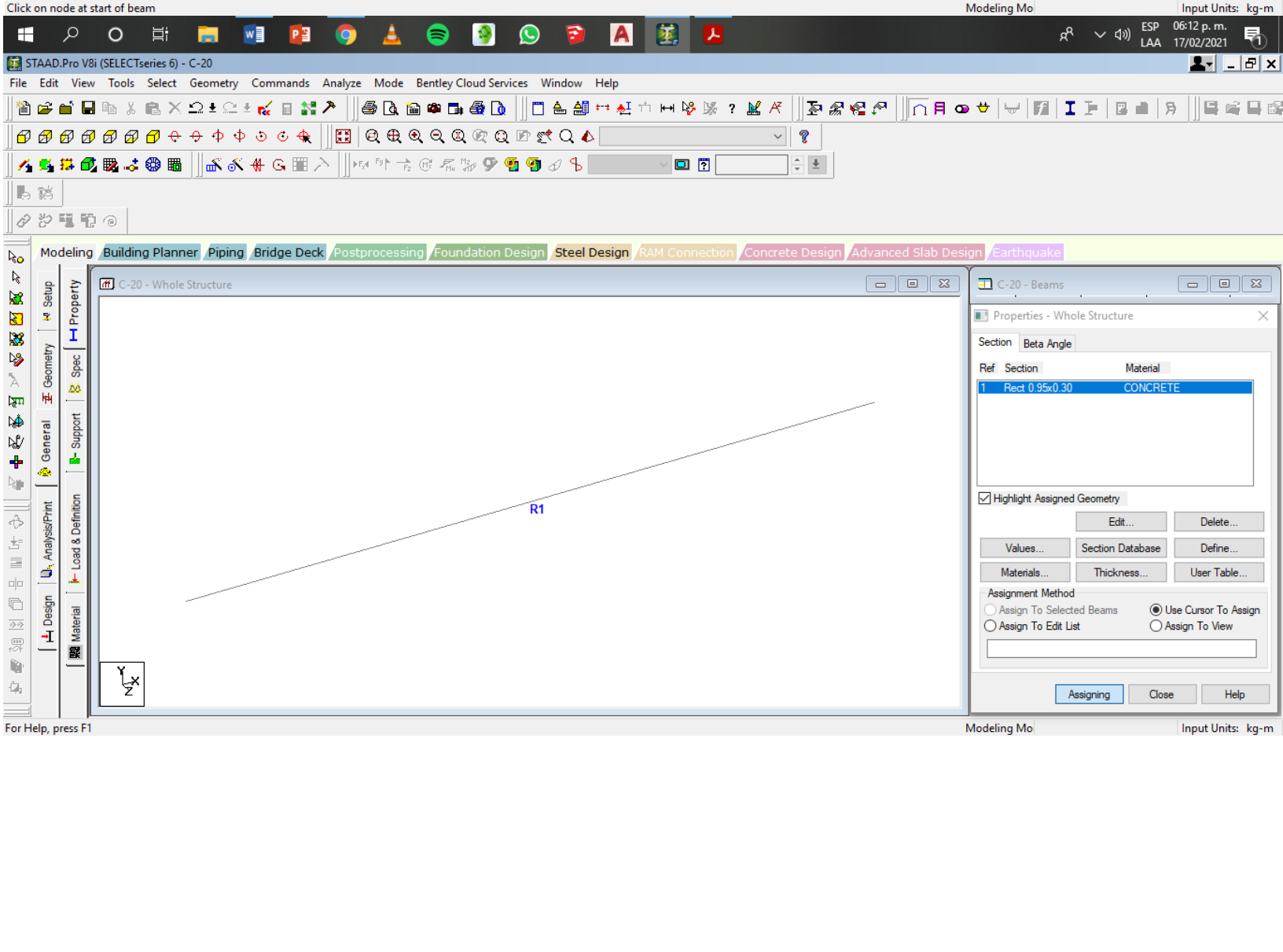
Total Page : 4 CAP NUM

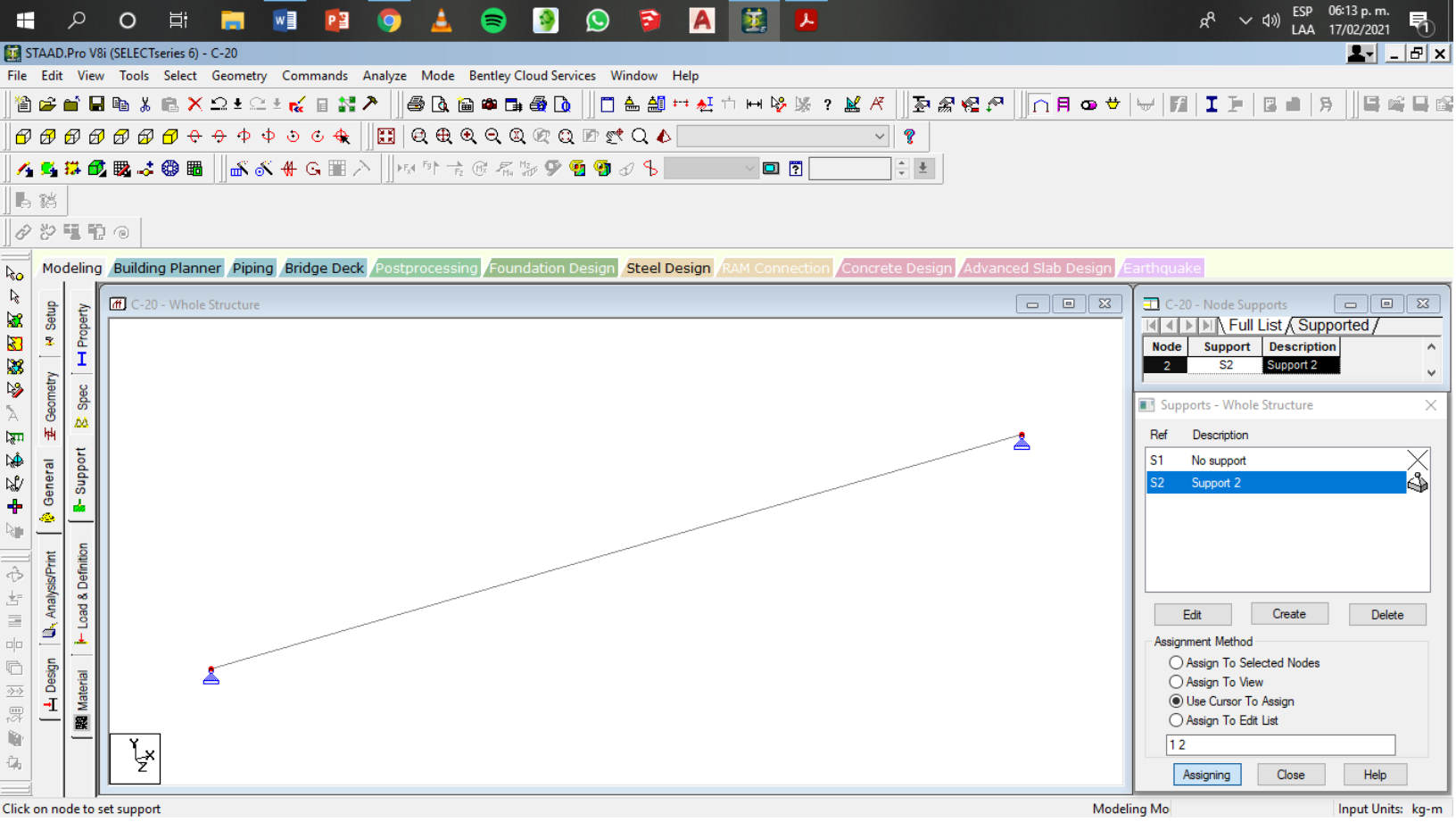
For Help, press F1

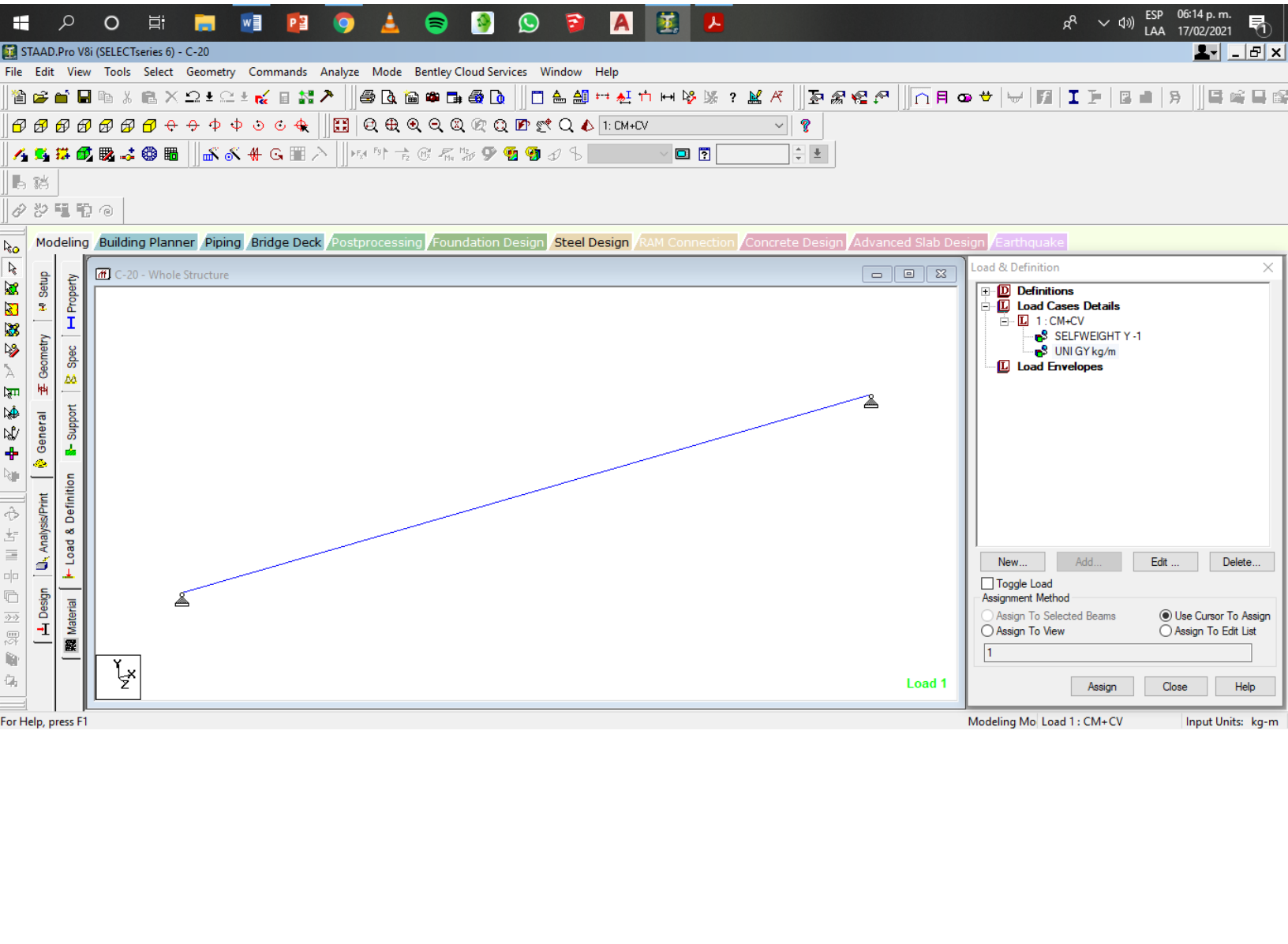
Modeling Mo Load 1 : CM+CV

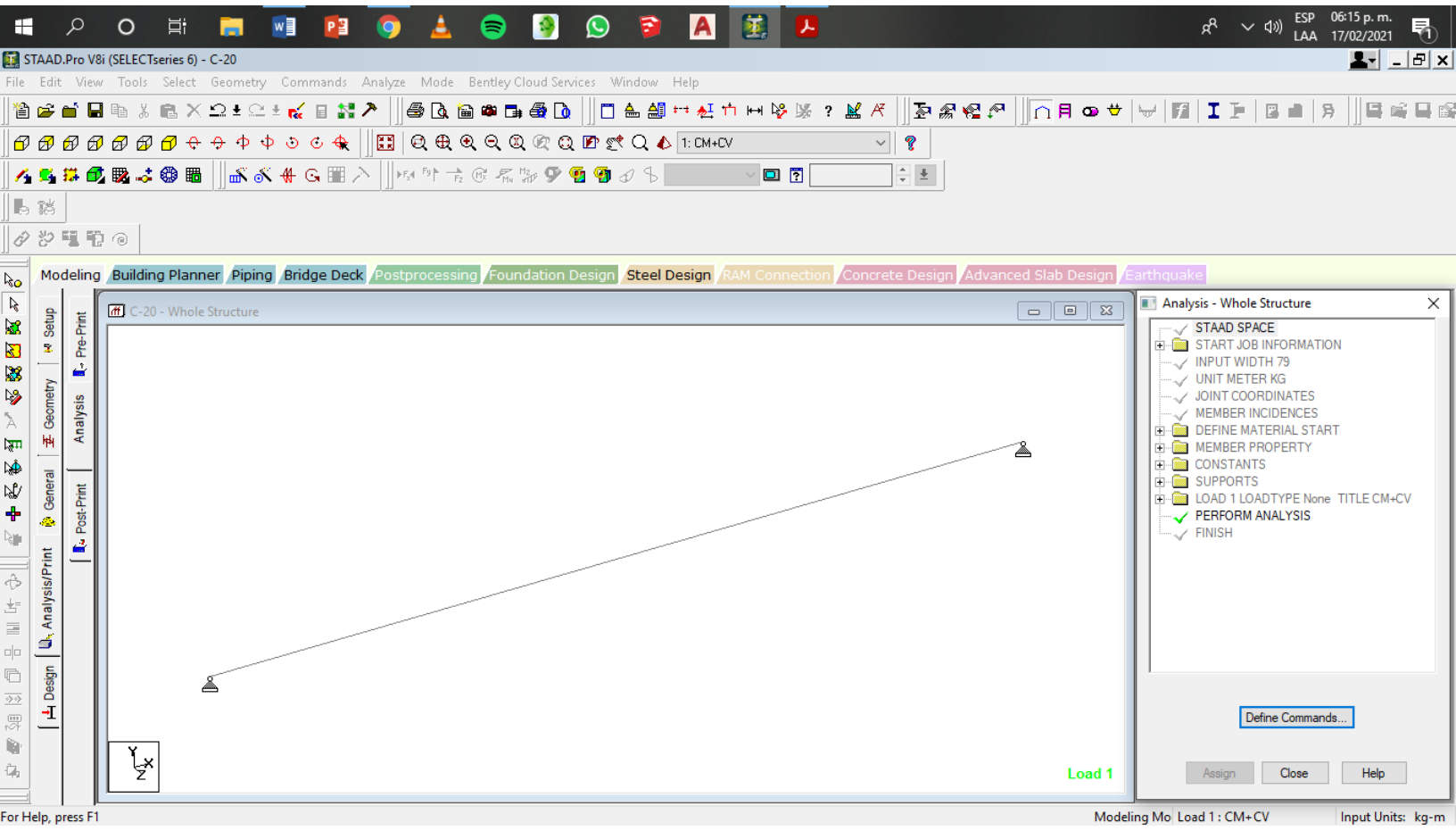
Input Units: kg-

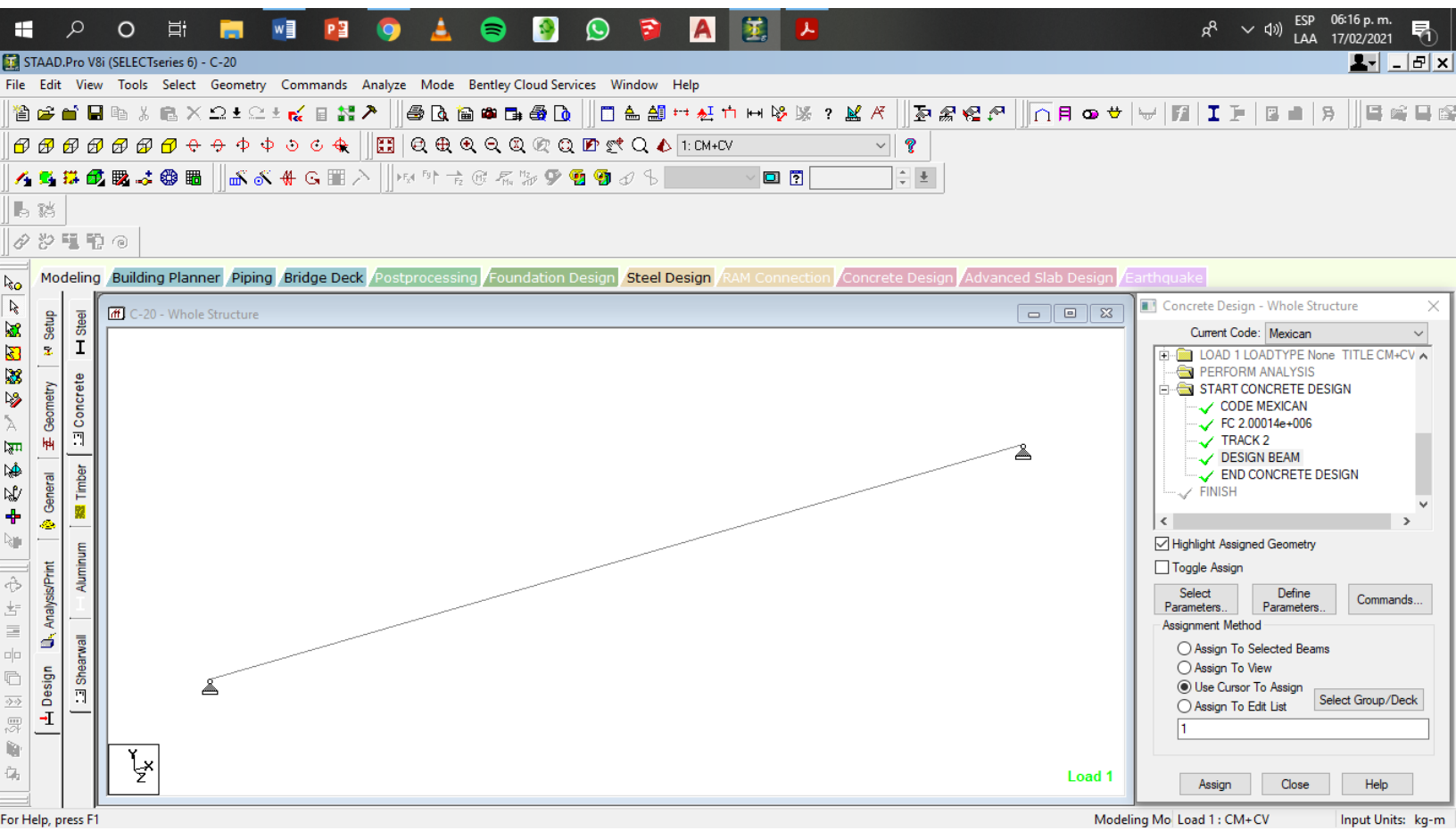

STAAD.Pro V8i (SELECTseries 6) - C-20
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-20 - Whole Structure
C-20 - Nodes
Node X m Y m Z m
1 0.000 3.000 0.000
2 11.150 3.000 0.000
3
C-20 - Beams
Beam Node A Node B Property Refn.
1 1 2
2
Click on node at start of beam
Modeling Mo
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-20
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-20 - Whole Structure
R1
C-20 - Beams
Properties - Whole Structure
Section Beta Angle
Ref Section Material
1 Rect 0.95x0.30 CONCRETE
Highlight Assigned Geometry
Edit... Delete...
Values... Section Database Define...
Materials... Thickness... User Table...
Assignment Method
Assign To Selected Beams
Use Cursor To Assign
Assign To Edit List
Assign To View
Assigning Close Help
For Help, press F1
Modeling Mo
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-20
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-20 - Whole Structure
C-20 - Node Supports
Full List Supported
Node Support Description
2 S2 Support 2
Supports - Whole Structure
Ref Description
S1 No support
S2 Support 2
Edit Create Delete
Assignment Method
Assign To Selected Nodes
Assign To View
Use Cursor To Assign
Assign To Edit List
1 2
Assigning Close Help
Click on node to set support
Modeling Mo
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-20
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
1: CM+CV
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-20 - Whole Structure
Load 1
Load & Definition
Definitions
Load Cases Details
1 : CM+CV
SELFWEIGHT Y -1
UNI GY kg/m
Load Envelopes
New... Add... Edit ... Delete...
Toggle Load
Assignment Method
Assign To Selected Beams
Use Cursor To Assign
Assign To View
Assign To Edit List
1
Assign Close Help
For Help, press F1
Modeling Mo Load 1 : CM+CV
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-20
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-20 - Whole Structure
Load 1
Analysis - Whole Structure
STAAD SPACE
START JOB INFORMATION
INPUT WIDTH 79
UNIT METER KG
JOINT COORDINATES
MEMBER INCIDENCES
DEFINE MATERIAL START
MEMBER PROPERTY
CONSTANTS
SUPPORTS
LOAD 1 LOADTYPE None TITLE CM+CV
PERFORM ANALYSIS
FINISH
Define Commands...
Assign
Close
Help
For Help, press F1
Modeling Mo
Load 1 : CM+CV
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-20
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-20 - Whole Structure
Load 1
Concrete Design - Whole Structure
Current Code: Mexican
LOAD 1 LOADTYPE None TITLE CM+CV
PERFORM ANALYSIS
START CONCRETE DESIGN
CODE MEXICAN
FC 2.00014e+006
TRACK 2
DESIGN BEAM
END CONCRETE DESIGN
FINISH
Highlight Assigned Geometry
Toggle Assign
Select Parameters..
Define Parameters..
Commands...
Assignment Method
Assign To Selected Beams
Assign To View
Use Cursor To Assign
Assign To Edit List
Select Group/Deck
1
Assign
Close
Help
For Help, press F1
Modeling Mo
Load 1 : CM+CV
Input Units: kg-m

STAAD.Pro V8i (SELECTseries 6) - C-20

File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help

Modeling Building Planner Piping Bridge Deck

Setup Geometry General Analysis/Print Design Steel Concrete Timber Aluminum Shearwall

C-20 - Whole Structure

C-20.anl - STAAD Output Viewer

File Edit View Help

WARNING

**WARNING-Loading values are blank
***WARNING - INSTABILITY AT JOINT

NOTES

RESULTS

Cracked Moment of Inertia Iz at above location =0.27125E+10 mm^4

REQUIRED REINF. STEEL SUMMARY :

SECTION (MM)	REINF STEEL(+VE/-VE) (SQ. MM)	MOMENTS(+VE/-VE) (KNS-MET)	LOAD(+VE/-VE)
0.00	0.00/ 0.00	0./ 0.00	0/ 1
929.17	229.67/ 0.00	32./ 0.00	1/ 0
1858.33	235.33/ 0.00	58./ 0.00	1/ 0
2787.50	318.86/ 0.00	78./ 0.00	1/ 0
3716.67	378.90/ 0.00	93./ 0.00	1/ 0
4645.83	415.09/ 0.00	101./ 0.00	1/ 0
5575.00	427.18/ 0.00	104./ 0.00	1/ 0
6504.17	427.18/ 0.00	101./ 0.00	1/ 0
7433.33	427.18/ 0.00	93./ 0.00	1/ 0
8362.50	427.18/ 0.00	78./ 0.00	1/ 0
9291.67	427.18/ 0.00	58./ 0.00	1/ 0
10220.83	427.18/ 0.00	32./ 0.00	1/ 0
11150.00	0.00/ 0.00	0./ 0.00	0/ 1

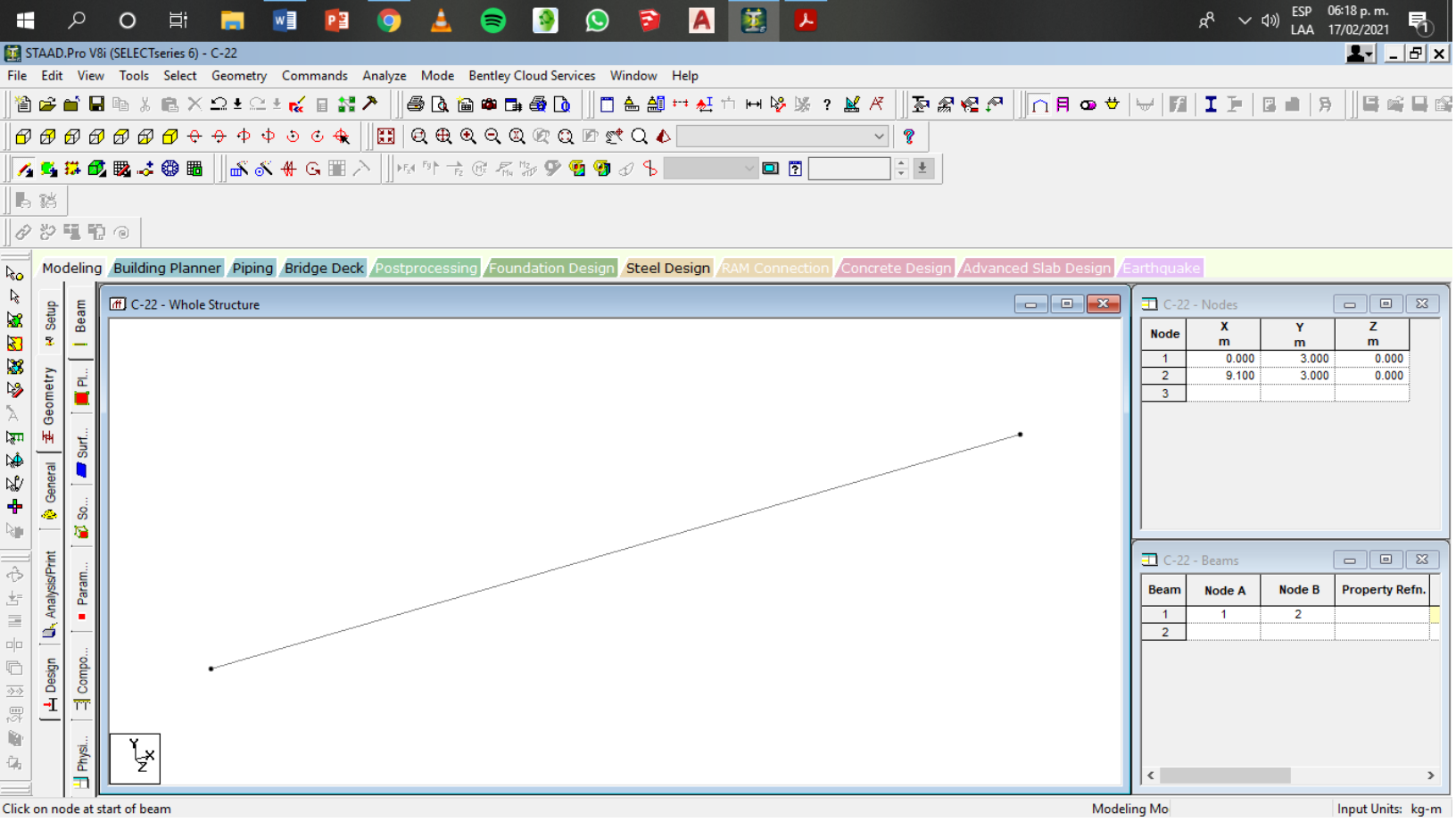
B E A M N O. 1 D E S I G N R E S U L T S - SHEAR

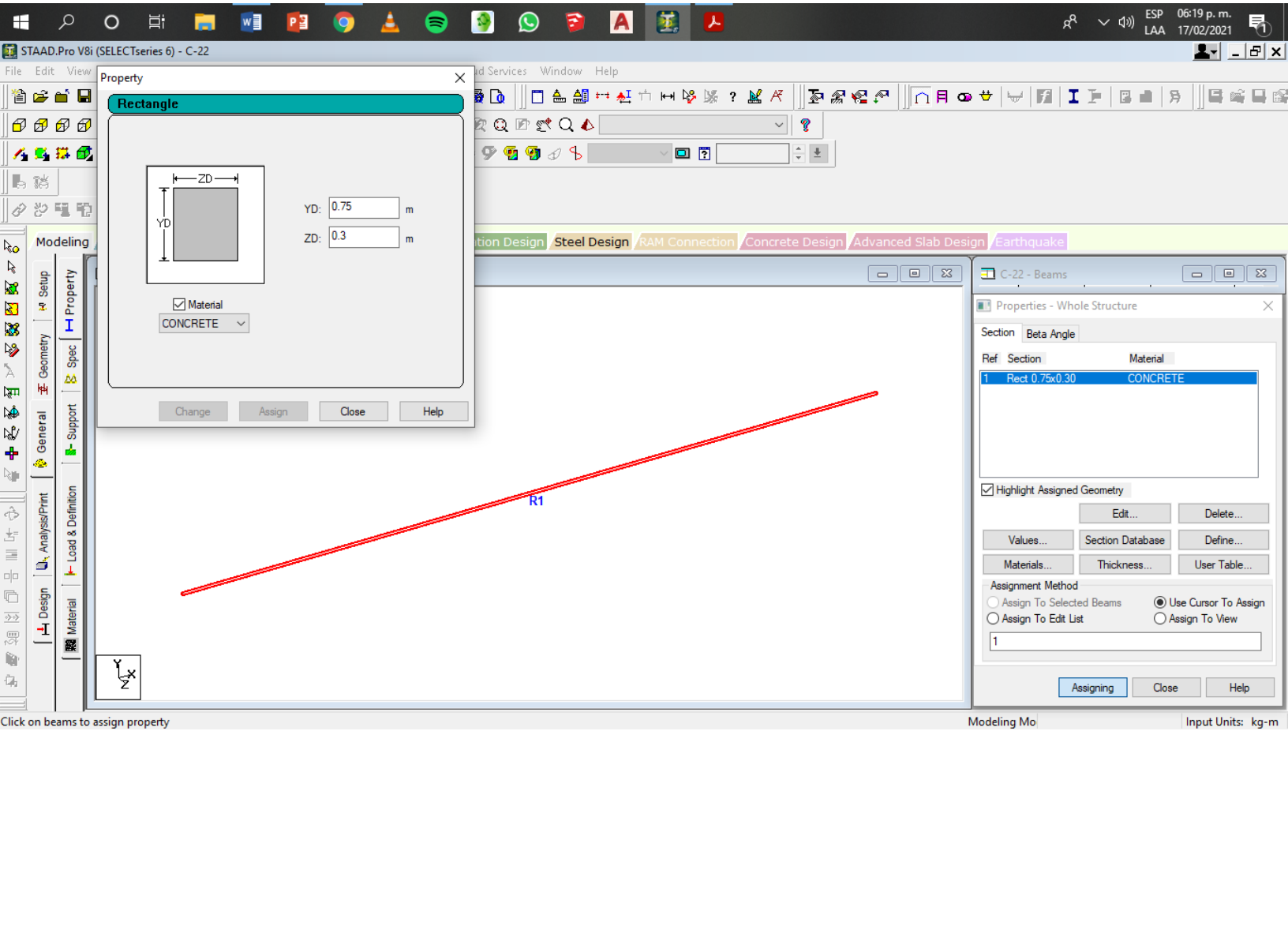
Total Page: 4 CAP NUM

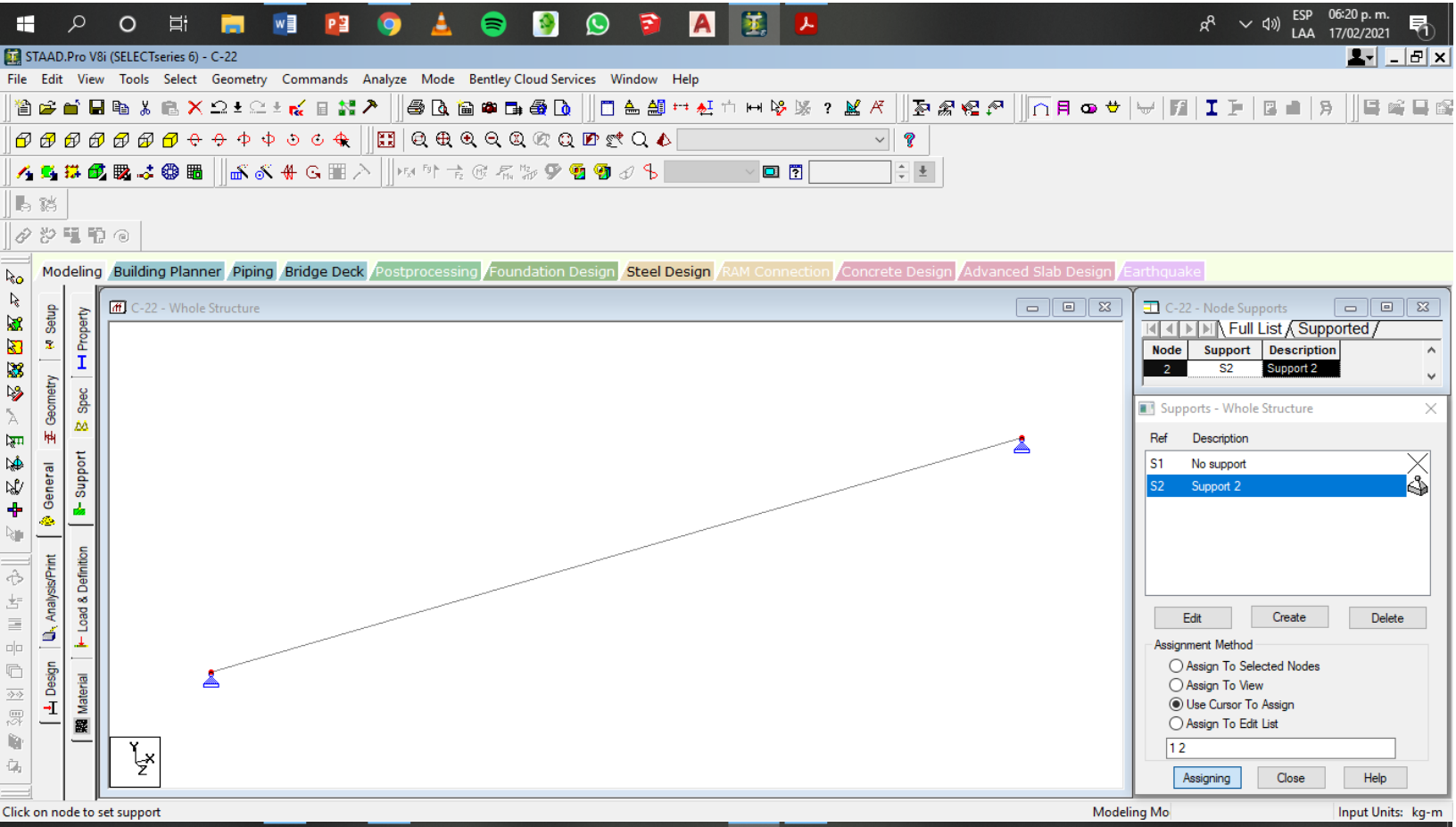
For Help, press F1

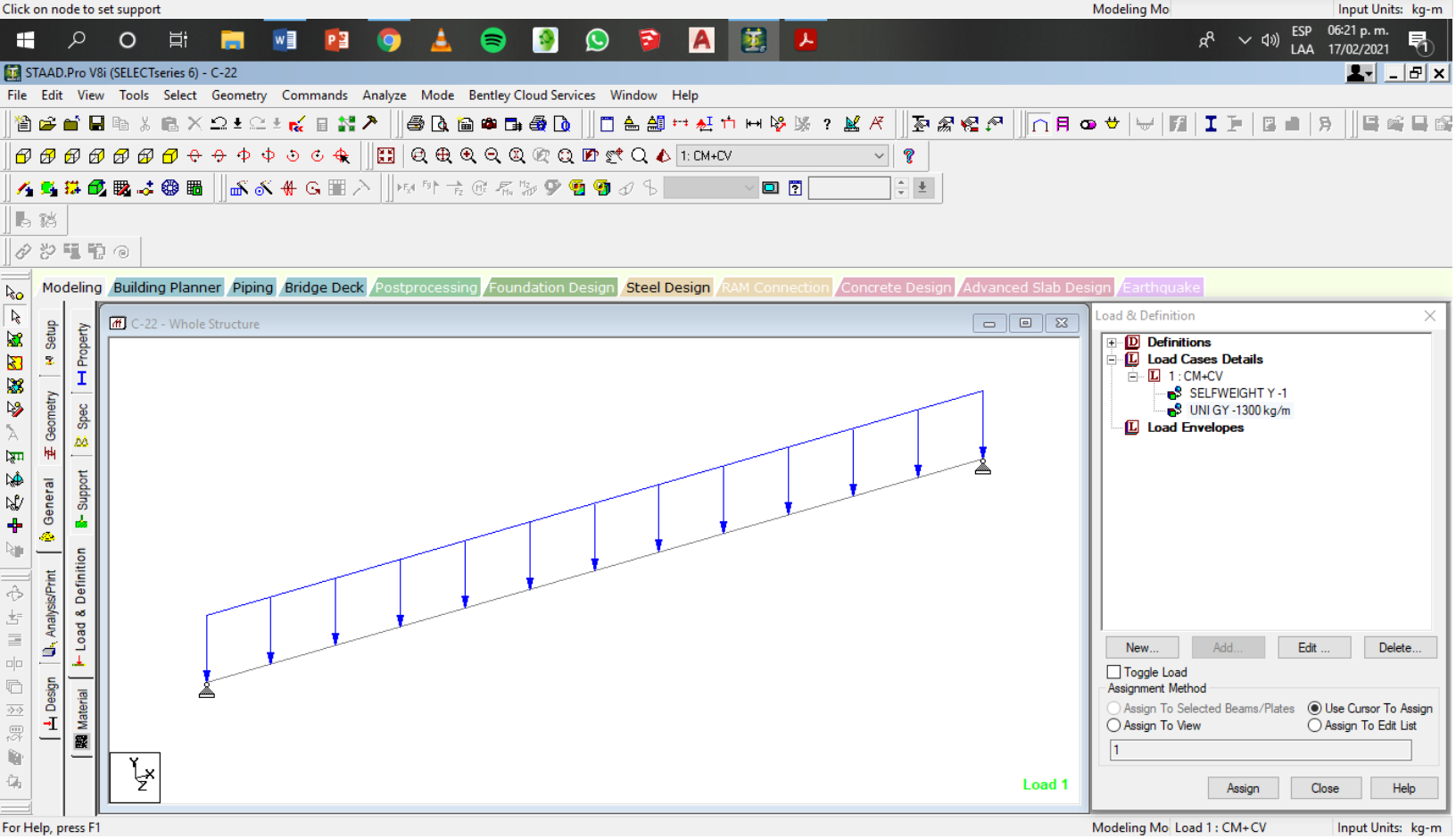
Modeling Mo Load 1 : CM+CV

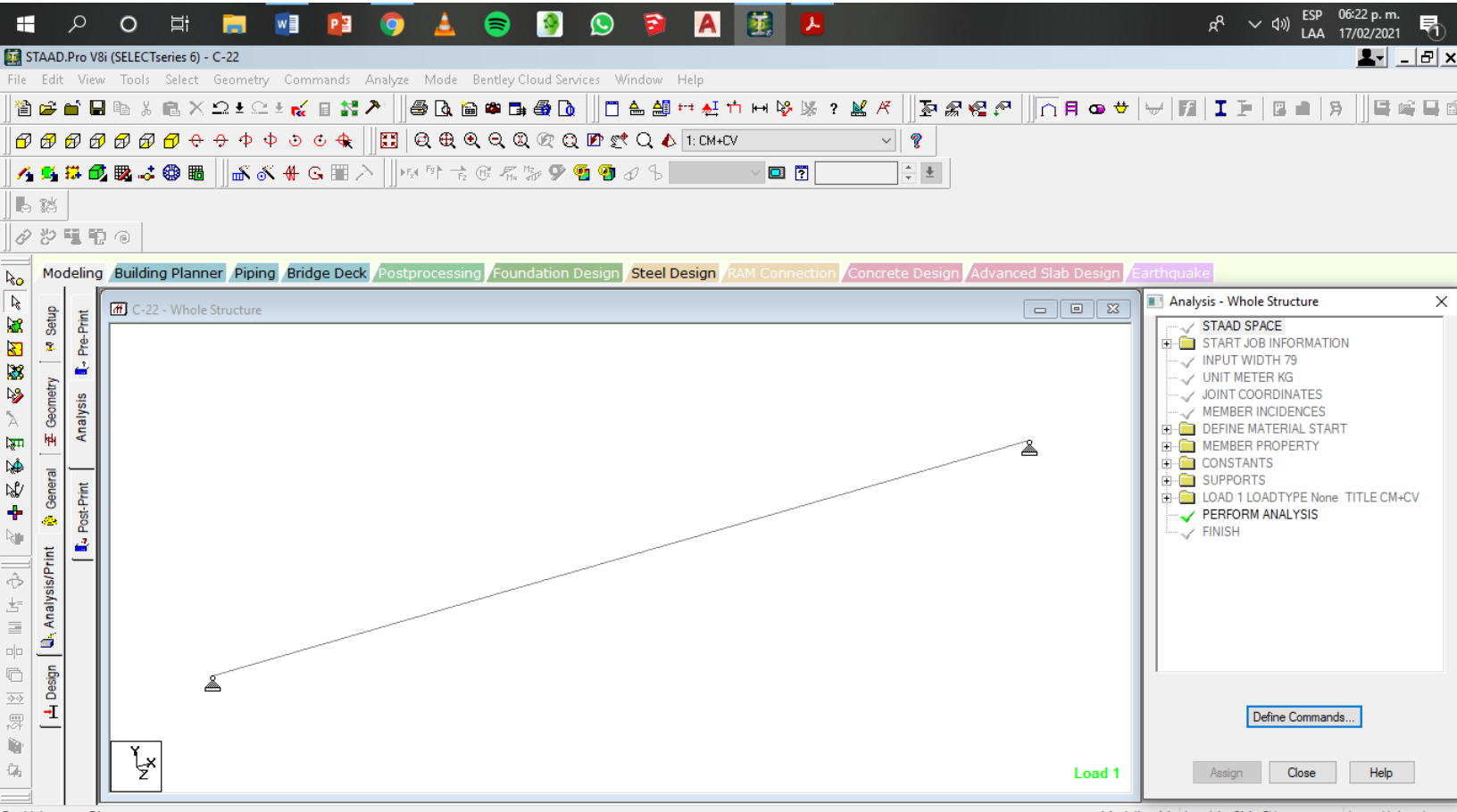
Input Units: kg-m

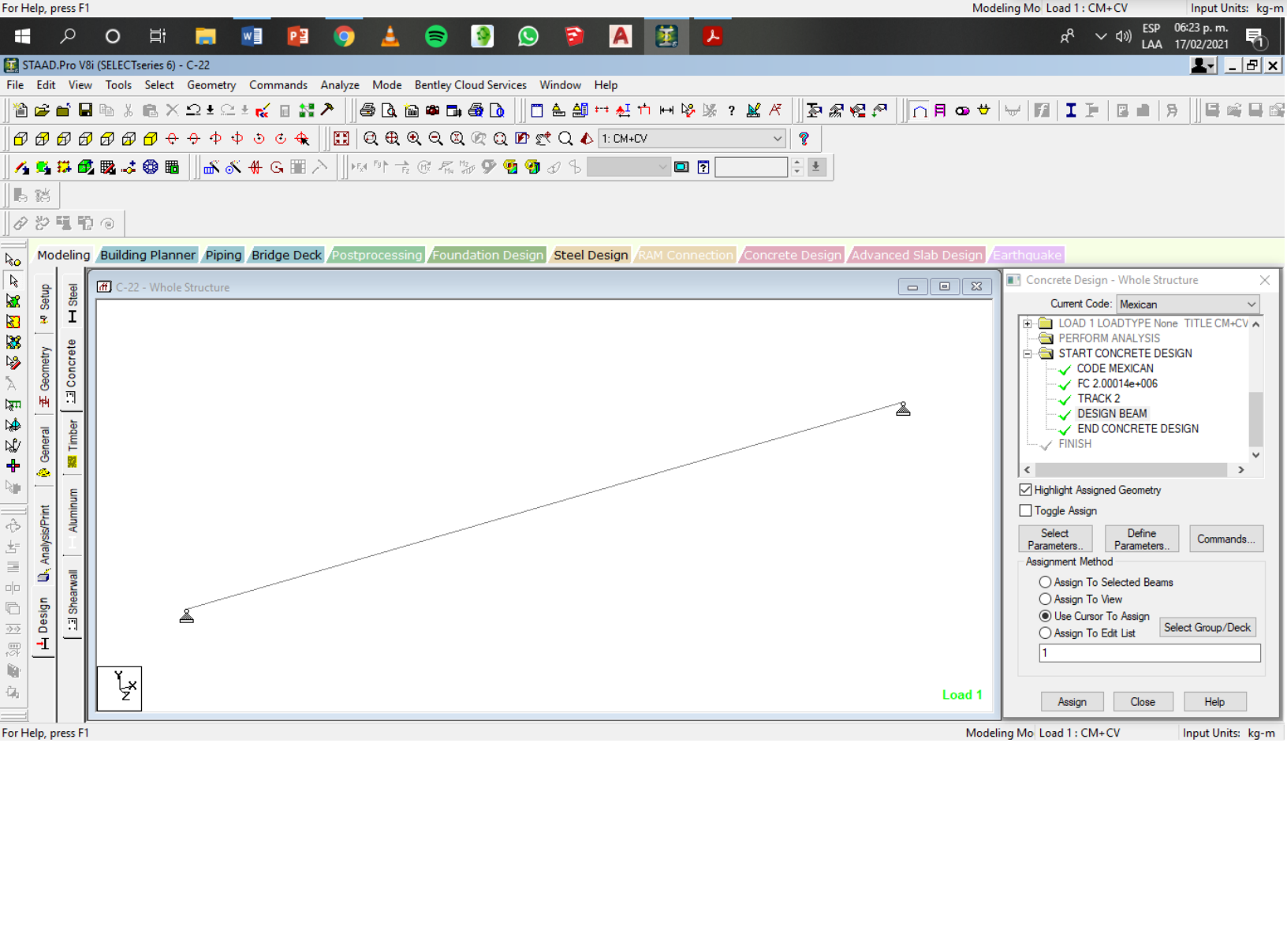

STAAD.Pro V8i (SELECTseries 6) - C-22
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-22 - Whole Structure
C-22 - Nodes
Node X m Y m Z m
1 0.000 3.000 0.000
2 9.100 3.000 0.000
3
C-22 - Beams
Beam Node A Node B Property Refn.
1 1 2
2
Click on node at start of beam
Modeling Mo
Input Units: kg-m

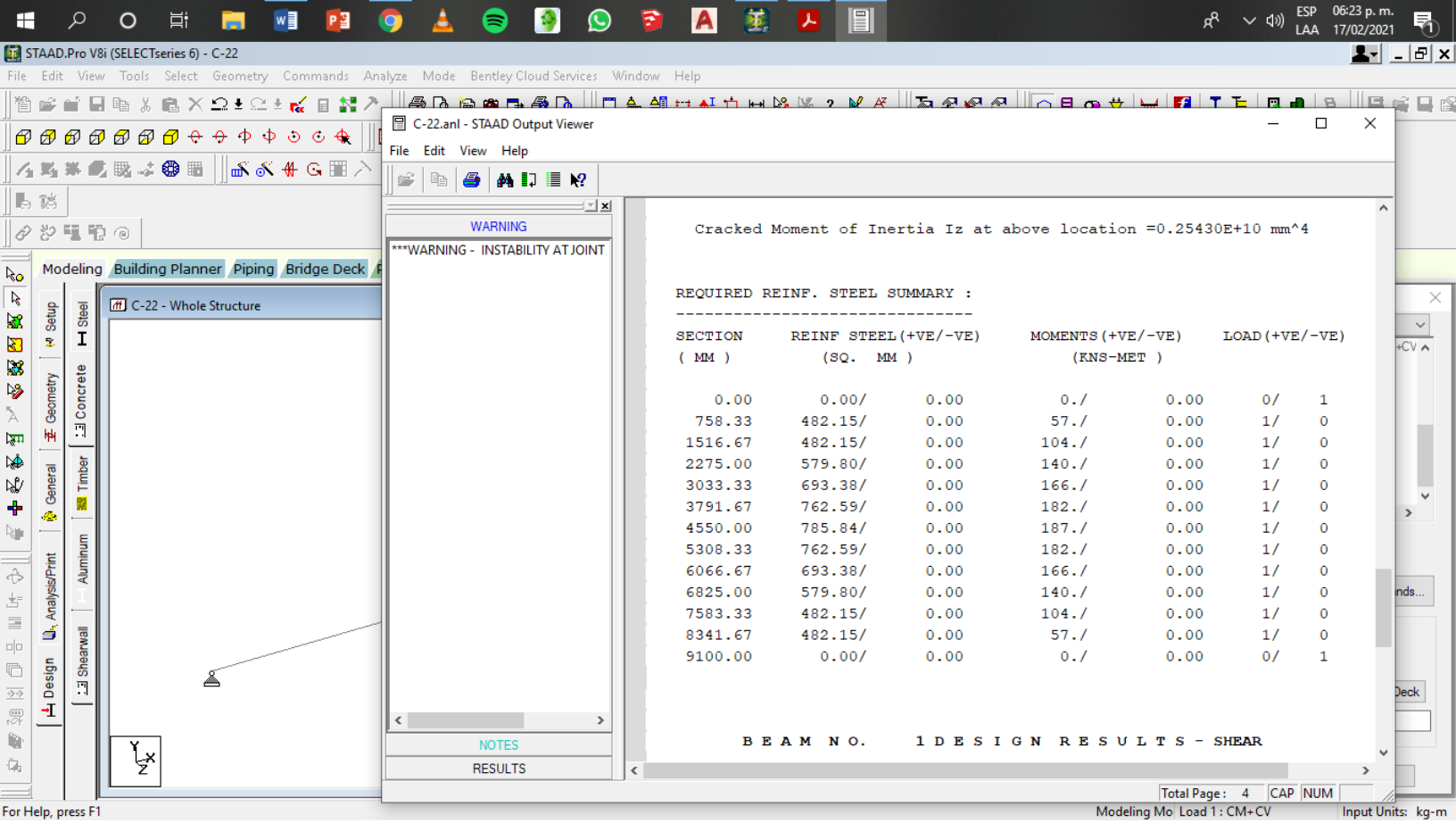

STAAD.Pro V8i (SELECTseries 6) - C-22
Property
Rectangle
ZD
YD
YD: 0.75 m
ZD: 0.3 m
Material
CONCRETE
Change Assign Close Help
Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-22 - Beams
Properties - Whole Structure
Section Beta Angle
Ref Section Material
1 Rect 0.75x0.30 CONCRETE
Highlight Assigned Geometry
Edit... Delete...
Values... Section Database Define...
Materials... Thickness... User Table...
Assignment Method
Assign To Selected Beams
Use Cursor To Assign
Assign To Edit List
Assign To View
Assigning Close Help
R1
Click on beams to assign property
Modeling Mo
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-22
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-22 - Whole Structure
C-22 - Node Supports
Full List Supported
Node Support Description
2 S2 Support 2
Supports - Whole Structure
Ref Description
S1 No support
S2 Support 2
Edit Create Delete
Assignment Method
Assign To Selected Nodes
Assign To View
Use Cursor To Assign
Assign To Edit List
1 2
Assigning Close Help
Click on node to set support
Modeling Mo
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-22
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
1: CM+CV
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-22 - Whole Structure
Load 1
Load & Definition
Definitions
Load Cases Details
1 : CM+CV
SELFWEIGHT Y -1
UNI GY -1300 kg/m
Load Envelopes
New... Add... Edit ... Delete...
Toggle Load
Assignment Method
Assign To Selected Beams/Plates
Use Cursor To Assign
Assign To View
Assign To Edit List
1
Assign Close Help
For Help, press F1
Modeling Mo
Load 1 : CM+CV
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-22
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-22 - Whole Structure
Load 1
Analysis - Whole Structure
STAAD SPACE
START JOB INFORMATION
INPUT WIDTH 79
UNIT METER KG
JOINT COORDINATES
MEMBER INCIDENCES
DEFINE MATERIAL START
MEMBER PROPERTY
CONSTANTS
SUPPORTS
LOAD 1 LOADTYPE None TITLE CM+CV
PERFORM ANALYSIS
FINISH
Define Commands...
Assign
Close
Help
For Help, press F1
Modeling Mo
Load 1 : CM+CV
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-22
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
Modeling Building Planner Piping Bridge Deck Postprocessing Foundation Design Steel Design RAM Connection Concrete Design Advanced Slab Design Earthquake
C-22 - Whole Structure
Load 1
Concrete Design - Whole Structure
Current Code: Mexican
LOAD 1 LOADTYPE None TITLE CM+CV
PERFORM ANALYSIS
START CONCRETE DESIGN
CODE MEXICAN
FC 2.00014e+006
TRACK 2
DESIGN BEAM
END CONCRETE DESIGN
FINISH
Highlight Assigned Geometry
Toggle Assign
Select Parameters..
Define Parameters..
Commands...
Assignment Method
Assign To Selected Beams
Assign To View
Use Cursor To Assign
Assign To Edit List
Select Group/Deck
Assign
Close
Help
For Help, press F1
Modeling Mo
Load 1 : CM+CV
Input Units: kg-m


STAAD.Pro V8i (SELECTseries 6) - C-22
File Edit View Tools Select Geometry Commands Analyze Mode Bentley Cloud Services Window Help
C-22.anl - STAAD Output Viewer
File Edit View Help
WARNING
***WARNING - INSTABILITY AT JOINT
NOTES
RESULTS
Cracked Moment of Inertia Iz at above location =0.25430E+10 mm^4
REQUIRED REINF. STEEL SUMMARY :
SECTION (MM) REINF STEEL(+VE/-VE) (SQ. MM) MOMENTS(+VE/-VE) (KNS-MET) LOAD(+VE/-VE)
0.00 0.00/ 0.00 0./ 0.00 0/ 1
758.33 482.15/ 0.00 57./ 0.00 1/ 0
1516.67 482.15/ 0.00 104./ 0.00 1/ 0
2275.00 579.80/ 0.00 140./ 0.00 1/ 0
3033.33 693.38/ 0.00 166./ 0.00 1/ 0
3791.67 762.59/ 0.00 182./ 0.00 1/ 0
4550.00 785.84/ 0.00 187./ 0.00 1/ 0
5308.33 762.59/ 0.00 182./ 0.00 1/ 0
6066.67 693.38/ 0.00 166./ 0.00 1/ 0
6825.00 579.80/ 0.00 140./ 0.00 1/ 0
7583.33 482.15/ 0.00 104./ 0.00 1/ 0
8341.67 482.15/ 0.00 57./ 0.00 1/ 0
9100.00 0.00/ 0.00 0./ 0.00 0/ 1
B E A M N O. 1 D E S I G N R E S U L T S - SHEAR
Total Page: 4
CAP
NUM
Modeling Building Planner Piping Bridge Deck
C-22 - Whole Structure
Setup Geometry General Analysis/Print Design
Steel Concrete Timber Aluminum Shearwall
For Help, press F1
Modeling Mo Load 1 : CM+CV
Input Units: kg-m