

Dynamo for Civil Infrastructure

Valentin Belets

Digital Engineer

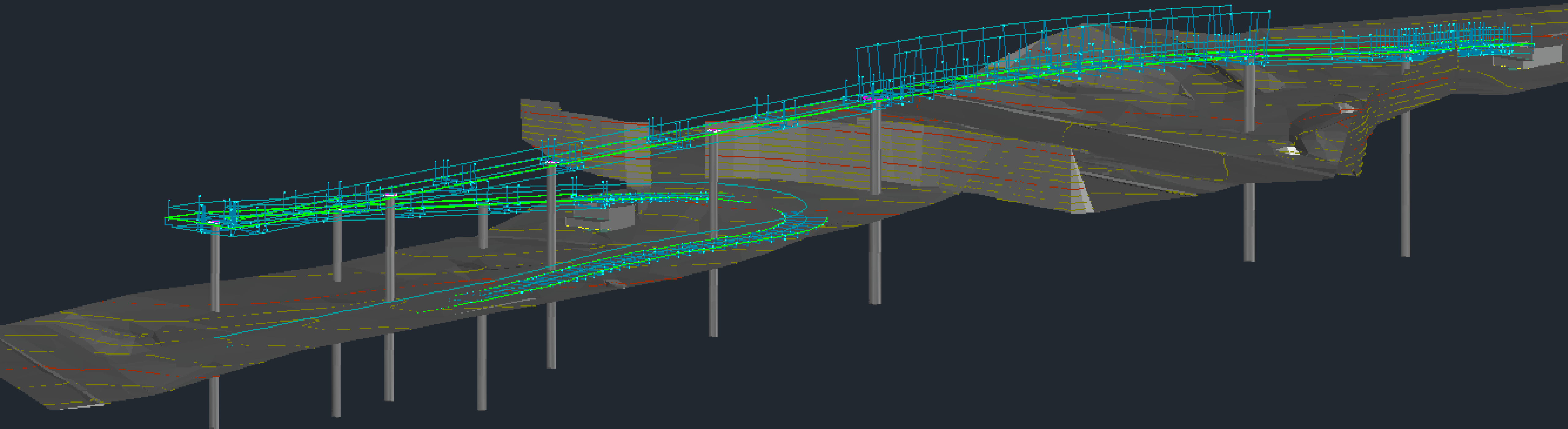
AECOM

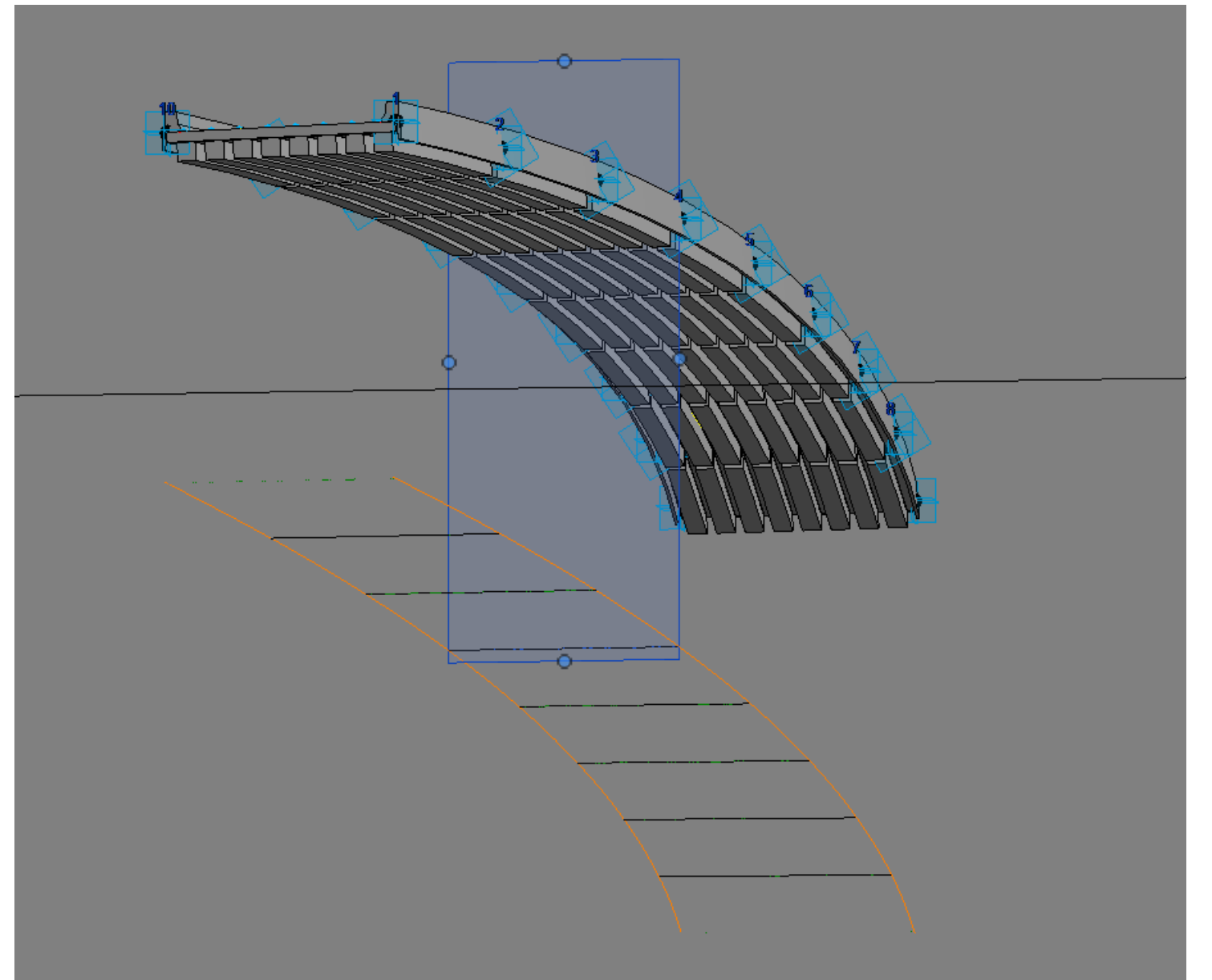
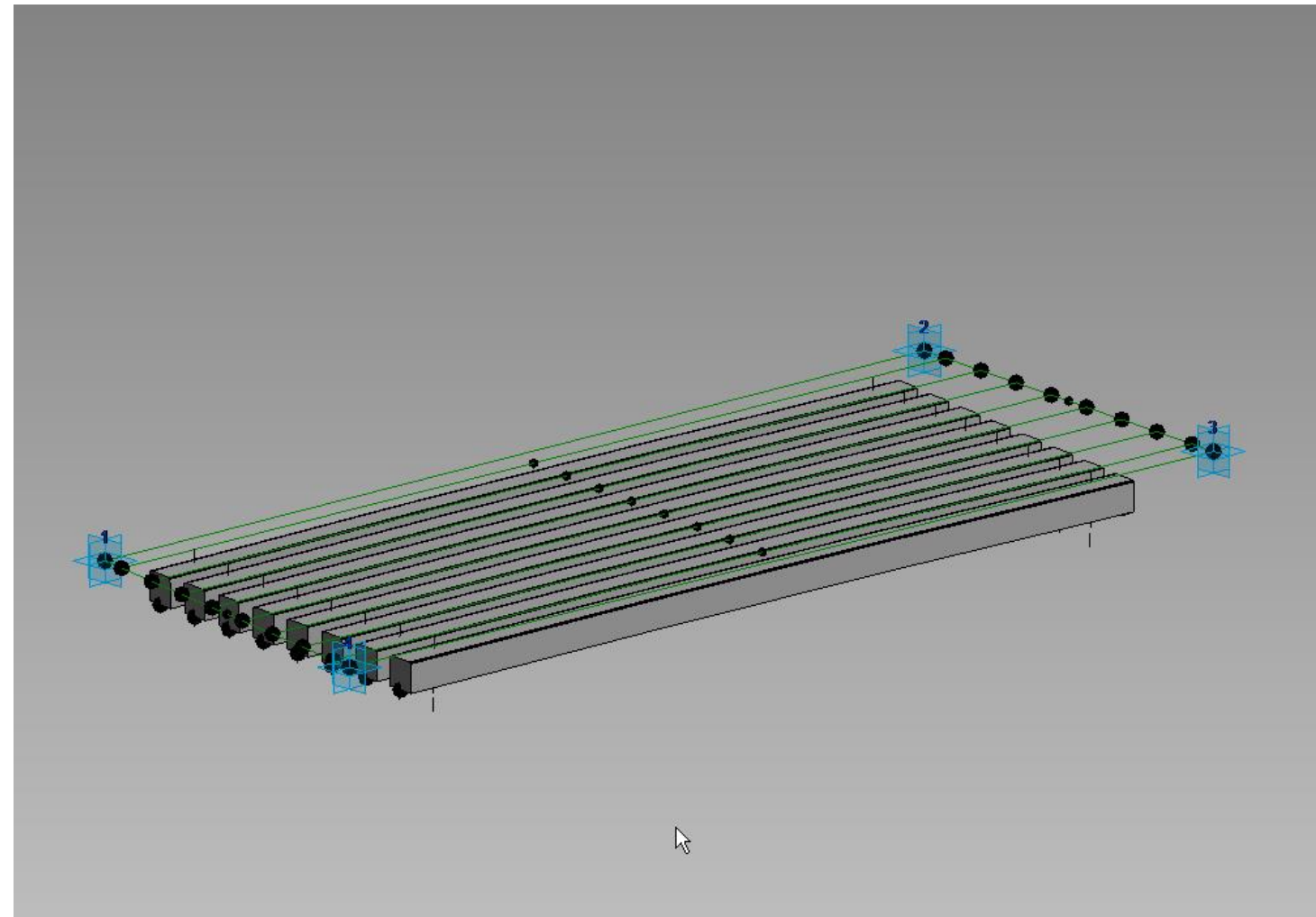
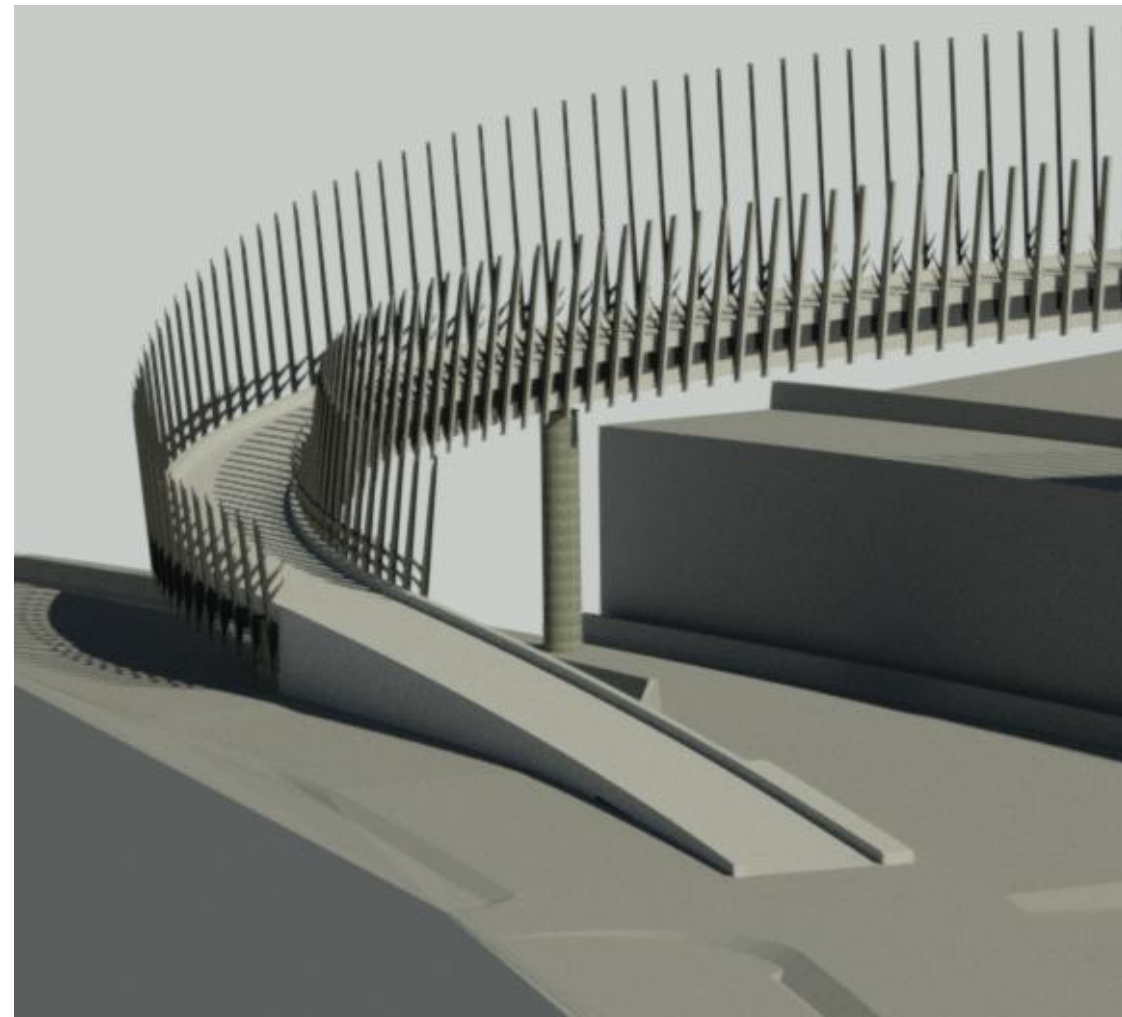
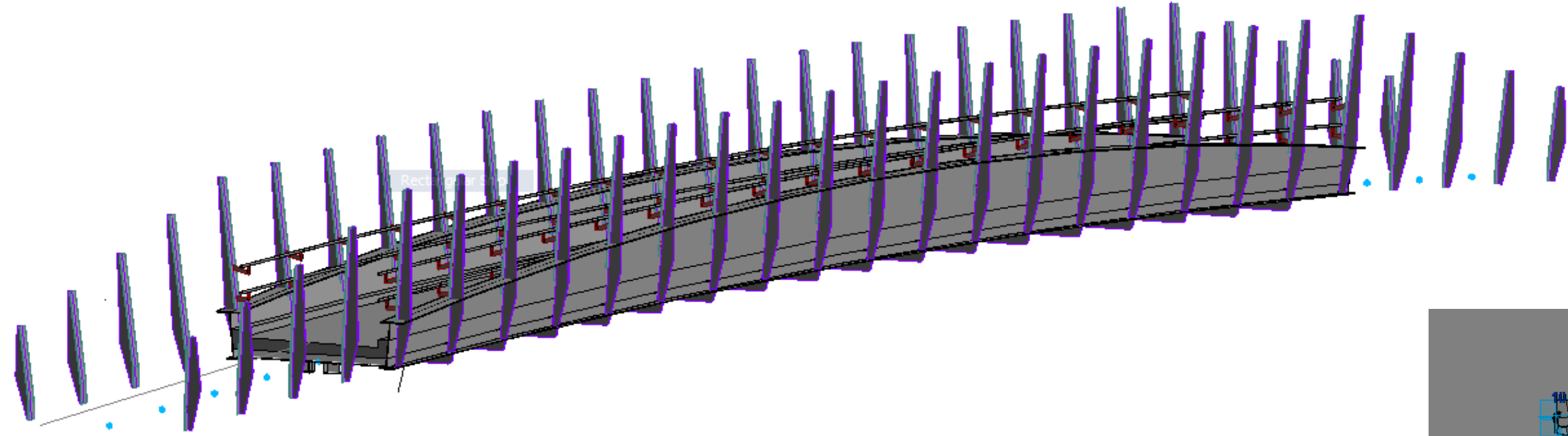
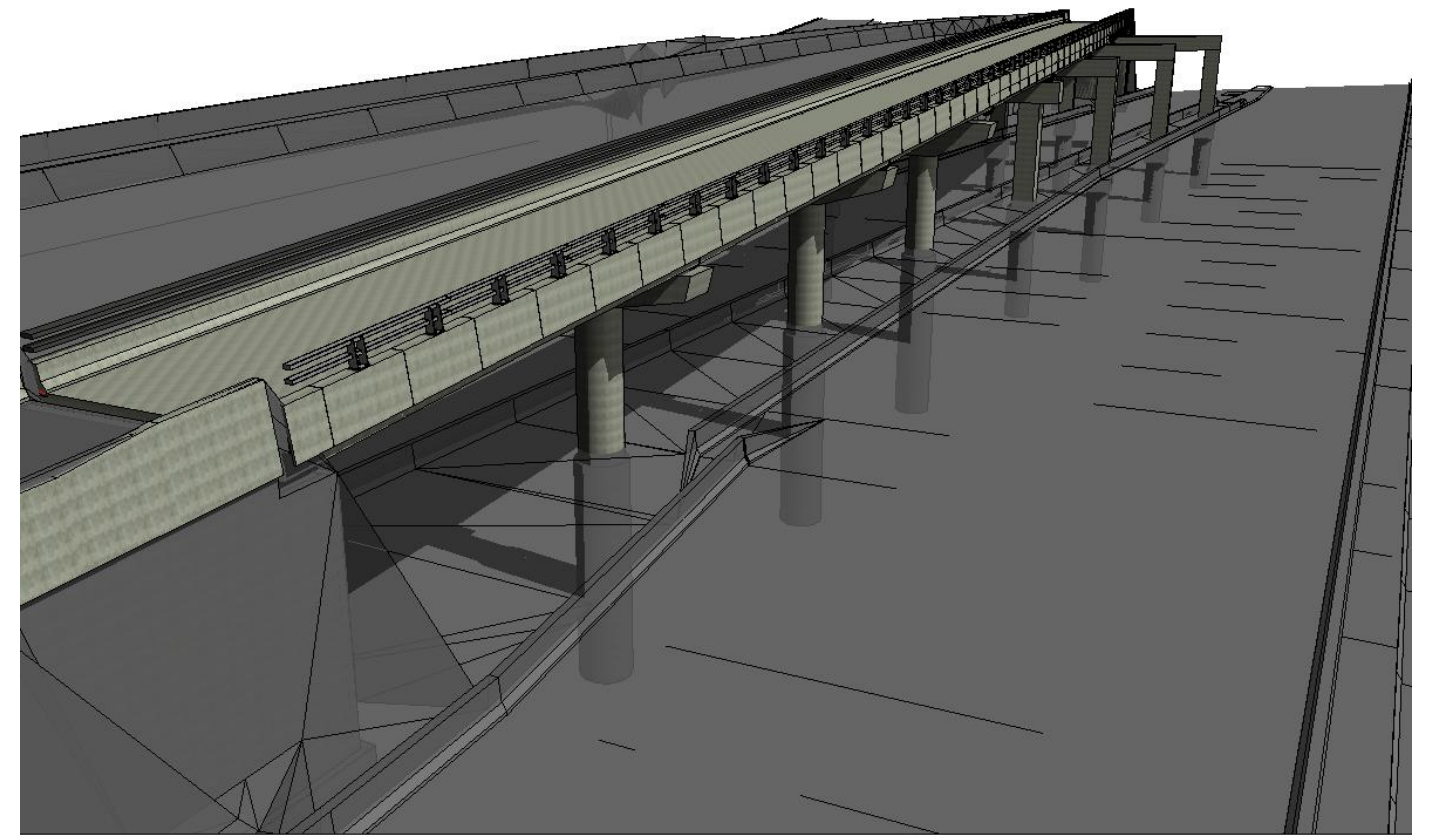
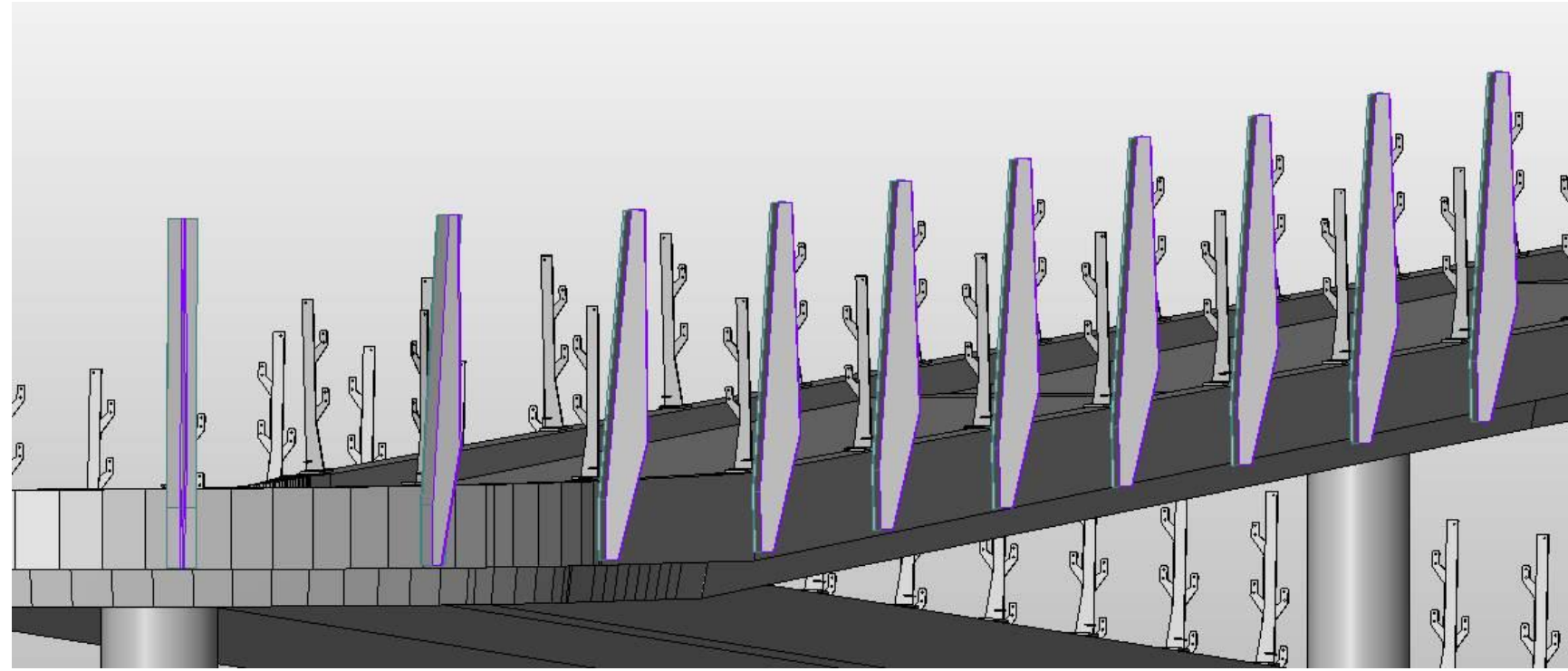
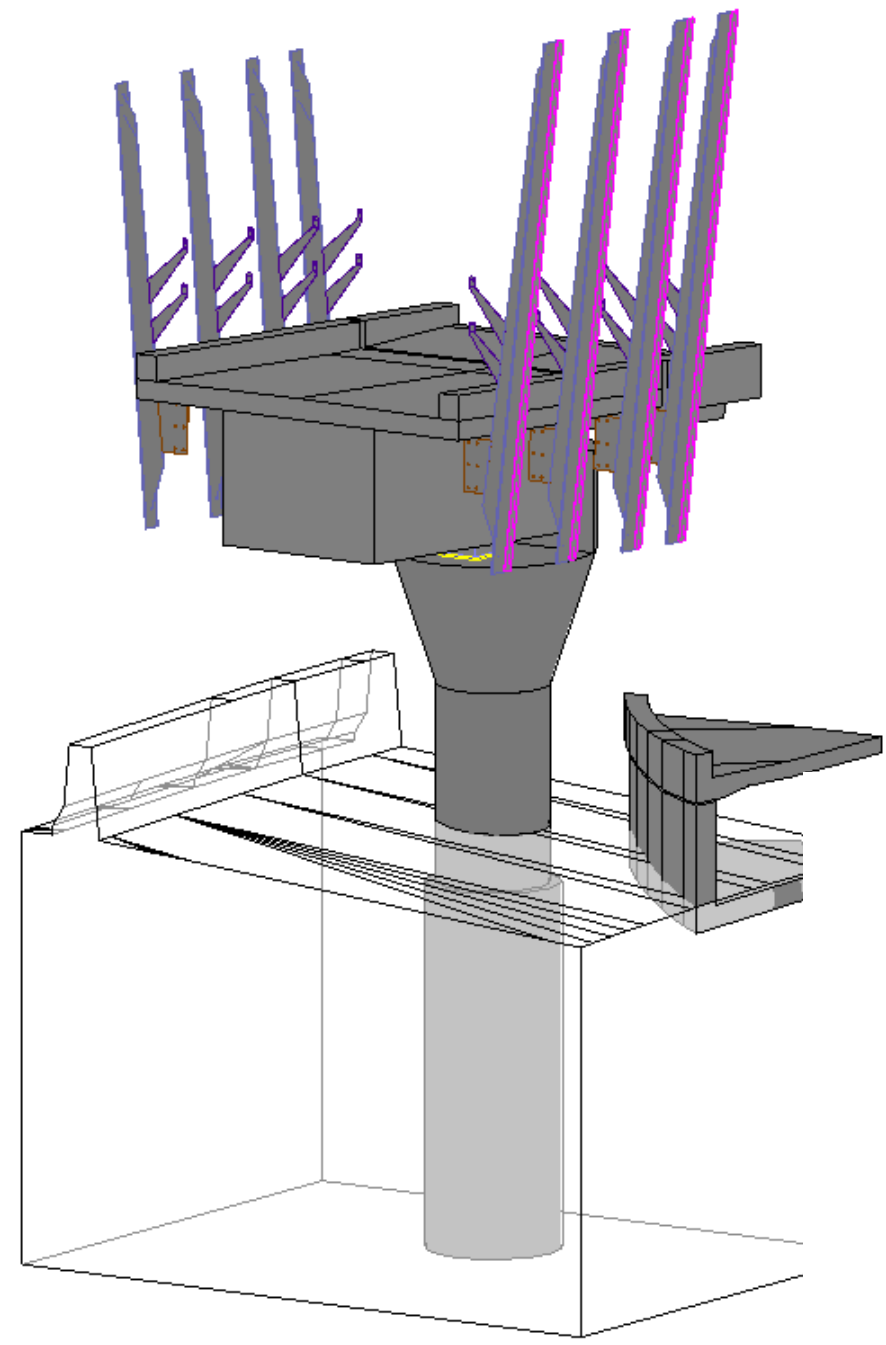


Intro



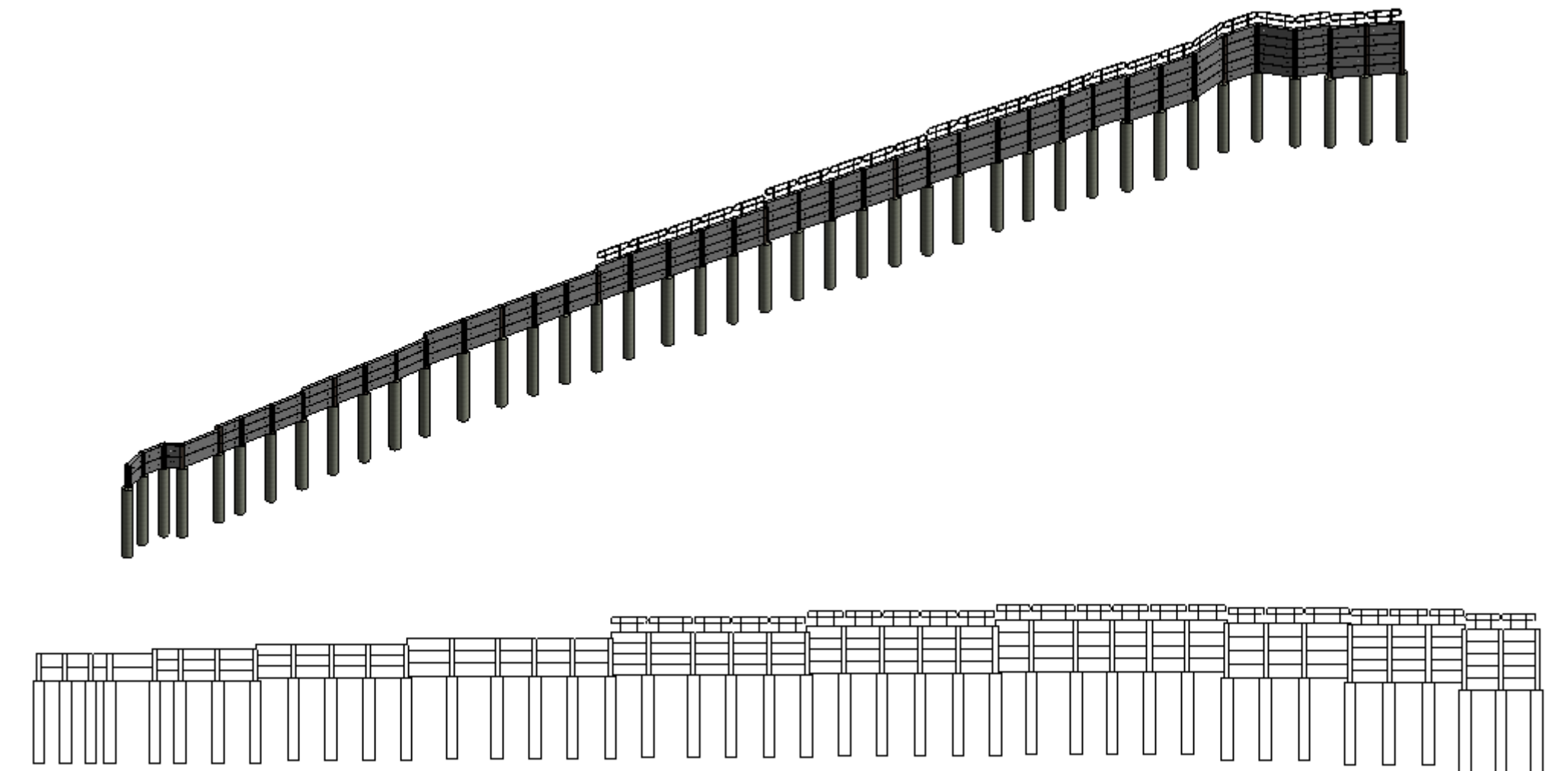
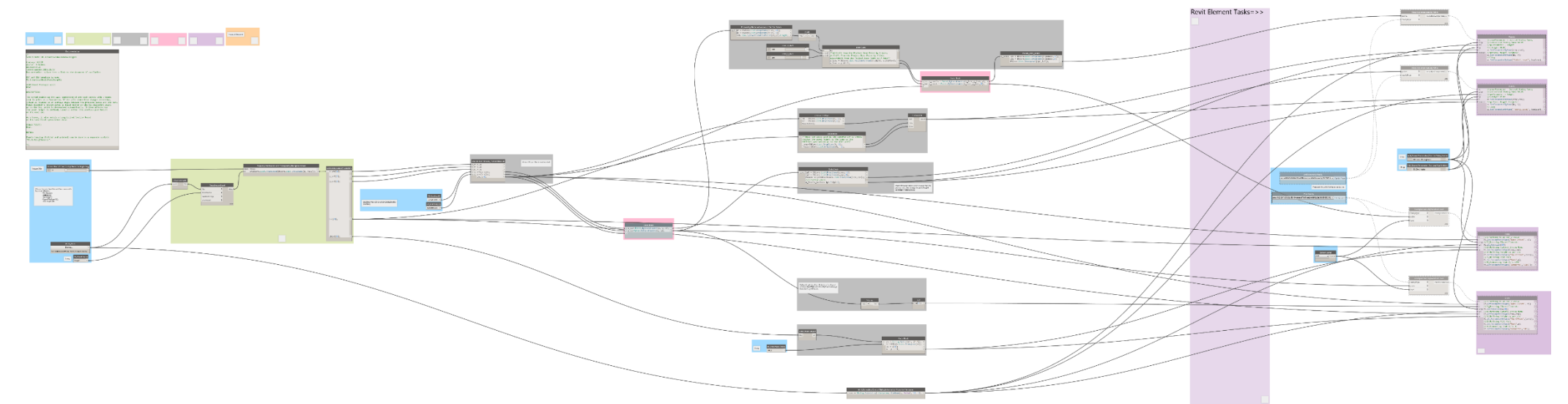
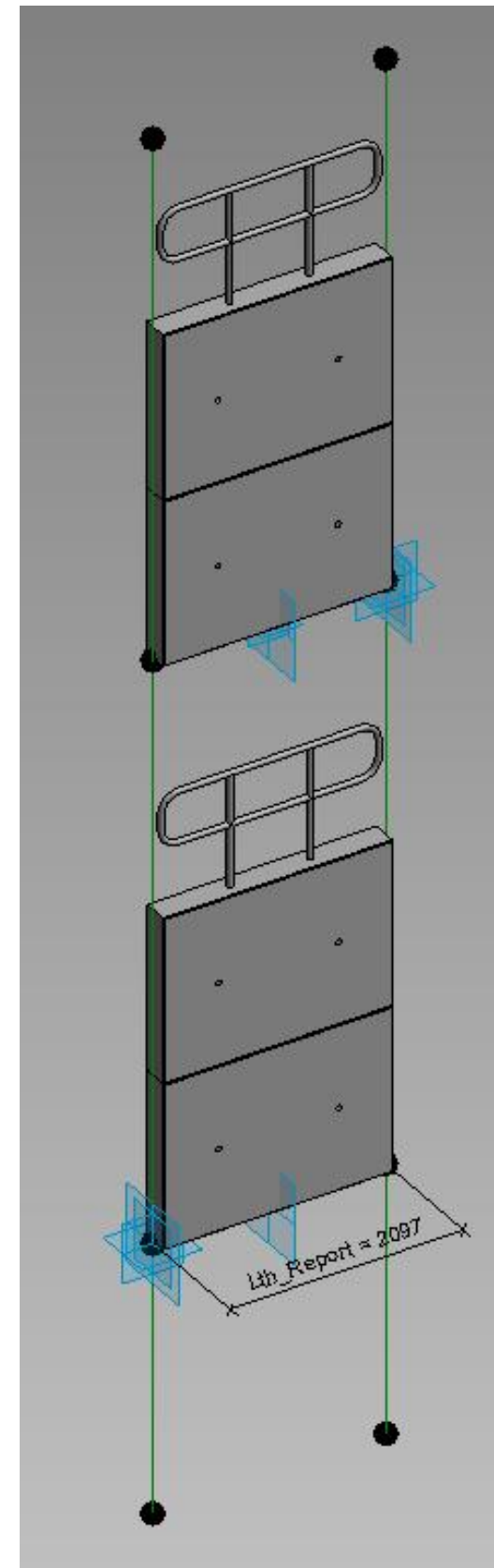
Civil 3D for Bridges?
Yes, sir.



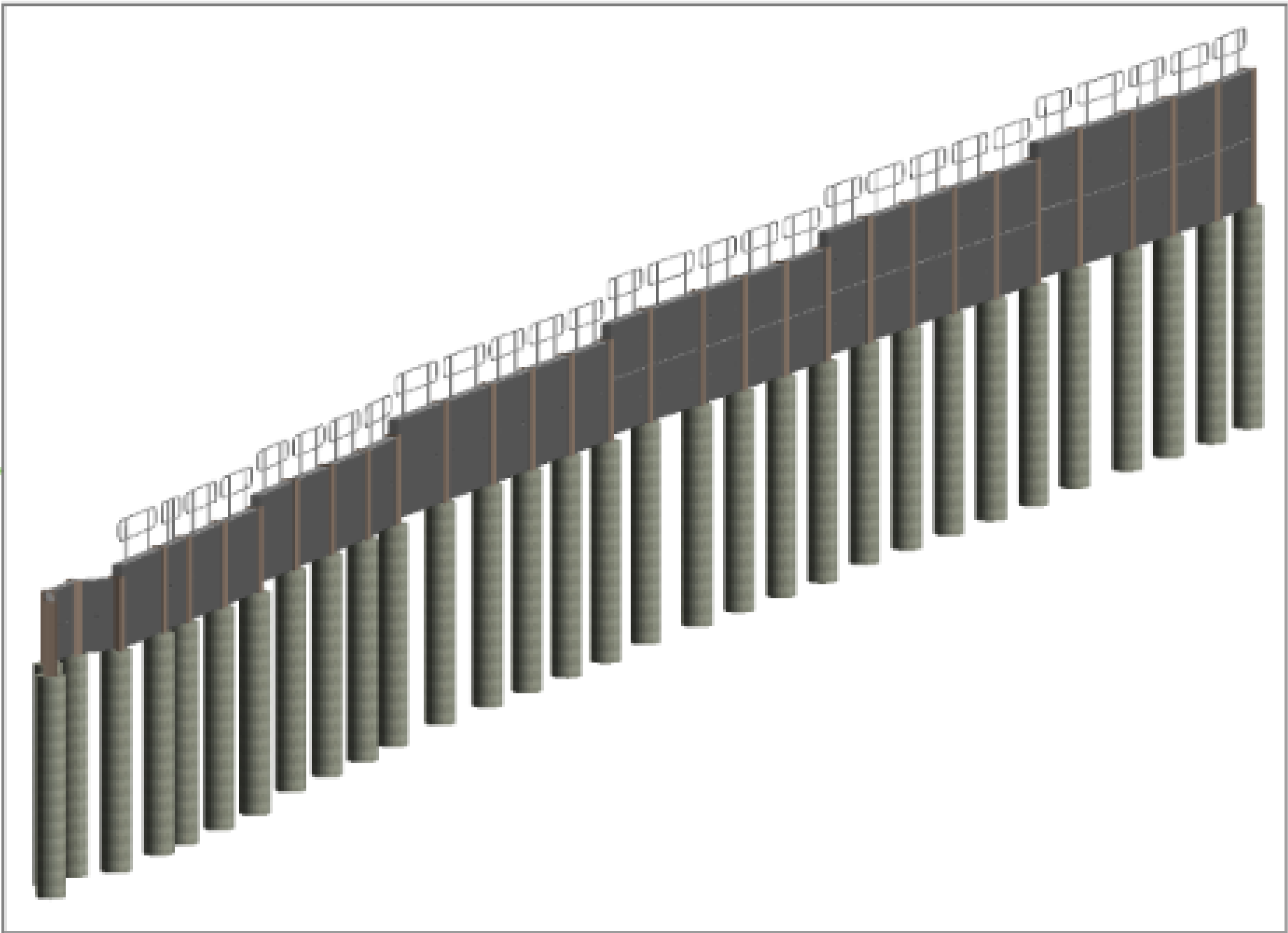
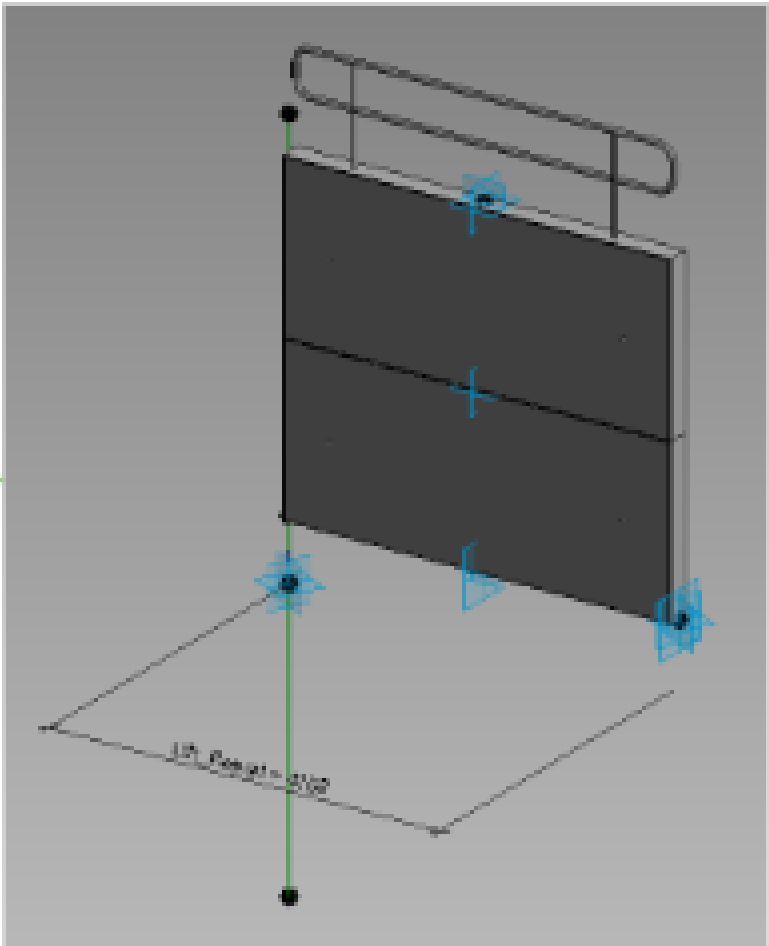
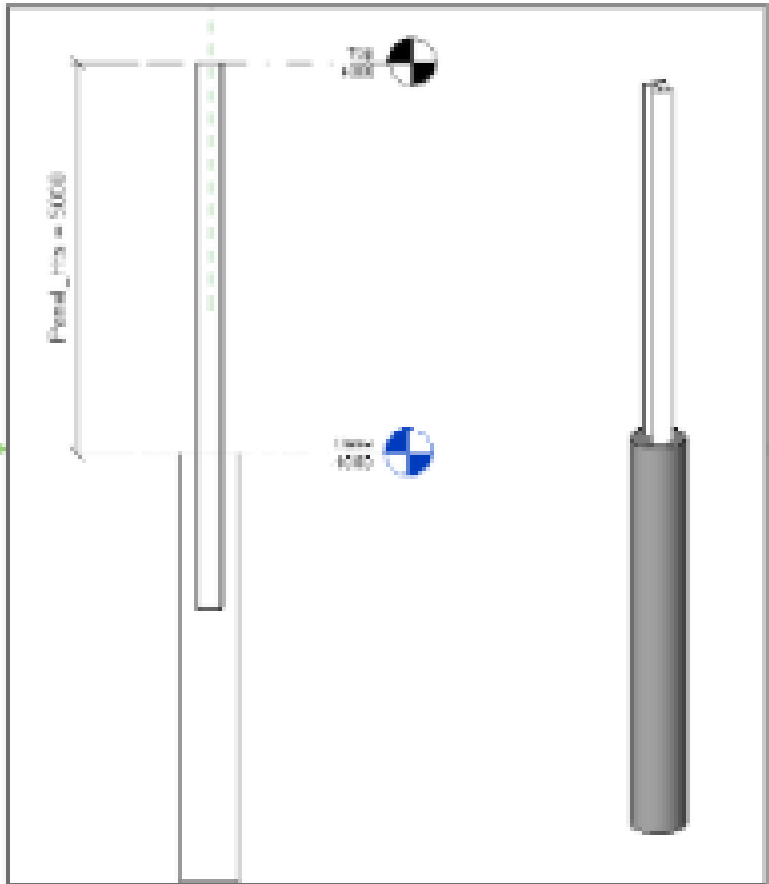


Agenda

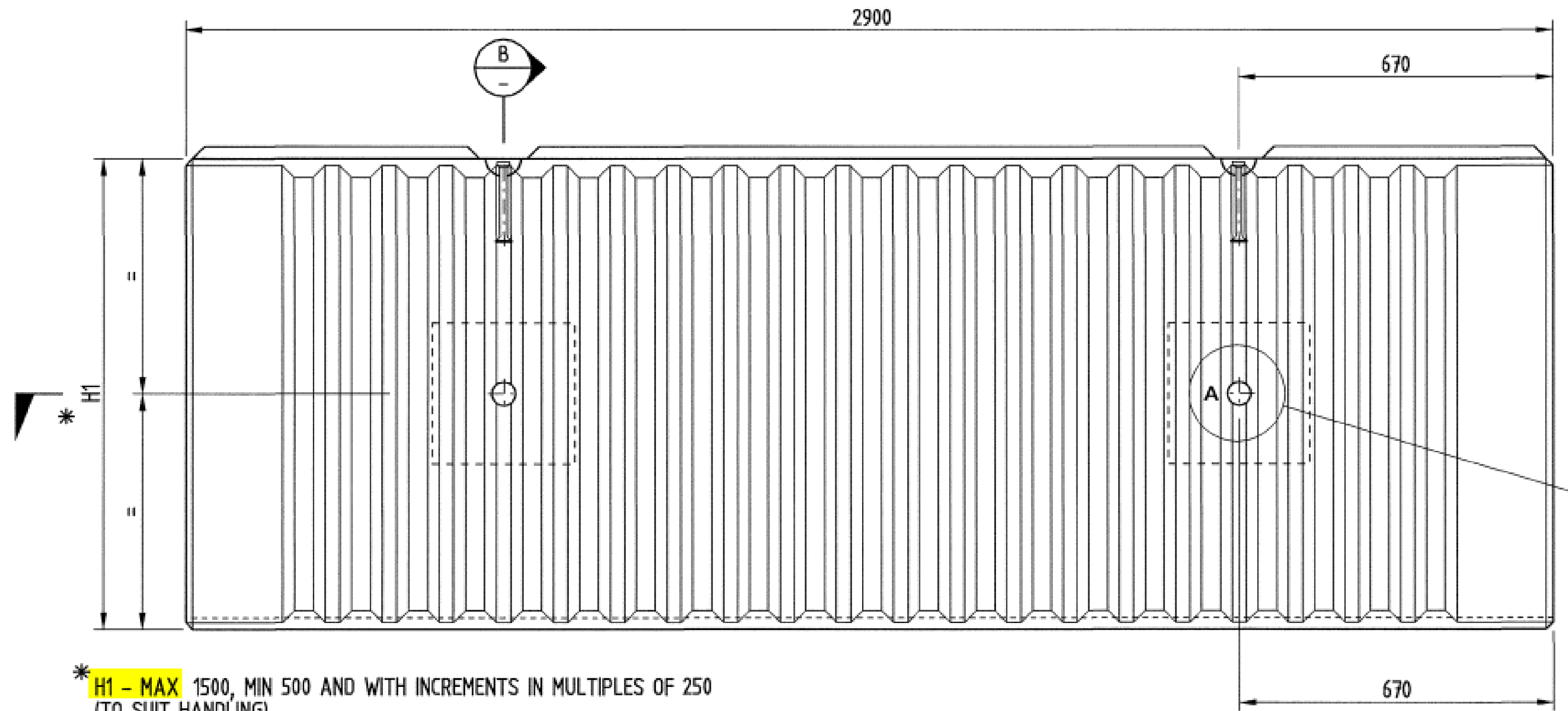
1. BUILD ADAPTIVE COMPONENT
2. FOLLOW DYNAMO SCRIPT PROCESS
3. EXPLORE THE RESULT



	A	B	C	D	E
1	1	331696.945	6257949.587	90.60	1.80
2	2	331695.627	6257950.791	90.60	1.80
3	3	331694.937	6257952.344	90.60	1.80
4	4	331695.215	6257953.546	90.60	1.80
5	5	331693.976	6257956.226	90.60	2.10
6	6	331693.262	6257957.769	90.60	2.10
7	7	331692.212	6257960.038	90.60	2.10
8	8	331691.163	6257962.307	90.60	2.10
9	9	331690.113	6257964.576	90.80	2.20
10	10	331689.064	6257966.845	90.80	2.20
11	11	331688.014	6257969.114	90.80	2.20
12	12	331686.838	6257971.32	90.80	2.20
13	13	331685.68	6257974.088	90.90	2.50
14	14	331684.522	6257976.856	90.90	2.50
15	15	331683.558	6257979.162	90.90	2.50
16	16	331682.593	6257981.468	90.90	2.50
17	17	331681.628	6257983.774	90.90	2.50
18	18	331680.663	6257986.081	91.00	2.80
19	19	331679.624	6257988.894	91.00	2.80
20	20	331678.726	6257991.229	91.00	2.80
21	21	331677.827	6257993.562	91.00	2.80
22	22	331676.929	6257995.896	91.00	2.80
23	23	331676.031	6257998.228	91.10	3.10
24	24	331675.132	6258000.561	91.10	3.10
25	25	331674.234	6258002.894	91.10	3.10
26	26	331673.336	6258005.227	91.10	3.10
27	27	331672.438	6258007.56	91.10	3.10
28	28	331671.635	6258009.769	91.20	3.40
29	29	331670.611	6258012.583	91.20	3.40
30	30	331669.809	6258014.792	91.20	3.40
31	31	331668.954	6258017.141	91.20	3.40
32	32	331667.909	6258019.425	91.20	3.40



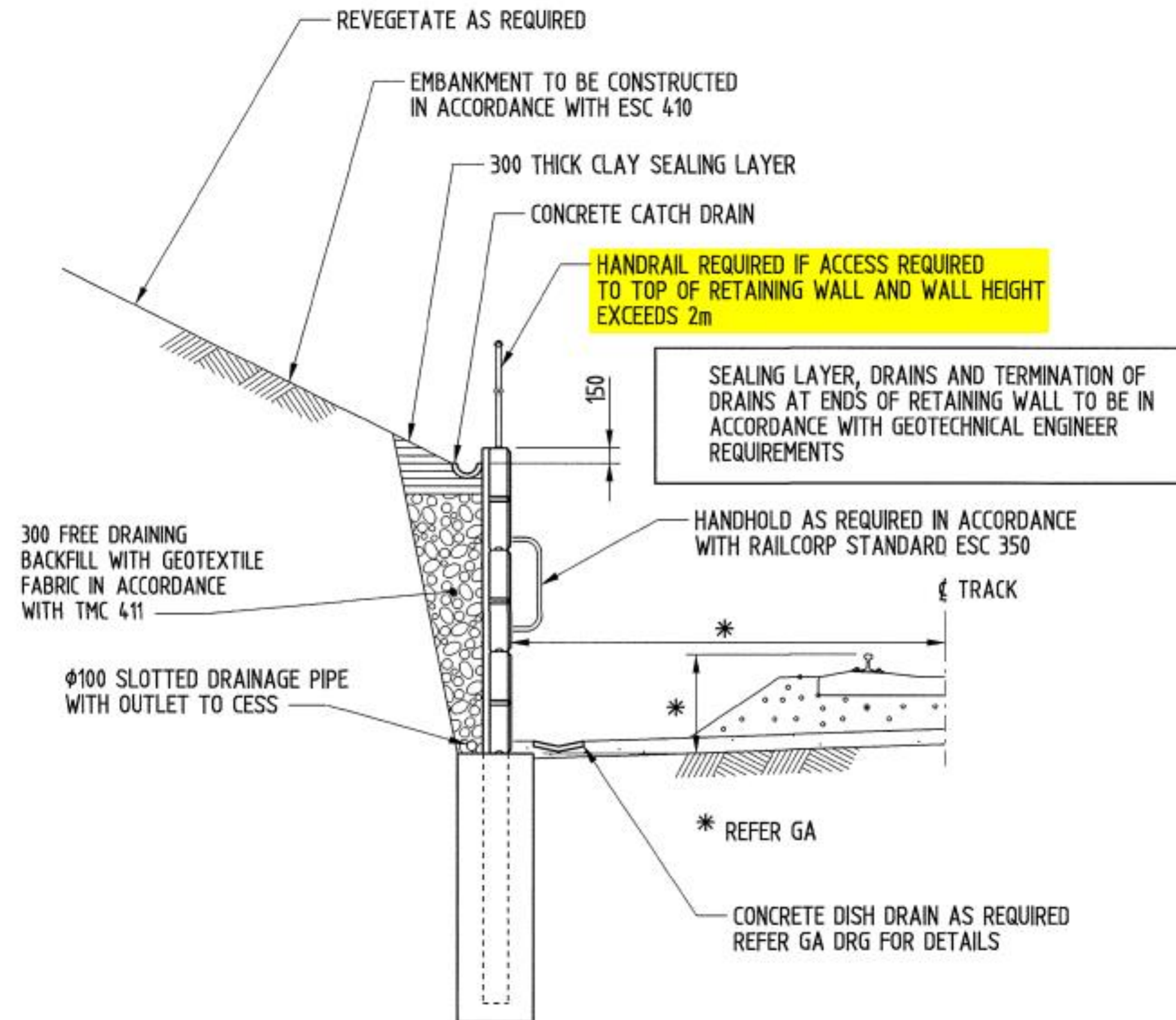
1. Build adaptive component



PANEL TYPE A

SCALE 1:10

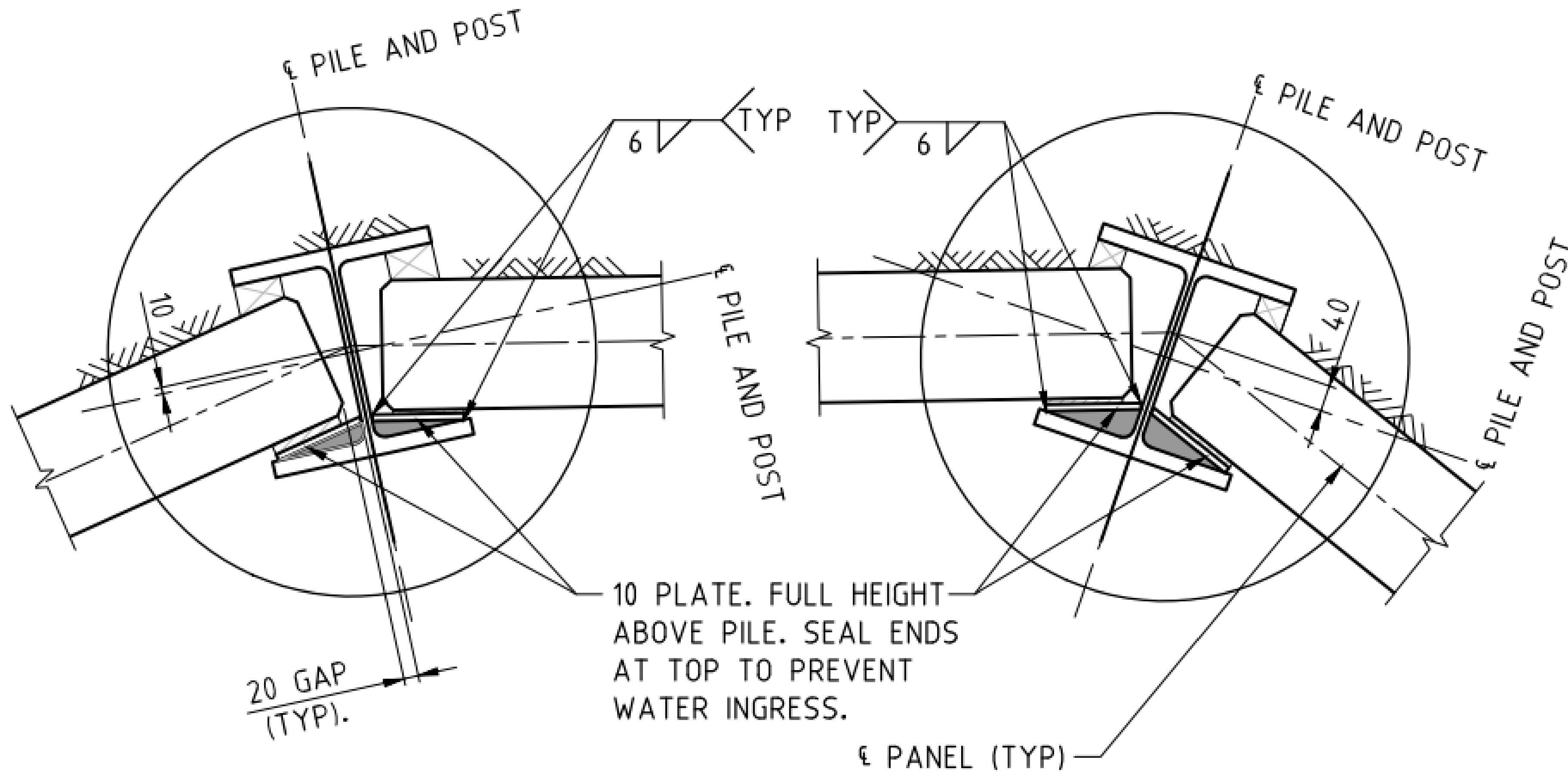
1. Build adaptive component



TYPICAL WALL SECTION

SCALE 1:50

1. Build adaptive component

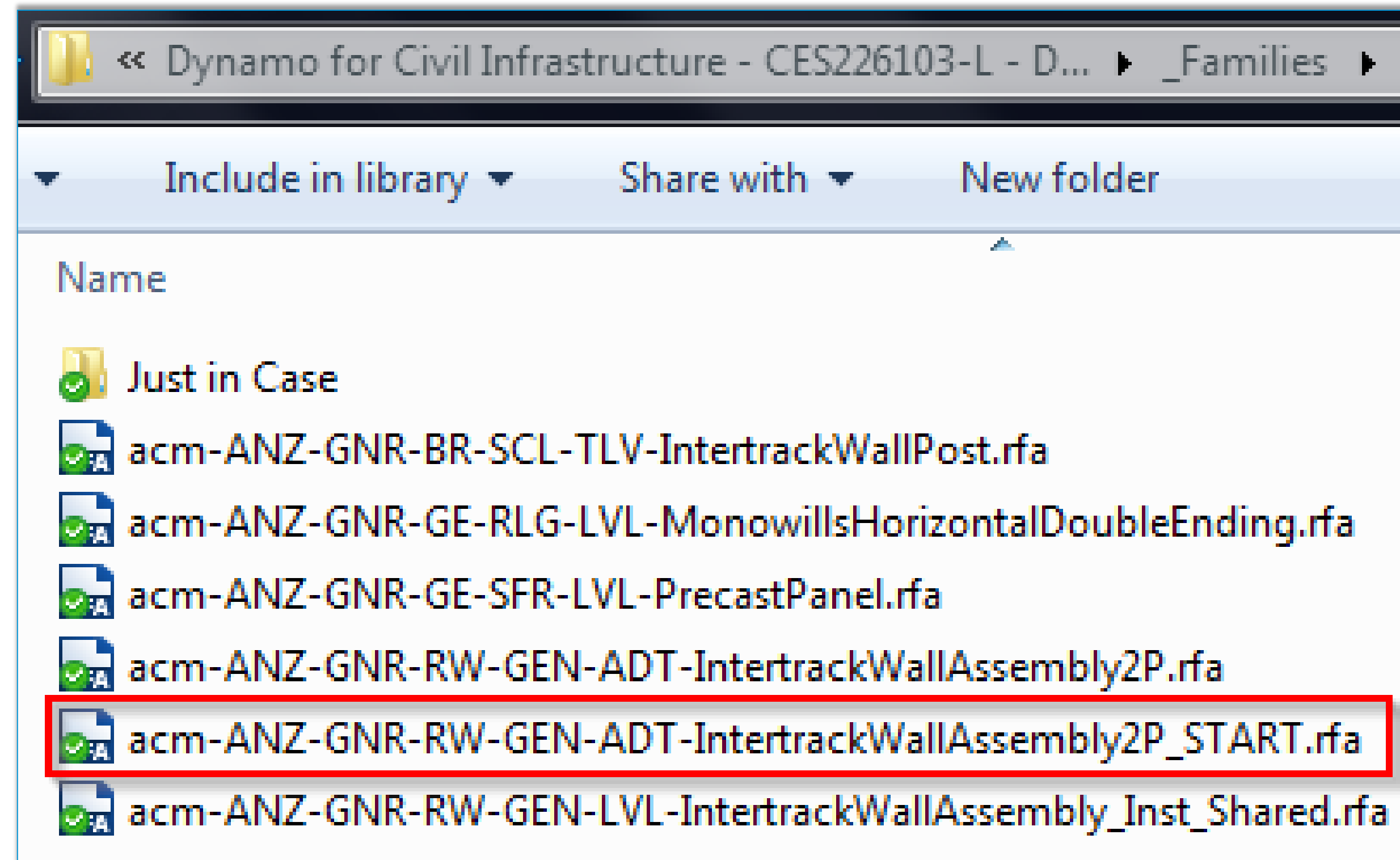


1. Build adaptive component

PRECAST PANEL TABLE					
PANEL TYPE	LENGTH 'L'	THICKNESS 'T'	HEIGHT 'H'	WEIGHT (tonnes)	No. REQUIRED
P1a	1710	200	1800	1.48	1
P1b	1600	200	1800	1.38	1
P1c	1065	200	1800	0.92	1
P2	2895	250	2000	3.47	1
P3a	1645	250	2000	1.97	1
P3b	2445	250	2000	2.93	2
P4a	2440	250	2200	3.22	3
P4b	2430	250	2200	3.21	1
P5	2940	250	2450	4.32	2
P6	2445	250	2450	3.59	3
P7	2440	250	1325	1.94	8
P8	2945	250	1325	2.34	2
P9	2445	250	1375	2.02	10
P10a	2295	250	1475	2.03	4
P10b	2940	250	1475	2.60	2
P10c	2445	250	1475	2.16	4

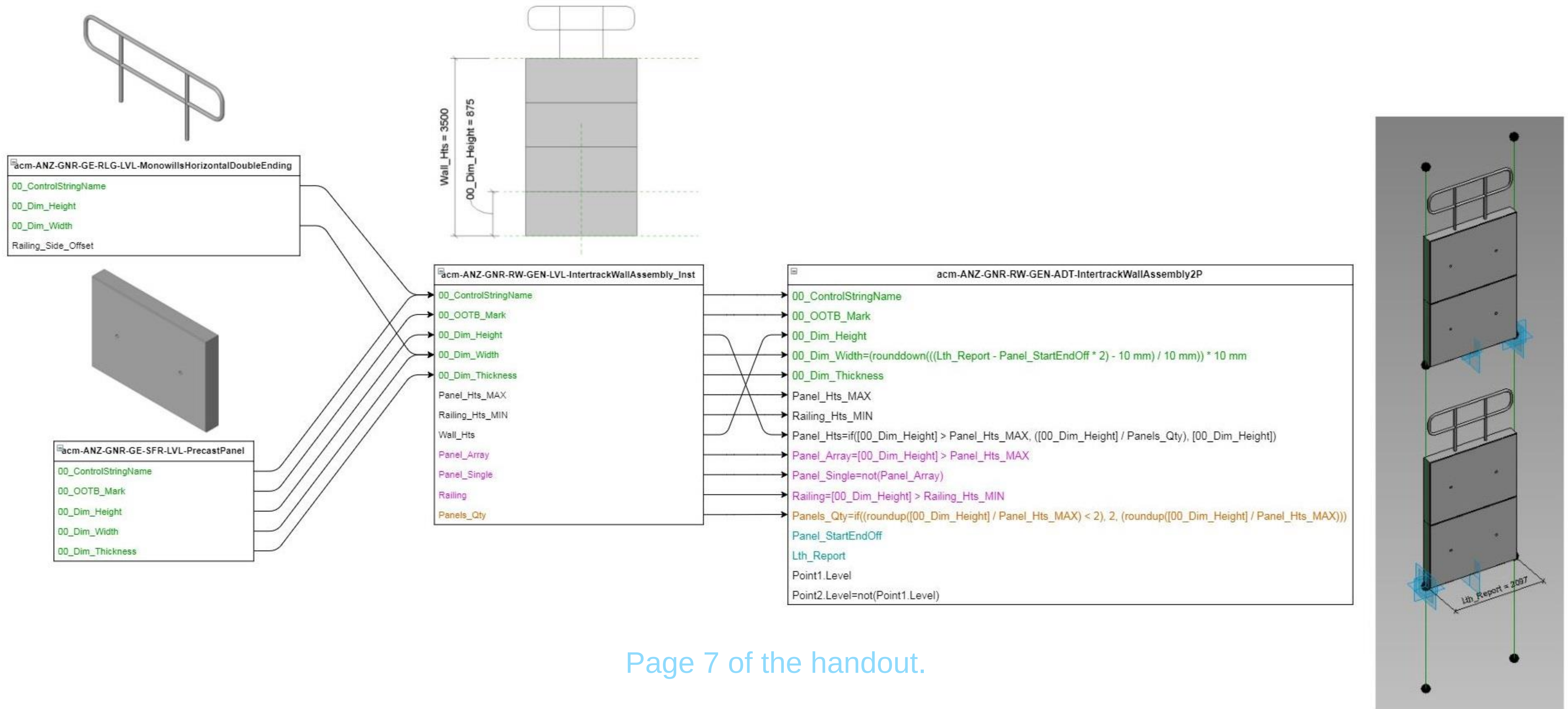
1. Build adaptive component

LET'S DO IT!



1. Build adaptive component

Parameter linking structure



1. Build adaptive component

NOW

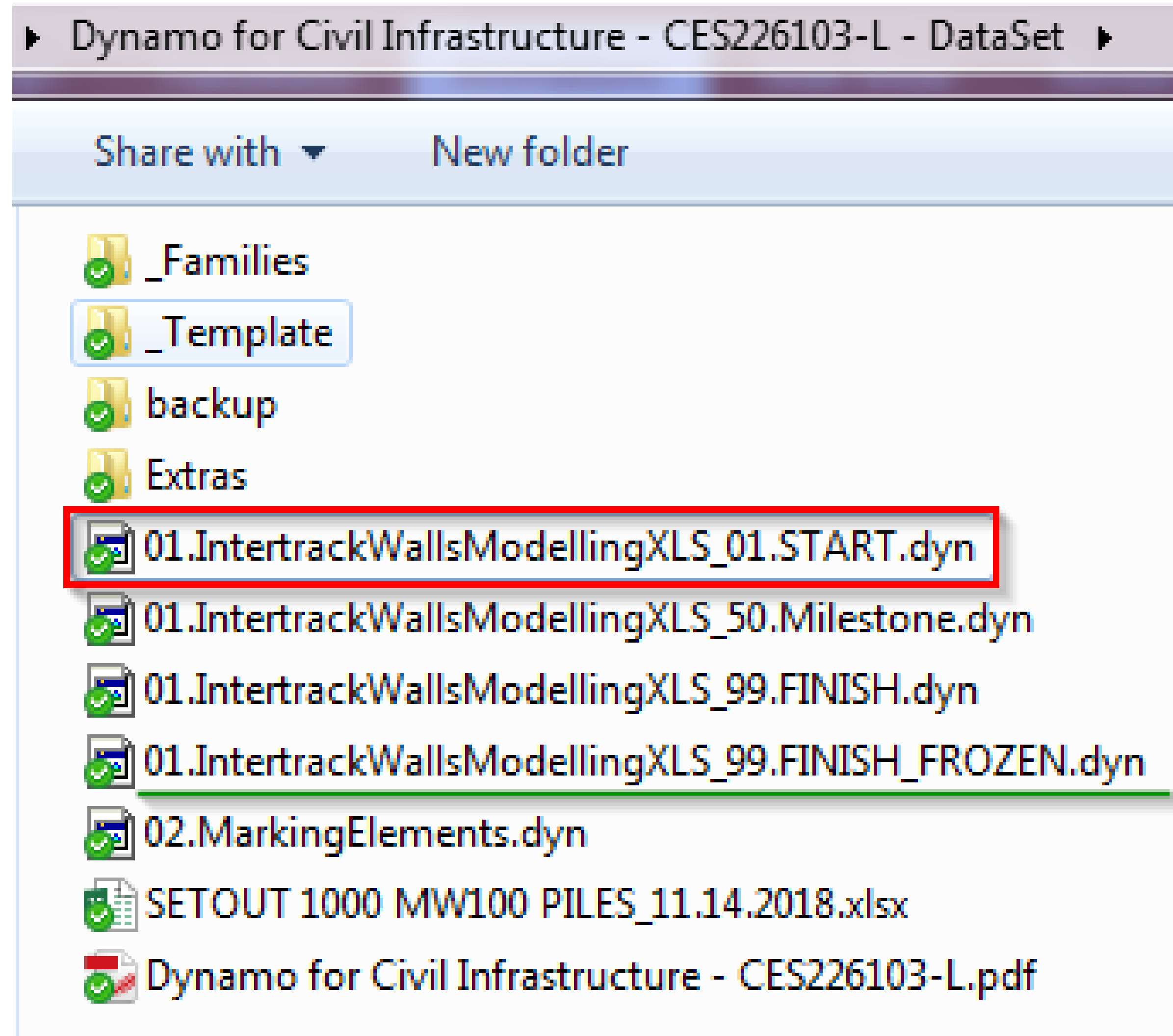
1. Build adaptive component

And load it in the project!

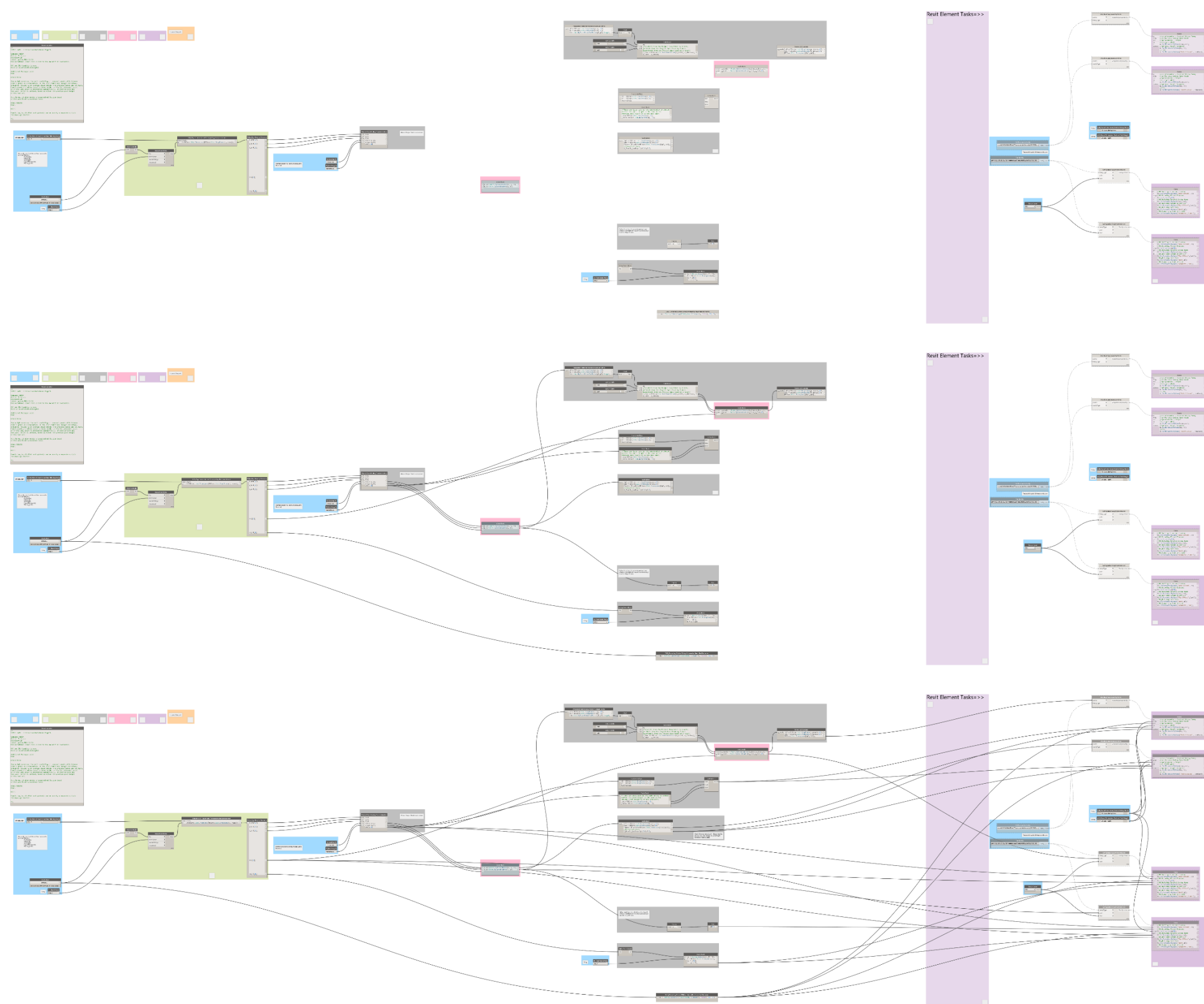
Create it from provided template.

Dynamo for Civil Infrastructure - CES226103-L - DataSet ▶ _Template	
Share with ▼	New folder
Name	Date modified
 IntertrackWallsModellingXLS.rte	1/11/2018 10:31 PM

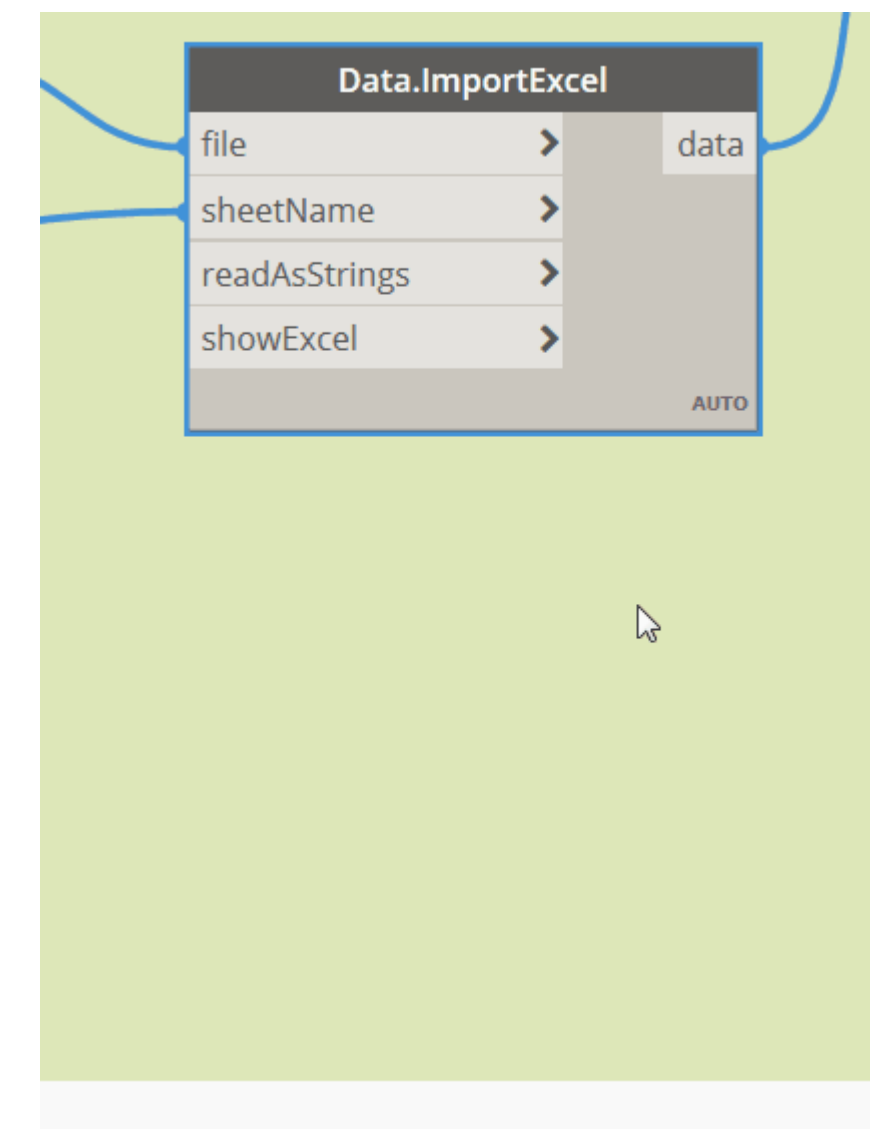
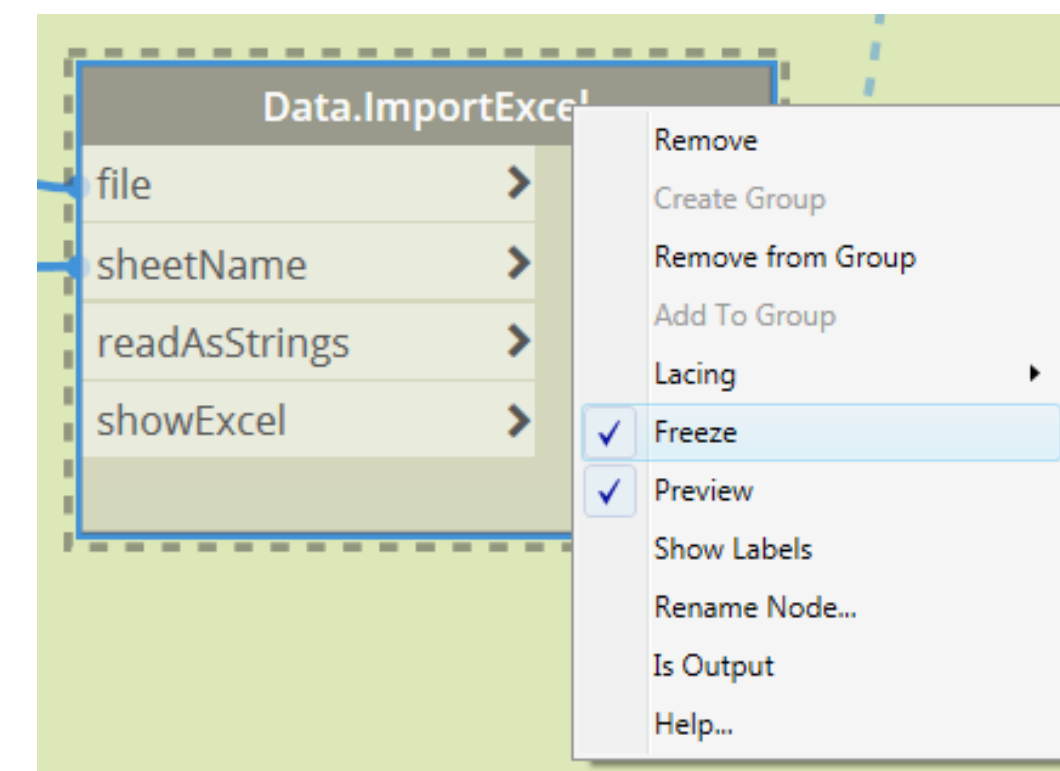
2. Follow dynamo script process



2. Follow dynamo script process



Connect Spaghettis



Thaw'n'see

2. Follow dynamo script process

WITH ME

“As to methods, there may be a million and then some, but **principles are few**.
The man who grasps **principles** can successfully select his own methods.
The man who tries methods by ignoring principles is sure to have trouble.”

Harrington Emerson

Thanks everyone for attending this session.

DataSet for the lab is available by the [link](#).

Please don't hesitate to contact me if you have any questions or suggestions:

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