HDPE Pipe Fittings Family

- Concept

INPUT	→	Process	→	OUTPUT
Diameter, Angle		IF condition, Visibility, Lookup Table		Result is Length from Lookup Table to control Family Parameter

INPUT

TAP ᰀ (logos: SGS, NAC, SGS, UKAS)
Certificated No. TH05/0035   Certificated No. TH05/50
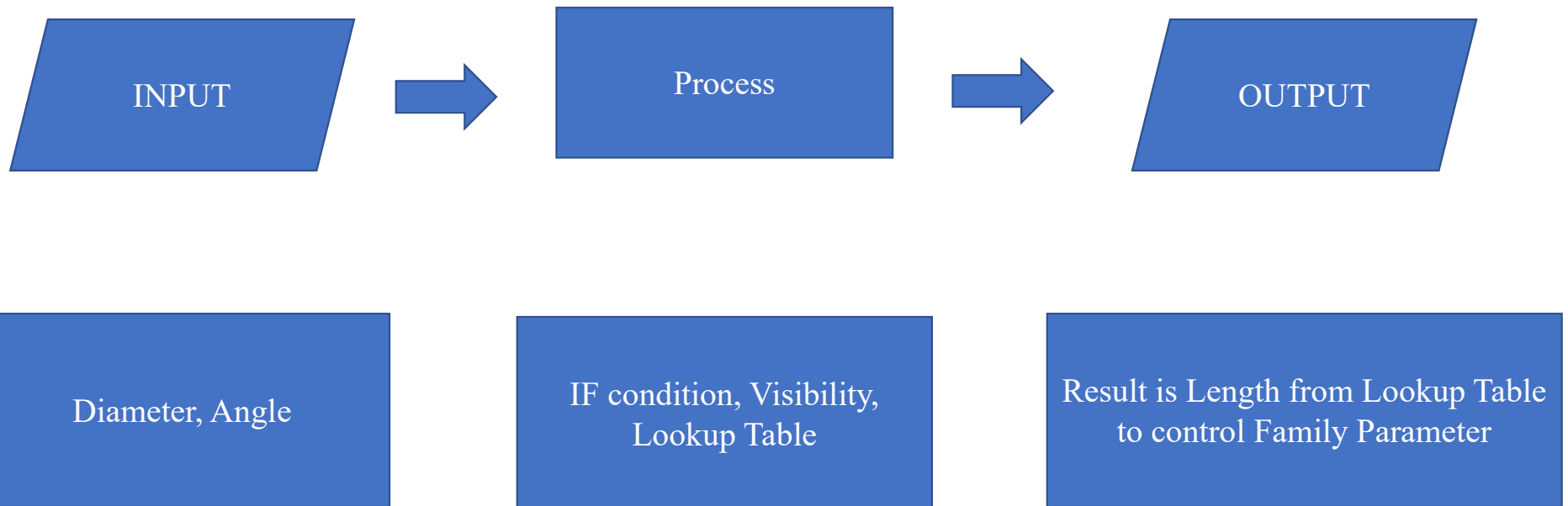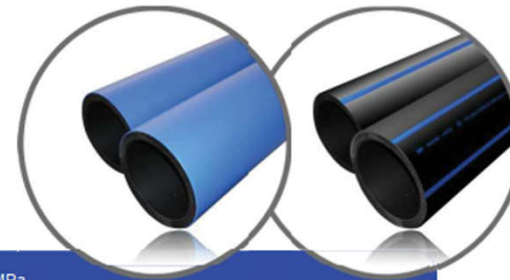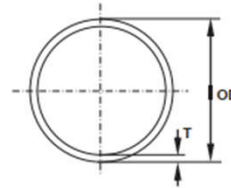
ท่อพอลิเอทิลีน ชนิดความหนาแน่นสูง
สำหรับใช้เป็นท่อน้ำดื่มมาตรฐาน มอก. 982-2556
STANDARD FOR HIGH-DENSITY POLYETHYLENE PIPE
FOR DRINKING WATER

| ACCORDING TO TIS. 982-2556 | **PE 80** | Hydrostatic Design Stress is 6.3 MPa. |

ขนาด OD	PN 25		PN 20		PN 16		PN 12.5		PN 10		PN 8		PN 6		PN 5	
	SDR 6		SDR 7.4		SDR 9		SDR 11		SDR 13.6		SDR 17		SDR 21		SDR 26	
	T	W	T	W	T	W	T	W	T	W	T	W	T	W	T	W
16	3.0	0.12	2.3	0.10	2.0	0.09	-	-	-	-	-	-	-	-	-	-
20	3.4	0.18	3.0	0.16	2.3	0.13	2.0	0.12	-	-	-	-	-	-	-	-
25	4.2	0.28	3.5	0.24	3.0	0.21	2.3	0.17	2.0	0.15	-	-	-	-	-	-
32	5.4	0.46	4.4	0.39	3.6	0.33	3.0	0.28	2.4	0.23	2.0	0.19	-	-	-	-
40	6.7	0.71	5.5	0.61	4.5	0.51	3.7	0.43	3.0	0.36	2.4	0.29	2.0	0.25	-	-
50	8.3	1.10	6.9	0.94	5.6	0.79	4.6	0.67	3.7	0.55	3.0	0.45	2.4	0.37	2.0	0.31
63	10.5	1.74	8.6	1.48	7.1	1.27	5.8	1.06	4.7	0.88	3.8	0.72	3.0	0.58	2.5	0.49
75	12.5	2.47	10.3	2.11	8.4	1.78	6.8	1.48	5.6	1.24	4.5	1.02	3.6	0.83	2.9	0.67
90	15.0	3.56	12.3	3.03	10.1	2.57	8.2	2.14	6.7	1.78	5.4	1.47	4.3	1.19	3.5	0.98
110	18.3	5.29	15.1	4.54	12.3	3.81	10.0	3.17	8.1	2.64	6.6	2.18	5.3	1.78	4.2	1.44
125	20.8	6.83	17.1	5.84	14.0	4.93	11.4	4.12	9.2	3.40	7.4	2.78	6.0	2.28	4.8	1.85
140	23.3	8.57	19.2	7.34	15.7	6.18	12.7	5.13	10.3	4.26	8.3	3.49	6.7	2.85	5.4	2.33
160	26.6	11.18	21.9	9.55	17.9	8.05	14.6	6.73	11.8	5.56	9.5	4.56	7.7	3.74	6.2	3.06
180	29.9	14.13	24.6	12.07	20.1	10.18	16.4	8.51	13.3	7.05	10.7	5.76	8.6	4.70	6.9	3.81
200	33.2	17.45	27.4	14.93	22.4	12.59	18.2	10.50	14.7	8.65	11.9	7.11	9.6	5.83	7.7	4.73
225	37.4	22.09	30.8	18.87	25.2	15.93	20.5	13.29	16.6	10.98	13.4	9.02	10.8	7.36	8.6	5.94
250	41.5	27.24	34.2	23.30	27.9	19.58	22.7	16.34	18.4	13.53	14.8	11.06	11.9	9.01	9.6	7.36
280	46.5	34.18	38.3	29.21	31.3	24.62	25.4	20.49	20.6	16.95	16.6	13.89	13.4	11.38	10.7	9.18

การแสดงเครื่องหมายและฉลาก : TAP "ท่อน้ำดื่ม" HDPE ᰀ TIS 982-2556 Ø 280 mm. X 31.3 mm. PN 16 SDR 9 PE 80 =801001=

ต่อหน้า 2

INPUT

- Diameter

FOR IMPERIAL PROJECT UNIT

Size Catalog
New Size...

Nominal
1/4"
1/2"
3/4"
1"
1 1/4"
1 1/2"
2"
2 1/2"
3"
4"
5"
6"
8"

Size Catalog
New Size...

Nominal
6.350
12.700
19.050
25.400
31.750
38.100
50.800
63.500
76.200
101.600
127.000
152.400
203.200

Convert Imperial to Metric by multiply 25.400 (3 digit)

For mixed project unit (Imperial & Metric)

Lookup Value **Equal to mm** **Trade Size (OD)**

size##length##millimeters	size_in_to_mm##length##millimeters	Trade_Size##other##	
16	16	16	16
20	20	20	20
25	25	25	25
32	32	32	32
40	40	40	40
50	50	50	50
63	63	63	63
75	75	75	75
90	90	90	90
110	110	110	110
125	125	125	125
140	140	140	140
160	160	160	160
180	180	180	180
200	200	200	200
225	225	225	225
250	250	250	250
280	280	280	280

Metric

1/4"	6.350	16	16
1/2"	12.700	20	20
3/4"	19.050	25	25
1"	25.400	32	32
1 1/4"	31.750	40	40
1 1/2"	38.100	50	50
2"	50.800	63	63
2 1/2"	63.500	75	75
3"	76.200	90	90
4"	101.600	110	110
	124.600	125	125
5"	127.000	140	140
6"	152.400	160	160
	180.200	180	180
	200.000	200	200
8"	203.200	225	225
10"	250.000	250	250
	280.200	280	280

Imperial convert to Metric

PROCESS

Ifs condition then Size lookup Table

PROCESS

ข้องอ (SEGMENTED ELBOWS)

Size (D)	L₁	Z			
		α 30°±2'	α 45°±2'	α 60°±2'	α 90°±2'
20	100	103	110	112	
25			112	116	
32	140	144	155	158	
40		145	159	163	
50			177	199	
63	170	179		205	
75		180		212	
90		182		260	
110		295		375	485
125	280	297		380	493
140		299	377	384	500
160		302		390	510
180		324	413	433	581
200		327	417		
225	300	330	422		
250		334	425		616
280		338			645
315		343		592	697
355	400			612	837
400				639	894
450			641	721	1010
500	500		712	800	1119
560		575	738	835	1190
630		584	768	878	1279
710	600	695	904	1027	1481
800		707	939	1079	1587
900	650	771	1031	1190	1763
1000		784	1074	1250	1888
1200	750	911	1258	1469	2231
1400	1200	1388	1793	2037	2925
1600		1414	1878	2158	3175
1800	1400	1641	2162	2477	3618
2000		1668	2247	2598	3868

Unit.mm
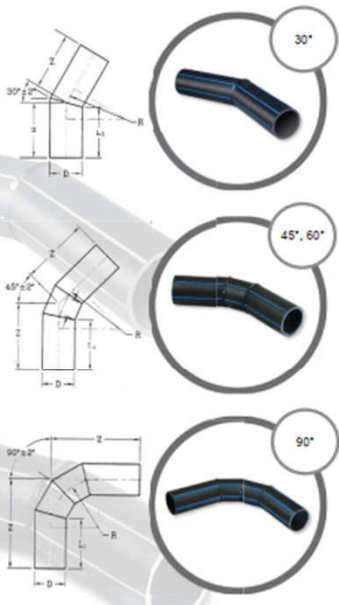
หมายเหตุ : (Remarks)

TAP-PS-JEB45-55/R1°
TAP-PS-JEB90-59/R1°

30°
45°, 60°
90°

TAP PRODUCT ข้องอ 90° เชื่อม พี.อี.
SIZE 315 mm./25 DR7.4/100
LOT NO. 15077206
THAI-ASIA P.E. PIPE CO.,LTD.

ข้องอฉีด 45° (TAP-IM) : ELBOW 45° (TAP-IM)

DN	SDR 11			SDR 17		
	A	L	Series	A	L	Series
50	55	83				
63	63	89		Not Applicable		
75	70	95	Designed for joint with SDR13.6 - SDR11 Pipe			Designed for joint with SDR26 - SDR17 Pipe
90	79	105				
110	82	118			118	
125	87	125		Not Applicable		
160	98	142		98	142	

หมายเหตุ : (Remarks)　Unit.mm.

ข้องอฉีด 90° (TAP-IM) : ELBOW 90° (TAP-IM)

DN	SDR 11			SDR 17		
	A	L	Series	A	L	Series
20	41	70				
25	41	82		Not Applicable		
32	44	92				
40	49	102				
50	55	125		55		
63	63	135	Designed for joint with SDR13.6 - SDR11 Pipe			Designed for joint with SDR26 - SDR17 Pipe
75	72	165				
90	79	185				
110	82	207		82	207	
125	100	260			260	
140	85	245		85	245	
160	98	270		98	270	

หมายเหตุ : (Remarks)　Unit.mm.

PROCESS

ข้องอ (SEGMENTED ELBOWS)

Size (D)	L₁	Z α 30°±2'	Z α 45°±2'	Z α 60°±2'	Z α 90°±2'
20	100		110	112	
25		103	112	116	
32	140		144	155	158
40		145	159	163	
50	170		177		199
63		179		205	
75		180		212	
90		182		260	
110	280	295		375	485
125		297		380	493
140		299	377	384	500
160		302		390	510
180	300	324	413	433	581
200		327	417	439	591
225		330	422	446	604
250		334	428	453	616
280		338	434	467	645
315		343	441	492	697
355	400	448	552	612	837
400		454	569	639	894
450	500	510	641	721	1010
500		567	712	800	1119
560		575	738	835	1190
630		584	768	878	1279
710	600	695	904	1027	1481
800		707	939	1079	1587
900	650	771	1031	1190	1763
1000		784	1074	1250	1888
1200	750	911	1258	1469	2231
1400	1200	1388	1793	2037	2925
1600		1414	1878	2158	3175
1800	1400	1641	2162	2477	3618
2000		1668	2247	2598	3868

TAP-PS4EB4559R1'
TAP-PSJEB90.59R1'

Unit: mm

หมายเหตุ : (Remarks)

30°

45°, 60°

90°

TAP PRODUCT ข้องอ 90° เชื่อม พี.อี.
SIZE 315 mm./25 DR7.4/100
LOT NO. 15077206
THAI-ASIA P.E. PIPE CO.,LTD.

TYPE OF HDPE ELBOW FITTING

Size mm	Angle			
	30	45	60	90
20 - 40	SEGMENTED	SEGMENTED	SEGMENTED	TAP
50 - 90	SEGMENTED	TAP	SEGMENTED	TAP
110 - 125	SEGMENTED	TAP	SEGMENTED	SEGMENTED
140	SEGMENTED	SEGMENTED	SEGMENTED	SEGMENTED
160	SEGMENTED	TAP	SEGMENTED	SEGMENTED
180 - 280	SEGMENTED	SEGMENTED	SEGMENTED	SEGMENTED

OUTPUT

- Trade Size Diameter
- Type of HDPE Elbow

TYPE OF HDPE ELBOW FITTING			
Size mm	**Angle**		
	30	45	60	90
20 - 40	SEGMENTED	SEGMENTED	SEGMENTED	TAP
50 - 90	SEGMENTED	TAP	SEGMENTED	TAP
110 - 125	SEGMENTED	TAP	SEGMENTED	SEGMENTED
140	SEGMENTED	SEGMENTED	SEGMENTED	SEGMENTED
160	SEGMENTED	TAP	SEGMENTED	SEGMENTED
180 - 280	SEGMENTED	SEGMENTED	SEGMENTED	SEGMENTED

3D Model

Extrusion

Blend & Array
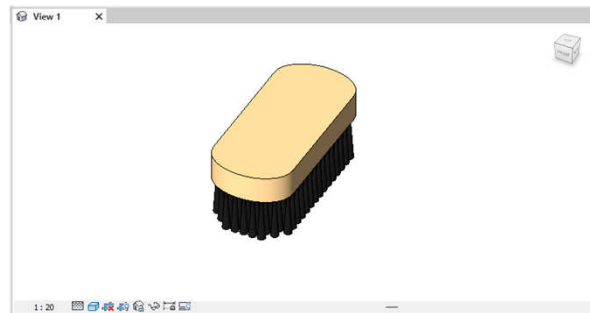
Sweep
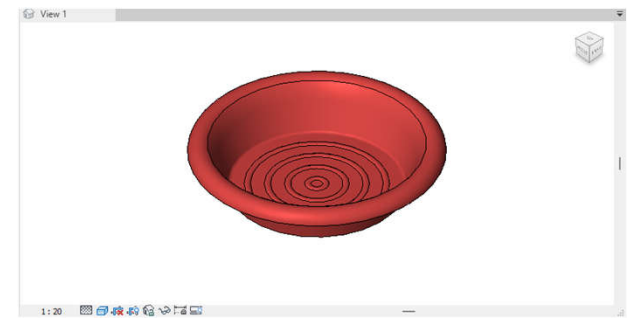
Dynamo For Clash Detection

- Concept

```
INPUT  →  Process  →  OUTPUT
```
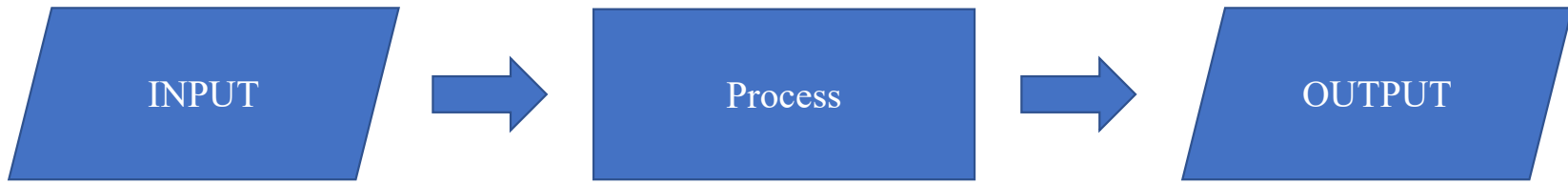
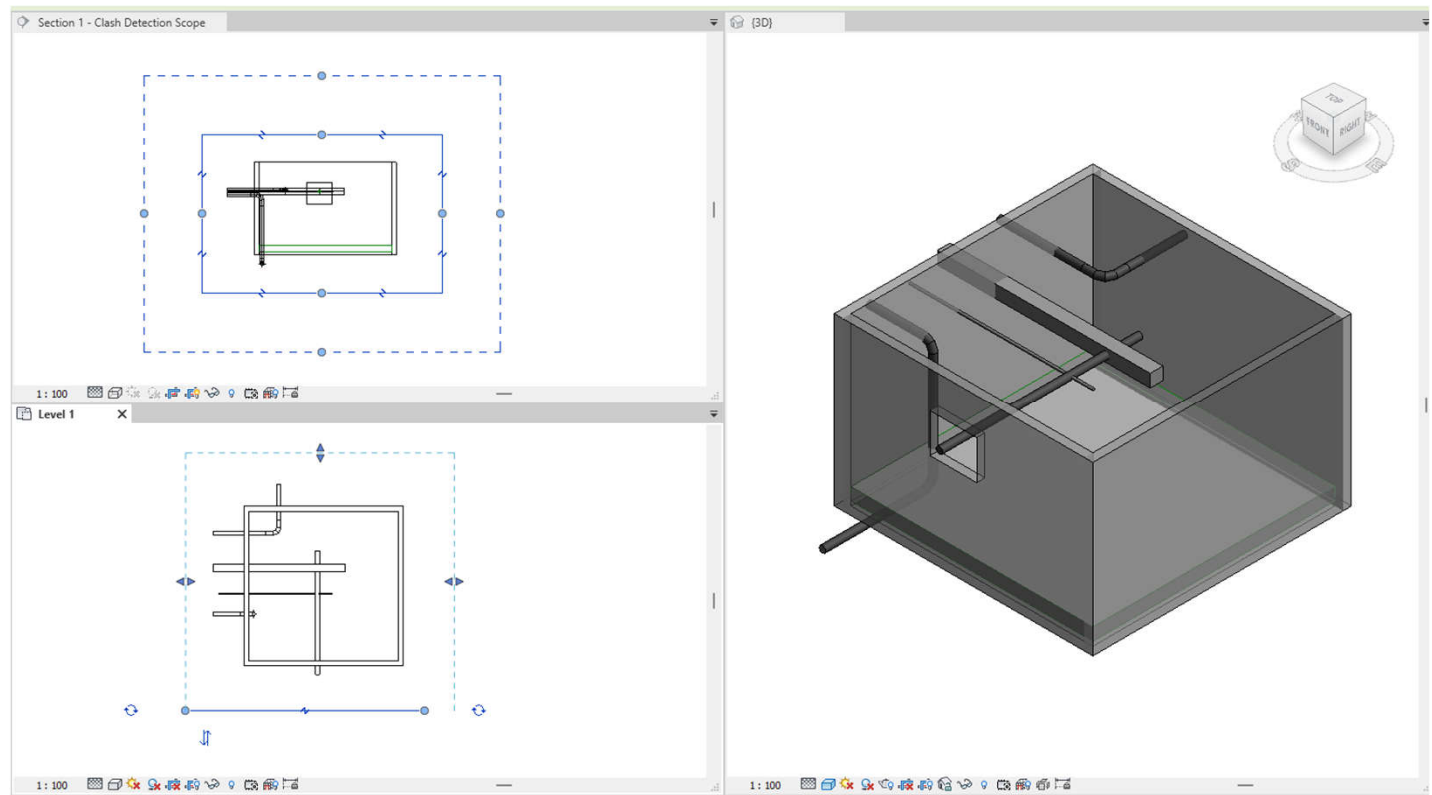| INPUT	Process	OUTPUT
Get element by section view that included of Group A and Group B	Find points of Group A Clash with Group B By Geometry.Intersect Node	Result of XYZ Points that intersect, then place family or clash point (You can change this family to block out or sleeve)

Purpose of Clash Detection Dynamo

- Detect or get the coordinate position of clash element
- Self intersection, better for communication when facing large size project or these are many BIM Modeler involved.
- You can assign filters to Clash Family for individual BIM Modeler according to the company's template.
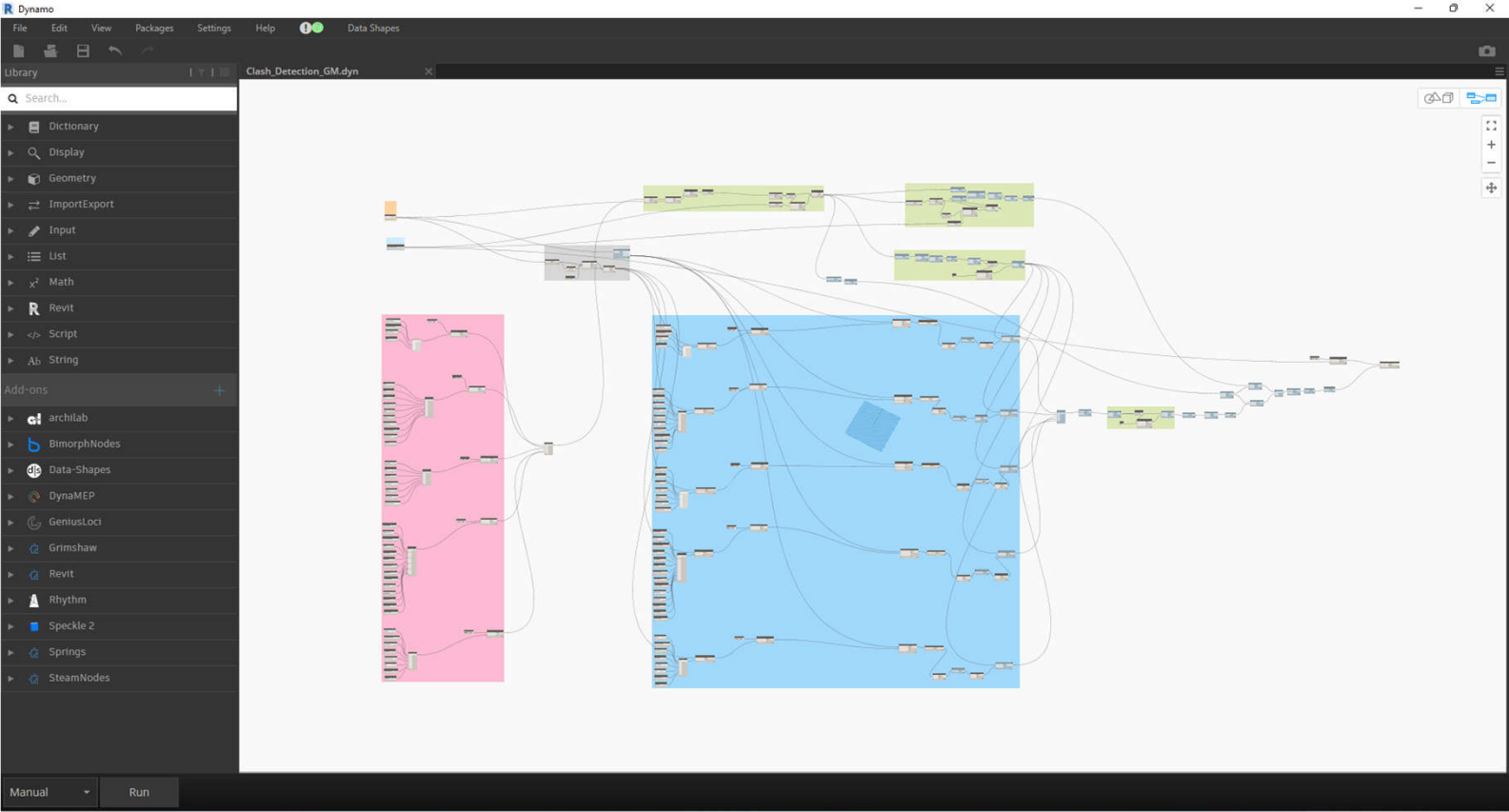
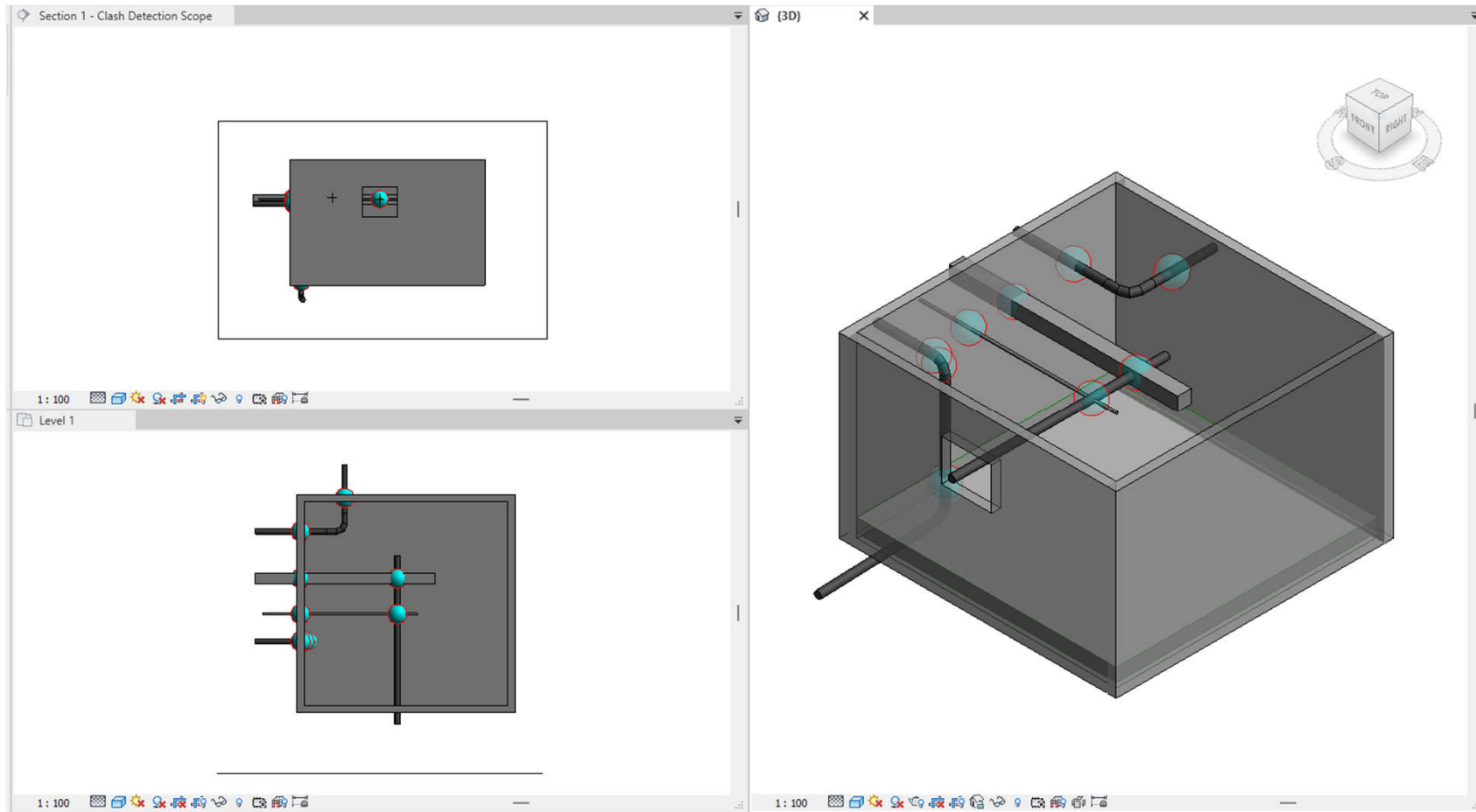# INPUT

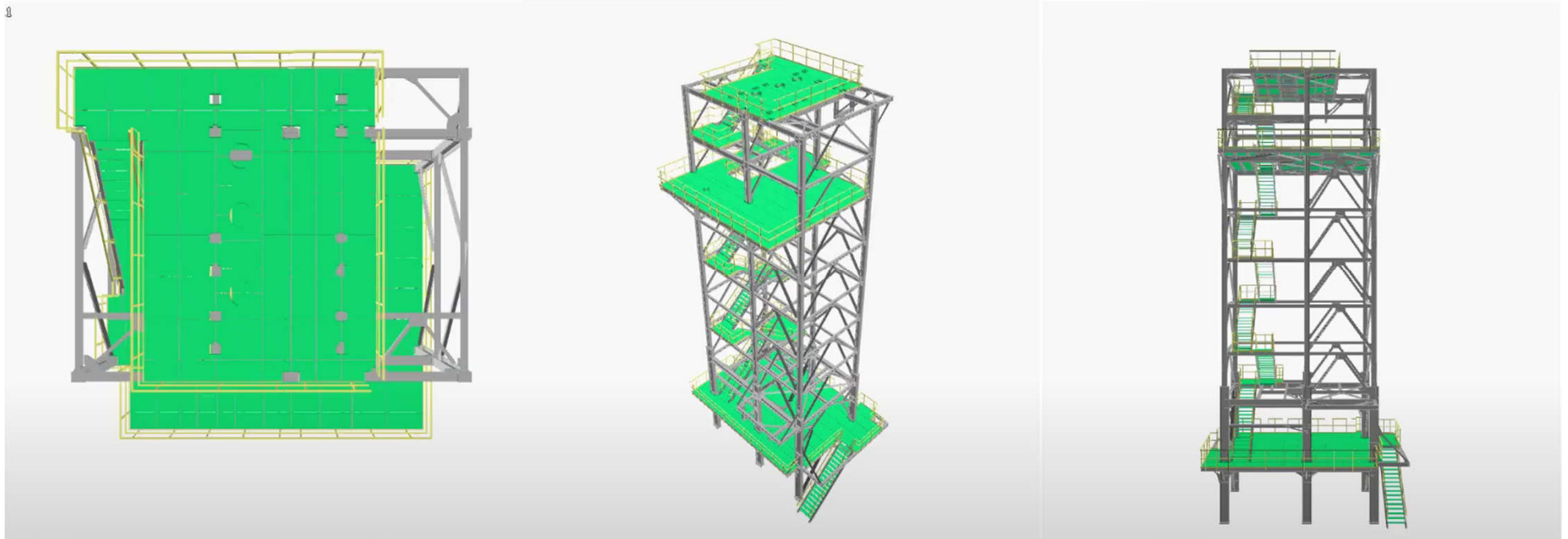- Section View of Element
- Clash Point Family

PROCESS

https://drive.google.com/file/d/1ZZ8GtkLSJyjD6O89YOEBFshwf82OYajt

Navisworks 4D Simulation

https://www.youtube.com/watch?v=Ug6uKRU54Tg

https://www.youtube.com/watch?v=6HFOp3TottA