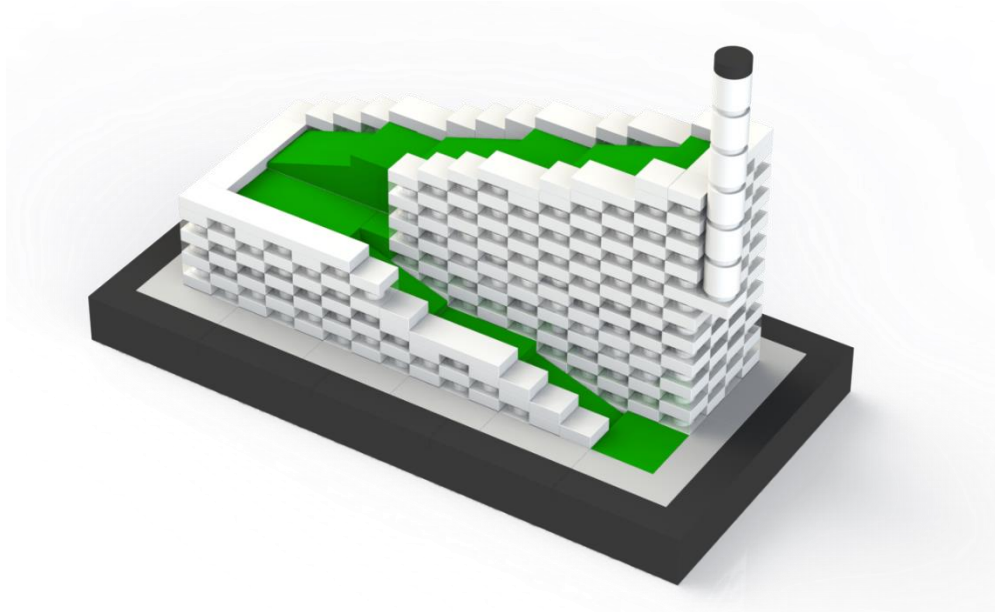


# CopenHill LEGO Assembly

Ashley Howell | ah894 | R1.0 | 13 Oct 2020

M1 Project Materials Submission, MeEn 272

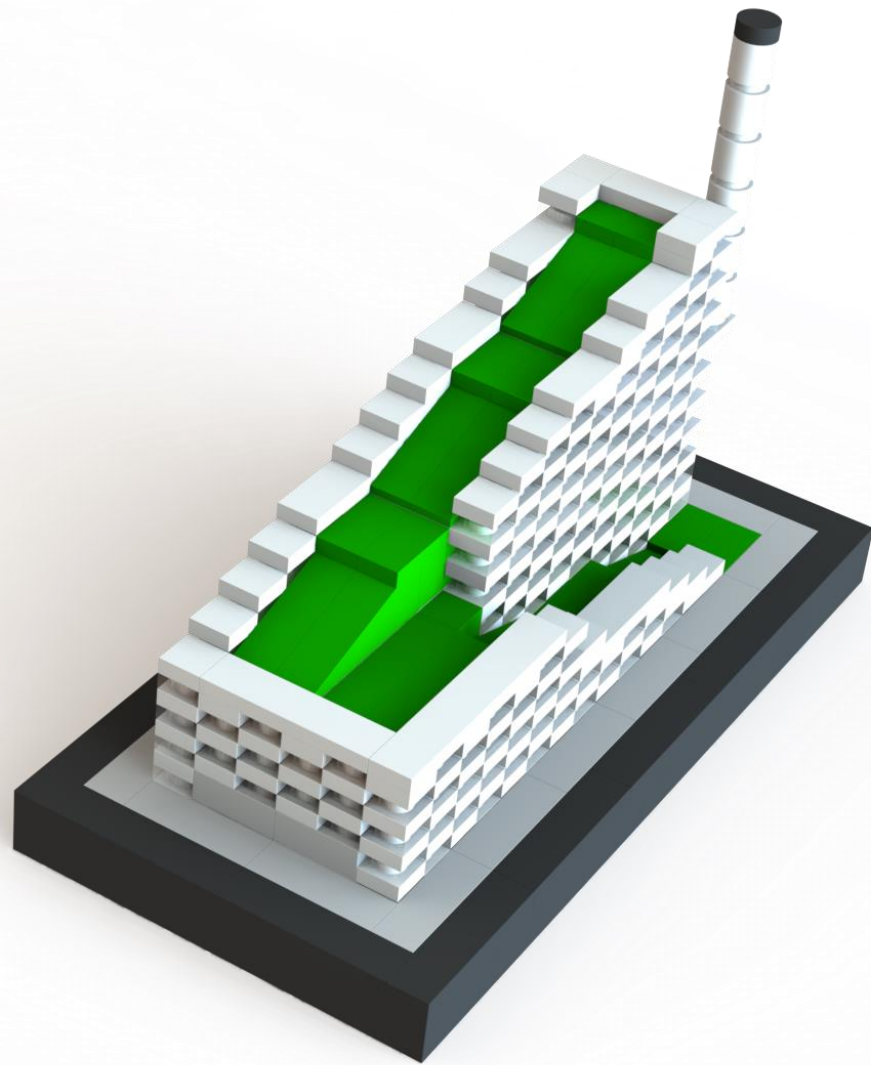


This document provides the following design artifacts for the CopenHill LEGO Assembly:

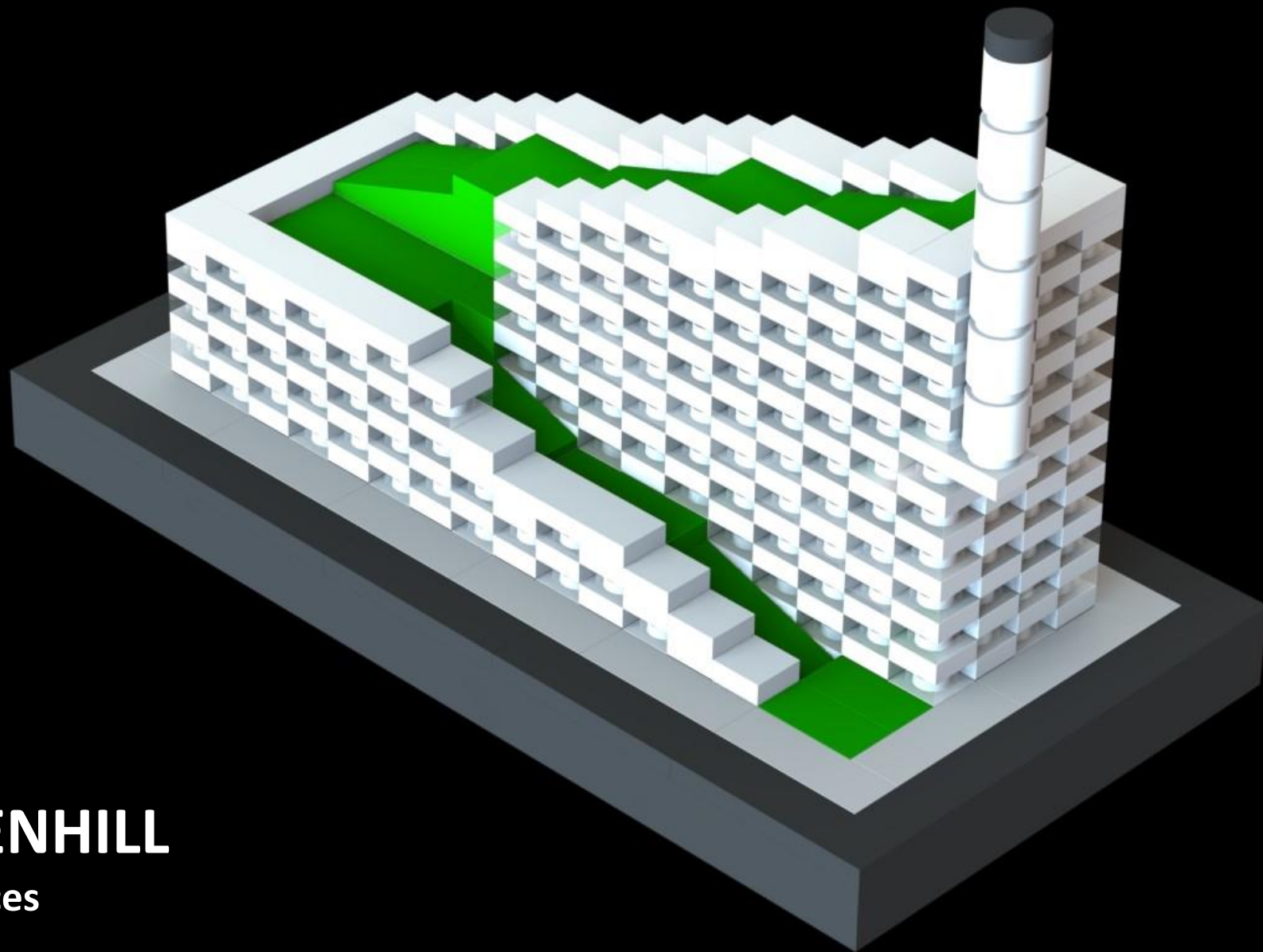
1. Title page with rendering of final assembly
2. Two-part image, with photo and rendering.
3. Requested rendering of model with black background in isometric view.
4. Hand sketches that communicate approach.
5. CAD Drawing of 2x4 LEGO Brick.
6. Assembly Drawing of the assembly.

## Revision History

Revision	Date	Description
R1.0	13 Oct 2019	Initial Release

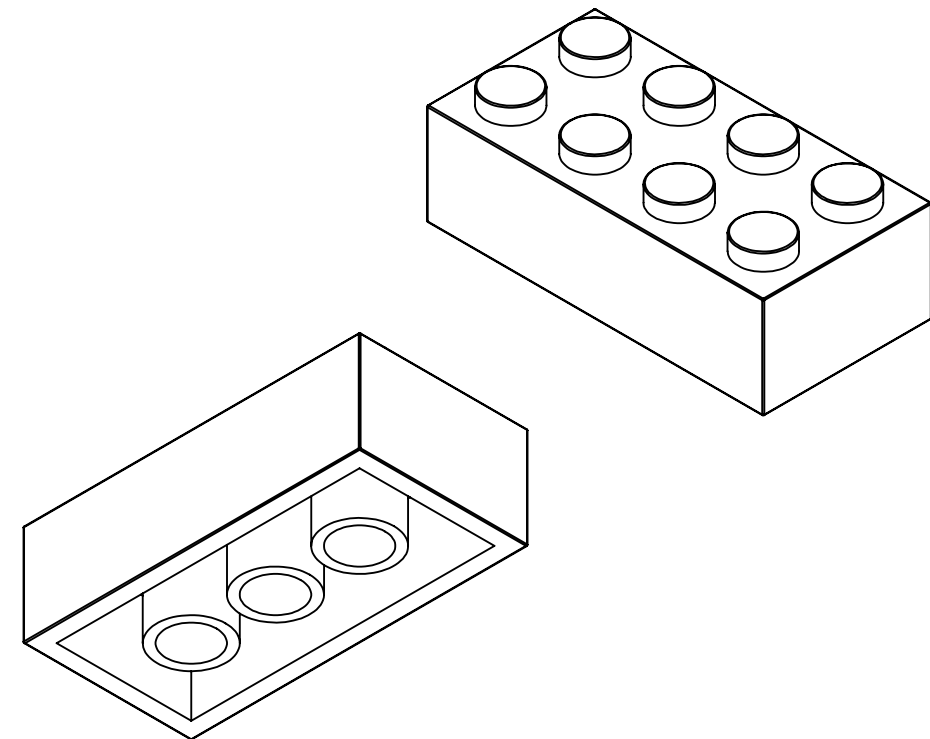
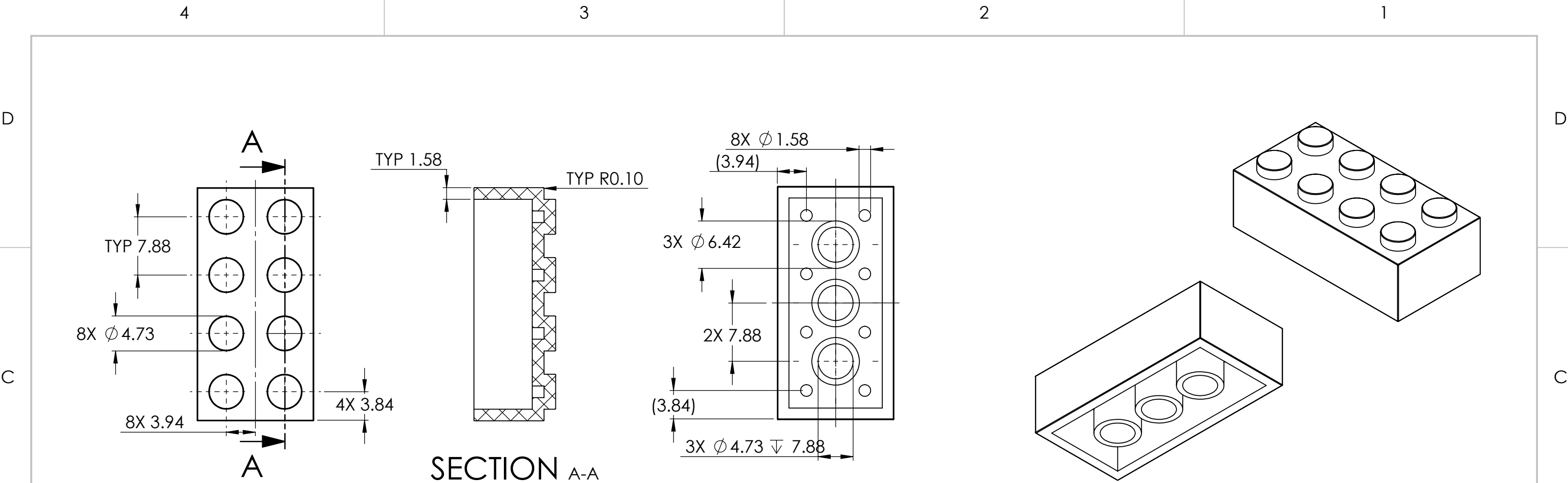






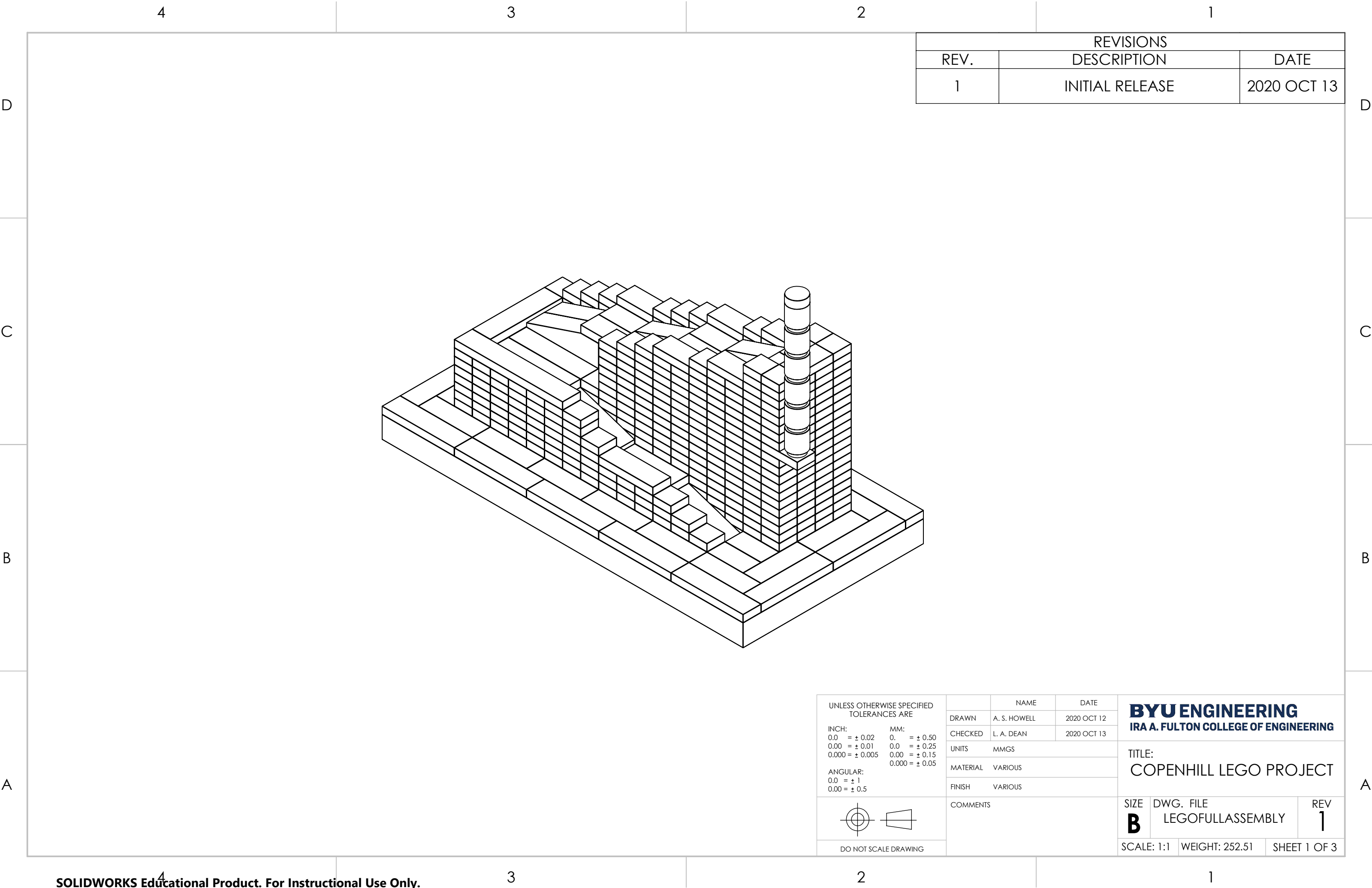
# COPENHILL

695 Pieces

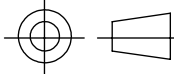
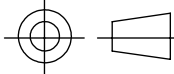


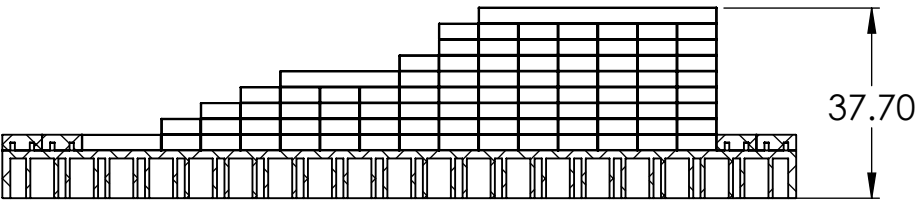
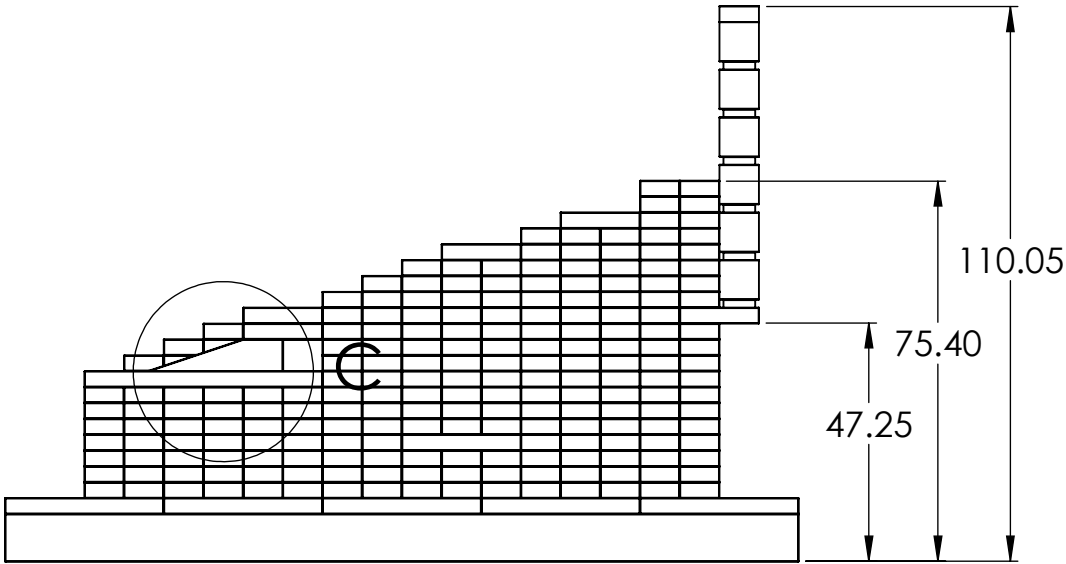
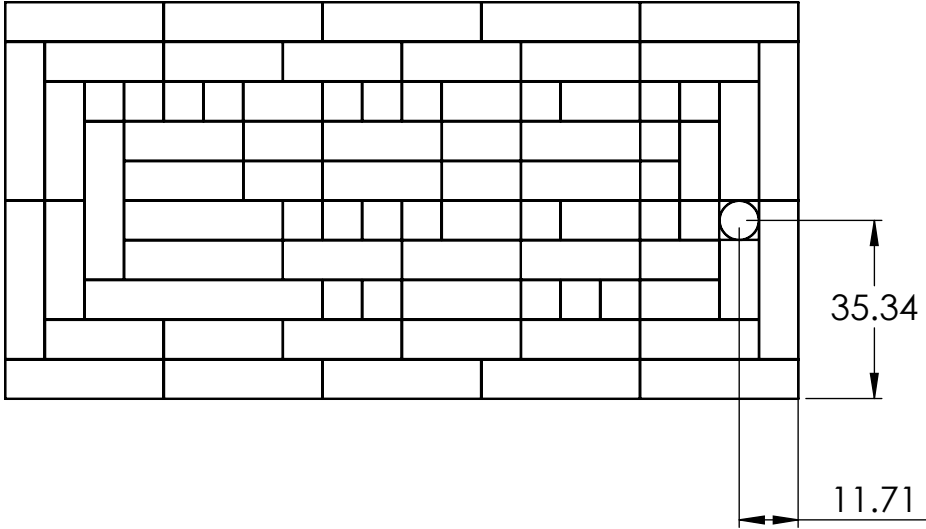
- NOTES:
- HIDDEN LINES ON TOP VIEW NOT SHOWN FOR CLARITY
  - FILLET APPLIED IN SECTION A-A IS APPLIED TO ALL EDGES EXCEPT UNDER-TUBES AND INSIDE CAVITY
  - EIGHT CIRCLES ON THE BOTTOM VIEW ARE POSITIONED IN SPACE LIKE THE EIGHT CIRCLES ON THE TOP VIEW

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE		NAME		DATE		<div>BYU ENGINEERING</div> <div>IRA A. FULTON COLLEGE OF ENGINEERING</div>					
INCH:		DRAWN		A. S. HOWELL		2020 OCT 03		<div>TITLE:</div> <div>2 X 4 LEGO BRICK</div>			
MM:		CHECKED		C. L. LORE		2020 OCT 12					
0.0 = ± 0.02		UNITS		MMGS							
0.00 = ± 0.01		MATERIAL		ABS							
0.000 = ± 0.005		FINISH		WHITE-PW-MT11050							
ANGULAR:		COMMENTS				SIZE		DWG. FILE		REV	
0.0 = ± 1						B		GENERIC2XNLEGOPIECE		1	
0.00 = ± 0.5								SCALE: 2:1		WEIGHT: 2.47	
<div></div>										SHEET 1 OF 1	
DO NOT SCALE DRAWING											

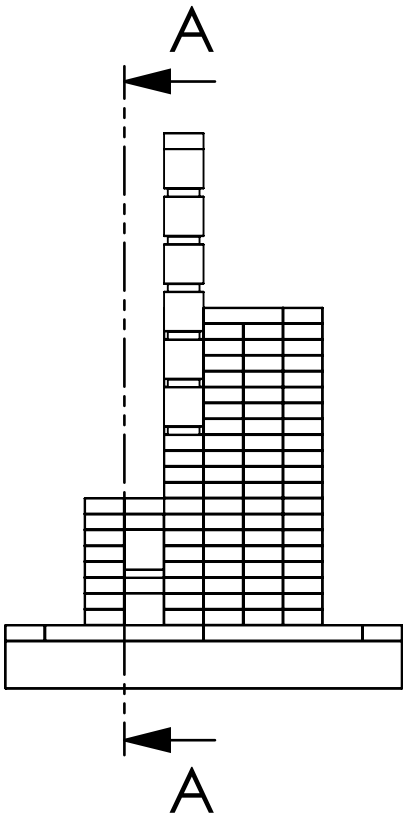


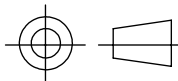
REVISIONS		
REV.	DESCRIPTION	DATE
1	INITIAL RELEASE	2020 OCT 13

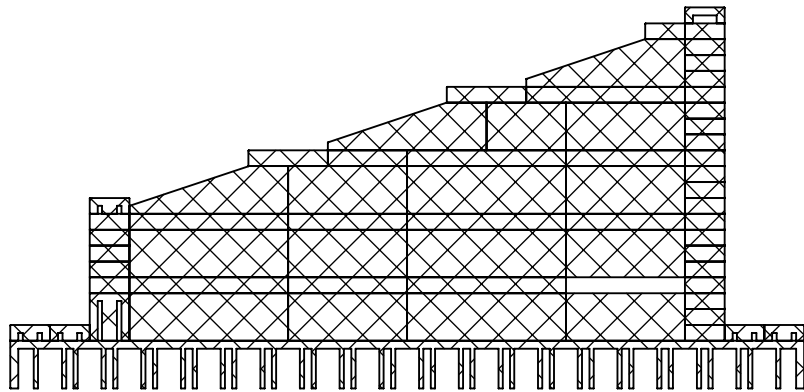
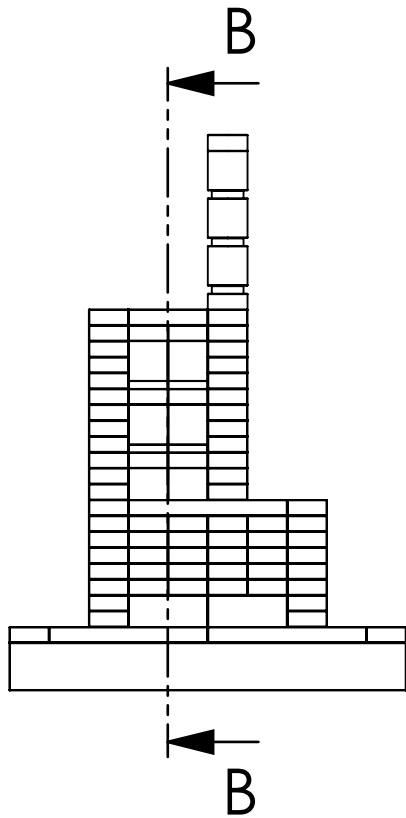
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE  INCH: 0.0    = ± 0.02 0.00   = ± 0.01 0.000 = ± 0.005  ANGULAR: 0.0    = ± 1 0.00   = ± 0.5  		NAME		DATE		<b>BYU ENGINEERING</b> <b>IRA A. FULTON COLLEGE OF ENGINEERING</b>				
		DRAWN	A. S. HOWELL	2020 OCT 12						
		CHECKED	L. A. DEAN	2020 OCT 13						
		UNITS		MMGS		TITLE: COPENHILL LEGO PROJECT				
MATERIAL		VARIOUS								
FINISH		VARIOUS								
  DO NOT SCALE DRAWING		COMMENTS				SIZE	DWG. FILE		REV	
						<b>B</b>	LEGOFULLASSEMBLY		<b>1</b>	
						SCALE: 1:1		WEIGHT: 252.51		SHEET 1 OF 3



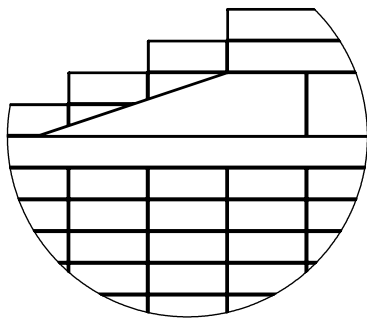
SECTION A-A  
SCALE 2 : 3



UNLESS OTHERWISE SPECIFIED TOLERANCES ARE		NAME		DATE		<div>BYU ENGINEERING</div> <div>IRA A. FULTON COLLEGE OF ENGINEERING</div>						
		DRAWN	A. S. HOWELL	2020 OCT 12								
INCH: 0.0 = ± 0.02 0.00 = ± 0.01 0.000 = ± 0.005		MM: 0. = ± 0.50 0.0 = ± 0.25 0.00 = ± 0.15 0.000 = ± 0.05		CHECKED	L. A. DEAN	2020 OCT 13		TITLE: COPENHILL LEGO PROJECT				
ANGULAR: 0.0 = ± 1 0.00 = ± 0.5		UNITS		MMGS								
		MATERIAL		VARIOUS								
		FINISH		VARIOUS		SIZE <b>B</b>			DWG. FILE LEGOFULLASSEMBLY		REV <b>1</b>	
		COMMENTS										
DO NOT SCALE DRAWING						SCALE: 2:3		WEIGHT: 252.51		SHEET 2 OF 3		



SECTION B-B  
SCALE 2 : 3



DETAIL C  
SCALE 4 : 3

NOTES:  
1. SECTION B-B IS AN INFITESIMALLY SMALL SLICE TO PREVENT  
CONFUSION

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	700	10x20 Black Brick	1
2	3069	1x2 Green Tile	6
3	3040	1x4 Green Slope	8
4	3062a	BARREL	6
5	98138	TILE ROUND 1X2	1
6	3004	1x2 Gray Brick	2
7	3024	1x1 Clear Plate	267
8	3024	1x1 White Plate	266
9	2431	1x4 White Tile	1
10	3069	1x2 White Tile	6
11	3070	1x1 White Tile	21
12	63864	1x3 White Tile	1
13	6636	1x6 White Tile	1
14	2431	1x4 Black Tile	14
15	63864	1x3 Gray Tile	16
16	3010	1x4 White Brick	14
17	63864	1x3 Green Tile	1
18	3005	1x1 White Brick	2
19	3622	1x3 White Brick	14
20	2431	1x4 Green Tile	2
21	3710	1x4 White Plate	13
22	3623	1x3 White Plate	12
23	3023	1x2 White Plate	4
24	3005	1x1 Green Brick	1
25	3070	1x1 Green Tile	3
26	3004	1x2 White Brick	2
27	3622	1x3 Green Brick	1

UNLESS OTHERWISE SPECIFIED  
TOLERANCES ARE

INCH:	MM:
0.0 = ± 0.02	0. = ± 0.50
0.00 = ± 0.01	0.0 = ± 0.25
0.000 = ± 0.005	0.00 = ± 0.15
	0.000 = ± 0.05

ANGULAR:

0.0 = ± 1
0.00 = ± 0.5

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	A. S. HOWELL	2020 OCT 12
CHECKED	L. A. DEAN	2020 OCT 13
UNITS	MMGS	
MATERIAL	VARIOUS	
FINISH	VARIOUS	
COMMENTS		

**BYU ENGINEERING**  
IRA A. FULTON COLLEGE OF ENGINEERING

TITLE:  
COPENHILL LEGO PROJECT

SIZE	DWG. FILE	REV
<b>B</b>	LEGOFULLASSEMBLY	<b>1</b>

SCALE: 2:3	WEIGHT: 252.51	SHEET 3 OF 3
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