

# Representação Digital

# 2023-2024

20221184

Mariana Mendes



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Semana 1 - 26-27/09.....	4
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# INTRODUÇÃO DA CADEIRA:

Criação de um site

- Filezilla
- Notepad++

Objetivo: aprender a saber usar html e criar um site público para entrega de trabalhos

# INTRODUÇÃO DA CADEIRA:

Anotações de códigos de html:

<br> - espaçamento/parágrafo

<img> - imagem

Ú - &\_acute ;

À - &\_grave;

Ê - &\_circ;

Õ - &\_tilde;

# NOTEPAD++



Notepad++  
App

```
C:\Users\maria\Downloads\digital\index.html - Notepad++
File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
Folder as Workspace index.html
1 <html>
2 <head>
3 <title> Mariana Mendes </title>
4 <style>
5 body {
6     background-color: #46723C;
7     font-family: Arial, monospace;
8 }
9 p.sansserif {
10    font-family: Arial, sans-serif;
11 }
12 h1 {
13    color: darkblue;
14    text-align: left;
15    font-family: arial, sans-serif;
16    font-size: 35px;
17 }
18 footer {
19    color: darkblue;
20    text-align: center;
21    font-family: arial, sans-serif;
22    font-size: 15px;
23 }
24 </style>
25 </head>
26 <link type="text/css" rel="stylesheet" href="estilos.css">
27 <body>
28 <div id="foto" style="position:absolute; left:750px; width:430px; height:50px; z-index:0 ; margin-left:300px;margin-bottom: 250px">
29 <br>
30 <br>
31 <br>
32 <br>
33 </div>
34 <div class="quadro">
35 <fa>
36
37 </style>
38 </head>
39 <link type="text/css" rel="stylesheet" href="estilos.css">
40 <body>
41 <div id="foto" style="position:absolute; left:350px; width:430px; height:50px; z-index:0 ; margin-left:300px;margin-bottom: 250px">
42 <br>
```

# FILEZILLA



20221184@ftp.fa.ulisboa.pt - FileZilla

File Edit View Transfer Server Bookmarks Help

Host: ftp.fa.ulisboa.pt Username: 20221184 Password: ..... Port: Quickconnect

Status: Connection established, waiting for welcome message...  
Status: Insecure server, it does not support FTP over TLS.  
Status: Logged in  
Status: Disconnected from server

Local site: C:\Users\maria\  
Remote site: /public\_html

Filename	Filesize	Filetype	Last modified	Permissi...	Owner/G...
..					
foto.jpg	2,381,8...	JPG File	10/11/202...	adfrw (0...	3475 10...
foto2.jpg	3,599,1...	JPG File	10/11/202...	adfrw (0...	3475 10...
index.html	2,299	Chrome...	10/11/202...	adfrw (0...	3475 10...

Filename	Filesize	Filetype	Last modified
..			
.android		File folder	12/05/2022 2...
.ms-ad		File folder	02/07/2022 1...
3D Objects		File folder	26/07/2021 1...
AppData		File folder	04/02/2023 2...
Application Data		File folder	29/10/2023 2...
Contacts		File folder	04/02/2023 2...
Cookies		File folder	19/12/2021 0...
Creative Cloud Files		File folder	12/11/2022 1...
Creative Cloud File...		File folder	02/11/2022 2...
Creative Cloud File...		File folder	30/05/2022 0...

19 files and 30 directories. Total size: 19,138,815 bytes

3 files. Total size: 5,983,219 bytes

# Mariana Mendes

20221184 ARQ ° 2  
Turma E

Diario Grafico

Entrega Exercicio 1



[marianamendes.mm06@gmail.com](mailto:marianamendes.mm06@gmail.com)

ReDig

Exerc. 1.1 – ACAD 2D

Semana 1

## AUTOCAD:



- L – line
- A – texto
- C – close
- Offset – paralelas
- Dist – distância
- E - erase
- Ficheiro – acadiso.dwg
- Model space – zona de trabalho
- Paper space – layout
- 10 unidades por 10 unidades – último quadrado
- Unidade de medida = mm
- Unidade autocad = m
- Escala do autocad = 1/1000
- 1/1000 para 1/100 – imprimir x10
- 1/1000 para 1/20 – imprimir x50

# Representação digital

AUTOCAD

LOT by layer (sempre haver layers)

DRAWORDER → front/back Above/under

OSNAP → object snap

GRIP → selecionar Grip e esticar a linha

EX → extend

F → Fillet (Radios 0 ou outros) → interseção com outras linhas

HATCH → trama /Ansi 32 /Ar-Sand

MATCHPROP

BREAK

• Soleiras das portas de entrada → 4/2 cm

• 2 espessuras de linhas — mais grossa (porte) / (paredes) / (primeiras)  
— mais fina (janelas) / (exterior) / (desníveis) etc

$$\text{fator de escala} = 0,0242 \times fe = 2,0$$

$$fe = \frac{2}{0,0242} = 82,6446$$

$$\frac{2}{2,6989} = 0,7589678$$

AUTOCAD

Escala da imagem: medida com

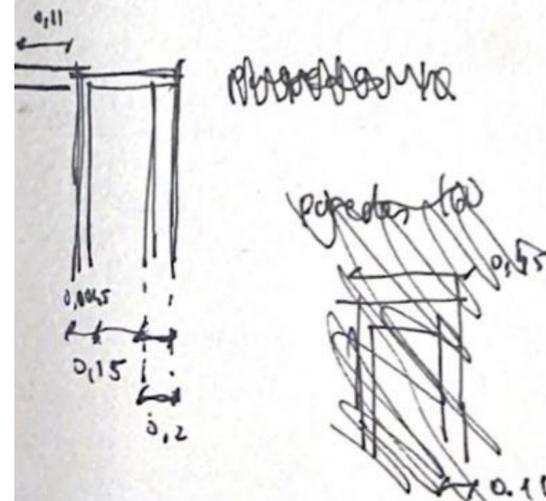
com esse medida dividida pela medida original.

o valor que der será usado para o scale.

1. move ↕ (0,0)

2. scale (imagem no ponto 0,0), selecionar imagem

Offset → serve para fazer paralelos



Matchprop → Converter linhas para determinadas layers

## COORDENADAS:

Coordenadas Cartesianas (x,y,z):

- Absolutas (relativas ao (0,0,0))
- Relativas (relativas ao ponto anterior)

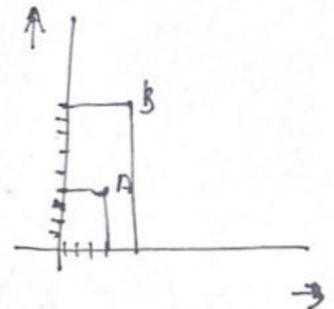
Coordenadas Polares:

- dist. < ângulo

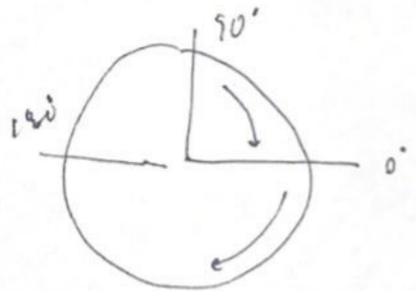
AutoCAD (File: DWT)

Coordenadas cartesianas (x; y; z)

A (4; 3)  
B (5; 9)



Coordenadas polares



Projeto → ideia/conceito  
(esquissos à mão)

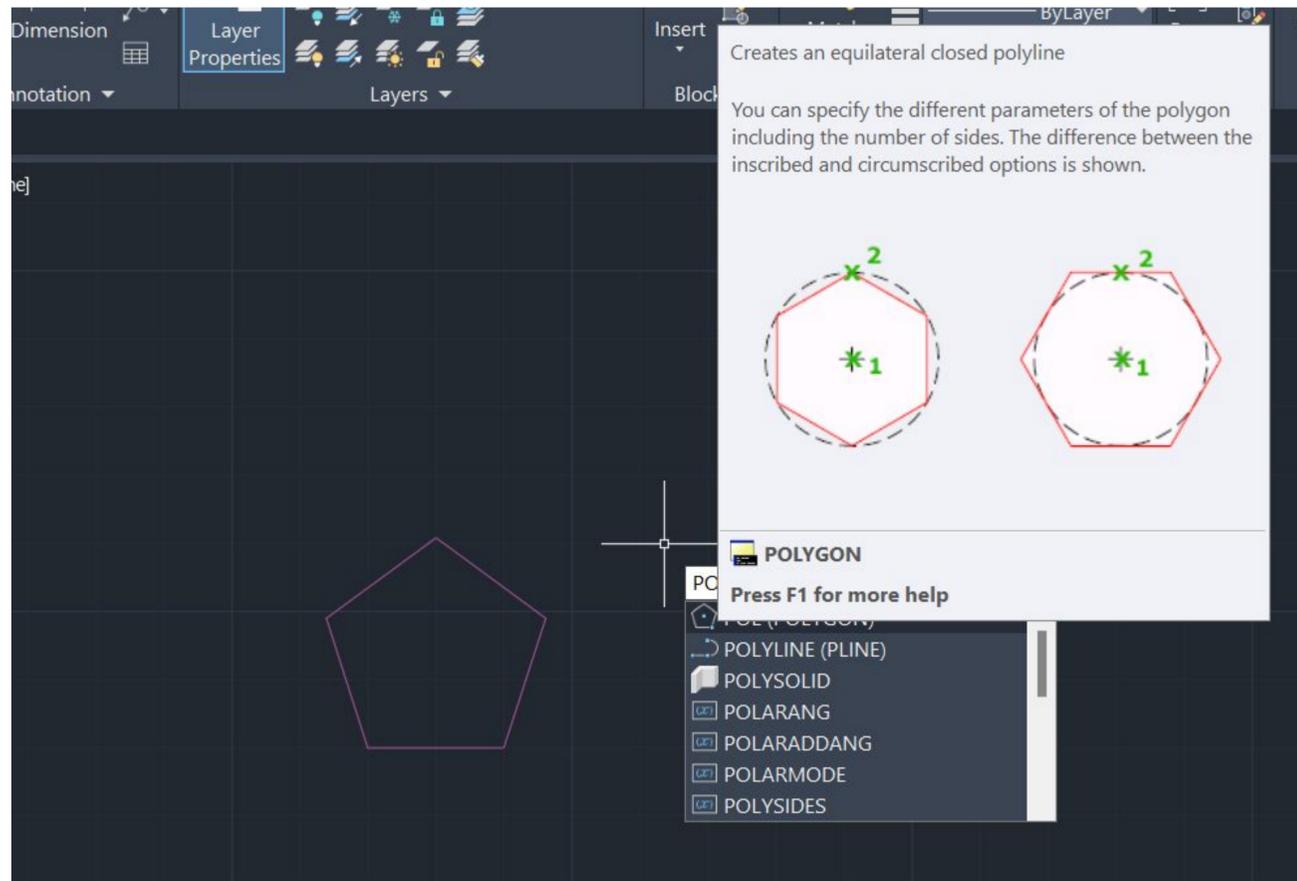
linhas-de cota  
- subdivisões  
- medidas

escala: redução da realidade  
uso de medidas da realidade para representar outras medidas de acordo com diversos objetivos

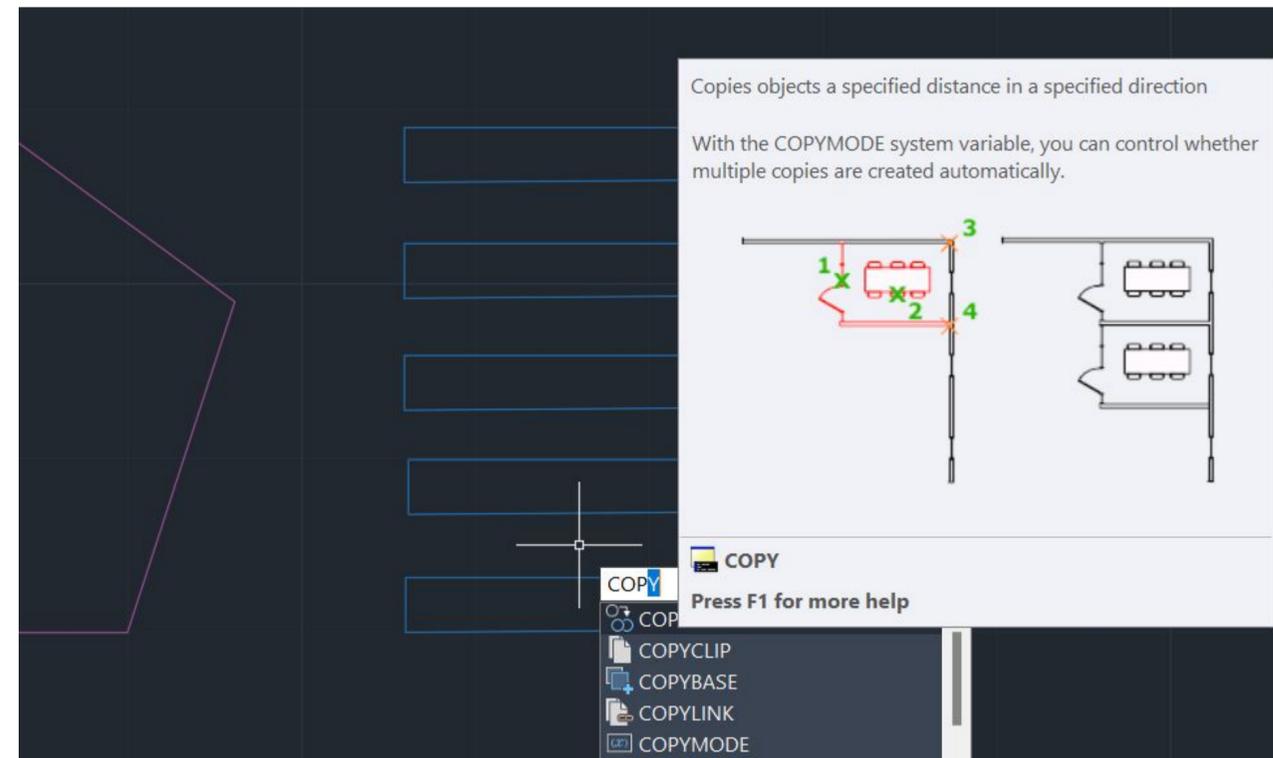
---

pesquisar:  
Bonjour tristesse  
Torre meteorológica barcelona / John Pew House (Frank Lloyd Wright)

# PENTÁGONO:

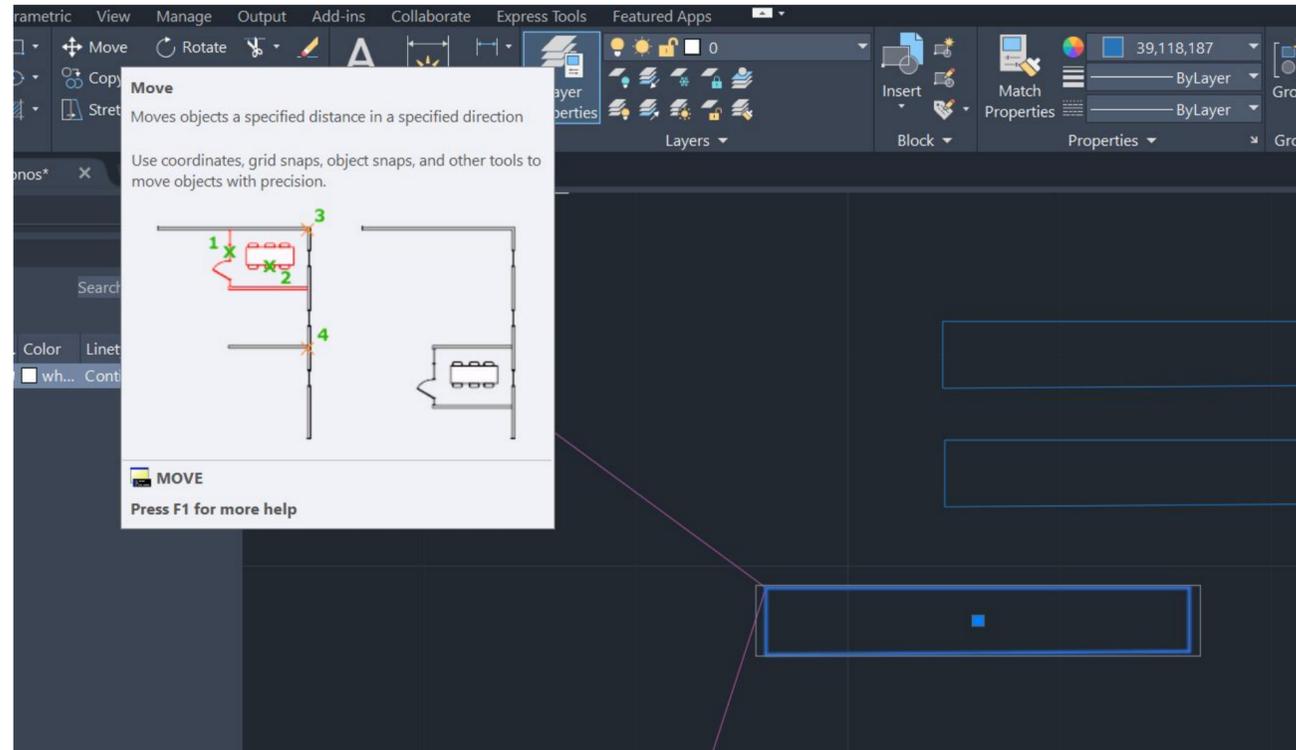


ferramenta: POL - polygon

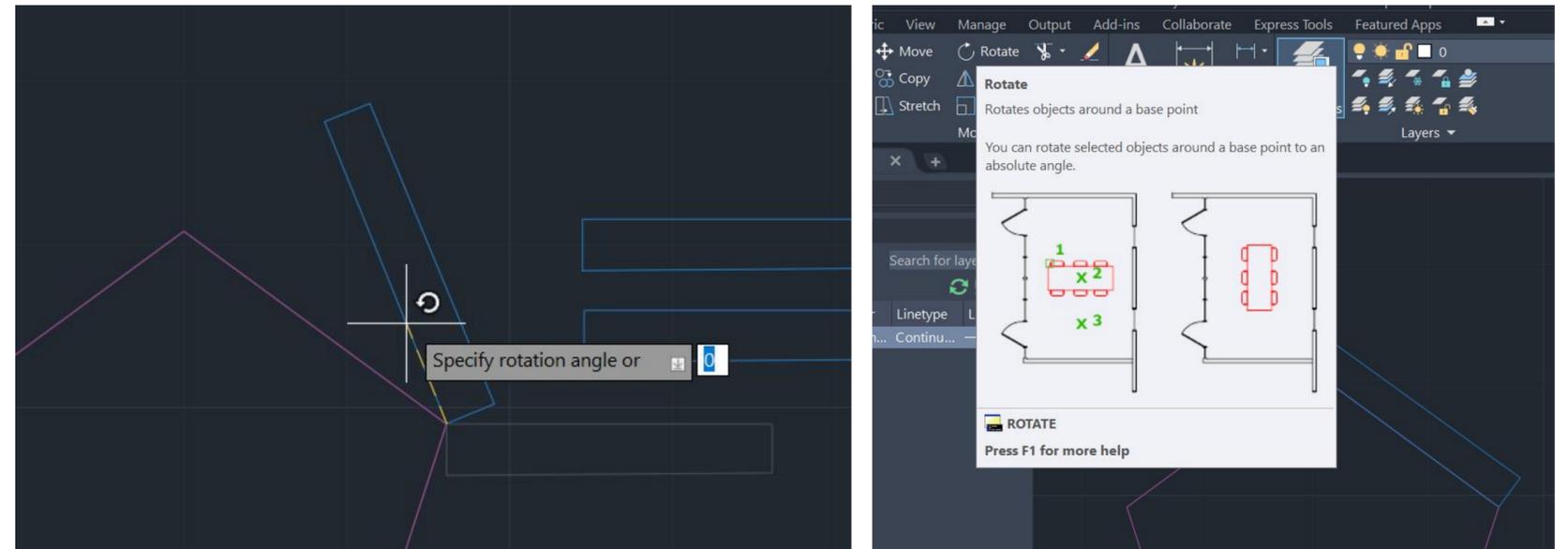


ferramenta: line - para desenhar os retangulos  
copy - multiplicar

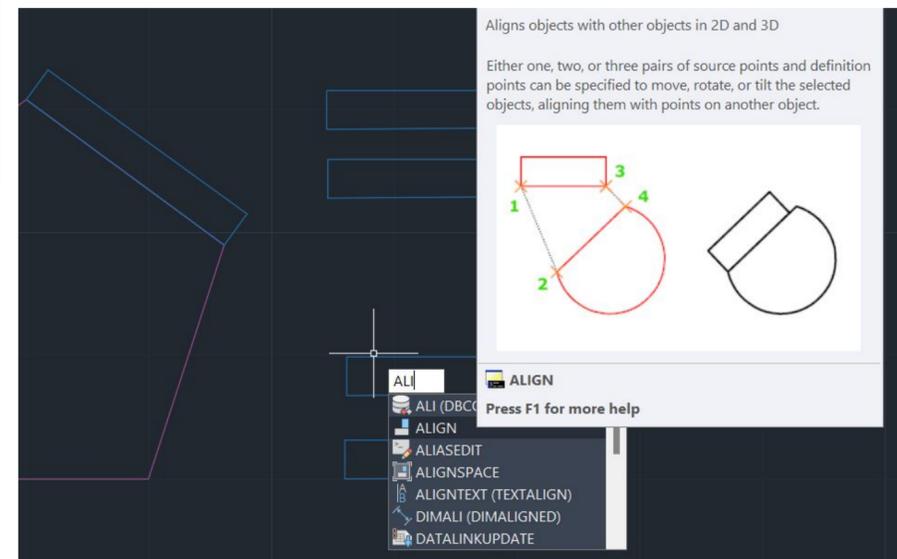
# PENTÁGONO:



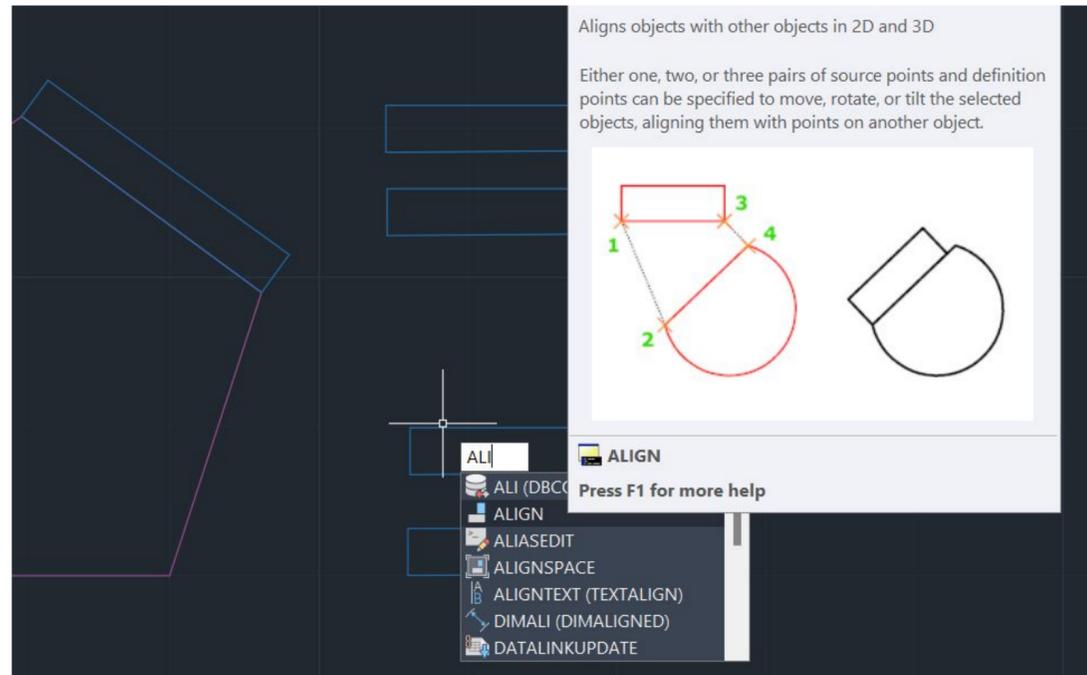
ferramenta: move - movimentando o retângulo para o vertice do polígono



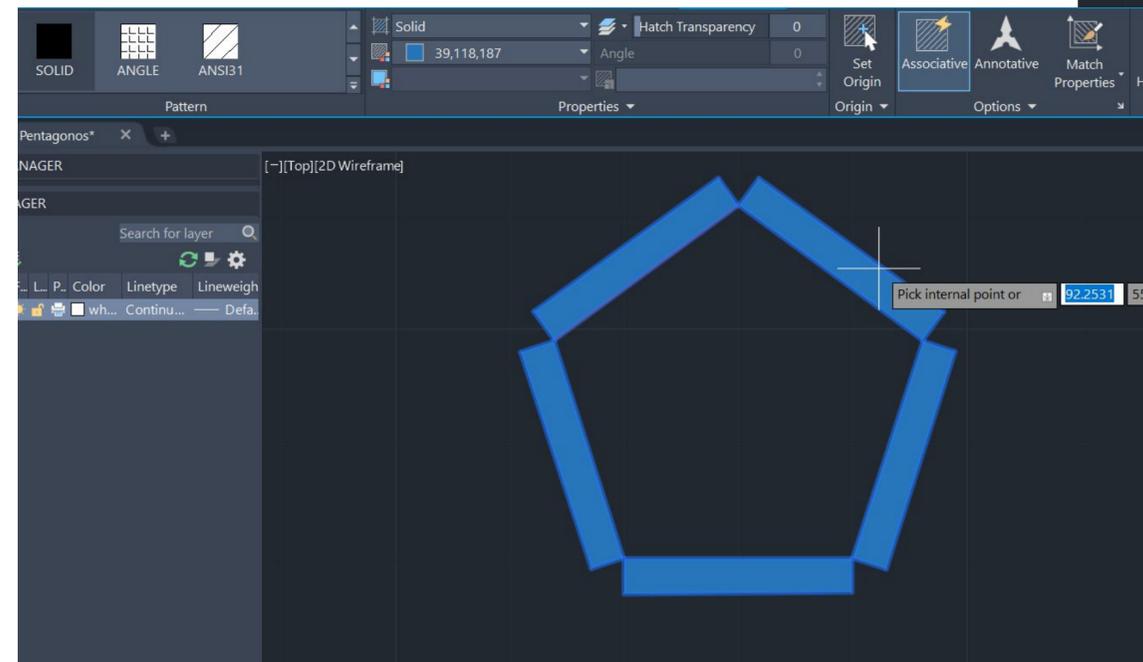
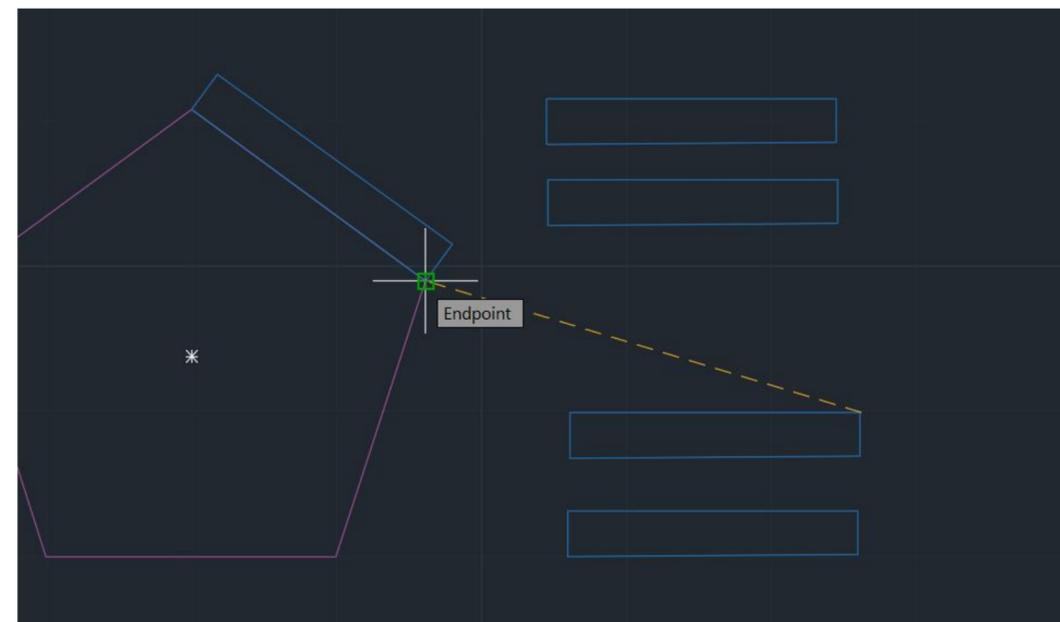
ferramenta: rotate - roda o retângulo para a face / lado do polígono



# PENTÁGONO:



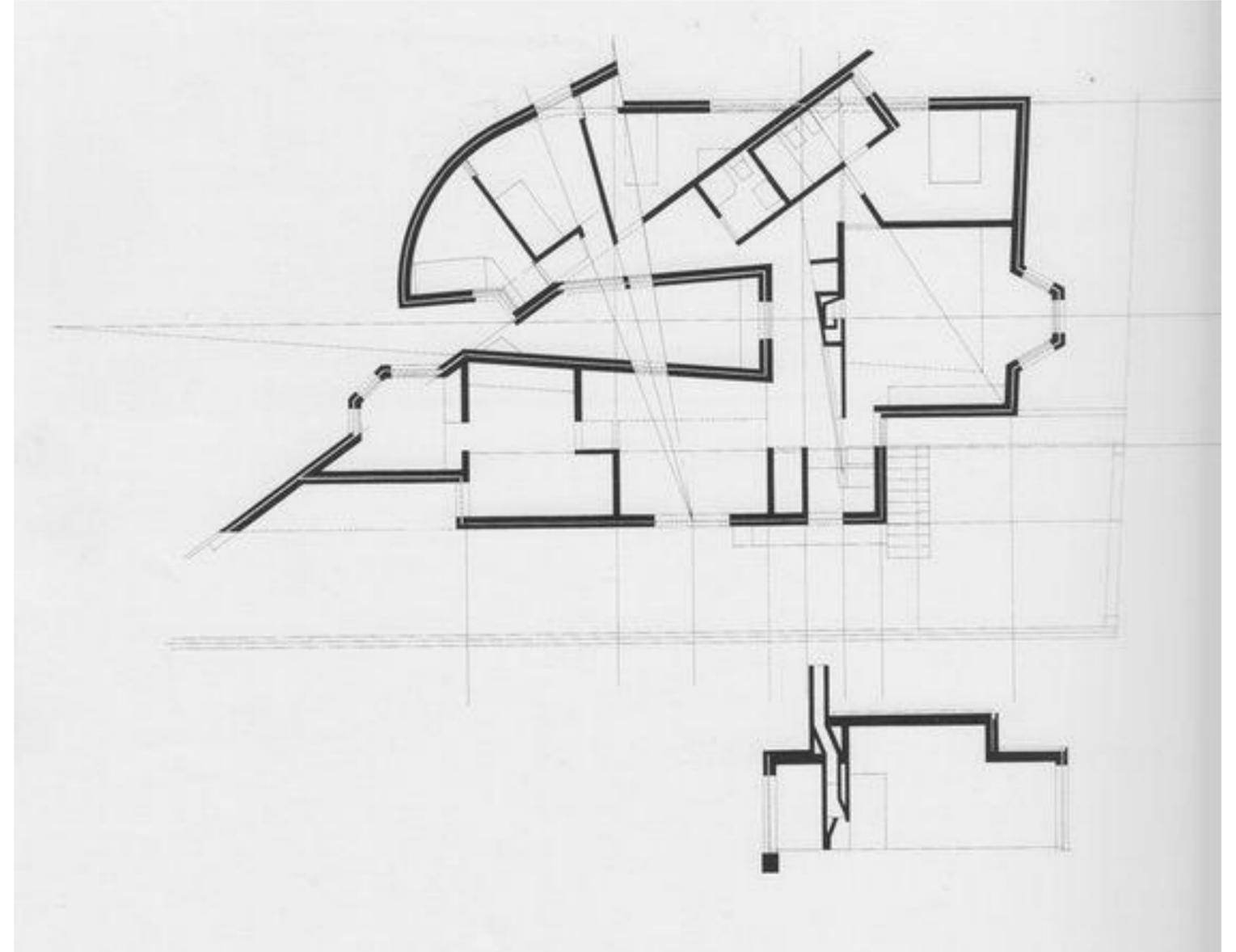
ferramenta: Align - alinha o pretendido desenho a outra escala, mudando a mesma para a escala a que está a ser alinhada

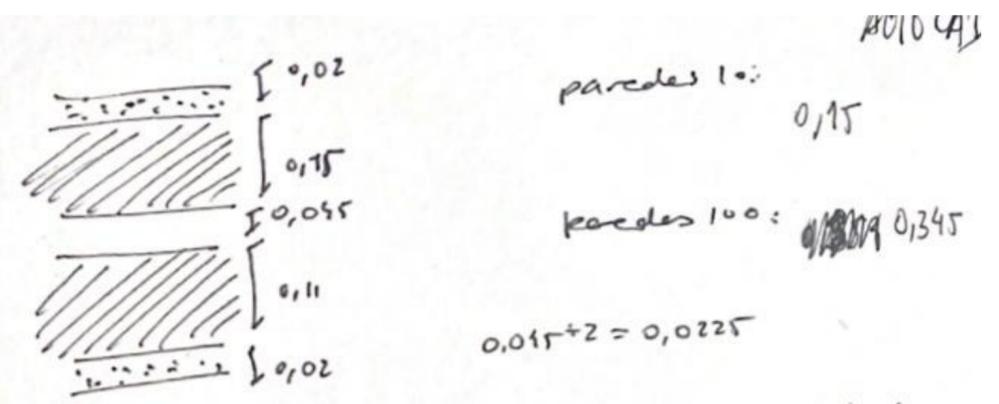


ferramenta: Hatch - pinta a forma fechada

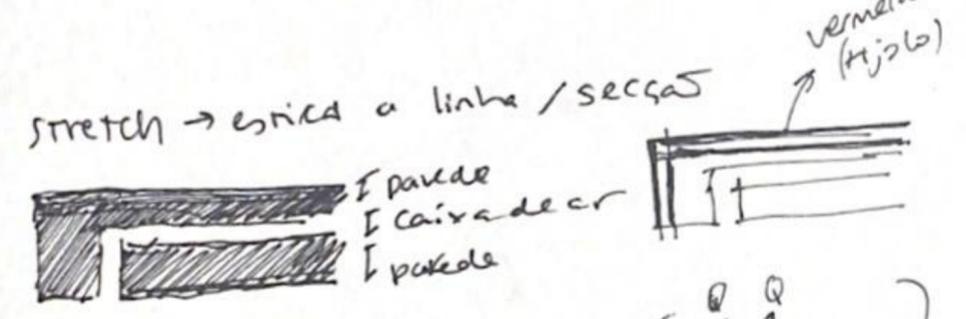
# EXERCÍCIO 1: CASA ANTÓNIO CARLOS SIZA

- Usando as ferramentas do autocad, decalcar a planta e fazer cortes, alçados e pormenores específicos

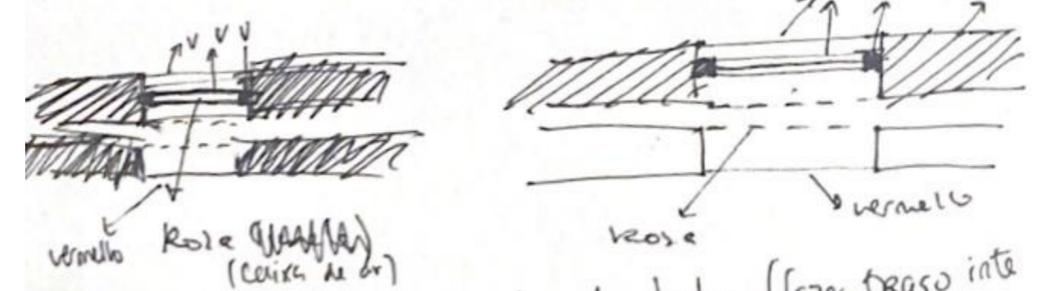




Hatch → layer onde se indica a natureza da parede

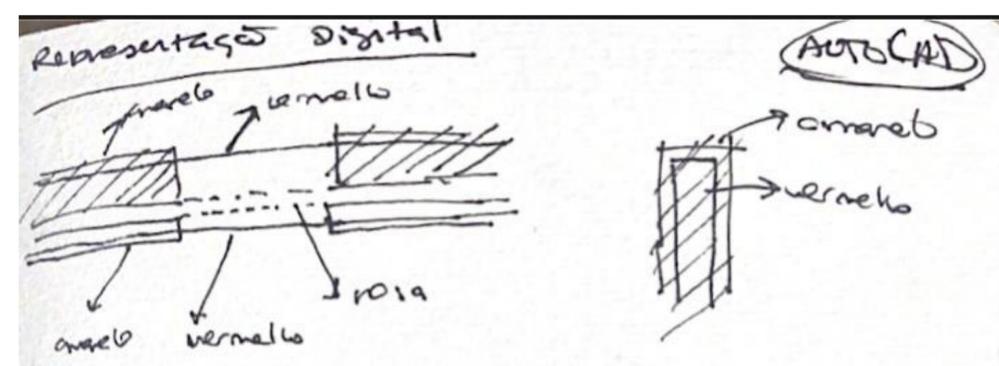


Break → quebra a linha (picar os pontos onde quer)



CHPROP → muda a escala da linha (fazer traço inte rompido)

GRIP → seleciona a linha e muda de local



Hatch → pinta e depois usa o padrão de materialidade da parede

Nearest → dá um ponto de aproximação de rede

C → circle

extend → estende a rede até a outra

Dtext → põe texto nos layouts ou plotters

DVIEW → window views

(Nó) (ACAD)  
 Esc/ 1/1000  
 $1m = 1un = 1mm$

Imp. 7/100  
 Escala  
 zoom → scale →

fazer freeze a layers no layout  
 Vplayer →  
 Freeze layers

# COMANDOS:

Chprop: change properties ( layer then type layer name)  
Match prop: select properties then choose lines to match  
L: line  
Pl: polyline  
F8: ortho on/off  
COPY: copia  
CIRCLE: cria circulos  
ARC: cria arcos  
M: move  
ROTATE: rotate around a point  
DRAWORDER- front/back/above/under  
EX- extend – permite extender a linha  
TR - trim – permite aparar/apagar partes de linha em excesso  
FILLET - arredonda as pontas  
MATCHP - match properties  
HATCH – materialidade  
BREAK - quebra a linha  
BREAKPOINT - quebra a linha num ponto especifico à escolha  
MI - mirror  
STRECH - aumenta a linha  
OFFSET – cria uma linha paralela da selecionada  
Z – zoom  
SCALE - mudar a escala do desenho

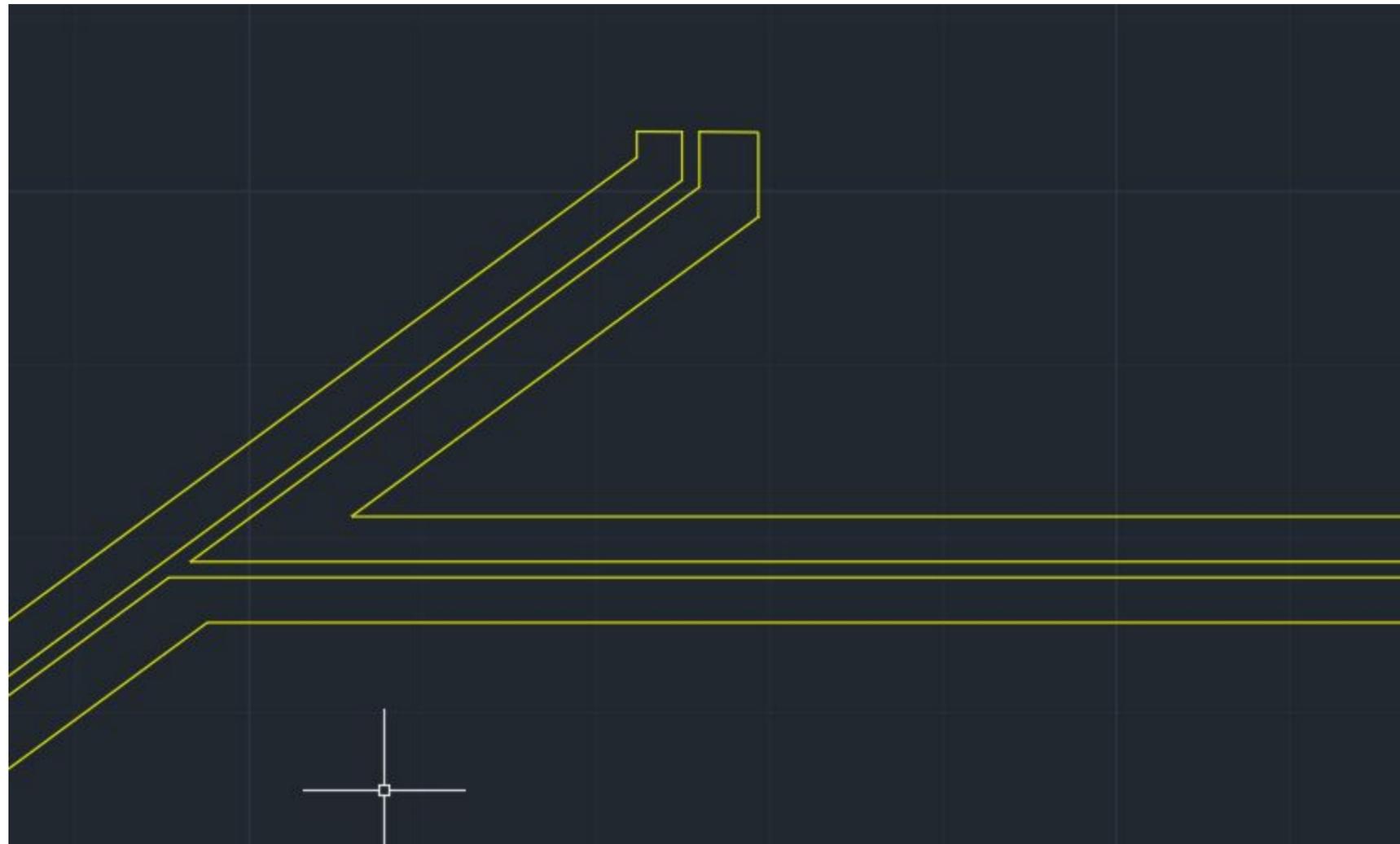
S..	Name	O.	F...	L...	P..	Color	Linetype
01		☹	☀	🔒	🖨	wh...	Continu...
alçado		☹	☀	🔒	🖨	150	Continu...
corte		☹	☀	🔒	🖨	150	Continu...
Defpoints		☹	☀	🔒	🖨	wh...	Continu...
✓	distancias	☹	☀	🔒	🖨	gr...	Continu...
Hatch		☹	☀	🔒	🖨	gr...	Continu...
Hatch pavi...		☹	☀	🔒	🖨	90	Continu...
imagem		☹	☀	🔒	🖨	140	Continu...
Invisibilida...		☹	☀	🔒	🖨	23...	DASHED
linhas de b...		☹	❄	🔒	🖨	8	Continu...
mobilia		☹	☀	🔒	🖨	30	Continu...
Mobiliario		☹	☀	🔒	🖨	30	Continu...
Paredes		☹	☀	🔒	🖨	wh...	Continu...
paredes 10		☹	☀	🔒	🖨	50	Continu...
paredes 100		☹	☀	🔒	🖨	50	Continu...
Texto		☹	☀	🔒	🖨	150	Continu...
vãos		☹	☀	🔒	🖨	12	Continu...
vistas 10		☹	☀	🔒	🖨	red	Continu...
vistas 100		☹	☀	🔒	🖨	red	Continu...
window view		☹	☀	🔒	🖨	wh...	Continu...

→ criação de várias layers de acordo com cada especificidade no desenho

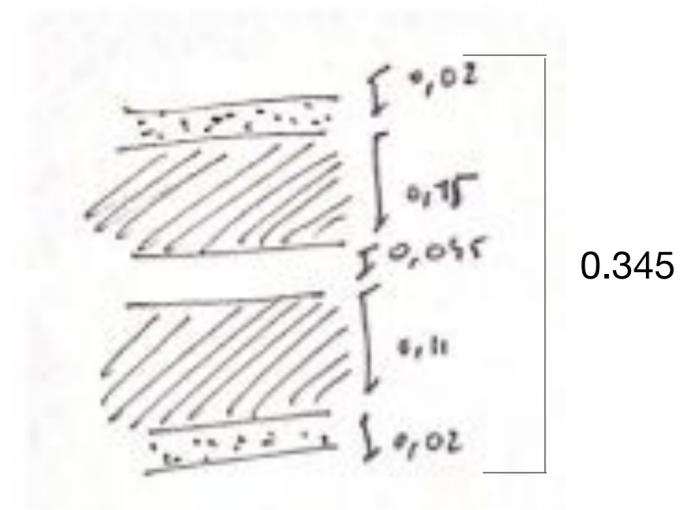
## LAYERS:

- paredes 100: contorno da parede exterior
- paredes 10: contorno e caixa de ar
- vistas 100: caixa de ar
- vistas 10: reboco
- hatch: material das paredes (reboco, tijolo etc)
- invisibilidades: o que não se vê
- linhas de base: linhas da geometria da planta, linhas de suporte, linhas prolongadas dos cortes
- vãos: portas e janelas
- window view: viewports de detalhes da planta

# PAREDES DA PLANTA :

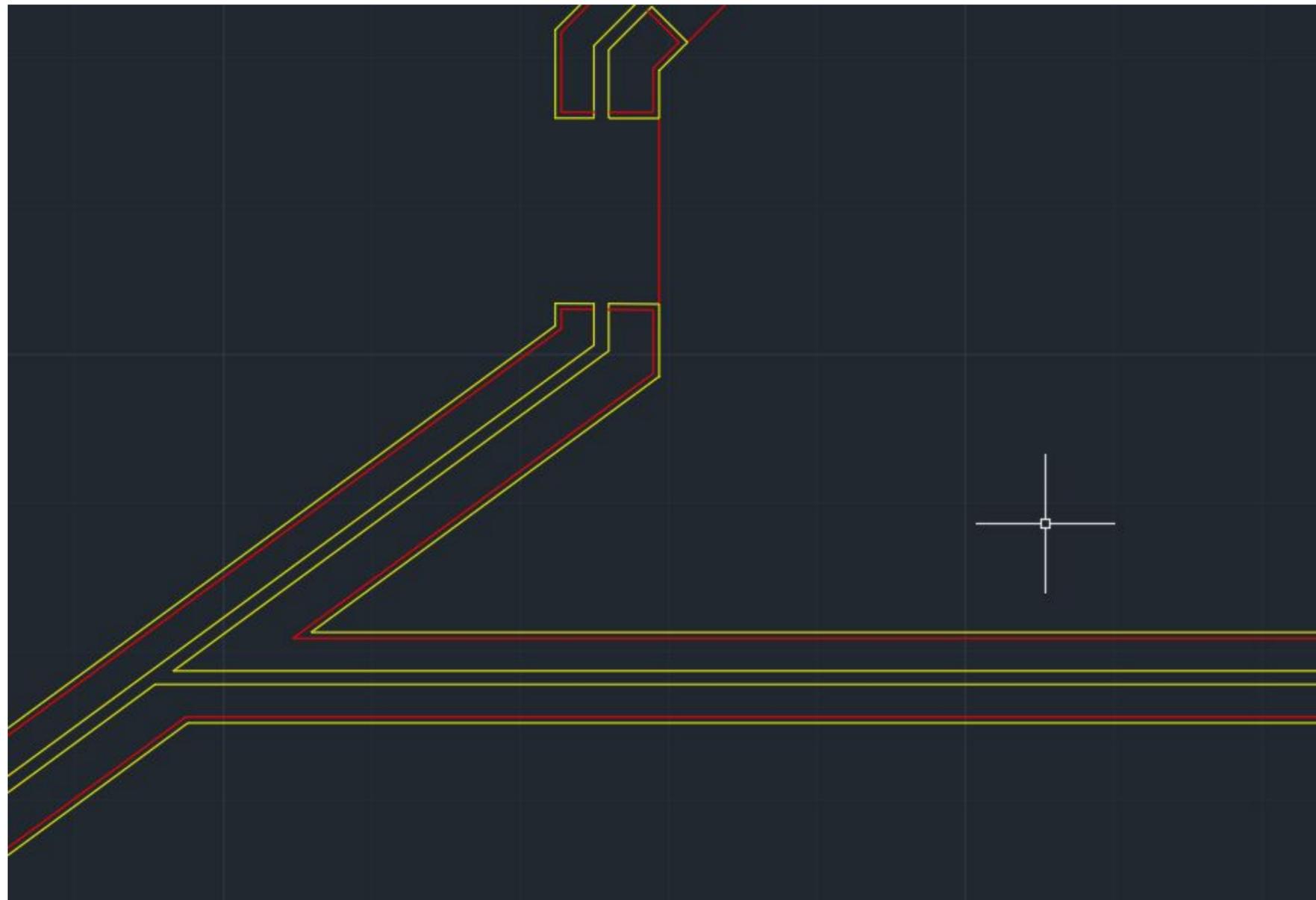


Parede interior + caixa de ar + parede exterior



→ **caixa de ar** - permite e regularização de temperatura entre as paredes exterior e interior pois existe circulação de ar na mesma.

## PAREDES DA PLANTA :

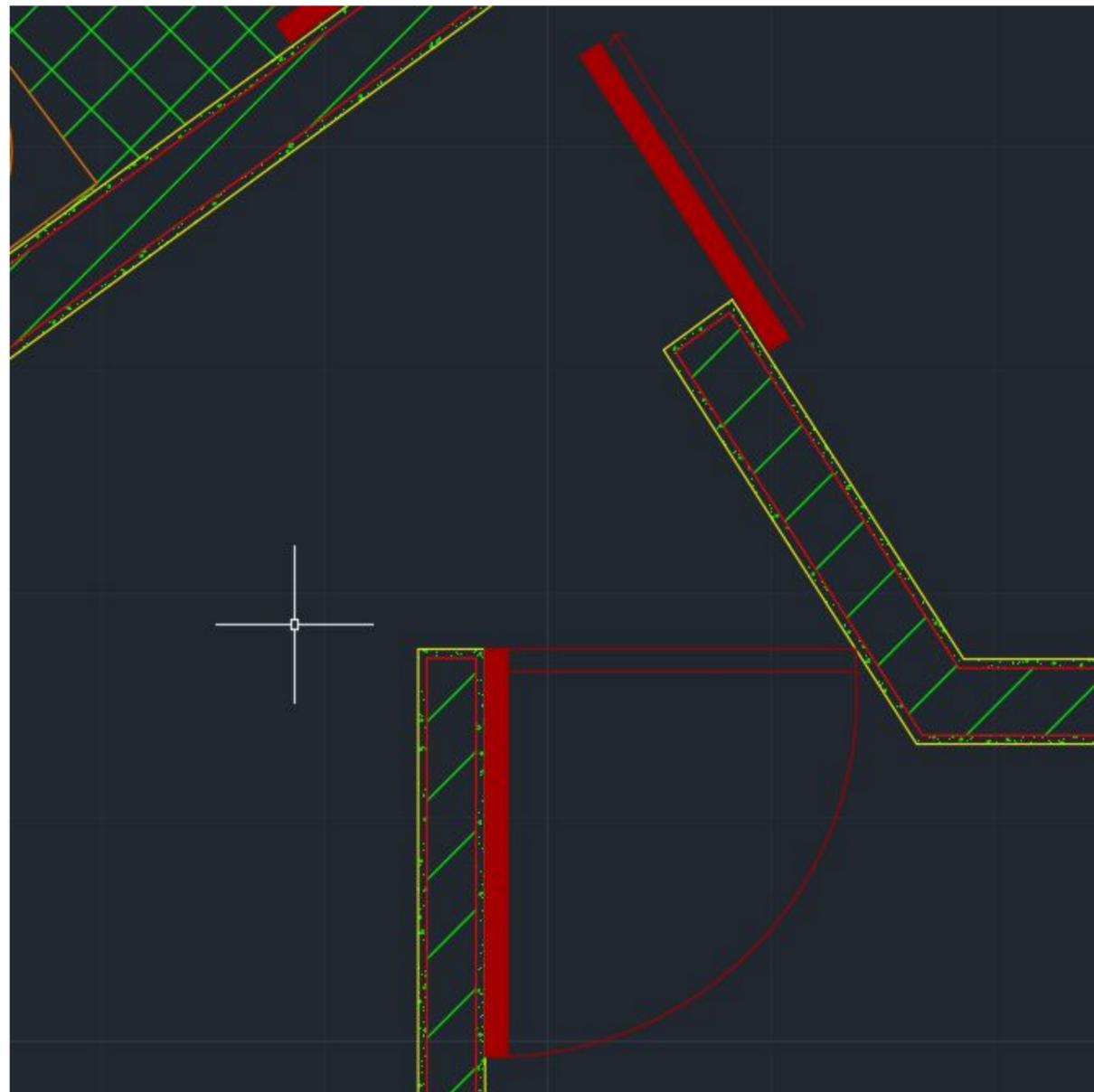


ferramentas:

- offset
- line
- trim

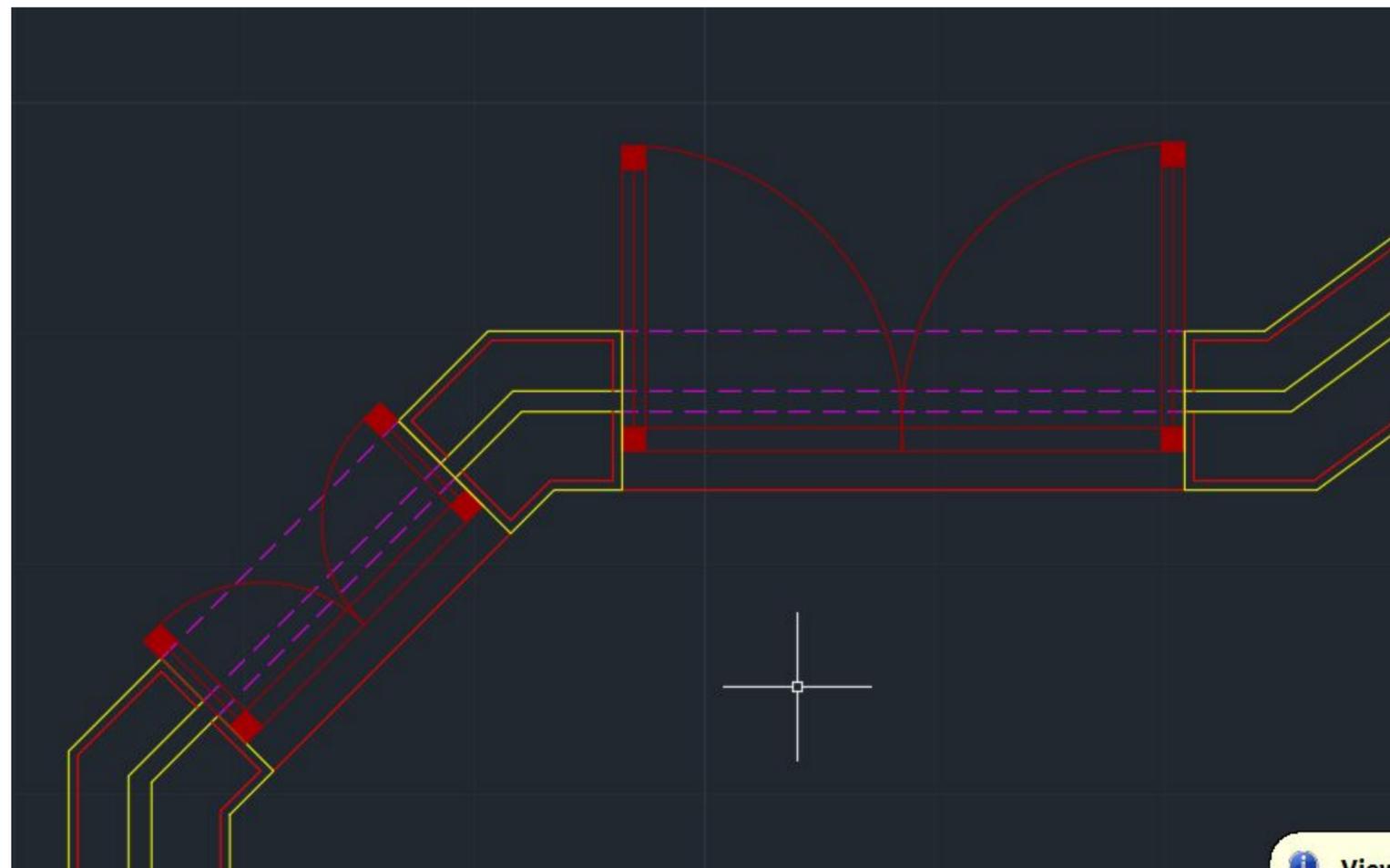
Regularização da parede com cimento (acabamento)

# VÃOS:



espessura: 0.5

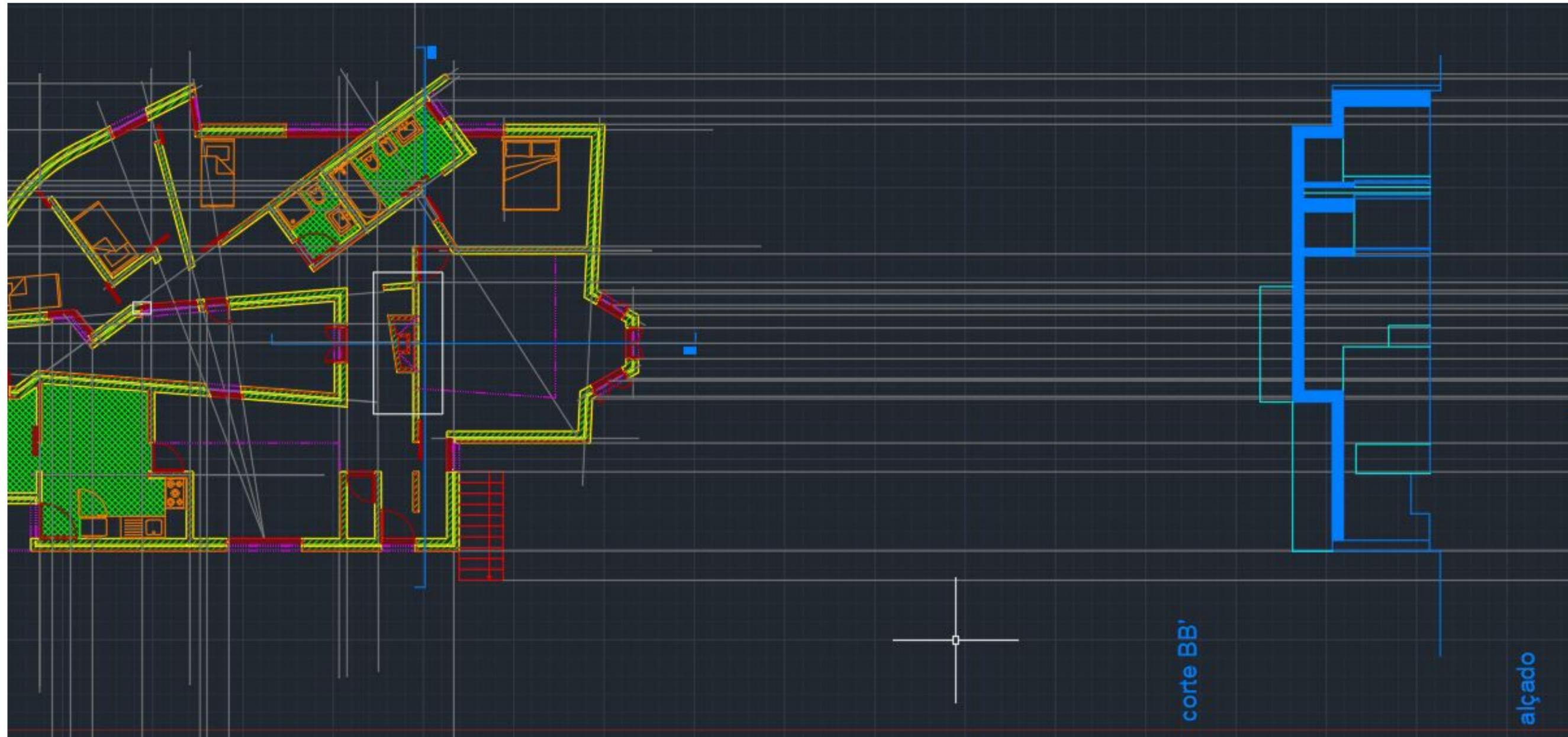
portas e janelas que nao sejam fixas, representa-se o seu movimento no desenho



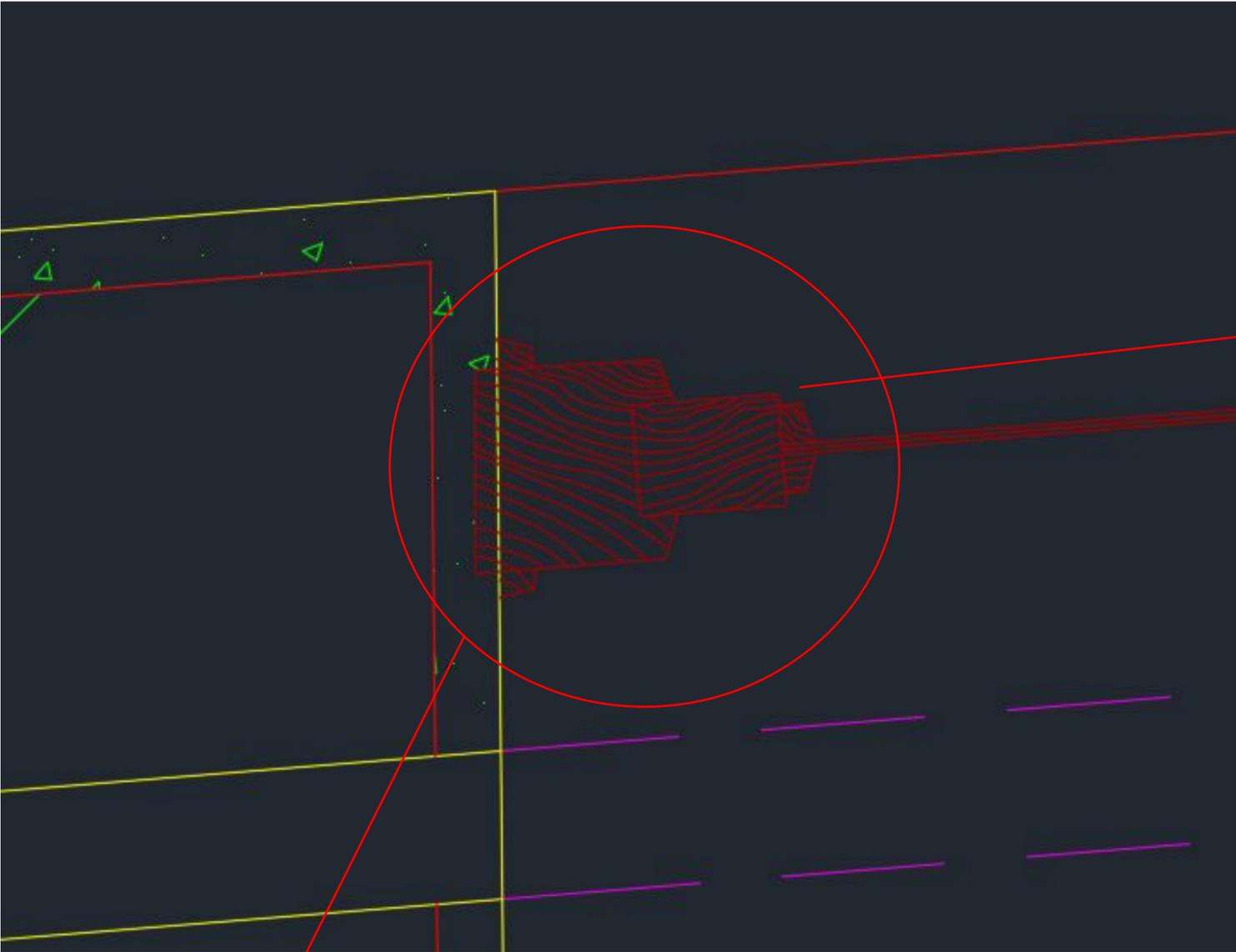
ferramentas:

- line
- offset
- circle
- trim

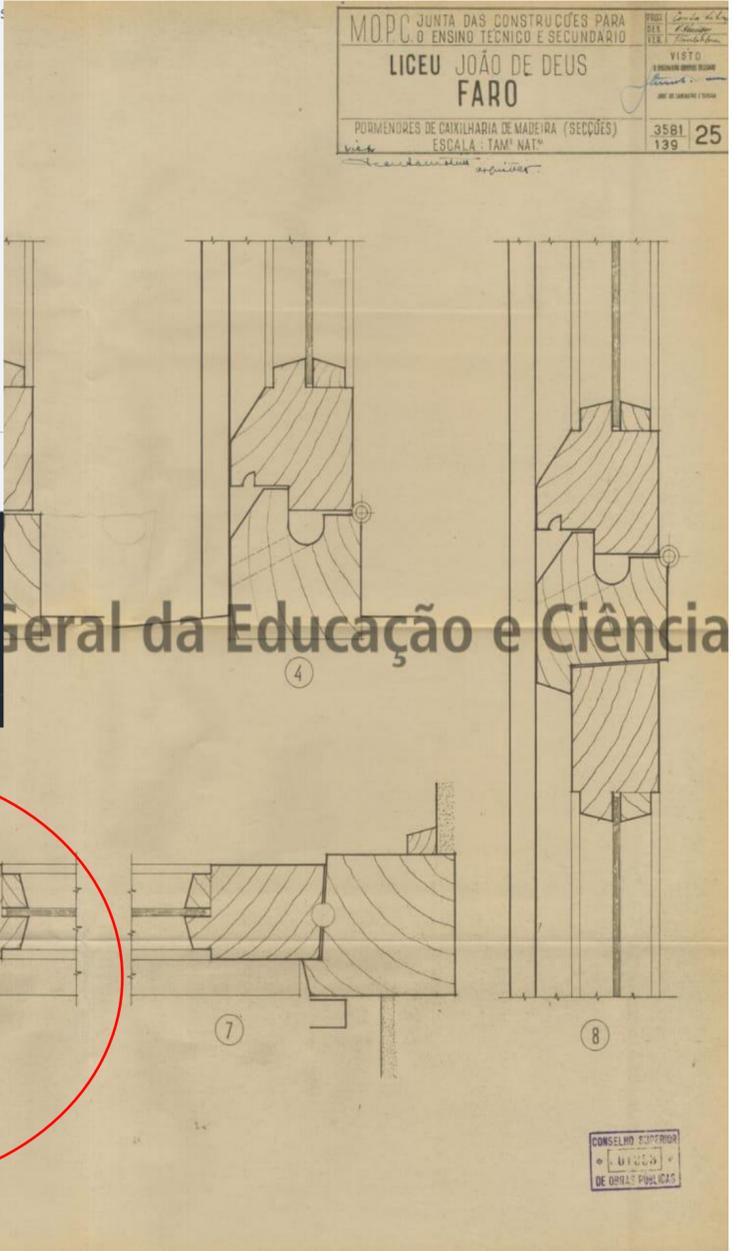
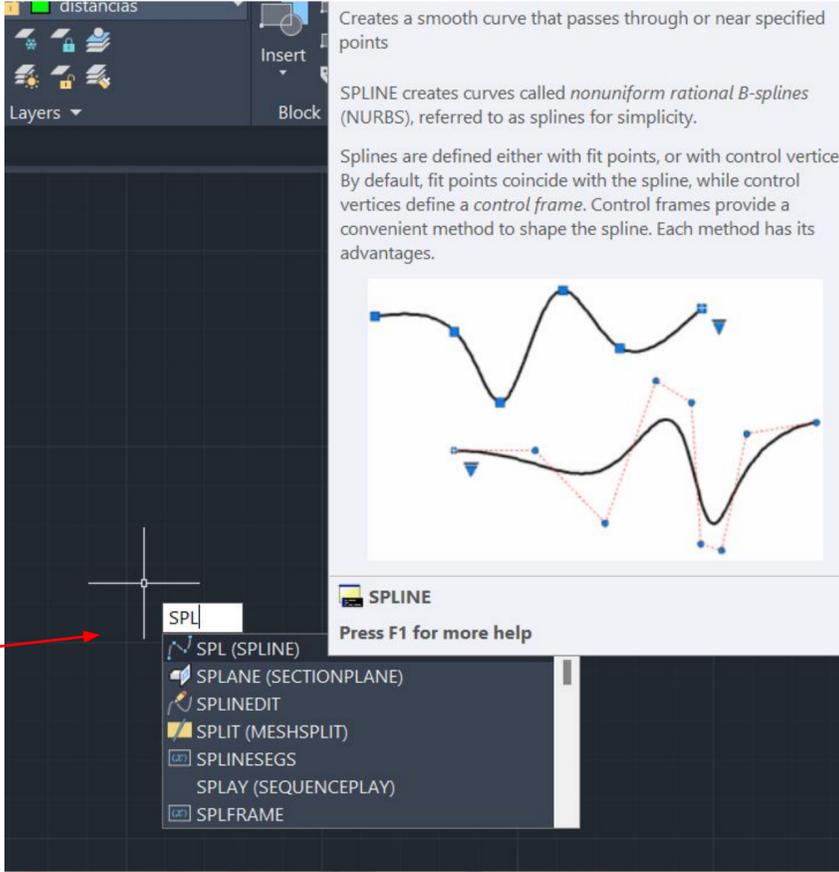
# ALINHAMENTO DA PLANTA COM O CORTE:



# DECALQUE DE UMA CAIXILHARIA:



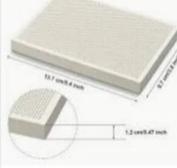
caixilho de uma janela fixa usa-se a ferramenta spl para o desenho da textura do material



caixilho central de uma janela que abre

About 110,000 results (0.29 seconds)

Sponsored :

 <p>Tijolo refratário 22X11X2CM... €1.49 Leroy Merlin Po... +€4.90 shipping</p> <p>Tijolo By Google</p>	 <p>1pc Tijolos Refratários Tijol... €5.39 Temu Free shipping</p> <p>By Google</p>	 <p>TIJOLO REFRACTARI... €0.79 Casa Peixoto +€4.90 shipping</p> <p>Tijolo By Google</p>	 <p>Four legs Fire brick 1pc Tijolos Refratários Tijol... €8.09 Temu Free shipping</p> <p>By Google</p>	 <p>Tijolo Refratário   ALL BUILD  ... €0.99 Armazens Reis... Free shipping</p> <p>Tijolo By PricePlanet.io</p>	 <p>Pedra refratária 718x155x14m... €123.00 Makro.pt +€79.95 shipping</p> <p>By Adference ...</p>	 <p>Tijolo refratário prensado... €0.88 Bricobutikk +€9.00 shipping</p> <p>Tijolo By Google</p>
--	---	--	---	--	--	--

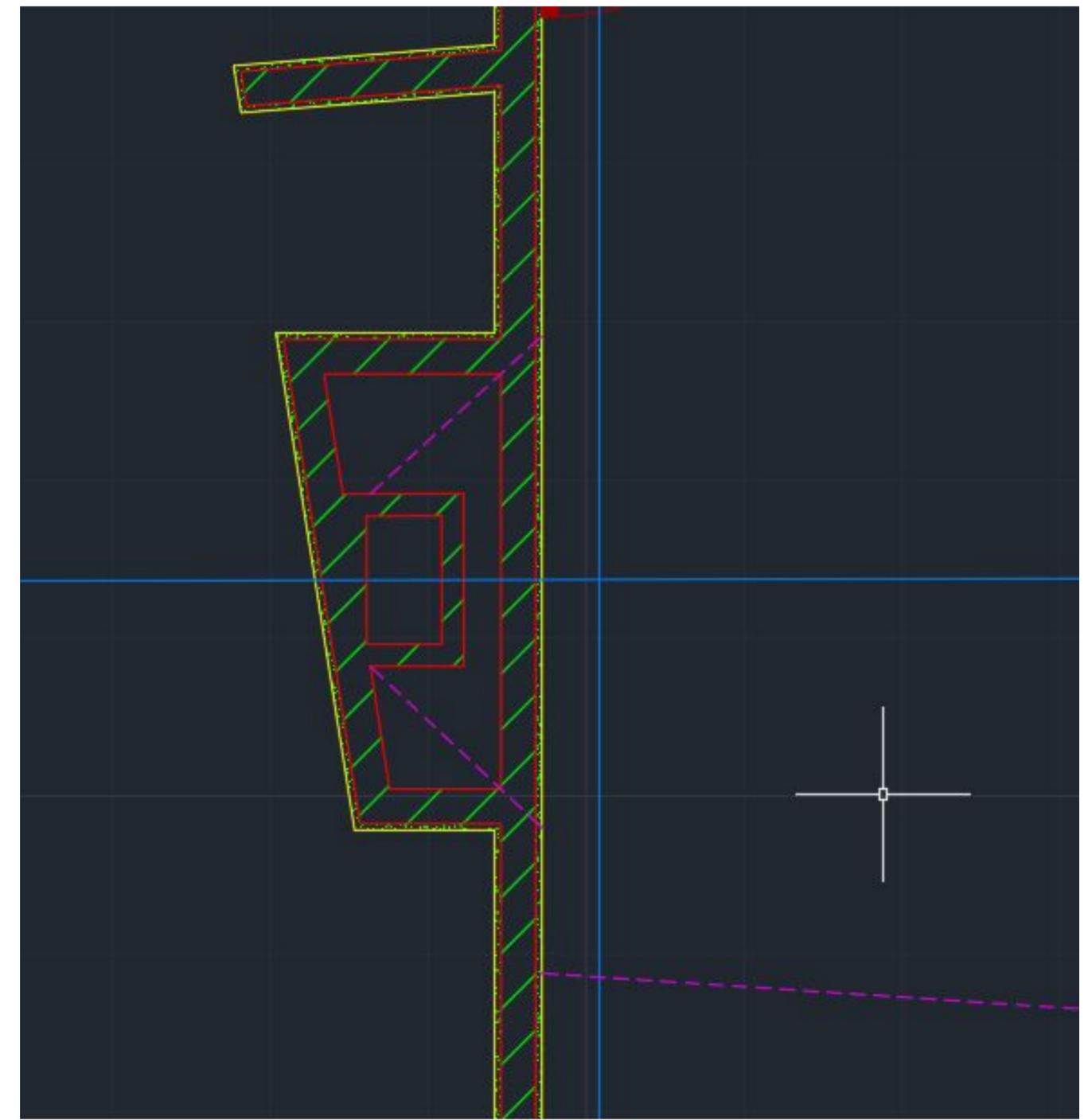
Topeca  
<https://topeca.pt/tijolo-refratario>  
tijolo refratário e decorativo  
tijolo refratário e decorativo. argamassas técnicas · argamassas de montagem · argamassas de renovação e reparação · fixação / ancoragem ...



Loja do Mestre Brás



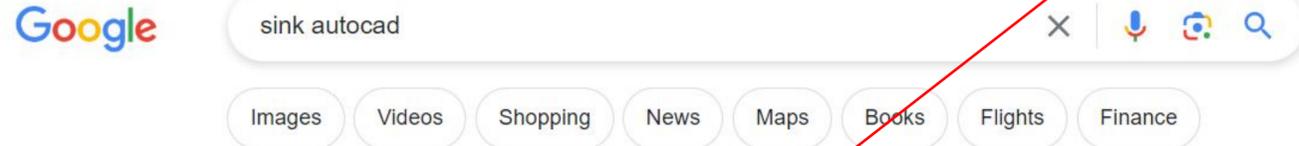
tijolo refratário para a lareira



corte pela lareira a 1,50 m do chão

# MOBILIÁRIO:

há sites com desenhos disponibilizados para o uso



About 6,220,000 results (0.30 seconds)

 [cad-block.com](https://cad-block.com)  
https://cad-block.com > 52-sinks

## Sinks CAD Blocks free download, AutoCAD file

Sinks free CAD drawings. The different **DWG** models of **sinks** for kitchens and bathrooms. Other free CAD Blocks and Drawings.

 [cad-block.com](https://cad-block.com)  
https://cad-block.com > 252-kitchen-sink

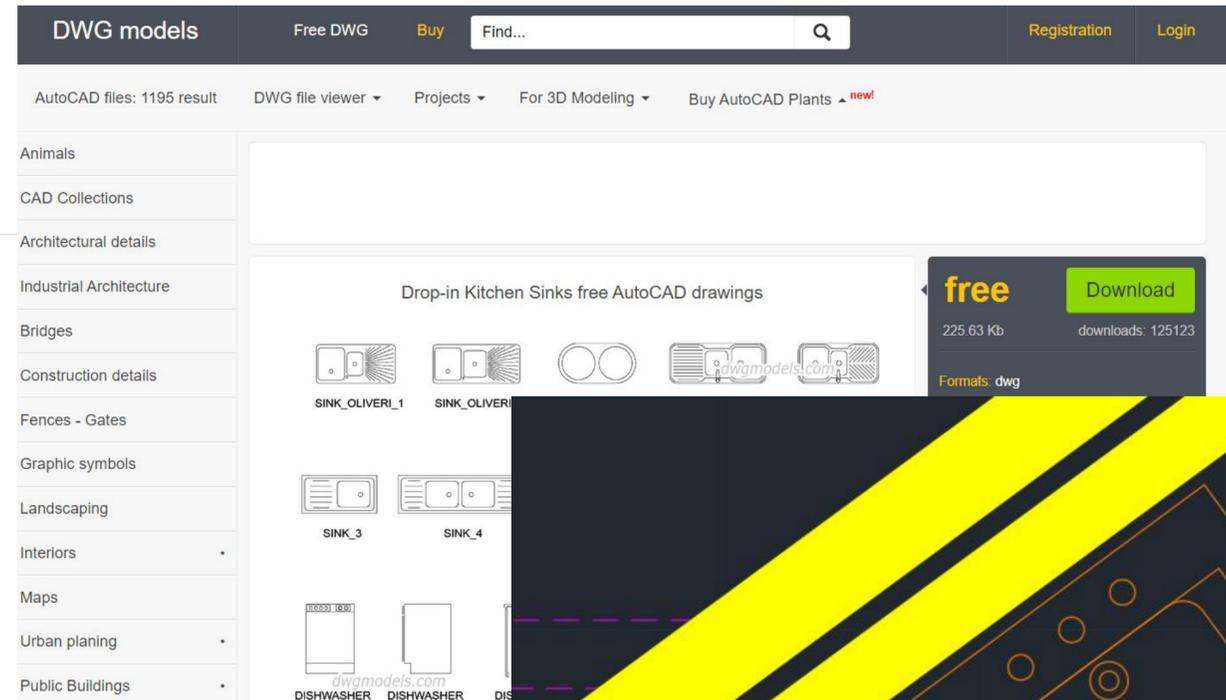
## Kitchen Sink CAD blocks free download, DWG file

Free set of **AutoCAD** blocks for Cad software: double **basin** kitchen **sink**, kitchen **sink** stainless steel, double bowl **sink** for plans. **DWG** Blocks have a base point ...

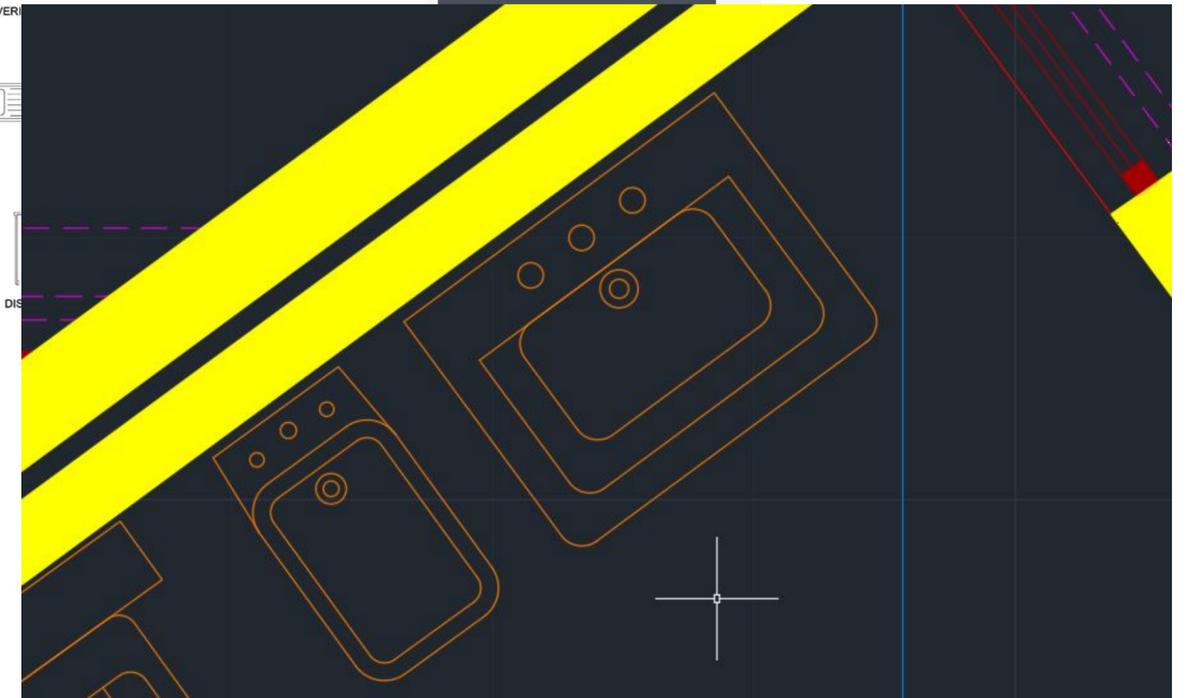
 [dwgmodels.com](https://dwgmodels.com)  
https://dwgmodels.com > 840-drop-in-kitchen-sinks

## Drop-in Kitchen Sinks dwg, CAD Blocks, free download.

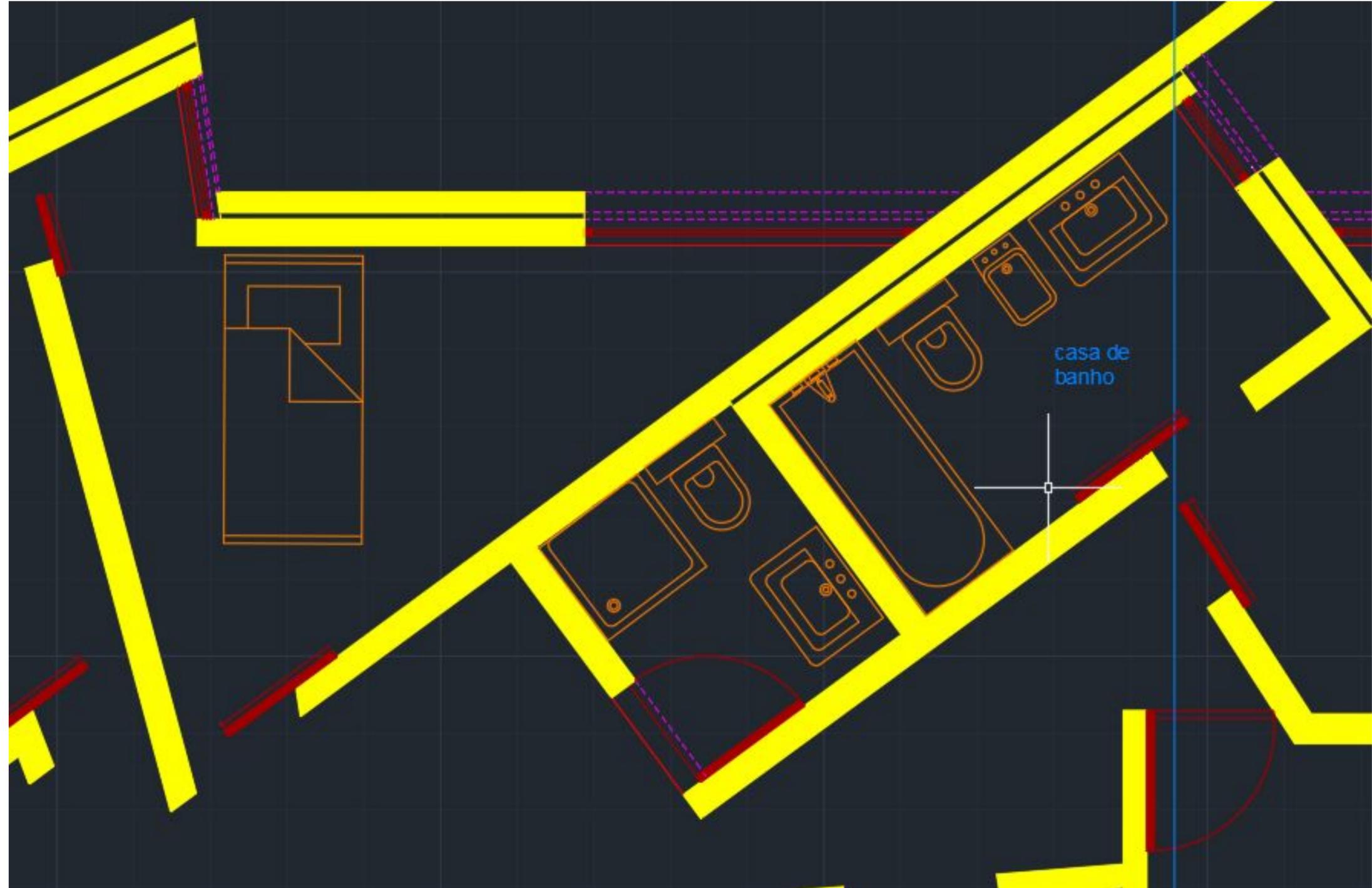
This file includes a collection of free **AutoCAD** blocks kitchen **sinks** and dishwashers: double bowl stainless **sink**, round and oval **sinks**, undermount **sink** section.



só é preciso fazer scale para a planta



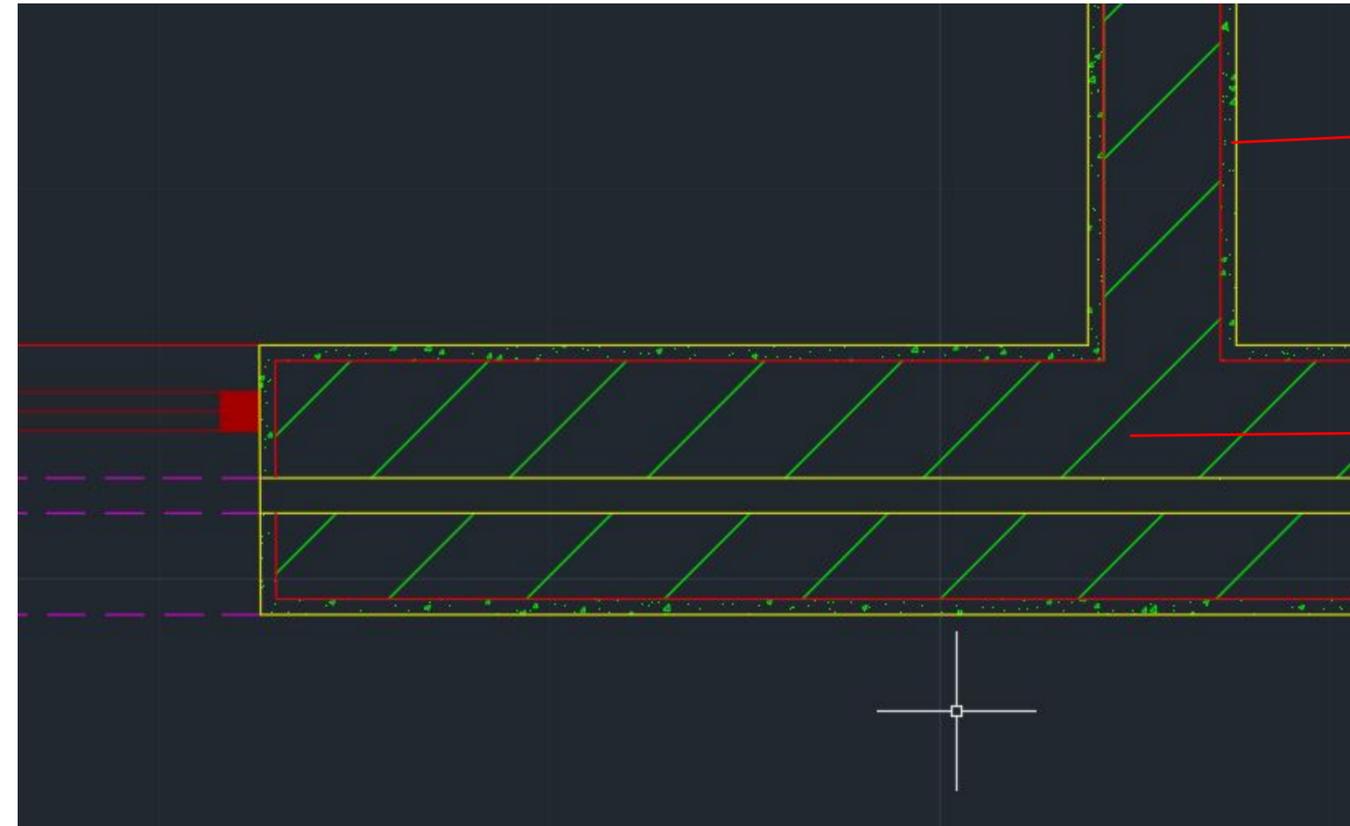
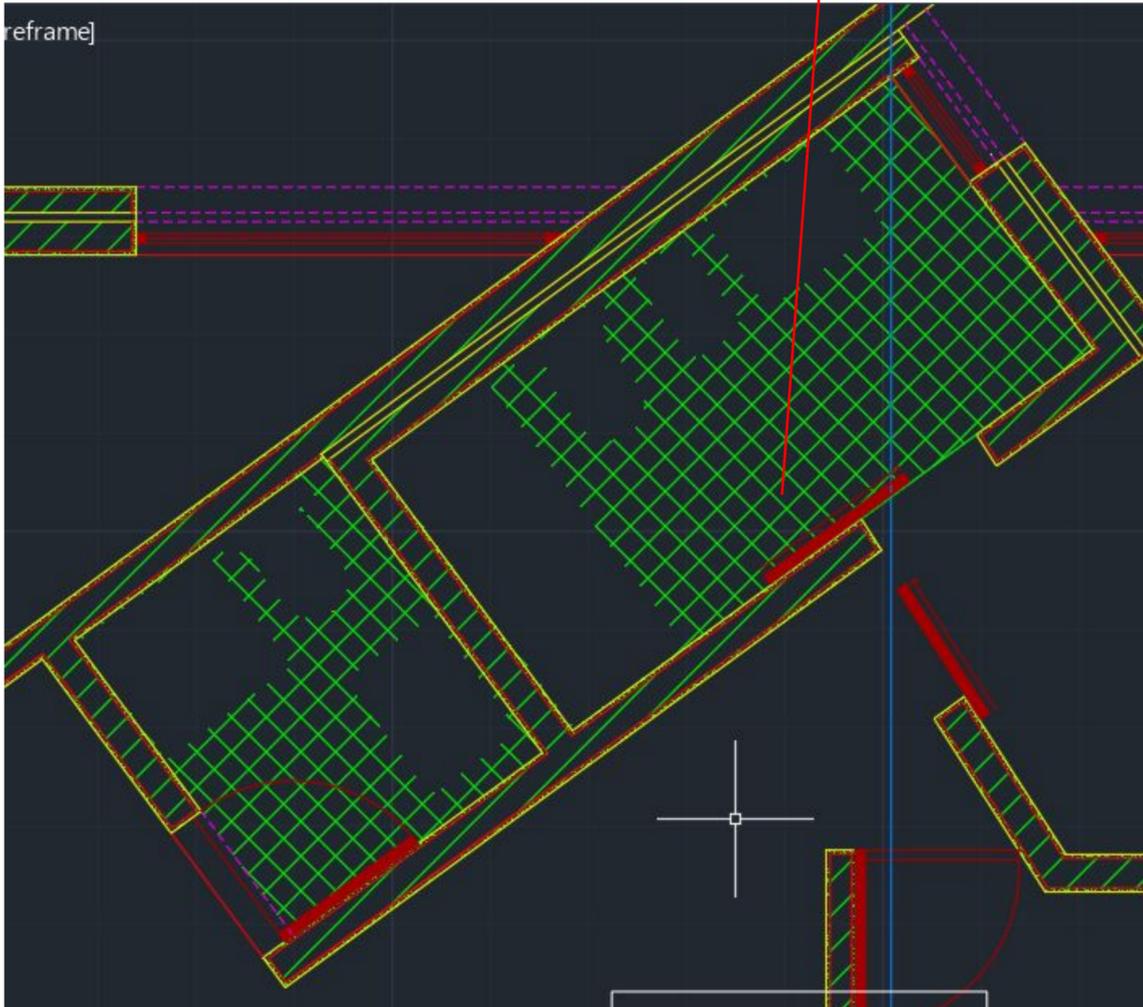
# MOBILIÁRIO:



# HATCH:

hatch: ANSI37 1.0

pavimento da casa de banho



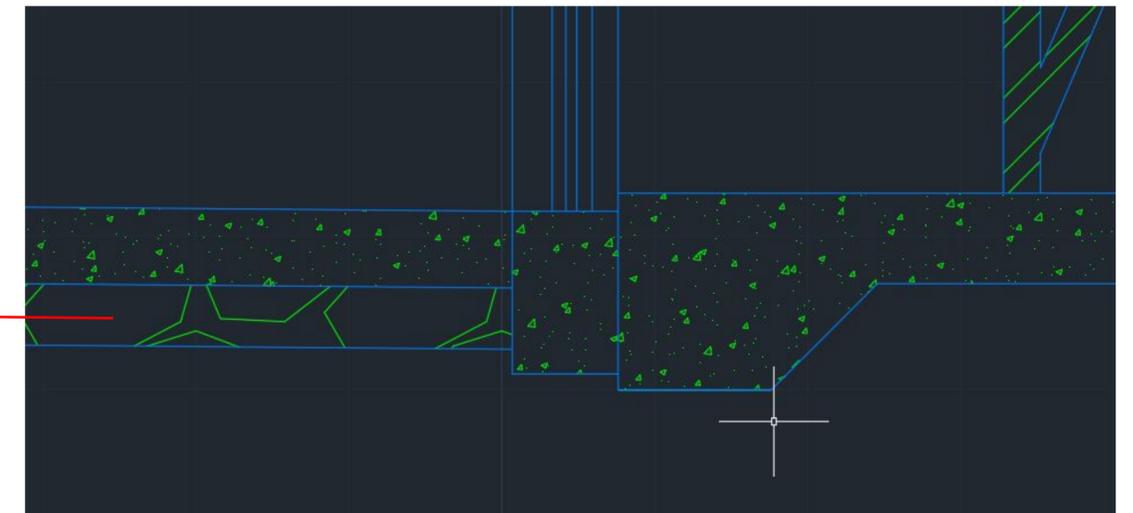
Hatch: AR-CONC  
0.0085

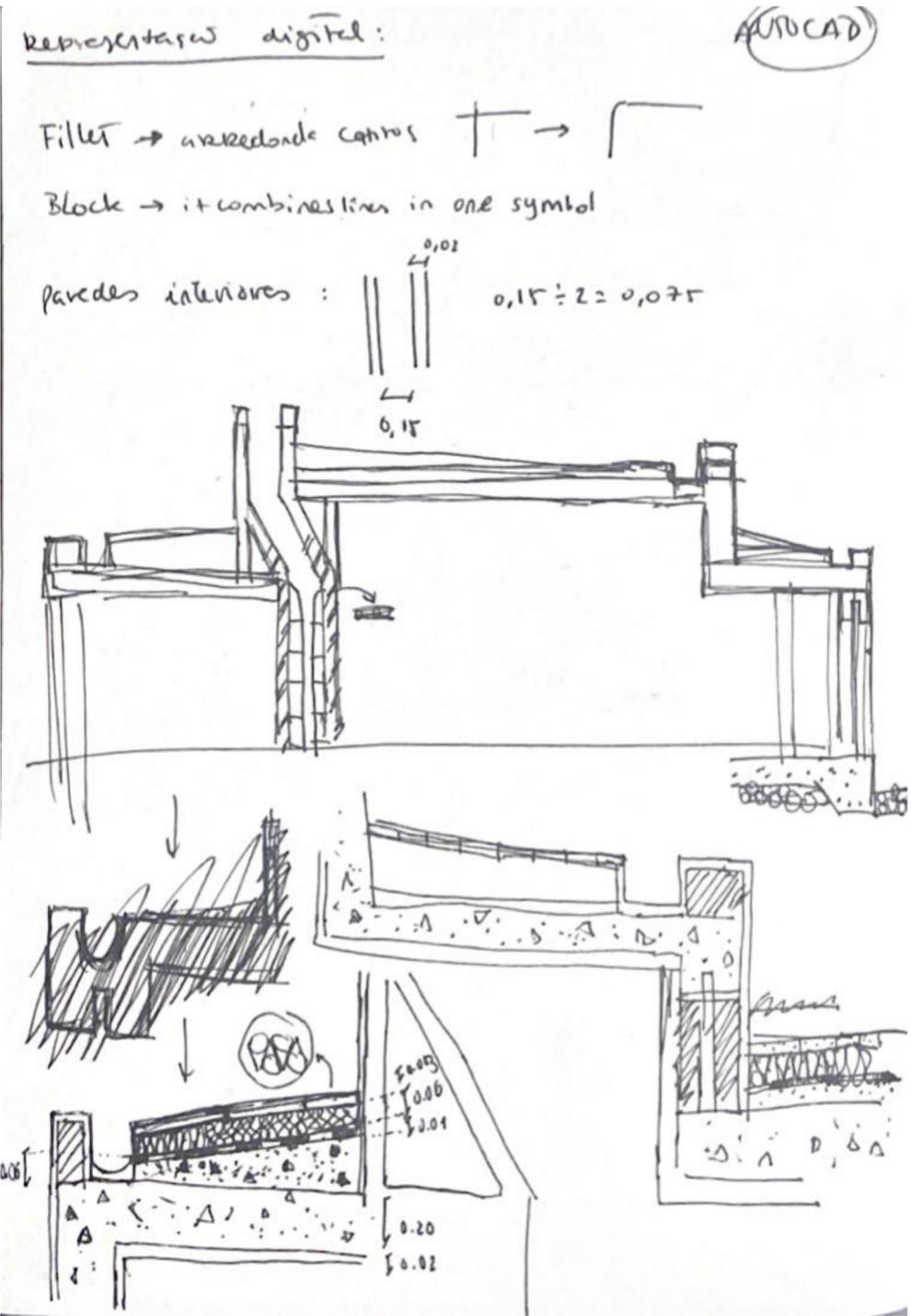
Hatch: ANSI31 1.0

material da parede

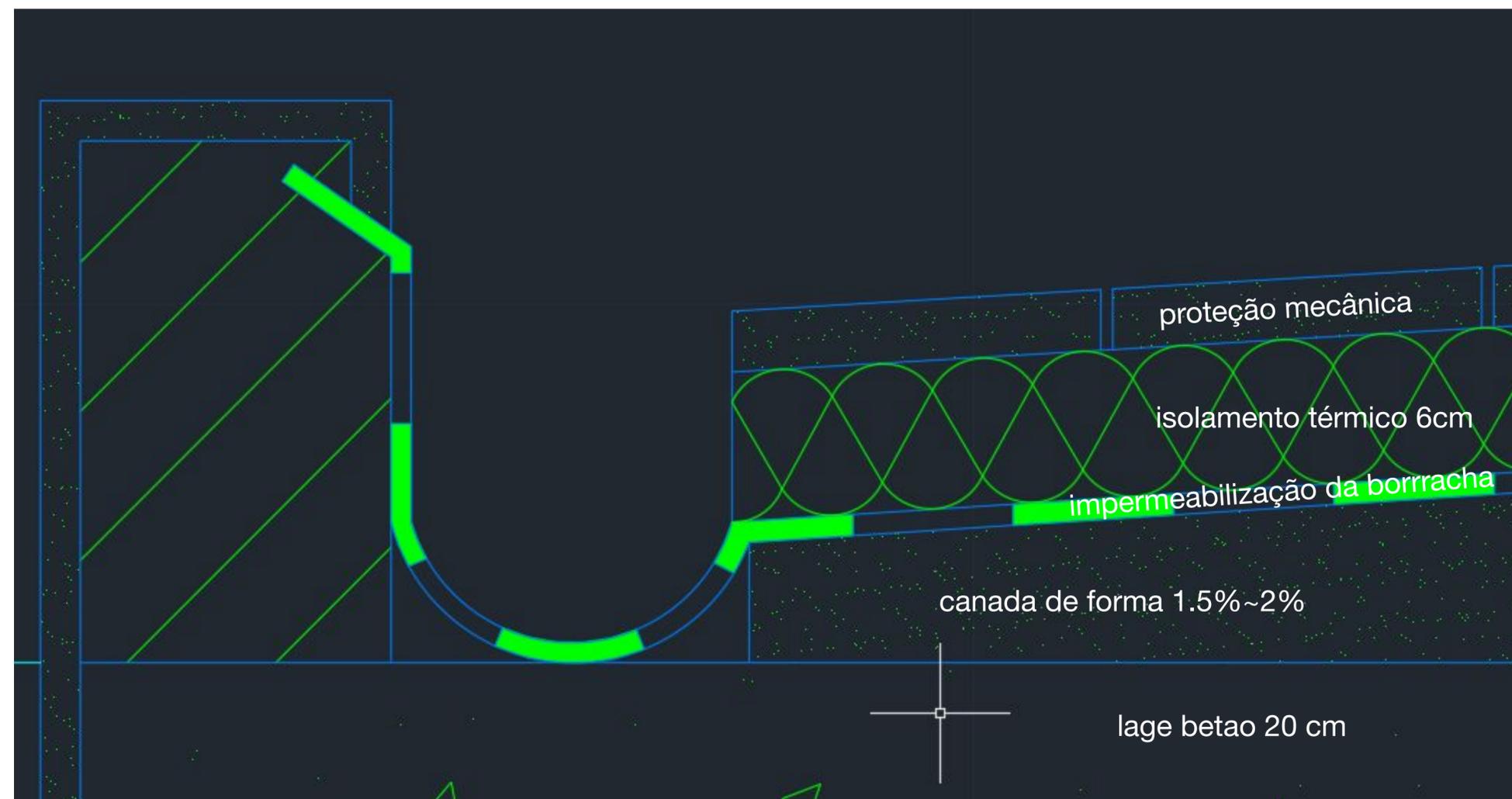
Hatch: GRAVEL 1.0

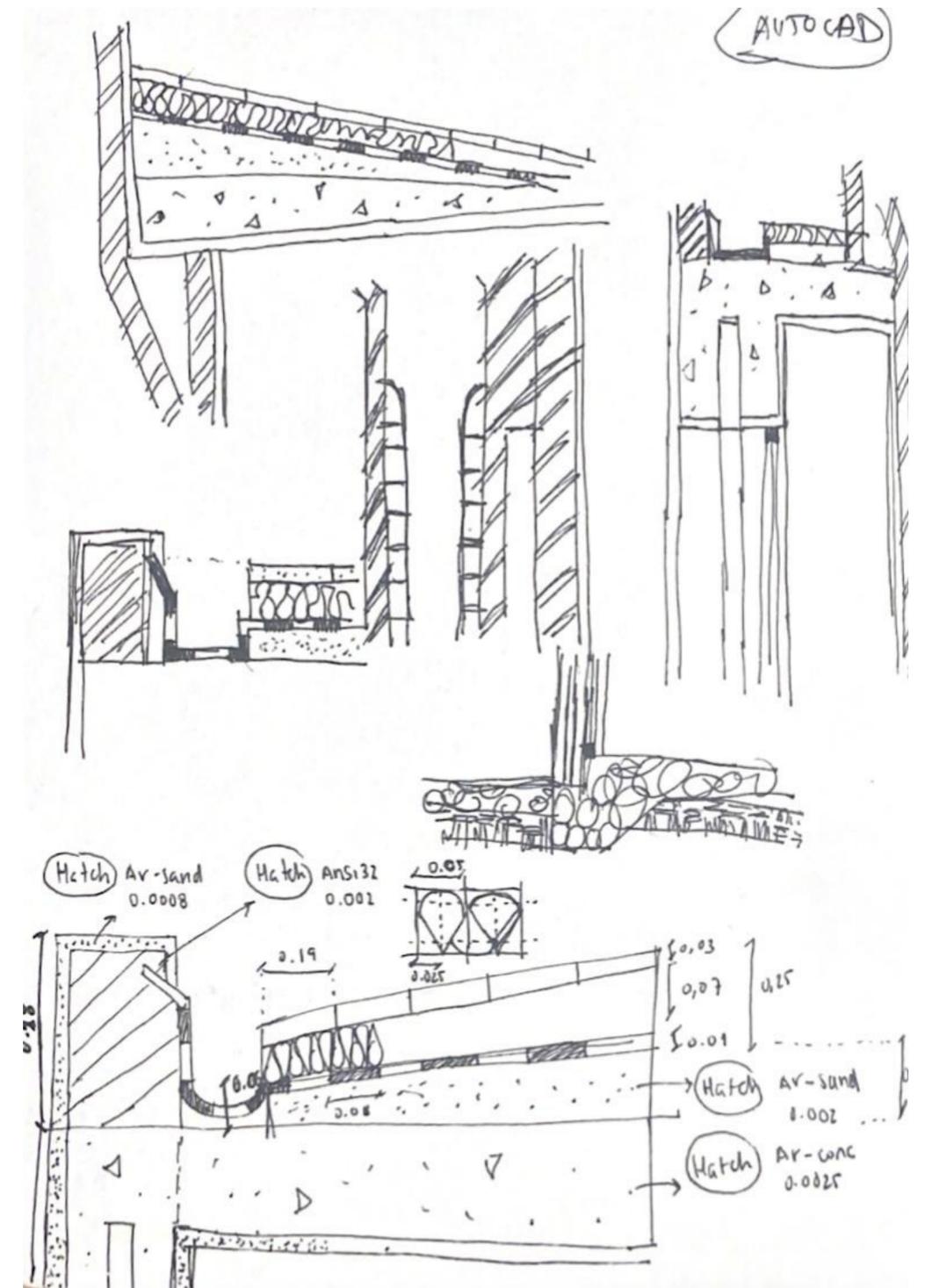
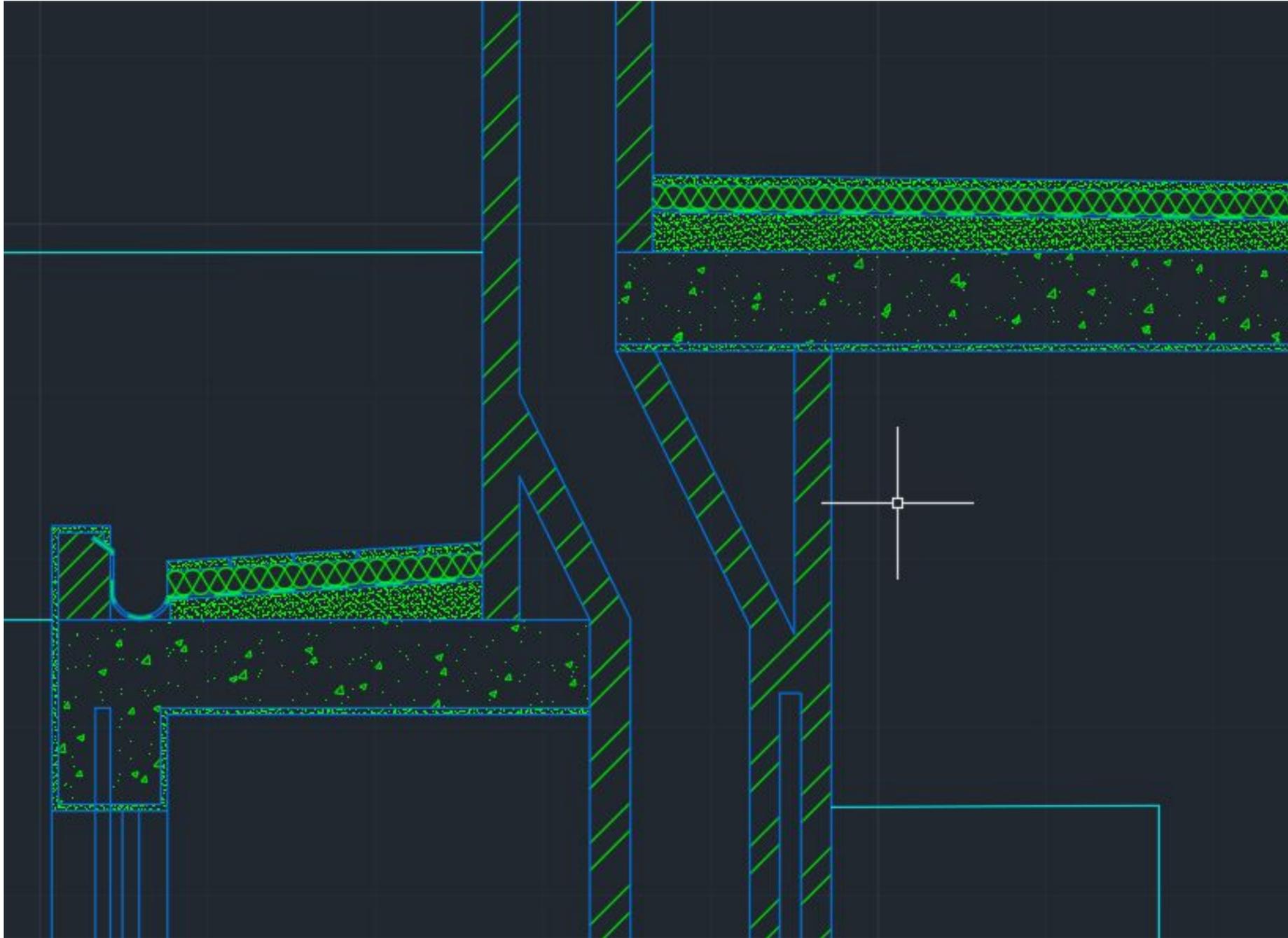
pavimento do corte



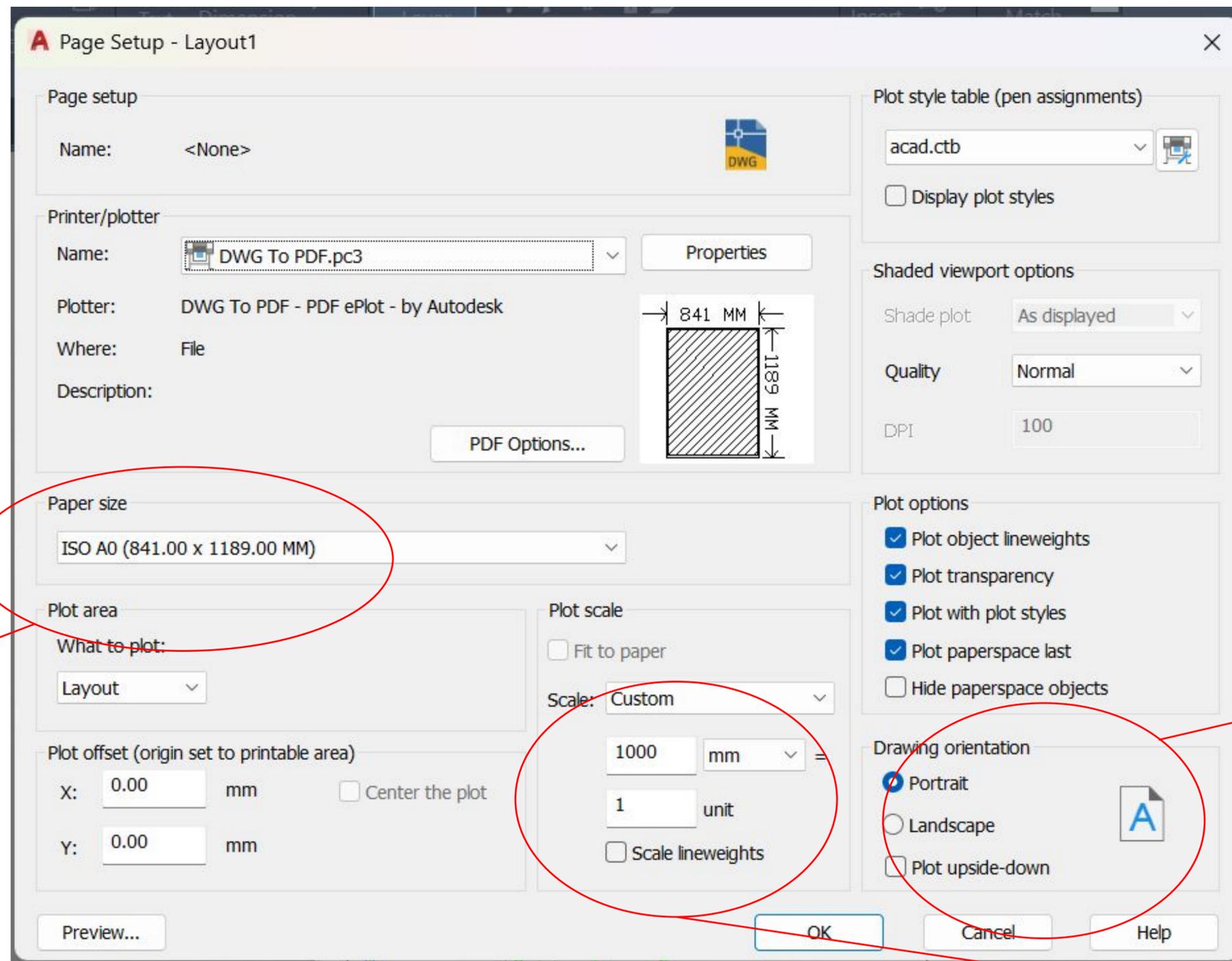


# PORMENOR TELHADO/COBERTURA:





# PAGE SETUP DO LAYOUT:



formato do  
papel

portrait: vertical  
landscape: horizontal

escala do  
desenho

AUTOCAD

**LAYOUT**

- por medidas  
 - legendas  
 - título

+ 1 corte?? / alçado  
 planta  
 corte  
 alçado  
 A0/A1  
 alçado  
 planta

1. View Port
2. Zoom
3. scale
  - 1000 px (
  - 100 px (
  - 10 px (
4. escolher o melhor
5. vplayer → Freeze Layer

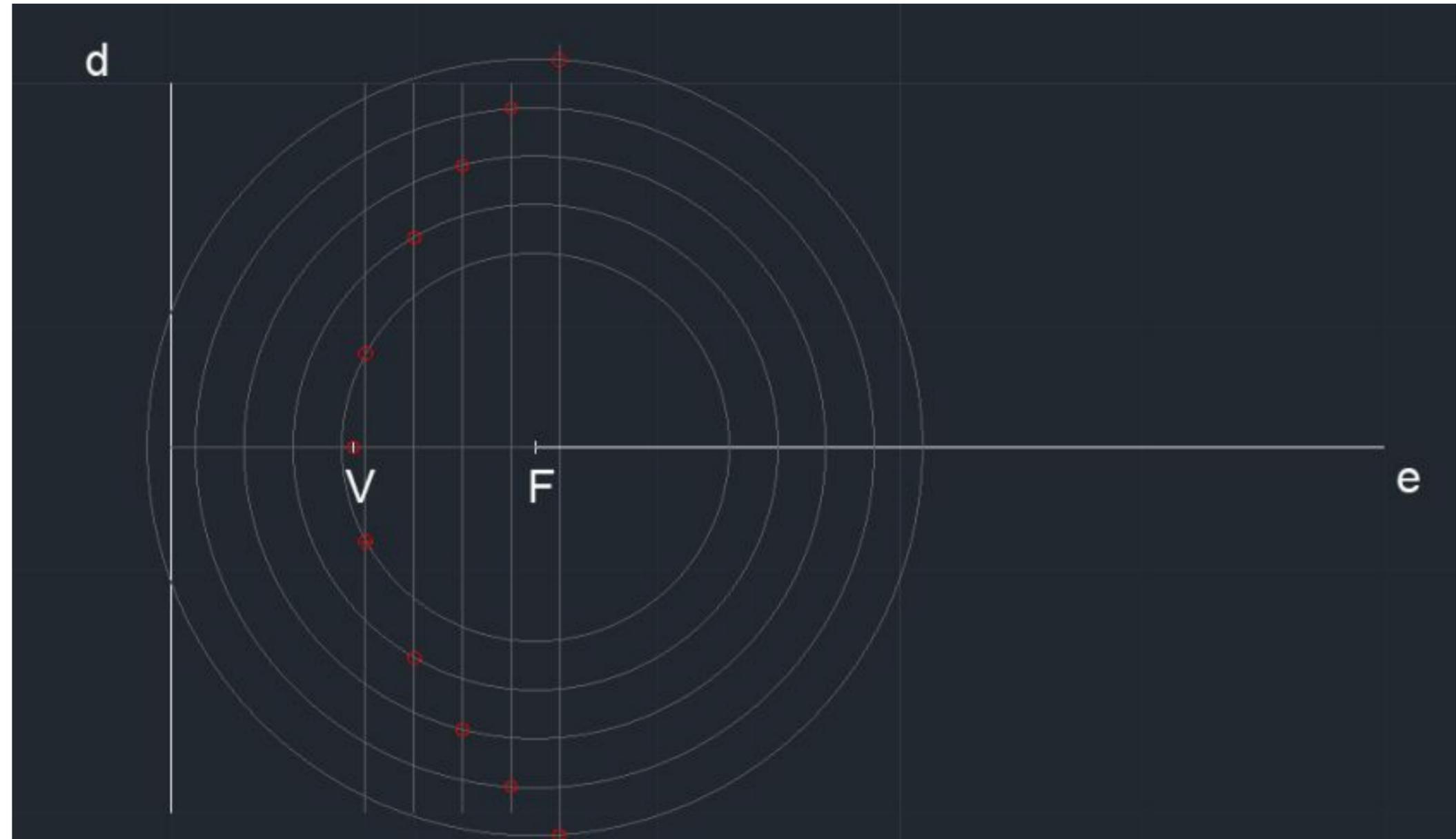
alçado  
 planta  
 corte  
 alçado  
 legenda

**01.** Faculdade de Arquitetura 2023/2024  
 Representação Digital  
 Professor Nuno Alão  
 Casa António Carlos Siza

Mariana Mendes  
 M.Arq Semestre 3  
 turma E  
 20221184

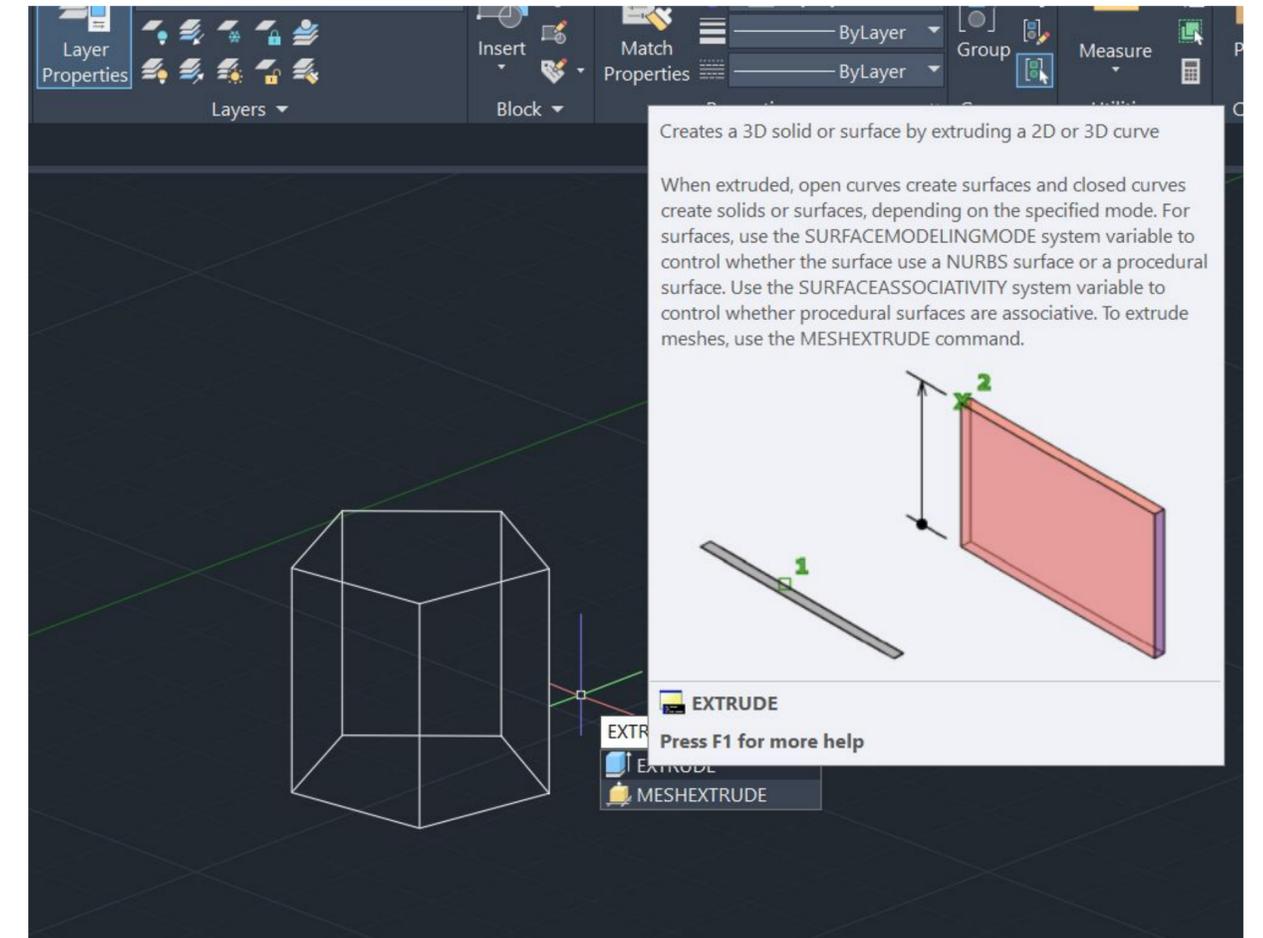
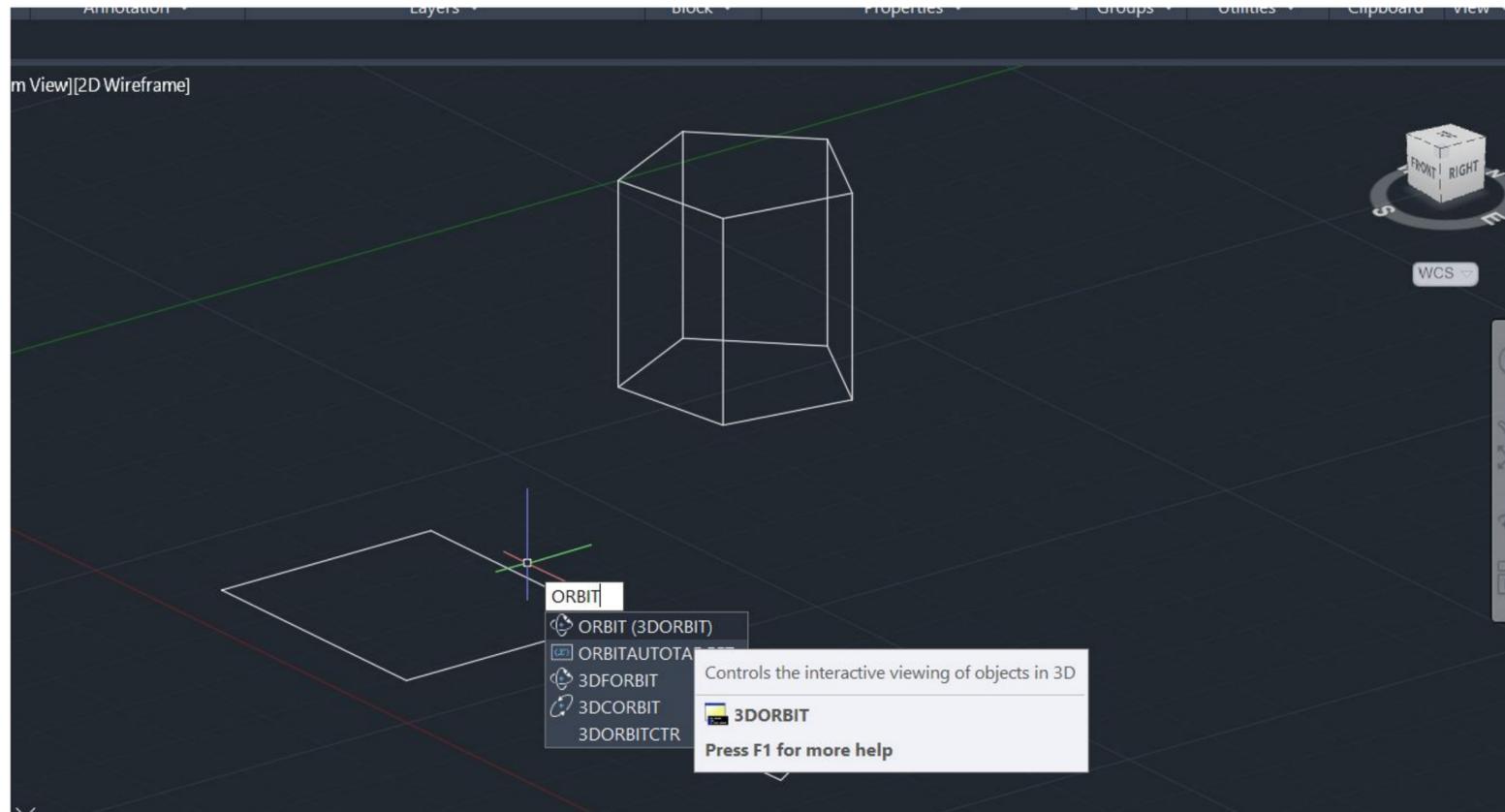
planta 1:100  
 corte longitudinal AA' 1:100  
 corte transversal BB' 1:100  
 alçado 1:100  
 pormenor lajeira 1:10  
 pormenor caixa d'água 1:1  
 pormenor casa de banho 1:20  
 pormenor telhado 1:2

# PARÁBULA:



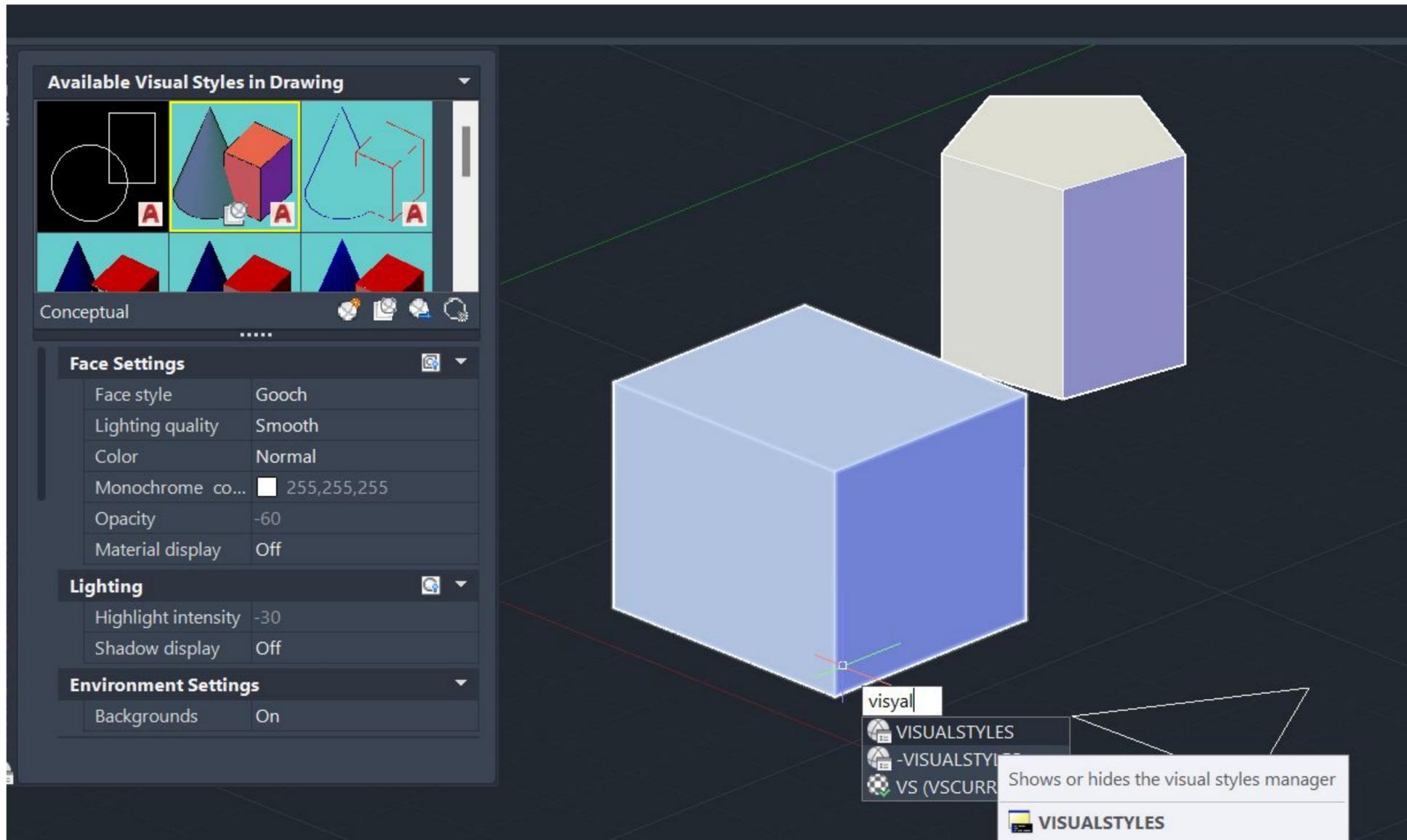
# REPRESENTAÇÃO 3D:

ferramenta: orbit - mudança de vista 2D



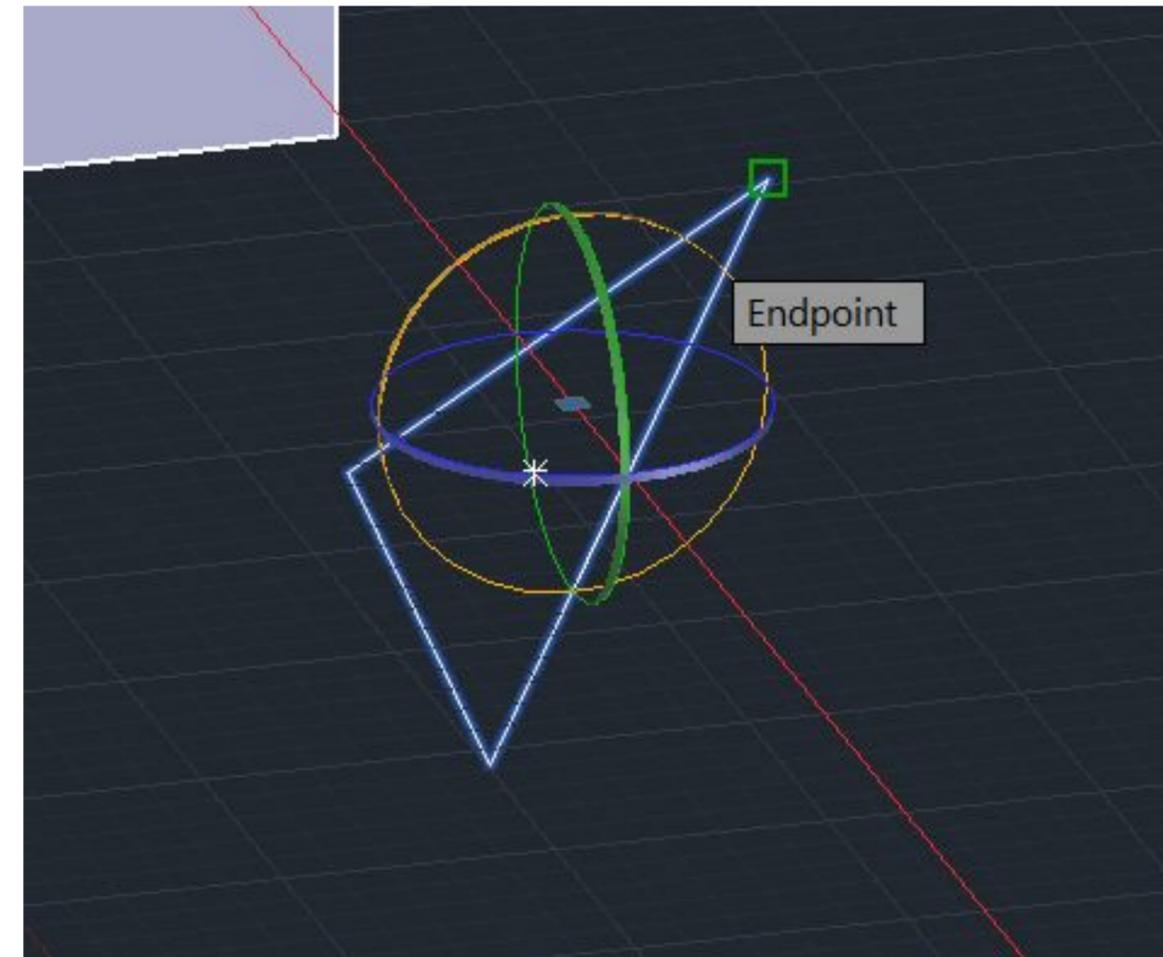
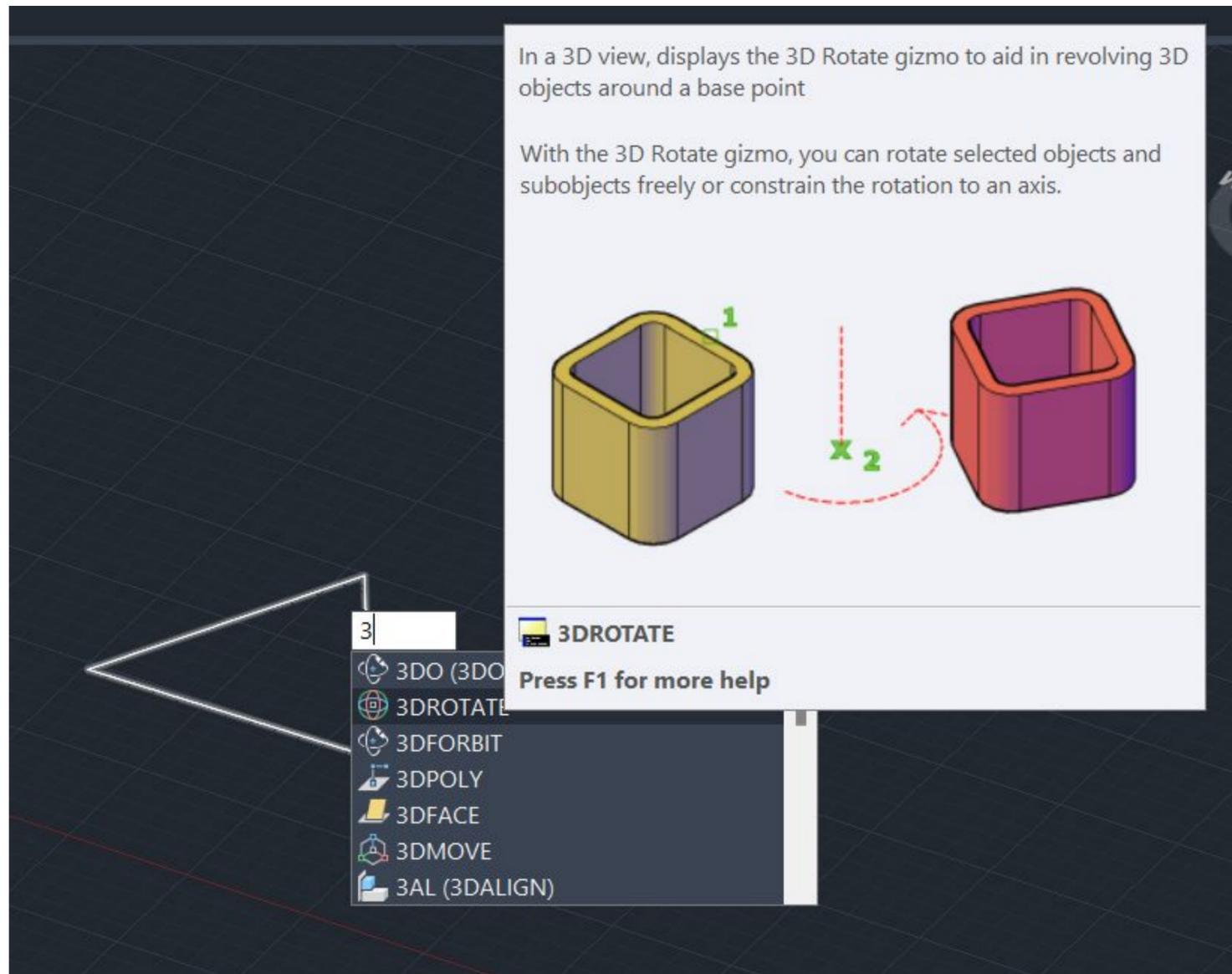
ferramenta: extrude - mudança de uma figura 2D para um formato 3D extendendo as suas arestas

# REPRESENTAÇÃO 3D:



ferramenta: visualstyles - muda o estilo dos sólidos

# REPRESENTAÇÃO 3D:

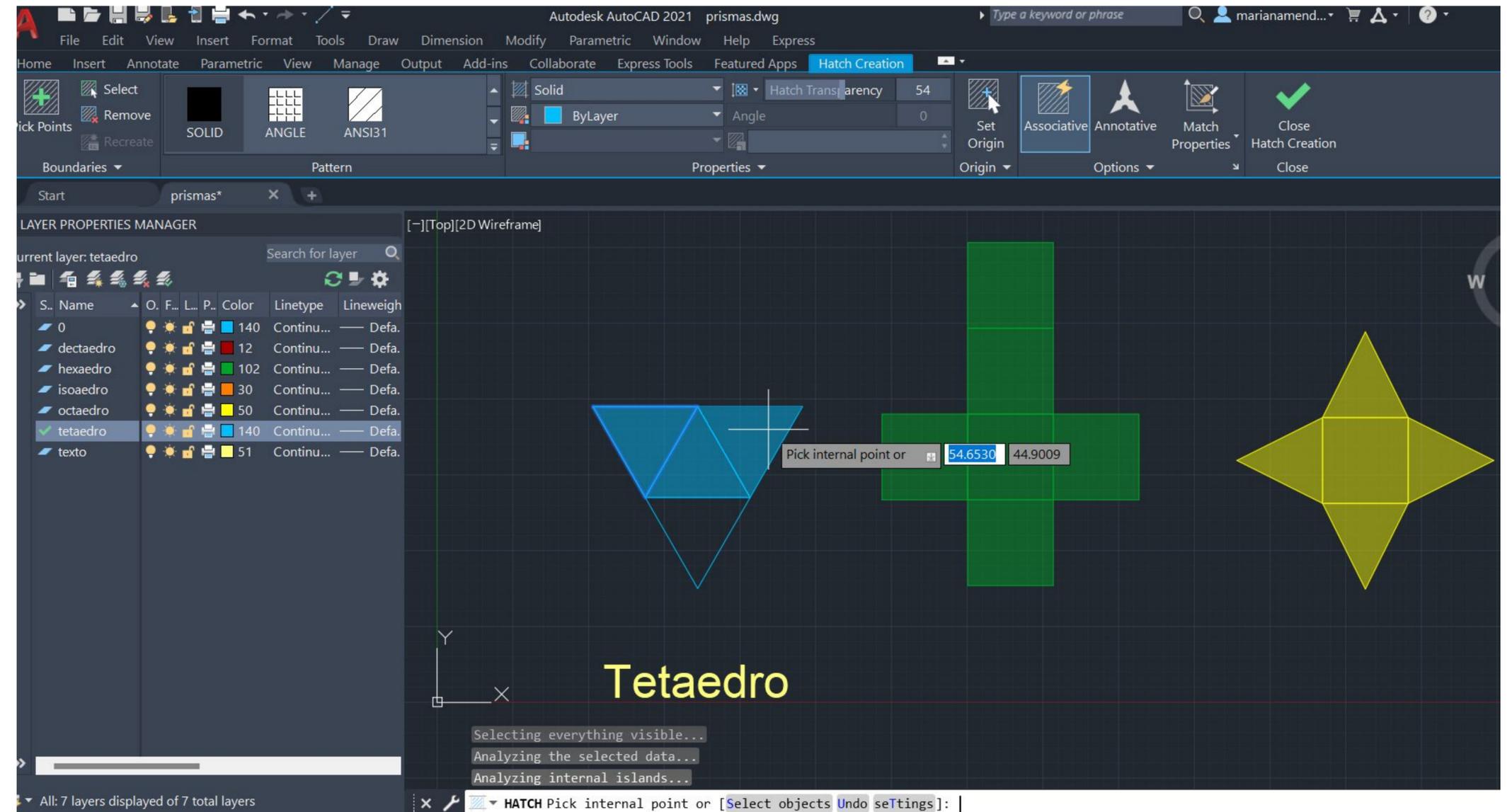


ferramenta: 3DRotating - movimento do desenho em 3D

# REPRESENTAÇÃO 3D:

antiprismas em 3D

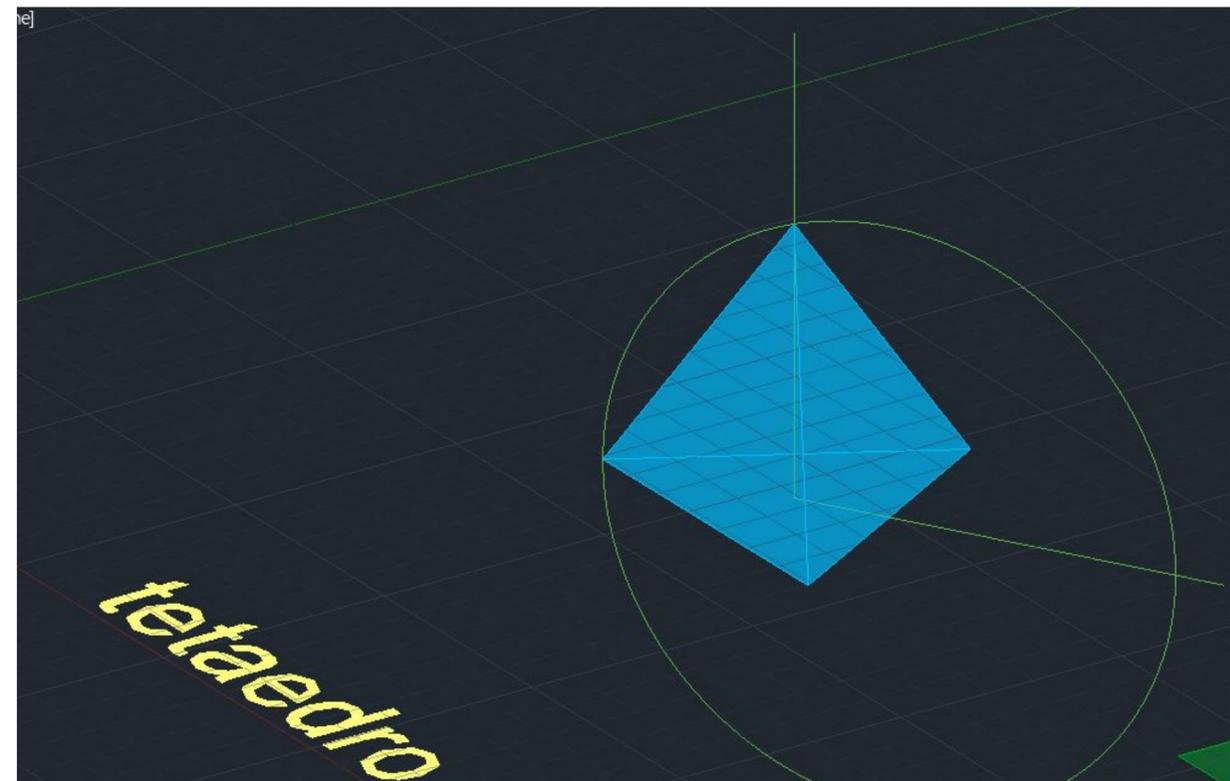
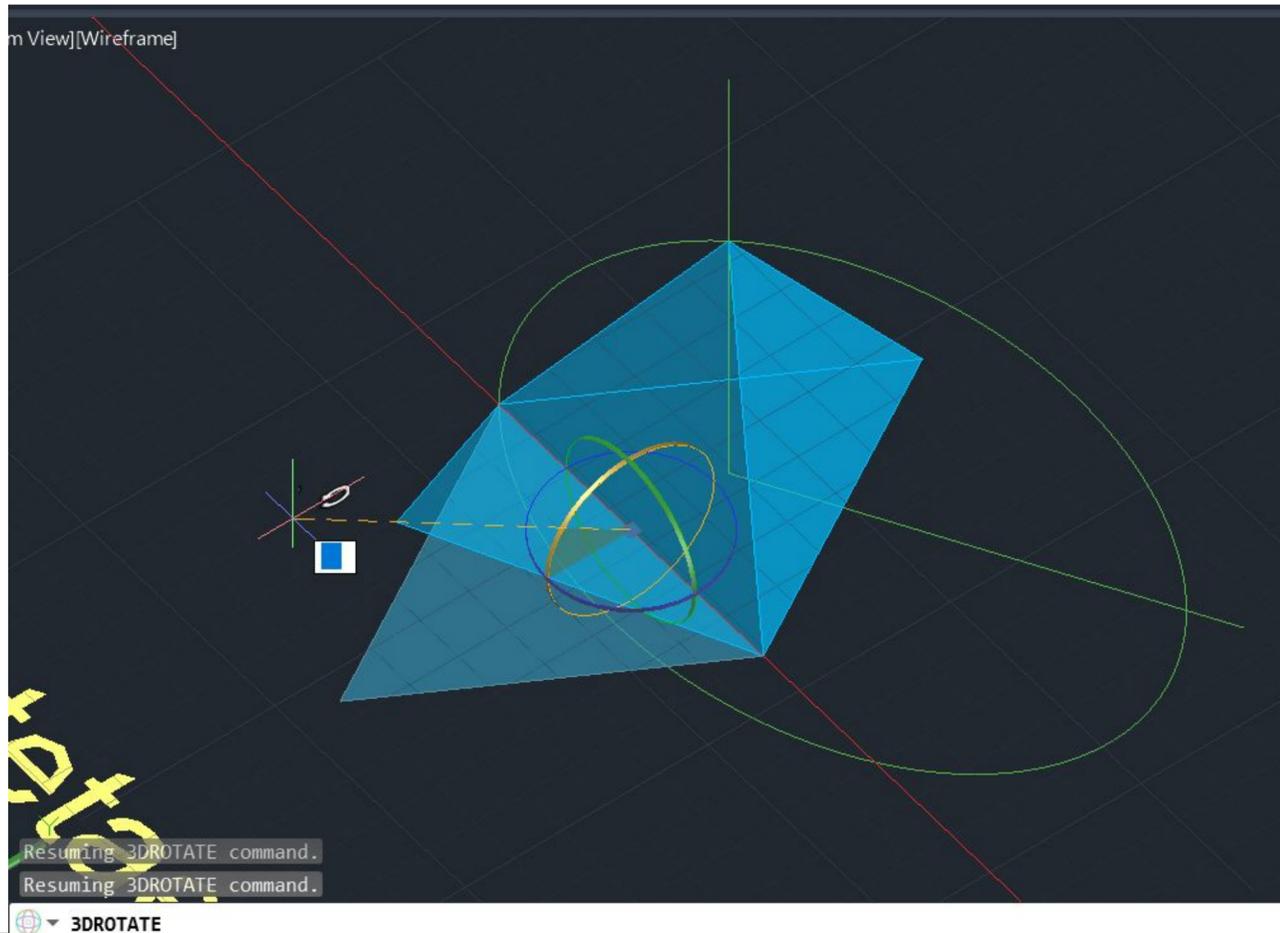
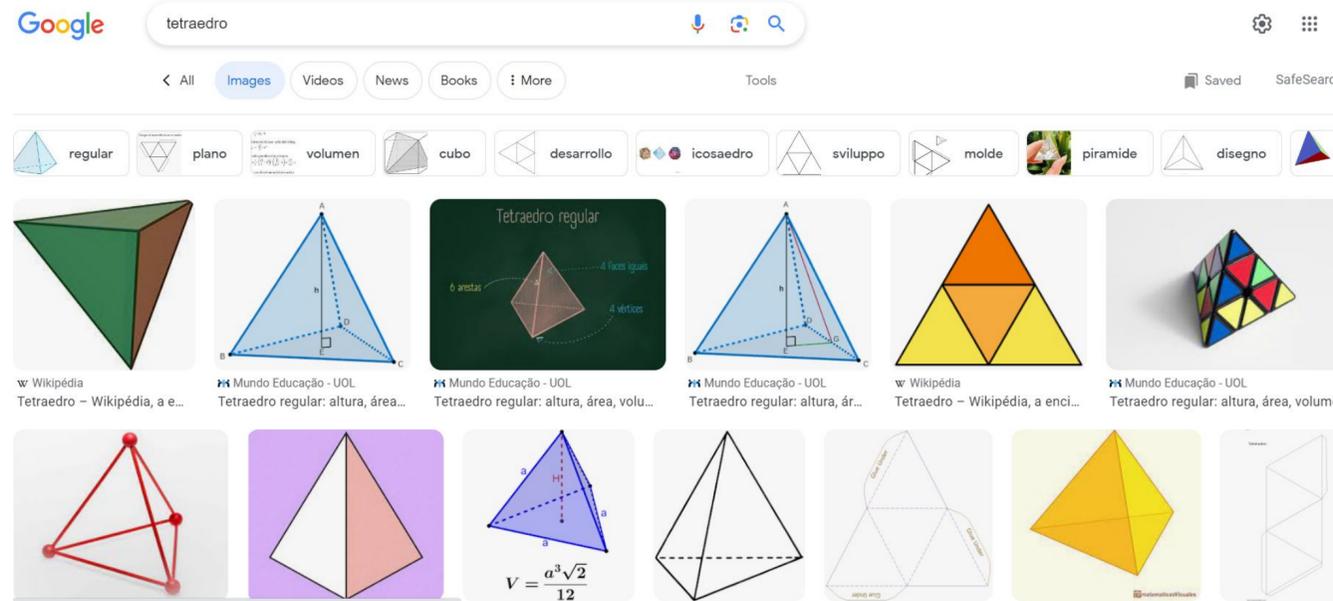
- tetaedro
- octaedro
- hexaedro
- dodecaedro
- icosaedro

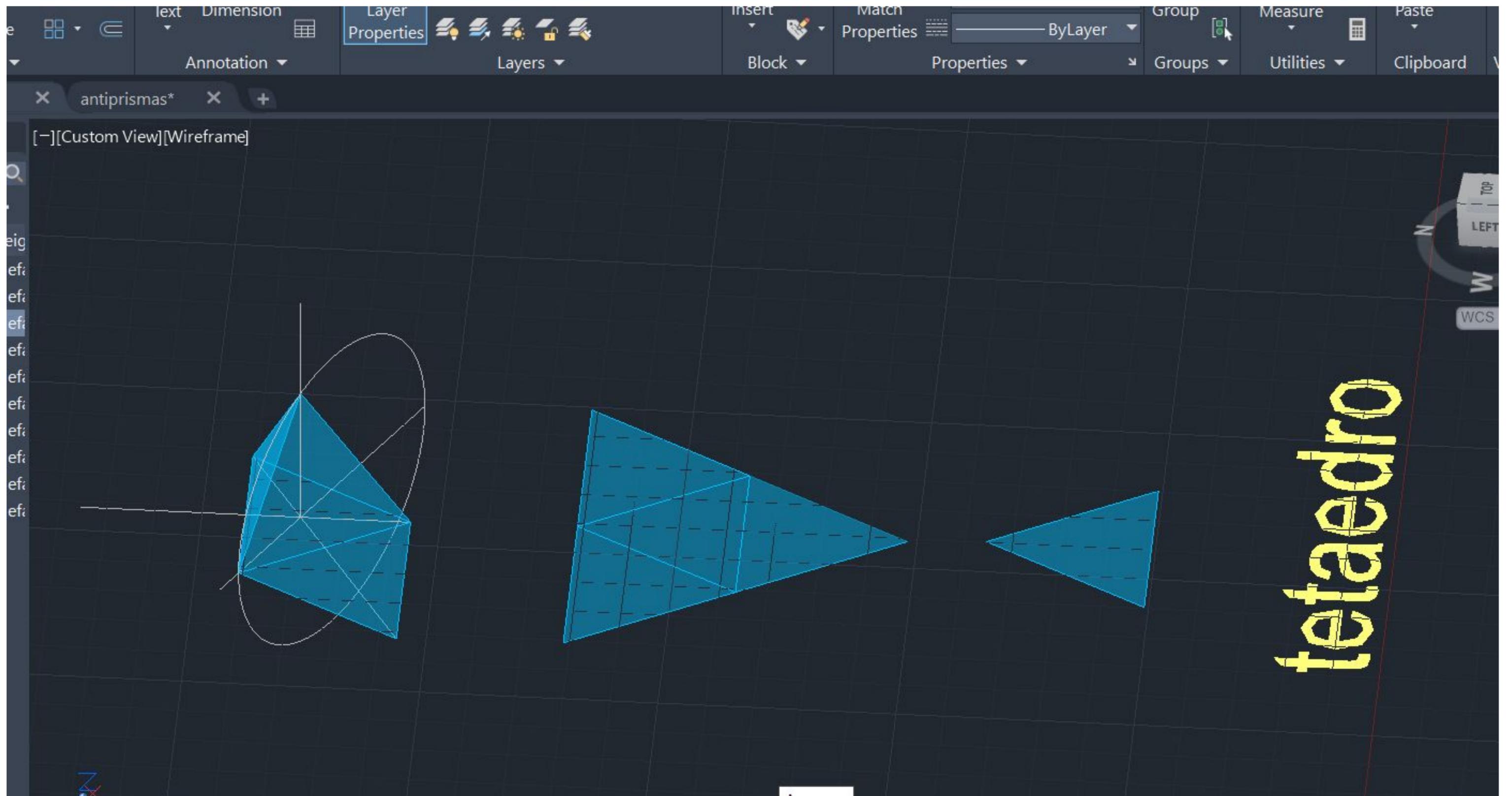


# REPRESENTAÇÃO 3D:

-tetraedro

piramide triangular equilatero

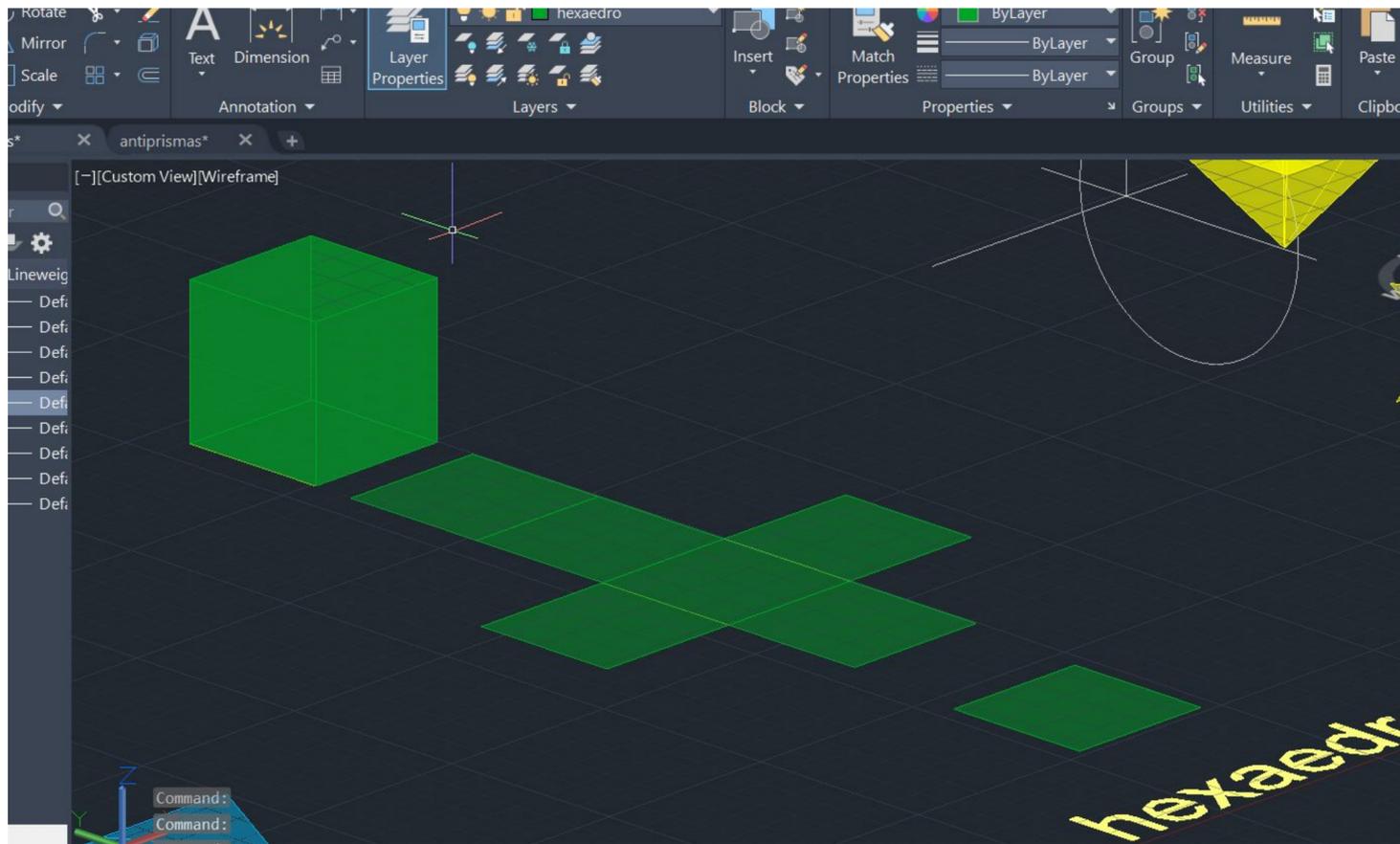
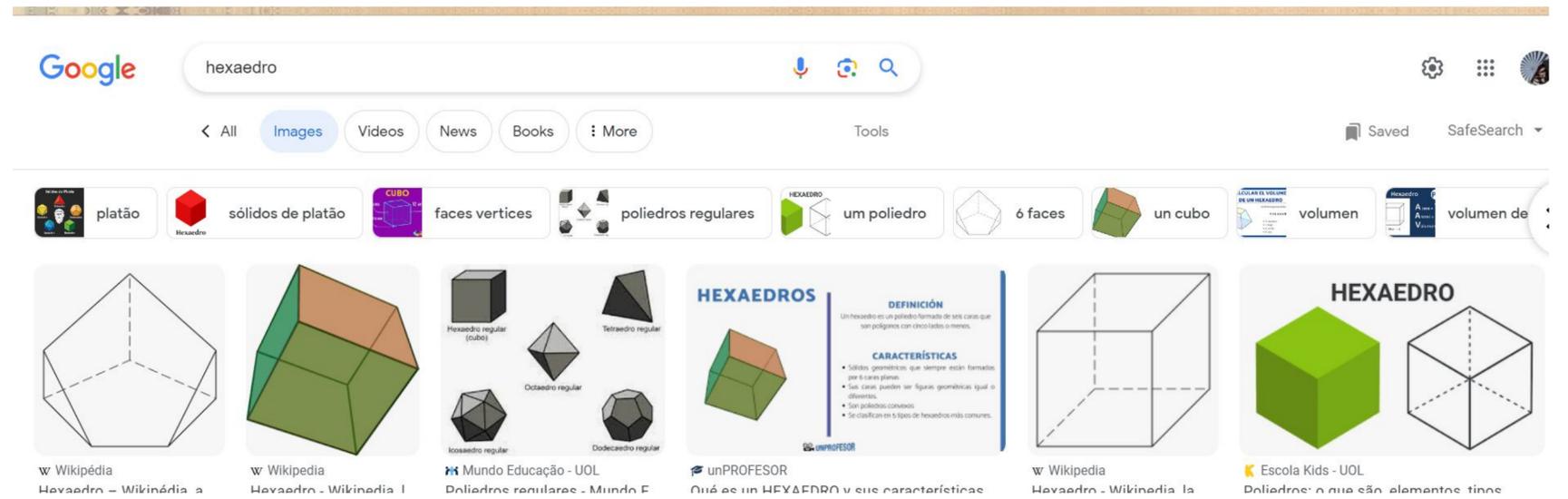




rebater os lados de acordo com o circulo de rebatimento e a charneira

# REPRESENTAÇÃO 3D:

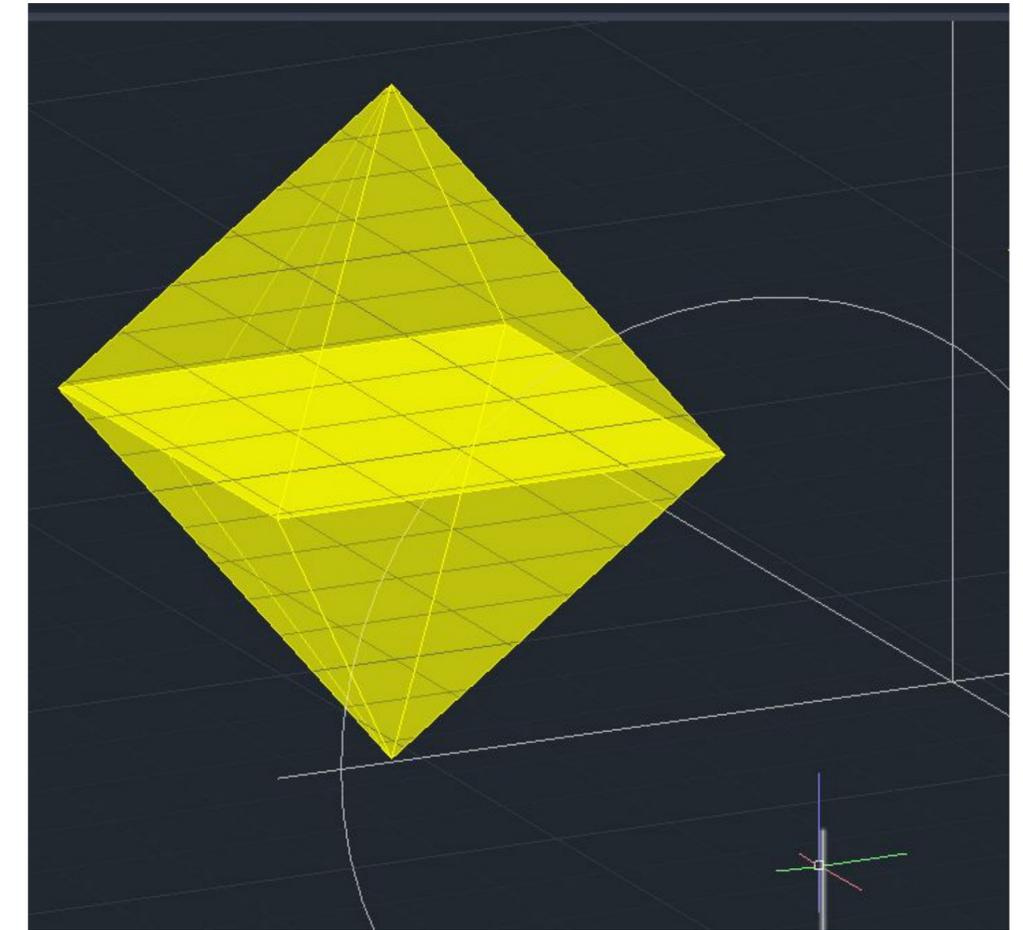
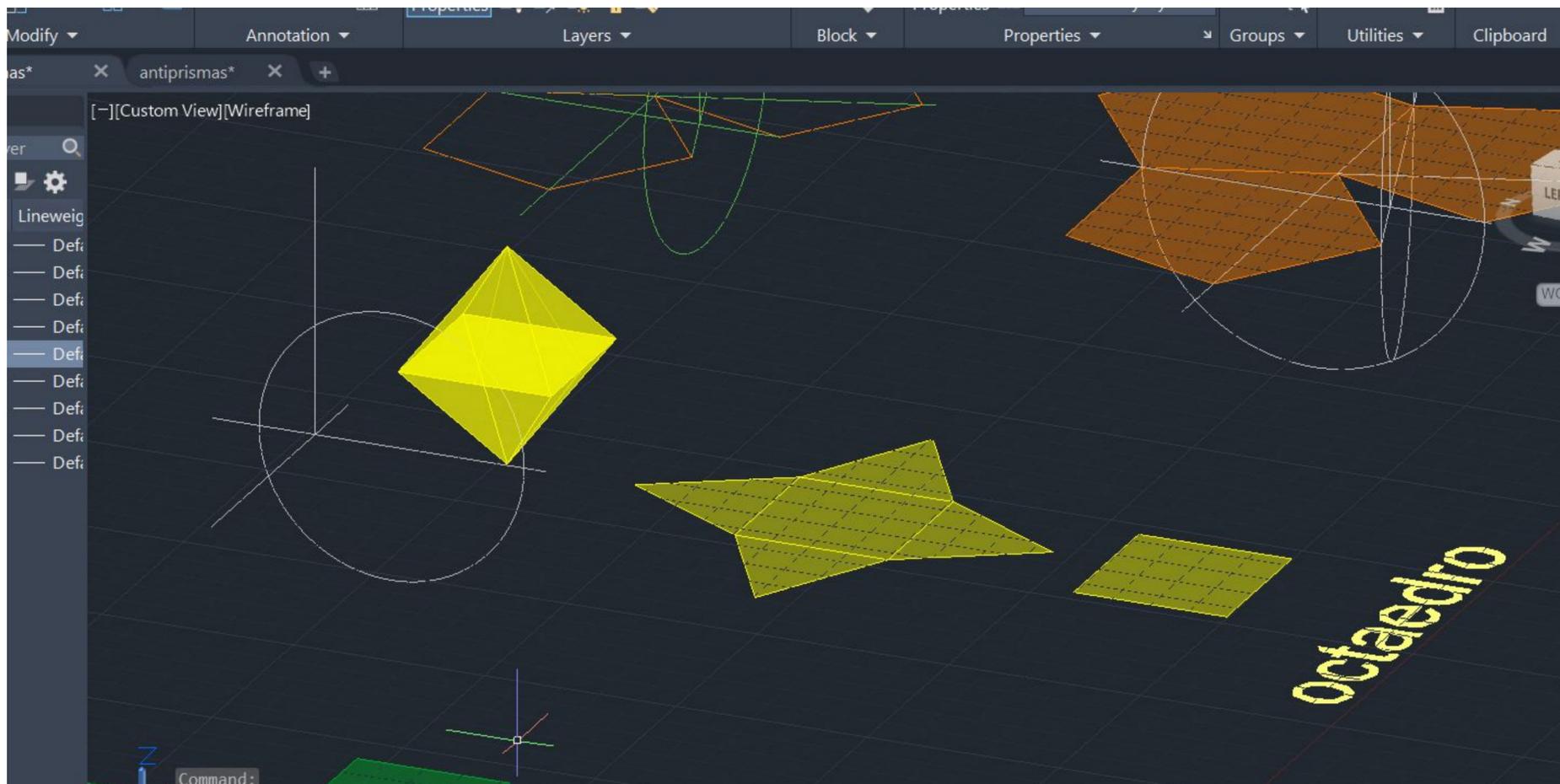
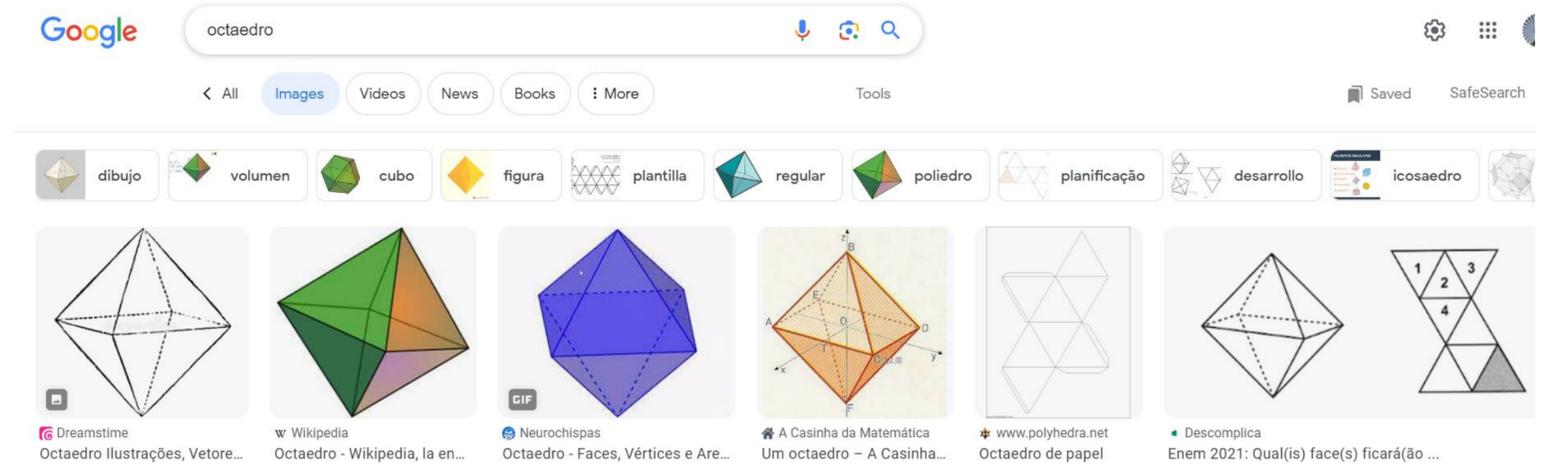
-hexaedro  
cubo, prisma de 6 lados



para o rebatimento, só se usa a ferramenta 3d rotate 90 graus.

# REPRESENTAÇÃO 3D:

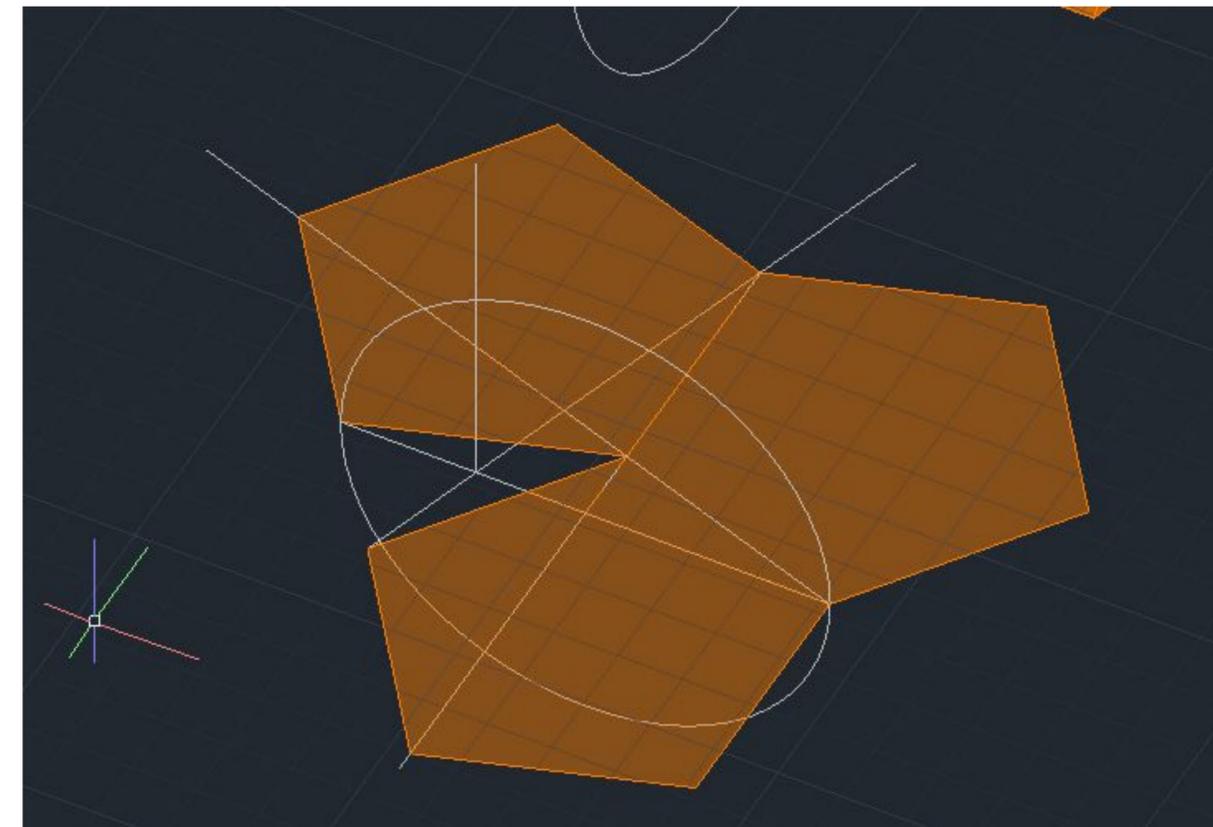
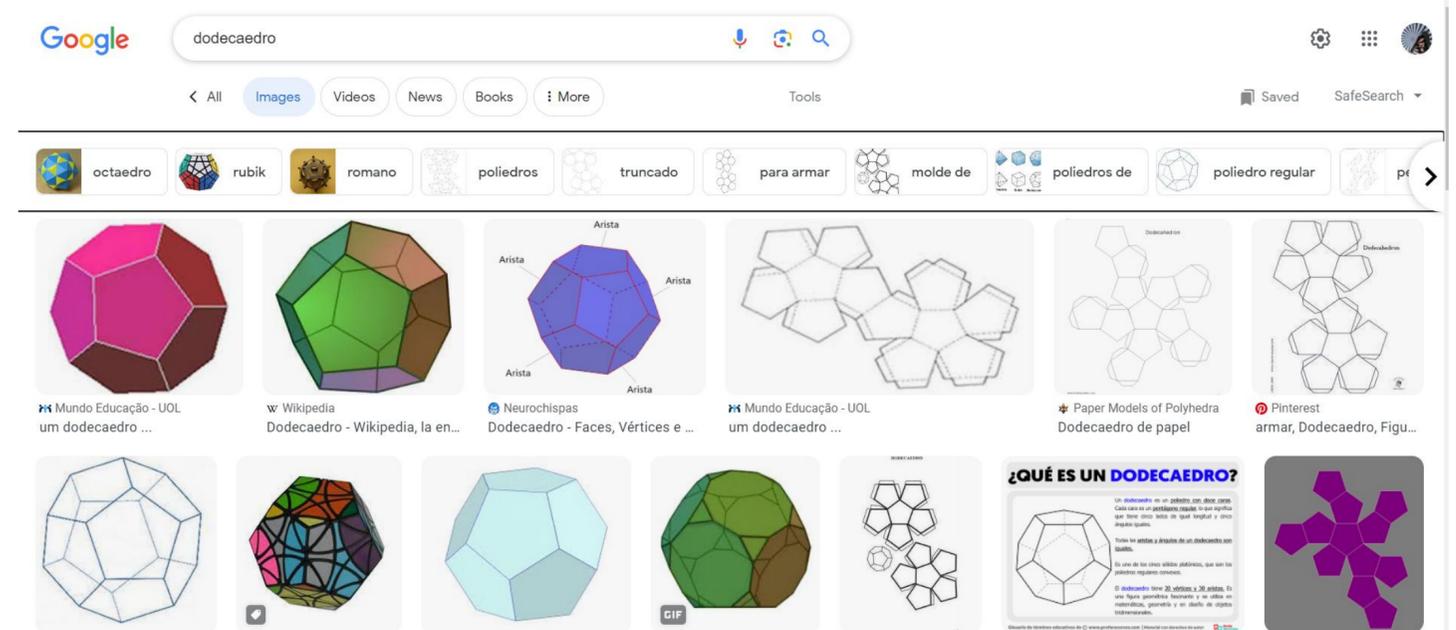
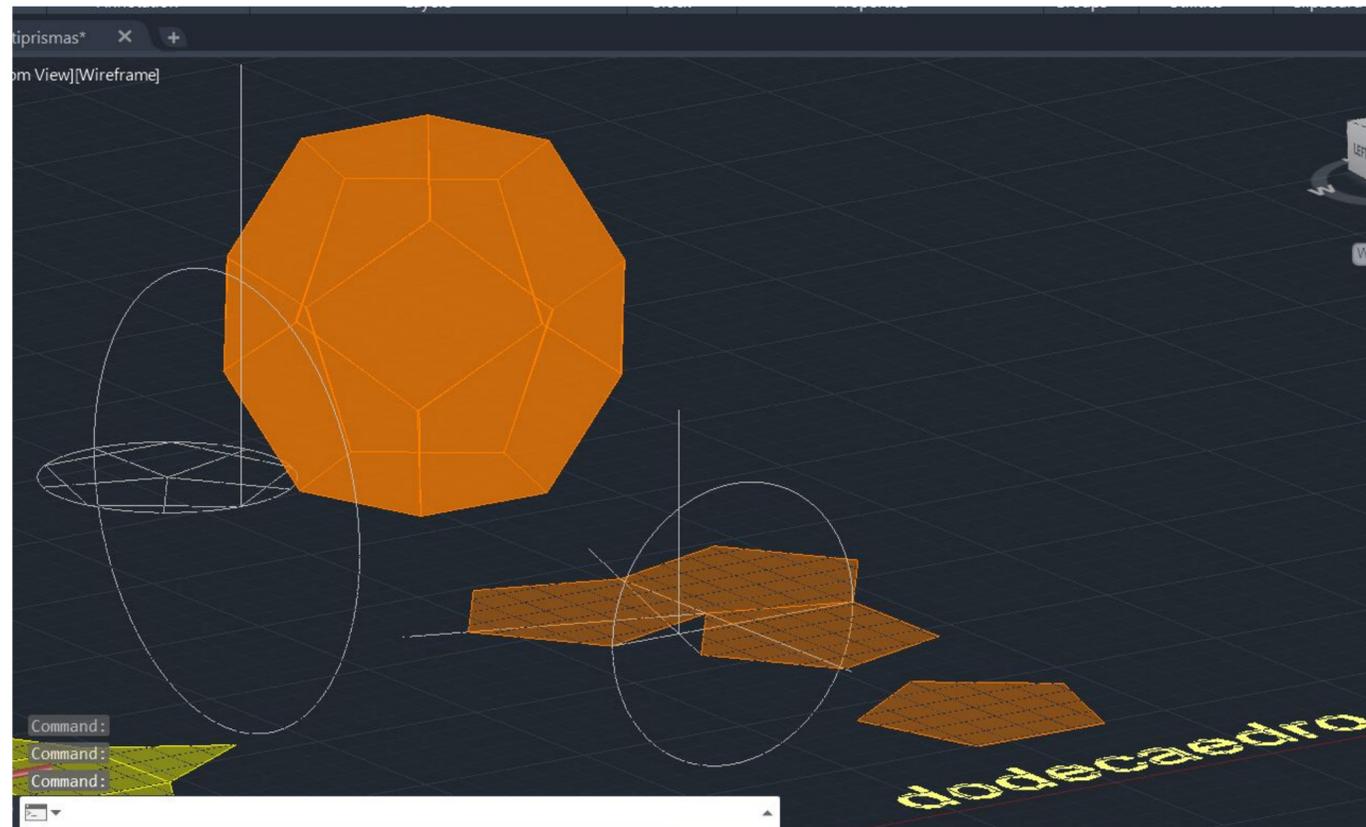
-octaedro  
prisma de 8 lados



# REPRESENTAÇÃO 3D:

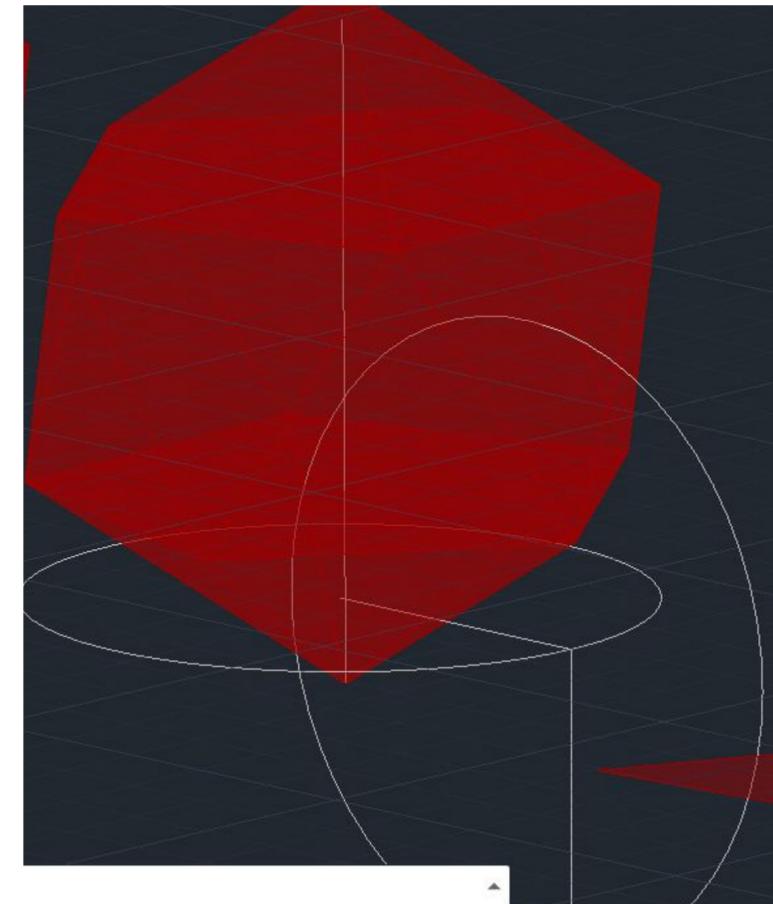
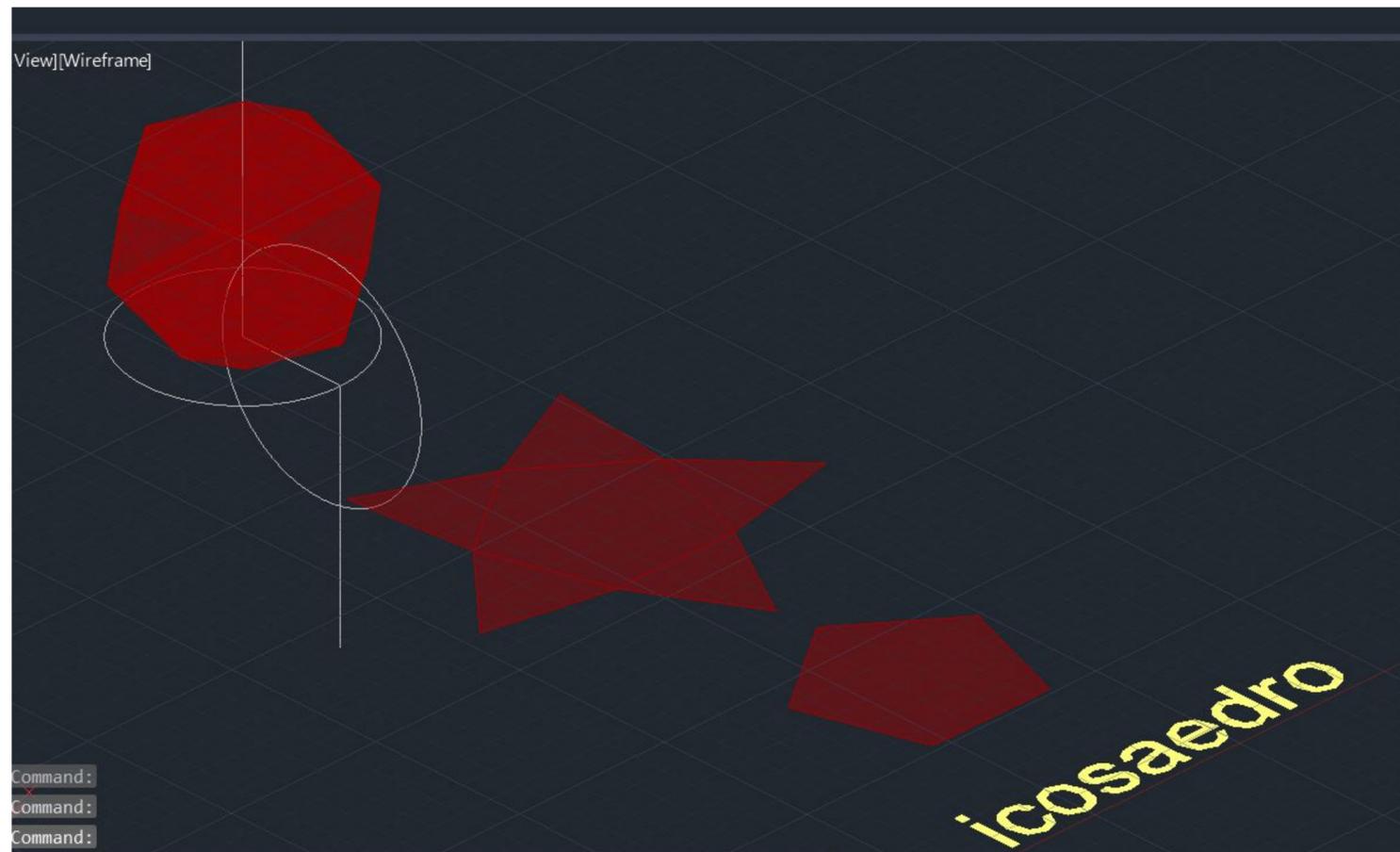
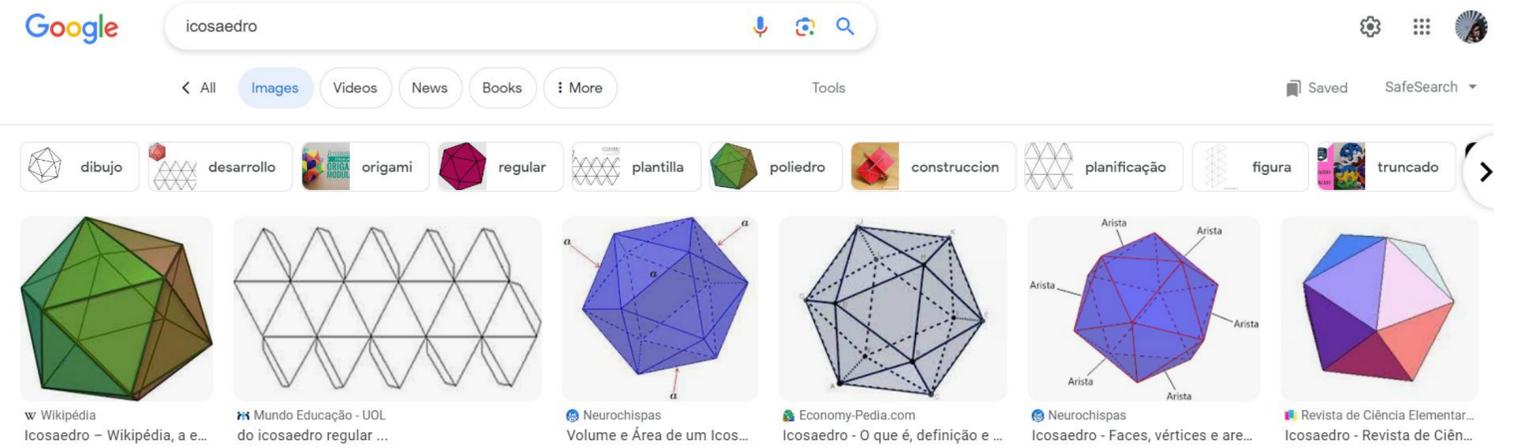
-dodecaedro

prisma de 10 lados, parecida com uma bola de futebol



# REPRESENTAÇÃO 3D:

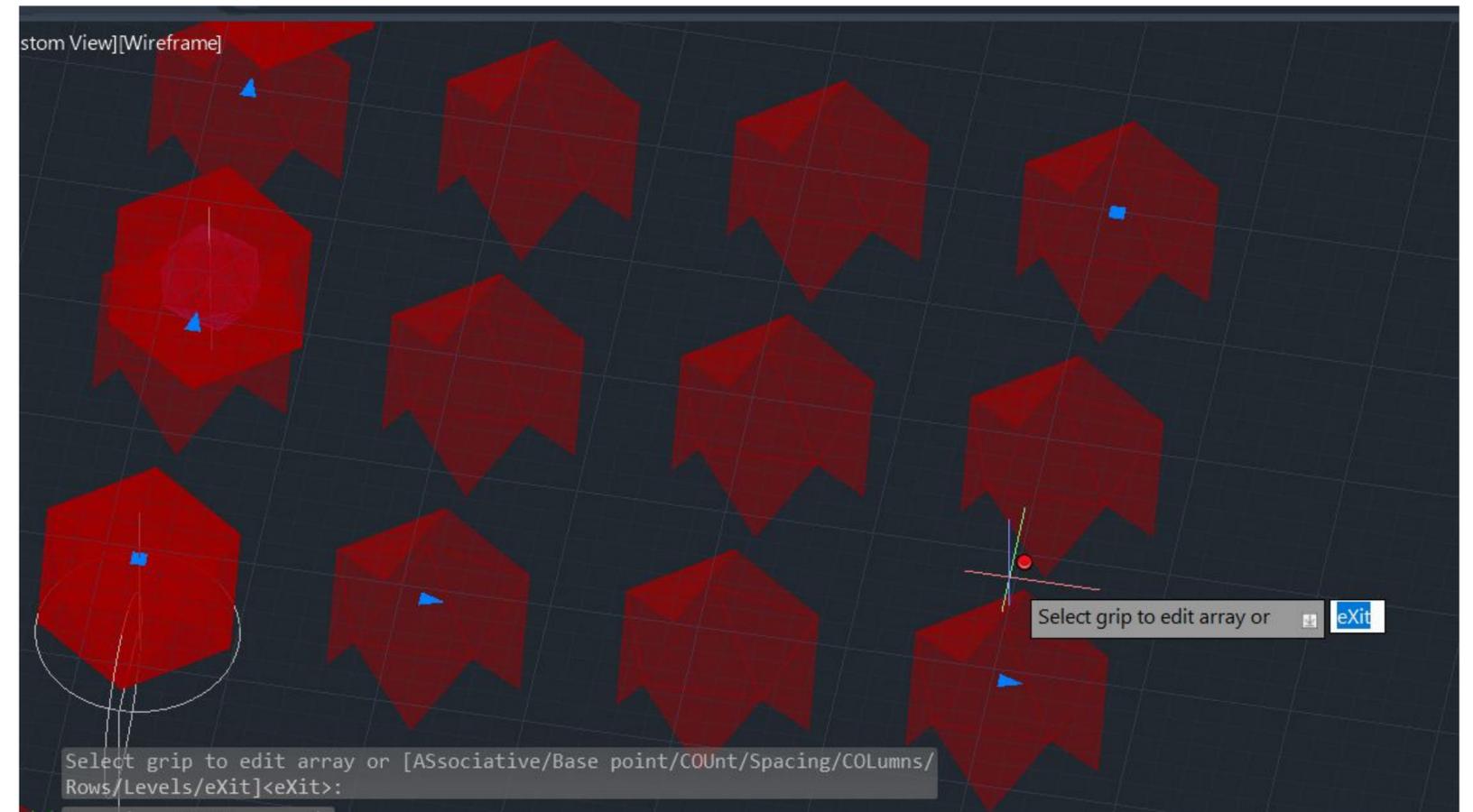
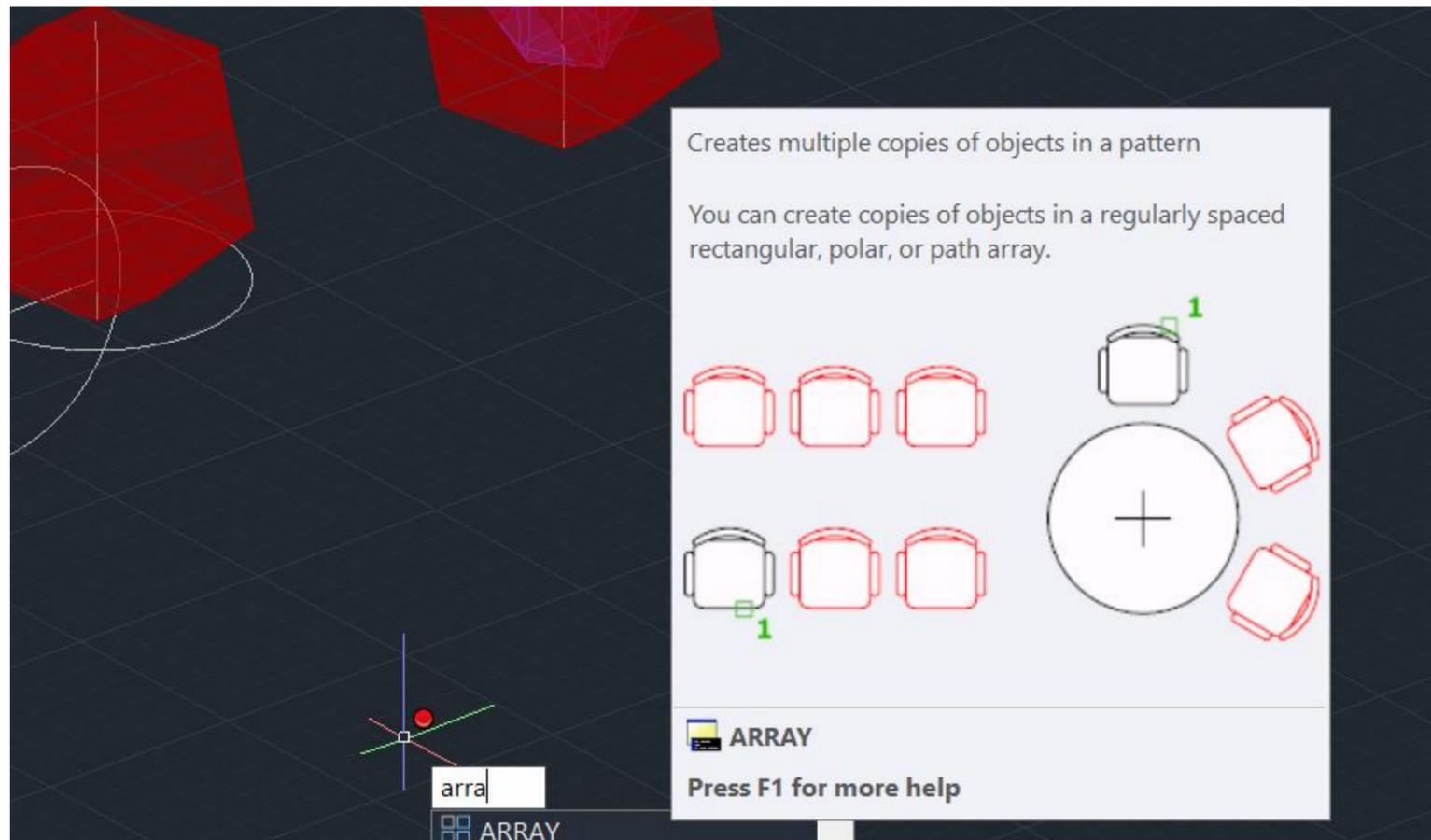
-icosaedro  
prisma de 20 lados



# REPRESENTAÇÃO 3D:

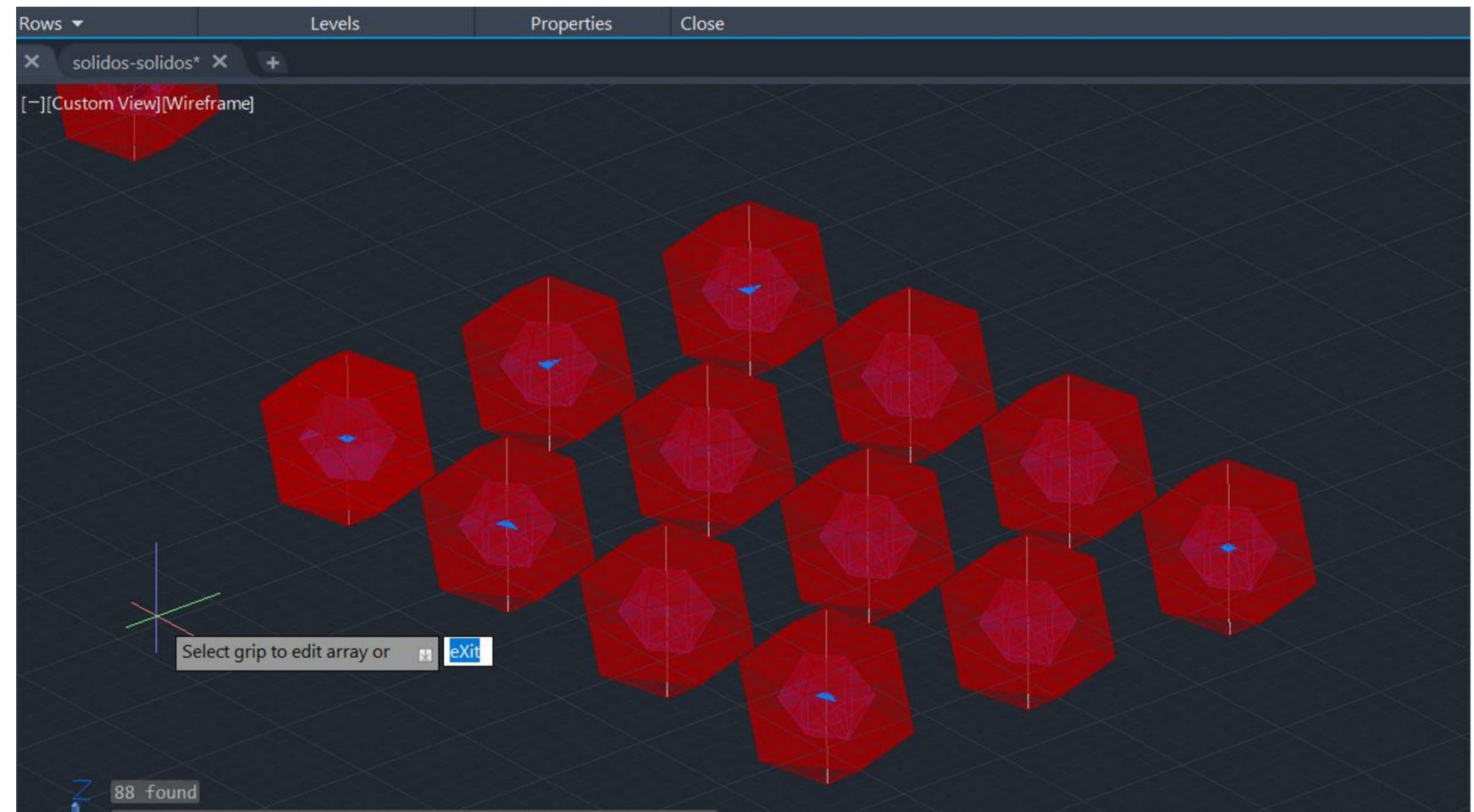
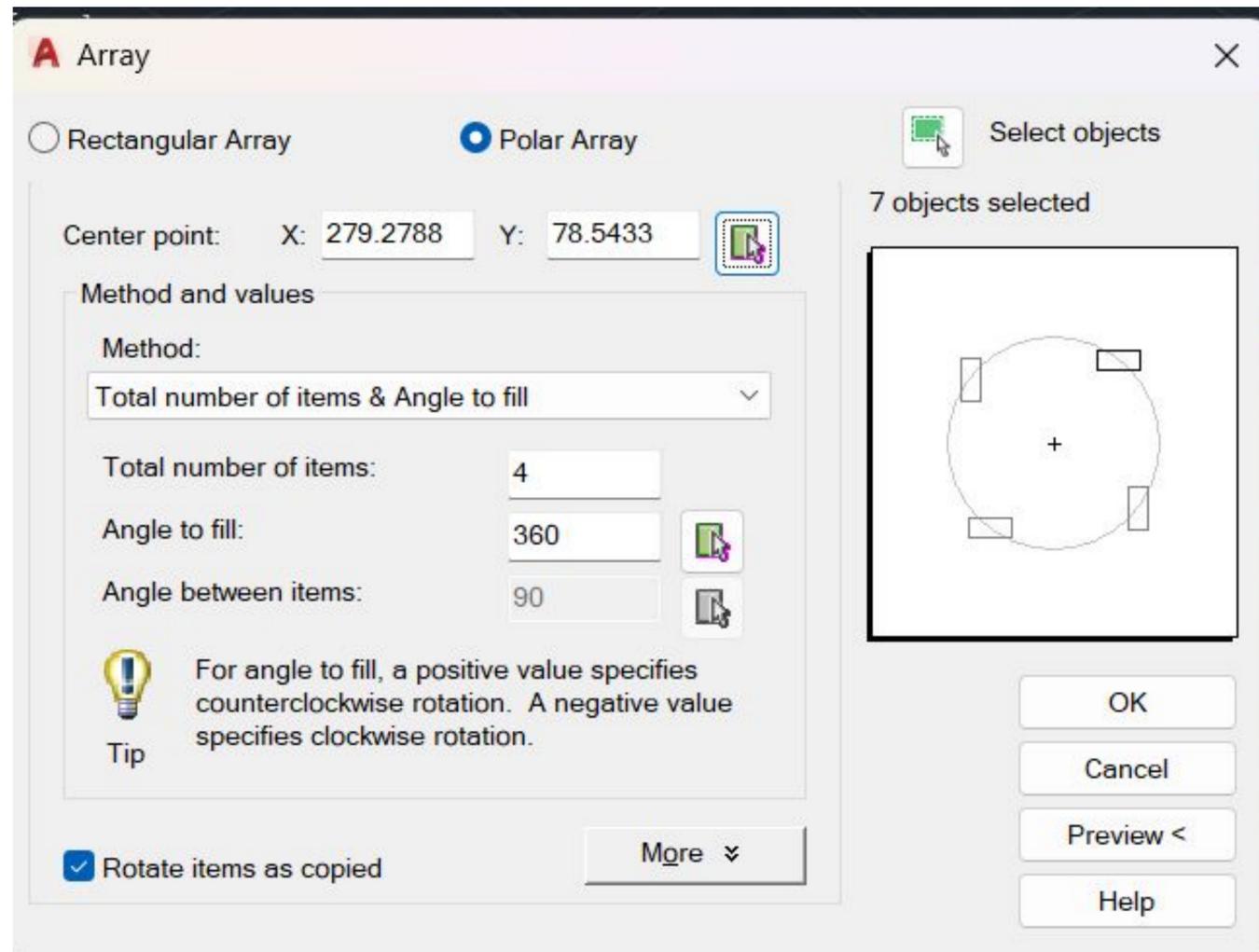
-icosaedro

para a construção do icosaedro necessitamos da ferramenta array que permite a multiplicação de um determinado objeto



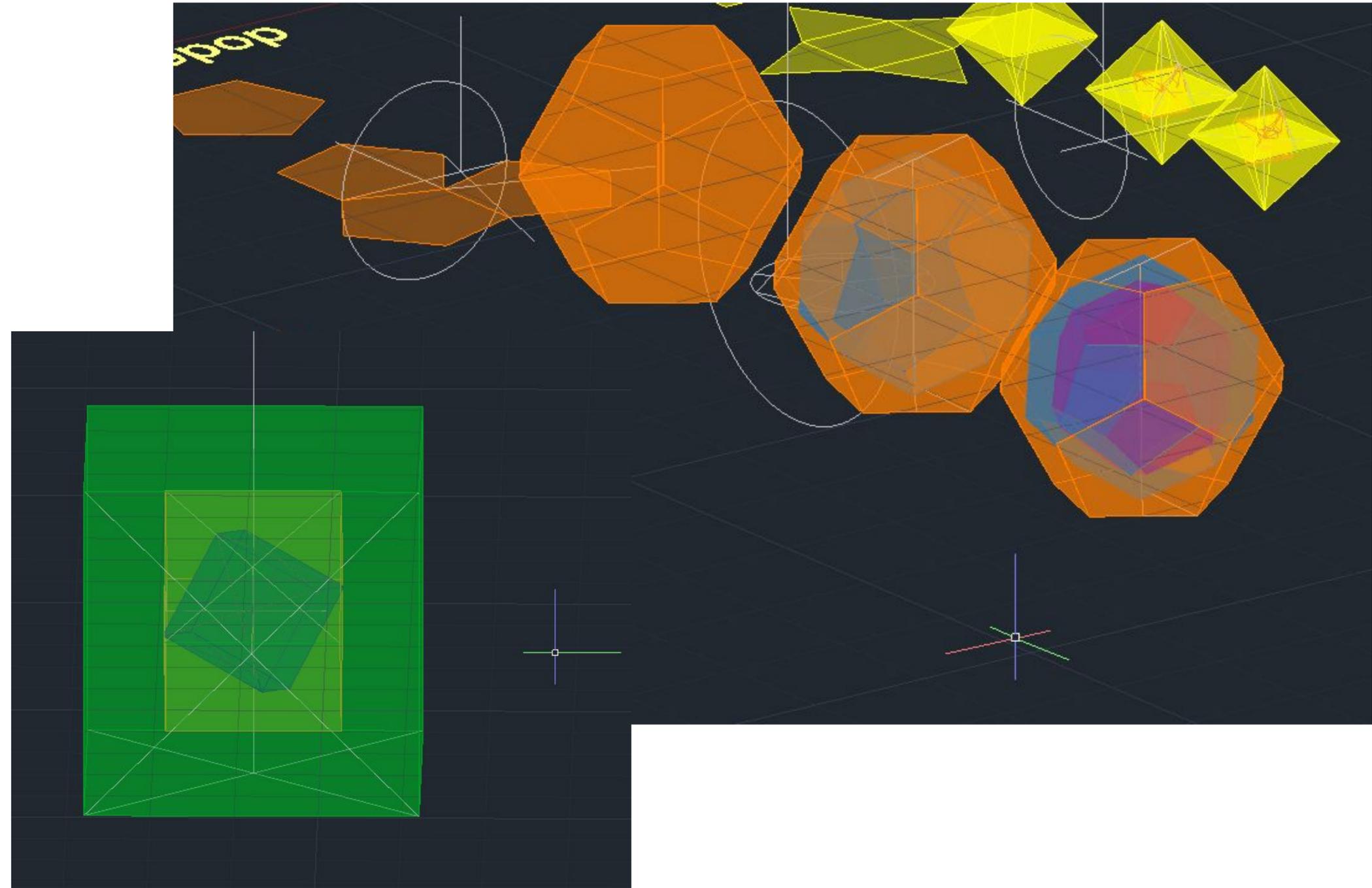
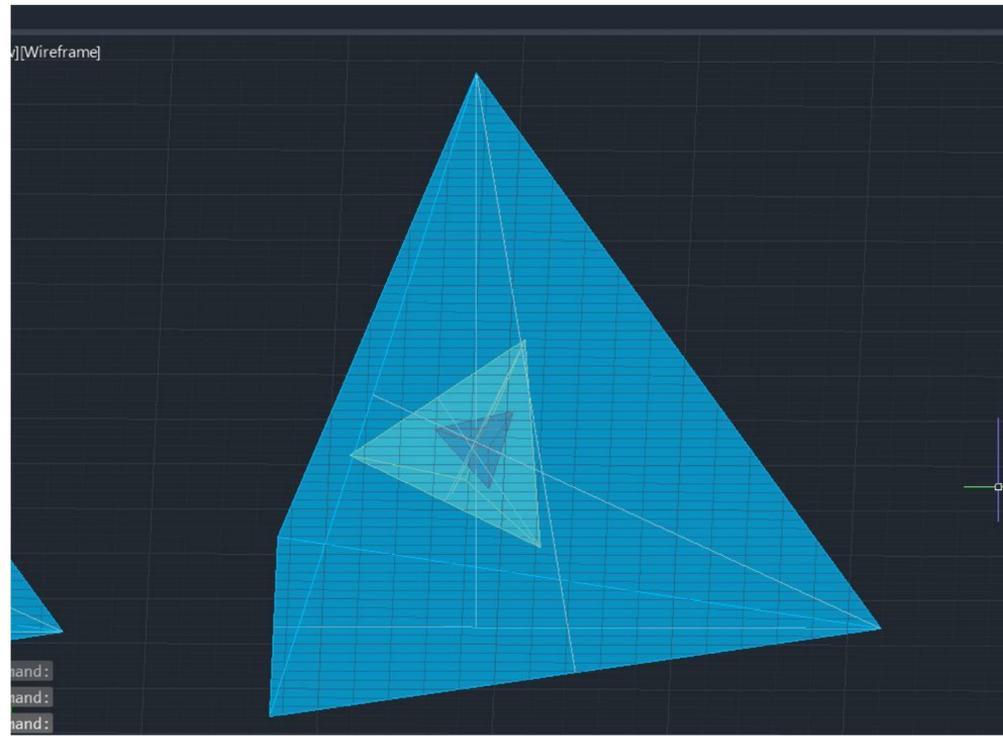
# REPRESENTAÇÃO 3D:

-icosaedro

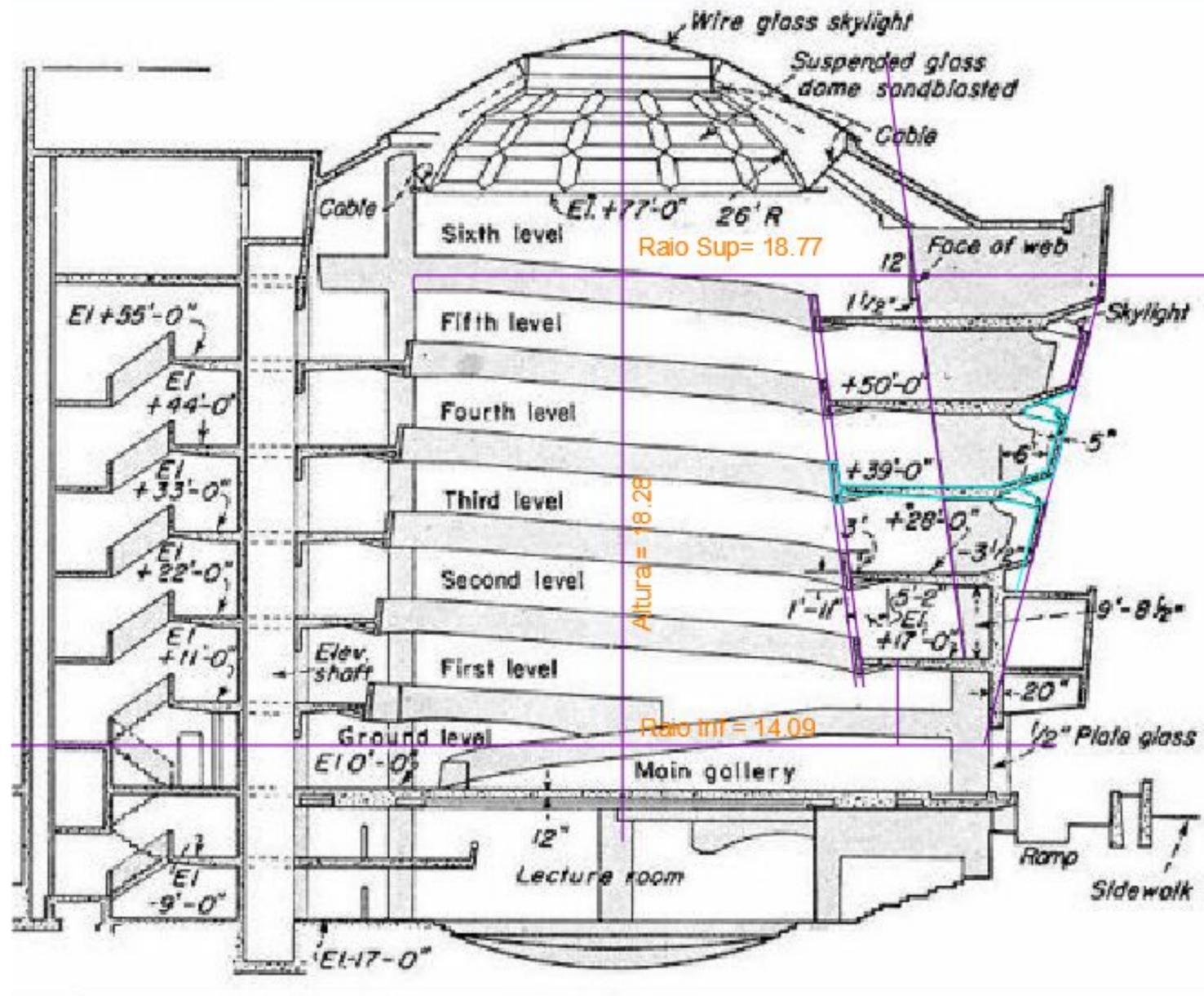


tem também o array classic, para multiplicação de objetos em espaços/pontos específicos

# REPRESENTAÇÃO 3D:

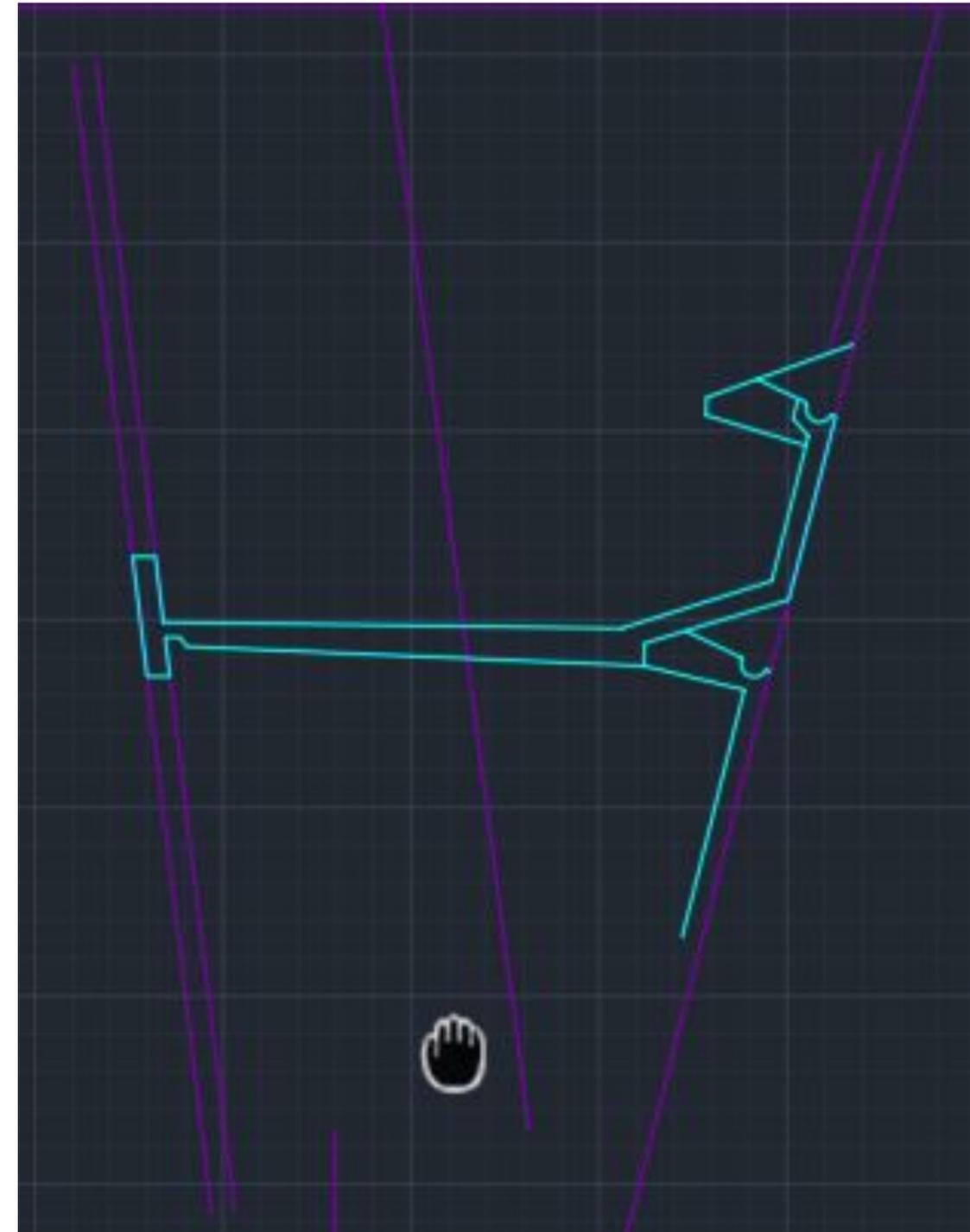
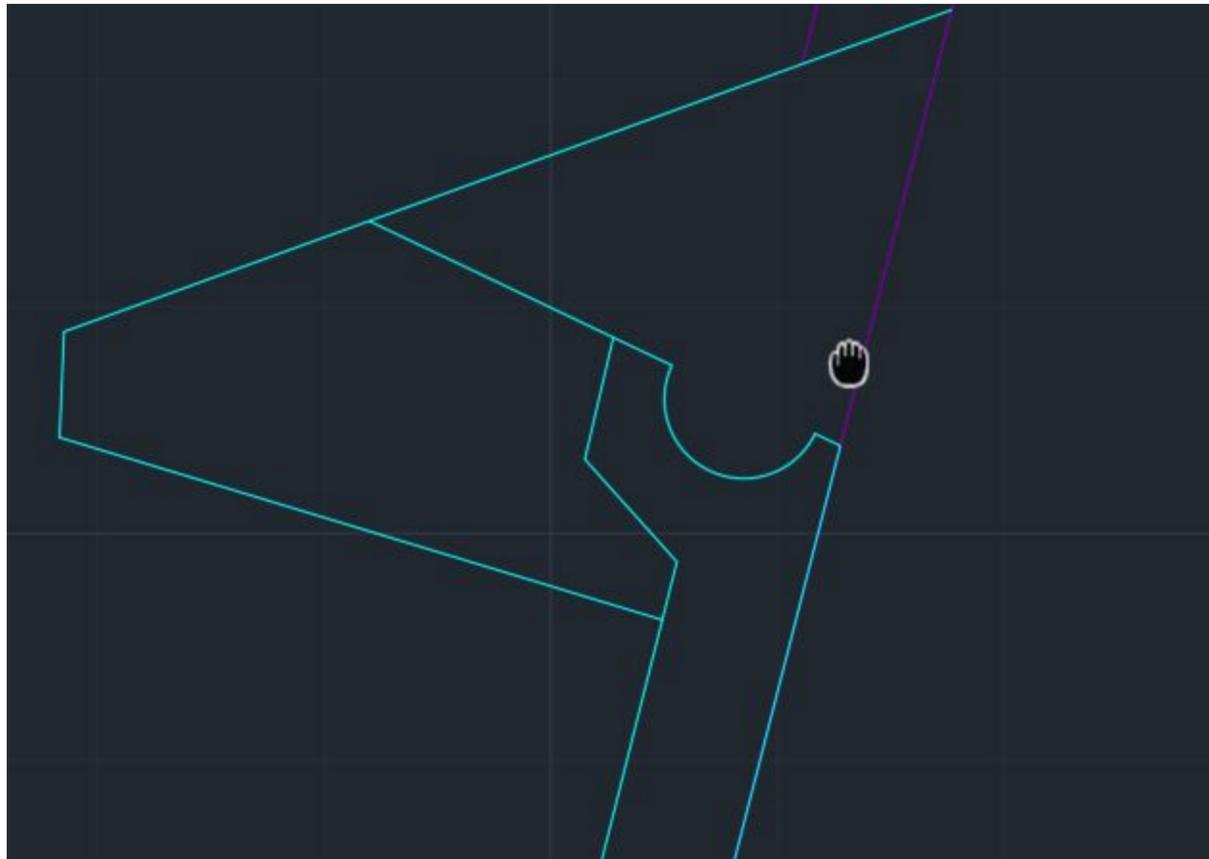


# REPRESENTAÇÃO 3D: GUGGENHEIM



# REPRESENTAÇÃO 3D: GUGGENHEIM

detalhe de construção deste edifício



# REPRESENTAÇÃO 3D: GUGGENHEIM

