PLANTA DE FORJADO · 1er FLOOR

Hollow-core elevation. Cota alveoplaca.

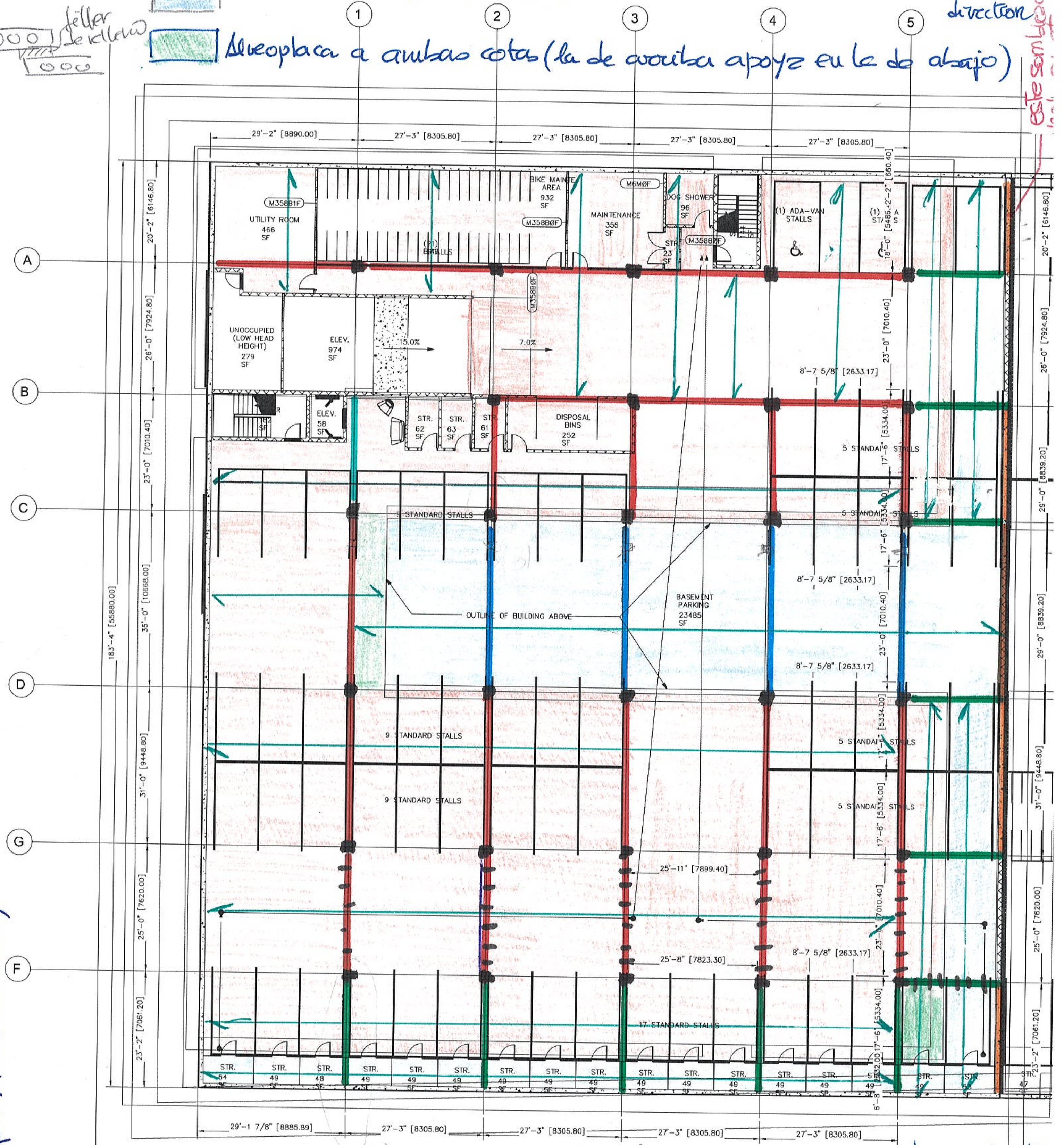
Hollow-core elevation
Alveoplaca a la cota −0'-4"

" " " " −1'-8"

Alveoplaca a ambas cotas (la de arriba apoya en la de abajo)

dirección forjado
hollow-core direction

filler relleno



Inverted T beam type 4: cota viga −0'-5" (24IT40)

Inverted T beam type 1: cota viga: −0'-5" (24IT32)

" " " type 2: cota viga: −1'-9" (24IT40)

" " " " 3: dos niveles (ver croquis)

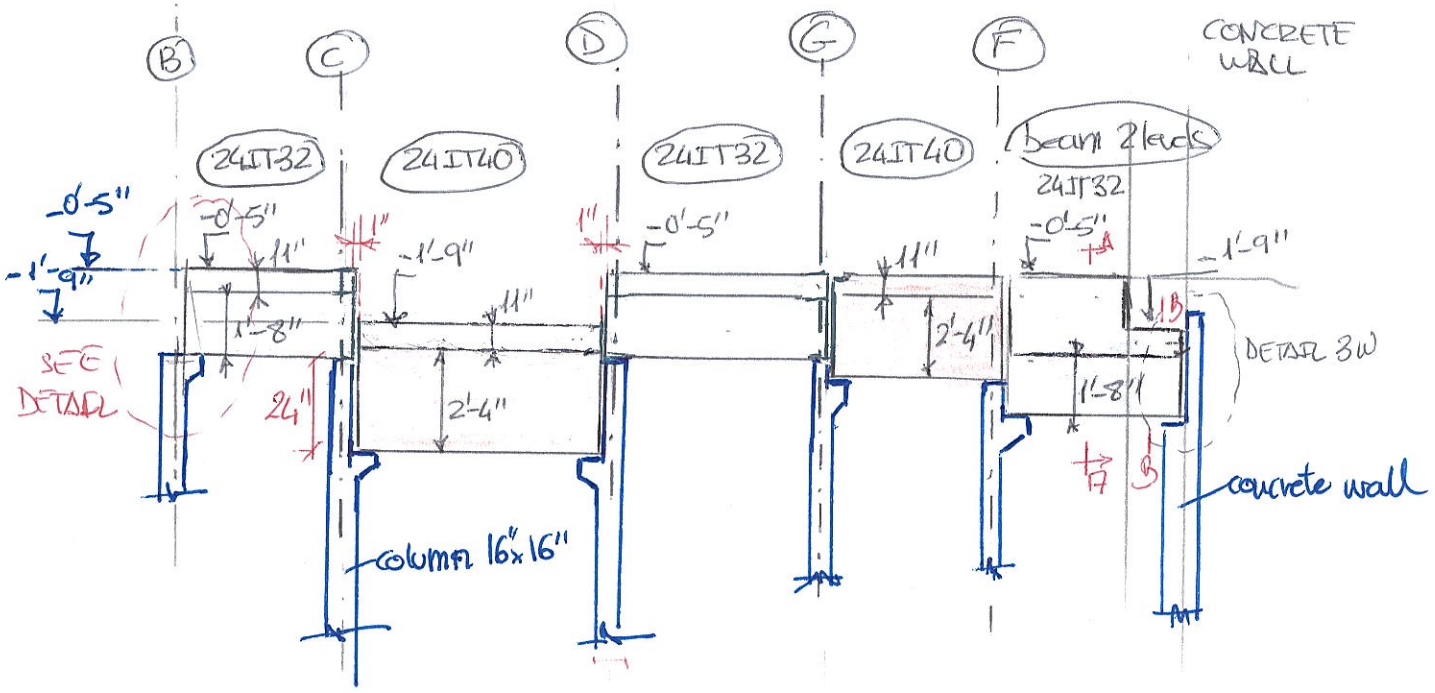
Viga embebida en muro (ver croquis)

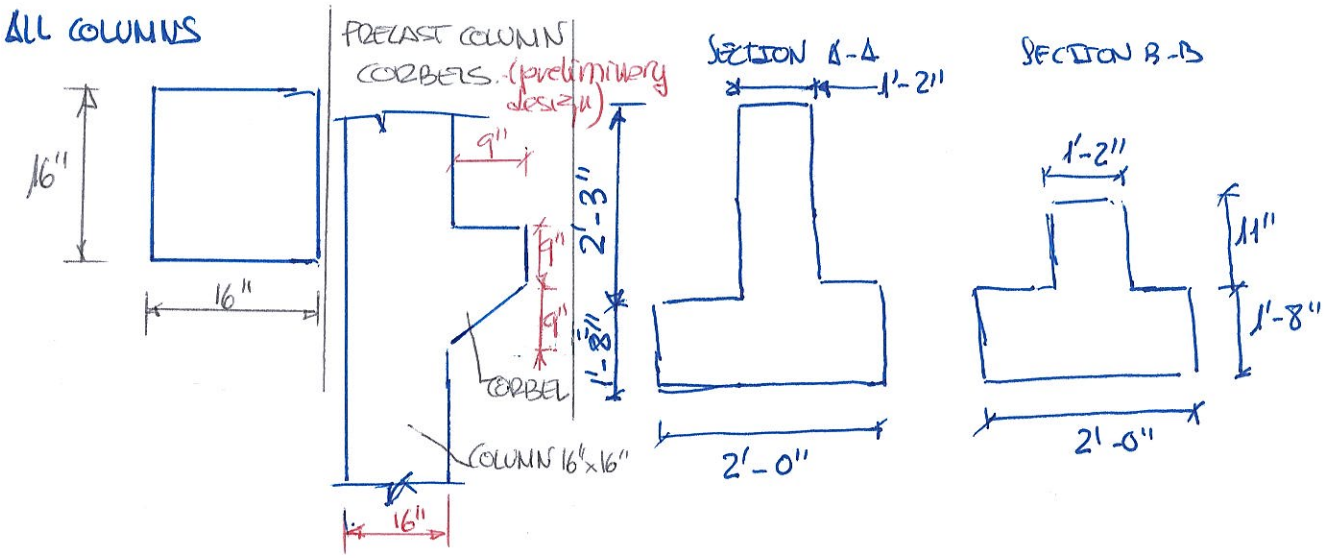
Viga metálica (ver croquis)

beam elevation
cota viga

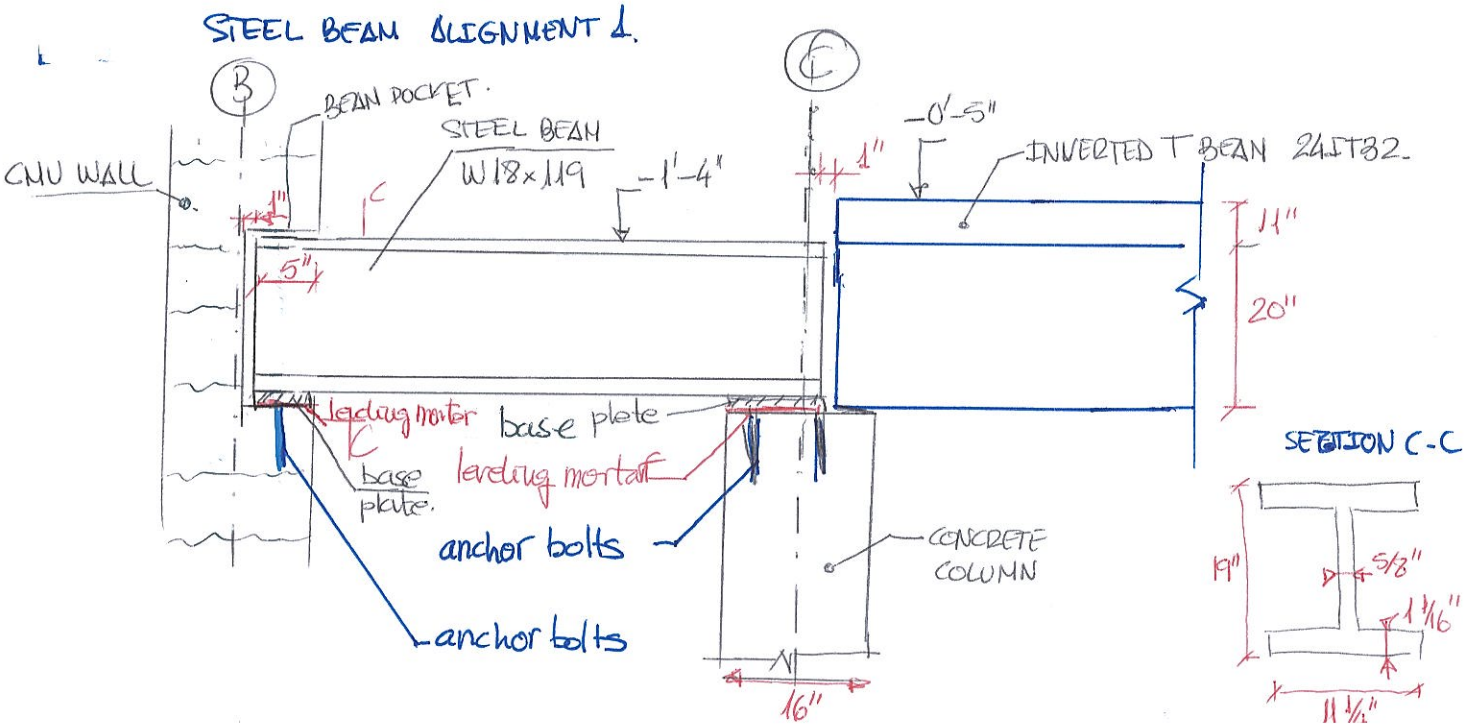
beam type 4 (see details)

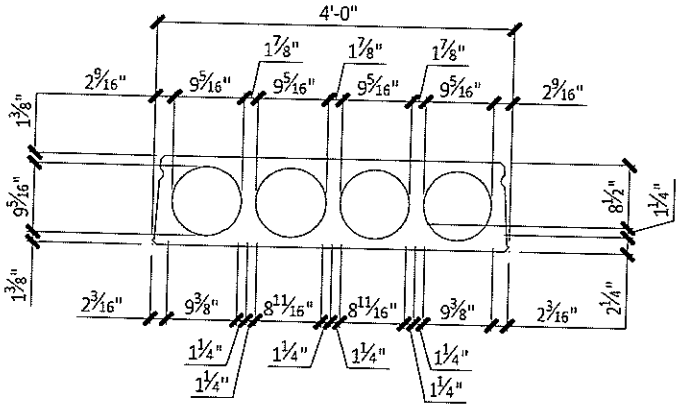
BEAM FRAME ALIGNMENT 2



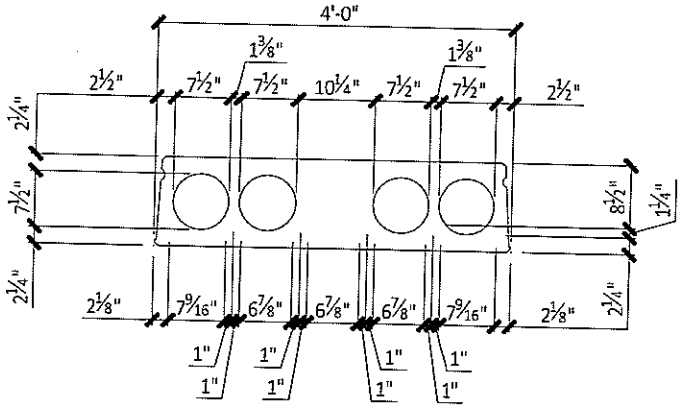


STEEL BEAM ALIGNMENT 1.

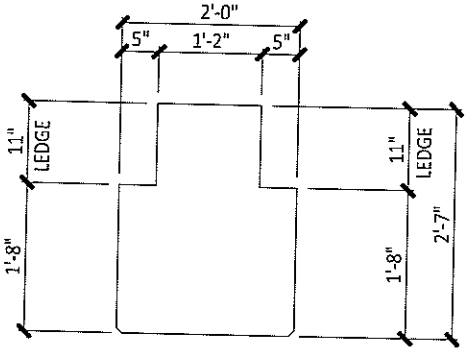




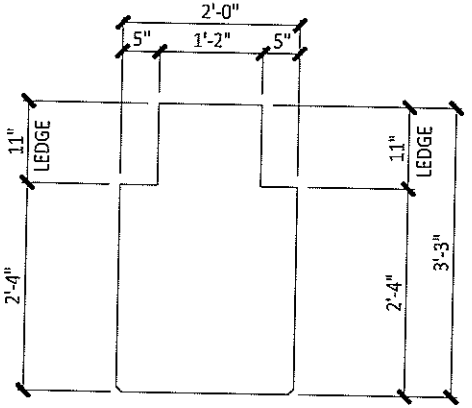
12" 'LIGHT' HOLLOWCORE PLANK



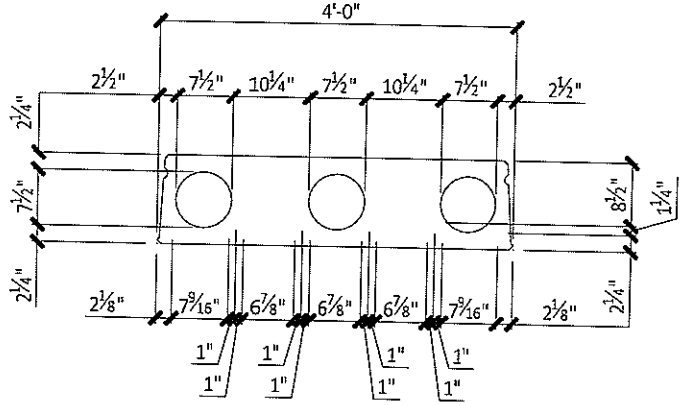
12" 'HEAVY' HOLLOWCORE PLANK



INVERTED TEE BEAM
24" WIDE X 32" DEEP (NOMINAL)



INVERTED TEE BEAM
24" WIDE X 40" DEEP (NOMINAL)



12" 'ULTRA HEAVY' HOLLOWCORE PLANK

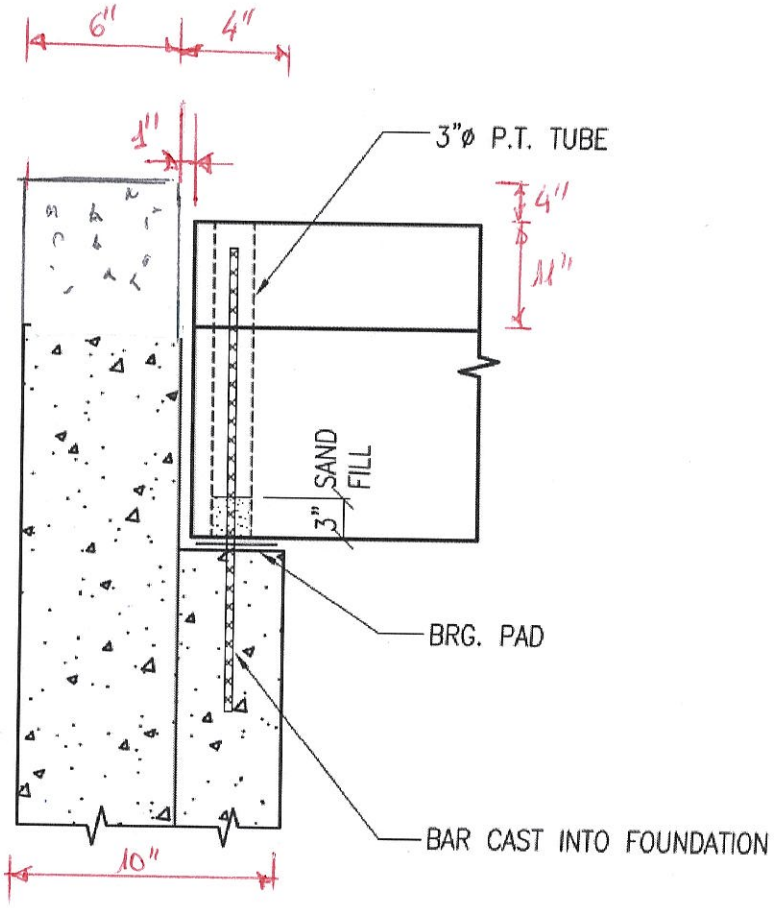


Figure 14: Inverted tee beam to basement wall

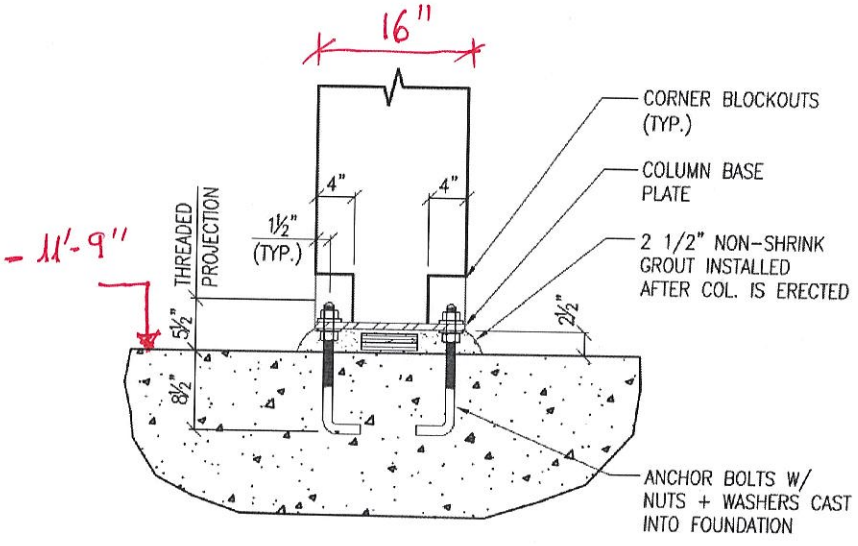


Figure 15: Column to foundation

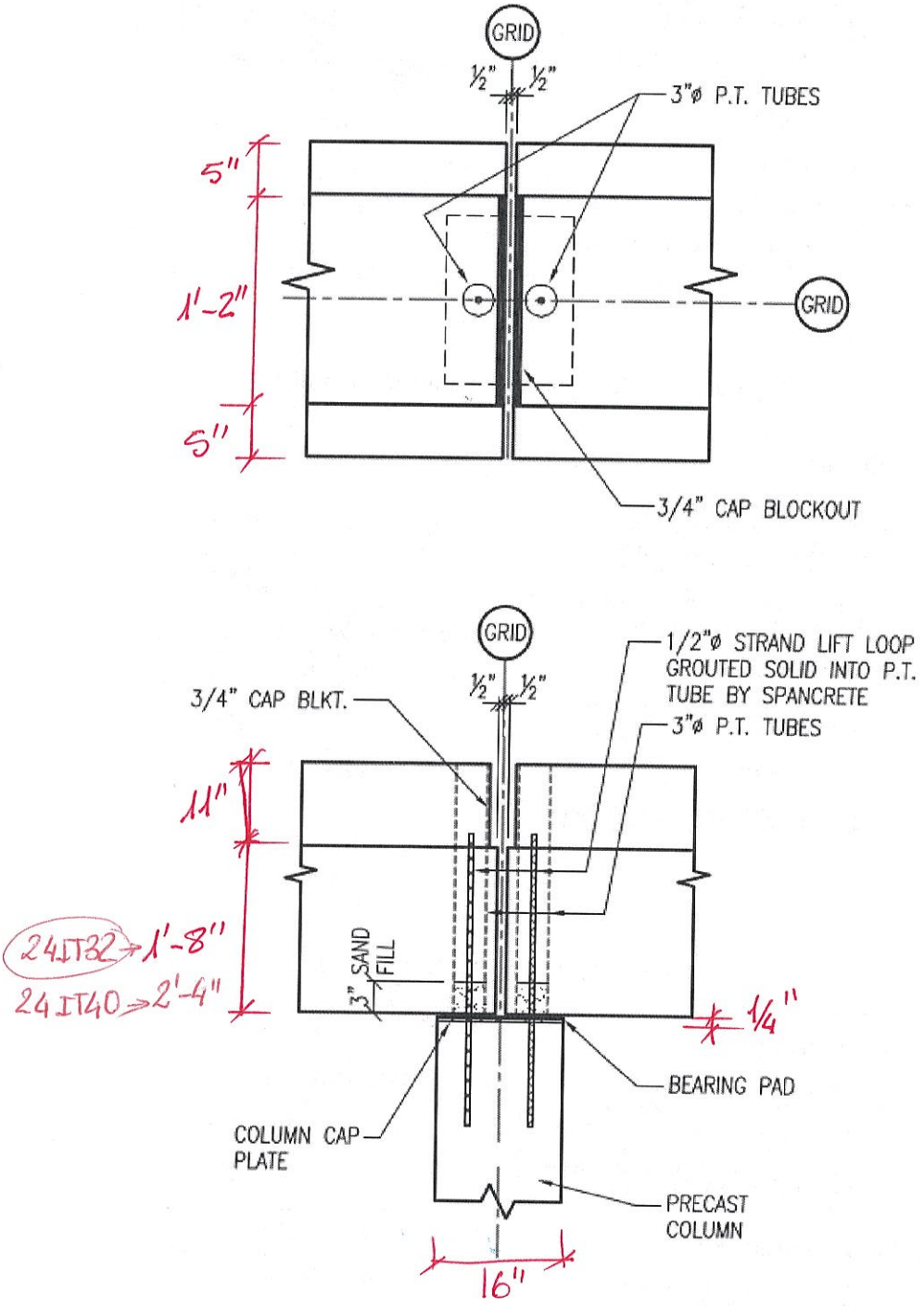
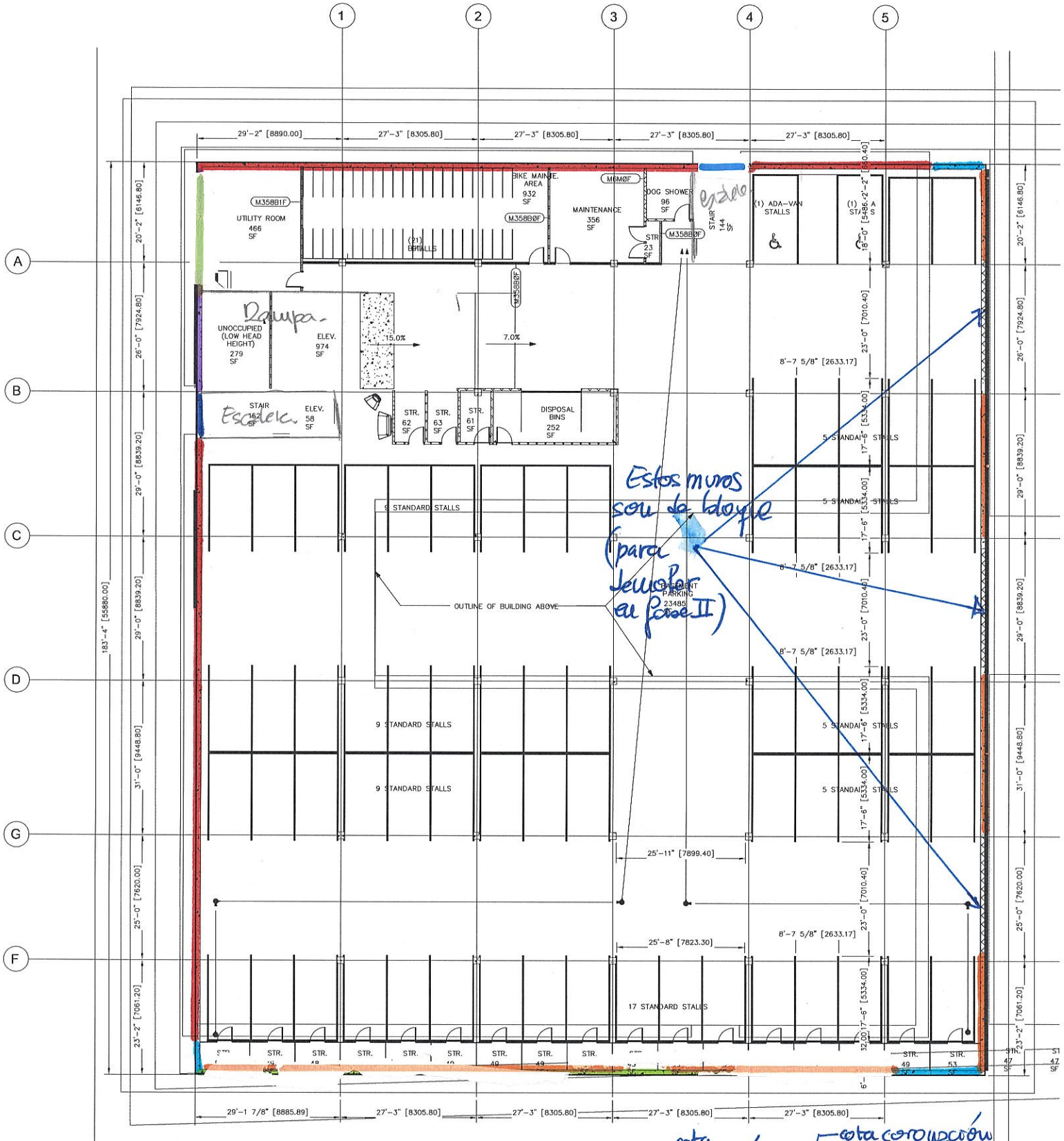


Figure 13: Inverted tee beam to column

MURO PERIMETRAL. (Ver detalles muro perimetral adhesplace- para montaje adhesplace)

BASEMENT WALL ELEVATIONS



Wall type elevation

Muro tipo 1 : cota coronación -1'-4"

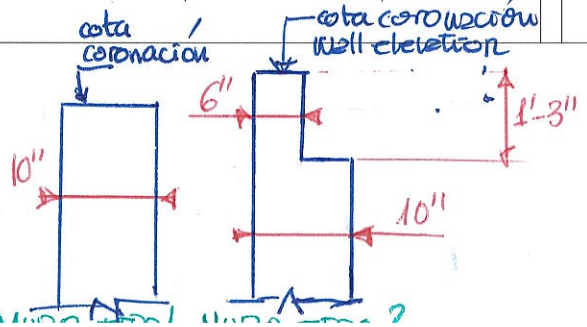
" " " : " " : -2'8"

" " 2 : " " : -0'-1"

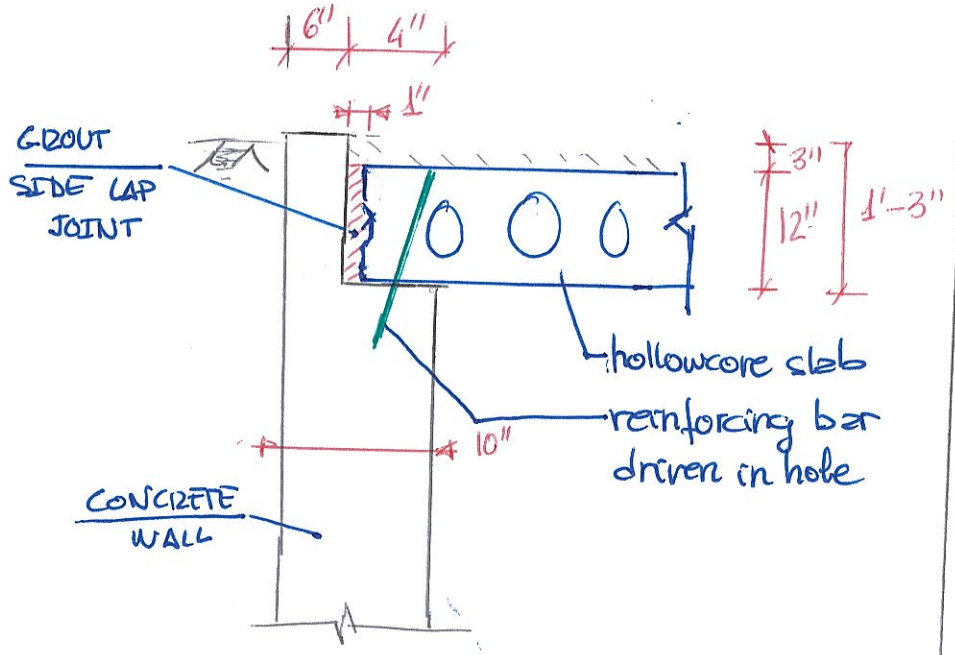
" " 2 : " " : -1'-5"

" " 1 : " " : -3'-5"

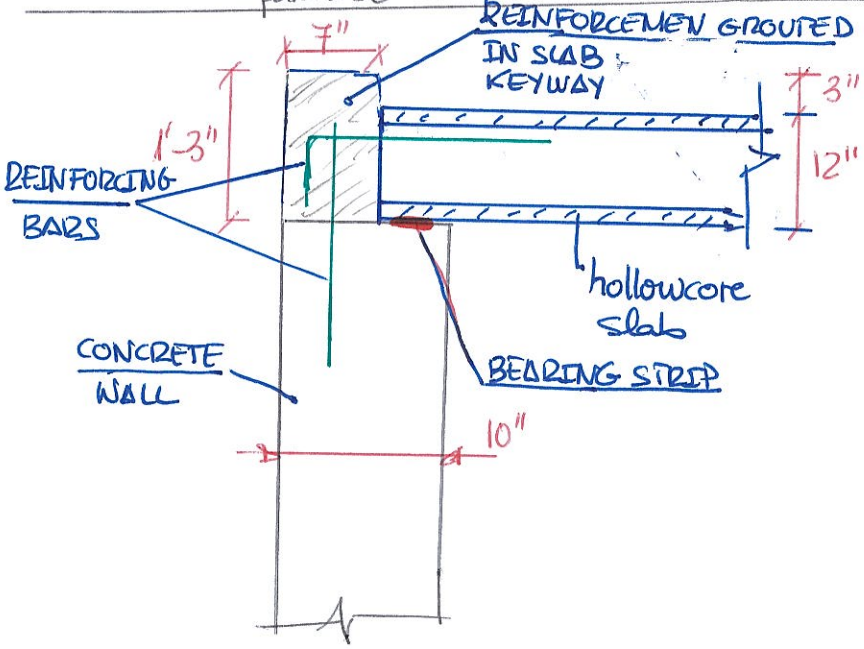
" " 1 : " " : -0'-5"



DETALLES MURO PERIMETRAL.



DETAIL 1W. Slab to basement wall RC parallel



DETAIL 2W. SLAB TO BASEMENT WALL RC

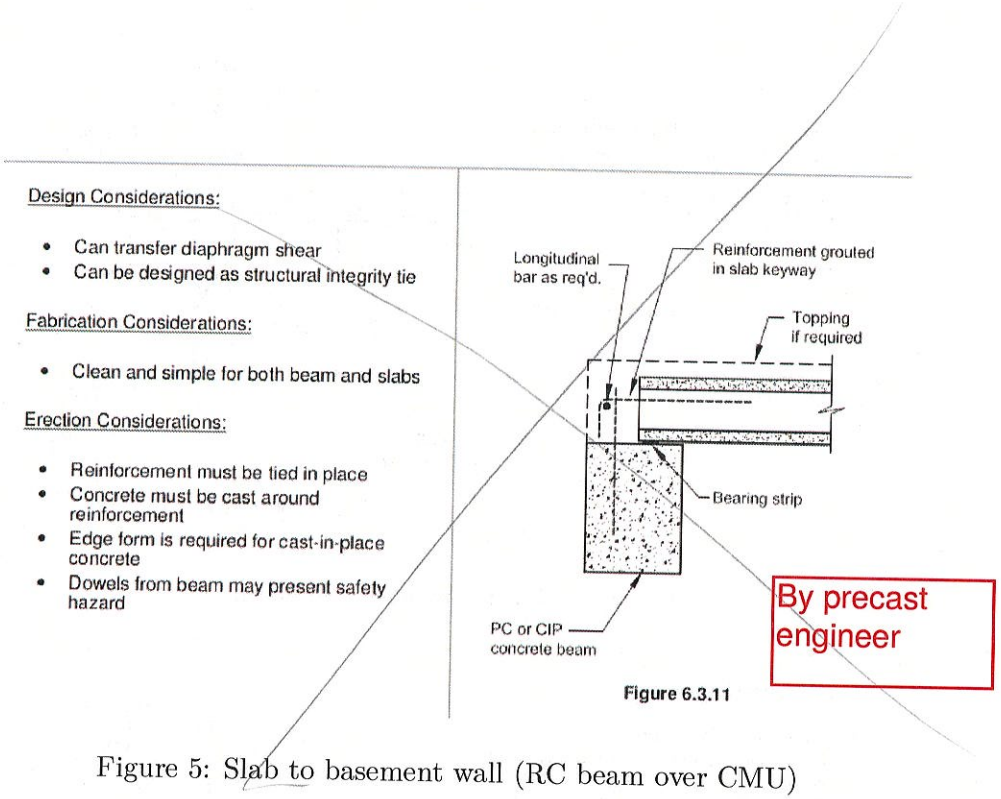


Figure 5: Slab to basement wall (RC beam over CMU)

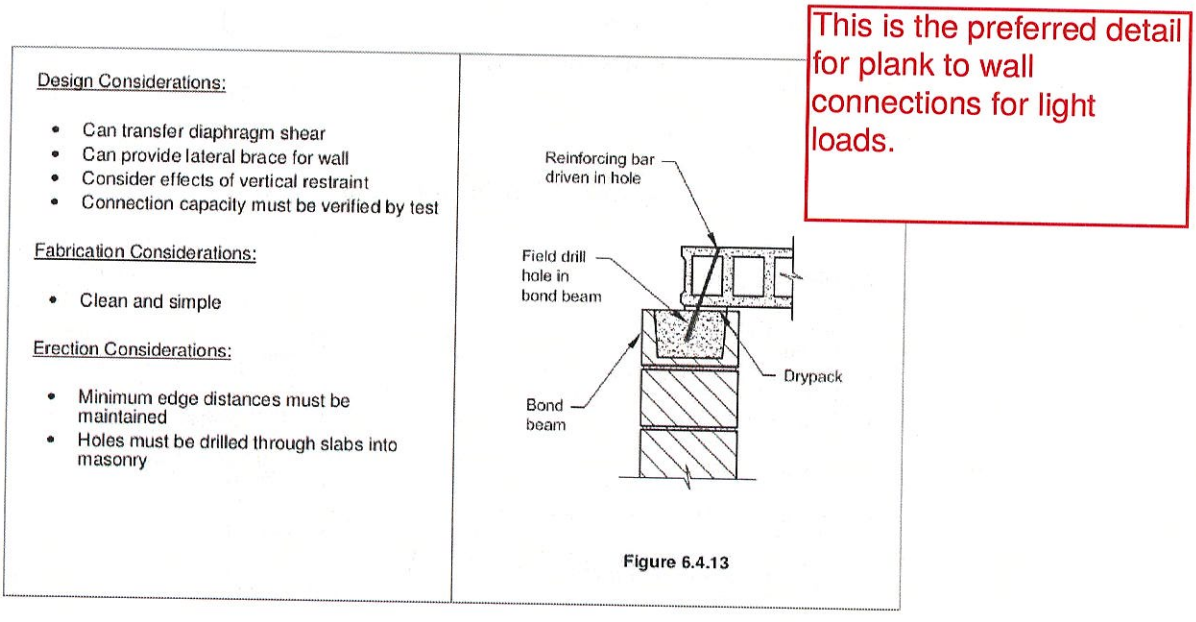


Figure 6: Slab to basement wall CMU parallel

Design Considerations:

- Can transfer diaphragm shear
- Provides lateral brace for steel beam
- Potential torsion on steel beam should be considered
- Will develop volume change restraint forces that must be considered in design of connection

Fabrication Considerations:

- Slab manufacturing system must allow for installation of bottom weld anchors

Erection Considerations:

- Welding of slabs to beam should be done as erection proceeds to brace beam
- Spacer may be required to make weld

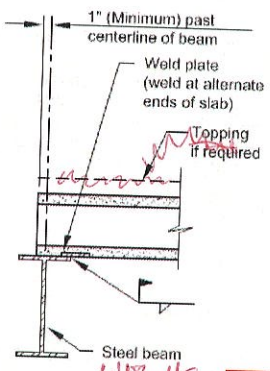


Figure 6.5.4

This is how we typically detail it.

Figure 10: Slab to steel beam single

Detail H1

Design Considerations:

- Can transfer internal diaphragm forces
- Can be designed as structural integrity tie
- Consider concrete cover on reinforcement over beam

Fabrication Considerations:

- Slab layout must have opposing joints lined up

Erection Considerations:

- Clean and simple

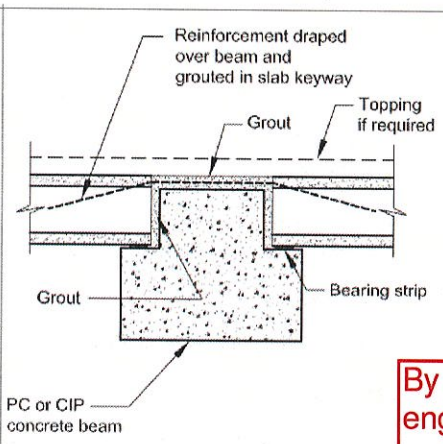


Figure 6.3.4

By precast engineer

Figure 2: Slab to inverted tee beam

Design Considerations:

- Can transfer diaphragm shear
- With proper bar detailing, can provide lateral brace for wall
- Consideration should be given to forces developed as slab ends rotate

Fabrication Considerations:

- Clean and simple
- Small tolerance for placement of bars in walls

Erection Considerations:

- Simple for slab erection
- Mason can set bars independent of the slab joints
- Some block cutting may be required for bars from keyways

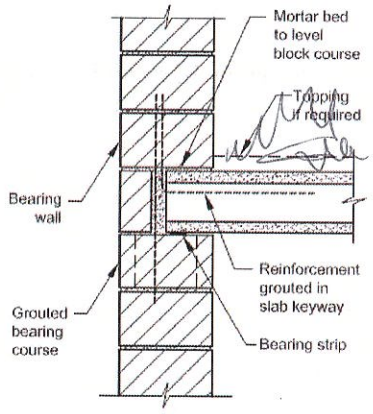


Figure 6.4.3

muro perimetral detalle 3.

DETAIL 4W

Figure 3: Slab to ramp wall CMU

Design Considerations:

- Can transfer diaphragm shear
- Can provide lateral brace for wall
- Consideration should be given to forces developed from deflection or camber growth
- Consider axial load path

Fabrication Considerations:

- If not done in field, slots and holes must be cut for steel
- In stack casting system, slots and holes might not be practically cut in plant

Erection Considerations:

- Allowance must be made for slab camber
- If not done in plant, holes and slots must be cut for steel
- Wall is not braced until steel is grouted

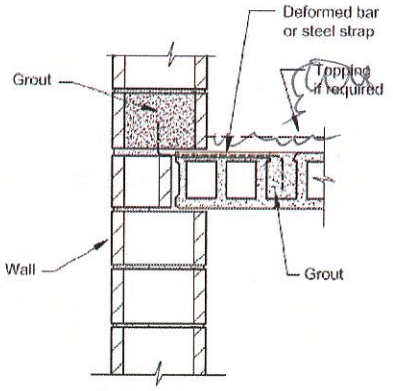


Figure 6.4.9

muro perimetral detalle 4.

DETAIL 5W

Figure 4: Slab to ramp wall CMU parallel

Design Considerations:

- Can transfer diaphragm shear
- Can be designed as structural integrity tie

Fabrication Considerations:

- Clean and simple for both beam and slabs

Erection Considerations:

- Reinforcement must be tied in place
- Concrete must be cast around reinforcement
- Edge form is required for cast-in-place concrete
- Dowels from beam may present safety hazard

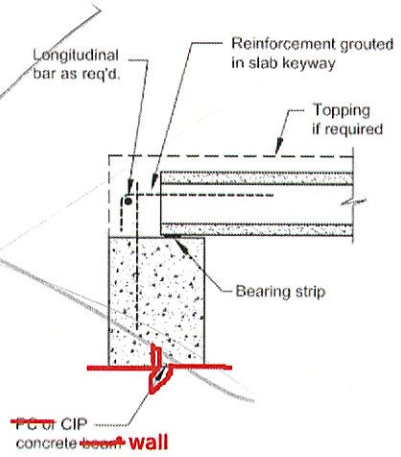


Figure 6.3.11

Figure 7: Slab to basement wall RC

Design Considerations:

- Wall thrust from earth pressure can be resisted
- Can transfer diaphragm shear only with special detailing of keyway and reinforcement
- For long spans consider effects of restraint of vertical movement

Fabrication Considerations:

- Clean and simple

Erection Considerations:

- Edge joint must be grouted which may not be standard practice

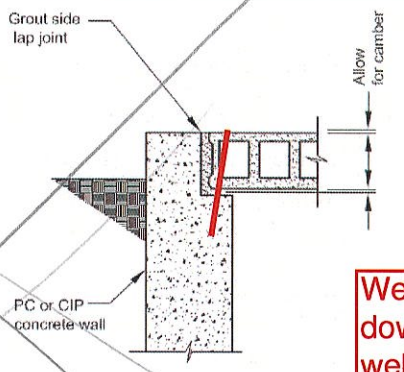


Figure 6.4.10

We would dowel this as well

Figure 8: Slab to basement wall RC parallel

Design Considerations:

- Can transfer internal diaphragm forces
- Provides lateral brace for steel beam
- Will develop volume change restraint forces that must be considered in design of connection
- Select beam flange width to allow minimum bearing considering tolerances

Fabrication Considerations:

- Slab manufacturing system must allow for installation of bottom weld anchors

Erection Considerations:

- Welding of slabs to beam should be done as erection proceeds to laterally brace beams

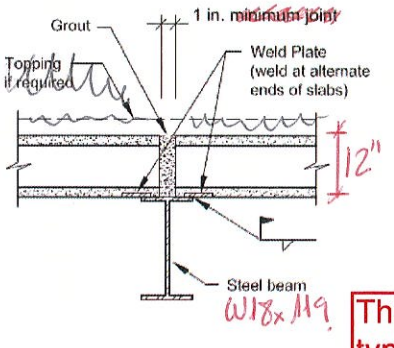


Figure 6.5.3

This is how we typically detail it.

Figure 9: Slab to steel beam double

Detail H2.