

ELLIOT FIELD STATION

BLAST LAB: ISOLATED SLAB

SPECIFICATIONS:

28-day concrete strength:
5500 psi self compacting

Mild steel: Gr.60

PT steel : Gr.150

PT operation shall follow all
applicable manufacturer
specifications & recommendations

Specified post-tensioning forces
are the jack forces attained
immediately after anchorage

Contact engineer prior to
post-tensioning for jacking
sequence

Lap splices allowed at base of wall

Minimum lap lengths:
4' lap

Minimum clear cover: 2"

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BS-L15-1: Plan View of Isolated Slab
Post-Tensioning

BS-L16: Wall and Slab Reinforcement

BS-L17: Steel PLs @ corner and
isolator

BS-L18: Isolator Installation

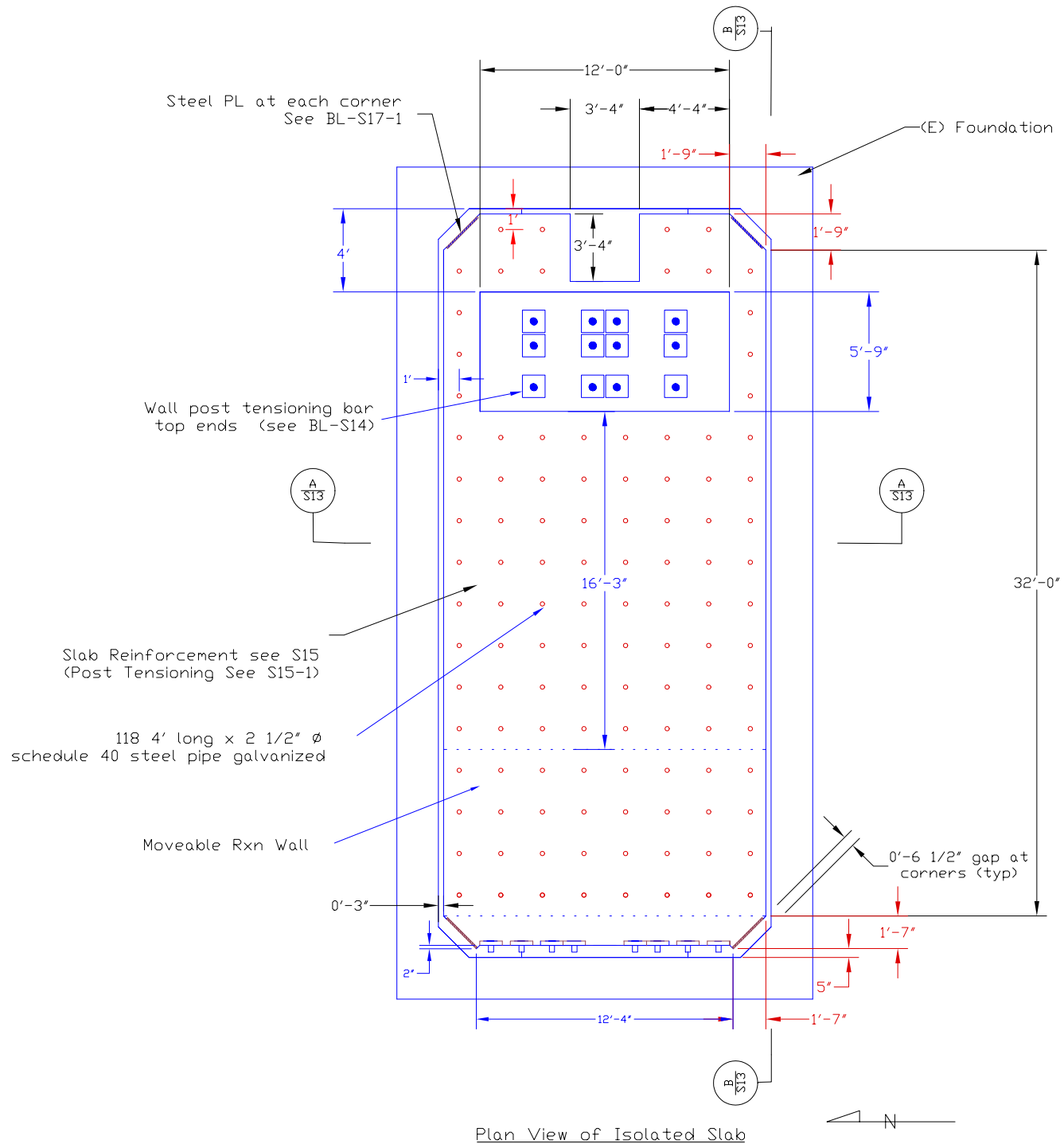
BS-L19: Plan View of Isolator

BS-L19-1: Exploded view of isolator
installation

Blast Lab Project

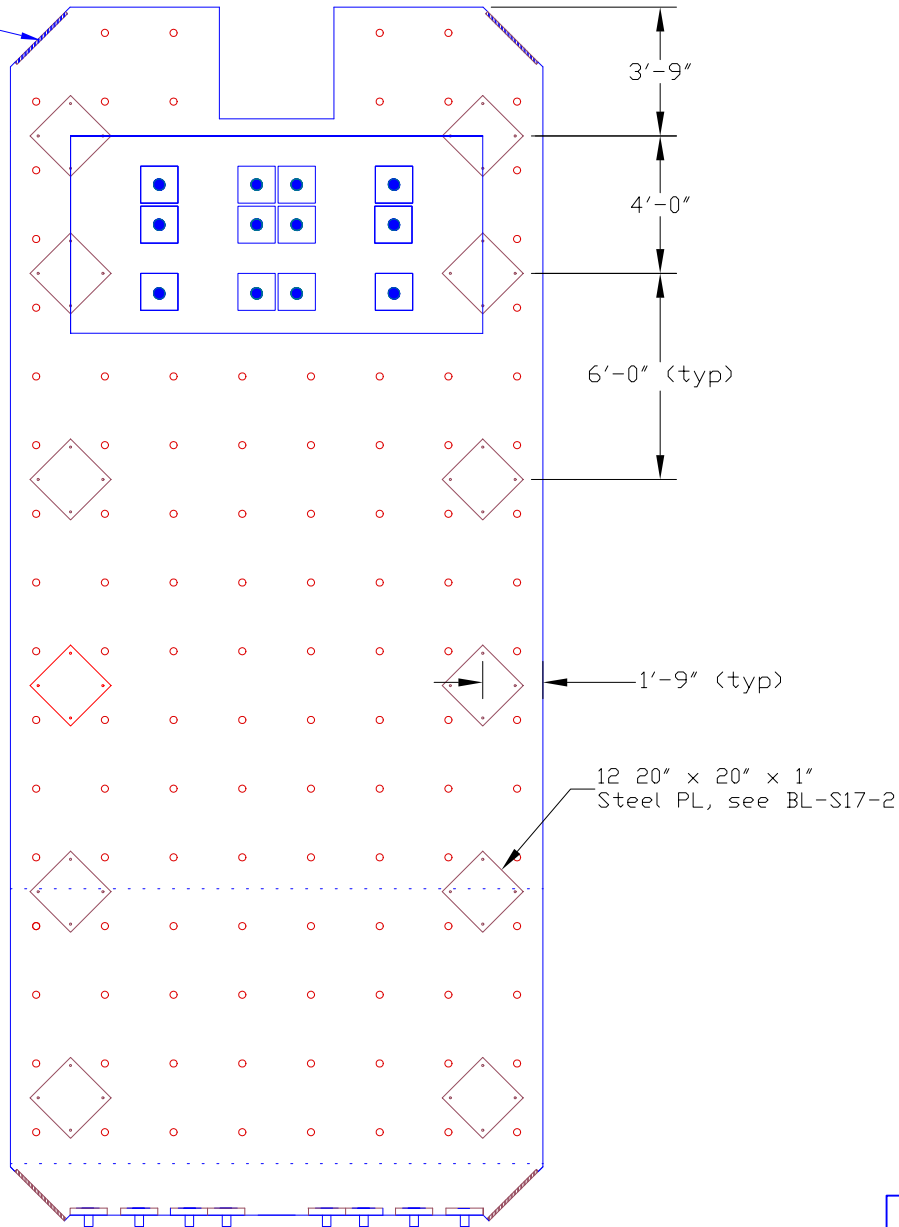
DWG No.: BL-T2

Date: 2004/02/04



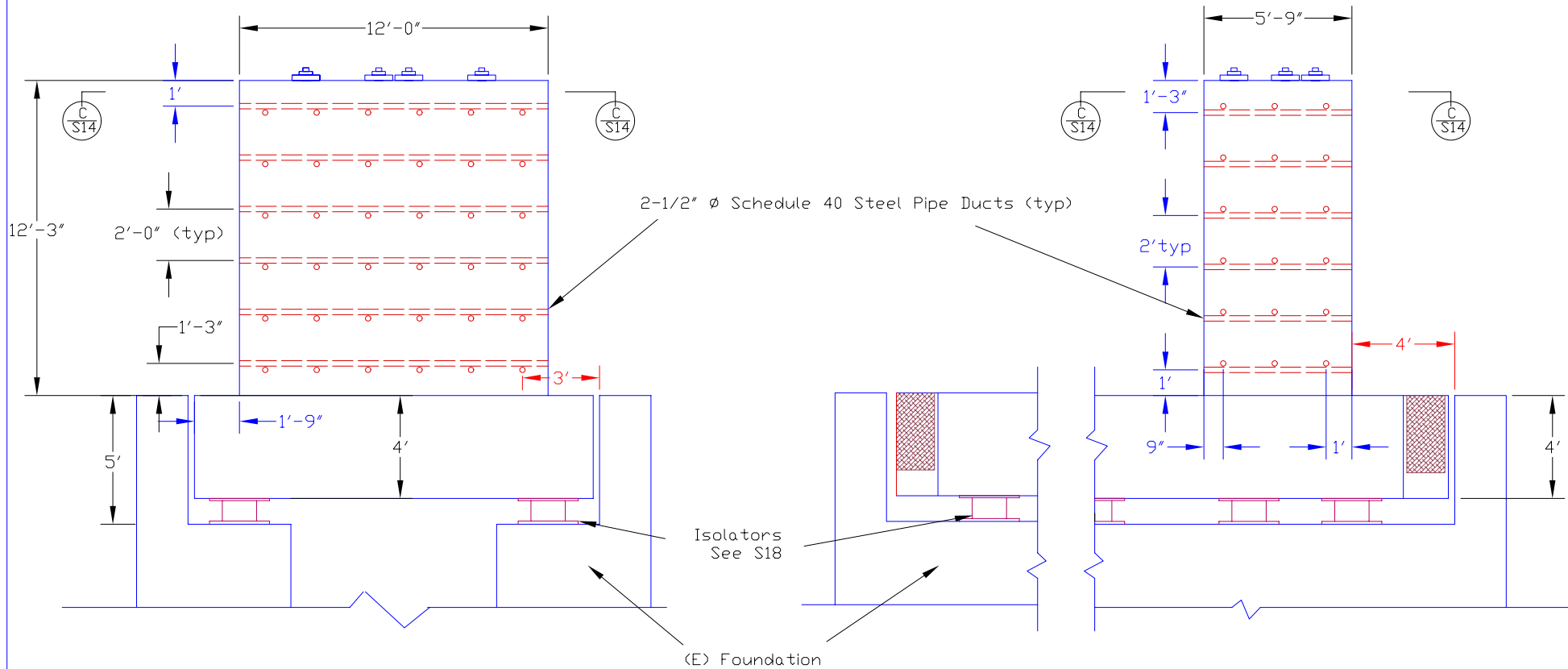
Blast Lab Project
DWG No.: BL-S12
Date: 2004/02/04

4 25" x 36" x 1"
Steel PL, see BL-S17-2



Reflected Ceiling Plan of Isolated Slab
(Foundation omitted for clarity)

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DWG No.: BL-S12-1
Date: 2004/02/04



Elevation A-A
West Elevation of Reaction Wall

Elevation B-B
South Elevation of Reaction Wall

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DWG No.: BL-S13
Date: 2004/02/04

Vertical Steel
6 #9 bars (both sides)
Standard 90° Hook top and bottom
place 3 bars between each pair of
steel ducts as indicated

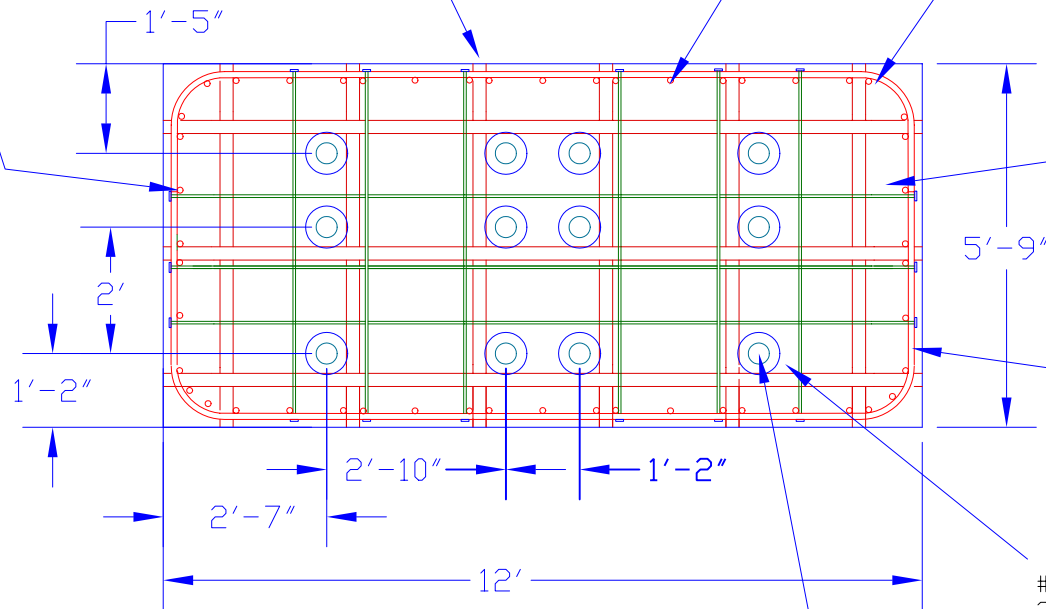
Vertical Steel
15 #9 bars (both sides)
Standard 90° hook top and bottom
place 3 bars between each pair of
Steel ducts as indicated

2-1/2" ϕ duct (typ)
both directions

Vertical Steel
2 #9 in corner (4 places)
Standard 90° hook top and bottom

9 #8 horizontal headed bars
in interior at top of wall

4 layers @ 8" o.c.



Horizontal Steel
#9 each face
terminate with standard 90° hook
see BL-16 for spacing

#5 spiral at each PT bar :
2" pitch, 9" ϕ , 24" long

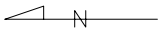
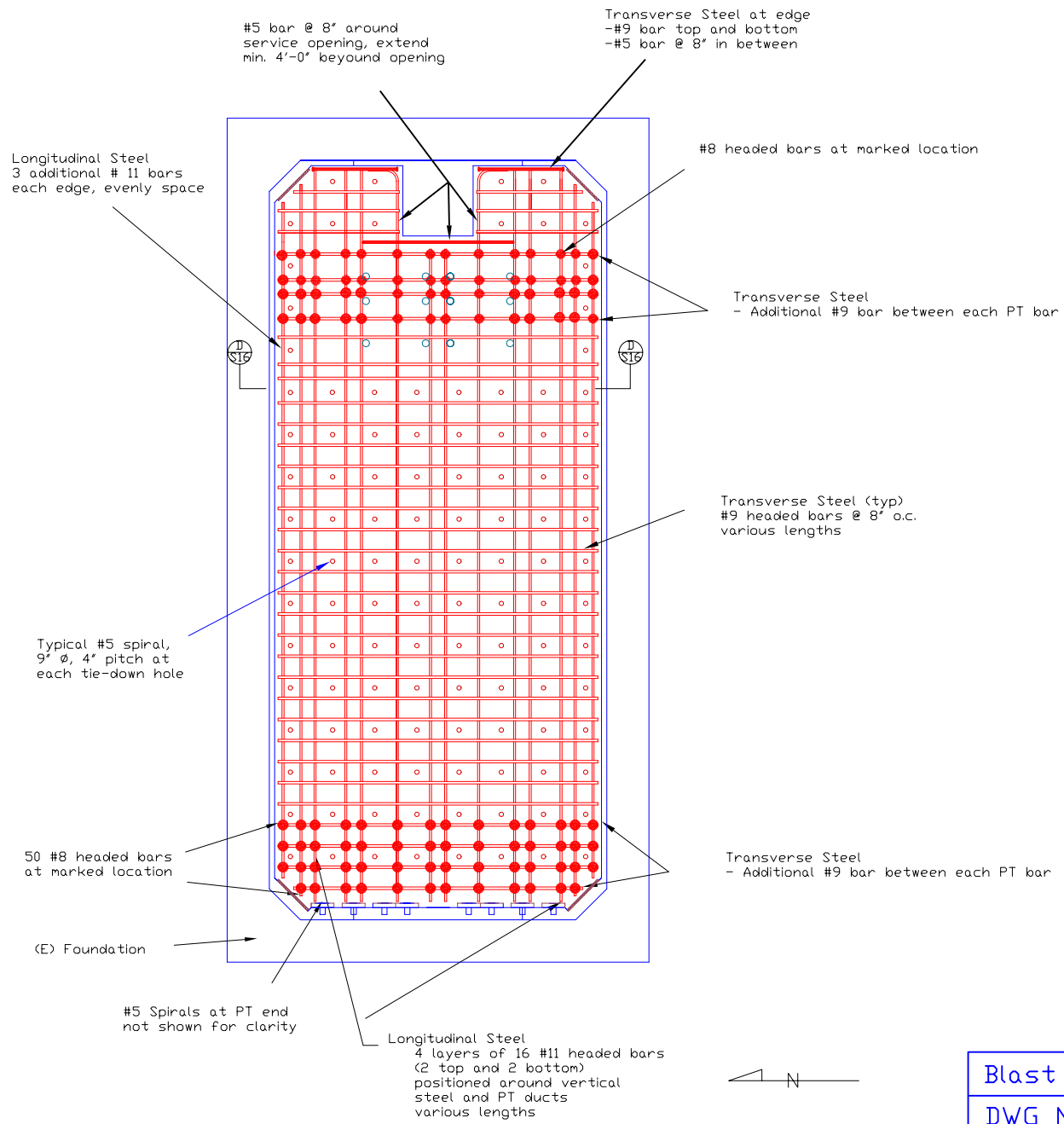
12 grouted 2 1/2" ϕ Gr. 150 PT bar.
Force immediately AFTER seating: 505 kips
(By DSI)

Section C-C
Wall Cross Section (Plan)

Blast Lab Project

DWG No.: BL-S14

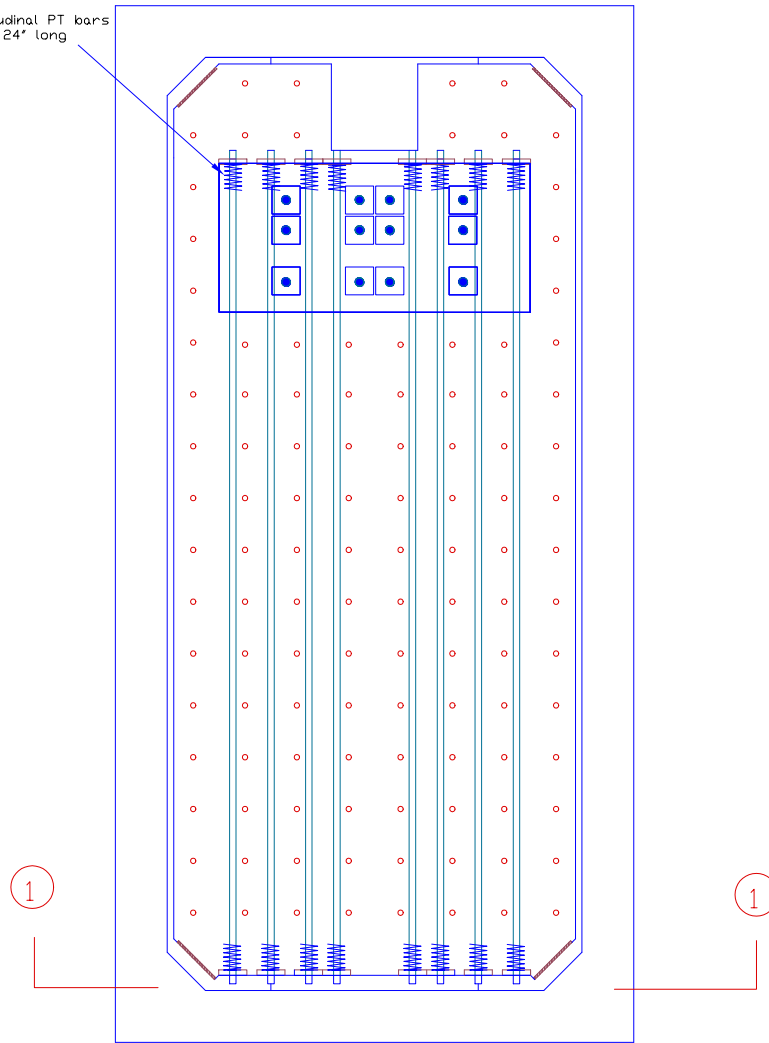
Date: 2004/02/04



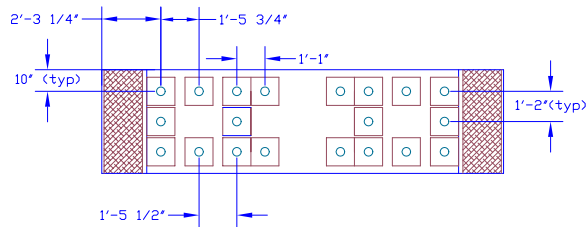
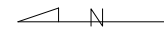
Plan View of Isolated Slab Reinforcement

Blast Lab Project
DWG No.: BL-S15
Date: 2004/02/04

#5 spiral for longitudinal PT bars
: 2" pitch, 9" \varnothing and 24" long



Plan View of Isolated Slab Post-Tensioning



Elevation View of Anchorage Zone, Section 1-1
(Foundation omitted by clarity)

Blast Lab Project
DWG No.: BL-S15-1
Date: 2004/02/04

#5 spiral with 2" pitch, 9" ϕ , 24" long
 at each PT bar, top and bottom of wall
 (not shown at the bottom end for clarity)

Layers of 9 #8 horizontal bars.
 4 Layers @ 8" o.c.

9 #9 horizontal bars
 around perimeter @ 12" o.c.

20 grouted 2 1/2" ϕ Gr. 150 PT bars
 Force immediately after seating: 458 kips
 (by DSI)

6 #9 horizontal bars
 around perimeter @ 6" o.c.

#9 transverse bars

Construction joint
 Lap splices see BL-T2

Additional #9 beneath wall
 and at west end

11 longitudinal bars
 @ 8" each face

2 layers # 11 longitudinal bars

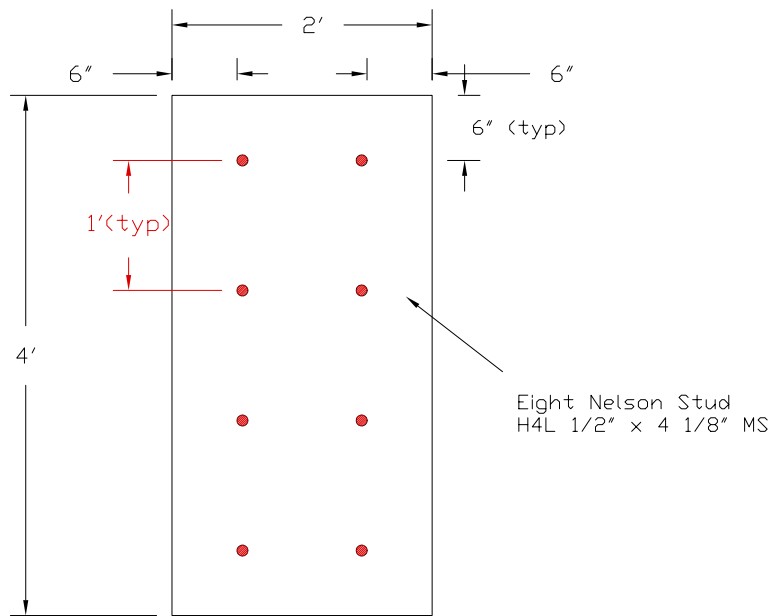
20" x 20" x 1"
 Steel PL see S17

Section D-D
 Wall and Slab Reinforcement (Elevation)

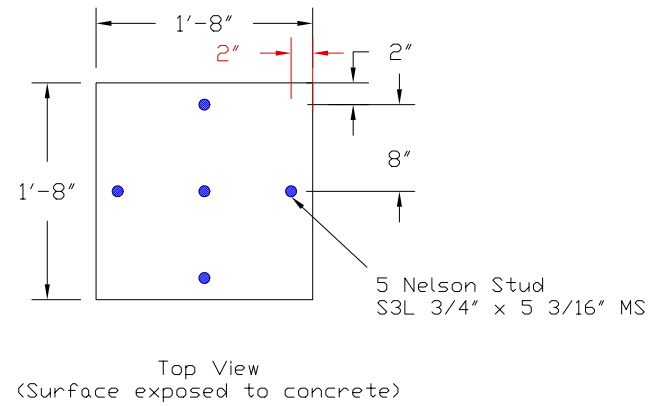
Blast Lab Project

DWG No.: BL-S16

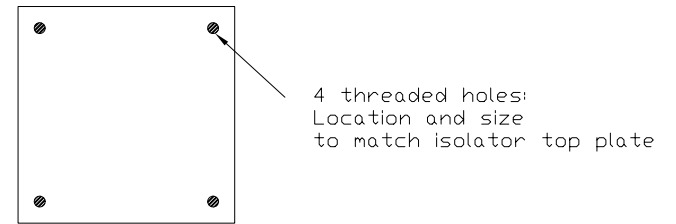
Date: 2004/02/04



① 25"x36"x1" steel PL @ corner (galvanized A36 PL)



Top View
(Surface exposed to concrete)



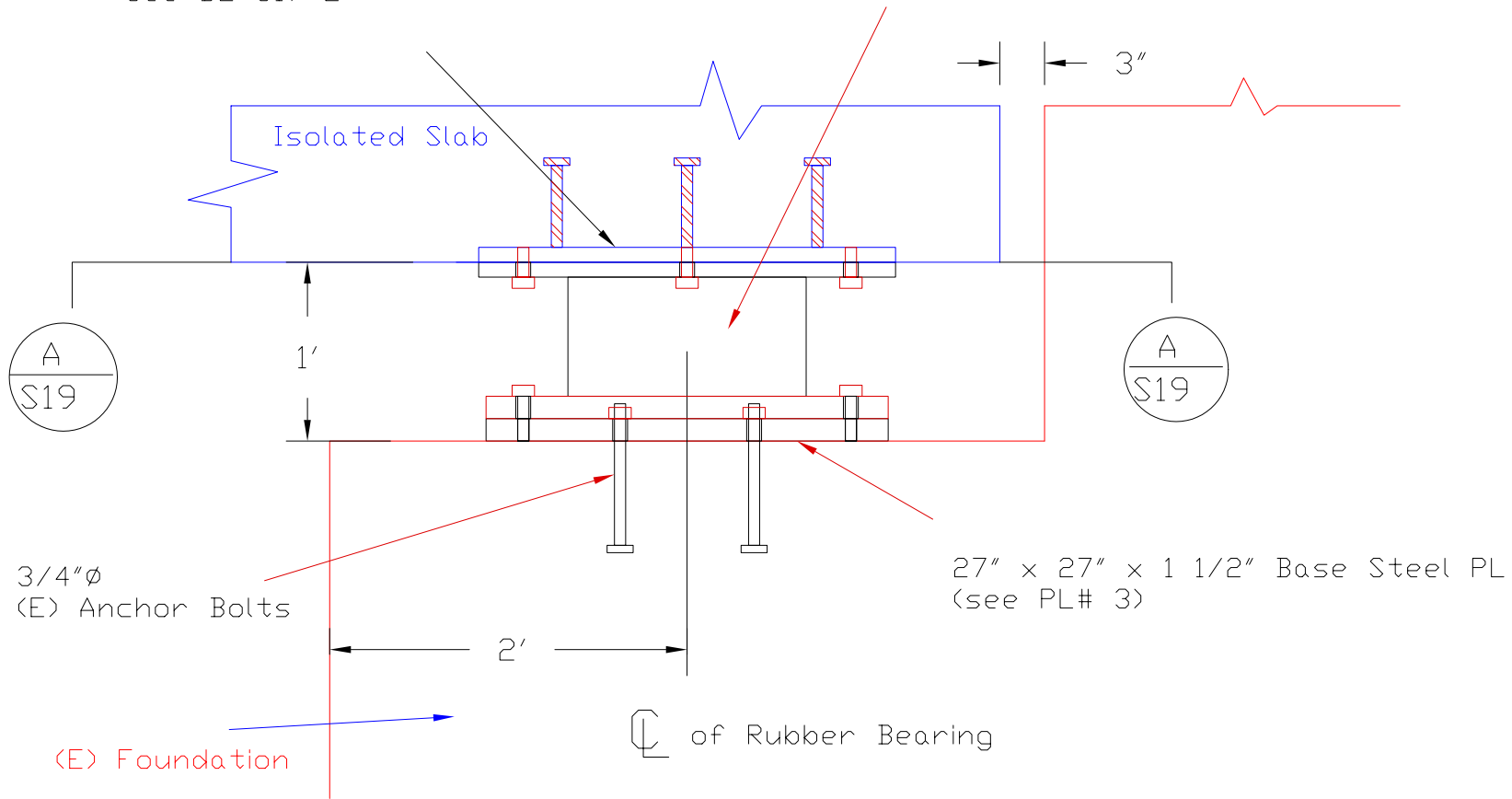
Bottom View
(Surface attached to isolator top steel PL)

② 20"x20"x1" steel PL @ isolator (galvanized Gr. 50 PL)

Blast Lab Project
DWG No.: BL-S17
Date: 2004/02/04

20" x 20" x 1" EMBENDED PL
See BL-S17-2

Rubber Bearing
Top PL: 20"x20"x1" (See PL# 1)
Bottom PL: 27"x18"x1-1/2" (See PL# 2)



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Isolator Installation (TYP)

(see S19-1 for exploded view)

Blast Lab Project
DWG No.: BL-S18
Date: 2004/02/04

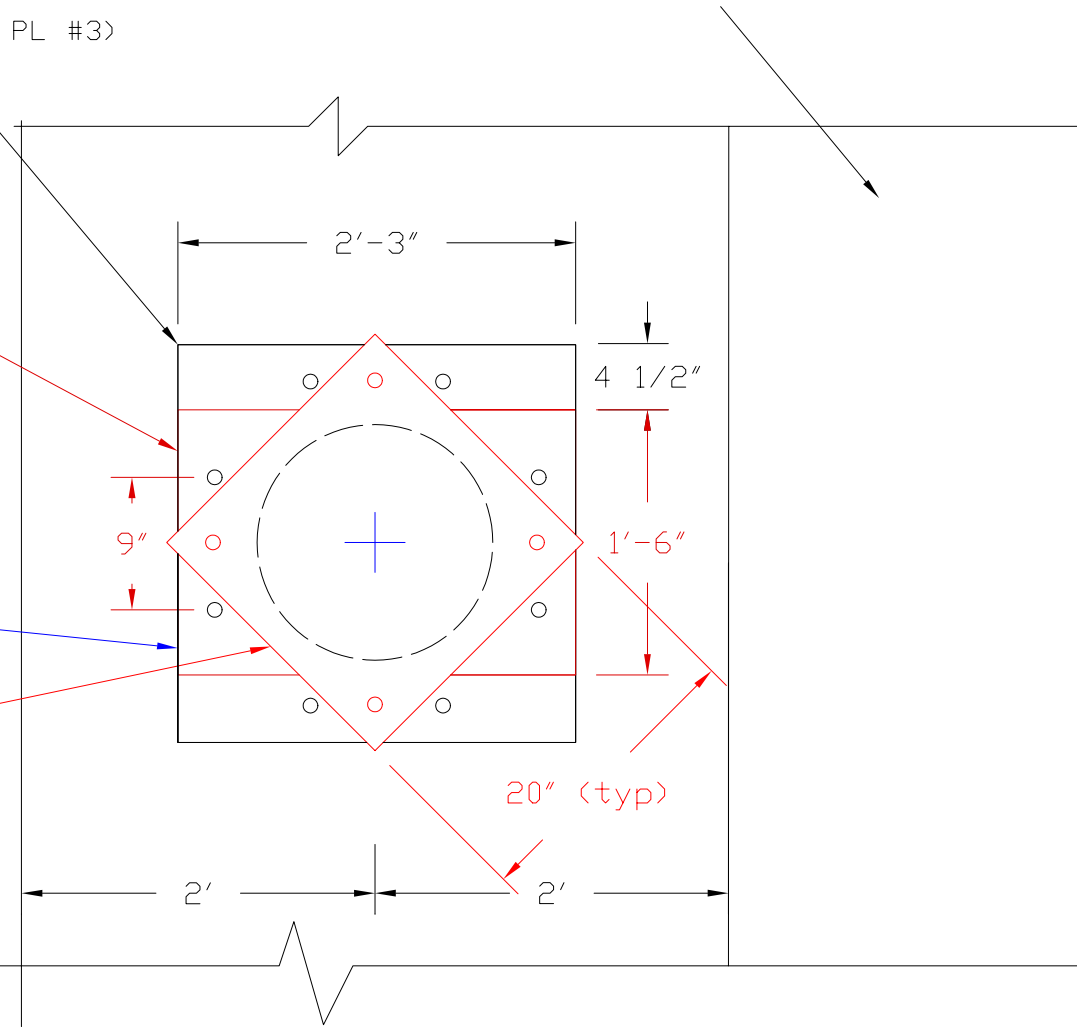
Base Steel PL:
27" x 27" x 1 1/2" (see PL #3)

(E) Foundation

Isolator Bottom Steel PL :
27" x 18" x 1 1/2" (See PL #2)

Remove 4 (E) anchor bolts that
interfere with this insallation

Isolator Top Steel PL :
20" x 20" x 1" (See PL# 1)



Section A-A

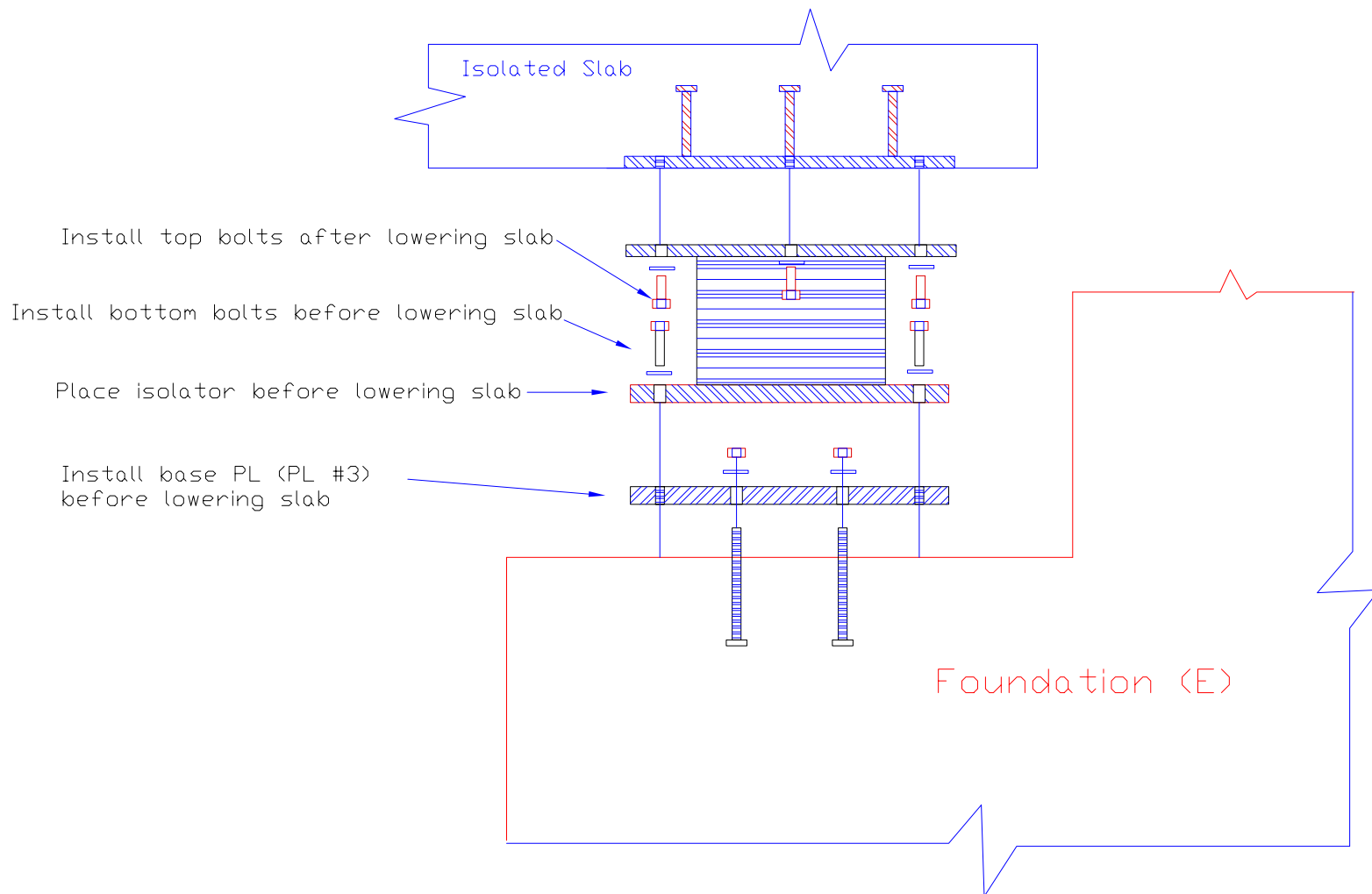
Plan View of Isolator (typ)

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Blast Lab Project

DWG No.: BL-S19

Date: 2004/02/04



Exploded view of isolator installation

Blast Lab Project
DWG No.: BL-S19-1
Date: 2004/02/04