

17 NOT USED  
1"=1'-0"

13 SLAB ON GRADE  
1"=1'-0"

15 MIL VAPOR BARRIER (STEGO WRAP VAPOR BARRIER) OVER 1/2" LAYER OF FINE GRADE COMPACTIBLE FILL. INSTALL BARRIER ACCORDING TO MANUFACTURER; OVERLAP SEAMS 6", TAPE SEAMS WITH STEGO TAPE, SEAL ALL PENETRATIONS USING A COMBINATION OF STEGO WRAP, STEGO TAPE AND STEGO MASTIC.

REINF. SEE PLANS  
SPLICE LENGTH  $L_d$  TYP. SEE DTL. 3

2" SAND OVER 10 MIL VAPOR BARRIER @ INTERIOR LIVING SPACES

3/4" MAX.  $\phi$  CLEAN CRUSHED ROCK TYP. U.N.O.

SUBGRADE SEE SOIL REPORT AND SPECS.

9 SLAB DEPRESSION  
1"=1'-0"

SPLICE LENGTH  $L_d$  TYP. U.N.O.

TYP. SLAB REINF. BENT AS SHOWN

ADDED SLAB BAR

90° HOOK

12" MAX S.A.D.

TYP. SLAB REINF. SEE PLANS

1'-0"

$L_d$

SLAB THICKNESS SEE PLANS

5 SLAB CONSTRUCTION JOINT  
1"=1'-0"

FILL W/ SEALANT

TYP. SLAB REINFORCEMENT, SEE PLAN

CONC. SLAB

1'-1/2" MIN

3/4" MIN

PRE-FORMED TONGUE AND GROOVE DIVISION STRIP FROM 24 GA., G60 HOT MILL GALVANIZED STEEL

TYP. SLAB REINF. x 2'-0" @ 12" O.C. (U.N.O.)

1 BAR HOOKS & BENDS  
N.T.S.

12"  $\phi b$

90° HOOK

6"  $\phi b$  FOR #3 TO #5

12"  $\phi b$  FOR #6 TO #8

4"  $\phi b$  FOR #3 TO #8

8"  $\phi b$  FOR #9 TO #11

10"  $\phi b$  FOR #14 AND #18

2-1/2" MIN.

6

1

180° HOOK

OFFSET

90° STIRRUP OR TIE HOOK

135° STIRRUP OR TIE HOOK

SEISMIC 135° STIRRUP OR TIE HOOK

MIN.  $D = \begin{cases} 4\phi b & \text{FOR #3 TO #5} \\ 6\phi b & \text{FOR #6 TO #8} \end{cases}$

DETAILING DIMENSION

**THEOPHANOUS**  
STRUCTURAL ENGINEERS  
BUILDINGS, BRIDGES, AND RELATED STRUCTURES  
ANALYSIS & DESIGN & PLAN CHECKING  
75 Silverwood Drive, Lafayette, CA 94549  
Tel: (925) 284-2822 Fax: (925) 284-9745  
E-mail: rtheophanous@earthlink.net

REGISTERED PROFESSIONAL ENGINEER  
No. 5008067  
Exp. 09-30-09  
STRUCTURAL  
CIVIL

18 SLAB DEPRESSION  
1"=1'-0"

CONC. SLAB, SEE PLAN

TYP. SLAB REINF. BENT AS SHOWN, SEE PLANS

SLAB DEPRESSION, SEE PLAN

SLOPE SLAB 1/4"/FT

SEE PLAN FOR SAND & GRAVEL

14 SHRINKAGE CONTROL JOINT  
1"=1'-0"

CONC. SLAB

3/16" - 3/8" WIDE

7/4" MAX

SAW-CUT JNT WITHIN 12 HRS FROM PLACEMENT OR FORM W/ "BURKE" ZIP STRIP (OR EQUAL); FILL W/ SEALANT.

INTERRUPT ALT. REBARS

10 SLAB/WALL DOWEL  
N.T.S.

PLAN

WALL, SEE PLAN FOR SIZE AND REINF.

DOWEL W/ 90° STD HK, SIZE AND SPACING TO MATCH SLAB REINF., LAP  $L_d$

CONC. SLAB

SLAB REINF., SEE PLAN

6 BEAM CONSTRUCTION JOINT  
N.T.S.

2"  $\phi$

B

2"  $\phi$

NOTE:  
1. SLAB NOT SHOWN FOR CLARITY  
2. APPLIES TO BEAMS AND WALL FOOTINGS

3" 3" 2" 2" 3" 3"

$\phi$  BEAM

ADDITIONAL STIRRUPS.

DO NOT CUT SCHED. REINFORCEMENT

D/3

D/3

D

D

#8 x 2'-0" @ 8" O.C. (2 BARS MIN)

KEY, FORM WITH 3x

TABLE NOTES

DEFINITIONS:  
s = SPACING OF BARS  
c = COVER OF BARS  
db = DIAMETER OF BAR

2	Ld (in) f'c = 4000 psi		Ld (in) f'c = 2500 psi	
	WHERE BAR s>db c>db WITH STIRRUPS or s > 2*db & c >db WITHOUT STIRRUPS	OTHER CASES	WHERE BAR s>db c>db WITH STIRRUPS or s > 2*db & c >db WITHOUT STIRRUPS	OTHER CASES
3	15	22	19	28
4	19	29	25	37
5	24	36	31	46
6	29	43	37	55
7	42	63	53	79
8	48	72	61	91
9	54	81	68	102
10	61	91	77	115
11	67	101	85	127

**THEOPHANOUS FAMILY**  
75 SILVERWOOD DR LAFAYETTE, CA 94549  
TEL:(925)284-2822 Fax:(925)284-9745

CLIENT:

19 DRAIN  
1"=1'-0"

CONCRETE WALL

WATERPROOFING

AMERDRAIN SHEET DRAIN

HIGH-PROFILE DRAIN

SLAB FOOTING

OVERLAP CORE AND FLANGE

OVERLAP FABRIC

ORIGINAL SOIL & FILL

SHINGLE IN DIRECTION OF WATER FLOW

FOOTING/FOUNDATION WALL  
AKWADRAIN AND AMERDRAIN SCALE: NTS

15 EXPANSION JOINT  
1"=1'-0"

SLAB ON GRADE SEE PLAN FOR THICKNESS AND REBAR

1/2" EQUAL

EQUAL

1/2" ASPHALT IMPREGNATED JOINT MATERIAL, FILL TOP 1/2" OF JOINT W/ CAULKING

LUBRICATE THIS END

NOTE:  
PROVIDE EXP. JOINTS @ 100'-0" O.C. MAX., OR WHERE SHOWN ON PLAN.

1/2"  $\phi$  x 18" @ 12" O.C. SMOOTH BAR U.N.O.  
3/4"  $\phi$  x 18" @ 12" O.C. SMOOTH BAR AT SLABS USED BY VEHICLES

7 WALL /FTG CONSTR JOINT  
N.T.S.

FOOTING

CONSTRUCTION JOINT

6" MIN

CONCRETE FILL TO BE PLACED BEFORE FOOTING IS POURED.

2'-0" MIN

3'-0" MAX

FOOTING

NO PIPE TO BE PLACED IN THIS HEIGHT

CONCRETE FILL TO BE PLACED BEFORE FOOTING IS POURED.

NOTE:  
ALL PIPING TO CLEAR SLEEVE BY 1/2" ALL AROUND.

CAULK WHERE NECESSARY

PIPE

1'-6" MIN.

NO DIGGING FOR PIPE TRENCH PARALLEL TO FOOTING WITHIN THESE LINES. WALL FOOTING SHOWN, COLUMN FOOTING SIM.

3 BAR LAP SPLICES  
N.T.S.

LAP SPLICE LENGTH  $L_{sp}$   
h > OR = 12 in. (TOP BAR) . . .  $L_{sp} = 1.3 * L_d * f(class)$   
h < 12 in. . .  $L_{sp} = L_d * f(class)$

TOP OF FRESH CONCRETE

BAR

BOTTOM OF FRESH CONCRETE

HORIZONTAL BARS

VERTICAL BARS

$L_{sp} = L_d * f(class)$

CLASS A  
ONE HALF OR LESS OF BARS ARE SPLICED WITHIN THE  $L_{sp}$  AREA OF REINFORCEMENT PROVIDED IS AT LEAST TWICE THE AREA OF BARS REQUIRED.

CLASS B  
OTHER THAN CLASS A  $f(class) = 1.3$

4 MIN. DOWEL EMBEDMENT  
N.T.S.

WALL DOWEL

TOP OF FTG

STD 90° HK

1.3  $L_d$

$L_{dh}$

**FRUITVALE COMMONS**  
1242 35th Ave Oakland, CA 94601

PROJECT TITLE:

**TYPICAL DETAILS - CONCRETE**

SHEET TITLE:

20 ELEVATOR PIT  
1"=1'-0"

STUDWALL, SEE PLAN FOR TYPE AND ANCHORAGE.

6" CONC. WALL MIN. OR SEE PLAN

STEGO BLOWN NAIL TERMINATION BAR

SEE PLAN, MIN REINF. #4 @ 15" O.C.

CONSTR. JNT, OPTIONAL

ADCOR WATERSTOP CONT. BY GRACE

BITUTHENE 8000 ON GRACE PRIMER

#4 DOWEL, SEE PLAN OR @ 15" O.C. MAX.

SLAB REINF, SEE PLAN

LAP PREPRUFE WITH BITUTHENE 6"

15 MIL STEGO VAPOR BARRIER

GRACE PREPRUFE ON BLINDING

16 ISOLATION JOINT  
1"=1'-0"

1/2"  $\phi$  ISOLATION JT.

FACE OF CONC. OR WALL

JOINT SEALING COMPOUND

EXPANSION JT. MATERIAL

CONC. SLAB

12 PIPE CLEARANCES AT FOOTINGS  
1"=1'-0"

SLEEVE

PIPE

1'-6" MIN.

NO DIGGING FOR PIPE TRENCH PARALLEL TO FOOTING WITHIN THESE LINES. WALL FOOTING SHOWN, COLUMN FOOTING SIM.

TABLE NOTES

DEFINITIONS:  
s = SPACING OF BARS  
db = DIAMETER OF BAR

2	Ldh (in) f'c = 2500 & 4000 psi
3	5
4	9
5	11
6	13
7	15
8	17
9	19
10	22
11	24
14	41
18	55

CITY APPROVAL STAMP

REVISIONS

JOB NUMBER  
J2002.060

DRAWN BY: TO CHECKED BY: NCT

SCALE (U.O.N.)  
AS SHOWN

DATE  
2/29/08

SHEET NUMBER  
S0.31

1 OF 1 SHEETS

060-203-4002.dwg 12/31