



City of Milpitas

Building & Safety Department

DESIGN GUIDELINES FOR SINGLE STORY RESIDENTIAL ADDITION WITH CONVENTIONAL FRAMING



455 E. Calaveras Blvd.
Milpitas, CA 95035
408-586-3240
www.ci.milpitas.ca.gov

REV.MAY 2014

FLOOD ZONE INFORMATION:

FLOOD ZONE: YES NO

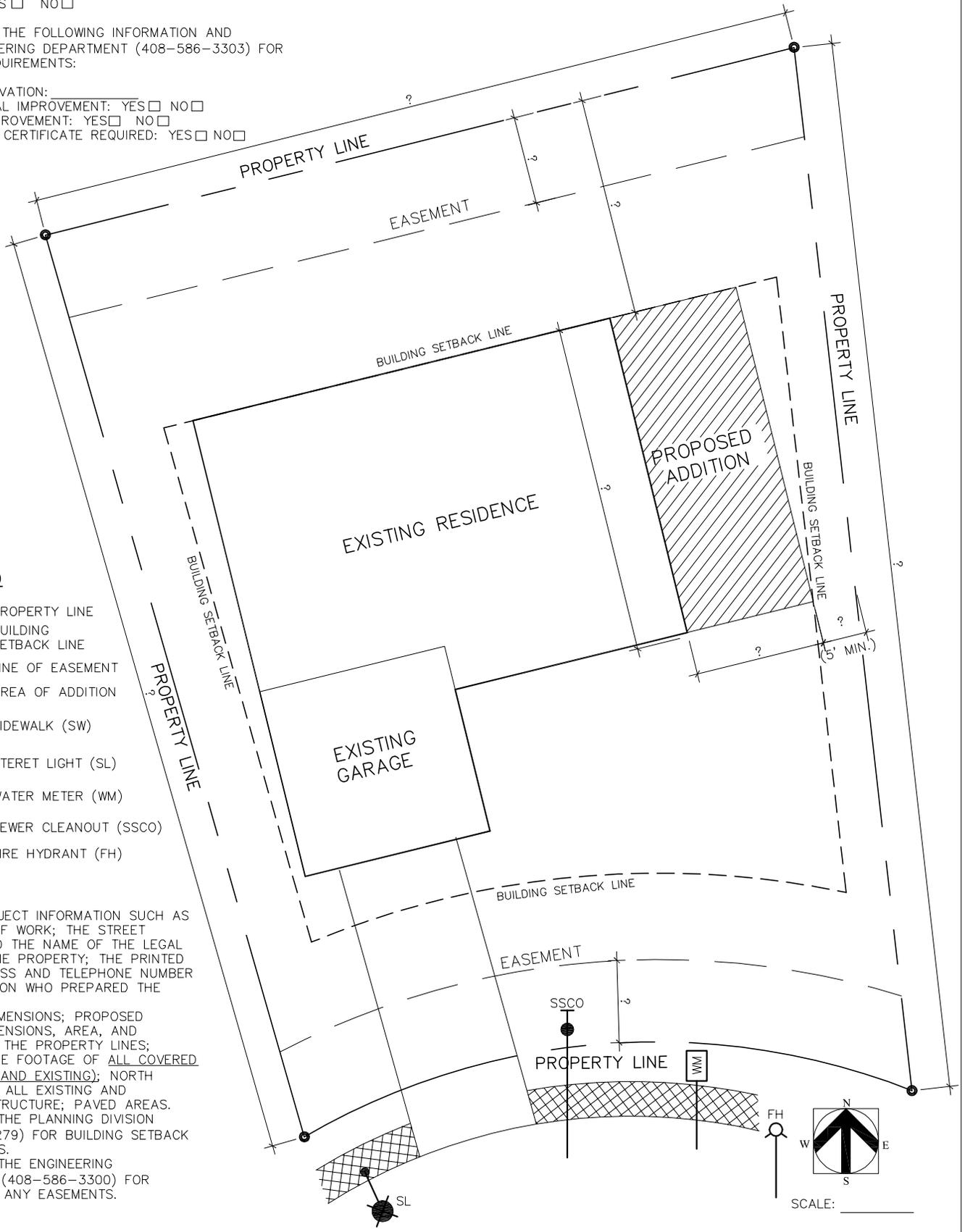
IF YES, PROVIDE THE FOLLOWING INFORMATION AND CONTACT ENGINEERING DEPARTMENT (408-586-3303) FOR FLOOD ZONE REQUIREMENTS:

BASE FLOOD ELEVATION: _____

NON-SUBSTANTIAL IMPROVEMENT: YES NO

SUBSTANTIAL IMPROVEMENT: YES NO

FEMA ELEVATION CERTIFICATE REQUIRED: YES NO



PLAN LEGEND

- PROPERTY LINE
- BUILDING SETBACK LINE
- LINE OF EASEMENT
- AREA OF ADDITION
- SIDEWALK (SW)
- STERET LIGHT (SL)
- WATER METER (WM)
- SEWER CLEANOUT (SSCO)
- FIRE HYDRANT (FH)

NOTE:

1. PROVIDE PROJECT INFORMATION SUCH AS THE SCOPE OF WORK; THE STREET ADDRESS AND THE NAME OF THE LEGAL OWNER OF THE PROPERTY; THE PRINTED NAME, ADDRESS AND TELEPHONE NUMBER OF THE PERSON WHO PREPARED THE PLANS.
2. SHOW LOT DIMENSIONS; PROPOSED ADDITION DIMENSIONS, AREA, AND DISTANCE TO THE PROPERTY LINES; TOTAL SQUARE FOOTAGE OF ALL COVERED AREAS (NEW AND EXISTING); NORTH ARROW SIGN; ALL EXISTING AND PROPOSED STRUCTURE; PAVED AREAS.
3. CHECK WITH THE PLANNING DIVISION (408-586-3279) FOR BUILDING SETBACK REQUIREMENTS.
4. CHECK WITH THE ENGINEERING DEPARTMENT (408-586-3300) FOR LOCATION OF ANY EASEMENTS.

REV.	DATE	BY:	SCALE: N.T.S.
1	1/2011	BYC	DATE: JANUARY 2010
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			REVIEWED BY: KI/LS/OC/BK/GA

City of Milpitas
 Building & Safety Department
SINGLE STORY RESIDENTIAL ADDITION
SAMPLE PLOT PLAN

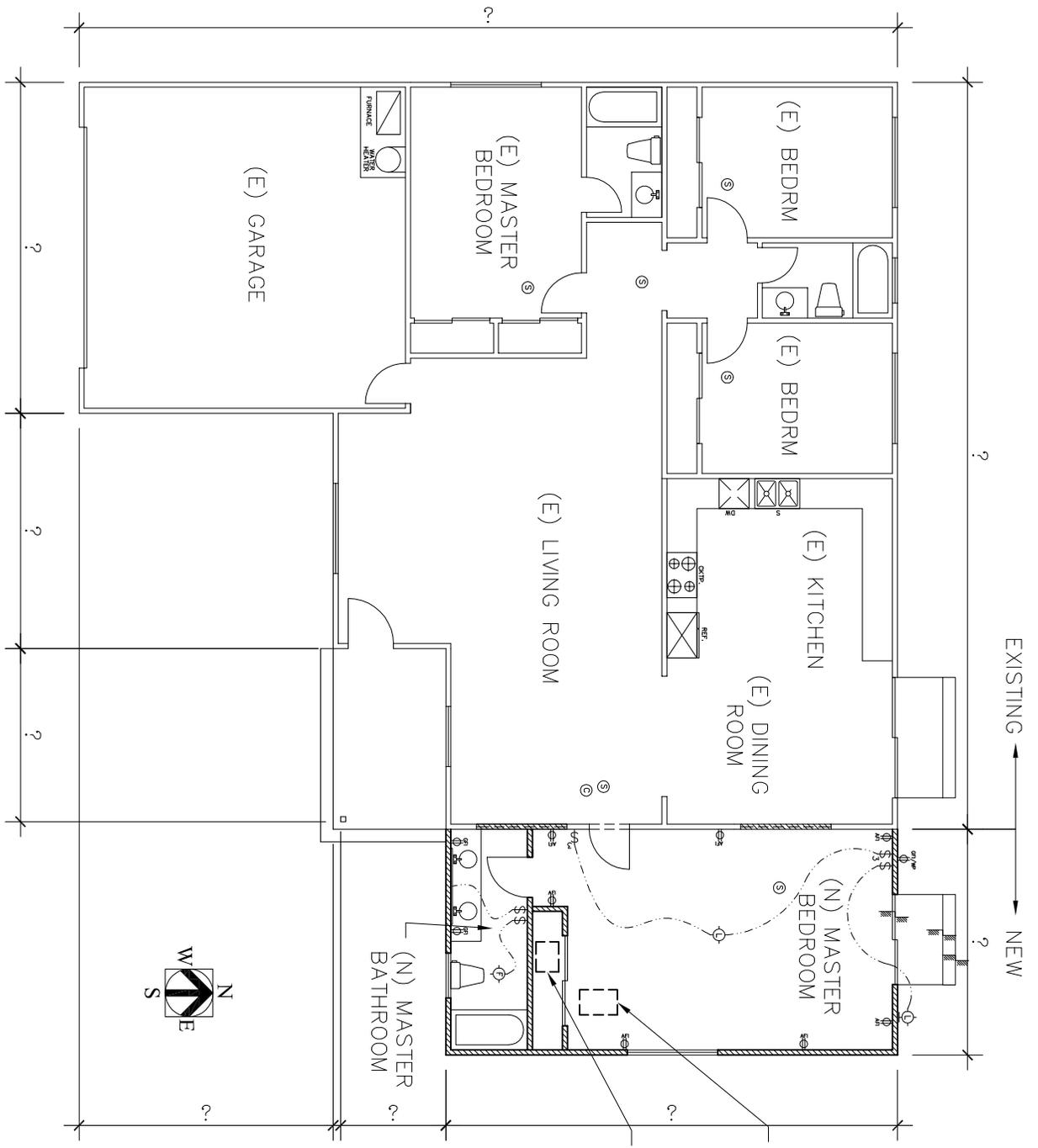
SHEET
1
 OF 14 SHEETS

LEGEND

-  EXISTING WALL
-  NEW WALL
-  DEMOLISH
-  (E) WALL
-  INFILL WALL
- (N) NEW
- (E) EXISTING

DISCLAIMER:

THESE DESIGN GUIDELINES ARE ONLY APPLICABLE TO SINGLE STORY RESIDENTIAL ADDITION NOT IN HILLSIDE AREA USING CONVENTIONAL FRAMING CONSTRUCTION BASED ON 2013 CALIFORNIA RESIDENTIAL CODE. THE INFORMATION PROVIDED IN THESE DESIGN GUIDELINES CARRIES NO IMPLIED OR INFERRED GUARANTEE AGAINST FAILURE OR DEFECTS. BY USING THESE DESIGN GUIDELINES, THE CONTRACTOR/OWNER ACCEPTS THE FULL RESPONSIBILITY OF RISK. ALTERNATE DESIGN MAY BE USED WHEN PROVIDED WITH WET STAMPED AND SIGNED STRUCTURAL CALCULATIONS & DETAILS BY A CALIFORNIA LICENSED ENGINEER OR ARCHITECT.



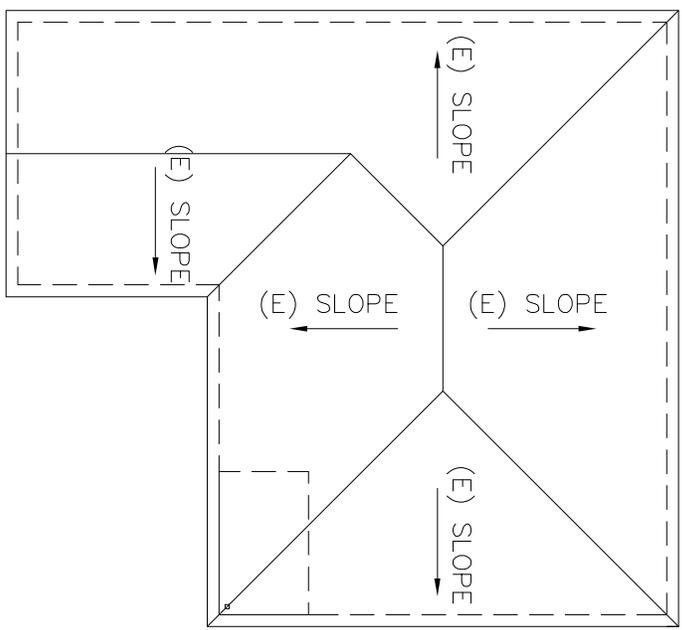
22" x 30" MIN. ATTIC ACCESS

18" x 24" CRAWL SPACE ACCESS

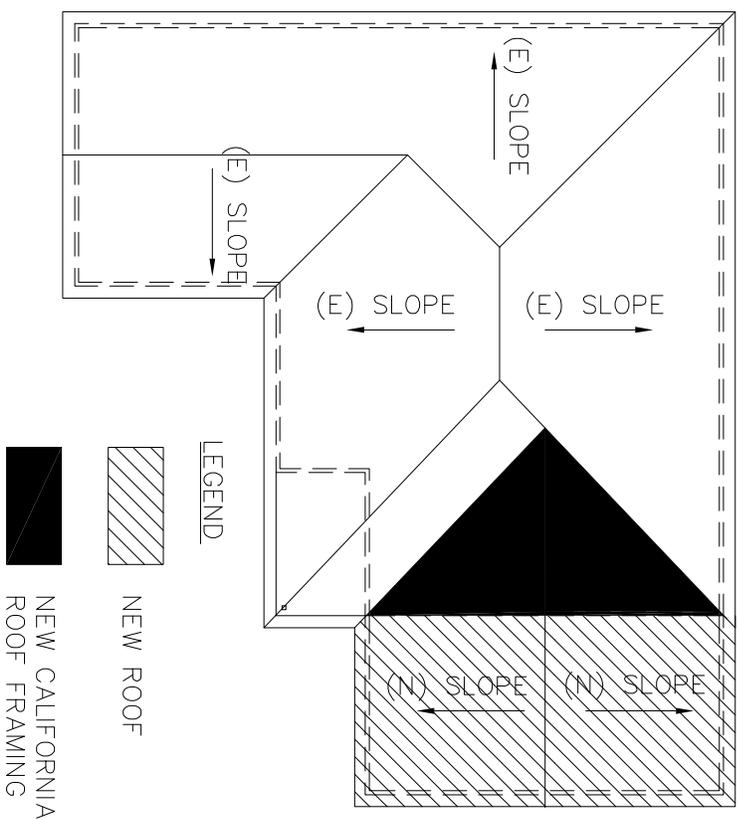
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 Building & Safety Department
 SINGLE STORY RESIDENTIAL ADDITION
 SAMPLE OVERALL FLOOR PLAN

NOTE:
INDICATE ROOF SLOPE AND ROOFING MATERIAL.



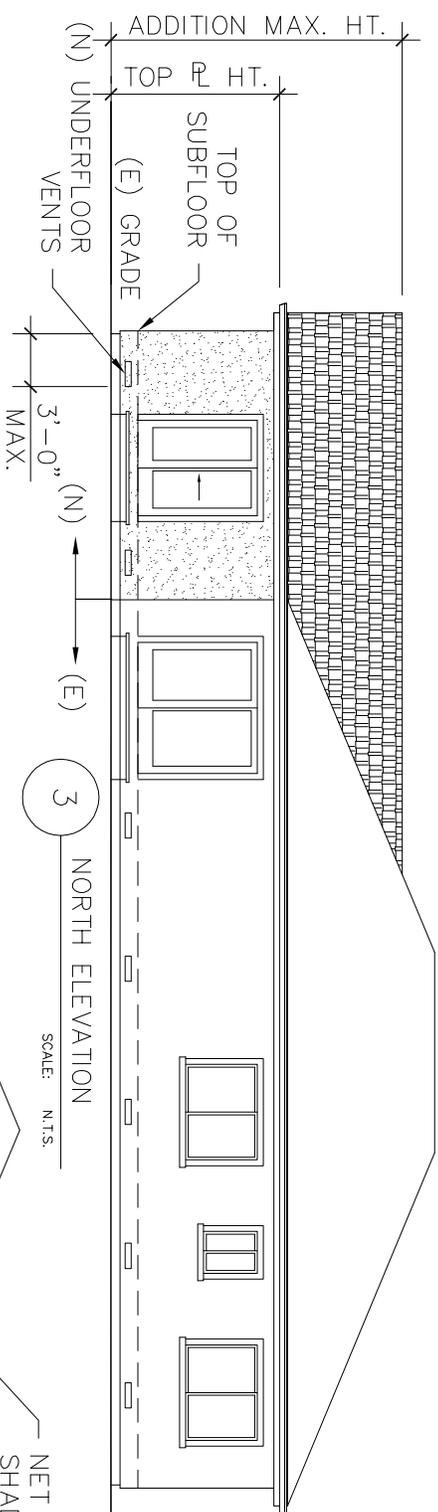
A EXISTING ROOF PLAN
SCALE: N.T.S.



B NEW ROOF PLAN
SCALE: N.T.S.

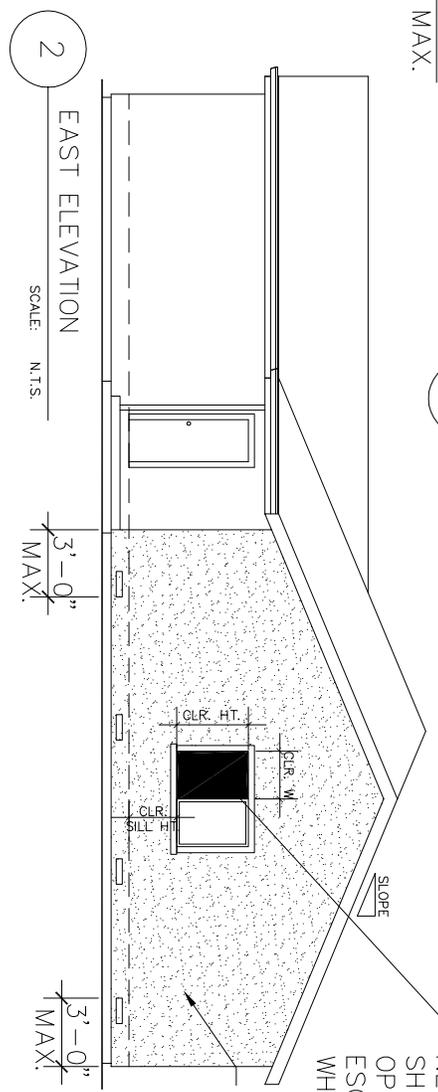
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SINGLE STORY RESIDENTIAL ADDITION
SAMPLE ROOF PLAN

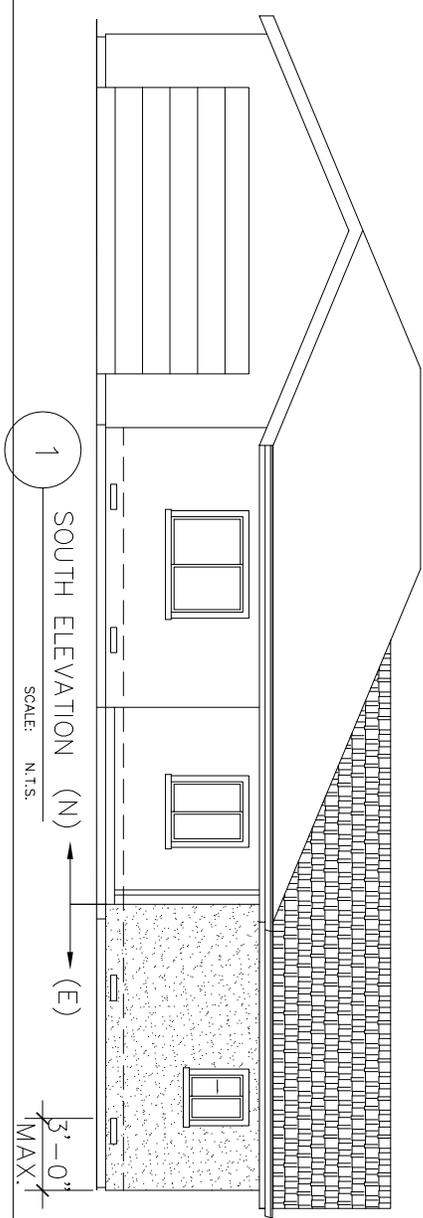


3 NORTH ELEVATION
SCALE: N.T.S.

NET CLEAR OPENING IN SHADED AREA WHEN SLIDER OPENS. SEE SHEET 5 FOR ESCAPE WINDOW REQUIREMENTS WHERE REQ.



2 EAST ELEVATION
SCALE: N.T.S.



1 SOUTH ELEVATION (N) → (E)
SCALE: N.T.S.

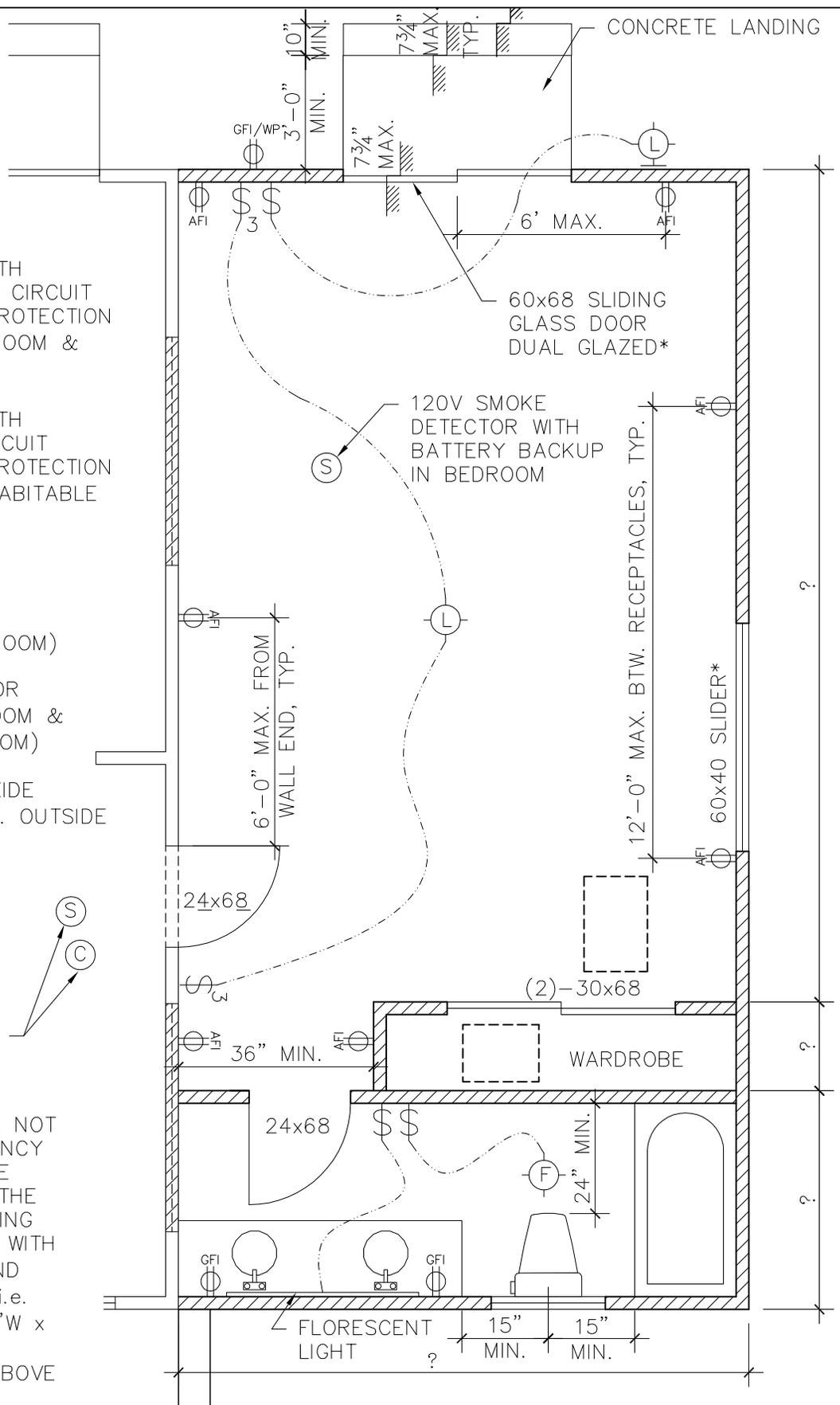
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City of Milpitas
 Building & Safety Department
 SINGLE STORY RESIDENTIAL ADDITION
 SAMPLE ELEVATIONS

LEGEND

-  EXISTING WALL
-  NEW WALL
-  DEMOLISH (E) WALL
-  INFILL WALL

-  RECEPTACLE WITH GROUND-FAULT CIRCUIT INTERRUPTER PROTECTION (REQ. IN BATHROOM & OUTDOOR)
-  RECEPTACLE WITH ARC-FAULT CIRCUIT INTERRUPTER PROTECTION (REQ. IN ALL HABITABLE ROOMS)
-  SWITCH
-  EXHAUST FAN (REQ. IN BATHROOM)
-  SMOKE DETECTOR (REQ. IN BEDROOM & OUTSIDE BEDROOM)
-  CARBON MONOXIDE DETECTOR (REQ. OUTSIDE BEDROOM)
-  LIGHT
-  120V SMOKE DETECTOR AND CARBON MONOXIDE DETECTOR WITH BATTERY BACKUP OUTSIDE BEDROOM



* IF DOOR TO BACKYARD IS NOT PROVIDED, MIN. 1 EMERGENCY ESCAPE WINDOW SHALL BE PROVIDED IN BEDROOM. THE WINDOW NET CLEAR OPENING SHALL BE 5 SQ. FT. MIN. WITH MIN. 20" CLEAR WIDTH AND MIN. 24" CLEAR HEIGHT (i.e. 30"W x 24"H MIN. OR 20"W x 36"H MIN.) WITH 44" MAX. CLEAR OPENING HEIGHT ABOVE FINISH FLOOR.

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City of Milpitas
 Building & Safety Department
SINGLE STORY RESIDENTIAL ADDITION
SAMPLE ADDITION PARTIAL FLOOR PLAN

SHEET
5
 OF 14 SHEETS

NATURAL LIGHT AND VENTILATION REQUIREMENTS

(Windows, Doors and Skylights)

NATURAL LIGHT:

Habitable rooms within a dwelling unit shall be provided with natural light by means of exterior glazed openings with an area not less than 8% of the floor area of the room served or shall be provided with artificial light. (2013 CRC sec. R303.1)

NATURAL VENTILATION:

Habitable rooms within a dwelling unit shall be provided with natural ventilation by means of openable exterior openings with an area not less than 4% of the floor area of the room served or shall be provided with mechanical ventilation. (2013 CRC sec. R303.1)

ROOMS ADJOINING PROPOSED ADDITION:

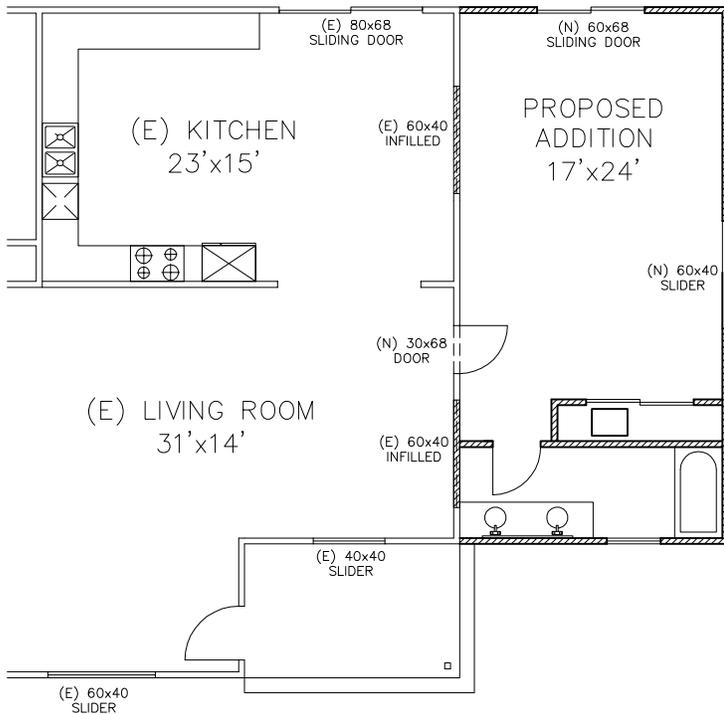
If there are windows and doors that are affected by the addition, the rooms adjoining the addition need to be reviewed for lighting and ventilation requirements the same as for new construction.

Note: Provide floor plans of rooms adjoining the addition. Indicate any windows and doors (including their sizes and method of opening) which are affected by the addition.

SAMPLE ANALYSIS

LEGEND

- EXISTING WALL
- NEW WALL
- DEMOLISH (E) WALL
- INFILL WALL



PROPOSED ADDITION: 17'x24' = 408 SQ. FT.

LIGHTING REQUIREMENTS:

408 SQ. FT. x 0.08 = 32.64 SQ. FT.

VENTILATION REQUIREMENTS:

408 SQ. FT. x 0.04 = 16.32 SQ. FT.

PROPOSED LIGHTING:

6'x6.67' + 6'x4' = 64.02 SQ. FT. - O.K.

PROPOSED VENTILATION:

3'x6.67' + 3'x4' = 32.01 SQ. FT. - O.K.

EXISTING KITCHEN: 23'x15' = 345 SQ. FT.

LIGHTING REQUIREMENTS:

345 SQ. FT. x 0.08 = 27.6 SQ. FT.

VENTILATION REQUIREMENTS:

345 SQ. FT. x 0.04 = 13.8 SQ. FT.

PROPOSED LIGHTING:

8'x6.67' = 53.36 SQ. FT. - O.K.

PROPOSED VENTILATION:

4'x6.67' = 26.68 SQ. FT. - O.K.

EXISTING LIVING ROOM: 31'x14' = 434 SQ. FT.

LIGHTING REQUIREMENTS:

434 SQ. FT. x 0.08 = 34.72 SQ. FT.

VENTILATION REQUIREMENTS:

434 SQ. FT. x 0.04 = 17.36 SQ. FT.

PROPOSED LIGHTING:

6'x4' + 4'x4' = 40 SQ. FT. - O.K.

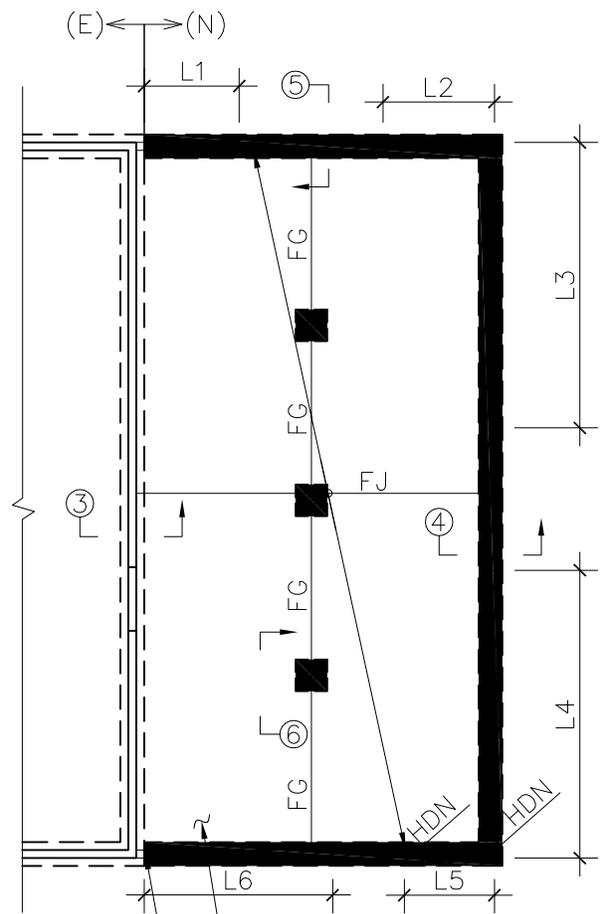
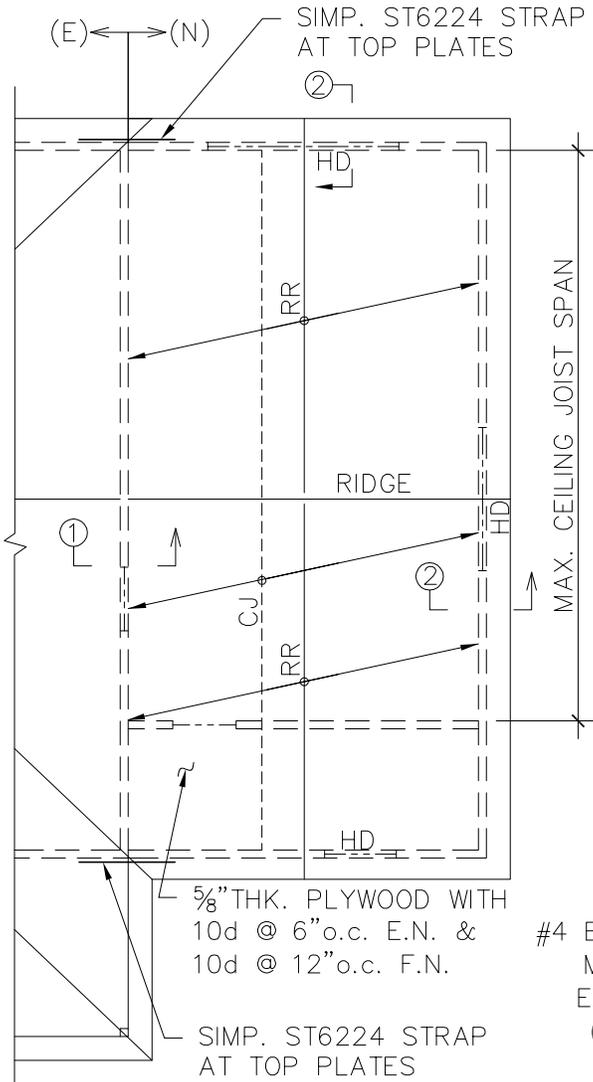
PROPOSED VENTILATION:

3'x4' + 2'x4' = 20 SQ. FT. - O.K.

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SINGLE STORY RESIDENTIAL ADDITION
 NATURAL LIGHT AND VENTILATION REQUIREMENTS

SHEET
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 OF 14 SHEETS



- PROVIDE CONNECTION DETAILS:
1. BETWEEN (N) AND (E) ROOF; (SEE SAMPLE DET. E/12)
 2. AT EAVE WHERE ROOF RAFTERS ARE PARALLEL & PERPENDICULAR TO WALL; (SEE SAMPLE DET. A/8, B/9, C/12)
 3. (N) FLOOR JOISTS TO (E) FOUNDATION; (SEE SAMPLE DET. F/12)
 4. FLOOR JOISTS TO EXTERIOR FOUNDATION; (SEE SAMPLE DET. B/12)
 5. GIRDER TO FOUNDATION; (SEE SAMPLE DET. A/12)
 6. INTERIOR FOUNDATION; (SEE SAMPLE D/12)

NOTE: SEE SHEETS 10, 11 FOR FRAMING MEMBER SIZE

- LEGEND:
- SHEARPLY LENGTH "L1" (SEE SHEETS 13 & 14 FOR DETAILS)
 - HOLDOWN WHERE REQUIRED
 - POST ON SPREAD FOOTING
 - PROVIDE CONNECTION DETAILS AT THESE LOCATIONS (SEE NOTES ON LEFT)

NOTE: THIS IS A SAMPLE FOUNDATION PLAN. THE TYPE OF NEW FOOTING SHALL MATCH THAT OF EXISTING FOOTING, WHICH MAY BE "T" TYPE FOOTING, PIER AND GRADE BEAM, SLAB ON GRADE, PRESTRESSED SLAB

1 ROOF FRAMING PLAN SCALE: N.T.S.

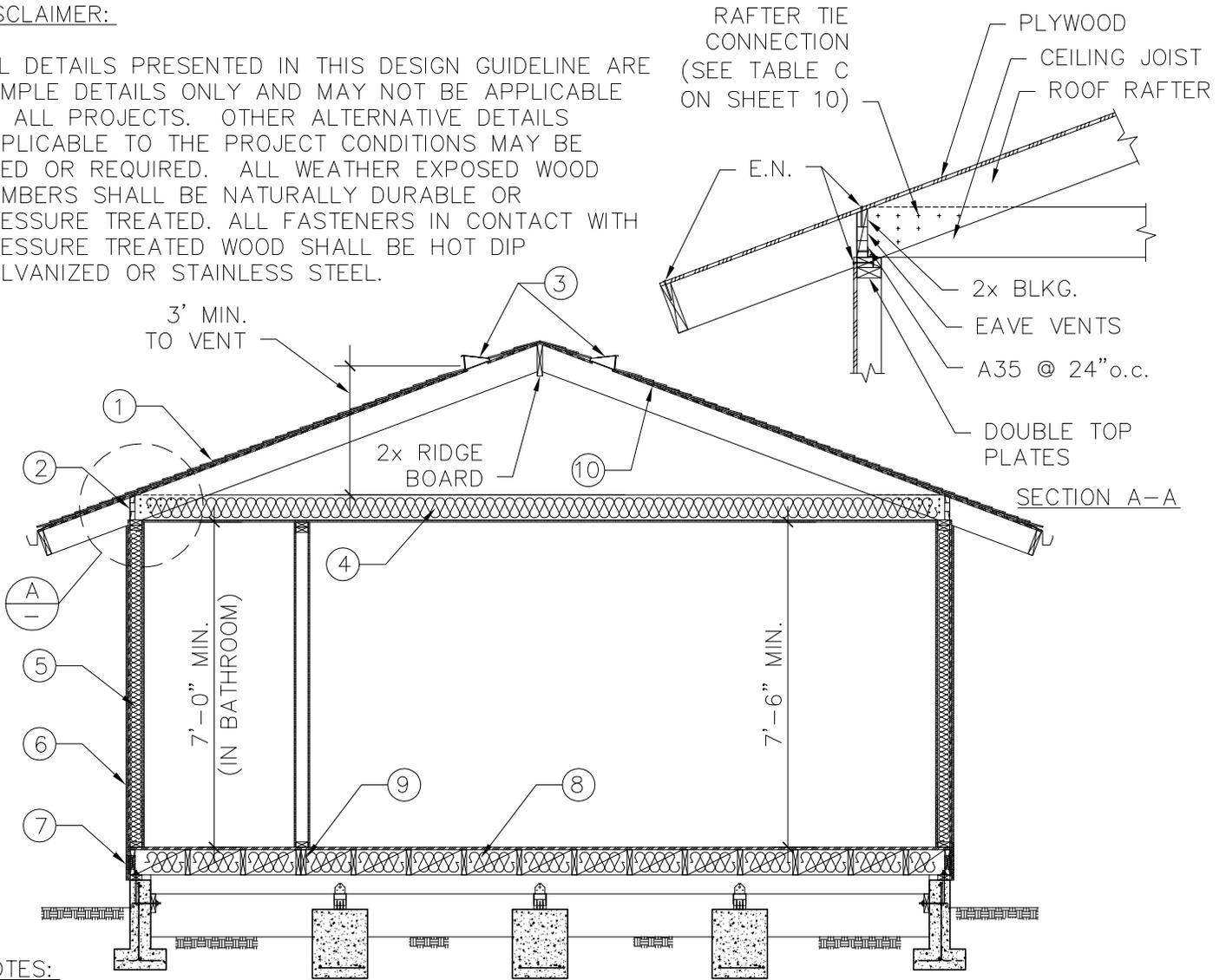
2 FOUNDATION PLAN SCALE: N.T.S.

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City of Milpitas
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SINGLE STORY RESIDENTIAL ADDITION
SAMPLE FOUNDATION AND FRAMING PLANS

DISCLAIMER:

ALL DETAILS PRESENTED IN THIS DESIGN GUIDELINE ARE SAMPLE DETAILS ONLY AND MAY NOT BE APPLICABLE TO ALL PROJECTS. OTHER ALTERNATIVE DETAILS APPLICABLE TO THE PROJECT CONDITIONS MAY BE USED OR REQUIRED. ALL WEATHER EXPOSED WOOD MEMBERS SHALL BE NATURALLY DURABLE OR PRESSURE TREATED. ALL FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL.



NOTES:

1. ROOF COVERING OVER PLYWOOD SHEATHING*
2. EAVE VENTS (NET VENT AREA = $\frac{1}{150}$ X ATTIC AREA)
3. UPPER ROOF VENTS (e.g. EYE BROW OR O'HAGIN VENTS) AT MIN. 3 FT ABOVE EAVE VENTS MAY BE PROVIDED TO REDUCE VENTILATION AREA TO $\frac{1}{300}$ OF ATTIC AREA (NET UPPER VENT AREA = 50% TO 80% OF $\frac{1}{300}$ X ATTIC AREA WITH BALANCE OF THE REQUIRED VENT AREA PROVIDED BY EAVE VENTS)
4. CEILING INSULATION*
5. WALL INSULATION*
6. WALL COVERING OVER PLYWOOD SHEATHING
7. UNDERFLOOR VENTS (NET VENT AREA = $\frac{1}{150}$ X CRAWL SPACE AREA)** OPENINGS SHALL BE WITHIN 3FT FROM EACH BUILDING CORNER
8. RAISED FLOOR INSULATION*
9. DOUBLE JOISTS/BLKG. UNDER PARTITIONS
10. RADIANT BARRIER*

* SEE "RESIDENTIAL ADDITION PACKAGE 'D' PRESCRIPTIVE REQUIREMENTS" DESIGN GUIDELINES
 ** FLOOD VENT REQUIRED IF IN FLOOD ZONE (1 SQ. IN. FOR EVERY SQ. FT. CRAWL SPACE AREA)

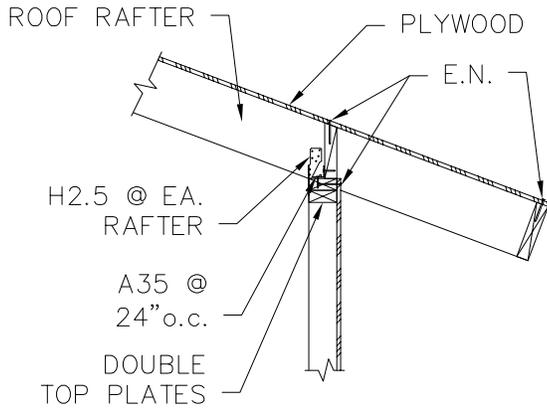
1 SAMPLE RAISED FLOOR WITH ATTIC SPACE
 BUILDING SECTION

SCALE: N.T.S.

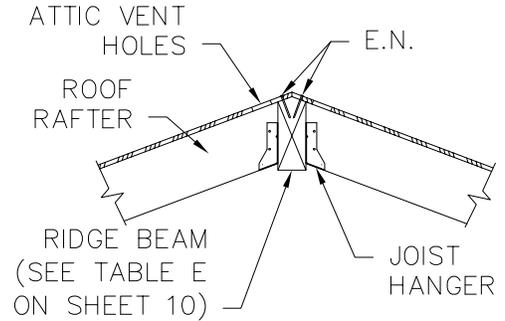
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SINGLE STORY RESIDENTIAL ADDITION
SAMPLE BUILDING SECTIONS

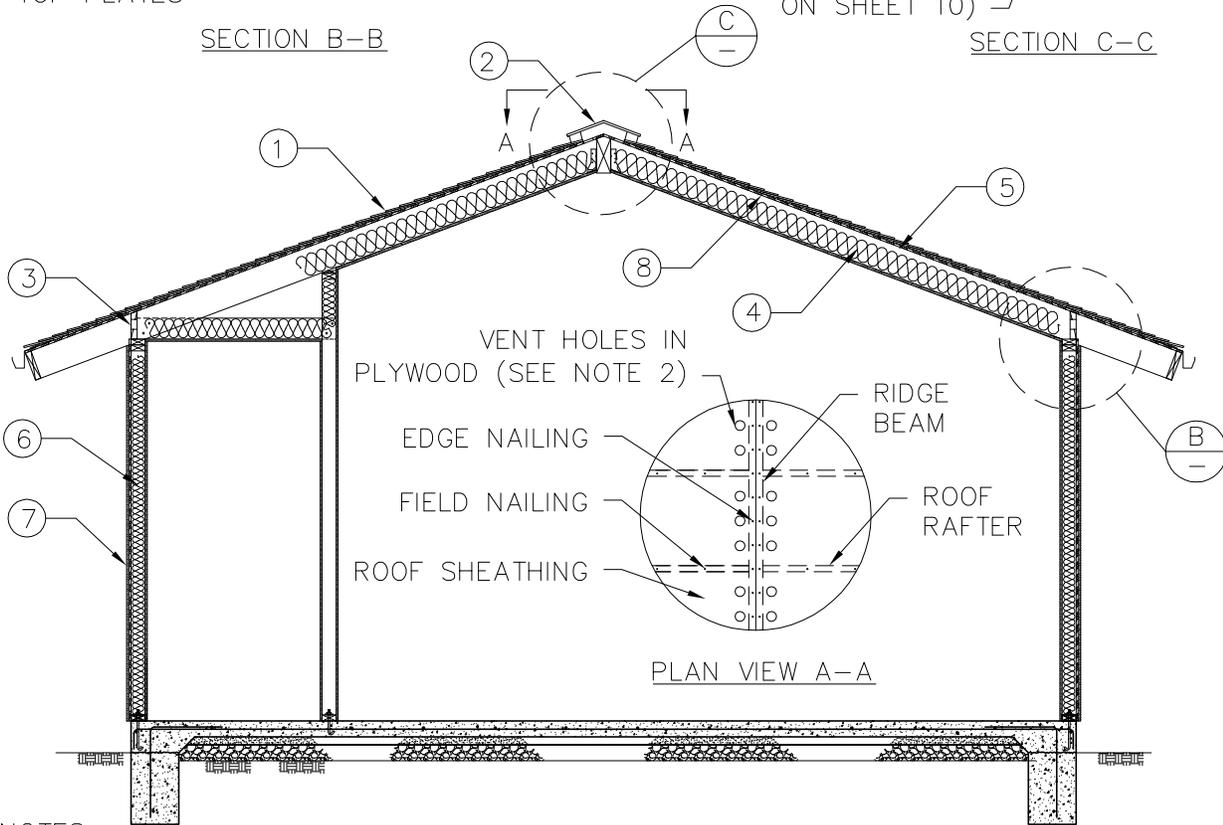
SHEET
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SECTION B-B



SECTION C-C



PLAN VIEW A-A

NOTES:

1. ROOF COVERING OVER PLYWOOD SHEATHING*
2. RIDGE VENT (NET VENT AREA = 50% OF $\frac{1}{150}$ X ATTIC AREA)
3. EAVE VENTS (NET VENT AREA = 50% OF $\frac{1}{150}$ X ATTIC AREA)
4. CEILING INSULATION*
5. MIN. 1" AIR SPACE BETWEEN INSULATION AND ROOF SHEATHING
6. WALL INSULATION*
7. WALL COVERING OVER PLYWOOD SHEATHING
8. RADIANT BARRIER*

* SEE "RESIDENTIAL ADDITION PACKAGE 'D' PRESCRIPTIVE REQUIREMENTS" DESIGN GUIDELINES

1 SAMPLE SLAB FLOOR WITH VAULTED CEILING BUILDING SECTION SCALE: N.T.S.

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SAMPLE BUILDING SECTIONS

TABLE A – ROOF RAFTERS (RR) SPAN TABLE

RAFTER SPACING	SPECIES AND GRADE	MAXIMUM RAFTER SPANS									
		SHINGLE ROOFING					SLATE/TILE ROOFING				
		2x4	2x6	2x8	2x10	2x12	2x4	2x6	2x8	2x10	2x12
16"	D.F. S.S.	10'-5"	16'-4"	21'-7"	-	-	10'-5"	16'-0"	20'-3"	24'-9"	-
	D.F. #1	10'-0"	15'-4"	19'-5"	23'-9"	-	9'-1"	13'-3"	16'-10"	20'-7"	23'-10"
	D.F. #2	9'-10"	14'-4"	18'-2"	22'-3"	25'-9"	8'-6"	12'-5"	15'-9"	19'-3"	22'-4"
	D.F. #3	7'-5"	10'-10"	13'-9"	16'-9"	19'-6"	6'-5"	9'-5"	11'-11"	14'-6"	16'-10"
24"	D.F. S.S.	9'-1"	14'-4"	18'-10"	23'-4"	-	8'-11"	13'-1"	16'-7"	20'-3"	23'-5"
	D.F. #1	8'-7"	12'-6"	15'-10"	19'-5"	22'-6"	7'-5"	10'-10"	13'-9"	16'-9"	19'-6"
	D.F. #2	8'-0"	11'-9"	14'-10"	18'-2"	21'-0"	6'-11"	10'-2"	12'-10"	15'-8"	18'-3"
	D.F. #3	6'-1"	8'-10"	11'-3"	13'-8"	15'-11"	5'-3"	7'-8"	9'-9"	11'-10"	13'-9"

NOTE: THIS TABLE IS ONLY APPLICABLE TO RAFTERS WITHOUT CEILING ATTACHED.

TABLE B – CEILING JOIST (CJ) SPAN TABLE

CEILING JOIST SPACING	SPECIES AND GRADE	MAXIMUM CEILING JOIST SPANS			
		2x4	2x6	2x8	2x10
16"	D.F. S.S.	11'-11"	18'-9"	24'-8"	-
	D.F. #1	11'-6"	18'-1"	23'-10"	-
	D.F. #2	11'-3"	17'-8"	23'-0"	-
	D.F. #3	9'-5"	13'-9"	17'-5"	21'-3"
24"	D.F. S.S.	10'-5"	16'-4"	21'-7"	-
	D.F. #1	10'-0"	15'-9"	20'-1"	24'-6"
	D.F. #2	9'-10"	14'-10"	18'-9"	22'-11"
	D.F. #3	7'-8"	11'-2"	14'-2"	17'-4"

NOTE: THIS TABLE IS ONLY APPLICABLE TO UNINHABITABLE ATTICS WITHOUT STORAGE

TABLE C – RAFTER TIE CONNECTIONS

RAFTER SLOPE	TIE SPACING	ROOF SPAN			
		12'	20'	28'	36'
		NO. OF 16d COMMON NAILS PER CONNECTION			
3:12	16"	5	8	10	13
	24"	7	11	15	19
4:12	16"	4	6	8	10
	24"	5	8	12	15
5:12	16"	3	5	6	8
	24"	4	7	9	12

TABLE D – FLOOR JOISTS (FJ) SPAN TABLE

FLOOR JOISTS SPACING	SPECIES AND GRADE	MAXIMUM FLOOR JOIST SPANS			
		2x6	2x8	2x10	2x12
16"	D.F. S.S.	10'-4"	13'-7"	17'-4"	21'-0"
	D.F. #1	9'-8"	12'-4"	15'-0"	17'-5"
	D.F. #2	9'-1"	11'-6"	14'-1"	16'-3"
	D.F. #3	6'-10"	8'-8"	10'-7"	12'-4"
24"	D.F. S.S.	9'-0"	11'-11"	14'-9"	17'-1"
	D.F. #1	7'-11"	10'-0"	12'-3"	14'-3"
	D.F. #2	7'-5"	9'-5"	11'-6"	13'-4"
	D.F. #3	5'-7"	7'-1"	8'-8"	10'-1"

TABLE E – RIDGE BEAM SPAN TABLE

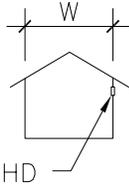
RIDGE BEAM SIZE	SPECIES AND GRADE	ROOF SPAN			
		12'	20'	28'	36'
4x6	D.F. #1	9'-0"	7'-0"	-	-
4x8	D.F. #1	11'-6"	9'-0"	7'-0"	6'-0"
4x10	D.F. #1	15'-0"	12'-0"	9'-6"	7'-6"
4x12	D.F. #1	18'-0"	14'-0"	11'-0"	9'-0"
6x12	D.F. #1	21'-6"	17'-0"	14'-6"	12'-6"

NOTE: RIDGE BEAM SHALL BE SUPPORTED AT EACH END BY 4x4 POST WITH 10' MAX. HEIGHT OR 4x6 POST WITH 12'-6" MAX. HEIGHT. POST TO BE CONTINUOUS TO FOUNDATION.

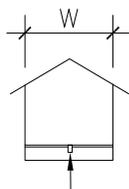
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City of Milpitas
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 SINGLE STORY RESIDENTIAL ADDITION
 FRAMING SIZE TABLES

SHEET
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TABLE F – HEADER (HD) SPAN TABLE FOR EXTERIOR WALL							
HEADERS SUPPORTING	HEADER SIZE*	MAXIMUM BUILDING WIDTH (W)					
		20'-0"		28'-0"		36'-0"	
		SPAN	NJ	SPAN	NJ	SPAN	NJ
ROOF & CEILING 	2-2x4	3'-6"	1	3'-2"	1	2'-10"	1
	2-2x6	5'-5"	1	4'-8"	1	4'-2"	1
	2-2x8	6'-10"	1	5'-11"	2	5'-4"	2
	2-2x10	8'-5"	2	7'-3"	2	6'-6"	2
	2-2x12	9'-9"	2	8'-5"	2	7'-6"	2
	3-2x8	8'-4"	2	7'-5"	2	6'-8"	2
	3-2x10	10'-6"	2	9'-1"	2	8'-2"	2
	3-2x12	12'-2"	2	10'-7"	2	9'-5"	2
	4-2x8	9'-2"	2	8'-4"	2	7'-8"	2
	4-2x10	11'-8"	2	10'-6"	2	9'-5"	2
4-2x12	14'-1"	2	12'-2"	2	10'-11"	2	

NJ = NUMBER OF JACK STUDS REQUIRED TO SUPPORT EACH END

TABLE G – FLOOR GIRDER (FG) SPAN TABLE							
GIRDER SUPPORTING	GIRDER SIZE*	MAXIMUM BUILDING WIDTH (W)					
		20'-0"	28'-0"	36'-0"			
		SPAN	NJ	SPAN	NJ		
ONE FLOOR ONLY 	2-2x4	3'-1"		2'-8"		2'-5"	
	2-2x6	4'-6"		3'-11"		3'-6"	
	2-2x8	5'-9"		5'-0"		4'-5"	
	2-2x10	7'-0"		6'-1"		5'-5"	
	2-2x12	8'-1"		7'-0"		6'-3"	
	3-2x8	7'-2"		6'-3"		5'-7"	
	3-2x10	8'-9"		7'-7"		6'-9"	
	3-2x12	10'-2"		8'-10"		7'-10"	
	4-2x8	9'-0"		7'-8"		6'-9"	
	4-2x10	10'-1"		8'-9"		7'-10"	
4-2x12	11'-9"		10'-2"		9'-1"		

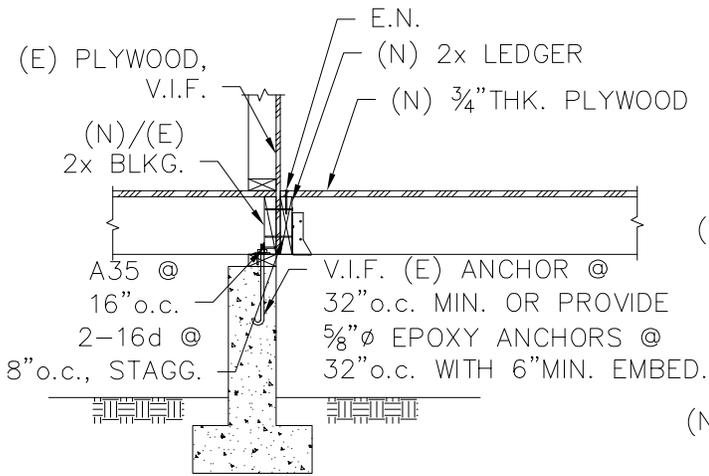
* SEE TABLE H FOR OPTIONS OF MEMBER SIZE WITH EQUIVALENT SECTION PROPERTIES

TABLE H – EQUIVALENT SECTION PROPERTIES				
SIZE	2x	3x	4x	6x
2-2x4	2x6	3x6	4x4	–
2-2x6	2x10	3x8	4x6	–
2-2x8	2x12	3x10	4x8	6x6
2-2x10	–	3x12	4x10	6x8
2-2x12	3-2x10	2-3x10	4x12	6x10
3-2x8	2-2x10	3x12	4x10	6x8
3-2x10	2-2x12	2-3x10	4x12	6x10
3-2x12	–	2-3x12	2-4x10	6x12
4-2x8	2-2x12	3x12	4x10	6x8
4-2x10	3-2x12	2-3x12	2-4x10	6x10
4-2x12	–	3-3x12	2-4x12	6x12

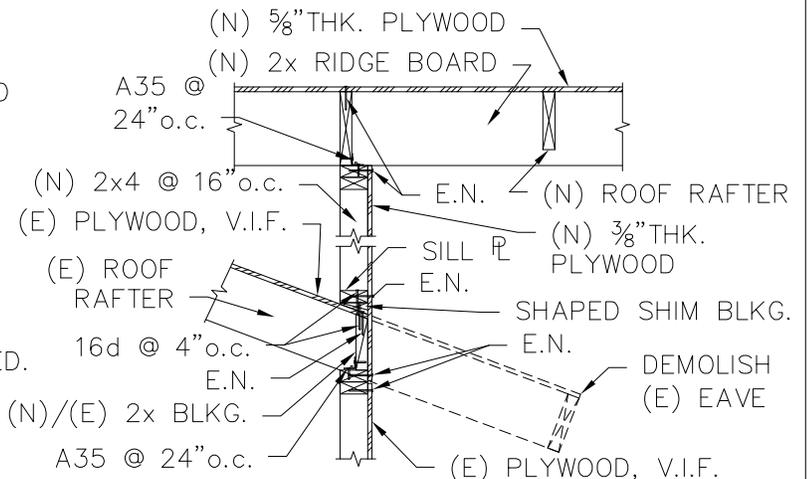
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			DRAWN BY: BYC
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SINGLE STORY RESIDENTIAL ADDITION
FRAMING SIZE TABLES

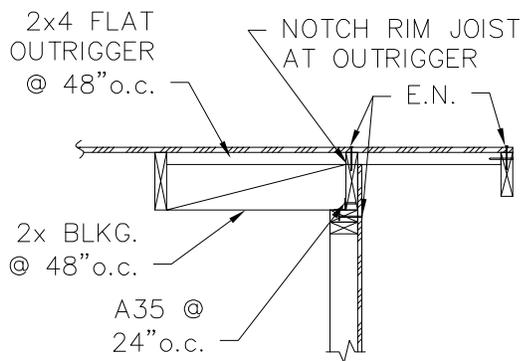
SHEET
11
 OF 14 SHEETS



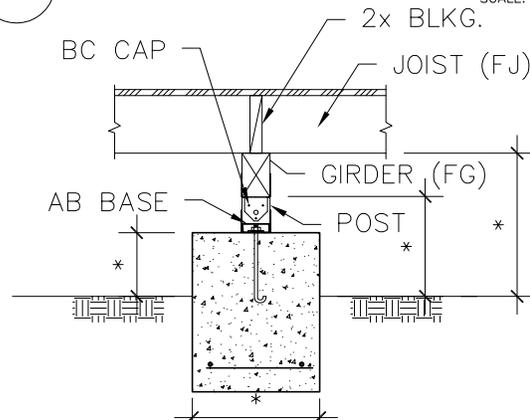
F (N) FLOOR JOISTS TO (E) FOUNDATION
SCALE: N.T.S.



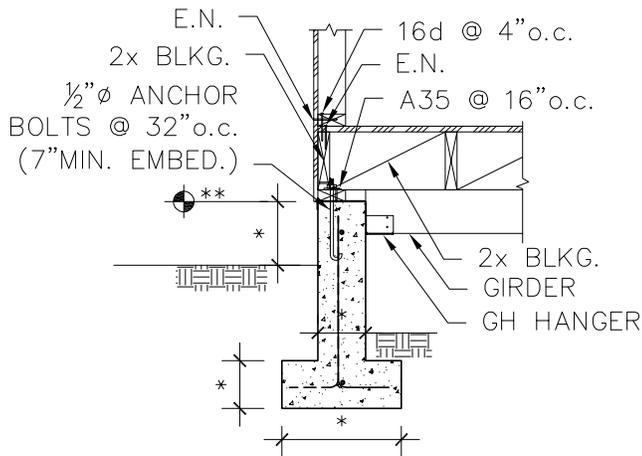
E (N) ROOF TO (E) ROOF CONNECTION
SCALE: N.T.S.



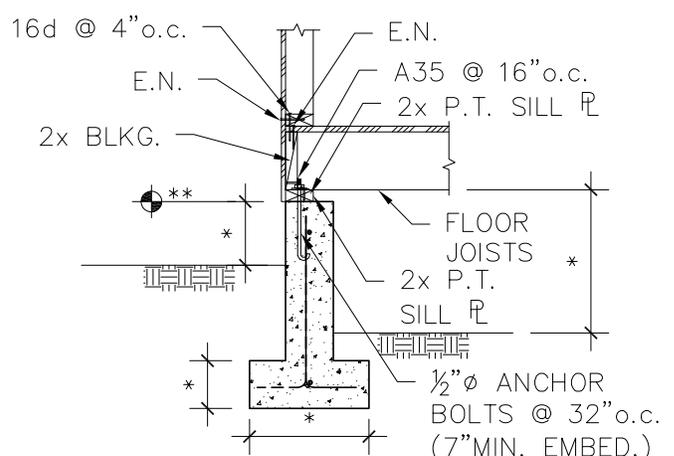
C OUTRIGGER DETAIL
(RAFTERS PARALLEL TO WALL)
SCALE: N.T.S.



D INTERIOR FOOTING DETAIL
SCALE: N.T.S.



A SECTION DETAIL AT EXTERIOR FOOTING
(JOISTS PARALLEL TO FTG.)
SCALE: N.T.S.

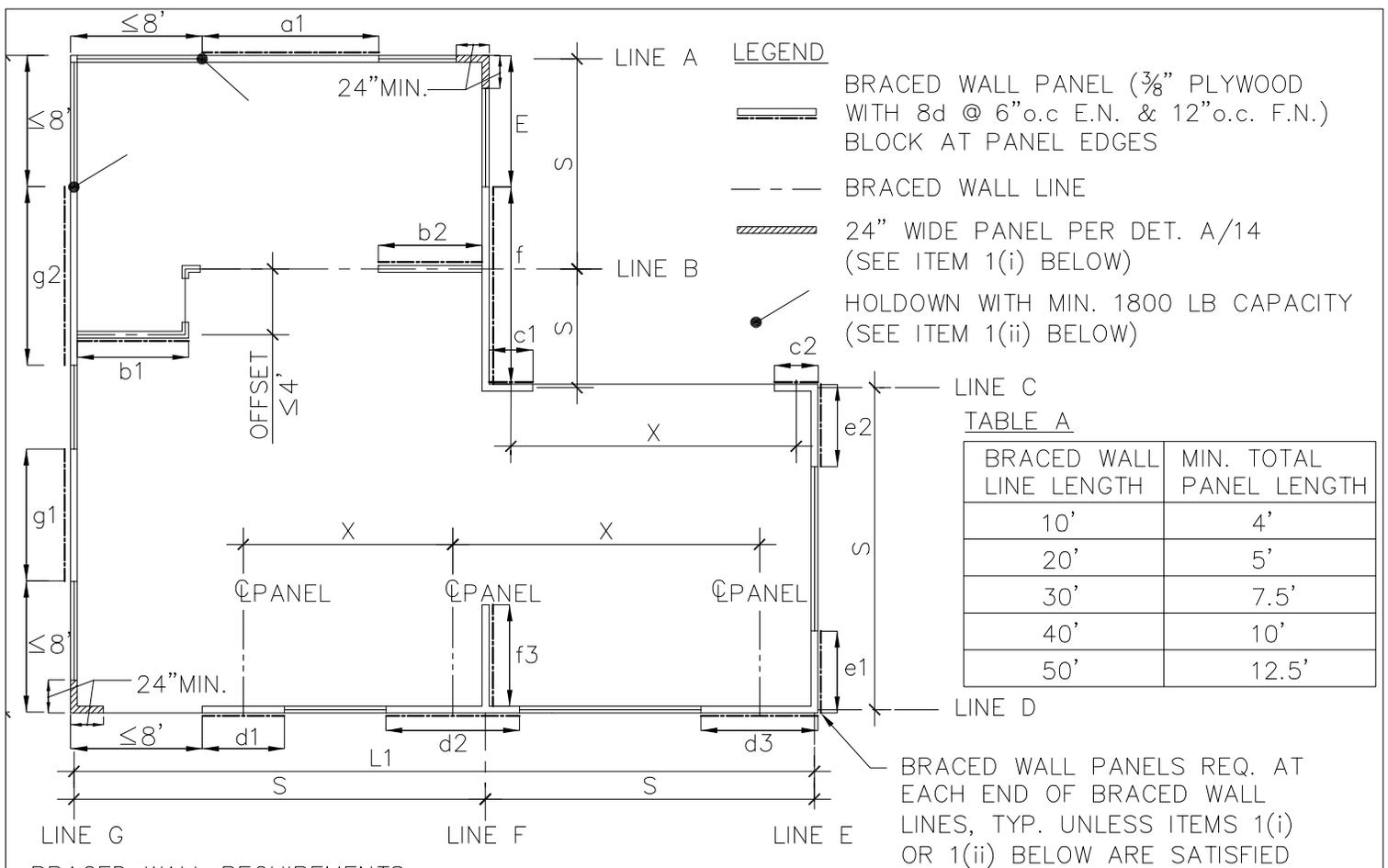


B SECTION DETAIL AT EXTERIOR FOOTING
(JOISTS PERP. TO FTG.)
SCALE: N.T.S.

* SEE "RESIDENTIAL CONCRETE FOUNDATION" HANDOUT FOR FOOTING DESIGN REQUIREMENTS.
** TOP OF CONC. STEM SHALL BE AT OR ABOVE BASE FLOOD ELEVATION (BFE) IF IN FLOOD ZONE

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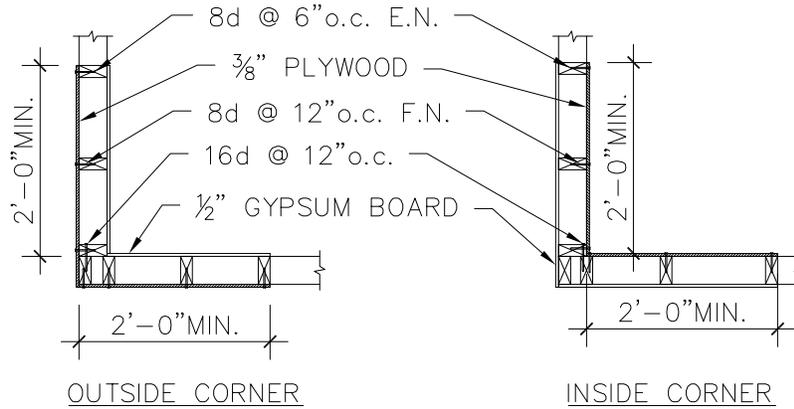
City of Milpitas
 Building & Safety Department
SINGLE STORY RESIDENTIAL ADDITION
SAMPLE DETAILS



- BRACED WALL PANEL SHALL BE LOCATED AT EACH END OF THE BRACED WALL LINE UNLESS ONE OF THE FOLLOWING IS SATISFIED AND THE PANEL BEGINS NO MORE THAN 8 FT FROM WALL END:
 - A MIN. OF 24" WIDE PANEL APPLIED TO EACH SIDE OF THE BUILDING CORNER AND THE 2 PANELS ARE ATTACHED TO FRAMING PER DET. A/14.
 - THE END OF EACH BRACED WALL PANEL CLOSEST TO THE CORNER SHALL HAVE A 1800 LB HOLD-DOWN DEVICE
- OFFSET BETWEEN BRACED WALL PANELS ALONG EACH BRACED WALL LINE $\leq 4'-0"$
- LENGTH OF EACH BRACED WALL PANEL (e.g. a1, b1, etc.) $\geq 4'-0"$ (SEE SHEET 14 FOR ALTERNATE BRACED WALL REQUIREMENTS WHEN PANEL LENGTH $< 4'-0"$)
- STORY HEIGHT $\leq 10'-0"$
- SPACING BETWEEN BRACED WALL PANELS ALONG EACH BRACED WALL LINE (X) $\leq 25'-0"$
- SPACING BETWEEN BRACED WALL LINES (S) $\leq 25'-0"$
- MIN. TOTAL LENGTH OF BRACED WALL PANELS ALONG A BRACED WALL LINE PER TABLE A.
- PROVIDE $\frac{1}{2}$ " GYPSUM WALL BOARD ON OPPOSITE SIDE OF PLYWOOD SHEATHING UNLESS THE MIN. TOTAL LENGTH OF BRACED WALL PANELS IN TABLE A IS MULTIPLIED BY 1.5.
- FULL HEIGHT BLOCKING/JOISTS SHALL BE PROVIDED UNDER AND IN LINE WITH BRACED WALL PANELS
- EXTERIOR BRACED WALL PANELS SHALL BE SUPPORTED BY CONTINUOUS FOOTINGS. CONTINUOUS FOOTINGS NOT REQUIRED AT INTERIOR BRACED WALL PANELS IF BUILDING PLAN DIMENSIONS (L1 & L2) ≤ 50 FT
- FOUNDATION ANCHOR BOLTS SHALL BE $\frac{1}{2}$ " ϕ @ 72" o.c. MAX. WITH 3"x3"x0.229" MIN. PLATE WASHER AND 7" MIN. EMBED. MIN. 2 ANCHORS PER PER PIECE OF SILL PLATE AND SHALL BE MIN. 4" & MAX. 12" FROM END OF SILL \bar{R} .

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SINGLE STORY RESIDENTIAL ADDITION
BRACED WALL REQUIREMENTS



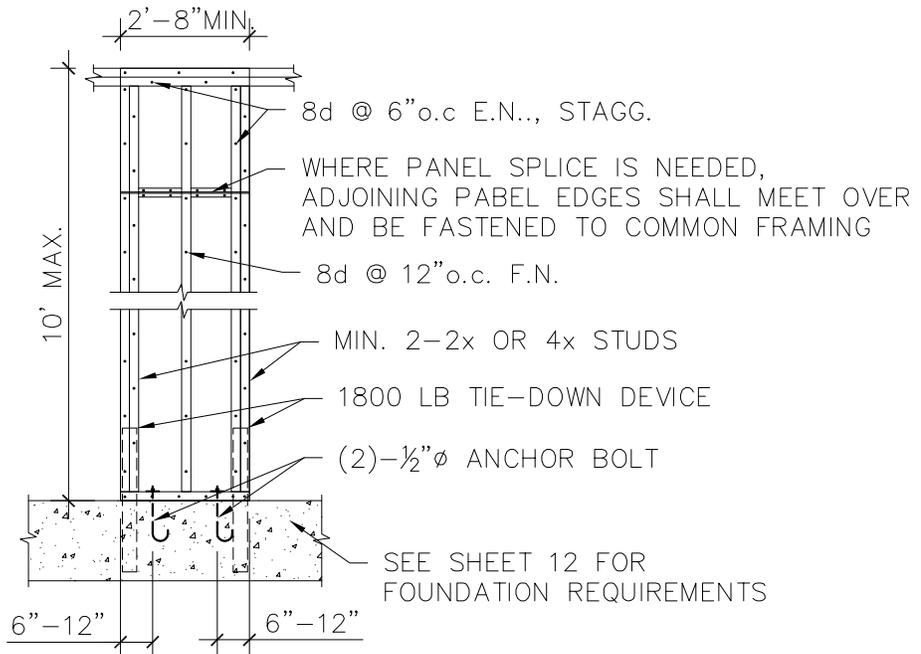
CORNER DETAIL

SCALE: N.T.S.

ALTERNATE BRACED WALL REQUIREMENTS;

ALTERNATE BRACED WALL PANEL MAY BE CONSTRUCTED AS FOLLOWS TO REPLACE THE MIN. 4 FT BRACED WALL PANEL REQUIREMENT:

1. LENGTH OF EACH BRACED WALL PANEL (e.g. c1, c2.) \geq 2'-8"
2. MIN. (2)- 1/2" ϕ ANCHOR BOLTS PER PANEL LOCATED 6" TO 12" FROM PANEL END.
3. PANEL NAILING SHALL BE MIN. 8d @ 6" o.c. IN ALL FRAMING (STUDS, BLOCKING, SILLS)
4. PROVIDE TIE-DOWN DEVICE WITH MIN. 1800 LB UPLIFT CAPACITY AT EACH PANEL END
5. PROVIDE MIN. DOUBLE 2X4 STUDS AT EACH PANEL END
6. BRACED WALL PANEL SHALL BE SUPPORTED DIRECTLY ON A FOUNDATION OR ON SOLIDLY BLOCKED FLOOR FRAMING SUPPORTED DIRECTLY ON A FOUNDATION
7. PROVIDE CONTINUOUS REINFORCED FOUNDATION ALONG ENTIRE BRACED WALL LINE
8. 1/2" GYPSUM BOARD REQUIRED ON OPPOSITE SIDE OF PANEL



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SINGLE STORY RESIDENTIAL ADDITION
BRACED WALL REQUIREMENTS