

COLOR/LINETYPE LEGEND

BLUE LINES= FEED TO FIXTURES (BATH, SHOWER, ETC.)
 GREEN LINES= INTERLEVEL CONNECTIONS
 BLACK LINES= SPRINKLER HEAD TO SPRINKLER HEAD.

— = 1/2" PIPE SIZE
 X = 3/4" PIPE SIZE
 — = 1" PIPE SIZE
 — = 1-1/4" PIPE SIZE
 — = 2" PIPE SIZE

MOST HYDRAULICALLY REMOTE HEADS

HEAD #	GPM	PRESSURE REQ'D AT STREET
1 HEAD H.75	18	25.05
2 HEAD H.44 & H.45	28	26.65



FIRE SPRINKLER

10751 47th Pl W
 Mukilteo, WA 98275
 PH: 425-495-9680
 FAX: 425-495-9717

SALES REP:

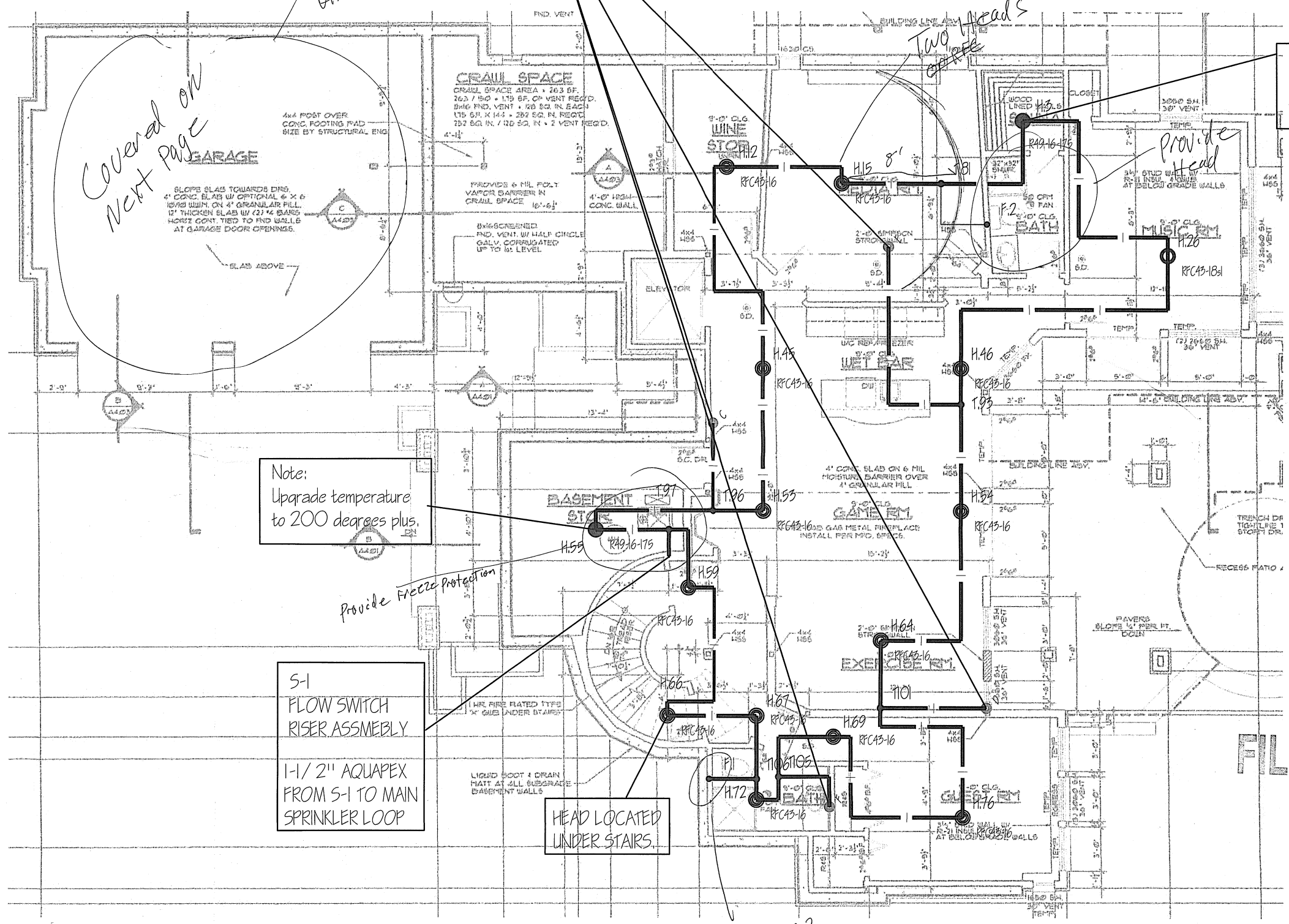
RESIDENTIAL FIRE PROTECTION SYSTEM

TUBE TYPE: 1/2 - 3/4" - 1" AQUAPEX

SPRINKLER INFORMATION

# OF HEADS THIS SHEET -	16
# OF HEADS THIS JOB -	76
STATIC PRESSURE IS -	75

Note:
 Upgrade temperature
 to 200 degrees plus.



Note:
 Upgrade temperature
 to 200 degrees plus.

Provide Freeze Protection

S-1
 FLOW SWITCH
 RISER ASSEMBLY
 1-1/2" AQUAPEX
 FROM S-1 TO MAIN
 SPRINKLER LOOP

HEAD LOCATED
 UNDER STAIRS.

What is this?

FILE COPY



CUI AND LIU RESIDENCE
 8636 N. MERCER WAY
 MERCER ISLAND, WA 98040

NO.	REVISION/ ISSUE	DATE
1	PRELIM. & CONST.	12-05-2011
2		
3		
4		

RECEIVED
 DEC - 8 2011
 CITY OF MERCER ISLAND
 DEVELOPMENT SERVICES

CITY OF MERCER ISLAND
 REVIEWED FOR
 CODE COMPLIANCE
 Permit No. 1112-040
 Date: 12-15-11
 Approved By: [Signature]

1
 F100 LOWER FLOOR
 1/4" = 1'-0"

PROJECT #: 111205-01

ALLIANCE ID#:

COMPANY: SOUNDVIEW PLUMBING

CONTACT: JOSH FREMMEL

CONTACT PHONE #: 425-760-4240

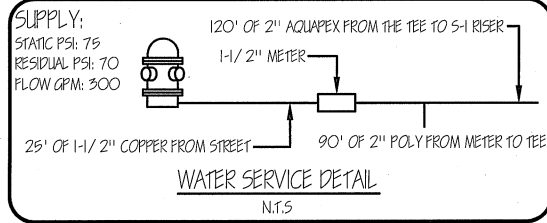
SCALE: 1/4" = 1'-0"

DESIGNED BY: STEPHANIE FAHEY

CHECKED BY: KAREN BARB

CERTIFICATION #: 109-04-2130

F100 1002.02



COLOR / LINE TYPE LEGEND

BLUE LINES= FEED TO FIXTURES (BATH, SHOWER, ETC.)
 GREEN LINES= INTERLEVEL CONNECTIONS
 BLACK LINES= SPRINKLER HEAD TO SPRINKLER HEAD

— = 1/2" PIPE SIZE
 X = 3/4" PIPE SIZE
 — = 1" PIPE SIZE
 — = 1-1/4" PIPE SIZE
 — = 2" PIPE SIZE

MOST HYDRAULICALLY REMOTE HEADS

HEAD #	GPM	PRESSURE REQ'D AT STREET
1 HEAD H.75	18	25.05
2 HEAD H.44 & H.43	28	26.65



FIRE SPRINKLER

10751 47th PI W
 Mukilteo, WA 98275
 PH: 425-495-9680
 FAX: 425-495-9717

SALES REP:

RESIDENTIAL FIRE PROTECTION SYSTEM	
TUBE TYPE:	1/2 - 3/4" - 1" AQUAPEX
SPRINKLER INFORMATION	
# OF HEADS THIS SHEET -	37
# OF HEADS THIS JOB -	76
STATIC PRESSURE IS=	75



CUI AND LIU RESIDENCE
 8636 N. MERCER WAY
 MERCER ISLAND, WA 98040

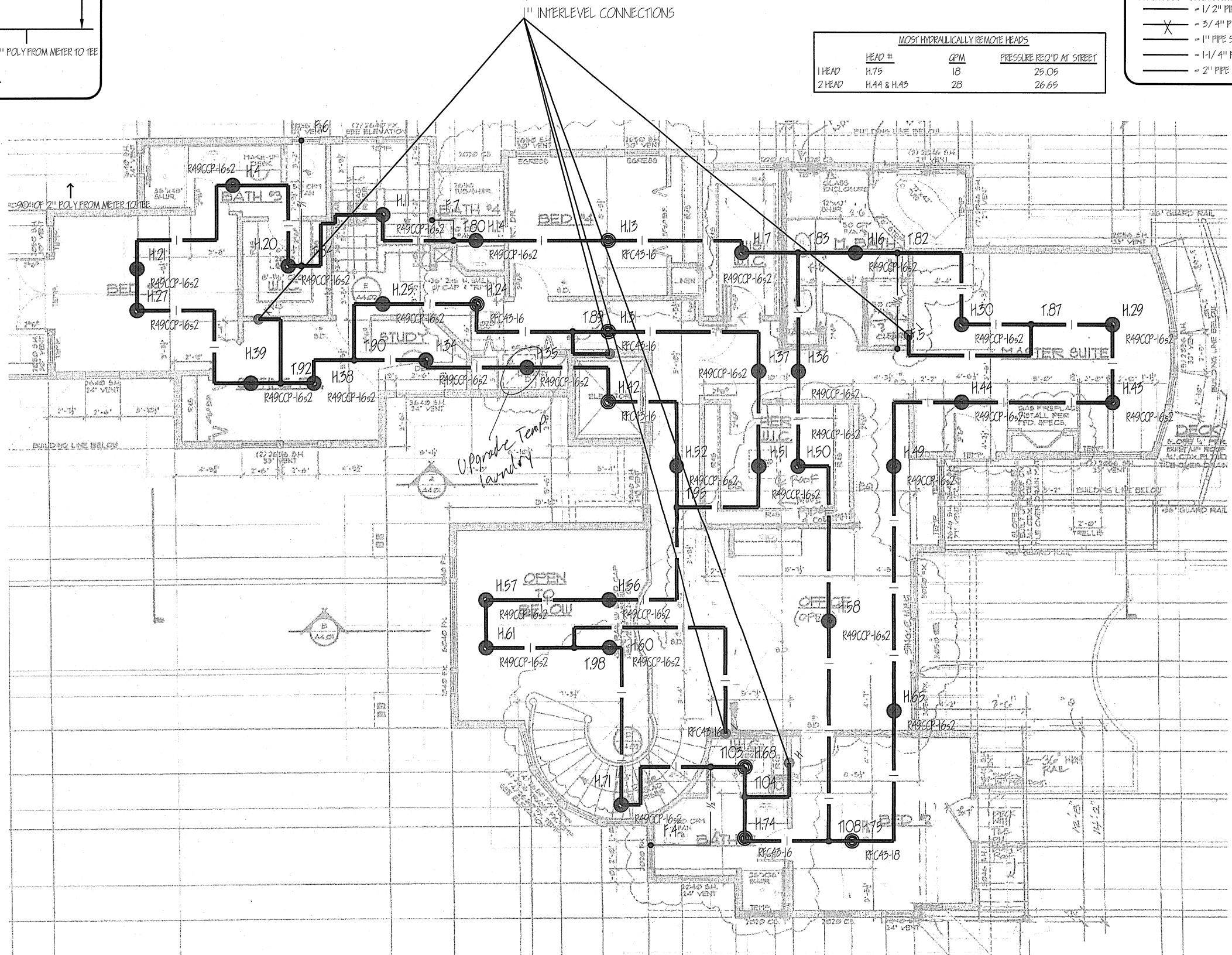
NO.	REVISION/ ISSUE	DATE
1	PRELIM. & CONST.	12-05-2011
2		
3		
4		

HEAD #'S
 29 & 43
 30 & 44
 SEPARATED BY BEAMS.

HEAD #'S
 58 & 65
 50 & 51
 36 & 37
 SEPARATED BY BEAMS.

RECEIVED
 DEC - 8 2011
 CITY OF MERCER ISLAND
 DEVELOPMENT SERVICES

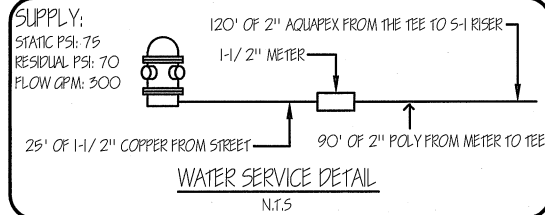
PROJECT #:	111205-01
ALLIANCE ID#:	
COMPANY:	SOUNDVIEW PLUMBING
CONTACT:	JOSH TREMMEL
CONTACT PHONE #:	425-760-4240
SCALE:	1/4" = 1'-0"
DESIGNED BY:	STEPHANIE FAHEY
CHECKED BY:	KAREN BARB
CERTIFICATION #:	109-04-2150



HEAD #'S
 21 & 27,
 38 & 38
 SEPARATED BY BEAMS

1
 F100 UPPER FLOOR
 1/4" = 1'-0"

F3000204

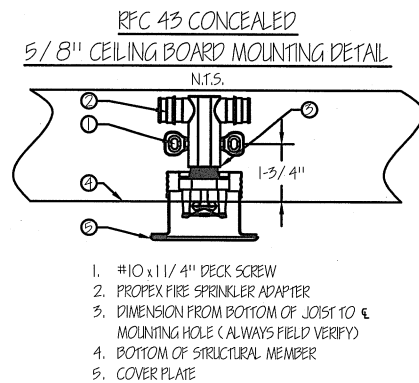


MOST HYDRAULICALLY REMOTE HEADS

HEAD #	HEAD	GPM	PRESSURE REQ'D AT STREET
1 HEAD	H.75	18	25
2 HEAD	H.44 & H.45	28	26.5

SPRINKLER SYMBOL DEFINITION

R49CCP-XX(s)
 SLOPED CEILING MAX. SLOPE OF 8/12 (33.7°) PITCH (MAY NOT APPLY)
 SLOPED CEILING MAX. SLOPE OF 4/12 (18.4°) PITCH (MAY NOT APPLY)
 MAXIMUM SPACING (NFP)
 SPRINKLER MODEL (NFP)
 HEAD SYMBOL (NFP)



NFPA 13D TABLE 7.5.5.3 DISTANCES FROM HEAT SOURCES

HEAT SOURCE	ORDINARY TEMP IN.	INTERMEDIATE TEMP IN.
SIDE OF FIREPLACE	36"	12"
FRONT OF FIREPLACE	60"	36"
WOOD BURNING STOVE	42"	12"
KITCHEN RANGE	18"	9"
WALL OVEN	18"	9"
HOT AIR FLUES	18"	9"
UNINSULATED HEAT DUCTS	18"	9"
UNINSULATED HOT WATER PIPES	12"	6"
SIDE OF HOT AIR DIFFUSER	24"	12"
FRONT OF HOT AIR DIFFUSER	36"	18"
HOT WATER HEATER	6"	3"
FURNACE	6"	3"
0W-250W LIGHT FIXTURE	6"	3"
250W-499W LIGHT FIXTURE	12"	6"

GENERAL NOTES:

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- THE DESIGN OF THIS SYSTEM IS DICTATED BY SPECIFIC CEILING HEIGHTS AND ROOM SIZES. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO ENSURE THAT THE CONDITIONS SHOWN ON THESE PLANS ARE EXACTLY AS THEY EXIST IN THE FIELD. DEVIATIONS FROM THE DESIGN MAY CAUSE THE SYSTEM TO BE UNABLE TO CONTROL A FIRE. IF THE BUILDING CONSTRUCTION DIFFERS FROM THE FIRE SPRINKLER PLAN, CONTACT THE SYSTEM DESIGNER IMMEDIATELY.
- THIS SYSTEM AND THE ACCOMPANYING HYDRAULIC CALCULATIONS ARE DESIGNED IN COMPLIANCE WITH NFPA 13D.
- ALL INTERIOR PIPING TO BE UPONOR WIRSBO "AQUAPEX" UNLESS NOTED.
- UPONOR WIRSBO "AQUAPEX" TUBING TO BE SUPPORTED PER NFPA 13D AND MANUFACTURER'S RECOMMENDATIONS.
- MINIMUM SPACING BETWEEN SPRINKLERS IS 8'-0" REFER TO SPACING CHARTS FOR MAXIMUM SPACING BETWEEN SPRINKLERS AND FROM WALLS.
- SPRINKLERS ARE NOT NECESSARILY CENTERED IN ROOMS DUE TO LIGHT FIXTURES OR OTHER CEILING MOUNTED OBSTRUCTIONS.
- THE PLUMBING TIE IN CONNECTIONS ARE SCHEMATIC IN NATURE AND CAN BE INSTALLED OFF THE SPRINKLER LOOP ANYWHERE BETWEEN SPRINKLER TO SPRINKLER CONNECTION.
- THIS SUGGESTED LAYOUT IS BASED UPON INFORMATION PROVIDED BY OTHERS. CHANGES IN CONSTRUCTION OR FIELD CONDITIONS MAY OCCUR WHICH MAY REQUIRE CHANGES TO THE LAYOUT. IT IS THE RESPONSIBILITY OF THE INSTALLER TO NOTIFY UPONOR TECHNICAL SERVICES OF SUCH CHANGES.
- NFPA 13D 8.6 LOCATION OF SPRINKLERS
 - 8.6.1 SPRINKLERS SHALL BE INSTALLED IN ALL AREAS EXCEPT WHERE OMISSION IS PERMITTED BY 8.6.2 THROUGH 8.6.7.
 - 8.6.2 SPRINKLERS SHALL NOT BE REQUIRED IN BATHROOMS OF 55 FT² (5.1 M²) AND LESS
 - 8.6.3 SPRINKLERS SHALL NOT BE REQUIRED IN CLOTHES CLOSETS, LINEN CLOSETS, AND PANTRIES THAT MEET ALL OF THE FOLLOWING CONDITIONS:
 - THE AREA OF THE SPACE DOES NOT EXCEED 24 FT² (2.2 M²).
 - THE LEAST DIMENSION DOES NOT EXCEED 3 FT (0.9 M).
 - THE WALLS AND CEILINGS ARE SURFACED WITH NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIALS AS DEFINED IN NFPA 220, STANDARD ON TYPES OF BUILDING CONSTRUCTION.
 - 8.6.4* SPRINKLERS SHALL NOT BE REQUIRED IN GARAGES, OPEN ATTACHED PORCHES, CARPORTS, AND SIMILAR STRUCTURES
 - 8.6.4.1 ALTHOUGH NFPA 13D DOES NOT REQUIRE GARAGES TO BE SPRINKLERED, SOME AUTHORITIES HAVING JURISDICTION TAKE IT UPON THEMSELVES TO ADD THIS REQUIREMENT LOCALLY. IN SUCH CIRCUMSTANCES, RESIDENTIAL OR QUICK-RESPONSE SPRINKLERS WITH A TWO-SPRINKLER DESIGN IN THE GARAGE WITH THE SAME PIPING USED IN THE REST OF THE DWELLING MAY BE USED. IT IS RECOGNIZED THAT RESIDENTIAL SPRINKLERS HAVE NOT BEEN TESTED SPECIFICALLY FOR FIRES IN GARAGES, BUT FIELD EXPERIENCE HAS SHOWN THAT THE SPRINKLERS HELP TO ALERT OCCUPANTS TO THE FACT THAT THERE IS A FIRE, CAN REDUCE THE POSSIBILITY OF FLASHOVER, AND CAN IMPROVE THE CHANCES FOR OCCUPANTS TO ESCAPE.
 - 8.6.5 SPRINKLERS SHALL NOT BE REQUIRED IN ATTICS, PENTHOUSE EQUIPMENT ROOMS, ELEVATOR MACHINE ROOMS, CONCEALED SPACES DEDICATED EXCLUSIVELY TO AND CONTAINING ONLY DWELLING UNIT VENTILATION EQUIPMENT, FLOOR/CEILING SPACES, ELEVATOR SHAFTS CRAWL SPACES, AND OTHER CONCEALED SPACES THAT ARE NOT USED OR INTENDED FOR LIVING PURPOSES AND DO NOT CONTAIN FUEL-FIRED EQUIPMENT.
 - 8.6.6 SPRINKLERS SHALL NOT BE REQUIRED IN COVERED UNHEATED PROJECTIONS OF THE BUILDING AT ENTRANCES/EXITS AS LONG AS THERE IS ANOTHER MEANS OF EGRESS FROM THE DWELLING UNIT.
 - 8.6.7 SPRINKLERS SHALL NOT BE REQUIRED FOR CEILING POCKETS THAT MEET THE FOLLOWING CONDITIONS:
 - THE TOTAL VOLUME OF UNPROTECTED CEILING POCKET DOES NOT EXCEED 100 FT³ (2.83 M³).
 - THE ENTIRE FLOOR UNDER THE UNPROTECTED CEILING POCKET IS PROTECTED BY THE SPRINKLERS AT THE LOWER CEILING ELEVATION.
 - EACH UNPROTECTED CEILING POCKET IS SEPARATED FROM ANY ADJACENT UNPROTECTED CEILING POCKET BY A MINIMUM 10 FT (3.05 M) HORIZONTAL DISTANCE.
 - THE INTERIOR FINISH OF THE UNPROTECTED CEILING POCKET IS NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIAL.
 - SKYLIGHTS NOT EXCEEDING 32 FT² (2.97 M²) SHALL BE PERMITTED TO HAVE A PLASTIC COVER.

Minimum Required Sprinkler Discharge Max. Slope of 4/12 (18.4°) Pitch

Model	Nominal Orifice Size (in)	Temp Rating (°F)	K-Factor	Sprinkler Spacing (ft.)	Max. Distance To Wall (ft.)	Single Sprinkler		Two or More Sprinklers	
						Flow (gpm)	Pressure (psi)	Flow Ea. (gpm)	Pressure Ea. (psi)
FI RES 49 CCP	1/2"	155	4.9	12 x 12	6	13	7.0	13	7.0
				14 x 14	7	13	7.0	13	7.0
				16 x 16	8	14	8.2	14	8.2
				18 x 18	9	13.2	13.5, 18.4	13.2	13.5, 18.4
				20 x 20	10	20.2	16.7, 18.4	20.2	16.7, 18.4

Minimum Required Sprinkler Discharge Max. Slope of 8/12 (33.7°) Pitch

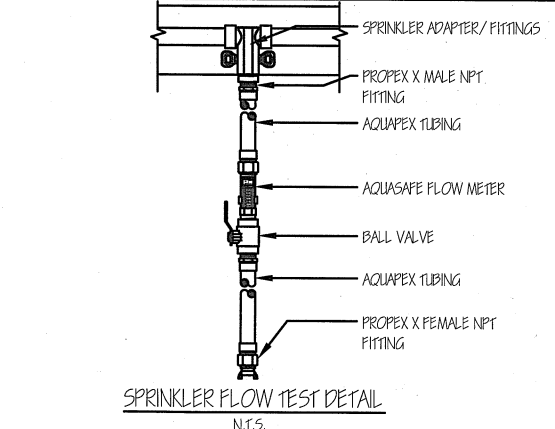
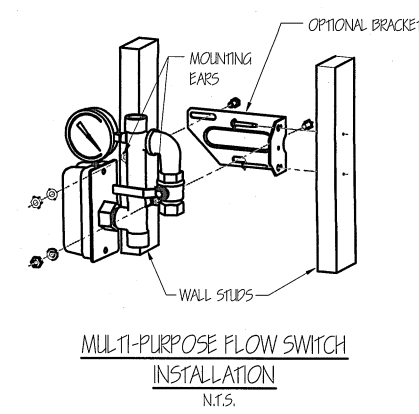
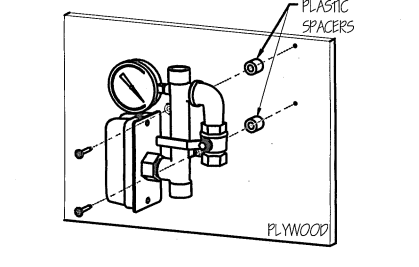
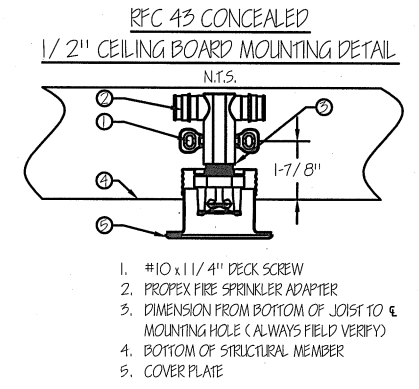
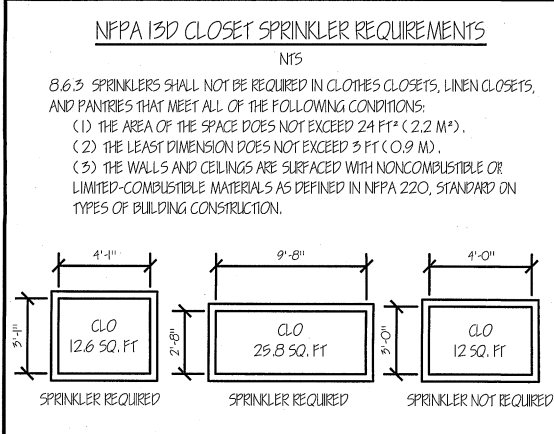
Model	Nominal Orifice Size (in)	Temp Rating (°F)	K-Factor	Sprinkler Spacing (ft.)	Max. Distance To Wall (ft.)	Single Sprinkler		Two or More Sprinklers	
						Flow (gpm)	Pressure (psi)	Flow Ea. (gpm)	Pressure Ea. (psi)
FI RES 49 CCP	1/2"	155	4.9	12 x 12	6	14	8.2	14	8.2
				14 x 14	7	14	8.2	14	8.2
				16 x 16	8	14	8.2	14	8.2

	--- 5	RELIABLE Model F3-QR DRY Dry Pendant Sprinkler K=5.6, 155°F, 1/2" Orifice, Maximum Spacing 15'x16' Sprinkler head demand: 14.8 gpm @ 7
	--- 37	RELIABLE Model RFC43-16 Concealed Pendant Sprinkler K=4.3, 155°F, 3/8" Orifice, Maximum Spacing 16'x16' Sprinkler head demand: 13 gpm @ 9.14
	--- 2	RELIABLE Model FI-R49FI-R49 Recessed Pendant Sprinkler K=4.9, 175°F, 7/16" Orifice, Maximum Spacing 16'x16' Sprinkler head demand: 13 gpm @ 7.04
	--- 30	RELIABLE Model FI-R49CCP-16s2 Concealed Pendant Sprinkler K=4.9, 155°F, 7/16" Orifice, Maximum Spacing 16'x16' Sprinkler head demand: 14 gpm @ 8.2
	--- 1	RELIABLE Model RFC43-18s1 Concealed Pendant Sprinkler K=4.3, 155°F, 3/8" Orifice, Maximum Spacing 18'x18' Sprinkler head demand: 13 gpm @ 17.5
	--- 1	RELIABLE Model RFC43-18 Concealed Pendant Sprinkler K=4.3, 155°F, 3/8" Orifice, Maximum Spacing 18'x18' Sprinkler head demand: 13 gpm @ 17.52

MARKUP LEGEND

DELETE LINE:	
ADD LINE:	
ADD TEE:	
ADD ELBOW:	
ADD COUPLING:	
ADD HEAD:	
DELETE HEAD:	
MOVE HEAD:	

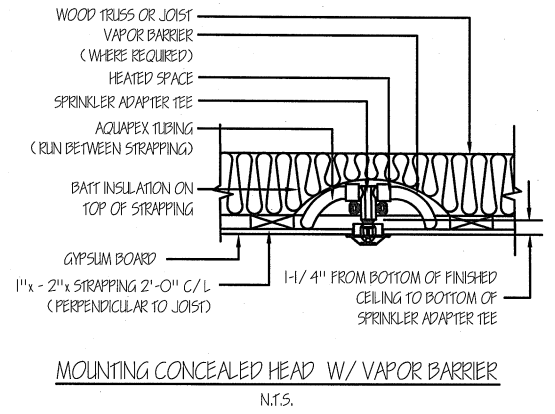
NOTE: ALL REVISIONS MUST BE REVIEWED BY UPONOR



TEST ORIFICES

SPRINKLER MODEL	K-FACTOR	IDENTIFICATION
RELIABLE F-RES 16 SEMI-RECESSED	3.0	WHITE
RELIABLE F-RES 18 SEMI-RECESSED, F/ I/ RES CCP CONCEALED AND F/ I/ RES 3 HORIZONTAL SIDEWALL	3.9	BRONZE
RELIABLE FI/ RES 40 HORIZONTAL SIDEWALL	4.0	GRAY
RELIABLE FI/ RES 44 HORIZONTAL SIDEWALL	4.4	BLUE
RELIABLE FI/ RES 49 SEMI-RECESSED AND F/ I/ RES 49 CCP CONCEALED	4.9	BLACK
RELIABLE RFC 43 CONCEALED RESIDENTIAL SPRINKLER	4.3	RED OR BRONZE HEX

THE AQUASAFE™ INSTALLATION MANUAL CONTAINS DETAILED INSTRUCTIONS FOR CONDUCTING A PROPER FLOW-VERIFICATION TEST. PER NFPA 13D, UPONOR PROVIDES BOTH ONE- AND TWO-HEAD FLOW CALCULATIONS. HOWEVER, UPONOR ONLY REQUIRES A ONE-SPRINKLER FLOW-VERIFICATION TEST. A TWO-SPRINKLER FLOW TEST MAY BE PERFORMED IF REQUESTED BY THE AUTHORITY HAVING JURISDICTION (AHL).



FIRE SPRINKLER

10731 47th Pl W
 Mukilteo, WA 98275
 PH: 425-493-9680
 FAX: 425-493-9717

SALES REP:

RESIDENTIAL FIRE PROTECTION SYSTEM	
TUBE TYPE: 1/2 - 3/4" - 1" AQUAPEX	
SPRINKLER INFORMATION	
# OF HEADS THIS SHEET -	0
# OF HEADS THIS JOB -	76
STATIC PRESSURE IS -	75



RECEIVED

DEC - 8 2011

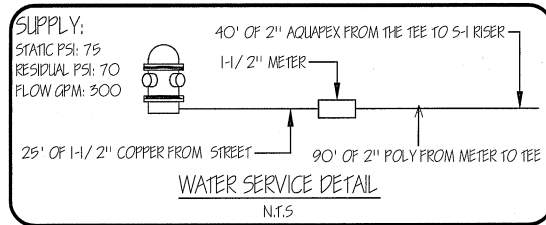
CITY OF MERCER ISLAND
 DEVELOPMENT SERVICES

CUI AND LIU RESIDENCE
 8636 N. MERCER WAY
 MERCER ISLAND, WA 98040

1	PRELIM. & CONST.	12-05-2011
2		
3		
4		
NO.	REVISION/ ISSUE	DATE

PROJECT #:	111205-01
ALLIANCE ID#:	
COMPANY:	SOUNDVIEW PLUMBING
CONTACT:	JOSH TREMMEL
CONTACT PHONE #:	425-760-4240
SCALE:	1/4" = 1.0'
DESIGNED BY:	STEPHANIE FAHEY
CHECKED BY:	KAREN BABY
CERTIFICATION #:	109-04-2130

FOO 1002.05



COLOR/LINETYPE LEGEND

BLUE LINES- FEED TO FIXTURES (BATH, SHOWER, ETC.).
 BLACK LINES- SPRINKLER HEAD TO SPRINKLER HEAD.

— = 1/2" PIPE SIZE
 — = 3/4" PIPE SIZE
 X = 1" PIPE SIZE
 — = 1-1/4" PIPE SIZE
 — = 2" PIPE SIZE



FIRE SPRINKLER

10791 47th Pl W
 Mukilteo, WA 98275
 PH: 425-495-9680
 FAX: 425-495-9717

MOST HYDRALLICALLY REMOTE HEADS

HEAD #	GPM	PRESSURE REQ'D AT STREET
1 HEAD H.20	14	27.99
2 HEAD H.15 & H.14	28	33.71

Note: Head #1 mounted in 10" wide flat ceiling at apex.

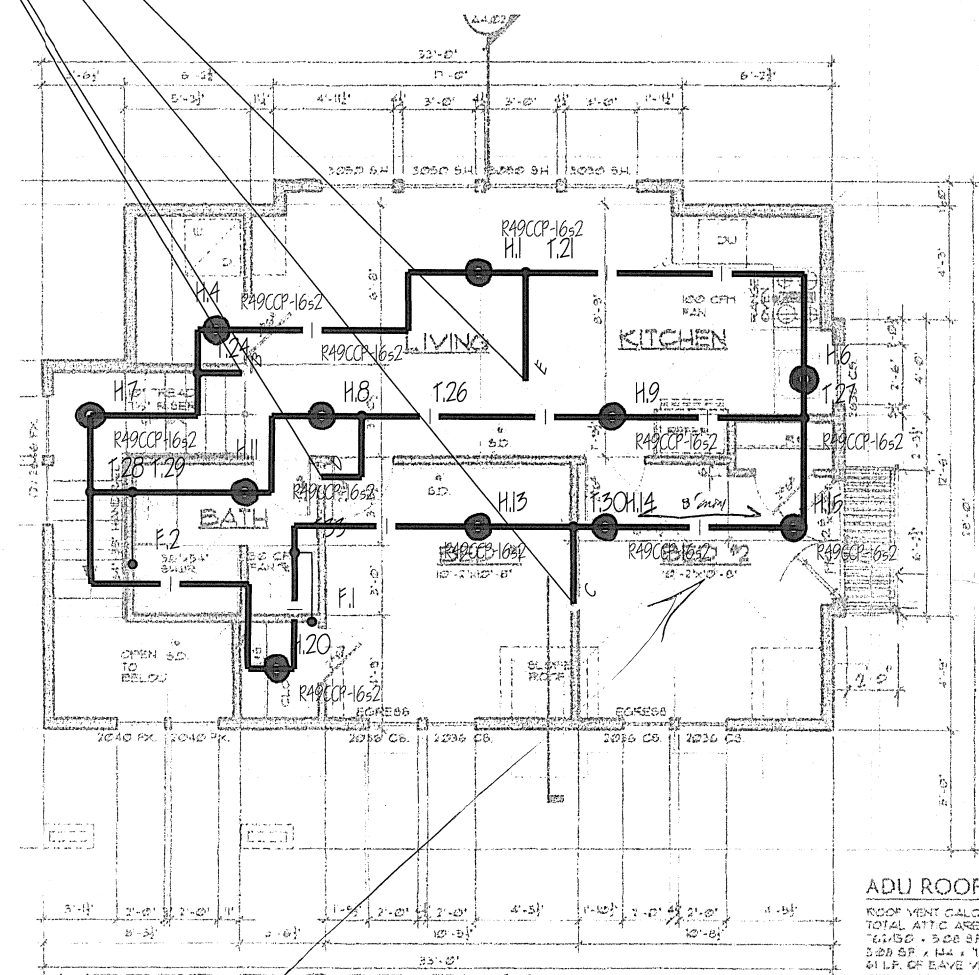
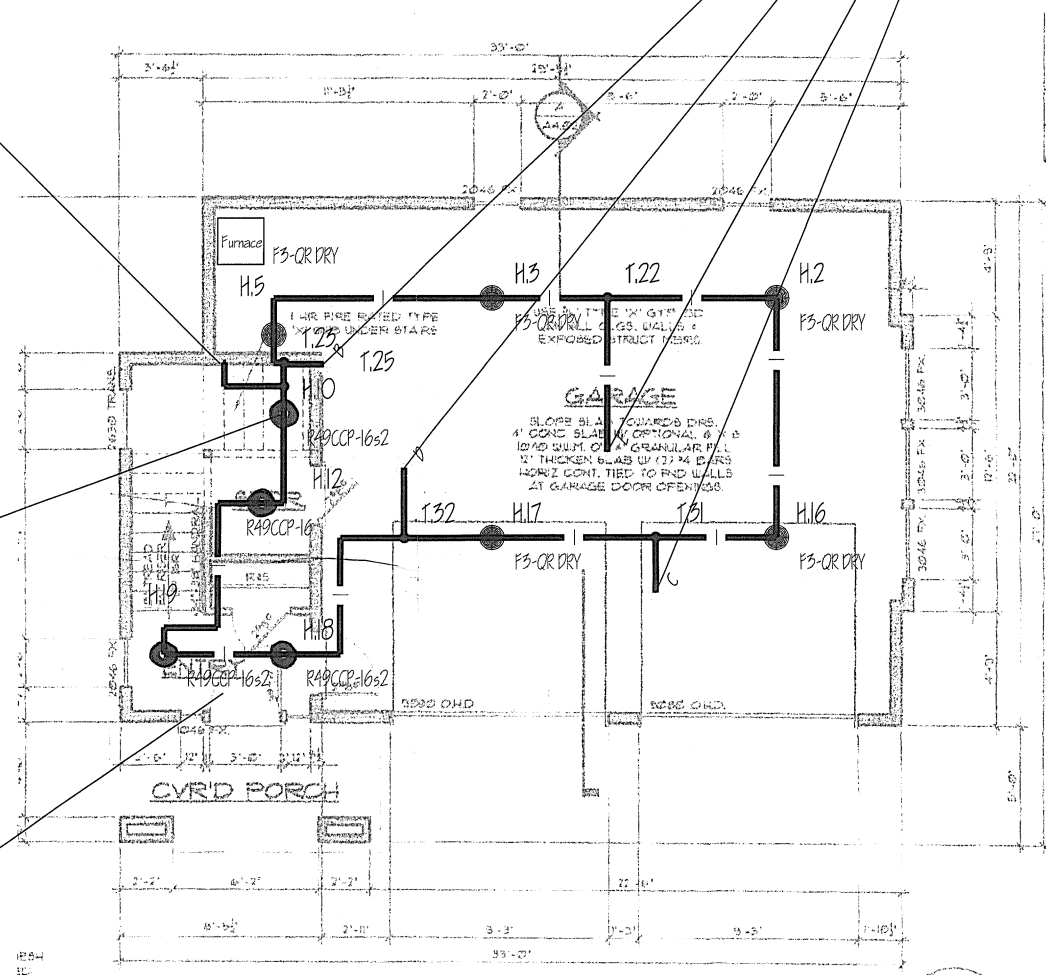
1-1/2" Aquapex from 5-1 Riser to main sprinkler loop.

Note: Furnace location covered by head #6.

1-1/2" 5-1 Riser

Additional storage under stairs covered by head #10

Exposed beam separating head #18 and #19



ADU ROOF
 ROOF VENT CALCULATION
 TOTAL ATTIC AREA = 762 SF
 1" MIN. VENT = 3.28 SF. REQUIRED FOR
 3.28 SF x 144 = 472 SF OF VENT
 4" MIN. VENT = 1.5 SF. REQUIRED FOR
 472 SF OF VENT = 315 SF OF VENT

Maximum ceiling pitch is 9:12 per plans

1 MAIN FLOOR
 F100 1/4" = 1'-0"

1 UPPER FLOOR
 F100 1/4" = 1'-0"

FILE COPY

Verify Heads meet requirements for sloped ceilings & obstructions?

**CITY OF MERCER ISLAND
 REVIEWED FOR
 CODE COMPLIANCE**
 Permit No. 108-191
 Date: 9/18/11
 Approved By: [Signature]

SALES REP:

RESIDENTIAL FIRE PROTECTION SYSTEM

TUBE TYPE: 1/2 - 3/4" - 1" AQUAPEX

SPRINKLER INFORMATION

OF HEADS THIS SHEET - 20
 # OF HEADS THIS JOB - 20
 STATIC PRESSURE IS - 75



CUI AND LIU RESIDENCE ADU
 8636 N. MERCER WAY
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1	PRELIM. & CONST.	8-24-11
2		
3		
4		

RECEIVED
 AUG 26 2011
 CITY OF MERCER ISLAND
 DEVELOPMENT SERVICES

PROJECT #: 10825-01

ALLIANCE ID#:

COMPANY: SOUNDVIEW PLUMBING

CONTACT: JOSH TREMMEL

CONTACT PHONE #: 425-760-4240

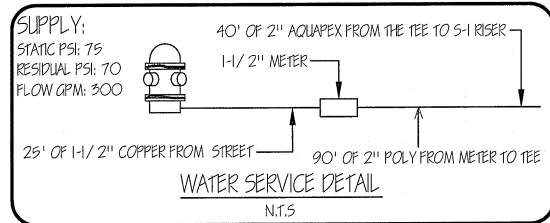
SCALE: 1/4" = 1'-0"

DESIGNED BY: STEPHANIE FAHEY

CHECKED BY: KAREN BABB

CERTIFICATION #: 109-04-2130

F100 1002.06



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- UPONOR WIRSBO "AQUAPEX" TUBING TO BE SUPPORTED PER NFPA 13D AND MANUFACTURER'S RECOMMENDATIONS.
- MINIMUM SPACING BETWEEN SPRINKLERS IS 8'-0". REFER TO SPACING CHARTS FOR MAXIMUM SPACING BETWEEN SPRINKLERS AND FROM WALLS.
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 - 8.6.1 SPRINKLERS SHALL BE INSTALLED IN ALL AREAS EXCEPT WHERE OMISSION IS PERMITTED BY 8.6.2 THROUGH 8.6.7.
 - 8.6.2 SPRINKLERS SHALL NOT BE REQUIRED IN BATHROOMS OF 55 FT² (5.1 M²) AND LESS.
 - 8.6.3 SPRINKLERS SHALL NOT BE REQUIRED IN CLOTHES CLOSETS, LINEN CLOSETS, AND PANTRIES THAT MEET ALL OF THE FOLLOWING CONDITIONS:
 - THE AREA OF THE SPACE DOES NOT EXCEED 24 FT² (2.2 M²).
 - THE LEAST DIMENSION DOES NOT EXCEED 3 FT (0.9 M).
 - THE WALLS AND CEILINGS ARE SURFACED WITH NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIALS AS DEFINED IN NFPA 220, STANDARD ON TYPES OF BUILDING CONSTRUCTION.
 - 8.6.4* SPRINKLERS SHALL NOT BE REQUIRED IN GARAGES, OPEN ATTACHED PORCHES, CARPORTS, AND SIMILAR STRUCTURES
 - A.8.6.4 ALTHOUGH NFPA 13D DOES NOT REQUIRE GARAGES TO BE SPRINKLERED, SOME AUTHORITIES HAVING JURISDICTION TAKE IT UPON THEMSELVES TO ADD THIS REQUIREMENT LOCALLY. IN SUCH CIRCUMSTANCES, RESIDENTIAL OR QUICK-RESPONSE SPRINKLERS WITH A TWO-SPRINKLER DESIGN IN THE GARAGE WITH THE SAME PIPING USED IN THE REST OF THE DWELLING MAY BE USED. IT IS RECOGNIZED THAT RESIDENTIAL SPRINKLERS HAVE NOT BEEN TESTED SPECIFICALLY FOR FIRES IN GARAGES, BUT FIELD EXPERIENCE HAS SHOWN THAT THE SPRINKLERS HELP TO ALERT OCCUPANTS TO THE FACT THAT THERE IS A FIRE, CAN REDUCE THE POSSIBILITY OF FLASHOVER, AND CAN IMPROVE THE CHANCES FOR OCCUPANTS TO ESCAPE.
 - 8.6.5 SPRINKLERS SHALL NOT BE REQUIRED IN ATTICS, PENTHOUSE EQUIPMENT ROOMS, ELEVATOR MACHINE ROOMS, CONCEALED SPACES DEDICATED EXCLUSIVELY TO AND CONTAINING ONLY DWELLING UNIT VENTILATION EQUIPMENT, FLOOR/CEILING SPACES, ELEVATOR SHAFTS CRAWL SPACES, AND OTHER CONCEALED SPACES THAT ARE NOT USED OR INTENDED FOR LIVING PURPOSES AND DO NOT CONTAIN FUEL-FIRED EQUIPMENT.
 - 8.6.6 SPRINKLERS SHALL NOT BE REQUIRED IN COVERED UNHEATED PROJECTIONS OF THE BUILDING AT ENTRANCES/EXITS AS LONG AS THERE IS ANOTHER MEANS OF EGRESS FROM THE DWELLING UNIT.
 - 8.6.7 SPRINKLERS SHALL NOT BE REQUIRED FOR CEILING POCKETS THAT MEET THE FOLLOWING CONDITIONS:
 - THE TOTAL VOLUME OF UNPROTECTED CEILING POCKET DOES NOT EXCEED 100 FT³ (2.83 M³).
 - THE ENTIRE FLOOR UNDER THE UNPROTECTED CEILING POCKET IS PROTECTED BY THE SPRINKLERS AT THE LOWER CEILING ELEVATION.
 - EACH UNPROTECTED CEILING POCKET IS SEPARATED FROM ANY ADJACENT UNPROTECTED CEILING POCKET BY A MINIMUM 10 FT (3.05 M) HORIZONTAL DISTANCE.
 - THE INTERIOR FINISH OF THE UNPROTECTED CEILING POCKET IS NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIAL.
 - SKYLIGHTS NOT EXCEEDING 32 FT² (2.97 M²) SHALL BE PERMITTED TO HAVE A PLASTIC COVER.

MOST HYDRAULICALLY REMOTE HEADS

HEAD #	OPM	PRESSURE REQ'D AT STREET
1 HEAD	H.20	27.99
2 HEAD	H15 & H14	33.71

SPRINKLER SYMBOL DEFINITION

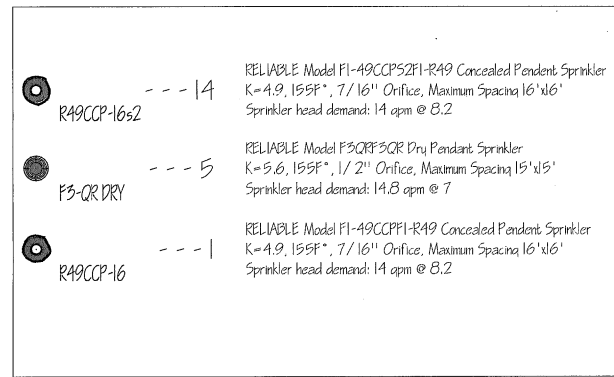
RFC43-XX(s) (s2)
 SLOPED CEILING MAX. SLOPE OF 8:12 (33.7°) PITCH (MAY NOT APPLY)
 SLOPED CEILING MAX. SLOPE OF 4:12 (18.4°) PITCH (MAY NOT APPLY)
 MAXIMUM SPACING (NF)
 SPRINKLER MODEL (NF)
 HEAD SYMBOL (NF)

Minimum Required Sprinkler Discharge Max. Slope of 4/12 (18.4°) Pitch

Model	Nominal Orifice Size (in)	Temp Rating (°F)	K-Factor	Sprinkler Spacing (ft)	Max. Distance To Wall (ft)	Single Sprinkler		Two or More Sprinklers	
						Flow (gpm)	Pressure (psi)	Flow Ea. (gpm)	Pressure Ea. (psi)
RFC43	1/2"	165	4.3	12 X 12	6	12	7.8	12	7.8
				14 x 14	7	13	9.1	13	9.1
				16 x 16	8	13	9.1	13	9.1
				18 x 18	9	18	17.5	18	17.5
				20 x 20	10	21	23.8	21	23.8

Minimum Required Sprinkler Discharge Max. Slope of 8/12 (33.7°) Pitch

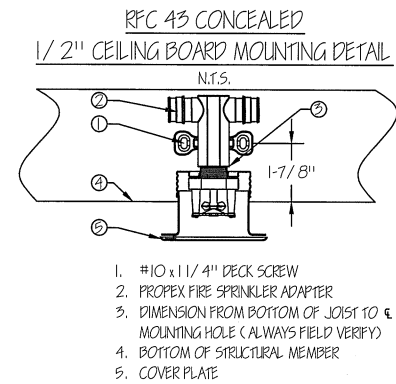
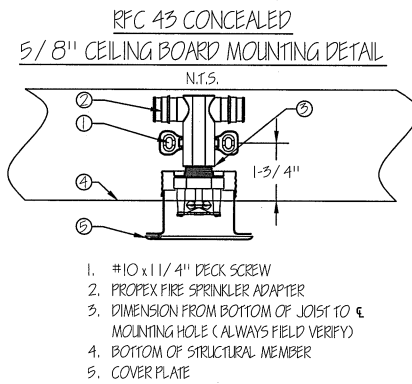
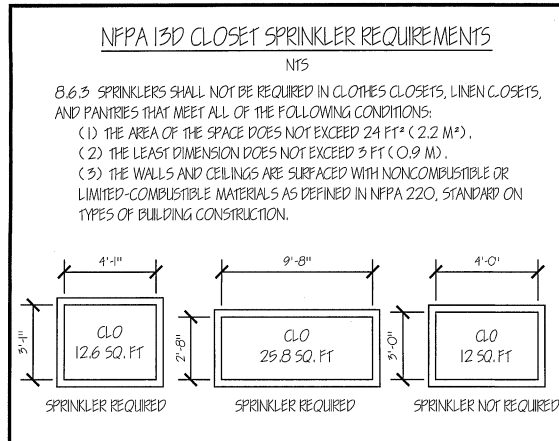
Model	Nominal Orifice Size (in)	Temp Rating (°F)	K-Factor	Sprinkler Spacing (ft)	Max. Distance To Wall (ft)	Single Sprinkler		Two or More Sprinklers	
						Flow (gpm)	Pressure (psi)	Flow Ea. (gpm)	Pressure Ea. (psi)
RFC43	1/2"	165	4.3	12 X 12	7	18	17.5	18	17.5
				14 x 14	8	18	17.5	18	17.5
				16 x 16	9	18	17.5	18	17.5



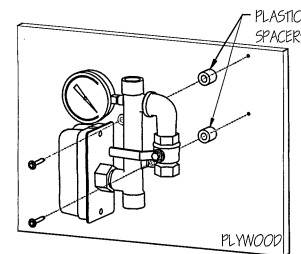
MARKUP LEGEND

DELETE LINE:	
ADD LINE:	
ADD TEE:	
ADD ELBOW:	
ADD COUPLING:	
ADD HEAD:	
DELETE HEAD:	
MOVE HEAD:	

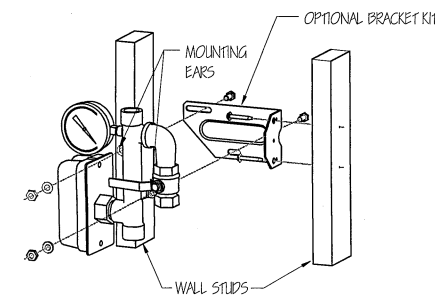
NOTE: ALL REVISIONS MUST BE REVIEWED BY UPONOR



AS REQUIRED BY AHJ



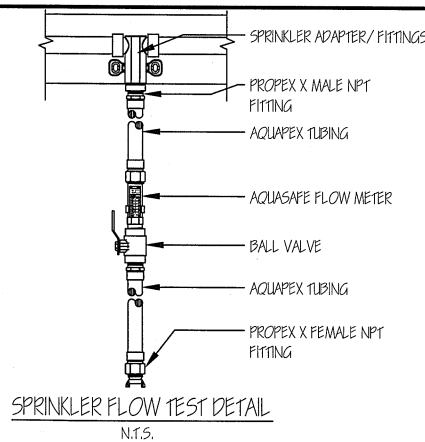
MULTI-PURPOSE FLOW SWITCH INSTALLATION
 N.T.S.



MULTI-PURPOSE FLOW SWITCH INSTALLATION
 N.T.S.

NFPA 13D TABLE 7.5.5.3 DISTANCES FROM HEAT SOURCES

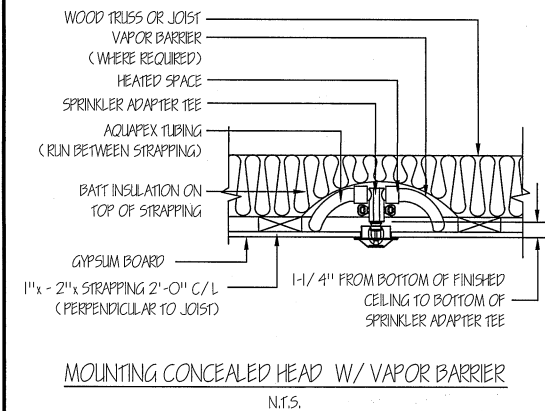
HEAT SOURCE	ORDINARY TEMP IN.	INTERMEDIATE TEMP IN.
SIDE OF FIREPLACE	36"	12"
FRONT OF FIREPLACE	60"	36"
WOOD BURNING STOVE	42"	12"
KITCHEN RANGE	18"	9"
WALL OVEN	18"	9"
HOT AIR FLUES	18"	9"
UNINSULATED HEAT DUCTS	18"	9"
UNINSULATED HOT WATER PIPES	12"	6"
SIDE OF HOT AIR DIFFUSER	24"	12"
FRONT OF HOT AIR DIFFUSER	36"	18"
HOT WATER HEATER	6"	3"
FURNACE	6"	3"
0W-250W LIGHT FIXTURE	6"	3"
250W-499W LIGHT FIXTURE	12"	6"



TEST ORIFICES

SPRINKLER MODEL	K-FACTOR	IDENTIFICATION
RELIABLE F-RES 16 SEMI-RECESSED	3.0	WHITE
RELIABLE F-RES 18 SEMI-RECESSED, F/ IRES CCP CONCEALED AND F/ IRES 3 HORIZONTAL SIDEWALL	3.9	BRONZE
RELIABLE F/ IRES 40 HORIZONTAL SIDEWALL	4.0	GRAY
RELIABLE F/ IRES 44 HORIZONTAL SIDEWALL	4.4	BLUE
RELIABLE F/ IRES 49 SEMI-RECESSED AND F/ IRES 49 CCP CONCEALED	4.9	BLACK
RELIABLE RFC 43 CONCEALED RESIDENTIAL SPRINKLER	4.3	RED OR BRONZE HEX

THE AQUASAFE™ INSTALLATION MANUAL CONTAINS DETAILED INSTRUCTIONS FOR CONDUCTING A PROPER FLOW-VERIFICATION TEST. PER NFPA 13D, UPONOR PROVIDES BOTH ONE- AND TWO- HEAD FLOW CALCULATIONS. HOWEVER, UPONOR ONLY REQUIRES A ONE-SPRINKLER FLOW-VERIFICATION TEST. A TWO-SPRINKLER FLOW TEST MAY BE PERFORMED IF REQUESTED BY THE AUTHORITY HAVING JURISDICTION (AHJ).



FIRE SPRINKLER

10731 47th Pl W
 Mukilteo, WA 98275
 PH: 425-493-9680
 FAX: 425-493-9717

SALES REP:

RESIDENTIAL FIRE PROTECTION SYSTEM	
TUBE TYPE: 1/2 - 3/4" - 1" AQUAPEX	
SPRINKLER INFORMATION	
# OF HEADS THIS SHEET -	0
# OF HEADS THIS JOB -	20
STATIC PRESSURE 15'-	75



CUI AND LUI RESIDENCE ADU

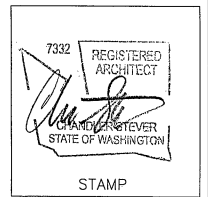
8636 N. MERCER WAY

MERCER ISLAND, WA 98040

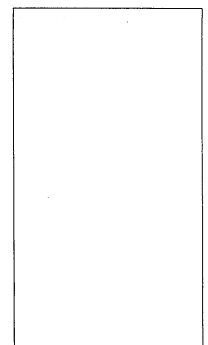
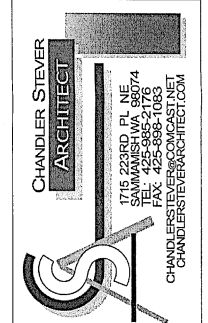
1	PRELIM. & CONST.	8-24-11
2		
3		
4		
NO.	REVISION/ ISSUE	DATE

PROJECT #:	110823-01
ALLIANCE ID #:	
COMPANY:	SOUNDVIEW PLUMBING
CONTACT:	JOSE TREMMEL
CONTACT PHONE #:	425-760-4240
SCALE:	1/4" = 1.0'
DESIGNED BY:	STEPHANIE FAHEY
CHECKED BY:	KAREN BABB
CERTIFICATION #:	109-04-2130

FOOL 1002.07



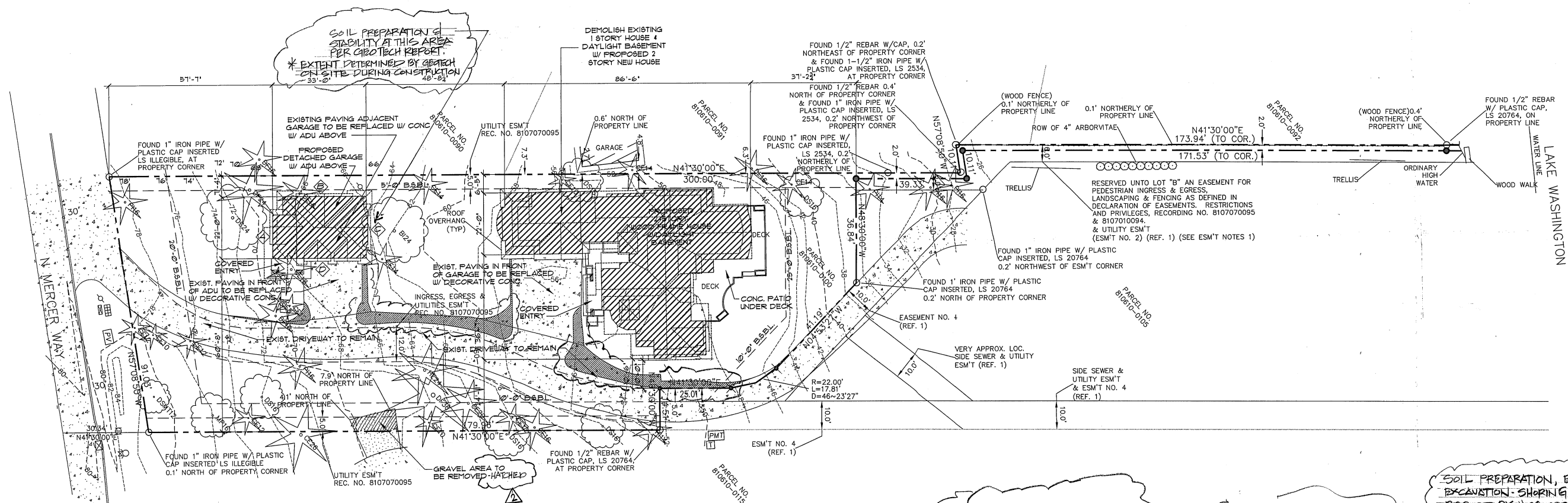
DATE	SUBMITTAL
08.20.10	PRELIMINARY
10.20.10	PERMIT SUBMITTAL
1-13-11	CITY REVISIONS
3-8-11	2ND CITY REVISIONS



KAN CUI & TAMMY LIU
RESIDENCE
8636 N. MERCER WAY
MERCER ISLAND, WA 98040

NEW CONSTRUCTION

11.11.2010
A1.01
SITE PLAN



SOIL PREPARATION & STABILITY AT THIS AREA PER GEOTECH REPORT. * EXTENT DETERMINED BY GEOTECH ON-SITE DURING CONSTRUCTION.

EXISTING GRADES TO REMAIN THE SAME.

ADU AVERAGE EXISTING GRADE

△	68'
□	67'
○	67'
◇	67'

AVG. EXIST. GRADE = 67.25'

EXISTING IMPERVIOUS SURFACE
EXIST. HOUSE W/ ROOF 3,081 SQ. FT.
CONC. PATIO/FORCH 601 SQ. FT.
EXIST. DRIVEWAY 4,636 SQ. FT.
TOTAL EXIST. 8,330 SQ. FT.
LOT AREA 21,840 SF.
PROP. PERCENTAGE 38%

DRIVEWAY AREA TO BE "REMOVED"

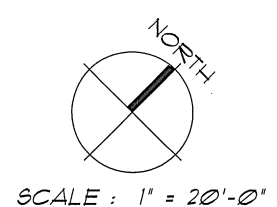
LOT COVERAGE

GARAGE	999 SQ. FT.
MAIN FLOOR	2,214 SQ. FT.
UPPER FLOOR	1,997 SQ. FT.
TOTAL PROP. BUILDING AREA	4,810 SQ. FT.
LOT AREA	21,840 SF.
PROP. PERCENTAGE	22%

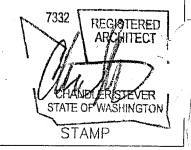
IMPERVIOUS

HOUSE + ROOF O.H.	3,350 SQ. FT.
ADU GARAGE + ROOF O.H.	992 SQ. FT.
SOLID DECK AREA (NOT UNDER ROOF)	362 SQ. FT.
FRONT ENTRY AREA (NOT UNDER ROOF)	72 SQ. FT.
DRIVEWAY AREA (OUTSIDE ESMT.)	2,188 SQ. FT.
EASEMENT AREA	2,388 SQ. FT.
DRIVEWAY AREA (BEING REMOVED)	- 620 SQ. FT.
TOTAL AREA	8732 SQ. FT.
PROP. PERCENTAGE	39.9%

SOIL PREPARATION, EROSION CONTROL, -TEMP. EXCAVATION: SHORING PER GEOTECHNICAL REPORT BY "GEOSPECTRUM ENGINEERS" REPORT DATED 10-7-10



1010-091
FINALED
6/13



LEGEND	
■	Denotes posting under concentrated loads. Provide posting the width of stud wall x beam width with either solid wood post or multiple 2x studs, typical, UNO.
⊙	Denotes 110 VOLT SMOKE DETECTOR WITH BATTERY BACK-UP AND INTERCONNECTED.
⊙	Denotes 50 CFM EXHAUST FAN VENTED TO OUTSIDE.

GENERAL NOTES

- PLANS SHOULD BE REVIEWED BY ALL SUBCONTRACTORS PRIOR TO STARTING CONSTRUCTION. IF DISCREPANCIES EXIST PLEASE CONTACT CHANDLER STEVER ARCHITECT. VERIFY ALL DIMENSIONS AND FIELD CONDITIONS.
- WRITTEN DIMENSIONS TAKE PRECEDENT OVER SCALED DIMENSIONS.
 - PLATE HEIGHT TO BE NOTED AND IS MEASURED FROM TOP OF SUB-FLOOR TO BOTTOM OF CEILING OR FLOOR JOIST ABOVE.
 - TYPICAL WINDOW HEADER HEIGHT TO BE T-0'.
 - SEE UPPER FLOOR FRAMING PLAN FOR WINDOW HEADER SIZE.
 - ALL EXTERIOR WALLS TO 2x6 HF STUD GRADE OR BETTER. PROVIDE R-21 BATT INSULATION MINIMUM UNO.
 - ALL FRAME NAILING TO COMPLY WITH TABLE R6-02.3(1), 2006 IRC. BLOCK ALL APA RATED SHEATHING EDGES AND NAIL WITH 10s x 6" OC TYP. UNO. ON SHEAR WALL SCHEDULE. NAILING INTO PRESSURE TREATED MATERIAL SHALL BE HOT DIP GALVANIZED PER ASTM A153.
 - JOISTS UNDER AND PARALLEL TO BEARING PARTITIONS ABOVE SHALL BE DOUBLED/UNO. PROVIDE 2x SOLID BLOCKING BELOW BEARING PARTITIONS WHEN PERPENDICULAR TO JOISTS UNO. INSTALL WOOD I-JOISTS PER MFG. RECOMMENDATIONS.
 - PROVIDE 2x SOLID BLOCKING AT JOIST OVER SUPPORTS. SEE MFG. SPECS. FOR WOOD I-JOIST.
 - PROVIDE FIRE BLOCKING AT ALL PLUMBING PENETRATIONS AND WALL/ROOF INTERSECTIONS.
 - SPACES UNDER STAIR CASES USED FOR STORAGE TO BE FINISHED WITH MIN. (1) LAYER 1/2" G.W.B.
 - THE GARAGE SHALL BE SEPERATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NO LESS THAN 1/2" G.W.B. APPLIED TO THE GARAGE SIDE. LIVING AREAS ABOVE THE GARAGE SHALL BE SEPERATED FROM THE GARAGE WITH NO LESS THAN 5/8" TYPE X G.W.B. ALL SUPPORTING STRUCTURE SHALL BE PROTECTED BY NO LESS THAN 1/2" G.W.B.
 - FINISH ALL CEILING WITH 5/8" TYP X G.W.B. WHERE JOISTS ARE SPACED GREATER THAN 16" O.C.
 - PROVIDE 26 GA GALVANIZED SHEET METAL FLASHING ABOVE WINDOWS AND DOORS, LAP BUILDING PAPER OVER.
 - INSTALL SIDING 8" ABOVE FINISHED GRADE.
 - ALL WINDOW SIZES ARE BASED ON GENERAL MFG. CONTRACTOR TO VERIFY ALL ROUGH OPENING SIZES PRIOR TO CONSTRUCTION WITH ACTUAL WINDOW MFG. SPECIFICATIONS.
 - ALL CONCEALED VOIDS TO BE FIRE AND DRAFT STOPPED PER SECTION R6-02.8, 2006 IRC.
 - ALL TUBS AND SHOWER STALLS:
 - A) FIRE BLOCK BETWEEN STUDS.
 - B) LIMIT SHOWER FLOW TO 25 GPM.
 - C) WALLS SHALL BE WATER PROOFED TO A MIN. OF 10" ABOVE DRAIN INLET.
 - D) ALL GLAZING, INCLUDING WINDOWS WITHIN 10' OF DRAIN INLET SHALL BE SAFETY GLAZING.
 - ENGINEERED LUMBER SPECIFIED SHALL MEET OR EXCEED THE DESIGN STRESS VALUES INDICATED ON SHEET I. INSTALL PER MFG. RECOMMENDATIONS. THESE DRAWINGS ONLY SHOW SIZE, SPAN AND SPACING.
 - DIRECT VENT FIREPLACE: GAS ONLY HEAT SOURCE UL LABEL. INSTALL PER MFG. SPECIFICATIONS.
 - PROVIDE EXTERIOR ILLUMINATION AT OUTSIDE DOORS SWITCHED FROM INSIDE.
 - SAUNA TO BE WOOD LINED
 - INSTALL HEATER PER MFG INSTALLATION INSTRUCTIONS 4 BE UL LISTED.
 - CORROSION AIR/VENT FROM OUTSIDE AIR FOR NEW DIRECT VENT HEATERS.
 - THERMIST LIMIT AT 184° FAHRENHEIT.
 - PROVIDE MIN. 4"x8" VENT AT TOP OF DOOR.

CHANDLER STEVER ARCHITECT
 515 WASHINGTON ST. SUITE 204
 SEASIDE, WA 98138
 TEL: 206-885-2176
 FAX: 206-885-2178
 WWW.CHANDLERSTEVERARCHITECT.COM

RECEIVED
 JUN 08 2011
 CITY OF MERCER ISLAND
 DEVELOPMENT SERVICES

KAN CUI & TAMMY LIU
 RESIDENCE
 8636 N. MERCER WAY
 MERCER ISLAND, WA 98040

REVISIONS #1

FILE COPY

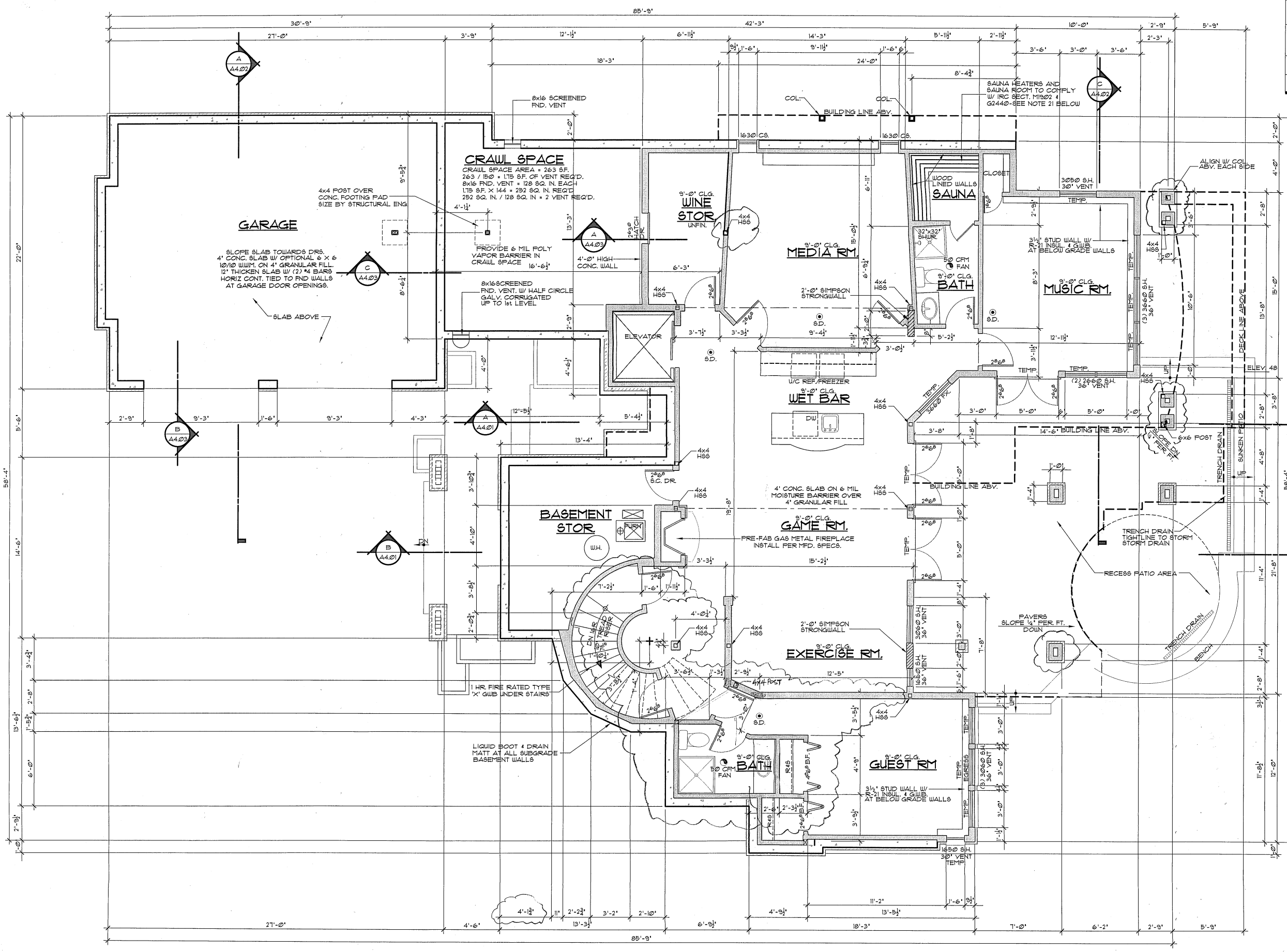
NOTE: ONLY REVISIONS NOTED ON THESE DRAWINGS AS HAVE BEEN REVIEWED FOR CODE COMPLIANCE - REFER TO APPROVED PERMIT SET FOR COMPLETE INFORMATION

CITY OF MERCER ISLAND
 REVIEWED FOR
 CODE COMPLIANCE
 Permit No. 1010-07
 Date: 7.13.11
 Approved By: [Signature]

05.24.2011

A2.00

1002.FLOOR



LOWER FLOOR PLAN

SCALE: 1/4" = 1'-0"

LOWER LIVING SPACE = 1525 SF.

45 SF OF STAIRS
 TOTAL SPACE = 1506 SF.



LEGEND	
■	DENOTES POSTING UNDER CONCENTRATED LOADS. PROVIDE POSTING THE WIDTH OF STUD WALL X BEAM WIDTH WITH EITHER SOLID WOOD POST OR MULTIPLE 2x STUDS, TYPICAL, UNO.
○	DENOTES 110 VOLT SMOKE DETECTOR WITH BATTERY BACK-UP AND INTERCONNECTED.
⊙	DENOTES 50 CFM EXHAUST FAN VENTED TO OUTSIDE.

DATE	SUBMITTAL
08.20.10	PRELIMINARY
10.20.10	PERMIT SUBMITTAL
01.13.11	CITY REVISIONS
03.08.11	2nd CITY REVISIONS
11.5.11	OWNER REVISIONS

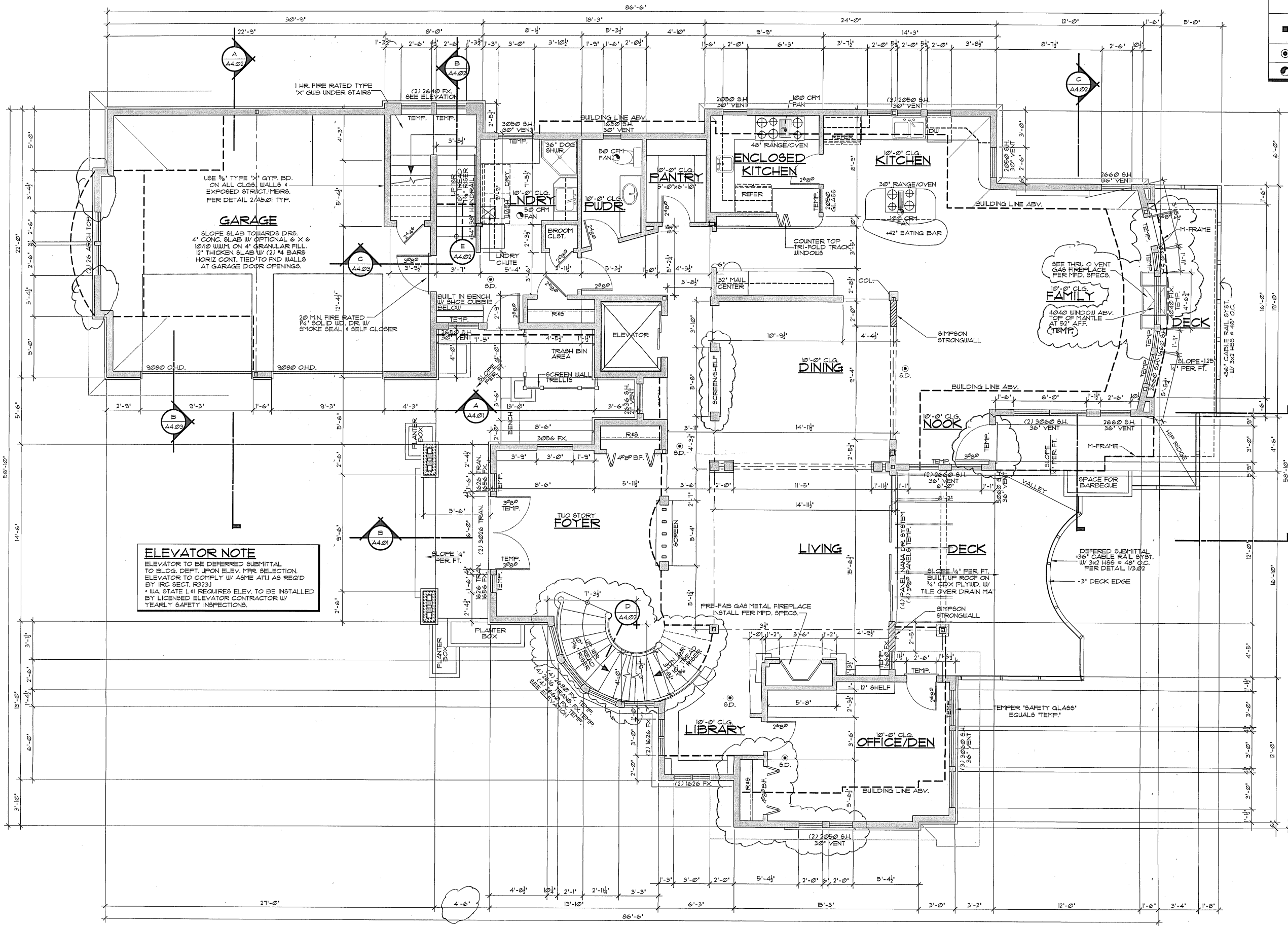
CHANDLER STEVER ARCHITECT
 1415 233RD PL NE
 SUITE 200
 BELLEVUE, WA 98004
 TEL: 425-988-2176/4
 FAX: 425-988-7083
 CHANDLERSTEVEARCHITECT.COM

- ### GENERAL NOTES
- PLANS SHOULD BE REVIEWED BY ALL SUBCONTRACTORS PRIOR TO STARTING CONSTRUCTION. IF DISCREPANCIES EXIST PLEASE CONTACT CHANDLER STEVER ARCHITECT. VERIFY ALL DIMENSIONS AND FIELD CONDITIONS.
 - WRITTEN DIMENSIONS TAKE PRECEDENT OVER SCALED DIMENSIONS.
 - PLATE HEIGHT TO BE NOTED AND IS MEASURED FROM TOP OF SUB-FLOOR TO BOTTOM OF CEILING OR FLOOR JOIST ABOVE.
 - TYPICAL WINDOW HEADER HEIGHT TO BE 1'-0".
 - SEE UPPER FLOOR FRAMING PLAN FOR WINDOW HEADER SIZE.
 - ALL EXTERIOR WALLS TO 2x6 FIN. STUD GRADE OR BETTER. PROVIDE R-21 BATT INSULATION MINIMUM UNO.
 - ALL FRAME NAILING TO COMPLY WITH TABLE R602.3(1), 2006 IRC. BLOCK ALL APA RATED SHEATHING EDGES AND NAIL WITH 10d @ 6" O.C. TYP. UNO. ON SHEAR WALL SCHEDULE. NAILING INTO PRESSURE TREATED MATERIAL SHALL BE HOT DIP GALVANIZED PER ASTM A53.
 - JOISTS UNDER AND PARALLEL TO BEARING PARTITIONS ABOVE SHALL BE DOUBLED UNO. PROVIDE 2x SOLID BLOCKING BELOW BEARING PARTITIONS UNO. PERPENDICULAR TO JOISTS UNO. INSTALL WOOD I-JOISTS PER MFG. RECOMMENDATIONS.
 - PROVIDE 2x SOLID BLOCKING AT JOIST OVER SUPPORTS. SEE MFG. SPECS. FOR WOOD I-JOIST.
 - PROVIDE FIRE BLOCKING AT ALL FLUING PENETRATIONS AND WALL/ROOF INTERSECTIONS.
 - SPACES UNDER STAIR CASES USED FOR STORAGE TO BE FINISHED WITH MIN. (1) LAYER 1/2" GWB.
 - THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NO LESS THAN 1/2" GWB. APPLIED TO THE GARAGE SIDE. LIVING AREAS ABOVE THE GARAGE SHALL BE SEPARATED FROM THE GARAGE WITH NO LESS THAN 5/8" TYPE X GWB. ALL SUPPORTING STRUCTURE SHALL BE PROTECTED BY NO LESS THAN 1/2" GWB.
 - FINISH ALL CEILINGS WITH 5/8" TYP X GWB WHERE JOISTS ARE SPACED GREATER THAN 16" O.C.
 - PROVIDE 26 GA GALVANIZED SHEET METAL FLASHING ABOVE WINDOWS AND DOORS, LAP BUILDING PAPER OVER.
 - INSTALL SIDING 8" ABOVE FINISHED GRADE.
 - ALL WINDOW SIZES ARE BASED ON GENERAL MFG. CONTRACTOR TO VERIFY ALL ROUGH OPENING SIZES PRIOR TO CONSTRUCTION WITH ACTUAL WINDOW MFG. SPECIFICATIONS.
 - ALL CONCEALED VOIDS TO BE FIRE AND DRAFT STOPPED PER SECTION R602.8, 2006 IRC.
 - ALL TUBS AND SHOWER STALLS:
 A) FIRE BLOCK BETWEEN STUDS.
 B) LIMIT SHOWER FLOW TO 2.5 GPM.
 C) WALLS SHALL BE WATER PROOFED TO A MIN. OF 10" ABOVE DRAIN INLET.
 D) ALL GLAZING INCLUDING WINDOWS WITHIN 10' OF DRAIN INLET SHALL BE SAFETY GLAZING.
 - ENGINEERED LUMBER SPECIFIED SHALL MEET OR EXCEED THE STRESS VALUES INDICATED ON SHEET. INSTALL PER MFG. RECOMMENDATIONS. THESE DRAWINGS ONLY SHOW SIZE, SPAN AND SPACING.
 - DIRECT VENT FIREPLACE, GAS ONLY HEAT SOURCE. LABEL. INSTALL PER MFG. SPECIFICATIONS.
 - PROVIDE EXTERIOR ILLUMINATION AT OUTSIDE DOORS SWITCHED FROM INSIDE.

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 DEVELOPMENT SERVICES

SQUARE FOOTAGE	
MAIN FLOOR	2,264 S.F.
UPPER FLOOR	2,110 S.F.
LOWER FLOOR	1,525 S.F.
TOTAL	5,899 S.F.
GARAGE	561 S.F.
COVERED PORCH	80 S.F.
DECK	442 S.F.

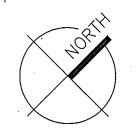
KAN CUI & TAMMY LIU
 RESIDENCE
 8636 N. MERCER WAY
 MERCER ISLAND, WA 98040



ELEVATOR NOTE
 ELEVATOR TO BE DEFERRED SUBMITTAL TO BLDG. DEPT. UPON ELEV. MFR. SELECTION. ELEVATOR TO COMPLY W/ ASME A17.1 AS REQ'D BY IRC SECT. R323.1
 *WA STATE L/HI REQUIRES ELEV. TO BE INSTALLED BY LICENSED ELEVATOR CONTRACTOR W/ YEARLY SAFETY INSPECTIONS.

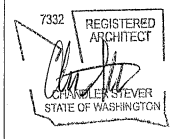
MAIN FLOOR PLAN
 SCALE: 1/4" = 1'-0"

MAIN LIVING SPACE = 2,264 S.F.
 66 S.F. OF STAIRS



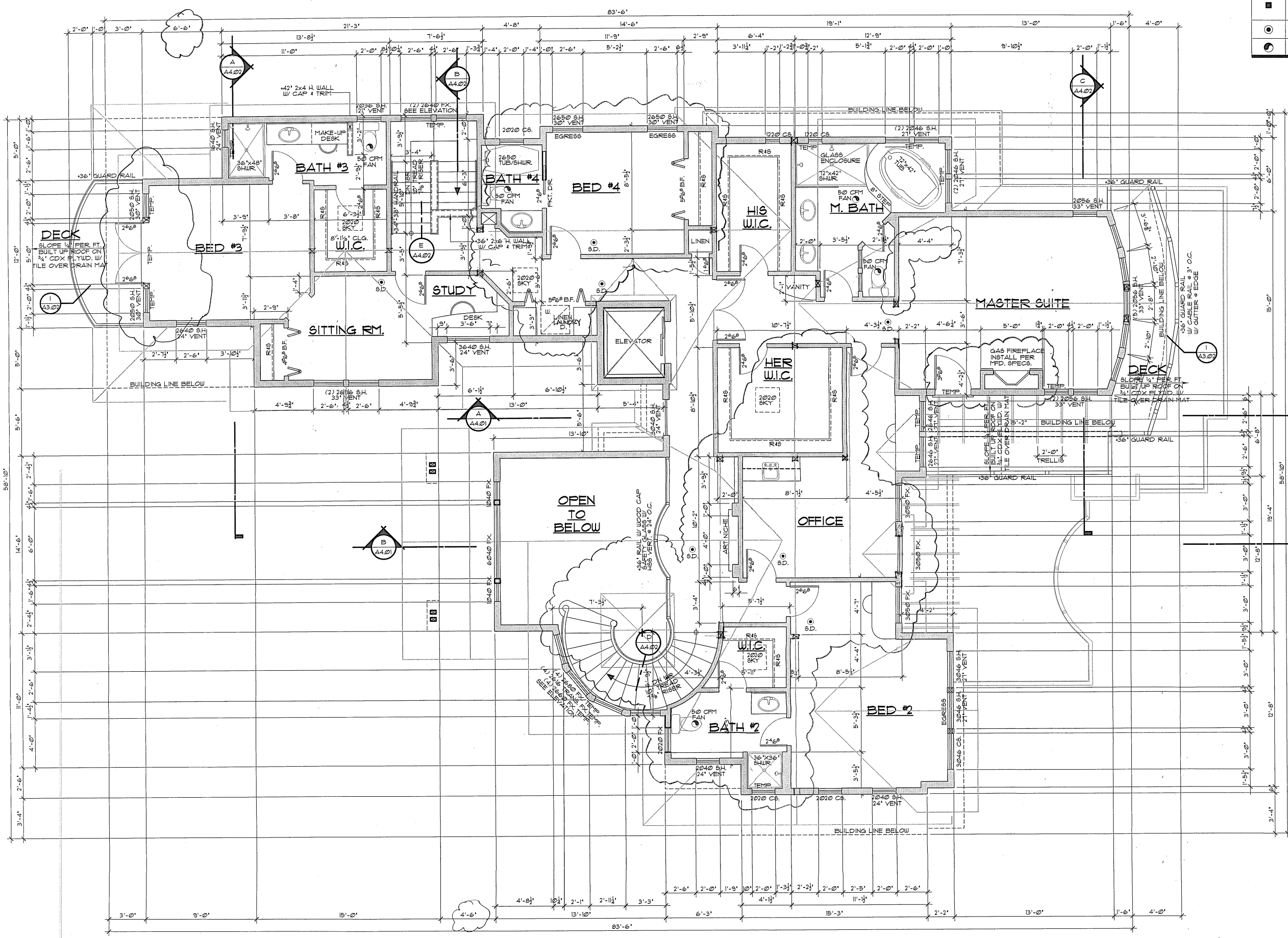
05.24.2011

A2.01
 MAIN FLOOR
 1002.10



STAMP

LEGEND	
■	DENOTES POSTING UNDER CONCENTRATED LOADS. PROVIDE POSTING THE WIDTH OF STUD WALL X BEAM WIDTH WITH EITHER SOLID WOOD POST OR MULTIPLE 2x STUDS, TYPICAL UNO.
⊙	DENOTES 110 VOLT SMOKE DETECTOR WITH BATTERY BACK-UP AND INTERCONNECTED.
⊙	DENOTES 50 CFM EXHAUST FAN VENTED TO OUTSIDE.



GENERAL NOTES

- PLANS SHOULD BE REVIEWED BY ALL SUBCONTRACTORS PRIOR TO STARTING CONSTRUCTION. IF DISCREPANCIES EXIST PLEASE CONTACT CHANDLER STEVER ARCHITECT. VERIFY ALL DIMENSIONS AND FIELD CONDITIONS.
- WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
- PLATE HEIGHT TO BE NOTED AND IS MEASURED FROM TOP OF SUB-FLOOR TO BOTTOM OF CEILING OR FLOOR JOIST ABOVE.
- TYPICAL WINDOW HEADER HEIGHT TO BE 1'-0".
- SEE UPPER FLOOR FRAMING PLAN FOR WINDOW HEADER SIZE.
- ALL EXTERIOR WALLS TO 2x6 HF. STUD GRADE OR BETTER. PROVIDE R-21 BATT INSULATION MINIMUM UNO.
- ALL FRAME NAILING TO COMPLY WITH TABLE R6-02.3(1), 2006 IRC. BLOCK ALL APA RATED SHEATHING EDGES AND NAIL WITH 10d # 6" O.C. TYP. UNO. ON SHEAR WALL SCHEDULE. NAILING INTO PRESSURE TREATED MATERIAL SHALL BE HOT DIP GALVANIZED PER ASTM A153.
- JOISTS UNDER AND PARALLEL TO BEARING PARTITIONS ABOVE SHALL BE DOUBLED UNO. PROVIDE 2x SOLID BLOCKING BELOW BEARING PARTITIONS UNO. PERPENDICULAR TO JOISTS UNO. INSTALL WOOD I-JOISTS PER MFG. RECOMMENDATIONS.
- PROVIDE 2x SOLID BLOCKING AT JOIST OVER SUPPORTS. SEE MFG. SPECS. FOR WOOD I-JOIST.
- PROVIDE FIRE BLOCKING AT ALL PLUMBING PENETRATIONS AND WALL/ROOF INTERSECTIONS.
- SPACES UNDER STAIR CASES USED FOR STORAGE TO BE FINISHED WITH MIN. 1/2" G.W.B.
- THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NO LESS THAN 1/2" G.W.B. APPLIED TO THE GARAGE SIDE. LIVING AREAS ABOVE THE GARAGE SHALL BE SEPARATED FROM THE GARAGE WITH NO LESS THAN 5/8" TYPE X G.W.B. ALL SUPPORTING STRUCTURE SHALL BE PROTECTED BY NO LESS THAN 1/2" G.W.B.
- FINISH ALL CEILINGS WITH 5/8" TYP X G.W.B. WHERE JOISTS ARE SPACED GREATER THAN 16" O.C.
- PROVIDE 26 GA GLAZINIZED SHEET METAL FLASHING ABOVE WINDOWS AND DOORS, LAP BUILDING PAPER OVER.
- INSTALL SIDING 8" ABOVE FINISHED GRADE.
- ALL WINDOW SIZES ARE BASED ON GENERAL MFG. CONTRACTOR TO VERIFY ALL ROUGH OPENING SIZES PRIOR TO CONSTRUCTION WITH ACTUAL WINDOW MFG. SPECIFICATIONS.
- ALL CONCEALED VOIDS TO BE FIRE AND DRAFT STOPPED PER SECTION R6-02.3, 2006 IRC.
- ALL TUBS AND SHOWER STALLS:
 - FIRE BLOCK BETWEEN STUDS.
 - LIMIT SHOWER FLOW TO 2.5 GPM.
 - WALLS SHALL BE WATER PROOFED TO A MIN. OF 10" ABOVE DRAIN INLET.
 - ALL GLAZING INCLUDING WINDOWS WITHIN 10" OF DRAIN INLET SHALL BE SAFETY GLAZING.
- ENGINEERED LUMBER SPECIFIED SHALL MEET OR EXCEED THE DESIGN STRESS VALUES INDICATED ON SHEET 1. INSTALL PER MFG. RECOMMENDATIONS. THESE DRAWINGS ONLY SHOW SIZE, SPAN AND SPACING.
- DIRECT VENT FIREPLACE, GAS ONLY HEAT SOURCE UL LABEL. INSTALL PER MFG. SPECIFICATIONS.
- PROVIDE EXTERIOR ILLUMINATION AT OUTSIDE DOORS SWITCHED FROM INSIDE.

DATE	SUBMITTAL
08.20.10	PRELIMINARY
10.20.10	PERMIT SUBMITTAL
01.13.11	CITY REVISIONS
03.08.11	2nd CITY REVISIONS
05.21.11	CURB REVISIONS

CHANDLER STEVER ARCHITECT

1100 23RD AV. NE
SAWAMUSH WA 98074
TEL: 425-885-2176
WWW.CHANDLERSTEVERARCHITECT.COM

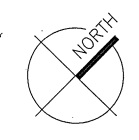


KAN CUI & TAMMY LIU
RESIDENCE

8636 N. MERCER WAY
MERCER ISLAND, WA 98040

UPPER FLOOR PLAN
SCALE: 1/4" = 1'-0"

UPPER FLOOR = 2,110 SF.



05.24.2011

A2.02
UPPER FLOOR
1002.11

ROOF AREA OVER GARAGE LOWER ROOF

ROOF VENT CALCULATION:
 TOTAL ATTIC AREA = 162 SF.
 162/150 = 1.08 SF. REQUIRED FOR ROOF VENTILATION
 108 SF. x 144 = 155.52 SQ. IN. OF VENT. REQ'D
 43.5 LF. OF EAVE VENT. PROVIDE (3) 2" VENT HOLES W/ GALV. BIRD MESH
 PER FOOT = 3.42" PF. OF VENT = 409.1 SQ. IN. OF VENT SPACE PROVIDED
 14 LF. OF CONT. HIP VENT. PROVIDE 2" VENT HOLES AT 6" O.C. + (8) VENT HOLES
 PER 24" BAY (4) EACH SIDE OF RIDGE = 12.56 SQ. IN. L.F. = 111.6 SQ. IN. PROVIDED.
 312.12 SQ. IN. OF VENT PROVIDED TOTAL.

ROOF AREA OVER UPPER FLOOR UPPER ROOF

ROOF VENT CALCULATION:
 TOTAL ATTIC AREA = 2,423 SF.
 2,423/150 = 16.15 SF. REQUIRED FOR ROOF VENTILATION
 16.15 SF. x 144 = 2,325.6 SQ. IN. OF VENT. REQ'D
 184 LF. OF EAVE VENT. PROVIDE (3) 2" VENT HOLES W/ GALV. BIRD MESH
 PER FOOT = 3.42" PF. OF VENT = 1,450 SQ. IN. OF VENT SPACE PROVIDED
 188 LF. OF CONT. RIDGE VENT. PROVIDE 2" VENT HOLES AT 6" O.C. + (8) VENT HOLES
 PER 24" BAY (4) EACH SIDE OF RIDGE = 12.56 SQ. IN. L.F. = 2,304 SQ. IN. PROVIDED.
 3,784 SQ. IN. OF VENT PROVIDED TOTAL.

ROOF AREA OVER KITCHEN + FAMILY LOWER ROOF

ROOF VENT CALCULATION:
 TOTAL ATTIC AREA = 82 SF.
 82/150 = .55 SF. REQUIRED FOR ROOF VENTILATION
 55 SF. x 144 = 80 SQ. IN. OF VENT. REQ'D
 39.5 LF. OF EAVE VENT. PROVIDE (3) 2" VENT HOLES W/ GALV. BIRD MESH
 PER FOOT = 3.42" PF. OF VENT = 312 SQ. IN. OF VENT SPACE PROVIDED
 9 LF. OF CONT. HIP VENT. PROVIDE 2" VENT HOLES AT 6" O.C. + (8) VENT HOLES
 PER 24" BAY (4) EACH SIDE OF RIDGE = 12.56 SQ. IN. L.F. = 110 SQ. IN. PROVIDED.
 482 SQ. IN. OF VENT PROVIDED TOTAL.

GENERAL NOTES

- PLANS SHOULD BE REVIEWED BY ALL SUBCONTRACTORS PRIOR TO STARTING CONSTRUCTION. IF DISCREPANCIES EXIST PLEASE CONTACT J.L.K. CUSTOM DESIGNS, LLC OR OWNER. VERIFY ALL DIMENSIONS AND FIELD CONDITIONS.
- SHADED AREAS DENOTE OVER FRAMING ABOVE ROOF FRAMING BELOW.
- ALL HEADERS TO BE 4x10 DFP TYPICAL UNO.
- ROOF VENT CALCULATION:
 TOTAL ATTIC AREA = 2148 SF.
 2148/150 = 14.32 SF. REQUIRED FOR ROOF VENTILATION
 14.32 SF. x 144 = 2063 SQ. IN. OF VENT. REQ'D
 162 LF. OF EAVE VENT. PROVIDE (3) 2" VENT HOLES W/ GALV. BIRD MESH
 PER FOOT = 3.42" PF. OF VENT = 826 OF VENT SPACE PROVIDED
 202 LF. OF CONT. RIDGE VENT. PROVIDE 2" VENT HOLES AT 6" O.C. + (4) VENT HOLES
 PER 24" BAY = 6.28 SQ. IN. PF. = 169.9 SQ. IN. PROVIDED.
 2,199 SQ. IN. OF VENT PROVIDED TOTAL.
- ROOF PITCH TO BE AS NOTED.
- ROOF OVERHANG TO BE 24" UNO.
- PROVIDE VENT BLOCKING AT EAVES.
- WOOD BURNING FIRE PLACE CHIMNEYS TO BE 2'-0" MINIMUM ABOVE ANY PORTION OF ROOF WITHIN 10'-0" AND 3'-0" MIN ABOVE THE HIGHEST POINT WHERE THE CHIMNEY PASSES THROUGH THE ROOF.
- TRUSSES SHALL CARRY MFG. STAMP AND SHALL BE INSTALLED AND BRACED PER MFG. SPECIFICATIONS. DO NOT ALTER WITHOUT PRIOR BUILDING DEPARTMENT APPROVAL OF ENGINEERING CALCULATIONS. DESIGN DETAILS AND DRAWINGS SHALL BE ON SITE FOR INSPECTOR.
- CONTRACTOR TO VERIFY LOCATION OF ALL ROOF SUPPORT BRACING AND POSTING AND PROVIDE ADEQUATE BEARING TO FOUNDATION.
- ENGINEERED LUMBER SPECIFIED SHALL MEET OR EXCEED THE DESIGN STRESS VALUES INDICATED ON SHEET L. INSTALL PER MFG. RECOMMENDATIONS. THESE DRAWINGS ONLY SHOW SIZE, SPAN AND SPACING.
- BUILT UP 2x HIPS, VALLEYS AND RIDGES NAIL TOGETHER W/ 16d #16" O.C. TOP AND BOTTOM STAGGERED AND (2) 16d AT ENDS AND SPLICES.
- BRACING OR POSTING: (2) 2x6 UP TO 9'-0", (3) 2x6 UP TO 15'-0". PROVIDE (2) SIMPSON A35 FRAMING ANCHORS AT BOTTOM AND (1) C816x12" STRAP AT TOP.
- ALL ROOF COVERINGS SHALL COMPLY WITH THE PROVISIONS IN CHAPTER 9, 2006 IRC.

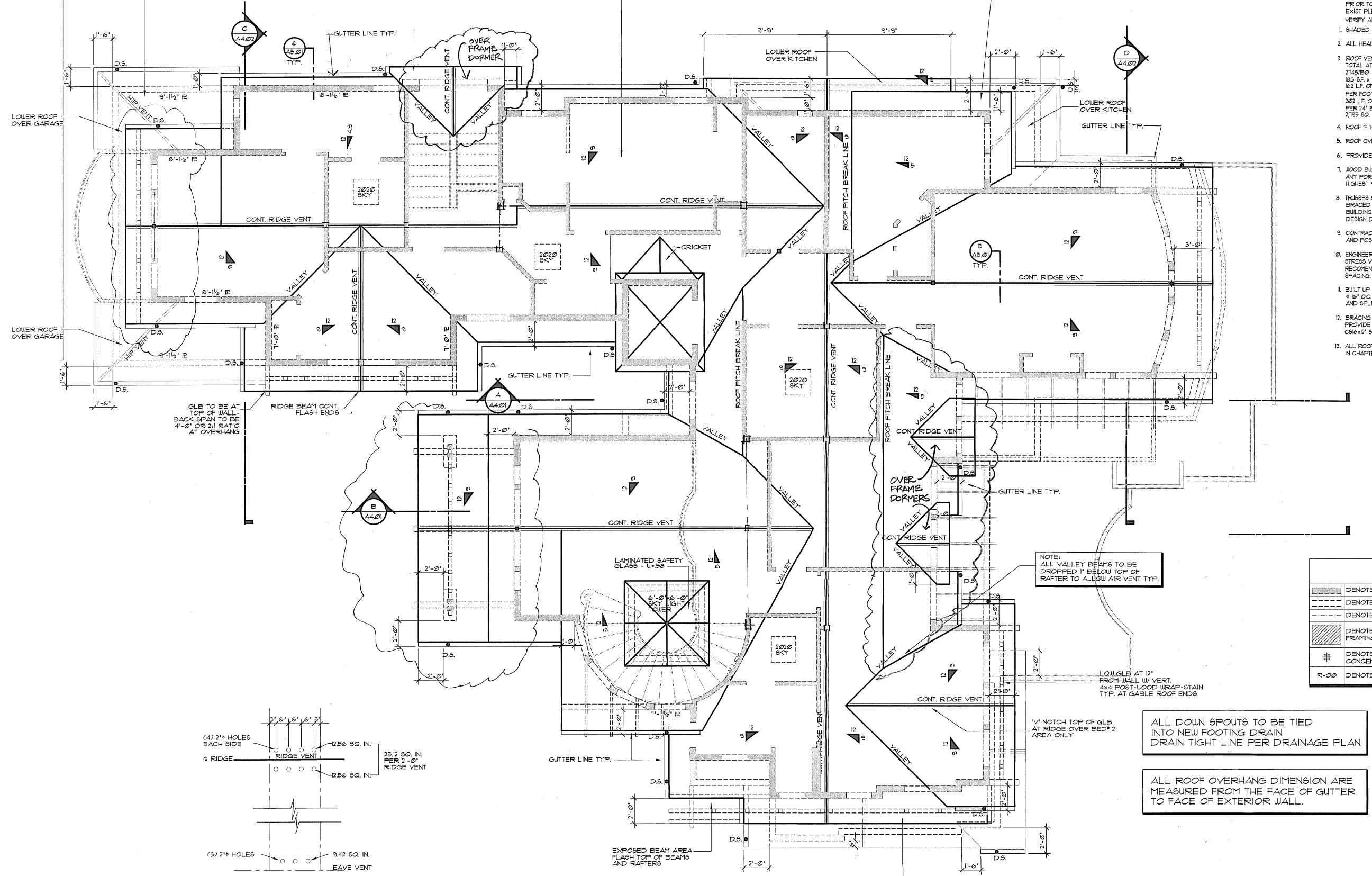
DATE	SUBMITTAL
08.20.10	PRELIMINARY
10.20.10	PERMIT SUBMITTAL
01.13.11	CITY REVISIONS
03.08.11	2ND CITY REVISIONS
15.31.11	CLAUZE REVISIONS

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 WWW.CHANDLERSTEVERARCHITECT.COM

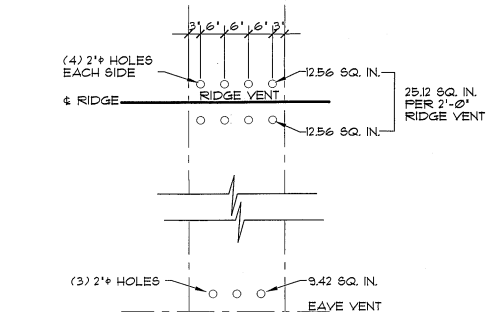
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 JUN 08 2011
 CITY OF MERCER ISLAND
 DEVELOPMENT SERVICES

KAN CUI & TAMMY LIU
 RESIDENCE
 8636 N. MERCER WAY
 MERCER ISLAND, WA 98040

05.24.2011
A2.03
 ROOF PLAN
 1002.12



GLS TO BE AT TOP OF WALL. BACK SPAN TO BE 4'-0" OR 3:1 RATIO AT OVERHANG



NOTE: ALL VALLEY BEAMS TO BE DROPPED 1" BELOW TOP OF RAFTER TO ALLOW AIR VENT TYP.

LOW GLS AT 12" FROM WALL W/ VERT. 4x4 POST-WOOD WRAP-STAIN TYP. AT GABLE ROOF ENDS

ALL DOWN SPOUTS TO BE TIED INTO NEW FOOTING DRAIN DRAIN TIGHT LINE PER DRAINAGE PLAN

ALL ROOF OVERHANG DIMENSION ARE MEASURED FROM THE FACE OF GUTTER TO FACE OF EXTERIOR WALL.

ROOF AREA OVER OFFICE/PLDR. + LIBRARY LOWER ROOF

ROOF VENT CALCULATION:
 TOTAL ATTIC AREA = 80 SF.
 80/150 = .53 SF. REQUIRED FOR ROOF VENTILATION
 53 SF. x 144 = 71 SQ. IN. OF VENT. REQ'D
 11 LF. OF EAVE VENT. PROVIDE (3) 2" VENT HOLES W/ GALV. BIRD MESH
 PER FOOT = 3.42" PF. OF VENT = 129.6 SQ. IN. OF VENT SPACE PROVIDED
 4 LF. OF CONT. HIP VENT. PROVIDE 2" VENT HOLES AT 6" O.C. + (8) VENT HOLES
 PER 24" BAY (4) EACH SIDE OF RIDGE = 12.56 SQ. IN. L.F. = 49.9 SQ. IN. PROVIDED.
 126 SQ. IN. OF VENT PROVIDED TOTAL.

ROOF PLAN
 SCALE: 1/4" = 1'-0"