

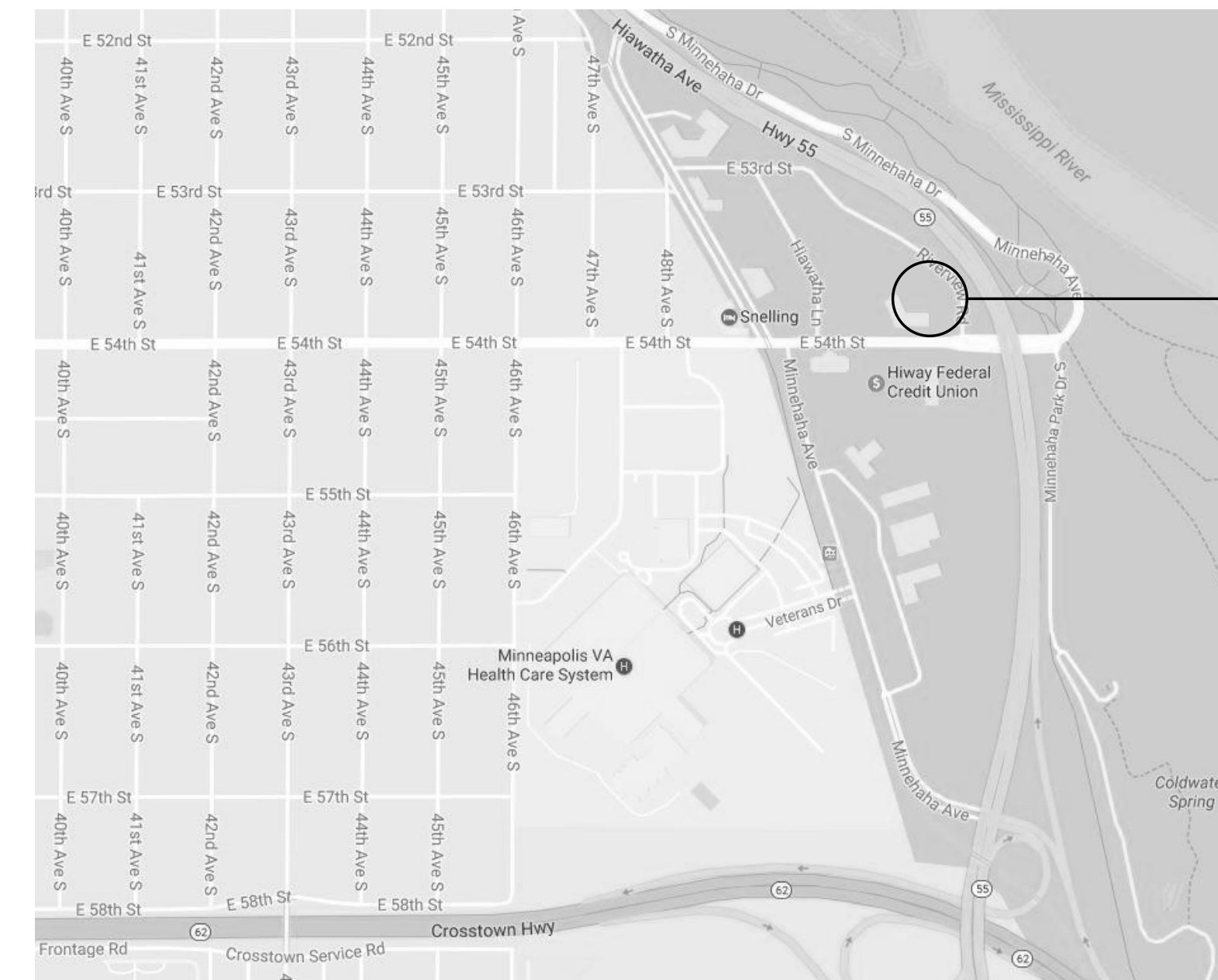
100% CD ISSUE
JUNE 21, 2017

MINNEHAHA TOWNHOMES

5348, 5364, 5369 RIVERVIEW ROAD, 5118 54TH ST EAST
MINNEAPOLIS, MN 55417

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E500	ELECTRICAL SCHEDULES



PROJECT SITE

PROJECT ADDRESSES:
5348 RIVERVIEW ROAD
5364 RIVERVIEW ROAD
5369 RIVERVIEW ROAD
5118 54TH STREET EAST

PARCEL ID NUMBERS:
17-028-23-34-0058
17-028-23-34-0028
17-028-23-34-0056
17-028-23-34-0034

MSR 710 South 2nd Street, 8th Floor
Minneapolis, Minnesota 55401-2282

Architecture 612.375.0336 tel
Interiors and 612.342.2216 fax
Urban Design www.msrdesign.com





BLDG A

SEE SHEET A101

BLDG B

SEE SHEET A101

THIS UNIT TO HAVE ADA
 ACCOMMODATIONS FOR DEAF
 TENANTS - VISUAL DOORBELL,
 SMOKE ALARM, CARBON
 MONOXIDE ALARM, ETC

BLDG C

SEE SHEET A101

BLDG D

SEE SHEET A100

ADA UNIT

**MINNEHAHA
 TOWNHOMES**
 5348, 5364 5369 RIVERVIEW
 5118 54TH ST EAST
 MINNEAPOLIS, MN 55417

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 by me or under my direct supervision and that I am a duly
 Licensed Architect under the Laws of the State of Minnesota.
 ARCHITECT SEAL

Signature: _____
 Print Names: _____
 Date: _____ License No: _____

ISSUE	DATE	DESCRIPTION
K	04.21.17	100% DD
	04.28.17	LAND USE APPLICATION
	05.08.17	50% CD
	05.26.17	GC 50% REVIEW SET
	06.21.17	100% CD ISSUE

PROJECT NO.	2016.015
PROJECT PHASE	100%CD
DRAWN BY:	CHECKED BY:
Author	Checker

**SITE ORIENTATION
 PLAN**

G000

DRAFTING SYMBOLS

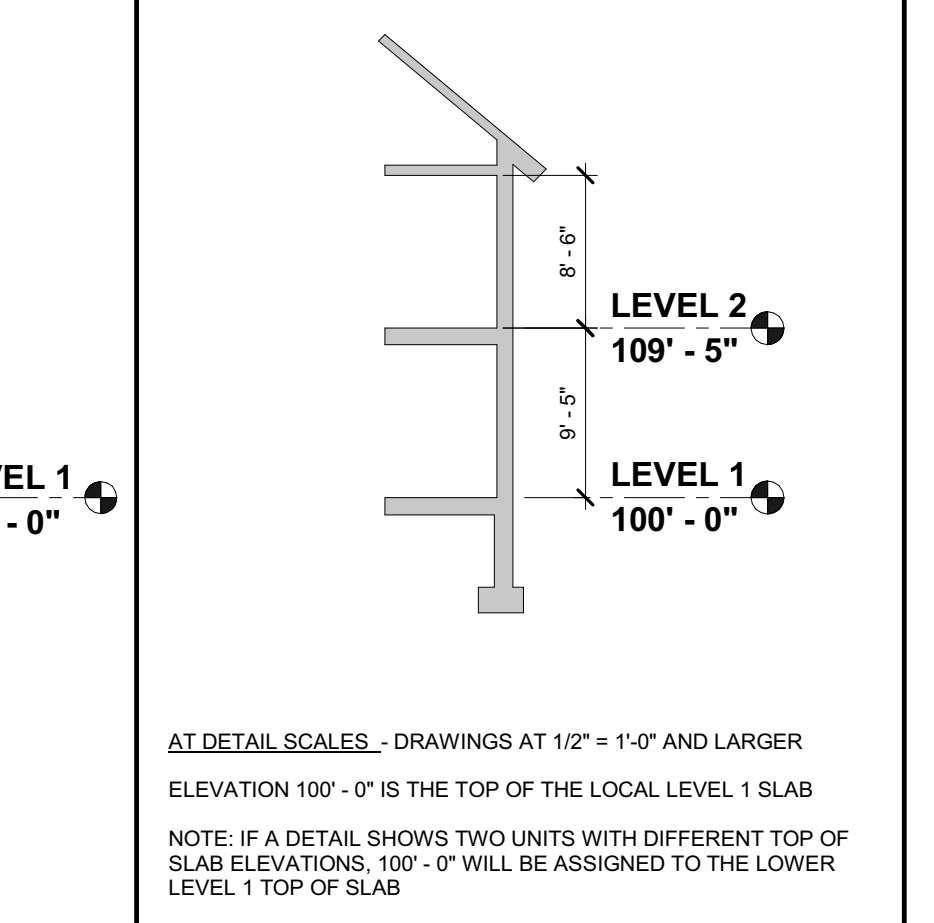
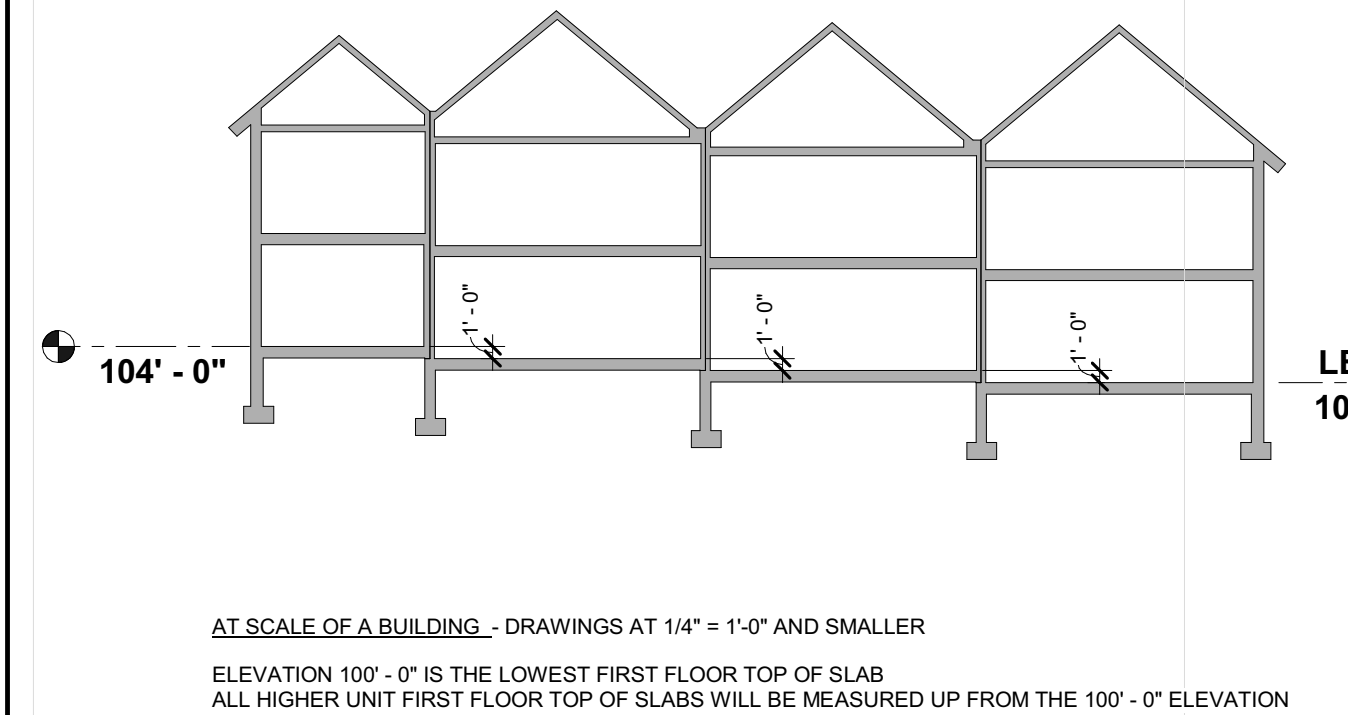
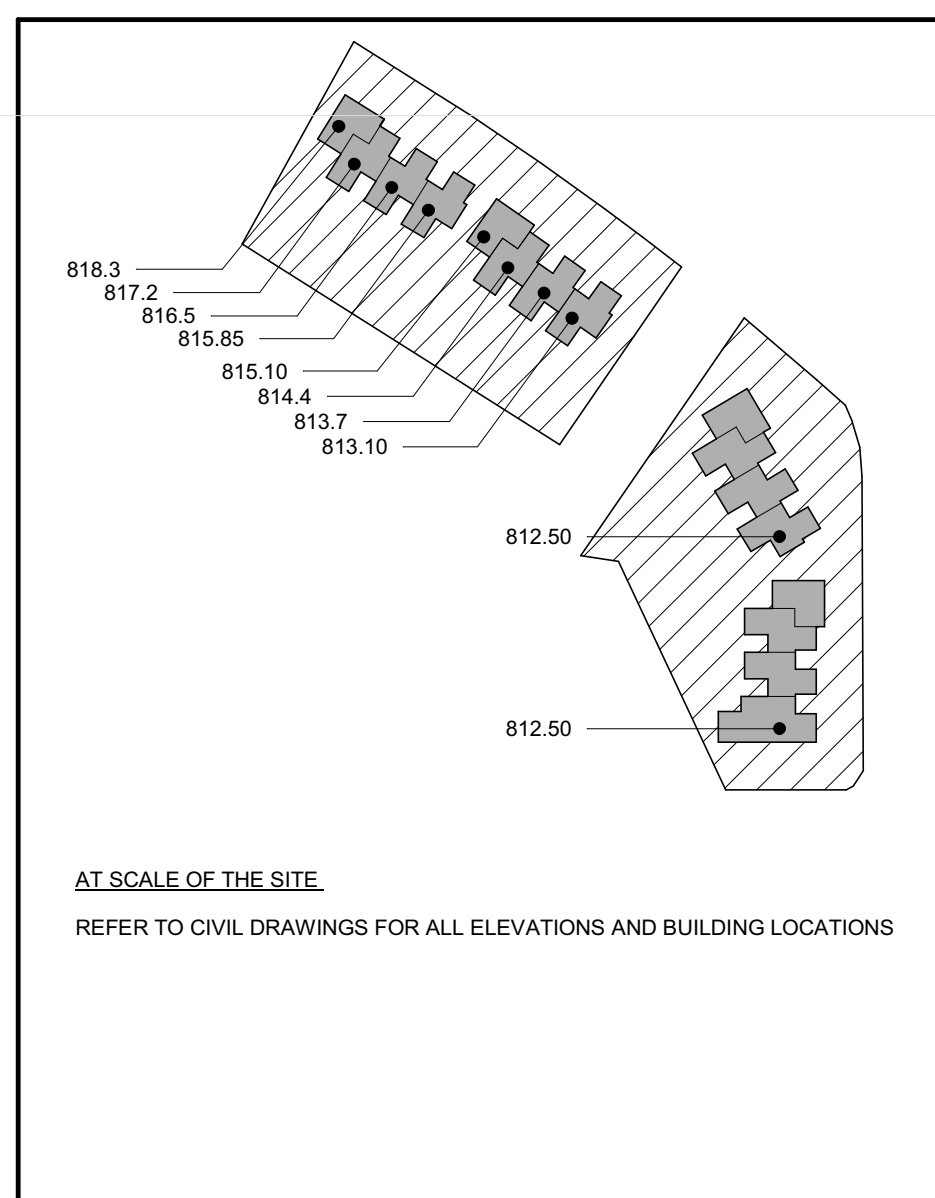
Drafting symbols including Elevation Reference, Section Reference, Detail Reference, Wall Type, Partition Type, Door Type, Window Type, Revision, Keynote, Grid Line, Level Marker, Room Name, Room Number, North Symbol, Drawing Number, Drawing Title, View Name, Scale, and Sheet Number.

ABBREVIATIONS

Comprehensive list of abbreviations for architectural and construction elements, organized by letter (A-Z).

Site plan showing North Site Block 1, Lot 1 (.55 Acre) and South Site Block 2 (Lots 10, 11, 12, 13, 14, 16) (.54 Acre). Includes gross square footages and zoning information (R4 and R3).

2012 IBC - BUILDING CODE ANALYSIS table with columns for code section, description, and compliance status.



Project information including MSR logo, address (710 South 2nd Street, 8th Floor, Minneapolis, MN 55401-2282), contact details, developer (Minneapolis Public Housing Authority), project name (Minnehaha Townhomes), address (5348, 5364, 5369 Riverview Road, 5118 54th St East, Minneapolis, MN 55417), zoning (R4/R3), and a vertical signature line.

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Architect under the Laws of the State of Minnesota. ARCHITECT SEAL

Signature: _____ Date: _____ License No: _____

Issue log table with columns for Mark, Date, and Description.

Project information table including Project No (2016015), Project Phase (100% CD Issue), Drawn by (P. Lynch), and Checked by (Checker).

SHEET INDEX AND SYMBOLS section with a large 'G001' identifier.

A SERIES

ONE LAYER GYPSUM BOARD BOTH SIDES
2xX WOOD STUD

PARTITION TYPE	STUD SIZE	PARTITION WIDTH	UL DESIGN NUMBER	FIRE RATING	STC RATING	NOTES
A4	3 1/2"	4 1/2"		-	-	1, 2
A5	3 1/2"	4 3/4"	UL U305	1 HOUR	3	
A6	5 1/2"	6 1/2"		-	-	1, 2

NOTES
 1. STC VARIES WITH INSULATION USED
 2. USE CEMENTITIOUS BACKER BOARD IN LIEU OF GYP IN TILE LOCATIONS
 3. USE 5/8" TYPE X GYP FOR FIRE RATED PARTITIONS

C SERIES

ACOUSTIC SOUND BATT INSULATION
ONE LAYER 5/8" GYP-2
2xX WOOD STUD

PARTITION TYPE	STUD SIZE	PARTITION WIDTH	UL DESIGN NUMBER	FIRE RATING	STC RATING	NOTES
C4	3 1/2"	9 1/4"		1HR	52	1
C6	5 1/2"	13 1/4"		1 HR	57	1

NOTES
 1. STC VARIES WITH INSULATION USED

SERIES

ONE LAYER GYPSUM BOARD
2xX WOOD STUD

PARTITION TYPE	STUD SIZE	PARTITION WIDTH	UL DESIGN NUMBER	FIRE RATING	STC RATING	NOTES
F3	2 1/2"	3				1
F3A	2 1/2"	3.75"		1 HR		2
F4	3 1/2"	4				1

NOTES
 1. USE CEMENTITIOUS BACKER BOARD IN LIEU OF GYP IN TILE LOCATIONS
 2. 2 LAYERS OF 5/8" TYPE X GYP BOARD

GENERAL NOTES

- SOME PARTITIONS DESCRIBED HERE MAY NOT BE USED ON THIS PROJECTS. SEE PLANS FOR SPECIFIC PARTITION TYPES USED.
- INTERIOR PARTITIONS TYPES TO BE INDICATED BY \diamond ON FLOOR PLANS.
 - GAUGE, SPACING, AND PERFORMANCE REQUIREMENTS OF METAL STUDS TO BE DETERMINED BY SPECIFICATIONS UNLESS OTHERWISE NEEDED.
 - TYPE "X" GYPSUM BOARD REQUIRED AT RATED PARTITIONS ONLY.
 - FIRE RATED OR ACOUSTICALLY RATED PARTITIONS TO EXTEND TO ROOF OR FLOOR DECK ABOVE UNLESS NOTED OTHERWISE. PROVIDE REQUIRED CLOSURE TO MAINTAIN FIRE OR ACOUSTICAL RATING. PROVIDE APPROPRIATE DEFLECTION JOINT AT TOP OF PARTITION TO ELIMINATE CRUSHING OF PARTITION.
 - AT NON-RATED PARTITIONS IN ROOMS WITH FINISHED CEILING, GYPSUM BOARD TO GO 6" ABOVE CEILING UNLESS NOTED OTHERWISE. AT NON-RATED PARTITIONS IN ROOMS WITHOUT FINISH CEILINGS, GYPSUM BOARD TO GO TO DECK UNLESS NOTED OTHERWISE.
 - PENETRATIONS IN FIRE RATED OR ACOUSTICAL RATED PARTITIONS AND CONNECTIONS TO THESE PARTITIONS BY OTHER PARTITIONS SHALL BE PER PARTITION MANUFACTURER'S WRITTEN RECOMMENDATIONS OR U.L. REQUIREMENTS FOR FIRE TEST AND ACOUSTICAL TEST RATINGS.
 - REFER TO SPEC FOR BACKER AT PARTITIONS SCHEDULED TO RECEIVE CERAMIC TILE. PROVIDE TILE BACKER BOARD TO PARTITIONS IN SHOWERS, HIGH MOISTURE AREAS OR SIMILAR AREAS AND WHERE NOTED. INSTALLATION OF MOISTURE RESISTANT GYPSUM BOARD OR TILE BACKER BOARD SHALL NOT REDUCE FIRE OR ACOUSTICAL RATINGS FOR ANY PARTITION.
 - ACOUSTICALLY RATED PARTITIONS SHALL HAVE CONTINUOUS SOUND BATT INSULATION AND ACOUSTICAL CAULKING UNLESS OTHERWISE NOTED. STAGGER JUNCTION BOXES A MINIMUM OF 2'-0" BETWEEN PENETRATIONS AT ACOUSTICALLY RATED OR FIRE RATED PARTITIONS.
 - THERMALLY SEPARATED PARTITIONS SHALL HAVE VAPOR BARRIER AND THERMAL INSULATION AS SPECIFIED UNLESS OTHERWISE NOTED.
 - VERIFY WITH STRUCTURAL ALL NON-BEARING MASONRY PARTITIONS THAT ARE NOT ADEQUATELY BRACED BY FIXED ELEMENTS PRIOR TO ERECTION.
 - PROVIDE A MINIMUM OF 1'-0" OF SOLID MASONRY BETWEEN PENETRATIONS IN MASONRY PARTITIONS UNLESS OTHERWISE NOTED.
 - REFER TO STRUCTURAL DRAWINGS FOR INTERIOR STRUCTURAL PARTITIONS
 - PROVIDE BLOCKING AND BACKER SUPPORT FOR ALL EQUIPMENT ATTACHMENT AND MOUNTING. COORDINATE LOCATION OF BLOCKING AND BACKER MATERIAL WITH OWNER AND CONTRACTOR SUPPLIED EQUIPMENT PRIOR TO CONSTRUCTION OF PARTITION. SEE FURNITURE PLAN FOR FURNITURE LOCATIONS THAT REQUIRE BLOCKING.
 - STC RATINGS INDICATED MINIMUM WALL REQUIREMENTS WITH SOUND BATT INSULATION. REFER TO GYPSUM ASSOCIATION BULLETIN #500 AND THE UL MANUAL FOR DETAILED CONSTRUCTION TECHNIQUES TO ACHIEVE STC RATINGS.

WALL TYPES - PARTITION

1 1/2" = 1'-0"

1

(E1) STANDARD 1 LAYER 1/2" GYP
(E1A) 1 HOUR RATING 2 LAYERS 5/8" TYPE X SEE CODE PLAN

ENDURAMAX BRICK UNIT
ENDURAMAX MORTAR
BRICK UNIT ANCHOR
2 STUD LOCATIONS SPACED 1 PER 2.1 SQ. FT.
ENDURAMAX 2" POLYSTYRENE PANEL
AIRB-1
SHTG-1
5 1/2" INSUL-2
2x6 WD STUD
VAPOR-1
GYP-1

R: 28

2

(E2) STANDARD 1 LAYER 1/2" GYP
(E2A) 1 HOUR RATING 2 LAYERS 5/8" TYPE X SEE CODE PLAN

SIDE-1
3/4" VERT WD FURRING @ 16" OC
INSUL-3
AIRB-1
SHTG-1
5 1/2" INSUL-2
2x6 WD STUD
VAPOR-1

R: 27.5

WALL TYPES - EXTERIOR

1 1/2" = 1'-0"

SLAB ON GRADE

LVT-1
1/2" PLY - SECURLY ATTACHED TO CONC
CONC-1
USVR-1
4" INSUL-3 WITH TAPED JOINTS
6" DRAINAGE COURSE
COMPACTED FILL - SEE STRUCTURAL

FLOOR TYPE	THICKNESS

FLOOR SYSTEMS

1 1/2" = 1'-0"

UPPER FLOORS

LVT-1
1/4" PLY JOINTS STAGGERED
SHTG-2 - ADHEARED + SCREWED TO TJI
TJI @ 19.2" O.C.
GWB-1

FLOOR TYPE	THICKNESS

1

WOOD TRUSS - SEE STRUCT FOR SIZING
1 HOUR RATED CEILING - 2 LAYERS OF 5/8" TYPE X GYP PER GYPSUM ASSOCIATION GA-610-02

CEILING TYPE	THICKNESS

CEILING SYSTEMS

1 1/2" = 1'-0"

MINNEHAHA TOWNHOMES
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 MINNEAPOLIS, MN 55417

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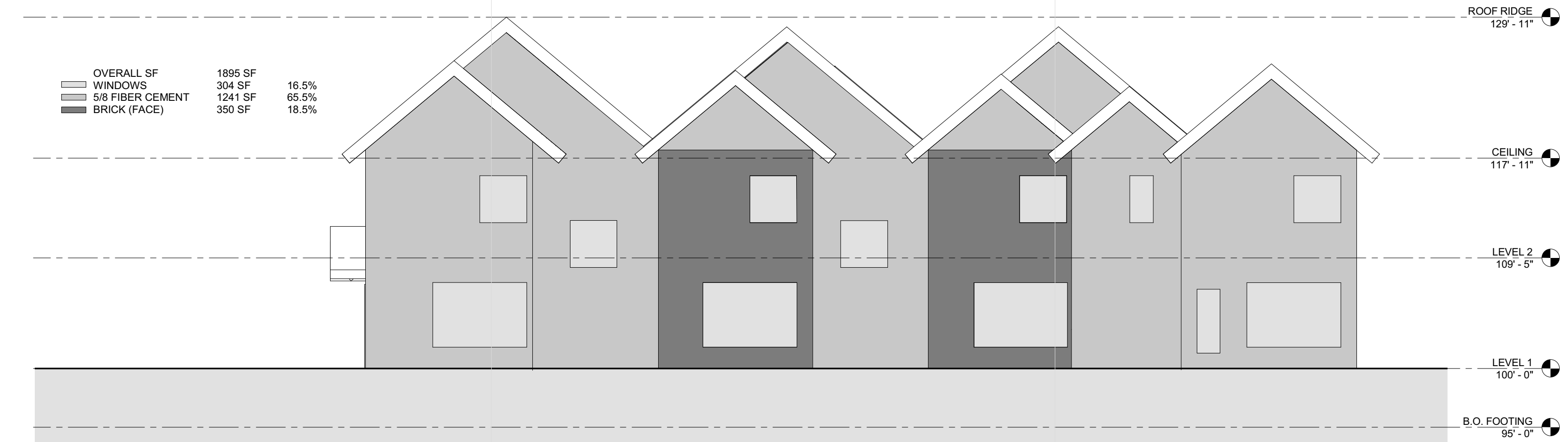
Signature: _____
 Print Names: _____
 Date: _____ License No: _____

MARK	DATE	DESCRIPTION
	04.21.17	100% DD
	04.28.17	LAND USE APPLICATION
	05.05.17	50% CD
	05.26.17	GC 90% REVIEW SET
	06.21.17	100% CD ISSUE

PROJECT NO. 2016015
 PROJECT PHASE 100% CD ISSUE
 DRAWN BY: P.LYNCH CHECKED BY: Checker

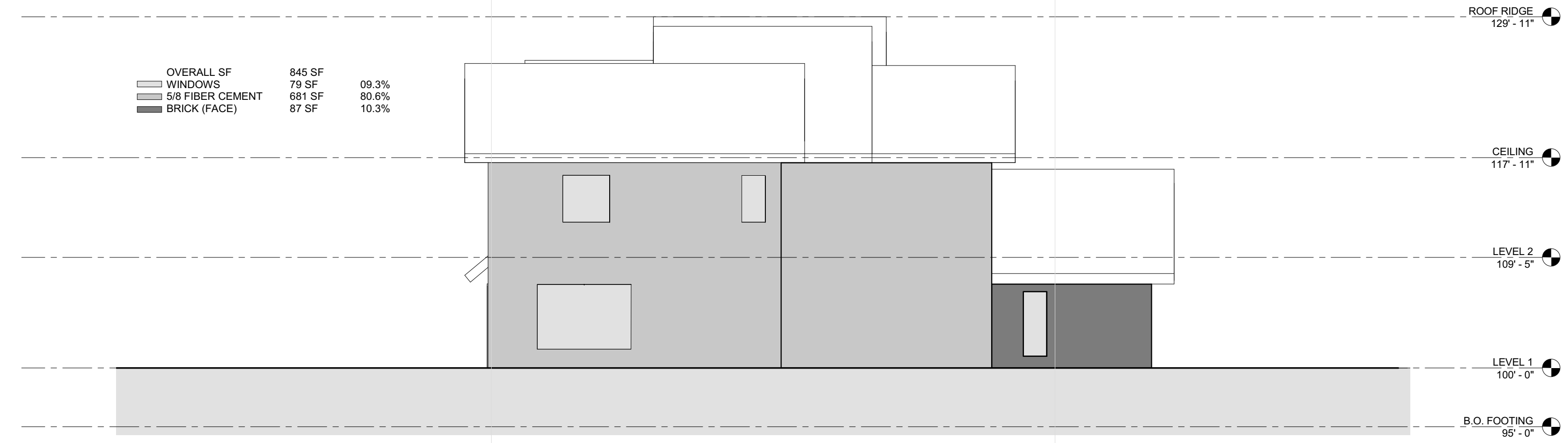
TYPES AND SYSTEMS

G002



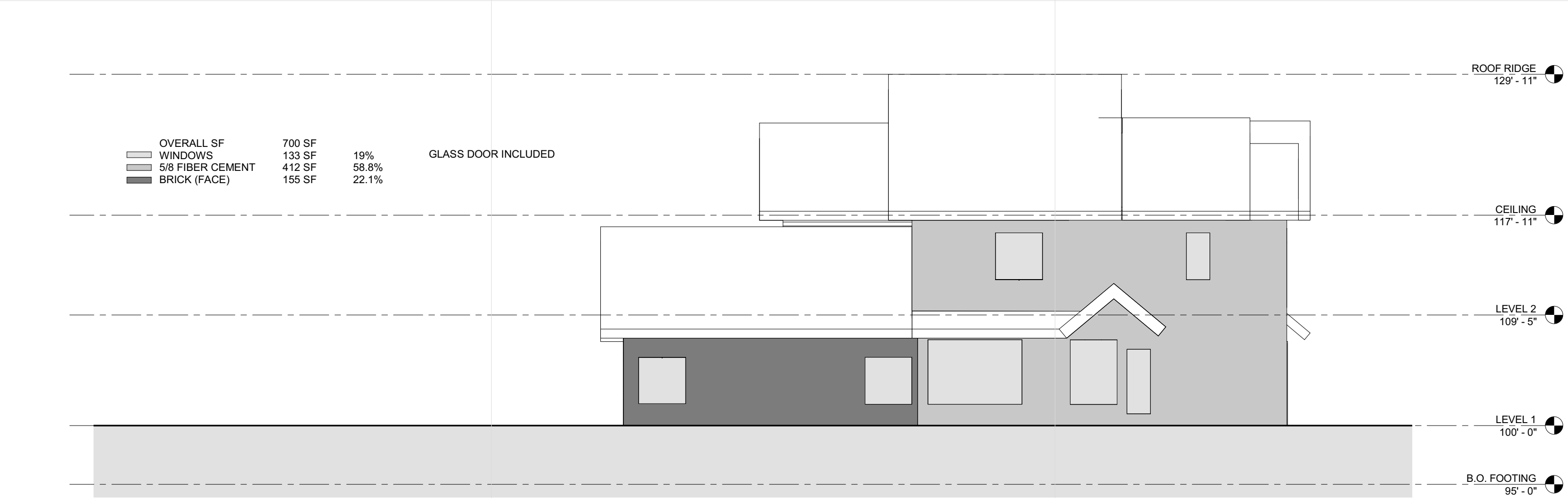
1 BUILDING EAST ELEVATION AREAS

G030 1/8" = 1'-0"



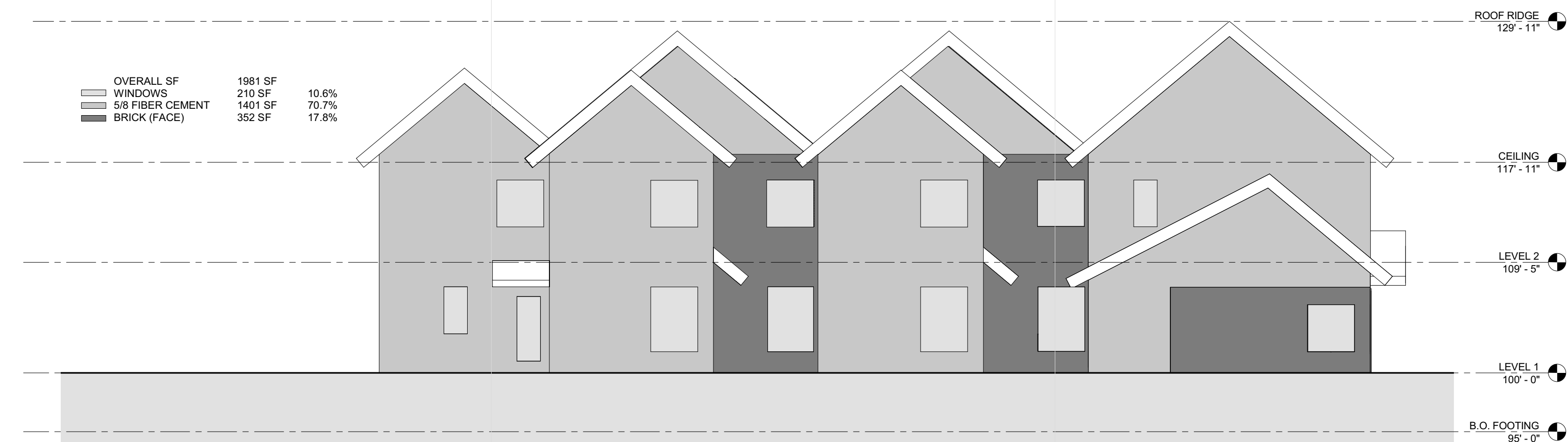
2 BUILDING NORTH ELEVATION AREAS

G030 1/8" = 1'-0"



3 BUILDING SOUTH ELEVATION AREAS

G030 1/8" = 1'-0"



4 BUILDING WEST ELEVATION AREAS

G030 1/8" = 1'-0"

**MINNEHAHA
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 ROAD, 5118 54TH ST EAST
 MINNEAPOLIS, MN 55417

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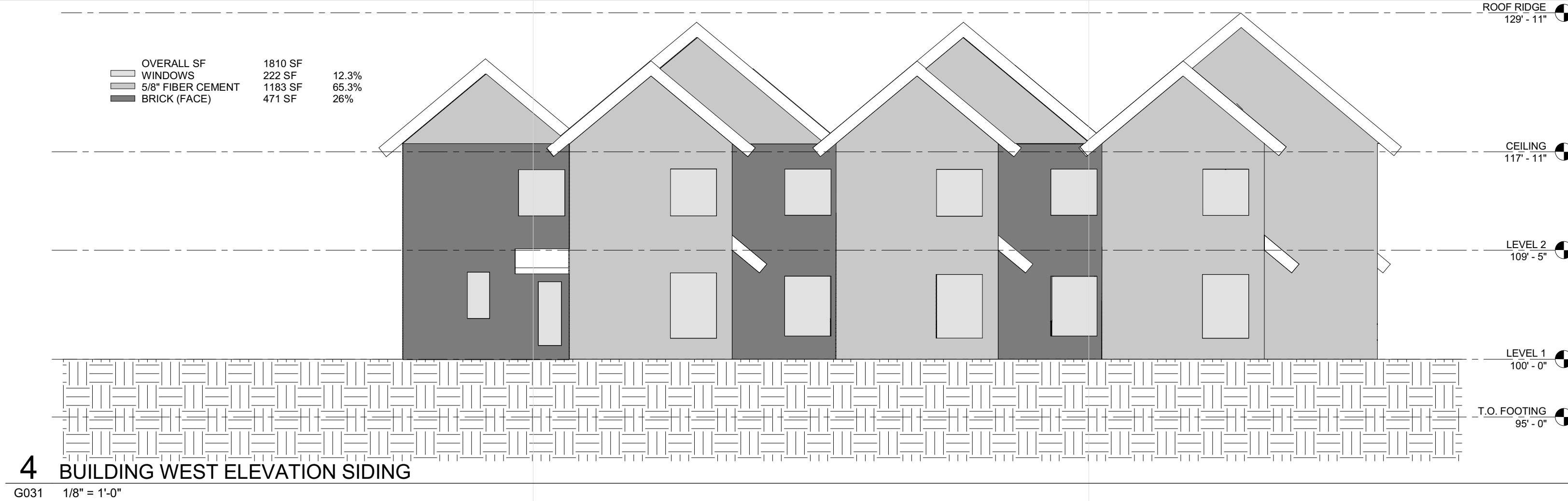
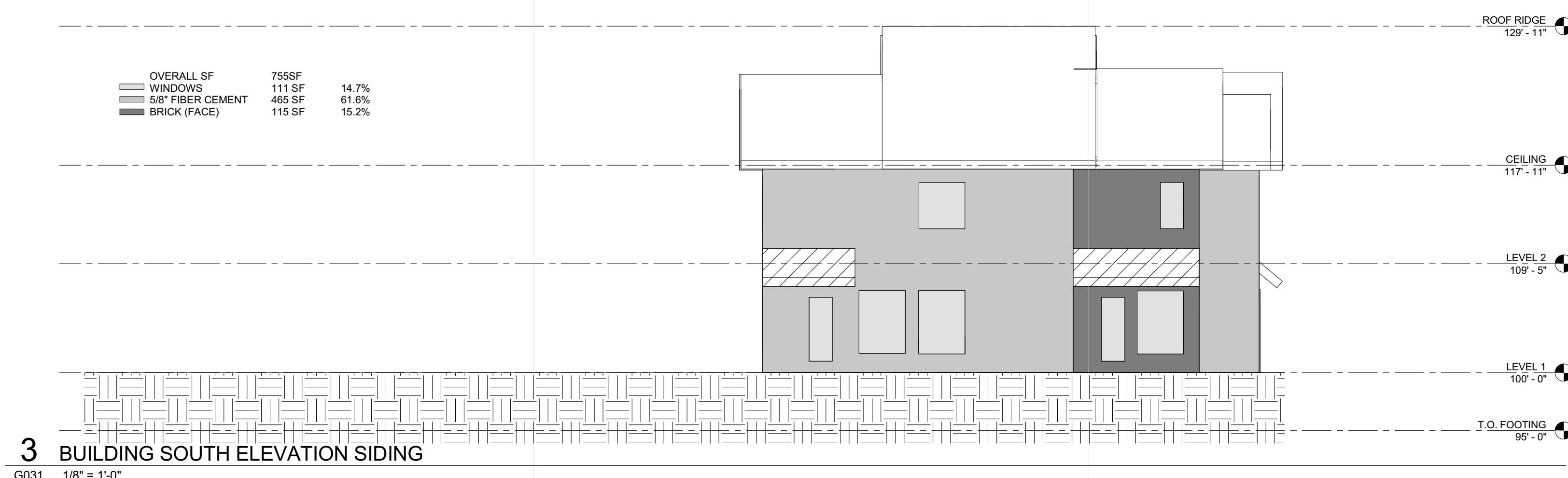
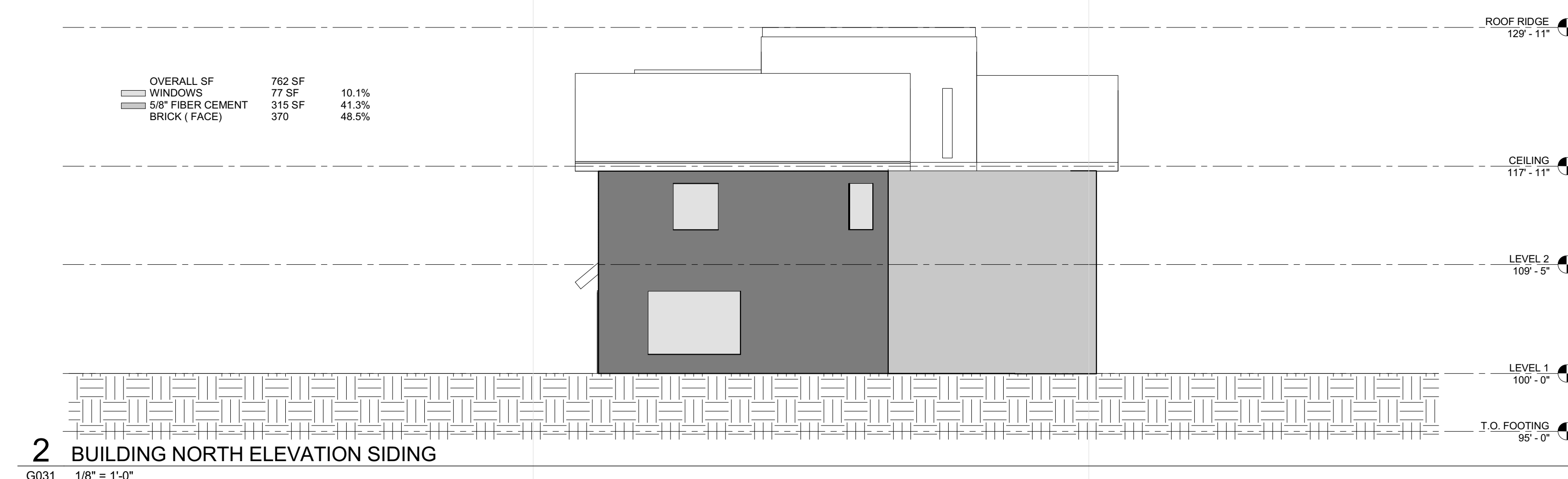
PROJECT PHASE 100% CD ISSUE

DRAWN BY: Author CHECKED BY: Checker

Drawing 2016 Copyright Meyer, Scherer & Rockcastle, Ltd.

**FACADE AREAS
 BUILDING D**

G030



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 MINNEAPOLIS, MN 55417

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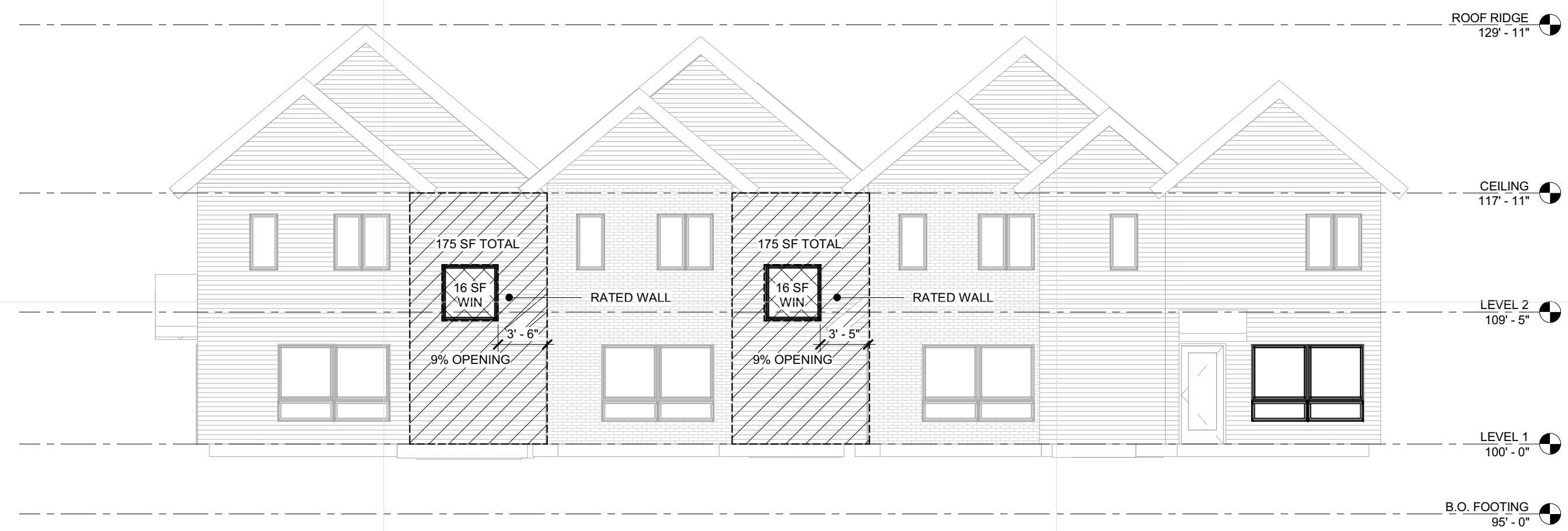
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ISSUE	DATE	DESCRIPTION
K	04.21.17	100%DD
	04.28.17	LAND USE APPLICATION
	05.08.17	50% CD
	05.26.17	GC 90% REVIEW SET
	06.21.17	100% CD ISSUE

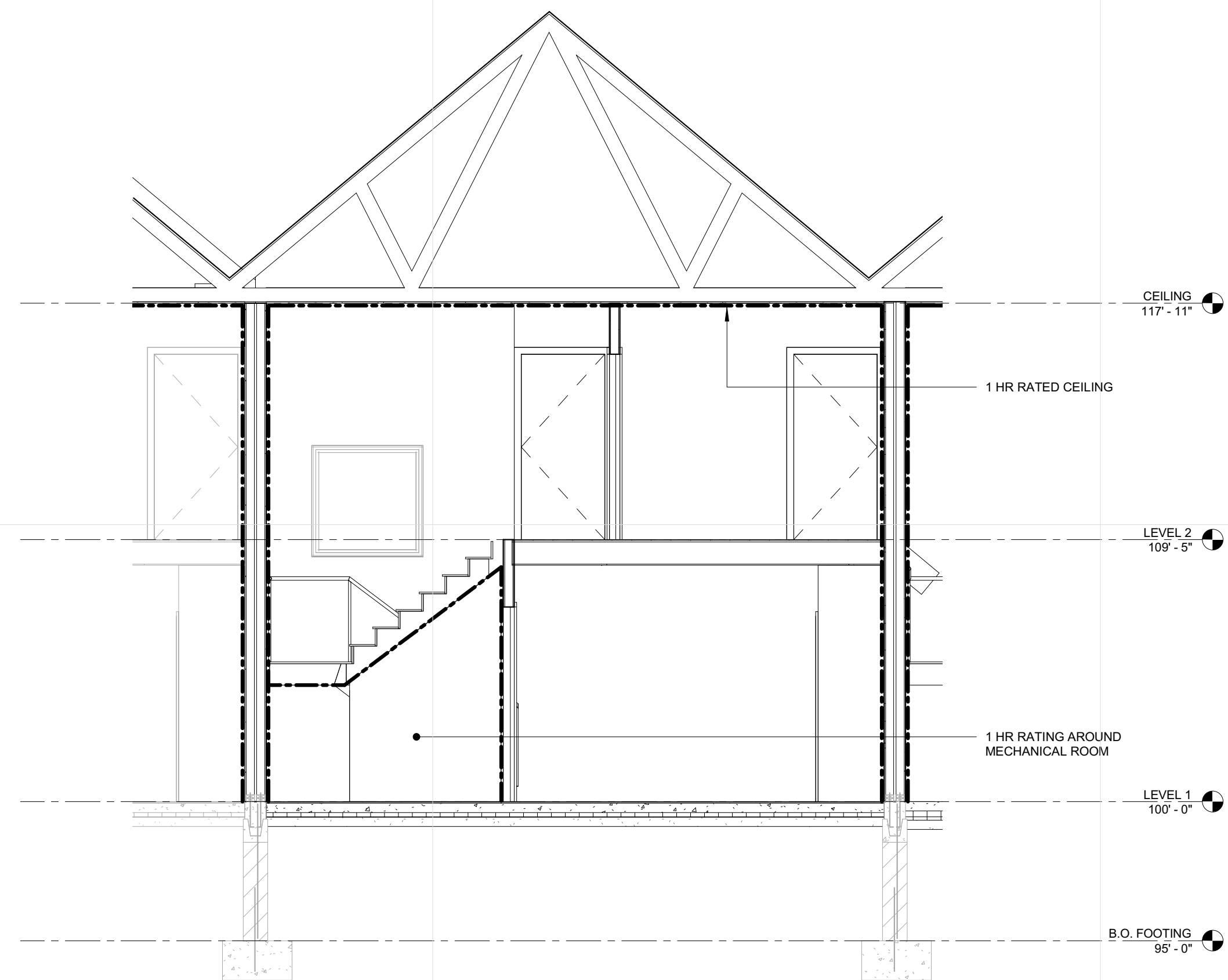
PROJECT NO. 2016015
 PROJECT PHASE GC 90% REVIEW SET
 DRAWN BY: Author CHECKED BY: Checker

**FAÇADE
 MATERIALS
 BUILDINGS A,B,+C**

G031



4 BUILDING EAST ELEVATION FIRE SEPARATION
 G051 1/8" = 1'-0"



3 FIRE SEPARATION SECTION TYPICAL UNIT
 G051 1/4" = 1'-0"



2 LEVEL 2 FIRE SEP PLAN
 G051 1/8" = 1'-0"

1 LEVEL 1 FIRE SEP PLAN
 G051 1/8" = 1'-0"

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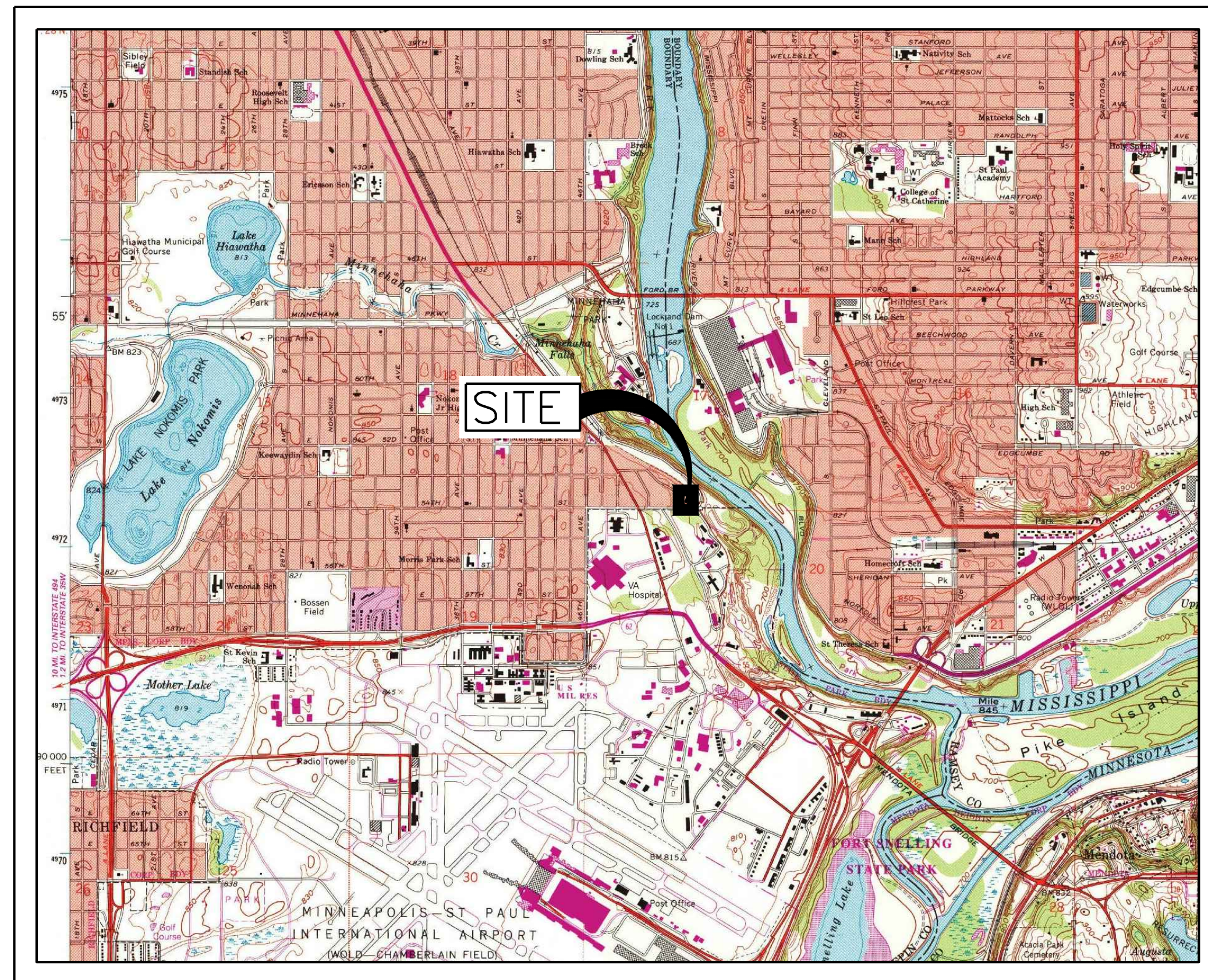
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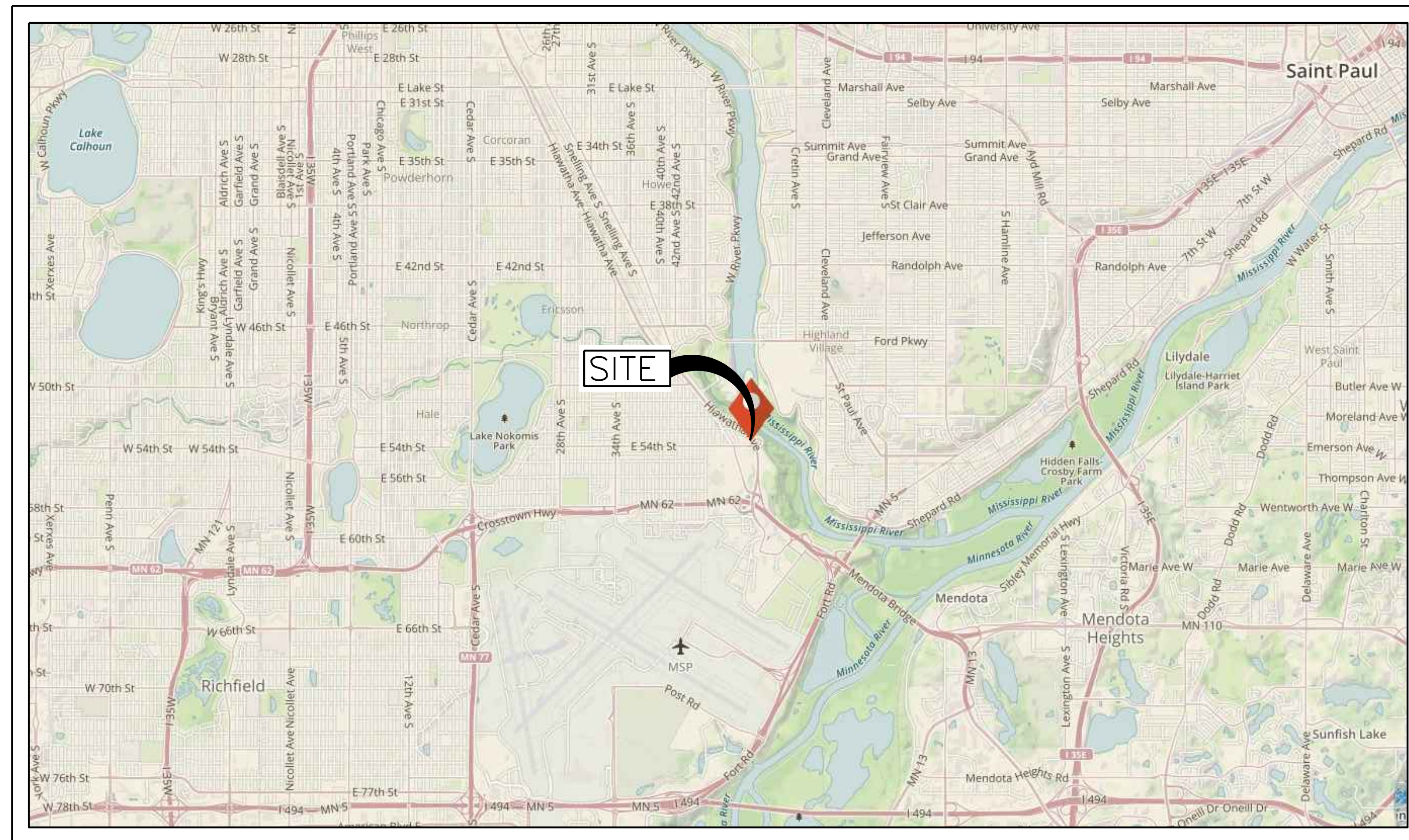
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Author	Checker

CODE

G051



USGS VICINITY MAP
NOT TO SCALE



SITE LOCATION MAP
NOT TO SCALE

ACREAGE SUMMARY	
TOTAL SITE AREA	1.09 ACRES
ON-SITE DISTURBED AREA	1.09 ACRES
OFF-SITE DISTURBED AREA	0.07 ACRES
TOTAL DISTURBED AREA	1.16 ACRES
EXISTING IMPERVIOUS AREA	0.12 ACRES
PROPOSED IMPERVIOUS AREA	0.51 ACRES

ESTIMATED BMP QUANTITIES	
SILT FENCE	800 LF
FILTER LOGS	800 LF
CATCH BASIN INSERTS	50 EA
ROCK CONSTRUCTION ENTRANCE	40 CY

NOTE: QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR SHALL DETERMINE FOR THEMSELVES THE EXACT QUANTITIES FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL NOT RELY ON THESE QUANTITIES FOR THEIR BID AND CIVIL ENGINEER IS NOT RESPONSIBLE FOR COST ESTIMATES OR ACTUAL CONSTRUCTION COSTS.

CONTACT INFORMATION	
OWNER	
CONTACT PERSON, TITLE:	
ADDRESS:	
TELEPHONE:	
EMAIL:	
PARTY RESPONSIBLE FOR LONG TERM MAINTENANCE	
CONTACT PERSON, TITLE:	
ADDRESS:	
TELEPHONE:	
EMAIL:	
CONTRACTOR	
BUSINESS:	
CONTACT PERSON, TITLE:	
ADDRESS:	
TELEPHONE:	
EMAIL:	
CONTRACTOR'S ONSITE REPRESENTATIVE	
BUSINESS:	
CONTACT PERSON, TITLE:	
ADDRESS:	
TELEPHONE:	
EMAIL:	
ALTERNATE CONTACT:	
PHONE:	
EMAIL:	

NOTE: CONTRACTOR'S ONSITE REPRESENTATIVE SHALL BE COMPLETED ON THE PLAN SET KEPT IN THE CONSTRUCTION TRAILER. THIS INFORMATION SHALL ALSO BE PROVIDED TO THE OWNER AND CIVIL ENGINEER.

MSR 710 South 2nd Street, 8th Floor
Minneapolis, Minnesota 55401-2282
Architecture 612 375 0336 tel
Interiors and 612 342 2216 fax
Urban Design www.msrdesign.com

CIVIL ENGINEER
PIERCE PINI ASSOCIATES, INC.

9298 Central Avenue NE
Suite 312
Blaine, MN 55434-3425
Office Phone: 763-537-1311
Office Fax: 763-537-1354

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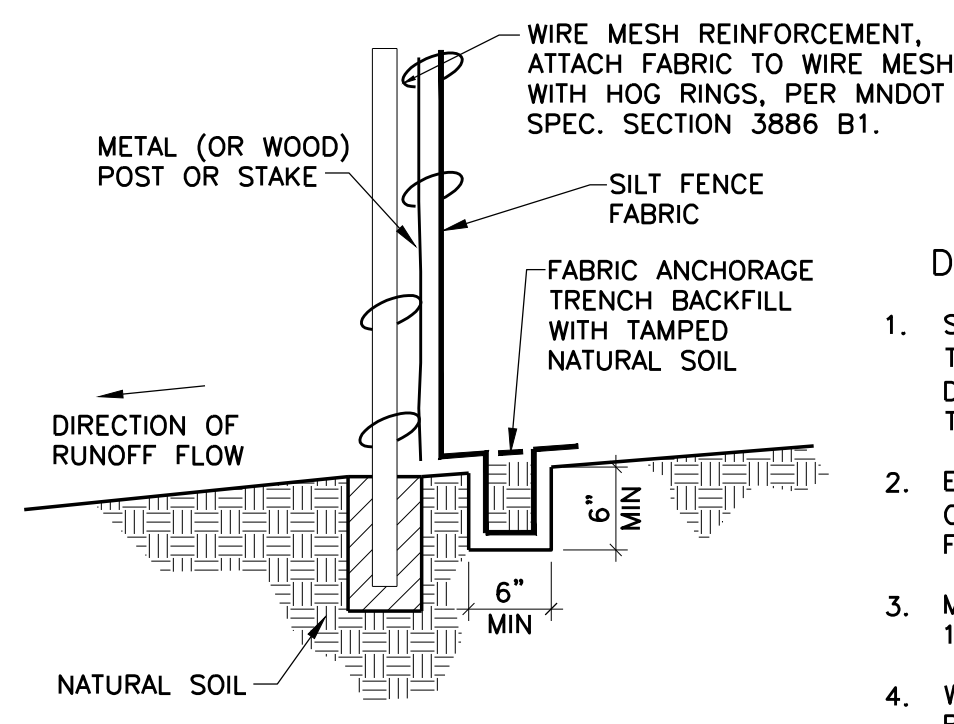
Signature: *Rhonda S. Pierce*
Print Names: RHONDA S. PIERCE
Date: 06-21-2017 License No.: 41333

ISSUE	DATE	DESCRIPTION
	04-07-2017	PDR SUBMITTAL
	04-10-2017	MCWD SUBMITTAL
	04-21-2017	100% DD
	05-08-2017	50% CD
	05-26-2017	GC 90% REVIEW SET
	06-21-2017	100% CD ISSUE

PROJECT NO.	17-003
PROJECT PHASE	100%CD
DRAWN BY:	CLG
CHECKED BY:	RSP

SWPPP - GENERAL INFORMATION

C201



DESIGN RECOMMENDATIONS

- SILT FENCES SHOULD BE INSTALLED ON THE CONTOUR (AS OPPOSED TO UP AND DOWN A HILL) AND CONSTRUCTED SO THAT FLOW CANNOT BYPASS THE ENDS.
- ENSURE THAT THE DRAINAGE AREA IS NO GREATER THAN 1/4 ACRE PER 100 FT OF FENCE.
- MAKE THE FENCE STABLE FOR THE 10-YEAR PEAK STORM RUNOFF.
- WHERE ALL RUNOFF IS TO BE STORED BEHIND THE SILT FENCE, ENSURE THAT THE MAXIMUM SLOPE LENGTH BEHIND THE FENCE DOES NOT EXCEED THE SPECIFICATIONS SHOWN IN TABLE 1.

NOTE: SILT FENCE SHALL FOLLOW MNDOT SPEC. SECTION 3886.

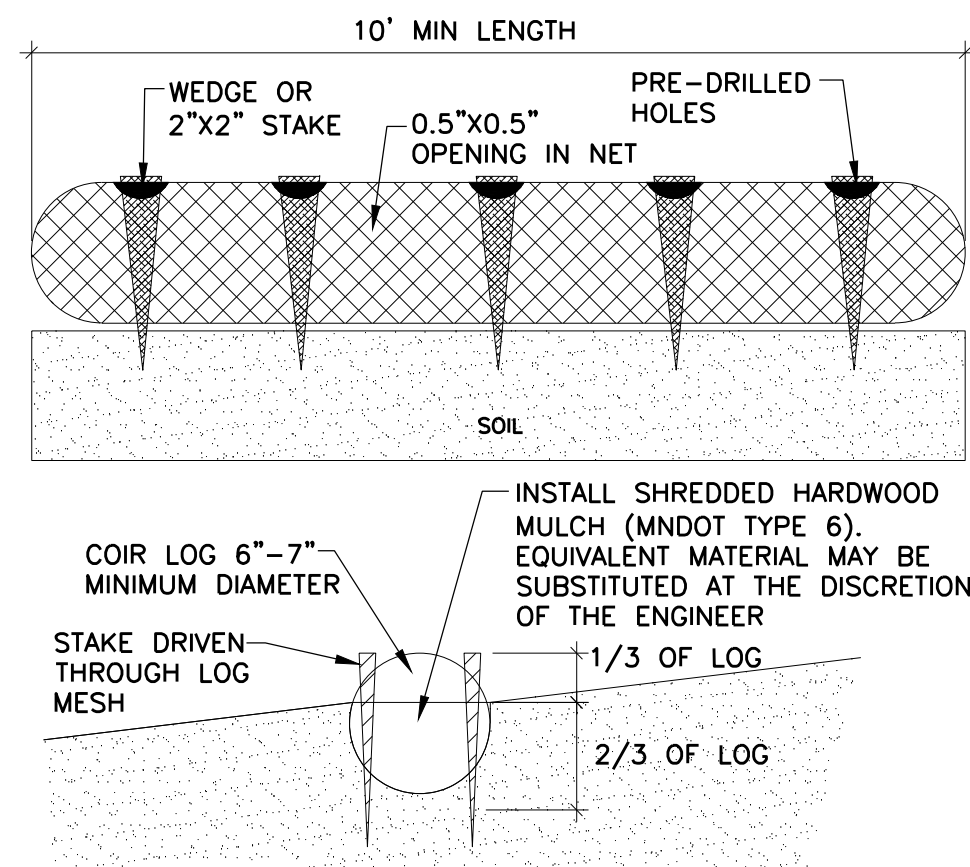
FIGURE 1 TYPICAL INSTALLATION FOR SILT FENCE

TABLE 1 MAXIMUM SLOPE LENGTH AND SLOPE FOR WHICH SILT FENCE IS APPLICABLE

SLOPE H:V	PERCENT	BY CALCULATION	BY CALCULATION	BY ACCEPTED DESIGN PRACTICES
		SILT FENCE STORAGE EQUALS 2 FT FOR A 100-YEAR EVENT	SILT FENCE STORAGE EQUALS 2 FT FOR A 2-YEAR EVENT OR 3 FT FOR A 100-YEAR EVENT	MAXIMUM SLOPE LENGTH
100:1	1%	400 FT	900 FT	100 FT
50:1	2%	200 FT	450 FT	75 FT
25:1	4%	100 FT	225 FT	75 FT
20:1	5%	80 FT	180 FT	75-50 FT
17:1	6%	67 FT	150 FT	50 FT
12.5:1	8%	50 FT	112 FT	50 FT
10:1	10%	40 FT	90 FT	50-25 FT
5:1	20%	20 FT	45 FT	25-15 FT
4:1	25%	16 FT	36 FT	15 FT
3:1	33%	12 FT	27 FT	15 FT
2:1	50%	8 FT	18 FT	15 FT

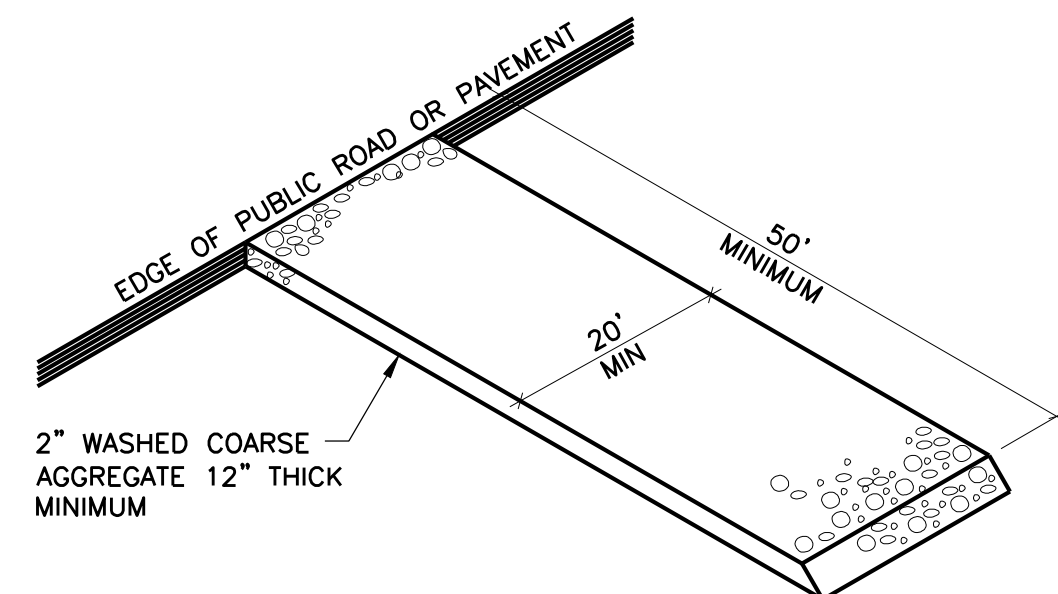
1 HEAVY DUTY SILT FENCE DETAIL

C202 NO SCALE



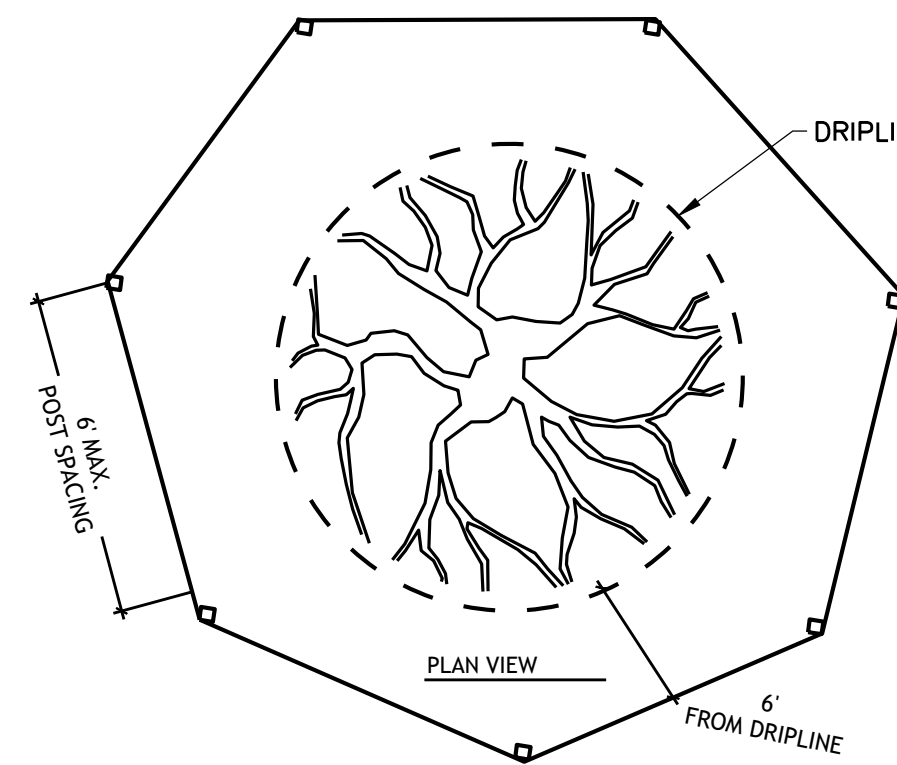
2 COIR LOG

C202 NO SCALE



3 GRAVEL CONSTRUCTION ENTRANCE

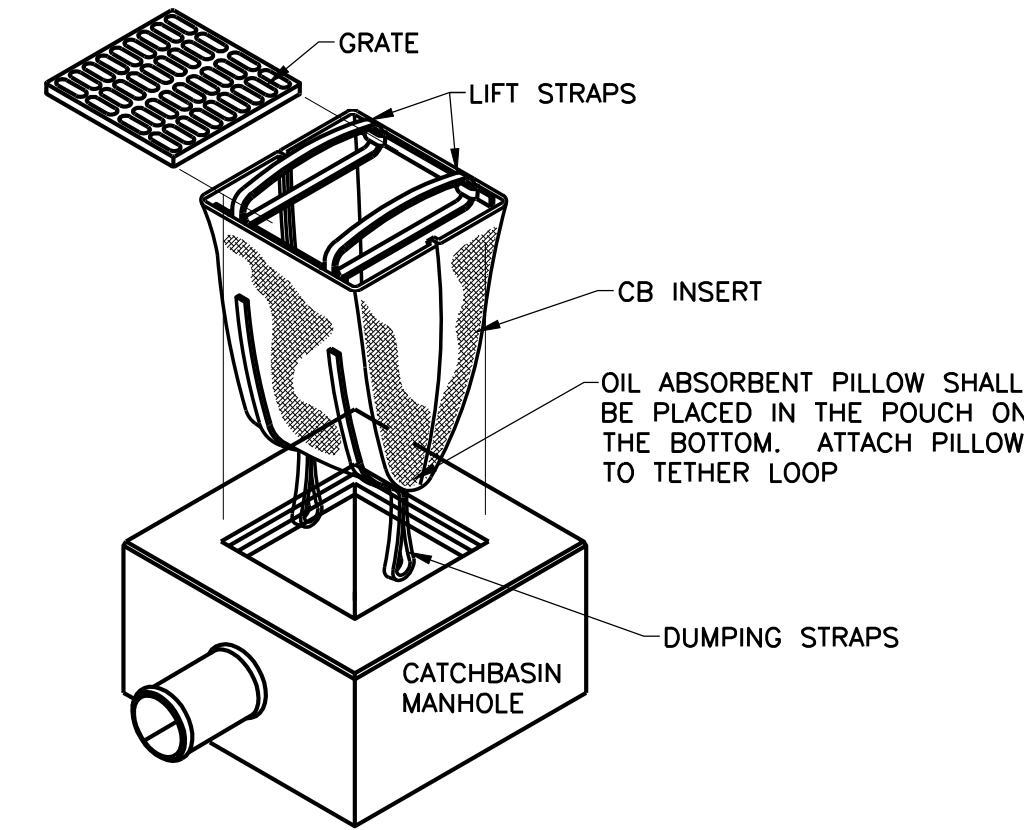
C202 NO SCALE



4 TREE PROTECTION DETAIL

C202 NO SCALE

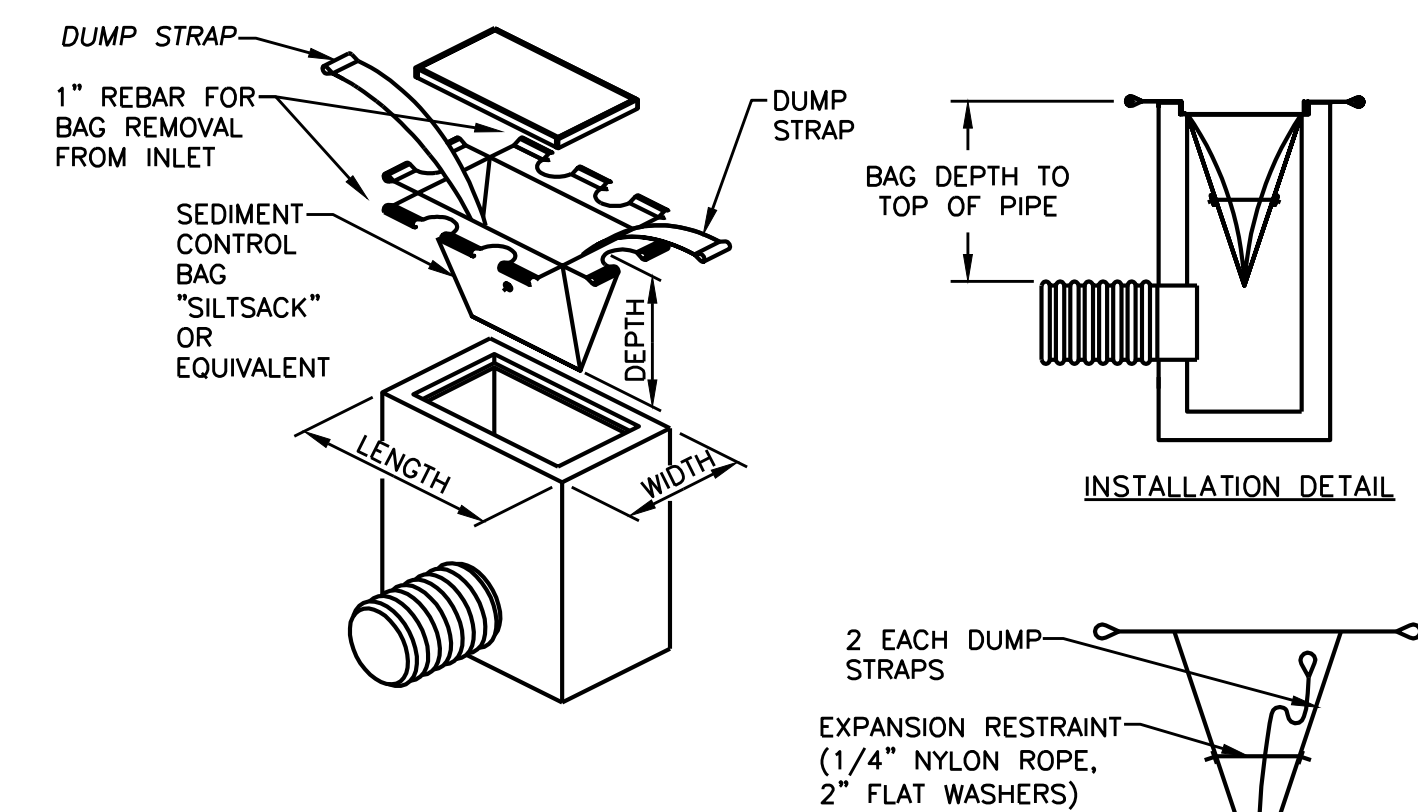
- TREE PROTECTION NOTES:**
- ALL TREE PROTECTION FENCING AND EROSION CONTROL FENCING SHALL BE INSTALLED ACCORDING TO THE PLANS PRIOR TO ANY DEMOLITION. AFTER DEMOLITION OR AS NECESSARY, TREE PROTECTION FENCING MAY BE RELOCATED WITH APPROVAL FROM THE LANDSCAPE ARCHITECT. ALL TREE PROTECTION FENCING AND EROSION CONTROL DEVICES SHALL BE MAINTAINED FOR THE DURATION OF THE CONSTRUCTION PERIOD.
 - CONTRACTOR SHALL NOT STORE ANY MATERIALS OR PARK ANY VEHICLES IN TREE PROTECTION ZONES. THE FENCE SHALL PREVENT TRAFFIC MOVEMENT AND THE PLACEMENT OF TEMPORARY FACILITIES, EQUIPMENT, STOCKPILES AND SUPPLIES FROM HARMING VEGETATION WITHIN THE LIMITS OF PROTECTION.
 - THE CONTRACTOR SHALL CLEANLY CUT ALL ROOTS EXPOSED BY GRADING AS DIRECTED BY THE LANDSCAPE ARCHITECT.
 - THE CONTRACTOR SHALL USE DESIGNATED CONSTRUCTION ENTRANCES AND STAGING AREAS.
 - SEE UMD TREE PROTECTION REQUIREMENTS AND NOTE #45 ON SHEET 200.CN.



5 CB INSERT EROSION CONTROL

C202 NO SCALE

- OIL ABSORBENT PILLOW SHALL BE REMOVED AND REPLACED WHEN NEAR SATURATION.
- USE DANDY® BAG IT AS MANUFACTURED BY DANDY® PRODUCTS, INC.
- AN EQUIVALENT CATCHBASIN EROSION CONTROL INSERT METHOD OR PRODUCT MAY BE USED WITH PRIOR APPROVAL FROM ENGINEER.



CB STYLE	LENGTH	WIDTH	DEPTH
TYPE 1 CB	24"	20"	VARIES
TYPE 1 CCI	29.5"	24"	VARIES
USA G2	32.5"	27.5"	VARIES

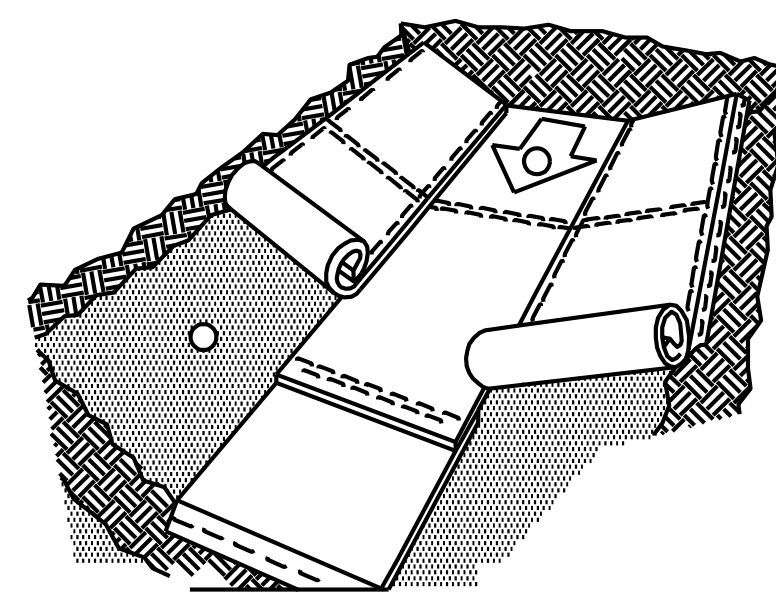
INLET SEDIMENT CONTROL DEVICE - SILT SACK

NOTES:

- THE DIMENSION CHART ABOVE IS FOR STANDARD CATCH BASINS AND INLETS ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE CORRECT SIZE DEVICE FOR EACH INLET.
- FOR NON-STANDARD CATCH BASINS AND INLETS, THE CONTRACTOR SHALL MEASURE DIMENSIONS IN THE FIELD AND ORDER THE APPROPRIATE SIZE(S).
- THE INLET SEDIMENT CONTROL DEVICE SHALL BE OF HIGH FLOW DESIGN (200 GAL/MIN/FT), AS PER THE MANUFACTURER'S SPECS.
- THE SEDIMENT CONTROL DEVICE SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED A MINIMUM ONCE PER MONTH OR WITHIN THE 48 HOURS FOLLOWING A STORM EVENT. FILTER SHALL BE CLEANED IN A MANNER WHICH ENSURES THAT ALL SEDIMENT REMAINS ON SITE.
- SUBSTITUTION OF A SHEET OF FILTER FABRIC PLACED OVER THE OPENING OF THE INLET IS NOT APPROVED.
- RECESSED CURB INLET CATCH BASINS MUST BE BLOCKED WHEN USING FILTER FABRIC INLET SACKS, SIZE OF FILTER INLET SACK TO BE DETERMINED BY MANUFACTURER.
- THE FILTER SHALL BE REPLACED OR CLEANED WHEN THE BAG BECOMES HALF FULL.

6 SILT SACK

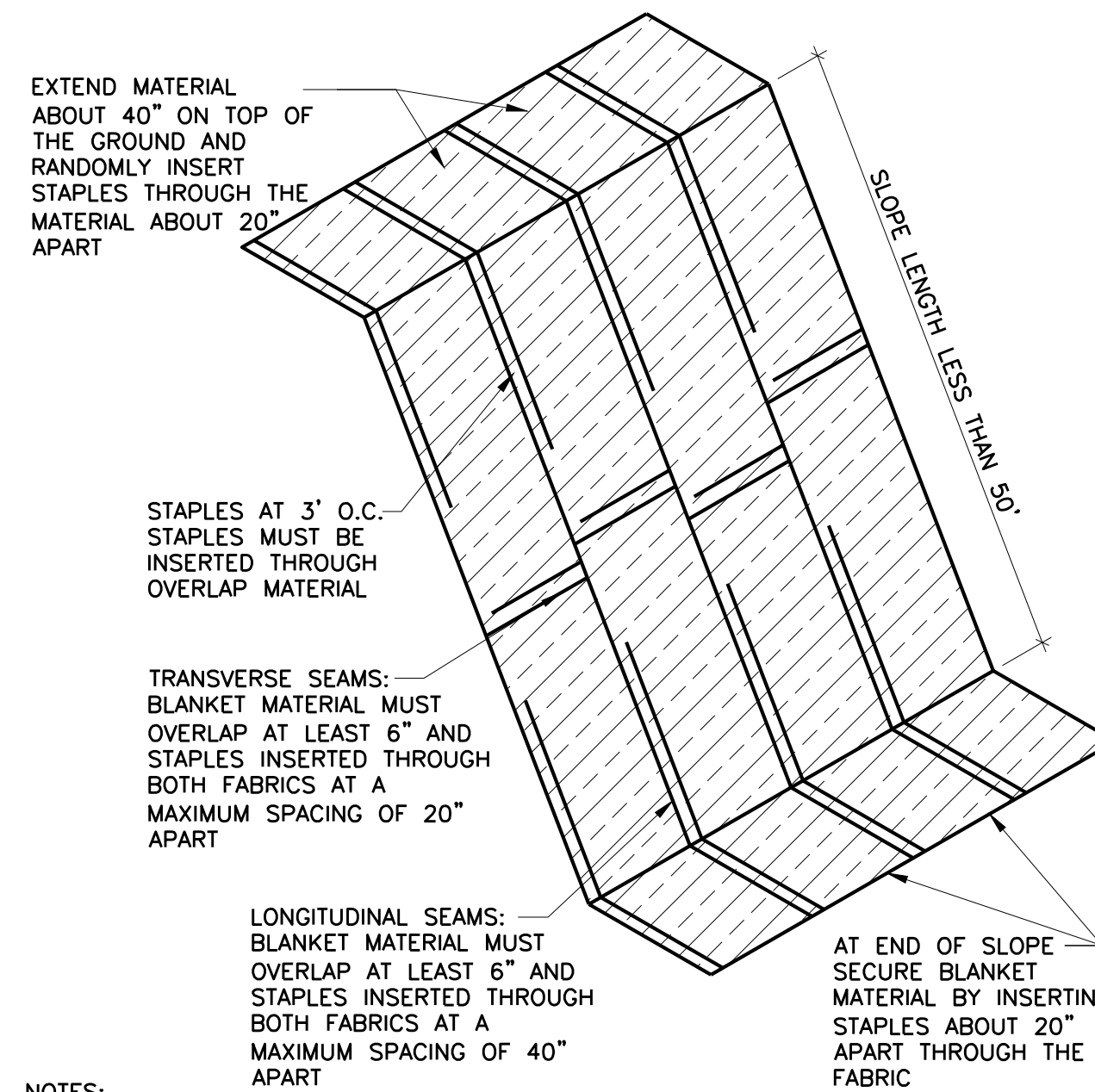
C202 NO SCALE



7 EROSION STABILIZATION MATS

C202 NO SCALE

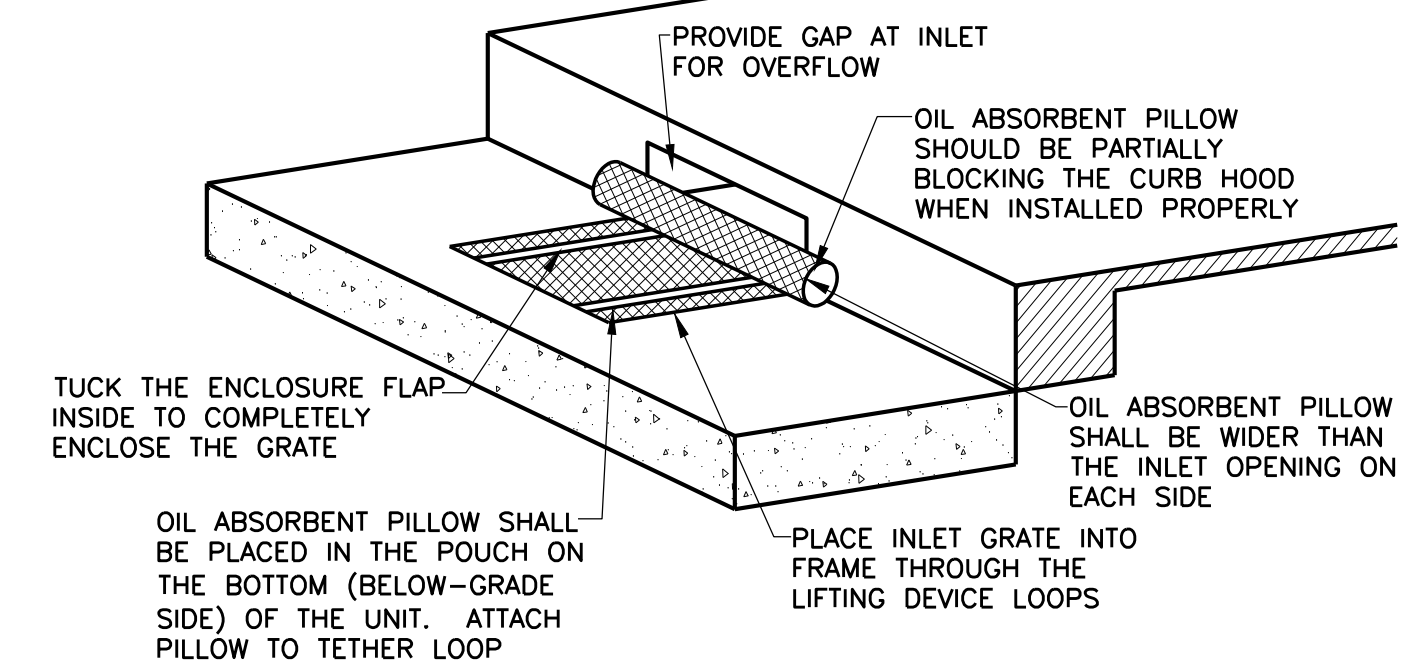
- BEFORE INSTALLATION APPLY TOPSOIL, FERTILIZER AND SEED TO SURFACE.
- BEGIN AT THE TOP OF THE CHANNEL, INSTALL MATS BY ANCHORING IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF MAT EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF MAT BACK OVER SEED AND SOIL. SECURE MATS WITH A WITH A ROW OF STAPLES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE MATS.
- ROLL CENTER MATS IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL.
- PLACE CONSECUTIVE AND ADJACENT MATS END OVER END (SHINGLE STYLE) WITH A MINIMUM 6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE OVERLAPPED MATS.
- FULL LENGTH EDGE OF MATS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN A 6" DEEP BY 6" WIDE TRENCH.
- THE TERMINAL END OF MATS MUST BE ANCHORED WITH A ROW OF STAPLES APPROXIMATELY 12" APART IN A 6" DEEP BY 6" WIDE TRENCH.
- BACKFILL AND SEED AFTER STAPLING.
- FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR PROPER INSTALLATION.



- NOTES:**
- EROSION CONTROL BLANKET TO BE CATEGORY 4-COCONUT 25 FOR SLOPES GREATER THAN 5:1 AND SIDES AND BOTTOM OF ALL DRAINAGE SWALES AND PONDING AREAS AND CATEGORY 2-STRAW 25 FOR ALL SLOPES LESS THAN 5:1 PER MNDOT SPEC. SECTION 3885.
 - INSTALL PER MNDOT SPEC. SECTION 2575

8 EROSION CONTROL BLANKET

C202 NO SCALE



- OIL ABSORBENT PILLOW SHALL BE REMOVED AND REPLACED WHEN NEAR SATURATION.
- PROVIDE BEAVER DAM AS MANUFACTURED BY DANDY PRODUCTS, INC.
- AN EQUIVALENT CURB INLET EROSION CONTROL METHOD OR PRODUCT MAY BE USED WITH APPROVAL FROM ENGINEER.

9 CATCHBASIN CURB BOX INLET EROSION CONTROL

C202 NO SCALE

**MINNEHAHA
TOWNHOMES**
5348, 5364 5369 RIVERVIEW
5118 54TH ST EAST
MINNEAPOLIS, MN 55417

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Signature: *Rhonda S. Pierce*
Print Names: RHONDA S. PIERCE
Date: 06-21-2017 License No.: 41333

ISSUE	DATE	DESCRIPTION
	04-07-2017	PDR SUBMITTAL
	04-10-2017	MCWD SUBMITTAL
	04-21-2017	100% CD
	05-08-2017	50% CD
	05-26-2017	GC 90% REVIEW SET
	06-21-2017	100% CD ISSUE

PROJECT NO: 17-003
PROJECT PHASE: 100%CD
DRAWN BY: CLG CHECKED BY: RSP

SWPPP - DETAILS

C202

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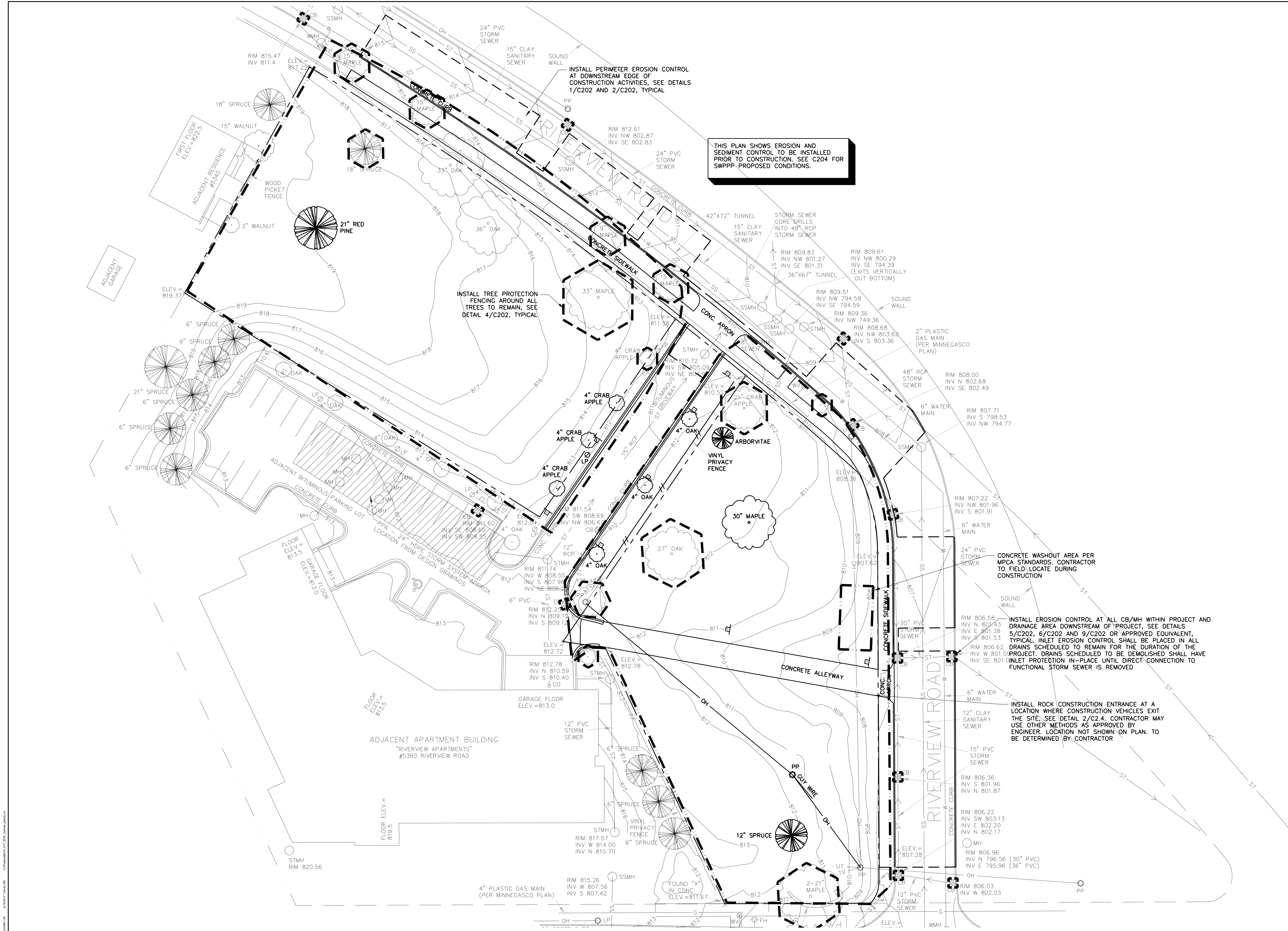
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	05-26-2017	GC 90% REVIEW SET
	06-21-2017	100% CD ISSUE

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PROJECT PHASE	100%CD
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CHECKED BY:	RSP

SWPPP - EXISTING
CONDITIONS

C203



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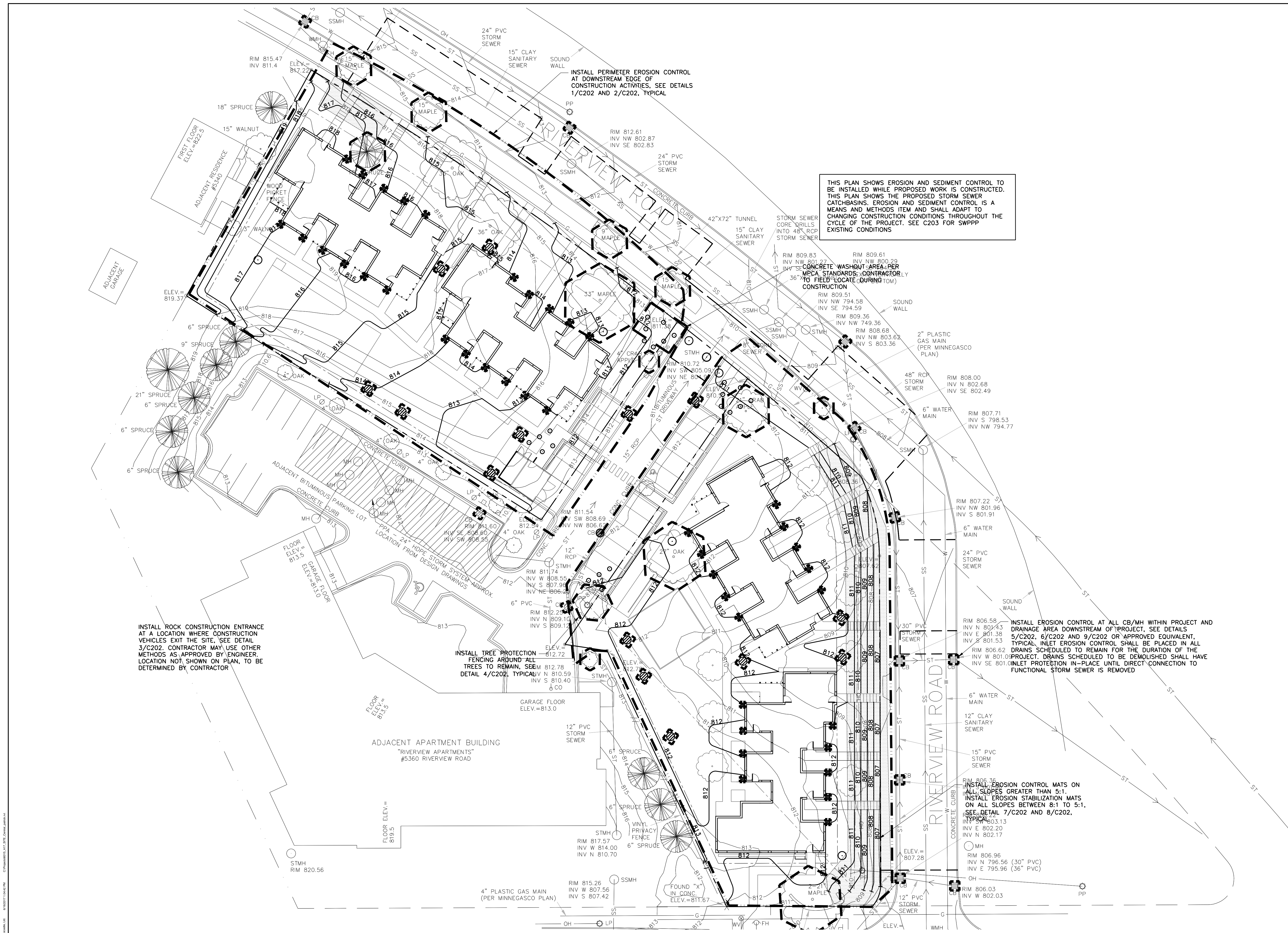
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	05-26-2017	GC 90% REVIEW SET
	06-21-2017	100% CD ISSUE

PROJECT NO:	17-003
PROJECT PHASE:	100%CD
DRAWN BY:	CLG
CHECKED BY:	RSP

SWPPP - PROPOSED
CONDITIONS

C204



STORMWATER POLLUTION PREVENTION PLAN - PROPOSED CONDITIONS
C204
0 20' 40' 60'
1" = 20'

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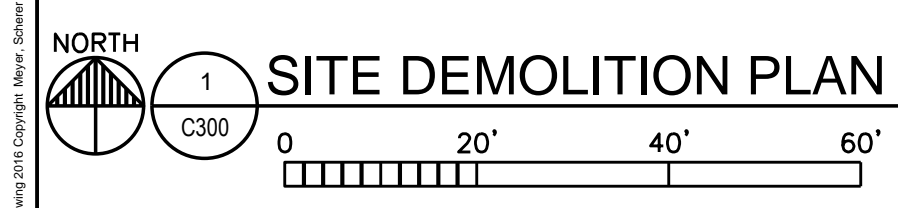
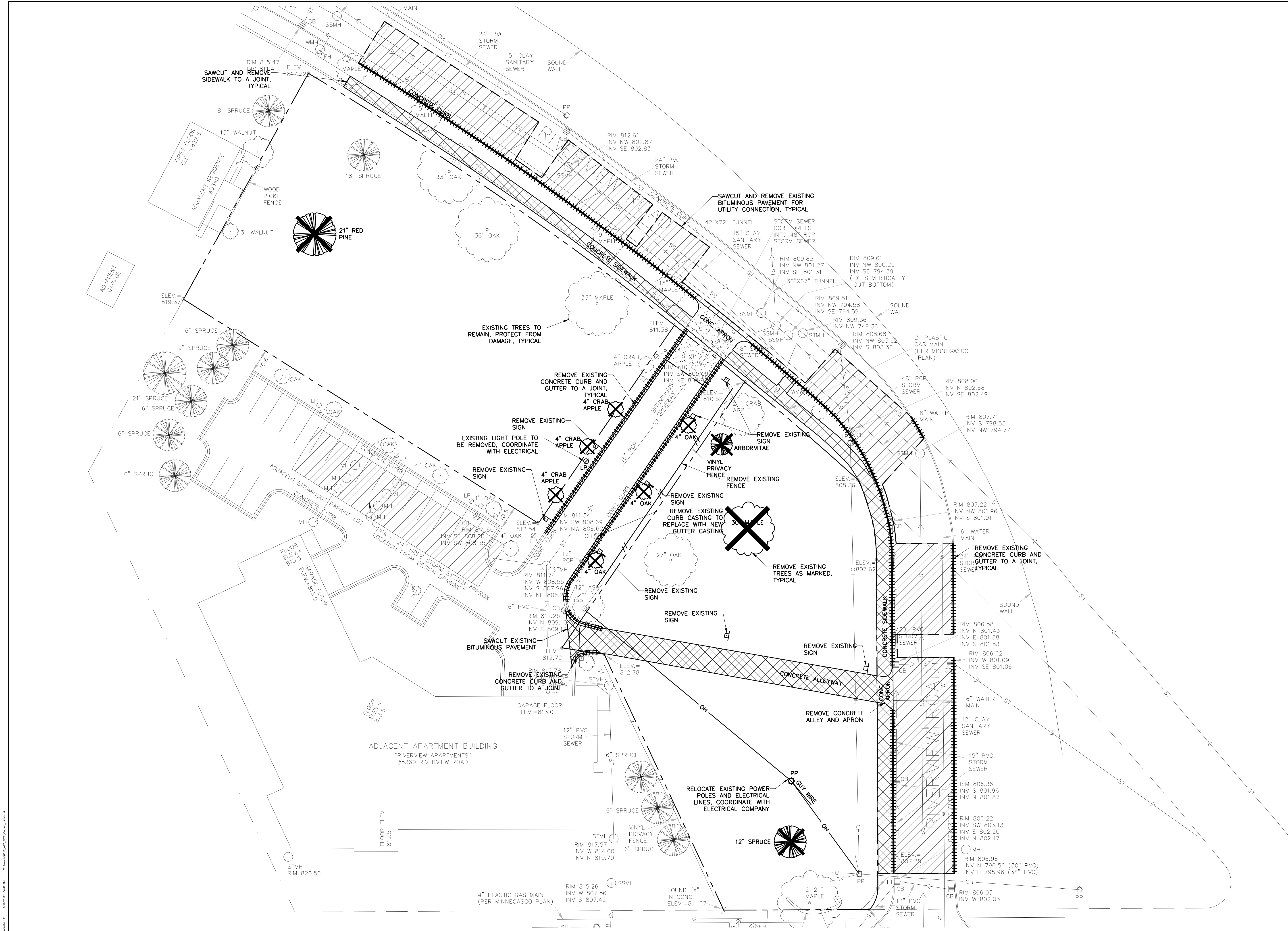
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PROJECT NO.	17-003
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**SITE DEMOLITION
 PLAN**

C300



1" = 20'-0"

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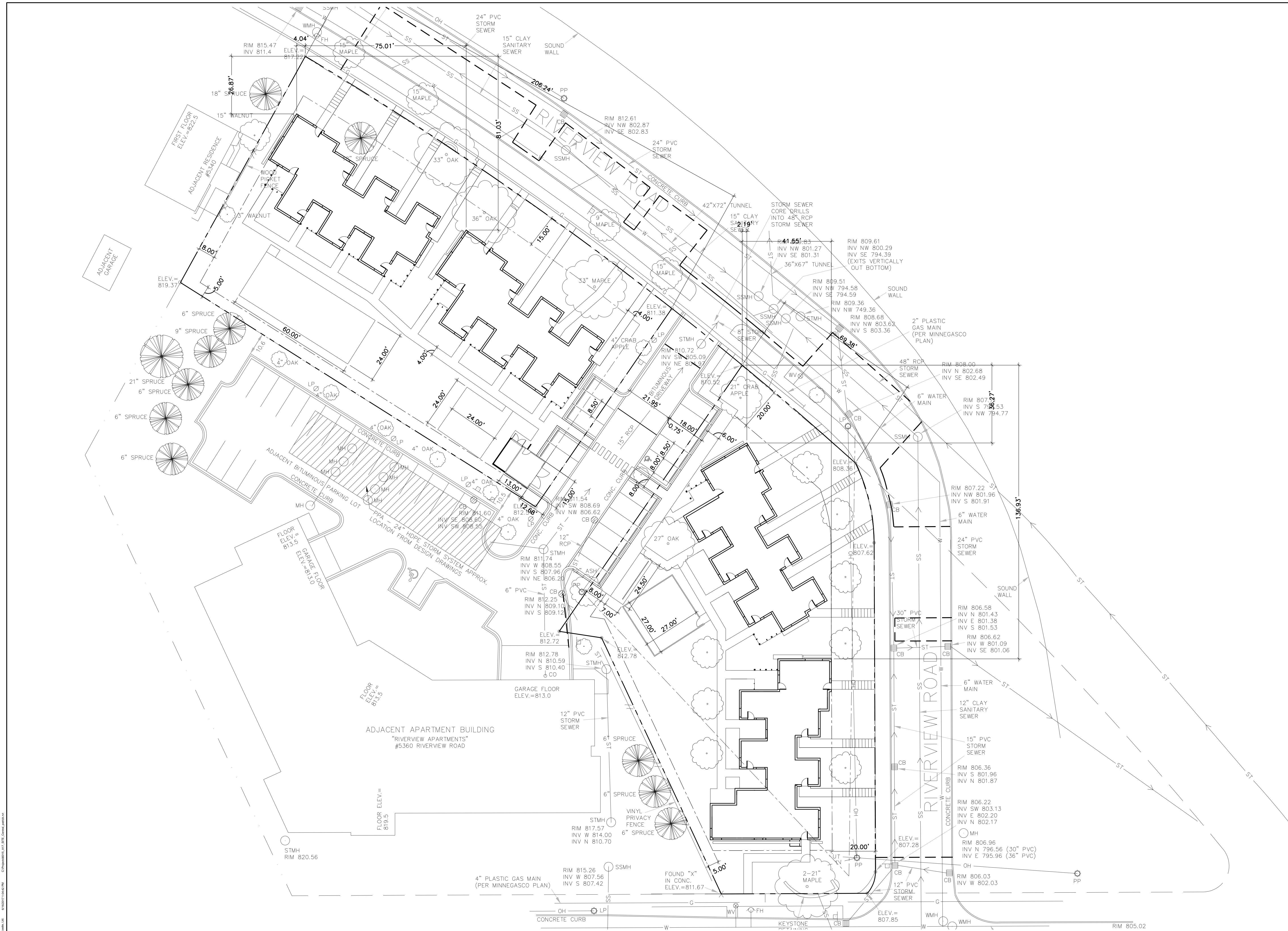
PROJECT PHASE: 100%CD

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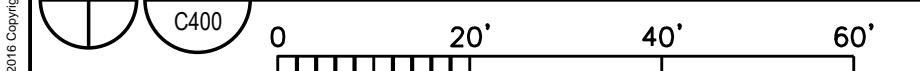
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**DIMENSIONED
SITE PLAN**

C400



1 DIMENSIONED SITE PLAN



1" = 20'-0"

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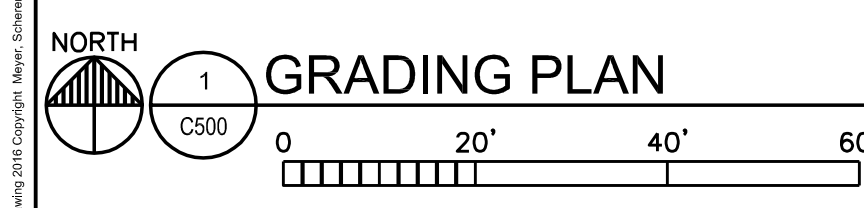
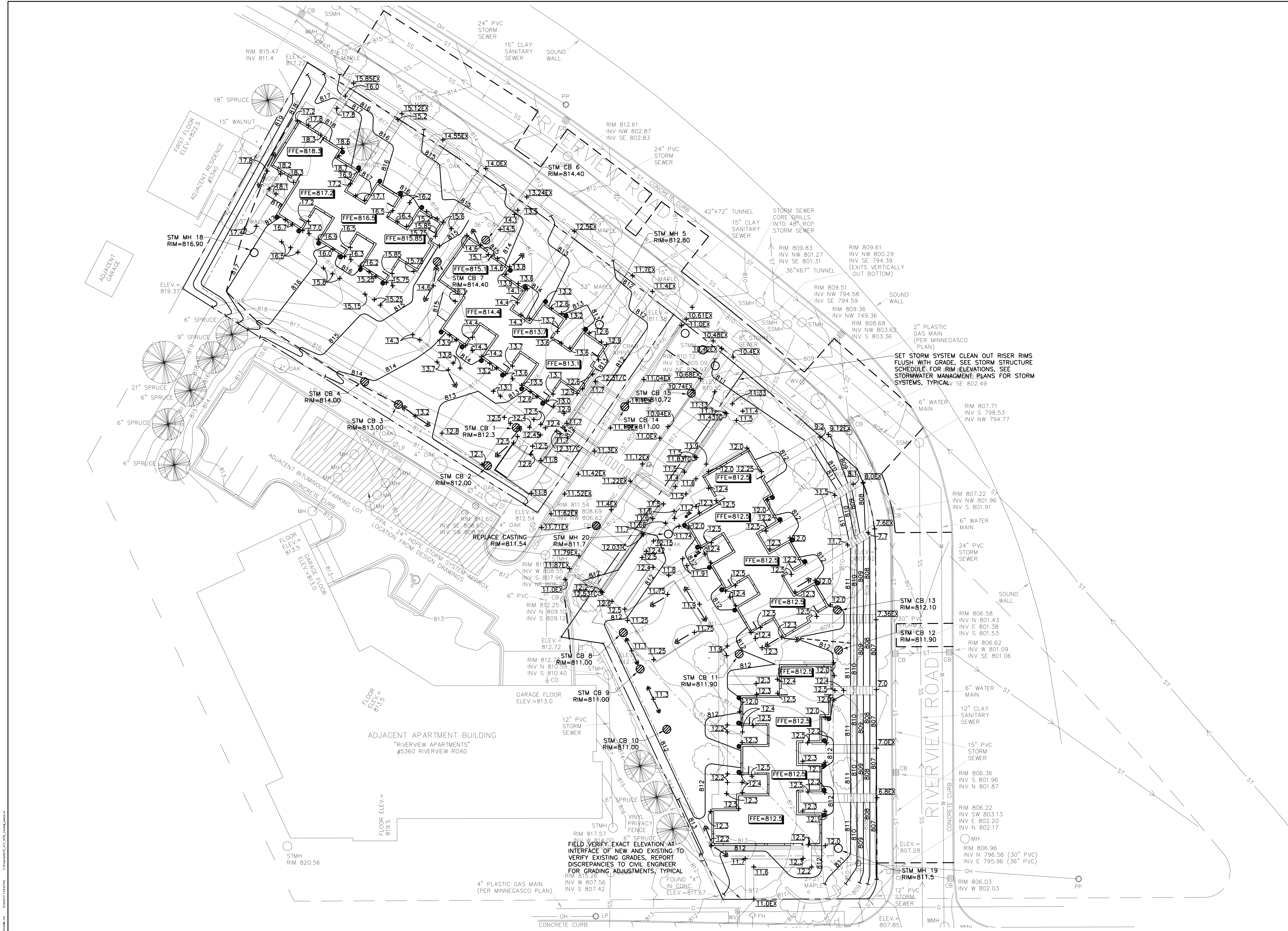
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PROJECT PHASE	100%CD
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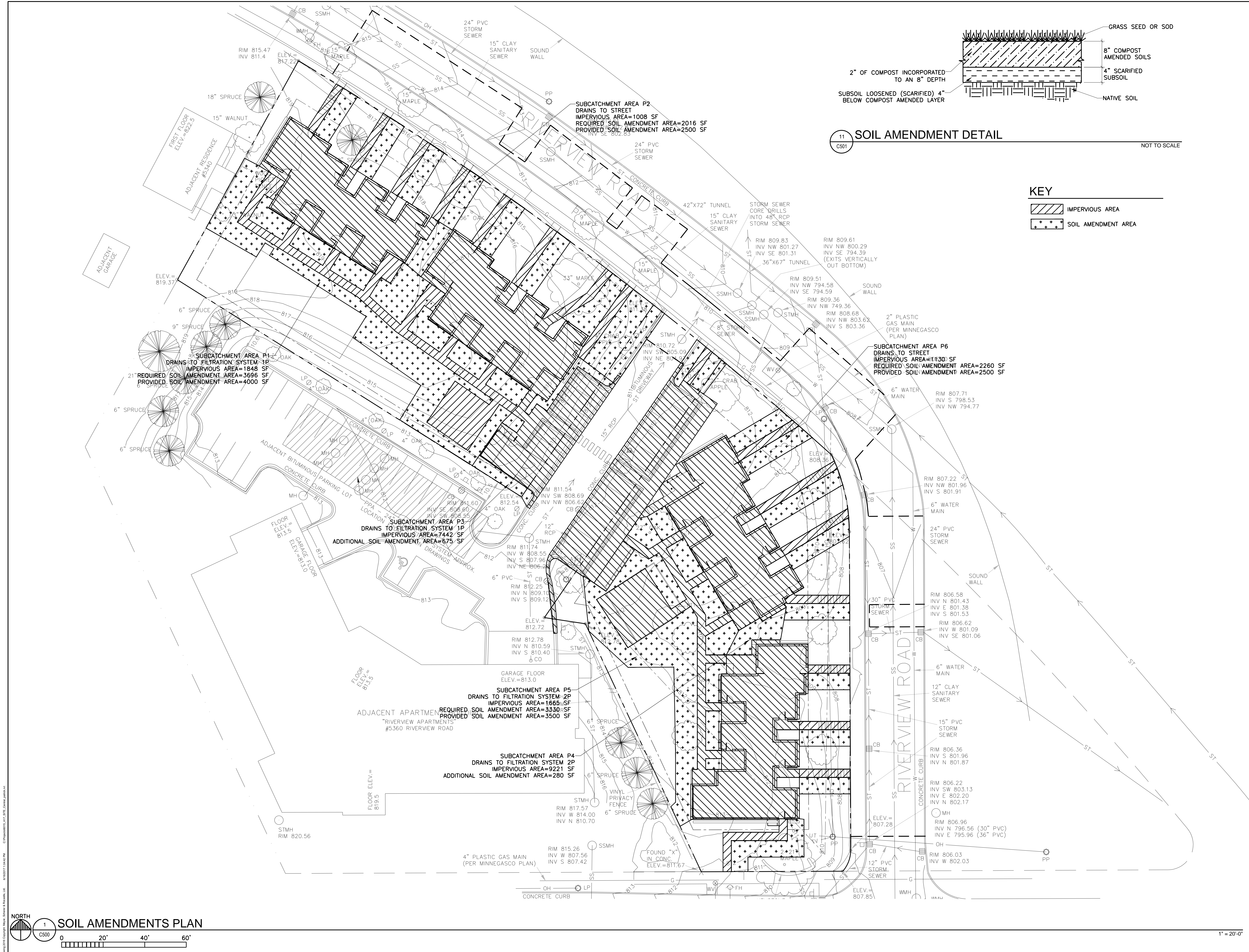
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GRADING PLAN

C500



1" = 20'-0"



MSR 710 South 2nd Street, 8th Floor
 Minneapolis, Minnesota 55401-2282

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 Interiors and 612 342 2216 fax
 Urban Design www.msrdesign.com

CIVIL ENGINEER
PIERCE PINI ASSOCIATES, INC.

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 Office Fax: 763-537-1354

MINNEHAHA TOWNHOMES
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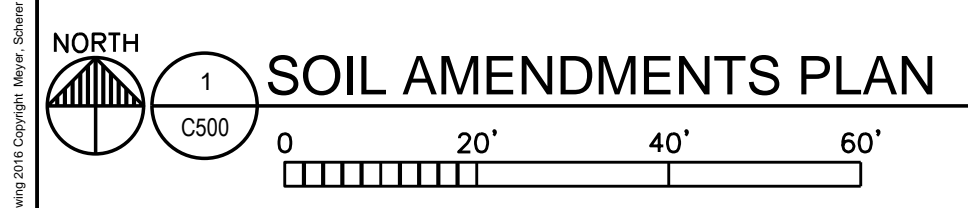
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	05-08-2017	50% CD
	05-26-2017	GC 90% REVIEW SET
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 PROJECT PHASE: 100%CD
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SOIL AMENDMENTS PLAN

C501



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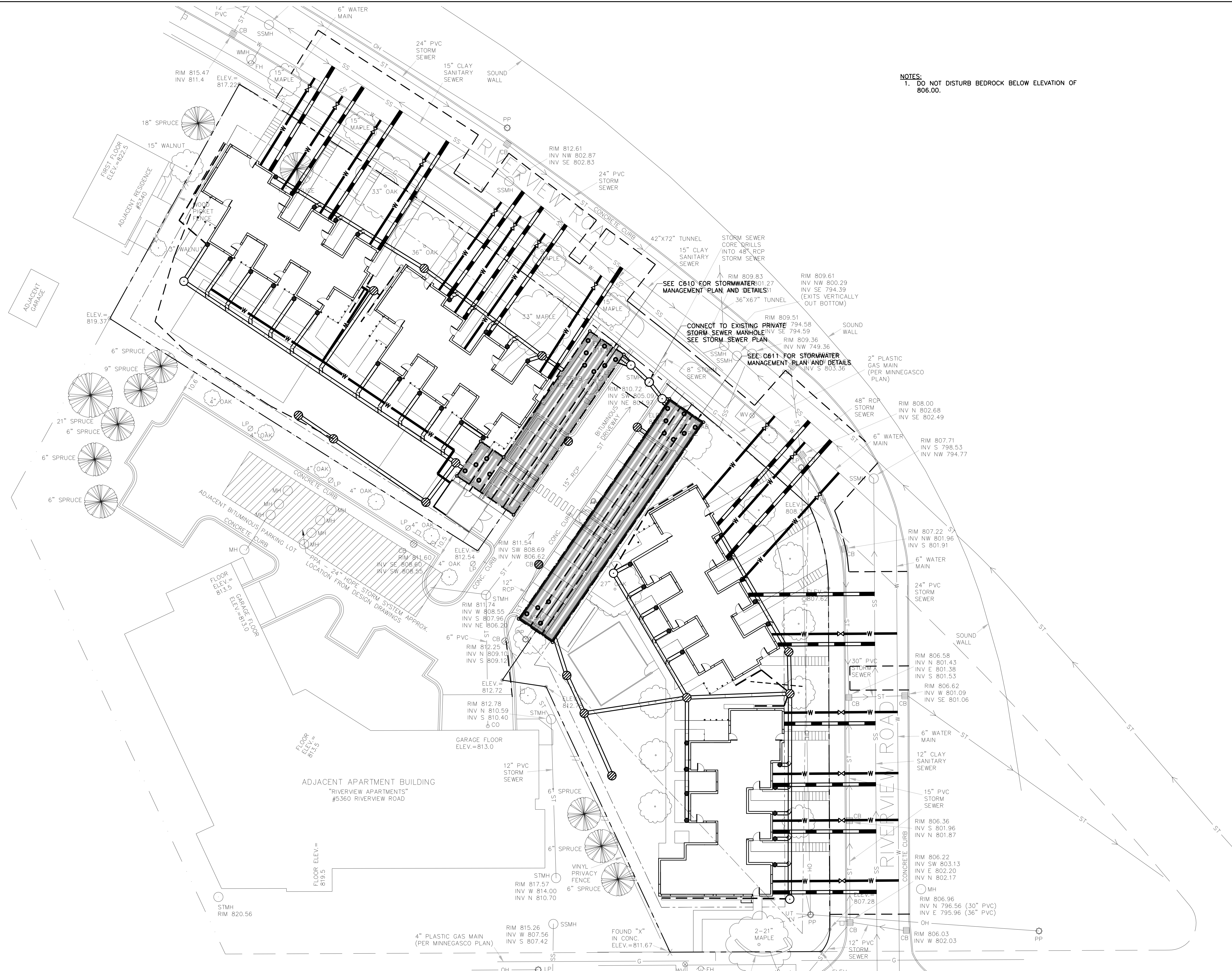
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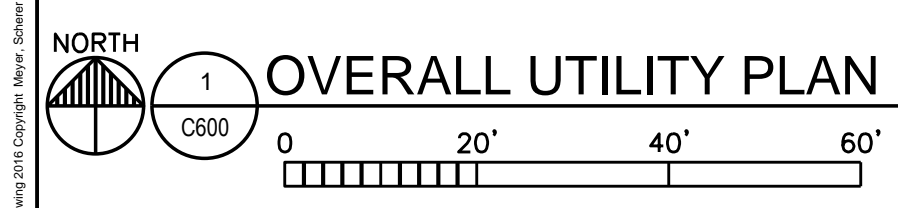
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OVERALL UTILITY PLAN

C600



NOTES:
 1. DO NOT DISTURB BEDROCK BELOW ELEVATION OF 806.00.



1" = 20'-0"

**MINNEHAHA
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 5118 54TH ST EAST
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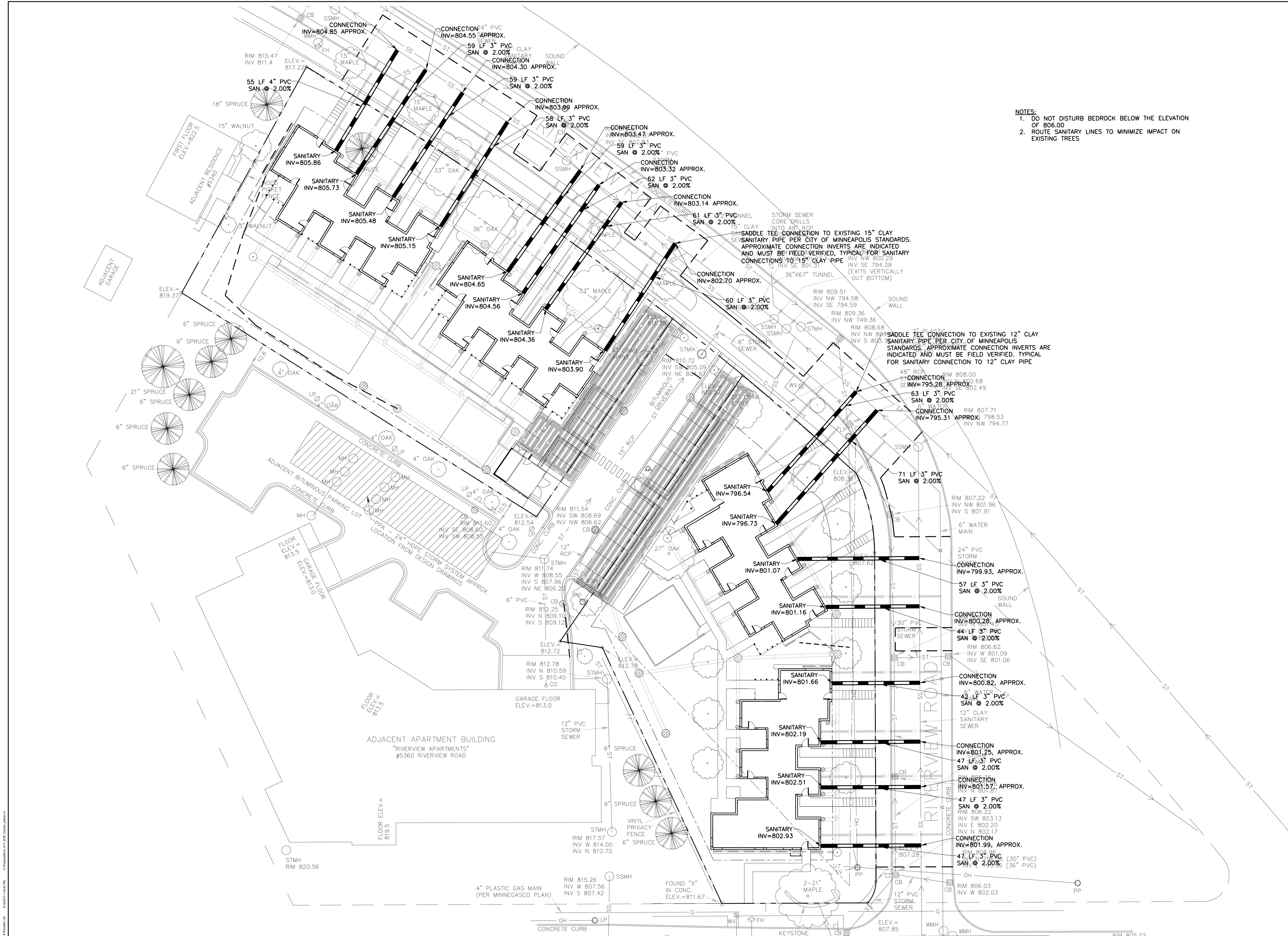
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	06-21-2017	100% CD ISSUE

PROJECT NO.	17-003
PROJECT PHASE	100%CD
DRAWN BY:	CLG
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**SANITARY SEWER
 PLAN**

C601

- NOTES:**
- DO NOT DISTURB BEDROCK BELOW THE ELEVATION OF 806.00
 - ROUTE SANITARY LINES TO MINIMIZE IMPACT ON EXISTING TREES



SANITARY SEWER PLAN
 NORTH
 0 20' 40' 60'
 1" = 20'

**MINNEHAHA
TOWNHOMES**
5348, 5364 5369 RIVERVIEW
5118 54TH ST EAST
MINNEAPOLIS, MN 55417

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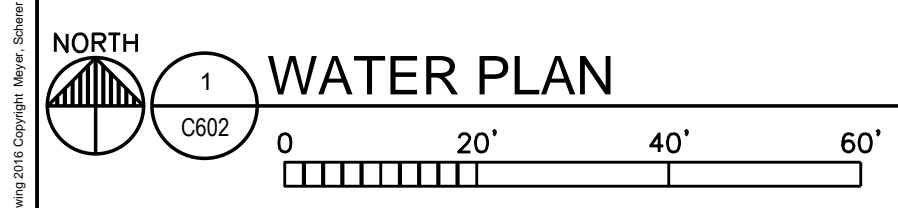
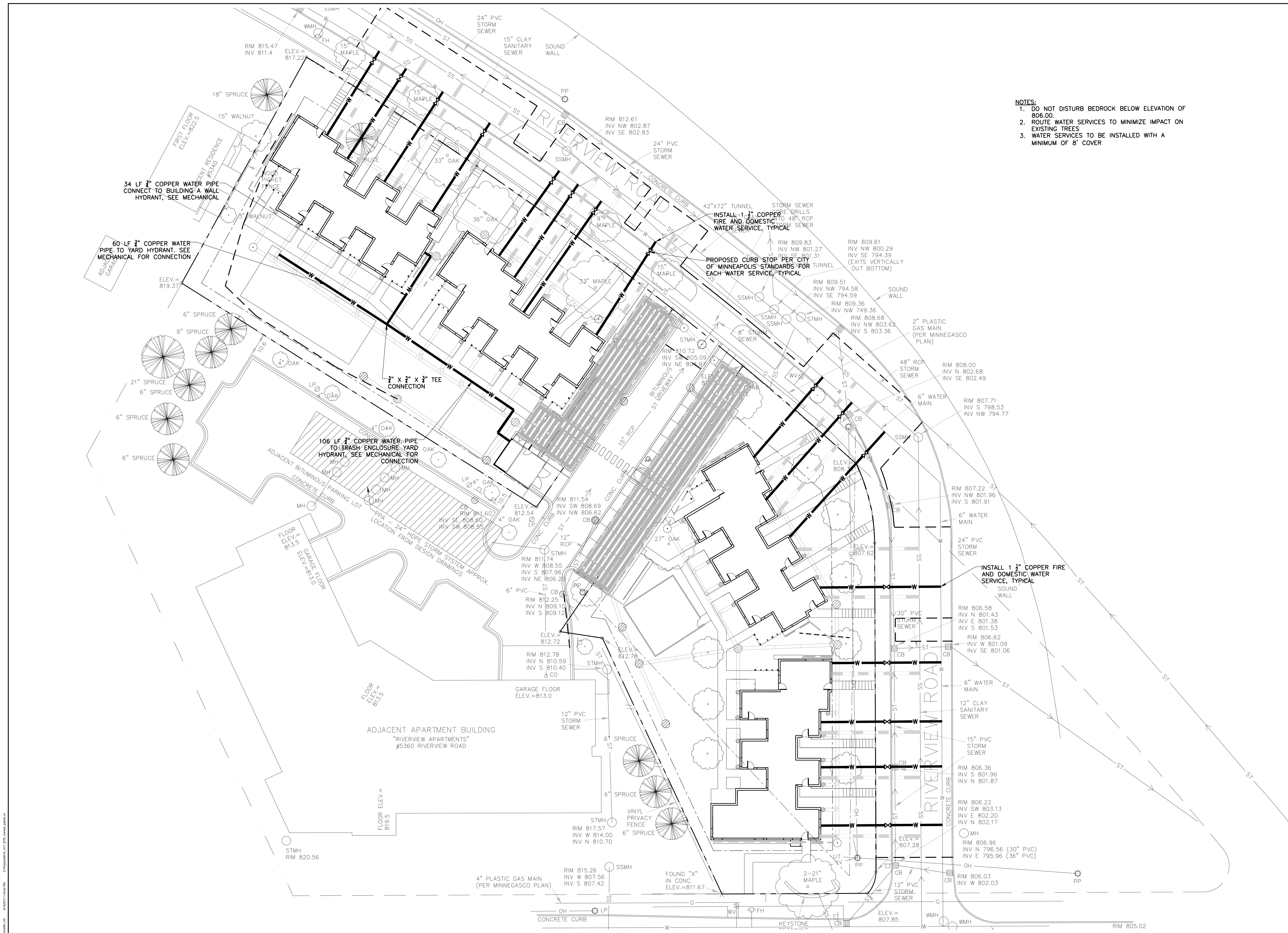
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	05-08-2017	50% CD
	05-26-2017	GC 90% REVIEW SET
	06-21-2017	100% CD ISSUE

PROJECT NO: 17-003
PROJECT PHASE: 100%CD
DRAWN BY: CLG CHECKED BY: RSP

WATER PLAN

C602

- NOTES:**
- DO NOT DISTURB BEDROCK BELOW ELEVATION OF 806.00.
 - ROUTE WATER SERVICES TO MINIMIZE IMPACT ON EXISTING TREES
 - WATER SERVICES TO BE INSTALLED WITH A MINIMUM OF 8" COVER



1" = 20'-0"

NOTES:
1. DO NOT DISTURB BEDROCK BELOW ELEVATION OF 806.00.

ROOF DRAIN SCHEDULE					
ROOF DRAIN NUMBER	GRATE ELEVATION	INVERT ELEVATION	CASTING (NEENAH)	CONNECTING PIPE LENGTH	CONNECTING PIPE OUTLET CONNECTION
RD 1	817.60	814.50	NDS#1213	1	12" RCP
RD 2	816.90	814.90	NDS#1213	2	12" RCP
RD 3	816.20	814.20	NDS#1213	3	12" RCP
RD 4	816.20	814.20	NDS#1213	3	12" RCP
RD 5	815.50	813.50	NDS#1213	3	12" RCP
RD 6	813.80	811.80	NDS#1213	5	12" RCP
RD 7	813.60	811.60	NDS#1213	7	12" RCP
RD 8	813.20	811.20	NDS#1213	7	12" RCP
RD 9	813.20	811.20	NDS#1213	7	12" RCP
RD 10	813.00	811.00	NDS#1213	7	STM MH 5
RD 11	813.00	811.00	NDS#1213	12	RD 12
RD 12	813.40	810.85	NDS#1213	18	12" RCP
RD 13	813.40	811.40	NDS#1213	18	12" RCP
RD 14	813.80	811.80	NDS#1213	18	12" RCP
RD 15	814.00	812.00	NDS#1213	18	12" RCP
RD 16	814.10	812.10	NDS#1213	18	12" RCP
RD 17	815.60	813.60	NDS#1213	22	12" RCP
RD 18	816.10	814.10	NDS#1213	22	12" RCP
RD 19	816.20	814.20	NDS#1213	22	12" RCP
RD 20	816.80	814.80	NDS#1213	22	12" RCP
RD 21	816.90	814.90	NDS#1213	22	12" RCP
RD 22	817.10	815.10	NDS#1213	22	STM MH 18
RD 23	812.00	810.00	NDS#1213	1	12" RCP
RD 24	812.00	810.00	NDS#1213	2	12" RCP
RD 25	812.00	810.00	NDS#1213	2	12" RCP
RD 26	812.00	810.00	NDS#1213	2	12" RCP
RD 27	812.00	810.00	NDS#1213	2	12" RCP
RD 28	812.00	810.00	NDS#1213	5	12" RCP
RD 29	812.20	810.20	NDS#1213	8	12" RCP
RD 30	812.10	810.10	NDS#1213	8	12" RCP
RD 31	812.20	810.20	NDS#1213	8	12" RCP
RD 32	812.30	810.30	NDS#1213	8	12" RCP
RD 33	812.30	809.50	NDS#1213	1	12" RCP
RD 34	812.30	810.30	NDS#1213	1	12" RCP
RD 35	812.30	810.30	NDS#1213	1	12" RCP
RD 36	812.00	810.00	NDS#1213	1	12" RCP
RD 37	812.30	810.30	NDS#1213	9	12" RCP
RD 38	812.30	810.30	NDS#1213	9	12" RCP
RD 39	812.30	810.30	NDS#1213	9	12" RCP
RD 40	812.30	810.30	NDS#1213	9	12" RCP
RD 41	811.80	809.80	NDS#1213	9	STM MH 20

STORM STRUCTURE SCHEDULE				
STRUCTURE TYPE	STRUCTURE NUMBER	STRUCTURE SIZE (DIA)	RIM/GRATE ELEVATION	CASTING (NEENAH)
STORM	1	4'	SEE PLAN	R-2571-E
STORM	2	4'	SEE PLAN	R-2571-E
STORM	3	4'	SEE PLAN	R-2571-E
STORM	4	4'	SEE PLAN	R-2571-E
STORM	5	4'	SEE PLAN	R-2571-E
STORM	6	4'	SEE PLAN	R-2571-E
STORM	7	4'	SEE PLAN	R-2571-E
STORM	8	4'	SEE PLAN	R-2571-E
STORM	9	4'	SEE PLAN	R-2571-E
STORM	10	4'	SEE PLAN	R-2571-E
STORM	11	4'	SEE PLAN	R-2571-E
STORM	12	4'	SEE PLAN	R-2571-E
STORM	13	4'	SEE PLAN	R-2571-E
STORM	14	4'	SEE PLAN	R-2571-E
STORM	15	4'	SEE PLAN	R-2571-E
STORM	16	4'	SEE PLAN	R-1642-A
STORM	17	4'	SEE PLAN	R-1642-A
STORM	18	4'	SEE PLAN	R-1642-A
STORM	19	4'	SEE PLAN	R-1642-A
STORM	20	4'	SEE PLAN	R-1642-A
CLEAN OUT RISER	CO 1	1.5'	812.2	R-1566
CLEAN OUT RISER	CO 2	1.5'	811.9	R-1566
CLEAN OUT RISER	CO 3	1.5'	812.1	R-1566
CLEAN OUT RISER	CO 4	1.5'	811.8	R-1566
CLEAN OUT RISER	CO 5	1.5'	811.8	R-1566
CLEAN OUT RISER	CO 6	1.5'	811.7	R-1566
CLEAN OUT RISER	CO 7	1.5'	811.6	R-1566
CLEAN OUT RISER	CO 8	1.5'	812.4	R-1566
CLEAN OUT RISER	CO 9	1.5'	812.3	R-1566
CLEAN OUT RISER	CO 10	1.5'	812.4	R-1566
CLEAN OUT RISER	CO 11	1.5'	812.4	R-1566
CLEAN OUT RISER	CO 12	1.5'	812.3	R-1566
CLEAN OUT RISER	CO 13	1.5'	811.8	R-1566
CLEAN OUT RISER	CO 14	1.5'	811.7	R-1566
CLEAN OUT RISER	CO 15	1.5'	811.6	R-1566
CLEAN OUT RISER	CO 16	1.5'	811.5	R-1566
CLEAN OUT RISER	CO 17	1.5'	810.6	R-1566
CLEAN OUT RISER	CO 18	1.5'	810.6	R-1566
CLEAN OUT RISER	CO 19	1.5'	810.6	R-1566
CLEAN OUT RISER	CO 20	1.5'	810.6	R-1566
CLEAN OUT RISER	CO 21	1.5'	811.2	R-1566
CLEAN OUT RISER	CO 22	1.5'	811.2	R-1566
CLEAN OUT RISER	CO 23	1.5'	811.2	R-1566
CLEAN OUT RISER	CO 24	1.5'	811.9	R-1566
CLEAN OUT RISER	CO 25	1.5'	811.9	R-1566
CLEAN OUT RISER	CO 26	1.5'	811.9	R-1566
CLEAN OUT RISER	CO 27	1.5'	812	R-1566

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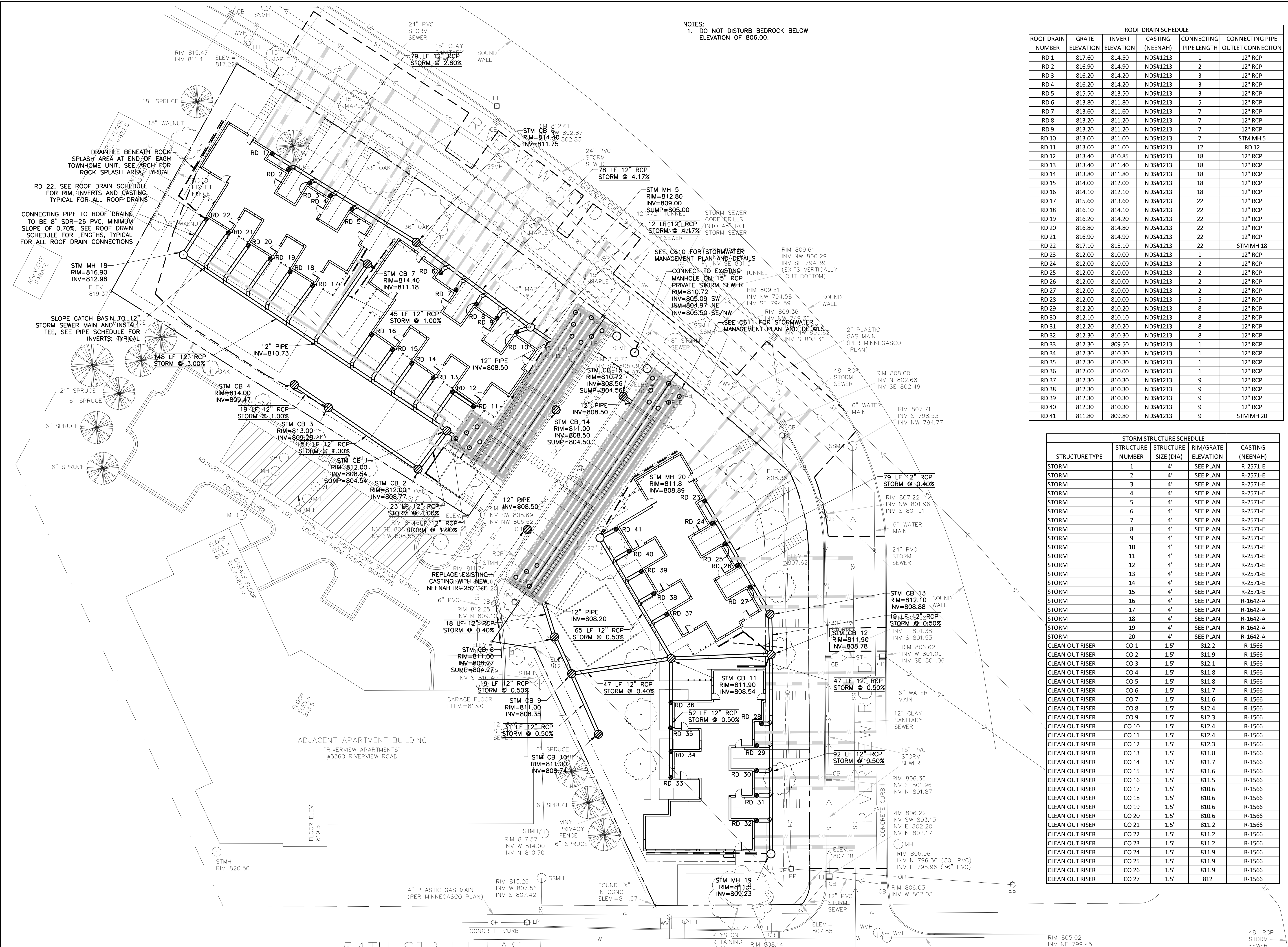
Signature: *Rhonda S. Pierce*
Print Name: RHONDA S. PIERCE
Date: 06-21-2017 License No.: 41333

ISSUE	DATE	DESCRIPTION
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	04-10-2017	MCWD SUBMITTAL
	04-21-2017	100% CD
	05-08-2017	90% CD
	05-26-2017	GC 90% REVIEW SET
	06-21-2017	100% CD ISSUE

PROJECT NO: 17-003
PROJECT PHASE: 100%CD
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STORM SEWER PLAN

C603



1 NORTH
STORM SEWER PLAN
0 20' 40' 60'
1" = 20'-0"

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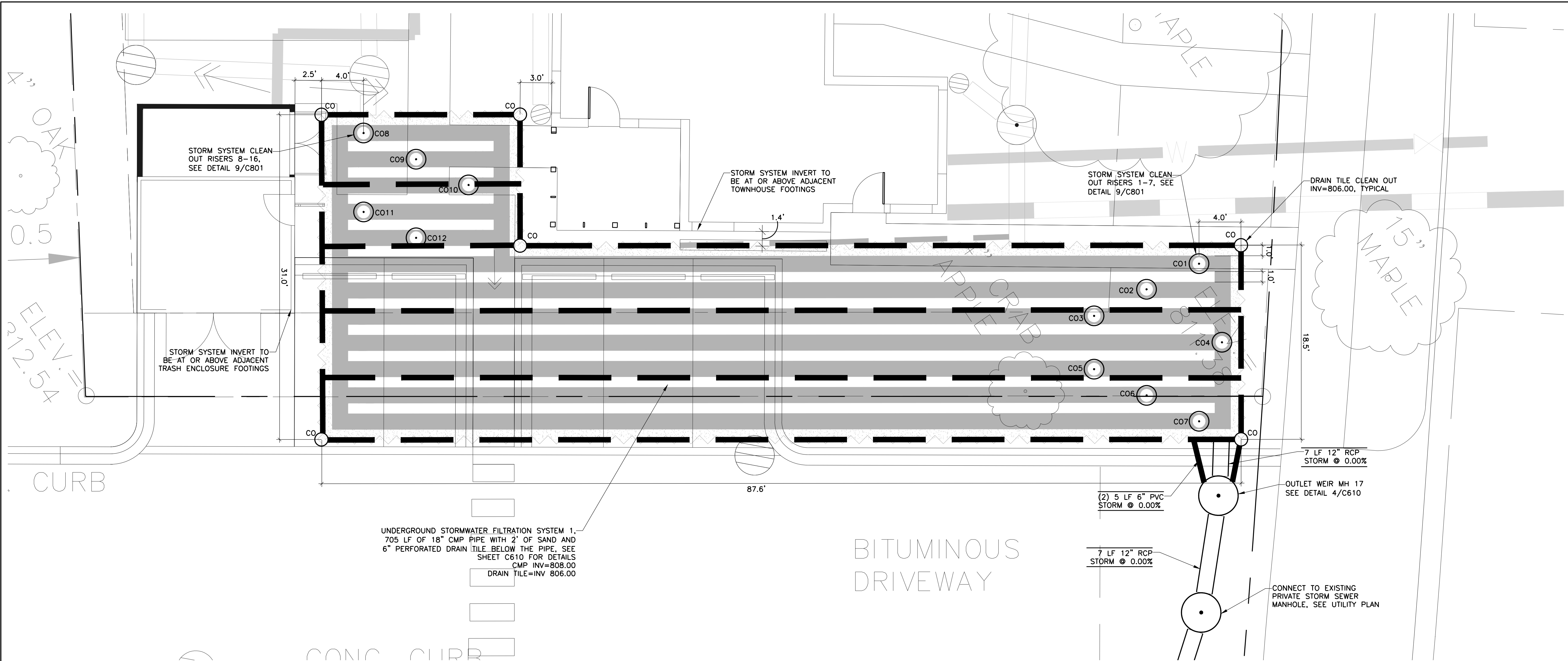
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ISSUE	DATE	DESCRIPTION
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MAR	05-08-2017	50% CD
MAR	05-26-2017	GC 90% REVIEW SET
MAR	06-21-2017	100% CD ISSUE

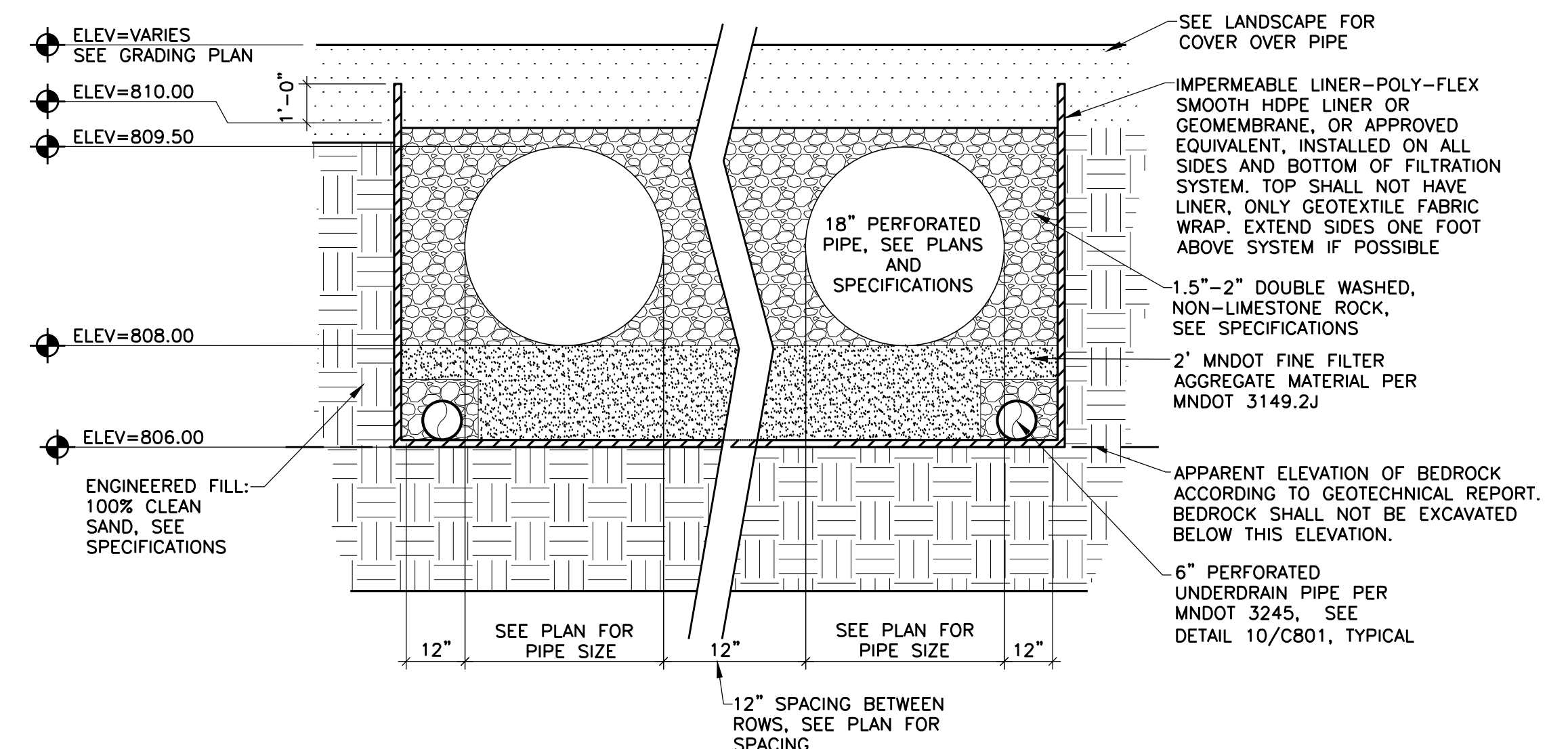
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**STORMWATER
MANAGEMENT
PLAN**

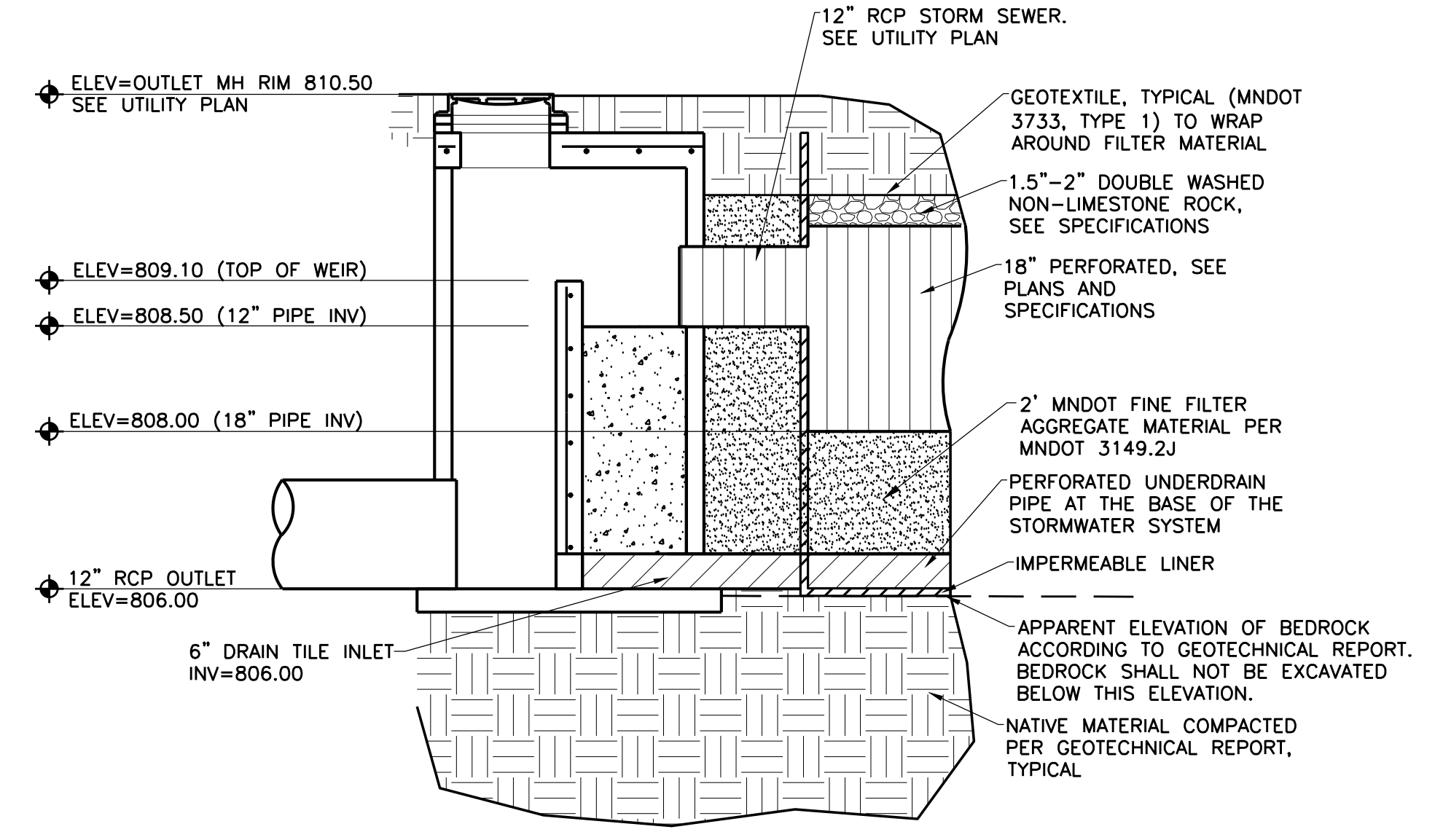
C610



1 UNDERGROUND FILTRATION SYSTEM 1 (NORTH)
Scale: 1" = 5'-0"

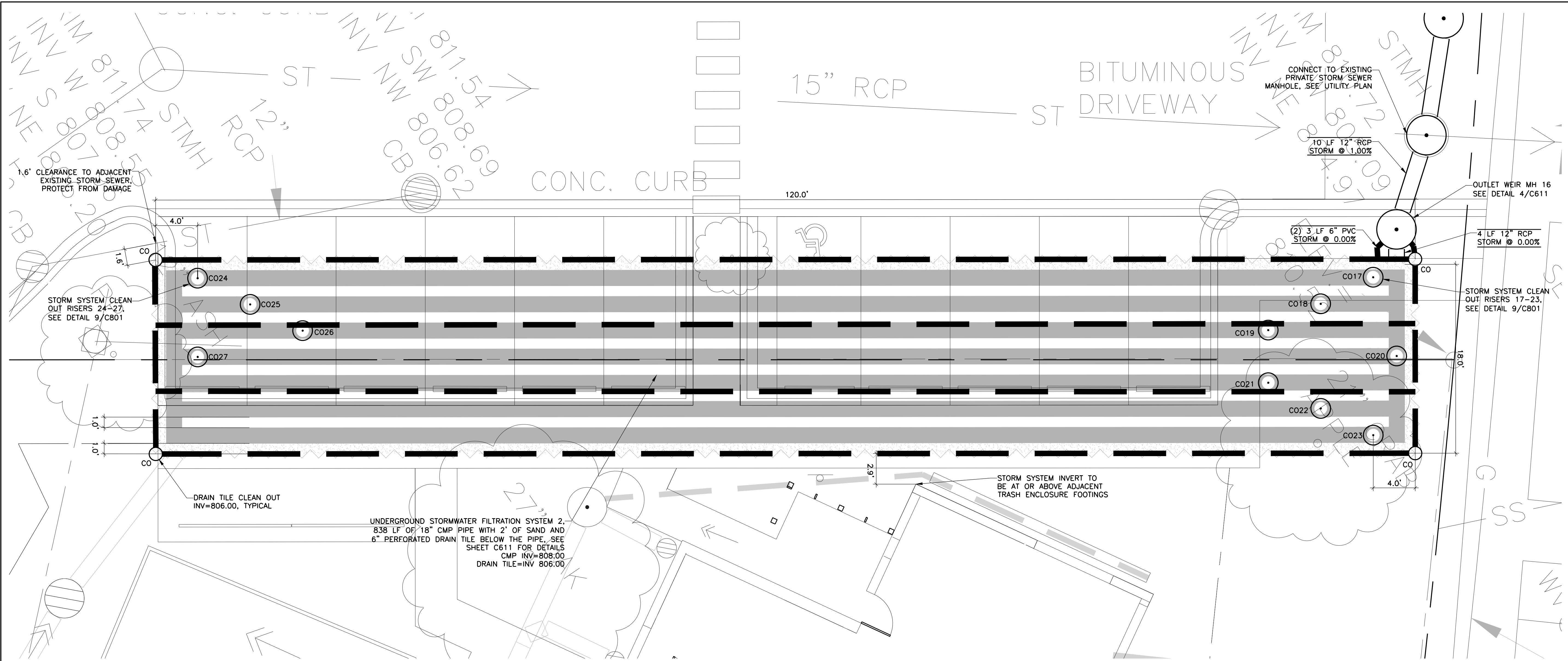


2 UNDERGROUND FILTRATION SYSTEM - CROSS SECTION
NO SCALE



3 UNDERGROUND FILTRATION SYSTEM - OUTLET MANHOLE
NO SCALE

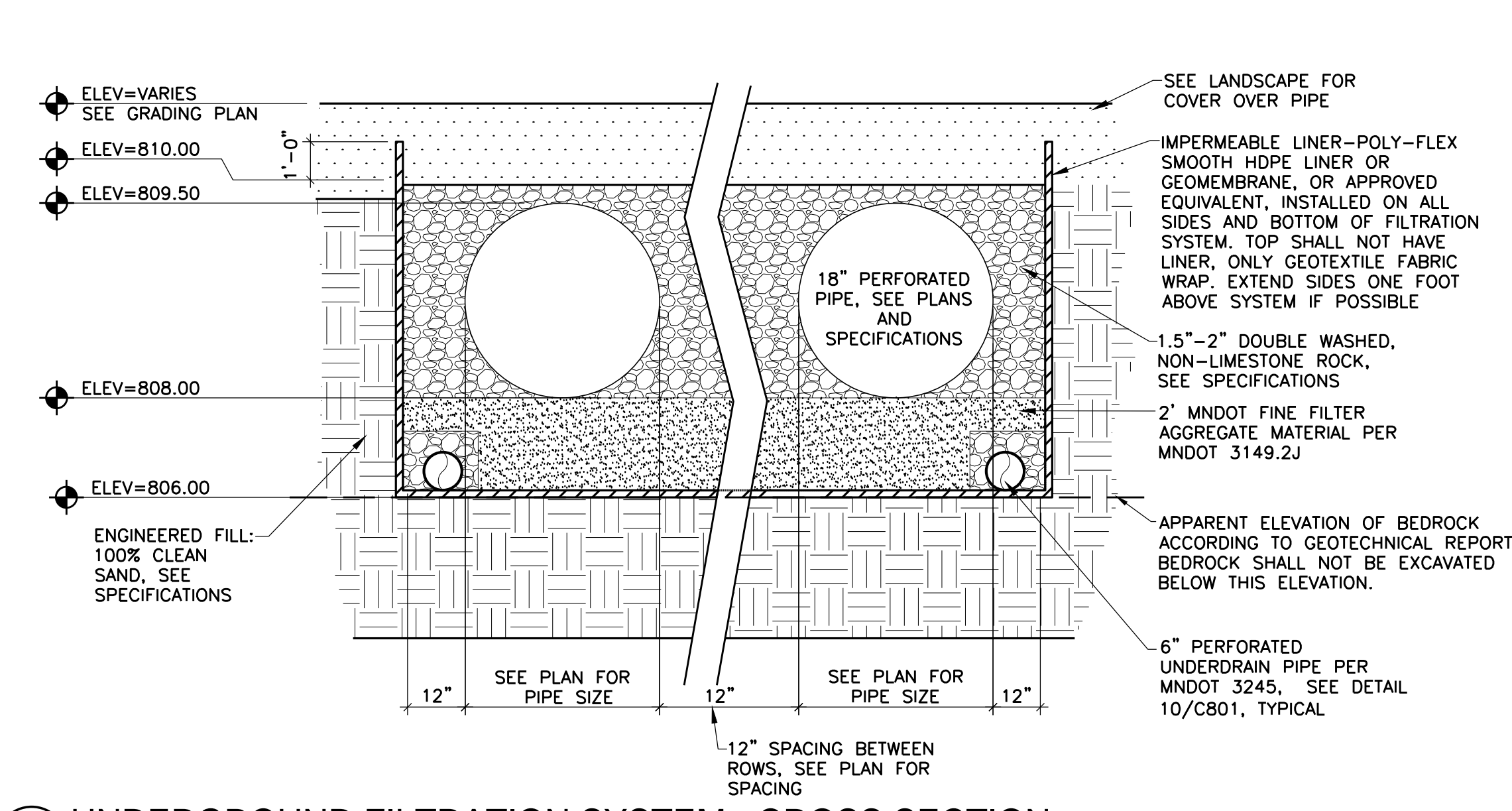
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1 UNGROUND FILTRATION SYSTEM 2 SOUTH

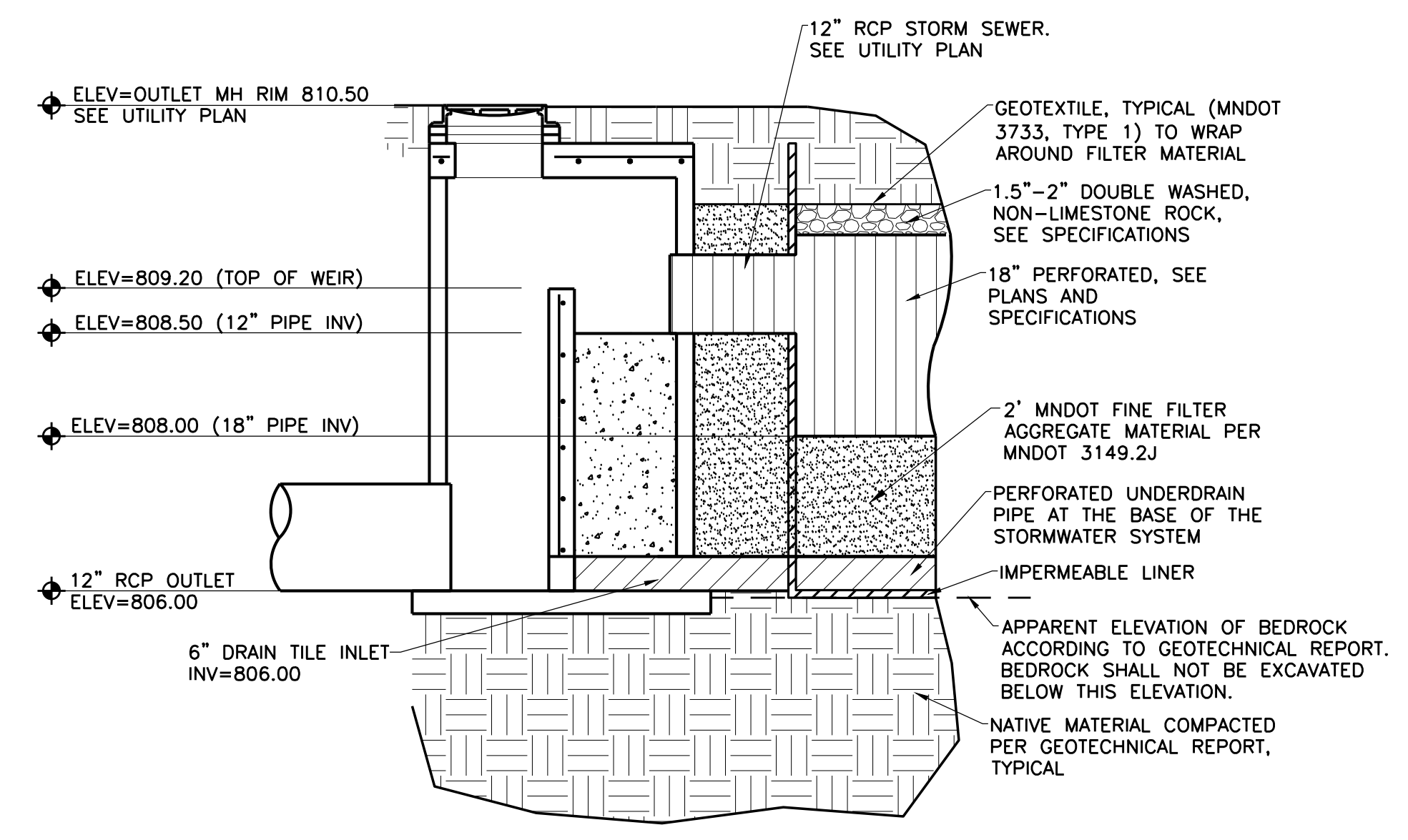
0 5' 10' 15'

1" = 5'-0"



2 UNDERGROUND FILTRATION SYSTEM - CROSS SECTION

NO SCALE



3 UNDERGROUND FILTRATION SYSTEM - OUTLET MANHOLE

NO SCALE

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	05-26-2017	GC 90% REVIEW SET
	06-21-2017	100% CD ISSUE

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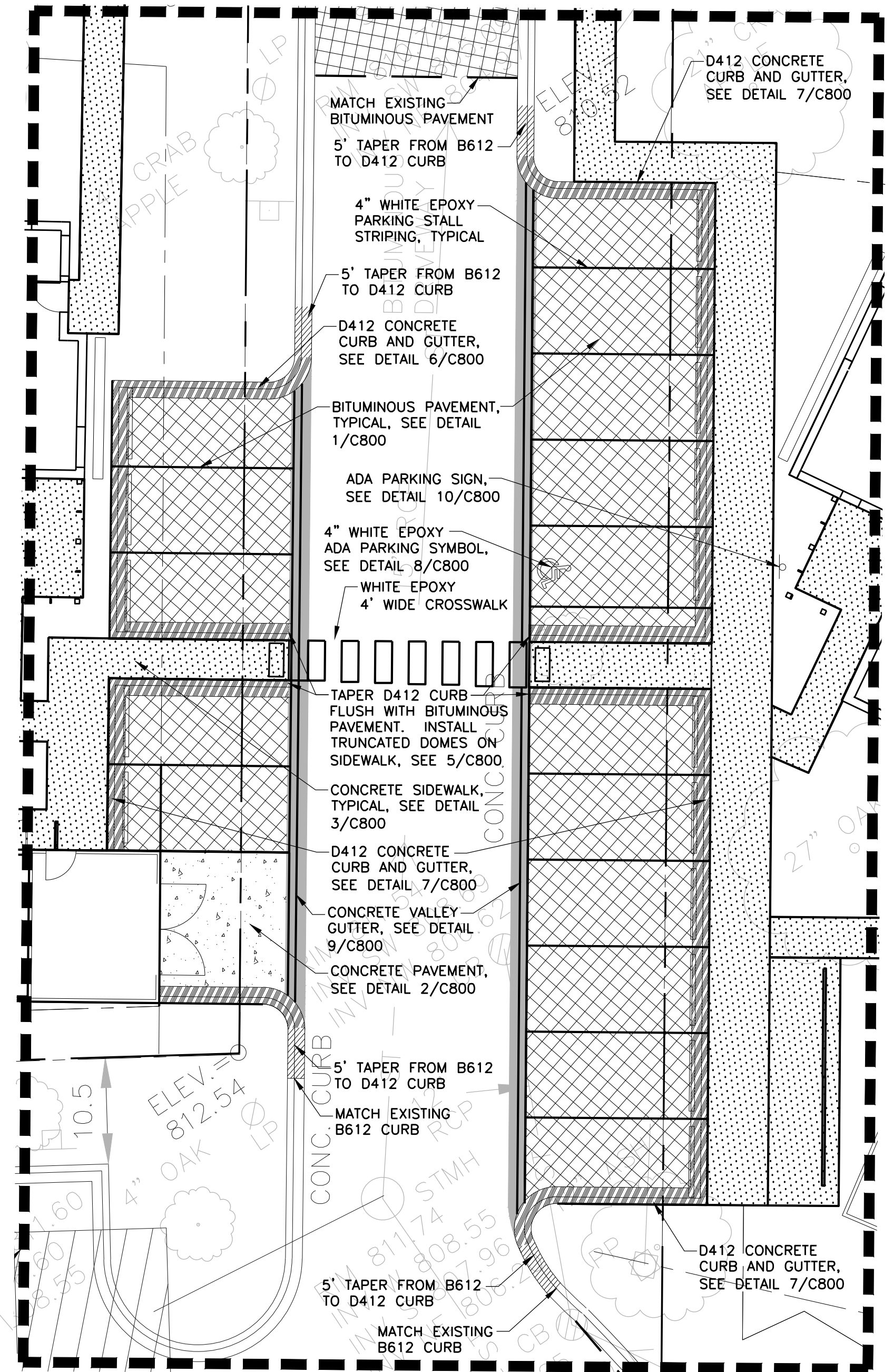
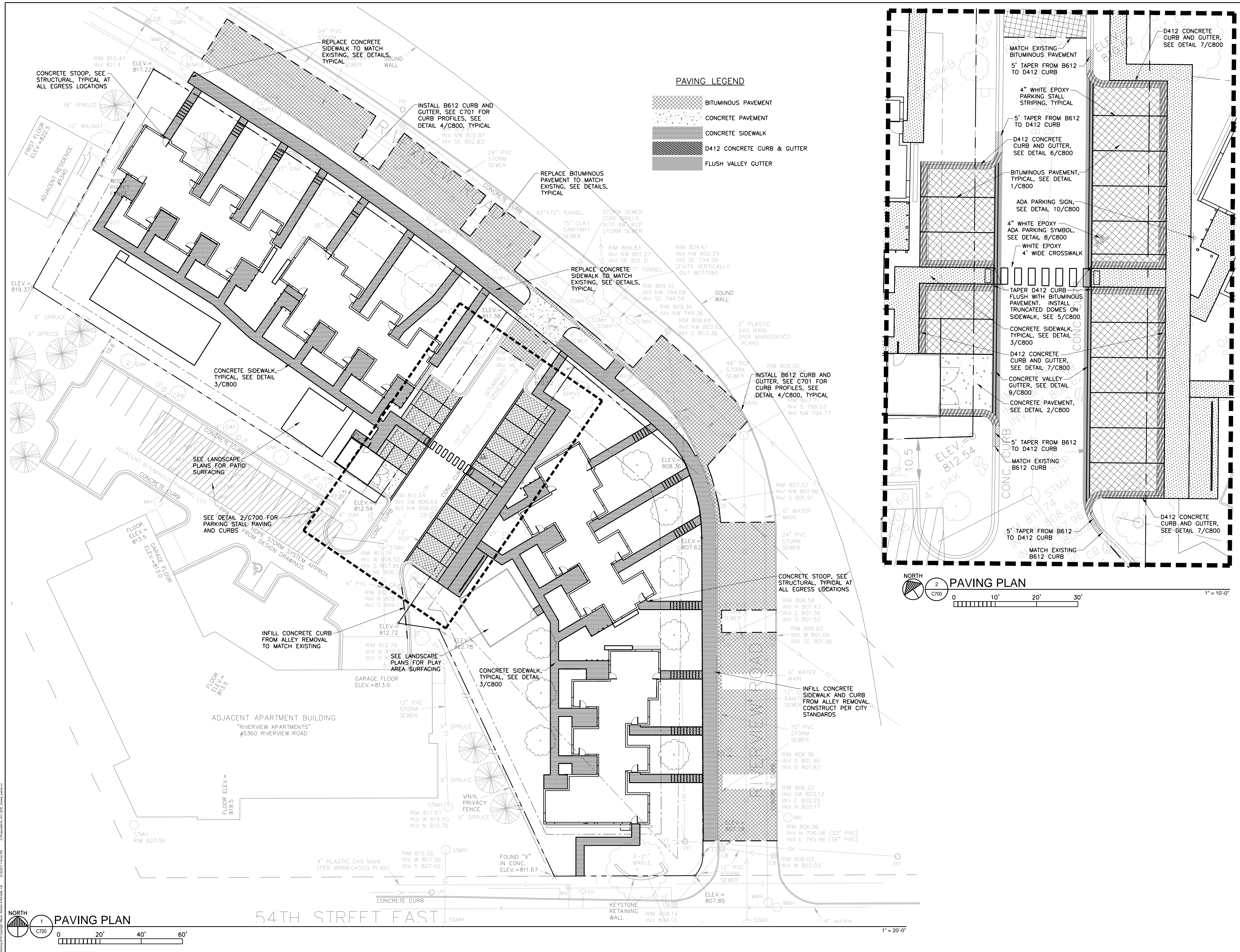
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**STORMWATER
MANAGEMENT
PLAN**

C611



1 PAVING PLAN
 NORTH
 C700
 0 20' 40' 60'
 1" = 20'-0"

2 PAVING PLAN
 NORTH
 C700
 0 10' 20' 30'
 1" = 10'-0"

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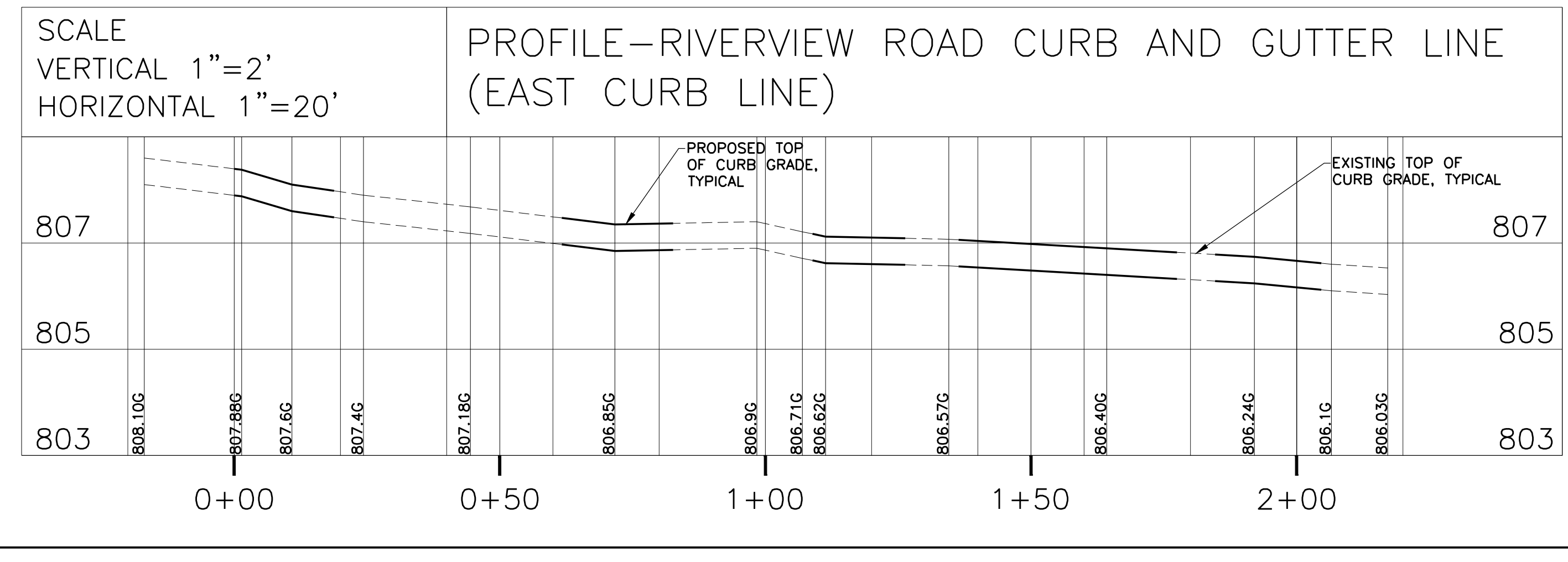
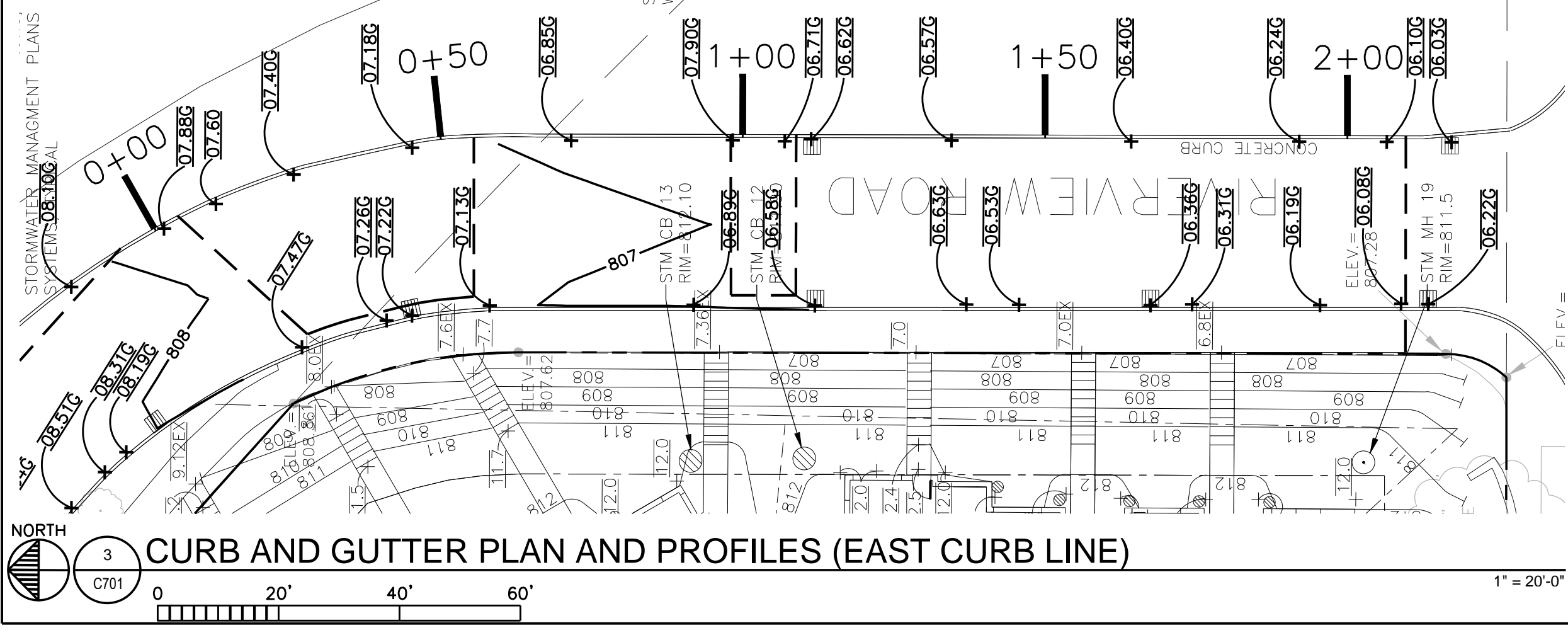
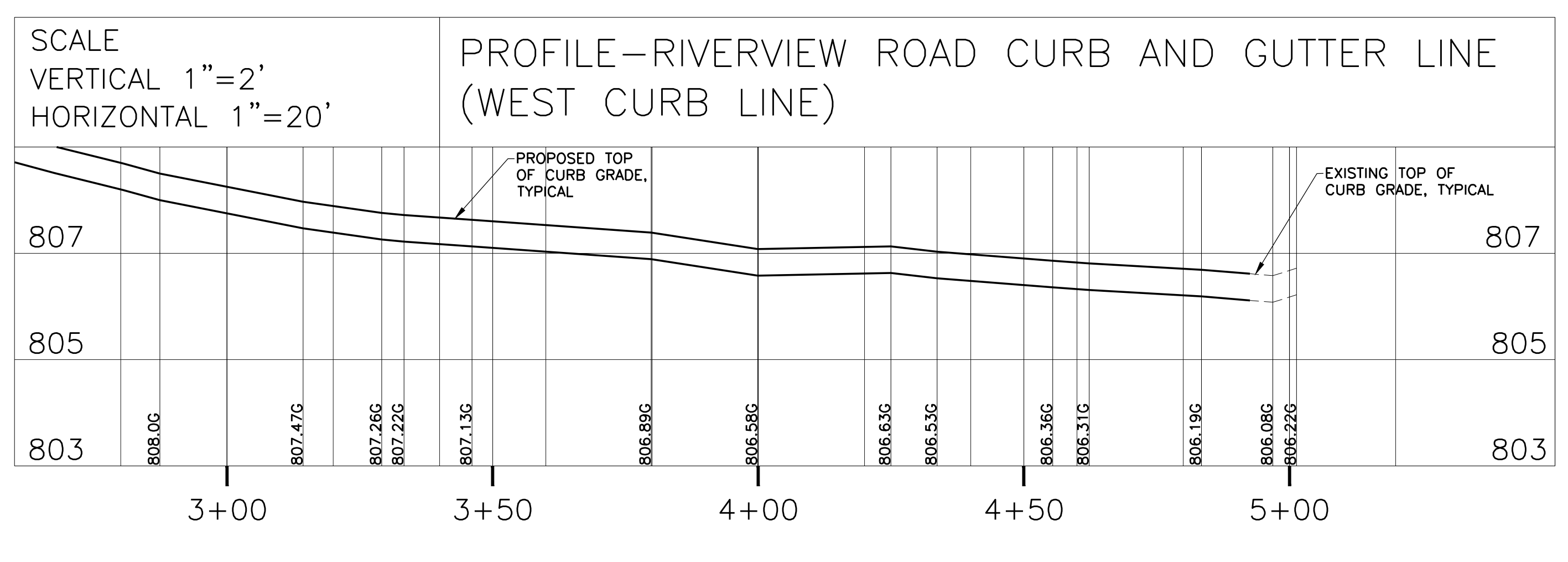
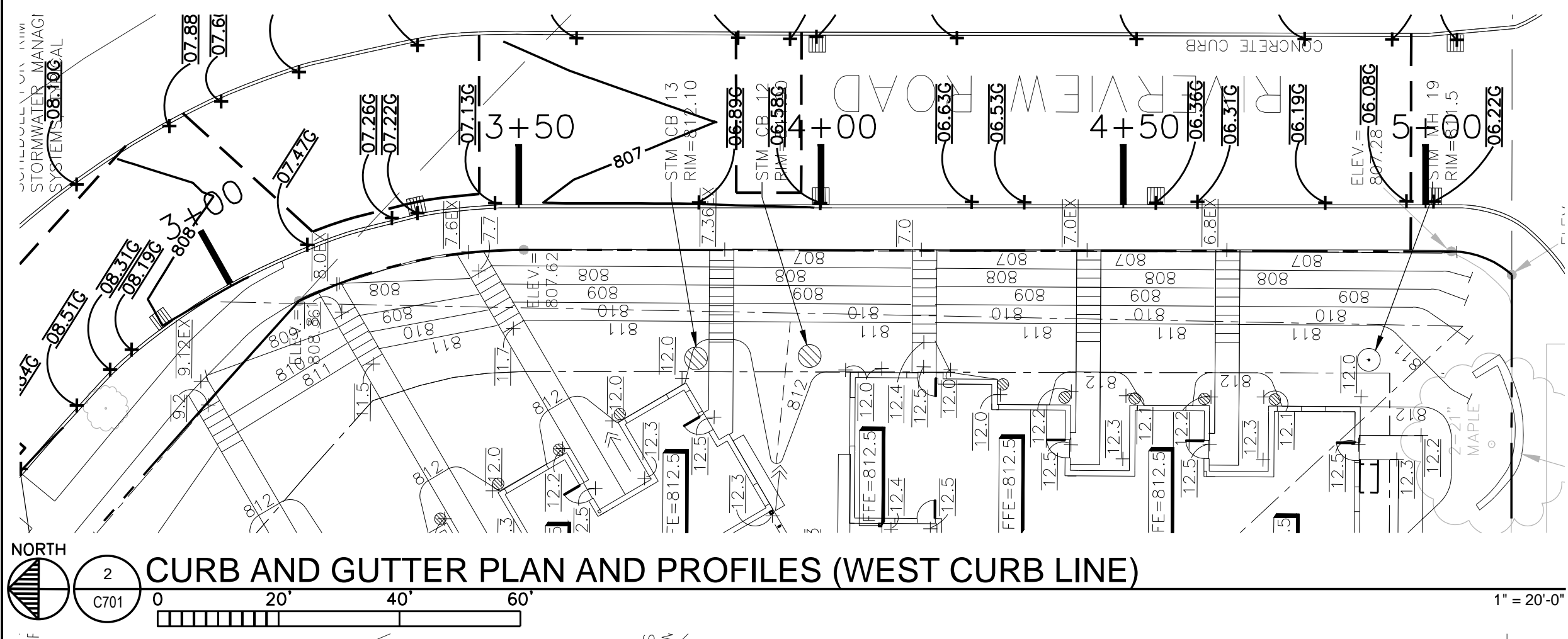
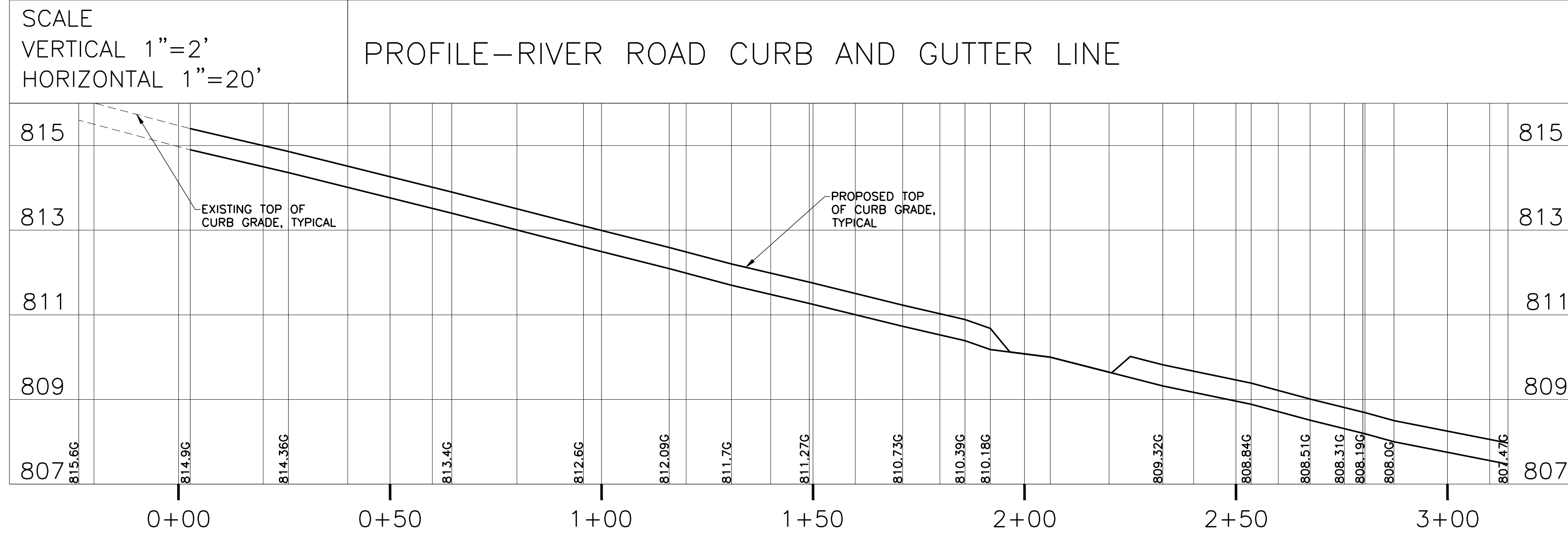
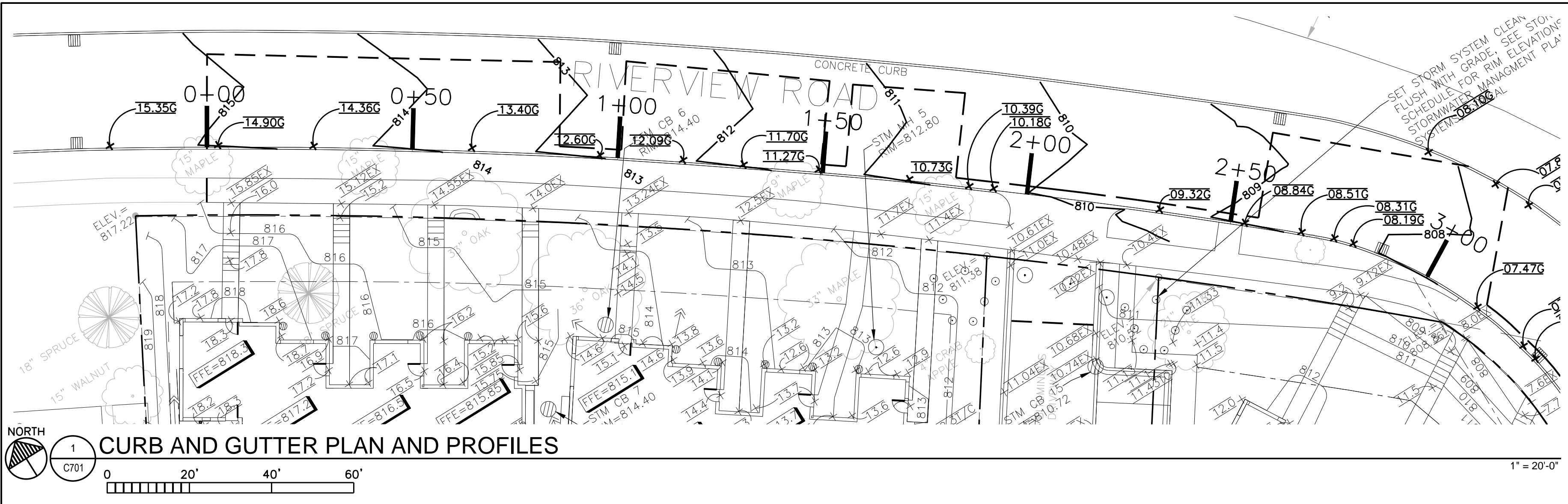
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	05-26-2017	GC 90% REVIEW SET
	06-21-2017	100% CD ISSUE

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PAVING PLAN

C700



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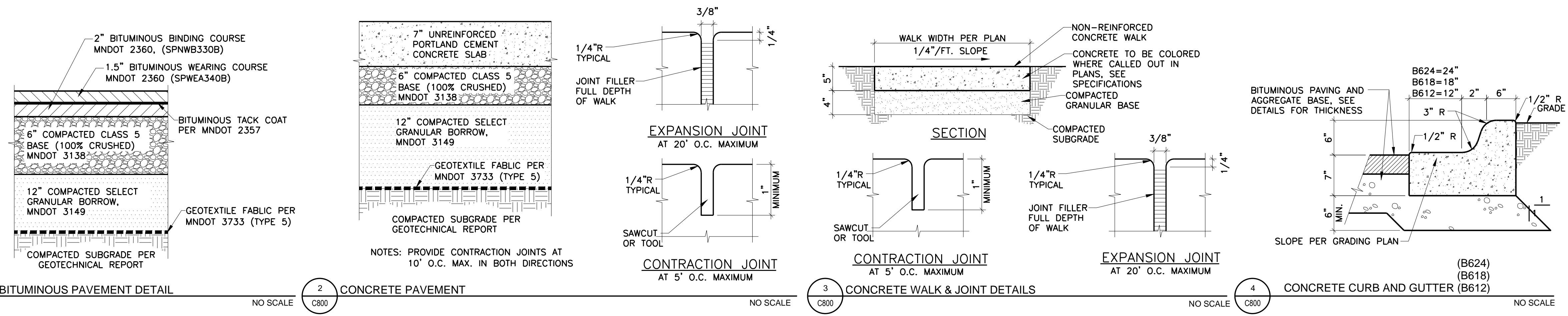
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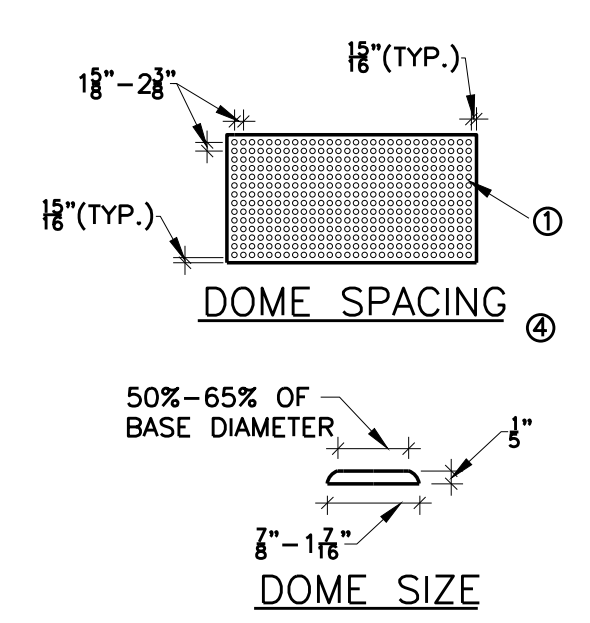
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CURB PROFILE

C701

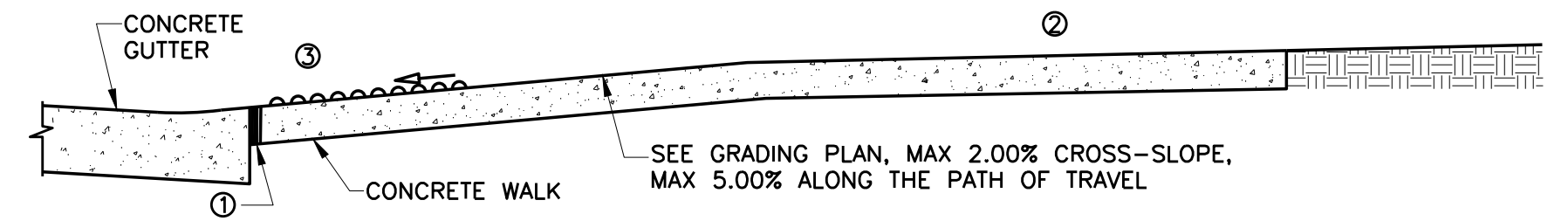


1 BITUMINOUS PAVEMENT DETAIL NO SCALE
2 CONCRETE PAVEMENT NO SCALE
3 CONCRETE WALK & JOINT DETAILS NO SCALE
4 CONCRETE CURB AND GUTTER (B624, B618, B612) NO SCALE

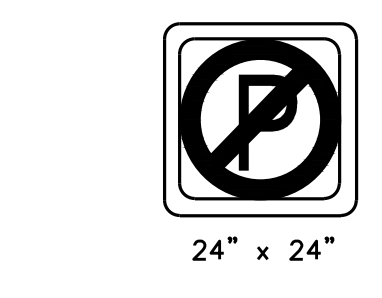


NOTE:
TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA), ALL STATE AND LOCAL AGENCIES ARE REQUIRED TO COMPLY WITH THIS STANDARD PLATE.

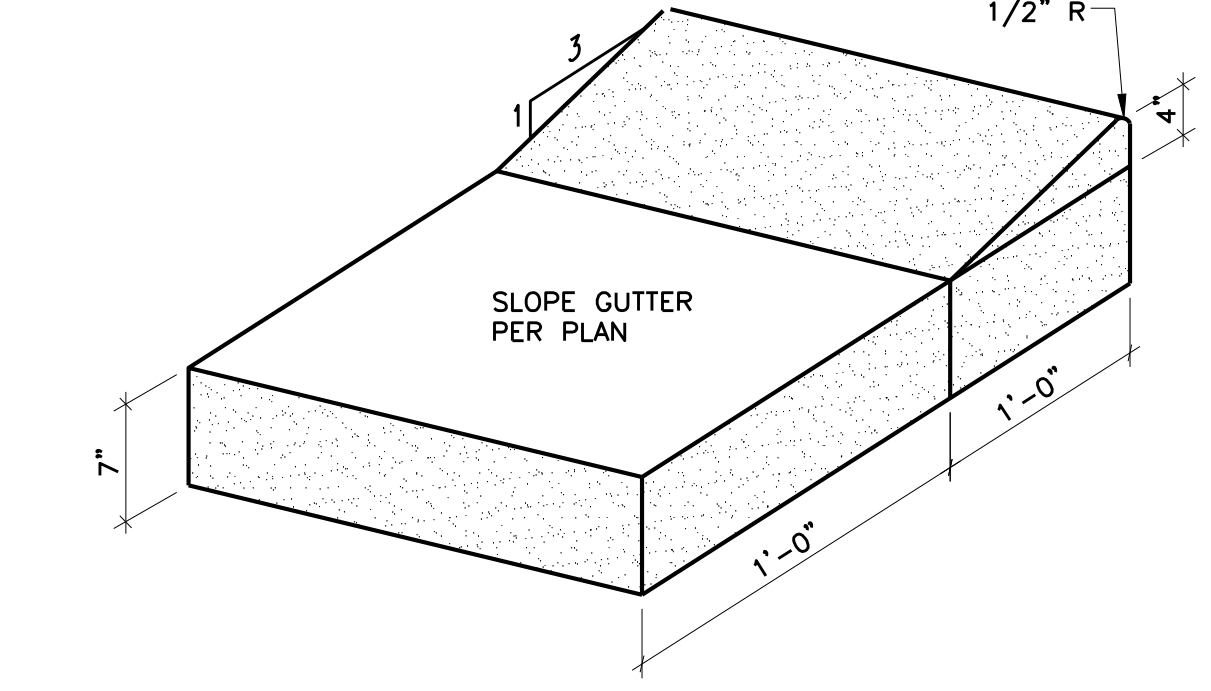
- 1/2 INCH PERFORMED JOINT FILLER MATERIAL, AASHTO M213.
- WHEN POSSIBLE, PROVIDE A CLEAR PATH OF TRAVEL 4'-0" WIDE BEHIND THE PEDESTRIAN RAMP. A RELATIVELY FLAT 4' X 4' LANDING WILL ALLOW WHEELCHAIRS TO NAVIGATE AROUND THE PEDESTRIAN RAMP. NO SIGNALS, SIGNS, CABINETS, OR OTHER OBSTRUCTIONS ARE ALLOWED IN THE RAMP OF PATH OF TRAVEL.
- PLACE THE DETECTABLE WARNINGS (TRUNCATED DOMES) AT THE BACK OF CURB. WHEN THE DETECTABLE WARNING SYSTEM IS A PRECAST MATERIAL, THE CURB SHALL BE HAND FORMED TO FILL THE GAP.
- ADA REQUIRED TRUNCATED DOME AREA SHALL BE 2'-0" MIN. IN DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH OF THE FLUSH SIDEWALK AS SHOWN ON PLANS. TRUNCATED AREA SHALL CONTRAST VISUALLY WITH THE ADJACENT WALKING SURFACE.
- THE ENTIRE TRUNCATED DOME AREA SHALL BE A LIGHT (GRAY OR BUFF TYPICALLY) COLOR WHEN THE ADJACENT SIDEWALK IS A DARK COLOR. THE ENTIRE TRUNCATED DOME AREA SHALL BE A DARK COLOR (RED OR DARK GRAY TYPICALLY) WHEN THE ADJACENT SIDEWALK IS A LIGHT GRAY CEMENT COLOR. PLATES SHALL BE CAST IRON, CONCRETE PLATES ARE NOT ALLOWED.



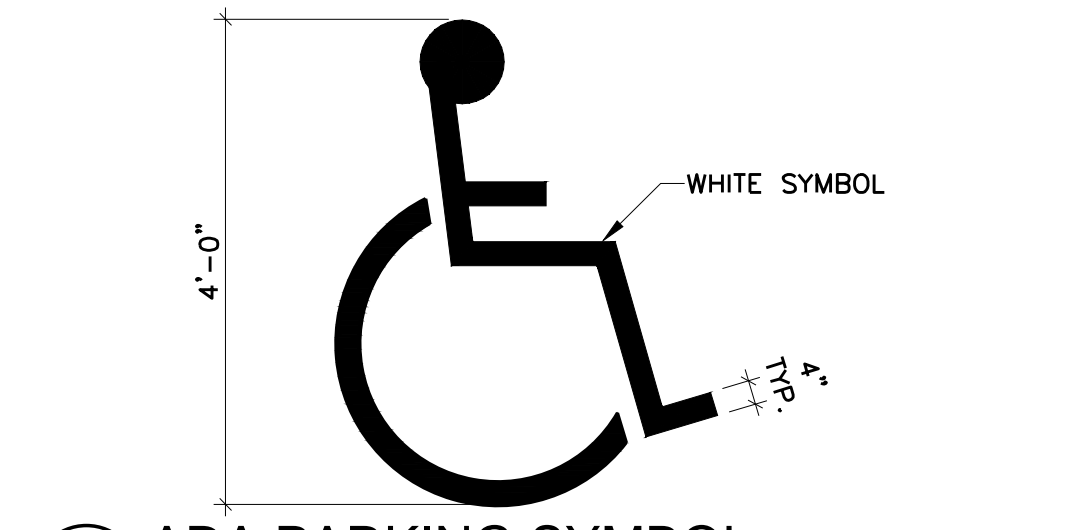
5 PEDESTRIAN CURB RAMP NOT TO SCALE



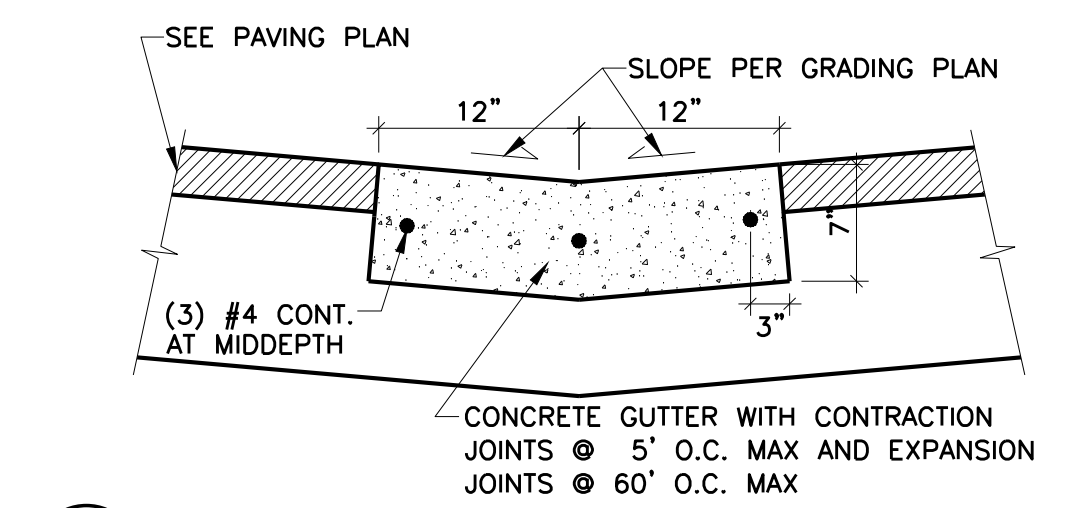
6 NO PARKING SIGN NO SCALE



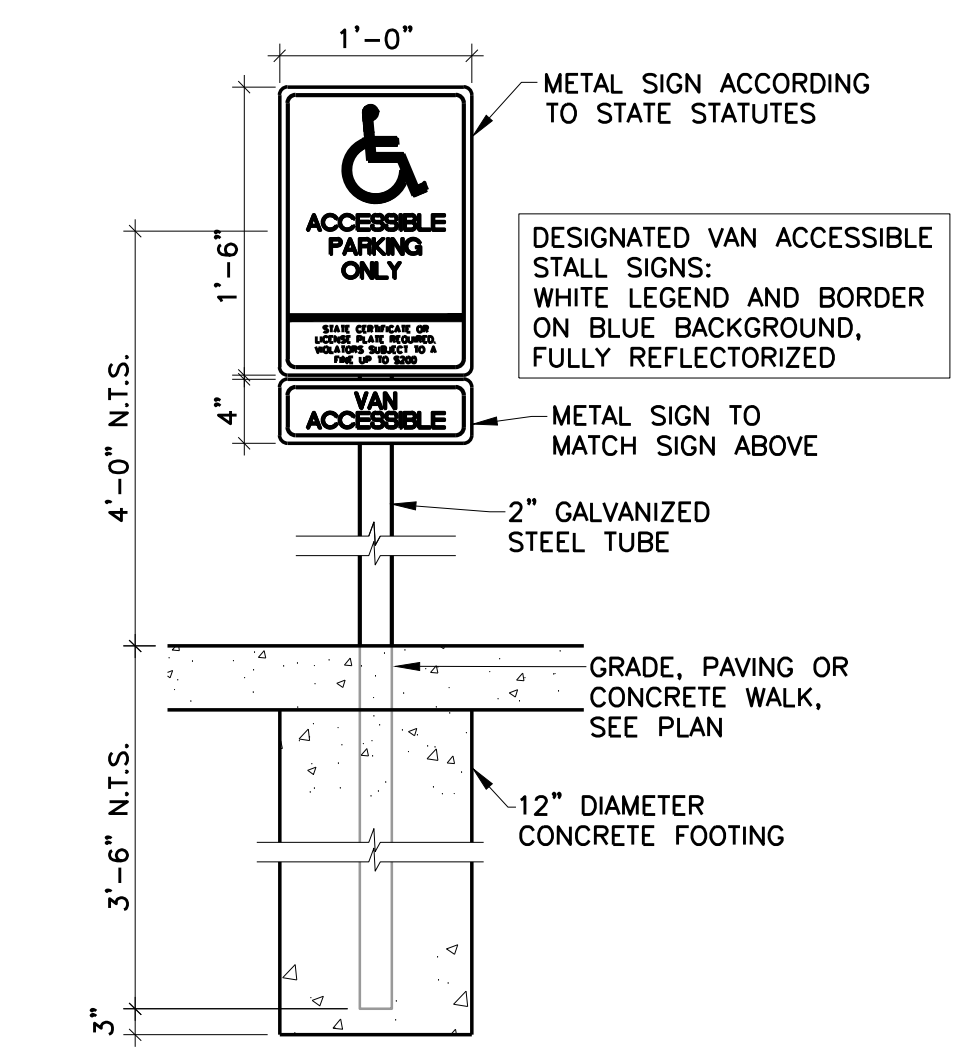
7 ROLLOVER / SURMOUNTABLE CONCRETE CURB & GUTTER (D412) NO SCALE



8 ADA PARKING SYMBOL NO SCALE



9 CONCRETE THROUGH GUTTER NO SCALE



10 ACCESSIBLE PARKING STALL SIGN NO SCALE

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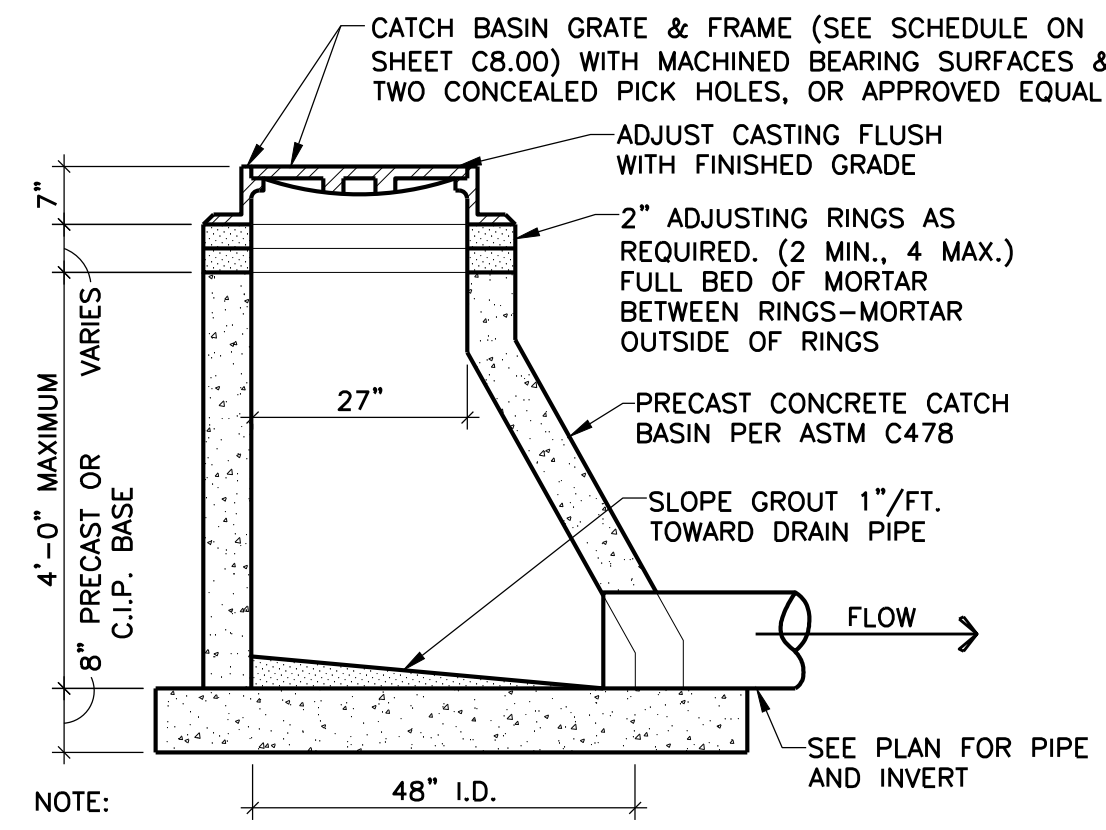
Signature: Rhonda S. Pierce
Print Name: RHONDA S. PIERCE
Date: 06-21-2017 License No.: 41333

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	05-08-2017	50% CD
	05-26-2017	GC 90% REVIEW SET
	06-21-2017	100% CD ISSUE

PROJECT NO.	17-003
PROJECT PHASE	100%CD
DRAWN BY:	CLG
CHECKED BY:	RSP

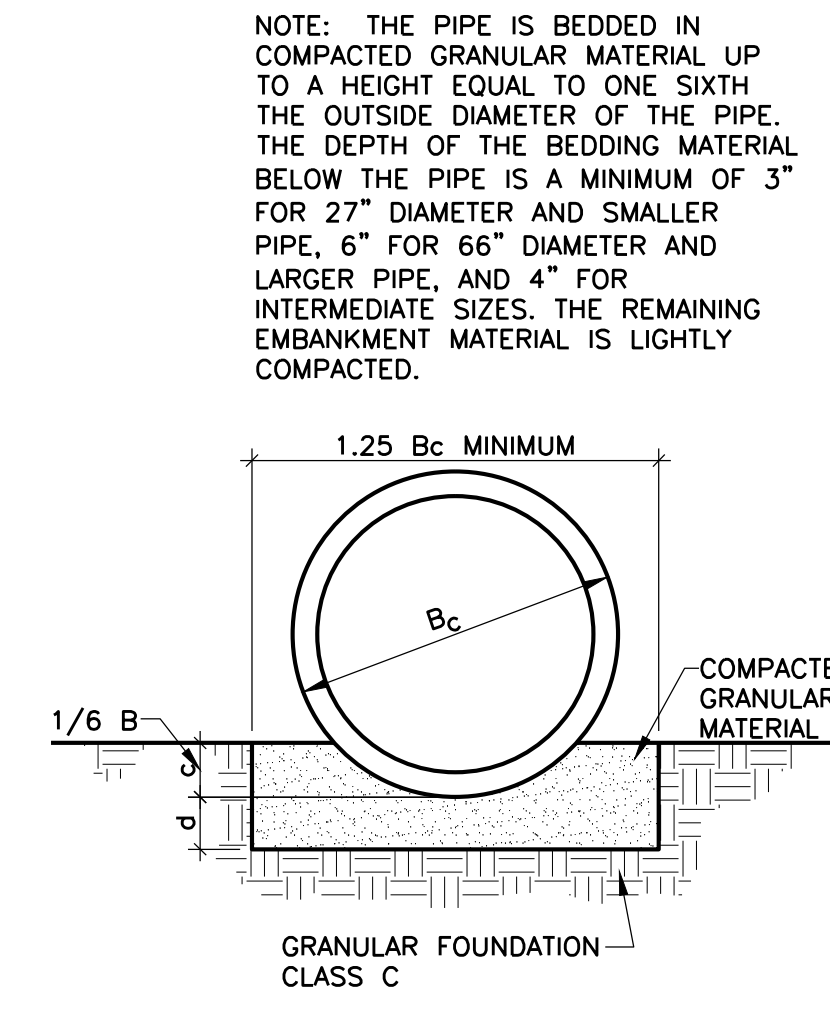
CIVIL DETAILS

C800

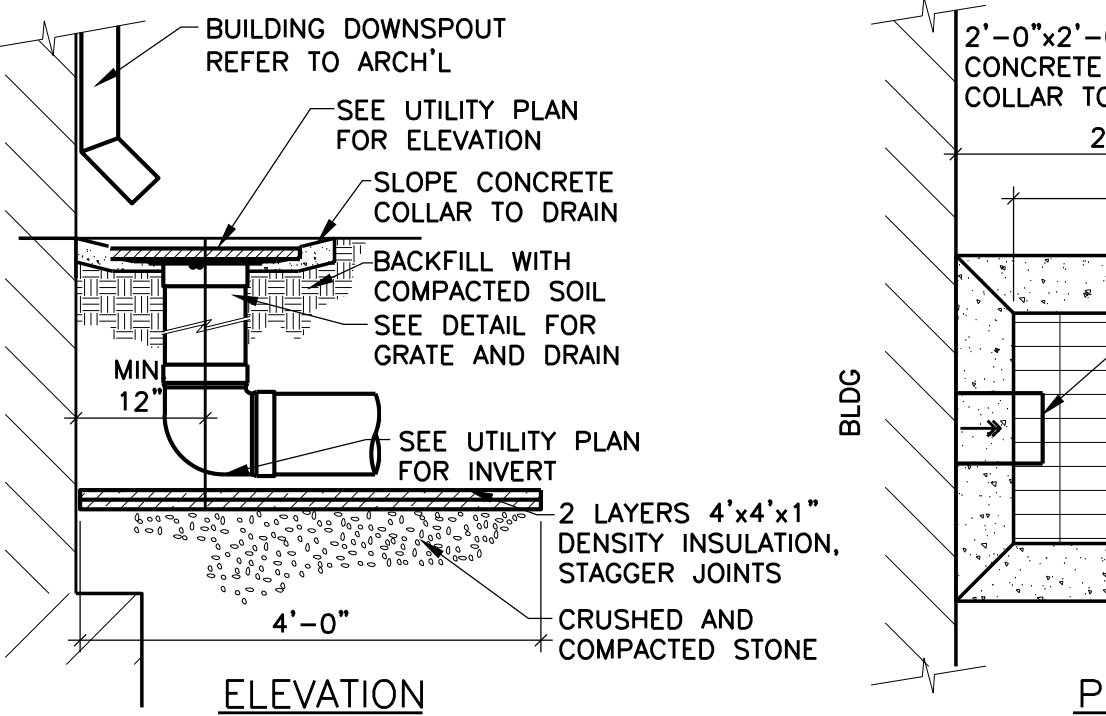


- NOTE:
1. REINFORCING SHALL BE A MINIMUM OF A SINGLE LINE WIRE FABRIC HAVING AN AREA OF NOT LESS THAN 0.12 SQ. IN. PER FOOT OF HEIGHT.
 2. ALL STORM SEWER PIPING RUNS SHALL USE RESILIENT RUBBER JOINTS AT PIPE CONNECTIONS TO CATCH BASINS FOR WATERTIGHT CONNECTION PER PLUMBING CODE.

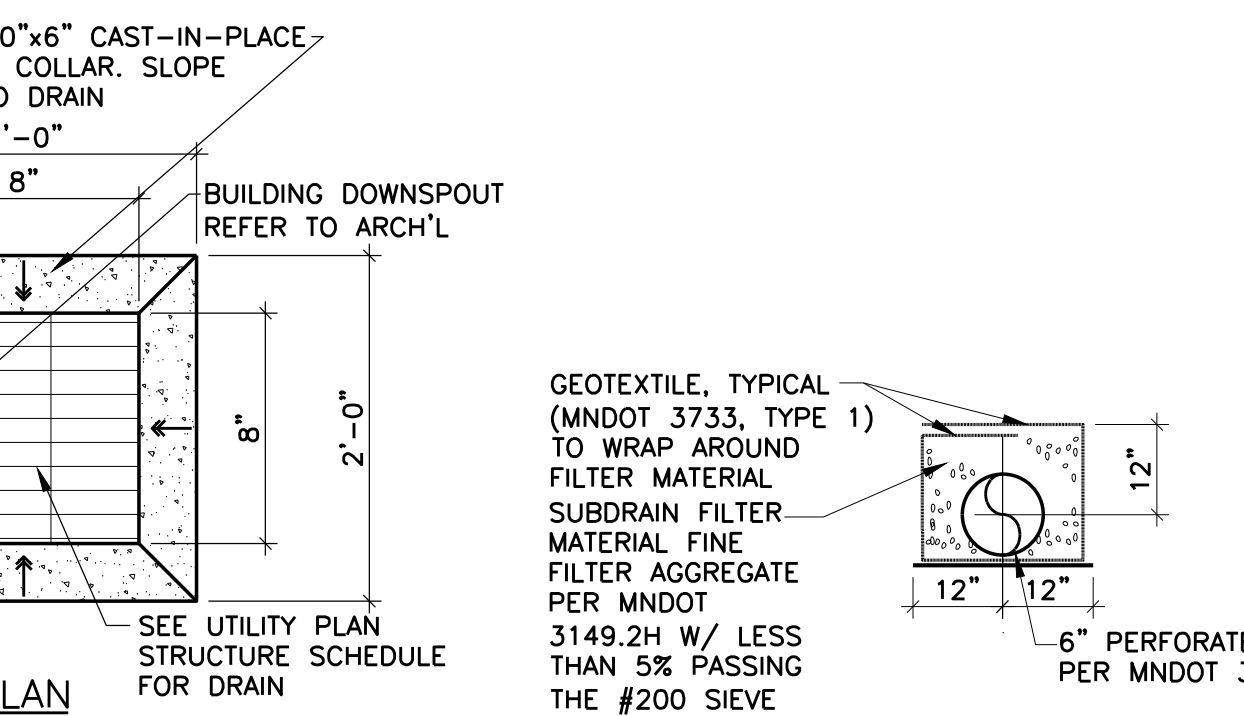
3 SHALLOW SEWER MANHOLE
C801 NO SCALE



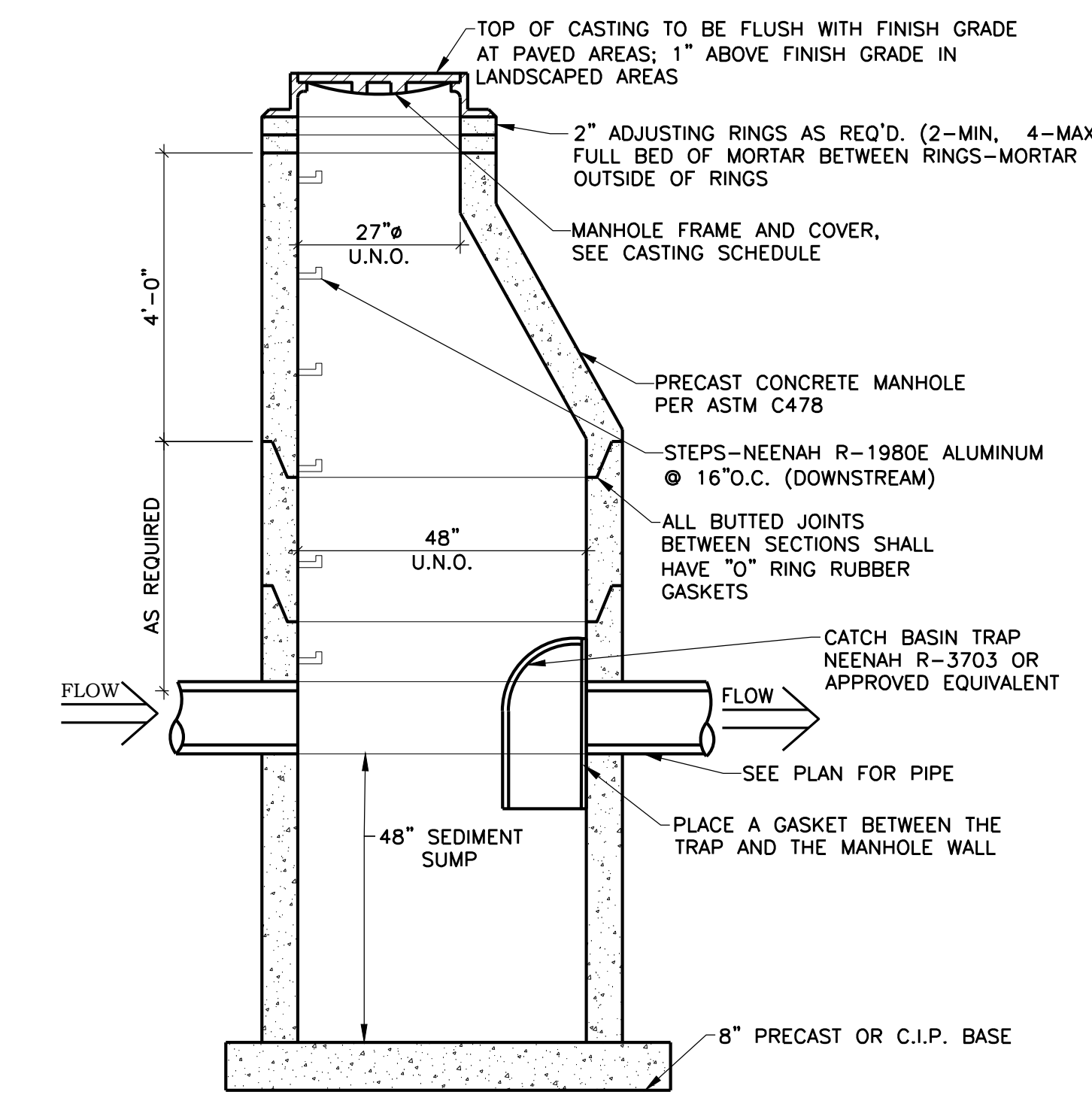
5 CLASS C BEDDING
C801 NO SCALE



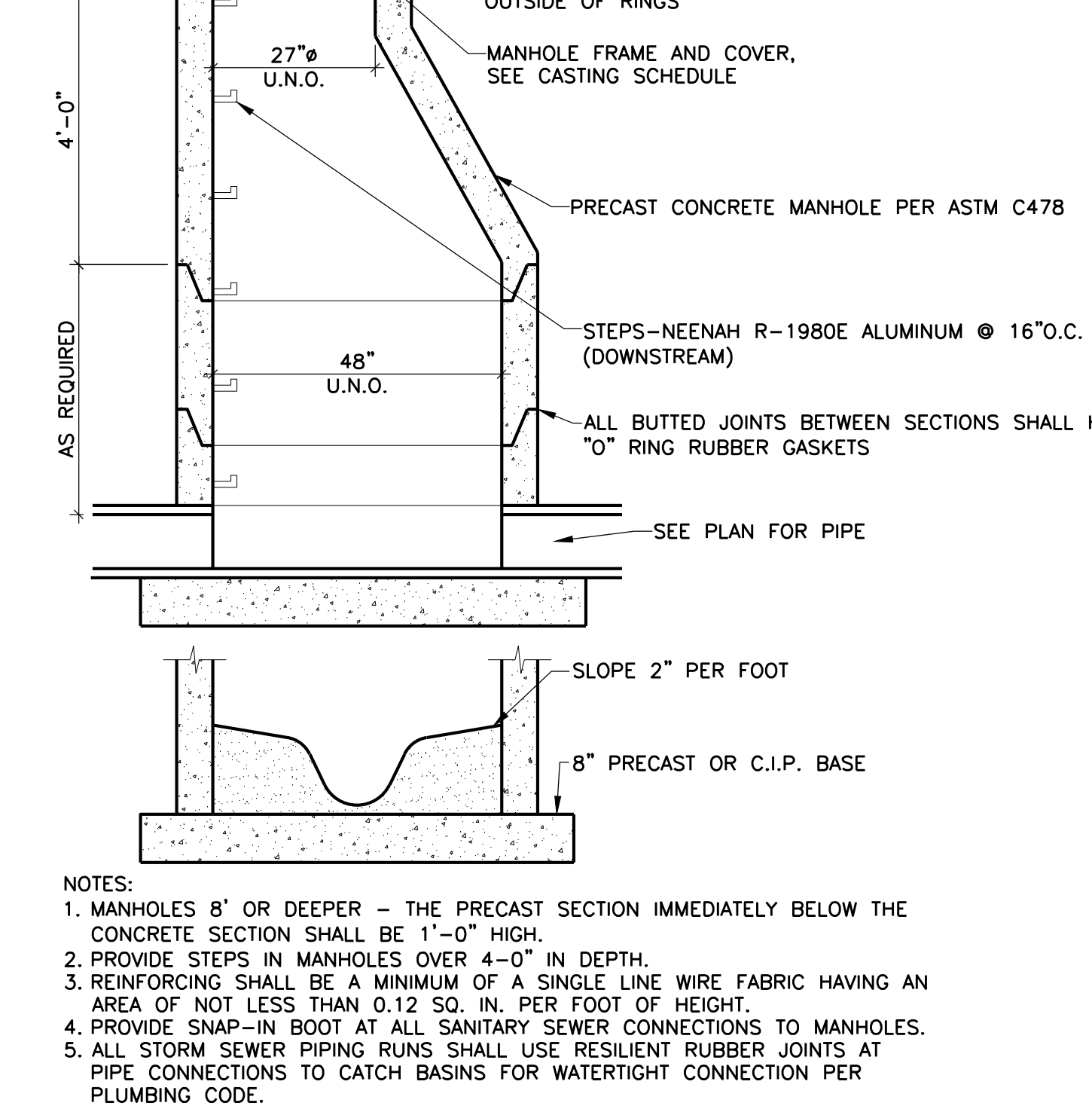
4 AREA DRAIN AT ROOF DOWNSPOUT
C801 NO SCALE



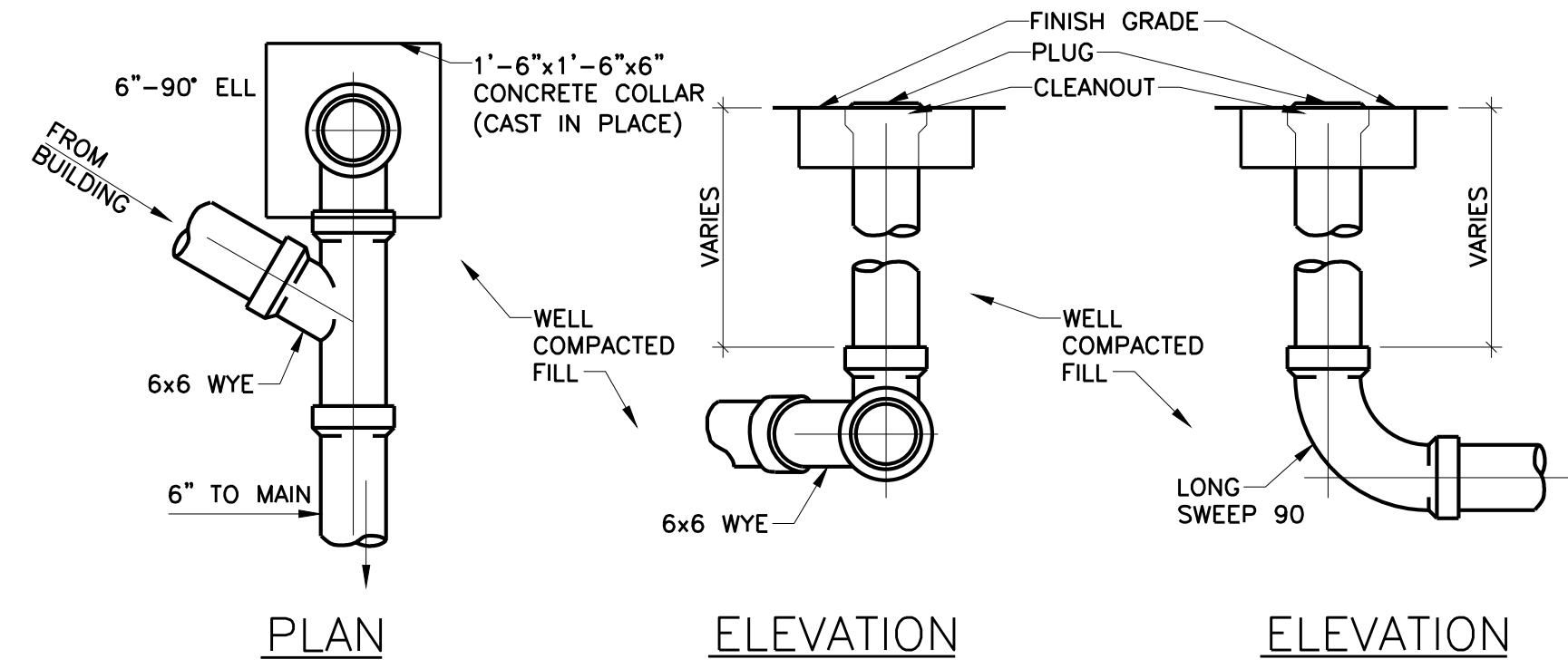
6 DRAINTILE
C801 NO SCALE



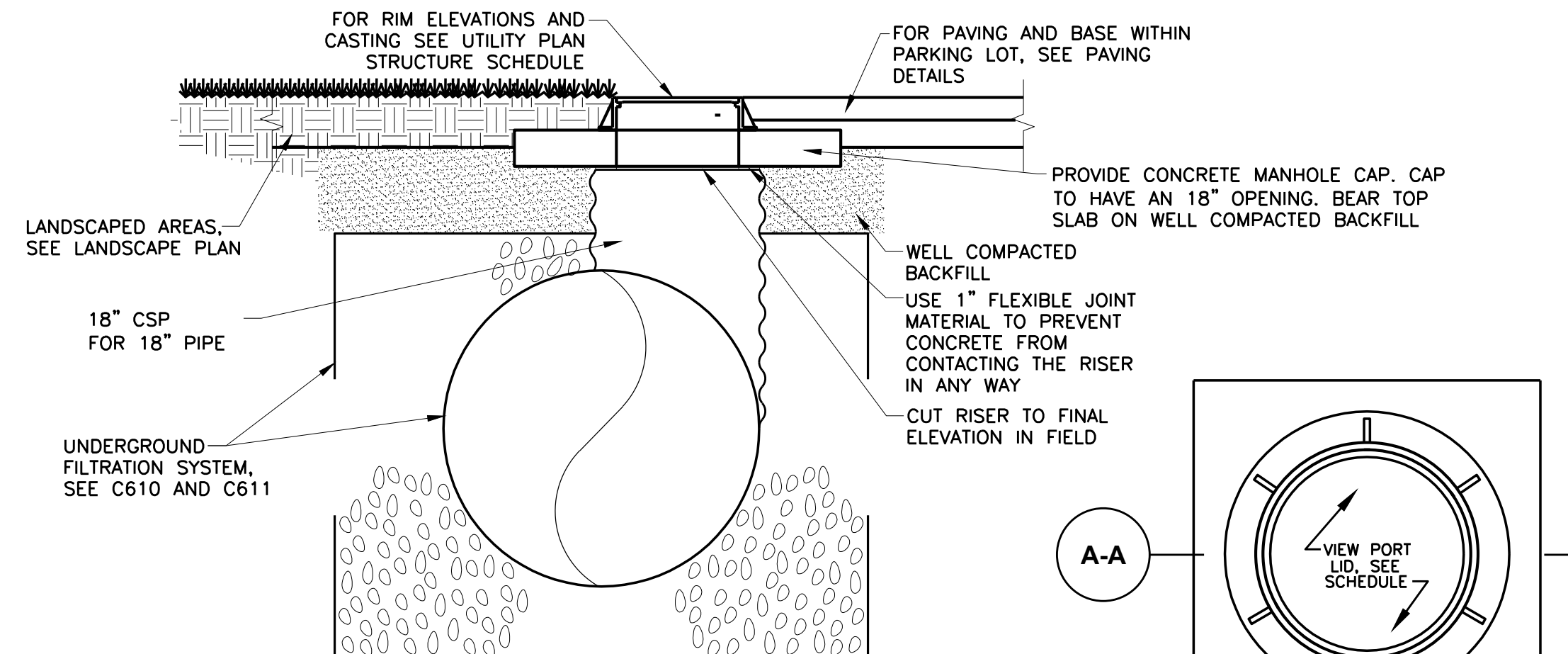
1 MANHOLE SUMP
C801 NO SCALE



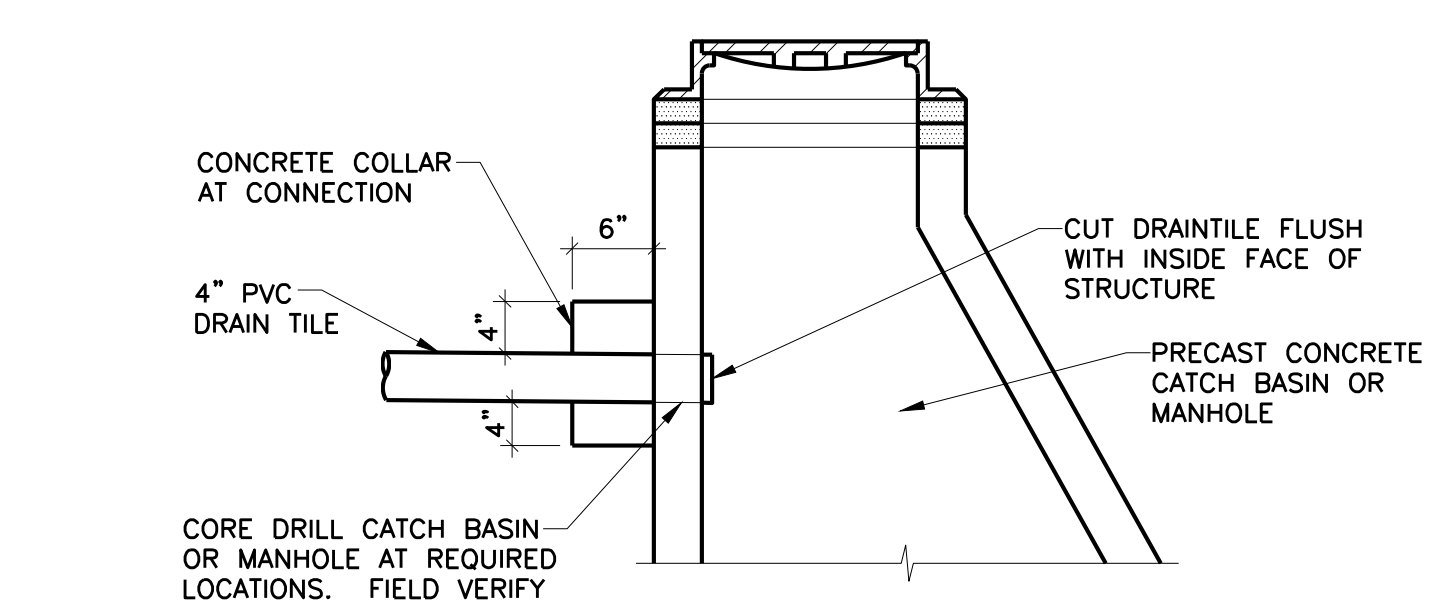
2 SEWER MANHOLE
C801 NO SCALE



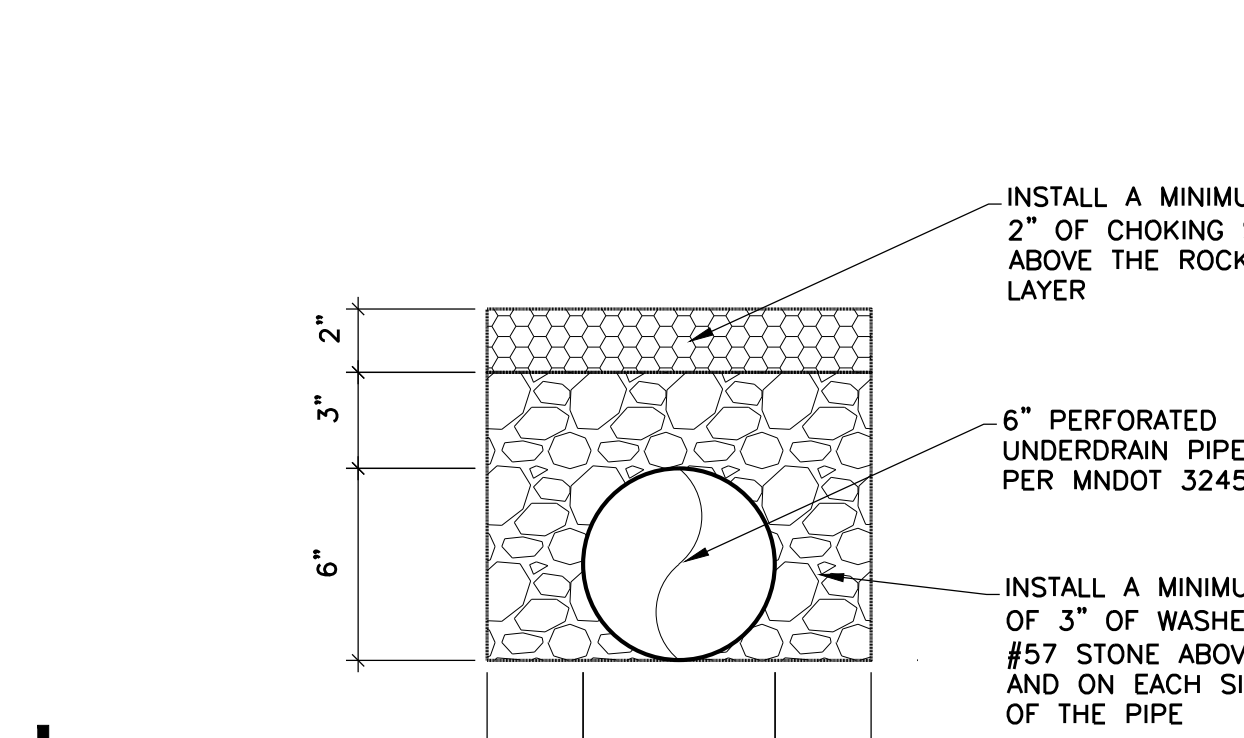
7 DRAINTILE CLEANOUT
C801 NOT TO SCALE



9 CLEAN OUT RISER DETAIL
C801 NO SCALE



8 DRAINTILE TO CB/MH CONNECTION
C801 NO SCALE



10 6" UNDERDRAIN DETAIL
C801 NO SCALE

- NOTES:
1. THE CONCRETE CAP SHALL BE PLACED SO THAT THE LOADS ARE TRANSMITTED TO THE SOIL, AND NOT THE RISER.
 2. THE CONCRETE CAP SHALL BE SIZED TO PROVIDE AN ADEQUATE BOTTOM AREA BASED ON THE ALLOWABLE BEARING CAPACITY OF THE SOIL.
 3. THE FLEXIBLE JOINT MATERIAL TO BE STIFF ENOUGH SO THAT THE CONCRETE CAN NEVER ENGAGE WITH THE RISER CORRUGATIONS.

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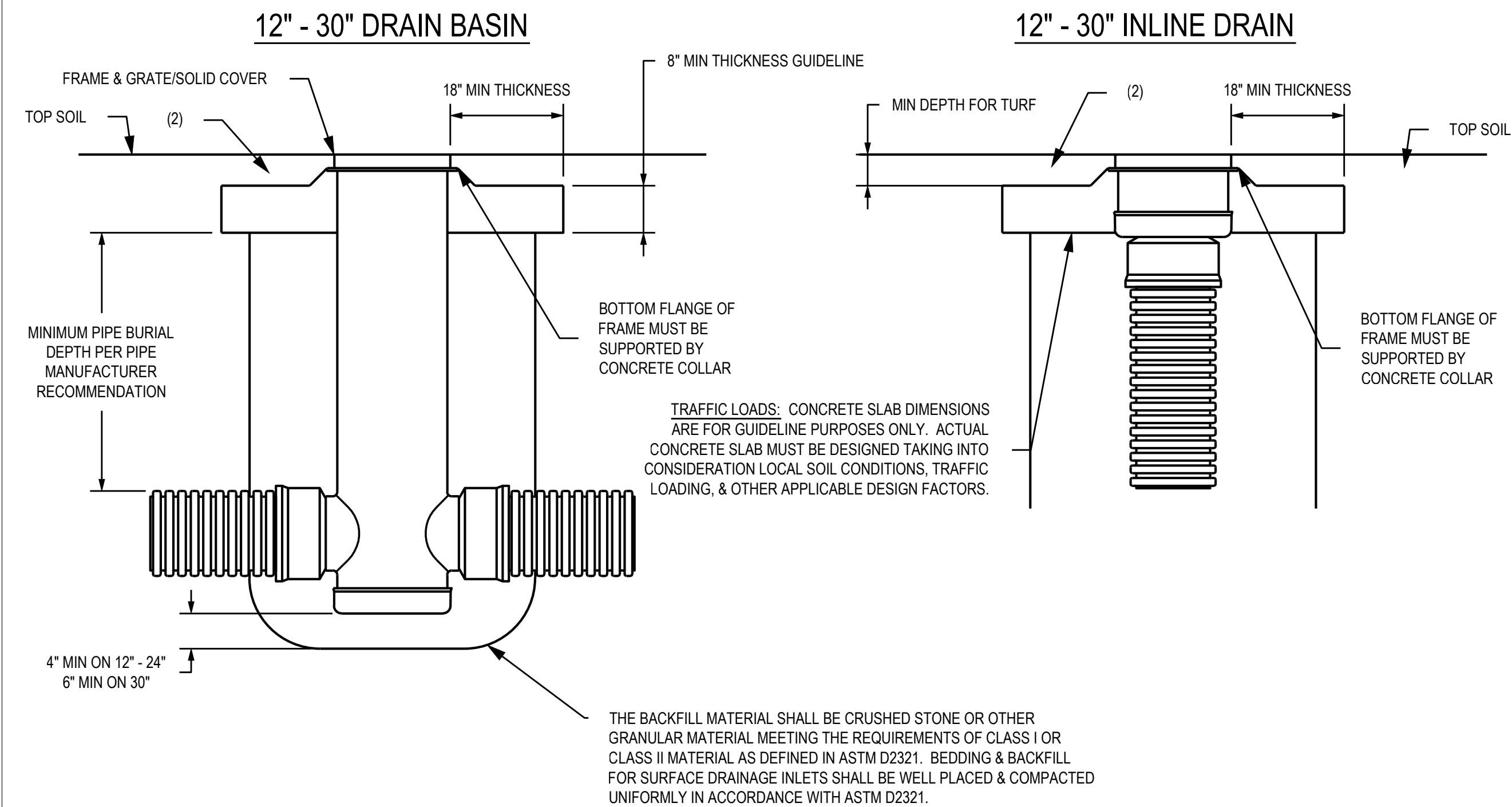
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CIVIL DETAILS

C801

NYLOPLAST TURF TRAFFIC INSTALLATION

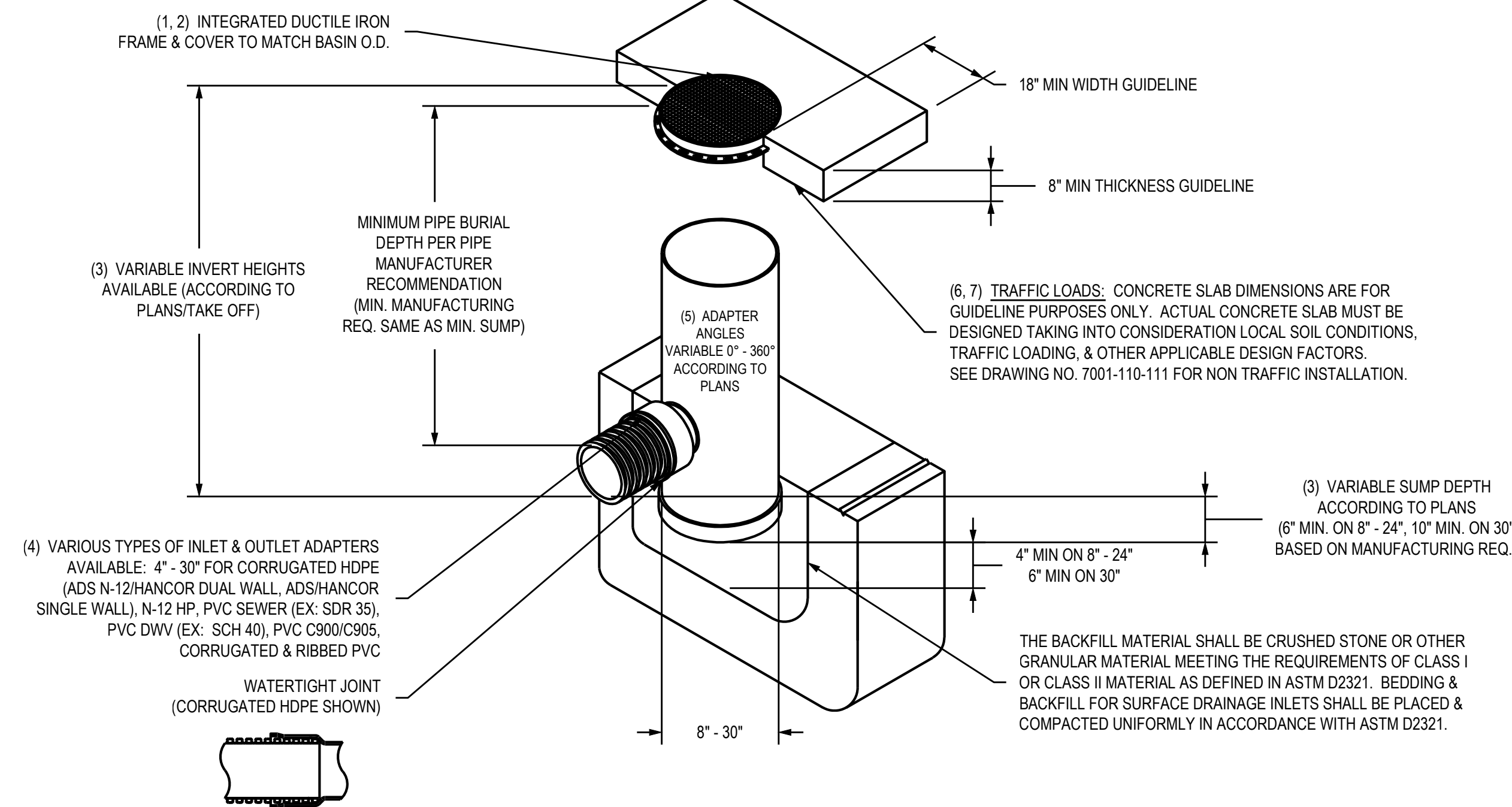


1. GRATES/SOLID COVERS SHALL MEET H-20 LOAD RATING FOR 30' PEDESTRIAN & 12" - 30" STANDARD & SOLID TURF TO GROW AND PREVENT EROSION AROUND GRATE SO THAT HAZARDS DO NOT FORM.

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DRAWN BY	EBC	MATERIAL	3130 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2490 www.nyloplast-us.com
DATE	01-05-09		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	12-03-14		
DWG SIZE	A	SCALE	1:25 SHEET 1 OF 1
DWG NO.		7001-110-340 REV E	

NYLOPLAST DRAIN BASIN WITH SOLID COVER

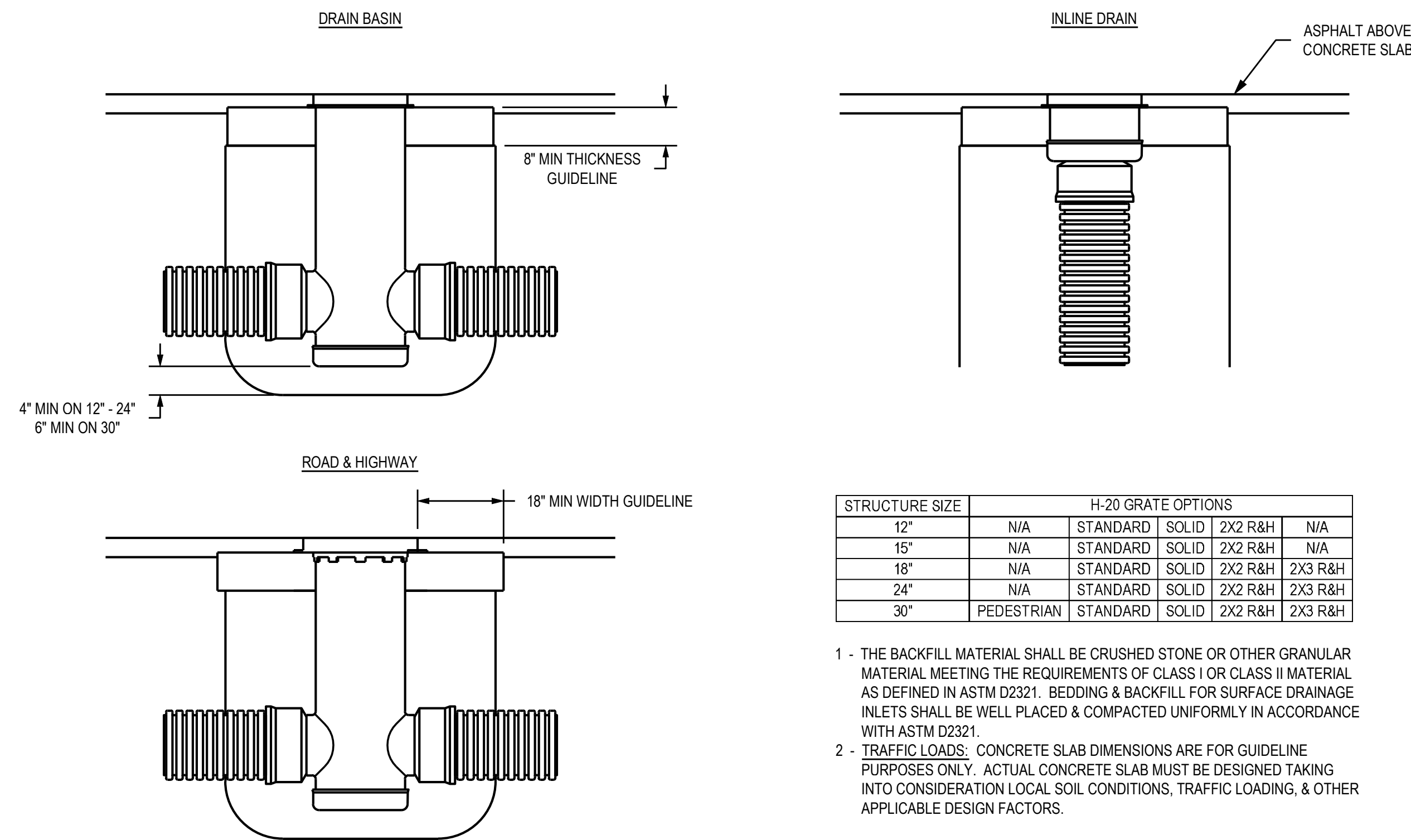


- 1 - 8" - 30" SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- 2 - 12" - 30" FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- 3 - 8" & 10" SOLID COVERS FIT DIRECTLY ONTO DRAIN BASINS WITH THE USE OF A PVC BODY TOP. SEE DRAWING NO. 7001-110-045.
- 4 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
- 5 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, PVC SEWER (EX. SDR 35), PVC DWV (EX. SCH 40), PVC C900/C905, CORRUGATED & RIBBED PVC.
- 6 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.
- 7 - 12" - 30" SOLID COVERS SHALL MEET H-20 LOAD RATING.
- 8 - 8" & 10" SOLID COVERS ARE RATED FOR LIGHT DUTY APPLICATIONS ONLY. NO CONCRETE COLLAR NEEDED FOR LIGHT DUTY RATING.

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DATE	09-14-07		
REVISED BY	CCA	PROJECT NO./NAME	
DATE	09-04-13		
DWG SIZE	A	SCALE	1:40 SHEET 1 OF 1
DWG NO.		7001-110-298 REV C	

ASPHALT INSTALLATION



STRUCTURE SIZE	H-20 GRATE OPTIONS				
12"	N/A	STANDARD	SOLID	2X2 R&H	N/A
15"	N/A	STANDARD	SOLID	2X2 R&H	N/A
18"	N/A	STANDARD	SOLID	2X2 R&H	2X3 R&H
24"	N/A	STANDARD	SOLID	2X2 R&H	2X3 R&H
30"	PEDESTRIAN	STANDARD	SOLID	2X2 R&H	2X3 R&H

- 1 - THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I OR CLASS II MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE WELL PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.
- 2 - TRAFFIC LOADS: CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADING, & OTHER APPLICABLE DESIGN FACTORS.

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DATE	4-4-06		
REVISED BY	CCA	PROJECT NO./NAME	
DATE	12-29-11		
DWG SIZE	A	SCALE	1:30 SHEET 1 OF 1
DWG NO.		7001-110-188 REV D	

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TOWNHOMES**
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MINNEAPOLIS, MN 55417

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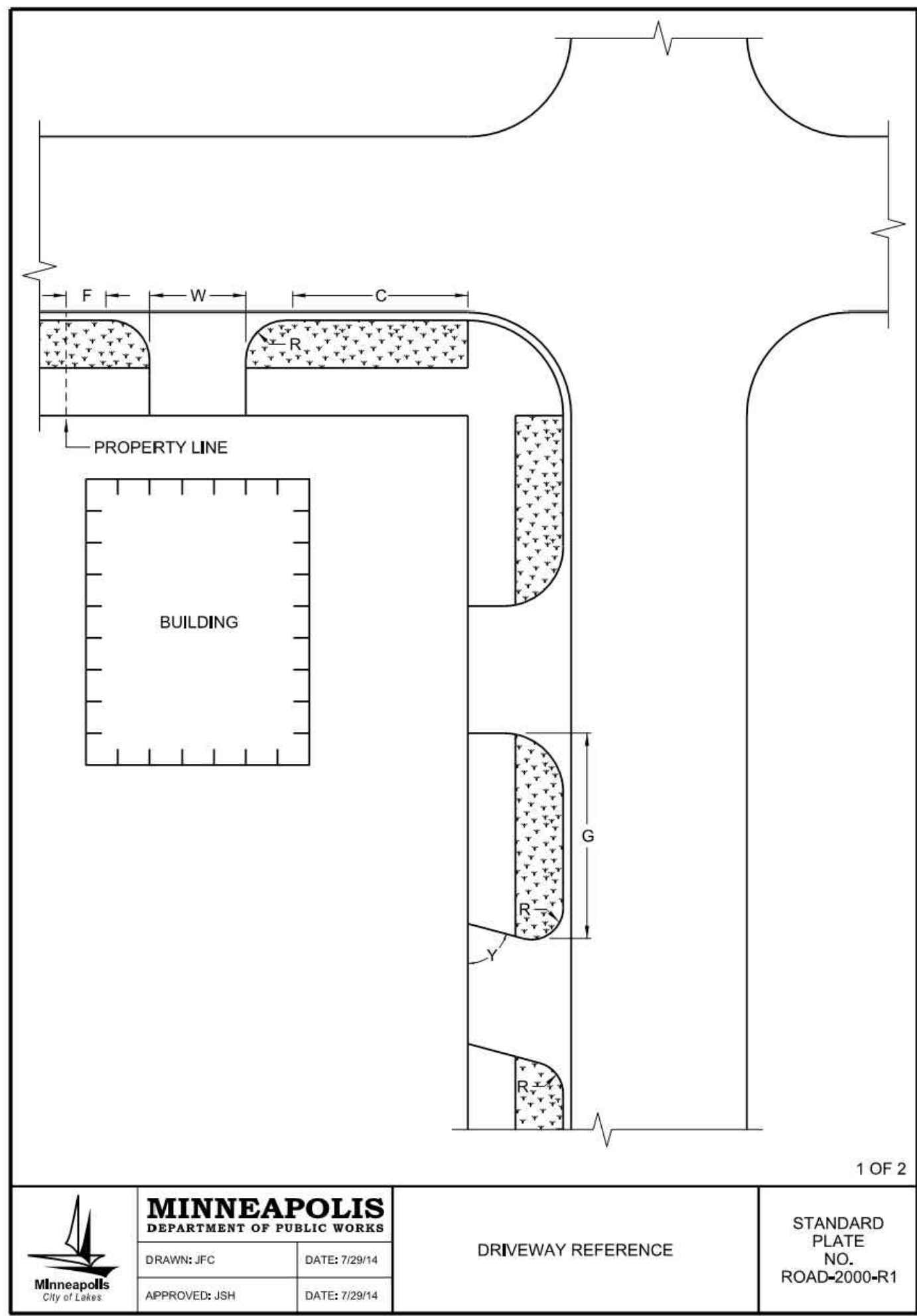
Signature: Rhonda S. Pierce
Print Names: RHONDA S. PIERCE
Date: 06-21-2017 License No.: 41333

ISSUE	DATE	DESCRIPTION
	04-07-2017	PDR SUBMITTAL
	04-10-2017	MCWD SUBMITTAL
	04-21-2017	100% CD
	05-08-2017	90% CD
	05-26-2017	GC 90% REVIEW SET
	06-21-2017	100% CD ISSUE

PROJECT NO.	17-003
PROJECT PHASE	100%CD
DRAWN BY:	CLG
CHECKED BY:	RSP

CIVIL DETAILS

C802



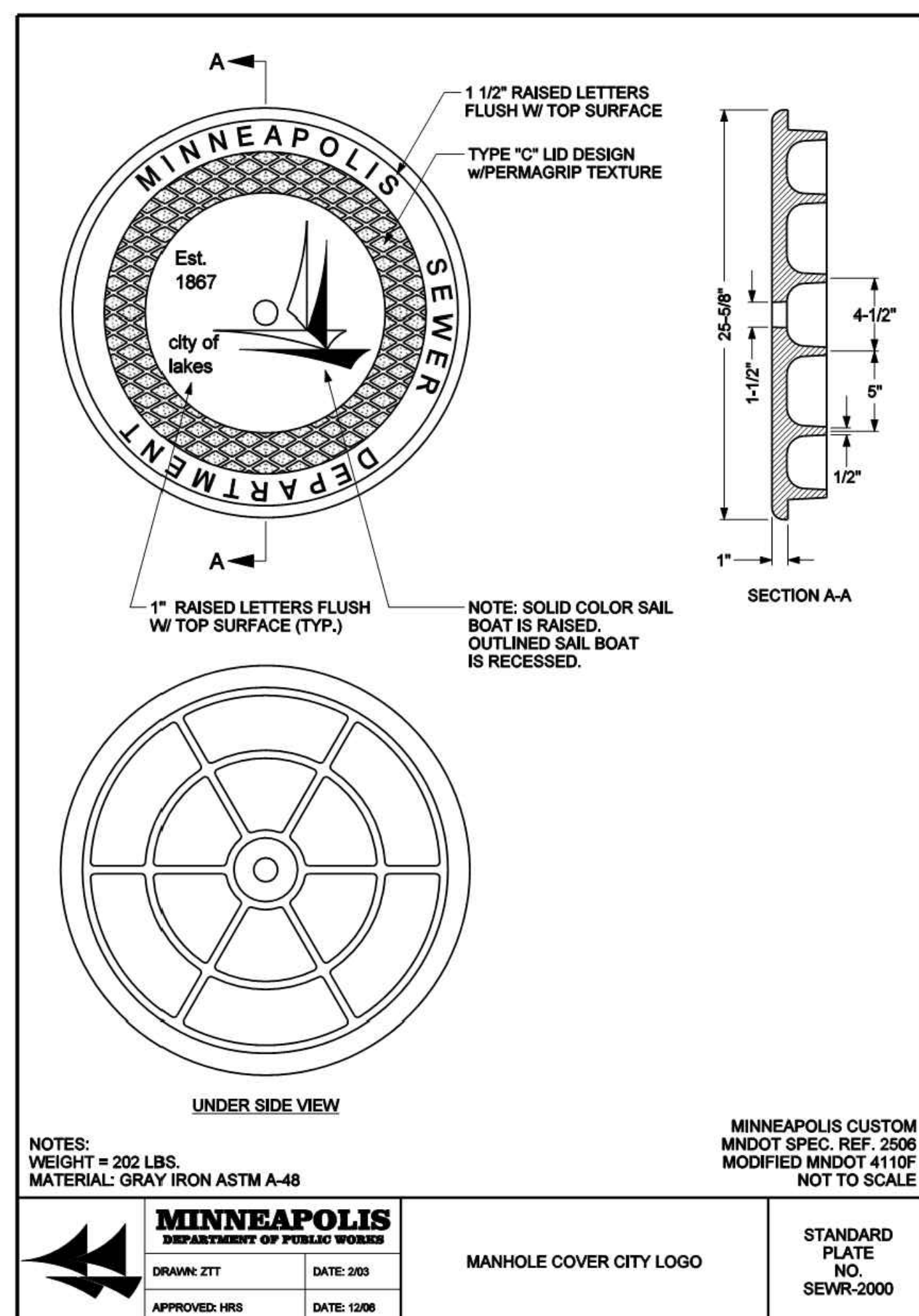
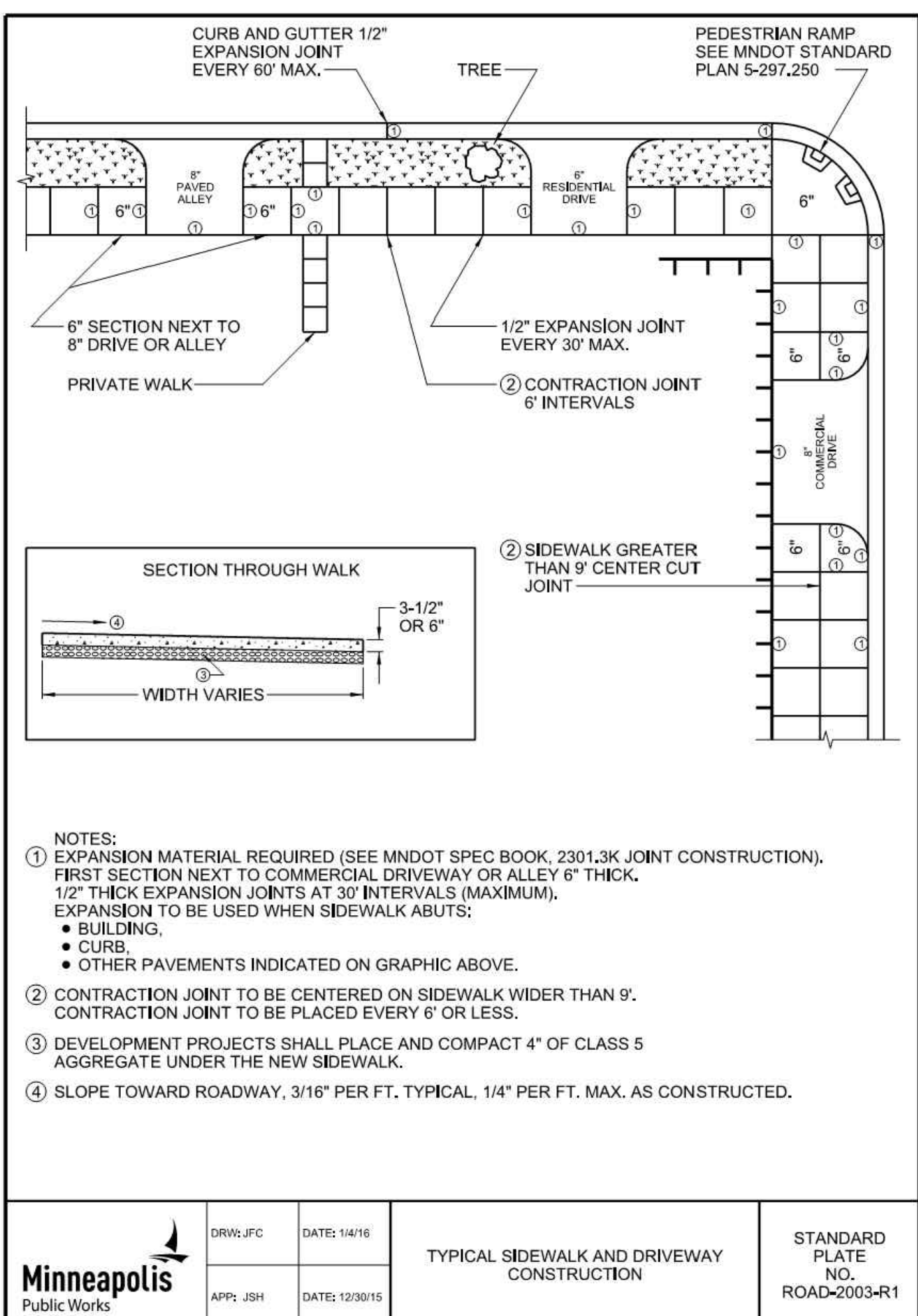
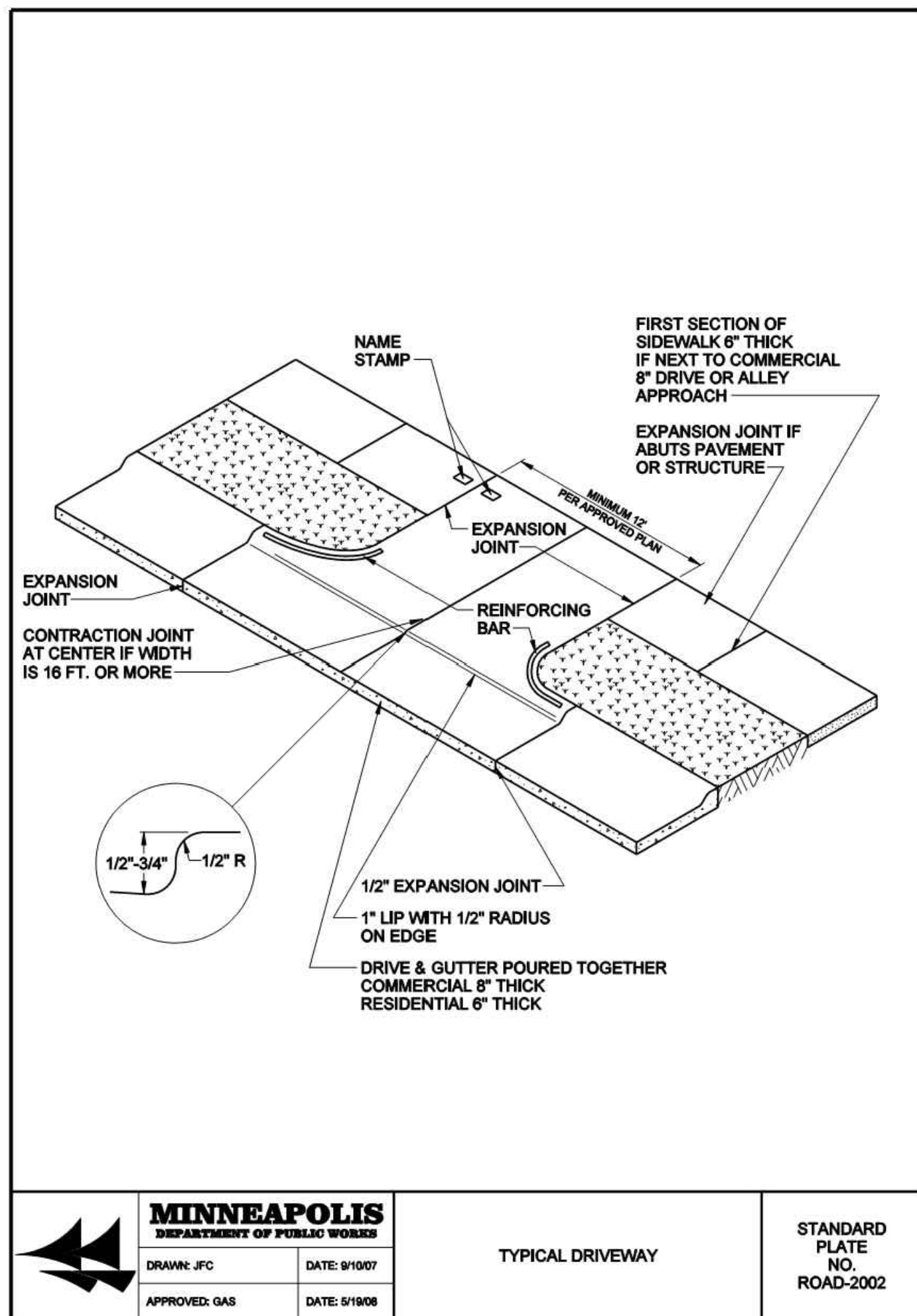
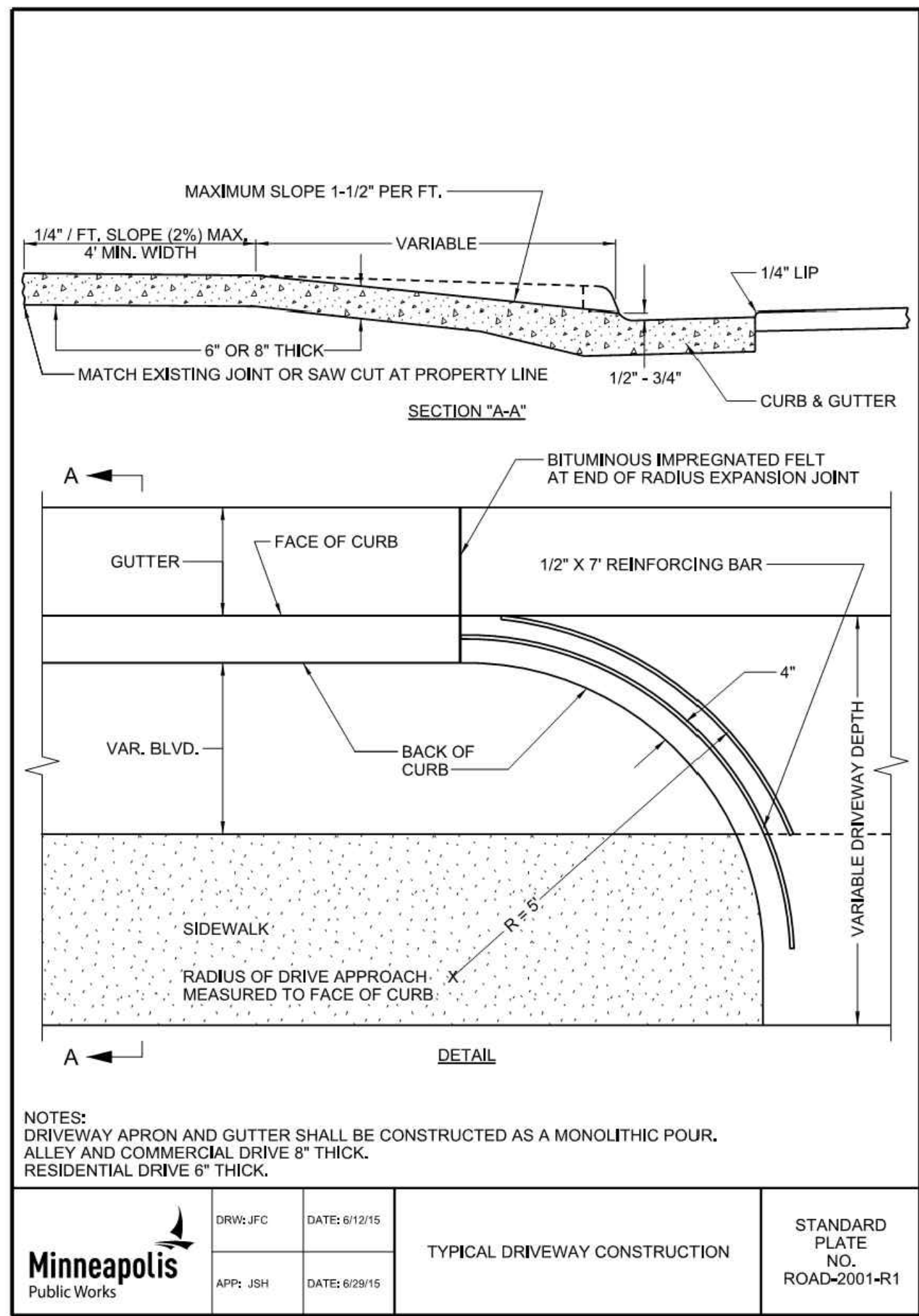
DRIVE APPROACH DIMENSIONS			
CODE	DIMENSION	RESIDENTIAL	COMMERCIAL
Y	DRIVE APPROACH ANGLE	60-90°	60-90°
W	DRIVE APPROACH WIDTH	12' MIN., 25' MAX.*	12' MIN., 25' MAX.*
R	RADIUS OF CURVATURE OF CURB FOR DRIVE APPROACH	2.5' MIN., 5' MAX.*	5' STD., 30' MAX.
R1, R2	RADIUS OF CURVATURE	5' MIN., 15' MAX.	5' MIN., 30' MAX.
F	COMMON FRONTAGE CLEARANCE	5' MIN.	5' MIN.
G	DISTANCE BETWEEN DOUBLE DRIVE APPROACHES	30' MIN.*	30' MIN.*
C	CORNER CLEARANCE AT THE INTERSECTION OF TWO MAJOR STREETS	30' MIN.*	30' MIN.*
N/A	CORNER CLEARANCE AT ALL OTHER INTERSECTIONS	20' MIN.*	20' MIN.*
N/A	CLEARANCE FROM BUS STOP ZONE	40' MIN.*	40' MIN.*

NOTE: PERIODIC CHANGES IN THE ABOVE DIMENSIONS WILL BE MADE AS NECESSARY TO IMPROVE TRAFFIC AND SAFETY ON THE PUBLIC STREETS AND SIDEWALKS.

*OR AS APPROVED BY THE CITY ENGINEER.

2 OF 2

MINNEAPOLIS DEPARTMENT OF PUBLIC WORKS	DRIVEWAY REFERENCE	STANDARD PLATE NO. ROAD-2000-R1
DRAWN: JFC APPROVED: JSH	DATE: 7/29/14	



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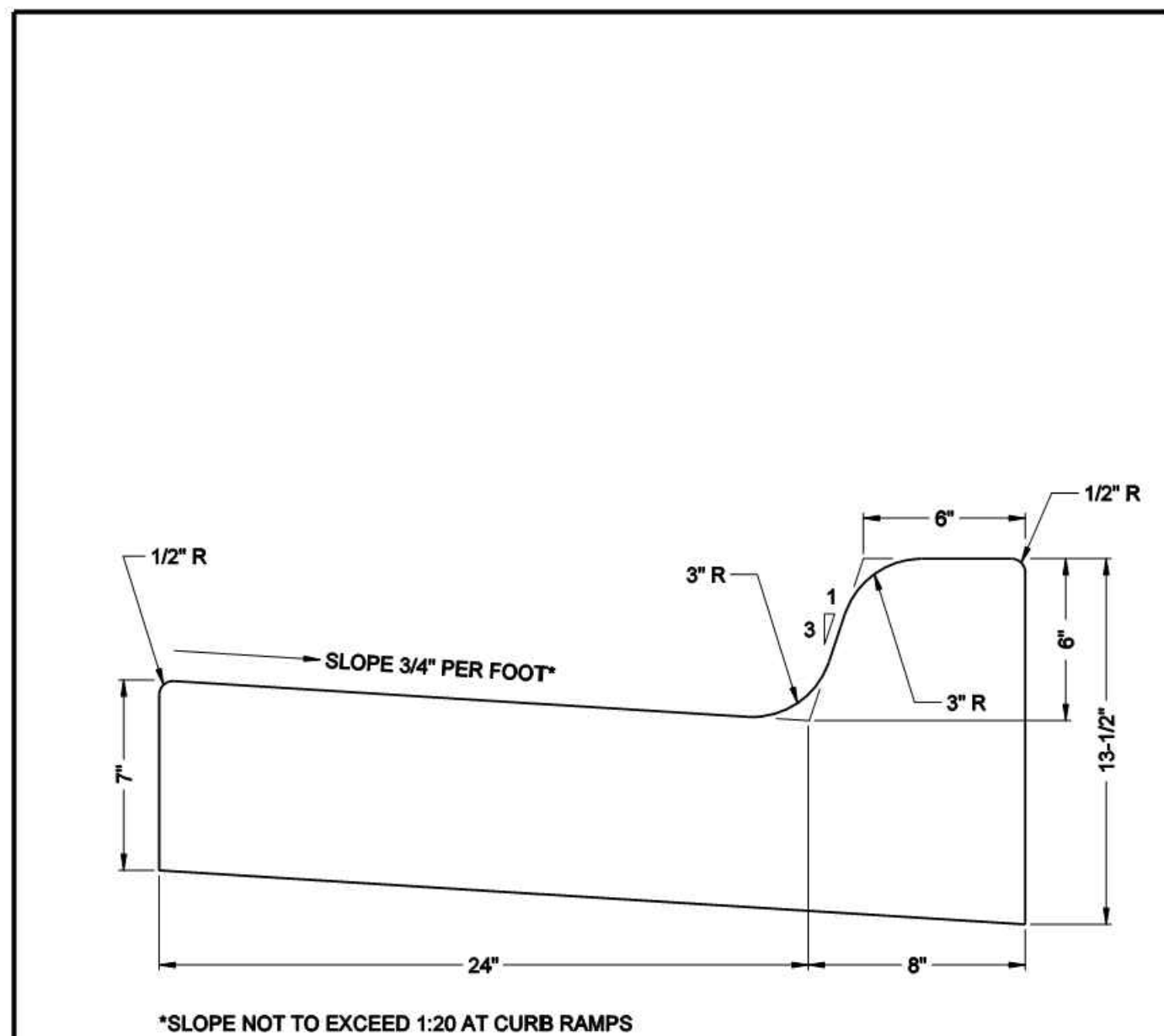
Signature: *Rhonda S. Pierce*
Print Names: RHONDA S. PIERCE
Date: 06-21-2017 License No.: 41333

ISSUE	DATE	DESCRIPTION
	04-07-2017	PDR SUBMITTAL
	04-10-2017	MCWD SUBMITTAL
	04-21-2017	100% CD
	05-08-2017	90% CD
	05-26-2017	GC 90% REVIEW SET
	06-21-2017	100% CD ISSUE

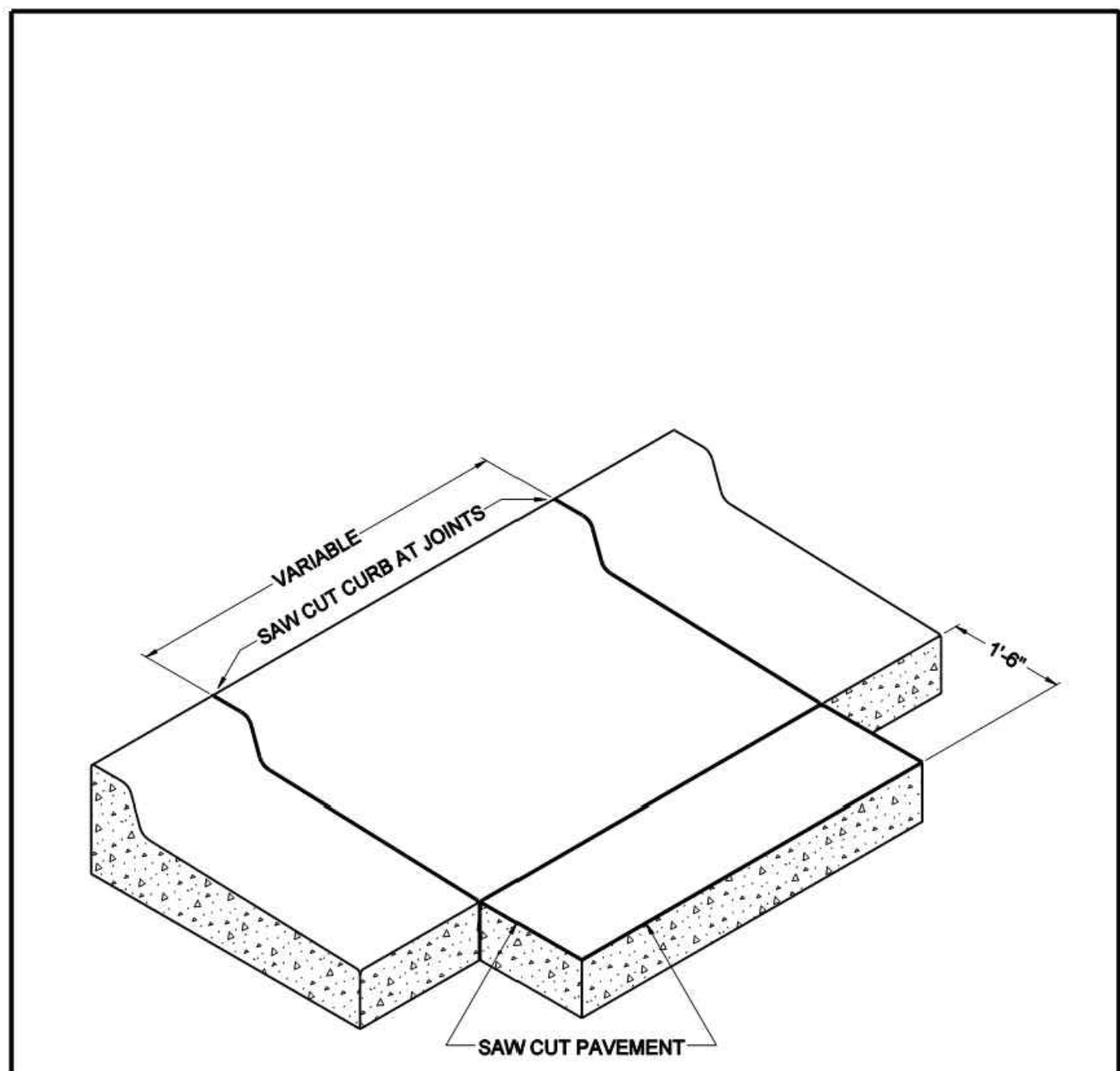
PROJECT NO: 17-003
PROJECT PHASE: 100%CD
DRAWN BY: CLG CHECKED BY: RSP

CITY DETAILS

C803



	MINNEAPOLIS DEPARTMENT OF PUBLIC WORKS		B-624 CURB AND GUTTER	STANDARD PLATE NO. ROAD-1003
	DRAWN: JFC	DATE: 9/19/07		
	APPROVED: GAS	DATE: 5/19/08		



	MINNEAPOLIS DEPARTMENT OF PUBLIC WORKS		SAW CUT AT CURB AND GUTTER REMOVAL	STANDARD PLATE NO. ROAD-1010
	DRAWN: JFC	DATE: 9/19/07		
	APPROVED: GAS	DATE: 5/19/08		

MSR 710 South 2nd Street, 8th Floor
 Minneapolis, Minnesota 55401-2282
 Architecture 612.375.0336 tel
 Interiors and 612.342.2216 fax
 Urban Design www.msrdesign.com

CIVIL ENGINEER
PIERCE PINI ASSOCIATES, INC.

9298 Central Avenue NE
 Suite 312
 Blaine, MN 55434-3425
 Office Phone: 763-537-1311
 Office Fax: 763-537-1354

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Signature: Rhonda S. Pierce
 Print Names: RHONDA S. PIERCE
 Date: 06-21-2017 License No.: 41333

ISSUE	DATE	DESCRIPTION
	04-07-2017	PDR SUBMITTAL
	04-10-2017	MCWID SUBMITTAL
	04-21-2017	100% CD
	05-08-2017	50% CD
	05-26-2017	GC 90% REVIEW SET
	06-21-2017	100% CD ISSUE

PROJECT NO.	17-003
PROJECT PHASE	100%CD
DRAWN BY:	CHECKED BY:
CLG	RSP

CITY DETAILS

C804

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Signature: *Adam Jesse Neigebauer*

Print Name: ADAM JESSE NEIGEBAUER

Date: 6/21/2017 License No: 47773

ISSUE	DATE	DESCRIPTION
1	4/21/2017	100% DESIGN DEVELOPMENT ISSUE
2	5/08/2017	50% CONSTRUCTION DOCUMENTS ISSUE
3	5/26/2017	GC 90% REVIEW SET
4	6/21/2017	100% CD ISSUE

PROJECT NO. 17060

PROJECT PHASE CD

DRAWN BY DLH CHECKED BY AN

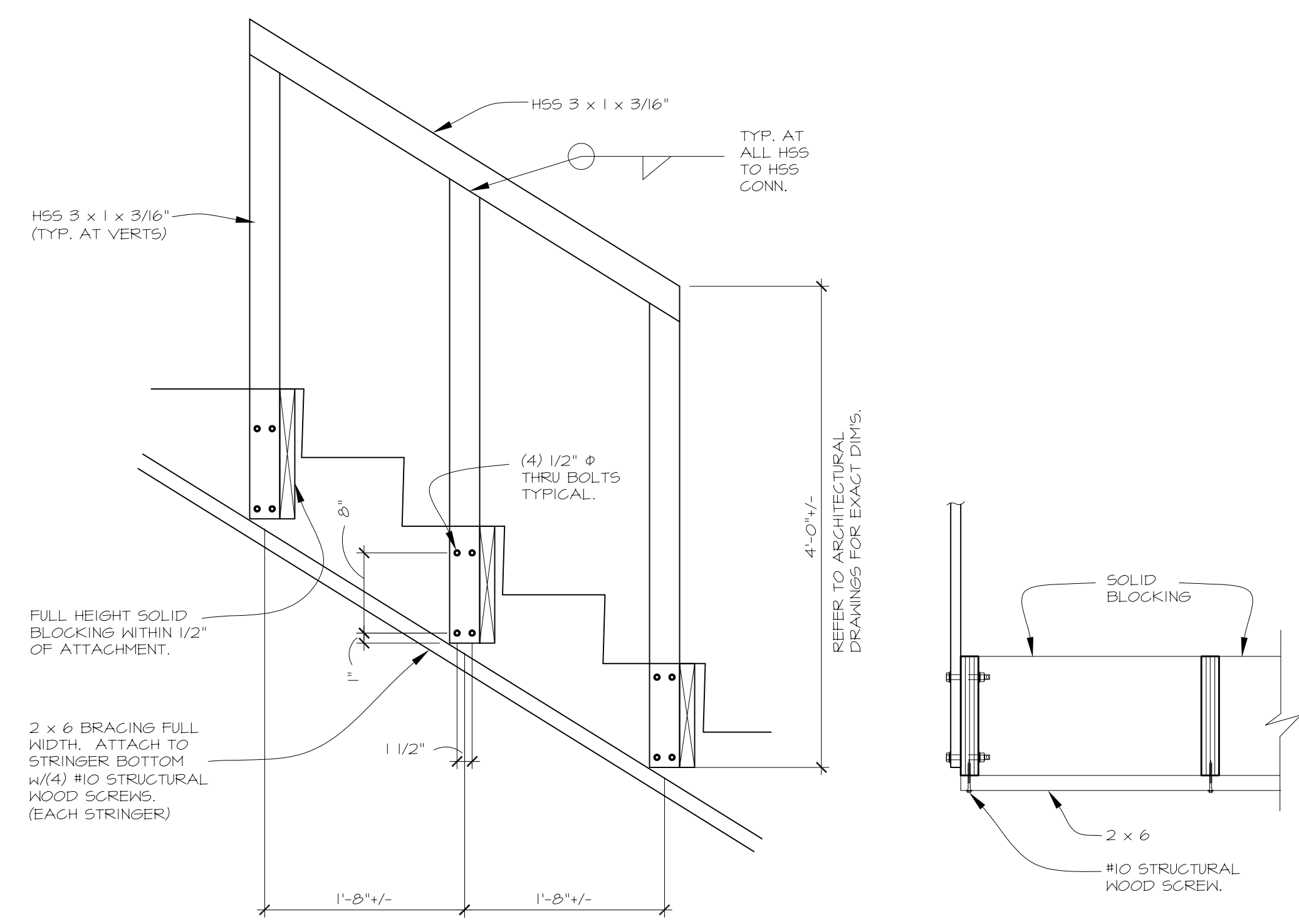
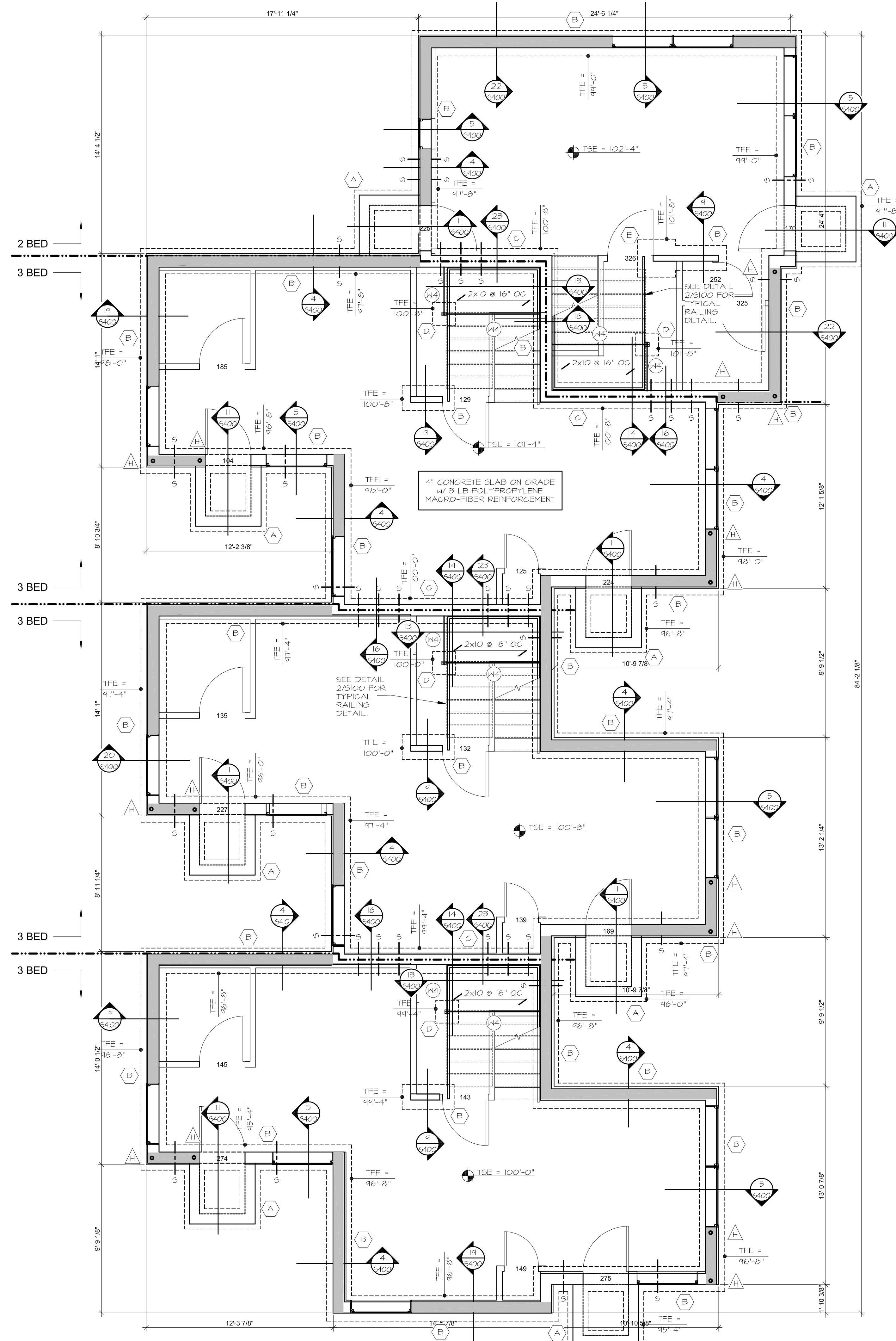
Small text: Drawing 2010 Copyright Meyer, Scherer & Rockcastle, Ltd.

FOOTING AND FOUNDATION PLAN
BUILDING A, 2-3-3-3

1 FOOTING AND FOUNDATION PLAN
S100 1/4" = 1'-0" (BUILDING A)

REFER TO SHEET 5001 FOR TYPICAL PLAN NOTES AND SCHEDULES.

FFE Ø15.85 = 100'-0"



2 RAILING DETAIL
S100 1\"/>

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 5118 54TH STREET EAST
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Print Name: ADAM JESSE NEIGEBAUER

Date: 6/21/2017 License No: 47773

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3	5/26/2017	GC 90% REVIEW SET
4	6/21/2017	100% CD ISSUE

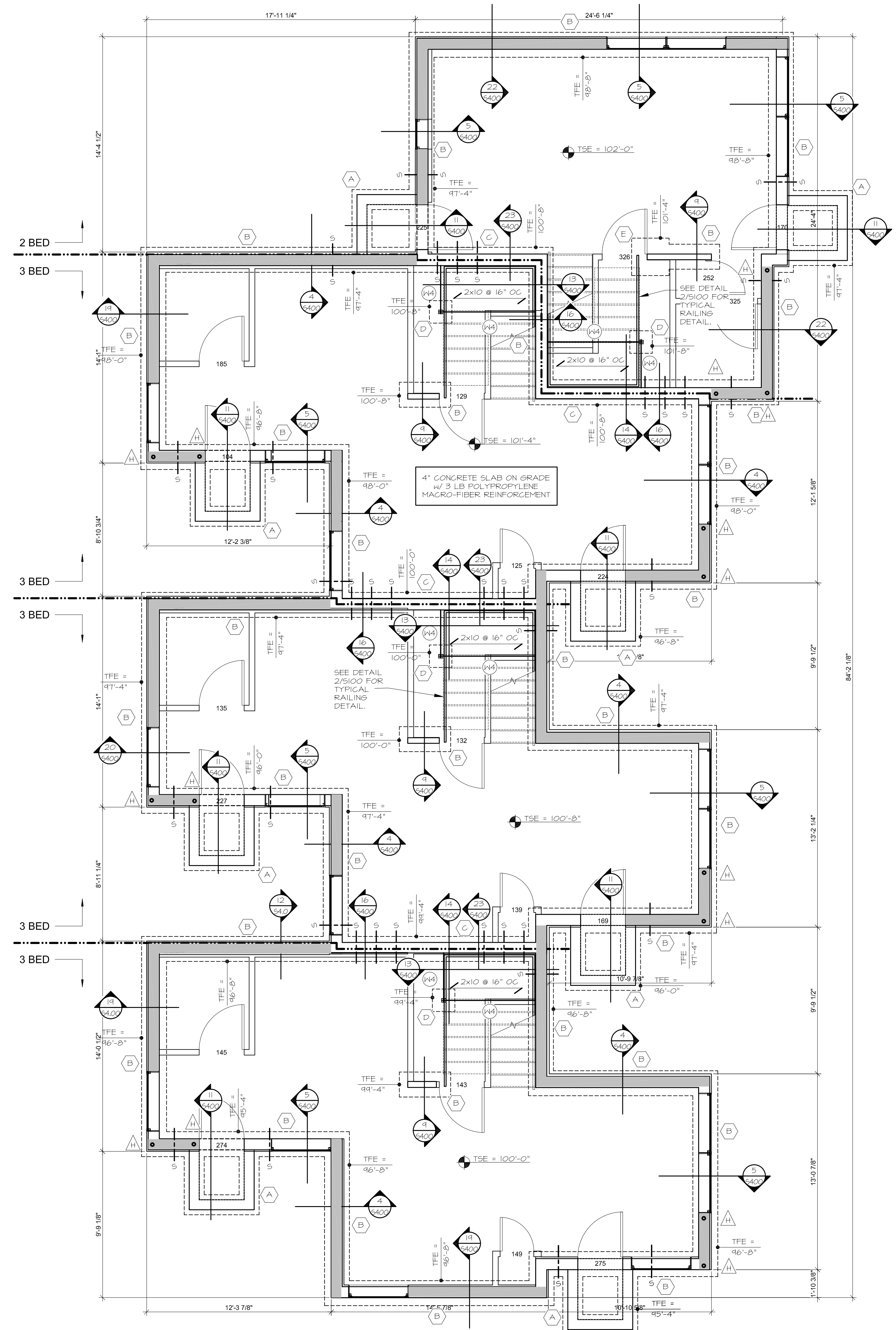
PROJECT NO.	17060
PROJECT PHASE	CD
DRAWN BY:	DLH
CHECKED BY:	AN

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**FOOTING AND
 FOUNDATION PLAN
 BUILDING B, 2-3-3-3**

S101

1 FOOTING AND FOUNDATION PLAN
S101 1/4" = 1'-0" (BUILDING B)
 REFER TO SHEET S001 FOR TYPICAL PLAN NOTES AND SCHEDULES.
 FFE 013.1 = 100'-0".



**MINNEHAHA
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Signature: *Adam Jesse Neigebauer*

Print Name: ADAM JESSE NEIGEBAUER
 Date: 6/21/2017 License No: 47773

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3	5/26/2017	GC 90% REVIEW SET
4	6/21/2017	100% CD ISSUE

PROJECT NO. 17060


PROJECT PHASE CD

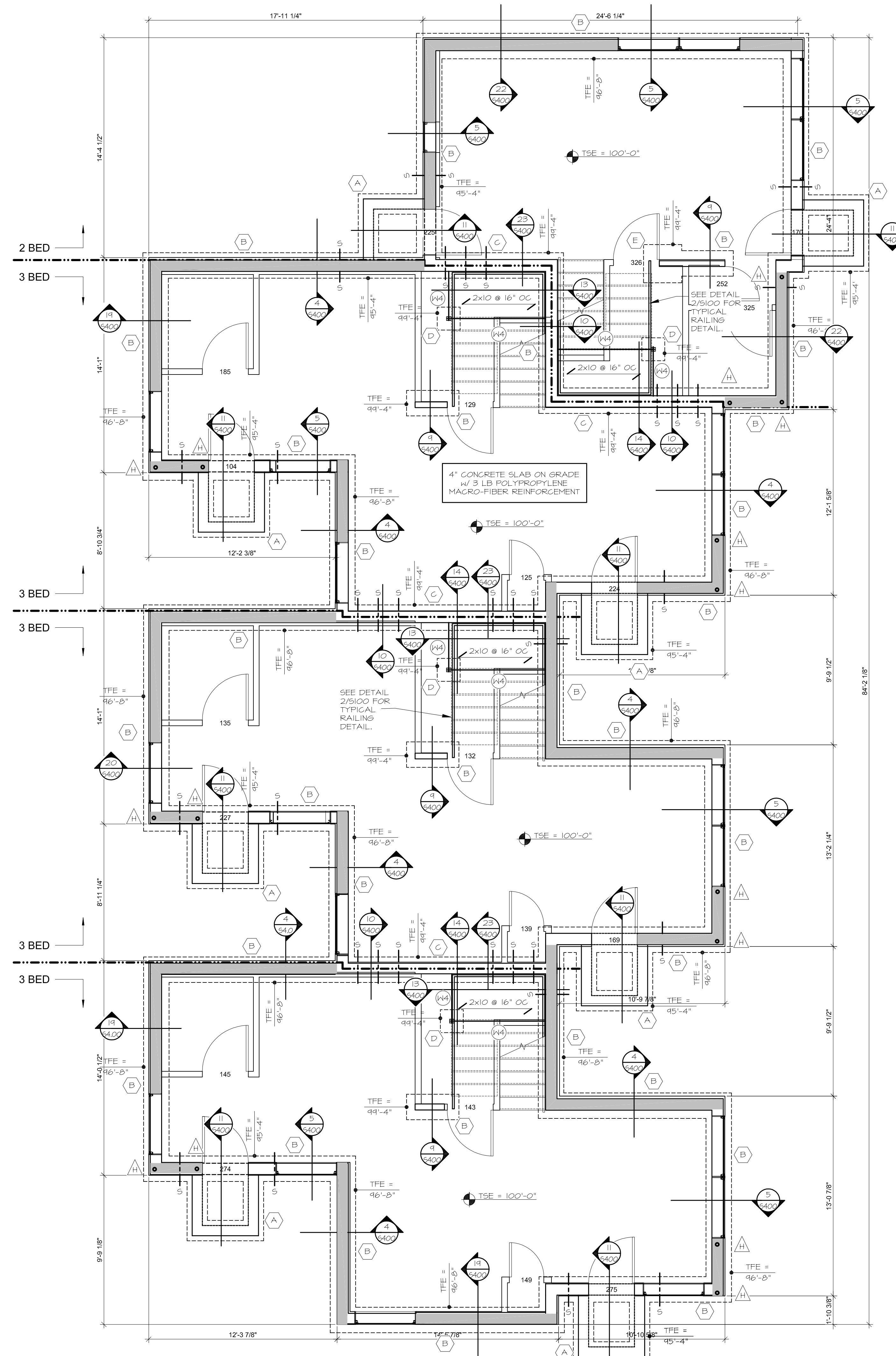
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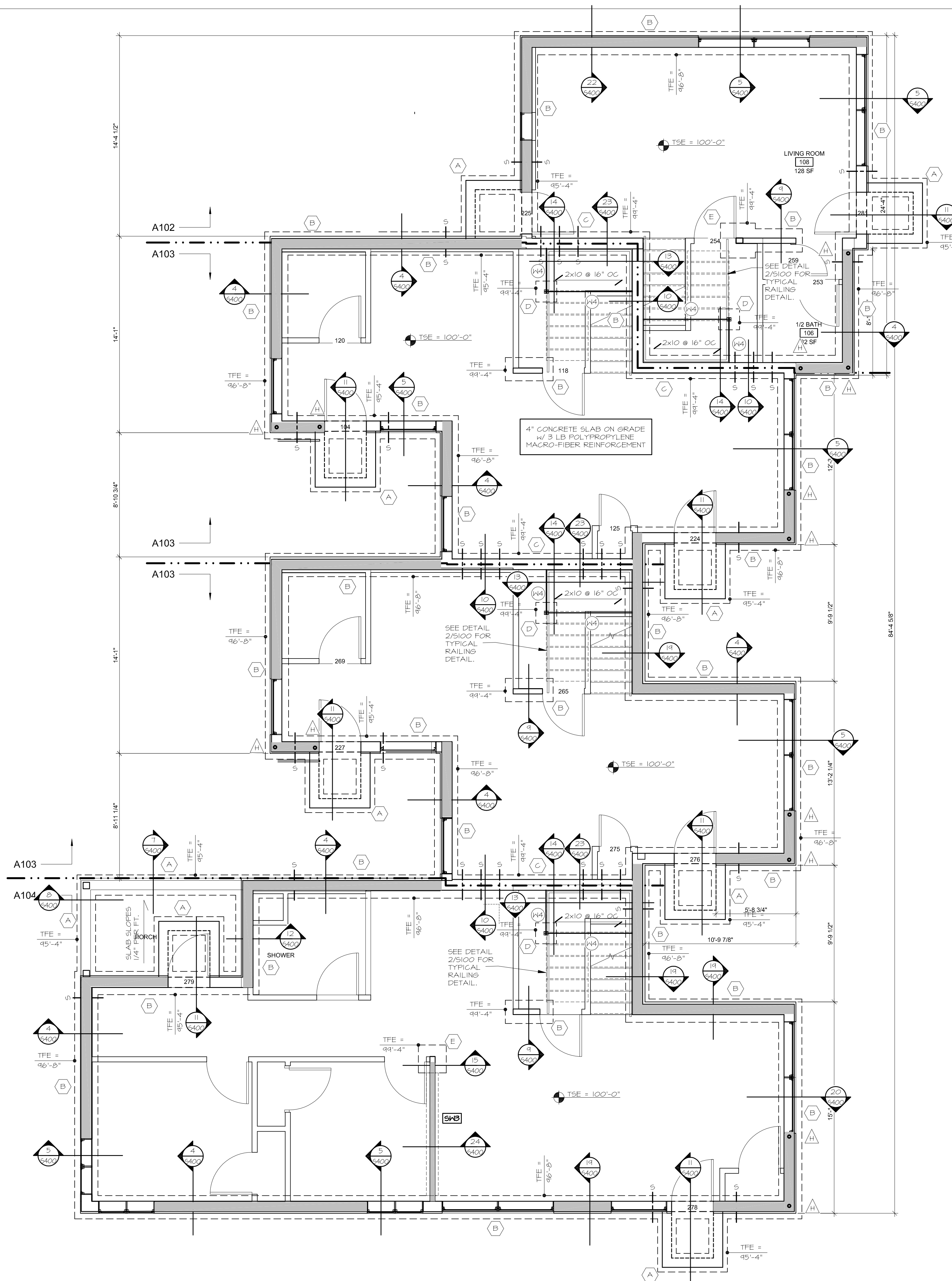
**FOOTING AND
 FOUNDATION PLAN
 BUILDING C, 2-3-3-3**

S102

1 FOOTING AND FOUNDATION PLAN
 S102 1/4" = 1'-0" (BUILDING C) 
 REFER TO SHEET S001 FOR TYPICAL PLAN NOTES AND SCHEDULES.
 FFE @12.5 = 100'-0".



1 FOOTING AND FOUNDATION PLAN
 S103 1/4" = 1'-0" (BUILDING D)
 REFER TO SHEET S0.01 FOR TYPICAL PLAN NOTES AND SCHEDULES.
 FFE 812.5 = 100'-0".



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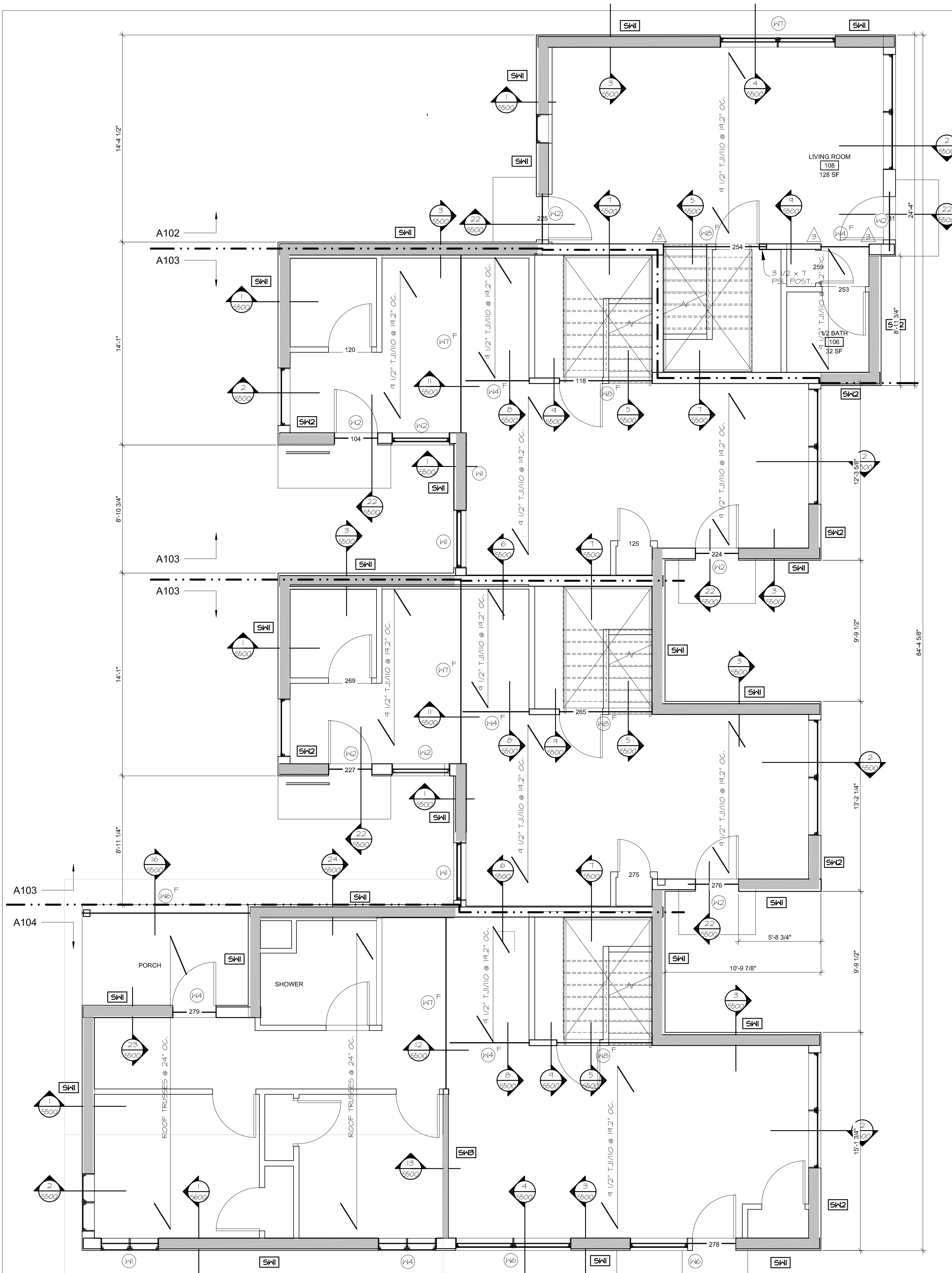
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ISSUE	DATE	DESCRIPTION
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4	6/21/2017	100% CD ISSUE

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FOOTING AND FOUNDATION PLAN
BUILDING D, 2-3-3-4

S103



1 SECOND LEVEL & LOW ROOF FRAMING PLAN
 (BUILDING D)
 S201 1/4" = 1'-0"

MSR 710 South 2nd Street, 8th Floor
 Minneapolis, Minnesota 55401-2282
 Architecture 612.375.0336 tel
 Interiors and 612.342.2216 fax
 Urban Design www.msrdesign.com

Mattson Macdonald Young
 structural engineers
 Bassett Creek Business Center
 901 North 3rd Street, Suite 100
 Minneapolis, MN 55401
 612-827-7825 voice
 612-827-0805 fax

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 Print Name: ADAM JESSE NEIGEBAUER
 Date: 6/21/2017 License No: 47773

ISSUE	DATE	DESCRIPTION
1	4/21/2017	100% DESIGN DEVELOPMENT ISSUE
2	5/08/2017	50% CONSTRUCTION DOCUMENTS ISSUE
3	5/26/2017	GC 90% REVIEW SET
4	6/21/2017	100% CD ISSUE

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SECOND FLOOR AND LOW ROOF FRAMING PLAN
BUILDING D, 2-3-3-4

S201

**MINNEHAHA
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5118 54TH STREET EAST
MINNEAPOLIS, MN 55417

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Signature: *Adam Jesse Neigebauer*

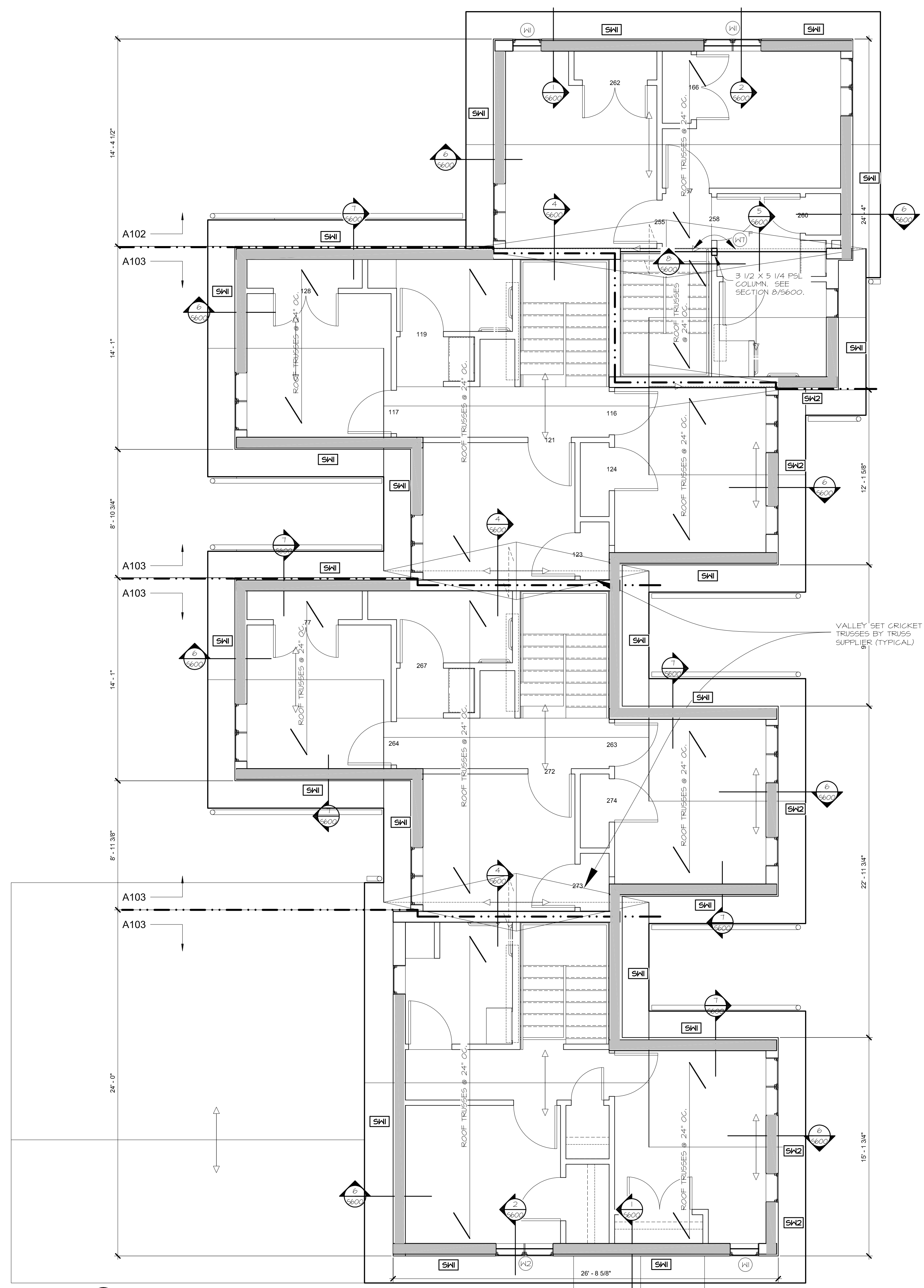
Print Name: ADAM JESSE NEIGEBAUER
Date: 6/21/2017 License No.: 47773

ISSUE	DATE	DESCRIPTION
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2	5/08/2017	50% CONSTRUCTION DOCUMENTS ISSUE
3	5/26/2017	GC 90% REVIEW SET
4	6/21/2017	100% CD ISSUE

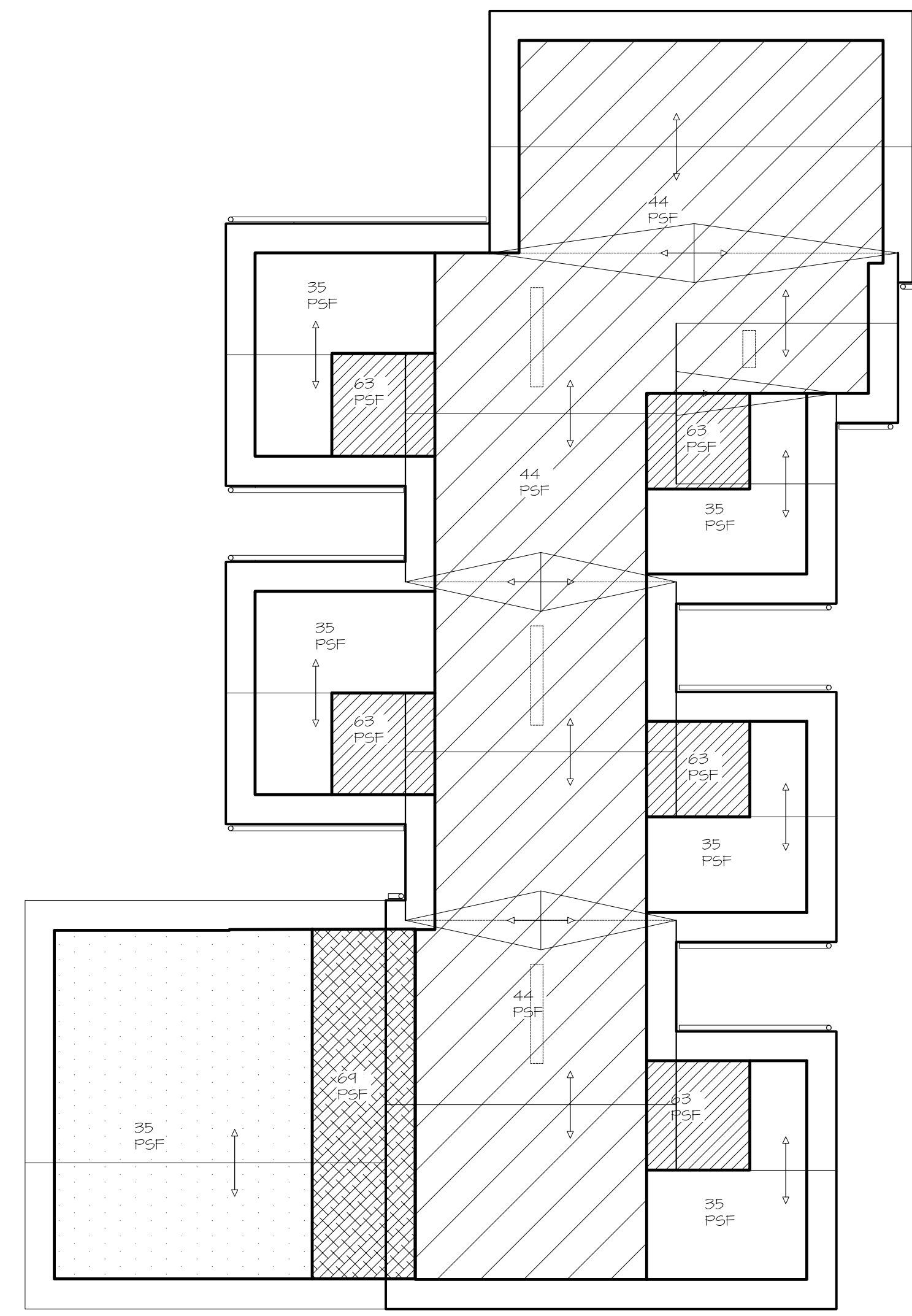
PROJECT NO. 17060
PROJECT PHASE CD
DRAWN BY: DLH CHECKED BY: AN

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**ROOF FRAMING PLAN
AND ROOF TRUSS
LOADING PLAN
BUILDING D, 2-3-3-4**

S301



1 ROOF FRAMING PLAN
S301 1/4" = 1'-0" (BUILDING D)



2 ROOF TRUSS LOADING PLAN
S301 1/8" = 1'-0"

**MINNEHAHA
 TOWNHOMES**
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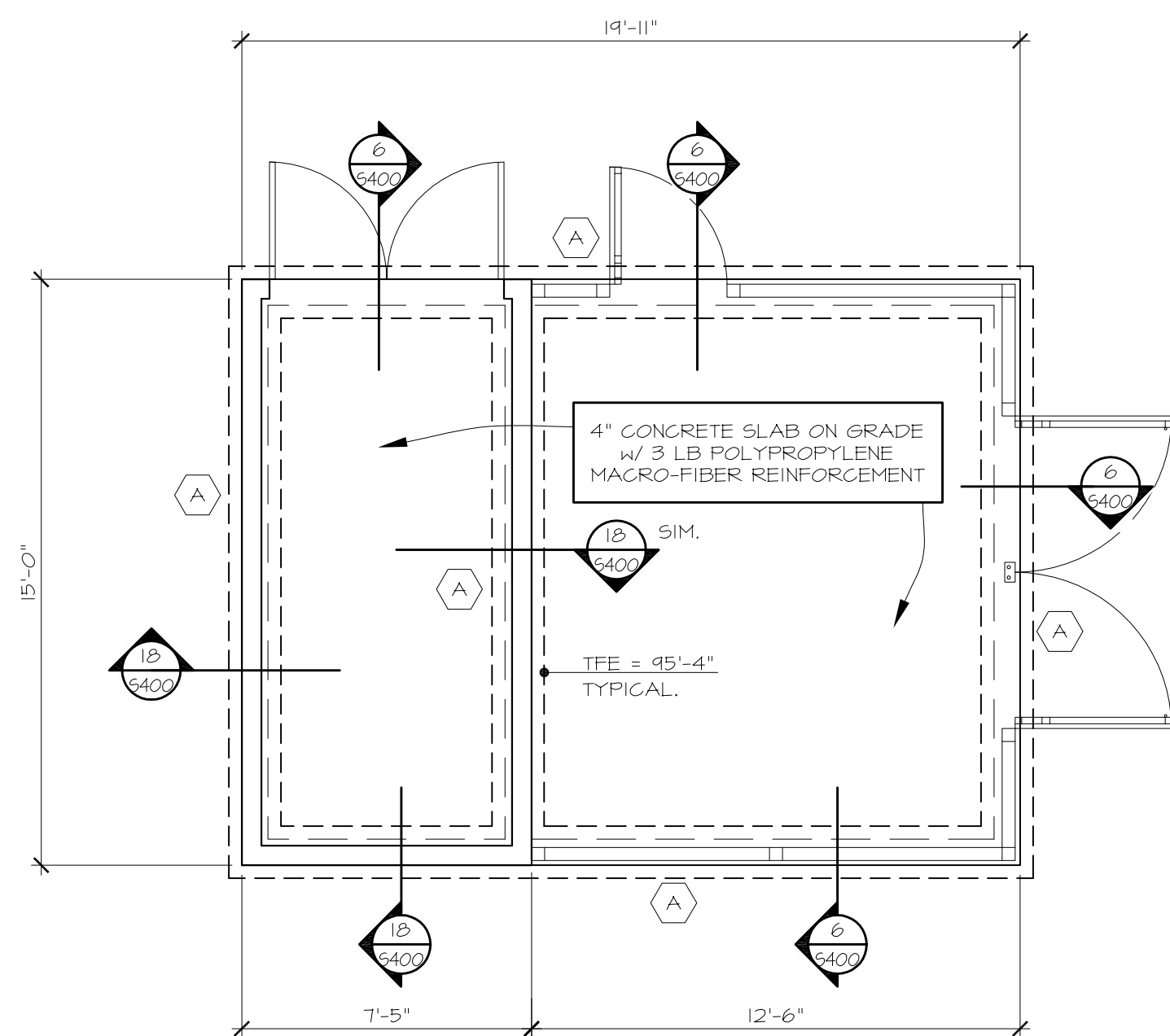
Signature: *Adam Jesse Neigebauer*
 Print Names: ADAM JESSE NEIGEBAUER
 Date: 6/21/2017 License No: 47773

ISSUE	DATE	DESCRIPTION
1	4/21/2017	100% DESIGN DEVELOPMENT ISSUE
2	5/08/2017	50% CONSTRUCTION DOCUMENTS ISSUE
3	5/26/2017	GC 90% REVIEW SET
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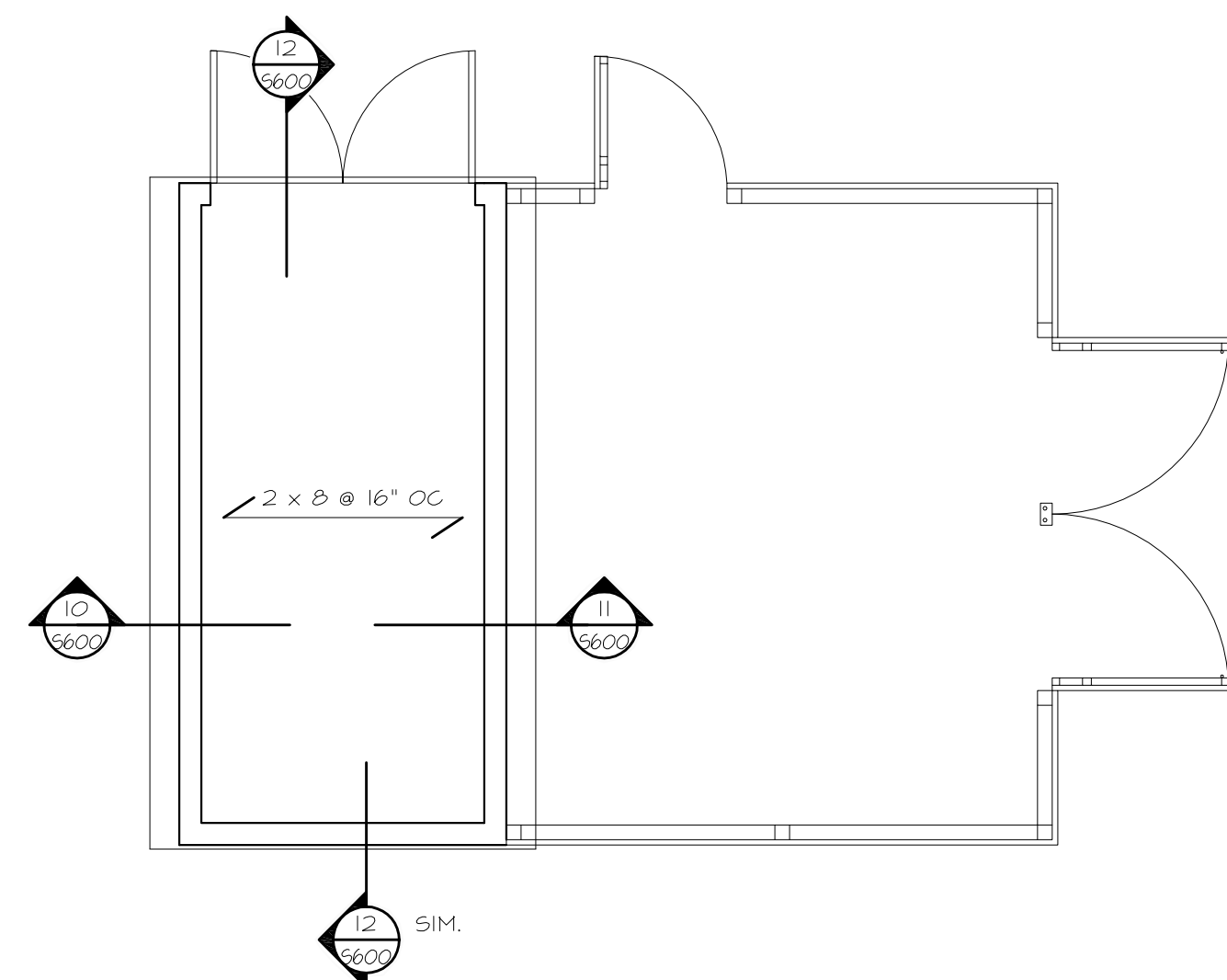
PROJECT NO. 17060
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**SECOND FLOOR
 FRAMING PLAN
 BUILDINGS A,B,C, - 2-3-3-3
 SHED AND RECYCLING PLANS**

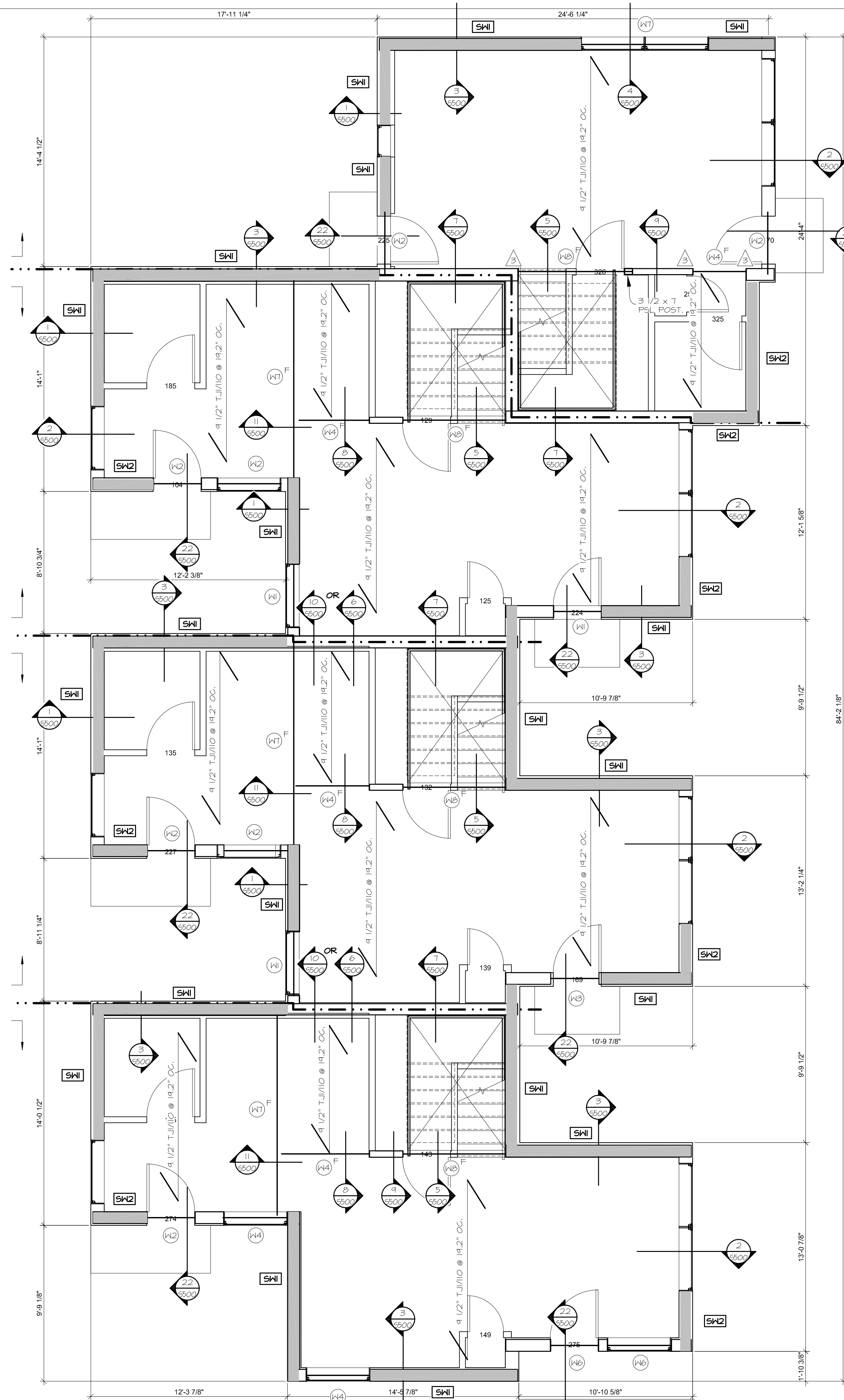
S200



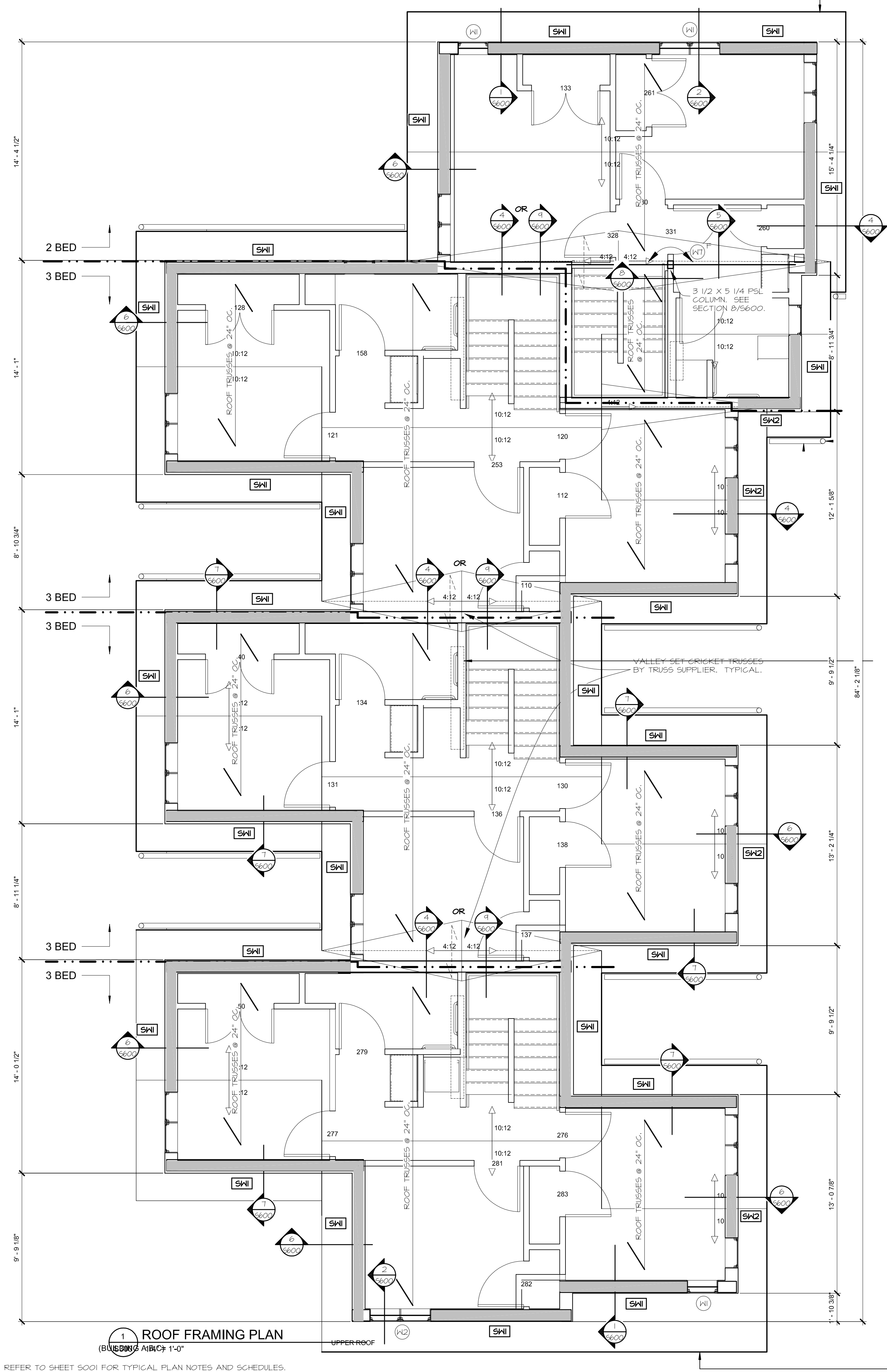
2 SHED/TRASH FOUNDATION
 1/4" = 1'-0"
 REFER TO SHEET S001 FOR TYPICAL PLAN NOTES AND SCHEDULES.



3 SHED ROOF FRAMING PLAN
 1/4" = 1'-0"
 REFER TO SHEET S001 FOR TYPICAL PLAN NOTES AND SCHEDULES.

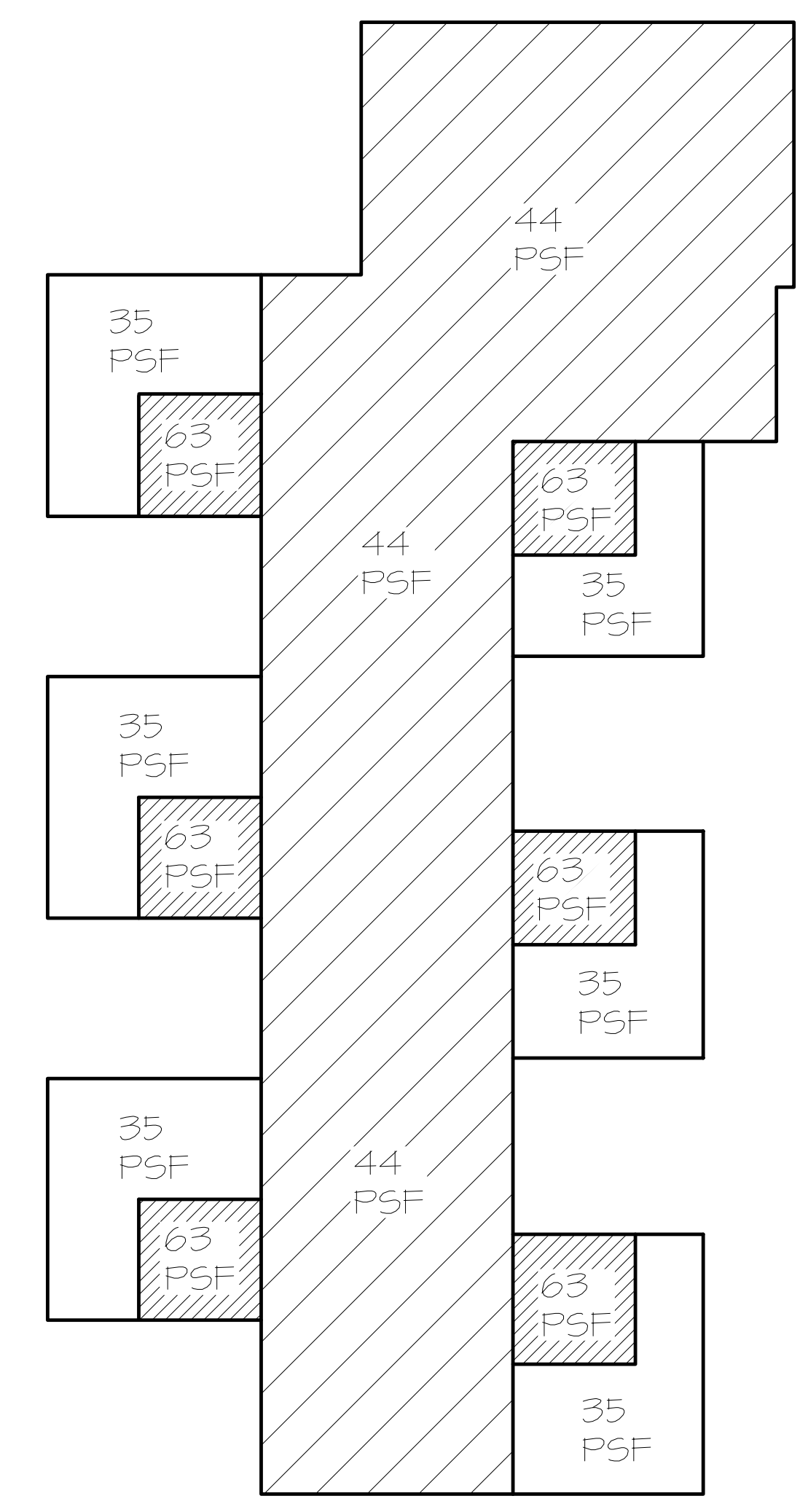


1 SECOND LEVEL FRAMING PLAN
 1/4" = 1'-0"
 (BUILDING A,B,C)
 REFER TO SHEET S001 FOR TYPICAL PLAN NOTES AND SCHEDULES.



1 ROOF FRAMING PLAN
(BUILDINGS A,B,C) 1'-0"

REFER TO SHEET S301 FOR TYPICAL PLAN NOTES AND SCHEDULES.



2 ROOF TRUSS LOADING PLAN
1/8" = 1'-0"

**MINNEHAHA
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5368 RIVERVIEW ROAD
5118 54TH STREET EAST
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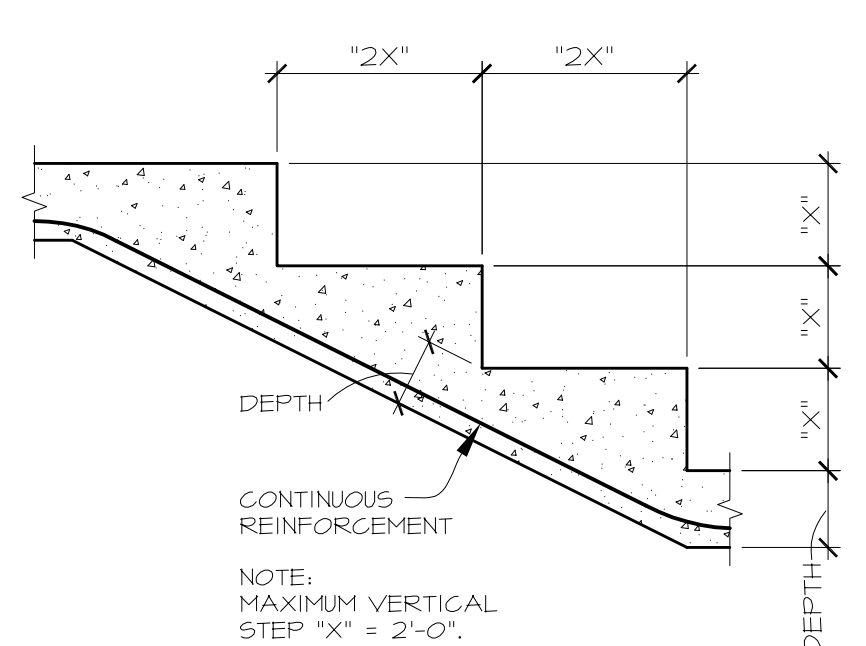
Signature: *Adam Jesse Neigebauer*
Print Name: ADAM JESSE NEIGEBAUER
Date: 6/21/2017 License No.: 47773

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1	4/21/2017	100% DESIGN DEVELOPMENT ISSUE
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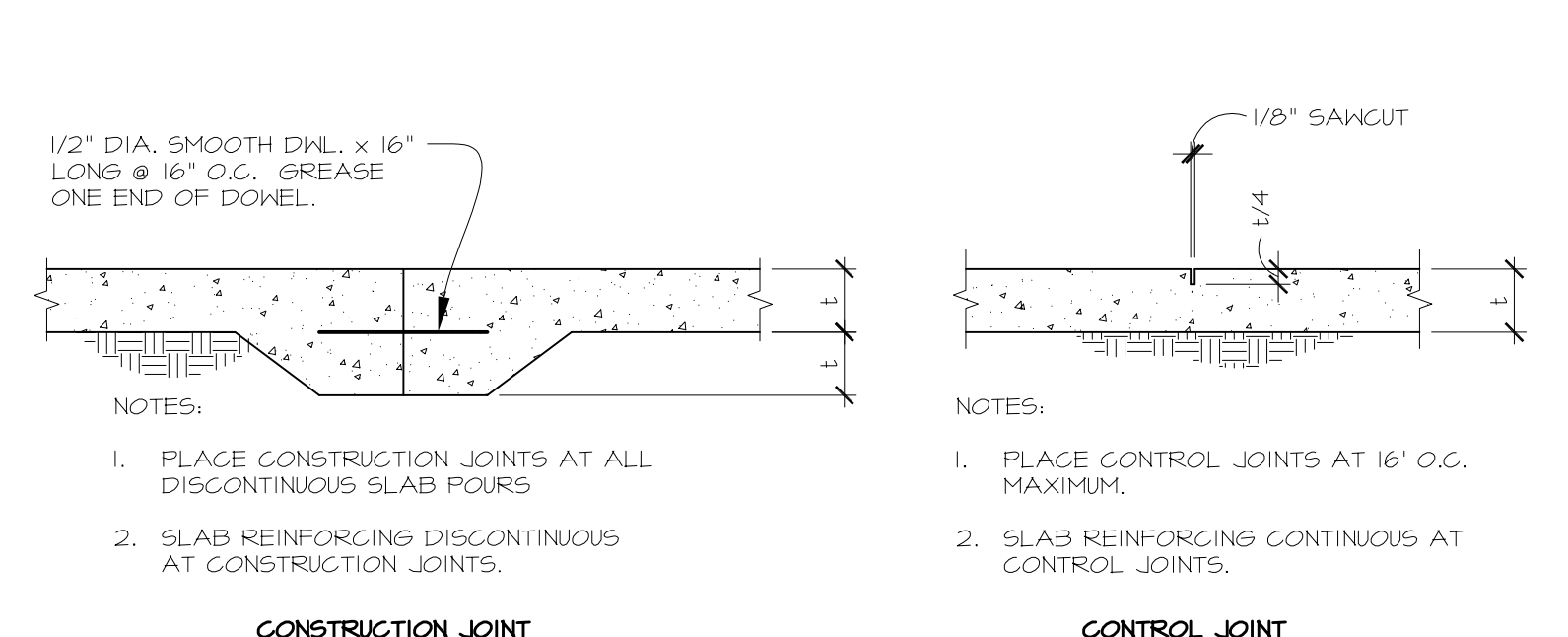
PROJECT NO. 17060
PROJECT PHASE CD
DRAWN BY: DLH CHECKED BY: AN

**ROOF FRAMING PLAN
AND ROOF TRUSS
LOADING PLAN
BUILDINGS A,B,C -2-3-3-3**

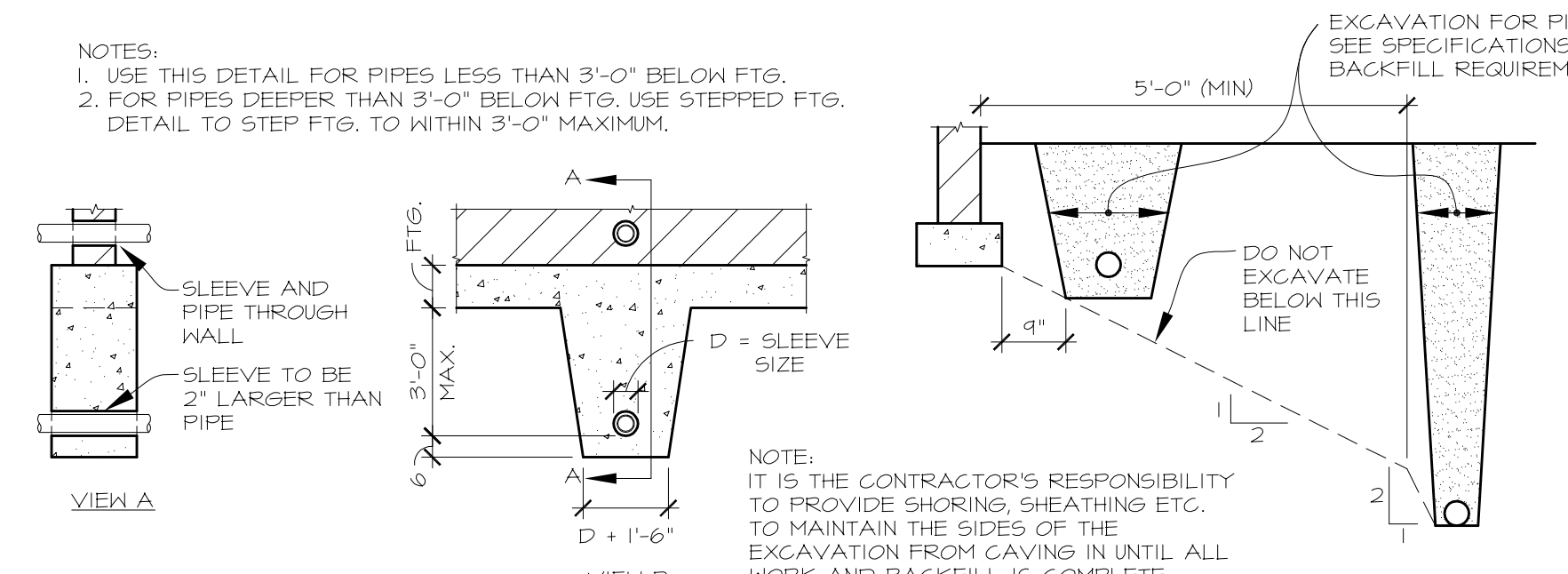
S300



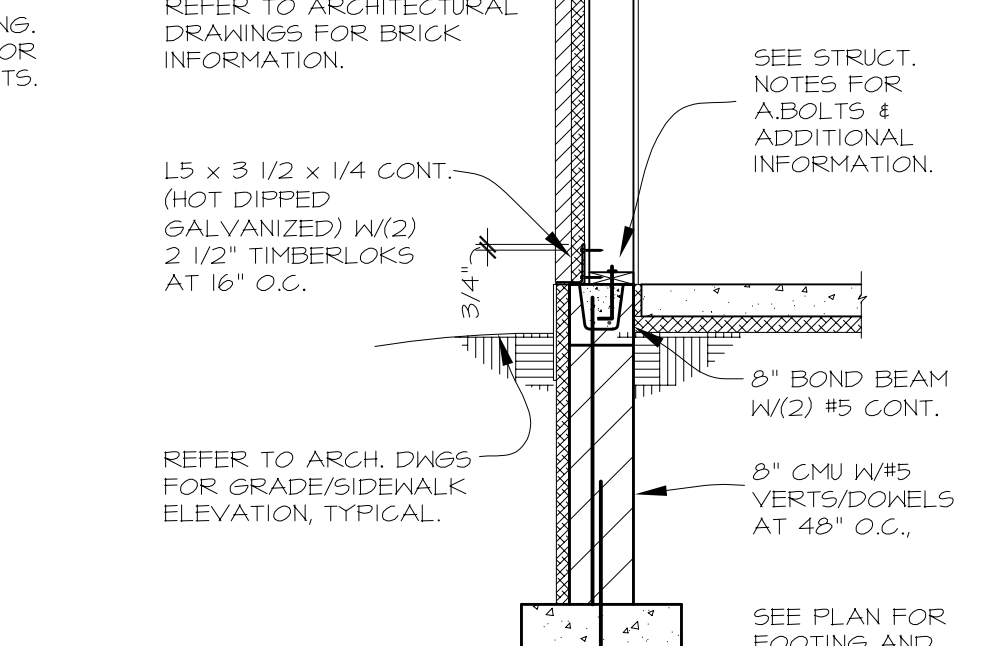
1 TYPICAL STEPPED FOOTING
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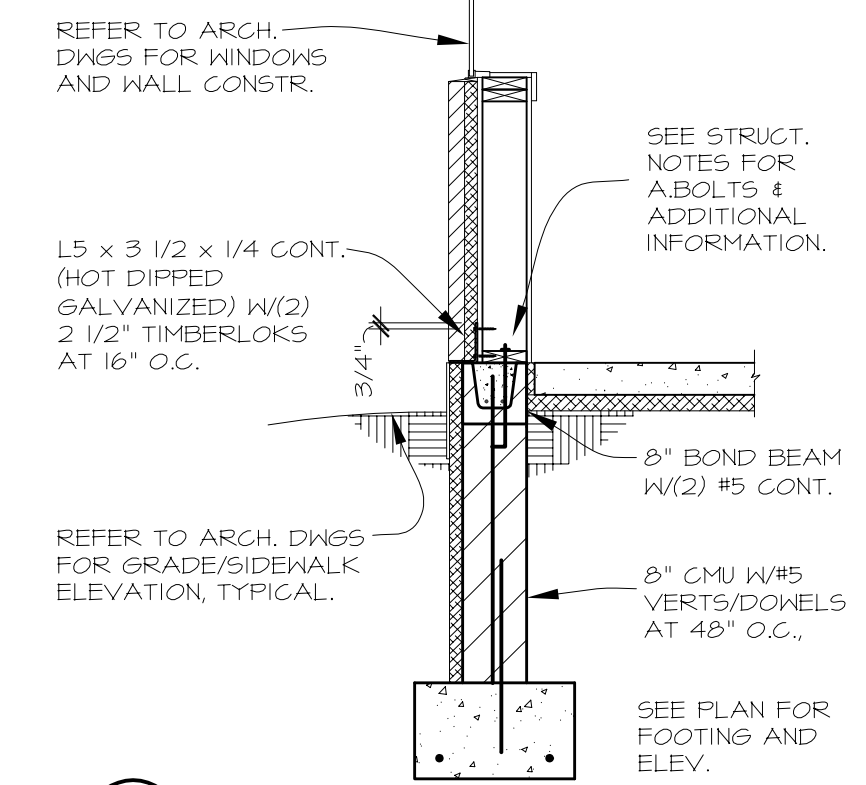
2 TYPICAL SLAB ON GRADE JOINTS
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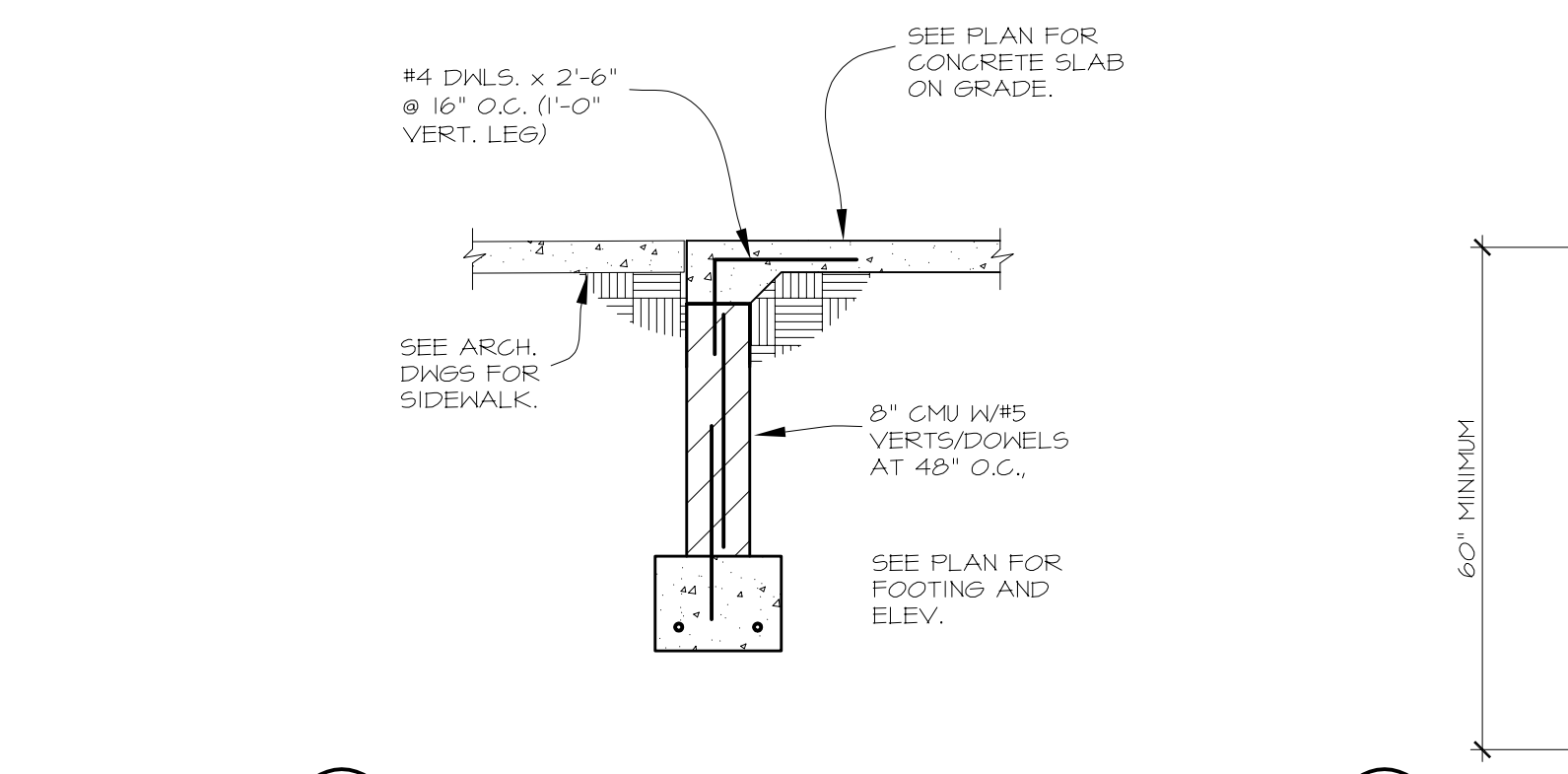
3 TYPICAL UNDERGROUND PIPING EXCAVATION
NTS



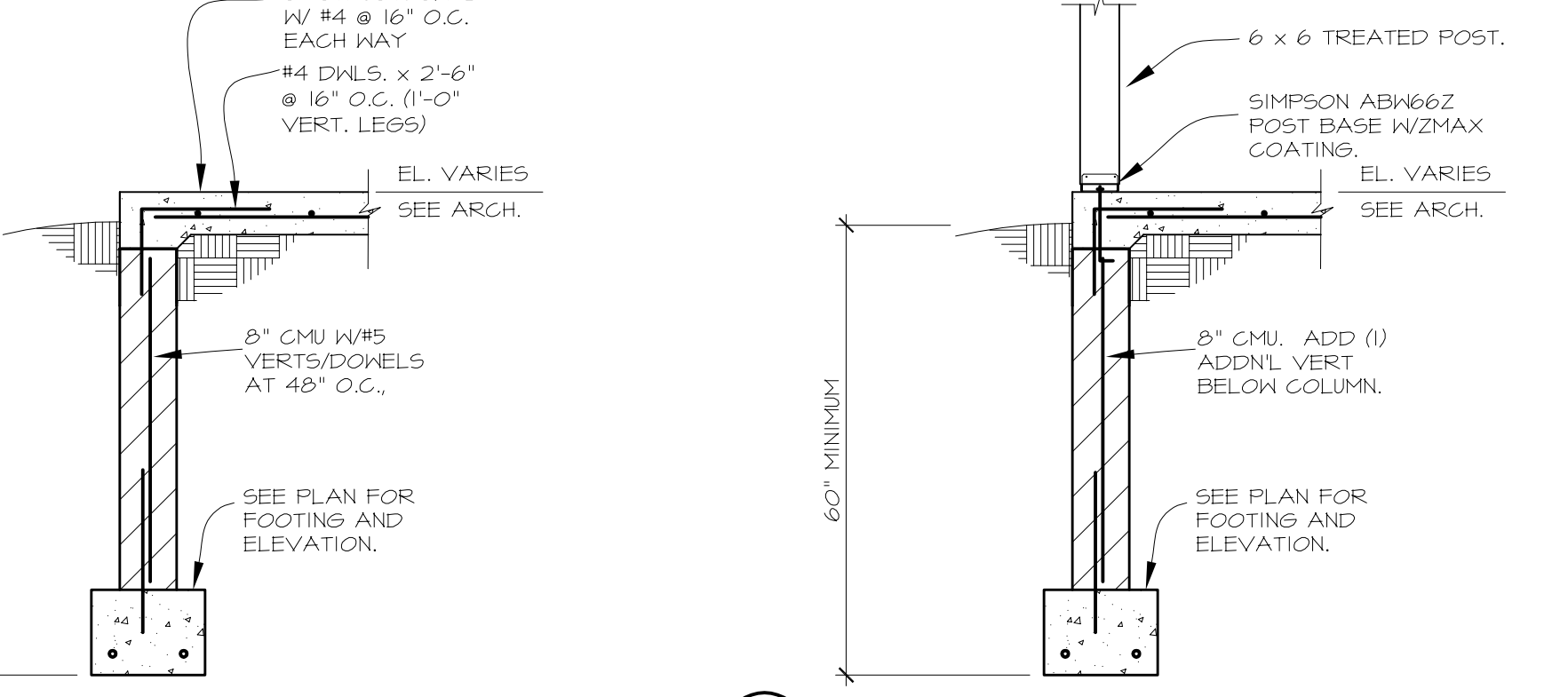
4 SECTION
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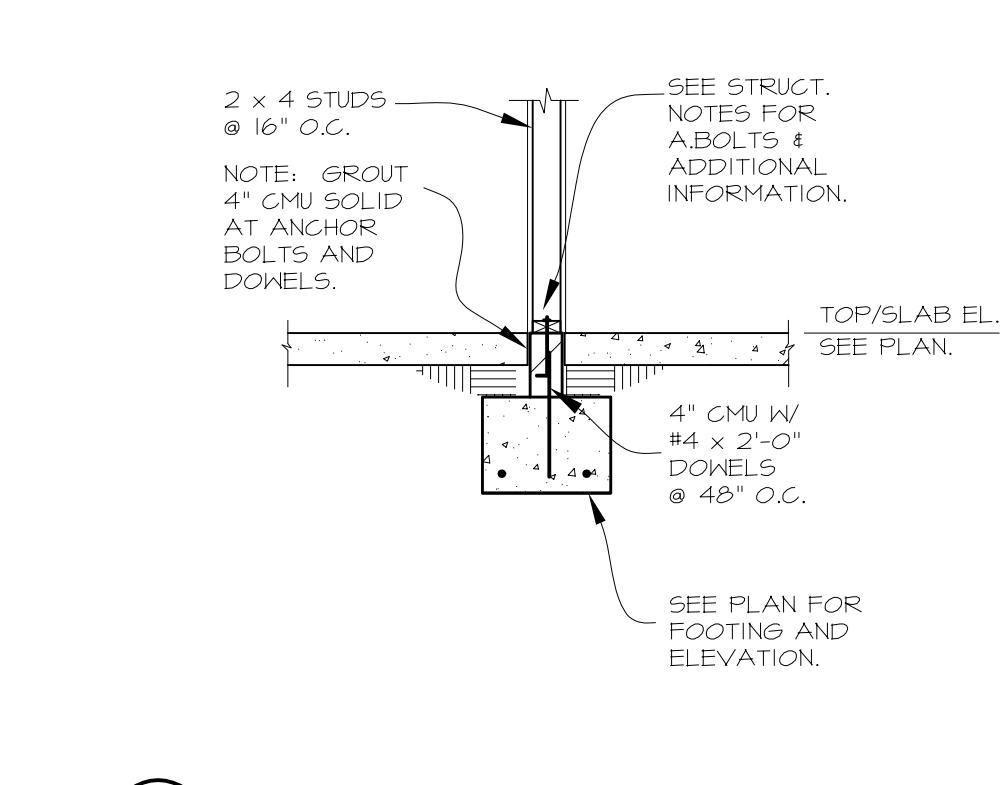
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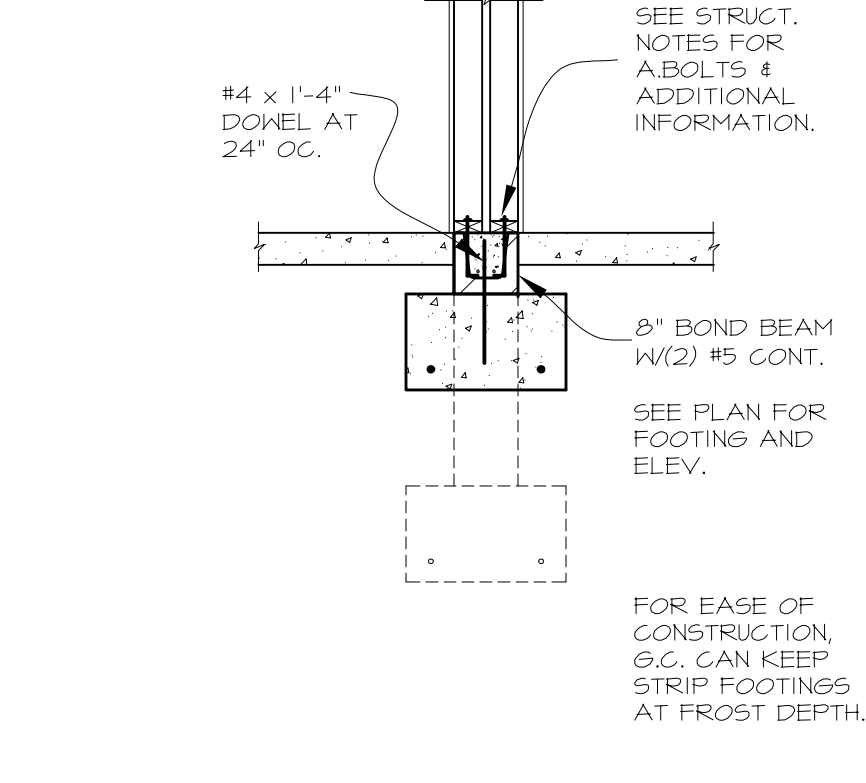
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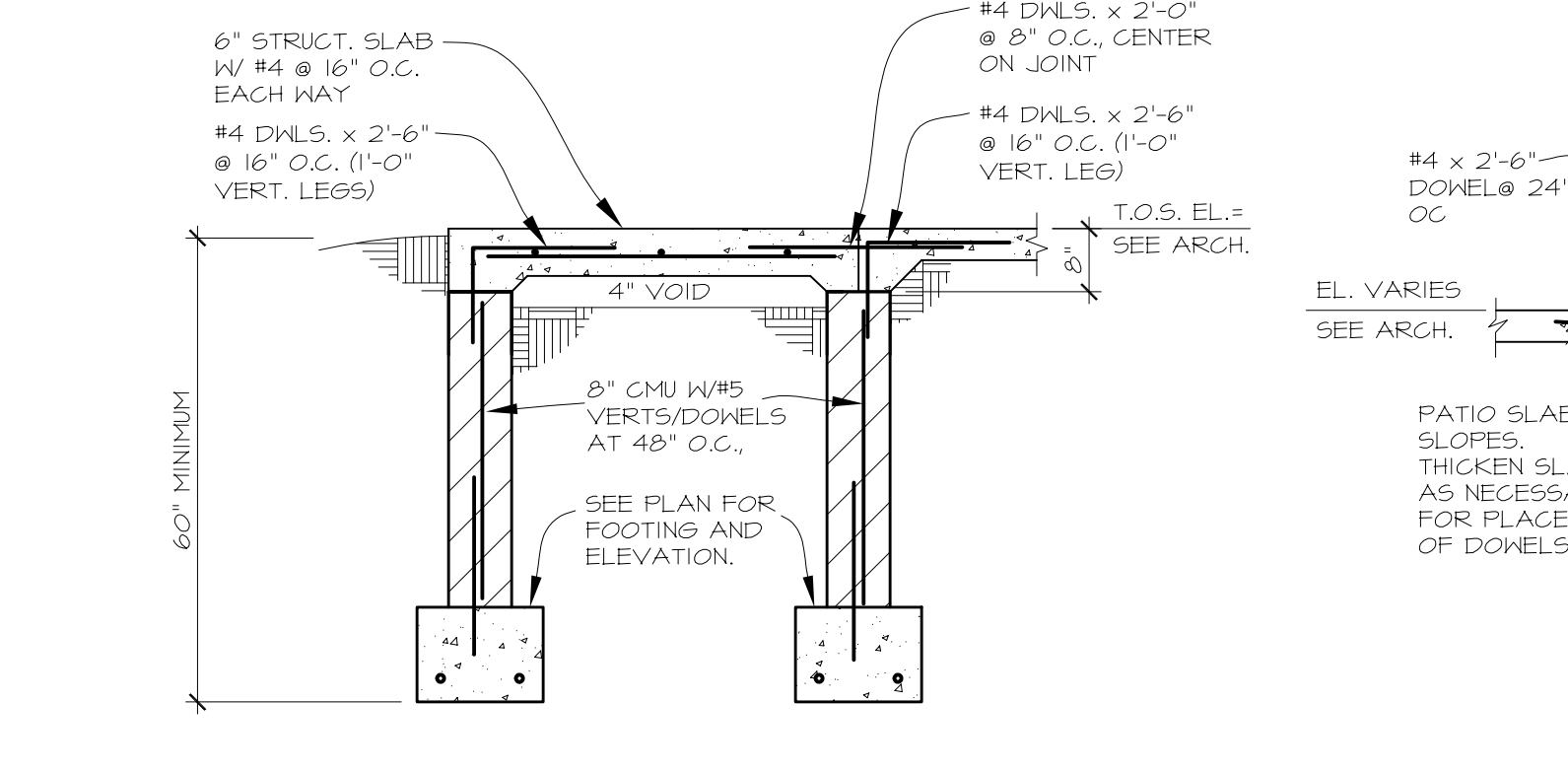
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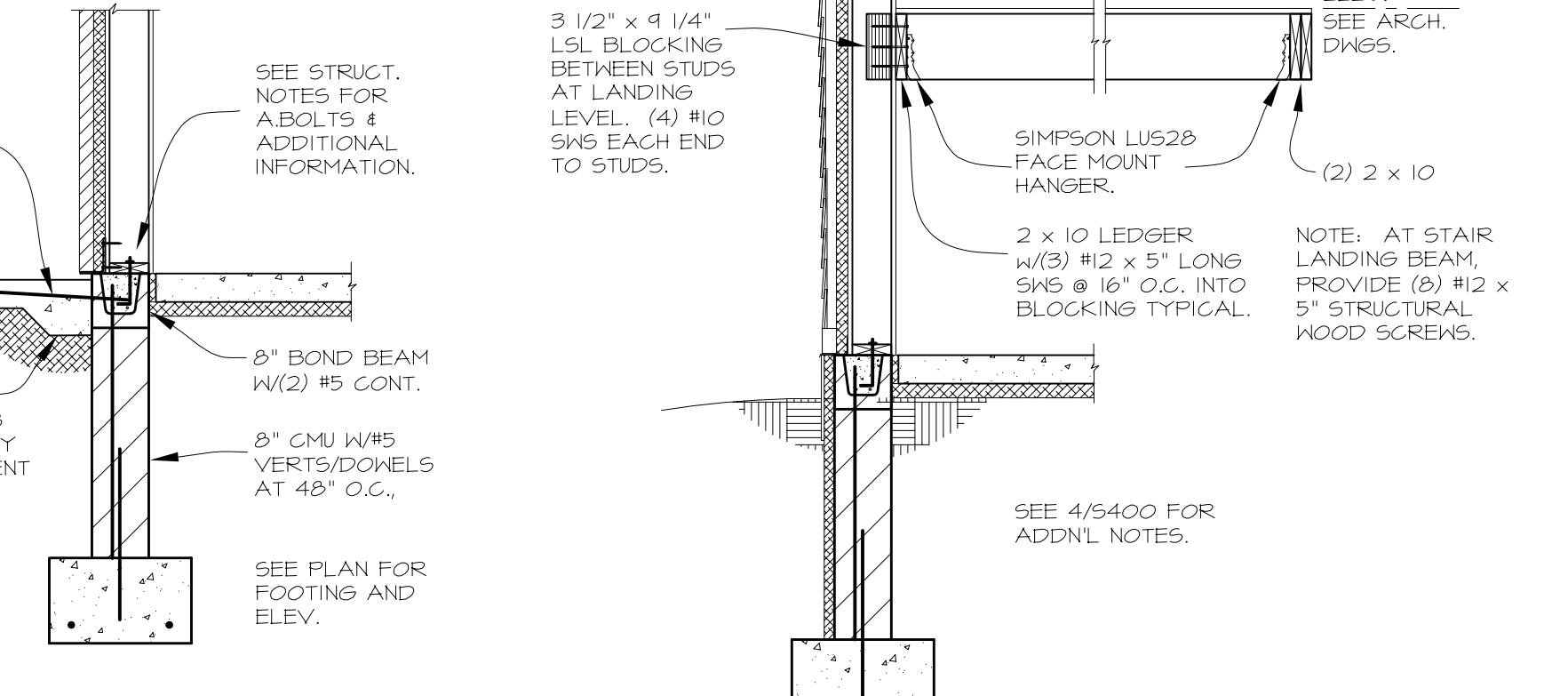
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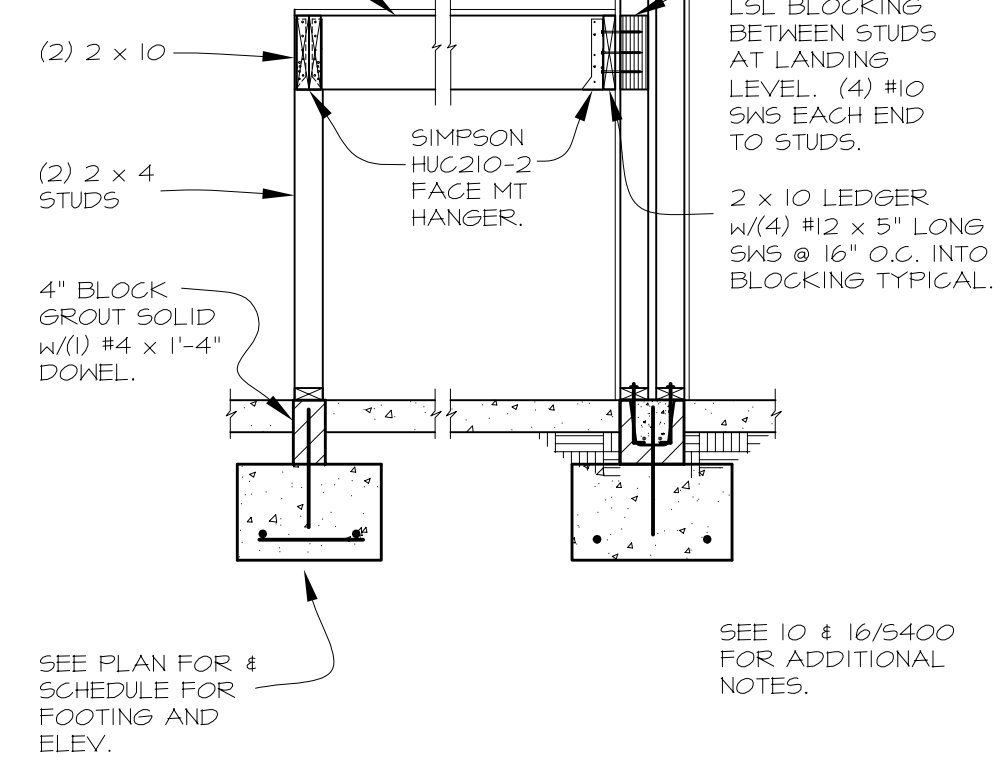
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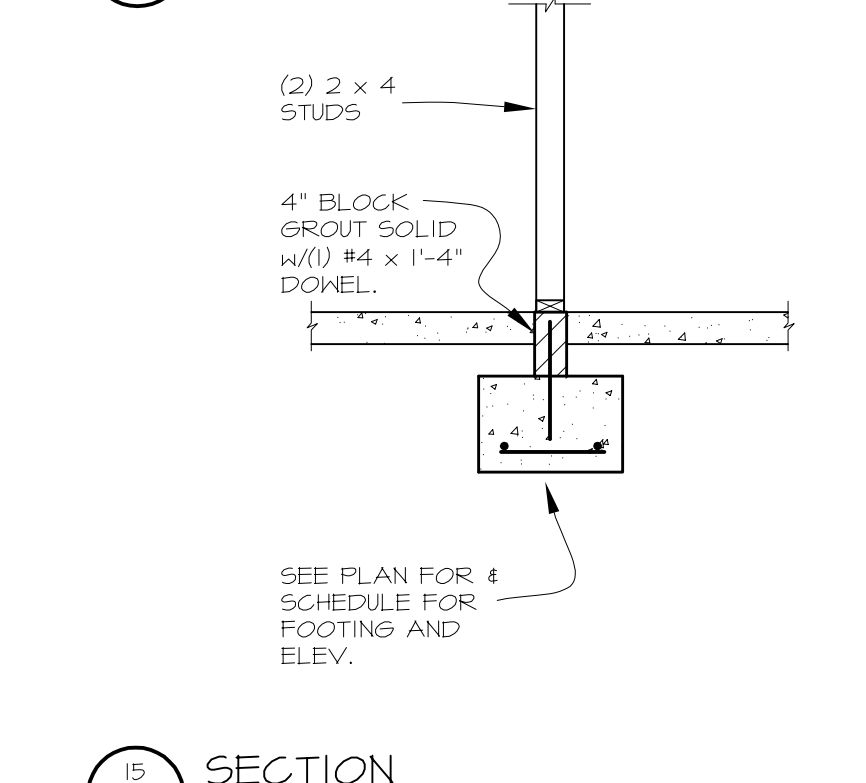
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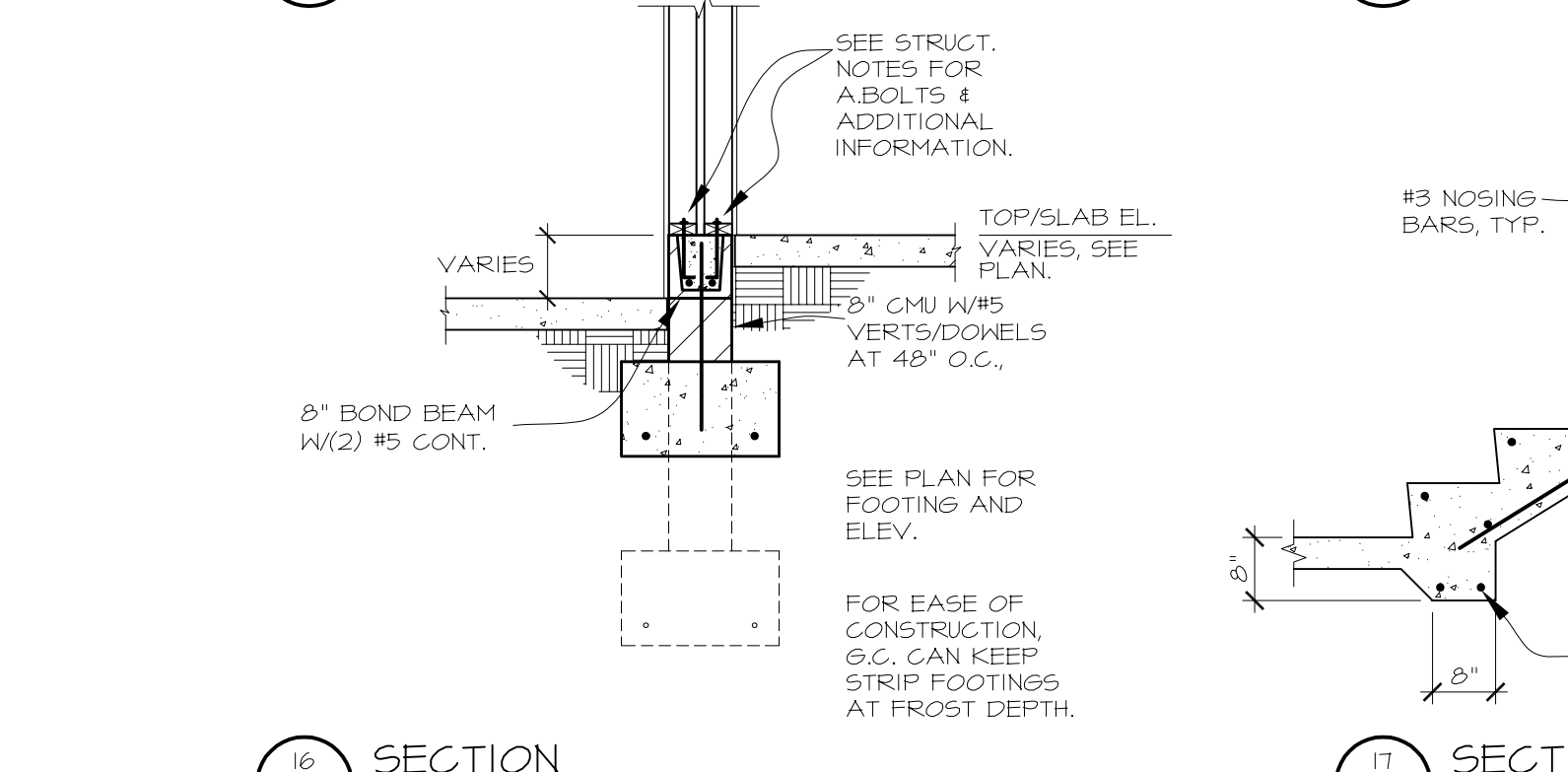
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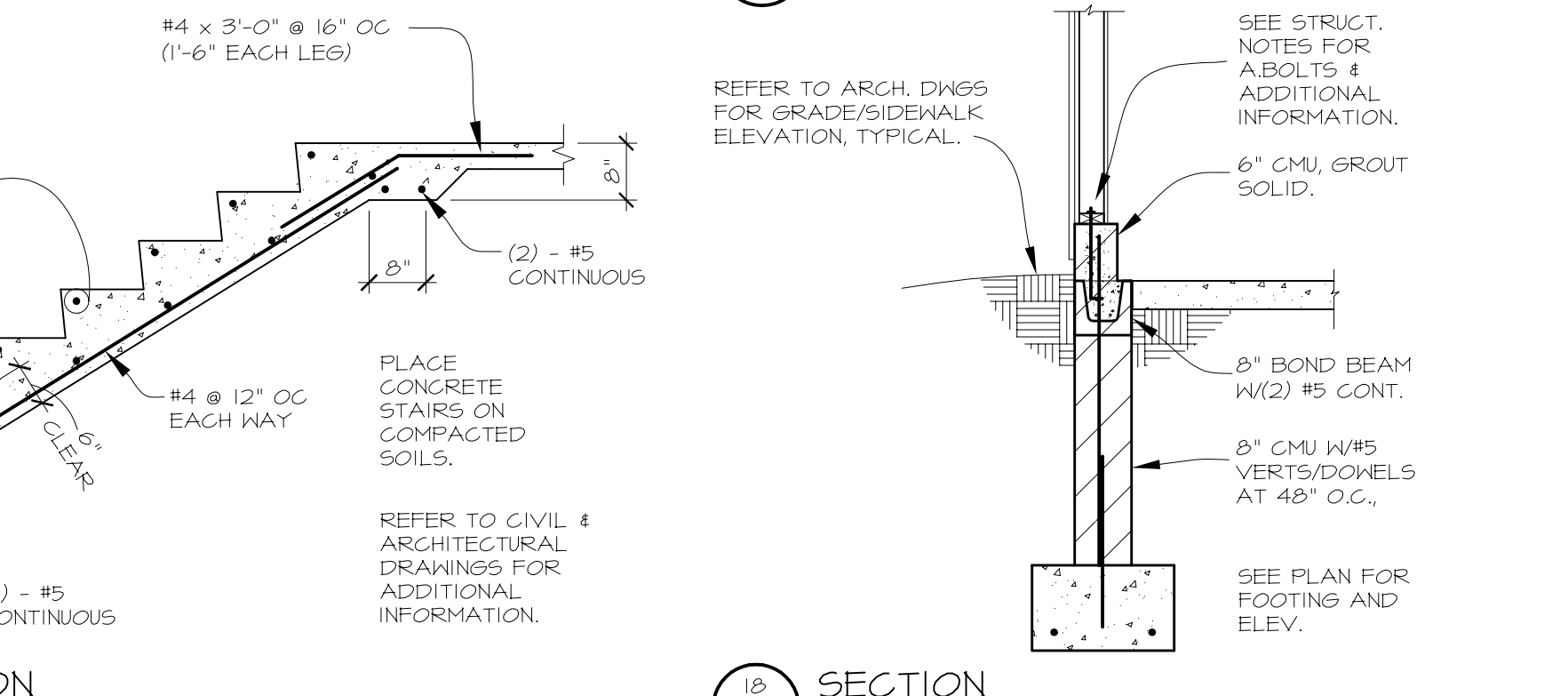
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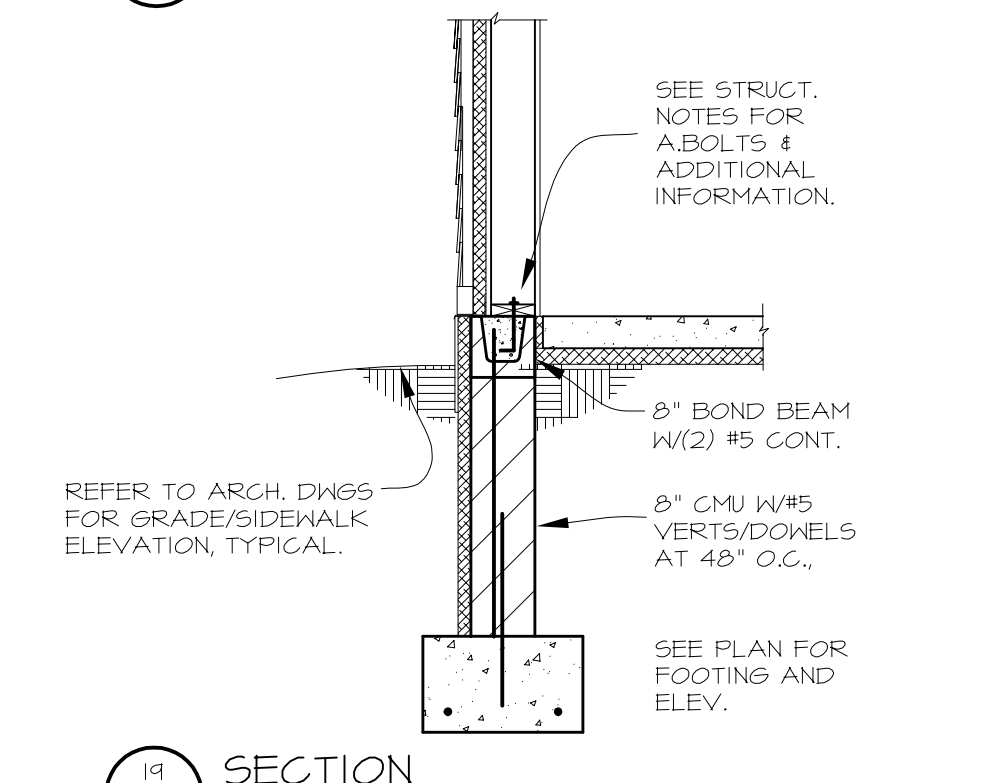
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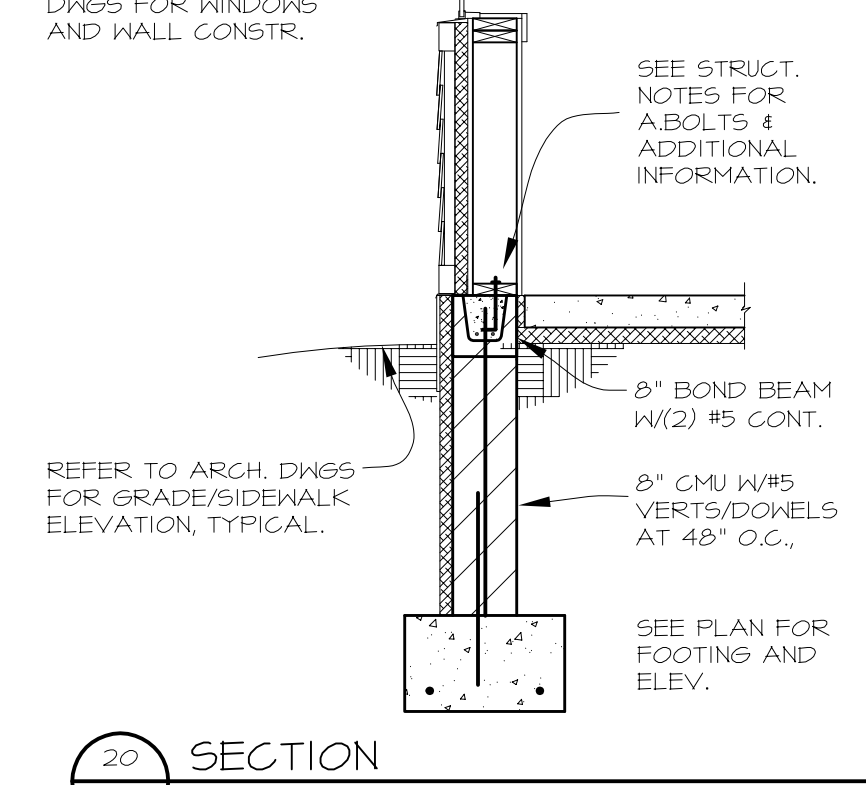
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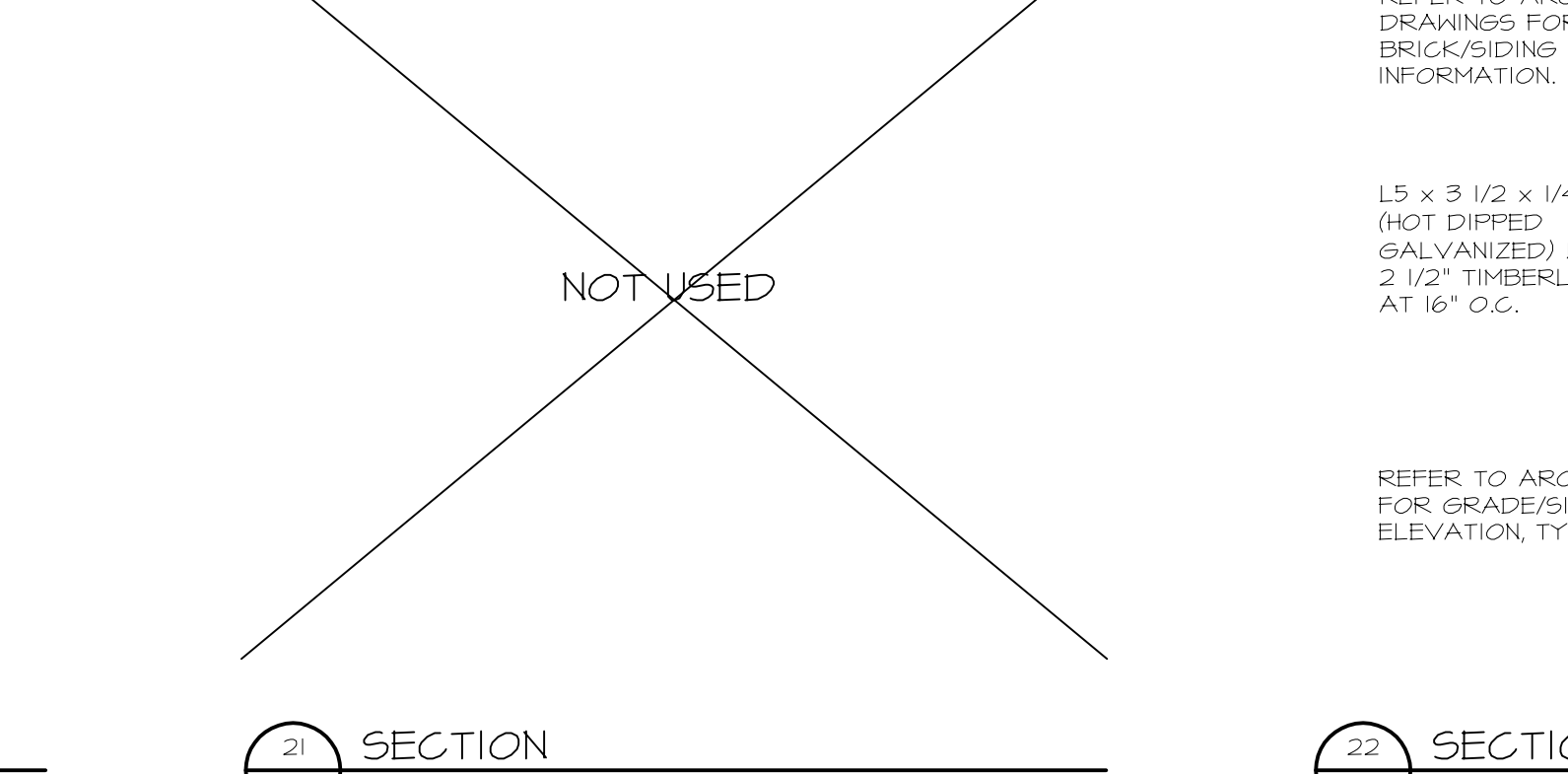
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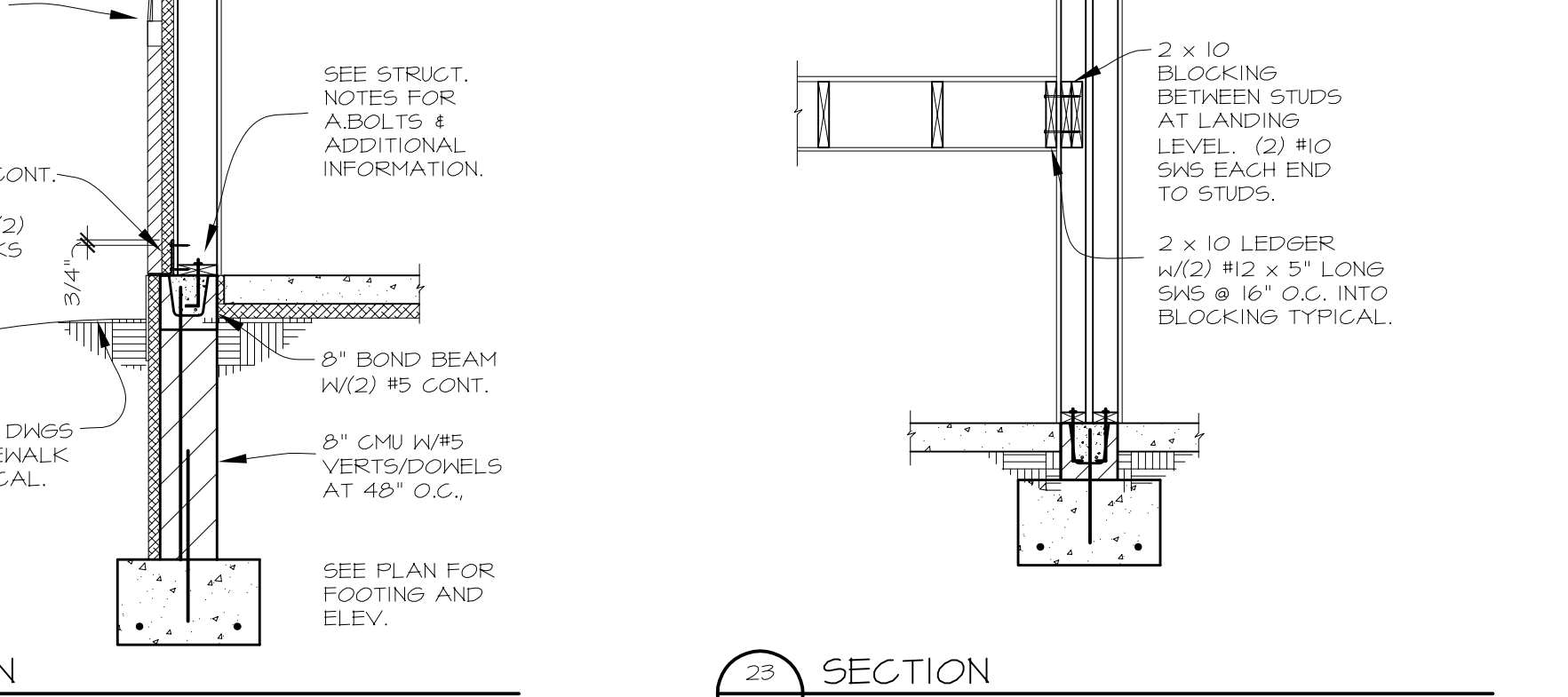
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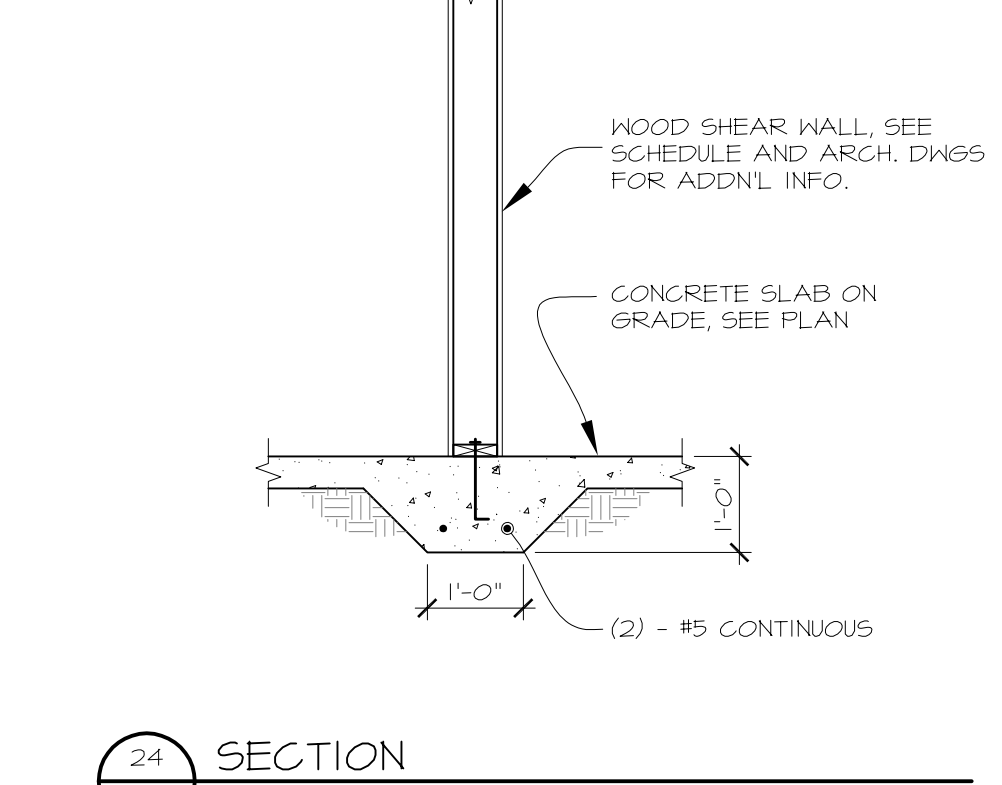
17 SECTION
1/2" = 1'-0"



18 SECTION
1/2" = 1'-0"



19 SECTION
1/2" = 1'-0"



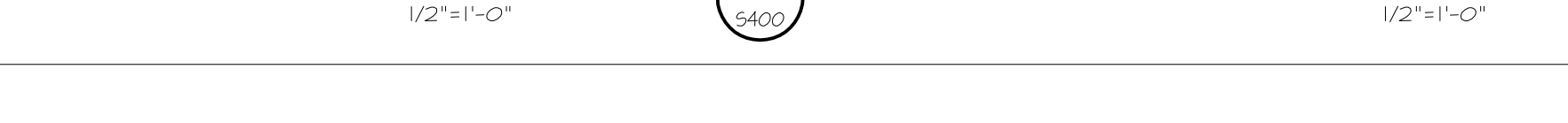
20 SECTION
1/2" = 1'-0"



21 SECTION
1/2" = 1'-0"



22 SECTION
1/2" = 1'-0"



23 SECTION
1/2" = 1'-0"



24 SECTION
1/2" = 1'-0"

MINNEHAHA
TOWNHOMES
5364 RIVERVIEW ROAD
5368 RIVERVIEW ROAD
5118 54TH STREET EAST
MINNEAPOLIS, MN 55417

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Engineer under the Laws of the State of Minnesota.

Signature: Adam Jesse Neigebauer
Print Names: ADAM JESSE NEIGEBAUER
Date: 6/21/2017 License No: 47773

ISSUE	DATE	DESCRIPTION
1	4/21/2017	100% DESIGN DEVELOPMENT ISSUE
2	5/08/2017	50% CONSTRUCTION DOCUMENTS ISSUE
3	5/26/2017	GC 90% REVIEW SET
4	6/21/2017	100% CD ISSUE

PROJECT NO.	17060
PROJECT PHASE	CD
DRAWN BY:	DLH
CHECKED BY:	AN

FOUNDATION
SECTIONS AND
DETAILS

**MINNEHAHA
 TOWNHOMES**
 5364 RIVERVIEW ROAD
 5368 RIVERVIEW ROAD
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PROJECT NO. 17060

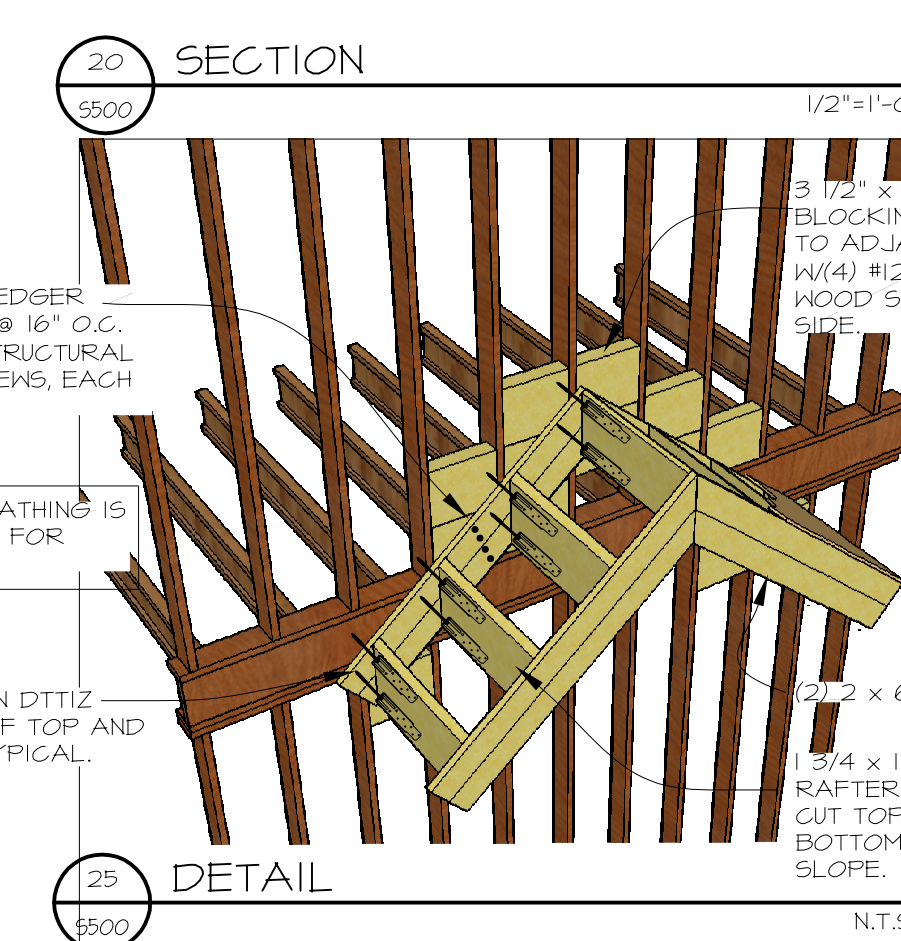
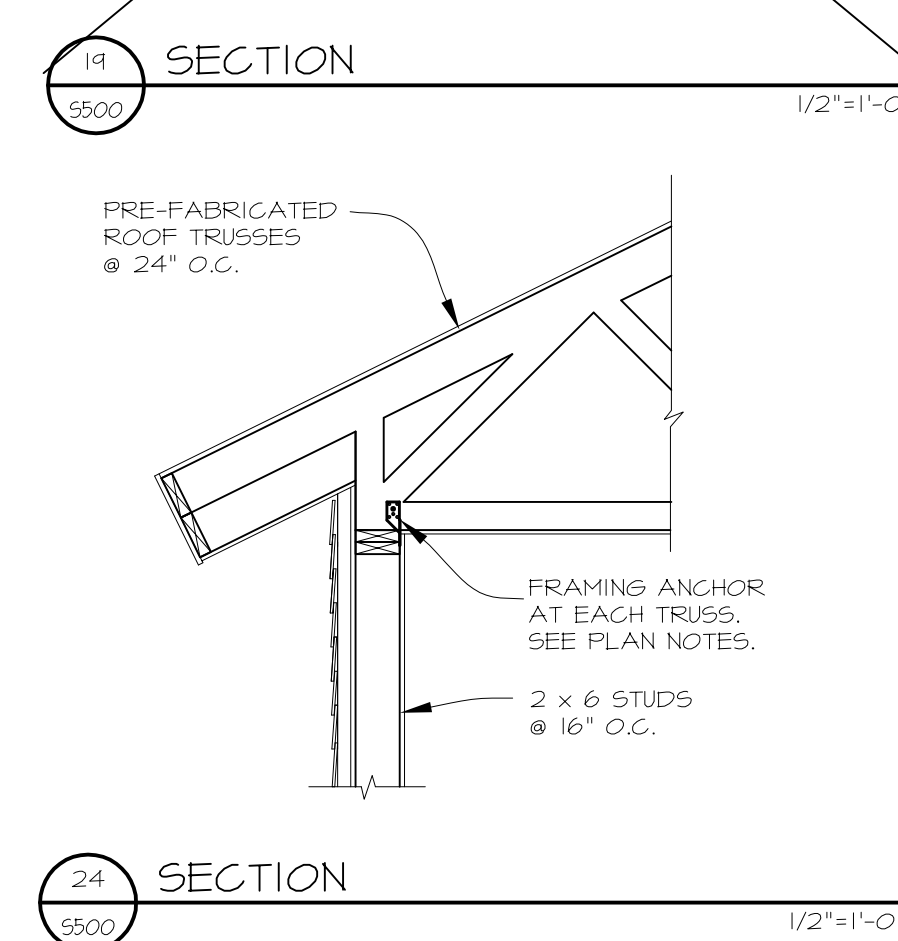
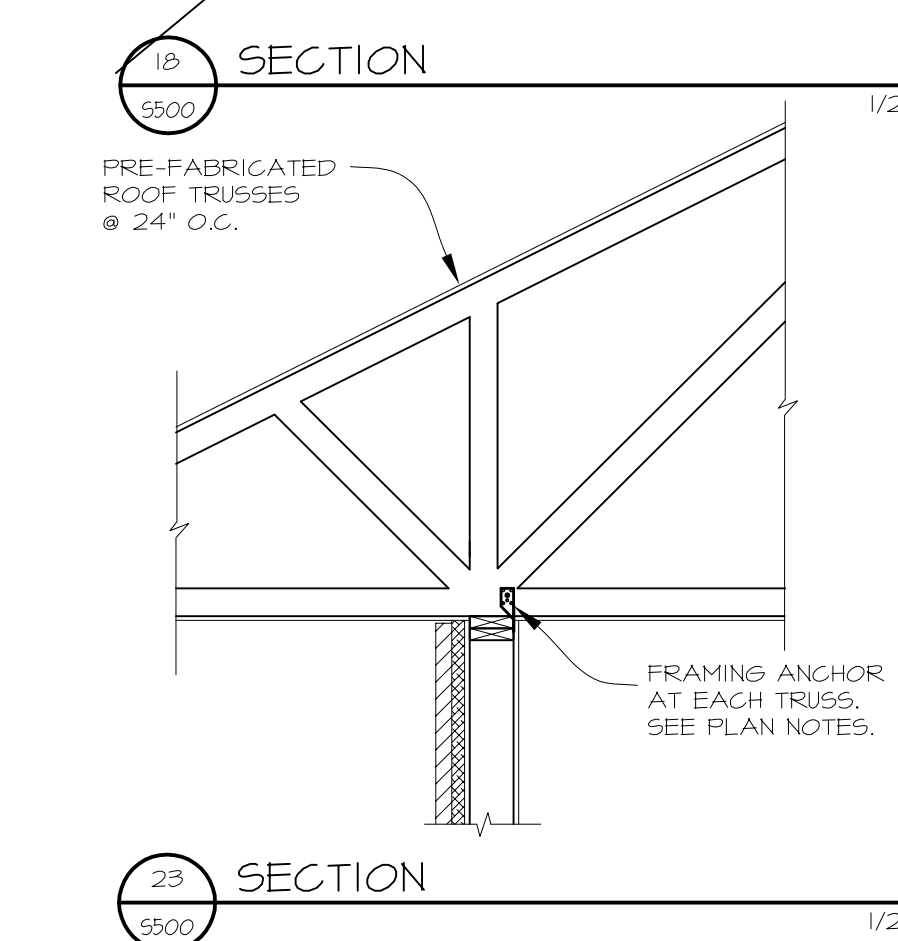
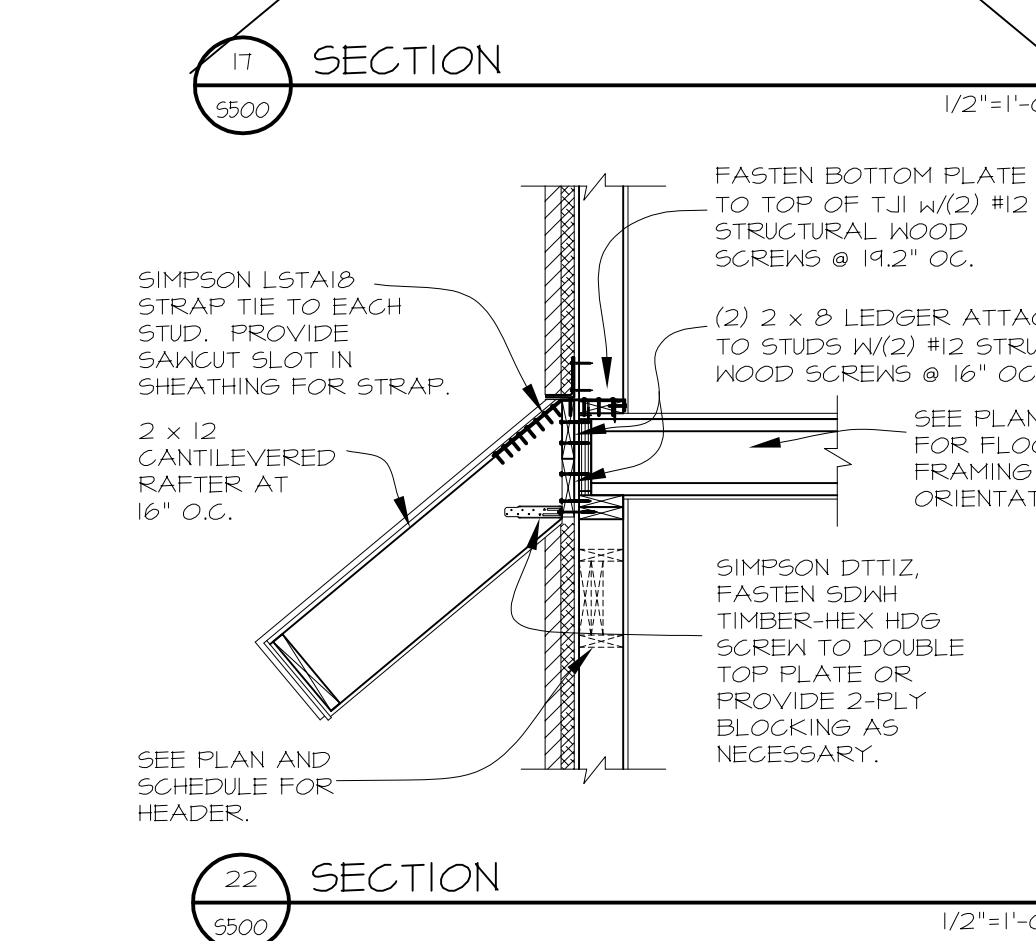
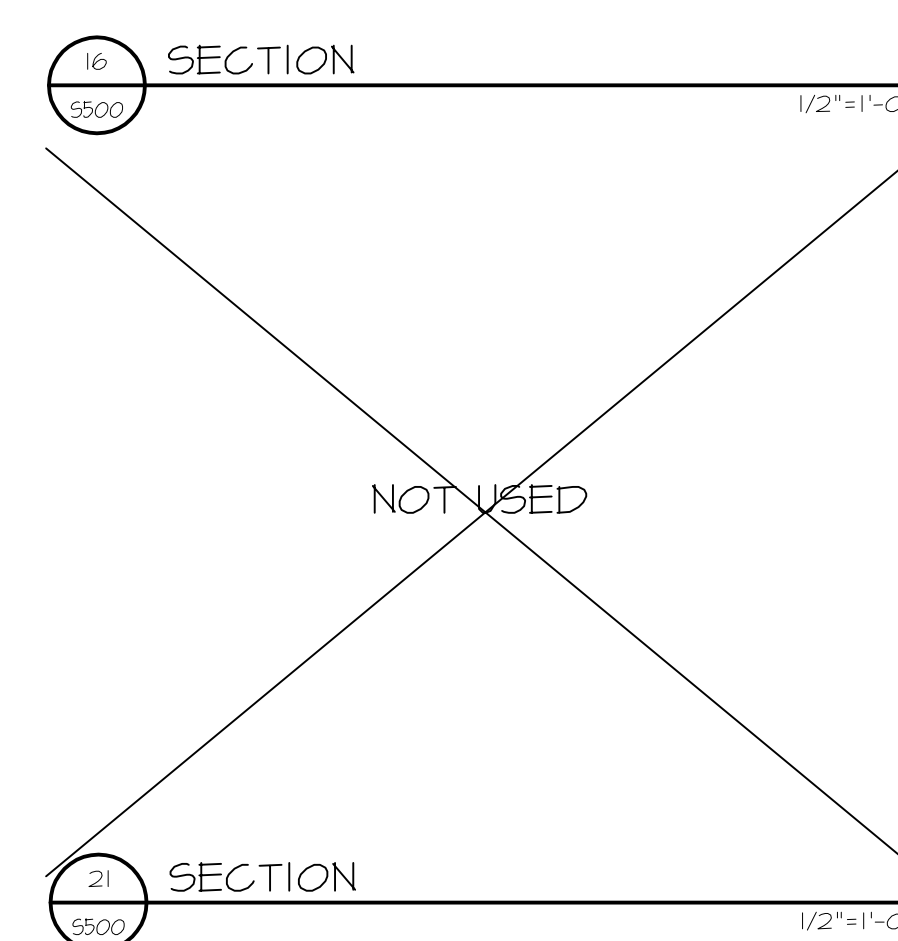
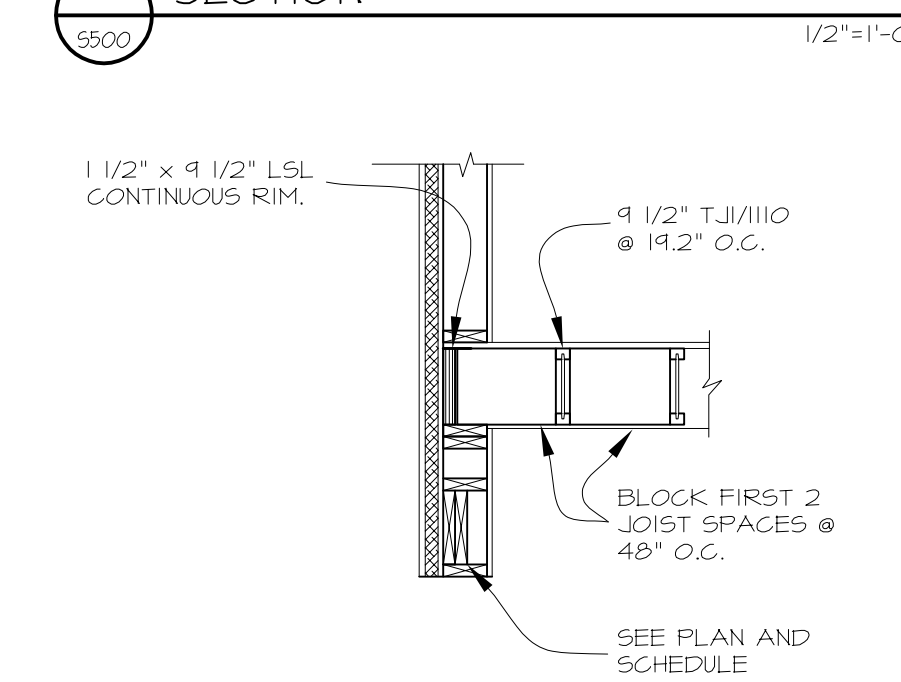
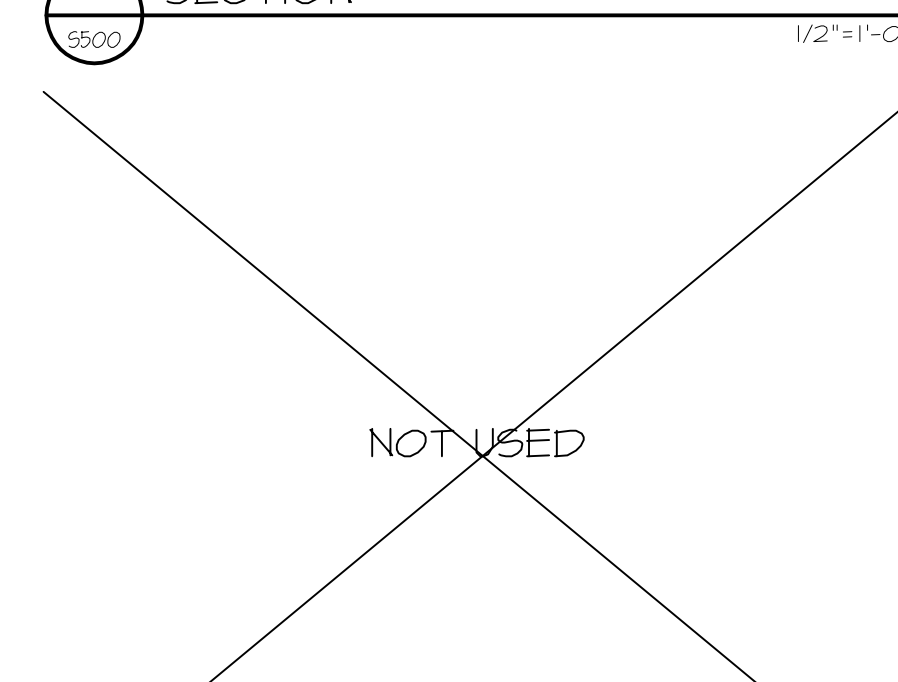
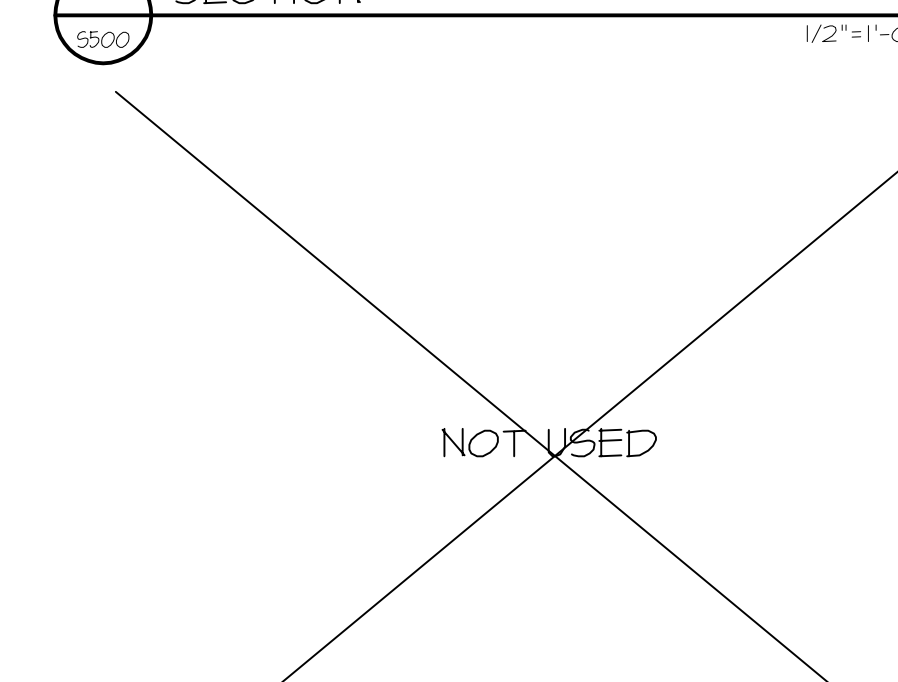
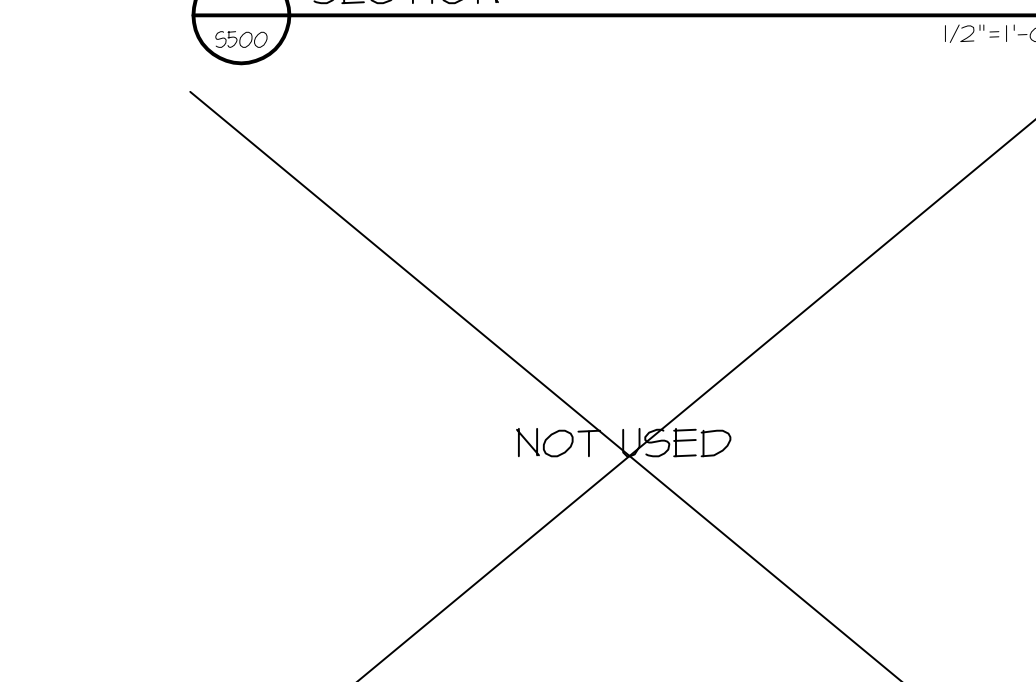
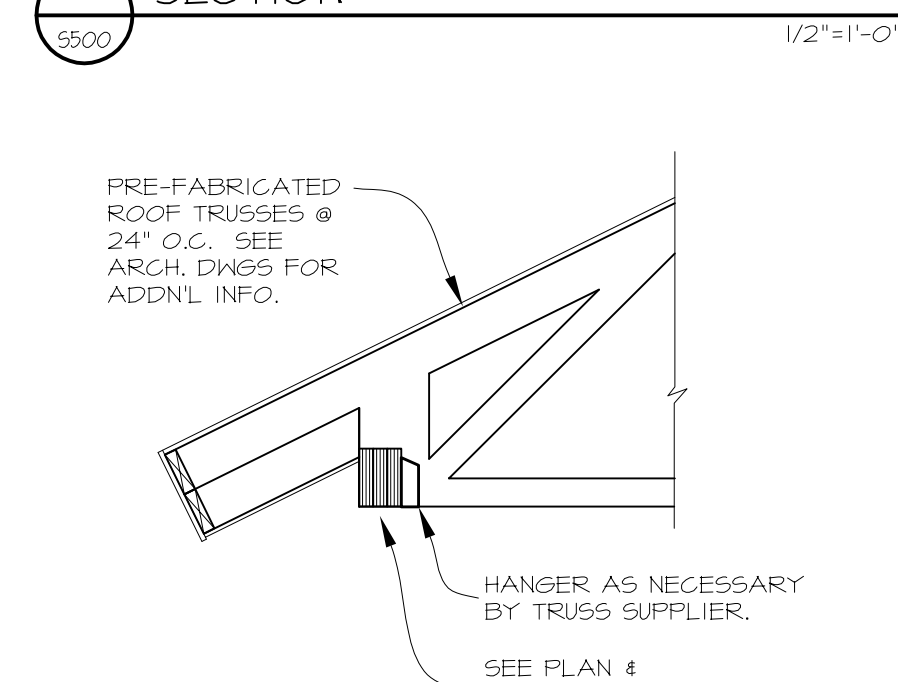
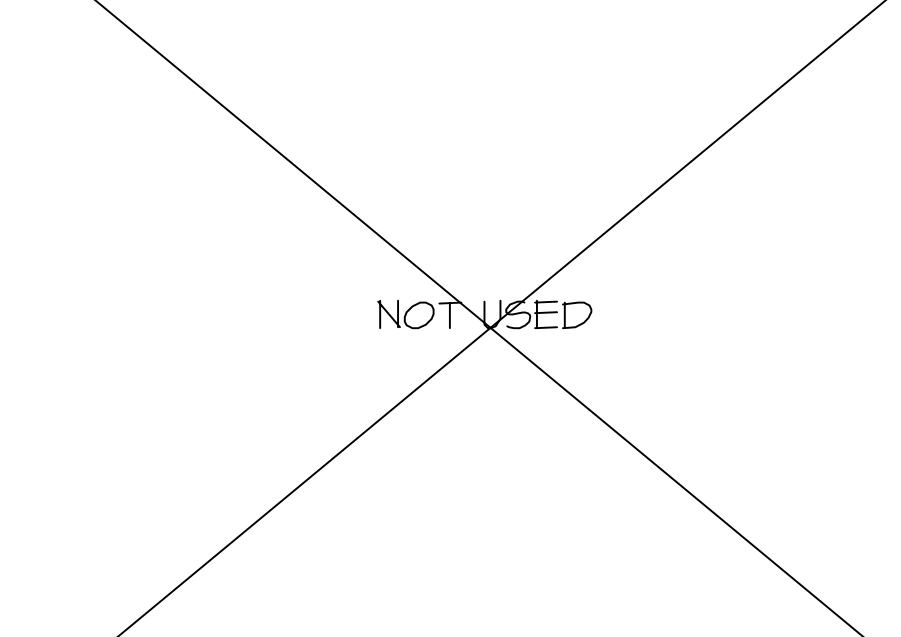
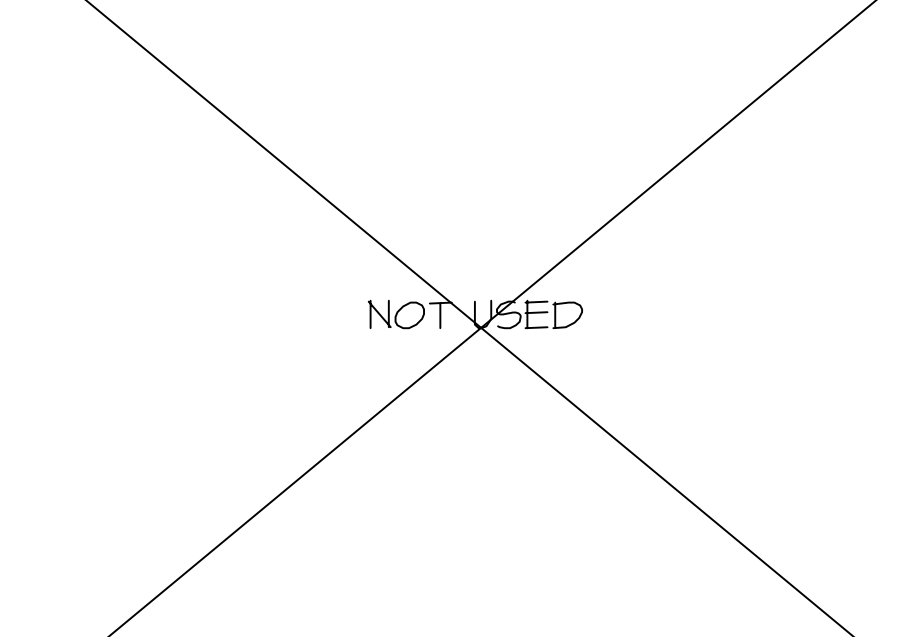
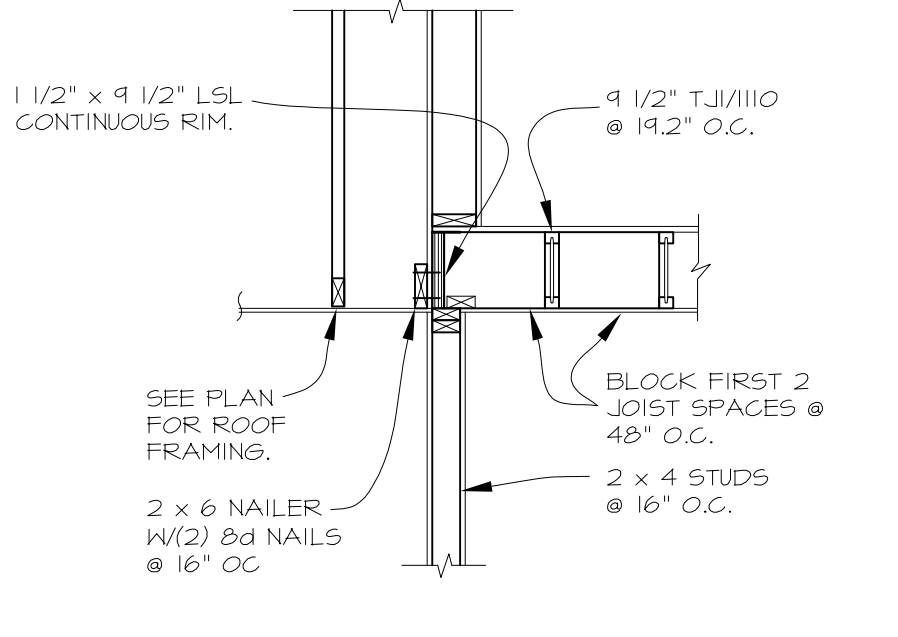
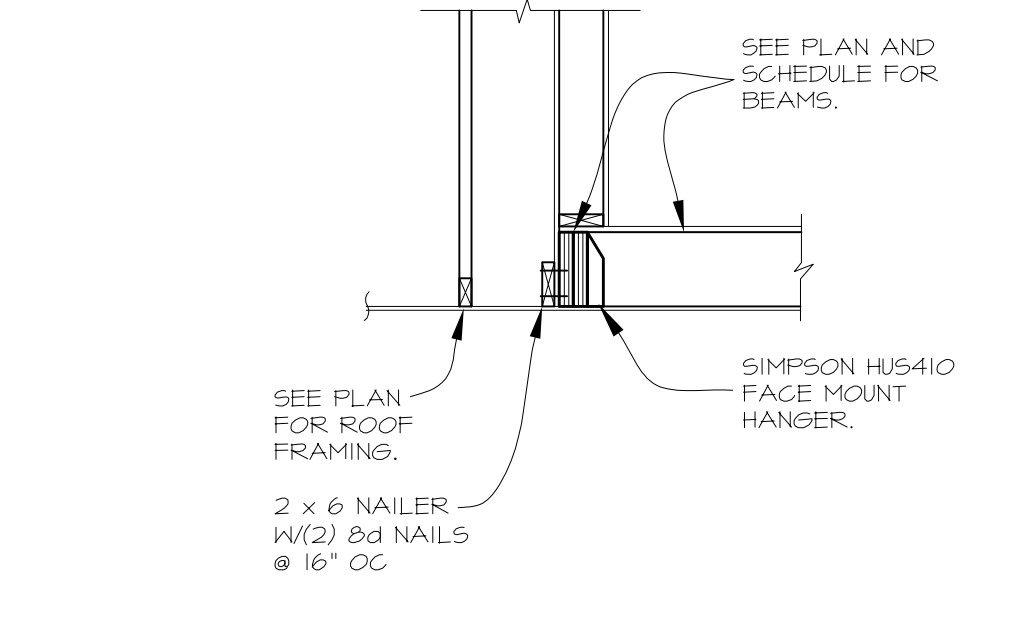
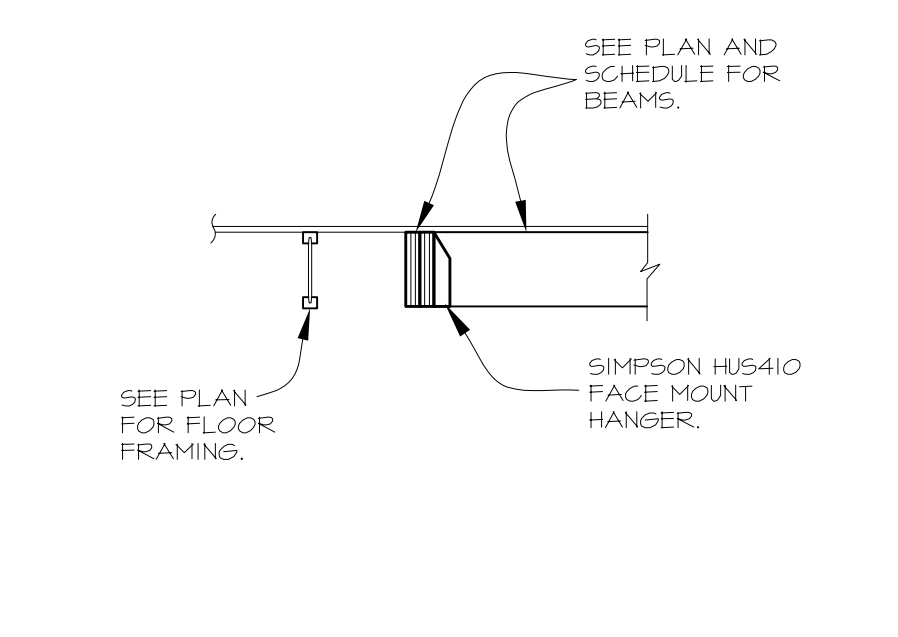
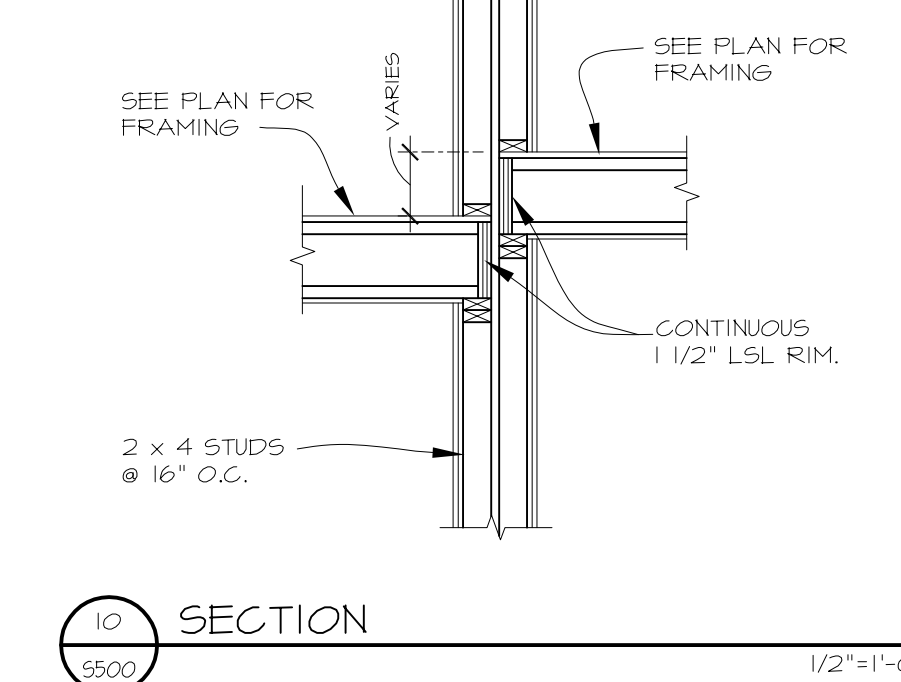
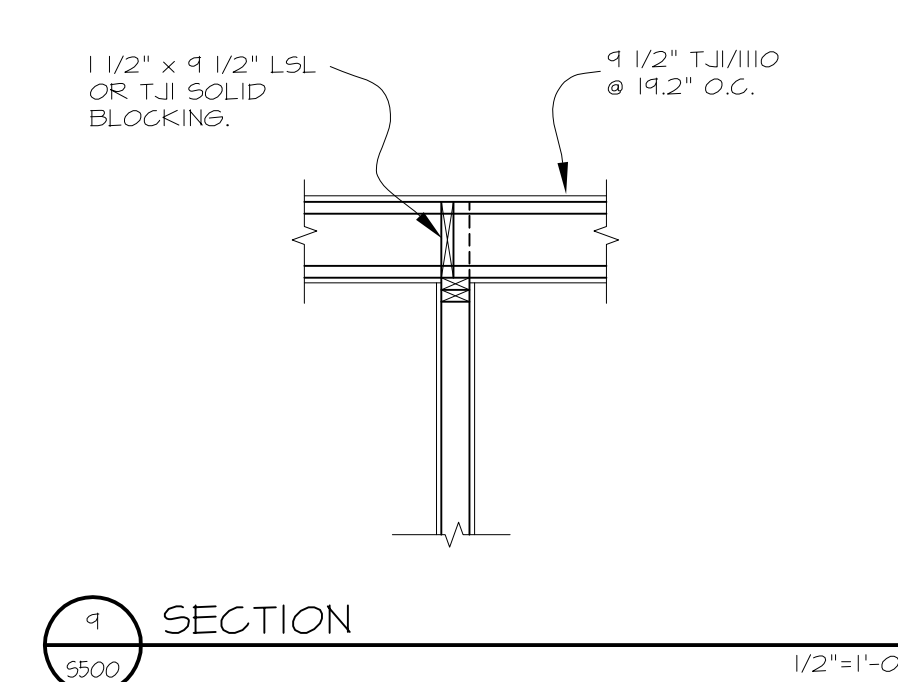
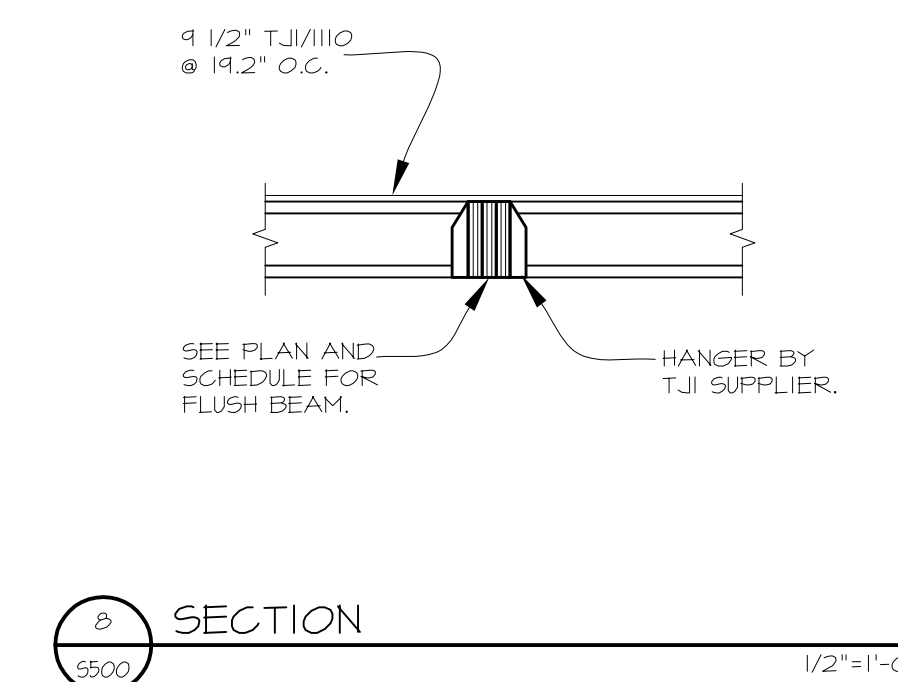
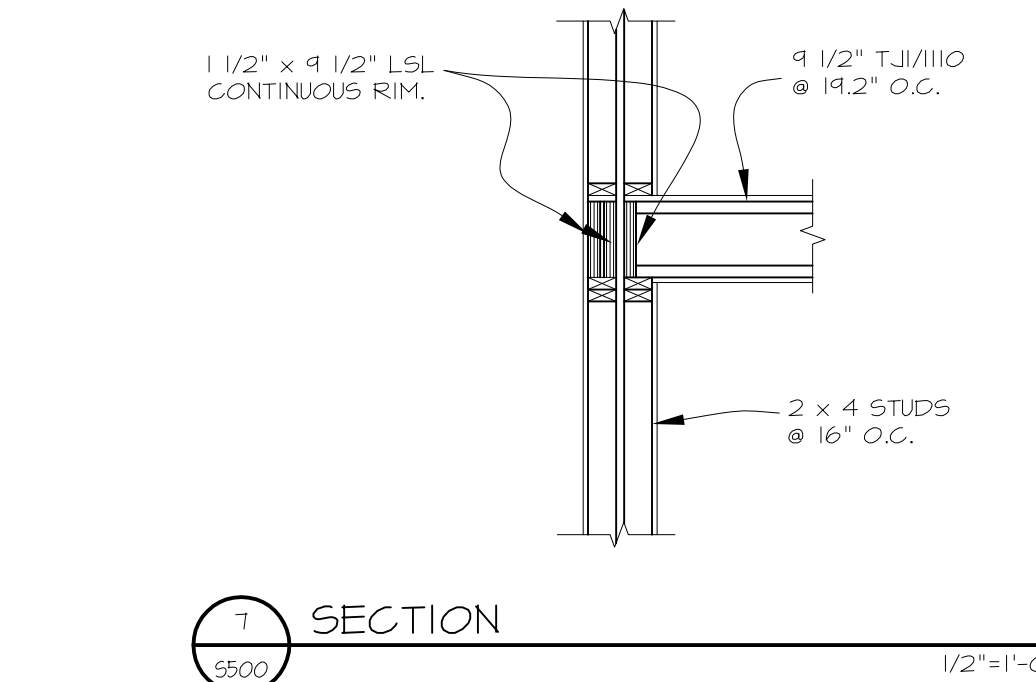
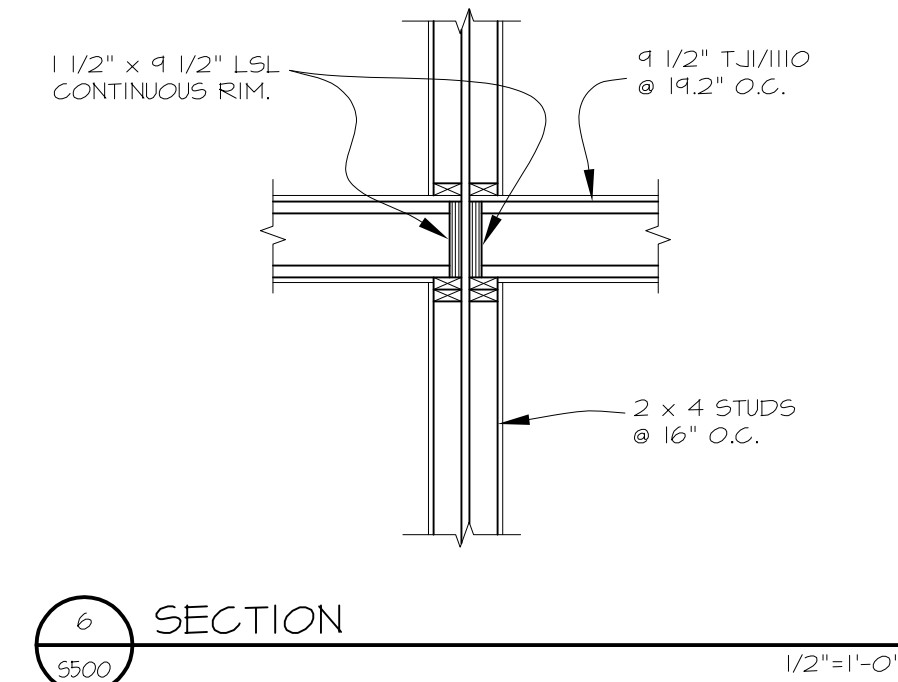
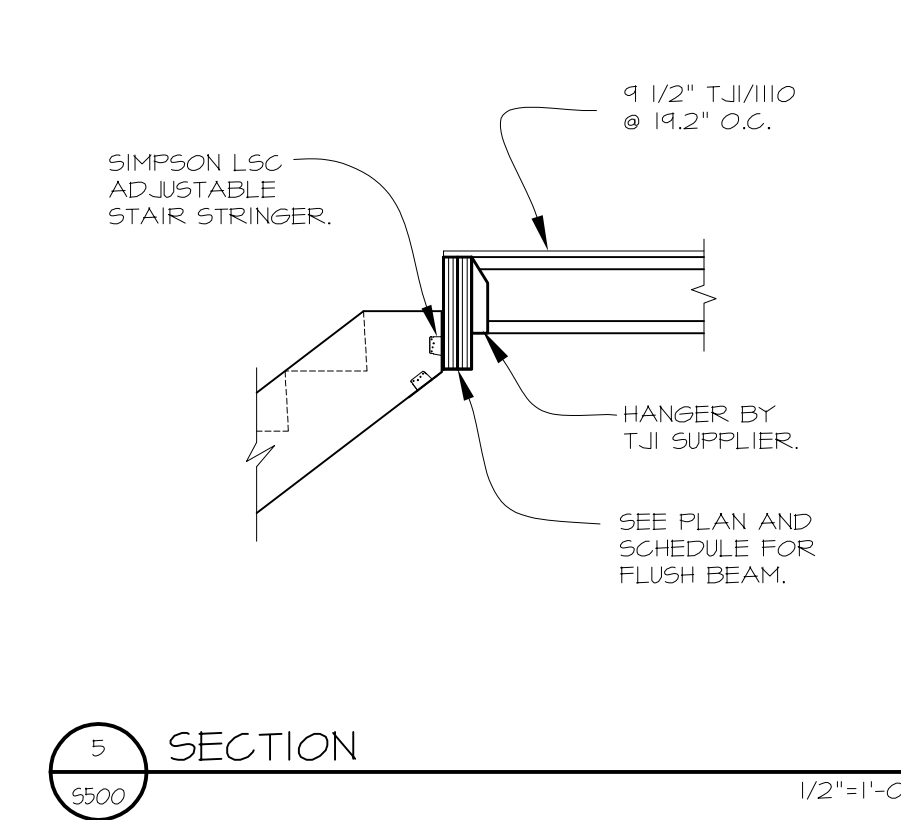
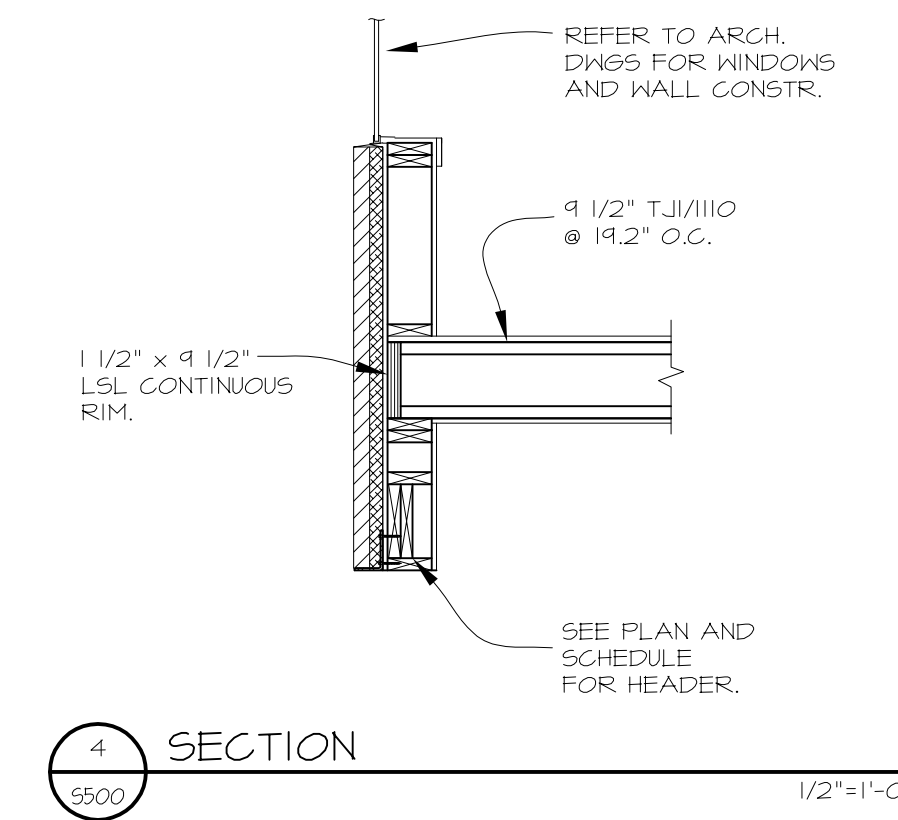
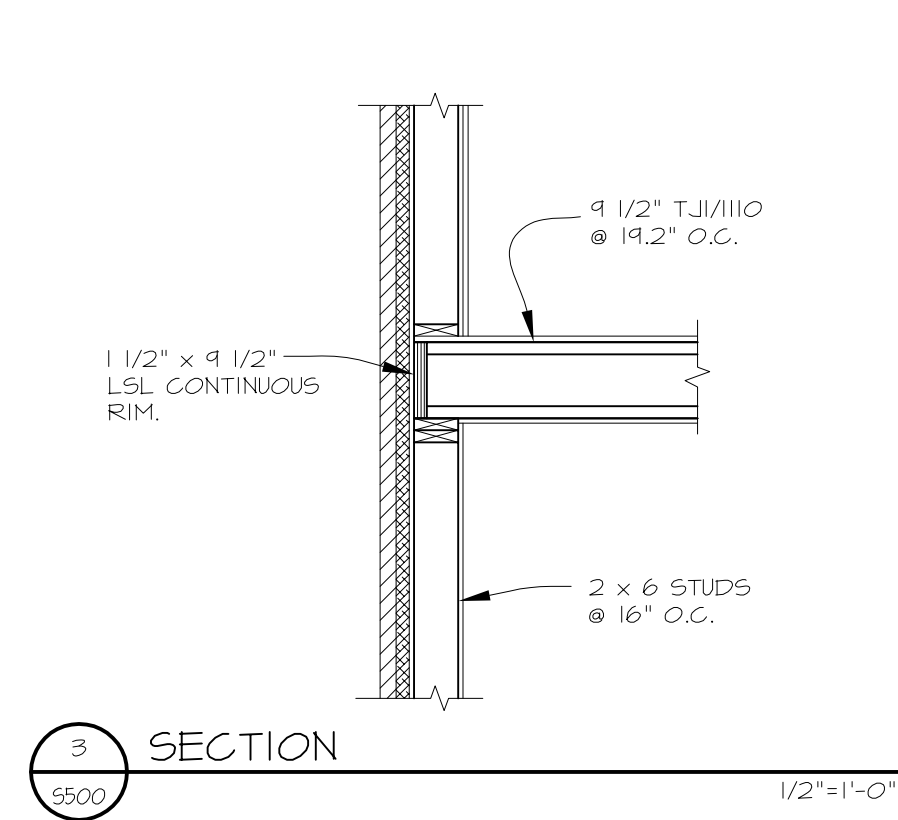
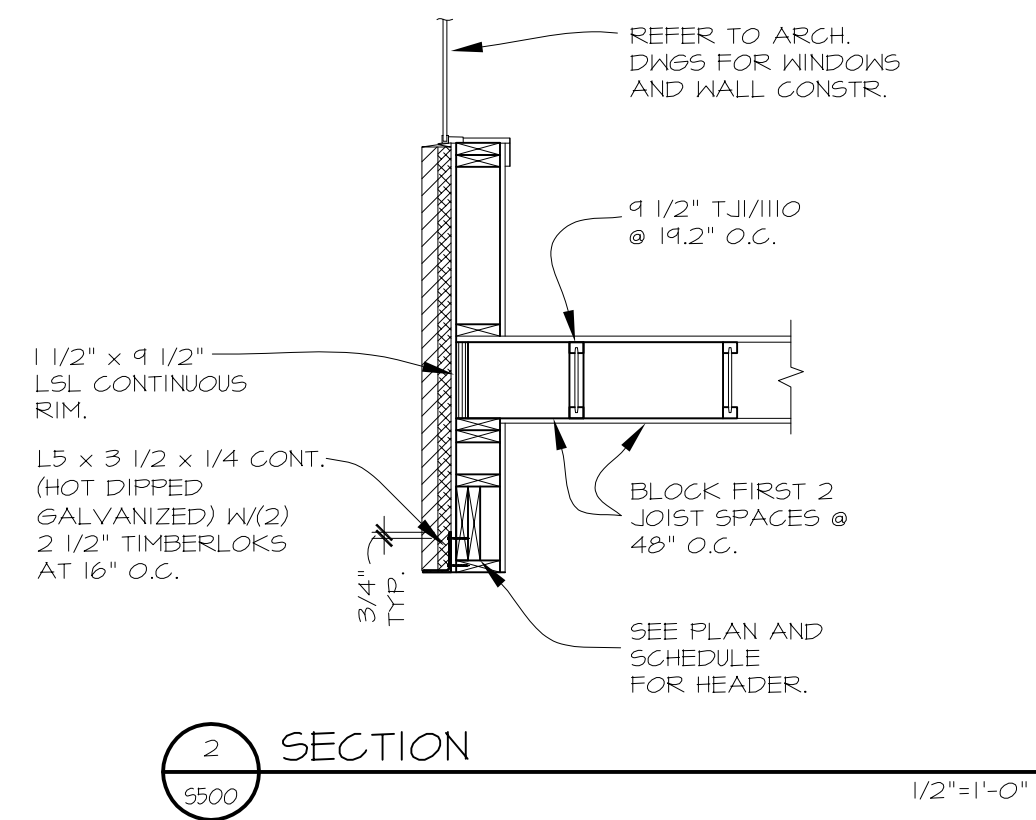
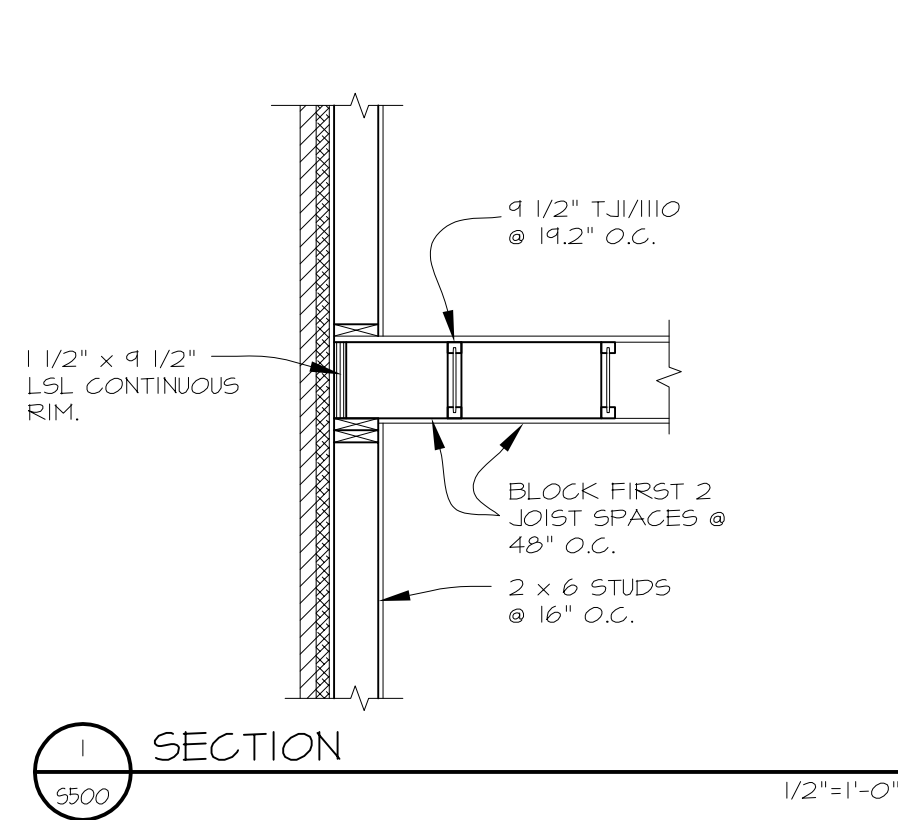
PROJECT PHASE CD

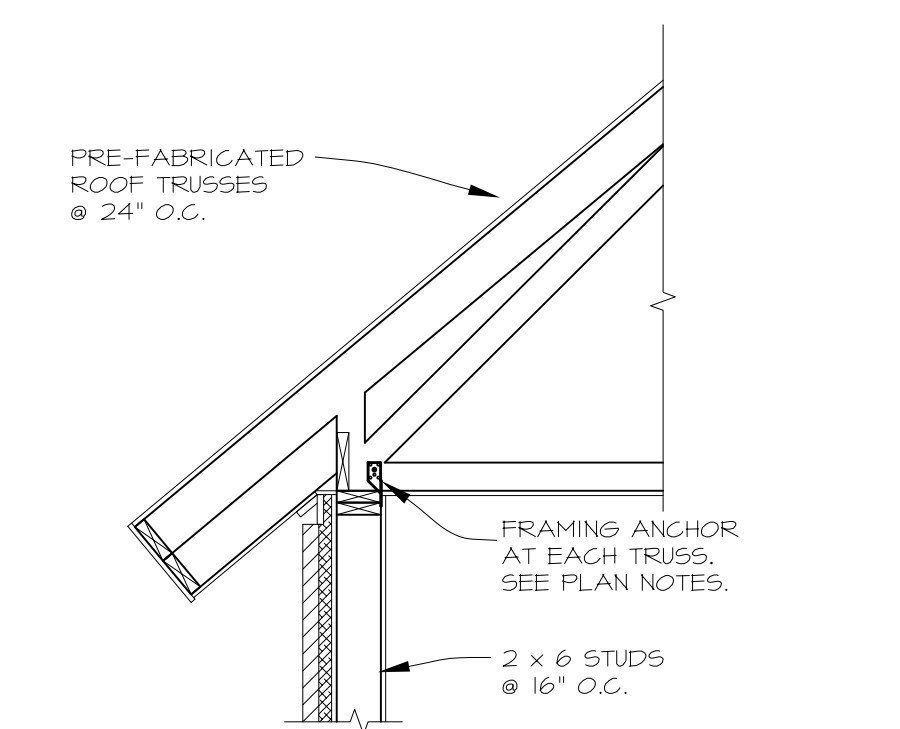
DRAWN BY: DLH CHECKED BY: AN

Drawing 2019 Copyright Meyer, Scherer & Robinson, Ltd.

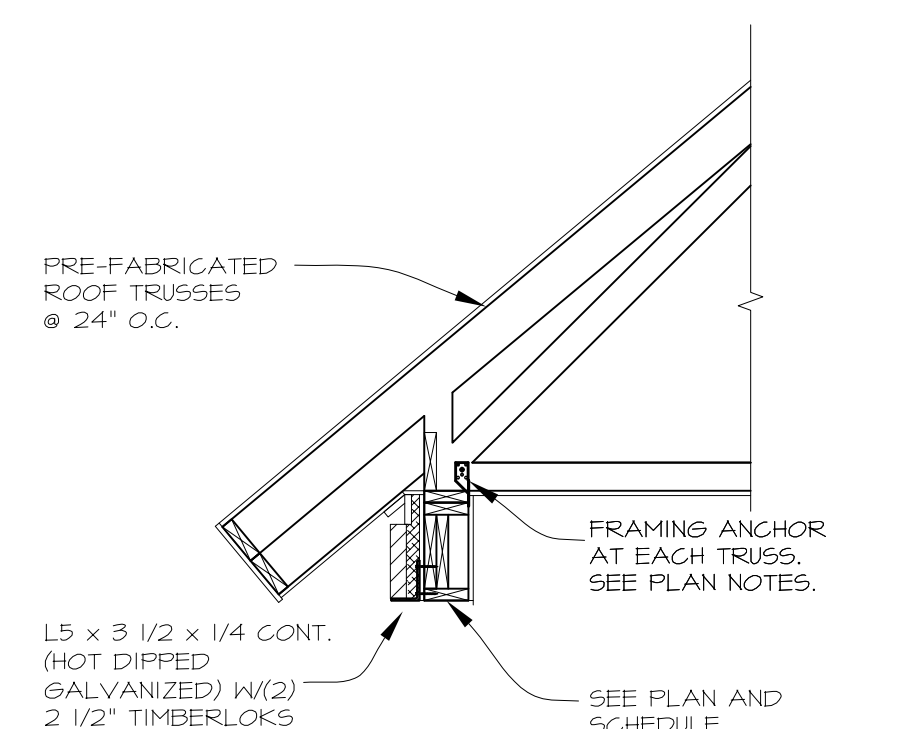
**SECOND FLOOR
 FRAMING SECTIONS
 AND DETAILS**

S500

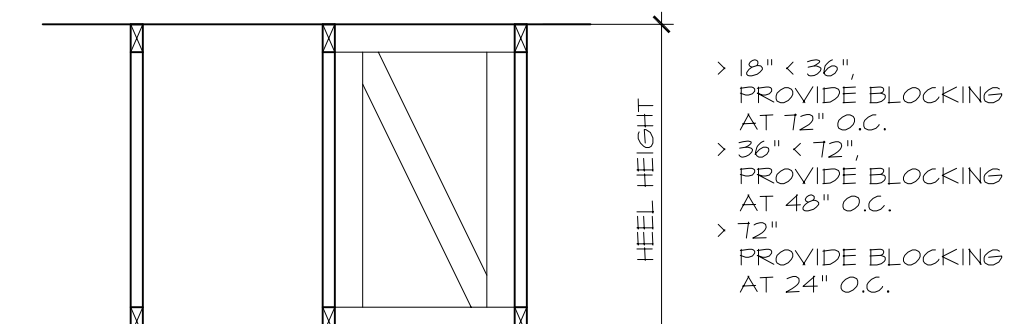




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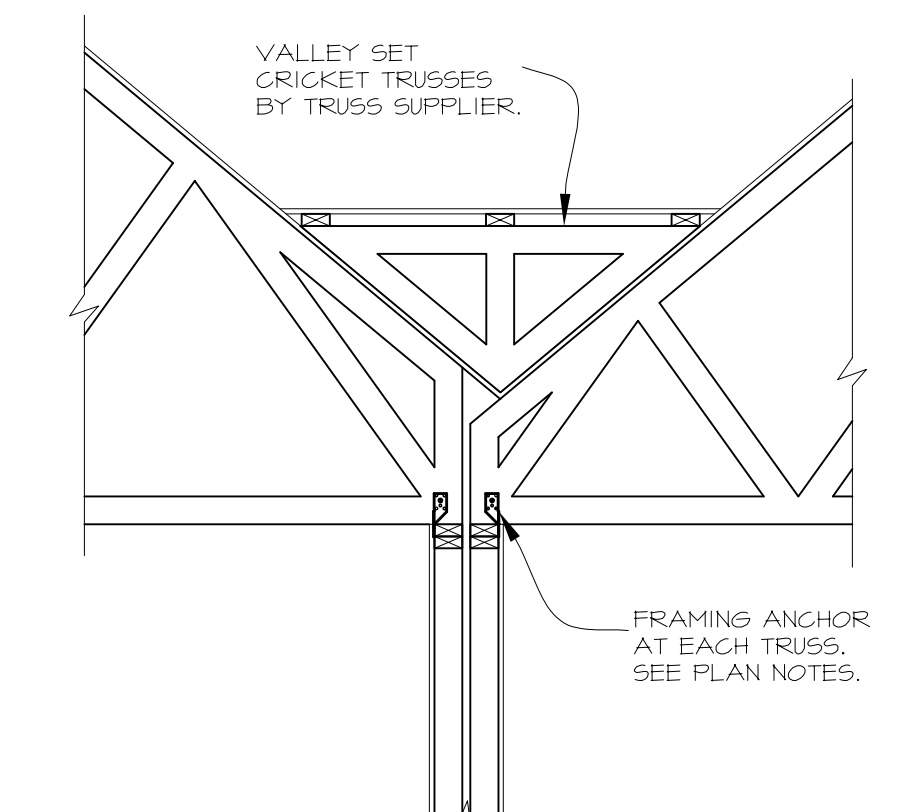


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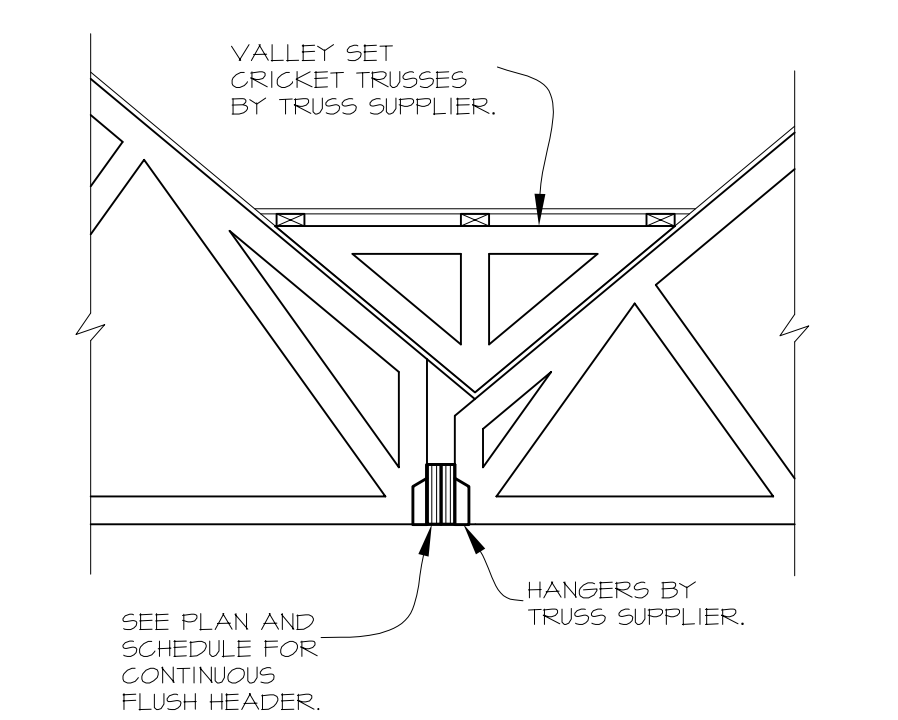


NOTE: NO BLOCKING REQUIRED IF TRUSS BEARING END IS CONTINUOUSLY SHEATHED.

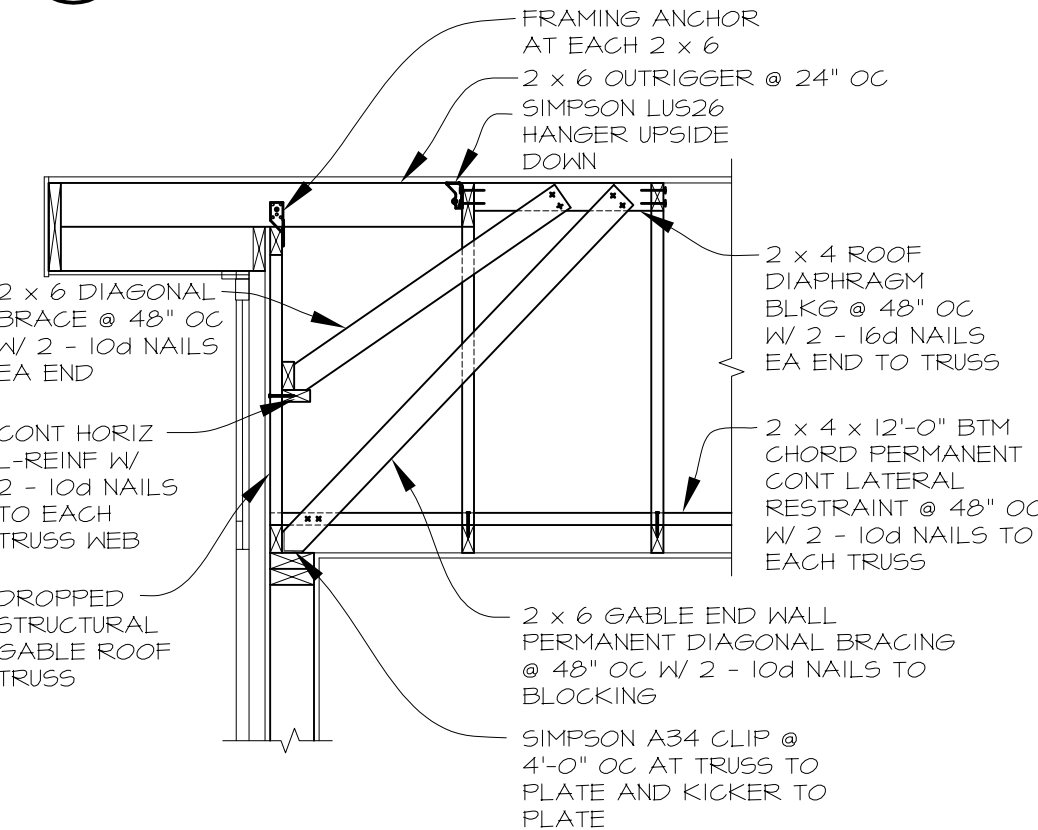
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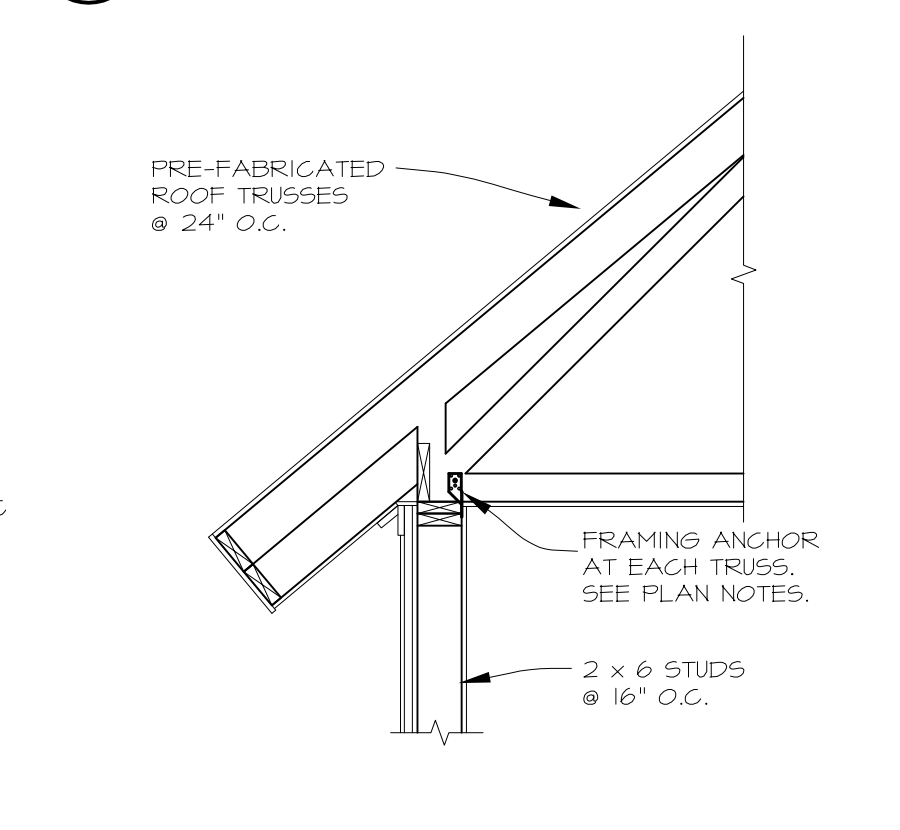
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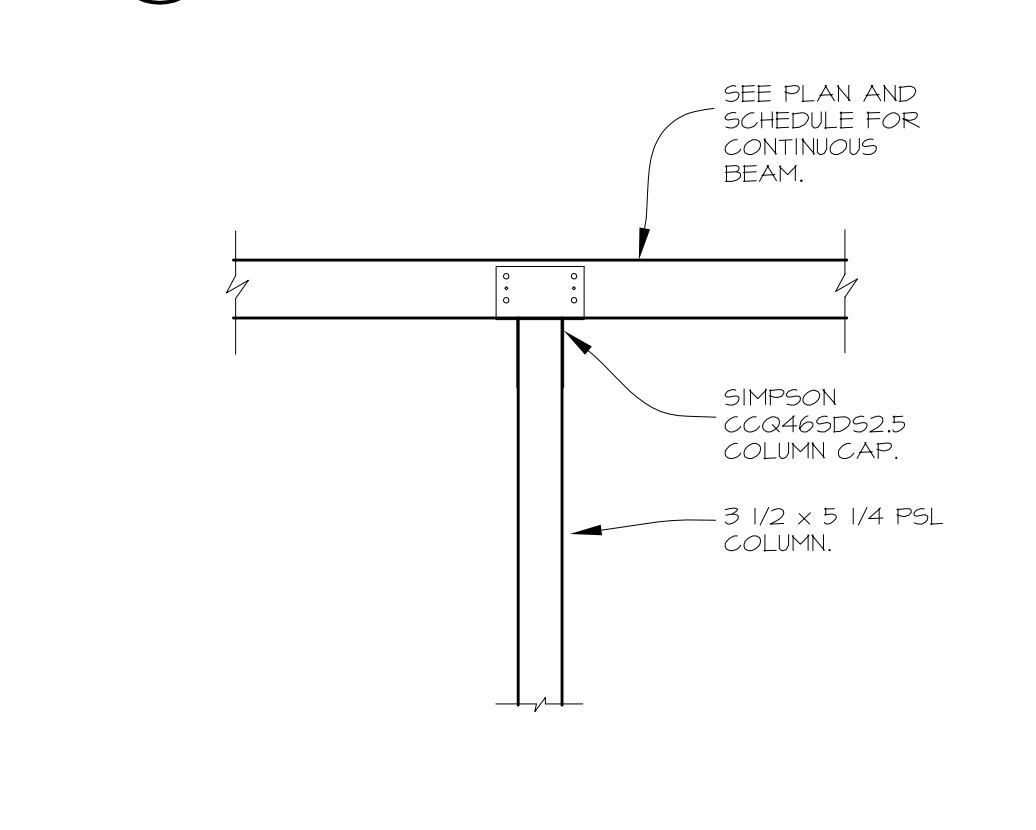
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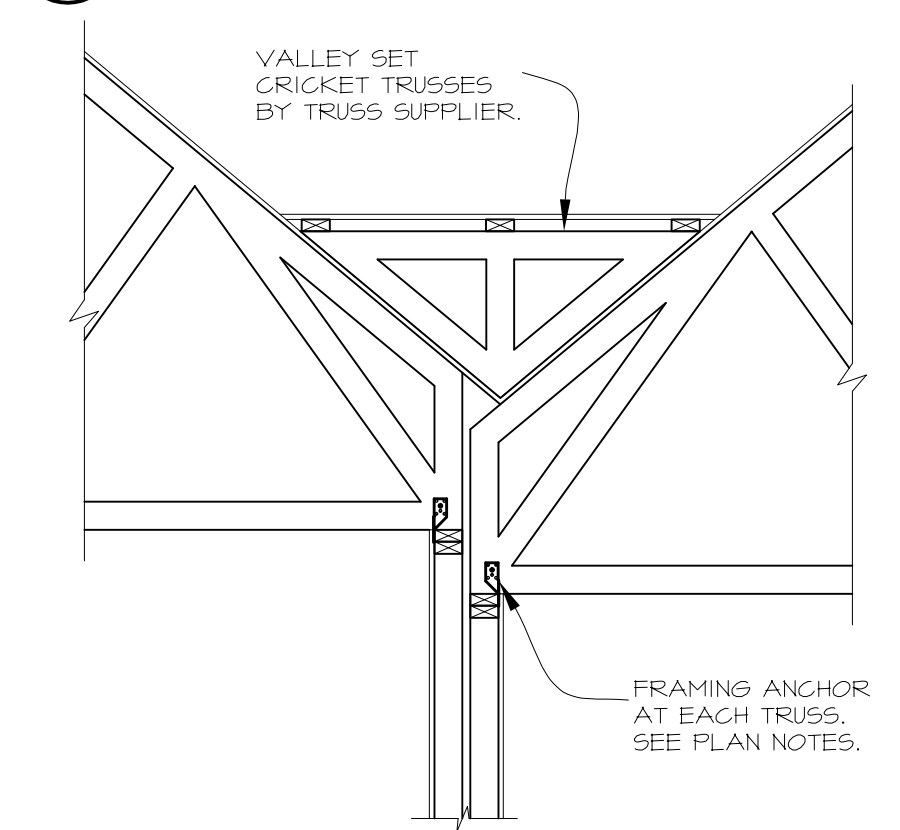
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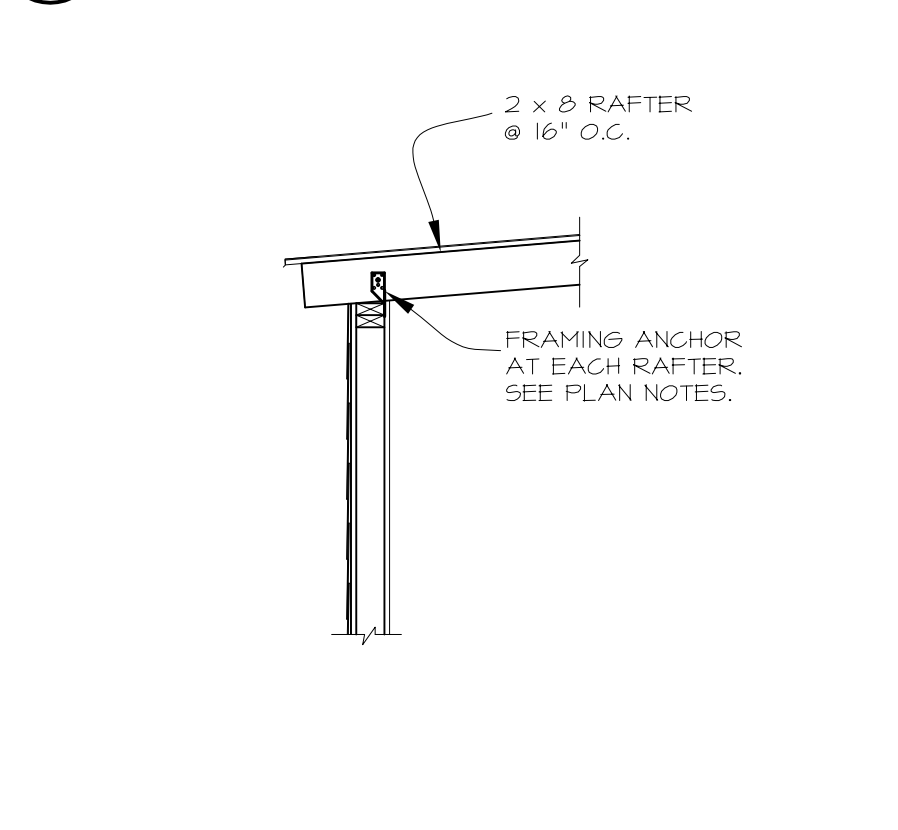
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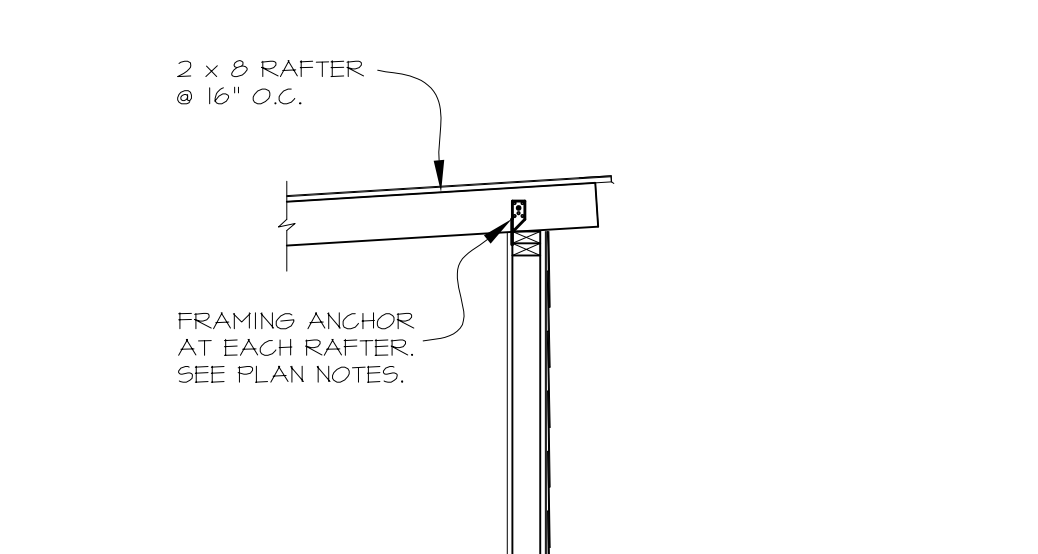
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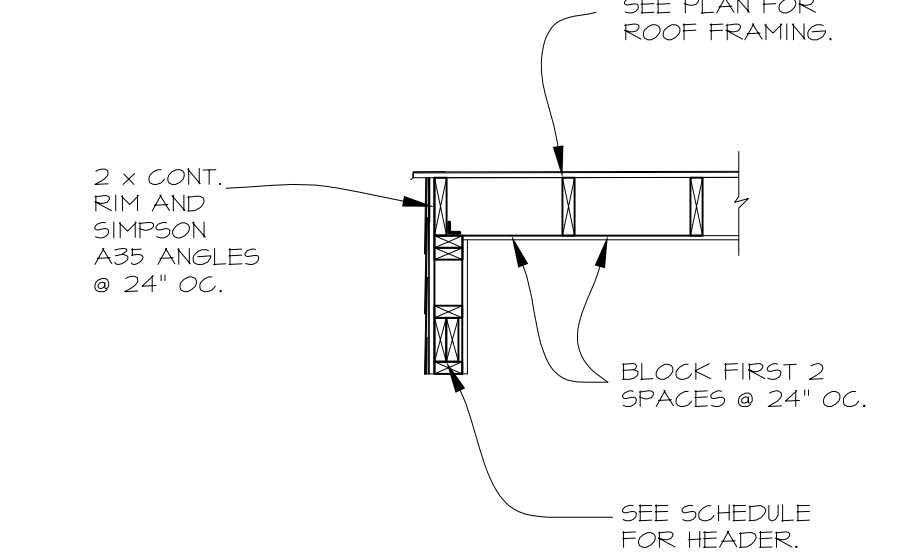
9 SECTION
 5600 1/2"=1'-0"



10 SECTION
 5600 1/2"=1'-0"



11 SECTION
 5600 1/2"=1'-0"



12 SECTION
 5600 1/2"=1'-0"

MINNEHAHA TOWNHOMES
 5364 RIVERVIEW ROAD
 5368 RIVERVIEW ROAD
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 MINNEAPOLIS, MN 55417

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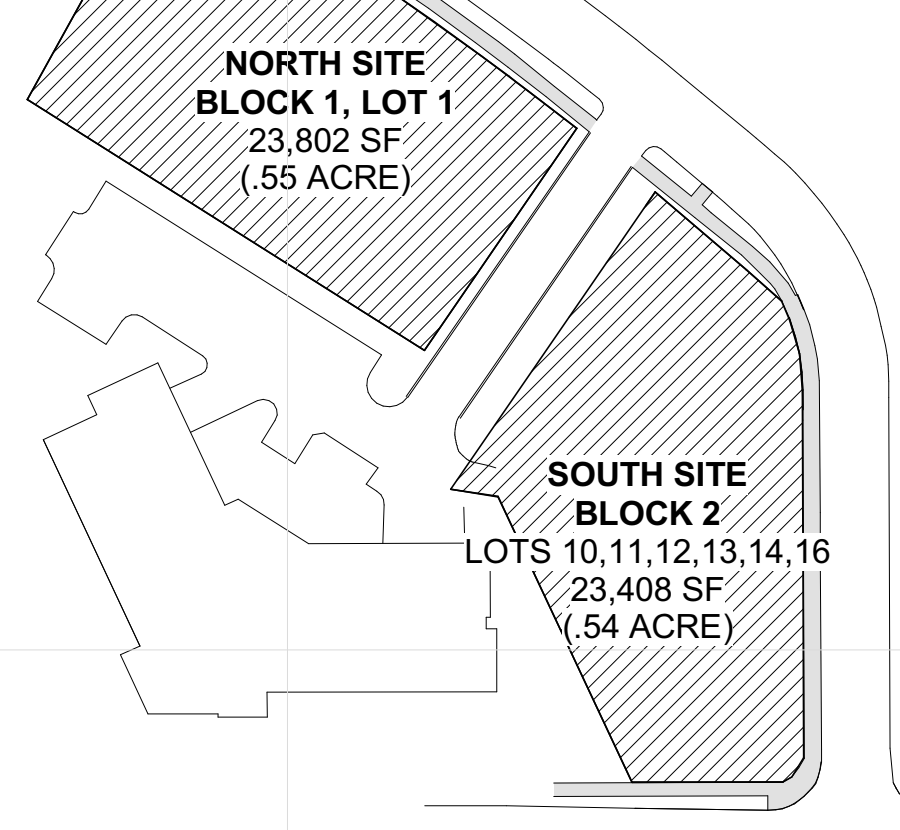
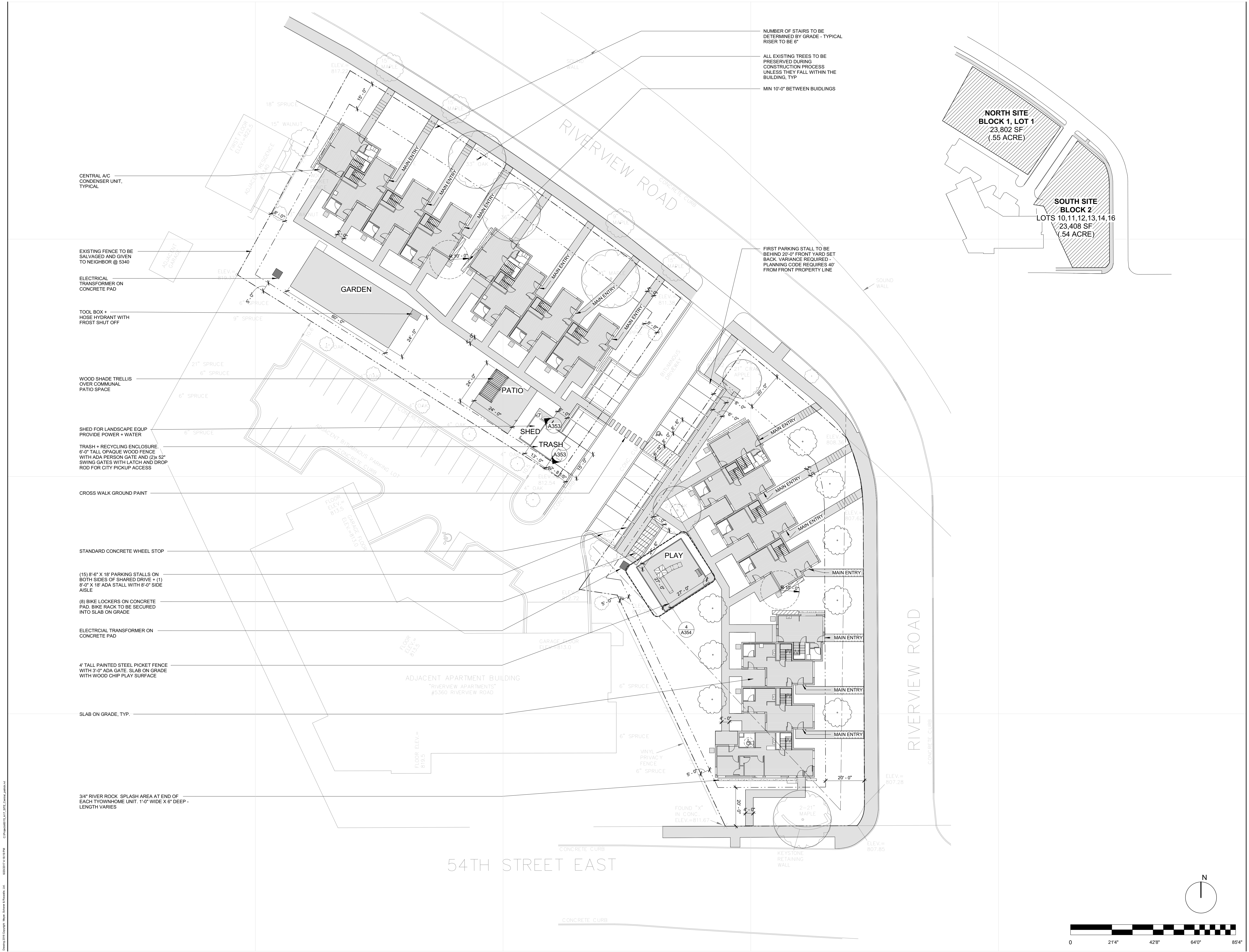
Signature: *Adam Jesse Neigebauer*
 Print Name: ADAM JESSE NEIGEBAUER
 Date: 6/21/2017 License No: 47773

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1	4/21/2017	100% DESIGN DEVELOPMENT ISSUE
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3	5/26/2017	GC 90% REVIEW SET
4	6/21/2017	100% CD ISSUE

PROJECT NO. 17060
 PROJECT PHASE CD
 DRAWN BY: DLH CHECKED BY: AN

SECOND FLOOR FRAMING SECTIONS AND DETAILS

S600



NUMBER OF STAIRS TO BE DETERMINED BY GRADE - TYPICAL RISER TO BE 6"
 ALL EXISTING TREES TO BE PRESERVED DURING CONSTRUCTION PROCESS UNLESS THEY FALL WITHIN THE BUILDING TYP
 MIN 10'-0" BETWEEN BUILDINGS

FIRST PARKING STALL TO BE BEHIND 20'-0" FRONT YARD SET BACK. VARIANCE REQUIRED - PLANNING CODE REQUIRES 40' FROM FRONT PROPERTY LINE

CENTRAL A/C CONDENSER UNIT, TYPICAL

EXISTING FENCE TO BE SALVAGED AND GIVEN TO NEIGHBOR @ 5340

ELECTRICAL TRANSFORMER ON CONCRETE PAD

TOOL BOX + HOSE HYDRANT WITH FROST SHUT OFF

WOOD SHADE TRELLIS OVER COMMUNAL PATIO SPACE

SHED FOR LANDSCAPE EQUIP PROVIDE POWER + WATER

TRASH + RECYCLING ENCLOSURE 6'-0" TALL OPAQUE WOOD FENCE WITH ADA PERSON GATE AND (2) 5'x 5' SWING GATES WITH LATCH AND DROP ROD FOR CITY PICKUP ACCESS

CROSS WALK GROUND PAINT

STANDARD CONCRETE WHEEL STOP

(15) 8'-6" X 18' PARKING STALLS ON BOTH SIDES OF SHARED DRIVE + (1) 8'-0" X 18' ADA STALL WITH 8'-0" SIDE AISLE

(8) BIKE LOCKERS ON CONCRETE PAD BIKE BACK TO BE SECURED INTO SLAB ON GRADE

ELECTRICAL TRANSFORMER ON CONCRETE PAD

4' TALL PAINTED STEEL PICKET FENCE WITH 3'-0" ADA GATE, SLAB ON GRADE WITH WOOD CHIP PLAY SURFACE

SLAB ON GRADE, TYP.

3/4" RIVER ROCK SPLASH AREA AT END OF EACH TOWNHOME UNIT. 1'-0" WIDE X 6" DEEP - LENGTH VARIES

**MINNEHAHA
 TOWNHOMES**

5348, 5364 5369 RIVERVIEW
 5118 54TH ST EAST
 MINNEAPOLIS, MN 55417

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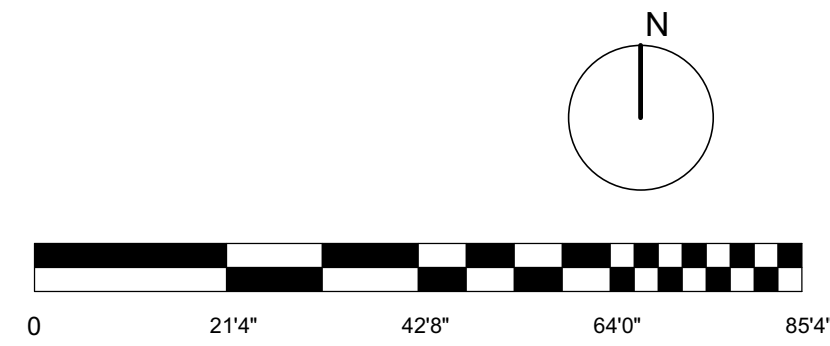
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 Date: _____ License No.: _____

ISSUE	DATE	DESCRIPTION
K	04.21.17	100% DD
	04.28.17	LAND USE APPLICATION
	05.08.17	50% CD
	05.26.17	GC 90% REVIEW SET
	06.21.17	100% CD ISSUE

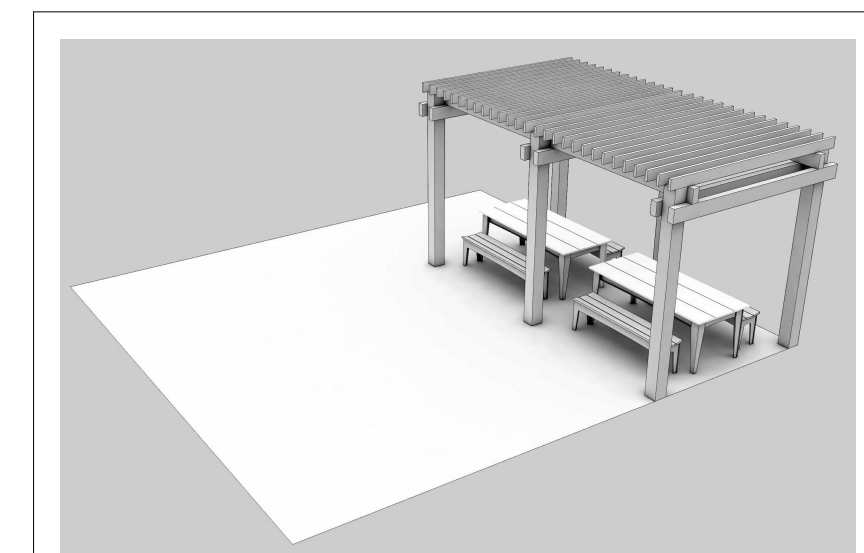
PROJECT NO. 2016.015
 PROJECT PHASE 100%CD
 DRAWN BY: P.LYNCH CHECKED BY: Checker

SITE PLAN

A001



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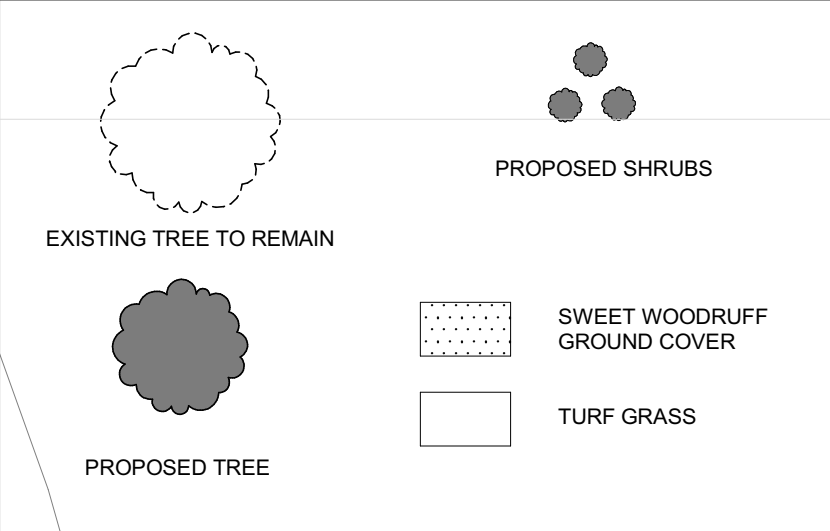


PATIO
 - CONCRETE SLAB ON GRADE
 - SAW CUTS TO ALIGN WITH CEDAR TRELLIS POST
 - CEDAR TRELLIS - SEE A354 FOR DETAIL ELEVATIONS
 - 2x LOLL 82" ALFRESCO DINING TABLES
 - 4x LOLL 64" ALFRESCO BENCH



PLAY AREA
 - BROOKINGS SD RAINBOW PLAY SYSTEMS
 - RAINBOW PLAY VILLAGE DESIGN 5A
 - SEE A354 FOR MORE PLAN INFORMATION

GENERAL LANDSCAPE NOTES
 - ALL NEW TREES SHALL BE A MINIMUM OF TWO AND ONE-HALF INCHES CALIPER SIZE
 - ALL SHRUBS SHALL BE A MINIMUM OF ONE GALLON CONTAINER SIZE



NORTH PROPERTY
 NON BLDG SF- 18,876 SF
 20% 3,776 SF
 REQ- 8 TREES
 REQ- 38 SHRUBS

TAG	QUANTITY	TYPE
1	5	SUGAR MAPLE
2	15	FIRE DANCE DOGWOOD
3	3	JAPANESE LILAC
4	23	BLUE SHADOW FROTHERGILLA
	3	EXISTING SHADE TREES TO REMAIN

SOUTH PROPERTY
 NON BLDG SF- 18,112 SF
 20% 3,623 SF
 REQ- 8 TREES
 REQ- 37 SHRUBS

TAG	QUANTITY	TYPE
1	6	SUGAR MAPLE
2	15	FIRE DANCE DOGWOOD
3	2	JAPANESE LILAC
4	22	BLUE SHADOW FROTHERGILLA
	2	EXISTING SHADE TREES TO REMAIN



MINNEHAHA TOWNHOMES
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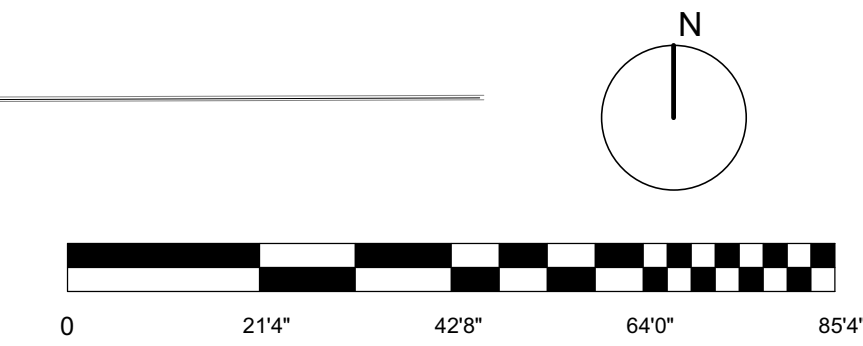
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	06.21.17	100% CD ISSUE

PROJECT NO. 2016.015
 PROJECT PHASE 100%CD
 DRAWN BY: Author CHECKED BY: Checker

LANDSCAPE PLAN

A002



04/28/2017 10:58 AM 100% CD ISSUE
 04/28/2017 10:58 AM 50% CD
 04/28/2017 10:58 AM 100% DD
 04/28/2017 10:58 AM LAND USE APPLICATION
 05/08/2017 10:58 AM 50% CD
 05/26/2017 10:58 AM GC 90% REVIEW SET
 06/21/2017 10:58 AM 100% CD ISSUE
 2016.015
 100%CD
 Author
 Checker
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**MINNEHAHA
 TOWNHOMES**
 5348, 5364, 5369 RIVERVIEW
 ROAD, 5118 54TH ST EAST
 MINNEAPOLIS, MN 55417

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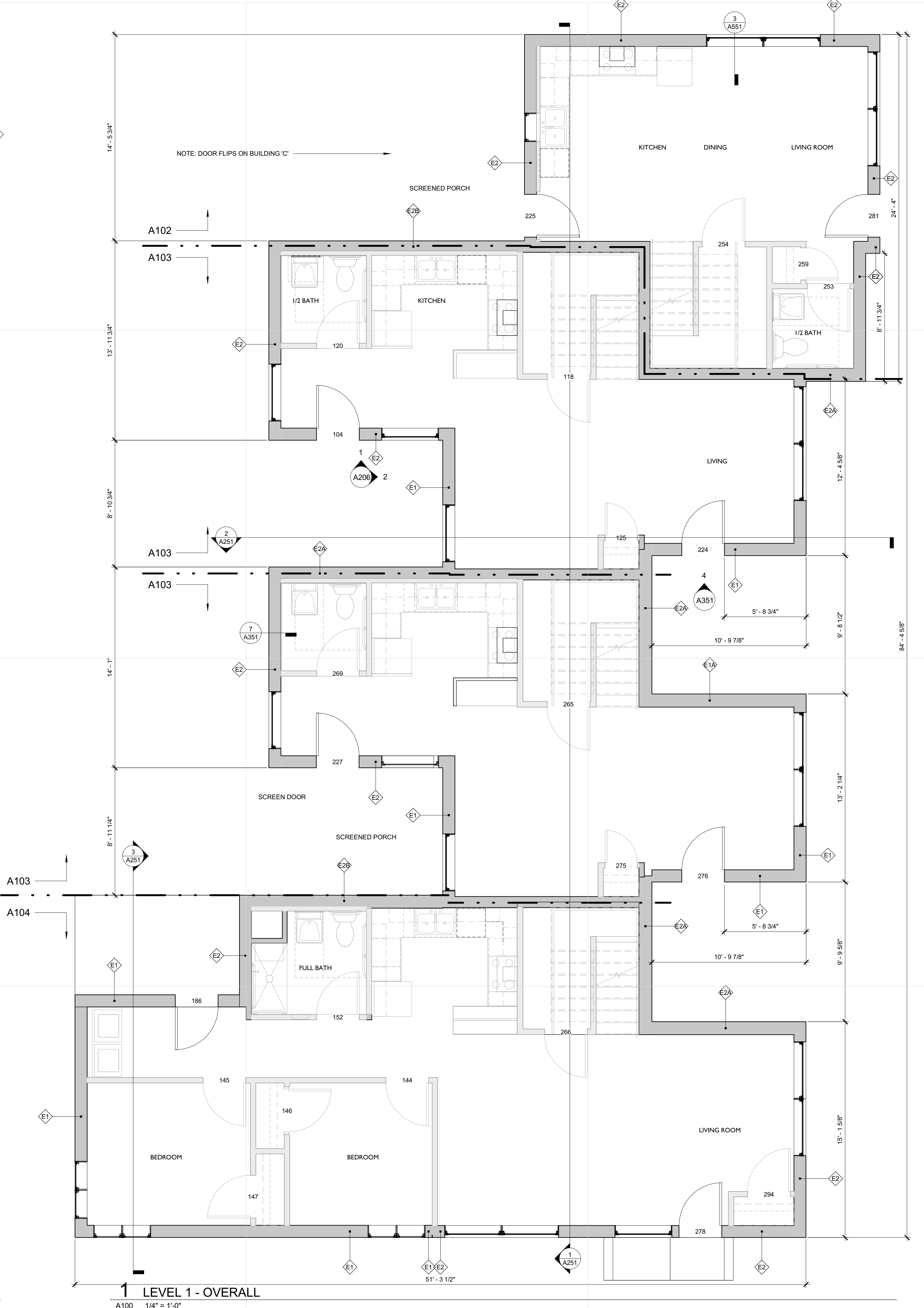
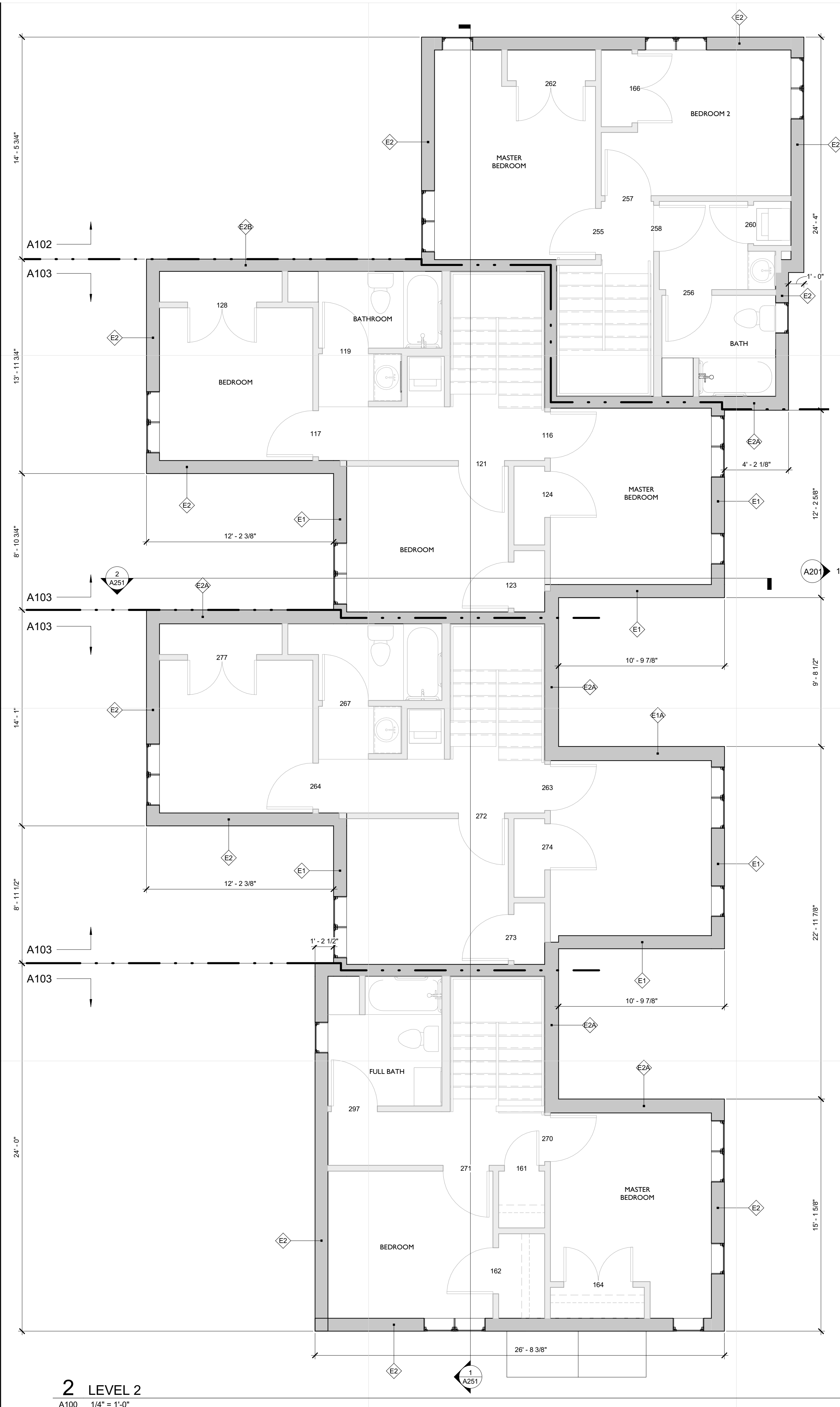
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MARK	DATE	DESCRIPTION
	04.21.17	100% DD
	04.28.17	LAND USE APPLICATION
	05.05.17	50% CD
	05.26.17	GC 90% REVIEW SET
	06.21.17	100% CD ISSUE

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**OVERALL BUILDING
 D PLAN - 2-3-3-4**

A100



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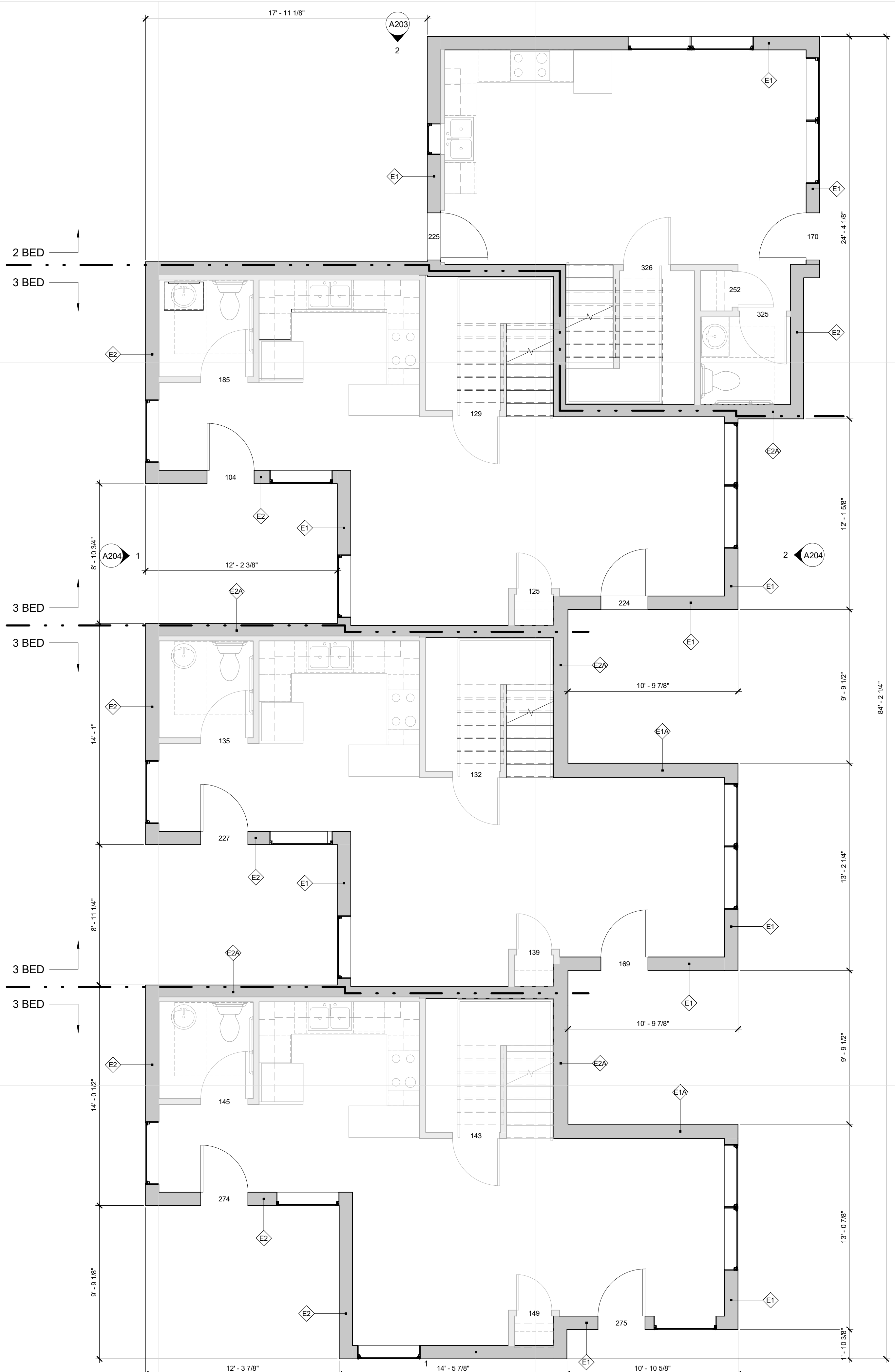
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	04.28.17	50%CD	LAND USE APPLICATION
	05.08.17	50%CD	50% CD
	05.26.17	GC 90% REVIEW SET	GC 90% REVIEW SET
	06.21.17	100% CD ISSUE	100% CD ISSUE

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**OVERALL A,B,C
 BUILDING PLAN
 2-3-3-3**

A101

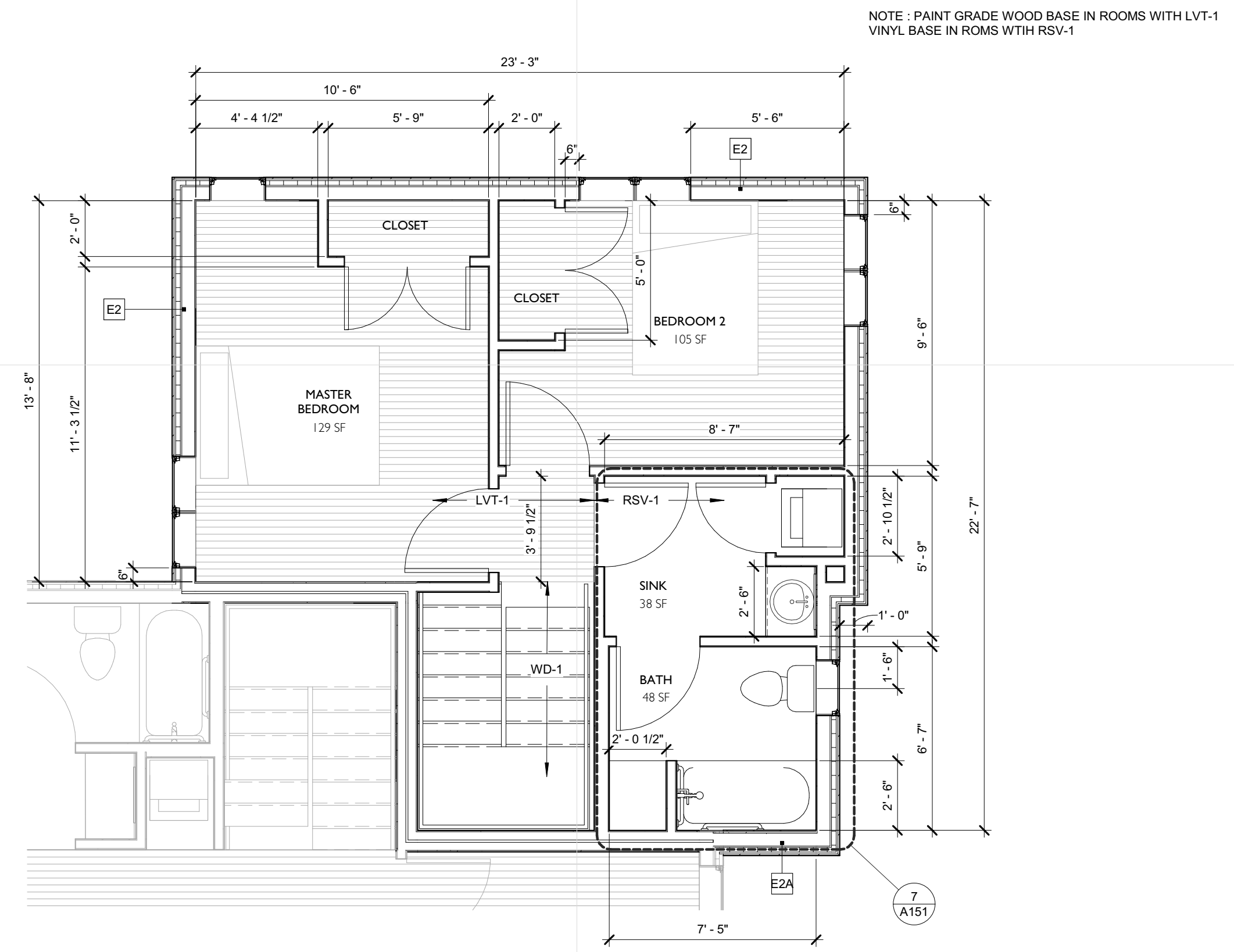


1 LEVEL 1 - OVERALL
 A101 1/4" = 1'-0"

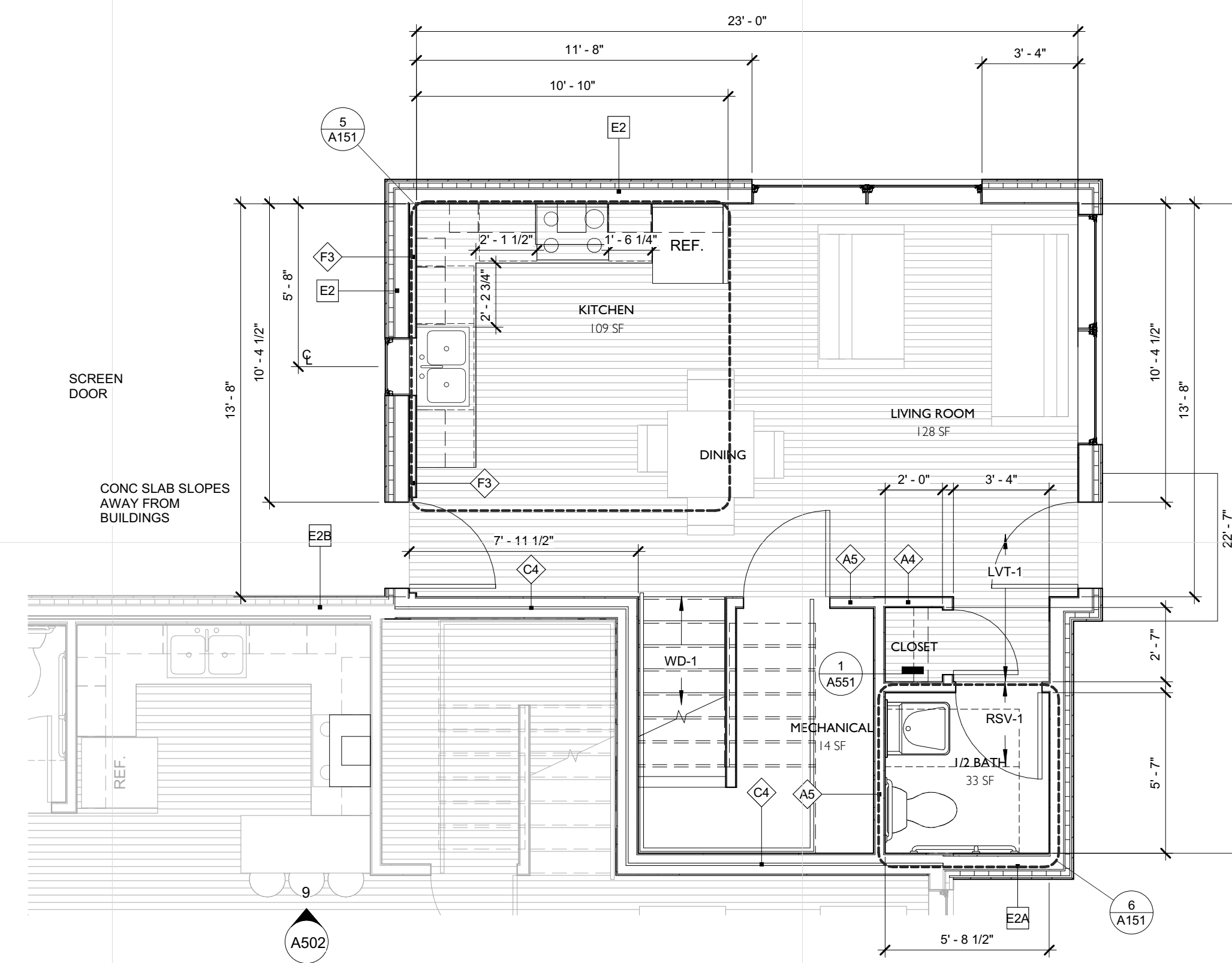


2 LEVEL 2
 A101 1/4" = 1'-0"

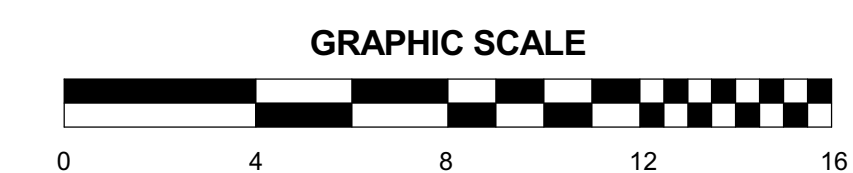
Copyright 2016 Meyer, Scherer & Rockcastle, Ltd. All rights reserved. 06/21/17 10:28:46 AM C:\Users\msr\OneDrive\Documents\Projects\2016\2016015\A101.dwg



2 LEVEL 2 - TWO BEDROOM
 A102 1/4" = 1'-0"



1 LEVEL 1
 A102 1/4" = 1'-0"



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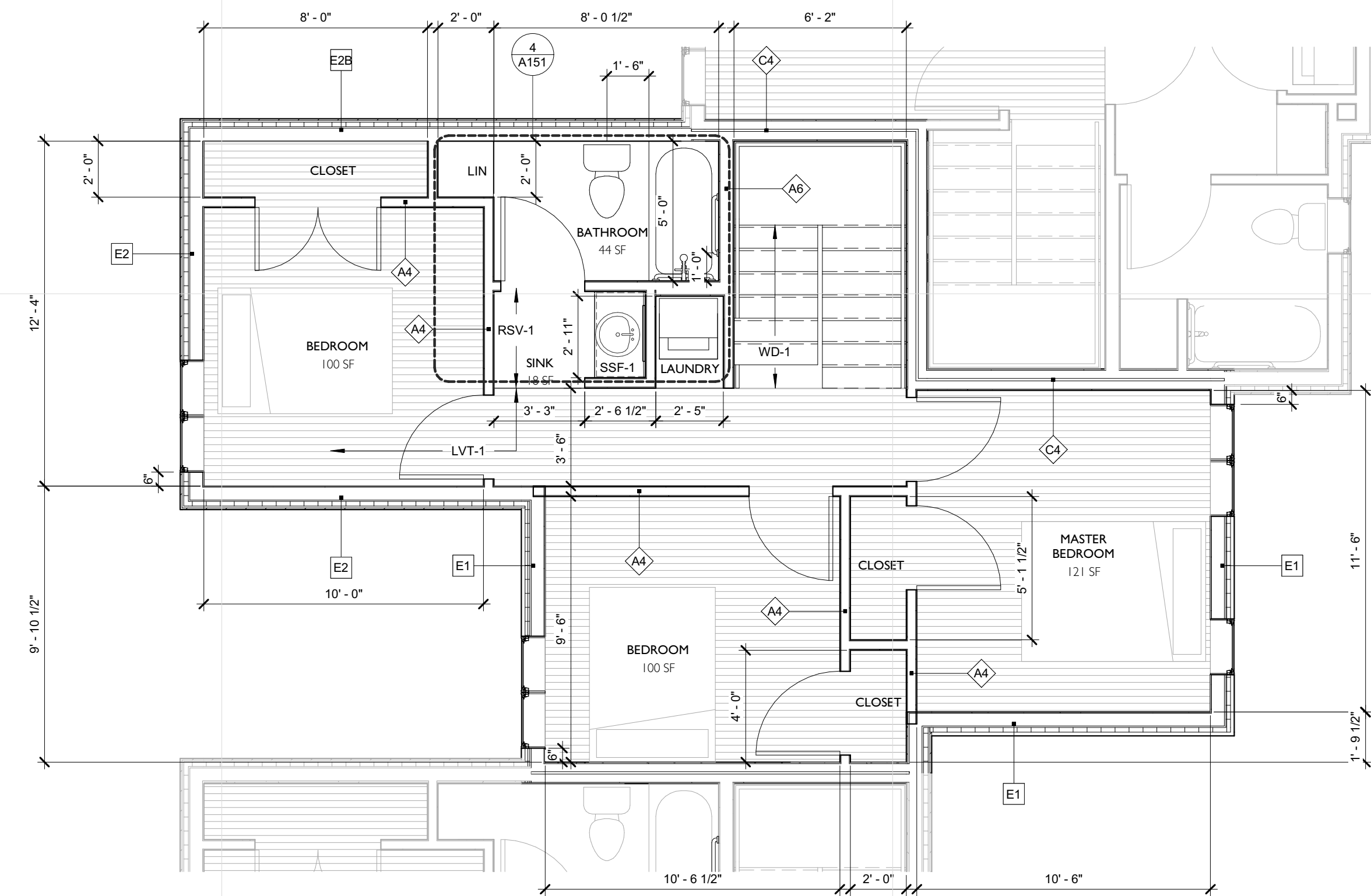
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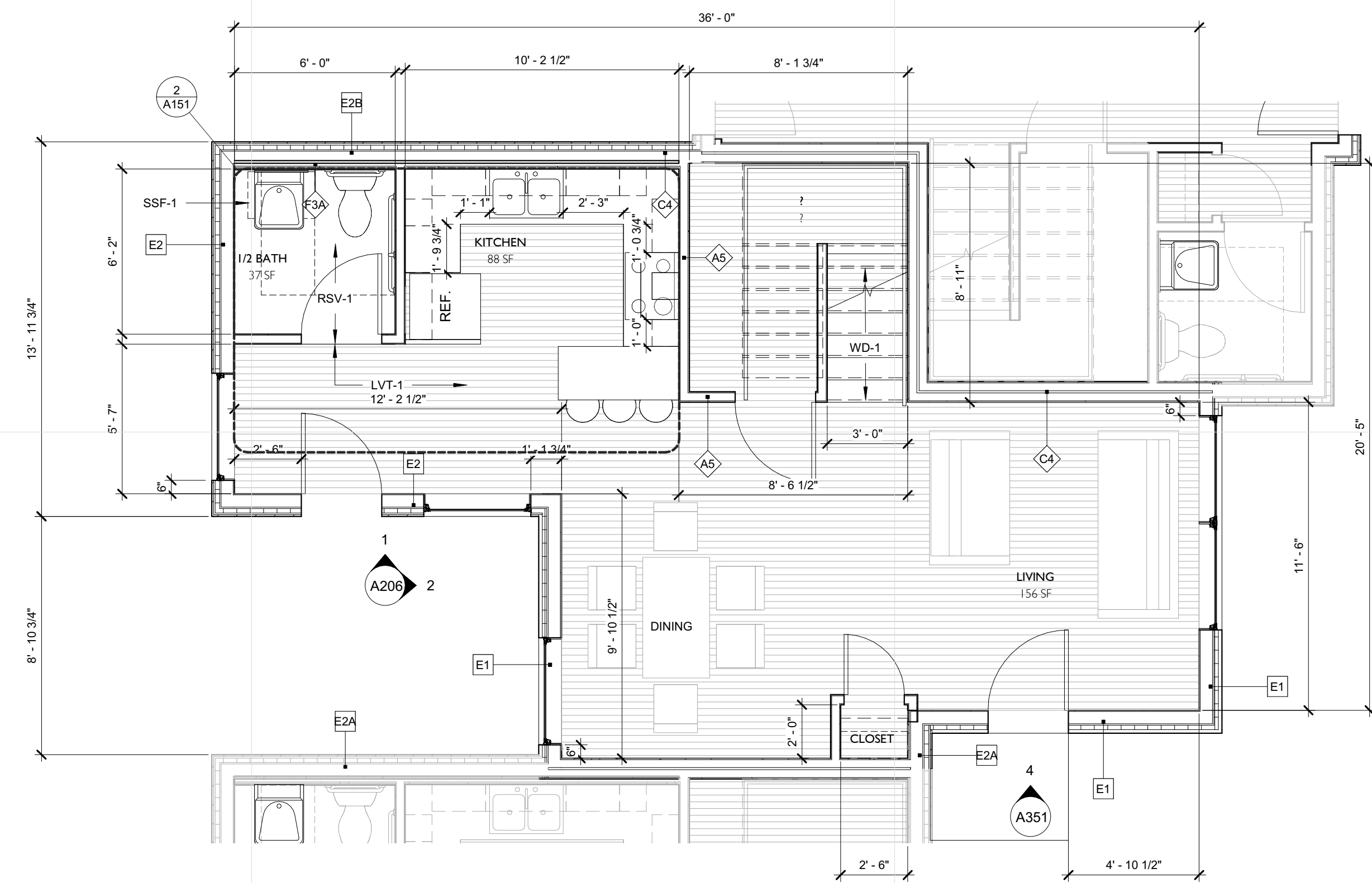
TWO BEDROOM

A102

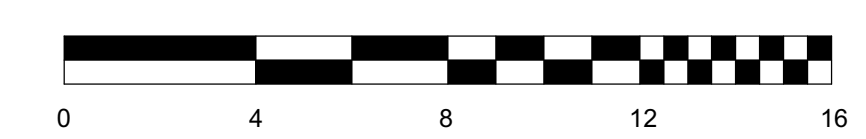
NOTE: PAINT GRADE WOOD BASE IN ROOMS WITH LVT-1
 VINYL BASE IN ROOMS WITH RSV-1



2 LEVEL 2 - THREE BEDROOM
 A103 1/4" = 1'-0"



1 LEVEL 1 - THREE BEDROOM
 A103 1/4" = 1'-0"



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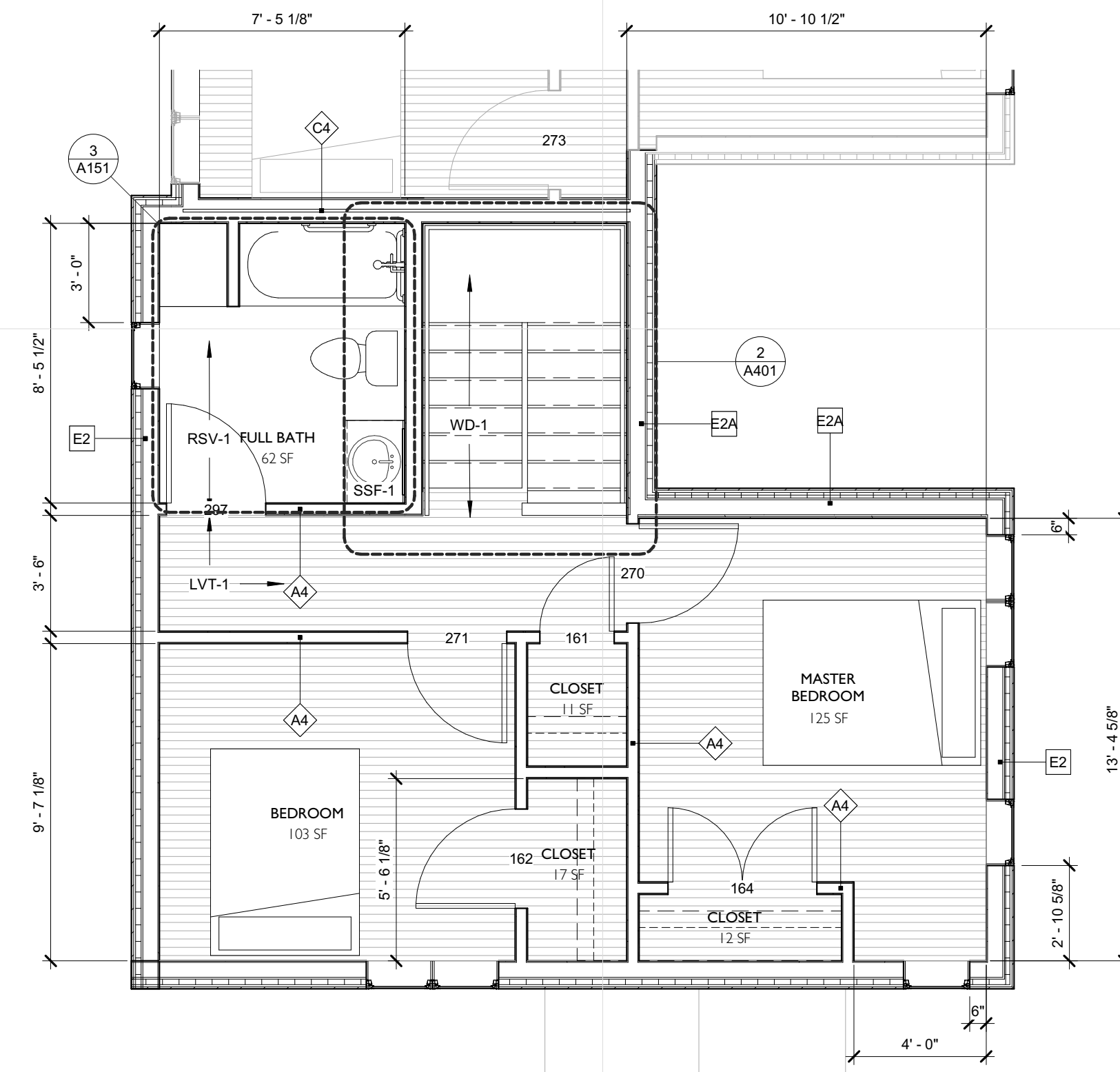
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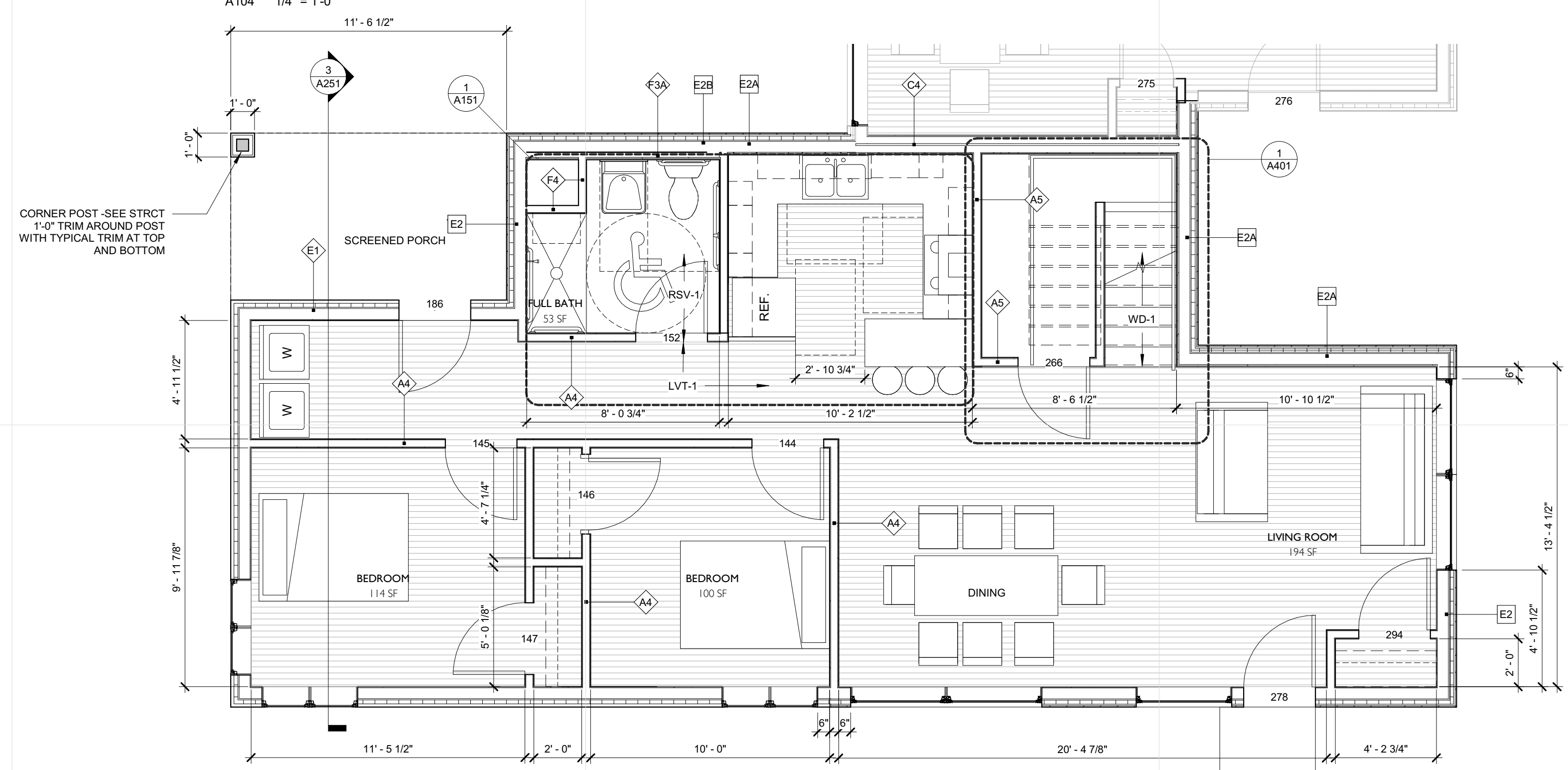
THREE BEDROOM

A103

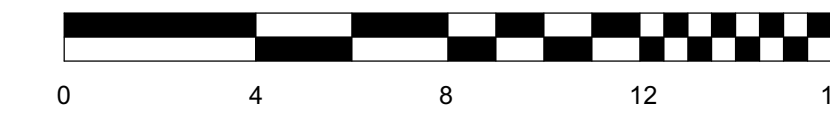
NOTE: PAINT GRADE WOOD BASE IN ROOMS WITH LVT-1
 VINYL BASE IN ROOMS WITH RSV-1



2 LEVEL 2 - FOUR BEDROOM
 A104 1/4" = 1'-0"



1 LEVEL 1 - FOUR BEDROOM
 A104 1/4" = 1'-0"



CORNER POST - SEE STRUCT
 1'-0" TRIM AROUND POST
 WITH TYPICAL TRIM AT TOP
 AND BOTTOM

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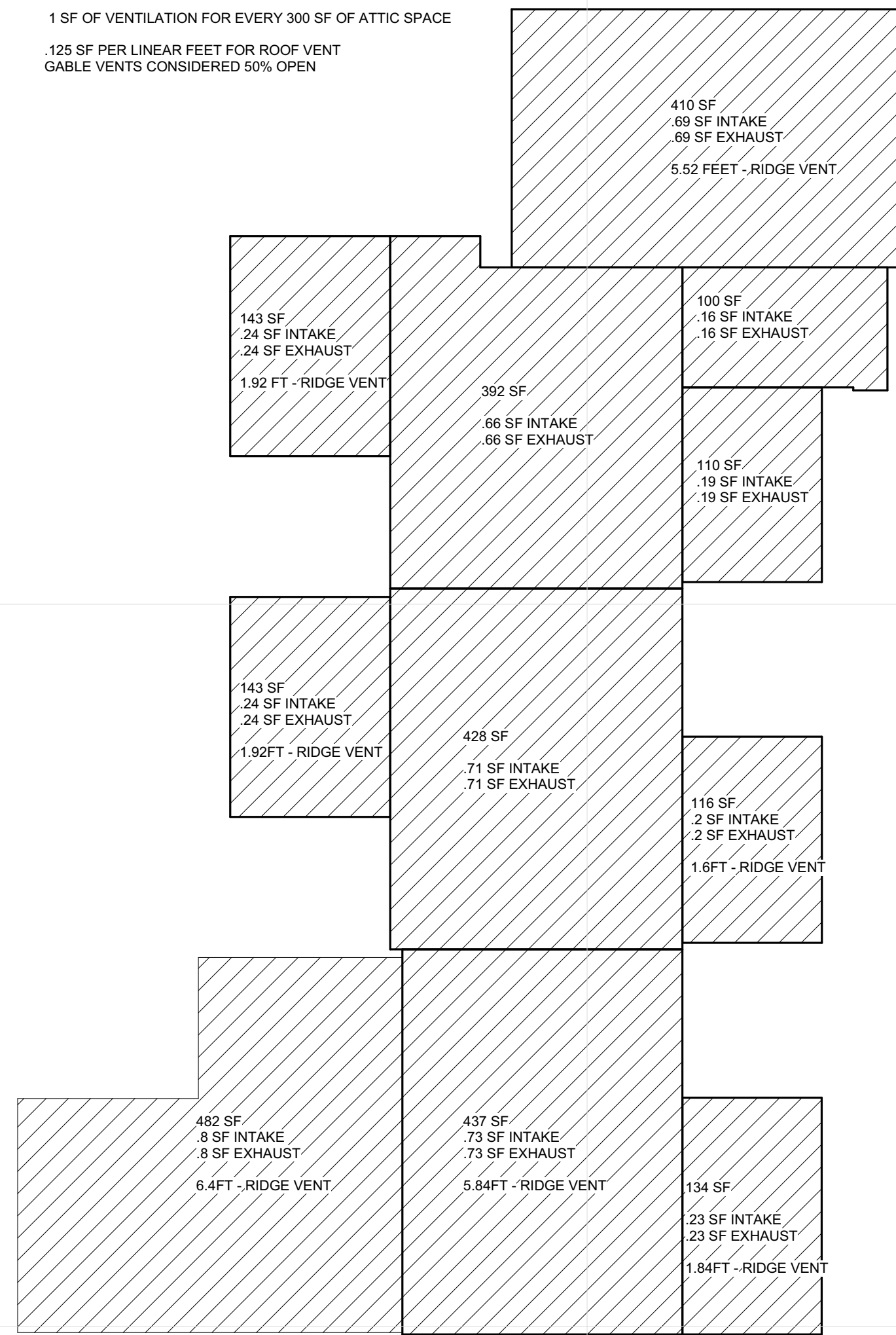
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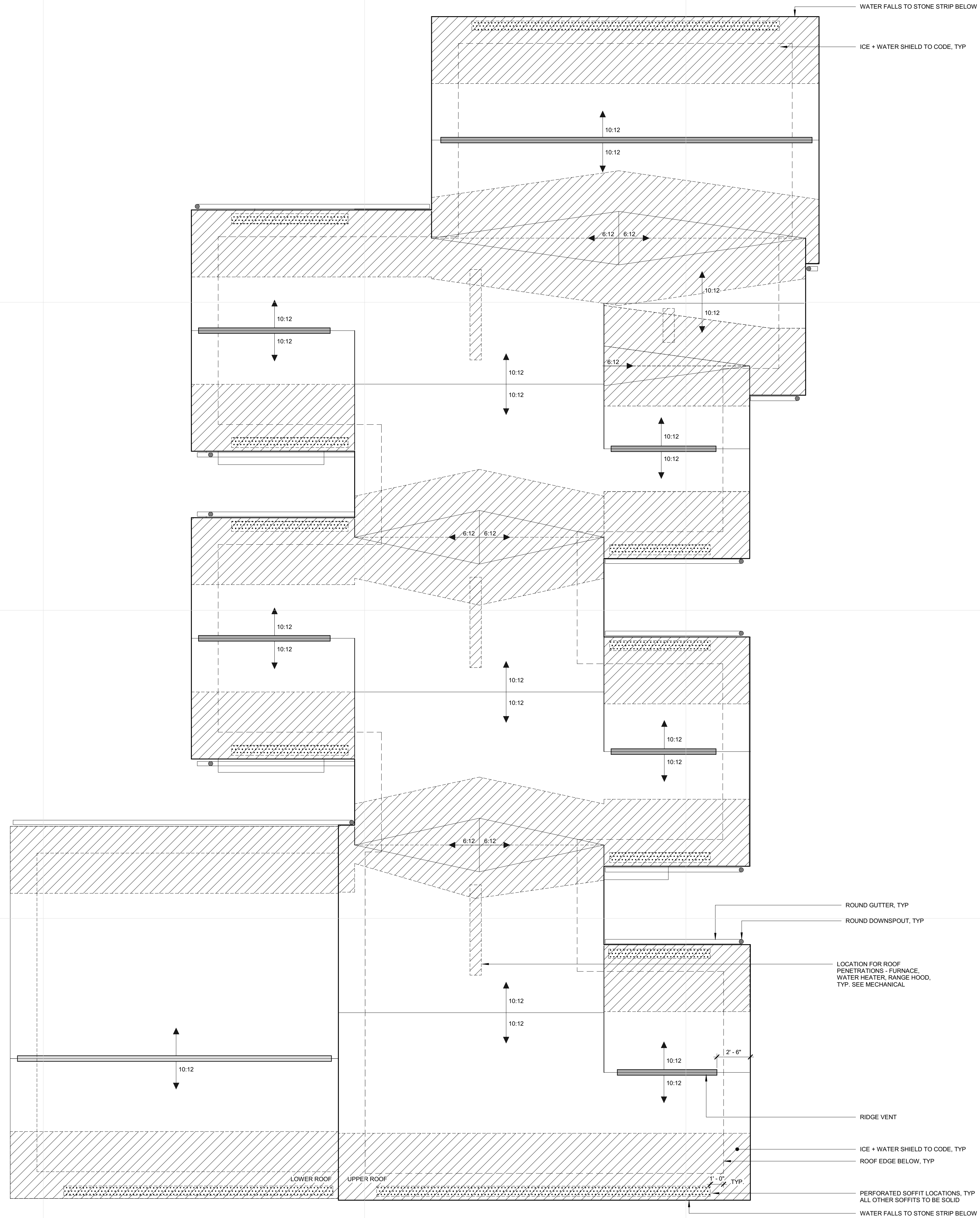
FOUR BEDROOM

A104

1 SF OF VENTILATION FOR EVERY 300 SF OF ATTIC SPACE
 125 SF PER LINEAR FEET FOR ROOF VENT
 GABLE VENTS CONSIDERED 50% OPEN



2 ROOF VENTING
 A105 1/8" = 1'-0"



1 ROOF PLAN
 A105 1/4" = 1'-0"

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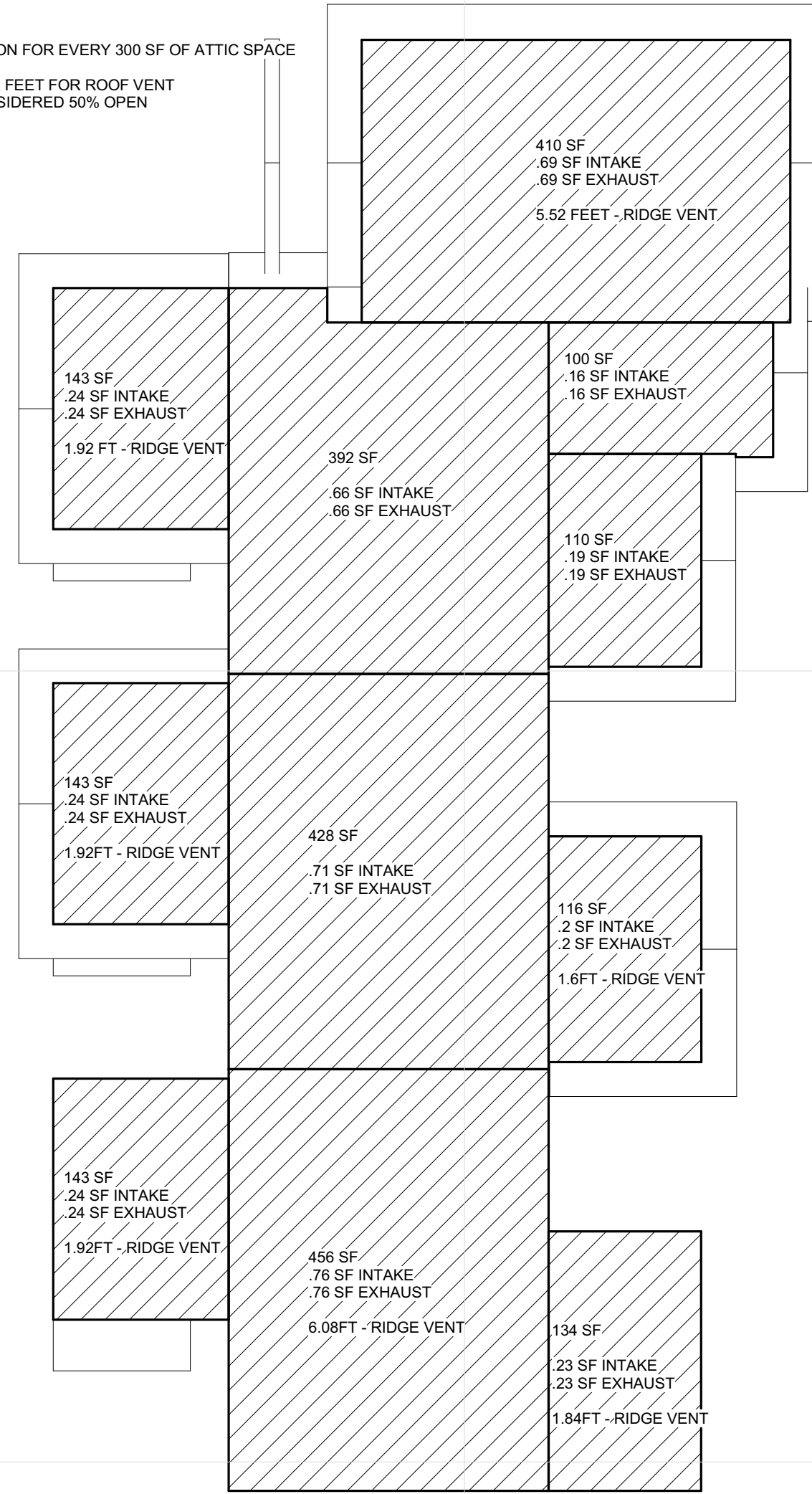
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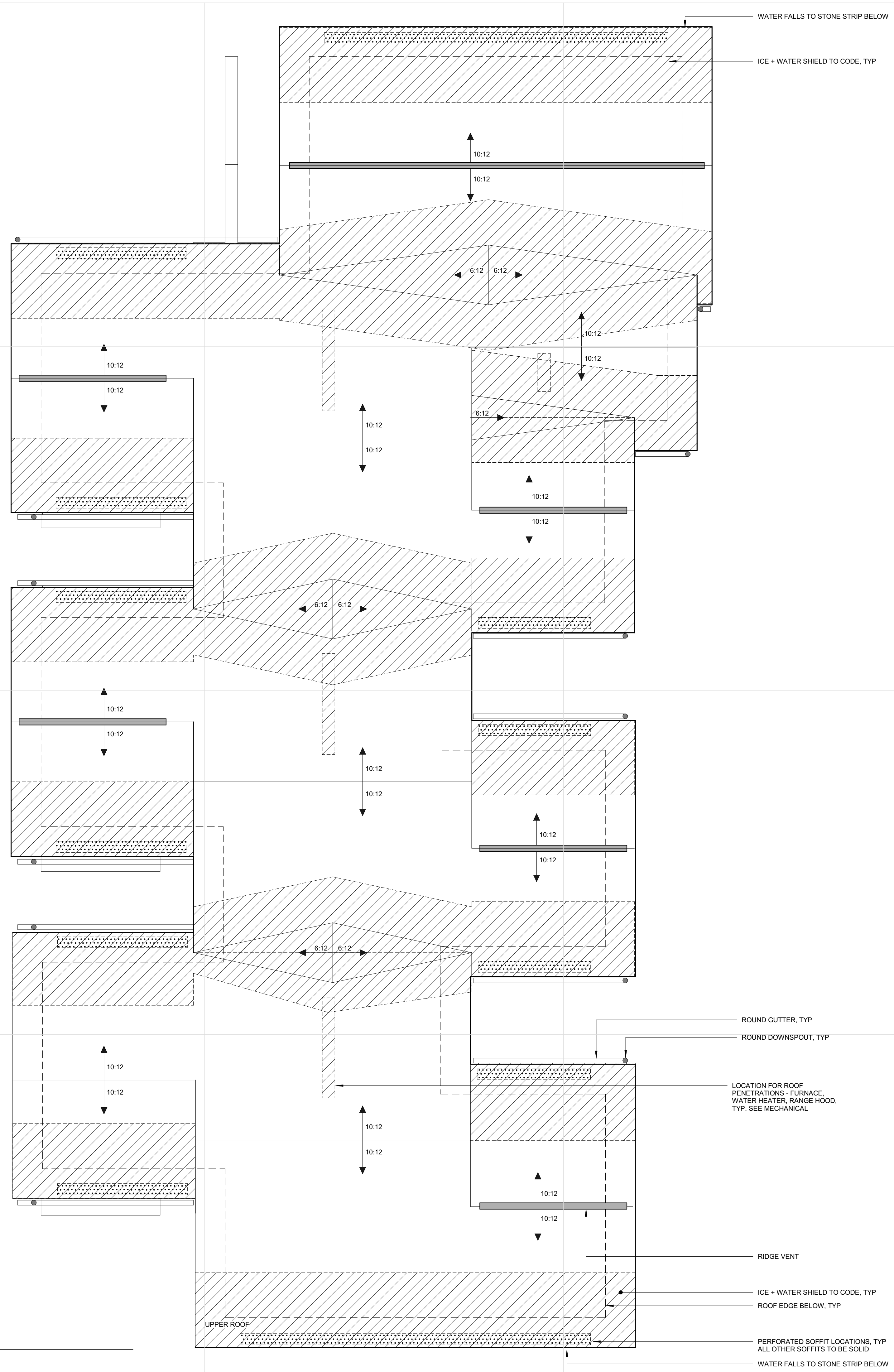
**BUILDING D ROOF
 PLAN 2-3-3-4**

A105

1 SF OF VENTILATION FOR EVERY 300 SF OF ATTIC SPACE
 .125 SF PER LINEAR FEET FOR ROOF VENT
 GABLE VENTS CONSIDERED 50% OPEN



2 ROOF VENTING
 A106 1/8" = 1'-0"



1 ROOF PLAN
 A106 1/4" = 1'-0"

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 Interiors and 612.342.2216 fax
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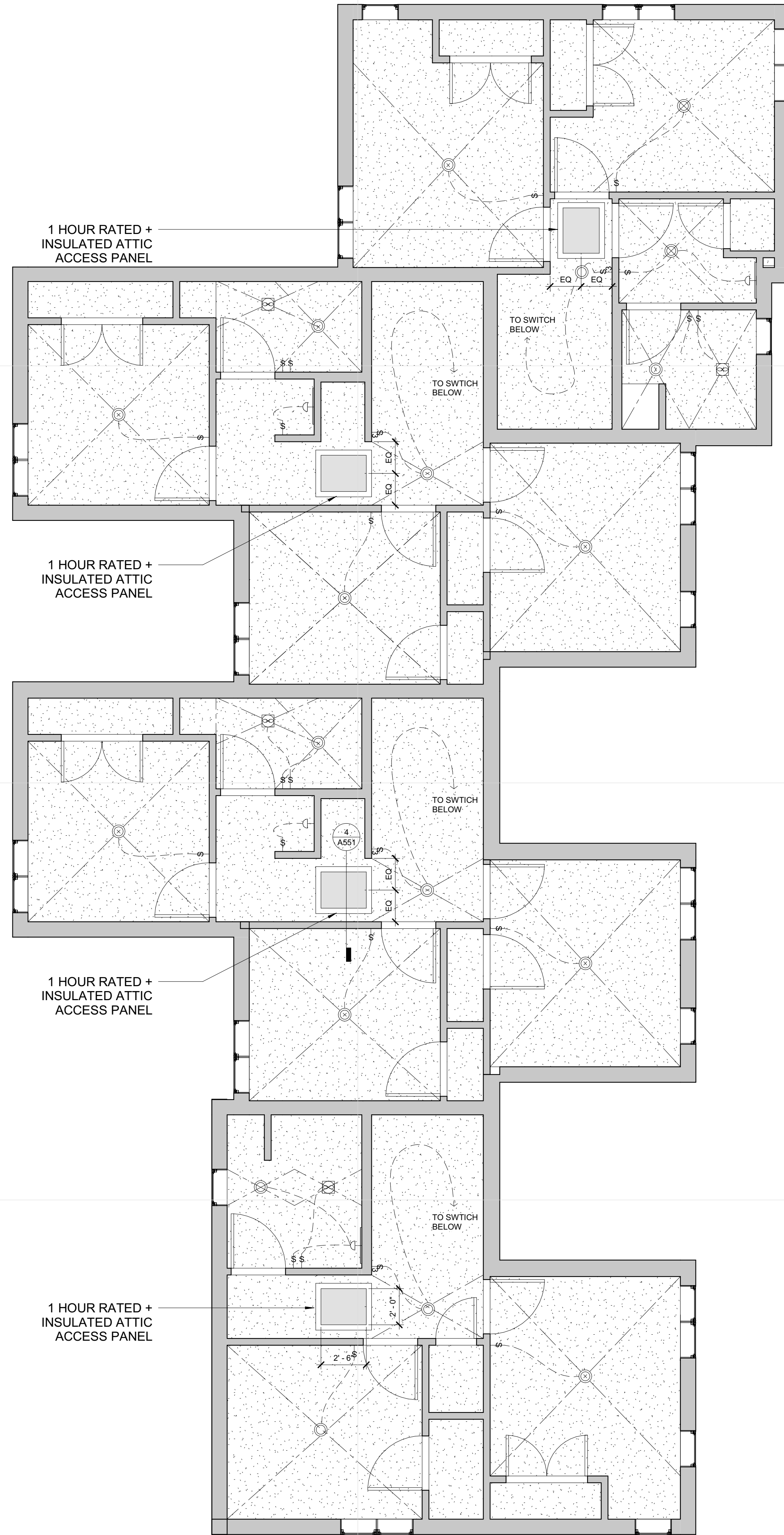
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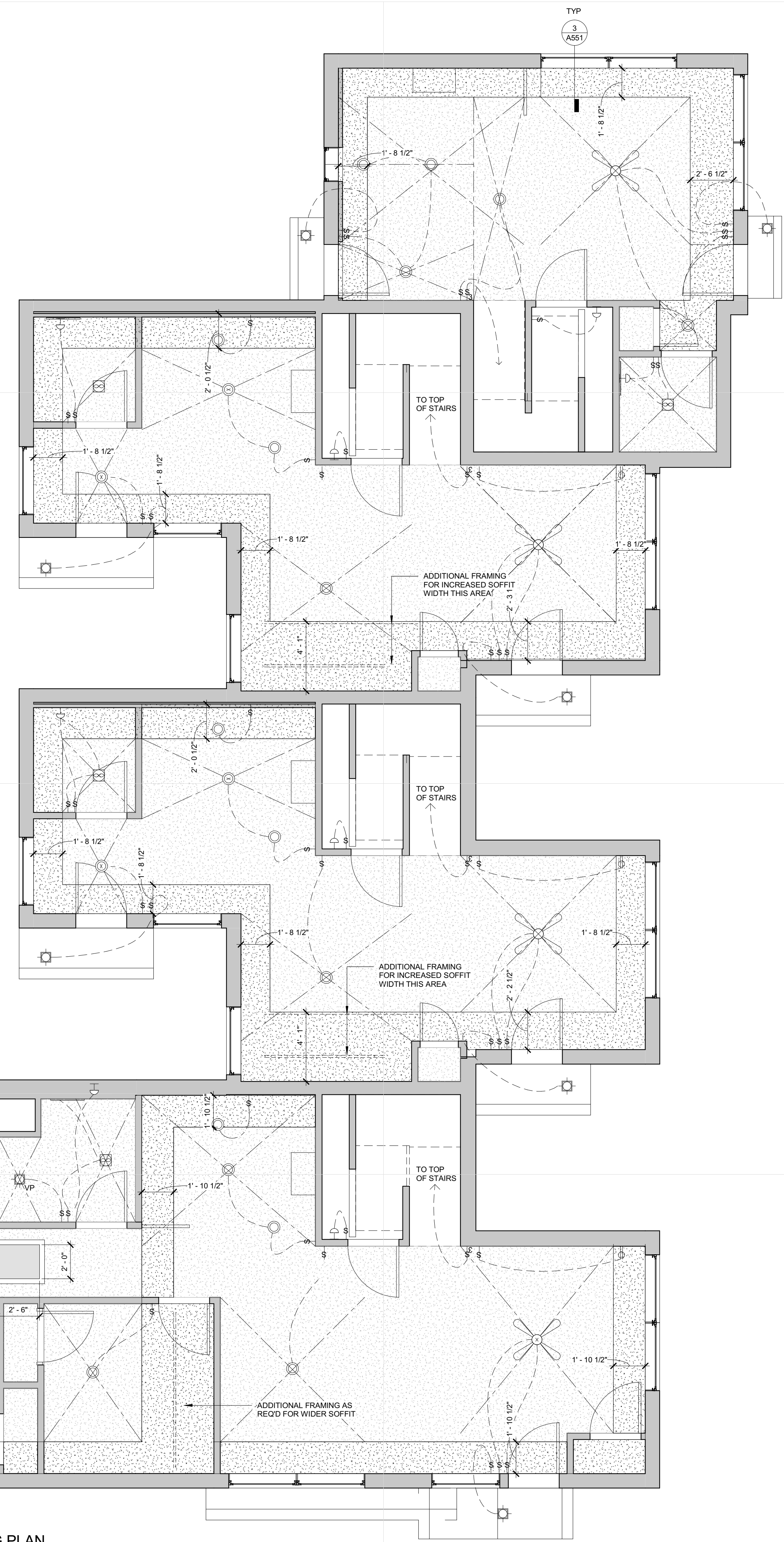
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**BUILDING A,B,C
 ROOF PLAN 2-3-3-3**

A106



⊖	SINGLE RECEPTACLE 125 V 20A SPEC GRADE
⊖	DUPLEX RECEPTACLE 125 V 20A SPEC GRADE
⊖	SWITCHED DUPLEX RECEPTACLE 125 V 20A SPEC GRADE
⊖	DUPLEX RECEPTACLE 125 V 20A GROUND FAULT CIRCUIT INTERRUPT
⊖	RANGE OUTLET
⊖	SPECIAL PURPOSE OUTLET
⊖	DUPLEX RECEPTACLE 125 V 20A WEATHER PROOF COVER
⊖	208 VOLT RECEPT 4-WIRE
⊖	DUPLEX FLOOR RECEPTACLE 125 V 20A SPEC GRADE
\$	ROCKER SWITCH SINGLE POLE 20 A SPEC GRADE
\$	ROCKER SWITCH 3 WAY 20 A SPEC GRADE
\$	ROCKER SWITCH 4 WAY 20 A SPEC GRADE
\$	TOGGLE SWITCH 2 POLE 20 A SPEC GRADE
\$	DIMMER SWITCH
☎	TELEPHONE OUTLET
⊖	DATA OUTLET
⊖	CABLE / CATV/ SATELLITE TV OUTLET
⊖	DOOR BELL
⊖	STANDARD PORCELAIN LAMP HOLDER FIXTURE
⊖	SURFACE MNTD. LIGHT FIXTURE
⊖	WALL MOUNT LIGHT FIXTURE
⊖	HANGING / PENDANT LIGHT FIXTURE - BY HOMEOWNER
⊖	VAPOR PROTECTED LIGHT FIXTURE
⊖	RECESSED LIGHT FIXTURE - LED
⊖	RECESSED LIGHT FIXTURE - DIRECTIONAL
⊖	PLUG MOLD
⊖	UPPER CABINET LIGHT FIXTURE (BEHIND GLASS DOORS)
⊖	LOW VOLTAGE TRACK
⊖	CEILING SPEAKER
⊖	COMBINATION SMOKE AND CO2 DETECTOR
⊖	SMOKE DETECTOR
⊖	MOTION DETECTOR 360 DEGREE LITHONIA MODEL - LUSC H
⊖	RECESSED EXHAUST VENT FAN W/ LIGHT
⊖	CEILING FAN OUTLET
⊖	L-LIGHTING KIT
⊖	F-FAN SWITCH



2 LEVEL 2 REFLECTED CEILING PLAN
 A121 1/4" = 1'-0"

1 LEVEL 1 REFLECTED CEILING PLAN
 A121 1/4" = 1'-0"

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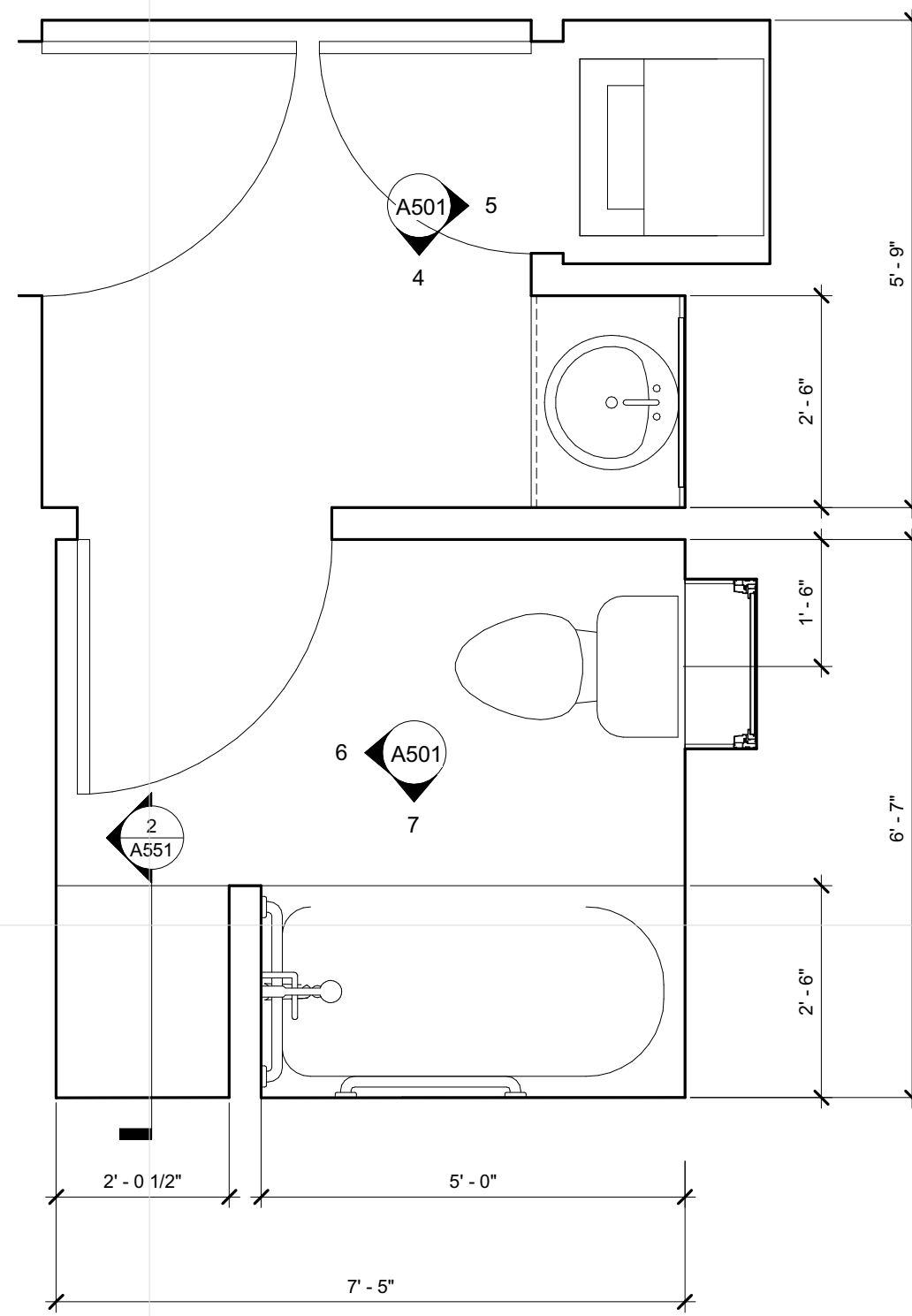
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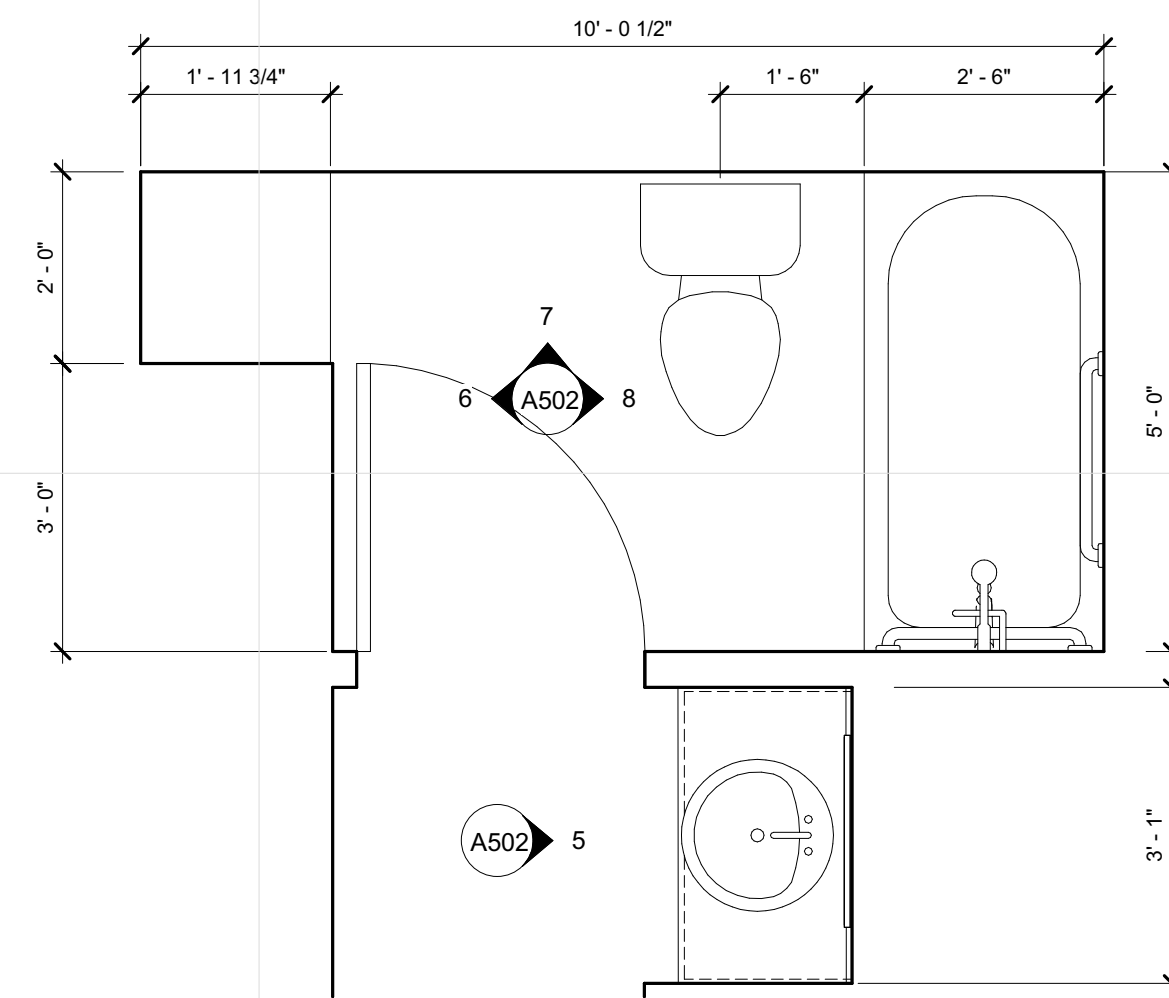
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REFLECTED
 CEILING PLANS

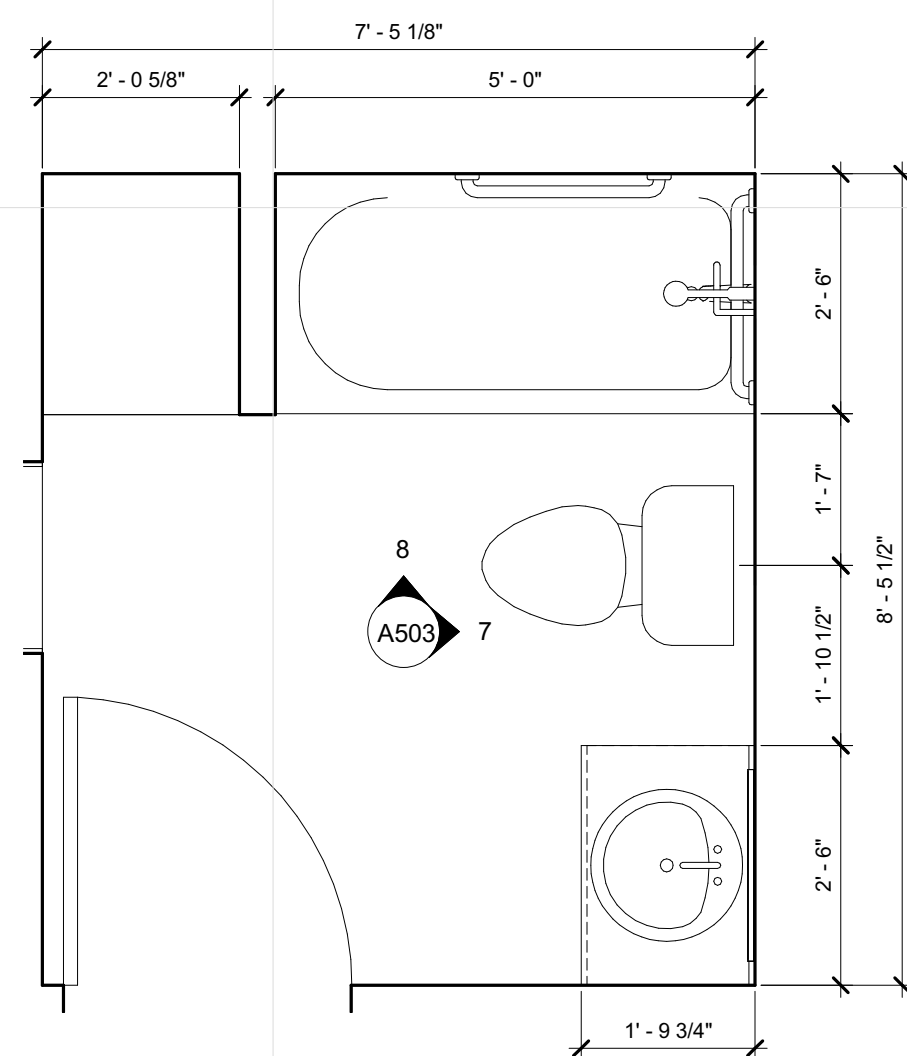
A121



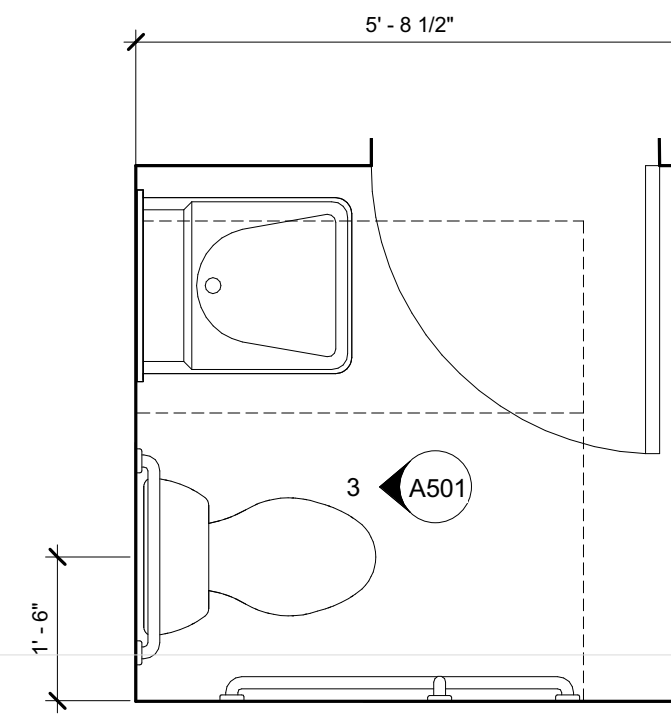
7 2 BEDROOM FULL BATHROOM
 A151 1/2" = 1'-0"



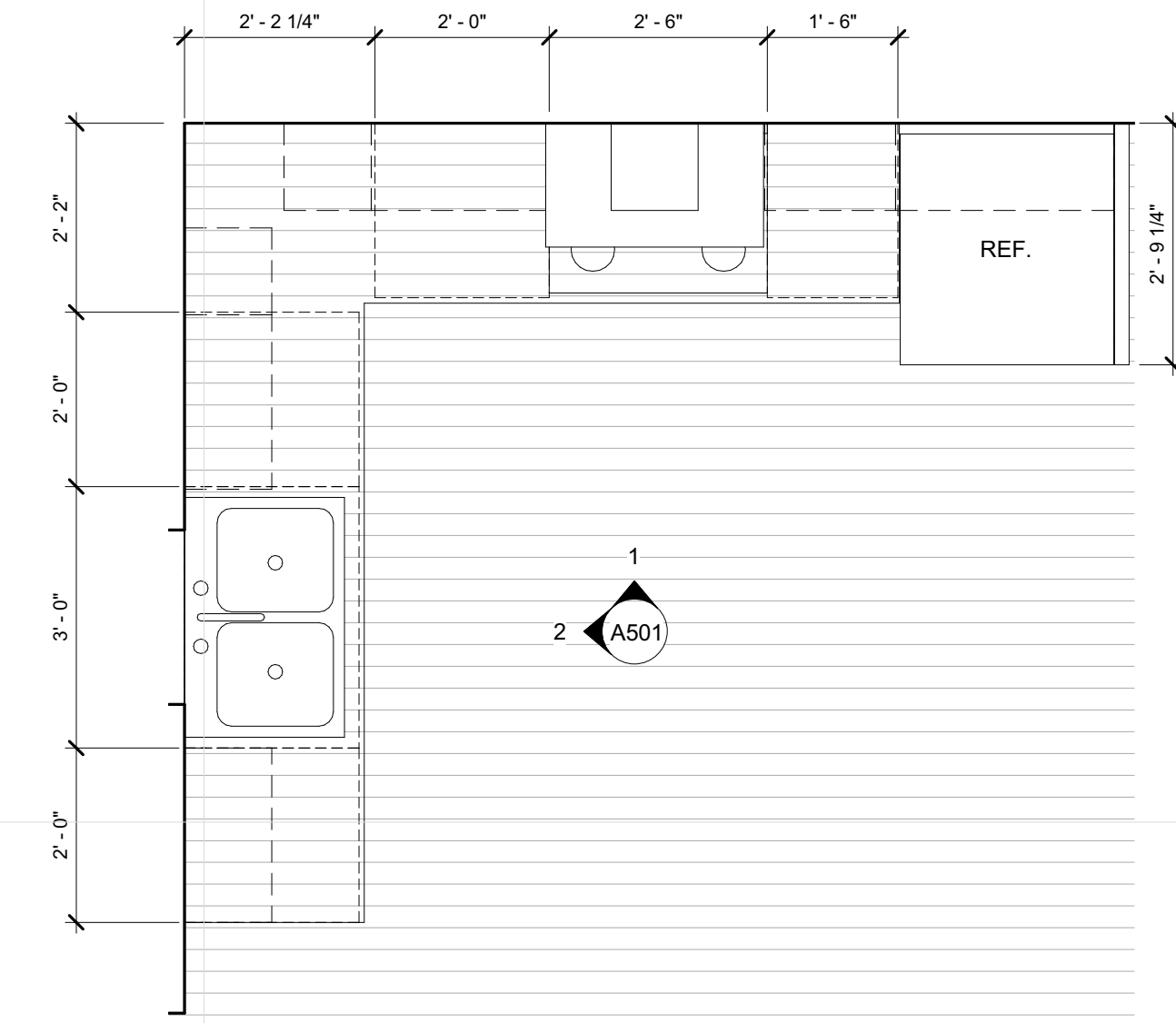
4 3 BEDROOM FULL BATHROOM
 A151 1/2" = 1'-0"



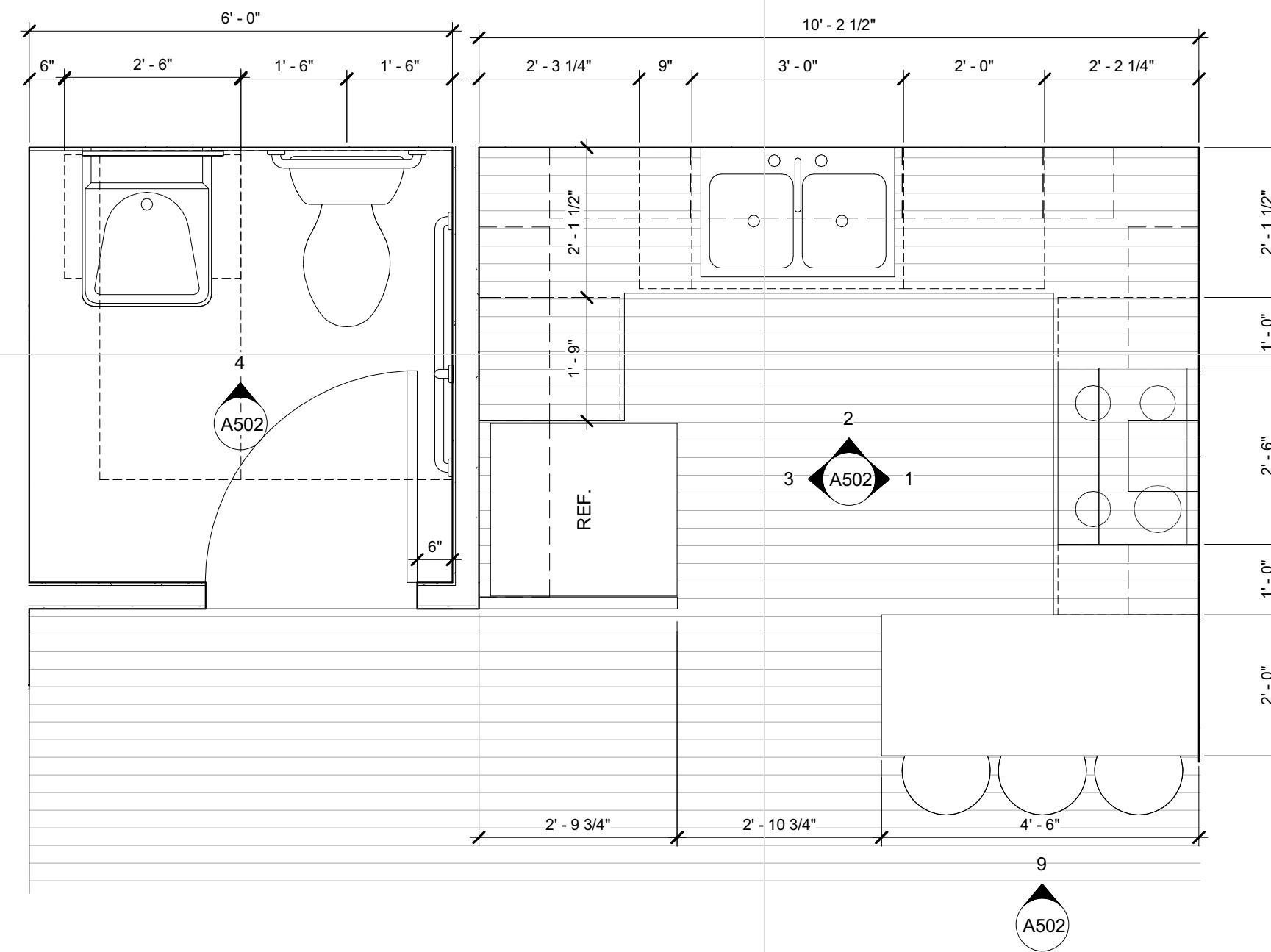
3 4 BEDROOM FULL BATHROOM
 A151 1/2" = 1'-0"



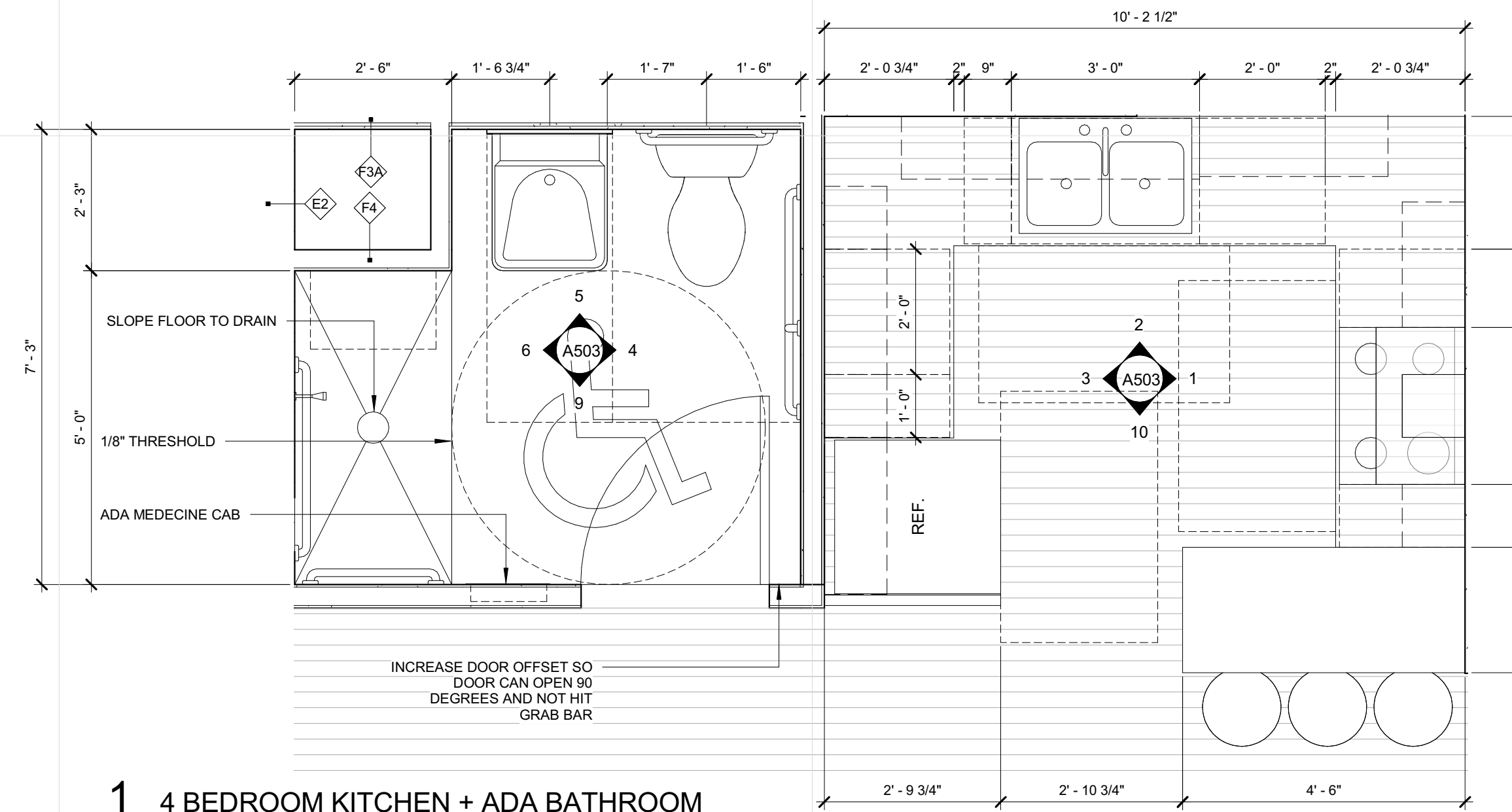
6 2 BEDROOM 1/2 BATH
 A151 1/2" = 1'-0"



5 2 BEDROOM KITCHEN
 A151 1/2" = 1'-0"



2 3 BEDROOM KITCHEN + 1/2 BATH
 A151 1/2" = 1'-0"



1 4 BEDROOM KITCHEN + ADA BATHROOM
 A151 1/2" = 1'-0"

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ENLARGED PLANS

A151

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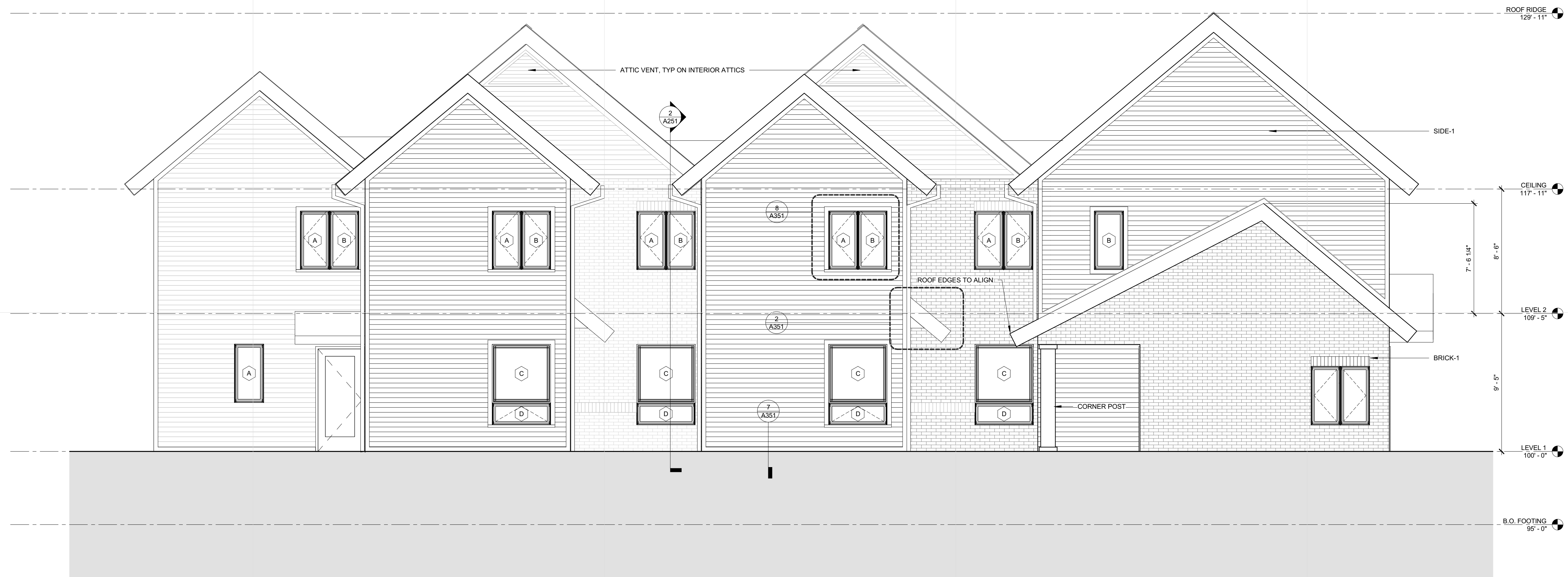
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CHECKED BY:	Checker

**BUILDING D
 ELEVATIONS 2-3-3-4**

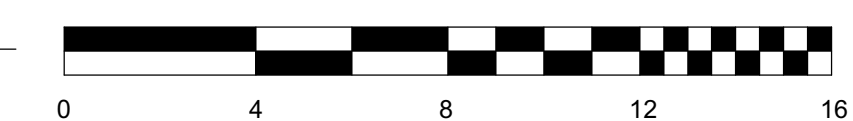
A201

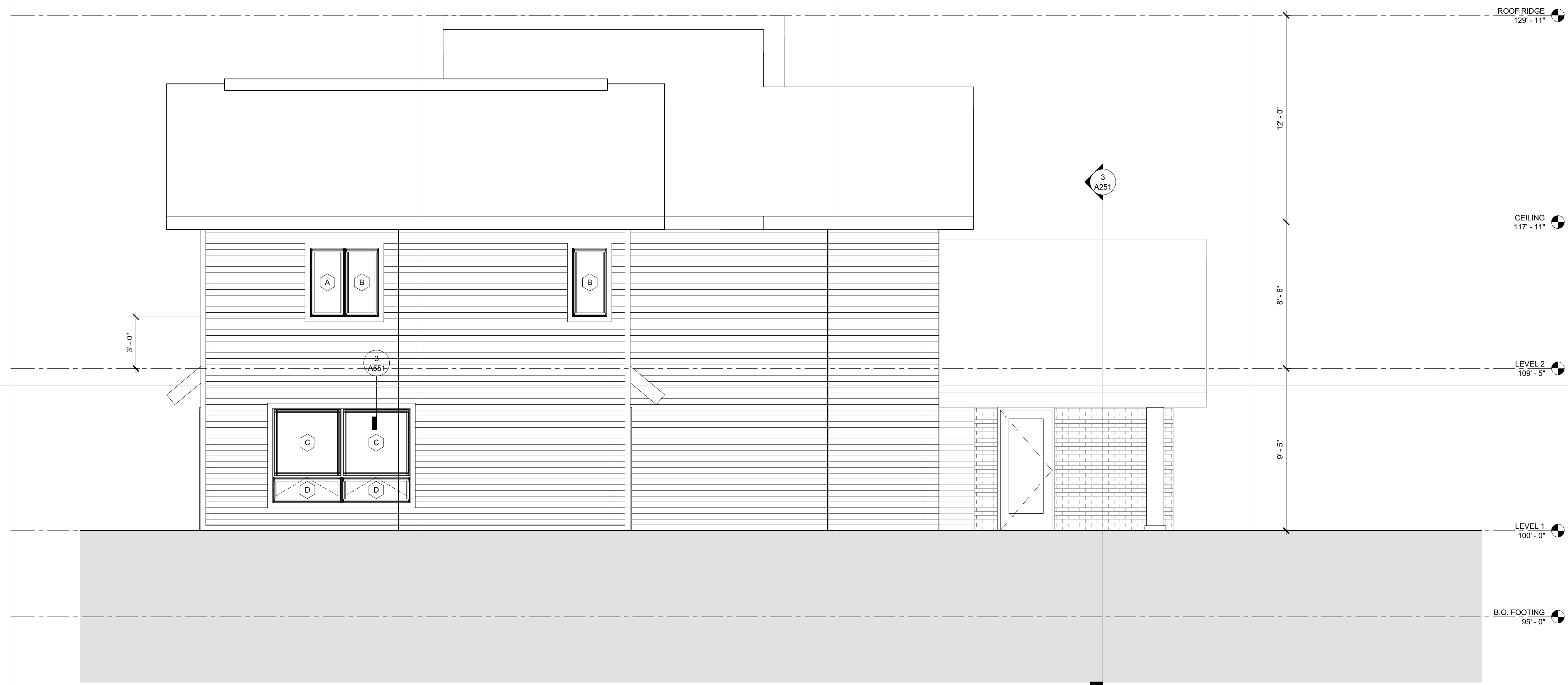


2 BUILDING EAST ELEVATION - FRONT
 A201 1/4" = 1'-0"



1 BUILDING WEST ELEVATION - BACK
 A201 1/4" = 1'-0"

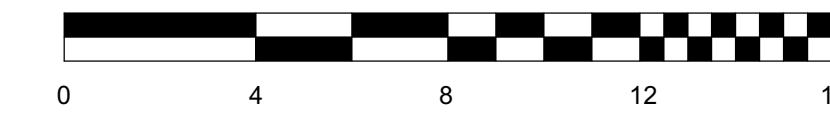




2 BUILDING NORTH ELEVATION
A202 1/4" = 1'-0"



1 BUILDING SOUTH ELEVATION
A202 1/4" = 1'-0"



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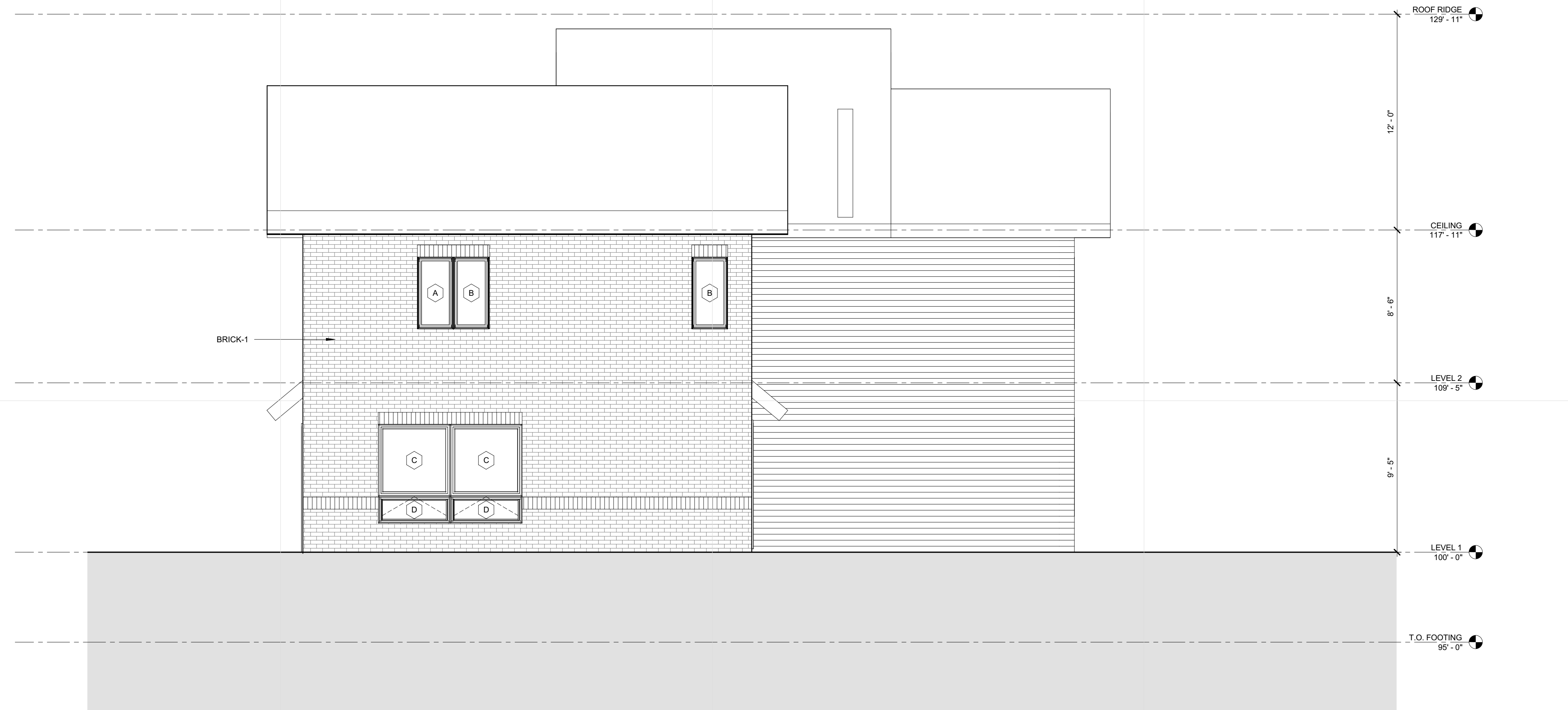
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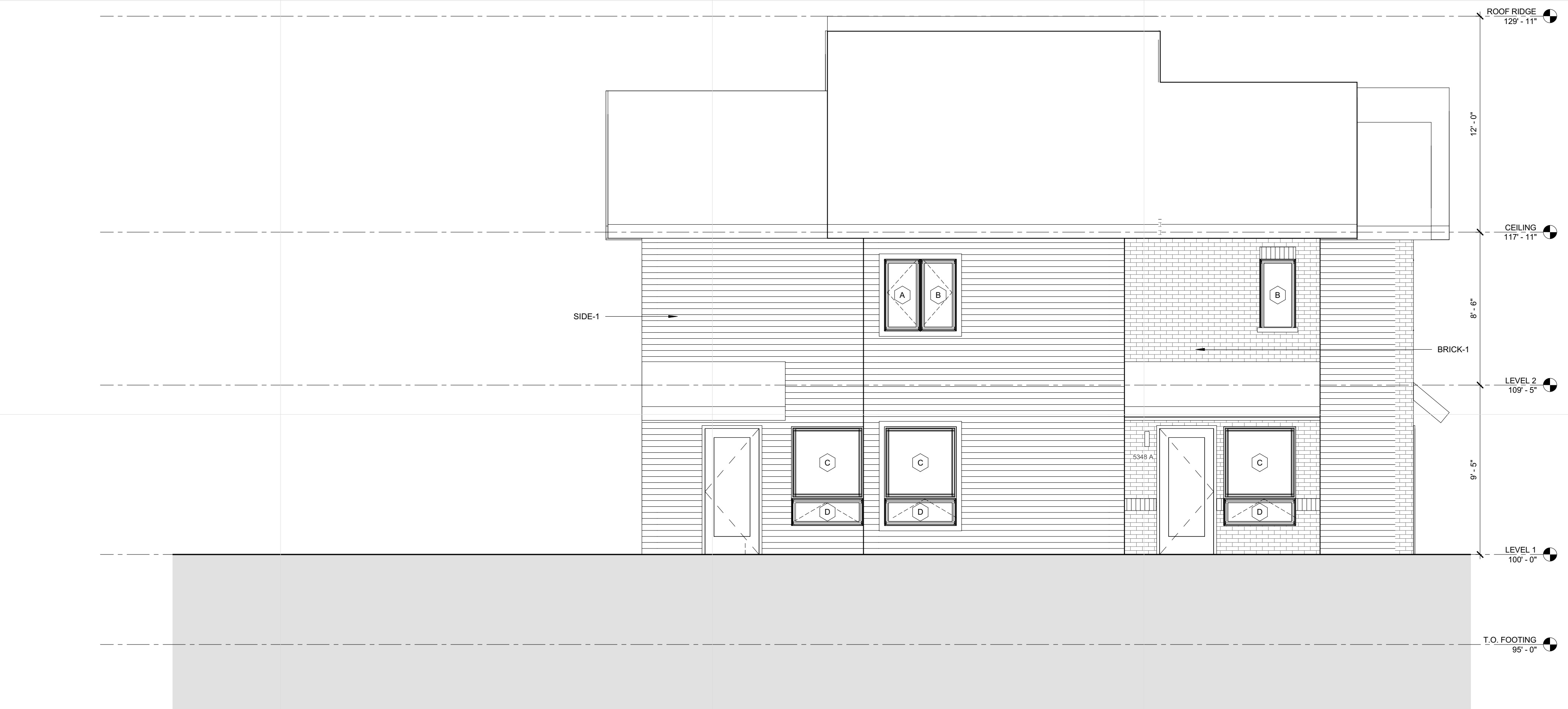
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**BUILDING D
ELEVATIONS 2-3-3-4**

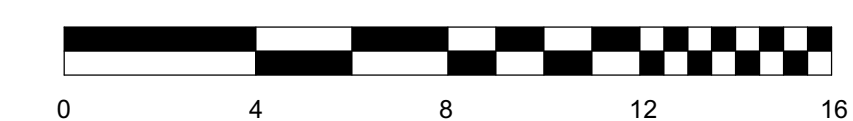
A202



2 BUILDING NORTH ELEVATION
 A203 1/4" = 1'-0"



1 BUILDING SOUTH ELEVATION
 A203 1/4" = 1'-0"



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CHECKED BY:	Checker

**BUILDING A,B,C
 ELEVATIONS 2-3-3-3**

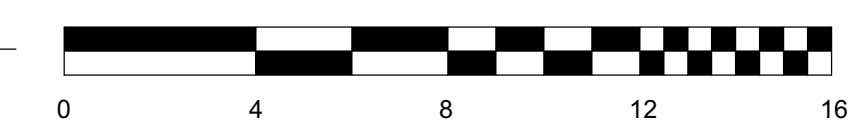
A203



2 BUILDING EAST ELEVATION - FRONT
 A204 1/4" = 1'-0"



1 BUILDING WEST ELEVATION - BACK
 A204 1/4" = 1'-0"



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CHECKED BY:	Checker

**BUILDING A,B,C
 ELEVATIONS 2-3-3-3**

A204

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	05.26.17	GC 90% CHECK SET

PROJECT NO. 2016015

PROJECT PHASE 50% CD

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**BUILDING A, B
 ELEVATIONS**

A205



2 BUILDING WEST ELEVATION
 A205 1/4" = 1'-0"



1 BUILDING EAST ELEVATION
 A205 1/4" = 1'-0"

**MINNEHAHA
 TOWNHOMES**
 5348, 5364, 5369 RIVERVIEW
 ROAD, 5118 54TH ST EAST
 MINNEAPOLIS, MN 55417

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 Print Names: _____
 Date: _____ License No: _____

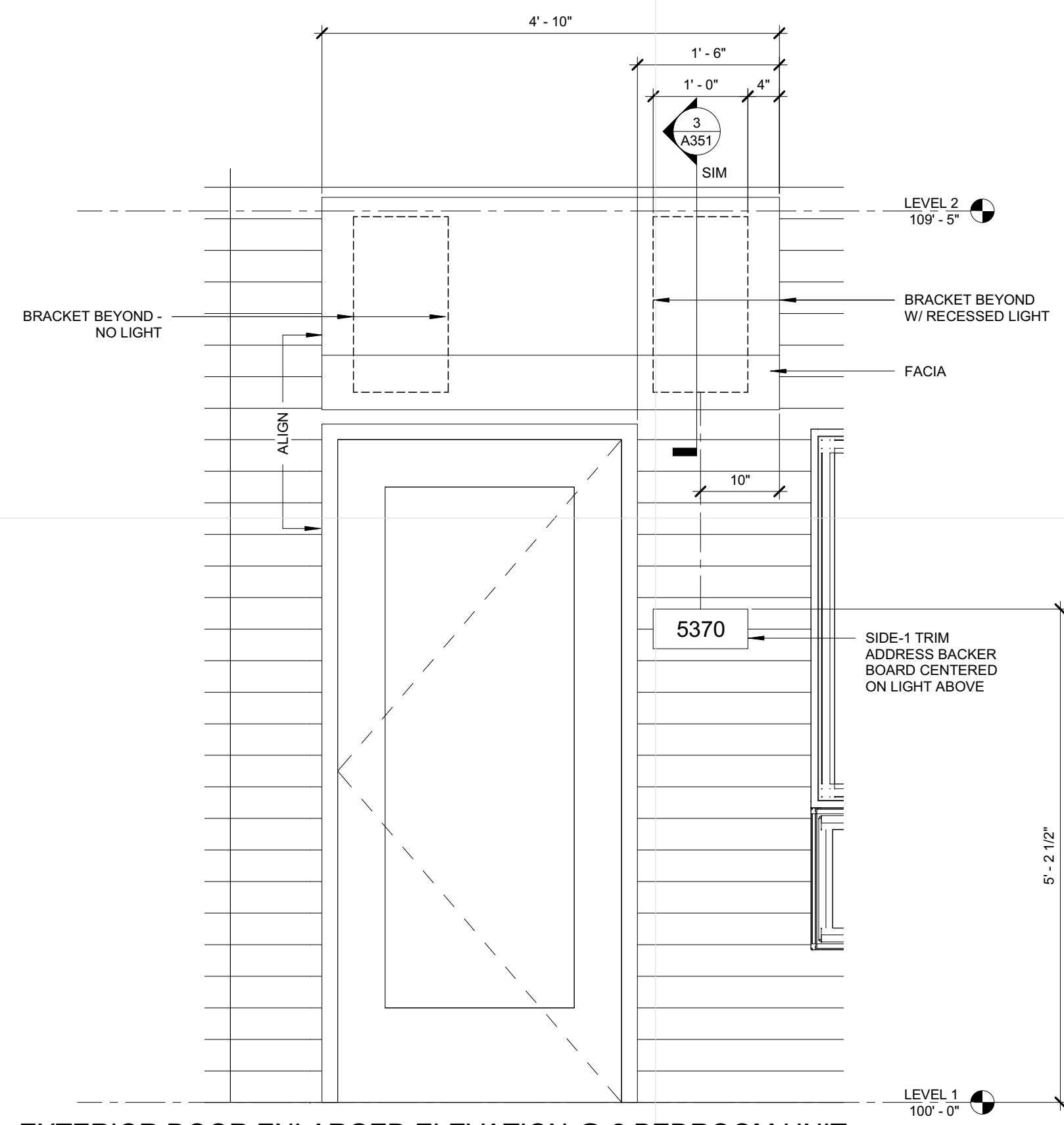
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	04.21.17	100% DD
	04.28.17	LAND USE APPLICATION
	05.05.17	50% CD
	05.26.17	GC 90% REVIEW SET
	06.21.17	100% CD ISSUE

PROJECT NO.	2016015
PROJECT PHASE	100% CD ISSUE
DRAWN BY:	CHECKED BY:
Author	Checker

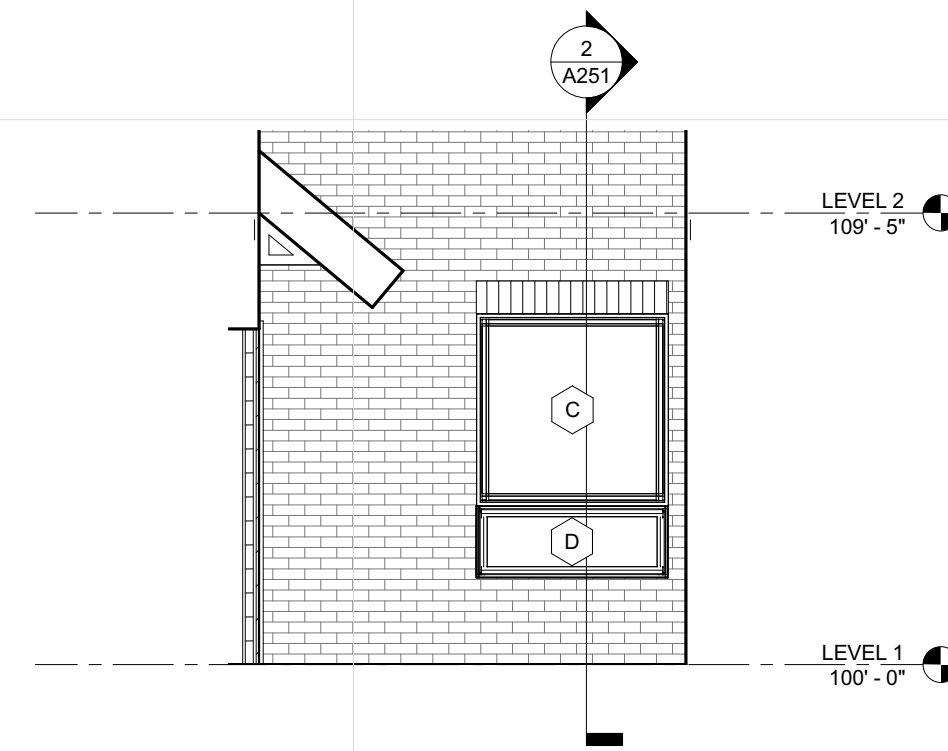
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**BUILDING
 ELEVATIONS**

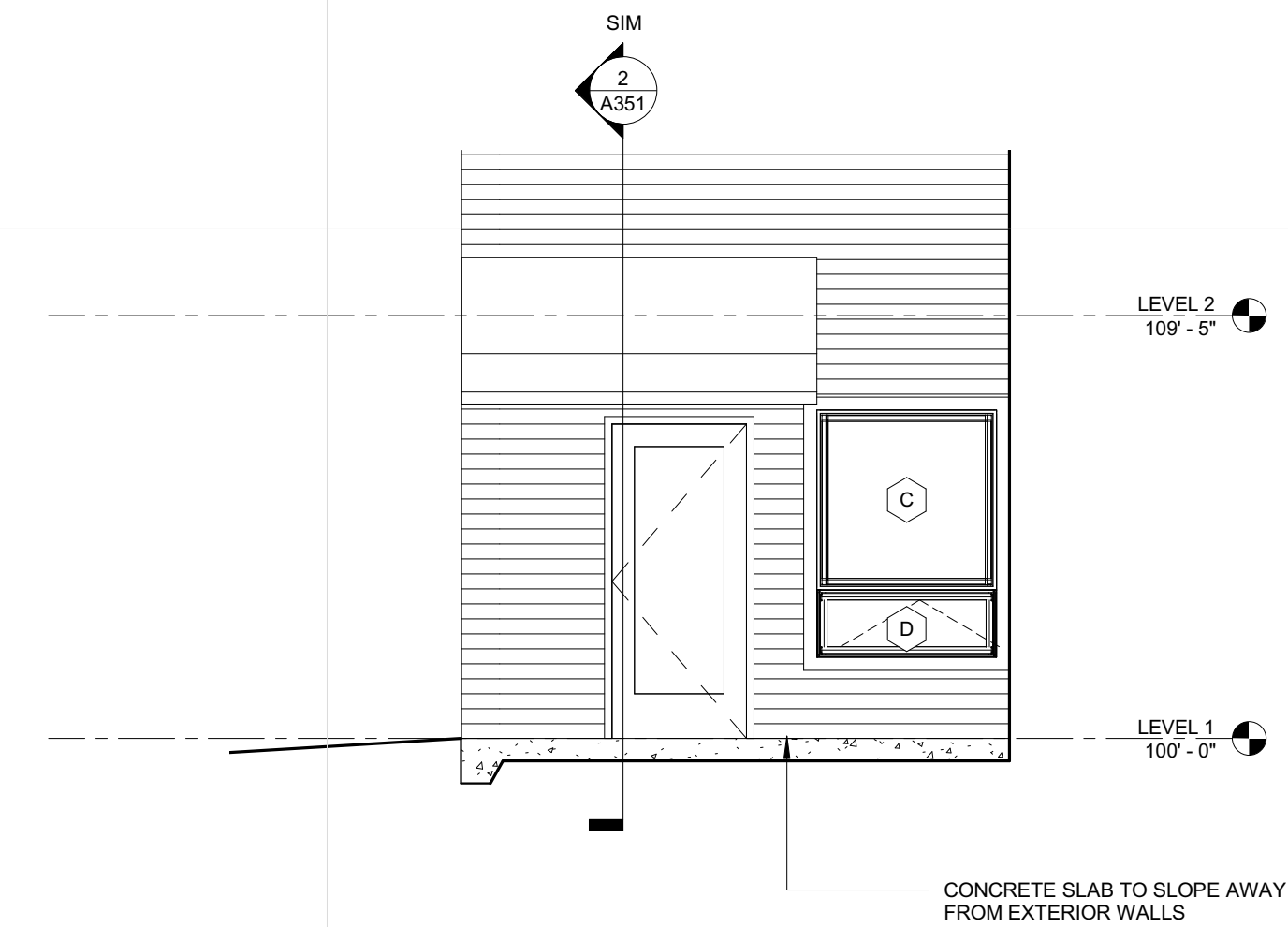
A206



3 EXTERIOR DOOR ENLARGED ELEVATION @ 2 BEDROOM UNIT
 A206 3/4" = 1'-0"



2 SCREEN PORCH EAST ELEVATION
 A206 1/4" = 1'-0"



1 SCREEN PORCH NORTH ELEVATION
 A206 1/4" = 1'-0"

**MINNEHAHA
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	06.21.17	100% CD ISSUE

PROJECT NO. 2016015

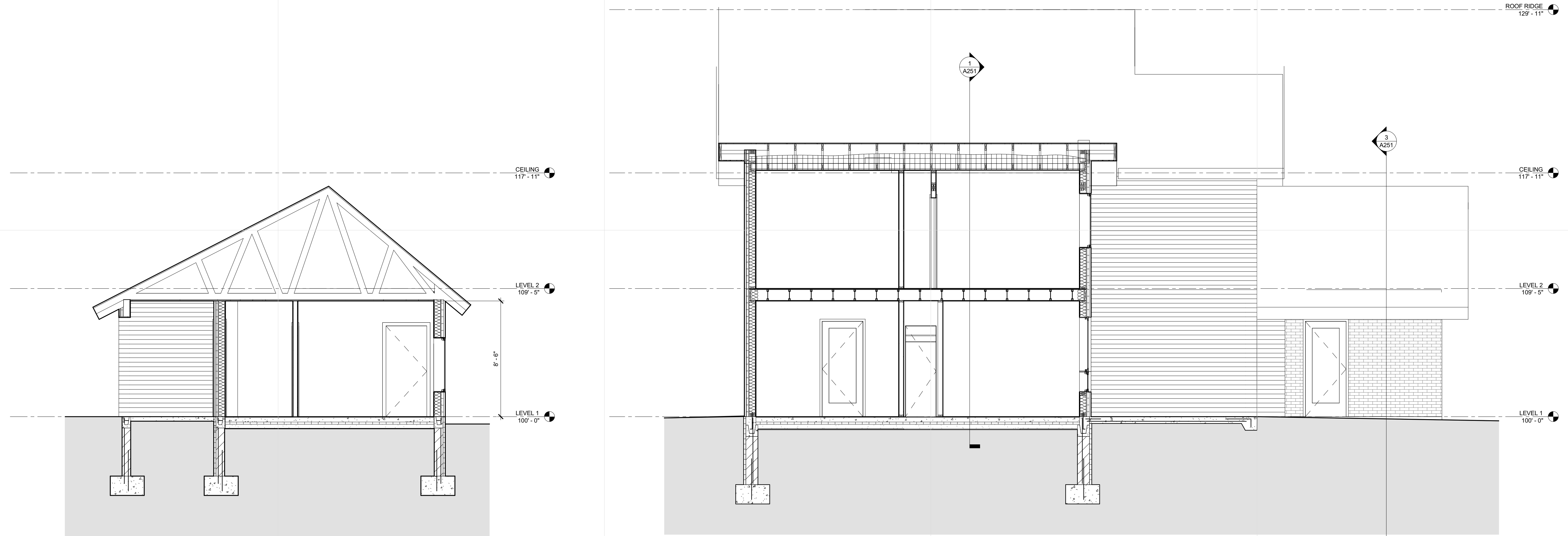
PROJECT PHASE 100% CD ISSUE

DRAWN BY: Author CHECKED BY: Checker

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**BUILDING
 SECTIONS**

A251



3 SECTION @ 4 BEDROOM LOW ROOF
 A251 1/4" = 1'-0"

2 SECTION THROUGH UNIT
 A251 1/4" = 1'-0"



1 2334 LONG SECTION
 A251 1/4" = 1'-0"

**MINNEHAHA
 TOWNHOMES**
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	04.28.17	LAND USE APPLICATION
	05.08.17	50% CD
	05.26.17	GC 90% CHECK SET

PROJECT NO. 2016015

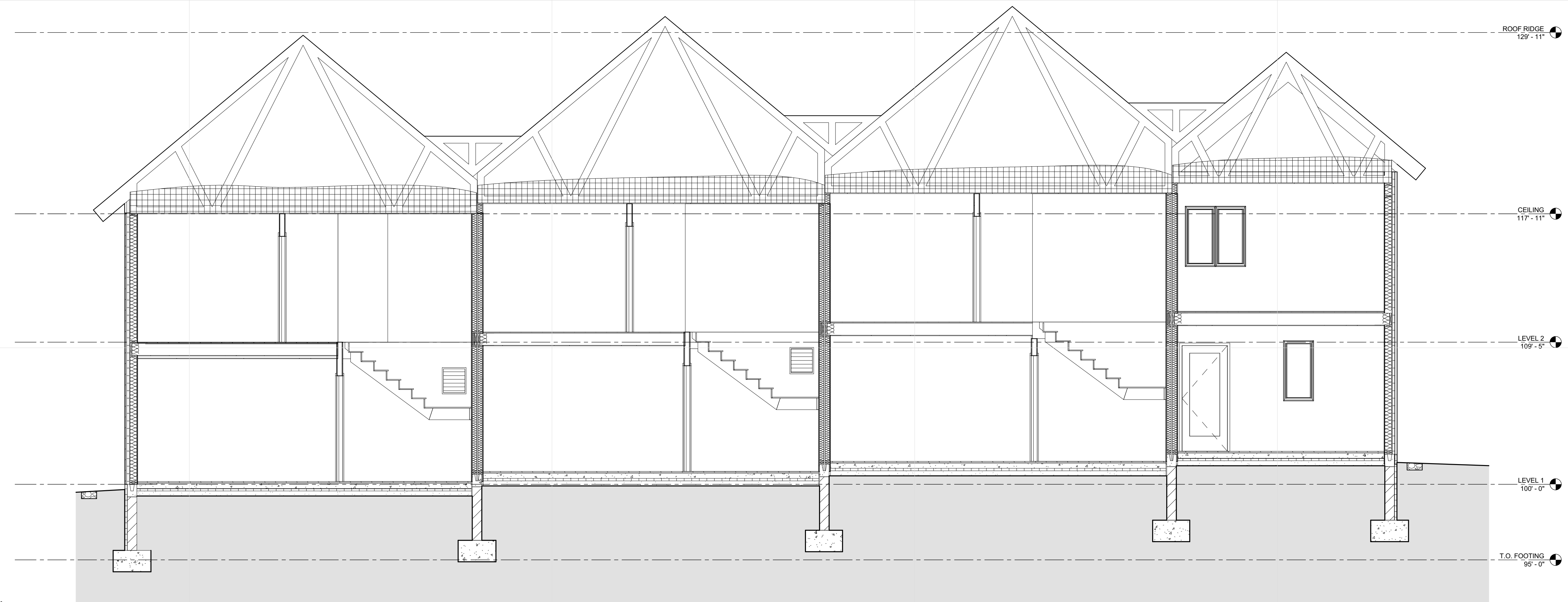
PROJECT PHASE 50% CD

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**BUILDING A, B
 BUILDING SECTION**

A252



1 STEPPED BUILDING SECTION
 A252 1/4" = 1'-0"

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Date: _____ License No: _____

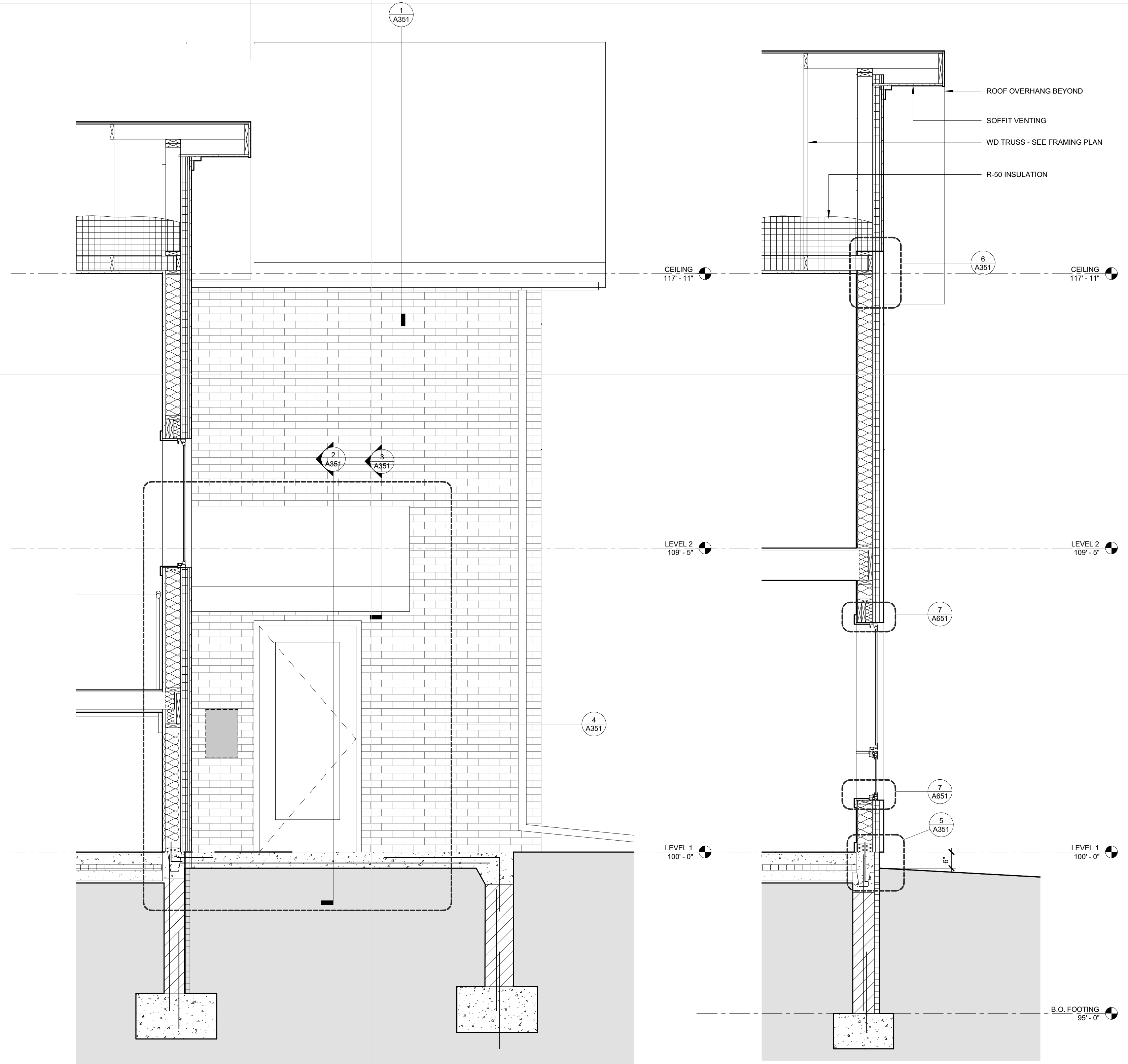
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	05.26.17	GC 90% REVIEW SET
	06.21.17	100% CD ISSUE

PROJECT NO.	2016015
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WALL SECTIONS

A301



2 WALL SECTION @ CONCRETE WALK
 A301 1/2" = 1'-0"

1 WALL SECTION @ GRADE
 A301 1/2" = 1'-0"

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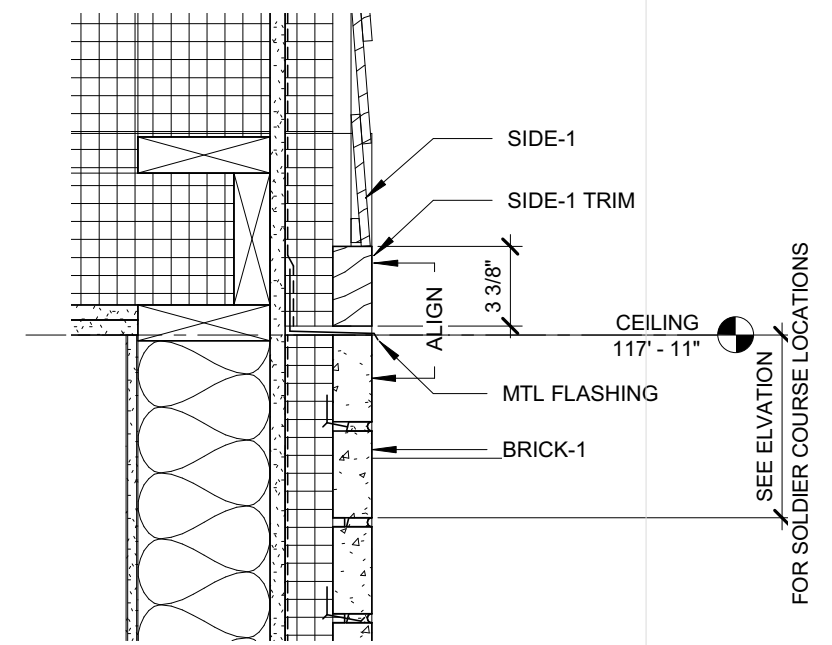
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	05.26.17	GC 90% REVIEW SET
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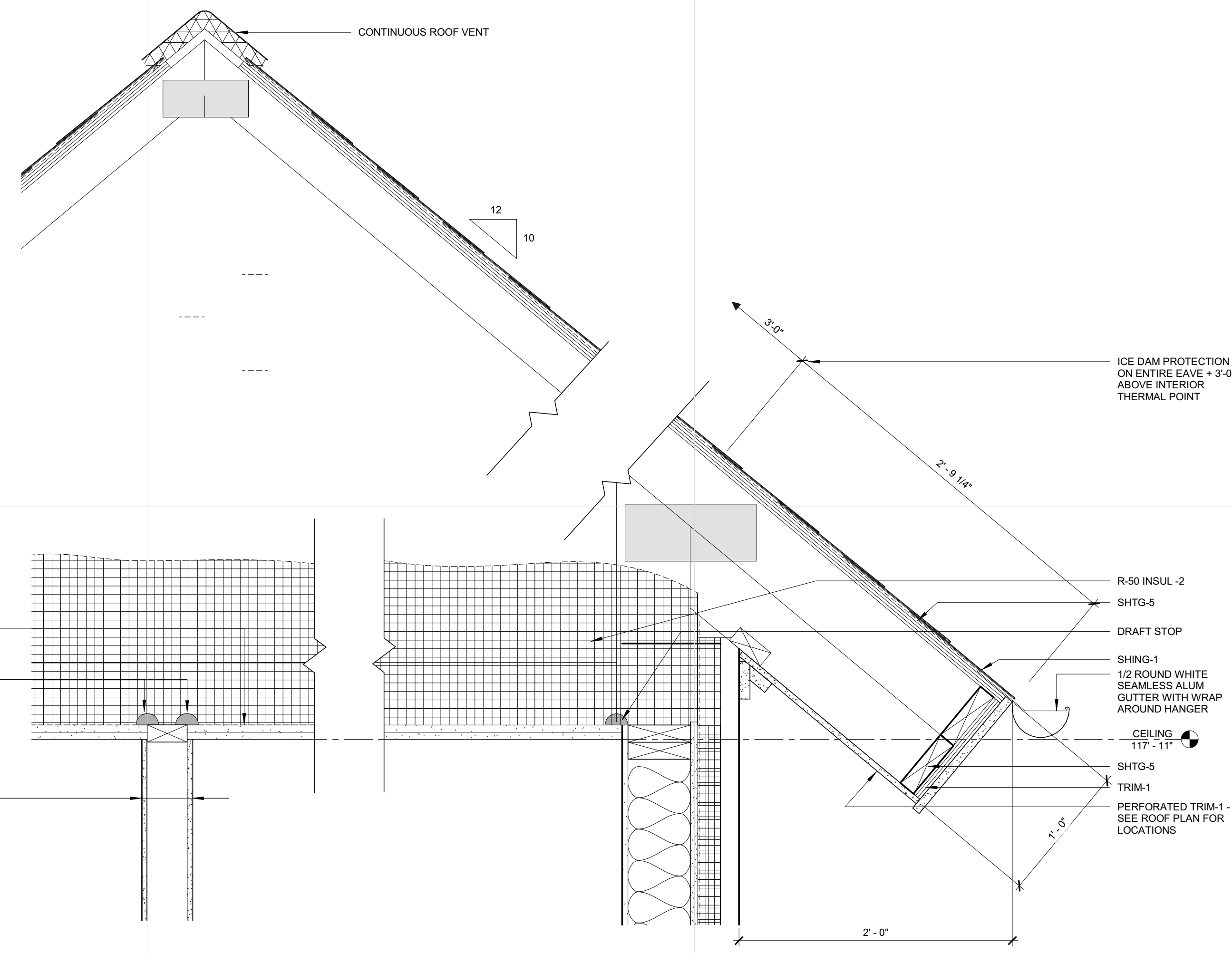
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PROJECT PHASE	100% CD ISSUE
DRAWN BY:	Author
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EXTERIOR DETAILS

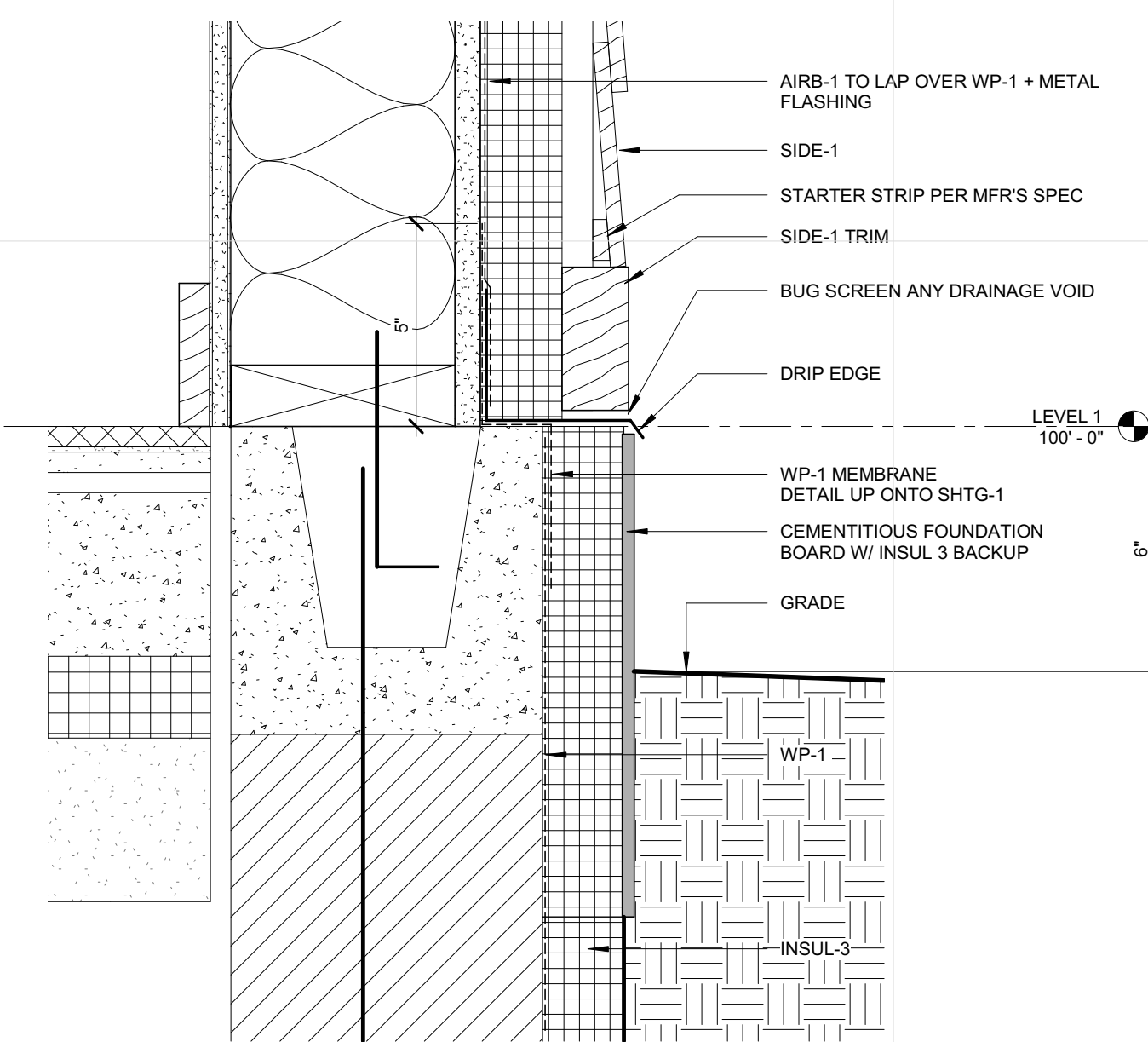
A351



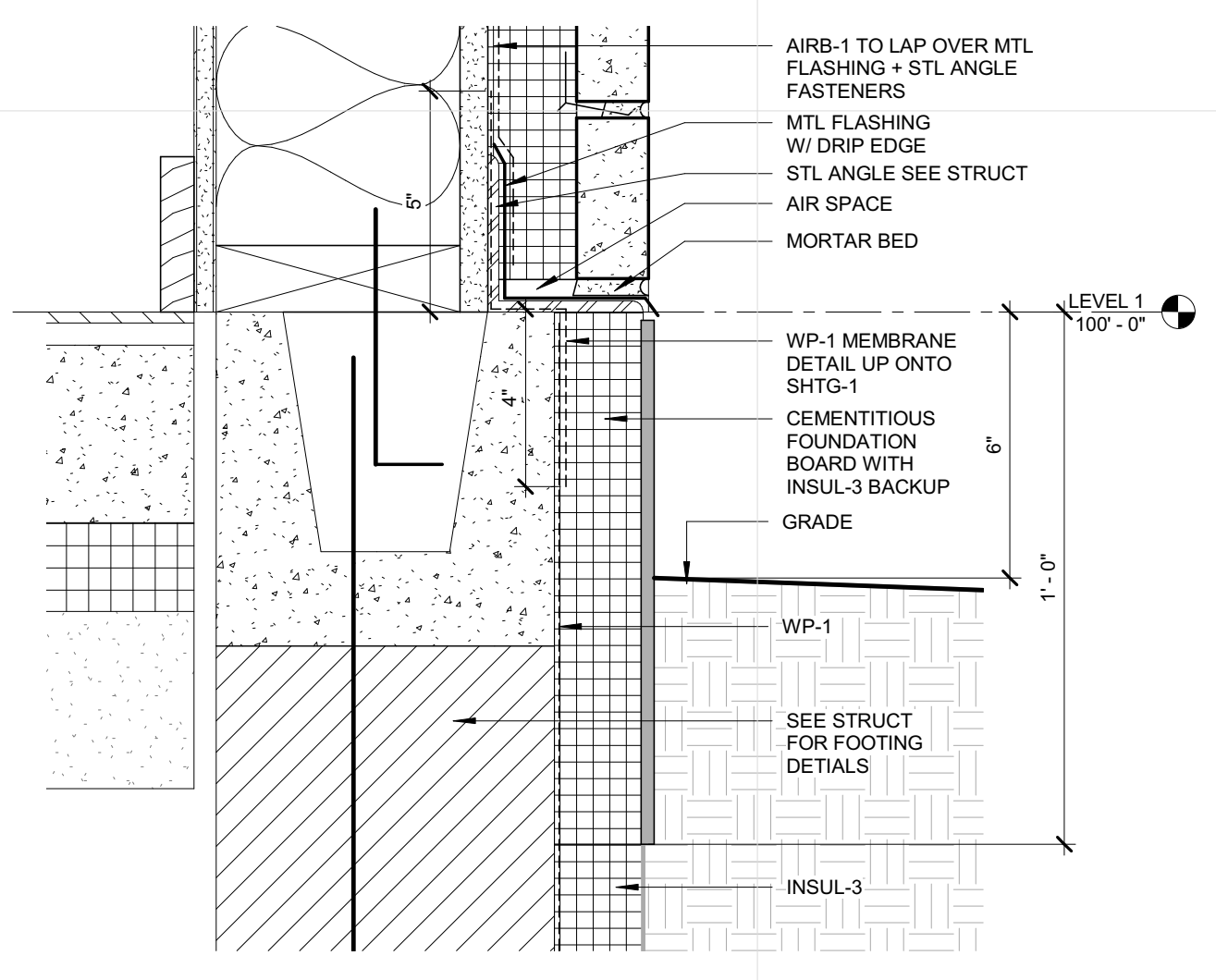
6 HARDIBOARD TO BRICK TRANSITION
 A351 1 1/2" = 1'-0"



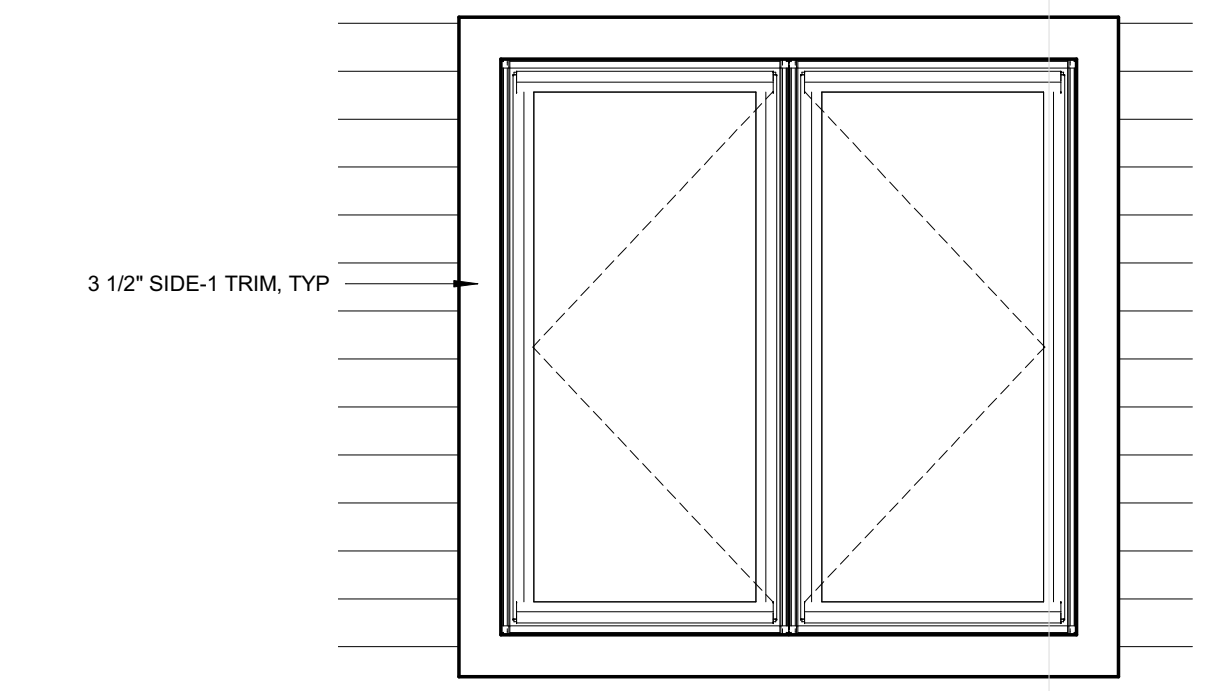
1 DETAIL @ ROOF SOFFIT
 A351 1 1/2" = 1'-0"



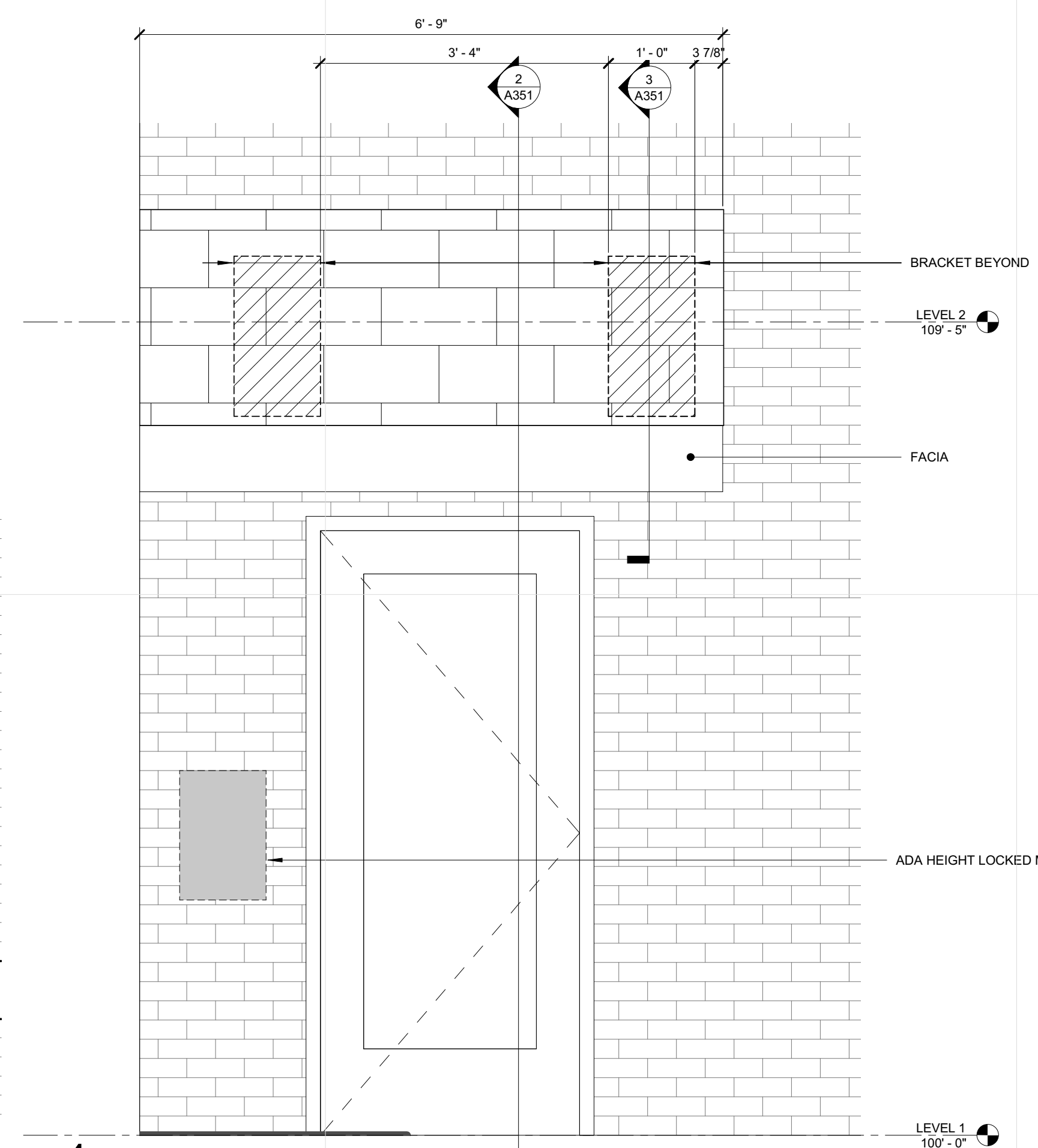
7 SIDE-1 DETAIL @ GRADE
 A351 3" = 1'-0"



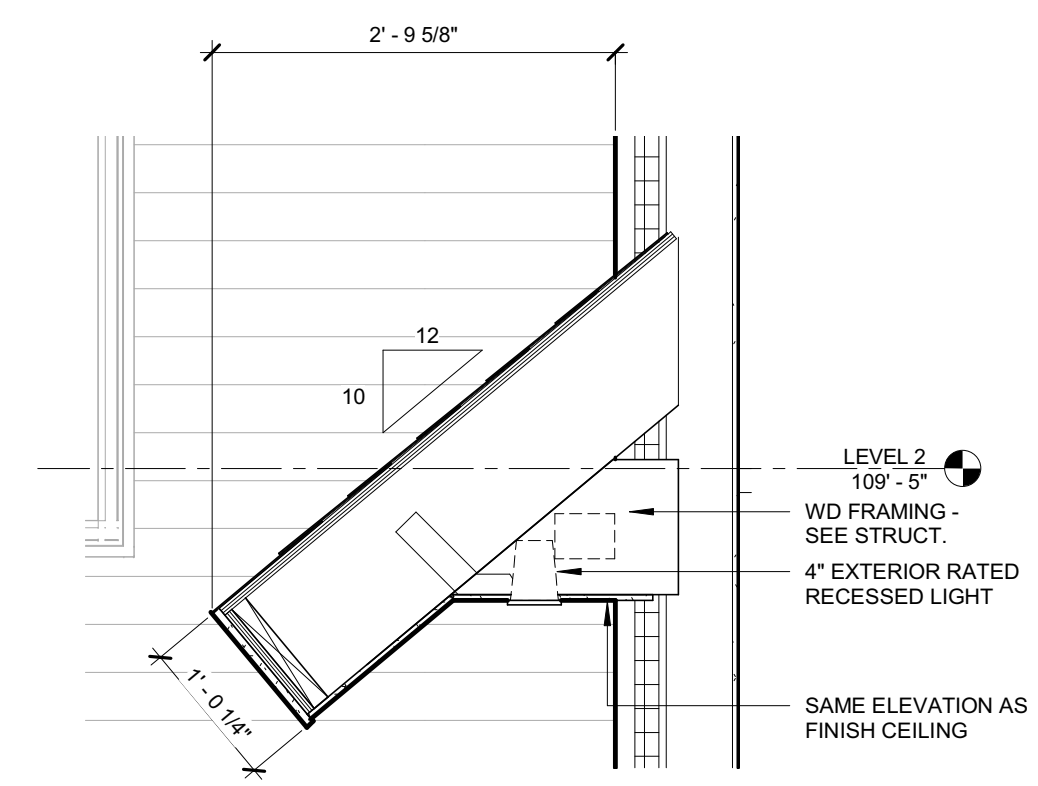
5 BRICK DETAIL @ GRADE
 A351 3" = 1'-0"



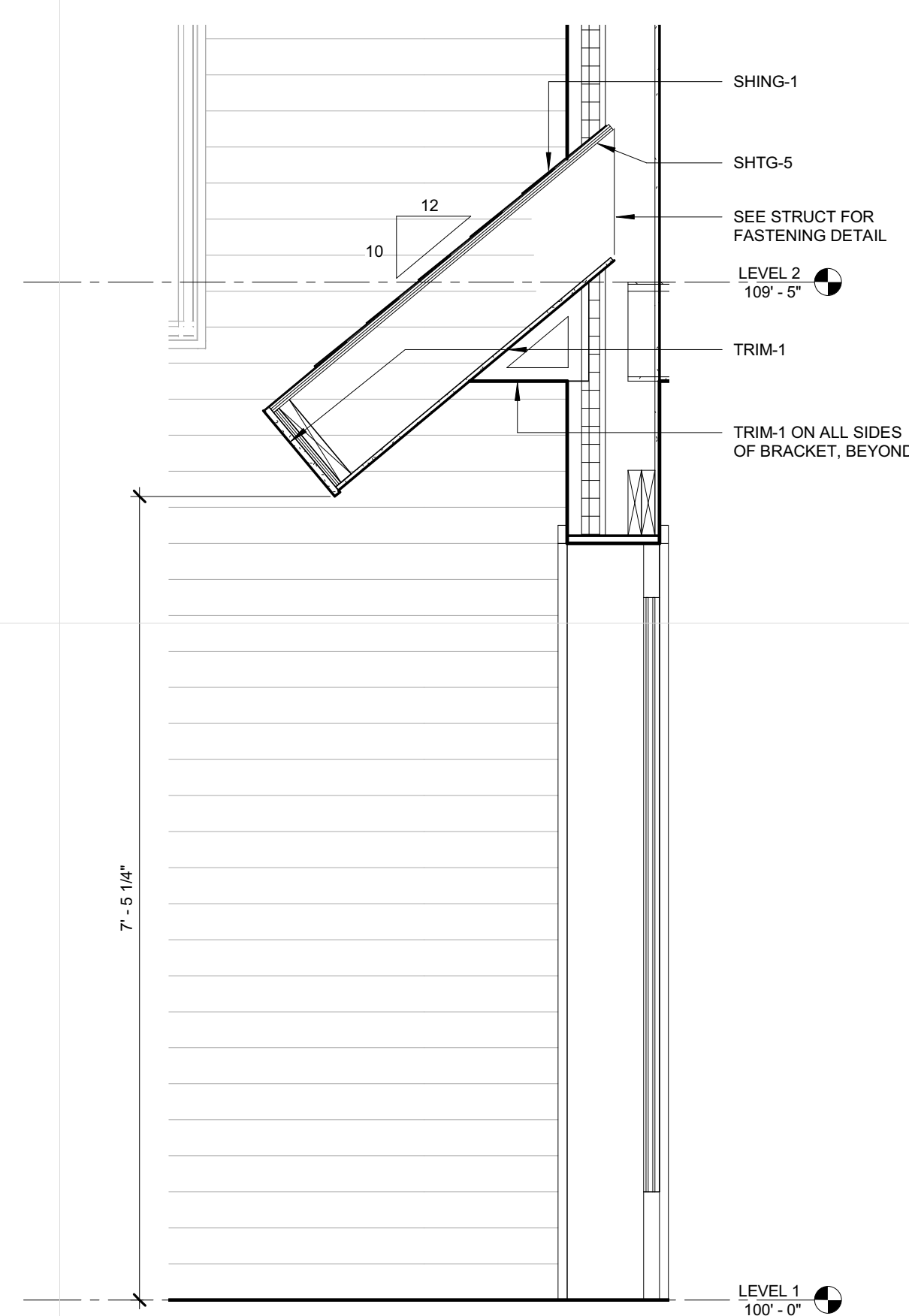
8 TYP WINDOW ELEVATION IN SIDE-1
 A351 3/4" = 1'-0"



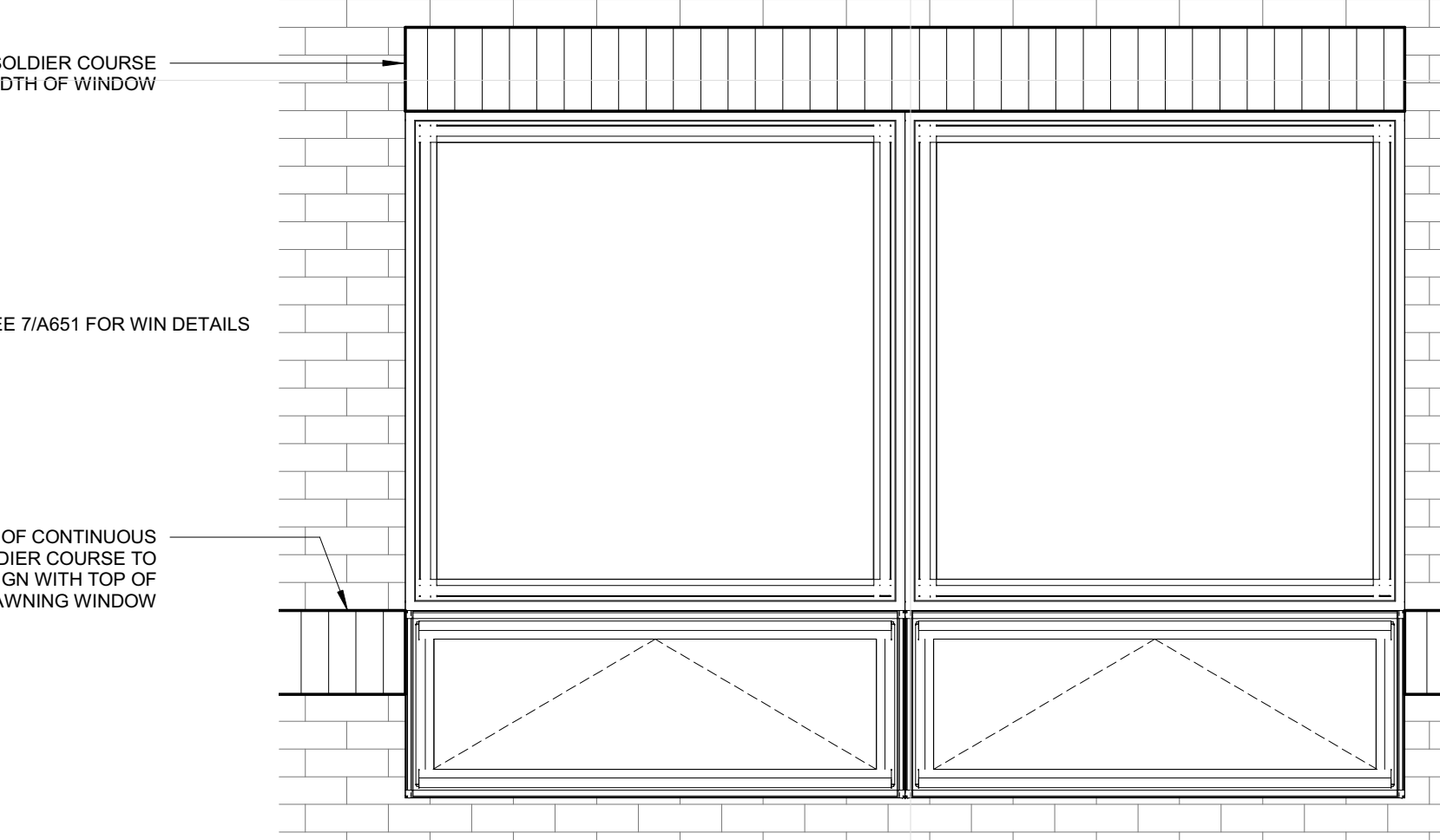
4 ELEVATION @ ENTRY CANOPY
 A351 3/4" = 1'-0"



3 DETAIL @ ENTRY CANOPY BRACKET
 A351 3/4" = 1'-0"

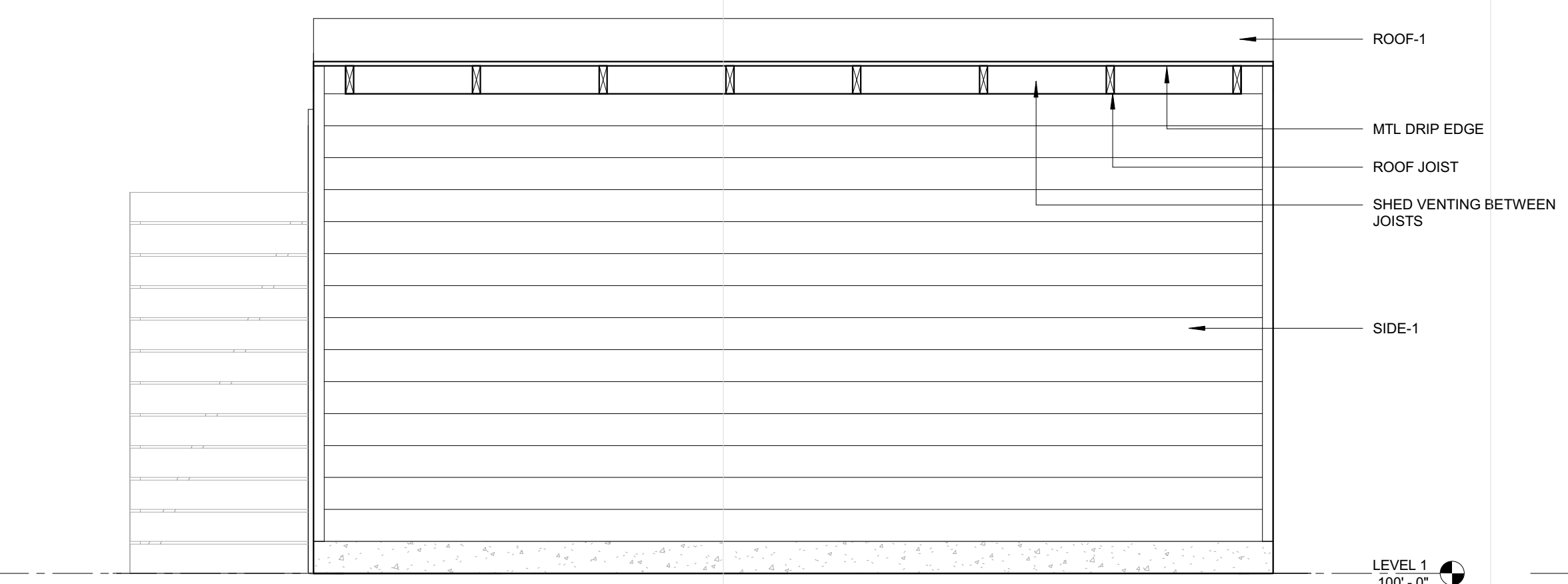


2 SECTION THROUGH ENTRY CANOPY
 A351 3/4" = 1'-0"

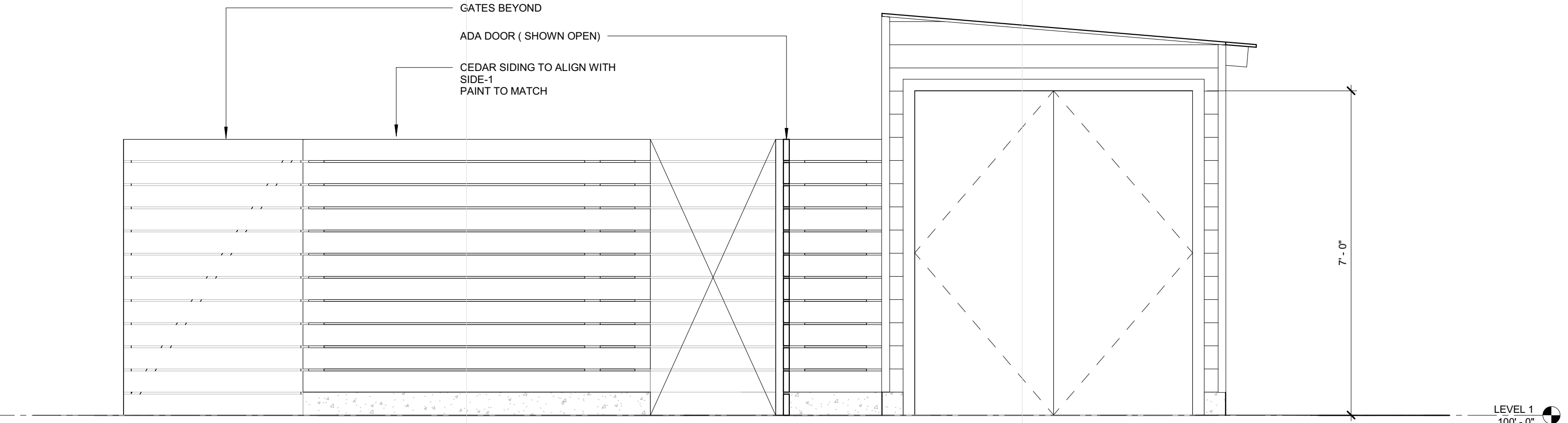


9 TYP WINDOW ELEVATION IN BRICK
 A351 3/4" = 1'-0"

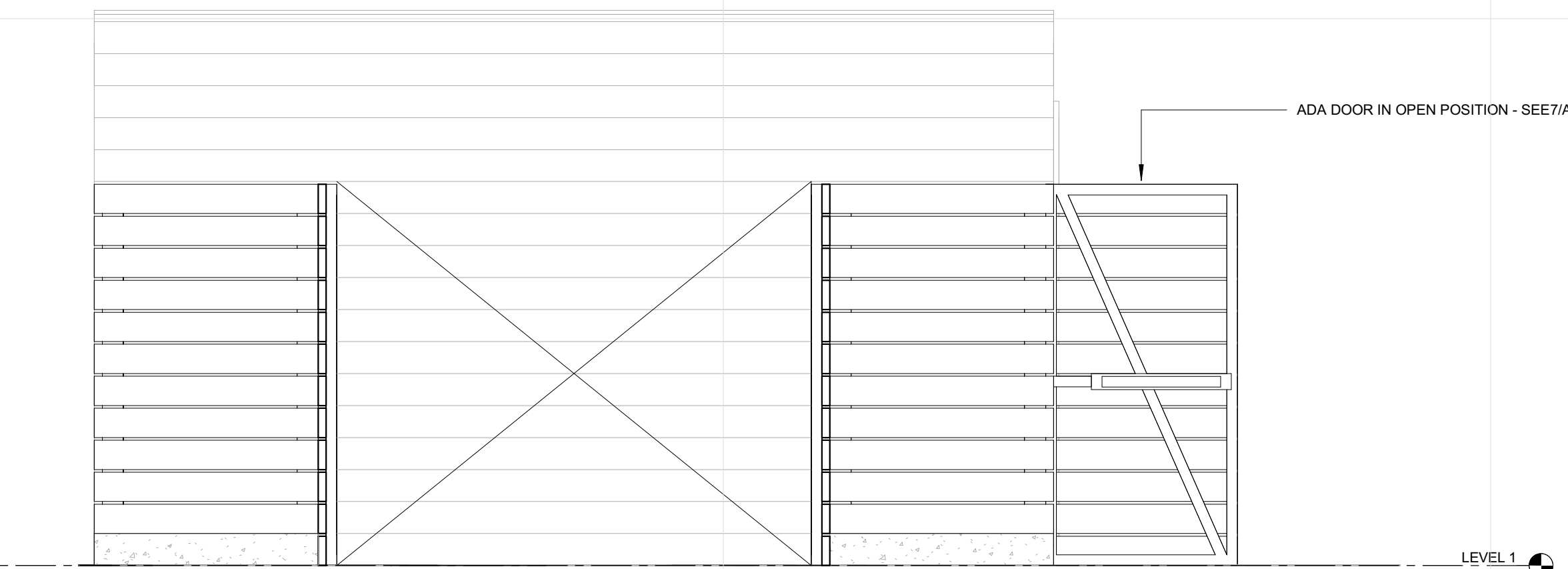
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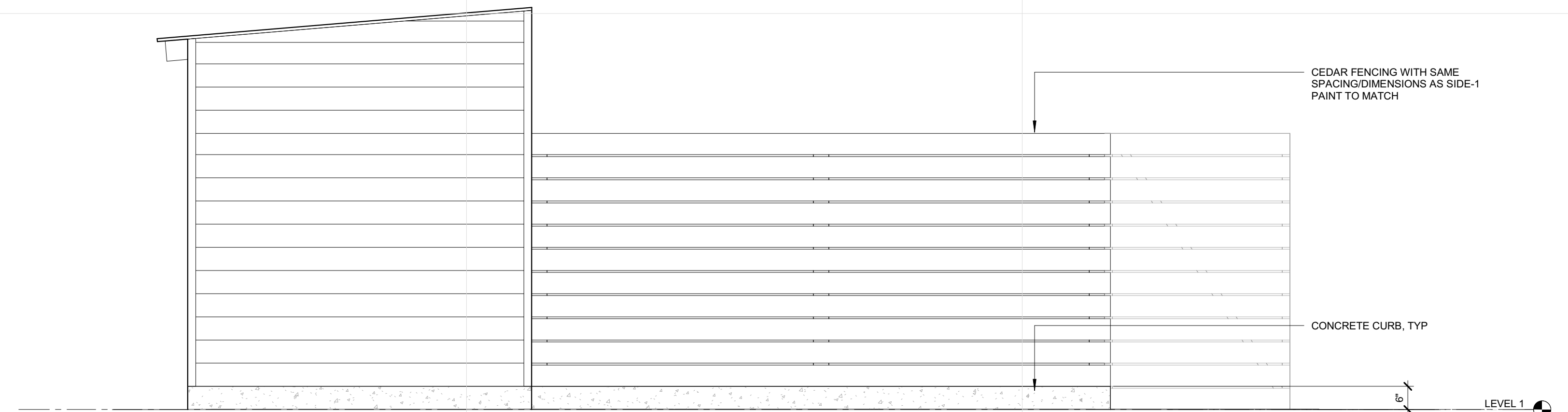
5 SHED WEST ELEVATION
 A353 1/2" = 1'-0"



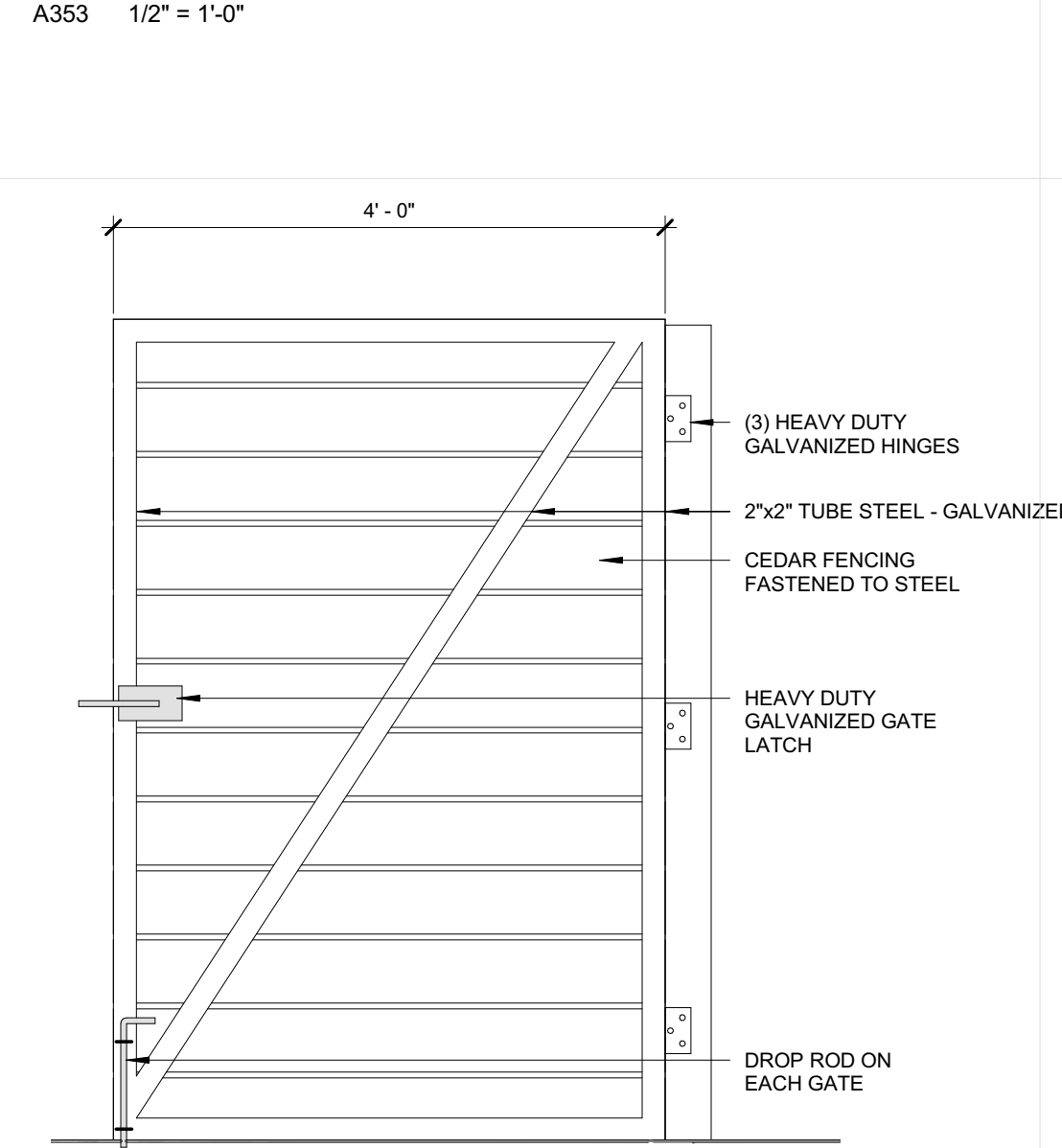
3 SHED NORTH ELEVATION
 A353 1/2" = 1'-0"



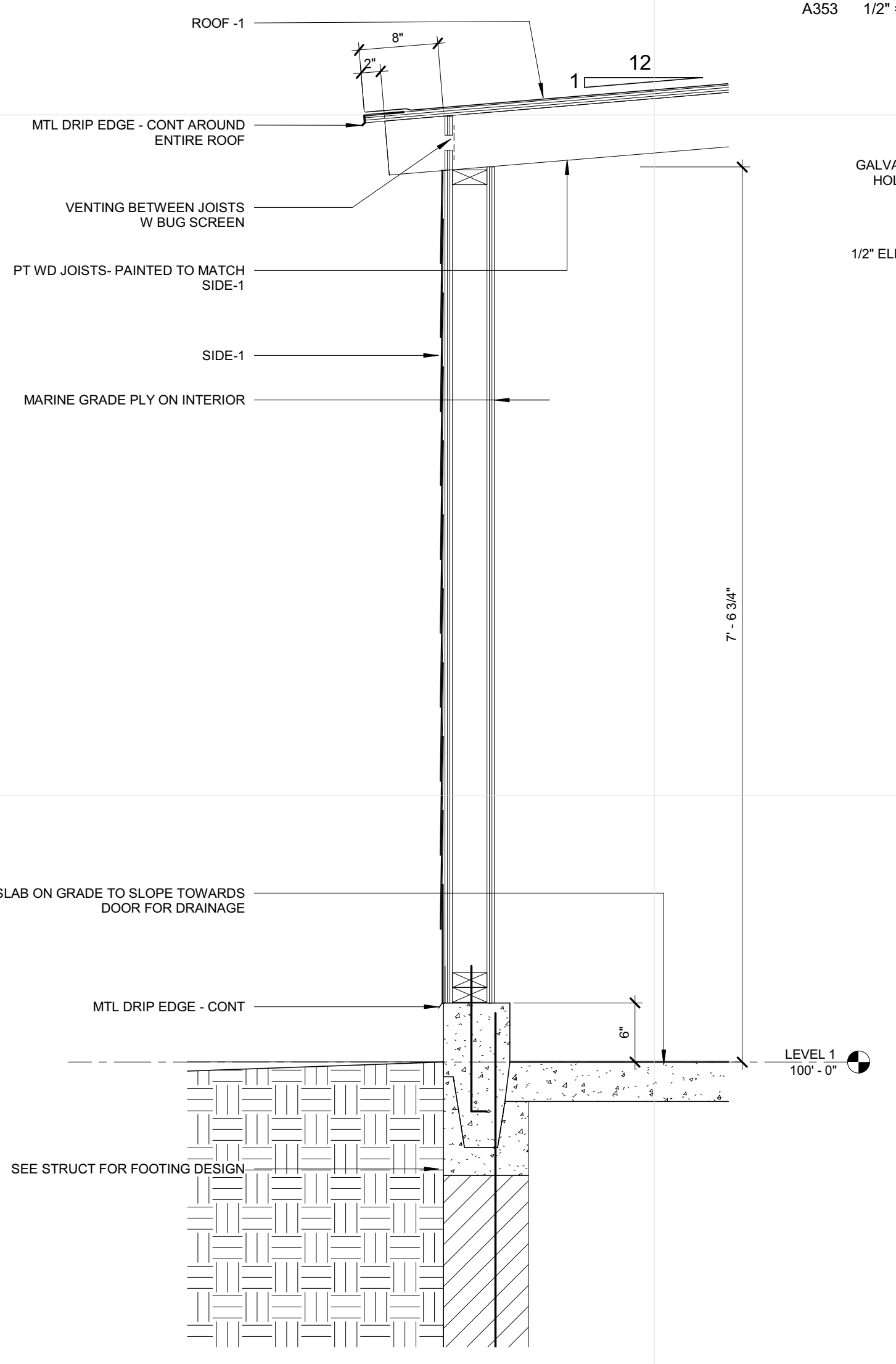
4 SHED EAST ELEVATION
 A353 1/2" = 1'-0"



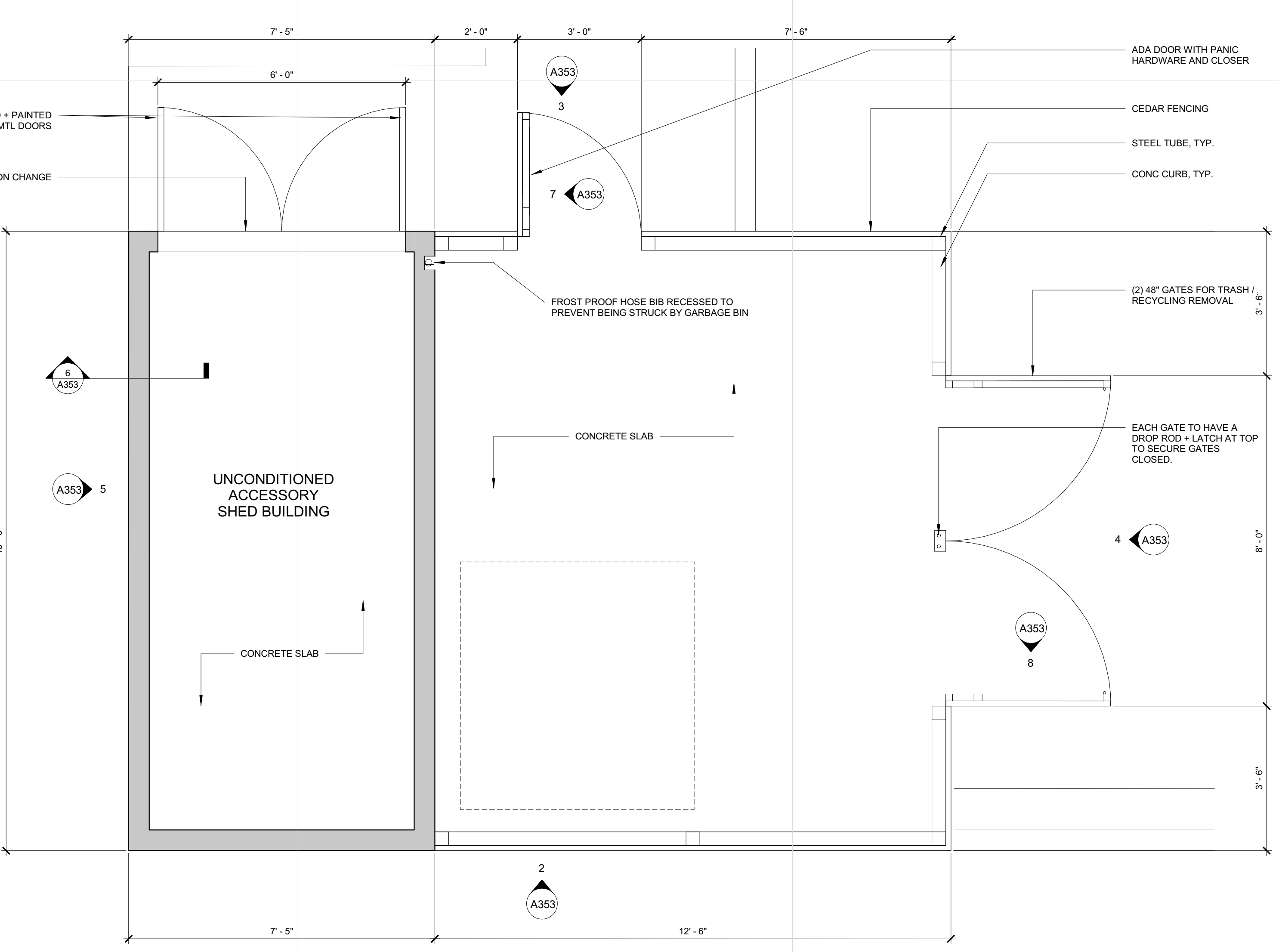
2 SHED SOUTH ELEVATION
 A353 1/2" = 1'-0"



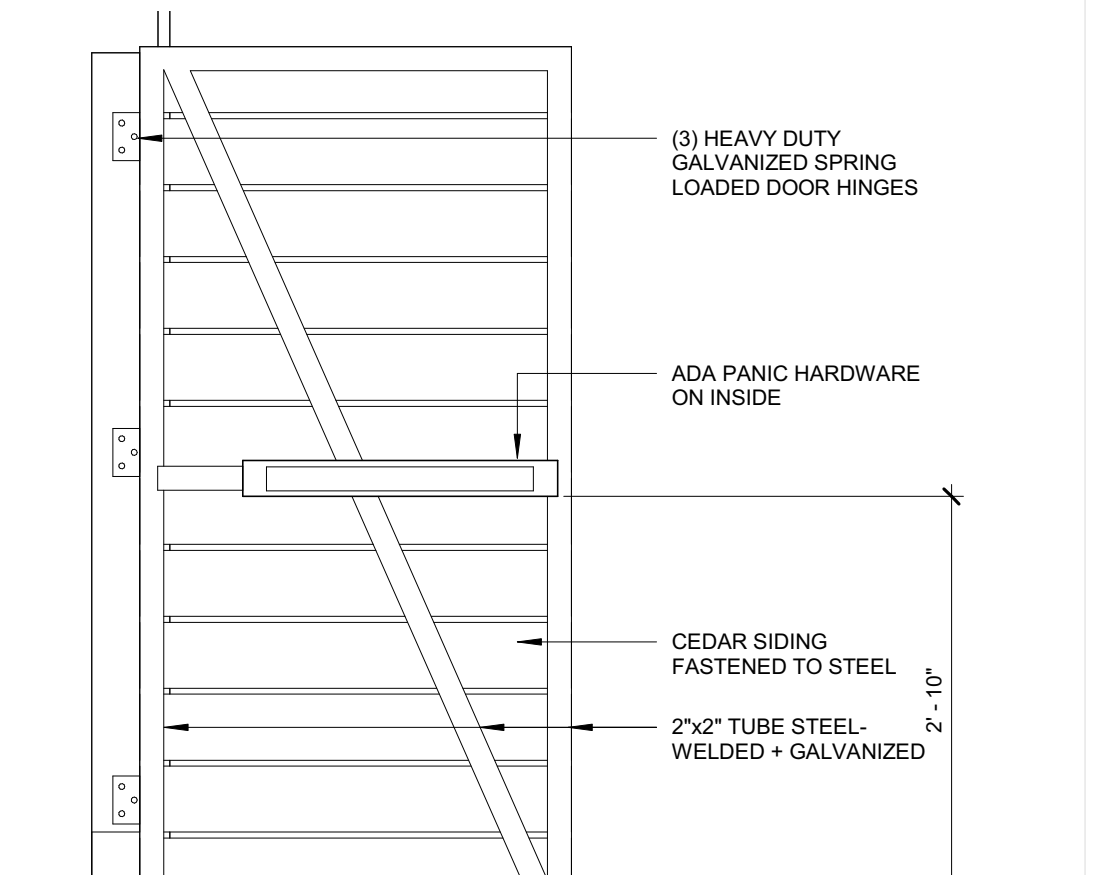
8 TRASH GATE ELEVATION
 A353 3/4" = 1'-0"



6 SHED SECTION
 A353 1" = 1'-0"



1 SHED PLAN
 A353 1/2" = 1'-0"



7 TRASH DOOR DETAIL
 A353 3/4" = 1'-0"

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K	04.21.17	100% DD
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	05.26.17	GC 90% REVIEW SET
	06.21.17	100% CD ISSUE

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SHED + RECYLCING AREA

A353

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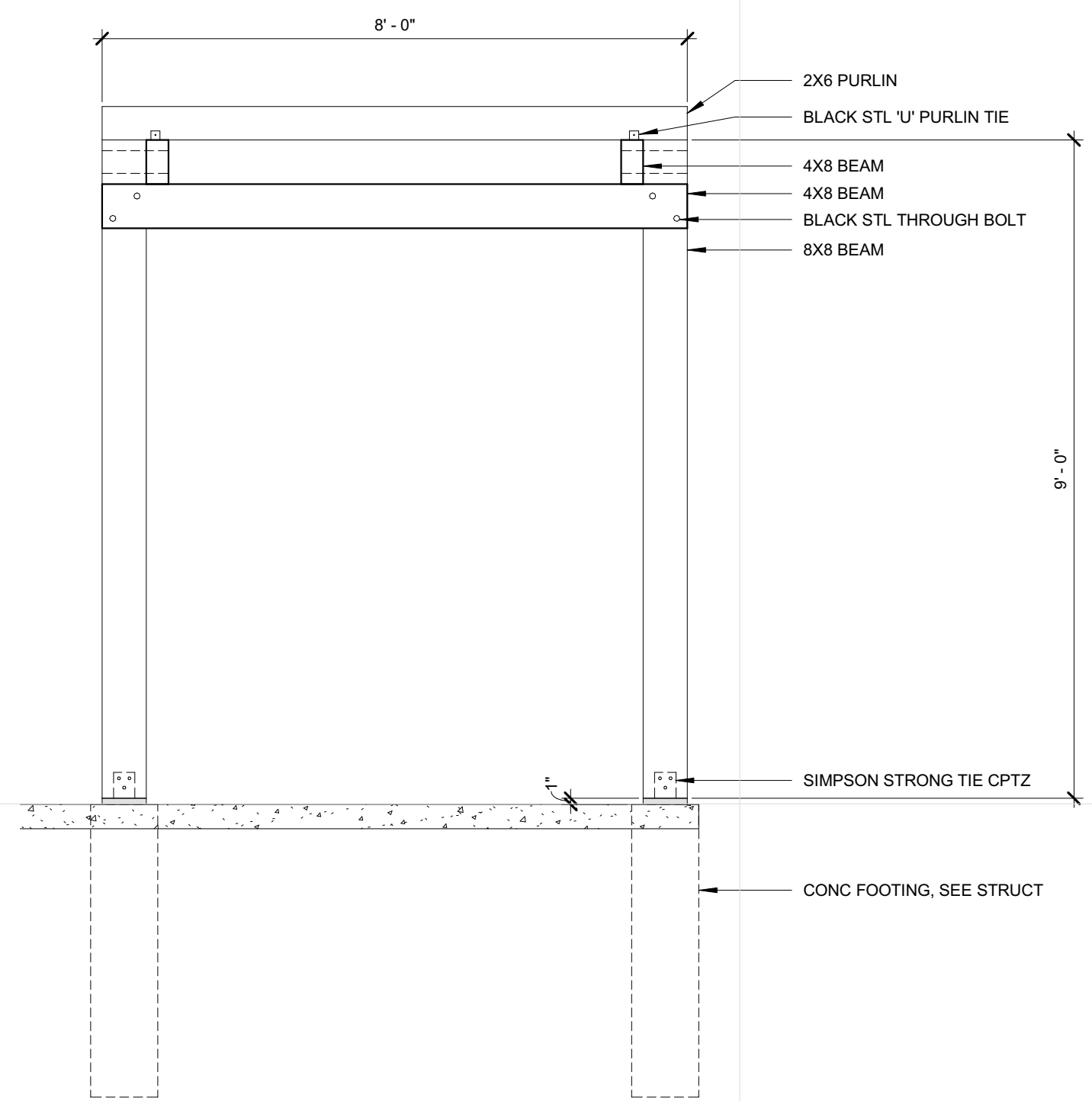
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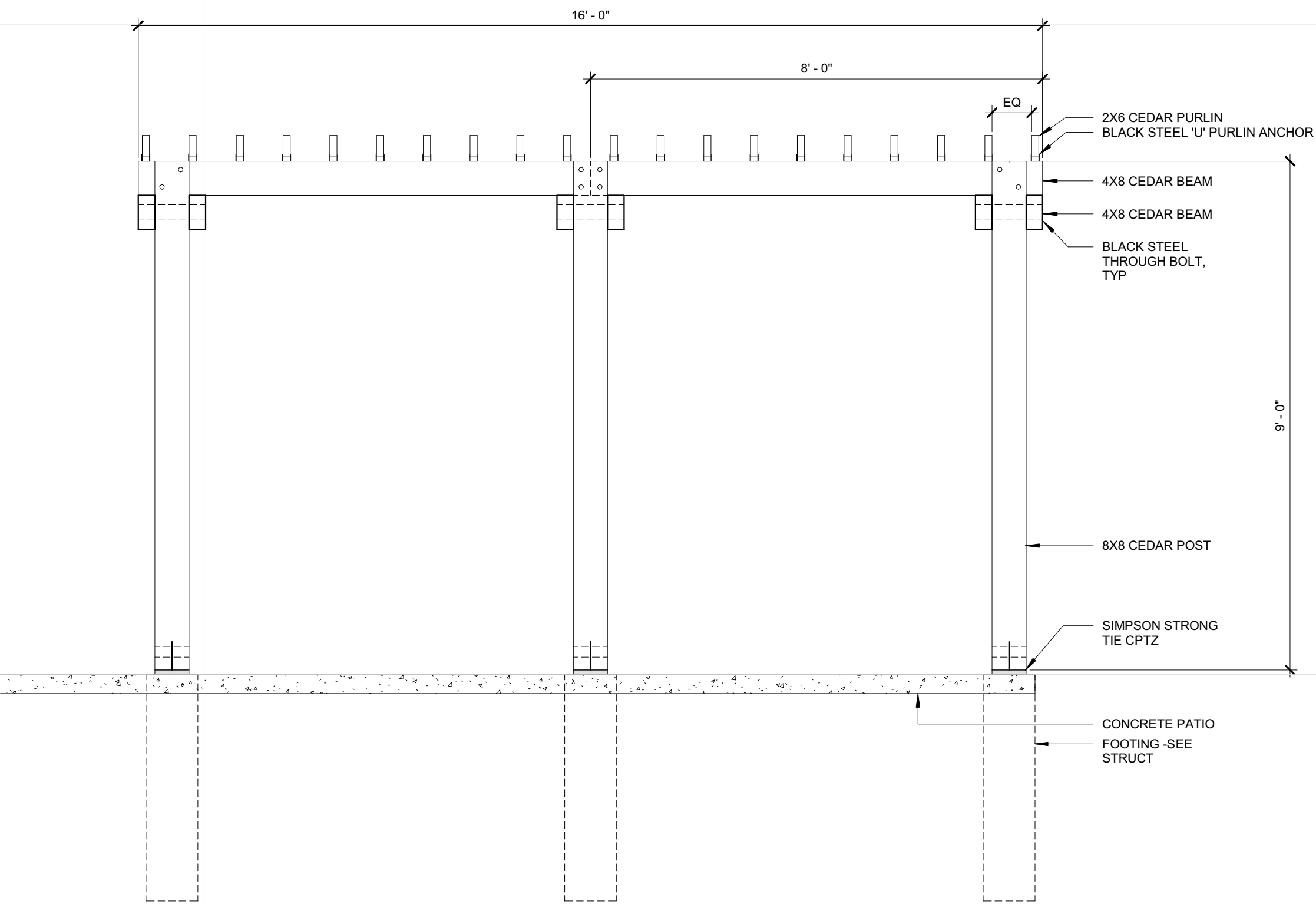
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PROJECT PHASE	100%CD
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EXTERIOR DETAILS

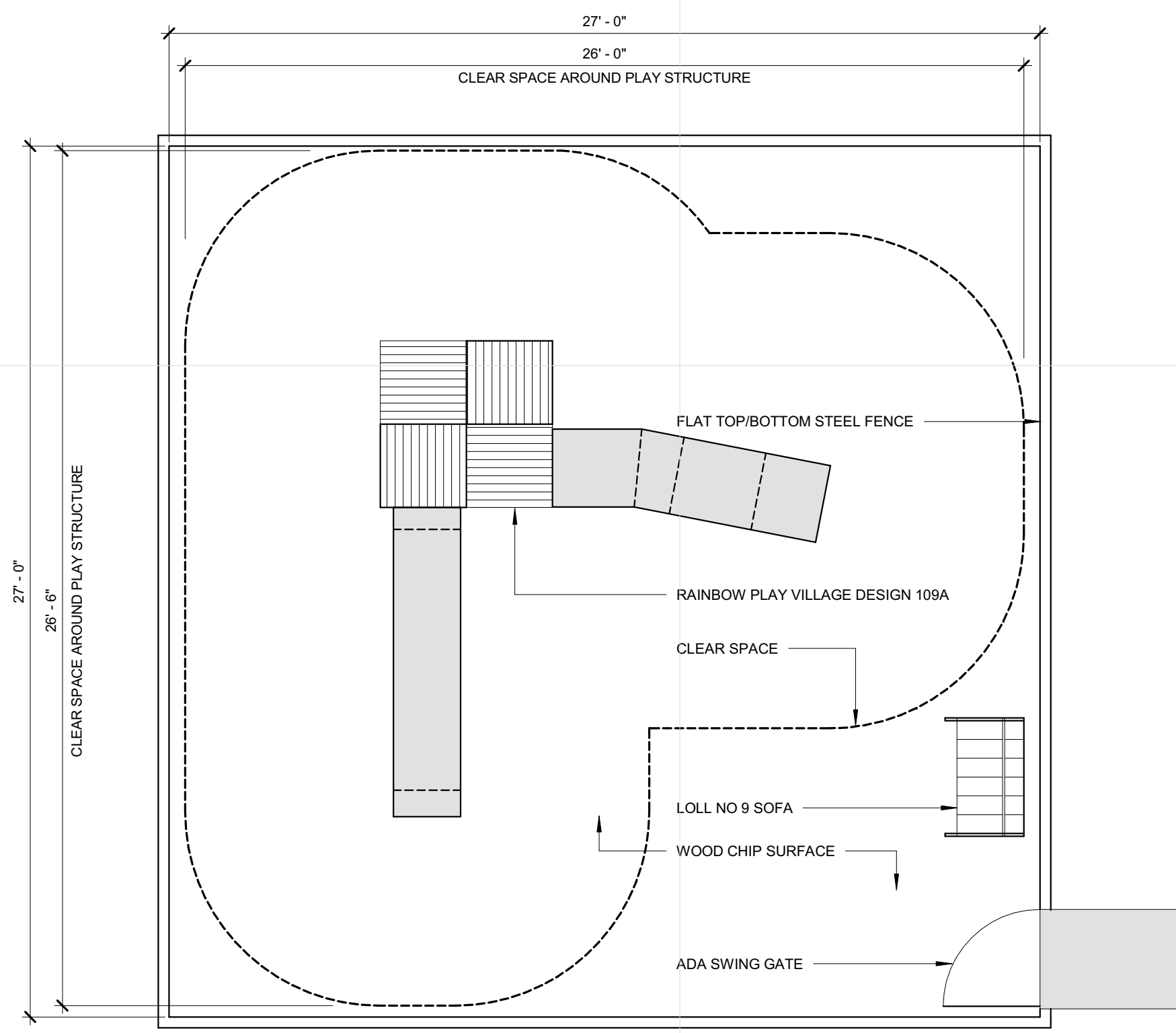
A354



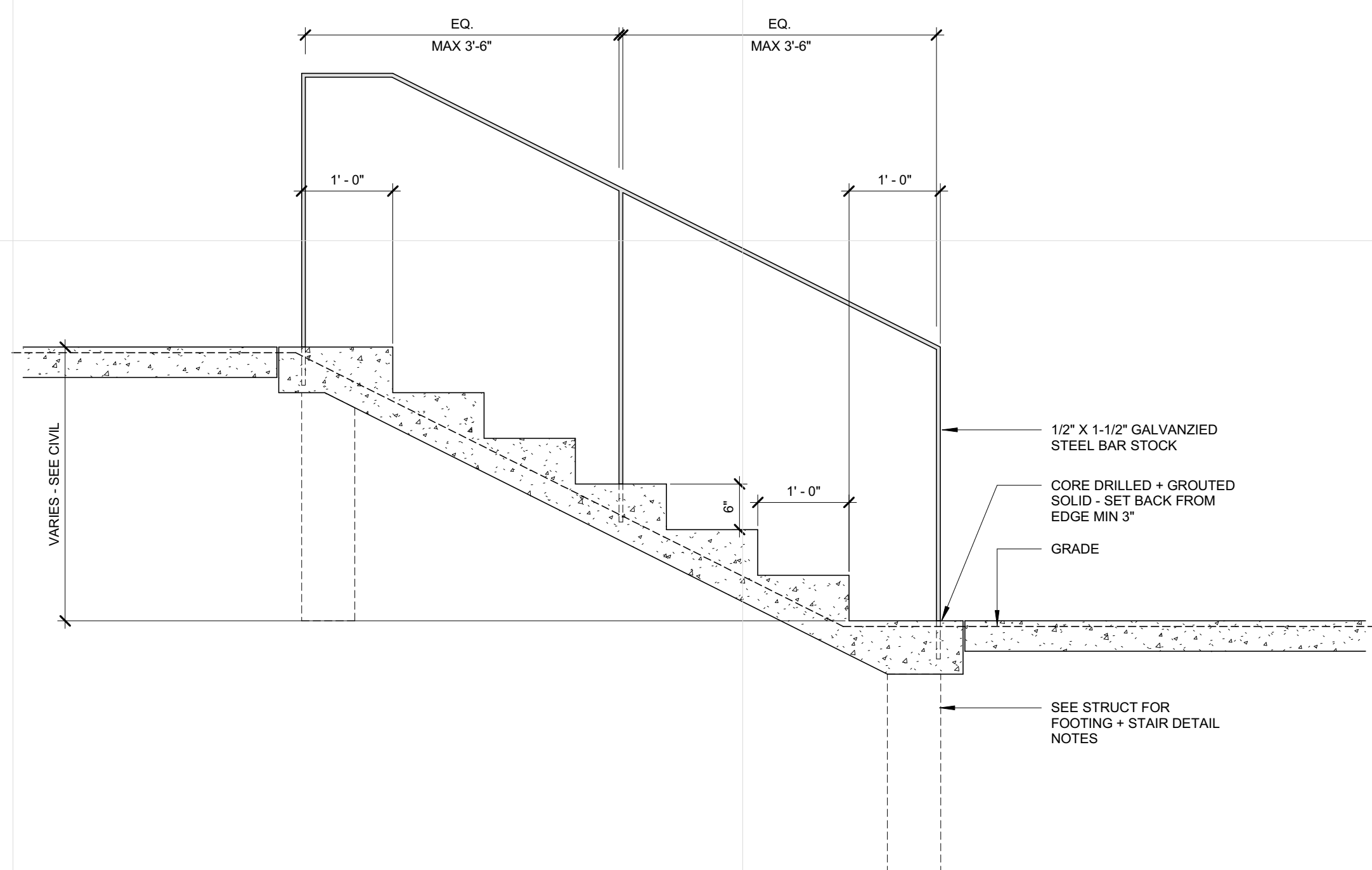
3 TRELLIS SHORT ELEVATION
 A354 1/2" = 1'-0"



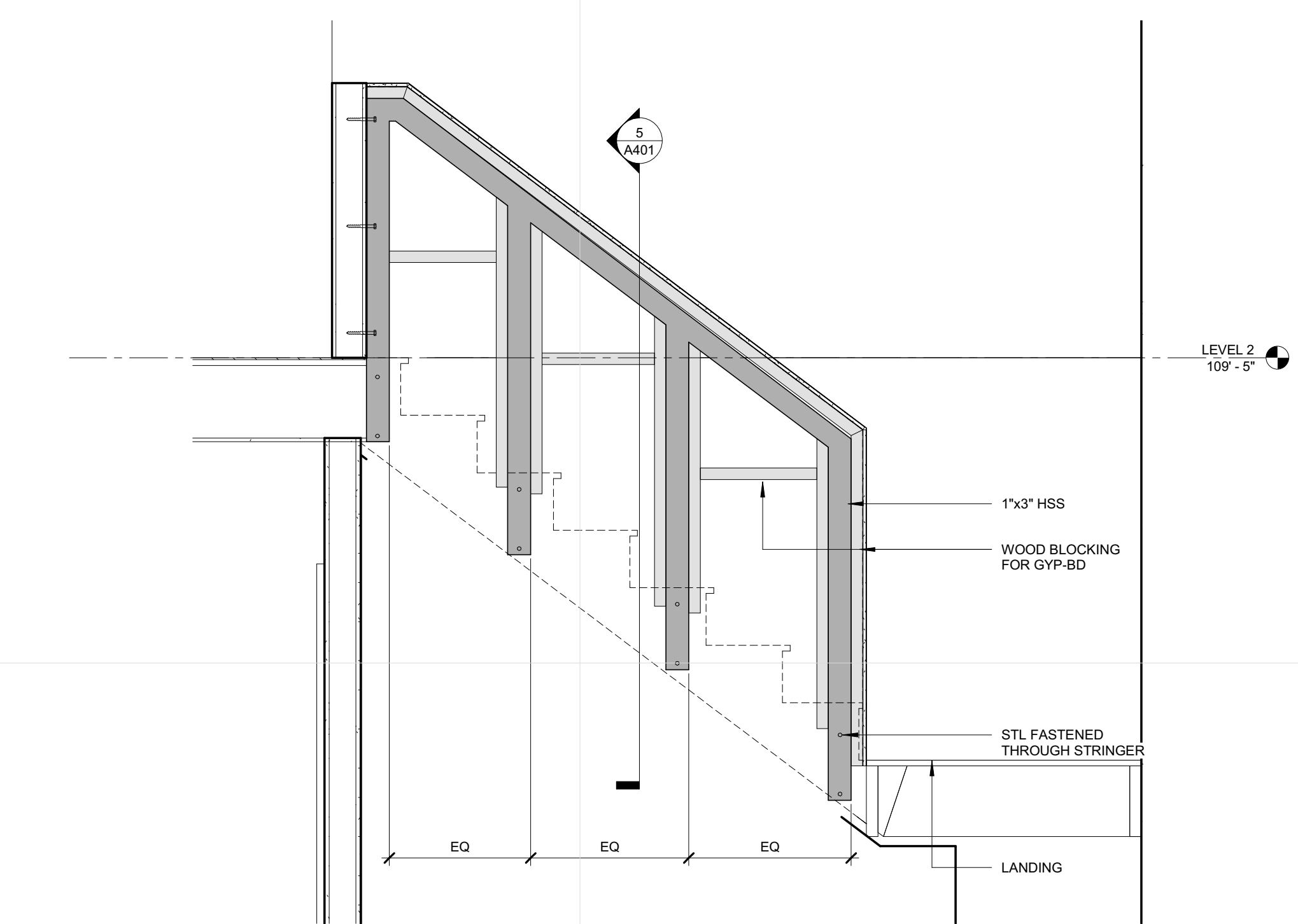
2 TRELLIS LONG ELEVATION
 A354 1/2" = 1'-0"



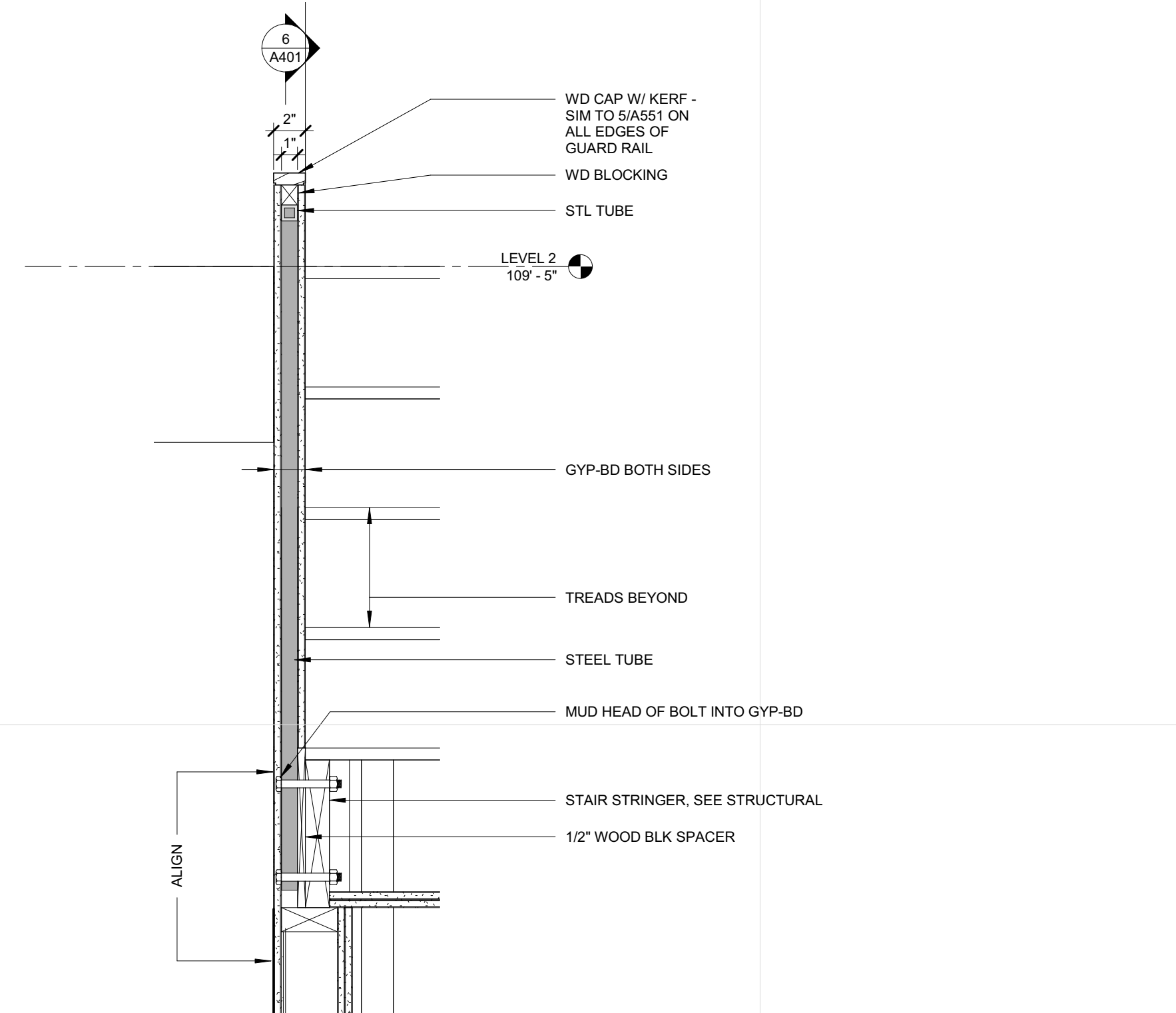
4 PLAY AREA
 A354 1/4" = 1'-0"



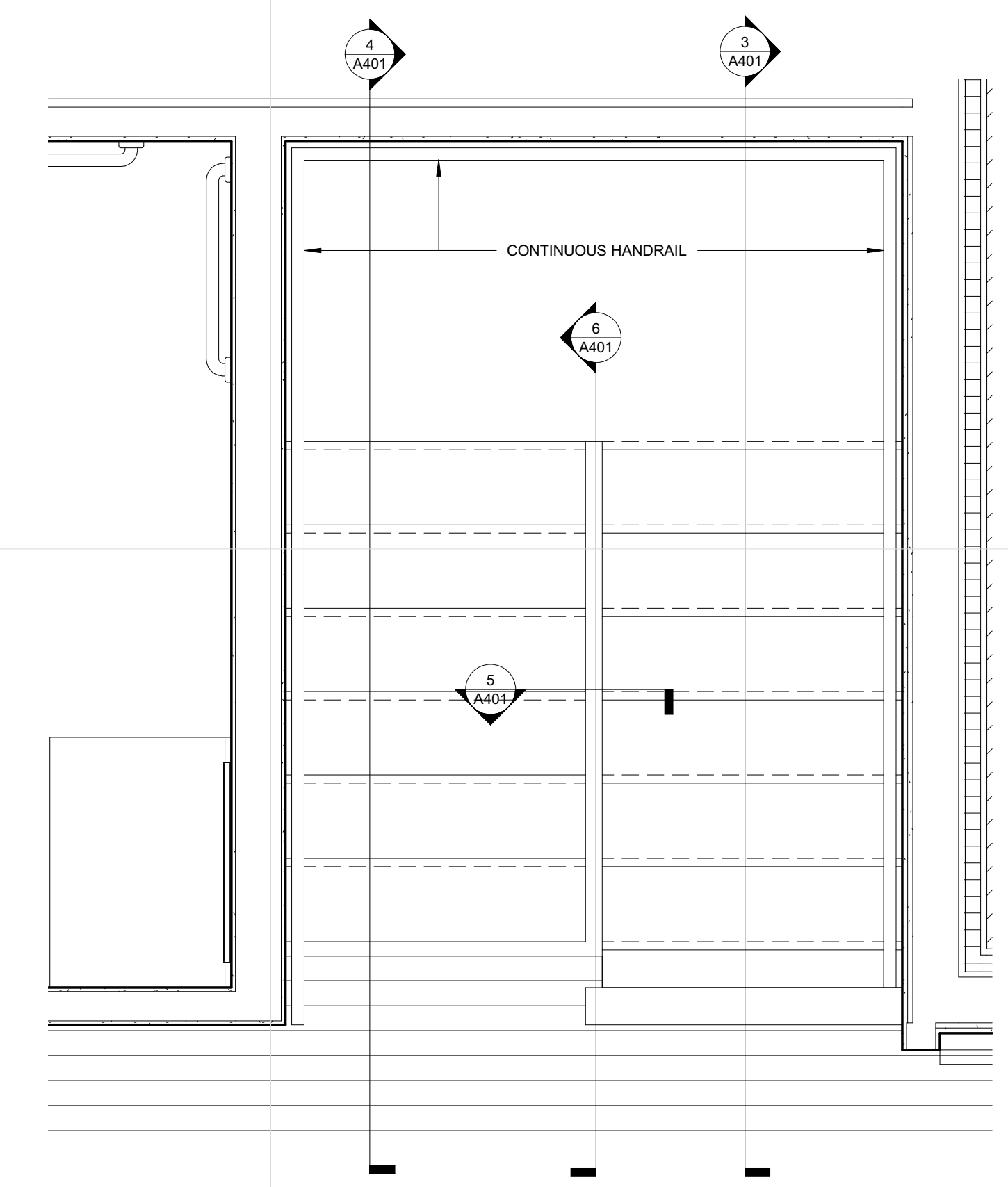
1 TYPICAL EXTERIOR STAIR RAILING
 A354 3/4" = 1'-0"



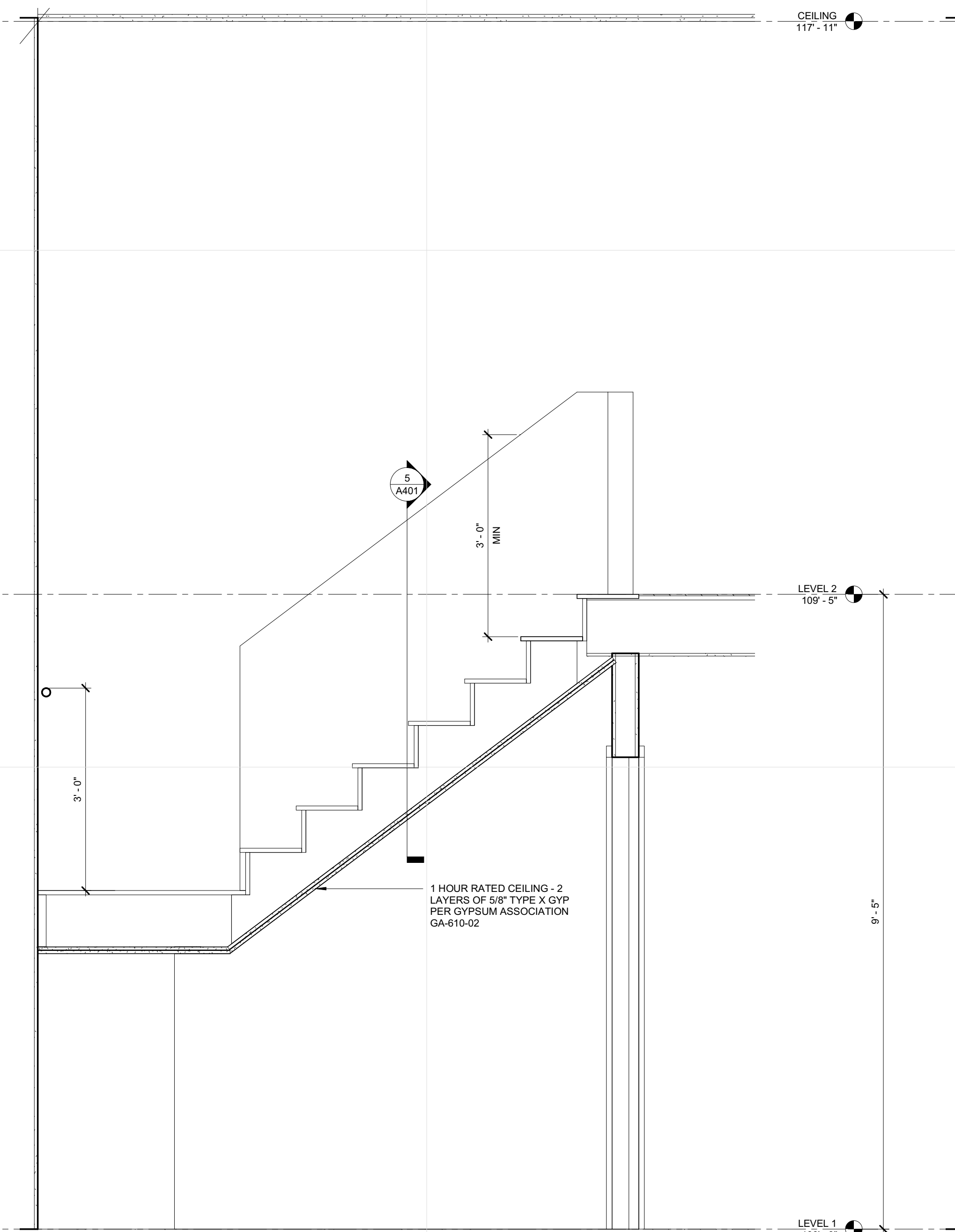
6 SECTION @ CENTER GUARD RAIL
 A401 3/4" = 1'-0"



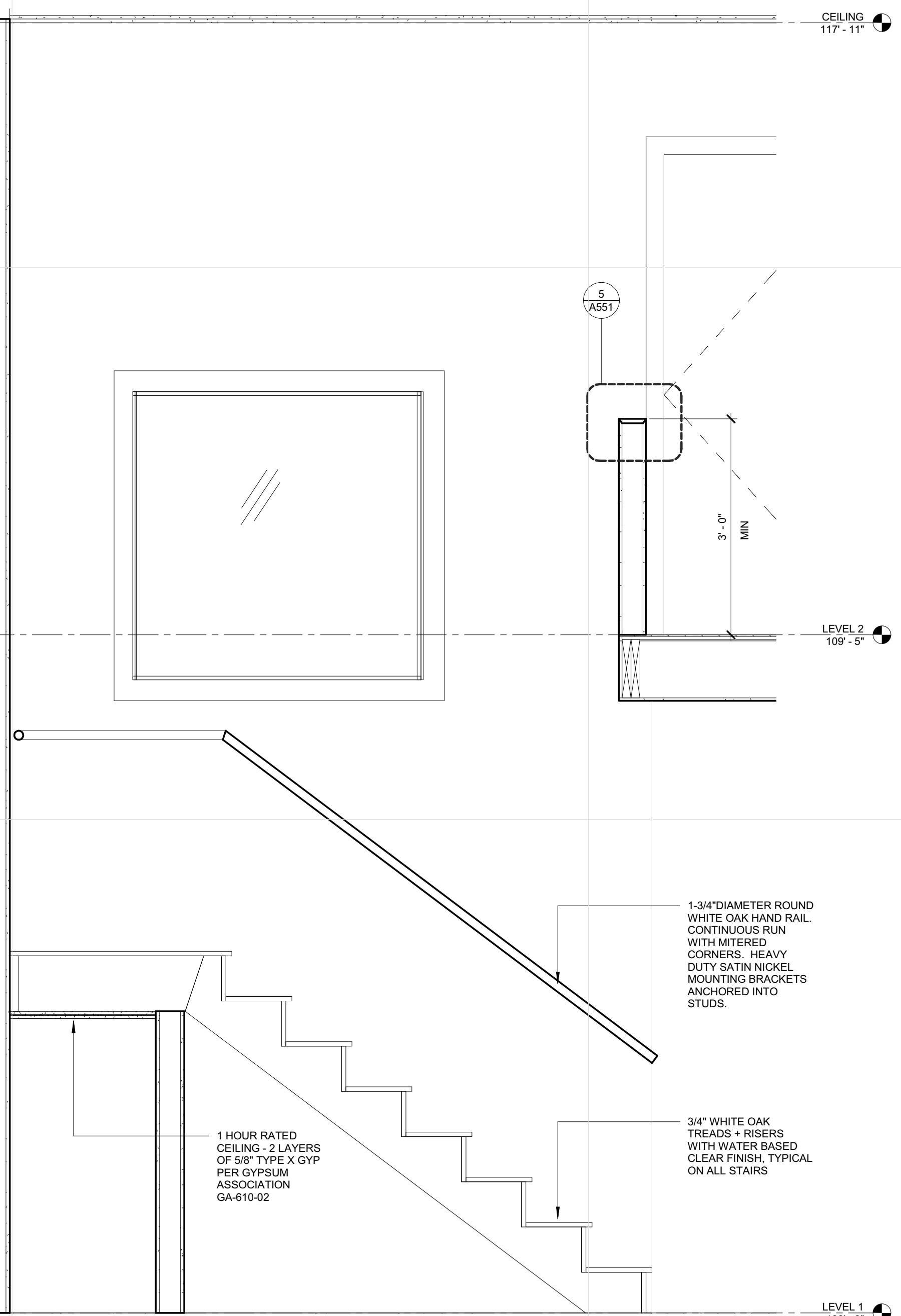
5 SECTION @ CENTER STAIR GUARD
 A401 1 1/2" = 1'-0"



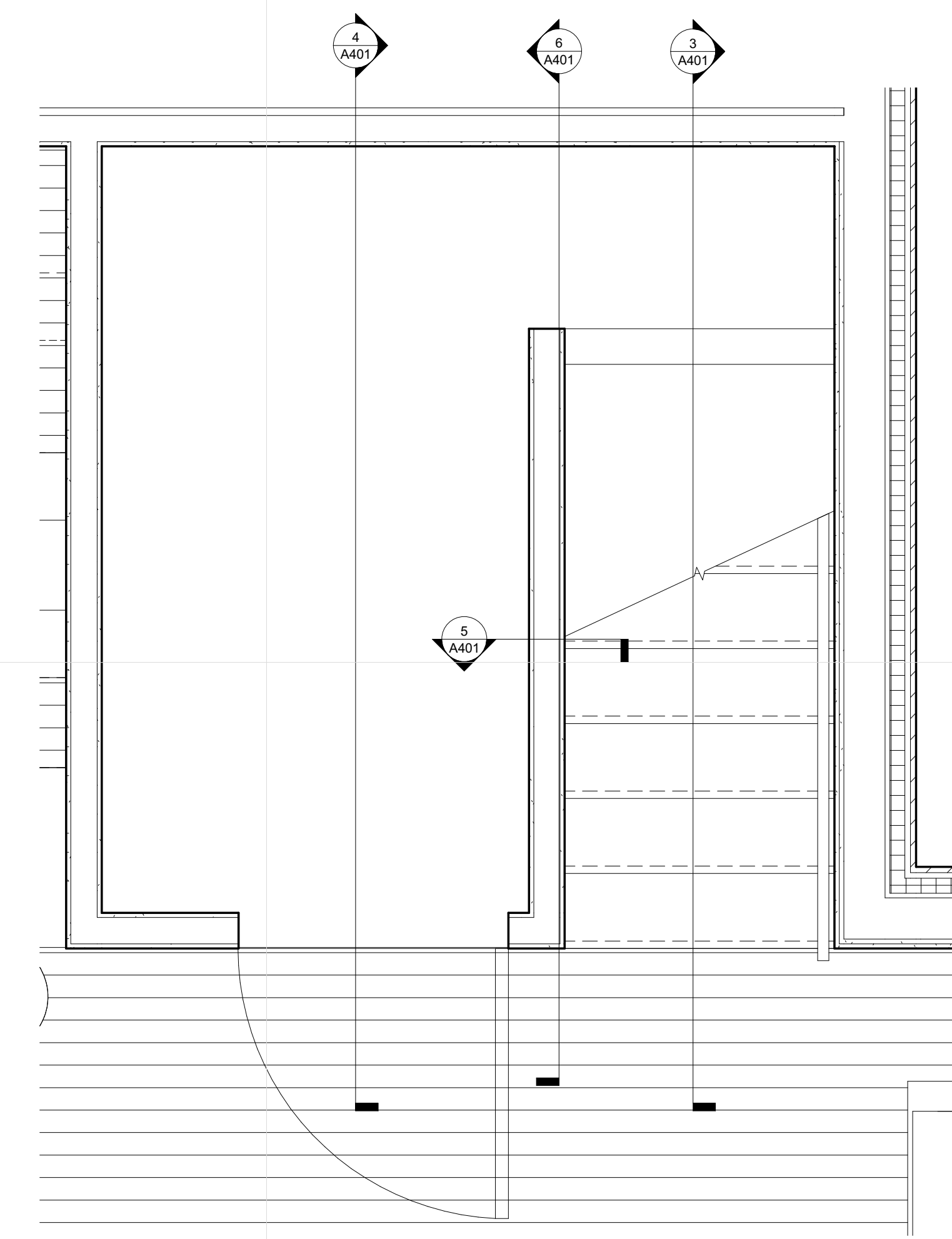
2 LEVEL 2 ENLARGED STAIR PLAN
 A401 3/4" = 1'-0"



4 SECTION @ MECHANICAL ROOM / STAIR
 A401 3/4" = 1'-0"



3 SECTION @ STAIR
 A401 3/4" = 1'-0"



1 LEVEL 1 ENLARGED STAIR PLAN
 A401 3/4" = 1'-0"

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	06.21.17	100% CD ISSUE

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**VERTICAL
 CIRCULATION**

A401

**MINNEHAHA
 TOWNHOMES**
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 ROAD, 5118 54TH ST EAST
 MINNEAPOLIS, MN 55417

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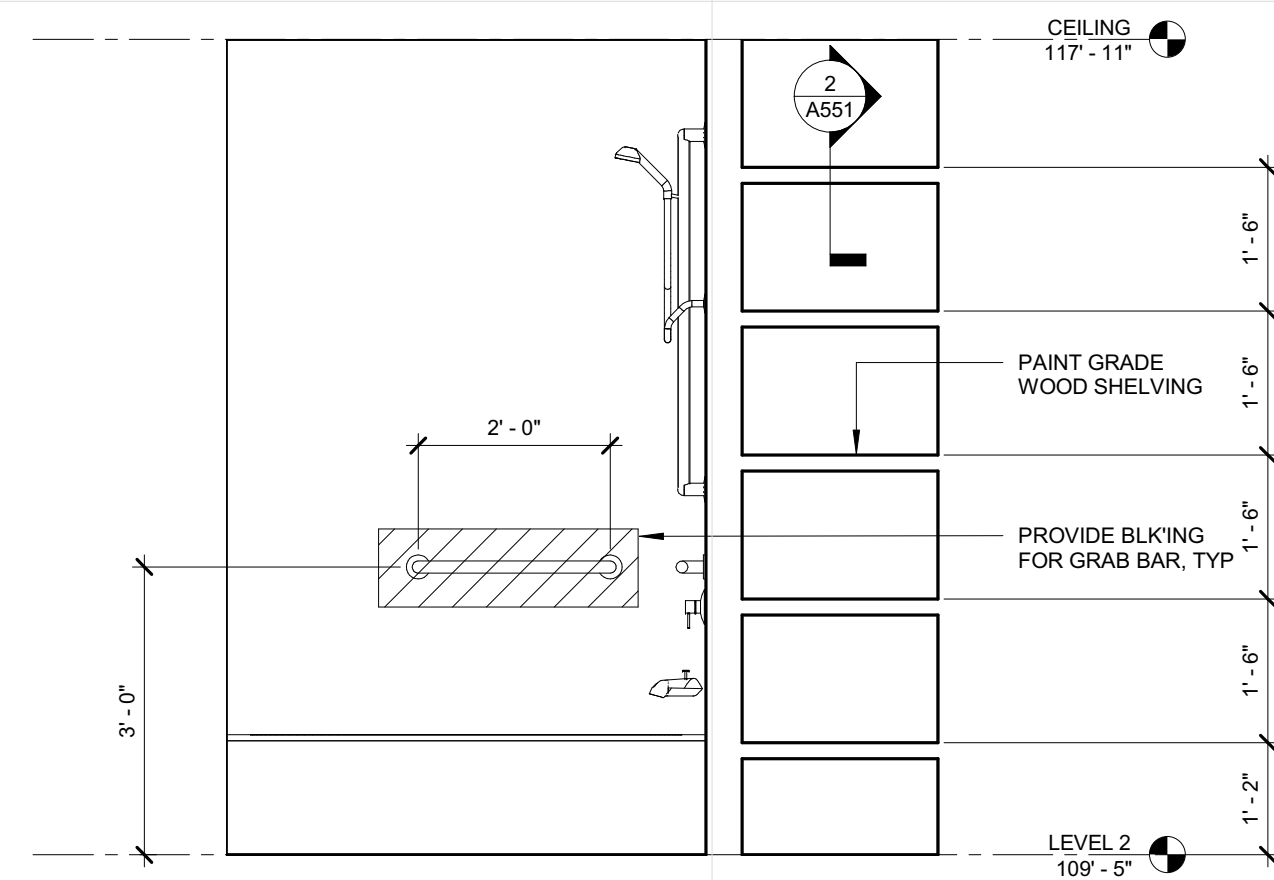
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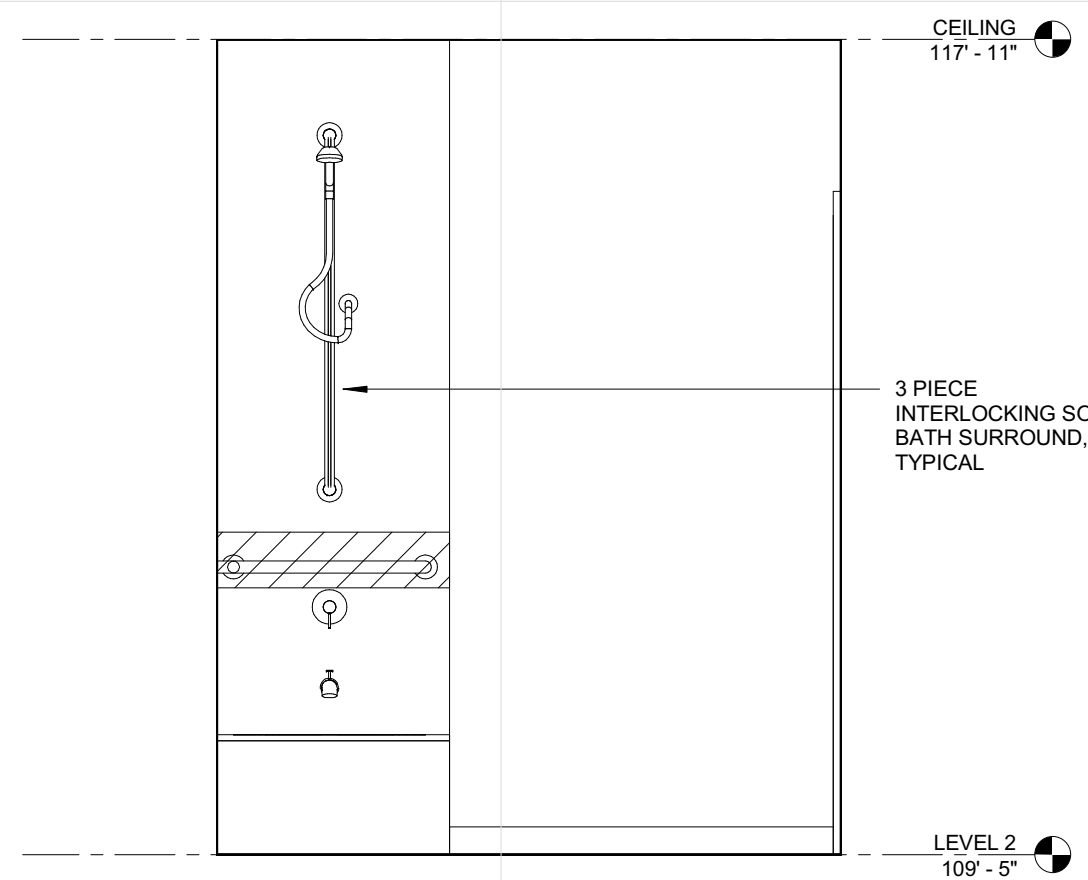
**2 BEDROOM
 INTERIOR
 ELEVATIONS**

A501



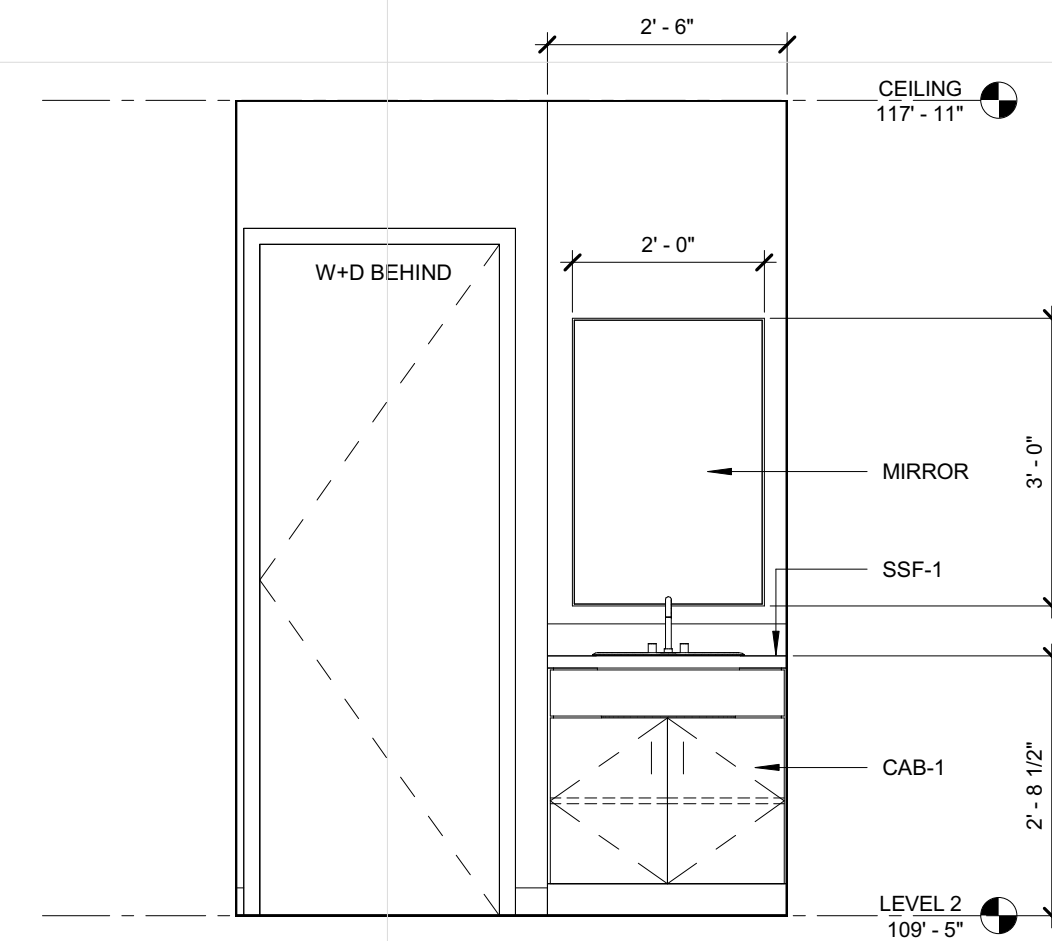
7 2 BEDROOM FULL BATH TUB WALL

A501 1/2" = 1'-0"



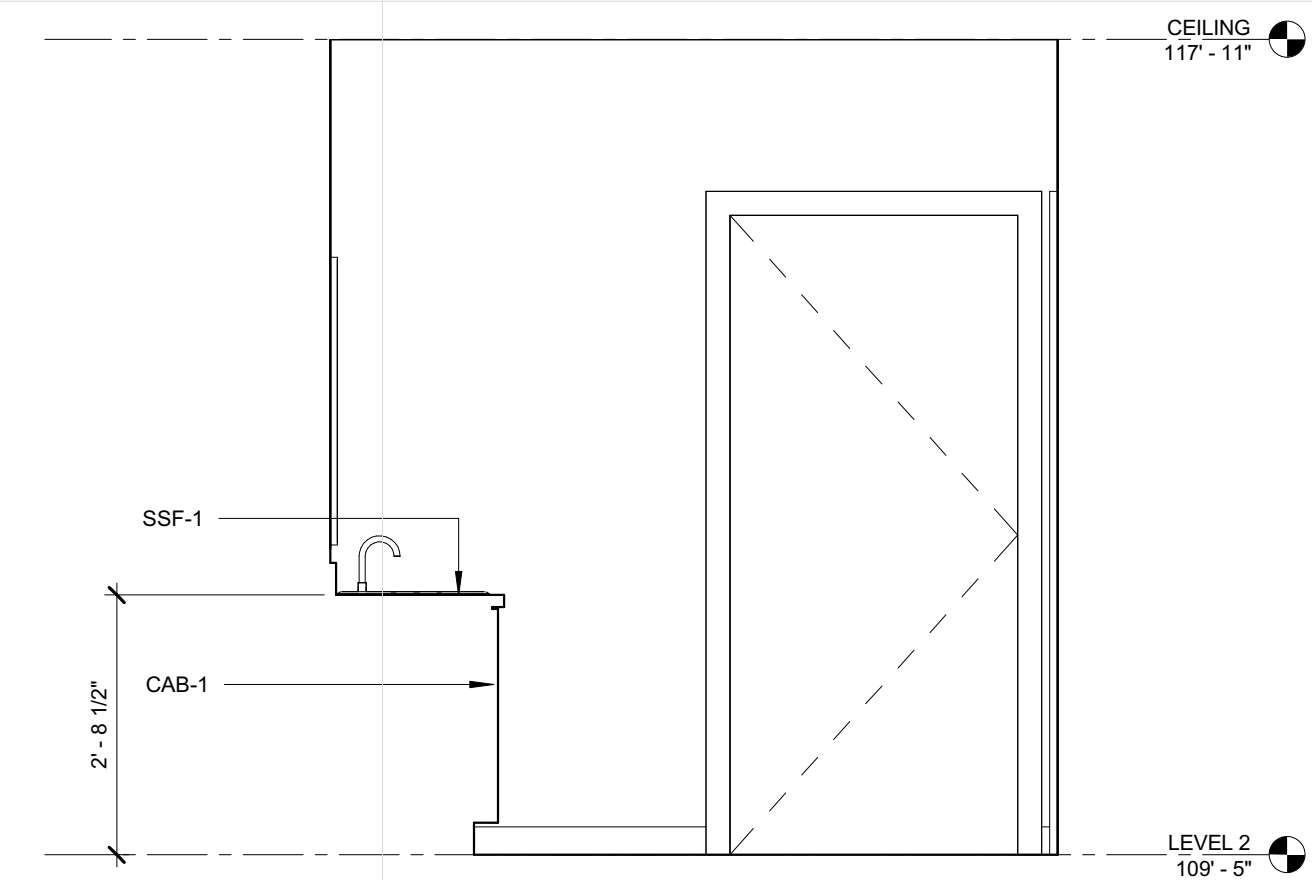
6 2 BEDROOM FULL BATH TOILET WALL

A501 1/2" = 1'-0"



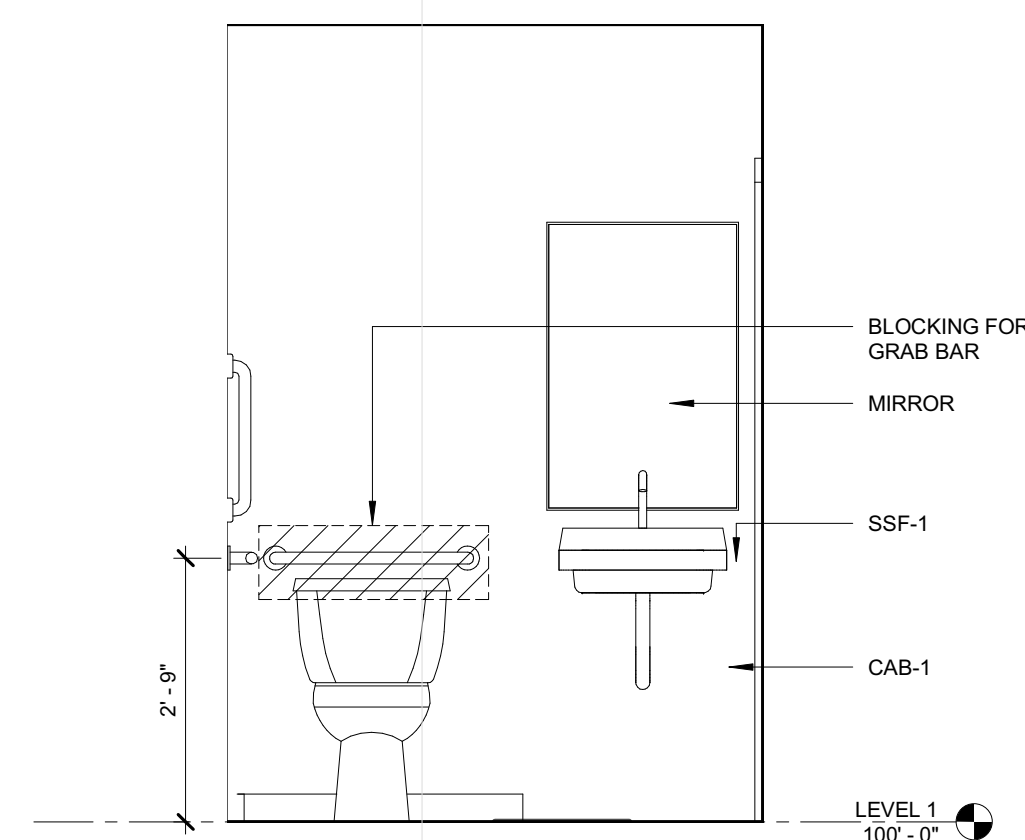
5 2 BEDROOM SINK ELEVATION

A501 1/2" = 1'-0"



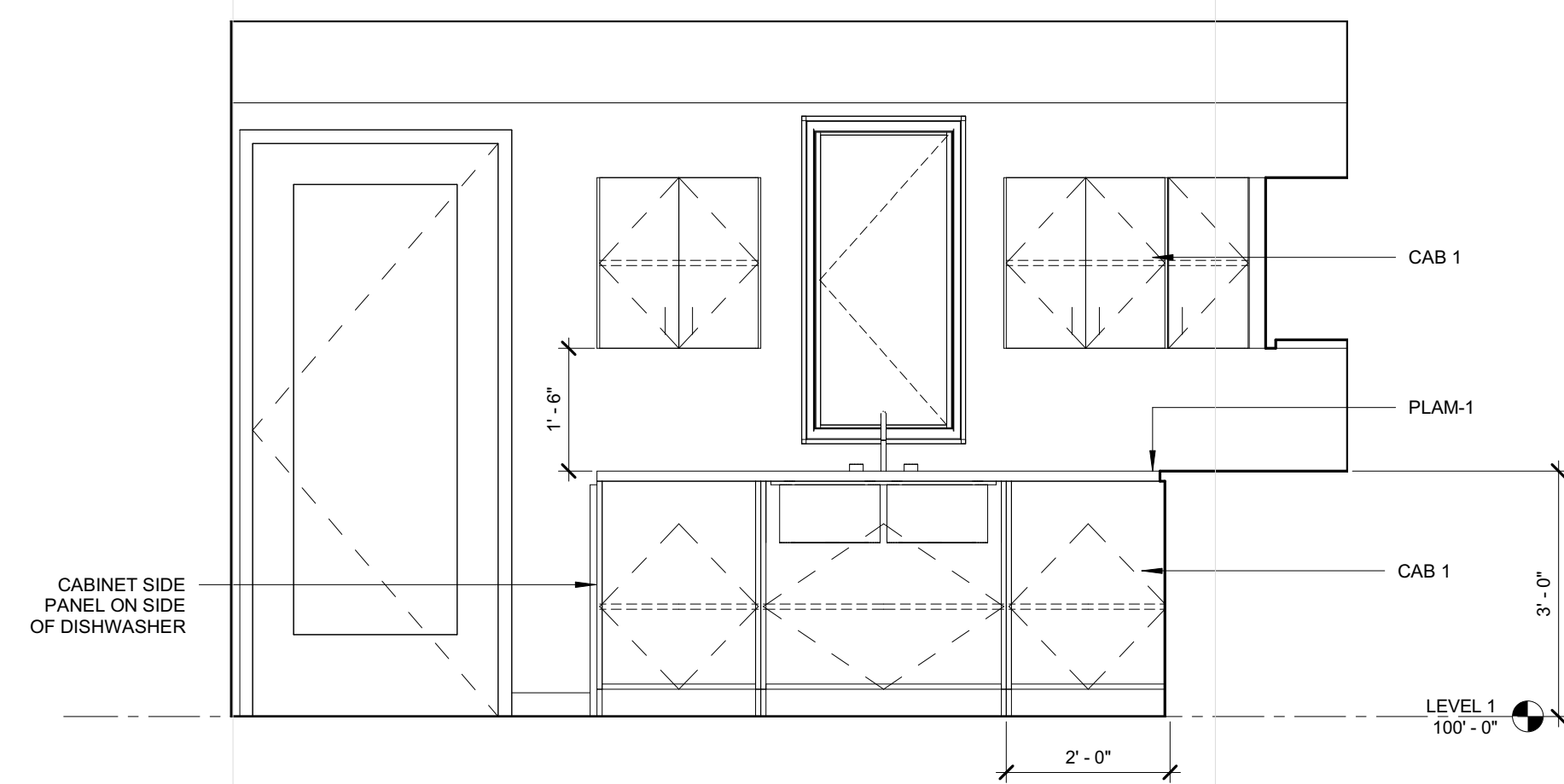
4 2 BEDROOM SINK

A501 1/2" = 1'-0"



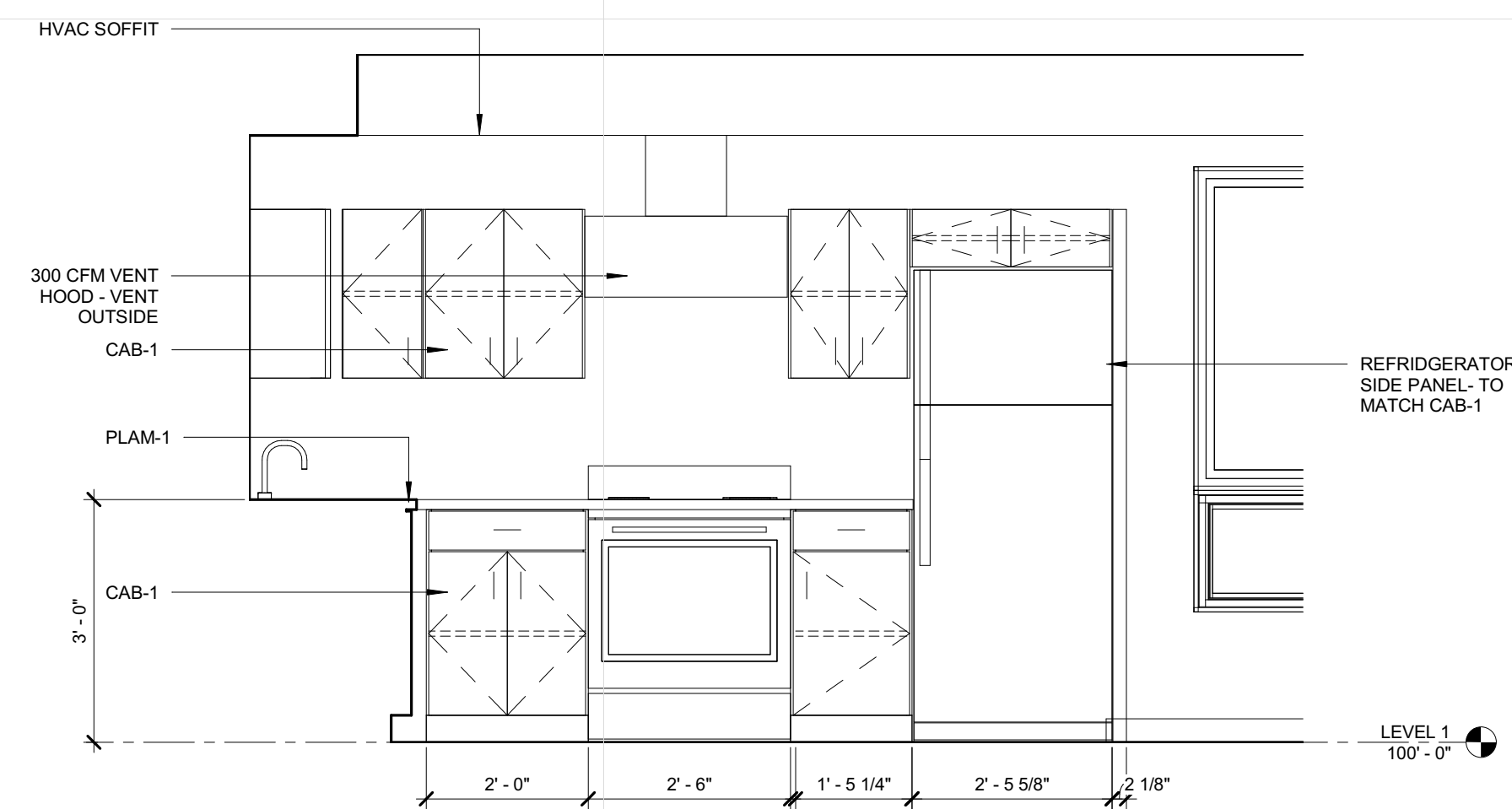
3 2 BEDROOM 1/2 BATH

A501 1/2" = 1'-0"



2 2 BEDROOM KITCHEN ELEVATION

A501 1/2" = 1'-0"



1 2 BEDROOM KITCHEN

A501 1/2" = 1'-0"

**MINNEHAHA
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 5348, 5364, 5369 RIVERVIEW
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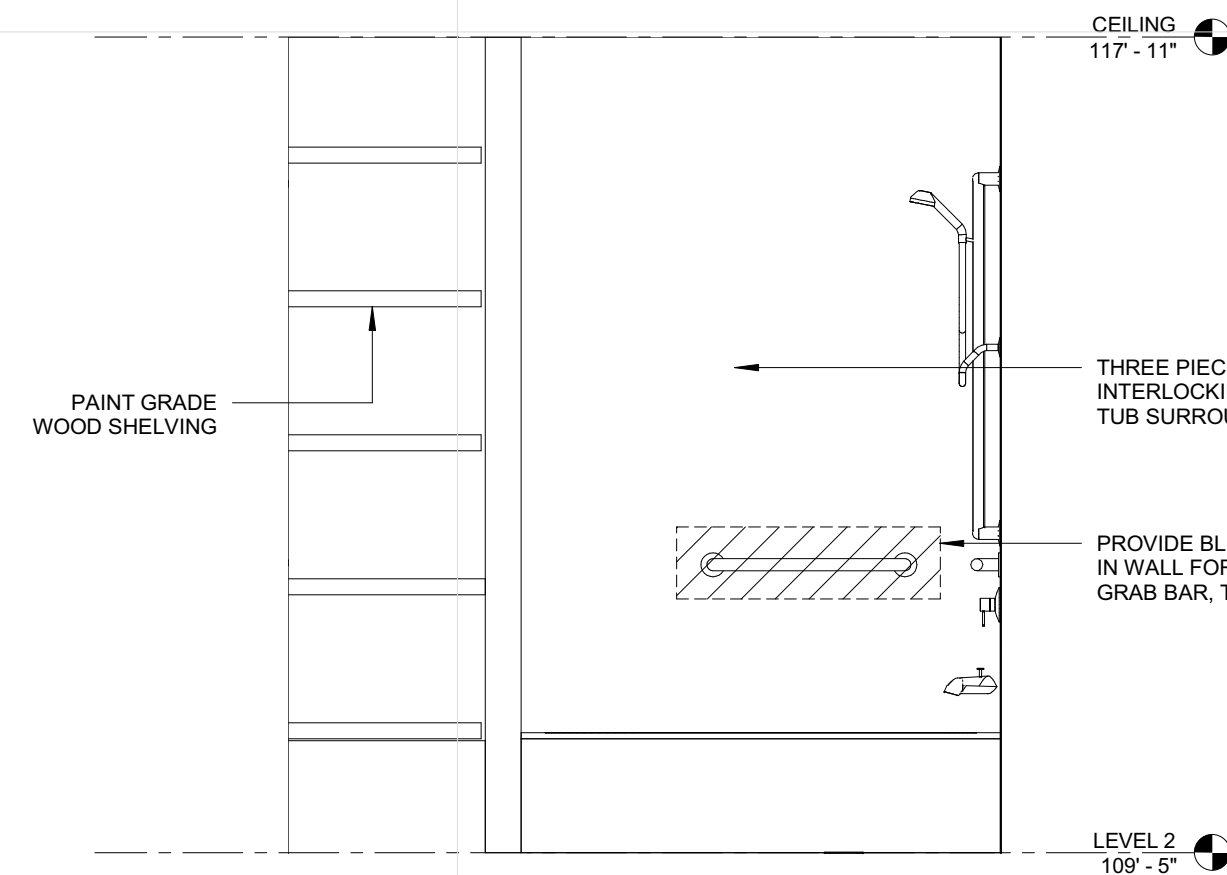
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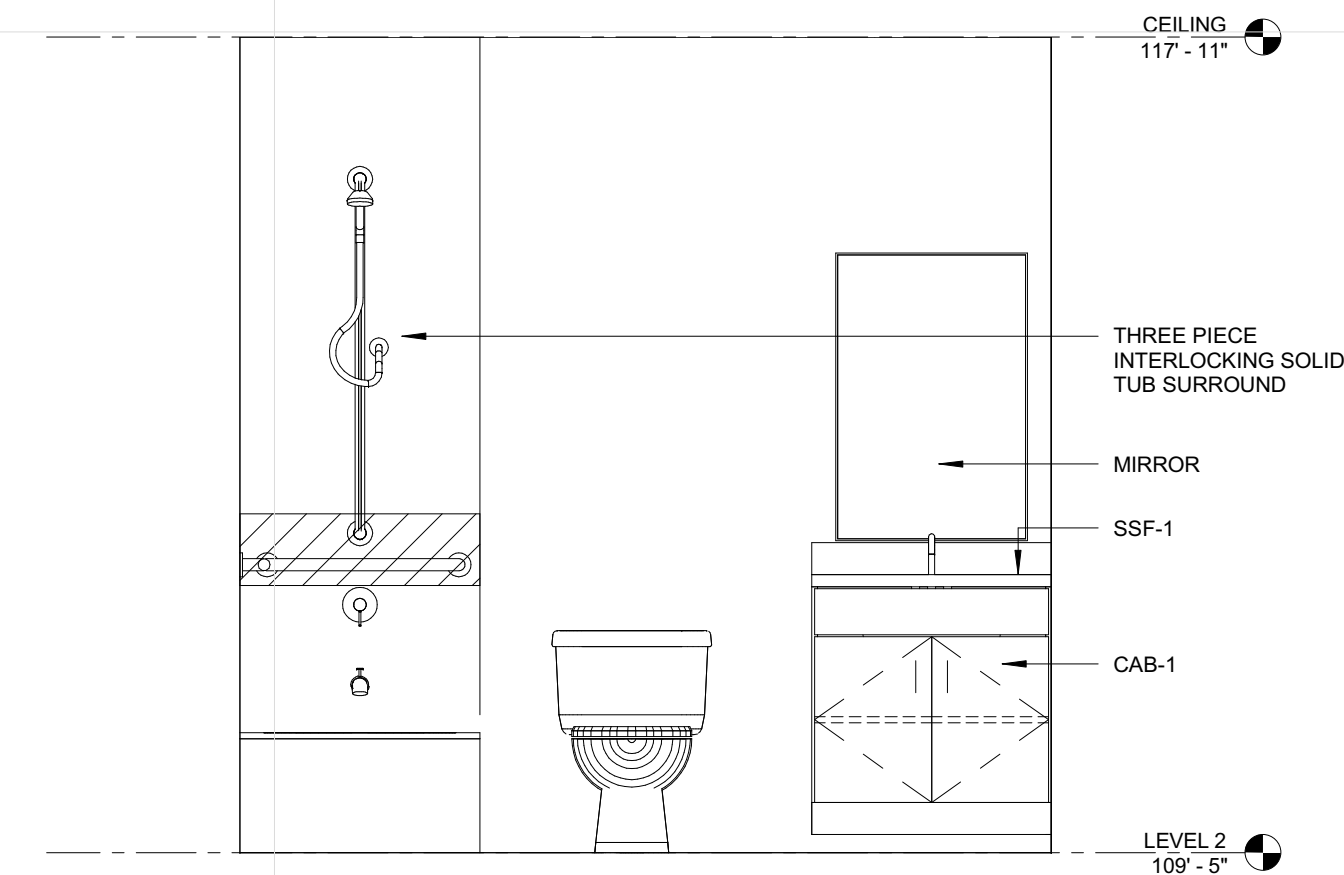
PROJECT NO. 2016015
 PROJECT PHASE 100% CD ISSUE
 DRAWN BY: Author CHECKED BY: Checker

**4 BEDROOM
 INTERIOR
 ELEVATIONS**

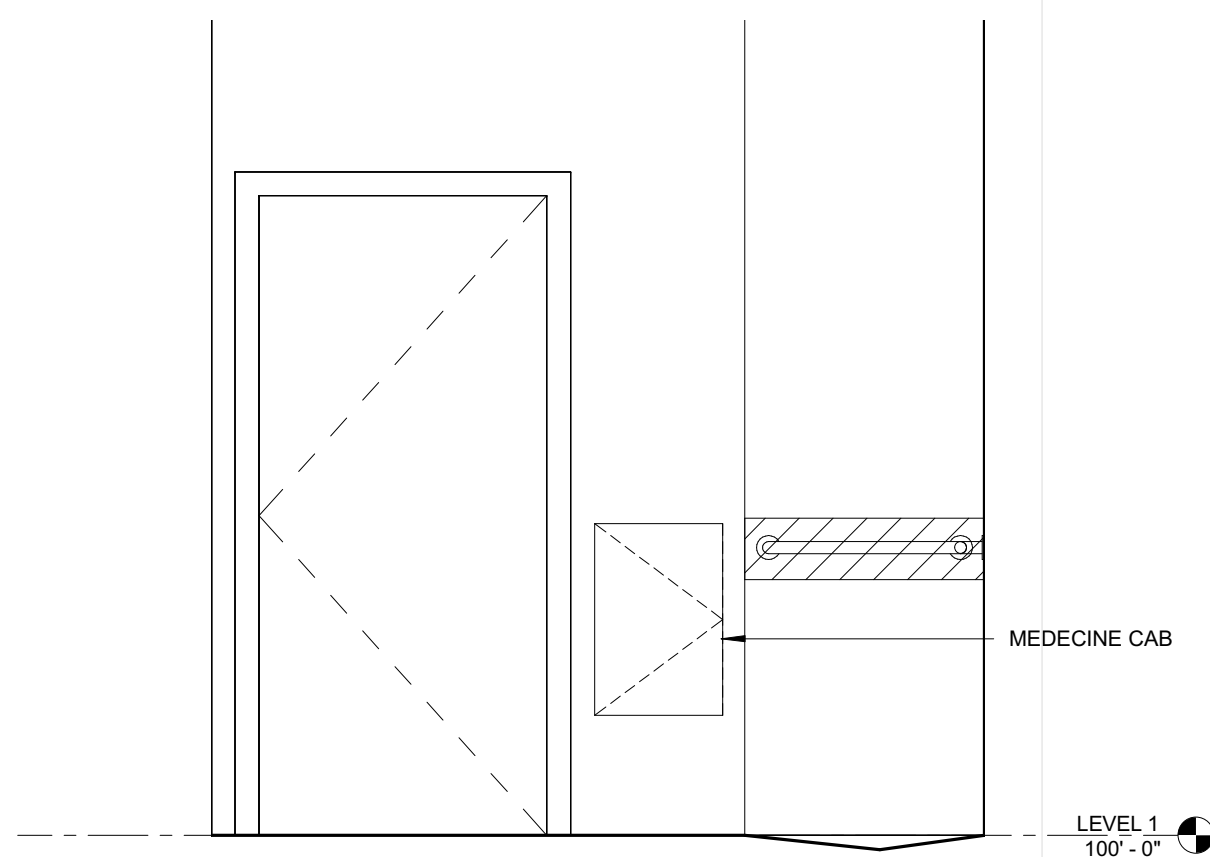
A503



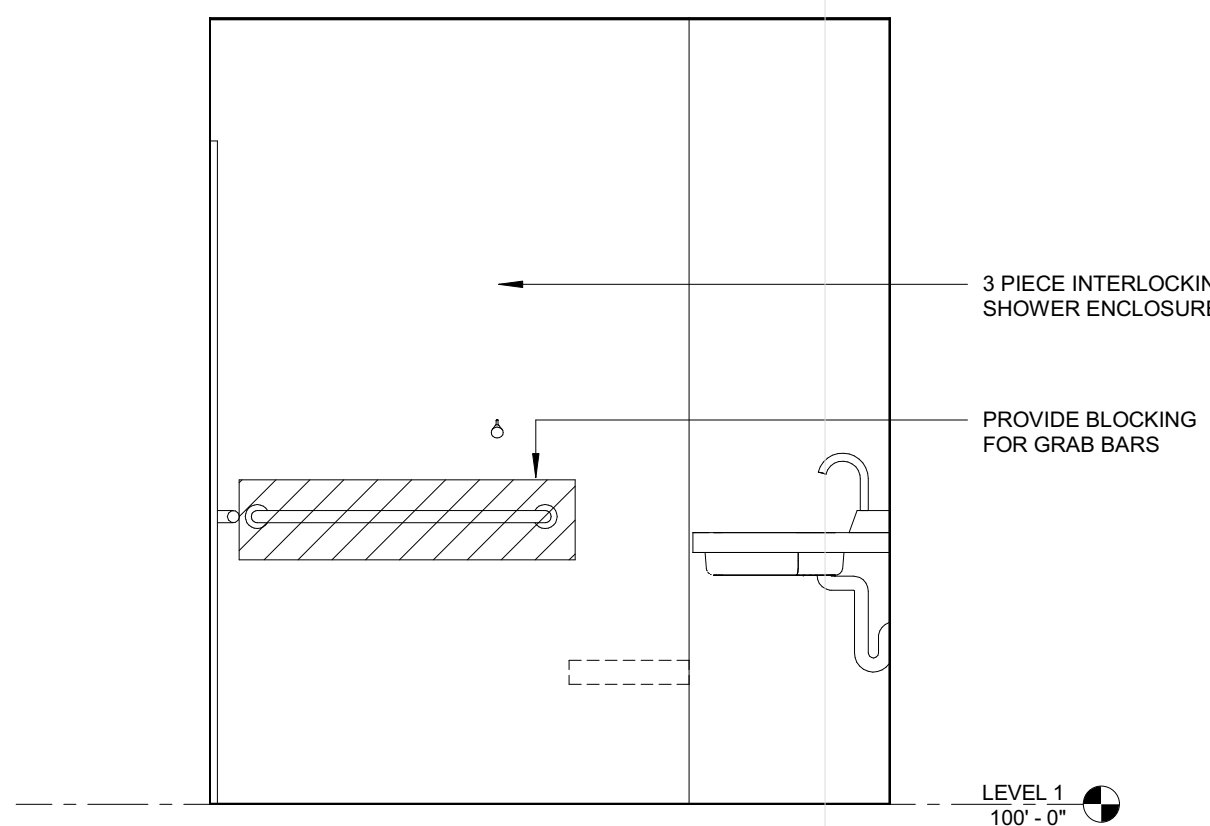
8 4 BEDROOM FULL BATH TUB WALL
 A503 1/2" = 1'-0"



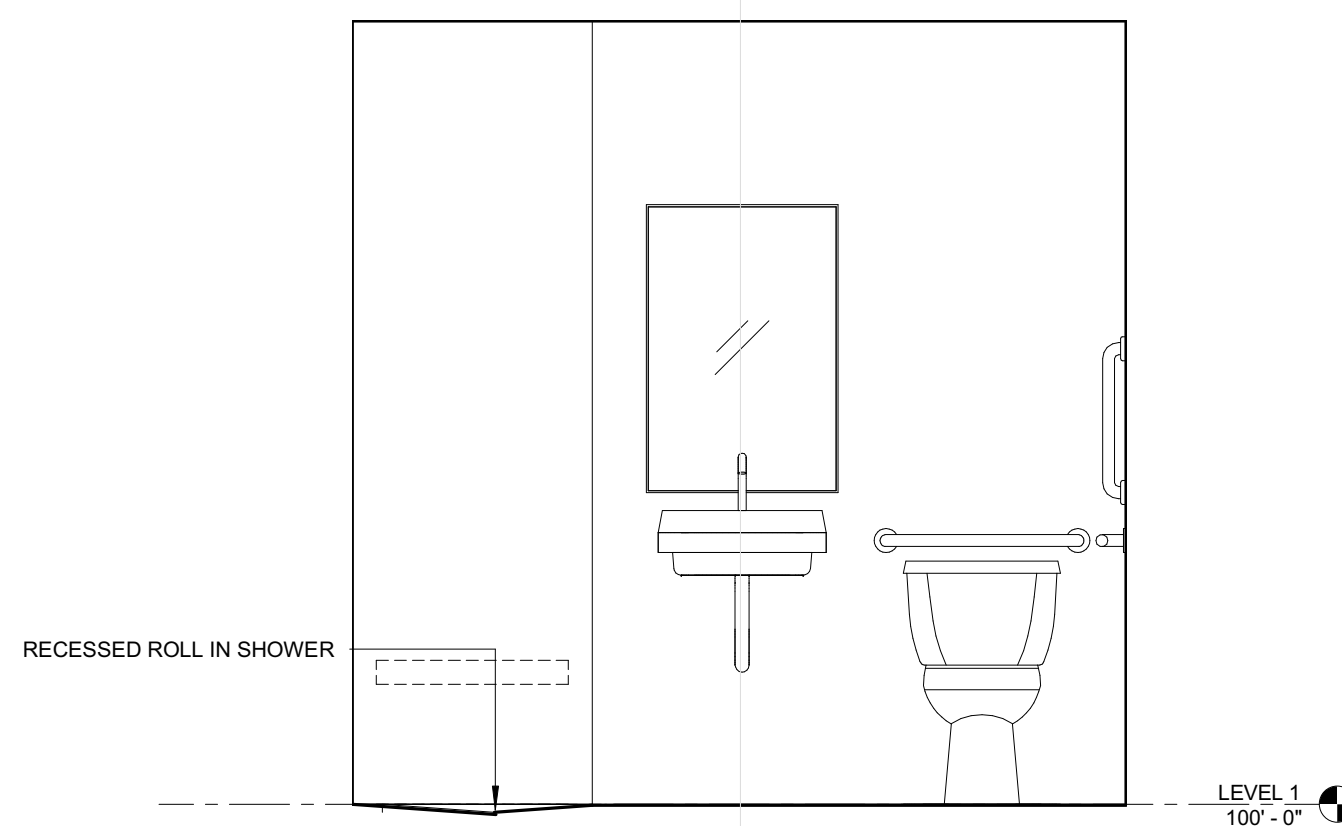
7 4 BEDROOM FULL BATH TOILET WALL
 A503 1/2" = 1'-0"



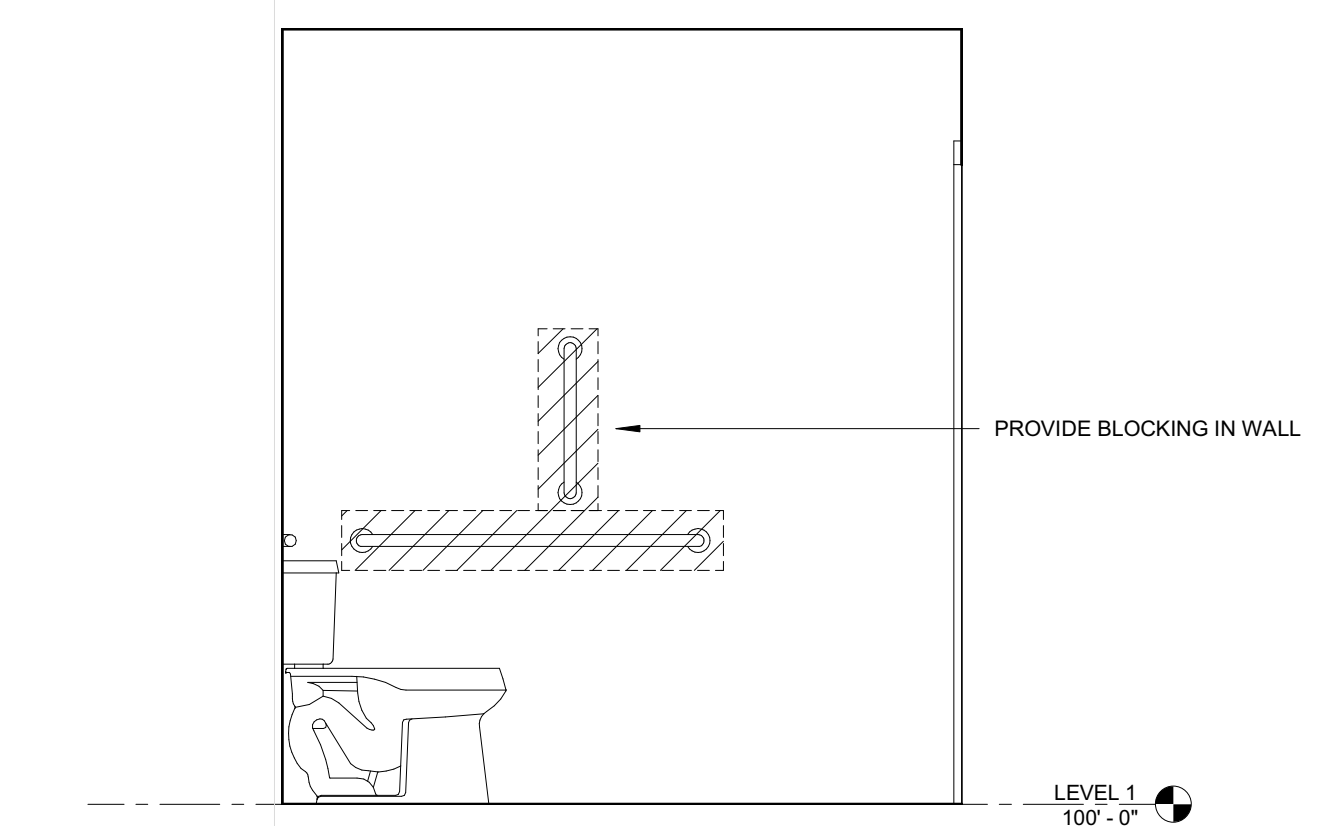
9 4 BEDROOM ADA DOOR WALL
 A503 1/2" = 1'-0"



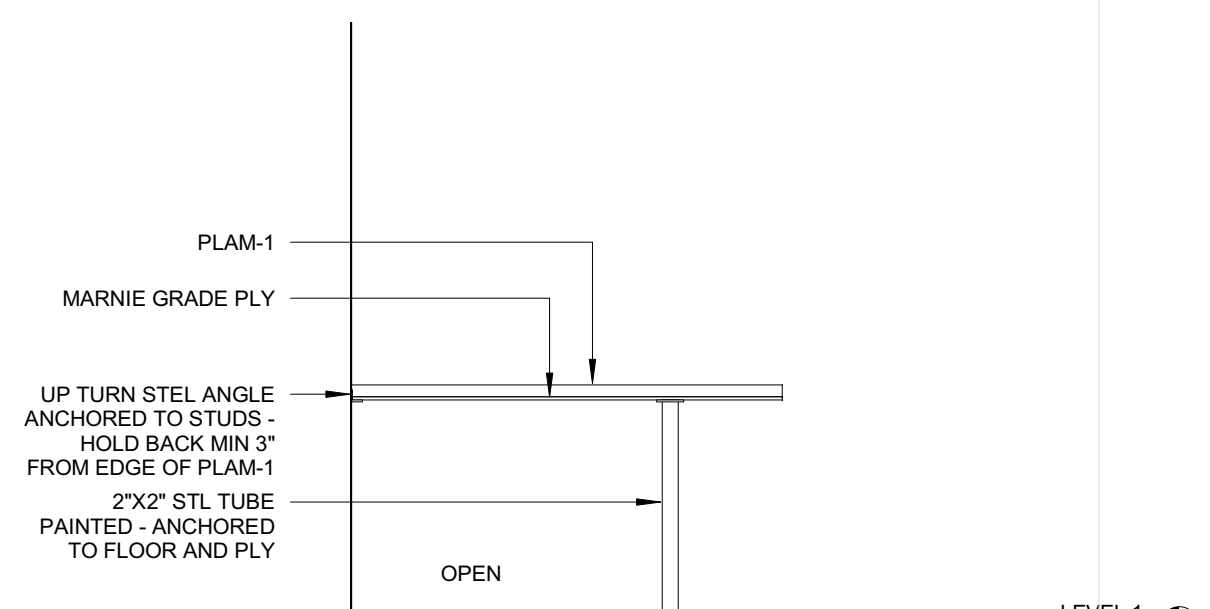
6 4 BEDROOM ADA BATH SHOWER WALL
 A503 1/2" = 1'-0"



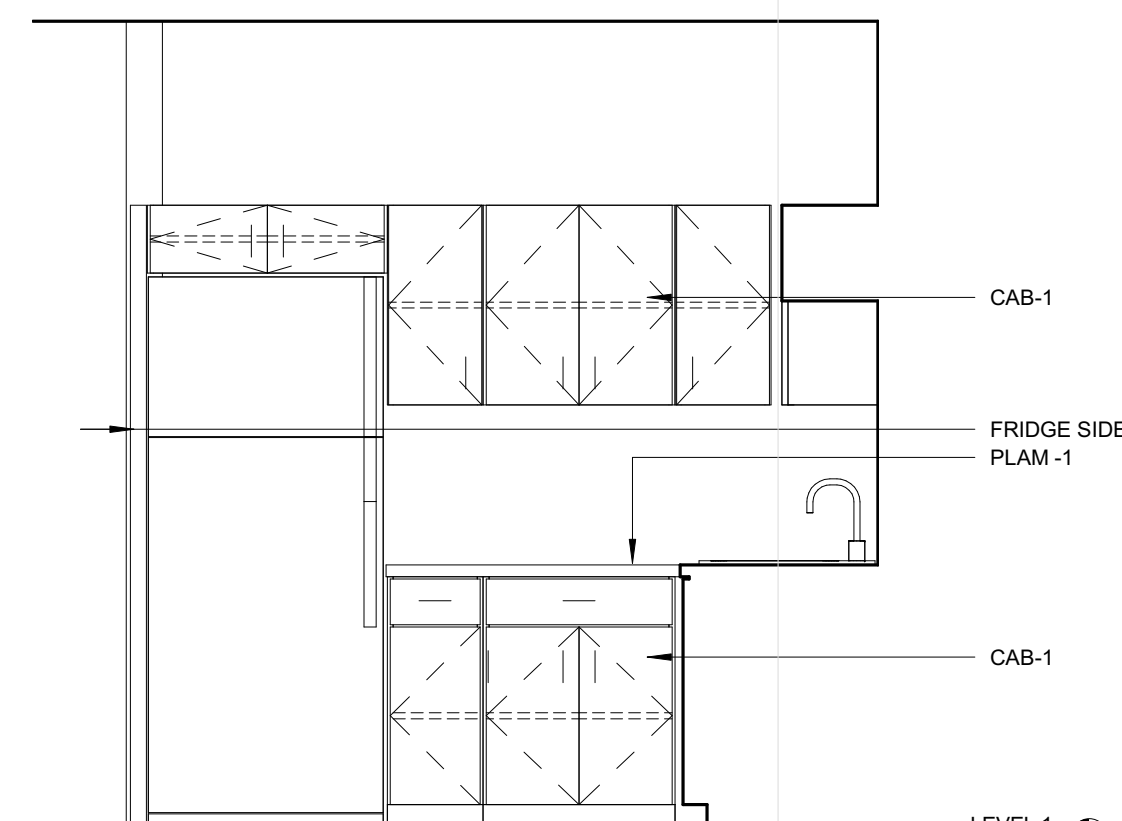
5 4 BEDROOM ADA BATH TOILET WALL
 A503 1/2" = 1'-0"



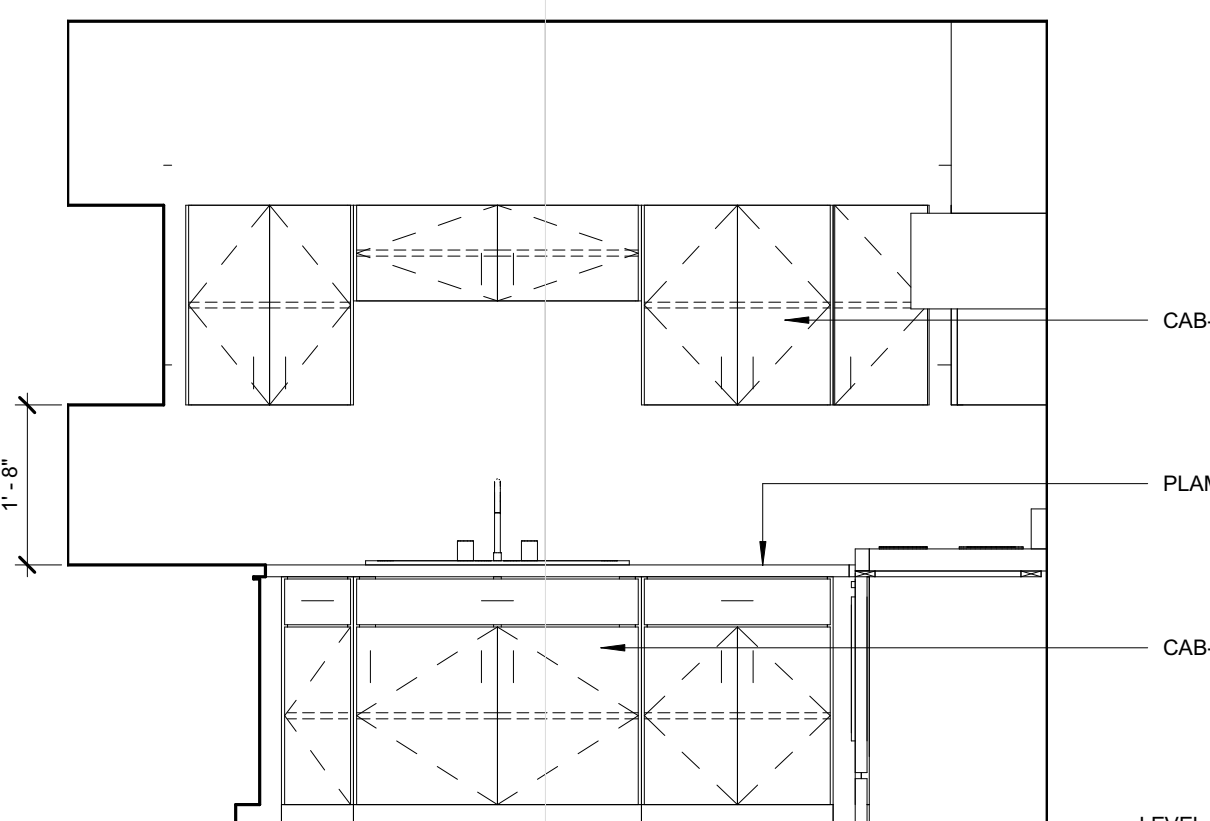
4 4 BEDROOM ADA BATH SIDE WALL
 A503 1/2" = 1'-0"



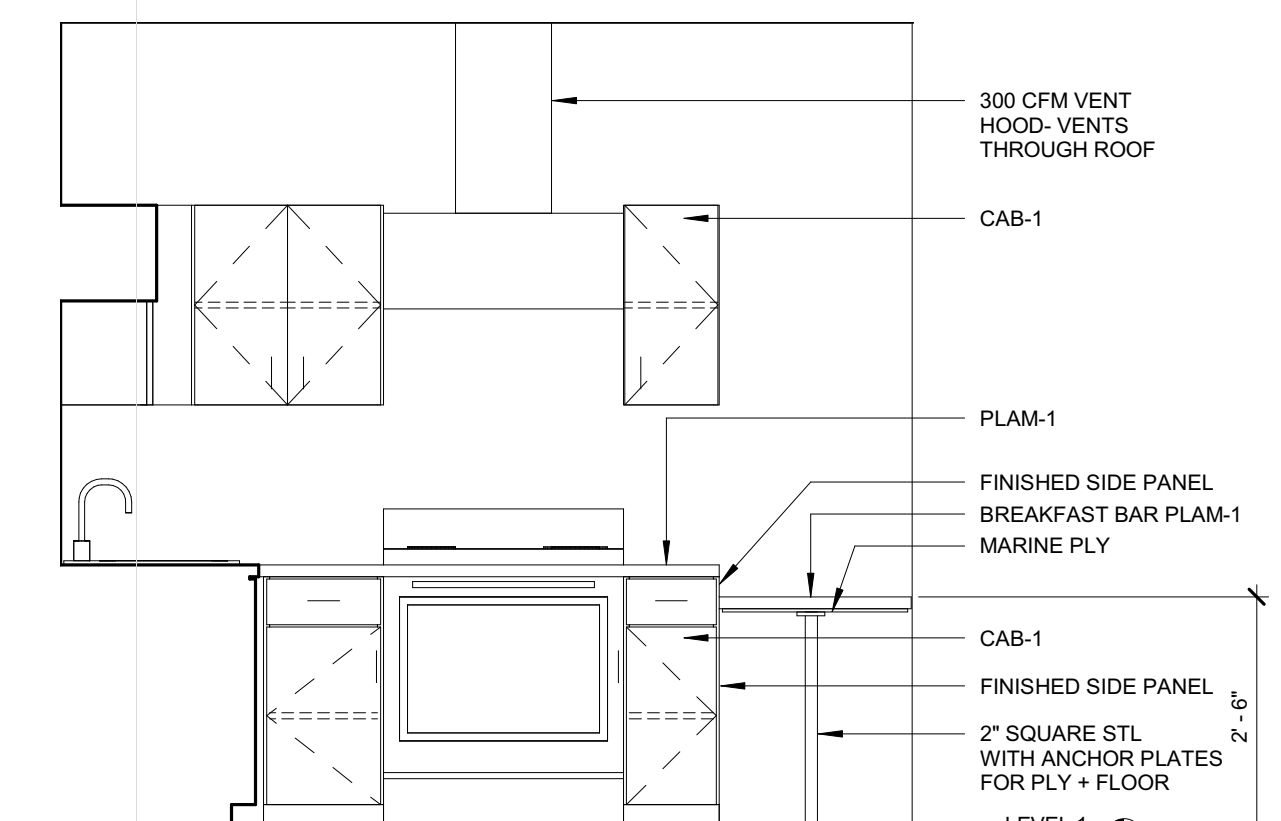
10 4 BEDROOM KITCHEN PENINSULA
 A503 1/2" = 1'-0"



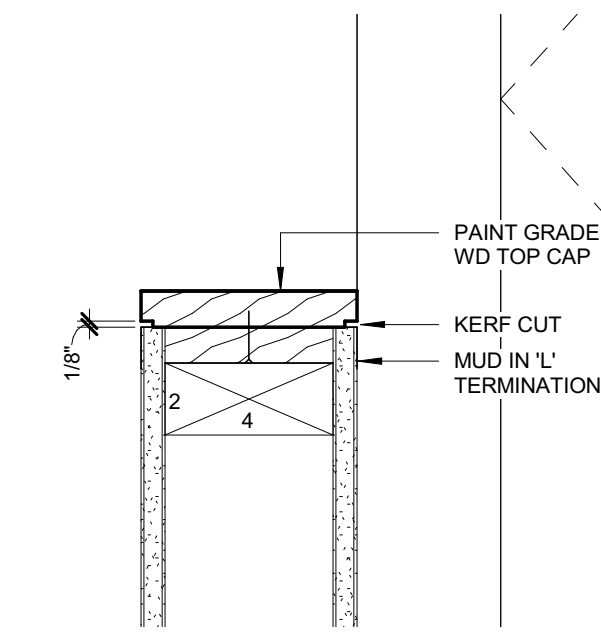
3 4 BEDROOM KITCHEN ELEVATION 3
 A503 1/2" = 1'-0"



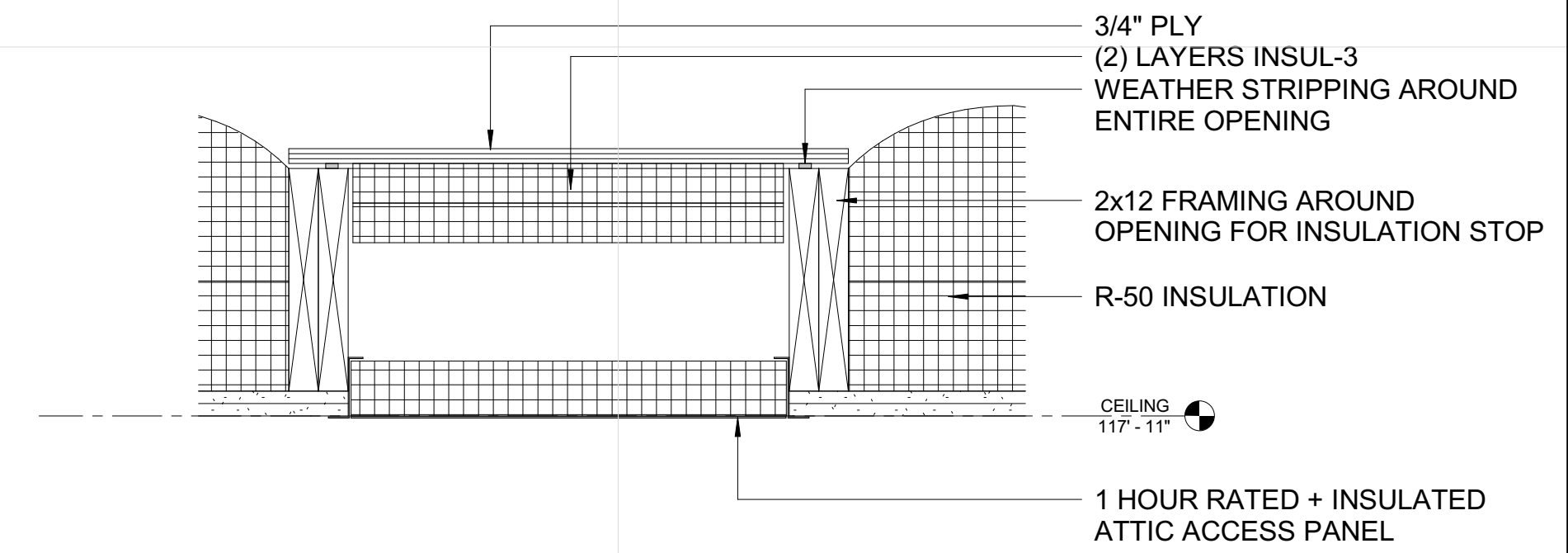
2 4 BEDROOM KITCHEN ELEVATION 2
 A503 1/2" = 1'-0"



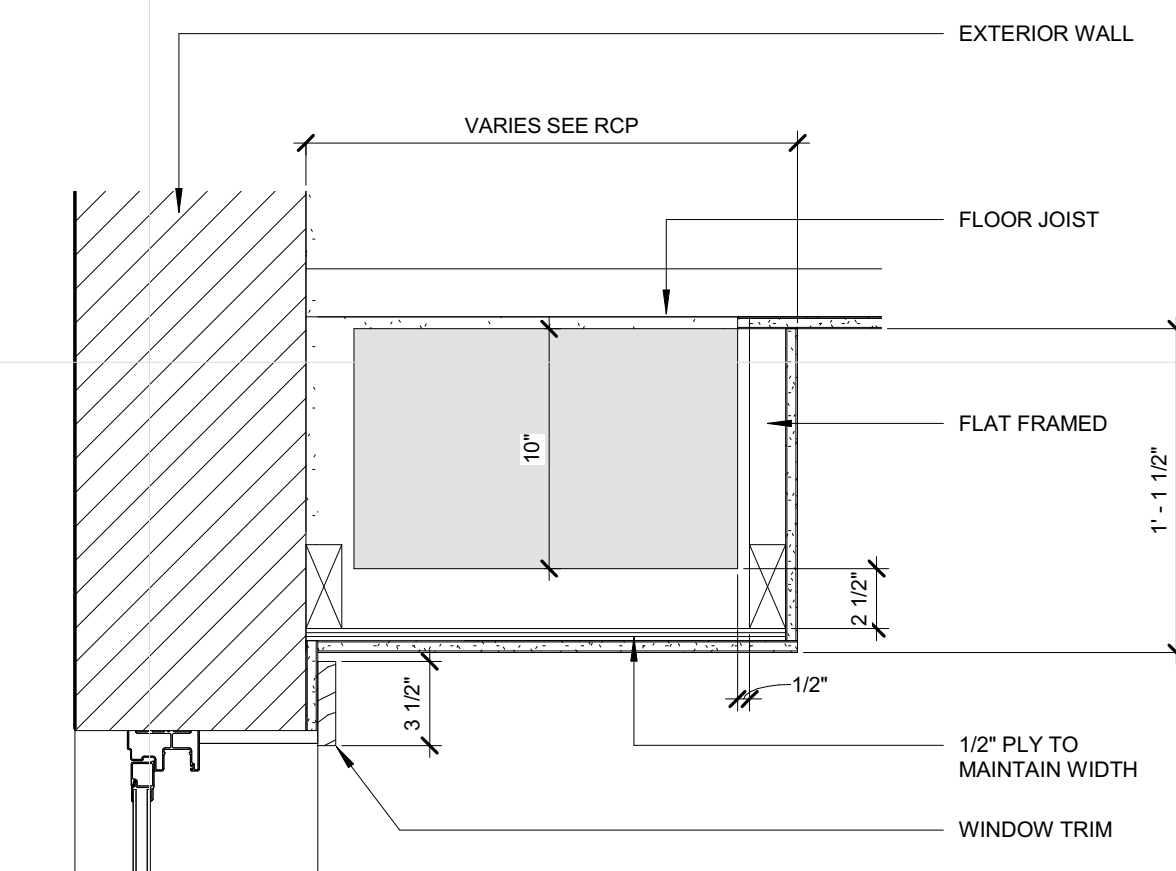
1 4 BEDROOM KITCHEN ELEVATION 1
 A503 1/2" = 1'-0"



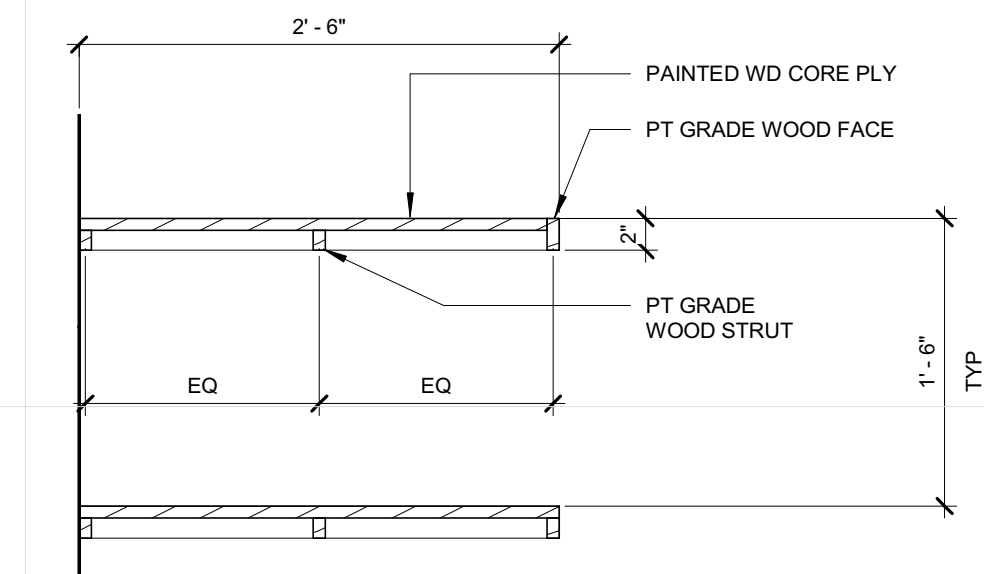
5 TOP OF GUARD RAIL
 A551 3" = 1'-0"



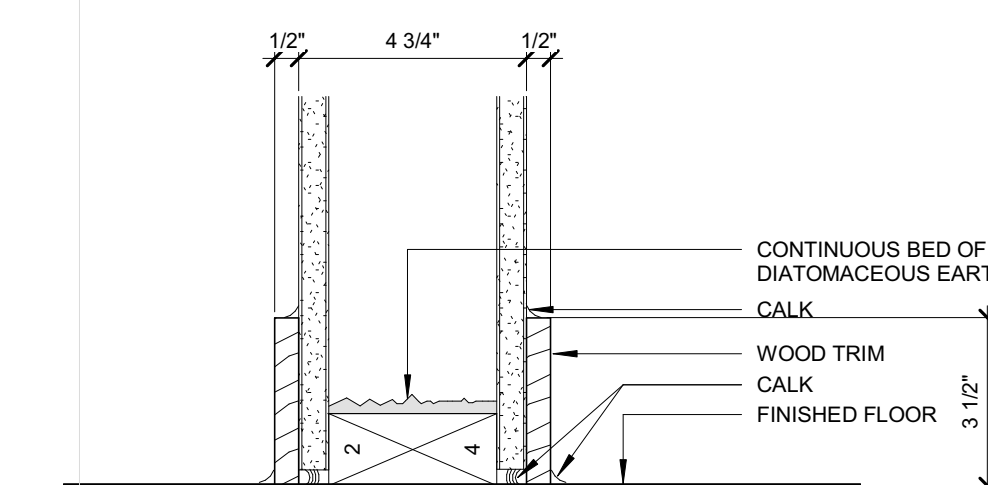
4 ATTIC ACCESS PANEL
 A551 1 1/2" = 1'-0"



3 SOFFIT SECTION
 A551 1 1/2" = 1'-0"



2 SECTION @ BATHROOM SHELVING
 A551 1" = 1'-0"



1 TYPICAL INTERIOR WALL DETAIL
 A551 3" = 1'-0"

**MINNEHAHA
 TOWNHOMES**
 5348, 5364, 5369 RIVERVIEW
 ROAD, 5118 54TH ST EAST
 MINNEAPOLIS, MN 55417

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Signature: _____

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Date: _____ License No: _____

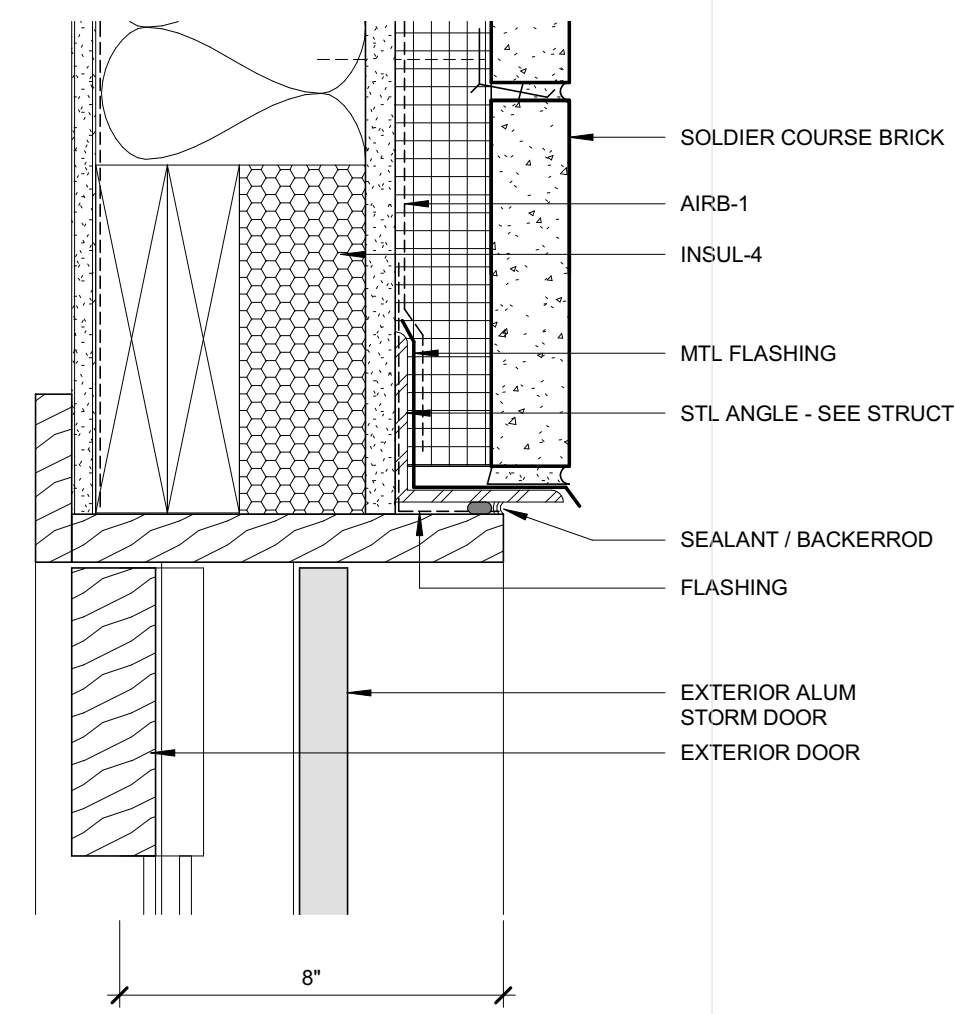
MARK	DATE	DESCRIPTION
	04.21.17	100% DD
	04.28.17	LAND USE APPLICATION
	05.05.17	50% CD
	05.26.17	GC 50% REVIEW SET
	06.21.17	100% CD ISSUE

PROJECT NO.	2016015
PROJECT PHASE	100% CD ISSUE
DRAWN BY:	Author
CHECKED BY:	Checker

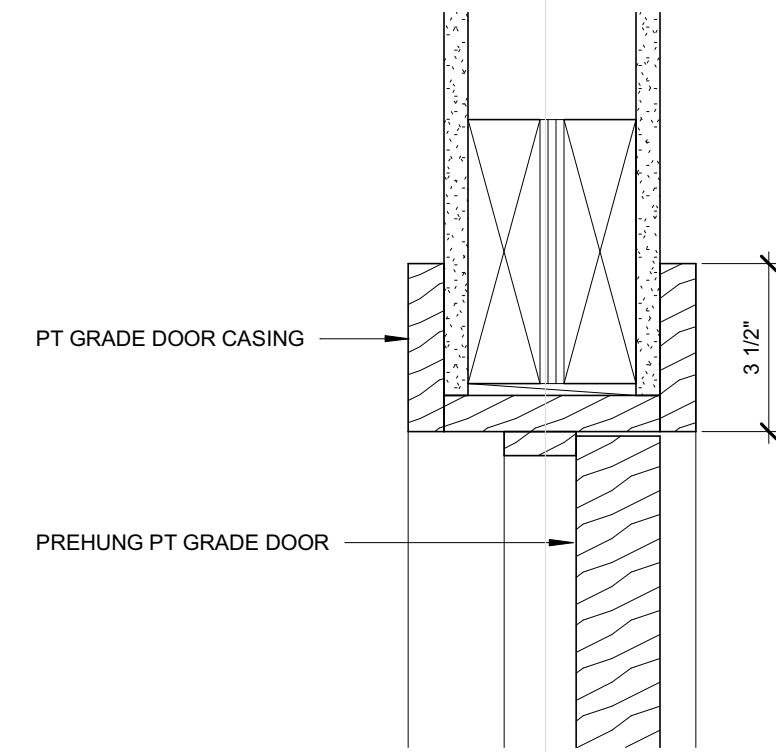
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INTERIOR DETAILS

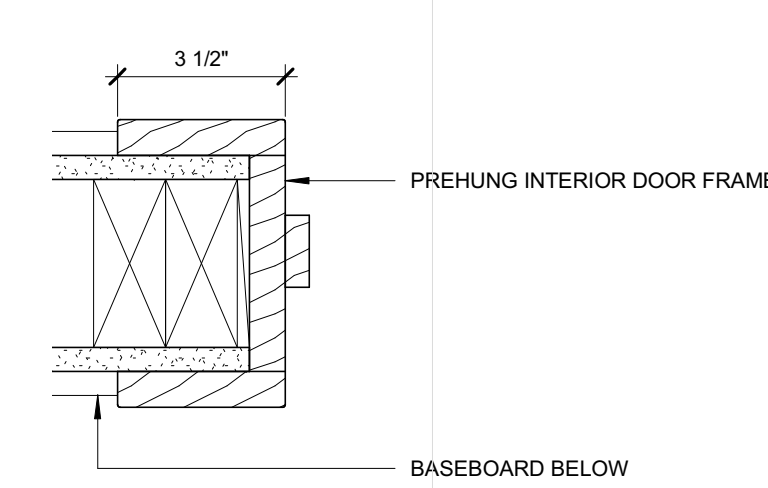
A551



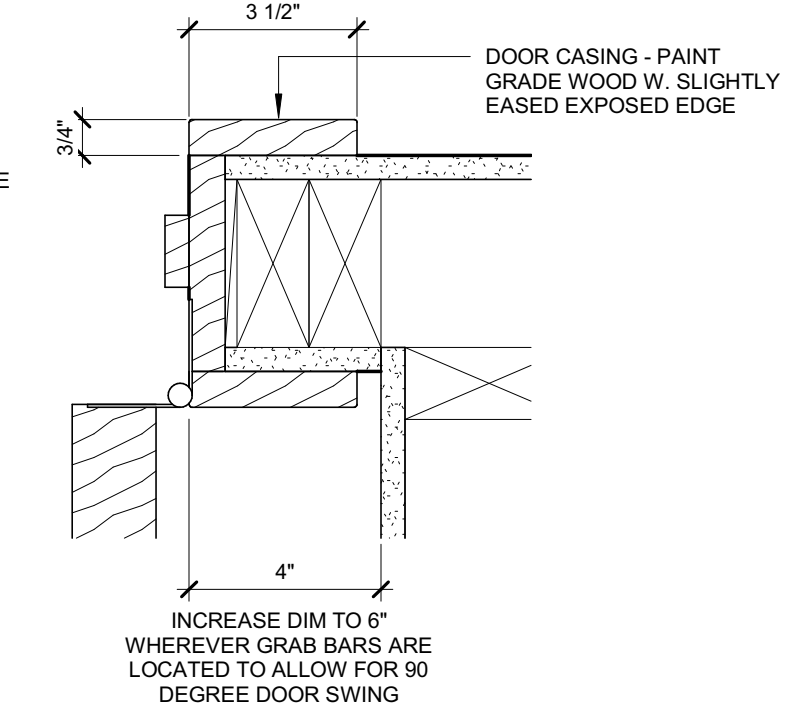
9 EXTERIOR DOOR HEAD DETAIL
 A601 3" = 1'-0"



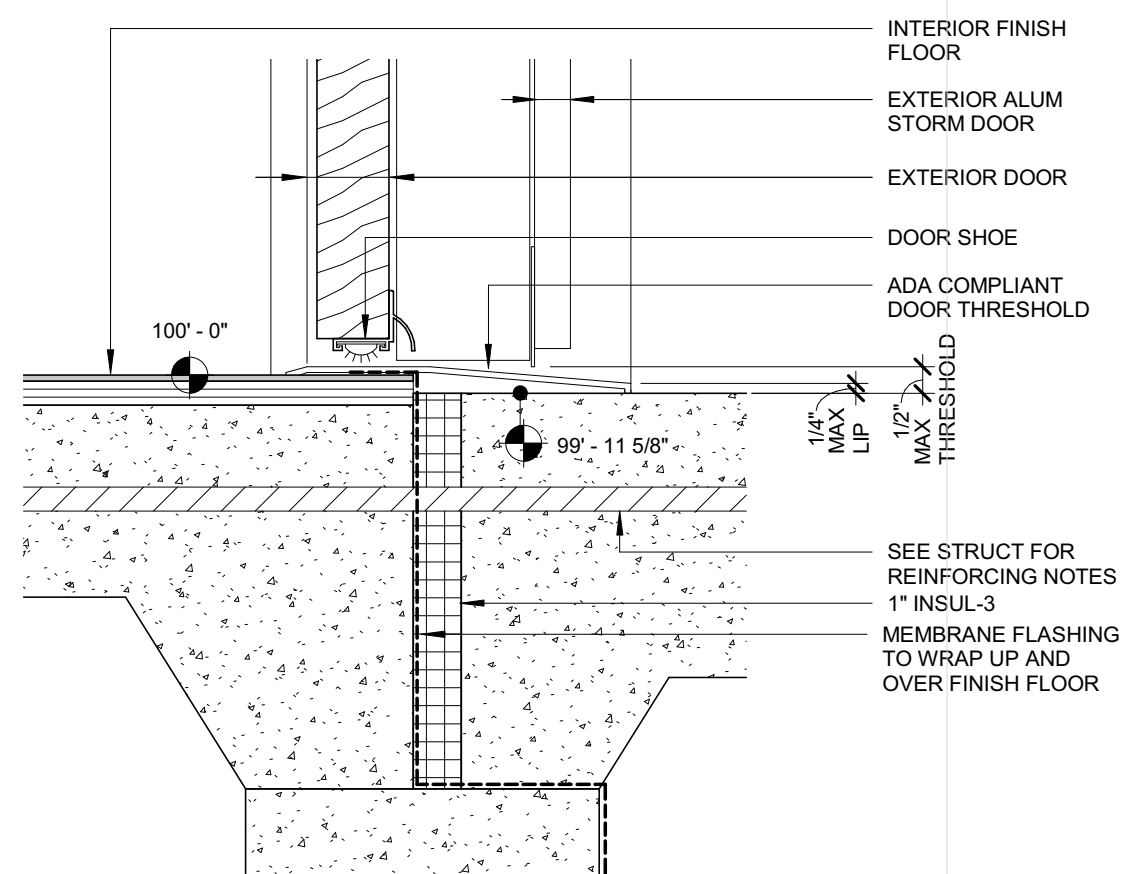
6 INTERIOR DOOR HEAD
 A601 3" = 1'-0"



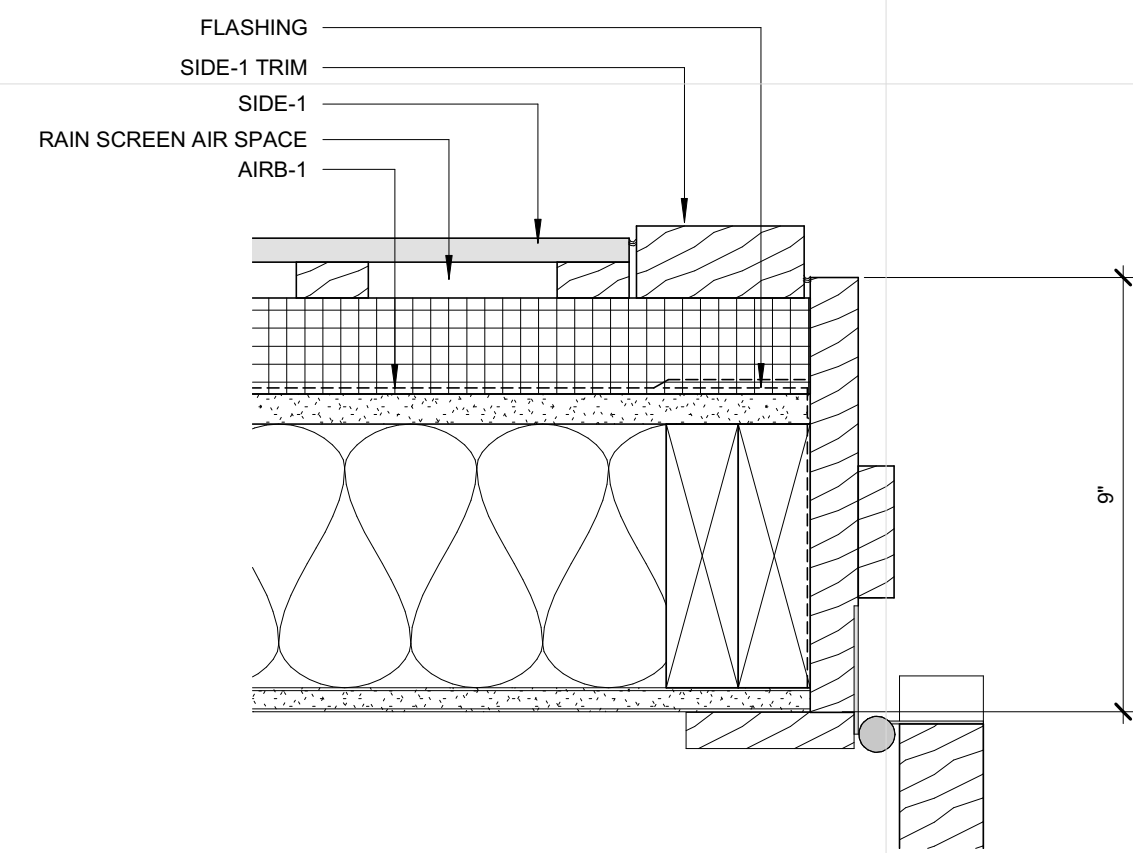
3 INTERIOR DOOR LATCH SIDE
 A601 3" = 1'-0"



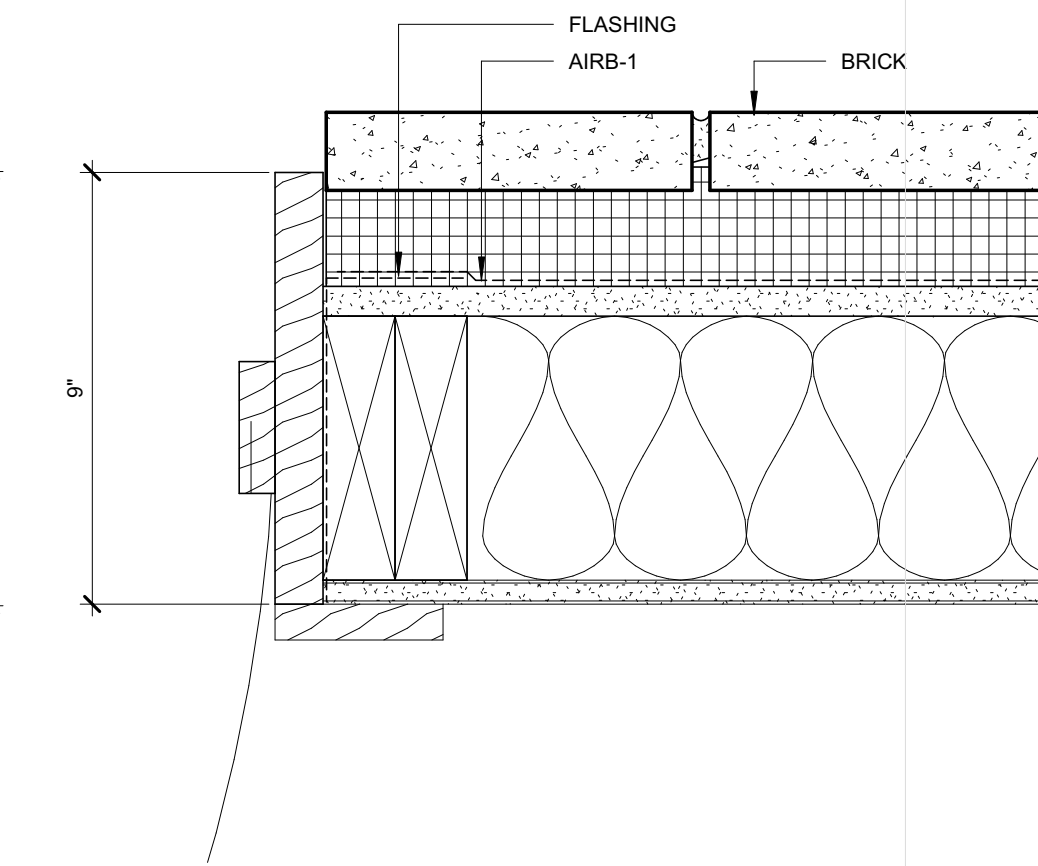
4 INTERIOR DOOR HINGE JAM
 A601 3" = 1'-0"



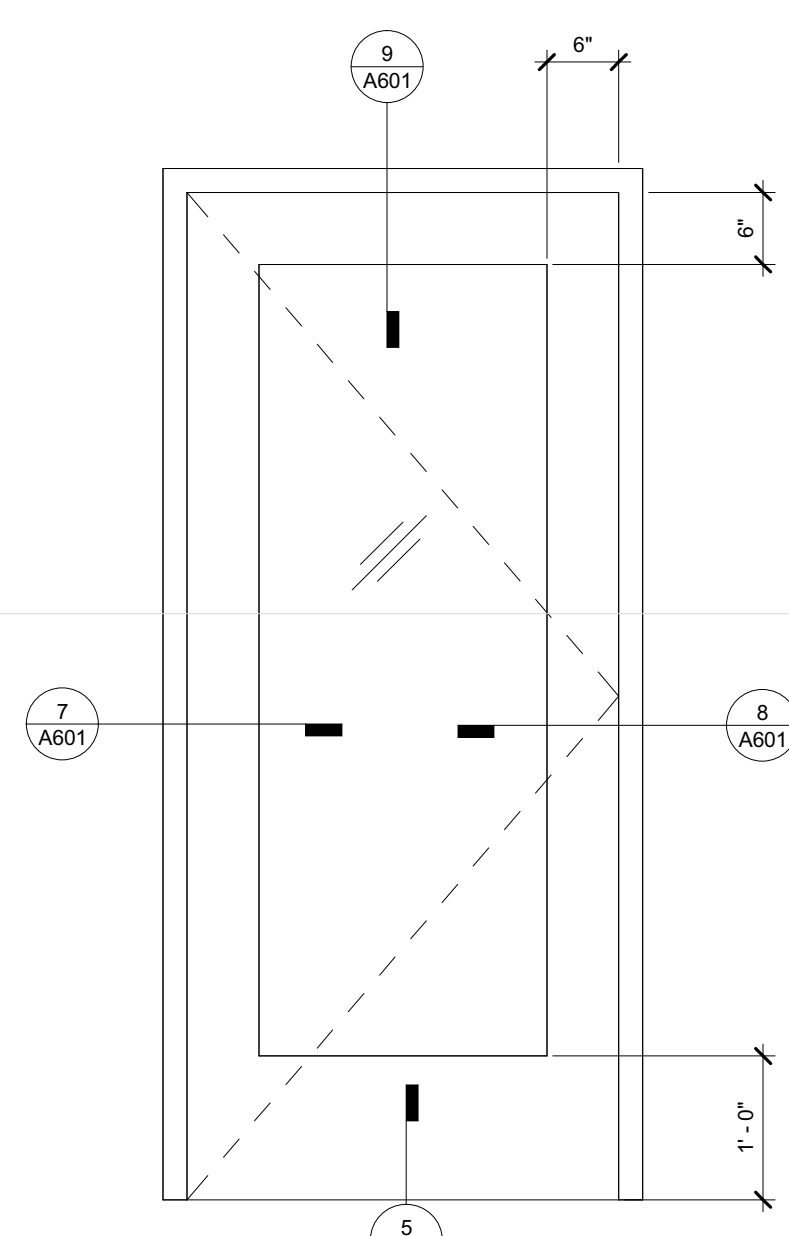
5 EXTERIOR DOOR THRESHOLD
 A601 3" = 1'-0"



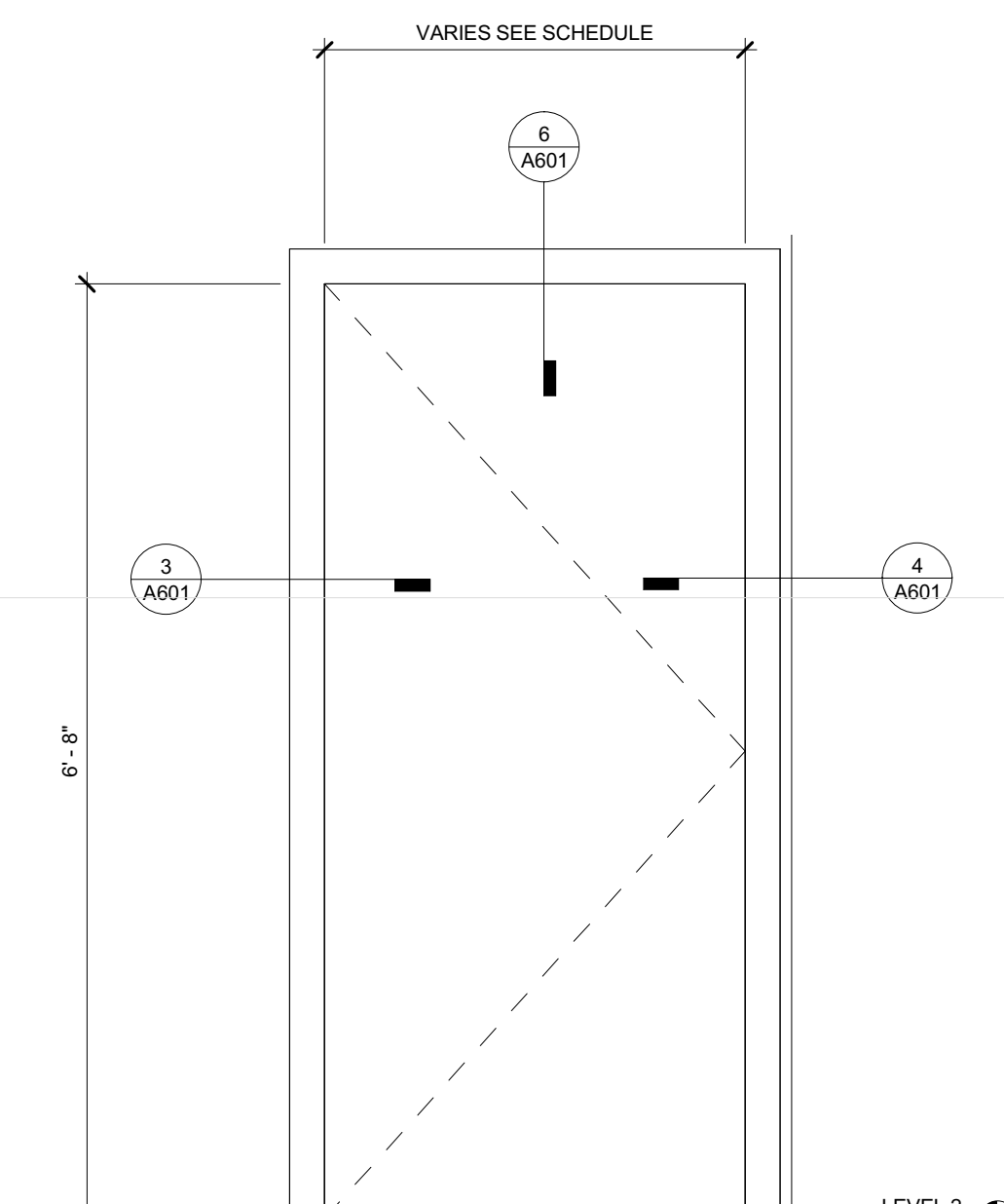
8 EXTERIOR DOOR HINGE DETAIL
 A601 3" = 1'-0"



7 EXTERIOR DOOR JAM DETAIL
 A601 3" = 1'-0"



1 ENTRY DOOR
 A601 3/4" = 1'-0"



2 INTERIOR DOOR
 A601 3/4" = 1'-0"

BUILDING D DOOR SCHEDULE

DOOR NO	WIDTH	HEIGHT	DOOR			HEAD	SILL	FRAME		FIRE	HDWR	COMMENTS
			THICKNESS	TYPE	MAT'L			TYPE	MAT'L			
104	3'-0"	7'-0"	1 3/4"		WD/GL							
116	3'-0"	6'-8"	1 3/4"		WOOD							
117	3'-0"	6'-8"	1 3/4"		WOOD							
118	3'-0"	7'-0"	1 3/4"		WOOD					45 MIN		
119	3'-0"	6'-8"	1 3/4"		WOOD							
120	3'-0"	6'-8"	1 3/4"		WOOD							
121	3'-0"	6'-8"	1 3/4"		WOOD							
123	3'-0"	6'-8"	1 3/4"		WOOD							
124	3'-0"	6'-8"	1 3/4"		WOOD							
125	2'-3"	6'-8"	1 3/4"		WOOD							
128	4'-6"	6'-8"	1 3/4"		WOOD							
144	3'-0"	6'-8"	1 3/4"		WOOD							
145	3'-0"	6'-8"	1 3/4"		WOOD							
146	3'-0"	6'-8"	1 3/4"		WOOD							
147	3'-0"	6'-8"	1 3/4"		WOOD							
152	3'-0"	6'-8"	1 3/4"		WOOD							
161	2'-3"	6'-8"	1 3/4"		WOOD							
162	3'-0"	6'-8"	1 3/4"		WOOD							
164	4'-6"	6'-8"	1 3/4"		WOOD							
166	4'-6"	6'-8"	1 3/4"		WOOD							
186	3'-0"	7'-0"	1 3/4"		WD/GL							
224	3'-0"	7'-0"	1 3/4"		WD/GL							
225	3'-0"	7'-0"	1 3/4"		WD/GL							
227	3'-0"	7'-0"	1 3/4"		WD/GL							
253	3'-0"	6'-8"	1 3/4"		WOOD							
254	3'-0"	7'-0"	1 3/4"		WOOD					45 MIN		
255	3'-0"	6'-8"	1 3/4"		WOOD							
256	3'-0"	6'-8"	1 3/4"		WOOD							
257	3'-0"	6'-8"	1 3/4"		WOOD							
258	3'-0"	6'-8"	1 3/4"		WOOD							
259	2'-3"	6'-8"	1 3/4"		WOOD							
260	2'-6"	7'-0"	1 3/4"		WOOD							
262	4'-6"	6'-8"	1 3/4"		WOOD							
263	3'-0"	6'-8"	1 3/4"		WOOD							
264	3'-0"	6'-8"	1 3/4"		WOOD							
265	3'-0"	7'-0"	1 3/4"		WOOD					45 MIN		
266	3'-0"	7'-0"	1 3/4"		WOOD					45 MIN		
267	3'-0"	6'-8"	1 3/4"		WOOD							
269	3'-0"	6'-8"	1 3/4"		WOOD							
270	3'-0"	6'-8"	1 3/4"		WOOD							
271	3'-0"	6'-8"	1 3/4"		WOOD							
272	3'-0"	6'-8"	1 3/4"		WOOD							
273	3'-0"	6'-8"	1 3/4"		WOOD							
274	3'-0"	6'-8"	1 3/4"		WOOD							
275	2'-3"	6'-8"	1 3/4"		WOOD							
276	3'-0"	7'-0"	1 3/4"		WD/GL							
277	4'-6"	6'-8"	1 3/4"		WOOD							
278	3'-0"	7'-0"	1 3/4"		WD/GL							
281	3'-0"	7'-0"	1 3/4"		WD/GL							
284	3'-0"	6'-8"	1 3/4"		WOOD							
297	3'-0"	6'-8"	1 3/4"		WOOD							

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Signature: _____
 Print Names: _____
 Date: _____ License No: _____

MARK	DATE	DESCRIPTION
	04.21.17	100% DD
	04.28.17	LAND USE APPLICATION
	05.05.17	50% CD
	05.26.17	GC 90% REVIEW SET
	06.21.17	100% CD ISSUE

PROJECT NO: 2016015
 PROJECT PHASE: 100% CD ISSUE
 DRAWN BY: Author CHECKED BY: Checker

DOOR SCHEDULE, TYPES AND DETAILS

A601

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 5118 54TH ST EAST
 MINNEAPOLIS, MN 55417

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Signature: _____

Print Names: _____

Date: _____ License No.: _____

ISSUE	MAR	DATE	DESCRIPTION
K	04.21.17	100%DD	
	04.28.17	LAND USE APPLICATION	
	05.08.17	50% CD	
	05.26.17	GC 90% REVIEW SET	
	06.21.17	100% CD ISSUE	

PROJECT NO.	2016015
PROJECT PHASE	GC 90% REVIEW SET
DRAWN BY:	CHECKED BY:
Author	Checker

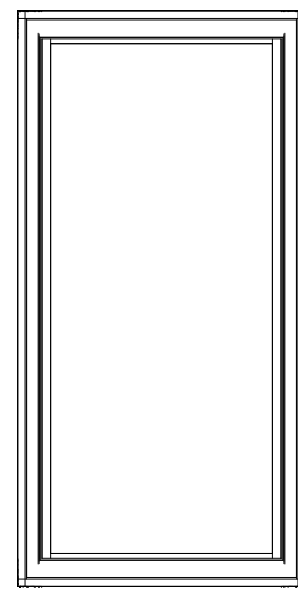
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**BUILDING A,B,C
 DOOR SCHEDULE
 2-3-3-3**

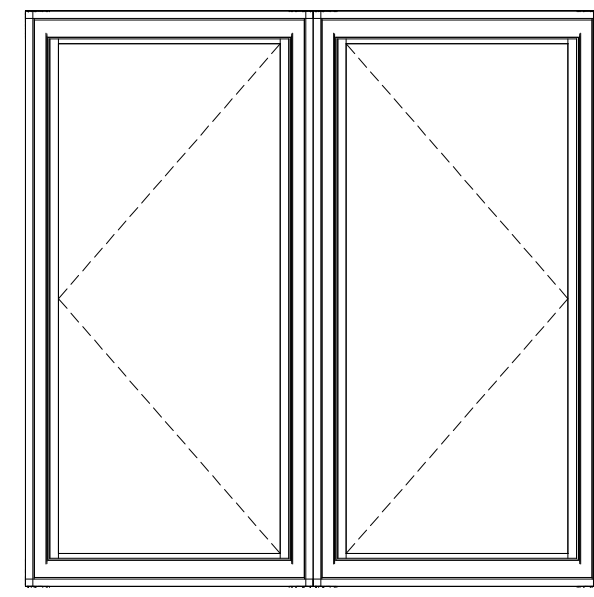
A602

NOTE: DOOR SCHEDULE IS FOR ONE BUILDING. COUNT MUST BE EXTRAPOLATED OVER BUILDINGS A, B, + C

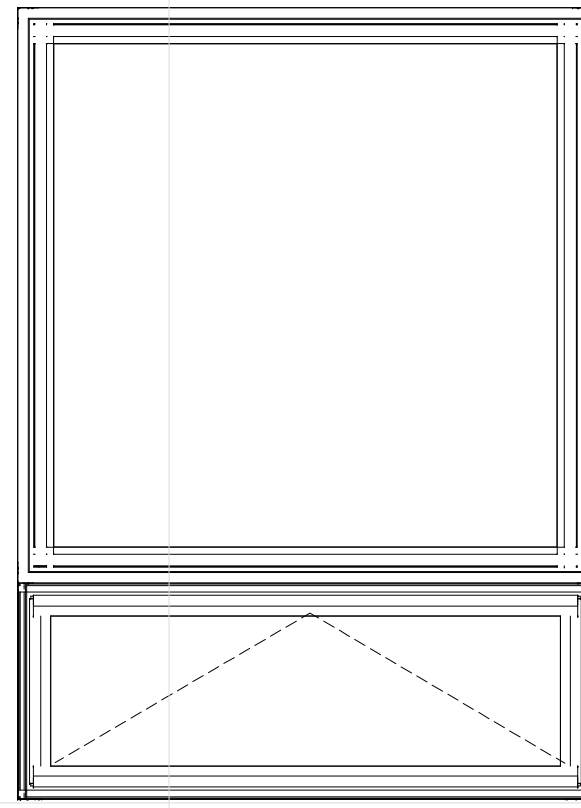
DOOR NO	WIDTH	HEIGHT	DOOR		TYPE	MAT'L	FRAME				FIRE	HDWR	COMMENTS	
			THICKNESS				HEAD	SILL	JAMB	TYPE				MAT'L
104	3'-0"	7'-0"	1 3/4"			WD/GL								
110	3'-0"	6'-8"	1 3/4"			WOOD								
112	3'-0"	6'-8"	1 3/4"			WOOD								
120	3'-0"	6'-8"	1 3/4"			WOOD								
121	3'-0"	6'-8"	1 3/4"			WOOD								
125	2'-3"	6'-8"	1 3/4"			WOOD								
128	4'-6"	6'-8"	1 3/4"			WOOD								
129	3'-0"	6'-8"	1 3/4"			WOOD					45 MIN			
130	3'-0"	6'-8"	1 3/4"			WOOD								
131	3'-0"	6'-8"	1 3/4"			WOOD								
132	3'-0"	6'-8"	1 3/4"			WOOD					45 MIN			
133	4'-6"	6'-8"	1 3/4"			WOOD								
134	3'-0"	6'-8"	1 3/4"			WOOD								
135	3'-0"	6'-8"	1 3/4"			WOOD								
136	3'-0"	6'-8"	1 3/4"			WOOD								
137	3'-0"	6'-8"	1 3/4"			WOOD								
138	3'-0"	6'-8"	1 3/4"			WOOD								
139	2'-3"	6'-8"	1 3/4"			WOOD								
140	4'-6"	6'-8"	1 3/4"			WOOD								
141	3'-0"	6'-8"	1 3/4"			WOOD								
142	3'-0"	6'-8"	1 3/4"			WOOD								
143	3'-0"	6'-8"	1 3/4"			WOOD					45 MIN			
144	3'-0"	6'-8"	1 3/4"			WOOD								
145	3'-0"	6'-8"	1 3/4"			WOOD								
146	3'-0"	6'-8"	1 3/4"			WOOD								
147	3'-0"	6'-8"	1 3/4"			WOOD								
148	3'-0"	6'-8"	1 3/4"			WOOD								
149	2'-3"	6'-8"	1 3/4"			WOOD								
150	4'-6"	6'-8"	1 3/4"			WOOD								
158	3'-0"	6'-8"	1 3/4"			WOOD								
169	3'-0"	7'-0"	1 3/4"			WD/GL								
170	3'-0"	7'-0"	1 3/4"			WD/GL								
185	3'-0"	6'-8"	1 3/4"			WOOD								
224	3'-0"	7'-0"	1 3/4"			WD/GL								
225	3'-0"	7'-0"	1 3/4"			WD/GL								
227	3'-0"	7'-0"	1 3/4"			WD/GL								
252	2'-3"	6'-8"	1 3/4"			WOOD								
253	3'-0"	6'-8"	1 3/4"			WOOD								
260	2'-6"	7'-0"	1 3/4"			WOOD								
261	4'-6"	6'-8"	1 3/4"			WOOD								
274	3'-0"	7'-0"	1 3/4"			WD/GL								
275	3'-0"	7'-0"	1 3/4"			WD/GL								
276	3'-0"	6'-8"	1 3/4"			WOOD								
277	3'-0"	6'-8"	1 3/4"			WOOD								
279	3'-0"	6'-8"	1 3/4"			WOOD								
281	3'-0"	6'-8"	1 3/4"			WOOD								
282	3'-0"	6'-8"	1 3/4"			WOOD								
283	3'-0"	6'-8"	1 3/4"			WOOD								
325	3'-0"	6'-8"	1 3/4"			WOOD								
326	3'-0"	6'-8"	1 3/4"			WOOD								
328	3'-0"	6'-8"	1 3/4"			WOOD					45 MIN			
329	3'-0"	6'-8"	1 3/4"			WOOD								
330	3'-0"	6'-8"	1 3/4"			WOOD								
331	3'-0"	6'-8"	1 3/4"			WOOD								



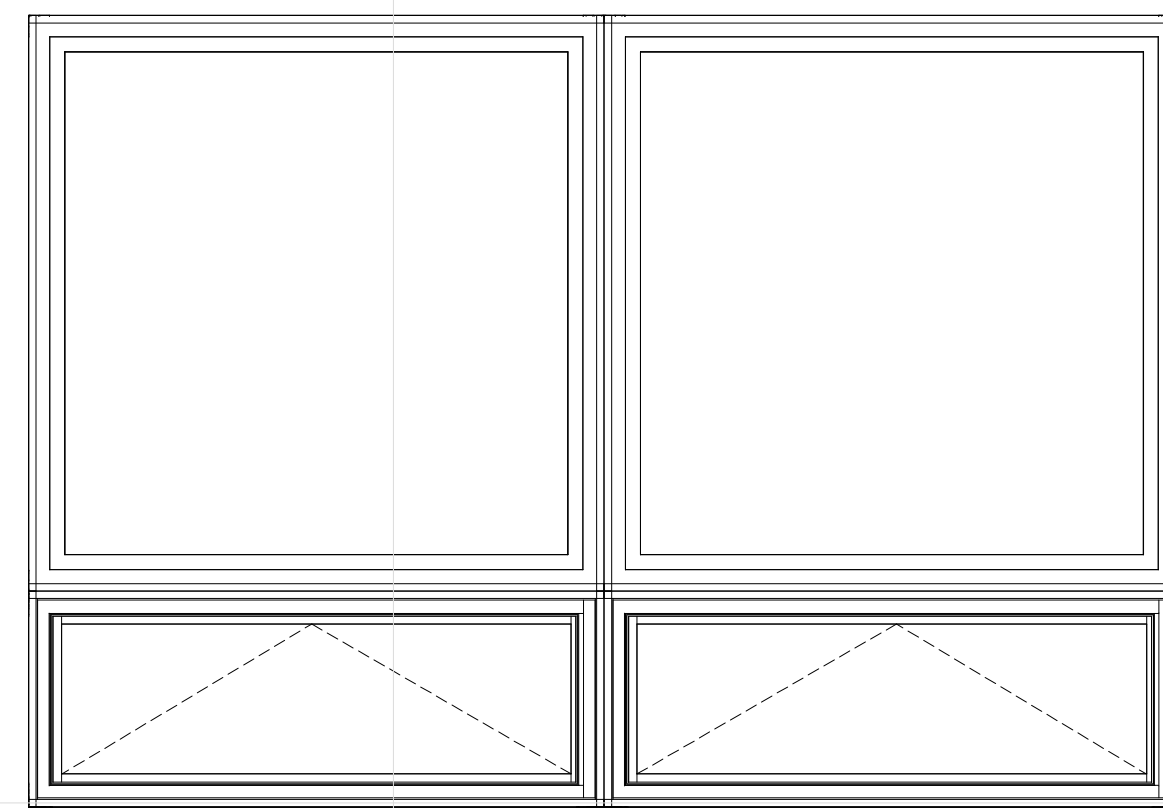
1 SINGLE CASEMENT
 A651 3/4" = 1'-0"



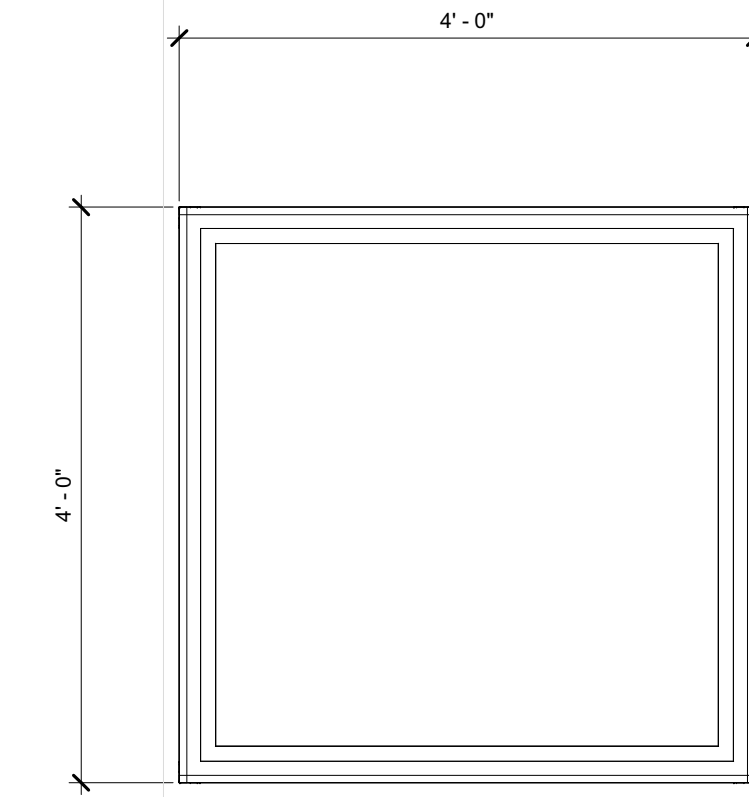
2 DOUBLE CASEMENT
 A651 3/4" = 1'-0"



3 FIXED OVER AWNING
 A651 3/4" = 1'-0"



4 DOUBLE FIXED OVER DOUBLE AWNING
 A651 3/4" = 1'-0"

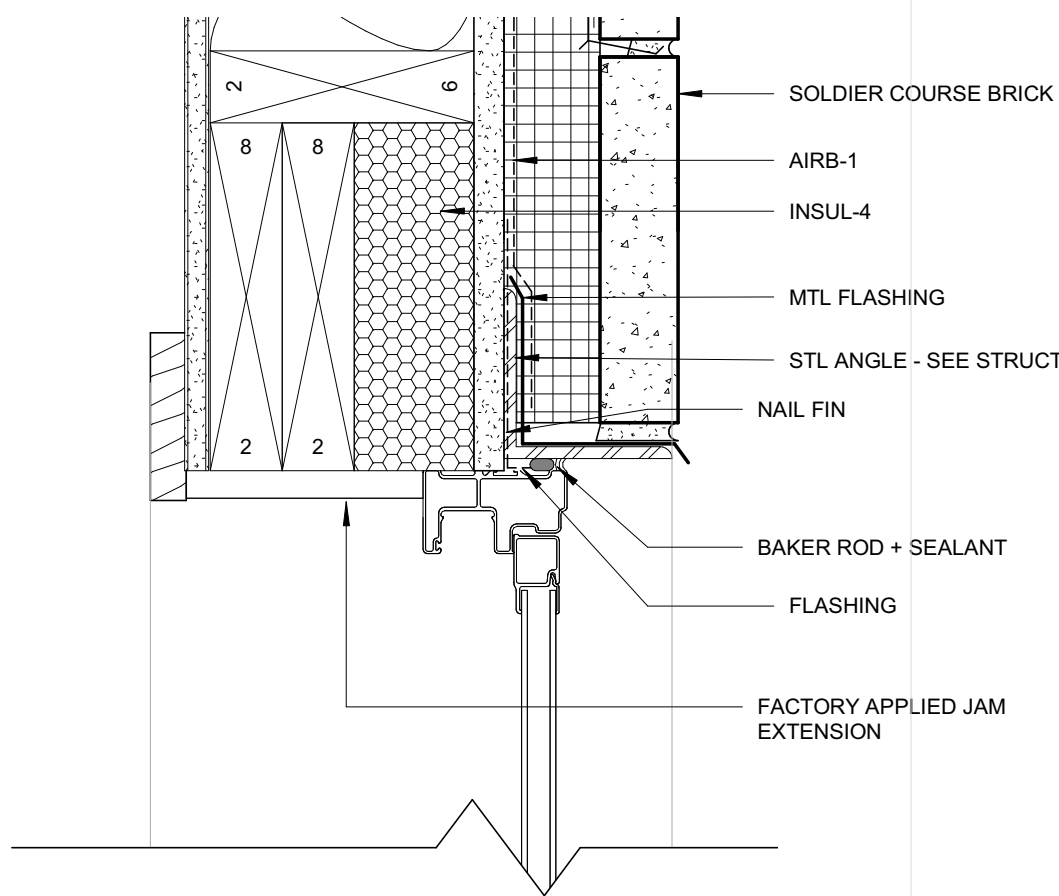


5 FIXED
 A651 3/4" = 1'-0"

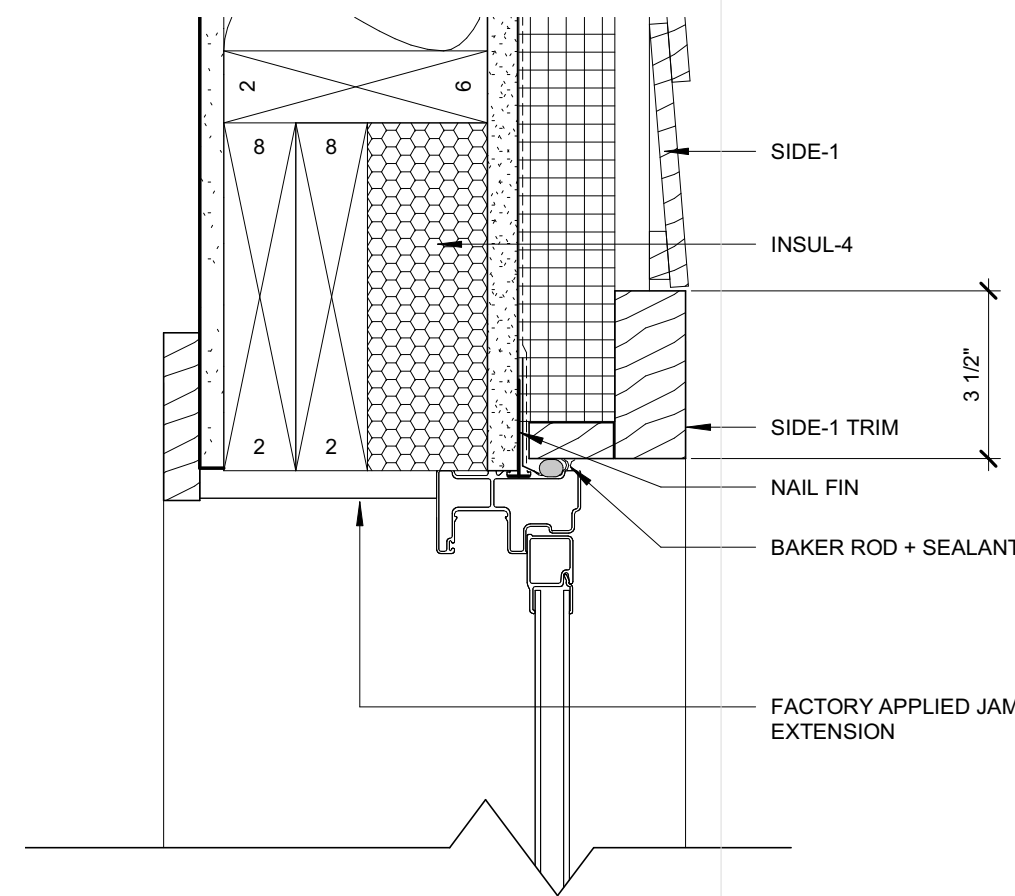
NOTE: DOUBLE CASEMENTS IN BEDROOMS TO BE EGRESS WINDOWS

NOTE: AWNING WINDOWS ON FIRST FLOOR TO BE BURGLER RESISTANT

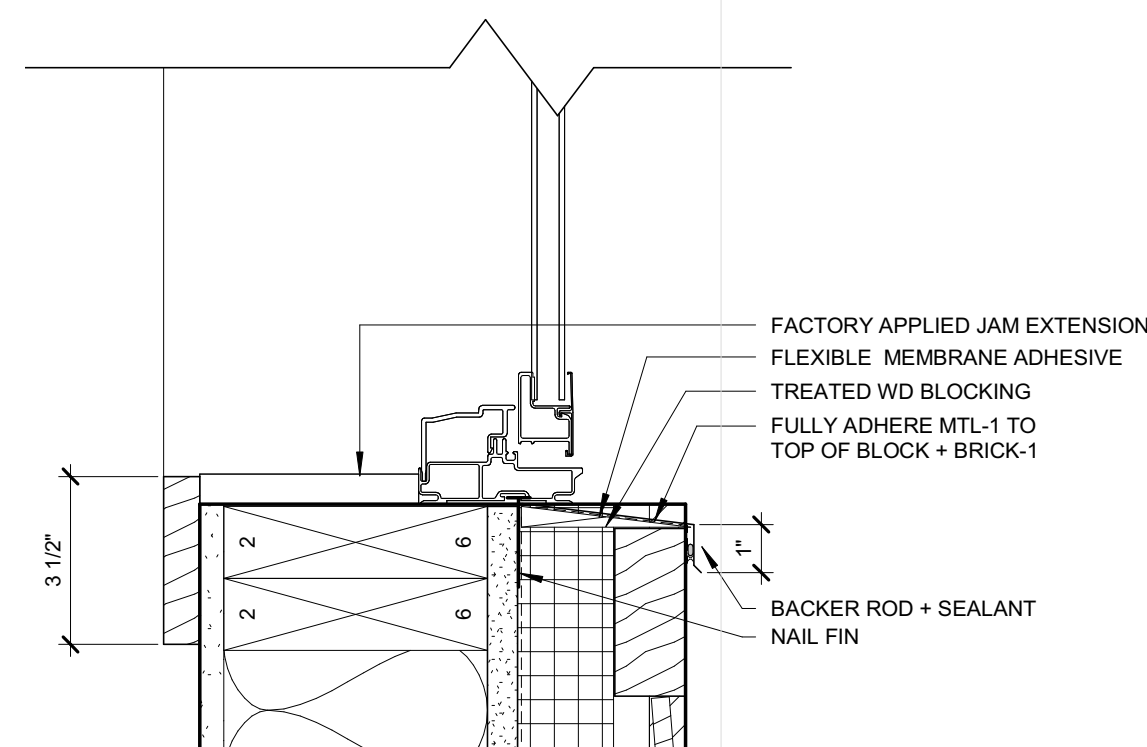
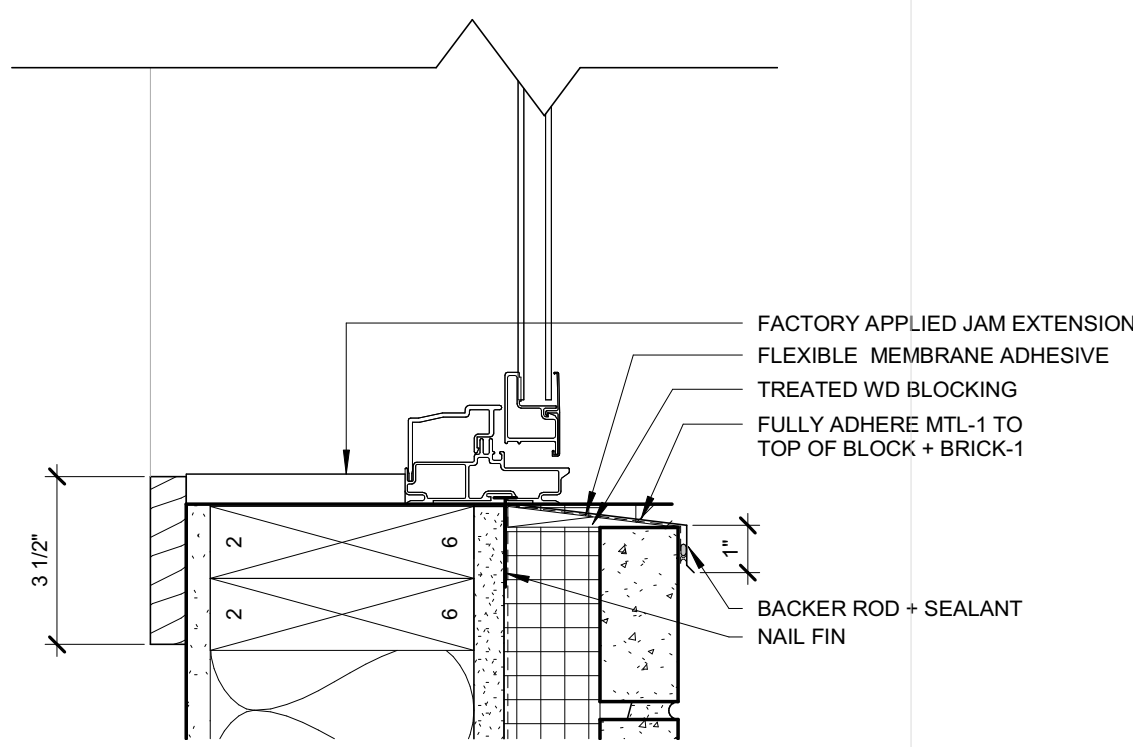
BUILDING D WINDOW SCHEDULE									
Mark	Type Mark	Count	Rough Width	Rough Height	Width	Height	Manufacturer	Model	Comments
1 SINGLE CASEMENT									
1	A	4	2' - 0 1/2"	4' - 0 1/2"	2' - 0"	4' - 0"	Pella Windows & Doors	2856	
1	B	4	2' - 0 1/2"	4' - 0 1/2"	2' - 0"	4' - 0"	Pella Windows & Doors	2856	
2 DOUBLE CASEMENT									
2	A	13	2' - 0 1/2"	4' - 0 1/2"	2' - 0"	4' - 0"	Pella Windows & Doors	2856	FACTORY MULLED
2	B	13	2' - 0 1/2"	4' - 0 1/2"	2' - 0"	4' - 0"	Pella Windows & Doors	2856	FACTORY MULLED
3 FIXED OVER AWNING									
3	C	7	4' - 0 1/2"	4' - 0 1/2"	4' - 0"	4' - 0"	Pella Windows & Doors		FACTORY MULLED
3	D	7				1' - 6"			FACTORY MULLED
4 DOUBLE FIXED OVER DOUBLE AWNING									
4	C	12	4' - 0 1/2"	4' - 0 1/2"	4' - 0"	4' - 0"	Pella Windows & Doors		FACTORY MULLED
4	D	12	4' - 0 1/2"	1' - 6 1/2"	4' - 0"	1' - 6"	Pella Windows & Doors	2856	FACTORY MULLED
5 FIXED									
5	C	2	4' - 0 1/2"	4' - 0 1/2"	4' - 0"	4' - 0"	Pella Windows & Doors		
16									
16	B	1	2' - 0 1/2"	4' - 0 1/2"	2' - 0"	4' - 0"	Pella Windows & Doors	2856	FACTORY MULLED
17									
17	A	1	2' - 0 1/2"	4' - 0 1/2"	2' - 0"	4' - 0"	Pella Windows & Doors	2856	FACTORY MULLED



7 WINDOW HEAD + SILL DETAIL
 A651 3" = 1'-0"



6 WINDOW HEAD + SILL DETAIL SIDE-1
 A651 3" = 1'-0"



MINNEHAHA TOWNHOMES
 5348, 5364, 5369 RIVERVIEW ROAD, 5118 54TH ST EAST MINNEAPOLIS, MN 55417

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Signature: _____
 Print Names: _____
 Date: _____ License No: _____

MARK	DATE	DESCRIPTION
	04.21.17	100% DD
	04.28.17	LAND USE APPLICATION
	05.05.17	50% CD
	05.26.17	GC 90% REVIEW SET
	06.21.17	100% CD ISSUE

PROJECT NO. 2016015
 PROJECT PHASE 100% CD ISSUE
 DRAWN BY: P.LYNCH CHECKED BY: Checker

WINDOW SCHEDULE, TYPES AND DETAILS

A651

**MINNEHAHA
 TOWNHOMES**
 5348,5364,5369 RIVERVIEW
 5118 54TH ST EAST
 MINNEAPOLIS, MN 55417

NOTE: WINDOW SCHEDULE IS FOR ONE BUILDING. COUNT MUST BE EXTRAPOLATED OVER BUILDINGS A, B, + C

WINDOW SCHEDULE										
Mark	Type Mark	Count	Rough Width	Rough Height	Width	Height	Manufacturer	Model	Comments	
1 SINGLE CASEMENT										
1	SINGLE CASEMENT	A	4	2' - 0 1/2"	4' - 0 1/2"	2' - 0"	4' - 0"	Pella Windows & Doors	2856	
1	SINGLE CASEMENT	B	3	2' - 0 1/2"	4' - 0 1/2"	2' - 0"	4' - 0"	Pella Windows & Doors	2856	
2 DOUBLE CASEMENT										
2	DOUBLE CASEMENT	A	12	2' - 0 1/2"	4' - 0 1/2"	2' - 0"	4' - 0"	Pella Windows & Doors	2856	FACTORY MULLED
2	DOUBLE CASEMENT	B	12	2' - 0 1/2"	4' - 0 1/2"	2' - 0"	4' - 0"	Pella Windows & Doors	2856	FACTORY MULLED
3 FIXED OVER AWNING										
3	FIXED OVER AWNING	C	10	4' - 0 1/2"	4' - 0 1/2"	4' - 0"	4' - 0"	Pella Windows & Doors		FACTORY MULLED
3	FIXED OVER AWNING	D	10				1' - 6"			FACTORY MULLED
4 DOUBLE FIXED OVER DOUBLE AWNING										
4	DOUBLE FIXED OVER DOUBLE AWNING	C	10	4' - 0 1/2"	4' - 0 1/2"	4' - 0"	4' - 0"	Pella Windows & Doors		FACTORY MULLED
4	DOUBLE FIXED OVER DOUBLE AWNING	D	10	4' - 0 1/2"	1' - 6 1/2"	4' - 0"	1' - 6"	Pella Windows & Doors	2856	FACTORY MULLED
5 FIXED										
5	FIXED	C	2	4' - 0 1/2"	4' - 0 1/2"	4' - 0"	4' - 0"	Pella Windows & Doors		

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Signature: _____

Print Name: _____

Date: _____ License No: _____

ISSUE	MAR	DATE	DESCRIPTION
K	04.21.17	100%DD	100%DD
	04.28.17	LAND USE APPLICATION	
	05.08.17	50% CD	
	05.26.17	GC 90% REVIEW SET	
	06.21.17	100% CD ISSUE	

PROJECT NO.	2016015
PROJECT PHASE	GC 90% REVIEW SET
DRAWN BY:	CHECKED BY:
Author	Checker

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**BUILDING A,B,C
 WINDOW
 SCHEDULE 2-3-3-3**

A652

PLUMBING ABBREVIATIONS					
AG	ABOVE GRADE	FOO	FLOOR CLEANOUT	PSF	POUNDS PER SQUARE FOOT
ADD	ADDENDUM	FD	FLOOR DRAIN	PSI	POUNDS PER SQUARE INCH
ADDL	ADDITIONAL	FLR	FLOOR	PWR	POWER
ADJ	ADJUSTABLE	FPM	FEET PER MINUTE	QTY	QUANTITY
AFF	ABOVE FINISH FLOOR	FT	FOOT (FEET)		
AFG	ABOVE FINISH GRADE	FURN	FURNACE	R	RADIUS
ALT	ALTERNATE	GA	GAUGE/GAGE	REQD	REQUIRED
APPRX	APPROXIMATE	GAL	GALLON	REV	REVERSE OR REVISION
ARCH	ARCHITECT, ARCHITECTURAL	GALV	GALVANIZED	RPM	REVOLUTIONS PER MINUTE
BFF	BELOW FINISHED FLOOR	GC	GENERAL CONTRACTOR	SAN	SANITARY
BG	BELOW GRADE	GPM	GALLONS PER MINUTE	SCH	SCHEDULE
BLDG	BUILDING	GYP	GYPSUM	SECT	SECTION
BI	BLACK IRON	HB	HOSE BIB	SF	SQUARE FEET
BOP	BOTTOM OF PIPE	HORIZ	HORIZONTAL	SHT	SHEET
BOT	BOTTOM	HP	HORSEPOWER	SHWR	SHOWER
BMT	BASEMENT	HT	HEIGHT	SIM	SIMILAR
BT	BATH TUB	HW	HOT WATER	SPEC	SPECIFICATIONS
BTWN	BETWEEN			SQ	SQUARE
CI	CAST IRON	IE	INVERT ELEVATION	T&B	TOP AND BOTTOM
CL	CENTERLINE	IN	INCH	TEMP	TEMPERATURE OR TEMPORARY
CLR	CLEAR	INSUL	INSULATION	TYP	TYPICAL
CO	CLEANOUT	LB	POUND		
CONC	CONCRETE	LOC	LOCATION	V	VENT
COND	CONDENSATE	MAX	MAXIMUM	VAR	VARIABLE OR VARIES
CONN	CONNECTION	MC	MECHANICAL CONTRACTOR	VERT	VERTICAL
CONT	CONTINUOUS	MECH	MECHANICAL	VOL	VOLUME
CW	CHILLED/COLD WATER	MIN	MINIMUM	VS	VENT STACK
DEPT	DEPARTMENT	MFR	MANUFACTURER	VTR	VENT THRU ROOF
DET	DETAIL	NFC	NOT FOR CONSTRUCTION	W	WITH
DIA OR	DIAMETER	NIC	NOT IN CONTRACT	WIN	WITHIN
DN	DOWN	NTS	NOT TO SCALE	WIO	WITH OUT
DWG	DRAWING			WC	WATER COLUMN (INCHES OF)
EC	ELECTRICAL CONTRACTOR	OC	ON CENTER	WB	WASHER BOX
EO	EXTERIOR CLEANOUT	OPNG	OPENING	WG	WATER GAUGE
EL	ELEVATION	OPP	OPPOSITE	WH	WALL HYDRANT
ELEC	ELECTRICAL	PC	PLUMBING CONTRACTOR	WP	WEATHER PROOF
EQ	EQUAL	PERP	PERPENDICULAR	WT	WEIGHT
EQUIP	EQUIPMENT	PLB	PLUMBING	YH	YARD HYDRANT
		PRES	PRESSURE		

GENERAL PLUMBING NOTES	
1.	THESE DRAWINGS SHALL NOT BE SCALED. SEE ARCHITECTURAL/CIVIL DRAWINGS FOR DIMENSIONAL INFORMATION. THIS ENGINEER WILL NOT BE LIABLE FOR MISCALCULATED PRODUCT TAKE-OFFS DUE TO SCALING OF DRAWINGS.
2.	CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY FITTINGS AS REQUIRED BY ALL APPLICABLE CODES AND GOVERNING AUTHORITIES.
3.	CONTRACTOR SHALL VERIFY ANY POSSIBLE DISCREPANCIES BETWEEN TYPE AND SIZE OF CONNECTION SPECIFIED IN PLUMBING FIXTURE SCHEDULE AND FIXTURES ACTUALLY INSTALLED ON THE SITE AND CORRECT AS REQUIRED TO MEET ALL CODES AND REGULATIONS.
4.	ALL SANITARY PIPING SHALL HAVE A 1/8" PER FOOT SLOPE UNLESS OTHERWISE NOTED. 2" SANITARY OR SMALLER SHALL HAVE A 1/4" PER FOOT SLOPE.
5.	VENT PIPING SHOWN ON FLOOR PLANS IS DIAGRAMMATIC EXCEPT FOR VENT THRU ROOF (VTR) LOCATIONS.
6.	VALVES AND FITTINGS SHALL BE OF SAME SIZE AS THE LINE ON WHICH THEY ARE LOCATED, UNLESS OTHERWISE INDICATED ON DRAWINGS.
7.	CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES.
8.	CONTRACTOR SHALL FIELD VERIFY ALL GIVEN MEASUREMENTS PRIOR TO LAYING AND CONNECTING ALL SANITARY AND WASTE PIPING AND NOTIFY ARCHITECT OF ANY DISCREPANCIES.
6.	CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FIRE RATING AND WEATHERPROOFING INTEGRITY OF ALL PIPING AND PENETRATIONS.
7.	ALL WATER SUPPLY AND SANITARY LINES SHALL BE RUN AS CLOSE TO PLANS AS POSSIBLE WITH NO CHANGES IN SIZING.
8.	CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SUPPORTING DEVICES FOR ALL FIXTURES INCLUDED IN CONTRACT OR HEREIN SPECIFIED OR OTHERWISE.
9.	CHANGES IN THE DIRECTION OF SANITARY PIPING SHALL NOT BE MADE WITH FITTINGS WHICH WILL CAUSE EXCESSIVE REDUCTION IN THE VELOCITY OF FLOW OR CREATE ANY OTHER ADVERSE EFFECT UNLESS PHYSICALLY IMPOSSIBLE (I.E.: USE OF SANITARY TEE IN A HORIZONTAL CONNECTION, USE OF A DOUBLE SANITARY TEE IN A VERTICAL STACK, IN GENERAL, USE OF SHORT-RADIUS FITTINGS FOR BRANCH TO HOUSE DRAIN OR STACK CONNECTION).
10.	CONTRACTOR SHALL GIVE 48 HOURS/24 HOUR EMERGENCY LOCATE NOTICE TO APPLICABLE UTILITY COMPANY PRIOR TO PERFORMING WORK INVOLVING UTILITIES.
11.	ALL DRAINAGE PIPING SHALL BE MARKED WITH THE SEAL OF APPROVAL OF THE NATIONAL SANITATION FOUNDATION.
12.	WHERE SANITARY SEWER LINES CROSS UNDERGROUND WATER SUPPLY LINES WITH LESS THAN 8" MINIMUM VERTICAL CLEARANCE, THE SANITARY SEWER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE (10'-0" EACH SIDE OF WATER MAIN) OR THE WATER LINES SHOULD BE MODIFIED TO PROVIDE 8" MINIMUM CLEARANCE.
18.	CONTRACTOR SHALL GIVE 24 HOUR NOTICE IN WRITING TO, AND RECEIVE WRITTEN APPROVAL, FROM THE BUILDING ADMINISTRATOR (OR HIS REPRESENTATIVE) PRIOR TO SHUT DOWN OF ANY SYSTEM OR DISRUPTION OF SERVICE TO ANY AREA. CONTRACTOR SHALL ALSO COORDINATE THE EXACT LOCATION AND TIMING OF SYSTEM(S) SHUTDOWN POINTS WITH THE OWNER REPRESENTATIVE (I.E.: ENGINEERING DEPARTMENT). CONTRACTOR SHALL MAKE EVERY EFFORT POSSIBLE TO MINIMIZE THE DURATION OF ANY DOWNTIME OR DISRUPTION PERIOD.
19.	ROUTE ALL PIPING CONCEALED ABOVE CEILINGS, WITHIN WALLS, OR IN CHASES. PIPING EXPOSED SHALL BE SLOPED AND PAINTED TO MATCH ARCHITECTURAL FINISHES. PIPING IN MECHANICAL ROOMS MAY BE EXPOSED.
20.	PROVIDE ACCESS PANELS TO ALL VALVES ABOVE INACCESSIBLE CEILINGS. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING TYPES.
21.	COORDINATE WITH ARCHITECT/GENERAL CONTRACTOR FOR INSTALLATION OF HOSE BIBBS.
22.	CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF SEWERS TO WHICH NEW SEWER LINES ARE TO BE CONNECTED BEFORE INSTALLATION OF NEW SEWER LINE.
23.	ALL VENTS THROUGH ROOF SHALL BE MIN. 10'-0" FROM ANY AIR INTAKES.
24.	CONTRACTOR SHALL INSTALL DIELECTRIC UNIONS AT CONNECTIONS OF DISSIMILAR METALS.
25.	CONTRACTOR SHALL ROUGH-IN ALL WASTES AND SUPPLIES TO SPECIAL EQUIPMENT ACCORDING TO MANUFACTURER'S SHOP DRAWINGS AND MAKE FINAL CONNECTIONS. ALL SUPPLIES SHALL BE VALVED. INSTALL VACUUM BREAKERS WHERE REQUIRED BY CODE.
26.	CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (INCLUDING PIPE ROUTING AND EQUIPMENT LOCATIONS) TO ARCHITECT/ENGINEER FOR REVIEW PRIOR TO THE INSTALLATION OR PURCHASING OF ANY PIPING AND/OR EQUIPMENT.
27.	PROVIDE REDUCED PRESSURE BACKFLOW PREVENTERS FOR DOMESTIC WATER SUPPLIES AS REQUIRED BY LOCAL WATER PURVEYORS. TEST AND REGISTER WITH APPROPRIATE CODE OFFICIAL.
28.	COORDINATE EXACT LOCATION OF FLOOR DRAINS FOR HVAC EQUIPMENT WITH MECHANICAL CONTRACTOR.
29.	THE CONTRACTOR IS EXPECTED TO ORDER ALL MATERIALS IN SUFFICIENT TIME TO AVOID DELAYING THE COMPLETION OF THE PROJECT. DELAY IN DELIVERIES WILL NOT BE CONSIDERED A JUSTIFIABLE REASON FOR SUBMISSION OF SUBSTITUTE MATERIALS.
30.	DO NOT PENETRATE WALL FOOTINGS WITH PIPING, COORDINATE WITH GENERAL CONTRACTOR TO DROP FOOTINGS AS REQUIRED TO CLEAR PLUMBING SERVICES WHERE ABSOLUTELY NECESSARY. ALL PIPING PENETRATING A BEARING WALL OR FOOTING MUST BE SLEEVED AND LOCATION APPROVED BY STRUCTURAL ENGINEER. PROVIDE LINK-SEALS IN ALL PENETRATIONS OF EXTERIOR WALLS.
31.	ALL PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE IN PROVIDED CEILING SPACE.
32.	COORDINATE PIPING INSTALLATION AS TO NOT INTERFERE WITH HVAC EQUIPMENT ACCESS.
33.	ANY ERRORS OR AMBIGUITIES IN THE PLANS AND/OR SPECIFICATIONS THAT ARE DISCOVERED BY THE CONTRACTOR SHALL BE REPORTED TO THE ARCHITECT/ENGINEER BEFORE WORK IS STARTED. OMISSION OF PARTICULAR REFERENCE TO ANY ITEM NECESSARY FOR COMPLETE INSTALLATION AND PROPER OPERATION THEREOF SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING THE SAME AT NO EXTRA COST. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL CONSTRUCTION DOCUMENTS FOR INFORMATION PRIOR TO BID.

PLUMBING PIPING LEGEND	
	CIRCUIT SETTER
	BALL VALVE OR SHUT-OFF VALVE
	SPRING CHECK VALVE
	PRESSURE REDUCING VALVE (PRV)
	RPZ VALVE OR BACKFLOW PREVENTER
	HAMMER ARRESTOR (PISTON TYPE)
	HAMMER ARRESTOR (BELLOWS TYPE)
	PIPE REDUCER FITTING
	END CAP
	PIPE CONNECTION
	FLOW DIRECTION ARROW
	PIPING ELBOW DOWN
	PIPING ELBOW UP OR PIPING RISER UP & DOWN
	PIPING TEE DOWN
	PIPING TEE UP OR PIPING RISER UP & DOWN
	HOSE BIB OR WALL HYDRANT
	FLOW METER
	PRESSURE REGULATOR

PLUMBING SHEET INDEX	
P000	PLUMBING TITLE SHEET
P001	PLUMBING SITE PLAN
P100A	PLUMBING BELOW GRADE PLAN - BUILDINGS A, B, & C
P100B	PLUMBING BELOW GRADE PLAN - BUILDING D
P101A	PLUMBING DOMESTIC WATER PLAN - BUILDINGS A, B, & C
P101B	PLUMBING DOMESTIC WATER PLAN - BUILDING D
P102A	PLUMBING SANITARY PLAN - BUILDINGS A, B, & C
P102B	PLUMBING SANITARY PLAN - BUILDING D
P300A	PLUMBING DOMESTIC WATER RISER - BUILDINGS A, B, & C
P300B	PLUMBING DOMESTIC WATER RISER - BUILDING D
P301A	PLUMBING SANITARY RISER - BUILDINGS A, B, & C
P301B	PLUMBING SANITARY RISER - BUILDING D
P400	PLUMBING DETAILS AND SCHEMATICS
P500	PLUMBING SCHEDULES

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Signature:

Print Names: Larry Nemer

Date: 06/21/2017 License No.: 21157

ISSUE	MARK	DATE	DESCRIPTION

PROJECT NO: M10.17.02

PROJECT PHASE: 100% CD ISSUE

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PLUMBING TITLE SHEET

P000

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GENERAL NOTES

- REFER TO P000 FOR ADDITIONAL NOTES, SYMBOLS, AND ABBREVIATIONS.
- COORDINATE CW PIPING WITH CIVIL.

KEYED NOTES

- PROVIDE LOCKABLE FREEZELESS YARD HYDRANT YH-1. ROUTE 3/4" CW PIPING BELOW GRADE FROM IRRIGATION METER. METER WILL BE LOCATED IN SOUTH TOWNHOME MECHANICAL ROOM IN BUILDING A.
- PROVIDE LOCKABLE FREEZELESS WALL HYDRANT WH-1. IRRIGATION METER SHALL BE LOCATED IN ADJACENT TOWNHOME MECHANICAL ROOM WITH LOCK OPEN SHUT OFF VALVE.
- BUILDING GAS METER BANK LOCATION.



1 PLUMBING SITE PLAN
 1" = 30'-0"



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Print Name: Larry Nemer

Date: 06/21/2017 License No: 21157

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MARK	DESCRIPTION

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PLUMBING SITE PLAN

P001



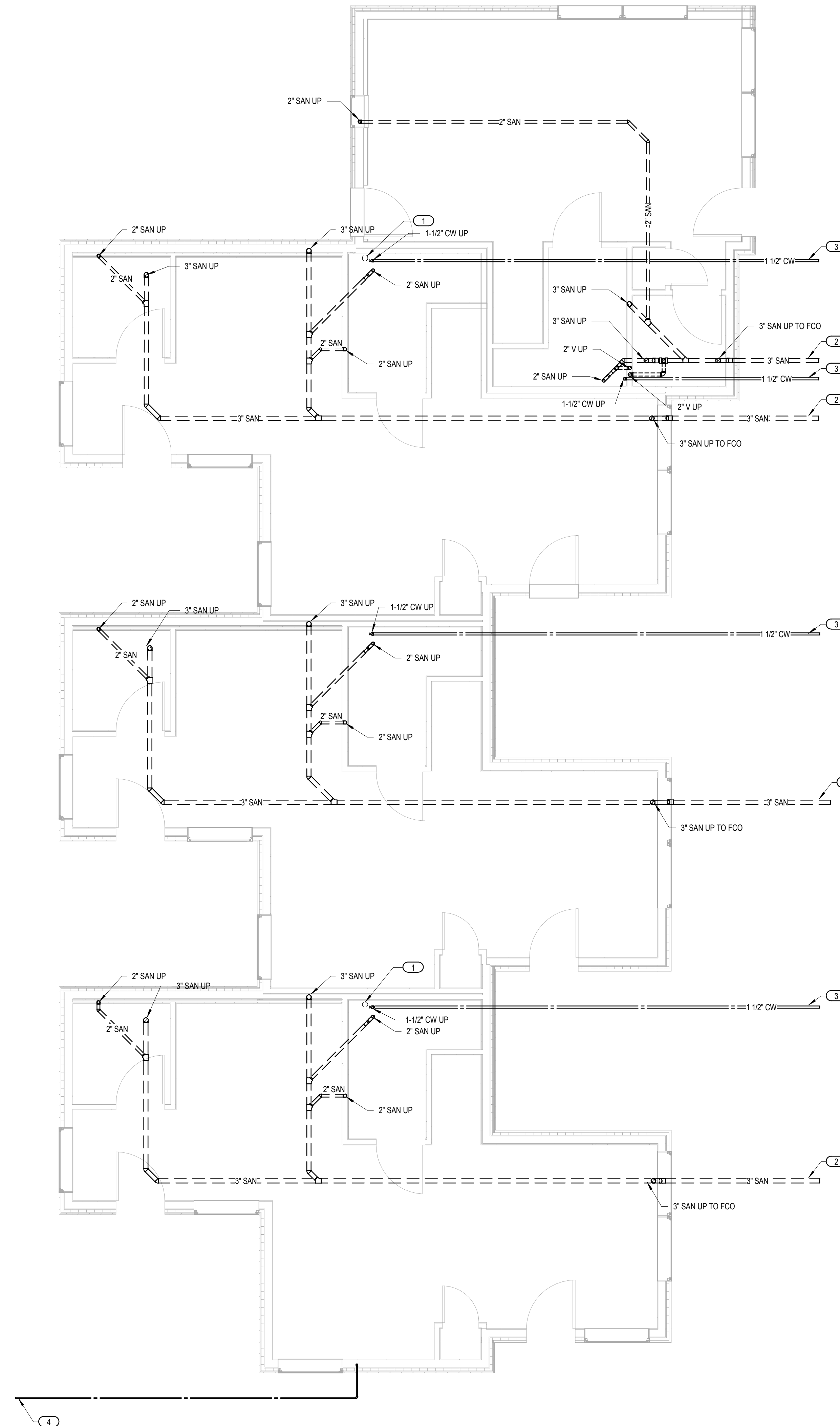
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GENERAL NOTES

- REFER TO P000 FOR ADDITIONAL NOTES, SYMBOLS, AND ABBREVIATIONS.

KEYED NOTES

- RADON MITIGATION, 4" VENT UP.
- ROUTE 3" SANITARY TO EXTERIOR OF BUILDING. THIS CONTRACTOR RESPONSIBLE FOR WORK WITHIN 5'-0" FROM BUILDING EXTERIOR FACE. COORDINATE FINAL CONNECTION WITH SITE UTILITY CONTRACTOR. REFER TO CIVIL PLANS.
- ROUTE 1-1/2" DOMESTIC WATER TO EXTERIOR OF BUILDING AT 8'-0" BELOW GRADE. THIS CONTRACTOR RESPONSIBLE FOR WORK WITHIN 5'-0" FROM BUILDING EXTERIOR FACE. COORDINATE FINAL CONNECTION WITH SITE UTILITY CONTRACTOR. REFER TO CIVIL PLANS.
- BUILDING A: ROUTE 3/4" CW PIPING BELOW GRADE TO YARD HYDRANTS. REFER TO P001 FOR LOCATIONS. COORDINATE FINAL LAYOUT WITH SITE CONTRACTOR. REFER TO CIVIL PLANS.



1 PLUMBING BELOW GRADE PLAN - BUILDINGS A, B, & C
1/4" = 1'-0"

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PLUMBING BELOW GRADE PLAN - BUILDINGS A, B, & C

P100A

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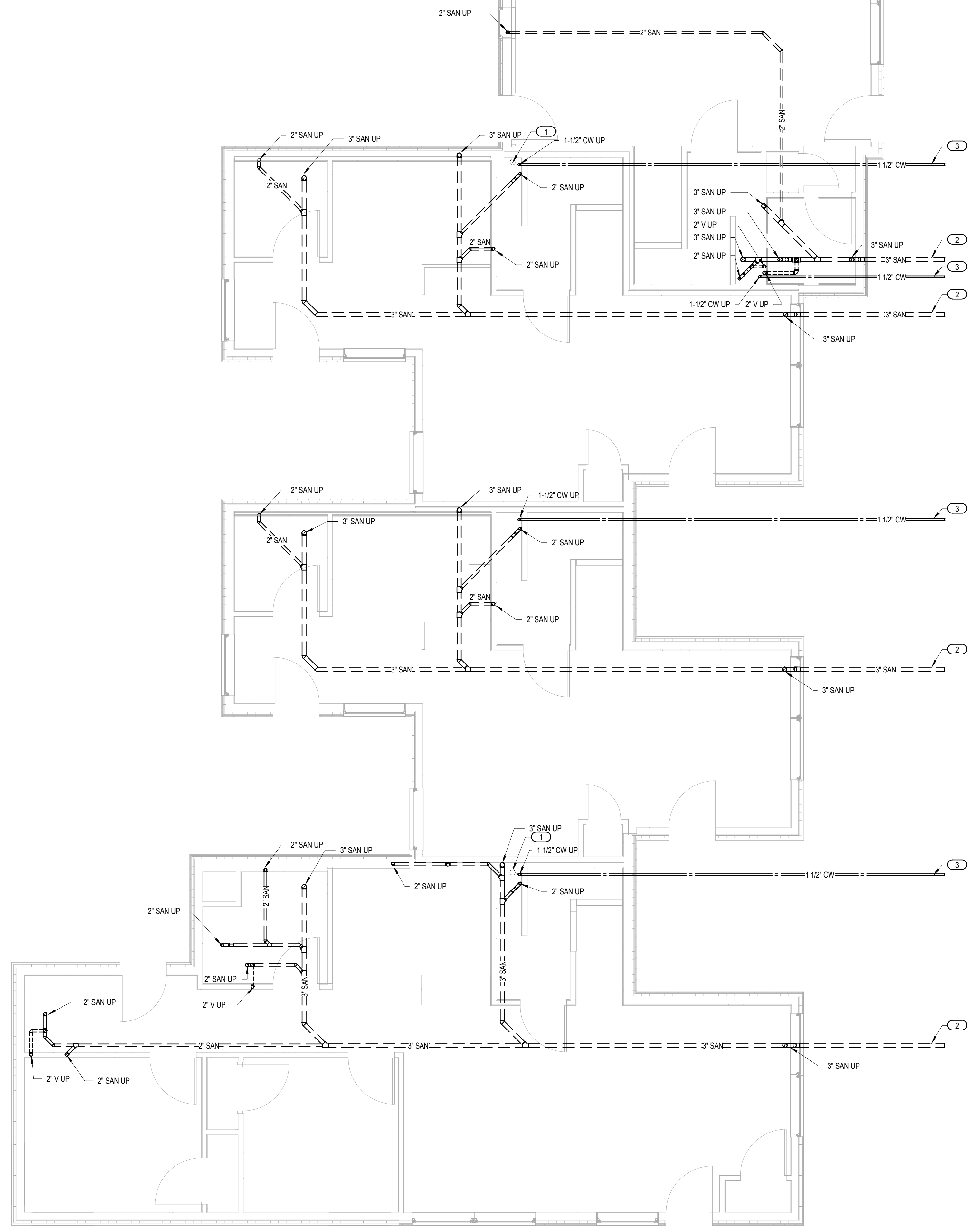
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GENERAL NOTES

1. REFER TO P000 FOR ADDITIONAL NOTES, SYMBOLS, AND ABBREVIATIONS.

KEYED NOTES

- 1 RADON MITIGATION, 4" VENT UP.
- 2 ROUTE 3" SANITARY TO EXTERIOR OF BUILDING. THIS CONTRACTOR RESPONSIBLE FOR WORK WITHIN 5'-0" FROM BUILDING EXTERIOR FACE. COORDINATE FINAL CONNECTION WITH SITE UTILITY CONTRACTOR. REFER TO CIVIL PLANS.
- 3 ROUTE 1" DOMESTIC WATER TO EXTERIOR OF BUILDING. THIS CONTRACTOR RESPONSIBLE FOR WORK WITHIN 5'-0" FROM BUILDING EXTERIOR FACE. COORDINATE FINAL CONNECTION WITH SITE UTILITY CONTRACTOR. REFER TO CIVIL PLANS.



1 PLUMBING BELOW GRADE PLAN - BUILDING D
 1/4" = 1'-0"

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**PLUMBING BELOW
 GRADE PLAN -
 BUILDING D**

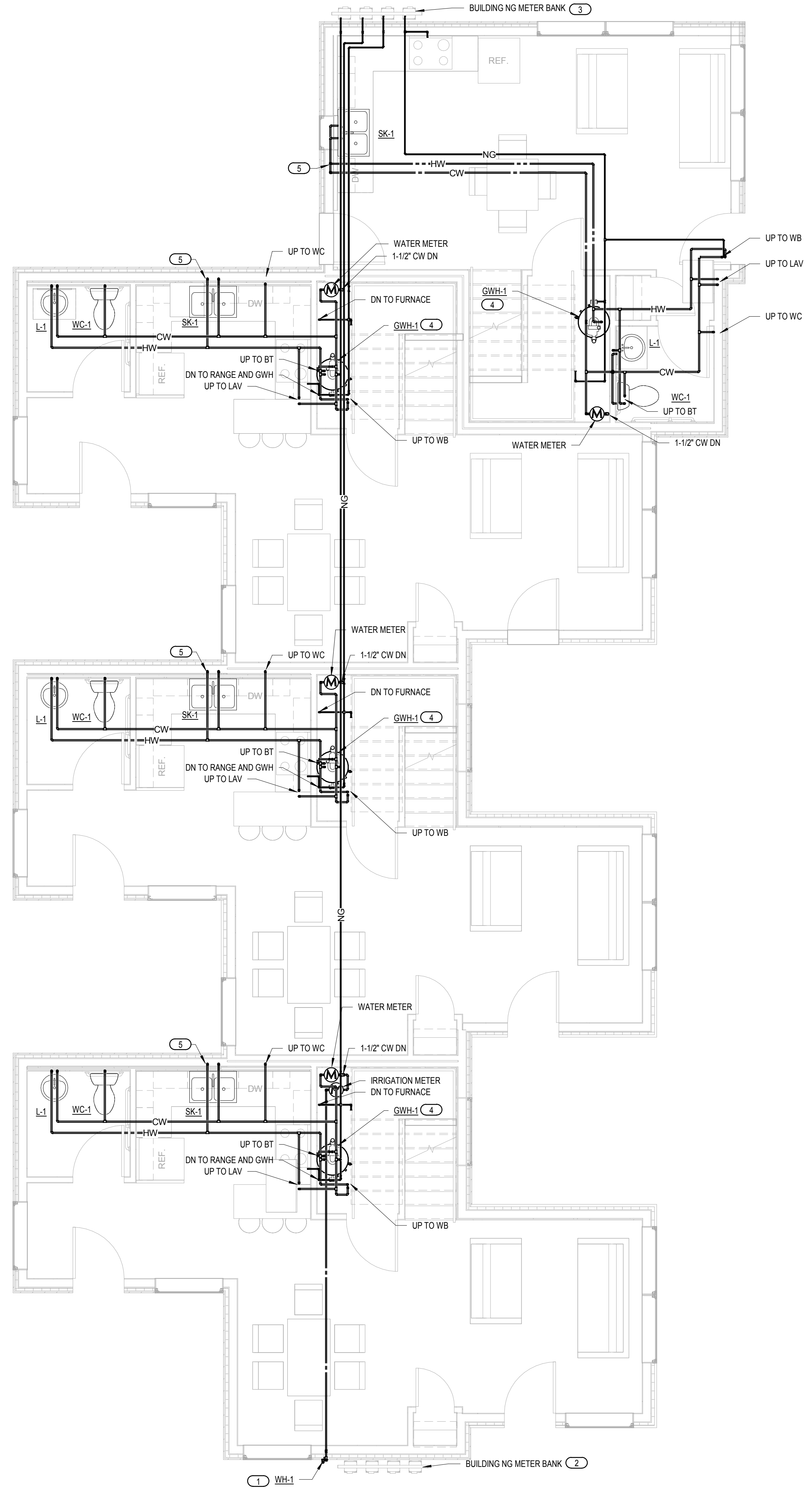
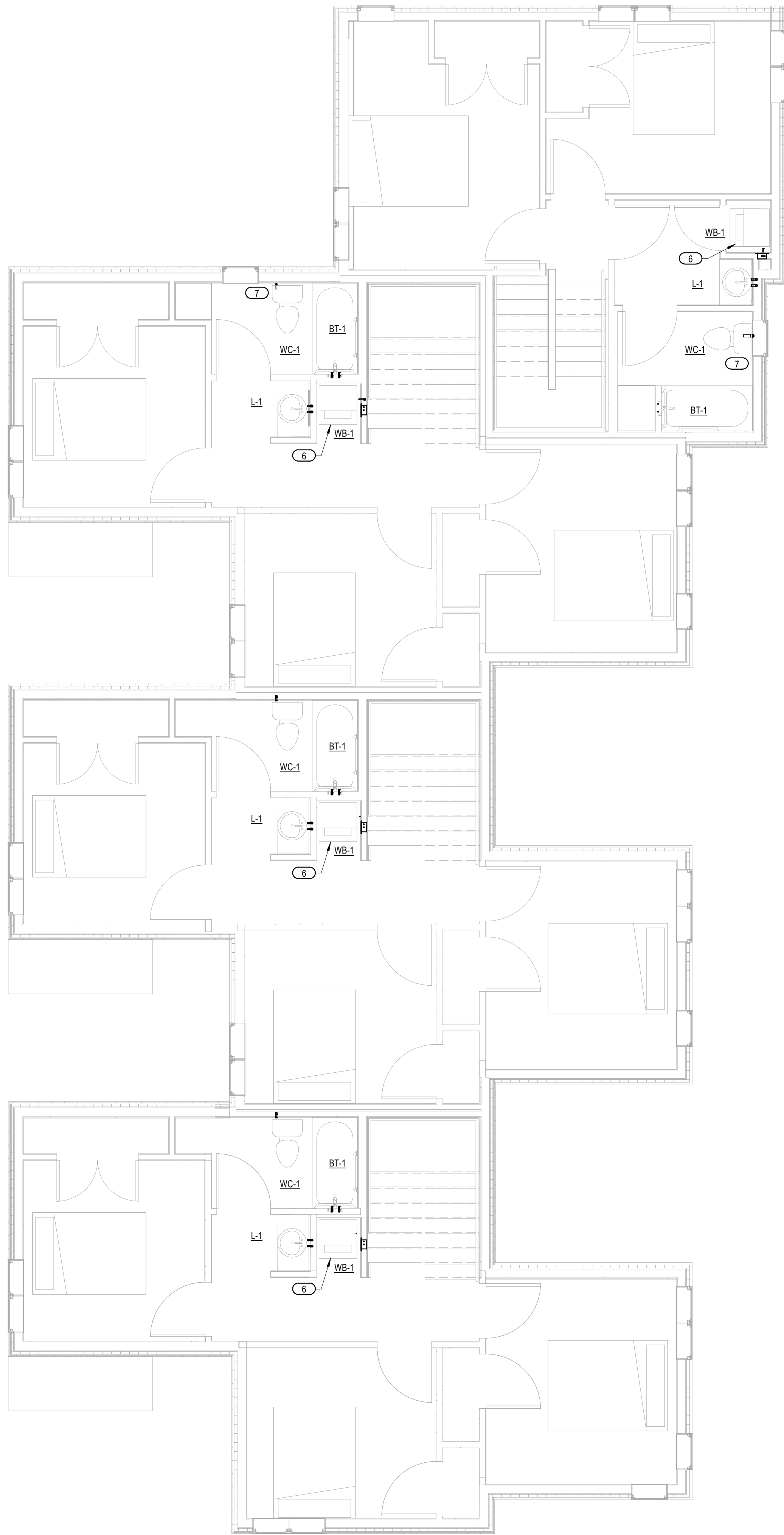
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- GENERAL NOTES**
- REFER TO P000 FOR ADDITIONAL NOTES, SYMBOLS, AND ABBREVIATIONS.
 - ALL DOMESTIC WATER PIPING, HW AND CW, SHALL BE 3/4" UNLESS NOTED OTHERWISE.
 - ALL NG PIPING SHALL BE 1/2" NPT UNLESS NOTED OTHERWISE.

- KEYED NOTES**
- BUILDING A: CONTINUE 3/4" CW BELOW GRADE TO SERVE YARD HYDRANTS. REFER TO SHEET P001 FOR YARD HYDRANT LOCATIONS.
 - BUILDING A & C: UTILITY COMPANY TO PROVIDE NG METERS AND REGULATORS AT THIS LOCATION.
 - BUILDING B: UTILITY COMPANY TO PROVIDE NG METERS AND REGULATORS AT THIS LOCATION.
 - MAINTAIN 30" CLEARANCE BETWEEN WATER HEATER AND MECHANICAL ROOM DOOR.
 - PROVIDE 1/2" HW CONNECTION FOR DISHWASHER.
 - WASHER/DRYER BY OTHERS. CONNECT DOMESTIC WATER SUPPLY, SANITARY, AND VENT PIPING TO WASHER/DRYER AS REQUIRED. COORDINATE WORK WITH OTHER TRADES.
 - WATER CLOSET CW STOP SHALL BE INSTALLED ON FLOOR AND NEAR BACK OF FIXTURE.



2 PLUMBING DOMESTIC WATER - LEVEL TWO - BUILDINGS A, B, & C 1 PLUMBING DOMESTIC WATER - LEVEL ONE - BUILDINGS A, B, & C
 1/4" = 1'-0" 1/4" = 1'-0"

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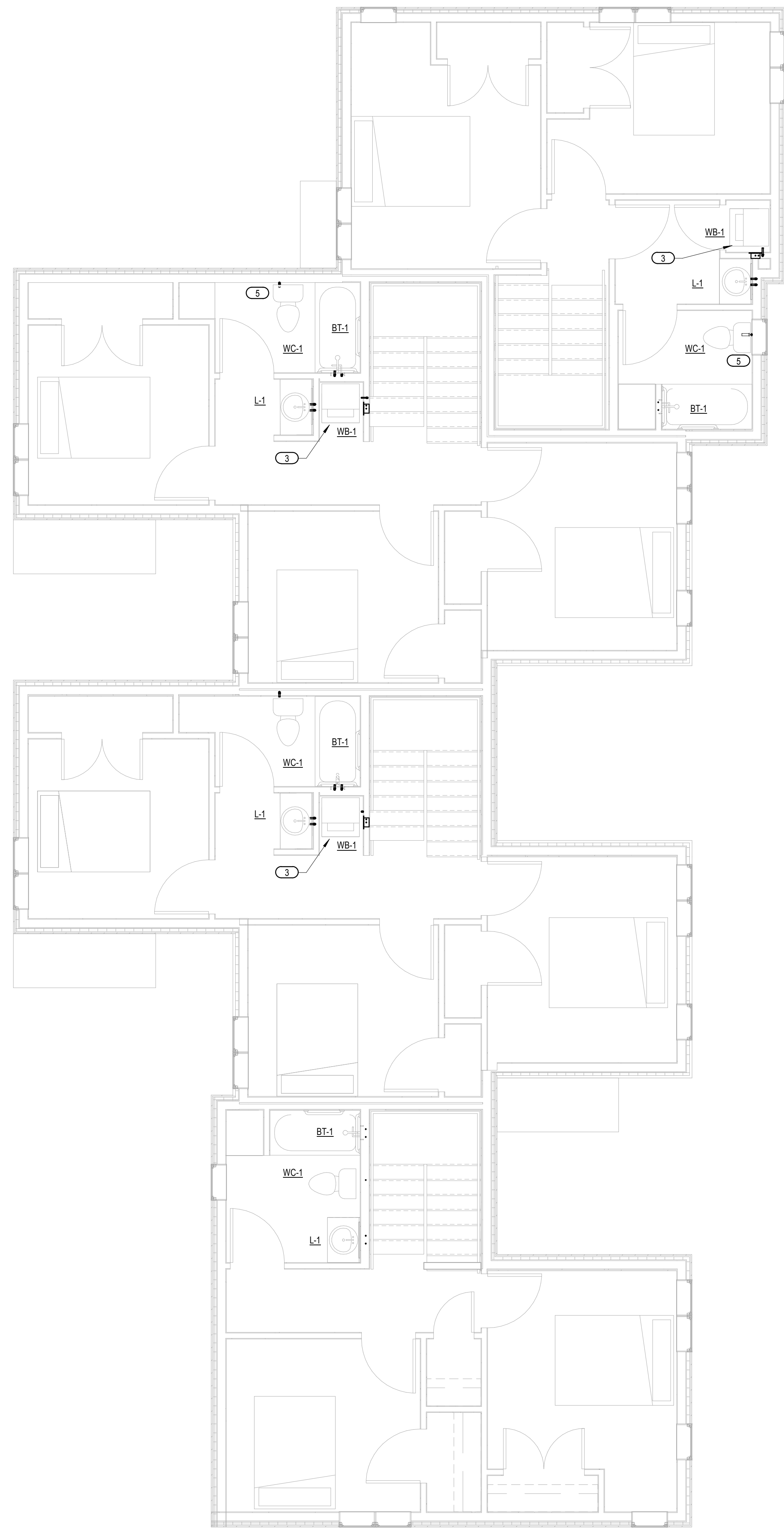
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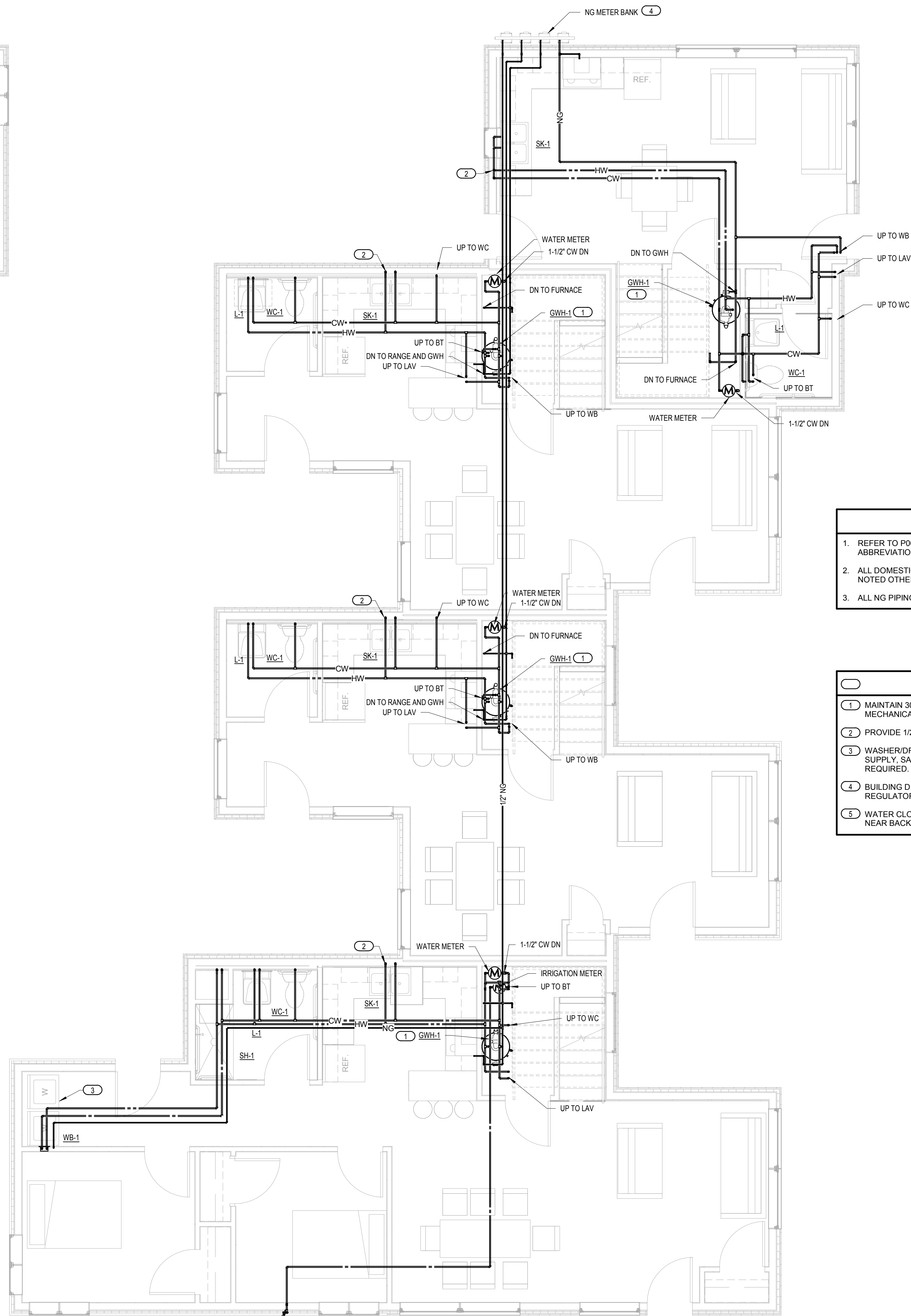
PLUMBING
 DOMESTIC WATER
 PLANS - BUILDINGS
 A, B, & C

P101A

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2 PLUMBING DOMESTIC WATER PLAN - LEVEL TWO - BUILDING D
1/4" = 1'-0"



1 PLUMBING DOMESTIC WATER PLAN - LEVEL ONE - BUILDING D
1/4" = 1'-0"

GENERAL NOTES

1. REFER TO P000 FOR ADDITIONAL NOTES, SYMBOLS, AND ABBREVIATIONS.
2. ALL DOMESTIC WATER PIPING, HW AND CW, SHALL BE 3/4" UNLESS NOTED OTHERWISE.
3. ALL NG PIPING SHALL BE 1/2" NPT UNLESS NOTED OTHERWISE.

KEYED NOTES

- 1 MAINTAIN 30" CLEARANCE BETWEEN WATER HEATER AND MECHANICAL ROOM DOOR.
- 2 PROVIDE 1/2" HW CONNECTION FOR DISHWASHER.
- 3 WASHER/DRYER BY OTHERS. CONNECT DOMESTIC WATER SUPPLY, SANITARY, AND VENT PIPING TO WASHER/DRYER AS REQUIRED. COORDINATE WORK WITH OTHER TRADES.
- 4 BUILDING D - UTILITY COMPANY TO PROVIDE NG METERS AND REGULATORS AT THIS LOCATION.
- 5 WATER CLOSET CW STOP SHALL BE INSTALLED ON FLOOR AND NEAR BACK OF FIXTURE.



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**PLUMBING
DOMESTIC WATER
PLANS - BUILDING
D**

P101B



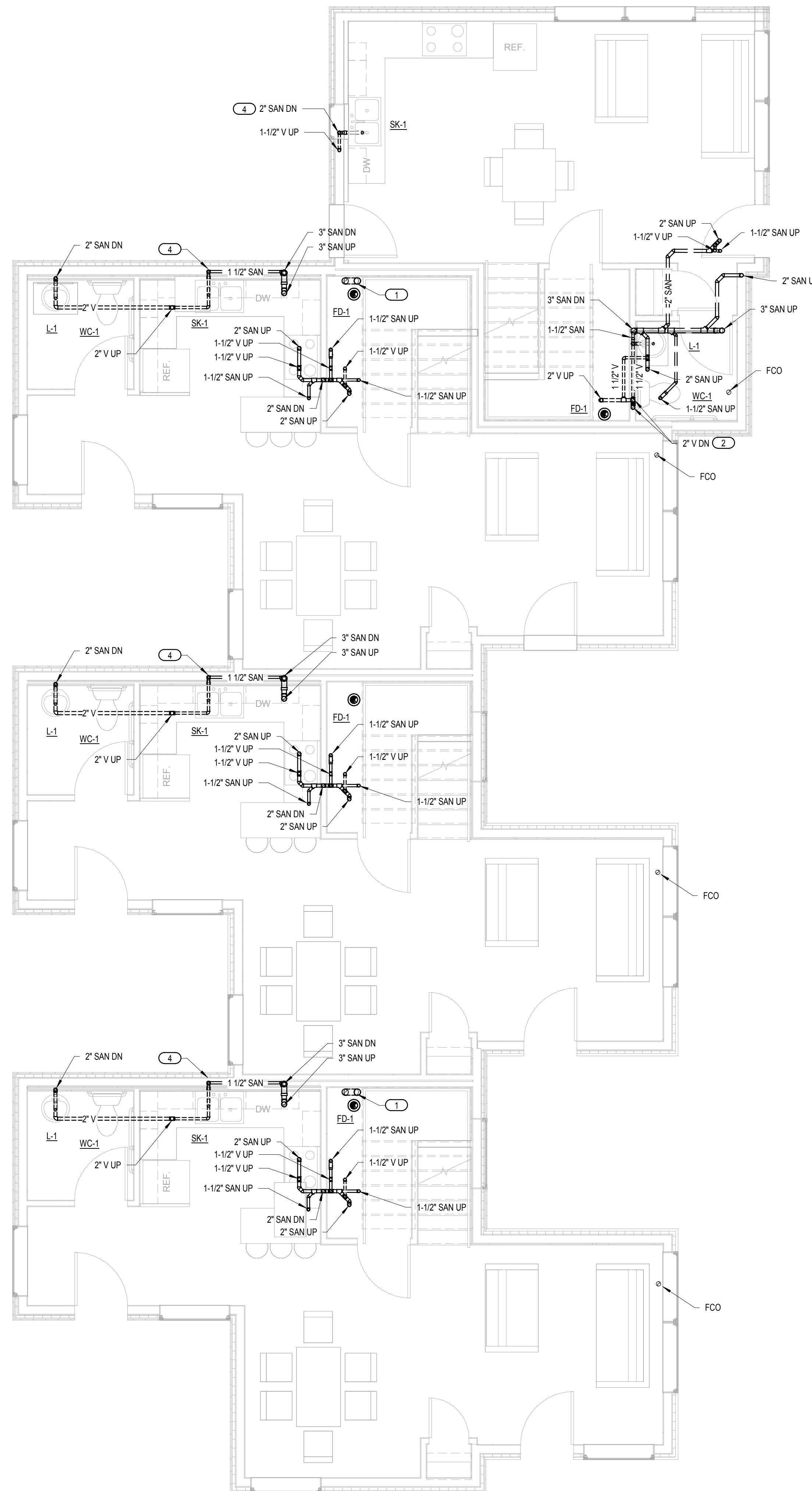
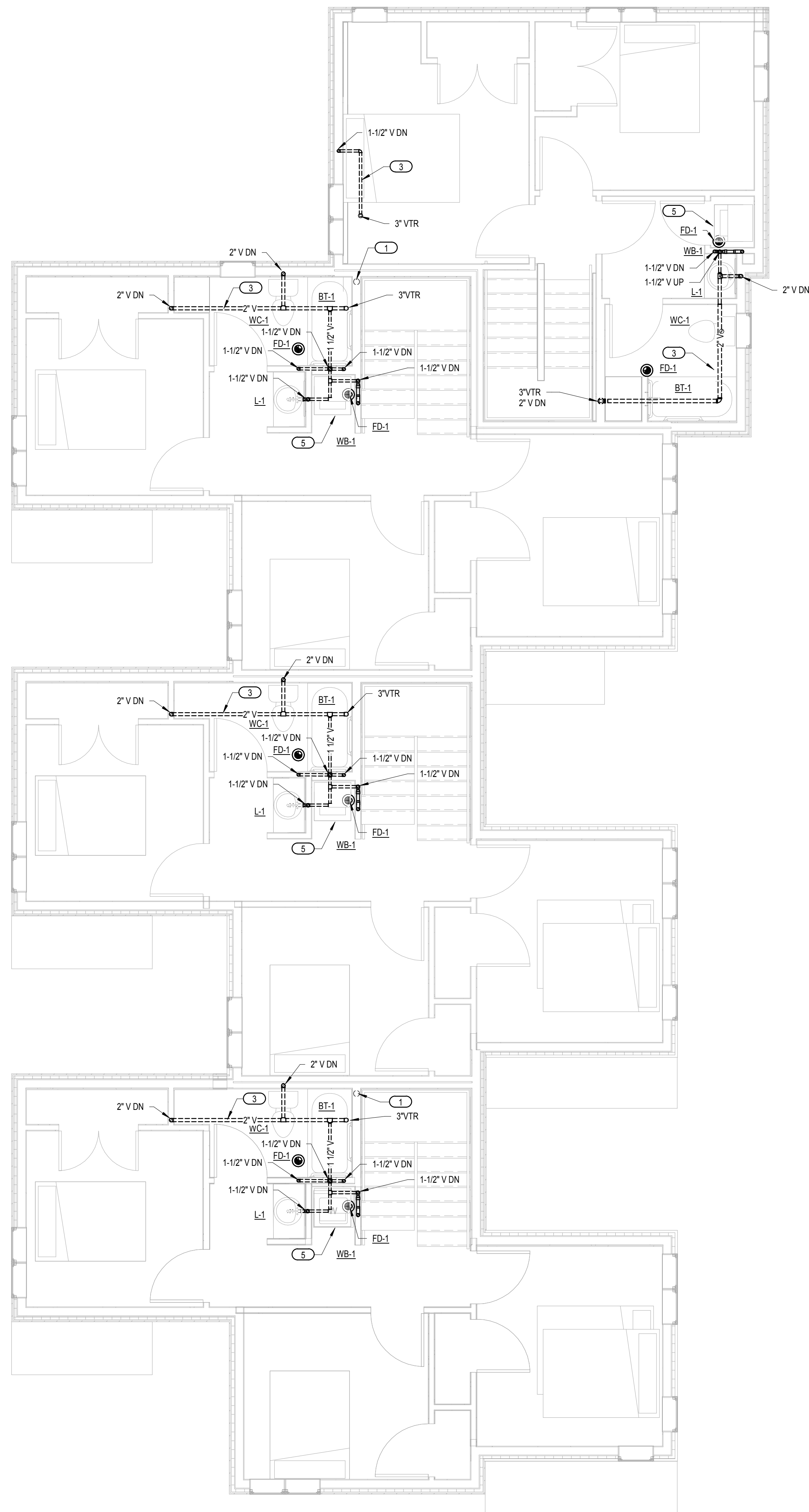
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GENERAL NOTES

- REFER TO P000 FOR ADDITIONAL NOTES, SYMBOLS, AND ABBREVIATIONS.

KEYED NOTES

- RADON MITIGATION SYSTEM, 4" VENT UP AND DOWN.
- 2" VENTS SHALL CONNECT AT A MINIMUM OF 6" ABOVE GRADE.
- HORIZONTAL PIPING SHOWN SHALL BE INSTALLED IN ATTIC SPACE.
- PROVIDE AIR GAP FITTING FOR DISHWASHER DRAIN. INSTALL PER MANUFACTURER'S RECOMMENDATION.
- PROVIDE MUSTEE MODEL 96 DURAPAN OR EQUIVALENT WITH SIDE OUTLET CONNECTION. OUTLET TO BE POSITIONED TO DRAIN INTO FLOOR DRAIN.



2 PLUMBING SANITARY PLAN - LEVEL TWO - BUILDINGS A, B, & C
 1/4" = 1'-0"

1 PLUMBING SANITARY PLAN - LEVEL ONE - BUILDINGS A, B, & C
 1/4" = 1'-0"

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**PLUMBING
 SANITARY PLANS -
 BUILDINGS A, B, & C**

P102A



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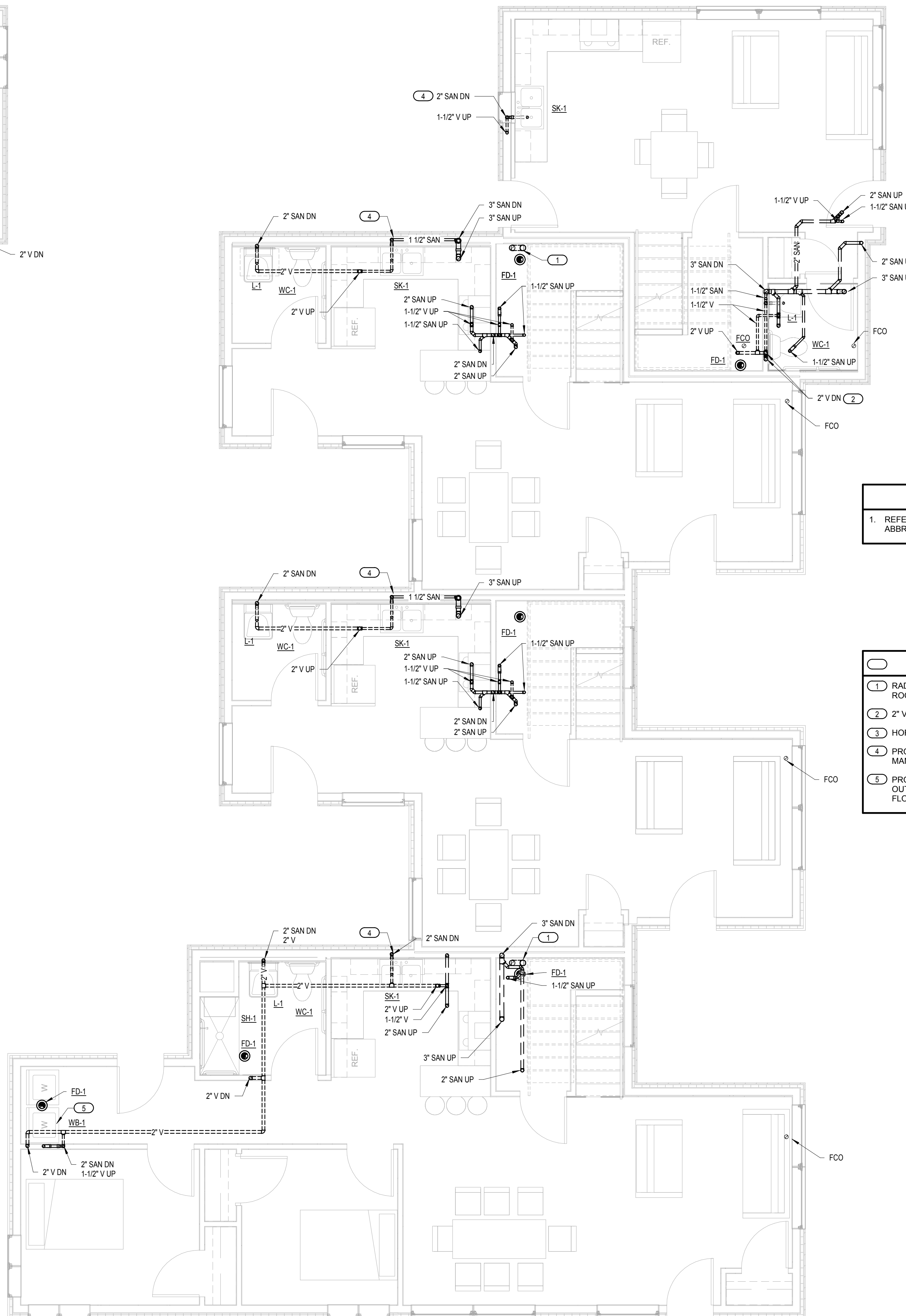
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**PLUMBING
 SANITARY PLANS -
 BUILDING D**

P102B

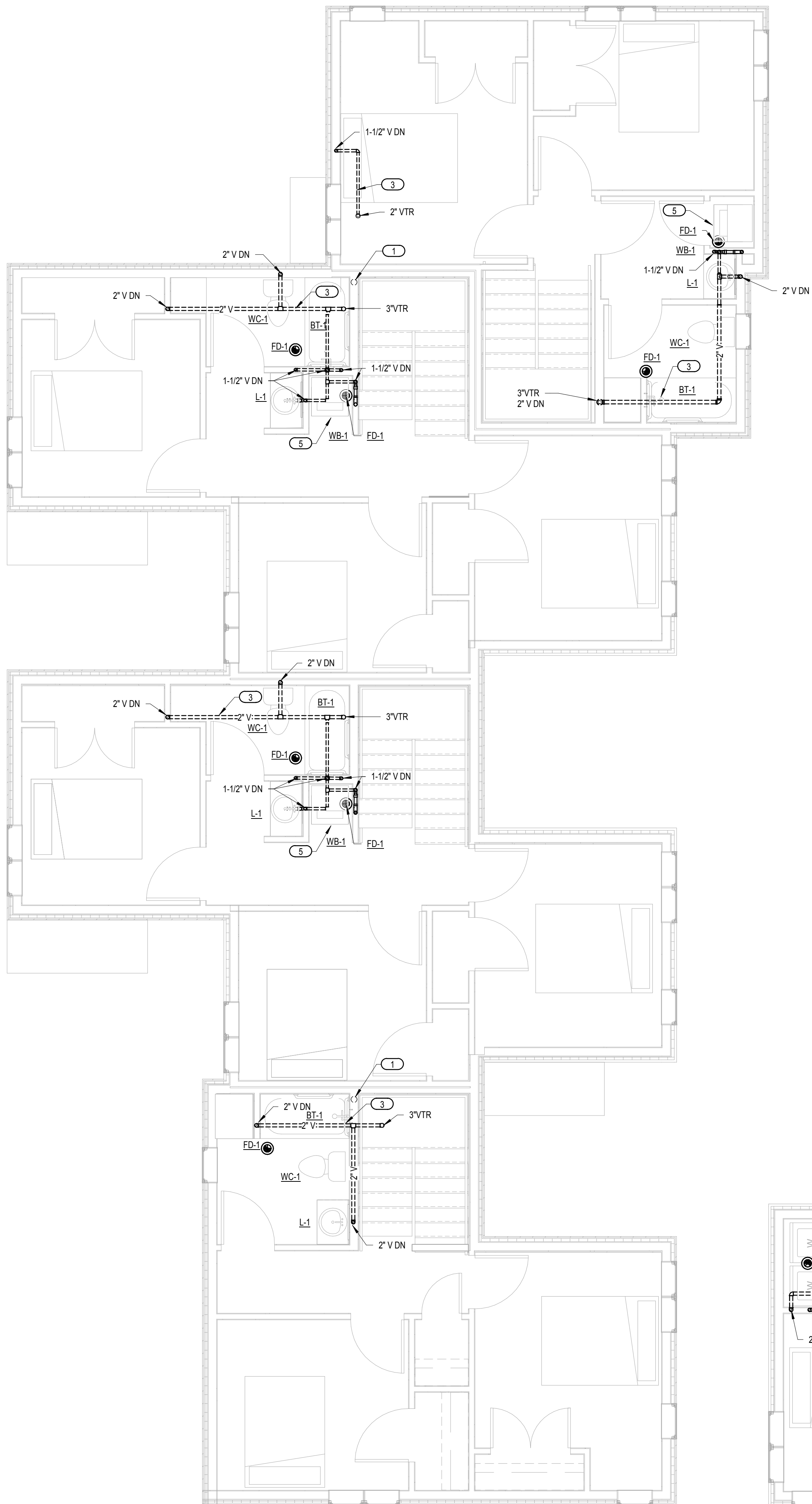


GENERAL NOTES

- REFER TO P000 FOR ADDITIONAL NOTES, SYMBOLS, AND ABBREVIATIONS.

KEYED NOTES

- 1** RADON MITIGATION SYSTEM, 4" VENT DOWN AND UP THROUGH ROOF.
- 2** 2" VENTS SHALL CONNECT AT A MINIMUM OF 6" ABOVE GRADE.
- 3** HORIZONTAL PIPING SHOWN SHALL BE INSTALLED IN ATTIC SPACE.
- 4** PROVIDE AIR GAP FITTING FOR DISHWASHER DRAIN. INSTALL PER MANUFACTURER'S RECOMMENDATION.
- 5** PROVIDE MUSTEE MODEL 96 DURAPAN OR EQUIVALENT WITH SIDE OUTLET CONNECTION. OUTLET TO BE POSITIONED TO DRAIN INTO FLOOR DRAIN.



2 PLUMBING SANITARY PLAN - LEVEL TWO - BUILDING D
 1/4" = 1'-0"

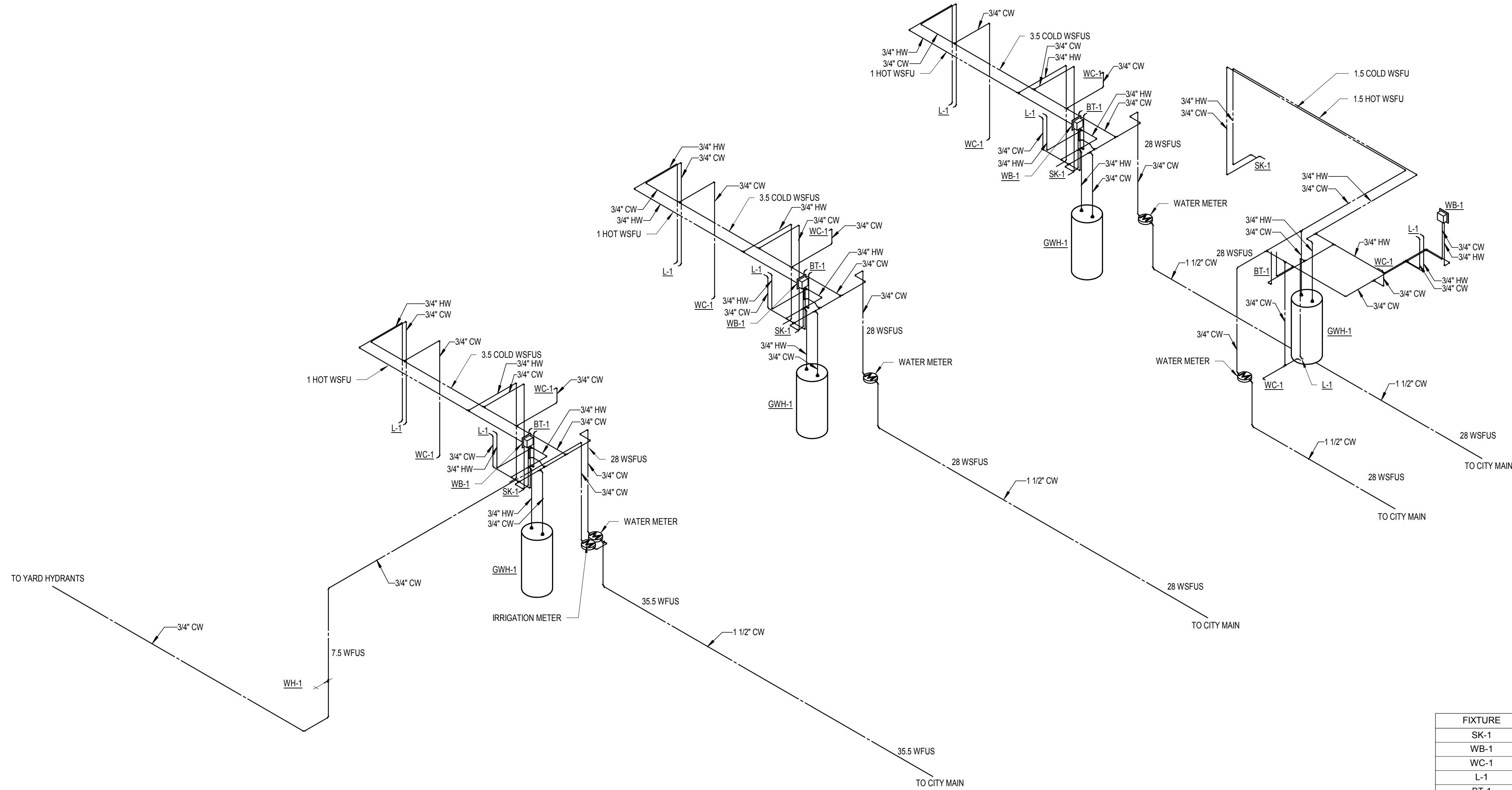
1 PLUMBING SANITARY PLAN - LEVEL ONE - BUILDING D
 1/4" = 1'-0"



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FIXTURE	COLD WSFUS	HOT WSFUS
SK-1	1.5	1.5
WB-1	4.0	4.0
WC-1	2.5	0.0
L-1	1.0	1.0
BT-1	4.0	4.0
GWH-1	2.5	0.0

NOTE: FIXTURE UNITS SHOWN APPLY TO ALL FIXTURES AND IMMEDIATE BRANCHES. COMBINED BRANCHES AND MAINS SHOWN WITH FIXTURE UNITS ON ISOMETRIC.

1 PLUMBING DOMESTIC WATER RISER - BUILDINGS A, B, & C

Signature: *Jerry Meyer*
 Print Names: Jerry Meyer

Date: 06/21/2017 License No.: 21157

MARK	DATE	DESCRIPTION

PROJECT NO: M10.17.02

PROJECT PHASE: 100% CD ISSUE

DRAWN BY: BTB CHECKED BY: LJN

PLUMBING
 DOMESTIC WATER
 RISER - BUILDINGS
 A, B, & C

P300A



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Signature: *[Signature]*
Print Name: Larry Nemer

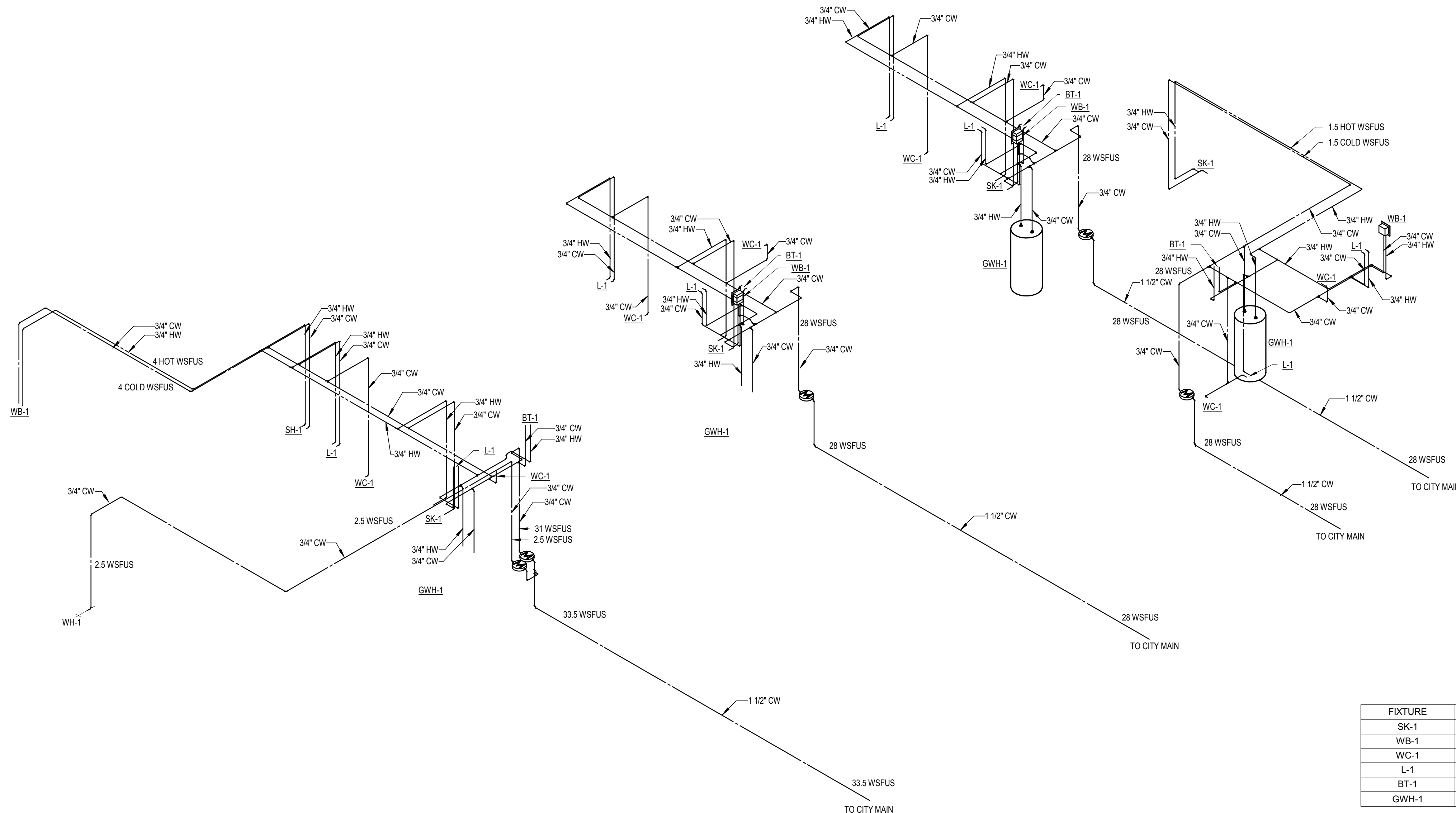
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**PLUMBING
DOMESTIC WATER
RISER - BUILDING
D**

P300B



FIXTURE	COLD WSFUS	HOT WSFUS
SK-1	1.5	1.5
WB-1	4.0	4.0
WC-1	2.5	0.0
L-1	1.0	1.0
BT-1	4.0	4.0
GWH-1	2.5	0.0

NOTE: FIXTURE UNITS SHOWN APPLY TO ALL FIXTURES AND IMMEDIATE BRANCHES. COMBINED BRANCHES AND MAINS SHOWN WITH FIXTURE UNITS ON ISOMETRIC.

1 PLUMBING DOMESTIC WATER RISER - BUILDING D



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Signature: *[Signature]*

Print Name: Larry Nemer

Date: 06/21/2017 License No.: 21157

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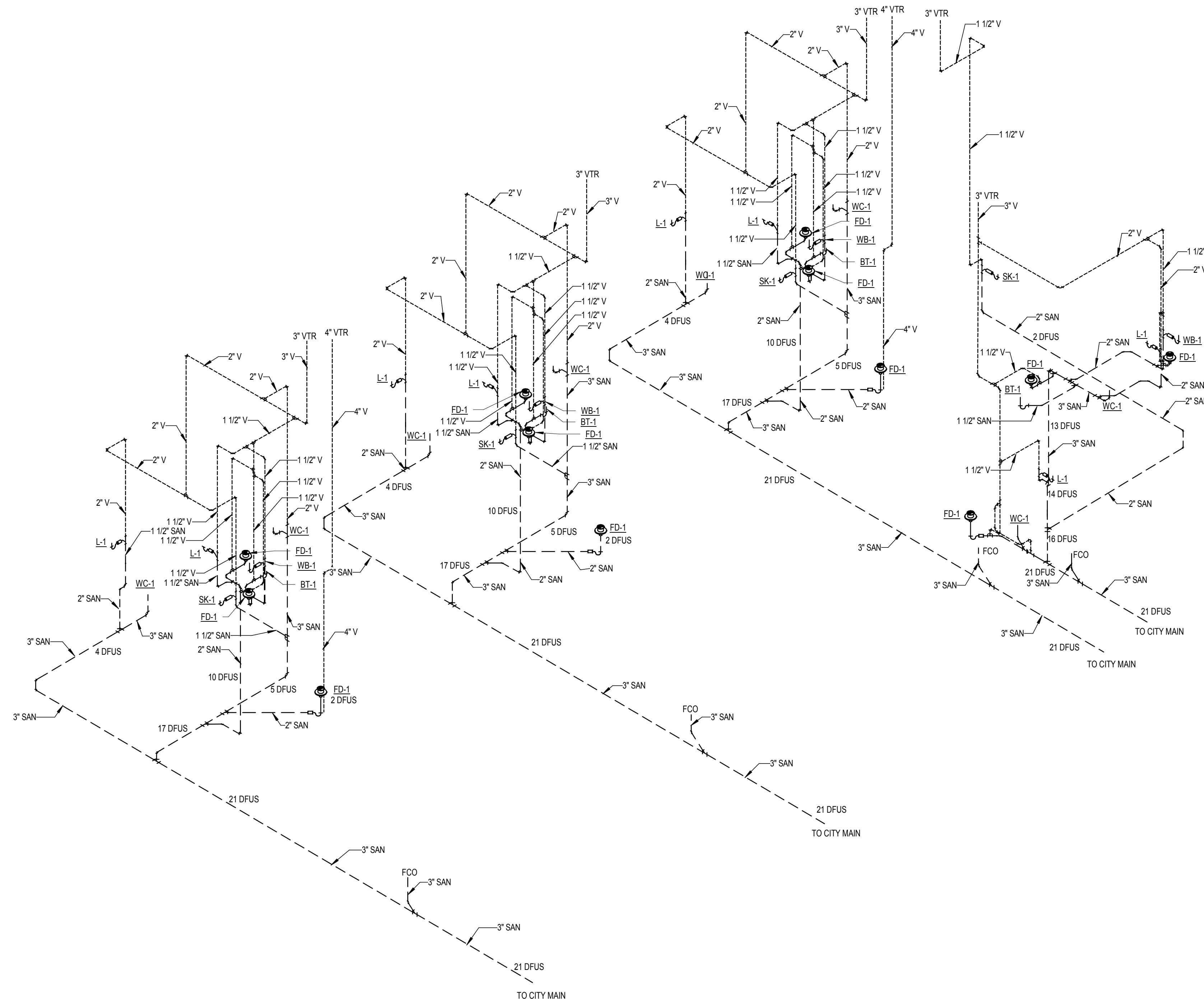
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**PLUMBING
SANITARY RISER -
BUILDINGS A, B, & C**

P301A



FIXTURE	DFUS
FD-1	2.0
SK-1	2.0
WB-1	3.0
WC-1	3.0
L-1	1.0
BT-1	2

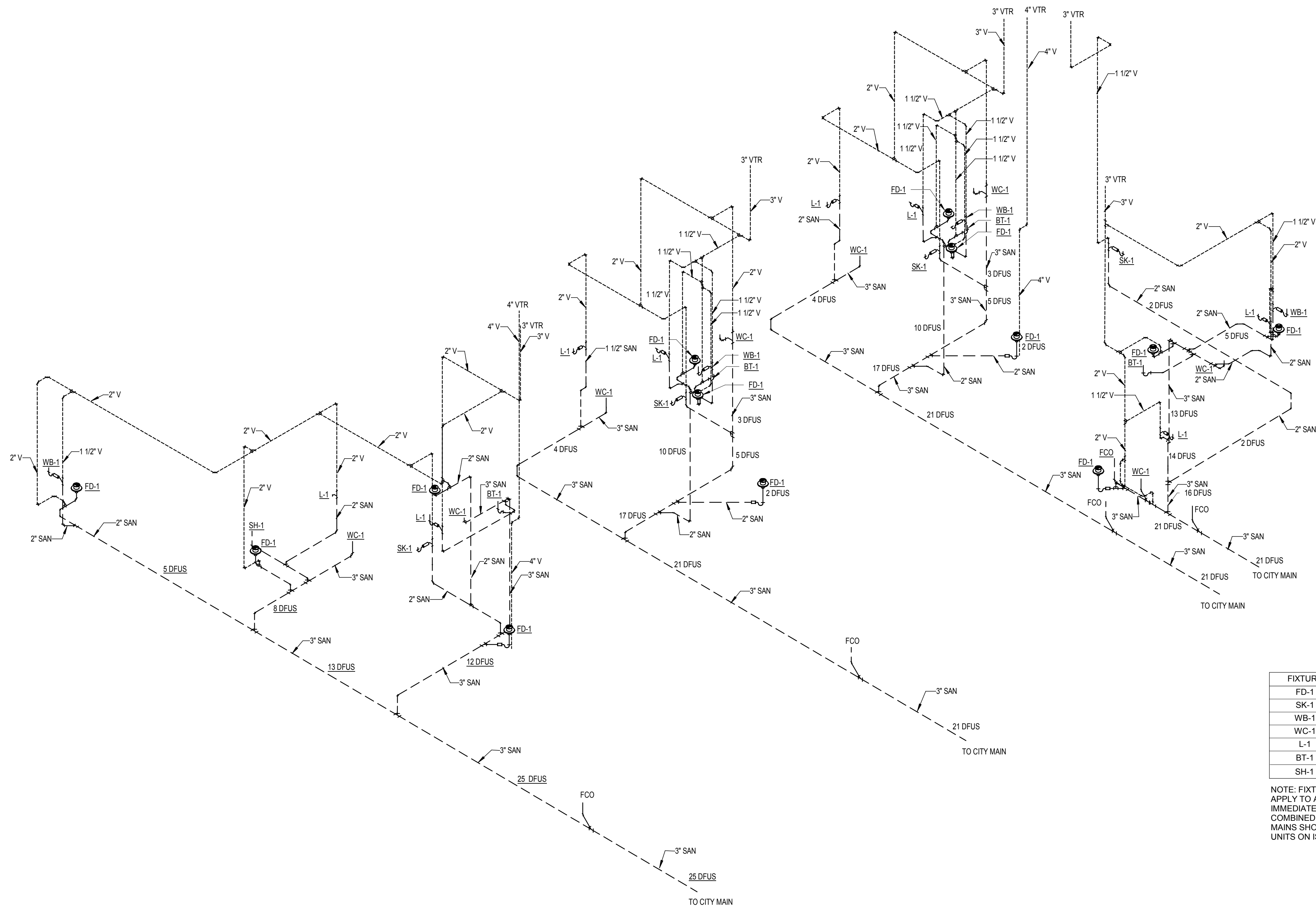
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1 PLUMBING SANITARY RISER - BUILDINGS A, B, & C



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FIXTURE	DFUS
FD-1	2.0
SK-1	2.0
WB-1	3.0
WC-1	3.0
L-1	1.0
BT-1	2
SH-1	2

NOTE: FIXTURE UNITS SHOWN
 APPLY TO ALL FIXTURES AND
 IMMEDIATE BRANCHES.
 COMBINED BRANCHES AND
 MAINS SHOWN WITH FIXTURE
 UNITS ON ISOMETRIC.

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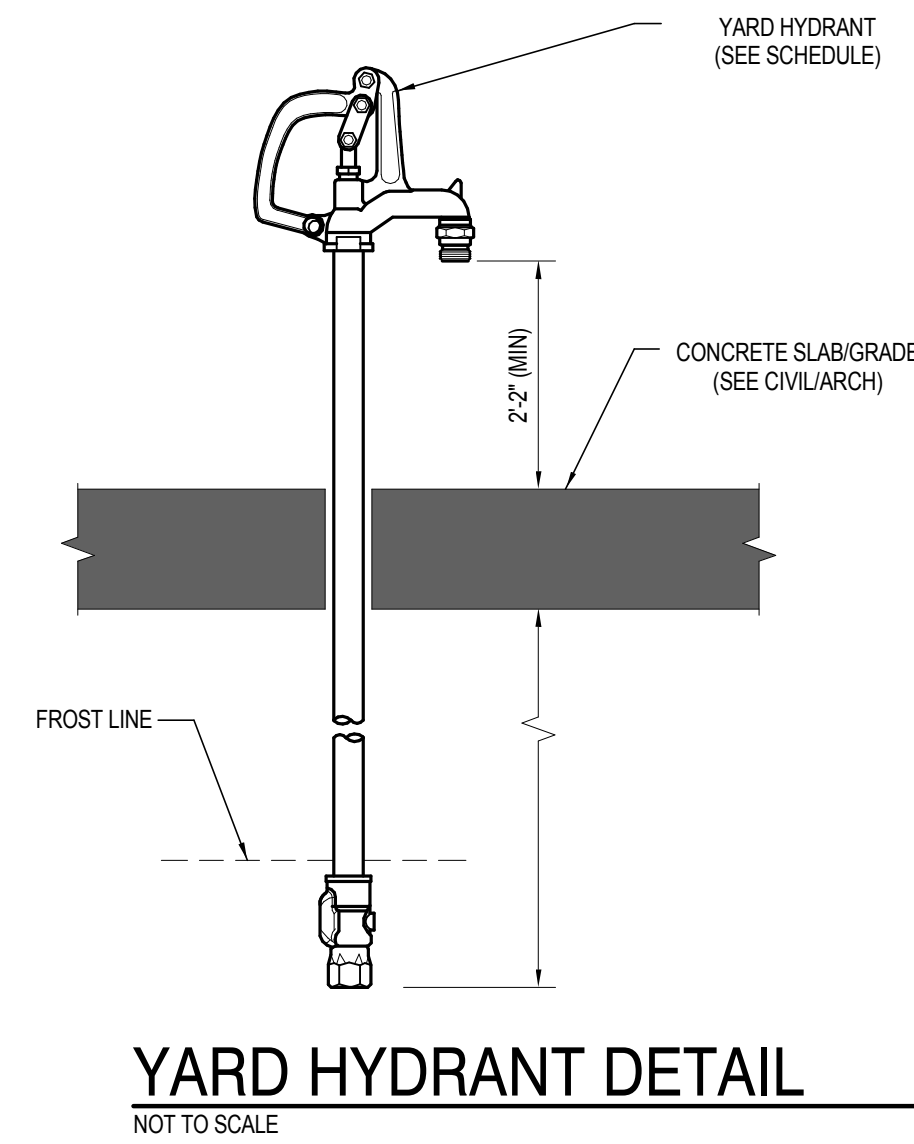
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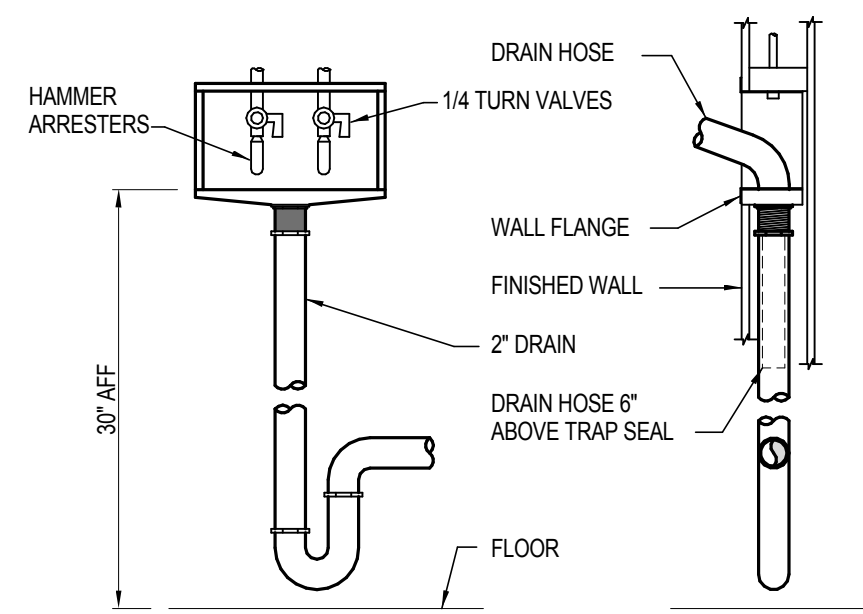
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**PLUMBING
 SANITARY RISER -
 BUILDING D**

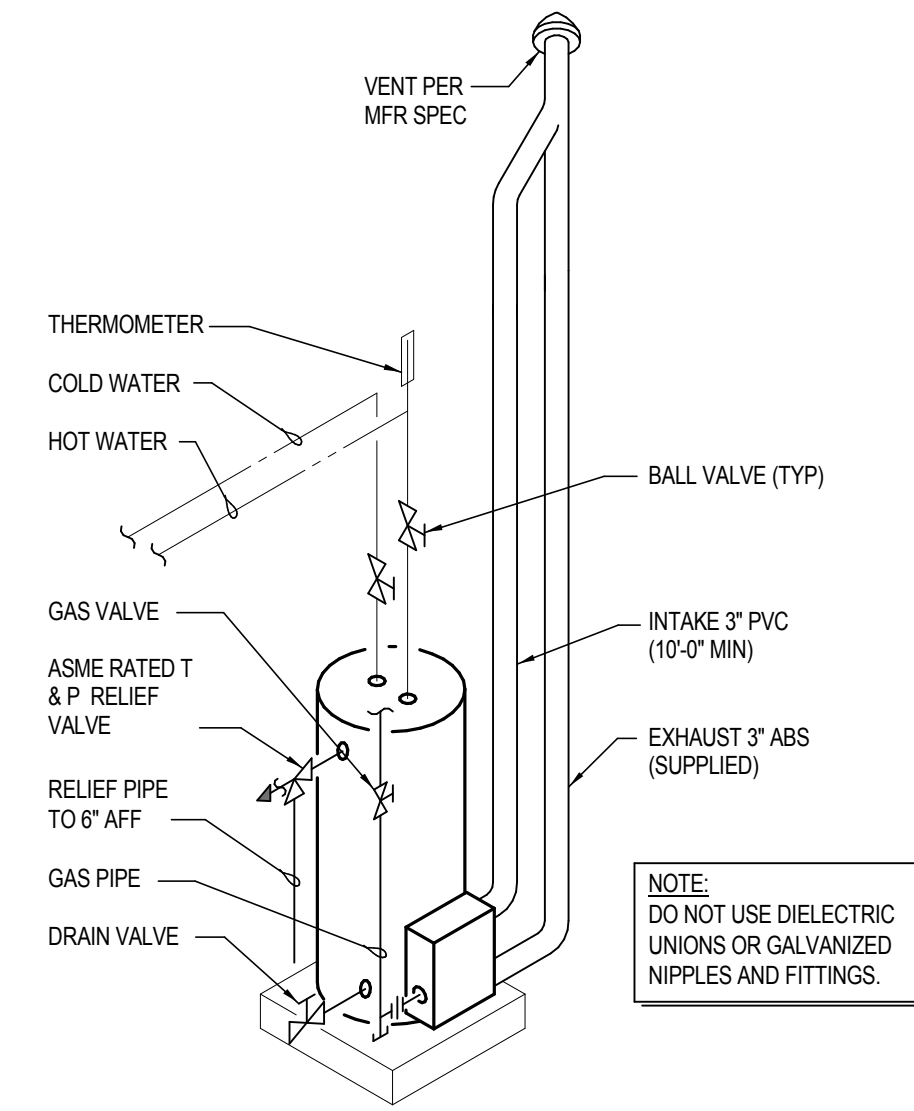
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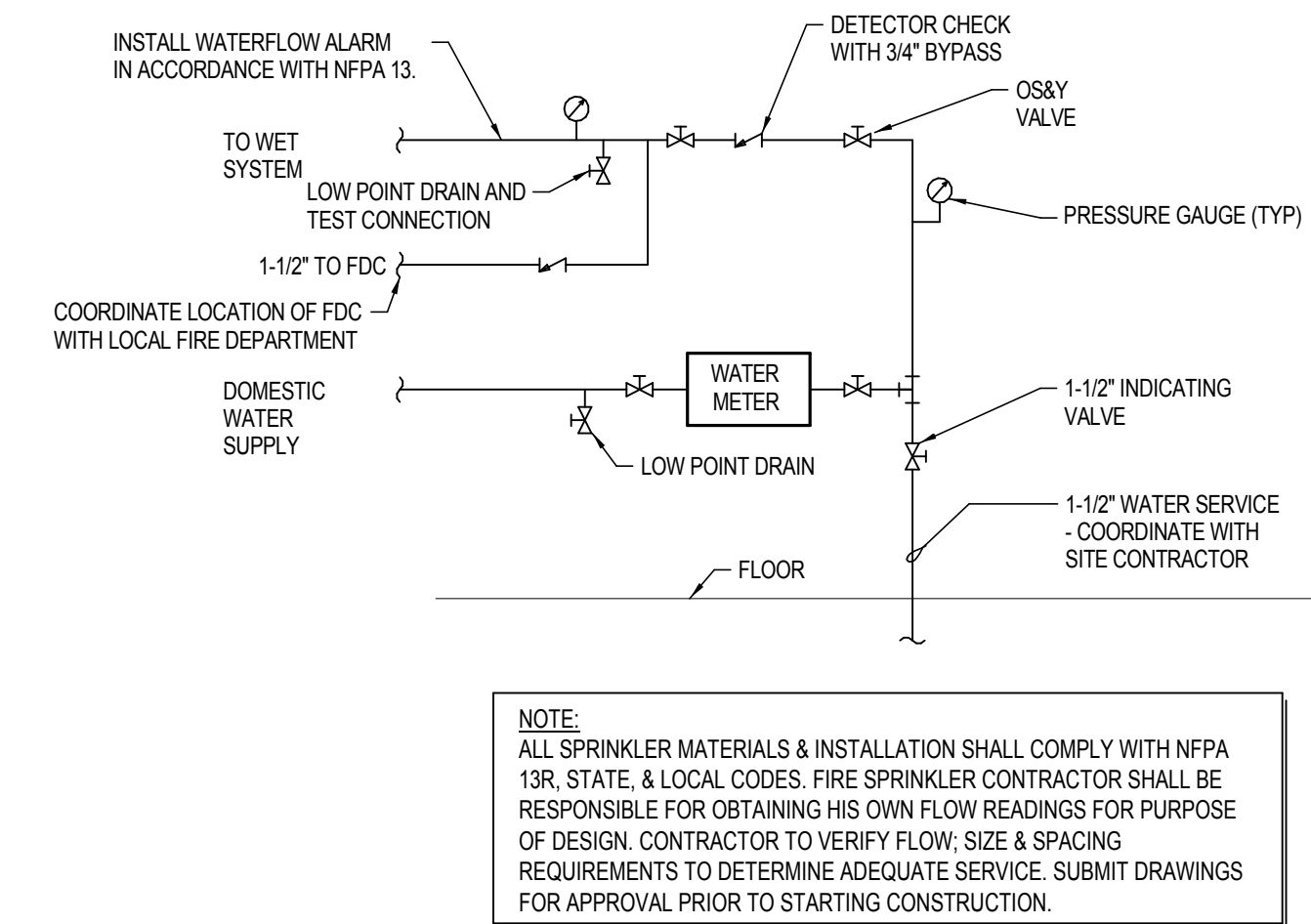
YARD HYDRANT DETAIL
NOT TO SCALE



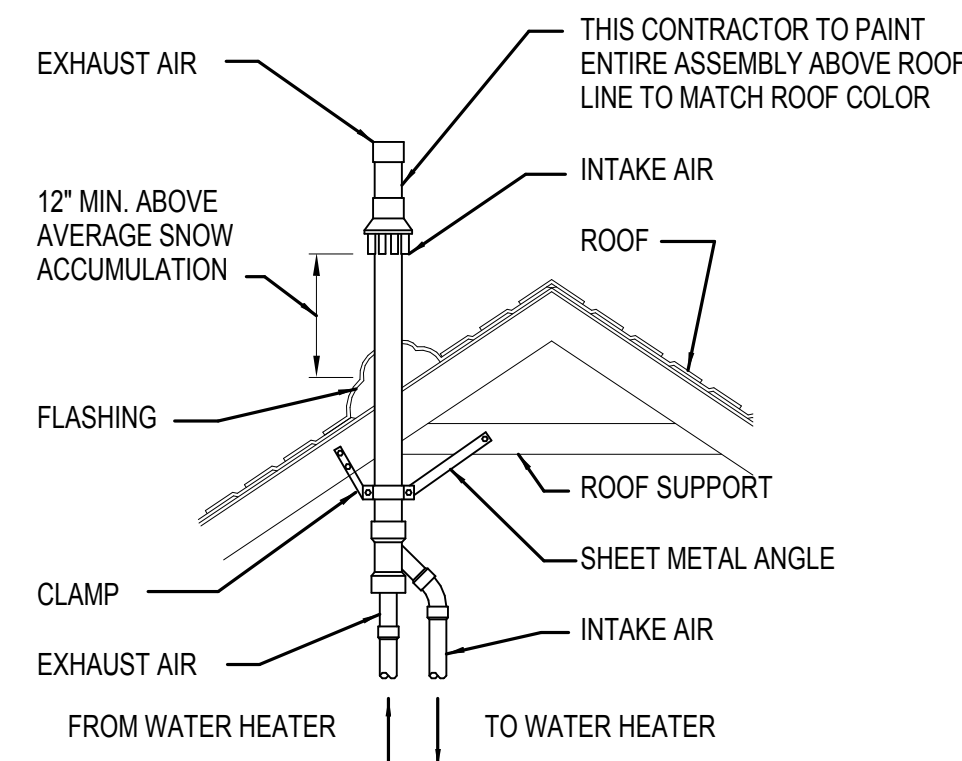
3 CLOTHES WASHER BOX DETAIL
NOT TO SCALE



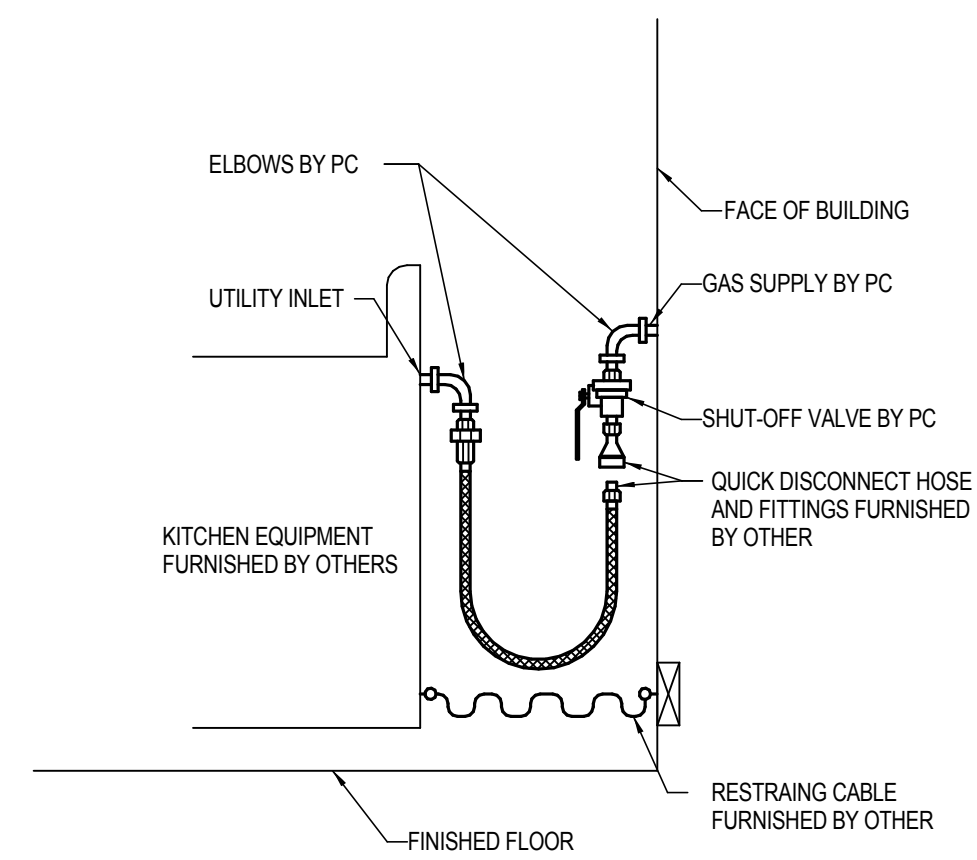
2 GAS WATER HEATER DETAIL
NOT TO SCALE



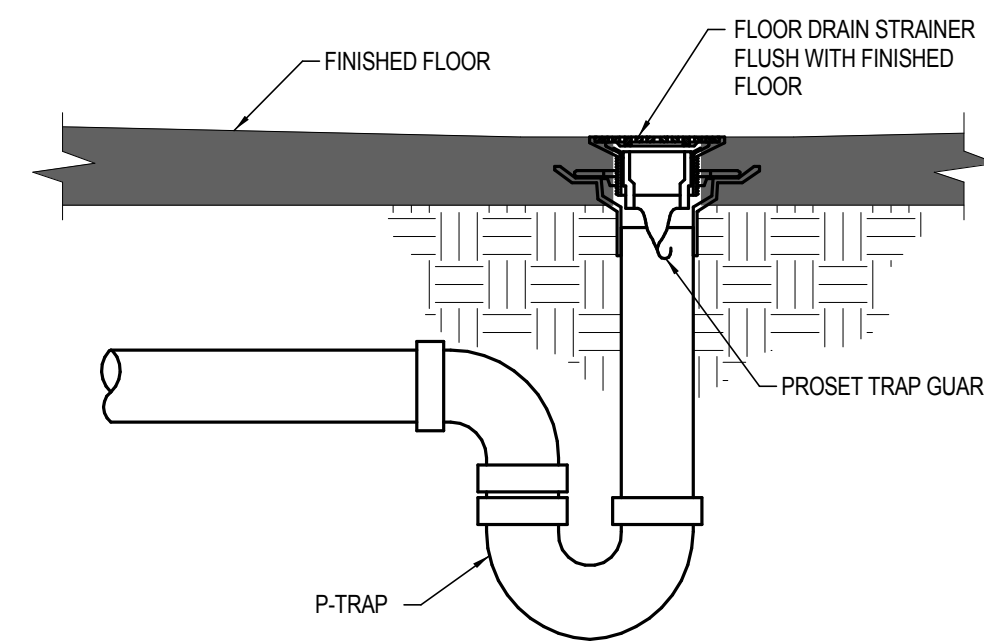
1 COMBINED WATER/FP SERVICE DETAIL
NOT TO SCALE



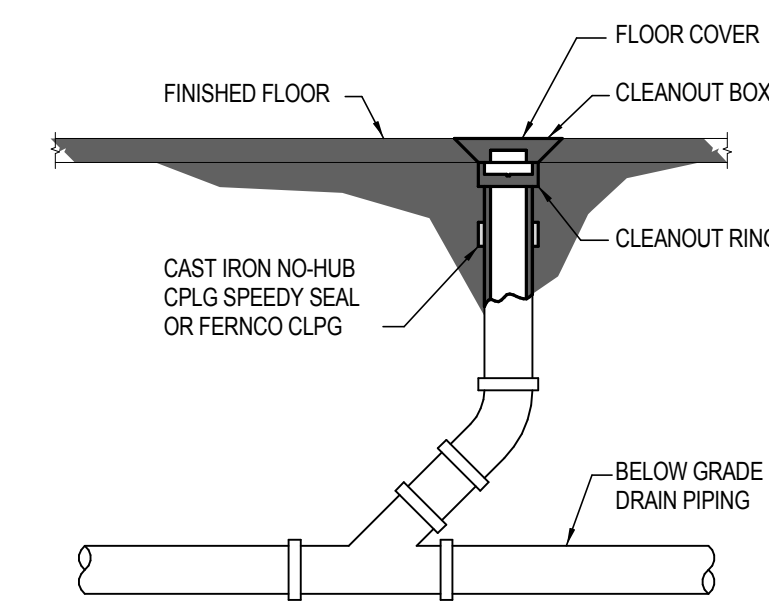
8 WATER HEATER VENT TERMINATION DETAIL
NOT TO SCALE



7 GAS QUICK CONNECT DETAIL
NOT TO SCALE



6 FLOOR DRAIN DETAIL
NOT TO SCALE




5 INTERIOR CLEANOUT DETAIL
NOT TO SCALE



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PLUMBING DETAILS

P400

PLUMBING FIXTURE SCHEDULE								
TAG	MANUFACTURER	SERIES	DESCRIPTION	COLD WATER CONN (INCH)	HOT WATER CONN (INCH)	SANITARY CONN (INCH)	VENT CONN (INCH)	NOTES
SK-1	-	-	SS DOUBLE BOWL TYPE KITCHEN SINK	3/4"	3/4"	1-1/2"	1-1/2"	PROVIDE TAMPER RESISTANT AERATOR ON FAUCET.
L-1	-	-	WHITE VITREOUS CHINA, SINGLE BOWL LAV	3/4"	3/4"	1-1/2"	1-1/2"	PROVIDE TAMPER RESISTANT AERATOR ON FAUCET.
WC-1	NIAGARA	STEALTH	FLOOR MOUNTED, TANK TYPE	3/4"	-	3"	2"	-
FD-1	ZURN	Z415B	ROUND FLOOR DRAIN	-	-	2"	1-1/2"	INCLUDE POLISHED NICKEL BRONZE TOP
WB-1	GUY GRAY	MWB	WASHING MACHINE OUTLET BOX	3/4"	3/4"	2"	1-1/2"	WHITE POWDER COATED METAL OUTLET BOX. SUPPLY WITH 1/2" QUARTER TURN VALVES AND 2" DRAIN KIT.
BT-1	-	-	-	-	-	-	-	-
GWH-1	BRADFORD WHITE	RG2PDV40SN	POWER DIRECT VENT GAS WATER HEATER	3/4"	3/4"	-	-	1/2" NPT NATURAL GAS CONNECTION. 3" VENT PIPE. PROVIDE 3" CONCENTRIC VENT TERMINATION KIT.
WH-1	WOODFORD	65	ANTI-SIPHON FREEZELESS WALL HYDRANT	3/4"	-	-	-	STANDARD CHROME FINISH. INSTALL 18" ABOVE FINISHED GRADE. LOOSE KEY OPERATION.
YH-1	WOODFORD	Y34	FREEZELESS YARD HYDRANT	3/4"	-	-	-	MIN 5' BURY DEPTH.
FCC-1	ZURN	Z1400	INTERIOR FLOOR CLEANOUT	-	-	-	-	INSTALL AS PER FINISHED FLOOR REQUIREMENTS WITH NO-HUB COUPLING, VANDAL PROOF SCREWS, AND POLISHED NICKEL BRONZE TOP

NOTES:
1. CONNECTION SIZES NOTED ARE NOT FINAL EQUIPMENT FIXTURE SIZE, BUT RATHER SIZE OF PIPE TO BE BROUGHT TO FIXTURE IMMEDIATELY PRIOR TO FINAL CONNECTION.
2. FLOOR DRAIN VENT SHALL BE 2" IF BELOW GRADE.

2 OR 3 BEDROOM GAS LOAD TABLE			
EQUIPMENT	INPUT (BTU)	REQUIRED PRESSURE	SYSTEM PRESSURE
GWH-1	40,000	4" W.C.	2 PSI
F-1/F-2	40,000	4.5" - 10" W.C.	2 PSI
RANGE	52,000	6" - 13" W.C.	2 PSI
DRYER	20,000	-	2 PSI
TOTAL LOAD PER UNIT	152,000 BTUS		

4 BEDROOM GAS LOAD TABLE			
EQUIPMENT	INPUT (BTU)	REQUIRED PRESSURE	SYSTEM PRESSURE
GWH-1	40,000	4" W.C.	2 PSI
F-3	80,000	4.5" - 10" W.C.	2 PSI
RANGE	52,000	6" - 13" W.C.	2 PSI
DRYER	20,000	-	2 PSI
TOTAL LOAD PER UNIT	192,000 BTUS		

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Date: 06/21/2017 License No: 21157

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PLUMBING SCHEDULES

P500

GENERAL MECHANICAL NOTES

- ALL WORK SHALL BE IN COMPLIANCE WITH STATE AND LOCAL CODES.
- THE CONTRACTOR SHALL PAY FOR ALL FEES, PERMITS, LICENSES, ETC., NECESSARY FOR PROPER COMPLETION OF THE WORK.
- INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
- VERIFY ALL EXISTING CONDITIONS. NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN CONTRACT DRAWINGS AND ACTUAL CONDITIONS.
- THESE DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. ADDITIONAL DATA SHALL BE FROM THE ENGINEER THROUGH WRITTEN CLARIFICATION ONLY. VERIFY ALL EXISTING CONDITIONS, ELEVATIONS, AND DIMENSIONS BEFORE PROCEEDING WITH ANY PORTION OF ANY WORK. THE CONTRACTOR SHALL PROVIDE ALL OFFSETS AND TRANSITIONS REQUIRED TO MEET EXISTING CONDITIONS.
- THE CONTRACTOR SHALL PERFORM WORK IN A SKILLED AND PROFESSIONAL MANNER.
- ALL CONTRACTORS ARE RESPONSIBLE TO FIELD COORDINATE WORK SCHEDULE WITH OWNER REPRESENTATIVE.
- THE CONTRACTOR SHALL WORK AND COORDINATE WITH THE OTHER TRADES.
- ALL EQUIPMENT SHALL BE NEW AND IN UNDAMAGED CONDITION. ANY EQUIPMENT FOUND DEFECTIVE SHALL BE IMMEDIATELY REMOVED FROM THE PROJECT AND REPLACED AT CONTRACTORS EXPENSE.
- DUCT MATERIAL SHALL BE GALVANIZED OR ALUMINUM CONSTRUCTED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARD 2005 AND SMACNA HVAC AIR DUCT LEAKAGE MANUAL 2012 FOR THE PRESSURE AND SEAL CLASS LISTED IN THE PROJECT DUCTWORK/INSULATION SCHEDULE.
- DUCT SIZES LISTED ON PLANS ARE THE REQUIRED CLEAR INTERIOR DIMENSIONS.
- PROVIDE VOLUME CONTROL DAMPERS WHERE INDICATED AND AT ALL TAKEOFFS. BOTH SUPPLY AND RETURN SYSTEMS, AND MAJOR DUCT RUNS. DAMPERS SHALL BE FACTORY-FABRICATED WITH ZINC-PLATED, DIE-CAST CONTROL HARDWARE. CONTROL HARDWARE SHALL INCLUDE HEAVY GAUGE DIAL AND HANDLE WITH ELEVATED PLATFORM FOR INSULATED DUCT MOUNTING.
- ALL RECTANGULAR MAIN TO RECTANGULAR BRANCH CONNECTIONS, BOTH CONVERGING AND DIVERGING CONFIGURATIONS, SHALL HAVE A 45 DEG. ENTRY TAP CONSTRUCTED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARD 2005 FIG. 4-6.
- MECHANICAL CONTRACTOR TO REPAIR ANY DAMAGE DONE TO THE FIRE PROOFING WHILE INSTALLING THE MECHANICAL TRADES. SEAL ALL PENETRATIONS THROUGH RATED STRUCTURES WITH UL LISTED FIRE SEAL DESIGNED FOR THE SPECIFIED APPLICATION.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES TO PROTECT THE PUBLIC AND ADJACENT PROPERTIES FROM DAMAGE THROUGHOUT CONSTRUCTION.
- THE CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION OR AS OTHERWISE REQUIRED IN THE SPECIFICATIONS.
- MECHANICAL CONTRACTOR TO INCLUDE THE TEST AND BALANCE, AND ANY PERMIT FEES IN THEIR BID.
- UPON PROJECT COMPLETION, RECORD (AS-BUILT) DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR TO THE OWNER AND ENGINEER. ALL CHANGES IN PIPING AND DUCTWORK ARRANGEMENTS SHALL BE NOTED ON THE RECORD DRAWINGS.

MECHANICAL HVAC LEGEND

	EXHAUST AIR DUCT (DOWN)		SUPPLY AIR CEILING DIFFUSER	
	EXHAUST AIR DUCT (UP)		RETURN AIR GRILLE	
	RETURN AIR DUCT (DOWN)		EXHAUST AIR GRILLE	
	RETURN AIR DUCT (UP)	DIFFUSER, GRILLE, AND REGISTER CALL-OUTS		
	OUTSIDE OR SUPPLY AIR DUCT (UP)	← CALL-OUT CFM	OR	← CALL-OUT CFM
	OUTSIDE OR SUPPLY AIR DUCT (DOWN)			
	DUCT SIZE			
	NEW DUCTWORK			

MECHANICAL SHEET INDEX

M000	MECHANICAL TITLE SHEET
M101A	MECHANICAL PLANS - BUILDINGS A, B, & C
M101B	MECHANICAL PLANS - BUILDING D
M400	MECHANICAL DETAILS AND SECTIONS
M500	MECHANICAL SCHEDULES

ABBREVIATIONS

A AMP	IN INCH	ADD ADDENDUM	INSUL INSULATION
ADOL ADDITIONAL	J-BOX JUNCTION BOX	ADJ ADJUSTABLE	LAT LEAVING AIR TEMPERATURE
AFF ABOVE FINISH FLOOR	LB POUND	AFG ABOVE FINISH GRADE	LOC LOCATION
AI ANALOG INPUT	LV LOW VOLTAGE	ALT ALTERNATE	MAX MAXIMUM
AO ANALOG OUTPUT	MBH 1000 BTU PER HOUR	APPRX APPROXIMATE	MC MECHANICAL CONTRACTOR
ARCH ARCHITECT, ARCHITECTURAL	MCA MINIMUM CIRCUIT AMPS	BDD BACK DRAFT DAMPER	MECH MECHANICAL
BDD BACK DRAFT DAMPER	MIN MINIMUM	BLDG BUILDING	MFR MANUFACTURER
BI BLACK IRON	MFR MANUFACTURER	BOD BOTTOM OF DUCTWORK	NFC NOT FOR CONSTRUCTION
BOP BOTTOM OF PIPE	NIC NOT IN CONTRACT	BOT BOTTOM	NTS NOT TO SCALE
BSMT BASEMENT	OA OUTSIDE AIR	BTUH BRITISH THERMAL UNIT PER HOUR	OC ON CENTER
BTWN BETWEEN	OPNG OPENING	C CENTER	OPP OPPOSITE
CD CEILING DIFFUSER	P PUMP	CFM CUBIC FEET PER MINUTE	PC PLUMBING CONTRACTOR
CHAR CHARACTERISTICS	PERP PERPENDICULAR	CI CAST IRON	PLBG PLUMBING
CIRC CIRCUIT	PNL PANEL	CL OR TM CENTERLINE	PPH POUNDS PER HOUR
CLR CLEAR	PRES PRESSURE	CO CLEAN OUT	PSF POUNDS PER SQUARE FOOT
CONC CONCRETE	PSI POUNDS PER SQUARE INCH	CONT CONTINUOUS	PSIG POUNDS PER SQUARE INCH GAUGE
CW COLD WATER	PWR POWER	DB DRY BULB	QTY QUANTITY
DEG DEGREE	R RADIUS	DEPT DEPARTMENT	RA RETURN AIR
DET DETAIL	REL RELIEF	DI DIGITAL INPUT	REQD REQUIRED
DIA DIAMETER	REV REVERSE OR REVISION	DIM DIMENSION	RG RETURN AIR GRILLE
DN DOWN	RPM REVOLUTIONS PER MINUTE	DO DIGITAL OUTPUT	SA SUPPLY AIR
DWG DRAWING	SAN SANITARY	EA EXHAUST AIR	SCH SCHEDULE
EAT ENTERING AIR TEMPERATURE	SECT SECTION	EC ELECTRICAL CONTRACTOR	SEP SEPARATOR
EF EXHAUST FAN	SF SQUARE FEET	EG EXHAUST GRILLE	SG SUPPLY GRILLE
EL ELEVATION	SHT SHEET	ELEC ELECTRICAL	SHWR SHOWER
EQ EQUAL	SIM SIMILAR	EQUIP EQUIPMENT	SP STATIC PRESSURE
ESP EXTERNAL STATIC PRESSURE	SPEC SPECIFICATIONS	EST ESTIMATE OR ESTIMATED	SQ SQUARE
FA FRESH AIR	T&B TEST AND BALANCE	FD FLOOR DRAIN	T&P TEMPERATURE AND PRESSURE
FDM FEET PER MINUTE	RELIEF VALVE	FLR FLOOR	TEMP TEMPERATURE OR TEMPORARY
FT FOOT (FEET)	TYP TYPICAL	FURN FURNACE	UNO UNLESS NOTED OTHERWISE
GAL GALLON	V VOLT	GALV GALVANIZED	VAR VARIABLE OR VARIES
GC GENERAL CONTRACTOR	VEL VELOCITY	GPM GALLONS PER MINUTE	VERT VERTICAL
GYP GYPSUM	VFD VARIABLE FREQUENCY DRIVE	HB HOSE BIB	VOL VOLUME
HORIZ HORIZONTAL	VTR VENT THRU ROOF	HP HORSEPOWER	W WITH
HT HEIGHT	W IN WITHIN	HW HOT WATER	W/O WITH OUT
IO INPUT/OUTPUT	WB WET BULB	IE INVERT ELEVATION	WC WATER COLUMN (INCHES OF)
	WG WATER GAUGE		WP WEATHER PROOF
	WP WORKING PRESSURE		WT WEIGHT

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Signature:

Print Name: Larry Nemer

Date: 06/21/2017 License No: 21157

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MECHANICAL TITLE SHEET

M000

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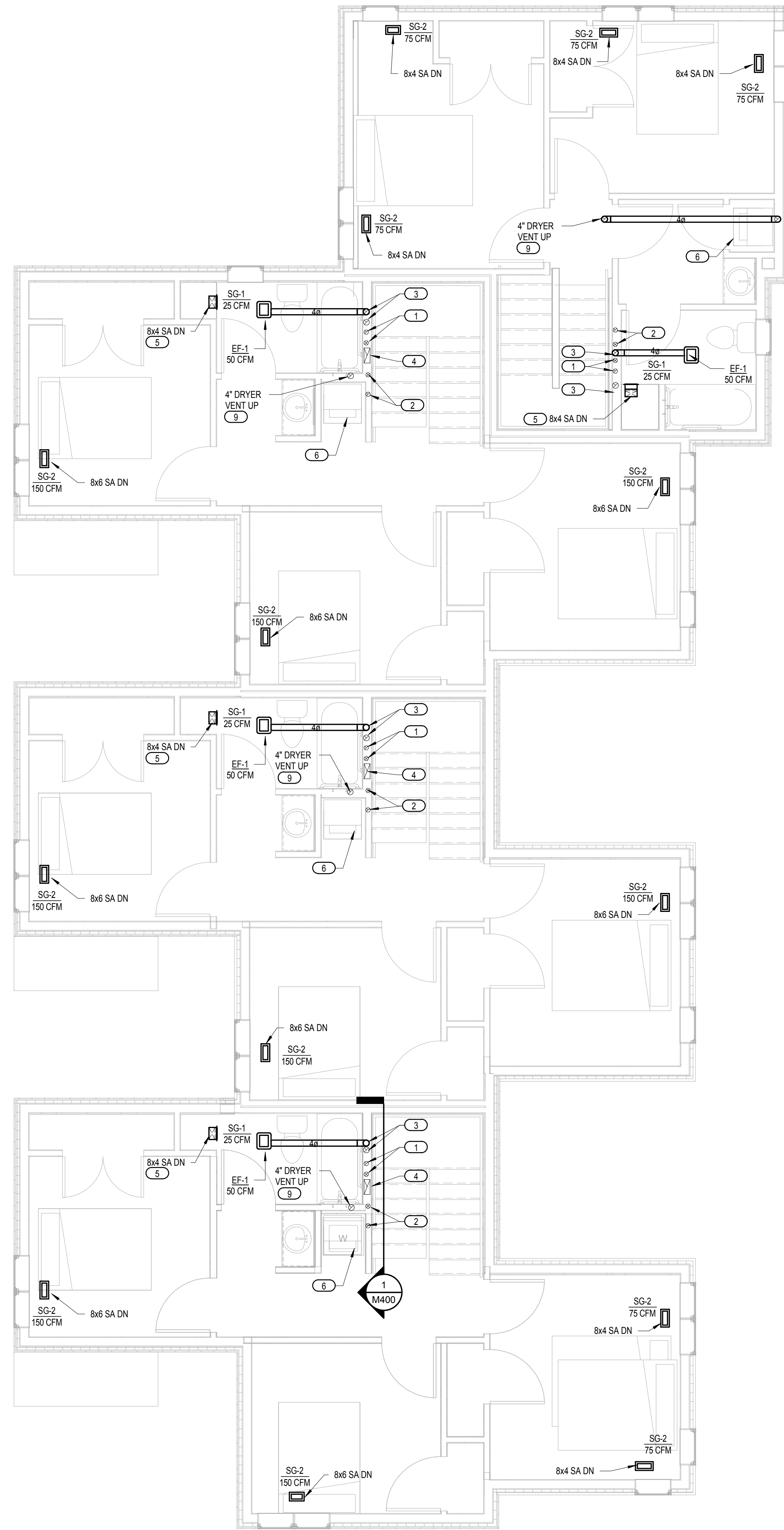
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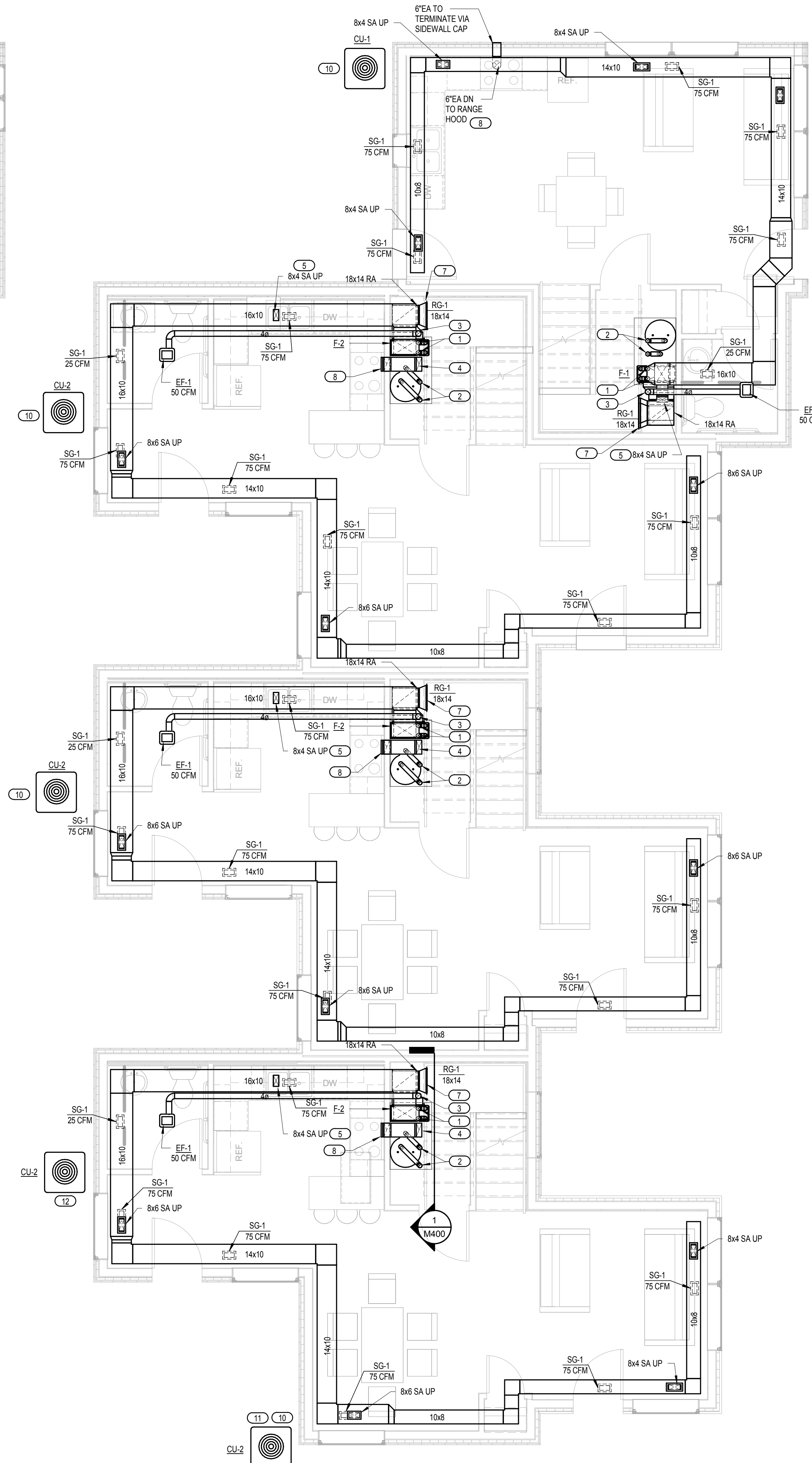
- REFER TO M000 FOR ADDITIONAL NOTES, SYMBOLS, AND ABBREVIATIONS.

KEYED NOTES

- FURNACE 3" COMBUSTION AIR AND FLUE UP. COMBUSTION AIR AND FLUE DUCTS TO CONNECT IN ATTIC SPACE FOR INSTALLATION OF CONCENTRIC VENT ADAPTER.
- WATER HEATER 3" COMBUSTION AIR AND FLUE UP. COMBUSTION AIR AND FLUE DUCTS TO CONNECT IN ATTIC SPACE FOR INSTALLATION OF CONCENTRIC VENT ADAPTER.
- 4" BATHROOM EXHAUST UP. BATHROOM EXHAUST SHALL TERMINATE VIA ROOF CAP WITH BACK DRAFT DAMPER.
- 10x3-1/4" RANGE HOOD EXHAUST DUCT UP. INSTALL MANUFACTURER PROVIDED 10x3-1/4" TO 6" DIAMETER ADAPTER IN ATTIC AND TERMINATE VIA ROOF CAP.
- DUCT TO RISE UP THROUGH FLOOR INTO SOFFIT ABOVE. GRILLE SHALL BE INSTALLED AT SOFFIT FACE 6" AFF.
- DRYER PROVIDED BY OTHERS. CONNECT DUCTWORK TO DRYER AS REQUIRED. COORDINATE WITH OTHER TRADES.
- RETURN GRILLE SHALL BE INSTALLED ON STAIR LANDING A MINIMUM OF 4" ABOVE STAIR LANDING.
- RANGE HOOD PROVIDED BY OTHERS. CONNECT DUCTWORK TO HOOD AS REQUIRED. COORDINATE WITH OTHER TRADES.
- DRYER VENT SHALL TERMINATE VIA ROOF CAP.
- CONDENSING UNIT IS TO SIT ON CONCRETE PAD.
- BUILDING A AND C. CONDENSING UNIT SHALL BE LOCATED HERE.
- BUILDING B. CONDENSING UNIT SHALL BE LOCATED HERE.



2 MECHANICAL PLAN - LEVEL TWO - BUILDINGS A, B, & C
 1/4" = 1'-0"



1 MECHANICAL PLAN - LEVEL ONE - BUILDINGS A, B, & C
 1/4" = 1'-0"

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MECHANICAL PLANS - BUILDINGS A, B, & C

M101A



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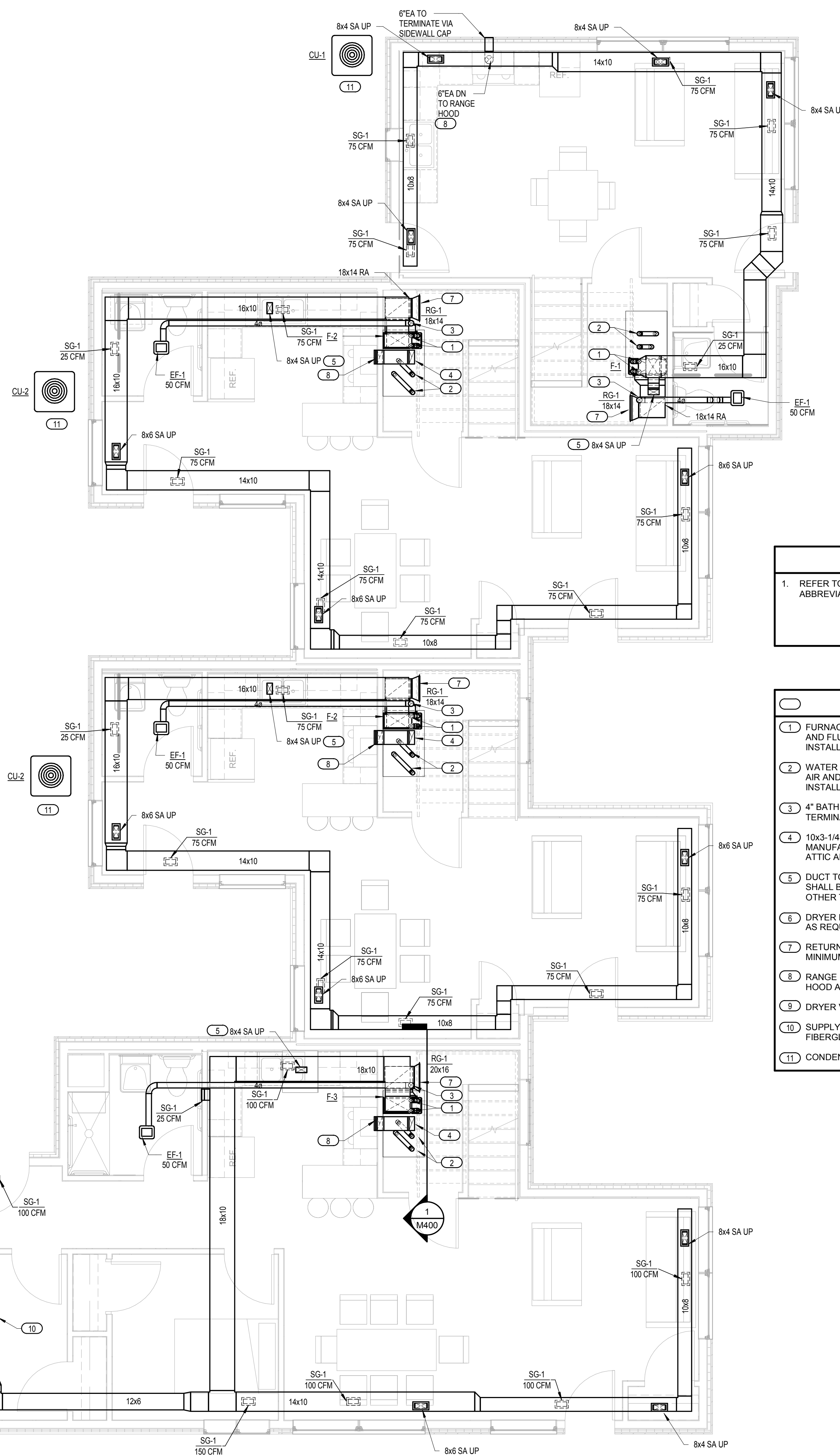
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**MECHANICAL
PLANS - BUILDING
D**

M101B



GENERAL NOTES

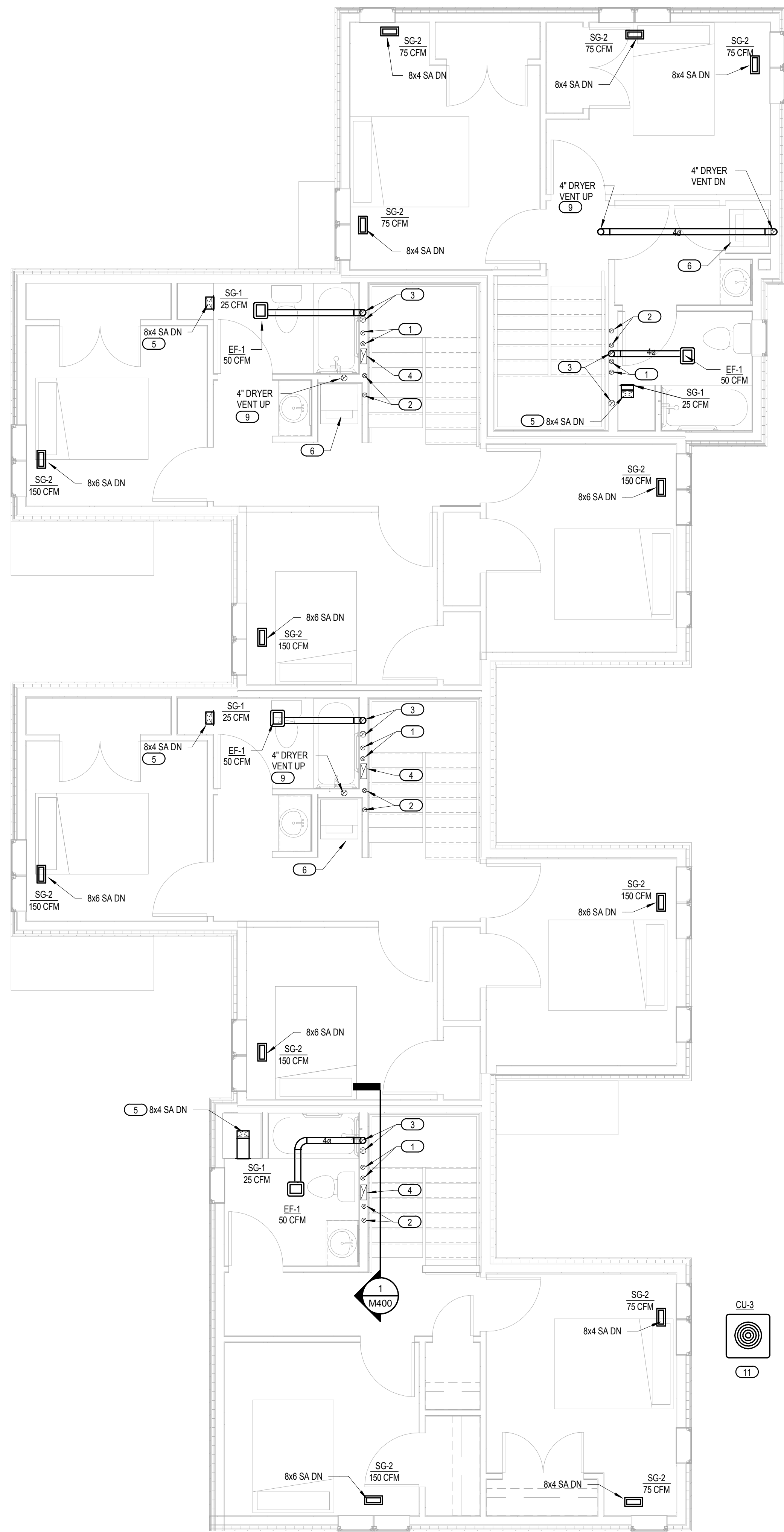
1. REFER TO M000 FOR ADDITIONAL NOTES, SYMBOLS, AND ABBREVIATIONS.

KEYED NOTES

- 1 FURNACE 3" COMBUSTION AIR AND FLUE UP. COMBUSTION AIR AND FLUE DUCTS TO CONNECT IN ATTIC SPACE FOR INSTALLATION OF CONCENTRIC VENT ADAPTER.
- 2 WATER HEATER 3" COMBUSTION AIR AND FLUE UP. COMBUSTION AIR AND FLUE DUCTS TO CONNECT IN ATTIC SPACE FOR INSTALLATION OF CONCENTRIC VENT ADAPTER.
- 3 4" BATHROOM EXHAUST UP. BATHROOM EXHAUST SHALL TERMINATE VIA ROOF CAP WITH BACK DRAFT DAMPER.
- 4 10x3-1/4" RANGE HOOD EXHAUST DUCT UP. INSTALL MANUFACTURER PROVIDED 10x3-1/4" TO 6" DIAMETER ADAPTER IN ATTIC AND TERMINATE VIA ROOF CAP.
- 5 DUCT TO RISE UP THROUGH FLOOR INTO SOFFIT ABOVE. GRILLE SHALL BE INSTALLED AT SOFFIT FACE 6" AFF. COORDINATE WITH OTHER TRADES.
- 6 DRYER PROVIDED BY OTHERS. CONNECT DUCTWORK TO DRYER AS REQUIRED. COORDINATE WITH OTHER TRADES.
- 7 RETURN GRILLE SHALL BE INSTALLED ON STAIR LANDING WALL A MINIMUM OF 4" ABOVE STAIR LANDING.
- 8 RANGE HOOD PROVIDED BY OTHERS. CONNECT DUCTWORK TO HOOD AS REQUIRED. COORDINATE WITH OTHER TRADES.
- 9 DRYER VENT SHALL TERMINATE VIA ROOF CAP.
- 10 SUPPLY DUCT SHALL BE INSULATED WITH MINIMUM R-8 FIBERGLASS INSULATION WITHIN JOIST SPACE.
- 11 CONDENSING UNIT TO SIT ON CONCRETE PAD.

1 MECHANICAL PLAN - LEVEL ONE - BUILDING D

1/4" = 1'-0"



2 MECHANICAL PLAN - LEVEL TWO - BUILDING D

1/4" = 1'-0"



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Signature:
 Print Names: Larry Nemer
 Date: 06/21/2017 License No.: 21157

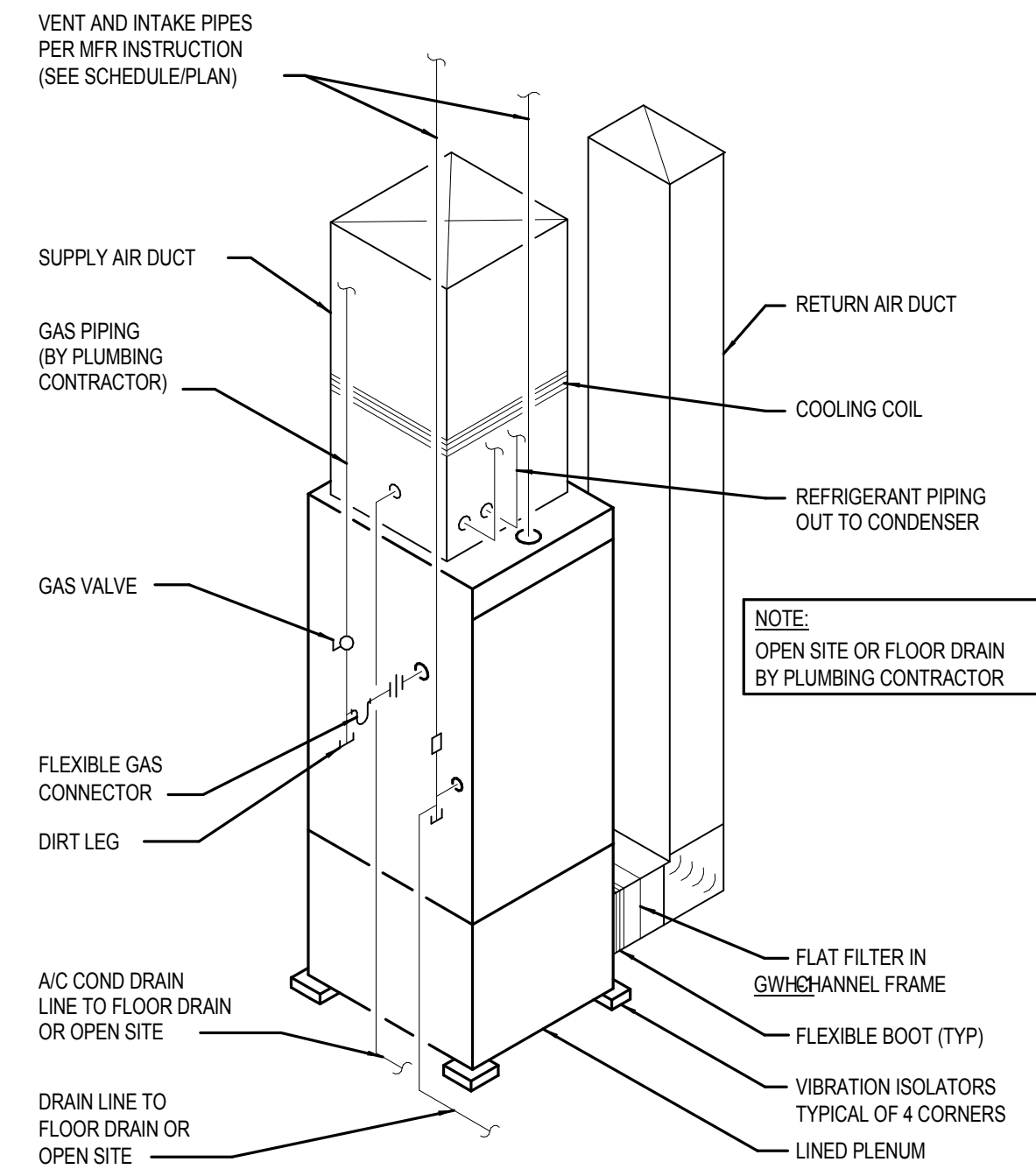
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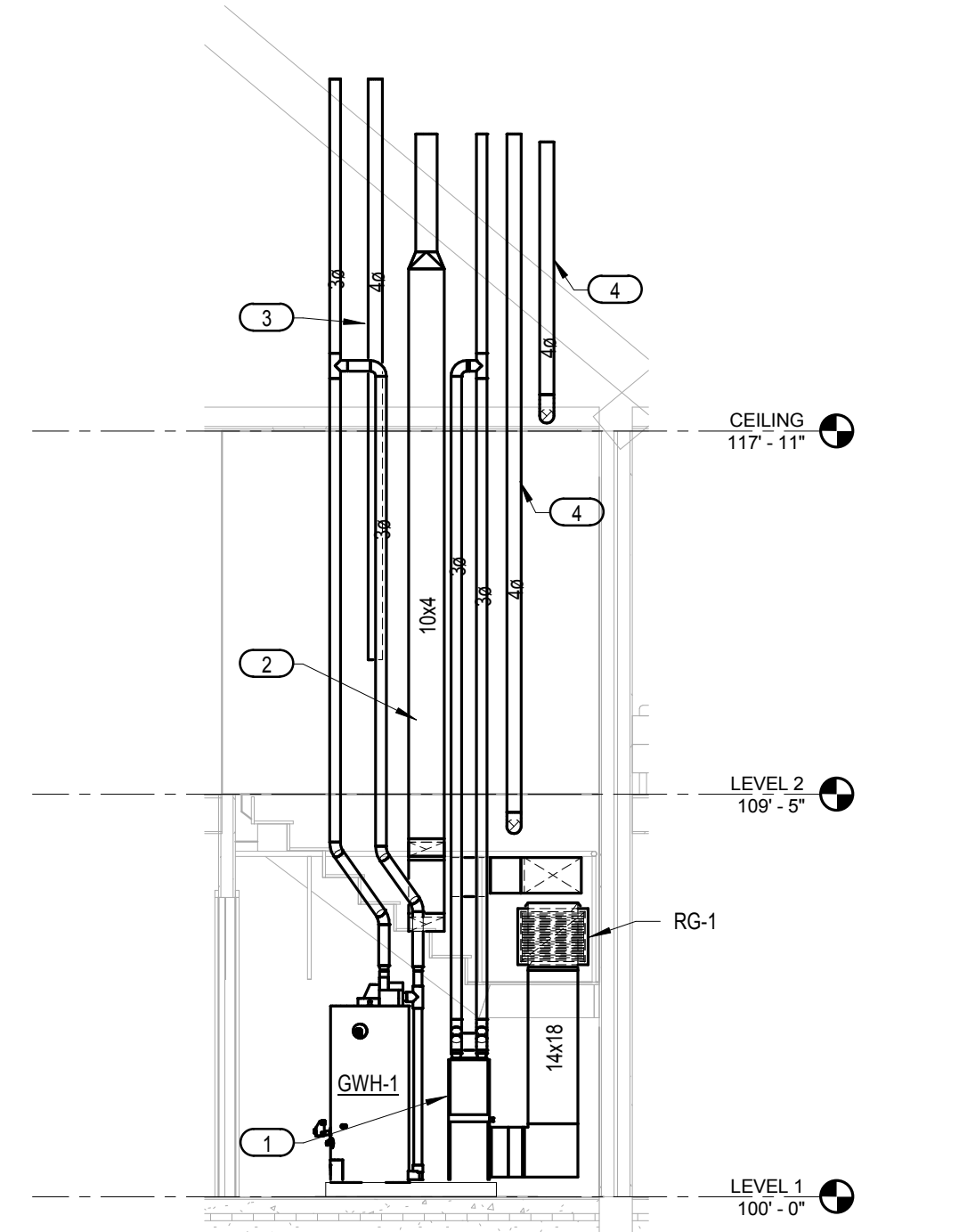
**MECHANICAL
 DETAILS AND
 SECTIONS**

M400

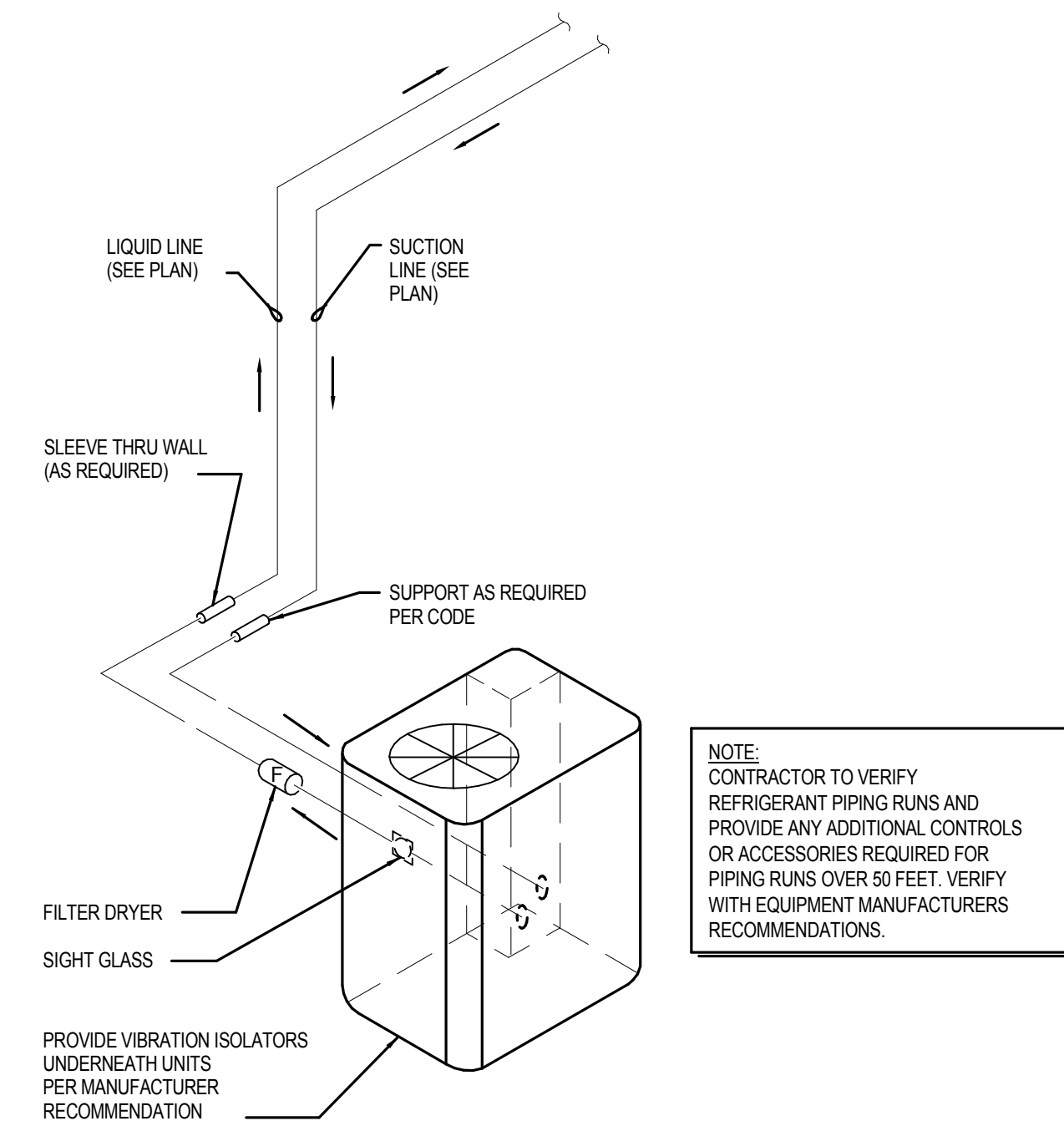
KEYED NOTES	
1	F-1, F-2, OR F-3. SEE PLANS.
2	10x3-1/4" RANGE HOOD DUCT.
3	4"Ø DRYER VENT.
4	4"Ø BATHROOM EXHAUST DUCT.



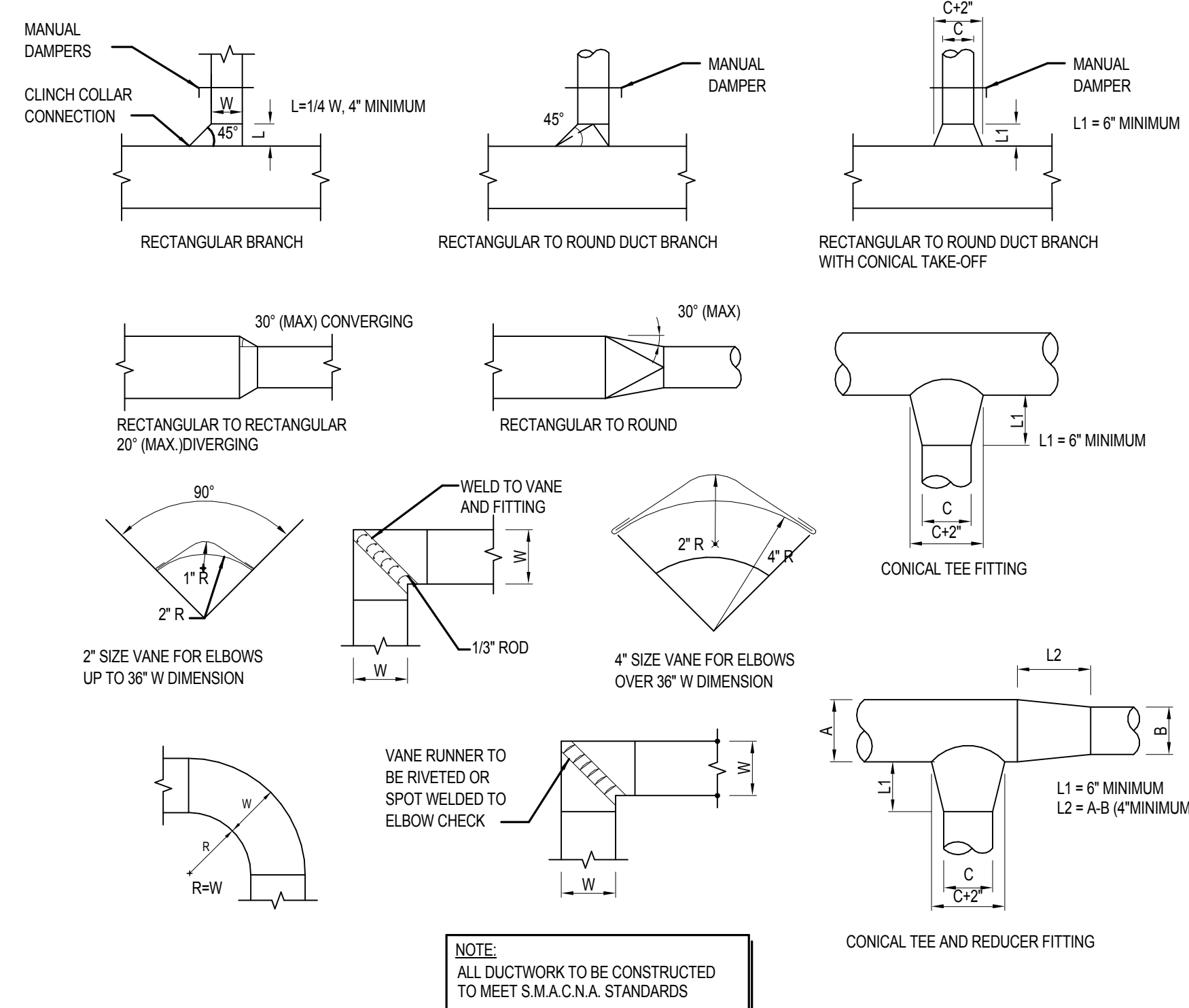
2 GAS FURNACE DETAIL
 NOT TO SCALE



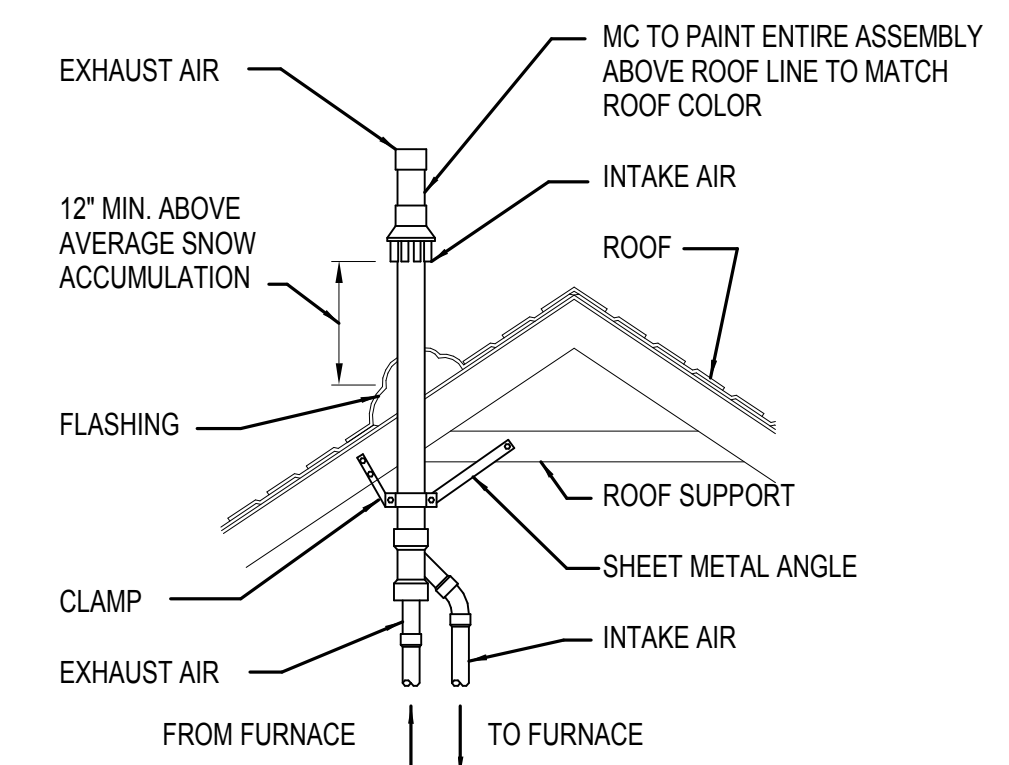
1 MECHANICAL ROOM SECTION (TYP)
 1/4" = 1'-0"



5 CONDENSING UNIT PIPING DETAIL
 NOT TO SCALE



4 TYPICAL DUCTWORK DETAILS
 NOT TO SCALE



3 FURNACE VENT TERMINATION DETAIL
 NOT TO SCALE

F #	HEATING					COOLING							BLOWER						MANUFACTURER & MODEL NO.	NOTES			
	TYPE	LOW-FIRE INPUT (MBH)	LOW-FIRE OUTPUT MBH	HIGH-FIRE INPUT MBH	HIGH-FIRE OUTPUT MBH	AFUE	C.F.M.	EXT. S.P.	TOTAL MBH	SENSIBLE MBH	SEER	EER	C.F.M.	EXT. S.P.	RPM	H.P.	ELEC. CHAR	UNIT AMPS			MOP	VENT	FILTER
1	GAS-FIRED	28	26.8	40	38.4	96	725	0.5	24	19	16	13	725	0.5	1075	1/2	120/160	8	15	3"	25x16	GOODMAN GMVC960403BNA	1-4
2	GAS-FIRED	28	26.8	40	38.4	96	950	0.5	24	19	16	13	950	0.5	1075	1/2	120/160	8	15	3"	25x16	GOODMAN GMVC960403BNA	1-4
3	GAS-FIRED	56	53.7	80	76.8	96	1150	0.5	35	26.2	16	13	1150	0.5	1075	3/4	120/160	10.6	15	3"	25x16	GOODMAN GMVC960402CNA	1-4

NOTES:
 1. PROVIDE CONCENTRIC VENT. INSTALL PER MANUFACTURER INSTRUCTIONS.
 2. PROVIDE ISOLATION PADS PER MANUFACTURER'S RECOMMENDATIONS.
 3. PROVIDE WITH COMFORTNET CONTROL SYSTEM.
 4. PROVIDE DRIP PAN AND ROUTE CONDENSATE DRAIN TO FLOOR DRAIN IN MECHANICAL ROOM.
 5. INSTALL PER MFR RECOMMENDATION.

CU #	NOMINAL TONNAGE	CONDENSING UNIT							EVAPORATOR COIL		MANUFACTURER & MODEL NO.	NOTES
		ELEC. CHAR	MCA	MOP	S.E.E.R.	FAN MOTOR	LIQUID LINE SIZE	SUCTION LINE SIZE	CFM	S.P.		
1	2	208/160	15.7	20	16	1/6	3/8" O.D.	3/4" O.D.	810	0.2	GOODMAN CAPF363686	1-4
2	2	208/160	15.7	20	16	1/6	3/8" O.D.	3/4" O.D.	810	0.2	GOODMAN CAPF363686	1-4
3	3	208/160	21.8	35	16	1/6	3/8" O.D.	7/8" O.D.	1,125	0.25	GOODMAN CAPF4961C6	1-4

NOTES:
 1. PROVIDE CONCRETE PAD FOR CONDENSING UNIT.
 2. PROVIDE TXV-30 FOR TWO TON UNITS AND TXV-42 FOR THREE TON UNIT.
 3. REFRIGERANT SHALL BE R-410A.
 4. INSTALL PER MFR RECOMMENDATION.

PLAN SYMBOL	DESCRIPTION	MANUFACTURER & MODEL NO.	MATERIAL	FINISH	NOTES
SG-1	8x4 FACE, TWO-WAY DEFLECTION BLADES, 40° FIXED DEFLECTION, 1/2" BLADE SPACING, MULTI-SHUTTER DAMPER	HART AND COOLEY 682	ALUMINUM	-	1, 2
SG-2	8x6 FACE, SINGLE DEFLECTION BLADES, 1/2" BLADE SPACING, TOE OPERATED DAMPER	HART AND COOLEY 210	ALUMINUM	-	1, 2
RG-1	SEE PLANS FOR SIZE, SINGLE DEFLECTION BLADES, 45° FIXED DEFLECTION, 1/2" BLADE SPACING, HORIZONTAL BLADES	PRICE 5355	ALUMINUM	-	1, 2

NOTES:
 1. ARCHITECT TO SELECT FINISH.
 2. INSTALL PER MFR RECOMMENDATIONS.

EF #	LOCATION	SYSTEM	LOW CFM	HIGH CFM	SP (IN)	RPM	ELECTRICAL CHAR	FAN TYPE	INTERLOCK/CONTROL	MANUFACTURER & MODEL NO.	NOTES
1	SEE PLAN	BATHROOM EXHAUST	30	50	0.25	1072	120/60/1	CEILING MOUNTED	MULTI-SPEED WITH TIME DELAY	PANASONIC FV-05-11WK1	1-4

NOTES:
 1. PROVIDE 4" DUCT ADAPTER.
 2. PROVIDE FV-VS15WK1 MULTI-SPEED WITH TIME DELAY. PRE-SET LOWER LEVEL OF 30 CFM. MAX LEVEL OPERATION OF 50 CFM WHEN WALL SWITCH IS TURNED ON.
 3. USER TO PRESET HIGH/LOW DELAY TIMER TO RETURN TO LOWER CFM LEVEL.
 4. PROVIDE BACK DRAFT DAMPER AT ROOF CAP.
 5. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

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 Minneapolis, Minnesota 55401-2282

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Signature: *[Signature]*
 Print Names: Larry Nemer
 Date: 06/21/2017 License No: 21157

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MECHANICAL SCHEDULES

M500

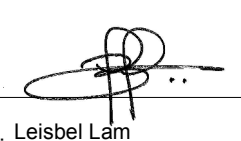
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Print Names: Leisbel Lam
Date: 06/21/2017 License No: 51412

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ELECTRICAL TITLE SHEET

E000

GENERAL ELECTRICAL NOTES

- ALL WORK SHALL BE IN CONFORMANCE WITH NATIONAL, STATE, AND LOCAL CODES AND/OR ORDINANCES.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER CONTRACTORS & LOCAL UTILITY. E.C. SHALL CONTACT LOCAL UTILITY FOR EXACT SERVICE REQUIREMENTS TO INCLUDE BUT NOT LIMITED TO TRANSFORMER, METERING AND CABLING. LOCAL UTILITY REQUIREMENTS SUPERSEDE DRAWINGS AND SPECIFICATIONS.
- SEE ARCHITECTURAL, MECHANICAL, & PLUMBING DRAWINGS FOR ADDITIONAL REQUIREMENTS.
- ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY. THEY ARE INTENDED TO GIVE APPROXIMATE LOCATIONS AND OVERALL DESIGN INTENT. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PRODUCTS, MATERIALS, AND ELECTRICAL METHODS WHICH HAVE NOT BEEN SHOWN OR INDICATED BUT ARE REQUIRED FOR A COMPLETE SYSTEM TO THE STANDARDS OF THE INDUSTRY.
- INSTALL LIGHTING FIXTURES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PROVIDE SUPPORTING DEVICES FOR ADEQUATE SUPPORT OF FIXTURES FROM STRUCTURE.
- UPON COMPLETION OF THE ELECTRICAL WORK, THE INSTALLATION SHALL BE TESTED FOR CONTINUITY, GROUNDS, AND SHORT CIRCUITS. THE ELECTRICAL CONTRACTOR SHALL DEMONSTRATE PROPER PERFORMANCE OF ALL SYSTEMS. ALL DEFECTIVE WORK OR MATERIALS SHALL BE REPLACED OR REPAIRED AS NECESSARY AND RETESTED.
- ELECTRICAL RACEWAYS THAT PENETRATE FIRE RATED ASSEMBLIES SHALL BE SLEEVED AND SEALED AS PER THE LOCAL BUILDING CODE.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE A TEMPORARY ELECTRICAL SYSTEM FOR THE PROJECT. AT LEAST ONE 120 VOLT SINGLE PHASE RECEPTACLE SHALL BE PROVIDED FOR EACH 500 SQUARE FEET OF FLOOR SPACE. SUFFICIENT TEMPORARY LIGHTING SHALL BE PROVIDED TO ALLOW ALL CONTRACTORS TO COMPLETE THEIR WORK. TEMPORARY ELECTRICAL CIRCUITS SHALL BE EQUIPPED WITH COMBINATION GROUND FAULT INTERRUPTER AND CIRCUIT BREAKER PER NEC. TEMPORARY ELECTRICAL SYSTEM SHALL BE INCLUDED IN THIS BID. USAGE CHARGES SHALL BE PAID FOR BY THE GENERAL CONTRACTOR.
- ELECTRICAL DEVICES/EQUIPMENT SHOWN AS DASHED AND BOLD ARE EXISTING TO BE REMOVED. ELECTRICAL DEVICES/EQUIPMENT SHOWN AS LIGHT AND SOLID ARE EXISTING TO REMAIN. AND ELECTRICAL DEVICES/EQUIPMENT SHOWN AS BOLD AND SOLID SHALL BE NEW.
- ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASSOCIATED COSTS AND SCHEDULING OF REQUIRED ELECTRICAL INSPECTIONS.

ELECTRICAL SYMBOLS LEGEND

RECEPTACLES	LIGHTING
20A 120V 2P 3W GROUNDING DUPLEX RECEPTACLE	TROFFER STYLE FIXTURE, TYPE AS NOTED SWITCH LEGS
SINGLE-PLEX RECEPTACLE	FIXTURE ON EMERGENCY POWER
QUADPLEX RECEPTACLE	STRIP LIGHT / SUSPENDED DIRECT/INDIRECT
GFCI RECEPTACLE	SURFACE MTD FIXTURE
	TRACK LIGHTING
TAMPER RESISTANT RECEPTACLE	PENDANT/SURFACE MTD UP/DOWN LIGHT
WEATHER-PROOF GFCI RECEPTACLE	RECESSED/DOWNLIGHT FIXTURE
QUADPLEX FLOORBOX	ACCENT FIXTURE
120V, 15A CLOCK OUTLET	WALL MOUNTED FIXTURE
SURFACE MOUNTED RACEWAY WITH DEVICES AS NOTED	EXIT SIGN (ARROWS INDICATED AS SHOWN) - (SHADING INDICATES # OF FACES)
TELEPHONE	CLG MTD EMERGENCY FIXTURE
TELEPHONE/DATA	EMERGENCY FIXTURE
DATA ONLY	COMBO EMERGENCY/EXIT LIGHT - (ARROW INDICATES DIRECTION) - (SHADING INDICATES # OF FACES)
	BOLLARD/SIDEWALK LIGHT
WIRELESS ACCESS POINT	FLOOD LIGHT
CEILING MOUNTED SPEAKER	SINGLE HEAD FIXTURE/POLE
WALL MOUNTED SPEAKER	TWIN HEAD FIXTURE/POLE
SPEAKER VOLUME CONTROL	SWITCHING
TELEVISION OUTLET	20A 120/277V SPST SWITCH
POWER	20A 120/277V 3-WAY SWITCH
PANEL BOARD	20A 120/277V 4-WAY SWITCH
DISTRIBUTION PANEL BOARD	DIMMER SWITCH
SEPARATE CIRCUIT BREAKER	KEY OPERATED SWITCH
UTILITY METER	MOMENTARY CONTACT SWITCH
DISCONNECT	LOW VOLTAGE SWITCH
FUUSED DISCONNECT SWITCH	THERMAL OVERLOAD SWITCH
EMERGENCY FUSED DISCONNECT SWITCH	PILOT LIGHT
TRANSFORMER	CEILING MTD OCC. SENSOR
MOTOR STARTER/CONTACTOR	PHOTOCELL
COMBINATION MOTOR STARTER	FIRE ALARM
PUSH BUTTON STATION AS NOTED	
J-BOX	
FLOOR BOX	
OVERHEAD BOX	SMOKE DETECTOR INDICATES ELEVATOR RECALL
PULL BOX, SIZE AS NOTED OR AS REQUIRED BY CODE	HEAT DETECTOR
ELECTRICAL EQUIPMENT CONNECTION	DUCT DETECTOR
MOTOR CONNECTION	FIRE BARRIER CONNECTION
CEILING FAN	SPRINKLER FLOW SWITCH
CABLE TRAY RUN	TAMPER FLOW SWITCH
HOME RUN TO PANEL BOARD	MAGNETIC DOOR HOLD
	FIRE ALARM CONTROL PANEL
	FIRE ALARM ANNUNCIATOR PANEL

ELECTRICAL ABBREVIATIONS

AC	ABOVE COUNTERTOP	MC	MECHANICAL CONTRACTOR
AFF	ABOVE FINISH FLOOR	MCA	MINIMUM CIRCUIT AMPS
AFG	ABOVE FINISH GRADE	MDP	MAIN DISTRIBUTION PANEL
ANNC	ANNUNCIATOR	MTD	MOUNTED
CC	CONTROLS CONTRACTOR	OCC	OCCUPANCY
EC	ELECTRICAL CONTRACTOR	PC	PLUMBING CONTRACTOR
EX	EXISTING	PNL	PANEL
EXR	EXISTING RELOCATED	SPST	SINGLE POLE SINGLE THROW
GC	GENERAL CONTRACTOR	WP	WEATHER PROOF
GFCI	GROUND FAULT CIRCUIT INTERRUPT	20A	20 AMP
IBC	INTERNATIONAL BUILDING CODE	3W	3 WIRE
IG	ISOLATED GROUND	20/1	20 AMP, SINGLE PHASE
HP	HORSEPOWER		
LV	LOW VOLTAGE		

ELECTRICAL SHEET INDEX

E000	ELECTRICAL TITLE SHEET
E001	ELECTRICAL SITE PLAN
E100A	ELECTRICAL POWER PLANS - BUILDINGS A, B, & C
E100B	ELECTRICAL POWER PLANS - BUILDING D
E101A	ELECTRICAL LIGHTING PLANS - BUILDINGS A, B, & C
E101B	ELECTRICAL LIGHTING PLANS - BUILDING D
E400	ONE-LINE DIAGRAM & DETAILS
E500	ELECTRICAL SCHEDULES



KEYED NOTES	
(1)	PROPOSED LOCATION OF ELECTRICITY METERS FOR THE FOUR UNITS. REFER TO ONE-LINE DIAGRAM.
(2)	PROVIDE UNDERGROUND PVC CONDUIT FROM THIS LOCATION TO PULL BOX BY THE PROPERTY LINE FOR TELECOMMUNICATION AND CABLE UTILITY SERVICES. COORDINATE WITH TELECOMMUNICATION PROVIDER.
(3)	PROVIDE GFCI RECEPTACLES AND (2) LIGHT FIXTURE TYPE F IN SHED
(4)	PROPOSED LOCATION OF UTILITY TRANSFORMER.
(5)	PROVIDE UNDERGROUND 4" PVC CONDUIT FROM UTILITY TRANSFORMER TO ELECTRICITY METERS.
(6)	LOCATION OF HOUSE PANELBOARD.
(7)	EXISTING LIGHT POLE TO REMAIN.
(8)	EXISTING LIGHT POLE SHALL BE REMOVED AND SALVAGED TO BE REUSED. REMOVE BRANCH CIRCUIT BACK TO THE LAST REMAINING LIGHT POLE.
(9)	REINSTALL SALVAGED LIGHT POLE AT THIS LOCATION IN NEW CONCRETE BASE. REFEED REUSED LIGHT POLES TO FROM EXISTING CIRCUIT AND CONTROLS. MATCH EXISTING CONDUCTORS AND RACEWAYS.
(10)	EXISTING XCEL ENERGY POWER POLE TO REMAIN. IF OWNER DECIDES TO MOVE POLE, THIS WORK HAS TO BE DONE BY XCEL ENERGY AT THE COST OF THE OWNER.
(11)	PROVIDE (2) WEATHER PROOF GFCI RECEPTACLES AND (4) LIGHT FIXTURE TYPE ' F ' IN PATIO AREA. COORDINATE LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.

1 ELECTRICAL SITE PLAN
1" = 30'-0"

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Print Names: Leisbel Lam

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ELECTRICAL SITE
PLAN

E001



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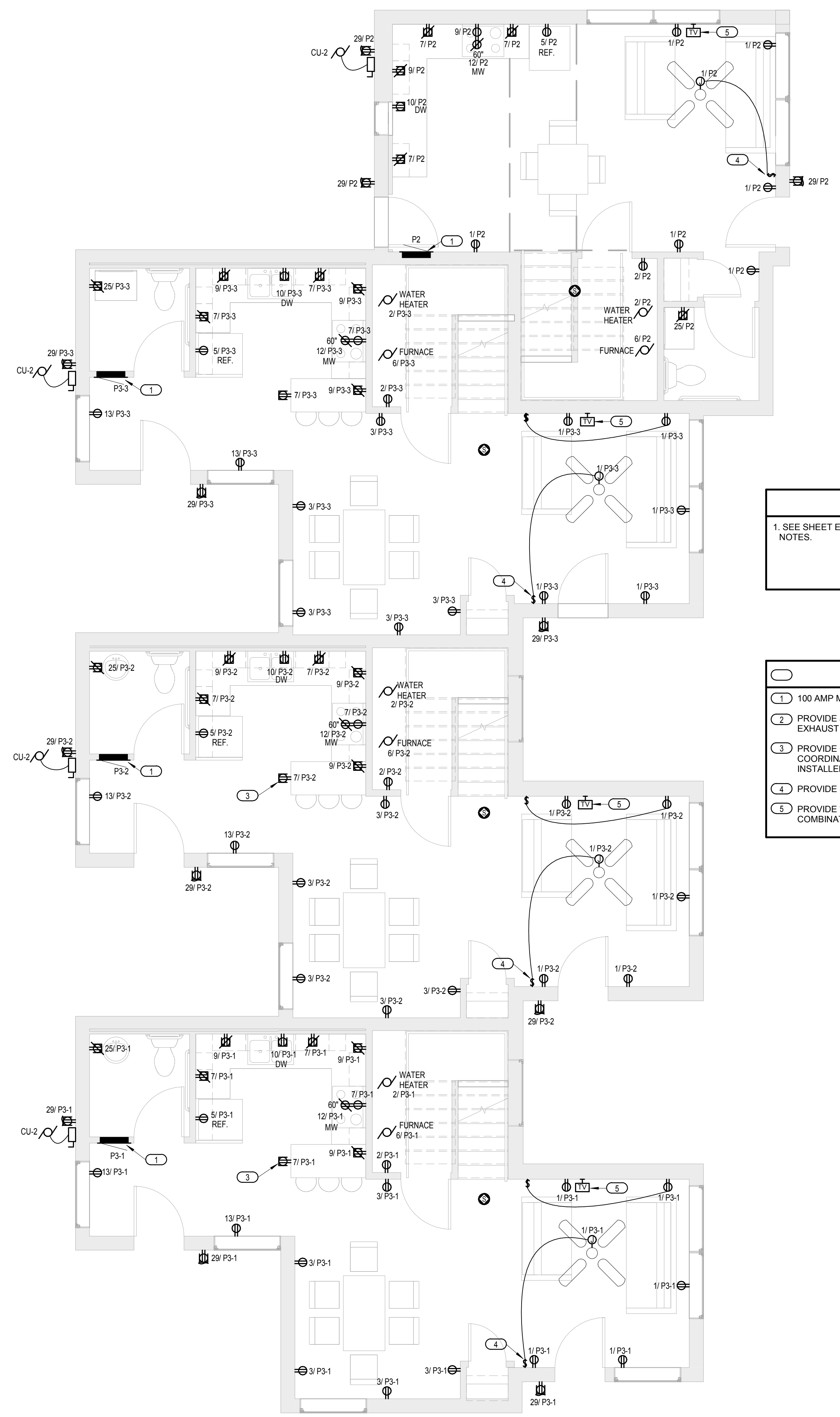
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**ELECTRICAL
 POWER PLANS -
 BUILDINGS A, B, & C**

E100A

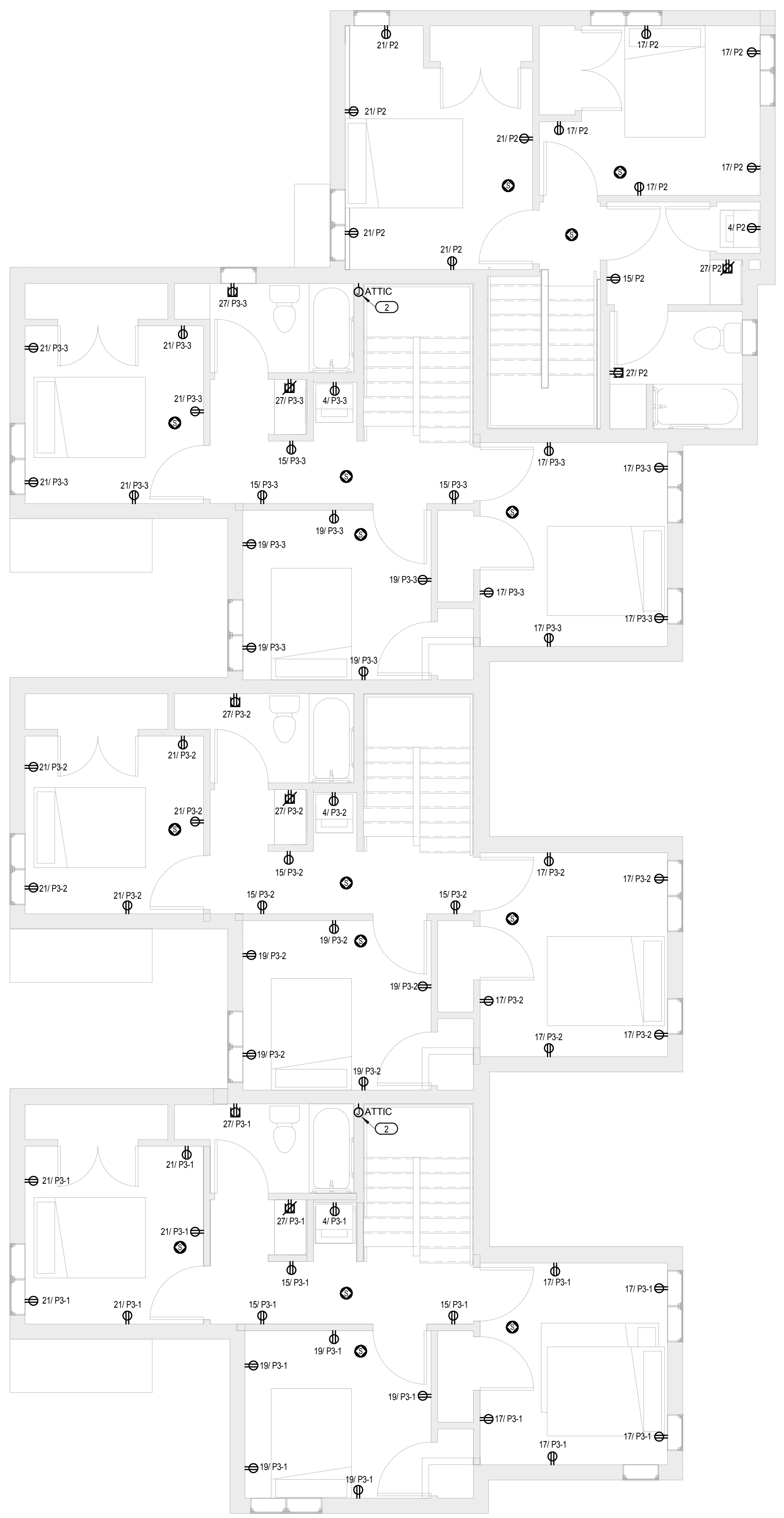


GENERAL NOTES

1. SEE SHEET E000 FOR SYMBOLS AND ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES

1 100 AMP MCB PANELBOARD LOCATION.
2 PROVIDE JBOX IN ATTIC SPACE FOR RADON MITIGATION SYSTEM EXHAUST FAN.
3 PROVIDE GFCI RECEPTACLE IN PENINSULAR COUNTERTOP SPACE. COORDINATE LOCATION OF RECEPTACLE WITH COUNTERTOP INSTALLER.
4 PROVIDE SWITCHED CONNECTION FOR POWERED CEILING FAN.
5 PROVIDE 'LEGRAND TPELTW' OR APPROVED EQUAL COMBINATION COAXIAL CONNECTOR AND RJ11 TELEPHONE JACK.



2 LEVEL 2 - OVERALL POWER
 1/4" = 1'-0"

1 LEVEL 1 - OVERALL POWER
 1/4" = 1'-0"

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 CHECKED BY: LL
 DATE: 06/21/2017
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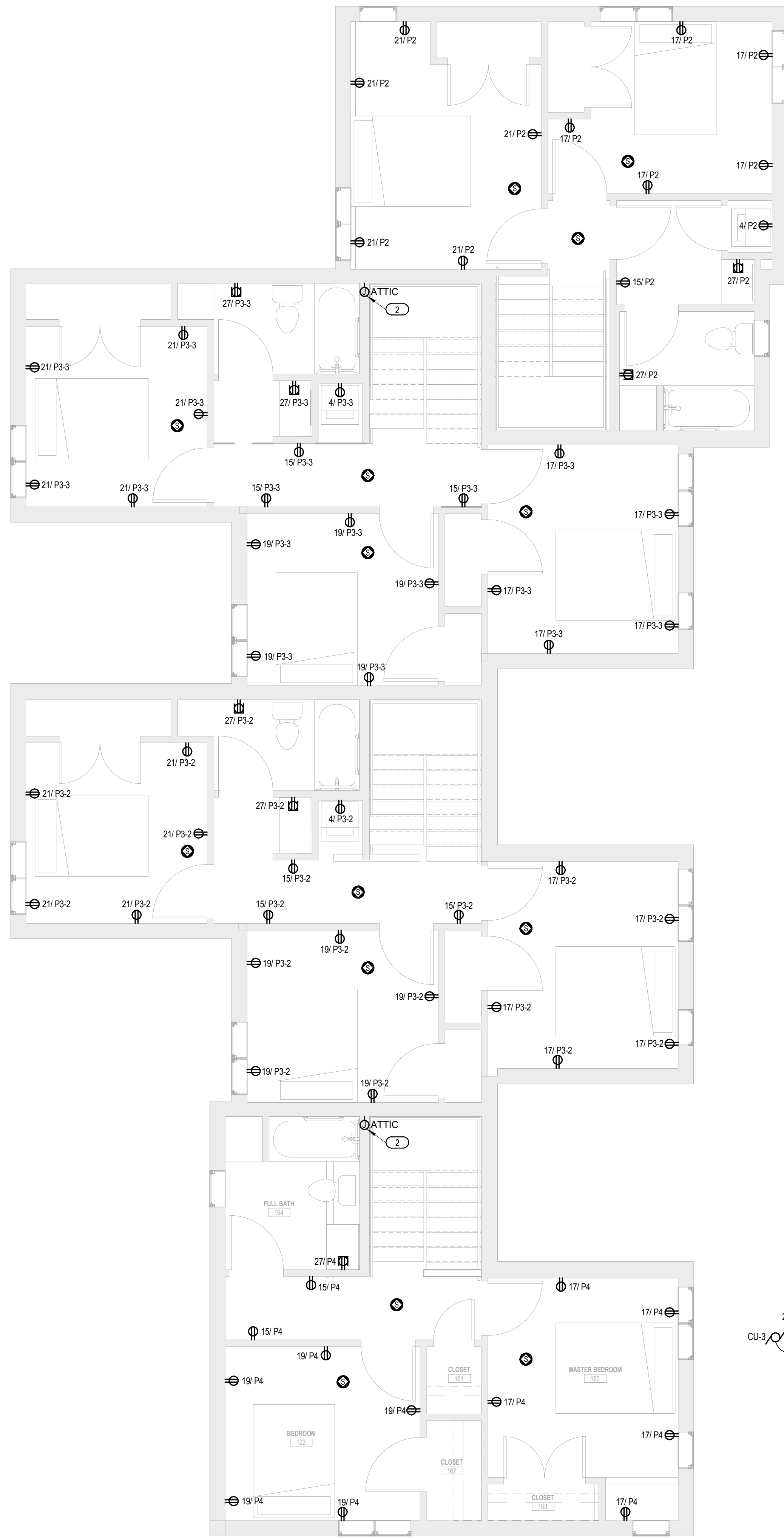
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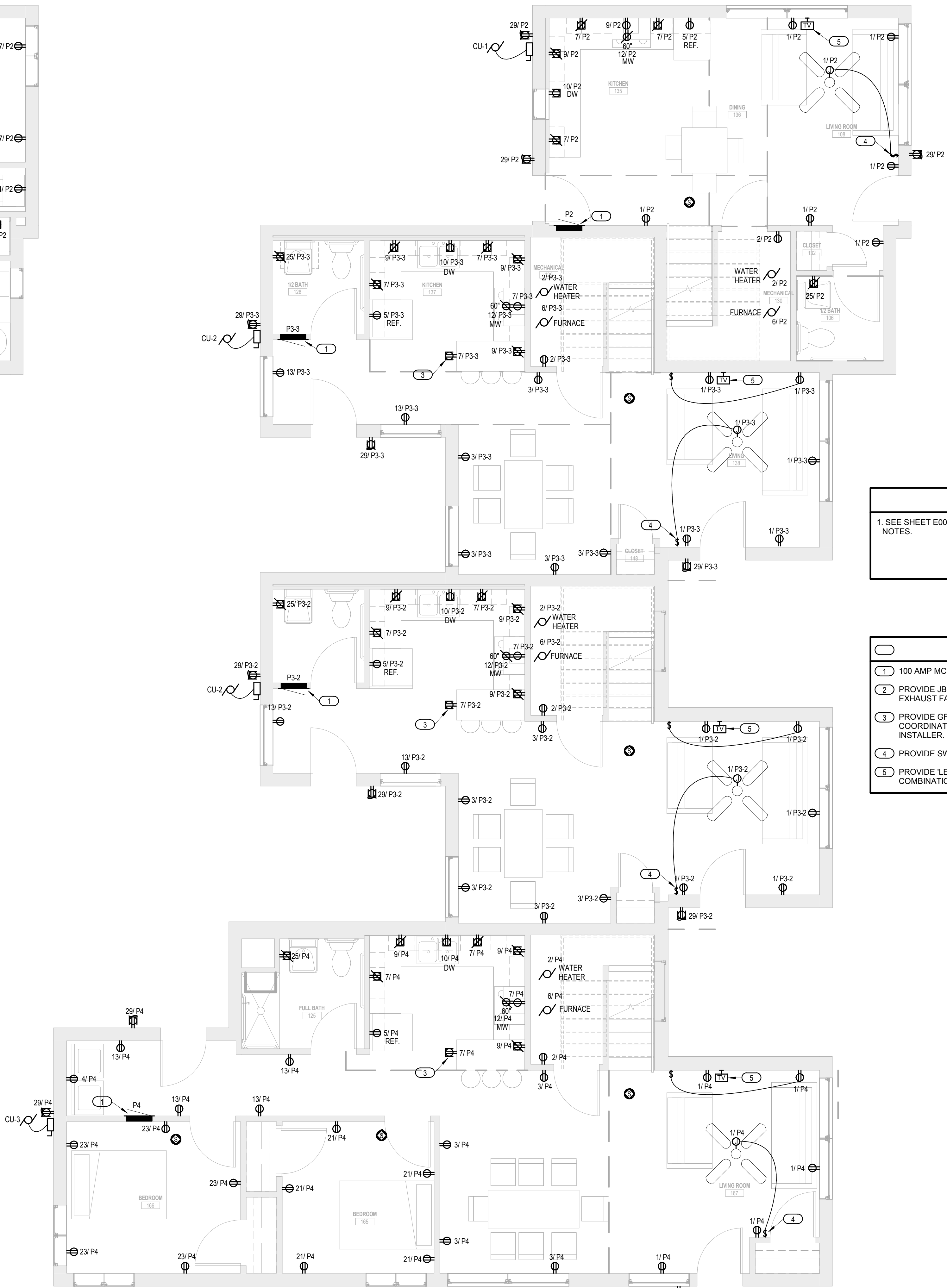
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ELECTRICAL POWER PLANS - BUILDING D

E100B



2 LEVEL 2 - OVERALL POWER
1/4" = 1'-0"



1 LEVEL 1 - OVERALL POWER
1/4" = 1'-0"

GENERAL NOTES

1. SEE SHEET E000 FOR SYMBOLS AND ABBREVIATIONS AND GENERAL NOTES.

- KEYED NOTES**
- 100 AMP MCB PANELBOARD LOCATION.
 - PROVIDE JBOX IN ATTIC SPACE FOR RADON MITIGATION SYSTEM EXHAUST FAN.
 - PROVIDE GFCI RECEPTACLE IN PENINSULAR COUNTERTOP SPACE. COORDINATE LOCATION OF RECEPTACLE WITH COUNTERTOP INSTALLER.
 - PROVIDE SWITCHED CONNECTION FOR POWERED CEILING FAN.
 - PROVIDE 'LEGRAND TPTELTWW' OR APPROVED EQUAL COMBINATION COAXIAL CONNECTOR AND RJ11 TELEPHONE JACK.



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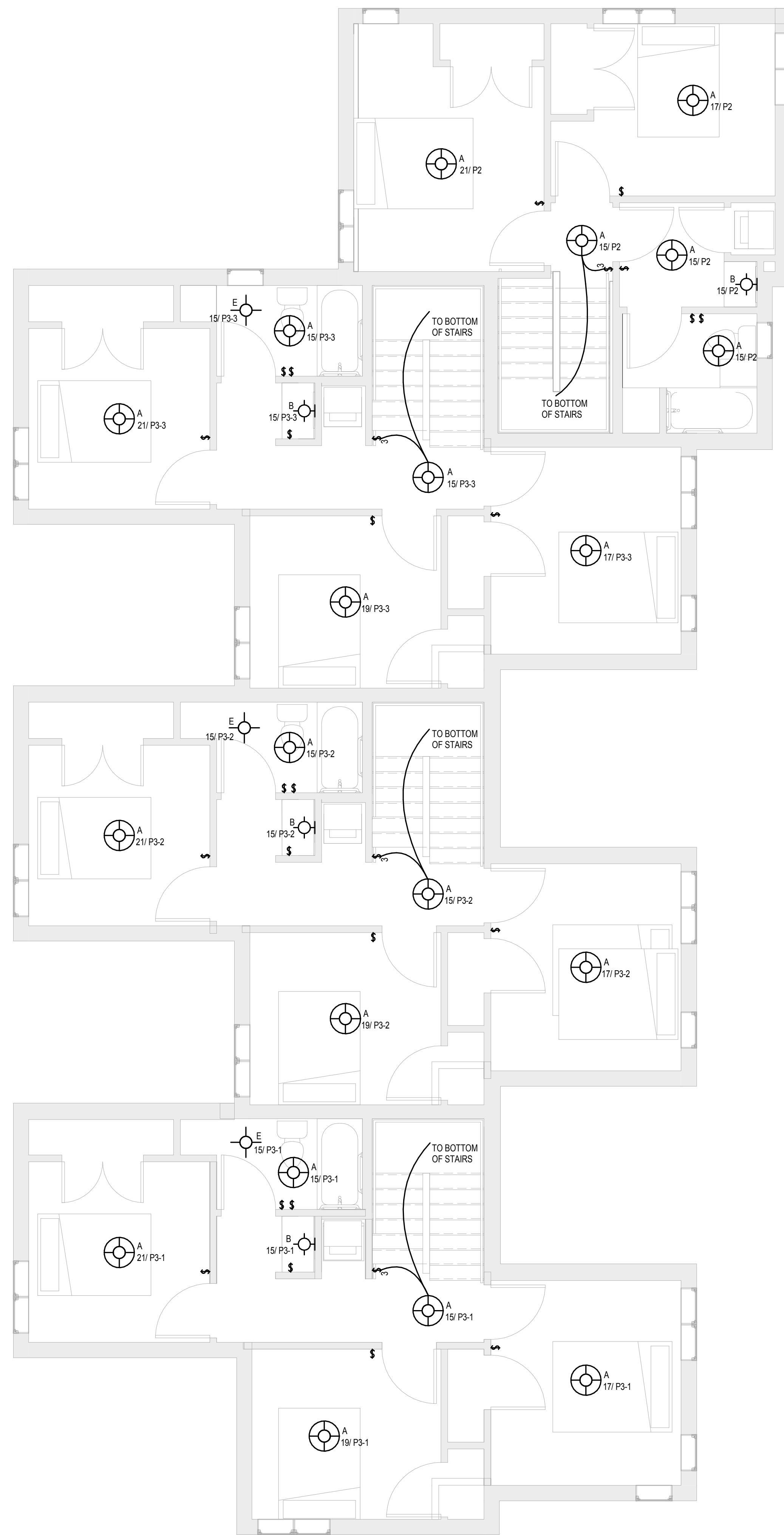
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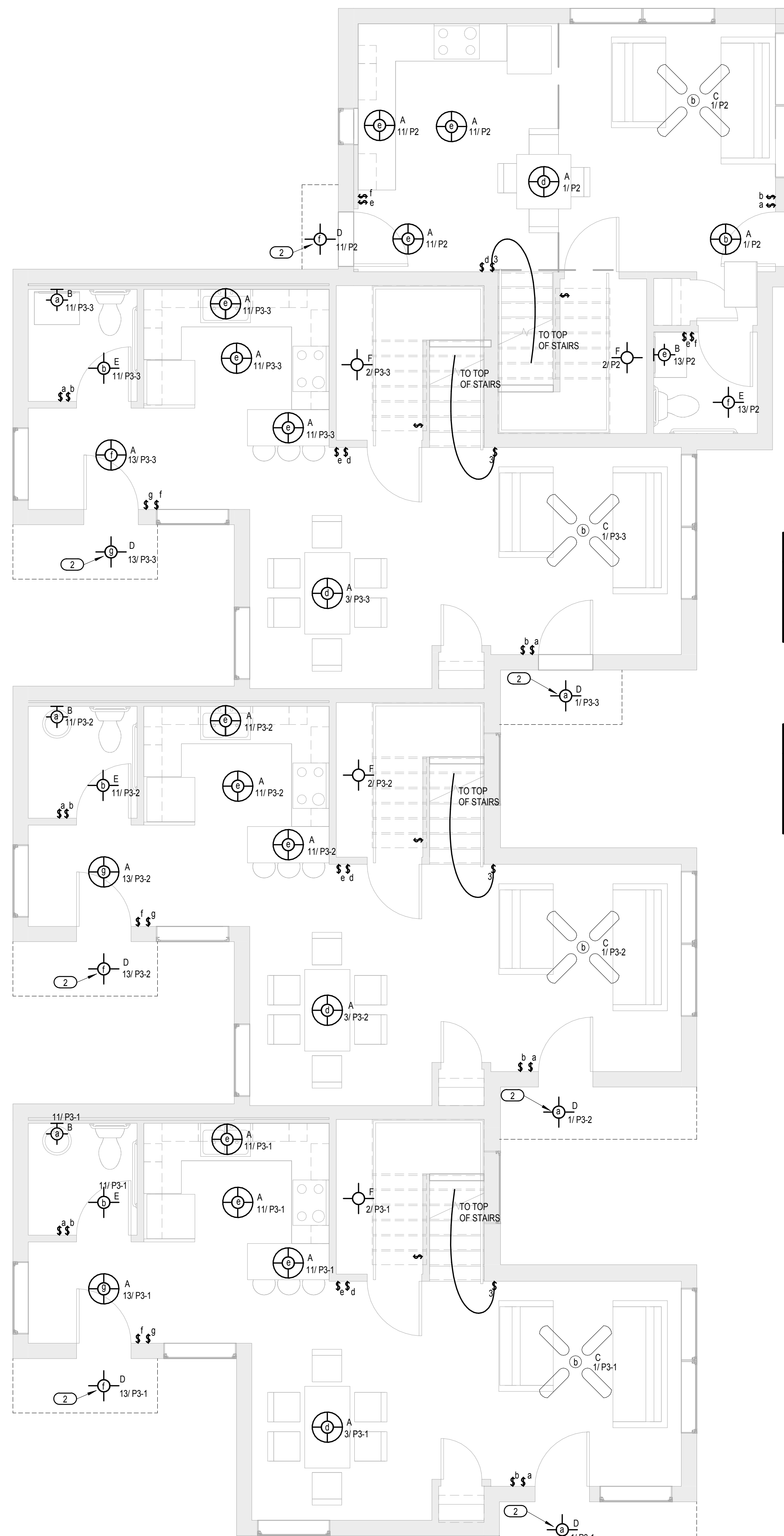
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**ELECTRICAL
LIGHTING PLANS -
BUILDINGS A, B, & C**

E101A



2 LEVEL 2 - OVERALL LIGHTING
1/4" = 1'-0"



1 LEVEL 1 - OVERALL LIGHTING
1/4" = 1'-0"

GENERAL NOTES
1. SEE SHEET E000 FOR SYMBOLS AND ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES
1 NOT USED
2 FIXTURE LOCATED UNDER ENTRY CANOPY. REFER TO ARCHITECTURAL EXTERIOR DETAILS - A351.



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 Date: 06/21/2017 License No.: 51412

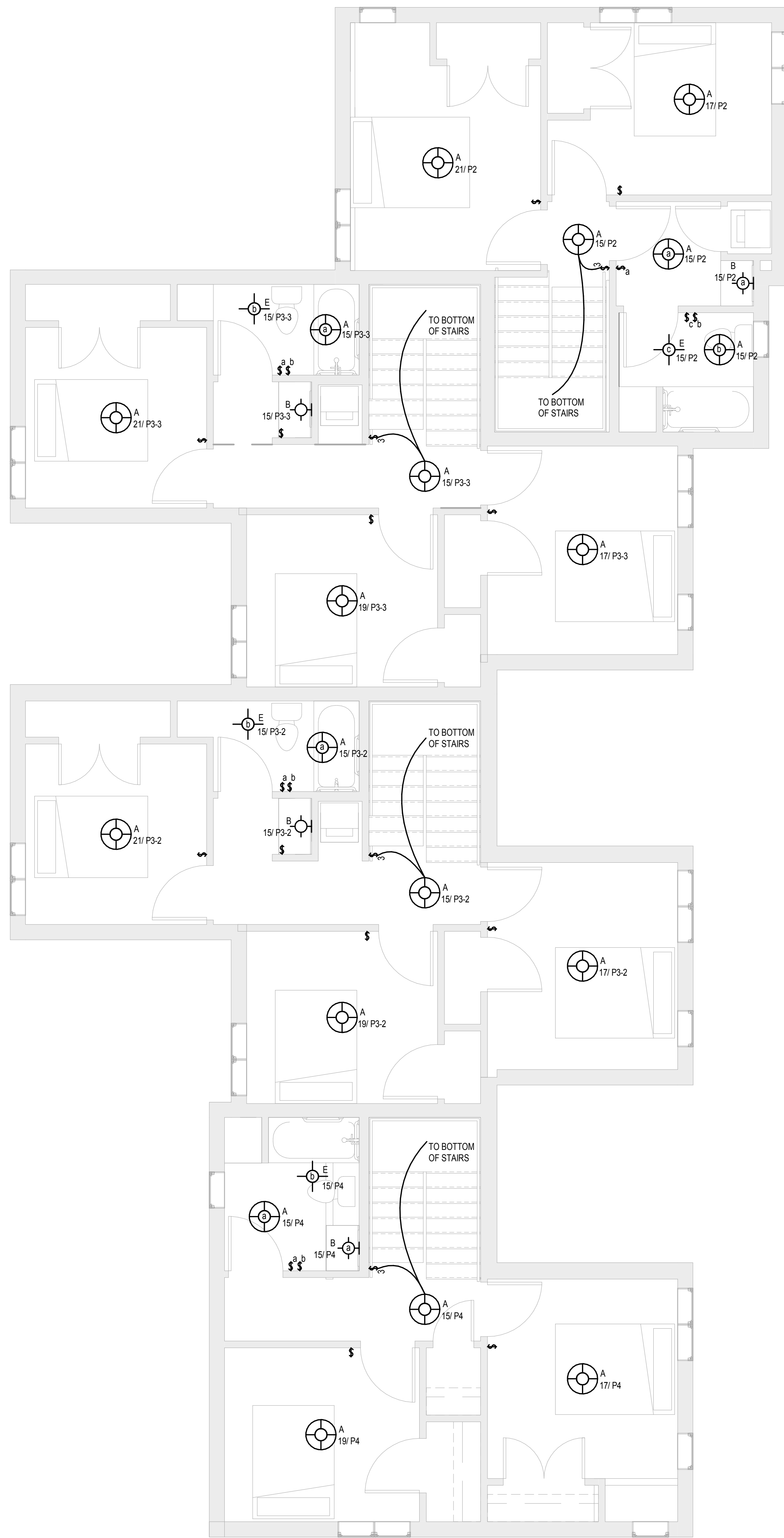
ISSUE	MARK	DATE	DESCRIPTION

PROJECT NO:	M10.17.02
PROJECT PHASE	100% CD ISSUE
DRAWN BY:	CAJ
CHECKED BY:	LL

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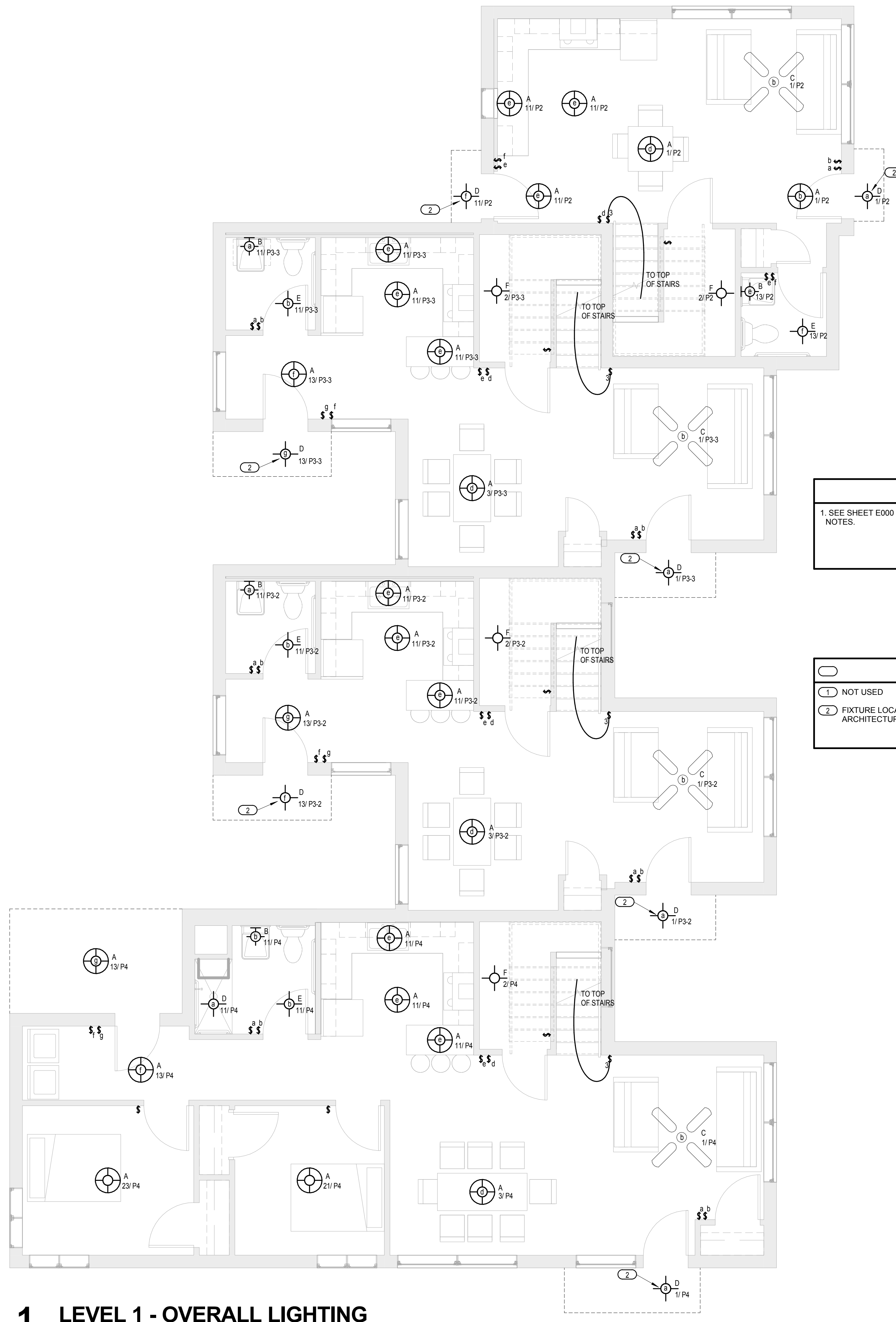
ELECTRICAL LIGHTING PLANS - BUILDING D

E101B



2 LEVEL 2 - OVERALL LIGHTING

1/4" = 1'-0"



1 LEVEL 1 - OVERALL LIGHTING

1/4" = 1'-0"

GENERAL NOTES

1. SEE SHEET E000 FOR SYMBOLS AND ABBREVIATIONS AND GENERAL NOTES.

KEYED NOTES

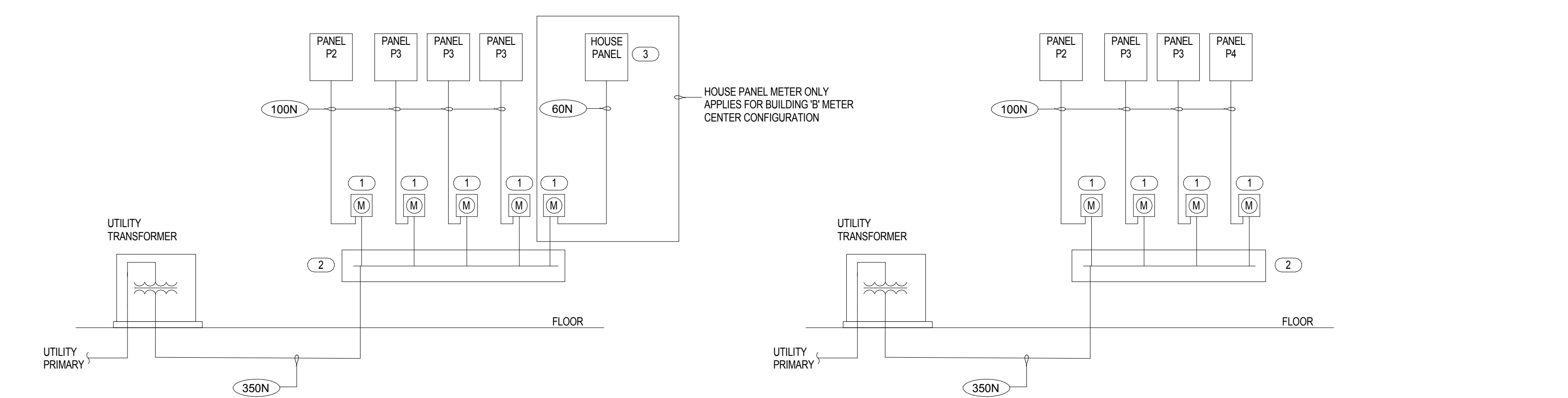
- NOT USED
- ② FIXTURE LOCATED UNDER ENTRY CANOPY. REFER TO ARCHITECTURAL EXTERIOR DETAILS - A351.

FEEDER SCHEDULE					
#	CONDUIT SIZE 4W	CONDUIT SIZE 3W	PHASE CONDUCTORS	NEUTRAL CONDUCTOR	EQUIPMENT GROUND CONDUCTOR
30	3/4"	3/4"	#10	#10	#10
35	1"	3/4"	#8	#8	#10
40	1"	3/4"	#8	#8	#10
45	1"	1"	#6	#6	#10
50	1"	1"	#6	#6	#10
60	1 1/4"	1 1/4"	#4	#4	#10
70	1 1/4"	1 1/4"	#4	#4	#8
80	1 1/4"	1 1/4"	#3	#3	#8
90	1 1/2"	1 1/4"	#2	#2	#8
100	2"	1 1/2"	#1	#1	#8
110	1 1/2"	1 1/4"	#2	#2	#6
125	2"	1 1/2"	#1	#1	#6
150	2"	1 1/2"	#1/0	#1/0	#6
175	2"	2"	#2/0	#2/0	#6
200	2"	2"	#3/0	#3/0	#6
225	2 1/2"	2"	#4/0	#4/0	#4
250	3"	2 1/2"	250 kcmil	250 kcmil	#4
300	3"	3"	350 kcmil	350 kcmil	#4
350	3 1/2"	3"	500 kcmil	500 kcmil	#3
400	(2) 2"	(2) 2"	2 SETS OF #3/0	2 SETS OF #3/0	#3

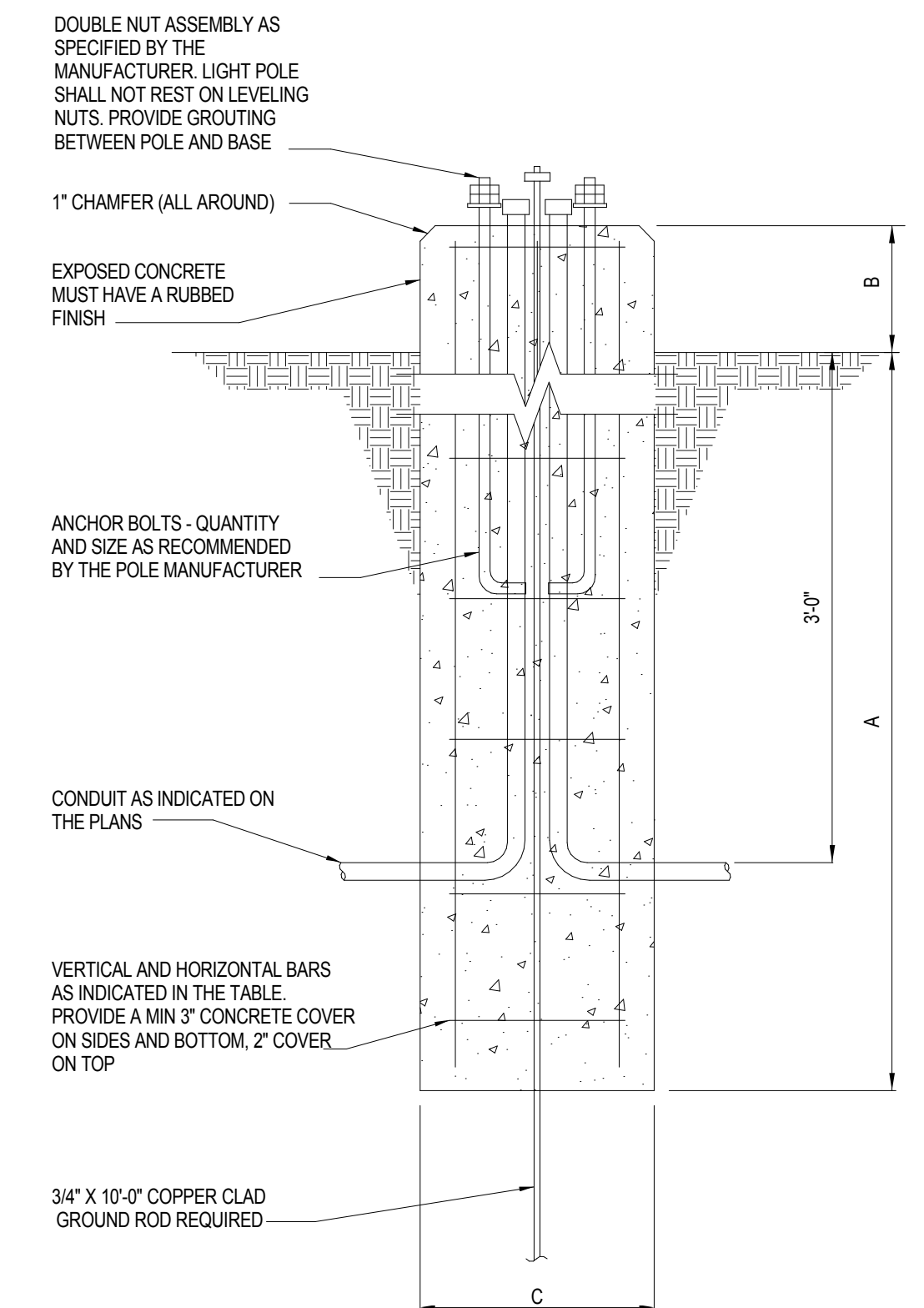
- NOTES:**
- FEEDER SIZES ARE ON THE PLAN WHERE 60 REFERS TO A 60A FEEDER WITHOUT NEUTRAL AND 60N REFERS TO A 60A FEEDER WITH NEUTRAL.
 - SOME FEEDER SIZES DO NOT MATCH BREAKER SIZE DUE TO UP-SIZING OF THE FEEDER FOR VOLTAGE DROP.
 - CONDUITS ARE SIZED PER NEC TABLES FOR THHN/THWN AND MAY BE UPSIZED FOR EASE OF PULLING OR DOWNSIZED AS ALLOWED PER NEC FOR CONDUIT TYPE(S) BEING INSTALLED.
 - ALL CONDUCTORS 100A AND LESS ARE SIZED PER 60 DEGREE LUGS, EC MAY SIZE CONDUCTORS FOR ACTUAL RATING OF LUGS PER NEC.

- GENERAL NOTES**
- COORDINATE UTILITY TRANSFORMER FINAL LOCATION AND AND METER REQUIREMENTS WITH LOCAL UTILITY COMPANY * XCEL ENERGY, KEVIN JONES 612-630-4549*

- KEYED NOTES**
- METER SOCKETS SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.
 - ELECTRICAL CONTRACTOR TO SIZE WIREWAY / METER CENTER ENCLOSURE PER NEC.
 - HOUSE PANELBOARD SHALL BE LOCATED INSIDE THE STORAGE SHED. THIS PANEL SHALL FEED ALL LOAD SERVING THE EXTERIOR COMMON AREA LOADS.

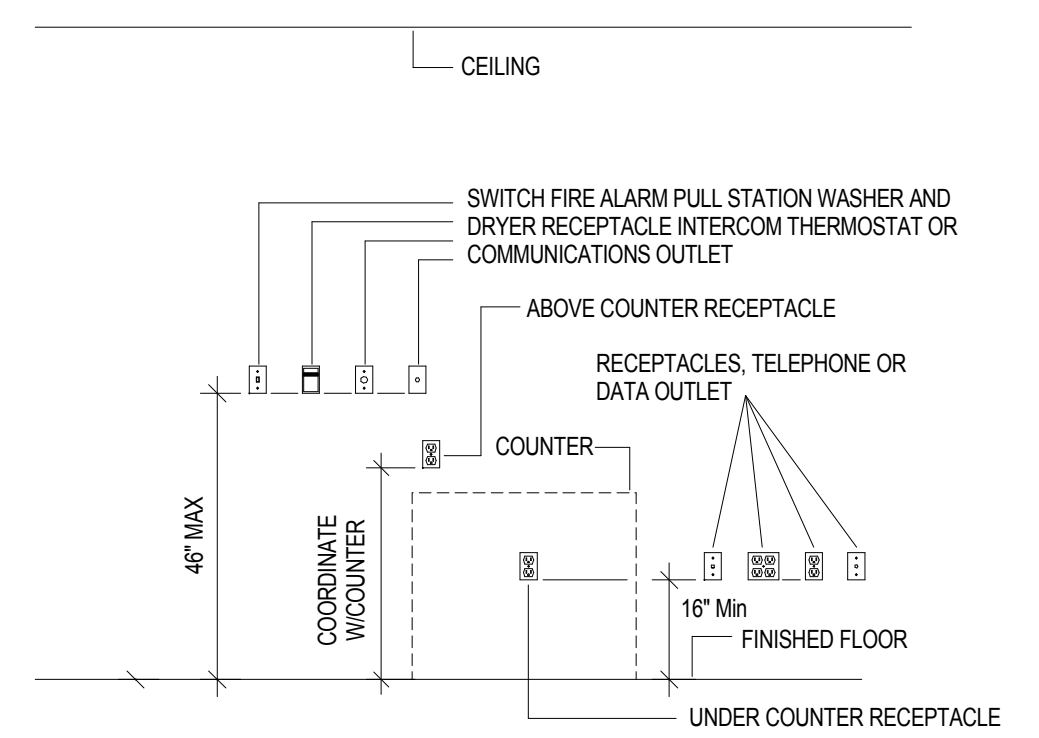


1 ONE LINE DIAGRAM
1/8" = 1'-0"

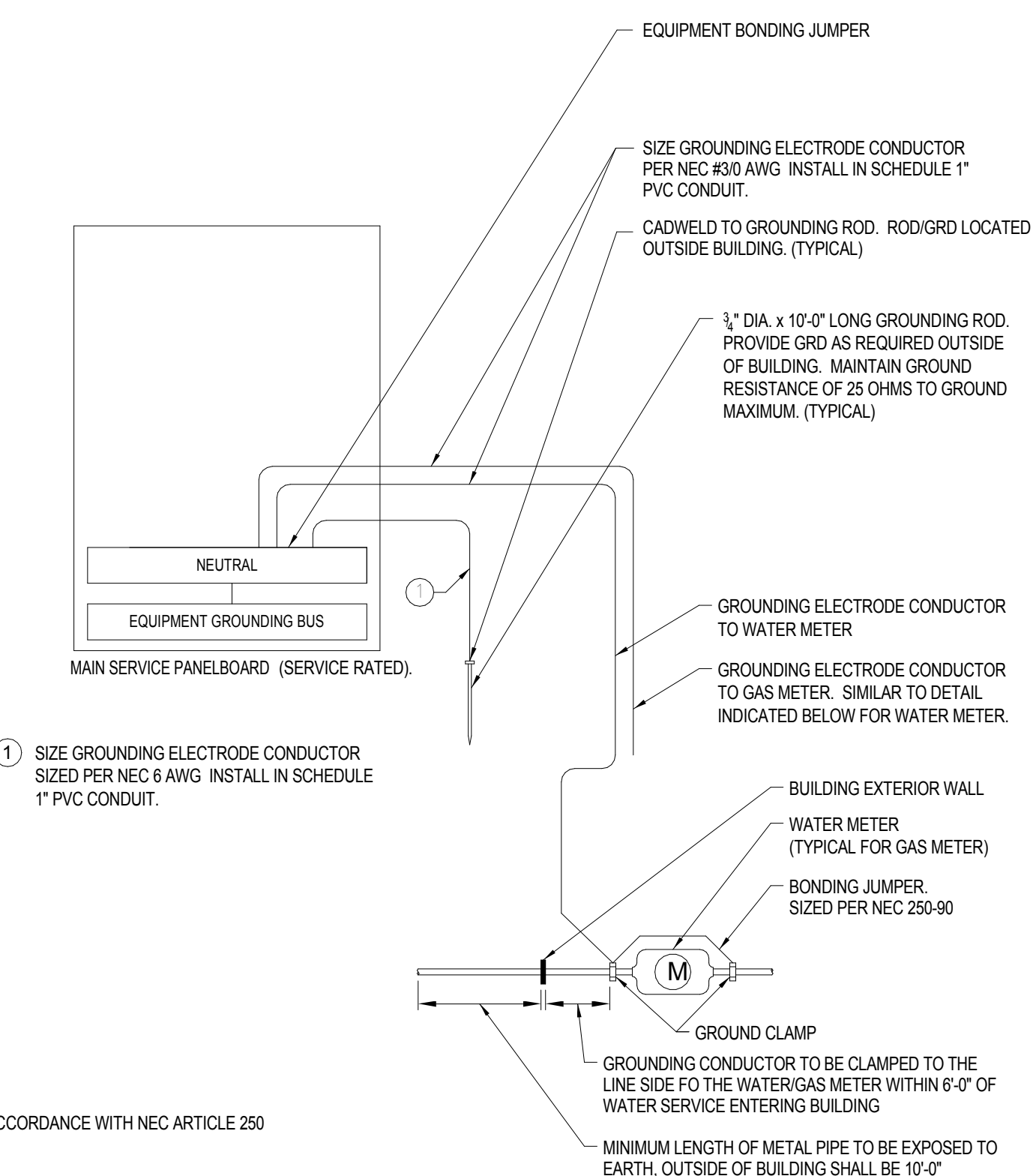


FIXT. TYPE	DIMENSIONS			VERT. BARS		HORIZ. BARS	
	A	B	C	QTY	SIZE	O.C.	SIZE
EXISTING LIGHT POLE	7'-0"	4"	24"	6	#6	12"	#6

2 LIGHT POLE BASE DETAIL
1/8" = 1'-0"



3 TYP OUTLET MOUNTING DETAIL
1/2" = 1'-0"



4 ELECTRICAL GROUNDING DETAIL
1/2" = 1'-0"



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I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Engineer under the Laws of the State of Minnesota. ENGINEER SEAL.

Signature:
Print Names: Leisbel Lam
Date: 06/21/2017 License No.: 51412

ISSUE	MARK	DATE	DESCRIPTION

PROJECT NO: M10.17.02
PROJECT PHASE: 100% CD ISSUE
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ONE-LINE DIAGRAM & DETAILS

E400

ALL P3-X PANELS TO MATCH THIS PANELBOARD SCHEDULE

Branch Panel: P2									
Location:			Volts: 120/240 Single		A.I.C. Rating: 10,000				
Supply From:			Phases: 1		Mains: 100 A				
Mounting: RECESSED			Wires: 3		MCB: 100 A				
Top/Bottom Feed									
CKT	Circuit Description	Trip	Poles	A	B	Poles	Trip	Circuit Description	CKT
1	* REC/LTG: LIVING RM & ENTRY LTG	20 A	1	1196 VA 691 VA			20 A	REC/LTG: MECH ROOM	2
3	SPARE	20 A	1		0 VA 180 VA	1	20 A	** REC: LAUNDRY	4
5	* REC: KITCHEN REFRIGERATOR	20 A	1	180 VA 960 VA			20 A	REC: FURNACE	6
7	* REC: KITCHEN COUNTERTOPS	20 A	1		540 VA 0 VA	1	20 A	SPARE	8
9	* REC: KITCHEN...	20 A	1	360 VA 180 VA			20 A	* REC: KITCHEN DISHWASHER	10
11	* LTG: KITCHEN & PATIO	20 A	1		48 VA 180 VA	1	20 A	** REC: KITCHEN MICROWAVE...	12
13	LTG: LVL 1 BATH	20 A	1	46 VA 0 VA			20 A	SPARE	14
15	REC/LTG: LVL 2 HALL & BATH LTG	20 A	1		261 VA 0 VA	1	20 A	SPARE	16
17	* REC/LTG: LVL 2 EAST BEDROOM	20 A	1	912 VA 0 VA			20 A	SPARE	18
19	SPARE	20 A	1		0 VA 0 VA	1	20 A	SPARE	20
21	* REC/LTG: LVL 2 WEST BEDROOM	20 A	1	912 VA 0 VA			20 A	SPARE	22
23	SPARE	20 A	1		0 VA 0 VA	1	20 A	SPARE	24
25	REC: LVL 1 BATH	20 A	1	180 VA 0 VA			20 A	SPARE	26
27	REC: LVL 2 BATH	20 A	1		360 VA 0 VA	1	20 A	SPARE	28
29	REC: EXTERIOR	20 A	1	540 VA 0 VA			20 A	SPARE	30
Total Load:				6157 VA		1569 VA			
Total Amps:				51 A		13 A			
Load Classification		Connected Load	Demand Factor	Estimated Demand	Panel Totals				
HVAC Blowers		1460 VA	100.00%	1460 VA	Total Conn. Load: 7726 VA				
Lighting		246 VA	125.00%	307 VA	Total Est. Demand: 7787 VA				
Motor		61 VA	100.00%	61 VA	Total Conn. Current: 32 A				
Other		20 VA	100.00%	20 VA	Total Est. Demand Current: 32 A				
Receptacle		5940 VA	100.00%	5940 VA	Non-Coincident... 0 A				
					Total Est. Demand - NC: 32 A				
Notes:									
* - PROVIDE AFCI TYPE CIRCUIT BREAKER									
** - PROVIDE GFCI & AFCI DUAL FUNCTION TYPE CIRCUIT BREAKER									

Branch Panel: P4									
Location:			Volts: 120/240 Single		A.I.C. Rating: 10,000				
Supply From:			Phases: 1		Mains: 100 A				
Mounting: RECESSED			Wires: 3		MCB: 100 A				
Top/Bottom Feed									
CKT	Circuit Description	Trip	Poles	A	B	Poles	Trip	Circuit Description	CKT
1	* REC/LTG: LIVING RM & ENTRY LTG	20 A	1	992 VA 691 VA			20 A	REC/LTG: MECH ROOM	2
3	REC/LTG: DINING AREA	20 A	1		732 VA 180 VA	1	20 A	** REC: LAUNDRY	4
5	* REC: KITCHEN REFRIGERATOR	20 A	1	180 VA 1300 VA			20 A	REC: FURNACE	6
7	* REC: KITCHEN COUNTERTOPS	20 A	1		720 VA 0 VA	1	20 A	SPARE	8
9	* REC: KITCHEN...	20 A	1	540 VA 180 VA			20 A	* REC: KITCHEN DISHWASHER	10
11	* LTG: KITCHEN & FULL BATH 125	20 A	1		93 VA 180 VA	1	20 A	** REC: KITCHEN MICROWAVE...	12
13	REAR ENTRY & PATIO LTG	20 A	1	744 VA 0 VA			20 A	SPARE	14
15	LVL 2 HALL & LVL 2 BATH LTG	20 A	1		429 VA 0 VA	1	20 A	SPARE	16
17	* REC/LTG: LVL 2 EAST BEDROOM	20 A	1	912 VA 0 VA			20 A	SPARE	18
19	* REC/LTG: LVL 1 WEST BEDROOM	20 A	1	912 VA 0 VA			20 A	SPARE	20
21	* REC/LTG: LVL 1 EAST BEDROOM	20 A	1	912 VA 0 VA			20 A	SPARE	22
23	* REC/LTG: LVL 1 WEST BEDROOM	20 A	1	912 VA 0 VA			20 A	SPARE	24
25	REC: LVL 1 BATH	20 A	1	180 VA 0 VA			20 A	SPARE	26
27	REC: LVL 2 BATH	20 A	1		180 VA 0 VA	1	20 A	SPARE	28
29	REC: EXTERIOR	20 A	1	540 VA 0 VA			20 A	SPARE	30
Total Load:				7172 VA		4338 VA			
Total Amps:				60 A		36 A			
Load Classification		Connected Load	Demand Factor	Estimated Demand	Panel Totals				
HVAC Blowers		1800 VA	100.00%	1800 VA	Total Conn. Load: 11510 VA				
Lighting		290 VA	125.00%	362 VA	Total Est. Demand: 11582 VA				
Motor		61 VA	100.00%	61 VA	Total Conn. Current: 48 A				
Receptacle		9360 VA	100.00%	9360 VA	Total Est. Demand Current: 48 A				
					Non-Coincident... 0 A				
					Total Est. Demand - NC: 48 A				
Notes:									
* - PROVIDE AFCI TYPE CIRCUIT BREAKER									
** - PROVIDE GFCI & AFCI DUAL FUNCTION TYPE CIRCUIT BREAKER									

MOTOR SCHEDULE							
EQUIP NUMBER	DESCRIPTION	VOLTS	PH.	MCA	CONDUIT & WIRE SIZE	DISCONNECT	
						BY	TYPE
CU-1	CONDENSING UNIT	208	1	15.7	3#12, 1#12 GND	ELEC	NON FUSED SWITCH
CU-2	CONDENSING UNIT	208	1	15.7	3#12, 1#12 GND	ELEC	NON FUSED SWITCH
CU-3	CONDENSING UNIT	208	1	21.8	3#10, 1#10 GND	ELEC	NON FUSED SWITCH
GENERAL NOTES:							
A. PROVIDE GROUND CONDUCTORS IN ALL MOTOR FEEDERS PER NEC.							
B. COORDINATE ALL MOTORS AND LOCATIONS WITH ARCH AND MECH.							
C. PROVIDE OVERLOAD PROTECTION PER NEC, EXCEPT WHERE PROTECTION IS PROVIDED BY MECHANICAL.							
D. NOMINAL SYSTEM VOLTAGES ARE LISTED (IE: 120, 208, 480). IF NAMEPLATE UTILIZATION VOLTAGE (IE: 115, 200, 480) ARE NOT COMPATIBLE WITH THE NOMINAL VOLTAGE, NOTIFY ENGINEER.							
E. WHERE MOTOR STARTER AND DISCONNECT ARE INDICATED AS IN THE SAME LOCATION PROVIDE A COMBINATION MOTOR STARTER.							
F. VFD'S PROVIDED BY THE MECHANICAL CONTRACTOR SHALL BE INSTALLED BY THE ELECTRICAL CONTRACTOR.							
G. PROVIDE STAND ALONE DISCONNECT SWITCH FOR ALL VFD'S SUPPLIED BY MECHANICAL CONTRACTOR.							
H. INPUT AND OUTPUT CONDUCTORS TO AND FROM VFD'S SHALL BE INSTALLED IN SEPARATE RACEWAYS, INDEPENDENT FROM ANY OTHER CONDUCTORS, AND SHALL NOT PASS THRU ANY COMMON WIREWAY OR RACEWAY.							
NUMBERED NOTES:							
1. PROVIDE DUCT SMOKE DETECTOR ON SUPPLY AND RETURN DUCT OF AHU AND PROVIDE FIRE ALARM INTERLOCK FOR FAN SHUTDOWN.							
2. PACKAGED UNIT WITH A SINGLE POINT ELECTRICAL CONNECTION.							
3. EXISTING EQUIPMENT BEING RE-USED.							

Branch Panel: P3-3									
Location:			Volts: 120/240 Single		A.I.C. Rating: 10,000				
Supply From:			Phases: 1		Mains: 100 A				
Mounting: RECESSED			Wires: 3		MCB: 100 A				
Top/Bottom Feed									
CKT	Circuit Description	Trip	Poles	A	B	Poles	Trip	Circuit Description	CKT
1	* REC/LTG: LIVING ROOM	20 A	1	992 VA 691 VA			20 A	REC/LTG: MECH ROOM	2
3	* REC/LTG: DINING AREA	20 A	1		912 VA 180 VA	1	20 A	** REC: LAUNDRY	4
5	* REC: KITCHEN REFRIGERATOR	20 A	1	180 VA 960 VA			20 A	REC: FURNACE	6
7	* REC: KITCHEN COUNTERTOPS	20 A	1		720 VA 0 VA	1	20 A	SPARE	8
9	* REC: KITCHEN...	20 A	1	540 VA 180 VA			20 A	* REC: KITCHEN DISHWASHER	10
11	* LTG: KITCHEN & LVL 1 BATH	20 A	1		81 VA 180 VA	1	20 A	** REC: KITCHEN MICROWAVE...	12
13	LTG: REAR ENTRY & PATIO	20 A	1	383 VA 0 VA			20 A	SPARE	14
15	REC/LTG: LVL 2 HALL & BATH LTG	20 A	1		609 VA 0 VA	1	20 A	SPARE	16
17	* REC/LTG: LVL 2 EAST BEDROOM	20 A	1	912 VA 0 VA			20 A	SPARE	18
19	* REC/LTG: LVL 2 SOUTH BEDROOM	20 A	1	912 VA 0 VA			20 A	SPARE	20
21	* REC/LTG: LVL 2 WEST BEDROOM	20 A	1	912 VA 0 VA			20 A	SPARE	22
23	SPARE	20 A	1		0 VA 0 VA	1	20 A	SPARE	24
25	REC: LVL 1 BATH	20 A	1	180 VA 0 VA			20 A	SPARE	26
27	REC: LVL 2 BATH	20 A	1		360 VA 0 VA	1	20 A	SPARE	28
29	REC: EXTERIOR	20 A	1	540 VA 0 VA			20 A	SPARE	30
Total Load:				6471 VA		3955 VA			
Total Amps:				54 A		33 A			
Load Classification		Connected Load	Demand Factor	Estimated Demand	Panel Totals				
HVAC Blowers		1460 VA	100.00%	1460 VA	Total Conn. Load: 10426 VA				
Lighting		246 VA	125.00%	307 VA	Total Est. Demand: 10487 VA				
Motor		61 VA	100.00%	61 VA	Total Conn. Current: 43 A				
Other		20 VA	100.00%	20 VA	Total Est. Demand Current: 44 A				
Receptacle		8640 VA	100.00%	8640 VA	Non-Coincident... 0 A				
					Total Est. Demand - NC: 44 A				
Notes:									
* - PROVIDE AFCI TYPE CIRCUIT BREAKER									
** - PROVIDE GFCI & AFCI DUAL FUNCTION TYPE CIRCUIT BREAKER									

Branch Panel: P-HOUSE									
Location:			Volts: 120/240 Single		A.I.C. Rating: 10,000				
Supply From:			Phases: 1		Mains: 60 A				
Mounting: SURFACE			Wires: 3		MCB: 60 A				
Top/Bottom Feed									
CKT	Circuit Description	Trip	Poles	A	B	Poles	Trip	Circuit Description	CKT
1	REC: PATIO	20 A	1	180 VA 0 VA			20 A	SPARE	2
3	LTG: PATIO	20 A	1		60 VA 0 VA	1	20 A	SPARE	4
5	REC: SHED	20 A	1	180 VA 0 VA			20 A	SPARE	6
7	LTG: SHED	20 A	1		30 VA 0 VA	1	20 A	SPARE	8
9	SPARE	20 A	1	0 VA 0 VA			20 A	SPARE	10
11	SPARE	20 A	1		0 VA 0 VA	1	20 A	SPARE	12
Total Load:				360 VA		90 VA			
Total Amps:				3 A		1 A			
Load Classification		Connected Load	Demand Factor	Estimated Demand	Panel Totals				
Lighting		210 VA	125.00%	263 VA	Total Conn. Load: 450 VA				
Receptacle		240 VA	100.00%	240 VA	Total Est. Demand: 503 VA				
					Total Conn. Current: 2 A				
					Total Est. Demand Current: 2 A				
					Non-Coincident... 0 A				
					Total Est. Demand - NC: 2 A				
Notes:									

LIGHT FIXTURE SCHEDULE						
TYPE	DESCRIPTION	MOUNTING	MANUFACTURER: SERIES	LAMPS	VOLTS	NOTES
A	14'-0" ROUND LED, BRUSH NICKEL WITH TRANSLUCENT WHITE DIFFUSER	SURFACE	BROWNLEE LIGHTING: 2061-WH-B12LED-30K-BAC-ES	LED 1303LM/12W	120	
B	33" VANITY LED, BRUSH NICKEL WITH TRANSLUCENT WHITE DIFFUSER	SURFACE	THOMAS LIGHTING: T10006217	LED 1700LM/34W	120	
C	52" CEILING FAN WITH LED LIGHTING	SURFACE	HUNTER: DEMPSEY 59251	LED 9.8W	120	
D	NEW CONSTRUCTION 4" BAFFLE LED MATTE WHITE DOWNLIGHT	RECESSED	LITHONIA LIGHTING: 4BEMW LED 30K L3LED T24	LED 600LM/10.3W	120	
E	BATHROOM EXHAUST FAN WITH LED LIGHT	RECESSED	PANASONIC: FV-05-11VKL1	LED	120	
F	CEILING MOUNT GENERAL PURPOSE UTILITY LED	SURFACE	LITHONIA LIGHTING: OLVTGM	LED 600LM/15W	120	
GENERAL NOTES:						
A. REFER TO ARCHITECTURAL PLANS AND DETAILS FOR FIXTURES MOUNTING HEIGHTS. UNLESS NOTED OTHERWISE.						
B. VERIFY THE COMPATIBILITY OF LIGHT FIXTURES WITH CEILING MATERIAL, ADJACENT CONSTRUCTION, AND ADJACENT FINISHES PRIOR TO SHOP DRAWINGS.						
C. CONTRACTOR RESPONSIBLE FOR ALL MISCELLANEOUS HARDWARE NECESSARY AT, ABOVE, OR BELOW THE CEILING PLANE TO SUPPORT THE LIGHT FIXTURES.						
NOTES:						

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MINNEAPOLIS, MN 55417

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Licensed Engineer under the Laws of the State of Minnesota. ENGINEER SEAL

Signature:
Print Names: Leibel Lam
Date: 06/21/2017 License No: 51412

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PROJECT NO: M10.17.02
PROJECT PHASE: 100% CD ISSUE
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ELECTRICAL SCHEDULES

E500