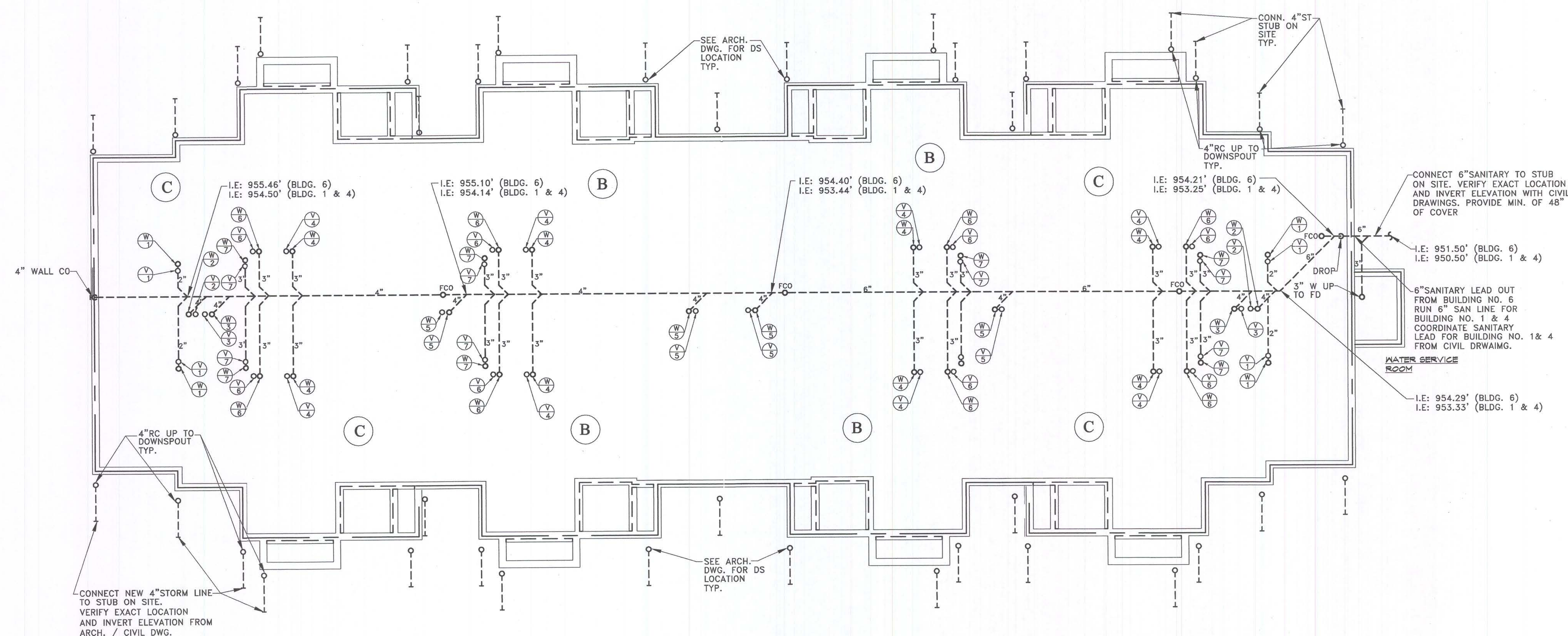




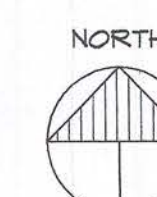
NOTES:

1. LAYOUT OF UNDERGROUND SANITARY BASED ON BUILDING NO.6
2. CONFIRM ORIENTATION OF BUILDING NO. 1 & 4, VERIFY WITH CIVIL DRAWING.
3. REFER TO ARCH. DWG. FOR DS LOCATION.

FINISH FLOOR ELEVATION = 956.00' (BLG. NO. 1 & 4) VERIFY WITH CIVIL DWG.



SCALE: 1/8"=1'-0"



■ **Consultant:**



MANCINI, ALKATEEB & ASSOCIATES, INC.
MECHANICAL & ELECTRICAL • CONSULTING ENGINEERS
30400 TELEGRAPH ROAD, SUITE 486 (248) 258-1610
RINGHAM FARMS, MICHIGAN 48025 FAX (248) 258-9538

Developer:

FIELEK
BUILDERS, L.L.C.
South Lyon, Michigan

Project:

**WORTHINGTON
APARTMENTS**

Leslie, Michigan

Sheet Title:
**UNDERGROUND
PLUMBING PLAN
BUILDING TYPE II**

Project Number: 03-161

Drawn: SA

Drawn:	SA
Checked:	SS

Date: 10-8-03

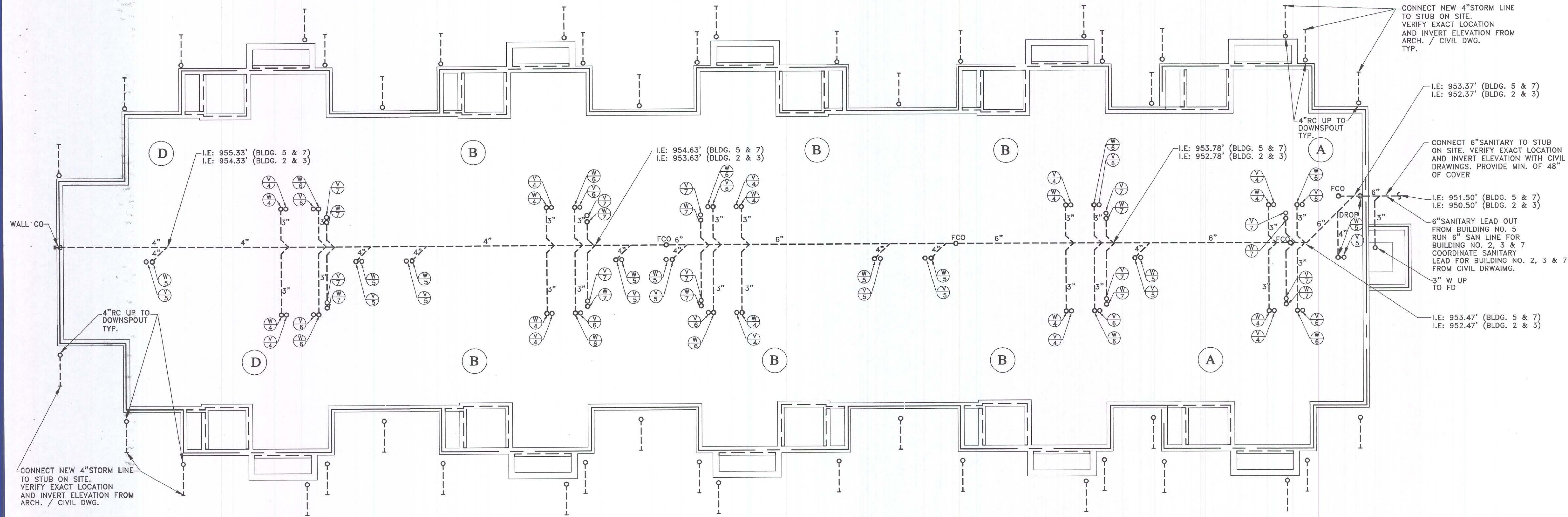
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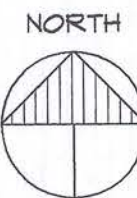
Issued For:
PERMITS / BIDS 2-9-04

- NOTES:
1. LAYOUT OF UNDERGROUND SANITARY BASED ON BUILDING NO.5
 2. CONFIRM ORIENTATION OF BUILDING NO. 2 ,3 & 7, VERIFY WITH CIVIL DRAWING.
 3. REFER TO ARCH. DWG. FOR DS LOCATION.

FINISH FLOOR ELEVATION = 957.00' (BLG. NO. 5 & 7) VERIFY WITH CIVIL DWG.
FINISH FLOOR ELEVATION = 956.00' (BLG. NO. 2 & 3) VERIFY WITH CIVIL DWG.



UNDERGROUND PLUMBING PLAN - BUILDING TYPE III (BLDG. 2, 3, 5 & 7)
SCALE: 1/8"=1'-0"



Consultant:

MANCINI, ALKATEEB & ASSOCIATES, INC.
MECHANICAL & ELECTRICAL CONSULTING ENGINEERS
30400 TELEGRAPH ROAD, SUITE 400
BIRMINGHAM, MICHIGAN 48225 FAX (248) 258-6830

Developer:

FIELEK BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON APARTMENTS

Leslie, Michigan

Sheet Title:

**UNDERGROUND PLUMBING PLAN
BUILDING TYPE III**

Project Number: 03-161

Drawn: SA

Checked: SS

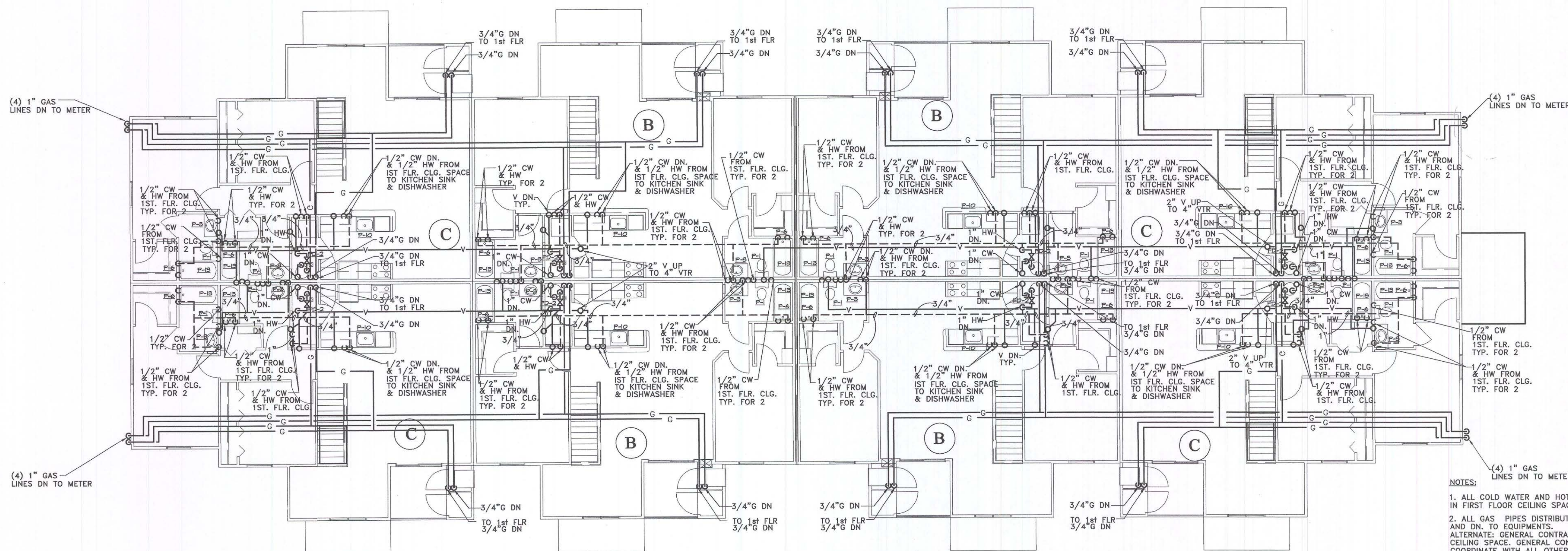
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Sheet Number:

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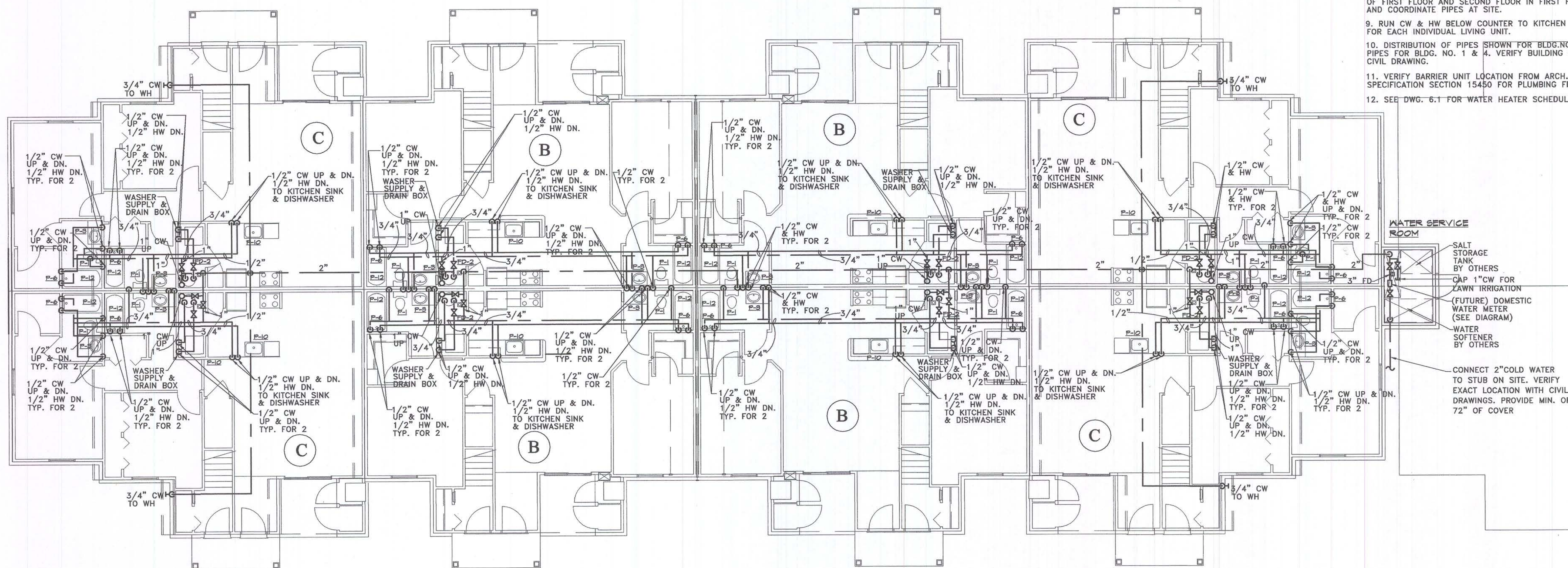


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SECOND FLOOR PLUMBING PLAN - BUILDING TYPE II (BLDG. 1, 4, & 6)

- NOTES:
1. ALL COLD WATER AND HOT WATER DISTRIBUTION PIPES RUN IN FIRST FLOOR CEILING SPACE. (NO WATER LINES IN ATTIC SPACE)
 2. ALL GAS PIPES DISTRIBUTION RUN IN SECOND FLOOR CEILING SPACE AND DN. TO EQUIPMENTS. ALTERNATE: GENERAL CONTRACTOR OPTION TO GAS PIPES IN FIRST FLOOR CEILING SPACE. GENERAL CONTRACTOR SHALL VERIFY LOCATION AND COORDINATE WITH ALL OTHER TRADE.
 3. INSTALL SUPPLY AND DRAIN BOX FOR EACH WASHING MACHINE. SEE SPECIFICATION FOR MODEL NUMBER.
 4. THE EXACT LOCATION OF VENT THROUGH ROOF DETERMINE AT SITE. COORDINATE WITH PIPING, DUCT AND STRUCTURAL.
 5. RUN 1" CW FROM FIRST FLOOR CLG. SPACE TO EACH WATER HEATER.
 6. ALL COLD WATER SUPPLIES TO SECOND FLOOR FIXTURES FEED FROM FIRST FLOOR CLG. SPACE.
 7. 1" HW FROM SECOND FLOOR WATER HEATER DOWN TO FIRST FLOOR CLG. SPACE AND FEED TO SECOND FLOOR FIXTURES OF EACH INDIVIDUAL LIVING UNIT. COORDINATE PIPES AT SITE.
 8. RUN INDIVIDUAL HOT WATER LINES FROM EACH WATER HEATER OF FIRST FLOOR AND SECOND FLOOR IN FIRST FLOOR CLG. SPACE AND COORDINATE PIPES AT SITE.
 9. RUN CW & HW BELOW COUNTER TO KITCHEN SINK AND DISHWASHER FOR EACH INDIVIDUAL LIVING UNIT.
 10. DISTRIBUTION OF PIPES SHOWN FOR BLDG. NO. 6. RUN SAME SIZE PIPES FOR BLDG. NO. 1 & 4. VERIFY BUILDING ORIENTATION FROM CIVIL DRAWING.
 11. VERIFY BARRIER UNIT LOCATION FROM ARCH. DRAWING. REFER TO SPECIFICATION SECTION 15450 FOR PLUMBING FIXTURE TAGS.
 12. SEE DWG. 6.1 FOR WATER HEATER SCHEDULE.



FIRST FLOOR PLUMBING PLAN - BUILDING TYPE II (BLDG. 1, 4, & 6)

SCALE: 1/8"=1'-0"

Consultant:

MANCINI, ALKATEEB & ASSOCIATES, INC.
MECHANICAL & ELECTRICAL CONSULTING ENGINEERS
3040 TELEGRAPH ROAD, SUITE 400
BIRMINGHAM, ALABAMA 35203 FAX (205) 928-8800

Developer:

FIELEK BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON APARTMENTS

Leslie, Michigan

Sheet Title:
FIRST & SECOND FLOOR PLUMBING PLAN
BUILDING TYPE II

Project Number: 03-161

Drawn: SA

Checked: SS

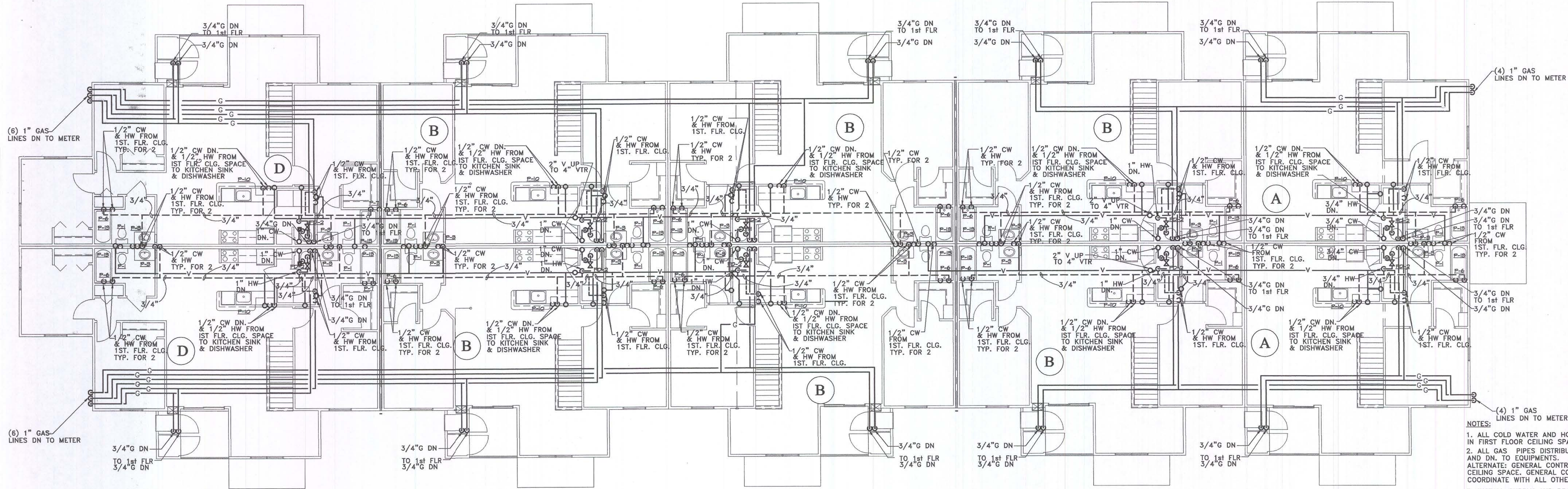
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Sheet Number:

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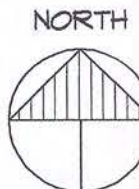


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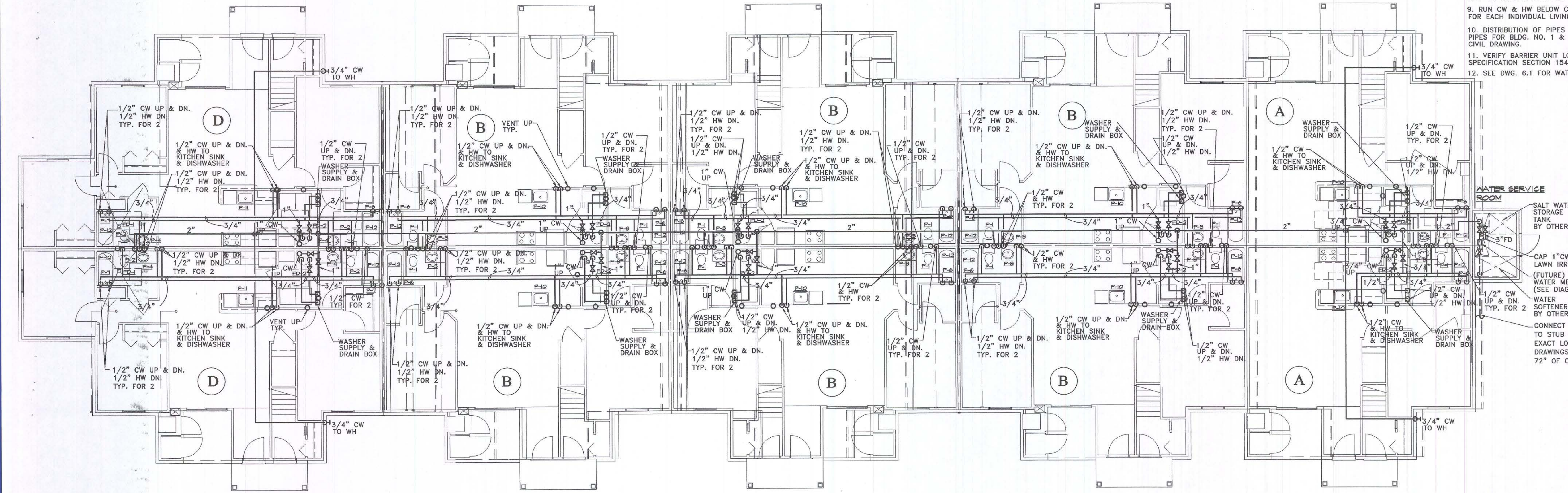


SECOND FLOOR PLUMBING PLAN - BUILDING TYPE III (BLDG. 2, 3, 5 & 7)

SCALE: 1/8"=1'-0"

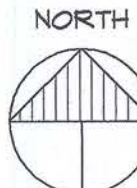


- NOTES:
1. ALL COLD WATER AND HOT WATER DISTRIBUTION PIPES RUN IN FIRST FLOOR CEILING SPACE. (NO WATER LINES IN ATTIC SPACE)
 2. ALL GAS PIPES DISTRIBUTION RUN IN SECOND FLOOR CEILING SPACE AND DN. TO EQUIPMENTS.
ALTERNATE: GENERAL CONTRACTOR OPTION TO GAS PIPES IN FIRST FLOOR CEILING SPACE. GENERAL CONTRACTOR SHALL VERIFY LOCATION AND COORDINATE WITH ALL OTHER TRADES.
 3. INSTALL SUPPLY AND DRAIN BOX FOR EACH WASHING MACHINE. SEE SPECIFICATION FOR MODEL NUMBER.
 4. THE EXACT LOCATION OF VENT THROUGH ROOF DETERMINE AT SITE. COORDINATE WITH PIPING, DUCT AND STRUCTURAL.
 5. RUN 1" CW FROM FIRST FLOOR CLG. SPACE TO EACH WATER HEATER.
 6. ALL COLD WATER SUPPLIES TO SECOND FLOOR FIXTURES FEED FROM FIRST FLOOR CLG. SPACE.
 7. 1" HW FROM SECOND FLOOR WATER HEATER DOWN TO FIRST FLOOR CLG. SPACE AND FEED TO SECOND FLOOR FIXTURES OF EACH INDIVIDUAL LIVING UNIT. COORDINATE PIPES AT SITE.
 8. RUN INDIVIDUAL HOT WATER LINES FROM EACH WATER HEATER OF FIRST FLOOR AND SECOND FLOOR IN FIRST FLOOR CLG SPACE AND COORDINATE PIPES AT SITE.
 9. RUN CW & HW BELOW COUNTER TO KITCHEN SINK AND DISHWASHER FOR EACH INDIVIDUAL LIVING UNIT.
 10. DISTRIBUTION OF PIPES SHOWN FOR BLDG. NO. 6. RUN SAME SIZE PIPES FOR BLDG. NO. 1 & 4. VERIFY BUILDING ORIENTATION FROM CIVIL DRAWING.
 11. VERIFY BARRIER UNIT LOCATION FROM ARCH. DRAWING. REFER TO SPECIFICATION SECTION 15450 FOR PLUMBING FIXTURE TAGS.
 12. SEE DWG. 6.1 FOR WATER HEATER SCHEDULE.



FIRST FLOOR PLUMBING PLAN - BUILDING TYPE III (BLDG. 2, 3, 5 & 7)

SCALE: 1/8"=1'-0"



Consultant:



Developer:

FIELEK
BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON
APARTMENTS

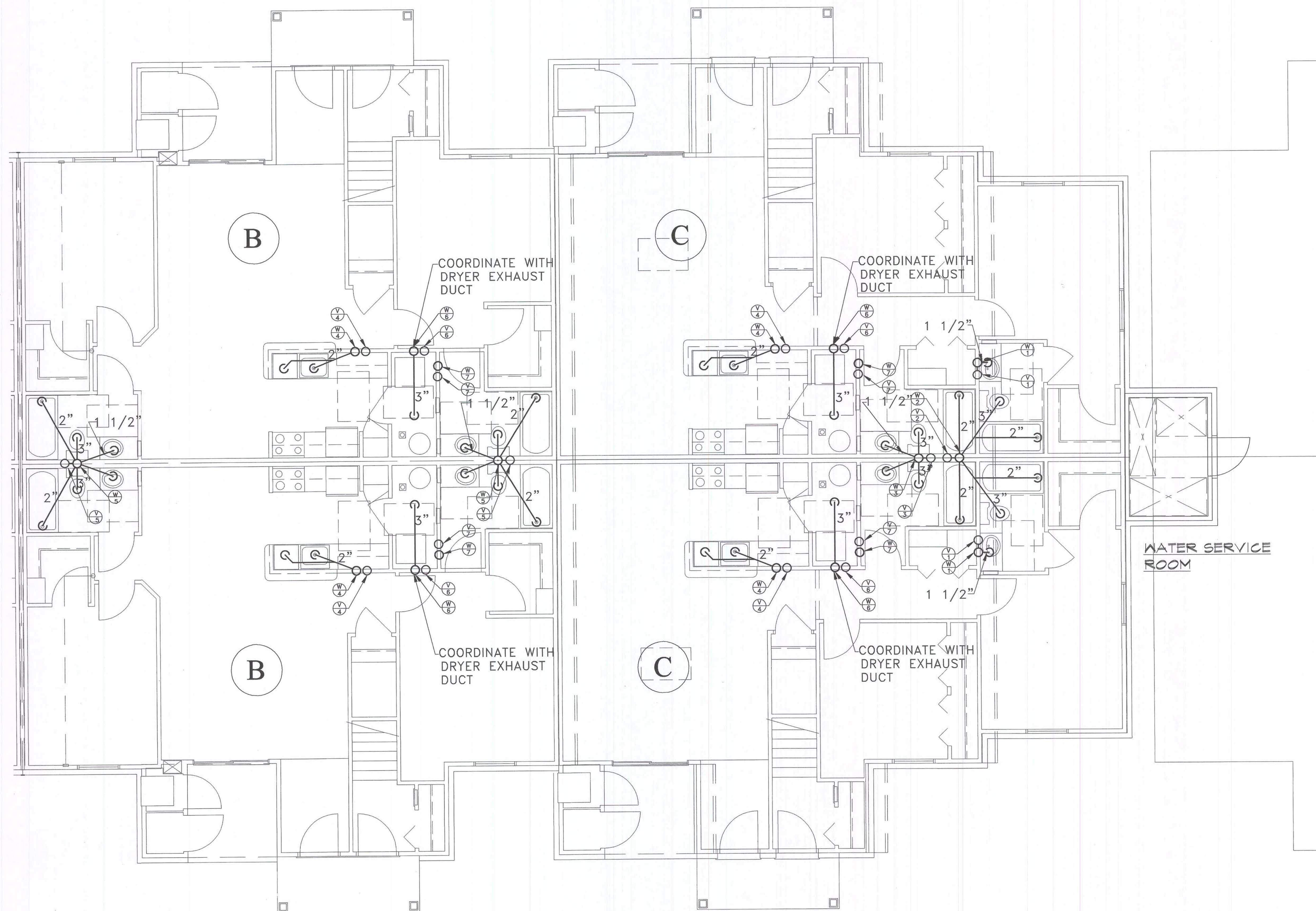
Leslie, Michigan

Sheet Title:
FIRST & SECOND
FLOOR PLUMBING
PLAN
BUILDING TYPE III

Project Number: 03-161
Drawn: SA
Checked: SS
Date: 10-8-03
Sheet Number: M2.2

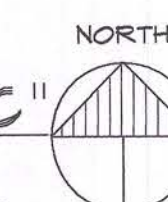


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FIRST FLOOR UNIT "B" & "C"
HALF EAST OF BUILDING II

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



Consultant:



Developer:

FIELEK
BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON
APARTMENTS

Leslie, Michigan

Sheet Title:

FIRST FLOOR
UNIT "B" & "C"
SANITARY
PLUMBING PLAN

Project Number: 03-161

Drawn: SA

Checked: SS

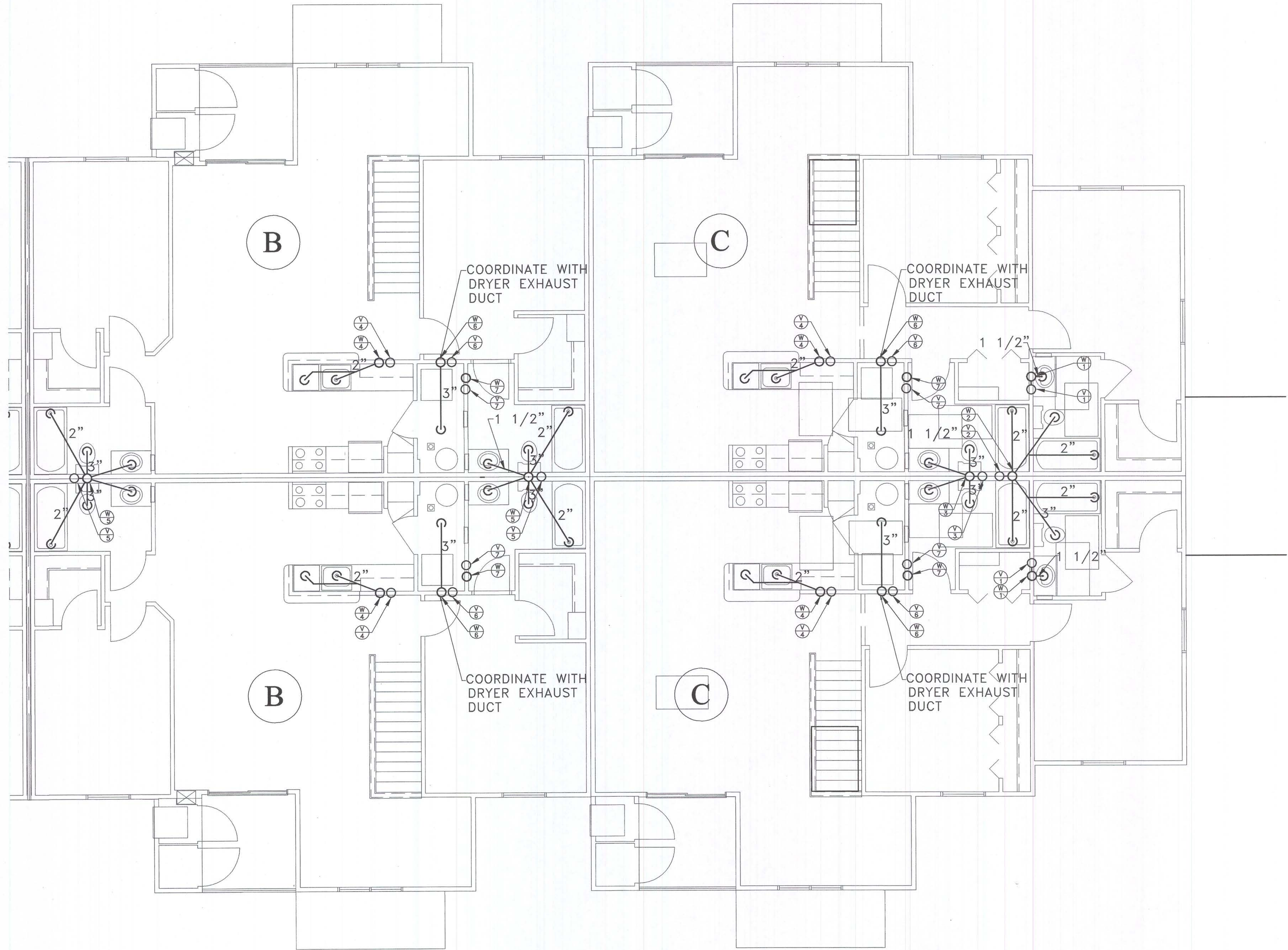
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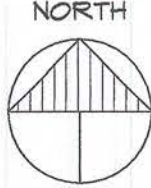
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SECOND FLOOR UNIT "B" & "C"
HALF EAST OF BUILDING II
SCALE: 1/4" = 1'-0"



Consultant:



Developer:
FIELEK
BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON
APARTMENTS

Leslie, Michigan

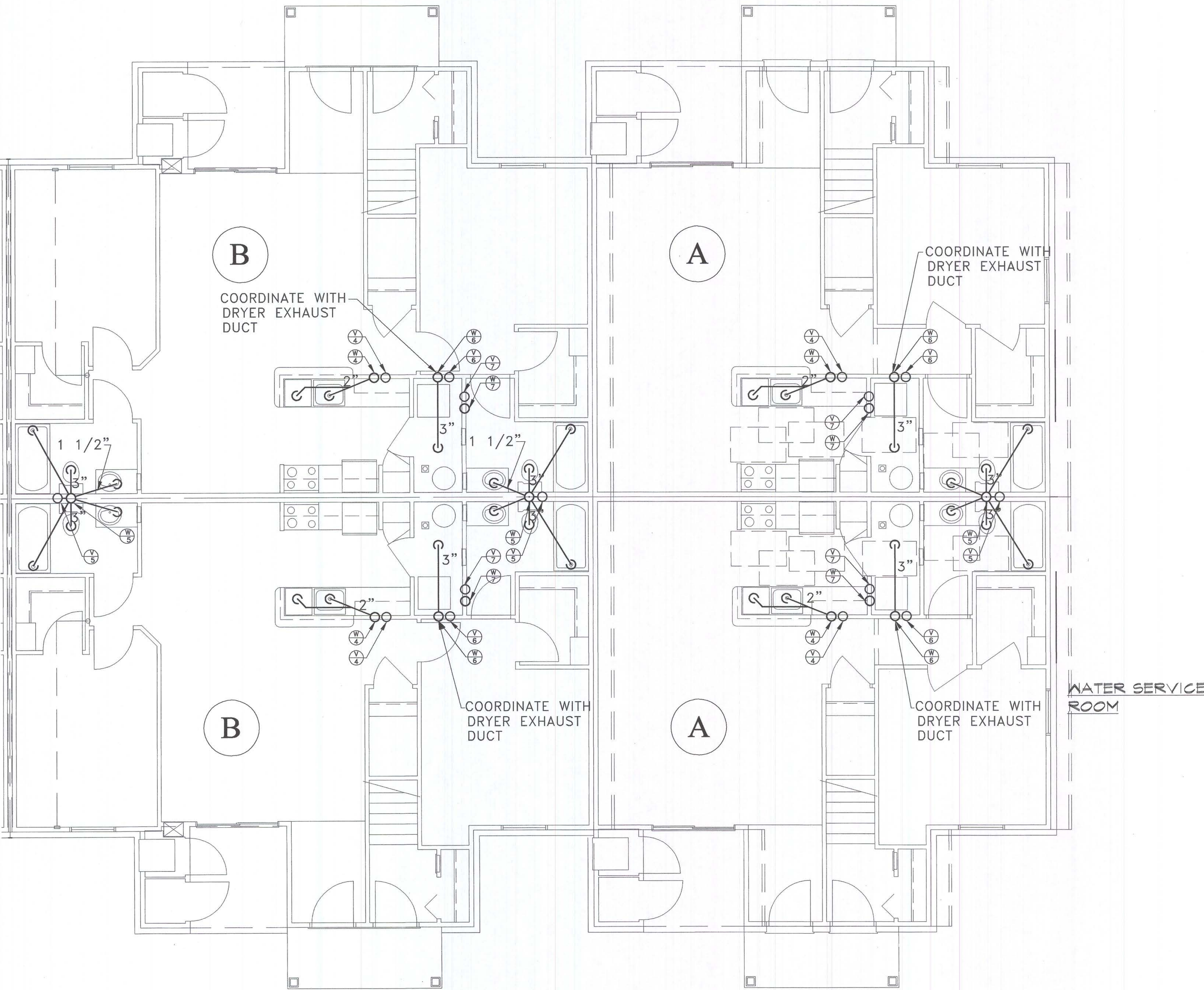
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SECOND FLOOR
UNIT "B" & "C"
SANITARY
PLUMBING PLAN

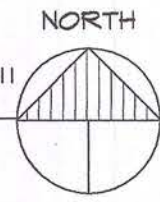
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Checked: SS
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Sheet Number:

M3.2



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FIRST FLOOR UNIT "A" & "B"
HALF EAST OF BUILDING III
SCALE: 1/4" = 1'-0" 

Consultant:



MANCINI, ALKATEEB & ASSOCIATES, INC.
MECHANICAL & ELECTRICAL - CONSULTING ENGINEERS
30400 TELEGRAPH ROAD, SUITE 400 248 268-1610
BIRMINGHAM, MICHIGAN 48223 FAX (248) 268-6808

Developer:

FIELEK
BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON
APARTMENTS

Leslie, Michigan

Sheet Title:

FIRST FLOOR
UNIT "A" & "B"
SANITARY
PLUMBING PLAN

Project Number: 03-161

Drawn: SA

Checked: SS

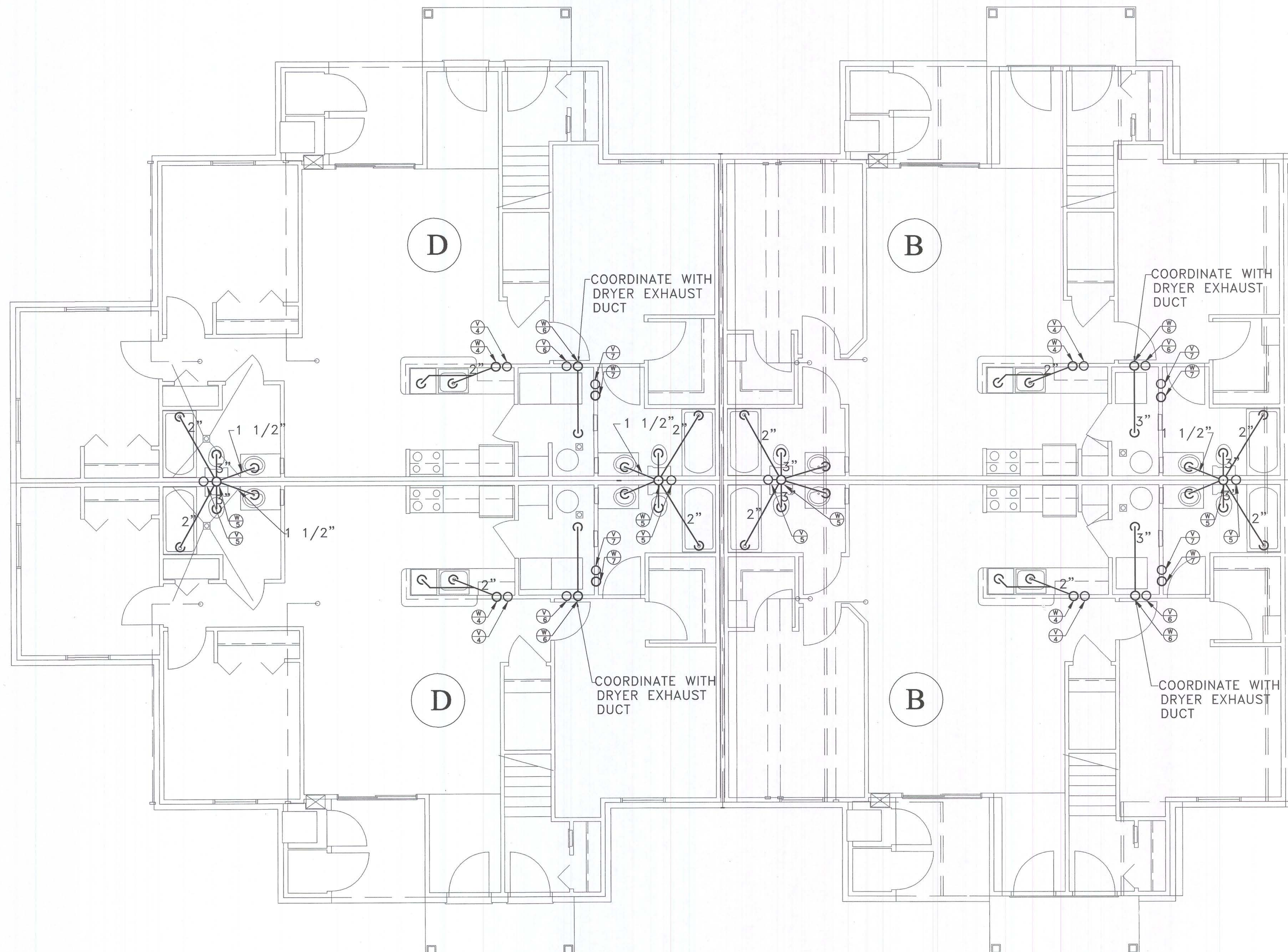
Date: 10-8-03

Sheet Number:

M3.3



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PERMITS / BIDS 2-9-04



FIRST FLOOR UNIT "B" & "D"
HALF WEST OF BUILDING III
SCALE: 1/4" = 1'-0"

Consultant:

MANCINI, ALKATEEB & ASSOCIATES, INC.
MECHANICAL & ELECTRICAL CONSULTING ENGINEERS
2400 TELEGRAPH ROAD, SUITE 400
TROY, MICHIGAN 48063 FAX (248) 238-8828

Developer:

FIELEK BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON APARTMENTS

Leslie, Michigan

Sheet Title:

**FIRST FLOOR
UNIT "B" & "D"
SANITARY
PLUMBING PLAN**

Project Number: 03-161

Drawn: SA

Checked: SS

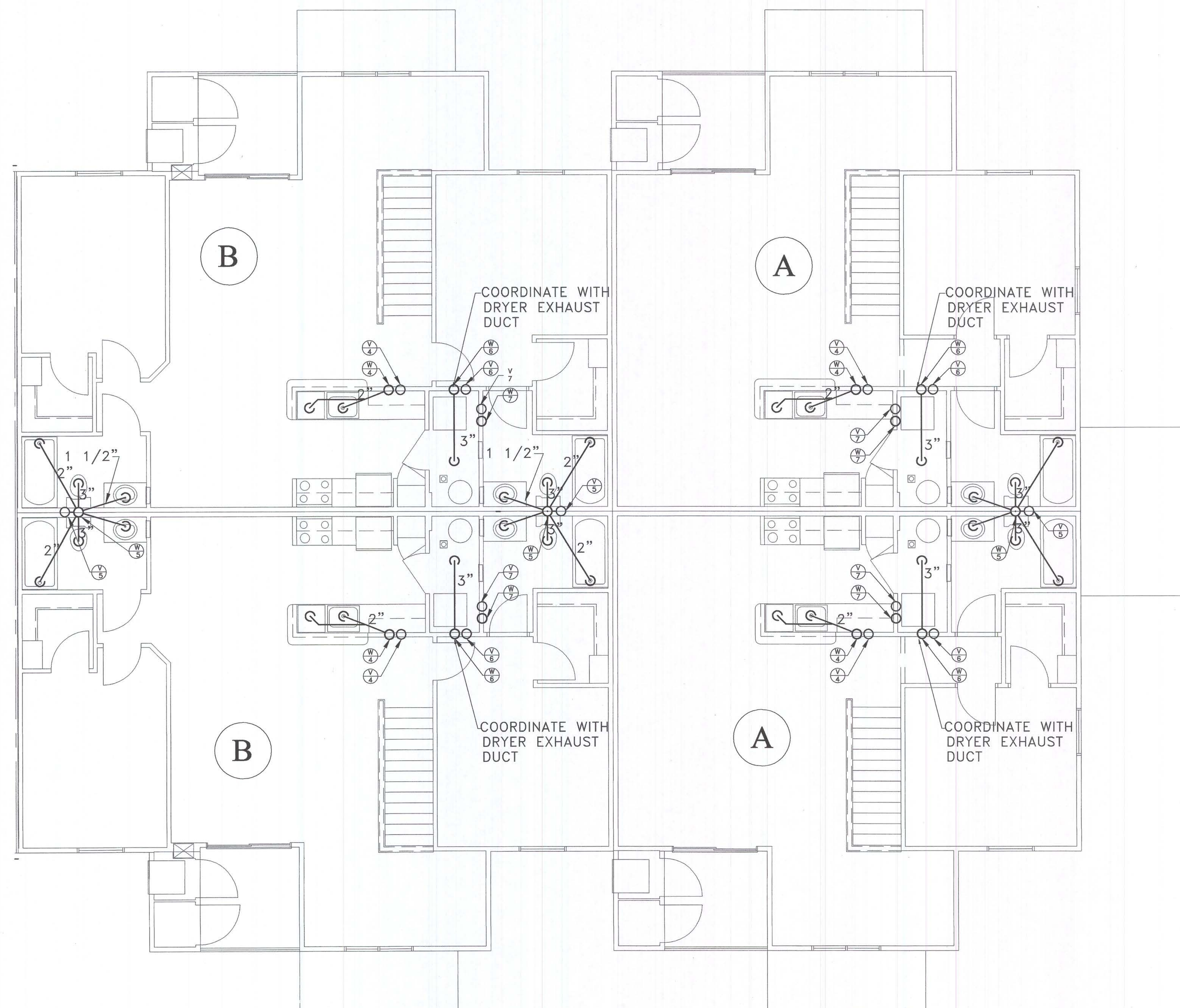
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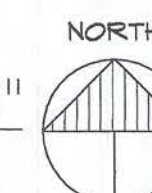
M3.4



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SECOND FLOOR UNIT "A" & "B"
HALF EAST OF BUILDING III
SCALE: 1/4" = 1'-0"



Consultant:



MANCINI, ALKATEEB & ASSOCIATES, INC.
MECHANICAL & ELECTRICAL • CONSULTING ENGINEERS
30400 TELEGRAPH ROAD, SUITE 486 (248) 258-16
BINGHAM FARMS, MICHIGAN 48025 FAX (248) 258-95

Developer:

FIELEK
BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON
APARTMENTS

Leslie, Michigan

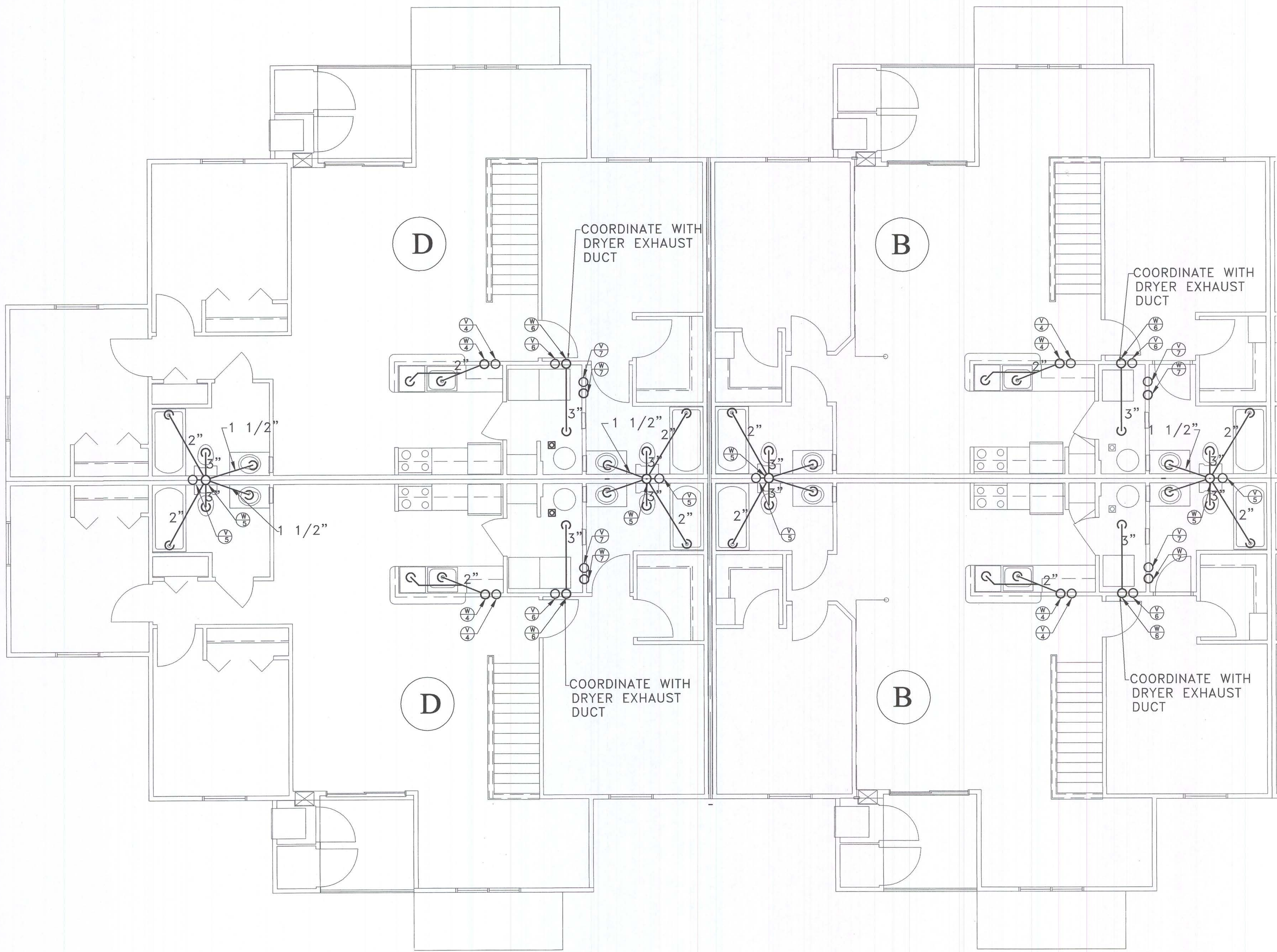
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UNIT "A" & "B"
SANITARY
PLUMBING PLAN

Project Number:	03-161
Drawn:	SA
Checked:	SS
Date:	10-8-03
Sheet Number:	350

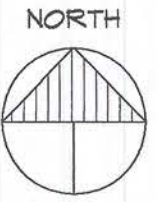
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SECOND FLOOR UNIT "B" & "D"
HALF WEST OF BUILDING III
SCALE: 1/4" = 1'-0"



Consultant:



MANCINI, ALKATEEB & ASSOCIATES, INC.
MECHANICAL & ELECTRICAL - CONSULTING ENGINEERS
30420 TELEGRAPH ROAD, SUITE 400 BIRMINGHAM, ALABAMA 35244
(205) 255-1610 FAX (205) 255-0838

Developer:

FIELEK
BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON
APARTMENTS

Leslie, Michigan

Sheet Title:

SECOND FLOOR
UNIT "B" & "D"
SANITARY
PLUMBING PLAN

Project Number: 03-161

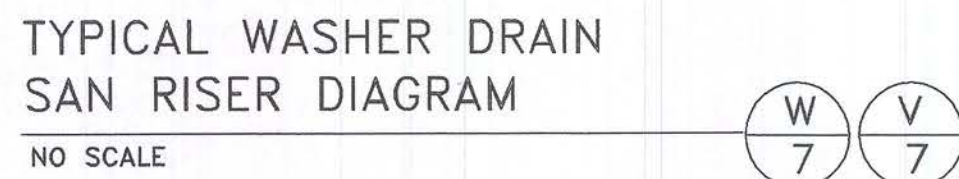
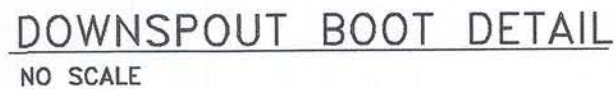
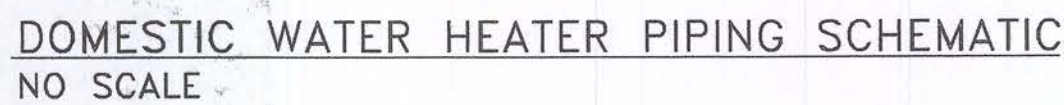
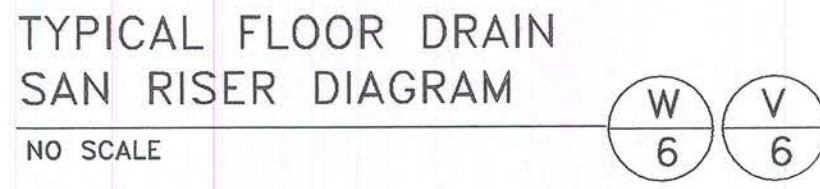
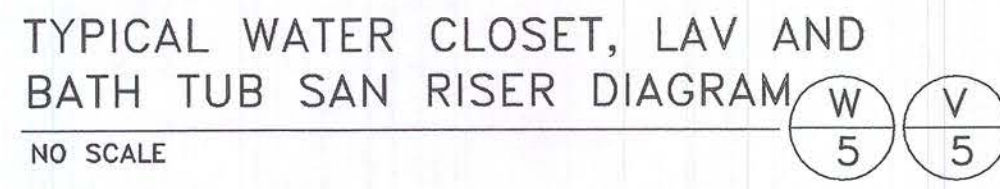
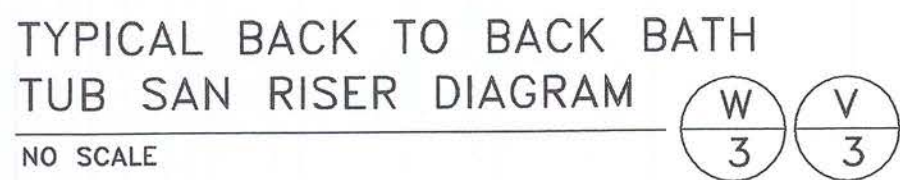
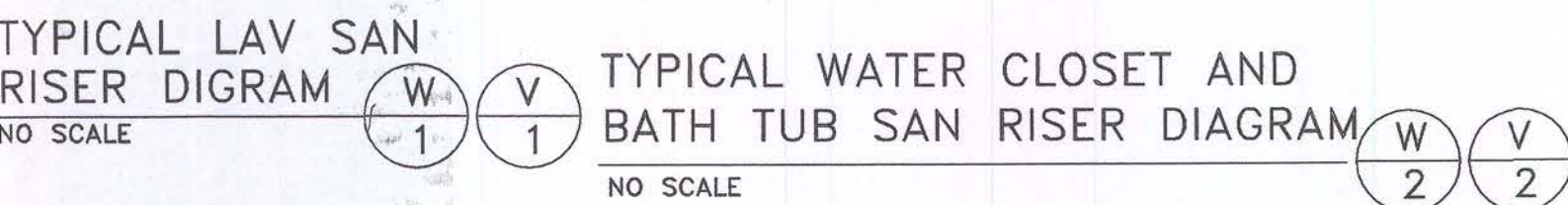
Drawn: SA

Checked: SS

Date: 10-8-03

Sheet Number:

M3.6



AF	ABOVE FINISH FLOOR
DR	DRAIN
DS	DOWN SPOUT
CO	CLEAN-OUT
FCO	FLOOR CLEAN-OUT
FGCO	FINISH GRADE CLEAN OUT
CFH	CUBIC FEET PER HOUR
DN	DOWN
CONN	CONNECT
I.E.	INVERT ELEVATION
WH	WALL HYDRANT
RPBP	REDUCED PRESSURE BACKFLOW PREVENTOR
CUIH—	ELECTRIC CABINET UNIT HEATER
SAN	SANITARY
W	WASTE
WH—	GAS WATER HEATER

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MECHANICAL & ELECTRICAL • CONSULTING ENGINEERS
30400 TELEGRAPH ROAD, SUITE 486 (248) 258-1610
BINGHAM FARMS, MICHIGAN 48025 FAX (248) 258-9538

**FIELEK
BUILDERS, L.L.C.**
South Lyon, Michigan

Project:

WORTHINGTON APARTMENTS

Leslie, Michigan

Sheet Title:

PLUMBING DETAILS

Project Number: 03-161

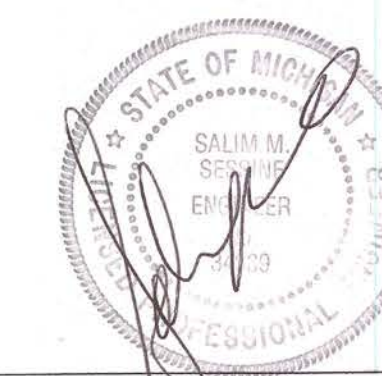
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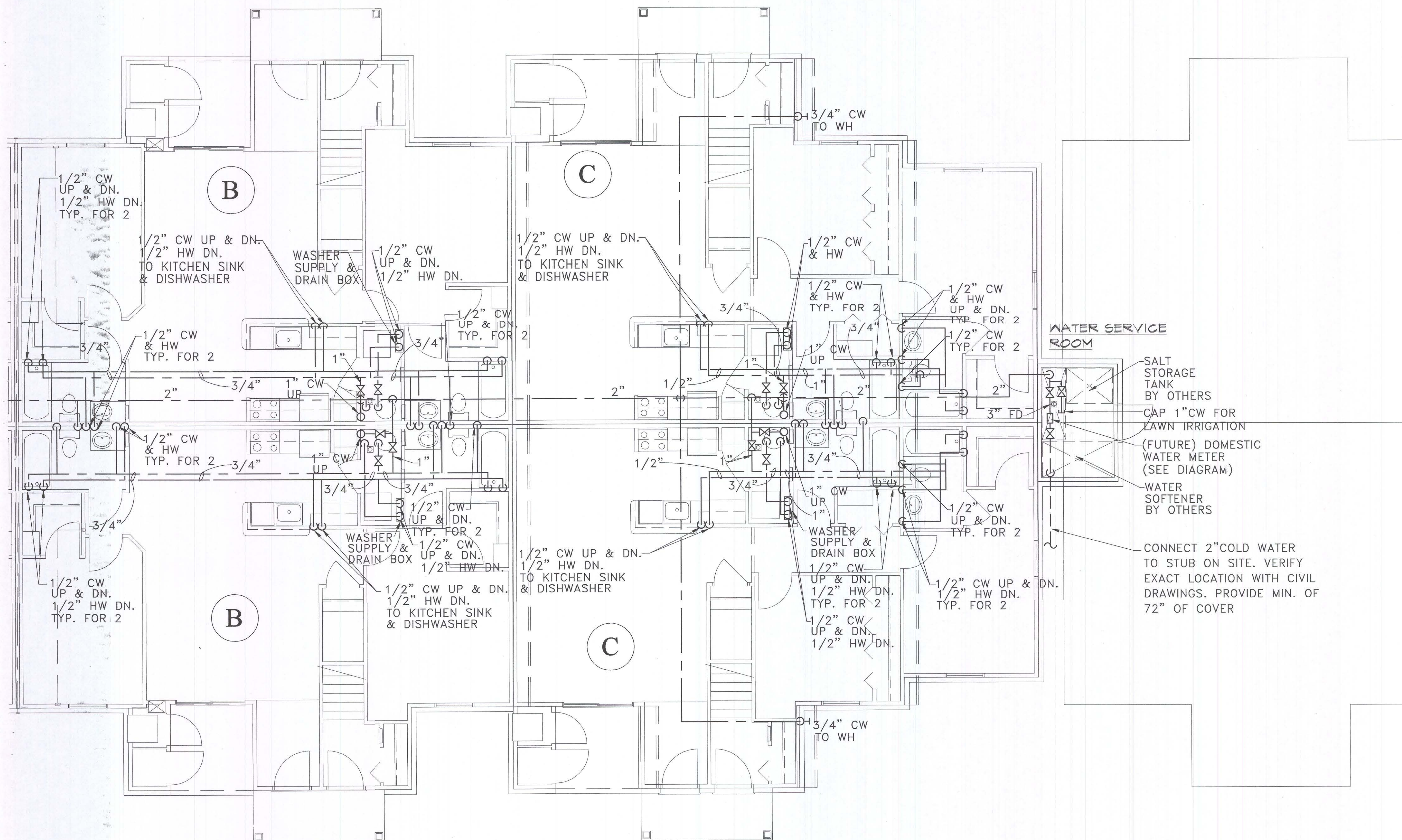
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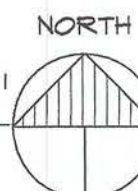
M3.7



Issued For:
PERMITS / BIDS 2-9-04



FIRST FLOOR UNIT "B" & "C"
HALF EAST OF BUILDING II
SCALE: 1/4" = 1'-0"



WATER SERVICE ROOM

SALT STORAGE TANK BY OTHERS
CAP 1" CW FOR LAWN IRRIGATION
(FUTURE) DOMESTIC WATER METER (SEE DIAGRAM)
WATER SOFTENER BY OTHERS

CONNECT 2" COLD WATER TO STUB ON SITE. VERIFY EXACT LOCATION WITH CIVIL DRAWINGS. PROVIDE MIN. OF 72" OF COVER

Consultant:

MANCINI, ALKATEEB & ASSOCIATES, INC.
MECHANICAL & ELECTRICAL - CONSULTING ENGINEERS
3040 TELEGRAPH ROAD, SUITE 400
BIRMINGHAM, MICHIGAN 48202 FAX (248) 259-8800

Developer:

FIELEK BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON APARTMENTS

Leslie, Michigan

Sheet Title:

**FIRST FLOOR
UNIT "B" & "C"
PLUMBING PLAN
BLDG. TYPE II**

Project Number: 03-161

Drawn: SA

Checked: SS

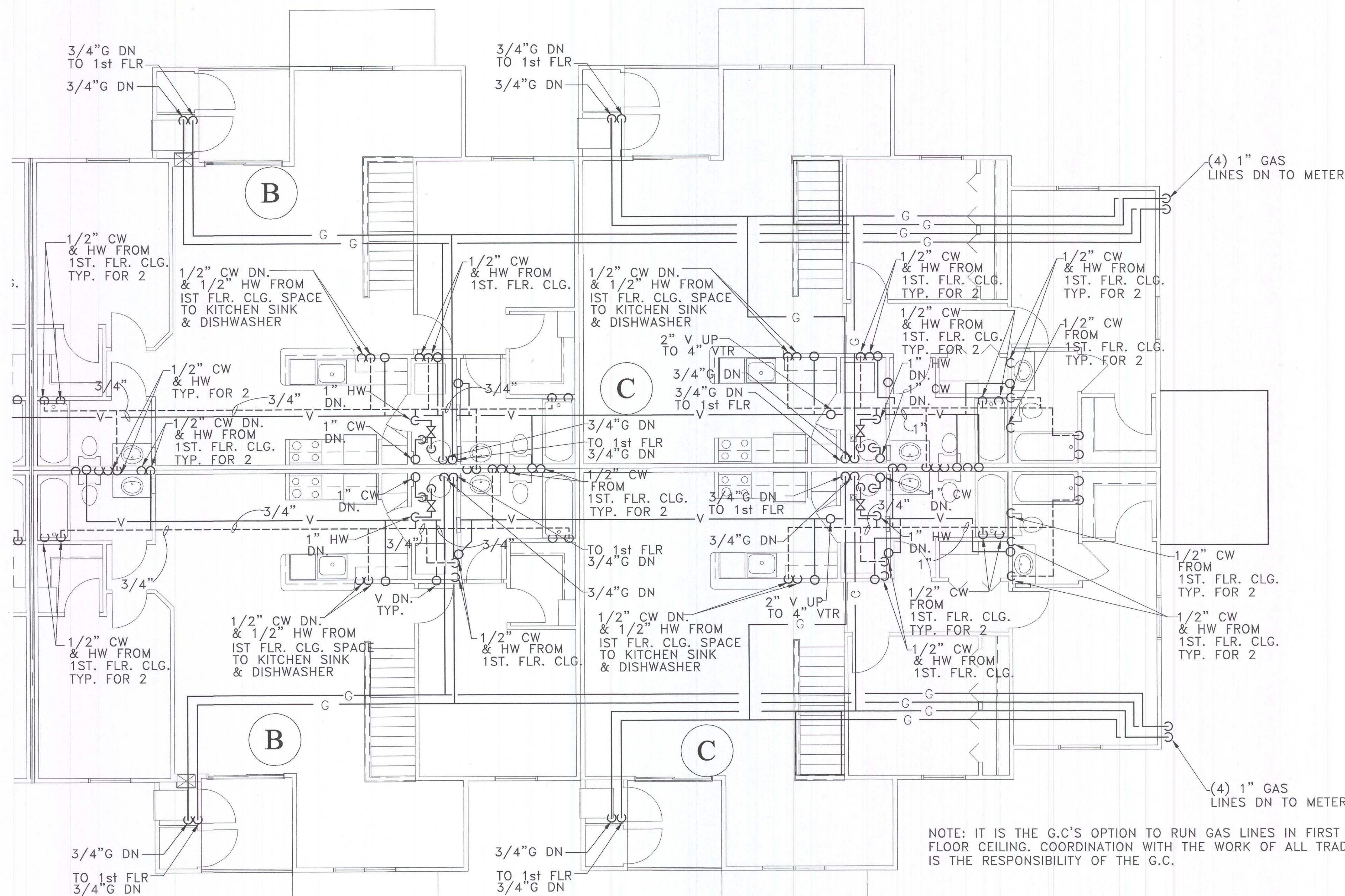
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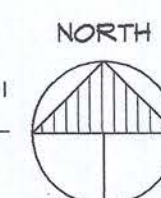
M4.1



Issued For:
PERMITS / BIDS 2-9-04



SECOND FLOOR UNIT "B" & "C"
HALF EAST OF BUILDING II
SCALE: 1/4" = 1'-0"



NOTE: IT IS THE G.C.'S OPTION TO RUN GAS LINES IN FIRST FLOOR CEILING. COORDINATION WITH THE WORK OF ALL TRADES IS THE RESPONSIBILITY OF THE G.C.

Consultant:



Developer:

FIELEK
BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON
APARTMENTS

Leslie, Michigan

Sheet Title:

SECOND FLOOR
UNIT "B" & "C"
PLUMBING PLAN
BLDG. TYPE II

Project Number: 03-161

Drawn: SA

Checked: SS

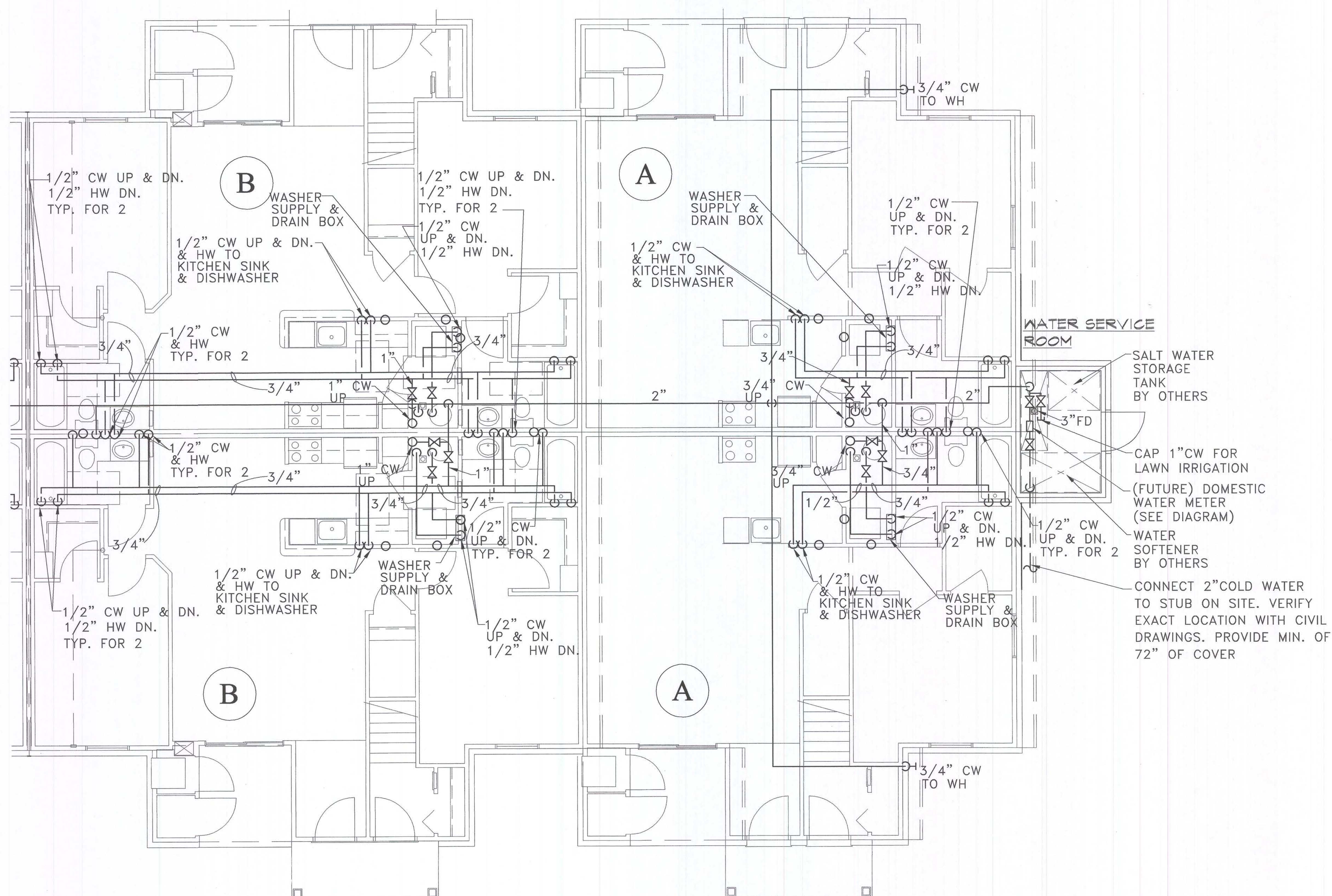
Date: 10-8-03

Sheet Number:

MA 2



Issued For:
PERMITS / BIDS 2-9-04



FIRST FLOOR UNIT "A" & "B"
HALF EAST OF BUILDING III
SCALE: $\frac{1}{4}" = 1'-0"$

MANCINI, ALKATEEB & ASSOCIATES
MECHANICAL & ELECTRICAL CONSULTING ENGINEERS
30400 TELEGRAPH ROAD, SUITE 486
(248) 845-1100 FAX (248) 845-1101

Project:

Leslie, Michigan

Project Number: 03-161

Drawn: SA

Drawn:	SS
Checked:	SS

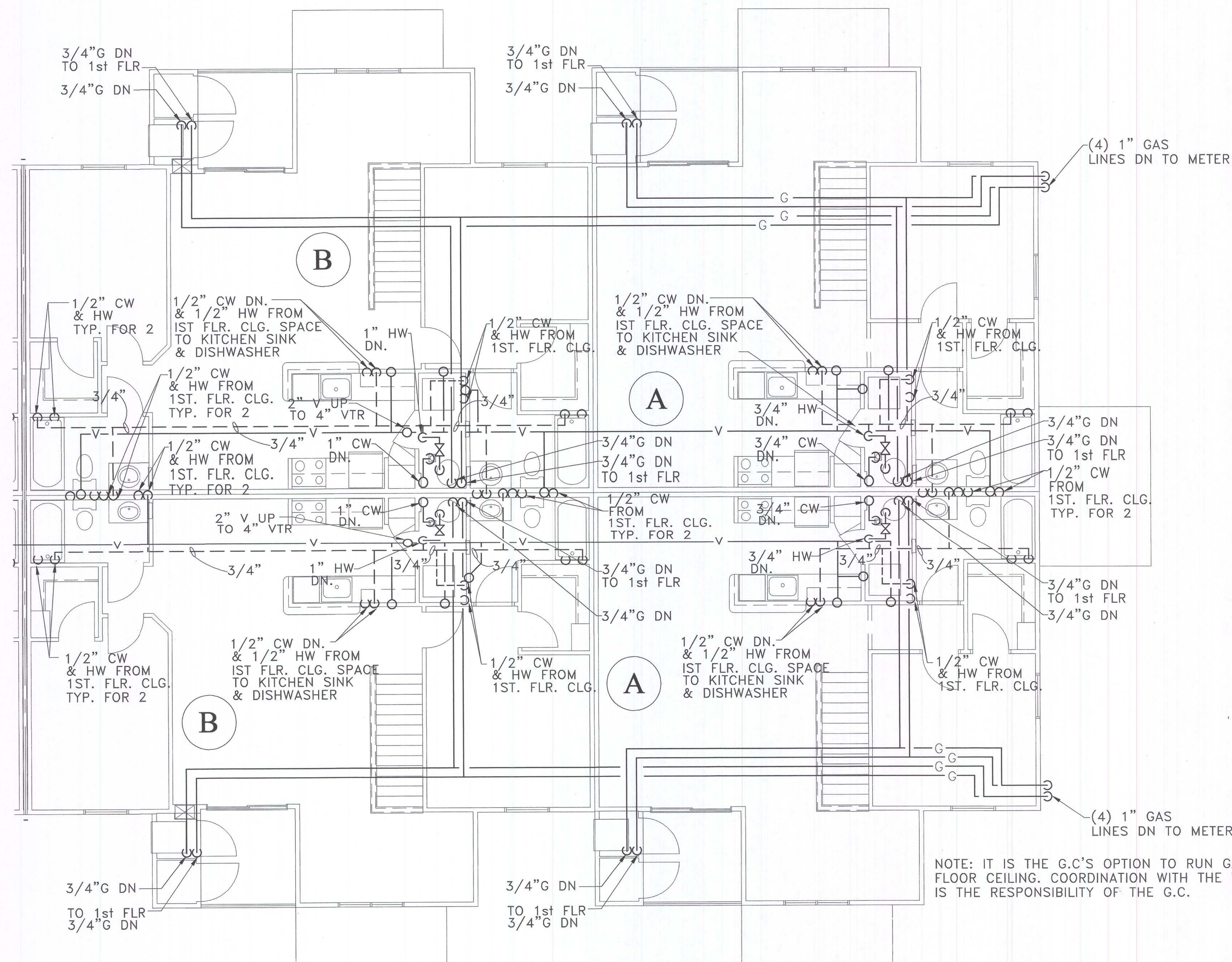
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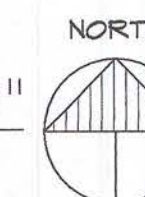


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PERMITS / BIDS 2-9-04



NOTE: IT IS THE G.C.'S OPTION TO RUN GAS LINES IN FIRST FLOOR CEILING. COORDINATION WITH THE WORK OF ALL TRADES IS THE RESPONSIBILITY OF THE G.C.

SECOND FLOOR UNIT "A" & "B"
HALF EAST OF BUILDING III
SCALE: 1/4" = 1'-0"



Consultant:

MANCINI, ALKATEEB & ASSOCIATES, INC.
MECHANICAL & ELECTRICAL CONSULTING ENGINEERS
3040 TELEGRAPH RD., SUITE 200 BIRMINGHAM, ALABAMA 35203
PHONE: 205-988-1610 FAX: 205-988-8008

Developer:

FIELEK BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON APARTMENTS

Leslie, Michigan

Sheet Title:

**SECOND FLOOR
UNIT "A" & "B"
PLUMBING PLAN
BLDG. TYPE III**

Project Number: 03-161

Drawn: SA

Checked: SS

Date: 10-8-03

Sheet Number:

M4.4

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MANCINI, ALKATEEB & ASSOCIATES, INC.
MECHANICAL & ELECTRICAL • CONSULTING ENGINEERS
30400 TELEGRAPH ROAD, SUITE 486 (248) 258-1610
BINGHAM FARMS, MICHIGAN 48025 FAX (248) 258-9538

Developer:
FIELEK
BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON
APARTMENTS

Leslie, Michigan

Sheet Title:

FIRST FLOOR
UNIT "B" & "D"
PLUMBING PLAN
BLDG. TYPE III

Project Number: 03-161

Drawn: SA

Checked: SS

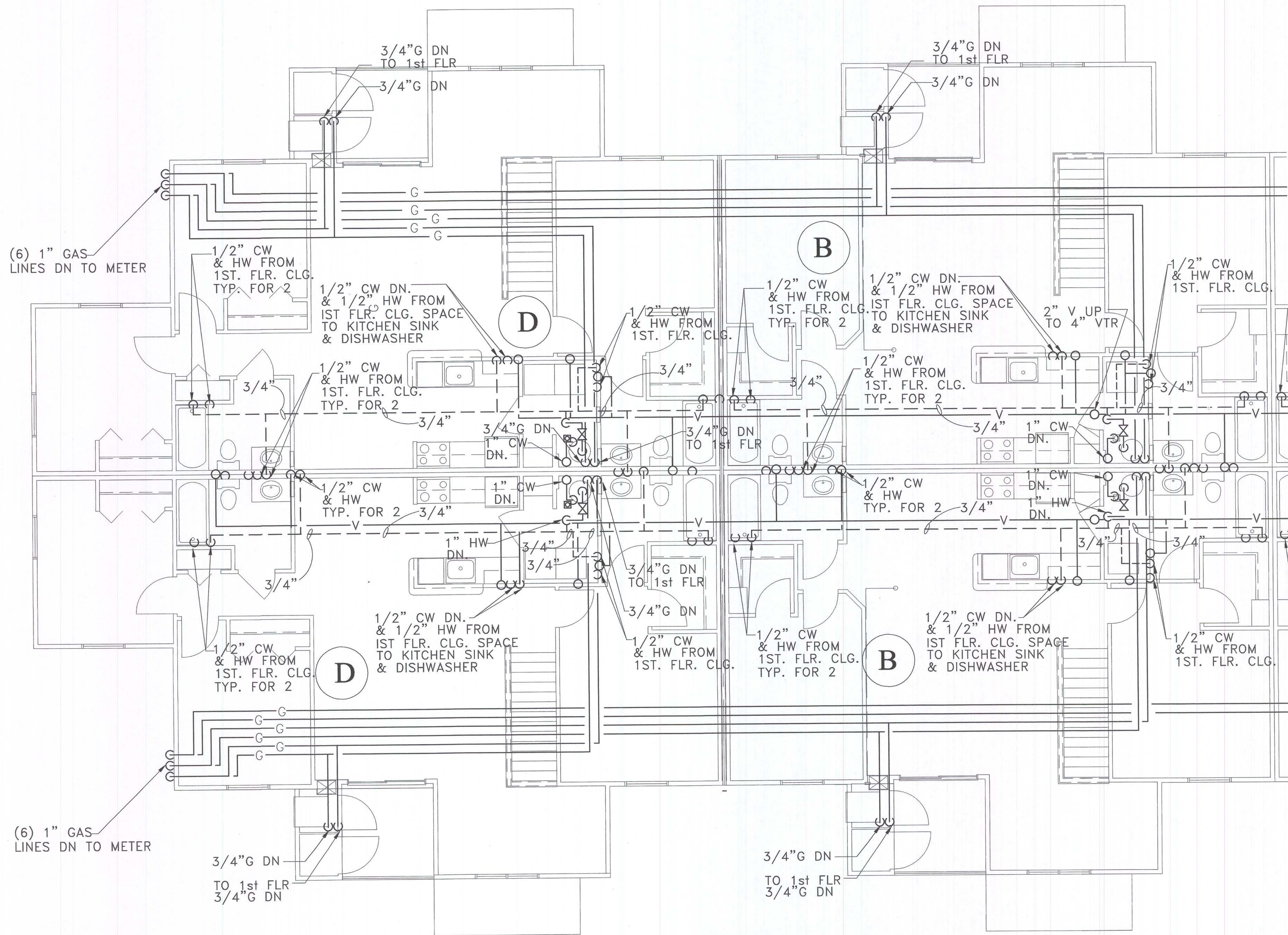
Date: 10-8-03

Sheet Number:

M4.5

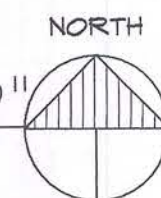


Issued For:
PERMITS / BIDS 2-9-04



NOTE: IT IS THE G.C.'S OPTION TO RUN GAS LINES IN FIRST FLOOR CEILING. COORDINATION WITH THE WORK OF ALL TRADES IS THE RESPONSIBILITY OF THE G.C.

SECOND FLOOR UNIT "B" & "D"
HALF WEST OF BUILDING III
SCALE: 1/4" = 1'-0"



Consultant:

MANCINI, ALKATEEB & ASSOCIATES, INC.
MECHANICAL & ELECTRICAL CONSULTING ENGINEERS
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Developer:

FIELEK BUILDERS, L.L.C.
South Lyon, Michigan

Project:

WORTHINGTON APARTMENTS

Leslie, Michigan

Sheet Title:

**SECOND FLOOR
UNIT "B" & "D"
PLUMBING PLAN
BLDG. TYPE III**

Project Number: 03-161

Drawn: SA

Checked: SS

Date: 10-8-03

Sheet Number:

M4.6