

**DRAWING LIST - PLUMBING**



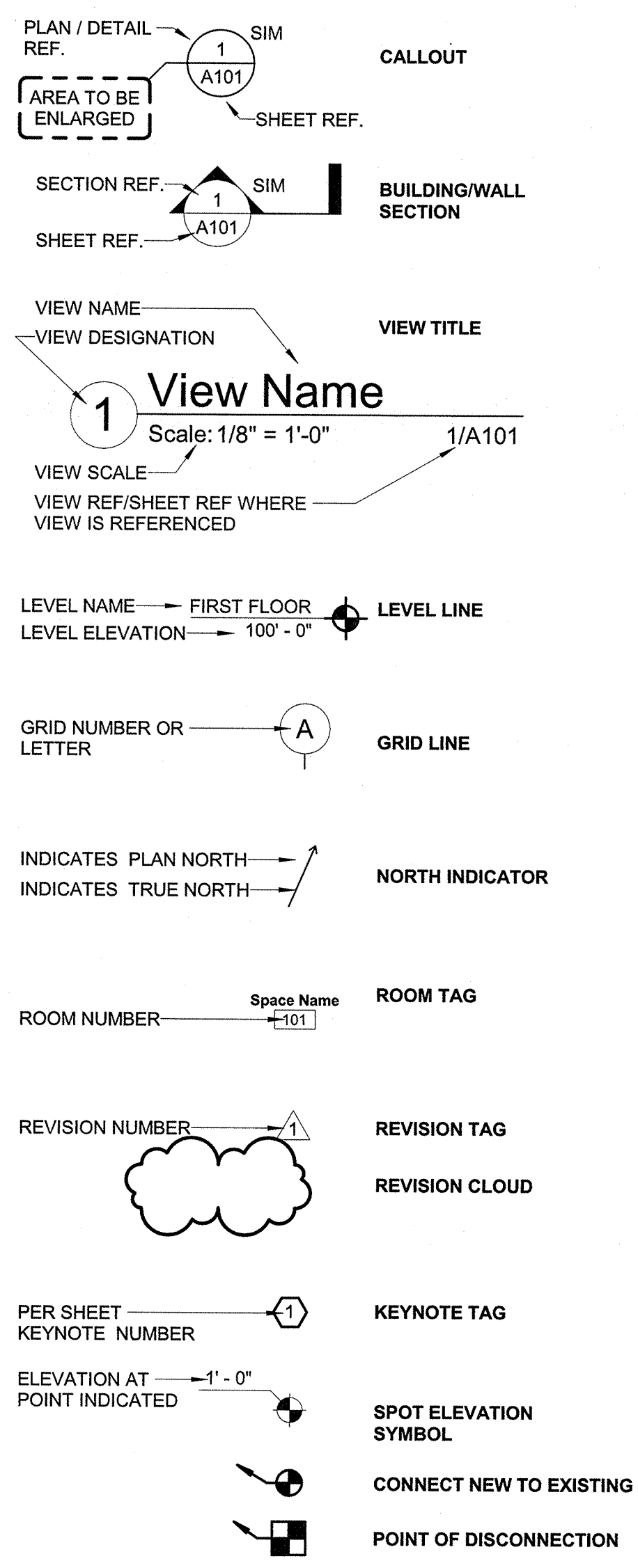
410 Blackwell Street, Suite 10  
Durham, NC 27701  
T: 919.474.2500  
www.littleonline.com

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**Dewberry**  
Dewberry Engineers Inc.  
2610 WYCLIFF ROAD  
SUITE 410  
RALEIGH, NC 27607  
PHONE: 919.881.9939  
FAX: 919.881.9923  
NCBELS # F-9929

**STANDARD DETAILING SYMBOLS**



**GENERAL NOTES - PLUMBING**

- PROVIDE ALL MATERIALS AND LABOR NECESSARY FOR A COMPLETE PLUMBING SYSTEM. WARRANTY ALL WORK AND MATERIAL FOR A PERIOD OF AT LEAST ONE YEAR AFTER ACCEPTANCE BY OWNER.
- THE PLUMBING INSTALLATION SHALL COMPLY WITH THE 2018 EDITION OF THE NORTH CAROLINA PLUMBING CODE AND ALL AUTHORITIES HAVING JURISDICTION.
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF:
  - ANSI
  - UNDERWRITERS LABORATORIES (UL)
  - ALL STATE AND LOCAL CODES AND ORDINANCES
- DO NOT SCALE DRAWINGS. OBTAIN ROUGH-IN DIMENSIONS FROM ARCHITECTURAL DRAWINGS OR FROM MANUFACTURERS PRINTED INSTRUCTIONS AND RECOMMENDATIONS ONLY. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF ALL EQUIPMENT, CONNECTIONS AND LINES WITH THE OWNER PRIOR TO INSTALLATION OF ANY PIPING.
- THE CONTRACTOR SHALL COORDINATE PLUMBING WORK WITH ALL OTHER TRADES AND VERIFY DIMENSION AND CONDITIONS AT THE SITE PRIOR TO BEGINNING WORK. NO ADDITIONAL COSTS WILL BE ACCEPTED IF ATTRIBUTED TO FAILURE TO COORDINATE OR VERIFY.
- COORDINATE WITH AND OBTAIN PERMITS AND INSPECTIONS FROM THE LOCAL AUTHORITY HAVING JURISDICTION.
- PROVIDE OWNER WITH CERTIFICATES OF FINAL INSPECTION FROM THE LOCAL AUTHORITY HAVING JURISDICTION.
- WHENEVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN FURNISH AND INSTALL COMPLETE AND READY FOR USE.
- UNLESS OTHERWISE SHOWN OR NOTED, ALL PIPING SHALL BE ROUTED CONCEALED IN WALLS, CHASES AND/OR ABOVE CEILINGS.
- ALL SUSPENDED PIPING SHALL BE SUPPORTED FROM FLOOR AND/OR ROOF STRUCTURAL MEMBERS. IN NO CASE SHALL PIPING BE SUSPENDED FROM FLOOR OR ROOF DECKING.
- WHERE WORK PENETRATES FIRE RATED WALLS AND FLOORS, THE CONTRACTOR SHALL PROVIDE U.L. LISTED ASSEMBLIES THAT MEET OR EXCEED THE FIRE RATING LABEL SHOWN ON THE CONTRACT DRAWINGS.
- PROVIDE DRAIN VALVES AT ALL LOW POINTS WHERE POSSIBLE IN HOT & COLD PIPING SYSTEMS. PROVIDE AN AUTOMATIC VENT-VALVE AT THE HIGH POINT IN HOT & COLD PIPING SYSTEMS, WATTS FV4M1 OR APPROVED EQUAL.
- WATER PIPING INSTALLED UNDER FLOOR SLAB SHALL BE TYPE L SOFT COPPER TUBING WITH NO JOINTS BELOW THE SLAB. REQUIRED JOINTS BELOW SLAB SHALL UTILIZE SILVER SOLDER ONLY.
- PROVIDE ALL VENT PENETRATIONS WHERE INDICATED ON FLOOR PLANS. COLLECT ALL VENTS ABOVE CEILING WHERE SHOWN.
- PROVIDE CLEAN OUT AT BASE OF ALL SOIL & WASTE STACK, ROOF DRAIN LEADERS, ETC.
- INSULATE ALL DRAINS AND DRAIN BODIES RECEIVING DISCHARGE FROM MECHANICAL EQUIPMENT. INSULATE ALL HORIZONTAL PIPE RECEIVING DISCHARGE FROM MECHANICAL UNITS.
- UNLESS OTHERWISE INDICATED P.C. IS RESPONSIBLE FOR ALL CUTTING, CORE DRILLING AND PATCHING REQ'D TO INSTALL PLBG WORK.
- UNLESS NOTED OTHERWISE, ALL HORIZONTALLY SOIL WASTE & STORM PIPING SHALL BE INSTALLED AT 1/8" PER FT. SLOPE.
- ALL VALUE SHOWN IN PARENTHESIS INDICATE FIXTURE UNITS, ROOF DRAIN AREAS, ETC., AS APPLICABLE.
- ALL ROOF DRAINS AND RELATED ROOF DRAIN LEADERS ARE SIZE FOR 4"/HR. RAINFALL PRIMARY AND 7.2"/HR. RAINFALL (SECONDARY).
- DOMESTIC WATER PIPING SERVING BATTERY OF FIXTURES SHALL BE INSTALLED AS HEADERS, THE SAME SIZE AS THE RISER OR DROP TO CHASE. ROUGH-IN SIZES TO INDIVIDUAL FIXTURES SHALL BE AS INDICATED IN THE PLUMBING FIXTURE SCHEDULE.
- ALL PIPING PENETRATIONS THRU FIRE RATED PARTITIONS OR FLOOR SHALL BE SEALED IN ACCORDANCE WITH U.L. LISTED SYSTEMS.
- THE CONTRACTOR SHALL COORDINATE PLUMBING WORK WITH ALL OTHER TRADES AND VERIFY DIMENSION AND CONDITIONS AT THE SITE PRIOR TO BEGINNING WORK. NO ADDITIONAL COSTS WILL BE ACCEPTED IF ATTRIBUTED TO FAILURE TO COORDINATE OR VERIFY.

**ABBREVIATIONS - PLUMBING**

AD	AREA DRAIN
BF	BALANCING FITTING
BFP	BACKFLOW PREVENTER VALVE
BLV	GLOBE VALVE
BP	BOOSTER PUMP
BT	BUTTERFLY VALVE
BV	BALL VALVE
CD	CONDENSATE DRAIN
CEB	CONCRETE EQUIPMENT BASE
CI	CAST IRON
CKV	CHECK VALVE
CO	CLEANOUT
CP	CIRCULATING PUMP
D	DRAIN LINE
DCW	COLD WATER
DF	DRINKING FOUNTAIN
DHW	HOT WATER
DHWR	HOT WATER RETURN
DN	DOWN
DSN	DOWNSPOUT NOZZEL
DSS	DOWNSPOUT SHOE
DT	DRAIN TILE
DWH	DOMESTIC WATER HEATER
ES	EMERGENCY SHOWER / EYEWASH
ESTV	EMERGENCY SHOWER TEMPERING VALVE
EWC	ELECTRIC WATER COOLER
EXT	EXPANSION TANK
FBO	FURNISHED BY OWNER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FL	FIRE LINE
FS	FLOOR SINK
G	NATURAL GAS
GI	GREASE INTERCEPTOR
HB	HOSE BIBB
INV	INVERT ELEVATION
L	LAVATORY
LI	LINT INTERCEPTOR

**GENERAL NOTES - PLUMBING**

- ALL SANITARY PIPING TO BE RUN AT A SLOPE OF 1/4" PER FOOT (MINIMUM) UP TO 3" PIPE, AND 1/8" PER FOOT (MINIMUM) FOR LARGER DIAMETER PIPES UNLESS OTHERWISE NOTED.
- ALL PIPING BELOW GRADE SHALL BE INSTALLED TO CLEAR FOOTINGS AND SHALL NOT BE INSTALLED WITHIN OR BELOW THE TRIANGULAR BEARING PLANE OF ALL FOOTINGS.
- CONTRACTOR SHALL SEAL SLEEVES INSTALLED IN FIRE-RATED WALLS, CEILING AND FLOORS WITH FIRE-PROOF MATERIAL EQUAL TO THE RATINGS OF THE RESPECTIVE WALLS, CEILING AND FLOORS.
- VENT PIPES PASSING THROUGH ROOF SHALL BE 4" DIAMETER (MINIMUM) AND EXTEND NOT LESS THAN 18" ABOVE THE ROOF, EXCEPT THAT WHERE A ROOF IS TO BE USED FOR ANY PURPOSE OTHER THAN WEATHER PROTECTION, THE VENT EXTENSIONS SHALL BE RUN AT LEAST 7 FEET ABOVE THE ROOF.
- INSTALL PIPING AS STRAIGHT AND DIRECT AS POSSIBLE FORMING RIGHT ANGLE OR PARALLEL LINES WITH BUILDING WALLS, NEATLY SPACED, RISERS PLUMB AND TRUE, AND AVOID INTERFERENCE WITH OTHER CONSTRUCTION.
- CLEANOUTS SHALL BE PROVIDED ON ALL PLUMBING DRAINAGE PIPING AT CHANGES OF DIRECTION GREATER THAN 45°, WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A RUN OF PIPING, ONLY ONE CLEANOUT SHALL BE REQUIRED FOR EACH 40 FEET OF DEVELOPED LENGTH OF THE DRAINAGE PIPING.
- ALL UNDERGROUND PIPE SLEEVES SHALL BE COORDINATED WITH SITE ENGINEER FOR SIZE, LOCATION AND ELEVATION.
- UNDER NO CIRCUMSTANCES WILL THIS CONTRACTOR OR HIS WORKMEN BE PERMITTED TO USE ANY PART OF THE BUILDING AS A SHOP, EXCEPT PARTS DESIGNATED BY THE OWNER FOR SUCH PURPOSES.
- UNNECESSARY NOISE SHALL BE AVOIDED AT ALL TIMES AND NECESSARY NOISE SHALL BE REDUCED TO A MINIMUM.
- ALL PLUMBING PIPING IS LOCATED AT CEILING UNLESS OTHERWISE NOTED. COORDINATE FLOOR PLANS WITH RISER DIAGRAMS FOR COMPLETE VALVE ARRANGEMENT.
- CONTRACTOR SHALL CHECK AND VERIFY THE EXACT LOCATION OF ALL PIPE PENETRATIONS AND PIPE ELEVATIONS.
- ALL INDICATED WORK SHALL BE PERFORMED BY THE PLUMBING CONTRACTOR UNLESS OTHERWISE NOTED.
- ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF ALL APPLICABLE CODES AND REGULATIONS INCLUDING BUT NOT LIMITED TO NATIONAL, CITY, STATE AND LOCAL ORDINANCES WHICH MAY BE IN EFFECT. ALL PLUMBING MATERIALS, INSTALLATION PROCEDURES AND SYSTEM LAYOUTS SHALL BE APPROVED BY ALL APPLICABLE CODE ENFORCEMENT AUTHORITIES HAVING JURISDICTION, AND IT SHALL BE THE PLUMBING CONTRACTOR'S RESPONSIBILITY TO PAY FOR ALL NECESSARY PERMITS AND APPROVALS FOR THIS INSTALLATION.
- IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO REVIEW THESE PLANS AND SPECIFICATIONS, AS WELL AS THE RELATED HVAC, FIRE PROTECTION, ELECTRICAL, STRUCTURAL, ARCHITECTURAL, INTERIOR DECOR AND SITE ENGINEERING DRAWINGS TO BECOME FAMILIAR WITH THE FULL PROJECT SCOPE. IN ADDITION, THIS CONTRACTOR MUST COORDINATE WITH AN OWNER REPRESENTATIVE TO VISIT THE SITE AND FULLY UNDERSTAND ALL REQUIREMENTS WHICH MAY NOT BE SPECIFIED HEREIN AND WHICH THE OWNER MAY CONSIDER PART OF THIS CONTRACT. DURING THE COURSE OF CONSTRUCTION COORDINATION AND ACTUAL CONSTRUCTION, IT IS THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO WORK CLOSELY WITH ALL ACCOMPANYING CONTRACTORS AND TRADESMEN IN ORDER TO ENSURE A SMOOTH RUNNING AND CAREFULLY COORDINATED INSTALLATION.
- ANY DISCREPANCIES OR INADEQUACIES WITHIN THESE BID DOCUMENTS OR BETWEEN THESE BID DOCUMENTS AND THE RELATED HVAC, FIRE PROTECTION, ELECTRICAL, STRUCTURAL, ARCHITECTURAL, INTERIOR DECOR AND SITE ENGINEERING DRAWINGS, OR BETWEEN THESE BID DOCUMENTS AND FIELD CONDITIONS MUST BE BROUGHT TO THE ATTENTION OF THE OWNER, ARCHITECT AND ENGINEER PRIOR TO BID SUBMISSION.

**ABBREVIATIONS - PLUMBING**

LT	LAUNDRY TUB
MSB	MOP SINK BASIN
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
OI	OIL INTERCEPTOR
OS & Y	OUTSIDE SCREW & YOKE
OSW	OPEN SITE WASTE
PD	PUMP DISCHARGE
PRV	PRESSURE REDUCING VALVE
PT	PLASTER TRAP
PVC	POLYVINYL CHLORIDE
RD	ROOF DRAIN
SAN	SANITARY SEWER (EXTERIOR)
SCW	SOFT COLD WATER
SH	SHOWER
SK	SINK
SL	SECURITY LAVATORY
SP	SUMP PUMP
SS	SANITARY SEWER
ST	STORM SEWER / STORM DRAIN
STM	STEAM
SWC	SECURITY WATER CLOSET
SWCL	SECURITY WATER CLOSET
SWH	STEAM WATER HEATER
TD	TRENCH DRAIN
TMV	THERMOSTATIC MIXING VALVE
TW	TEMPERED WATER
TYP	TYPICAL
UR	URINAL
V	VENT
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WALL HYDRANT
WM	WATER METER
WS	WATER SOFTENER
YCO	YARD CLEANOUT

**GENERAL NOTES - PLUMBING**

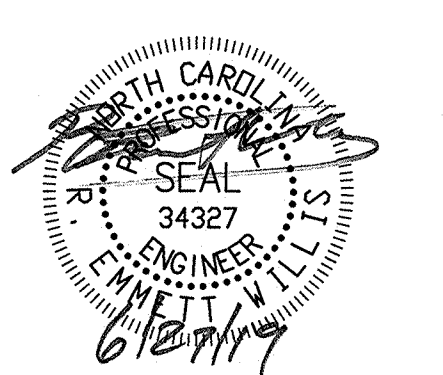
- THE PLUMBING CONTRACTOR SHALL PROVIDE A COMPLETE SET OF RECORD "AS-BUILT" DRAWINGS INDICATING THE PRECISE LOCATION OF ALL SYSTEMS, EQUIPMENT CONCEALED OR EMBEDDED PIPING, PIPING CONNECTIONS AND ACCESS DOORS. THESE DRAWINGS SHALL ALSO INCLUDE ALL CHANGES AND DEVIATIONS FROM THE BID DOCUMENTS.
- ALL EXPOSED HORIZONTAL AND VERTICAL PIPING SHALL BE INSTALLED IN A NEAT ARRANGEMENT IN LOCATIONS WHICH ARE THE MOST INCONSPICUOUS. VERTICAL DROPS SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND THEIR FINAL LOCATIONS SHALL BE COORDINATED AND RUN WITHIN CHASES, WALLS, SOFFITS WITH OTHER MECHANICAL ELECTRICAL FEEDS. ALL SUCH LOCATIONS ARE TO BE REVIEWED WITH AN OWNER REPRESENTATIVE AND ARCHITECT PRIOR TO INSTALLATION.
- ALL PLUMBING FIXTURES / APPLIANCES SHALL HAVE THEIR OWN INDEPENDENT SHUT-OFF VALVES, INSTALLED IN AN EASILY ACCESSIBLE AND CONVENIENT LOCATION.
- ALL DOMESTIC WATER BRANCH LINES SHALL HAVE THEIR OWN RESPECTIVE SHUT-OFF VALVES WHETHER OR NOT SHOWN ON THE DRAWINGS.
- ALL EXPOSED PIPING BELOW LAVATORY'S DESIGNATED AS HANDICAPPED SHALL BE TYPICALLY INSULATED.
- ALL ROOF DRAIN SUMPS AND HORIZONTAL STORM DRAINAGE PIPING LOCATED ABOVE CEILING SHALL BE FULLY INSULATED INCLUDING ALL FITTINGS.
- ALL NON-DRAINAGE PIPING SHALL BE RUN LEVEL AND GENERALLY FREE OF TRAPS AND UNNECESSARY BENDS, ARRANGED TO CONFORM TO THE BUILDING REQUIREMENTS AND TO SUIT THE NECESSITIES OF CLEARANCES FOR OTHER MECHANICAL WORK. PROVIDE VALVED DRAINAGE OUTLETS IN AREAS OF PIPING WHICH WOULD BE UNDRAINABLE DURING MAINTENANCE OR REPAIRS.
- ALL REQUIRED OFFSETS, RISES AND DROPS DUE TO POSSIBLE OBSTRUCTIONS OF PIPE RUNS ARE NOT NECESSARILY SHOWN. PLUMBING CONTRACTOR SHALL INCLUDE A CONTINGENCY IN HIS BID TO OFFSET ANY COST REQUIRED FOR ADDITIONAL FITTINGS AND LABOR THAT MAY BE REQUIRED.
- PROVIDE CLEANOUTS AT THE BASE OF ALL SANITARY & STORM STACKS.
- PIPING LAYOUTS ARE DIAGRAMMATIC AND INTENDED TO SHOW GENERAL ARRANGEMENT, SIZE, AND CAPACITY. ALL OFFSETS ARE NOT NECESSARILY SHOWN. THE PLUMBING CONTRACTOR SHALL ARRANGE AND COORDINATE THE WORK, FURNISH NECESSARY OFFSETS, VALVES, VENTS, AND FITTINGS TO AVOID CONFLICTS WITH OTHER MECHANICAL AND ELECTRICAL SERVICES AND WITH STRUCTURAL AND ARCHITECTURAL ELEMENTS.
- MAKE SUBMITTALS OF SHOP DRAWINGS AS SPECIFIED.
- PROVIDE REQUIRED SUPPORTS AND HANGERS FOR PIPING, FIXTURES AND EQUIPMENT, SO LOADING WILL NOT EXCEED ALLOWABLE LOADINGS OF STRUCTURE.
- NO DEAD ENDS SHALL BE LEFT ON ANY PIPING UPON COMPLETION OF WORK.
- ALL SYSTEMS SHALL BE LEFT IN PERFECT WORKING ORDER UPON COMPLETION OF ALL NEW WORK.
- FIXTURES (GENERAL): "FIRST QUALITY", NEW COMPLETE WITH TRIMMINGS AND FITTINGS, INCLUDING FAUCETS, SUPPLIES, STOPS, TRAPS, TAILPIECES, WASTE PLUGS, CASINGS, HANGERS, PLATES, BRACKETS, ANCHORS, SUPPORTS, HARDWARE AND FASTENING DEVICES.
- WHERE FIXTURES OR TRIM ARE DAMAGED OR BROKEN DURING THE INSTALLATION, THEY SHALL BE REPLACED WITH NEW FIXTURES.
- EXAMINE ROUGH-IN WORK OF POTABLE WATER AND WASTE PIPING SYSTEMS TO VERIFY ACTUAL LOCATIONS OF PIPING CONNECTIONS PRIOR TO INSTALLING FIXTURES. CORRECT ANY INCORRECT LOCATION OF PIPING, AND OTHER UNSATISFACTORY CONDITIONS FOR INSTALLATION OF PLUMBING FIXTURES.
- EXERCISE CARE IN HANDLING OF FIXTURES, TRIM, PIPE, AND FITTINGS. USE TOOLS DESIGNED TO PREVENT DAMAGE TO SURFACE FINISHES.

**GENERAL NOTES - PLUMBING**

- SET FIXTURES LEVEL AND UNIFORMLY, WITH CONNECTIONS AT RIGHT ANGLES TO WALL AND PROPERLY CENTERED. LAY OUT ROUGHING ACCURATELY AND IN COORDINATION WITH SPACE AND FINISH REQUIREMENTS. IF FIELD CUT-OUTS AND HOLES ARE REQUIRED, USE PROPER CUTTING AND DRILLING TOOLS TO MAINTAIN INTEGRITY OF FINISHED SURFACE. PROVIDE CUT-OUT TEMPLATES FOR COUNTERTOP INSERT ITEMS.
- LOCATE WASTE OUTLETS AND WATER SUPPLIES AT CONSTANT HORIZONTAL LEVELS. WITH WASTE OUTLET CENTERED ON FIXTURE DRAIN CONNECTION AND WATER SUPPLIES SPACED EQUALLY RIGHT TO LEFT.
- SUPPORT WALL HUNG FIXTURES RIGIDLY FROM BUILDING CONSTRUCTION, NOT FROM PIPING, BY MEANS OF CONCEALED METAL SUPPORTING MEMBERS DESIGNED TO CARRY WEIGHT OF FIXTURE UNDER CONDITIONS OF UNUSUAL LOADING, WITH NO STRESS PLACED ON WASTE CONNECTION OR ANY OTHER PART OF SYSTEM.
- SECURE FLOOR MOUNT SUPPORTS TO SLAB. SECURE WALL MOUNT SUPPORTS TO WITH APPROVED CARRIER OR 1/4" THICK METAL BACKUP PLATE SECURED TO WALL CONSTRUCTION. DO NOT USE WIRE, NAILS, OR OTHER MAKESHIFT DEVICES TO SECURE SUPPORTING MEMBERS.
- MAKE CONNECTION BETWEEN INTEGRAL TRAPPED FIXTURES AND DRAINAGE PIPING GAS AND WATER TIGHT, WITH GLOSET COUPLING OR FLANGE, CLOSET RING GASKET AND NON-CORROSIVE BOLTING MATERIALS.
- USE SPACING DEVICES TO SUPPORT AND STABILIZE WATER PIPING.
- PAINT NON-CORROSIVE FERROUS METAL SURFACES OF FIXTURES, INCLUDING BRACKETS, HANGERS, AND PLATES WITH PRIME COAT OF PAINT.
- UPON COMPLETION OF WORK, REMOVE PROTECTIVE COVERS AND THOROUGHLY CLEAN SURFACES, TRAPS AND STRAINERS. CHECK ALL ITEMS FOR PROPER OPERATION, TIGHTEN PACKINGS AND RETAINING DEVICES.
- SUPPLY TWO COPIES OF A WARRANTY COUNTERSIGNED AND GUARANTEED BY CONTRACTOR, STATING THAT IMPERFECT SYSTEM OPERATION AND ALL DEFECTS IN LABOR AND MATERIALS OF PLUMBING WORK WILL BE REPAIRED WITHOUT COST TO OWNER FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION, AND STATING THAT ALL PLUMBING EQUIPMENT HAS BEEN FULLY SERVICED AND LEFT IN PROPER OPERATING CONDITION.
- THIS SYMBOLS AND ABBREVIATIONS SHEET IS FOR THE PLUMBING CONTRACTORS REFERENCE ONLY. NOT ALL SYMBOLS AND/OR ABBREVIATIONS MAY APPLY TO THIS PARTICULAR PROJECT. ADDITIONS OR OMISSIONS FROM THIS SYMBOLS AND ABBREVIATIONS SHEET DO NOT IMPLY INCLUSION AND/OR EXCLUSION OF ANY PARTICULAR ITEM FROM THE PROJECT.
- ALL PHYSICAL ATTRIBUTES OF EQUIPMENT AND DEVICES ARE BASED ON THOSE LISTED IN THE EQUIPMENT SCHEDULES. THE RESPECTIVE CONTRACTORS ARE RESPONSIBLE FOR ALL CHANGES BROUGHT ABOUT BY USE OF ITEMS BY OTHER MANUFACTURERS. THE ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ITEMS BY OTHER MANUFACTURERS IF THOSE ITEMS DO NOT MATCH THE PHYSICAL ATTRIBUTES OF THE MANUFACTURERS LISTED.
- PROVIDE ACCESS DOORS FOR VALVES, EQUIPMENT, AND MAINTENANCE REQUIREMENTS. COORDINATE LOCATION AND INSTALLATION WITH OTHER TRADES.
- PLUMBING PIPING SHALL NOT RUN INTO OR OVER ROOMS INDICATED TO BE ELECTRICAL ROOMS, SERVER ROOMS, OR ROOMS HAVING EQUIPMENT PANELS IN THEM.
- GENERAL CONTRACTOR IS RESPONSIBLE FOR TESTING AND CORING OF SLAB INCLUDING THE FOLLOWING:
  - GPR TESTING
  - STRUCTURAL ENGINEERING CONSULTATION IF REBAR IS TO BE CUT OR EXPOSED.
  - FIRESTOPPING OF NEW AND ABANDONED PENETRATIONS.
  - COORDINATION OF NEW PENETRATIONS TO PREVENT DAMAGE TO STRUCTURAL SLAB WEBBING.

**PLUMBING PIPING SYMBOLS**

SYMBOL	DESCRIPTION
	ACID VENT
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	120° DOMESTIC HOT WATER
	140° DOMESTIC HOT WATER
	DOMESTIC HOT WATER RETURN
	120° DOMESTIC HOT WATER RETURN
	140° DOMESTIC HOT WATER RETURN
	140° DHWR
	OVERFLOW ROOF DRAIN LEADER
	ROOF DRAIN LEADER
	STORM WATER
	TEMPERED
	VENT
	WASTE
	BALL VALVE
	BALANCING VALVE
	BACKWATER VALVE
	BUTTERFLY VALVE
	CHECK VALVE
	CONTROL VALVE
	GATE VALVE
	GLOBE VALVE
	OSY VALVE
	3-WAY VALVE
	WATER HAMMER ARRESTER
	PRESSURE REGULATING VALVE
	PIPE TURN UP
	PIPE TURN DOWN
	PIPE BOTTOM TAKE OFF
	PIPE TOP TAKE OFF
	PIPE CAP OR PLUG
	PIPE UNION
	WYE STRAINER
	REDUCER
	UNION
	WYE WITH COMBINATION 8TH BEND
	SANITARY TEE
	WYE 45°



ISSUE FOR CONSTRUCTION DOCUMENTS

ISSUE DATE: 06.27.2019

NO.	REASON	DATE

PROJECT TEAM	PRINCIPAL IN CHARGE <b>MBW</b> PROJECT MANAGER <b>GAM</b> DESIGN TEAM <b>ART, REW</b> PROJECT NAME <b>HARNETT COUNTY GOVERNMENT SERVICES CENTER</b>
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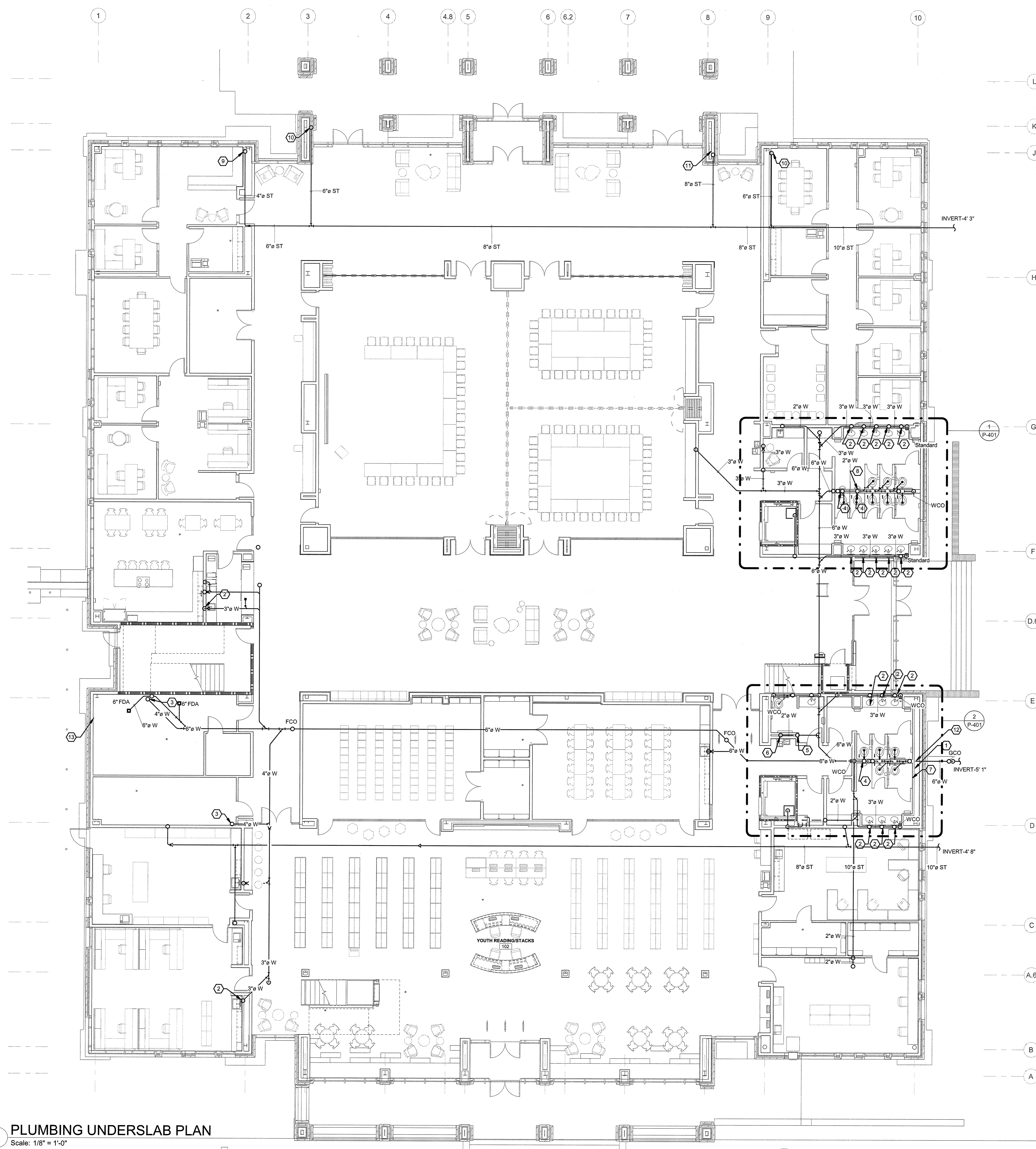
PROJECT NO.  
**514-8066-00**

SHEET TITLE  
**PLUMBING SYMBOLS, ABBREVIATIONS & NOTES**

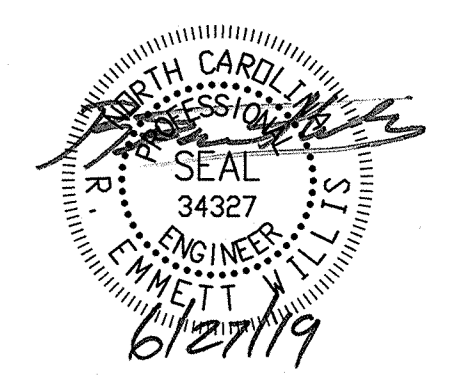
SHEET NUMBER  
**P-001**

# KEYED NOTES:

- 1 6" W DN. FROM SECOND FLOOR.
- 2 2" W DN, 2" V UP.
- 3 4" W FROM ABOVE.
- 4 4" W DN, 2" V UP.
- 5 2" V UP.
- 6 2" W UP TO DRINKING FOUNTAIN.
- 7 SEE SITE/CIVIL PLAN FOR CONTINUATION OF 6" W.
- 8 2" W UP TO URINAL, 2" V UP.
- 9 4" STORM FROM ABOVE.
- 10 6" STORM FROM ABOVE.
- 11 8" STORM FROM ABOVE.
- 12 PROVIDE DUCTILE IRON THROUGH FOUNDATION WALL WHERE PIPING IS ENCASED IN CONCRETE. SEE STRUCTURAL DETAILS FOR MORE INFORMATION.
- 13 PROVIDE 12" PIPE THROUGH WALL WITH DOWNSPOUT COVER EQUAL TO ZURN Z199-DC. INSTALL AS CLOSE TO FLOOR LEVEL AS POSSIBLE. PROVIDE SCREEN IN PIPE.



**1 PLUMBING UNDERSLAB PLAN**  
Scale: 1/8" = 1'-0"



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CONSTRUCTION DOCUMENTS

ISSUE DATE  
06.27.2019

REVISIONS

NO.	REASON	DATE

PROJECT TEAM  
PRINCIPAL IN CHARGE  
MBW  
PROJECT MANAGER  
GAM  
DESIGN TEAM  
ART, REW

PROJECT NAME  
HARNETT COUNTY  
GOVERNMENT SERVICES  
CENTER

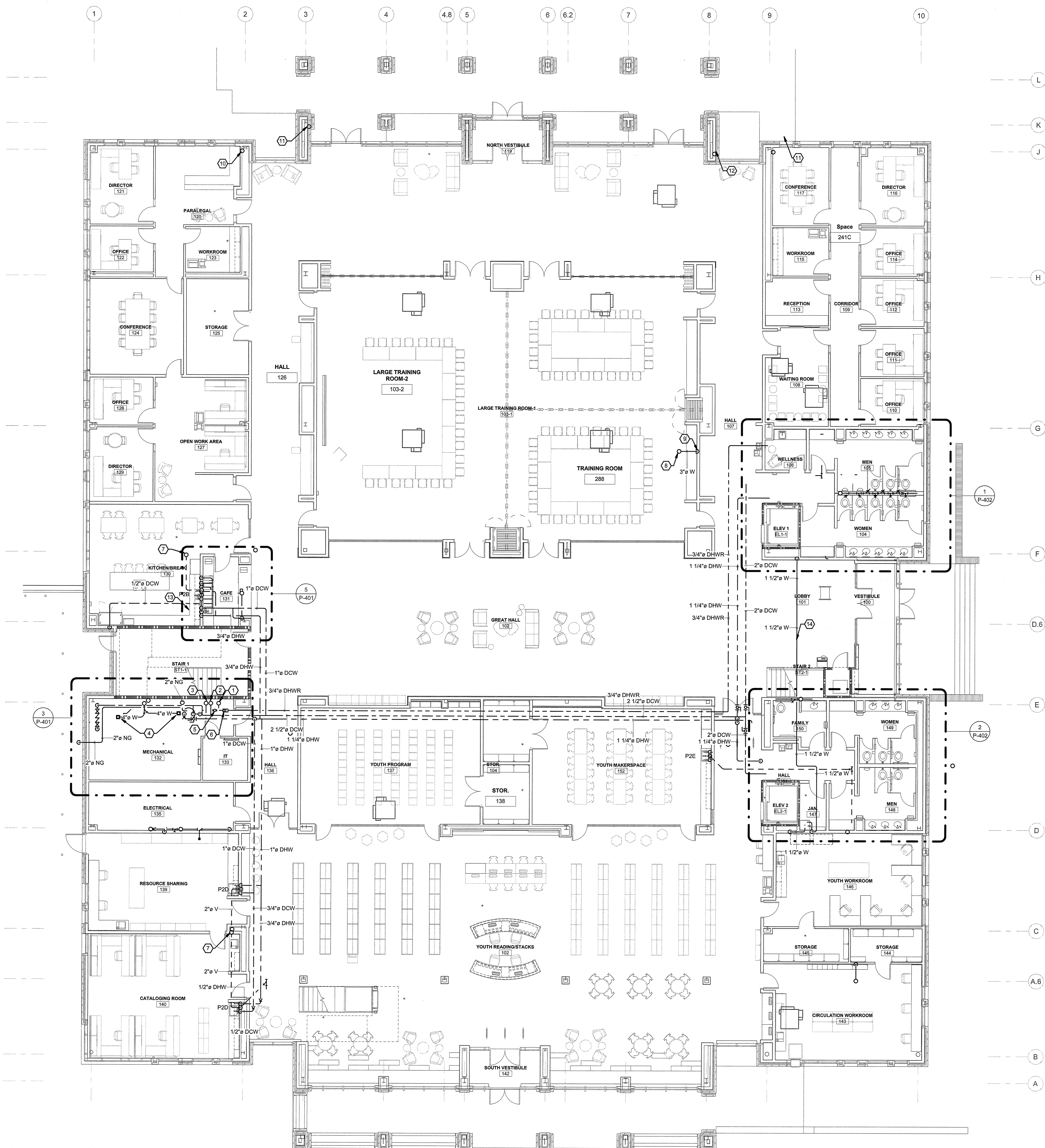
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SHEET TITLE  
PLUMBING  
UNDERSLAB PLAN

SHEET NUMBER  
P-101

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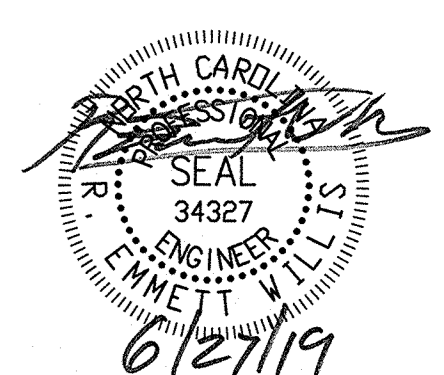
- 1 1" DHWR UP.
- 2 2" DCW UP.
- 3 1 1/4" DHW UP.
- 4 SECOND FLOOR MECHANICAL ROOM 4" FLOOR DRAINS.
- 5 DHWR PUMP.
- 6 0.5 GPM FLOW LIMITER.
- 7 2" VTR.
- 8 2" W FROM SINK DN, 2" V UP.
- 9 2" W DN.
- 10 4" STORM DOWN FROM ABOVE.
- 11 6" STORM DOWN FROM ABOVE.
- 12 8" STORM DOWN FROM ABOVE.
- 13 CONNECT TO DISHWASHER.
- 14 1-1/2" FORCE MAIN ROUTED TO JANITORS CLOSET.



○ RATED WALLS & PARTITIONS

FIRE BARRIER		FIRE & SMOKE BARRIER	
1-HOUR	[Symbol]	1-HOUR	[Symbol]
2-HOUR	[Symbol]	2-HOUR	[Symbol]
3-HOUR	[Symbol]	3-HOUR	[Symbol]
FIRE WALL		FIRE PARTITION	
2-HOUR	[Symbol]	0.5-HOUR	[Symbol]
3-HOUR	[Symbol]	1-HOUR	[Symbol]
4-HOUR	[Symbol]		
SMOKE PARTITION		SMOKE BARRIER	
0-HOUR	[Symbol]	1-HOUR	[Symbol]

1 FIRST FLOOR PLUMBING PLAN



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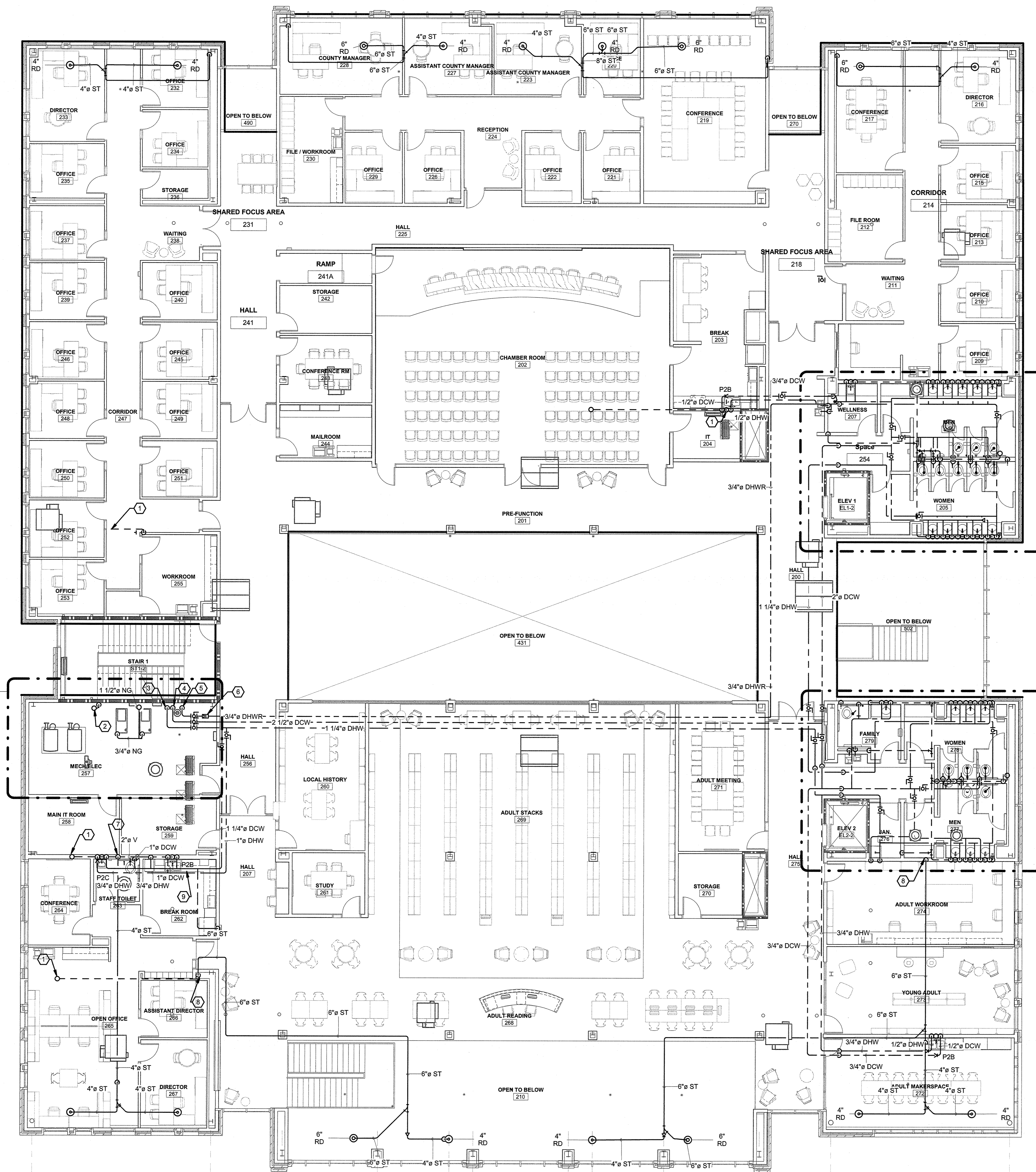
NO.	REASON	DATE

PROJECT TEAM  
PRINCIPAL IN CHARGE: MBW  
PROJECT MANAGER: GJM  
DESIGN TEAM: ART, REW  
PROJECT NAME: HARNETT COUNTY GOVERNMENT SERVICES CENTER

PROJECT NO.: 514-8066-00  
SHEET TITLE: FIRST FLOOR PLUMBING PLAN

1 2 3 4 4.8 5 6 6.2 7 8 9 10

L  
K  
J  
H  
G  
F  
D.6  
E  
D  
C  
A.6  
B  
A



# KEYED NOTES:

- 1 2" VTR
- 2 3" VTR
- 3 1 1/4" DHW DN.
- 4 2 1/2" DCW DN.
- 5 1" DHWR DN.
- 6 0.5 GPM FLOW LIMITER.
- 7 4" STORM DN.
- 8 6" STORM DN.
- 9 CONNECT TO DISHWASHER.

1 SECOND FLOOR PLUMBING PLAN  
Scale: 1/8" = 1'-0"

○ RATED WALLS & PARTITIONS

1-HOUR FIRE BARRIER	2-HOUR FIRE BARRIER	3-HOUR FIRE BARRIER	1-HOUR FIRE & SMOKE BARRIER	2-HOUR FIRE & SMOKE BARRIER	3-HOUR FIRE & SMOKE BARRIER
2-HOUR FIRE WALL	3-HOUR FIRE WALL	4-HOUR FIRE WALL	0.5-HOUR FIRE PARTITION	1-HOUR FIRE PARTITION	
0-HOUR SMOKE PARTITION	1-HOUR SMOKE BARRIER				

**LITTLE**  
DIVERSIFIED ARCHITECTURAL CONSULTING

410 Blackwell Street, Suite 10  
Durham, NC 27701  
T: 919.474.2500  
www.littleonline.com

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6/27/19

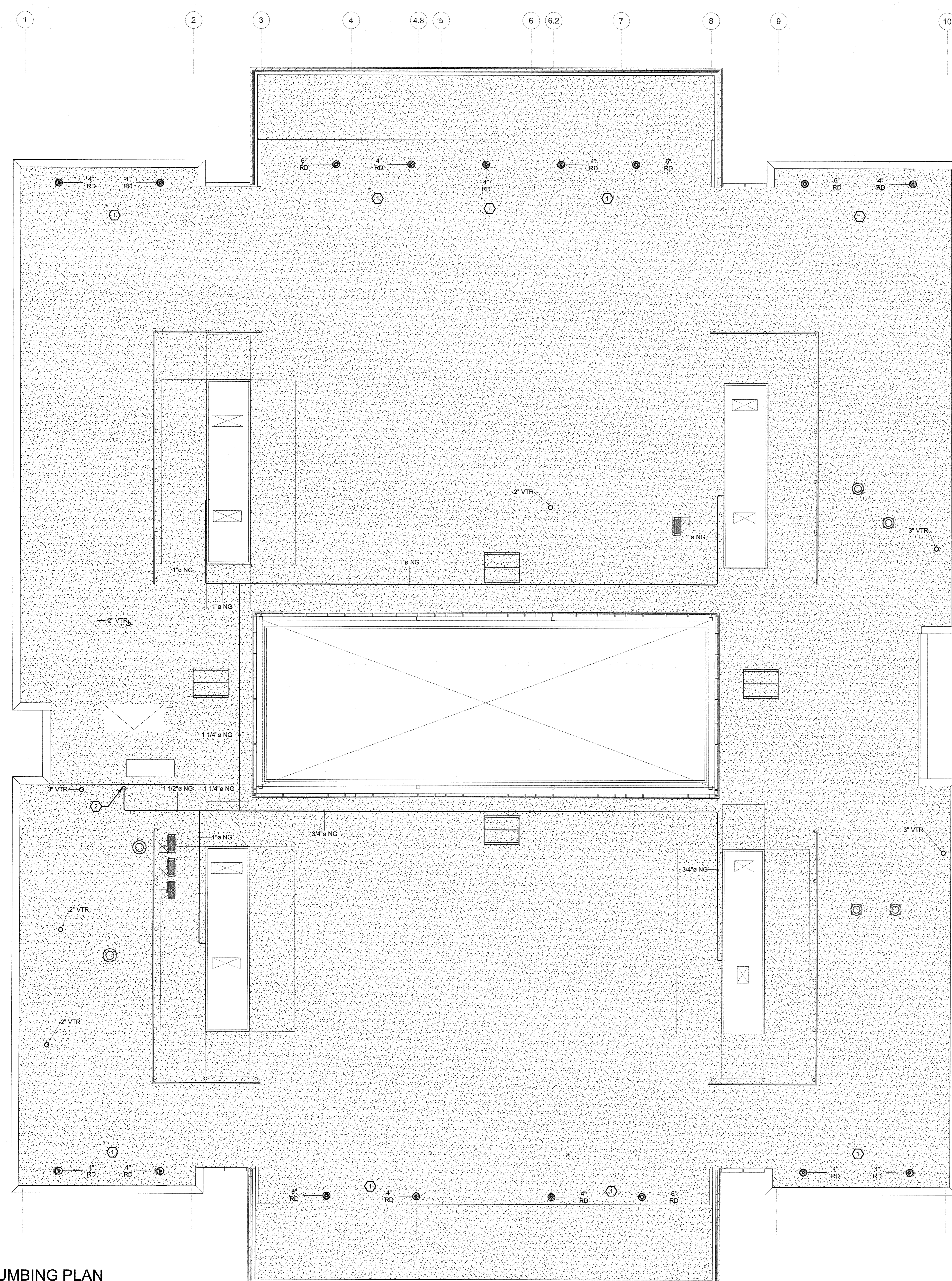
ISSUE FOR CONSTRUCTION DOCUMENTS  
ISSUE DATE: 06.27.2019

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PROJECT TEAM  
PRINCIPAL IN CHARGE: MBW  
PROJECT MANAGER: GAM  
DESIGN TEAM: ART, REW  
PROJECT NAME: HARNETT COUNTY GOVERNMENT SERVICES CENTER

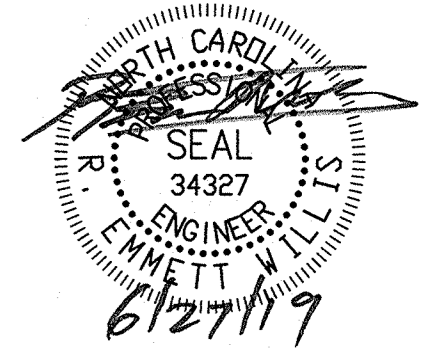
PROJECT NO.: 514-8066-00  
SHEET TITLE: SECOND FLOOR PLUMBING PLAN

SHEET NUMBER: P-121



# KEYED NOTES:

- 1 SECONDARY ROOF DRAINAGE IS PROVIDED BY SCUPPER IN PARAPET WALL. SEE ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.
- 2 NG FROM BELOW.



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DESIGN TEAM  
ART, REW  
PROJECT NAME

HARNETT COUNTY  
GOVERNMENT SERVICES  
CENTER

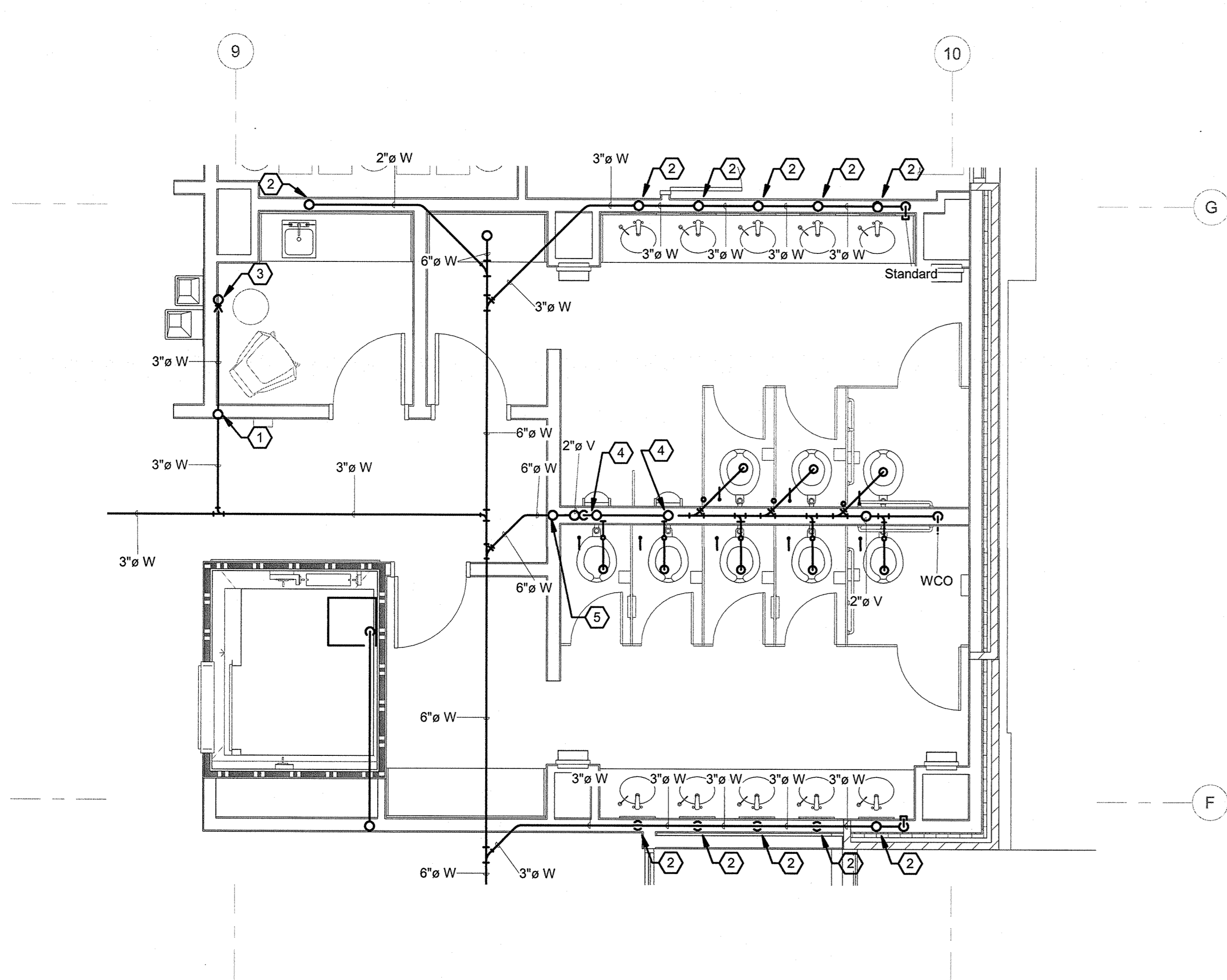
PROJECT NO.  
514-8066-00

SHEET TITLE  
ROOF PLUMBING PLAN

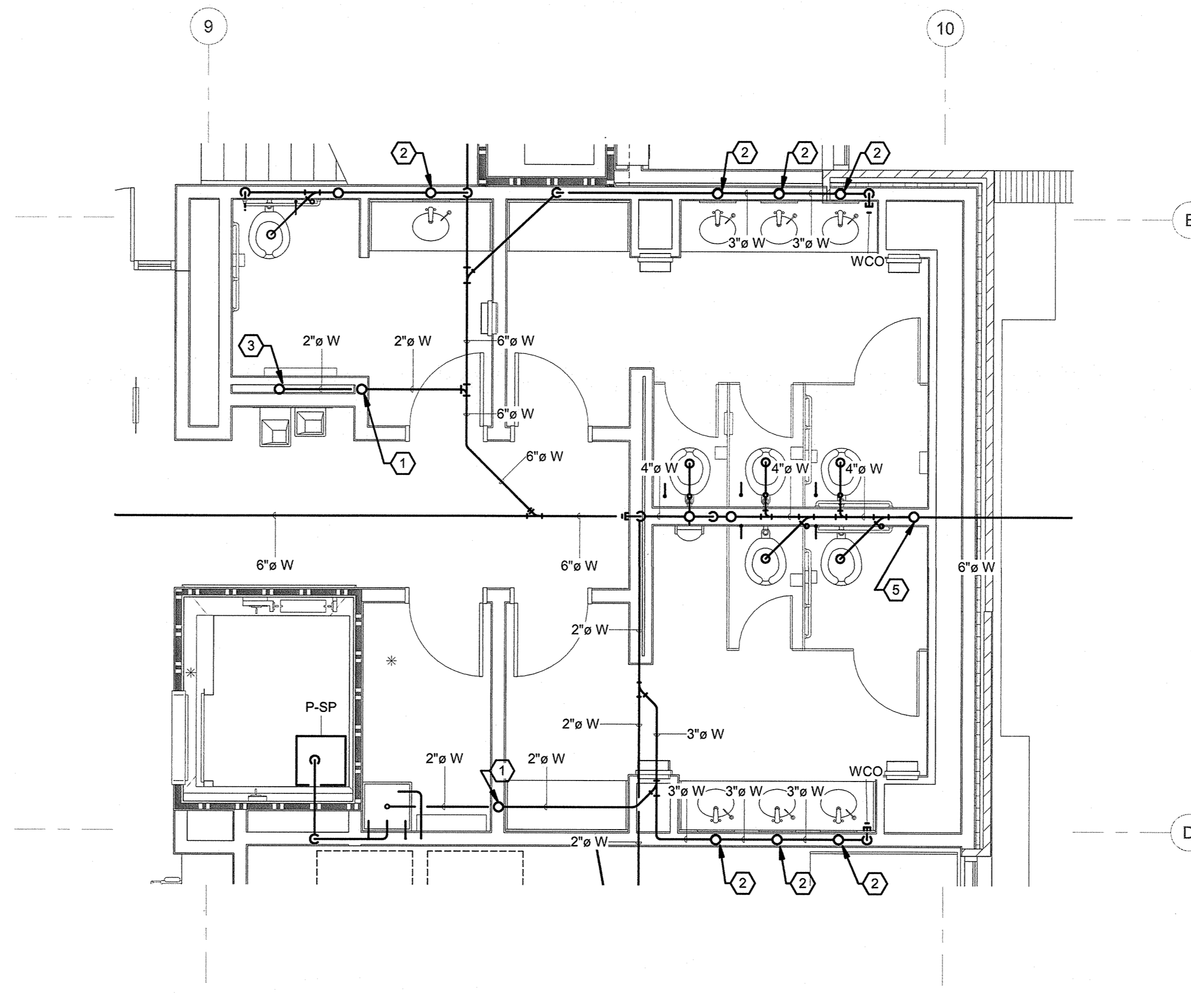
SHEET NUMBER  
P-131

# KEYED NOTES:

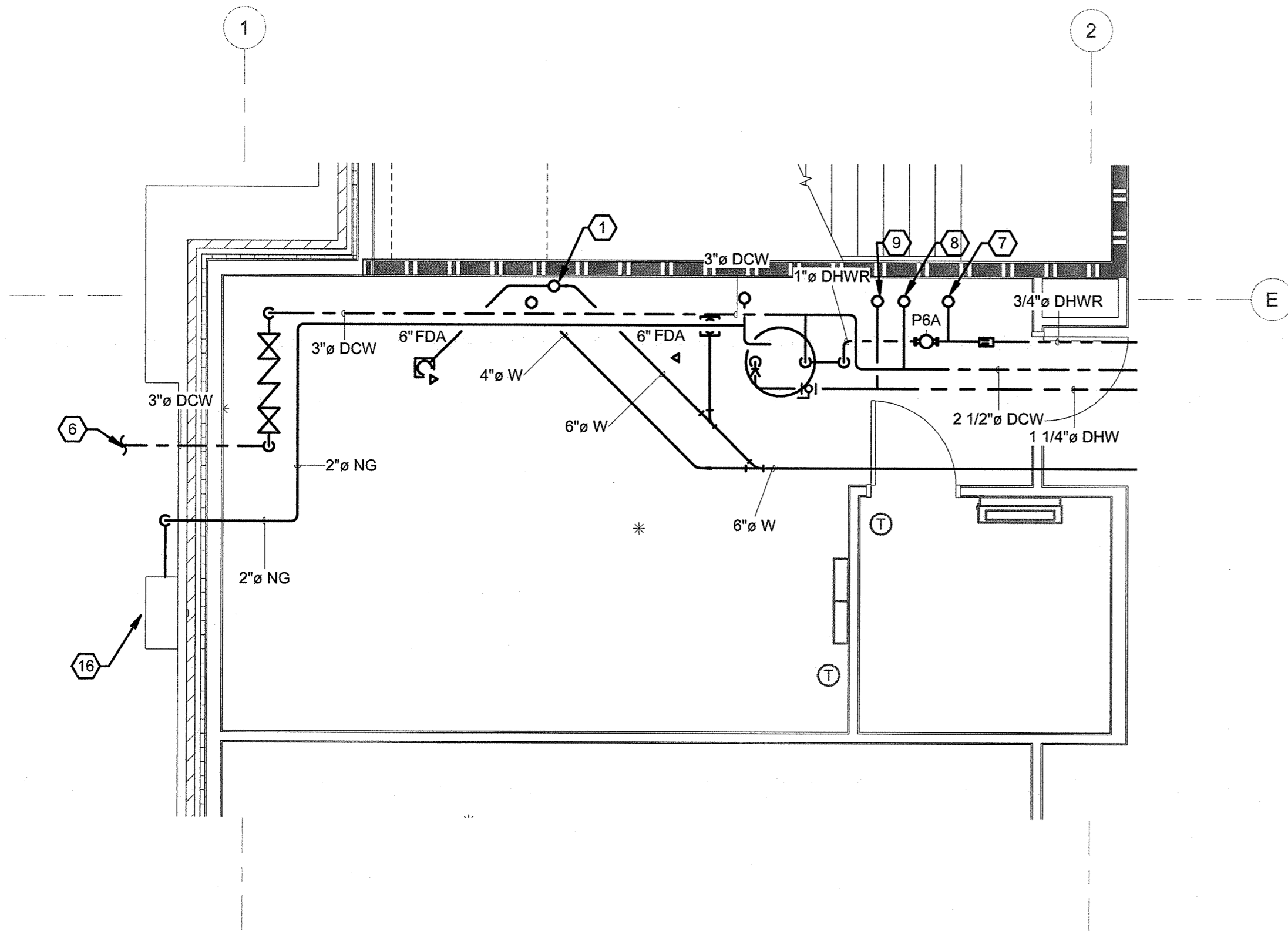
- 1 2" V UP.
- 2 2" W DN, 2" V UP.
- 3 2" W DN.
- 4 2" W UP TO URINAL, 2" V UP.
- 5 6" W DN. FROM SECOND FLOOR.
- 6 SEE SITE/CIVIL PLAN FOR CONTINUATION.
- 7 1" DHWR UP.
- 8 2" DCW UP.
- 9 1 1/4" DHW UP.
- 10 4" W FROM ABOVE.
- 11 1 1/4" DHW DN.
- 12 2 1/2" DCW DN.
- 13 1" DHWR DN.
- 14 2" V FROM BELOW.
- 15 3" VTR
- 16 NG METER BY GAS COMPANY.



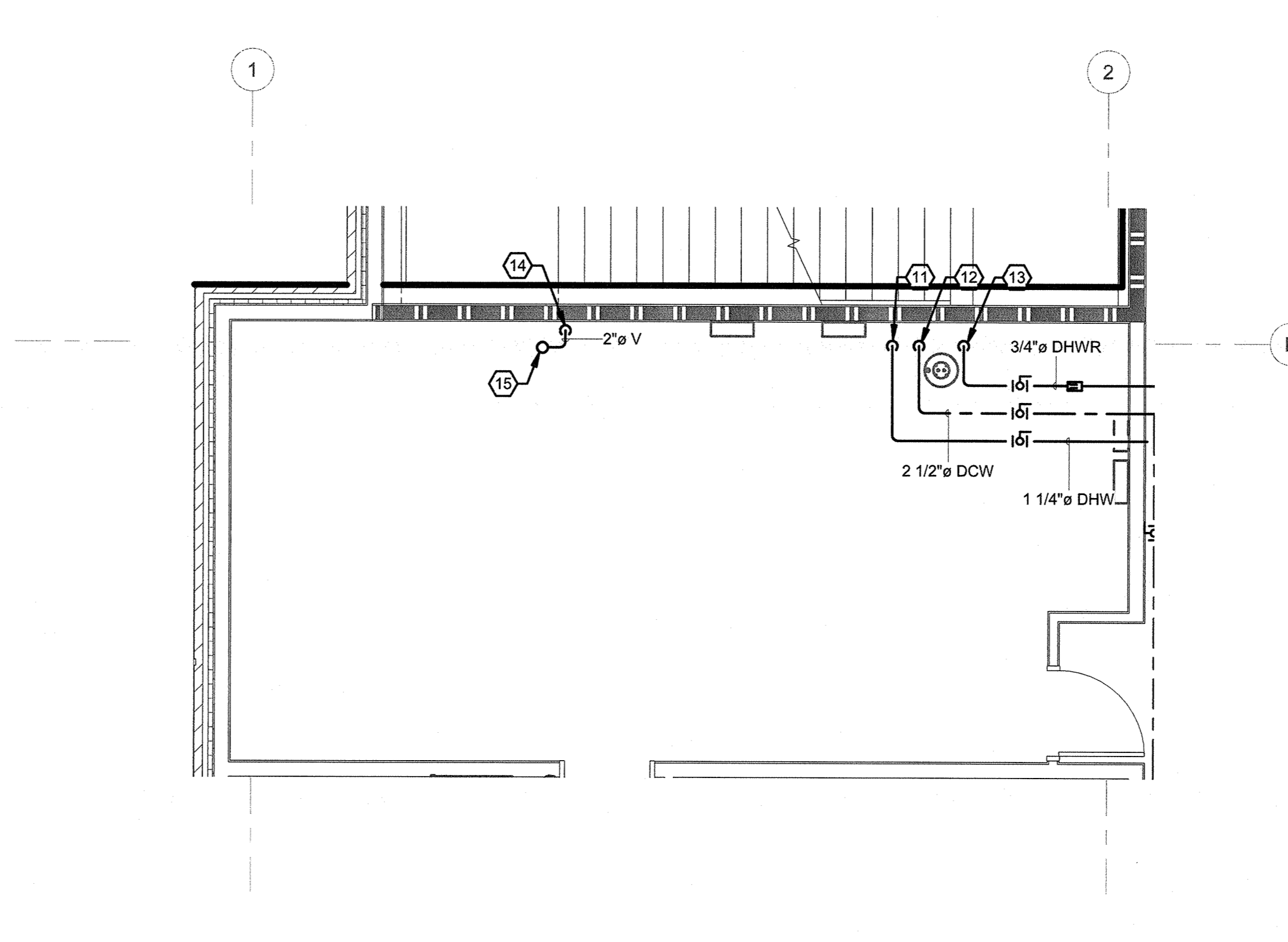
1 UNDERSLAB LARGE RESTROOM ENLARGED PLAN  
Scale: 1/4" = 1'-0"



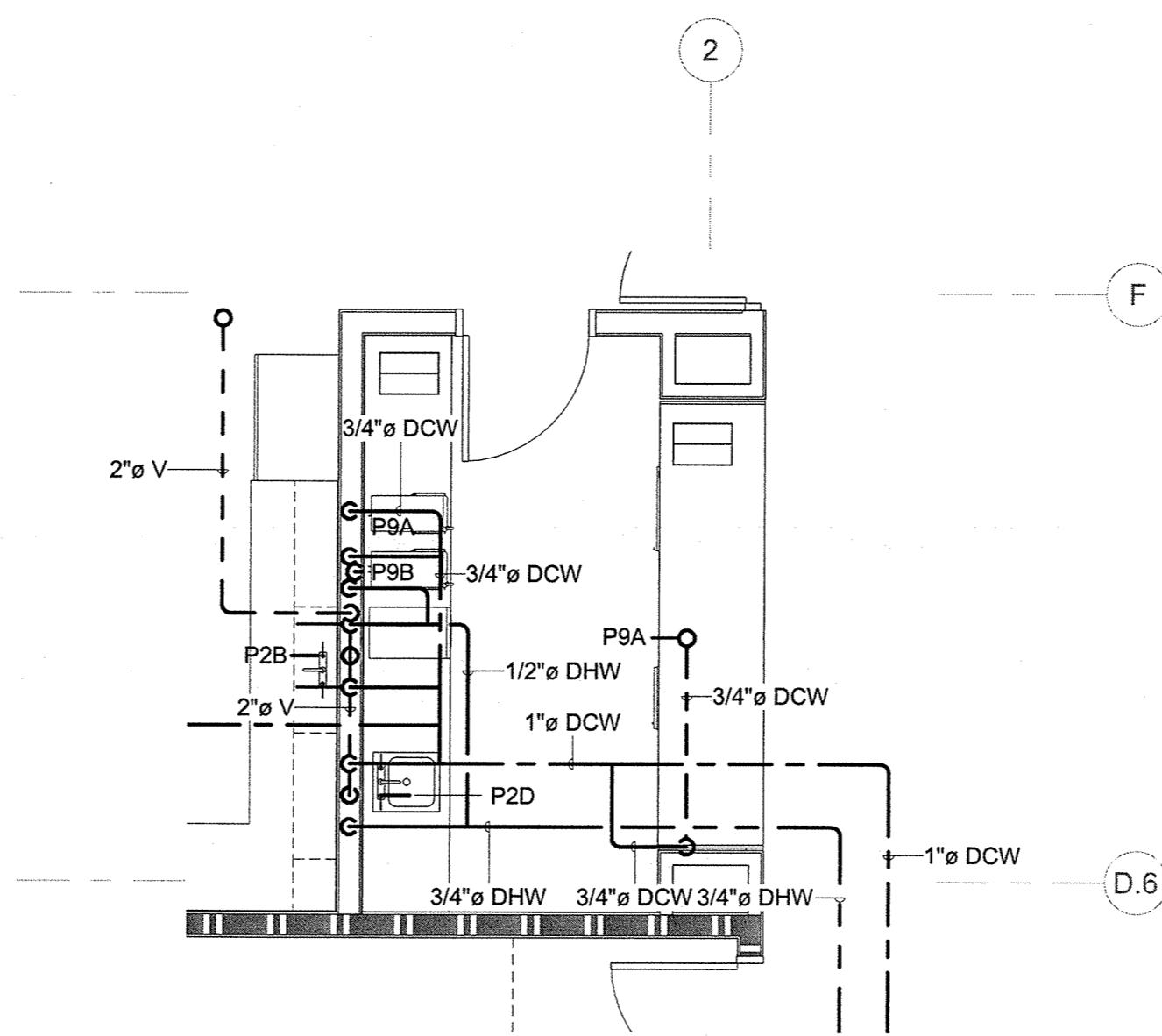
2 UNDERSLAB SMALL RESTROOM ENLARGED PLAN  
Scale: 1/4" = 1'-0"



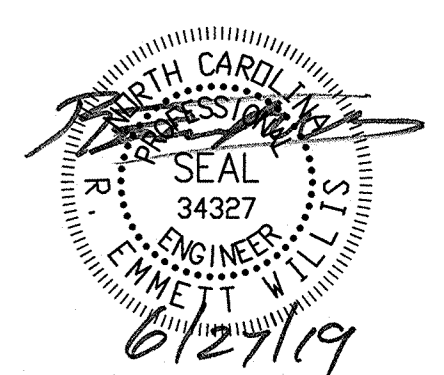
3 FIRST FLOOR MECHANICAL ROOM ENLARGED PLAN  
Scale: 1/4" = 1'-0"



4 SECOND FLOOR MECHANICAL ROOM ENLARGED PLAN  
Scale: 1/4" = 1'-0"



5 FIRST FLOOR BREAK ROOM PLUMBING PLAN  
Scale: 1/4" = 1'-0"



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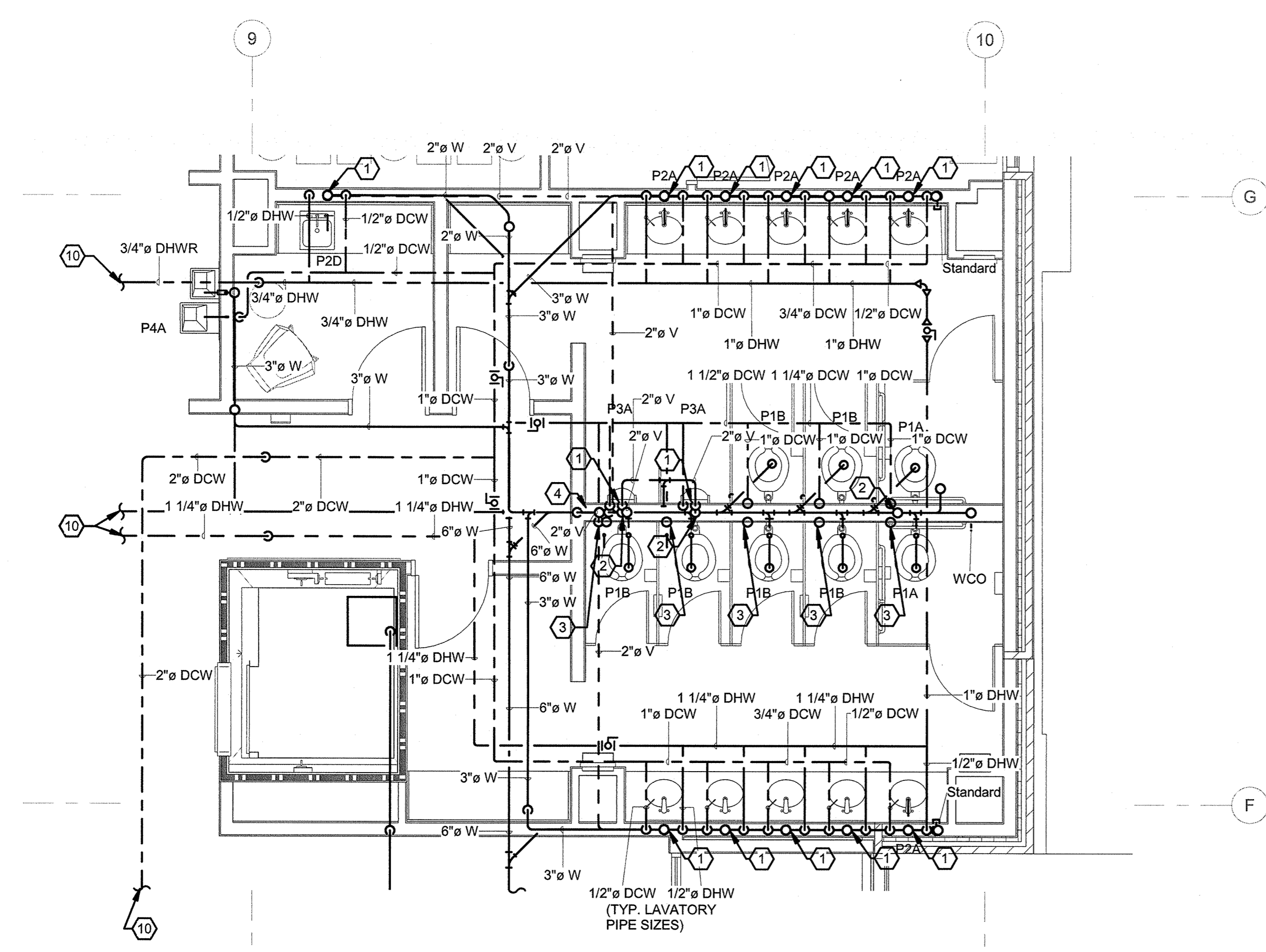
PROJECT NO.  
514-8066-00

SHEET TITLE  
LARGE SCALE FLOOR  
PLANS

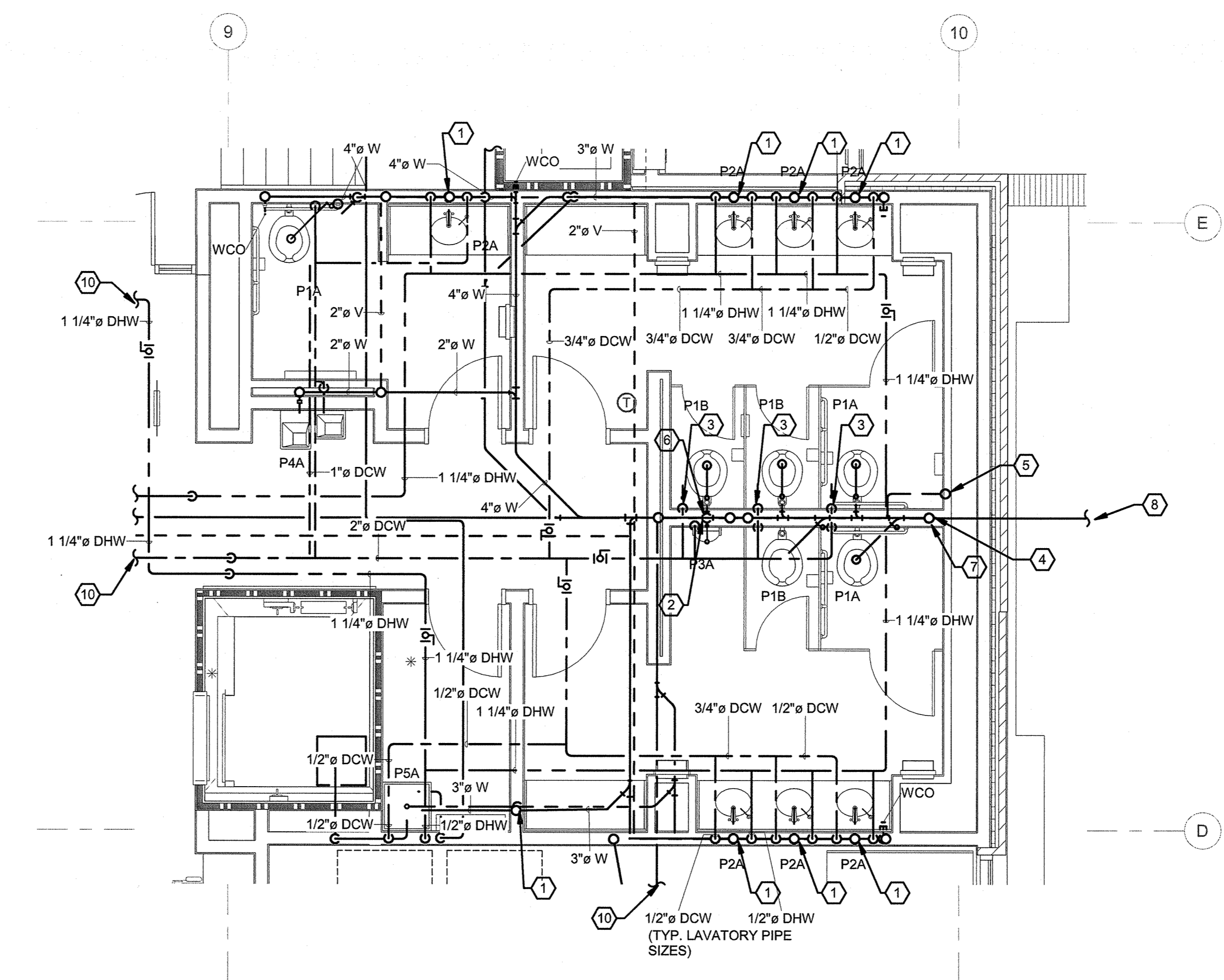
SHEET NUMBER  
P-401

# KEYED NOTES:

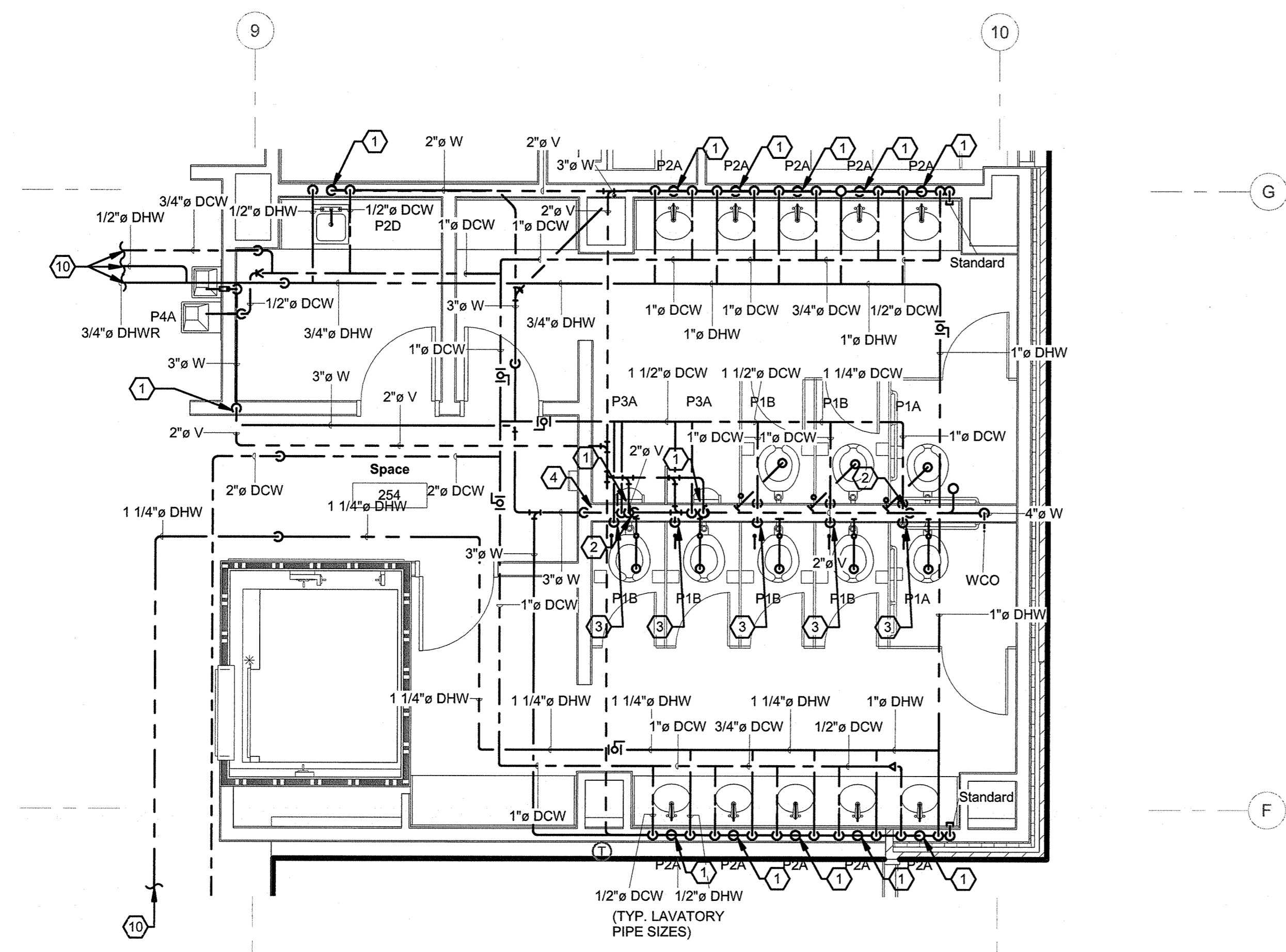
- 1 2" WDN, 2" V. UP.
- 2 4" WDN, 2" V. UP.
- 3 1" DCW DN. TO WATER CLOSET.
- 4 6" WDN.
- 5 3" VTR
- 6 2" W UP TO URINAL, 2" V. UP.
- 7 6" W DN. FROM SECOND FLOOR.
- 8 SEE SITE/CIVIL PLAN FOR CONTINUATION OF 6" W.
- 9 1/2" DCW DN. TO URINAL.
- 10 SEE SHEET P-111 FOR CONTINUATION.



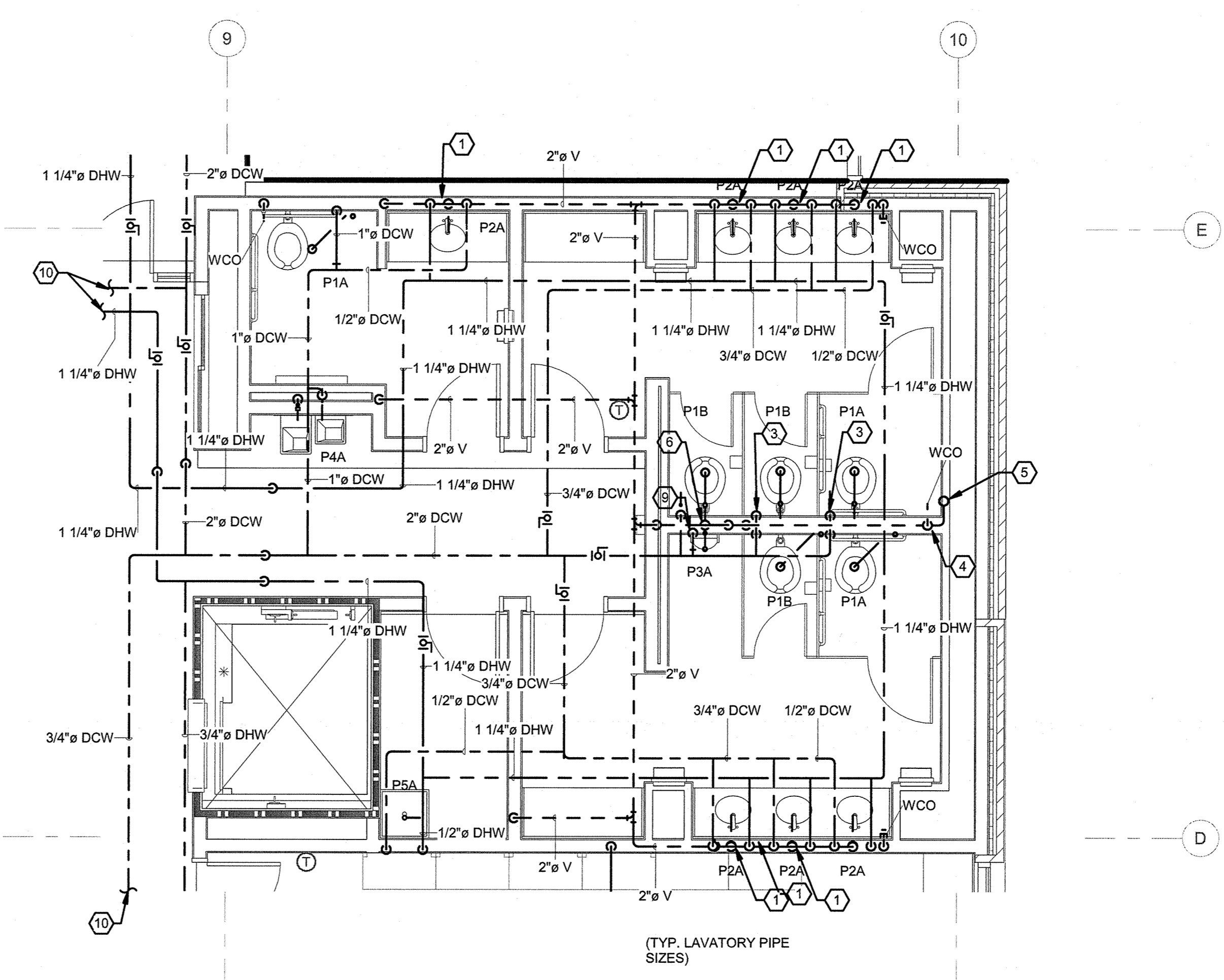
1 FIRST FLOOR LARGE RESTROOM ENLARGED PLAN  
Scale: 1/4" = 1'-0"



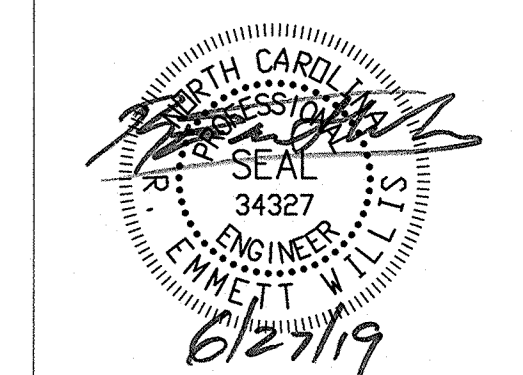
2 FIRST FLOOR SMALL RESTROOM ENLARGED PLAN  
Scale: 1/4" = 1'-0"



3 SECOND FLOOR LARGE RESTROOM ENLARGED PLAN  
Scale: 1/4" = 1'-0"



4 SECOND FLOOR SMALL RESTROOM ENLARGED PLAN  
Scale: 1/4" = 1'-0"



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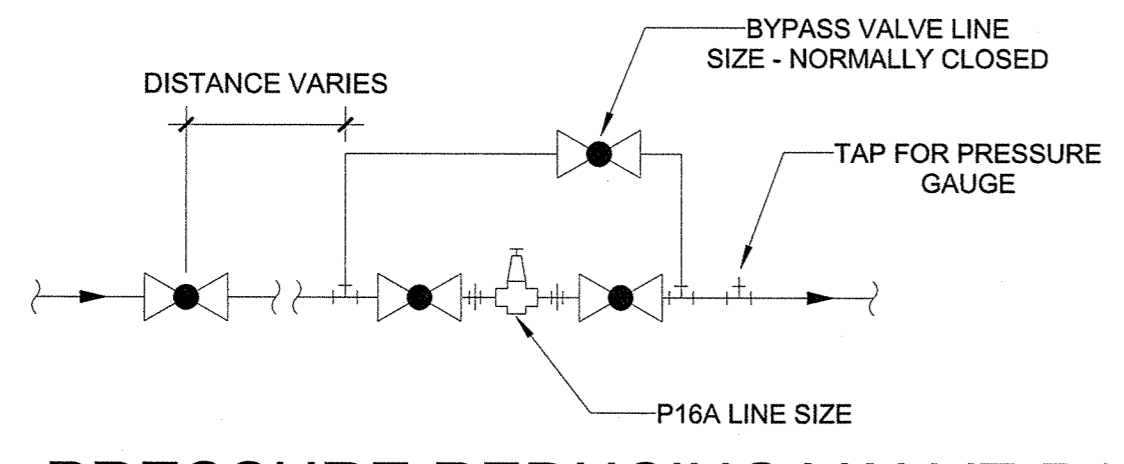
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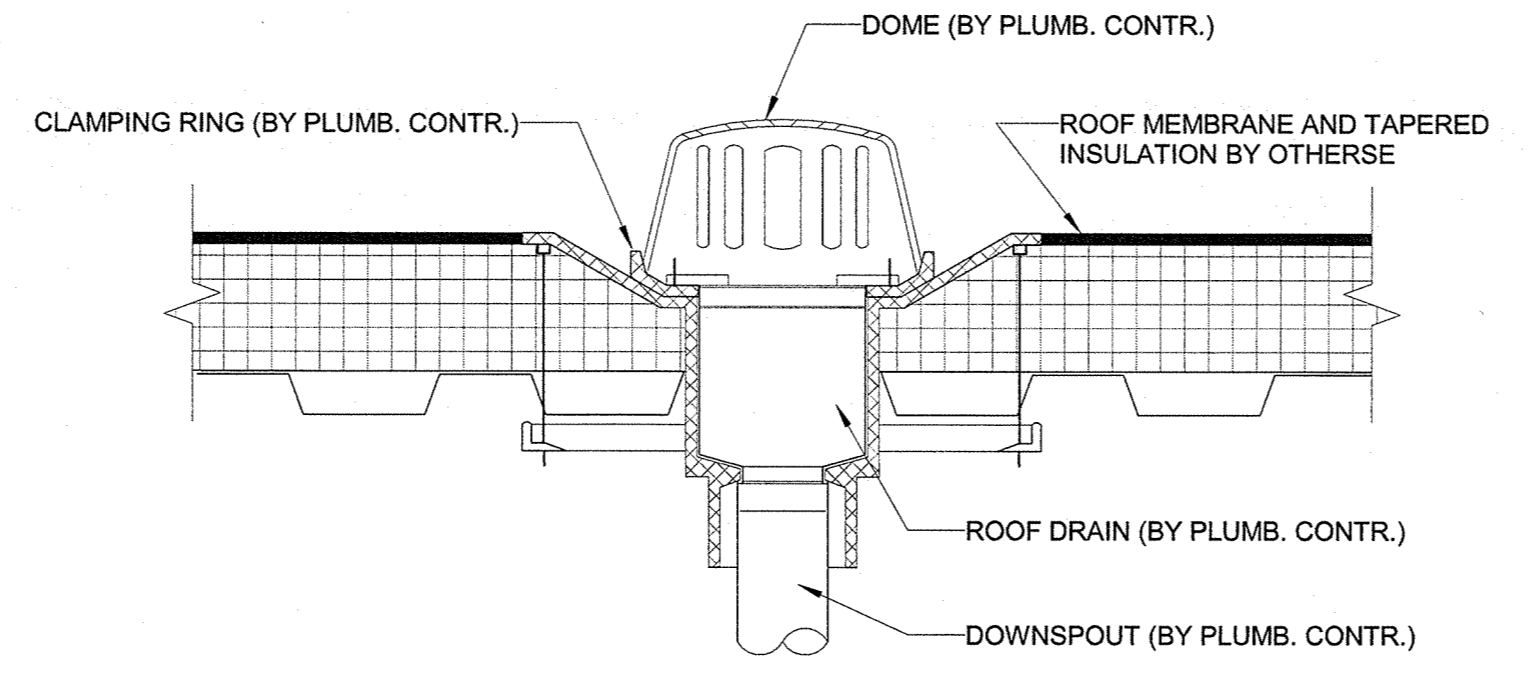
PROJECT NO.  
514-8066-00

SHEET TITLE  
LARGE SCALE FLOOR  
PLANS

SHEET NUMBER  
P-402

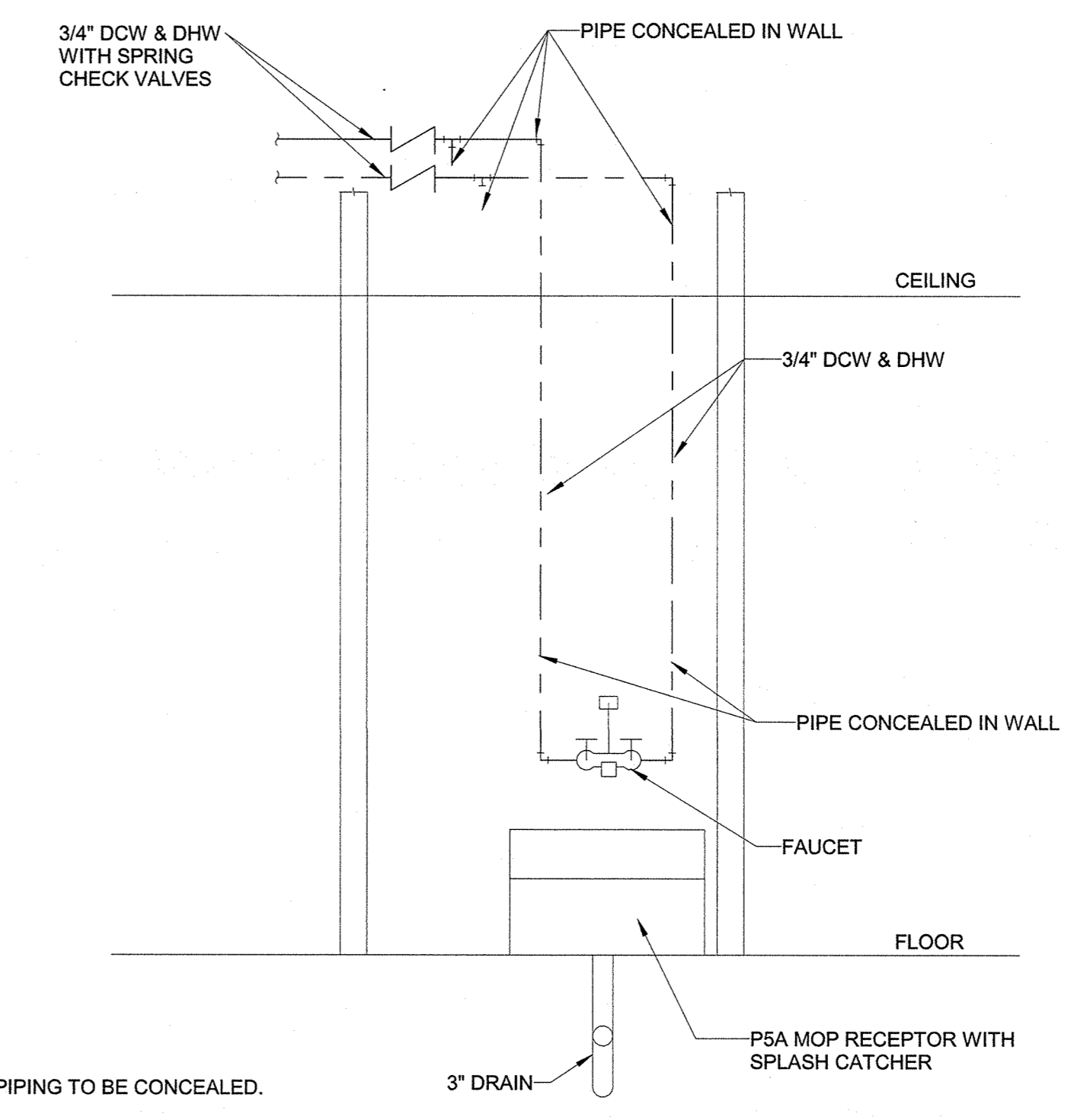


**1 PRESSURE REDUCING VALVE P16A DETAIL**  
Scale: N.T.S.

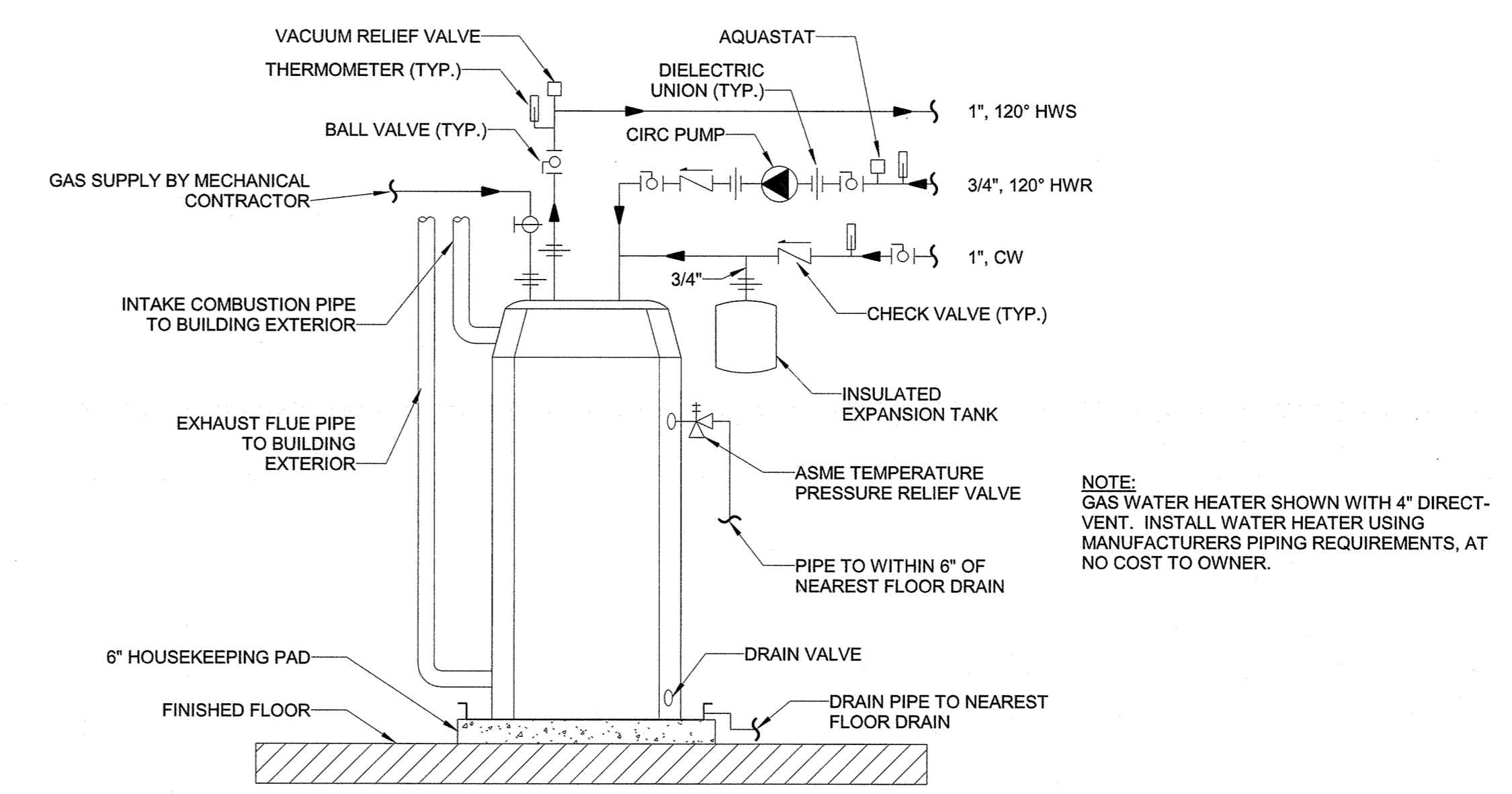


INSULATE ALL CONCEALED AND EXPOSED ROOF DRAIN PIPING, FITTINGS AND COMPONENTS AS FOLLOWS:  
 1. ROOF DRAIN BODY.  
 2. VERTICAL PIPE FROM BOWL TO HORIZONTAL PIPE.  
 3. HORIZONTAL PIPE.  
 4. VERTICAL PIPE TO 2'-0" BELOW HORIZONTAL PIPE.

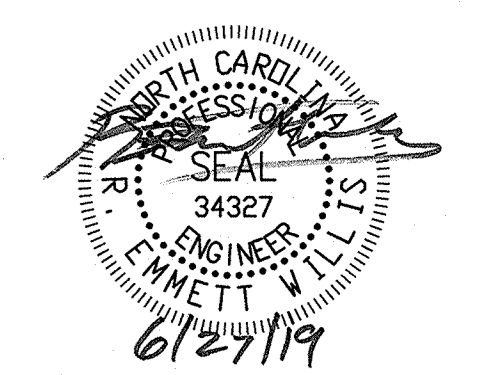
**2 ROOF DRAIN DETAIL**  
Scale: N.T.S.



**3 TYPICAL MOP RECEPTOR PIPING SCHEMATIC**  
Scale: N.T.S.



**4 GAS WATER HEATER SCHEMATIC**  
Scale: NTS



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HARNETT COUNTY GOVERNMENT SERVICES CENTER

PROJECT NO.  
514-8066-00

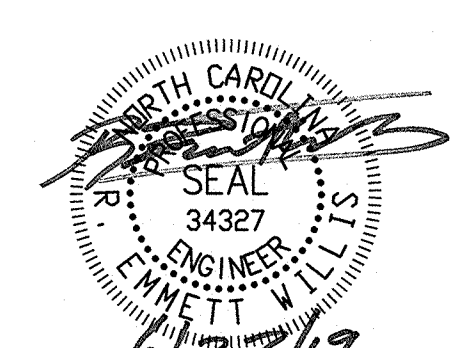
SHEET TITLE  
DETAILS

SHEET NUMBER  
P-501





**Dewberry**  
Engineers Inc.  
2610 WYCLIFF ROAD  
SUITE 410  
RALEIGH, NC 27607  
PHONE: 919.861.9939  
FAX: 919.861.9923  
NCBELS # F-0929



PLUMBING FIXTURE SCHEDULE						
MARK	DESCRIPTION	HW	CW	WASTE	VENT	REMARKS
P1A	WATER CLOSET FLOOR MOUNTED MANUAL FLUSH VALVE 1.6 GAL PER FLUSH ADA	1"	4"	2"		FIXTURE: KOHLER NO. 96057-SSL, VITREOUS CHINA, WHITE, 1.6 GALLON FLUSH, SIPHON JET FLUSHING, ELONGATED BOWL, ANTIMICROBIAL SURFACE, 1-1/2" TOP SPUD, 10" ROUGH-IN, 1000# STATIC LOAD RATING. FLUSH VALVE: SLOAN ROYAL NO. 111-YO-SG MANUAL, 1.5 GAL PR FLUSH VALVE, 11/2" TOP SPUD, NON-HOLD-OPEN HANDLE, ANTIMICROBIAL COATING, ADJUSTABLE TAILPIECE, VACUUM BREAKER, VANDAL RESISTANT, CHROME PLATED NIPPLE AND CAST WALL FLANGE. SEAT: BEMIS NO. 2155SSCT, WHITE SOLID PLASTIC, ELONGATED, OPEN FRONT, NO COVER, BUMPERS, ANTIMICROBIAL PROTECTION, STAINLESS STEEL SELF-SUSTAINING CHECK HINGE, "STA-TITE" FASTENING SYSTEM.
P1B	WATER CLOSET FLOOR MOUNTED MANUAL FLUSH VALVE 1.6 GAL PER FLUSH ADA	1"	4"	2"		FIXTURE: KOHLER NO. 96057-SSL, VITREOUS CHINA, WHITE, 1.6 GALLON FLUSH, SIPHON JET FLUSHING, ELONGATED BOWL, ANTIMICROBIAL SURFACE, 1-1/2" TOP SPUD, 10" ROUGH-IN, 1000# STATIC LOAD RATING. FLUSH VALVE: SLOAN ROYAL NO. 111-YO-SG MANUAL, 1.5 GAL PR FLUSH VALVE, 11/2" TOP SPUD, NON-HOLD-OPEN HANDLE, ANTIMICROBIAL COATING, ADJUSTABLE TAILPIECE, VACUUM BREAKER, VANDAL RESISTANT, CHROME PLATED NIPPLE AND CAST WALL FLANGE. SEAT: BEMIS NO. 2155SSCT, WHITE SOLID PLASTIC, ELONGATED, OPEN FRONT, NO COVER, BUMPERS, ANTIMICROBIAL PROTECTION, STAINLESS STEEL SELF-SUSTAINING CHECK HINGE, "STA-TITE" FASTENING SYSTEM.
P2A	LAVATORY UNDERMOUNT SENSOR FAUCET 0.5GPM	1/2"	1/2"	2"	2"	FIXTURE: KOHLER NO. K-2881 LESS OVERFLOW, WHITE VITREOUS CHINA; UNDERMOUNT, NOM. 17"x14" BASIN x3" WATER DEPTH. FAUCET: SLOAN SF2300-BDM, SENSOR FAUCET, HARD WIRED, 4" CENTERSET, BELOW DECK MANUAL MIXING VALVE (BDM), 0.5GPM, POLISHED CHROME FINISH. TRIM: MCGUIRE NO. 155A GRID STRAINER WITH TAIL PIECE. MCGUIRE NO. LF175LK FLEXIBLE SUPPLIES WITH LOOSE KEY STOPS; SET SCREW ESCUTCHEONS; AND CHROME NIPPLES. MCGUIRE NO. 8902 11/4"x11/2" HEAVY CAST BRASS ADJUSTABLE P-TRAP WITH CLEANOUT PLUG; CHROME PLATED. INSUL. COVER: MCGUIRE NO. PW-2000-NC INSULATING KIT INCLUDING TRAP, WALL BEND, TAIL PIECE AND SUPPLY COVERS.
P2B	SINK - STAINLESS STEEL DOUBLE BOWL SELF RIMMING SINGLE LEVER FAUCET 1.5 GPM (ADA)	1/2"	1/2"	2"	2"	FIXTURE: ELKAY NO. LRAD331960, 33"W x 18-1/2" FRONT TO BACK; 18 GA. 304 SS.; SELF RIMMING, DOUBLE BOWL, NOM. 14"x14"x6"D BOWL(EA); UNDERCOATED; 3 HOLE; LK18 DRAIN (2 REQUIRED). FAUCET: MOEN MODEL: 8711, M-DURA CHROME ONE LEVER HANDLE, ADA, 1.5 GPM INTERNAL FLOW CONTROL, VANDAL PROOF. TRIM: MCGUIRE NO. 8903 1-1/2"x2" CHROME PLATED HEAVY CAST BRASS ADJUSTABLE P-TRAP WITH CLEANOUT PLUG. INSUL. COVER: TRUEBRO LAVGUARD INSULATING KIT INCLUDING TRAP, WALL BEND, TAIL PIECE AND SUPPLY COVERS.
P2C	PUBLIC LAVATORY WALL HUNG SINGLE LEVER FAUCET 0.5 GPM (SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT)	1/2"	1/2"	2"	2"	FIXTURE: KOHLER NO. K-2032-N WHITE VITREOUS CHINA, NOM. 21"W x 18" FRONT TO BACK, 6" BACKSPASH, LESS OVERFLOW, 4" FAUCET CENTERS, ANTIMICROBIAL SURFACE. FAUCET: SLOAN SF2300-BDM, SENSOR FAUCET, HARD WIRED, 4" CENTERSET, BELOW DECK MANUAL MIXING VALVE (BDM), 0.5GPM, POLISHED CHROME FINISH. TRIM: MCGUIRE PRODRAIN GRID STRAINER WITH TAIL PIECE. MCGUIRE NO. LF170LK SUPPLIES WITH LOOSE KEY STOPS, SET SCREW ESCUTCHEONS, AND CHROME NIPPLES. MCGUIRE NO. 8902 11/4"x11/2" HEAVY CAST BRASS ADJUSTABLE P-TRAP WITH CLEANOUT PLUG; CHROME PLATED. CARRIER: ZURN NO. Z1224 FLOOR SUPPORTED WALL HANGER CARRIER. INSUL. COVER: TRUEBRO LAVGUARD INSULATING KIT INCLUDING TRAP, WALL BEND, TAIL PIECE AND SUPPLY COVERS.
P2D	SINK - STAINLESS STEEL SINGLE BOWL SELF RIMMING WRIST BLADE FAUCET 1.5 GPM ADA	1/2"	1/2"	2"	2"	FIXTURE: ELKAY NO. LRAD151755, 15"W x 17 1/2" FRONT TO BACK, 18 GAUGE, 304SS, SELF RIMMING, NOM. 12"x12"x5 1/2"D BOWL, UNDERCOATED, 3 HOLE @ 4" CENTERS, LK18 GRID DRAIN WITH TAILPIECE. FAUCET: CHICAGO 786-P3-319ABCP, DECK MOUNTED SWIVEL GOOSENECK FAUCET, LEAD FREE, 4" WRIST BLADE HANDLES, 1.5 GPM LAMINAR FLOW, VANDAL PROOF. TRIM: MCGUIRE NO. LF170LK SUPPLIES WITH LOOSE KEY STOPS, SET SCREW ESCUTCHEONS, AND CHROME NIPPLES. MCGUIRE NO. 8903 1-1/2"x2" CHROME PLATED HEAVY CAST BRASS ADJUSTABLE P-TRAP WITH CLEANOUT PLUG. CARRIER: TRUEBRO LAVGUARD INSULATING KIT INCLUDING TRAP, WALL BEND, TAIL PIECE AND SUPPLY COVERS.
P2E	SINK - STAINLESS STEEL DOUBLE BOWL SELF RIMMING SINGLE LEVER FAUCET 1.5 GPM (ADA)	1/2"	1/2"	2"	2"	FIXTURE: ELKAY NO. LRAD151755, 15"W x 17 1/2" FRONT TO BACK, 18 GAUGE, 304SS, SELF RIMMING, NOM. 12"x12"x5 1/2"D BOWL, UNDERCOATED, 3 HOLE @ 4" CENTERS, PROFLO PF73CP BASKET STRAINED DRAIN WITH TAILPIECE. FAUCET: CHICAGO 786-P3-319ABCP, DECK MOUNTED SWIVEL GOOSENECK FAUCET, LEAD FREE, 4" WRIST BLADE HANDLES, 1.5 GPM LAMINAR FLOW, VANDAL PROOF. TRIM: PROFLOW PF73CP BASKET STRAINER, MCGUIRE P-TRAP SUPPLIES WITH LOOSE KEY STOPS, SET SCREW ESCUTCHEONS, AND CHROME NIPPLES. MCGUIRE NO. 8903 1-1/2"x2" CHROME PLATED HEAVY CAST BRASS ADJUSTABLE P-TRAP WITH CLEANOUT PLUG. CARRIER: TRUEBRO LAVGUARD INSULATING KIT INCLUDING TRAP, WALL BEND, TAIL PIECE AND SUPPLY COVERS.
P3A	URINAL MANUAL FLUSH VALVE 1 GAL PER FLUSH ADA	1"	2"	2"		FIXTURE: KOHLER NO. K-5016-ET, VITREOUS CHINA WHITE, ELONGATED RIM, ANTIMICROBIAL SURFACE, 1 GAL. PER FLUSH SIPHON JET DESIGN, 3/4" TOP SPUD, WALL HANGERS, MOUNT 17" MAXIMUM FROM FINISH FLOOR TO TOP OF RIM. FAUCET: SLOAN ROYAL 188-1 FLUSH VALVE, MANUAL, 1.0 GAL PER FLUSH VALVE, POLISHED CHROME, NON-HOLD-OPEN HANDLE, ANTIMICROBIAL COATING, 3/4" FLUSH TUBE, SCREW DRIVER STOP, VANDAL RESISTANT, VACUUM BREAKER, CHROME PLATED NIPPLE AND CAST WALL FLANGE. CARRIER: ZURN NO. Z-1222-58 CARRIER, ADJUSTABLE TOP AND BOTTOM SUPPORT PLATES, FLUSH VALVE SUPPLY SUPPORT, STEEL UPRIGHTS WELDED FEET.
P4A	ELECTRIC WATER COOLER DUAL HEIGHT ADA	1/2"	1/2"	2"	2"	FIXTURE: HALSEY TAYLOR NO. HVR88L-CHILD-ADA DUAL HEIGHT WALL MOUNT ELECTRIC WATER COOLER, SATIN FINISH STAINLESS STEEL CABINET, POLISHED CHROME PLATER PUSH BUTTONS AND BUBBLER, TRIPLE WATER FILTER (TASTE, ODOR, MINERAL REMOVAL), 5 YEAR WARRANTY, DELIVERY OF 7.5 GPH OF 50°F WATER AT 90°F AMBIENT AND 80°F INLET WATER. TRIM: MCGUIRE NO. 8090 TRAP. PROVIDE ACCESSIBLE SHUTOFF VALVE. CARRIER: ZURN NO. Z-1225-9LVP.
P5A	MOP RECEPTOR	1/2"	1/2"	3"	2"	FIXTURE: FIAT NO. TSB100 ONE PIECE, 24" X 24" X 12" PRECAST TERRAZZO, STAINLESS STEEL STRAINER #1453BB, FIAT 1453-BB STAINLESS STEEL DRAIN, 3" OUTLET. FAUCET: 830AA MOP SEVICE BASIN FITTINGS, 832-AA HOSE AND HOSE BRACKETS, E-88-AA BUMPERGUARDS, MSG2828 WALL GUARDS.
P6A	HV RECIRCULATING PUMP	1"	1"	0"	0"	FIXTURE: BELL & GOSSETT MODEL NO. PL-36B BRONZE PUMP. 5GPM @ 12 FEET H2O HEAD, 18HP, 1PH, 60HZ, 115V, 2.1 F.L. AMPS (2 REQUIRED)
P9A	WALL BOX		1/2"			FIXTURE: GUY GRAY MODEL BIM875 WITH 1/2" COMPRESSION FITTING COLD WATER VALVE; WATTS SERIES 7 DUAL CHECK VALVE BACKFLOW PREVENTER, FILTRINE TMP WATER FILTER. VALVES AND FILTER ARE TO BE "LEAD FREE".
P9B	WALL BOX WITH DRAIN	1/2"	1/2"	1 1/2"	2"	FIXTURE: GUY GRAY MODEL B150 WITH 1/2" HOT AND COLD WATER SUPPLY VALVES, 1-1/2" DRAIN, MCHUIRE 8090C P-TRAP.
P-SP	SUMP PUMP		0"	0"	0"	FIXTURE: ZOELLER MODEL NO. M145, SIMPLEX, 50 GPM, 20 FT H20, 3450 RPM, 115 V, PH 1, 3/4 MOTOR HP.

WATER HEATER SCHEDULE			
MARK	Manufacturer	Model	DESCRIPTION
WH-1	HTP PHOENIX	PH199-119	316L STAINLESS STEEL GAS FIRED WATER HEATER, INPUT MODULATION 40,000-199,000, 335 GAL. FIRST HR. RATING, 96% EFFICIENCY.

ROOF DRAIN SCHEDULE			
MARK	Manufacturer	Model	DESCRIPTION
4" RD	ZURN	Z100	ZURN ROOF DRAIN Z100, SIZE AS NOTED, EPOXY COATED CAST IRON BODY WITH 15" DOME.
6" RD	ZURN	Z100	ZURN ROOF DRAIN Z100, SIZE AS NOTED, EPOXY COATED CAST IRON BODY WITH 15" DOME.

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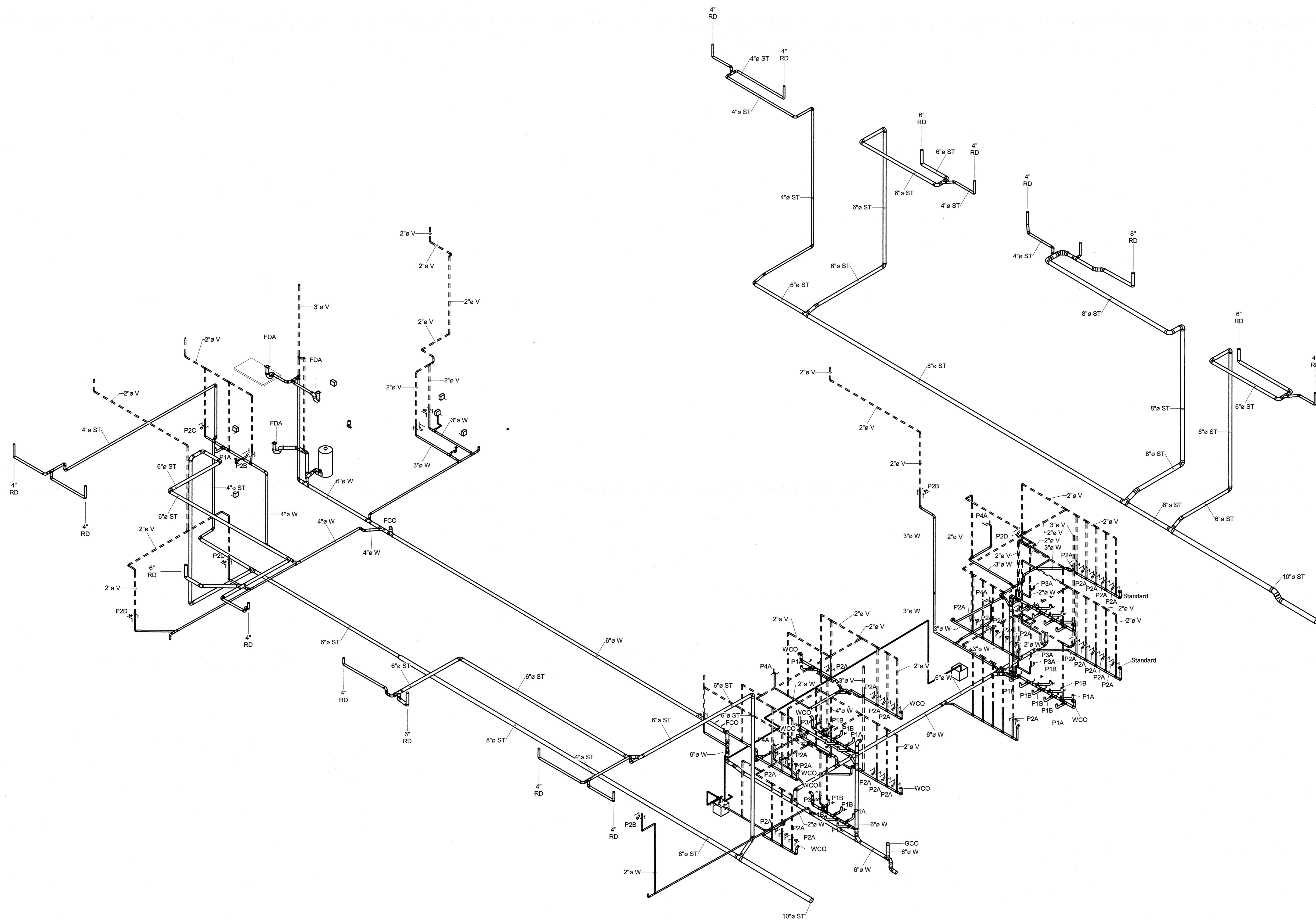
PROJECT NAME: HARNETT COUNTY GOVERNMENT SERVICES CENTER

PROJECT NO.: 514-8066-00

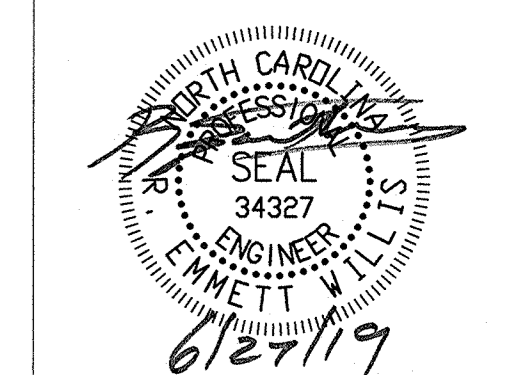
SHEET TITLE: SCHEDULES AND DIAGRAMS

SHEET NUMBER: P-601





**1 WASTE AND VENT RISER DIAGRAMS**  
Scale:



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PROJECT NO.  
**514-8066-00**

SHEET TITLE  
**RISER DIAGRAMS**

SHEET NUMBER  
**P-902**