

RECORD DRAWINGS

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

METROPOLITAN SYRACUSE WWTP

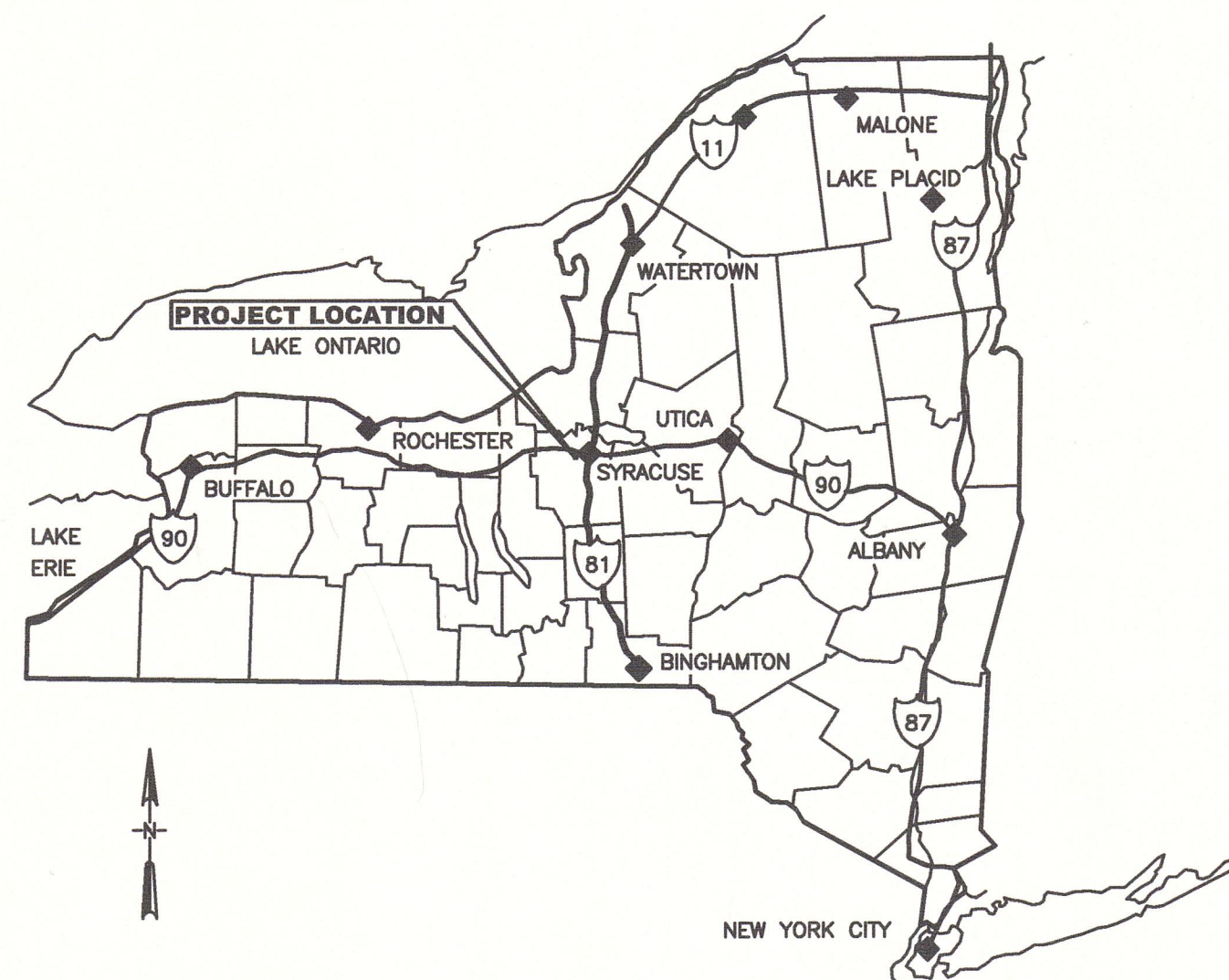
DIGESTER CLEANING AND MISCELLANEOUS REPAIRS

CONTRACT NO. 1 - GENERAL

BID REFERENCE NO. 6990

PROJECT NO. 587554

2013



N.Y.P.E. LICENSE NO. 57504

LIST OF DRAWINGS

- TITLE SHEET
- G-1 EXISTING SITE PLAN
- G-2 EXISTING DIGESTERS 1, 2, & 3 PLAN/DETAILS
- G-3 EXISTING DIGESTER 1 AND 2 ROOF PLAN AND SECTION
- G-4 EXISTING DIGESTER 3 ROOF PLAN
- G-5 EXISTING DIGESTER 4 PLAN AND SECTION
- G-6 DIGESTER CONTROL HOUSE DETAILS
- G-7 EXISTING DIGESTER CONTROL HOUSE PHOTOS
- G-8 DIGESTER CONTROL HOUSE WALL SECTIONS
- G-9 DIGESTER CONTROL HOUSE WALL SECTIONS
- G-10 DIGESTER CONTROL HOUSE PLANS
- G-11 DIGESTER CONTROL HOUSE PLAN AT 393.5'
- G-12 COGENERATION, SLUDGE WITHDRAWAL AND HARTFORD LOOP DETAILS
- G-13 DIGESTER 4 REPAIRS
- G-14 DIGESTERS 1 AND 2 ROOF DRAIN DETAILS
- G-15 DIGESTER GAS MANIFOLD ASSEMBLY DETAILS

RECORD DRAWING

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.
DATE: 05/23/13 PER: EJP

REVISED FOR RECORD DRAWING

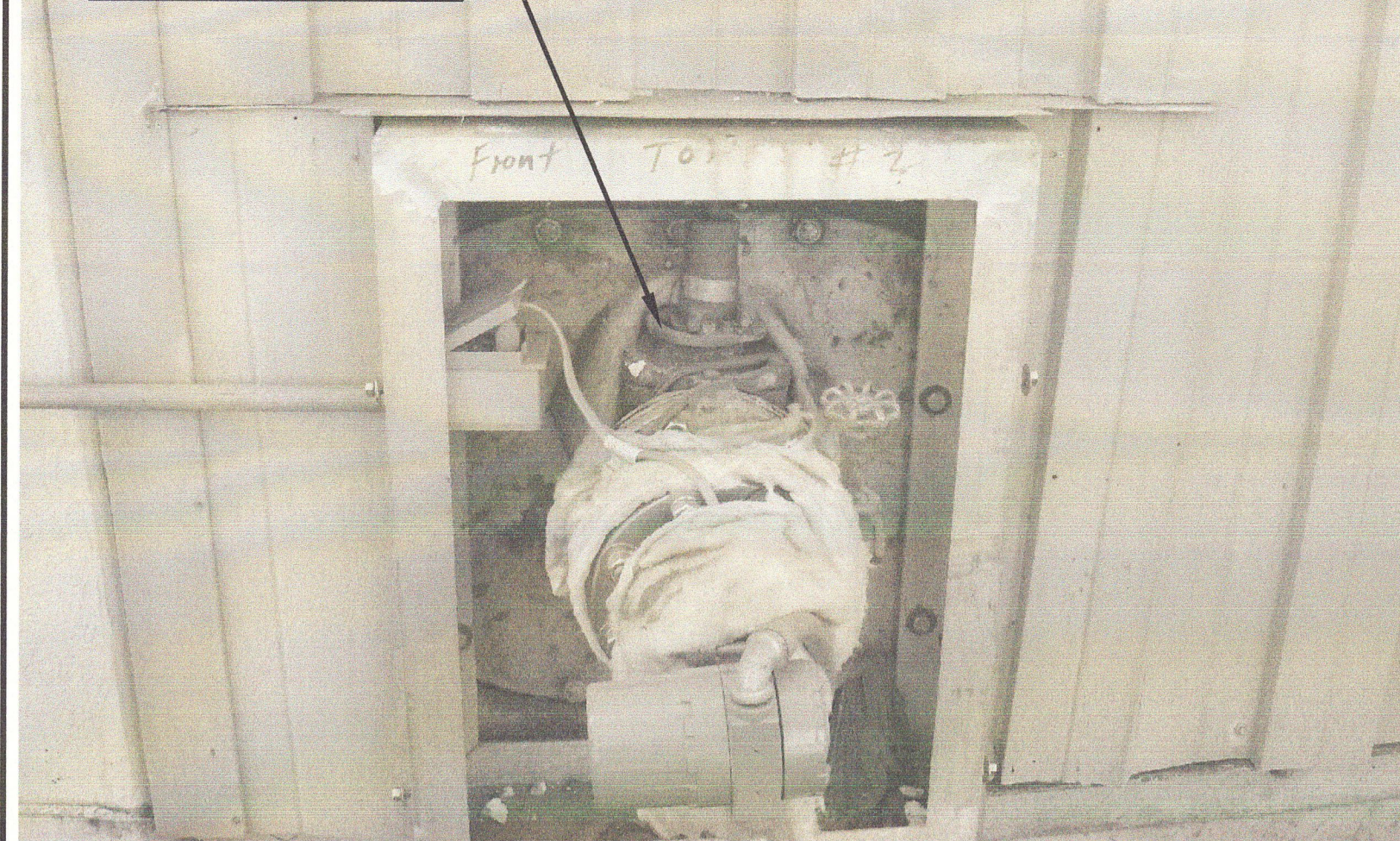
COMMISSIONER OF DEPARTMENT OF WATER ENVIRONMENT PROTECTION

A. T. RHOADES, P.E.

SIGNATURE: _____ DATE: _____

AREA MAP
(NOT TO SCALE)

PLUG VALVE REPLACED (TYP OF 1 FOR EACH DIGESTER)



EXISTING DP TRANSMITTER INSTALLATION (TYP 4 LOCATIONS)

SLUDGE BLEND TANK BUILDING

PROCESS DRAIN (CONTRACTOR'S LOCATION TO DISCHARGE DEWATERING OPERATIONS FILTRATE)

STAGING AREA

DO NOT PARK ON TOP OF GALLERY

THICKENER NO.1

TRUCK ACCESS FOR DEWATERED SLUDGE REMOVAL

SLUDGE DIGESTER NO.1

SLUDGE DIGESTER NO.4

APPROXIMATE LOCATION OF DP TRANSMITTER (TYP AT EACH DIGESTER SEE PHOTO THIS SHEET)

WATER SOURCE (CONTRACTOR SHALL PROTECT WATER SUPPLY WITH TEMPORARY RPZ BACKFLOW PREVENTER)

DIGESTER CONTROL HOUSE

SEE SHEETS G-6 AND G-7

SEE SHEETS G-6 AND G-7

GENERATOR

SLUDGE DIGESTER NO.3

SLUDGE DIGESTER NO.2

ADMINISTRATION BUILDING

MAINTENANCE BUILDING

SLUDGE DEWATERING BUILDING

SLUDGE BLEND TANK BUILDING

ELECTRIC SOURCE
SLUDGE PROCESS BUILDING

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LEGEND



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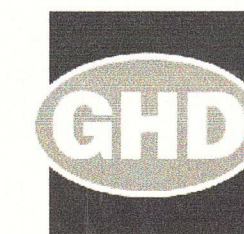
1"=20'-0"

NOTES:

Underground facilities, structures, and utilities have been plotted from available surveys and records, and therefore their locations must be considered approximate only. There may be others, the existence of which is presently not known.

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ISSUE NO.	DRAWN	DATE	CHECKED	DESIGNER	APPROVED	DATE
2	SFB	12/12	EJP	SFB	GCH	02/2013
1	PME	03/10	JSS	PME	GCH	3/18/10
PROJECT SUPERVISOR: BRUCE G. MUNN						
DEPARTMENT SUPERVISOR: JAN S. SALZMAN						



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CAZENOVIA, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION

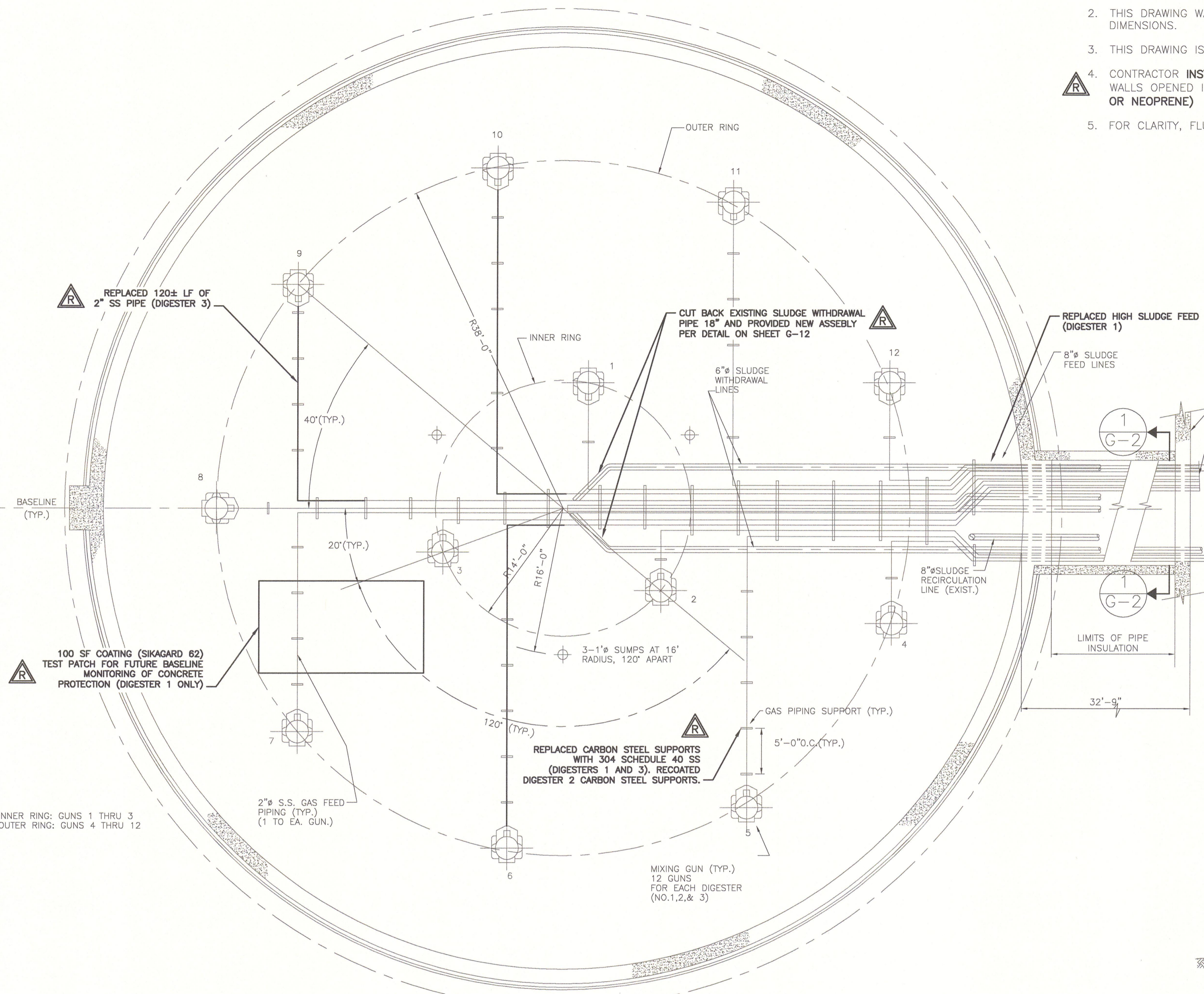
METROPOLITAN SYRACUSE WWTP - ONONDAGA COUNTY, NY

DIGESTER CLEANING & MISCELLANEOUS REPAIRS
EXISTING SITE PLAN

JOB NO. 8614054

CONTRACT

SHEET G-1



TYPICAL SLUDGE DIGESTION TANK PIPING LAYOUT (EXISTING)

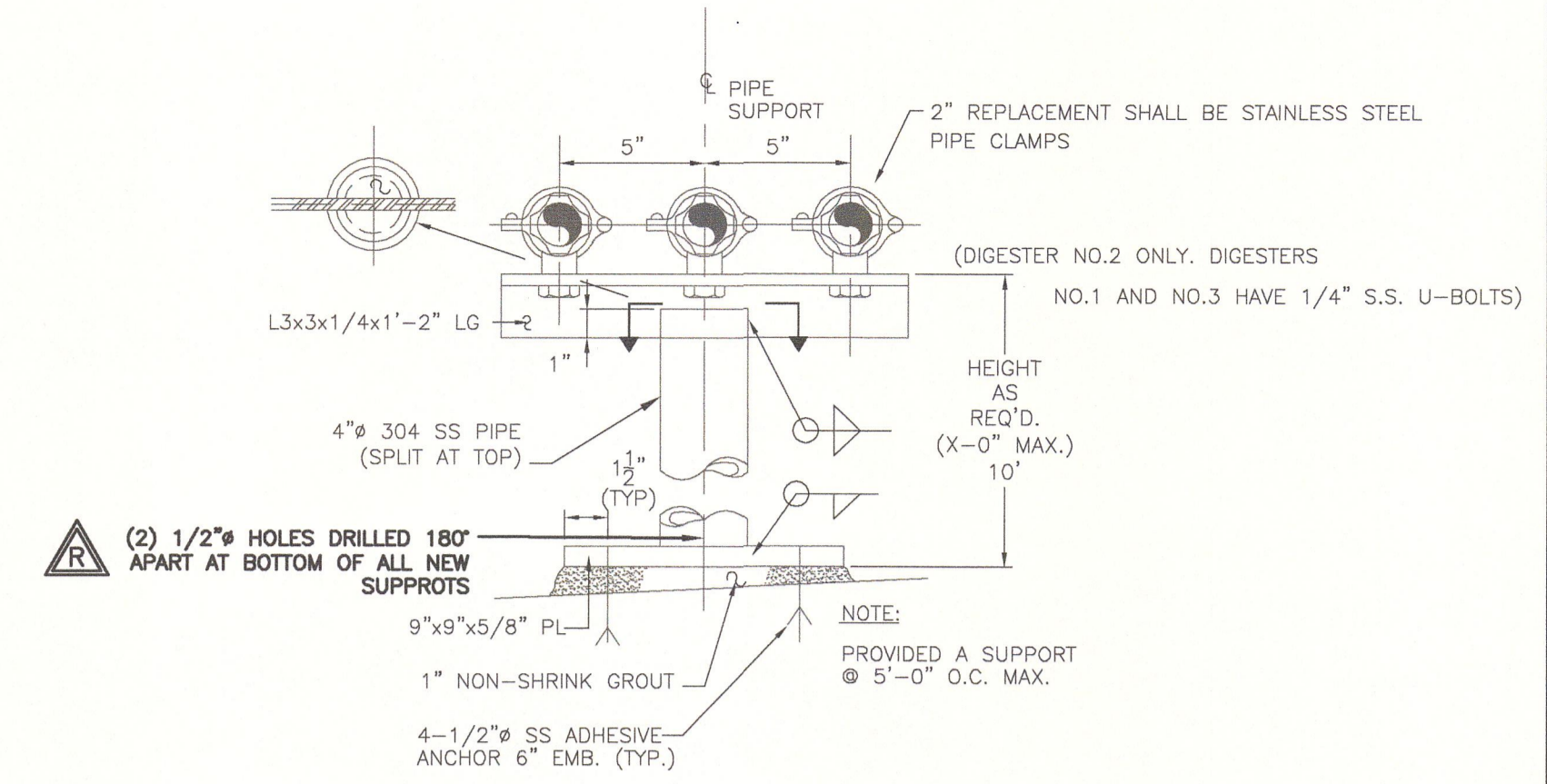
INNER RING: GUNS 1 THRU 3
OUTER RING: GUNS 4 THRU 12

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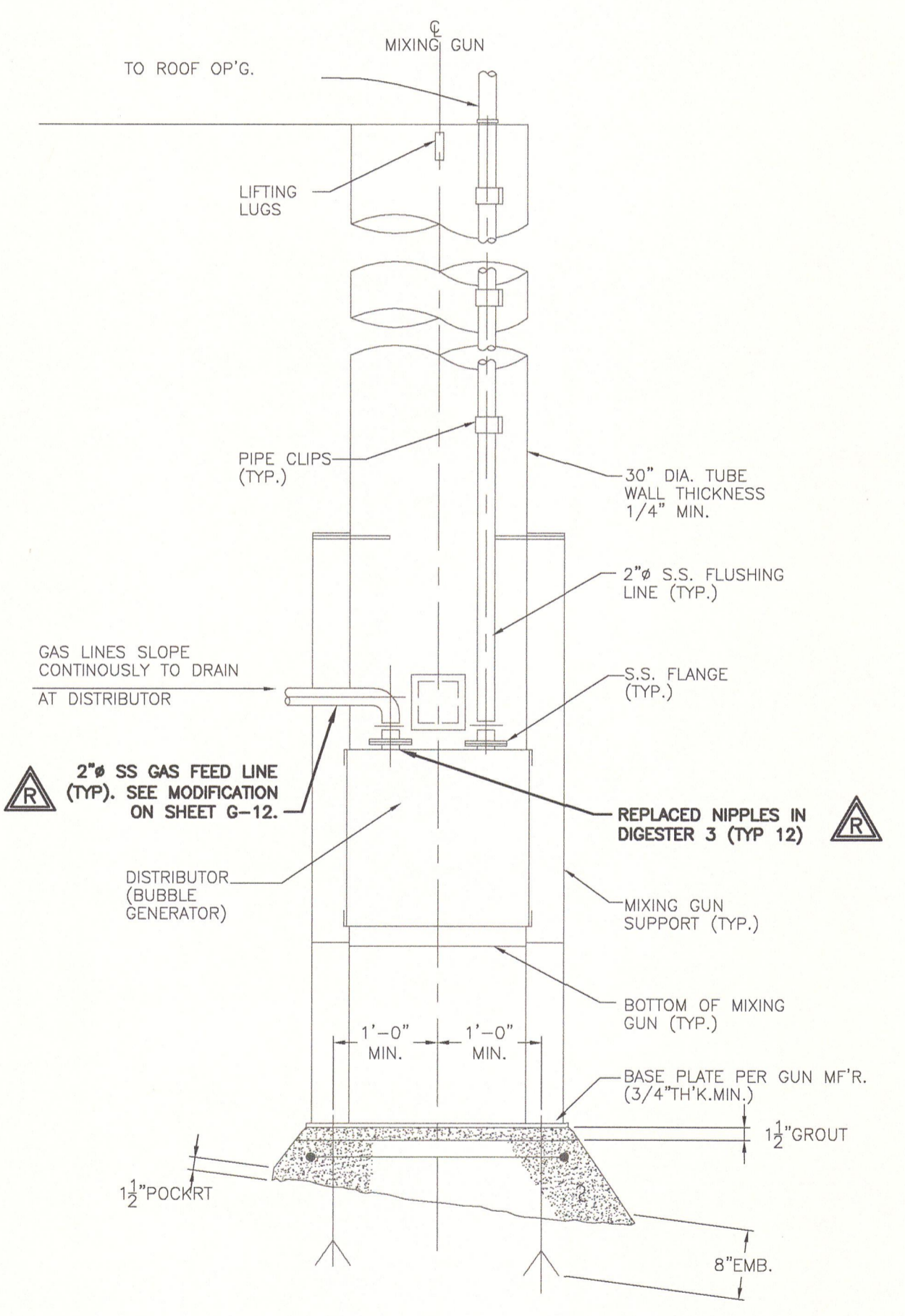
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	PROJECT SUPERVISOR		DEPARTMENT SUPERVISOR			
	BRUCE G. MUNY		JAN S. SALZMAN			

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 - FOR CLARITY, FLUSHING LINES NOT SHOWN ON THIS DRAWING.



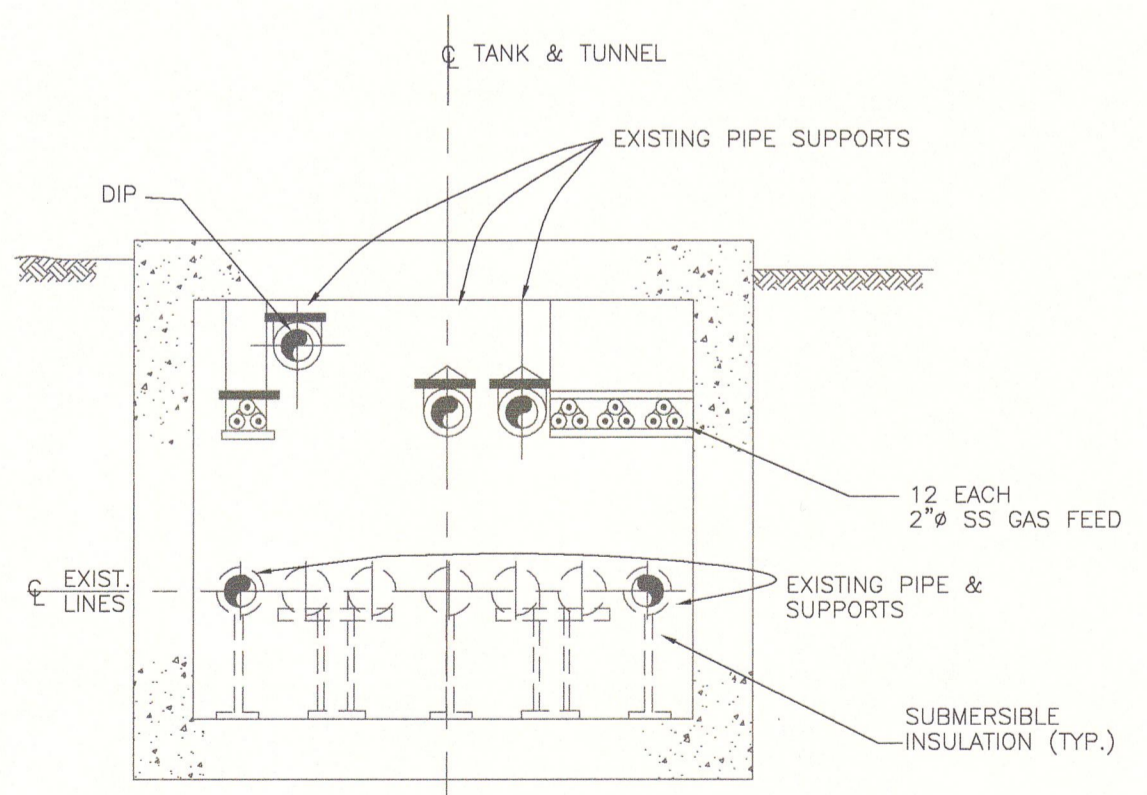
GAS PIPING SUPPORT DETAIL (EXISTING)

- NOTE:**
- PIPE SUPPORTS REPLACED WITH SS (DIGESTERS 1 AND 3 ONLY)



TYPICAL MIXING GUN DETAIL (EXISTING)

- NOTES:**
- ALL THROTTLE PLATES AT BOTTOM OF BUBBLE GENERATOR ROTATED 180° SO THAT OPENING SIZE WAS APPROXIMATELY 4" x 2".
 - REPLACED MISSING THROTTLE PLATES.



SECTION 1 G-2 (EXISTING)

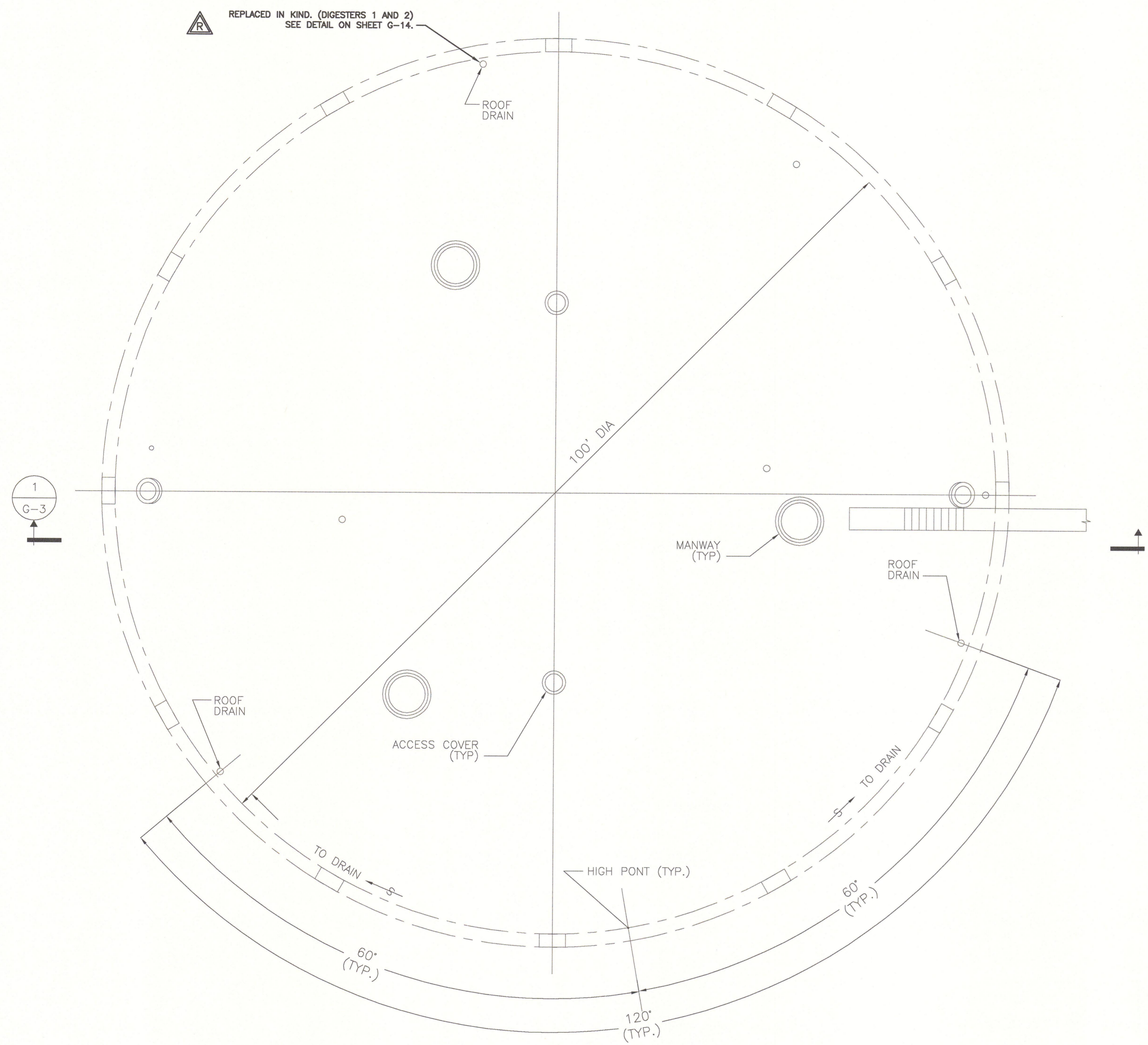
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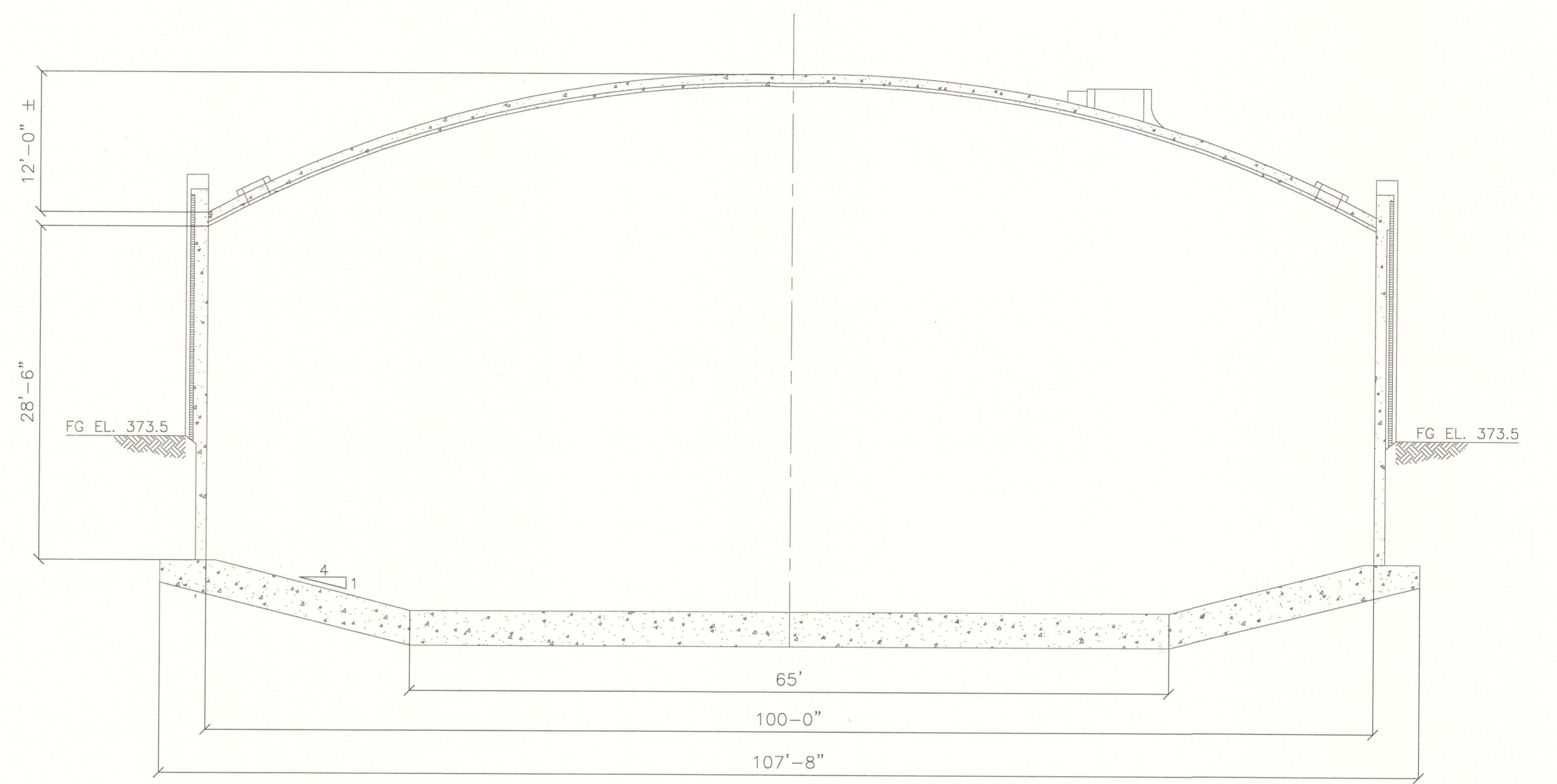
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DEPARTMENT OF WATER ENVIRONMENT PROTECTION
METROPOLITAN SYRACUSE WWTP – ONONDAGA COUNTY, NY
DIGESTER CLEANING & MISCELLANEOUS REPAIRS
EXISTING DIGESTERS 1, 2, & 3 PLAN/DETAILS
JOB NO. 8614054 CONTRACT SHEET G-2



TYPICAL ROOF PLAN DIGESTERS NO. 1 & 2 (EXISTING)



NOTE:
CATWALK, PIPING AND TANK INTERNALS NOT SHOWN.
TYPICAL TANK SECTION FOR DIGESTERS 1, 2, & 3 (EXISTING)

SECTION 1
G-3

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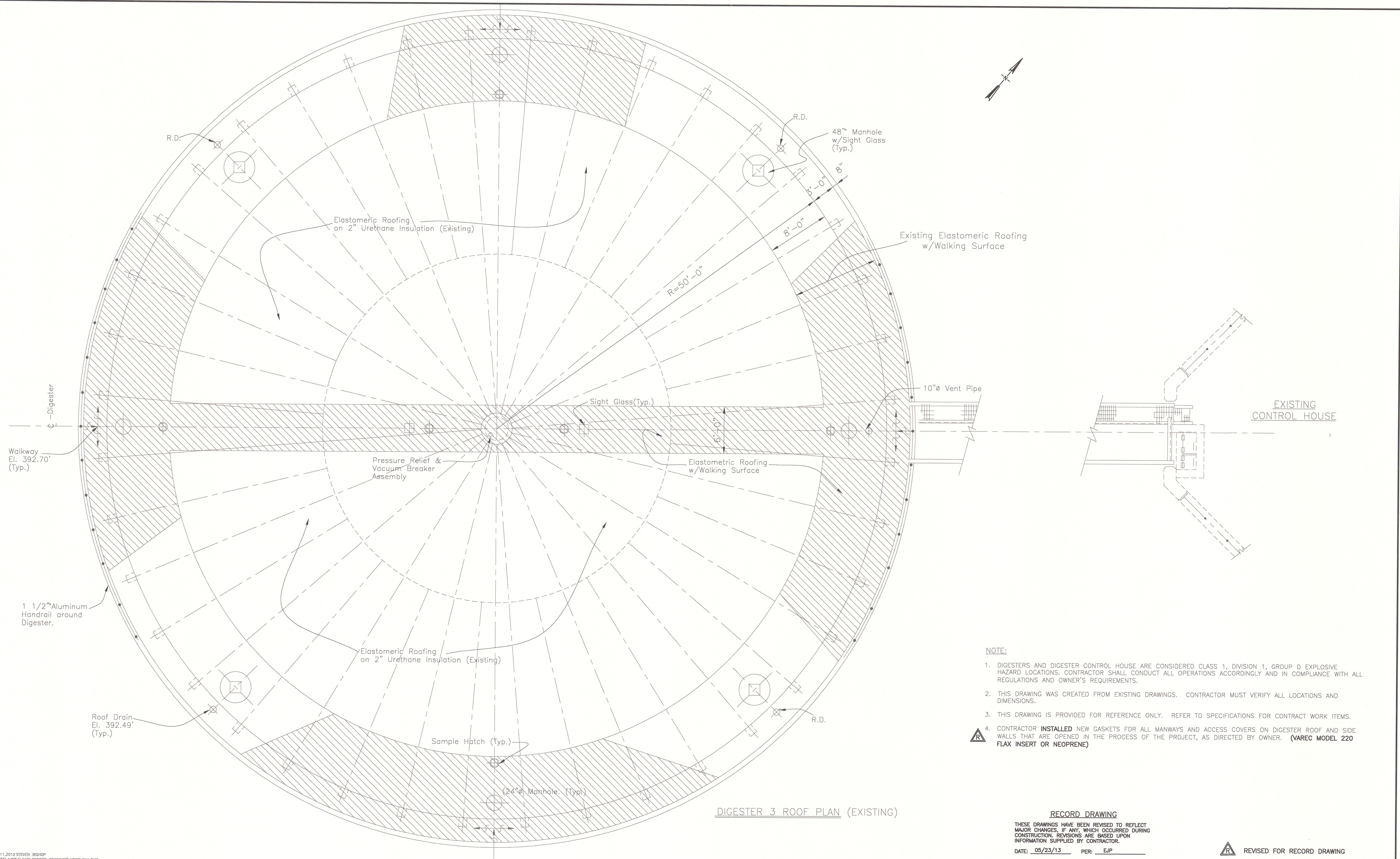
29.11.2012 STEVEN BISHOP
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PROJECT SUPERVISOR		DEPARTMENT SUPERVISOR		ISSUE NO.		DRAWN	
BRUCE G. MUNN		JAN S. SALZMAN				DATE	

DEPARTMENT OF WATER ENVIRONMENT PROTECTION
METROPOLITAN SYRACUSE WWTP - ONONDAGA COUNTY, NY
DIGESTER CLEANING & MISCELLANEOUS REPAIRS
DIGESTER 1 AND 2
EXISTING ROOF PLAN AND SECTION

JOB NO. 8614054 CONTRACT SHEET G-3



DIGESTER 3 ROOF PLAN (EXISTING)

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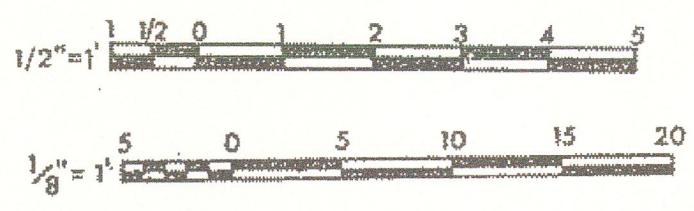
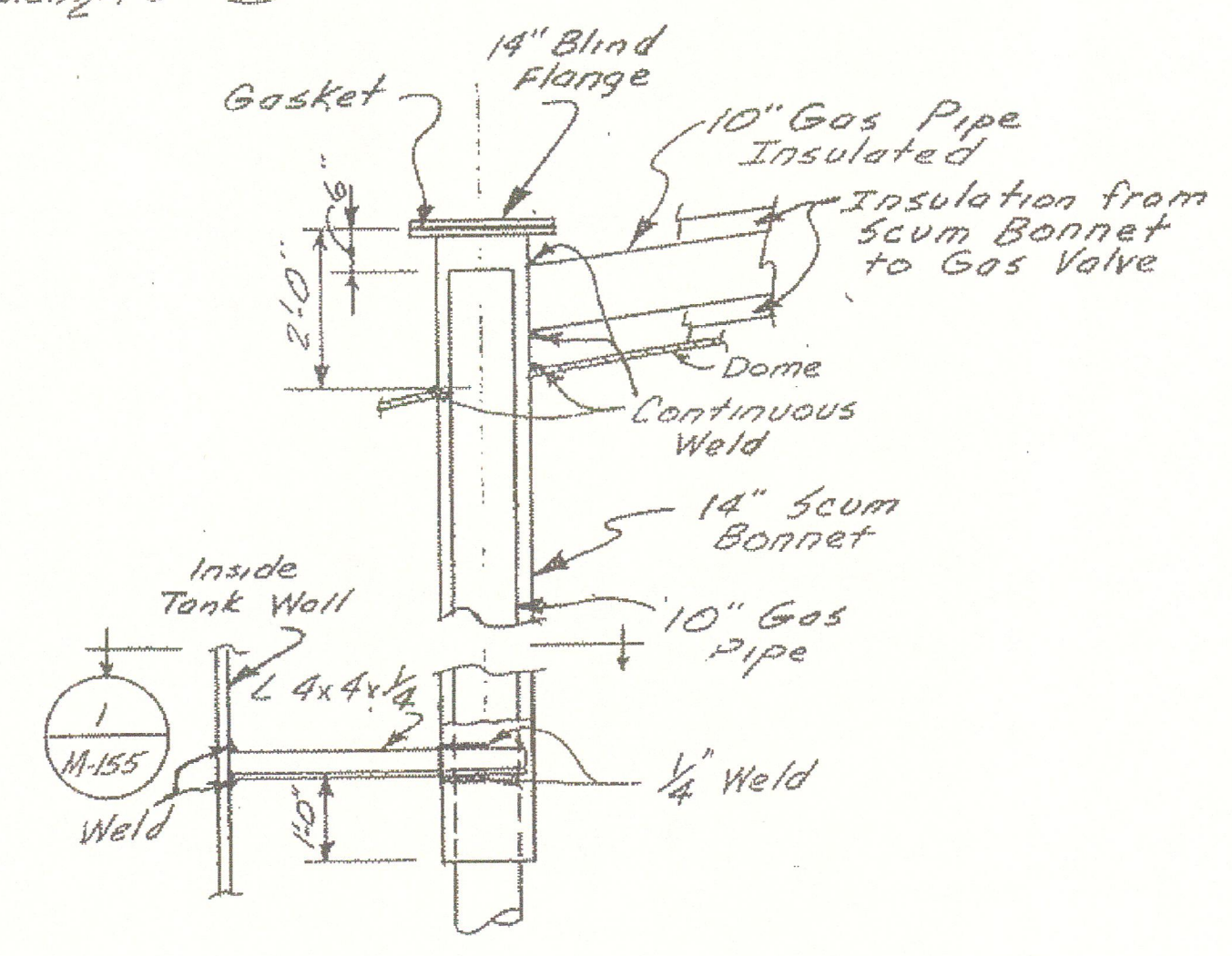
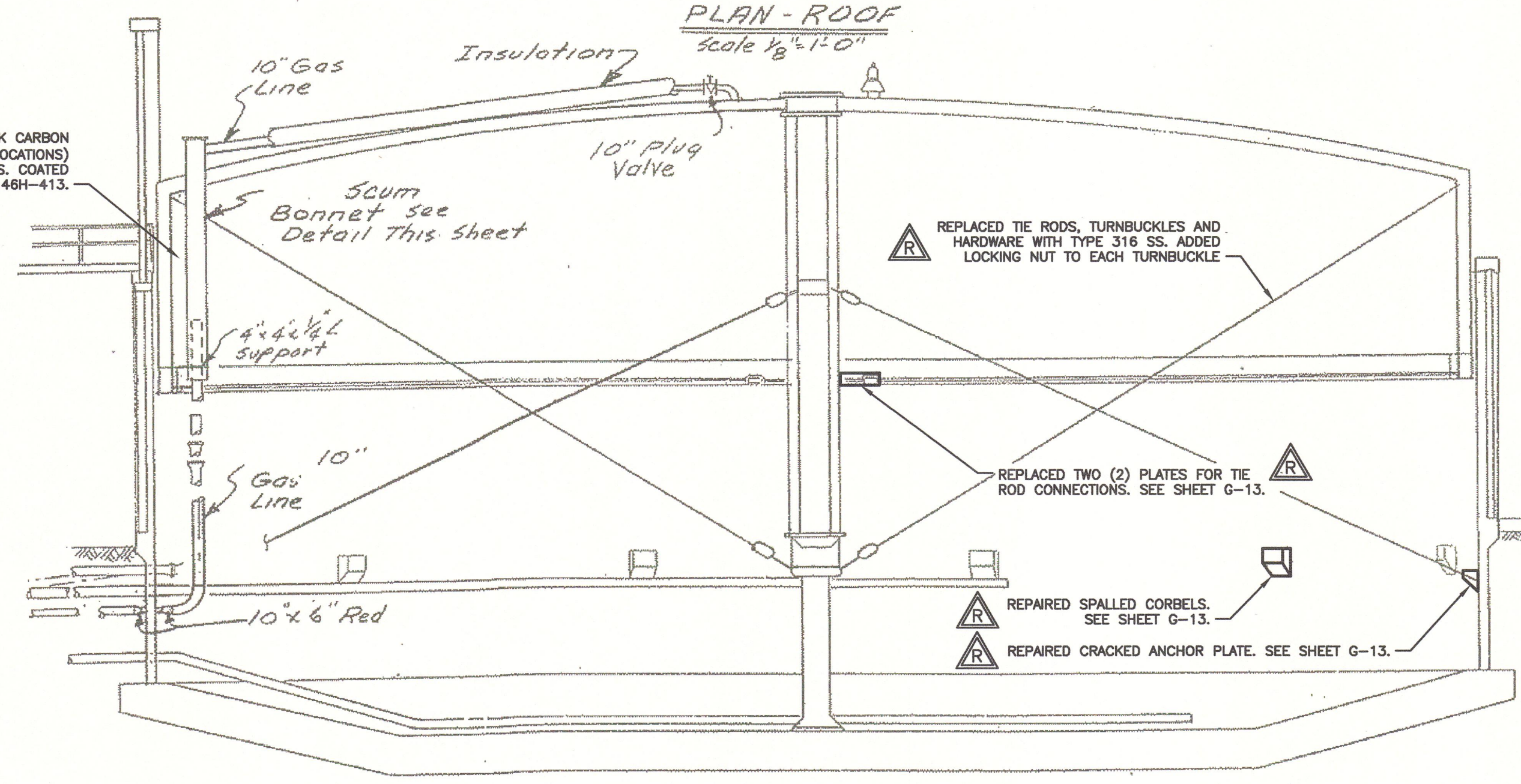
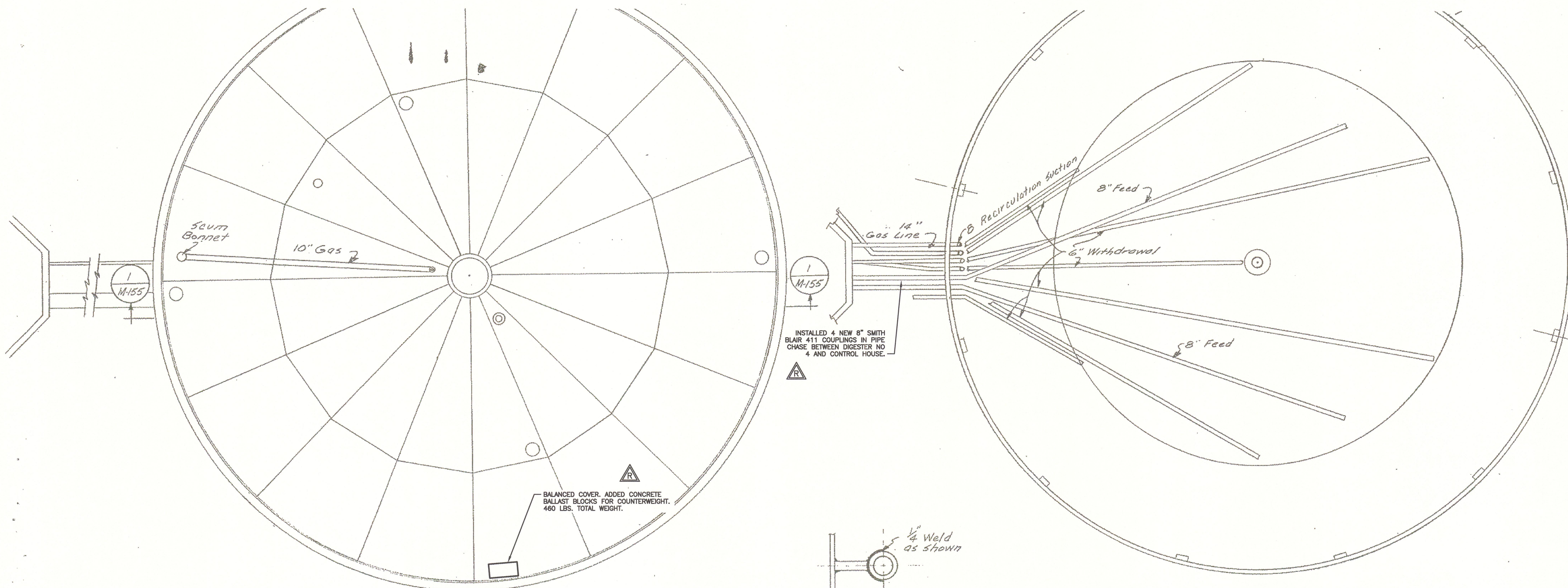
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	PROJECT SUPERVISOR			DEPARTMENT SUPERVISOR			
	BRUCE C. MUNN			JAN S. SALZMAN			

CLIENTS | PEOPLE | PERFORMANCE
 CAZENOVIA, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION			
METROPOLITAN SYRACUSE WWTP - ONONDAGA COUNTY, NY			
DIGESTER CLEANING & MISCELLANEOUS REPAIRS			
DIGESTER 3			
EXISTING ROOF PLAN			
JOB NO.	8614054	CONTRACT	SHEET G-4



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DIGESTER 4 (EXISTING)

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PROJECT SUPERVISOR	DEPARTMENT SUPERVISOR		ISSUE NO.	DRAWN	DATE	CHECKED	DESIGNER	APPROVED	DATE
BRUCE G. MUNN	JAN S. SALZMAN								

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CAZENOVIA, NEW YORK

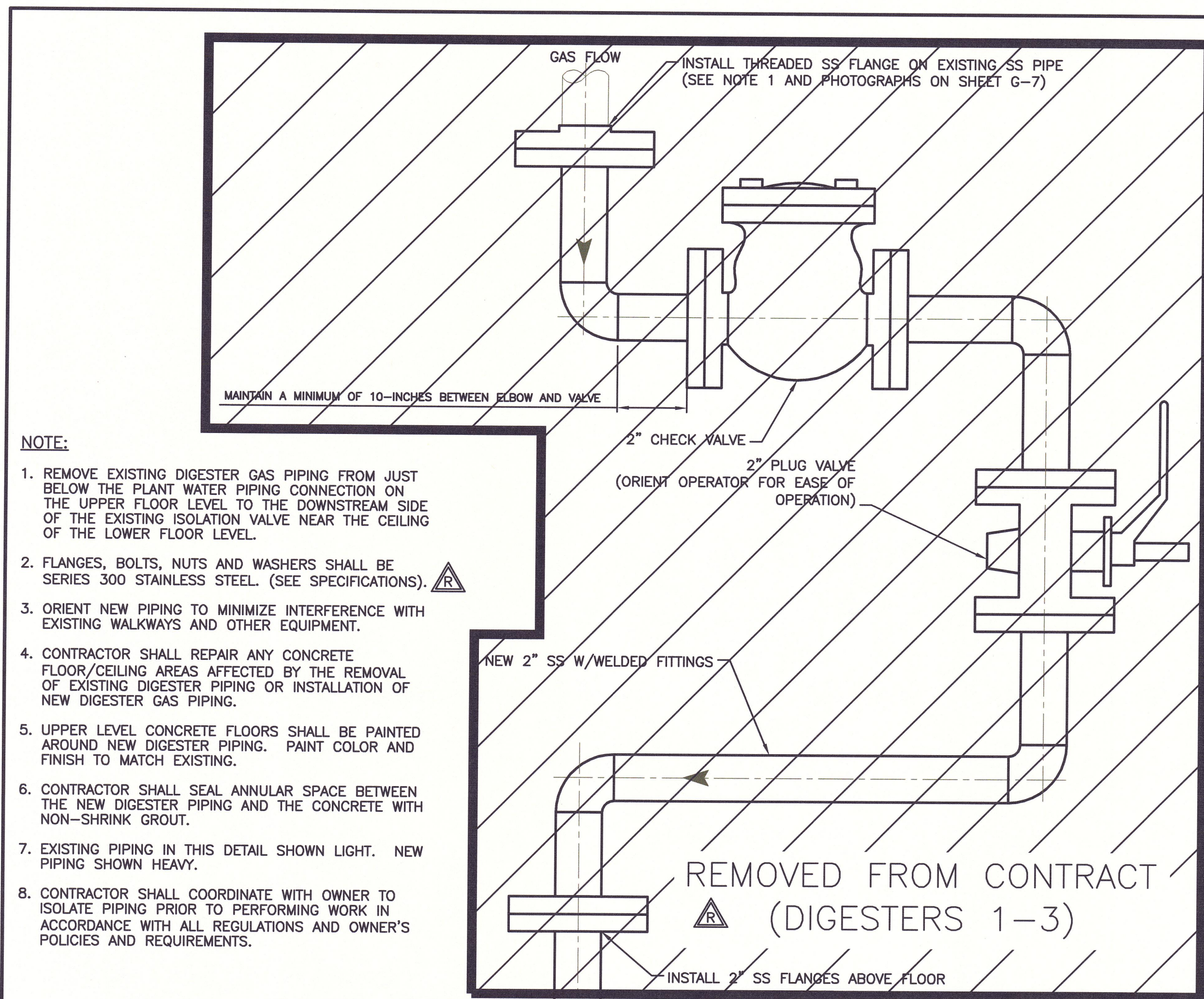
DEPARTMENT OF WATER ENVIRONMENT PROTECTION

METROPOLITAN SYRACUSE WWTP - ONONDAGA COUNTY, NY

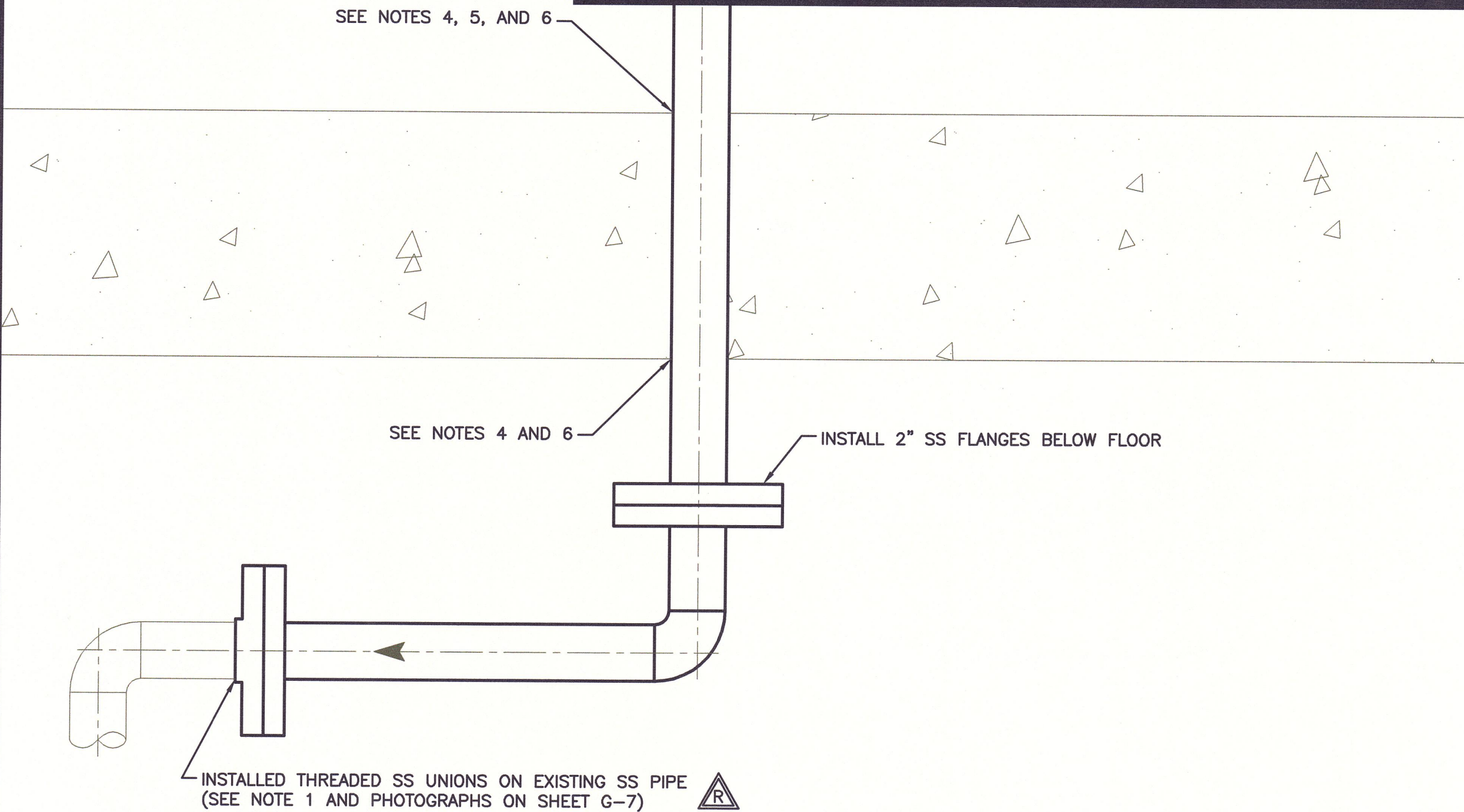
DIGESTER CLEANING & MISCELLANEOUS REPAIRS

EXISTING DIGESTER 4 PLAN AND SECTION

JOB NO. 8614054 CONTRACT 1 SHEET G-5



- NOTE:**
1. REMOVE EXISTING DIGESTER GAS PIPING FROM JUST BELOW THE PLANT WATER PIPING CONNECTION ON THE UPPER FLOOR LEVEL TO THE DOWNSTREAM SIDE OF THE EXISTING ISOLATION VALVE NEAR THE CEILING OF THE LOWER FLOOR LEVEL.
 2. FLANGES, BOLTS, NUTS AND WASHERS SHALL BE SERIES 300 STAINLESS STEEL. (SEE SPECIFICATIONS).
 3. ORIENT NEW PIPING TO MINIMIZE INTERFERENCE WITH EXISTING WALKWAYS AND OTHER EQUIPMENT.
 4. CONTRACTOR SHALL REPAIR ANY CONCRETE FLOOR/CEILING AREAS AFFECTED BY THE REMOVAL OF EXISTING DIGESTER PIPING OR INSTALLATION OF NEW DIGESTER GAS PIPING.
 5. UPPER LEVEL CONCRETE FLOORS SHALL BE PAINTED AROUND NEW DIGESTER PIPING. PAINT COLOR AND FINISH TO MATCH EXISTING.
 6. CONTRACTOR SHALL SEAL ANNULAR SPACE BETWEEN THE NEW DIGESTER PIPING AND THE CONCRETE WITH NON-SHRINK GROUT.
 7. EXISTING PIPING IN THIS DETAIL SHOWN LIGHT. NEW PIPING SHOWN HEAVY.
 8. CONTRACTOR SHALL COORDINATE WITH OWNER TO ISOLATE PIPING PRIOR TO PERFORMING WORK IN ACCORDANCE WITH ALL REGULATIONS AND OWNER'S POLICIES AND REQUIREMENTS.



DETAIL 'A'
NOT TO SCALE

29.11.2012 STEVEN BISHOP
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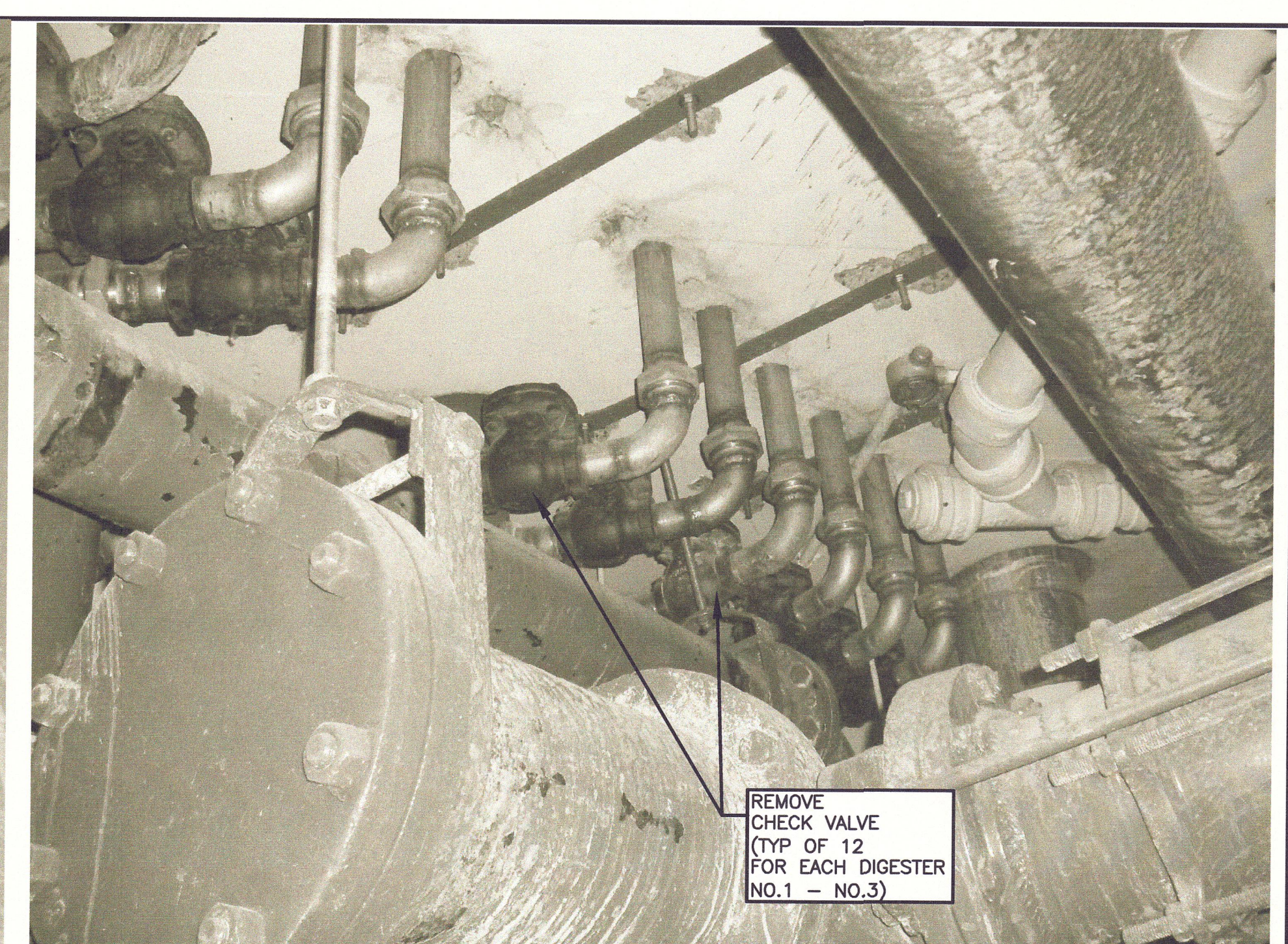
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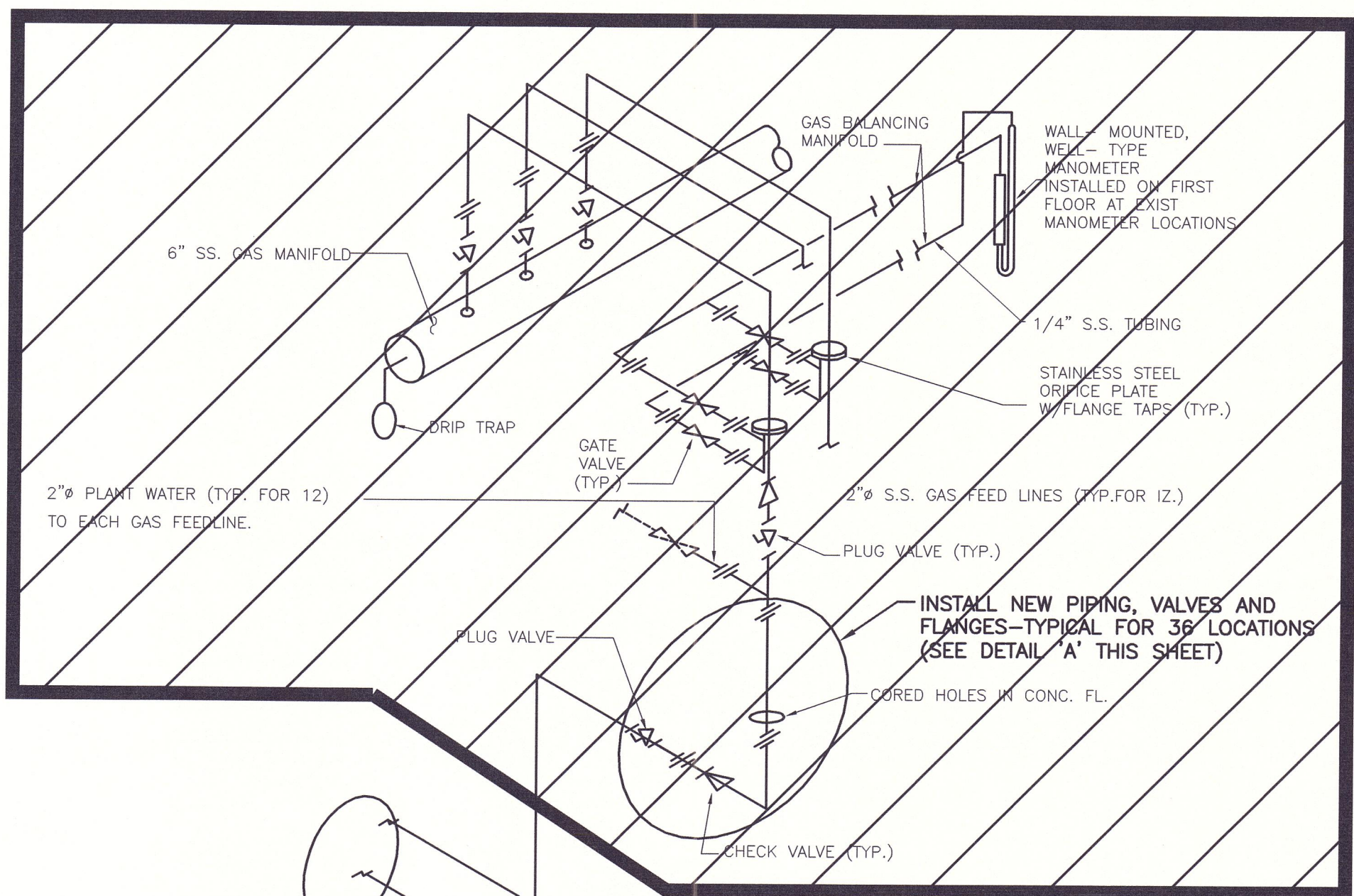
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EXISTING GAS FEED PIPING
NTS

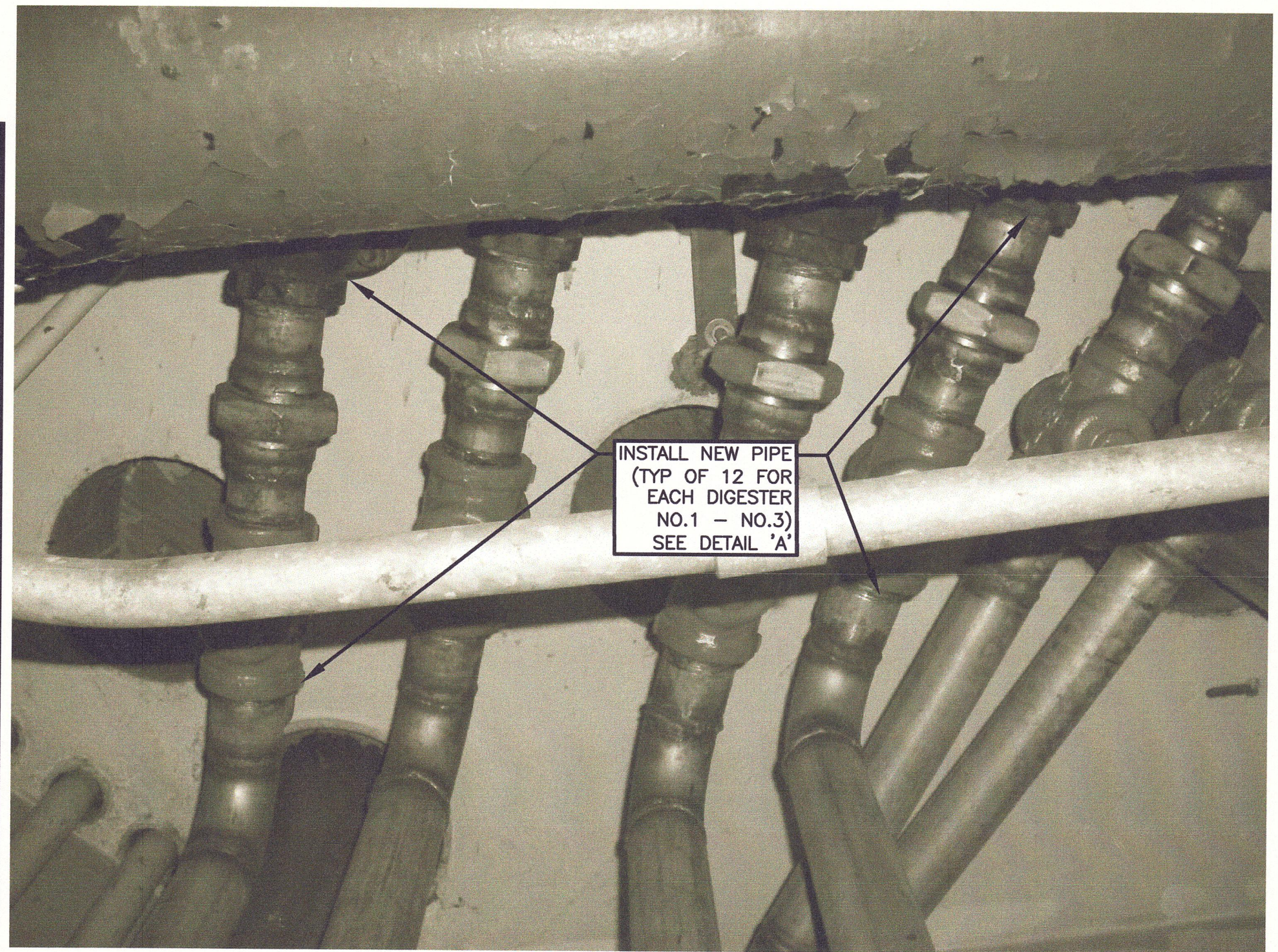


EXISTING GAS FEED PIPING
NTS



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EXISTING PARTIAL GAS FEED LINE PIPING SCHEMATIC DIAGRAM



EXISTING GAS FEED PIPING
NTS

REPLACED WITH NEW BALNCING MANIFOLD ASSEMBLY. SEE DETAIL ON SHEET G-15.

RECORD DRAWING

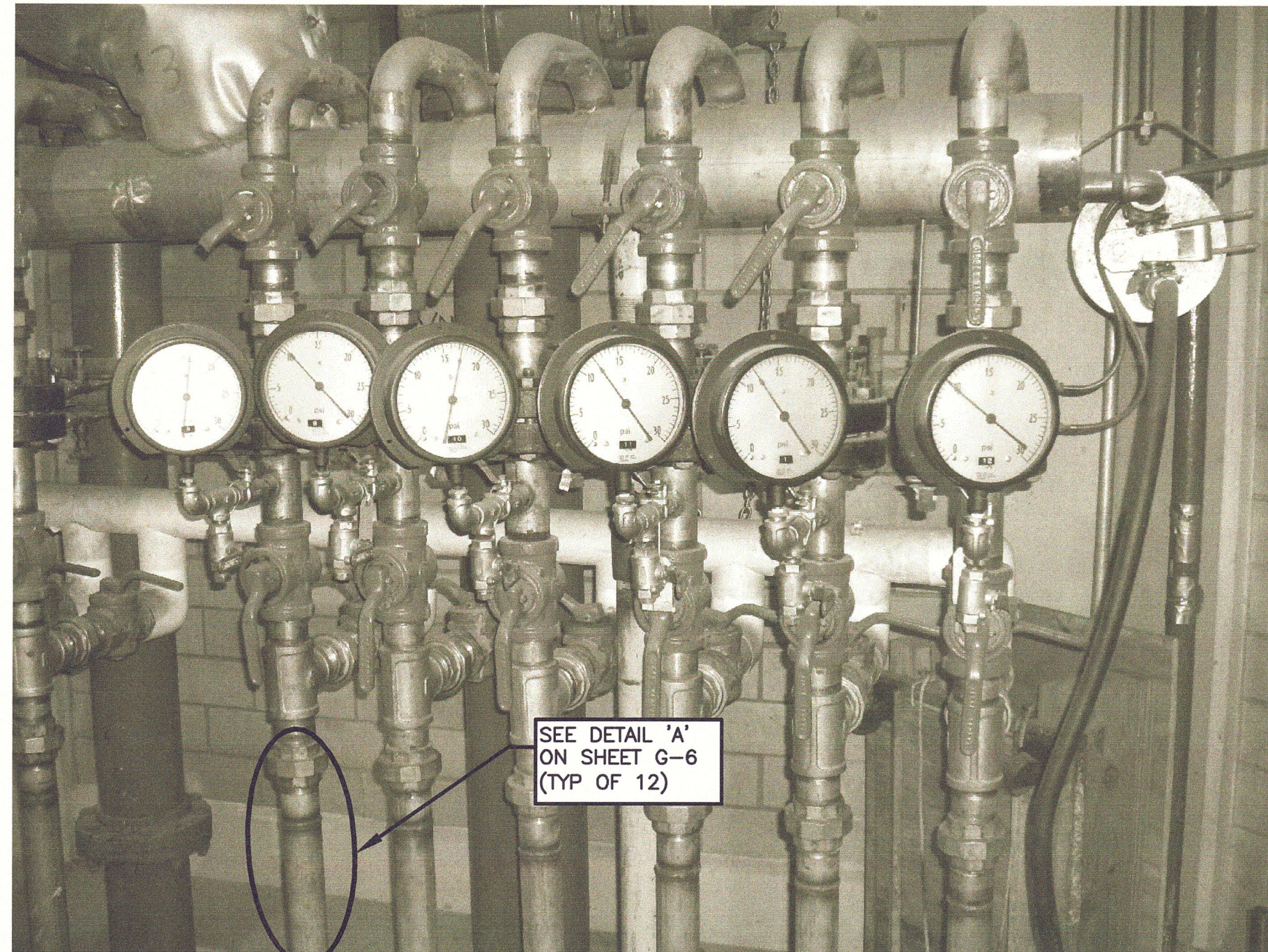
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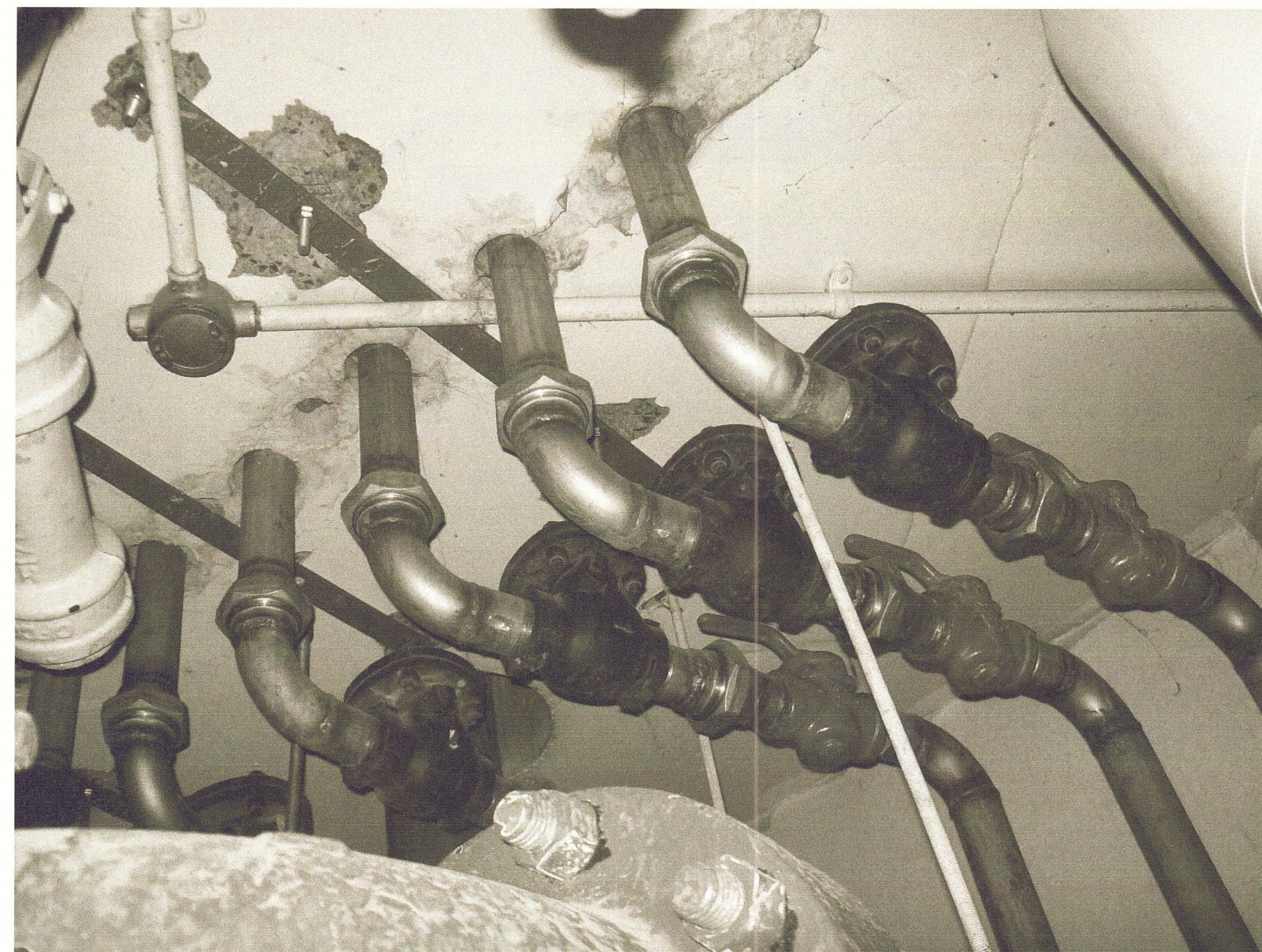
CAZENOVIA, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION			
METROPOLITAN SYRACUSE WWTP - ONONDAGA COUNTY, NY			
DIGESTER CLEANING & MISCELLANEOUS REPAIRS			
DIGESTER CONTROL HOUSE DETAILS			
JOB NO.	8614054	CONTRACT	SHEET G-6

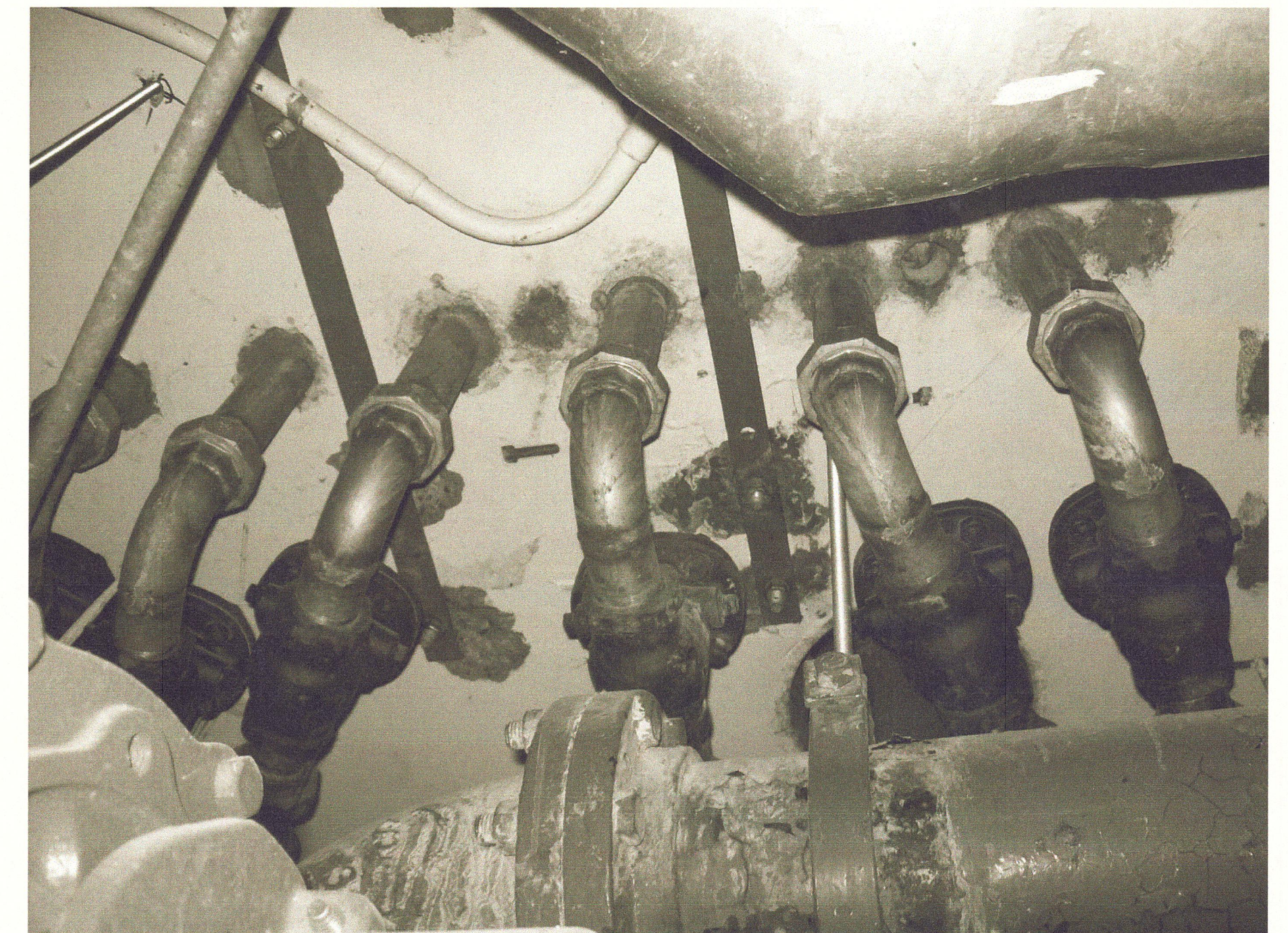


EXISTING DIGESTER NO.1 GAS FEED PIPING
NTS

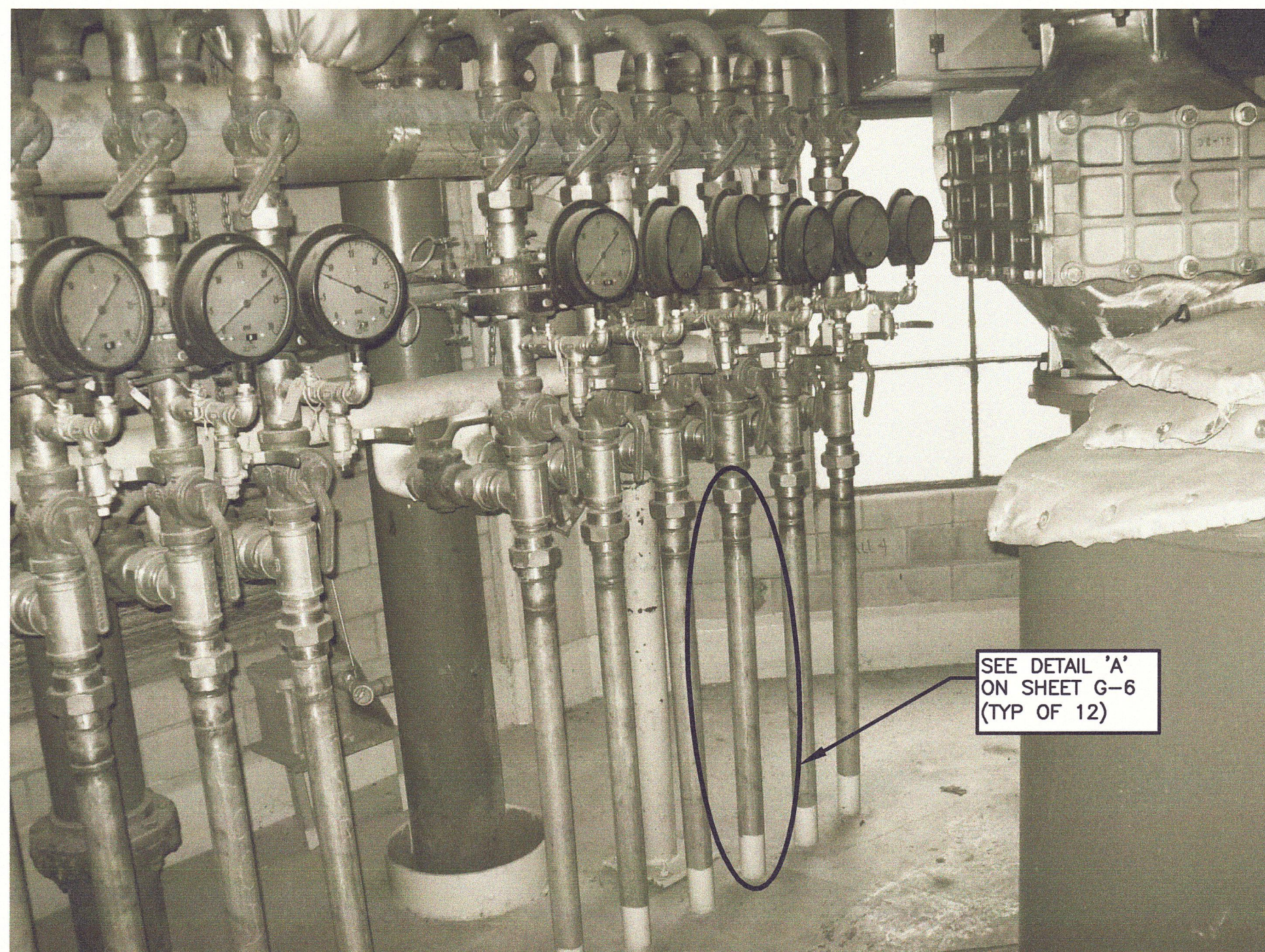
SEE NEW LAYOUT ON SHEET G-12



EXISTING LOWER LEVEL GAS FEED PIPING
NTS

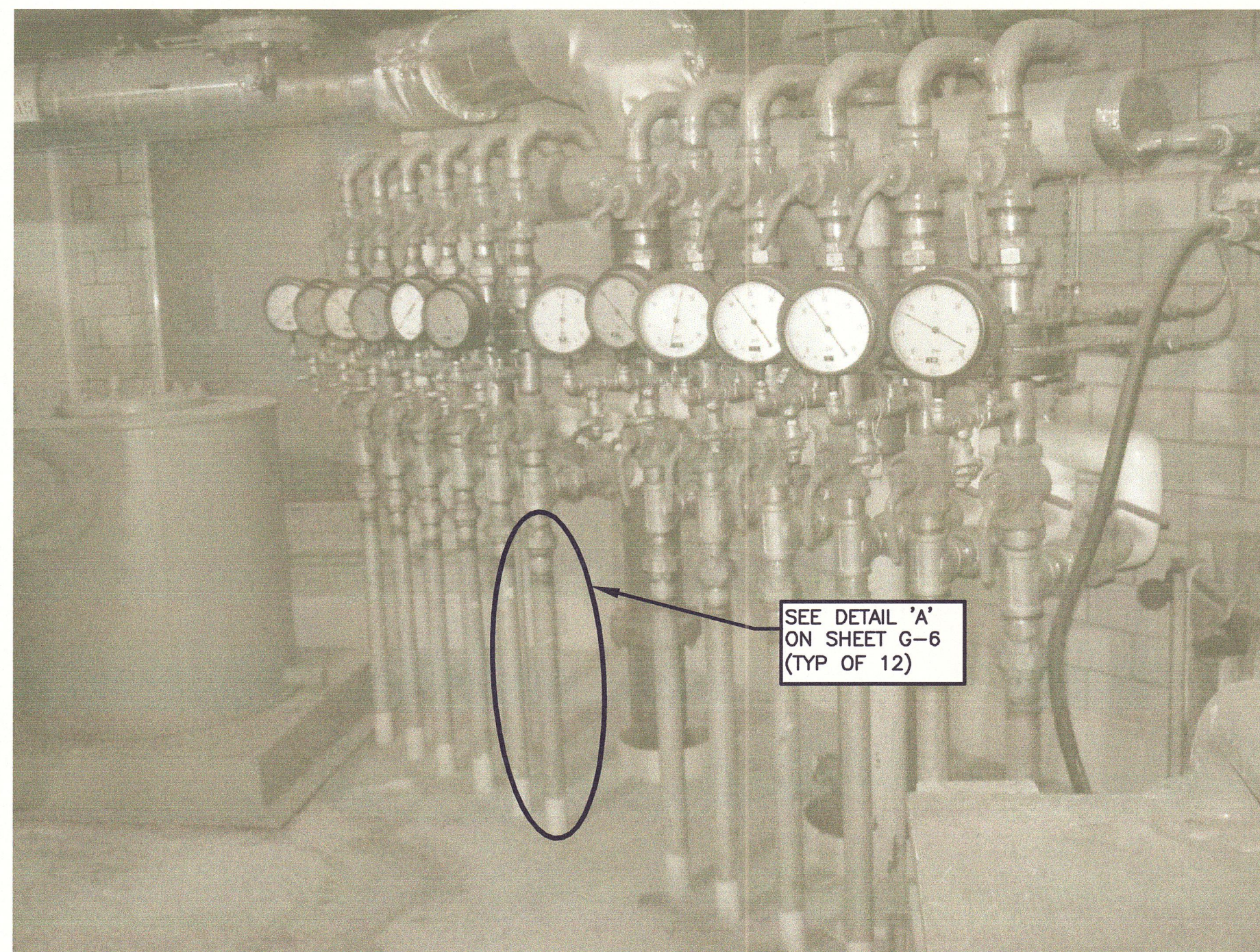


EXISTING LOWER LEVEL GAS FEED PIPING
NTS



EXISTING DIGESTER NO.2 GAS FEED PIPING
NTS

SEE NEW LAYOUT ON SHEET G-12



EXISTING DIGESTER NO.3 GAS FEED PIPING
NTS

SEE NEW LAYOUT ON SHEET G-12



EXISTING LOWER LEVEL GAS FEED PIPING
NTS

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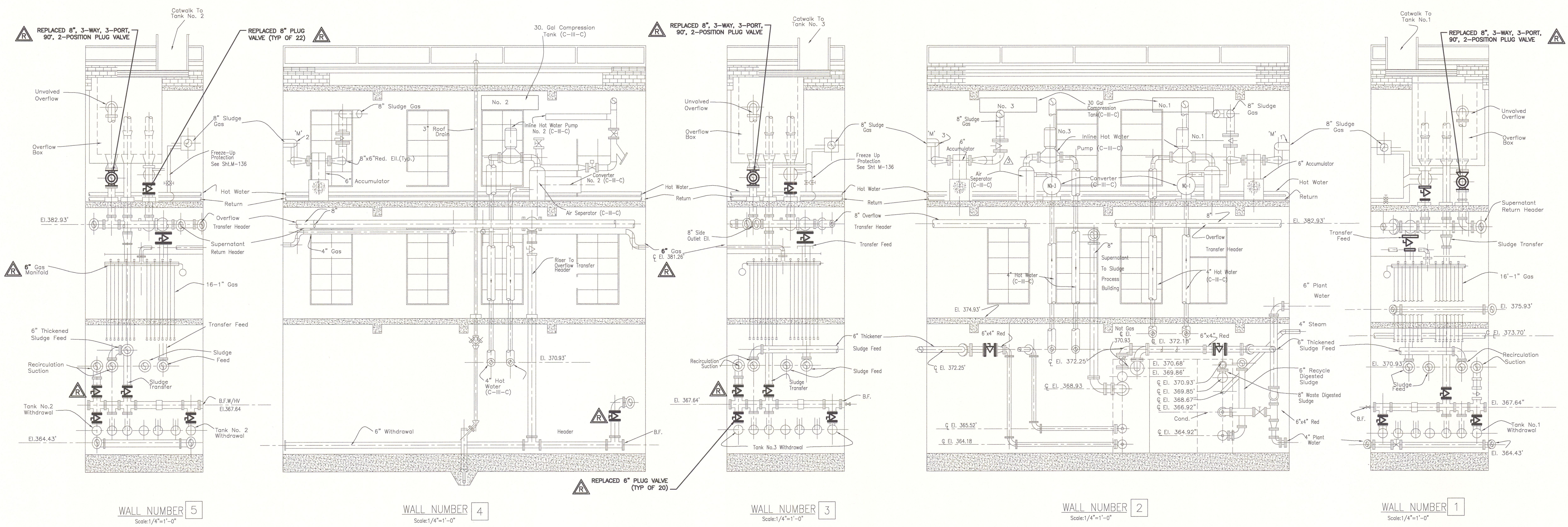
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FOR RECORDS		SFB		GCH		02/2013	
FOR CONSTRUCTION		PME		GCH		3/18/10	
ISSUE NO.	DRAWN	DATE	CHECKED	DESIGNER	APPROVED	DATE	
	BRUCE G. MUNN			JAN S. SALZMAN			
PROJECT SUPERVISOR	DEPARTMENT SUPERVISOR			ISSUE NO.	DRAWN	DATE	CHECKED



CAZENOVIA, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION		
METROPOLITAN SYRACUSE WWTP - ONONDAGA COUNTY, NY		
DIGESTER CLEANING & MISCELLANEOUS REPAIRS		
EXISTING DIGESTER CONTROL HOUSE PHOTOS		
JOB NO.	8614054	CONTRACT
SHEET	G-7	



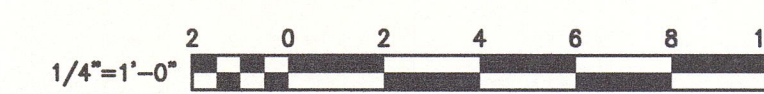
- NOTE:**
1. EXISTING VALVES SHOWN LIGHT. NEW VALVES SHOWN HEAVY.
 2. SEE SPECIFICATION 15100 FOR PLUG VALVES.
 3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND VALVE SIZES IN FIELD.
 4. DIGESTERS AND DIGESTER CONTROL HOUSE ARE CONSIDERED CLASS 1, DIVISION 1, GROUP D EXPLOSIVE HAZARD LOCATIONS. CONTRACTOR SHALL CONDUCT ALL OPERATIONS ACCORDINGLY AND IN COMPLIANCE WITH ALL REGULATIONS AND OWNER'S REQUIREMENTS.
 5. VALVES SHALL BE REPLACED/INSTALLED WHEN THE RESPECTIVE DIGESTER IS OUT-OF-SERVICE. NON-SPARKING TOOLS SHALL BE USED. NO BURNING SHALL BE PERMITTED IN THE DIGESTER CONTROL HOUSE.
 6. CONTRACTOR SHALL COORDINATE WITH OWNER TO ISOLATE PIPING PRIOR TO PERFORMING WORK IN ACCORDANCE WITH ALL REGULATIONS AND OWNER'S POLICIES AND REQUIREMENTS.

RECORD DRAWING

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

DATE: 05/23/13 PER: EJP

REVISED FOR RECORD DRAWING



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2	FOR RECORDS	SFB	12/12	EJP	SFB	GCH	02/2013
1	FOR CONSTRUCTION	PME	03/10	JSS	PME	GCH	3/18/10
ISSUE NO.	DRAWN	DATE	CHECKED	DESIGNER	APPROVED	DATE	
PROJECT SUPERVISOR	DEPARTMENT SUPERVISOR		ISSUE NO.		DRAWN	DATE	CHECKED
BRUCE G. MUNN	JAN S. SALZMAN						

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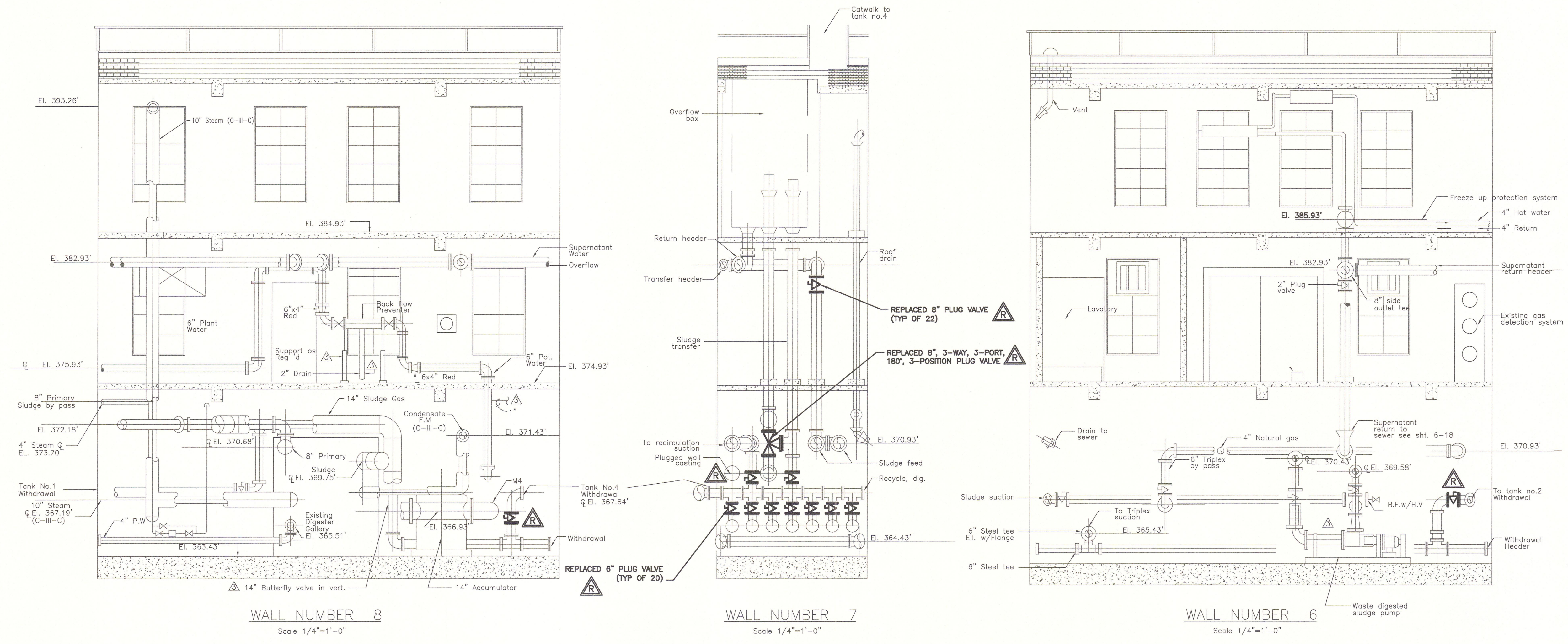
DEPARTMENT OF WATER ENVIRONMENT PROTECTION

METROPOLITAN SYRACUSE WWTP - ONONDAGA COUNTY, NY

DIGESTER CLEANING & MISCELLANEOUS REPAIRS

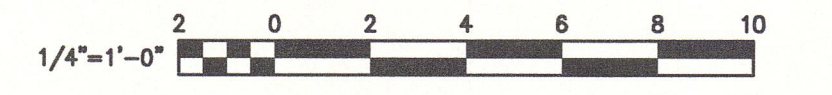
DIGESTER CONTROL HOUSE WALL SECTIONS

JOB NO. 8614054 CONTRACT SHEET G-8



- NOTE:**
- EXISTING VALVES SHOWN LIGHT. NEW VALVES SHOWN HEAVY.
 - SEE SPECIFICATION 15100 FOR PLUG VALVES.
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RECORD DRAWING
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 DATE: 05/23/13 PER: EJP



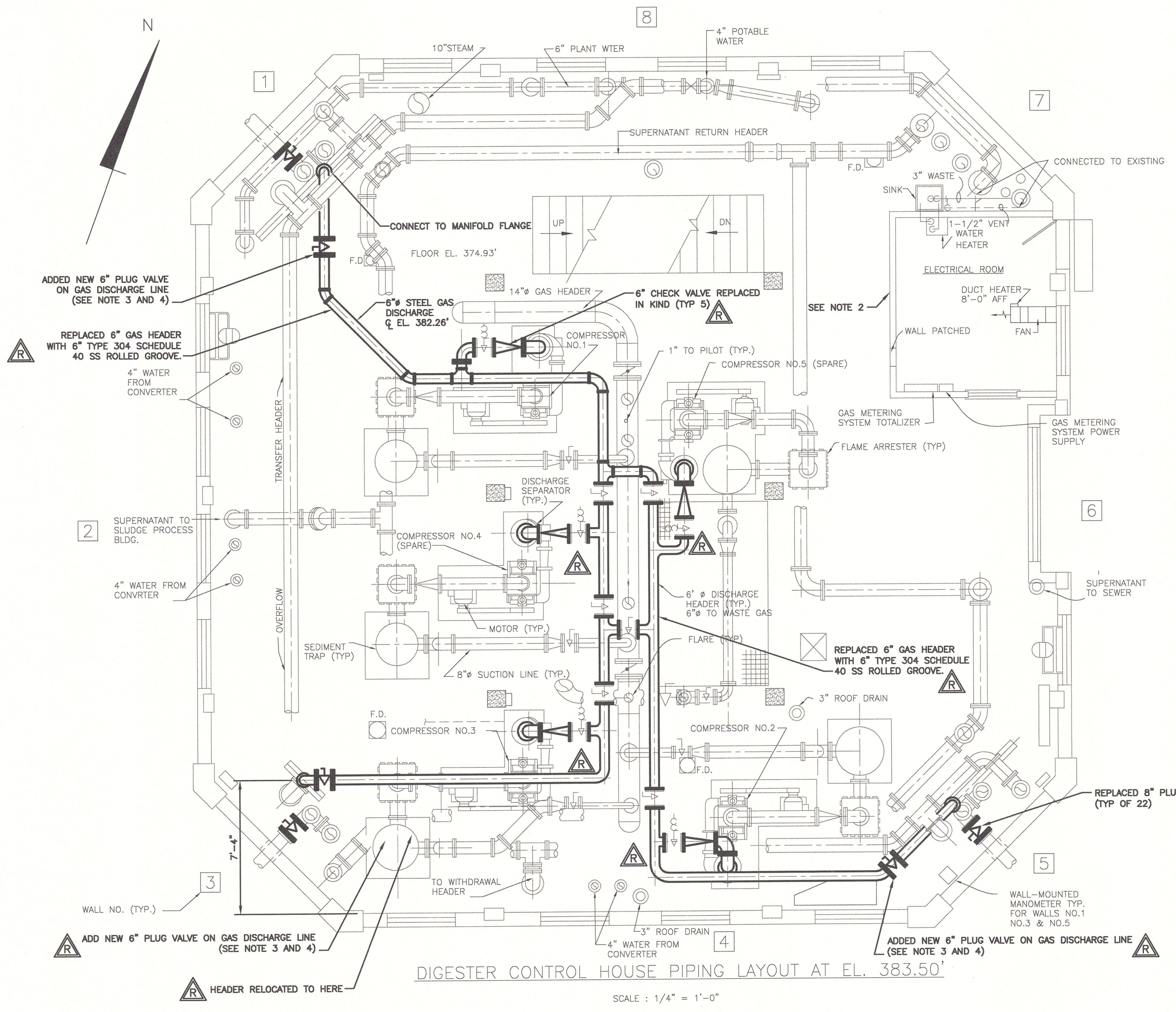
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2	SFB	12/12	EJP	SFB	GCH	02/2013
1	PME	03/10	JSS	PME	GCH	3/18/10
PROJECT SUPERVISOR: BRUCE G. MUNN DEPARTMENT SUPERVISOR: JAN S. SALZMAN						

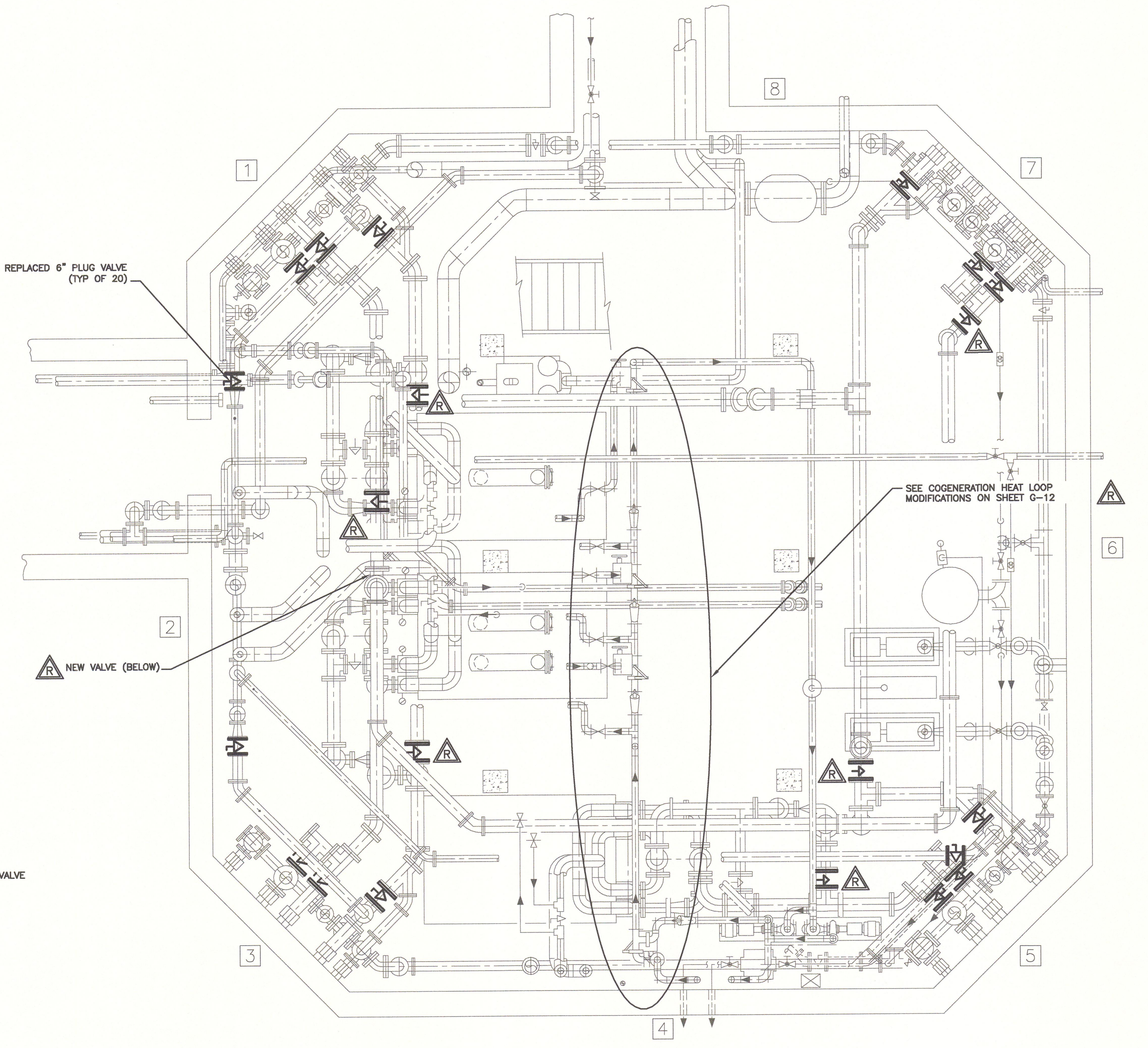
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 CAZENOVIA, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION
 METROPOLITAN SYRACUSE WWTP - ONONDAGA COUNTY, NY
 DIGESTER CLEANING & MISCELLANEOUS REPAIRS
 DIGESTER CONTROL HOUSE WALL SECTIONS
 JOB NO. 8614054 CONTRACT SHEET G-9



DIGESTER CONTROL HOUSE PIPING LAYOUT AT EL. 383.50'

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



DIGESTER CONTROL HOUSE PLAN AT EL. 372.50'

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

NOTE:

1. EXISTING VALVES SHOWN LIGHT. NEW VALVES SHOWN HEAVY.
2. SEALED PENETRATIONS AT CONDUITS ON WEST WALL OF ELECTRICAL ROOM WITH NON-SHRINK GROUT; APPROXIMATELY 1.5 SQUARE FEET. SEALED PERIMETER OF FRAME AND GLAZING AT GLAZED OPENING ON SOUTH WALL OF ELECTRICAL ROOM WITH CLEAR SILICONE SEALANT EQUAL TO PECORA "864."
3. VALVES SHALL BE REPLACED/INSTALLED WHEN THE RESPECTIVE DIGESTER IS OUT-OF-SERVICE. NON-SPARKING TOOLS SHALL BE USED. NO BURNING SHALL BE PERMITTED IN THE DIGESTER CONTROL HOUSE.
4. NEW 6" GAS LINE PLUG VALVES PROVIDED WITH INTEGRAL FLUSH PORT DOWNSTREAM. REFER TO SPECIFICATION SECTION 15100.
5. DIGESTERS AND DIGESTER CONTROL HOUSE ARE CONSIDERED CLASS 1, DIVISION 1, GROUP D EXPLOSIVE HAZARD LOCATIONS. CONTRACTOR SHALL CONDUCT ALL OPERATIONS ACCORDINGLY AND IN COMPLIANCE WITH ALL REGULATIONS AND OWNER'S REQUIREMENTS.
6. CONTRACTOR SHALL COORDINATE WITH OWNER TO ISOLATE PIPING PRIOR TO PERFORMING WORK IN ACCORDANCE WITH ALL REGULATIONS AND OWNER'S POLICIES AND REQUIREMENTS.

RECORD DRAWING

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 DATE: 05/23/13 PER: EJP

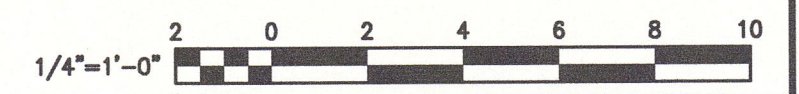
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NOTES:
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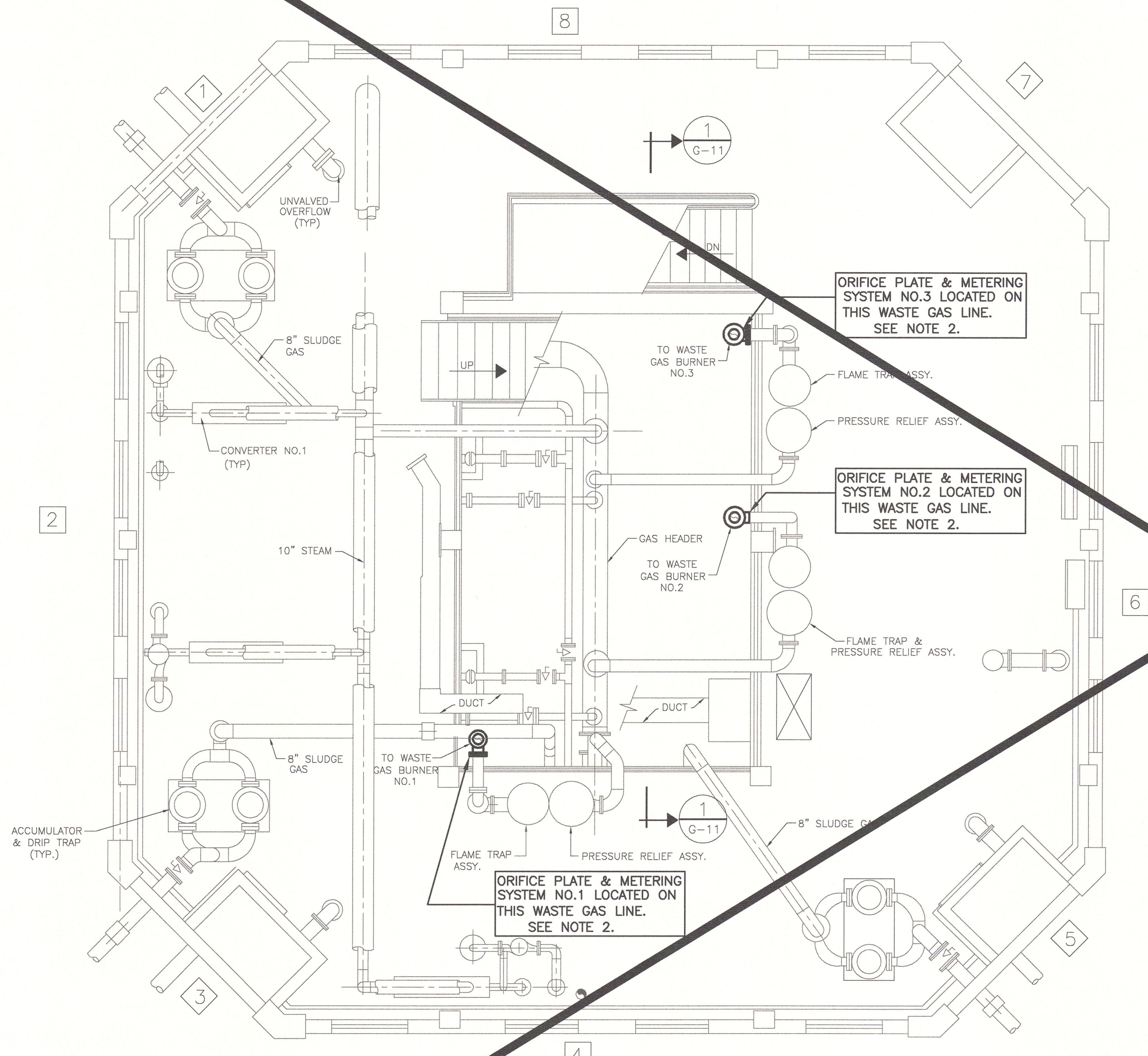
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1	FOR CONSTRUCTION	PME	03/10	JSS	PME	GCH	3/18/10
ISSUE NO.	DRAWN	DATE	CHECKED	DESIGNER	APPROVED	DATE	
PROJECT SUPERVISOR	DEPARTMENT SUPERVISOR		ISSUE NO.		DRAWN	DATE	CHECKED
BRUCE G. MUNN	JAN S. SALZMAN						

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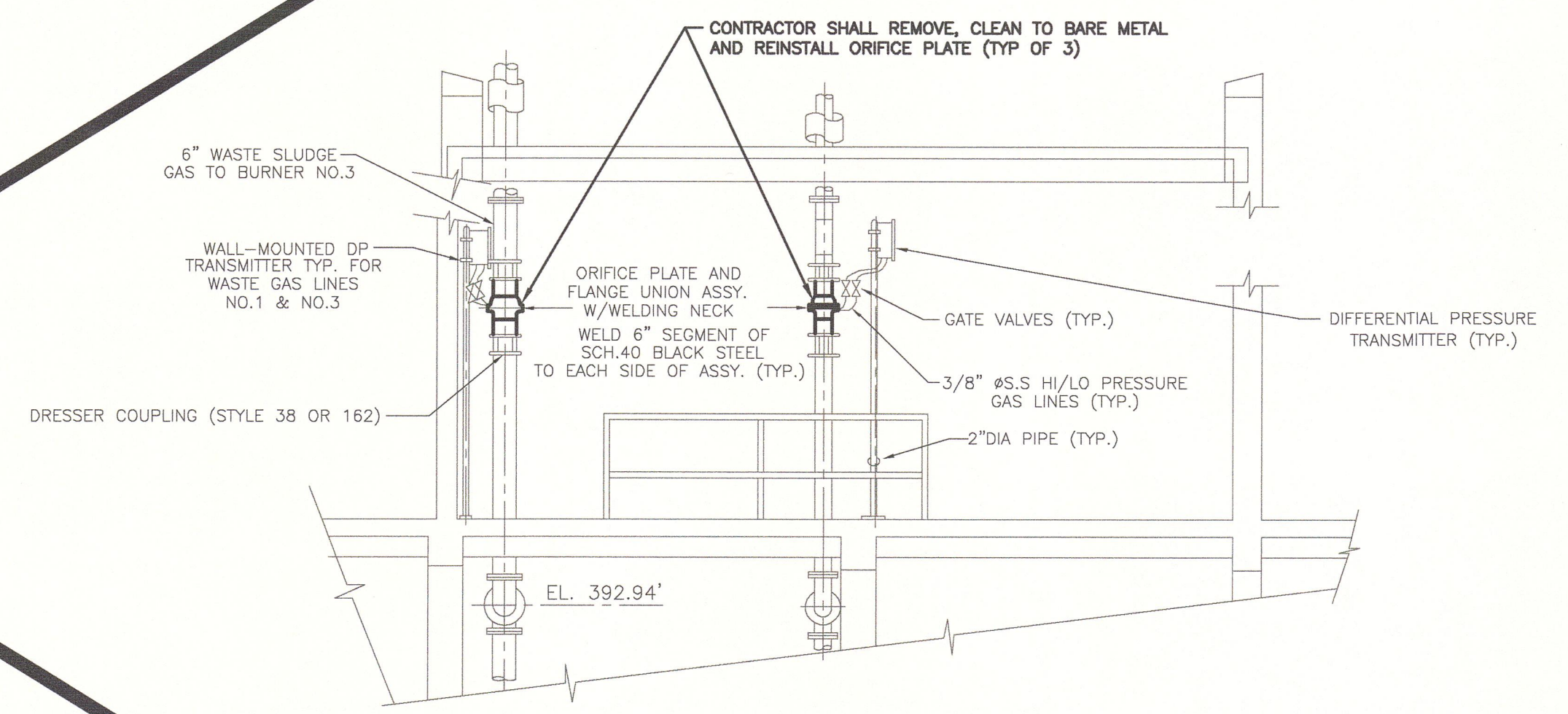
DEPARTMENT OF WATER ENVIRONMENT PROTECTION
 METROPOLITAN SYRACUSE WWTP - ONONDAGA COUNTY, NY
 DIGESTER CLEANING & MISCELLANEOUS REPAIRS
 DIGESTER CONTROL HOUSE PLANS
 JOB NO. 8614054 CONTRACT SHEET G-10



NOT IN CONTRACT



DIGESTER CONTROL HOUSE PLAN AT EL. 393.50'
SCALE 1/4"=1'-0"

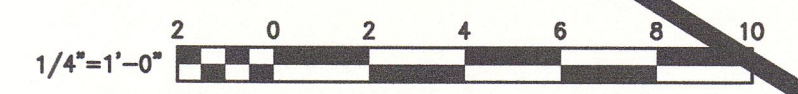


SECTION 1 G-11
SCALE 1/4"=1'-0"

- NOTE:**
- EXISTING FACILITIES SHOWN LIGHT, NEW FACILITIES SHOWN HEAVY.
 - EACH ORIFICE PLATE SHALL BE CLEANED WHEN THE RESPECTIVE DIGESTER IS OUT-OF-SERVICE. NON-SPARKING TOOLS SHALL BE USED. NO BURNING SHALL BE PERMITTED IN THE DIGESTER CONTROL HOUSE.
 - CONTRACTOR SHALL COORDINATE WITH OWNER TO ISOLATE PIPING PRIOR TO PERFORMING WORK IN ACCORDANCE WITH ALL REGULATIONS AND OWNER'S POLICIES AND REQUIREMENTS.
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DATE: 05/23/13 PER: EJP

REVISED FOR RECORD DRAWING

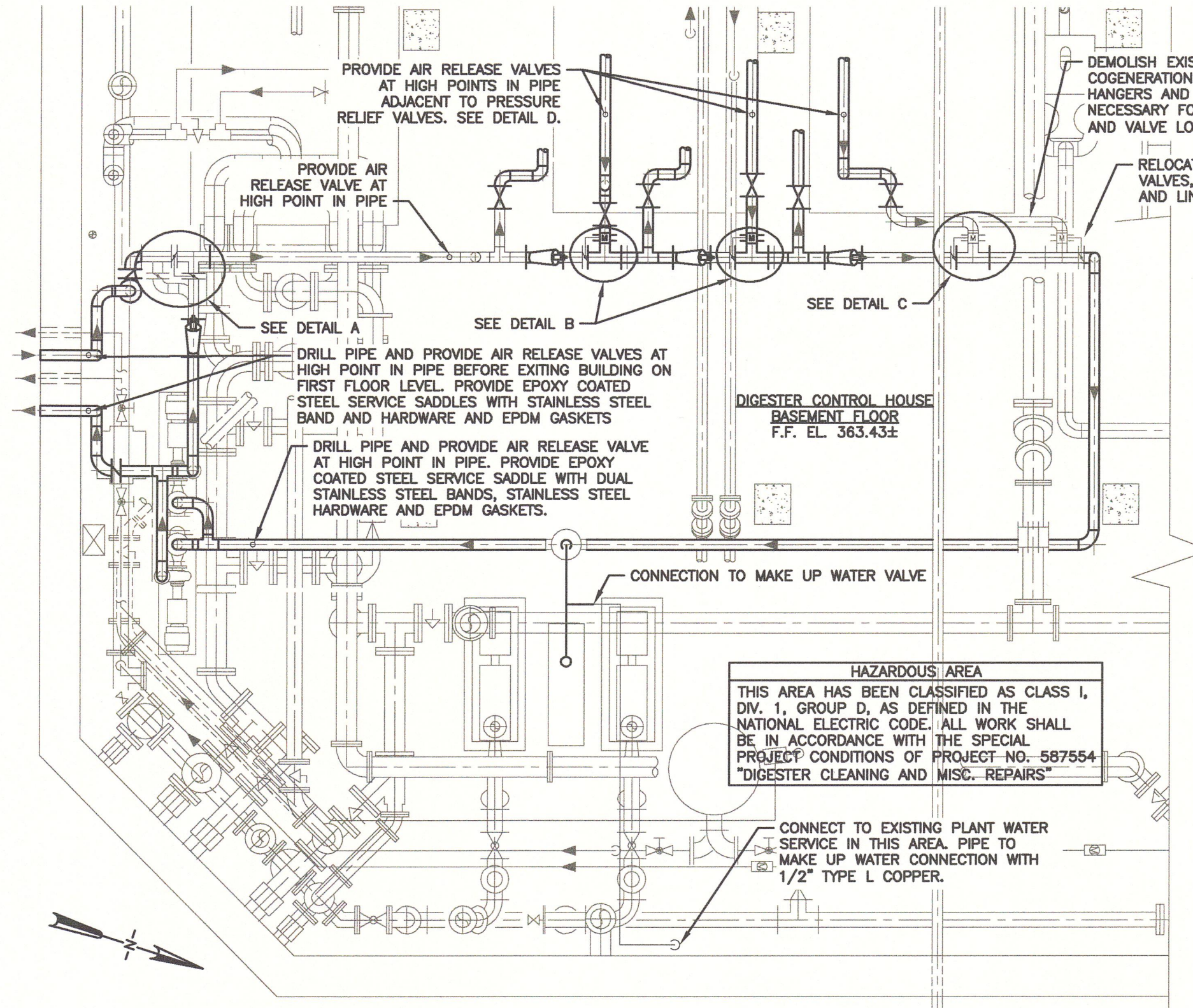


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	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY					
1	FOR CONSTRUCTION		PME		JSS		PME		GCH		3/18/10						
	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY	DATE	BY					
PROJECT SUPERVISOR		DEPARTMENT SUPERVISOR		ISSUE NO.		DRAWN		DATE		CHECKED		DESIGNER		APPROVED		DATE	
BRUCE G. MUNN		JAN S. SALZMAN		1		EJP		05/23/13		EJP		EJP		EJP		05/23/13	

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CAZENOVIA, NEW YORK

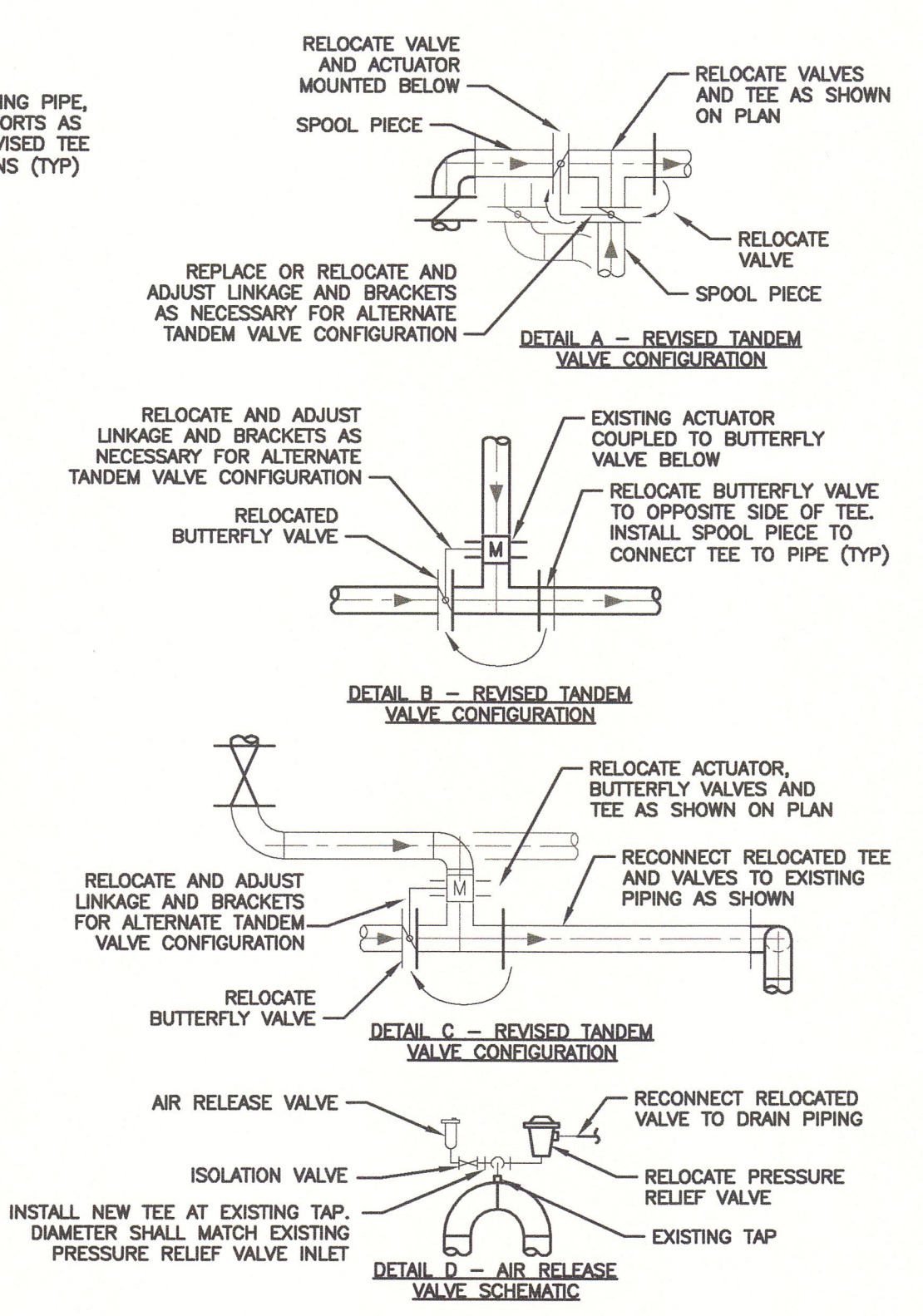
DEPARTMENT OF WATER ENVIRONMENT PROTECTION
METROPOLITAN SYRACUSE WWTP -- ONONDAGA COUNTY, NY
DIGESTER CLEANING & MISCELLANEOUS REPAIRS
DIGESTER CONTROL HOUSE PLAN AT 393.50'
JOB NO. 8614054 CONTRACT SHEET G-11



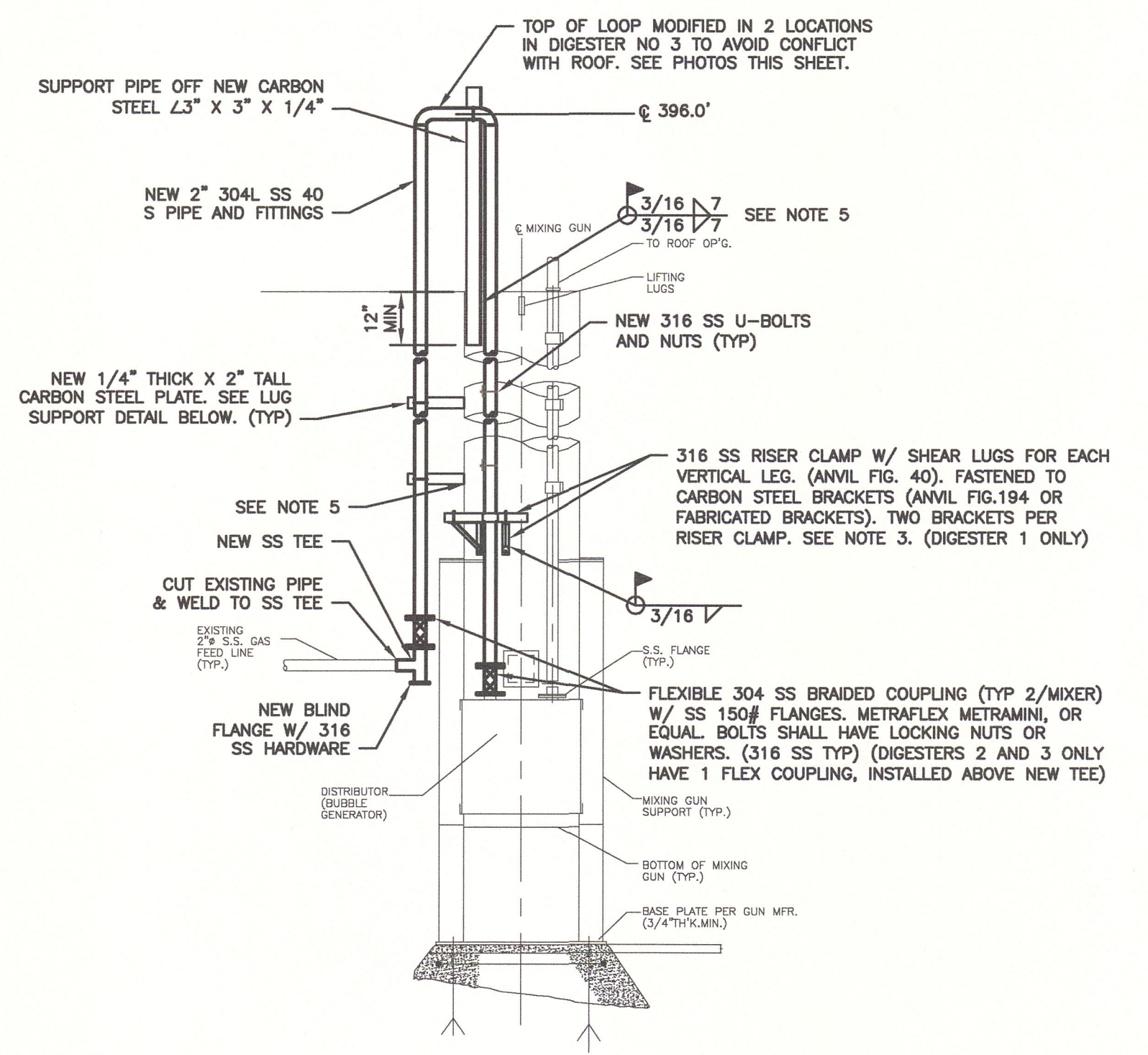
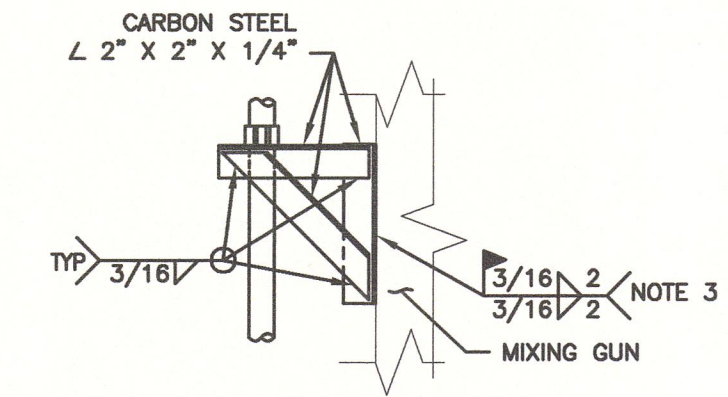
COGENERATION HEAT LOOP MODIFICATIONS
SCALE: 1/4"=1'-0"

GENERAL NOTES:

- AIR RELEASE VALVES SHALL BE BELL & GOSSETT MODEL 107A OR EQUAL.
- NEW AND RELOCATED PIPING HANGERS SHALL BE TYPE 316 STAINLESS STEEL, ANVIL FIGURE 300 CLEVIS HANGERS OR EQUAL INSTALLED AT MAXIMUM 10 FOOT INTERVALS. MOUNTING HARDWARE SHALL BE TYPE 316 STAINLESS STEEL. PROVIDE INSERTS FOR SUSPENDING HANGERS FROM CONCRETE SLABS AND BEAMS. REMOVE EXISTING GLASS FIBER INSULATION WITH PVC JACKETS AND REINSTALL ON ALL NEW COGENERATION HEAT PIPING INSTALLED UNDER PROPOSED WORK. IF REQUIRED, NEW INSULATION SHALL BE MANVILLE MICRO-LOK OR EQUAL. PVC JACKET SHALL BE MANVILLE ZESTON OR EQUAL.
- CONTRACTOR IS RESPONSIBLE FOR EXTENDING CONDUIT AND WIRING AS NECESSARY FOR THE RELOCATION OF ACTUATORS. ALL ELECTRICAL WORK SHALL BE NEC CLASS 1, DIVISION 1 AND SUITABLE FOR HAZARDOUS CLASSIFIED AREAS.
- ADJUSTMENT OF THE TANDEM VALVES, BRACKETS AND LINKAGES SHALL BE PERFORMED BY A TRAINED MANUFACTURERS REPRESENTATIVE.
- NEW COGENERATION HEAT PIPING SHALL BE SCHEDULE 40 WELDED STEEL, ASTM A53 OR A120. FITTINGS SHALL BE 150-LB MALLEABLE IRON, ANSI B16.3. GASKETS SHALL BE 1/8" THICK EPDM FOR HIGH TEMPERATURE SERVICE. NO WELDING SHALL BE DONE WITHIN THE DIGESTER CONTROL HOUSE. THE CONTRACTOR SHALL INSTALL NEW PIPE AS SHOWN IN THE DRAWINGS BACK TO THE CLOSEST FLANGED CONNECTION. REUSE OF EXISTING MATERIALS FOR MODIFICATIONS IS ACCEPTABLE.
- CONTRACTOR SHALL REMOVE EXISTING PIPING, FITTINGS AND VALVES AS NECESSARY FOR THE INSTALLATION OF PROPOSED WORK.
- PAINT NEW PIPING WITH MINIMUM 2-MILS THICK PRIME COAT, SERIES 6-COLOR TNAME-CRYL OR EQUAL.



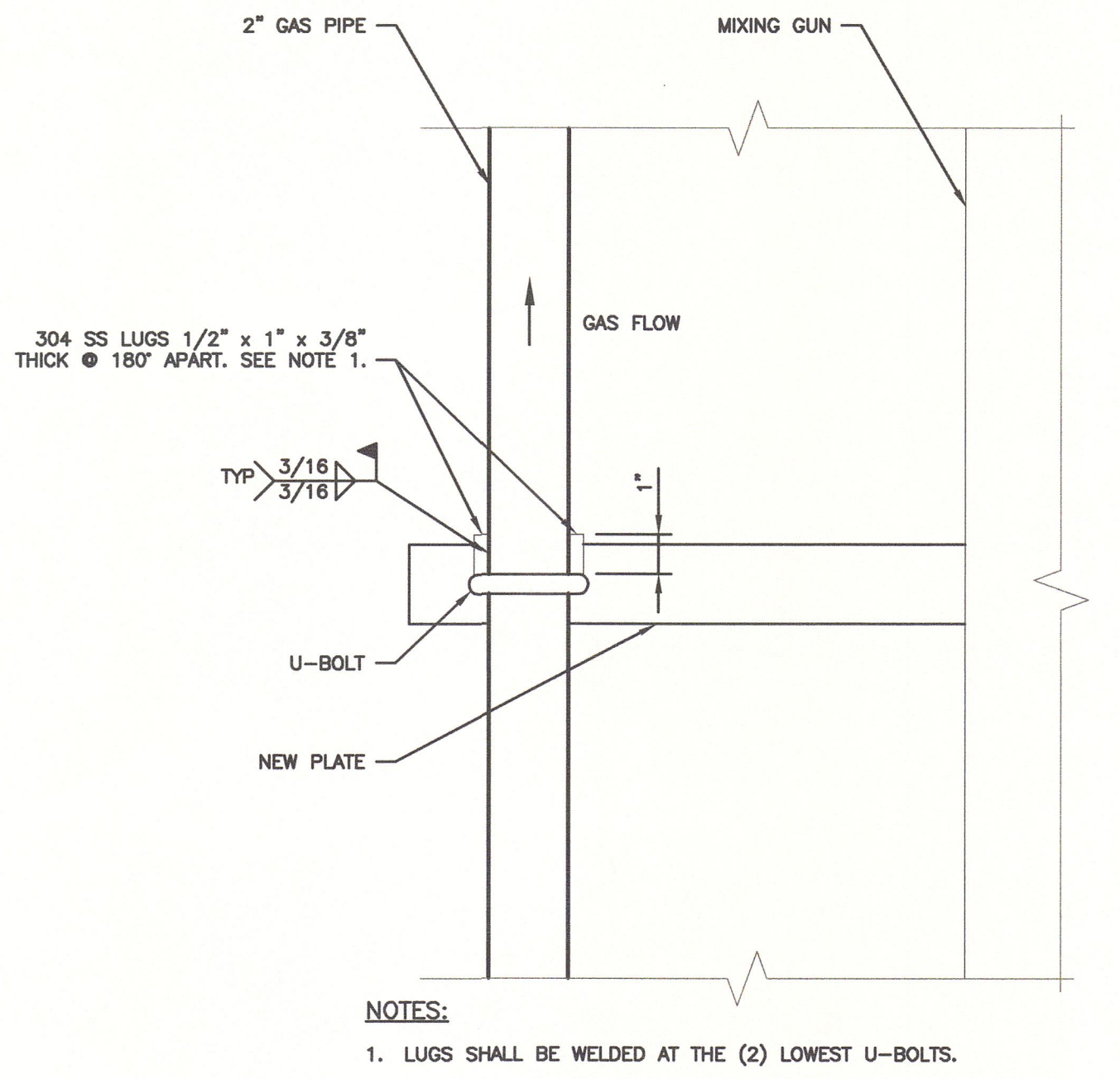
FABRICATED BRACKET DETAIL
NOT TO SCALE



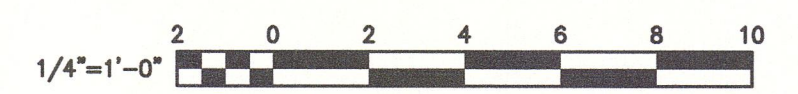
NOTES:

- ALL NEW CARBON STEEL SHALL BE PAINTED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. LENGTH OF ANGLES/BRACKETS SHALL BE AS NECESSARY TO SUPPORT PIPE. ALL WELDS SHALL BE CONTINUOUS AND IN ACCORDANCE WITH SPECIFICATION SECTION 05500.
- ALL HARDWARE SHALL BE 316 SS WITH EITHER LOCKING NUTS OR DOUBLE NUTS OF 316 STAINLESS STEEL MATERIAL.
- WELD BRACKET TO MIXING GUN WITH 2 INCHES OF WELD AT TOP AND BOTTOM OF BRACKET, EACH SIDE.
- SHOP DRAWINGS FOR COATINGS FOR MIXING GUN, RISER CLAMPS, AND BRACKETS SHALL BE SUBMITTED.
- COATED INSIDE OF MIXING GUN WHERE NEW PLATES WERE WELDED AT TOP AND BOTTOM OF MIXING GUNS (TNEMIC SERIES 46H-413).

HARTFORD LOOP AT MIXING GUN DETAIL
NOT TO SCALE

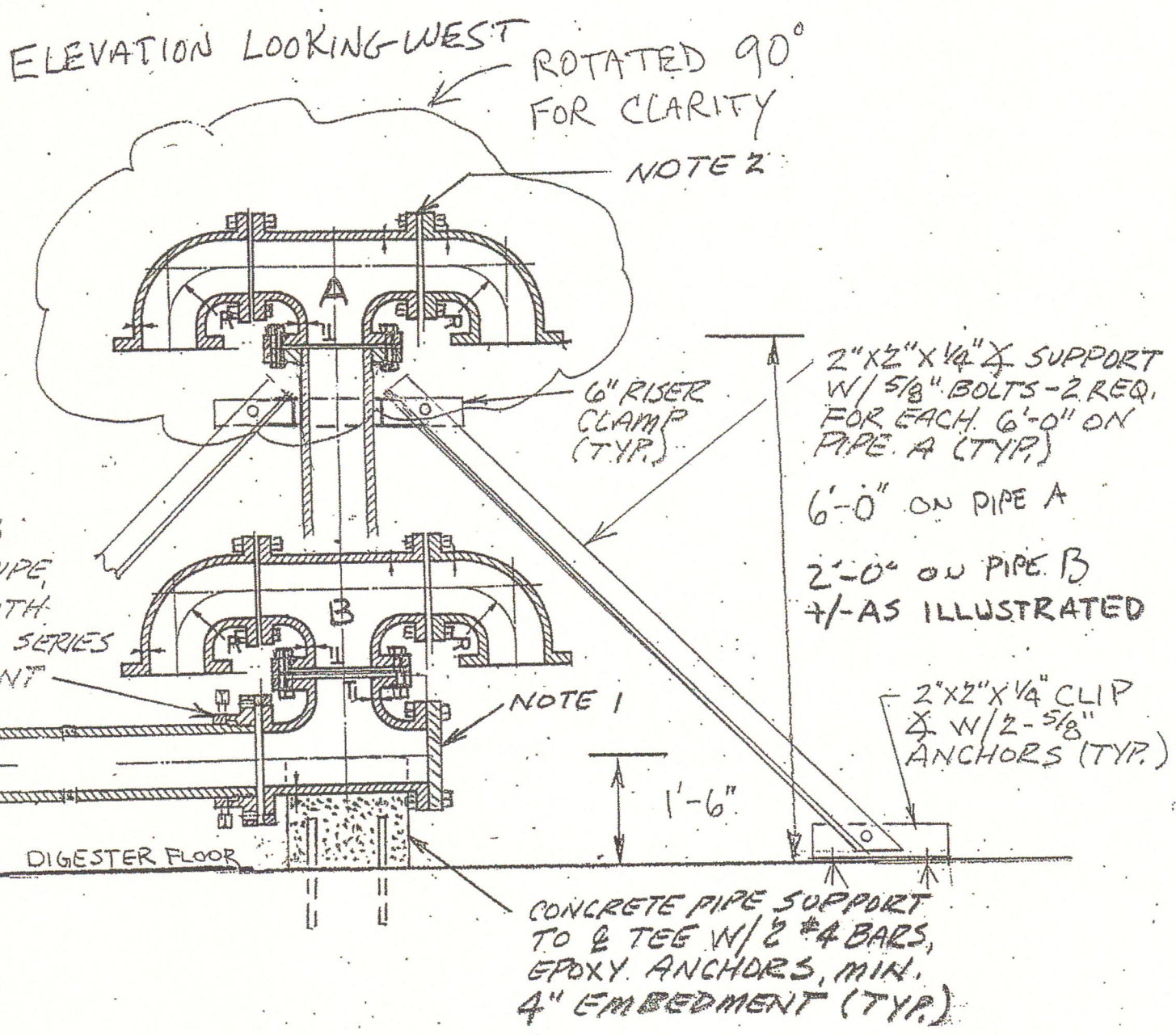


HARTFORD LOOP LUG SUPPORT DETAIL
NOT TO SCALE



NOTES:

- OWNER TO PROVIDE VALVE FOR CONTRACTOR TO INSTALL.
- PIPE JOINT GASKET MATERIAL SHALL BE 1/8" THICK, FULL FACE, CLOTH INSERTED NEOPRENE.



SLUDGE WITHDRAWAL PIPING MODIFICATIONS
NOT TO SCALE



HARTFORD LOOP MODIFICATION PHOTO 1
NOT TO SCALE



HARTFORD LOOP MODIFICATION PHOTO 2
NOT TO SCALE

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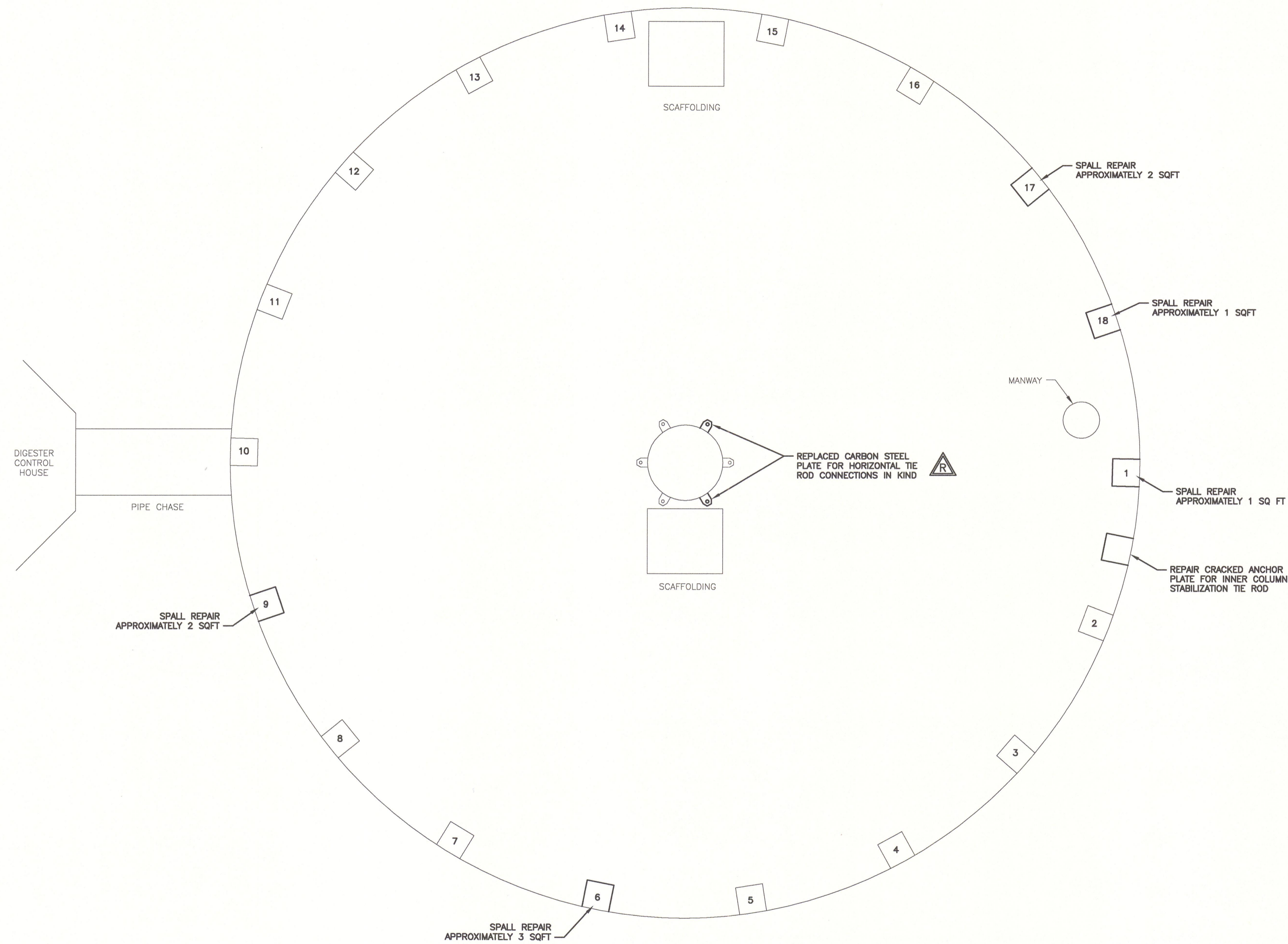
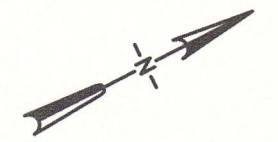
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1	FOR CONSTRUCTION	PME	03/10	JSS	PME	GCH	3/18/10		
ISSUE NO.	DRAWN	DATE	CHECKED	DESIGNER	APPROVED	DATE			
PROJECT SUPERVISOR	DEPARTMENT SUPERVISOR		ISSUE NO.	DRAWN	DATE	CHECKED	DESIGNER	APPROVED	DATE
BRUCE G. MUNN	JAN S. SALZMAN								



CAZENOVIA, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION			
METROPOLITAN SYRACUSE WWTP - ONONDAGA COUNTY, NY			
MISCELLANEOUS DETAILS			
JOB NO.	8614054	CONTRACT	SHEET
			G-12



REVISED FOR RECORD DRAWING

RECORD DRAWING

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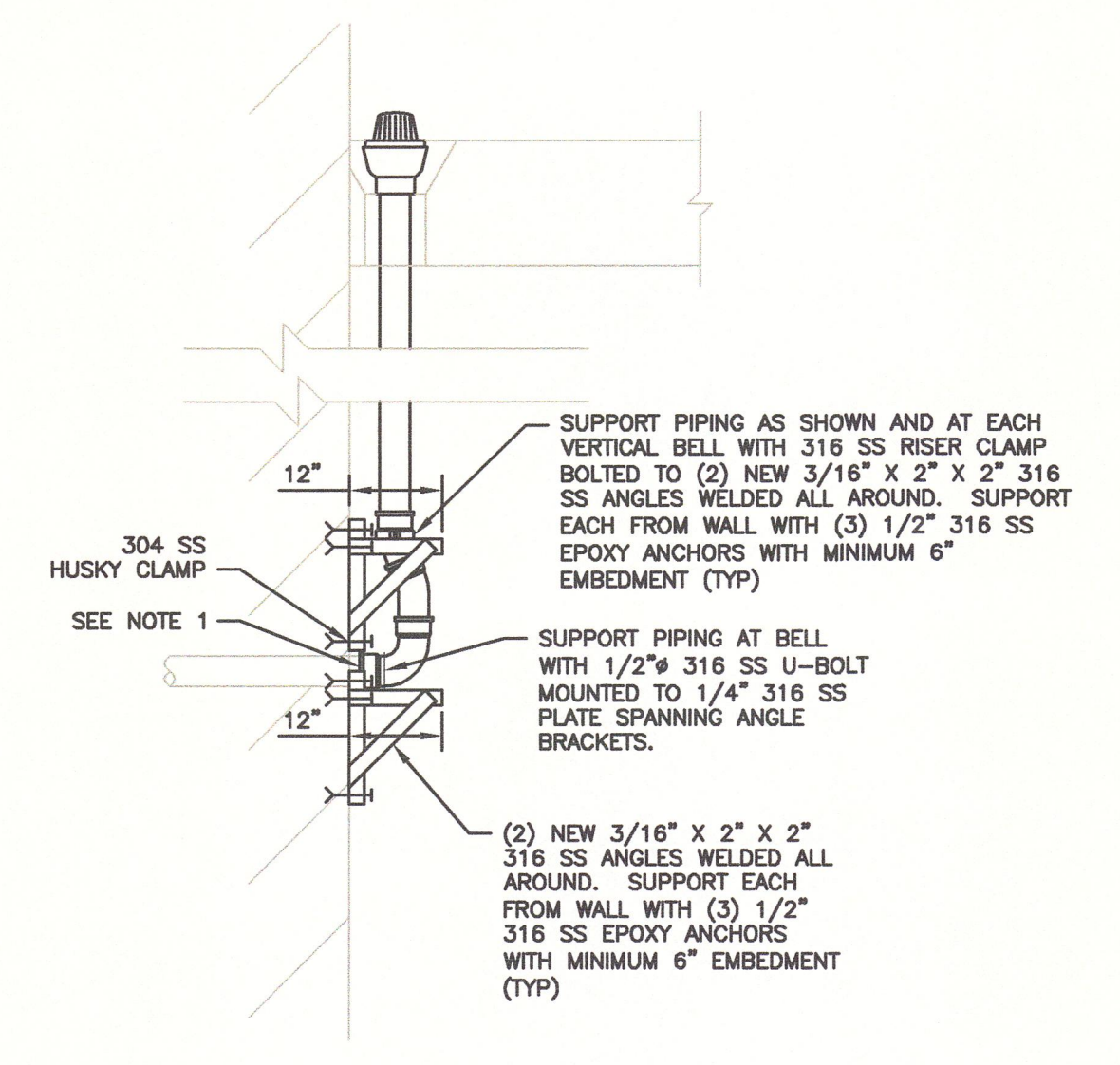
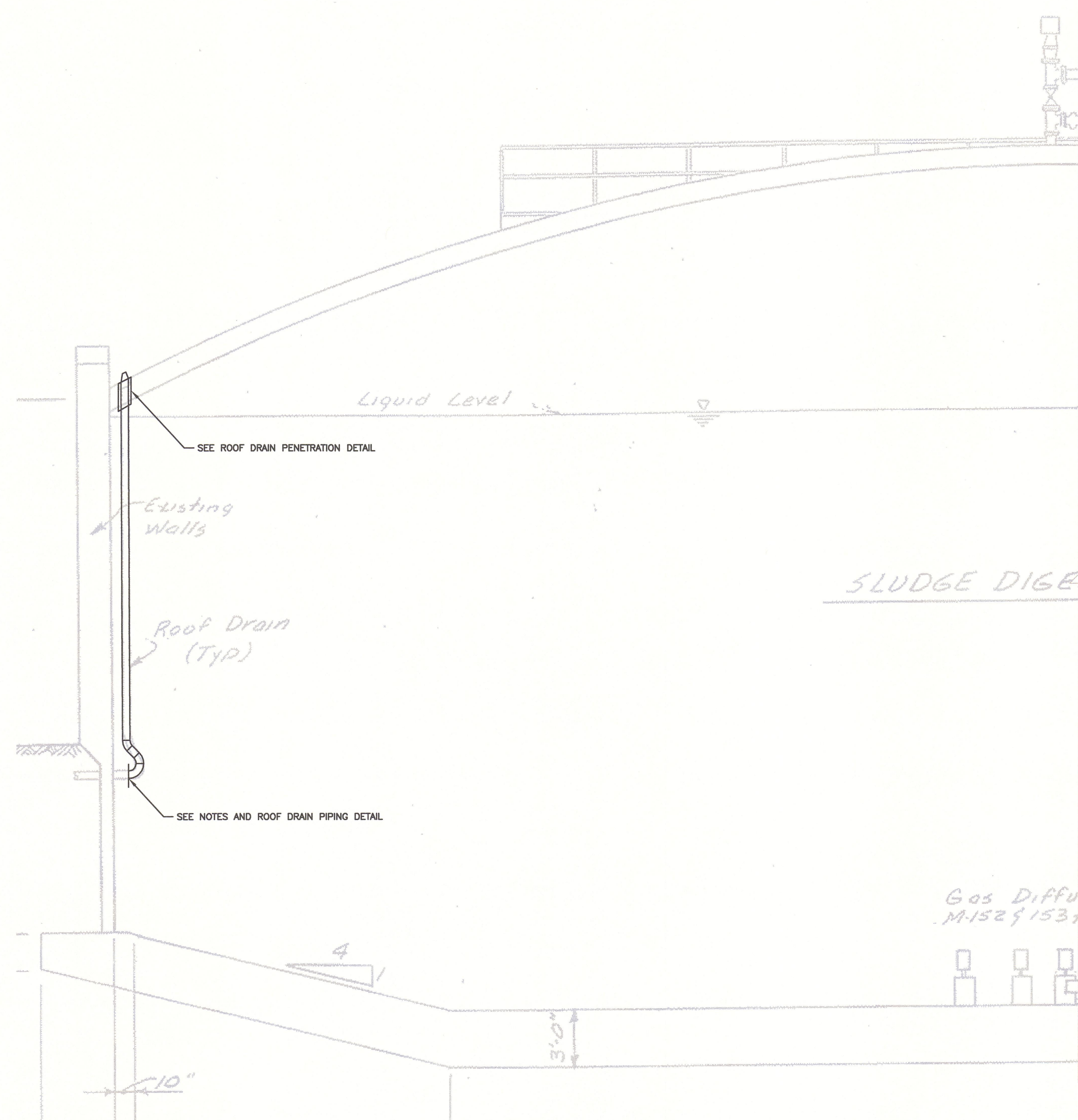
28.11.2012 STEVEN BISHOP
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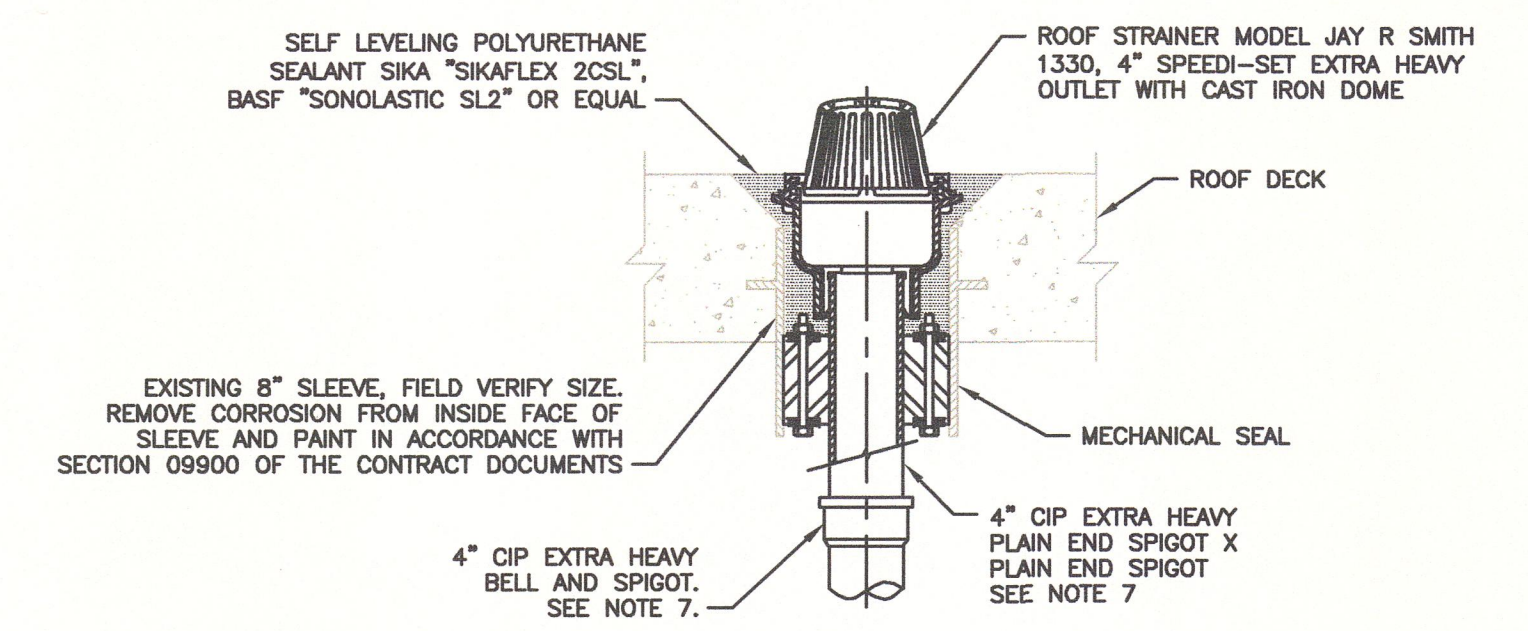
2	FOR RECORDS				GCH	02/2013										
	SFB	12/12	EJP	SFB												
1	FOR CONSTRUCTION				GCH	3/18/10										
	SFB	03/10	JSS	SFB												
ISSUE NO.	DRAWN	DATE	CHECKED	DESIGNER	APPROVED	DATE										
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DEPARTMENT OF WATER ENVIRONMENT PROTECTION		
METROPOLITAN SYRACUSE WWTP -- ONONDAGA COUNTY, NY		
DIGESTER CLEANING & MISCELLANEOUS REPAIRS EXISTING DIGESTER 4		
JOB NO.	8614054	CONTRACT
SHEET	G-13	



ROOF DRAIN PIPING DETAIL (TYP 3)
SCALE: 1/2"=1'-0"



ROOF DRAIN PENETRATION DETAIL (TYP 3)
NOT TO SCALE

NOTES:

- CUT EXISTING PIPE NEAR PENETRATION AND PROPERLY DISPOSE OF OLD ROOF DRAIN. REMOVE CORROSION FROM REMAINING EXPOSED PIPE AND PAINT IN ACCORDANCE WITH SECTION 09900 OF THE CONTRACT DOCUMENTS.
- ALL SUPPORTS, HARDWARE AND ACCESSORIES SHALL BE 316 SS AND IN ACCORDANCE WITH SECTION 15140 OF THE CONTRACT DOCUMENTS. UTILIZE TYPE 316 SS DRILLED IN EPOXYED ANCHOR BOLTS AND NUTS TO MOUNT SUPPORTS. THERE SHALL BE AT LEAST 4 SUPPORTS PER DRAIN.
- REPLACE PIPE FROM THE CUT PIPE THROUGH THE ROOF DECK TO STRAINER BELL WITH 4" CAST IRON EXTRA HEAVY BELL AND SPIGOT PIPE WITH RUBBER GASKETS. PIPE SHALL BE ASTM A74. GASKETS SHALL BE ASTM C564. CONTRACTOR SHALL VERIFY DIAMETER OF PIPE PRIOR TO WORK AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES. CONTRACTOR SHALL PROVIDE FITTINGS AS REQUIRED.
- REPLACE MECHANICAL SEALS WITH LINK-SEAL AS MANUFACTURED BY THUNDERLINE CORPORATION IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS. LINK SEALS SHALL HAVE NITRILE RUBBER AND 316 STAINLESS STEEL HARDWARE.
- THE NEW PIPE AND FITTINGS SHALL BE LEAK TESTED FOR 1/2 HOUR WITH HYDROSTATIC PRESSURE IN ACCORDANCE WITH SPECIFICATION SECTION 15060. A HYDROSTATIC PRESSURE EQUAL TO THE WATER LEVEL AT THE TOP OF THE DRAIN PIPE SHALL BE USED FOR TESTING.
- NEW AND EXISTING ROOF DRAIN PIPING SHALL BE EPOXY COATED WITH A PRIME COAT, INTERMEDIATE COAT AND FINISH COAT OF 3-5 MILS EACH IN ACCORDANCE WITH SPECIFICATION SECTION 09900.
- DIGESTER 2 PIPING WAS SERVICE WEIGHT.

RECORD DRAWING

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DATE: 05/23/13 PER: EJP

REVISED FOR RECORD DRAWING

28.11.2012 STEVEN BISHOP
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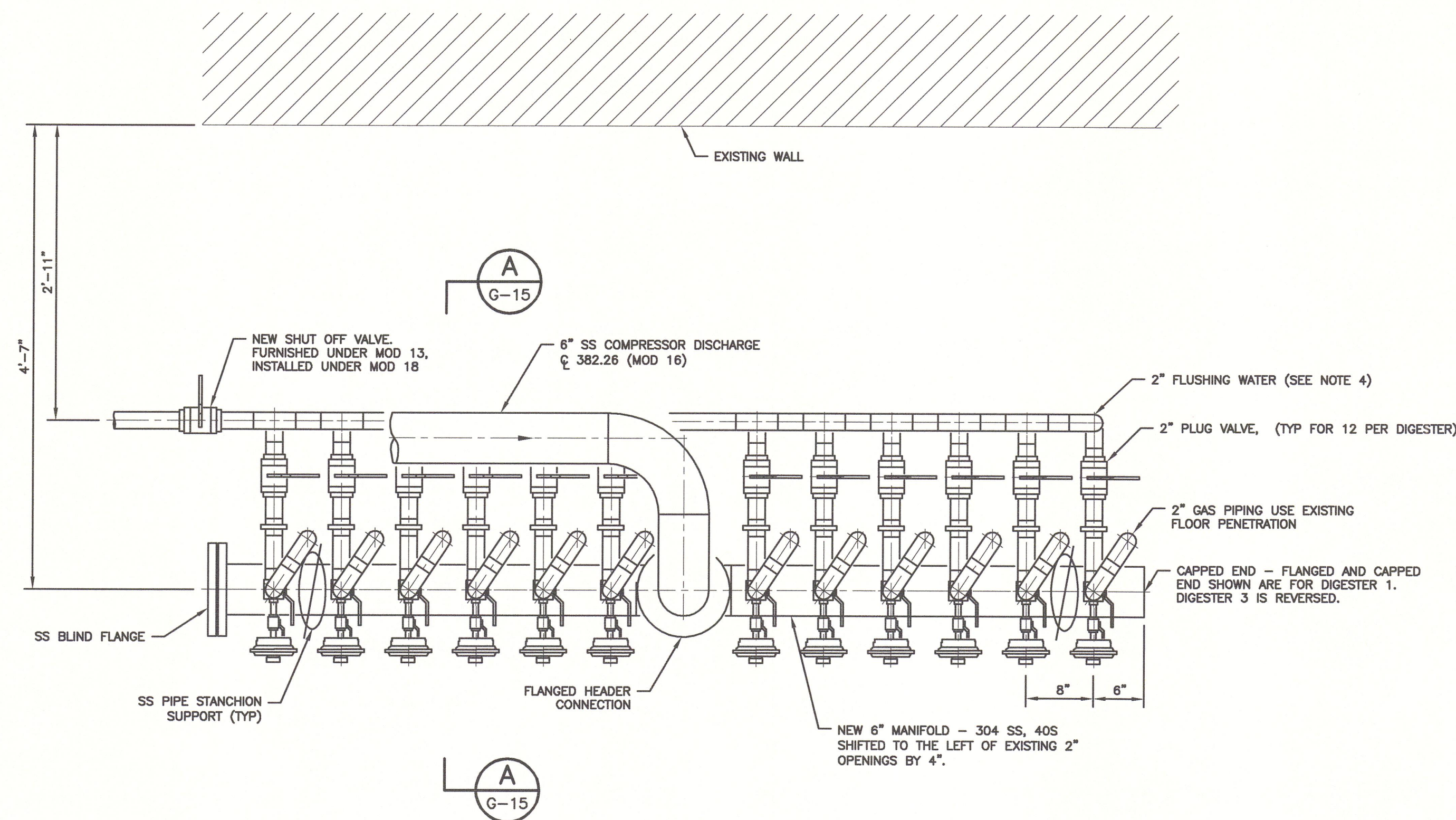
NOTES:
Underground facilities, structures, and utilities have been plotted from available surveys and records, and therefore their locations must be considered approximate only. There may be others, the existence of which is presently not known.
It is a violation of New York State Education Law for any person, unless acting under the direction of a licensed professional engineer, to alter an item on this drawing in any way. If an item is altered, the altering engineer shall affix to the item his/her seal and the notation "altered by" followed by his/her signature and the date of such alteration, and a specific description of the alteration.

ISSUE NO.	DRAWN	DATE	CHECKED	DESIGNER	APPROVED	DATE
2	SFB	12/12	EJP	SFB	GCH	02/2013
1	SFB	03/10	JSS	SFB	GCH	3/18/10
PROJECT SUPERVISOR: BRUCE G. MUNN DEPARTMENT SUPERVISOR: JAN S. SALZMAN						
ISSUE NO.	DRAWN	DATE	CHECKED	DESIGNER	APPROVED	DATE



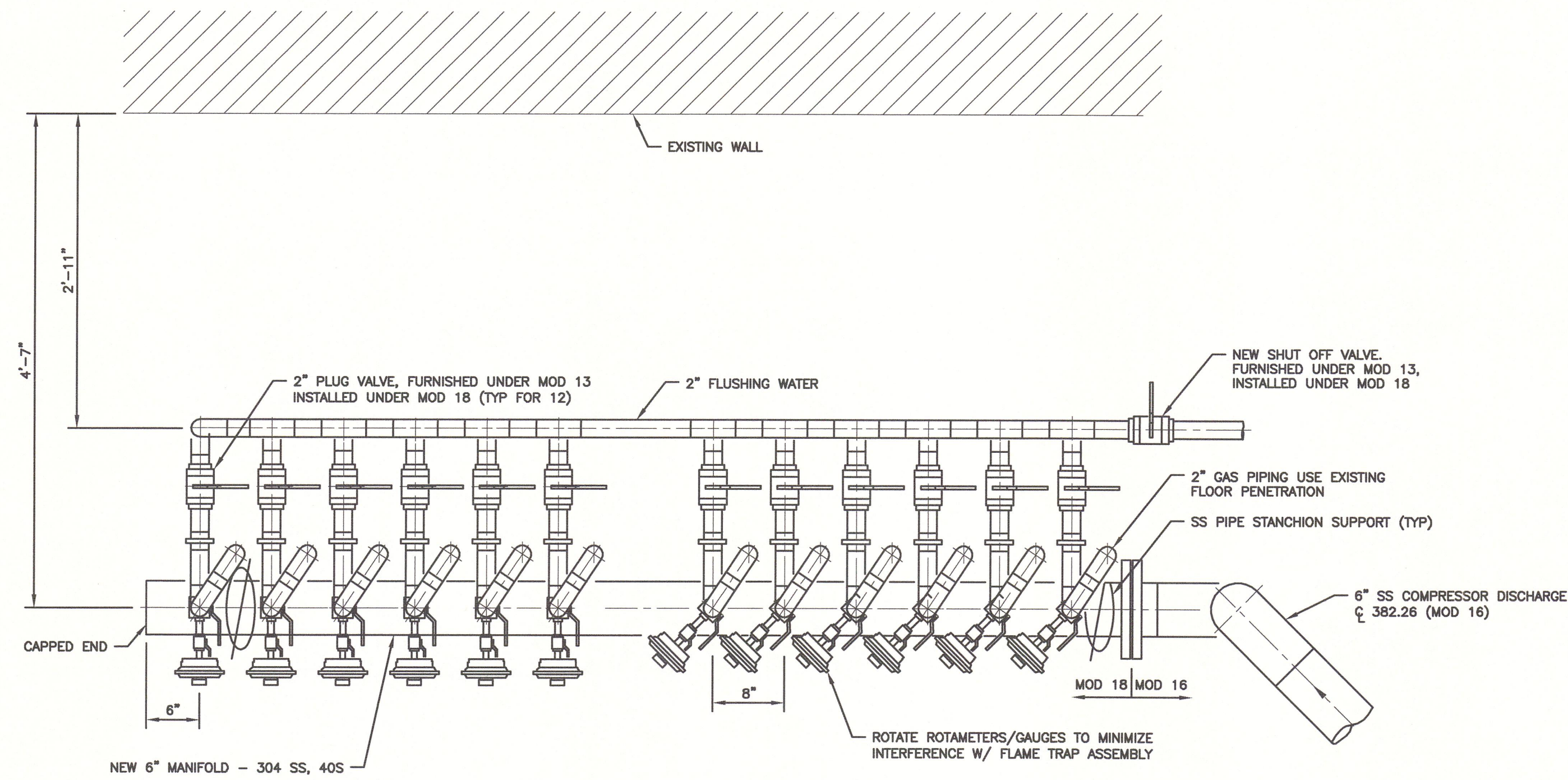
CAZENOVIA, NEW YORK

DEPARTMENT OF WATER ENVIRONMENT PROTECTION	
METROPOLITAN SYRACUSE WWTP - ONONDAGA COUNTY, NY	
DIGESTER CLEANING & MISCELLANEOUS REPAIRS	
DIGESTER 1 AND 2 - ROOF DRAIN MODIFICATIONS	
JOB NO. 8614054	CONTRACT
SHEET G-14	

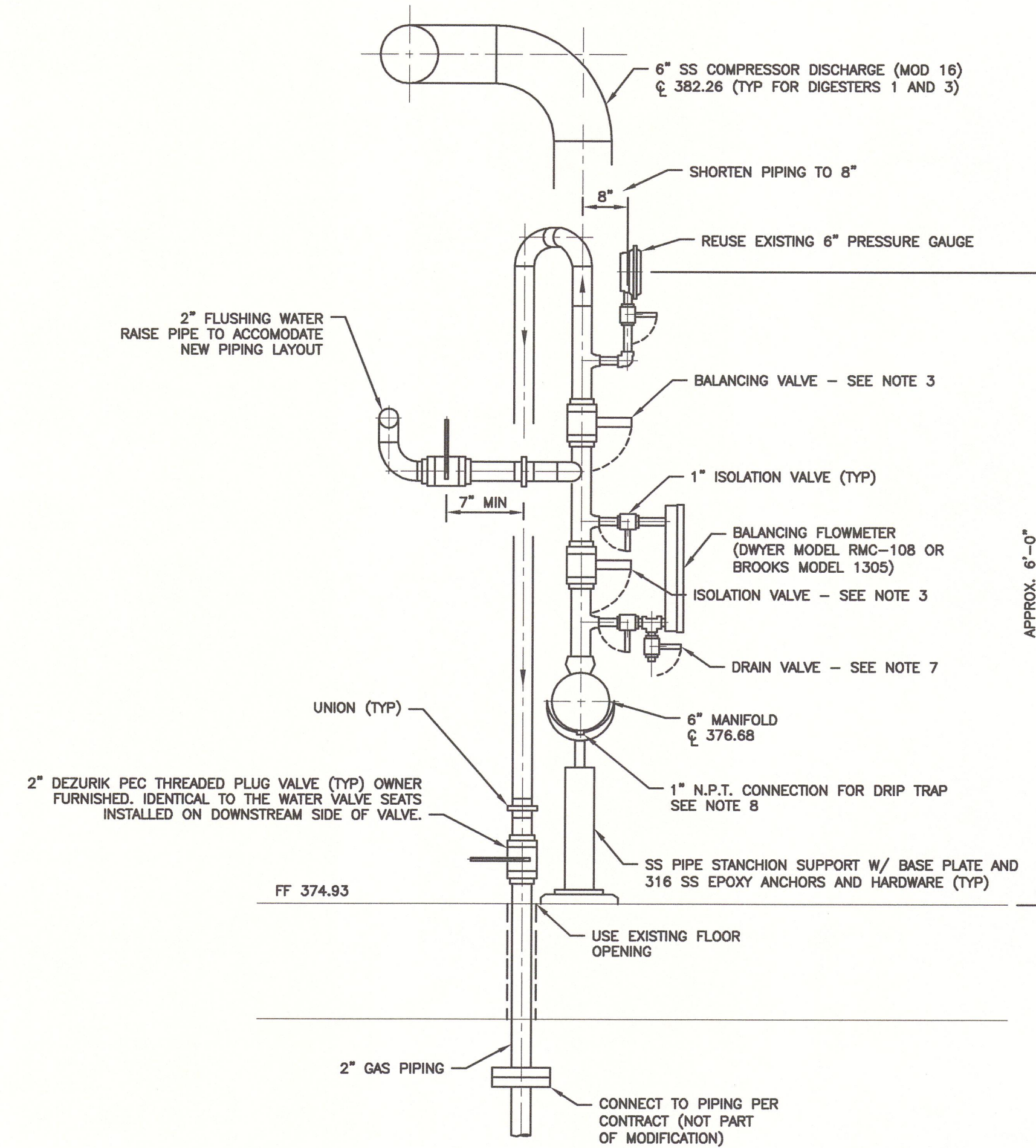


MANIFOLD ASSEMBLY - DIGESTER NOS 1 & 3
SCALE: 1"=1'-0"

SEE NOTE 5



MANIFOLD ASSEMBLY - DIGESTER NO 2
SCALE: 1"=1'-0"



SECTION A-A
SCALE: 1"=1'-0"

NOTES:

1. PIPING TO BE 304 SCH 40S STAINLESS STEEL, WELDED CONSTRUCTION, EXCEPT AS REQUIRED FOR THREADED CONNECTIONS.
2. 1-INCH VALVES SHOWN ARE 316 STAINLESS STEEL BALL VALVES, WELDED SOCKET TYPE OF THREE PIECE CONSTRUCTION, MANUFACTURED BY APOLLO MODEL 86A-200 SERIES.
3. ISOLATION AND BALANCING VALVES CHANGED TO BALL VALVES PER MOD 25.
4. SHORTEN WATERLINE BY 4" SO IT LINES UP WITH 2" PIPING ON NEW MANIFOLD.
5. MODIFICATIONS TO DIGESTER 3 ARE IDENTICAL TO DIGESTER 1, EXCEPT THE NEW MANIFOLD WILL BE OFFSET TO THE RIGHT OF THE EXISTING 2" OPENINGS AND THE EXISTING PLANT WATER LINE WILL HAVE TO BE EXTENDED 4" TO LINE UP WITH THE NEW MANIFOLD.
6. CONTRACTOR TO VERIFY ALL DIMENSIONS.
7. BOTTOM END PIECE OF DRAIN VALVE SHALL BE A THREADED CONNECTION WITH PLUG. SEE FIELD ORDER # 10.
8. EXISTING DRIP TRAP SHALL BE RE-INSTALLED AND ADEQUATELY SUPPORTED OFF THE FLOOR WITH A SS RISER CLAMP, (2) 5/8" SS THREADED ROD AND EXPANSION ANCHORS.

RECORD DRAWING

THESE DRAWINGS HAVE BEEN REVISED TO REFLECT MAJOR CHANGES, IF ANY, WHICH OCCURRED DURING CONSTRUCTION. REVISIONS ARE BASED UPON INFORMATION SUPPLIED BY CONTRACTOR.

DATE: 05/23/13 PER: EJP

R REVISED FOR RECORD DRAWING

29.11.2012 STEVEN BISHOP
G:\88\14054\CAD\RECORD DRAWINGS\XREF\QX1.DWG

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BRUCE G. MUNN	JAN S. SALZMAN							



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MANIFOLD ASSEMBLY MODIFICATIONS

JOB NO. 8614054 CONTRACT SHEET G-15