GWINNETT COUNTY
DEPARTMENT OF FINANCIAL SERVICES
PURCHASING DIVISION

75 Langley Drive | Lawrenceville, GA 30046-6935
O: 770.822.8720 | F: 770.822.8735
GwinnettCounty.com

July 22, 2025

ADDENDUM #1
BL079-25
Replacement of Odor Control Fans at the F. Wayne Hill Water Resources Center

BID SUBMITTAL DEADLINE HAS BEEN POSTPONED UNTIL THURSDAY, JULY 31, 2025, NO LATER THAN 2:50PM

****ADDITIONAL SITE VISIT SCHEDULED, SEE R2. BELOW.****

The following addition/changes modify the Bid No. BL079-25 "Replacement of Odor Control Fans at the F. Wayne Hill Water Resources Center" Contract Documents, dated June 2025, as first advertised on June 11, 2025.

I. Revisions:

R1. In the Notice of Bid, under the paragraph "Bid submittal date and location", **CHANGE** the date shown from "~~July 24, 2025~~" to "**July 31, 2025**" no later than 2:50 P.M. This date change should also be changed throughout the Front-end documents.

R2. Gwinnett County will allow for an **additional site visit** at the Gwinnett County F. Wayne Hill Water Resources Center located at 1500 One Water Way, Buford, GA 30519, **this upcoming Thursday, July 24, 2025, from 10:00 A.M until 11:00 A.M.** for all interested parties to attend. The site-visit will begin outside the main building and should be utilized by contractors and subcontractors to take pictures, measurements, and visual assessments to submit a bid for this project. No questions should be asked and will **not** be answered during this visit.

R3. Please revise the location information for Gwinnett County Dept. of Financial Services Purchasing Division on page 1 of the Notice to Bid under section ***View Construction Drawings and Specifications at the following locations*** to the following:

Documents can be viewed at the current Purchasing Division location of:
2nd Floor of Gwinnett Justice and Administration Center
75 Langley Drive
Lawrenceville, GA 30046

Beginning June 26, 2025 Documents can be viewed in the Purchasing Division's temporary location:
4th Floor Charlotte J. Nash Building
75 Langley Drive
Lawrenceville, GA 30046

II. Questions:

Q1. Please confirm if Hartzell is an approved equal.
A1. For bidding purposes, vendor substitutions will not be reviewed prior to bid opening. After award, the substitutions will be considered and reviewed based on performance, construction, material, etc. is consistent with the specification and design intent.

Q2. The specification calls for belt driven fans, but the drawings show the existing fans to be arrangement 8, direct drive fans. This is a different layout for the pad requirements. Please clarify.

A2. The new fans shall match the existing drive (direct) and discharge arrangements as the existing fans. The specification will be updated (see revised specification attached).

Q3. Please provide the Pre-Bid Sign In Sheet.

A3. Please see Attachment A1.

Q4. Is the contractor to carry the configuration of the SCADA system? if so, who would be the contact for the controls/SCADA system?

A4. Contractor is to tie the new motors to the existing VFDs, all of the controls will remain the same to provide the plant with the appropriate operating parameters (flow and pressure) to maintain operations. The point of contact for controls/SCADA will be determined during construction.

Q5. The plans seem to be incomplete. The notes on the electrical sheets refer to sheets that are not included. Please clarify or provide sheets.

A5. Notes on the other electrical sheets are just general notes. The additional sheets have been added to Exhibit C for reference (see attached).

Q6. Specification 01 1000 states that contractor is to perform Testing Adjusting Balancing (TAB) before any replacement work for baseline purposes and after the replacement work. Specification 23 0593 seems to be a generic TAB specifications that is typical for any HVAC project and does not seem to have any project specific requirements. Exhibit B provides several Instrumentation drawings that show the system in single line diagrams but does not show any airflow requirements for the various aspects of the system. Drawing 20 I-120 shows monitoring test ports on the discharge side of the fan, are these the only points that are to be observed? Drawing 2-21 H-101 seems to show an overview of the odor control ductwork for the preliminary treatment area but does not provide any airflow requirements for each duct run or show inlets/outlets nor any balancing dampers. Is the intent to TAB this entire system at each inlet and outlet to the ductwork system or is the point of this TAB to show the airflow for each fan and then coordinate the VFD settings to be able to achieve the same airflows with the new fans?

A6. Some of the file markups were corrupted when the individual files were compiled into one document. We had not realized some of the markups disappeared from the Exhibits. See attached revised Exhibits with markups. There are multiple monitoring points located on that ductwork that can be used to perform the TAB. A plan for the TAB can be submitted by the contractor during construction to determine if it's acceptable.

Q7. Exhibit A Drawing 2-20 M-102 does not show any highlighting or color changes as was done on drawing 2-20 H-105. It also does not call out the fans but we believe that the five fans are the grey devices in the middle of the largest room shown. Please confirm that these are the fans that are to be replaced.

A7. Same note as A.6. Some of the file markups were corrupted when the individual files were compiled into one document. We had not realized the markups disappeared from the Exhibits. See attached revised Exhibits with markups.

Q8. Exhibit A Drawing 2-20 H-105 seems to show that this section is from drawing H-103. Can this drawing as well as any other H drawings showing this room be provided for additional information?

A8. Drawing sheet H-103 does not provide much clarity as it simply depicts the scrubbers outside of the building, but it has been provided in the updated Exhibit A, along with sheet H-102 which actually shows the inside of the building.

Q9. Exhibit A Drawing 2-20 H-105 has the fan and the motor highlighted in red, we assume that this is done to indicate the scope of demolition. Please confirm that the motor base frame is not to be replaced.

A9. The motor base frame must be replaced as well.

Q10. Exhibit A Drawing 2-20 H-105 shows within the fan room there is a bridge crane, can the contractor utilize the bridge crane for our work? What is the capacity of this bridge crane? Mandatory training video to be watched? Inspection at the completion of the work?

A10. Yes, the crane can be used to move equipment in and out of the building. The crane has a capacity of 7 tons according to the O&M manual we have on record. Contractor is allowed to operate the crane by themselves, but they must follow all the safety precautions and ensure the weight of the equipment is within the crane tolerance.

Q11. Exhibit A Drawing 2-20 H-105 does not specifically call it out but there is a square to round transition duct on the discharge side of the fan between the fan sections and the rubber expansion joints, that are being replaced per specification. It is shown as red, does this piece need to be replaced or can it be reused.

A11. Bidders must plan to replace everything between the flex connectors.

Q12. The southern most fan and inlet ductwork pipe support are showing signs of corrosion, are these to be recoated? Perhaps consider adding a Unit Price recoating bid item.

A12. This is not within the scope of work. Gwinnett County Department of Water Resources has a sole-source contract for coatings that they may decide to use to do any work outside the scope. Contractor must apply touch-up coating to any existing coating that was damaged during demolition/construction.

Q13. Would Gwinnett County consider holding an additonal site visit to view the existing Odor Fans needing to be demoed?

A13. See Revision R1. Above.

III. <u>Attachment:</u>

A1. Pre-Bid Sign In Sheet (07/01/2025)
A2. Specification Section 43 1119 Centrifugal Fans_Rev1.
A3. Exhibit A – Mechanical Demolition_Rev1
A4. Exhibit B – Test and Balance Guide_Rev1
A5. Exhibit C – Electrical Power Plan and Single Line Diagrams_Rev1

Acknowledge receipt of this addendum on the bid form page (16) of the Notice to Bid.

Thank you,

Brittany Bryant, CPPB
Purchasing Associate III

7/1/25 @10AM

PRE-BID CONFERENCE

BL#079-25

(DEPARTMENT REPRESENTATIVES SIGN-IN AT BOTTOM)

	Representative Name	Company Name	Phone #	E-Mail Address
1.	Jason Taylor	Parrish	478-934-8245	JTaylor@Parrishconstruction.com
2.	Josh Petersen	Cornerstone	850-375-6347	JPETERSEN@CORNERSTONEH2O.com
3.	Andy Bramlett	Cornerstone	404-944-2988	andy@cornerstone-mechanical.com
4.	Josh Flammer	MBK	484-985-2078	JFLAMMER@MBKAHN.COM
5.	Logan Bourey	John F Pennebaker	470-323-1314	l.bourey@johnpennebaker.com
6.	Adam Edwards	Maxair Mech	404-617-9954	adamedwards@maxairmech.com
7.	John Butler	Maxair Mech	470-306-1590	John.butler@maxairmech.com
8.	Frank Poitr	DWR		
9.	Gary Liddell	Sol Construction	770-455-1822	estimating@solconstructionllc.com
10.	Chloe Crouch	DWR		
11.	Antoine Baker	F.S. Scarbrough	4707272348	abaker@fssindustrial.com
12.	David Johnson	Amtech Drives	470-421-2337	djohnson@amtechdrives.com
13.				

Department Representative Name	Department	Department Representative Name	Department
Brittany Bryant	Purchasing		
Michael Ffeyini	DWR		
Robert S. Deaton	DWR		
Kelvin Rosa	Gresham Smith		
Harden Zelle	Gresham Smith		

SECTION 43 1119 - CENTRIFUGAL FANS – REV.1

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Fiberglass Reinforced Plastic (FRP) Centrifugal fans for service of treated foul air.

B. Related Requirements:
   1. Section 26 2726 - Wiring Devices: Execution and product requirements for connecting equipment specified by this Section.

   2. Section 46 0514 - Common Motor Requirements for Water and Wastewater Equipment: Electric motors and accessories normally supplied as part of equipment assemblies.

1.2 REFERENCE STANDARDS

A. Air Movement and Control Association International, Inc.:

   1. AMCA 99 - Standards Handbook.
   2. AMCA 204 - Balance Quality and Vibration Levels for Fans.
   3. AMCA 210 - Laboratory Methods of Testing Fans for Aerodynamic Performance Rating.
   4. AMCA 300 - Reverberant Room Method for Sound Testing of Fans.
   5. AMCA 301 - Methods for Calculating Fan Sound Ratings from Laboratory Test Data.

B. American Bearing Manufacturers Association:

   1. ABMA 9 - Load Ratings and Fatigue Life for Ball Bearings.
   2. ABMA 11 - Load Ratings and Fatigue Life for Roller Bearings.

C. National Electrical Manufacturers Association:

   1. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).

1.3 PREINSTALLATION MEETINGS

A. Section 01 3100 – Project Management and Coordination: Requirements for preinstallation meeting.

B. Convene minimum one week prior to commencing Work of this Section.

1.4 SUBMITTALS

A. Section 01 3300 - Submittal Procedures: Requirements for submittals.

B. Product Data: Submit manufacturer information, including installation instructions, accessories, performance curves with specified operating point plotted, capacities and pressure differentials, power, rpm, sound power levels for both inlet and outlet at rated capacity, electrical characteristics, and connection requirements.

C. Shop Drawings:

1. Furnish diagrams showing complete layout of system, including equipment, piping, valves, wiring and ladder diagrams, controls, and control sequences.
2. Indicate size and configuration of assembly, mountings, weights, and accessory connections.

D. Manufacturer Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.

E. Source Quality-Control Submittals: Indicate results offactory tests and inspections.

F. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

G. Manufacturer Reports: Certify that equipment has been installed according to manufacturer instructions.

H. Qualifications Statements:

1. Submit qualifications for manufacturer and installer.
2. Submit manufacturer's approval of installer.

1.5 CLOSEOUT SUBMITTALS

A. Section 01 7000 - Execution and Closeout Requirements: Requirements for submittals.

B. Project Record Documents: Record actual locations of fans.

1.6 QUALITY ASSURANCE

A. Performance Ratings: Comply with AMCA 210 and bear AMCA Certified Ratings Seal.

B. Sound Ratings: Comply with AMCA 301 and test to AMCA 300, and bear AMCA Certified Sound Rating Seal.

C. Balance: Comply with AMCA 204.

D. Maintain one copy of each standard affecting Work of this Section on Site.

1.7 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum ten years' documented experience.

B. Installer: Company specializing in performing Work of this Section with minimum three years' documented experience and approved by manufacturer.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Section 01 6000 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.

B. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.

C. Store materials according to manufacturer instructions.

D. Protection:

1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
2. Provide additional protection according to manufacturer instructions.

1.9 WARRANTY

A. Section 01 8000 - Warranties

PART 2 - PRODUCTS

2.1 CENTRIFUGAL FANS

A. Manufacturers:

1. Verantis Environmental Solutions Group
2. Greenheck Fan Corporation.
3. Loren Cook Company.
4. New York Blower Company (The).
5. PennBarry.
6. ECS/Heil
7. Vanaire
8. Aerovent
9. Or Approved Equal.

B. Performance and Design Criteria:

1. Base Condition: 1,160 ft.; indoors.
2. Airflow Rate:64,180 cfm .
3. Static Pressure:20.00 inches wg.
4. Maximum Speed: 990 rpm.
5. Static and Dynamic Balancing: Eliminate vibration or noise transmission to occupied areas.
6. Housing: Designed to minimize turbulence with spun inlet bell and shaped cutoff.
7. Fans shall be designed for continuous indoor operation. Expected vapors present in air stream include methane, hydrogen sulfide, dilute droplets of sulfuric acid, and water saturated air. Air stream temperatures are expected to vary from 20 to 100 degrees F.
8. The fans shall be selected to achieve the design capacity at no greater than 90 percent of maximum recommended RPM. Fans shall be non-overloading at all points on their curve. Capacity

shall be determined in accordance with AMCA Standard 210, cataloged performance licensed to bare the AMCA Rating Seal prior to bid.

9. Height limited to less than or equal to approximately 182".
10. Width limited to less than or equal to 113 1/8", measured at widest point.
11. Insulation: 2" thick acoustical insulation with 1/8" protective skin. Insulation shall be rated not to exceed 80 DBA at 5 ft.
12. Inlet Dimensions: 48" inner diameter. Drilled flange.
13. Outlet Dimensions: 60" inner diameter. Drilled flange.
14. Fan and motor assembly limited to a total length of 167".
15. Centrifugal, arrangement 8, direct driven CCW, Top Angular Up (TAU) 1

C. Wheel and Inlet:

1. Forward-Curved Radial Tip Type:
   a. Material: Solid FRP, Forward curved, fabricated with Derakane 470 resin 1
   b. Furnish inlet flange, backplate.
   c. Blades: Inlet and tip curved forward in direction of airflow, and mechanically secured to flange and backplate.
   d. Hub: Constructed of steel, swaged to backplate, and keyed to shaft with set screw.

D. Housing:
1. Description: Fiberglass Reinforced Plastic (FRP), per ASTM C582 and ASTM 4167-82, using Derakane 510C-350 resin.
2. Fabrication:
   a. Bolted construction with horizontal flanged split housing, as required.
3. Interior Liner: Corrosion-resistant with Nexus Veil.
4. Exterior: C-type surfacing veil and UV-9 top gel coat, Ferro White.
5. Access: Bolted access door.
6. Fasteners: All interior hardware FRP encapsulated 316 stainless steel: exterior hardware 316 stainless steel. 1

E. Bearings:
1. Type:
   a. Ball.
   b. Comply with ABMA 9.
   c. Self-aligning.
2. Lubrication: Grease.
3. L-10 Life: 100,000 hours.

F. Shaft:
1. Material: Solid 316 Stainless Steel.
2. Shaft seal shall be Teflon SK811.
3. OSHA FRP guard. 1 1

G. Drive:
1. Type: Direct. 1
   a. Coupling: TB Woods Type B or Approved Equal.

2. Belt Guard:
   a. Fabricate to SMACNA Standard; 0.106 inch thick, 0.75-inch diamond-mesh wire screen welded to steel angle frame or equivalent, prime coated.
   b. Attachment:
      1) Secure to fan or fan supports without short-circuiting vibration isolation.

2) With guard in place, provide for adjustment of belt tension, lubrication, and use of tachometer.

H. Accessories:

1. Inlet/Outlet Flexible Connectors:
   a. Material: EPDM
   b. Dimensions: 12" long, 1/4" thick
   c. Provide 316 stainless steel backing bars.
   d. Flanged Connections: Inlet and outlet, drilled per PS15-69
2. Vibration Monitoring
   a. Provide two vibration sensors per fan bearing. The bearing vibration sensors to be located in the horizontal and vertical positions in relation to the shaft. The sensors shall be mounted in the in the best place to provide the best vibration measurement.
   b. One axial vibration sensor to be installed on the bearing taking the axial thrust from the fan..
   c. Provide two vibration sensors mounted close to the center of the vibration isolation base mounted in the horizontal and vertical planes.
   d. Provide and install one key phasor sensor for the fan shaft.
   e. Provide a vibration monitoring system in a NEMA 4X enclosure. The vibration monitoring system to be Bently Nevada Orbit 90 system or approved equal.
      1) All components shall be rated for a Class 1 Div 2 location.
      2) It shall be 120 VAC powered and have its own power supply for the electronics.
      3) It shall have input cards for all the sensors listed in the vibration monitoring section.
      4) It shall have vibration level indicators for each vibration sensor.
      5) It will provide 4-20 mA vibration "recorder" output signals for each vibration sensor.
      6) It will provide 8 alarm contacts for alarms and trip conditions.
      7) It will have the accessories needed to provide the vibration sensor and key phasor signals to a portable vibration analysis data logger. (vibration analysis data logger by others)
      8) It will have space in the rack to input and display four additional vibration sensors.
      9) The vibration monitoring system cabinet will be mounted near the fan assembly, but not on the fan / isolation base assembly.

   f. Vibration Signals to be sent to owner's SCADA system. Vibration Shutdown contacts to be wired to the VFD powering the fan.
3. Access Door(s): Shaped to conform to scroll, with quick-opening latches and gaskets. Provide one (1) at minimum.
4. Scroll Drain: 2 in. NPT steel pipe coupling welded to low point of fan scroll.
5. Differential Pressure Gauges
   a. Provide differential pressure gauges for each fan assembly. Gauges shall be sufficiently scaled to measure the differential pressure of 20" of water column.
   b. Differential pressure shall be measured at the fan inlet and outlet, using existing holes in ductwork.
   c. Pressure gauges shall be supplied with mounting hardware. Contractor shall be responsible for mounting gauges on fan support.
6. Vibration Isolation Equipment
   a. Manufacturer to design and provide replacement isolation springs and mass dampening pads compatible with fan assembly and building.
   b. Inertia Base: Sandblasted and epoxy-coated steel with spring vibration isolators.

I. Operation:

1. Motors: As specified in Section 46 0514 - Common Motor Requirements for Water and Wastewater Equipment. A Type 2 Severe Duty motor is required for the odor Control Fan suitable for A Class 1 Div 2 location.

a. Provide a NEMA Type 1 temperature sensing device embedded in the motor winding which is sensitive to motor running over temperature.
b. Sensor: Wired to a temperature relay in a NEMA 4X box located near or on the motor, or to the variable frequency drive controller.
c. Power: 350 HP (Vendor to confirm)
d. Type: TEFC, inverter duty, premium efficiency, mill & chemical duty, NEMA Design B
e. Voltage: 460 V, 3-phase, 60 Hz (motor spec)
f. Variable torque
g. 1.0 service factor
h. Space heater (120 V, 1-phase, 60 Hz)
i. Winding thermistors
j. Ensure motors are compatible with existing VFD drive

1

2. Controls: Vibration Alarm contacts and Temperature switches to connect to existing VFD controls. Vibration level monitoring signals to connect to Plant SCADA system. Fan speed to be controlled by existing VFDs.Disconnect Switch: Factory mounted in existing VFD control panel.

2.2 SOURCE QUALITY CONTROL

A. Section 01 4000 - Quality Requirements: Requirements for testing, inspection, and analysis.

B. Provide shop inspection and testing of completed assembly.

C. Owner Inspection:

1. Make completed fan available for inspection at manufacturer's factory prior to packaging for shipment.
2. Notify Owner at least seven days before inspection is allowed.

D. Owner Witnessing:

1. Allow witnessing of factory inspections and tests at manufacturer's test facility.
2. Notify Owner at least seven days before inspections and tests are scheduled.

E. Certificate of Compliance:

1. If manufacturer is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at manufacturer's facility conforms to Contract Documents.
2. Specified shop tests are not required for Work performed by approved manufacturer.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Furnish safety screen where inlet or outlet is exposed.

B. Provide sheaves as required for final air balance.

3.2 FIELD QUALITY CONTROL

A. Section 01 4000 - Quality Requirements: Requirements for inspecting and testing.

B. Section 01 7000 - Execution and Closeout Requirements: Requirements for testing, adjusting, and balancing.

C. Inspection:

1. Ensure that fans and appurtenances have been installed correctly and that there is no objectionable heat or vibration.
2. Ensure that bearings are adequately lubricated.

D. Testing: Ensure that sound level is less than 80 dBA, as measured 5 feet from fan.

E. Manufacturer Services: Furnish services of manufacturer's representative experienced in installation of products furnished under this Section for not less than one day on Site for installation, inspection, startup, field testing, and instructing Owner's personnel in operation and maintenance of equipment.

F. Equipment Acceptance:

1. Adjust, repair, modify, or replace components failing to perform as specified and rerun tests.
2. Make final adjustments to equipment under direction of manufacturer's representative.

G. Furnish installation certificate from equipment manufacturer's representative attesting that equipment has been properly installed and is ready for startup and testing.

3.3 ADJUSTING

A. Section 01 7000 - Execution and Closeout Requirements: Requirements for starting and adjusting.

B. Adjust and balance fans to accommodate load requirements.

C. Check control functions and adjust as required.

3.4 DEMONSTRATION

A. Section 01 7000 - Execution and Closeout Requirements: Requirements for demonstration and training.

B. Demonstrate equipment startup, shutdown, routine maintenance, alarm condition responses, and emergency repair procedures to Owner's personnel.

3.5 PROTECTION

A. Section 01 7000 - Execution and Closeout Requirements: Requirements for protecting finished Work.

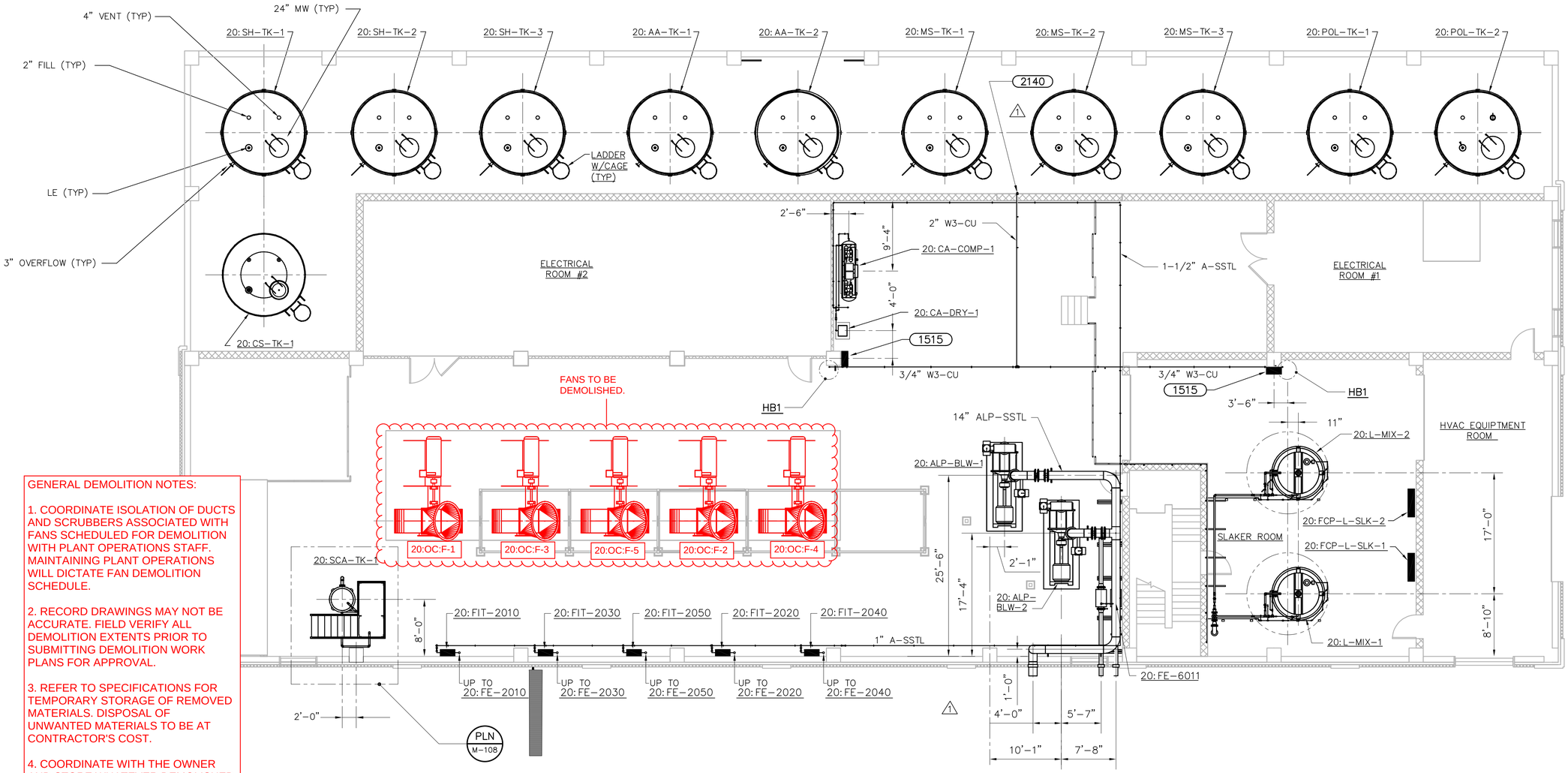
B. Do not permit operation of fans until bearings are lubricated and fans have been inspected and tested by running under observation.

ISSUED	DATE
ISSUED FOR BID	05/12/2025
REVISION 1	07/17/2025

END OF SECTION

EXHIBIT A

MECHANICAL
DEMOLITION



GENERAL DEMOLITION NOTES:

1. COORDINATE ISOLATION OF DUCTS AND SCRUBBERS ASSOCIATED WITH FANS SCHEDULED FOR DEMOLITION WITH PLANT OPERATIONS STAFF. MAINTAINING PLANT OPERATIONS WILL DICTATE FAN DEMOLITION SCHEDULE.

2. RECORD DRAWINGS MAY NOT BE ACCURATE. FIELD VERIFY ALL DEMOLITION EXTENTS PRIOR TO SUBMITTING DEMOLITION WORK PLANS FOR APPROVAL.

3. REFER TO SPECIFICATIONS FOR TEMPORARY STORAGE OF REMOVED MATERIALS. DISPOSAL OF UNWANTED MATERIALS TO BE AT CONTRACTOR'S COST.

4. COORDINATE WITH THE OWNER AND STORE WHATEVER DEMOLISHED MATERIALS THEY INTEND TO KEEP.

NOTE:
⚠1 ALL PIPE FLOOR PENETRATIONS SHALL CONFORM TO THE 1994 STANDARD BUILDING CODE, SECTION 705.4.6, METHOD C: ANNULAR SPACE PROTECTION.

FLOOR PLAN LEVEL–2
1/8"=1'–0"

PLANT NORTH

ORIGINAL DRAWING ISSUED 03-16-2005 BY JORDAN JONES & GOULDING, CH2M HILL AND PRECISION PLANNING, INC. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF THESE RECORD DRAWINGS PRIOR TO START OF WORK.

Jordan, Jones & Goulding
CH2M HILL
Precision Planning, Inc.

JOB NO. 2074.026 | gw2262002m.dwg | 08.22.06

NO.	DATE	DESCRIPTION OF REVISION
R	03–16–05	RECORD DRAWINGS
1	08–14–02	ADDED STANDARD DETAIL NUMBER, REVISED 14" ALP–SSTL AND 6" ALP–SSTL
0	01–03–02	FIRST RELEASE

BOARD OF COMMISSIONERS OF GWINNETT COUNTY · TREMBLE ELDRO · GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF PUBLIC UTILITIES
F. WAYNE HILL
WATER RESOURCES CENTER
PHASE 2
3320 FINANCIAL CENTER WAY

-- RECORD DRAWINGS --

These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. The engineer will not be responsible for any errors or omissions which have been incorporated into this document as a result.

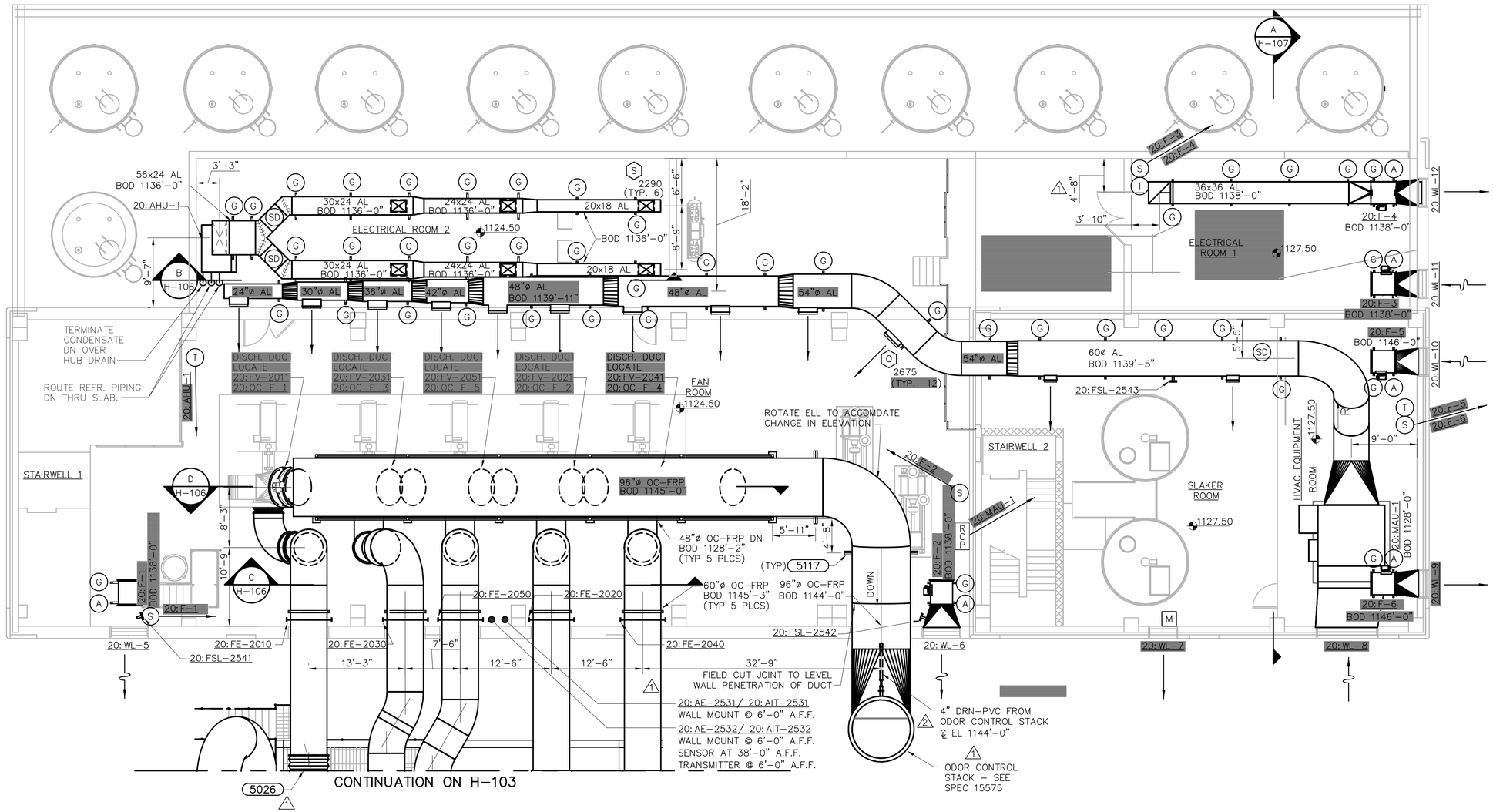
CONTRACT 2
BIOLOGICAL TREATMENT FACILITIES

NORTH CHEMICAL BUILDING
FLOOR PLAN
LEVEL 2

DESIGNED: RAMSEY	CHECKED:	DATE: JAN 2002	2–20 M–102	R
DRAWN: RAMSEY	APP'D.	SCALE: 1/8"=1'–0"	DRAWING	REV

THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE

RECORD3



UPPER PLAN
1/8"=1'-0"

PLANT NORTH

NOTES:
1. ALL DIMENSION ARE FROM ℄ OF DUCT.

R	03-09-05	RECORD DRAWINGS	
2	05-21-02	ADDED 4" DRAIN FOR ODOR CONTROL STACK	
1	04-01-02	ADDENDUM ITEMS INCORPORATED	
0	01-03-02	FIRST RELEASE	
NO.	DATE	DESCRIPTION OF REVISION	

Jordan, Jones & Goulding
CH2M HILL
Precision Planning, Inc.

JOB NO. 2074.026 | gw2262002h.dwg | 08.22.06

BOARD OF COMMISSIONERS OF GWINNETT COUNTY GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF PUBLIC UTILITIES
F. WAYNE HILL
WATER RESOURCES CENTER
PHASE 2
3320 FINANCIAL CENTER WAY

-- RECORD DRAWINGS --

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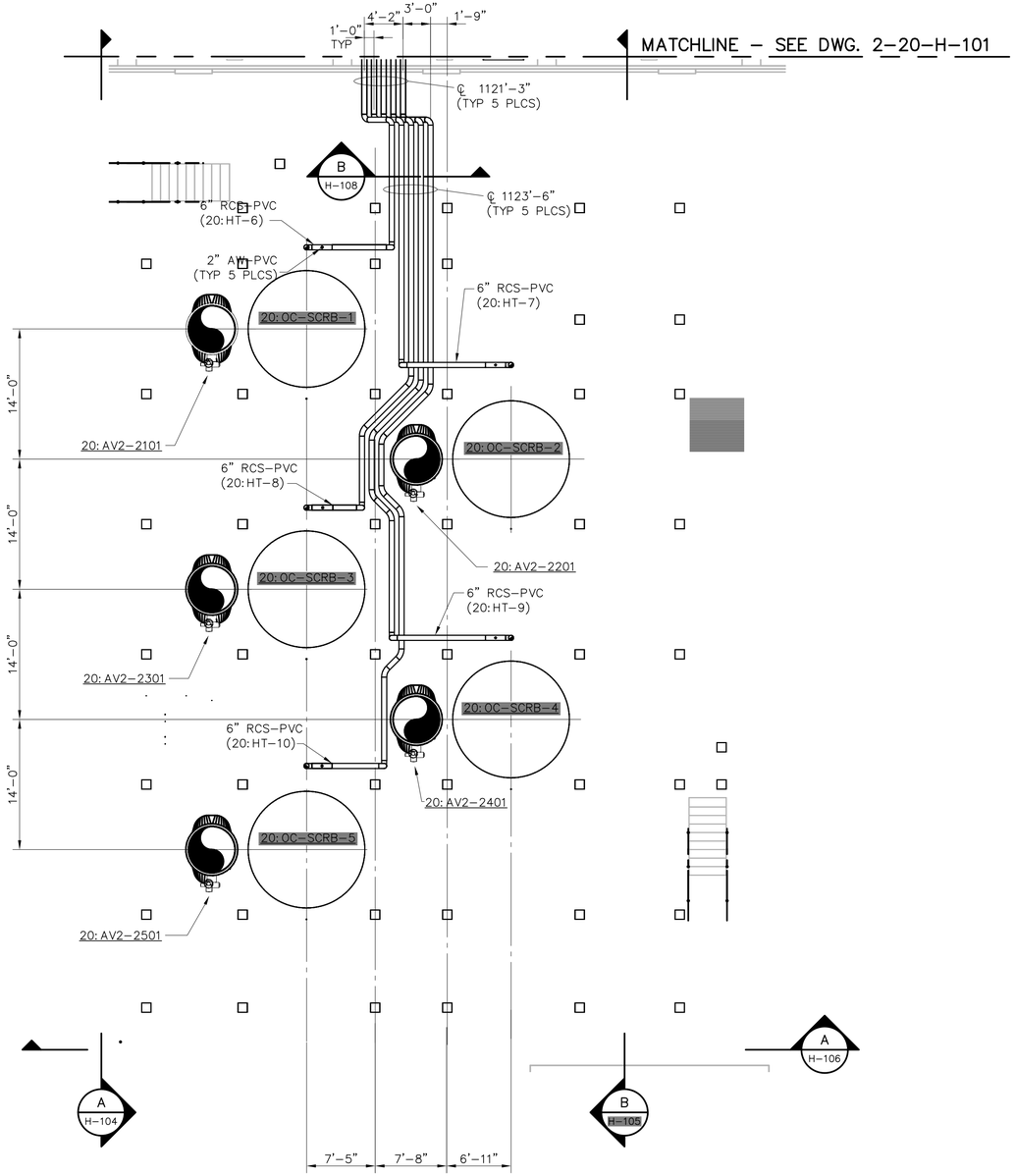
CONTRACT 2
BIOLOGICAL TREATMENT FACILITIES

NORTH CHEMICAL BUILDING
FLOOR PLAN – LEVEL 2
HVAC

DESIGNED: RS	CHECKED:	DATE: JAN 2002	2-20 H-102	R
DRAWN: DGH	APP'D.	SCALE: 1/8"=1'-0"	DRAWING	REV

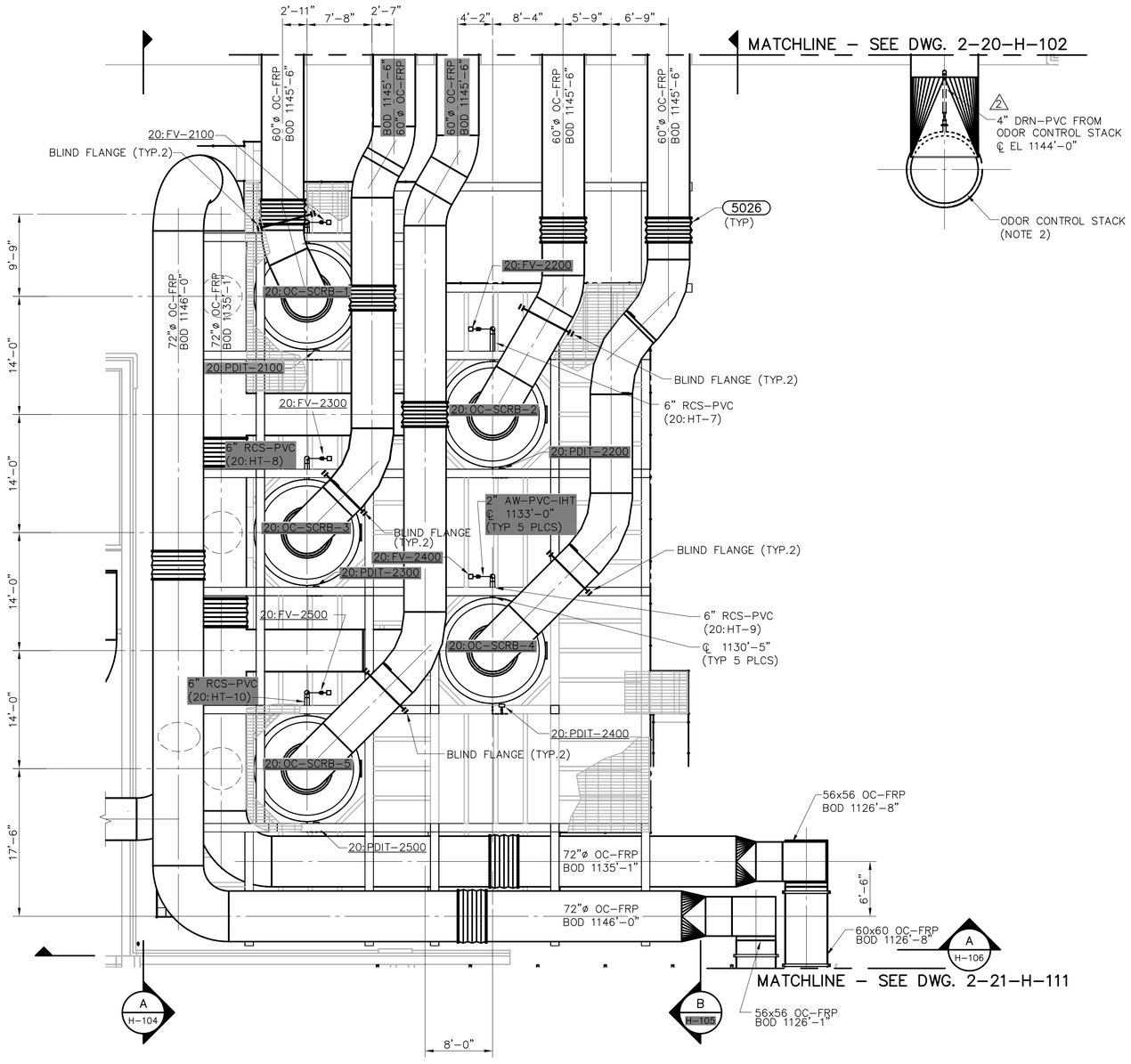
THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE

RECORD3



HIGH PIPE RACK PLAN
1120'–9" TO 1126'–0"
1/8"=1'–0"

PLANT NORTH



UPPER PLAN
ABOVE 1126'–0"
1/8"=1'–0"

PLANT NORTH

NOTES:

1. ALL DIMENSION ARE FROM ℄ OF DUCT.
2. SEE SPECIFICATION 15575 FOR STACK REQUIREMENTS.
3. REFER TO ELECTRICAL DRAWINGS FOR AIR FLOW TRANSMITTER REQUIREMENTS.

Jordan, Jones & Goulding
CH2M HILL
Precision Planning, Inc.

JOB NO. 2074.026 | gw2262003h.dwg | 08.22.06

NO.	DATE	DESCRIPTION OF REVISION
R	03–09–05	RECORD DRAWINGS
2	05–21–02	ADDED 4" DRAIN FOR ODOR CONTROL STACK
1	04–01–02	ADDENDUM ITEMS INCORPORATED
0	01–03–02	FIRST RELEASE

BOARD OF COMMISSIONERS OF GWINNETT COUNTY GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF PUBLIC UTILITIES
F. WAYNE HILL
WATER RESOURCES CENTER
PHASE 2
3320 FINANCIAL CENTER WAY

-- RECORD DRAWINGS --

These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. The engineer will not be responsible for any errors or omissions which have been incorporated into this document as a result.

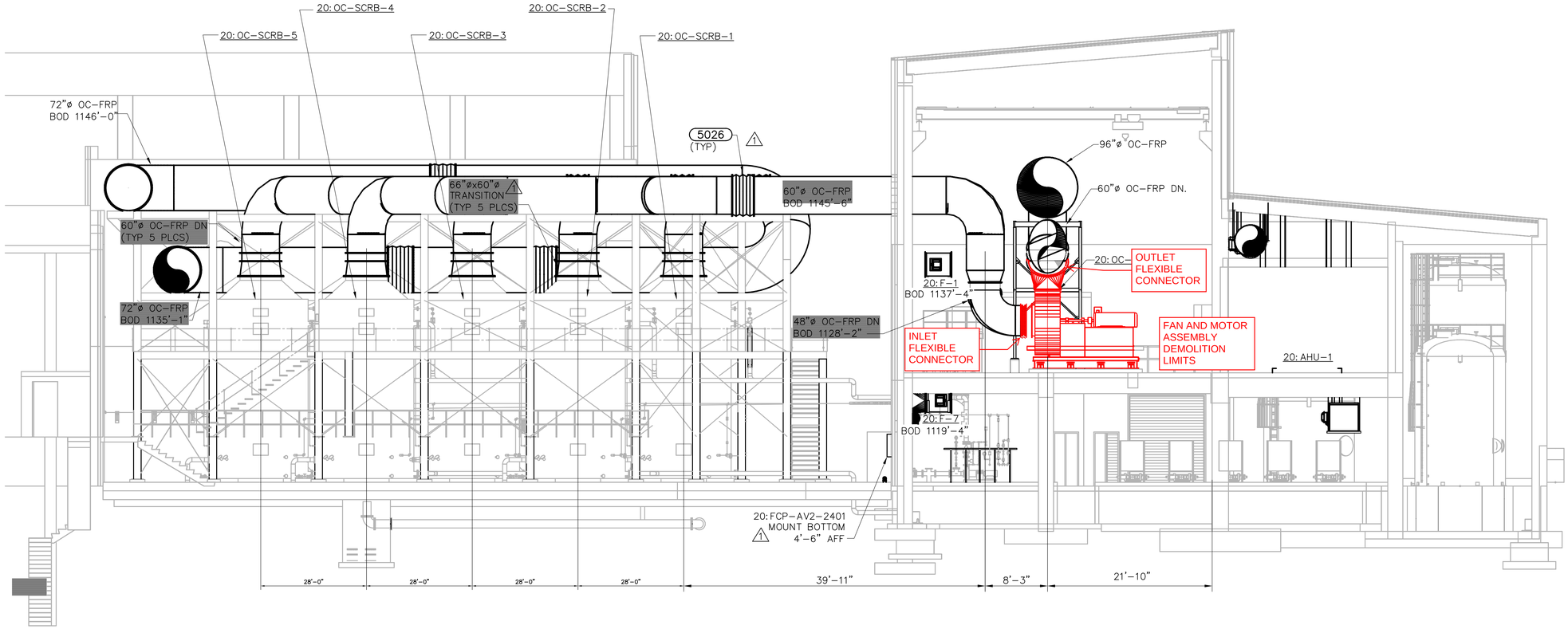
CONTRACT 2
BIOLOGICAL TREATMENT FACILITIES

NORTH CHEMICAL BUILDING
HIGH AND UPPER PLANS
ODOR CONTROL SCRUBBER TANK FARM

DESIGNED: RS	CHECKED:	DATE: JAN 2002	2–20 H–103	R
DRAWN: DGH	APP'D.	SCALE: 1/8"=1'–0"	DRAWING	REV

THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE

RECORD3



SECTION B H–103
1/8"=1'–0"

NOTES:
1. ALL DIMENSION ARE FROM ℄ OF DUCT.

Jordan, Jones & Goulding
CH2M HILL
Precision Planning, Inc.

JOB NO. 2074.026 | gw2262005h.dwg | 08.22.06

NO.	DATE	DESCRIPTION OF REVISION
R	03–09–05	RECORD DRAWINGS
1	04–01–02	ADDENDUM ITEMS INCORPORATED
0	01–03–02	FIRST RELEASE

BOARD OF COMMISSIONERS OF GWINNETT COUNTY
DECEMBER 1, 1818
GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF PUBLIC UTILITIES
F. WAYNE HILL
WATER RESOURCES CENTER
PHASE 2
3320 FINANCIAL CENTER WAY

-- RECORD DRAWINGS --

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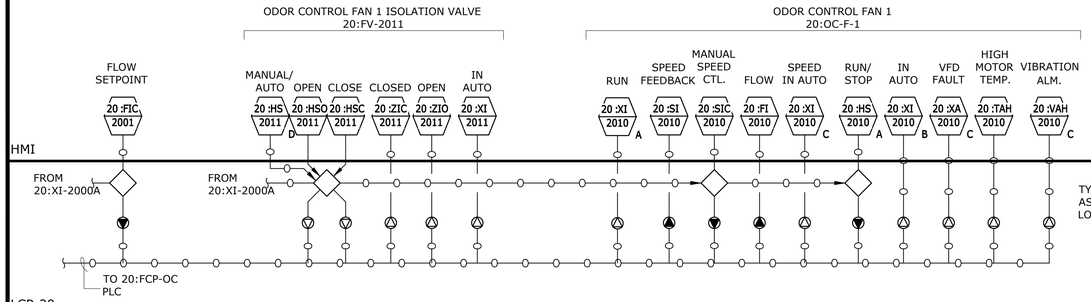
CONTRACT 2
BIOLOGICAL TREATMENT FACILITIES

NORTH CHEMICAL BUILDING
SECTION B
ODOR CONTROL AND HVAC

DESIGNED: RS	CHECKED:	DATE: JAN 2002	2–20 H–105	R
DRAWN: DGH	APP'D.	SCALE: AS NOTED	DRAWING	REV

THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE

RECORD3



TYPICAL FOR LOGIC AND INDICATIONS FOR 20:OC-F-2 THROUGH 20:OC-F-5, ASSOCIATED VALVES, AND ASSOCIATED FLOW METERING.
LOOPS 20:2020, 20:2021 AND 20:2022 20:2030, 20:2031 AND 20:2032 20:2040, 20:2041, 20:2042 20:2050, 20:2051 AND 20:2052

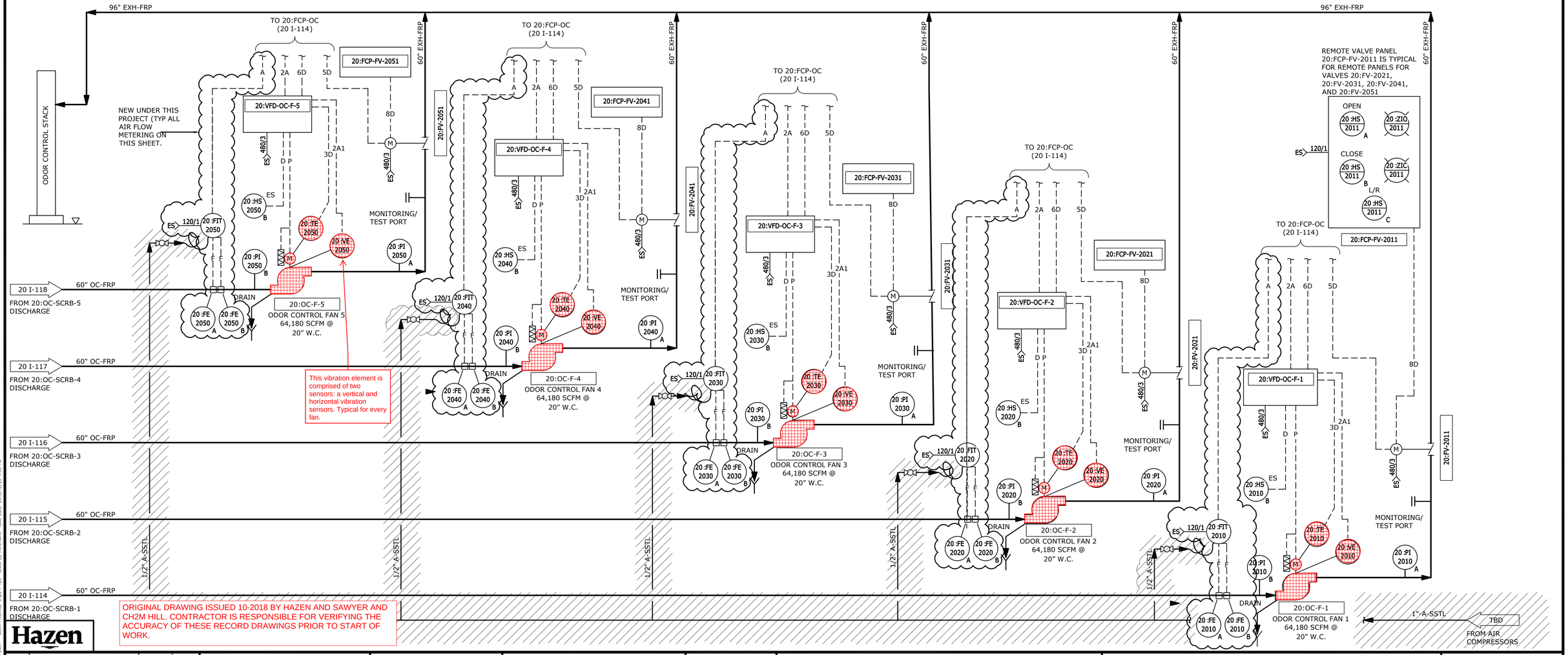
NOTE -

REFER TO SPECIFICATION SECTION 15888 FOR OTHER SOFTWARE DEVICES ON THE HMI AND DATA TO BE COMMUNICATED BETWEEN THE DCS AND THE 20:FCP-OC PLC.

DEMOLITION KEY:
TO BE DEMOLISHED AND REPLACED

TBC

TBC



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Hazen

REV	ISSUED FOR	DATE	BY
A	90% SUBMITTAL	10/18	KLS

PROJECT ENGINEER:	KLS
DESIGNED BY:	RGS
DRAWN BY:	RGS
CHECKED BY:	NL

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE 0 1/2" 1"

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GWINNETT COUNTY, GEORGIA
DEPARTMENT OF WATER RESOURCES

F. WAYNE HILL WATER RESOURCES CENTER
CONVERSION TO PLC-BASED SCADA SYSTEM

PROCESS AND INSTRUMENTATION DIAGRAM
NORTH CHEMICAL BUILDING
SCRUBBER FANS

DATE:	OCTOBER 2018
HAZEN NO.:	32428-007
CONTRACT NO.:	-
DRAWING NUMBER:	20 I-120

PLOT DATE: 2018/10/25 5:13:21 PM BY: VOBSON
FILE NAME: K:\SOUTH\32428-007\Drawings\20-I-120.dwg
WORK BACKUP
Save Date: 2018/10/25 1:33 PM
Saved By: BSHERMAN

EXHIBIT B

TEST AND BALANCE GUIDANCE

EXHIBIT B: TEST AND BALANCE GUIDANCE

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GWINNETT COUNTY, GEORGIA
DEPARTMENT OF WATER RESOURCES

F. WAYNE HILL WATER RESOURCES CENTER
CONVERSION TO PLC-BASED SCADA SYSTEM

PROCESS AND INSTRUMENTATION DIAGRAM
NORTH CHEMICAL BUILDING
ODOR CONTROL SYSTEM TRAIN 1

DATE:	OCTOBER 2018
HAZEN NO.:	32428-007
CONTRACT NO.:	-
DRAWING NUMBER:	20 I-114

SCRUBBER ISOLATION VALVE 20:AV2-2201

ODOR CONTROL SCRUBBER 2 20:OC-SCRB-2

RECIRCULATION PUMP 20:RECIRC-P-2

CAUSTIC SODA PUMP 20:CS-P-2

SODIUM HYPOCHLORITE PUMP 20:SH-P-2

OPEN	CLOSED	SCRUBBER PRESSURE DROP	HIGH D.P. ALM.	RECIRC. FLOW	LOW RECIRC. FLOW ALM	SCRUB CYCLE	WASH CYCLE	LOW SUMP LEVEL	NORMAL OPERATING RANGE	HIGH SUMP LEVEL	RUN	RUN TIME	FAIL	LOW SEAL WATER	RUN	RUN TIME	FAULT	BROKEN HOSE	HIGH DISCHG PRESS.	pH	HIGH pH ALM	LOW pH ALM	RUN	RUN TIME	FAULT	BROKEN HOSE	HIGH DISCHG PRESS.	ORP	HIGH ORP ALM	LOW ORP ALM
20 :ZIO 2201 A	20 :ZIC 2201 A	20 :PDI 2200	20 :PDAH 2200	20 :FI 2200	20 :FAL 2200	20 :XI 2200 B	20 :XI 2200 C	20 :LSL 2200	20 :LNL 2200	20 :LNH 2200	20 :XI 2223	20 :KQI 2223	20 :XA 2223 A	20 :XA 2223 B	20 :XI 2221	20 :KQI 2221	20 :XA 2221	20 :LAH 2221	20 :PAH 2221	20 :AI 2223 A	20 :AAH 2223 A	20 :AAL 2223 A	20 :XI 2222	20 :KQI 2222	20 :XA 2222	20 :LAH 2222	20 :PAH 2222	20 :AI 2223 B	20 :AAH 2223 B	20 :AAL 2223 B

HMI — HMI

LCP-20 — LCP-20

TBC — TBC

NOTE:
REFER TO SPECIFICATION SECTION XXXXXX FOR OTHER SOFTWARE DEVICES ON THE HMI AND DATA TO BE COMMUNICATED BETWEEN THE PLANT CONTROL SYSTEM AND THE 20:FCP-OC PLC.

20 I-114 — 72" FA-FRP — FROM PRELIMINARY TREATMENT

72" x 60"

20 I-121 — 3" AW-PVC-IHT — FROM ACID WASH TANK

20 I-114 — 2" CS-PVC — CAUSTIC SODA

20 I-114 — 2 1/2" SH-PVC — SODIUM HYPOCHLORITE

W3 — 2" W3-PVC

20:FCP-OC

20:OC-SCRB-2
ODOR CONTROL SCRUBBER 2
64,180 CFM

20 :PDIT 2200

20 :FIT 2200 120/1 ES

20 :FE 2200

20 :LE 2200

20 :FI 2203

20:AV2-2201 — ES 480/3 — NO

20:FV-2213

20:FCP-AV2-2201

OPEN: 20 :HS 2201 A; 20 :ZIO 2201
CLOSE: 20 :HS 2201 B; 20 :ZIC 2201
L/R
20 :HS 2201 C

60" FA-FRP

2" W3-PVC-IHT

6" OF-PVC

3" DRAIN-PVC

2" x 1 1/2"

2" W3-PVC

2" x 1 1/2" NC

2" x 3/4"

NC

2 1/2" AW-PVC-IHT

6" RCS-PVC-IHT

20:FV-2200

72" FA-FRP — 20 I-116 — TO ODOR CONTROL SCRUBBER 3

60" FA-FRP — 20 I-120 — TO ODOR CONTROL FAN 20:OC-F-2

DUCTS, DAMPERS, AND INSTRUMENTS ASSOCIATED WITH ODOR CONTROL SYSTEM TO BE FACTORED INTO TEST AND BALANCE PLAN

MCC 480/3 ES

20 :AIT 2223 120/1 ES — pH / ORP
20 :AE 2223 A
20 :AE 2223 B

1 1/2" RCS-PVC

TO TRENCH DRAIN

6" RCS-PVC-IHT

L/R SS
20 :HS 2223 A
20 :HS 2223 B

20 :PI 2223

6" RCS-PVC

20:RECIRC-P-2
RECIRCULATION PUMP
740 GPM @60 FT

3/4" W3-PVC

20 :PI 2224

20 :FSL 2224

20:EV-2224

20 :FI 2224

20:FCP-SH-P-2 — 5D, P — 120/1 ES

20:SH-P-2
SODIUM HYPOCHLORITE PUMP
0.15 - 1.58 GPM

20 :PSH 2222
20 :PI 2222
20 :ST 2222
20 :LSH 2222
20 :PI 2222 B

1" SH-PVC

20:FV-2222

2 1/2" SH-PVC — 20 I-116 — SODIUM HYPOCHLORITE TO SCRUBBER 3

3/4" CS-PVC

1" SH-PVC

20:FCP-CS-P-2 — 5D, P — 120/1 ES

20:CS-P-2
CAUSTIC SODA PUMP
0.15 - 1.58 GPM

20 :PSH 2221
20 :PI 2221
20 :ST 2221
20 :LSH 2221
20 :PI 2221 B

20:FV-2221

2" CS-PVC — 20 I-116 — CAUSTIC SODA TO SCRUBBER 3

3/4" W3-PVC

TO 20:FCP-OC: 7D, 2A, 7D, 2A

2F 5D 5D A 5D

4D 2

A 1

8D

ORIGINAL DRAWING ISSUED 10-2018 BY HAZEN AND SAWYER AND CH2M HILL. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF THESE RECORD DRAWINGS PRIOR TO START OF WORK.

Hazen

REV	ISSUED FOR	DATE	BY
A	90% SUBMITTAL	10/18	KLS

PROJECT ENGINEER: KLS
DESIGNED BY: RGS
DRAWN BY: RGS
CHECKED BY: NL

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE 0 1/2" 1"

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GWINNETT COUNTY, GEORGIA
DEPARTMENT OF WATER RESOURCES

F. WAYNE HILL WATER RESOURCES CENTER
CONVERSION TO PLC-BASED SCADA SYSTEM

PROCESS AND INSTRUMENTATION DIAGRAM NORTH CHEMICAL BUILDING ODOR CONTROL SYSTEM TRAIN 2

DATE: OCTOBER 2018
HAZEN NO.: 32428-007
CONTRACT NO.: -
DRAWING NUMBER: 20 I-115

PLOT DATE: 2018/10/25 5:12:37 PM BY: VDIBSON
FILE: C:\USERS\VDIBSON\DOCUMENTS\PROJECT - WORK PACKAGE 5\20-I-115_Saved By VDIBSON_Save Date: 2018/10/24 3:14 PM

NOTE:
REFER TO SPECIFICATION SECTION XXXXXX FOR OTHER SOFTWARE DEVICES ON THE HMI AND DATA TO BE COMMUNICATED BETWEEN THE PLANT CONTROL SYSTEM AND THE 20:FCP-OC PLC.

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GWINNETT COUNTY, GEORGIA
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CONVERSION TO PLC-BASED SCADA SYSTEM

PROCESS AND INSTRUMENTATION DIAGRAM NORTH CHEMICAL BUILDING ODOR CONTROL SYSTEM TRAIN 3

DATE:	OCTOBER 2018
HAZEN NO.:	32428-007
CONTRACT NO.:	-
DRAWING NUMBER:	20 I-116

Hazen

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CHECKED BY:	NL

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BOARD OF COMMISSIONERS OF GWINNETT COUNTY — DECEMBER 15, 1818 — GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF WATER RESOURCES

F. WAYNE HILL WATER RESOURCES CENTER
CONVERSION TO PLC-BASED SCADA SYSTEM

PROCESS AND INSTRUMENTATION DIAGRAM NORTH CHEMICAL BUILDING ODOR CONTROL SYSTEM TRAIN 4

DATE:	OCTOBER 2018
HAZEN NO.:	32428-007
CONTRACT NO.:	-
DRAWING NUMBER:	20 I-117

NOTE:
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GWINNETT COUNTY, GEORGIA
DEPARTMENT OF WATER RESOURCES

F. WAYNE HILL WATER RESOURCES CENTER
CONVERSION TO PLC-BASED SCADA SYSTEM

PROCESS AND INSTRUMENTATION DIAGRAM
NORTH CHEMICAL BUILDING
ODOR CONTROL SYSTEM TRAIN 5

DATE:	OCTOBER 2018
HAZEN NO.:	32428-007
CONTRACT NO.:	-
DRAWING NUMBER:	20 I-118

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CONVERSION TO PLC-BASED SCADA SYSTEM

PROCESS AND INSTRUMENTATION DIAGRAM
NORTH CHEMICAL BUILDING
SCRUBBER FANS

DATE:	OCTOBER 2018
HAZEN NO.:	32428-007
CONTRACT NO.:	-
DRAWING NUMBER:	20 I-120

LEGEND

- (1) METHANE OR H2S GAS DETECTOR (TAG NUMBER)
- △1 ALARM HORN AND BEACON (TAG NUMBER)
- [1] AIR DUCT FLOW SWITCH (TAG NUMBER)
- ◇A GO/NO GO DOOR PANEL 21:LCP-D-(DOOR NUMBER)-(COMPASS ORIENTATION)
- (A) EMERGENCY EYEWASH/SHOWER (LOOP NUMBER)

Gas Detectors

- (1) METHANE GAS DETECTOR AE/AIT-2036
- * (2) H2S GAS DETECTOR AE/AIT-2039
- (3) METHANE GAS DETECTOR AE/AIT-2037
- * (4) H2S GAS DETECTOR AE/AIT-2038
- (5) METHANE GAS DETECTOR AE/AIT-2046
- * (6) H2S GAS DETECTOR AE/AIT-2047
- (7) METHANE GAS DETECTOR AE/AIT-2048
- (8) H2S GAS DETECTOR AE/AIT-2049
- (9) METHANE GAS DETECTOR AE/AIT-2505 **
- (10) METHANE GAS DETECTOR AE/AIT-2506 **
- (11) METHANE GAS DETECTOR AE/AIT-2507 **
- (12) METHANE GAS DETECTOR AE/AIT-2603
- (13) H2S GAS DETECTOR AE/AIT-2604
- (14) METHANE GAS DETECTOR AE/AIT-2040
- (15) H2S GAS DETECTOR AE/AIT-2041
- (16) METHANE GAS DETECTOR AE/AIT-2701 **
- (17) METHANE GAS DETECTOR AE/AIT-2702 **
- (18) METHANE GAS DETECTOR AE/AIT-2703 **
- (19) METHANE GAS DETECTOR AE/AIT-2704
- (20) METHANE GAS DETECTOR AE/AIT-2508 **
- (21) METHANE GAS DETECTOR AE/AIT-2601
- (22) H2S GAS DETECTOR AE/AIT-2602
- (23) METHANE GAS DETECTOR AE/AIT-2050
- (24) H2S GAS DETECTOR AE/AIT-2051
- (25) METHANE GAS DETECTOR AE/AIT-2509 **
- (26) METHANE GAS DETECTOR AE/AIT-2510 **
- (27) H2S GAS DETECTOR AE/AIT-2031A
- (28) METHANE GAS DETECTOR AE/AIT-2031B
- (29) H2S GAS DETECTOR AE/AIT-2047
- (30) METHANE GAS DETECTOR AE/AIT-2046
- * (31) METHANE GAS DETECTOR AE/AIT-2038
- * (32) H2S GAS DETECTOR AE/AIT-2039

** DESIGNATES THE CGD TRANSMITTER IS LOCATED IN THE BUILDING AS SHOWN ON THIS DRAWING BUT SENSOR IS IN CLARIFIER SPACE.

Alarm Horns and Beacons

- △1 ALARM HORN AND BEACON XI/XA-2515
- △2 ALARM HORN AND BEACON XI/XA-2044
- △3 ALARM HORN AND BEACON XI/XA-2054A
- △4 ALARM HORN AND BEACON XI-2503
- △5 ALARM HORN AND BEACON XI/XA-2045
- △6 ALARM HORN AND BEACON XI/XA-2514
- △7 ALARM HORN AND BEACON XI/XA-2513
- △8 ALARM HORN AND BEACON XI-2511
- △9 ALARM HORN AND BEACON XI/XA-2055
- △10 ALARM HORN AND BEACON XI-2504
- △14 ALARM HORN AND BEACON (NO TAG)
- △15 ALARM HORN AND BEACON XI/XA-2515

Air Duct Flow Switches

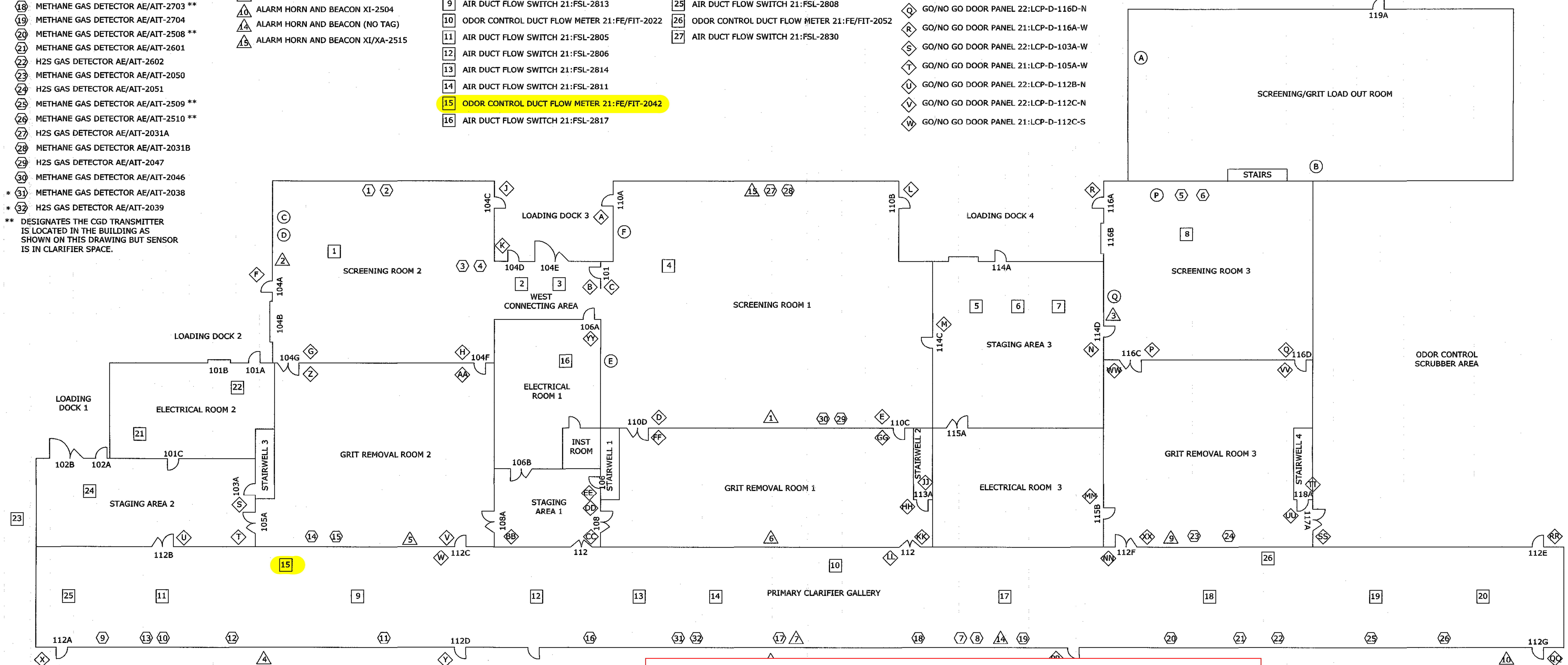
- [1] AIR DUCT FLOW SWITCH 21:FSL-2801
- [2] AIR DUCT FLOW SWITCH 21:FSL-2820
- [3] AIR DUCT FLOW SWITCH 21:FSL-2823
- [4] AIR DUCT FLOW SWITCH 21:FSL-2802
- [5] AIR DUCT FLOW SWITCH 21:FSL-2821
- [6] AIR DUCT FLOW SWITCH 21:FSL-2824
- [7] AIR DUCT FLOW SWITCH 21:FSL-2818
- [8] AIR DUCT FLOW SWITCH 21:FSL-2804
- [9] AIR DUCT FLOW SWITCH 21:FSL-2813
- [10] ODOR CONTROL DUCT FLOW METER 21:FE/FIT-2022
- [11] AIR DUCT FLOW SWITCH 21:FSL-2805
- [12] AIR DUCT FLOW SWITCH 21:FSL-2806
- [13] AIR DUCT FLOW SWITCH 21:FSL-2814
- [14] AIR DUCT FLOW SWITCH 21:FSL-2811
- [15] ODOR CONTROL DUCT FLOW METER 21:FE/FIT-2042
- [16] AIR DUCT FLOW SWITCH 21:FSL-2817
- [17] AIR DUCT FLOW SWITCH 21:FSL-2812
- [18] AIR DUCT FLOW SWITCH 21:FSL-2815
- [19] AIR DUCT FLOW SWITCH 21:FSL-2807
- [20] AIR DUCT FLOW SWITCH 21:FSL-2809
- [21] AIR DUCT FLOW SWITCH 21:FSL-2819
- [22] AIR DUCT FLOW SWITCH 21:FSL-2816
- [23] AIR DUCT FLOW SWITCH 21:FSL-2810
- [24] AIR DUCT FLOW SWITCH 21:FSL-2822
- [25] AIR DUCT FLOW SWITCH 21:FSL-2808
- [26] ODOR CONTROL DUCT FLOW METER 21:FE/FIT-2052
- [27] AIR DUCT FLOW SWITCH 21:FSL-2830

Go/No Go Door Panels

- ◇A GO/NO GO DOOR PANEL 21:LCP-D-110A-W
- ◇B GO/NO GO DOOR PANEL 21:LCP-D-101-W
- ◇C GO/NO GO DOOR PANEL 21:LCP-D-101-E
- ◇D GO/NO GO DOOR PANEL 21:LCP-D-110D-N
- ◇E GO/NO GO DOOR PANEL 21:LCP-D-110C-N
- ◇F GO/NO GO DOOR PANEL 21:LCP-D-104A-W
- ◇G GO/NO GO DOOR PANEL 21:LCP-D-104G-N
- ◇H GO/NO GO DOOR PANEL 21:LCP-D-104F-N
- ◇J GO/NO GO DOOR PANEL 21:LCP-D-104C-E
- ◇K GO/NO GO DOOR PANEL 21:LCP-D-104D-N
- ◇L GO/NO GO DOOR PANEL 21:LCP-D-110B-E
- ◇M GO/NO GO DOOR PANEL 22:LCP-D-114C-E
- ◇N GO/NO GO DOOR PANEL 21:LCP-D-114D-W
- ◇P GO/NO GO DOOR PANEL 21:LCP-D-116C-N
- ◇Q GO/NO GO DOOR PANEL 22:LCP-D-116D-N
- ◇R GO/NO GO DOOR PANEL 21:LCP-D-116A-W
- ◇S GO/NO GO DOOR PANEL 22:LCP-D-103A-W
- ◇T GO/NO GO DOOR PANEL 21:LCP-D-105A-W
- ◇U GO/NO GO DOOR PANEL 22:LCP-D-112B-N
- ◇V GO/NO GO DOOR PANEL 22:LCP-D-112C-N
- ◇W GO/NO GO DOOR PANEL 21:LCP-D-112C-S
- ◇X GO/NO GO DOOR PANEL 22:LCP-D-112A-S
- ◇Y GO/NO GO DOOR PANEL 22:LCP-D-112D-S
- ◇Z GO/NO GO DOOR PANEL 22:LCP-D-104G-S
- ◇AA GO/NO GO DOOR PANEL 22:LCP-D-104F-S
- ◇BB GO/NO GO DOOR PANEL 22:LCP-D-108A-E
- ◇CC GO/NO GO DOOR PANEL 22:LCP-D-107-N
- ◇DD GO/NO GO DOOR PANEL 22:LCP-D-108-W
- ◇EE GO/NO GO DOOR PANEL 22:LCP-D-106-W
- ◇FF GO/NO GO DOOR PANEL 22:LCP-D-110D-S
- ◇GG GO/NO GO DOOR PANEL 22:LCP-D-110C-S
- ◇HH GO/NO GO DOOR PANEL 22:LCP-D-113A-S
- ◇JJ GO/NO GO DOOR PANEL 22:LCP-D-113A-N
- ◇KK GO/NO GO DOOR PANEL 22:LCP-D-112-N
- ◇LL GO/NO GO DOOR PANEL 22:LCP-D-112-S
- ◇MM GO/NO GO DOOR PANEL 21:LCP-D-115B-W
- ◇NN GO/NO GO DOOR PANEL 21:LCP-D-112F-S
- ◇PP GO/NO GO DOOR PANEL 21:LCP-D-111-S
- ◇QQ GO/NO GO DOOR PANEL 22:LCP-D-112G-S
- ◇RR GO/NO GO DOOR PANEL 22:LCP-D-112E-N
- ◇SS GO/NO GO DOOR PANEL 21:LCP-D-117A-E
- ◇TT GO/NO GO DOOR PANEL 21:LCP-D-118A-N
- ◇UU GO/NO GO DOOR PANEL 21:LCP-D-118A-S
- ◇VV GO/NO GO DOOR PANEL 21:LCP-D-116D-S
- ◇WW GO/NO GO DOOR PANEL 22:LCP-D-116C-S
- ◇XX GO/NO GO DOOR PANEL 22:LCP-D-112F-N
- ◇YY GO/NO GO DOOR PANEL 21:LCP-D-106A-S

Emergency Eyewash/Showers

- (A) EMERGENCY EYEWASH/SHOWER 1508
- (B) EMERGENCY EYEWASH/SHOWER 1509
- (C) EMERGENCY EYEWASH/SHOWER 4207
- (D) EMERGENCY EYEWASH/SHOWER 4206
- (E) EMERGENCY EYEWASH/SHOWER (NO TAG)
- (F) EMERGENCY EYEWASH/SHOWER (NO TAG)
- (P) EMERGENCY EYEWASH/SHOWER 7207
- (Q) EMERGENCY EYEWASH/SHOWER 7206



ORIGINAL DRAWING ISSUED 4-2018 BY HAZEN AND SAWYER AND CH2M HILL. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF THESE RECORD DRAWINGS PRIOR TO START OF WORK.

NOTES:

1. EMERGENCY EYEWASH/SHOWERS ARE NOT LABELED IN THE FIELD. NEED TO NUMBER STATIONS AND VERIFY THAT THEY ARE CORRECTLY IDENTIFIED AND LOCATED ON THE HMI SCREEN.
2. TAGS SHOWN ON THIS DRAWING ARE BASED ON FIELD OBSERVATION OF ACTUAL TAGGING. THESE NEED TO BE CHECKED AGAINST TAG NUMBERS IN LOGIC AND ON HMI.
3. NEED TO CHECK HOW ZONE ALARMING IS HANDLED IN LOGIC AND ON HMI.

Hazen

REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	4/18	KLS

PROJECT ENGINEER:	KLS
DESIGNED BY:	MAM
DRAWN BY:	MAM
CHECKED BY:	RCK

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE (0 1/2" 1")

GEORGIA REGISTERED No. 024756 PROFESSIONAL ENGINEER NUBEA LIMA 4/10/2018

Hazen

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ch2m

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BOARD OF COMMISSIONERS OF GWINNETT COUNTY GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF WATER RESOURCES

F. WAYNE HILL WATER RESOURCES CENTER
CONVERSION TO PLC-BASED SCADA SYSTEM

PROCESS AND INSTRUMENTATION DIAGRAM
PRELIMINARY TREATMENT
GAS & VENTILATION ALARM EQUIPMENT
PRELIMINARY BLDG UPPER LEVEL

DATE:	APRIL 2018
HAZEN NO.:	32428-007
CONTRACT NO.:	-
DRAWING NUMBER:	21 I-126

NOTE 1: TYPICAL LOCAL PANELS TO BE LOCATED AT FOLLOWING DOORS PANEL NO = 21:LCP-DOOR NUMBER-SIDE OF DOOR N=NORTH, E= EAST, S = SOUTH, W = WEST SIDE OF DOOR

DOOR NUMBER	PANEL NUMBER	LOOP NUMBER
21:104D	21:LCP-D-104D-N	2061
21:104F	21:LCP-D-104F-S	2064
21:104G	21:LCP-D-104G-S	206S
21:104A	21:LCP-D-104A-W	2066

NOTE S: HORN & STROBE WIRED TO DCU-2 ASSOCIATED WITH PUMP GALLERY VENTILATION. SEE 21:I-12B AND 21:I-131 TO BE LOCATED AT FOLLOWING DOORS PANEL NO = 21:LCP-DOOR NUMBER-SIDE OF DOOR N=NORTH, E= EAST, S = SOUTH, W = WEST SIDE OF DOOR

DOOR NUMBER	PANEL NUMBER	LOOP NUMBER
21:103A	21:LCP-D-104A-W	2161

NOTE 2: TYPICAL LOCAL PANELS WIRED TO 21:PAC-1 PART OF ALARM LOGIC FOR WEST PRELIMINARY SCREENINGS AREA TO BE LOCATED AT FOLLOWING DOORS PANEL NO = 21:LCP-DOOR NUMBER-SIDE OF DOOR N=NORTH, E= EAST, S = SOUTH, W = WEST SIDE OF DOOR

DOOR NUMBER	PANEL NUMBER	LOOP NUMBER
21:101	21:LCP-D-101-E	2062

NOTE 4: TYPICAL LOCAL PANELS WIRED TO 21:PAC-1 PART OF ALARM LOGIC FOR WEST PRELIMINARY GRIT CHAMBER TO BE LOCATED AT FOLLOWING DOORS PANEL NO = 21:LCP-DOOR NUMBER-SIDE OF DOOR N=NORTH, E= EAST, S = SOUTH, W = WEST SIDE OF DOOR

DOOR NUMBER	PANEL NUMBER	LOOP NUMBER
21:108A	21:LCP-D-108A-E	2069

NOTE 3: TYPICAL LOCAL PANELS TO BE LOCATED AT FOLLOWING DOORS PANEL NO = 21:LCP-DOOR NUMBER-SIDE OF DOOR N=NORTH, E= EAST, S = SOUTH, W = WEST SIDE OF DOOR

DOOR NUMBER	PANEL NUMBER	LOOP NUMBER
21:104F	21:LCP-D-104F-N	2068
21:112C	21:LCP-D-112C-S	2070
21:10SA	21:LCP-D-10SA-W	2071

ORIGINAL DRAWING ISSUED 4-2018 BY HAZEN AND SAWYER AND CH2M HILL. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF THESE RECORD DRAWINGS PRIOR TO START OF WORK.

Hazen

REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	4/18	KLS

PROJECT ENGINEER: KLS
DESIGNED BY: MAM
DRAWN BY: MAM
CHECKED BY: RCK

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE 0 1/2" 1"

GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 024756 NUBEA LIMA 04/08/2018

Hazen
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ch2m
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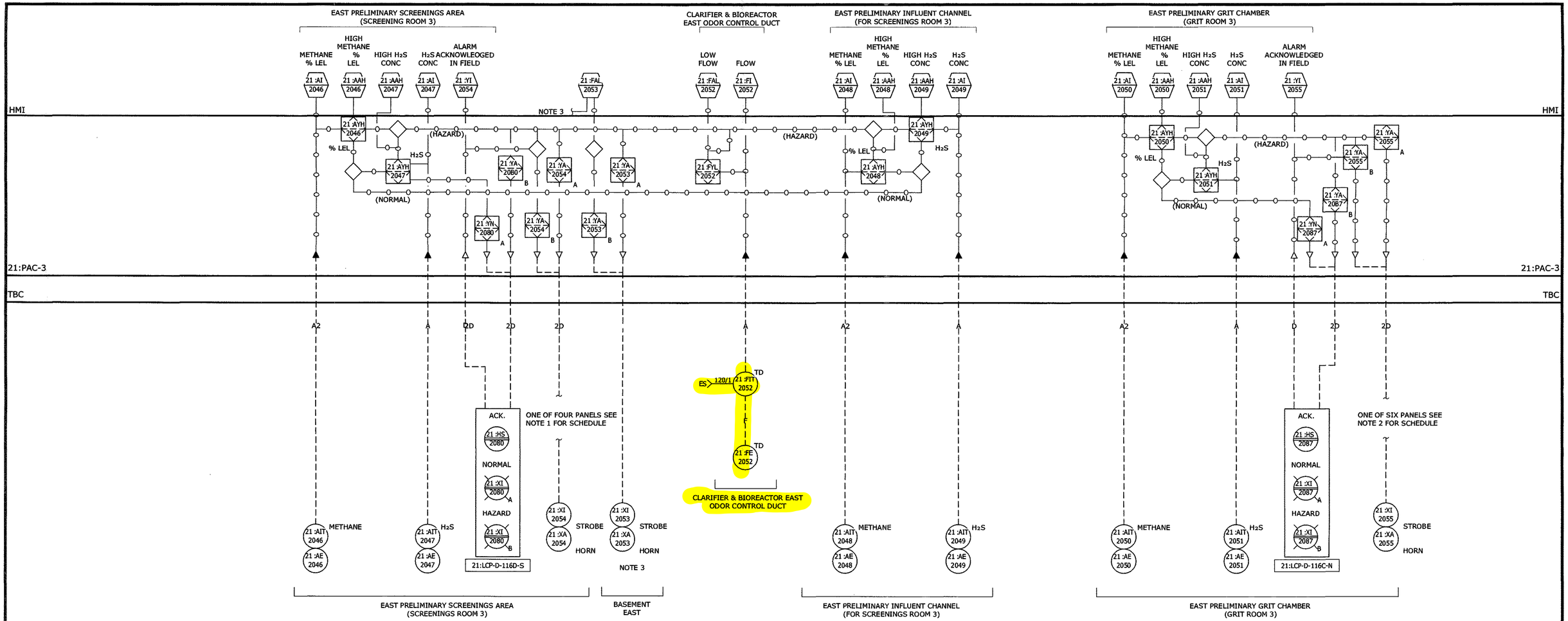
BOARD OF COMMISSIONERS OF GWINNETT COUNTY GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF WATER RESOURCES

F. WAYNE HILL WATER RESOURCES CENTER
CONVERSION TO PLC-BASED SCADA SYSTEM

PROCESS AND INSTRUMENTATION DIAGRAM
PRELIMINARY TREATMENT
WEST PRELIMINARY TREATMENT COMBUSTIBLE GAS AND VENTILATION

DATE: APRIL 2018
HAZEN NO.: 32428-007
CONTRACT NO.: -
DRAWING NUMBER: 21 I-129



NOTE 1: TYPICAL LOCAL PANELS TO BE LOCATED AT FOLLOWING DOORS PANEL NO = 21:LCP-DOOR NUMBER-SIDE OF DOOR N=NORTH, E= EAST, S = SOUTH, W = WEST SIDE OF DOOR

DOOR NUMBER	PANEL NUMBER	LOOP NUMBER
21:116C	21:LCP-D-116C-S	2081
21:114D	21:LCP-D-114D-W	2082
21:116A	21:LCP-D-116A-W	2083

NOTE 2: TYPICAL LOCAL PANELS TO BE LOCATED AT FOLLOWING DOORS PANEL NO = 21:LCP-DOOR NUMBER-SIOE OF DOOR N=NORTH, E= EAST, S = SOUTH, W = WEST SIDE OF DOOR

DOOR NUMBER	PANEL NUMBER	LOOP NUMBER
21:116D	21:LCP-O-116D-N	2088
21:118A	21:LCP-D-118A-N	2639
21:117A	21:LCP-D-117A-E	2090
21:112F	21:LCP-D-112F-S	2091
21:115B	21:LCP-D-115B-W	2092

ORIGINAL DRAWING ISSUED 4-2018 BY HAZEN AND SAWYER AND CH2M HILL. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF THESE RECORD DRAWINGS PRIOR TO START OF WORK.

Hazen

REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	4/18	KLS

IF THIS BAR OOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE 0 1/2" 1"

PROJECT ENGINEER:	KLS
OESIGNEO BY:	MAM
ORAWN BY:	MAM
CHECKEO BY:	RCK

GEORGIA REGISTERED No. 024756 PROFESSIONAL ENGINEER NUBEA LIMA 04/08/2018

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BOARD OF COMMISSIONERS OF GWINNETT COUNTY GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF WATER RESOURCES

F. WAYNE HILL WATER RESOURCES CENTER
CONVERSION TO PLC-BASED SCADA SYSTEM

PROCESS AND INSTRUMENTATION DIAGRAM
PRELIMINARY TREATMENT
EAST PRELIMINARY TREATMENT COMBUSTIBLE GAS AND VENTILATION

OATE:	APRIL 2018
HAZEN NO.:	32428-007
CONTRACT NO.:	-
ORAWING NUMBER:	21 I-130

PLOT OATE: 2018/04/05 5:00:55 PM By: RSHERMAN
File: G:\32500-ATL\32526-020\DRAWINGS\CAD-BIM\INST - HSI21 I-130 Saved By RSHERMAN Save Oate: 2017/10/31 11:56 AM

NOTE 1: TYPICAL LOCAL PANELS TO BE LOCATEO AT FOLLOWING OOORS PANEL NO = 21:LCP-OOOR NUMBER-SIOE OF DOOR N=NORTH, E= EAST, S = SOUTH, W = WEST SIDE OF OOOR

DOOR NUMBER	PANEL NUMBER	LOOP NUMBER
21:101	21:LCP-D-101-W	2632
21:110D	21:LCP-D-110D-S	2631
21:110D	21:LCP-D-110C-S	2626
21:114C	21:LCP-D-114C-E	2634
21:110B	21:LCP-D-110B-E	XXXX

NOTE 3: INSTRUMENTS AND CONTROL LOGIC ASSOCIATED WITH PUMP GALLERY VENTILATION SEE ALSO 21 I-128 AND 21 I-131

NOTE 2: TYPICAL LOCAL PANELS TO BE LOCATED AT FOLLOWING DOORS PANEL NO = 21:LCP-OOOR NUMBER-SIOE OF DOOR N=NORTH, E= EAST, S = SOUTH, W = WEST SIOE OF OOOR

DOOR NUMBER	PANEL NUMBER	LOOP NUMBER
21:108	21:LCP-D-108-W	2628
21:112	21:LCP-D-112-S	2624
21:113A	21:LCP-D-113A-N	2637
21:110C	21:LCP-D-110C-N	2627
21:110D	21:LCP-D-110D-N	2630

ORIGINAL DRAWING ISSUED 4-2018 BY HAZEN AND SAWYER AND CH2M HILL. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF THESE RECORD DRAWINGS PRIOR TO START OF WORK.

Hazen

REV	ISSUED FOR	DATE	BY
1	CONSTRUCTION	4/18	KLS

PROJECT ENGINEER: KLS
OESIGNEO BY: RGS
DRAWN BY: RGS
CHECKEO BY: RCK
IF THIS BAR OOES NOT MEASURE 1" THEN ORAWING IS NOT TO FULL SCALE

GEORGIA REGISTERED No. 024756 PROFESSIONAL ENGINEER NUBEA LIMA 04/06/2018

Hazen
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ch2m:
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BOARD OF COMMISSIONERS OF GWINNETT COUNTY GEORGIA

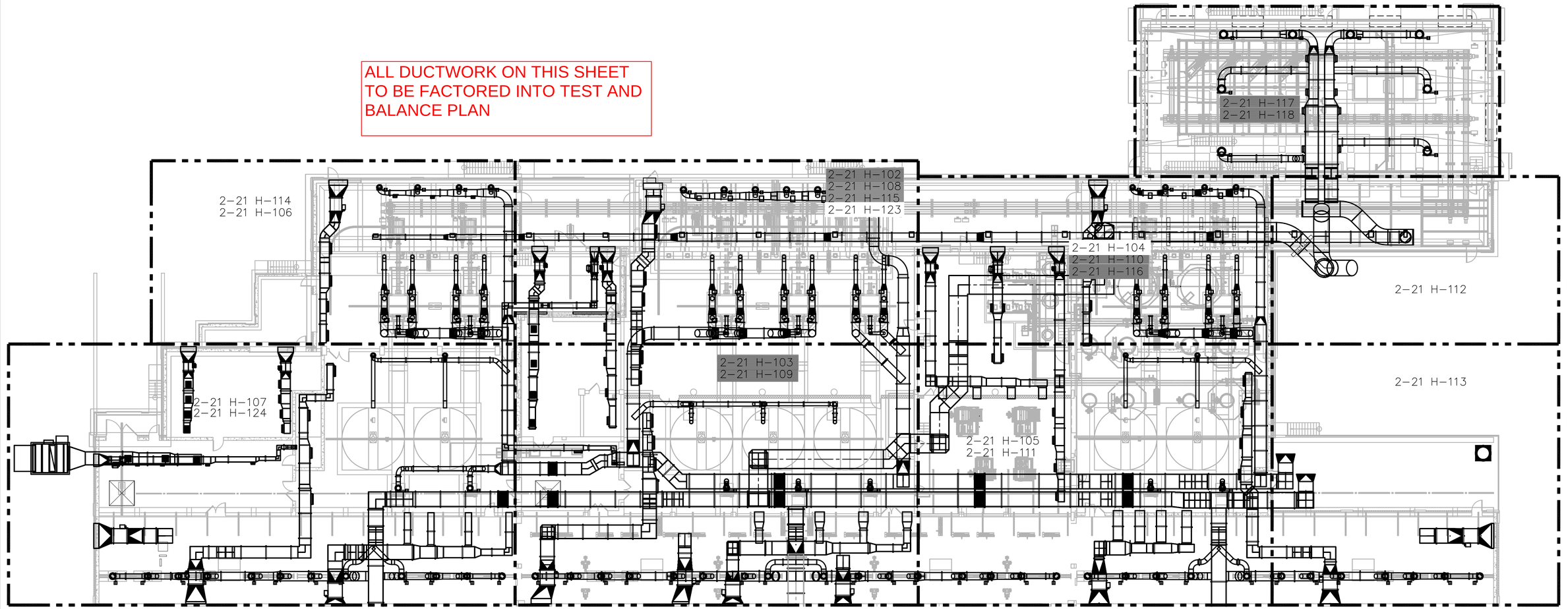
GWINNETT COUNTY, GEORGIA
DEPARTMENT OF WATER RESOURCES

F. WAYNE HILL WATER RESOURCES CENTER
CONVERSION TO PLC-BASED SCADA SYSTEM

PROCESS AND INSTRUMENTATION DIAGRAM
PRELIMINARY TREATMENT
CENTER PRELIMINARY TREATMENT
COMBUSTIBLE GAS AND VENTILATION

OATE: APRIL 2018
HAZEN NO.: 32428-007
CONTRACT NO.: -
ORAWING NUMBER: 21 I-133

ALL DUCTWORK ON THIS SHEET TO BE FACTORED INTO TEST AND BALANCE PLAN



DRAWING INDEX:

2-21 H-101	KEY PLAN	2-21 H-119	SECTIONS AND DETAILS
2-21 H-102	DEMO PLAN	2-21 H-120	SECTIONS AND DETAILS
2-21 H-103	DEMO PLAN	2-21 H-121	SECTIONS AND DETAILS
2-21 H-104	DEMO PLAN	2-21 H-122	SECTIONS AND DETAILS
2-21 H-105	DEMO PLAN	2-21 H-123	DEMO PLAN
2-21 H-106	PLAN	2-21 H-124	PLAN AND SECTION
2-21 H-107	PLAN	2-21 H-125	SECTIONS AND DETAILS
2-21 H-108	PLAN		
2-21 H-109	PLAN		
2-21 H-110	PLAN		
2-21 H-111	PLAN		
2-21 H-112	PLAN		
2-21 H-113	PLAN		
2-21 H-114	LOWER PLAN		
2-21 H-115	LOWER PLAN		
2-21 H-116	LOWER PLAN		
2-21 H-117	LEVEL 1 PLAN		
2-21 H-118	LEVEL 2 PLAN		

PLAN
1/16" = 1'-0"

PLANT NORTH

ORIGINAL DRAWING ISSUED 06-05-2005 BY JORDAN JONES & GOULDING, CH2M HILL AND PRECISION PLANNING, INC. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF THESE RECORD DRAWINGS PRIOR TO START OF WORK.

Jordan, Jones & Goulding
CH2M HILL
Precision Planning, Inc.

JOB NO. 2074.026 | gw2262101h.dwg | 08.30.06

NO.	DATE	DESCRIPTION OF REVISION
R	06-05-06	RECORD DRAWINGS
0	01-03-02	FIRST RELEASE

BOARD OF COMMISSIONERS OF GWINNETT COUNTY — DECEMBER 1, 1955 — GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF PUBLIC UTILITIES
F. WAYNE HILL
WATER RESOURCES CENTER
PHASE 2
3320 FINANCIAL CENTER WAY

-- RECORD DRAWINGS --

These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. The engineer will not be responsible for any errors or omissions which have been incorporated into this document as a result.

CONTRACT 2
BIOLOGICAL TREATMENT FACILITIES

ODOR CONTROL
KEY PLAN AREA 21

DESIGNED: RS	CHECKED:	DATE: JAN 2002	2-21 H-101 DRAWING	R REV
DRAWN: DGH	APP'D.	SCALE: AS SHOWN		

THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE

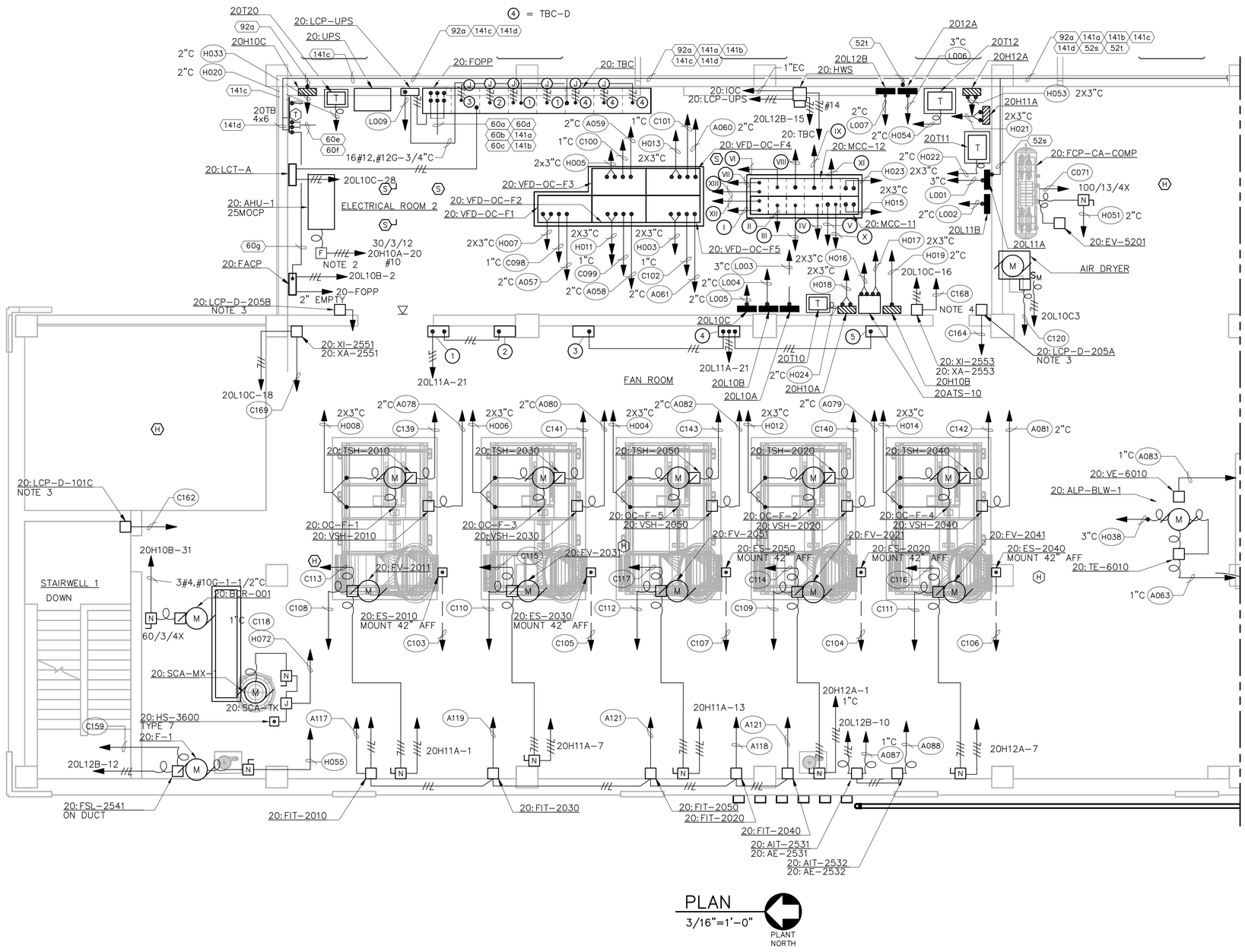
DKSMITH

EXHIBIT C

ELECTRICAL POWER PLAN AND SINGLE LINE DIAGRAMS

20: TBC–2 LEGEND

① = I/OC FBM
② = TBC–A
③ = I/OC PROCESSOR
④ = TBC–D



PLAN
3/16"=1'–0"

PLANT NORTH

NOTES:

1. SEE GENERAL NOTES ON DWG 2–20 E–120.
2. PROVIDE FUSES PER MANUFACTURERS REQUIREMENTS.
3. MOUNT 42" AFF.
4. MOUNT 8'–0" AFF.

CONDUIT DESIGNATIONS		
TAG		SIZE
I	C060 C064 C068	2"C
II	C079 C083 C087	2"C
III	C091 C095 C128 C129 C130	2"C
IV	C124	2"C
V	C132	1"C
VI	C119 C070 C065 C061	2"C
VII	C136 C135 C134 C133 C097 C093	2"C
VIII	C081 C085	2"C
IX	C125	1"C
X	C121	2"C
XI	C158	2"C
XII	C170	2"C
XIII	C171	2"C

FCP DESIGNATIONS		
TAG	FCP	LOCATION
1	20: FCP–FV–2011	MOUNT 42" AFF
2	20: FCP–FV–2031	MOUNT 42" AFF
3	20: FCP–FV–2051	MOUNT 42" AFF
4	20: FCP–FV–2021	MOUNT 42" AFF
5	20: FCP–FV–2041	MOUNT 42" AFF

Jordan, Jones & Goulding
CH2M HILL
Precision Planning, Inc.

JOB NO. 2074.026 | gw2262011e.dwg | 08.22.06

NO.	DATE	DESCRIPTION OF REVISION
R	03–14–05	RECORD DRAWINGS
0	01–03–02	FIRST RELEASE

BOARD OF COMMISSIONERS OF GWINNETT COUNTY TRUMBER FORD GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF PUBLIC UTILITIES
F. WAYNE HILL
WATER RESOURCES CENTER
PHASE 2
3320 FINANCIAL CENTER WAY

-- RECORD DRAWINGS --

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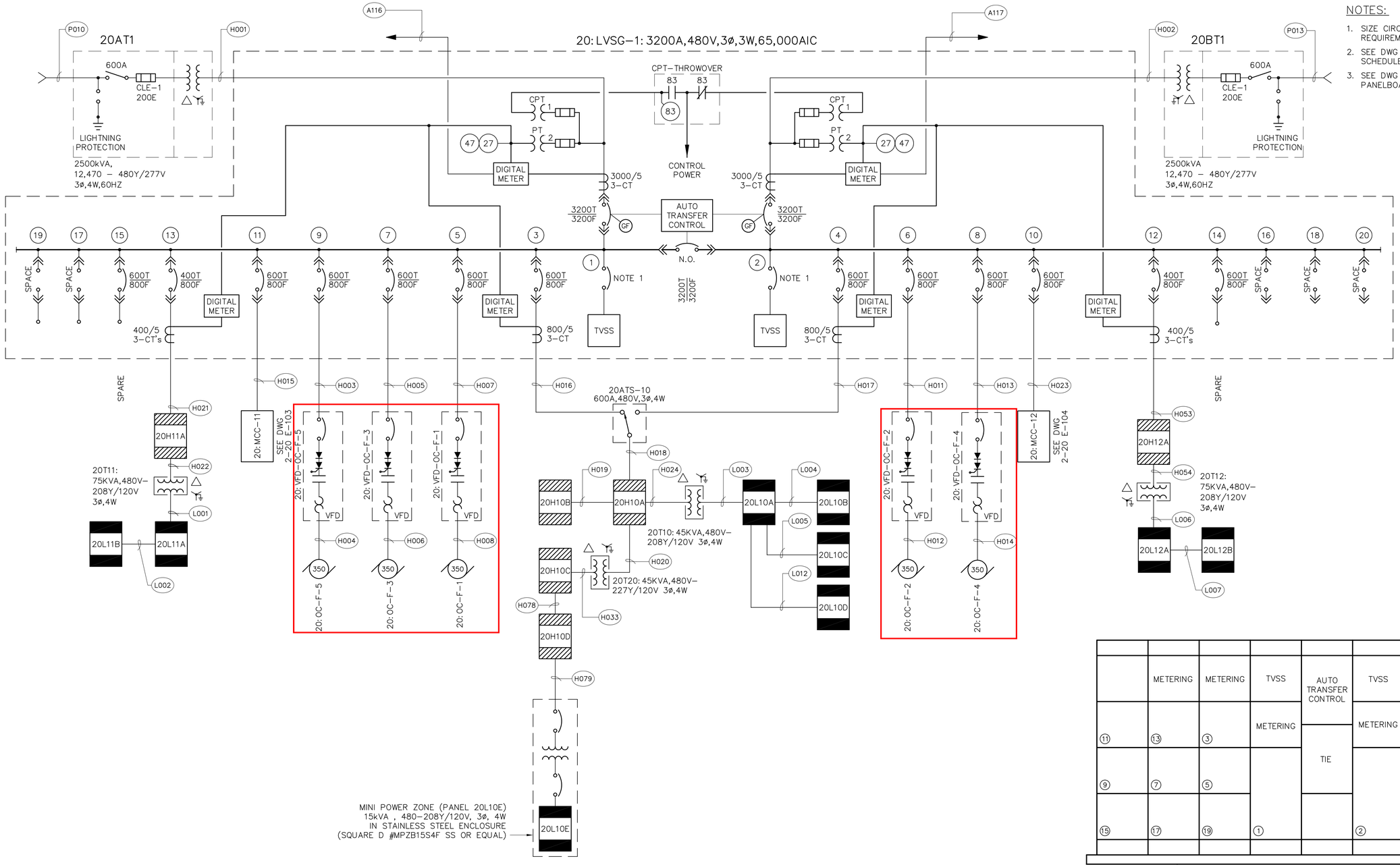
CONTRACT 2
BIOLOGICAL TREATMENT FACILITIES

NORTH CHEMICAL BUILDING
LEVEL 2
POWER AND SYSTEMS

DESIGNED: WMO	CHECKED:	DATE: JAN 2002	2–20 E–127	R
DRAWN: KW	APP'D.	SCALE: AS SHOWN	DRAWING	REV

THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE

RECORD3



20: LVSG–1 FRONT ELEVATION

N.T.S.

NOTES:

1. SIZE CIRCUIT BREAKER PER MANUFACTURER'S REQUIREMENT
2. SEE DWG 2–20 E–113 AND 114 FOR CONDUCTOR SCHEDULES.
3. SEE DWG 2–20 E–107 AND 2–20 E–108 FOR PANELBOARD SCHEDULES.

NO.	DATE	DESCRIPTION OF REVISION
R	03–14–05	RECORD DRAWINGS
0	01–03–02	FIRST RELEASE

JOB NO. 2074.026 | gw2262001e.dwg | 08.22.06

Jordan, Jones & Goulding
CH2M HILL
Precision Planning, Inc.

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF PUBLIC UTILITIES
F. WAYNE HILL
WATER RESOURCES CENTER
PHASE 2
3320 FINANCIAL CENTER WAY

-- RECORD DRAWINGS --

These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. The engineer will not be responsible for any errors or omissions which have been incorporated into this document as a result.

CONTRACT 2
BIOLOGICAL TREATMENT FACILITIES

NORTH CHEMICAL BUILDING
20: LVSG–1 ONE–LINE DIAGRAM

DESIGNED: WMO	CHECKED:	DATE: JAN 2002	2–20 E–101	R
DRAWN: KW	APP'D.	SCALE: NTS	DRAWING	REV

THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE

RECORD3

TAG: 20H10A			NORTH CHEMICAL BUILDING	AIC: 65,000	
MAINS: 600A MB			TOP ENTRY	TVSS: NO	
SERVICE: 480V,3ø,3W				TRIM: SURFACE	
CKT	C/B	LOAD	LOAD	C/B	CKT
1	200/3	20H10B	20T10/20L10A	80/3	2
3	–	–	–	–	4
5	–	–	–	–	6
7	80/3	20T20/20H10C	SPARE	100/3	8
9	–	–	–	–	10
11	–	–	–	–	12
13	100/3	20:MAU–1	20:ACU–1	150/3	14
15	–	–	–	–	16
17	–	–	–	–	18
19	100/3	SPARE	20:AHU–1	30/3	20
21	–	–	–	–	22
23	–	–	–	–	24
25	125/3	SPARE	20:MAU–2	100/3	26
27	–	–	–	–	28
29	–	–	–	–	30
31	–	SPACE	20:FCP–FRD–P8	200/3	32
33	–	SPACE	–	–	34
35	–	SPACE	–	–	36
37	–	SPACE	SPACE	–	38
39	–	SPACE	SPACE	–	40
41	–	SPACE	SPACE	–	42

TAG: 20H10B			NORTH CHEMICAL BUILDING	AIC: 65,000		
MAINS: 200 ML			TOPENTRY	TVSS: NO		
SERVICE: 480V,3ø,3W				TRIM: SURFACE		
CKT	C/B	LOAD	LOAD	C/B	CKT	
1	20/3	2–:FCP–FDR–P1	20:FCP–CA	100/3	2	
3	–	–	–	–	4	
5	–	–	–	–	6	
7	20/3	2–:FCP–FDR–P2	20:FCP–FDR–P5	20/3	8	
9	–	–	–	–	10	
11	–	–	–	–	12	
13	20/3	2–:FCP–FDR–P3	20:FCP–FDR–P6	20/3	14	
15	–	–	–	–	16	
17	–	–	–	–	18	
19	20/3	2–:FCP–FDR–P4	20:FCP–FDR–P7	20/3	20	
21	–	–	–	–	22	
23	–	–	–	–	24	
25	20/3	ELEC DOOR 100A&B	ELEC DOORS 104C,104D	20/3	26	1
27	–	–	–	–	28	
29	–	–	–	–	30	
31	60/3	BRIDGE CRANE	SPARE	30/3	32	
33	–	–	–	–	34	
35	–	–	–	–	36	
37	20/3	SPARE	ELEC DOORS 202A&B,203C	20/3	38	1
39	–	–	–	–	40	
41	–	–	–	–	42	

TAG: 20H10C			NORTH CHEMICAL BUILDING	AIC: 14,000	
MAINS: 100A MB			TOP ENTRY	TVSS: YES	
SERVICE: 480V/277,3ø,4W				TRIM: SURFACE	
CKT	C/B	LOAD	LOAD	C/B	CKT
1	20/1	NIGHT LIGHTS	NIGHT LIGHTS	20/1	2
3	20/1	LIGHTING LEVEL 1	HVAC ROOM LIGHTS	20/1	4
5	20/1	LIGHTING LEVEL 1	LIME STORAGE LIGHTS	20/1	6
7	20/1	LIGHTING LEVEL 1	ELEC ROOM LIGHTS	20/1	8
9	20/1	CHEM TANK LIGHTING	BLOWER ROOM LIGHTS	20/1	10
11	20/1	CHEM TANK LIGHTING	BLOWER ROOM LIGHTS	20/1	12
13	20/1	STAIRWELL 1 LIGHTING	VFD ROOM LIGHTS	20/1	14
15	20/1	STAIRWELL 2 LIGHTING	LIME FEED ROOM LIGHTING	20/1	16
17	20/1	SCRUBBER LIGHTING	BLDG SECURITY LIGHTING	20/1	18
19	20/1	SCRUBBER LIGHTING	SPARE	20/1	20
21	20/1	SPARE	SPARE	201/	22
23	20/1	SPARE	SPARE	20/1	24
25	20/1	SPARE	SPARE	20/1	26
27	20/1	SPARE	SPARE	20/1	28
29	20/1	SPARE	SPARE	20/1	30
31	–	SPACE	20H10D	100/3	32
33	–	SPACE	–	–	34
35	–	SPACE	–	–	36
37	–	SPACE	SPARE	30/3	38
39	–	SPACE	–	–	40
41	–	SPACE	–	–	42

TAG: 20L10A			NORTH CHEMICAL BUILDING	AIC: 10,000	
MAINS: 150A MB			TOPENTRY	TVSS: YES	
SERVICE: 208/120V,3p,4W				TRIM: SURFACE	
CKT	C/B	LOAD	LOAD	C/B	CKT
1	100/3	20L10B	20L10C	100/3	2
3	–	–	–	–	4
5	–	–	–	–	6
7	100/3	SPARE	SPARE	100/3	8
9	–	–	–	–	10
11	–	–	–	–	12
13	30/3	SPARE	SPARE	80/3	14
15	–	–	–	–	16
17	–	–	–	–	18
19	80/3	20L10D	20:LCP–UPS	60/2	20
21	–	–	–	–	22
23	–	–	SPACE	–	24
25	60/3	SPARE	SPACE	–	26
27	–	–	SPACE	–	28
29	–	–	SPACE	–	30
31	30/3	SPARE	SPACE	–	32
33	–	–	SPACE	–	34
35	–	–	SPACE	–	36
37	–	SPACE	SPACE	–	38
39	–	SPACE	SPACE	–	40
41	–	SPACE	SPACE	–	42

TAG: 20L10B			NORTH CHEMICAL BUILDING	AIC: 10,000	
MAINS: 100A ML			TOP ENTRY	TVSS: NO	
SERVICE: 208Y/120V,3p,4W				TRIM: SURFACE	
CKT	C/B	LOAD	LOAD	C/B	CKT
1	20/1	LIME FEED ROOM RECEPT	SPARE	20/1	2
3	20/1	LIME FEED ROOM RECEPT	20:FCP–AIR–DRY	20/1	4
5	20/1	CHEM FEED ROOM RECEPT	FAN ROOM RECEPT	20/1	6
7	20/1	CHEM FEED ROOM RECEPT	FAN ROOM RECEPT	20/1	8
9	20/1	CHEM FEED ROOM RECEPT	FAN ROOM RECEPT	20/1	10
11	20/1	SCRUBBER RECEPT	SLACKER ROOM RECEPT	20/1	12
13	20/1	SCRUBBER RECEPT	SLACKER ROOM RECEPT	20/1	14
15	20/1	SCRUBBER RECEPT	ELECTRICAL ROOM 1 RECEPT	20/1	16
17	20/1	SCRUBBER RECEPT	HVAC ROOM RECEPT.	20/1	18
19	20/1	SPARE	ELECTRICAL ROOM 2 RECEPT	20/1	20
21	20/1	SPARE	SPARE	20/1	22
23	20/1	SPARE	SPARE	20/1	24
25	20/1	SPARE	SPARE	20/1	26
27	20/1	SPARE	SPARE	20/1	28
29	20/1	SPARE	SPARE	20/1	30
31	–	SPACE	SPACE	–	32
33	–	SPACE	SPACE	–	34
35	–	SPACE	SPACE	–	36
37	–	SPACE	SPACE	–	38
39	–	SPACE	SPACE	–	40
41	–	SPACE	SPACE	–	42

TAG: 20L10C			NORTH CHEMICAL BUILDING	AIC: 10,000	
MAINS: 100A ML			TOP ENTRY	TVSS: NO	
SERVICE: 208Y/120V,3p,4W				TRIM: SURFACE	
CKT	C/B	LOAD	LOAD	C/B	CKT
1	20/1	20:LCP–POL1	20:FSH–2131	20/1	2
3	20/1	20:CA–DRY1	20:FSH–2132	20/1	4
5	20/1	CHEM TANK FILL PANEL	20:FSH–2135	20/1	6
7	20/1	20:FCP–AV2	20:FSH–2140	20/1	8
9	20/1	20:FSH–2138	20:FSH–2137	20/1	10
11	20/1	20:FSH–2134	20:FSH–2136	20/1	12
13	20/1	20:MAU–2 SMOKE DET	20:FSH–2552	20/1	14
15	20/1	20:MAU–1 SMOKE DET	20:FSH–2553	20/1	16
17	20/1	SPARE	20:FSH–2551	20/1	18
19	20/1	SPARE	20:FIT–2010,20,30,40,50	20/1	20
21	20/1	SPARE	SPARE	20/1	22
23	20/1	SPARE	SPARE	20/1	24
25	20/1	SPARE	SPARE	20/1	26
27	20/1	SPARE	20:LCT–A	20/1	28
29	–	SPACE	SPACE	–	30
31	–	SPACE	SPACE	–	32
33	–	SPACE	SPACE	–	34
35	–	SPACE	SPACE	–	36
37	–	SPACE	SPACE	–	38
39	–	SPACE	SPACE	–	40
41	–	SPACE	SPACE	–	42

SEE DIRECTORY CARDS FOR ACTUAL CIRCUIT NUMBERING FOR EACH PANELBOARD

Jordan, Jones & Goulding
CH2M HILL
Precision Planning, Inc.

JOB NO. 2074.026 | gw2262026e.dwg | 08.22.06

NO.	DATE	DESCRIPTION OF REVISION
R	03–14–05	RECORD DRAWINGS
1	01–07–03	ADDED MOTORIZED DOORS
0	01–03–02	FIRST RELEASE

BOARD OF COMMISSIONERS OF GWINNETT COUNTY · DECIMUS ET MIHI · GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF PUBLIC UTILITIES
F. WAYNE HILL
WATER RESOURCES CENTER
PHASE 2
3320 FINANCIAL CENTER WAY

-- RECORD DRAWINGS --

These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. The engineer will not be responsible for any errors or omissions which have been incorporated into this document as a result.

CONTRACT 2
BIOLOGICAL TREATMENT FACILITIES

NORTH CHEMICAL BUILDING
PANELBOARD SCHEDULES

DESIGNED: WMO	CHECKED:	DATE: JAN 2002	2–20 E–107	R
DRAWN: NGM	APP'D.	SCALE:	DRAWING	REV

THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE

RECORD3

TAG: 20H11A			NORTH CHEMICAL BUILDING	AIC: 65,000	
MAINS: 400 ML			TOP ENTRY	TVSS: NO	
SERVICE: 480,3p,3W				TRIM: SURFACE	
CKT	C/B	LOAD	LOAD	C/B	CKT
1	20/3	20: FV-2011	20T11/20L11A	125/3	2
3	–	–	–	–	4
5	–	–	–	–	6
7	20/3	20: FV-2031	20: AV2-2101	20/3	8
9	–	–	–	–	10
11	–	–	–	–	12
13	20/3	20: FV-2051	20: AV2-2301	20/3	14
15	–	–	–	–	16
17	–	–	–	–	18
19	20/3	SPARE	20: AV2-2501	30/3	20
21	–	–	–	–	22
23	–	–	–	–	24
25	20/3	SPARE	SPARE	20/3	26
27	–	–	–	–	28
29	–	–	–	–	30
31	20/3	SPARE	SPARE	20/3	32
33	–	–	–	–	34
35	–	–	–	–	36
37	20/3	SPARE	SPARE–	20/3	38
39	–	–	–	–	40
41	–	–	–	–	42

TAG: 20L11B			NORTH CHEMICAL BUILDING	AIC: 10,000	
MAINS: 100 ML			TOP ENTRY	TVSS: NO	
SERVICE: 208Y/120V,3p,4W				TRIM: SURFACE	
CKT	C/B	LOAD	LOAD	C/B	CKT
1	20/1	20: SH-FV-1, LIT-3501	20: FV-4021, 22, LIT-4011	20/1	2
3	20/1	20: SH-FV-3, LIT-3503	20: FCP-L-SILO-1	20/1	4
5	20/1	20: AA-FV-1, LIT-3201	20: FCP-ALP-BLW-1	30/1	6
7	20/1	20: MS-FV-1, LIT-3000	20: FCP-OC	30/1	8
9	20/1	20: MS-FV-3, LIT-3003	SPARE	20/1	10
11	20/1	20: POL-FV-1, LIT-4001	SPARE	20/1	12
13	20/1	20: FV-2103	SPARE	20/1	14
15	20/1	20: FV-2303	SPARE	20/1	16
17	20/1	20: FV-2503	SPARE	20/1	18
19	–	SPACE	SPACE	–	20
21	–	SPACE	SPACE	–	22
23	–	SPACE	SPACE	–	24
25	–	SPACE	SPACE	–	26
27	–	SPACE	SPACE	–	28
29	–	SPACE	SPACE	–	30
31	–	SPACE	SPACE	–	32
33	–	SPACE	SPACE	–	34
35	–	SPACE	SPACE	–	36
37	–	SPACE	SPACE	–	38
39	–	SPACE	SPACE	–	40
41	–	SPACE	SPACE	–	42

TAG: 20H12A			NORTH CHEMICAL BUILDING	AIC: 65,000	
MAINS: 400 ML			TOP ENTRY	TVSS: NO	
SERVICE: 480V,3p,3W				TRIM: SURFACE	
CKT	C/B	LOAD	LOAD	C/B	CKT
1	20/3	20: FCV-2021	20T12	125/3	2
3	–	–	–	–	4
5	–	–	–	–	6
7	20/3	20: FCV-2041	20: AV2-2201	100/3	8
9	–	–	–	–	10
11	–	–	–	–	12
13	20/3	20: FV-6020A,B,&C	20: AV2-2401	100/3	14
15	–	–	–	–	16
17	–	–	–	–	18
19	60/3	SPARE	SPARE	20/3	20
21	–	–	–	–	22
23	–	–	–	–	24
25	50/3	SPARE	SPARE	20/3	26
27	–	–	–	–	28
29	–	–	–	–	30
31	–	SPACE	SPARE	–	32
33	–	SPACE	SPARE	–	34
35	–	SPACE	SPARE	–	36
37	–	SPACE	SPARE	–	38
39	–	SPACE	SPARE	–	40
41	–	SPACE	SPARE	–	42

TAG: 20L11A			NORTH CHEMICAL BUILDING	AIC: 10,000	
MAINS: 250A MB			TOP ENTRY	TVSS: YES	
SERVICE: 208Y/120V,3p,4W				TRIM: SURFACE	
CKT	C/B	LOAD	LOAD	C/B	CKT
1	20/1	20: FCP-MS-P1	20: FCP-AA-P1	20/1	2
3	20/1	20: FCP-MS-P3	20: FCP-AA-P3	20/1	4
5	20/1	20: FCP-MS-P5	20: FCP-AA-P5	20/1	6
7	20/1	20: FCP-MS-P7	20: FCP-AA-P7	20/1	8
9	20/1	20: FCP-MS-P9	20: FCP-AA-P9	20/1	10
11	20/1	20: FCP-POC-P1	20: FCP-SH-P1	20/1	12
13	20/1	20: FCP-POC-P3	20: FCP-SH-P3	20/1	14
15	20/1	20: FCP-POC-P5	20: FCP-SH-P3	20/1	16
17	20/1	20: FCP-POC-P7	20: FCP-SH-P5	20/1	18
19	20/1	20: FCP-POC-P9	20: FCP-SH-P5	20/1	20
21	20/1	20: FCP-FV-2011,2031	20: FCP-L-SLK-1	30/1	22
23	20/1	20: FCP-FV-2051,2041	20: FCP-L-SLK-2	30/1	24
25	20/1	20: RECIRC-P1 INST	SPARE	20/1	26
27	20/1	20: RECIRC-P3 INST	SPARE	20/1	28
29	20/1	20: RECIRC-P5 INST	TVSS	30/3	30
31	20/1	SPARE	–	–	32
33	20/1	SPARE	–	–	34
35	20/1	SPARE	20ATI PRIMARY HEATER	20/1	36
37	100/3	SPARE	20L11B	100/3	38
39	–	–	–	–	40
41	–	–	–	–	42

TAG: 20L12B			NORTH CHEMICAL BUILDING	AIC: 10,000	
MAINS: 100 ML			TOP ENTRY	TVSS: NO	
SERVICE: 208Y/120V,3p,4W				TRIM: SURFACE	
CKT	C/B	LOAD	LOAD	C/B	CKT
1	20/1	20: SH-FV-2, LIT-3502	20: FV-4025, 26, LIT-4012	20/1	2
3	20/1	20: CS-FV-1, LIT-3400	20: FCP-L-SILO-2	20/1	4
5	20/1	20: AA-FV-2, LIT-3201	20: FSH-2133	20/1	6
7	20/1	20: MS-FV-2, LIT-3002	20: FSH-2139	20/1	8
9	20/1	20: POL-FV-2, LIT-4002	20: AIT-2531,2532	20/1	10
11	20/1	20: FV-2203	20: FSL-2541	20/1	12
13	20/1	20: FV-2403	20: FSL-2542	20/1	14
15	20/1	20: HWS A/C	20: FSL-2543	20/1	16
17	20/1	SPARE	20: FCP-OC	30/1	18
19	20/1	SPARE	SPARE	20/1	20
21	20/1	SPARE	SPARE	20/1	22
23	20/1	SPARE	SPARE	20/1	24
25	20/1	SPARE	SPARE	20/1	26
27	20/1	SPARE	SPARE	20/1	28
29	20/1	SPARE	SPARE	20/1	30
31	–	SPACE	SPACE	–	32
33	–	SPACE	SPACE	–	34
35	–	SPACE	SPACE	–	36
37	–	SPACE	SPACE	–	38
39	–	SPACE	SPACE	–	40
41	–	SPACE	SPACE	–	42

TAG: 20L12A			NORTH CHEMICAL BUILDING	AIC: 10,000	
MAINS: 250 MB			TOP ENTRY	TVSS: YES	
SERVICE: 208Y/120V,3p,4W				TRIM: SURFACE	
CKT	C/B	LOAD	LOAD	C/B	CKT
1	20/1	20: FCP-AA-P2	20: FCP-MS-P2	20/1	2
3	20/1	20: FCP-AA-P4	20: FCP-MS-P4	20/1	4
5	20/1	20: FCP-AA-P6	20: FCP-MS-P6	20/1	6
7	20/1	20: FCP-AA-P8	20: FCP-MS-P8	20/1	8
9	20/1	20: FCP-AA-P10	20: FCP-MS-P10	20/1	10
11	20/1	20: FCP-POC-P2	20: FCP-SN-P2	20/1	12
13	20/1	20: FCP-POC-P4	20: FCP-CS-P2	20/1	14
15	20/1	20: FCP-POC-P6	SPARE	20/1	16
17	20/1	20: FCP-POC-P8	SPARE	20/1	18
19	20/1	20: FCP-POC-P10	20: FCP-SH-P4	20/1	20
21	20/1	20: RECIRC-P2 INST	20: FCP-CS-P4	20/1	22
23	20/1	20: RECIRC-P4 INST	20: LCP-FV-2021,41	20/1	24
25	20/1	SPARE	20: FCP-ALP-BLW-2	30/1	26
27	20/1	SPARE	20: FCP-SLK-2	30/1	28
29	20/1	SPARE	TVSS	30/3	30
31	20/1	SPARE	–	–	32
33	20/1	SPARE	–	–	34
35	20/1	SPARE	20BTI PRIMARY HEATER	20/1	36
37	100/3	SPARE	L2012B	100/3	38
39	–	–	–	–	40
41	–	–	–	–	42

SEE DIRECTORY CARDS FOR ACTUAL CIRCUIT NUMBERING FOR EACH PANELBOARD

Jordan, Jones & Goulding
CH2M HILL
Precision Planning, Inc.

JOB NO. 2074.026 | gw2262027e.dwg | 08.22.06

NO.	DATE	DESCRIPTION OF REVISION
R	03-14-05	RECORD DRAWINGS
0	01-03-02	FIRST RELEASE

BOARD OF COMMISSIONERS OF GWINNETT COUNTY — DECEMBER 1988 — GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF PUBLIC UTILITIES
F. WAYNE HILL
WATER RESOURCES CENTER
PHASE 2
3320 FINANCIAL CENTER WAY

-- RECORD DRAWINGS --

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CONTRACT 2
BIOLOGICAL TREATMENT FACILITIES

NORTH CHEMICAL BUILDING
PANELBOARD SCHEDULES

DESIGNED: WMO	CHECKED:	DATE: JAN 2002	2-20 E-108	R
DRAWN: NGM	APP'D.	SCALE:	DRAWING	REV

THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE

RECORD3

CONTROL CONDUCTORS

No.	CONDUCTORS	FROM	TO/REMARKS
C205	NOT USED		
C206			
C207			
C208			
C209			
C210			
C211			
C212			
C213			
C214			
C215			
C216			
C217			
C218			
C219			
C220			
C221			
C222			
C223			
C224			
C225			
C226			
C227			
C228			
C229			
C230			
C231			
C232			
C233			
C234			
C235			
C236			
C237			
C238			

480/277 VOLT CONDUCTORS

No.	CONDUCTORS	FROM	TO/REMARKS
H001	8x3-500kcmil,400kcmilG	20: LVSG1-1	20AT1-SEC
H002	8x3-500kcmil,400kcmilG	20: LVSG1-2	20AT2-SEC
H003	2x3-350kcmil,#1G	20: VFD-OC-F-5	20: LVSG1-9
H004	2x3-300kcmil,2#10,#1G	20: OC-F-5	20: VFD-OC-F-5
H005	2x3-350kcmil,#1G	20: VFD-OC-F-3	20: LVSG1-7
H006	2x3-300kcmil,2#10,#1G	20: OC-F-3	20: VFD-OC-F-3
H007	2x3-350kcmil,#1G	20: VFD-OC-F-1	20: LVSG1-5
H008	2x3-300kcmil,2#10,#1G	20: OC-F-1	20: VFD-OC-F-1
H009	NOTUSED		
H010	3-3/0,#3G	20: FCP-FDR-P8	20H10A-32
H011	2x3-350kcmil,#1G	20: VFD-OC-F-2	20: LVSG1-6
H012	2x3-300kcmil,2#10,#1G	20: OC-F-2	20: VFD-OC-F-2
H013	2x3-350kcmil,#1G	20: VFD-OC-F-4	20: LVSG1-8
H014	2x3-300kcmil,2#10,#1G	20: OC-F-4	20: VFD-OC-F-4
H015	2x3-350kcmil,#1G	20: MCC11-1	20: LVSG1-11
H016	2x3-350kcmil,#1G	20ATS-10	20: LVSG1-3
H017	2x3-350kcmil,#1G	20ATS-10	20: LVSG1-4
H018	2x3-350kcmil,#1G	20H10A-MB	20ATS-10
H019	3-4/0,#4G	20H10B-ML	20H10A-1
H020	3-1/0,#1G	20T20 PRIMARY	20H10A-7
H021	2x3-3/0,#3G	20H11A-ML	20: LVSG1-13
H022	3#1,#8G	20T11-PRIMARY	20H11A-2
H023	2x3-350kcmil,#1G	20: MCC12-1	20: LVSG1-10
H024	3#1,#8G	20T10-PRIMARY	20H10A-2
H025	3#12,#12G	20: POL-P-12	20: MCC11-2
H026	3#12,#12G	20: POL-MIX-1	20: MCC11-3
H027	3#12,#12G	20: L-BA-1	20: MCC11-4
H028	3#12,#12G	20: LS-CLSF-1	20: MCC11-5
H029	3#12,#12G	20: L-F-1	20: MCC11-6
H030	3#12,#12G	20: L-MIX-1	20: MCC11-7
H031	3#12,#12G	20: L-FDR-1	20: MCC11-8
H032	3#10,#12G	20: LS-MIX-1	20: MCC11-9
H033	4-1/0,#1G	20H10C-MB	20T11-SECONDARY
H034	3#8,#8G	20: LS-P-1	20: MCC11-11

480/277 VOLT CONDUCTORS

No.	CONDUCTORS	FROM	TO/REMARKS
H035	3#8,#8G	20: RECIRC-P1	20: MCC11-12
H036	3#8,#8G	20: RECIRC-P3	20: MCC11-13
H037	3#8,#8G	20: RECIRC-P5	20: MCC11-14
H038	3-2/0,2#10,2#12,#2G	20: ALP-BLW-1	20: MCC11-15
H039	3#12,#12G	20: POL-P-13	20: MCC12-2
H040	3#12,#12G	20: POL-MIX-2	20: MCC12-3
H041	3#12,#12G	20: L-BA-2	20: MCC12-4
H042	3#12,#12G	20: L-CLSF-2	20: MCC12-5
H043	3#12,#12G	20: L-F-2	20: MCC12-6
H044	3#12,#12G	20: L-MIX-2	20: MCC12-7
H045	3#12,#12G	20: L-FDR-2	20: MCC12-8
H046	3#10,#12G	20: LS-MIX-2	20: MCC12-9
H047	NOT USED		
H048	3#8,#8G	20: LS-P-2	20: MCC12-11
H049	3#8,#8G	20: RECIRC-P2	20: MCC12-12
H050	3#8,#8G	20: RECIRC-P4	20: MCC12-13
H051	3#1,#8G	20: FCP-CA	20H10B-2
H052	3-2/0,2#10,2#12,#2G	20: ALP-BLW-2	20: MCC12-15
H053	2x3-3/0,#3G	20H12A-ML	20: LVSG1-12
H054	3#1,#6G	20T12-PRIMARY	20H12A-2
H055	3#12,#12G	20: F-1	20: MCC11-16
H056	3#12,#12G	20: F-3	20: MCC11-17
H057	3#12,#12G	20: F-5	20: MCC11-18
H058	3#12,#12G	20: F-7	20: MCC11-19
H059	3#12,#12G	20: F-9	20: MCC11-20
H060	3#12,#12G	20: F-2	20: MCC12-16
H061	3#12,#12G	20: F-4	20: MCC12-17
H062	3#12,#12G	20: F-6	20: MCC12-18
H063	3#12,#12G	20: F-8	20: MCC12-19
H064	3-1/0,#6G	20: ACU-1	20H10A-14
H065	3#10,#12G	20: FCP-FDR-P1	20H10B-1
H066	3#10,#12G	20: FCP-FDR-P2	20H10B-7
H067	3#10,#12G	20: FCP-FDR-P3	20H10B-13
H068	3#10,#12G	20: FCP-FDR-P4	20H10B-19

NOTES:

1. NOT USED.

Jordan, Jones & Goulding
CH2M HILL
Precision Planning, Inc.

JOB NO. 2074.026 | gw2262035e.dwg | 08.22.06

NO.	DATE	DESCRIPTION OF REVISION
R	03-14-05	RECORD DRAWINGS
1	12-19-02	LIME SYSTEM DUST COLLECTOR ADDITION
0	01-03-02	FIRST RELEASE

BOARD OF COMMISSIONERS OF GWINNETT COUNTY DECEMBER 1, 1818 GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF PUBLIC UTILITIES
F. WAYNE HILL
WATER RESOURCES CENTER
PHASE 2
3320 FINANCIAL CENTER WAY

-- RECORD DRAWINGS --

These record drawings have been prepared, in part, on the basis of information compiled and furnished by others. The engineer will not be responsible for any errors or omissions which have been incorporated into this document as a result.

CONTRACT 2
BIOLOGICAL TREATMENT FACILITIES

NORTH CHEMICAL BUILDING
CONDUCTOR SCHEDULE

DESIGNED: WMO	CHECKED:	DATE: JAN 2002	2-20 E-113	R
DRAWN: NGM	APP'D.	SCALE: NONE	DRAWING	REV

THIS LINE IS ONE INCH LONG WHEN PLOTTED FULL SCALE

RECORD3

480/277 VOLT CONDUCTORS

No.	CONDUCTORS	FROM	TO/REMARKS
H069	3#10,#12G	20:FCP-FDR-P5	20H10B-8
H070	3#10,#12G	20:FCP-FDR-P6	20H10B-14
H071	3#10,#12G	20:FCP-FDR-P7	20H10B-20
H072	3#12,#12G	20:SCA-MX-1	20:MCC12-14
H073	3#10,#10G	20:AV2-2101	20H11A-8
H074	3#10,#10G	20:AV2-2201	20H12A-8
H075	3#10,#10G	20:AV2-2301	20H11A-14
H076	3#10,#10G	20:AV2-2401	
H077	3#10,#10G	20:AV2-2501	20H11A-20
H078	4-1/0,#6G	20H10D-MB	20H10C-32
H079	3#8,#10G	20MPZL10E-MB	20H10D-13
H080	NOT USED		
H081			
H082			
H083			
H084			
H085			
H086			
H087			
H088			
H089			
H090			
H091			
H092			
H093			
H094			
H095			
H096			
H097			
H098			
H099			
H100			
H101			
H102			

480/277 VOLT CONDUCTORS

No.	CONDUCTORS	FROM	TO/REMARKS
H103	NOT USED		
H104			
H105			
H106			
H107			
H108			
H109			
H110			
H111			
H112			
H113			
H114			
H115			
H116			
H117			
H118			
H119			
H120			
H121			
H122			
H123			
H124			
H125			
H126			
H127			
H128			
H129			
H130			
H131			
H132			
H133			
H134			
H135			
H136			

240/208/120 VOLT CONDUCTORS

No.	CONDUCTORS	FROM	TO/REMARKS
L001	4-250kcmil,#2	20L11A-MB	20T11 SECDARY
L002	4#1,#8G	20L11B-ML	20L11A-38
L003	4-1/0,#6G	20L10A-MB	20T10 SECDARY
L004	4#1,#8G	20L10B-ML	20L10A-1
L005	4#1,#8G	20L10C-ML	20L10A-2
L006	4-250kcmil,#2	20L12A-MB	20T12 SECDARY
L007	4#1,#8G	20L12B-ML	20L12A-38
L008	2#10,#12G	20:LCP-POL-1	20L10C-1
L009	2#4,#10G	20:LCP-UPS	20L10A-20
L010	2#10,#10G	20AT1 PRIMARY HEATER	20L11A-36
L011	2#10,#10G	20BT1 PRIMARY HEATER	20L12A-36
L012	4#3,#8G	20L10D-MB	20L10A-19
L013	NOT USED		
L014			
L015			
L016			
L017			
L018			
L019			
L020			
L021			
L022			
L023			
L024			
L025			
L026			
L027			
L028			
L029			
L030			
L031			
L032			
L033			
L034			

NOTES:

1. NOT USED.

Jordan, Jones & Goulding
CH2M HILL
Precision Planning, Inc.

JOB NO. 2074.026 | gw2262038e.dwg | 08.22.06

NO.	DATE	DESCRIPTION OF REVISION
R	03-14-05	RECORD DRAWINGS
0	01-03-02	FIRST RELEASE

BOARD OF COMMISSIONERS OF GWINNETT COUNTY — DECEMBER 1980 — GEORGIA

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF PUBLIC UTILITIES
F. WAYNE HILL
WATER RESOURCES CENTER
PHASE 2
3320 FINANCIAL CENTER WAY

-- RECORD DRAWINGS --

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CONTRACT 2
BIOLOGICAL TREATMENT FACILITIES

NORTH CHEMICAL BUILDING
CONDUCTOR SCHEDULE

DESIGNED: WMO	CHECKED:	DATE: JAN 2002	2-20 E-114	R
DRAWN: NGM	APP'D.	SCALE: NONE	DRAWING	REV

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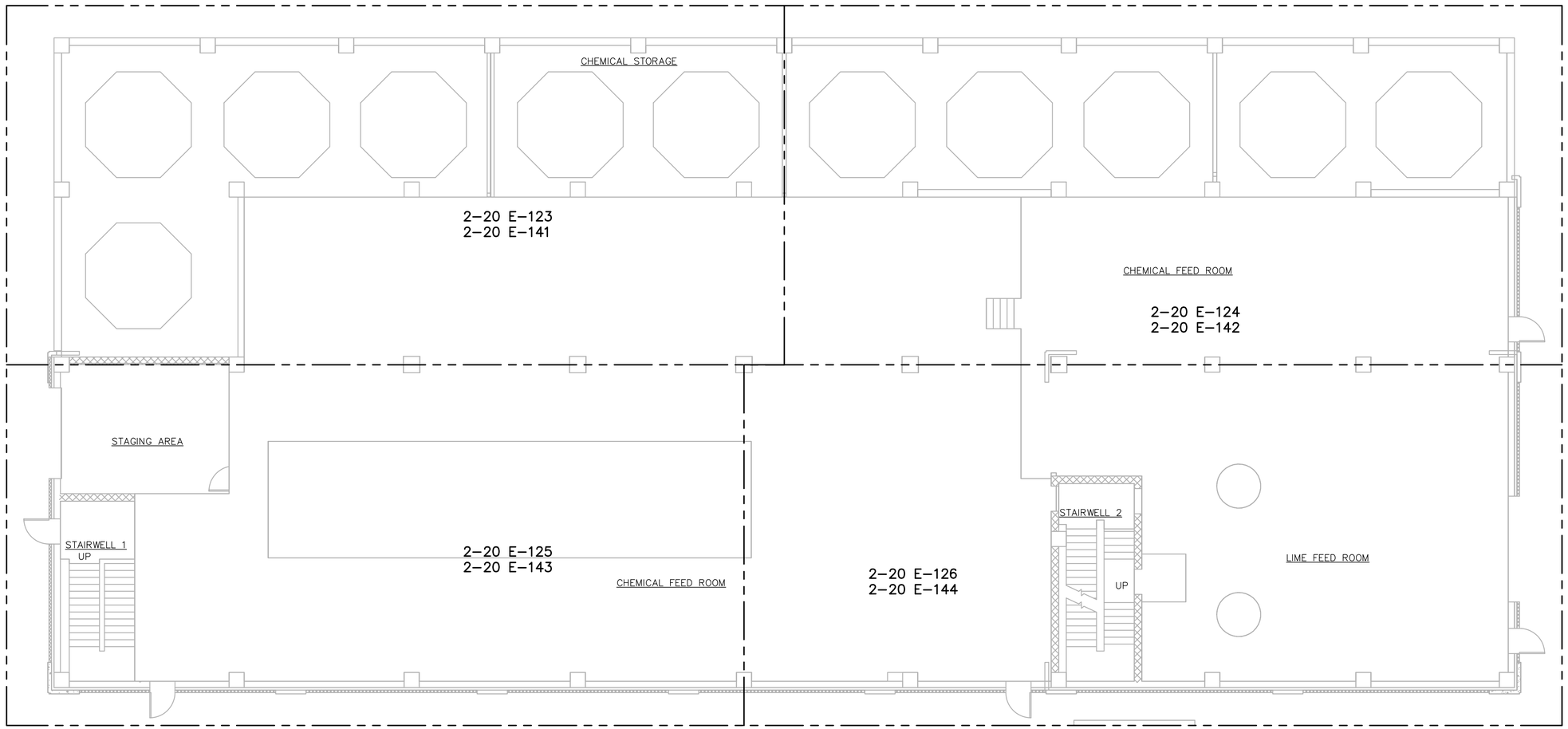
RECORD3

GENERAL NOTES:

1. ALL CONDUITS SHALL BE PVC COATED GALVANIZED RIGID STEEL EXCEPT IN ELECTRICAL ROOM 1, ELECTRICAL ROOM 2. ALL SUPPORTING MATERIALS AND HARDWARE SHALL BE STAINLESS STEEL. ALL ELECTRICAL DEVICE ENCLOSURES SHALL BE RATED NEMA 4X MINIMUM, EXCEPT THOSE IN ELECTRICAL ROOMS 1 AND 2 WHICH SHALL BE RATED NEMA 12.
2. ALL CONDUITS SHALL BE RUN EXPOSED AND PLACED IN A MANNER AS NOT TO INTERFERE WITH THE OPERATION OF BRIDGE CRANES, MONO RAILS OR CONVEYING EQUIPMENT.
3. ALL FREE STANDING ELECTRICAL EQUIPMENT SHALL BE MOUNTED ON 4" CONCRETE HOUSE PADS.
4. UNLESS OTHERWISE INDICATED, TRAPEZE MOUNT ALL DRY TYPE TRANSFORMERS AT 8'-0" AFF.
5. REFER TO DRAWING 2-00 A-502 FOR ADDITIONAL ELECTRICAL INSTALLATION, AND SAFETY CODE REQUIREMENTS.
6. UNLESS OTHERWISE INDICATED, ALL DISCONNECT SWITCHES SHALL BE RATED 30/3/4X.
7. SEE DRAWING 2-00 E-803 FOR HAND SWITCH DETAIL.



PLAN
1/8"=1'-0"

PLANT NORTH

Jordan, Jones & Goulding
CH2M HILL
Precision Planning, Inc.

JOB NO. 2074.026 | gw2262005e.dwg | 08.22.06

NO.	DATE	DESCRIPTION OF REVISION
R	03-14-05	RECORD DRAWINGS
1	04-01-02	ADDENDUM ITEMS INCORPORATED
0	01-03-02	FIRST RELEASE

GWINNETT COUNTY, GEORGIA
DEPARTMENT OF PUBLIC UTILITIES
F. WAYNE HILL
WATER RESOURCES CENTER
PHASE 2
3320 FINANCIAL CENTER WAY

-- RECORD DRAWINGS --

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CONTRACT 2
BIOLOGICAL TREATMENT FACILITIES

NORTH CHEMICAL BUILDING
LEVEL 1
ELECTRICAL KEY PLAN

DESIGNED: WMO	CHECKED:	DATE: JAN 2002	2-20 E-120	R
DRAWN: KW	APP'D.	SCALE: AS SHOWN	DRAWING	REV

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RECORD3