



Greater New Haven Water Pollution Control Authority

260 East Street New Haven, CT 06511
203.466.5280 p 203 772.1564 f www.gnhwpc.com

**REGULAR MEETING OF THE
GREATER NEW HAVEN WATER POLLUTION CONTROL AUTHORITY
BOARD OF DIRECTORS
WEDNESDAY, APRIL 10, 2024 6:00 P.M.
260 EAST STREET
NEW HAVEN, CONNECTICUT**

AGENDA

1. Approval of minutes of March 10, 2024 – Regular Meeting.
2. Public participation relating to agenda items.
3. Submission of Authority's Cost of Service Study; Annual Budget consisting of next fiscal year's projected expenditures and recommended user rates and charges and a proposed Annual Capital Budget for the next fiscal year; an annual update to the Five-Year Capital Improvement Plan; and the impact of the Annual Budget on the next fiscal year's projected expenditures and revenues and user rates and charges.
4. Consideration and approval of a resolution scheduling a public hearing for Wednesday, May 8, 2024 at 5:45 p.m. at the Greater New Haven Water Pollution Control Authority, 260 East Street, New Haven, Connecticut regarding the Authority's Annual Budget and recommended user rates and charges.
5. Consideration and approval of a resolution authorizing the Executive Director, Sidney J. Holbrook, to negotiate and execute an agreement with Duke's Root Control, Inc. for CCTV and condition assessment services of approximately 300 manholes, including traffic protection, prioritized by the GNHWPCA CMOM Program, for an aggregate amount not to exceed \$75,000.
6. Consideration and approval of a resolution authorizing the Executive Director, Sidney J. Holbrook, to negotiate, execute and deliver a task order with Brown and Caldwell for professional services relating to the East Shore Water Pollution Abatement Facility Administrative Building, for an aggregate amount not to exceed \$96,331.

7. Consideration and approval of a certain Departmental Budget Transfer Request.
8. **Executive Session pursuant to Sections 1-200(6)(E) and 1-210(b)(9) of the General Statutes of Connecticut, for the purpose of discussing records, reports and statements of strategy or negotiations with respect to collective bargaining.**
9. Executive summary and department updates and presentations.
10. Consideration and approval, as necessary, of any other new business of the Authority.
11. Call to the public.
12. Adjournment.



MEMORANDUM

DATE: April 2, 2024
TO: Sidney J. Holbrook
FROM: Thomas Sgroi, PE
Director of Engineering
RE: Duke's 360 Manhole Inspection & Assessment
Sid:

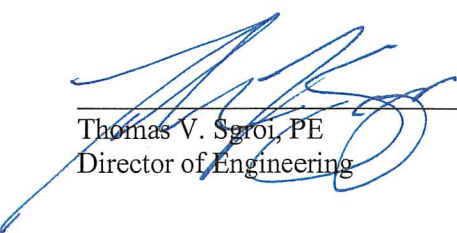
I request that the above-mentioned recommendation be added to the April 10, 2024 Board Agenda for resolution.

The Engineering Department contracted with Dukes last year to perform CCTV and condition assessment of approximately 332 manholes as part of our Capacity, Management, Operations and Maintenance (CMOM) program. The Engineering Department would like to use their proprietary inspection / consulting services again to perform the same work on 300 manholes (MH). The field work required to safely complete each MH inspection from the road surface only takes 10 to 15 minutes. The proprietary 3D video of the manhole that gives us a complete report meeting all Manhole Assessment Certification Program (MACP) coding guidelines. Inspection and documentation in this format save a tremendous amount of manpower as it avoids man entry and multiple inspectors at the manhole site while also allowing for safe in office review of the data.

We believe this service provides extreme value and recommend that the board approve a purchase order agreement with Dukes in the amount of \$ 50,000. This work will also require City Police and/or Flaggers at a budgeted cost of \$25,000 billed hourly. The total request for this project authorization to include both Dukes and City Police/Flaggers is \$ 75,000.

Dukes Purchase Order NTE - \$50,000
City Police Cost (Allowance) - \$25,000
Total Manhole Inspection and Assessment Cost NTE = \$75,000

This project is funded from the Authority's FY 23-24 Engineering Department Operating Budget



Thomas V. Sgroi, PE
Director of Engineering

cc: Gabe Varca (e-copy)
Gary Zrelak (e-copy)
Lou Criscuolo (e-copy)
Ricardo Ceballos (e-copy)

Greater New Haven WPCA

Budgetary Manhole Inspection Survey
SSR-2024-05 2024 Manhole Inspections

02 / 28 / 2024



02 / 28 / 2024

Ricardo Ceballos
Greater New Haven WPCA
260 East Street
New Haven, CT 06511

PROJECT NAME: Budgetary Manhole Inspection Survey

Dear Ricardo,

Duke's Root Control, Inc. is pleased to submit this proposal to Greater New Haven WPCA for the Budgetary Manhole Inspection Survey. All details regarding this project are contained within the pages of this proposal and include sample deliverables, scope of service descriptions, and pricing.

This proposal is being submitted based on interpretations made from the study maps or information we have been provided. Please review for accuracy.

Thank you for your consideration and the opportunity to illustrate our services. Please do not hesitate to contact me with any questions regarding this proposal.

Sincerely,
Duke's Root Control, Inc.

A handwritten signature in black ink, appearing to read "Rafael Rovito".

Rafael Rovito
Northeast Regional Manager
908-510-5917
rrovito@dukes.com

Manhole Inspections - Level 2 MACP Scope of Services

Process
<ol style="list-style-type: none"> 1. Making every reasonable effort to access each manhole, complete field televising using a digital manhole camera system. Upon occasion, access with the camera system will not be possible due to terrain, resident access issues or location. At those times, crews will use a digital manhole pole camera to obtain video files. Verify all field measurements with survey stick, pipe diameter verification tool and tape measure. 2. Duke's to provide all equipment and personnel as required to complete inspections, including at least (1) NASSCO certified inspector onsite during inspections per camera truck. 3. Upon project completion, Duke's will provide all data in Access (NASSCO export DB) and .CSV / Excel format, all digital scan files (.IPF/.MP4 file extension as applicable) as well as the free required view software to view the IPF files, when necessary. Provide all PDF reports including appropriate attribute information collected via a FTP or web link and provide them via USB external hard drive when requested. Duke's will provide access to Insight 360, Duke's web hosted data platform. A username and password will be supplied so that access to all data, graphs, maps, and raw data downloads are available.

Level 2 MACP Inspection Specifics
<p>Complete inspection using digital scanning camera equipment to perform full Level 2 MACP inspections including "remote entry" observations including all Level 1 MACP fields as well as all Cover dimensions (diameter, surface bearing, condition, lid type); Frame dimensions (all measurements, condition, inflow); Cover Insert (yes/no, condition); Frame Adj Ring (yes/no, height, condition); Chimney (yes/no, material, condition, depth); Cone (yes/no, type, material, condition, depth); Wall/Barrel (type, material, condition, depth); Bench (yes/no, type, material, condition, lining); Channel/Invert (yes/no, type, material, condition, lining); Pipe (All Rim-to-Invert dimensions for each pipe, pipe size/shape, condition, and material).</p> <p>For an additional cost, any additional pictures, videos or fields not listed on the MACP Level 2 can be added, as required by the client, with advanced notice prior to start of project.</p>

Responsibilities of Duke's	Responsibilities of Client
<ol style="list-style-type: none"> 1. Provide staff with proper identification and PPE including, but not limited to hi-vis vests. 2. Ensure that all vehicles are properly marked and have adequate safety lighting. 3. Act in a polite, professional manner at all times and especially when dealing with the public. 4. Report any severe observations to the point person from the client's office assigned to this project. 	<ol style="list-style-type: none"> 1. Provide contractor with all electronic data or PDF maps to successfully complete the project. 2. Assist contractor with public issues or concerns. 3. Assist with locating or exposing "cannot locate" or "cannot access" structures while on site. 4. Provide point of contact for project. 5. Make every possible effort to ensure that the survey map is current and accurate and that manhole lids are accessible so that project can be completed in designated time frame.

Manhole Inspections - Level 2 MACP Scope of Services (cont.)

Optional Services for Additional Cost

Repair Recommendations

When included in proposal, repair recommendations for each manhole will be provided. The means in which this data will be delivered will be via Excel VBA driven spreadsheet program and will include the Asset ID#, Severity Rating (0 = good condition – no I/I and/or no structural defect or repair that should be considered as preventative or made within 7-10 years; 1 = fair condition – light I/I and/or structural defect that should be repaired within 5-7 years; 2 = moderate severity – regular flowing I/I and/or structural repair that should be made within 1-3 years; 3 = severe condition – heavy I/I and/or severe structural defect that should be repaired immediate to 1 year), Type of Repair by category (e.g. grout, curtain grout, chimney seal, lining, inside drop, bench rehab or replacement, etc), estimated budget price for repair and notes on condition or repair. All data from the original survey will be presented in drill down format through our Executive Dashboard Program.

GPS Coordinates / Geodatabase deliverable

When included in proposal, contractor to shoot each asset using Trimble GNSS R2 receiver with sub-foot accuracy with data correction services. Exceptions to sub-foot accuracy might occur based on tree cover or other satellite obstruction. Contractor will make every possible effort to ensure sub-foot accuracy is achieved for each asset. All data will be delivered via Geodatabase format including updating the client's existing attribute table and linking PDF reports to the asset (if requested).

Integration Into Client Asset Management or Work Order System

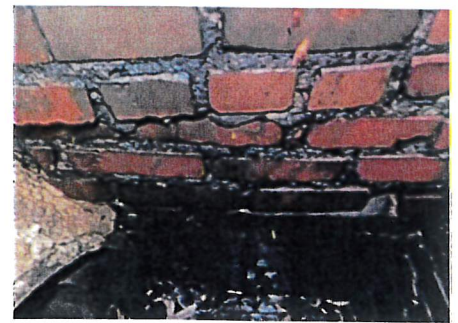
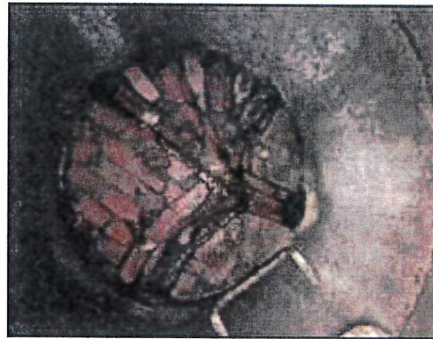
When included in proposal, and when available, consultant to work with utility to define repair types and populate those into client's work order management system.

Manhole Inspections - Level 2 MACP Sample Deliverables

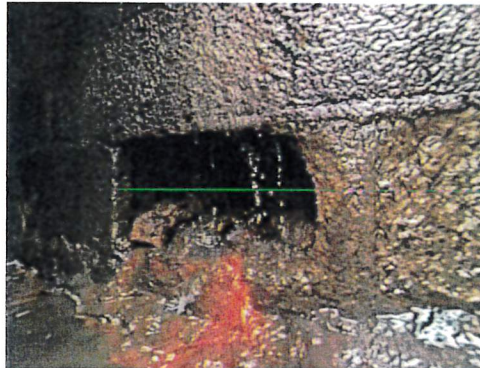
Video Files & Functionality

There are three views - the 360 view with zooming capabilities through the structure, the unfolded view which allows the user to take measurements and, when requested, the point cloud view which allows the user to determine structure type and import into CAD. Collectively, these three perspectives portray the condition, size and defects within the structure.

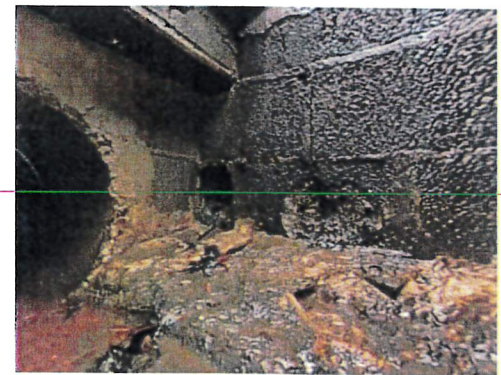
Sample Pictures:



Sample Defect Photos:

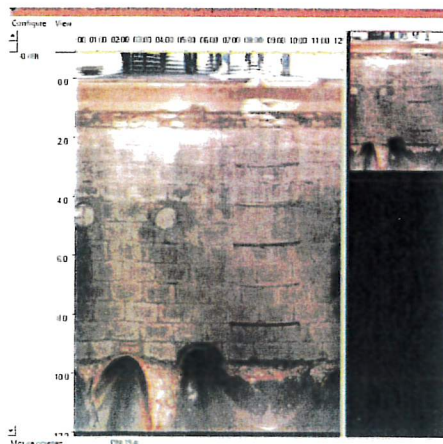


Hole Void Visible

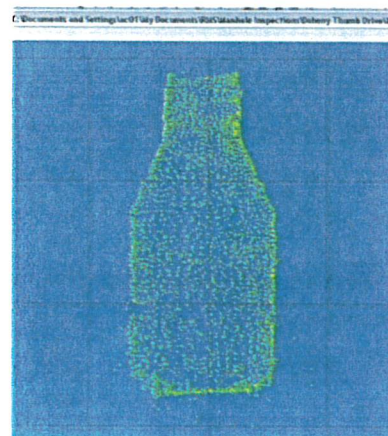


Hole

Unfolded View



Point Cloud View (When specified on Proposal)



Reporting

Client will receive reports delivered in PDF format from a NASSCO certified software. Fields within the Level 2 MACP report will be entered according to the required fields. Customer will receive a picture defect report, in addition to the standard MACP report pictured below. In addition to PDF format, all data is also delivered in a current NASSCO MACP compliant MS Access Database (.MDB) and MS Excel (.XLS) format for easy integration into most software platforms. Other reports such as the NASSCO Quick Rating score report and summary reports is also prepared as part of the standard deliverables package. Please reach out to us if you have specific data integration needs.

Detail Report

MACP Survey Report 4 Report Date: 2013.06.19

Sheet No. 5 Survey Date: 2013.06.19 P.O. No. 10001001001

Location (Tr. & Name) Inspection Level: Level 1
 Locality/City Name Inspection Meter: Sonotek 10001001001

Adjustment File

Adj. Adjustment Ring Type: None
 Wt. Adjustment Ring Material: Steel Composite/FRP/Alum Cast Iron
 Wt. Adjustment Ring Height: None Standard

Frame

Frame Material: Cast Iron Frame Offset Distance: 0 in
 Frame Bearing Surface Width: 18 in Frame Depth: 18 in
 Frame Bearing Surface Depth: Frame Seal Width: 18 in
 Frame Cover Opening Diameter: Frame Seal Condition: None Composite/FRP/Alum Cast Iron
 Sound Missing Cracked Corroded/Discolored Missing Offset
 None None

Channel

Channel Material 1: Concrete Channel Material 2: Concrete
 Channel Material 3: Concrete Channel Material 4: Concrete
 Channel Clear Opening: Channel Clearing: Channel Inlet: 18 in
 Channel Outlet: 18 in

Cover

Cover Type: Cast Iron Cover Case Casting Line: Cast Iron
 Frame Case Casting Line: Cast Iron

Wall

Wall Diameter 1: 18 in Wall Depth: 18 in
 Wall Diameter 2: 18 in Wall Material: Concrete/FRP/Alum
 Channel Wall Casting Line: Concrete/FRP/Alum

Channel/Manhole

Channel Material: Concrete Channel Material 2: Concrete
 Channel Type: Round Channel Exposure: Surface (Cover)
 Channel Installed: Yes Stop Material: None




Defect Picture Report

MACP Survey Report 4 Report Date: 2013.06.19

Sheet No. 5 Survey Date: 2013.06.19 Certificate Number: T-100-1714 Date: 2013.06.19 Time: 13:19


Survey Customer: Orange Area System Owner
 P.O. No. Locality/City Name: New Hope, Florida Location (Tr. & Name): 3527 Kishore Dr
 Further Location Details: Year ReHub/Repad:
 Outgoing Alarm to Invert: Outgoing Grade to Invert: Rim to Grade: Use of Sewer: Manhole: Year Last

Cover


File Date: 2013.06.19 15:55 File Date: 2013.06.19 16:00 File Date: 2013.06.19 16:07

Frame




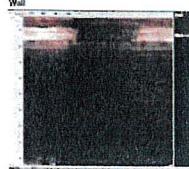
File Date: 2013.06.19 16:09

Channel



File Date: 2013.06.19 16:07

Wall

File Date: 2013.06.19 16:09 File Date: 2013.06.19 16:09

PipeLogix Inc. Phone: 866-299-3150 Fax: 760-466-6023



Insight 360

Duke's has revolutionized the inspection and data management process with Insight 360. This innovative tool offers web-based results that require no special software, making it easy for anyone to access and use. With a simple login, clickable results are available in both map and table views, allowing for quick and easy analysis. All results can be downloaded in a standard Excel format, providing users with the flexibility to manipulate and analyze data as needed. The video viewer for manhole and pipe inspections is a particularly valuable feature, allowing for a detailed visual inspection of assets. And for those who prefer hard copies, maps can be downloaded and printed. Insight 360 simplifies the inspection process and provides valuable insights that help Duke's clients make informed decisions about their assets.

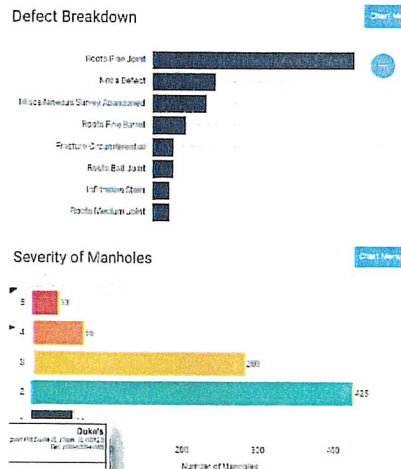
- ✔ Transform your inspection and data management process
- ✔ Web-based results are easily accessible to all users without the need for special software
- ✔ Clickable results are available in both map and table views, allowing for quick and easy analysis
- ✔ Download results in standard Excel format for flexibility in manipulating and analyzing data
- ✔ Download and print maps for users who prefer or require hard copies
- ✔ Simplify the inspection process, saving time and resources while providing valuable insights
- ✔ Make informed decisions leading to better asset management and maintenance

Downloadable Reports

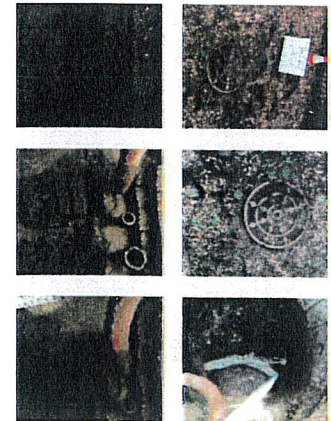
DUKE'S ROOTED IN INNOVATION		Inspection report	
Site	Job Order	Inspector	City
57-29	57-29	57-29	57-29
34-47	34-47	34-47	34-47
34-134	34-134	34-134	34-134
135-01	135-01	135-01	135-01

Code	Observation	Count	Photo	Grade
01	Crack in concrete	1		0.5
02	Missing cover	1		0.5
03	Structural damage	1		0.5
04	Water infiltration	1		0.5
05	Other	1		0.5

Clickable Analysis



Viewable Photos



Manhole inspection photos are available with one click on the web-based Insight 360.



Greater New Haven Water Pollution Control Authority

260 East Street New Haven, CT 06511
203.466.5280 p 203 772.1564 f www.gnhwpc.com

DATE: April 2, 2024
TO: Sidney J. Holbrook, Executive Director
FROM: Gary Zrelak, Director of Operations
RE: Task Order Recommendation
Brown & Caldwell
ESWPAF Administrative Building Scanning

Sid:

I request that the above-mentioned recommendation be added to the April 10, 2024 Board Meeting Agenda for resolution.

This request is to provide the Authority with professional services to scan the existing conditions of the East Shore Water Pollution Abatement Facility (ESWPAF) Administrative Building.

I recommend approval of the attached Brown and Caldwell proposal dated March 25, 2024. The amount of these services shall not exceed Ninety-Six Thousand Three Hundred Thirty-One Dollars **(\$96,331.00)**.

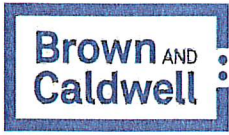
This project is funded 100% from the Authority's FY 2023-2024 Operating Budget.

Gary Zrelak
Director of Operations

e-copy: Gabe Varca, Director of Finance & Administration
Lou Criscuolo, Deputy Director of Finance and Administration
Tom Sgroi, Director of Engineering
Joseph Megale, Deputy Director of Operations

175 Capital Blvd.
Rocky Hill, CT 06067

T: 860.667.9000



April 1, 2024

Mr. Gary Zrelak
Director of Operations
Greater New Haven Water Pollution Control Authority
260 East Street
New Haven, CT 06511

SID No. 152201

Subject: GNHWPCA On-Call Task Order
Engineering Letter Proposal
Existing Conditions Scanning

Dear Mr. Zrelak:

Brown and Caldwell (BC) is pleased to submit this proposal to assist the Greater New Haven Water Pollution Control Authority (Authority) in its effort to scan the existing conditions of the Administration Building. BC proposes to use GPRS to perform the scanning and BC will perform Project Management tasks.

This proposal includes:

- Scope of Services to be Provided
- Project Schedule
- Deliverables
- Proposed Price

Scope

GPRS will perform the scanning and modeling tasks indicated in Attachment A: GPRS Proposal dated March 25, 2024. BC will perform the following Project Management tasks: Subcontractor coordination, invoicing, communications, scheduling, site visits, and oversight. BC will collect, organize, and submit the deliverables in a format agreeable to the Authority.

Schedule

BC will furnish all deliverables to the Authority indicated below no later than June 1, 2024, with the condition that the Authority will issue a Notice to Proceed to BC no later than April 17, 2024.

Deliverables

- Scanning Kickoff Meeting and Coordination
- Modeling Plan
- Raw Point Cloud Data, metadata, and images in E57 format per ASTM E2807
- Registered and georeferenced Point Cloud
- Revit models
- RECAP files

Compensation

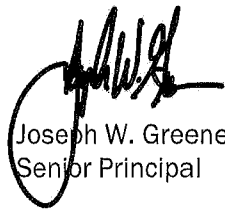
Compensation for services indicated herein will be on a lump sum basis in the amount of \$96,331 based on the attached Rate Schedule. This price may be adjusted if the scope of services is changed.

Table 1. Cost Proposal Summary	
Tasks	Amount
Task 1: Project Management	\$10,136
Task 2: Scanning and Modeling	\$86,195
Task 2.1: GPRS Scan and Model	\$68,145
Task 2.2: BC Data and Modelling for Deliverables	\$8,500
Task 2.3: BC Field Verification	\$9,550
TOTAL	\$96,331

We appreciate the opportunity to submit this proposal for your scanning project. Please do not hesitate to contact me should you have any questions on our submittal.

Sincerely,

Brown and Caldwell



Joseph W. Greene, P.E.
Senior Principal

cc: D. Mahoney, Brown and Caldwell

Attachments (3)

1. Attachment A: GPRS Proposal Dated March 25, 2024
2. Attachment B: WPCA Record Drawings
3. Attachment C: Rate Schedule

Attachment A: GPRS Proposal

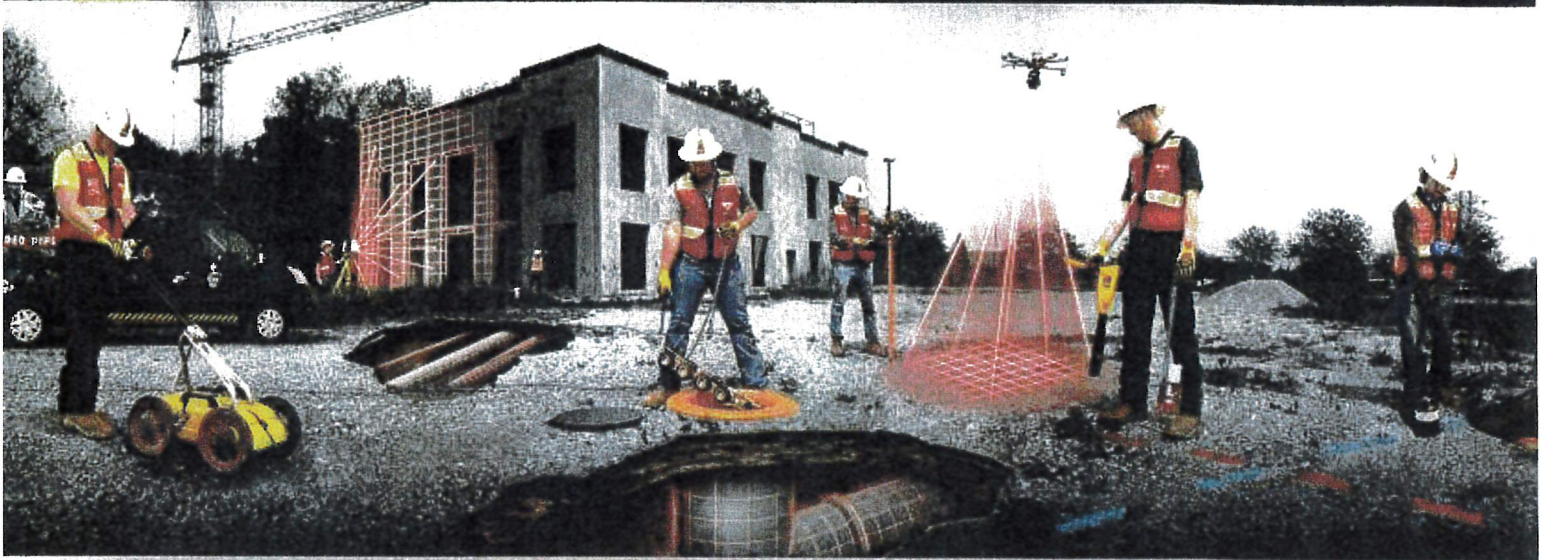




GPRS



PROPOSAL



TruePoint
A  COMPANY



GPRS 3D LASER SCANNING SERVICES

3D laser scan technology provides a clear, cost-effective solution to your as-built and facility visualization needs. It can reduce and even eliminate costly errors to speed up your design, engineering, and construction process.

- ✓ **ACCURATE AS-BUILT DATA**
- ↗ **EXPEDITE PROJECT PLANNING**
- ⌚ **REDUCE CHANGE ORDERS**
- Ⓢ **ELIMINATE BUDGET OVERRUNS**
- ⌚ **MAINTAIN PROJECT SCHEDULES**
- PROTECT YOUR REPUTATION**



**VISUALIZING
THE BUILT WORLD™**
////// ABOVE AND BELOW GROUND

GPRSINC.COM //

March 25, 2024

Client: Brown and Caldwell

Attn: Joseph Greene

Project: 244697 East Shore Water Pollution Abatement Facility
345 E Shore Pkwy, New Haven, CT 06512

Submitted By:

Nate Baker

(419) 767-2535

Nate.Baker@gprsinc.com

TruePoint Laser Scanning, A GPRS Company, appreciates the opportunity to provide this proposal. I encourage you to visit our website (www.gprsinc.com) and contact any of the numerous references listed. Our insurance certificate and W-9 can also be downloaded [here](#). Please feel free to contact me if you have any questions, or if you need additional information.

SCOPE OF WORK

GPRS/TruePoint will provide 3D Laser Scanning services and deliverables such as: point clouds, 3D models, and 2D Drawings. The purpose of the project is to capture 3D laser scan data from the interior and exterior scope areas outlined by Brown and Caldwell in order to produce 3D point cloud files and generate 3D Models. Additional scoping details are in the Scoping Addendum section at the end of this document.

SCOPE AREA

- Aqua Belt Room
- Boiler Room
- Comminutor Room
- Main Sewage Pump Room
- Polymer – Sludge Pumping
- Primary Sludge Pump Room
- Wet Well
- Vacuum Cleaner Room
- Pump Room Basement

ASSUMPTIONS

- The client will need to provide a site contact to direct our on-site Technician to the scan area and be able to answer site-specific scope questions as needed.
- If available, the client will provide access to applicable site plans, as-builts, drawings prior to the start of the field work
- Our team requires safe access to the scan area during the scanning process and the area should be prepared prior to our arrival.
- Exterior scans may be delayed due to inclement weather or high wind and could cause additional costs.
- Scanning is typically conducted from the ground and/or solid floor surface free of movement/vibration. Some shadowing in the data will occur due to line-of-sight obstructions from accessible scanning surfaces.
- Piping less than 2" diameter may not be modeled unless explicitly stated in Scoping Document.
- Any rooms or areas that are locked or unable to be accessed at the time of scanning will not be scanned or modeled.
- Colorized point clouds and 360-degree photograph images require adequate lighting for proper camera exposure without flash in order to work properly. If adequate lighting is not present, laser scanning will be completed in intensity map only (no photographs).

EQUIPMENT

- **3D Laser Scanner:** A 3D Laser Scanner is a non-contact digital technology capable of collecting millions of measurements per second by emitting lasers. The scanner will be set up in multiple locations and captures the physical world by sending out pulses of laser light that reflect off exposed objects and surfaces. The individual scans are then merged and the resulting data environment is called a point cloud which represents the size, shape and orientation of three-dimensional objects.
 - Leica P-Series ScanStation – 2-4mm local accuracy
 - Leica RTC360 Scanner – 3-5mm local accuracy

OPTIONAL PROJECT SERVICES (Not Included Unless Initialed)

SERVICE	DESCRIPTION	ESTIMATED SCHEDULE	PRICE	INITIAL REQUESTED SERVICES	
				YES	NO
3D LASER SCANNING ALL SCOPE AREAS	Field Mobilization for reality capture of existing conditions		\$10,000		
3D LASER SCANNING SURVEY CONTROL ACQUISITION	Field Mobilization for reality capture of existing conditions		\$1,500		
TRUVIEW VIEWER	Portable 3D virtual tour dataset (.LGS) and plug-in published from Leica	5-10 business days	\$1,500		
3D MODEL AT STANDARD DETAIL Aqua Belt Room	See scoping addendum section for content and software version to be delivered	15-20 business days	\$3,600		
3D MODEL AT STANDARD DETAIL Boiler Room	See scoping addendum section for content and software version to be delivered	20-25 business days	\$8,400		
3D MODEL AT STANDARD DETAIL Comminutor Room	See scoping addendum section for content and software version to be delivered	15-20 business days	\$6,600		
3D MODEL AT STANDARD DETAIL Main Sewage Pump Room	See scoping addendum section for content and software version to be delivered	20-25 business days	\$7,500		
3D MODEL AT STANDARD DETAIL Polymer – Sludge Pumping	See scoping addendum section for content and software version to be delivered	20-25 business days	\$7,200		
3D MODEL AT STANDARD DETAIL Primary Sludge Pump Room	See scoping addendum section for content and software version to be delivered	15-20 business days	\$5,600		
3D MODEL AT STANDARD DETAIL Wet Well	See scoping addendum section for content and software version to be delivered	15-20 business days	\$2,400		
3D MODEL AT STANDARD DETAIL Vacuum Cleaner Room	See scoping addendum section for content and software version to be delivered	15-20 business days	\$3,400		
3D MODEL AT STANDARD DETAIL Pump Room Basement	See scoping addendum section for content and software version to be delivered	15-20 business days	\$7,200		
MOBILIZATION	Travel to and from the job site		INCLUDED		
POINT CLOUD	Default: Autodesk Recap Project and coordinate alignment to GPRS/TruePoint’s standard. Other formats or alignments only when defined in Scoping Document.	3-7 business days after scanning	INCLUDED		
DATA DELIVERY	Electronically via file transfer link or hard drive	3-7 business days after scanning, or project completion	INCLUDED		
TOTAL			TBD (\$64,900)		

ACCEPTED & AGREED:

Company Phone/Email: _____ PO#: _____ Job#: _____
 Print Name: _____ Signature: _____ Date: _____

This proposal is subject to the General Terms and Conditions for Services of Ground Penetrating Radar Systems, LLC (GPRS) posted at [Link](#) (the “Terms and Conditions”) and is hereby incorporated by reference into and made a part of this proposal. Customer acknowledges it has read and agrees to be bound by such Terms and Conditions. In the event of any conflict between the terms of this proposal and the Terms and Conditions, the Terms and Conditions will prevail. Customer also acknowledges that GPRS may, from time to time and at its discretion, modify the Terms and Conditions and Customer agrees to be bound by such Terms and Conditions as modified.

PROPOSAL-SPECIFIC TERMS & CONDITIONS

1. It is the customer’s responsibility to prepare the site for scanning, identifying the areas to be scanned, removing ceiling tiles or other obstructions to visibility if needed, securing access to all areas required for scanning, and keeping these areas clear and free of obstructions. Delays caused by customer’s failure to do so may result in an increased price.
2. This price assumes that we will be given access to perform the work during normal, weekday business hours (7am-5pm). Hours outside of these times are typically billed at time and a half.

3. GPRS/TruePoint does not provide surveying or engineering services. The data collected may only be suitable for use within the scope of this proposal.
4. If this proposal is not accepted within 90 days of the date shown on Page 1 then the pricing may be subject to review.
5. If for some reason the technician arrives on site and the work is cancelled there will be a charge for the mobilization.
6. Invoice(s) will be submitted upon completion of each milestone and are due upon receipt of invoice. Milestones may include completion of scanning, monthly progress billings for modeling based on percentage of completion at month end, remaining balance due upon delivery of final deliverables.
7. GPRS reserves the right to hold model delivery if the scanning invoice has not been paid according to the payment terms upon modeling completion.
8. These rates assume that there are no certified payroll requirements. GPRS has not been notified of any PLA, DIR, or Certified Payroll requirements. If GPRS receives notice that any of these conditions exist, there will be additional costs.

SCOPING ADDENDUM

POINT CLOUD ALIGNMENT

PLEASE INITIAL TO CONFIRM ALIGNMENT

If neither is initialed the TruePoint/GPRS Standard Practice will be followed.

Point Cloud Alignment per GPRS/TruePoint Standard Practice <i>**Standard practice is to set square to page and elevation to a round number</i>	Included if not initialed below
Align to existing model or apply specific coordinates to a feature in the point cloud <i>**Setting a specific column/corner to particular coordinates. IMPORTANT: Client must supply drawings or model PRIOR to start of scanning if this option is selected.</i>	<div style="border: 1px solid black; width: 100px; height: 20px; margin: 0 auto;"></div>

ONLINE VIRTUAL TOUR

Online Point Cloud and Photogrammetry Viewer is a secure, web-hosted viewer software that allows the user to view 360° 3D photograph overlaid on top of the point cloud data, from each scan location. In addition, the user is able to view the point cloud from infinite viewpoint perspectives in a fast and user-friendly interface that requires no licensing. The user is also able to take rudimentary measurements directly from the viewer. *Colorized point cloud option must be selected in order to receive color photograph views; otherwise, the viewer will be black and white and utilize the point cloud data instead of actual photographs. Black & white views do not require additional time on-site or adequate lighting to capture.* GPRS can provide web-hosted point cloud and virtual tours for an additional charge.

3D MODELING

Client will be using deliverables as:

- DESIGN INTENT** – deliverables will be shown as a best fit to the point cloud working within customary standards such as walls being modeled perpendicular to floor, pipes/conduit straight, floors/ceilings horizontal, steel members straight and plumb. This will produce cleaner 2D drawings and will allow easy dimensioning of the scan area, but deliverables will not follow scan data exactly in order to maintain design intent standards. The majority of clients will prefer this option for their deliverables.
- AS-BUILTS** – deliverables will be shown as close to actual field capture. If walls are out of plumb, pipes/conduits show sag, floors/ceilings are unlevel, steel members show camber, etc. This will produce closer to reality deliverables, but 2D drawings may show “crooked” or out of plumb lines, floors will be sloped or contoured, steel members may show camber, twisting or impact damage. Dimensioning will not be as easy due to out of plumbness/levelness, etc. This option should be used when the exact conditions of the scan area is imperative. Clients using the data for fabrication, forensic analysis, bolt hole patterns, camber/sag/deformation, and similar needs would require this option.

To ensure that your needs are met while minimizing modeling costs, the following options are being offered for the level of modeling completed by GPRS/TruePoint. All modeling is done as a “best fit” method, utilizing solids overlaid on the point cloud data, unless otherwise stated. Laser scanning is a line-of-sight technology and therefore the modeled content shown below will not include features such as internal or core components that are **not visible**. Material types will not be included or implied in model unless explicitly stated.

FEATURES TO BE MODELED:

The pricing proposed is based on providing a model with the following selected details only. Any modifications by the client to the selections below are null and void unless explicitly agreed upon by GPRS. Any adjustments to the below will impact the proposed pricing. GPRS will only model items selected below. Please view this link [Modeling Level of Detail](#) for a reference to the definition of the detail and appearance of default content included.

STRUCTURAL:

<input checked="" type="checkbox"/> Standard Detail <input checked="" type="checkbox"/> Exposed Columns <input checked="" type="checkbox"/> Beams	<input type="checkbox"/> High Detail <input type="checkbox"/> Foundations <input type="checkbox"/> Trusses <input type="checkbox"/> Zee Girts	<input type="checkbox"/> Very High Detail <input type="checkbox"/> Structural Footers /Connections <input type="checkbox"/> Plates <input type="checkbox"/> Bolt Patterns
---	--	--

	<input type="checkbox"/> Joists <input type="checkbox"/> Bollards <input type="checkbox"/> Platforms <input type="checkbox"/> Bracing <input type="checkbox"/> Purlins <input type="checkbox"/> Girders	<input type="checkbox"/> Structural Materials (Requires Color Scanning) <input type="checkbox"/> Structural Analysis
--	--	---

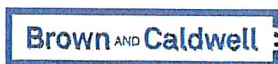
ARCHITECTURAL:

<input checked="" type="checkbox"/> Standard Detail	<input type="checkbox"/> High Detail	<input type="checkbox"/> Very High Detail
<input checked="" type="checkbox"/> Floor(s) <input checked="" type="checkbox"/> Walls <input checked="" type="checkbox"/> Windows <input checked="" type="checkbox"/> Doors <input checked="" type="checkbox"/> Ceilings <input checked="" type="checkbox"/> Stairs <input type="checkbox"/> Roof(s)	<input type="checkbox"/> Railings <input type="checkbox"/> HVAC Openings <input type="checkbox"/> Window Mullions <input type="checkbox"/> Overhead Doors <input type="checkbox"/> Crown Molding <input type="checkbox"/> Curtain Wall Windows & Doors <input type="checkbox"/> Roof Openings/Skylights <input type="checkbox"/> Specialty Railings <input type="checkbox"/> Vents <input type="checkbox"/> Escalators <input type="checkbox"/> Roof Drains <input type="checkbox"/> Elevators <input type="checkbox"/> Wainscoting <input type="checkbox"/> Floor Drains <input type="checkbox"/> Lighting Fixtures & Ceiling Fans <input type="checkbox"/> Sinks <input type="checkbox"/> Toilets/Showers	<input type="checkbox"/> Access Hatches <input type="checkbox"/> ACT Ceiling Grid Layout <input type="checkbox"/> Column Capitals <input type="checkbox"/> Panel Joints <input type="checkbox"/> Gutters & Downspouts <input type="checkbox"/> Ladders <input type="checkbox"/> Balusters <input type="checkbox"/> Iron Work <input type="checkbox"/> Louvers <input type="checkbox"/> Fireplace(s) <input type="checkbox"/> Faucets <input type="checkbox"/> Major Appliances <input type="checkbox"/> Furniture <input type="checkbox"/> Casework (Built-in Cabinetry, Countertops & Bookshelves) <input type="checkbox"/> Architectural Materials (Requires Color Scanning)

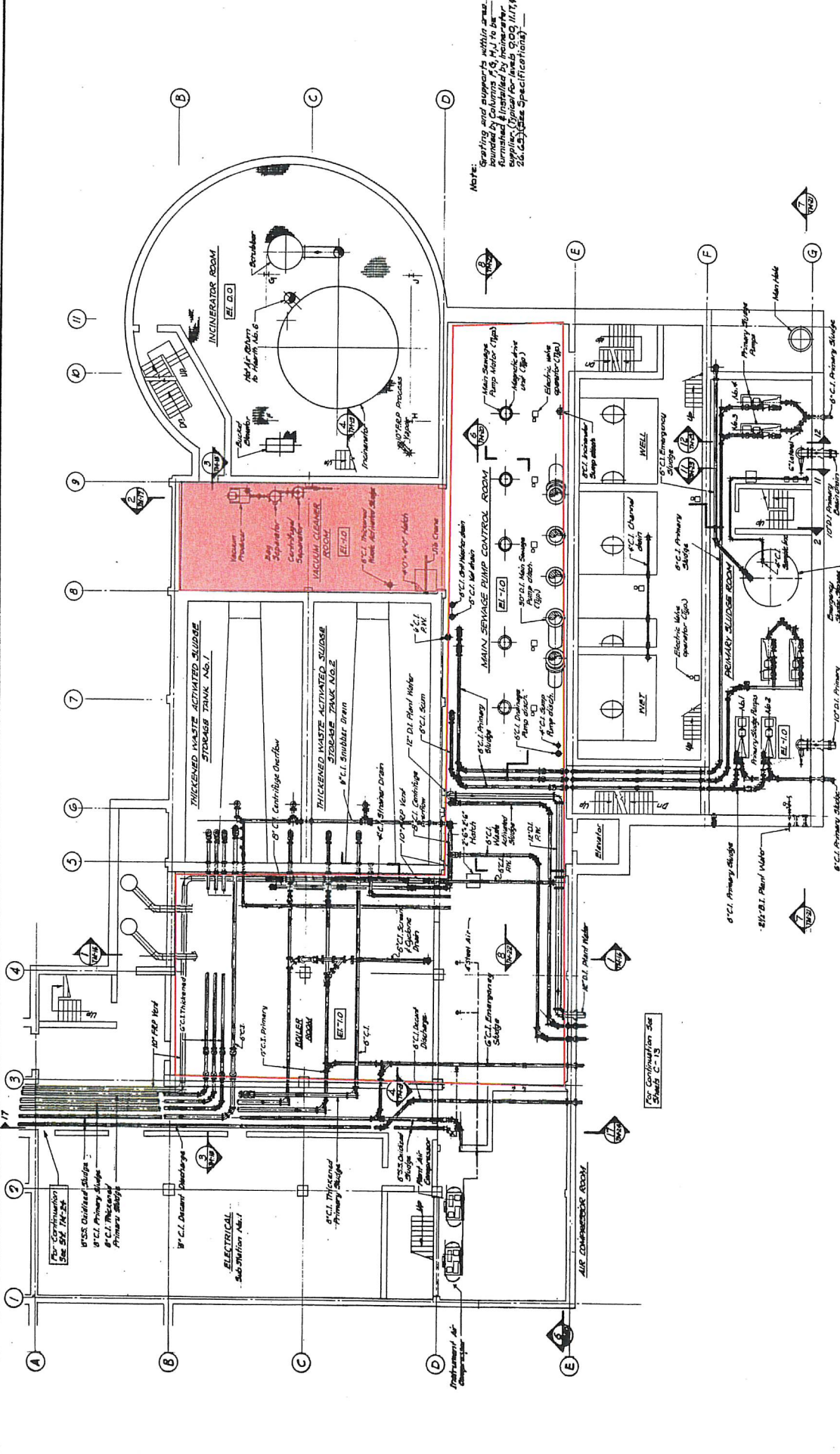
MECHANICAL:

<input checked="" type="checkbox"/> Standard Detail	<input checked="" type="checkbox"/> High Detail	<input type="checkbox"/> Very High Detail
<input checked="" type="checkbox"/> Pipe 3" & Above (O.D.) <input checked="" type="checkbox"/> Conduit 3" & Above (O.D.) <input checked="" type="checkbox"/> Duct (Rectangle, Oval, Round) <input checked="" type="checkbox"/> Equipment Footprints <input checked="" type="checkbox"/> Electrical Panels	<input checked="" type="checkbox"/> Pipe 1.5" & Above (O.D.) <input type="checkbox"/> Conduit 1" & Above (O.D.) <input type="checkbox"/> Valves / Actuators <input checked="" type="checkbox"/> Cable Tray <input type="checkbox"/> Pipe Flanges <input type="checkbox"/> Restrained Joints <input checked="" type="checkbox"/> HVAC Equipment <input type="checkbox"/> Electrical Transformers <input checked="" type="checkbox"/> Mechanical Pumps & Motors	<input type="checkbox"/> Pipe ½" & Above (O.D.) <input type="checkbox"/> Conduit ½" & Above (O.D.) <input type="checkbox"/> Pipe Hangers / Supports <input type="checkbox"/> Pipe Materials (Requires Color Scanning) <input type="checkbox"/> Piping Systems (Connectivity) <input type="checkbox"/> Pipe / Duct Insulation <input type="checkbox"/> Unistrut <input type="checkbox"/> Busbar <input type="checkbox"/> Couplings <input type="checkbox"/> Junction Boxes <input type="checkbox"/> Electrical Devices (Switches, Outlets, Alarms & Detectors) <input type="checkbox"/> Specialty Equipment (Cranes, Conveyors): <input type="checkbox"/> Sprinklers

Attachment B: GNHWPCA Record Drawings



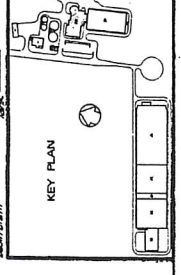
B-1



Notes:
 1. Existing and proposed utility lines are shown in columns 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

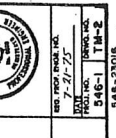
CITY OF NEW HAVEN
 DEPARTMENT OF PUBLIC WORKS
**EAST SHORE
 WATER POLLUTION ABATEMENT PROJECT**
 CONTRACT NO. 1 WASTEWATER TREATMENT PLANT
 PLAN ABOVE ELEV. -1.0

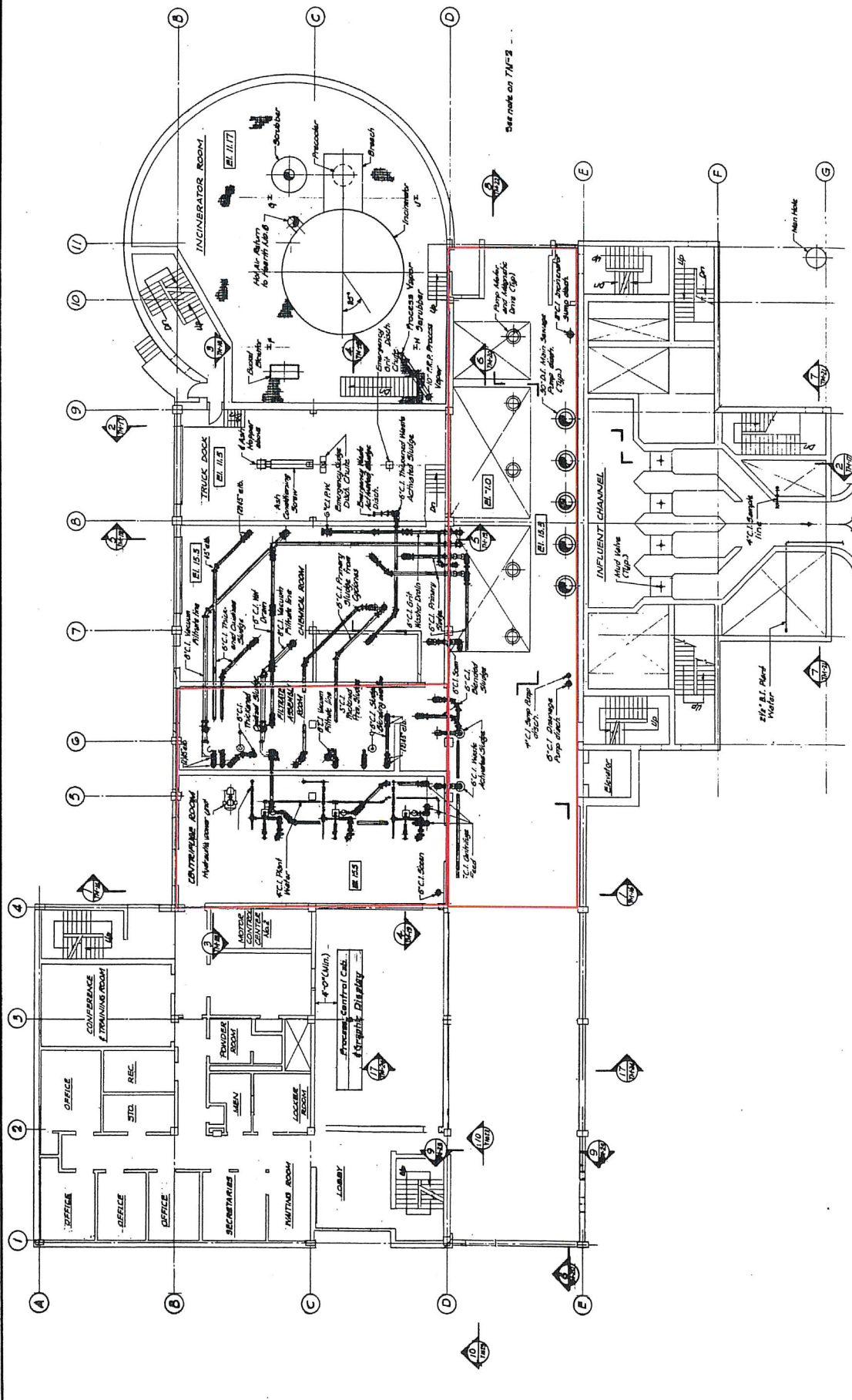
NO.	DATE	DESCRIPTION
1	7-27-75	ISSUED FOR PERMITS
2	10-1-75	REVISED TO SHOW PERMITS
3	1-15-76	REVISED TO SHOW PERMITS
4	1-15-76	REVISED TO SHOW PERMITS
5	1-15-76	REVISED TO SHOW PERMITS
6	1-15-76	REVISED TO SHOW PERMITS
7	1-15-76	REVISED TO SHOW PERMITS
8	1-15-76	REVISED TO SHOW PERMITS
9	1-15-76	REVISED TO SHOW PERMITS
10	1-15-76	REVISED TO SHOW PERMITS
11	1-15-76	REVISED TO SHOW PERMITS
12	1-15-76	REVISED TO SHOW PERMITS
13	1-15-76	REVISED TO SHOW PERMITS
14	1-15-76	REVISED TO SHOW PERMITS
15	1-15-76	REVISED TO SHOW PERMITS
16	1-15-76	REVISED TO SHOW PERMITS
17	1-15-76	REVISED TO SHOW PERMITS
18	1-15-76	REVISED TO SHOW PERMITS
19	1-15-76	REVISED TO SHOW PERMITS
20	1-15-76	REVISED TO SHOW PERMITS
21	1-15-76	REVISED TO SHOW PERMITS
22	1-15-76	REVISED TO SHOW PERMITS
23	1-15-76	REVISED TO SHOW PERMITS
24	1-15-76	REVISED TO SHOW PERMITS
25	1-15-76	REVISED TO SHOW PERMITS
26	1-15-76	REVISED TO SHOW PERMITS
27	1-15-76	REVISED TO SHOW PERMITS
28	1-15-76	REVISED TO SHOW PERMITS
29	1-15-76	REVISED TO SHOW PERMITS
30	1-15-76	REVISED TO SHOW PERMITS
31	1-15-76	REVISED TO SHOW PERMITS
32	1-15-76	REVISED TO SHOW PERMITS
33	1-15-76	REVISED TO SHOW PERMITS
34	1-15-76	REVISED TO SHOW PERMITS
35	1-15-76	REVISED TO SHOW PERMITS
36	1-15-76	REVISED TO SHOW PERMITS
37	1-15-76	REVISED TO SHOW PERMITS
38	1-15-76	REVISED TO SHOW PERMITS
39	1-15-76	REVISED TO SHOW PERMITS
40	1-15-76	REVISED TO SHOW PERMITS
41	1-15-76	REVISED TO SHOW PERMITS
42	1-15-76	REVISED TO SHOW PERMITS
43	1-15-76	REVISED TO SHOW PERMITS
44	1-15-76	REVISED TO SHOW PERMITS
45	1-15-76	REVISED TO SHOW PERMITS
46	1-15-76	REVISED TO SHOW PERMITS
47	1-15-76	REVISED TO SHOW PERMITS
48	1-15-76	REVISED TO SHOW PERMITS
49	1-15-76	REVISED TO SHOW PERMITS
50	1-15-76	REVISED TO SHOW PERMITS
51	1-15-76	REVISED TO SHOW PERMITS
52	1-15-76	REVISED TO SHOW PERMITS
53	1-15-76	REVISED TO SHOW PERMITS
54	1-15-76	REVISED TO SHOW PERMITS
55	1-15-76	REVISED TO SHOW PERMITS
56	1-15-76	REVISED TO SHOW PERMITS
57	1-15-76	REVISED TO SHOW PERMITS
58	1-15-76	REVISED TO SHOW PERMITS
59	1-15-76	REVISED TO SHOW PERMITS
60	1-15-76	REVISED TO SHOW PERMITS
61	1-15-76	REVISED TO SHOW PERMITS
62	1-15-76	REVISED TO SHOW PERMITS
63	1-15-76	REVISED TO SHOW PERMITS
64	1-15-76	REVISED TO SHOW PERMITS
65	1-15-76	REVISED TO SHOW PERMITS
66	1-15-76	REVISED TO SHOW PERMITS
67	1-15-76	REVISED TO SHOW PERMITS
68	1-15-76	REVISED TO SHOW PERMITS
69	1-15-76	REVISED TO SHOW PERMITS
70	1-15-76	REVISED TO SHOW PERMITS
71	1-15-76	REVISED TO SHOW PERMITS
72	1-15-76	REVISED TO SHOW PERMITS
73	1-15-76	REVISED TO SHOW PERMITS
74	1-15-76	REVISED TO SHOW PERMITS
75	1-15-76	REVISED TO SHOW PERMITS
76	1-15-76	REVISED TO SHOW PERMITS
77	1-15-76	REVISED TO SHOW PERMITS
78	1-15-76	REVISED TO SHOW PERMITS
79	1-15-76	REVISED TO SHOW PERMITS
80	1-15-76	REVISED TO SHOW PERMITS
81	1-15-76	REVISED TO SHOW PERMITS
82	1-15-76	REVISED TO SHOW PERMITS
83	1-15-76	REVISED TO SHOW PERMITS
84	1-15-76	REVISED TO SHOW PERMITS
85	1-15-76	REVISED TO SHOW PERMITS
86	1-15-76	REVISED TO SHOW PERMITS
87	1-15-76	REVISED TO SHOW PERMITS
88	1-15-76	REVISED TO SHOW PERMITS
89	1-15-76	REVISED TO SHOW PERMITS
90	1-15-76	REVISED TO SHOW PERMITS
91	1-15-76	REVISED TO SHOW PERMITS
92	1-15-76	REVISED TO SHOW PERMITS
93	1-15-76	REVISED TO SHOW PERMITS
94	1-15-76	REVISED TO SHOW PERMITS
95	1-15-76	REVISED TO SHOW PERMITS
96	1-15-76	REVISED TO SHOW PERMITS
97	1-15-76	REVISED TO SHOW PERMITS
98	1-15-76	REVISED TO SHOW PERMITS
99	1-15-76	REVISED TO SHOW PERMITS
100	1-15-76	REVISED TO SHOW PERMITS



HALF-SIZE DRAWING

Approved By:	Date:	Name:
WVAC		
Project Engineer:		
Checked:		
Drawn:		
Scale:		



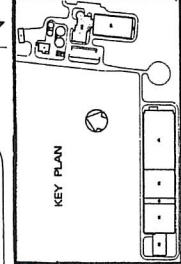


CITY OF NEW HAVEN
DEPARTMENT OF PUBLIC WORKS
WATER POLLUTION ABATEMENT PROJECT
CONTRACT NO. 1 WASTEWATER TREATMENT PLANT
PLAN ABOVE ELEV. +15.5

APPROVED BY: [Signature] DATE: 7-21-75
CHECKED BY: J.M.S. DATE: JAN. 1975
DRAWN BY: J.H.P. DATE: JAN. 1975
SCALE: 1/8" = 1'-0"

UNLESS OTHERWISE NOTED OR CHANGED BY INDICATION.

NO.	DATE	DESCRIPTION	BY
1	7-21-75	ISSUED FOR PERMITS	J.H.P.
2	7-21-75	ISSUED FOR PERMITS	J.H.P.
3	7-21-75	ISSUED FOR PERMITS	J.H.P.
4	7-21-75	ISSUED FOR PERMITS	J.H.P.
5	7-21-75	ISSUED FOR PERMITS	J.H.P.
6	7-21-75	ISSUED FOR PERMITS	J.H.P.
7	7-21-75	ISSUED FOR PERMITS	J.H.P.
8	7-21-75	ISSUED FOR PERMITS	J.H.P.
9	7-21-75	ISSUED FOR PERMITS	J.H.P.
10	7-21-75	ISSUED FOR PERMITS	J.H.P.
11	7-21-75	ISSUED FOR PERMITS	J.H.P.



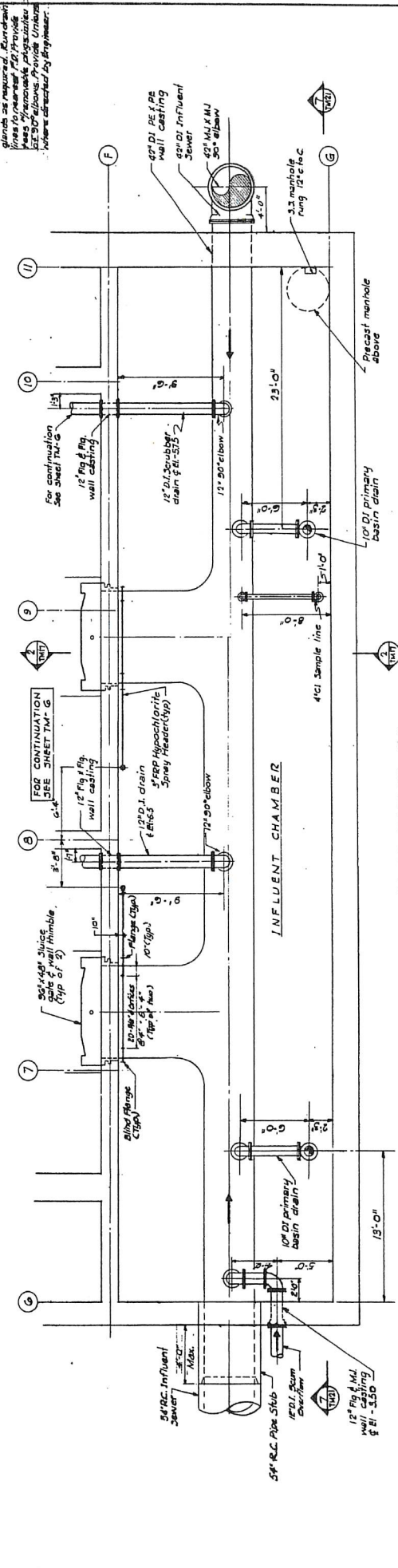
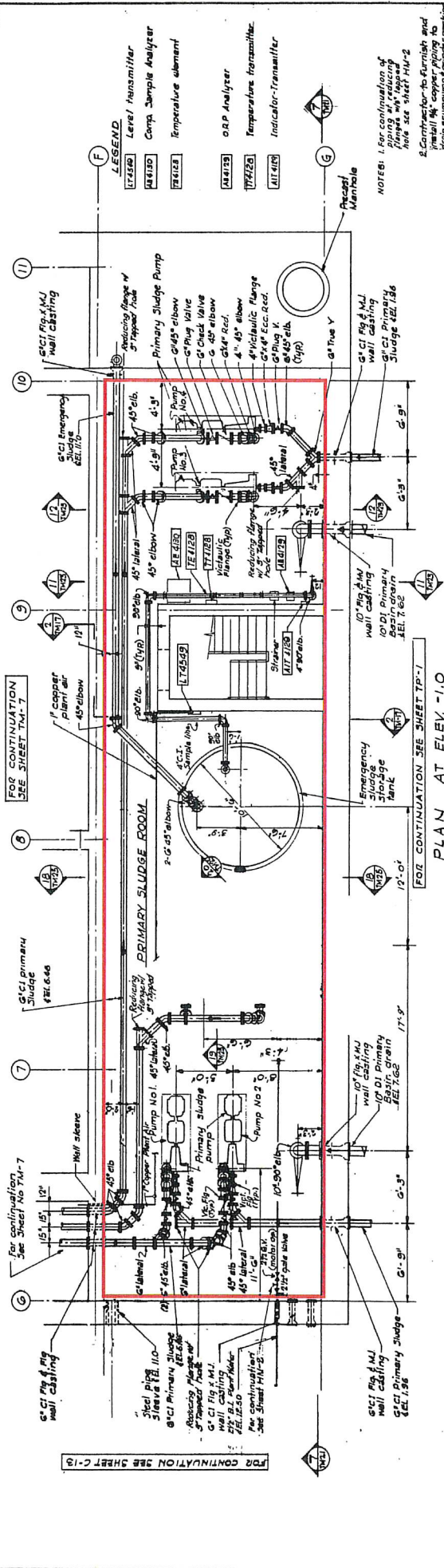
PRIMARY BASINS

15'-0" Confirmation Size
SIZE 1/4" = 1'-0" (TYP.)

HALF-SIZE DRAWING

APPROVED BY: [Signature] DATE: 7-21-75
CHECKED BY: J.M.S. DATE: JAN. 1975
DRAWN BY: J.H.P. DATE: JAN. 1975
SCALE: 1/8" = 1'-0"

UNLESS OTHERWISE NOTED OR CHANGED BY INDICATION.



LEGEND

LT4559	Level Transmitter
MA110	Corp. Sample Analyser
RE128	Temperature element
AA128	OAP Analyser
YF128	Temperature transmitter
AI119	Indicator-Transmitter

NOTES:

- For construction of piping in reducing flanges, use tapered flange as shown on sheet H4-2.
- Contractor to furnish and install all copper piping to the extent shown on this drawing. All other piping to be furnished by the contractor as required. All work to be done in accordance with the specifications for the project. All materials to be furnished by the contractor as required. All work to be done in accordance with the specifications for the project.

CITY OF NEW HAVEN
DEPARTMENT OF PUBLIC WORKS
WATER POLLUTION ABATEMENT PROJECT
CONTRACT NO. 1 WASTEWATER TREATMENT PLANT
PRIMARY SLUDGE ROOM PLAN
INFLUENT CHAMBER PLAN

APPROVED BY: [Signature]
DATE: 7/2/75
CHECKED BY: JMS
DATE: 6/19/75
DRAWN BY: D.E.H.
DATE: 6/19/75
SCALE: 1/4" = 1'-0"

UNLESS OTHERWISE NOTED OR CHANGED BY REVISION

CONTRACT NO. 1
DATE: 7/2/75
DATE: 6/19/75
DATE: 6/19/75
DATE: 6/19/75

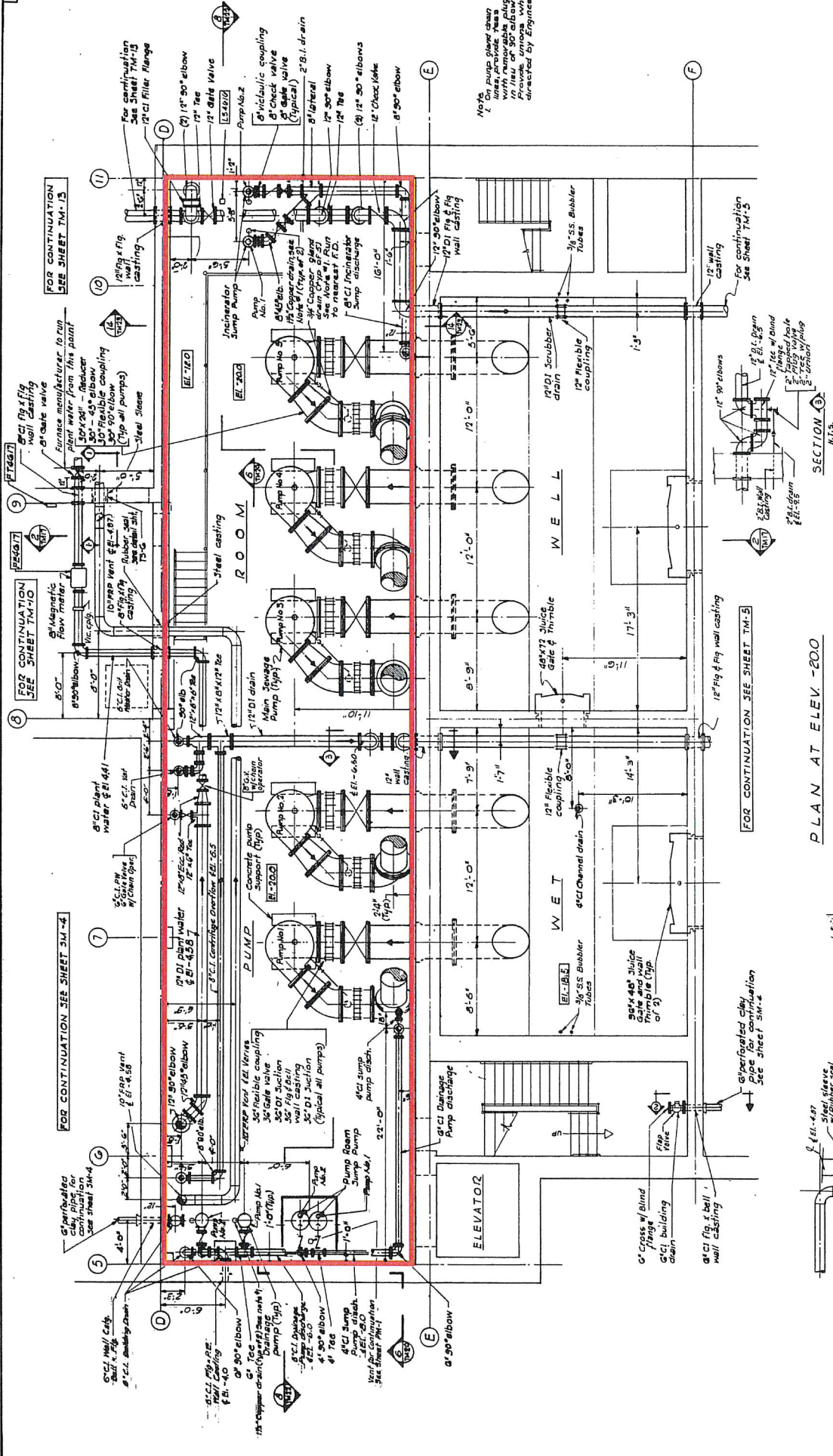
CAMP DRESSER & MCKEE Inc.
Consulting Engineers
Bristol, R.I.

PLAN AT ELEV. -1.0

PLAN AT ELEV. -12.0

KEY PLAN

HALF-SIZE DRAWING



FOR CONTINUATION SEE SHEET TM-13

FOR CONTINUATION SEE SHEET TM-10

FOR CONTINUATION SEE SHEET 314-4

FOR CONTINUATION SEE SHEET TM-5

SECTION 1

SECTION 2

SECTION 3

SECTION 4

PLAN AT ELEV. -200

HALF-SIZE DRAWING

KEY PLAN

SECTION 1

SECTION 2

SECTION 3

SECTION 4

CITY OF NEW HAVEN
DEPARTMENT OF PUBLIC WORKS
WATER POLLUTION ABATEMENT PROJECT
CONTRACT NO. 1 WASTEWATER TREATMENT PLANT
PUMP ROOM AND WET WELL PLAN

APPROVED BY: R.C.M. DATE: 7-21-71
 CHECKED BY: J.W.S. DATE: JAN, 1974
 DRAWN BY: D.B.H. DATE: JAN, 1974

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

UNLESS OTHERWISE NOTED OR CHANGED BY REVISION.

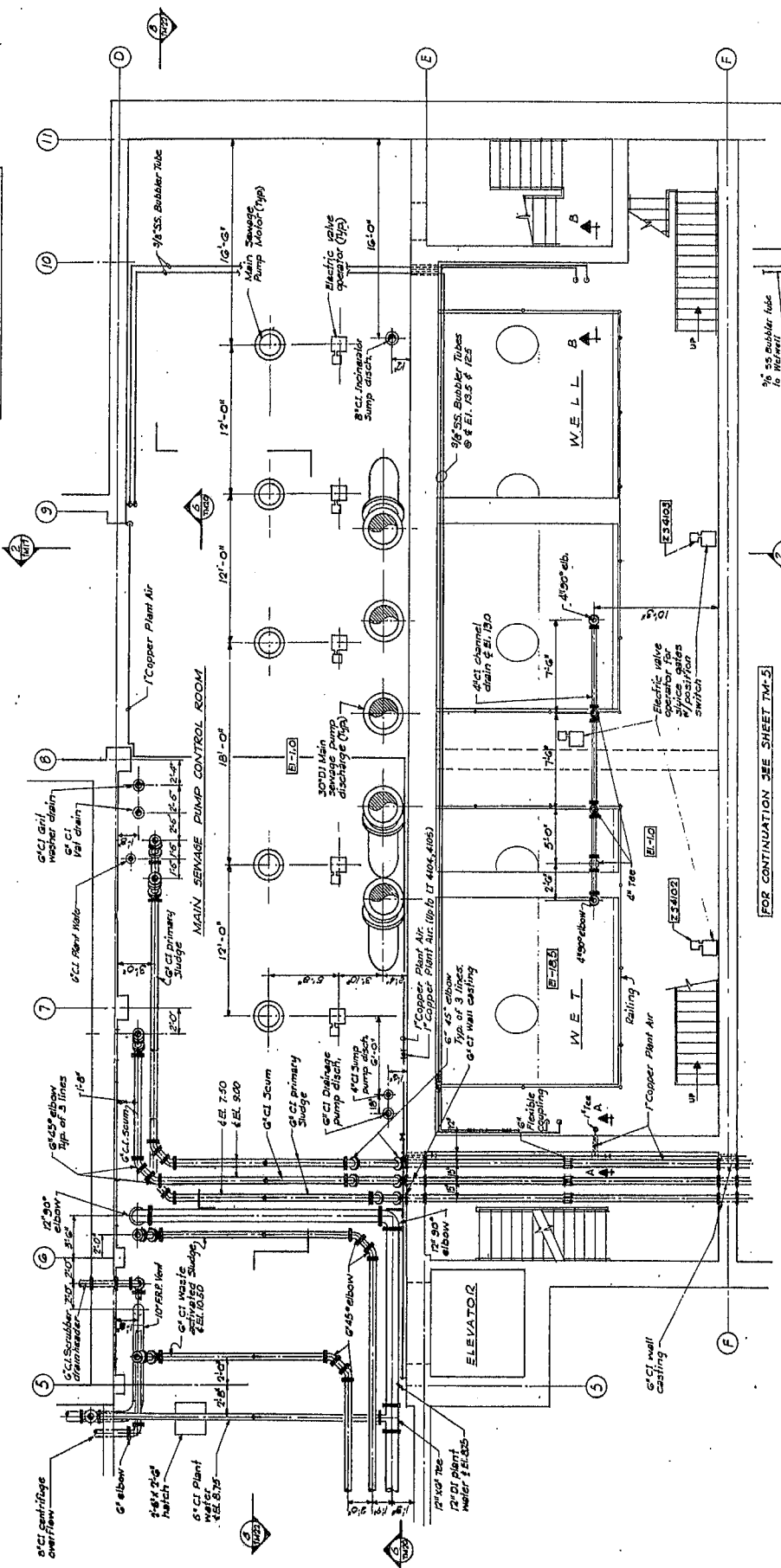
CAMP DRESSER & McKEE Inc.
 Consulting Engineers
 Boston, Mass.

PROJ. NO. 546-1 TM-6
 SHEET NO. 204

FOR CONTINUATION SEE SHEET TM-13

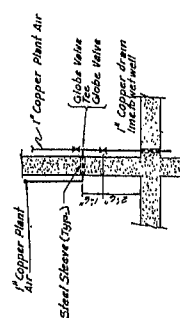
FOR CONTINUATION SEE SHEET TM-10

FOR CONTINUATION SEE SHEET TM-9



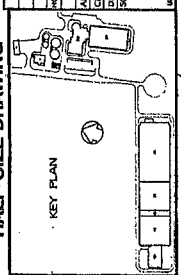
FOR CONTINUATION SEE SHEET TM-5

PLAN AT ELEV. -1.0



SECTION A-A
N.T.S.

HALF-SIZE DRAWING



NO.	DATE	DESCRIPTION	BY
1	7.21.75	ISSUED FOR PERMITS	RLC
2	7.21.75	ISSUED FOR PERMITS	RLC
3	7.21.75	ISSUED FOR PERMITS	RLC

APPROVED BY: R.C. WILSON DATE: 7.21.75
 DRAWN BY: J. W. WILSON DATE: 7.21.75
 SCALE: 1/4" = 1'-0"

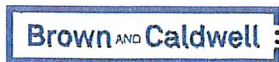
CITY OF NEW HAVEN
 DEPARTMENT OF PUBLIC WORKS
 EAST SHORE
 WATER POLLUTION ABATEMENT PROJECT
 CONTRACT NO. 1 WASTEWATER TREATMENT PLANT
 MAIN SEWAGE PUMP CONTROL ROOM
 AND WET WELL PLAN

REG. PROF. ENGR. NO. 546-1
 EXPIRES 7-27-75
 PROJECT NO. 546-1 TM-7

CAMP DRESSER & McKEE Inc.
 Consulting Engineers
 Boston, Mass.

Approved By:	Date:	Name:

Attachment C: Rate Schedule



Rate Schedule

Consultant Name: Brown and Caldwell

Proposed Overhead Rate: 1.8

Requested Percent Profit: 7%

Personnel Classification	Fully Loaded Hourly Rate*
Client Manager (Principal in Charge)	\$320
Project Manager	\$240
Senior Technical Specialist	\$285
Technical Specialist	\$250
Senior Project Engineer	\$210
Engineer	\$179
Staff Engineer	\$146
Senior Technician	\$123
Senior CAD Operator	\$135
Senior Operations/Training Specialist	\$285
Operations/Training Specialist	\$170
Senior Cost Estimator	\$195
Senior Administrative Assistant	\$125
Administrative Assistant	\$98
Construction Manager	\$220
Chief Inspector	\$180
Senior Inspector	\$157
Inspector	\$120
Scheduler	\$155
GIS Analyst	\$150
Field Technician	\$110

*For the Authority's On-Call Engineering contracts, Brown and Caldwell's compensation will be based on the amount of raw wages paid Brown and Caldwell employees for work directly performed on the project(s), plus an overhead percentage (180.0%) and profit (7%) applied to all wages. The rates provided are average rates sorted by functional categories that were escalated to the midpoint of this contract.



Greater New Haven Water Pollution Control Authority

345 East Shore Parkway New Haven, CT 06512 203 466 5281 p 203 466 5286 f www.gnhwpca.com

To: Director of Finance and Administration

From: Operations

Date: 04/01/24

Re: Departmental Budget Transfer Request

Transfer Amount	Transfer From	Transfer To
\$47,177	01.1400.000.5010	01.1420.000.5010
	Plant Wages	Collections Wages
\$47,177	Total	

Explanation: Cover pay out of Sick/Vacation time due to retirement.

Department Signature:

[Handwritten Signature]

Approved by:

Director of Finance and Administration

Approved by:

Executive Director

Board Approval:

Date of Meeting

Notes:

All departmental budget transfers to and from Regular Wage (5010), Temporary & Part Time Wage (5011), and Overtime Wage (5015) Accounts shall be submitted to the Executive Director for review and approval

All fund transfers between departmental budgets and cost centers less than \$10,000 shall be submitted by the Director of Finance and Administration to the Executive Director for review and approval.

All fund transfers between departmental budgets and cost centers equal to and greater than \$10,000 shall be approved by the Board of Directors