DRAFT

SOIL EXCAVATION WORK PLAN

Greyston Bakery Site
Ashburton Avenue, City of Yonkers
Westchester County, New York

Voluntary Cleanup Index: D3-0002-00-09

May 2011

ESI File: GY99143.50

Prepared By:

Ecosystems Strategies, Inc.
24 Davis Avenue, Poughkeepsie, NY 12603
phone 845.452.1658 | fax 845.485.7083 | ecosystemsstrategies.com

Ecosystems Strategies, Inc.

DRAFT

SOIL EXCAVATION WORK PLAN

Greyston Bakery Site
Ashburton Avenue, City of Yonkers
Westchester County, New York

Voluntary Cleanup Index: D3-0002-00-09

May 2011

ESI File: GY99143.50

Prepared By:

Ecosystems Strategies, Inc.
24 Davis Avenue
Poughkeepsie, New York 12603

Prepared For:

Greyston Foundation
21 Park Avenue
Yonkers, New York 10703

I, the undersigned, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Draft Soil Excavation Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

The undersigned has reviewed this Draft Soil Excavation Work Plan and certifies to Greyston Foundation that the information provided in this document is accurate as of the date of issuance by this office.

Any and all questions or comments, including requests for additional information, should be submitted to the undersigned.

Paul H. Ciminello
President

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Purpose

This Draft Soil Excavation Work Plan (EWP) provides a detailed description of construction monitoring procedures proposed by Ecosystems Strategies, Inc. (ESI) to address / manage petroleum-contaminated soils (including MGP constituents such as naphthalene and the associated odors with these compounds) that may be encountered during construction activities associated with the installation of an above-ground nitrogen tank on the Greyston Bakery Site in Yonkers, New York.

1.2 Site Location and Description

The subject property consists of the 1.61-acre property located at 104 Ashburton Avenue, City of Yonkers, Westchester County, New York. The subject property comprises one tax lot (City of Yonkers Tax ID: Section 2, Block 2618, Lot 1).

The subject property is an irregularly-shaped parcel that has approximately 195 feet of frontage on the northern side of Ashburton Avenue, approximately 216 feet of frontage on the eastern side of Alexander Street, and extends approximately 295 feet northward from Ashburton Avenue. The western and northern portions of the subject property comprise an unpaved, fenced-in area that is overgrown with vegetation. The central eastern portion of the property is a fenced-in, macadam paved parking lot. Located on the eastern portion of the subject property is a one-story, brick structure that is occupied by a Metro-North substation which extends along a portion of the eastern property border. A concrete retaining wall separates the subject property from the adjoining railroad tracks to the east.

1.3 Site History

On-site contamination is present under the building and parking areas, as a result of the Site's prior use as a manufactured gas plant (MGP). The Site was investigated and remediated in accordance with the NYSDEC Voluntary Cleanup Program guidelines. The Site has documented elevated levels of heavy petroleum products, including coal tars and lighter phase petroleum.

The Site was remediated in 2003, with the excavation and offsite disposal of petroleum contaminated soils, the installation of a hydraulic barrier to channel heavy product into a collection chamber, the capping of the Site with a geocomposite clay liner and clean fill to prevent direct contact with the soils, the installation and operation of a vapor extraction system to intercept & redirect vapors as they migrate upwards towards the building and the periodic monitoring of groundwater quality.

1.4 Proposed Construction Activities Subject to this EWP

The proposed construction activities include the installation of a nitrogen tank which will assist the Bakery in maintaining constant refrigeration of their products. The drawings for the Tank are provided in Appendix A of this EWP. In general, the following activities are anticipated:

- Extension of four piles, each driven to a depth of approximately 70 feet below surface grade;
- Soil excavation of the upper three feet of soil for the purpose of installing two grade beams which will extend across the four piles to support the concrete pad and tank; and,
- Replacement of soils around the grade beams for grading purposes.

2.0 SOIL EXCAVATION WORK PLAN

This EWP details monitoring procedures proposed by ESI to address / manage petroleum hydrocarbon contaminated soils and groundwater (including associated odors) that may be encountered during site development activities. All proposed work is to be conducted in accordance with a site specific Health and Safety Plan (HASP), provided as Appendix B.

2.1 Overview

This soil excavation/management plan was developed to address future excavations for site development purposes. Soil characterization requirements are outlined, monitoring requirements during excavation activities are presented, and guidelines for management and disposition of the excavated soils are provided.

2.2 Proposed Site Preparation Services

This section of the EWP provides details on activities and services necessary to be initiated and/or completed prior to the implementation of soil excavation services.

2.2.1 Notification

2.2.1.1 NYSDEC

The NYSDEC will be notified in writing at least five (5) business days prior to the start of fieldwork that involves soil excavation. The extension of the piles is tentatively scheduled for Thursday (May 5, 2011) but does not involve the movement of any surface soils or the generation of soil cuttings. Notification of subsequent field activities will be in accordance with reasonable business practice, with verbal notification for immediate (within 48 hours) activities and written notification otherwise. Written notifications will be transmitted to the agency via electronic mail.

2.2.1.2 Other Agencies

No other agencies will be notified.

2.2.2 Equipment Calibration

A photo-ionization detector (PID) will be utilized to screen encountered materials for the presence of volatile vapors. The PID will be calibrated at the onset of each workday, and a written calibration log will be maintained for this project. The PID will be calibrated to read parts per million gas equivalents of isobutylene in accordance with protocols set forth by the equipment manufacturer.

2.2.3 Site Coordination Activities

Prior to the initiation of fieldwork, all subcontractors will be notified of the components of the Health and Safety Plan (see 2.2.4, below). All work will be conducted under the oversight of qualified Environmental Monitor (EM).

The EM will be responsible for:

- Maintaining air monitoring for vapors and, if warranted, dust;
- Documenting if groundwater is present in the work zone and, if so, developing and implementing water management procedures;
- Determining the need for soil management procedures, including stockpiling, sampling, and disposition; and,
- Communication with the NYSDEC.

2.2.4 Health and Safety Plan

The site-specific HASP will be reviewed with on-site personnel (including subcontractors) prior to the initiation of fieldwork. All proposed work will be performed in "Level D" and/or modified "Level D" personal protective equipment; however, all on-site field personnel will be prepared to continue services wearing more protective levels of equipment should field conditions warrant.

3.0 SITE DEVELOPMENT ACTIVITIES

3.1 Contaminated Soil Management

3.1.1 Soil Categories

It is anticipated that soils containing field evidence or laboratory evidence of petroleum contamination and MGP waste may be encountered during construction activities on this Site. The following provides a summary of where contaminated soils have the potential to be encountered:

- Under the barrier layer and geocomposite lining (GCL) that was installed as part of the Site Remediation in 2006;
- In deeper soils, at depths consistent with the known or anticipated stratum where coal tar sludge may remain on the site.

The design of the tank pad has been modified to reduce the amount of contaminated soil that will be encountered. The elevation of the grade beams has been increased such that the invert of these structures will be at or slightly above the elevation of the GCL that resides on top of the contaminated soils. As such, it is anticipated that those construction activities that will warrant management by this EWP are the following:

- the removal and temporary stockpiling of the certified clean fill soils that were imported on top of the GCL; and
- the penetration of the GCL with the pile driver.

At the conclusion of the grade beam construction, the beams themselves will serve as an additional barrier layer; that is, the grade beams will sit on top of the GCL.

3.1.2 Pile Driving Activities

Relevant activities are the following:

- The overlying clean soils will be exhumed and stockpiled;
- The GCL will be cut to permit the 18” pile to be extended into the subsurface;
- The pile will be driven into the ground at a rate that prevents mounding of the displaced soils (that is, soils will be relocated laterally); and,
- The air will be monitored by the EM and odor suppressant strategies will be employed if elevated PID readings are recorded (PID>5ppm) or if significant nuisance petroleum odors are noted in the work zone. It is currently proposed that odor control will be achieved through the use of Biosolve®. Initial applications of Biosolve® will be 3-5% solutions administered directly onto the pile driving penetration. More extensive odor control measures are not anticipated, given the limited area of exposed contaminated soil.

3.1.3 Installation of Grade Beams

Upon completion of the piles, all certified clan soils above the GCL will be removed to the extent necessary to construct the grade beams. The frames for the beams will be constructed on top of the GCL.

The EM will be responsible for:

- Inspecting the integrity of the GCL and implementing repairs, if warranted.
- Overseeing the removal/containerization of contaminated soils in the event of a rupture of the GCL.

3.1.4 On-Site Soil Management

No contaminated soils are anticipated to be stockpiled. The only soils that will be stockpiled are certified clean soils that are currently above the GCL. These soils will be stockpiled as clean fill and may be reused in any area of the Site.

3.1.5 Soil Transport and Disposal

No soils are anticipated to be encountered that require off-site disposition. To the extent that such soils are encountered, they will be managed in the following manner:

- All data will be provided to the repository and written approval of acceptance will be secured prior to the movement of these wastes.
- The EM (or another representative so designated by the Property Owner) will oversee the loading of trucks and copies of all waste disposal manifests will be included in the final report.
- All trucks used to transport regulated waste from this Site will be properly licensed. The EM will inspect each truck to confirm the visibility of proper license numbers.
- All trucks will be loaded on the Site in close proximity of the stockpiles of regulated waste to minimize on-site movement. Trucks will be loaded carefully to prevent spillage and will be brushed prior to exiting the Site. If warranted, a truck wash pad will be installed to add the process of hosing down the trucks prior to their exiting the Site.
- A specific truck route will be maintained by all haulers to eliminate the transport of this waste through residential neighborhoods.

3.2 Excavation Dewatering

Static groundwater is present at approximately 3-4 feet below surface grade. This groundwater is not anticipated to be encountered. Should treatment of this water be required, a dewatering plan will be prepared and submitted to the NYSDEC for review and approval.

3.3 Reuse of Stockpiled Surface Soils

The only soils that will be stockpiled are the soils present on the site above the GCL and therefore soils that have been determined in the past to be certified clean. No additional testing will be conducted. These soils will be used to regrade the site in the vicinity of the tank.

4.0 REPORT

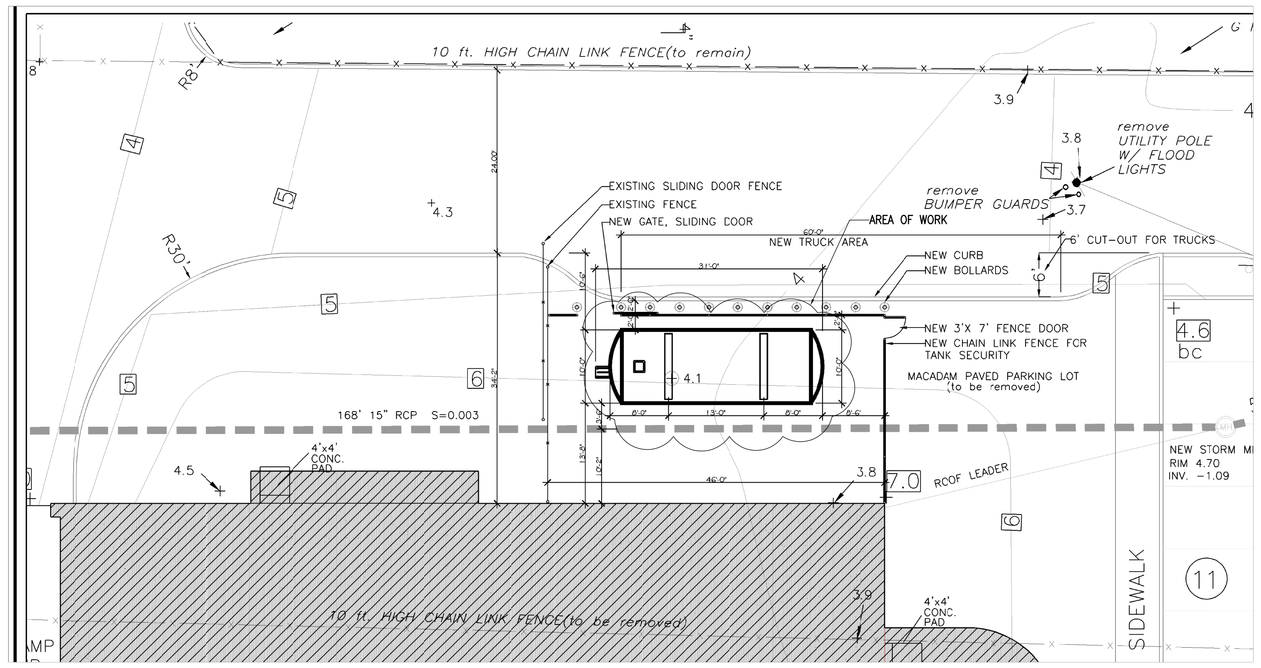
A Final Report will be prepared at the completion of all services detailed in the EWP. The Report will summarize all completed services, will provide an analysis of all data, and will clearly specify any deviations that occurred to the procedures outlined in this EWP.

It is anticipated that the Final Report will include, at a minimum, the following:

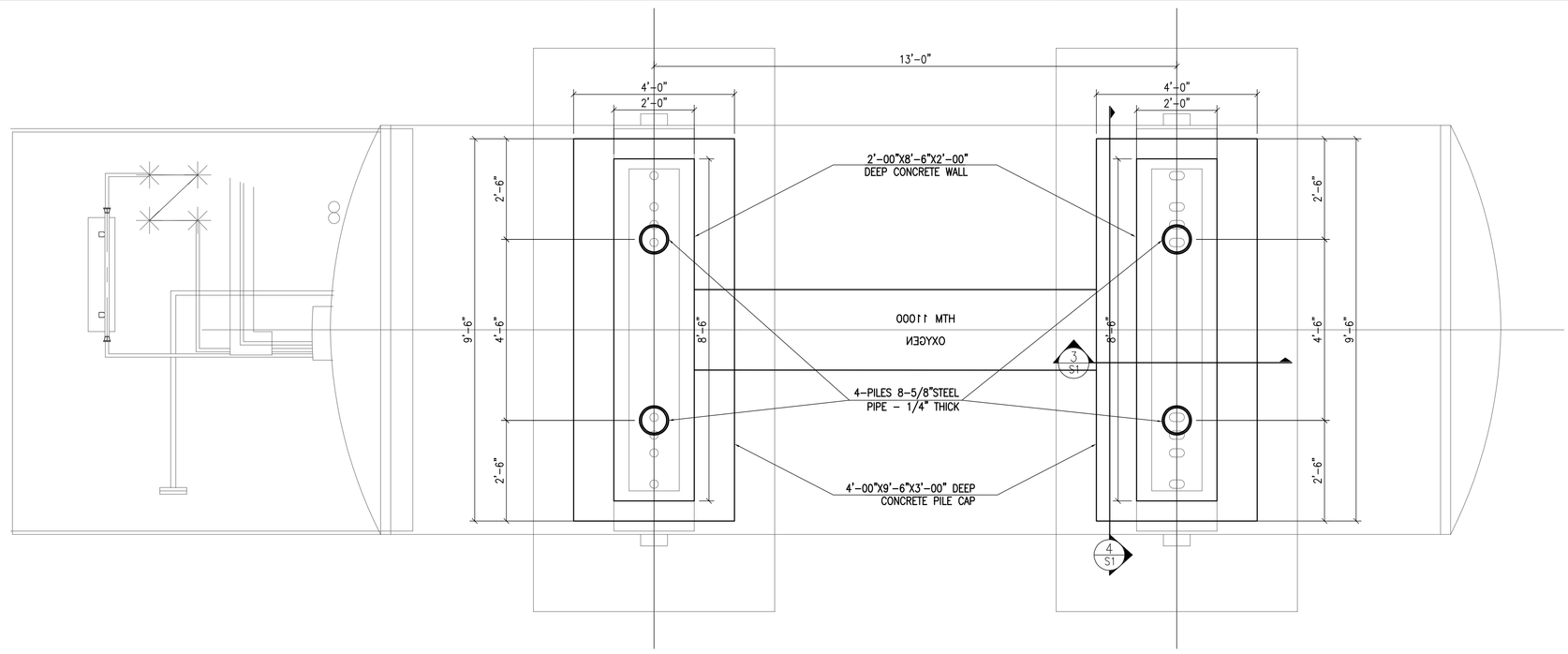
- Drawings and figures that represent fieldwork activities and final "as built" conditions;
- Manifests, bills of lading and other documentation of proper waste disposal should off-site disposition of soils occur; and,
- Copies of relevant correspondence with the NYSDEC.

APPENDIX A

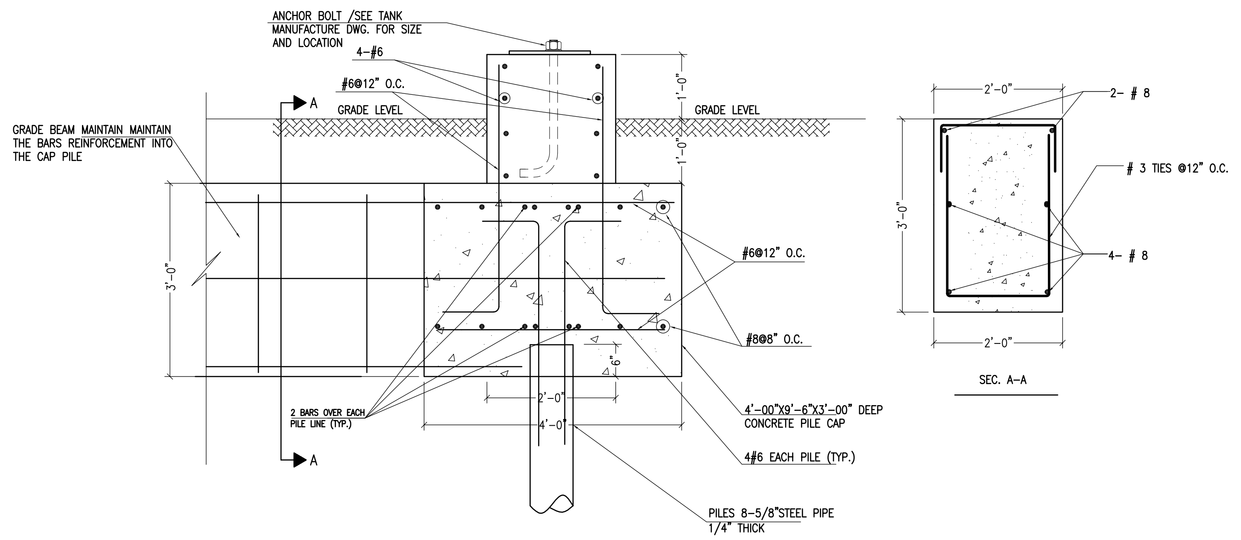
Maps



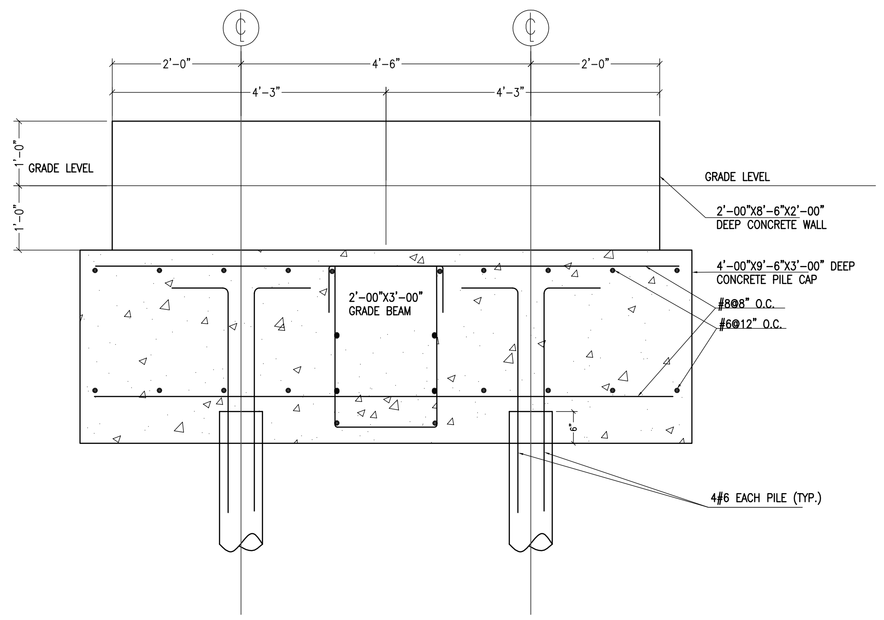
1 S1 PARTIAL SITE PLAN
SCALE: NTS



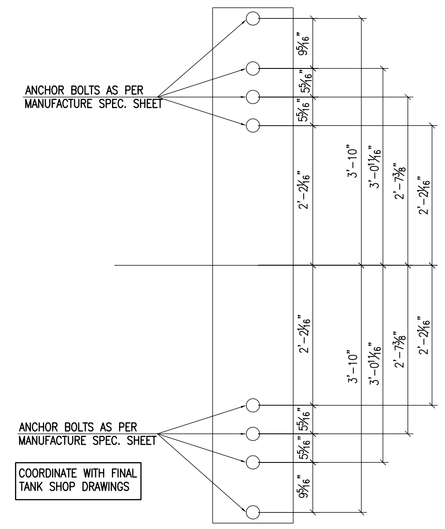
2 S1 THE PRAXAIR FOUNDATION PLAN
SCALE: 1/2"=1'-0"



3 S1 SECTION DETAIL
SCALE: 3/4"=1'-0"



4 S1 SECTION DETAIL
SCALE: 3/4"=1'-0"



5 S1 ANCHOR BOLTS LAYOUT
SCALE: 3/4"=1'-0"

CONTRACTOR RESPONSIBILITY

CONTRACTOR RESPONSIBILITY WILL CONTAIN BUT NOT BE LIMITED TO THE FOLLOWING:

1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND THE SPECIFICATIONS. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NEW JERSEY UNIFORM CONSTRUCTION CODE AND TO LOCAL REGULATIONS.
2. ALL WORK SHALL COMPLY WITH THE .I.B.C(2006),(NJ) EDDITION THE LOCAL BUILDING CODE, ACI BUILDING CODE, AISC SPECIFICATIONS FOR DESIGN FABRICATION AND ERECTION OF STEEL BUILDINGS, STEEL DECK INSTITUTE, WIRE REINFORCEMENT INSTITUTE, AND CONCRETE MASONRY ASSOCIATION NATIONAL.
3. THE CONTRACTOR SHALL REVIEW THE REQUIREMENTS OF THE BUILDING WITH THE OWNER TO DETERMINE THE USE OF AREA, RAMPS, ETC. ANY RELATED COSTS OR CHARGES THERE TO SHALL BE INCLUDED IN THE COST OF THE WORK.
4. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, AND FOR THE COORDINATION OF ALL PORTIONS OF THE WORK.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION AND SAFETY OF ALL PERSONS, EXISTING FACILITIES AND EXISTING EQUIPMENT AND DISPLAYS AT THE CONSTRUCTION SITE AND THROUGHOUT ALL AREAS AFFECTED BY THE NEW CONSTRUCTION.
6. THE CONTRACTOR SHALL THOROUGHLY VERIFY ALL DIMENSIONS AND FIELD CONDITIONS AT THE JOB SITE. ANY AND ALL DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER, OTHERWISE, THE CONTRACTOR SHALL BEAR ALL COSTS TO COMPLETE THE WORK AS INTENDED ON THE DRAWINGS.
7. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF REINFORCING, STRUCTURAL STEEL ETC., DETAILS FOR APPROVAL BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AND ACCEPT FULL RESPONSIBILITY FOR DIMENSIONAL CORRECTNESS.

NOTES:

1. ALL PILES SHALL BE (8-5/8") STEEL PIPE – 1/4" THICK EXPECTED DEPTH 70 FEET AND PILE DESIGN LOAD IS 40 TON. / PILE
2. PILE CONTRACTOR SHALL PRE-DRILL ALL PILES FOR 15' DEPTH TO PREVENT VIBRATION OF EXISTING BUILDING
3. CONCRETE FOR THE FLOOR SYSTEM SHALL HAVE MIN. COMPRESSION STRENGTH = 4,500 PSI
4. ALL FOUNDATION WORK SHALL COMPLY WITH THE GEOTECHNICAL REPORT PREPARED BY SOIL TESTING, INC. LOCATED AT 140 OXFORD ROAD, OXFORD CONN. 06478

CONCRETE FORMWORK

1. ALL CONCRETE FORMWORK SHALL COMPLY WITH THE LATEST EDITION OF ACI 347 (RECOMMENDED PRACTICE FOR CONCRETE FORMWORK) PS-1 (CONSTRUCTION AND INDUSTRIAL PLYWOOD) AND 301 AND BRACING.
2. PROVIDE BRACING TO ENSURE STABILITY OF FORMWORK. SHORE OR STRENGTHEN FORMWORK SUBJECT TO OVER STRESSING BY CONSTRUCTION LOADS.
3. THE FORMWORK DESIGN SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW AND APPROVAL.
4. ALIGN JOINTS AND MAKE WATERTIGHT. KEEP FORM JOINTS TO A MINIMUM.
5. OBTAIN APPROVAL BEFORE FRAMING OPENINGS IN STRUCTURAL MEMBERS WHICH ARE NOT INDICATED ON DRAWINGS.
6. APPLY FORM RELEASE AGENT ON FORMWORK IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. APPLY FORM RELEASE AGENT PRIOR TO PLACEMENT OF REINFORCING STEEL, ANCHORING DEVICES, AND EMBEDDED ITEMS.
8. PROVIDE FORMED OPENINGS WHERE REQUIRED FOR ITEMS TO BE EMBEDDED IN OR PASSING THROUGH CONCRETE WORK.
9. LOCATE AND SET IN PLACE ITEMS WHICH WILL BE CAST DIRECTLY INTO CONCRETE.
10. INSTALL WATER STOPS CONTINUOUS WITHOUT DISPLACING REINFORCEMENT.

CONCRETE REINFORCEMENT

1. ALL CONCRETE DETAILS AND CONSTRUCTION ARE TO COMPLY WITH THE LATEST EDITION OF THE ACI 301 & ACI 318 CODE AND LOCAL CODE.
2. REINFORCING TO BE DEFORMED BARS, NEW BILLET STEEL A.S.T.M. A–615 DESIGNATION GRADE 60. ALL BARS ARE TO BE WIRED IN PLACE.
3. WELDED WIRE MESH SHALL CONFORM TO A.S.T.M. A–185.
4. PLACE, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT. DO NOT DEVIATE FROM REQUIRED POSITION.
5. MAINTAIN CONCRETE CLEAR COVER AROUND REINFORCING AS FOLLOWS.

ITEM	COVERAGE
BEAMS	1.5 INCH
SUPPORTED SLAB	1.0 INCH
COLUMN TIES	1.0 INCH
WALLS (EXPOSED TO WEATHER OR BACKFILL)	3.0 INCH
FOOTINGS AND CONCRETE FORMED AGAINST EARTH	4.0 INCH
SLABS ON FILL	2.0 INCH

CAST–IN–PLACE CONCRETE

1. ALL CONCRETE DETAILS AND CONSTRUCTION ARE TO COMPLY WITH THE LATEST EDITION OF THE ACI 301, ACI–318, ACI–614.
2. CONFORM TO ACI 305R WHEN CONCRETING DURING HOT WEATHER.
3. CONFORM TO ACI 306R WHEN CONCRETING DURING COLD WEATHER.
4. CEMENT – ASTM C150 TYPE I.
5. JOINT FILLER TYPE ASTM D1752; PRE MOLDED SPONGE RUBBER, FULLY COMPRESSIBLE WITH RECOVERY RATE OF MINIMUM 95 PERCENT.
6. MIX CONCRETE IN ACCORDANCE WITH ACI 304. DELIVERY CONCRETE IN ACCORDANCE WITH ASTM C94.
7. PROVIDE CONCRETE TO THE FOLLOWING CRITERIA:
   1. COMPRESSIVE STRENGTH 28 DAYS: 4000 PSI
   2. SLUMP: 3 TO 4 INCHES
   3. MINIMUM WATER/CEMENT RATIO: 0.5
8. ENSURE REINFORCEMENT, INSERTS, EMBEDDED PARTS, FORMED JOINT FILLERS AND ANCHORS ARE NOT DISTURBED DURING CONCRETE PLACEMENT.
9. VERIFY REQUIREMENTS FOR CONCRETE COVER OVER REINFORCEMENT.
10. NOTIFY THE ENGINEER MINIMUM 24 HOURS PRIOR TO COMMENCEMENT OF OPERATIONS.
11. VERIFY THAT ANCHORS, SEATS, PLATES, REINFORCEMENT AND OTHER ITEMS TO BE CAST INTO CONCRETE ARE ACCURATELY PLACED, POSITIONED SECURELY, AND WILL NOT CAUSE HARDSHIP IN PLACING CONCRETE.
12. MAINTAIN CONCRETE WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR PERIOD NECESSARY FOR HYDRATION OF CEMENT AND HARDENING OF CONCRETE.
13. DO NOT PATCH, FILL, TOUCH–UP, REPAIR, OR REPLACE EXPOSED CONCRETE EXCEPT UPON EXPRESS DIRECTION OF ENGINEER FOR EACH INDIVIDUAL AREA.
14. REPAIR OR REPLACEMENT OF DEFECTIVE CONCRETE WILL BE DETERMINED BY THE ENGINEER.

VIII.CONCRETE – FILLED STEEL

1. SCOPE OF WORK

   THE WORK REQUIRED UNDER THIS HEADING INCLUDES THE FURNISHING OF ALL LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY TO INSTALL THE PILES AND PILECAPS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. THIS WILL ALSO INCLUDE, IF NECESSARY, PREAUGERING OR THE USE OF SPUDS AND OTHER WORK NECESSARY TO OBTAIN THE REQUIRED PILING PENETRATION.

2. PILE DRIVING SUPERVISION

   A. THE SERVICES OF AN ENGINEER, LICENSED IN THE STATE OF NEW JERSEY WILL BE OBTAINED BY THE OWNER. THE DRIVING OF ALL PILES WILL BE UNDER THE INSPECTION AND APPROVAL OF THE ENGINEER. THE ENGINEER WILL ADVISE ON THE ADEQUACY OF PENETRATION, CONDITION OF PILES OR ADEQUACY OF DRIVING THAT IS REQUIRED BY THE STANDARD BUILDING CODE OF NEW JERSEY. THE ENGINEER WILL HAVE FINAL JUDGMENT IN THE DETERMINATION OF THE DEPTH TO WHICH THE PILES SHALL BE DRIVEN TO SUPPORT THE SUPERIMPOSED LOADS.

   B. THE CONTRACTOR SHALL FULLY COOPERATE WITH AND PROVIDE THE NECESSARY SERVICES TO THE ENGINEER IN OBTAINING CERTAIN RECORDS DURING THE INSTALLATION OF THE PILES, INCLUDING THE MEASUREMENT OF LENGTH OF PILES, PROVIDING FOOT MARKINGS ON PILES, AND INCH MARKINGS ON CERTAIN PORTIONS OF THE PILES, ETC. THE ENGINEER WILL KEEP AN ACCURATE COMPREHENSIVE RECORD OF EACH PILE DRIVEN. THE INFORMATION COLLECTED BY THE ENGINEER WILL INCLUDE, AMONG OTHER ITEMS, THE DATE OF DRIVING, THE PILE NUMBER, THE DRIVEN LENGTH OF THE PILE, THE ELEVATION OF THE TOP AFTER DRIVING, THE LENGTH OF CUTOFF, THE TYPE AND CONDITION OF CAP BLOCKS. THE CHARACTERISTICS OF THE HAMMER, THE BLOWS PER FOOT REQUIRED TO DRIVE THE LAST 5 FEET OF PILE. THE BLOWS PER INCH DURING THE LAST 6 INCHES OF DRIVING, AND THE DESCRIPTION OF ANY UNUSUAL CIRCUMSTANCES AFFECTING THE DRIVING OF THE PARTICULAR PILE, SUCH AS ABRUPT CHANGES IN DRIVING RESISTANCE, DRIFTING OF PILE OFF LOCATION, ETC. ABRUPT CHANGES IN DRIVING RESISTANCE OF THE PARTICULAR PILE SHALL BE INVESTIGATED TO SATISFACTORILY DETERMINE THE CAUSE.

3. PILE DRIVING AND EQUIPMENT

   A. THE PILE DRIVING RIG SHALL BE EQUIPPED WITH FIXED LEADS AND A RIGID FRAME AND SHALL BE ON STABLE AND LEVEL HARD STANDING SO THAT LEADERS ARE ACCURATELY ALIGNED. THE DRIVING SHALL BE DONE IN SUCH A WAY AS TO HOLD THE PILE FIRMLY IN A VERTICAL POSITION. LEADS SHALL BE OF SUFFICIENT LENGTH SO THAT THE USE OF A FOLLOWER WILL NOT BE NECESSARY.

   B. PILES SHALL BE HANDLED IN SUCH A MANNER AS TO PROHIBIT RUPTURE OR DISTURBANCE TO THE PRESERVATIVE TREATMENT.

   C. PILES SHALL BE DRIVEN AT THE LOCATIONS SHOWN ON THE CONTRACT DRAWING. A LATERAL TOLERANCE OF MORE THAN THREE INCHES FROM DESIGN LOCATION SHALL NOT BE PERMITTED. THIS TOLERANCE SHALL APPLY TO PILES AFTER CUT–OFF. AFTER BEING DRIVEN, PILES SHALL NOT DEVIATE FROM PLUMB BY MORE THAN TWO PERCENT (2%). PILES THAT ARE OUTSIDE THE TOLERANCES WILL BE EVALUATED BY THE ENGINEER, AND IF FOUND TO BE UNSATISFACTORY, AN ADDITIONAL SATISFACTORY PILE OR PILES SHALL BE FURNISHED AND DRIVEN AT LOCATIONS DESIGNATED BY THE ENGINEER. THE COST OF REPLACEMENT PILES SHALL BE BORNE BY THE CONTRACTOR.

   D. EACH PILE SHALL BE DRIVEN TO ITS FINAL POSITION IN ONE CONTINUOUS OPERATION. SHOULD THE OCCASION ARISE WHICH REQUIRES THE HALT OF THE PILE–DRIVING OPERATIONS, THE ENGINEER SHALL NOTE THE CAUSE AND DURATION OF SUCH HALT, AND WHEN DRIVING BEGINS AGAIN, THE ENGINEER WILL DECIDE IF MODIFICATIONS TO THE GENERAL PILE DRIVING CRITERIA ARE REQUIRED.

   E. PILES SHALL BE DRIVEN THROUGH THE FILL AND ORGANIC SOIL AND INTO THE NATURAL SOILS. THE FIELD LOGS OF THE SOILS INVESTIGATION SHOULD BE REFERRED TO IN ORDER TO DETERMINE THE ELEVATION OF NATURAL SOIL MATERIAL. IN ANY EVENT, THE MINIMAL PILE TIP ELEVATION FOR ANY PILE SHALL NOT BE LESS THAN TWENTY FEET BELOW THE CUT OFF ELEVATION.

   JETTING OF PILES WILL NOT BE PERMITTED. AUGERING OR SPUDDING DOWN TO THE SURFACE OF THE NATURAL SOILS WILL BE PERMITTED WITH THE METHODS EMPLOYED TO BE APPROVED BY THE ENGINEER.

   F. PILES SHALL BE DRIVEN WITH A HAMMER WHICH PRODUCES NOT LESS THAN 7,500 FT. POUNDS OF ENERGY PER BLOW AND EACH HAMMER SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE ENGINEER. DURING PILE DRIVING, THE TOP OF THE PILE SHALL HAVE ITS SURFACE NORMAL TO THE AXIS OF THE DRIVING FORCE. SUITABLE APPROVED CUSHIONS SHALL BE USED TO MINIMIZE DAMAGE TO THE PILE BUTTS WITHOUT ABSORBING AN EXCESSIVE AMOUNT OF ENERGY. THE USE OF WOOD CHIPS, SMALL WOOD BLOCKS, SHAVINGS, OR ANY SIMILAR MATERIAL SHALL NOT BE PERMITTED FOR USE AS CUSHION MATERIAL.

   G. PILES, WHICH ARE UNSATISFACTORILY DRIVEN, DAMAGED, BENT, BROKEN, DOGLEGGED, TORN, SPILT, OR OTHERWISE UNSATISFACTORY, IN THE OPINION OF THE ENGINEER, SHALL REMAIN IN PLACE, CUT–OFF ONE FOOT BELOW THE BOTTOM OF THE PILE CAP, AND ADDITIONAL SATISFACTORY PILES SHALL BE FURNISHED AND DRIVEN AT LOCATIONS DESIGNATED BY THE ENGINEER AND IN ACCORDANCE WITH THE FOREGOING SPECIFICATIONS, AT THE CONTRACTOR'S EXPENSE. IF ANY PILE CAPS AND REINFORCING ARE THEREBY REQUIRED TO BE MODIFIED TO SUIT CHANGED PILE LOCATIONS OR ADDITIONAL PILES, SUCH MODIFICATIONS SHALL BE MADE BY THE CONTRACTOR, SUBJECT TO APPROVAL BY THE ENGINEER, WITHOUT SEPARATE OR ADDITIONAL COMPENSATION THEREFORE.

   H. PILES SHALL BE CUT OFF WITHIN ONE INCH OF REQUIRED ELEVATIONS.

4. STEEL PILES

   A. PILE SHALL BE 8 5/8" ø STEEL PIPE WITH THICKNESS OF 0.25 INCH FY = 50,000 PSI

   B. THE PIPE SHALL BE FILLED W/ CONCRETE Fc = 3,000 PSI

   C. PILE LENGTH IS 70 FEET

5. PILE DRIVING CRITERIA

   A. PILES SHALL BE DRIVEN TO AN INDICATED DESIGN LOAD OF 20 TONS OR MORE AS DETERMINED BY THE FOLLOWING FORMULAE:

   FOR SINGLE ACTING AIR OR STEAM HAMMERS : $R = \frac{2WH}{S+0.1}$

   FOR DOUBLE ACTING AIR OR STEAM HAMMERS : $R = \frac{SE}{S+0.1}$

   WHERE:

   "R" IS THE ALLOWABLE PILE LOAD IN POUNDS.

   "W" IS THE WEIGHT OF THE STRIKING PART OF THE HAMMER IN POUNDS.

   "H" IS THE EFFECTIVE HEIGHT OF FALL IN FEET.

   "E" IS THE ACTUAL ENERGY DELIVERED BY THE HAMMER PER BLOW IN FOOT POUNDS

   "S" IS THE PENETRATION OF PILE PER BLOW, IN INCHES, AFTER THE PILE HAS BEEN DRIVEN TO A DEPTH WHERE SUCCESSIVE BLOWS PRODUCE APPROXIMATELY EQUAL NET PENETRATION.

   B. IN ANY EVENT, THE MINIMAL PILE TIP ELEVATION FOR ANY PILE SHALL NOT BE LESS THAN TWENTY FEET BELOW THE CUT OFF ELEVATION, REGARDLESS OF THE BLOW COUNT.

PRELIMINARY NOT FOR CONSTRUCTION

FOUNDATION PILES SYSTEM DESIGN & DETAILS

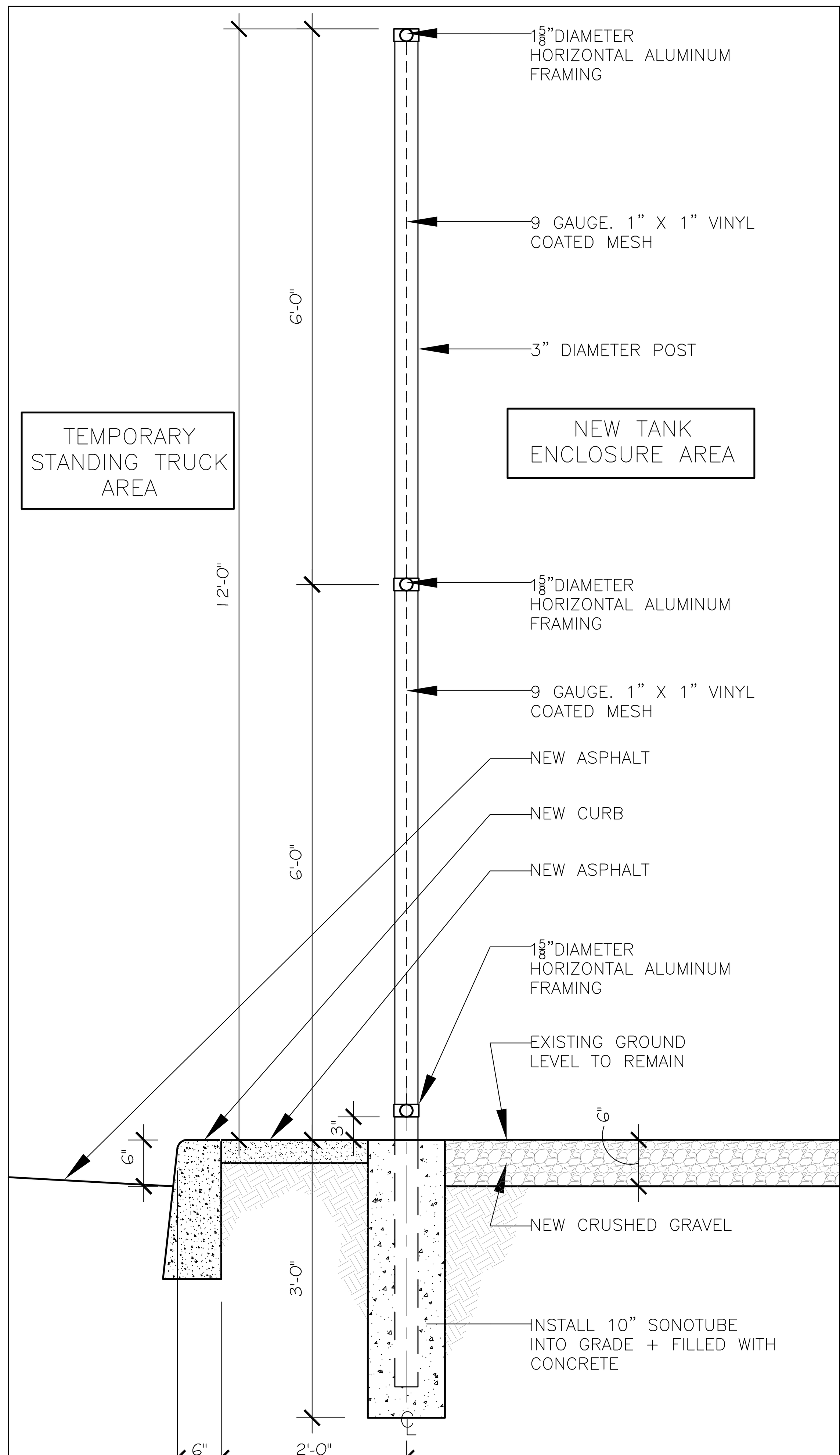
PROJECT:
GREYSTON BAKERY
104 ALEXANDER STREET
YONKERS, NY-10703

CLIENT:
CYBUL & CYBUL ARCHITECTS
1064 RIVER ROAD
EDGEWATER, NJ-07020

ALLIED ENGINEERING ASSOCIATES
917 Marie Court, Franklin Lakes, New Jersey 07417
Telephone (201) 677-1744 Fax (201) 677-0249

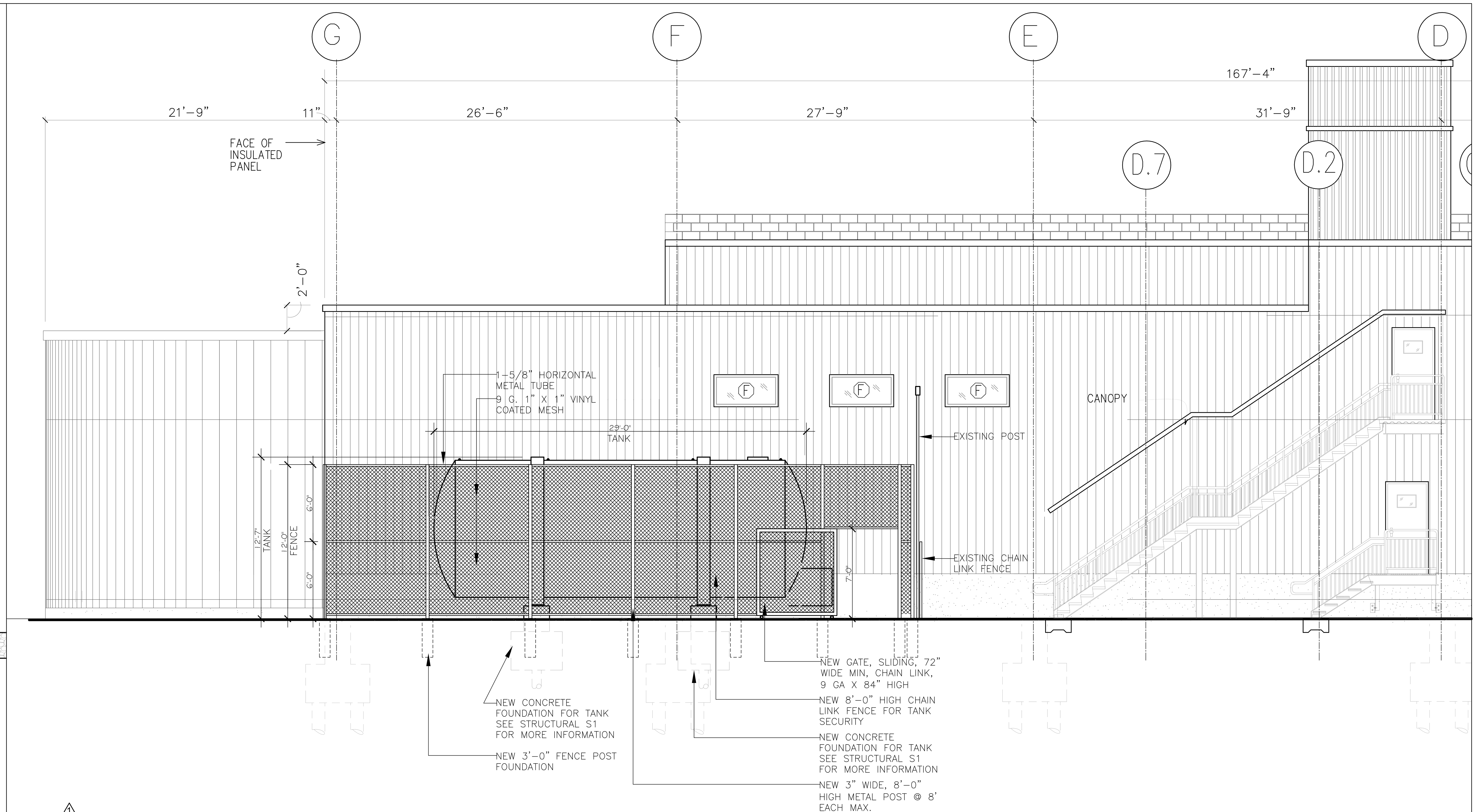
Sherif H. El-Far P.E.
NY LIC. NO. 076645
NJ LIC. NO. 37718
VA LIC. NO. 04020042434
CT LIC. NO. 0026129

CAD FILE NO.	DATE:	SCALE:
T122	03-07-2011	AS SHOWEN
CHECKED BY:	REVISION NO.	DRAWING NO.
S.H.E.	0	S1
DRAWN BY:	FILE NO.	1of1
M.M	T122	



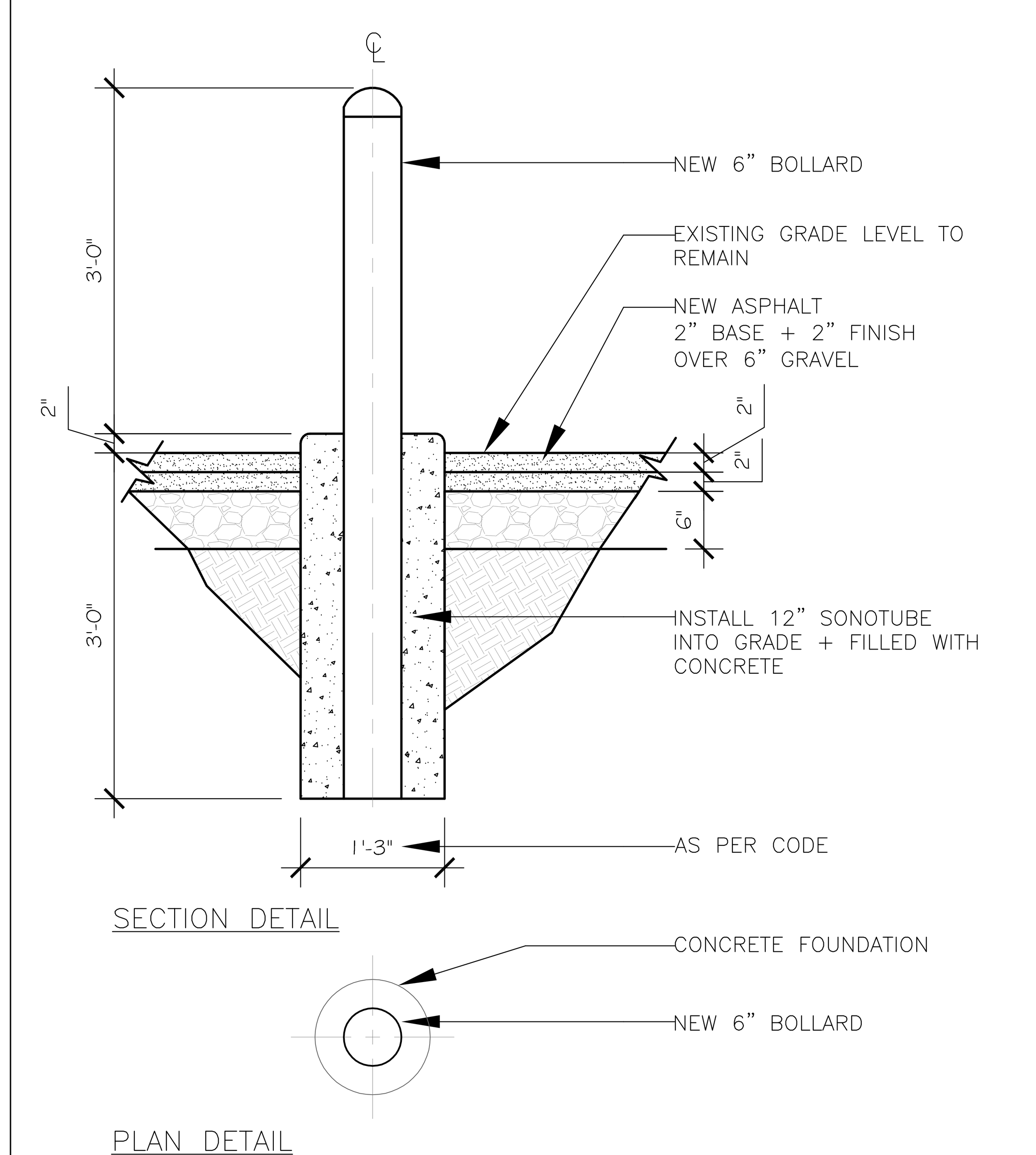
1 FENCE SECTION

SCALE: 1" = 1'-0"



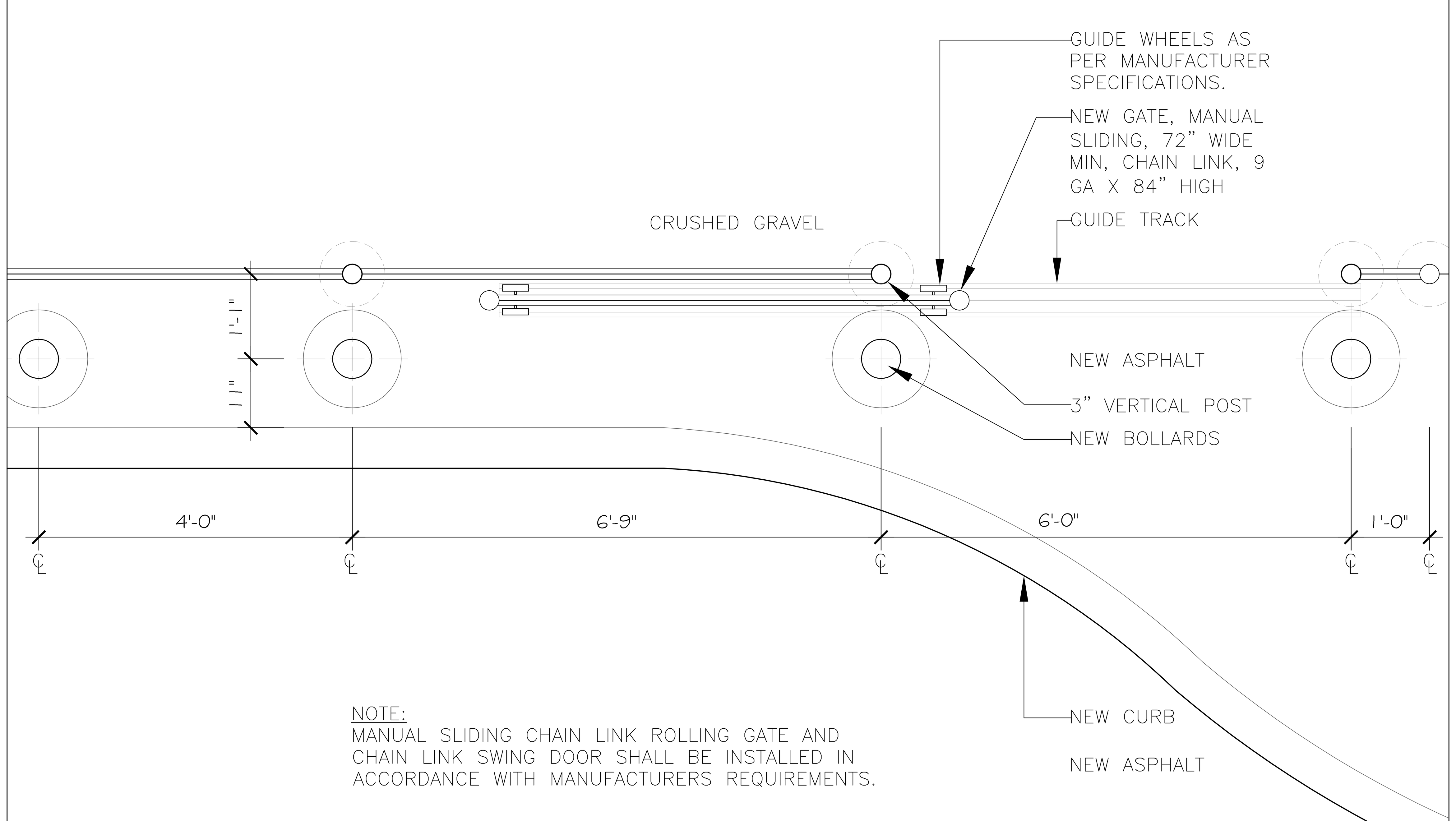
2 EAST ELEVATION

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



3 BOLLARD DETAIL

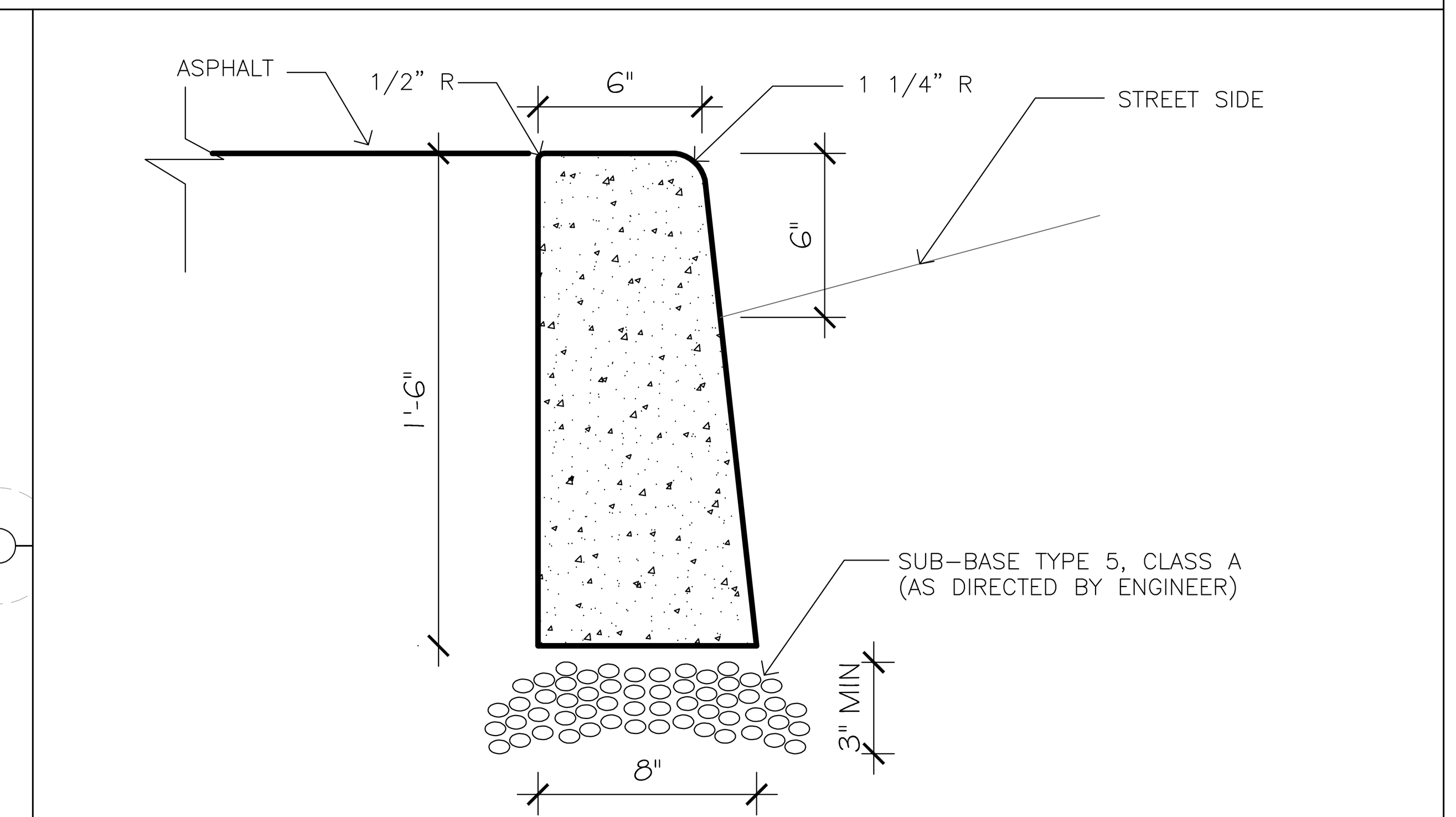
SCALE: 1" = 1'-0"



NOTE:
MANUAL SLIDING CHAIN LINK ROLLING GATE AND CHAIN LINK SWING DOOR SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.

4 ROLLING GATE DOOR FLOOR PLAN DETAIL

SCALE: 1" = 1'-0"



GENERAL NOTES:

1. All concrete shall conform to 4,500 p.s.i. minimum strength at 28 days.
2. Expansion joints shall be at 10-foot intervals and filled with a half inch thick, Non-extrudable, fibrous, bitumastic material.
3. All concrete work shall have a wood float and transverse broom finish, brooming shall be done before initial set using a steel or barn broom.
4. Sub-base shall be firm and approved by the engineer or his representative prior to pouring.
5. All construction methods and materials shall conform to the City standards, specification and inspections.
6. Formwork shall be approved by the City of Engineer or his representative prior to pouring.
7. The 6"x8"x18" crossection shall be used for all depressed curb in accordance with applicable specifications.
8. Unit price bid shall include but are not limited to all labor equipment, materials and tools to construct the curb as shown and specified above, in a workman like manner.
9. Provide 1/2" thick, non-extrudable, fibrous bitumastic material where curb meets sidewalk.

5 CURB DETAIL

SCALE: N.T.S

GENERAL CONDITIONS NOTE:

THIS DRAWING AND THE DESIGN DESCRIBED HEREIN, INCLUDING THE SPECIFICATIONS, ARE THE EXCLUSIVE PROPERTY OF CYBUL & CYBUL ARCHITECTS A.I.A. WE RESERVE THE RIGHT TO HAVE THIS WORK REPRODUCED, FABRICATED, CONSTRUCTED OR MANUFACTURED. THIS DRAWING IS PLACED ON LOAN SOLELY FOR YOUR INSPECTION. ACTUAL FABRICATION, CONSTRUCTION OR MANUFACTURING, IS SPECIFICALLY PROHIBITED UNLESS AND/OR UNTIL ALL GOVERNMENTAL PERMITS, LICENSES, AS WELL AS INSURANCE REQUIREMENTS, HAVE BEEN PROPERLY FILED BY THE COMPANY OR INDIVIDUAL (CONTRACTOR) WHO HAS BEEN RETAINED TO PERFORM THE WORK DESCRIBED HEREIN, AND THIS DRAWING HAS BEEN ACKNOWLEDGED "FOR CONSTRUCTION". THE CONTRACTOR ASSUMES ALL RESPONSIBILITIES FOR VERIFYING THAT THE DIMENSIONS, AND/OR CONDITIONS AT THE JOB SITE ARE AS REPRESENTED ON THIS DRAWING AND ACCOMPANYING SPECIFICATIONS. IF THERE IS ANY DISCREPANCY BETWEEN WHAT IS DESCRIBED IN THESE DOCUMENTS AND THE ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL INFORM THE ARCHITECT PRIOR TO SIGNING THE CONTRACT. IT IS THE EXCLUSIVE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY AND COMPLY WITH ALL BUILDING AND/OR MUNICIPAL AND STATE RULES AND REGULATIONS. FAILURE OF THE CONTRACTOR TO EXERCISE THE AFOREMENTIONED PROCEDURES WILL RESULT IN THE CONTRACTOR CORRECTING AND/OR MODIFYING THE AREAS OR ITEMS IN CONFLICT AT HIS OWN EXPENSE. NO EXCEPTIONS!!

MARCH 25, 2011
revisions

David N. Cybul
New York 8249
New Jersey C-3897

Martin Cybul
New York 15125
New Jersey C-7447

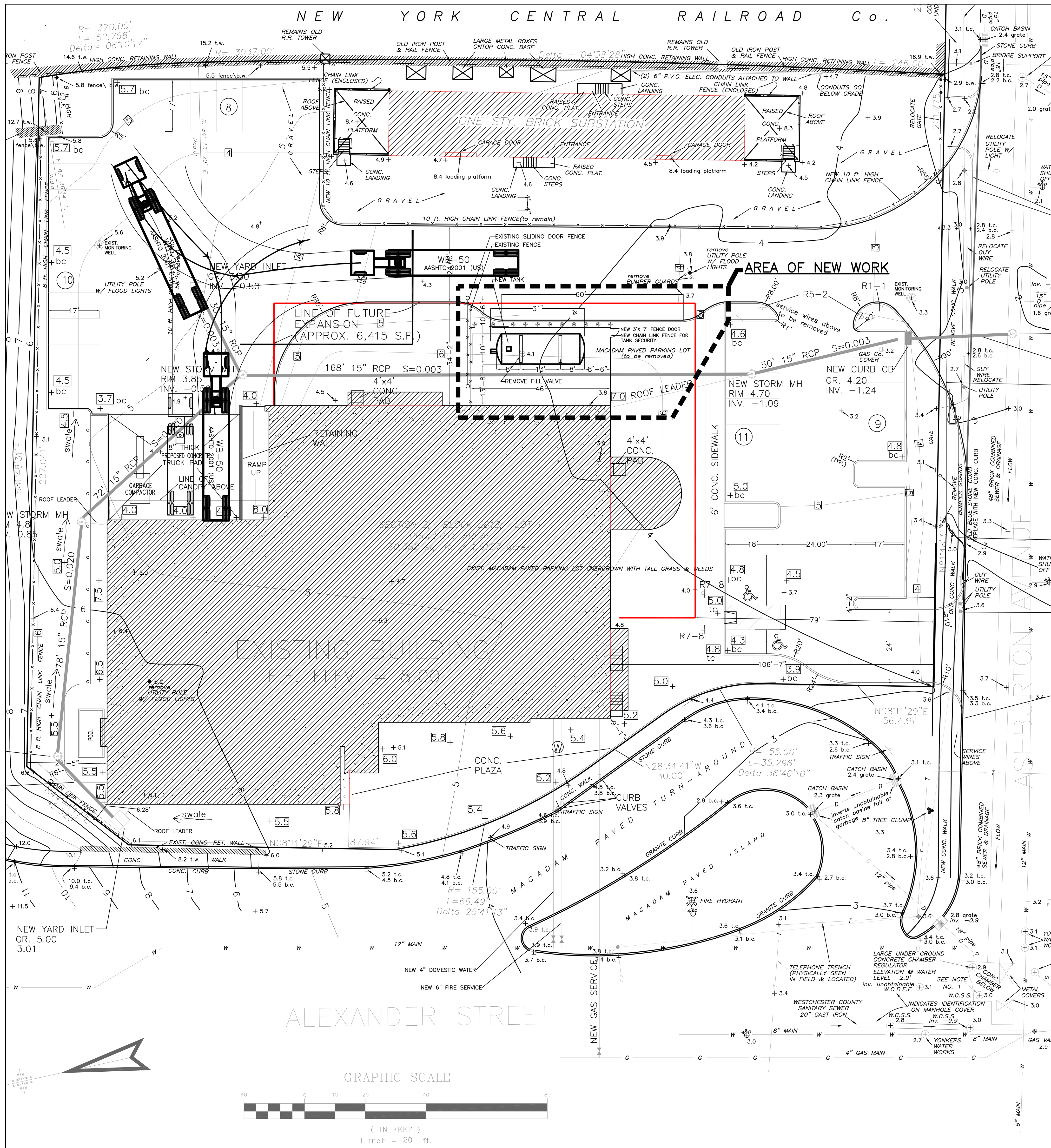
Oliver R. Wilhelm
New York 21140
New Jersey 18021

ARCHITECTS A.I.A.
Cybul & Cybul
ARCHITECTS
1064 River Road
EDGEWATER, NJ 07020
TEL 201 224-4100
FAX 201 224-0274

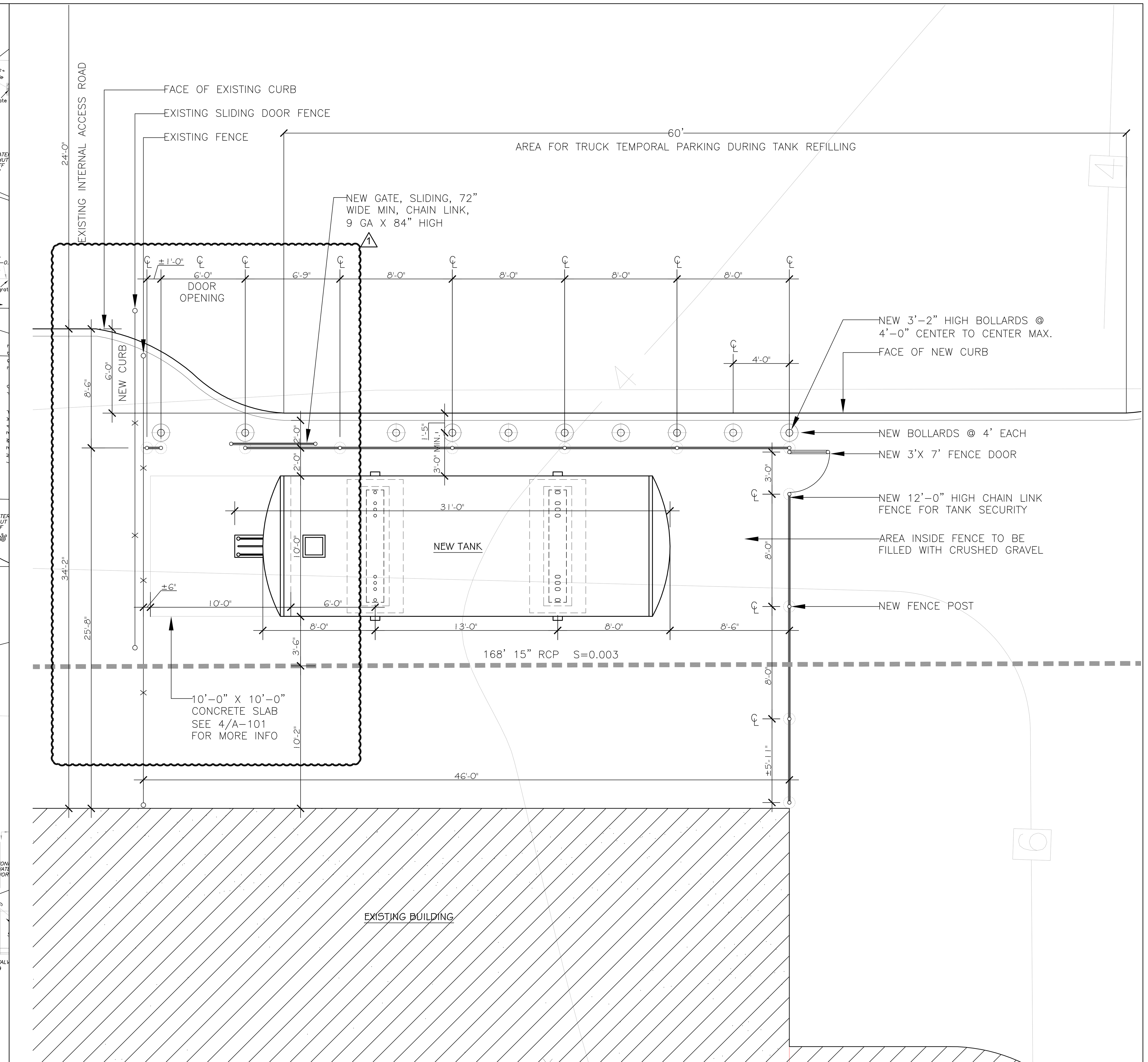
GREYSTON BAKERY
104 ALEXANDER STREET,
YONKERS, N.Y.
10703

ISSUED FOR
BID
REVIEW
CONSTRUCTION
BUILDING DEPT

drawing name:	ELEVATION & DETAILS
scale:	AS INDICATED
date:	03/17/11
drawn by:	LQ
checked by:	OW
project no.:	1108
drawing no.:	A-102



1 SITE PLAN - TANK LOCATION
SCALE: 1' = 20'-0"



2 TANK LOCATION PLAN
SCALE: 1/4" = 1'-0"

LEGEND

(line)	Property Line
170	Existing Contour
170	Proposed Contour
+170	Existing Spot Elevation
+170	Proposed Spot Elevation
(symbol)	Proposed Manhole
(symbol)	Proposed Catch Basin
(symbol)	Proposed Fire Hydrant
(W)	Proposed D.I.P. Water Line
(S)	Proposed 4" Schedule 40 PVC Sanitary Sewer Line
(11)	No. of Parking Spaces

SURVEYOR'S ABBREVIATIONS

- t.w. .... TOP WALL
- b.w. .... BOTTOM WALL
- t.c. .... TOP CURB
- b.c. .... BOTTOM CURB
- + ... INDICATES SPOT ELEVATION TAKEN
- W.C.S.S. .... WESTCHESTER COUNTY SANITARY SEWER

GENERAL NOTE :
No. 1 LARGE & DEEP CONC. CHAMBER METAL STEPS & PLATFORM BELOW CAN HERE WATER RUNNING inv. unobtainable

NOTES

1. METES AND BOUNDS AND TOPOGRAPHIC DATA FROM TOPOGRAPHIC SURVEY PREPARED BY ROLAND K. LINK, P.L.L.C. DATED 6/22/99, LATEST REVISION 8/11/99. REFER TO THIS SURVEY FOR ADDITIONAL INFORMATION REGARDING EXISTING SITE CONDITIONS.
2. THOR ENGINEERS, P.A. EXPRESSLY RESERVES THE COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. THESE PLANS ARE NOT TO BE REPRODUCED, CHANGED, OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY, WITHOUT THE EXPRESS WRITTEN PERMISSION AND CONSENT OF THOR ENGINEERS, P.A.
3. THE EXISTING MONITORING WELLS SHALL BE PROVIDED WITH COVERS THAT DO NOT EXTEND ABOVE THE SURFACE OF THE NEW PAVEMENT.
4. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL:
   1. PLACE SILT FENCE ALONG THE ALEXANDER STREET AND ASHBURTON STREET PROPERTY LINES.
   2. INSTALL INLET FILTERS ON ALL EXISTING CATCH BASINS ON THE WEST SIDE OF ALEXANDER ST. AND THE NORTH SIDE OF ASHBURTON AVE.
5. THE NEW CATCH BASINS SHALL BE PROTECTED WITH INLET FILTERS WHEN THEY ARE CONSTRUCTED.
6. ALL STORM DRAINAGE AND SANITARY LINES SHALL BE CONSTRUCTED WITH WATERTIGHT CONNECTIONS APPROVED BY THE CITY OF YONKERS.

3 LEGEND & NOTES
SCALE: N.T.S

ZONING ORDINANCE REQUIREMENTS

EXISTING ZONING FROM ORIGINAL BUILDING

1. PROJECT: GREYSTON BAKERY
2. ADDRESS: 104 ALEXANDER STREET, YONKERS, NEW YORK
3. LOT NO.: 1 BLOCK NO.: 2618
4. ZONE: I (INDUSTRY)
5. LOT SIZE: 70,382 S.F. (1.6157 AC.)
6. USE GROUP: 43 (BAKERY PLANT USE – PERMITTED)

	REQUIRED		PROVIDED
7. MIN. LOT SIZE	N.R.		70,382 S.F.
8. MIN. LOT WIDTH	N.R.		——
9. MIN. LOT DEPTH	N.R.		——
10. MIN. FRONT YARD	N.R.		——
11. MIN. REAR YARDS	20'		80' FUTURE OR 32'
12. MIN. SIDE YARDS	0'+		80' FUTURE OR 32'
13. AREA OF PROPOSED BLDG.	——		18,525 S.F.
14. MAX. LOT COVERAGE (BLG'S. ONLY)	75% (52,787 S.F.)	EXISTING PROPOSED FUTURE	4,475 SF (6.36%) 18,525 SF (26.32%) 7,665 SF (10.89%) 30,665 SF (43.57%)
15. MAX. BLDG. HEIGHT	2 TIMES STREET WIDTH @ = OR 110'		34'
16. OFF STREET PARKING			
WAREHOUSE/DISTRIBUTION @ 1/1000 SF @ 5400 SF=	5.45		
PROCESSING @ 1/500 SF @ 7270 SF=	14.54		
OFFICE (UNDER 3500 SF = @ 1/300 SF @ 2491 SF =	8.3		
RETAIL @ 1/200 SF @ 400 SF =	2.00 30.29		
FUTURE PROCESSING @ 1/500 SF @ 6415 SF =	+ 12.83 43.12 (TOTAL – 43 SPACES)		36 SPACES
(ACTUAL EMPLOYEES = 31 @ 1/2 EMPLOYEES = 16 MIN.)			
17. LOADING BERTHS			
PROCESSING AND STORAGE 10,000 SF UP TO AND INCLUDING 25,000 SF =	1	FUTURE PROCESS'G.	12,720 SF 7,665 20,385 SF = 1 LOADING BERTH
18. F.A.R.	7.5 (527,865 SF)		18,525 PROPOSED 7,665 FUTURE 26,190 SUBTOTAL 4,475 EXISTING 30,665 TOTAL

NEW SCOPE OF WORK

INSTALLATION OF NEW PRAXAIR 11,000 NITROGEN TANK INSTALLED ON PILE FOUNDATION WITH CONCRETE BASES.

TANK TO BE INSTALLED HORIZONTALLY ON GRASS AS SHOWN ON SITE PLAN. REFER TO SHEET A-101 FOR ELEVATION AND DETAILS.

NEW ZONING COMPILANCE

1. HIGH FOR ACCESSORY STRUCTURE

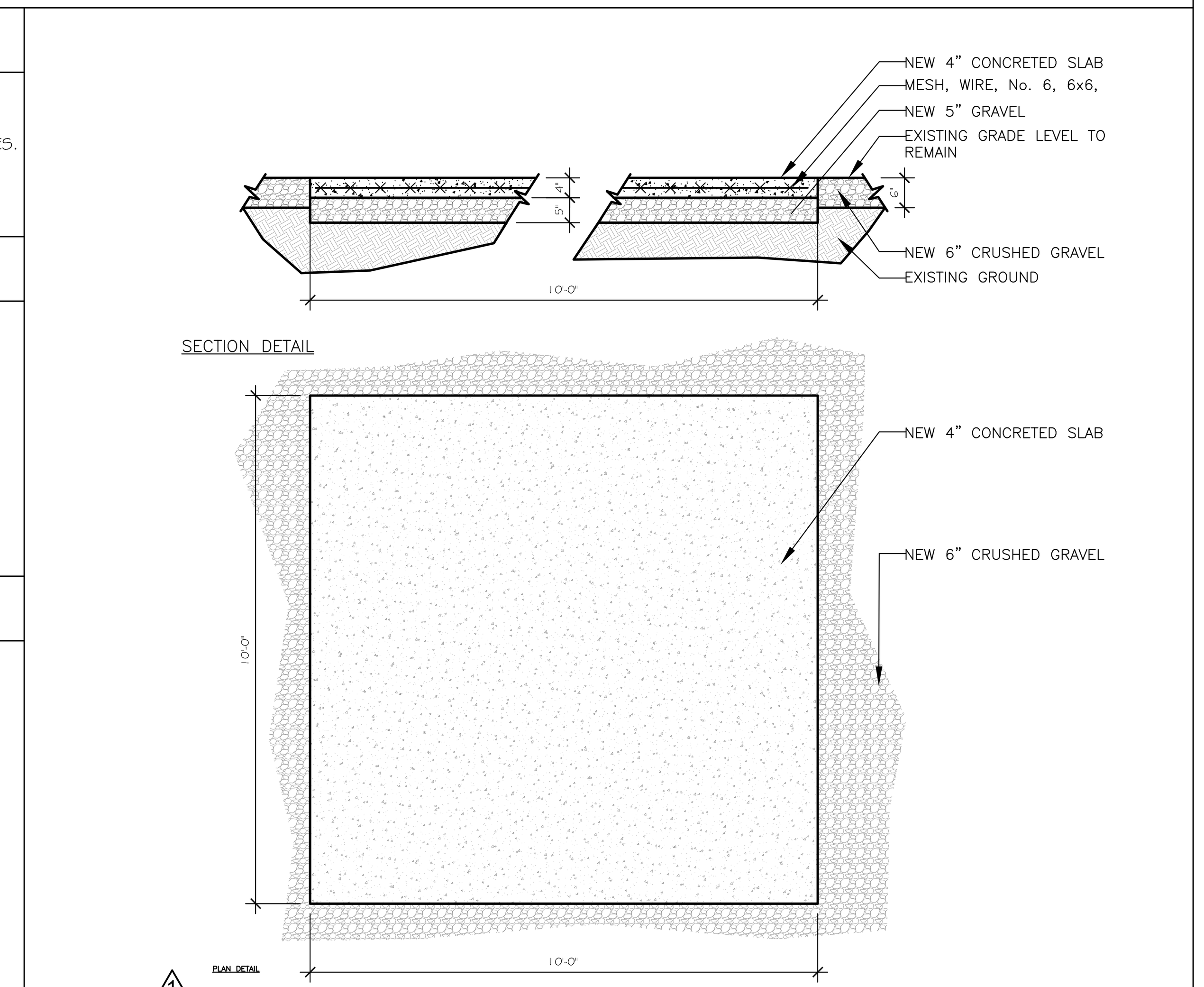
PROVIDED	ALLOWABLE
12' -7"	15' - 0"

2. FENCE ENCLOSURE

PROVIDED	ALLOWABLE
8' -0"	8' - 0"

BUILDING CODE

1. EGRESS FROM BUILDING WILL NOT BE AFFECTED BY THE INSTALLATION OF THIS TANK AND ENCLOSURE.



4 CONCRETE SLAB
SCALE: 1/2" = 1'-0"

MARCH 25, 2011
revisions

David N. Cybul — New York 6246, New Jersey C-3897
Martin Cybul — New York 15125, New Jersey C-7447
Oliver R. Wilhelm — New York 21140, New Jersey 16021

ARCHITECTS A.I.A.
Cybul & Cybul
ARCHITECTS
1064 River Road
EDGEWATER, NJ 07020
TEL 201 224-4100
FAX 201 224-0274

GREYSTON BAKERY
104 ALEXANDER STREET,
YONKERS, N.Y.
10703

ISSUED FOR: BID / REVIEW / CONSTRUCTION / BUILDING DEPT

drawing name:	SITE PLAN
scale:	AS INDICATED
date:	03/17/11
drawn by:	LQ
checked by:	OW
project no.:	1108
drawing no.:	A-101

APPENDIX B

Health and Safety Plan

HEALTH AND SAFETY PLAN

FOR

SOIL EXCAVATION SERVICES

For the

Greyston Bakery Site
Ashburton Avenue, City of Yonkers
Westchester County, New York

May 2011

ESI File: GY99143.51

Prepared By

Ecosystems Strategies, Inc.
24 Davis Avenue, Poughkeepsie, NY 12603
phone 845.452.1658 | fax 845.485.7083 | ecosystemsstrategies.com

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Purpose

This Health and Safety Plan for Soil Excavation Services (HASP) has been developed to provide the requirements and general procedures to be followed by Ecosystems Strategies, Inc. (ESI) and on-site subcontractors while performing remediation services.

This HASP incorporates policies, guidelines, and procedures that have the objective of protecting the public health of the community during the performance of fieldwork activities, and therefore serves as a Community Health and Safety Plan (CHASP). The objectives of the CHASP are met by establishing guidelines to minimize community exposure to hazards during fieldwork, and by planning for and responding to emergencies affecting the public.

This HASP describes the responsibilities, training requirements, protective equipment, and standard operating procedures to be utilized by all personnel while on the Site. All on-site personnel and visitors shall follow the guidelines, rules, and procedures contained in this safety plan. The Project Manager or Site Health and Safety Officer (SHSO) may impose any other procedures or prohibitions believed to be necessary for safe operations. This HASP incorporates by reference the applicable Occupational Safety and Health Administration (OSHA) requirements in 29 CFR 1910 and 29 CFR 1926.

The requirements and guidelines in this HASP are based on a review of available information and evaluation of potential on-site hazards. This HASP will be discussed with Site personnel and will be available on-site for review while work is underway. On-site personnel will report to the Site Health and Safety Officer (SHSO) in matters of health and safety. The on-site project supervisor(s) are responsible for enforcement and implementation of this HASP, which is applicable to all field personnel, including contractors and subcontractors.

This HASP is specifically intended for the conduct of activities within the defined scope of work in specified areas of the Site. Changes in site conditions and future actions that may be conducted at the Site may necessitate the modification of the requirements of the HASP. Although this HASP can be made available to interested persons for informational purposes, ESI has no responsibility over the interpretations or activities of any other persons or entities other than employees of ESI or ESI's subcontractors.

1.2 Work Activities

Soil disturbance activities are detailed in the Draft Soil Excavation Work Plan (EWP), dated May 2011. The specific tasks detailed in the EWP are wholly incorporated by reference into this HASP.

2.0 HEALTH AND SAFETY HAZARDS

2.1 Hazard Overview for On-Site Personnel

The principle constituents of concern at this Site are naphthalene and other polycyclic aromatic hydrocarbons (PAHs) which are known to be present in subgrade soils on the Site, remnants of the former manufactured gas activities that were historically present. These soils are not anticipated to be directly handled, but vapors from these soils may be present in the Work Zone. Contact with naphthalene and other PAHs may present a skin contact, inhalation, and/or ingestion hazard. These potential hazards are addressed in Sections 3.0 through 11.0, below.

2.2 Potential Hazards to the Public from Fieldwork Activities

Minimal potential exists for the public to be exposed to contaminated soils, groundwater, and/or vapor, which may present a skin contact, inhalation, and/or ingestion hazard. Additional potential hazards to the public that are associated with fieldwork activities include mechanical/physical hazards, traffic hazards from fieldwork vehicles, and noise impacts associated with operation of mechanical equipment.

Impacts to public health and safety are expected to be limited to hazards that could directly affect on-site visitors and/or trespassers. These effects will be mitigated through site access and control measures (see Section 6.0, below). Specific actions taken to protect the public health (presented in Sections 3.0 through 11, below, and in the Community Air Monitoring Plan) are anticipated to minimize any potential off-site impacts from contaminant migration, noise, and traffic hazards.

3.0 PERSONAL PROTECTIVE EQUIPMENT

The levels of protection identified for the services specified in the EWP represent a best estimate of exposure potential and protective equipment needed for that exposure. Determination of levels was based on data provided by previous studies of the Site and information reviewed on current and past Site usage. The SHSO may recommend revisions to these levels based on an assessment of actual exposures and may at any time require Site workers, supervisors, and/or visitors to use specific safety equipment.

The level of protective clothing and equipment selected for this project is Level D. Level D PPE provides minimal skin protection and no respiratory protection, and is used when the atmosphere contains no known hazard, oxygen concentrations are not less than 19.5%, and work activities exclude splashes, immersion, or the potential for unexpected inhalation or contact with hazardous levels of chemicals. Workers will wear Level D protective clothing including, but not limited to, a hard hat, steel-toed boots, nitrile gloves (when handling soils and/or groundwater), hearing protection (foam ear plugs or ear muffs, as required), and safety goggles (in areas of exposed groundwater and when decontaminating equipment). Personal protective equipment (PPE) will be worn at all times, as designated by this HASP. Disposable gloves will be changed immediately following the handling of contaminated soils, water, or equipment. Tyvek suits will be worn during activities likely to excessively expose work clothing to contaminated dust or soil (chemically-resistant over garments will be required in situations where exposures could lead to penetration of clothing and direct dermal contact by contaminants).

The requirement for the use of PPE by official on-site visitors shall be determined by the SHSO, based on the most restrictive PPE requirement for a particular Work Zones (see Section 6 for Work Zone definitions). All on-site visitors shall, at a minimum, be required to wear an approved hardhat and be provided with appropriate hearing protection as necessary.

The need for an upgrade in PPE will be determined based upon encountered Site conditions, including measurements taken in the breathing zone of the work area using a photo-ionization detector (PID). An upgrade to a higher level of protection (Level C) will begin when specific action levels are reached (see Section 5.0, below), or as otherwise required by the SHSO. Level C PPE includes a full-face or half-mask air-purifying respirator (NIOSH approved for the compound[s] of concern), hooded chemical-resistant clothing, outer and inner chemical-resistant gloves, and (as needed) coveralls, outer boots/boot covers, escape mask, and face shield. Level C PPE may be used only when: oxygen concentrations are not less than 19.5%; contaminant contact will not adversely affect any exposed skin; types of air contaminants have been identified, concentrations measured, and a cartridge or canister is available that can remove the contaminant; atmospheric contaminant concentrations do not exceed immediately dangerous to life or health (IDLH) levels; and job functions do not require self-contained breathing apparatus (SCBAs). The need for Level B or Level A PPE is not anticipated for the planned remedial activities at this Site.

If any equipment fails and/or any employee experiences a failure or other alteration of their protective equipment that may affect its protective ability, that person will immediately leave the work area. The Project Manager and the SHSO will be notified and, after reviewing the situation, determine the effect of the failure on the continuation of on-going operations. If the failure affects the safety of personnel, the work site, or the surrounding environment, personnel will be evacuated until appropriate corrective actions have been taken.

4.0 CONTAMINANT CONTROL

No measurable dust is anticipated to be generated. A PID and digital dust indicator (or equivalent equipment) will be used to monitor potential contaminant levels. Response to the monitoring will be in accordance with the action levels provided in Section 5.0.

5.0 MONITORING AND ACTION LEVELS

Concentrations of contaminants in the air are expected to be below the OSHA Permissible Exposure Limits (PELs). A Community Air Monitoring Plan (CAMP) will be implemented for all fieldwork (a copy of the CAMP is provided in the EWP). Air monitoring will be conducted for VOCs and dust. Monitoring will be conducted at all times that fieldwork activities which are likely to generate emissions are occurring. PID readings consistently in excess of 5 ppm, and dust levels in excess of 150 ug/m^3, will be used as an indication of the need to initiate personnel monitoring, increase worker protective measures, and/or modify or cease on-site operations in order to mitigate off-site community exposure.

PID and/or dust readings that consistently exceed background in the breathing zone (during any of the proposed tasks) will necessitate moving away from the source or implementing a higher PPE level.

6.0 SITE CONTROL/WORK ZONES

Site control procedures will be established to reduce the possibility of worker/visitor contact with compounds present in the soil, to protect the public in the area surrounding the Site and to limit access to the Site to only those persons required to be in the work zone. Notices will be placed near the Site warning the public not to enter fieldwork areas and directing visitors to report to the Project Manager or SHSO. Measures will be taken to limit the entry of unauthorized personnel into the specific areas of field activity and to safely direct and control all vehicular traffic in and near the Site (e.g., placement of traffic cones and warning tape).

The following Work Zone will be established: Specify if a certain zone is not anticipated during on-site work

Exclusion Zone ("Hot Zone") - The exclusion zone will be that area immediately surrounding the work being performed for remediation purposes (i.e. the area where contaminated media are being handled). It is anticipated that much of the work will be accomplished with heavy equipment in the exclusion zone. Only individuals with appropriate PPE and training are allowed into this zone. It is the responsibility of the Site Health and Safety Officer to prevent unauthorized personnel from entering the exclusion zone. When necessary, such as in high traffic areas, the exclusion zone will be delineated with barricade tape, cones, and/or barricades.

Decontamination Area – No decontamination area will be designated unless there is evidence of PAH contaminated soils being present in areas of direct contact.

Intermediate Zone (Decontamination Zone) - The intermediate zone, also known as the decontamination zone, is where patient decontamination should take place, if necessary. A degree of contamination still is found in this zone; thus, some PPE is required, although it is usually of a lesser degree than that required for the hot zone.

7.0 NOISE CONTROL

All fieldwork activities will be conducted in a manner designed to reduce unnecessary noise generation, and to minimize the potential for both on-site and off-site harmful noise levels. The Project Manager and SHSO will establish noise reduction procedures (as appropriate to the Site and the work) to meet these requirements. Noise abatement will be the responsibility of the contractor, not the SHSO.

8.0 PERSONNEL TRAINING

Work zones that will accomplish the general objective stated above will be established by the Project Manager and the SHSO. Site access will be monitored by the SHSO, who will maintain a log-in sheet for personnel that will include, at the minimum, personnel on the Site, their arrival and departure times, and their destination on the Site. All workers will be properly trained in accordance with OSHA requirements (29 CFR 1910). Personnel exiting the work zone(s) will be decontaminated prior to exiting the Site. Site-specific training will be provided to each employee. Personnel will be briefed by the SHSO as to the potential hazards to be encountered. Topics will include:

- Availability of this HASP;
- General site hazards and specific hazards in the work areas, including those attributable to known of suspect on-site contaminants;
- Selection, use, testing, and care of the body, eye, hand, and foot protection being worn, with the limitations of each;
- Decontamination procedures for personnel, their personal protective equipment, and other equipment used on the Site;
- Emergency response procedures and requirements;
- Emergency alarm systems and other forms of notification, and evacuation routes to be followed; and,
- Methods to obtain emergency assistance and medical attention.

9.0 DECONTAMINATION

No hazardous materials or contaminated soils are anticipated being generated at this Site; therefore, no decontamination area is needed.

10.0 EMERGENCY RESPONSE

10.1 Notification of Site Emergencies

In the event of an emergency, the SHSO will be immediately notified of the nature and extent of the emergency (the names and contact information for key site safety and management personnel, as well as other site safety contact telephone numbers, shall be posted at the Site).

Table 1 in this HASP contains Emergency Response Telephone Numbers, and immediately following is a map detailing the directions to the nearest hospital emergency room. This information will be maintained at the work Site by the SHSO. The location of the nearest telephone will be determined prior to the initiation of on-site activities. In addition to any permanent phone lines, a cellular phone will be in the possession of the SHSO, or an authorized designee, at all times.

10.2 Responsibilities

Prior to the initiation of on-site work activities, the SHSO will:

- Notify individuals, authorities, and/or health care facilities of the potentially hazardous activities and potential wastes that may develop as a result of the investigation.
- Confirm that first aid supplies and a fire extinguisher are available on-site.
- Have a working knowledge of safety equipment available.
- Confirm that a map detailing the most direct route to the hospital is prominently posted with the emergency telephone numbers.

The SHSO will be responsible for directing notification, response, and follow-up actions and for contacting outside response personnel (ambulance, fire department, or others). In the case of an evacuation, the SHSO will account for personnel. A log of individuals entering and leaving the Site will be kept so that everyone can be accounted for in an emergency.

Upon notification of an exposure incident, the SHSO will contact the appropriate emergency response personnel for recommended medical diagnosis and, if necessary, treatment. The SHSO will determine whether and at what levels exposure actually occurred, the cause of such exposure, and the means to prevent similar incidents from occurring.

10.3 Accidents and Injuries

In the event of an accident or injury, measures will be taken to assist those who have been injured or exposed and to protect others from hazards. If an individual is transported to a hospital or doctor, a copy of the HASP will accompany the individual.

The SHSO will be notified and will respond according to the severity of the incident. The SHSO will perform an investigation of the incident and prepare a signed and dated report documenting the investigation. An exposure-incident report will also be completed by the SHSO and the exposed individual. The form will be filed with the employee's medical and safety records to serve as documentation of the incident and the actions taken.

10.4 Communication

No special hand signals will be utilized within the work zone. Field personnel will utilize standard hand signals during the operation of heavy equipment.

10.5 Safe Refuge

Vehicles and on-site structures will serve as the immediate place of refuge in the event of an emergency. If evacuation from the area is necessary, project vehicles will be used to transport on-site personnel to safety.

10.6 Site Security and Control

Site security and control during emergencies, accidents, and incidents will be monitored by the SHSO. The SHSO is responsible for limiting access to the Site to authorized personnel and for oversight of reaction activities.

10.7 Emergency Evacuation

In case of an emergency, personnel will evacuate to the safe refuge identified by the SHSO, both for their personal safety and to prevent the hampering of response/rescue efforts.

10.8 Resuming Work

A determination that it is safe to return to work will be made by the SHSO and/or any personnel assisting in the emergency, e.g., fire department, police department, utility company, etc. No personnel will be allowed to return to the work areas until a full determination has been made by the above-identified personnel that all field activities can continue unobstructed. Such a determination will depend upon the nature of the emergency (e.g., downed power lines -- removal of all lines from the property; fire -- extinguished fire; injury -- safe transport of the injured party to a medical facility with either assurance of acceptable medical care present or completion of medical care; etc.).

Before on-site work is resumed following an emergency, necessary emergency equipment will be recharged, refilled, or replaced. Government agencies will be notified as appropriate. An Incident Report Form will be filed.

10.9 Fire Fighting Procedures

A fire extinguisher will be available in the work zone during on-site activities. This extinguisher is intended for small fires. When a fire cannot be controlled with the extinguisher, the area will be evacuated immediately. The SHSO will be responsible for directing notification, response, and follow-up actions and for contacting ambulance and fire department personnel.

10.10 Emergency Decontamination Procedure

The extent of emergency decontamination depends on the severity of the injury or illness and the nature of the contamination. Whenever possible, minimum decontamination will consist of washing, rinsing, and/or removal of contaminated outer clothing and equipment. If time does not permit decontamination, the person will be given first aid treatment and then wrapped in plastic or a blanket prior to transport.

10.11 Emergency Equipment

The following on-site equipment for safety and emergency response will be maintained in the on-site vehicle of the SHSO:

- Fire extinguisher;
- First-aid kit; and,
- Extra copy of this Health and Safety Plan.

11.0 SPECIAL PRECAUTIONS AND PROCEDURES

The activities associated with this investigation may involve potential risks of exposure to both chemical and physical hazards. The potential for chemical exposure to hazardous or regulated substances will be significantly reduced through the use of monitoring, personal protective clothing, engineering controls, and implementation of safe work practices.

11.1 Heat/Cold Stress

Training in prevention of heat/cold stress will be provided as part of the site-specific training. The timing of this project is such that heat/cold stress may pose a threat to the health and safety of personnel. Work/rest regimens will be employed, as necessary, so that personnel do not suffer adverse effects from heat/cold stress. Special clothing and appropriate diet and fluid intake regimens will be recommended to personnel to further reduce this temperature-related hazard. Rest periods will be recommended in the event of high/low temperatures and/or humidity to counter the negative effects of heat/cold stress.

11.2 Heavy Equipment

Working in the vicinity of heavy equipment is the primary safety hazard at the Site. Physical hazards in working near heavy construction equipment include the following: overhead hazards, slips/trip/falls, hand and foot injuries, moving part hazards, improper lifting/back injuries, and noise. All workers will be properly trained in accordance with OSHA requirements (29 CFR 1910). No workers will be permitted within any excavated areas without proper personal protective equipment (PPE), including, as warranted, any necessary Level C equipment (e.g., respirators and protective suits). Air monitoring in excavation areas will be conducted for VOCs in accordance with Section 5.0 and the Community Air Monitoring Plan.

11.3 Additional Safety Practices

The following are important safety precautions which will be enforced during this investigation:

- Medicine and alcohol can aggravate the effect of exposure to certain compounds. Controlled substances and alcoholic beverages will not be consumed during investigation activities. Consumption of prescribed drugs will only be at the discretion of a physician familiar with the person's work.
- Eating, drinking, chewing gum or tobacco, smoking, or other practices that increase the probability of hand-to-mouth transfer and ingestion of material is prohibited except in areas designated by the SHSO.
- Contact with potentially contaminated surfaces will be avoided whenever possible. Workers will not unnecessarily walk through puddles, mud, or other discolored surfaces; kneel on the ground; or lean, sit, or place equipment on drums, containers, vehicles, or the ground.
- Personnel and equipment in the work areas will be minimized, consistent with effective site operations.
- Unsafe equipment left unattended will be identified by a "DANGER, DO NOT OPERATE" tag.
- Work areas for various operational activities will be established.

11.4 Daily Log Contents

The SHSO will establish a system appropriate to the Site, the work, and the work zones that will record, at a minimum, the following information:

- Personnel on the Site, their arrival and departure times, and their destination on the Site.
- Incidents and unusual activities that occur on the Site such as, but not limited to, accidents, spills, breaches of security, injuries, equipment failures, and weather-related problems.
- Changes to the HASP.
- Daily information generated such as: changes to work and health and safety plans; work accomplished and the current Site status; and monitoring results.

12.0 TABLE AND FIGURES

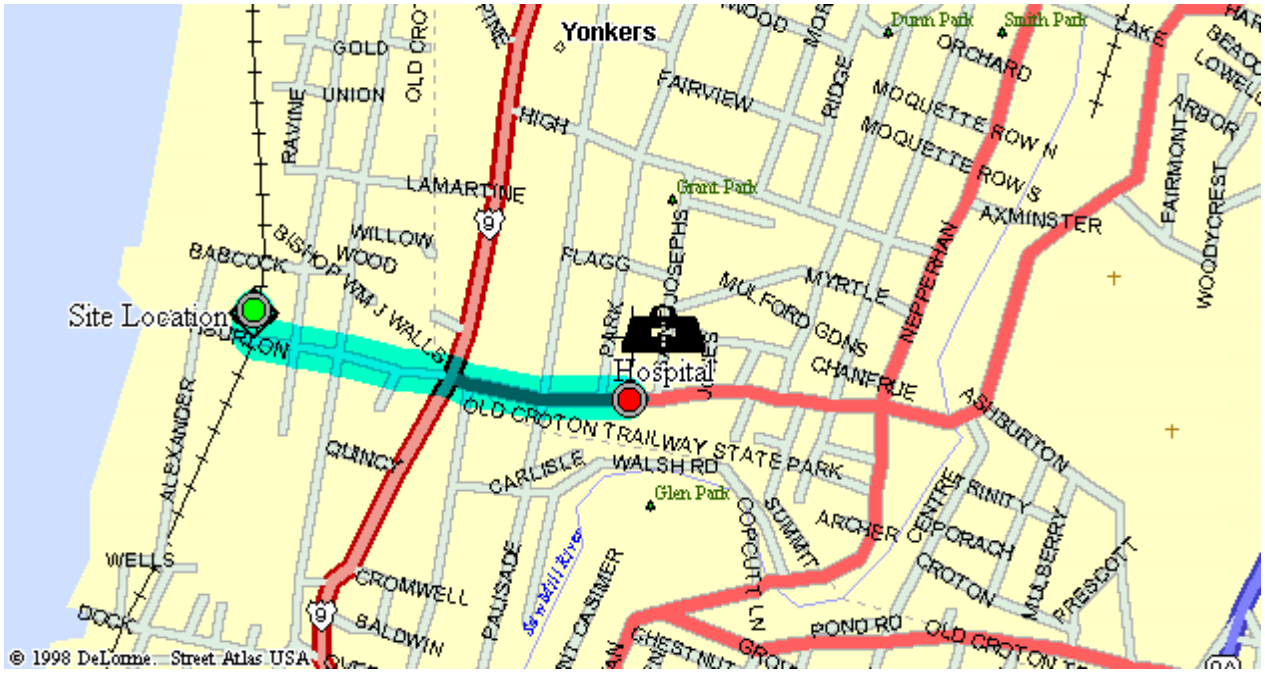
Table 1: Emergency Response Telephone Numbers

Emergency Agencies	Phone Numbers
EMERGENCY	**911**
Yonkers General Hospital 2 Park Avenue, Yonkers	**(914) 964-7500 - Emergency Room** (914) 964-7300 - Main Information
Yonkers Police Department	(914) 377-7900 or 911
Yonkers Fire Department	(914) 377-7555 or 911
City Hall	(914) 377-6000
City Mayor	(914) 377-6000
Water and Sewer	(914) 245-6111

Figure 1: Directions to Hospital

Five blocks on Ashburton Avenue to Park Avenue. Turn left on Park, Hospital on right.

Figure 2: Map to Hospital (overview)



APPENDIX C

Community Air Monitoring Plan

New York State Department of Health
Generic Community Air Monitoring Plan

A Community Air Monitoring Plan (CAMP) requires real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area when certain activities are in progress at contaminated sites. The CAMP is not intended for use in establishing action levels for worker respiratory protection. Rather, its intent is to provide a measure of protection for the downwind community (i.e., off-site receptors including residences and businesses and on-site workers not directly involved with the subject work activities) from potential airborne contaminant releases as a direct result of investigative and remedial work activities. The action levels specified herein require increased monitoring, corrective actions to abate emissions, and/or work shutdown. Additionally, the CAMP helps to confirm that work activities did not spread contamination off-site through the air.

The generic CAMP presented below will be sufficient to cover many, if not most, sites. Specific requirements should be reviewed for each situation in consultation with NYSDOH to ensure proper applicability. In some cases, a separate site-specific CAMP or supplement may be required. Depending upon the nature of contamination, chemical- specific monitoring with appropriately-sensitive methods may be required. Depending upon the proximity of potentially exposed individuals, more stringent monitoring or response levels than those presented below may be required. Special requirements will be necessary for work within 20 feet of potentially exposed individuals or structures and for indoor work with co-located residences or facilities. These requirements should be determined in consultation with NYSDOH.

Reliance on the CAMP should not preclude simple, common-sense measures to keep VOCs, dust, and odors at a minimum around the work areas.

Community Air Monitoring Plan

Depending upon the nature of known or potential contaminants at each site, real-time air monitoring for volatile organic compounds (VOCs) and/or particulate levels at the perimeter of the exclusion zone or work area will be necessary. Most sites will involve VOC and particulate monitoring; sites known to be contaminated with heavy metals alone may only require particulate monitoring. If radiological contamination is a concern, additional monitoring requirements may be necessary per consultation with appropriate NYSDEC/NYSDOH staff.

Continuous monitoring will be required for all ground intrusive activities and during the demolition of contaminated or potentially contaminated structures. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pitting or trenching, and the installation of soil borings or monitoring wells.

Periodic monitoring for VOCs will be required during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. "Periodic" monitoring during sample collection might reasonably consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to

leaving a sample location. In some instances, depending upon the proximity of potentially exposed individuals, continuous monitoring may be required during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence.

VOC Monitoring, Response Levels, and Actions

Volatile organic compounds (VOCs) must be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

- If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

- If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

- If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

All 15-minute readings must be recorded and be available for State (DEC and DOH) personnel to review. Instantaneous readings, if any, used for decision purposes should also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations should be monitored **continuously** at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring should be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment must be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

- If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques must be employed. Work may continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

- If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings must be recorded and be available for State (DEC and DOH) personnel to review.