MEMORANDUM

TEXT

Date: February 21, 2024 - Revised March 26, 2024

To: Craig Taylor, P.G. – NYSDEC DER Region 9

From: Christopher Boron, P.G., Roux Environmental Engineering and Geology, D.P.C.

Subject: **Site Management Plan Excavation Work Plan Notification for 630 Linwood Avenue Redevelopment at 3 Gates Circle Site, BCP Site No. C915272**

Hello Megan,

On behalf of Belmont Housing Resources for WNY, Inc. (Belmont), Roux Environmental Engineering and Geology, D.P.C. (Roux) has prepared this Excavation Work Plan Notification (EWPN) for the 630 Linwood Avenue Redevelopment at the 3 Gates Circle Site (see Figure 1) as required by the Site Management Plan[1]. This EWPN has been prepared to satisfy SMP requirements outlined in Section D-1 of the Excavation Work Plan (EWP): Notifications and Section 3.3: Engineering Controls.

875 Housing Development Fund Company, Inc (an entity related to Belmont) will be acquiring the northern portion of the parcel addressed as 630 Linwood Avenue (Change of Use form previously submitted October 6, 2023) located in the northeastern portion of the 3 Gates Circle Brownfield Cleanup Program (BCP) Site. Belmont will be redeveloping the three (3) buildings and associated exterior portions of the property as an affordable housing component of the larger Lancaster Square at Gates Circle Development, consistent with the BCP Track 4 Restricted Residential Use cleanup for the Site. The existing cover system and soil/fill disturbances will occur as part of the redevelopment activities.

Section D-1 requires that NYSDEC be notified 15-days prior to the start of any activities that may encounter remaining contamination at the Site. The submittal of this EWPN constitutes this 15-day notification.

Detailed Description of the Work

Redevelopment activities at 630 Linwood Avenue will involve converting the three (3) existing buildings, identified as North Wing, East Wing and West Wing, for residential purposes (see Figure 2). Redevelopment activities that are subject to the SMP are discussed below based on its locations relative to the three (3) existing buildings. Redevelopment areas will be discussed as North Area, South Area, East Area, West Area, Courtyard Area for exterior work; and North Wing, East Wing and West Wing for interior work. Attachment 1 contains pertinent construction drawings that are referenced below.

Attachment 2 is Appendix D – Excavation Work Plan from the SMP.

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[1] "3 Gates Circle Site, Erie County, Buffalo, New York, Site Management Plan, NYSDEC Number C915272". Prepared for Gates Circle holdings, LLC. Prepared by Benchmark Environmental Engineering & Science, PLLC. Dated November 2015. Revision No. 1 dated January 15, 2021.

4313.0002B000

As required by Section D-2 of the EWP, visual, olfactory, and instrument-based (e.g. photoionization detector) soil screening will be performed by a qualified environmental professional during excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed and Community Air Monitoring Program (CAMP) will be implemented downwind when intrusive work is done, such as excavations for utilities. CAMP data will be transmitted to NYSDEC/NYSDOH on a daily basis. NYSDEC and NYSDOH will be notified of any CAMP exceedances and corrective measures taken within one business day of occurrence.

Existing Cover System: Per Section D-2 of the EWP (Attachment 2), material acting as the cover system (acceptable soil or crushed stone) are suitable for reuse as cover system material so long as they can be segregated from the underlying potentially contaminated materials below them. There are a number of locations at the Site where a demarcation layer has been placed over potential impacted soil/fill that remain. The existing cover system material to be removed will not be reused if it is mixed with the underlying material and cannot be mechanically separated. If the cover materials cannot be separated but are not grossly impacted, they can be used below the cover system as backfill. Visual and olfactory observations will be used to determine if these conditions exist.

Existing Soil/Fill Under Cover System: Per Section D-2 of the EWP (Attachment 2), soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil.

Per Section D-6 of the EWP (Attachment 2), all material excavated and removed from the Site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of material from this Site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this Site will not occur without formal NYSDEC approval.

Per Section D-7 of the EWP (Attachment 2), contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site (based on analytical sampling) will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines.

North Area: Located between the North Wing and Lafayette Avenue.

The cover system (see Figure 3) in the North Area is 6-inches of crushed stone overlying 18-inches of existing site soil (2 ft cover system per Track 4 Restricted Residential requirements). Under the Track 4 Restricted Residential Use Cleanup, the previous 6-inches of vegetative soil cover was removed and replaced with 6-inches of crushed stone as sampling during the Remedial Investigation (RI) indicated polycyclic aromatic hydrocarbons (PAHs) were present above their respective 6NYCRR Part 375 Restricted Residential Soil Cleanup Objectives (RRSCOs) in the upper 6-inches. The soil present from 6-inches to 2-feet was also sampled, had concentrations below the RRSCOs, and deemed acceptable by NYSDEC for use as cover. The 2 to 3-inches of topsoil was placed over the crushed stone, with NYSDEC approval in 2020, to promote vegetive growth. Fabric was placed over the crushed stone prior to topsoil placement.

The 2 to 3-inches of topsoil and 6-inches of crushed stone in the north area will be removed and replaced with either commercially available sod, existing on-site topsoil that will be hydroseeded, or imported topsoil that will be hydroseeded as part of the redevelopment activities. If topsoil is imported to the Site, NYSDEC Import Request will be submitted to the Department for review and approval prior to import of the topsoil to the Site. A copy of the Import Request is included as Attachment 3.

An electrical duct bank will be installed from a manhole at the corner of Lafayette Avenue and Linwood Avenue, across (east-west) the majority of the North Area at a depth of approximately 3 to 4 feet below

ground surface (fbgs) and will penetrate the 2-foot cover system in this area (see Attachment 1, Drawing E-400). Soil/fill encountered below 2 feet will be handled in accordance with the EWP, as discussed above.

A 6-inch diameter drain tile pipe will be installed 18-inches from the exterior north wall of the North Wing building (see Attachment 1, Drawing P-100). Soil/fill encountered below 2 feet will handled in accordance with the EWP, as discussed above. This drain tile pipe will also be installed around the building perimeters of the North Wing, East Wing, and West Wing.

Landscaping in the form of trees along Lafayette Avenue and smaller plantings along the building will be installed (see Attachment 1, Drawing L401).

North Wing: The concrete building slab constitutes the cover system for the North Wing. As part of the redevelopment, subsurface work will be required to install sanitary sewer lines, water lines, and radon piping (see Attachment 1, Drawings M-100 and P-100). The concrete slab will be cut and removed along with subsurface soil/fill for the installation of the utilities. Concrete can be reused on-site or taken to a registered recycling facility, so long as it is not stained, and underlying soil/fill is not adhered to the concrete. Soil/fill encountered below the concrete slab will be handled in accordance with the EWP, as discussed above.

South Area: The South Area is currently a portion of an existing building that is going to be demolished to separate the Belmont redevelopment area from that to be redeveloped by TM Montante Development as part of the larger Lancaster Square development (see Figure 2 and Attachment 1, Drawing C102). A copy of the City of Buffalo Demolition permit will be provided to the Department.

The cover system in this portion of the Site is the concrete building slab which will be removed as part of the building demolition. It will be replaced primarily with a new concrete slab (see Attachment 1, Drawing C201) and a new landscape bed containing shrubs along the southern wall of the West Wing (See Attachment 1, Drawing L401) will be installed. The building to be demolished has a partial basement (floor slab is approximately 4 to 5 feet below grade) and will require structural fill to be imported prior to installing the new concrete slab at redevelopment grade. A NYSDEC Import Request will be submitted to the Department for review and approval prior to import of the structural fill material to the Site (see Attachment 3).

A 12-inch diameter storm sewer line and associated manhole structures will be installed in the South Area (see Attachment 1, Drawings C301 and C506). Excavations for the storm line and structures in this area may only require 2 to 3 feet of excavation, due to partial basement level associated with the building to be demolished. Soil encountered in this area will have been previously present beneath the building slab to be removed. Soil/fill encountered will be handled in accordance with the EWP, as discussed above.

A 6-inch diameter drain tile pipe will be installed 18-inches from the exterior south wall of the West Wing, through the southern portion of the Courtyard and along the southern portion of the East Wing (see Attachment 1, Drawing P-100). Soil/fill encountered will be handled in accordance with the EWP, as discussed above.

East Area: Located between the East Wing and Linwood Avenue.

The cover system (see Figure 3) in the East Area is 6-inches of crushed stone overlying 18-inches of existing Site soil which was sampled and deemed acceptable from use as cover. The previous 6-inches of vegetative soil cover was removed and replaced with 6-inches of crushed stone, as previously discussed in the North Area section. A small area of the cover system in the East Area, outside the perimeter security fencing was covered with 2 to 3 inches of topsoil, like the North Area, to promote vegetative growth with NYSDEC approval in 2020. Fabric was placed over the crushed stone prior to topsoil placement.

The 2 to 3-inches of topsoil, where present, and the 6-inches of crushed stone in the East Area will be removed and replaced with either commercially available sod, existing on-site topsoil that will be hydroseeded, or imported topsoil that will be hydroseeded as part of the redevelopment activities. If topsoil is imported to the Site, NYSDEC Import Request will be submitted to the Department for review and approval prior to import of the topsoil to the Site (see Attachment 3). A new generator concrete pad will also be installed in the East Area (See Attachment 1, E-400).

A storm sewer connection, sanitary sewer connection, water line connection, fire service connection, and natural gas line will be installed through the East Area and into Linwood Avenue or associated right-of-way (see Attachment 1, Drawings C201, C301, C505, and C508). Existing cover soil and soil/fill encountered below 2 feet will be handled in accordance with the EWP, as discussed above.

A 6-inch diameter drain tile pipe will be installed 18-inches from the exterior east wall of the East Wing building (see Attachment 1, Drawing P-100). Existing cover soil and soil/fill encountered below 2 feet will be handled in accordance with the EWP, as discussed above.

Landscaping in the form of trees along Linwood Avenue and smaller plantings along the east side of the building will be installed (see Attachment 1, Drawing L401).

East Wing: The concrete building slab constitutes the cover system for the East Wing. As part of the redevelopment, subsurface work will be required to install sanitary sewer lines, water lines, and radon piping (see Attachment 1, Drawings M-100 and P-100), in addition to an elevator pit in the southern portion of the East Wing (see Attachment 1, AC-100). The concrete slab will be cut and removed along with subsurface soil/fill for the installation of the utilities. Concrete can be reused on-site or taken to a registered recycling facility, so long as it is not stained, and underlying soil/fill is not adhered to the concrete. Soil/fill encountered below the concrete slab will be handled in accordance with the EWP, as discussed above.

West Area: Located between the West Wing and Lafayette Avenue Connector.

As shown on Figure 3, this portion of the Site was awaiting redevelopment, and no cover system was installed. There are also some soil/fill and concrete piles in this area from previous cover system alterations made in other areas of the 3 Gates Circle Site. The concrete piles are from walkways along Delaware Avenue, are not stained, and can be used under the cover system. If they are not to be used on-site, they can be taken to a register recycling facility. The soil/fill materials will need to be sampled before they can be reused on-site or taken off-site.

The Site storm water detention system will be installed within the West Area, along with storm lines and manhole structures (see Attachment 1, Drawings C301, C506, and C507). This area of the Site was backfilled with Beneficial Use Determination (BUD) material consisting of former site buildings that were demolished and processed on site for use as backfill under the cover system. BUD material encountered and removed during excavation activities are acceptable for reuse on-site under the cover system. Any other soil/fill encountered will be handled in accordance with the EWP, as discussed above.

As shown on Drawings E-400 and L401, the West Area cover system will consist of a mix of concrete walkways, concrete driveways, greenspace, and landscaped beds. Placement of either sod or topsoil (greenspace) followed by landscape plantings will constitute the cover system. Due to the large detention system and associated piping to be installed in this area (see C201 and Detail 6 on C507) 18-inches of a well graded aggregate will be required over the top of the detention system and storm sewer pipes (Detail 1 on C506). The concrete sidewalks and payment areas will require 8 to 12-inches minimum of crushed stone placement prior to concrete installation.

West Wing: The concrete building slab constitutes the cover system for the West Wing. As part of the redevelopment, subsurface work will be required to install sanitary sewer lines, water lines, and radon piping (see Attachment 1, Drawings M-100 and P-100), in addition to an elevator pit in the northern portion

of the West Wing (see Attachment 1, AC-100). The concrete slab will be cut and removed along with subsurface soil/fill for the installation of the utilities. Concrete can be reused on-site or taken to a registered recycling facility, so long as it is not stained, and underlying soil/fill is not adhered to the concrete. Soil/fill encountered below the concrete slab will be handled in accordance with the EWP, as discussed above.

Courtyard Area: Located between the North Wing, East Wing, and West Wing buildings.

The cover system (see Figure 3) in the Courtyard consists of 24-inches of existing soil deemed acceptable through in-place sample analysis for Track 4 Restricted Residential requirements.

A 6-inch diameter drain tile pipe will be installed 18-inches from the exterior south wall of the North Wing, west wall of the East Wing, and east wall of the West Wing buildings (see Attachment 1, Drawing P-100). Existing cover soil and soil/fill encountered below 2 feet will be handled in accordance with the EWP, as discussed above.

Storm sewer lines and associated structures will be installed in the Courtyard (see Attachment 1, Drawings C301 and C506). Existing cover soil and soil/fill encountered below 2 feet will be handled in accordance with the EWP, as discussed above.

Underground electrical lines will be installed in the Courtyard for lighting fixtures throughout. Existing cover soil and soil/fill encountered below 2 feet will be handled in accordance with the EWP, as discussed above.

Landscaping in the form of trees and smaller plantings along the building faces of the courtyard will be installed (see Attachment 1, Drawing L401). A 3-inch-thick decorative pea gravel stone mulch will also be used along the building faces of the courtyard. New concrete walkways will be installed around areas containing exposed aggregate concrete pavement and poured in place playground fall surface (see Attachment 1, Drawing L401). The cover system will be replaced with either commercially available sod, existing on-site topsoil that will be hydroseeded, or imported topsoil that will be hydroseeded as part of the redevelopment activities. If topsoil is imported to the Site, NYSDEC Import Request will be submitted to the Department for review and approval prior to import of the topsoil to the Site (see Attachment 3).

Summary of Environmental Conditions

Based on previous analytical data collected as part of the Remedial Investigation, completed remedial actions, low-level semi-volatile organic compounds (SVOCs) and metal analytes may be encountered in the fill materials present. The native clay soils present below the fill material do not contain contaminants above their respective Unrestricted Use Soil Cleanup Objectives (USCOs). Native soil or NYSDEC-approved BUD material generated as part of the redevelopment will be staged for reuse under the cover system or assessed for off-site disposal. Fill materials will be staged and sampled for NYSDEC DER-10 requirements prior to reuse under the cover system. Attachment 4 contains Figure 7 – Unrestricted & Residential SCO Exceedances from the SMP.

Schedule

Site redevelopment activities are schedule to being in May 2024 starting with interior demolition and construction activities. Activities that will require the implementation of this EWP are not scheduled to begin until May/June 2024. NYSDEC will be notified when intrusive work begins. Intrusive work will occur through Spring 2025 and the majority of the cover system elements should be in place by Summer 2025.

Applicable Components of the Excavation Work Plan

Section D-1 through D-12 of the Excavation Work Plan (EWP) are applicable to this project.

Compliance with the EWP and 29 CFR 1910.120

Roux will provide environmental oversight and perform CAMP monitoring for subsurface excavation activities that penetrate the cover system during the redevelopment and provide oversight, as needed, to verify compliance with the SMP requirements. A HASP (Appendix E of the SMP) was prepared for the Site describes the specific health and safety practices and procedures. Roux will comply with the HASP.

Disposal Facilities for Potential Waste Streams

Based on previous investigations and remedial actions completed at the Site, any impacted materials to be encountered is presumed to be non-hazardous, like waste streams previously disposed of. Fill material will be staged and sampled for NYSDEC DER-10 requirements prior to reuse under the cover system or for off-site disposal. If impacts are observed, the soil will be staged (placed on polyethylene sheeting) and kept separate from the soils to be reused on-site. NYSDEC will be made aware of the impacted soil/fill encountered and the material will be characterized as needed for off-site disposal.

Concrete generated from foundation removal and/or interior building slab removal can be reused on-site under cover or will be taken to a registered recycling facility, so long as it is not stained, and soil/fill is not adhered to the concrete.

Sources of any Anticipated Backfill

Backfill will be required as part of the redevelopment activities. A NYSDEC Import Request (see Attachment 3) will be submitted to the Department with appropriate documentation/analytical data for review and approval prior to import of the backfill material to the Site.

Cover System Changes

Section 3.3 of SMP requires that information be provide to NYSDEC as part of temporary and/or permanent cover system changes. This work does constitute permanent cover system changes, which have been discussed above by area.

If you have any questions regarding the information presented herein, please feel free to contact us.

Attachments:
Figure 1 – Site Plan
Figure 2 – Redevelopment Site Area with Site Features
Figure 3 – Existing Cover System
Attachment 1 – Construction Drawings
Attachment 2 – SMP Excavation Work Plan
Attachment 3 – NYSDEC Import Request Form
Attachment 4 – SMP Figure 7 – Unrestricted & Residential SCO Exceedances

FIGURES

1. 3 Gates Circle Site Plan
2. Northern Portion of 630 Linwood Avenue Site Plan (Aerial)
3. Site Cover System

LEGEND:

- 3 GATES CIRCLE SITE BCP BOUNDARY
- NORTHERN PORTION OF 630 LINWOOD AVENUE
- CANTERBURY WOODS PROPERTY BOUNDARY
- LANCASTER SQUARE HOLDINGS LLC PROPERTY BOUNDARY
- PARCEL BOUNDARIES

NOTE:
IMAGE FROM GOOGLE EARTH 2021

CANTERBURY WOODS BUILDING

LANCASTER SQUARE HOLDINGS LLC
865 LAFAYETTE AVENUE
SBL: 89.79-4-1.2
0.47 ACRES

GATES CIRCLE

LAFAYETTE AVENUE

CANTERBURY WOODS
1299 DELAWARE
SBL: 89.79-4-1.6
0.27 ACRES

NORTHERN PORTION OF 630 LINWOOD AVE
ACQUIRED BY 875 HOUSING DEVELOPMENT FUND COMPANY
APPROX. 1.16 ACRES

CANTERBURY WOODS
1 GATES CIRCLE
SBL: 89.79-4-1.1
1.37 ACRES

CONNECTOR

865

LAFAYETTE AVENUE

LANCASTER SQUARE HOLDINGS LLC
630 LINWOOD AVENUE
SBL: 89.79-4-1.3
2.01 ACRES

DELAWARE AVENUE

LINWOOD AVENUE

LANCASTER AVENUE EXTENSION

LANCASTER SQUARE HOLDINGS LLC
1291 DELAWARE
89.79-4-1.4
0.77 ACRES

LANCASTER SQUARE HOLDINGS LLC
1285 DELAWARE
SBL: 89.79-4-1.52
1.95 ACRES

1277 DELAWARE LLC
1279 DELAWARE
SBL: 89.79-4-1.51
0.03 ACRES

N

100' 0' 100' 200'

SCALE: 1 INCH = 100 FEET
SCALE IN FEET
(approximate)

Title:

SITE PLAN

EXCAVATION WORK PLAN NOTIFICATION FOR NORTHERN PORTION OF 630 LINWOOD AVENUE

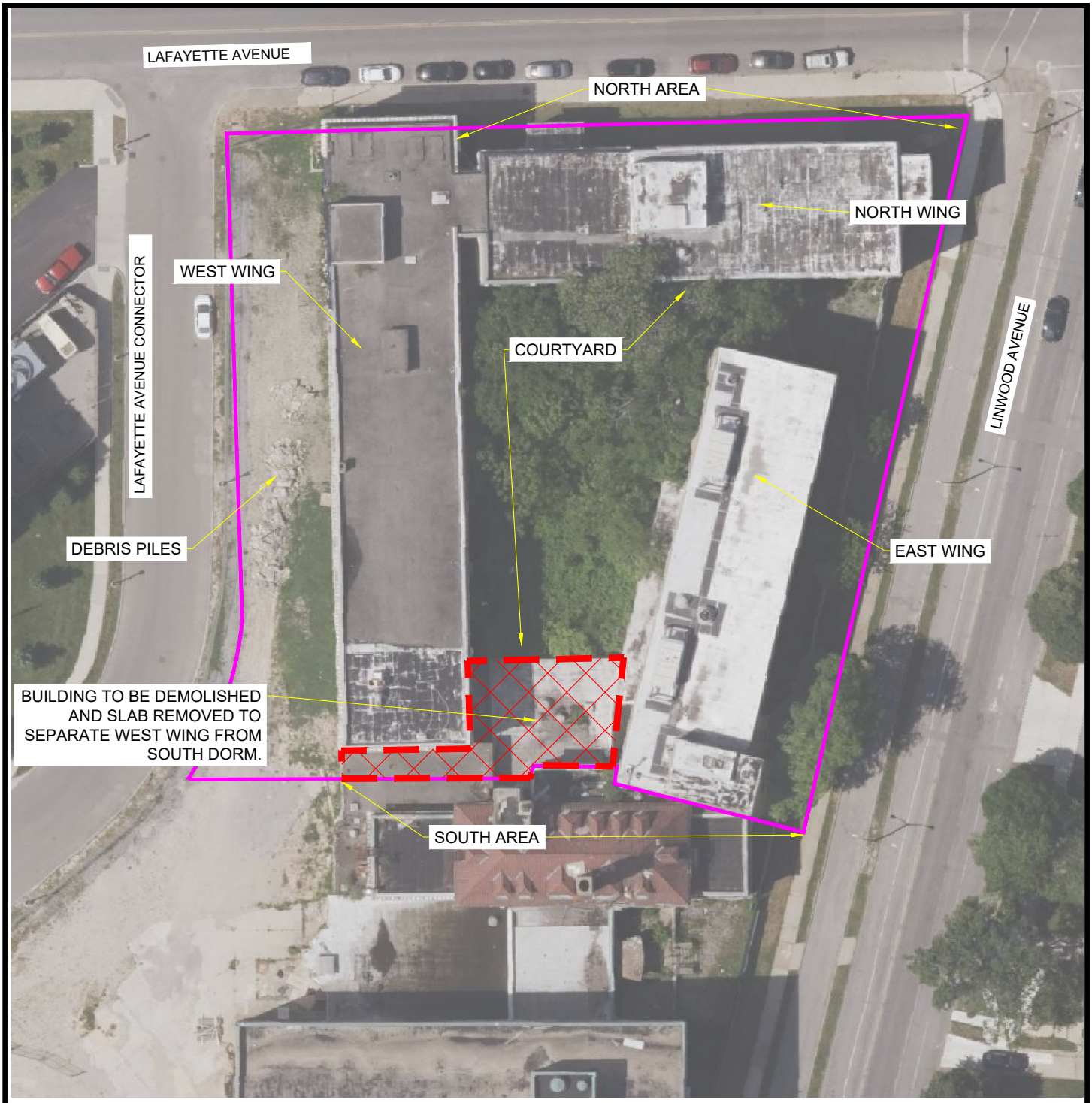
3 GATES CIRCLE SITE; BCP SITE NO. C915272
BUFFALO, NEW YORK

Prepared for:
BELMONT HOUSING FOR WESTERN NEW YORK, INC.

ROUX

Compiled by: RFL	Date: JANUARY 2024	FIGURE
Prepared by: RFL	Scale: AS SHOWN	1
Project Mgr: CZB	Project: 4313.0002B000	
File: FIGURE 1; SITE PLAN LAYOUT EWP.DWG		

F:\CAD\0-ROUX\BELMONT HOUSING RESOURCES FOR WNY, INC\630 LINDEN\EWP\FIGURE 1; SITE PLAN LAYOUT EWP.DWG



LEGEND:

NORTHERN PORTION OF 630 LINWOOD AVENUE

NOTE:
AERIAL IMAGE FROM MICROSOFT BING MAPS USING AUTODESK AUTOCAD GEOLOCATION INTERFACE JANUARY 2024.

N

50' 0' 50' 100'

SCALE: 1 INCH = 50 FEET
SCALE IN FEET
(approximate)

Title:

SITE PLAN AERIAL

EXCAVATION WORK PLAN NOTIFICATION FOR NORTHERN PORTION OF 630 LINWOOD AVENUE

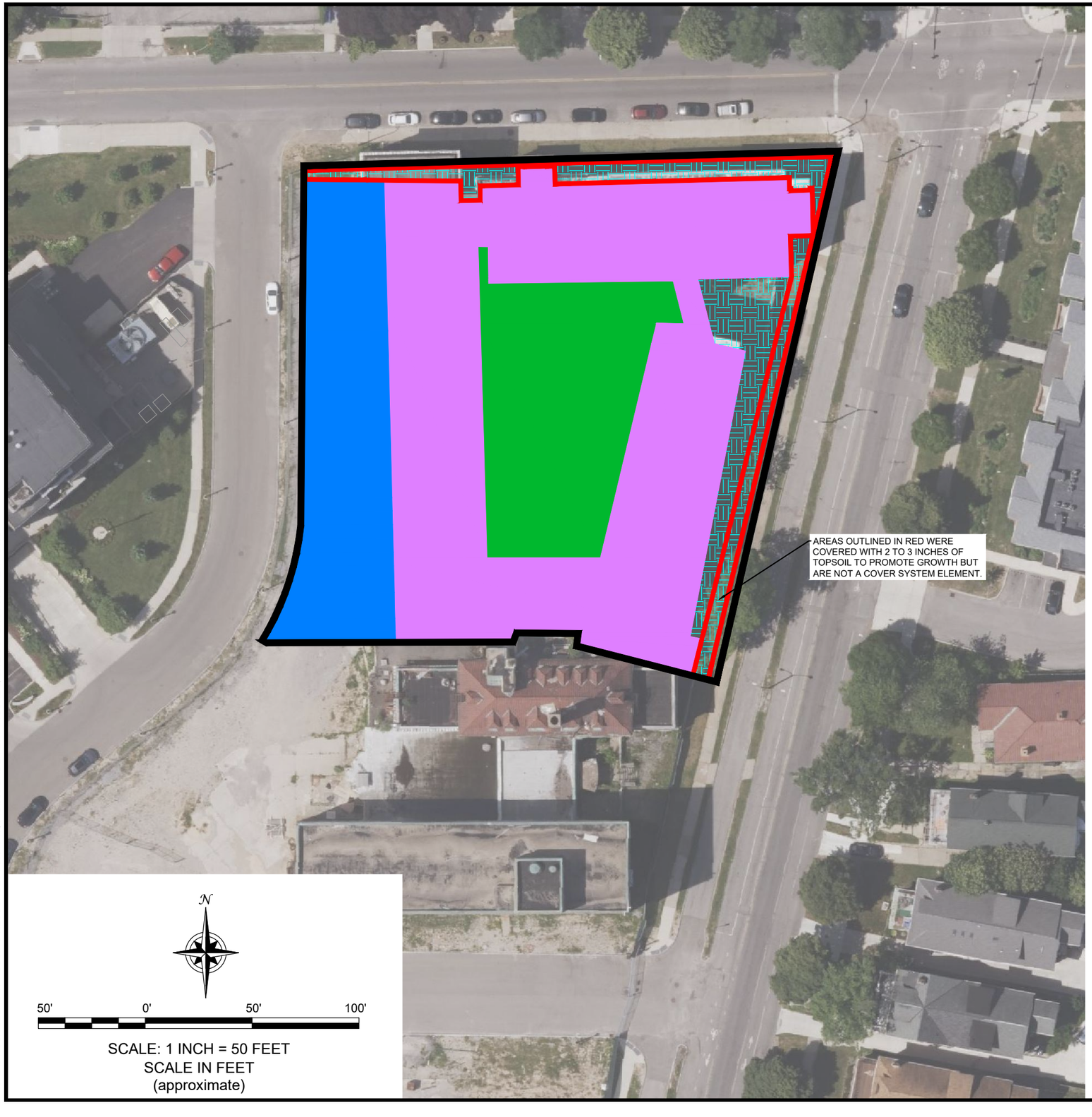
3 GATES CIRCLE SITE; BCP SITE NO. C915272
BUFFALO, NEW YORK

Prepared for:
BELMONT HOUSING FOR WESTERN NEW YORK, INC.

ROUX

Compiled by: RFL	Date: JANUARY 2024	FIGURE
Prepared by: RFL	Scale: AS SHOWN	
Project Mgr: CZB	Project: 4313.0002B000	2
File: FIGURE 2; SITE PLAN AERIAL EWP.DWG		

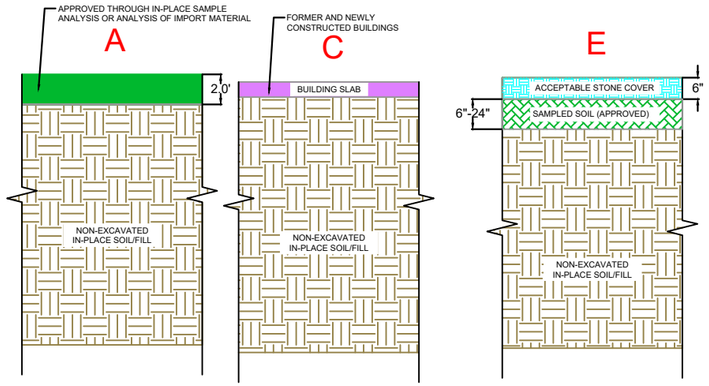
F:\CAD\0-ROUX\BELMONT HOUSING RESOURCES FOR WNY, INC\630 LINDEN\EWP\FIGURE 2; SITE PLAN AERIAL EWP.DWG



LEGEND:

- NORTHERN PORTION OF 630 LINWOOD AVENUE
- COVER SYSTEM A
- COVER SYSTEM C
- COVER SYSTEM E
- PORTION OF SITE UNDERGOING REDEVELOPMENT FINAL COVER NOT ESTABLISHED

COVER SYSTEM DETAILS:



SCALE: 1 INCH = 50 FEET
SCALE IN FEET
(approximate)

Title:

SITE COVER SYSTEM

EXCAVATION WORK PLAN NOTIFICATION FOR NORTHERN PORTION OF 630 LINWOOD AVENUE

3 GATES CIRCLE SITE; BCP SITE NO. C915272
BUFFALO, NEW YORK

Prepared for:
BELMONT HOUSING FOR WESTERN NEW YORK, INC.

ROUX

Compiled by: RFL	Date: JANUARY 2024	FIGURE 3
Prepared by: RFL	Scale: AS SHOWN	
Project Mgr: CZB	Project: 4313.0002B000	
File: FIGURE 3; SITE COVER SYSTEM EWP.DWG		

F:\CAD\0-ROUX\BELMONT HOUSING RESOURCES FOR WNY, INC\630 LINDEN\EWP\FIGURE 3; SITE COVER SYSTEM EWP.DWG

ATTACHMENTS

1. Constrction Drawings
2. SMP Excavation Work Plan
3. NYSDEC Import Form
4. SMP Fiugre 7 – Unrestricted & Residential SCO Exceedances

ATTACHMENT 1

Construction Drawings

BELMONT HOUSING

HOMEOPATHIC HOSPITAL ADAPTIVE REUSE PROJECT

PROJECT LOCATION

875 LAFAYETTE AVENUE
BUFFALO, NY

HCR REVIEW AND BIDDING
September 30, 2023

Centerpointe Corporate Park
375 Essjay Road, Suite 200
Williamsville, NY 14221
www.wendelcompanies.com
p:716.688.0766 f:716.625.6825

Wendel Project No. 485903

DRAWING INDEX

STATE OF NEW YORK
SCOTT M. RYBARCZYK
085337-01
LICENSED PROFESSIONAL ENGINEER

BELMONT HOUSING

HOMEOPATHIC HOSPITAL ADAPTIVE REUSE PROJECT

875 Lafayette Avenue
Buffalo, NY 14209
SHARS #20220515

HCR REVIEW AND BIDDING

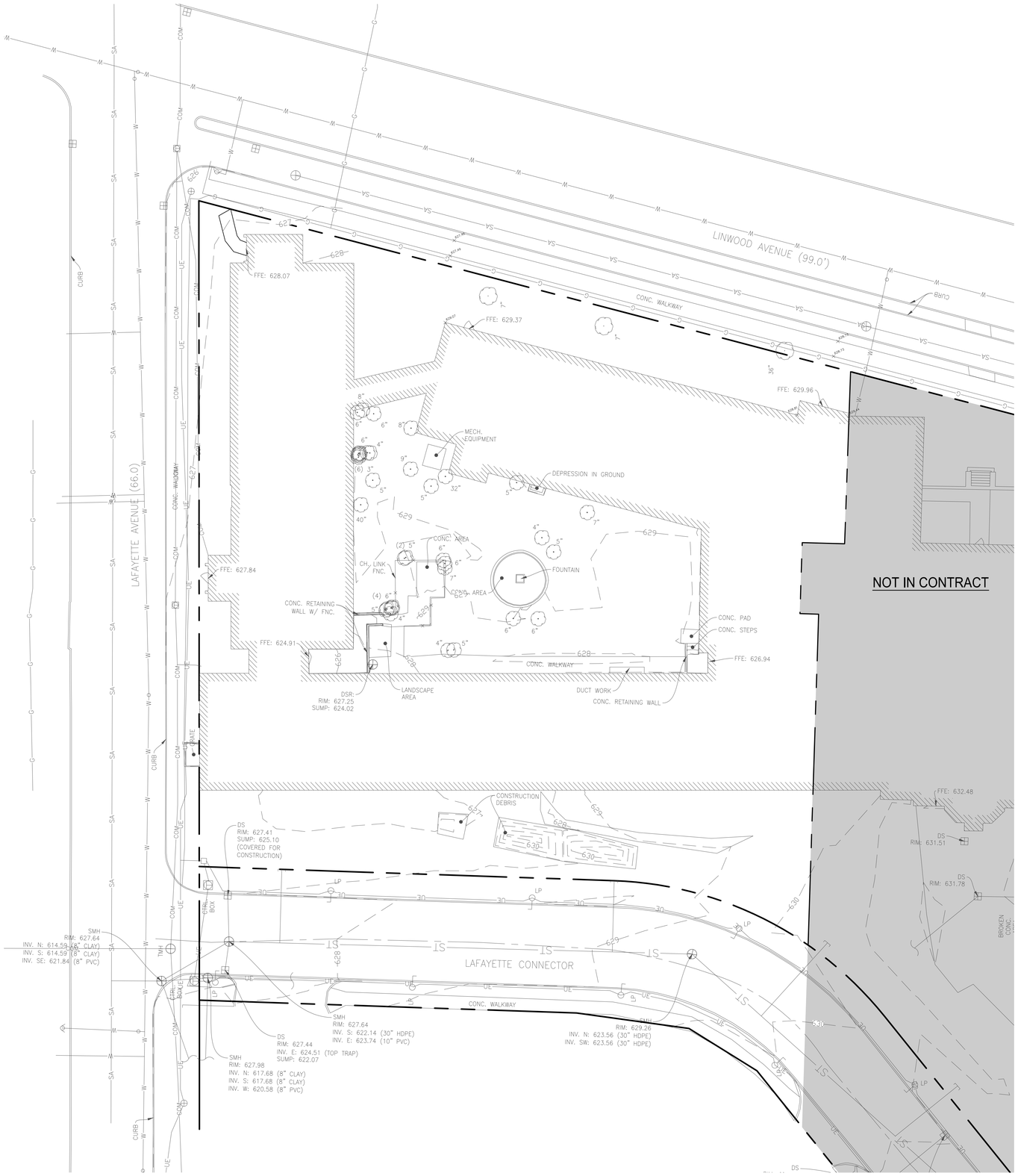
PROJECT TEAM

ARCHITECT
CJS Architects
755 Seneca Street
Buffalo NY, 14210

MEP ENGINEER
Buffalo Engineering, PC
4245 Union Road #204
Cheektowaga, NY 14225

STRUCTURAL ENGINEER
Siracuse Engineers, PC
960 Busti Avenue #120
Buffalo, NY 14213

C001



N

1 EXISTING CONDITIONS PLAN
SCALE: 1" = 20'

SURVEY NOTES:

1. HORIZONTAL CONTROL IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), NEW YORK STATE PLANE, WESTERN ZONE, US SURVEY FEET.
2. VERTICAL CONTROL IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. INFORMATION SHOWN HEREON WAS GATHERED BY WENDEL ON DECEMBER 13 TO DECEMBER 15, 2021 AND INCLUDES MODIFICATIONS BASED ON A REVIEW OF AVAILABLE RECORD DOCUMENTS AND PREVIOUS WENDEL PROJECT TITLED LANCASTER AVENUE EXTENSION, PROJECT 468002, SHEET 9, DATED AUGUST 2016 WITH SURVEY COMPLETED SEPTEMBER 19 2014.

LEGEND:

DRAINAGE STRUCTURE (ROUND)	DSR
DRAINAGE STRUCTURE	DS
END OF PIPE UNKNOWN	
LIGHT POLE	LP
SANITARY SEWER MANHOLE	SMH
TREE W/ SIZE	7"
635	MAJOR CONTOUR LINE
634	MINOR CONTOUR LINE
	BOUNDARY
ST	STORM SEWER PIPE
SA	SANITARY SEWER PIPE
W	WATER PIPE
UE	UNDERGROUND ELECTRIC
COM	COMMUNICATION
G	GAS PIPE

BIT.	BITUMINOUS
CH.	CHAIN
DIA.	DIAMETER
CONC.	CONCRETE
ELEC.	ELECTRICAL
FNC.	FENCE
FFE	FINISHED FLOOR ELEVATION
INV.	INVERT
N.	NORTH
E.	EAST
S.	SOUTH
W.	WEST

BELMONT HOUSING
RESOURCES FOR WNY

BELMONT HOUSING

HOMEOPATHIC HOSPITAL ADAPTIVE REUSE PROJECT

875 Lafayette Avenue
Buffalo, NY 14209
SHARS #20220515

HCR REVIEW AND BIDDING

wendel
Centerpointe Corporate Park
375 Essjay Road, Suite 200
Williamsville, NY 14221
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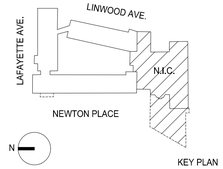
p:716.688.0766 f:716.625.6825

WENDEL ENGINEERING P.C.

ARCHITECT
CJS Architects
755 Seneca Street
Buffalo NY, 14210

MEP ENGINEER
Buffalo Engineering, PC
4245 Union Road #204
Cheektowaga, NY 14225

STRUCTURAL ENGINEER
Siracuse Engineers, PC
960 Busti Avenue #120
Buffalo, NY 14213



KEY PLAN

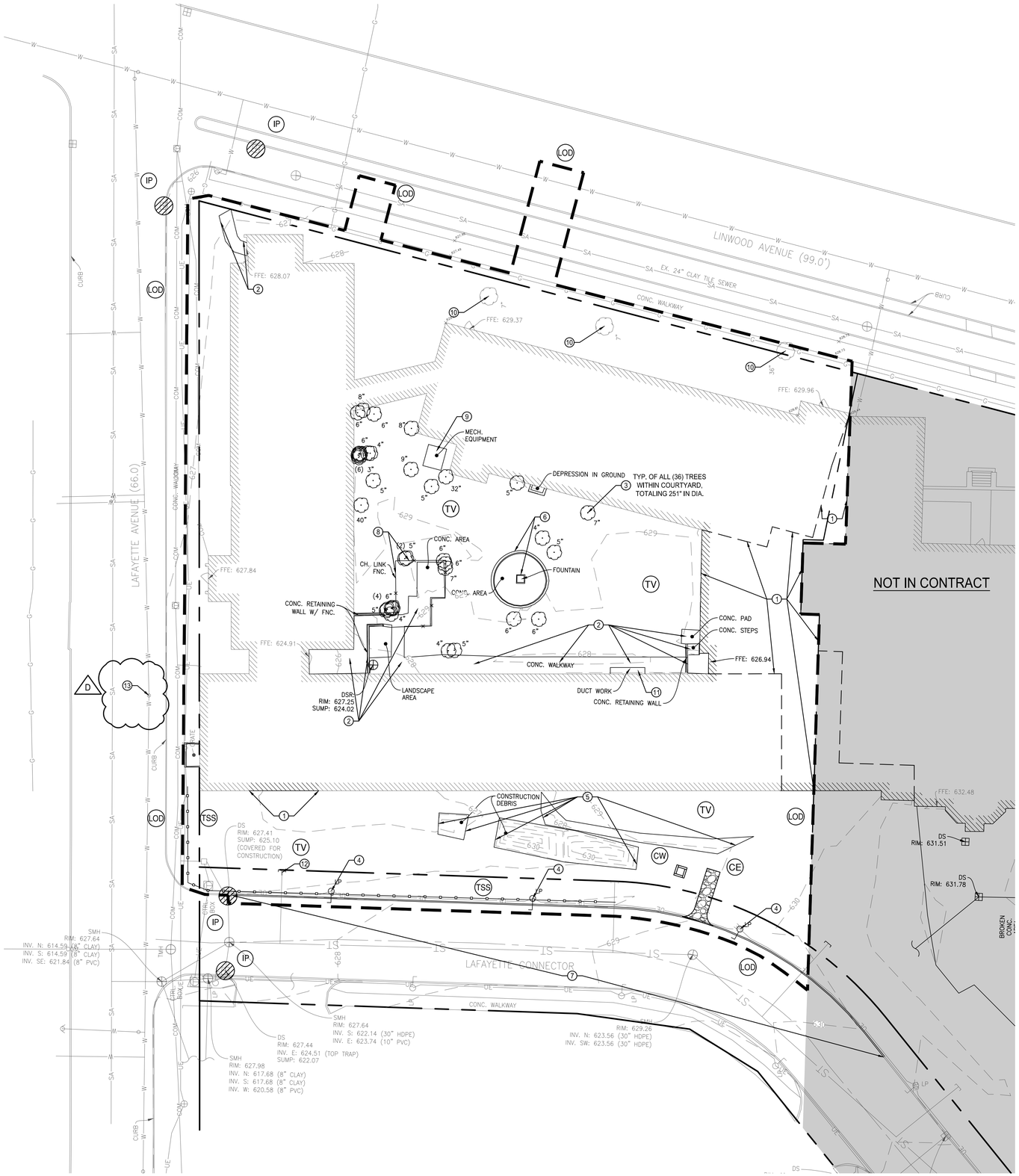
NO.	REVISIONS	DATE

DWG. TITLE

EXISTING CONDITIONS PLAN

0 1" 2"
GENERIC SCALE BAR
SCALE BAR SHOWN IS TWO INCHES ON THE ORIGINAL DRAWING. IF NOT TWO INCHES ON THIS SHEET, ADJUST ACCORDINGLY.

DATE	09/30/2023
SCALE	AS NOTED
DWN.	JAC
CHK.	SMR
PROJ. No.	485903
DWG. No.	C101



N

1 DEMOLITION AND EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 20'

DEMOLITION NOTES:

1. DEMOLITION OF EXISTING BUILDING; REFER TO ARCHITECTURAL AND STRUCTURAL PLANS.
2. REMOVAL OF CONCRETE IN ITS ENTIRETY.
3. REMOVE TREE AND STUMP IN ITS ENTIRETY.
4. REMOVE EXISTING LIGHT POLE AND ASSOCIATED WIRING. STORE TO BE RESET; REFER TO C201 FOR FINAL LOCATION.
5. REMOVE AND DISPOSE OF DEBRIS.
6. REMOVE EXISTING FOUNTAIN IN ITS ENTIRETY. DISCONNECT AND CAP WATER, ELECTRICAL, AND DRAIN LINES.
7. SALVAGE CURB TO BE REUSED ON SITE. REMOVE AND DISPOSE OF ANY CONCRETE BACKING.
8. REMOVE CHAIN LINK FENCE AND POLE FOUNDATIONS IN THEIR ENTIRETY.
9. REMOVE EXISTING HVAC UNIT AND CONCRETE PAD IN THEIR ENTIRETY.
10. PROVIDE TREE PROTECTION FENCE AT CRITICAL ROOT ZONE LIMIT; RE: 5, C501.
11. REMOVE DUCT WORK IN ITS ENTIRETY.
12. REMOVE EXISTING CAP AND PORTION OF STORM SEWER REQUIRED TO MAKE THE PROPOSED CONNECTION, AS SHOWN ON C301.
13. VERIFY 8-IN WATER LATERAL LOCATION IN FIELD. REMOVE LATERAL SERVICE AT PUBLIC WATER MAIN. D

BEST MANAGEMENT PRACTICE MAINTENANCE:

ALL BEST MANAGEMENT PRACTICES (INCLUDING EROSION AND SEDIMENT CONTROLS) SHOWN ON THIS PLAN, AND AS DESCRIBED IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR UNTIL FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED INSPECTOR IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, DETERIORATION, OR OVER LOADING.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY SO THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
3. SILT SOCK SHALL BE REPAIRED TO ITS ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT SOCK WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT SOCK (OR LESS IF IT INTERFERES WITH THE FUNCTIONALITY OF THE SILT SOCK).
4. THE CONSTRUCTION ENTRANCES/EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
5. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND/OR SEDIMENT REACHING PUBLIC STREETS SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.

SYMBOL LEGEND

- LOD = LIMITS OF DISTURBANCE = 1.35 ACRES
- TSS = TEMPORARY SILT SOCK; RE: 1, C501.
- CE = TEMPORARY STABILIZED CONSTRUCTION ENTRANCE; RE: 3, C501.
- TV = TEMPORARY VEGETATION
- CW = CONCRETE WASHOUT; RE: 4, C501.
- IP = TEMPORARY DROP INLET PROTECTION; RE: 2, C501.

GENERAL EROSION & SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES (BMP'S) THROUGHOUT ALL PHASES OF CONSTRUCTION AS REQUIRED BY THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). ADDITIONAL BMP'S NOT SHOWN ON THIS PLAN SHALL BE IMPLEMENTED AS REQUIRED BY SITE CONDITIONS AND AS DIRECTED BY THE QUALIFIED INSPECTOR AS A RESULT OF WEEKLY CONSTRUCTION DURATION INSPECTIONS.
2. BMP'S AND OTHER REQUIRED CONTROLS SHALL CONFORM TO FEDERAL, STATE OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
3. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
4. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
5. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
6. RUBBISH, TRASH, GARBAGE, LITTER OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES, UNDERGROUND CONVEYANCE SYSTEMS OR WATERS OF THE STATE.
7. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THESE PLANS SHALL BE INITIATED AS SOON AS PRACTICABLE.
8. ALL DENUDED AREAS THAT WILL BE INACTIVE FOR 14-DAYS OR MORE MUST BE TEMPORARILY STABILIZED WITH THE USE OF FAST-GERMINATING ANNUAL GRASS-GRAIN VARIETIES, STRAW-HAY MULCH, WOOD CELLULOSE FIBERS, TACKIFIERS, NETTING OR BLANKETS.
9. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED AS SHOWN ON THE PLANS. THESE AREAS SHALL BE SEEDED, SODDED AND/OR VEGETATED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN.
10. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATIONS AS PROVIDED.
11. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
12. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ACCUMULATED SEDIMENT IN ROADSIDE DRAINAGE SYSTEMS AS WELL AS ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE ONSITE STORM SEWER DRAINAGE SYSTEM IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
13. ON-SITE SOIL STOCKPILES AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES.
14. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
15. THE GENERAL CONTRACTOR IS TO DESIGNATE/IDENTIFY AREAS ON THE PLANS (IF DIFFERENT FROM THOSE CURRENTLY SHOWN) INSIDE OF THE LIMITS OF DISTURBANCE FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
16. AREAS TO BE FILLED SHALL BE CLEARED AND STRIPPED OF TOPSOIL PRIOR TO PLACEMENT OF FILL.
17. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS.
18. INLET PROTECTION SHALL BE PLACED AT ALL DESIGNATED STORM INLETS FOR DURATION OF CONSTRUCTION OR UNTIL CONTRIBUTING DRAINAGE AREAS HAVE BEEN PERMANENTLY STABILIZED. THE PLACEMENT OF FILTER FABRIC BETWEEN THE FRAME AND GRATE OF A DRAINAGE INLET WILL NOT BE ALLOWED AS INLET PROTECTION.
19. ALL WATER PUMPED FROM EXCAVATIONS (DEWATERING) MUST PASS THROUGH A SEDIMENT TRAPPING DEVICE BEFORE BEING DISCHARGED FROM THE SITE. THESE DEVICES INCLUDE, BUT ARE NOT LIMITED TO, SEDIMENT BAGS, PORTABLE SEDIMENT TANKS AND SEDIMENT TRAPS.

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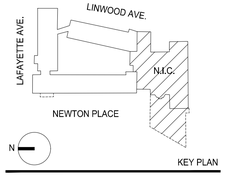


KEY PLAN

NO.	REVISIONS	DATE
D	PER WATER BOARD & VE COMMENTS	01/04/2024

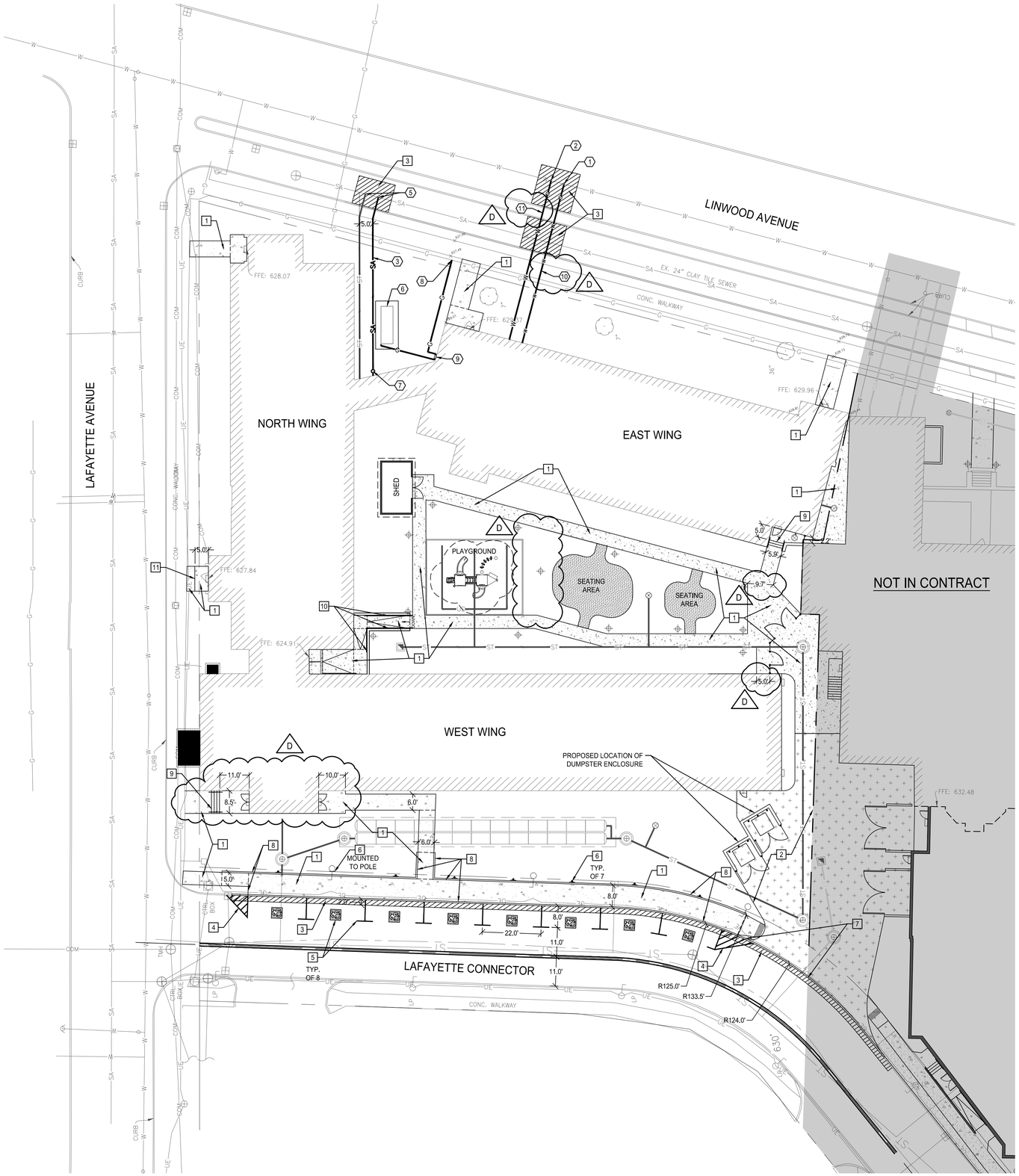
DWG. TITLE

DEMOLITION AND EROSION AND SEDIMENT CONTROL PLAN

0 1" 2"
GENERIC SCALE BAR
SCALE BAR SHOWN IS TWO INCHES ON THE ORIGINAL DRAWING. IF NOT TWO INCHES ON THIS SHEET, ADJUST ACCORDINGLY.

DATE 09/30/2023
SCALE AS NOTED
DWN. JAC CHK. SMR
PROJ. No. 485903
DWG. No.

C102



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1 SITE LAYOUT AND UTILITY PLAN
SCALE: 1" = 20'

SITE LAYOUT NOTES:

1. PROPOSED CONCRETE SIDEWALK; RE: 3, C502.
2. PROPOSED CONCRETE PAVEMENT; RE: 3, C502.
3. PROPOSED ASPHALT PAVEMENT; RE: 1, C502.
4. 4" WHITE PAVEMENT HATCHING; RE: 1, C503.
5. ACCESSIBLE PARKING STRIPING AND SYMBOL; RE: 2, C503.
6. ACCESSIBLE PARKING SIGN; RE: 3, C503.
7. DRIVEWAY APRON; RE: 6, C502.
8. GRANITE CURB; RE: 2, C502.
9. CONCRETE STAIRS; RE: 5, C503 & 1, C504.
10. RAMP HANDRAILS; RE: 1, C504.
11. CONCRETE STEP; RE: 6, C503.

UTILITY NOTES:

1. 12"X4" TAPPING SLEEVE & VALVE; RE: 4, C508.
2. 12"X6" TAPPING SLEEVE & VALVE; RE: 4, C508.
3. 8" SDR-35 SANITARY SERVICE; RE: 2, C505. —SA—
4. MANHOLE CONNECTION; RE: 1, C505.
5. BLIND CONNECT; RE: 3, C505.
6. GENERATOR AND CONCRETE PAD; REFER TO ELECTRICAL DRAWINGS.
7. IN-LINE SANITARY CLEANOUT; RE: 4, C505.
8. 3" NATURAL GAS SERVICE PROVIDED BY UTILITY COMPANY. LAYOUT PROVIDED BY PROJECT MEP. —G—
9. NATURAL GAS METER; REFER TO PLUMBING DRAWINGS.
10. 4" D.I.P. DOMESTIC WATER SERVICE; RE: C508 & C509. —W—
11. 6" D.I.P. FIRE SERVICE; RE: C508 & C509. —W—

GENERAL CONSTRUCTION NOTES:

1. REFER TO C102 FOR DEMOLITION LIMITS.
2. REFER TO C202 FOR LIGHTING PLAN.
3. REFER TO C301 FOR GRADING AND DRAINAGE PLAN.
4. REFER TO LANDSCAPE PLANS FOR DETAIL ON RESTORATION, COURTYARD DESIGN, AND PATIO AREA.
5. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION ON THE BUILDING RENOVATION AND EXPANSION.
6. ALL SEWERS SHALL REMAIN ACTIVE THROUGHOUT CONSTRUCTION.

SITE DATA

Site Area: 52,572 sq. ft. (1.23 acres)

Zoning: N-1C (Mixed-Use Core) and N-2E (Mixed-Use Edge) with Planned Unit Development Overlay

Building Information:
Building 1 (North and West Wing): 67,771 gsf
Building 2 (East Wing): 35,822 gsf
Total Gross Area for both Buildings: 103,593 gsf

Setbacks:

	Required	Provided
Front Yard (Linwood Avenue)	10' Minimum	2' ***
Front Yard (Lafayette Avenue)	3' Minimum	5' Minimum
Side and Rear Yard	3' Minimum	20' Minimum

Note: *** Existing Non-conforming

Greenspace: 18,307 sq. ft. (0.42 Acres)

Parking: Eight (8) Handicap Accessible Spaces are proposed on Newton Lane. All other Parking will be provided via an existing parking garage less than 500 feet from the proposed project.

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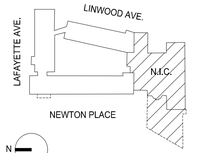

NO.	REVISIONS	DATE
D	PER WATER BOARD & VE COMMENTS	01/04/2024
C	PER PROJECT TEAM COMMENTS	11/16/2023
B	GENERATOR GAS CONNECTION	11/15/2023
A	PER CITY COMMENTS	10/13/2023

DWG. TITLE

SITE LAYOUT AND UTILITY PLAN

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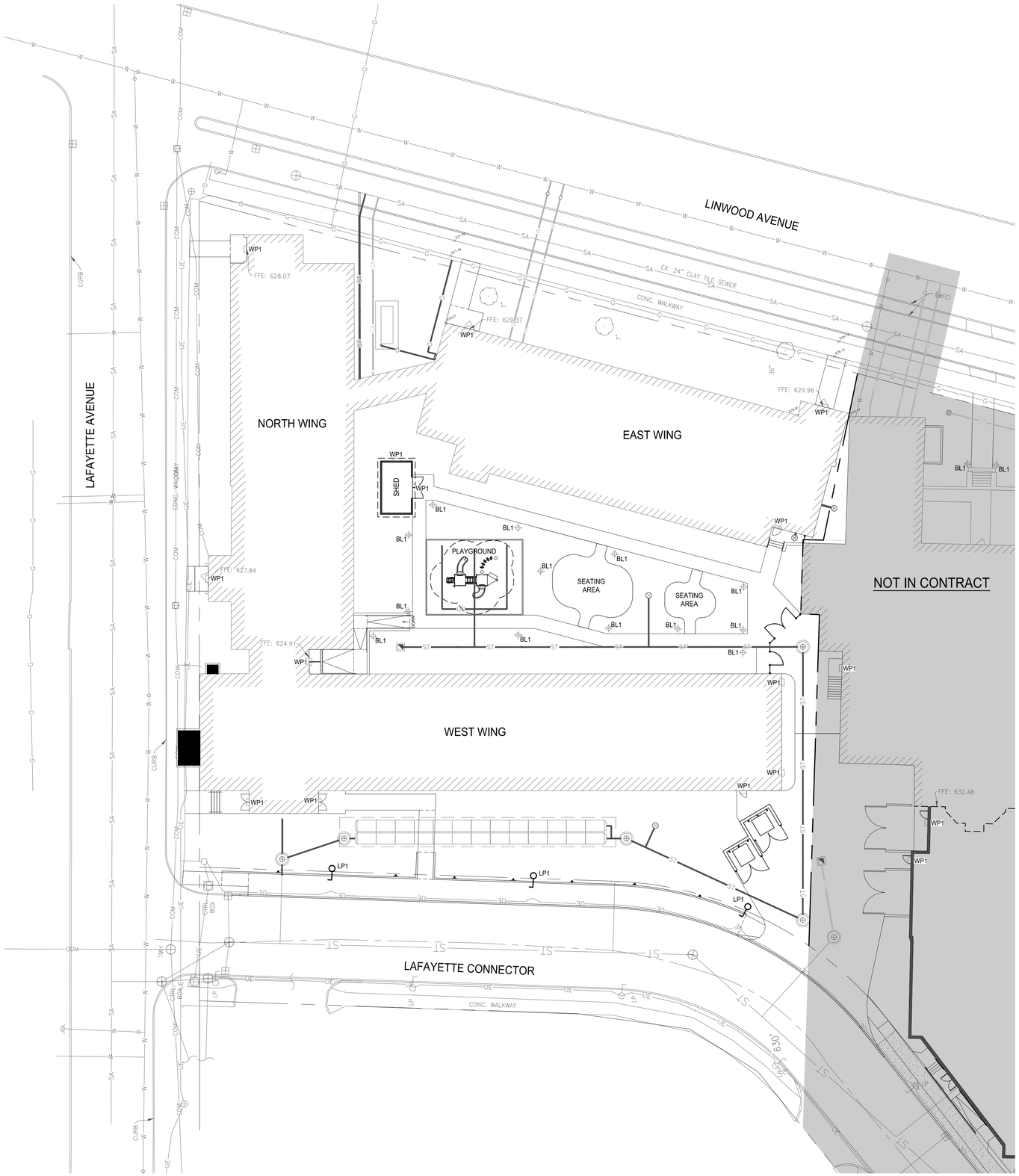
DWG. No.

C201



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1 SITE LIGHTING PLAN
SCALE: 1" = 20'

LIGHTING SCHEDULE:

WP1	LED FULL CUTOFF WALL PACK. WET LOCATION RATED, 14 WATTS, 1806 LUMENS, 120V. BUG RATING: B1-U0-G0. MOUNTED 8'-0" A.F.G. LUMARK LIGHTING #AXCSIA OR APPROVED EQUAL.
BL1	3' LED BOLLARD, 17 WATTS, 1,402 LUMENS, 120V. BUG RATING: B1-U2-G1. ILP LIGHTING: BLFT-15WLED OR APPROVED EQUAL.
LP1	RESET EXISTING LIGHT POLES. PROVIDE ADDITIONAL CONDUIT AND WIRING AS REQUIRED. CONSTRUCT NEW BASE PER DETAIL 7, C503.

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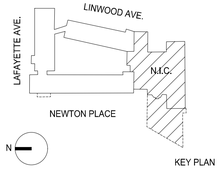

KEY PLAN

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D	PER WATER BOARD & VE COMMENTS	01/04/2024

DWG. TITLE

SITE LIGHTING PLAN

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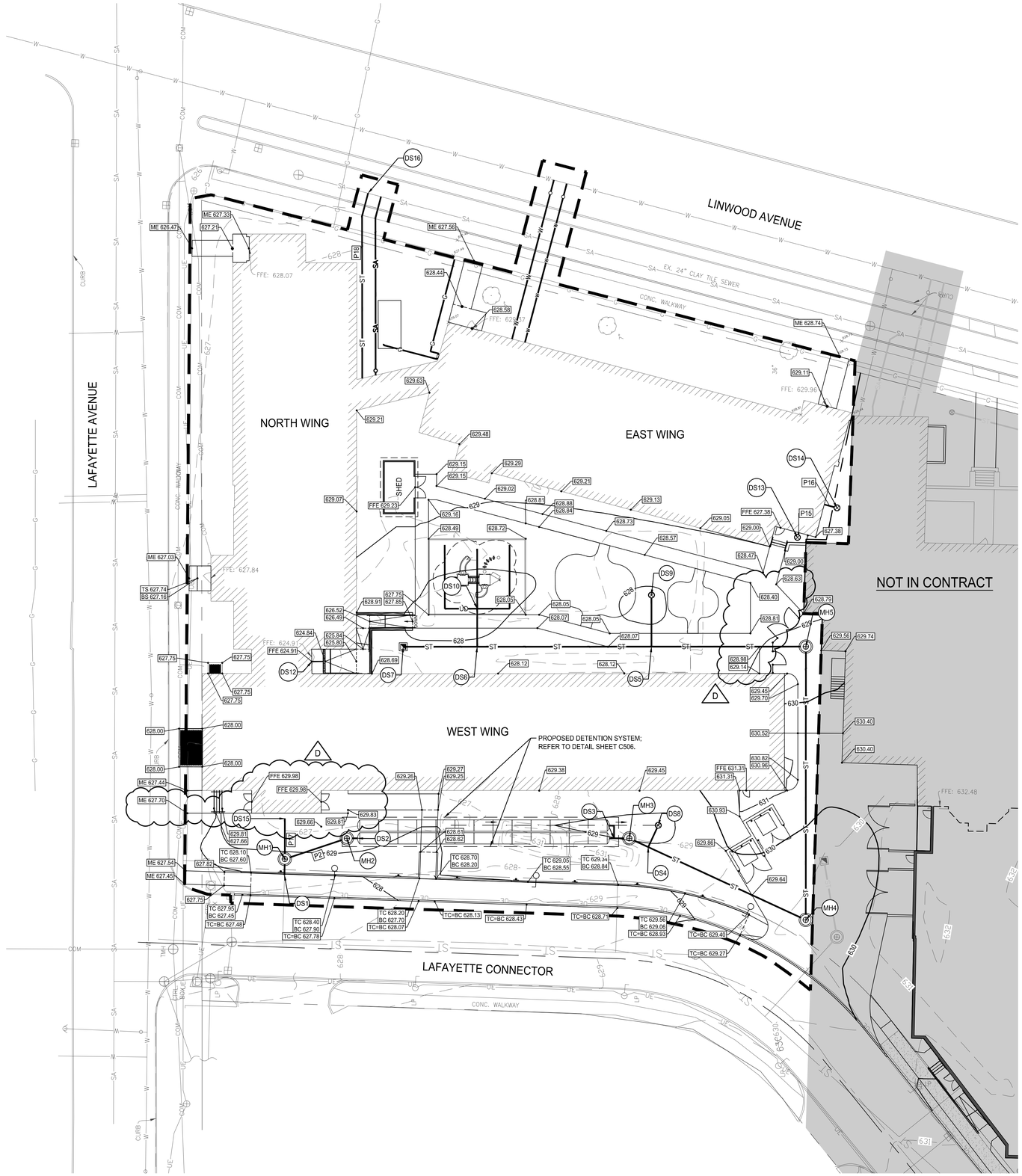
PROJ. No. 485903
DWG. No.

C202



1 GRADING AND DRAINAGE PLAN
SCALE: 1" = 20'

DRAINAGE AND GRADING NOTES:

1. ALL GRADED OR DISTURBED AREAS INCLUDING SLOPES SHALL BE PROTECTED DURING CLEARING AND CONSTRUCTION.
2. ALL EROSION AND SEDIMENT CONTROL PRACTICES AND MEASURES SHALL BE CONSTRUCTION, APPLIED AND MAINTAINED, REFER TO C102 FOR EROSION AND SEDIMENT CONTROL INFORMATION. ALL NOTES AND REQUIREMENTS OF DRAWING C102 ARE APPLICABLE TO THIS DRAWING.
3. ALL FILLS SHALL BE COMPACTED AS REQUIRED BY THE SPECIFICATIONS TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES, SEWERS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, LOCAL REQUIREMENTS OR CODES. IN THE CASE OF DISCREPANCY, THE MOST STRINGENT SHALL APPLY.
4. FILL MATERIAL SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY SOILS. SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED IN FILLS.
5. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
6. CONTRACTOR SHALL PLACE AND COMPACT MATERIAL OVER INSTALLED STORM SEWER NECESSARY TO MAINTAIN A MINIMUM OF 1.5 FEET OF COVER, UNLESS OTHERWISE NOTED ON THE PLANS (OR MINIMUM ALLOWED BY PIPE MANUFACTURER). MINIMUM COVER MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
7. GRADES SHOWN ARE APPROXIMATE FINISHED GRADE.
8. ALL DISTURBED AREAS NOT TO BE PAVED SHALL RECEIVE PERMANENT STABILIZATION CONSISTING OF SOIL AND VEGETATION IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT'S PLANS.
9. PRIOR TO PLACEMENT OF TOPSOIL AND PERMANENT STABILIZATION, ALL DISTURBED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE SOIL RESTORATION REQUIREMENTS IN TABLE 5.3 OF THE STORMWATER MANAGEMENT DESIGN MANUAL.

LEGEND & ABBREVIATIONS:

661.50 / TC 661.14 / BC 660.64	PROPOSED SPOT ELEVATION
630	PROPOSED MAJOR CONTOUR ELEVATION
629	PROPOSED MINOR CONTOUR ELEVATION
630	EXISTING CONTOUR ELEVATION
TC	TOP OF CURB
BC	BOTTOM OF CURB
ME	MATCH EXISTING
	PROPOSED SWALE
SA	PROPOSED SANITARY SEWER
ST	PROPOSED STORM SEWER
	PROPOSED STORM CATCH BASIN
	PROPOSED STORM DRAIN BASIN
	PROPOSED STORM MANHOLE
G	PROPOSED NATURAL GAS LINE

DRAINAGE PIPE TABLE

PIPE I.D.	SIZE	LENGTH (L.F.)	SLOPE	MATERIAL
P1	8"	6	1.33%	HDPE
P2	8"	24	1.00%	HDPE
P3	12"	4	0.00%	HDPE
P4	12"	6	0.00%	HDPE
P5	12"	8	0.50%	HDPE
P6	12"	65	0.50%	HDPE
P7	12"	102	0.40%	HDPE
P8	8"	58	0.50%	HDPE
P9	8"	65	0.50%	HDPE
P10	8"	28	0.50%	HDPE
P11	8"	9	2.00%	HDPE
P12	8"	19	1.00%	HDPE
P13	8"	14	0.50%	HDPE
P14	8"	5	1.00%	HDPE
P15	8"	2	1.00%	HDPE
P16	8"	5	1.00%	HDPE
P17	6"	15	0.46%	HDPE
P18	8"	70	0.50%	HDPE

DRAINAGE STRUCTURE TABLE

I.D.	DESCRIPTION	RIM	PIPES IN	PIPES OUT
DS1	CONNECT TO EXISTING		P1, INV IN = 623.73 E (8")	
DS2	OUTLET OF DETENTION			P3, INV OUT = 624.70 N (12")
DS3	INLET TO DETENTION		P4, INV IN = 624.70 S (12")	
DS4	BLIND CONNECT		P6, INV IN = 624.74 SW (12") P11, INV IN = 624.91 SE (8")	P5, INV OUT = 624.74 NE (12")
DS5	BLIND CONNECT		P9, INV IN = 625.76 N (8") P12, INV IN = 625.76 E (8")	P8, INV OUT = 625.76 S (8")
DS6	BLIND CONNECT		P10, INV IN = 626.08 N (8") P13, INV IN = 626.08 E (8")	P9, INV OUT = 626.08 S (8")
DS7	2'x2' CATCH BASIN	628.19		P10, INV OUT = 626.22 S (8")
DS8	DRAIN BASIN	628.75		P11, INV OUT = 625.08 NW (8")
DS9	DRAIN BASIN	627.84		P12, INV OUT = 625.95 W (8")
DS10	CONNECT TO UD			P13, INV OUT = 626.16 W (8")
DS11	TRENCH DRAIN	624.84		P14, INV OUT = 622.17 N (8")
DS12	CONNECT TO EXISTING		P14, INV IN = 622.13 S (8")	
DS13	DRAIN BASIN	627.25		P15, INV OUT = 624.00 E (8")
DS14	DRAIN BASIN	627.25		P16, INV OUT = 624.00 N (8")
DS15	CONNECT TO UNDERDRAIN (SEE PLUMBING PLAN)	624.45		P17, INV OUT = 623.88 W (6")
DS16	CONNECT TO EXISTING COMBINED SEWER	626.60	P18, INV IN = 625.85 W (8")	
MH1	4' DIA. MANHOLE	628.72	P2, INV IN = 623.96 S (8") P17, INV IN = 623.81 E (6")	P1, INV OUT = 623.81 W (8")
MH2	OUTLET CONTROL STRUCTURE	629.27	P3, INV IN = 624.70 S (12")	P2, INV OUT = 624.20 N (8")
MH3	4' DIA. MANHOLE	628.97	P5, INV IN = 624.70 SW (12")	P4, INV OUT = 624.70 N (12")
MH4	4' DIA. MANHOLE	629.57	P7, INV IN = 625.06 E (12")	P6, INV OUT = 625.06 NE (12")

PIPING AND STRUCTURE NOTES:
1. REFER TO DETAIL 3, C506 FOR STORM MANHOLE DETAIL.
2. REFER TO DETAIL 4, C506 FOR CATCH BASIN DETAIL.
3. REFER TO DETAIL 2, C506 FOR DRAIN BASIN DETAIL.
4. REFER TO DETAIL 1, C506 FOR STORM SEWER TRENCH DETAIL.
5. REFER TO DETAILS ON SHEET C507 FOR DETENTION SYSTEM.
6. REFER TO DETAIL 5, C506 FOR OUTLET CONTROL STRUCTURE.

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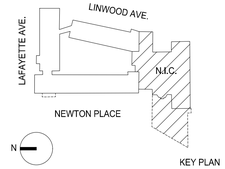


KEY PLAN

NO.	REVISIONS	DATE
D	PER WATER BOARD & VE COMMENTS	01/04/2024
C	PER PROJECT TEAM COMMENTS	11/16/2023
B	GENERATOR GAS CONNECTION	11/15/2023
A	PER CITY COMMENTS	10/13/2023

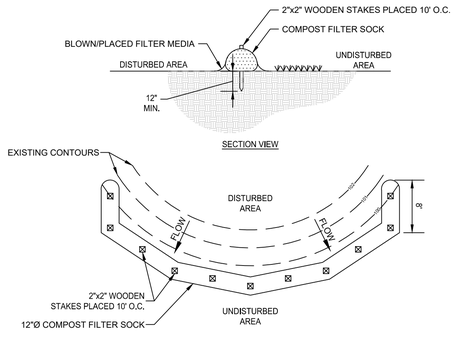
DWG. TITLE

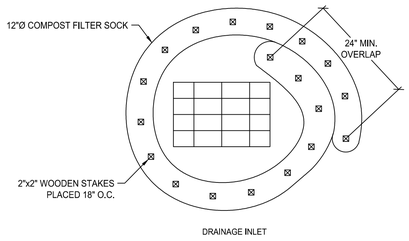
SITE GRADING AND DRAINAGE PLAN

0 1" 2"
GENERIC SCALE BAR
SCALE BAR SHOWN IS TWO INCHES ON THE ORIGINAL DRAWING. IF NOT TWO INCHES ON THIS SHEET, ADJUST ACCORDINGLY

DATE 09/30/2023
SCALE AS NOTED
DWN. JAC CHK. SMR
PROJ. No. 485903
DWG. No.

C301

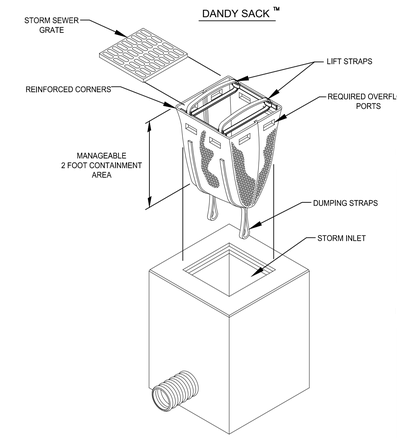




NOTES:

1. COMPOST FILTER SOCK MUST MEET THE STANDARDS AND SPECIFICATIONS OUTLINED IN SECTION 5 OF THE NEW YORK STATE STANDARD SPECIFICATIONS FOR EROISON AND SEDIMENT CONTROL, (JULY 2016)
2. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
3. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
4. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
5. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
6. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCKS, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

1 SILT SOCK DETAIL
SCALE: N.T.S.



DANDY SACK™ SPECIFICATIONS

NOTE: THE DANDY SACK™ WILL BE **MANUFACTURED IN THE U.S.A.** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

REGULAR FLOW DANDY SACK™ (BLACK)

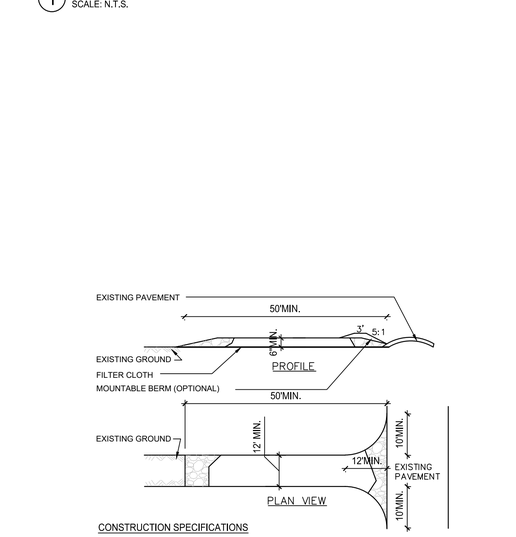
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.78 (400) x 1.40 (315)
Grab Tensile Elongation	ASTM D 4632	%	15 x 15
Puncture Strength	ASTM D 4833	kN (lbs)	0.67 (150)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	5506 (800)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.67 (150) x 0.73 (165)
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/ft (gal/min/ft)	2852 (70)
Permittivity	ASTM D 4491	Sec	0.90

HI-FLOW DANDY SACK™ (SAFETY ORANGE)

Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/ft (gal/min/ft)	5907 (145)
Permittivity	ASTM D 4491	Sec	2.1

*Note: All Dandy Sacks™ can be ordered with optional oil absorbent pillows

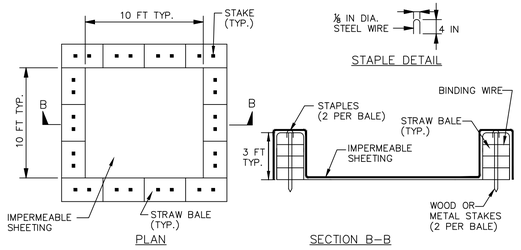
2 TEMPORARY DROP INLET PROTECTION
SCALE: N.T.S.



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

3 TEMPORARY CONSTRUCTION ENTRANCE
SCALE: N.T.S.



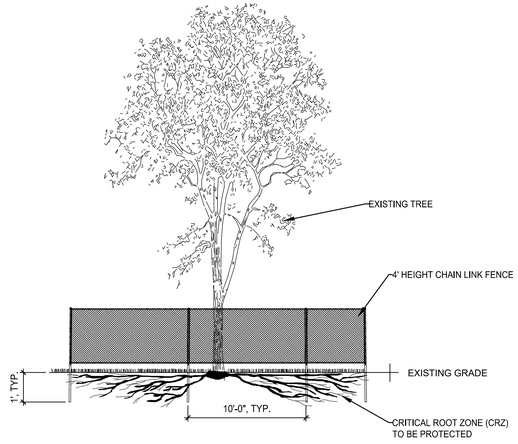
NOTE: CAN BE TWO STACKED BALES OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

WASHOUT STRUCTURE WITH STRAW BALES

CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION TRAFFIC.
2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3 FEET DEEP.
3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.
4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.
5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE HARDENED SOLIDS, WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

4 CONCRETE WASHOUT DETAIL
SCALE: N.T.S.



TREE PROTECTION DURING CONSTRUCTION

A. DEFINITION OF CRITICAL ROOT ZONE

"CRITICAL ROOT ZONE" (CRZ) SHALL BE PROTECTED IN THE FIELD PRIOR TO ANY LAND DISTURBANCE ACTIVITIES. CRZ SHALL BE DETERMINED AS FOLLOWS:

1. FOR INDIVIDUAL TREES, CRZ SHALL BE REPRESENTED BY A CONCENTRIC CIRCLE CENTERED ON THE TRUNK THAT REPRESENTS THE CANOPY DRIPLINE.
2. FOR GROUPS OF TREES, CRZ SHALL FOLLOW THE CONTINUOUS DRIPLINE AROUND THE ENTIRE MASS WITHOUT INTERRUPTION.

B. GENERAL REQUIREMENTS

1. PRIOR TO ANY LAND DISTURBANCE, SUITABLE PROTECTIVE BARRIERS, SUCH AS SAFETY FENCING, SILT FENCING, SHALL BE ERECTED OUTSIDE OF THE CRZ OF ANY TREE OR STAND OF TREES TO BE PRESERVED. TRUNK PROTECTION IS REQUIRED WHEN WORKING ADJACENT TO STREET TREES INSIDE TREE PITS OR SMALLER SNOW STORAGE AREAS WHERE PROTECTIVE FENCING MAY NOT BE APPROPRIATE, THESE PROTECTIVE BARRIERS SHALL REMAIN ERECTED THROUGHOUT ALL PHASES OF CONSTRUCTION. CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR THE REPLACEMENT OR RESTORATION OF DAMAGED TREES.
2. NO GRADE CHANGES, STORAGE OF EQUIPMENT, MATERIALS, DEBRIS, FILL OR DISPOSAL OF LIQUIDS SHALL BE ALLOWED WITHIN THE CRZ.
3. CONSTRUCTION TRAFFIC AND PARKING OF VEHICLES SHALL BE PROHIBITED WITHIN THE CRZ, UNLESS ON PRE-EXISTING SURFACES SUCH AS A ROADWAY, PATH, DRIVEWAY APRON OR SIDEWALK AS SPECIFIED IN PLAN.
4. NO ROOTS SHALL BE CUT WITHIN THE CRZ.
5. ROOTS CUT OUTSIDE OF THE CRZ MUST BE SEVERED CLEANLY WITH NO JAGGED EDGES, BY A TRENCHER OR SIMILAR EQUIPMENT, ALIGNED RADIAL TO THE TREE. THIS METHOD REDUCES THE LATERAL MOVEMENT OF ROOTS AND SUBSTANTIALLY REDUCES SEVERING OF ROOTS BY OTHER MEANS DURING EXCAVATION, THIS IS PARTICULARLY EFFECTIVE WHERE MULTIPLE TREES HAVE INTERTWINING ROOTS. THIS EFFORT SHALL TAKE PLACE PRIOR TO ANY LAND DISTURBANCE ACTIVITY. NO ROOTS OVER 2 INCHES IN DIAMETER MAY BE CUT WITHOUT SPECIFIC PERMISSION FROM DESIGNEE.
6. WITHIN FOUR HOURS OF SEVERANCE, ALL TREES ROOTS THAT HAVE BEEN EXPOSED AND/OR DAMAGED SHALL BE TRIMMED CLEANLY AND COVERED TEMPORARILY WITH MOIST PEAT MOSS, BURLAP, OR OTHER BIO-DEGRADABLE MATERIAL TO PREVENT DESICCATION BEFORE PERMANENT COVER CAN BE INSTALLED.
7. NO TOXIC MATERIALS, INCLUDING PETROLEUM PRODUCTS, HERBICIDES, ETC. SHALL BE STORED WITHIN 100' OF THE CRZ.
8. SEDIMENT, RETENTION, AND DETENTION BASINS SHALL NOT BE LOCATED WITHIN THE CRZ ZONE, THESE BASINS SHALL NOT DISCHARGE DIRECTLY INTO CRZ ZONES, UNLESS TRANSITIONED BACK INTO SHEET FLOW PRIOR TO ENTERING SAID ZONES OR ADEQUATE NATURAL CHANNEL.
9. PRUNING OF LOW BRANCHES OVER ROADWAYS, PATHS, DRIVEWAY APRONS OR SIDEWALKS MUST BE PERFORMED PRIOR TO CONSTRUCTION AND APPROVED BY THE DESIGNEE, ALL FINAL CUTS SHALL BE MADE SUFFICIENTLY CLOSE TO THE TRUNK OR PARENT LIMB BUT WITHOUT CUTTING INTO THE BRANCH COLLAR OR LEAVING A PROTRUDING STUB, ACCORDING TO ANSI A300 STANDARDS. ALL NECESSARY PRUNING CUTS MUST BE MADE TO PREVENT BARK FROM BEING TORN FROM THE TREE AND TO FACILITATE RAPID HEALING, FLUSH CUTS ARE UNACCEPTABLE.

5 TREE PROTECTION DETAIL
SCALE: N.T.S.

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Cheektowaga, NY 14225

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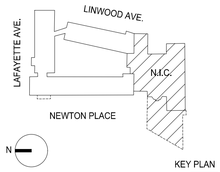


KEY PLAN

NO.	REVISIONS	DATE

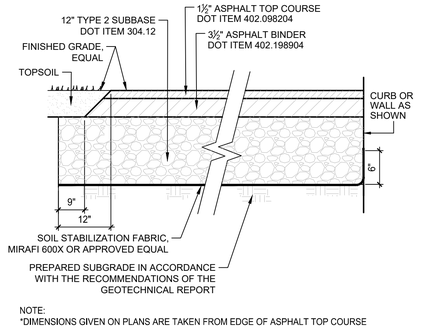
DWG. TITLE

EROSION AND SEDIMENT CONTROL DETAILS

0 1" 2"
GENERIC SCALE BAR
SCALE BAR SHOWN IS TWO INCHES ON THE ORIGINAL DRAWING. IF NOT TWO INCHES ON THIS SHEET, ADJUST ACCORDINGLY

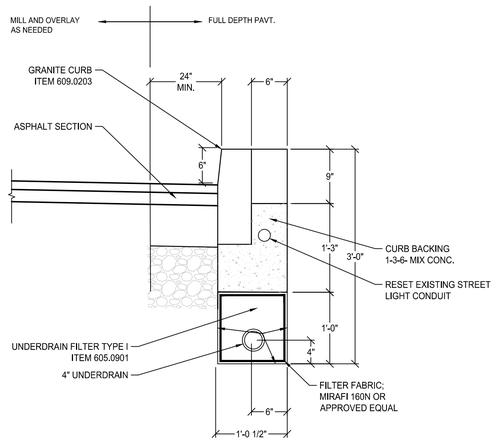
DATE 08/31/2023
SCALE AS NOTED
DWN. JAC CHK. SMR
PROJ. No. 485903
DWG. No.

C501

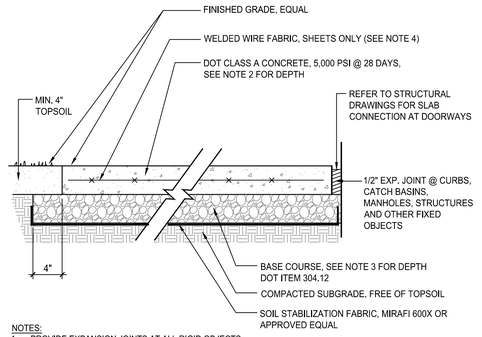


NOTE:
*DIMENSIONS GIVEN ON PLANS ARE TAKEN FROM EDGE OF ASPHALT TOP COURSE

1 ASPHALT PAVEMENT SECTION
SCALE: N.T.S.



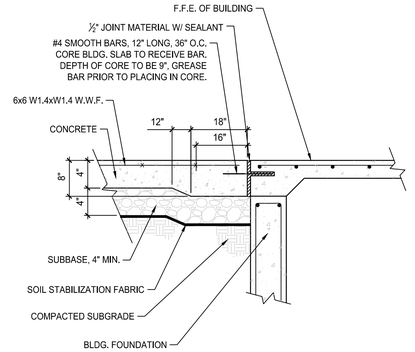
2 GRANITE CURB DETAIL
SCALE: N.T.S.



NOTES:
1. PROVIDE EXPANSION JOINTS AT ALL RIGID OBJECTS
2. CONCRETE DEPTH:
   a. SIDEWALK: 4" MINIMUM
   b. PAVEMENT: 6" MINIMUM
3. SUBBASE DIMENSION:
   a. SIDEWALK: 8" MINIMUM
   b. PAVEMENT: 12" MINIMUM
4. WELDED WIRE REINFORCEMENT:
   a. SIDEWALK: 6x6 - W1.4 x W1.4
   b. PAVEMENT: 4x4 - W4.0 x W4.0

NOTE: ALL EXTERIOR EXPOSED CONCRETE TO BE MIN. 5,000 PSI @ 28 DAYS IN ACCORDANCE WITH THE PROJECT TECHNICAL SPECIFICATIONS

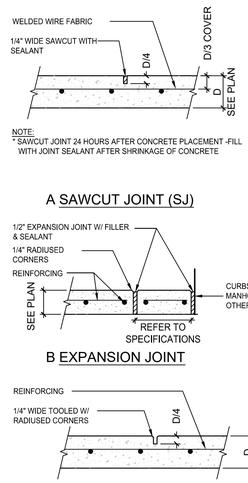
3 CONCRETE SIDEWALK/PAVEMENT SECTION
SCALE: N.T.S.



NOTE:
* THIS CONDITION OCCURS ONLY AT ENTRANCES TO BUILDING.

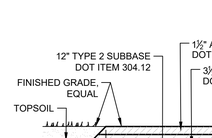
NOTE: ALL EXTERIOR EXPOSED CONCRETE TO BE MIN. 5,000 PSI @ 28 DAYS IN ACCORDANCE WITH THE PROJECT TECHNICAL SPECIFICATIONS

4 CONC. WALK/BLDG. FOUNDATION JT.
SCALE: N.T.S.

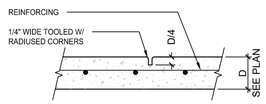


NOTE:
* SAWCUT JOINT 24 HOURS AFTER CONCRETE PLACEMENT -FILL WITH JOINT SEALANT AFTER SHRINKAGE OF CONCRETE

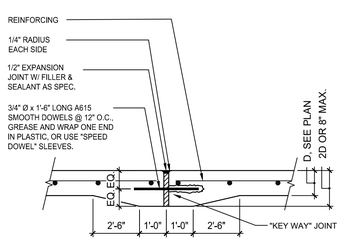
A SAWCUT JOINT (SJ)



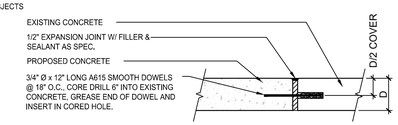
B EXPANSION JOINT



C TOOLED JOINT (TJ)



D CONSTRUCTION JOINT (CJ)

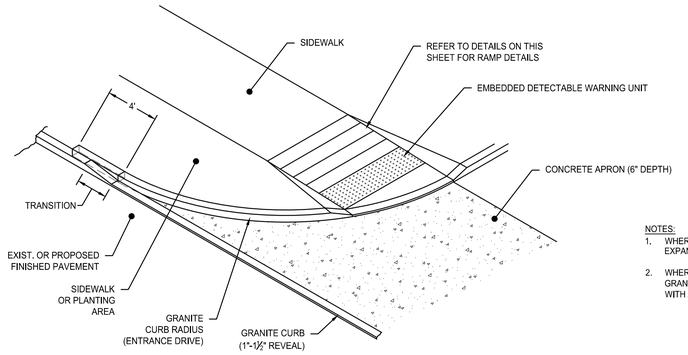


NOTE:
* "D" IS EQUAL TO DEPTH OF CONCRETE.

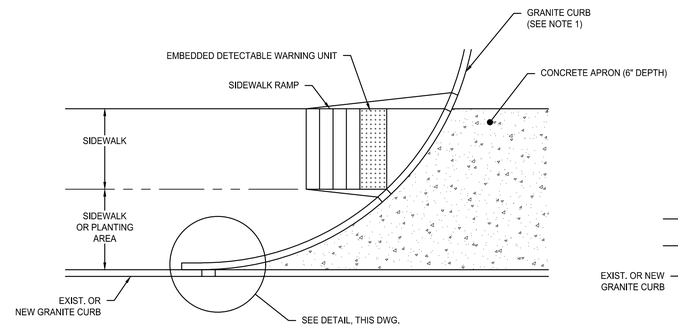
E LOAD TRANSFER - SLIP DOWEL JOINT

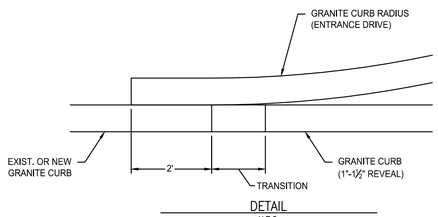
NOTE: ALL EXTERIOR EXPOSED CONCRETE TO BE MIN. 5,000 PSI @ 28 DAYS IN ACCORDANCE WITH THE PROJECT TECHNICAL SPECIFICATIONS

5 TYPICAL CONCRETE JOINTS
SCALE: N.T.S.



NOTES:
1. WHERE CONCRETE CURB ABUTS GRANITE CURB, PROVIDE ½" EXPANSION JOINT WITH FILLER AND SEALANT.
2. WHERE MOUNTABLE CURB MEETS STANDARD GRANITE CURB, GRANITE SHALL BE FORMED TO MEET THE MOUNTABLE FACE WITH A SMOOTH TRANSITION.





DETAIL
N.T.S.

NOTE: ALL EXTERIOR EXPOSED CONCRETE TO BE MIN. 5,000 PSI @ 28 DAYS IN ACCORDANCE WITH THE PROJECT TECHNICAL SPECIFICATIONS

6 CURB DRIVEWAY TRANSITION AND APRON DETAIL
SCALE: N.T.S.

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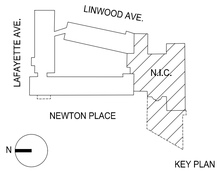


NO.	REVISIONS	DATE

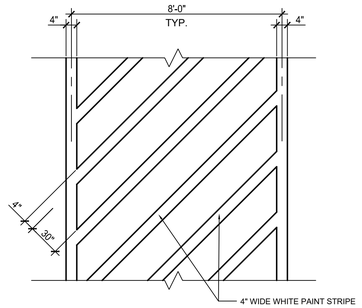
DWG. TITLE

SITE DETAILS

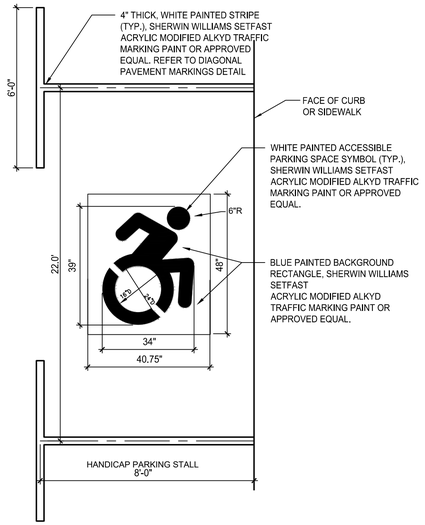
0 1" 2"
GENERIC SCALE BAR
SCALE BAR SHOWN IS TWO INCHES ON THE ORIGINAL DRAWING. IF NOT TWO INCHES ON THIS SHEET, ADJUST ACCORDINGLY

DATE 08/31/2023
SCALE AS NOTED
DWN. JAC CHK. SMR
PROJ. No. 485903
DWG. No.

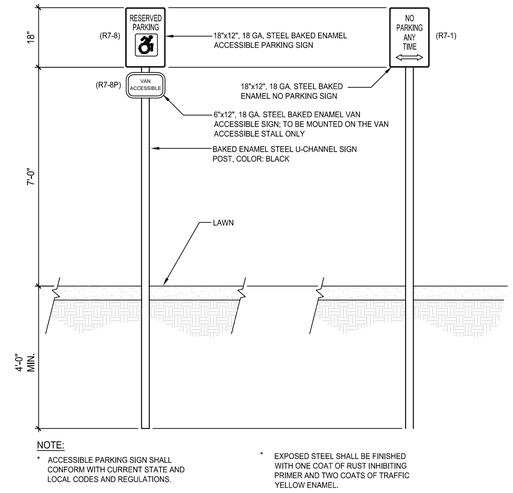
C502



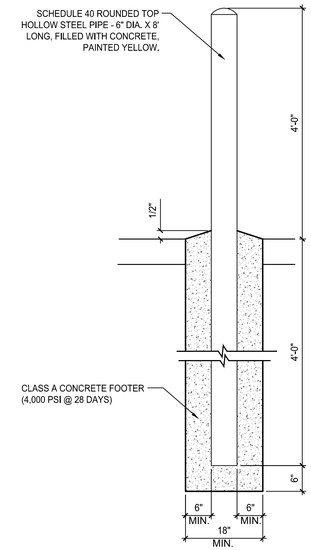
1 DIAGONAL PAVEMENT MARKINGS
N.T.S.



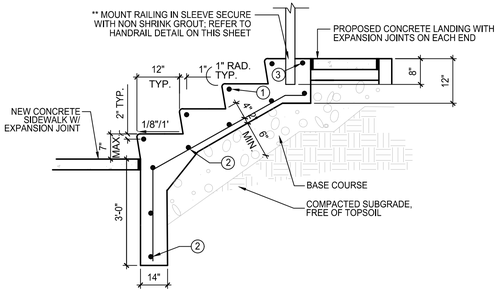
2 ACCESSIBLE PARKING SPACE SYMBOL
N.T.S.



3 PARKING SIGNS DETAIL
N.T.S.



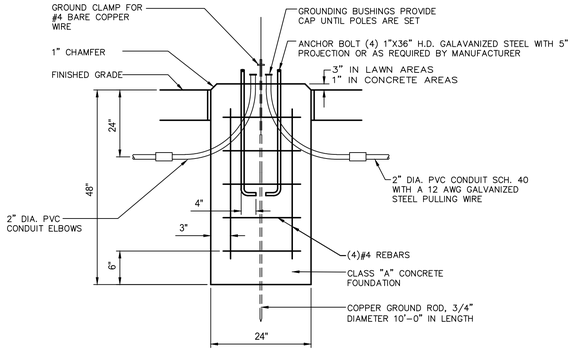
4 TYPICAL BOLLARD DETAIL
N.T.S.



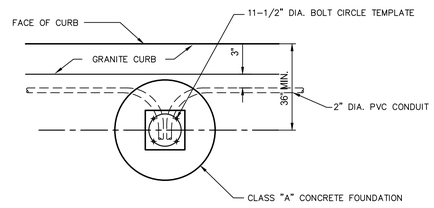
STAIR NOTES:
1. #4 REBARS, CONTINUOUS ALONG NOSE OF STEP, TYP.
2. #4 REBARS, 12" O.C. BOTH WAYS
3. #4 REBAR, 2" IN FROM TOP AND SIDES

* PROVIDE HEAVY BROOM FINISH ON CONCRETE TREADS
* NUMBER OF RISERS AS REQUIRED TO MEET GRADES AT EQUAL HEIGHTS
* REFER TO C301 FOR TOP OF STAIR/TOP OF LANDING ELEVATIONS

5 CONCRETE STAIR DETAIL
N.T.S.



SECTION



PLAN

GENERAL NOTES:
1. CONTRACTOR TO VERIFY BOLT ORIENTATION WILL ALIGN WITH EXISTING STREET LIGHTS.

7 STANDARD STREETLIGHT BASE DETAIL
N.T.S.

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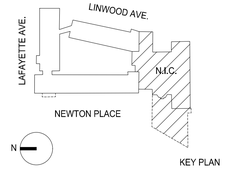


KEY PLAN

NO.	REVISIONS	DATE

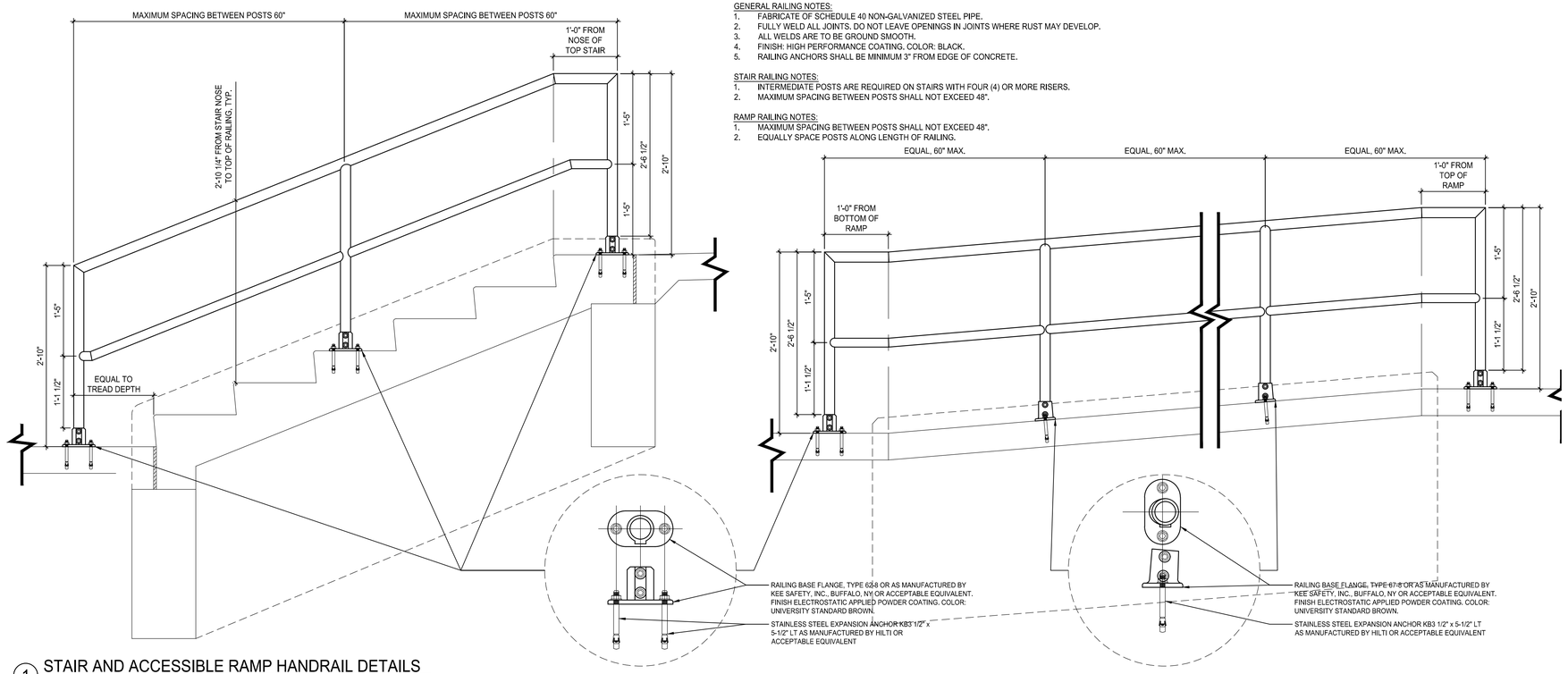
DWG. TITLE

SITE DETAILS

0 1" 2"
GENERIC SCALE BAR
SCALE BAR SHOWN IS TWO INCHES ON THE ORIGINAL DRAWING. IF NOT TWO INCHES ON THIS SHEET, ADJUST ACCORDINGLY

DATE 08/31/2023
SCALE AS NOTED
DWN. JAC CHK. SMR
PROJ. No. 485903
DWG. No.

C503



1 STAIR AND ACCESSIBLE RAMP HANDRAIL DETAILS
SCALE: 1" = 1'-0"

GENERAL RAILING NOTES:
1. FABRICATE OF SCHEDULE 40 NON-GALVANIZED STEEL PIPE.
2. FULLY WELD ALL JOINTS. DO NOT LEAVE OPENINGS IN JOINTS WHERE RUST MAY DEVELOP.
3. ALL WELDS ARE TO BE GROUND SMOOTH.
4. FINISH: HIGH PERFORMANCE COATING. COLOR: BLACK.
5. RAILING ANCHORS SHALL BE MINIMUM 3" FROM EDGE OF CONCRETE.

STAIR RAILING NOTES:
1. INTERMEDIATE POSTS ARE REQUIRED ON STAIRS WITH FOUR (4) OR MORE RISERS.
2. MAXIMUM SPACING BETWEEN POSTS SHALL NOT EXCEED 48".

RAMP RAILING NOTES:
1. MAXIMUM SPACING BETWEEN POSTS SHALL NOT EXCEED 48".
2. EQUALLY SPACE POSTS ALONG LENGTH OF RAILING.

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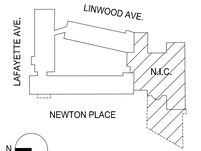

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DWG. No.

C504

SANITARY SEWER NOTES:

1. ALL UTILITY LOCATIONS ARE JUDGED TO BE APPROXIMATE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES IN THE FIELD WHETHER OR NOT SHOWN ON THE PLANS.

2. MANHOLE TROUGHS TO BE CONSTRUCTED TO MAINTAIN SMOOTH HYDRAULIC FLOW PATTERNS.

3. ALL SDR 35 PVC PIPE MANHOLE CONNECTIONS SHALL BE ACCOMPLISHED USING AN APPROVED SEAL OR WATERSTOP. MANHOLE CONNECTIONS CAN BE MADE AS FOLLOWS:

   * MANHOLE COUPLINGS PROVIDING ELASTOMERIC GASKET SEAL. UNIT IS GROUTED INTO MANHOLE WALL. PIPE INSERTS INTO COUPLING.
   * WATERSTOP IN VARIOUS FORMS (E.G. FLEXIBLE BOOT OR SLEEVE. O - RING OR GASKET) PRODUCED FROM ELASTOMERIC COMPOUND IS GROUTED OR LOCKED INTO MANHOLE WALL. PIPE INSERTS INTO WATERSTOP.
   * PRECAST MANHOLE WITH CONNECTION PORTS WITH ELASTOMERIC SEALS PRECAST INTO MANHOLE WALL. PIPE INSERTS INTO CONNECTION PORT.

4. THE CONTRACTOR SHALL REPLACE SERVICE LATERALS WITH SDR 35 PVC PIPE FROM THE SEWER MAIN AS INDICATED ON THE PLANS OR A.O.B.E. AND MAKE THE CONNECTIONS AS DESCRIBED IN SECTION O8.100 OF THE CITY OF BUFFALO SPECIFICATIONS.

5. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY DRAINAGE FACILITIES REQUIRED TO ENSURE THE SATISFACTORY DRAINAGE OF THE ENTIRE PROJECT DURING CONSTRUCTION. NO DIRECT PAYMENT WILL BE MADE FOR THE TEMPORARY DITCHES, CHANNELS AND SPECIAL GRADING. BUT THE COST SHALL BE INCLUDED IN THE PRICE BID FOR ALL THE ITEMS OF THIS CONTRACT.

6. ANY BENDS NEEDED FOR CONNECTIONS FROM PROPOSED DRAINAGE STRUCTURES TO EXISTING STRUCTURES OR PIPE SHALL BE AS ORDERED BY THE ENGINEER.

7. ALL SEWER AND DRAINAGE WORK SHALL CONFORM IN ALL RESPECTS TO THE BUFFALO SEWER AUTHORITY STANDARDS.

8. EXISTING SEWERS AND MANHOLES SHALL NOT BE ABANDONED UNTIL THE NEW SEWER HAS BEEN COMPLETED AND ALL SERVICE LATERALS CONNECTED.

9. ALL ABANDONED PIPES ENCOUNTERED DURING TRENCHING EXCAVATIONS SHALL BE PROPERLY BULKHEADED AT THE FACE OF THE TRENCH OR A.O.B.E. NO PIPE IS TO BE BULKHEADED WITHOUT A THOROUGH INVESTIGATION THAT IT IS ABANDONED.

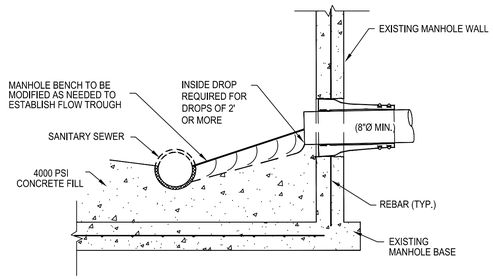
10. NEW SANITARY SEWER DEFLECTION SHALL NOT EXCEED 5% AFTER 30 DAYS.

11. TESTING:

    INFILTRATION AND LEAKAGE TESTING: ALL SANITARY SEWER CONSTRUCTION SHALL BE TESTED. TO ASSURE THAT INFILTRATION OR LEAKAGE SHALL NOT EXCEED 100 GALS. PER INCH OF INTERNAL PIPE DIAMETER PER MILE OF SEWER, PER 24 HOURS. THE ALLOWABLE RATE OF INFILTRATION GIVEN IN GALLONS PER MILE IS NOT TO BE CONSTRUED AS A COMMITMENT ON THE PART OF THE OWNER TO ACCEPT AN ENTIRE LINE WHERE OVERALL INFILTRATION IS LESS THAN THE ALLOWABLE, WHILE ONE OR MORE RUNS CONTRIBUTE EXCESSIVE INFILTRATION.
    PRIOR TO COMMENCING WORK ON THE SANITARY SEWER THE CONTRACTOR SHALL SUBMIT IN WRITING TO THE OWNER/ENGINEER HIS PROPOSED METHOD OF AIR TESTING TO INSURE THE ABOVE LIMITS OF POINT INTEGRITY. THESE AIR TESTS WILL BE PERFORMED AS THE WORK PROGRESSES. EACH RUN OF SEWER FROM MANHOLE TO MANHOLE SHALL BE TESTED FOR COMPLIANCE WITH THE INFILTRATION LIMITS. WHEN TESTS INDICATE DEFECTIVE CONSTRUCTION, THE DEFECTIVE PIPE RUN SHALL BE REPAIRED OR REPLACED AS REQUIRED TO COMPLY WITH THE ALLOWABLE RATE OF INFILTRATION AT NO ADDITIONAL COST TO THE OWNER.

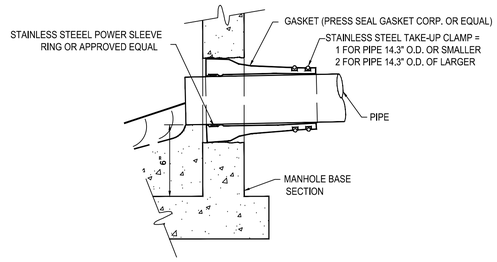
12. ALL POLYVINYL CHLORIDE (PVC) SANITARY SEWER PIPE SHALL BE SDR-35 CONFORMING TO ASTM REQUIREMENTS IN D-3034 OR F679 AND D-1784 WITH RUBBER-RING BELL JOINTS AS IN D-3212.

13. CONTRACTOR IS RESPONSIBLE FOR ALL PERMIT FEES.

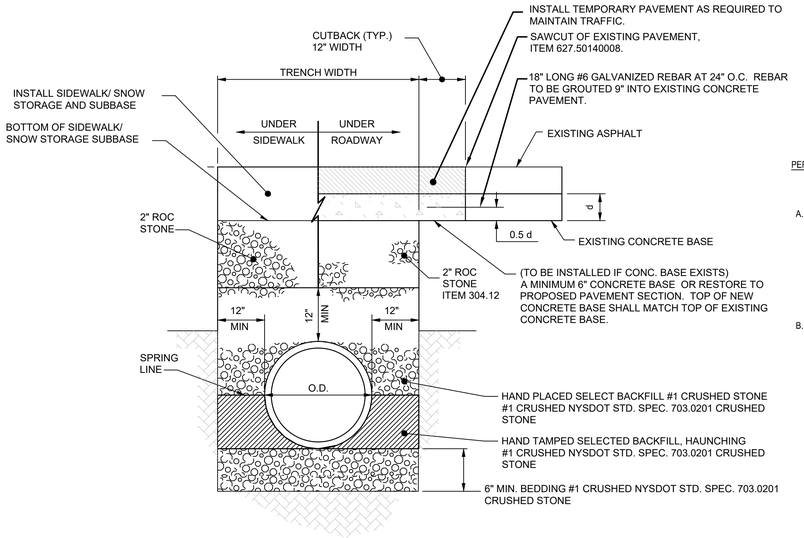


NOTES:

1. CORE DRILL ENTRANCE HOLE IN PRECAST MANHOLE BARREL, BASE AND/OR BENCH FOR REQUIRED PIPE CLEARANCE, PER MANUFACTURERS RECOMMENDATIONS.
2. DOES NOT APPLY TO HOUSE LATERALS.
3. WATERTIGHT PIPE TO MANHOLE BOOT SEAL REQUIRED FOR ALL CORE DRILLED ENTRANCE HOLES IN MANHOLE BARREL AS SHOWN BELOW.



1 MANHOLE CONNECTION DETAIL
SCALE: N.T.S.



NOTES:

1. CONNECT NEW PIPE TO EXISTING PIPE WITH MISSION COUPLING, APPROPRIATELY SIZED FOR CONNECTING PIPES. EXISTING PIPE EDGE MUST BE SQUARELY CUT, NO BROKEN EDGES.

PERMANENT PAVEMENT REPLACEMENT IN CITY OF BUFFALO R.O.W.:

REPLACE PAVEMENT IN THICKNESS AND KIND, OR AS REQUIRED BY APPROPRIATE AUTHORITY,

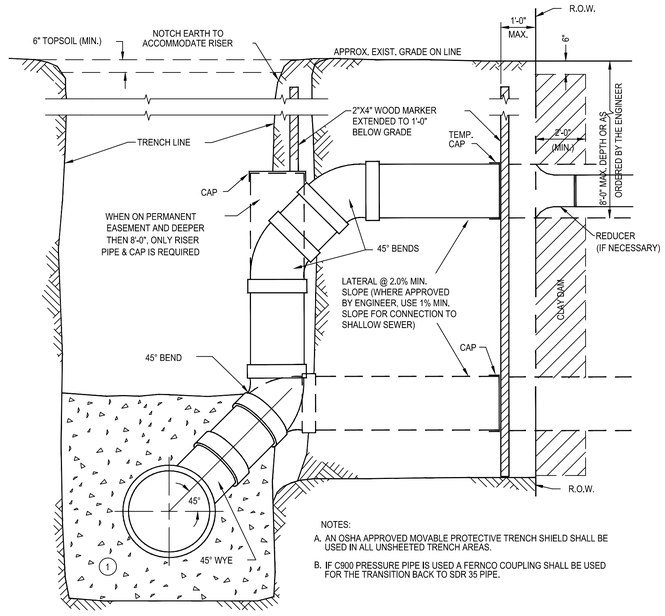
A. MINIMUM STANDARD FOR DRIVEWAY

CONCRETE -	6" -4000 P.S.I. CONCRETE WITH 4x4 - W2.9xW2.9 W.W.F. 4" -2" R.O.C. SUB BASE COURSE
ASPHALT -	1" -N.Y.S.D.O.T. ITEM 403.18 TYPE 7 TOP 1 1/2" -N.Y.S.D.O.T. ITEM 403.13 TYPE 3 BINDER 6" -2" R.O.C. SUB BASE COURSE
STONE -	1/2" -No. 1A STONE COMPACTED ON SURFACE 8" -2" R.O.C. SUB BASE COURSE

B. MINIMUM STANDARD FOR ROAD

CONCRETE -	9" -4000 P.S.I. CONCRETE WITH 6x6 - W2.9xW2.9 W.W.F. 12" -2" R.O.C. SUB BASE COURSE
ASPHALT -	1" -N.Y.S.D.O.T., ITEM 403.1901 TYPE 7F TOP 5" -N.Y.S.D.O.T. ITEM 403.13 TYPE 3 BINDER 12" -2" R.O.C. SUB BASE COURSE

2 SANITARY SEWER TRENCH DETAIL
SCALE: N.T.S.



NOTES:

A. AN OSHA APPROVED MOVABLE PROTECTIVE TRENCH SHIELD SHALL BE USED IN ALL UNSHEETED TRENCH AREAS.

B. IF C900 PRESSURE PIPE IS USED A FERNCO COUPLING SHALL BE USED FOR THE TRANSITION BACK TO SDR 35 PIPE.

MATERIALS

PIPE BEDDING MATERIAL (NYSDOT LATEST EDITION)

1. NO. 1 CRUSHED STONE WITH A GRADATION CONFORMING WITH NYSDOT SECTION 703-02. THE CRUSHED STONE SHALL BE WELL GRADED WITH NO PARTICLES LARGER THAN ONE INCH AND HAVING A MAXIMUM GRADATION MEETING THE LIMITS DESCRIBED IN THE SPECIFICATIONS. THE BEDDING SHALL BE COMPACTED IN 6" LIFTS WITH EQUIPMENT ACCEPTABLE TO THE PIPE MANUFACTURER. NO SLAG WILL BE ALLOWED.

3 SANITARY SERVICE CONNECTION DETAIL
SCALE: N.T.S.

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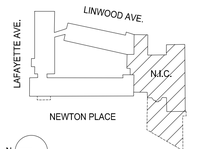

KEY PLAN

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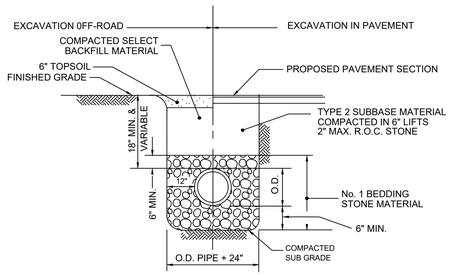
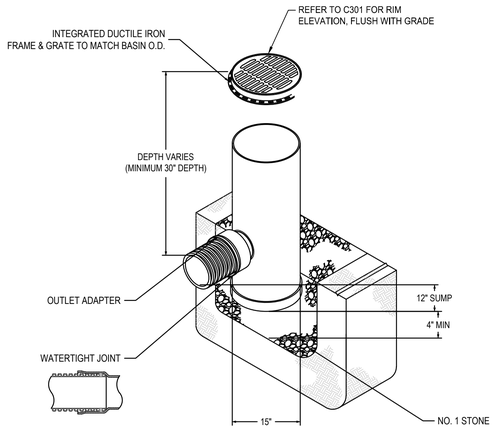


NOTES:

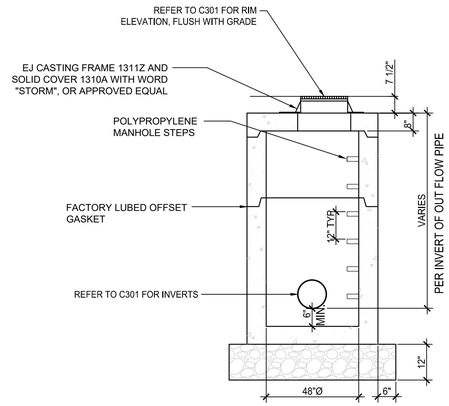
1. PROVIDE A MINIMUM OF 12" OF COVER BETWEEN TOP OF PIPE AND FLEXIBLE PAVEMENT, UNLESS OTHERWISE NOTED ON THE PLANS.

1 STORM SEWER TRENCH DETAIL
SCALE: N.T.S.



1 - GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05 AND SHALL MEET H-20 LOAD RATING.
2 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS.
3 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
4. YARD DRAIN SYSTEM TO BE NYLOPLAST 15" DRAIN BASIN OR APPROVED EQUAL.

2 DRAIN BASIN DETAIL
SCALE: N.T.S.

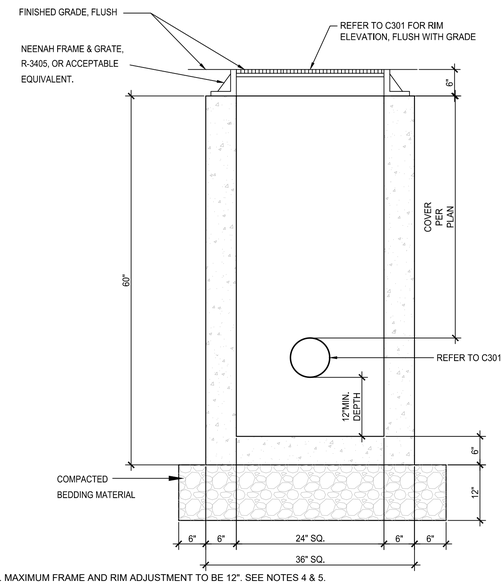


SIZE	RIM - INVERT	TOP
48"	7' OR LESS	FLAT TOP
48"	GREATER THAN 7'	ECCENTRIC CONE
60"	10' OR LESS	FLAT TOP
60"	GREATER THAN 10'	REDUCER AND/OR ECCENTRIC CONE

NOTES:

1. CONCRETE SHALL BE 4,000 PSI MINIMUM
2. MANHOLE DESIGN SHALL CONFORM TO LATEST ASTM C478 SPECIFICATIONS
3. BASE SECTION SHALL BE ONE POUR MONOLITHIC
4. STRUCTURE SHALL BE PLACED ON MINIMUM 12" DEPTH COMPACTED #1 STONE
5. MANHOLE STRUCTURE SHALL BE MODEL MH-MH4ST AS MANUFACTURED BY KISTNER CONCRETE PRODUCTS INC., PEMBROLE, NY OR ACCEPTABLE EQUIVALENT.

3 STORM MANHOLE DETAIL
SCALE: N.T.S.



1. MAXIMUM FRAME AND RIM ADJUSTMENT TO BE 12". SEE NOTES 4 & 5.

2. WALL THICKNESS FOR STRUCTURES TO BE 6".

3. ALL PIPES SHALL BE CUT FLUSH WITH INSIDE WALLS OF STRUCTURE.

4. FOR ALL DRAINAGE STRUCTURES A MAXIMUM OF 2" OF MORTAR ALONE SHALL BE USED FOR TOP SLAB AND/OR FRAME AND GRATE ADJUSTMENT. FOR ADJUSTMENTS, NOT TO EXCEED 12", CAST IN PLACE CONCRETE OR A PRECAST CONCRETE ADJUSTMENT ELEMENT(S) MANUFACTURED IN ACCORDANCE WITH N.Y.S.D.O.T. STANDARD SPECIFICATION NO. 706-04 SHALL BE USED. A MAXIMUM 2" OF MORTAR SHALL BE ALLOWED ON BOTH THE TOP AND BOTTOM OF THE PRECAST DEVICES. MORTAR SHALL BE MORTAR FOR CONCRETE MASONRY CONFORMING TO N.Y.S.D.O.T. STANDARD SPECIFICATION NO. 705-21.

5. THE USE OF PRECAST CONCRETE PAVERS AND MORTAR FOR FRAME AND GRATE ADJUSTMENT WILL NOT BE ALLOWED.

6. PRECAST CATCH BASIN TO BE 4000 PSI MINIMUM.

4 CATCH BASIN DETAIL
SCALE: N.T.S.

NOTES:

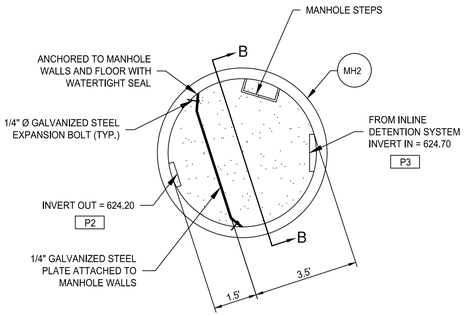
1. 5'-0" DIA. STANDARD MANHOLE WITH 6" WALL THICKNESS UNLESS OTHERWISE NOTED.

2. FIRST MANHOLE STEP SHALL BE 6" FROM THE TOP OF CONE. M.H. STEPS TO BE ON STRAIGHT WALL. NO PIPE ON STRAIGHT WALL IF POSSIBLE. STRAIGHT WALL TO BE AWAY FROM ROAD. PIPE OPENINGS SHALL BE ORIENTED TO NOT INTERFERE WITH ACCESS STEPS.

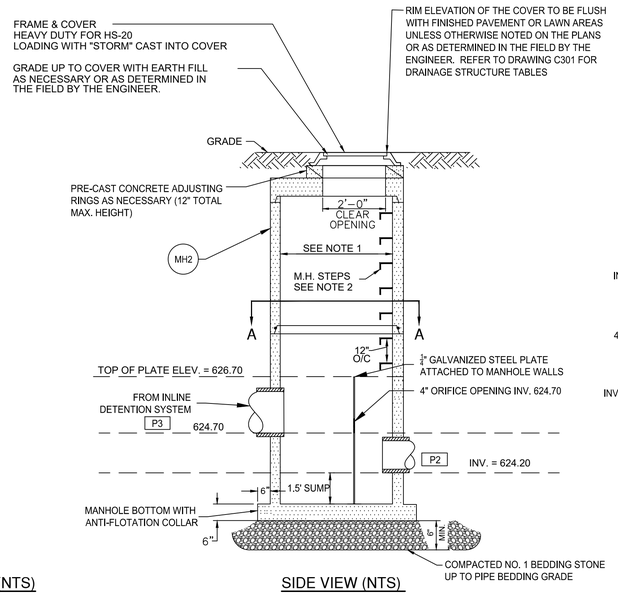
3. AFTER THE BARREL SECTIONS ARE ASSEMBLED, ANY EXCESS JOINT COMPOUND SHALL BE TROWELED OFF THE OUTSIDE AND INSIDE FACE. THE INSIDE FACE OF THE JOINT SHALL THEN BE TROWELED WITH APPROVED PATCHING MATERIAL.

4. ALL PIPE PENETRATIONS SHALL BE PROPERLY SEALED.

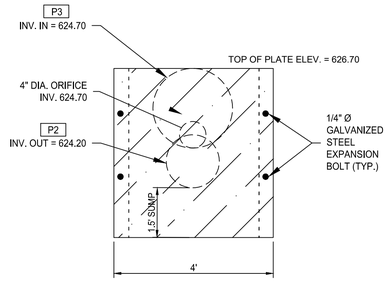
5. REFER TO STORM SEWER TABLES ON C301 FOR PIPE SIZES.



TOP VIEW OF OUTLET STRUCTURE SECTION A-A (NTS)



SIDE VIEW (NTS)



ORIFICE PLATE SECTION B-B (NTS)

5 UNDERGROUND DETENTION SYSTEM OUTLET STRUCTURE - MH2
SCALE: N.T.S.

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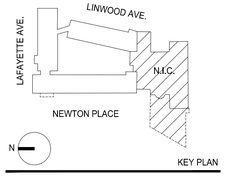

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DWG. No.

C506

SC-740 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-740.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

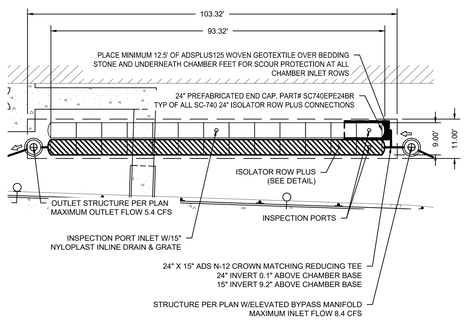
1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS.
   STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

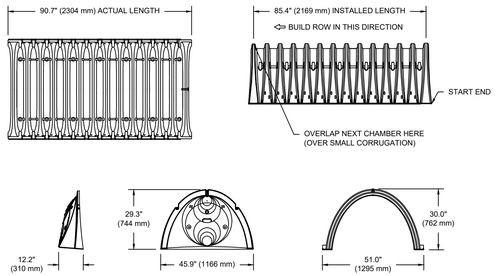
CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.



NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.
- PROVIDE MINIMUM 12" END STONE, 12" SIDE SIDE STONE, 6" STONE BASE, AND 6" STONE COVER.

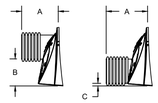
1 DETENTION SYSTEM PLAN VIEW
SCALE: N.T.S.



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



PRE-FAB STUB AT BOTTOM OF END CAP WITH FLAMP END WITH "BR"
PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE-CORED END CAPS END WITH "PC"

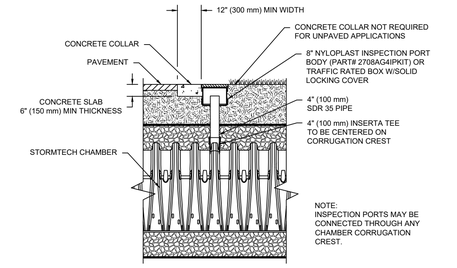
PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC			---	0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC			---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC			---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC			---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC			---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC			---	1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)
SC740EPE24BR*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B/SC740EPE24BR ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740EPE24B/SC740EPE24BR THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL

2 SC-740 DETAILS
SCALE: N.T.S.



INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

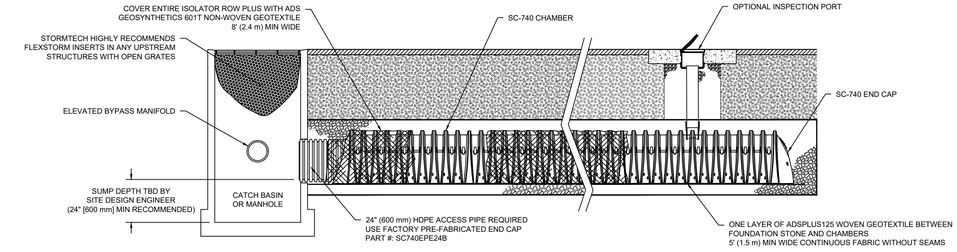
STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

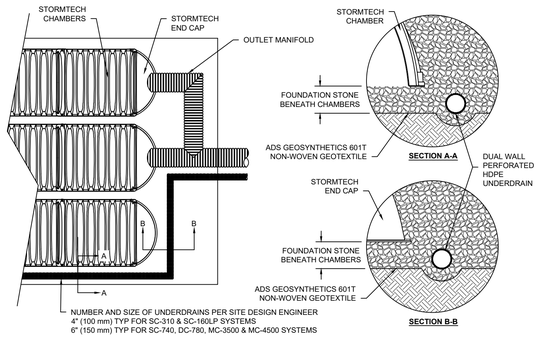
NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

5 INSPECTION PORT DETAIL
SCALE: N.T.S.



3 SC-740 ISOLATOR ROW DETAIL
SCALE: N.T.S.

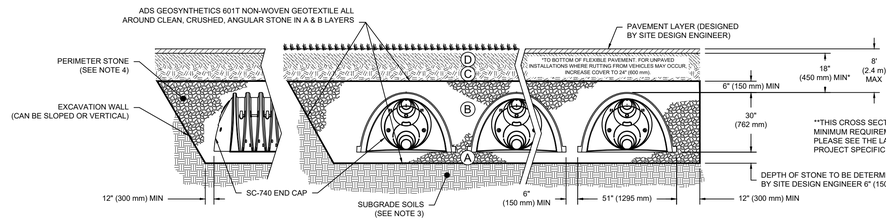


4 UNDERDRAIN SYSTEM DETAIL
SCALE: N.T.S.

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DESITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE [2,3]

PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

6 SC-740 CROSS SECTION
SCALE: N.T.S.

BELMONT HOUSING RESOURCES FOR WNY

BELMONT HOUSING

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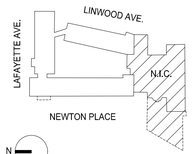
Buffalo, NY 14213



NO.	REVISIONS	DATE

DWG. TITLE

STORM SEWER DETAILS

0 1" 2"
GENERIC SCALE BAR
SCALE BAR SHOWN IS TWO INCHES ON THE ORIGINAL DRAWING. IF NOT TWO INCHES ON THIS SHEET, ADJUST ACCORDINGLY

DATE 08/31/2023
SCALE AS NOTED
DWN. JAC CHK. SMR
PROJ. No. 485903
DWG. No.

C507

WATERMAINS AND SERVICES NOTES:

1. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, DEWATERING, SHORING AND OTHER ITEMS. TEMPORARY OR PERMANENT, REQUIRED TO COMPLETE THE WORK AS INTENDED BY THE CONTRACT DOCUMENTS AND AS DIRECTED BY THE ENGINEER

2. THE CONTRACTOR SHALL NOT OPERATE VALVES ON EXISTING MAINS OR ON NEW MAINS APPROVED FOR USE. THE OPERATION OF VALVES SHALL ONLY BE DONE BY CITY OF BUFFALO, DIVISION OF WATER PERSONNEL.

3. WORK DENOTED ON THE PLANS AS "OPERATION NO. ##" SHALL BE PERFORMED BY DIVISION OF WATER PERSONNEL. THE CONTRACTOR SHALL PROVIDE ALL EXCAVATION, BACKFILL, RESTORATION, LABOR AND MATERIAL REQUIRED TO COMPLETE THE WORK AND SHALL PROVIDE ASSISTANCE TO THE CITY CREW AS REQUESTED. THE CONTRACTOR SHALL NOTIFY THE DIVISION OF WATER PROJECT REPRESENTATIVE AT LEAST TWO (2) WORKING DAYS PRIOR TO THE PROPOSED OPERATION DATE TO SCHEDULE THE WORK. AT THE TIME OF SCHEDULING, THE CONTRACTOR SHALL HAVE THE REQUIRED MATERIAL ON HAND FOR THE OPERATION AND SHALL HAVE EXCAVATED THE OPERATION SITE TO VERIFY THAT THE WORK CAN BE COMPLETED AS DESIGNED.

4. PRIOR TO STARTING CONSTRUCTION ACTIVITIES ON A STREET, THE CONTRACTOR WILL ARRANGE WITH THE ENGINEER TO PERFORM A WATER SERVICE SURVEY. PROBLEMS ENCOUNTERED SHOULD BE BROUGHT IMMEDIATELY TO THE ENGINEER'S ATTENTION IN WRITING.

5. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL REQUEST ALL UTILITIES TO LOCATE THEIR RESPECTIVE LINES AND FACILITIES. LOCATION OF EXISTING UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES WITHIN THE PROJECT LIMITS.

6. THE CONTRACTOR SHALL PERFORM ALL WORK CAREFULLY WHEN CROSSING EXISTING WATER SERVICE LINES, SEWER LINES AND OTHER UTILITY LINES AND FACILITIES TO PREVENT DAMAGING THEM.

7. ANTICIPATED WATERMAIN RELOCATION/DEFLECTIONS ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY/CONFIRM THESE LOCATIONS AND ANY ADDITIONAL CONFLICTS PRIOR TO AND DURING CONSTRUCTION. THE NEED FOR WATERMAIN RELOCATION/DEFLECTION SHALL BE AS DETERMINED IN THE FIELD BY THE ENGINEER.

8. THE LOCATION OF DRAINAGE INLET (DI) LATERALS ARE UNKNOWN. WHEN WORKING IN THE VICINITY OF A DI, THE CONTRACTOR SHALL USE DUE CAUTION TO PREVENT DAMAGING THE LATERAL.

9. ALL EXCAVATED MATERIAL AND DEBRIS SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF SITE BY THE CONTRACTOR.

10. ALL VALVE BOXES ON ABANDONED LINES SHALL HAVE THE TOP HALF REMOVED OR BROKEN OFF AT LEAST 2' - 0" BELOW FINAL GRADE AND THE REMAINING PORTION SHALL BE FILLED WITH CONCRETE. THE SURFACE SHALL THEN BE RESTORED TO ITS ORIGINAL STATE.

11. THE CONTRACTOR SHALL KEEP THE SITE OF THE WORK AND ADJACENT PREMISES FREE FROM MATERIAL, DEBRIS AND RUBBISH AND SHALL REMOVE ALL TEMPORARY STRUCTURES, SURPLUS MATERIAL, TOOLS, EQUIPMENT, AND IMPLEMENTS CONNECTED TO OR CAUSED BY THE WORK IMMEDIATELY UPON COMPLETION AND SHALL LEAVE THE PREMISES IN ORIGINAL OR BETTER CONDITION.

12. UNLESS DIRECTED OTHERWISE BY THE ENGINEER, ALL CONNECTIONS BETWEEN NEW AND EXISTING WATERLINES SHALL BE MADE WITH SOLID SLEEVES.

13. ALL WATER SHUT DOWNS SHALL BE KEPT TO A MINIMUM. EACH SHUT DOWN OCCURRENCE SHALL NOT EXCEED FOUR HOURS IN DURATION UNLESS PRIOR APPROVAL IS RECEIVED FROM THE ENGINEER. ALL PROPERTIES TO BE AFFECTED BY A SHUT DOWN SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST 24 HOURS IN ADVANCE. WHERE A WATER SHUT DOWN WILL CAUSE AN UNDUE BURDEN, AS DETERMINED BY THE ENGINEER, TO A BUSINESS OR PROPERTY OWNER. THE WORK WILL BE SCHEDULED TO MINIMIZE THE IMPACT OR TEMPORARY SERVICE CONNECTION WILL BE PROVIDED.

14. ALL WATERMAIN PIPING SHALL BE INSTALLED WITH A MINIMUM OF 1'-6" OF VERTICAL CLEARANCE AND 10'-0" OF HORIZONTAL CLEARANCE FROM SANITARY AND/OR STORM PIPE.

15. ALL WATERMAIN PIPING SHALL BE INSTALLED WITH A MINIMUM OF 5'-0" OF COVER.

16. WHERE WATERLINES HAVE LESS THAN 4 FEET OF COVER BELOW THE PAVEMENT, OR AS NOTED ON PLANS, THEY SHALL BE INSULATED WITH A 2 INCH THICK 24 INCH WIDE EXTRUDED POLYSTYRENE INSULATION BOARD WITH A MINIMUM COMPRESSIVE STRENGTH OF 60 PSI AT 10% DEFORMATION AND A THERMAL CONDUCTIVITY OF LESS THAN 0.185 BTL/HR /S.F./F DEGREE/INCH OF DEPTH OR A PRE-INSULATED PIPE.

17. THRUST RESTRAINTS FOR WATER SERVICE PIPING SHALL BE INSTALLED AT ALL CHANGES IN DIRECTION, CHANGES IN SIZE, DEAD ENDS OR OTHER LOCATIONS WHERE SHOWN OR NOTED IN THE CONTRACT DOCUMENTS OR AS DETERMINED IN THE FIELD BY THE ENGINEER.

18. MECHANICAL RESTRAINTS FOR WATER SERVICE PIPING SHALL BE INSTALLED AT ALL BENDS, VALVES, TEES, AND HYDRANTS OR OTHER LOCATIONS WHERE SHOWN OR NOTED IN THE CONTRACT DOCUMENTS OR AS DETERMINED IN THE FIELD BY THE ENGINEER.

19. HARNESSING IS FOR RESISTANCE TO INTERNAL PRESSURE; THE PIPE ITSELF MUST BE SUPPORTED ON FIRM BEDDING AND CAREFULLY BACKFILLED.

20. ALL NEW WATERLINE VALVES, HYDRANTS, AND OTHER APPURTENANCES ARE TO BE LOCATED AS SHOWN ON THE PLANS OR WHERE ORDERED BY THE CITY DPW AND ARE NOT TO SCALE AND MAY NOT INDICATE EXACT LOCATIONS.

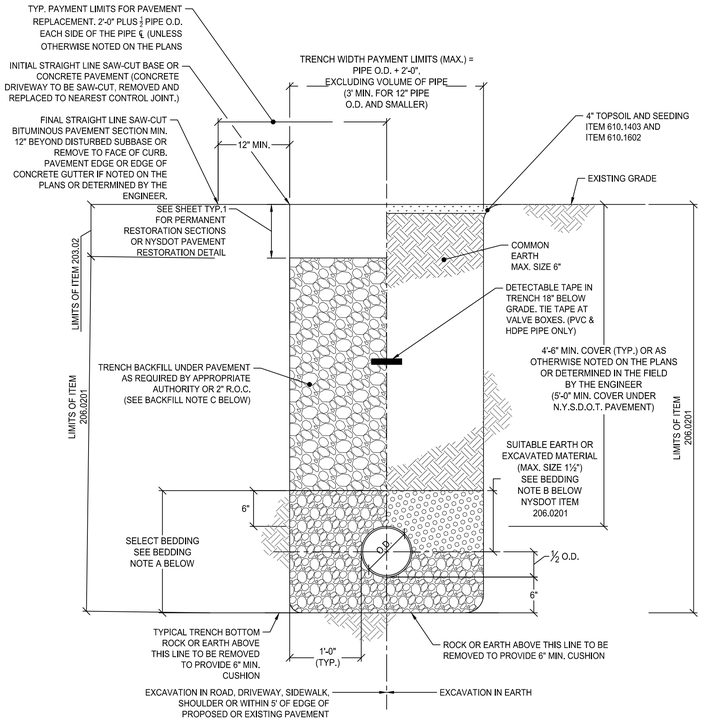
21. ALL VALVE BOXES TO BE SET WITH COVER FLUSH WITH FINISHED GRADE. (REFER TO TYPICAL VALVE SETTING DETAIL).

22. DISINFECTION:
ALL NEWLY LAID, OR RELAID PIPE AND APPURTENANCES SHALL BE DISINFECTED BEFORE BEING PLACED IN SERVICE AS DESCRIBED IN SECTION 09 OF THE CITY OF BUFFALO SPECIFICATIONS (AWWA C-651).

23. HYDROSTATIC TESTING:
PRESSURE AND LEAKAGE TESTS: ALL DUCTILE IRON WATERMAIN PIPE AND VALVED SECTIONS SHALL BE TESTED AS DESCRIBED IN SECTION 09 OF THE CITY OF BUFFALO SPECIFICATIONS (AWWA-C600). THE CONTRACTOR SHALL PROVIDE ADEQUATE TEMPORARY OR PERMANENT RESTRAINT FOR DEAD END FACILITIES DURING PRESSURE TESTING. RESTRAINT SHALL BE SIZED TO SAFELY RESIST 125% OF THE TESTING PRESSURE OR A MINIMUM OF 150 PSI.

24. DUCTILE IRON PIPE
   A. ALL WATERLINE SHALL BE DUCTILE IRON, CLASS 52. ALL DUCTILE IRON PIPE SHALL HAVE A FACTORY APPLIED CEMENT-MORTAR LINING CONFORMING TO ANSI-A-21.4 AND AWWA-C-104. THE OUTSIDE OF THE PIPE SHALL BE COATED WITH BLACK TAR PAINT CONFORMING TO THE LATEST ANSI AND AWWA SPECIFICATIONS.

26. CONTRACTOR IS RESPONSIBLE FOR ALL PERMIT FEES.



NOTE: BEDDING/BACKFILL FOR PRESSURE PIPE

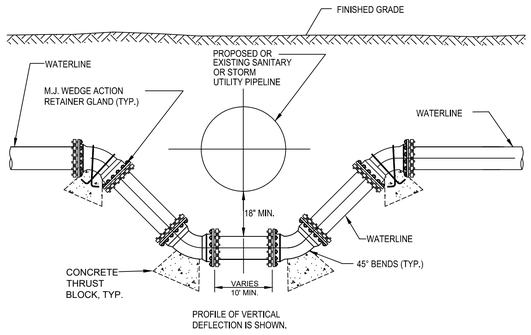
A. No. 1 STONE BEDDING IS REQUIRED FROM 6" BELOW TO SPRINGLINE OF PIPE.

B. CONTINUE BEDDING TO 6" OVER PIPE WHERE EXCAVATION IS WITHIN PROPOSED OR EXISTING PAVEMENT OR STABILIZED SHOULDER, EXISTING DRIVEWAY, EXISTING OR PROPOSED, WITHIN 5' OF EDGE OF PROPOSED OR EXISTING PAVEMENT, IN AREAS OF ROCK EXCAVATION OR WHERE EXCAVATED MATERIAL IS NOT ACCEPTABLE TO THE ENGINEER.

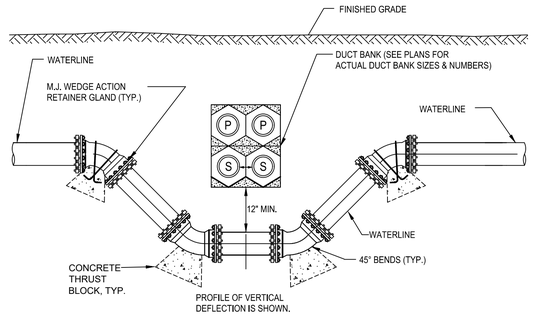
C. FULL DEPTH SELECT MATERIAL FOR BACKFILL (NYSDOT ITEM 203.07) WILL BE REQUIRED WHEN ANY PART OF THE TRENCH EXCAVATION IS IN OR WITHIN FIVE FEET OF THE EDGE OF ROADWAY, DRIVEWAY, SIDEWALK OR STABILIZED ROAD SHOULDER, OR AS DETERMINED IN THE FIELD BY THE ENGINEER.

D. ALL SELECT MATERIAL TO BE COMPACTED IN 6" LIFTS, AS PER ASTM-2774.

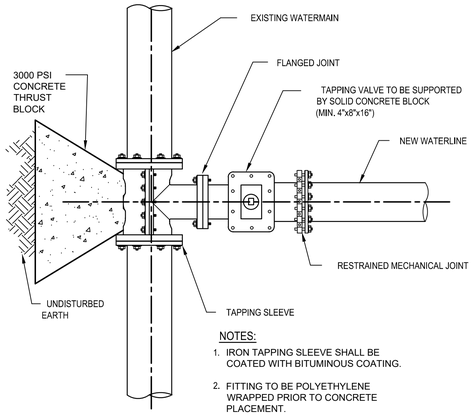
1 WATERLINE TRENCH DETAIL
SCALE: N.T.S.



2 TYPICAL DEFLECTION BELOW GRAVITY PIPELINE
SCALE: N.T.S.

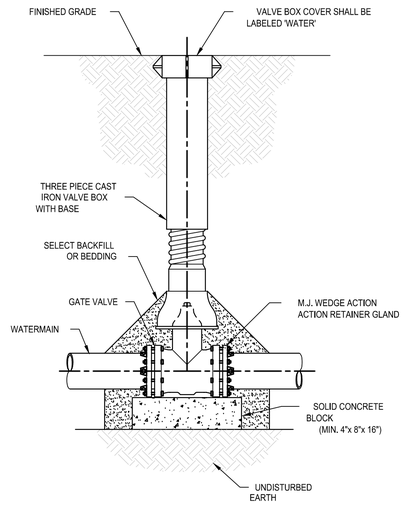


3 TYPICAL DEFLECTION BELOW DUCT BANK
SCALE: N.T.S.



NOTES:
1. IRON TAPPING SLEEVE SHALL BE COATED WITH BITUMINOUS COATING.
2. FITTING TO BE POLYETHYLENE WRAPPED PRIOR TO CONCRETE PLACEMENT.

4 TAPPING SLEEVE & VALVE DETAIL
SCALE: N.T.S.



NOTE:
1. VALVE SHALL NOT SUPPORT VALVE BOX.

SECTION
N.T.S.

5 GATE VALVE SETTING DETAIL
SCALE: N.T.S.

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4245 Union Road #204
Cheektowaga, NY 14225

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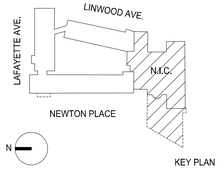
960 Busti Avenue #120
Buffalo, NY 14213



KEY PLAN

NO.	REVISIONS	DATE

DWG. TITLE

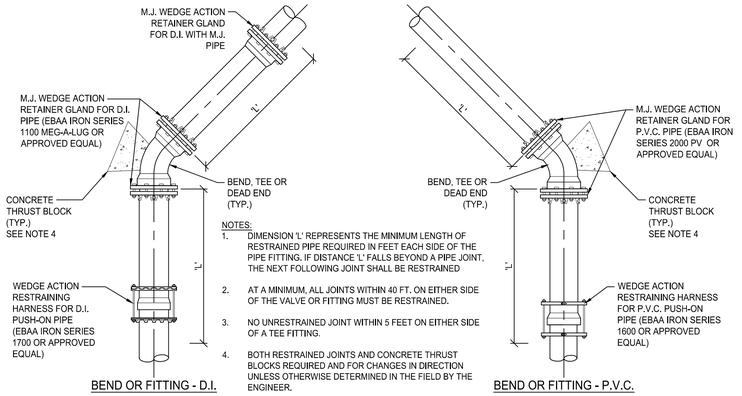
WATERLINE DETAILS

GENERIC SCALE BAR
0 1" 2"
SCALE BAR SHOWN IS TWO INCHES ON THE ORIGINAL DRAWING. IF NOT TWO INCHES ON THIS SHEET, ADJUST ACCORDINGLY

DATE	08/31/2023
SCALE	AS NOTED
DWN.	JAC
CHK.	SMR
PROJ. No.	485903

DWG. No.

C508



BEND OR FITTING - D.I. | BEND OR FITTING - P.V.C.

NOTES:

1. DIMENSION 'L' REPRESENTS THE MINIMUM LENGTH OF RESTRAINED PIPE REQUIRED IN FEET EACH SIDE OF THE PIPE FITTING. IF DISTANCE 'L' FALLS BEYOND A PIPE JOINT, THE NEXT FOLLOWING JOINT SHALL BE RESTRAINED
2. AT A MINIMUM, ALL JOINTS WITHIN 40 FT. ON EITHER SIDE OF THE VALVE OR FITTING MUST BE RESTRAINED.
3. NO UNRESTRAINED JOINT WITHIN 5 FEET ON EITHER SIDE OF A TEE FITTING.
4. BOTH RESTRAINED JOINTS AND CONCRETE THRUST BLOCKS REQUIRED AND FOR CHANGES IN DIRECTION UNLESS OTHERWISE DETERMINED IN THE FIELD BY THE ENGINEER.

RESTRAINED JOINT SCHEDULE FOR HORIZONTAL & VERTICAL UPWARD FACING FITTINGS

NOTE: FOR 2000 P.S.F. SOIL BEARING AT 150 PSI TEST PRESSURE

PIPE SIZE	11¼° BEND	22½° BEND	45° BEND	90° BEND	TEE BRANCH, VALVE OR DEAD END
	'L' (FT.)	'L' (FT.)	'L' (FT.)	'L' (FT.)	'L' (FT.)
FOR PVC AND POLYWRAPPED DUCTILE IRON PIPE (D.I.P.)					
4"	0.5	1.1	2.2	5.4	16.0
6"	0.8	1.7	3.5	8.3	24.6
8"	1.1	2.3	4.7	11.4	33.5
12"	1.7	3.5	7.2	17.5	50.7
FOR BARE DUCTILE IRON PIPE (D.I.P.)					
4"	0.5	0.9	1.9	4.7	11.0
6"	0.7	1.4	3.0	7.2	16.9
8"	1.0	2.0	4.1	9.9	23.0
12"	1.5	3.0	6.2	15.1	34.7

* ASSUMES POLYWRAPPED DUCTILE IRON PIPE
** ASSUMES BARE DUCTILE IRON PIPE

REDUCER ON PVC OR D.I. (WITH POLYWRAP)	
SIZE	'L' (FT. ON LARGER DIA. SIDE ONLY)
8"x4"	25.2
8"x6"	14.7
12"x6"	38.0
12"x8"	28.2
12"x10"	15.5

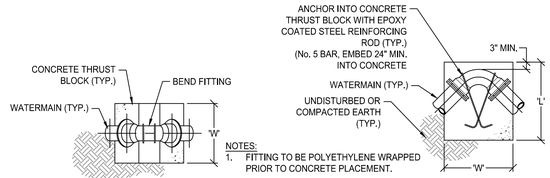
RESTRAINED JOINT SCHEDULE FOR DOWNWARD FACING VERTICAL BENDS

NOTE: FOR 2000 P.S.F. SOIL BEARING AT 150 PSI TEST PRESSURE

PIPE SIZE	11¼° BEND	22½° BEND	45° BEND	90° BEND	TEE BRANCH
	'L' (FT.)	'L' (FT.)	'L' (FT.)	'L' (FT.)	'L' (FT.)
FOR PVC AND POLYWRAPPED DUCTILE IRON PIPE (D.I.P.)					
4"	1.8	3.7	7.7	18.7	16.0
6"	2.8	5.7	11.9	28.8	24.6
8"	3.9	7.8	16.2	39.2	33.5
12"	5.8	11.8	24.5	59.2	50.7
FOR BARE DUCTILE IRON PIPE (D.I.P.)					
4"	1.1	2.2	4.5	11.0	11.0
6"	1.7	3.4	7.0	16.9	16.9
8"	2.3	4.6	9.5	23.0	23.0
12"	3.4	6.9	14.4	34.7	34.7

* ASSUMES POLYWRAPPED DUCTILE IRON PIPE
** ASSUMES BARE DUCTILE IRON PIPE

1 TYPICAL RESTRAINED JOINT DETAIL
SCALE: N.T.S.



PLAN | ELEVATION

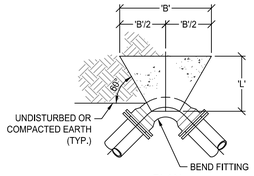
NOTES:

1. FITTING TO BE POLYETHYLENE WRAPPED PRIOR TO CONCRETE PLACEMENT.
2. FOR UPWARD FACING VERTICAL BEND, USE DIMENSION SCHEDULE FOR HORIZONTAL AND UPWARD FACING VERTICAL BENDS.

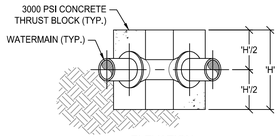
MINIMUM DIMENSION SCHEDULE

PIPE SIZE	11¼° BEND			22½° BEND			45° BEND			90° BEND		
	'L' (ft.)	'W' (ft.)	CONCRETE VOLUME REQUIRED (c.y.)	'L' (ft.)	'W' (ft.)	CONCRETE VOLUME REQUIRED (c.y.)	'L' (ft.)	'W' (ft.)	CONCRETE VOLUME REQUIRED (c.y.)	'L' (ft.)	'W' (ft.)	CONCRETE VOLUME REQUIRED (c.y.)
3"	1.9	1.3	0.12	2.3	1.5	0.20	2.8	1.9	0.38	3.2	2.1	0.54
6"	2.4	1.6	0.23	3.0	2.0	0.46	3.7	2.5	0.85	4.2	2.8	1.20
8"	2.9	2.0	0.42	3.7	2.5	0.82	4.5	3.0	1.51	5.1	3.4	2.14
12"	3.9	2.6	0.94	4.8	3.2	1.84	5.9	3.9	3.41	6.6	4.4	4.82
NOTE: FOR 2000 P.S.F. SOIL BEARING AT 150 PSI												

2 THRUST BLOCK DETAIL DOWNWARD FACING VERTICAL BEND
SCALE: N.T.S.



PLAN



ELEVATION

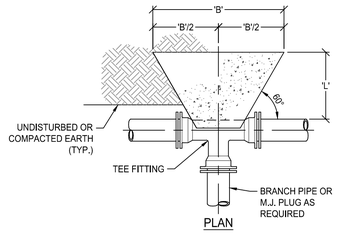
NOTES:

1. FITTING TO BE POLYETHYLENE WRAPPED PRIOR TO CONCRETE PLACEMENT.
2. THIS DETAIL TO BE USED ALSO FOR UPWARD FACING VERTICAL BENDS

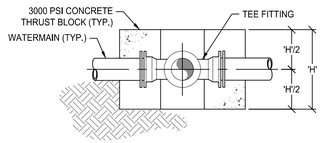
MINIMUM DIMENSION SCHEDULE

PIPE SIZE	11¼° BEND			22½° BEND			45° BEND			90° BEND		
	'H' (ft.)	'B' (ft.)	'L' (ft.)	'H' (ft.)	'B' (ft.)	'L' (ft.)	'H' (ft.)	'B' (ft.)	'L' (ft.)	'H' (ft.)	'B' (ft.)	'L' (ft.)
3"	0.4	0.6	0.4	0.5	0.8	0.8	0.7	1.1	1.4	1.0	1.5	2.0
6"	0.6	0.8	0.6	0.8	1.2	1.2	1.1	1.7	2.0	1.5	2.3	3.1
8"	0.8	1.1	0.8	1.1	1.6	1.6	1.5	2.2	2.7	2.0	3.0	4.1
12"	1.1	1.7	1.2	1.6	2.4	2.4	2.2	3.3	4.1	3.0	4.5	6.1
NOTE: FOR 2000 P.S.F. SOIL BEARING AT 150 PSI												

4 THRUST BLOCK DETAIL HORIZONTAL AND UPWARD FACING BENDS
SCALE: N.T.S.



PLAN



ELEVATION

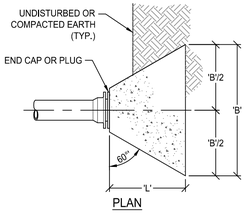
NOTES:

1. FITTING TO BE POLYETHYLENE WRAPPED PRIOR TO CONCRETE PLACEMENT.
2. THRUST BLOCK REQUIRED FOR ALL 16" DIA. AND SMALLER MAINLINE TEES, HYDRANT LATERAL TEES AND TAPPING SLEEVE INSTALLATIONS.

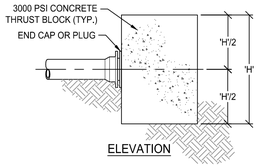
MINIMUM DIMENSION SCHEDULE

BRANCH TEE OR END CAP DIA.	'H' (ft.)	'B' (ft.)	'L' (ft.)
3"	0.9	1.3	1.1
6"	1.3	1.9	1.6
8"	1.7	2.6	2.1
12"	2.6	3.8	3.2
NOTE: FOR 2000 P.S.F. SOIL BEARING AT 150 PSI TEST PRESSURE			

3 THRUST BLOCK DETAIL FOR TEE FITTING
SCALE: N.T.S.



PLAN



ELEVATION

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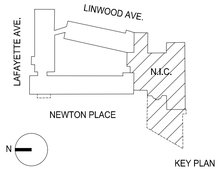


KEY PLAN

NO.	REVISIONS	DATE

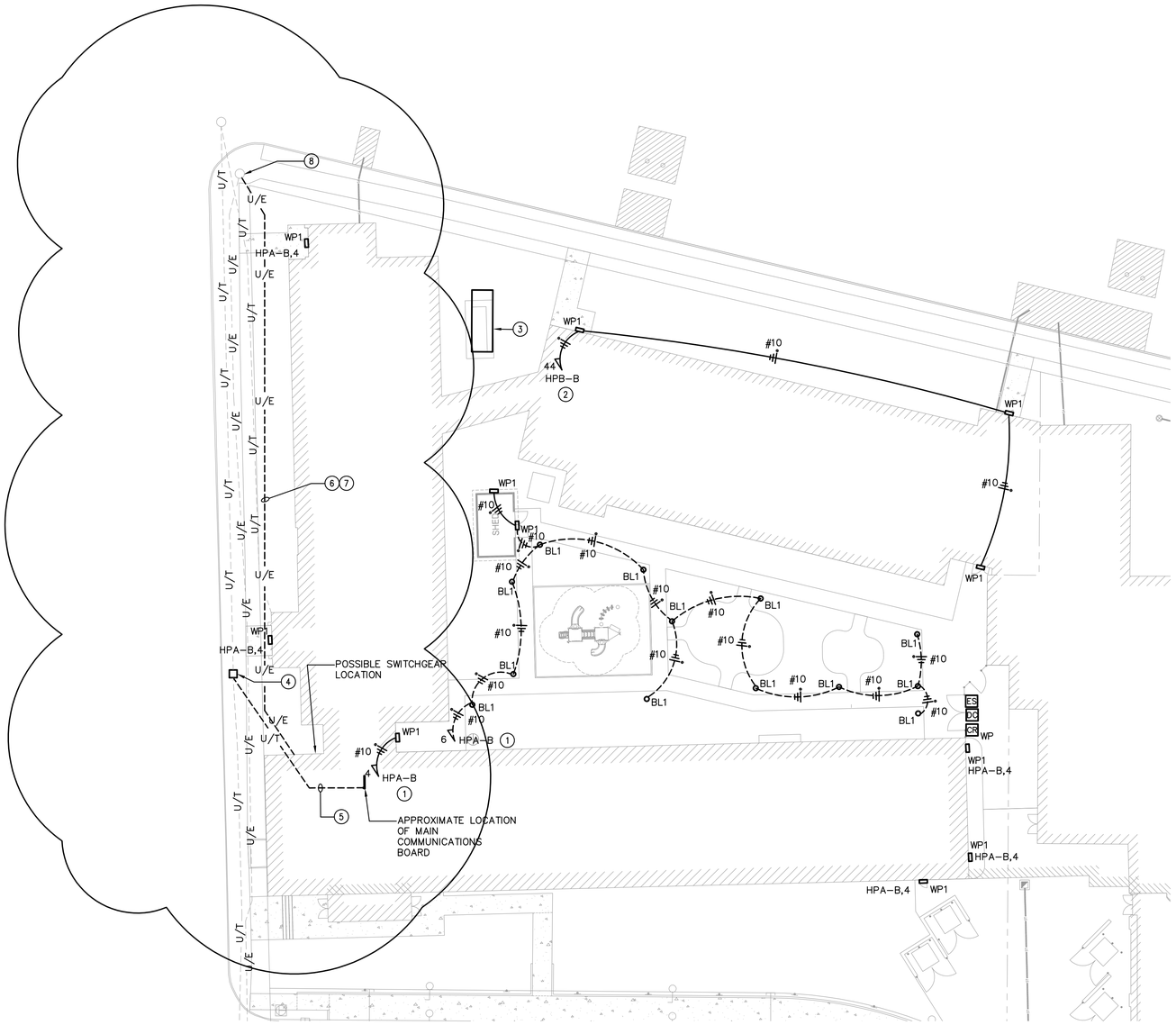
DWG. TITLE

WATERLINE DETAILS

0 1" 2"
GENERIC SCALE BAR
SCALE BAR SHOWN IS TWO INCHES ON THE ORIGINAL DRAWING. IF NOT TWO INCHES ON THIS SHEET, ADJUST ACCORDINGLY

DATE 08/31/2023
SCALE AS NOTED
DWN. JAC CHK. SMR
PROJ. No. 485903
DWG. No.

C509



1 E-400 SITE PLAN – ELECTRICAL
SCALE: 1"= 20'-0"

LIGHTING FIXTURE SCHEDULE

WP1 LED FULL CUTOFF WALL PACK. WET LOCATION RATED, 14 WATTS, 1806 LUMENS, 3000'K, 120V. BUG RATING: B1–U0–G0. MOUNTED 8'–0" A.F.G. LUMARK LIGHTING #AXCSIA OR APPROVED EQUAL

BL1 3' LED BOLLARD, 17 WATTS, 1,402 LUMENS, 3000'K, 120V. BUG RATING: B1–U2–G1. ILP LIGHTING: BLFT–15WLED OR APPROVED EQUAL.

ELECTRICAL KEYED NOTES:

1. ROUTE CIRCUIT THROUGH EXTERIOR LIGHTING CONTACTOR 'C1' ELECTRICALLY HELD, 4 POLE, 20 AMP, 120 VOLT COIL IN NEMA 1 ENCLOSURE. SQUARE 'D' CLASS 8903 OR EQUAL. REFER TO DETAIL #3 ON THIS DRAWING FOR ADDITIONAL INFORMATION.
2. ROUTE CIRCUIT THROUGH EXTERIOR LIGHTING CONTACTOR 'C2' ELECTRICALLY HELD, 4 POLE, 20 AMP, 120 VOLT COIL IN NEMA 1 ENCLOSURE. SQUARE 'D' CLASS 8903 OR EQUAL. REFER TO DETAIL #3 ON THIS DRAWING FOR ADDITIONAL INFORMATION.
3. APPROXIMATE LOCATION OF NEW 350KW EMERGENCY GENERATOR.
4. APPROXIMATE LOCATION OF EXISTING COMMUNICATIONS MANHOLE. COORDINATE FINAL LOCATION AND REQUIREMENTS WITH UTILITY PRIOR TO PERFORMING ANY WORK.
5. PROVIDE (2) 4" CONDUITS WITH PULLSTRING FROM UTILITY MANHOLE TO NEW COMMUNICATIONS BOARD.
6. PROVIDE (4) 5" CONDUITS WITH PULLSTRINGS IN ELECTRICAL DUCT BANK FROM ELECTRICAL UTILITY MANHOLE AND STUB CONDUITS INTO SUB–BASEMENT TRANSFORMER VAULT. REFER TO DETAIL #3 TRANSFORMER VAULT PLAN ON DRAWING E–302 FOR CONTINUATION AND REFER TO DETAIL #4 ON THIS DRAWING FOR DUCT BANK DETAIL.
7. CONTRACTOR SHALL TRENCH NEW CONDUITS FOR ELECTRIC SERVICE THRU GRASSY AREA BETWEEN SIDEWALK AND THE BUILDING. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND COORDINATE FINAL ROUTING WITH SITE CONDITIONS. MAINTAIN PROPER CLEARANCE FROM EXISTING UTILITIES.
8. CONTRACTOR SHALL COORDINATE CONDUIT TIE IN TO NATIONAL GRID MANHOLE/VAULT WITH NATIONAL GRID PRIOR TO PERFORMING ANY WORK.

GENERAL NOTES:

A. CONTRACTOR SHALL PROVIDE ALL TRENCHING, BACKFILL AND RESTORATION AS NECESSARY FOR THE INSTALLATION UNDERGROUND CONDUIT FOR SITE LIGHTING BRANCH CIRCUITS, ELECTRICAL SERVICE FEEDERS AND EMERGENCY GENERATOR FEEDERS/CONTROLS.

B. CONTRACTOR SHALL RESTORE ALL ASPHALT PAVING DISTURBED BY RUNNING THE NEW SERVICE FEEDERS AND BRANCH CIRCUITS.

C. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 80; A MINIMUM OF 36" BELOW GRADE. REFER TO CONDUIT IN TRENCH DETAIL #2 ON THIS DRAWING FOR ADDITIONAL INFORMATION.

D. CONDUIT RUN UNDERGROUND SHALL NOT BE RUN UNDER ANY BUILDING.

E. CONDUIT EMERGING FROM UNDERGROUND AND IS EXPOSED TO PHYSICAL DAMAGE SHALL BE RIGID GALVANIZED STEEL.

F. PROVIDE NYLON PULLWIRE IN ALL EMPTY CONDUITS.

G. ALL WORK SHALL BE IN ACCORDANCE WITH N.E.C. AND LOCAL CODES. UNDER NO CIRCUMSTANCES SHALL THIS CONTRACTOR DO ANY WORK NOT IN ACCORDANCE WITH THE CODES.

H. COORDINATE ANY SERVICE INTERRUPTIONS WITH OWNER PRIOR TO PERFORMING ANY WORK.

I. COORDINATE ELECTRICAL WORK WITH ALL OTHER TRADES AND SUPPLIERS OF EQUIP.

J. INSPECT THE SITE PRIOR TO BID.

K. PROVIDE BUSHING FOR ALL OPEN CONDUIT ENDS.

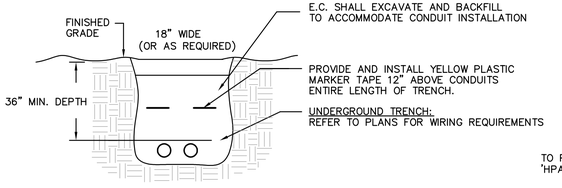
L. PROVIDE FIRESTOPPING AT SMOKE AND FIRE PARTITIONS.

M. CONTRACTOR SHALL DETERMINE THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION SO THAT THIS WORK WILL NOT DISTURB EXISTING LINE/INSTALLATION. COORDINATE WORK WITH APPLICABLE UTILITIES.

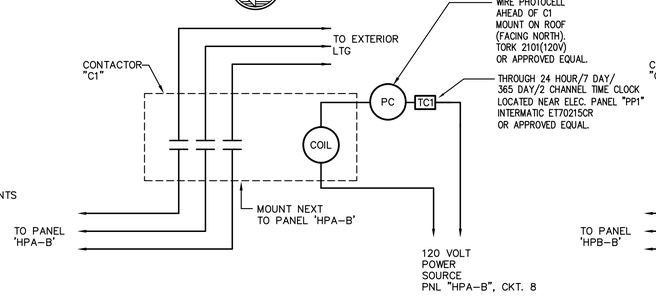
N. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED TO BEGIN AND PROCEED WITH CONSTRUCTION.

SYMBOL LEGEND

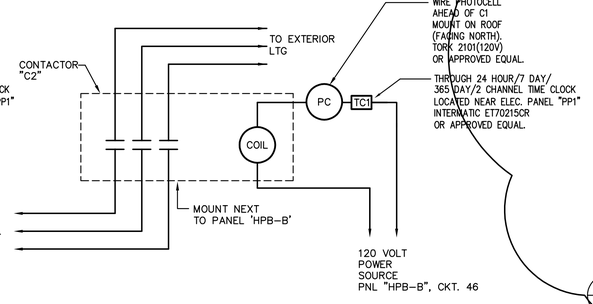
— U/E — NEW UNDERGROUND ELECTRIC DUCT BANK
— U/T — NEW UNDERGROUND TELEPHONE/CABLE
— U/E — EXISTING UNDERGROUND ELECTRIC
— U/T — EXISTING UNDERGROUND TELEPHONE/CABLE

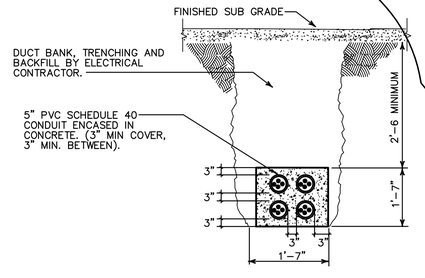


2 E-400 CONDUIT TRENCH DETAIL
SCALE: N.T.S.



3 E-400 EXTERIOR LIGHTING CONTROL DETAIL
SCALE: NONE





4 E-400 ELECTRICAL DUCT BANK DETAIL
SCALE: N.T.S.

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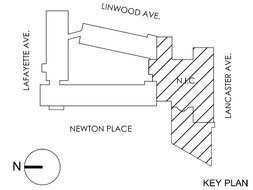


KEY PLAN

BELMONT HOUSING RESOURCES FOR WNY

BELMONT HOUSING

875 LAFAYETTE

875 LAFAYETTE AVE
BUFFALO, NY, 14209

SHARS #20220515

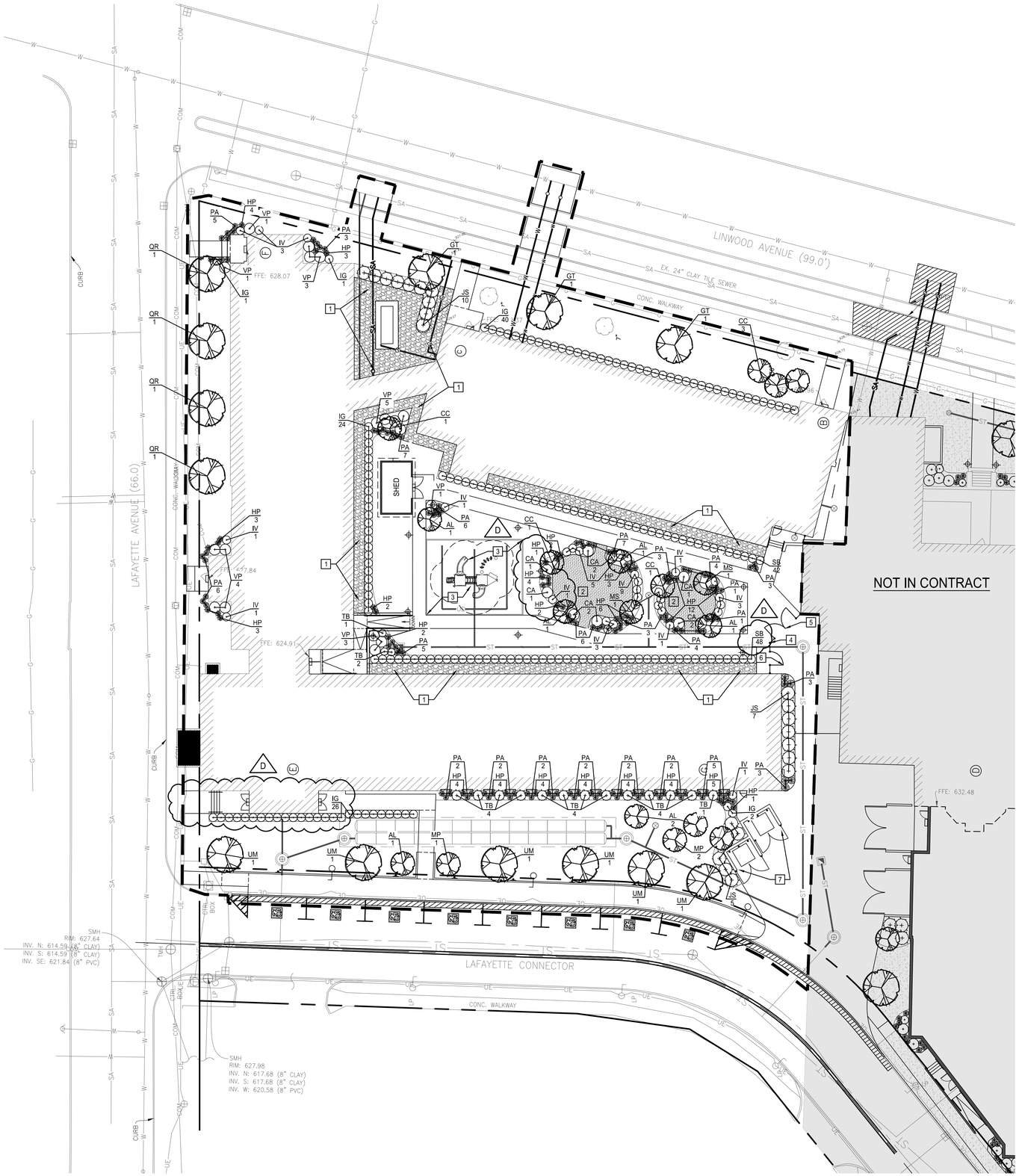
REV. #	DESCRIPTION	DATE
4	Addendum 4	10/26/23

JOB NO.	2143
SCALE	AS NOTED
ISSUE DATE	09/30/2023
DRAWN BY	DPZ
CHECKED BY	MAM

SITE PLAN ELECTRICAL

E-400

ISSUED FOR PERMIT



1 SITE PLAN
SCALE: 1" = 20'

SITE LANDSCAPE NOTES:

1. PEA GRAVEL STONE MULCH, 3" DEPTH OVER WEED BARRIER FABRIC.
2. EXPOSED AGGREGATE CONCRETE PAVEMENT.
3. PLAYGROUND STRUCTURE AND POURED IN PLACE PLAYGROUND FALL SURFACE.
4. DECORATIVE FENCE; RE: 3, L401.
5. DOUBLE LEAF GATE FOR MAINTENANCE ACCESS; RE: 3, L401.
6. PEDESTRIAN GATE WITH EXIT PANIC BAR; RE: 3, L401.
7. DUMPSTER ENCLOSURE AND GATES; RE: 4, L401.

GENERAL CONSTRUCTION NOTES:

1. REFER TO C102 FOR DEMOLITION LIMITS.
2. REFER TO GRADING AND DRAINAGE PLANS (C301) FOR STORM SEWER INFORMATION.
3. REFER TO SITE LAYOUT PLANS FOR PAVEMENTS.
4. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION ON THE BUILDING RENOVATION AND EXPANSION.
5. ALL SEWERS SHALL REMAIN ACTIVE THROUGHOUT CONSTRUCTION.

PLANTING SCHEDULE

KEY / QTY

KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING	REMARKS
SHADE TREE SCHEDULE							
GT	3	Gleditsia triacanthos 'Draves'	STREET KEEPER HONEYLOCUST	3" CAL.	B&B	AS SHOWN	
QR	4	Quercus robur 'Fastigiata'	SKYROCKET OAK	3" CAL.	B&B	AS SHOWN	
UM	6	Ulmus X 'Morton'	ACCOLADE ELM	3" CAL.	B&B	AS SHOWN	
ORNAMENTAL TREE SCHEDULE							
AL	6	Amelanchier laevis 'JFS-Arb'	SPRING FLURRY SERVICEBERRY	2" CAL.	B&B	AS SHOWN	SINGLE STEM
CC	6	Cercis canadensis 'NORTHERN Strain'	NORTHERN STRAIN REDBUD	2" CAL.(8' HT.)	B&B	AS SHOWN	CLUMP FORM
MP	3	Malus 'Prairie Fire'	PRAIRIE FIRE CRABAPPLE	2" CAL.	B&B	AS SHOWN	SINGLE STEM
MS	2	Malus 'Schmidtcutleaf'	GOLDEN RAINDROPS CRABAPPLE	2" CAL.	B&B	AS SHOWN	SINGLE STEM
SHRUB SCHEDULE							
CA	9	Clethra alnifolia 'Ruby Spice'	RUBY SPICE SUMMERSWEET	24" HT.	CONT.	AS SHOWN	
HP	77	Hydrangea paniculata 'Bobo'	BOBO DWARF PANICLE HYDRANGEA	18" HT.	CONT.	AS SHOWN	
IG	84	Ilex glabra 'Shamrock'	SHAMROCK INKBERRY	18" HT.	CONT.	36" O.C.	
IV	30	Itea virginica'Sprich'	LITTLE HENRY SWEETSPIRE	18" HT.	CONT.	36" O.C.	
JS	22	Juniperus scopulorum 'Moonglow'	MOONGLOW JUNIPER	2" CAL. (6' HT.)	CONT.	4' O.C.	
SB	90	Spiraea bumalda 'Anthony Waterer'	ANTHONY WATERER SPIREA	18' HT.	CONT.	36" O.C.	
TB	16	Taxus baccata 'Repandens'	DWARF ENGLISH YEW	24" SPR.	CONT.	AS SHOWN	
VP	18	Viburnum plicatum 'Tomentosum'	DOUBLEFILE VIBURNUM	24" HT.	CONT.	AS SHOWN	
ORNAMENTAL GRASS AND PERENNIAL SCHEDULE							
PA	87	Pennisetum alopecuroides 'Hameln'	HAMELN FOUNTAIN GRASS	#1	CON.T	24" O.C.	

NOTE: SHRUBS AND ORNAMENTAL GRASSES ARE PRESENTLY NOT LABELED ON THE PLAN AND WILL BE LABELED AS THE DESIGN PROGRESSES.

TREE RESTITUTION:

DBH INCHES OF TREE REMOVED (SHOWN ON C101): 251"
DBH INCHES OF TREES PROVIDED (SHOWN ON SCHEDULE ABOVE): 119"
DBH INCHES VARIANCE: 132"

THE VARIANCE TREE RESTITUTION WILL BE ACCOMMODATED WITHIN CITY RIGHT OF WAY ON NEARBY STREETS AND PUBLIC GREEN SPACES. THE PROJECT WILL COORDINATE WITH THE DEPARTMENT OF PUBLIC WORKS, PARKS & STREETS, DIVISION OF PARKS & RECREATION, BUREAU OF FORESTRY FOR PLANTING LOCATIONS AND TREE SPECIES SELECTION TO MEET THE REQUIRED DBH INCHES. COMMUNICATION AND COORDINATION WITH THE BUREAU OF FORESTRY BEGAN ON MAY 27, 2022 IN REGARDS TO THIS MATTER.

ALUMINUM FENCE AND GATES, 72" HEIGHT, AS MANUFACTURED BY AMERISTAR FENCE OR EQUIVALENT, COLOR: BLACK

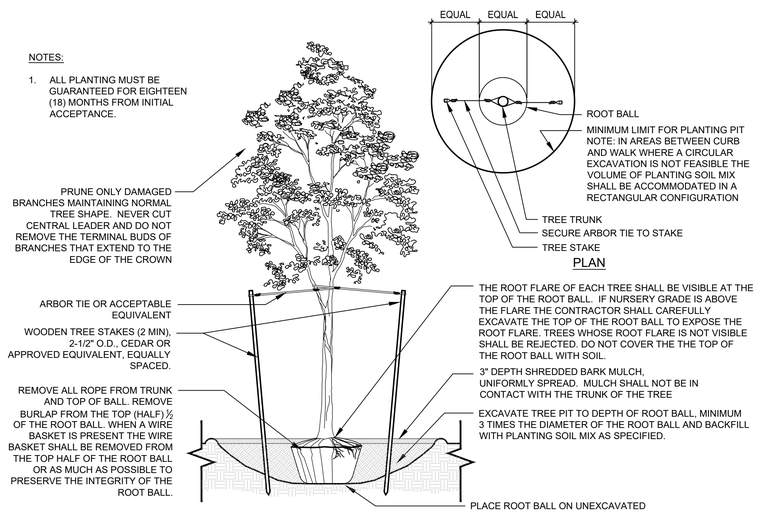
3 ALUMINUM FENCE
NTS

ALUMINUM SCREEN FENCE AND GATE PANELS, 69" HEIGHT, AS MANUFACTURED BY SLEEK FENCE OR EQUIVALENT, COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURERS FULL RANGE

4 DUMPSTER ENCLOSURE & GATES
NTS

NOTES:

1. ALL PLANTING MUST BE GUARANTEED FOR EIGHTEEN (18) MONTHS FROM INITIAL ACCEPTANCE.



PLAN

SECTION

2 TREE PLANTING
NTS

BELMONT HOUSING
RESOURCES FOR WNY

BELMONT HOUSING

HOMEOPATHIC HOSPITAL ADAPTIVE REUSE PROJECT

875 Lafayette Avenue
Buffalo, NY 14209
SHARS #20220515

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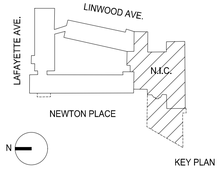


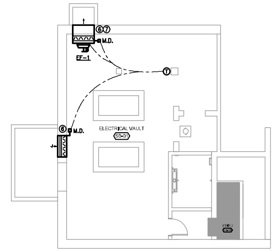
NO.	REVISIONS	DATE
D	PER WATER BOARD & VE COMMENTS	01/04/2024

DWG. TITLE

LANDSCAPE PLAN

0 1" 2"
GENERIC SCALE BAR
SCALE BAR SHOWN IS TWO INCHES ON THE ORIGINAL DRAWING. IF NOT TWO INCHES ON THIS SHEET, ADJUST ACCORDINGLY

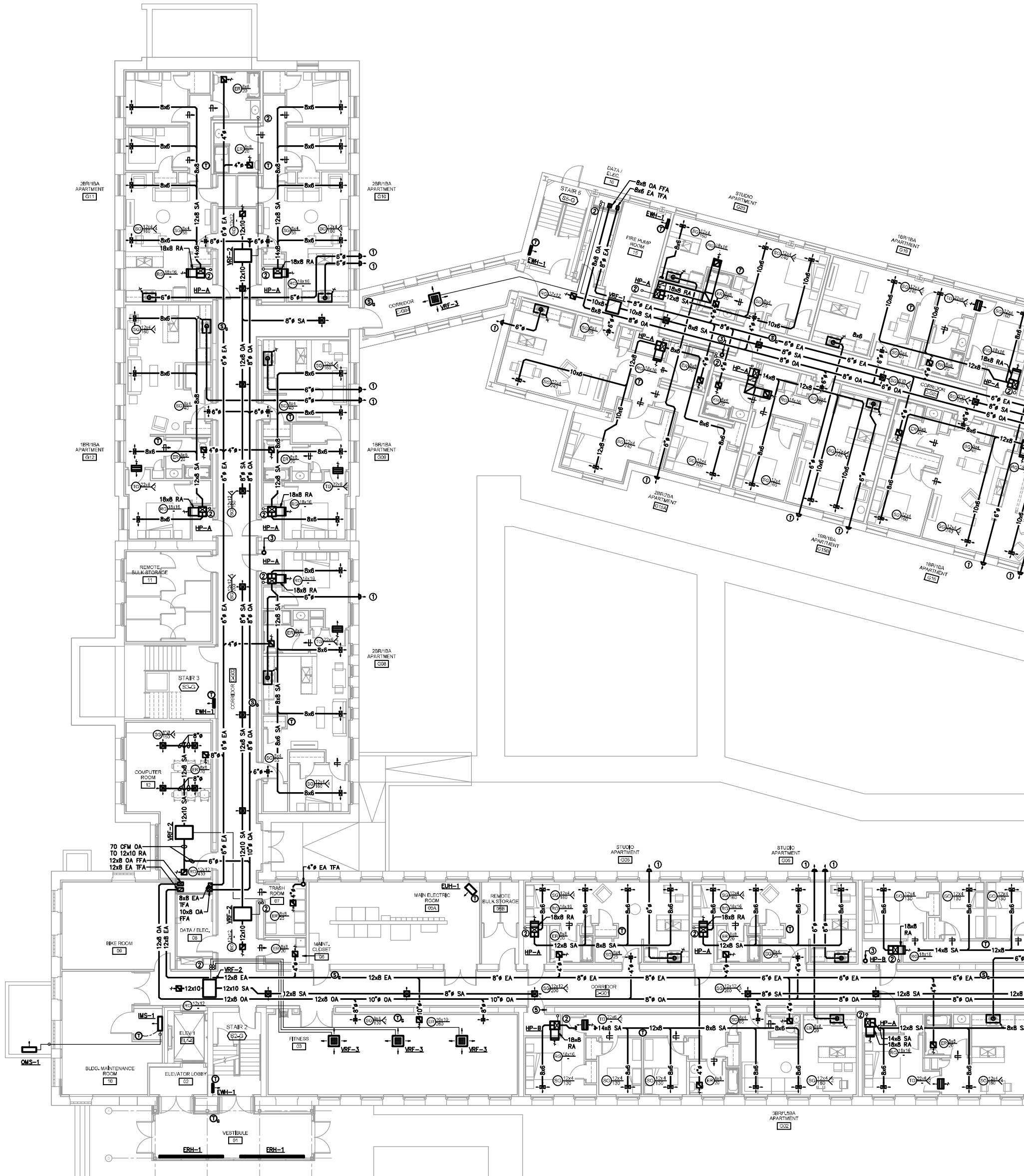
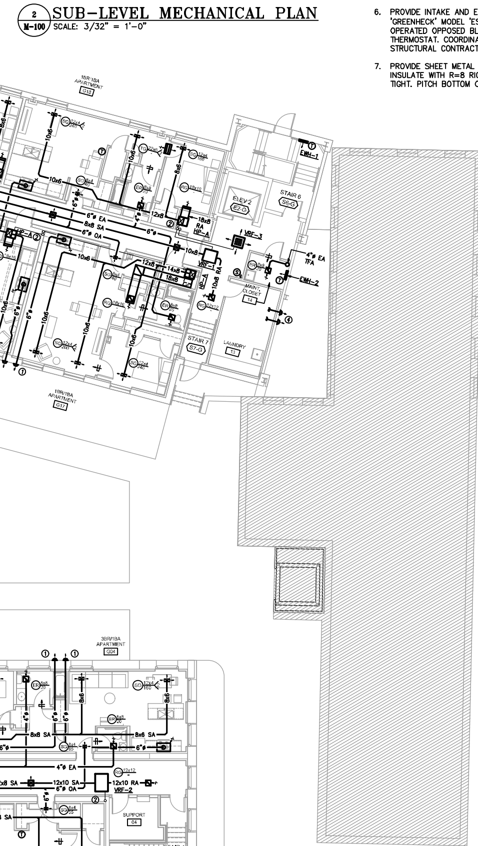
DATE	09/30/2023
SCALE	AS NOTED
DWN.	AVT
CHK.	SMR
PROJ. No.	485903
DWG. No.	**L401**



2 M-100 SUB-LEVEL MECHANICAL PLAN
SCALE: 3/32" = 1'-0"

DRAWING NOTES #:

1. PROVIDE 6"ø EXHAUST DUCT FROM RANGE HOOD TO WALL CAP TERMINATION. CORE DRILL EXISTING EXTERIOR WALL CONSTRUCTION TO ACCOMMODATE NEW EXHAUST DUCT PENETRATIONS. COORDINATE WALL PENETRATION LOCATIONS IN FIELD AND WITH ARCHITECTURAL EXTERIOR WALL ELEVATION DRAWINGS PRIOR TO CORE DRILLING. RANGE HOOD PROVIDED BY OTHERS.
2. REFRIGERANT PIPING RISERS (RS/RL) FROM OUTDOOR UNITS ON ROOF (CU/ACCU) TO INDOOR HEAT PUMPS AND VRF UNITS (HP/VRF). SIZE AND ROUTE PIPING PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS.
3. 6"ø RADON PIPING FROM BELOW SLAB TFA.
4. PROVIDE 4"ø DRYER DUCT FOR EACH CLOTHES DRYER. TERMINATE AT EXTERIOR WALL WITH WALL CAP. STACK TERMINATIONS VERTICALLY. REFER TO DETAIL 2/M-002.
5. PROVIDE 12x8 TRANSFER AIR DUCTWORK FROM COMMON CORRIDOR TO EACH MECHANICAL ROOM WITH 12x8 TRANSFER GRILLES AND FIRE/SMOKE DAMPERS. TYPICAL ALL APARTMENTS. SEE DETAIL 9/M-002.
6. PROVIDE INTAKE AND EXHAUST LOUVERS TO SERVE ELECTRIC VAULT. 'GREENHECK' MODEL 'ESJ-602' OR APPROVED EQUAL. PROVIDE WITH MOTOR OPERATED OPPOSED BLADE DAMPERS WITH END SWITCHES AND LINE VOLTAGE THERMOSTAT. COORDINATE EXTERIOR WALL OPENINGS WITH GENERAL AND STRUCTURAL CONTRACTORS.
7. PROVIDE SHEET METAL EXHAUST PLENUM FULL SIZE OF EXHAUST LOUVER. INSULATE WITH R=8 RIGID INSULATION ASJ. CAULK ALL SEAMS WEATHER TIGHT. PITCH BOTTOM OF PLENUM DOWN TOWARDS EXTERIOR..

1 M-100 GROUND FLOOR MECHANICAL PLAN
SCALE: 3/32" = 1'-0"

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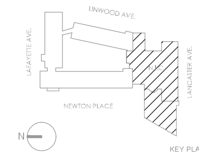


KEY PLAN

BELMONT HOUSING
RESOURCES FOR WNY
BELMONT HOUSING

875 LAFAYETTE

875 LAFAYETTE AVE
BUFFALO, NY, 14209

SHARS #20220515

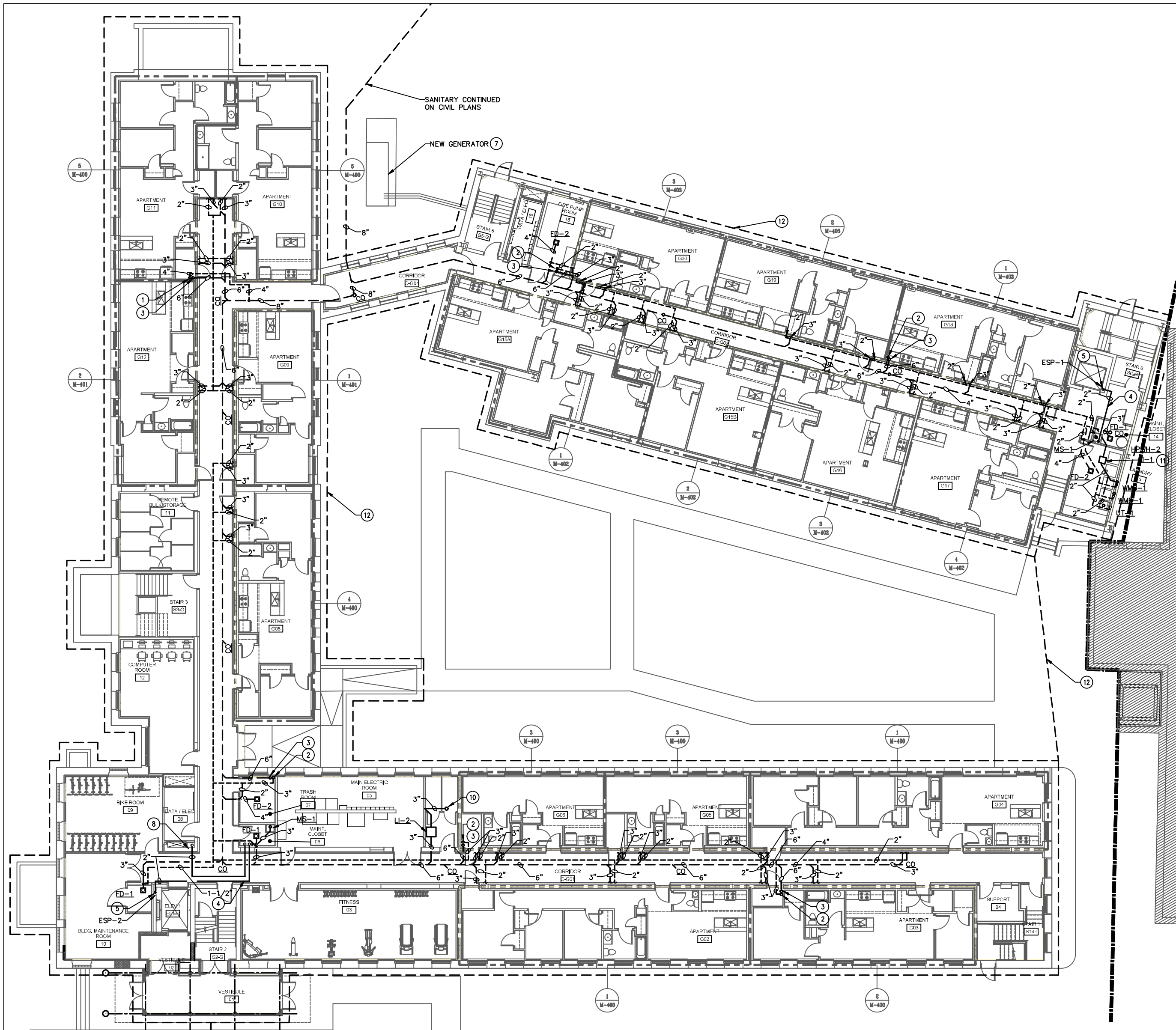
REV. #	DESCRIPTION	DATE
		00/00/00

JOB NO.	2143
SCALE	AS NOTED
ISSUE DATE	09/30/2023
DRAWN BY	SAK
CHECKED BY	JEM

GROUND FLOOR MECHANICAL PLAN

M-100

ISSUED FOR PERMIT



1 GROUND FLOOR WASTE AND VENT
SCALE: 3/32"=1'

GENERAL NOTES:

A. COORDINATE INSTALLATION OF PIPING AND EQUIPMENT WITH ALL TRADES PRIOR TO INSTALLATION. COORDINATE ROUTING OF PIPING WITH RADON PIT LOCATIONS. CONTRACTOR SHALL MAINTAIN ALL REQUIRED CLEARANCES FOR INSTALLED EQUIPMENT BY OTHER TRADES.

B. PROVIDE FIRE STOPPING AT ALL RATED FLOOR AND WALL PENETRATIONS. PROVIDE INTUMESCENT SEAL FOR PLASTIC PIPING PENETRATING FIRE RATED ASSEMBLIES INCLUDING WALLS AND FLOORS.

C. ALL WALL BOXES LOCATED IN FIRE RATED WALLS SHALL HAVE INTUMESCENT BACKING TO MAINTAIN FIRE RATING.

D. PROVIDE ALL CORE DRILLING AND PIPE SLEEVES AS REQUIRED.

E. PROVIDE EXCAVATION AND INFILL AS REQUIRED TO INSTALL PIPING BELOW GRADE/SLABS.

F. PROVIDE TRAP GUARDS FOR FLOOR DRAINS.

G. PROVIDE ALL P-TRAPS, VALVES, HOSES, AND SUPPLIES AS REQUIRED.

H. IT IS NOT ACCEPTABLE TO FLAT VENT. VENTS SHALL RISE IN WALLS PRIOR TO OFFSETTING.

I. CONTRACTOR SHALL COORDINATE ALL VENT / FLUE ROOF PENETRATIONS TO BE MINIMUM TEN FEET CLEAR FROM ALL FRESH AIR INTAKES.

J. CONTRACTOR SHALL MAINTAIN ALL EXISTING ROOF WARRANTIES.

K. COORDINATE CEILING TYPE WITH MATERIALS. IT IS NOT APPROPRIATE TO USE PVC IN PLENUM CEILING.

L. ALL PEX PIPING SHALL BE BY SAME MANUFACTURER.

M. ALL DOMESTIC WATER PIPING OUTSIDE OF APARTMENTS SHALL BE COPPER AND TRANSITION TO PEX MANIFOLDS IN APARTMENT MECHANICAL ROOMS. PEX PIPING FROM MANIFOLDS TO FIXTURE SHALL BE CONTINUOUS RUNS WITHOUT COUPLINGS OR FITTINGS.

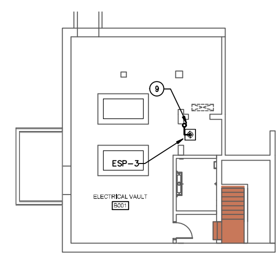
N. UNITS SHALL BE ADA ADAPTABLE. OFFSET CONTROLS AT ALL BATHTUBS AND PROVIDE ADA COMPLIANT BLOCKING FOR GRAB BARS FOR FUTURE PROVISIONS. REFER TO ARCHITECTURAL PLANS FOR FINAL UNIT TYPE CLASSIFICATIONS.

O. PROVIDE DRAIN PANS FOR ALL WATER HEATERS AND WASHING MACHINES. PROVIDE DRAIN HOSE AND EXTEND TO NEAREST SANITARY CONNECTION.

P. PROVIDE CLEANOUTS AT THE BASE OF EACH VERTICAL STORM AND SANITARY PIPING STACK 12" TO 24" ABOVE FINISHED FLOOR. PROVIDE CLEANOUTS ON SANITARY AND STORM PIPING PER 2020 PLUMBING CODE OF NEW YORK STATE, SECTION 708 AND PER PLUMBING SPECIFICATIONS. SOME CLEANOUTS HAVE BEEN OMITTED FROM THE DRAWING FOR CLARITY.

DRAWING NOTES (#) :

1. CONNECT TO 4" VENT STACK.
2. CONNECT TO 3" VENT STACK.
3. 4" SANITARY RISER, DOWN FROM FIRST FLOOR.
4. CONNECT ELEVATOR SUMP PUMP DISCHARGE TO SANITARY PIPING THROUGH AN OPEN SITE DRAIN WITH DEEP SEAL TRAP PROTECTION.
5. PROVIDE NEW SUMP PUMP IN EXISTING SUMP PIT. CONNECT DISCHARGE PIPING TO NEW SANITARY PIPING THROUGH AN OPEN SITE DRAIN WITH DEEP SEAL TRAP PROTECTION.
6. SEE ENLARGED PLANS FOR APARTMENT FLOOR PLANS.
7. COORDINATE SANITARY ROUTING WITH NEW GENERATOR AND UNDERGROUND CONDUITS.
8. 2" PIPING UP FROM NEW SUMP PUMP IN ELECTRICAL VAULT. CONNECT TO SANITARY PIPING THROUGH OPEN SITE DRAIN WITH DEEP SEAL TRAP PROTECTION.
9. NEW SUMP PIT IN ELECTRICAL VAULT. COORDINATE WITH ELECTRICAL EQUIPMENT LAYOUT.
10. 3" SANITARY DOWN FROM LAUNDRY ON FIRST FLOOR. ROUTE DOWN IN WALL TO RECESSED LINT INTERCEPTOR. SEE SCHEDULE FOR DETAILS.
11. 2" SANITARY FROM LAUNDRY. ROUTE THROUGH RECESSED LINT INTERCEPTOR. SEE SCHEDULE FOR DETAILS.
12. 6" PERFORATED DRAIN TILE INSTALLED AT 623.88' OR 1'-0" BELOW THE FOUNDATION LEVEL WHERE THE FOUNDATION IS HIGHER. LOCATE DRAIN TILE 18" FROM THE FACE OF THE BUILDING. SEE CIVIL DRAWINGS FOR TIE IN LOCATION.



2 BASEMENT WASTE AND VENT
SCALE: 3/32"=1'

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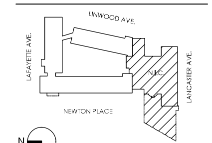

KEY PLAN

BELMONT HOUSING
RESOURCES FOR WNY

BELMONT HOUSING

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875 LAFAYETTE AVE
BUFFALO, NY, 14209

SHARS #20220515

REV. #	DESCRIPTION	DATE
		00/00/00

JOB NO.	2143
SCALE	
ISSUE DATE	09/30/2023
DRAWN BY	JRA
CHECKED BY	-

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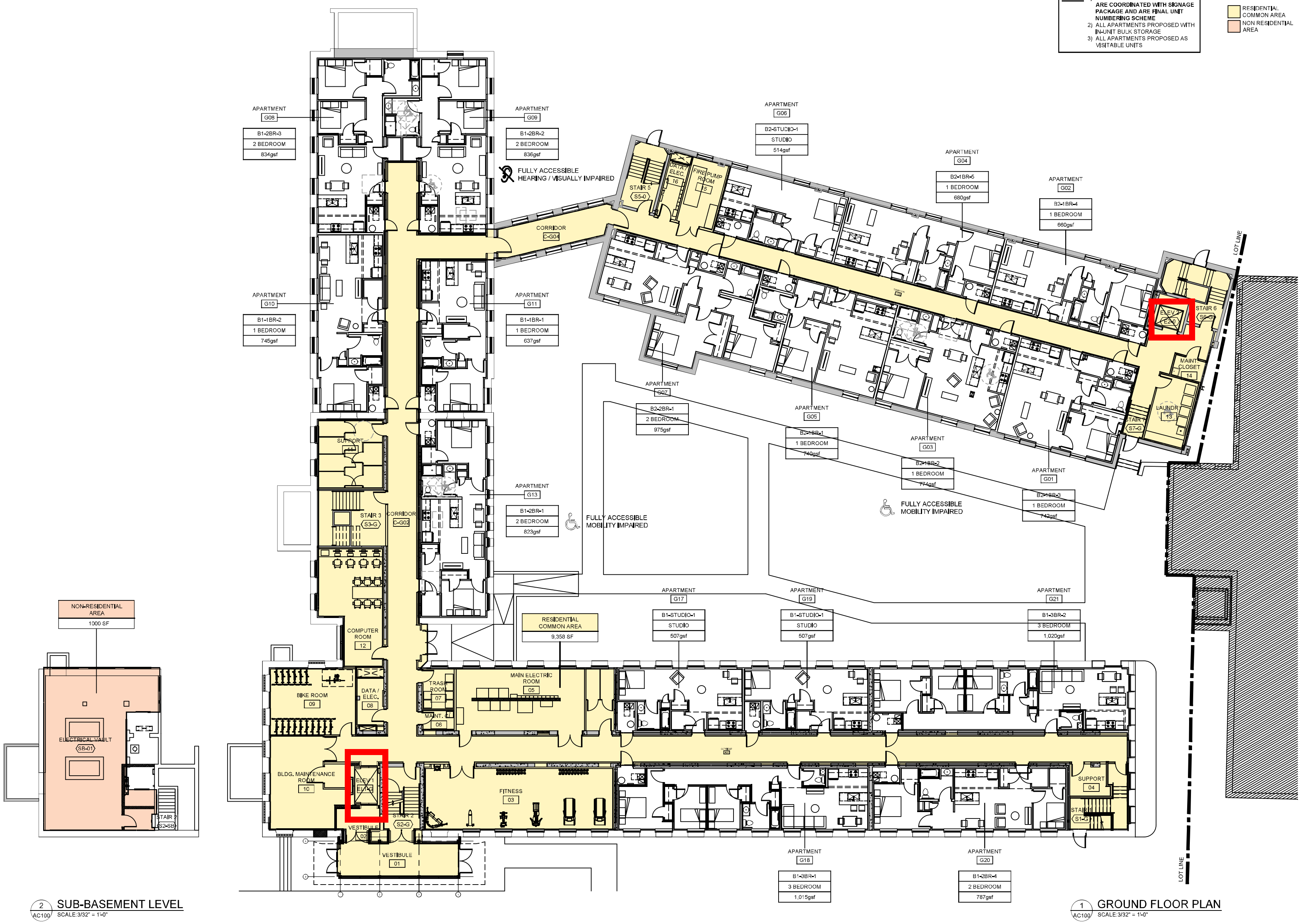
PLUMBING
GROUND FLOOR
WASTE AND VENT

P-100

ISSUED FOR PERMIT

NOTES: 1) UNIT NUMBERS ON ALL AC SHEETS ARE COORDINATED WITH SIGNAGE PACKAGE AND ARE FINAL UNIT NUMBERING SCHEME
2) ALL APARTMENTS PROPOSED WITH IN-UNIT BULK STORAGE
3) ALL APARTMENTS PROPOSED AS VISITABLE UNITS

LEGEND:
RESIDENTIAL COMMON AREA
NON RESIDENTIAL AREA



2 SUB-BASEMENT LEVEL
AC100 SCALE:3/32" = 1'-0"

1 GROUND FLOOR PLAN
AC100 SCALE:3/32" = 1'-0"

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DRAWN BY	XXX
CHECKED BY	XXX

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GROUND FLOOR AREA CALCULATION DIAGRAM

AC-100

ISSUED FOR HCR REVIEW AND BIDDING

SMP Excavation Work Plan

APPENDIX D

Excavation Work Plan

APPENDIX D – EXCAVATION WORK PLAN (EWP)

D-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the NYSDEC. Table D-1 includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix B.

Table 1: Notifications*

Name	Contact Information
NYSDEC Project Manager Jaspal Walia, P.E.	716-851-7220 jaspal.walia@dec.ny.gov
NYSDEC Regional HW Engineer Andrea Caprio, P.E.	716-851-7220 andrea.caprio@dec.ny.gov

* Note: Notifications are subject to change and will be updated as necessary.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;

- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix E of this SMP;
- Identification of disposal facilities for potential waste streams; and
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

D-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed by a qualified environmental professional during all excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

During redevelopment activities, material acting as the cover system (acceptable topsoil or crushed stone) are suitable for reuse as cover system material so long as they can be segregated from the underlying potentially contaminated materials below them. There are a number of locations at the Site where a demarcation layer has been placed over potential impacted soil/fill that remain. The existing cover system material to be removed will not be reused if it is mixed with the underlying material and cannot be mechanically separated. If the cover materials cannot be separated but are not grossly impacted, they can be used below the cover system as backfill. Visual and olfactory observations will be used to determine if these conditions exist.

Concrete foundations/slab cover system material are to be removed as part of the redevelopment activities. These concrete materials can be reused at the Site under the existing Beneficial Use Determination as backfill under the cover system. However, if the concrete contains gross-impacts, it will not be processed for reused and will be staged for off-site disposal. If soil/fill material adjacent to the underside or exterior of the concrete foundation/slabs to be removed adheres to the concrete material, it will be mechanically removed (similar to process implemented during remedial activities at the Power House) before the concrete can be staged, or processed and reuse. If adhered material cannot be removed, the concrete will not be processed for reused and will be staged for off-site disposal. If the concrete material removed is suspect (i.e, could potentially be impacted from surrounding materials, stained, etc.) it will not be stockpiled for reused and it will be properly disposed off-site. Visual and olfactory observations will be used to determine if these conditions exist.

If during the removal of the existing cover system material and/or the concrete foundation/slabs, grossly impacted materials are encountered, these materials will be excavated for off-site disposal after proper characterization and landfill approval. If suspect or potentially-impacted soil/fill materials are observed during the removal of the existing cover system material and/or the concrete foundation/slabs, it will be sampled to determine if the material can remain in place beneath the new cover system. Results will be provided to the Department before the material is removed and/or reused at the Site.

Soils will be segregated based on previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-site disposal of materials and on-site reuse is provided in Section D-5 of this Appendix.

D-3 SOIL STAGING METHODS

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC.

D-4 MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

D-5 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes shall be selected to involve the shortest commute through residential neighborhoods as feasible. The Site has two main points of entry, Delaware Avenue and Linwood Avenue, and pending the location of the activity, both maybe utilized. The shortest distance to an expressway and/or thruway, is to exit the Site on

Delaware Avenue and head north. Approximately 1.2 miles north along Delaware Avenue are access to the 198 Expressway.

All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

D-6 MATERIALS DISPOSAL OFF-SITE

All material excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of material from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of

disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

D-7 MATERIALS REUSE ON-SITE

The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines. During redevelopment activities that require excavation below the cover system, monthly reports will be provided to the Department regarding the handling of the material excavated.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance, or an asbestos contained material clearance letter will be provide by a third-party consultant documenting the building has been cleared for demolition. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval under the existing Beneficial Use Determination. Crushed concrete and/or brick will not be used as part of the cover system. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

D-8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the site, and will be managed off-site, unless prior approval is obtained from NYSDEC.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

D-9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the decision document. The existing cover system is comprised of a minimum of 24 inches of existing clean soil that meets the RRSCOs (vegetative cover), asphalt pavement, concrete-covered sidewalks/driveways, concrete basement building slabs, or crushed stone that was placed over remedial excavation areas or to adjust grades at the Site. Figure 8 presents the location and details of the eight (8) various cover systems and applicable demarcation layers. As discussed in Section 3.3, when the cover system is to be temporarily removed and/or permanently replaced, NYSDEC will be notified and provided the following information, in addition to those required by the SMP.

- Identification of the temporary and/or permanent cover system change to be made and how it will be replaced.
- Timeline for the redevelopment activities to occur and cover system repair/change to be made.

- Figure identifying the work areas.
- Identification of potential contaminants that may be encountered.
- Identification of materials that may be generated that will require handling in accordance with the Excavation Work Plan in Appendix D-10.
- Identification of the means by which contact with exposed soils will be mitigated (e.g., fencing to limit access to construction personnel, use of proper PPE for site workers)
- Identification of an inspection schedule and protocols to verify that other areas of the cover system, not subject to the work, are being maintained and preventing potential exposure the contaminants that may be present in the underlying soil/fill.
- A notification when the temporary and/or permanent cover system change is complete to allow the Department to observe the change. If the change is permanent, the cover system figure (Figure 8) will be updated as appropriate.

During the redevelopment, inspections (as necessary) will be completed to ensure that redevelopment activities (use of heavy equipment, building demolition, etc.) do not compromise the existing cover system and reduce its effectiveness as an engineering control. The inspections will be completed by qualified environmental profession. Damage will be promptly repaired, as necessary.

The Department has requested a plan to verify the cover system after clearing of debris from building demolition is complete. Once the area(s) in which the building demolition has occurred are deemed safe for pedestrian traffic, the inspector will access the area and perform a walkover to visual inspection the cover system. Observations will include the condition of the cover system to remain (i.e., competent cover vs. cracked or unacceptable material present), demolition debris has been properly removed from the area and material suitable for reuse and/or recycling have been properly staged, and any other potential concerns identified will be noted. An inspection form will be completed and

reviewed by the qualified environmental professional responsible for the inspection prior to submittal, which will also include photographic documentation. This information will be available to the Department on a monthly basis, as requested.

In areas of the Site where redevelopment will involve the installation of new greenspaces (see Figure 9), the imported material (i.e., topsoil or other) will be sampled as discussed in Section D-10: Backfill From Off-Site Sources, and meet the RRSCO requirements. If less than 2 feet of acceptable material is to be brought in, existing soil/fill that will constitute the remaining portion of the 2-foot cover system, will sampled to verify it is acceptable (meets RRSCOs) for use as cover system material. If the material does not meet the requirements for use as cover system, a plan will be provided to the Department as to how the issue will be address (i.e., soil excavation, placement of additional approved material to meet the 2-foot cover system requirements, etc.).

If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contamination. Information to be provided to the Department regarding temporary and/or permanent changes to the cover system are discussed in Section 3.3. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in an updated SMP.

D-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review.

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d) and Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (PFAS) Under NYSDEC's Part 375 Remedial Programs (October 2020 and subsequent updates). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criterial, the resulting soil quality standards are listed in Table 9. Soil that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet the backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

The specific criteria under which off-site material may be used as cover or backfill are presented below.

- **Off-Site Soil:** Off-Site soil may be used as backfill provided that it originates from: 1) an NYSDEC-approved borrow site; or 2) a known source having no evidence of disposal or releases of hazardous substances, hazardous, toxic, radioactive wastes, or petroleum. In both instances the imported soil must be tested as discussed herein and demonstrated to meet restricted-residential SCOs or lesser as published in 6NYCRR Part 375-6.8(b). In addition, no off-site materials meeting the definition of a solid waste as defined in 6NYCRR, Part 360-1.2 (a) shall be used as backfill.

- **Other Off-Site Material:** Certain material may be imported as backfill or cover, without chemical testing, provided it contains less than 10% (by weight) material that would pass through a size 80 sieve: 1) Rock or stone, consisting of virgin material from a permitted mine or quarry; 2) steel slag under BUD#555-9-152; 3) Recycled concrete, brick, or asphalt from a NYSDEC-registered or permitted construction and demolition (C&D) debris processing facility (as specified in Section 360-16.1 of 6NYCRR Part 360) that conforms to Section 304 of the New York State Department of Transportation Standard Specifications Construction and Materials Volume 1 (2002). As stated in Section 360-16.4(b)(2), the facility may only accept

recognizable, uncontaminated, non-pulverized C&D debris or C&D debris from other authorized C&D processing facilities. According to Section 360-16.2(c), "uncontaminated" means C&D debris that is not mixed or commingled with other solid waste at the point of generation, processing, or disposal, and that is not contaminated with spills of a petroleum product, hazardous waste, or industrial waste.

D-10.1 Quality Assurance Requirements

The contractor will be required to collect the specified number of samples and submit the samples to an independent, NYSDOH ELAP-certified laboratory for analysis. The NYSDEC will be notified of the sampling and provided an opportunity to observe the sample collection work.

All analyses will be in accordance with USEPA SW-846 methodology. The laboratory data package will be a Category A deliverable; however, the NYSDEC may request, at any time, to upgrade the deliverable to Category B. Each import soil source shall be analyzed for the following parameters as more specifically listed in 6NYCRR Part 375-6:

- VOCs – Method 8260
- SVOCs – Method 8270
- Organochlorine Pesticides and PCBs – Method 8081/8082
- Metals, excluding mercury – Method 6010
- Mercury – Method 7471
- Cyanide – Method 9013
- PFAS – Modified Method 537

Each import soil source shall be subject to testing in accordance with the following schedule per NYSDEC DER-10 Table 5.4(e)10:

Contaminant:	**VOCs**	**SVOCs, Inorganics & PCBs/Pesticides**	
Soil Quantity (cubic yards)	**Discrete Samples**	**Composite**	**Discrete Samples/Composite**
0-50	1	1	3-5 discrete samples from different locations in the fill being provided will comprise a composite sample for analysis
50-100	2	1	
100-200	3	1	
200-300	4	1	
300-400	4	2	
400-500	5	2	
500-800	6	2	
800-1,000	7	2	
1,000 or greater	Add an additional 2 VOC and 1 composite for each additional 1,000 cubic yards or consult with DER		

Grab samples will be required for VOC analysis. For all other required analyses, a minimum of four grab samples will be collected to form a single composite sample. Approximately equal aliquots of the grab samples will be composited in the field using a stainless steel trowel and bowl. The trowel and bowl shall be decontaminated with a non-

phosphate detergent (e.g., Alconox®) and potable water wash solution followed by a distilled water rinse between sampling locations).

Import criteria are restricted-residential SCOs or lesser as published in 6NYCRR Part 375-6.8(b).

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

D-11 STORMWATER POLLUTION PREVENTION

Small excavations disturbing less than 1-acre shall follow the minimum erosion controls presented below. For construction projects exceeding 1 acre, coverage must be obtained under the NYSDEC SPDES General Permit for Construction Activity, and shall include preparation and approval of a Storm Water Pollution Prevention Plan (SWPPP) that conforms to the requirements of the NYSDEC Division of Water guidelines and NYS regulations.

Minimum Storm Water Controls for Small Excavations:

Barriers (silt fencing) or hay bale checks will be installed around the perimeter of the construction area and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

D-12 EXCAVATION CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

D-16 OTHER NUISANCES

A plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

ATTACHMENT 3

NYSDEC Import Request Form

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e) and 6NYCRR Part 360.13. Use of this form is not a substitute for reading the applicable regulations and Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Choose an item

Have Ecological Resources been identified? Choose an item

Is this soil originating from the site? Choose an item

How many cubic yards of soil will be imported/reused? Choose an item

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? Choose an item

Does it contain less than 10%, by weight, material that passes a size 100 sieve? Choose an item

Is this virgin material from a permitted mine or quarry? Choose an item

Is this material recycled concrete or brick from a DEC registered processing facility? Choose an item

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.4(e)5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Location where fill was obtained:

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

The information provided on this form is accurate and complete.

_____ _____

Signature Date

_____

Print Name

_____

Firm

Revised April 2023

ATTACHMENT 4

SMP Fiugre 7
Unrestricted & Residential SCO Exceedances

LEGEND:

- PROPERTY BOUNDARY
- RESTRICTED RESIDENTIAL SCO EXCEEDED (RRSCO)
- UNRESTRICTED SCO (USCO) EXCEEDED
- SB-103/MW-3 — BORING/MONITORING WELL
- SB-8 — TEST BORING
- TP(SB)-6 — TEST PIT/SOIL PROBE
- NS-04 — SURFACE SOIL SAMPLING LOCATION

SB-105 (0.4-4')	
Lead	300

- SOIL SAMPLE LOCATION
- PARAMETER CONCENTRATION milligrams per kilogram (mg/KG)
- PARAMETER DETECTED ABOVE USCO AND/OR RRSCO

*SCO= SOIL CLEANUP OBJECTIVE

TP(SB)-13 (2-4')	
Benzo(a)anthracene	20
Benzo(a)pyrene	15
Benzo(b)fluoranthene	20
Benzo(k)fluoranthene	8.1
Chrysene	18
Dibenzo(a,h)anthracene	2.2 J
Dibenzofuran	11

TP(SB)-13 (4-6')	
Lead	76
Mercury	0.26

TP(SB)-3 (0.6-4')	
Lead	230 J
Mercury	2.2 J
Zinc	120 J

TP(SB)-2 (0.7-2')	
Mercury	0.27

SB-102/MW-2 (0-4')	
4,4'-DDT	0.00352

HG EX #1SW-2	
Mercury	0.23

SVOC EX #2 SW-3	
Benzo(b)fluoranthene	1.2
Indeno(1,2,3-cd)pyrene	0.69

SB-9 (0.5-2)	
Mercury	0.4 J

SB-105 (0.4-4')	
Lead	300

SVOC EX #1 SW-1	
Benzo(b)fluoranthene	1.1
Indeno(1,2,3-cd)pyrene	0.58

SVOC EX #3 B-1	
Benzo(a)anthracene	4.1
Benzo(a)pyrene	3.2
Benzo(b)fluoranthene	4.2
Benzo(k)fluoranthene	2
Chrysene	3.7
Dibenzo(a,h)anthracene	0.53
Indeno(1,2,3-cd)pyrene	1.5

SVOC EX #3 B-2	
Benzo(a)anthracene	1.9
Benzo(a)pyrene	1.4
Benzo(b)fluoranthene	1.9
Chrysene	1.7
Indeno(1,2,3-cd)pyrene	0.91

Large Petro EX B-6	
Acetone	0.055

Large Petro EX SW-13	
Dibenzo(a,h)anthracene	0.69 J

GREENSPACE NS-03 (6-24")	
Lead	240

SB-8 (1-3)	
Lead	124
Mercury	0.75

TOPSOIL REMEDIAL AREA
TOPSOIL REMEDIAL AREA
TOPSOIL REMEDIAL AREA
TOPSOIL REMEDIAL AREAS
NO.6 FUEL OIL REMEDIAL AREA
TP(SB)-13
TP(SB)-3
TP(SB)-2
SB-102/MW-2
SVOC-3
Hg-1
SVOC-2
SVOC-1
SB-9
SB-105
NS-03
SB-8

N

100' 0' 100' 200'

SCALE: 1 INCH = 100 FEET
SCALE IN FEET
(approximate)

DATE: OCTOBER 2020
DRAFTED BY: RFL

BENCHMARK ENVIRONMENTAL ENGINEERING & SCIENCE, PLLC
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JOB NO.: 0309-014-001

UNRESTRICTED & RESIDENTIAL SCO EXCEEDANCES

SITE MANAGEMENT PLAN

BROWNFIELD CLEANUP PROGRAM
3 GATES CIRCLE SITE
BUFFALO, NEW YORK

PREPARED FOR
MONTANTE/MORGAN GATES CIRCLE LLC AND EPISCOPAL CHURCH HOME & AFFILIATES LIFE CARE COMMUNITY, INC.

FIGURE 7