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DAYTON
LOUISVILLE

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March 25, 2024

City of Columbus Division of Sewerage & Drainage
1250 Fairwood Avenue
Columbus, OH 43206

ATTN: Mr. Greg Fedner, P.E., Section Manager, Plan Review Section

RE: **Type II Variance Request**
Union Cemetery Mausoleum
CC TBD
PID# 010-117505-00

Mr. Fedner,

We would like to request a Type II Variance from the City of Columbus' Storm Water Drainage Manual, revised December 2022, for the referenced project. The requests is as follows:

1. Pursuant to Section 3.1 of the Manual, flood control (detention) is required for redevelopment of a commercial site if greater than 2,000 sf of impervious surface is added or greater than 10,000 sf of existing impervious surface is disturbed. A Type II variance will be required to permit the site to not include stormwater detention.

Exhibit Descriptions

Site exhibits are provided to show a fully compliant detention plan, a minimal impact detention plan, and a preferred alternative detention plan. The total site area is 52.50 acres, and the total disturbed area is 0.19 acres (0.01 acres of impervious disturbance). The project will include the net addition of 4,500 sf of impervious area.

- **Full Compliant Alternative (See Exhibit 1)**
A fully compliant alternative would include underground detention on the northwest side of the proposed mausoleum. Underground detention would consist of 175 LF of 36" storm pipe with a 4'x4' access structure at each end. Flows would be controlled by the critical year storm method, with the additional requirement of the 100-year post developed flow controlled to the 10-year pre-development flow rate. Adherence to these requirements results in a large added cost for the cemetery.
- **Minimal Impact Alternative (See Exhibit 2)**
A minimal impact alternative would be to provide oversized pipe with one 4'X4' structure. This would provide some additional storage without meeting the 100-year post developed to 10-year pre-developed flow rate requirements. 108 LF of 12" pipe would be provided for additional storage. An orifice plate would be placed at the 4'X4' structure on the west end, and an 8" pipe would connect the system to the existing storm network. This would greatly reduce cost while still providing some additional flow reduction.

JOB #: 221304.000



- Preferred Alternative (See Exhibit 3)

This project is proposing a pipe network sized only for conveyance of flow from the mausoleum. This would include 250 LF of 8" storm pipe to convey flows from the proposed development to the existing storm network. This would negate the need for oversized pipe storage and larger 4'X4' access structures. This will reduce overall cost for the project, while helping maintain flows to the Olentangy.

Hardships Description

The requirements to provide stormwater detention for greater than 2,000 sf of net added impervious surface place hardships on the project. These hardships are described as follows:

- Allowable release rates

Due to the small size of the drainage area within the limits of disturbance, the allowable release rates based on the critical year method with the additional 100 to the 10-year requirement are very small. Based on a 0.22-acre drainage area, the allowable release rate for the 10-year critical storm would be 0.37 cfs, and the allowable release rate for the 100-year storm event would be 0.71 cfs. Such small flows cause the detention system to need a very small orifice which adds cost to the project due to the need for added anti-clogging protection and allowing larger events to overflow. Without any detention, the site itself (0.22-acres) would be releasing less than 2.0 cfs in the post-developed state.

- Cost

With the project being on the smaller end, the stormwater management aspect adds a large cost percentage wise to the overall cost of the mausoleum which makes it difficult for a nonprofit association such as the Union Cemetery Association to continue to meet the need for areas where people can visit loved ones that have passed away.

Justifications for Deviation

We feel the request for a variance and deviation from the above stated Manual requirements are justified by the following reasons:

- The development is in close proximity to the storm network outfall to the Olentangy River
- If the site is considered as whole, runoff for the property is not increasing from the pre-developed conditions.
- Much of the site has looser uncompacted soils due to the burial practices on site compared to other commercial sites, which results in less runoff.
- A proposed "scatter garden" will be included with the project, adding more vegetation to help soak up runoff behind the proposed mausoleum.

Please review the above and let us know if the request for this variance is justified. Please also do not hesitate to contact this office with any questions, comments, or concerns. Thank you in advance for your attention to this matter.

Union Cemetery Mausoleum
CC TBD
City of Columbus Division of Sewerage & Drainage
March 25, 2024

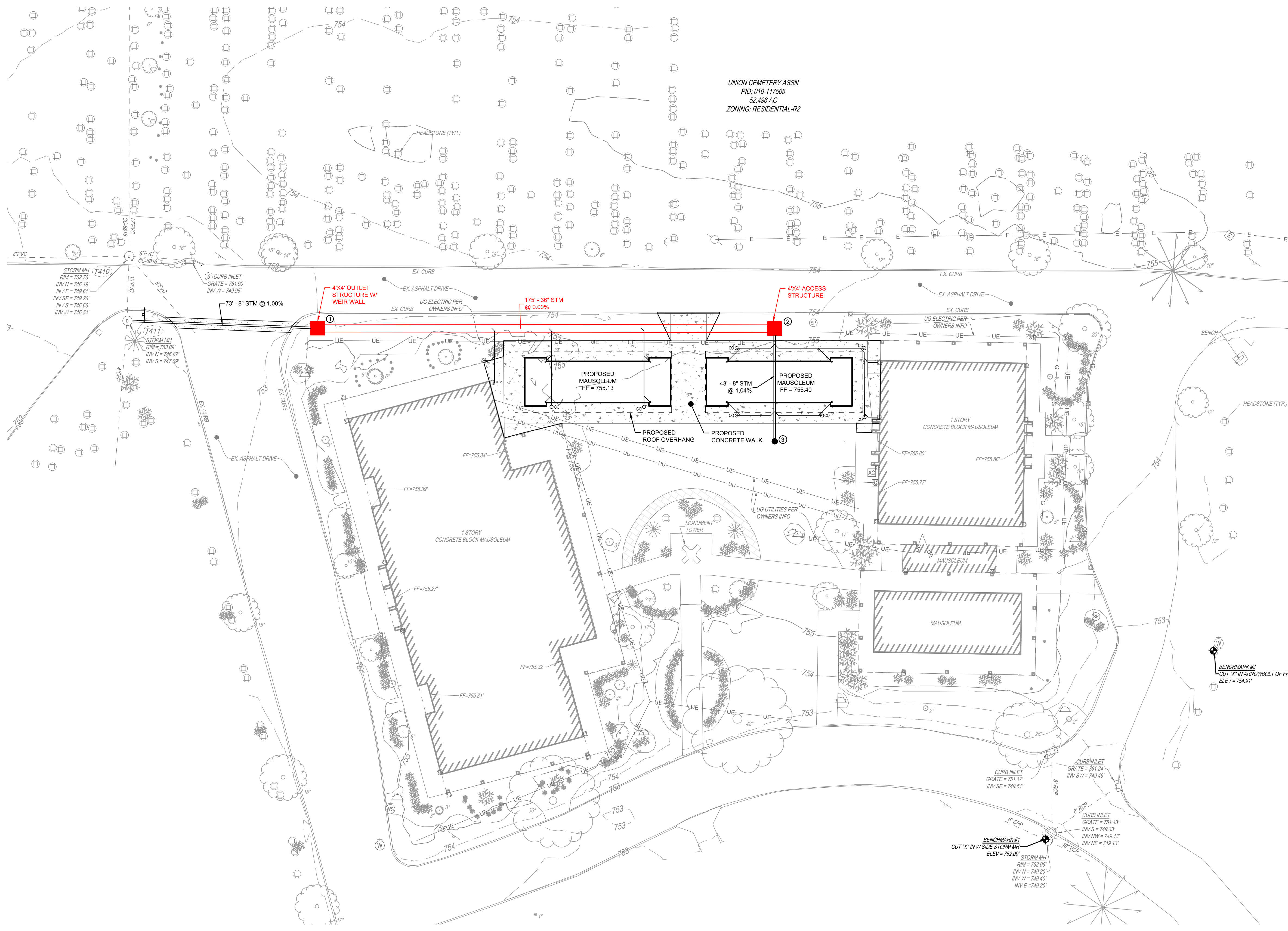


Sincerely,
THE KLEINGERS GROUP

A handwritten signature in blue ink, appearing to read "Nick J. Elmasian". The signature is written in a cursive style and is contained within a light grey rectangular box.

Nick Elmasian, P.E.
Senior Project Manager

cc: FILE



PROPOSED LEGEND

- STM STORM SEWER PIPE
- ① CATCH BASIN
- ② YARD DRAIN
- ⊙ CLEANOUT

UNION CEMETERY ASSN
 PID: 010-117505
 52.496 AC
 ZONING: RESIDENTIAL-R2

THE KLEINGERS GROUP

CIVIL ENGINEERING SURVEYING LANDSCAPE ARCHITECTURE

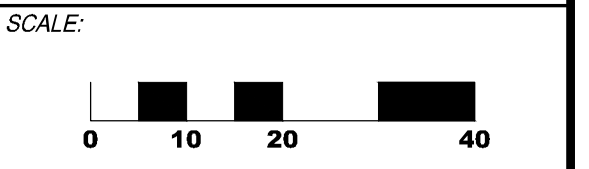
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SEAL:

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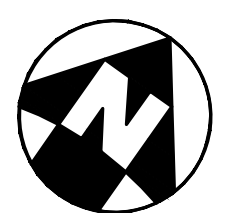
UNION CEMETERY MAUSOLEUM
 3349 OLENTANGY RIVER ROAD
 COLUMBUS, OHIO

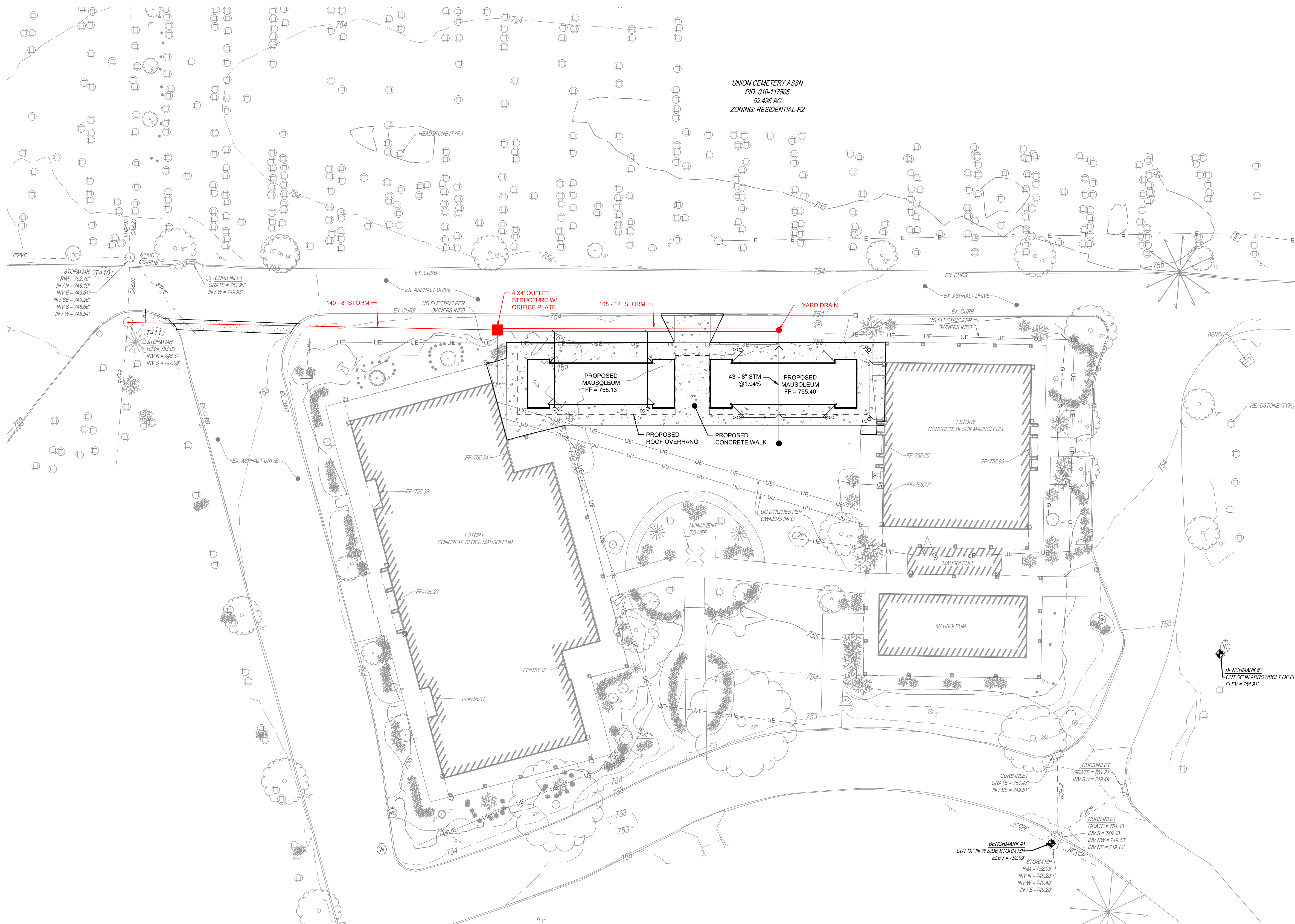
PROJECT NO: 221304.000
 DATE: 04-01-2024



SHEET NAME:
EXHIBIT 1 - FULL COMPLIANCE




SHEET NO.
1/3





UNION CEMETERY ASSM
 PID: 010-117505
 52.496 AC
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- STM STORM SEWER PIPE
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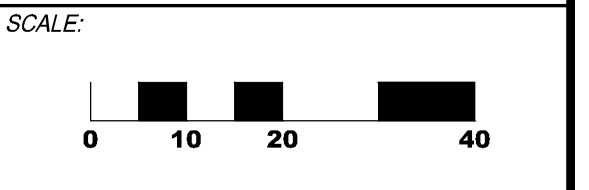
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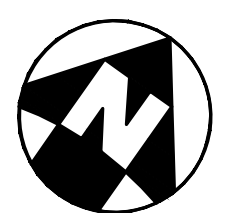
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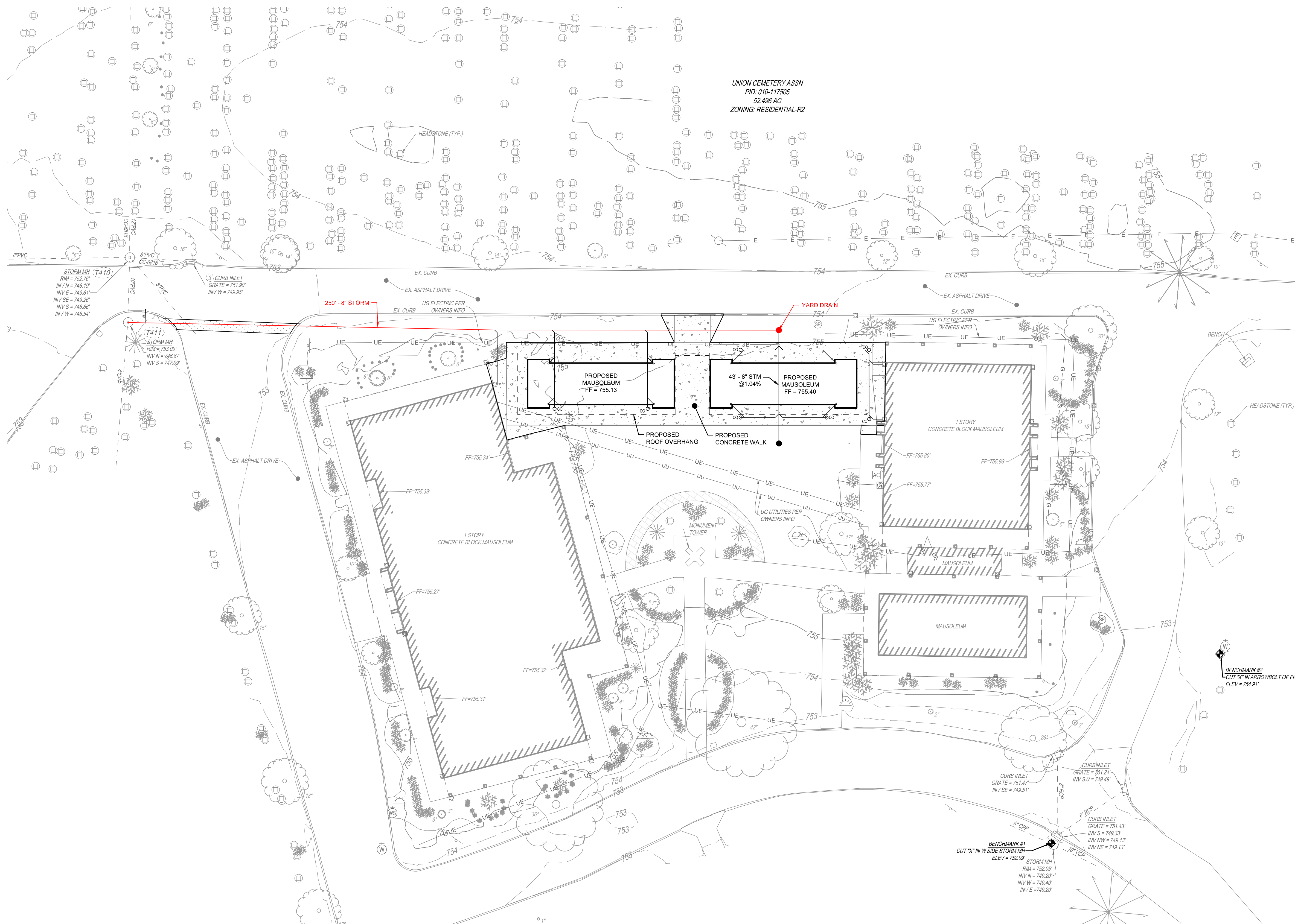


SHEET NAME:
EXHIBIT 2 - MINIMAL IMPACT

SHEET NO.
2/3






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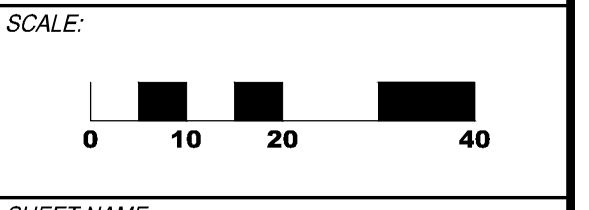
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SHEET NAME:
EXHIBIT 3 - PREFERRED ALTERNATIVE

SHEET NO.
3/3

