



SOUTH BUFFALO DEVELOPMENT, LLC

November 5, 2012

Mr. Thomas Pawlak
Armor Electric Motor and Crane Services, Inc.
343 Elk Street
Buffalo, New York 14210

**RE: Work Plan
Storm Sewer Replacement
Former Buffalo Color Corporation Site – Area E
Buffalo, New York
NYSDEC Site # C915232**

Dear Mr. Pawlak,

South Buffalo Development LLC (SBD) is submitting for your review a Work Plan for replacement of storm sewers relating to the former Buffalo Color Corporation Site Area E. The storm sewer replacement work will affect storm drainage on the Armor Electric Motor and Crane Services, Inc. (Armor Electric) property. SBD will work closely with Armor Electric to ensure that access to the Armor Electric property and Armor Electric's business are not disrupted during the work. The storm sewer work will be performed at no cost to Armor Electric.

Background

SBD conducted remedial activities for the Area E site under the New York State Brownfields Cleanup Program in 2010/2011. The remedial activities included refurbishing or abandoning storm sewers on the Area E site. Monitoring data obtained at the completion of the remedial activities indicated that impacted groundwater was likely infiltrating the storm sewer system via storm drains on the Armor Electric property. A Certificate of Completion (COC) for the remediation work was received from the New York State Department of Environmental Conservation (NYSDEC) in 2012. An agreement was reached with NYSDEC whereby the COC for Area E would be issued with a commitment from SBD to address the Armor Electric property storm sewers in 2012. This Work Plan addresses that work to satisfy the agreement with NYSDEC.

Work Plan

SBD will replace the known storm sewers and manholes on the Armor Electric property as shown on through the attached figures. The storm sewer replacement will include the roof drains from the Armor Electric buildings. The replacement sewer pipe will be corrugated HDPE, bell and spigot connections with gaskets to ensure watertight joints, with pipe diameters sized to match the flow capacity of the existing storm sewer. It is anticipated that trunk lines will be nominal 12-inch diameter and that the roof drain leaders will be nominal 6-inch diameter. The roof drain pipe replacement includes only the underground sections; existing aboveground pipe attached to the Armor Electric buildings will not be replaced. HDPE pipe has been selected as

most appropriate based on compatibility with the known constituents in groundwater. Manholes will be precast concrete sized as appropriate to match the existing structures being replaced.

SBD expects to excavate (open cut) the storm sewer trench to conduct the storm sewer replacement. Care will be exercised to limit the disturbance to Armor Electric's access and property to the extent possible. Existing asphalt areas will be saw cut prior to excavation to limit damage to the asphalt during excavation. Excavated asphalt, storm sewer, and soil material will be stockpiled in a staging area established for that purpose to allow characterization of the excavated material for disposal or direct loaded into trucks, roll-off boxes, or similar container for offsite disposal. Stockpiled material will be removed for offsite disposal as soon as characterization, if required, determines the appropriate disposal facility. SBD will provide plastic sheeting, tarps, hay bales and other materials as may be required to underlay and protect any stockpiled materials from potential migration due to storm water runoff/runoff from rainfall events and wind erosion. In addition, SBD will provide temporary fencing and/or barriers to isolate the work area from Armor Electric's business traffic and unauthorized access.

The HDPE replacement storm sewer will be placed to a 1% drainage grade or greater. Surveying, laser equipment, or other suitable method will be used to establish and verify storm sewer grades. The HDPE pipe will be placed in graded aggregate bedding a minimum of 6 inches in thickness. The aggregate bedding will be graded and compacted prior to pipe placement. The pipe will not be placed in a trench that contains standing water, debris or other deleterious materials that could affect the storm sewer performance. Additional graded aggregate will be used to backfill the pipe and pipe trench to a minimum of one foot above the top of pipe elevation. The aggregate backfill will be compacted with suitable compaction equipment such as hand-operated tampers, small roller compactor, or a tamper attachment to a backhoe. Suitable fill material will be placed above the aggregate backfill to the grade required for surface restoration. Backfill will be placed in lifts not exceeding one foot (12 inches) in thickness and compacted prior to placing additional backfill.

Manholes will be installed on aggregate bedding a minimum of 6 inches in thickness and leveled to ensure compatibility with the pipe installation. Pipe penetrations will be grouted or sealed to ensure that the connections are watertight. Aggregate will be used to backfill around the outside of the manholes to the grade required for surface restoration. The manholes will be fitted with appropriate covers to allow vehicle traffic as may be expected during Armor Electric's normal course of business.

Surface restoration will be performed to return the property to the condition that existed prior to the work. Asphalt paving will be replaced with base and/or wearing courses, as required, to match the existing pavement type and thickness. Aggregate subbase will be placed and compacted directly beneath the asphalt pavement; the aggregate will match the thickness of the existing subbase but will not be installed less than 6 inches in thickness. Other areas that may have had vegetation or gravel prior to the work will be restored with similar materials. SBD will remove all stockpiled and excavated materials from the property and will demobilize any remaining storm sewer materials at the completion of the work. SBD will conduct a site walk with Armor Electric prior to final demobilization to ensure that the property has been restored to Armor Electric's satisfaction.

Schedule

SBD anticipates initiating the work the week of November 12, 2012. At least one week prior to mobilization, SBD will meet with Armor Electric to review the Work Plan and planned activities,

Mr. Thomas Pawlak
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establish an excavated material stockpile area, and discuss Armor Electric's planned activities that could be affected by the work. Once the work is initiated, it is expected that two (2) weeks will be required to complete the storm sewer replacement. An additional week will be required to complete restoration activities.

SBD appreciates Armor Electric's cooperation during completion of the storm sewer replacement. We will contact you shortly to discuss the work. In the meantime, should you have any immediate questions or wish to discuss the work, please contact me at 716.655.1250.

Sincerely,

South Buffalo Development LLC



Andrew Madden

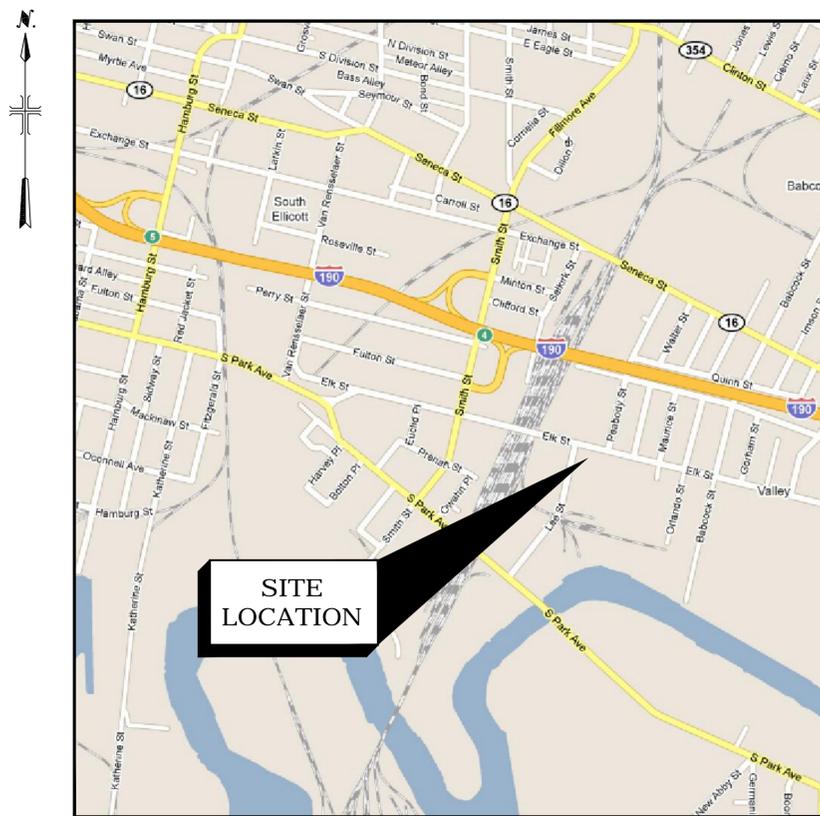
Attachment

cc: G. Melnyk (NYSDEC, w/ attachment)
R. Galloway (Honeywell, w/ attachment)
G. Pfeiffer (de maximis, w/ attachment)
D. Forlastro (AMEC, w/ attachment)

ONTARIO SPECIALTY CONTRACTORS HONEYWELL/ FORMER BUFFLAO COLOR FACILITY BUFFALO, NEW YORK

ARMOR ELECTRIC DRAINAGE DESIGN

NOVEMBER 2012



LOCATION PLAN

INDEX OF DRAWINGS

TITLE	
SHEET NO.	GENERAL
--	COVER SHEET AND INDEX OF DRAWINGS
G1	EXISTING SITE PLAN
G2	PARTIAL SITE PLAN AND PROFILES
G3	DETAILS - I

OSC PROJECT# 0913

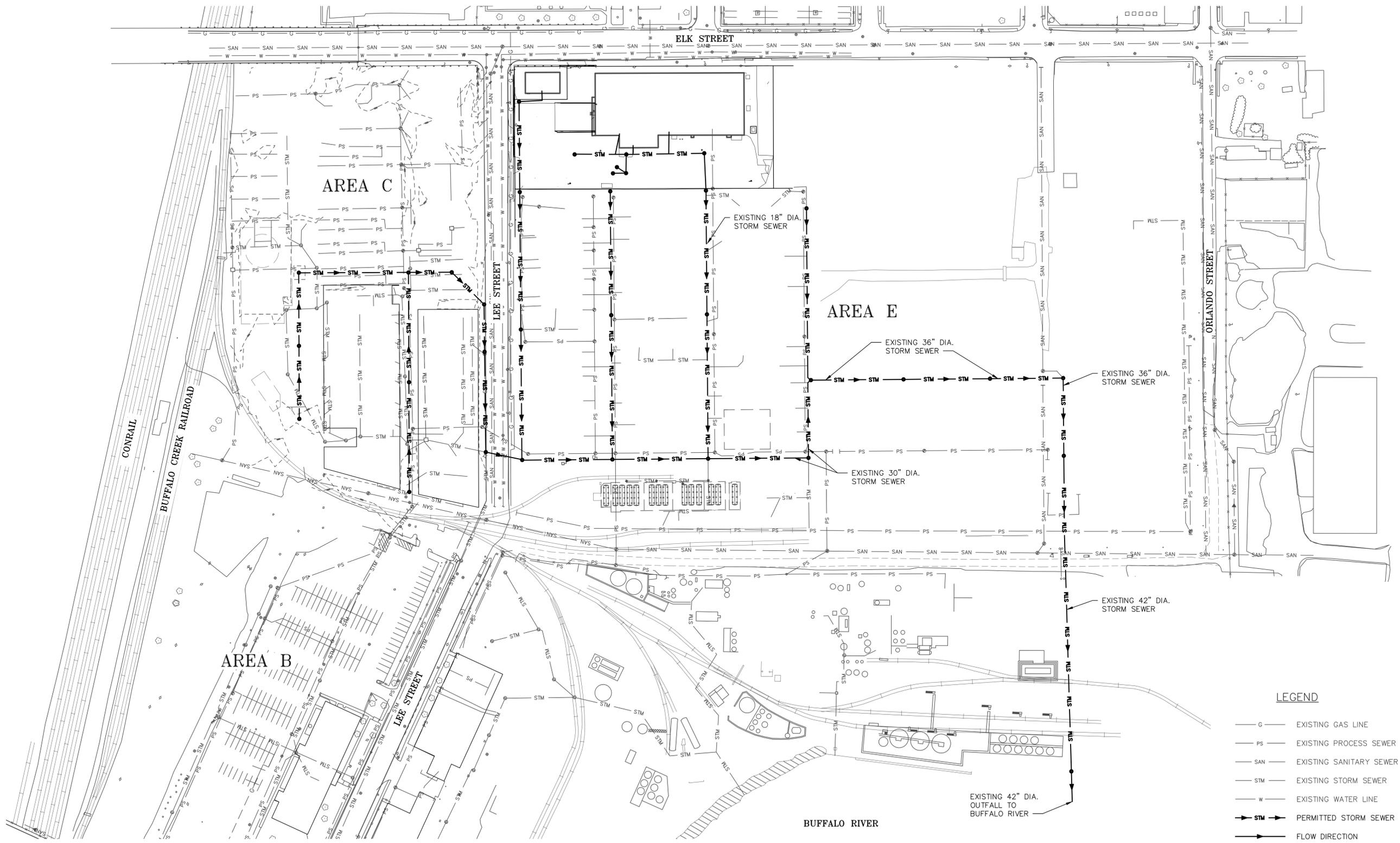
APPROVED _____

ONTARIO SPECIALTY CONTRACTING, INC.



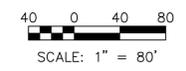
ONTARIO SPECIALTY CONTRACTING, INC.

333 GANSON STREET
BUFFALO, NEW YORK 14203



PLAN
SCALE: 1" = 80'

- LEGEND**
- G — EXISTING GAS LINE
 - PS — EXISTING PROCESS SEWER
 - SAN — EXISTING SANITARY SEWER
 - STM — EXISTING STORM SEWER
 - W — EXISTING WATER LINE
 - ▶ STM ▶— PERMITTED STORM SEWER
 - ▶ —▶— FLOW DIRECTION



REVISIONS				REMARKS	DES	DWN	CKD
NO.	BY	DATE					

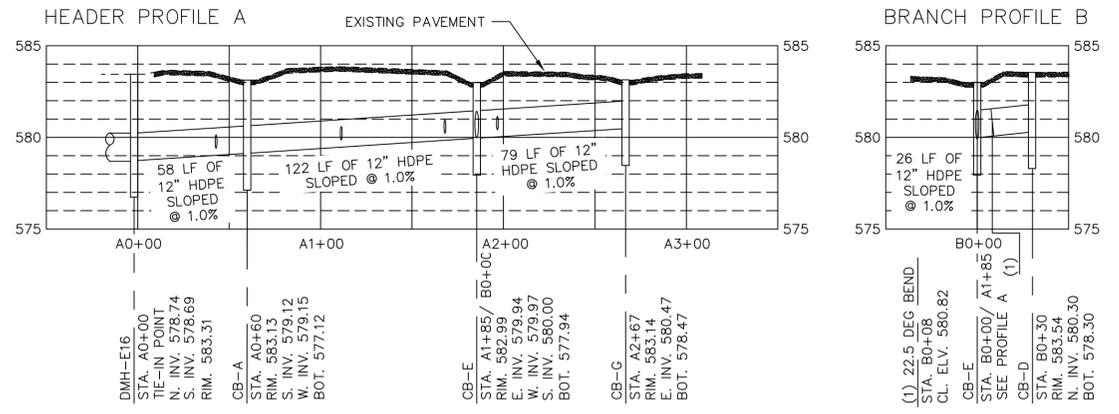
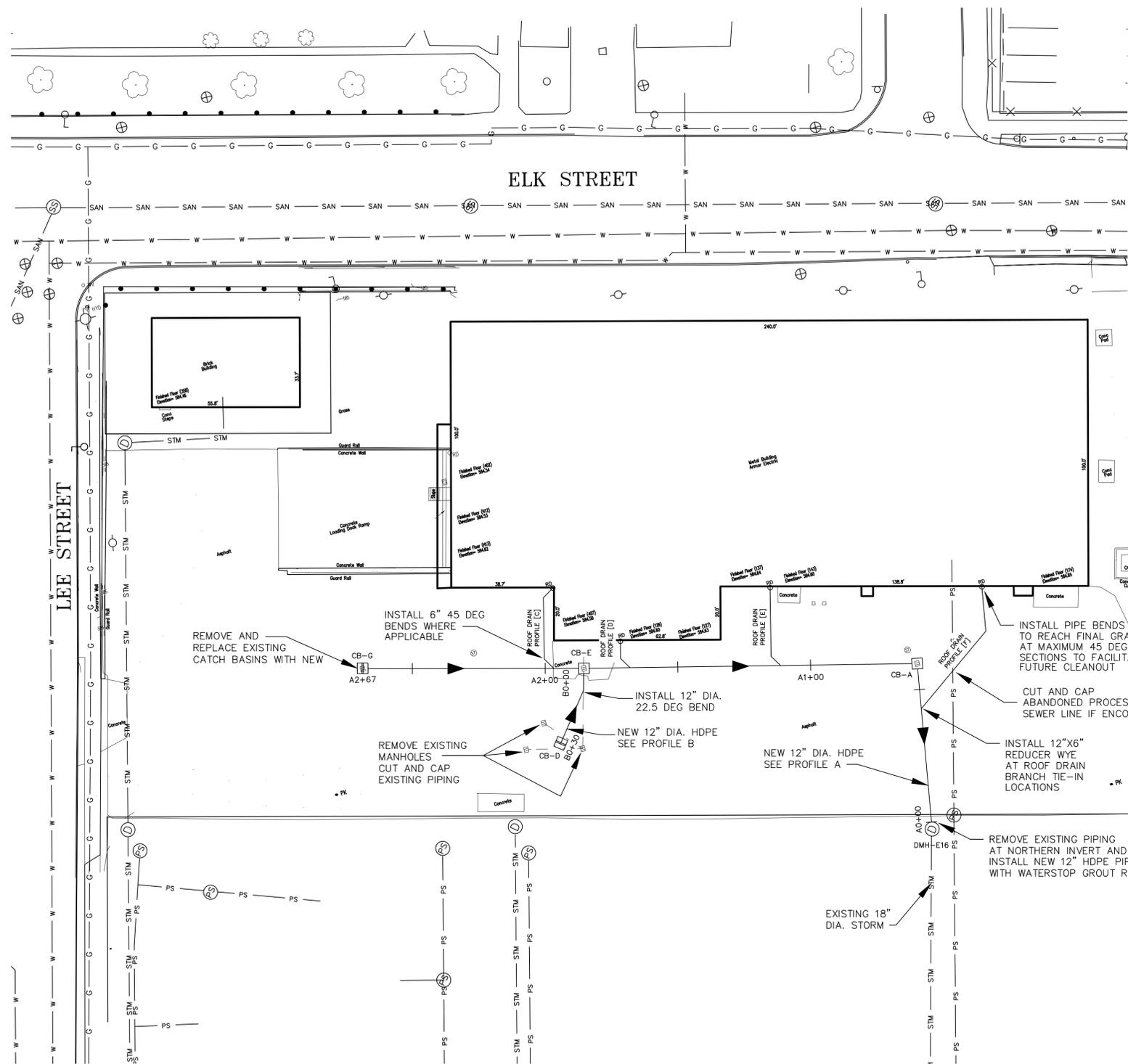
ONTARIO SPECIALTY CONTRACTORS
 HONEYWELL/ FORMER BUFFALO COLOR FACILITY
 BUFFALO, NEW YORK

ARMOR ELECTRIC DRAINAGE DESIGN

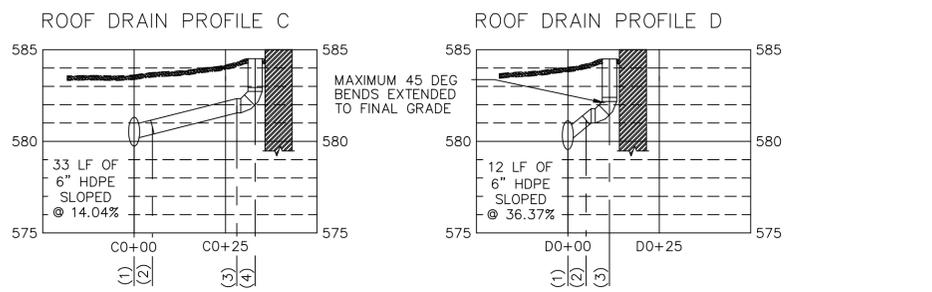
EXISTING SITE PLAN

SCALE: 1" = 80'

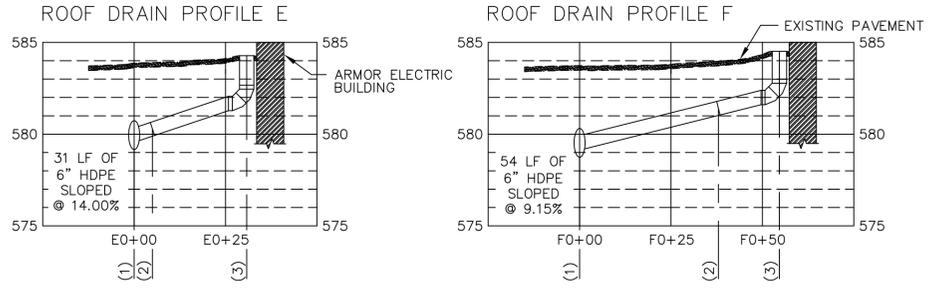
ONTARIO SPECIALTY CONTRACTING INC.
 DATE: NOVEMBER 2012
 G SHEET 1 OF 3
 CAD REF. NO. 007



HEADER PROFILE
HORIZ. SCALE: 1" = 50'
VERT. SCALE: 1" = 5'



- (1) REDUCER 45 DEG WYE STA. C0+00/ A1+97 TIE IN CL. ELV. 580.53
- (2) 45 DEG BEND STA. C0+05 CL. ELV. 580.79
- (3) 45 DEG BEND STA. C0+28 CL. ELV. 581.98
- (4) ROOF DRAIN STA. C0+33 GND. ELV. 584.51
- (1) REDUCER 45 DEG WYE STA. D0+00/ A1+68 TIE IN CL. ELV. 580.34
- (2) 45 DEG BEND STA. D0+05 CL. ELV. 581.16
- (3) ROOF DRAIN STA. D0+11 GND. ELV. 584.49



- (1) REDUCER 45 DEG WYE STA. E0+00/ A1+11 TIE IN CL. ELV. 579.97
- (2) 45 DEG BEND STA. E0+05 CL. ELV. 580.28
- (3) ROOF DRAIN STA. E0+31 GND. ELV. 584.28
- (1) REDUCER 45 DEG WYE STA. F0+00/ A0+43 TIE IN CL. ELV. 579.52
- (2) 45 DEG BEND STA. F0+05 CL. ELV. 581.41
- (3) ROOF DRAIN STA. F0+55 GND. ELV. 584.52

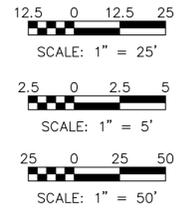
ROOF DRAINAGE PROFILES
HORIZ. SCALE: 1" = 25'
VERT. SCALE: 1" = 5'

LEGEND

- G — EXISTING GAS LINE
- PS — EXISTING PROCESS SEWER
- SAN — EXISTING SANITARY SEWER
- STM — EXISTING STORM SEWER
- Flow arrow — FLOW DIRECTION
- w — EXISTING WATER LINE
- — NEW CATCH BASIN
- — NEW MANHOLE
- NEW STORM SEWER

PARTIAL SITE PLAN
SCALE: 1" = 25'

- NOTES:
- EXISTING UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THE ELEVATIONS ARE ASSUMED. OWNER/ CONTRACTOR SHALL FIELD VERIFY ACTUAL ELEVATIONS PRIOR TO STARTING WORK.



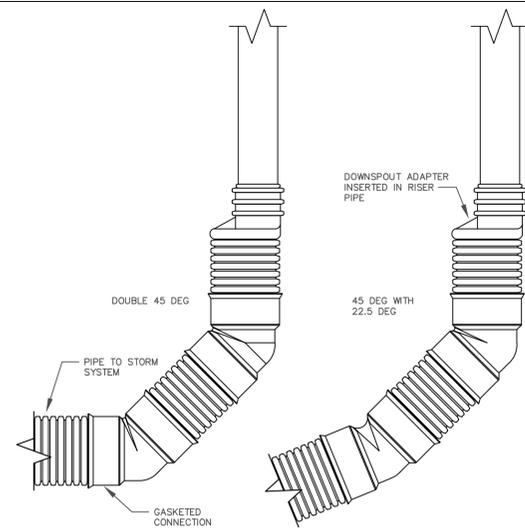
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NO.	BY	DATE	REMARKS

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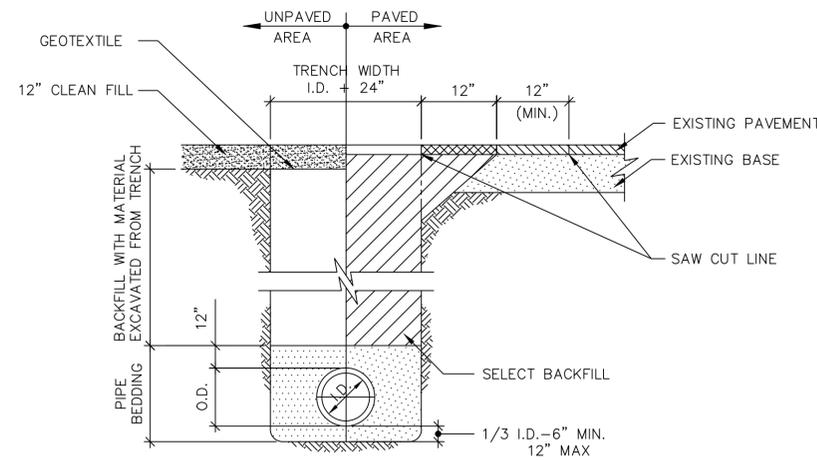
ONTARIO SPECIALTY CONTRACTORS
HONEYWELL/ FORMER BUFFALO COLOR FACILITY
BUFFALO, NEW YORK
ARMOR ELECTRIC DRAINAGE DESIGN

PARTIAL SITE PLAN
AND PROFILES
SCALE: AS NOTED

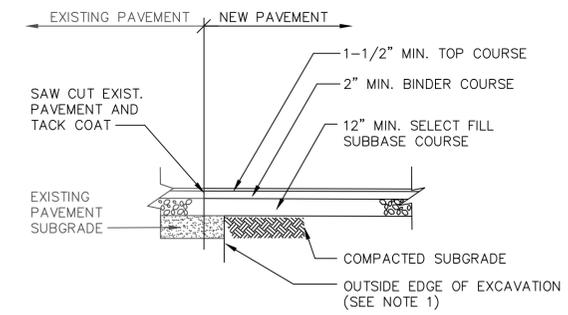
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DATE: NOVEMBER 2012
G SHEET 2 OF 3
CAD REF. NO. 007



ROOF DRAIN ASSEMBLY
NOT TO SCALE

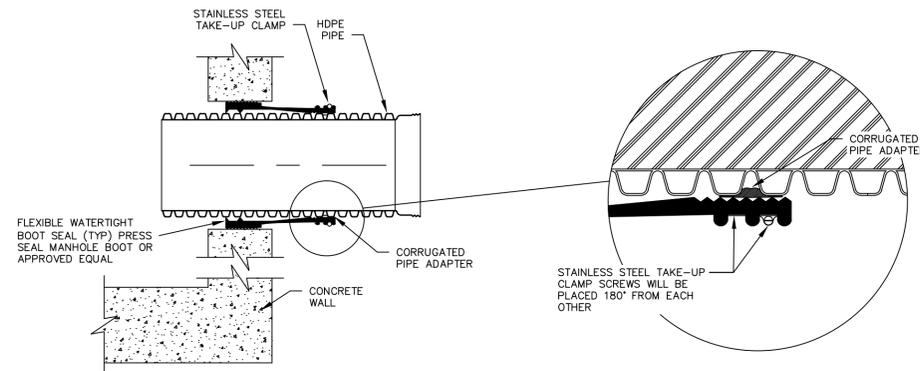


UNPAVED AND PAVED
TRENCH DETAIL
NOT TO SCALE

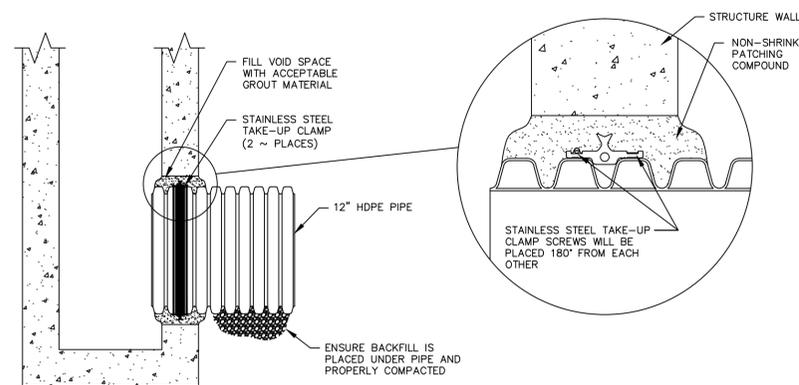


ASPHALT PAVEMENT REPLACEMENT DETAIL
NOT TO SCALE

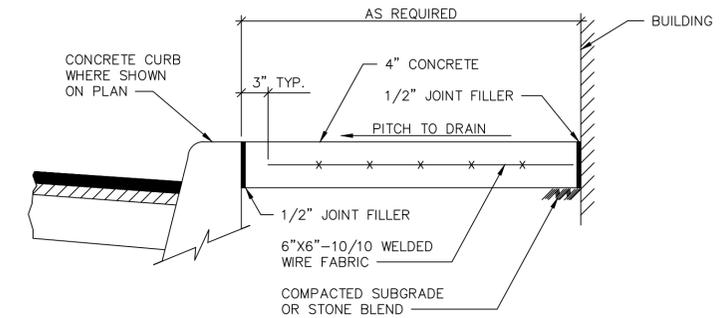
NOTES:
1. PRIOR TO PAVING OWNER'S CONTRACTOR SHALL BACK CUT AND REMOVE EXISTING PAVEMENT A MINIMUM OF 1' FROM OUTSIDE EDGE OF EXCAVATION.



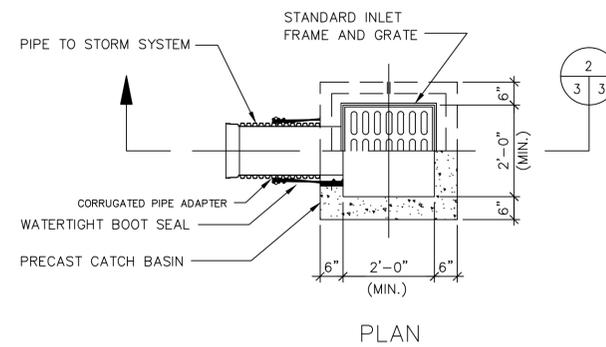
WATERTIGHT BOOT SEAL DETAIL
NOT TO SCALE



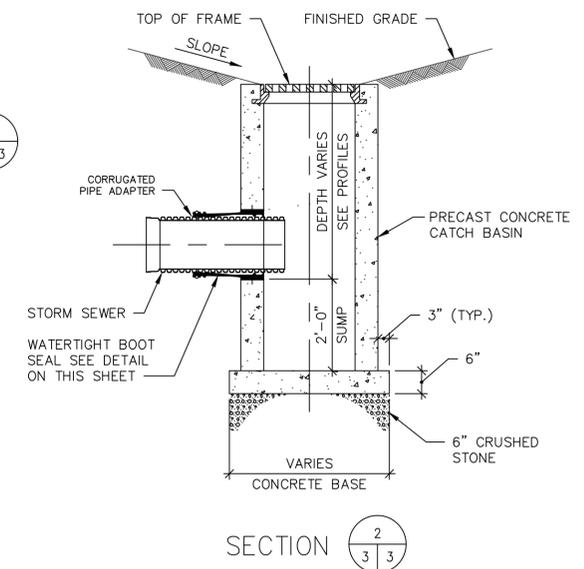
DMH-E16 WATERSTOP MANHOLE CONNECTION
NOT TO SCALE



CONCRETE SIDEWALK REPLACEMENT DETAIL
NOT TO SCALE



PLAN



SECTION $\frac{2}{3/3}$

TYPICAL CATCH BASIN DETAIL
NOT TO SCALE



REVISIONS			
NO.	BY	DATE	REMARKS

DES _____
DWN _____
CKD _____

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ARMOR ELECTRIC DRAINAGE DESIGN

DETAILS

SCALE: AS NOTED

ONTARIO SPECIALTY CONTRACTING INC.
DATE: NOVEMBER 2012
G SHEET 3 OF 3
CAD REF. NO. 007