ERICKSON COURTYARD IMPROVEMENTS AND STAIRS REPAIR

ISSUED FOR: 95% CONSTRUCTION DOCUMENTS

UMBC PROJECT No.: 20-103

MDE No. 20-SF-0065

GENERAL NOTES:

1. ALL PROPOSED WORK TO BE CONSTRUCTED IN ACCORDANCE WITH THE INVITATION FOR BID MANUAL, UMB STANDARD GENERAL CONDITIONS OF CONSTRUCTION CONTRACT, REVISED 02/04/2014;UMBC AMENDMENTS TO UMB STANDARD GENERAL CONDITIONS OF CONSTRUCTION CONTRACT, REVISED 02/04/2014, LATEST STANDARDS AND UPDATES OF THE MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION, STANDARDS AND SPECIFICATIONS FOR HIGHWAYS AND INCIDENTAL STRUCTURES DATED 2018 AND MARYLAND DEPARTMENT OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION, STANDARD SPECIFICATION FOR CONSTRUCTION AND MATERIALS DATED JULY 2018. EROSION AND SEDIMENT CONTROL WORK TO BE CONSTRUCTED IN ACCORDANCE WITH THE MARYLAND DEPARTMENT OF THE ENVIRONMENT 2011 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
2. THE EXISTING CONDITIONS FOR THIS PROJECT HAVE BEEN FIELD SURVEYED BY A. MORTON THOMAS AND ASSOCIATES, JANUARY 2019.
3. THE LOCATION OF ALL UTILITIES SHOWN HEREON IS BASED ON FIELD SURVEY DATA AND RECORD DRAWING INFORMATION. THE UTILITY INFORMATION SHOWN IS NOT NECESSARILY COMPLETE AND THE GENERAL LOCATIONS SHOWN ARE TO BE CONSIDERED APPROXIMATE. VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES WELL IN ADVANCE OF CONDUCTING ANY OPERATIONS WHICH COULD DAMAGE OR INTERRUPT THESE FACILITIES IN AREAS WHERE THE PROPOSED CONSTRUCTION MAY CONFLICT WITH EXISTING UTILITIES. TAKE NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING UTILITIES. IF AN UNDERGROUND UTILITY IS DAMAGED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER. ANY DAMAGE SUSTAINED TO UTILITIES ABOVE OR BELOW GROUND SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
4. LOCATE "ALL PRIVATE" UNDERGROUND UTILITIES AND INFRASTRUCTURE INCLUDING BUT NOT LIMITED TO : PIPES, DRAINS, CABLE, ETC., IN ANY PROPOSED EXCAVATION AREA AND COORDINATE ANY DISRUPTIONS WITH THE UNIVERSITY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
5. VERIFY ALL DIMENSIONS AND CONDITIONS GIVEN ON THE DRAWINGS AND REPORT TO THE OWNER ANY ERROR OR INCONSISTENCY WITH THE ACTUAL CIRCUMSTANCES IN THE FIELD PRIOR TO COMMENCING WORK.
6. TAKE NOTE THAT THE UTILITIES IN THIS AREA MAY HAVE PORTIONS OF SHEETING AND SHORING USED TO FACILITATE THEIR CONSTRUCTION ABANDONED AND LEFT IN PLACE, WHICH MAY INTERFERE WITH THE NEW WORK. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY IF THIS SITUATION OCCURS.
7. SCHEDULE ALL DEMOLITION ACTIVITIES AND REQUIRED UTILITY RELOCATION TO MINIMIZE SHUTDOWNS AND DISRUPTIONS TO THE UNIVERSITY OF MARYLAND BALTIMORE COUNTY CAMPUS. UNLESS OTHERWISE NOTED, ALL UTILITIES MUST REMAIN IN SERVICE THROUGHOUT THE DURATION OF THE PROJECT AND PROTECTED AND SUPPORTED AS REQUIRED. NOTIFY OWNER TWO WEEKS IN ADVANCE IF TEMPORARY SHUTDOWN/DISRUPTION OF UTILITIES IS REQUIRED.
8. CONDUCT TEST PITS AS REQUIRED TO ESTABLISH THE CONDITION AND ELEVATION OF ALL UTILITY AND STRUCTURES PRIOR TO FABRICATING ANY PIECES OR ORDERING ANY MATERIALS FOR THE UTILITY SYSTEMS.
9. BASED UPON THE RESULTS OF THE TEST PITS, SUBMIT SKETCHES TO THE ENGINEER SHOWING THE RECOMMENDATION REVISING THE DESIGN INVERT AND TOP ELEVATIONS AS REQUIRED TO AVOID ANY CONFLICTS WITH EXISTING UTILITY LINES AND OTHER FEATURES.
10. OMISSION AND/OR ADDITIONS OF UTILITIES FOUND DURING CONSTRUCTION SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR ENGAGED IN EXCAVATION AT THE SITE. THE OWNER SHALL BE NOTIFIED IMMEDIATELY OF ANY AND ALL UTILITY INFORMATION, OMISSIONS AND ADDITIONS FOUND BY ANY CONTRACTOR. DAMAGE TO EXISTING UTILITIES SHALL BE FIXED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
11. DEVELOP AND COORDINATE THE MAINTENANCE OF TRAFFIC AND ANY SIDEWALK AND ROAD CLOSURES WITH THE UNIVERSITY.

OWNER'S / DEVELOPER'S CERTIFICATION

I/WE HEREBY CERTIFY THAT ALL CLEARING, GRADING, CONSTRUCTION, AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OR EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. I/WE HEREBY AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY APPROPRIATE INSPECTION AND ENFORCEMENT AUTHORITY OR THE STATE OF MARYLAND, DEPARTMENT OF THE ENVIRONMENT.

DATE	OWNER/DEVELOPER SIGNATURE
RPC005511	PHILLIP S. CHO, PROJECT MANAGER
RESPONSIBLE PERSONNEL CERT. NO.	PRINTED NAME AND TITLE

DESIGN CERTIFICATION:

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, THE 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUMES I & II INCLUDING SUPPLEMENTS, THE ENVIRONMENT ARTICLE SECTIONS 4-101 THROUGH 116 AND SECTIONS 4-201 AND 215, AND THE CODE OF MARYLAND REGULATIONS (COMAR) 26.17.01 AND COMAR 26.17.02 FOR EROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT, RESPECTIVELY.

DATE	DESIGNER'S SIGNATURE
MD REGISTRATION NO. 35792	STEPHEN JERRICK, P.E.
(P.E.), R.L.S., R.L.A. OR R.A. (CIRCLE ONE)	PRINTED NAME

INDEX OF DRAWINGS

CIVIL ENGINEERING/PRIME
A. MORTON THOMAS AND ASSOCIATES
800 KING FARM BLVD, 4TH FLOOR
ROCKVILLE, MD 20850
301-881-2545

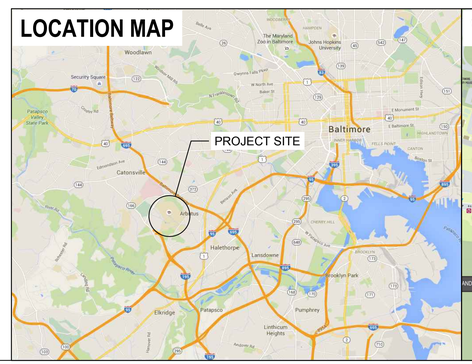
LANDSCAPE ARCHITECTURE
FLOURA TEETER LANDSCAPE ARCHITECTURES
800 N. CHARLES STREET, SUITE 300
BALTIMORE, MD 20201
410-528-8395

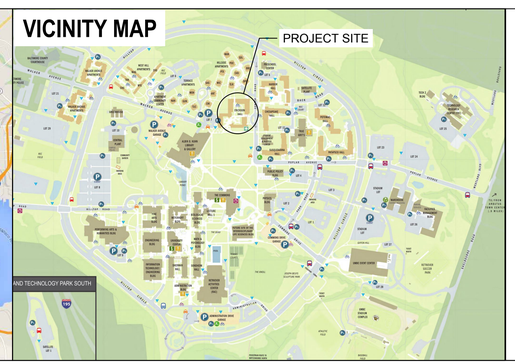
STRUCTURAL ENGINEERING
CARROLL ENGINEERING
215 SCHILLING CIRCLE, SUITE 102
HUNT VALLEY, MD 21031
410-785-7423

ELECTRICAL
WFT ENGINEERING, INC.
1801 RESEARCH BLVD, SUITE 100
ROCKVILLE, MD 20850
301-230-0811

GEOTECHNICAL ENGINEERING
KIM ENGINEERING
1550 CANTON CENTER DRIVE, SUITE K
BALTIMORE, MD 21227
410-501-3669

COST ESTIMATING
FORELLA GROUP, LLC
5180 PARKSTONE DR, SUITE 250
CHANTILLY, VA 20151
703-560-2200





STATE OF MARYLAND

BOARD OF PUBLIC WORKS

Lawrence J. Hogan Jr. Governor
Peter Franchot Comptroller
Nancy K. Kopp Treasurer

MARYLAND GENERAL ASSEMBLY

Bill Ferguson Senate President
Adrienne Jones House Speaker

Date Printed: 3/9/2020

UMBC

ERICKSON COURTYARD
IMPROVEMENTS AND STAIRS REPAIR

UMBC Project No.: 20-103
A/E Project No.: 17-0782.004

AMT
A. MORTON THOMAS AND ASSOCIATES, INC.
CONSULTING ENGINEERS
800 KING FARM BOULEVARD, 4TH FLOOR
ROCKVILLE, MD 20850
PHONE (301) 881-2545 | FAX (301) 881-0814
EMAIL: AMT1@AMTENGINEERING.COM

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35792, EXPIRATION DATE 08/16/20

100% CONSTRUCTION DOCUMENTS

CONSULTANTS

LANDSCAPE ARCHITECTURE
FLOURA TEETER LANDSCAPE ARCHITECTS

ELECTRICAL ENGINEERING
WFT ENGINEERING, INC.

STRUCTURAL ENGINEERING
CARROLL ENGINEERING

GEOTECHNICAL SERVICES
KIM ENGINEERING

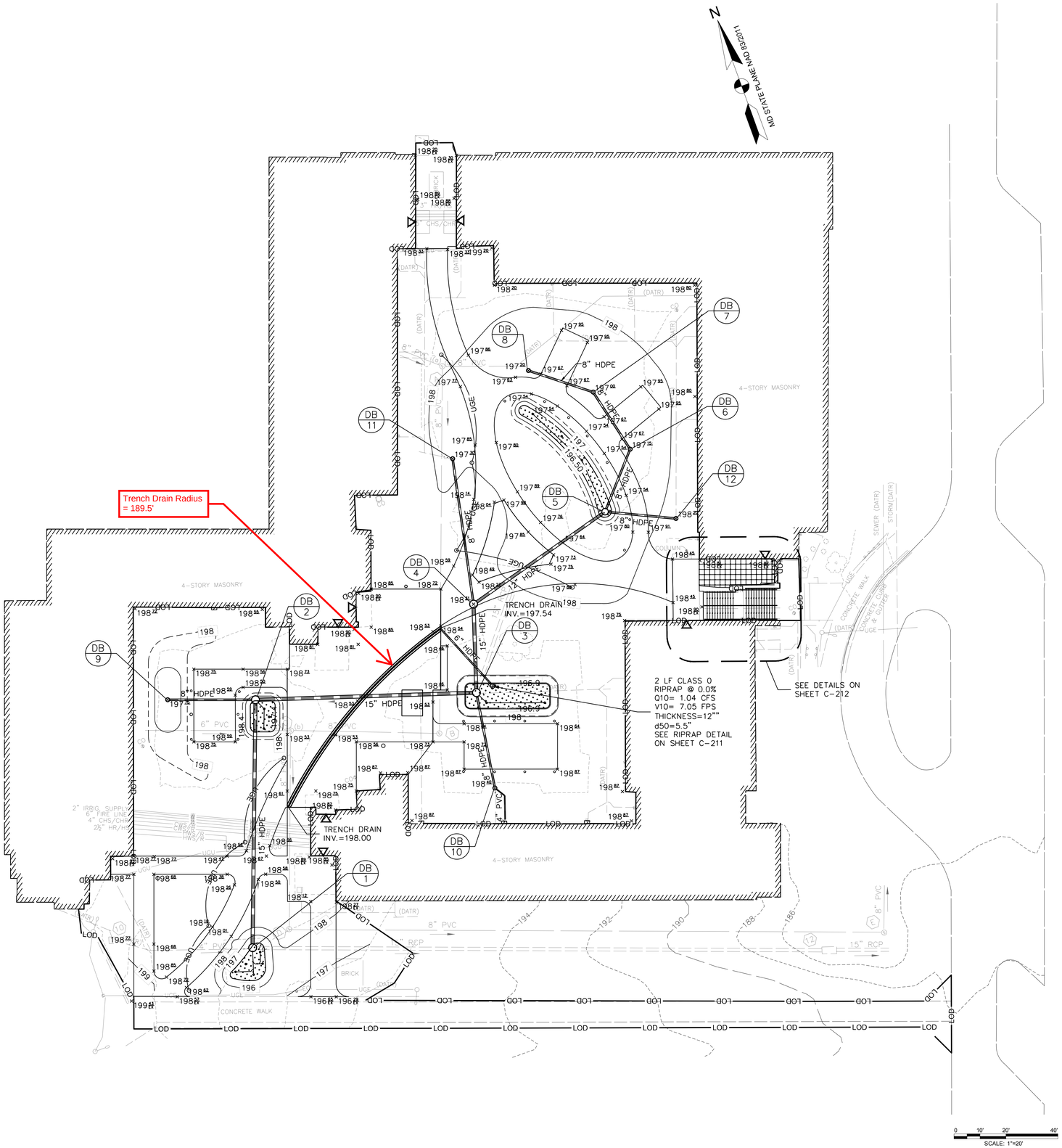
COST ESTIMATING
FORELLA GROUP, LLC

REV	DATE	DESCRIPTION

DATE: 3/11/2020 SCALE:

COVER SHEET

G-000



GRADING LEGEND

424	EXISTING MAJOR CONTOURS
425	EXISTING MINOR CONTOURS
425	MAJOR CONTOURS
424	MINOR CONTOURS
×198.44	PROPOSED SPOT ELEVATION

DRAWING NOTES:

1. ALL SOFTSCAPE AREAS, BOTH TURF AND PLANTING, ARE TO BE IRRIGATED. SEE LANDSCAPE PLANS AND IRRIGATION SPECIFICATION 328400.

2. ALL SIDEWALK CROSS SLOPES SHALL NOT EXCEED 2%.

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STRUCTURAL ENGINEERING
CARROLL ENGINEERING

GEOTECHNICAL SERVICES
KIM ENGINEERING

COST ESTIMATING
FORELLA GROUP, LLC

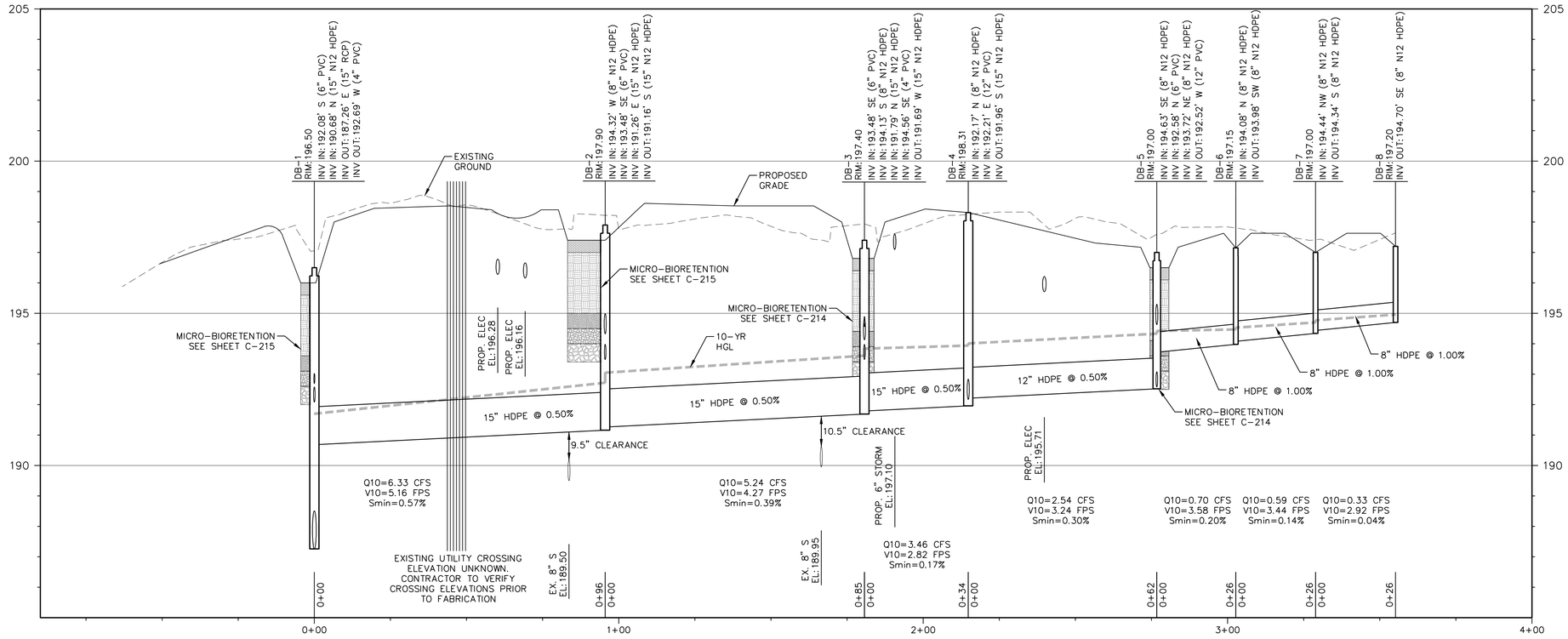
REV	DATE	DESCRIPTION

DATE: 3/11/2020 SCALE: 1"=20'

GRADING AND UTILITY PLAN

C-207

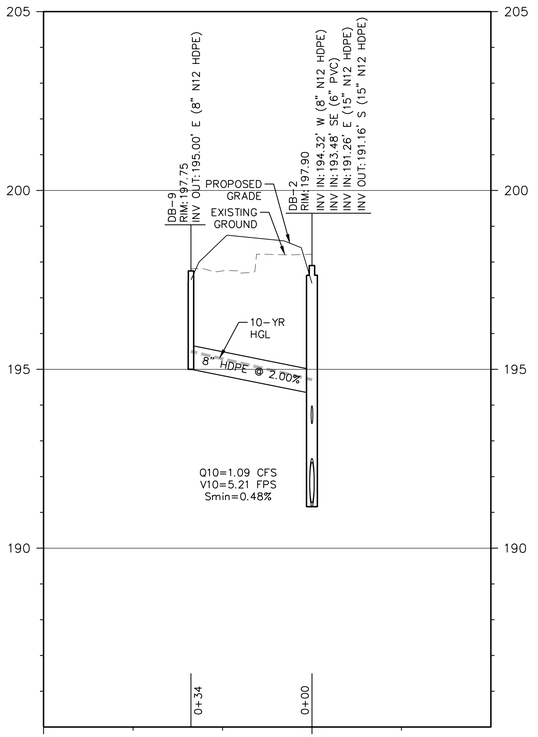
Date Printed: 3/9/2020



DB-1 TO DB-8 STORM DRAIN PROFILE

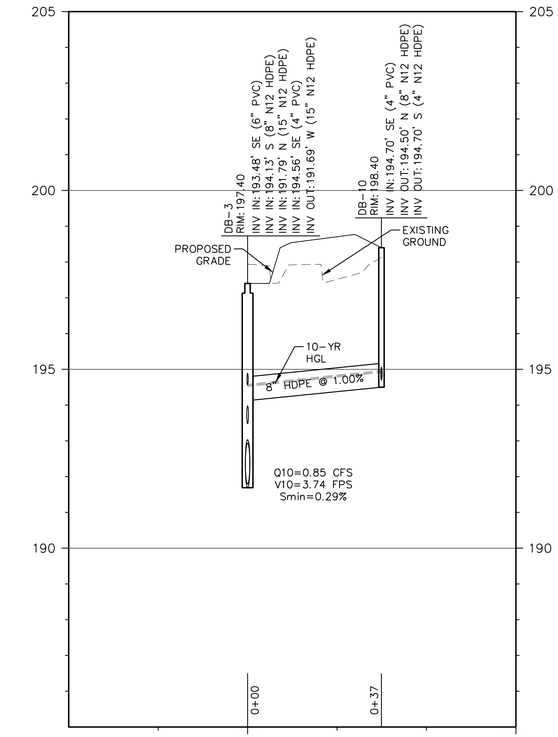
SCALE: HORZ 1"=20'
VERT 1"=2'

CONTRACTOR TO VERIFY EXISTING STORM DRAIN INVERT ELEVATIONS INTO NEW STRUCTURES PRIOR TO FABRICATION



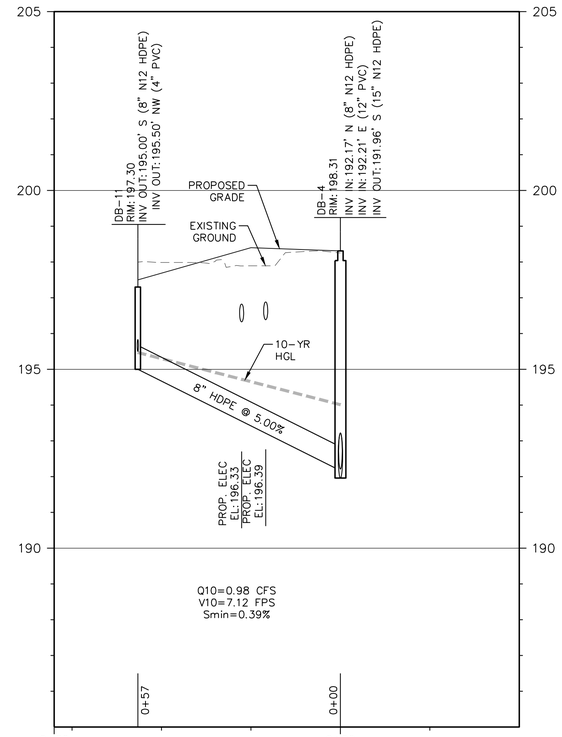
DB-2 TO DB-9 STORM DRAIN PROFILE

SCALE: HORZ 1"=20'
VERT 1"=2'



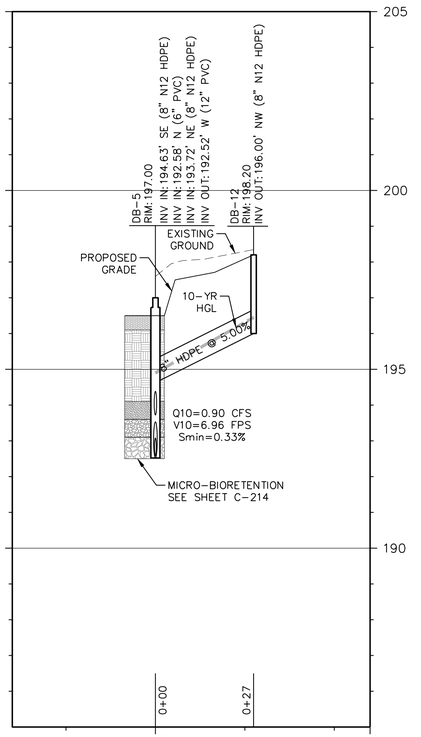
DB-3 TO DB-10 STORM DRAIN PROFILE

SCALE: HORZ 1"=20'
VERT 1"=2'



DB-4 TO DB-11 STORM DRAIN PROFILE

SCALE: HORZ 1"=20'
VERT 1"=2'



DB-5 TO DB-12 STORM DRAIN PROFILE

SCALE: HORZ 1"=20'
VERT 1"=2'

Date Printed: 3/9/2020

UMBC

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KIM ENGINEERING

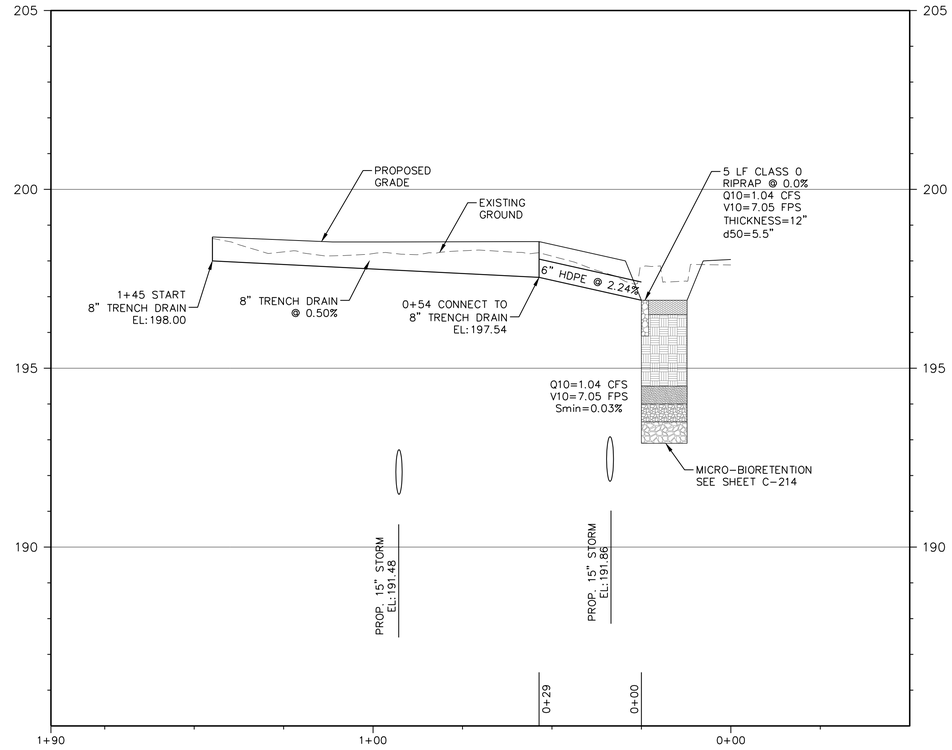
COST ESTIMATING
FORELLA GROUP, LLC

REV	DATE	DESCRIPTION

DATE: 3/11/2020 SCALE: 1"=20'

GRADING AND UTILITY PROFILES

C-208



TRENCH DRAIN TO MB-2 PROFILE

SCALE: HORZ 1"=20'
VERT 1"=2'

UMBC

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UMBC Project No.: 20-103
A/E Project No.: 17-0782.004

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EMAIL: AMT1@AMTENGINEERING.COM

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WFT ENGINEERING, INC.

STRUCTURAL ENGINEERING
CARROLL ENGINEERING

GEOTECHNICAL SERVICES
KIM ENGINEERING

COST ESTIMATING
FORELLA GROUP, LLC

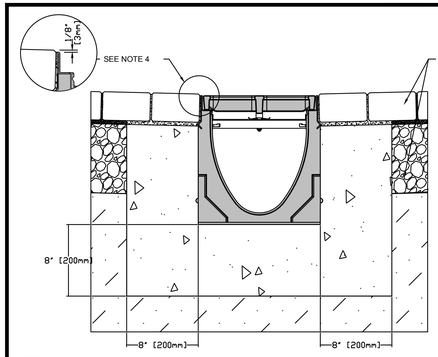
REV	DATE	DESCRIPTION

DATE: 3/11/2020 SCALE: 1"=20'

GRADING AND UTILITY PROFILES

C-209

Date Printed: 3/9/2020



NOTES:
1. MINIMUM CONCRETE STRENGTH OF 4,000 PSI. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
2. INSTALL EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT TO PROTECT CHANNEL AND CONCRETE SURROUND.
3. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" [3mm] ABOVE THE TOP OF THE CHANNEL EDGE.
4. CONCRETE BASE THICKNESS SHOULD MATCH SLAB THICKNESS.
5. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

SPECIFICATION CLAUSE

K200 KLASSIKDRAIN - LOAD CLASS C

GENERAL
THE SURFACE DRAINAGE SYSTEM SHALL BE POLYMER CONCRETE K200 CHANNEL SYSTEM WITH GALVANIZED STEEL EDGE RAILS AS MANUFACTURED BY ACO POLYMER PRODUCTS, INC.

MATERIALS
CHANNELS SHALL BE MANUFACTURED FROM POLYESTER RESIN POLYMER CONCRETE WITH AN INTEGRALLY CAST-IN GALVANIZED STEEL EDGE RAIL. MINIMUM PROPERTIES OF POLYMER CONCRETE WILL BE AS FOLLOWS:

COMPRESSIVE STRENGTH:	14,000 PSI
FLEXURAL STRENGTH:	4,000 PSI
TENSILE STRENGTH:	1,500 PSI
WATER ABSORPTION:	0.07%
FROST PROOF	YES
DILUTE ACID AND ALKALI RESISTANT	YES
B117 SALT SPRAY TEST COMPLIANT	YES

THE SYSTEM SHALL BE 8" (200mm) NOMINAL INTERNAL WIDTH WITH A 10.2" (260mm) OVERALL WIDTH AND A BUILT-IN SLOPE OF 0.5%. CHANNEL INVERT SHALL HAVE DEVELOPED "V" SHAPE. ALL CHANNELS SHALL BE INTERLOCKING WITH A MALE/FEMALE JOINT.

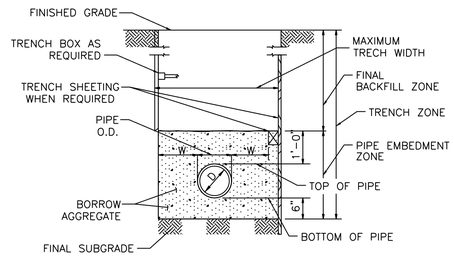
THE COMPLETE DRAINAGE SYSTEM SHALL BE BY ACO POLYMER PRODUCTS, INC. ANY DEVIATION OR PARTIAL SYSTEM DESIGN AND/OR IMPROPER INSTALLATION WILL VOID ANY AND ALL WARRANTIES PROVIDED BY ACO POLYMER PRODUCTS, INC.

CHANNEL SHALL WITHSTAND LOADING TO PROPER LOAD CLASS AS OUTLINED BY EN 1433. GRATE TYPE SHALL BE TYPE 678Q IRON LONGITUDINAL. GRATES SHALL BE SECURED USING 'QUICKLOK' BOLTLESS LOCKING SYSTEM. CHANNEL AND GRATE SHALL BE CERTIFIED TO MEET THE SPECIFIED EN 1433 LOAD CLASS. THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.

K2-C-HPP	K200 - KLASSIKDRAIN - LOAD CLASS: C Haunched Paver Pavement	**ACO Polymer Products, Inc.**
ACO DATE: 08/25/15	INSTALLATION DRAWING - ACO DRAIN	825 W. Beechcraft St Casa Grande, AZ 85122 Tel: 520-421-9988 Fax: 520-421-9899 9470 Pinecone Dr. Mentor, OH 44060 Tel: 440-639-7230 Fax: 440-639-7235 4211 Pleasant Rd. Fort Mill, SC 29708 Tel: 440-639-7230 Fax: 803-802-1063

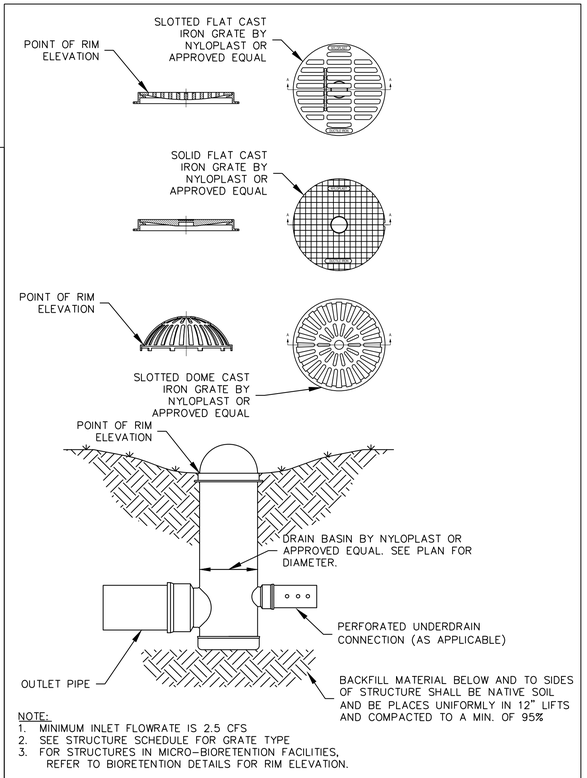
Arizona Tel: 888-490-9552 e-mail: sales@acousa.com Ohio Tel: 800-543-4764 www.acousa.com South Carolina Tel: 800-543-4764

1 8" ACO TRENCH DRAIN (OR APPROVED EQUAL)
NTS



D DIAMETER	W
4"	12"
6"	11"
8"	10"
10"	9"
12"	8"
15"	8"
18"	8"
21"	8"
24"	12"
27"	12"
30"	12"
36"	15"
42"	15"
48"	18"

2 PVC AND HDPE PIPE TRENCHING
NTS



NOTE:
1. MINIMUM INLET FLOWRATE IS 2.5 CFS
2. SEE STRUCTURE SCHEDULE FOR GRATE TYPE
3. FOR STRUCTURES IN MICRO-BIORETENTION FACILITIES, REFER TO BIORETENTION DETAILS FOR RIM ELEVATION.

3 DRAIN BASIN
NTS

STRUCTURE SCHEDULE

STRUCTURE	TYPE	SIZE	NORTHING	EASTING	RIM	INVERT IN	INVERT OUT	NOTES
DB-1	NYLOPLAST DRAIN BASIN	30"	579212.16	1394420.13	196.50'	6" (S) 192.08' 15" (N) 190.68'	15" (E) 187.26' 4" (W) 192.69'	DOME GRATE SEE DETAIL THIS SHEET
DB-2	NYLOPLAST DRAIN BASIN	30"	579301.55	1394453.85	197.90'	8" (W) 194.32' 6" (SE) 193.48' 15" (E) 191.26'	15" (S) 191.16'	DOME GRATE SEE DETAIL THIS SHEET
DB-3	NYLOPLAST DRAIN BASIN	30"	579275.02	1394534.78	197.40'	6" (SE) 193.48' 8" (S) 194.13' 15" (N) 191.79' 4" (SE) 194.56'	15" (W) 191.69'	DOME GRATE SEE DETAIL THIS SHEET
DB-4	NYLOPLAST DRAIN BASIN	30"	579307.42	1394545.40	198.31'	8" (N) 192.17' 12" (E) 192.21'	15" (S) 191.96'	SOLID GRATE SEE DETAIL THIS SHEET
DB-5	NYLOPLAST DRAIN BASIN	24"	579323.58	1394605.20	197.00'	8" (SE) 194.63' 6" (N) 192.58' 8" (NE) 193.72'	12" (W) 192.52'	DOME GRATE SEE DETAIL THIS SHEET
DB-6	NYLOPLAST DRAIN BASIN	12"	579342.91	1394622.51	197.15'	8" (N) 194.08'	8" (SW) 193.98'	SLOTTED GRATE SEE DETAIL THIS SHEET
DB-7	NYLOPLAST DRAIN BASIN	12"	579368.44	1394616.64	197.00'	8" (NW) 194.44'	8" (S) 194.34'	SLOTTED GRATE SEE DETAIL THIS SHEET
DB-8	NYLOPLAST DRAIN BASIN	12"	579384.76	1394596.04	197.20'		8" (SE) 194.70'	SLOTTED GRATE SEE DETAIL THIS SHEET
DB-9	NYLOPLAST DRAIN BASIN	12"	579313.11	1394422.07	197.75'		8" (E) 195.00'	SLOTTED GRATE SEE DETAIL THIS SHEET
DB-10	NYLOPLAST DRAIN BASIN	12"	579238.07	1394528.91	198.40'	4" (SE) 194.70'	8" (N) 194.50' 4" (S) 194.70'	SLOTTED GRATE SEE DETAIL THIS SHEET
DB-11	NYLOPLAST DRAIN BASIN	12"	579362.84	1394557.00	197.30'		8" (S) 195.00' 4" (NW) 195.50'	SLOTTED GRATE SEE DETAIL THIS SHEET
DB-12	NYLOPLAST DRAIN BASIN	12"	579311.76	1394629.97	198.20'		8" (NW) 196.00'	SLOTTED GRATE SEE DETAIL THIS SHEET

STORM DRAIN - PIPE SUMMARY

SIZE	MATERIAL	LENGTH
4"	SCH. 40 PVC	15'
6"	PERF. SCH. 40 PVC	106'
6"	SCH. 40 PVC	15'
8"	HDPE	262'
12"	HDPE	62'
15"	HDPE	215'

Date Printed: 3/9/2020

UMBC

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KIM ENGINEERING

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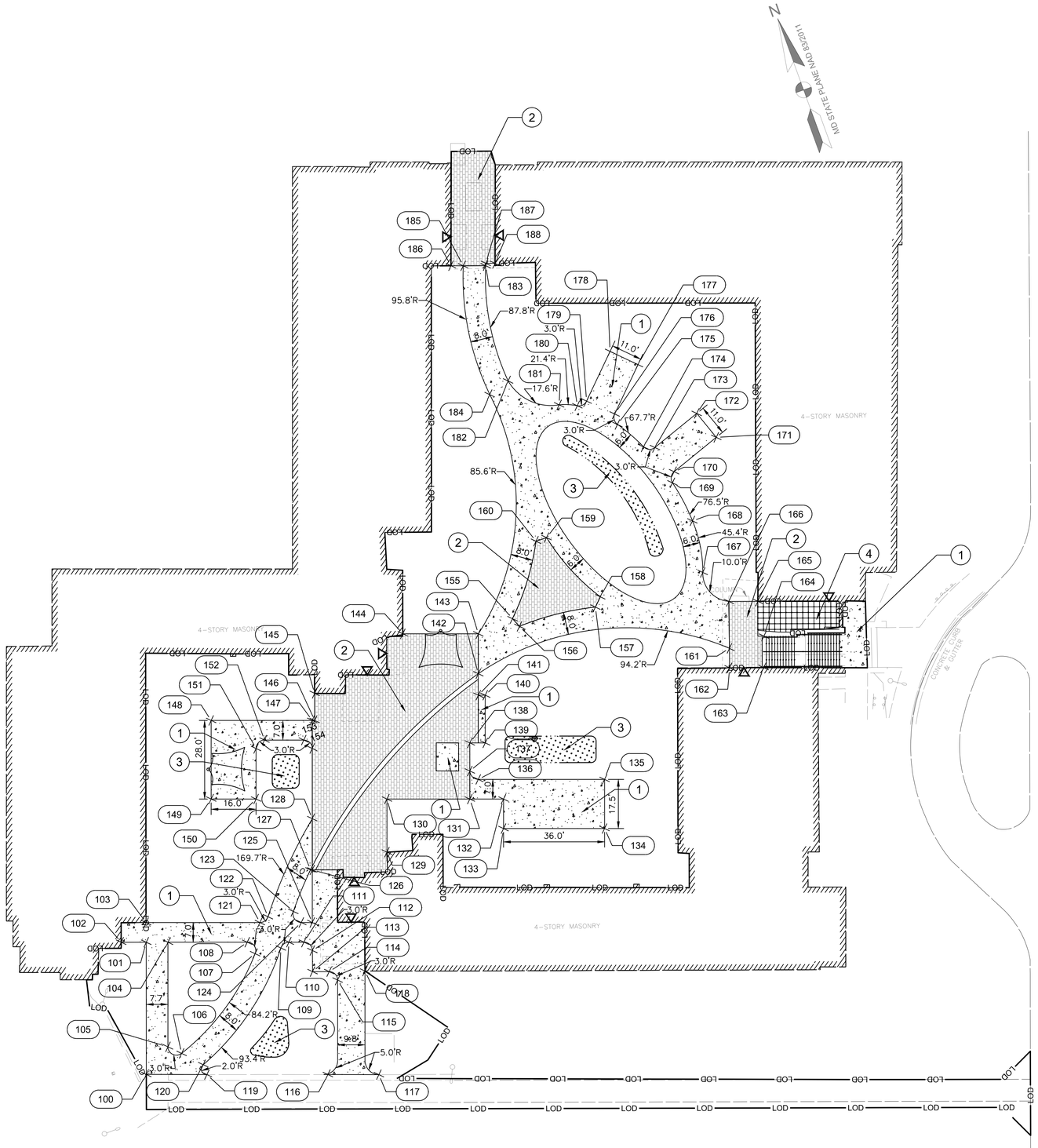
FORELLA GROUP, LLC

REV	DATE	DESCRIPTION

DATE: 3/11/2020 SCALE: NTS

GRADING AND UTILITY DETAILS

C-210



SITE LEGEND

- CONCRETE PAVING (DETAIL 1, C-210)
- CONCRETE PAVERS (DETAIL 2, C-210)
- BIORETENTION AREA
- PEDESTAL PAVER

KEYNOTES

1. CONCRETE PAVING. SEE DETAIL 1, C-211
2. CONCRETE PAVERS ON CONCRETE BASE. SEE DETAIL 2, C-211
3. BIORETENTION AREA
4. PEDESTAL PAVER. 24"X24" PAVER ON PEDESTAL SYSTEM. (HANOVER OR APPROVED EQUAL)

POINT TABLE

POINT	NORTHING	EASTING	DESCRIPTION
100	579210.16	1394370.72	EDGE OF WALK
101	579254.42	1394386.82	EDGE OF WALK
102	579257.47	1394378.42	EDGE OF WALK
103	579261.01	1394389.17	EDGE OF WALK
104	579251.78	1394394.08	EDGE OF WALK
105	579216.76	1394381.33	EDGE OF WALK
106	579212.88	1394385.10	EDGE OF WALK
107	579237.33	1394421.85	EDGE OF WALK
108	579242.13	1394420.62	EDGE OF WALK
109	579236.09	1394431.19	EDGE OF WALK
110	579237.05	1394434.57	EDGE OF WALK
111	579235.22	1394439.61	EDGE OF WALK
112	579231.40	1394441.41	EDGE OF WALK
113	579224.31	1394438.89	EDGE OF WALK
114	579222.28	1394444.48	EDGE OF WALK
115	579218.43	1394446.27	EDGE OF WALK
116	579186.86	1394434.78	EDGE OF WALK
117	579183.49	1394443.94	EDGE OF WALK
118	579218.12	1394456.52	EDGE OF WALK
119	579202.72	1394390.98	EDGE OF WALK
120	579206.47	1394390.96	EDGE OF WALK
121	579247.16	1394427.25	EDGE OF WALK
122	579248.14	1394430.65	EDGE OF WALK
123	579246.82	1394439.81	EDGE OF WALK
124	579242.12	1394441.12	EDGE OF WALK
125	579240.78	1394444.80	EDGE OF WALK
126	579258.41	1394451.20	EDGE OF WALK
127	579258.63	1394450.60	EDGE OF WALK
128	579275.56	1394457.44	EDGE OF WALK
129	579255.24	1394478.35	EDGE OF WALK
130	579273.03	1394484.83	EDGE OF WALK
131	579262.93	1394512.58	EDGE OF WALK
132	579258.82	1394523.86	EDGE OF WALK
133	579248.95	1394520.27	EDGE OF WALK
134	579236.64	1394554.10	EDGE OF WALK
135	579253.09	1394560.08	EDGE OF WALK
136	579268.48	1394517.79	EDGE OF WALK
137	579272.32	1394516.00	EDGE OF WALK
138	579281.72	1394519.42	EDGE OF WALK
139	579279.84	1394524.59	EDGE OF WALK
140	579295.81	1394530.40	EDGE OF WALK
141	579296.66	1394528.08	EDGE OF WALK
142	579303.85	1394530.70	EDGE OF WALK
143	579317.22	1394535.56	EDGE OF WALK
144	579326.42	1394510.29	EDGE OF WALK

POINT TABLE

POINT	NORTHING	EASTING	DESCRIPTION
145	579317.21	1394473.52	EDGE OF WALK
146	579308.15	1394470.22	EDGE OF WALK
147	579308.46	1394469.39	EDGE OF WALK
148	579320.76	1394435.56	EDGE OF WALK
149	579294.44	1394425.99	EDGE OF WALK
150	579288.97	1394441.03	EDGE OF WALK
151	579305.89	1394447.18	EDGE OF WALK
152	579307.69	1394451.03	EDGE OF WALK
153	579302.90	1394464.18	EDGE OF WALK
154	579299.06	1394465.98	EDGE OF WALK
155	579318.13	1394548.83	EDGE OF WALK
156	579314.70	1394550.23	EDGE OF WALK
157	579311.88	1394578.00	EDGE OF WALK
158	579314.73	1394580.89	EDGE OF WALK
159	579341.11	1394570.13	EDGE OF WALK
160	579341.19	1394566.14	EDGE OF WALK
161	579281.75	1394617.85	EDGE OF WALK
162	579275.21	1394615.54	EDGE OF WALK
163	579271.13	1394626.97	EDGE OF WALK
164	579281.65	1394630.89	EDGE OF WALK
165	579294.04	1394633.08	EDGE OF WALK
166	579297.54	1394623.35	EDGE OF WALK
167	579310.41	1394618.17	EDGE OF WALK
168	579328.93	1394621.00	EDGE OF WALK
169	579344.11	1394618.92	EDGE OF WALK
170	579347.63	1394620.85	EDGE OF WALK
171	579353.99	1394639.15	EDGE OF WALK
172	579364.38	1394635.53	EDGE OF WALK
173	579358.06	1394617.37	EDGE OF WALK
174	579359.66	1394613.65	EDGE OF WALK
175	579370.35	1394607.64	EDGE OF WALK
176	579374.20	1394607.99	EDGE OF WALK
177	579387.88	1394621.81	EDGE OF WALK
178	579395.70	1394614.07	EDGE OF WALK
179	579381.92	1394600.15	EDGE OF WALK
180	579381.49	1394596.48	EDGE OF WALK
181	579384.03	1394590.51	EDGE OF WALK
182	579398.24	1394576.33	EDGE OF WALK
183	579439.56	1394582.87	EDGE OF WALK
184	579395.90	1394568.51	EDGE OF WALK
185	579442.26	1394575.33	EDGE OF WALK
186	579443.77	1394571.26	EDGE OF WALK
187	579440.33	1394583.20	EDGE OF WALK
188	579439.20	1394586.31	EDGE OF WALK

UMBC

ERICKSON COURTYARD IMPROVEMENTS AND STAIRS REPAIR

UMBC Project No.: 20-103
A/E Project No.: 17-0782.004

AMT
A. MORTON THOMAS AND ASSOCIATES, INC.
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EMAIL: AMT1@AMTENGINEERING.COM

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 35792, EXPIRATION DATE 08/16/20

100% CONSTRUCTION DOCUMENTS

CONSULTANTS

LANDSCAPE ARCHITECTURE
FLOURA TEETER LANDSCAPE ARCHITECTS

ELECTRICAL ENGINEERING
WFT ENGINEERING, INC.

STRUCTURAL ENGINEERING
CARROLL ENGINEERING

GEOTECHNICAL SERVICES
KIM ENGINEERING

COST ESTIMATING
FORELLA GROUP, LLC

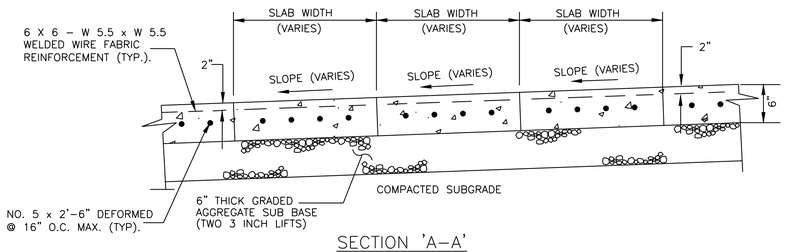
REV	DATE	DESCRIPTION

DATE: 3/11/2020
SCALE: 1"=20'

SITE LAYOUT PLAN

C-211

Date Printed: 3/9/2020



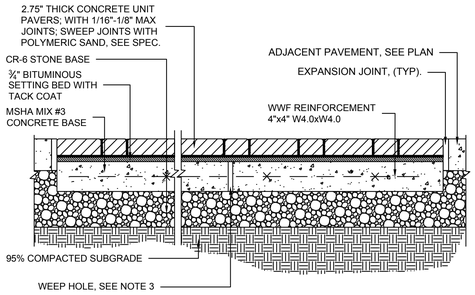
SECTION 'A–A'

NOTES:

1. No. 5 x 2'–6" DEFORMED TIE BARS @ 16" O.C.
2. JOINT WIDENING AND JOINT SEALANT REQUIRED AT ALL JOINTS.
3. CONTRACTOR TO PROVIDE SHOP DRAWING WITH JOINT LAYOUT, ELEVATIONS AND SURFACE FINISH DETAILS.
4. MAXIMUM CONTINUOUS SLAB AREA NOT TO EXCEED 400 SQ. FT. MAXIMUM SLAB DIMENSION RATIO NOT TO EXCEED 2:1.

1 CONCRETE PAVING

NTS



NOTES:

1. SEE LANDSCAPE PLAN FOR PAVER TYPE AND PATTERN.
2. PROVIDE ¾"-3/4" DIA. WEEPS IN CONCRETE BASE @ APPROXIMATELY 4' O.C.
3. LOCATE EXPANSION JOINTS IN CONCRETE SLAB @ 30' O.C. MAX SPACING; DO NOT EXTEND EXPANSION JOINT THROUGH PAVERS.
4. CONTRACTOR TO INSTALL PAVERS PER MANUFACTURER'S SPECIFICATIONS.

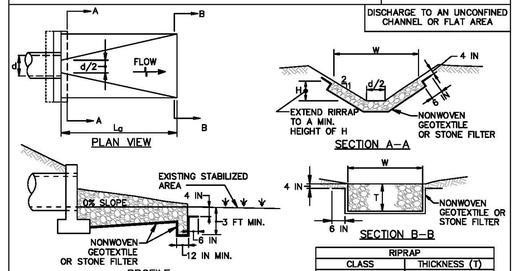
2 PAVERS ON CONCRETE

NTS

DETAIL D-4-1-C ROCK OUTLET PROTECTION III

STANDARD SYMBOL: ROPIII

DISCHARGE TO AN UNCONFINED CHANNEL OR FLAT AREA



RIPRAP	
CLASS	THICKNESS (T)
I	19 IN
II	32 IN
III	46 IN
0	12 IN

CONSTRUCTION SPECIFICATIONS

1. RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
2. USE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H–1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
3. PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (⅜ TO 1½ INCH MINIMUM STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
4. EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF RIPRAP.
5. CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
6. WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
7. CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
8. MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND RIPRAP DISLODGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

D.22

3 ROCK OUTLET PROTECTION

NTS

UMBC

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REV	DATE	DESCRIPTION

DATE: 3/11/2020 SCALE: NTS

SITE DETAILS

C-212

Date Printed: 3/9/2020