







<u>LUNA SUBDIVISION</u> STORMWATER RUNOFF MANAGEMENT PLAN

LUNA IS A PROPOSED 18-LOT SINGLE-FAMILY SUBDIVISION LOCATED ON THE +/- 29 ACRES IN WEDDINGTON, UNION COUNTY, NORTH CAROLINA. THE EXISTING SITE CONDITIONS INCLUDE A MIX OF GRASS AND TREES. THE PREDOMINANT SOIL TYPES ACCORDING TO THE USDA SOIL SURVEY ARE CECIL, HELENA & APPLING, BOTH CECIL AND APPLING ARE WITH A HYDROLOGIC SOIL GROUP RATING OF "B" WHILE HELENA IS WITH A HYDROLOGIC SOIL GROUP RATING OF "D". THE PROPOSED AREA OF DISTURBANCE FOR THE PROJECT IS APPROXIMATELY 8.0 ACRES. THE SITE IS LOCATED IN THE SIXMILE CREEK WATERSHED, WITHIN THE CATAWBA RIVER BASIN. THE DEVELOPMENT WILL BE LOCATED OFF WEDDINGTON-MATTHEWS ROAD, APPROXIMATELY 70 FEET NORTH OF COX ROAD.

STORMWATER MANAGEMENT FOR THE SITE WILL BE DESIGNED IN ACCORDANCE WITH THE CHARLOTTE-MECKLENBURG STORMWATER DESIGN MANUAL, WITH EXCEPTIONS WHERE WEDDINGTON'S ORDINANCES LIST A STRICTER REGULATION.

OVER 20,000 SQUARE FEET OF NEW IMPERVIOUS WILL BE CREATED AS PART OF THE LUNA DEVELOPMENT, THEREFORE STORMWATER DETENTION WILL BE PROVIDED TO CONTROL RUNOFF TO PRE-DEVELOPED RATES FOR THE 2-, 10-, 25-, 50-, AND 100-YEAR, 24-HOUR STORM EVENTS. VOLUME CONTROL FOR THE 1-YEAR, 24-HOUR STORM WILL ALSO BE PROVIDED. THE SITE'S PROPOSED IMPERVIOUS PERCENTAGE MEETS THE THRESHOLD FOR A NCDEQ LOW-DENSITY STORMWATER PERMIT (<24%), HOWEVER, THE TOWN OF WEDDINGTON REQUIRES THAT THE STREET SECTIONS INCLUDE CURB AND GUTTER RATHER THAN GRASSED SWALES AND DRIVEWAY CULVERTS, WHICH TRIGGERS A NCDEQ HIGH-DENSITY PERMIT.

THE PROPOSED OUTFALL PIPE FROM BMP #2 WILL CONNECT TO AN EXISTING 36" RCP LOCATED WITHIN A STORM DRAINAGE EASEMENT (SDE) ALONG THE PROPERTY LINE BETWEEN 1316 DELANEY DRIVE AND 1400 DELANEY DRIVE IN THE BROMLEY SUBDIVISION. A DOWNSTREAM DRAINAGE ANALYSIS WILL BE PERFORMED TO ENSURE THE EXISTING SYSTEM CAN HANDLE FLOWS FROM THE PROPOSED DEVELOPMENT. THE POST-DEVELOPMENT PEAK FLOWS FOR THE 2-, 10-, 25-, 50-, AND 100-YEAR, 24-HOUR STORM EVENTS ENTERING THE EXISTING BROMLEY STORM SYSTEM FROM BMP #2 WILL BE NO GREATER THAN THE CURRENT PRE-DEVELOPMENT FLOWS.

STORMWATER MANAGEMENT NOTES:

- 1. THE DOWNSTREAM STORMWATER MANAGEMENT SYSTEM FROM THE PROPOSED STORMWATER BMP #2 WILL BE ANALYZED DURING THE CONSTRUCTION PLAN PHASE TO ENSURE THAT THE EXISTING SYSTEM CAN HANDLE THE ADDITIONAL
- 2. THE STORM DRAINAGE WILL BE CONVEYED VIA CHANNELS AND A STORM PIPE SYSTEM TO THE PROPOSED BMPS. BOTH THE SWALES AND THE DRAINAGE SYSTEM WILL BE DESIGNED FOR THE 100 YEAR RUNOFF.

1"=100'

LUNA SUBDIVISION TOWN OF WEDDINGTON, UNION COUNTY **NORTH CAROLINA**

DATE:	APRIL 2023
MCE PROJ. #	07780-0033
DRAWN	DJS
DESIGNED	DJS
CHECKED	BBJ
PROJ. MGR.	BBJ

1" = 100' VERTICAL:

SCALE

HORIZONTAL

STORMWATER CONCEPT PLAN

REVISIONS

McKim & Creed, Inc.

and is not to be used for any purpose without the written consent

of the engineer whose seal appears on the original certified document.

DO NOT REMOVE FROM

ELECTRONIC FILE

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Ashdale









Dunmore









Halstead







Kendrick







Stoneridge







