

**Drainage Calculations
Scooter's Coffee–
1730 North Morton Street
Franklin, IN**

The existing & proposed development is located on the Northern portion of the City of Franklin, Indiana along North Morton Street as well as North of Main Street. The site previously consisted of a restaurant with a completely paved site with the exception of the building and some rock landscaping. Existing flow is to the West toward an existing development. The total area of the site is approximately 0.36 acres.

The proposed site will consist of a paved parking lot with drive-through, building, grass, landscaping and other miscellaneous items. The site will follow existing drainage patterns to the West. The proposed site will contain more pervious land use than the existing use. This is shown below through the calculation of A "Weighted C- Runoff Coefficient" commonly used in the Rational Method of Runoff ($Q=CIA$). By default, if a C-Runoff coefficient is lower, and Time of Concentration values are approximately the same, the site will present a lower release of water. Weighted C-Runoff Coefficients calculations are provided below:

$$\begin{array}{lcl} \text{Existing Conditions} & C = \frac{(0.34 \times 0.95 + 0.02 \times 0.70)}{0.36} = & 0.94 \end{array}$$

$$\begin{array}{lcl} \text{Proposed Conditions} & C = \frac{(0.02 \times 0.95 + 0.26 \times 0.95 + 0.01 \times 0.70 + 0.07 \times 0.30)}{0.36} = & 0.82 \end{array}$$

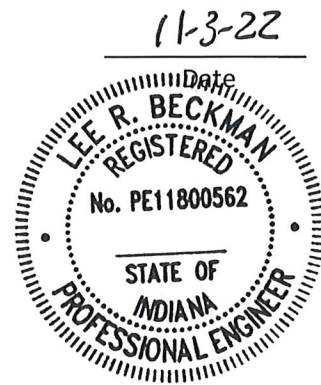
Report Prepared By:
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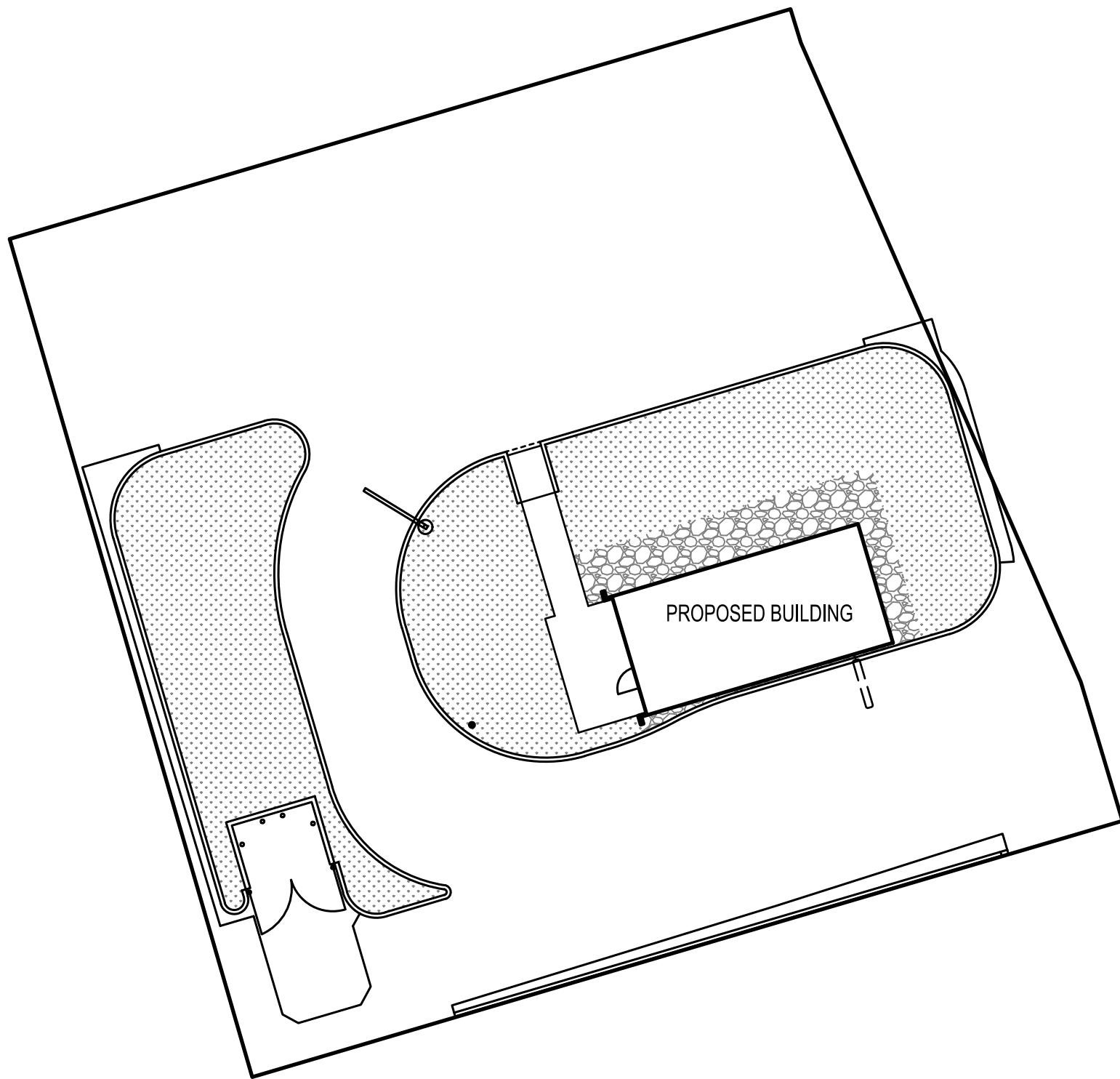
Job Name Scooter's – Franklin, IN, Job # 21267 bg16
File Name Drainage Calculations.gpw



A handwritten signature in black ink, appearing to read "Lee R. Beckman".

Lee R. Beckman, P.E. #11800562
My license expires 07/31/24





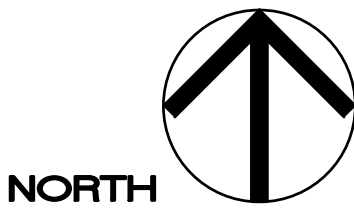
TOTAL AREA = 15,514 SQ FT (0.36 ACRES)
EXISTING
BUILDING + PAVEMENT = 15,000 SQ FT+/- (0.34 ACRES), C=0.95
ROCK LANDSCAPING = 500 SQ FT (0.02 ACRES), C=0.70

PROPOSED
BUILDING = 652 SQ FT (0.02 ACRES), C=0.95
PAVEMENT = 11,185 SQ FT (0.26 ACRES), C=0.95
ROCK = 410 SQ FT (0.01 ACRES), C=0.70
GRASS = 3,267 SQ FT (0.07 ACRES), C=0.30

LEGEND

GRASS \ SOD

LANDSCAPE ROCK



BM #1
CUT BOX ON TOP OF CONCRETE
RETAINING WALL. ELEV.=749.12

SCALE 1" = 20'-0"

SCOOTER'S COFFEE
1730 NORTH MORTON STREET
FRANKLIN, INDIANA

DATE: 11/03/22	DRAWN: CRG	CHECKED: LRB	JOB NO. 212671616	REVISION
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SHEET:				

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