Kimley»Horn

MEMORANDUM

Subject: Rural Rustic Road and Rural Addition Assessment and Prioritization Project

Date: November 2, 2015

The Engineering Division of Isle of Wight County recently completed the ***Rural Rustic Road and Rural Addition Assessment and Prioritization Projec***t. The purpose of the project was to develop a tool to objectively rank and prioritize roadways in the County for inclusion in the Rural Rustic Road and Rural Addition programs using multiple design criteria. The planning level, prioritization tool was developed in Microsoft Excel and was initially tested on the eight Rural Rustic Road projects and nine Rural Addition projects currently on the County's project list.

The prioritization tool was created to develop a numeric score for each project based on eleven different evaluation criteria, with the maximum possible score being 100. The following is a list of each of the evaluation criteria, a brief description of the criteria, and the total amount of points for each criterion:

- **Project Cost/Household (Possible points from 1-30):** This criterion is the ratio of the total estimated cost of the proposed improvements to the number of households directly impacted by the project. The lower the project costs and the greater the number households adjacent to the project, the higher the score and the greater amount of points assigned. This criterion has been assigned the largest amount of total possible points a project can receive (30 points) because it objectively identifies two metrics critical to prioritizing these types of roadway projects. The criterion has been broken out into ranges of cost per household and points are assigned between 1

- **Existing Roadway Width (Possible points 0 or 5):** This criterion evaluates the existing roadway widths against the current design standards. Where the existing roadway width meets or exceeds current design standards, the projects are assigned the maximum number of points (5). Projects that do not meet current design standards receive a score of 0. Projects that meet current design standards for project width are more likely to be considered for implementation and acceptance by VDOT.

- **Traffic Volumes (Possible points from 0 to 10):** Current **t**raffic counts will be required for each project, whether they are calculated using HCM formulas, based off of VDOT provided traffic counts, or actual traffic counts collected in the field. The prioritization tool includes ranges of traffic volumes and points are provided from 0 to 10 based on where a potential project falls within the traffic volume ranges. Projects with higher traffic volumes are assigned more points since they serve a larger amount of residents within the County.

- **Public or Private Road (Possible points 0 or 5):** Projects are awarded points based on whether the project is a public roadway (5 points) (Rural Rustic Road) or private roadway (0 points) (Rural Addition).

- **Right-of-Way Acquisition (Possible points from 0 to 15):** This criterion assigns 15 points to projects where right-of-way acquisition is not required and a 50' right-of-way exists. A project is awarded 10 points if no right-of-way acquisition is required but the existing right-of-way is less than the minimum 50' in width. This often applies to projects with prescriptive right-of-way. A project is assigned zero points for this criterion if right-of-way acquisition is required. This is because right-of-way acquisition is typically an added expense to projects and oftentimes negatively impacts a project schedule. In addition, VDOT's policy is to not accept a roadway into their Secondary Road system without a minimum 50' right-of-way.

- **Utility Relocation Impacts (Possible points from 0 to 10):** This criterion includes evaluating if existing utilities will need to be relocated as part of the proposed improvements. Projects with no impacts to existing utilities will be assigned 10 points. Projects with minor impacts receive 2 points and projects with major impacts receive 0 points. Utility relocations increase project costs and extend project schedules and oftentimes projects that require utility relocations also require additional right-of-way or easements.

- **Drainage and Stormwater Management Improvements (Possible points 0 to 5):** This criterion evaluates the need for minor or major drainage improvements as part of the proposed project improvements. Projects requiring minor or no drainage improvements are assigned 5 points. Projects requiring major drainage improvements such as inlets, pipes, and cross culverts are assigned 0 points. Major drainage improvements often require specific hydraulic studies and increase project costs and complexities.

- **Proposed Improvements Address Current Safety Issue (Possible points 0 or 5):** If a proposed project addresses an existing safety issue, that project is awarded points for this criterion (5 points). Examples of safety improvements for the traveling public include adding or updating guardrail, additional roadway signage, and roadside clearing for improved sight distances. Projects that don't address current safety issues are still important but are not awarded points under this criterion.

- **Environmental Concerns (Possible points from 0 to 5):** Depending on types of funding, each roadway project will be required to comply with either state or federal environmental compliance standards. Once environmental due diligence is performed, if no environmental issues are brought forth, a No-Permit Required letter is typically issued. Projects that receive a No-Permit required letter are assigned 5 points for this criterion. Projects where environmental due diligence is performed and additional environmental documentation or even mitigation and compensation is required are assigned zero points for this criterion.

- **Professional Investment (Possible points 0 to 5):** Projects are assigned 5 points if input or investment has been provided by either public or private stakeholders. Professional

investment is measured in both time and money dedicated to project related items such as survey information, geotechnical information, funding assistance, or right-of-way dedications. These efforts reduce the project risk for the County to administer the project and provide increased confidence to the County regarding the proposed project. If no professional investment has been provided, a project does not receive any points for this criterion.

Each individual project is given a score based on these evaluation criteria. Projects are then ranked and prioritized based on total results.

CRITERIA	VALUE	
Estimated Project Cost	**8**	* Criteria not included in calculations for Project Points
$ 0 - $250,000	8	
$ 250,000 - $500,000	6	NOTE: Estimated project costs includes construction costs, engineering costs, pavement testing costs, CEI costs, VDOT costs, project
$ 500,000 - $750,000	4	administration costs, and a contingency. Costs for right-of-way acquisition, utility relocation, and environmental mitigation are not
$ 750,000 - $1,000,000	2	included in the estimate project cost value. Value is listed in Calculations Table for information purposes only.
Over $1,000,000	0	
Houses Served per Half Mile	**10**	* Criteria not included in calculations for Project Points but listed in the Calculations Table for informational purposes only.
0-5	2	
6-10	4	
11-15	6	
16-20	8	
21-30	10	
Project Cost/Household	**30**	
$ 0 - $ 50,000	25	
$ 50,000 - $ 100,000	18	
$ 100,000 - $ 150,000	10	
$ 150,000 - $ 200,000	5	
Over $200,000	1	
Existing Roadway Width	**5**	NOTE: Criteria assumed an 18' roadway meets current design standards.
Meets current Standards	5	* Rural Rustic Roads that do not meet current standards for pavement widths were given a score of 0,
Doesn't meet current Standards	0	although roadway widening is not required under the Rural Rustic Road program.
Traffic Volumes (AADT)	**10**	* Traffic Volumes need to either be based off of VDOT provided counts, actual traffic counts, or estimated
0-100	0	volumes using HCM formula in spreadsheet
101-250	2	
251-500	4	
Over 501	10	
Public or Private Road	**5**	NOTE: Private roads still have to be considered for public maintenance
Public	0	
Private	5	
Right-of-Way Acquisition	**15**	NOTE: No survey or GIS information was utilized for this criteria. Only visual investigation within project limits
No Acquisitions Required, 50' RW	15	of anticipated right-of-way locations
No Acquisitions Required, Less than 50' RW	10	
Acquisition Required	0	

Utility Relocation Impacts	**10**	NOTE: No subsurface investigations were performed for this criteria. Only visual investigation within project limits. County GIS may also be utilized to determine existing utility locations.
No Impacts	10	
Minor Impacts	2	
Major Impacts	0	
Drainage and SWM Improvements	**5**	NOTE: This criteria is based off the visual investigation of drainage facilities within project limits. Criteria does not consider potential stormwater management requirements for each project and the additional project impacts and costs associated with those requirements.
No Improvements Required	5	
Minor Drainage Improvements Required	3	*No existing drainage, proposed ditches and driveway culverts required
Major Drainage Improvements Required	0	*No existing drainage, additional drainage improvements required beyond ditches and driveway culverts
Proposed Improvements Address Current Safety Issue	**10**	
No	0	*No safety improvements required.
Yes	10	*Project requires safety improvements, such as guardrail or additional signage.
Environmental Concerns	**5**	NOTE: This criteria is based off the visual investigation of potential environmental sensitive areas within the project limits. This criteria assumes that no federal funding will be utilized or projects and only SERP requirements will be met by the project.
Anticipate No-Permit Required Letter to be Issued	5	*Due diligence required for SERP but anticipate a no-permit required letter being issued for the project
Minor Environmental Concerns	0	*Due diligence required for SERP but anticicpate a permit being required as well as compesatory mitigation. This will potentially negatively impact project costs and project schedule.
Professional Investment	**5**	NOTE: Has professional input been provided by public or private stakeholders? Input is defined as an investment in time and money to research plat information, survey information, geotechnical information, etc. Professional investment is intented to reduce project risk to the County and provide increased confidence to the County regarding the proposed project.
Yes	5	
No	0	
TOTAL POINTS	**100**	