DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE: CSMSL-0006-00(700)
Chatham/Effingham County
P.I. No.: 0006700
Effingham Pkwy CR 156 to SR 30

OFFICE: Engineering Services

DATE: November 17, 2016

FROM: Lisa L. Myers, State Project Review Engineer llm

TO: Albert Shelby, State Program Delivery Engineer
Attn.: Michelle Wright

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES

The VE Study for the above project was held June 14-17, 2016. Responses were received on September 30, 2016. Recommendations for implementation of the Value Engineering Study Alternatives are indicated in the table below. The Project Manager shall incorporate the VE alternatives recommended for implementation to the extent reasonable in the design of the project. Please note, if the implementation of a VE recommendation requires a Design Exception and/or Design Variance, the DE or DV must be requested separately.

ALT #	Description	Potential Savings/ LCC	Implement	Comments
A-1	Shorten the bridges in lieu of full span over wetlands.	$3,512,000	No	Agreement with the Army Corp of Engineers (USCOE) was the basis for the present design bridge lengths and associated wetland impacts. Refer to the Designer's responses for a more detailed explanation of why this can't be implemented.
A-2	Place the profile crest on the bridge.	$94,000	Yes	This will be implemented; however may use different grades coming into crest.
A-6	Optimize span arrangement for most economical bridge.	$1,220,000	No	The Designer's calculations indicate that the Type I beam is $44.97 and the Type II beam is $45.08 per square foot so they do not agree to use all Type I Mod beams on this project. Once the hydraulic study has been completed and the bridge lengths determined the actual span lengths will be derived. If the span lengths are less than 40 feet then the Type I Mod beams should be used, and if the span lengths are greater than 40 feet the Type II beams would be used.

A-7	Reduce the length of the long bridges; span only the wetlands.	$758,000	No	To fill the 100-150 foot gap and create end bents instead would require having a temporary haul road to this gap with temporary impacts. The fill would be hard to compact in this short area next to the end bents and a settlement time for the fill over wetland soils may slow down the construction. Without gaps there should not be any issues with settlement at approach slabs.
B-1	Cross slope road to one side.	$200,000	No	By sloping road, all the water to be treated to one via MS-4 would be on that side; however, it would still be twice the volume and twice the treatment requirements on that side so that it would not result in the 1/3 savings for MS-4. Further traffic in the tangent sections would have a tendency to pull or drift into oncoming traffic rather than go to the outside shoulder. It would require a design exception or variance which would likely not be approved. Redesign and developing design variance would take time and money resulting in no savings.
B-4	Lower the profile.	$353,000	No	The GDOT Bridge Maintenance Office recommends a minimum of 5 feet above existing ground for inspection and maintenance. Steeper vertical curves would not improve drainage except on bridges that require scuppers as the cross slope drains to ditch for roadway. There are presently no flat grades at flat super elevations in the alignment. Geometrically, the Designer prefers to avoid a rollercoaster effect.
B-6	Review/Adjust alignment to reduce wetland impacts.	$1,033,000	No	Alternative 1 will not be implemented due to redesign cost of roadway and roundabout, increased length of alignment cost and travel time. Alternative 2 re-design work and coordination cost will exceed potential savings of $7,776. Alternative 3 would require survey, re-design and more USCOE coordination delaying the project. Alternative 4 will not be implemented due to increased Right of Way (house take) and larger remainder cost.

				Alternative 5 will not be implemented due to Right of Way take (would impact houses). Alternative 6 would result in larger unusable remainders between the road and gas line easement. Note 2, 3, 4, and 5 are in the covenant restriction zone and changes would need USCOE coordination and have re-design costs.
B-7	Realign roundabout at SR 30 and Benton Blvd. to avoid wetland impacts.	$13,000	No	Will not be implemented due to re-design cost of roadway and roundabout, increased length of alignment cost and travel time.
B-8	Realign the northern tie-in with a 55 mph design speed curve.	Cost Increase = **($91,000)**	Yes	This will be implemented.
B-12	Revise Pavement Design.	$373,000	No	Pavement design is to be under 5% under design per recent policy change (July 27, 2016 Update to Flexible Pavement Under-design Policy). The ultimate section will be determined after soils report is complete and soil support factor is determined and approved by the pavement design committee.
B-15	Consolidate Right of Way using gas easement.	$490,000	No	The Gas company will not allow permanent use of easement area. See attached emails.
B-16	Use gas easement for construction access.	$15,000	No	The Gas company has a 42", two 24" and one other smaller line. These lines were buried with minimum easement take and fill are 10 ft. apart. There are no excess areas of fill beyond gas lines where a haul road would benefit. All Right of Way would need to be acquired from owners and the haul road would have to be constructed with gasoline personnel present with protection for any crossing points. See emails.
B-18	Follow Alternate #2 north of Goshen Road.	$12,289,000	No	Study recommended (follow Alt. #2 north of Goshen Rd. and use preferred Alt. #3 south of Goshen Rd.) would involve widening of Hodgeville Rd. from a 2-lane road to a 4-lane road. Furthermore, Goshen Rd. widening would be necessary to carry the proposed project traffic. These capacity improvements would result in 13 additional residential displacements that have not been looked at

				during the PAR process. The PAR process not only focuses on the wetland impacts, but also impacts to historic and archaeological sites as well as residential and business displacements. To summarize, in order to handle the projected future traffic as indicated in the need and purpose for the proposed project, a 4-lane section with median is required with extensive Right of Way impacts and associated costs. This would not meet the purpose and need of the project as the proposed VE design alignment and will also have a much longer travel time and actually cost more than the selected alternative.
B-20	Construct a roundabout at Effingham Pkwy and Goshen Road.	Cost Increase = **($56,000)**	No	Traffic volumes at intersection do not warrant a signal or roundabout. A roundabout would slow mainline traffic and slow travel times. Intersection approaches may be re-striped.

The Office of Engineering Services concurs with the Project Manager's responses.

Approved: Margaret Pirkle **Date:** 12/2/16
Margaret Pirkle, PE, Chief Engineer

LLM/EAR/MJS
Attachments
c: Hiral Patel
Albert Shelby/Chandria Brown/Matt Bennett/Michelle Wright
John Hancock/Melissa Harper
Bill Duvall/Steve Gaston
Rick O'Hara
Cory Knox/Ron Nelson
Christopher Raymond
Erik Rohde/Matt Sanders

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

NOV 2016

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. 0006700, Effingham County
Effingham Parkway from
CR 156/Blue Jay Road to SR 30/Chatham

OFFICE Program Delivery

Chandria L. Brown for

DATE November 9, 2016

FROM Albert V. Shelby, III, State Program Delivery Engineer

TO Lisa Myers, State Project Review Engineer
Attention: Matt Sanders, VE Specialist

SUBJECT PI 0006700 – VE Responses

Please see the attached VE Responses on PI 0006700.

If you have any questions or need any additional information, please contact Michelle Wright, Project Manager, of this Office at (912) 271-7562.

AVS:CLB:JMB:MW

WENDALL KESSLER
Chairman At Large

STEPHANIE JOHNSON
County Clerk

TOSS ALLEN
County Administrator

EDWARD L. NEWBERRY, JR.
County Attorney

Effingham County Board of Commissioners

FORREST FLOYD
Vice Chairperson

VERA JONES
District 2

JAMIE DELOACH
District 3

REGINALD S. LOPER,, SR
District 4

PHIL KIEFFER
District 5

October 20, 2016

Ms. Michelle Wright
Project Manager
Georgia Department of Transportation
Office of Program Delivery
600 West Peachtree Street, 25th Floor
Atlanta, GA 30308

RE: Project Number: CSMSL-0006-00(700)
P.I. Number: 0006700
Value Engineering Study Response Concurrence

Dear Ms. Wright,

Effingham County has reviewed the responses that Moreland Altobelli provided to the Value Engineering Study prepared by Michael Baker International dated July 6, 2016. Effingham County concurs with the responses.

If you have any questions or concerns, or if there is anything else that you need from me, please do not hesitate to contact me at (912) 754-8060.

Sincerely,

Toss Allen

Toss Allen, P.E.
County Administrator

601 North Laurel Street • Springfield, Georgia 31329
Phone (912) 754-2123 • Fax (912) 754-4157

1) Recommendation A-1: Shorten the bridges in lieu of full span over wetlands
   VE Team Savings: $ 3,512,000
   No, will not implement. Agreement with the United States Army Corps of Engineers (USACE) was the basis for the present design bridge lengths and the associated wetland impacts. Due to the 1994 Wetlands Conservation Restrictive Covenant in the Coldbrook area of the project alignment and the Special Conditions # 19 under Regional Permit guidance being triggered, Effingham County cannot apply for a Regional Permit (RP01) as previously envisioned. For the project to move forward, an amendment to the Restrictive Covenant put the project in an Individual Permit (IP) purview necessitating the Practical Alternatives Review (PAR) process. This PAR process was completed for the Central Effingham County area with the initial screening of the corridors and subsequently focusing on the specific alignments before selecting the preferred alternative (Alternative 3) that was presented at the April 2014 Interagency Review Team (IRT) meeting in Savannah.

   During the IRT meeting and USACE correspondence subsequent to that meeting strongly encouraged Effingham County to adhere to both the number and the lengths of the bridges presented to all the IRT agency members. The importance of this is further emphasized by the fact that the Preferred Alternative best meets the need and purpose for the proposed project in Central Effingham County. Therefore, for the above mentioned reasons, Effingham County cannot increase the wetland impacts and use the alternative of purchasing additional mitigation credits as suggested by the VE team.

2) Recommendation A-2: Place the profile crest on the bridge
   VE Team Savings: $ 94,000

   Yes, will implement; however, may use different grades coming into crest.

3) Recommendation A-6: Optimize span arrangement for most economical bridge
   VE Team Savings: $ 1,220,000

   No, will not implement. VE study stated that using Type 1 Mod pre-stressed beams for all the bridges would save $1,220,000. Our calculations indicate that the cost per square foot for a 40' Type 1 beam span is $44.97, and the Type II beam at 60' span is $45.08 per square foot. We do not agree with the recommendation to use all Type I mod beams on this project. Once the hydraulic study has been completed and the bridge lengths determined, the actual span lengths will be determined. If the span lengths are less than 40 feet then the Type 1 Mod beams should be used, and if the span lengths are greater than 40 feet the Type II beams would be used.

4) Recommendation A-7: Reduce the length of the long bridges; span only wetlands
VE Team Savings: $ 758,000

No, will not implement. To fill the 100-150 foot gap and create end bents instead would require having to have a temporary haul road to this gap with temporary impacts. The fill would be hard to compact in this short area next to end bents and a settlement time for the fill over wetland soils would slow down the construction. Without the gaps we do not have issues with settlement at approach slabs.

5) Recommendation B-1: Cross slope road to one side
VE Team Savings: $ 200,000

No, will not implement. By sloping road, all the water to be treated to one via MS-4 would be on that side; however, it would still be twice the volume and twice the treatment requirements on that side so that it would not result in the 1/3 savings for MS-4. Further traffic in the tangent sections would have a tendency to pull or drift into oncoming traffic rather to go to outside shoulders. It would require a design exception or variance which would likely not be approved. Redesign and developing design variance would take time and money. Resulting in no savings.

6) Recommendation B-4: Lower the profile
VE Team Savings: $ 353,000

No, will not implement. Contacted GDOT maintenance office, they recommend a min. of 5 feet above existing ground for inspection and maintenance. Steeper vertical curves would not improve drainage except on bridges that require scuppers as the cross slope drains to ditch for roadway there are presently no flat grades at flat super elevations in the alignment. Geometrically, we want to avoid rollercoaster effect.

7) Recommendation B-6: Review / Adjust Alignment to reduce wetland impacts
VE Team Savings: $ 1,033,000

No, will not implement the recommendation. Alternative 1 will not be implemented due to redesign cost of roadway and roundabout, increased length of alignment cost and travel time. Alternative 2 redesign and coordination cost will exceed the potential savings of $7,776. Alternative 3 would require survey, redesign and more USCOE coordination delaying the project. Alternative 4 will not be implemented due to increased right of way (house take) and larger remainder cost. Alternative 5 will not be implemented due to right of way take (would impact houses). Alternative 6 would result in larger unusable remainders between the road and gas line easement. Note 2,3,4 and 5 are in the covenant restriction zone and changes would need USCOE coordination and have redesign costs.

8) Recommendation B-7: Realign roundabout at SR 30 and Benton Blvd. to avoid wetland impacts
   VE Team Savings: $ 13,000
   No, Alternative will not be implemented, due to redesign cost of roadway and roundabout, increased length of alignment cost and travel time.

9) Recommendation B-8: Realign the Northern Tie-in with a 55 mph design speed curve
   VE Team Savings: -$ 91,000

   Yes, Alternative will be implemented.

10) Recommendation B-12: Revise pavement design
   VE Team Savings: $ 373,000

   No, Alternative will not be implemented, will design pavement to be 5% under designed per recent policy change (July 27, 2016 Update to Flexible Pavement Underdesign Policy) The ultimate section will be determined after soils report is complete and soils support factor determined and will be approved by the pavement design committee.

11) Recommendation B-15: Consolidate right of way using gas easement
   VE Team Savings: $ 490,000

   No, Alternative will not be implemented. Gas company would not allow permanent use of easement area. See attached emails.

12) Recommendation B-16: Use gas easement for construction access
   VE Team Savings: $ 15,000

   No, Alternative will not be implemented. Gas company has 42", two-24" and one other smaller line. These lines were buried with min. easement take and fill and are 10 ft. apart. There are no excess areas of fill beyond gas lines were a haul road would benefit. All right of way would need to be acquired from owners and the haul road would have to be constructed with gasoline personal present with protection for any crossing points. See attached emails.

13) Recommendation B-18: Follow Alternate #2 North of Goshen Road
   VE Team Savings: $ 12,289,000

   No, Alternative will not be implemented. VE study recommended alternative (Follow Alternate # 2 north of Goshen Road and use preferred Alternate # 3 south of Goshen Road) would involve widening of Hodgeville Road from a 2 lane road to a 4 lane road. Furthermore, Goshen Road widening would be necessary to carry the proposed project

traffic. These capacity improvements would result in 13 additional residential displacements that have not been looked at during the PAR process. The PAR process not only focuses on the wetland impacts, but also impacts to historic and archaeological sites as well as residential and business displacements. To summarize, in order to handle the projected future traffic as indicated in the need and purpose for the proposed project, a 4 lane section with median is required with extensive right of way impacts and associated costs. This would not meet the purpose and need of the project as the proposed VE design alignment will also have a much longer travel time and actually cost more than the selected alternative.

14) Recommendation B-20: Construct a roundabout at Effingham Parkway and Goshen Road
VE Team Savings: -$ 56,000

No, Alternative will not be implemented. Traffic volumes at intersection do not warrant a signal or roundabout. Roundabout would slow mainline Effingham Parkway traffic and slow travel times and through put. Intersection approaches may be restriped.

M.J. Sheehan

From: M.J. Sheehan <mjsheehan@maai.net>
Sent: Monday, August 29, 2016 9:06 AM
To: L. N. Manchi (lmanchi@maai.net)
Cc: Buddy Gratton (bgratton@maai.net)
Subject: FW: Effingham Parkway Bridge Clearances for Value Engineering Response PI # 0006700

From: Bennett, Clayton [mailto:clbennett@dot.ga.gov]
Sent: Monday, August 29, 2016 8:13 AM
To: M.J. Sheehan
Cc: Doyle, Andy (Jesse); O'Daniels, Bob
Subject: RE: Effingham Parkway Bridge Clearances for Value Engineering Response PI # 0006700

Good Morning Mr. Sheehan,

In order for our inspectors to perform an accurate inspection of a bridge structure our unit would recommend a minimum vertical clearance of five (5) feet above the existing ground line. This clearance would also be useful if any maintenance activities that might come up in the future.

If you have any questions please feel free to contact me.

Regards,

Clayton Bennett, P.E.
State Bridge Inspection Engineer
Georgia Department of Transportation
935 East Confederate Avenue
Building 24, Room 408
Atlanta, Georgia 30316-2531
Office: 404-635-2889
Cell: 404-519-9287
Fax: 404-635-2965
clbennett@dot.ga.gov

From: M.J. Sheehan [mailto:mjsheehan@maai.net]
Sent: Monday, August 22, 2016 7:41 AM
To: Bennett, Clayton <clbennett@dot.ga.gov>
Subject: FW: Effingham Parkway Bridge Clearances for Value Engineering Response PI # 0006700

Please see below.
Thanks,
MJ Sheehan

From: M.J. Sheehan [mailto:mjsheehan@maai.net]
Sent: Thursday, July 28, 2016 11:14 AM
To: 'Clbennett@dot.ga.gov'; 'adoyle@dot.ga.gov'
Subject: Effingham Parkway Bridge Clearances for Value Engineering Response PI # 0006700

This project is in Effingham and Chatham Counties and has 6 bridges totaling 7300' which verify from 850' in length to 2300 ft. These bridges span extensive wetlands and floodplains with creeks. The road is 2 lane rural. The bridges will be 60 ft span prestressed Type II AASHTO Beams at 9' spacing. We are above the 100 year flood elevation criteria and have set the profile to be a min. of 5 ft above ground to provide clearance for maintenance and inspection. The VE report has suggested lowering the profile by lowering this clearance. What clearance above existing ground is needed for inspection and maintenance and is this a matter of practice or is it a matter of guidance?

If you have any questions or need more information please contact me.

Sincerely,

MJ Sheehan
Asst. Director Highway Engineering
Moreland Altobelli Associates, Inc.
2450 Commerce Ave, Ste 100
Duluth, GA 30096-8910

Phone (770) 263-5945 ext. 384

It's Georgia Department of Transportation's centennial! We were founded on August 16, 1916. The Department's work over the last century has contributed to a treasured quality of life for Georgians and to the incredible economic development of the Peach State. Georgia DOT has served for 100 years with simply the best in safety, service and innovation. And we will continue to embrace change, encourage innovation, meet new challenges and break new barriers as the next hundred years unfold. For all things Centennial, visit www.dot.ga.gov/Centennial.

M.J. Sheehan

From: M.J. Sheehan <mjsheehan@maai.net>
Sent: Friday, September 02, 2016 3:46 PM
To: L. N. Manchi (lmanchi@maai.net)
Cc: Buddy Gratton (bgratton@maai.net)
Subject: Effingham County VE Response USE OF GAS EASEMENT as Haul Road, Realignment

Had and extensive conversation with Gas line Engineer Paul Craft (205) 325-7652 this day.

The 42" pipe is nearest our roadway with a requirement of that any haul road be 10-15 ft. away. They did not take any extra easement or place any extra fill on this side of road. There is 10' between other gas lines so no good place to put the haul road. To place a haul road we would have to acquire land rights from the land owner (gas line only has easement). If we managed to put in a haul road we would have to deal with permits for filling wetlands, pay for onsite gas line representatives during work and line the haul road with orange barrier fence. Going to the other side of the easement has the same draw backs plus crossing the pipes with mats. In short there is no benefit to this idea and it is not worth pursuing further.

The realignment is possible with 4 ft of cover min. over the gas lines needed from top of pipe to sub base of road. Gas lines are presently have 3 ft. of cover. Adding 3 ft of cover to the lower side of road would likely result in no permanent bridging as load is distributed. There will however be temporary construction restrictions in placing the initial fill and if during the pipe inspection prior to construction of the crossing they discover corrosion this may require replacement of the impacted gas line. As gas line has prior rights any repair cost due to road way is born by GDOT/County. This is unlikely but depending on cost could cause reversal in the decision to cross at that location. We will indicate yes to realignment of the road.

MJ Sheehan
Moreland Altobelli Associates, Inc.
2450 Commerce Ave, Ste 100
Duluth, GA 30096-8910

Phone (770) 263-5945

M.J. Sheehan

From: M.J. Sheehan <mjsheehan@maai.net>
Sent: Thursday, August 11, 2016 4:36 PM
To: L. N. Manchi (lmanchi@maai.net)
Subject: FW: Effingham Parkway Proposed Responses to Value Engineering

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From: Plouff, Michael [mailto:Michael_Plouff@kindermorgan.com]
Sent: Wednesday, August 10, 2016 3:58 PM
To: M.J. Sheehan
Cc: Craft, Paul J; Thames, James E; Patrick Jr, William H (Buddy)
Subject: FW: Effingham Parkway Proposed Responses to Value Engineering

Dear M.J.

Please see email attached below. Paul Craft would be happy to take a call from you if there are questions about his email below. We understand that this is the very preliminary stage and that you would agree that field work is required before something definitive can be determined by Kinder Morgan. However, Kinder Morgan is willing to accommodate road projects whenever feasible for it to do so, provided that Damage Prevention, Operations, and Engineering can all be on the same page.

Paul Craft: Office 205-527-5947.

Michael Plouff
Land and Right of Way Agent
KINDER~MORGAN
Southern Natural Gas Company, L.L.C.
569 Brookwood Village Ste. 749
Birmingham, AL 35209
Office- 205.325.3888
Cell- 865.300.6572
Michael_Plouff@KinderMorgan.com

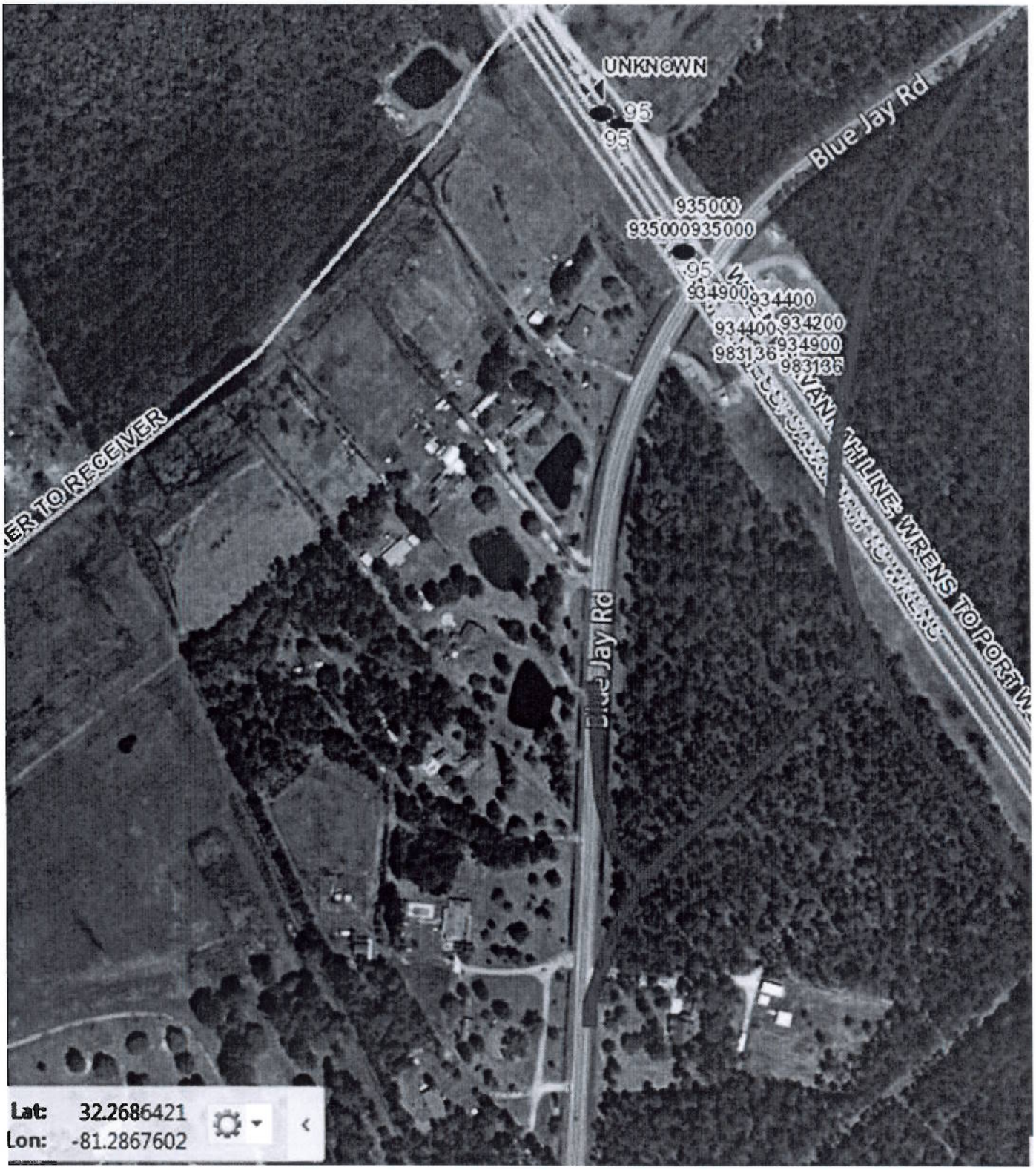
From: Craft, Paul J
Sent: Wednesday, August 03, 2016 4:13 PM
To: Plouff, Michael
Cc: Thames, James E; Patrick Jr, William H (Buddy)
Subject: RE: Effingham Parkway Proposed Responses to Value Engineering

Michael,
I am provided some draft high level responses (in red) to the questions further below, but this email format does allow for expressing all the necessary information. Depending upon my interpretation of each question, it may not actually match the requestor's intent. Similarly the recipient's interpretation of my responses may not be my intention. Also, it is most difficult to provide exacting responses to broad questions. Lacking details associated with the road structure, equipment and activities, this response is based upon available information in order to continue communications with the engineering / design firm.

Summary: Typically hard surface coverings over pipelines for vehicular crossings are evaluated for forces associated with the encroaching loads to ensure the total combined stress is within recommended design limits. Based on these considerations the existing proposal may be acceptable from a feasibility and design review but does represent a conflict

of interest along SNG's pipeline ROW's. The proposal includes a permanent hard road surface encroachment with regular and continuous vehicular crossings over the pipelines. Although hard surface coverings are generally compatible with pipeline operations, this proposal is atypical to standard pipeline design for a 90 degree crossing. Any future external maintenance activities will be limited due to the covering and elimination of direct access to the pipelines (similar to most any road crossing).

A review of the ILI logs has not been performed, it is possible a review would identify maintenance activities deired in advance of the proposed road construction and thus could trigger upgrading (regulatory requirements) to a new pipeline segment at the proposed crossing. Also, State / County and Local requirements have not been investigated and it is unknown if these would trigger upgrading to new pipeline segments. Additionally, some concrete weights were identified on the lines in this vicinity, this lead me to question the soil stability. The specific item of concern involves the possibility of settlement / subsidence of the natural grade and subsurface materials along with subsequent movement (strain) of SNG's existing pipelines due to the proposed roadway burden.



Continue below:

From: Plouff, Michael
Sent: Thursday, July 28, 2016 1:58 PM
To: Craft, Paul J

Cc: Thames, James E; Patrick Jr, William H (Buddy)
Subject: Effingham Parkway Proposed Responses to Value Engineering

Dear Paul:

Please see email below regarding a newly proposed parkway in Effingham County GA. Please note that the attached Google View is with Southwesterly orientation.

Yesterday Jimmy Thames, Buddy Patrick, and myself had a call with the engineering firm working with Effingham County to discuss their proposal. (I kick myself for not thinking to invite you to the call. Sorry.)

The questions below are questions that the County would like us to answer so that the engineering firm can make recommendations.

Feel free to call me when you have a moment and we can discuss further.

Thanks.

Michael Plouff

From: M.J. Sheehan [mailto:mjsheehan@maai.net]
Sent: Wednesday, July 27, 2016 1:56 PM
To: Plouff, Michael; Patrick Jr, William H (Buddy); Thames, James E
Subject: RE: Effingham Parkway Proposed Responses to Value Engineering

For B-8 pages 59 to 61 of VE Report-requests 55 mph curve across gas easement
Does the present alignment curve at 45 mph which ties into Blue Jay Road impact the gas sub-station? Not sure I understand the question, but any widening or realignment of the existing Blue Jay road would need a review. So we need cross sections, elevations, detailed drawings to determine any impact. It is likely the impact will be different for each of the 4 pipeline crossings and adjacent facilities.
To avoid substations how much further do we need to move the 55 mph curve to SW? This might be accomplished with a shallower curve. Looks like in order to avoid roadway conflicts with the pipelines, the roadway should not encroach upon the existing substation yard. Keep outside of existing cleared area.
The resulting crossing would be at a large skew. It could be vertically aligned to be approximately 1.5' to 3' in fill over the gas lines. What earthwork restrictions would be required? The proposal includes a shallow angle crossing much less than the desirable 90° angle. Increasing the Vertical alignment (depth of cover over SNG's 4 pipelines) will be beneficial for load distribution. We will need to perform load stress analysis for each of the lines / equipment proposed, an important variable is the depth of cover. We will need to know the minimum depth of cover as dictated by any proposed degrading or mucking required. Construction of the base / subgrade can be performed with appropriately sized (weight) equipment based upon LSA results. For final design generally SNG will need at least 5 feet of clearance between the surface materials and each line and also 4 feet of clearance between the bottom of the ditches and each pipeline. I have performed a variety of LSA and found SNG's 20" line to be most sensitive to external loading scenarios.
What type of protection would be required? Various options for temporary heavy equipment crossings include fill materials (crossing pads), timber matting, or temporary bridging. For permanent crossings, fill materials (or increasing the DOC) along with rigid pavement will provide additional protection (split casing installations are not viable).

From our phone call the easement contains a 42", 20" and 2-14" gas lines. Correct 4 separate pipelines

For B-15, pages 68-70 of the VE Report-requests 10 shared use ROW.

Per our phone call this is not viable due to maintenance requirements for the 42" gas line.
How much do you value the right of way take per acres for linear right of way.?

For B-16, pages 73-74 of VE Report-Request use of easement for temporary construction access (2 years).
Is this viable? Would gas company permit this type of access for a 3 mile length? Temporary work space (TWS) can be considered so long as it is managed appropriately. This would require written agreements and construction work plans (CWP), implementation of activities in accordance with SNG's damage prevention plans and O&M 204 requirements. Would likely involve onsite inspection and physical barricades. CWP to include a written representation of TWS usage requirements - stating the characteristics (qualities & quantities) or features of the proposed usage to include but not be limited to: location, dimensions, length, width, depth, cut (removal), fill (addition), slope, contours, etc.... We should stay away from any planning based upon "field determined and approved".

Is there an existing access road?
What restrictions would be put on access? Access may include heavy equipment and hauling Bridge Beams. Similar to construction activities across the pipeline, access across the pipelines will require load stress analysis for each of the lines / equipment proposed. If existing conditions are not within acceptable stress limits protective measures will be necessary. Various options for protection include fill materials (crossing pads), timber matting, or temporary bridging. Each of the lines have unique specifications and site conditions, depending upon weight and equipment configuration some of the lines may require protective measures while others may be acceptable.
Is any portion of the right of way useable without crossing a gas line. Need clarification to respond.
What would be the right of way cost for a 2 year construction easement? Cost would be associated with locating, barricading, protection, inspection, removal / clean-up necessary for the construction activities. Some of this could be directly managed and paid by the contractor; portions would need to be managed by SNG with cost reimbursement.

Please call if you have any questions.
Thank you,

MJ Sheehan
Moreland Altobelli Associates, Inc.
2450 Commerce Ave, Ste 100
Duluth, GA 30096-8910

Phone (770) 263-5945 ext. 384

From: Plouff, Michael [mailto:Michael_Plouff@kindermorgan.com]
Sent: Wednesday, July 27, 2016 2:29 PM
To: Patrick Jr, William H (Buddy); Thames, James E; M.J. Sheehan
Subject: Effingham Parkway Proposed

Dear MJ:

Please send specific questions with page references to all.

Thank you.

Michael Plouff
Land and Right of Way Agent
KINDER~MORGAN
Southern Natural Gas Company, L.L.C.
569 Brookwood Village Ste. 749
Birmingham, AL 35209
Office- 205.325.3888
Cell- 865.300.6572
Michael_Plouff@KinderMorgan.com

	#	Effingham Parkway			ALT 2-3		
		Main Improveme	ccessory Valu	Imp + Accessory	and Damag	Parcel Total	Notes
Effingham	1	$34,494	$10,683	$45,177	$0	$45,177	
	2	$25,000	$18,541	$43,541	$22,400	$65,941	
	3	$12,549	$8,332	$20,881	$0	$20,881	
	4	$31,407	$10,269	$41,676	$25,600	$67,276	
	5	$51,659	$19,061	$70,720	$0	$70,720	
	6	$37,777	$9,583	$47,360	$0	$47,360	
	7	$22,868	$13,450	$36,318	$20,928	$57,246	
	8	$62,928	$13,037	$75,965	$21,424	$97,389	
	9	$40,562	$8,200	$48,762	$25,600	$74,362	
	10	$9,948	$16,938	$26,886	$16,410	$43,296	
	11	$39,615	$9,583	$49,198	$20,928	$70,126	
	12	$34,247	$9,583	$43,830	$16,410	$60,240	
	13	$137,480	$24,163	$161,643	$45,160	$206,803	
Effingham: Subtotal		**$540,534**	**$171,423**	$711,957	**$214,860**	$926,817	
Chatham:						$0	
						$0	
						$0	
						$0	
						$0	
						$0	
						$0	
						$0	
Chatham:						$0	
Subtotal		**$0**	**$0**	**$0**	**$0**	**$0**	
Total		**$540,534**	**$171,423**	**$711,957**	**$214,860**	**$926,817**	

* Above numbers in first column are not parcel numbers, just numbers used to identify relocation parcels.

* Land damaged at assemblage value only if unable to redevelop

Improvement values and accessory values from tax assessor and felt to be reasonable for estimation purposes

* Accessory Values in Chatham County are included in main improvement estimates

** Would not include any relocation, administrative, condemnation allowances, demolition, valuation, legal, costs etc.

GEORGIA DEPARTMENT OF TRANSPORTATION
LOCAL ACQUISITION - DETAILED ROW COST ESTIMATE SUMMARY

Date (MM/YYYY): August-16 Project: Effingham Prkway ALT 2-3
Revised: County: Effingham/Chatham
PI:
Description: Effingham Parkway ALT 2-3 (Hodgeville Rd/Goshen Rd/ to SR 30)
Parcels: 13 R/W Plan Date:
☑ 3 FOR FUNDING ONLY

CONTRACT

Land and Improvements	$1,480,875.82
Relocation	$614,250.00
Demolition	$331,500.00
SUB TOTAL (Reimbursable)	**$2,426,625.82**
Valuation Services (Non-reimbursable)	$39,000.00
Legal Services (Non-reimbursable)	$83,775.00
SUB TOTAL (Non-reimbursable)	$122,775.00

IN-HOUSE

Sponsor In-house	$0.00
Agency Oversight In-house	$0.00
TOTAL ESTIMATED COSTS	$2,549,400.82
TOTAL ESTIMATED COSTS (ROUNDED)	***$2,550,000.00***

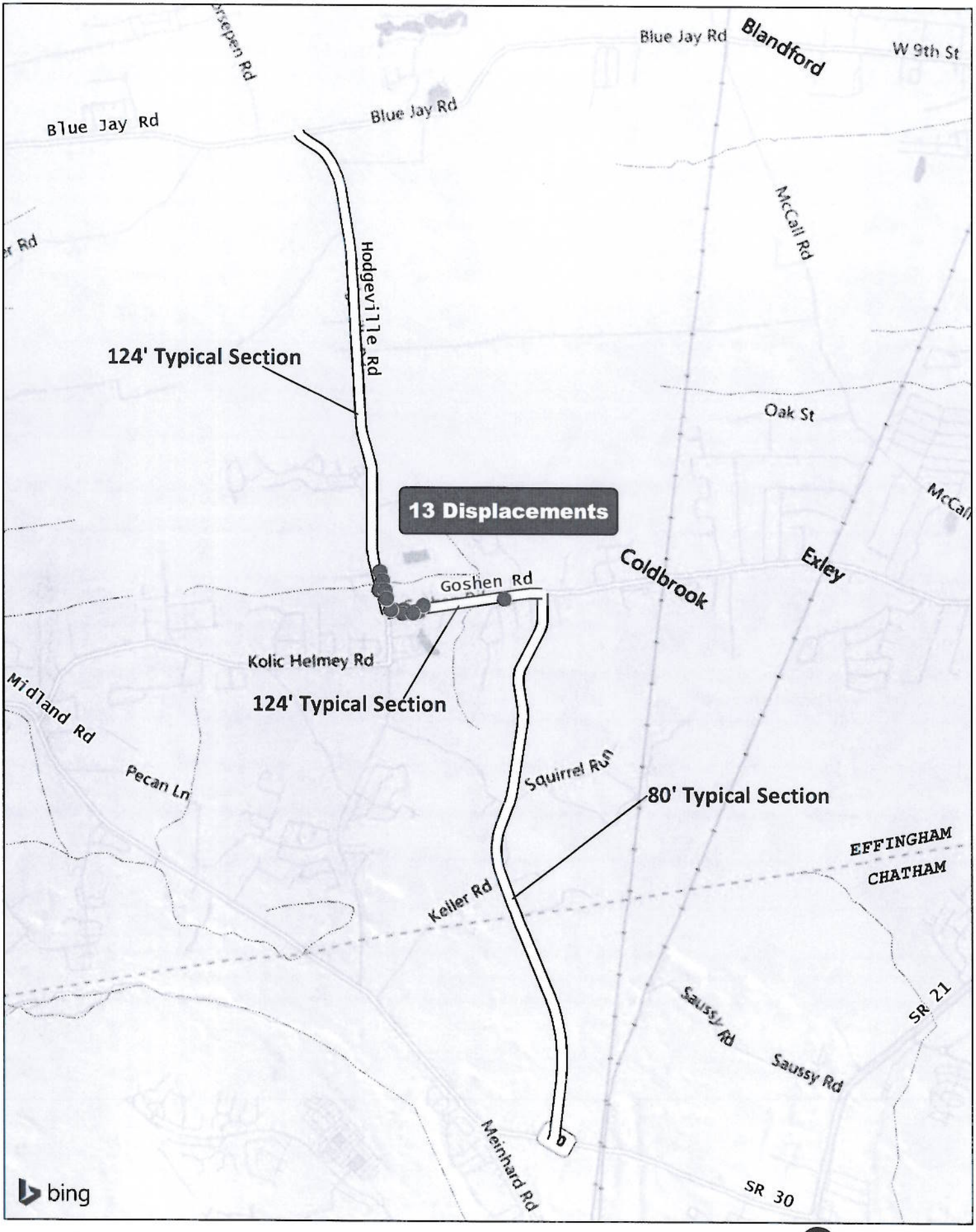
Preparation Credits	Hours	Signature
Benjamin M. Garland Jr.		

*CG#: (DATE)

*CG#: (DATE)

*CG required only if used for Negotiations

Attachment(s): **Project Location Map; Subject/Comp Location Map; Comparable Sales Data**



Goshen Road Alternative

Effingham Parkway

0 1,900 3,800 7,600 Feet

Preconstruction Status Report

PI Number: 0006700 **EFFINGHAM PKWY FM CR 156/BLUE JAY/EFFINGHAM TO SR 30/CHATHAM**

COUNTY:	Chatham, Effingham	MPO:	Not Urban, Savannah TMA	PRIORITY CD:	
LENGTH (MI):	6.36	TIP #:	2004-H-06	DOT DIST:	5
PROJ NO:	CSMSL-0006-00(700)	MODEL YR:		CONG. DIST:	001
PROJ MGR:	Wright, Michelle O.	TYPE WORK:	Roadway Project	BIKE:	N
AOHD INITIALS:	CLB	CONCEPT:	NL 2R	MEASURE:	E
OFFICE:	Program Delivery	PROG TYPE:	New Construction	SUFF:	
CONSULTANT:	Local Design, Reimbursed by GDOT funds	BOND PROJ:			
SPONSOR:	Effingham County	DESIGN FIRM:	Moreland Altobelli Associates, Inc.		

BASELINE LET DATE:	10/10/18	MGMT LET DATE:	10/15/18	Print Date 9/29/16	
SCHED LET DATE:	1/6/20	MGMT ROW DATE:	4/15/17	Page 6	
LIGHTING TYPE:	None	WHO LETS?	GDOT Let		
ENV DOC TYPE	GEPA	LET WITH:			
ENV CONSULTANT	Moreland Altobelli Associates				

BASE START	BASE FINISH	TASKS	START DATE	FINISH DATE	ACTUAL START	ACTUAL FINISH	%
4/26/06	6/10/15	Concept Development Summary	4/26/06	12/19/16	4/26/06		98
7/7/10	6/10/15	PAR Summary	7/7/10	12/19/16	7/7/10		97
7/14/14	7/14/14	PM Submit Concept Report	7/14/14	7/14/14	7/14/14	7/14/14	100
11/5/14	**11/5/14**	**Management Concept Approval Complete**	11/5/14	11/5/14	**11/5/14**	**11/5/14**	**100**
10/2/15	4/18/16	VE Study Summary	1/11/16	2/16/17	1/11/16		76
3/18/15	3/18/15	Public Information Open House Held	3/18/15	3/18/15	3/18/15	3/18/15	100
11/19/10	**2/17/17**	**Environmental Document Approval Summary (1141**	11/19/10	5/9/18	**11/19/10**		**58**
11/19/10	1/15/11	Environmental Resource Identification Summary	11/19/10	1/15/11	11/19/10	1/15/11	100
3/20/15	7/8/15	Database Summary	1/12/15	11/23/16	1/12/15		85
7/9/15	1/4/16	Preliminary Roadway Plans (consultant design)	6/22/15	5/19/17	6/22/15		0
8/9/16	8/7/17	Submit Preliminary Plans to Utilities for Impacted Railro	10/30/17	10/26/18			0
9/3/15	2/16/16	Preliminary Bridge Design Summary	11/28/16	5/5/17			0
9/3/15	1/26/16	UST and HW Summary	11/28/16	4/13/17			0
5/26/16	5/26/16	PFPR Inspection	8/16/17	8/16/17			0
7/19/16	8/8/16	ROW Plans Preparation	10/6/17	10/27/17			0
1/10/17	**3/7/17**	**ROW Plans Final Approval**	3/30/18	5/25/18			**0**
2/20/17	3/7/17	L & D Approval	5/10/18	5/25/18			0
1/18/17	7/17/18	ROW Acquisition Summary	4/6/18	10/4/19			0
4/4/17	4/4/17	ROW Authorization	6/25/18	6/25/18			0
10/19/15	7/15/16	Soil Survey Summary	11/28/16	8/22/17			0
2/17/16	11/8/16	BFI Report Summary	5/8/17	2/5/18			0
2/20/17	12/6/17	Final Construction Plans	5/10/18	2/28/19			0
2/20/17	8/9/17	Final Bridge Plans Preparation	5/10/18	10/30/18			0
2/1/18	7/16/18	404 and Buffer Variance (BV) Permits LOE	4/22/19	10/3/19			0
2/14/18	2/14/18	FFPR Inspection	5/6/19	5/6/19			0
7/31/18	7/31/18	Submit Final Plans	10/21/19	10/21/19			0

Phase	Approved	Proposed	Cost	Fund	Status	Date Auth
PE	2005	2005	$250,000.00	H170	AUTHORIZED	2/10/05
PE	2005	2005	$684,377.50	HY10	AUTHORIZED	2/10/05
PE	2005	2005	$2,915,223.75	LY10	AUTHORIZED	2/10/05
PE	LR2	2019	$90,000.00	HB170	PRECST	2/10/05
ROW	2017	2017	$3,094,680.00	LOC	PRECST	
CST	LR2	2020	$41,279,284.05	HB170	PRECST	
UTL	LR2	2020	$194,837.79	LOC	PRECST	

COST EST AMTS

PE	$3,939,601.25	8/19/04
ROW	$3,034,000.00	11/3/15
CST	$41,279,284.05	11/3/15
UTL	$180,000.00	11/3/15

STIP AMOUNTS

Activity	Cost	Fund
PE	$0.00	H170
PE	$0.00	HB170
PE	$0.00	HY10
PE	$0.00	LY10
ROW	$3,094,680.00	LOC
CST	$0.00	HB170
UTL	$0.00	LOC

Project Manager

Toss Allen/EffCoAdmin/9127548060/Cell 9126672667/TAllen@EffinghamCounty.org
MW 9-29-16
1.9-14-16 PCRF 10-17ROW/4-19LET
2.CP Items:PAR/ROW acq in restrictive covenant area (RCA)/appl for amendment to RC/IP/funding mech for ROW in RCA & in Chat Co
3.ENV status-update SS/AOE¿s req¿d
4.Staging Constr Rev-need date
5.UTL/Need 1st Subm Plans
6.W/PCRF appr,PFPR on sch{ROW$3,034,000.00,CST$41,279,284.05,UTL$599,850.00 8-31-16}

Bridge:	BRIDGE REQUIRED (FOS)
Design:	Concept submitted for approval
EIS:	OnSchedfor15Oct18Let| State-aid| Wilson/Perry 15Sept16
EMG:	PE BY COUNTY
Engr Services:	VE Held June14-17,2016;waiting on responses
LGPA:	SUPP #1 SGN 2-2-10|REV PMA SGN EFFINGHAM DO PE|ROW & UTIL|DOT TO REIMBURSE 80% PE UP TO $4,370,000 5-11-07,
Office Heads:	PCRF required per feb. 2016 qtrly meeting 9/14/16 PCRF submitted to OPC
PDD:	Reassigned to Program Delivery 6/17/09,
Programming:	STATE FUNDED NON-BANK PROJECT|CONFIRMED EXEMPT PER FHWA 6-1-2014|FUNDING WAS PUT BACK FROM PI# 0008811|NO LONGER ADDITIONAL DEMO $ ON PI# 0008811|PROPOSED EARMARK MONEY|#1 4-2010
ROW:	COE - 21 months needed for ROW acquisition. 4/16 kta; NEED PLANS/ENV
STIP:	new 2 lane roadway- enhance mobility and connectivity-enhance economic development
Traffic Op:	skm:working on conc. Agreement 3/11/08
Utility:	On Schedule; Preliminary utility cost estimate to PM 8/31/2016: Need 1st Submission plans

Pre Parcel CT:	32	**Total Parcel in ROW System:**	**Cond Filed:**	**Acquired by:**	LOC	**DEEDS CT:**
Under Review:		**Options Pending:**	**Relocations:**	**Acquisition MGR:**	Wingate, Bryan (LOC)	
Released:		**Condemnations - Pend:**	**Acquired:**	**R/W Cert Date:**		