

TRANSPORTATION AND INFRASTRUCTURE COMMITTEE AGENDA
Tuesday, January 20, 2009
4:00 P.M.

1. Presentation regarding flooding at Orange Park Country Club Golf Course
- (Patrick Victor, CDM)
2. Discussion of acceptance of maintenance by BCC of a portion of Baylor Avenue in Highridge Estates. (Comm. Stewart)
3. Discussion of Scenic Drive and culvert request – (Austin)
4. Discussion of Nolan Road Speed Study - (Austin)
5. Further discussion of Bear Run roadway and signage – (Austin)

Chuck Iley

From: Dave Austin
Sent: Tuesday, January 13, 2009 7:20 AM
To: Chuck Iley; Fritz Behring
Cc: Gene Tucker; Starling Kramer; Mark H. Scruby
Subject: FW: Scenic Drive Crossdrains 933895
Attachments: SKMBT_C25009011307210.pdf

Chuck,
 Here is the Scenic answer from Dale for the next Trans mtg....I can paste to a slide for discussion....
 Dave

From: Dale Lovell [mailto:dlovell@sjrwmd.com]
Sent: Tuesday, January 13, 2009 7:06 AM
To: Dave Austin
Cc: Regulatory Compliance Data Submittal
Subject: RE: Scenic Drive Crossdrains 933895

Mr. Austin: The construction of a culvert under Scenic Drive would require a Chapter 40C-40 permit, at a minimum. Any wetland impacts would require mitigation. Based on your description of the project and my knowledge of the area, it appears that the reason for the construction of the culvert or culverts is to provide for the drainage of surface waters from lands on one side of Scenic Drive and to convey them to the other side of Scenic Drive onto property that is not owned or controlled by Clay County or by the owner of the property who desires the drainage. This is problematic for several reasons;

1. The lands that would be drained of surface water are wetlands, floodplain wetlands of Black Creek. The drainage of these wetlands would be a wetland impact. Wetland impacts require mitigation. In this case it would seem to be a difficult task to demonstrate minimization and avoidance. The County could utilize the out provision and provide regionally significant mitigation. Typically that involves the purchase of credits at a mitigation bank.
2. The change in direction of water flow onto another landowner's land may be a violation of the other landowner's basic water rights. The Summary Guide to Florida's Water Rights states "The upper owner may accelerate and enhance the natural drainage from his land (permit may be required) if to do so will not cause damage, but may not gather waters that would have flowed in one direction and cast them onto another's property in a different direction." I will forward you the complete section of the above guide.

If Clay County wishes to pursue such a permit, I recommend that we schedule a site meeting with the ERP review staff to review the project in the field. Dale

From: Dave Austin [mailto:Dave.Austin@co.clay.fl.us]
Sent: Thursday, January 08, 2009 10:19 AM
To: Dale Lovell
Cc: Starling Kramer; Vern Wickline
Subject: Scenic Drive Crossdrains

Dale,

Below are the minutes from the December Transportation meeting; one of our Commissioners is trying to get Public Works to install a cross drain on Scenic Drive in Middleburg in order to help this citizen with the drainage on his lot.....I have been directed to get your input.....can we meet on site or discuss by phone??

Dave

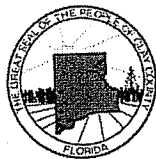
1. **Discussion of Scenic Drive/Culvert Project Update** – As directed at the last Committee meeting, Public Works Director, Dave Austin, was to report back to this Committee with a recommendation with regards to the request for the culvert at 4056 Scenic Drive. Mr. Austin provided a brief overview of the history of the project and reported that his department's concern is the road water and that the lack of a cross drain pipe at this location is not causing any roadway problems here. Mr. Austin then posed the question of "Does the County have a responsibility to fix a homeowner's drainage issue?" which is the situation here. Mr. Austin reported that should the Board recommend some type of action by his department then there would be 4 areas where the cross drains could be installed, which would also involve the acquirement of the road, easements and other permits. Mr. Austin added that the estimate of one pipe alone, not including the cost to put the road back to its original condition, would be \$4,176.29. (See Attached) Mr. Austin recommended that a simpler solution would be to have the residents permit and solve their own outfall problems which include contacting the St. Johns River Water Management District (SJRWMD) about rerouting the drainage of their properties. After a lengthy discussion, the Committee recommended having County Manager Behring direct staff to contact the SJRWMD about their position with regard to the placement of the culverts and with those findings, staff is to report back to the next Committee meeting.

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BOARD OF COUNTY COMMISSIONERS

Fritz A. Behring
County Manager
And Clerk of the Board

www.claycountygov.com



CLAY COUNTY

Public Works Department/Traffic Division
5 Esplanade Avenue
Green Cove Springs, FL 32043
(904) 269/284-6359 • Fax: (904) 278-3648

January 09, 2009

Memorandum to: Dave Austin, Public Works Director

From: David Pipkins, Traffic Study Technician

Subject: Nolan Road speed study

Commissioner Stewart has requested the Public Works Department perform a speed limit study to evaluate if a speed limit change is necessary.

A speed count was performed and vehicle accident reports were researched on this road to ascertain the data for support as set fourth in the (M.U.T.C.D.) Manual on Uniform Traffic Control, Section 2B-13.

Support Data:

1. Length of road – 2.4 miles Width of road – 22 feet
2. Posted speed limit – 40 MPH
3. Vehicle accident reports (12 month period) three (3)
4. (A.A.D.T.) Average Annual Daily Total – 772 vehicles
5. Speed Evaluation – The average speed for all classified vehicles was 46 MPH with 56.15% exceeding the posted Speed of 40 MPH. The mode speed for this traffic study was 45 MPH and the 85th percentile was 53.15 MPH.

Conclusion: Nolan Road has been recently striped and a No Passing Zone in both directions between county road 218 and Big Branch road has been added to enhance the safety aspects of the road due to a vertical elevation that may pose a passing risk for small compact vehicles.

This road has no paved shoulders or sidewalks but has fifteen (15) intersecting roads and numerous school bus stops and driveways. This road also ends at Jennings Forest State Park.

In accordance with the guidance set fourth in the (M.U.T.C.D.) the speed limit could be increased to 45 MPH but is not suggested because of the road characteristics underlined above.

It is suggested the speed limit remain 40 MPH but should be reduced to 30 MPH approaching the intersection of county road 218 along with upgrading all warning signs to high intensity also to include the stop sign at 218. The curve warning signs should have 30 MPH as a supplement speed limit which would allow vehicles to safely negotiate the S-curve situated at Hattie Nolan Road.

Wendell D. Davis - District 1 • Douglas P. Conkey - District 2 • Travis Cummings - District 3
T. Chereese Stewart - District 4 • Ronnie E. Robinson - District 5

GCS (904) 284-6300 • KH (352) 473-3711 • KL (904) 533-2111 • OP/MBG (904) 269-6300 • Suncom: 827-1300

Nu-Metrics Traffic Analyzer Study
Computer Generated Summary Report
City: Clay Hill
Street: NOLAN road

A study of vehicle traffic was conducted with HI-STAR unit number 4171. The study was done in the SB lane at NOLAN road in Clay Hill, FL in CLAY county. The study began on Jan/06/09 at 00:00 and concluded on Jan/08/09 at 00:00, lasting a total of 48.00 hours. Traffic statistics were recorded in 60 minute time periods. The total recorded volume showed 1544 vehicles passed through the location with a peak volume of 71 on Jan/06/09 at [06:00-07:00] and a minimum volume of 1 on Jan/06/09 at [02:00-03:00]. The AADT count for this study was 772.

SPEED

Chart 1 lists the values of the speed bins and the total traffic volume for each bin. At least half the vehicles were traveling in the 45 - 50 MPH range or lower. The average speed for all classified vehicles was 46 MPH with 56.15% vehicles exceeding the posted speed of 40 MPH. The HI-STAR found 2.40 percent of the total vehicles were traveling in excess of 55 MPH. The mode speed for this traffic study was 45MPH and the 85th percentile was 53.15 MPH.

<	10	15	20	25	30	35	40	45	50	55	60	65	70	75					
to	to	to	to	to	to	to	to	to	to	to	to	to	to	to					
9	14	19	24	29	34	39	44	49	54	59	64	69	74	>					
0	1	5	1	16	44	200	410	472	259	99	29	6	2	0					

CHART 1

CLASSIFICATION

Chart 2 lists the values of the classification bins and the total traffic volume accumulated for each bin. Most of the vehicles classified during the study were Passenger Vehicles. The number of Passenger Vehicles in the study was 1421 which represents 92 percent of the total classified vehicles. The number of Small Trucks in the study was 75 which represents 5 percent of the total classified vehicles. The number of Busses & Trucks in the study was 35 which represents 2 percent of the total classified vehicles. The number of Tractor Trailers in the study was 13 which represents 1 percent of the total classified vehicles.

<	21	28	40	50	60	70	80												
to	to	to	to	to	to	to	to												
20	27	39	49	59	69	79	>												
1421	75	35	10	3	0	0	0												

CHART 2

HEADWAY

During the peak traffic period, on Jan/06/09 at [06:00-07:00] the average headway between vehicles was 50 seconds. During the slowest traffic period, on Jan/06/09 at [02:00-03:00] the average headway between vehicles was 1800 seconds.

WEATHER

The roadway surface temperature over the period of the study varied between 56.00 and 89.00 degrees F. The HI-STAR determined that the roadway surface was Dry 100.00% of the time.

Time/Speed Report

HI-Star ID: 4171 Street: NOLAN road State: FL City: Clay Hill County: CLAY	Begin: Jan/06/09 00:00 Lane: SB Oper: DP Posted: 40 AADT Factor: 1	End: Jan/08/09 00:00 Hours: 48.00 Period: 60 Raw Count: 1544 AADT Count: 772														
Date And Time Range	< to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to >	Total

Tue, Jan/06/09																
[00:00-01:00]	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
[01:00-02:00]	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	3
[02:00-03:00]	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
[03:00-04:00]	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
[04:00-05:00]	0	0	0	0	0	0	2	1	2	4	3	1	0	0	0	13
[05:00-06:00]	0	0	0	0	0	3	4	9	13	6	6	2	0	0	0	43
[06:00-07:00]	0	0	1	0	0	1	6	17	21	14	10	1	0	0	0	71
[07:00-08:00]	0	0	0	0	0	2	7	23	20	10	1	0	1	0	0	64
[08:00-09:00]	0	0	0	0	1	1	9	20	15	8	2	2	0	0	0	58
[09:00-10:00]	0	0	0	0	0	1	4	5	17	7	2	0	1	0	0	37
[10:00-11:00]	0	0	1	0	1	2	5	13	22	4	5	0	0	0	0	53
[11:00-12:00]	0	0	0	0	0	0	4	4	8	10	1	1	1	0	0	29
[12:00-13:00]	0	0	0	0	1	0	3	13	13	5	2	1	0	0	0	38
[13:00-14:00]	0	0	0	0	0	3	6	16	9	4	2	0	0	0	0	40
[14:00-15:00]	0	0	1	0	0	2	9	23	12	5	2	0	2	0	0	56
[15:00-16:00]	0	1	0	0	2	2	6	13	14	9	3	0	0	0	0	50
[16:00-17:00]	0	0	0	0	0	1	4	12	17	7	3	0	0	0	0	44
[17:00-18:00]	0	0	0	0	1	1	7	5	10	3	6	3	0	1	0	37
[18:00-19:00]	0	0	0	0	0	2	12	15	17	6	1	0	0	0	0	53
[19:00-20:00]	0	0	0	0	1	2	5	8	12	1	2	1	0	0	0	32
[20:00-21:00]	0	0	0	0	0	0	1	4	8	5	2	0	0	0	0	20
[21:00-22:00]	0	0	0	0	0	0	0	2	6	7	0	1	0	0	0	16
[22:00-23:00]	0	0	0	0	0	0	1	6	1	2	1	0	0	0	0	11
[23:00-00:00]	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3
	0	1	3	0	7	23	96	213	242	118	54	14	5	1	0	777
Wed, Jan/07/09																
[00:00-01:00]	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
[01:00-02:00]	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	2
[02:00-03:00]	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
[03:00-04:00]	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
[04:00-05:00]	0	0	0	0	0	0	1	3	3	2	1	0	0	0	0	10
[05:00-06:00]	0	0	0	0	0	0	3	6	13	8	4	1	0	0	0	35
[06:00-07:00]	0	0	0	0	0	3	12	14	15	14	6	2	0	0	0	66
[07:00-08:00]	0	0	0	0	2	1	13	14	16	14	3	0	0	0	0	63
[08:00-09:00]	0	0	0	0	1	2	9	14	21	10	5	1	0	0	0	63
[09:00-10:00]	0	0	0	0	0	2	5	11	14	10	3	2	0	0	0	47
[10:00-11:00]	0	0	1	1	0	1	4	6	10	11	5	0	0	0	0	39
[11:00-12:00]	0	0	1	0	1	0	4	11	15	9	2	3	0	1	0	47
[12:00-13:00]	0	0	0	0	0	1	3	4	13	7	2	0	0	0	0	30
[13:00-14:00]	0	0	0	0	1	2	9	8	10	5	3	0	0	0	0	38
[14:00-15:00]	0	0	0	0	1	0	2	14	11	8	2	1	0	0	0	39
[15:00-16:00]	0	0	0	0	1	5	10	21	14	5	0	0	0	0	0	56
[16:00-17:00]	0	0	0	0	0	0	4	10	17	10	0	2	1	0	0	44
[17:00-18:00]	0	0	0	0	1	0	4	17	15	7	2	0	0	0	0	46

Time/Speed Report

HI-Star ID: 4171 Street: NOLAN road State: FL City: Clay Hill County: CLAY		Begin: Jan/06/09 00:00 Lane: SB Oper: DP Posted: 40 AADT Factor: 1					End: Jan/08/09 00:00 Hours: 48.00 Period: 60 Raw Count: 1544 AADT Count: 772									
Date	<	10	15	20	25	30	35	40	45	50	55	60	65	70	75	
And	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	
Time Range	9	14	19	24	29	34	39	44	49	54	59	64	69	74	>	Total
Wed, Jan/07/09																
[18:00-19:00]	0	0	0	0	0	1	8	16	12	9	4	0	0	0	0	50
[19:00-20:00]	0	0	0	0	0	0	8	15	13	4	0	0	0	0	0	40
[20:00-21:00]	0	0	0	0	1	2	3	5	8	4	1	0	0	0	0	24
[21:00-22:00]	0	0	0	0	0	1	0	2	3	3	1	0	0	0	0	10
[22:00-23:00]	0	0	0	0	0	0	1	2	2	0	0	3	0	0	0	8
[23:00-00:00]	0	0	0	0	0	0	1	2	2	0	0	0	0	0	0	5
	0	0	2	1	9	21	104	197	230	141	45	15	1	1	0	767
Jan/06/09 00:00																
Jan/08/09 00:00	0	1	5	1	16	44	200	410	472	259	99	29	6	2	0	1544

Traffic Count & Speed Report

HI-Star ID: 4171 Street: NOLAN ROAD State: FL City: Clay Hill Area County: CLAY	Begin: Jan/06/09 Lane: Roadway Oper: DP Posted: 40 mph AADT Factor: 1	END: Jan/08/09 Hours: 48:00:00 Period: 60 Raw Count: 1544 AADT Count: 772
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speed Limit MPH	0	10	15	20	25	30	35	40	45	50	55	60	65	70	75
Tue/06/09	0	1	3	0	7	23	96	213	242	118	54	14	5	1	0
Wed/07/09	0	0	2	1	9	21	104	197	230	141	45	15	1	1	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

