

Committee Meetings & Corresp.

Nov 1990

MSA_51830-76

MARYLAND STADIUM AUTHORITY

Servey

WILLIAM DONALD SCHAEFER
GOVERNOR



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BRUCE H. HOFFMAN, P.E.
EXECUTIVE DIRECTOR

SUITE 2450, THE WORLD TRADE CENTER
BALTIMORE, MARYLAND 21202
(301) 333-1560

November 2, 1990

RECEIVED

NOV 5 1990

DNR
CRITICAL AREA COMMISSION

The Honorable John C. North II
Chairman, Chesapeake Bay Critical Area Commission
275 West Street, Suite 320
Annapolis, MD 21401

Dear Judge North:

The purpose of this letter is twofold. First, I would like to provide the Commission with our current plans for construction within the Critical Area, presenting new proposals that we have developed following discussions with the Commission and its staff. Second, I would like to request an extension of the 90-day deadline for approving this project.

To recapitulate the basic facts, MSA's construction activities will disturb a total area of 98.3 acres. Of this disturbance, 11.6 acres fall within the 1,000-foot Critical Area zone. Prior to MSA activities, 10.6 of those 11.6 acres were covered with impervious surfaces.

When we appeared before the Commission on September 5, 1990, we proposed meeting the "10% Rule" through a 17% decrease in impervious surface within the Critical Area. Using the "simple method" of calculation, we concluded that the 17% reduction in impervious surface would be more than sufficient to comply with the Critical Area requirements. Some Commission members and staff expressed concerns regarding this conclusion. One concern was that the "simple method" was not appropriate for this situation. Some also indicated that reducing impervious areas within the Critical Area might be characterized as only "doing the minimum"; they hoped that the stadium project would be designed to exceed minimum requirements.

Since our meeting in September, we have revised our plans to address the concerns expressed by the Commission members. The results of these efforts are:

- o we will decrease the impervious surface in the Critical Area by approximately 21%, and
- o we now propose to build an extended detention pond providing additional means of water quality improvement.

We are now submitting our revised proposal for the Commission's review. Each of these items is discussed in further detail below.

Decrease in Impervious Surface Area

As a result of relatively minor changes in our plans, MSA's development within the Critical Area will decrease the impervious area from 10.6 (pre development) to 8.4 acres (post development), a reduction of 2.2 acres (20.7%). We originally anticipated decreasing the impervious area within the Critical Area by 1.8 acres, or 17%. The currently calculated reduction in impervious area results in a negative pollutant removal requirement as calculated using the "10% Rule: Simple Method" guidelines (see enclosed technical information).

Extended Detention Pond

In light of the Commission's concerns, we now propose an additional measure to further improve stormwater quality: the construction of an extended detention pond. Several Critical Area Commissioners and staff suggested the addition of a detention pond on the stadium site. We now propose to build such a pond adjacent to the southeast corner of the parking lot, next to Ostend Street and the MARC railroad tracks. In addition, we plan to construct a long, shallow collection forebay connected to the pond and extending along most of the southern end of the site. This forebay will collect and pretreat stormwater before it enters the pond.

These facilities will provide treatment not only for most of the impervious surface within the Critical Area, but will also treat 4.8 acres immediately north of the boundary of the 1,000-foot zone. The facilities will cover 19,000 square feet of surface area, and will receive and provide a 24-hour settling time for the "first flush", or first half

inch of runoff, from the southernmost 10.5 acres of MSA parking lots. Such a pond operating at 25 percent pollutant removal efficiency can remove 8.9 pounds per year of pollutants as calculated using the "10% Rule: Simple Method" guidelines.

We have not yet developed final specifications for design and maintenance of this pond. We intend to work with your staff and that of the Maryland Department of the Environment in refining the design of the facility. One possibility now under consideration is development of the pond and the collection bay as wet ponds, planting appropriate vegetation.

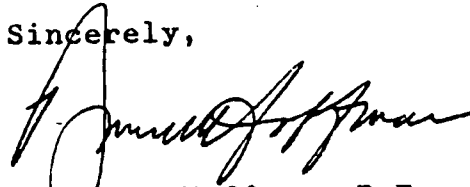
Attached please find a plan of the southern portion of the site indicating the pond, as well as a technical document including our calculations of the stormwater management benefits of the pond and of the decrease in impervious surface.

Finally, I would like to request that the 90-day deadline for approving this project be extended by two days to allow us to seek Commission approval at the December 5th meeting. That schedule will provide time to continue working with your staff on final plans for the Critical Area portion of the site. In the interim we also will be developing final stormwater management plans to meet MDE's approval. We recognize that while the Commission does not have jurisdiction over the site beyond the Critical Area, it is understandably interested in the stormwater management plans for the entire site. The Department of the Environment and MSA have not yet agreed to the components of the stormwater management plan for the site. (Consequently, there is a possibility that planned improvements within the Critical Area may further change.) We would like to be able to present the most accurate and comprehensive information possible to the Commission when we seek its approval; therefore we think it best to defer final Critical Area Commission action until the December meeting.

If you approve the two-day extension, we will present a status report to the Project Evaluation Subcommittee and to the full Commission on November 7. At that meeting we hope to obtain the Commission's tentative approval, subject to further evaluation of our proposals as they are developed in more detail. We will then seek final approval at the December 5 meeting.

Thank you for your assistance in this issue; if I can be of any help please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Bruce H. Hoffman".

Bruce H. Hoffman, P.E.
Executive Director

cc: Dr. Sarah Taylor
Mr. Ren Serey
Ms. Dawnn McCleary
Mr. Robert Hewitt

November 1, 1990

CAMDEN YARDS SPORTS COMPLEX

GENERAL SUMMARY

- o The Camden Yards Sports Complex is being developed by the Maryland Stadium Authority (MSA) in two phases. The Stormwater Management and Critical Area studies and data submitted to date pertain only to the first phase of development (Phase I). Phase II development will require separate analysis and submittal.
- o Phase I development (currently underway) includes demolition of existing structures, relocation and construction of railroads, construction of the baseball park, construction of approximately 5,000 on-site parking spaces.
- o Phase II development (time schedule unknown at this time) includes construction of a Football Stadium on the southern half of the site and possible construction of additional surface and/or structured parking to replace up to approximately 2,500 parking spaces which could be displaced by the football stadium.
- o The baseball park is on schedule to be operational for opening day April, 1992.
- o The limit of disturbance for this project is 98.3 acres. 90 acres are owned by the MSA. The remainder is owned by the City of Baltimore and CSX Railroad.
- o Prior to development of the Sports Complex, this area was primarily industrial. These now abandoned industries included a chemical plant, a sign painting shop, a steam generating facility, a food processing plant and several manufacturing facilities. Numerous transformers and underground storage tanks existed on the site prior to Phase I development as documented by the Maryland Department of the Environment Hazardous and Solid Waste Management Administration (HSWMA) in a memorandum dated April 14, 1988. These transformers and tanks have been or will be removed from the site as a part of Phase I development.
- o Analysis of existing and proposed site conditions is based on the best information available at this time.



RUMMEL • KLEPPER & KAHL *consulting engineers*

CAMDEN YARDS SPORTS COMPLEX

CRITICAL AREA SUMMARY

- o The Camden Yards Sports Complex project will disturb 11.6 acres of land in the 1000' Critical Area Zone. This includes 1.9 acres south of Ostend Street owned by CSX Railroad. The Critical Area 100' Buffer is not within the limit of disturbance.
- o This area is classified as an "Intensely Developed Area" and therefore is subject to the "10% Rule".
- o The site drains into the Middle Branch of the Patapsco River via existing closed storm drain systems. (These include the 12' x 8' Fremont Avenue drain and the 7.5' x 4.5' Howard Street drain). The Middle Branch is approximately 250 feet south of the limit of disturbance.
- o There are no wetlands within the limit of disturbance.
- o There is no 100 year floodplain within the limit of disturbance.
- o In the pre-development condition, 0.9 acres of land within the Critical Area was on slopes greater than 15%. Less than half of this area was vegetatively stabilized. After development, approximately 3 acres of land will be on slopes greater than 15%. All of this area will be either vegetatively stabilized or covered with newly placed rip-rap and railroad ballast.
- o In the pre-development condition, 10.6 acres of impervious area existed within the Critical Area limits. Using the most current design plans for the Sports Complex, we have now determined that a decrease of 2.2 acres of impervious area will be the result of the project. This is a 20.7% decrease in impervious area from pre-development conditions. This considerable reduction produces a negative pollutant removal requirement as calculated using the "10% Rule - Simple Method" guidelines.

Note: Previous calculations showed impervious area decreases of 19% and 17%. These discrepancies are due to the use of plans that were not 100% final design but represented the best information available at the time.



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- o We believe an Extended Detention Pond located on the southeast corner of parking lot F, adjacent to Ostend Street and MARC Track No. 2, is the most economical and practical stormwater management solution (see the enclosed Preliminary Stormwater Management Plan, drawing no. 3P-SWM). Using the "10% Rule - Simple Method" guideline, an Extended Detention Pond (operating at 25% removal efficiency) will remove 8.9 pounds per year of pollutants. We believe such a pond in conjunction with the decrease of imperviousness will ensure improved water quality within the Critical Area.
- o It should be noted that use of the "10% Rule - Simple Method" has been questioned as an appropriate methodology for this project. RK&K knows of no other practical methods to calculate pollutant loadings for this site. It is our understanding that the "10% Rule - Simple Method" is the methodology to be followed in Critical Area analyses.



RUMMEL • KLEPPER & KAHL *consulting engineers*

TO: Commission Members

FROM: Dawnn McCleary

DATE: November 6, 1990

SUBJECT: TOUR OF THE LADY MARYLAND FOUNDATION'S MARITIME
INSTITUTE AT PIER 8 IN BALTIMORE CITY

If any Commission member is interested in attending the tour of the Lady Maryland Foundation's Maritime Institute at Pier 8 in Baltimore City , please sign your name below this memo and hand to Peggy Mickler after the Commission meeting. Thank-you.

STAFF REPORT

November 7, 1990

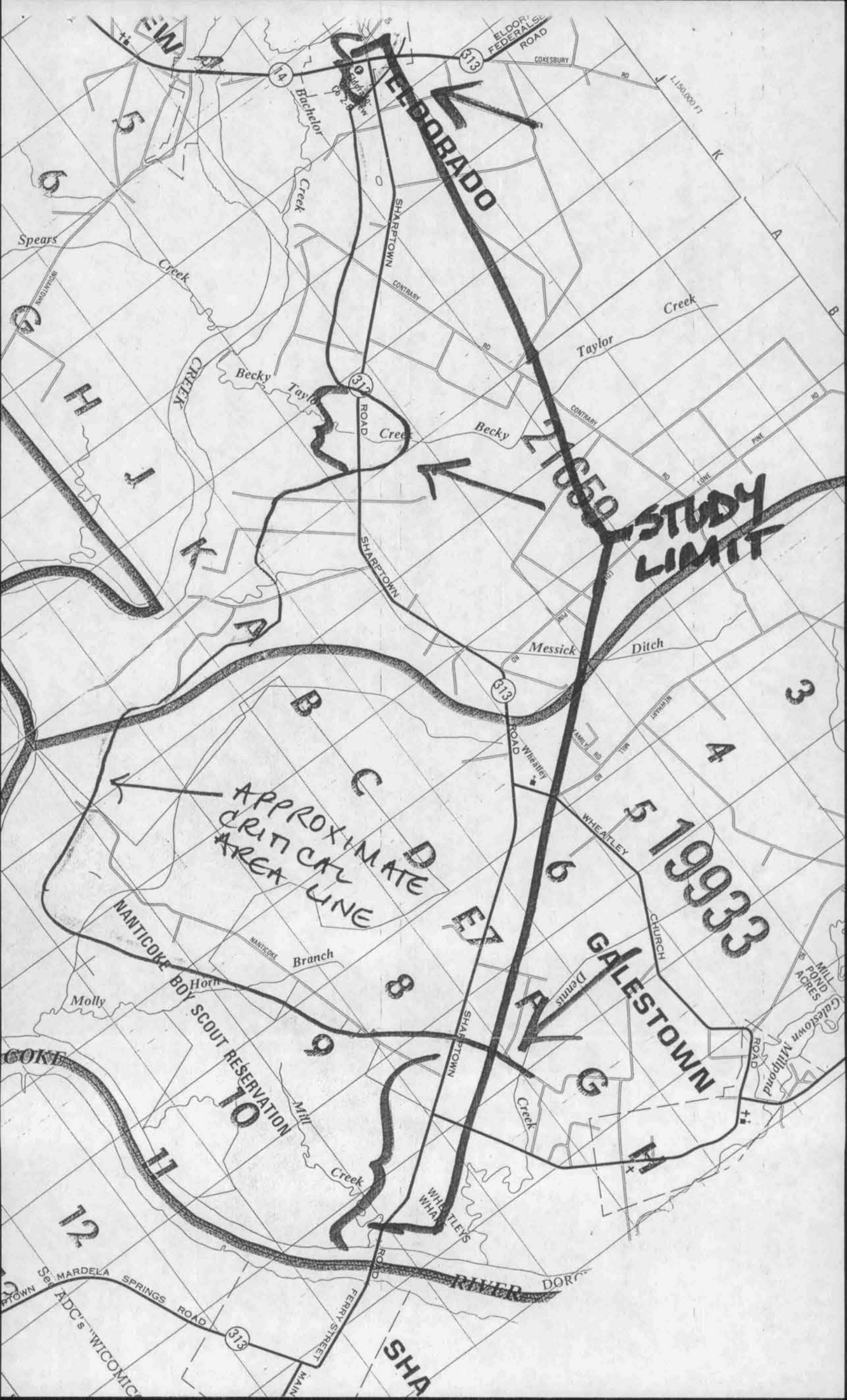
PROJECT DESCRIPTION:

MD State Highway Administration is proposing to widen and resurface MD 313 in Dorchester County from Eldorado to near Galestown, just west of the Nanticoke River crossing into Wicomico County. The roadway is currently 22 feet wide with narrow shoulders, and will be widened to 24-feet with 8-foot shoulders. The project occurs within the Chesapeake Bay Critical Area in three (3) locations which are designated Resource Conservation Areas. No threatened or endangered species have been identified within the project corridor. Twenty-two percent, or 8.57 acres of right-of-way are located within the Critical Area. Total additional disturbance within the Critical Area by this project amounts to approximately 4.62 acres. Non-tidal wetlands impacts total .09 acres, and tidal wetlands impacts total .01 acres. A Section 404 permit application was submitted to the Corps of Engineers on 5/1/90. Corps of Engineers and DNR wetland mitigation will be determined upon approval of the permit. Subsequent to the Section 404 joint permit being issued, MD-Department of the Environment will begin the required water quality study. The road crosses Becky Taylor Branch or Creek, a perennial tributary to Marshyhope Creek with a width of 10-15 feet, and a depth of 0.5 to 1.5 feet. This stream has never been sampled for the presence of anadromous fish, but the potential exists for these fish to migrate upstream. Time of year construction restrictions for Class I waters and anadromous fish spawning periods will be adhered to from February 15th to June 30th, inclusive. Narrow strips of woodlands, totalling 0.31 acres will be removed within the Critical Area. A standard sediment and erosion control plan for the project includes procedures specified by SHA and DOE, and has been developed in accordance with Maryland's Standards and Specifications for Soil Erosion and Sediment Control. This plan is currently being reviewed by DOE.

STAFF RECOMMENDATION: Approval of the project subject to the following conditions:

- 1) That wetland mitigation be specified on a 1:1 basis.
- 2) That natural vegetation replacement within the 100-foot Buffer from Becky Taylor Branch be specified.
- 3) That 1:1 tree replacement for the .31 acres of trees removed within the Critical Area be specified.
- 4) That any threatened and endangered species habitat or Habitat Protection Areas in the vicinity be checked by submitting the project for processing through the FPWS internal review. Any advice received from FPWS in reference to protecting any habitats or species must be included in the project.

STAFF CONTACT: Susan Barr



ELBORADO

STUDY LIMIT

APPROXIMATE CRITICAL LINE

19933

GALESTOWN

10



ELDORADO FEDERAL ROAD

Bachelor Creek

Creek

Becky Creek

Creek

Taylor

ROAD

Becky

Messick

Ditch

NANTICOKE

Branch

Molly

BOY SCOUT RESERVATION

Mill Creek

WHEATLEY'S

SHARPTOWN

Creek

Dennis

MILL POND ACRES

Galestown Millpond

See MARDELA SPRINGS ROAD

ADC's 'WICOMIC'

SHA

CRITICAL AREA COMMISSION

STAFF REPORT

October 31, 1990

PROJECT: University of Maryland, Horn Point Laboratory,
Residential Environmental Education Center

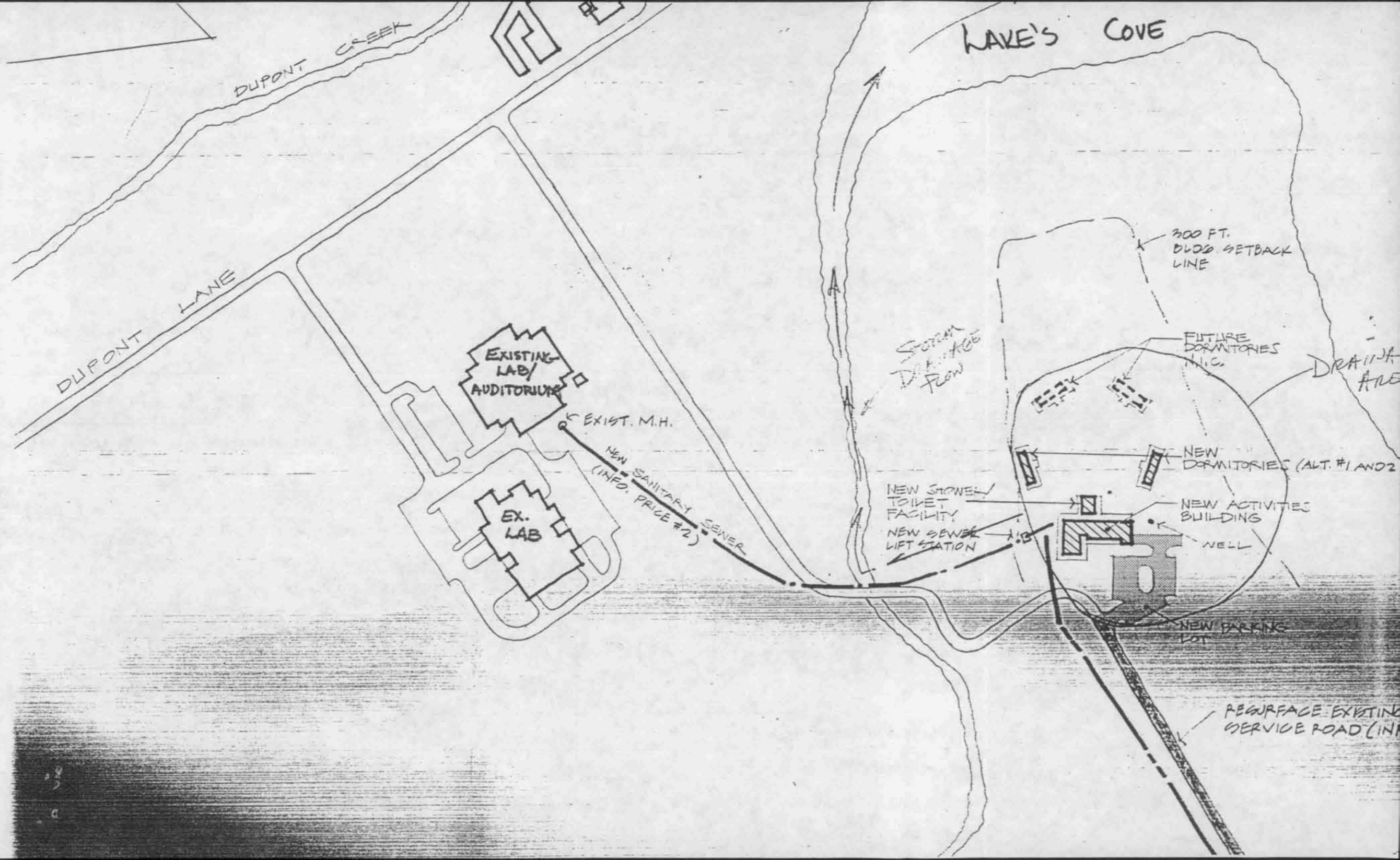
DISCUSSION: The education center is proposed as part of an existing program between the University of Maryland and the public school system which works to increase public awareness and involvement in environmental issues. The center will provide overnight facilities, thus students from all over the State will be able to participate in an extended environmental educational program. The proposal includes 4 buildings: an activities center, comfort station and 2 dormitories (Two additional dormitories may be added at a future date). A parking lot will be established and existing roads accessing Dupont Lane and Horn Point Road will be widened and resurfaced for vehicular traffic. Wastewater will be treated by connecting the education facility to the existing Horn Point treatment plant.

Notable aspects of the project include:

- Buildings, roads and parking lots will be located in open fields. No forest vegetation will be removed to establish structures.
- New structures will be located a minimum 300 feet from Lake's Cove.
- The total area of impervious surface on the site after development of the project will not exceed 15% of Horn Point's Critical Area.
- Application has been made to the Corps of Engineers for a permit to widen the existing road where it crosses a small area of wetlands.
- Stormwater quality will be managed through infiltration or extended detention. Plans are under review by MDE.
- The Forest, Park and Wildlife Service has been contacted about Habitat Protection Areas. The project will not affect the 2 endangered species occurring on the Horn Point property.
- Dorchester County's Planning Office has submitted a letter of consistency with the local Critical Area Program.

STAFF CONTACT: Liz Zucker

STAFF RECOMMENDATION: Approval with conditions that a Corps permit be obtained, that approval of stormwater management by MDE be finalized, and that the Commission receives documentation on both actions.





IN REPLY REFER TO

PG

WILLIAM DONALD SCHAEFER
GOVERNOR

MEMORANDUM

ANNAPOLIS OFFICE
STATE HOUSE
ANNAPOLIS, MARYLAND 21401
(301) 974-3901

BALTIMORE OFFICE
ROOM 1513
301 WEST PRESTON STREET
BALTIMORE, MARYLAND 21201
(301) 225-4800

WASHINGTON OFFICE
SUITE 315
444 NORTH CAPITOL STREET, N.W.
WASHINGTON, D.C. 20001
(202) 638-2215

TDD (301) 333-3098

TO: Ed Stein
Vincent Berg
Ken Pencyl

FROM: David Carroll

DATE: October 26, 1990

RE: Critical Areas Commission and MDOT/SHA-MOU

Because there seem to be a number of outstanding issues, I have asked Sarah Taylor to delay the planned November 7th meeting with the CAC-Subcommittee until the December 5th CAC meeting. I also think it is necessary to meet prior to the December 5th meeting to go over the sub-committee's comments, develop a broader information package and resolve several policy issues. Mary Moreland will contact your offices to arrange this meeting.

Thank you.

cc: Sarah Taylor

Reggie -
FYI.
Sarah

STAFF REPORT

November 7, 1990

Applicant: MD Department of General Services

Project: Addition of one gasoline dispenser to be located at the existing refueling site at the MD State Police Barracks in Annapolis

Recommendation: APPROVAL

Discussion:

The Department of General Services proposes a second gasoline dispenser to be connected to the Annapolis Barracks' existing 12,000 gallon gasoline tank. The site is in the Annapolis City limits. The majority of the site is in the Critical Area. The buffer will not be impacted. The work is 830 feet from College Creek.

The installation of the second dispenser will not require an increase in tank capacity. The dispenser will be placed above ground on four 12" diameter concrete cylinders.

The site is surrounded by intensely developed area. The Department of General Services proposes the construction of a shallow marsh to remove sediments and other pollutants from the site before flowing into an existing storm drain to an outfall at College Creek. Trees will also be planted along the State Archives service road across the street.

The Department of General Services was requested to select a site to serve as a central fueling location for State vehicles located at the State office complex in Annapolis. This is part of a State-wide Fuel Management Program initiated by the Governor to reduce dollars spent by State government on energy consumption.

The preferred central fueling site was at the Tawes building on Taylor Avenue in Annapolis; however, that site is located entirely within the Critical Area. It was determined that the primary refueling site should be located outside of the Critical Area.

Staff Contact: Claudia Jones

CHESAPEAKE BAY CRITICAL AREA COMMISSION

Minutes of Meeting Held
October 3, 1990

The Chesapeake Bay Critical Area Commission met at the Chesapeake Bay Critical Area Commission Office, 275 West Street, Annapolis, Maryland. The meeting was called to order by Chairman North with the following Members in attendance:

Victor Butanis	William Corkran, Jr.
Joseph Elbrich	Michael J. Whitson
Shepard Krech, Jr.	Samuel Bowling
Kathryn Langner	Thomas Jarvis
William Bostian	Parris Glendening
James E. Gutman	Albert Zahniser
Russell Blake	Ronald Hickernell
Assistant Secretary	Deputy Secretary Cade
Naylor of DOE	of DCHD
Louise Lawrence of DOA	

The Minutes of the meeting of September 5, 1990 were approved with the correction to page 11 that Mr. Deming's withdrawal of an appeal concerned the Carson property.

Mr. Hugh Smith, who will be volunteering his services to the Commission, was introduced. He will be assisting with public relations and investigations of Critical Area violations.

Mr. Deming then introduced Mr. George Gay, Assistant Attorney General, who was assigned to the Commission.

Chairman North asked Mr. William Bostian, Panel Chairman, and Mr. Tom Ventre to report on Worcester County's Growth Allocation request. Mr. Ventre reported that the County requested 2.7 acres of growth allocation/land reclassification for a commercial use to allow development of a day care/nursery school facility. He said that an award of growth allocation had been approved July 3, 1990 by the Worcester County Commissioners upon recommendation of the County Planning Commission.

The Worcester County Commissioners requested the Critical Area Commission's review of a local proposal to amend the local Critical Area Program maps by an award of Growth Allocation from the Worcester County Growth Reserve, and the reclassification of affected acres from RCA to LDA. A Critical Area Commission staff member had visited the site, and there appeared to be no Habitat Protection issues. Mr. Ventre said that the site was in farm use until recently, but at this time was mowed field. Commission staff had directed the County to correspond with Forest, Park and Wildlife Service regarding any habitat protection areas in the vicinity and to correspond with the Bay Forester for that region regarding landscaping and afforestation.

The entire site was 10.75 acres; 10.53 acres was within the Critical Area. The County Commissioners approved an allocation of 2.7 acres of the site to be reclassified as LDA with the remaining portion of the property remaining as RCA. The 2.7 acres of

disturbed area contained the building footprint, septic reserve area, stormwater management, parking and driveway area.

Mr. Ventre said that an issue had arisen in regard to this proposal. Several months previously, in anticipation of receiving this project, Worcester County staff had telephoned for advice as to how much acreage could be deducted from the County's growth reserve, which was 408 acres. Mr. Ventre said that his response was that the smaller acreage, 2.7 acres, could be deducted. This had become the basis of the County's request, and had been subjected to all of the necessary County procedures. When the Commission office received this request, Mr. Ventre realized his mistake that this contravened express Commission policy adopted by the Commission in February, 1988, that any request for growth allocation on a parcel less than 20 acres must deduct the entire parcel acreage from the growth reserve. He said that the County wished to deduct only the 2.7 acres.

Mr. Gutman asked how many acres of growth reserve the County had initially. Mr. Ventre replied 408 acres.

Mr. Bostian introduced Mr. Chuck Fulton, who donated the property for a much-needed nursery school, Mr. Bob Gearhart, Chairman of the Board of Directors of the school, and Ms. Kelly Henry, Planning Director for Worcester County. Mr. Bostian said that it was important that the Commission not detain the construction of the nursery school based upon the County having acted on the mistaken advice given by Mr. Ventre; and, he stated, that the Commission's policy on growth allocation was only a policy, not a regulation, and to subject the County to its procedural actions all over again would delay construction for perhaps a year.

Chairman North added that when Mr. Ventre had brought the matter to his attention, he had pointed out that he had been guilty of making a misleading statement to the County authorities and the County had proceeded with the understanding that it would be able to deduct only 2.7 acres from its growth reserve. Chairman North said that he subsequently discussed this issue with Executive Director Taylor. Dr. Taylor's initial reaction was that if the Commission varied from its policy, that might set an undesired precedent. Chairman North said that he disagreed that it would set a precedent in that the reliability of the Commission and its staff should be paramount. In this situation, the Commission should stand by the information given by staff, and permit the County to proceed with an allocation of only 2.7 acres against its reserve. To do otherwise, would undermine the Commission's own credibility and reliability.

Mr. Hickernell stated his concern to be one of consistency. If the Commission did not legally bind itself in a way that would allow this issue to resurface, then he would be in agreement that the County should be allowed to proceed.

Chairman North reiterated that he did not believe this matter would set a precedent as this was a unique situation.

Mr. Gutman added that it was important that the Commission support its staff. He said that he did not believe an unwanted precedent would be established as this case was in itself, unique.

A motion was made and seconded that the Commission allow Worcester County to proceed in the construction of the Snow Hill Christian Nursery School and the amount of growth allocation would be deducted from Worcester County's growth reserve by 2.7 acres, and that this action would be based on the unique circumstances of an error made by a Commission staff member, and relied on by the County. The Commission hereby approved the growth allocation of 2.7 acres of the Worcester County growth reserve as a result of an error made by a Commission staff member. It would not set a precedent for any similar request in the future, based in part on a small alteration of the County's total growth allocation. And further, this action would not be considered as a precedent for future approbation of staff error, each individual situation having to be judged on its own basis.

The vote was 18-0 in favor.

Chairman North then asked Mr. Elbrich, Panel Chairman, and Ms. Anne Hairston to report on Harford County's request for a map change based on mistake. Ms. Hairston reported that Harford County requested an amendment concerning Riverside Business Park, part of a Planned Unit Development owned by Bata Land Company. The Commission previously awarded growth allocation to this parcel and adjusted the boundary for that growth allocation. The amendment would repeal the growth allocation which had been awarded to the property, and change the Critical Area designation from Resource Conservation Area to Intensely Developed Area on the basis of a mapping mistake.

She said that in May, 1989, Bata Land Company applied for growth allocation for the easternmost portion of Riverside Business Park, where they wished to develop 29 acres within the Critical Area. In July of that year, Bata Land Company applied for a map change from RCA to IDA by reason of mistake for the same area of their property. The growth allocation received final approval from the Critical Area Commission on February 7, 1990, after going through the County review and approval process, therefore the property was currently IDA. The boundary of the area receiving growth allocation was adjusted to conform to current development plans by a map amendment approved at the September, 1990 meeting.

Ms. Hairston said that the Harford County government was divided in support of this issue. The County Council passed the amendment over the veto of the County Executive and against the recommendation of the Planning Board. The County Administration remained opposed to the amendment. The public hearing was held on September 26th. No public other than representatives of the developer was present.

Ms. Hairston said that the land use of the Critical Area portion of the property as of December 1, 1985, the basis for Critical Area mapping, was farmland, forest, and wetlands. The area was designated RCA because it met the RCA criteria of being an area of nature-dominated environments and resource-utilization activities (e.g., agriculture, forestry). Riverside Business Park was zoned General Industrial, and had a Concept Plan Approval for the Planned Unit Development; however, these considerations were

not part of the mapping criteria.

She pointed out that the criteria for IDA require at least one of three features: 1) Housing density equal to or greater than 4 du/acre; 2) Industrial, institutional, or commercial uses are concentrated in the area; or 3) Public sewer and water collection and distribution systems are currently serving the area, and housing density is greater than 3 du/acre.

Ms. Hairston said that in opinion of the staff, the Critical Area portion of Riverside Business Park did not meet the specific conditions of the IDA criteria, even though it was on the same large parcel as the existing portion of Riverside Business Park. Riverside Business Park did not meet items one or three, because those were aimed at residential property. For item two, there was no industrial development on or adjacent to the Critical Area portion of the site.

She said that the County Department of Planning and Zoning believed that the area was correctly and consistently mapped. The County policy used in Critical Area mapping for determining whether or not an area was considered served by sewer and water was that the area must have had water and sewer services actually in place on or immediately adjacent to the site as of December 1, 1985. Ms. Hairston said that the County Department of Public Works considers that the Critical Area portion of the site did not have water or sewer at that time. The County refined the Criteria's mapping rules by defining "area" as being 25 acres or more, under which the Critical Area portion of Riverside Business would be a separate area, to be mapped according to prevailing land use. Harford County notified all landowners in the Critical Area by mail at the time of mapping, including Bata Land Company, and no comments were received for Riverside Business Park.

Ms. Hairston reported that the Panel felt that because the area did not meet the specific conditions of the criteria, as interpreted and uniformly applied by Harford County, this amendment should be denied, and that the growth allocation which had been awarded was the appropriate channel to convey an IDA designation to the area.

Ms. Hairston said that there were representatives both from the developer and the County present at this meeting this day who might wish to address the Commission.

Ms. Langner asked if this was part of an industrial park. Ms. Hairston answered that it was part of a PUD of 1,500 acres. The lands were approved as part of the concept plans as an industrial park.

Deputy Secretary Cade asked what the total acreage of growth allocation was. Ms. Hairston answered that the parcel took 29 acres of growth allocation and the original total was 279 acres.

Mr. Gutman commented that it was a fairly significant percentage of growth allocation was allotted for this project. Ms. Hairston answered that it was also a PUD and had been designated a growth area by the County.

Mr. Deming asked if the request was initiated by the County or by the Bata Land Company. Ms. Hairston answered that Bata Land

Company had initiated the request. The Department of Planning and Zoning had opposed the idea. The Planning Board recommended denial of the amendment and the County Council passed it.

Mr. Paul Gilbert, President of Bata Land Company explained, with respect to the 29-acre growth allocation that they had received, Bata Land Company felt strongly that the initial mapping of that portion of the Business Park had been a mistake. Subsequently the Commission approved the 29-acre growth allocation and the modification to it. In 1976, Bata Land Company had embarked upon a long-term development project. In 1983, Bata Land Company submitted the concept plan for Riverside Business Park. Mr. Gilbert said that it was his understanding that if the County had taken less time to review and approve the concept plan, the project would have been Grandfathered from the Critical Area Program. In 1986, Bata was advised by the County Planning and Zoning office that the County would reserve the necessary growth allocation. He said that it was the Company's opinion that the staff recommendation was based on the fact that this parcel existed as an independent property. The parcel was served by water and sewer and roads, and was felt by Bata Land Company that it met the intent of the IDA criterion.

Ms. Langner asked if the Company considered this parcel as part of the industrial park. Mr. Gilbert answered affirmatively.

Mr. Zahniser remarked that if the Commission accepts Bata Land Company on these 29 acres, does not the same premise apply to the area on the other side of the railroad tracks owned by the same owner that was turned down by the County Council, and does it not still apply to the area that was granted the growth allocation in the more residential section on the southern end. Mr. Gilbert answered that there was no water and sewer other than that which runs along Route 40.

Mr. Hickernell noted that when this project was submitted to and approved by the Commission, the County had designated the area as RCA, and the Commission concurred with that designation.

Mr. Blake asked Mr. Meyer, Chief of the Environmental Planning section for Harford County's Planning and Zoning Office, why the County Administration would not want to try to recapture some growth allocation. Mr. Meyer answered that the Administration, Planning and Zoning specifically, was concerned that the County's mapping had been based on upon a set of criteria and standards that the County had tried to apply uniformly to each of the parcels where there were grey areas in question. For consistency, this was applied, based upon the land use that existed on the parcel as of December 1, 1985.

Mr. Deming asked what the criteria in the local Program was for mapping with regard to water distribution systems currently serving the area. Mr. Meyer answered that particular criterion was water and sewer to the parcel or area on December 1, 1985. The program also states that any undeveloped piece of land of 25 acres or greater is an "area", and shall be classified as RCA.

Mr. Whitson asked what exactly received concept approval. Mr. Gilbert answered that concept approval was given to the entire

project.

Mr. Bostian noted that the County had followed its procedures and rules correctly, and therefore, did not make a mistake in identifying this property.

Mr. Deming reminded the Commission that there was presently before the Court of Special Appeals a case in Kent County similar to this case. Kent County had a set of mapping rules and appropriately mapped a piece of land as RCA according to those rules. The owner of that land later stated that the general rule applied throughout the County, as applied to his parcel, was incorrect, and the County should have said that the designation applied to his property was a mistake. The County concurred, and the Commission has appealed that decision. The basis for the Commission's appeal was that there cannot be one rule for the County and another for an individual case.

Mr. Deming concurred with Mr. Bostian that if Harford County applied its rules consistently throughout the County a mistake could not be said to have been made.

Mr. Elbrich noted that a change to mapping should be considered on the basis of error or mistake and no other reason, and there had been no indication that an error in the mapping procedures had been made.

A motion was made and seconded that the Commission deny Harford County's request for an amendment to change the designation of Riverside Business Park from RCA to IDA on the basis of a mapping mistake. The vote was 16:0 in favor with Mr. Butanis and Ms. Langner abstaining.

Chairman North then asked Mr. Ventre to present a refinement for the Town of Easton's Critical Area Program. Mr. Ventre reported that the refinement was to recognize an annexation that had already taken place and was already recognized by the State of Maryland. He said that in April of 1989 and February of 1990, the Town of Easton annexed two parcels of land. These parcels lie within larger areas in the Town of Easton or on its western fringe which were identified in the Easton Critical Area Program as areas in which growth and development were anticipated, and to which they would be directed by cooperative Critical Area policies of the Town and the County respectively.

Under authority of the Critical Area Law as amended (Chapter 649, Acts of 1990), the Chairman determined that this annexation was a Program Refinement, and that this Commission should recognize this annexation and the changes in the Town boundary on the local Critical Area Program Maps. The Commission concurred with the Chairman's determination.

Chairman North asked Ms. Pudelkewicz to update the Commission on the Wharf at Handy's Point in Kent County. Ms. Pudelkewicz reported that this project proposed the expansion of an existing marina for land storage of boats and overflow parking. She said that it would necessitate clearing and extensive grading of approximately 2 acres of forested Buffer located on steep slopes of up to 60 feet in height for overflow parking and boat storage (nonwater-dependent uses). She said that expansion was possible

only within the existing Limited Marine District, which was entirely within the Buffer. The applicant attempted, through rezoning, to locate these proposed uses outside of the Buffer; however, the rezoning was denied last year. The existing marina was zoned Limited Marine District (LMD). LMD zoning extends 185 feet back from shore. Current uses include piers, fuel dock, travel lift, parking, loading areas, marina office, boat storage and marina shop. The remaining undeveloped portion of this LMD zone lay within a forested, steeply sloped Buffer. The 100-foot Buffer had been expanded to up to 260 feet due to steep slopes ranging from 15-50%, averaging over 25%. She said that the slopes are stable and protected by an adjacent marsh. The expanded Buffer encompasses all of the remaining LMD land. This project proposes to grade and clear the Buffer, and put in nonwater-dependent uses.

Ms. Pudelkewicz said that development on steep slopes (> 15%) was prohibited in LDA unless it is the only effective way to maintain or improve the stability of the slope. Clearing in the Buffer should only be permitted to gain access to water-dependent facilities, and in LDAs, a maximum of 30% of existing forest land may be cleared. She said that the forested area proposed for clearing was potential Forest Interior Dwelling Bird habitat. She also reported that the presence of water dock, a rare plant species, had been documented in the marsh as late as 1987.

Ms. Pudelkewicz also reported that the Kent County Planning Commission granted preliminary site plan approval to Wharf at Handy's Point on August 2, 1990, and that final site plan approval was proposed for October 4, 1990. She said that a letter was sent on May 25, 1990, from Ren Serey to Elinor Gawel opposing this project and that CAC staff appeared before the Kent County Planning Commission to oppose preliminary site plan approval. Chairman North and staff met with the Kent County Planning Commission after their vote of preliminary approval to express the Commission's concern.

She said that if the Kent County Planning Commission grants final site plan approval, Commission staff will seek a "stay of action" and appeal final site plan approval.

Mr. Deming said that this issue had been discussed by Assistant Attorney General George Gay with Commission staff and the suggestion would be that both Mr. Gay and staff attend the Planning Commission meeting the following day, and if the Planning Commission intends to give final site plan approval for this project, the Critical Area Commission be prepared to note an appeal and to ask the court to enjoin any activity that would irreparably damage the resources present on the site described by Ms. Pudelkewicz, until the appeal can be heard.

A motion was made and seconded that the Commission support the position of the staff and authorize the legal staff of the Commission to make the appropriate appearance in court in support of this position. The vote was unanimously in favor.

Chairman North then asked Mr. Deming to update the Commission on the Sylvain Pool variance. Mr. Deming explained that a variance was granted to Mr. Sylvain by an administrative law judge in Anne

Arundel County, to allow him to build a pool in the Buffer on his property. Commission staff felt that although the administrative law judge's reasoning for granting this variance was incorrect, Mr. Sylvain had completed construction of the pool, therefore Critical Area Commission staff had sent a letter to the Board of Appeals to withdraw the appeal.

OLD BUSINESS

Chairman North announced that Mr. Harry Chapin of the Maryland Stadium Authority would address the Commission on its activities. Mr. Chapin reported that MSA had been engaged in grading for 1,700 linear feet of track. The track was being moved laterally to a maximum of 50 feet from its original lie. A drainage ditch had been dug and seeding and mulching had been performed for this area. He said that MSA had submitted a letter to the Commission giving detail of the work performed for this project.

NEW BUSINESS

The Panel for Talbot County Growth Allocation was chosen with Bill Corkran, Shepard Krech, Tom Jarvis, Steele Phillips and Roger Williams comprising the members.

Mr. Glendening reported that Prince George's County had completed the preparation of its "Property Owner's Guide to the Critical Area" and it was now ready for distribution.

Mr. Elbrich displayed the Coastal Heritage posters that his office had prepared and stated that they were available through the Planning Office.

There being no further business, the meeting was adjourned.

AGENDA

*Press Times
Lady Make
Press Release*

November 7, 1990

Chesapeake Bay Critical Area Commission
Drayton Manor
Worton, Maryland

1:00 - 1:10 Approval of Minutes of October 3, 1990 John C. North, II
Chairman

UPDATE

1:10 - 1:30 Stadium Authority Dawnn McCleary
MSA Representative

*Ardath Cade moved
unanimous 2nd By Kay Langner. 2 days past the 90 days by
extension formal.*

PROJECTS

1:30 - 1:45 Department General Services Claudia Jones,
Regional Refueling Station Sam Bowling &
A.A. Co. Vote Kathryn Langner-
Co-Chairman

*unanimous Kay moved
John seconded.*

1:45 - 2:15 University of Maryland Elizabeth Zucker,
Horn Point Lab - Environ- Sam Bowling and
mental Education Center Kathryn Langner-
- Vote Co-Chairman

*unanimous Kay moved
John seconded.*

2:15 - 2:35 State Highway Administration Susan Barr, Planner
Route 313 - Eldorado to Sam Bowling and
Galestown Kathryn Langner-
- Vote Co-Chairman

*unanimous Kay Langner
move*

UPDATE

2:35 - 2:55 Wharf at Handy Point George Gay, *Patricia Pudelke -*
Assist. Atty. *Wiley*
General

*Ship - that we re-
commend to Kent
Co. that they use
growth allocation*

2:55 - 3:30 Old Business John C. North, II
Chairman

*Ardath
Christopher
Columbus
Research
Center*

New Business John C. North, II
Chairman

*Baltimore
City -
street there*

*There is coffee for everyone
in the last room at the end of the
hallway.*

Judge John C. North II.

Dr. Shepard Kreech

Wm. Cochran

Victor Butaric

Bill Bastian

Rich Naylor for Dept of Envt.

Ship Zabinec

Ron Adkins

Jany Dubet for Ron Kaitner

Bob Schweplein for Dept. of
Economic +
Employment
Dev.

Lam Bowling

Tom Jarvis

Bob Price Jr.

Roger Williams

Joe Elbuck

Kathryn Lagnee

Audith Cagle - for Department
of Housing
and Comm.

James E. Suttman

Carolyn Watson for Dev.

Parris Glendon
19

Ronald Heiburnell

MARYLAND STADIUM AUTHORITY

Searcy

WILLIAM DONALD SCHAEFER
GOVERNOR



MEMBERS

HERBERT J. BELGRAD
CHAIRMAN

WILLIAM K. HELLMANN
JOHN P. McDONOUGH
JOSHUA I. SMITH
W. ROBERT WALLIS

BRUCE H. HOFFMAN, P.E.
EXECUTIVE DIRECTOR

SUITE 2450, THE WORLD TRADE CENTER
BALTIMORE, MARYLAND 21202
(301) 333-1560

November 2, 1990

RECEIVED

NOV 5 1990

The Honorable John C. North II
Chairman, Chesapeake Bay Critical Area Commission
275 West Street, Suite 320
Annapolis, MD 21401

DNR
CRITICAL AREA COMMISSION

Dear Judge North:

The purpose of this letter is twofold. First, I would like to provide the Commission with our current plans for construction within the Critical Area, presenting new proposals that we have developed following discussions with the Commission and its staff. Second, I would like to request an extension of the 90-day deadline for approving this project.

To recapitulate the basic facts, MSA's construction activities will disturb a total area of 98.3 acres. Of this disturbance, 11.6 acres fall within the 1,000-foot Critical Area zone. Prior to MSA activities, 10.6 of those 11.6 acres were covered with impervious surfaces.

When we appeared before the Commission on September 5, 1990, we proposed meeting the "10% Rule" through a 17% decrease in impervious surface within the Critical Area. Using the "simple method" of calculation, we concluded that the 17% reduction in impervious surface would be more than sufficient to comply with the Critical Area requirements. Some Commission members and staff expressed concerns regarding this conclusion. One concern was that the "simple method" was not appropriate for this situation. Some also indicated that reducing impervious areas within the Critical Area might be characterized as only "doing the minimum"; they hoped that the stadium project would be designed to exceed minimum requirements.

Since our meeting in September, we have revised our plans to address the concerns expressed by the Commission members. The results of these efforts are:

- o we will decrease the impervious surface in the Critical Area by approximately 21%, and
- o we now propose to build an extended detention pond providing additional means of water quality improvement.

We are now submitting our revised proposal for the Commission's review. Each of these items is discussed in further detail below.

Decrease in Impervious Surface Area

As a result of relatively minor changes in our plans, MSA's development within the Critical Area will decrease the impervious area from 10.6 (pre development) to 8.4 acres (post development), a reduction of 2.2 acres (20.7%). We originally anticipated decreasing the impervious area within the Critical Area by 1.8 acres, or 17%. The currently calculated reduction in impervious area results in a negative pollutant removal requirement as calculated using the "10% Rule: Simple Method" guidelines (see enclosed technical information).

Extended Detention Pond

In light of the Commission's concerns, we now propose an additional measure to further improve stormwater quality: the construction of an extended detention pond. Several Critical Area Commissioners and staff suggested the addition of a detention pond on the stadium site. We now propose to build such a pond adjacent to the southeast corner of the parking lot, next to Ostend Street and the MARC railroad tracks. In addition, we plan to construct a long, shallow collection forebay connected to the pond and extending along most of the southern end of the site. This forebay will collect and pretreat stormwater before it enters the pond.

These facilities will provide treatment not only for most of the impervious surface within the Critical Area, but will also treat 4.8 acres immediately north of the boundary of the 1,000-foot zone. The facilities will cover 19,000 square feet of surface area, and will receive and provide a 24-hour settling time for the "first flush", or first half

inch of runoff, from the southernmost 10.5 acres of MSA parking lots. Such a pond operating at 25 percent pollutant removal efficiency can remove 8.9 pounds per year of pollutants as calculated using the "10% Rule: Simple Method" guidelines.

We have not yet developed final specifications for design and maintenance of this pond. We intend to work with your staff and that of the Maryland Department of the Environment in refining the design of the facility. One possibility now under consideration is development of the pond and the collection bay as wet ponds, planting appropriate vegetation.

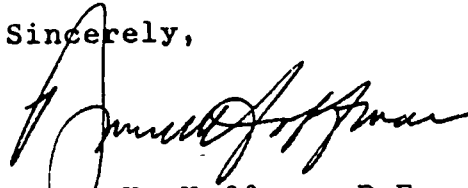
Attached please find a plan of the southern portion of the site indicating the pond, as well as a technical document including our calculations of the stormwater management benefits of the pond and of the decrease in impervious surface.

Finally, I would like to request that the 90-day deadline for approving this project be extended by two days to allow us to seek Commission approval at the December 5th meeting. That schedule will provide time to continue working with your staff on final plans for the Critical Area portion of the site. In the interim we also will be developing final stormwater management plans to meet MDE's approval. We recognize that while the Commission does not have jurisdiction over the site beyond the Critical Area, it is understandably interested in the stormwater management plans for the entire site. The Department of the Environment and MSA have not yet agreed to the components of the stormwater management plan for the site. (Consequently, there is a possibility that planned improvements within the Critical Area may further change.) We would like to be able to present the most accurate and comprehensive information possible to the Commission when we seek its approval; therefore we think it best to defer final Critical Area Commission action until the December meeting.

If you approve the two-day extension, we will present a status report to the Project Evaluation Subcommittee and to the full Commission on November 7. At that meeting we hope to obtain the Commission's tentative approval, subject to further evaluation of our proposals as they are developed in more detail. We will then seek final approval at the December 5 meeting.

Thank you for your assistance in this issue; if I can be of any help please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Bruce H. Hoffman".

Bruce H. Hoffman, P.E.
Executive Director

cc: Dr. Sarah Taylor
Mr. Ren Serey
Ms. Dawnn McCleary
Mr. Robert Hewitt

November 1, 1990

CAMDEN YARDS SPORTS COMPLEX

GENERAL SUMMARY

- o The Camden Yards Sports Complex is being developed by the Maryland Stadium Authority (MSA) in two phases. The Stormwater Management and Critical Area studies and data submitted to date pertain only to the first phase of development (Phase I). Phase II development will require separate analysis and submittal.
- o Phase I development (currently underway) includes demolition of existing structures, relocation and construction of railroads, construction of the baseball park, construction of approximately 5,000 on-site parking spaces.
- o Phase II development (time schedule unknown at this time) includes construction of a Football Stadium on the southern half of the site and possible construction of additional surface and/or structured parking to replace up to approximately 2,500 parking spaces which could be displaced by the football stadium.
- o The baseball park is on schedule to be operational for opening day April, 1992.
- o The limit of disturbance for this project is 98.3 acres. 90 acres are owned by the MSA. The remainder is owned by the City of Baltimore and CSX Railroad.
- o Prior to development of the Sports Complex, this area was primarily industrial. These now abandoned industries included a chemical plant, a sign painting shop, a steam generating facility, a food processing plant and several manufacturing facilities. Numerous transformers and underground storage tanks existed on the site prior to Phase I development as documented by the Maryland Department of the Environment Hazardous and Solid Waste Management Administration (HSWMA) in a memorandum dated April 14, 1988. These transformers and tanks have been or will be removed from the site as a part of Phase I development.
- o Analysis of existing and proposed site conditions is based on the best information available at this time.



RUMMEL · KLEPPER & KAHL consulting engineers

CAMDEN YARDS SPORTS COMPLEX

CRITICAL AREA SUMMARY

- o The Camden Yards Sports Complex project will disturb 11.6 acres of land in the 1000' Critical Area Zone. This includes 1.9 acres south of Ostend Street owned by CSX Railroad. The Critical Area 100' Buffer is not within the limit of disturbance.
- o This area is classified as an "Intensely Developed Area" and therefore is subject to the "10% Rule".
- o The site drains into the Middle Branch of the Patapsco River via existing closed storm drain systems. (These include the 12' x 8' Fremont Avenue drain and the 7.5' x 4.5' Howard Street drain). The Middle Branch is approximately 250 feet south of the limit of disturbance.
- o There are no wetlands within the limit of disturbance.
- o There is no 100 year floodplain within the limit of disturbance.
- o In the pre-development condition, 0.9 acres of land within the Critical Area was on slopes greater than 15%. Less than half of this area was vegetatively-stabilized. After development, approximately .3 acres of land will be on slopes greater than 15%. All of this area will be either vegetatively stabilized or covered with newly placed rip-rap and railroad ballast.
- o In the pre-development condition, 10.6 acres of impervious area existed within the Critical Area limits. Using the most current design plans for the Sports Complex, we have now determined that a decrease of 2.2 acres of impervious area will be the result of the project. This is a 20.7% decrease in impervious area from pre-development conditions. This considerable reduction produces a negative pollutant removal requirement as calculated using the "10% Rule - Simple Method" guidelines.

Note: Previous calculations showed impervious area decreases of 19% and 17%. These discrepancies are due to the use of plans that were not 100% final design but represented the best information available at the time.



RUMMEL • KLEPPER & KAHL *consulting engineers*

- o We believe an Extended Detention Pond located on the southeast corner of parking lot F, adjacent to Ostend Street and MARC Track No. 2, is the most economical and practical stormwater management solution (see the enclosed Preliminary Stormwater Management Plan, drawing no. 3P-SWM). Using the "10% Rule - Simple Method" guideline, an Extended Detention Pond (operating at 25% removal efficiency) will remove 8.9 pounds per year of pollutants. We believe such a pond in conjunction with the decrease of imperviousness will ensure improved water quality within the Critical Area.

- o It should be noted that use of the "10% Rule - Simple Method" has been questioned as an appropriate methodology for this project. RK&K knows of no other practical methods to calculate pollutant loadings for this site. It is our understanding that the "10% Rule - Simple Method" is the methodology to be followed in Critical Area analyses.



RUMMEL • KLEPPER & KAHL *consulting engineers*

October 25, 1990

CAMDEN YARDS SPORTS COMPLEX

GENERAL SUMMARY

- o The Camden Yards Sports Complex is being developed by the Maryland Stadium Authority (MSA) in two phases. The Stormwater Management and Critical Area studies and data submitted to date pertain only the first phase of development (Phase I). Phase II development will require separate analysis and submittal.
- o Phase I development (currently underway) includes demolition of existing structures, relocation and construction of railroads, construction of the baseball park, construction of approximately 5,000 on-site parking spaces.
- o Phase II development (time schedule unknown at this time) includes construction of a Football Stadium on the southern half of the site and possible construction of additional surface and/or structured parking to replace up to approximately 2,500 parking spaces which could be displaced by the football stadium.
- o The baseball park is on schedule to be operational for opening day April, 1992.
- o The limit of disturbance for this project is 98.3 acres. 90 acres are owned by the MSA. The remainder is owned by the City of Baltimore and CSX Railroad.
- o Prior to development of the Sports Complex, this area was primarily industrial. These now abandoned industries included a chemical plant, a sign painting shop, a steam generating facility, a food processing plant and several manufacturing facilities. Numerous transformers and underground storage tanks existed on the site prior to Phase I development as documented by the Maryland Department of the Environment Hazardous and Solid Waste Management Administration (HSWMA) in a memorandum dated April 14, 1988. These transformers and tanks have been or will be removed from the site as a part of Phase I development.
- o Analysis of existing and proposed site conditions is based on the best information available at this time.



RUMMEL • KLEPPER & KAHL *consulting engineers*

CAMDEN YARDS SPORTS COMPLEX

STORMWATER MANAGEMENT SUMMARY

- o RK&K submitted a Stormwater Management Report addressing water quantity and water quality issues for the Phase I development to the Maryland Department of the Environment (MDE) on May 18, 1990. A separate report will be developed for Phase II development.
- o The May 18, 1990 report stated that the Sports Complex development would result in an 11% decrease of existing site impervious area. Using the most current design plans for the Sports Complex, we have now determined that an increase of 3.5 acres of impervious area will be the result of the project. This is a 4.3% increase over existing conditions. It appears that this discrepancy is due to the use of plans that were not 100% final design but represented the best information available during the time the report was prepared.
- o As stated in the report, RK&K recommends a waiver of stormwater quantity controls due to the stable conveyance via closed storm drain systems to tidewater (Middle Branch of the Patapsco River). Existing and proposed storm drain systems have been or will be analyzed to ensure that adequate capacities are provided.
- o To meet MDE regulations, it is our understanding that stormwater quality control must be provided for the additional 3.5 acres of impervious area within the proposed development.
- o We believe an Extended Detention Dry Pond located on the southeast corner of parking lot F, adjacent to Ostend Street and MARC Track No. 2, is the most economical and practical stormwater management solution (see the enclosed Preliminary Stormwater Management Plan, drawing no. 3P-SWM). A pond in this location can be sized to provide stormwater quality control of 10.5 acres of impervious area south of the proposed ridge line in parking lots E and F. A "forebay" to the pond will allow pre-treatment of the majority of runoff generated from the 10.5 acres. (These computations are based on storage of the first one-half inch of runoff from impervious areas).
- o It is our opinion that an Extended Detention Dry Pond will meet and exceed both MDE and Critical Area Commission requirements.



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CAMDEN YARDS SPORTS COMPLEX

CRITICAL AREA SUMMARY

- o The Camden Yards Sports Complex project will disturb 11.6 acres of land in the 1000' Critical Area Zone. This includes 1.9 acres south of Ostend Street owned by CSX Railroad. The Critical Area 100' Buffer is not within the limit of disturbance.
- o This area is classified as an "Intensely Developed Area" and therefore is subject to the "10% Rule".
- o The site drains into the Middle Branch of the Patapsco River via existing closed storm drain systems. (These include the 12' x 8' Fremont Avenue drain and the 7.5' x 4.5' Howard Street drain). The Middle Branch is approximately 250 feet south of the limit of disturbance.
- o There are no wetlands within the limit of disturbance.
- o There is no 100 year floodplain within the limit of disturbance.
- o In the pre-development condition, 0.9 acres of land within the Critical Area was on slopes greater than 15%. Less than half of this area was vegetatively stabilized. After development, approximately 3 acres of land will be on slopes greater than 15%. All of this area will be either vegetatively stabilized or covered with newly placed rip-rap and railroad ballast.
- o In the pre-development condition, 10.6 acres of impervious area existed within the Critical Area limits. Using the most current design plans for the Sports Complex, we have now determined that a decrease of 2.2 acres of impervious area will be the result of the project. This is a 20.7% decrease in impervious area from pre-development conditions. This considerable reduction produces a negative pollutant removal requirement as calculated using the "10% Rule - Simple Method" guidelines.

Note: Previous calculations showed impervious area decreases of 19% and 17%. These discrepancies are due to the use of plans that were not 100% final design but represented the best information available at the time.



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- o We believe an Extended Detention Dry Pond located on the southeast corner of parking lot F, adjacent to Ostend Street and MARC Track No. 2, is the most economical and practical stormwater management solution (see the enclosed Preliminary Stormwater Management Plan, drawing no. 3P-SWM). Using the "10% Rule - Simple Method" guideline, an Extended Detention Dry Pond (operating at 25% removal efficiency) will remove 8.9 pounds per year of pollutants. We believe such a pond in conjunction with the decrease of imperviousness will ensure improved water quality within the Critical Area.
- o It should be noted that use of the "10% Rule - Simple Method" has been questioned as an appropriate methodology for this project. RK&K knows of no other practical methods to calculate pollutant loadings for this site. It is our understanding that the "10% Rule - Simple Method" is the methodology to be followed in Critical Area analyses.
- o It is our opinion that an Extended Detention Dry Pond will meet and exceed both Maryland Department of the Environment and Critical Area Commission requirements.



STAGE/STORAGE FOR POND + FOREBAY:

ELEV.	(SF) AREA	AVG AREA	H	ΔFT^3	ΣFT^3
7	4640				0
		8184	3	24552	
10	11728				24552
		15360	2	30720	
12	18992				55,272

STAGE/STORAGE FOR POND ONLY:

ELEV	AREA	AVG AREA	H	ΔFT^3	ΣFT^3
7	4640				0
		6472	3	19416	
10	8304				19416
		9824	2	19648	
12	11344				39,064

- Water Quality Storage Volume Req'd For 10.5 acres impervious:
(1/2 inch per impervious acre)

$$\frac{1}{2} \text{ in} \times 10.5 \text{ ac} \times \frac{1}{12} \times 43560 = 19,060 \text{ FT}^3$$

\therefore Volume obtained @ Pond Elev ≈ 9.9

- Find required discharge for 24 hr detention time:

$$Q = \frac{V_r}{T} = \frac{19060}{24(3600)} = 0.22 \text{ cfs}$$

- Find orifice size:

$$Q = CA\sqrt{2gh}$$

$$A = \frac{0.22}{4.81(9.9-7.5)^{1/2}} = 0.30 \text{ FT}^2 = 4\frac{1}{4} \text{ in}^2$$

Use 2" x 2" hole

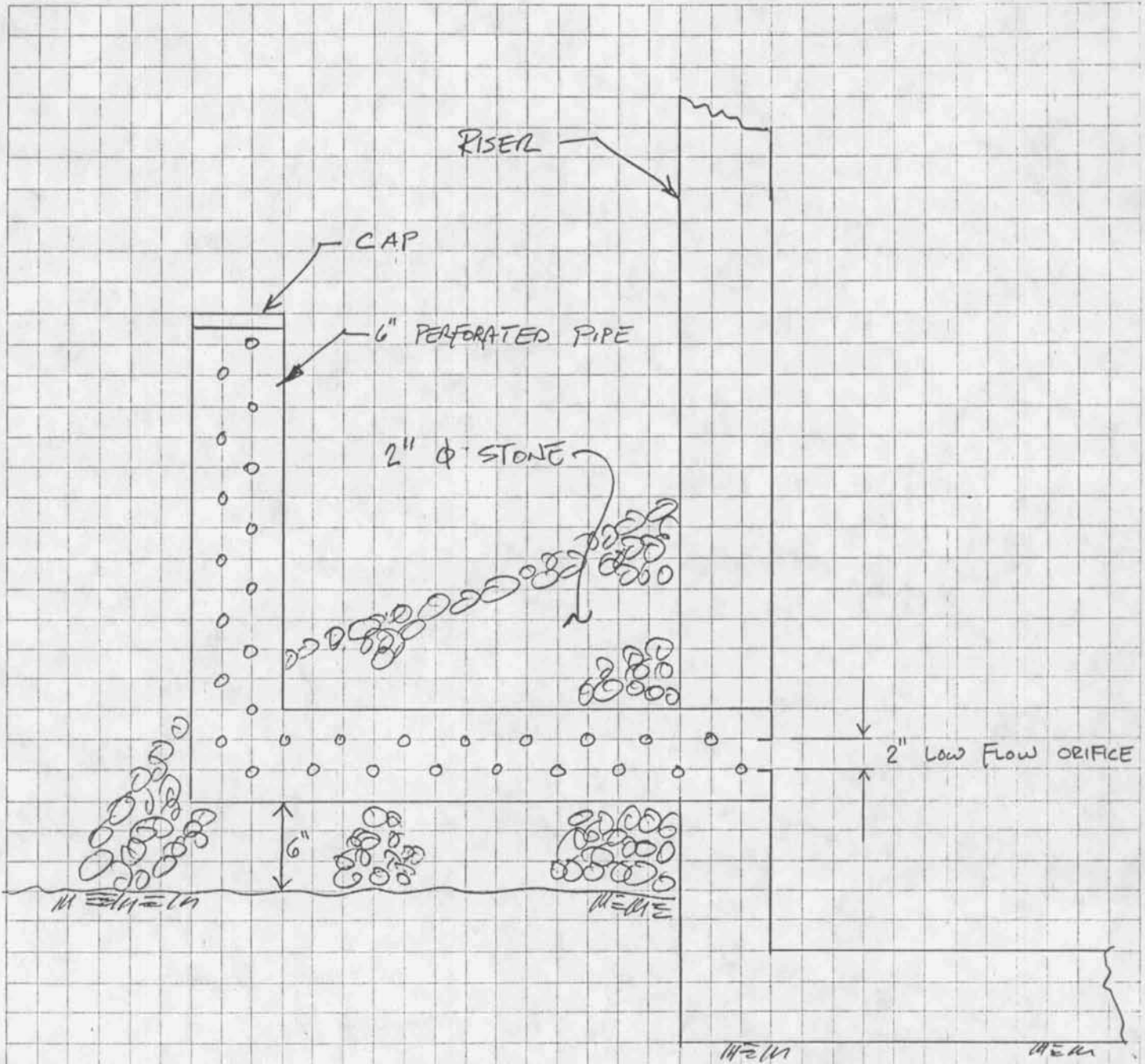
OR

2 1/4" ϕ hole

BY HE DATE 10/10/90
CHKD. BY _____ DATE _____

SUBJECT STADIUM SWM

SHEET NO. _____ OF _____
JOB NO. _____



EXTENDED DETENTION DEVICE

PRELIMINARY SKETCH

No SCALE

Chapter 1: Nine-Step Process

WORKSHEET A: REDEVELOPMENT

CRITICAL AREA

Step 1: Estimate parameters.

	Pre-development	Post-development
P (normal year)	= 40 inches	= 40 inches
Pj (annual)	= 0.9	= 0.9
A (within Critical Area)	= <u>11.6</u> acres	= <u>11.6</u> acres
Ia: structures	= <u> </u> acres	= <u> </u> acres
parking lot	= <u>10.6</u> acres	= <u>8.4</u> acres
roadway	= <u> </u> acres	= <u> </u> acres
other	= <u> </u> acres	= <u> </u> acres
total	= <u>10.6</u> acres	= <u>8.4</u> acres
I = (Ia total/A)	= <u>91.4</u> %	= <u>72.4</u> %
Rv = 0.05 + 0.009(I)	= <u>.87</u>	= <u>.70</u>
C: I = to or > 20%	= 1.08 mg/l	= 1.08 mg/l
I < 20%	= 0.26 mg/l	= 0.26 mg/l

Step 2: Calculate the pre-development load (L pre).

$$L \text{ pre} = (P)(P_j)(R_v)/(12) * (C)(A)(2.72)$$

$$= (40)(0.9)(.87)/(12) * (1.08)(11.6)(2.72) = \underline{88.9} \text{ lbs/year}$$

Step 3: Calculate the post-development load (L post).

$$L \text{ post} = (P)(P_j)(R_v)/(12) * (C)(A)(2.72)$$

$$= (40)(0.9)(.70)/(12) * (1.08)(11.6)(2.72) = \underline{71.5} \text{ lbs/year}$$

Step 4: Calculate the pollutant removal requirement (RR).

$$RR = L \text{ post} - (0.9 * L \text{ pre})$$

$$= \underline{71.5} - (0.9 * \underline{88.9}) = \underline{-8.5} \text{ lbs}$$

Step 5: Select BMP options using the screening tools and list them below. Then calculate the load removed for each option.

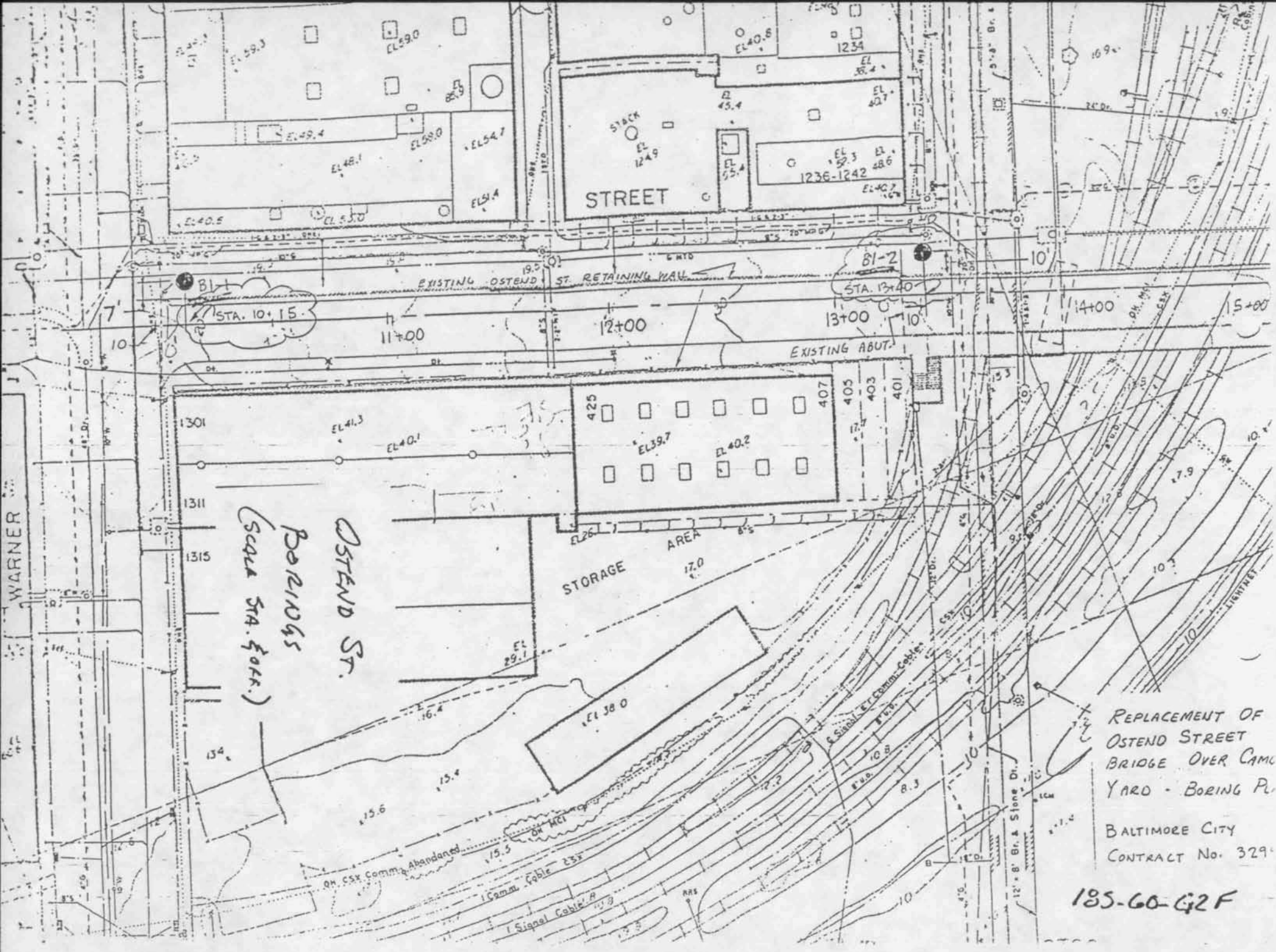
Selected Option	(Removal Efficiency (%/100))	* (Fraction of Drainage Area Served)	* (L post (Step 3))	= Load Removed
Ex. Det. Dry Pond (Design 2)	.25	* $\frac{5.86}{11.6} = .50$	* <u>71.5</u>	= <u>8.9</u> lbs
_____	_____	* _____	* _____	= _____ lbs
_____	_____	* _____	* _____	= _____ lbs
_____	_____	* _____	* _____	= _____ lbs

If the Load Removed is equal to or greater than the pollutant removal requirement (RR) calculated in Step 4, then the on-site BMP option complies with the 10% Rule.

THIS WORKSHEET IS TAKEN FROM "A FRAMEWORK FOR EVALUATING COMPLIANCE WITH THE 10% RULE IN THE CHESAPEAKE BAY CRITICAL AREA", GUIDANCE PAPER NO. 5.

Table 1.1: Estimated Long-Term Phosphorus Removal Efficiency for Selected Urban Best Management Practices

BMP	SIZE	REMOVAL RATE (%)
DRY POND	Design 1 2 year design storm, peak discharge control only	5
EXTENDED DETENTION DRY POND	Design 2 First flush runoff volume detained for 6-12 hours	25
	Design 3 Runoff volume produced by 1 inch detained for 24 hours	45
	Design 4 As in Design 2, but with shallow marsh in bottom stage	60
WET POND	Design 5 Permanent pool equal to 0.5 inch runoff per impervious acre	35
	Design 6 Permanent pool equal to $2.5 \cdot V_r$, V_r equal to mean storm runoff	55
	Design 7 Permanent pool equal to $4.0 \cdot V_r$, approx. 2 weeks retention	65
INFILTRATION TRENCH	Design 8 Exfiltrates first flush, 0.5 inch runoff per impervious acre	50
	Design 9 Exfiltrates 1.0 inch runoff per impervious acre	65
	Design 10 Exfiltrates all runoff up to the 2 year design storm	70
INFILTRATION BASIN	Design 8 See infiltration trench, Design 8	50
	Design 9 See infiltration trench, Design 9	65
	Design 10 See infiltration trench, Design 10	70
POROUS PAVEMENT	Design 8 See infiltration trench, Design 8	50
	Design 9 See infiltration trench, Design 9	65
	Design 10 See infiltration trench, Design 10	75
WATER QUALITY INLET	Design 11 400 cubic feet wet storage per impervious acre	10
FILTER STRIP	Design 12 20 foot wide turf strip	10
	Design 13 50 foot wide forested strip plus 4 feet/1% slope, with a level spreader	75
GRASSED SWALE	Design 14 High slope swales with no check dams	5
	Design 15 Low gradient swales with check dams	20
LAND USE CONTROL	Design 16 Reduce imperviousness	1% per 1%



81-1
STA. 10+15

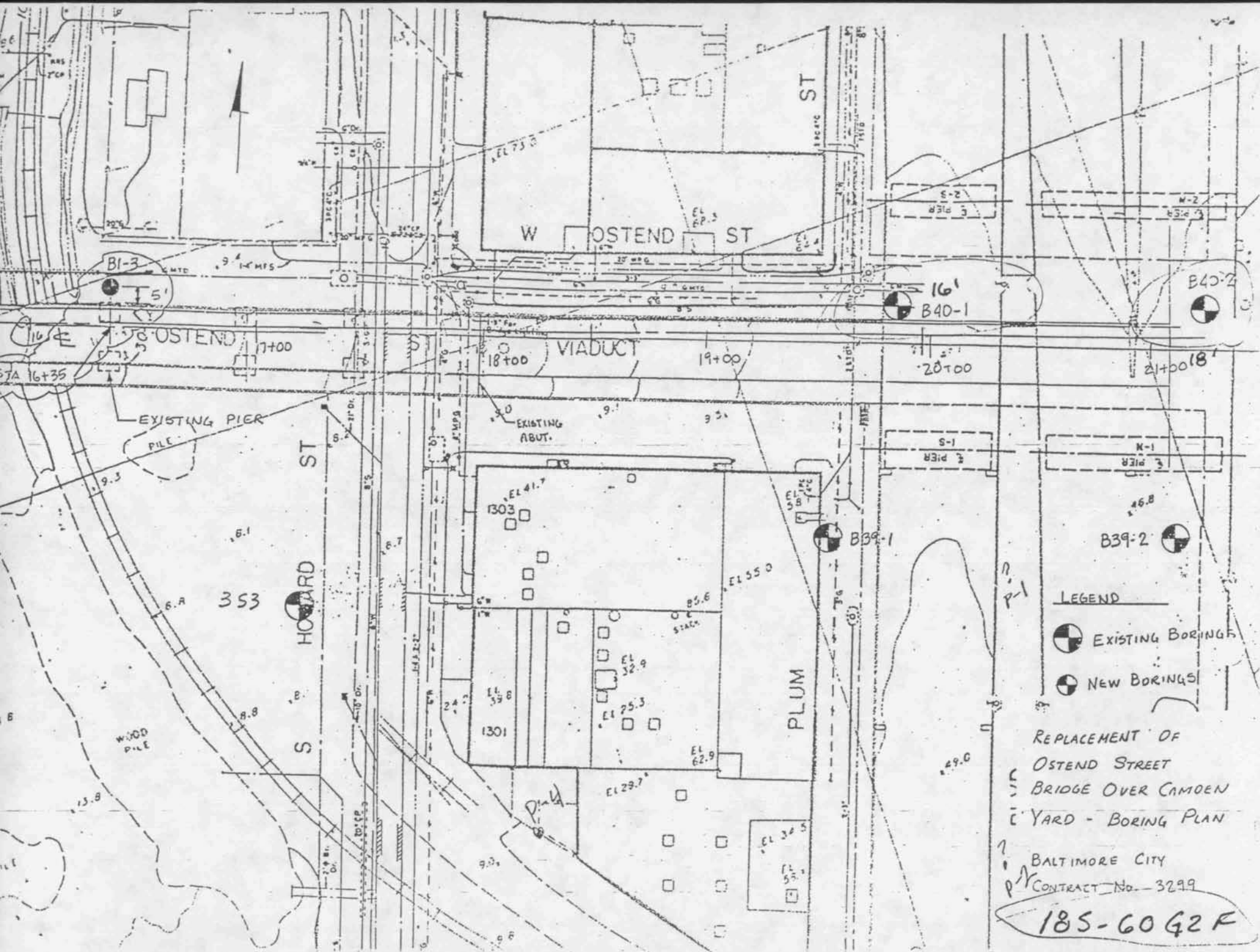
81-2
STA. 13+40

*BORINGS
OSTEND ST.
(SCALE STA. 5000')*

REPLACEMENT OF
OSTEND STREET
BRIDGE OVER CANAL
YARD - BORING PL.

BALTIMORE CITY
CONTRACT No. 329

185-60-62F



LEGEND

EXISTING BORINGS

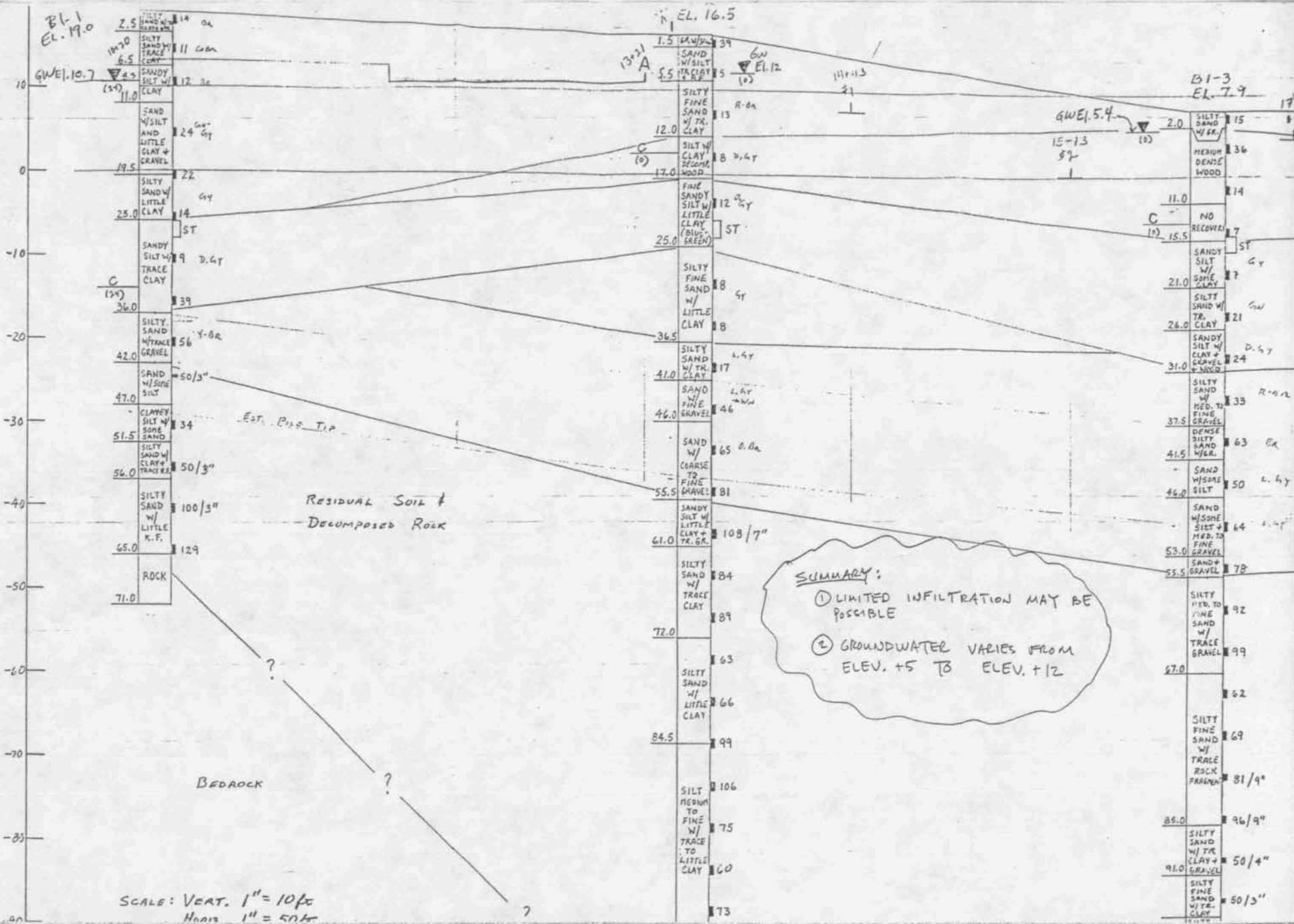
NEW BORINGS

REPLACEMENT OF
OSTEND STREET
BRIDGE OVER CAMDEN
YARD - BORING PLAN

BALTIMORE CITY

CONTRACT No. 3299

185-6042 R



STAFF REPORT

November 7, 1990

Applicant: MD Department of General Services

Project: Addition of one gasoline dispenser to be located at the existing refueling site at the MD State Police Barracks in Annapolis

Recommendation: APPROVAL

Discussion:

The Department of General Services proposes a second gasoline dispenser to be connected to the Annapolis Barracks' existing 12,000 gallon gasoline tank. The site is in the Annapolis City limits. The majority of the site is in the Critical Area. The buffer will not be impacted. The work is 830 feet from College Creek.

The installation of the second dispenser will not require an increase in tank capacity. The dispenser will be placed above ground on four 12" diameter concrete cylinders.

The site is surrounded by intensely developed area. The Department of General Services proposes the construction of a shallow marsh to remove sediments and other pollutants from the site before flowing into an existing storm drain to an outfall at College Creek. Trees will also be planted along the State Archives service road across the street.

The Department of General Services was requested to select a site to serve as a central fueling location for State vehicles located at the State office complex in Annapolis. This is part of a State-wide Fuel Management Program initiated by the Governor to reduce dollars spent by State government on energy consumption.

The preferred central fueling site was at the Tawes building on Taylor Avenue in Annapolis; however, that site is located entirely within the Critical Area. It was determined that the primary refueling site should be located outside of the Critical Area.

Staff Contact: Claudia Jones

CRITICAL AREA COMMISSION

STAFF REPORT

October 31, 1990

PROJECT: University of Maryland, Horn Point Laboratory,
Residential Environmental Education Center

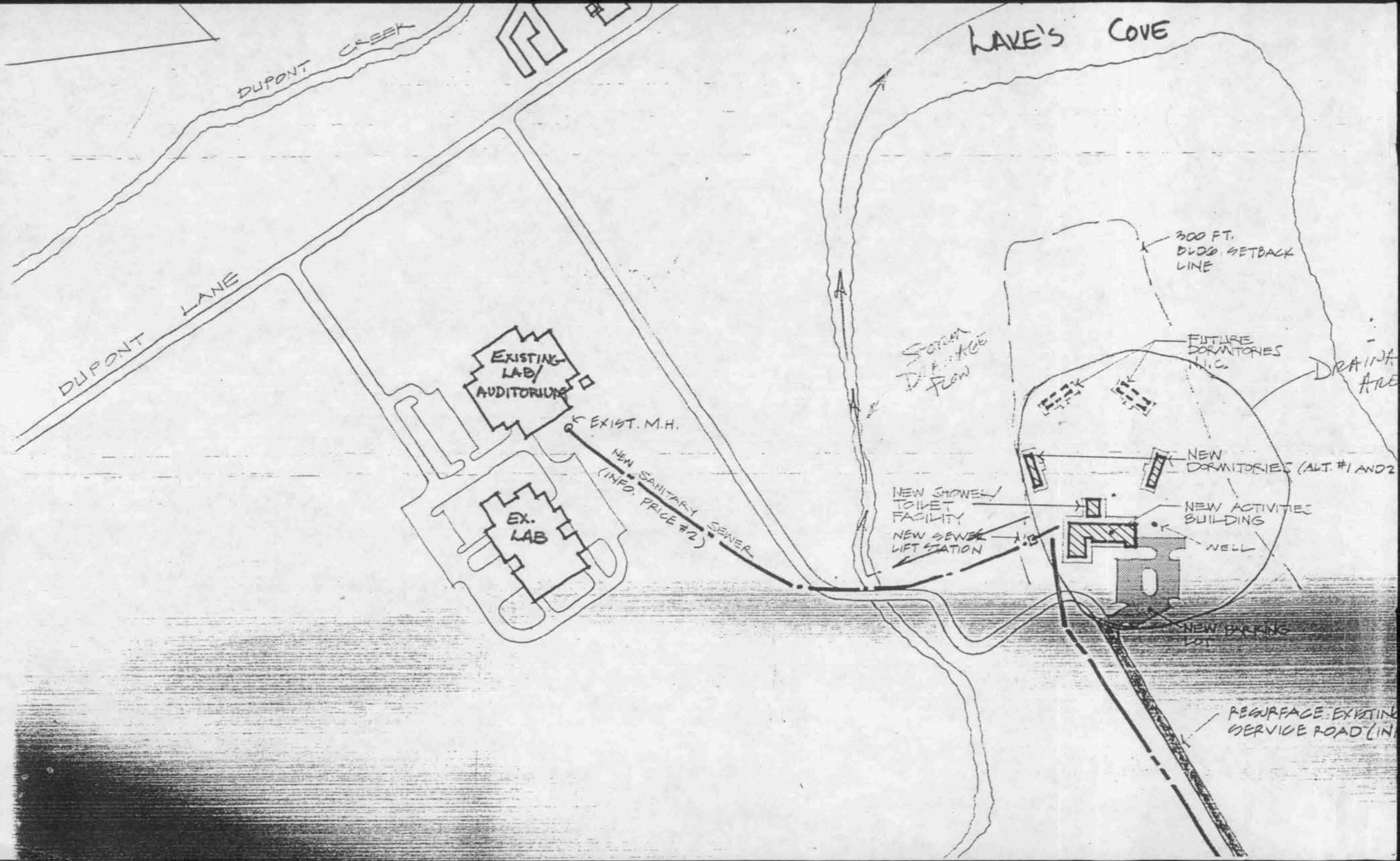
DISCUSSION: The education center is proposed as part of an existing program between the University of Maryland and the public school system which works to increase public awareness and involvement in environmental issues. The center will provide overnight facilities, thus students from all over the State will be able to participate in an extended environmental educational program. The proposal includes 4 buildings: an activities center, comfort station and 2 dormitories (Two additional dormitories may be added at a future date). A parking lot will be established and existing roads accessing Dupont Lane and Horn Point Road will be widened and resurfaced for vehicular traffic. Wastewater will be treated by connecting the education facility to the existing Horn Point treatment plant.

Notable aspects of the project include:

- Buildings, roads and parking lots will be located in open fields. No forest vegetation will be removed to establish structures.
- New structures will be located a minimum 300 feet from Lake's Cove.
- The total area of impervious surface on the site after development of the project will not exceed 15% of Horn Point's Critical Area.
- Application has been made to the Corps of Engineers for a permit to widen the existing road where it crosses a small area of wetlands.
- Stormwater quality will be managed through infiltration or extended detention. Plans are under review by MDE.
- The Forest, Park and Wildlife Service has been contacted about Habitat Protection Areas. The project will not affect the 2 endangered species occurring on the Horn Point property.
- Dorchester County's Planning Office has submitted a letter of consistency with the local Critical Area Program.

STAFF CONTACT: Liz Zucker

STAFF RECOMMENDATION: Approval with conditions that a Corps permit be obtained, that approval of stormwater management by MDE be finalized, and that the Commission receives documentation on both actions.



DUPONT CREEK

DUPONT LANE

LAKE'S COVE

EXISTING LAB/AUDITORIUM

EX. LAB

EXIST. M.H.

NEW SANITARY SEWER
(INFO. PRICE #2)

NEW SHOWER/TOILET FACILITY
NEW SEWER LIFT STATION

300 FT. BUDO. SETBACK LINE

FUTURE DORMITORIES (I.I.C.)

NEW DORMITORIES (ALT. #1 AND 2)

NEW ACTIVITIES BUILDING

WELL

NEW PARKING LOT

RESURFACE EXISTING SERVICE ROAD (IN)

SEWER DRAINAGE FLOW

DRAINAGE AREA

STAFF REPORT

November 7, 1990

PROJECT DESCRIPTION:

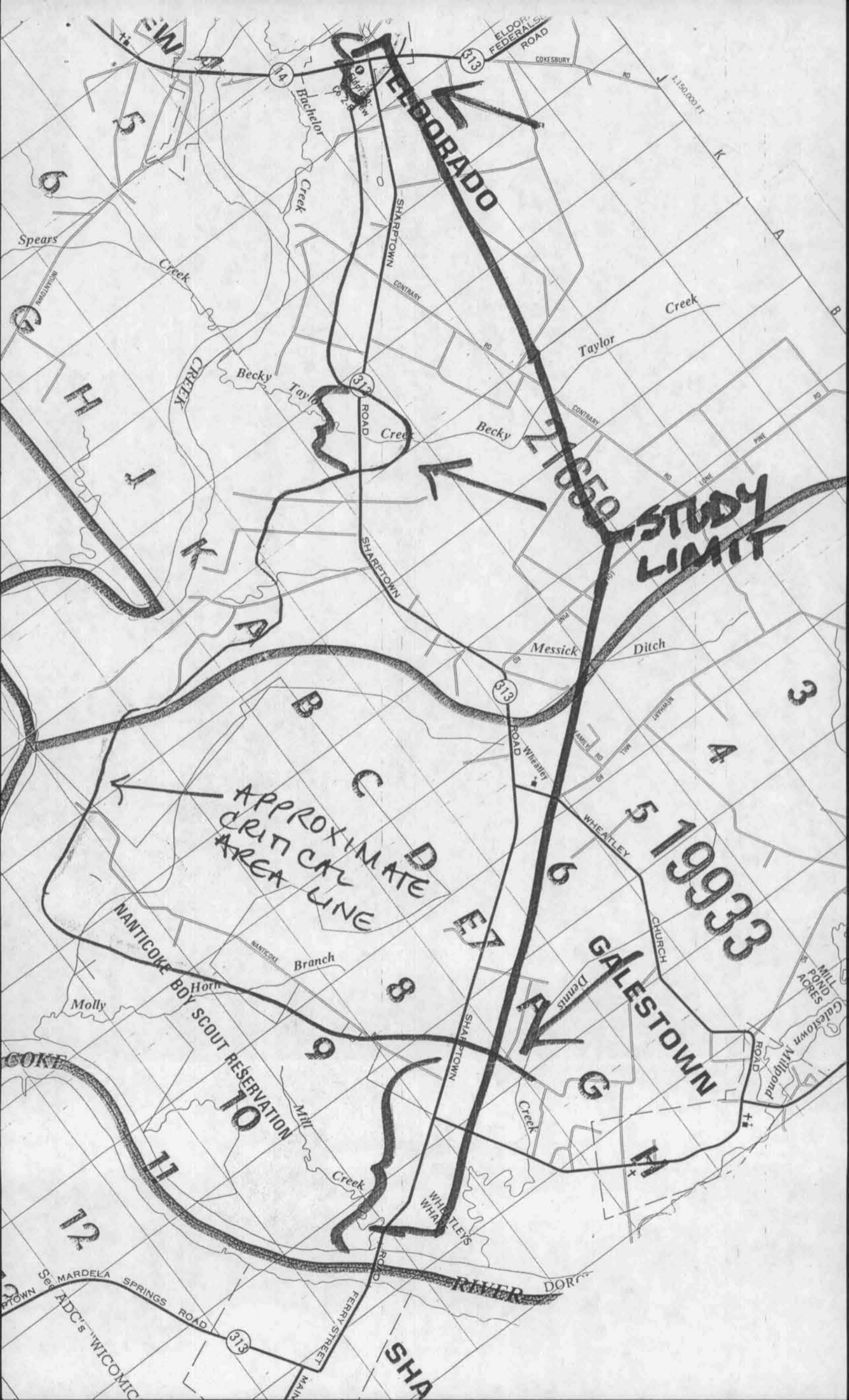
MD State Highway Administration is proposing to widen and resurface MD 313 in Dorchester County from Eldorado to near Galestown, just west of the Nanticoke River crossing into Wicomico County. The roadway is currently 22 feet wide with narrow shoulders, and will be widened to 24-feet with 8-foot shoulders. The project occurs within the Chesapeake Bay Critical Area in three (3) locations which are designated Resource Conservation Areas. No threatened or endangered species have been identified within the project corridor. Twenty-two percent, or 8.57 acres of right-of-way are located within the Critical Area. Total additional disturbance within the Critical Area by this project amounts to approximately 4.62 acres. Non-tidal wetlands impacts total .09 acres, and tidal wetlands impacts total .01 acres. A Section 404 permit application was submitted to the Corps of Engineers on 5/1/90. Corps of Engineers and DNR wetland mitigation will be determined upon approval of the permit. Subsequent to the Section 404 joint permit being issued, MD-Department of the Environment will begin the required water quality study. The road crosses Becky Taylor Branch or Creek, a perennial tributary to Marshyhope Creek with a width of 10-15 feet, and a depth of 0.5 to 1.5 feet. This stream has never been sampled for the presence of anadromous fish, but the potential exists for these fish to migrate upstream. Time of year construction restrictions for Class I waters and anadromous fish spawning periods will be adhered to from February 15th to June 30th, inclusive. Narrow strips of woodlands, totalling 0.31 acres will be removed within the Critical Area. A standard sediment and erosion control plan for the project includes procedures specified by SHA and DOE, and has been developed in accordance with Maryland's Standards and Specifications for Soil Erosion and Sediment Control. This plan is currently being reviewed by DOE.

STAFF RECOMMENDATION: Approval of the project subject to the following conditions:

- 1) That wetland mitigation be specified on a 1:1 basis. *Whatever Cop Eggs + Wetlands decide.*
- 2) That natural vegetation replacement within the 100-foot Buffer from Becky Taylor Branch be specified.
- 3) That 1:1 tree replacement for the .31 acres of trees removed within the Critical Area be specified. *Post Bond.*
- 4) That any threatened and endangered species habitat or Habitat Protection Areas in the vicinity be checked by submitting the project for processing through the FPWS internal review. Any advice received from FPWS in reference to protecting any habitats or species must be included in the project.

STAFF CONTACT: Susan Barr

Advertise March 1991



ELDOFF FEDERAL ST. ROAD
COKEBURY

ELBORADO

1,150,000 FT

Spears

Bachelor Creek
Creek
Creek
Creek

SHARPTOWN
CONTRARY

Taylor Creek

Creek
Creek

H

Becky Taylor Creek

ROAD 313

Becky Creek

J

1050

STUDY LIMIT

A

Messick

Ditch

ROAD 313

3

APPROXIMATE CRITICAL AREA LINE

B

C

19933

E

NANTICOKE BOY SCOUT RESERVATION

Branch

GALESTOWN

8

Molly

WHEATLEY

CHURCH

9

Dennis

G

COKE

WHEATLEY'S WHARF

12

H

Creek

WHEATLEY'S WHARF

DORR RIVER

See MARDELA SPRINGS ROAD

ROAD 313

SHARPTOWN

FERRY STREET

ADC's 'WICOMIC