

**GENERAL NOTES**

**PART I - GENERAL**

- Subject property Zoned "M-2" per 02/02/04 Comprehensive Zoning Plan and per the Comp. Use Zoning Regulation amendments effective on 07/28/06.
- The project is in conformance with the latest Howard County Standards unless waivers have been approved.
- Approximate locations of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer at the Contractor's expense.
- The existing topography is based on field survey by FSH Associates in October, 2008.
- The coordinates shown herein are based upon the Howard County Geodetic Control which is based upon the Maryland State Plane Coordinate System NAD 83/91. Howard County Monument Nos. 38GA and No. 38DA were used for this project. (see vicinity map).
- All vertical controls are based on NAVD'88. Vertical controls provided on the drawings are 38GA and 38DA (see vicinity map).
- Existing utilities are based on Howard County Contract Drawings and field run surveys.
- All pipe elevations shown are invert elevations unless otherwise noted on the plans.
- Clear all utilities by a minimum of 12 inches. Clear all poles by 5'-0" minimum or tunnel as required unless otherwise noted. The Owner has contacted the utility companies and has made arrangements for bracing of poles as shown on the Drawings. In the event the Contractor's work requires the bracing of additional poles, any cost incurred by the Owner for the bracing of additional poles or damages shall be deducted from monies owed to the Contractor. The Contractor shall coordinate with the utility companies to schedule the bracing of the poles.
- For details not shown on the drawing, and for materials and construction methods, use Howard County Design Manual, Volume IV, Standard Specifications and Details for Construction (latest Edition). The contractor shall have a copy of Volume IV on the job.
- The contractor shall notify the following utility companies or agencies at least five working days before starting work shown on these plans:
 

AT & T	1.800.252.1153
BGE(Construction Services)	410.850.4620
BGE(Emergency)	410.685.1400
Bureau of Utilities	410.315.4900
Colonial Pipeline Company	410.795.1390
Gas Utility	1.800.257.7777
Verizon	1.800.745.0033/410.224.9210
MCI	1.800.624.9675
- Trees and shrubs are to be protected from damage to the maximum extent possible. Trees and shrubs located within the construction strip are not to be removed or damaged by the Contractor.
- The Contractor shall remove trees, stumps and roots along line of excavation. Payment for such removal shall be included in the unit price bid for the construction of the main.
- The Contractor shall notify the Bureau of Highways, Howard County, at 410.315.7450 at least five working days before any open cutting or boring/jacking of any county road for laying water mains or house connections. The approval of these drawings will constitute compliance with DPH requirements per Section 18.114(a) of the Howard County Code.
- There are no wetlands on this site.

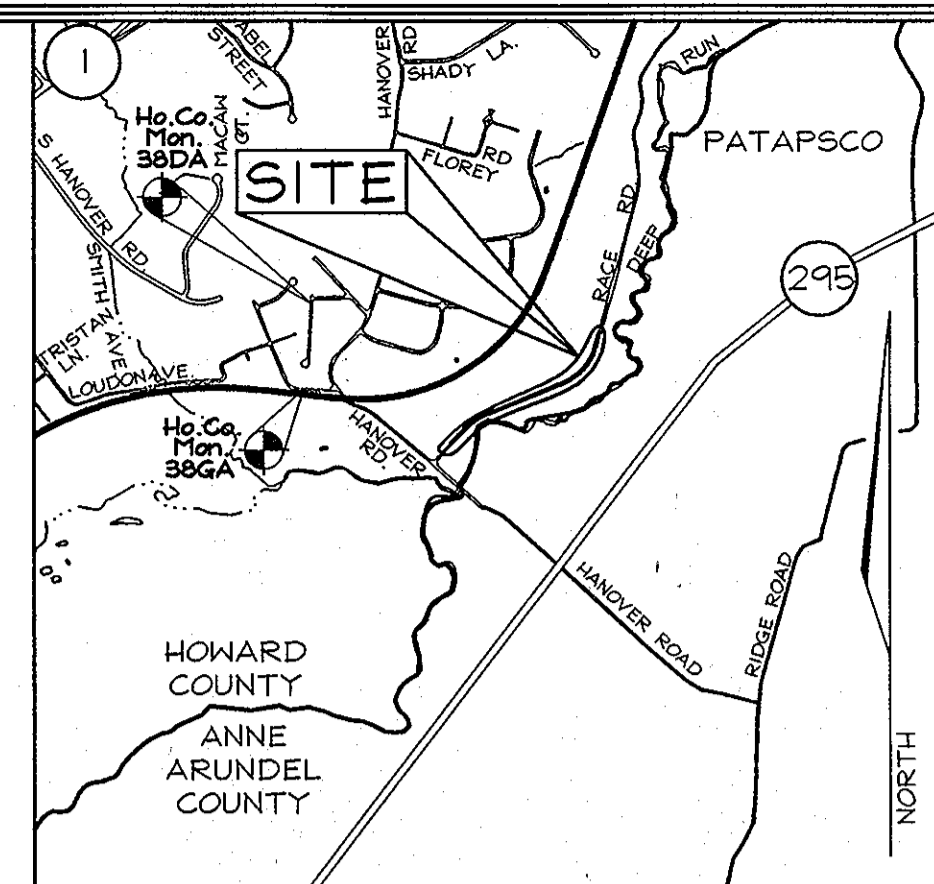
**PART II - WATER**

- All water mains to be C-900 P.V.C. unless otherwise noted.
- Tops of all water mains to have a minimum of 3'-6" of cover unless otherwise noted.
- Valves adjacent to tees shall be strapped to tees.
- All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the Drawings.
- Fire Hydrants shall be set to the bury line elevations shown on the drawings. All Fire Hydrants shall be restrained and buttressed with concrete in accordance with Standard Details. The soil around Fire Hydrant shall be compacted in accordance with Section 1000 and 1005 of the Standard Specifications.
- The Contractor shall not operate any water main valves on the existing water system.
- All water house connections shall be for outside meter settings unless otherwise noted on the Plans or in Specifications. ALL 4 1/2" x 1 1/2" WITH 1" OUTSIDE METER.
- The construction of the water main must be in accordance with the following Howard County Design Manual sections: 1002.02.06, 1002.03.04, 1002.05.02, and Details 5.01, 5.02, 5.03, 5.04.
- At each proposed Fire Hydrant, a Continuity Test Station ("C.T.S.") shall be installed to Howard County standards, and to the satisfaction of the Howard County inspector. Each proposed Fire Hydrant herein has been labeled with "C.T.S." to indicate this.
- Unless otherwise noted on the plans or in the specifications, seventeen (17) pound sacrificial anodes shall be installed on all valves and metallic fittings used with PVC water mains in accordance with Volume IV, Standard Specifications and Details for Construction. Magnesium anodes shall be installed on all valves and ductile iron fittings including restraints and harnesses. Zinc anodes shall be installed on all stainless steel fittings and saddles used with PVC mains. All "tees" used with PVC mains shall be ductile iron.

# FINAL PUBLIC WATER PLANS RACE ROAD WATER LINE EXTENSION HOWARD COUNTY, MARYLAND CONTRACT NO. 44-4676-D

**LEGEND**

R/W Line	-----
Property Line	-----
Easement Line	- - - - -
Ex. Sewer Line	○-----○
Silt Fence	SF-----SF
Ex. Water Line	-----
Prop. Water Line	-----
Ex. F.H.	⊕-----
Prop. F.H.	⊕-----
Stream	~~~~~
Continuity Test Stations ("C.T.S." @ each F.H.)	⊕ C.T.S.



**VICINITY MAP**  
SCALE: 1"=2000'  
HOWARD COUNTY ADC MAP 49 37, E-10 & F-10

**GEODETIC SURVEY CONTROL**

Sta. 38GA N 555,847.325 E 1,390,152.115 EL.: 80.840  
Sta. 38DA N 556,746.303 E 1,390,221.477 EL.: 126.133

**SHEET INDEX**

DESCRIPTION	SHEET No.
Water Cover Sheet	1 of 4
Water Plan and Profile Sheet	2 of 4
Water Plan and Profile Sheet	3 of 4
Notes and details	4 of 4

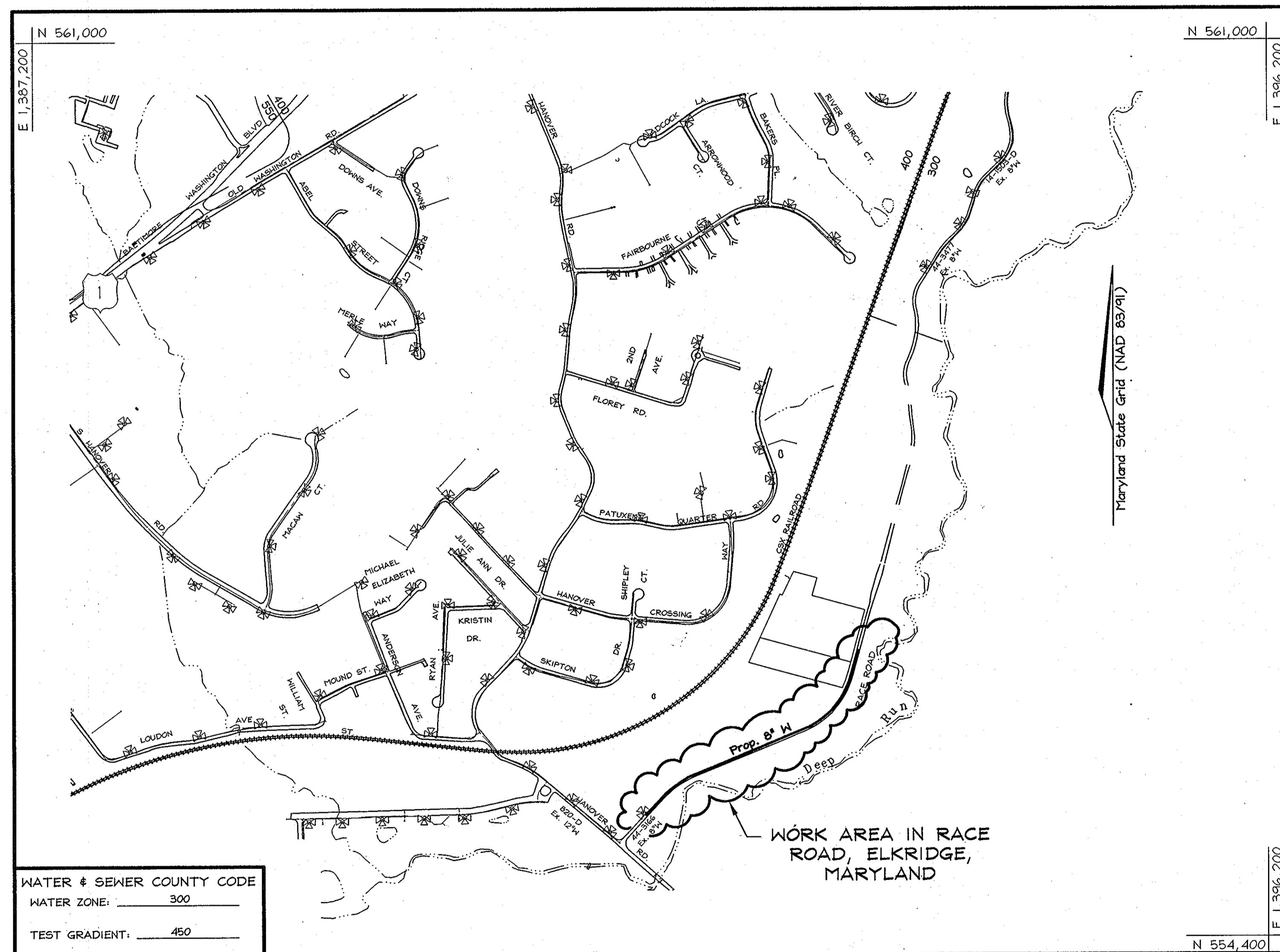
**WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE**

PARCEL #	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
812	6330 RACE ROAD		

**QUANTITIES**

NAME OF UTILITY CONTRACTOR : GAINES AND COMPANY  
SURVEY AND DRAFTING DIVISION AS-BUILT DATE :

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" WATER	2,160 L.F.	2160 LF.	DR 14 C-900	NORTH AMERICAN
1" WHC	22 L.F.	35 LF.	COPPER	HOWELL METAL
FIRE HYDRANT W/ 6" Valve	6	6	C 502	KENNEDY VALVE
8" CAP & BUTTRESS	1	1		
8" VALVE	2	2	GATEVALVE	KENNEDY VALVE



WATER & SEWER COUNTY CODE  
WATER ZONE: 300  
TEST GRADIENT: 450

**LOCATION PLAN**

SCALE : 1"=600'

TYPE OF BUILDING:	N/A
NO. OF LOTS/PARCELS:	N/A
NO. OF WATER HOUSE CONNECTIONS:	1

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE STANDARD SPECIFICATIONS AND WITH WATER CONTRACT #44-4676-D

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
*John R. Roberts* 8/12/10  
SOIL CONSERVATION DISTRICT DATE

**PROFESSIONAL CERTIFICATION**  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 07/29/2011.

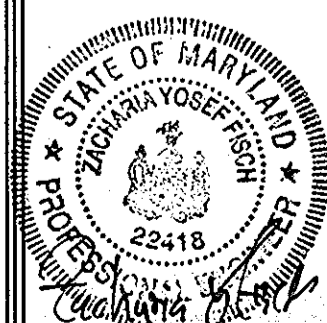
**OWNER/DEVELOPER**

KONTERRA LIMITED PARTNERSHIP  
14504 Greenview Drive, Suite 210  
Laurel, Maryland 20708-3225  
Phone: (301) 953-9870

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*John C. Lane* 7/15/10  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*John C. Lane* 8/25/10  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**FSH Associates**  
Engineers Planners Surveyors  
6338 Howard Lane, Elkridge, MD 21075  
Tel: 410-587-5200 Fax: 410-796-1562  
E-mail: info@fsheri.com

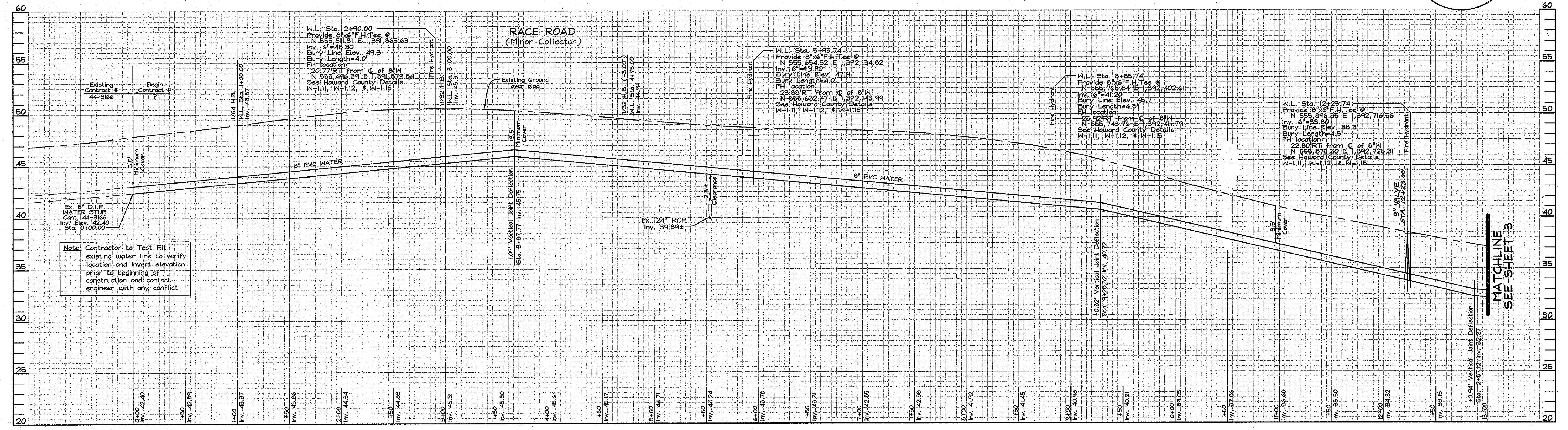
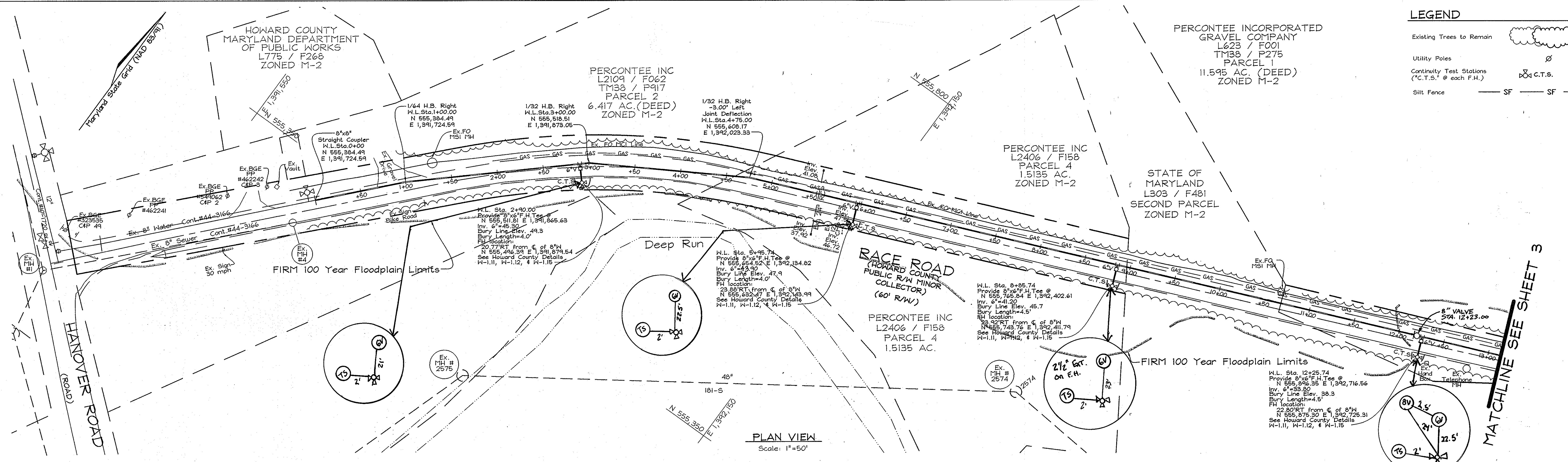


DESIGN BY: CRH2	
DRAWN BY: CRH2	
CHECKED BY: ZYF	
DATE: June 10, 2010	
BY NO.	REVISION
4/20/13	

**FINAL  
PUBLIC WATER PLANS  
COVER SHEET**  
600' SCALE MAP NO.: 38 BLOCK NO.: 15

**RACE ROAD WATER LINE EXTENSION**  
6330 RACE ROAD  
ZONED M-2  
**CONTRACT NO. 44-4676-D**  
TAX MAP 38 GRID 15  
1ST ELECTION DISTRICT

SCALE  
SHEET NO.  
1 OF 4



SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 306 OF THE STANDARD SPECIFICATIONS AND WITH WATER CONTRACT #44-4676-D

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

*John R. Robertson*  
SOIL CONSERVATION DISTRICT

8/12/10  
DATE

**PROFESSIONAL CERTIFICATION**

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22416, Expiration Date: 07/29/2011.

*Zacharia Y. Fisch*  
DATE

**ENGINEERS CERTIFICATE**

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT."

*Zacharia Y. Fisch*  
SIGNATURE OF ENGINEER  
ZACHARIA Y. FISCH

6/10/2010  
DATE

**DEVELOPER'S CERTIFICATE**

"I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT."

*Zacharia Y. Fisch*  
SIGNATURE OF DEVELOPER

6/14/10  
DATE

**OWNER/DEVELOPER**

KONTERRA LIMITED PARTNERSHIP  
14504 Greenview Drive, Suite 210  
Laurel, Maryland 20708-3225  
Phone: (301) 483-9870

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*William C. Lewis*  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*John P. ...*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**FSH Associates**  
Engineers Planners Surveyors  
6339 Howard Lane, Elkridge, MD 21075  
Tel: 410-587-5200 Fax: 410-796-1562  
E-mail: info@fsheri.com



DESIGN BY: CRH2					
DRAWN BY: CRH2					
CHECKED BY: ZYF					
DATE: June 10, 2010					
BY NO.	AS-BUILT				
REVISION					
DATE: 6/20/13					

**FINAL PUBLIC WATER PLANS**

**PLAN AND PROFILE**

600' SCALE MAP NO.: 38 BLOCK NO.: 15

**RACE ROAD WATER LINE EXTENSION**  
6330 RACE ROAD  
ZONED M-2

**CONTRACT NO. 44-4676-D**  
TAX MAP 38 GRID 15  
1ST ELECTION DISTRICT

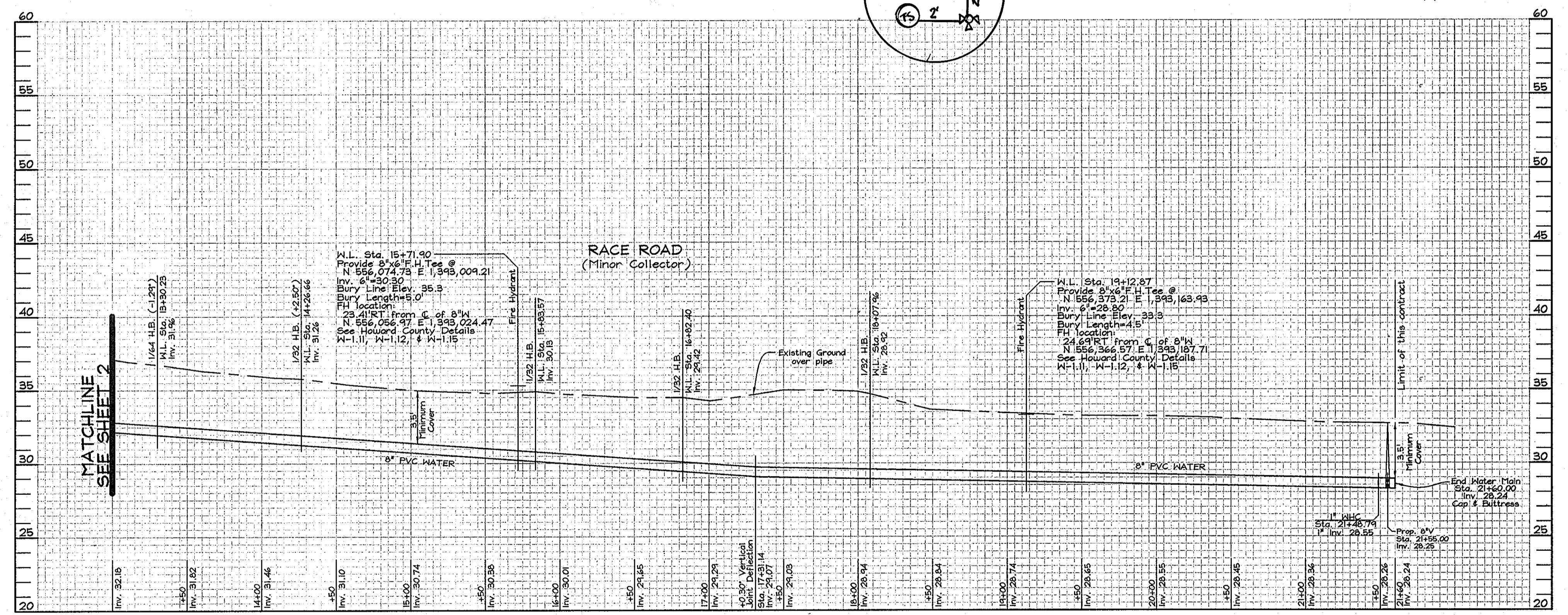
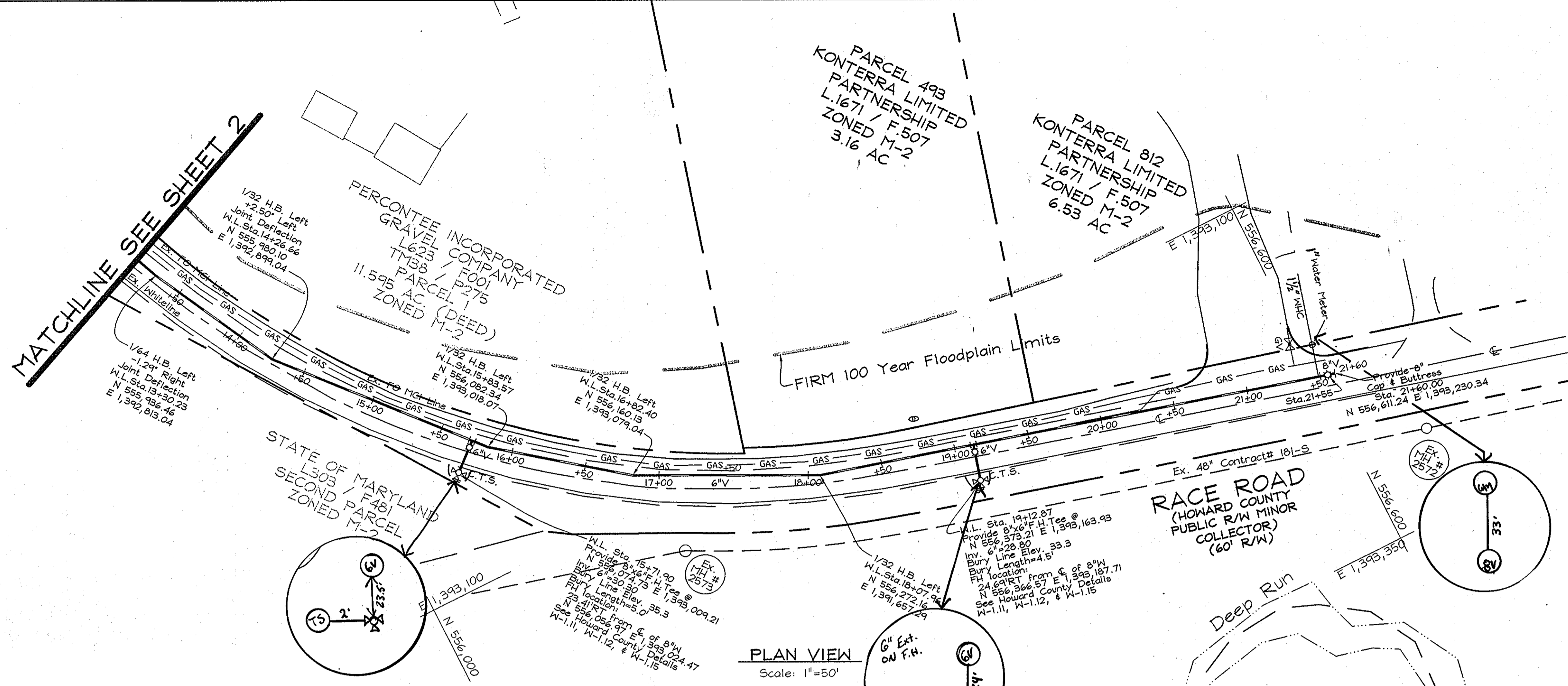
PARCELS 493 & 812  
HOWARD COUNTY, MARYLAND

SCALE

SHEET NO.  
2 OF 4

**LEGEND**

- Existing Trees to Remain
- Utility Poles
- Continuity Test Stations ("C.T.S." @ each F.H.)
- Silt Fence SF SF



**WATER PROFILE**  
Scale: Horizontal- 1"=50'  
Vertical-1"=5'

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 306 OF THE STANDARD SPECIFICATIONS AND WITH WATER CONTRACT #44-4676-D

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.  
*John R. Roberts*  
SOIL CONSERVATION DISTRICT  
DATE: 8/12/10

**PROFESSIONAL CERTIFICATION**  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 07/29/2011.

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*Zacharia Y. Fisch*  
SIGNATURE OF ENGINEER  
ZACHARIA Y. FISCH  
DATE: 6/10/2010

**DEVELOPER'S CERTIFICATE**  
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*Zacharia Y. Fisch*  
SIGNATURE OF DEVELOPER  
DATE: 6/10/10

**OWNER/DEVELOPER**  
KONTERRA LIMITED PARTNERSHIP  
14504 Greenview Drive, Suite 210  
Laurel, Maryland 20708-3225  
Phone: (301) 953-9870

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Shawn C. Lewis*  
CHIEF, BUREAU OF UTILITIES  
DATE: 7/15/10

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*John P. Quinn*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 6/10/10

**FSH Associates**  
Engineers Planners Surveyors  
6339 Howard Lane, Elkridge, MD 21075  
Tel: 410-587-5200 Fax: 410-796-1562  
E-mail: info@fsher.com



DESIGN BY: CRH2  
DRAWN BY: CRH2  
CHECKED BY: ZYF  
DATE: June 10, 2010

NO.	REVISION	DATE
1	AS-BUILT	4/20/13

**FINAL PUBLIC WATER PLANS**  
**PLAN AND PROFILE**  
600' SCALE MAP NO.: 38 BLOCK NO.: 15

**RACE ROAD WATER LINE EXTENSION**  
6330 RACE ROAD  
ZONED M-2  
**CONTRACT NO. 44-4676-D**  
TAX MAP 38 GRID 15  
1ST ELECTION DISTRICT

SCALE  
SHEET NO. 3 OF 4

## 21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

**Definition:** Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

**Purpose:** To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

### Conditions Where Practice Applies

- This practice is limited to areas having 2:1 or flatter slopes where:
  - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
  - The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
  - The original soil to be vegetated contains material toxic to plant growth.
  - The soil is so acidic that treatment with limestone is not feasible.

ii. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

### Construction and Material Specifications

i. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.

ii. Topsoil Specifications - Soil to be used as topsoil must meet the following:
 

- Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or a soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 and 1/2" in diameter.
- Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutedge, poison ivy, thistle, or others as specified.
- Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

iii. For sites having disturbed areas under 5 acres:
 

- Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

iii. For sites having disturbed areas over 5 acres:
 

- On soil meeting topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
  - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
  - Organic content of topsoil shall be not less than 1.5 percent by weight.
  - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
  - No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.

NOTE: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.

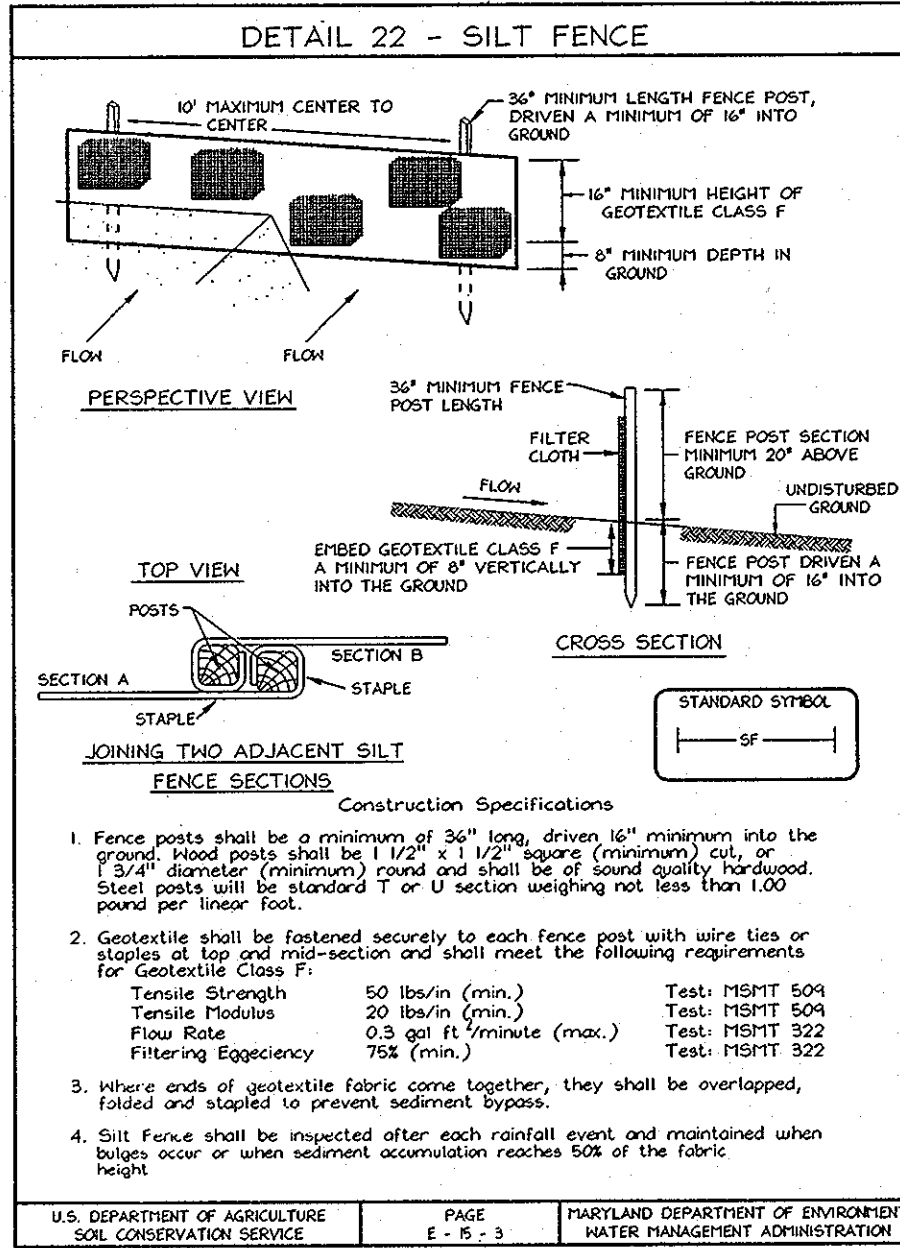
ii. Place topsoil (if required) and apply soil amendments specified in 20.0 Vegetative Stabilization-Section I-Vegetative Stabilization Methods and Materials.

v. Topsoil Application
 

- When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
- Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and tightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.



## SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspection, License and Permits Sediment Control Division prior to the start of any construction (313-1055).
- All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1, (b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:
 

Total Area	0.486 Acres
Area Disturbed	0.486 Acres
Area to be roofed or paved	0.482 Acres
Area to be vegetatively stabilized	0.014 Acres
Total Cut	22,800 CY
Total Fill	2,800 CY
Offsite waste/borrow area location	**
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.
- Earthwork quantities are solely for the purpose of calculating fees. Contractor to verify all quantities prior to the start of construction.
- To be determined by contractor, with pre-approval of the Sediment Control Inspector with an approved and active grading permit.

SEDIMENT CONTROL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 309 OF THE STANDARD SPECIFICATIONS AND WITH WATER CONTRACT #44-4676-D

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

*John R. Blunt* 8/12/10  
SOIL CONSERVATION DISTRICT DATE

PROFESSIONAL CERTIFICATION

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 07/25/2011.

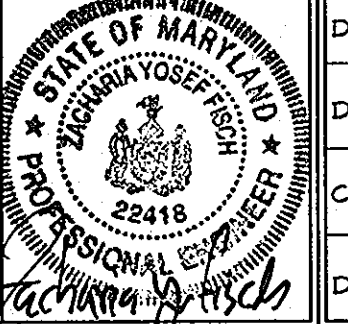
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Silvia C. Linn* 7/15/10  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND

*William J. ...* 08/10  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**FSH Associates**  
Engineers Planners Surveyors  
6339 Howard Lane, Elkridge, MD 21075  
Tel: 410-567-5200 Fax: 410-796-1562  
E-mail: info@fshet.com



DESIGN BY: CRH2  
DRAWN BY: CRH2  
CHECKED BY: ZYF  
DATE: June 10, 2010

BY NO.	REVISION

ENGINEERS CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

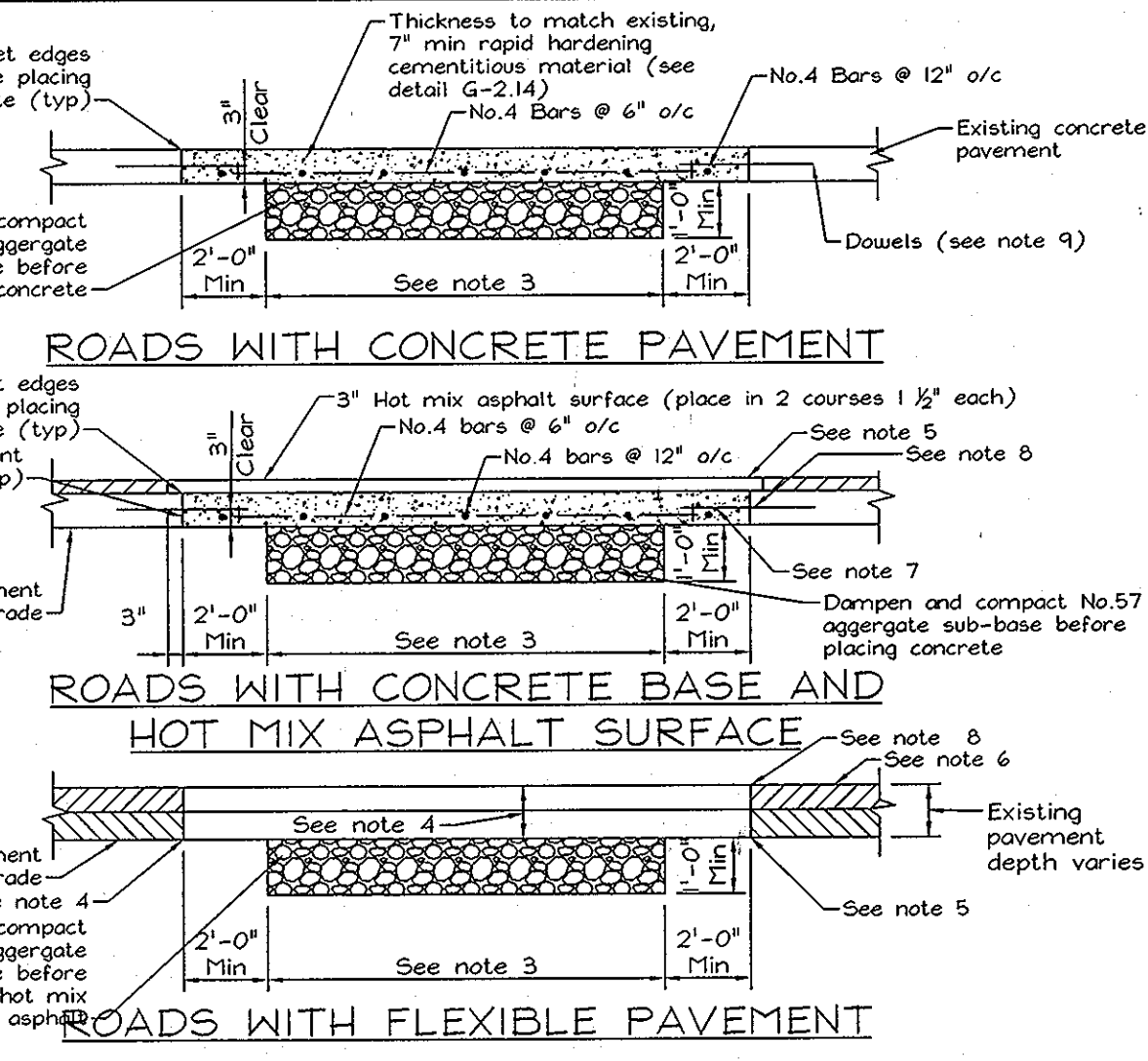
*Zacharia Y. Fisch* 6/10/2010  
SIGNATURE OF ENGINEER DATE  
ZACHARIA Y. FISCH

DEVELOPER'S CERTIFICATE

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*Zacharia Y. Fisch* 6/10/10  
SIGNATURE OF DEVELOPER DATE

OWNER/DEVELOPER  
KONTRERRA LIMITED PARTNERSHIP  
14504 Greenview Drive, Suite 210  
Laurel, Maryland 20708-3225  
Phone: (301) 453-9870



- NOTES:
- Whenever a trench crosses a concrete roadway that has joint installations the entire slab between the edge of the trench and the nearest joint shall be removed if the distance is less than 10 feet.
  - Clean and wet edges of cut and subgrade before placing concrete.
  - Aggregate sub-base width shall be 6 ft minimum or actual trench width, whichever is greater.
  - Hot mix asphalt pavement patch thickness shall be equal to the existing paving section or as approved by DPH. The minimum paving patch shall consist of 2" HMA surface course over 4" HMA base course, graded aggregate base shall be placed and compacted in 6" maximum compacted thickness layers.
  - Clean exposed vertical surface of adjacent pavement and place tack coat of all vertical surfaces prior to placing HMA.
  - If the remaining existing pavement is less than 4' wide, the residual pavement shall be removed in its entirety and replaced.
  - Concrete replacement shall be 10% minimum mix No.6.
  - Saw cut full depth all joints of existing concrete, bituminous, and base pavements.
  - Reinforcement of concrete paving shall be accomplished by doweling. Dowels shall be centered in pavement thickness, new reinforcing shall be tied to dowels.
  - Total repair width shall be equal to the lane width in accordance with the specifications.

Revised	Howard County, Maryland Department of Public Works	Utility Trench Roadway Repaving	Detail G-4.01
5/9/2007 Approved	Approved: Chief, Bureau of Engineering		

FINAL PUBLIC WATER PLANS  
NOTES AND DETAILS

RACE ROAD WATER LINE EXTENSION  
6330 RACE ROAD  
ZONED M-2  
CONTRACT NO. 44-4676-D  
TAX MAP 38 GRID I5  
1ST ELECTION DISTRICT

SCALE: 600' SCALE MAP NO.: 38 BLOCK NO.: 15

PARCELS 493 & 812  
HOWARD COUNTY, MARYLAND

SHEET NO. 4 OF 4