

# MURRAY HILL ROAD IMPROVEMENTS

## FROM RAINFLOWER WAY TO VOLLMERHAUSEN ROAD HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS PROJECT NO. J-4164

### SEDIMENT CONTROL

IN ORDER TO MAINTAIN THIS PROJECT'S SEDIMENT CONTROL EXEMPTION STATUS, DISTURBED AREAS MUST BE MAINTAINED BELOW 5,000 SQUARE FEET AT ANY ONE TIME. THEREFORE, THE CONTRACTOR SHALL CONSTRUCT THE PROJECT IN THE FOLLOWING STAGES:

STAGE 1: CONSTRUCT MEDIAN FROM STATION 22+50 TO STATION 27+73

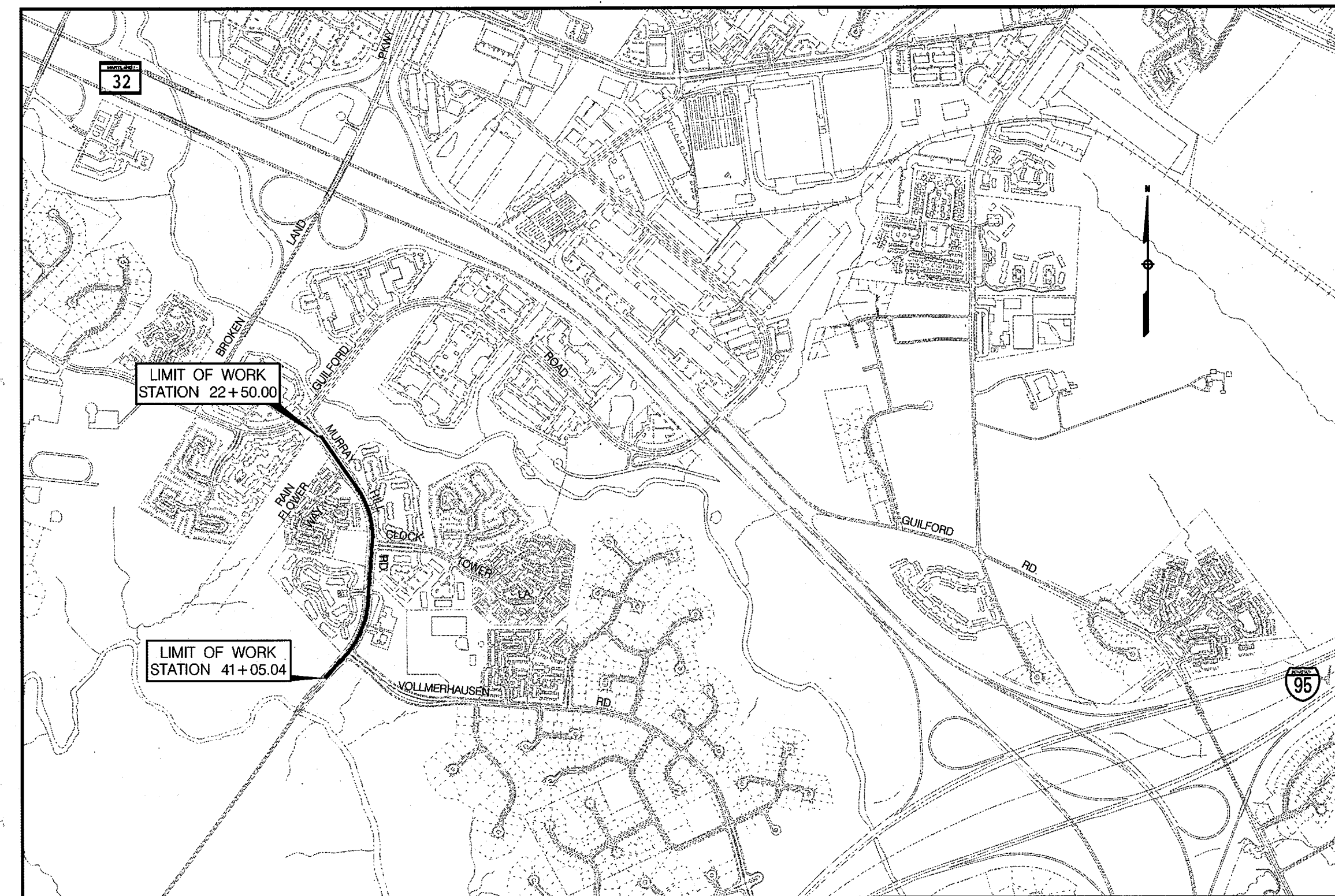
STAGE 2: CONSTRUCT MEDIAN FROM STATION 30+07 TO STATION 40+81

STAGE 3: CONSTRUCT CURB AND GUTTER ALONG NORTHBOUND ROADWAY FROM STATION 23+38 TO STATION 31+78 AND CLOCKTOWER LANE MEDIAN.

THE CONTRACTOR MUST STABILIZE ALL AREAS WITH SEED AND MULCH IN EACH STAGE PRIOR TO BEGINNING WORK IN THE NEXT STAGE.

### GENERAL NOTES

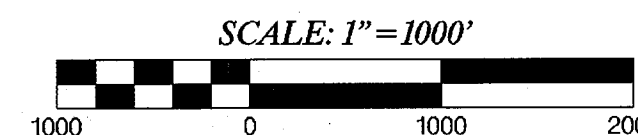
- EXISTING WATER, ELECTRIC, TELEPHONE AND CABLE TV FACILITIES ARE LOCATED WITHIN THE EXISTING ROADWAY RIGHT-OF-WAY WITHIN THE PROJECT LIMITS. APPROXIMATE LOCATION OF SOME OF THESE EXISTING UTILITIES ARE SHOWN FROM SELECTED AVAILABLE RECORDS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SOLICIT ALL UTILITY RECORDS AND VERIFY ALL EXISTING UTILITIES TO HIS OWN SATISFACTION, INCLUDING THE USE OF TEST PITS. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON PLANS.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION) OR THE MSHA STANDARD DETAILS AND SPECIFICATIONS. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
  - STATE HIGHWAY ADMINISTRATION (410) 531-5533
  - BALTIMORE GAS & ELECTRIC CO. - CONTRACTOR SERVICES (410) 850-4620
  - BALTIMORE GAS & ELECTRIC CO. - UNDERGROUND DAMAGE CONTROL SERVICES (410) 859-9004
  - BALTIMORE GAS & ELECTRIC CO. - TROUBLE SHOOTING (410) 298-9040
  - MISS UTILITY - 1(800) 257-7777 (TO HAVE ALL UTILITIES LOCATED IN THE FIELD)
  - BELL ATLANTIC - (410) BUREAU OF UTILITIES, HOWARD CO. DEPT. OF PUBIC WORKS (410) 313-4900
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS, AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION.



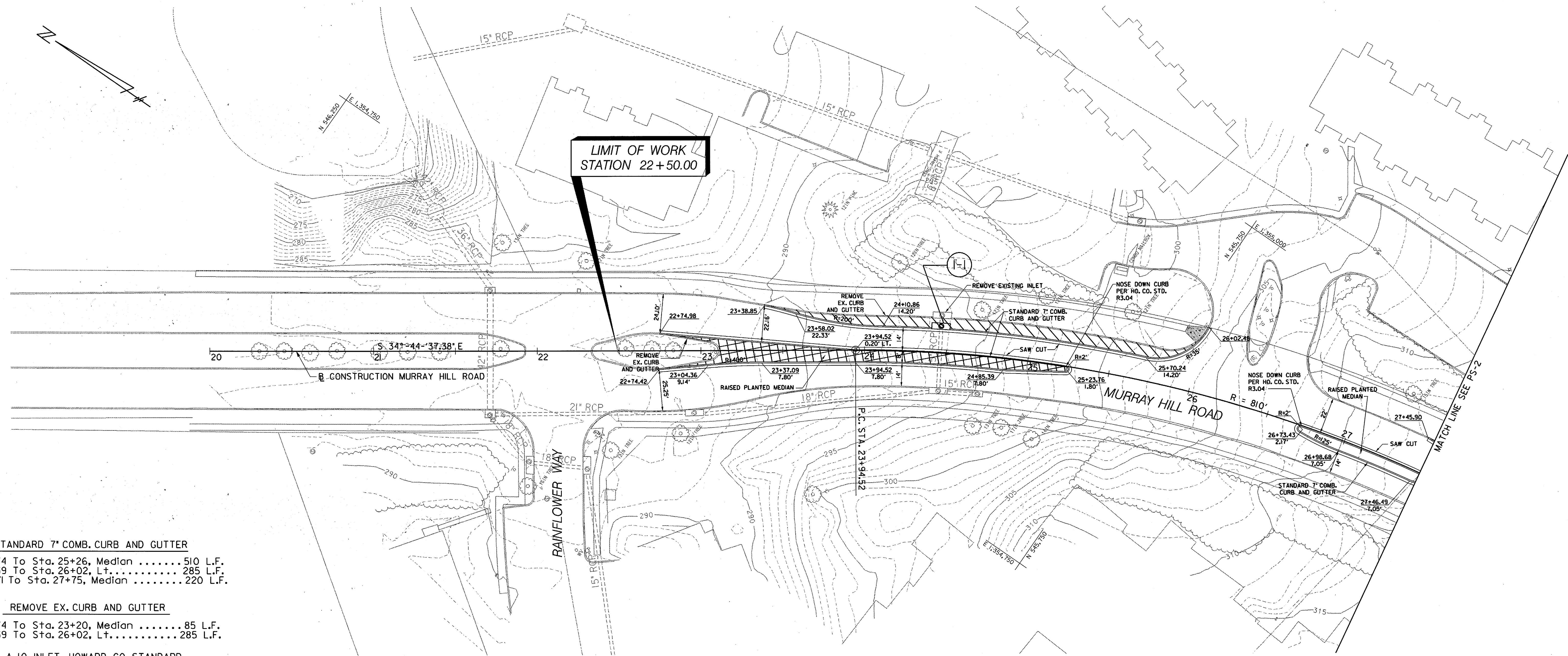
THE CONTRACTOR SHALL NOTIFY MISS UTILITY 1-800-257-7777, FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.

### INDEX OF SHEETS

TITLE SHEET	1
ROADWAY PLANS	2-4
TRAFFIC CONTROL PLANS	5-6
SIGNING AND PAVEMENT MARKING PLANS	7-9
LANDSCAPE PLAN	10



DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND [Signature] DATE 8/16/00 DIRECTOR OF PUBLIC WORKS [Signature] DATE 8-22-00 CHIEF, BUREAU OF HIGHWAYS	[Signature] DATE 8/16/00 CHIEF, BUREAU OF ENGINEERING [Signature] DATE 8/16/00 CHIEF, DIVISION OF TRANSPORTATION, PROJECTS & WATERSHED MANAGEMENT	RUMMEL KLEPPER & KAHL, LLP CONSULTING ENGINEERS 81 MOSHER STREET BALTIMORE, MD 21217	DES: KRP DRN: D CHK: RJA DATE: 4/7/00	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>BY</th> <th>NO.</th> <th>REVISION</th> <th>DATE</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	BY	NO.	REVISION	DATE					TITLE SHEET, INDEX OF DRAWING, GENERAL NOTES	MURRAY HILL ROAD IMPROVEMENTS CAPITAL PROJECT NO. J-4164 HOWARD COUNTY, MARYLAND	SCALE AS SHOWN  SHEET 1 OF 10
BY	NO.	REVISION	DATE												



**LIMIT OF WORK  
STATION 22+50.00**

- STANDARD 7" COMB. CURB AND GUTTER**  
Sta. 22+74 To Sta. 25+26, Median ..... 510 L.F.  
Sta. 23+39 To Sta. 26+02, Lt. .... 285 L.F.  
Sta. 26+71 To Sta. 27+75, Median ..... 220 L.F.
- REMOVE EX. CURB AND GUTTER**  
Sta. 22+74 To Sta. 23+20, Median ..... 85 L.F.  
Sta. 23+39 To Sta. 26+02, Lt. .... 285 L.F.
- A-10 INLET, HOWARD CO. STANDARD**  
Sta. 25+45 ..... 1 EA.  
(Construct @ Existing Pipe Invert)
- REMOVAL OF EXISTING MASONRY**  
Sta. 25+45, Existing Inlet ..... 6 C.Y.
- CONSTRUCT 4" CONCRETE SIDEWALK**  
Sta. 26+00, Lt ..... 80 S.F.  
(Reconstruct Existing Pedestrian Ramp)
- TYPE I BORROW EXCAVATION**  
Sta. 22+74 To Sta. 25+26, Median ..... 120 C.Y.  
Sta. 23+39 To Sta. 26+02, Lt. .... 16 C.Y.  
Sta. 26+71 To Sta. 27+75, Median ..... 10 C.Y.
- REMOVAL OF EXISTING PAVEMENT**  
Sta. 22+74 To Sta. 25+26, Median ..... 140 C.Y.  
Sta. 23+39 To Sta. 26+02, Lt. .... 35 C.Y.  
Sta. 26+71 To Sta. 27+75, Median ..... 30 C.Y.
- SCARIFY EXISTING PAVEMENT**  
Sta. 23+39 To Sta. 26+02, Lt. .... 125 S.Y.  
Sta. 26+71 To Sta. 27+75, Median ..... 60 S.Y.

- REMOVAL OF EXISTING PIPE CULVERT**  
Sta. 24+45, Lt. .... 7 L.F.
- SAW CUTS**  
Sta. 22+74 To Sta. 25+26, Median ..... 510 L.F.  
Sta. 23+39 To Sta. 26+02, Lt. .... 285 L.F.  
Sta. 26+71 To Sta. 27+75, Median ..... 220 L.F.
- 4" TOPSOIL, SEED AND MULCH**  
Sta. 22+74 To Sta. 25+26, Median ..... 200 S.Y.  
Sta. 23+39 To Sta. 26+02, Lt. .... 170 S.Y.  
Sta. 26+71 To Sta. 27+75, Median ..... 60 S.Y.

CONTROL COORDINATES @ CONSTRUCTION OF MURRAY HILL ROAD			
STATION	NORTH	EAST	
PO.T.	20+00.00	546230.82	1354575.92
P.I.	26+83.05	545669.55	1354965.19
P.C.	23+94.52	545906.64	1354800.75

**CURVE DATA**  
 P.I. = 26+83.05  
 $\Delta = 39^\circ - 12' - 48.08''$   
 $D = 7^\circ - 04' - 25.79''$   
 $R = 810'$   
 $L = 554.37'$   
 $T = 288.53'$   
 $E = 49.86'$

- NOTES:**  
1. SEE TYPICAL SECTION ON SHEET 4.
- LEGEND**
- FULL DEPTH REMOVAL OF EXISTING PAVEMENT. BACKFILL WITH TYPE I BORROW AND 4" TOPSOIL.
  - SCARIFY EXISTING PAVEMENT (< 1' x 1' PIECES). BACKFILL WITH TYPE I BORROW AND 4" TOPSOIL.
  - REMOVAL OF EXISTING SIDEWALK
  - CONCRETE SIDEWALK

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]* 8/18/00  
DIRECTOR OF PUBLIC WORKS DATE

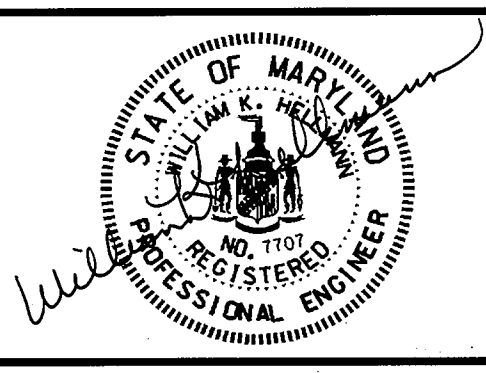
*[Signature]* 8/22/00  
CHIEF, BUREAU OF HIGHWAYS DATE

*[Signature]* 8/18/00  
CHIEF, BUREAU OF ENGINEERING DATE

*[Signature]* 8/22/00  
CHIEF, DIVISION OF TRANSPORTATION, DATE

*[Signature]* 8/22/00  
PROJECTS & WATERSHED MANAGEMENT DATE

**RK & K**  
RUMMEL KLEPPER & KAHL, LLP  
CONSULTING ENGINEERS  
81 MOSHER STREET  
BALTIMORE, MD  
21217



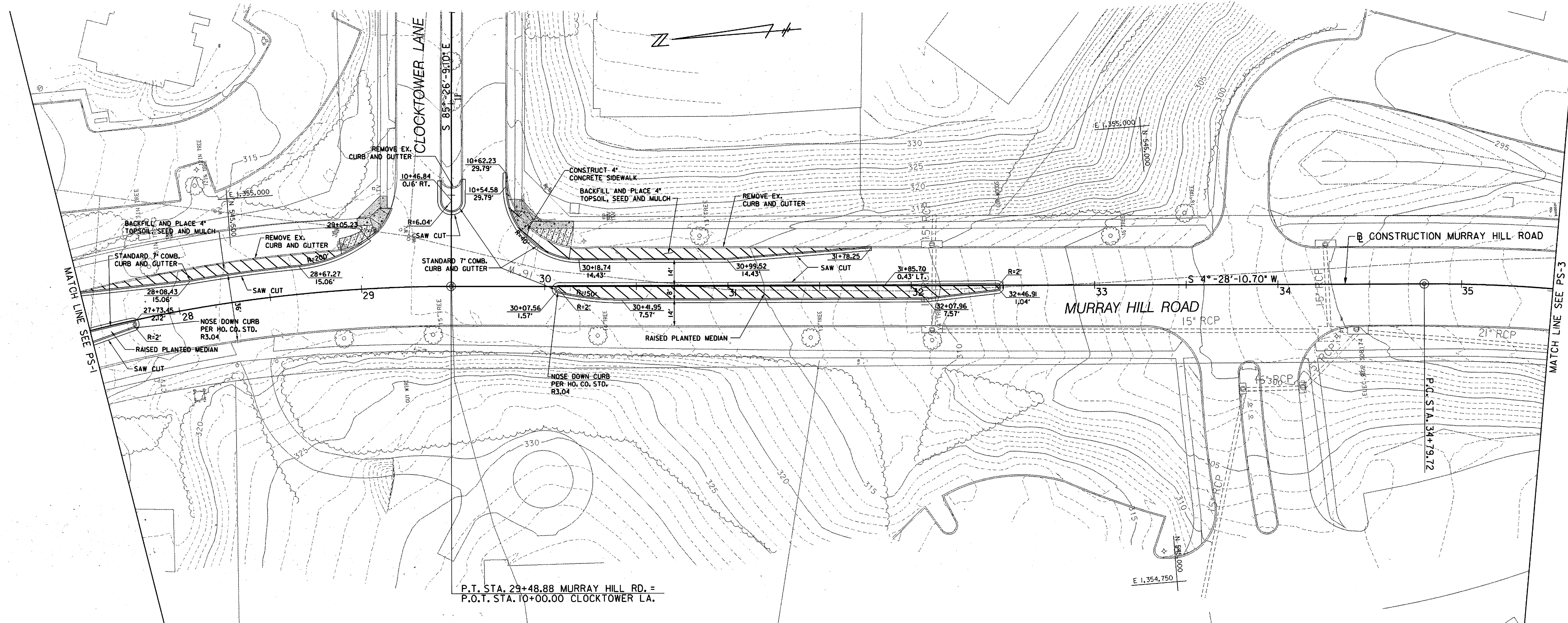
DES:	KRP				
DRN:	KRP				
CHK:	RJA				
DATE:	4/7/00	BY	NO.	REVISION	DATE

PLAN SHEET  
PS-1

MURRAY HILL ROAD  
IMPROVEMENTS  
CAPITAL PROJECT NO. J-4164  
HOWARD COUNTY, MARYLAND

SCALE  
1" = 30'

SHEET  
2 OF 10



**STANDARD 7" COMB. CURB AND GUTTER**  
 Sta. 27+46 To Sta. 29+05 Lt. .... 170 L.F.  
 Sta. 10+40 To Sta. 10+60 Clocktower, Median ... 40 L.F.  
 Sta. 10+62 Clocktower To Sta. 31+78, Lt. .... 235 L.F.  
 Sta. 30+05 To Sta. 32+49, Median ..... 500 L.F.

**REMOVAL OF EXISTING CURB AND GUTTER**  
 Sta. 27+46 To Sta. 29+05 Lt. .... 165 L.F.  
 Sta. 10+55 To Sta. 10+60 Clocktower, Median ... 20 L.F.  
 Sta. 10+62 Clocktower To Sta. 31+78, Lt. .... 230 L.F.

**REMOVAL OF EXISTING PAVEMENT**  
 Sta. 27+46 To Sta. 29+05 Lt. .... 22 C.Y.  
 Sta. 10+48 To Sta. 10+60 Clocktower, Median ... 6 C.Y.  
 Sta. 10+62 Clocktower To Sta. 31+78, Lt. .... 30 C.Y.  
 Sta. 30+05 To Sta. 32+49, Median ..... 62 C.Y.

**SCARIFY EXISTING PAVEMENT**  
 Sta. 27+46 To Sta. 29+05 Lt. .... 70 S.Y.  
 Sta. 10+48 To Sta. 10+60 Clocktower, Median ... 15 S.Y.  
 Sta. 10+62 Clocktower To Sta. 31+78, Lt. .... 80 S.Y.  
 Sta. 30+05 To Sta. 32+49, Median ..... 150 S.Y.

**SAW CUTS**  
 Sta. 27+46 To Sta. 29+05 Lt. .... 170 L.F.  
 Sta. 10+30 To Sta. 10+60 Clocktower, Median ... 40 L.F.  
 Sta. 10+62 Clocktower To Sta. 31+78, Lt. .... 235 L.F.  
 Sta. 30+05 To Sta. 32+49, Median ..... 500 L.F.

**REMOVAL OF EXISTING SIDEWALK**  
 Sta. 29+00, Lt. .... 3 C.Y.  
 Sta. 30+00, Lt. .... 5 C.Y.

**CONSTRUCT 4" CONCRETE SIDEWALK AND TYPE A RAMP**  
 Sta. 29+14, Lt. .... 170 S.F.  
 Sta. 29+85, Lt. .... 200 S.F.

**4" TOPSOIL, SEED AND MULCH**  
 Sta. 27+46 To Sta. 29+05 Lt. .... 90 SY.  
 Sta. 10+30 To Sta. 10+60 Clocktower, Median ... 15 S.Y.  
 Sta. 10+62 Clocktower To Sta. 31+78, Lt. .... 100 S.Y.  
 Sta. 30+05 To Sta. 32+49, Median ..... 170 S.Y.

**TYPE I BORROW EXCAVATION**  
 Sta. 27+46 To Sta. 29+05 Lt. .... 8 C.Y.  
 Sta. 10+30 To Sta. 10+60 Clocktower, Median ... 2 C.Y.  
 Sta. 10+62 Clocktower To Sta. 31+78, Lt. .... 10 C.Y.  
 Sta. 30+05 To Sta. 32+49, Median ..... 20 C.Y.

CONTROL COORDINATES		
B CONSTRUCTION OF MURRAY HILL ROAD		
STATION	NORTH	EAST
P.T.	29+48.88	545381.89
P.C.	34+79.72	544852.67
		1354942.70
		1354901.34

**NOTES:**  
 1. SEE TYPICAL SECTION ON SHEET 4.

- LEGEND**
- FULL DEPTH REMOVAL OF EXISTING PAVEMENT, BACKFILL WITH TYPE I BORROW AND 4" TOPSOIL.
  - SCARIFY EXISTING PAVEMENT (< 1' x 1' PIECES), BACKFILL WITH TYPE I BORROW AND 4" TOPSOIL.
  - REMOVAL OF EXISTING SIDEWALK
  - CONCRETE SIDEWALK

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*[Signature]* 8/16/00  
 DIRECTOR OF PUBLIC WORKS DATE

*[Signature]* 8/17/00  
 CHIEF, BUREAU OF ENGINEERING DATE

*[Signature]* 8/17/00  
 CHIEF, DIVISION OF TRANSPORTATION, DATE  
 PROJECTS & WATERSHED MANAGEMENT

**RK & K**  
**RUMMEL KLEPPER & KAHL, LLP**  
 CONSULTING ENGINEERS  
 81 MOSHER STREET  
 BALTIMORE, MD  
 21217



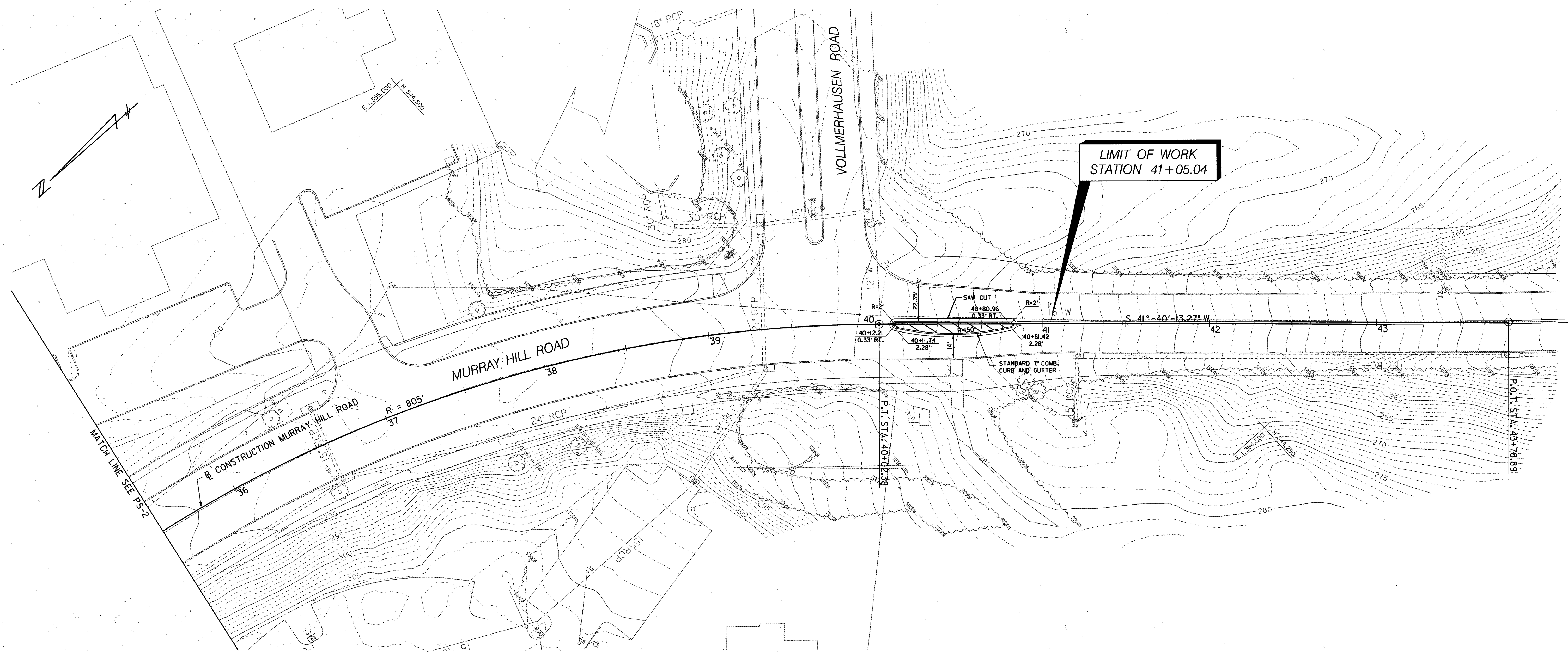
DES: KRP					
DRN: KRP					
CHK: RJA					
DATE: 4/7/00	BY	NO.	REVISION	DATE	

PLAN SHEET  
 PS-2

MURRAY HILL ROAD  
 IMPROVEMENTS  
 CAPITAL PROJECT NO. J-4164  
 HOWARD COUNTY, MARYLAND

SCALE  
 1" = 30'

SHEET  
 3 OF 10



LIMIT OF WORK  
STATION 41+05.04

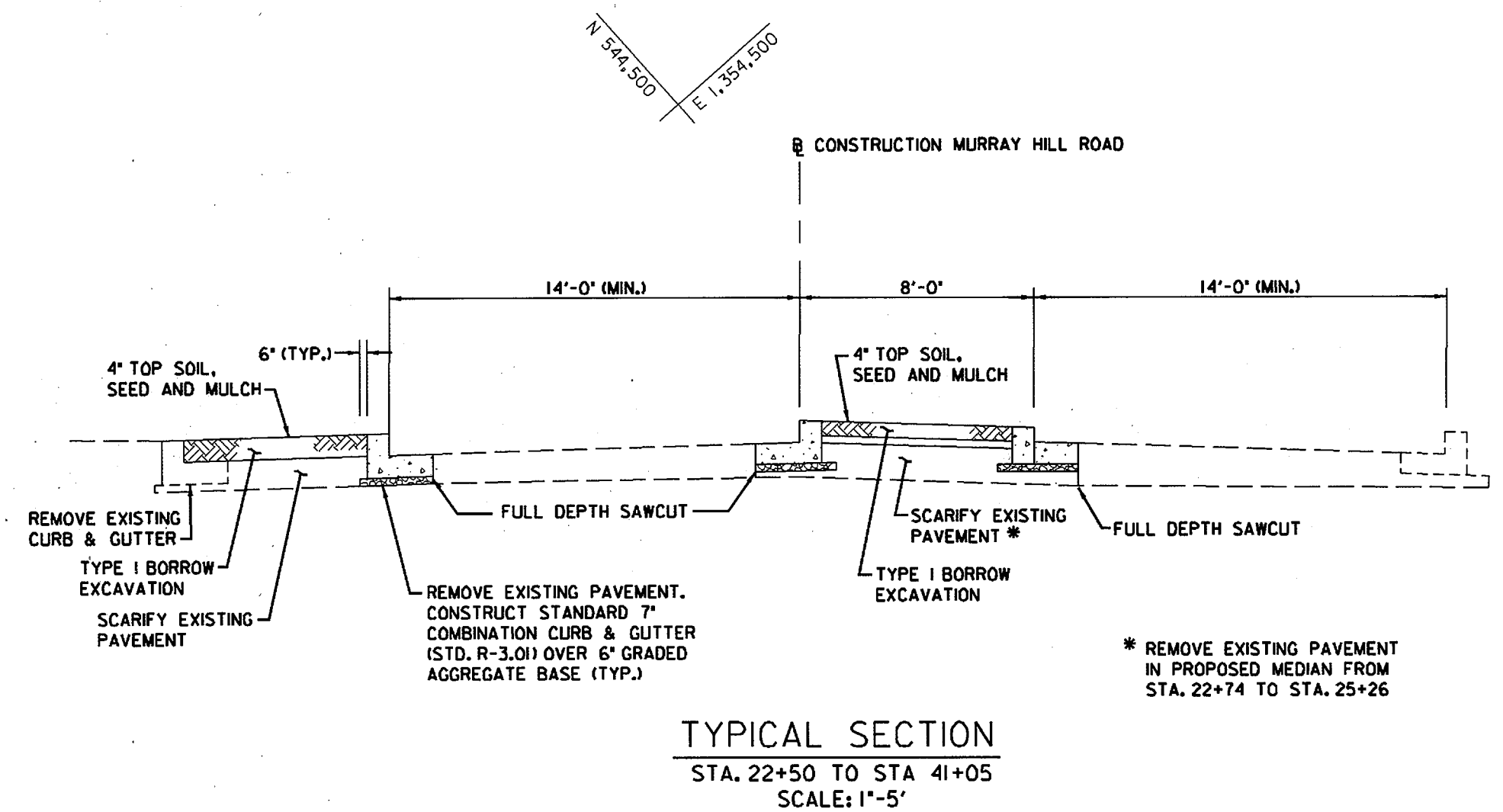
**CURVE DATA**

P.I. = 37+60.54  
 = 37°-12'-02.57"  
 D = 7°-07'-02.96"  
 R = 805'  
 L = 522.67'  
 T = 270.92'  
 E = 44.37'  
 S/E = NC

**CONTROL COORDINATES**  
 CONSTRUCTION OF MURRAY HILL ROAD

STATION	NORTH	EAST	
P.I.	37+50.64	544582.58	1354831.75
P.T.	40+02.38	544380.20	1354700.11
P.T.	43+78.89	544098.97	135449.79

- SCARIFY EXISTING PAVEMENT**  
Sta. 40+10 To Sta. 40+83, Median ..... 40 S.Y.
- STANDARD 7" COMB. CURB AND GUTTER**  
Sta. 40+10 To Sta. 40+83, Median ..... 160 L.F.
- REMOVAL OF EXISTING PAVEMENT**  
Sta. 40+10 To Sta. 40+83, Median ..... 20 C.Y.
- SAW CUTS**  
Sta. 40+10 To Sta. 40+83, Median ..... 160 L.F.
- 4" TOPSOIL, SEED AND MULCH**  
Sta. 40+10 To Sta. 40+83, Median ..... 45 S.Y.
- TYPE I BORROW EXCAVATION**  
Sta. 40+10 To Sta. 40+83, Median ..... 5 C.Y.



- LEGEND**
- FULL DEPTH REMOVAL OF EXISTING PAVEMENT. BACKFILL WITH TYPE I BORROW AND 4" TOPSOIL.
  - SCARIFY EXISTING PAVEMENT (< 1' x 1' PIECES). BACKFILL WITH TYPE I BORROW AND 4" TOPSOIL.
  - REMOVAL OF EXISTING SIDEWALK
  - CONCRETE SIDEWALK

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*[Signature]* 8/12/00  
 DIRECTOR OF PUBLIC WORKS DATE

*[Signature]* 8/12/00  
 CHIEF, BUREAU OF ENGINEERING DATE

*[Signature]* 8/12/00  
 CHIEF, DIVISION OF TRANSPORTATION, DATE  
 PROJECTS & WATERSHED MANAGEMENT

**RK & K**  
**RUMMEL KLEPPER & KAHL, LLP**  
 CONSULTING ENGINEERS  
 81 MOSHER STREET  
 BALTIMORE, MD  
 21217



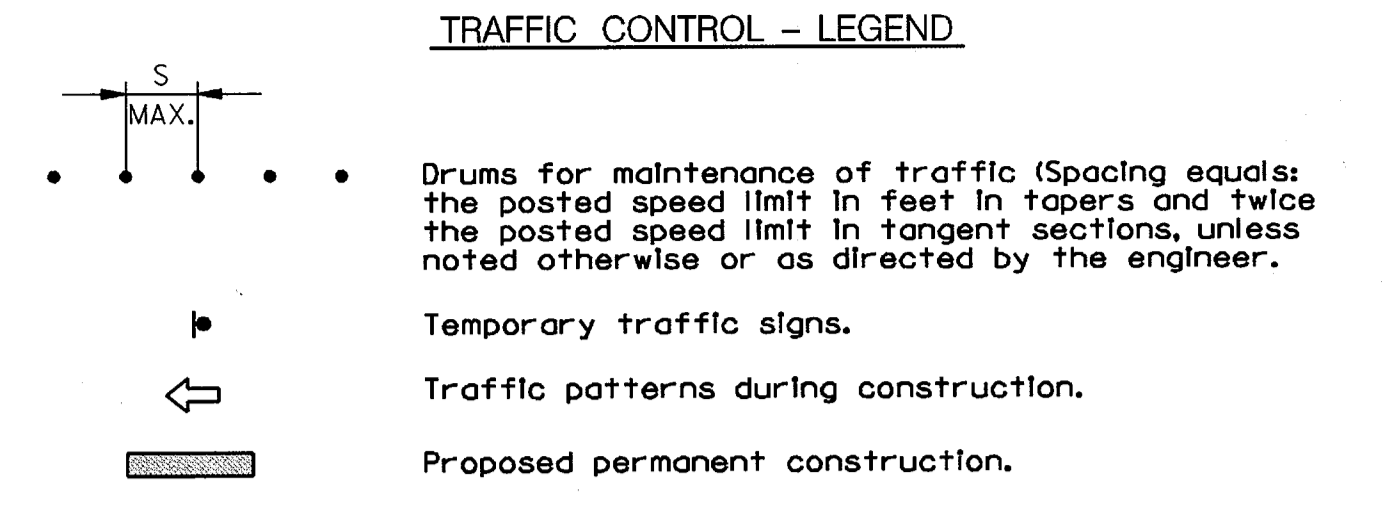
DES: KRP					
DRN: KRP					
CHK: RJA					
DATE: 4/7/00	BY	NO.	REVISION	DATE	

**PLAN SHEET PS-3**

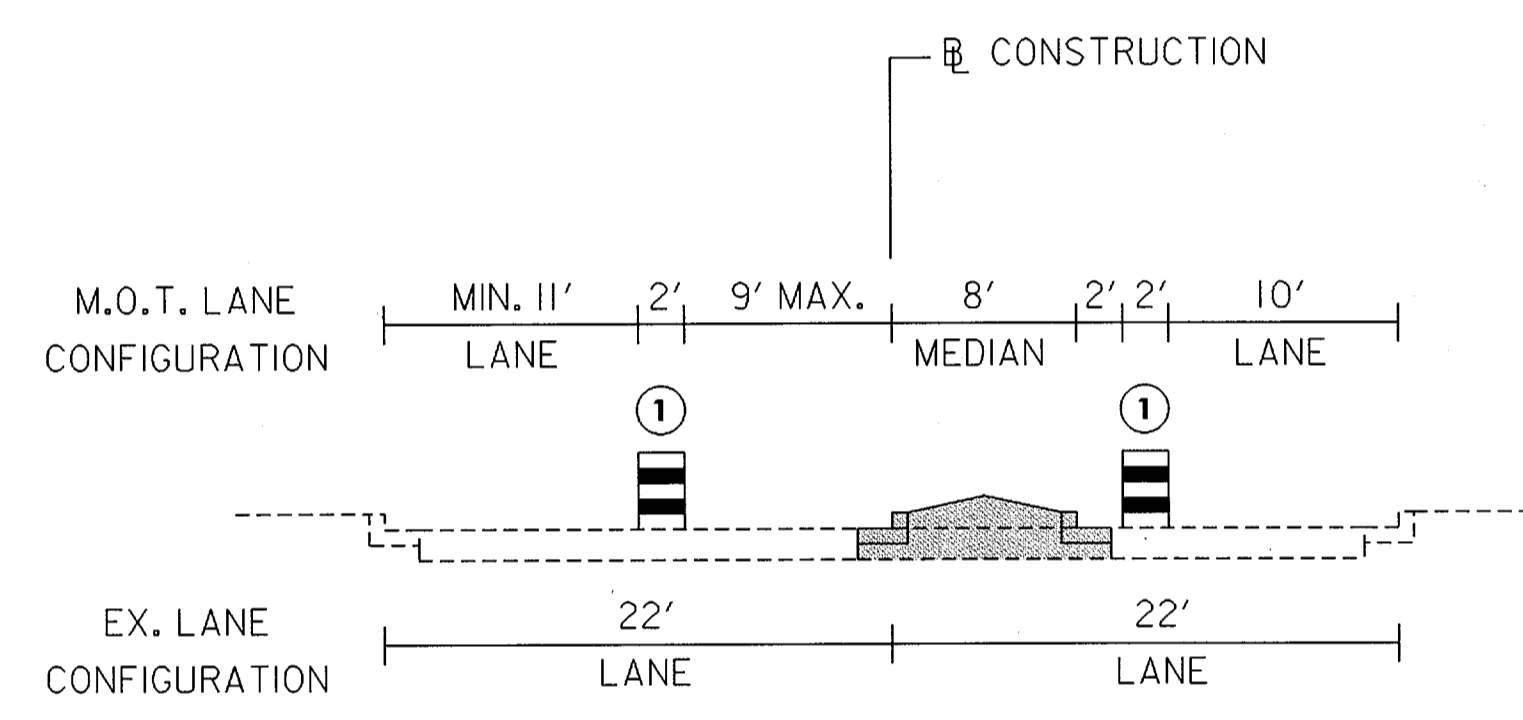
MURRAY HILL ROAD  
 IMPROVEMENTS  
 CAPITAL PROJECT NO. J-4164  
 HOWARD COUNTY, MARYLAND

SCALE  
 1" = 30'

SHEET  
 4 OF 10



- TRAFFIC CONTROL - GENERAL NOTES**
- THE CONTRACTOR SHALL BE REQUIRED TO REMOVE AND/OR RELOCATE EXISTING PROPOSED TRAFFIC SIGNS FOR VARIOUS CONSTRUCTION STAGES AS DIRECTED BY THE ENGINEER.
  - SIGNS USED FOR TEMPORARY TRAFFIC CONTROL THAT ARE NOT APPLICABLE FOR A PARTICULAR CONSTRUCTION PHASE SHALL BE REMOVED OR COMPLETELY COVERED WITH A NON-TRANSPARENT MATERIAL AS DIRECTED BY THE ENGINEER.
  - PAVEMENT MARKINGS NO LONGER APPLICABLE SHALL BE COMPLETELY REMOVED OR OBLITERATED AS SPECIFIED IN THE CONTRACT DOCUMENTS OR AS DIRECTED BY THE ENGINEER.
  - CONSTRUCTION WARNING SIGNS FOR SPECIFIC AREAS AND TYPE OF CONSTRUCTION WILL BE PLACED AS NEEDED WHEN DIRECTED BY THE ENGINEER.
  - WHEN DIRECTED BY THE ENGINEER, VARIABLE MESSAGE SIGNS SHALL BE USED TO ANNOUNCE CHANGING TRAFFIC PATTERNS, MESSAGE AND LOCATION AS DIRECTED BY ASSISTANT DISTRICT ENGINEER - TRAFFIC.
  - THE CONTRACTOR SHALL MAINTAIN ALL ENTRANCES TO BUSINESSES AND RESIDENCES.

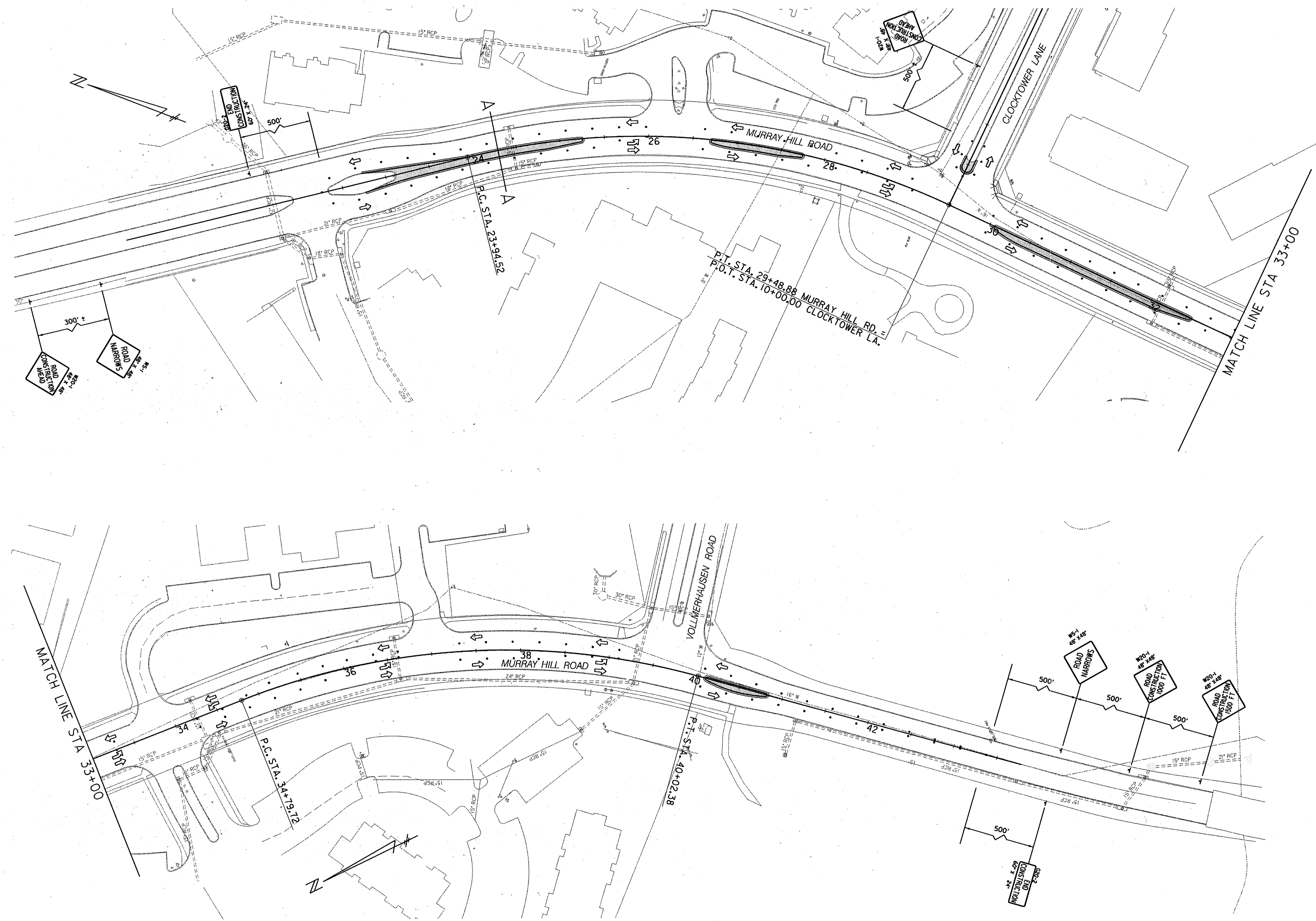


**SEQUENCE OF CONSTRUCTION**

**STAGE I**

- Install variable message signs prior to initiating work on the project as directed by the Engineer.
- Install temporary signing and traffic drums as shown on the plan.
- Maintain one lane of traffic in each direction (min. 10' wide). Channelize drums to provide left turn lanes at intersections, entrances and cross streets. (see section A-A).
- Construct raised medians as shown on plans.
- At the end of each work day, provide a temporary graded aggregate ramp in excavated areas in accordance with SHA Standard No. MD 104.92. Measurement and payment shall be incidental to the lump sum "Maintenance of Traffic" item.

**STAGE I**  
SCALE 1"=60'



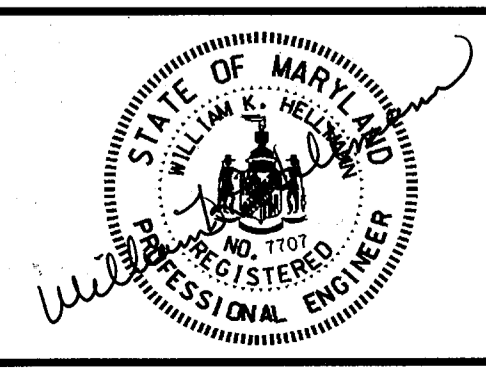
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James M. ...*  
DIRECTOR OF PUBLIC WORKS  
DATE: 8/1/00

*Robert ...*  
CHIEF, BUREAU OF ENGINEERING  
DATE: 8/1/00

*...*  
CHIEF, DIVISION OF TRANSPORTATION, PROJECTS & WATERSHED MANAGEMENT  
DATE: 8/1/00

**RK & K**  
**RUMMEL KLEPPER & KAHL, LLP**  
CONSULTING ENGINEERS  
81 MOSHER STREET  
BALTIMORE, MD 21217



DES: KRP					
DRN: KRP					
CHK: RJA					
DATE: 4/7/00	BY	NO.	REVISION	DATE	

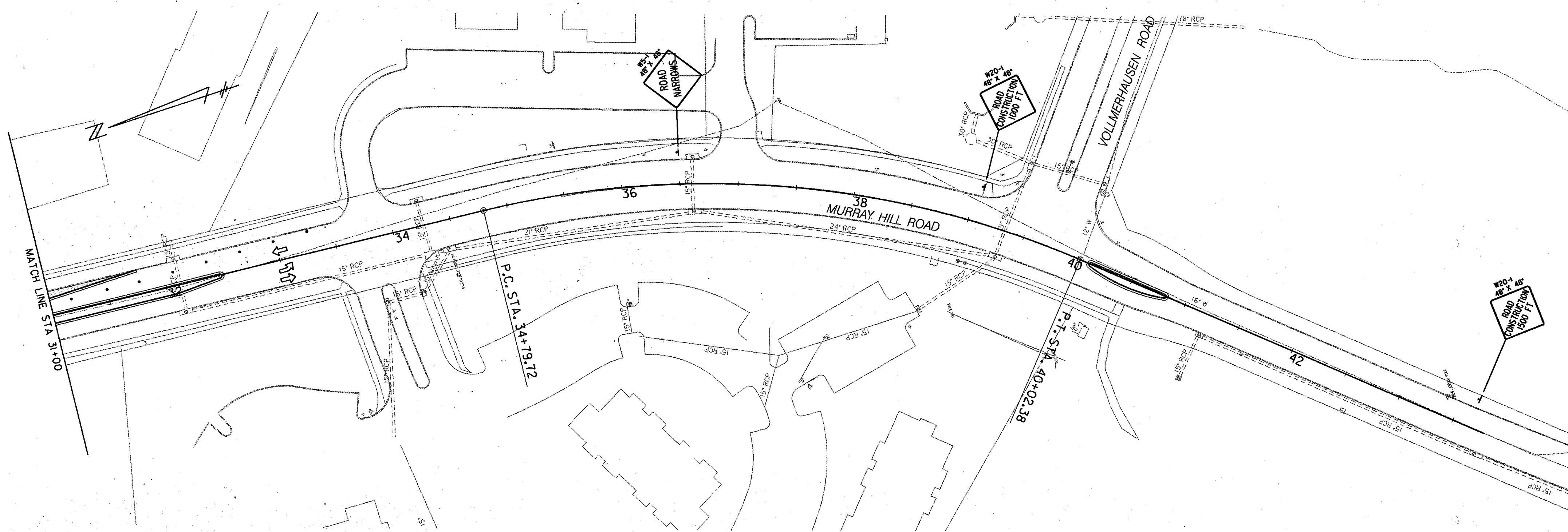
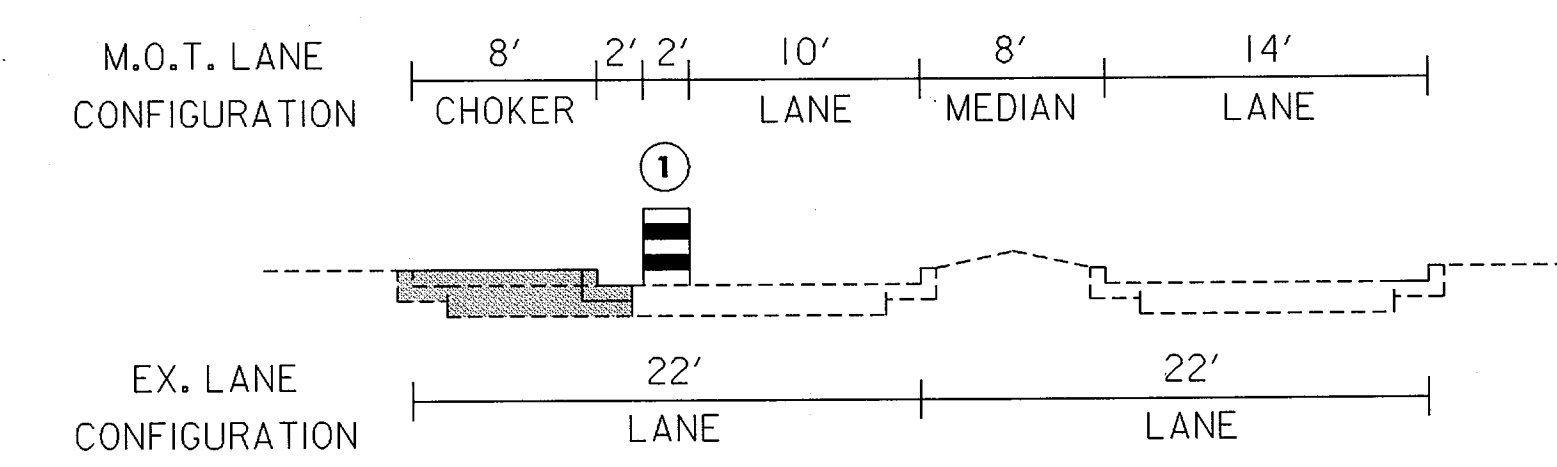
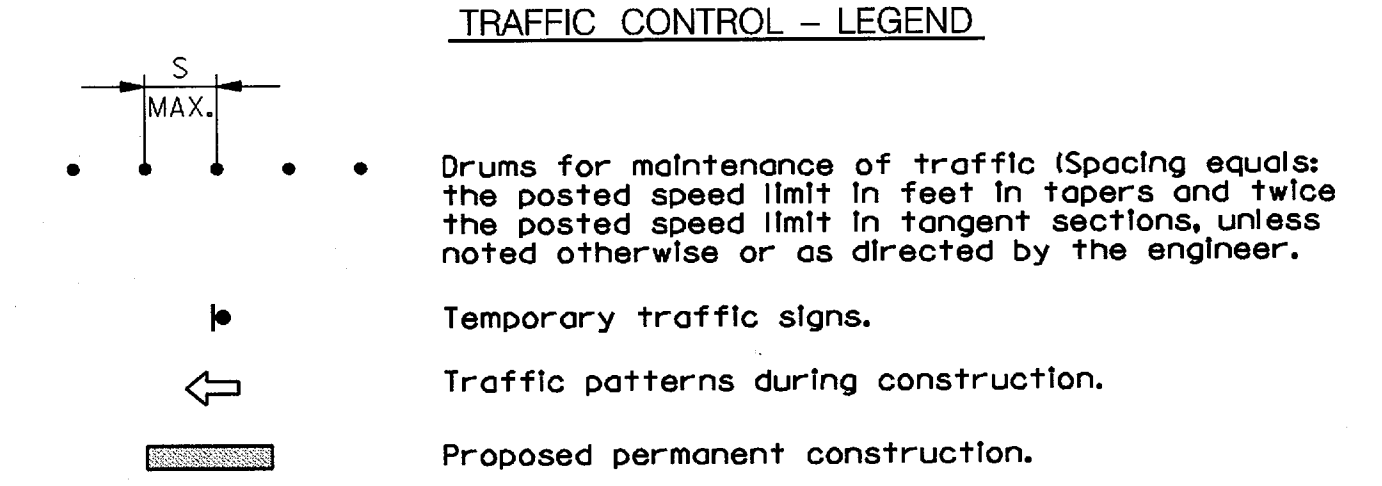
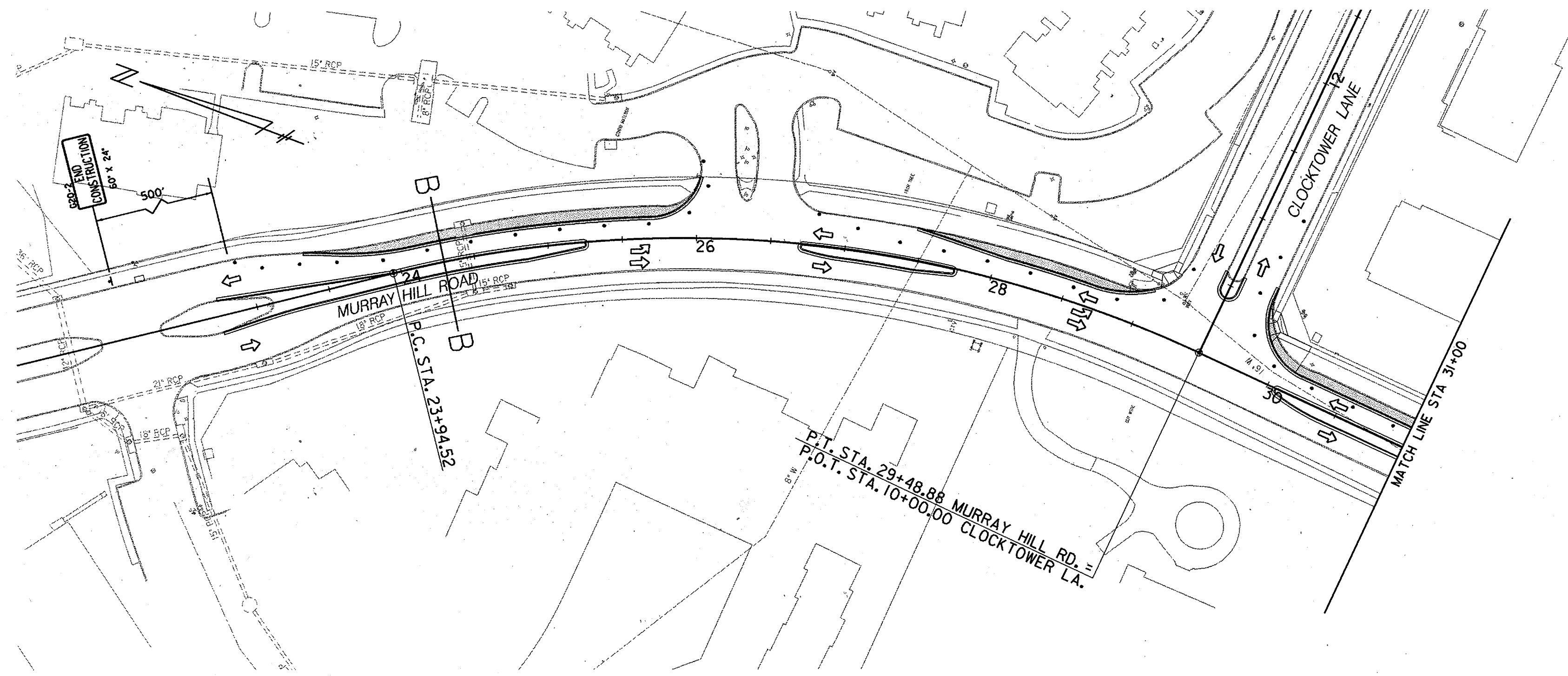
**TRAFFIC CONTROL PLAN**  
**SHEET TP-1**

MURRAY HILL ROAD  
IMPROVEMENTS  
CAPITAL PROJECT NO. J-4164  
HOWARD COUNTY, MARYLAND

SCALE  
1" = 60'

SHEET  
5 OF 10

8/2/00 11:57:37  
k:\data\197-12\murray\tdgn\tp01murr.dgn (tp01murr.prf)



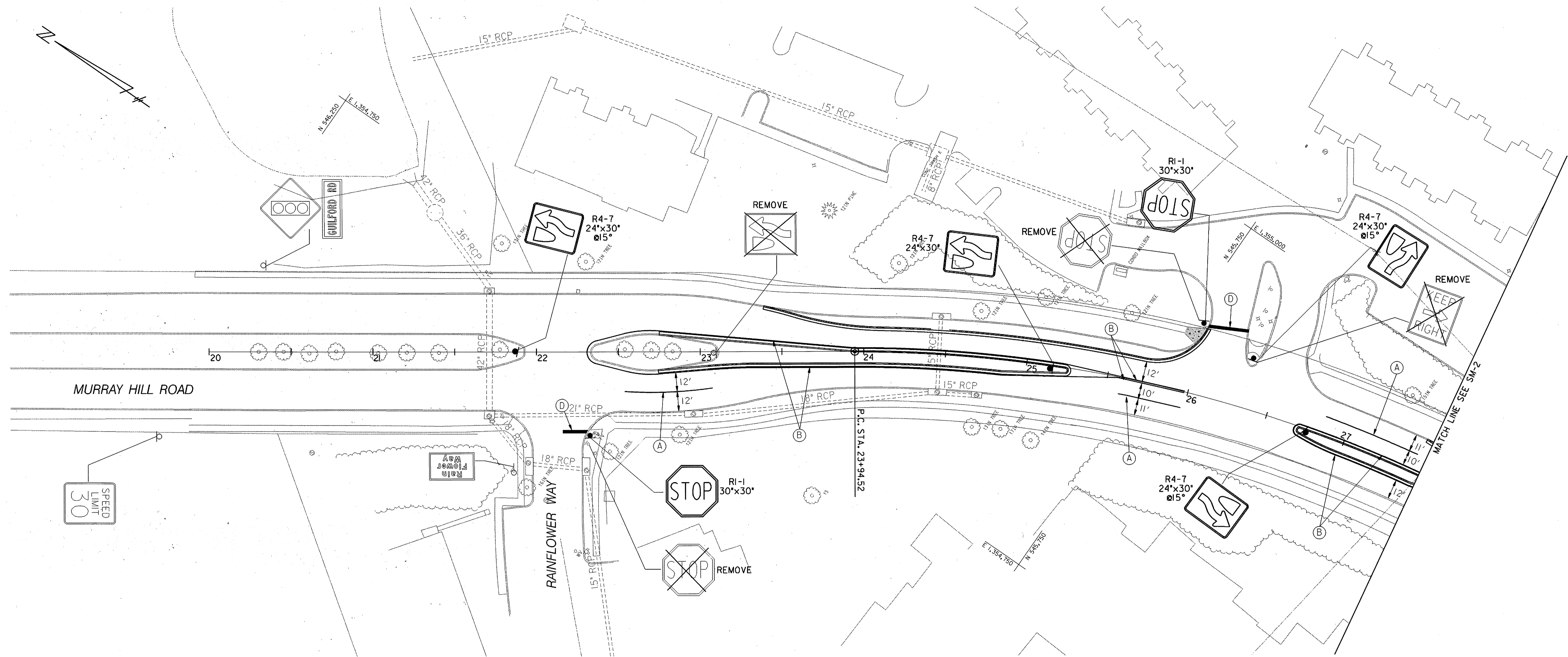
**SEQUENCE OF CONSTRUCTION**

**STAGE 2**

1. Maintain Stage 1 Advance warning signing along southbound roadway. Place advance warning signs along northbound roadway and drums as shown on plans.
2. Maintain one lane of traffic in each direction (min. 10' wide). Channelize drums to provide left turn lanes at intersections, entrances and cross streets. (see section B-B).
3. Construct new curb and gutter along outside of the north bound roadway per plan.
4. At the end of each work day, provide a temporary graded aggregate ramp in excavated areas in accordance with SHA Standard No. MD 104.92. Measurement and payment shall be incidental to the lump sum "Maintenance of Traffic" item.
5. Complete all construction and stabilization. Place final pavement markings and signing using a flagging operation in accordance with Standard Numbers 104.00 to 104.00-30 and 104.31-02.
6. Open roadway to final traffic patterns.

STAGE 2  
SCALE 1"=60'

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director of Public Works: <i>[Signature]</i> 8/10/00 Chief, Bureau of Engineering: <i>[Signature]</i> 8/17/00 Chief, Bureau of Highways: <i>[Signature]</i> 8/22/00 Chief, Division of Transportation, Projects & Watershed Management: <i>[Signature]</i> 8/17/00		 <b>RUMMEL KLEPPER &amp; KAHL, LLP</b> CONSULTING ENGINEERS 81 MOSHER STREET BALTIMORE, MD 21217	 DES: KRP DRN: KRP CHK: RJA DATE: 4/7/00	<table border="1"> <tr><th>BY</th><th>NO.</th><th>REVISION</th><th>DATE</th></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </table>	BY	NO.	REVISION	DATE													<b>MAINTENANCE OF TRAFFIC SHEET MOT-2</b>	MURRAY HILL ROAD IMPROVEMENTS CAPITAL PROJECT NO. J-4164 HOWARD COUNTY, MARYLAND	SCALE 1" = 60' SHEET 6 OF 10
BY	NO.	REVISION	DATE																				



SPEED  
LIMIT  
30

MURRAY HILL ROAD

RAINFLOWER WAY

N 546,750 E 1,354,750

N 546,750 E 1,355,000

E 1,354,750 N 546,750

P.C. STA. 23+94.52

MATCH LINE SEE SM-2

LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED NEW SIGN
- EXISTING SIGN LOCATION
- PROPOSED NEW SIGN LOCATION

PAVEMENT MARKING LEGEND

- (A) 5" SOLID WHITE LINE (WATERBORNE TRAFFIC PAINT)
- (B) 5" SOLID YELLOW LINE (WATERBORNE TRAFFIC PAINT)
- (C) 12" SOLID YELLOW LINE (WATERBORNE TRAFFIC PAINT)
- (D) 24" SOLID WHITE LINE (HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS)

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]* 8/18/00  
DIRECTOR OF PUBLIC WORKS DATE  
CHIEF, BUREAU OF ENGINEERING

*[Signature]* 8/17/00  
CHIEF, BUREAU OF HIGHWAYS DATE  
CHIEF, DIVISION OF TRANSPORTATION, PROJECTS & WATERSHED MANAGEMENT

**RK & K**  
RUMMEL KLEPPER & KAHL, LLP  
CONSULTING ENGINEERS  
81 MOSHER STREET  
BALTIMORE, MD 21217



DES: DAE				
DRN: LMB				
CHK: RJA/DAE				
DATE: 4/7/00	BY	NO.	REVISION	DATE

**SIGNING AND PAVEMENT MARKING PLAN**

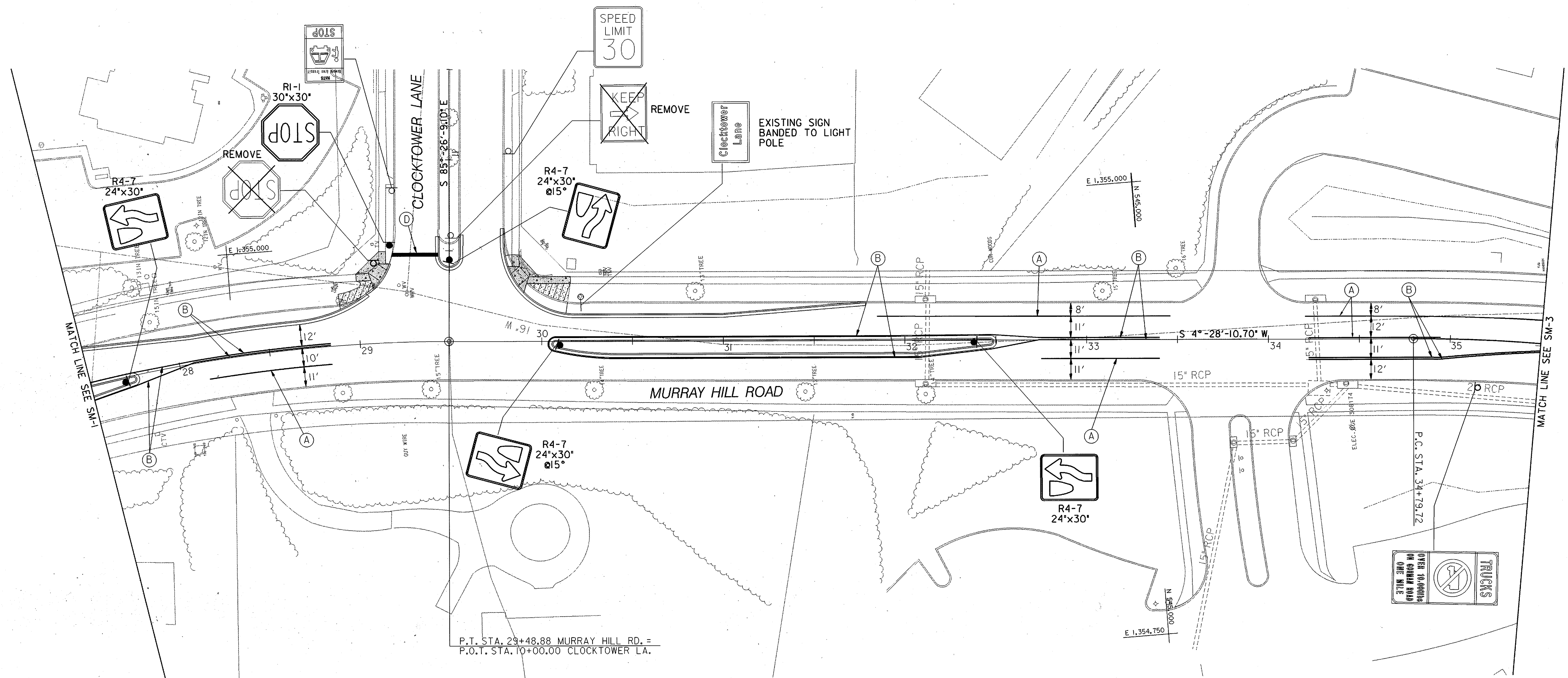
MURRAY HILL ROAD  
IMPROVEMENTS  
CAPITAL PROJECT NO. J-4164  
HOWARD COUNTY, MARYLAND

SM-1

SCALE  
1" = 30'

SHEET  
7 OF 10

8/2/00 11:59:07  
k:\data\197-12\murray\sign\sm1\murr.dgn (sm1\murr.pr7)



P.T. STA. 29+48.88 MURRAY HILL RD. =  
P.O.T. STA. 10+00.00 CLOCKTOWER LA.

**LEGEND**

	EXISTING SIGN TO REMAIN
	EXISTING SIGN TO BE REMOVED
	PROPOSED NEW SIGN
	EXISTING SIGN LOCATION
	PROPOSED NEW SIGN LOCATION

**PAVEMENT MARKING LEGEND**

(A)	5" SOLID WHITE LINE (WATERBORNE TRAFFIC PAINT)
(B)	5" SOLID YELLOW LINE (WATERBORNE TRAFFIC PAINT)
(C)	12" SOLID YELLOW LINE (WATERBORNE TRAFFIC PAINT)
(D)	24" SOLID WHITE LINE (HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS)

SM-2

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James J. Lewis*  
DIRECTOR OF PUBLIC WORKS  
DATE: 8/17/00

*Richard J. Spang*  
CHIEF, BUREAU OF ENGINEERING  
DATE: 8/17/00

*John C. Coia*  
CHIEF, DIVISION OF TRANSPORTATION,  
PROJECTS & WATERSHED MANAGEMENT  
DATE: 8/17/00

**RK & K**  
RUMMEL KLEPPER  
& KAHL, LLP  
CONSULTING ENGINEERS  
81 MOSHER STREET  
BALTIMORE, MD  
21217



DES: DAE			
DRN: LMB			
CHK: RJA/DAE			
DATE: 4/7/00			
BY	NO.	REVISION	DATE

**SIGNING AND  
PAVEMENT MARKING PLAN**

MURRAY HILL ROAD  
IMPROVEMENTS  
CAPITAL PROJECT NO. J-4164  
HOWARD COUNTY, MARYLAND

SCALE  
1" = 30'

SHEET  
8 OF 10

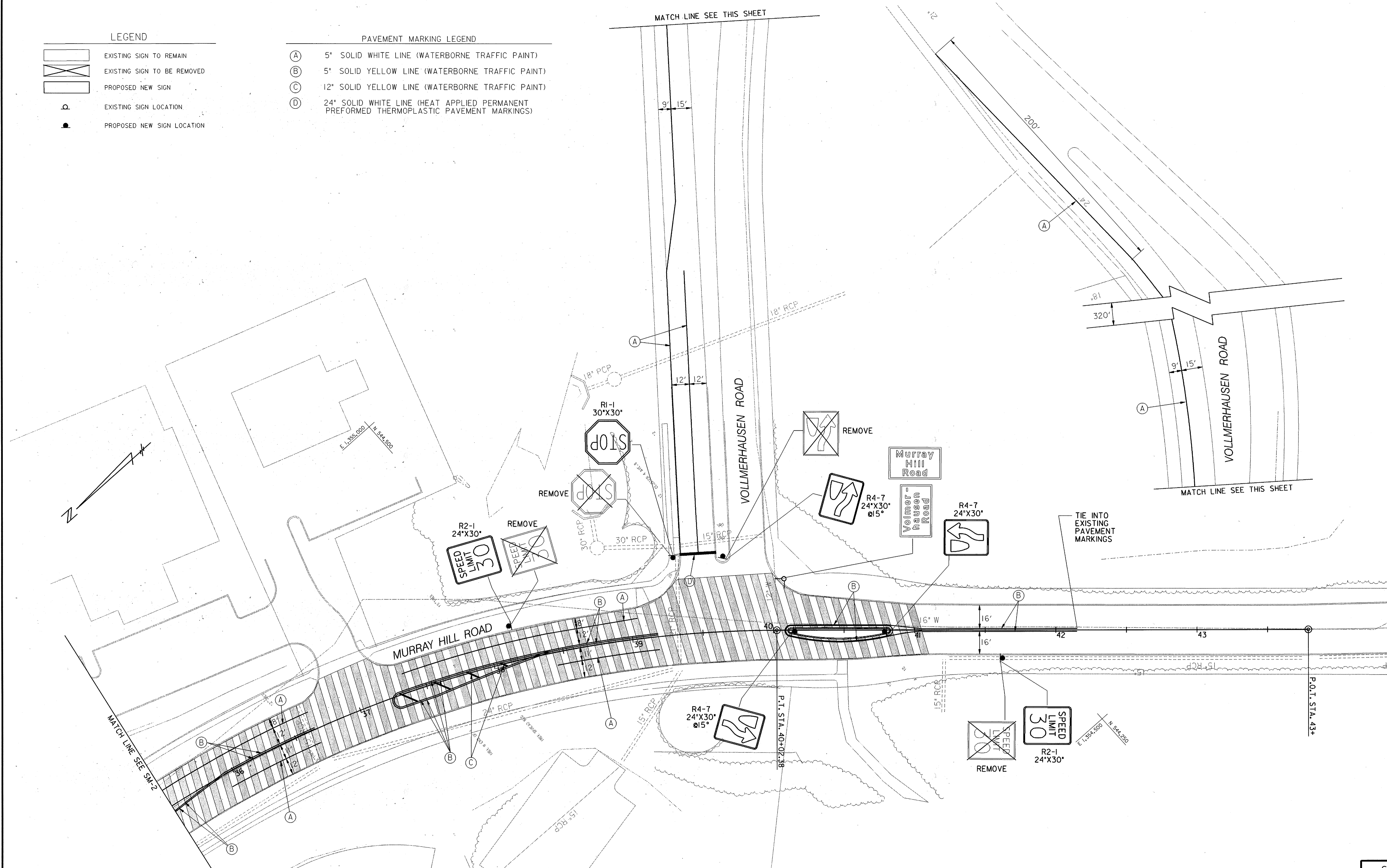


LEGEND

- EXISTING SIGN TO REMAIN
- EXISTING SIGN TO BE REMOVED
- PROPOSED NEW SIGN
- EXISTING SIGN LOCATION
- PROPOSED NEW SIGN LOCATION

PAVEMENT MARKING LEGEND

- (A) 5" SOLID WHITE LINE (WATERBORNE TRAFFIC PAINT)
- (B) 5" SOLID YELLOW LINE (WATERBORNE TRAFFIC PAINT)
- (C) 12" SOLID YELLOW LINE (WATERBORNE TRAFFIC PAINT)
- (D) 24" SOLID WHITE LINE (HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS)



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

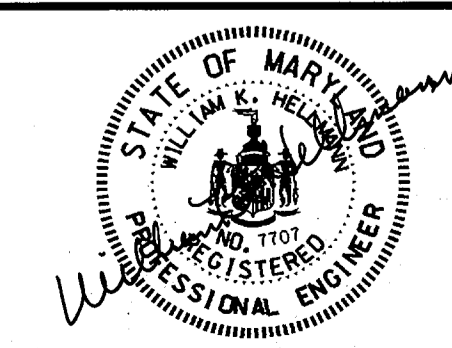
*Lawrence A. ...*  
DIRECTOR OF PUBLIC WORKS DATE

*Paul G. ...*  
CHIEF, BUREAU OF ENGINEERING DATE

*...*  
CHIEF, DIVISION OF TRANSPORTATION, DATE

PROJECTS & WATERSHED MANAGEMENT

**RK & K**  
RUMMEL KLEPPER & KAHL, LLP  
CONSULTING ENGINEERS  
81 MOSHER STREET  
BALTIMORE, MD  
21217



DES: DAE				
DRN: LMB				
CHK: RJA/DAE				
DATE: 4/7/00				
BY	NO.	REVISION		DATE

SIGNING AND PAVEMENT MARKING PLAN

MURRAY HILL ROAD IMPROVEMENTS  
CAPITAL PROJECT NO. J-4164  
HOWARD COUNTY, MARYLAND

SM-3

SCALE  
1" = 30'

SHEET  
9 OF 10

