

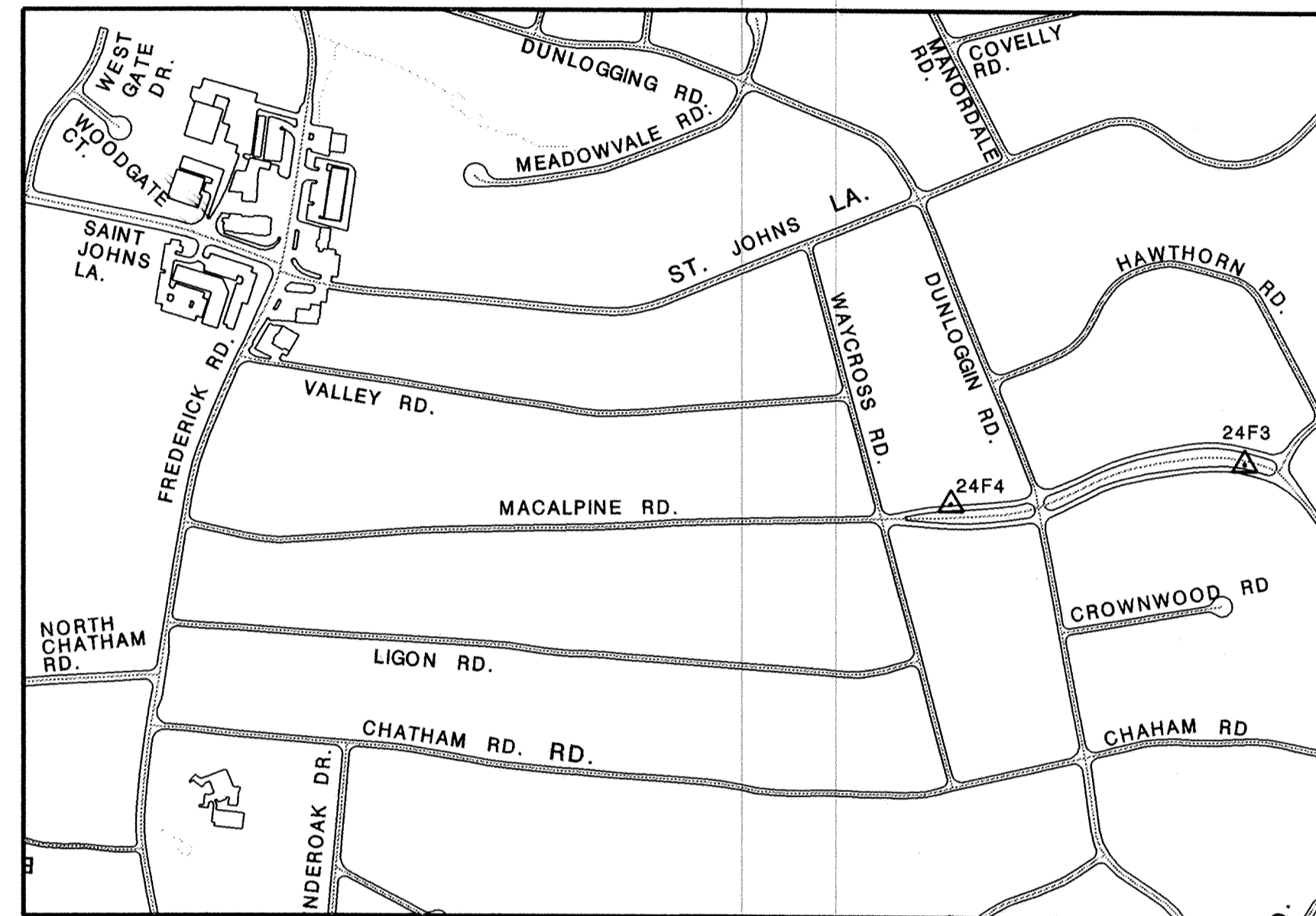
FINAL DESIGN
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
CAPITAL PROJECT NO D-1103
VALLEY ROAD DRAINAGE IMPROVEMENTS

AS-BUILT

February, 2006

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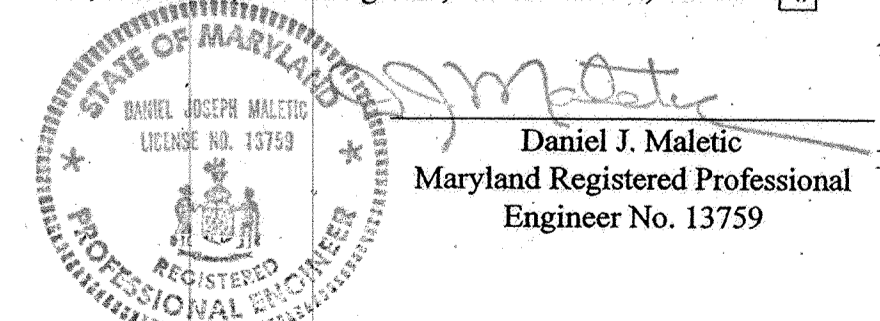
VICINITY MAP
SCALE 1" = 500'

GENERAL NOTES.


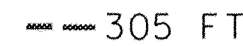





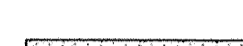

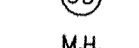

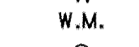

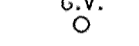
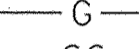
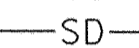
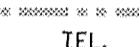



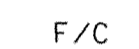
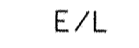
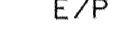

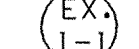

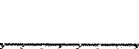
1. THE CONTRACTOR IS RESPONSIBLE FOR DAMAGES OR ADJUSTMENTS TO ANY RESIDENTIAL DRIVEWAYS, APRONS, DOWN SPOUTS, ROOF DRAIN LEADERS, OR UNDERDRAINS WHILE RECONSTRUCTING PROPOSED CURB AND DRIVEWAY APRONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE RELOCATION AND/OR REPLACEMENT OF ANY MAIL BOXES OR LETTER BOXES, FENCES, LANDSCAPING OF ANY SIGNS REMOVED OR DAMAGED DURING THE COURSE OF CONSTRUCTION.
3. THE CONTRACTOR SHALL REPLACE OR REPAIR ANY ROAD PAVEMENT DAMAGED DURING THE COURSE OF CONSTRUCTION AS DIRECTED BY THE HOWARD COUNTY INSPECTOR.
4. ALL RESIDENTIAL DRIVEWAYS, APRONS, AND PUBLIC ROADWAYS SHALL BE KEPT CLEAN AND FREE OF ALL CONSTRUCTION RELATED DEBRIS.
5. AT NO TIME SHALL ANY RESIDENTIAL DRIVEWAYS BE BLOCKED BY CONSTRUCTION VEHICLES AND/OR MATERIALS.
6. FIELD TOPOGRAPHIC SURVEY WAS PERFORMED BETWEEN 6-16-200 AND 1-11-2001 BY AB CONSULTANT, INC 9450 ANNAPOLIS ROAD, LANHAM, MARYLAND 20706.
7. AT NO TIME SHALL CONTRACTOR ENTER PRIVATE PROPERTY WITH CONSTRUCTION VEHICLES, EQUIPMENT, MATERIALS AND/OR WORK CREWS.
8. BENCHMARKS/TRVERSE POINTS
 BENCHMARK #1 - TRAV. PT. # 103 PK NAIL.
 BENCHMARK #2 - TRAV. PT. # 104 PK NAIL.
 BENCHMARK #3 - TRAV. PT. # 901 PK NAIL.
 BENCHMARK #4 - TRAV. PT. # 902 PK NAIL.
 BENCHMARK #5 - TRAV. PT. # 903 PK NAIL.
 BENCHMARK #6 - TRAV. PT. # 904 PK NAIL.
 BENCHMARK #7 - TRAV. PT. # 905 PK NAIL.
 BENCHMARK #8 - TRAV. PT. # 906 HUB & TACK.
 BENCHMARK #9 - TRAV. PT. # 911 REBARB & CAP.
 BENCHMARK #10 - TRAV. PT. # 912 REBARB & CAP.
 BENCHMARK #11 - TRAV. PT. # 913 REBARB & CAP.
9. TOP ELEVATIONS FOR THE PROPOSED INLETS AND MANHOLES ARE PROVIDED ON THE PLANS AND/OR PROFILES. CONTRACTOR SHALL ADJUST FINAL ELEVATIONS TO FINISHED GRADE AS NECESSARY.
10. MARYLAND STATE REFERENCE SYSTEM HORIZONTAL DATUM NAD 83/91, VERTICAL DATUM NAVD 88, AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STA. NO 24F3 & 24F4.
11. CONTRACTOR TO ADJUST GRADE AS REQUIRED TO MEET FIELD CONDITIONS, TO ENSURE ADEQUATE DRAINAGE TO EXISTING AND PROPOSED STORM DRAIN STRUCTURES.
12. THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ON THE PLANS ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR BEFORE STARTING CONSTRUCTION. NEITHER THE ENGINEER NOR THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS WARRANT OR GUARANTEE THE COMPLETENESS OR CORRECTNESS OF THE INFORMATION SHOWN.
13. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES. ANY DAMAGE DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. IF CLEARANCES OF UTILITY CROSSINGS ARE LESS THAN SPECIFIED ON THIS PLAN OR LESS THAN 12" WHEN NOT SPECIFIED, THE CONTRACTOR MUST CONTACT THE COUNTY'S INSPECTOR AND THE APPROPRIATE UTILITY OWNER BEFORE PROCEEDING WITH CONSTRUCTION.
14. TEST PITS SHALL BE DUG AT ALL UTILITY CROSSINGS TO DETERMINE EXISTING HORIZONTAL AND VERTICAL ALIGNMENT OF UTILITIES. TEST PITS SHALL BE EXCAVATED IN A SUFFICIENT AMOUNT OF TIME IN ADVANCE OF CONSTRUCTION OR TRECHING OPERATION, IN ORDER TO ALLOW FOR NECESSARY ADJUSTMENTS.
15. ALL UTILITY POLES MUST BE CLEARED BY 5 FEET. IF THE STORM DRAIN PIPING OR STRUCTURE WORK IS WITHIN FIVE FEET OF A UTILITY POLE, THE POLE MUST BE BRACED OR THE PROPOSED STORM DRAIN SHALL BE PLACED BY TUNNELING. ALL COST FOR TUNNELING AND/OR BRACING ARE TO BE INCLUDED IN THE UNIT PRICE BID FOR FURNISHING AND LAYING THE STORM DRAIN PIPE.
16. ALL STORM DRAIN PIPE INVERT ELEVATIONS AND LENGTH ARE MEASURED AT CENTERLINE OF STORM DRAIN STRUCTURES.
17. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION AS DIRECTED BY THE COUNTY INSPECTOR. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE FOR FURNISHING AND LAYING STORM DRAIN PIPE.
18. PLACE REGULATION "ROADWORK" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS, AND THE LATEST EDITION OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND ALL SUBSEQUENT ADDENDUMS.
19. EXISTING WATER HOUSE SERVICES, THAT ARE IN CONFLICT WITH THE PROPOSED STORM DRAINAGE FACILITIES SHALL BE RELOCATED PER COUNTY STANDARDS WITH 36" MINIMUM COVER AND 12" MINIMUM CLEARANCE STEP STORM DRAIN PIPE.
20. FOR DETAILS NOT SHOWN ON DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, THE CONTRACTOR SHALL ABIDE BY THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION" AND THE SPECIAL SOURCES, THE LATER SHALL GOVERN.
21. ALL SLOPES AND/OR DISTURBED AREAS SHALL RECEIVE 2-INCH DEPTH OF TOPSOIL BEFORE SEEDING AND MULCHING.
22. LOCATION POINTS FOR INLETS, MANHOLES AND STRUCTURES
 ITEMS: CURB TYPE INLETS, MANHOLES
 HORIZONTAL LOC: CENTER OF STRUCTURE, CENTER OF COVER
 VERTICAL LOC: TOP OF CURB, TOP, RIM OR COVER
23. THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN VICINITY OF UTILITIES AND STORM DRAIN PIPES AND STRUCTURES. COST WILL BE COVERED BY "TEST PITS" ITEM MEASURED IN CUBIC YARD.
24. STANDARD DETAILS FOR THIS CONTRACT SHALL BE THE HOWARD COUNTY STANDARD DETAILS AS SUPPLEMENTED BY THE MARYLAND STATE HIGHWAY ADMINISTRATION STANDARD DETAILS.
25. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS BEFORE STARTING WORK SHOWN HEREON:
 MISS UTILITY 1-800-257-7777
 BALTIMORE GAS & ELECTRIC CO., UNDERGROUND ELECTRICAL DISTRIBUTION ENGINEERING DAMAGE CONTROL 234-6313
 BALTIMORE GAS & ELECTRIC CO., UNDERGROUND GAS DISTRIBUTION ENGINEERING 234-5533
 VERIZON TELEPHONE CO., 725-9976
 COLONIAL PIPELINE COMPANY 781-4641
 COMCAST COMMUNICATION 461-1152
 HOWARD COUNTY BUREAU OF UTILITIES 313-4900
 HOWARD COUNTY TRAFFIC DIVISION 313-2430
 HOWARD COUNTY SURVEYING AND DRAFTING DIVISION 313-2417
 HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION 313-1880
26. THE CONTRACTOR SHALL REPLACE ALL STEPS AND LEAD WALKS IN KIND DISTURBED IN CONSTRUCTION. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENT AS REQUIRED BY THE HOWARD COUNTY INSPECTOR.
27. IF COBBLESTONES ARE ENCOUNTERED, CONTRACTOR SHALL MAKE FIELD BUREAU OF HIGHWAYS MAINTENANCE YARD FOR STOCKPILING.
28. THE CONTRACTOR TO ADJUST ALL APPURTENANCES LOCATED IN THE PAVEMENT TO MATCH FINAL PAVEMENT ELEVATION.
29. THE CONTRACTOR SHALL RESTORE ALL SIDEWALKS AND CURBING DISTURBED IN CONSTRUCTION. THE CONTRACTOR SHALL PROVIDED TEMPORARY ACCESS AS REQUIRED.
30. EXISTING RETAINING WALLS IMPACTED BY CONSTRUCTION OF STORM DRAIN OUTFALLS OR STORM DRAIN STRUCTURES AND CURBING ARE TO BE REPLACED OR REPAIRED IN KIND. PAYMENT FOR SUCH CONSTRUCTION SHALL BE INCLUDE IN THE UNIT PRICES FOR THE APPROPRIATE ITEMS.
31. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
32. EXISTING ROOF DRAIN PIPES SERVING ADJACENT LOTS MIGHT EXIST WITH STREET ROW. THE CONTRACTOR SHALL VERIFY THE EXISTENCE OF ROOF DRAIN PIPES WITHIN STREET ROW AND NOTIFY THE HOWARD COUNTY INSPECTOR WHEN ROOF DRAIN LINES ARE ENCOUNTERED. UPON DIRECTION OF THE INSPECTOR, THE CONTRACTOR SHALL EXTEND AND CONNECT ROOF DRAIN LINES TO NEW STORM DRAIN LINES IN ACCORDANCE WITH "FIELD CONNECTION" DETAIL (HOWARD COUNTY SD-2.01). MEASUREMENT AND PAVEMENT FOR THIS WORK SHALL BE IN ACCORDANCE WITH THE UNIT PRICE BID FOR "FIELD CONNECTION".



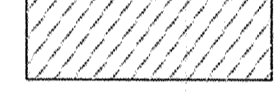

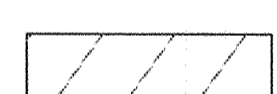
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVE IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT. SIGNATURE OF DEVELOPMENT: <i>Paul J. Sappan</i> DATE: 6/1/04	
ENGINEER'S CERTIFICATION I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT 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. SIGNATURE: <i>Michael Baker Jr.</i> DATE: 5/19/04 MICHAEL BAKER JR., INC. CONSULTING ENGINEERS 801 CROMWELL PARK DRIVE SUITE 110 GLEN BURNIE, MARYLAND 21061 (410) 424-2210	REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS SIGNATURE: <i>Jim Myle</i> DATE: 5/24/04 THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT. SIGNATURE: <i>John R. Roberts</i> DATE: 5/24/04 HOWARD CONSERVATION DISTRICT

I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, line and grade, and elevations, shown #



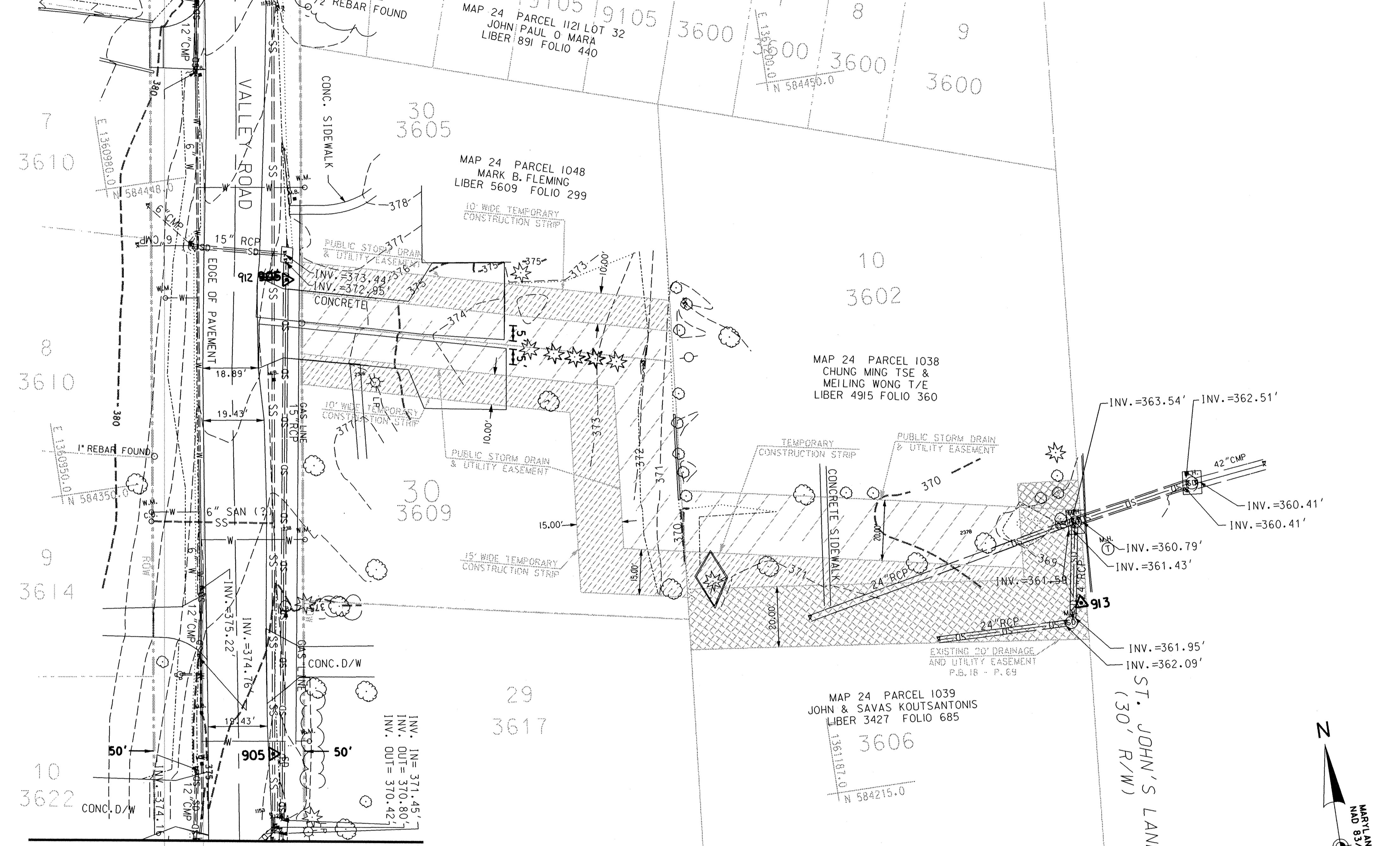
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DIRECTOR OF PUBLIC WORKS: <i>John J. De...</i> DATE: 6/3/04 CHIEF, BUREAU OF ENGINEERING: <i>Paul J. Sappan</i> DATE: 6/1/04	DEPARTMENT OF TRANSPORTATION AND SPECIAL PROJECTS CHIEF: <i>Steve Shaver</i> DATE: 5/28/04	MICHAEL BAKER JR., INC. Consulting Engineers 801 Cromwell Park Drive Suite 110 Glen Burnie, Maryland 21061 (410) 424-2210	DES: R.T. DRN: J.O.T. CHK: M.C.B. DATE: 4/16/04 BY NO. DATE	DRAINAGE IMPROVEMENTS PROJECT NO. D-1103	TITLE SHEET VALLEY ROAD HOWARD COUNTY, MARYLAND	SCALE AS SHOWN SHEET REFERENCE NUMBER LG101 1 OF 33
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-  EXISTING BUILDING/HOUSE NO
- 1294X EXISTING SPOT ELEVATION
-  305 FT EXISTING CONTOURS
-  EXISTING GUARD RAIL
-  EXISTING WALL
-  EXISTING TREE
-  EXISTING TREELINE
-  EXISTING EDGE OF PAVEMENT
-  EXISTING CURB
-  EXISTING SIDEWALK
-  EXISTING STORM DRAIN MANHOLE
-  EXISTING SANITARY SEWER
-  EXISTING WATER LINE
-  EXISTING WATER METER/WHC
-  EXISTING WATER VALVE/FIRE HYDRANT
-  EXISTING GAS VALVE/METER/GHC
-  EXISTING GAS LINE
-  EXISTING SANITARY SEWER LINE
-  EXISTING STORM DRAIN LINE
-  EXISTING RIGHT-OF-WAY LINE
-  EXISTING OVERHEAD TELEPHONE
-  EXISTING OVERHEAD ELECTRIC
-  EXISTING PHONE/POWER POLE
-  EXISTING SIGN
-  FACE OF CURB
-  EDGE OF LANE
-  EDGE OF PAVEMENT
-  CENTER LINE

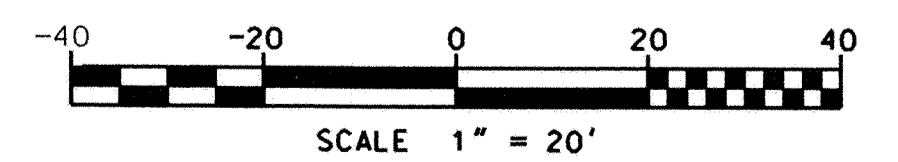
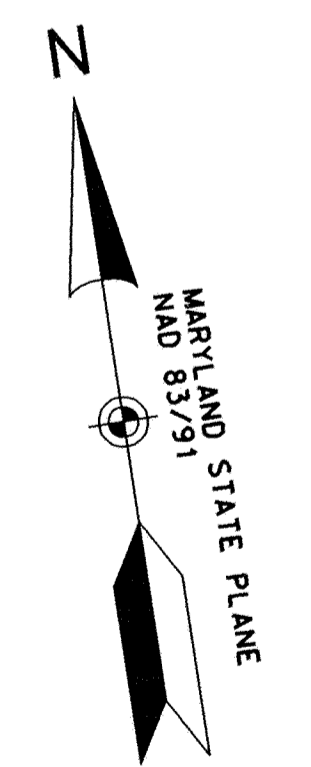
-  EX. SANITARY SEW. STRUCTURE
-  TRAVERSE POINT
-  PUBLIC DRAIN & UTILITY EASEMENT
-  EXISTING 20' DRAINAGE AND UTILITY EASEMENT P.B.18-P.69
-  TEMPORARY CONSTRUCTION STRIP

TRAVERSE POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
905	P.K. NAILS	584255.81	1361005.49	373.57
912	HUB & CAP	584409.64	1361033.92	376.41
913	REBAR & CAP	584265.15	1361275.79	368.95

FOR CONTINUATION SEE SHEET 2 OF 33



FOR CONTINUATION SEE SHEET 4 OF 33



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James J. ... 6/3/04
 DIRECTOR OF PUBLIC WORKS DATE

Steve Shayan 5/29/04
 CHIEF, BUREAU OF ENGINEERING DATE

William F. ... 5-28-04
 CHIEF, BUREAU OF HIGHWAYS DATE

Steve Shayan 5/29/04
 CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE





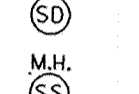
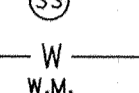
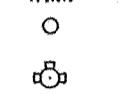
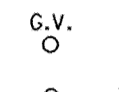
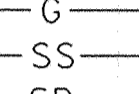
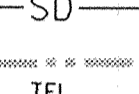

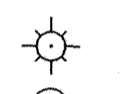
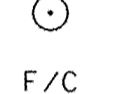
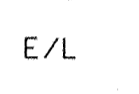
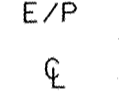








Baker
 MICHAEL BAKER JR. INC.
 Consulting Engineers
 801 Crosswell Park Drive
 Suite 110
 Glen Burnie, Maryland 21061
 (410) 424-2210

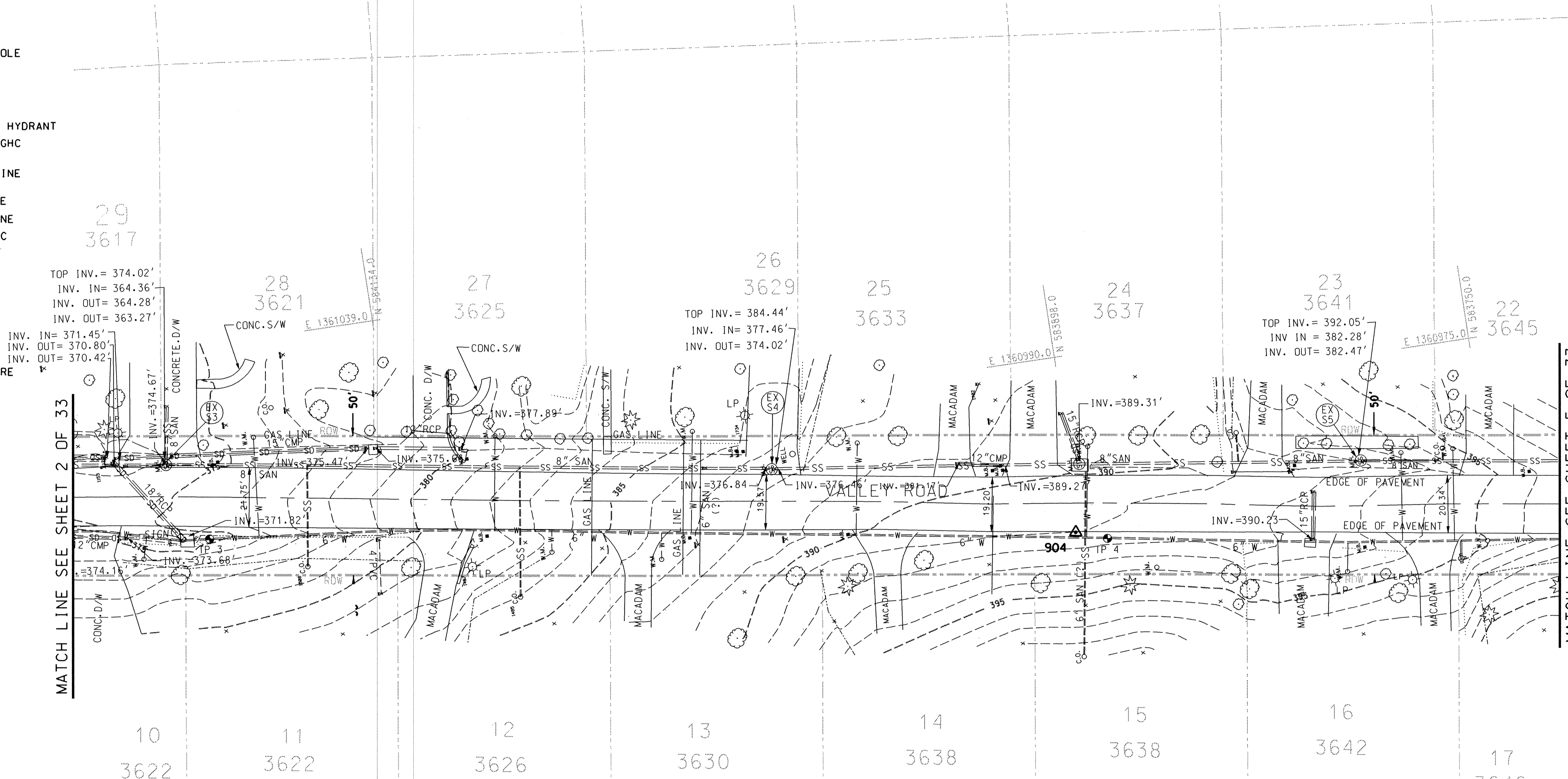
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 DATE: 4/16/04 BY NO. DATE

DRAINAGE IMPROVEMENTS
 PROJECT NO. D-1103

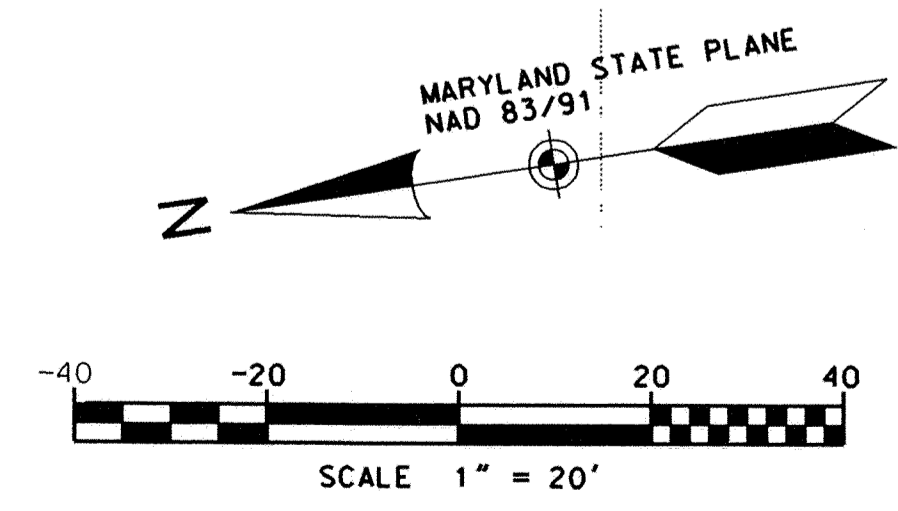
EXISTING CONDITION PLAN
 VALLEY ROAD
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET REFERENCE NUMBER
 CS102
 3 OF 33

-  EXISTING BUILDING/HOUSE No
- 1294X EXISTING SPOT ELEVATION
- - - 305 FT - - - EXISTING CONTOURS
- — — EXISTING GUARD RAIL
- — — EXISTING WALL
-  EXISTING TREE
-  EXISTING TREELINE
- — — EXISTING EDGE OF PAVEMENT
- — — EXISTING CURB
-  EXISTING SIDEWALK
- M.H.  EXISTING STORM DRAIN MANHOLE
- M.S.  EXISTING SANITARY SEWER
- W  EXISTING WATER LINE
- W.M.  EXISTING WATER METER/WHC
- C.V.  EXISTING WATER VALVE/FIRE HYDRANT
- G.V.  EXISTING GAS VALVE/METER/GHC
- G  EXISTING GAS LINE
- SS  EXISTING SANITARY SEWER LINE
- SD  EXISTING STORM DRAIN LINE
- — — EXISTING RIGHT-OF-WAY LINE
- TEL  EXISTING OVERHEAD TELEPHONE
- TEL  EXISTING OVERHEAD ELECTRIC
-  EXISTING PHONE/POWER POLE
-  EXISTING SIGN
- F/C  FACE OF CURB
- E/L  EDGE OF LANE
- E/P  EDGE OF PAVEMENT
- CL  CENTER LINE
-  EX. SANITARY SEW. STRUCTURE
- ###  TRAVERSE POINT



TRAVERSE POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
904	P.K. NAIL	583900.05	1360927.56	391.05



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *Jan P. [Signature]* 6/1/04
 Chief, Bureau of Engineering: *[Signature]* 6/1/04
 Chief, Bureau of Highways: *William J. [Signature]* 5-28-04
 Chief, Division of Transportation and Special Projects: *Steve Sharpe* 5/28/04

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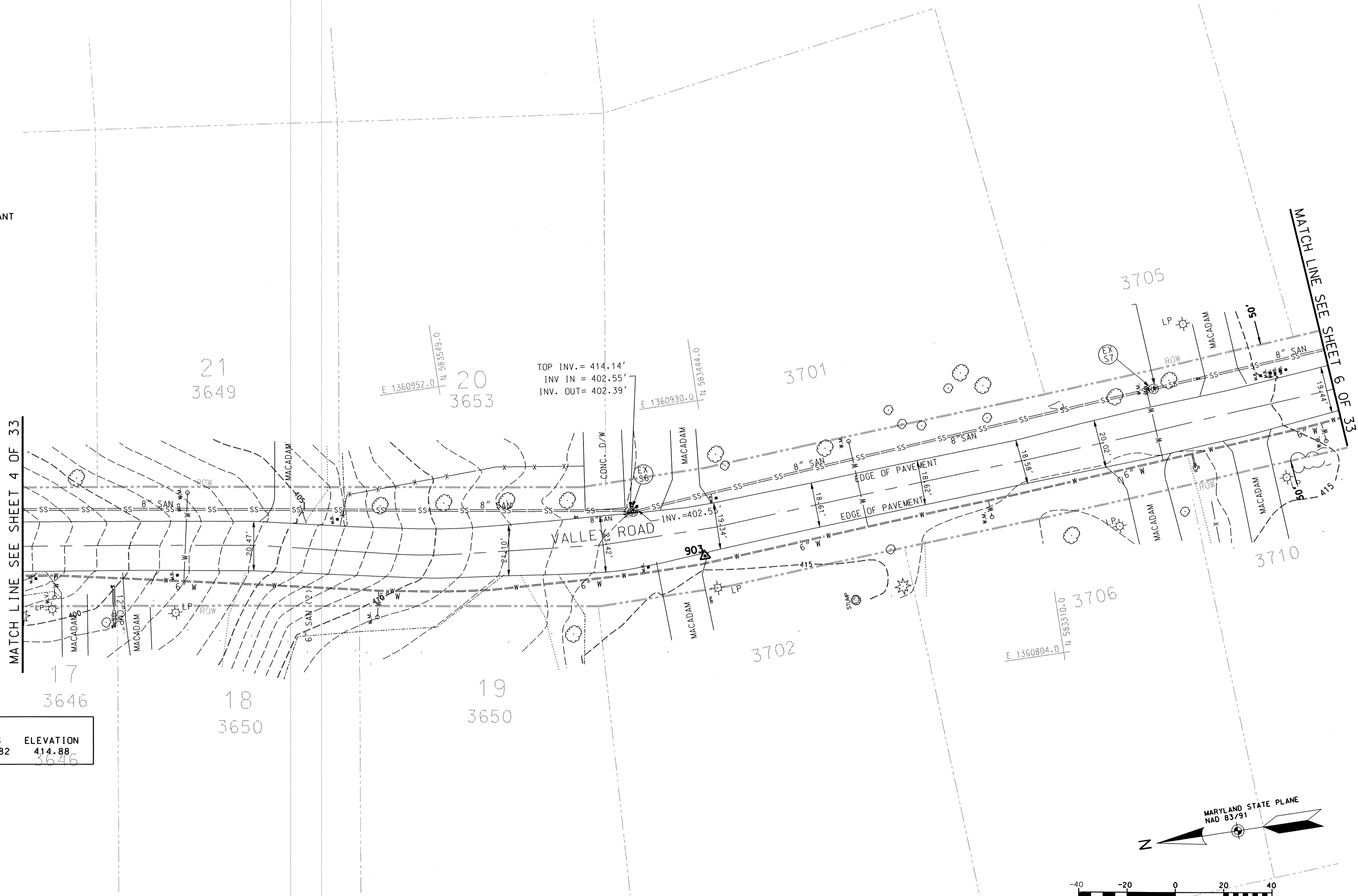
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DATE: 4/16/04	BY: NO.		DATE:

DRAINAGE IMPROVEMENTS
 PROJECT NO.
 D-1103

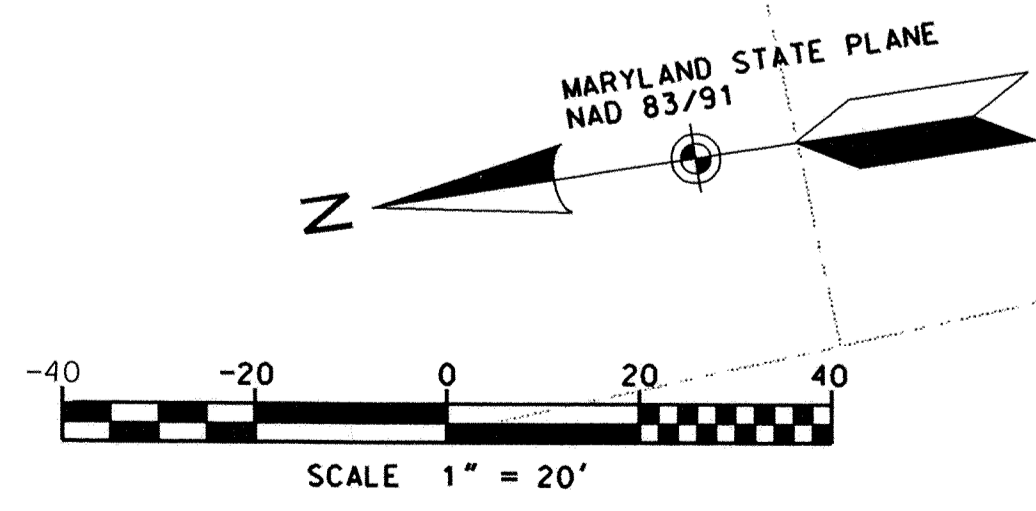
EXISTING CONDITION PLAN
 VALLEY ROAD
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET REFERENCE NUMBER
 CS103
 4 OF 33

- EXISTING BUILDING/HOUSE NO
- 1294X EXISTING SPOT ELEVATION
- - - 305 FT - - - EXISTING CONTOURS
- ===== EXISTING GUARD RAIL
- ===== EXISTING WALL
- X - X - EXISTING WOOD FENCE
- EXISTING TREE
- ===== EXISTING TREELINE
- ===== EXISTING EDGE OF PAVEMENT
- ===== EXISTING CURB
- EXISTING SIDEWALK
- EXISTING STORM DRAIN MANHOLE
- EXISTING SANITARY SEWER
- W ===== EXISTING WATER LINE
- W.M. o ===== EXISTING WATER METER/WHC
- EXISTING WATER VALVE/FIRE HYDRANT
- G.V. o ===== EXISTING GAS VALVE/METER/GHC
- G ===== EXISTING GAS LINE
- SS ===== EXISTING SANITARY SEWER LINE
- SD ===== EXISTING STORM DRAIN LINE
- - - - - EXISTING RIGHT-OF-WAY LINE
- TEL. o ===== EXISTING OVERHEAD TELEPHONE
- TEL. o ===== EXISTING OVERHEAD ELECTRIC
- EXISTING PHONE/POWER POLE
- o ===== EXISTING SIGN
- F/C ===== FACE OF CURB
- E/L ===== EDGE OF LANE
- E/P ===== EDGE OF PAVEMENT
- o ===== CENTER LINE
- EX. SANITARY SEW. STRUCTURE
- ▲ ### TRAVERSE POINT NUMBER



TRAVERSE POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
903	P.K. NAIL	583450.79	1360865.82	414.88



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *Jan J. [Signature]* DATE: 6/3/04
 Chief, Bureau of Engineering: *Steve Sharan* DATE: 5/28/04
 Chief, Bureau of Highways: *William J. [Signature]* DATE: 5-28-04
 Chief, Division of Transportation and Special Projects: *Steve Sharan* DATE: 5/28/04


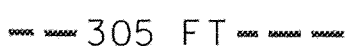






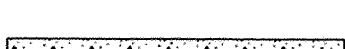
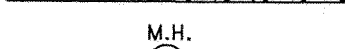




















Baker
 Consulting Engineers
 801 Cromwell Park Drive
 Suite 110
 Glen Burnie, Maryland 21061
 (410) 424-2210

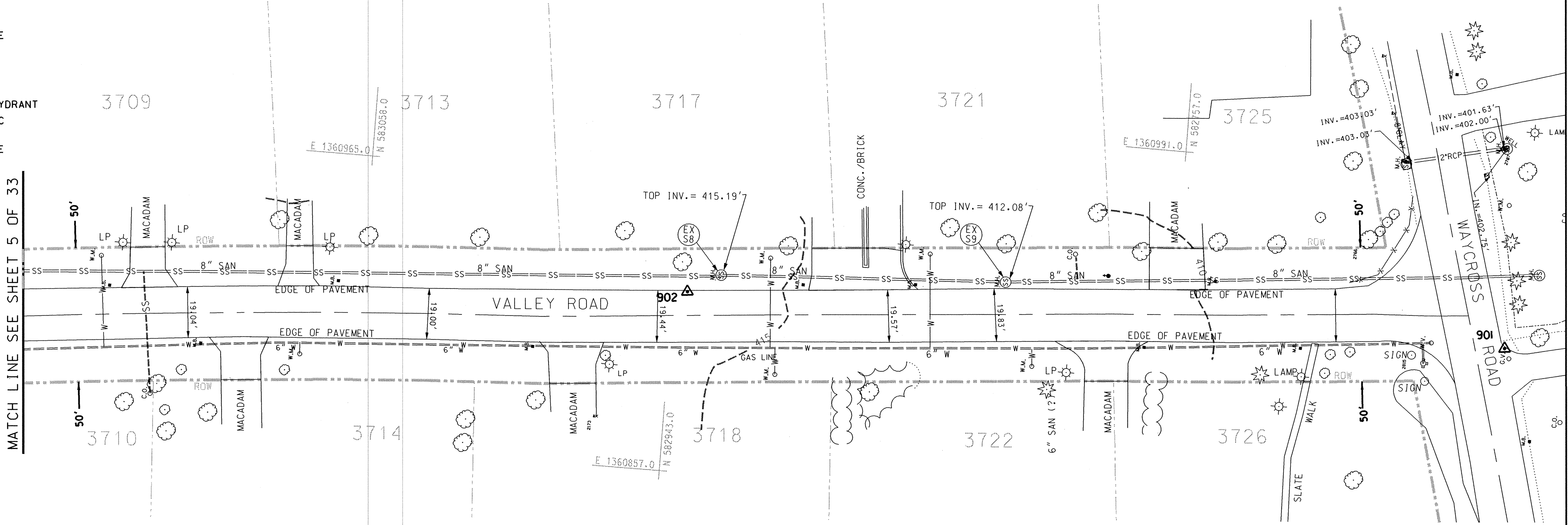
DES: R.T.			
DRN: J.O.T.			
CHK: M.C.B.			
DATE: 4/16/04	BY NO.		DATE

DRAINAGE IMPROVEMENTS
 PROJECT NO.
 D-1103

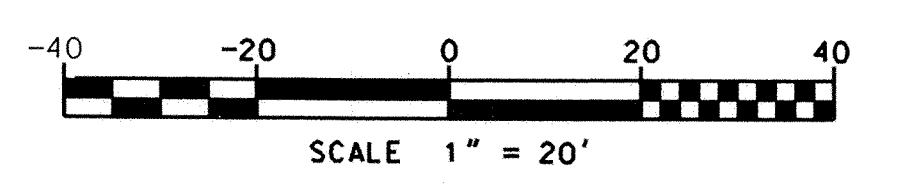
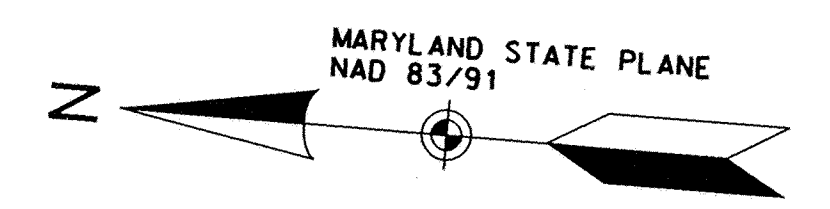
EXISTING CONDITION PLAN
 VALLEY ROAD
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET REFERENCE NUMBER
 CS104
 5 OF 33

-  EXISTING BUILDING/HOUSE No
- 1294X EXISTING SPOT ELEVATION
-  305 FT EXISTING CONTOURS
-  EXISTING GUARD RAIL
-  EXISTING WALL
-  EXISTING FENCE
-  EXISTING TREE
-  EXISTING TREELINE
-  EXISTING EDGE OF PAVEMENT
-  EXISTING CURB
-  EXISTING SIDEWALK
-  EXISTING STORM DRAIN MANHOLE
-  EXISTING SANITARY SEWER
-  EXISTING WATER LINE
-  EXISTING WATER METER/WHC
-  EXISTING WATER VALVE/FIRE HYDRANT
-  EXISTING GAS VALVE/METER/GHC
-  EXISTING GAS LINE
-  EXISTING SANITARY SEWER LINE
-  EXISTING STORM DRAIN LINE
-  EXISTING RIGHT-OF-WAY LINE
-  EXISTING OVERHEAD TELEPHONE
-  EXISTING OVERHEAD ELECTRIC
-  EXISTING PHONE/POWER POLE
-  EXISTING SIGN
-  FACE OF CURB
-  EDGE OF LANE
-  EDGE OF PAVEMENT
-  CENTER LINE
-  EX. SANITARY SEW. STRUCTURE
-  TRAVERSE POINT



TRAVERSE POINT #	DESCRIPTION	NORTHING	EASTING	ELEVATION
901	P.K. NAIL	58263312	1360927.58	405.43
902	P.K. NAIL	582937.66	1360924.37	416.03



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 6/1/04
DIRECTOR OF PUBLIC WORKS DATE

[Signature] 6/3/04
CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 5/28/04
Steve Shavan CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

[Signature] 5-28-04
CHIEF, BUREAU OF HIGHWAYS DATE



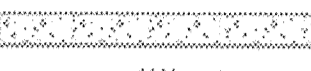


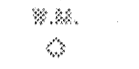


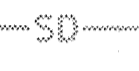




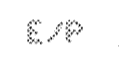







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MICHAEL BAKER JR. INC.
Consulting Engineers
801 Cromwell Park Drive
Suite 110
Glen Burnie, Maryland 21061
(410) 424-2210


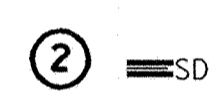
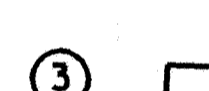
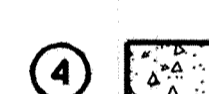


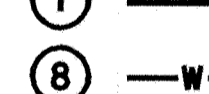


DES: R.T.			
DRN: J.D.T.			
CHK: M.C.B.			
DATE: 4/16/04	BY	NO.	DATE

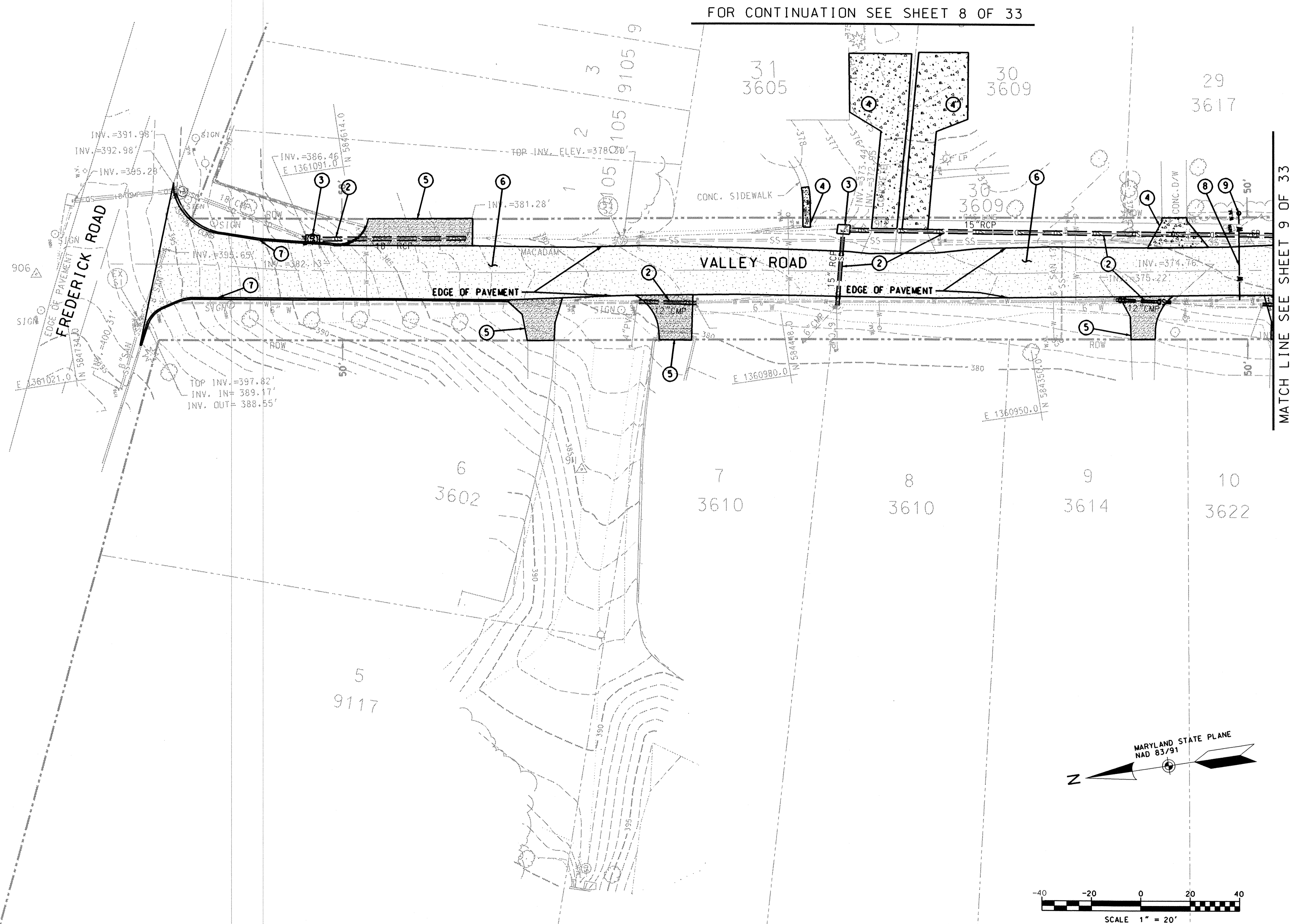
DRAINAGE IMPROVEMENTS
PROJECT NO.
D-1103

DEMOLITION PLAN
VALLEY ROAD
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET REFERENCE NUMBER
CS105
6 OF 33

-  EXISTING BUILDING/HOUSE No
- 1294X EXISTING SPOT ELEVATION
- - - 305 FT - - - EXISTING CONTOURS
- — — EXISTING GUARD RAIL
- — — EXISTING WALL
-  EXISTING TREE
- — — EXISTING TREELINE
- — — EXISTING EDGE OF PAVEMENT
- — — EXISTING CURB
-  EXISTING SIDEWALK
-  EXISTING STORM DRAIN MANHOLE
-  EXISTING SANITARY SEWER
-  EXISTING WATER LINE
-  EXISTING WATER METER/WHC
-  EXISTING WATER VALVE/FIRE HYDRANT
-  EXISTING GAS VALVE/METER/GHC
-  EXISTING GAS LINE
-  EXISTING SANITARY SEWER LINE
-  EXISTING STORM DRAIN LINE
-  EXISTING RIGHT-OF-WAY LINE
-  EXISTING OVERHEAD TELEPHONE
-  EXISTING OVERHEAD ELECTRIC
-  EXISTING PHONE/POWER POLE
-  EXISTING SIGN
-  FACE OF CURB
-  EDGE OF LANE
-  EDGE OF PAVEMENT
-  CENTER LINE

-  REMOVE EXISTING STORM DRAIN MANHOLE
-  REMOVE EXISTING STORM DRAIN LINES
-  REMOVE EXISTING STORM DRAIN INLET
-  REMOVE EXISTING CONCRETE PAVEMENT (SIDEWALK/DRIVEWAY)
-  REMOVE EXISTING ASPHALT PAVEMENT (FULL DEPTH)
-  REMOVE EXISTING ASPHALT ROADWAY (FULL DEPTH)
-  REMOVE EXISTING CURB
-  REMOVE EXISTING CURB
-  REMOVE EXISTING CURB



FOR CONTINUATION SEE SHEET 8 OF 33

MATCH LINE SEE SHEET 9 OF 33

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 6/1/04
DIRECTOR OF PUBLIC WORKS DATE

[Signature] 5/28/04
CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 5-28-04
CHIEF, BUREAU OF HIGHWAYS DATE

[Signature] 5/28/04
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

Baker
MICHAEL BAKER JR. INC.
Consulting Engineers
801 Crowell Park Drive
Suite 110
Glen Burnie, Maryland 21061
(410) 424-2210

DES: R. T.				
DRN: J. O. T.				
CHK: M. C. B.				
DATE: 4/16/04	BY	NO.		DATE

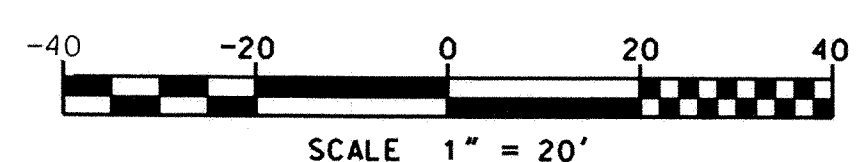
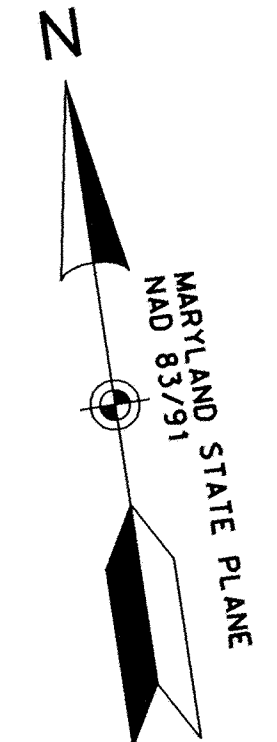
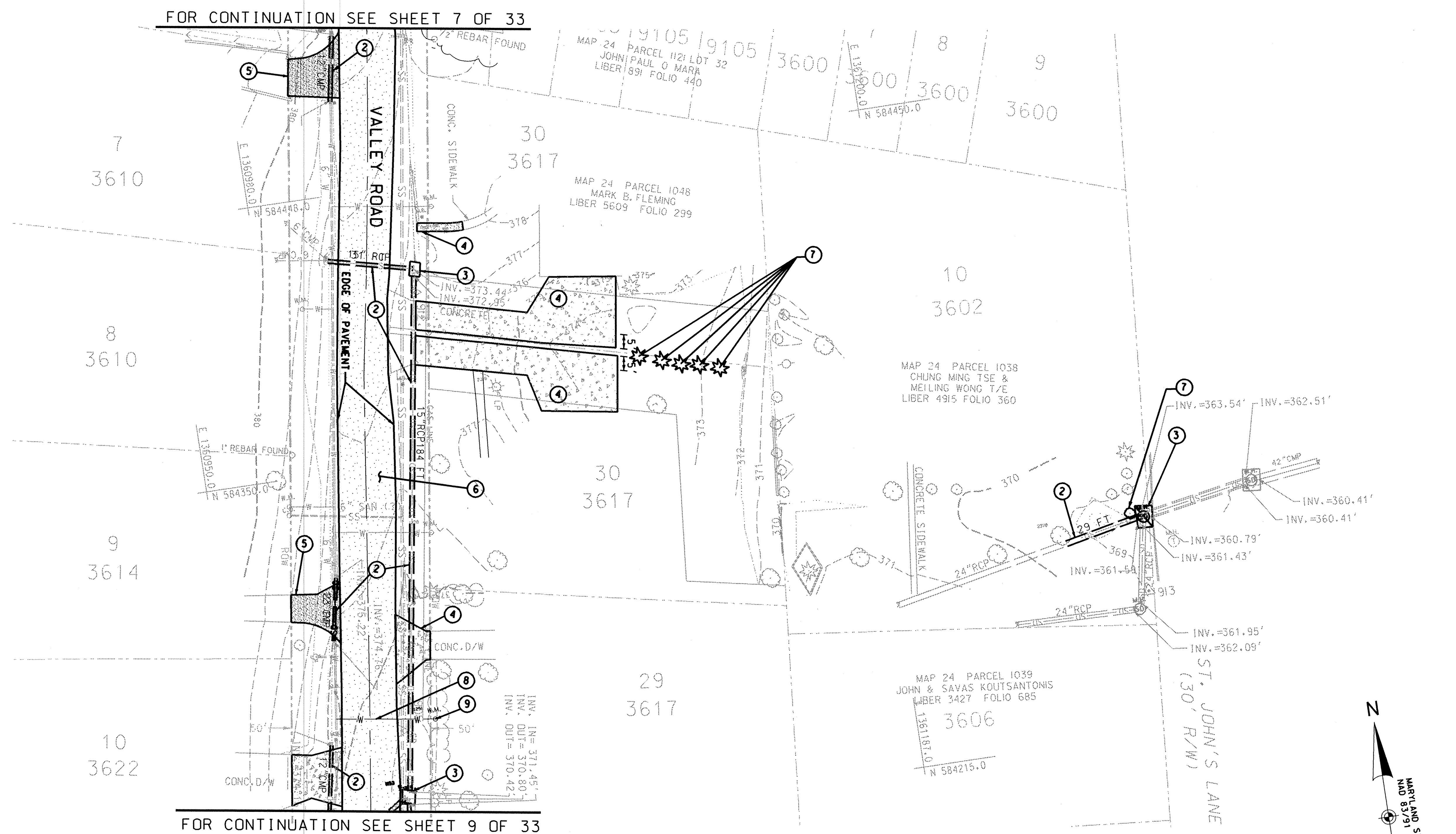
DRAINAGE IMPROVEMENTS
PROJECT NO.
D-1103

DEMOLITION PLAN
VALLEY ROAD
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET REFERENCE NUMBER
CD101
7 OF 33

- EXISTING BUILDING/HOUSE No
- 1294X EXISTING SPOT ELEVATION
- 305 FT--- EXISTING CONTOURS
- EXISTING GUARD RAIL
- EXISTING WALL
- EXISTING TREE
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING STORM DRAIN MANHOLE
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING WATER METER/WHC
- EXISTING WATER VALVE/FIRE HYDRANT
- EXISTING GAS VALVE/METER/GHC
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM DRAIN LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING OVERHEAD TELEPHONE
- EXISTING OVERHEAD ELECTRIC
- EXISTING PHONE/POWER POLE
- EXISTING SIGN
- F/C FACE OF CURB
- E/L EDGE OF LANE
- E/P EDGE OF PAVEMENT
- C CENTER LINE

- EX. SANITARY SEW. STRUCTURE
- REMOVE EXISTING STORM DRAIN MANHOLE
- REMOVE EXISTING STORM DRAIN LINES
- REMOVE EXISTING STORM DRAIN INLET
- REMOVE EXISTING CONCRETE PAVEMENT (SIDEWALK/DRIVEWAY)
- REMOVE EXISTING ASPHALT PAVEMENT (FULL DEPTH)
- REMOVE EXISTING ASPHALT ROADWAY (FULL DEPTH)
- REMOVE EXISTING TREES



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James J. Shaw 6/3/04
 DIRECTOR OF PUBLIC WORKS DATE

Steve Sharan 5/28/04
 CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

Baker
 MICHAEL BAKER JR. INC.
 Consulting Engineers
 801 Cromwell Park Drive
 Suite 110
 Glen Burnie, Maryland 21061
 (410) 424-2210

DES: R.T.				
DRN: J.O.T.				
CHK: M.C.B.				
DATE: 4/16/04	BY	NO.		DATE

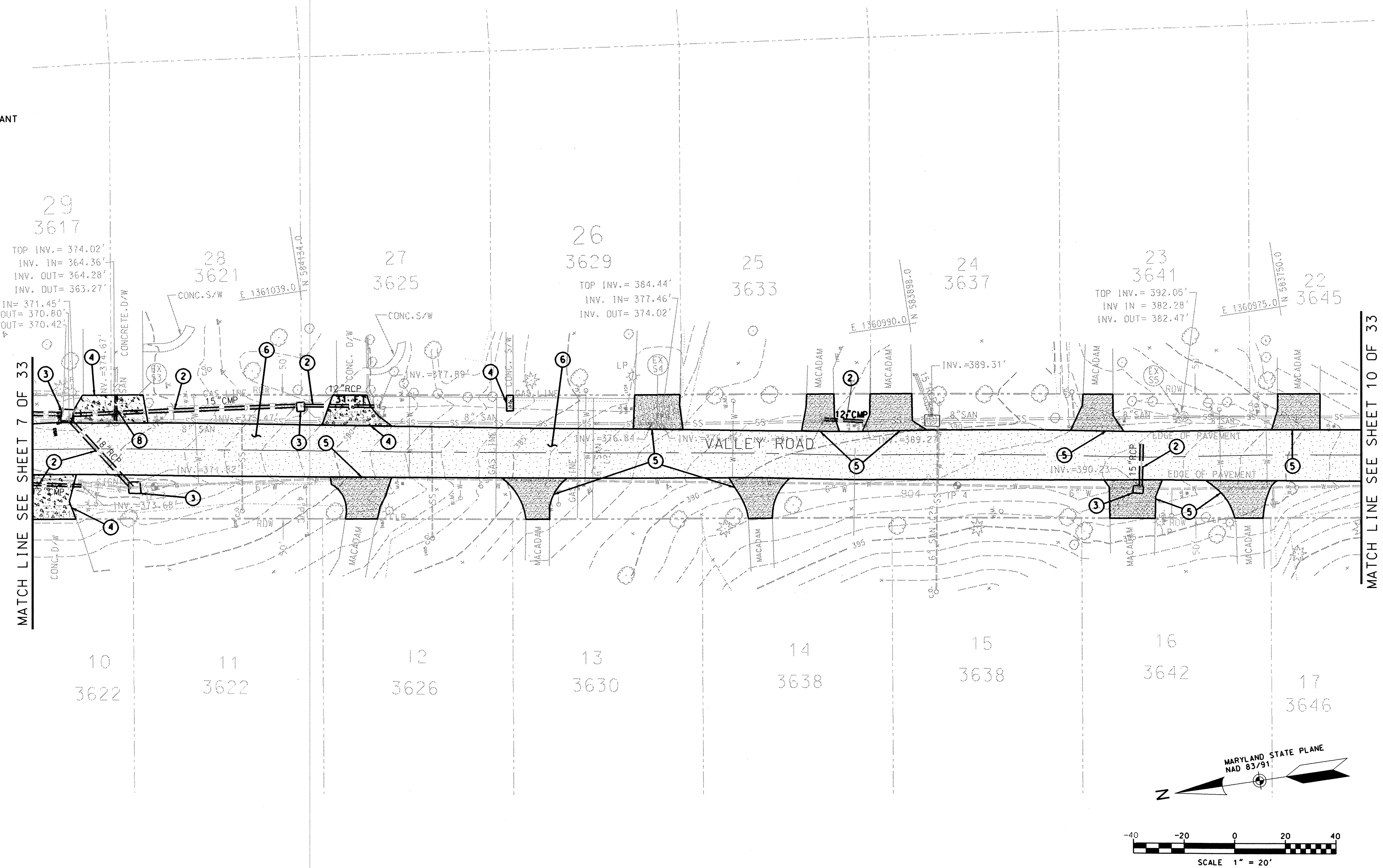
DRAINAGE IMPROVEMENTS
 PROJECT NO.
 D-1103

DEMOLITION PLAN
 VALLEY ROAD
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET REFERENCE NUMBER
 CD102
 8 OF 33

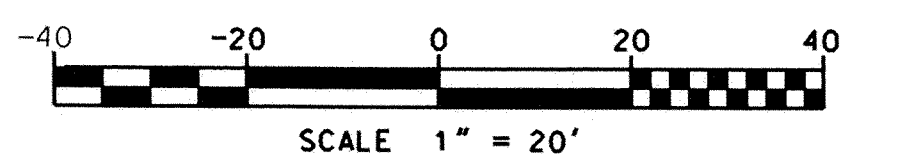
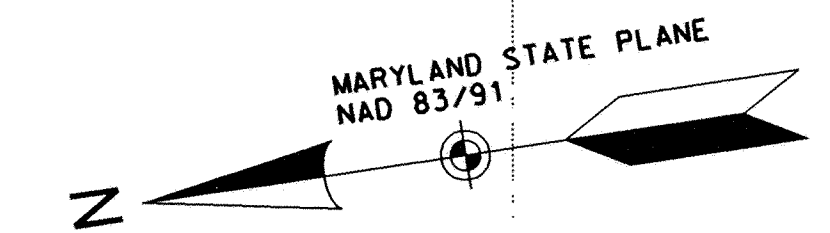
- EXISTING BUILDING/HOUSE No
1294X
- EXISTING SPOT ELEVATION
---305 FT---
- EXISTING CONTOURS
- EXISTING GUARD RAIL
- EXISTING WALL
- EXISTING TREE
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING STORM DRAIN MANHOLE
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING WATER METER/WHC
- EXISTING WATER VALVE/FIRE HYDRANT
- EXISTING GAS VALVE/METER/GHC
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM DRAIN LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING OVERHEAD TELEPHONE
- EXISTING OVERHEAD ELECTRIC
- EXISTING PHONE/POWER POLE
- EXISTING SIGN
- FACE OF CURB
- EDGE OF LANE
- EDGE OF PAVEMENT
- CENTER LINE
- EX. SANITARY SEW. STRUCTURE

- 1 REMOVE EXISTING STORM DRAIN MANHOLE
- 2 REMOVE EXISTING STORM DRAIN LINES
- 3 REMOVE EXISTING STORM DRAIN INLET
- 4 REMOVE EXISTING CONCRETE PAVEMENT (SIDEWALK/DRIVEWAY)
- 5 REMOVE EXISTING ASPHALT PAVEMENT (FULL DEPTH)
- 6 REMOVE EXISTING ASPHALT ROADWAY (FULL DEPTH)
- 8 REMOVE AND REPLACE EXISTING SANITARY LINES



MATCH LINE SEE SHEET 7 OF 33

MATCH LINE SEE SHEET 10 OF 33



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 DIRECTOR OF PUBLIC WORKS
 CHIEF, BUREAU OF ENGINEERING
 DATE: 6/1/04
 DATE: 5/28/04
 CHIEF, BUREAU OF HIGHWAYS

Baker
 MICHAEL BAKER JR. INC.
 Consulting Engineers
 801 Crownell Park Drive
 Suite 110
 Glen Burnie, Maryland 21061
 (410) 424-2210

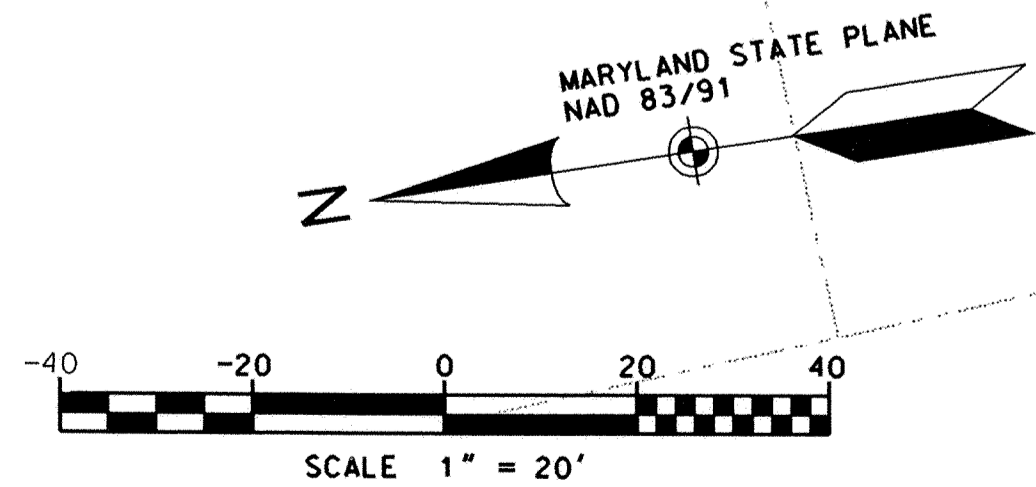
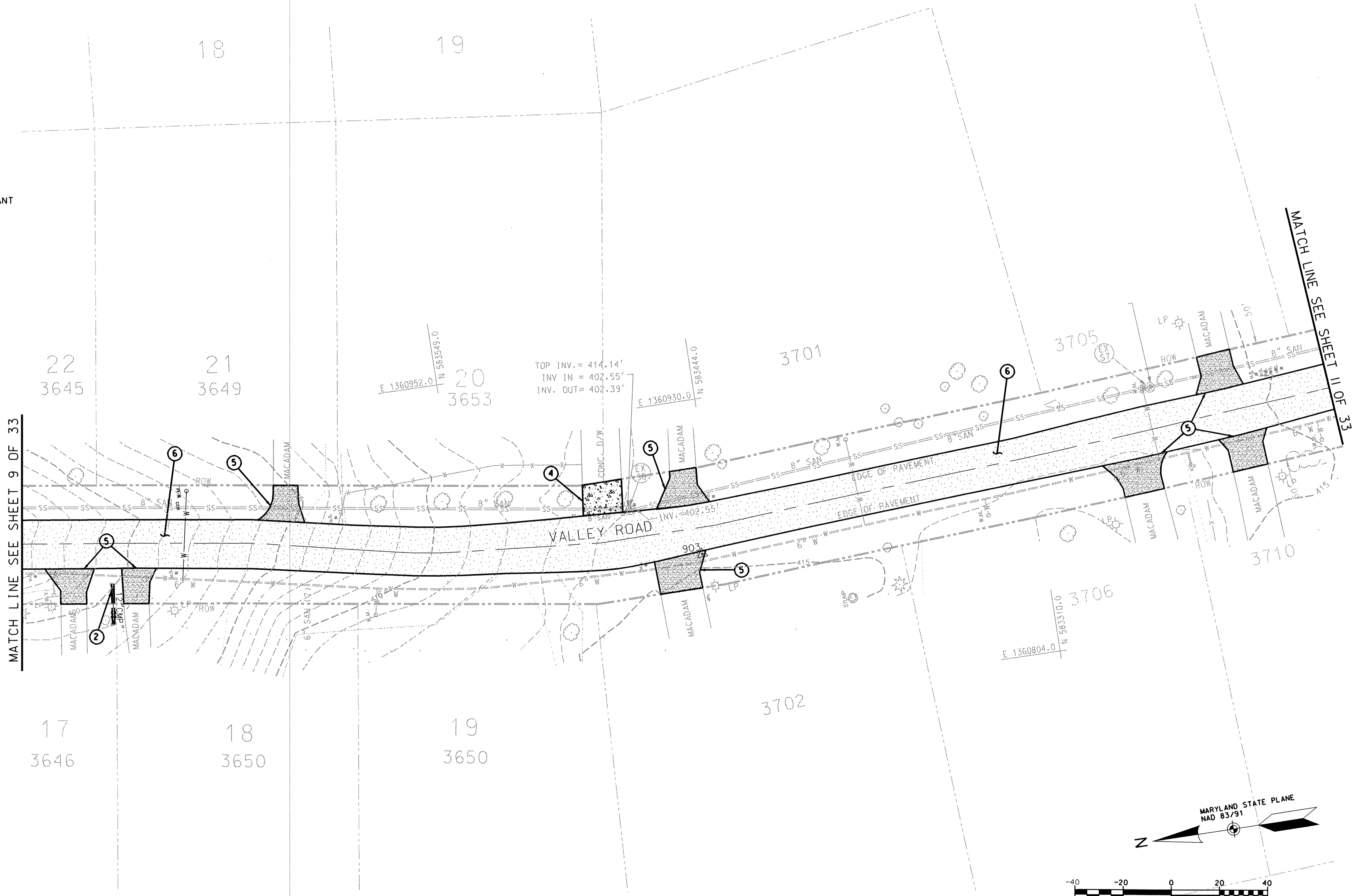
DES: R.T.			
DRN: J.O.T.			
CHK: M.C.B.			
DATE: 4/16/04	BY	NO.	DATE

DRAINAGE IMPROVEMENTS
 PROJECT NO.
 D-1103

DEMOLITION PLAN
 VALLEY ROAD
 HOWARD COUNTY, MARYLAND

SCALE
 AS SHOWN
 SHEET REFERENCE NUMBER
 CD103
 9 OF 33

- EXISTING BUILDING/HOUSE No
- 1294X EXISTING SPOT ELEVATION
- 305 FT--- EXISTING CONTOURS
- EXISTING GUARD RAIL
- EXISTING WALL
- EXISTING TREE
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING SIDEWALK
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- EXISTING SANITARY SEWER
- EXISTING WATER LINE
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- EXISTING RIGHT-OF-WAY LINE
- EXISTING OVERHEAD TELEPHONE
- EXISTING OVERHEAD ELECTRIC
- EXISTING PHONE/POWER POLE
- EXISTING SIGN
- F/C FACE OF CURB
- E/L EDGE OF LANE
- E/P EDGE OF PAVEMENT
- € CENTER LINE
- EX. SANITARY SEW. STRUCTURE
- REMOVE EXISTING STORM DRAIN MANHOLE
- REMOVE EXISTING STORM DRAIN LINES
- REMOVE EXISTING STORM DRAIN INLET
- REMOVE EXISTING CONCRETE PAVEMENT (SIDEWALK/DRIVEWAY)
- REMOVE EXISTING ASPHALT PAVEMENT (FULL DEPTH)
- REMOVE EXISTING ASPHALT ROADWAY (FULL DEPTH)



DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

Jan 17, 2004
 DIRECTOR OF PUBLIC WORKS
 DATE

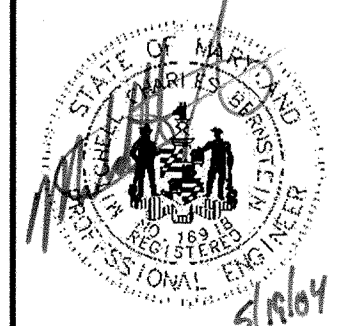
Steve Shanan
 CHIEF, BUREAU OF ENGINEERING
 DATE

Steve Shanan
 CHIEF, DIVISION OF TRANSPORTATION
 AND SPECIAL PROJECTS
 DATE

Baker

Michael Baker Jr., Inc.

MICHAEL BAKER JR. INC.
 Consulting Engineers
 801 Crowell Park Drive
 Suite 110
 Glen Burnie, Maryland 21061
 (410) 424-2210








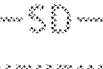



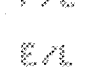














DES: R.T.					
DRN: J.O.T.					
CHK: M.C.B.					
DATE: 4/16/04	BY	NO.			DATE

DRAINAGE IMPROVEMENTS
 PROJECT NO.
 D-1103

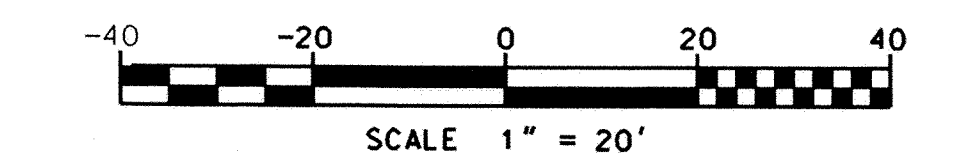
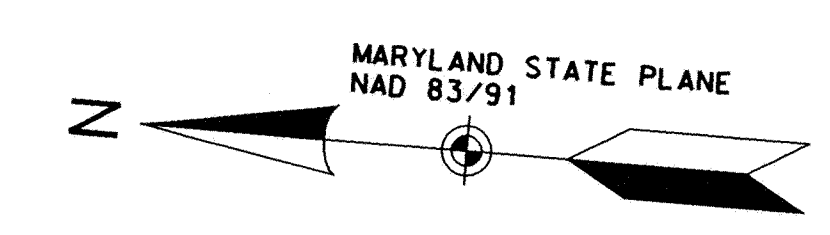
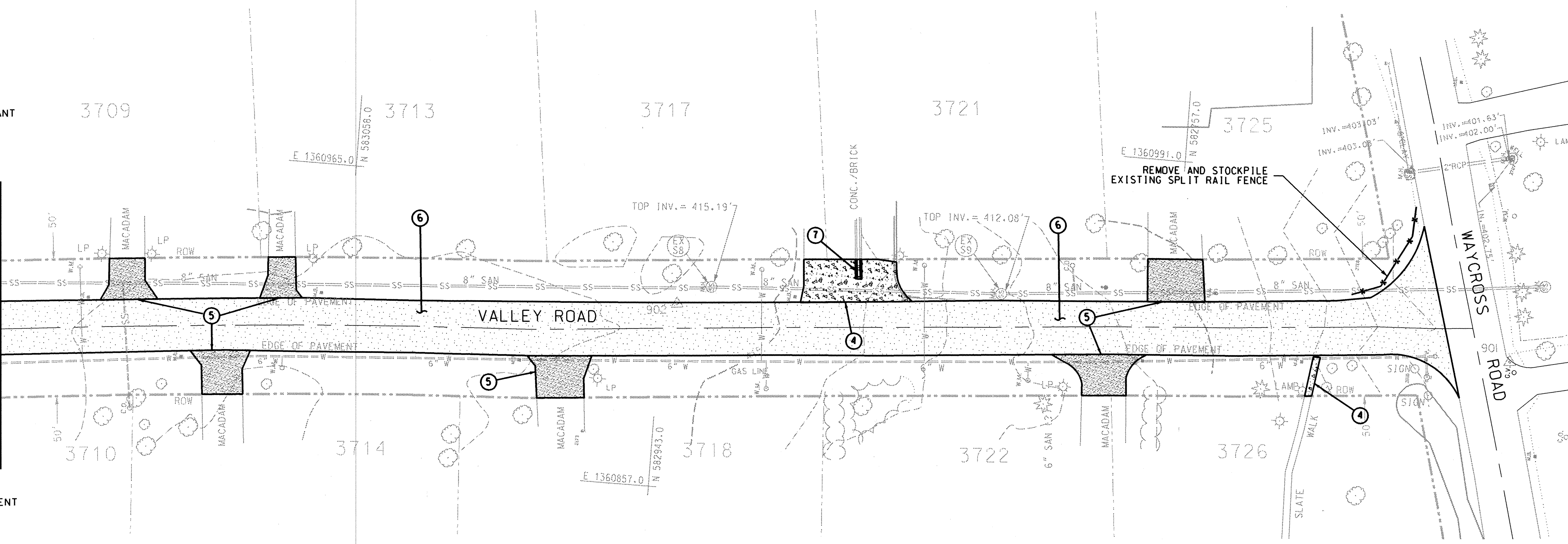
DEMOLITION PLAN
 VALLEY ROAD
 HOWARD COUNTY, MARYLAND

SCALE
 AS SHOWN
 SHEET REFERENCE NUMBER
 CD104
 10 OF 33

-  EXISTING BUILDING/HOUSE No
- 1294X EXISTING SPOT ELEVATION
- 305 FT --- EXISTING CONTOURS
- EXISTING GUARD RAIL
- EXISTING WALL
- X-X- EXISTING FENCE
-  EXISTING TREE
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING SIDEWALK
-  EXISTING STORM DRAIN MANHOLE
-  EXISTING SANITARY SEWER
-  EXISTING WATER LINE
-  EXISTING WATER METER/WHC
-  EXISTING WATER VALVE/FIRE HYDRANT
-  EXISTING GAS VALVE/METER/GHC
-  EXISTING GAS LINE
-  EXISTING SANITARY SEWER LINE
-  EXISTING STORM DRAIN LINE
-  EXISTING RIGHT-OF-WAY LINE
-  EXISTING OVERHEAD TELEPHONE
-  EXISTING OVERHEAD ELECTRIC
-  EXISTING PHONE/POWER POLE
-  EXISTING SIGN
- F/C FACE OF CURB
- E/L EDGE OF LANE
- E/P EDGE OF PAVEMENT
- CL CENTER LINE

-  EX. SANITARY SEW. STRUCTURE
-  1 REMOVE EXISTING STORM DRAIN MANHOLE
-  2 REMOVE EXISTING STORM DRAIN LINES
-  3 REMOVE EXISTING STORM DRAIN INLET
-  4 REMOVE EXISTING CONCRETE PAVEMENT (SIDEWALK/DRIVEWAY)
-  5 REMOVE EXISTING ASPHALT PAVEMENT (FULL DEPTH)
-  6 REMOVE EXISTING ASPHALT ROADWAY (FULL DEPTH)
-  7 REMOVE EXISTING BRICK CURB

MATCH LINE SEE SHEET 10 OF 33



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Ray M. Shaw 6/3/04
 DIRECTOR OF PUBLIC WORKS DATE

Robert Johnson 6/1/04
 CHIEF, BUREAU OF ENGINEERING DATE

Steve Shanan 5/28/04
 CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

Walter F. White 5-28-04
 CHIEF, BUREAU OF HIGHWAYS DATE

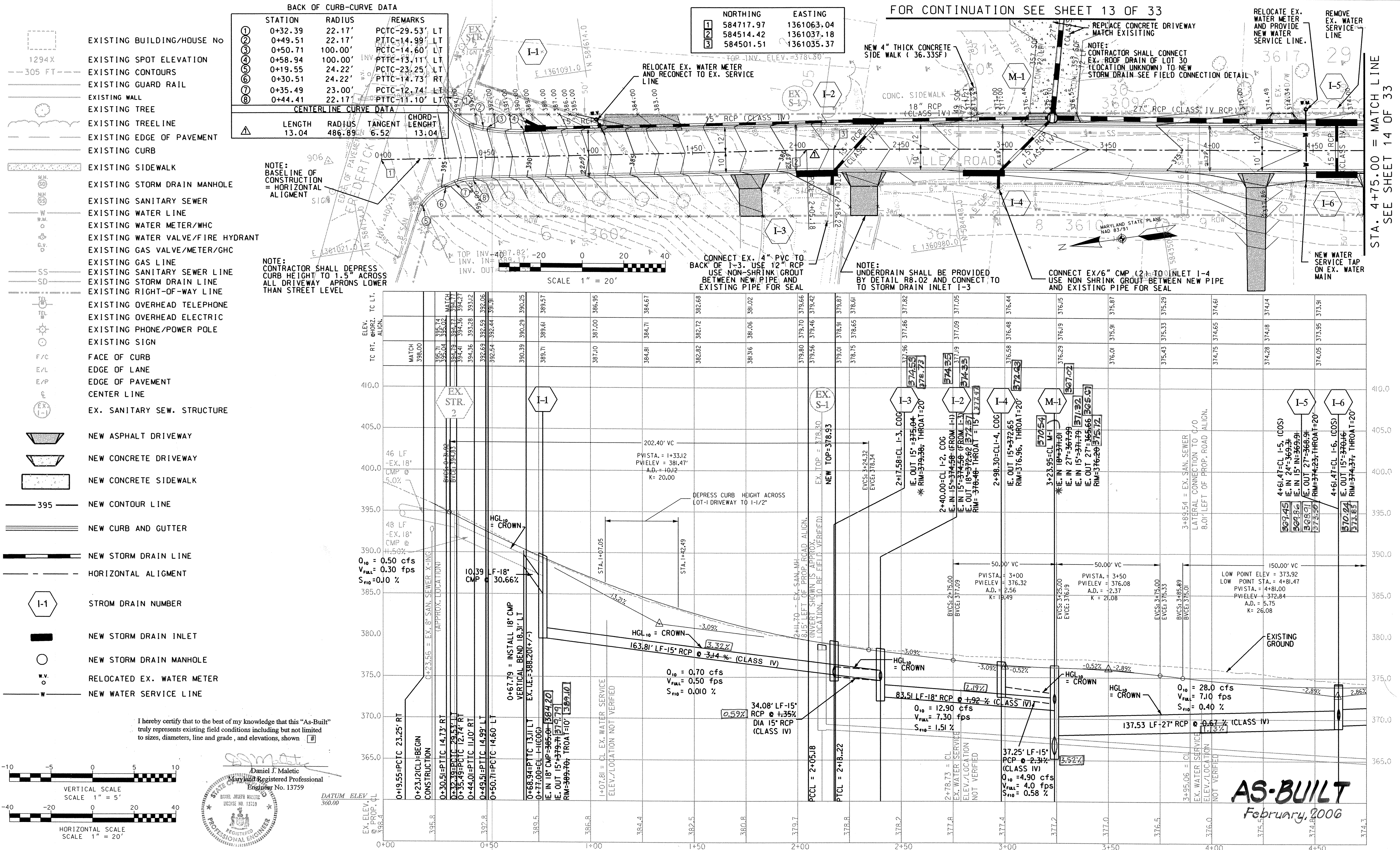
Baker
 MICHAEL BAKER JR. INC.
 Consulting Engineers
 801 Cromwell Park Drive
 Suite 110
 Glen Burnie, Maryland 21061
 (410) 424-2210

DES: R.T.					
DRN: J.O.T.					
CHK: M.C.B.					
DATE: 4/16/04	BY	NO.			DATE

DRAINAGE IMPROVEMENTS
 PROJECT NO.
 D-1103

DEMOLITION PLAN
 VALLEY ROAD
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET REFERENCE NUMBER
 CD105
 11 OF 33



BACK OF CURB-CURVE DATA

STATION	RADIUS	REMARKS
① 0+32.39	22.17'	PCTC-29.53' LT
② 0+49.51	22.17'	PTTC-14.99' LT
③ 0+50.71	100.00'	PCTC-14.60' LT
④ 0+58.94	100.00'	PTTC-13.11' LT
⑤ 0+19.55	24.22'	PCTC-23.25' LT
⑥ 0+30.51	24.22'	PTTC-14.73' RT
⑦ 0+35.49	23.00'	PCTC-12.74' LT
⑧ 0+44.41	22.17'	PTTC-11.10' LT

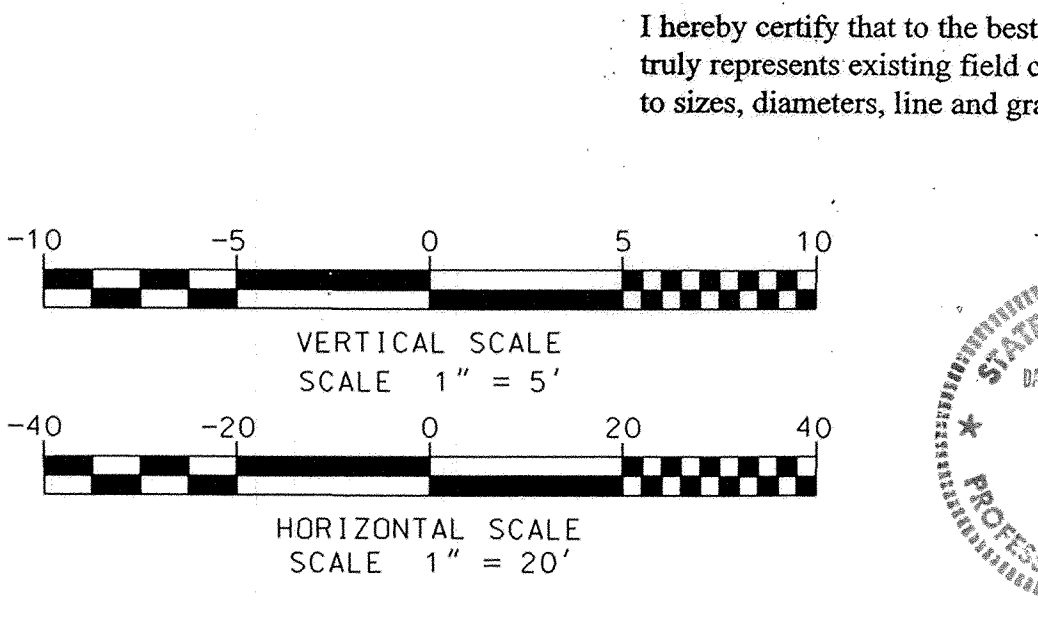
CENTERLINE CURVE DATA

LENGTH	RADIUS	TANGENT	CHORD-LENGTH
13.04	486.89'	6.52'	13.04'

- 1294X EXISTING BUILDING/HOUSE NO
- 305 FT --- EXISTING SPOT ELEVATION
- EXISTING CONTOURS
- EXISTING GUARD RAIL
- EXISTING WALL
- EXISTING TREE
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING STORM DRAIN MANHOLE
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING WATER METER/WHC
- EXISTING WATER VALVE/FIRE HYDRANT
- EXISTING GAS VALVE/METER/GHC
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM DRAIN LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING OVERHEAD TELEPHONE
- EXISTING OVERHEAD ELECTRIC
- EXISTING PHONE/POWER POLE
- EXISTING SIGN
- FACE OF CURB
- EDGE OF LANE
- EDGE OF PAVEMENT
- CENTER LINE
- EX. SANITARY SEW. STRUCTURE
- NEW ASPHALT DRIVEWAY
- NEW CONCRETE DRIVEWAY
- NEW CONCRETE SIDEWALK
- 395 --- NEW CONTOUR LINE
- NEW CURB AND GUTTER
- NEW STORM DRAIN LINE
- HORIZONTAL ALIGNMENT
- STORM DRAIN NUMBER
- NEW STORM DRAIN INLET
- NEW STORM DRAIN MANHOLE
- RELOCATED EX. WATER METER
- NEW WATER SERVICE LINE

NOTE:
BASELINE OF CONSTRUCTION = HORIZONTAL ALIGNMENT

NOTE:
CONTRACTOR SHALL DEPRESS CURB HEIGHT TO 1.5" ACROSS ALL DRIVEWAY APRONS LOWER THAN STREET LEVEL



Daniel J. Maletic
Registered Professional Engineer
No. 13759

DOUGLAS JOSEPH MALETIC
LICENSE NO. 13759

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works
6/3/04

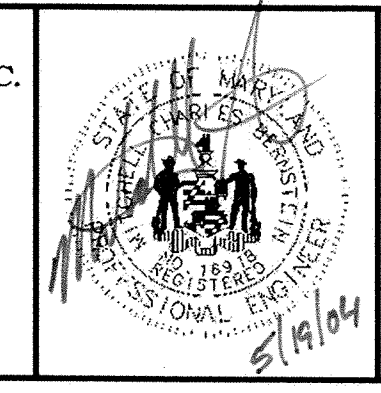
Chief, Bureau of Engineering
6/1/04

Chief, Bureau of Highways
5-28-04

Steve Slapan
Chief, Division of Transportation and Special Projects
5/28/04

Baker
Michael Baker Jr., Inc.

MICHAEL BAKER JR. INC.
Consulting Engineers
801 Cranswell Park Drive
Suite 110
Glen Burnie, Maryland 21061
(410) 424-2210



DES: R. T.
DRN: J. O. T.
CHK: M. C. B.
DATE: 4/16/04

DRAINAGE IMPROVEMENTS
PROJECT NO. D-1103

PLAN AND PROFILE
VALLEY ROAD
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET REFERENCE NUMBER CG101
12 OF 33

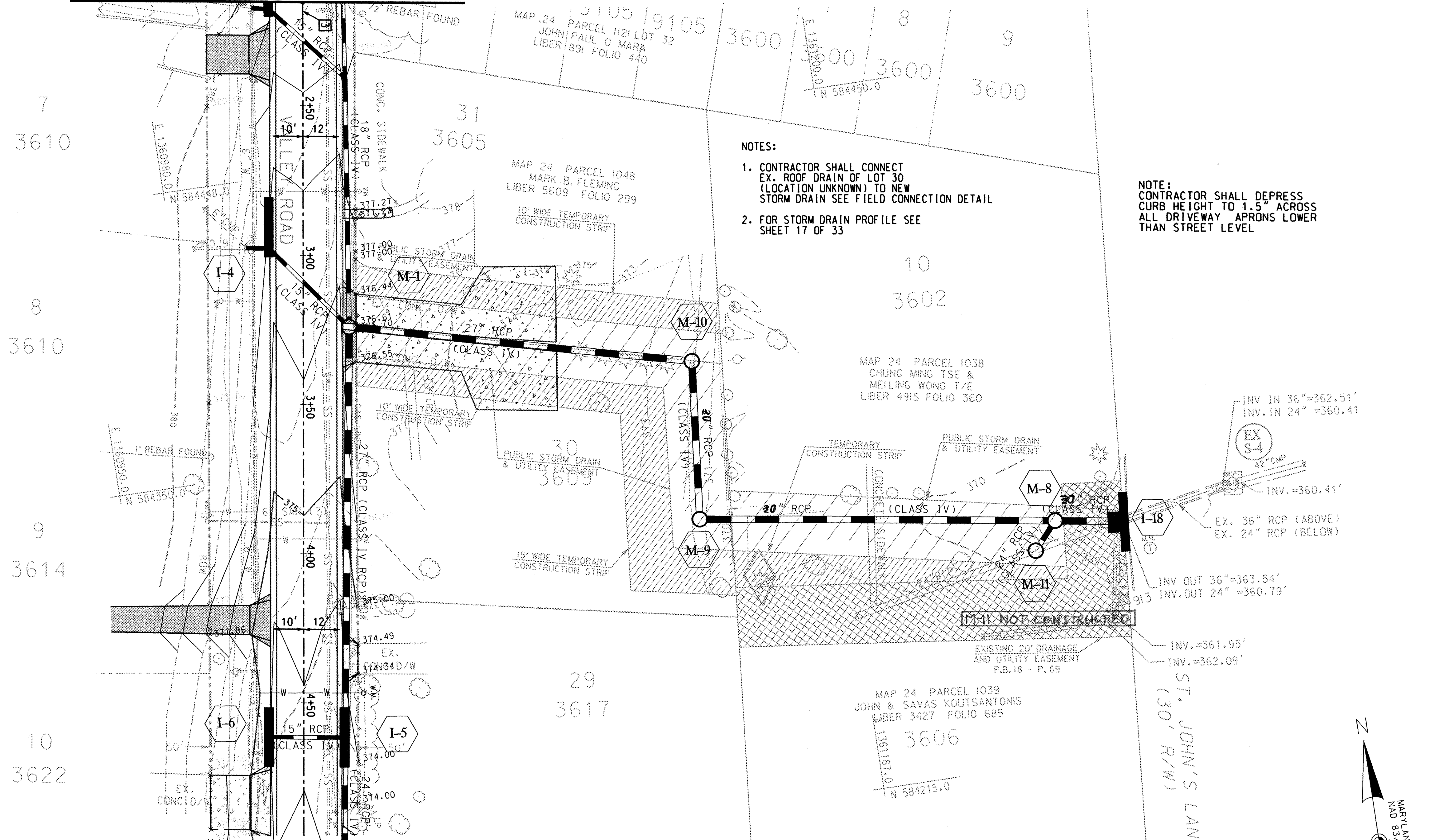
AS-BUILT
February, 2006

FOR CONTINUATION SEE SHEET 13 OF 33

STA. 4+75.00 = MATCH LINE
SEE SHEET 14 OF 33

- EXISTING BUILDING/HOUSE No
- 1294X EXISTING SPOT ELEVATION
- EXISTING CONTOURS
- EXISTING GUARD RAIL
- EXISTING WALL
- EXISTING TREE
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING STORM DRAIN MANHOLE
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING WATER METER/WHC
- EXISTING WATER VALVE/FIRE HYDRANT
- EXISTING GAS VALVE/METER/GHC
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM DRAIN LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING OVERHEAD TELEPHONE
- EXISTING OVERHEAD ELECTRIC
- EXISTING PHONE/POWER POLE
- EXISTING SIGN
- FACE OF CURB
- EDGE OF LANE
- EDGE OF PAVEMENT
- CENTER LINE
- EX. SANITARY SEW. STRUCTURE
- NEW ASPHALT DRIVEWAY
- NEW CONCRETE DRIVEWAY
- NEW ASPHALT DRIVEWAY
- 395 NEW CONTOUR LINE
- NEW CURB AND GUTTER
- NEW STORM DRAIN LINE
- HORIZONTAL ALIGNMENT
- STROM DRAIN NUMBER
- NEW STORM DRAIN INLET
- NEW STORM DRAIN MANHOLE

FOR CONTINUATION SEE SHEET 12 OF 33

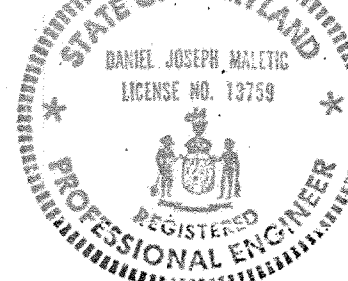


FOR CONTINUATION SEE SHEET 14 OF 33

- NOTES:
1. CONTRACTOR SHALL CONNECT EX. ROOF DRAIN OF LOT 30 (LOCATION UNKNOWN) TO NEW STORM DRAIN SEE FIELD CONNECTION DETAIL
 2. FOR STORM DRAIN PROFILE SEE SHEET 17 OF 33

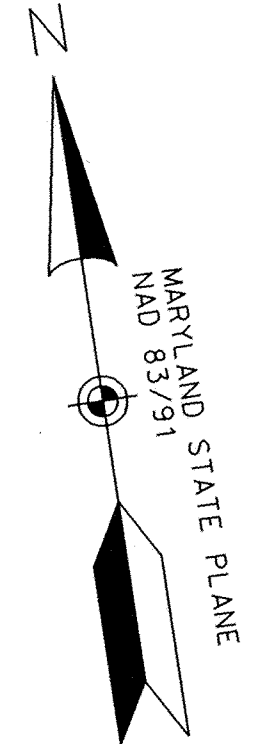
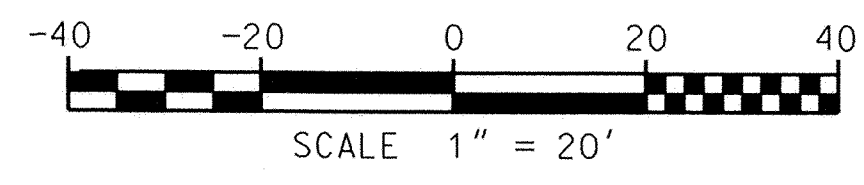
NOTE:
CONTRACTOR SHALL DEPRESS CURB HEIGHT TO 1.5" ACROSS ALL DRIVEWAY APRONS LOWER THAN STREET LEVEL

I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, line and grade, and elevations, shown.



Daniel J. Maletic
Maryland Registered Professional Engineer No. 13759

AS-BUILT
February, 2006



<p>DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND</p> <p>Director of Public Works: <i>John J. ...</i> DATE: 2/3/04</p> <p>Chief, Bureau of Engineering: <i>Steve Shanan</i> DATE: 5/28/04</p> <p>Chief, Bureau of Highways: <i>...</i> DATE: 5/28/04</p>	<p>Baker Consulting Engineers 801 Creweell Park Drive Suite 110 Glen Burnie, Maryland 21061 (410) 424-2210</p>	<p>DES: R.T.</p> <p>DRN: J.O.T.</p> <p>CHK: M.C.B.</p> <p>DATE: 4/16/04 BY NO. DATE</p>	<p>DRAINAGE IMPROVEMENTS PROJECT NO. D-1103</p>	<p>PLAN AND PROFILE VALLEY ROAD HOWARD COUNTY, MARYLAND</p>	<p>SCALE AS SHOWN</p> <p>SHEET REFERENCE NUMBER CG102 13 OF 33</p>
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- EXISTING BUILDING/HOUSE NO
- EXISTING SPOT ELEVATION
- EXISTING CONTOURS
- EXISTING GUARD RAIL
- EXISTING WALL
- EXISTING TREE
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING STORM DRAIN MANHOLE
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING WATER METER/WHC
- EXISTING WATER VALVE/FIRE HYDRANT
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- EXISTING GAS LINE
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- EXISTING RIGHT-OF-WAY LINE
- EXISTING OVERHEAD TELEPHONE
- EXISTING OVERHEAD ELECTRIC
- EXISTING PHONE/POWER POLE
- EXISTING SIGN
- FACE OF CURB
- EDGE OF LANE
- EDGE OF PAVEMENT
- CENTER LINE
- EX. SANITARY SEW. STRUCTURE

- NEW ASPHALT DRIVEWAY
- NEW CONTOUR LINE
- NEW CURB AND GUTTER
- NEW STORM DRAIN LINE
- HORIZONTAL ALIGNMENT
- STORM DRAIN NUMBER
- NEW STORM DRAIN INLET
- NEW STORM DRAIN MANHOLE
- DESIGN VALUES ON THIS SHEET DIFFER FROM THOSE ON PROFILE SHEET.

I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, line and grade, and elevations, shown

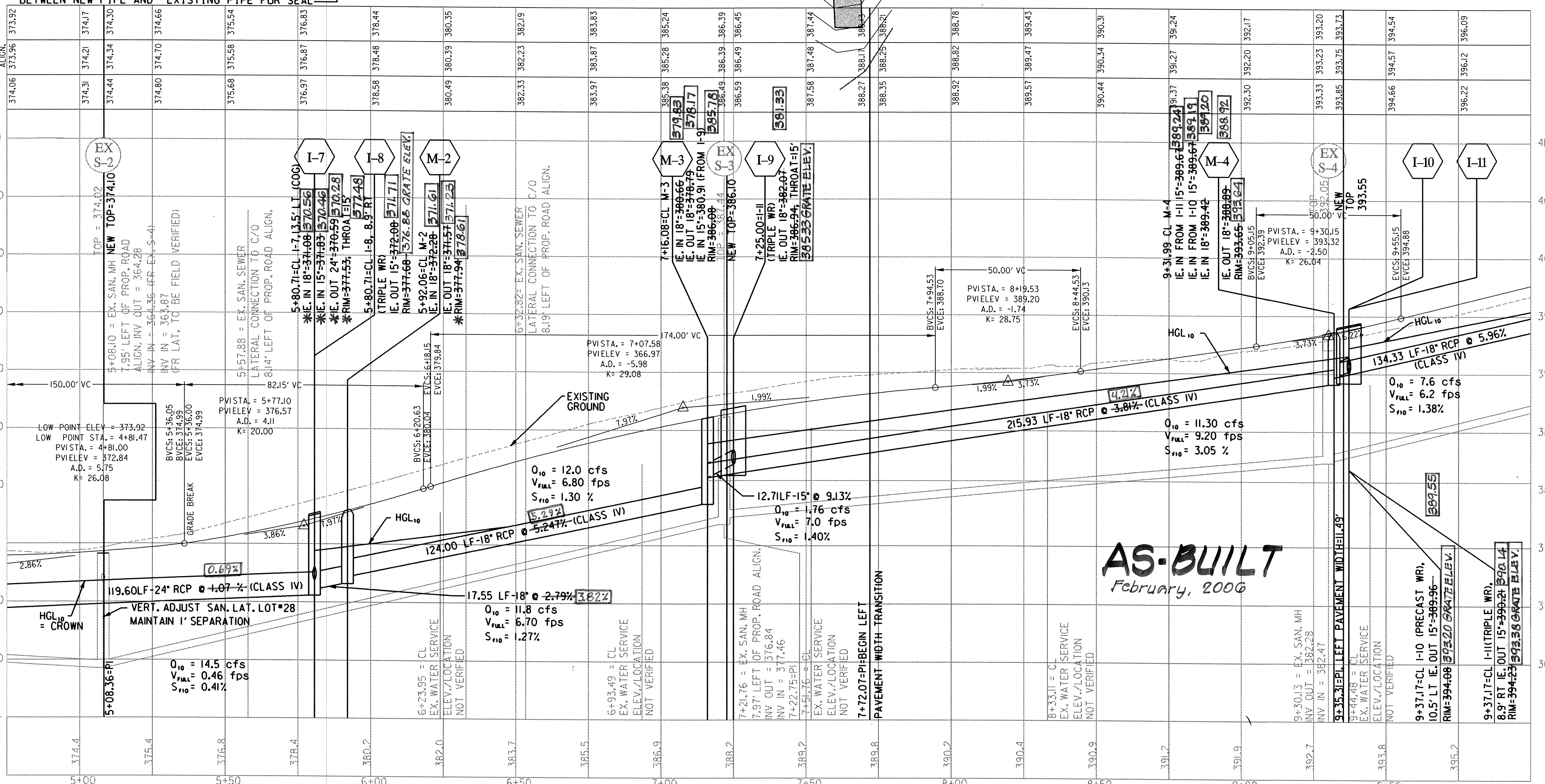
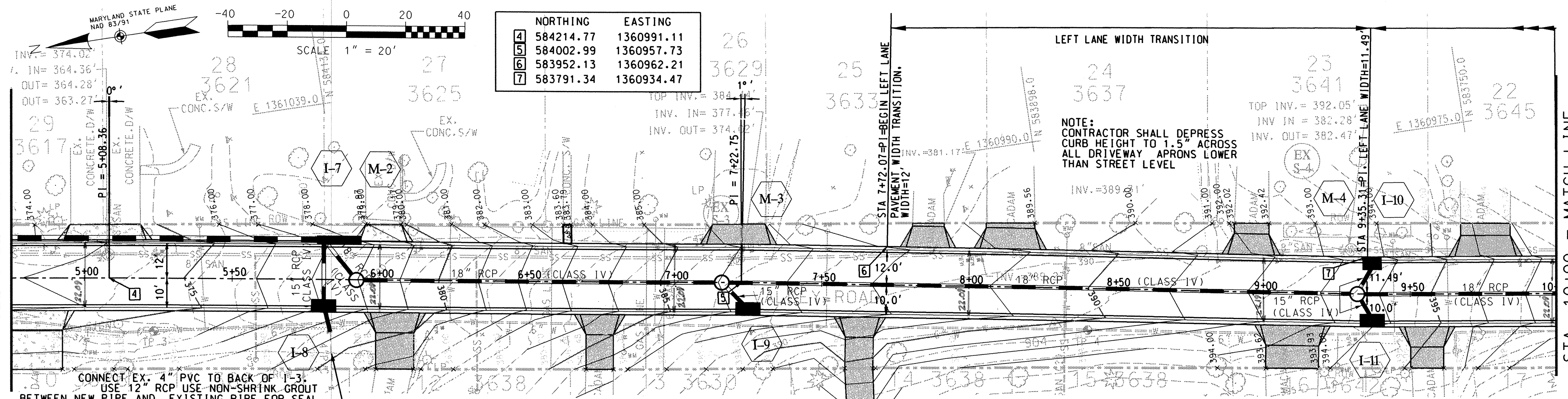
Daniel J. Maletic
 Maryland Registered Professional Engineer No. 13759

Steve Shanaw
 CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS

Michael Baker Jr., Inc.
 Consulting Engineers
 801 Crownell Park Drive
 Suite 110
 Glen Burnie, Maryland 21061
 (410) 424-2210

DATE: 4/16/04

BY: NO. DATE



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Director of Public Works
 DATE: 6/3/04

Chief, Bureau of Engineering
 DATE: 6/1/04

Chief, Bureau of Highways
 DATE: 5/28/04

Steve Shanaw
 CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS
 DATE: 5/28/04

Baker
 Michael Baker Jr., Inc.
 Consulting Engineers
 801 Crownell Park Drive
 Suite 110
 Glen Burnie, Maryland 21061
 (410) 424-2210

DES: R. T.					
DRN: J. O. T.					
CHK: M. C. B.					
DATE: 4/16/04	BY: NO.	DATE			

DRAINAGE IMPROVEMENTS
 PROJECT NO.
 D-1103

PLAN AND PROFILE
 VALLEY ROAD
 HOWARD COUNTY, MARYLAND

SCALE
 AS SHOWN

SHEET REFERENCE NUMBER
 CG103
 14 OF 33

EXISTING BUILDING/HOUSE NO
1294X

EXISTING SPOT ELEVATION
305 FT

EXISTING CONTOURS

EXISTING GUARD RAIL

EXISTING WALL

EXISTING FENCE

EXISTING TREE

EXISTING TREELINE

EXISTING EDGE OF PAVEMENT

EXISTING CURB

EXISTING SIDEWALK

EXISTING STORM DRAIN MANHOLE

EXISTING SANITARY SEWER

EXISTING WATER LINE

EXISTING WATER METER/WHC

EXISTING WATER VALVE/FIRE HYDRANT

EXISTING GAS VALVE/METER/GHC

EXISTING GAS LINE

EXISTING SANITARY SEWER LINE

EXISTING STORM DRAIN LINE

EXISTING RIGHT-OF-WAY LINE

EXISTING OVERHEAD TELEPHONE

EXISTING OVERHEAD ELECTRIC

EXISTING PHONE/POWER POLE

EXISTING SIGN

FACE OF CURB

EDGE OF LANE

EDGE OF PAVEMENT

CENTER LINE

EX. SANITARY SEW. STRUCTURE

NEW ASPHALT DRIVEWAY

395

NEW CONTOUR LINE

NEW CURB AND GUTTER

NEW STORM DRAIN LINE

HORIZONTAL ALIGNMENT

STREET CROWN

I-1

STROM DRAIN NUMBER

NEW STORM DRAIN INLET

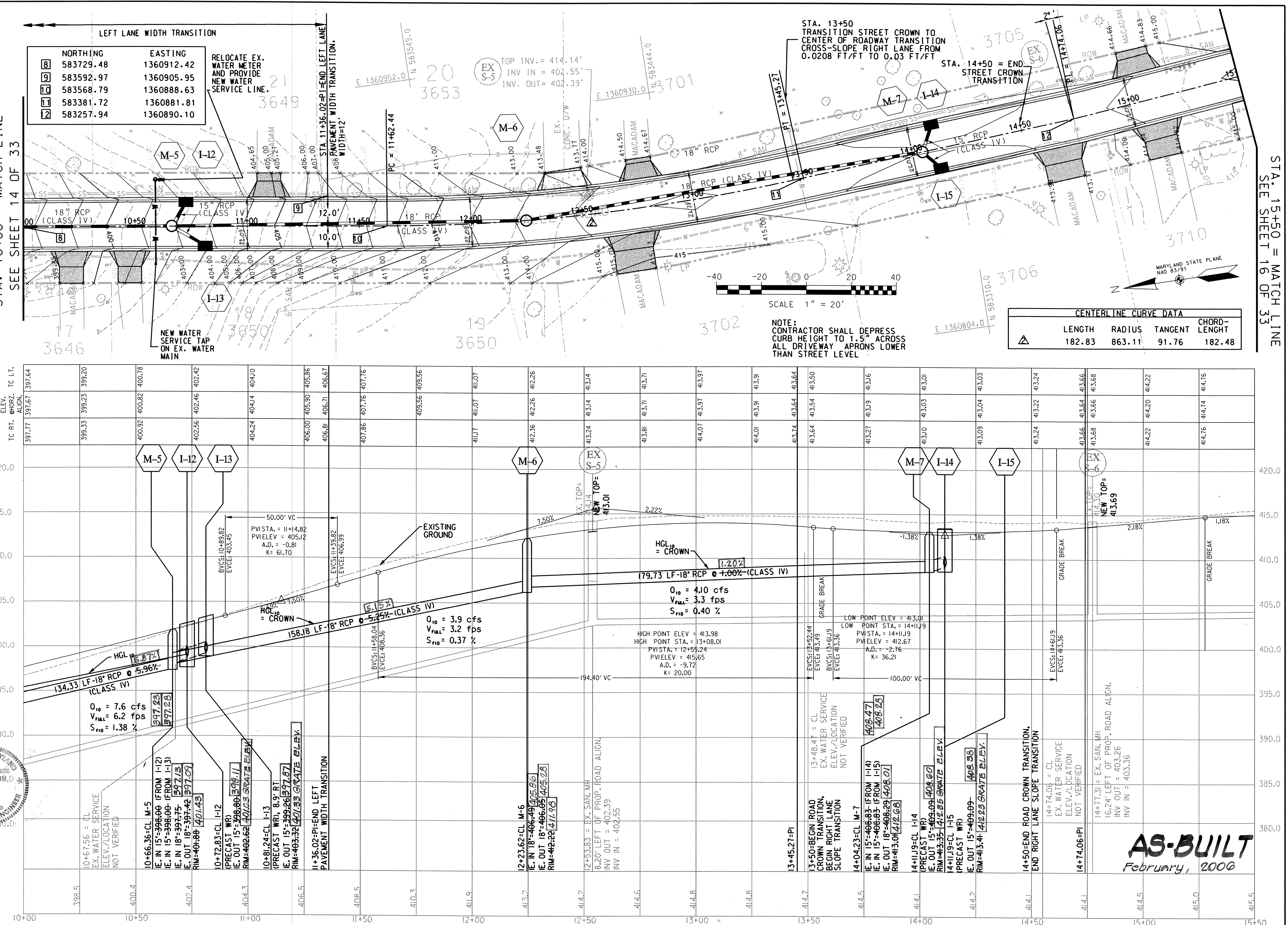
NEW STORM DRAIN MANHOLE

I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, line and grade, and elevations, shown

Daniel J. Malotic
Maryland Registered Professional Engineer
Engineer No. 13759

Vertical Scale
SCALE 1" = 5'

Horizontal Scale
SCALE 1" = 20'



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS
William J. Maloney 5-28-04

DATE

DATE

DATE

Baker
MICHAEL BAKER JR. INC.
Consulting Engineers
801 Cranwell Park Drive
Suite 110
Olea Branch, Maryland 21061
(410) 424-2210

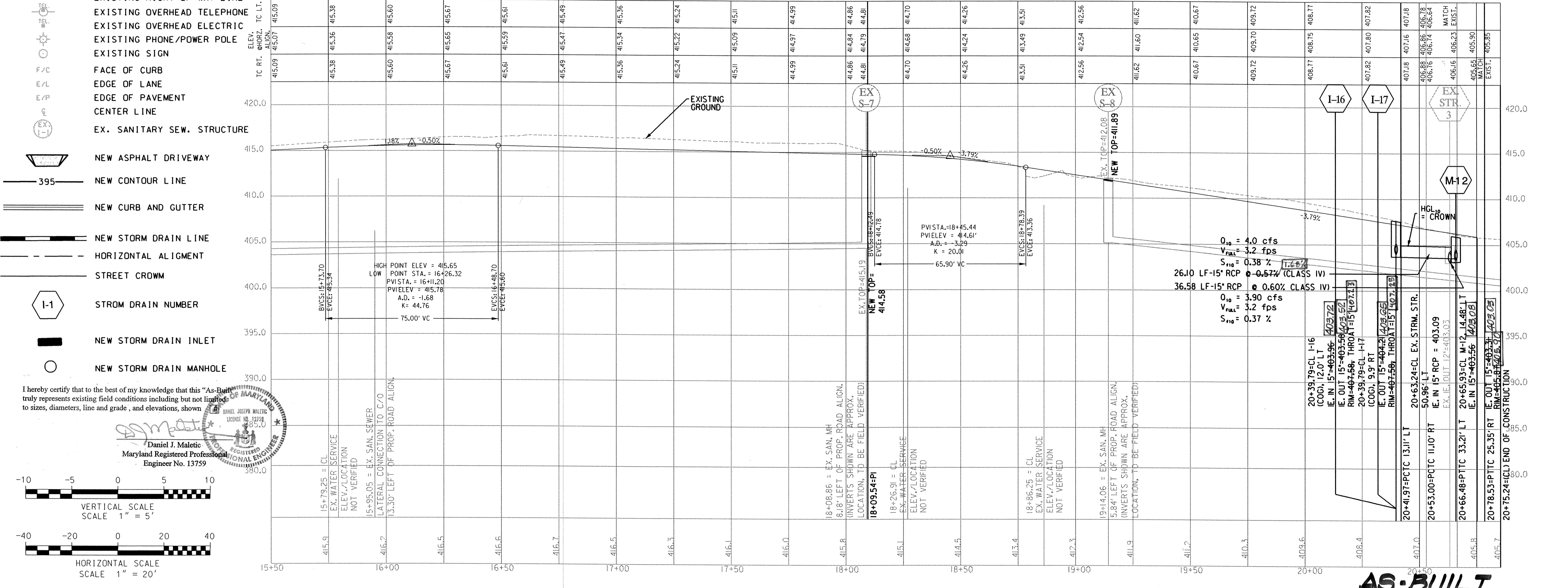
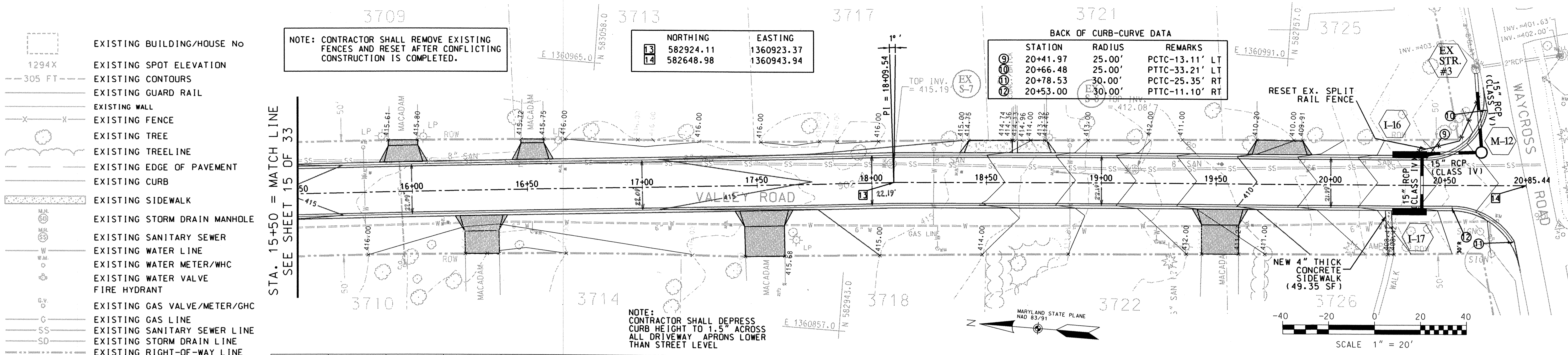
DES: R.T.
DRN: J.O.T.
CHK: M.C.B.
DATE: 4/16/04

DRAINAGE IMPROVEMENTS
PROJECT NO. D-1103

PLAN AND PROFILE
VALLEY ROAD
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET REFERENCE NUMBER CG104 15 OF 33



Vertical Scale
SCALE 1" = 5'

Horizontal Scale
SCALE 1" = 20'

Thereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, line and grade, and elevations, shown.

Daniel J. Malotic
Maryland Registered Professional Engineer No. 13759

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* 6/1/04
Chief, Bureau of Engineering: *[Signature]* 6/1/04

Steve Shanor 5/28/04
Chief, Division of Transportation and Special Projects

Baker
MICHAEL BAKER JR. INC.
Consulting Engineers
801 Crowell Park Drive
Suite 110
Glen Burnie, Maryland 21061
(410) 424-2210

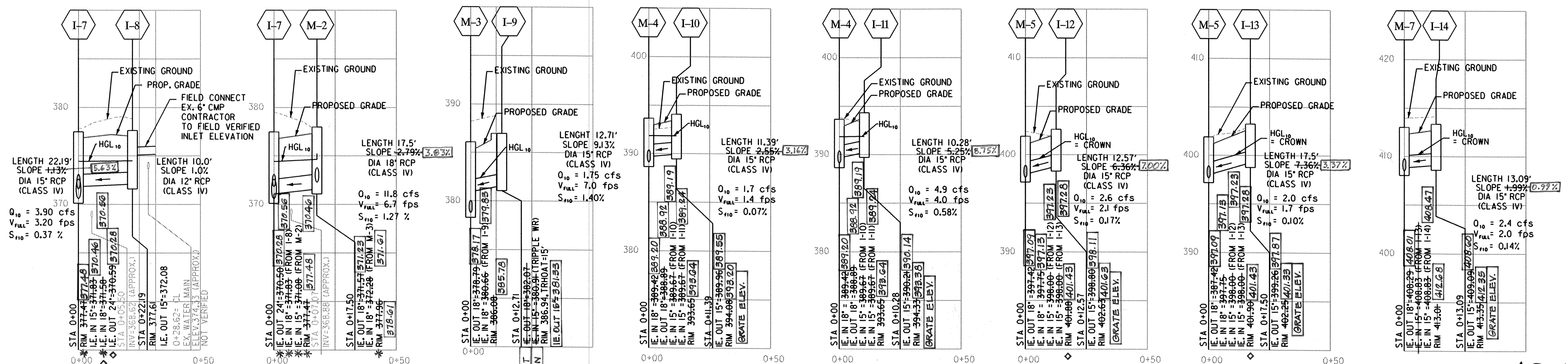
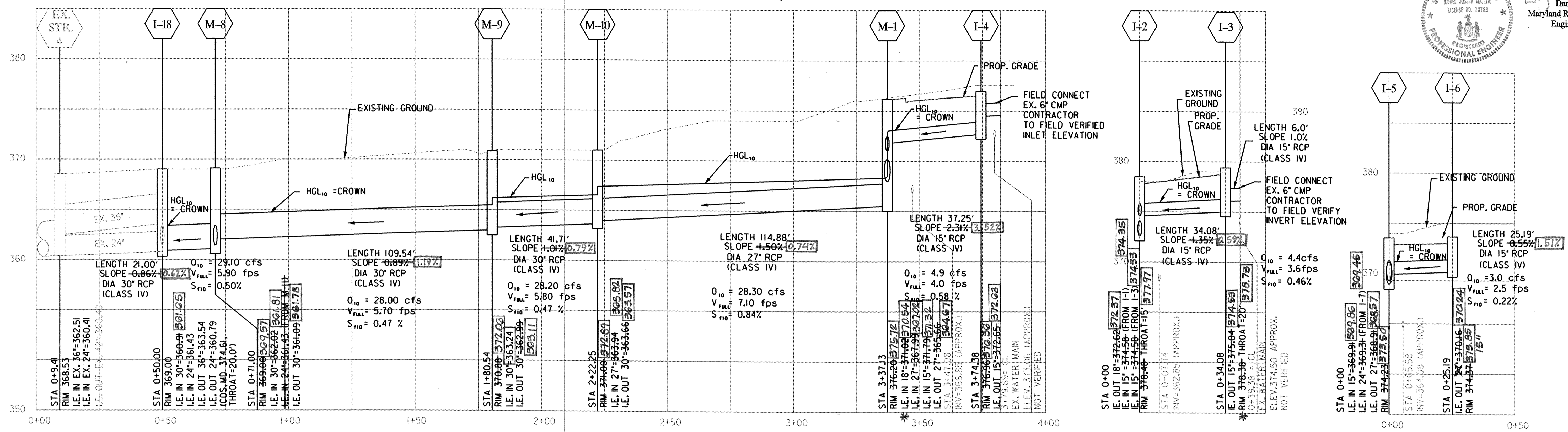
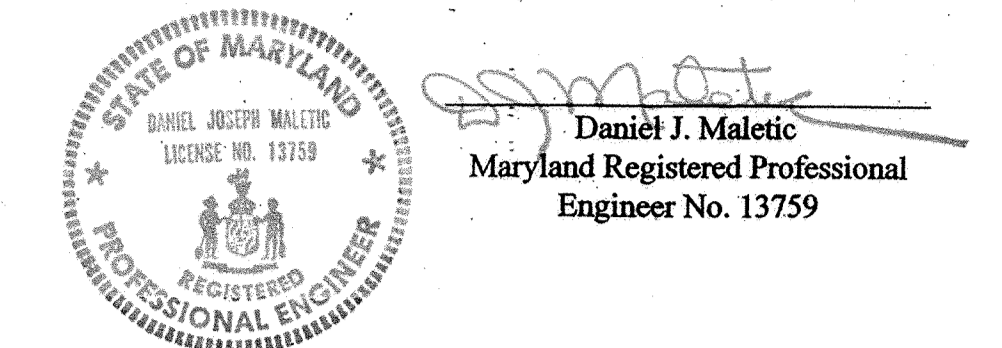
DES: R. T.
DRN: J. O. T.
CHK: M. C. B.
DATE: 4/16/04

DRAINAGE IMPROVEMENTS
PROJECT NO. D-1103

AS-BUILT
February, 2006
PLAN AND PROFILE
VALLEY ROAD
HOWARD COUNTY, MARYLAND

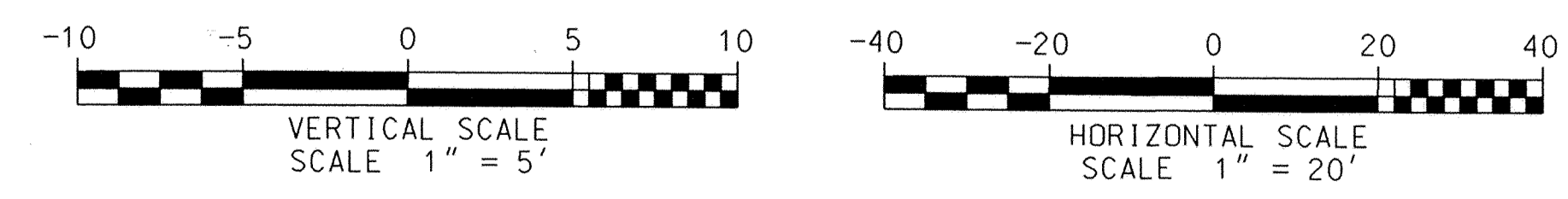
SCALE AS SHOWN
SHEET REFERENCE NUMBER CG105
16 OF 33

I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, line and grade, and elevations, shown #



I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, diameters, line and grade, and elevations, shown #

Daniel J. Maletic
Maryland Registered Professional Engineer No. 13759



AS-BUILT
February, 2006

* DESIGN ELEVATION ON THIS SHEET DIFFERS FROM PLAN AND PROFILE SHEET
◇ VALUES FOR THE SAME STRUCTURE DIFFER

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* 6/1/04
 Chief, Bureau of Engineering: *[Signature]* 6/1/04
 Chief, Bureau of Highways: *[Signature]* 5-28-04
 Chief, Division of Transportation and Special Projects: *[Signature]* 5/28/04

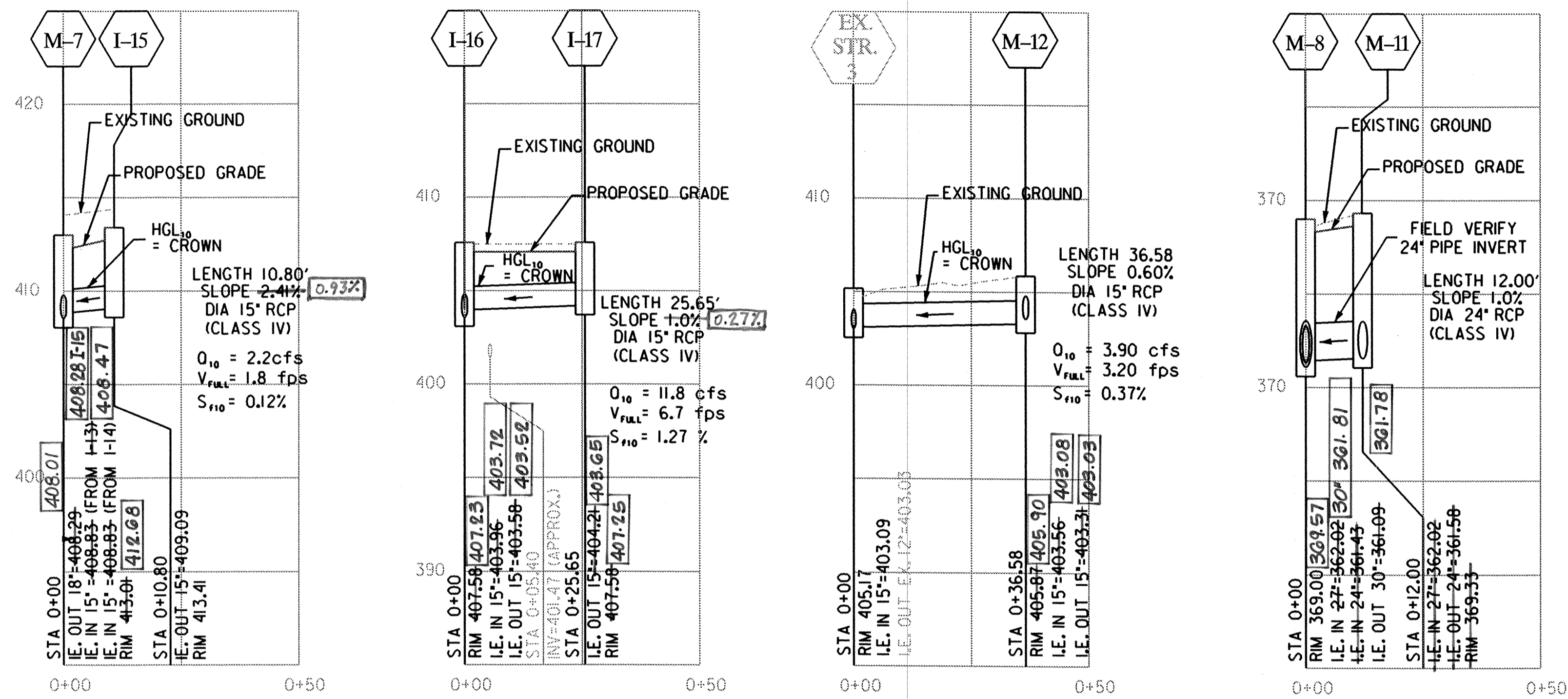
Baker
Michael Baker Jr., Inc.
Consulting Engineers
801 Cremona Park Drive
Suite 110
Glen Burnie, Maryland 21061
(410) 424-2210

DES: R.T.			
DRN: J.O.T.			
CHK: M.C.B.			
DATE: 4/16/04	BY: NO.	DATE:	

DRAINAGE IMPROVEMENTS
PROJECT NO. D-1103

STORM DRAIN PROFILE
VALLEY ROAD
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET REFERENCE NUMBER C-201
17 OF 33



DRAINAGE STRUCTURE SCHEDULE

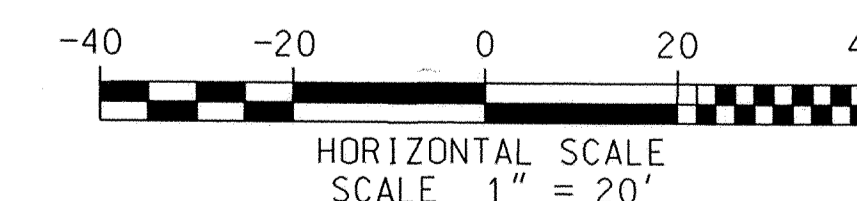
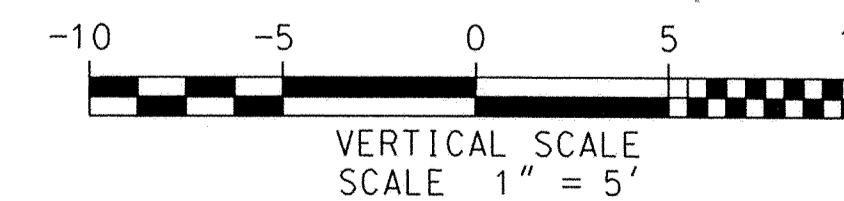
ID	TYPE	STANDARD	RIM	NORTHING	EASTING
I-1	CURB INLET	COG MD-374.62	389.24	389.19	584639.44
I-2	CURB INLET	COG MD-374.62	378.48	377.98	584477.42
I-3	CURB INLET	COG MD-374.62	379.38	378.73	584503.79
I-4	CURB INLET	COG MD-374.72	376.96	376.36	584424.55
M-1	MANHOLE	HC G5.II	376.20	375.72	584394.70
I-5	CURB INLET	COS MD-374.63	374.26	373.51	584259.03
I-6	CURB INLET	COS MD-374.63	374.37	373.85	584262.81
I-7	CURB INLET	COG MD-374.62	377.47	377.48	584140.88
I-8	CURB INLET	TRIPLE WR MD-374.26	377.61	377.16	584144.54
M-2	MANHOLE	HC G5.II	377.96	378.61	584132.10
M-3	MANHOLE	HC G5.II	386.08	385.78	584000.77
I-9	CURB INLET	TRIPLE WR MD-374.26	386.94	385.56	583997.06
M-4	MANHOLE	HC G5.II	393.65	393.64	583796.68
I-10	CURB INLET	PRECAST WR HC SD4.35	394.08	393.41	583789.63
I-11	CURB INLET	TRIPLE WR MD-274.26	394.23	393.61	583792.67
M-5	MANHOLE	HC G5.II	401.90	401.43	583663.80
I-12	CURB INLET	PRECAST WR SD4.35	402.63	401.89	583655.85
I-13	CURB INLET	PRECAST WR SD4.35	402.25	401.55	583650.37
M-6	MANHOLE	HC G5.II	412.50	411.98	583507.01
M-7	MANHOLE	HC G5.II	413.01	412.68	583327.30
I-14	CURB INLET	PRECAST WR HC SD4.35	413.35	412.46	583321.39
I-15	CURB INLET	PRECAST WR HC SD4.35	413.41	412.32	583320.17
I-16	CURB INLET	COG MD-374.62	407.58	407.24	582695.47
I-17	CURB INLET	COG MD-374.62	407.58	407.25	582693.64
I-18	CURB INLET	COS MD-374.63	369.00	369.30	584291.73
M-8	MANHOLE	HC G5.II	369.00	369.57	584292.07
M-9	MANHOLE	HC G5.II	370.88	372.06	584313.43
M-10	MANHOLE	HC G5.II	371.00	372.89	584366.11
M-11	MANHOLE	HC G5.II	362.02		584286.07
M-12	MANHOLE	HC G5.II	405.87	405.91	582669.65

NOT BUILT

I hereby certify that to the best of my knowledge that this "As-Built" truly represents existing field conditions including but not limited to sizes, distances, line and grade, and elevations, shown.

Daniel J. Maletic
 Maryland Registered Professional Engineer No. 13759

AS-BUILT
 February, 2006



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *William J. Mahan* 5-28-04
 Chief, Bureau of Engineering: *Steve Sharan* 5/28/04
 Chief, Division of Transportation and Special Projects

Baker
 MICHAEL BAKER JR. INC.
 Consulting Engineers
 801 Cranwell Park Drive
 Suite 110
 Glen Burnie, Maryland 21061
 (410) 424-2210

DES: R.T.
 DRN: J.D.T.
 CHK: M.C.B.
 DATE: 4/16/04

DRAINAGE IMPROVEMENTS
 PROJECT NO.
 D-1103

STORM DRAIN PROFILE
 VALLEY ROAD
 HOWARD COUNTY, MARYLAND

SCALE
 AS SHOWN
 SHEET REFERENCE NUMBER
 C-202
 18 OF 33

- EXISTING BUILDING/HOUSE NO
- EXISTING SPOT ELEVATION
- EXISTING CONTOURS
- EXISTING GUARD RAIL
- EXISTING WALL
- EXISTING FENCE
- EXISTING TREE
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING STORM DRAIN MANHOLE
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING WATER METER/WHC
- EXISTING WATER VALVE/FIRE HYDRANT
- EXISTING GAS VALVE/METER/GHC
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM DRAIN LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING OVERHEAD TELEPHONE
- EXISTING OVERHEAD ELECTRIC
- EXISTING PHONE/POWER POLE
- EXISTING SIGN
- FACE OF CURB
- EDGE OF LANE
- EDGE OF PAVEMENT
- CENTER LINE
- EX. SANITARY SEW. STRUCTURE
- NEW ASPHALT DRIVEWAY
- NEW CONCRETE DRIVEWAY
- NEW CONCRETE SIDEWALK
- NEW CONTOUR LINE
- NEW CURB AND GUTTER
- NEW STORM DRAIN LINE
- HORIZONTAL ALIGNMENT
- STREET CROWN
- STROM DRAIN NUMBER

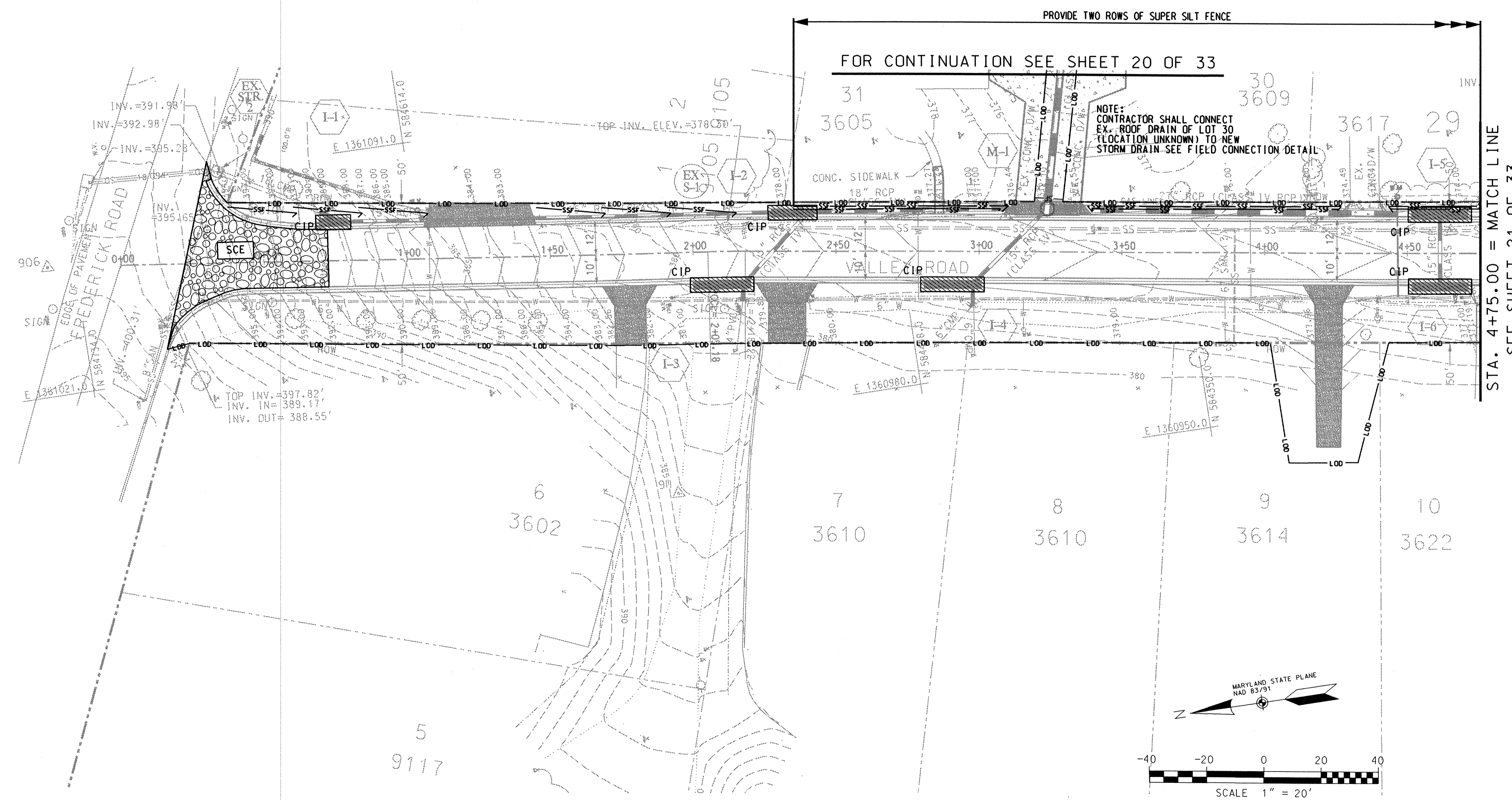
- NEW STORM DRAIN INLET
- NEW STORM DRAIN MANHOLE
- CURB INLET PROTECTION
- LIMIT OF DISTURBANCE
- SILT FENCE
- SUPER SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

Jim Meyer 5/24/04
U.S. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John P. [Signature] 5/24/04
HOWARD CONSERVATION DISTRICT DATE

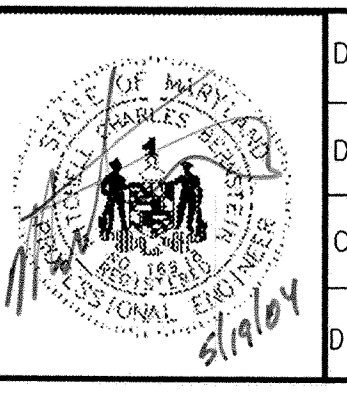


DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Ray [Signature] 6/3/04
DIRECTOR OF PUBLIC WORKS DATE

Steve Sharav 5/28/04
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

Baker
MICHAEL BAKER JR. INC.
Consulting Engineers
801 Crownell Park Drive
Suite 110
Glen Burnie, Maryland 21061
(410) 424-2210



DES: R.T.				
DRN: J.O.T.				
CHK: M.C.B.				
DATE: 4/16/04	BY	NO.		DATE

DRAINAGE IMPROVEMENTS
PROJECT NO.
D-1103

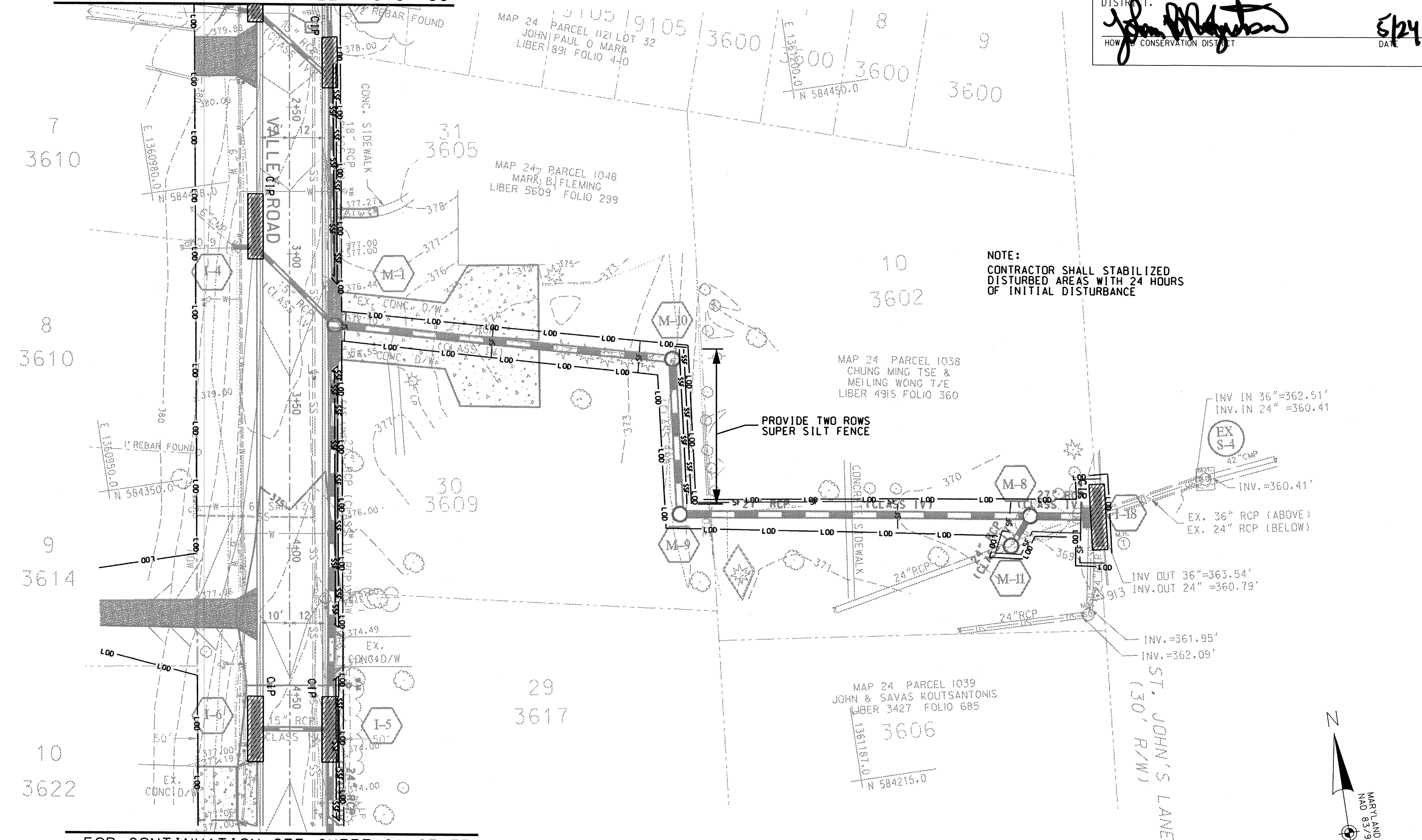
EROSION AND SEDIMENT CONTROL PLAN
VALLEY ROAD
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET REFERENCE NUMBER
CG201
19 OF 33

- EXISTING BUILDING/HOUSE NO
- 1294X EXISTING SPOT ELEVATION
- - - 305 FT - - - EXISTING CONTOURS
- - - - - EXISTING GUARD RAIL
- - - - - EXISTING WALL
- - - - - EXISTING FENCE
- - - - - EXISTING TREE
- - - - - EXISTING TREELINE
- - - - - EXISTING EDGE OF PAVEMENT
- - - - - EXISTING CURB
- - - - - EXISTING SIDEWALK
- EXISTING STORM DRAIN MANHOLE
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING WATER METER/WHC
- EXISTING WATER VALVE/FIRE HYDRANT
- EXISTING GAS VALVE/METER/GHC
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM DRAIN LINE
- - - - - EXISTING RIGHT-OF-WAY LINE
- EXISTING OVERHEAD TELEPHONE
- EXISTING OVERHEAD ELECTRIC
- EXISTING PHONE/POWER POLE
- EXISTING SIGN
- F/C FACE OF CURB
- E/L EDGE OF LANE
- E/P EDGE OF PAVEMENT
- C CENTER LINE
- EX. SANITARY SEW. STRUCTURE
- NEW ASPHALT DRIVEWAY
- NEW CONCRETE DRIVEWAY
- NEW CONCRETE SIDEWALK
- - - 395 - - - NEW CONTOUR LINE
- - - - - NEW CURB AND GUTTER
- - - - - NEW STORM DRAIN LINE
- - - - - HORIZONTAL ALIGNMENT
- - - - - STREET CROWN
- STROM DRAIN NUMBER
- NEW STORM DRAIN INLET
- NEW STORM DRAIN MANHOLE
- TEMPORARY CONSTRUCTION STRIP

- CURB INLET PROTECTION
- - - - - LIMIT OF DISTURBANCE
- - - - - SILT FENCE
- - - - - SUPER SILT FENCE

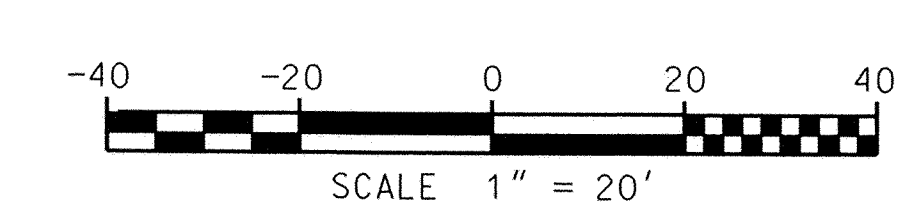
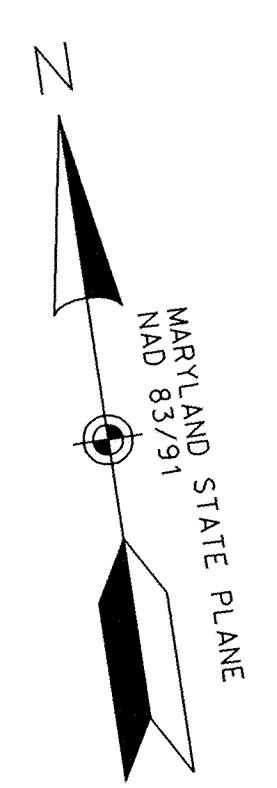
FOR CONTINUATION SEE SHEET 19 OF 33



FOR CONTINUATION SEE SHEET 21 OF 33

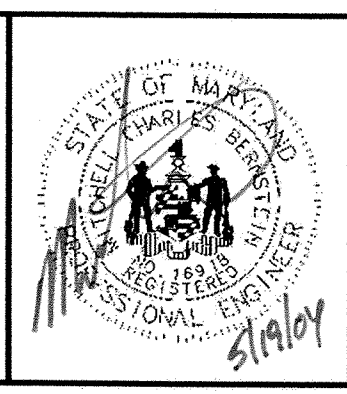
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
Jim Myers 5/24/04
 U.S. NATURAL RESOURCES CONSERVATION SERVICE DATE
 THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.
John A. Hightower 5/24/04
 HOWARD SOIL CONSERVATION DISTRICT DATE

NOTE:
 CONTRACTOR SHALL STABILIZED DISTURBED AREAS WITH 24 HOURS OF INITIAL DISTURBANCE



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
James J. ... 6/1/04
 DIRECTOR OF PUBLIC WORKS DATE
William T. ... 5-28-04
 CHIEF, BUREAU OF HIGHWAYS DATE
Steve Sharan 5/28/04
 CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

Baker
 MICHAEL BAKER JR. INC.
 Consulting Engineers
 801 Cromwell Park Drive
 Suite 110
 Glen Burnie, Maryland 21061
 (410) 424-2210


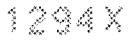





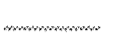
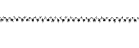
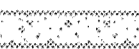














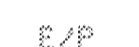





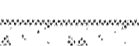
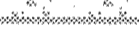


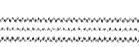

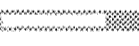



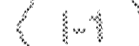
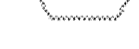




DES: R.T.				
DRN: J.O.T.				
CHK: M.C.B.				
DATE: 4/16/04	BY	NO.		DATE

DRAINAGE IMPROVEMENTS
 PROJECT NO.
 D-1103

EROSION AND SEDIMENT CONTROL PLAN
 VALLEY ROAD
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET REFERENCE NUMBER
 CG202
 20 OF 33

-  EXISTING BUILDING/HOUSE NO
-  1294X EXISTING SPOT ELEVATION
-  -305 FT EXISTING CONTOURS
-  EXISTING GUARD RAIL
-  EXISTING WALL
-  EXISTING FENCE
-  EXISTING TREE
-  EXISTING TREELINE
-  EXISTING EDGE OF PAVEMENT
-  EXISTING CURB
-  EXISTING SIDEWALK
-  EXISTING STORM DRAIN MANHOLE
-  EXISTING SANITARY SEWER
-  EXISTING WATER LINE
-  EXISTING WATER METER/WHC
-  EXISTING WATER VALVE/FIRE HYDRANT
-  EXISTING GAS VALVE/METER/GHC
-  EXISTING GAS LINE
-  EXISTING SANITARY SEWER LINE
-  EXISTING STORM DRAIN LINE
-  EXISTING RIGHT-OF-WAY LINE
-  EXISTING OVERHEAD TELEPHONE
-  EXISTING OVERHEAD ELECTRIC
-  EXISTING PHONE/POWER POLE
-  EXISTING SIGN
-  FACE OF CURB
-  EDGE OF LANE
-  EDGE OF PAVEMENT
-  CENTER LINE
-  EX. SANITARY SEW. STRUCTURE
-  NEW ASPHALT DRIVEWAY
-  NEW CONCRETE DRIVEWAY
-  NEW CONCRETE SIDEWALK
-  395 NEW CONTOUR LINE
-  NEW CURB AND GUTTER
-  NEW STORM DRAIN LINE
-  HORIZONTAL ALIGNMENT
-  STREET CROWN
-  STORM DRAIN NUMBER
-  NEW STORM DRAIN INLET
-  NEW STORM DRAIN MANHOLE
-  CIP CURB INLET PROTECTION
-  L00 LIMIT OF DISTURBANCE
-  SSF SUPER SILT FENCE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

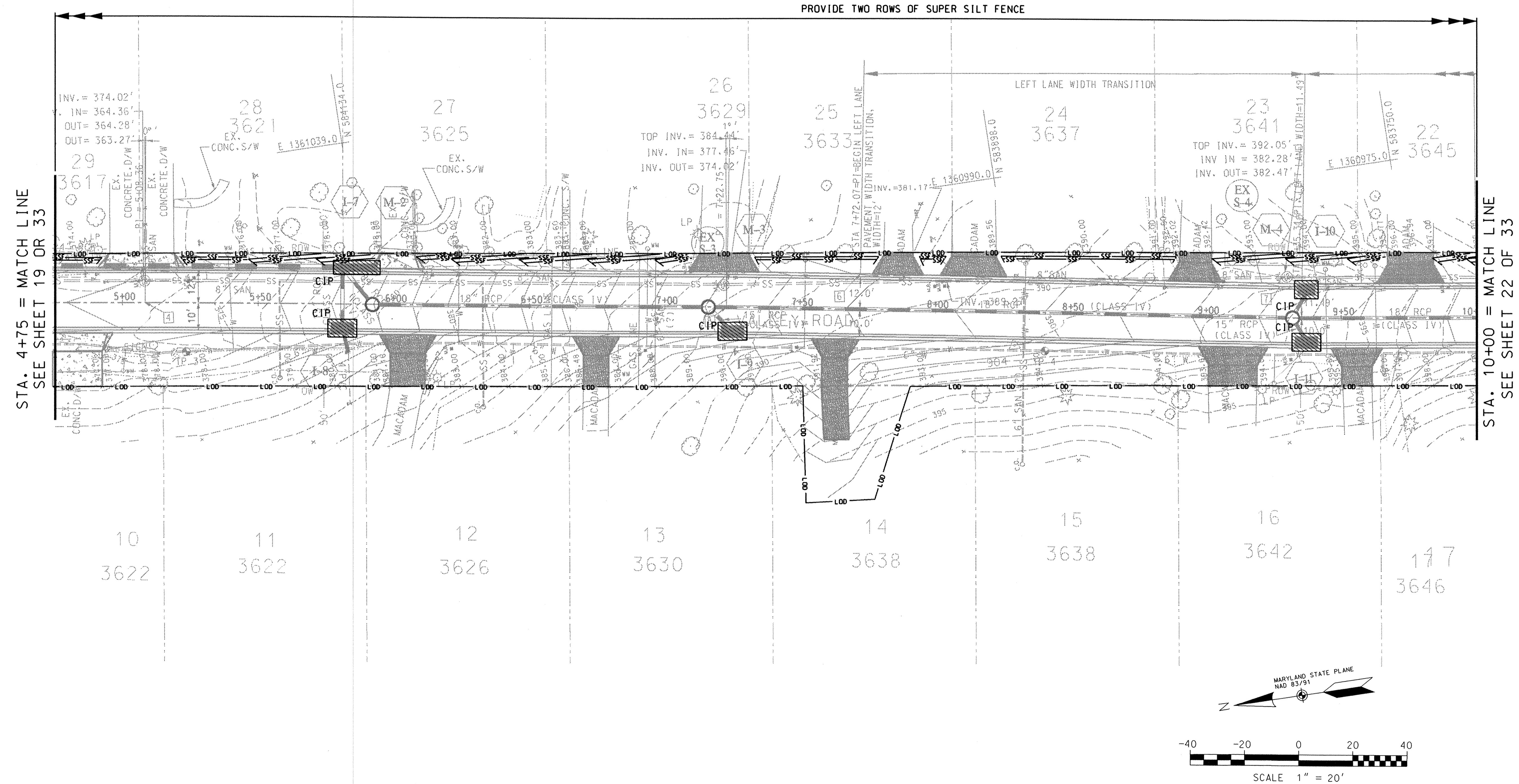
Jim Meyer 5/24/04
DATE

U.S. NATURAL RESOURCES CONSERVATION SERVICE

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

John R. Phelan 5/24/04
DATE

HOWARD SOIL CONSERVATION DISTRICT



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Jim Meyer 6/1/04
DIRECTOR OF PUBLIC WORKS DATE

Steve Shanahan 5/28/04
CHIEF, BUREAU OF ENGINEERING DATE

William J. White 5-28-04
CHIEF, BUREAU OF HIGHWAYS DATE

Steve Shanahan
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS

Baker
MICHAEL BAKER JR. INC.
Consulting Engineers
801 Cromwell Park Drive
Suite 110
Glen Burnie, Maryland 21061
(410) 424-2210

DES: R.T.					
DRN: J.O.T.					
CHK: M.C.B.					
DATE: 4/16/04	BY	NO.			DATE

DRAINAGE IMPROVEMENTS
PROJECT NO.
D-1103

EROSION AND SEDIMENT CONTROL PLAN
VALLEY ROAD
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET REFERENCE NUMBER
CG203
21 OF 33

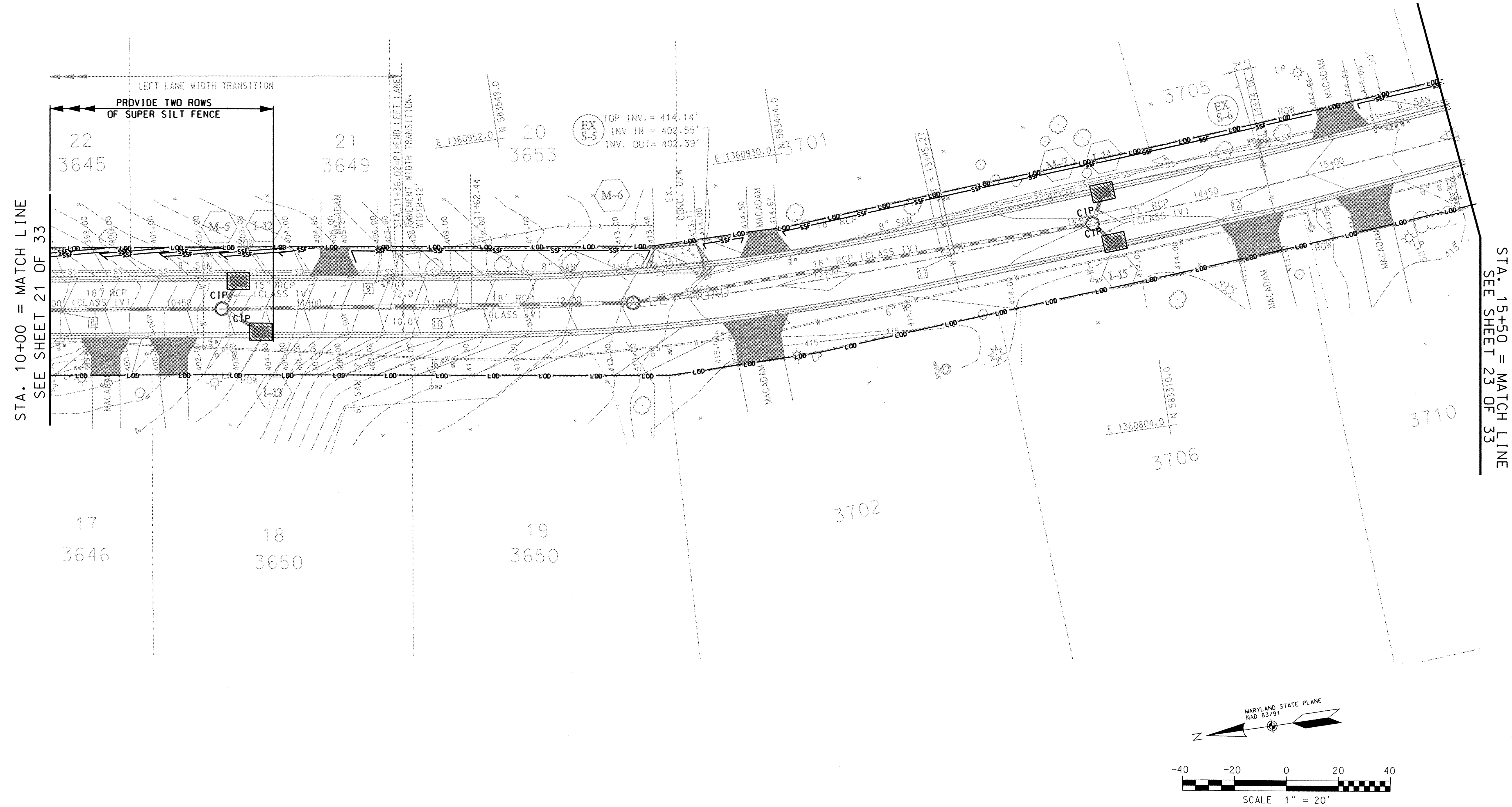
- EXISTING BUILDING/HOUSE No
- EXISTING SPOT ELEVATION
- EXISTING CONTOURS
- EXISTING GUARD RAIL
- EXISTING WALL
- EXISTING FENCE
- EXISTING TREE
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING STORM DRAIN MANHOLE
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING WATER METER/WHC
- EXISTING WATER VALVE/FIRE HYDRANT
- EXISTING GAS VALVE/METER/GHC
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING STORM DRAIN LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING OVERHEAD TELEPHONE
- EXISTING OVERHEAD ELECTRIC
- EXISTING PHONE/POWER POLE
- EXISTING SIGN
- FACE OF CURB
- EDGE OF LANE
- EDGE OF PAVEMENT
- CENTER LINE
- EX. SANITARY SEW. STRUCTURE
- NEW ASPHALT DRIVEWAY
- NEW CONCRETE DRIVEWAY
- NEW CONCRETE SIDEWALK
- NEW CONTOUR LINE
- NEW CURB AND GUTTER
- NEW STORM DRAIN LINE
- HORIZONTAL ALIGNMENT
- STREET CROWN
- STORM DRAIN NUMBER
- NEW STORM DRAIN INLET
- NEW STORM DRAIN MANHOLE
- CURB INLET PROTECTION
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

Jim Meyer 5/24/04
U.S. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John R. Roberts 5/24/04
HOWARD CONSERVATION DISTRICT DATE



STA. 10+00 = MATCH LINE
SEE SHEET 21 OF 33

STA. 15+50 = MATCH LINE
SEE SHEET 23 OF 33

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Don M. Shaw 6/1/04
DIRECTOR OF PUBLIC WORKS DATE

William J. Mahan 5-28-04
CHIEF, BUREAU OF HIGHWAYS DATE

Robert J. Sponer 6/1/04
CHIEF, BUREAU OF ENGINEERING DATE

Steve Slaven 5/28/04
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

Baker
MICHAEL BAKER JR. INC.
Consulting Engineers
801 Cromwell Park Drive
Suite 110
Glen Burnie, Maryland 21061
(410) 424-2210

DES: R.T.				
DRN: J.O.T.				
CHK: M.C.B.				
DATE: 4/16/04	BY	NO.		DATE

DRAINAGE IMPROVEMENTS
PROJECT NO.
D-1103

EROSION AND SEDIMENT CONTROL PLAN
VALLEY ROAD
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET REFERENCE NUMBER
CG204
22 OF 33

- EXISTING BUILDING/HOUSE No
- EXISTING SPOT ELEVATION
- EXISTING CONTOURS
- EXISTING GUARD RAIL
- EXISTING WALL
- EXISTING FENCE
- EXISTING TREE
- EXISTING TREELINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING SIDEWALK
- EXISTING STORM DRAIN MANHOLE
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- EXISTING WATER METER/WHC
- EXISTING WATER VALVE/FIRE HYDRANT
- EXISTING GAS VALVE/METER/GHC
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- EXISTING STORM DRAIN LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING OVERHEAD TELEPHONE
- EXISTING OVERHEAD ELECTRIC
- EXISTING PHONE/POWER POLE
- EXISTING SIGN
- EX. SANITARY SEW. STRUCTURE
- NEW ASPHALT DRIVEWAY
- NEW CONCRETE DRIVEWAY
- NEW CONCRETE SIDEWALK
- NEW CONTOUR LINE
- NEW CURB AND GUTTER
- NEW STORM DRAIN LINE
- HORIZONTAL ALIGNMENT
- STREET CROWN
- STROM DRAIN NUMBER

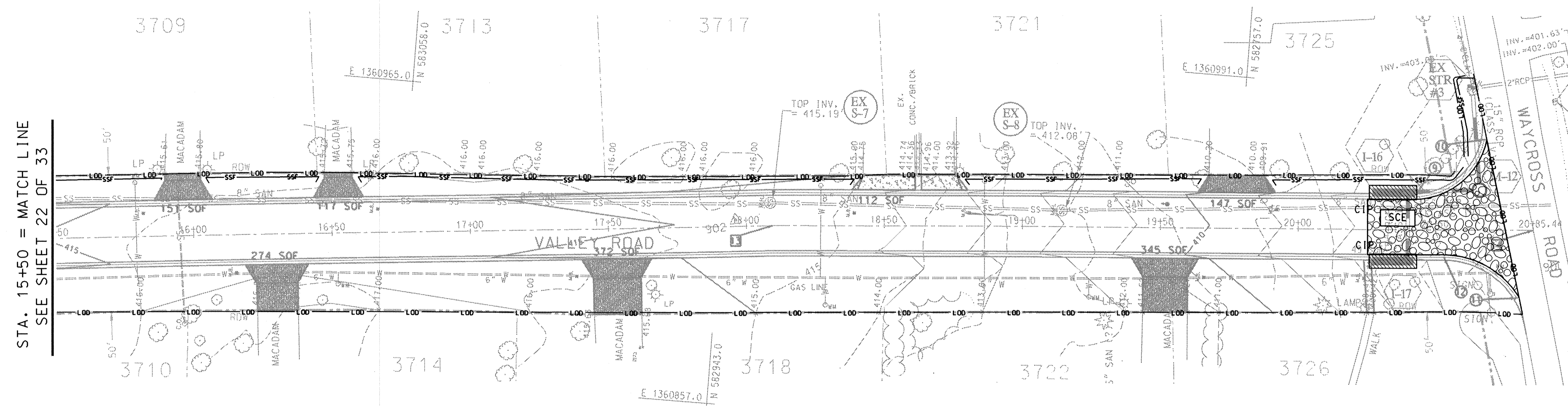
- NEW STORM DRAIN INLET
- NEW STORM DRAIN MANHOLE
- CURB INLET PROTECTION
- LIMIT OF DISTURBANCE
- SUPER SILT FENCE
- STABILIZED CONSTRUCTION ENTRANCE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

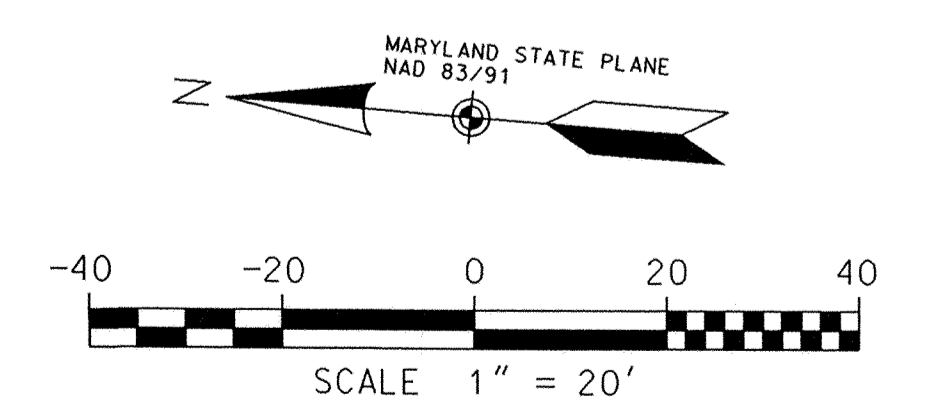
Jim Meyer 5/24/04
 U.S. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John Robertson 5/24/04
 HOWARD CONSERVATION DISTRICT DATE



STA. 15+50 = MATCH LINE
SEE SHEET 22 OF 33



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

John M. [Signature] 6/3/04
 DIRECTOR OF PUBLIC WORKS DATE

Steve Shaver 5/28/04
 CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

Baker
 Consulting Engineers
 801 Cromwell Park Drive
 Suite 110
 Glen Burnie, Maryland 21061
 (410) 424-2210

DES: R.T.				
DRN: J.D.T.				
CHK: M.C.B.				
DATE: 4/16/04	BY	NO.		DATE

DRAINAGE IMPROVEMENTS
 PROJECT NO.
 D-1103

EROSION AND SEDIMENT CONTROL PLAN
 VALLEY ROAD
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET REFERENCE NUMBER
 CG205
 23 OF 33

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

Jim Meyer 5/24/04
 U.S. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John K. Klotz 5/24/04
 HOWARD SOIL CONSERVATION DISTRICT DATE

PROPOSED SEQUENCE OF CONSTRUCTION

- A. OBTAIN GRADING PERMIT.
- B. STAGING AND MOBILIZATION.
- C. INSTALL EROSION AND SEDIMENT CONTROL MEASURES.
- D. INSTALL NEW STORM DRAIN PIPES AND STRUCTURES.
- E. INSTALL NEW DRIVEWAY APRONS, SIDEWALKS AND CONSTRUCT PAVEMENT.
- F. REPLACE ANY REMOVED TREES, AND SEED DISTURBED AREAS.
- G. REMOVE EROSION AND SEDIMENT CONTROL MEASURES.
- H. DEMOBILIZATION.

HOWARD SOIL CONSERVATION DISTRICT

STANDARD SEDIMENT CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (313-1855).
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revision thereto.
3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes steeper than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol 1, Chapter 7 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. 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 only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. 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.
7. Site Analysis:

Total Area of Site	=	---NA---Acres
Area Disturbed	=	---2.5---Acres
Area to be roofed or paved	=	---1.28---Acres
Area to be vegetatively stabilized	=	---1.22---Acres
Total Cut	=	---1250---Cu. Yds.
Total Fill	=	---350---Cu. Yds.
Offsite waste/borrow area location:	=	UNKNOWN (MUST HAVE APPROVED AND ACTIVE GRADING PERMIT)
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
10. 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.
11. 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.

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James J. ... 6/1/04
 DIRECTOR OF PUBLIC WORKS DATE

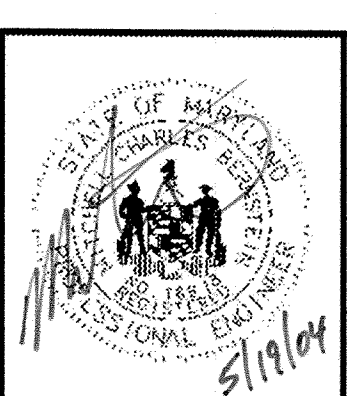
Robert W. ... 5/28/04
 CHIEF, BUREAU OF ENGINEERING DATE

William F. ... 5-28-04
 CHIEF, BUREAU OF HIGHWAYS DATE

Steve Sharar 5/28/04
 CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

Baker

MICHAEL BAKER JR., INC.
 Consulting Engineers
 801 Crosswell Park Drive
 Suite 110
 Glen Burnie, Maryland 21061
 (410) 424-2210



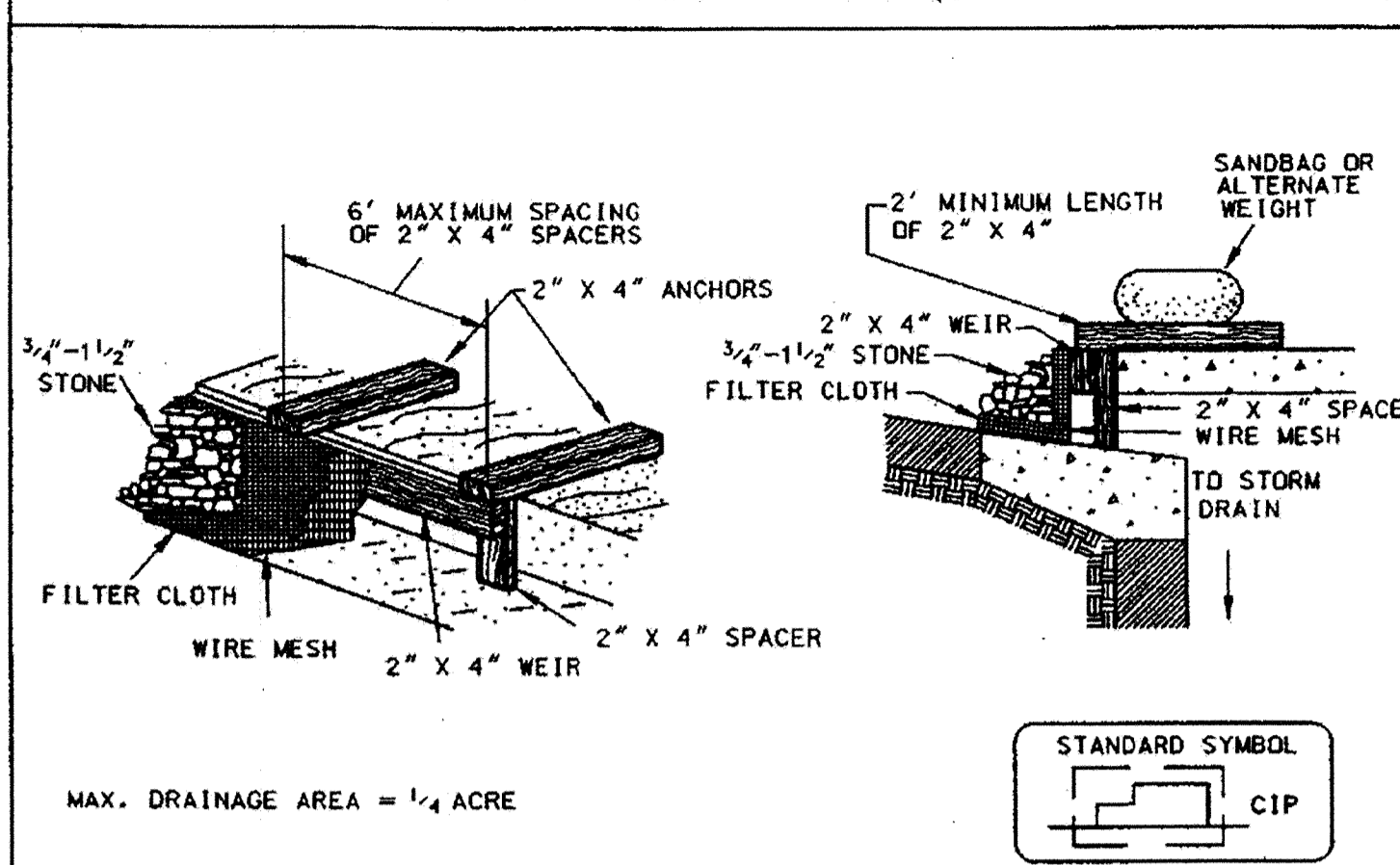
DES: R.T.
 DRN: J.O.T.
 CHK: M.C.B.
 DATE: 4/16/04 BY NO. DATE

DRAINAGE IMPROVEMENTS
 PROJECT NO.
 D-1103

EROSION AND SEDIMENT CONTROL NOTES
 VALLEY ROAD
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET REFERENCE NUMBER
 DT501
 24 OF 33

DETAIL 23C - CURB INLET PROTECTION (COG OR COS INLETS)



MAX. DRAINAGE AREA = 1/4 ACRE

Construction Specifications

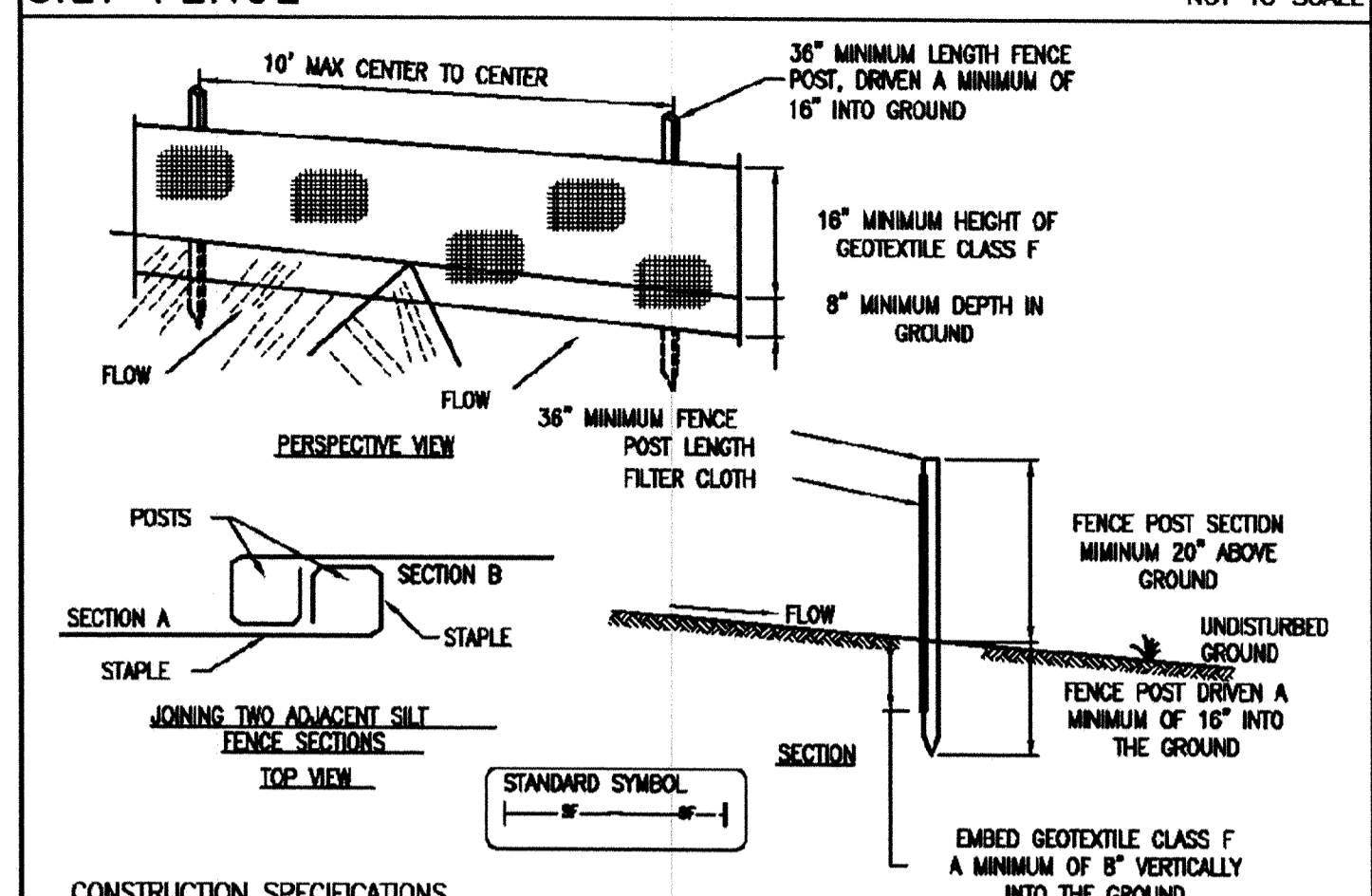
1. Attach a continuous piece of wire mesh (30" minimum width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard drawing.
2. Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2" x 4" weir.
3. Securely nail the 2" x 4" weir to a 9" long vertical spacer to be located between the weir and the inlet face (max. 4' apart).
4. Place the assembly against the inlet throat and nail (minimum 2' lengths of 2" x 4" to the top of the weir or spacer locations). These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening.
6. Form the 1/2" x 1/2" wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4" x 1 1/2" stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.
7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
8. Assure that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE PAGE B-38-6B MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

1994

SILT FENCE

NOT TO SCALE



CONSTRUCTION SPECIFICATIONS

1. FENCE POSTS SHALL BE A MINIMUM OF 36" LONG DRIVEN 16" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1 1/2" X 1 1/2" SQUARE (MINIMUM) CUT, OR 1 3/4" DIAMETER (MINIMUM) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD. STEEL POSTS WILL BE STANDARD T OR U SECTION WEIGHING NOT LESS THAN 1.00 POUND PER LINEAR FOOT.
2. GEOTEXTILE SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F:

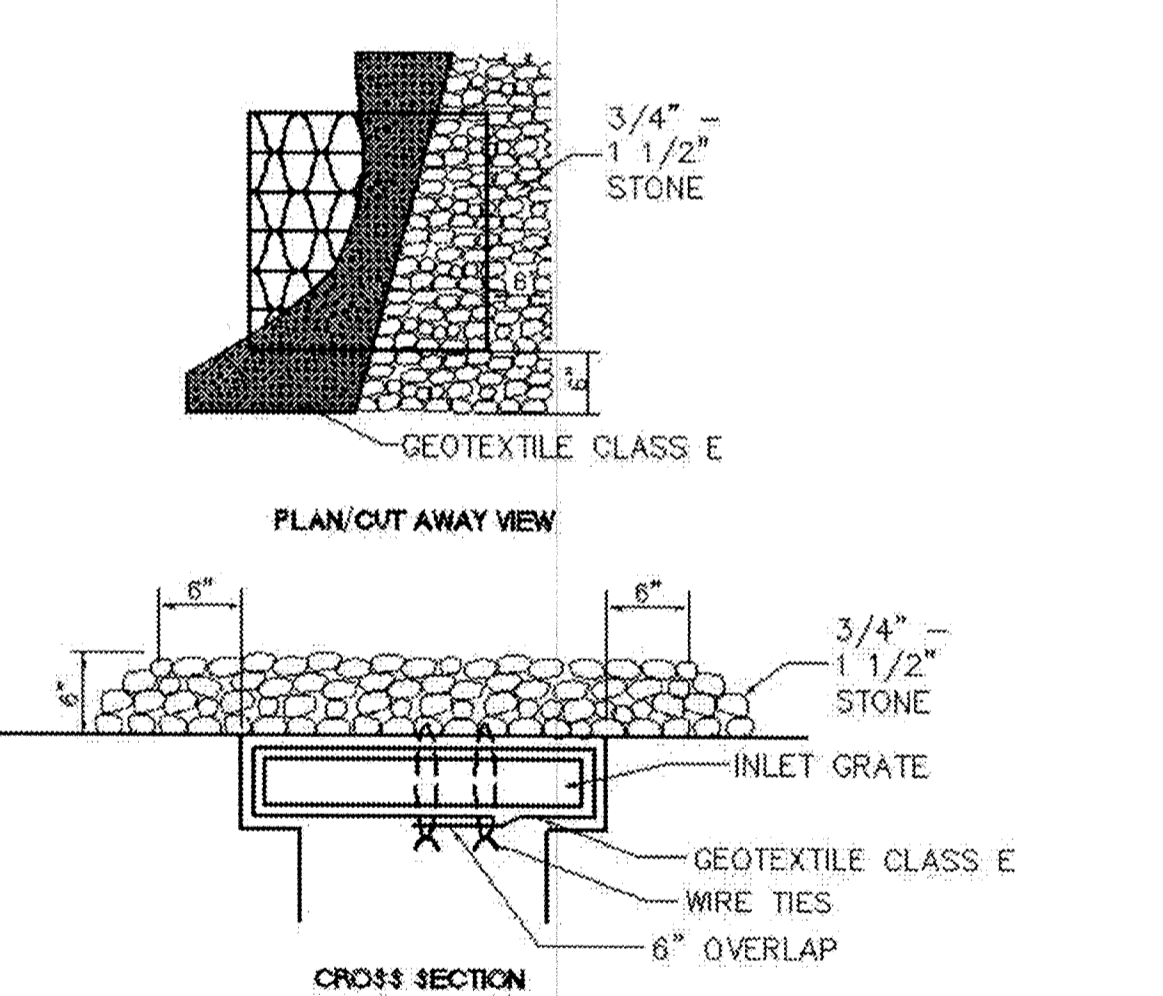
TENSILE STRENGTH	50 LBS/IN (MIN.)	TEST: MSMT 509
TENSILE MODULUS	20 LBS/IN (MIN.)	TEST: MSMT 509
FLOW RATE	0.3 GAL. FT ² /MINUTE (MAX.)	TEST: MSMT 322
FILTERING EFFICIENCY	75 % (MIN.)	TEST: MSMT 322
3. WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
4. SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHED 50 % OF THE FABRIC HEIGHT.

AT GRADE INLET PROTECTION (AGIP)

NOT TO SCALE

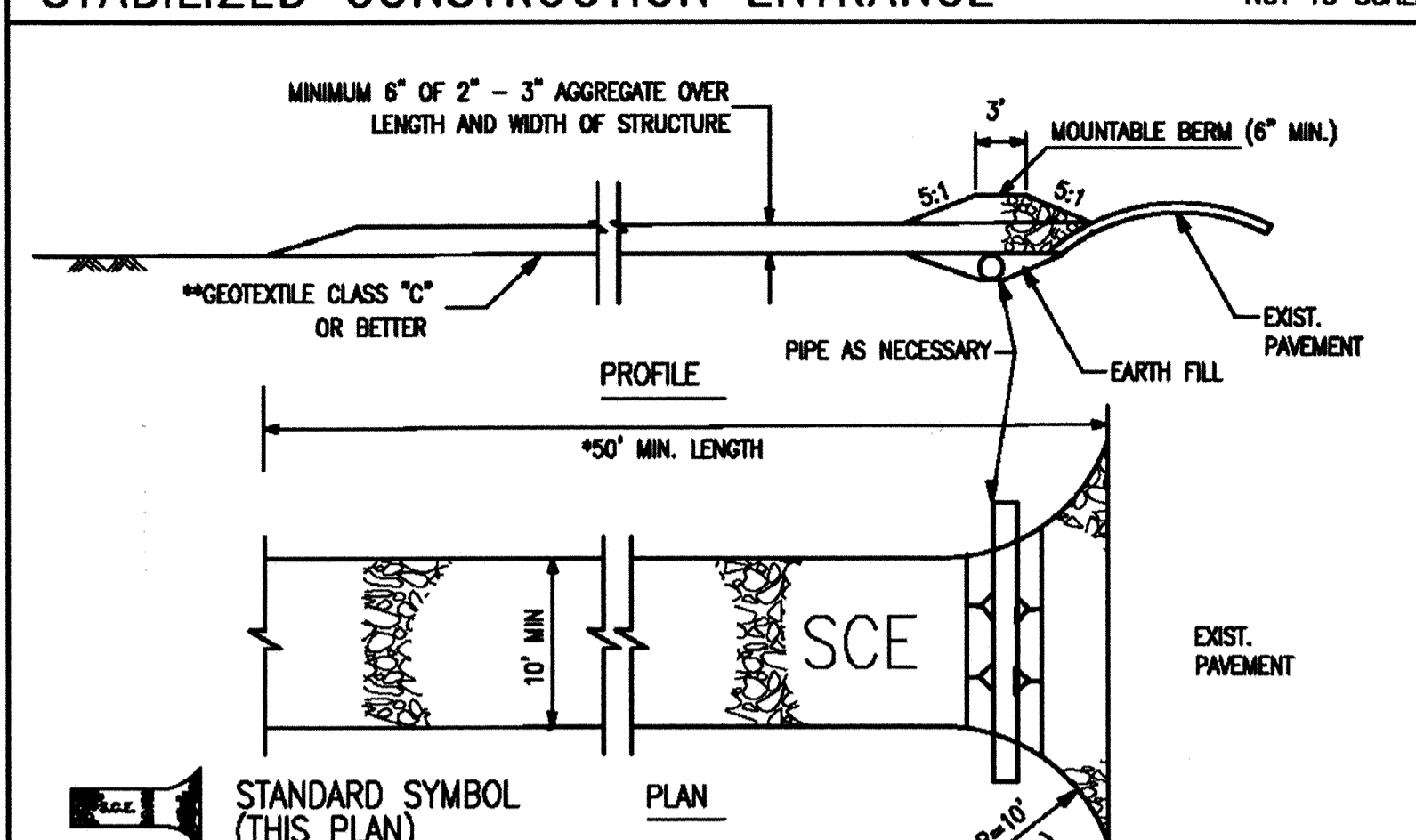
CONSTRUCTION SPECIFICATIONS

1. LIFT GRATE AND WRAP WITH GEOTEXTILE CLASS E TO COMPLETELY COVER ALL OPENINGS, THEN SET GRATE BACK IN PLACE.
2. PLACE 3/4" TO 1 1/2" STONE, 4"-6" THICK ON THE GRATE TO SECURE THE FABRIC AND PROVIDE ADDITIONAL FILTRATION.



STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

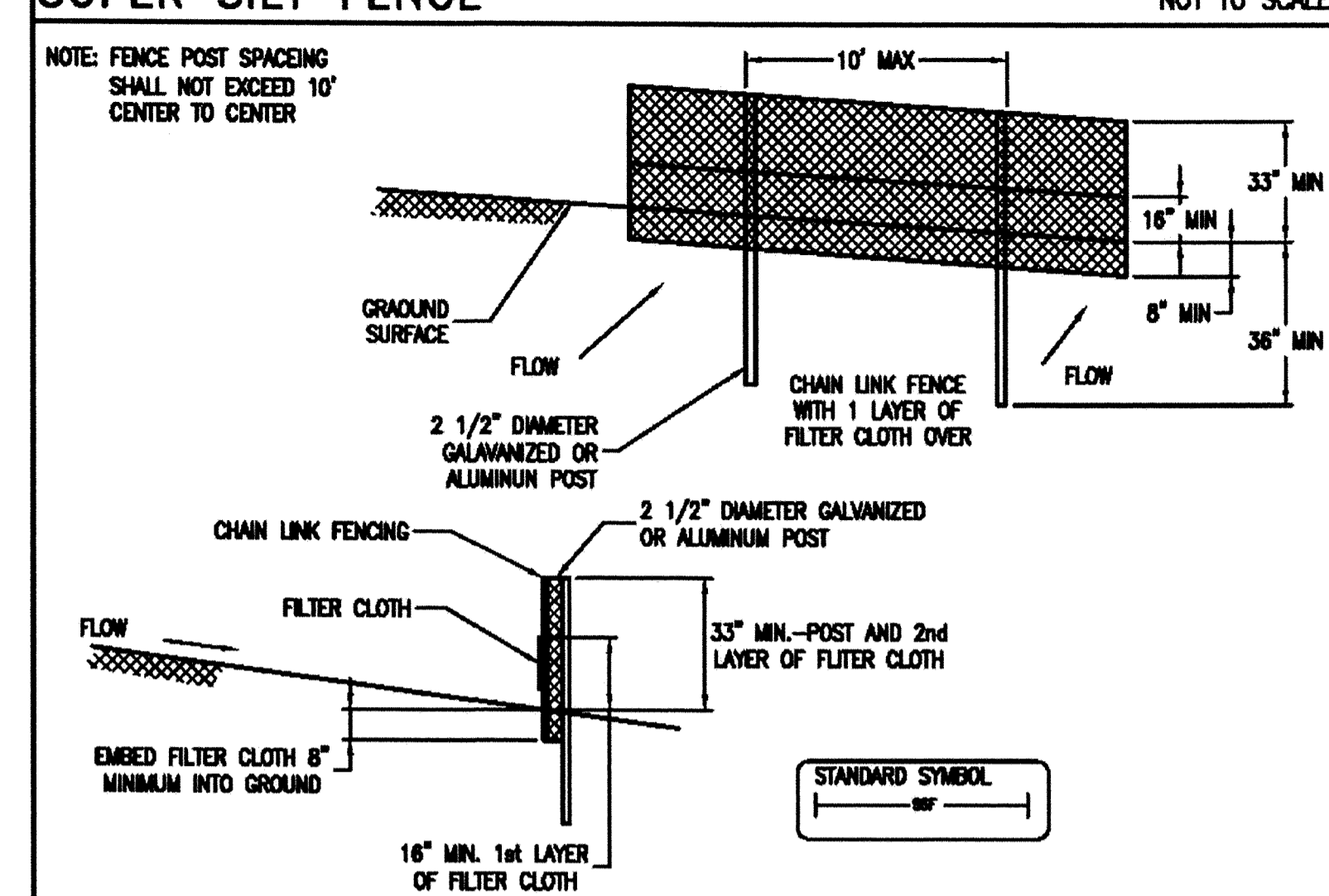


CONSTRUCTION SPECIFICATIONS

1. LENGTH - MINIMUM OF 50' (*30' FOR SINGLE RESIDENCE LOT).
2. WIDTH - 10' MINIMUM SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
3. GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. **THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
4. STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
5. SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM WILL BE REQUIRED.
6. LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

SUPER SILT FENCE

NOT TO SCALE



CONSTRUCTION SPECIFICATION

FENCING SHALL BE 42 INCHES IN HEIGHT AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST MARYLAND STATE HIGHWAY DETAILS FOR CHAIN LINK FENCING. THE SPECIFICATION FOR A 6 FOOT FENCE SHALL BE USED, SUBSTITUTING 42 INCH FABRIC AND 6 FOOT LENGTH POST

1. POLES DO NOT NEED TO SET IN CONCRETE.
2. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH WIRE TIES OR STAPLES.
3. FILTER CLOTH SHALL BE FASTENED SECURELY TO CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID SECTION.
4. FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVER LAPPED BY 6" AND FOLDED.
6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILT MUST BE REMOVED WHEN "BULGES" DEVELOP IN TO SILT FENCE.

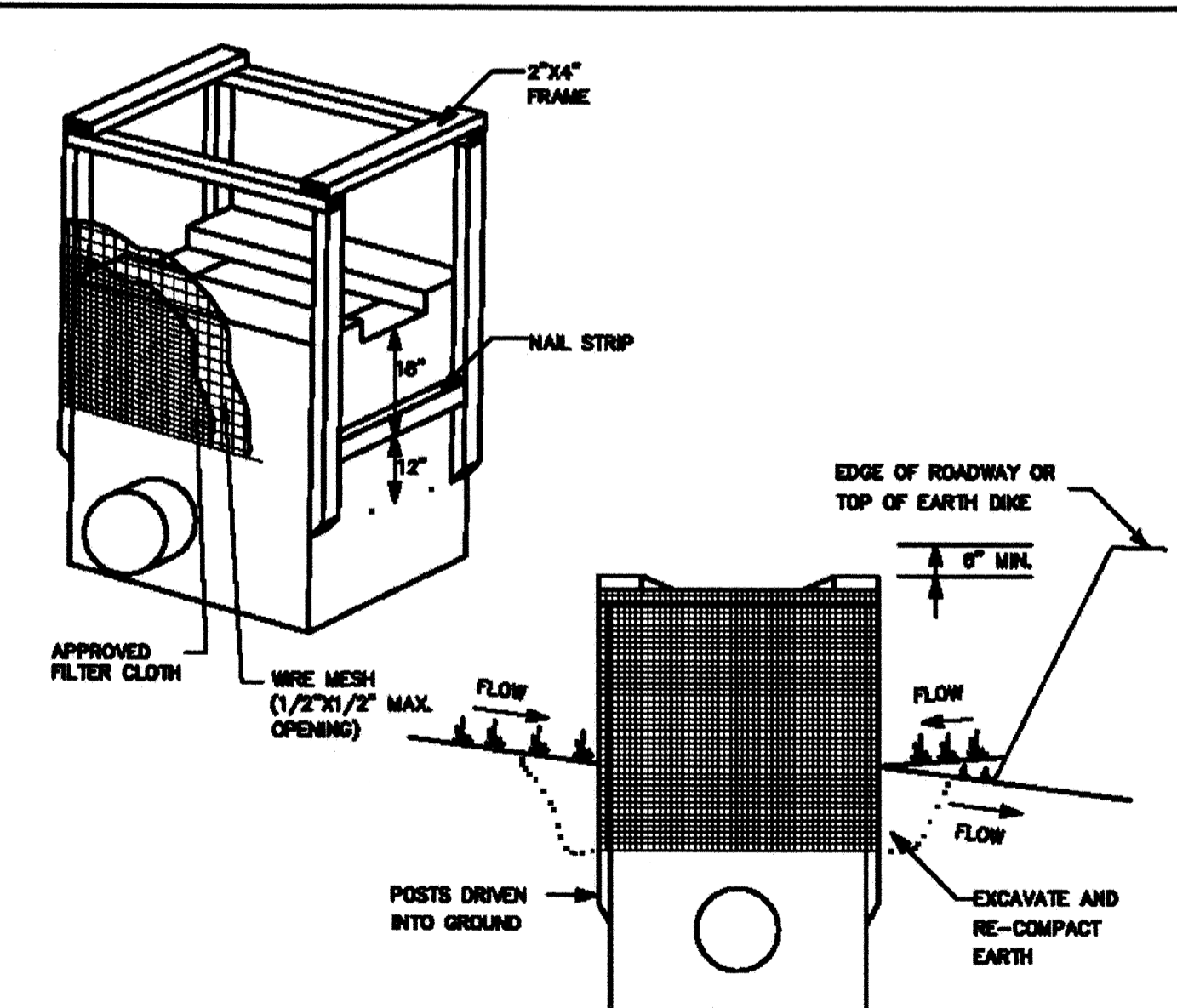
DESIGN CRITERIA

SLOPE	SLOPE STEEPNESS	SLOPE LENGTH (MAXIMUM)	SILT FENCE LENGTH (MAXIMUM)
0 - 10%	0 - 10:1	UNLIMITED	UNLIMITED
10 - 10%	10:1 - 5:1	200 FEET	1500 FEET
20 - 10%	5:1 - 3:1	100 FEET	1000 FEET
33 - 10%	3:1 - 2:1	100 FEET	500 FEET
50%+	2:1+	50 FEET	250 FEET

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
Jim Meyer 5/24/04
 U.S. NATURAL RESOURCES CONSERVATION SERVICE
 THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT
John P. Platon 5/24/04
 HOWARD CONSERVATION DISTRICT

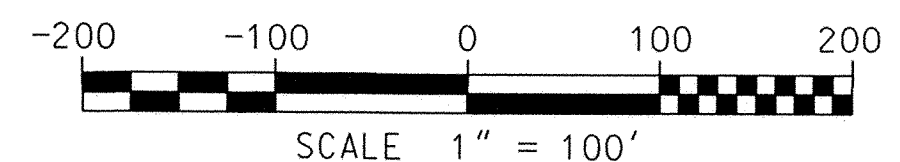
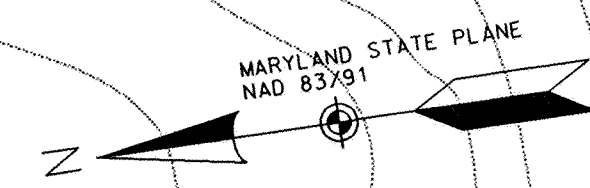
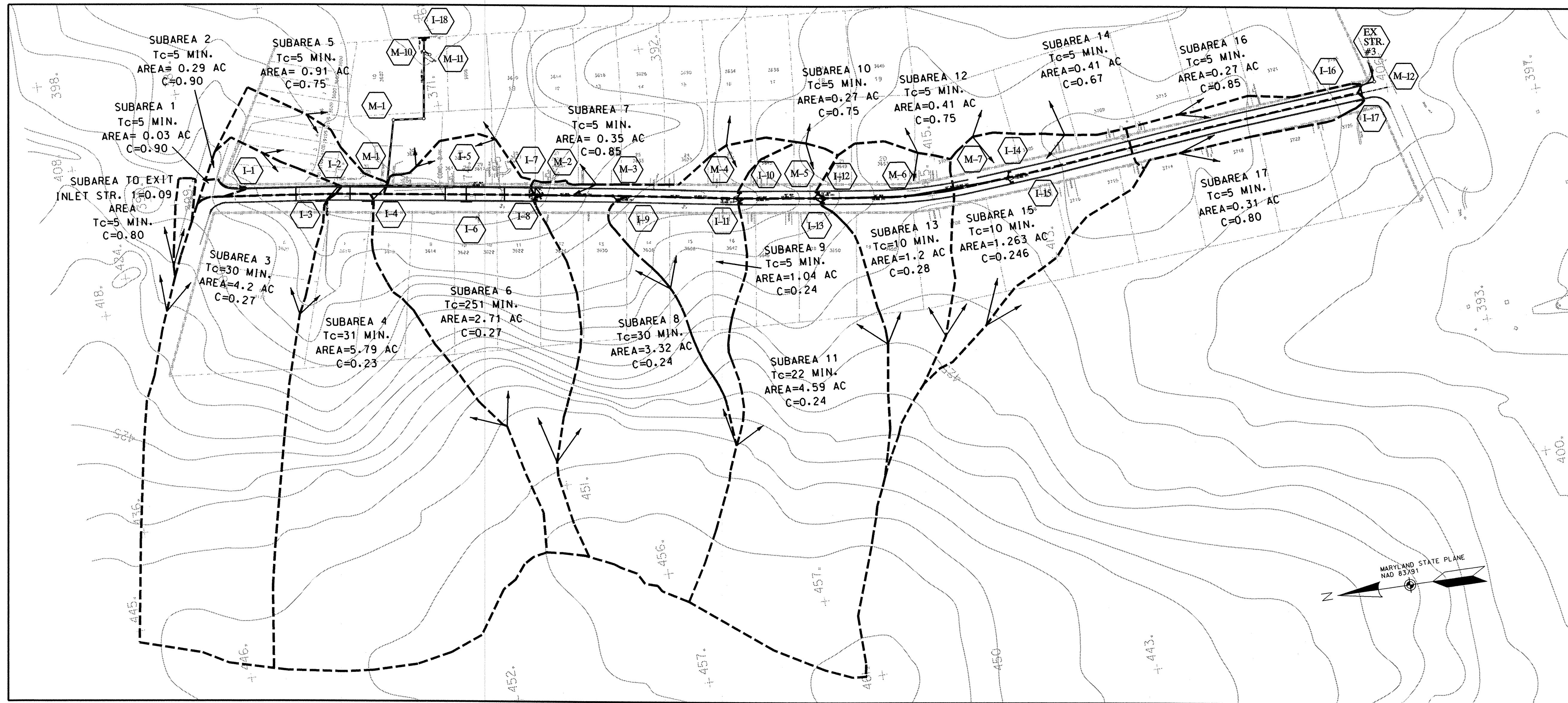
STANDARD INLET PROTECTION CONSTRUCTION SPECIFICATIONS

1. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18" BELOW THE NOTCH ELEVATION.
2. DRIVE THE 2" x 4" CONSTRUCTION GRADE LUMBER POSTS 1' INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2" x 4" FRAME USING THE OVERLAP JOINT SHOWN ON DETAIL 23A. THE TOP OF THE FRAME (WEIR) MUST BE 8" BELOW ADJACENT ROADWAYS WHERE FLOODING AND SAFETY ISSUES MAY ARISE.
3. STRETCH THE 1/2" x 1/2" WIRE MESH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. THE ENDS MUST MEET AND OVERLAP AT A POST.
4. STRETCH THE GEOTEXTILE CLASS E TIGHTLY OVER THE WIRE MESH WITH THE GEOTEXTILE EXTENDING FROM THE TOP OF THE FRAME TO 18" BELOW THE INLET NOTCH ELEVATION. FASTEN THE GEOTEXTILE FIRMLY TO THE FRAME. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST, BE OVERLAPPED, AND FOLDED, THEN FASTENED DOWN.
5. BACKFILL AROUND THE INLET IN COMPACTED 6" LAYERS UNTIL THE LAYER OF EARTH IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES.
6. IF THE INLET IS NOT IN A SUMP, CONSTRUCT A COMPACTED EARTH DIKE ACROSS THE DITCH LINE DIRECTLY BELOW IT. THE TOP OF THE EARTH DIKE SHOULD BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME.
7. THE STRUCTURE MUST BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND THE GEOTEXTILE REPLACED WHEN IT BECOMES CLOGGED.



STANDARD INLET PROTECTION DETAIL (SIP)

NOT TO SCALE



DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

John J. ...
DIRECTOR OF PUBLIC WORKS

6/3/04
DATE

Paul J. ...
CHIEF, BUREAU OF ENGINEERING

6/1/04
DATE

William J. ...
CHIEF, BUREAU OF HIGHWAYS

5-28-04
DATE

Steve Shaner
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS

5/28/04
DATE



MICHAEL BAKER JR. INC.

Consulting Engineers
801 Cromwell Park Drive
Suite 110
Glen Burnie, Maryland 21061
(410) 424-2210

Michael Baker Jr., Inc.
Glen Burnie, Maryland 21061
(410) 424-2210



DES: R.T.

DRN: J.O.T.

CHK: M.C.B.

DATE: 4/16/04

BY	NO.	DATE

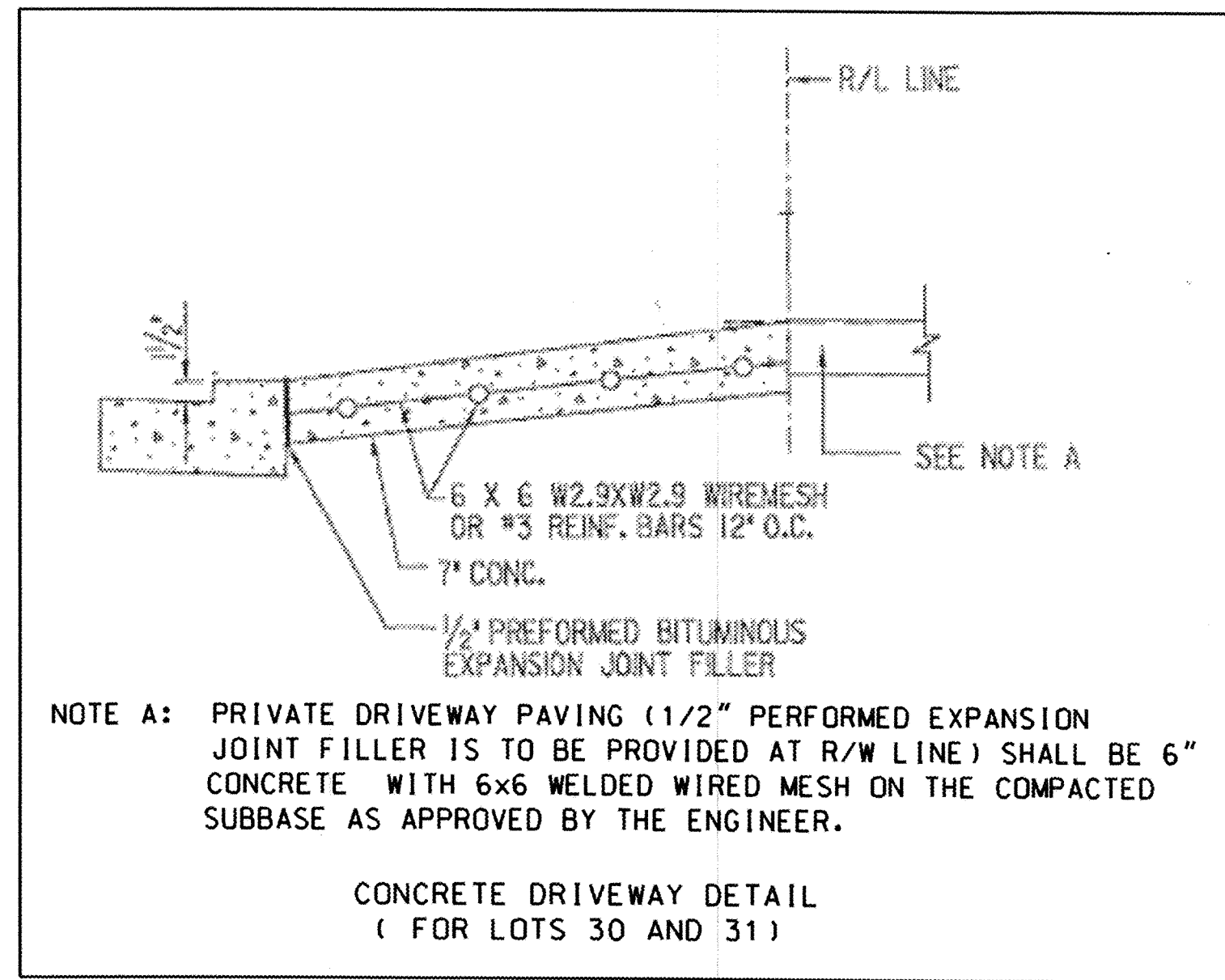
DRAINAGE IMPROVEMENTS
PROJECT NO.
D-1103

DRAINAGE AREA MAP
VALLEY ROAD
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET REFERENCE NUMBER

DT503
26 OF 33



NOTE A: PRIVATE DRIVEWAY PAVING (1/2" PERFORMED EXPANSION JOINT FILLER IS TO BE PROVIDED AT R/W LINE) SHALL BE 6" CONCRETE WITH 6x6 WELDED WIRED MESH ON THE COMPACTED SUBBASE AS APPROVED BY THE ENGINEER.

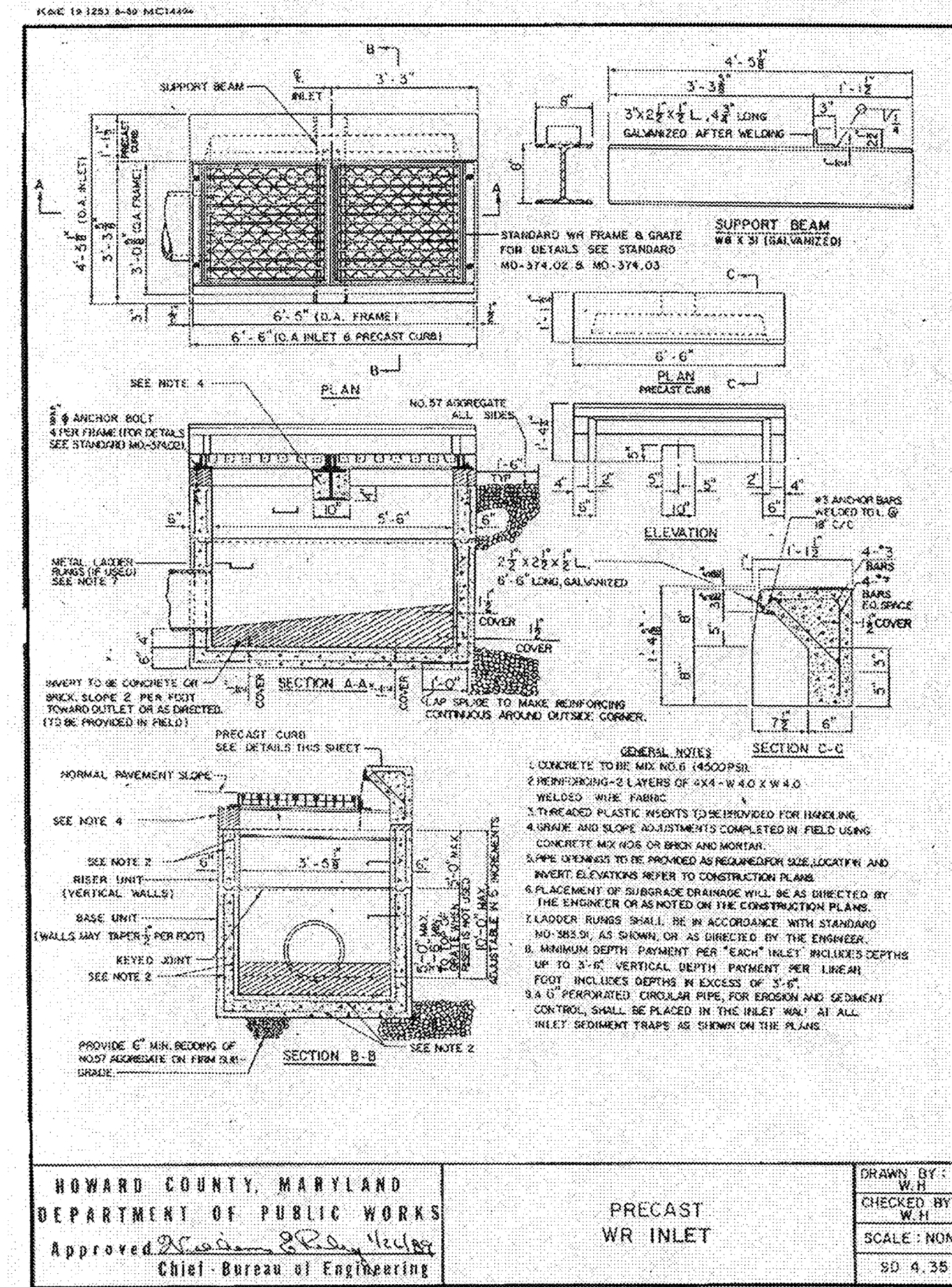
CONCRETE DRIVEWAY DETAIL
(FOR LOTS 30 AND 31)

SECTION NUMBER	ROAD AND STREET CLASSIFICATION	PAVEMENT MATERIALS	
		FULL DEPTH BIT. CONC. ALTERNATE	GRANULAR BASE ALTERNATE
P-1 DRIVEWAY	PARKING BAYS APARTMENTS AND COMMERCIAL- INDUSTRIAL ZONES WITH NO HEAVY TRUCKS	1" BIT. CONC. SURFACE 4" BIT. CONC. BASE	1" BIT. CONC. SURFACE 2" BIT. CONC. BASE
	TRAVELWAYS FOR APARTMENTS AND COMMERCIAL INDUSTRIAL ZONES WITH NO HEAVY TRUCKS	4" GRADED AGGREGATE BASE (GAB)	NOT IN CONTRACT
P-2	RESIDENTIAL ZONES LOCAL CUL-DE-SACS, ALLEYS AND PRIVATE ROADS SERVING INDIVIDUAL LOTS	1 1/2" BIT. CONC. SURFACE 5" BIT. CONC. BASE	1 1/2" BIT. CONC. SURFACE 3 1/2" BIT. CONC. BASE
	TRAVELWAYS FOR APARTMENTS AND COMMERCIAL- INDUSTRIAL ZONES WITH NO MORE THAN 10 HEAVY TRUCKS PER DAY*	6" GRADED AGGREGATE BASE (GAB)	NOT IN CONTRACT

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved: *[Signature]* Chief-Bur. of Eng. Date: *[Date]*

PAVING SECTIONS
P-1 THROUGH P-4

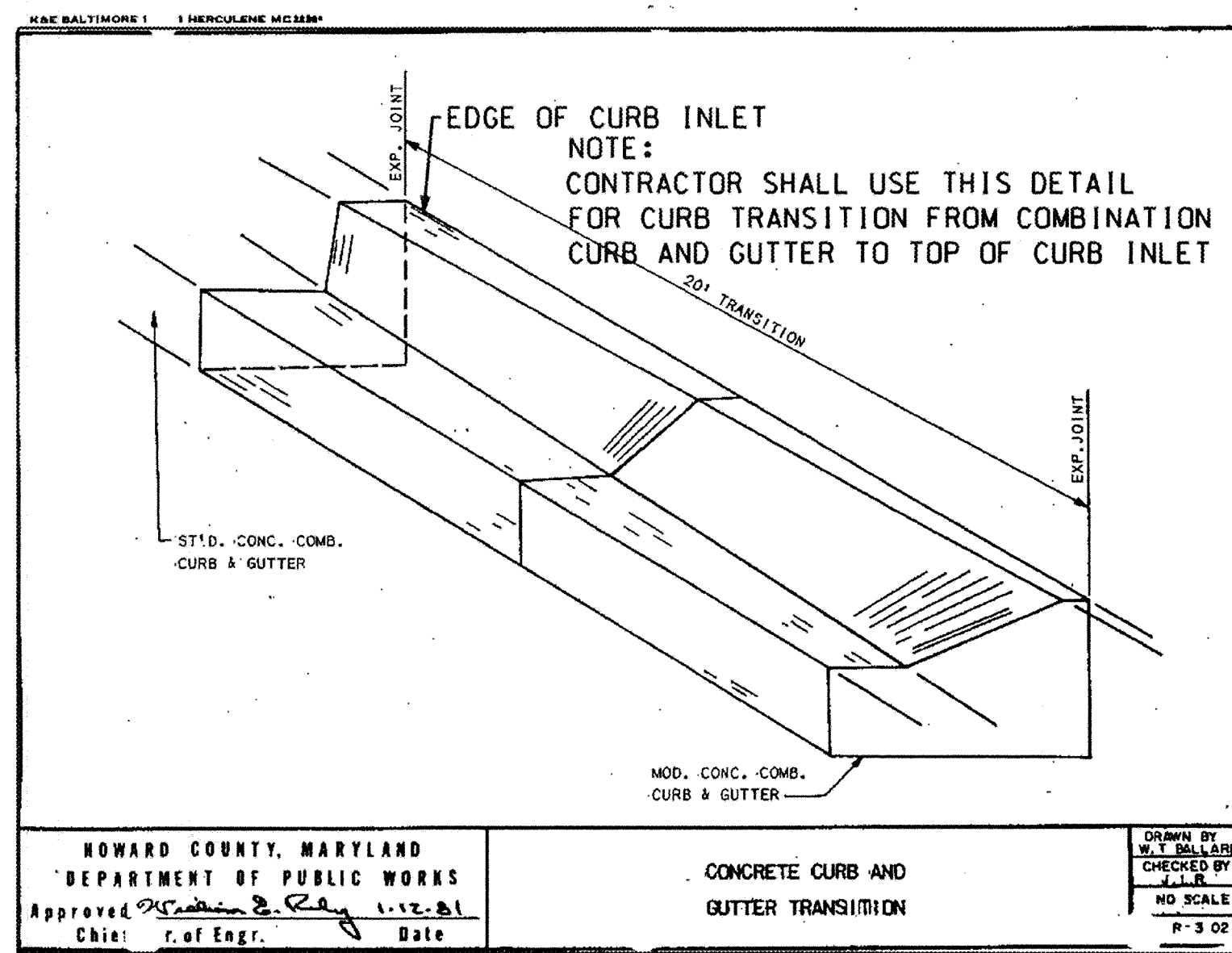
DRAWN BY: W.T. BALLARD
CHECKED BY: J.L.R.
NO SCALE
R-201



HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved: *[Signature]* Chief-Bureau of Engineering

PRECAST
WR INLET

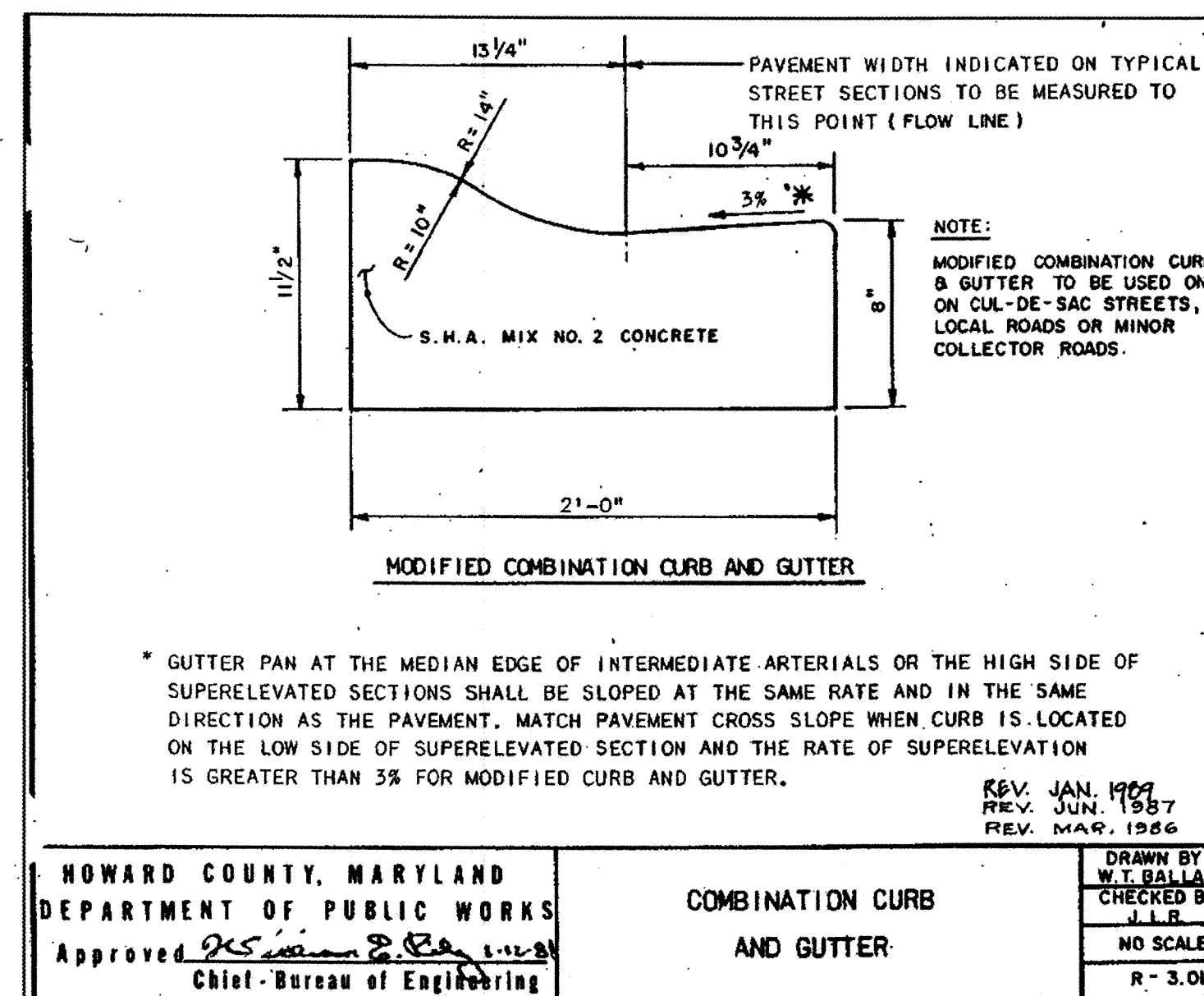
DRAWN BY: W.T.
CHECKED BY: J.L.R.
SCALE: NONE
SD 4.35



HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved: *[Signature]* Chief-Bur. of Eng. Date: *[Date]*

CONCRETE CURB AND
GUTTER TRANSITION

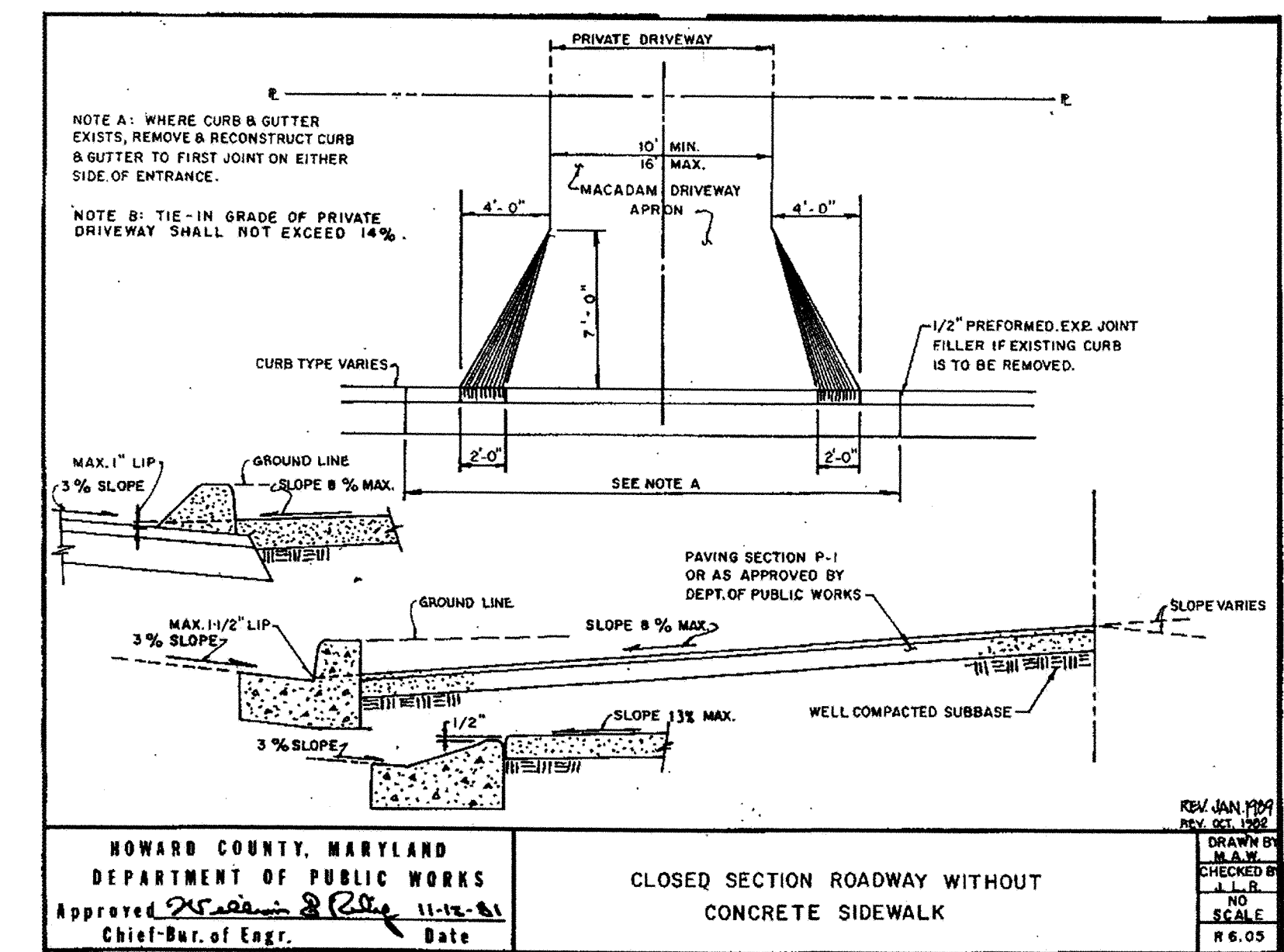
DRAWN BY: W.T. BALLARD
CHECKED BY: J.L.R.
NO SCALE
P-3 02



HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved: *[Signature]* Chief-Bureau of Engineering

COMBINATION CURB
AND GUTTER

DRAWN BY: W.T. BALLARD
CHECKED BY: J.L.R.
NO SCALE
R-3.01



HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved: *[Signature]* Chief-Bur. of Eng. Date: *[Date]*

CLOSED SECTION ROADWAY WITHOUT
CONCRETE SIDEWALK

DRAWN BY: W.T. BALLARD
CHECKED BY: J.L.R.
NO SCALE
R-6.03

DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

[Signature] 6/30/04
DIRECTOR OF PUBLIC WORKS DATE

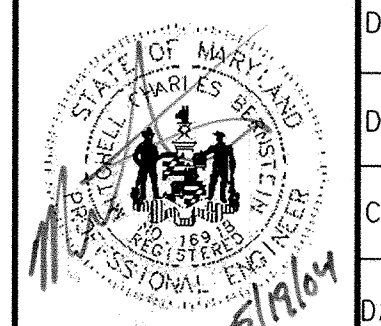
[Signature] 6/1/04
CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 5-28-04
CHIEF, BUREAU OF HIGHWAYS DATE

[Signature] 5/28/04
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

Baker
Consulting Engineers
801 Cranwell Park Drive
Suite 110
Glen Burnie, Maryland 21061
(410) 424-2210

MICHAEL BAKER JR. INC.



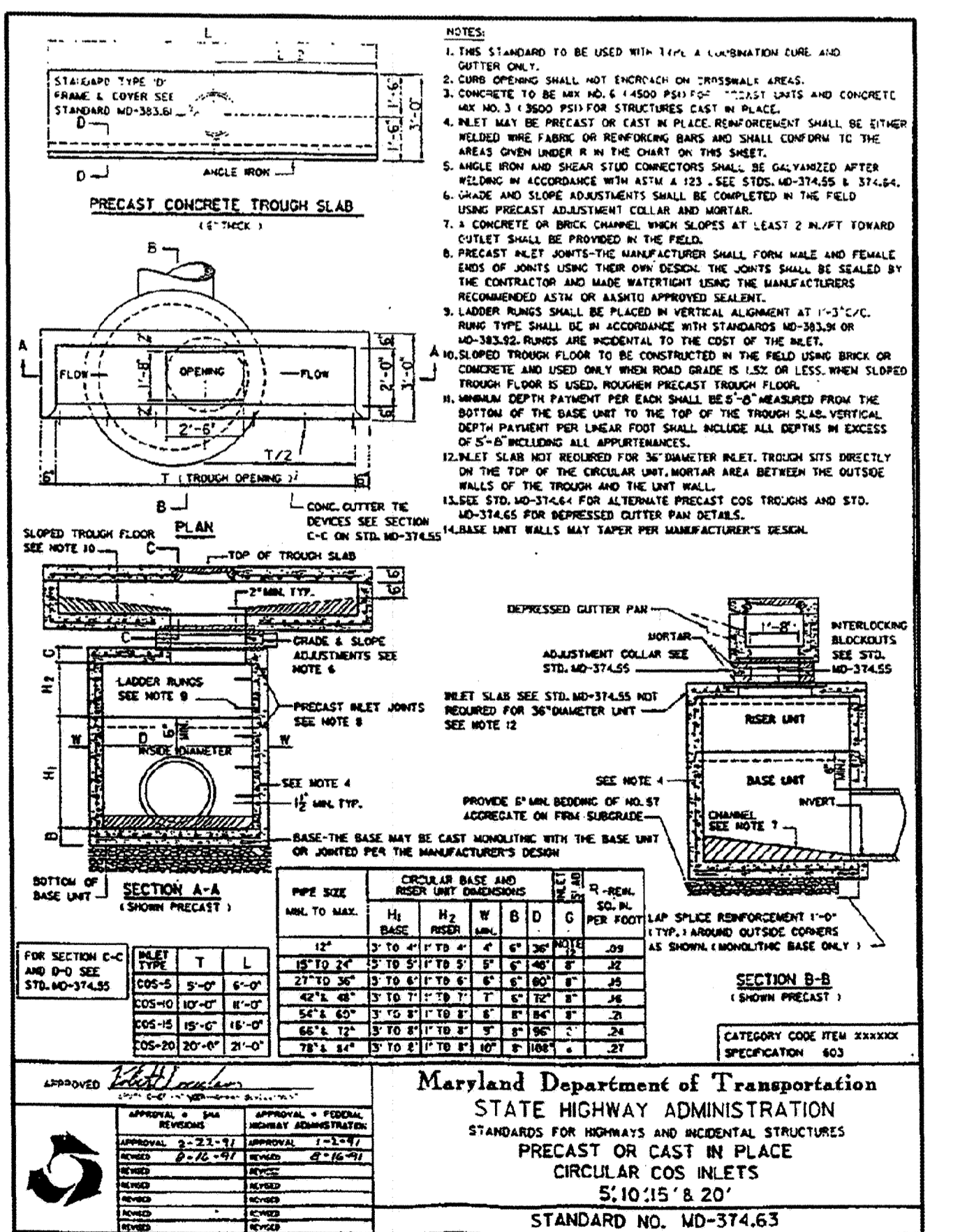
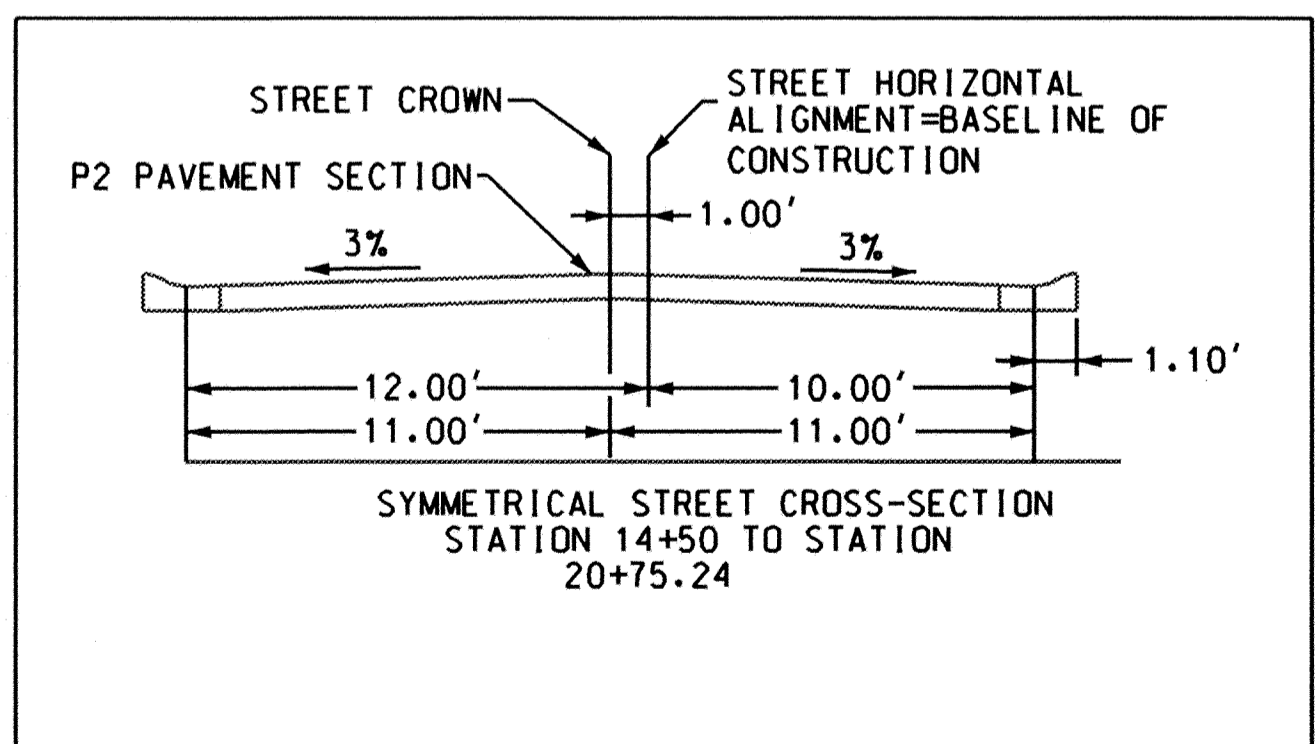
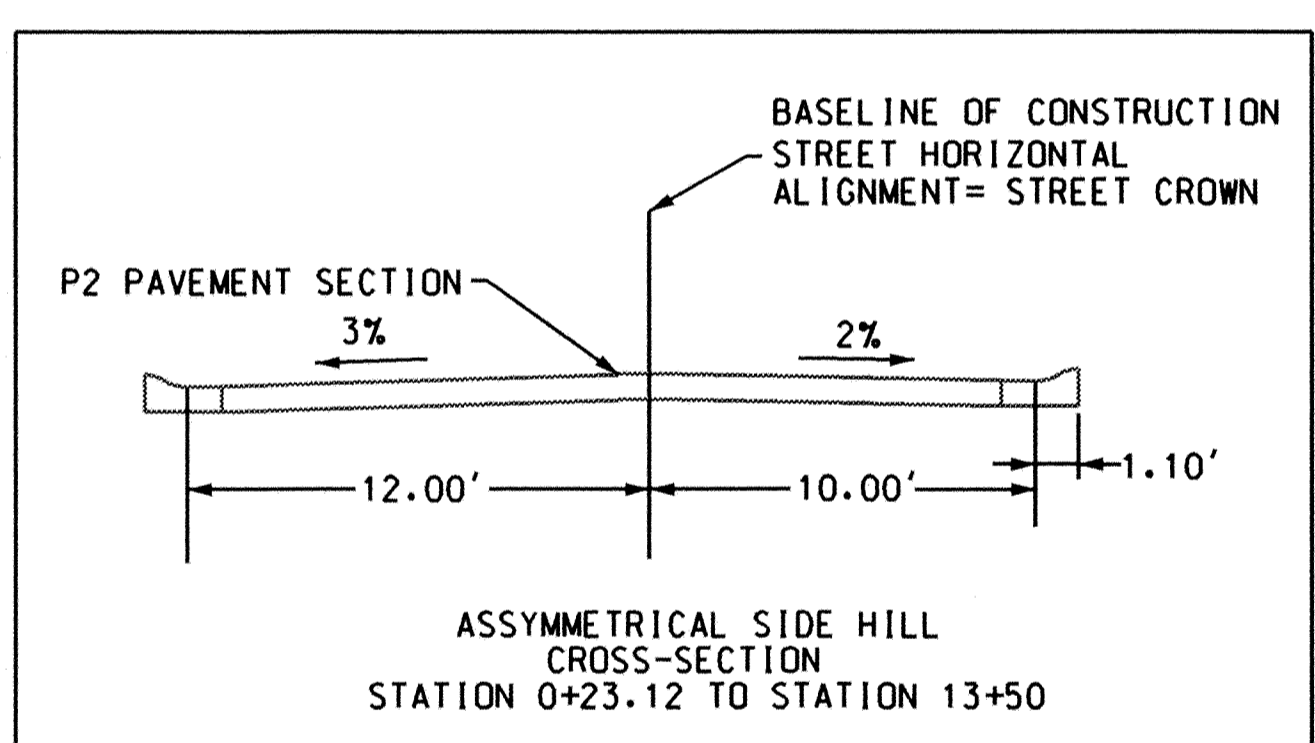
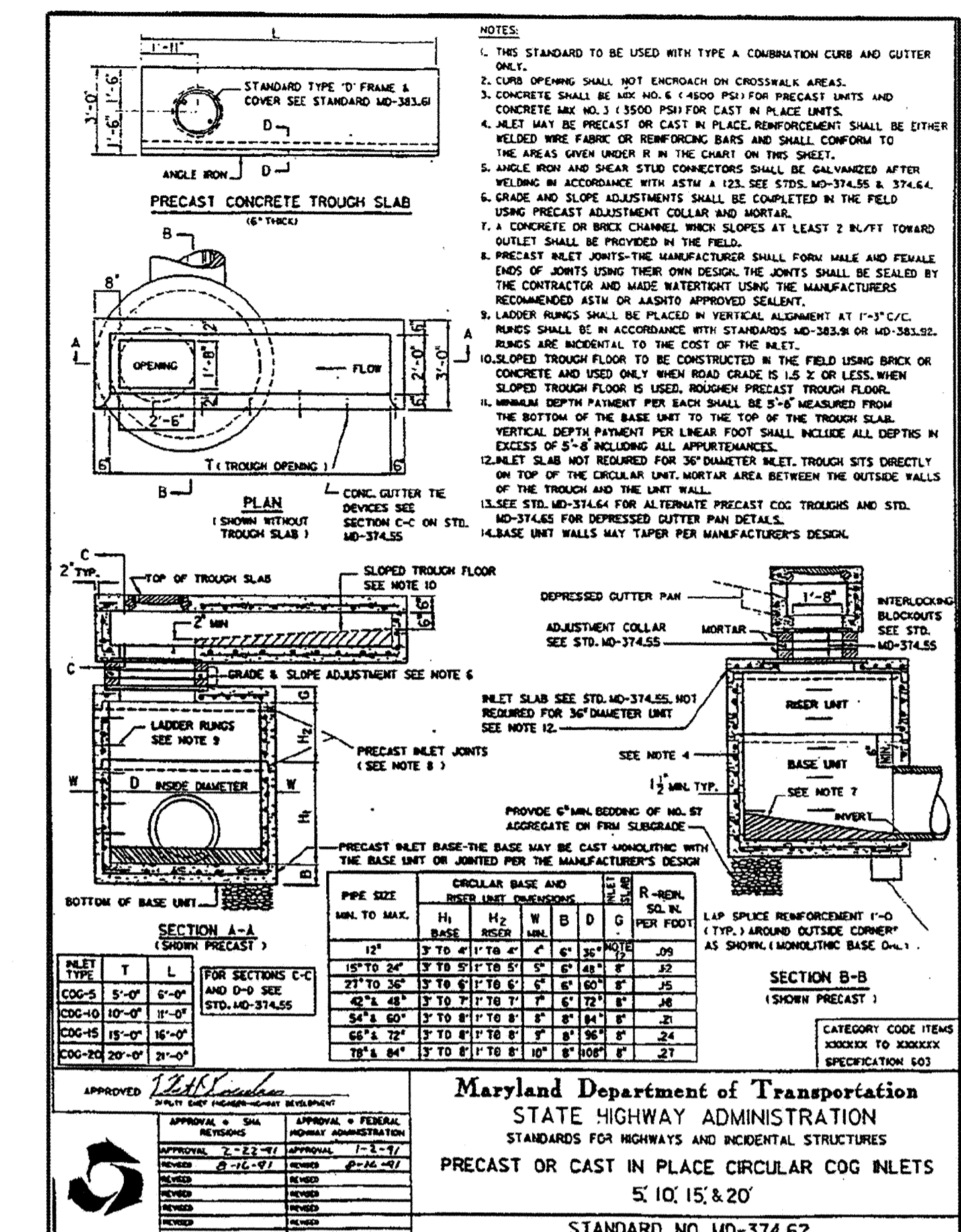
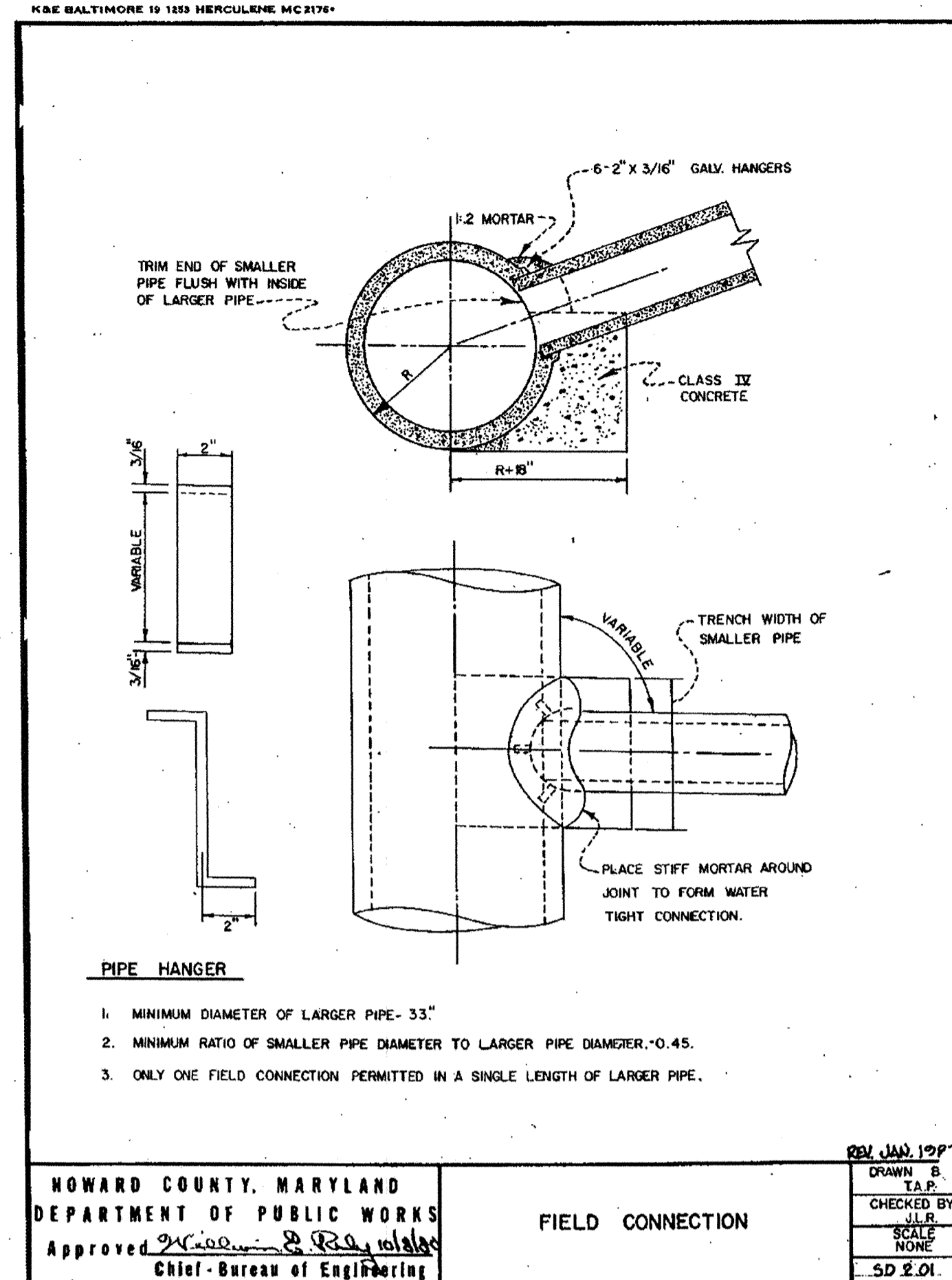
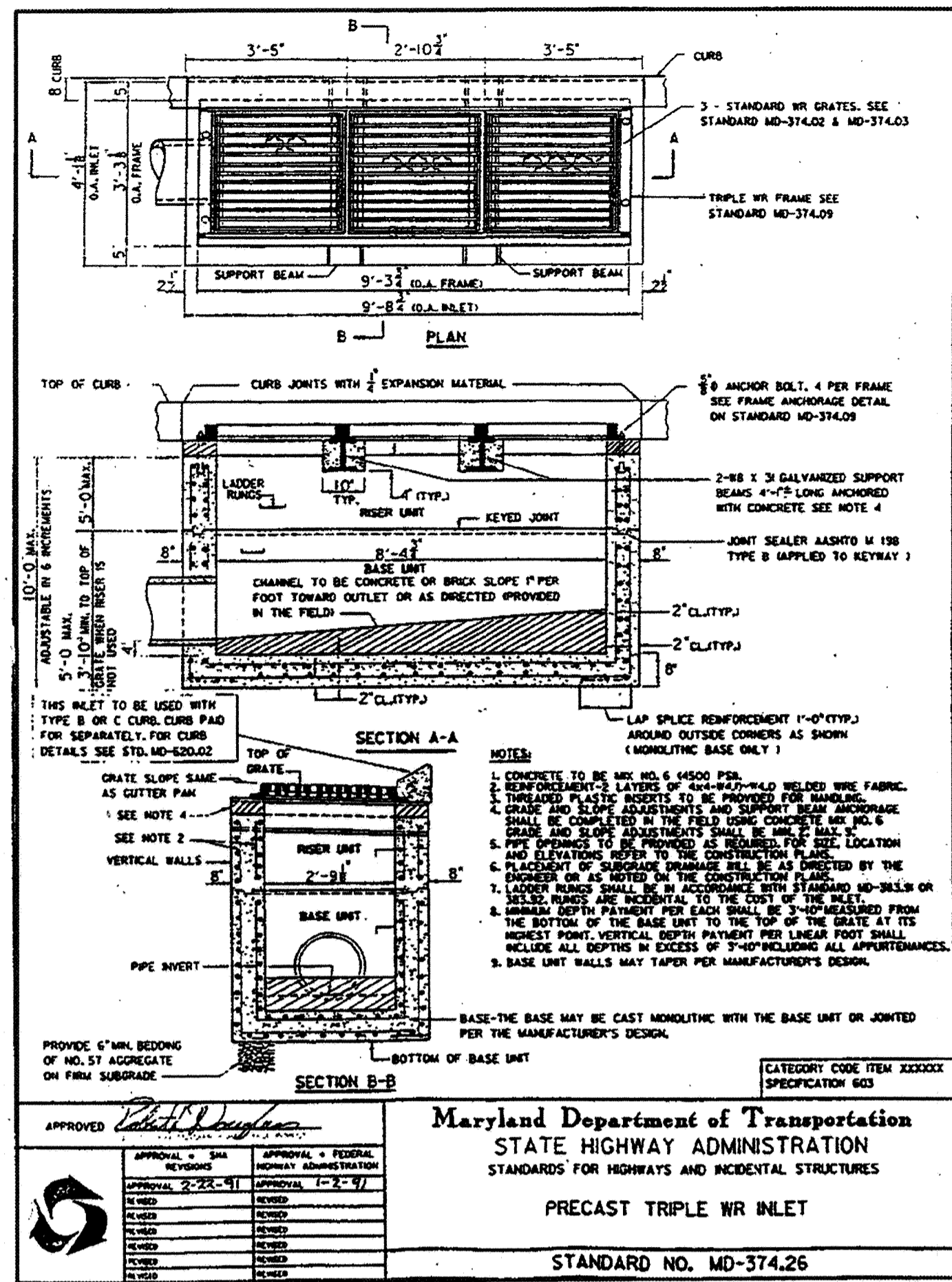
DES: R.T.			
DRN: J.D.T.			
CHK: M.C.B.			
DATE: 4/16/04	BY	NO.	DATE

DRAINAGE IMPROVEMENTS
PROJECT NO.
D-1103

STORM DRAINAGE AND
SITE DETAILS
VALLEY ROAD
HOWARD COUNTY, MARYLAND

SCALE
AS SHOWN

SHEET REFERENCE NUMBER
DT504
27 OF 33



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature] 6/3/04
DIRECTOR OF PUBLIC WORKS DATE

[Signature] 6/1/04
CHIEF, BUREAU OF ENGINEERING DATE

[Signature] 5/28/04
CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

Baker
Michael Baker Jr., Inc.
Consulting Engineers
801 Conwell Park Drive
Suite 110
Glen Burnie, Maryland 21061
(410) 424-2210

DES: R.T.
DRN: J.O.T.
CHK: M.C.B.
DATE: 4/16/04 BY NO. DATE

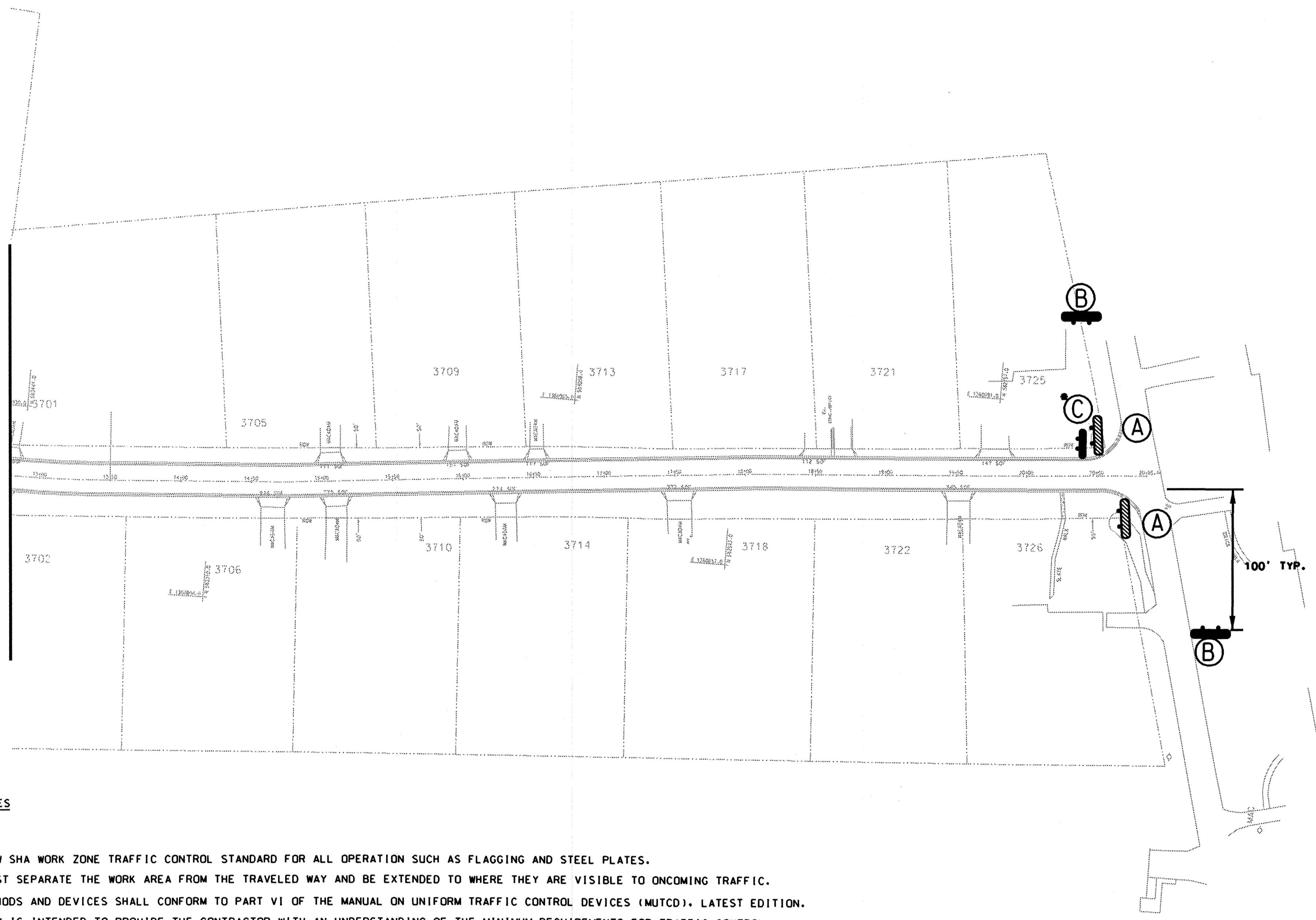
DRAINAGE IMPROVEMENTS
PROJECT NO. D-1103



SCALE AS SHOWN

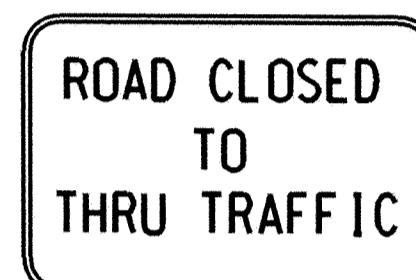
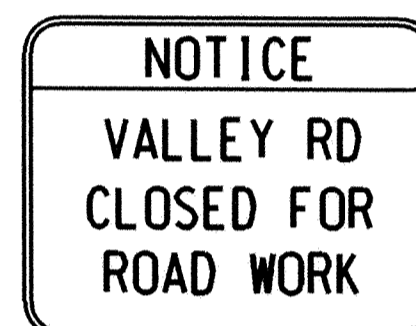

STORM DRAINAGE AND SITE DETAILS
VALLEY ROAD
HOWARD COUNTY, MARYLAND

SHEET REFERENCE NUMBER
DT505
28 OF 33

CONTINUATION IN SHEET 30 OF 33

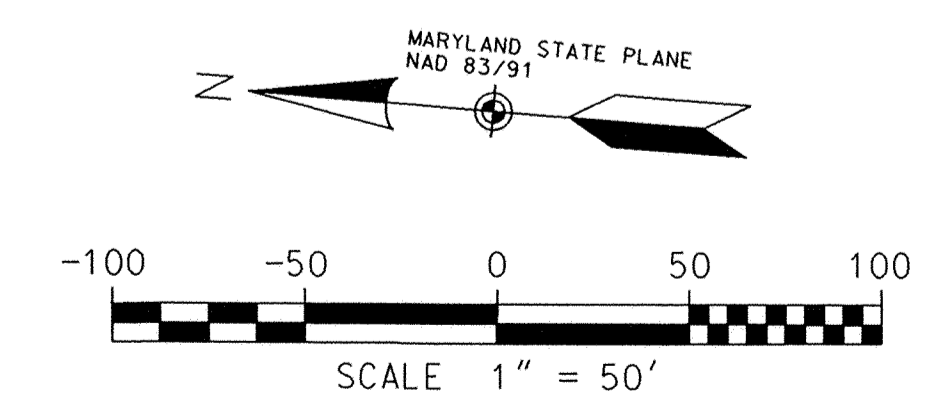


 TYPE III BARRICADE
 SIGN SYMBOL

- (A)  R-11-4
60" x 30"
6" CAP. LETTERS BLACK ON YELOW
- (B)  6" CAP. LETTERS BLACK ON ORANGE
36" x 36"
6" CAP. LETTERS BLACK ON ORANGE
- (C)  6" CAP. LETTERS BLACK ON ORANGE
48" x 48"
• SIGN (C) MUST BE POSTED TWO WEEKS PRIOR TO THE ACTUAL CONSTRUCTION

TRAFFIC CONTROL GENERAL NOTES

1. CONTRACTOR SHALL FOLLOW SHA WORK ZONE TRAFFIC CONTROL STANDARD FOR ALL OPERATION SUCH AS FLAGGING AND STEEL PLATES.
2. CHANNELIZING DEVICES MUST SEPARATE THE WORK AREA FROM THE TRAVELED WAY AND BE EXTENDED TO WHERE THEY ARE VISIBLE TO ONCOMING TRAFFIC.
3. ALL TRAFFIC CONTROL METHODS AND DEVICES SHALL CONFORM TO PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.
4. THE TRAFFIC CONTROL PLAN IS INTENDED TO PROVIDE THE CONTRACTOR WITH AN UNDERSTANDING OF THE MINIMUM REQUIREMENTS FOR TRAFFIC CONTROL WHICH MUST BE MET AND TO AID IN THE INCLUSION OF THOSE COSTS IN THE PREPARATION OF HIS BID. THIS PLAN AND THE USE THEREOF DOES NOT IN ANY WAY RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES FOR PROTECTION OF THE WORK AND THE PUBLIC'S SAFETY. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE COUNTY AND THE ENGINEER AGAINST ALL LOSSES INCURRED IN THE EXECUTION OF THE WORK AND IN THE GUARDING OF IT. THIS REQUIREMENT INCLUDES BUT IS NOT LIMITED TO THE USE OF THIS PLAN.
5. THE COUNTY RESERVES THE RIGHT TO MODIFY THE TRAFFIC CONTROL AS DEEMED NECESSARY IN THE INTERESTS OF PUBLIC SAFETY, AND/OR CONVENIENCE, OR BASED ON FIELD CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING TRAFFIC CONTROLS AND SHALL BE RESPONSIBLE FOR IMPLEMENTING ANY REQUIRED MODIFICATIONS. VARIATIONS FROM OR CHANGES TO THE TRAFFIC CONTROL PLANS INCLUDED HEREIN MUST BE SUBMITTED TO THE COUNTY FOR APPROVAL.
6. THE CONTRACTOR IS RESPONSIBLE FOR REPLACEMENT OF ANY PAVEMENT MARKINGS OR TRAFFIC CONTROL DEVICES DAMAGED BY CONSTRUCTION.
7. THE CONTRACTOR SHALL NOTIFY ALL AFFECTED RESIDENTS AT LEAST SEVEN (7) CALENDAR DAYS IN ADVANCE OF THE ANTICIPATED DISRUPTION IN THEIR DRIVEWAY.
8. CONTRACTOR SHALL PROVIDE DRUMS AND BARRELS, AS NEEDED IN WORK AREA.
9. THE CONTRACTOR MUST PROVIDE LOCAL ACCESS TO RESIDENTS, EMERGENCY VEHICLES, SCHOOL BUSES AND OTHER DAILY SERVICE VEHICLES AT ALL TIMES.
10. DURING NON CONSTRUCTION HOURS, ALL EXCAVATED AREAS SHALL BE RAMPED UP TO PROVIDE LOCAL ACCESS FOR RESIDENT TO THEIR HOMES. AT NIGHT, ALL EXCAVATED AREAS ARE TO BE DELINEATED. DEVICES DAMAGED OR DESTROYED BY THE CONTRACTOR MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR SHALL CHECK ALL TRAFFIC CONTROL EQUIPMENT BEFORE, DURING AND AFTER EACH WORK DAY TO ENSURE PROPER OPERATION. ON WEEKENDS, HOLIDAYS AND ANY NON-WORKING DAY, THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR CHECKING THE TRAFFIC CONTROL DEVICES DAILY FOR PROPER OPERATION.
12. THE CONTRACTOR SHALL FURNISH SIGN PANELS, FLAGS, PORTABLE STANDS SUPPORT DEVICES AND HARDWARE. THE CONTRACTOR SHALL ERECT, MAINTAIN, MOVE AND BE RESPONSIBLE FOR THE SECURITY OF SIGN PANELS AND STAND SUPPORT DEVICES AND SHALL ENSURE AN UNRESTRICTED VIEW OF SIGN MESSAGES FOR THE SAFETY OF TRAFFIC.



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

Jay J. [Signature] 6/1/04
 DIRECTOR OF PUBLIC WORKS DATE

William J. [Signature] 5-28-04
 CHIEF, BUREAU OF HIGHWAYS DATE

Robert [Signature] 6/1/04
 CHIEF, BUREAU OF ENGINEERING DATE

Steve [Signature] 5/28/04
 CHIEF, DIVISION OF TRANSPORTATION AND SPECIAL PROJECTS DATE

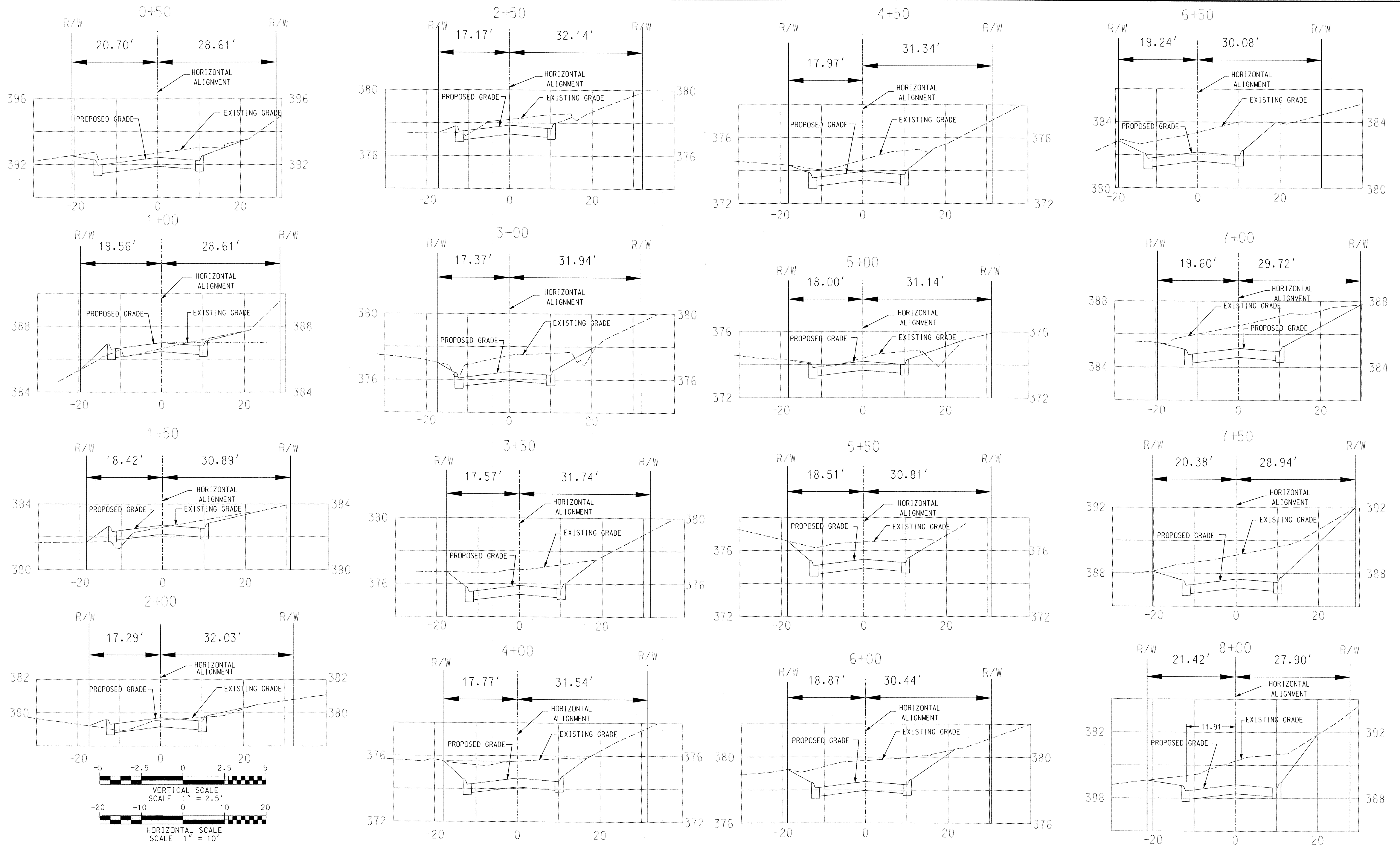
Baker
 MICHAEL BAKER JR. INC.
 Consulting Engineers
 801 Creaswell Park Drive
 Suite 110
 Michael Baker Jr., Inc
 Glen Burnie, Maryland 21061
 (410) 424-2210

DES: R.T.					
DRN: J.O.T.					
CHK: M.C.B.					
DATE: 4/16/04	BY	NO.		DATE	

DRAINAGE IMPROVEMENTS
 PROJECT NO.
 D-1103

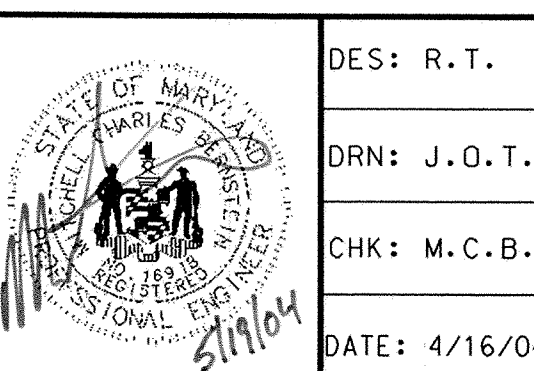
TRAFFIC CONTROL PLAN
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET REFERENCE NUMBER
 CG207
 30 OF 33



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *John J. Ch...* DATE: 6/1/04
 Chief, Bureau of Engineering: *Paul J. S...* DATE: 5/28/04
 Chief, Bureau of Highways: *William J. ...* DATE: 5/28/04
 Chief, Division of Transportation and Special Projects: *Steve Sh...* DATE: 5/28/04

Baker
 MICHAEL BAKER JR. INC.
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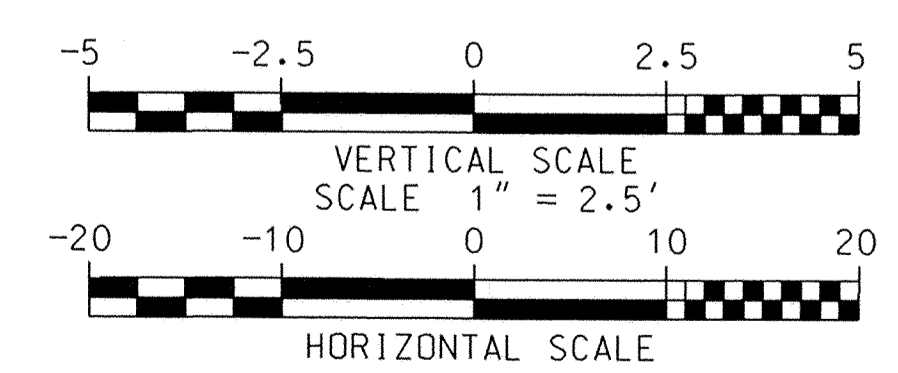
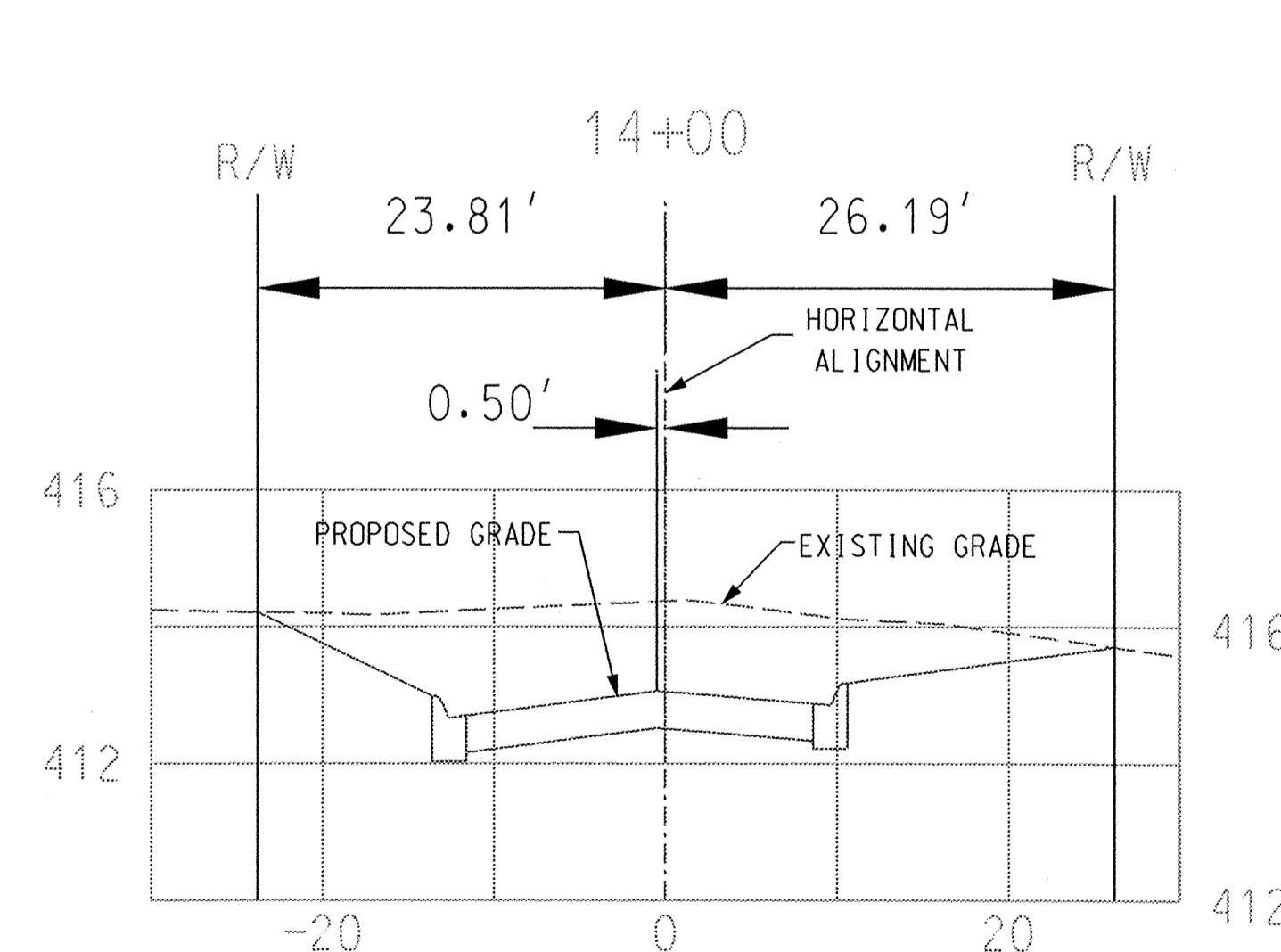
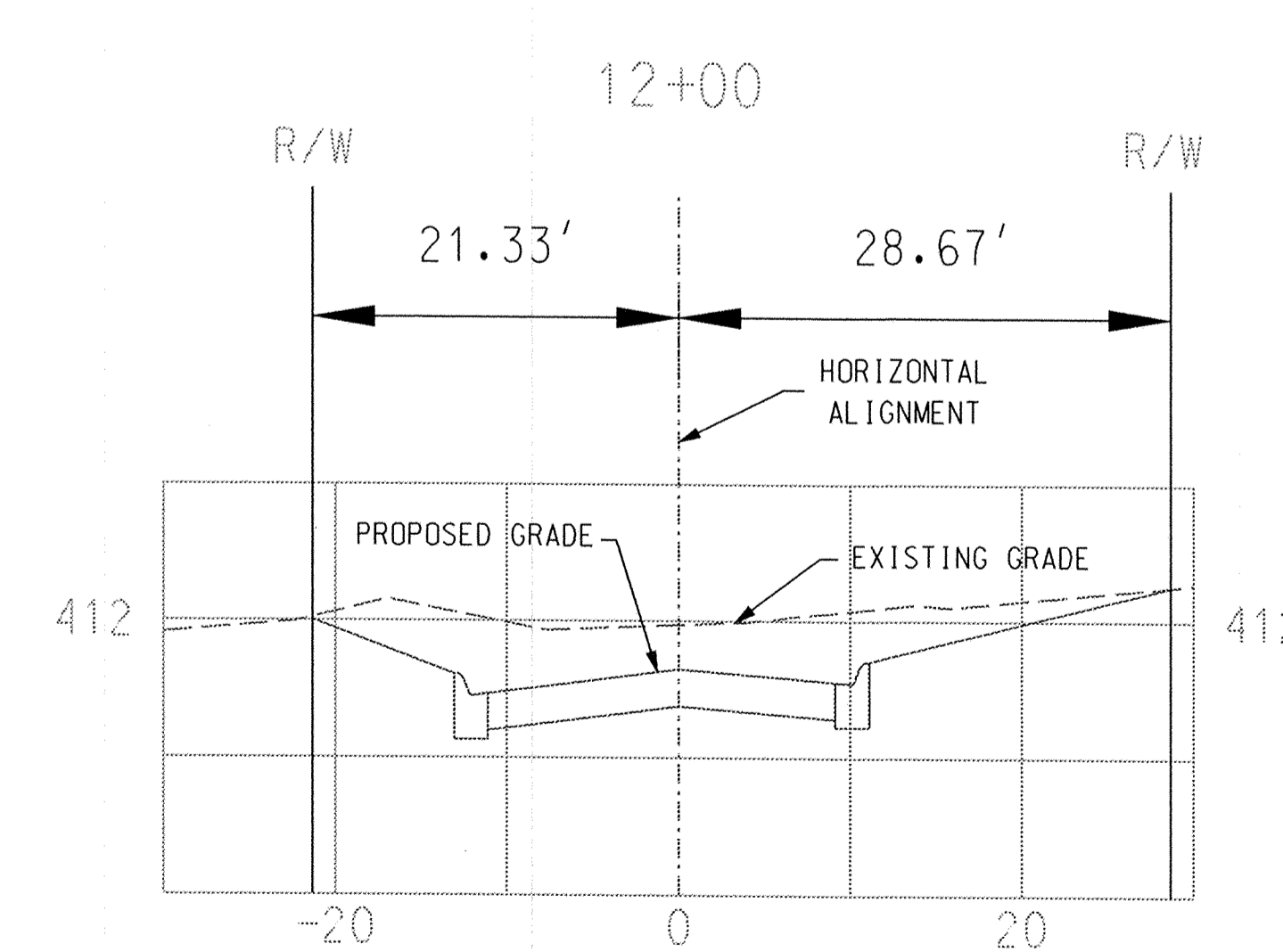
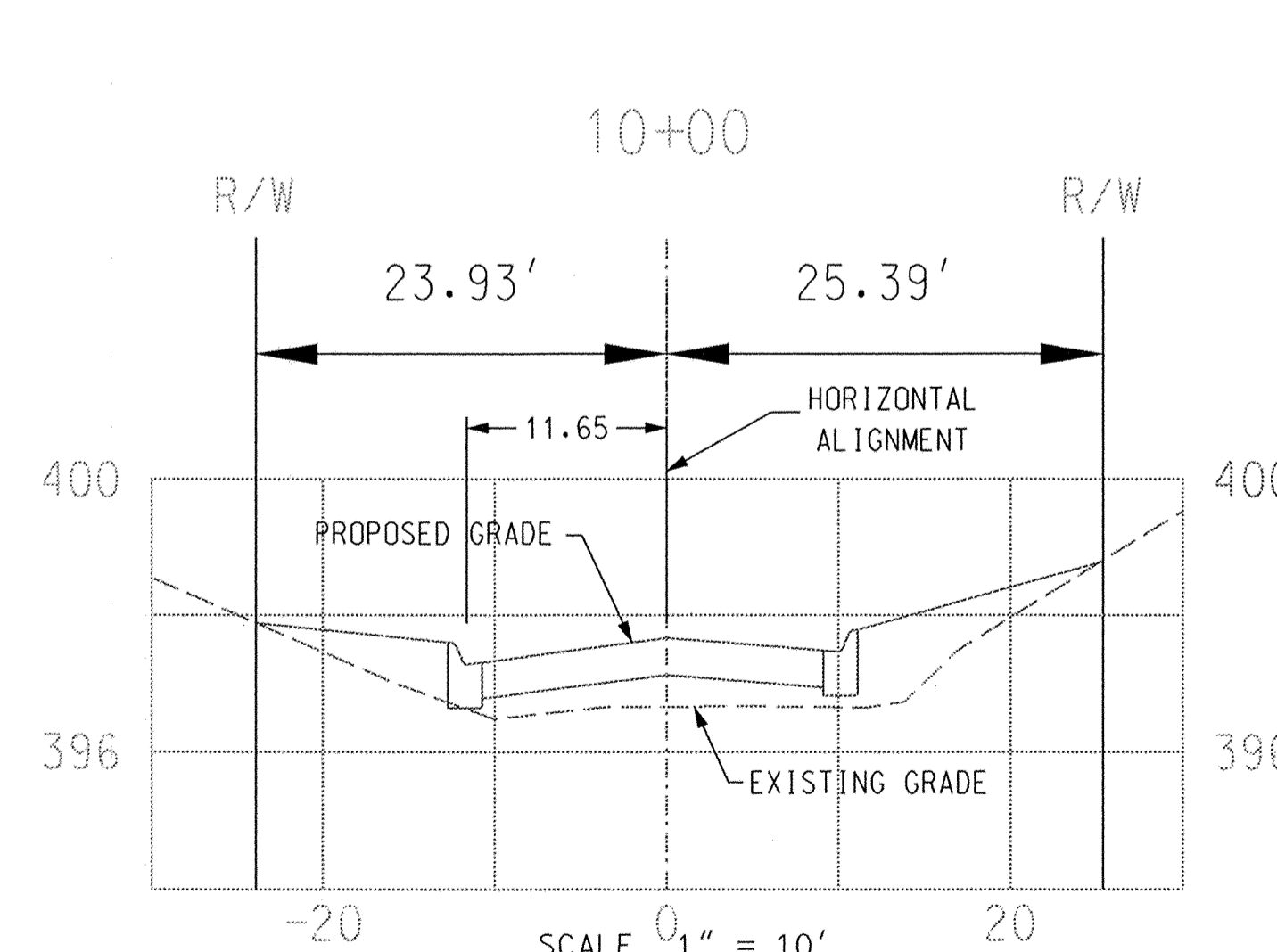
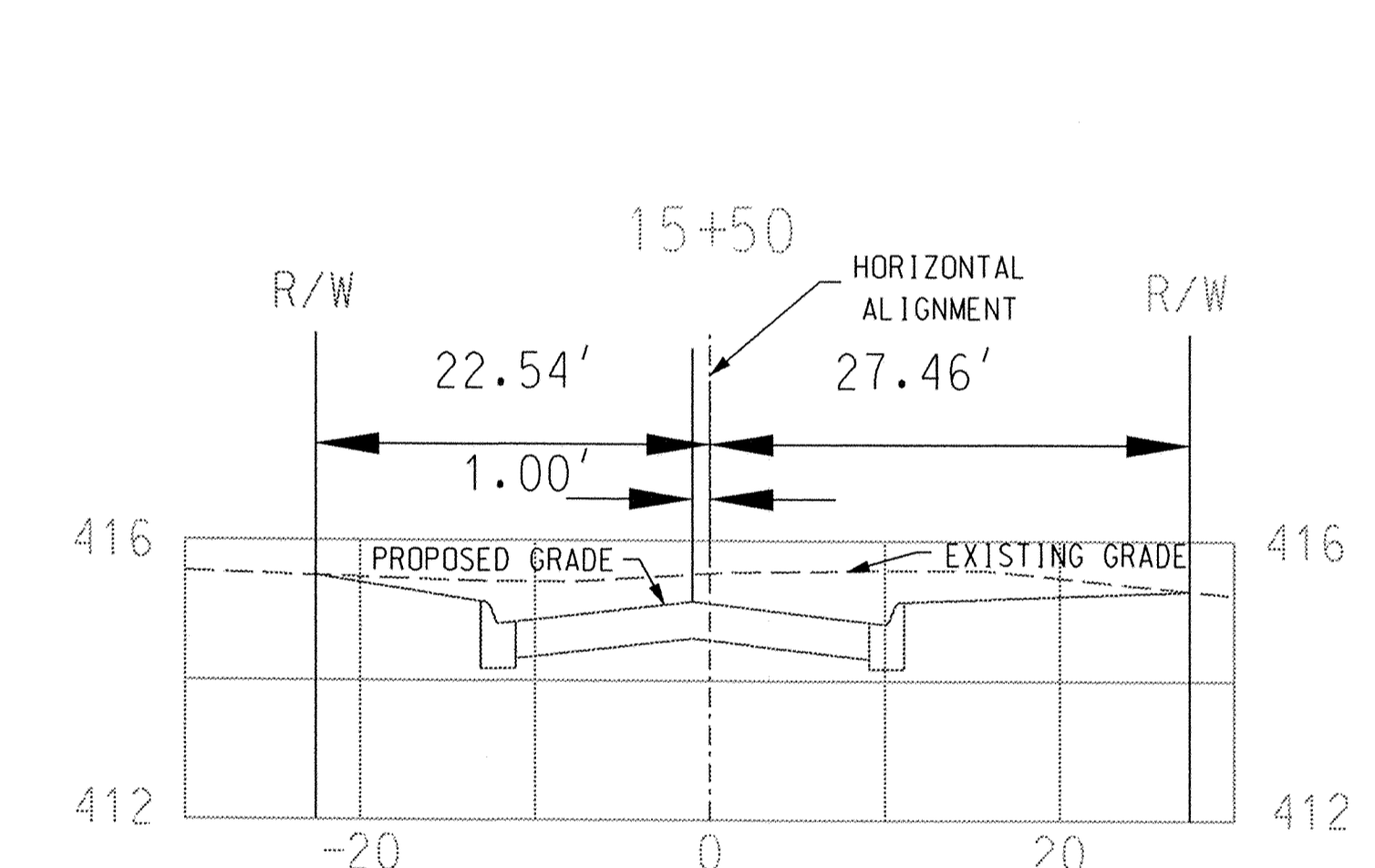
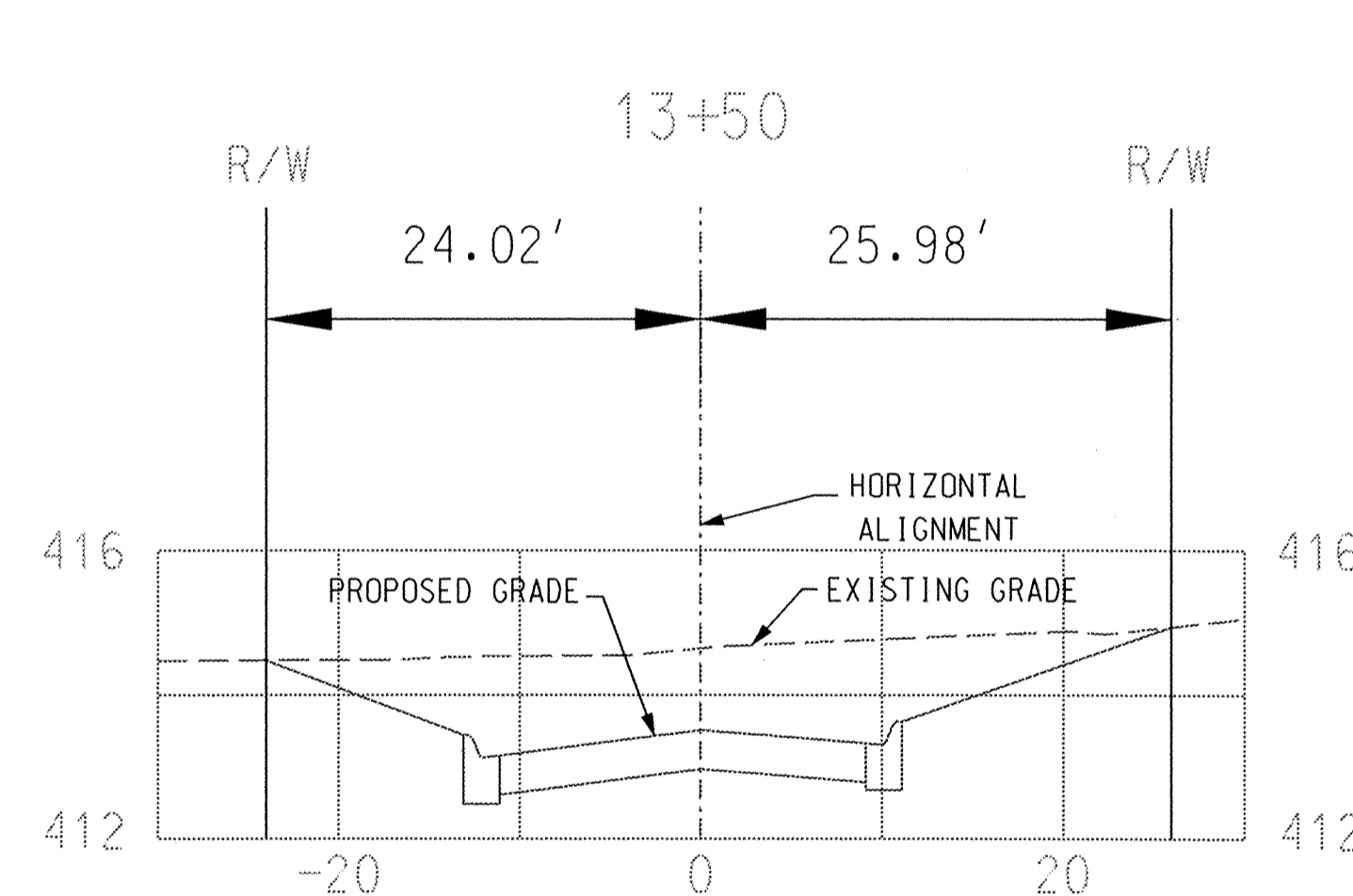
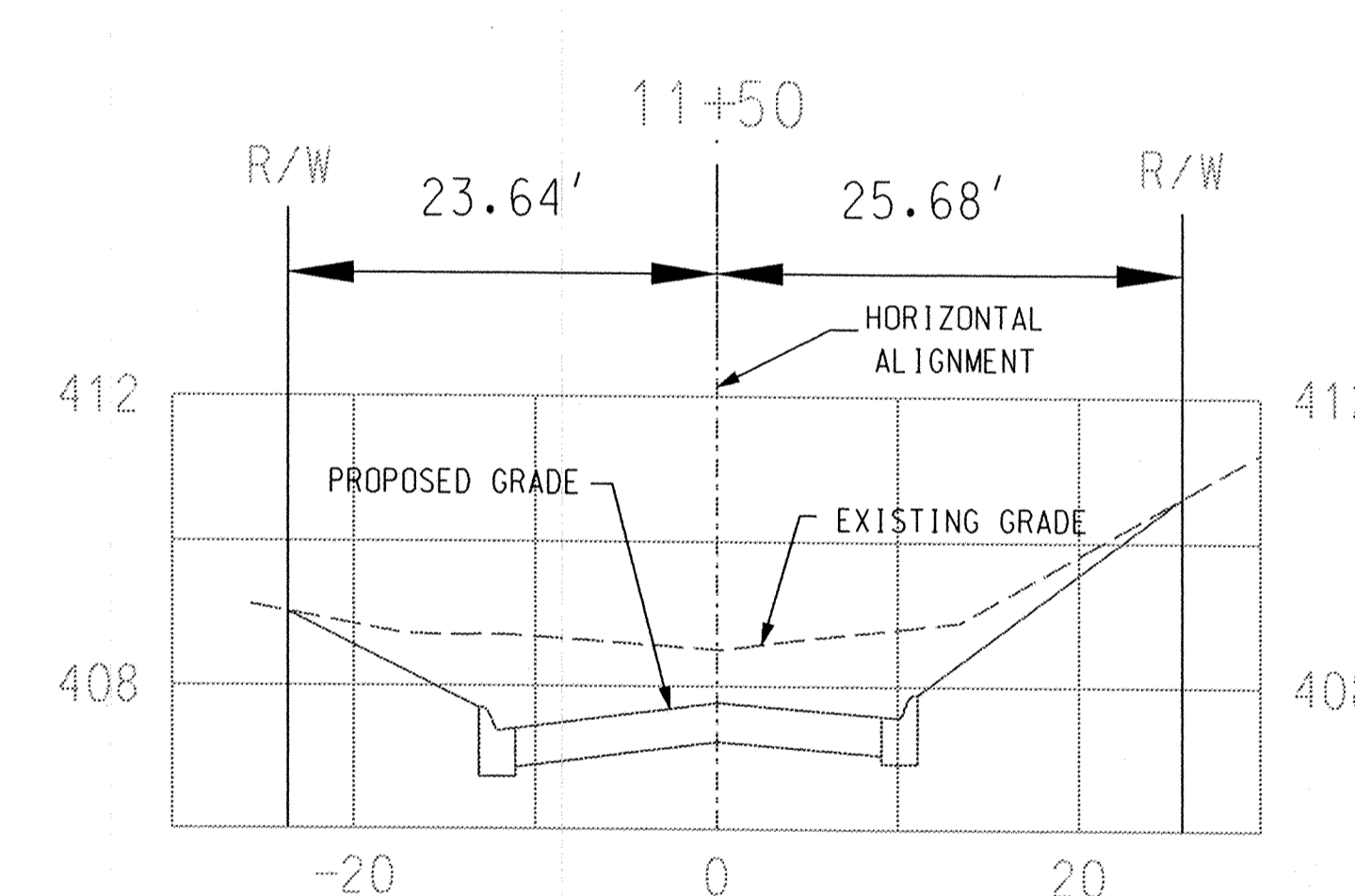
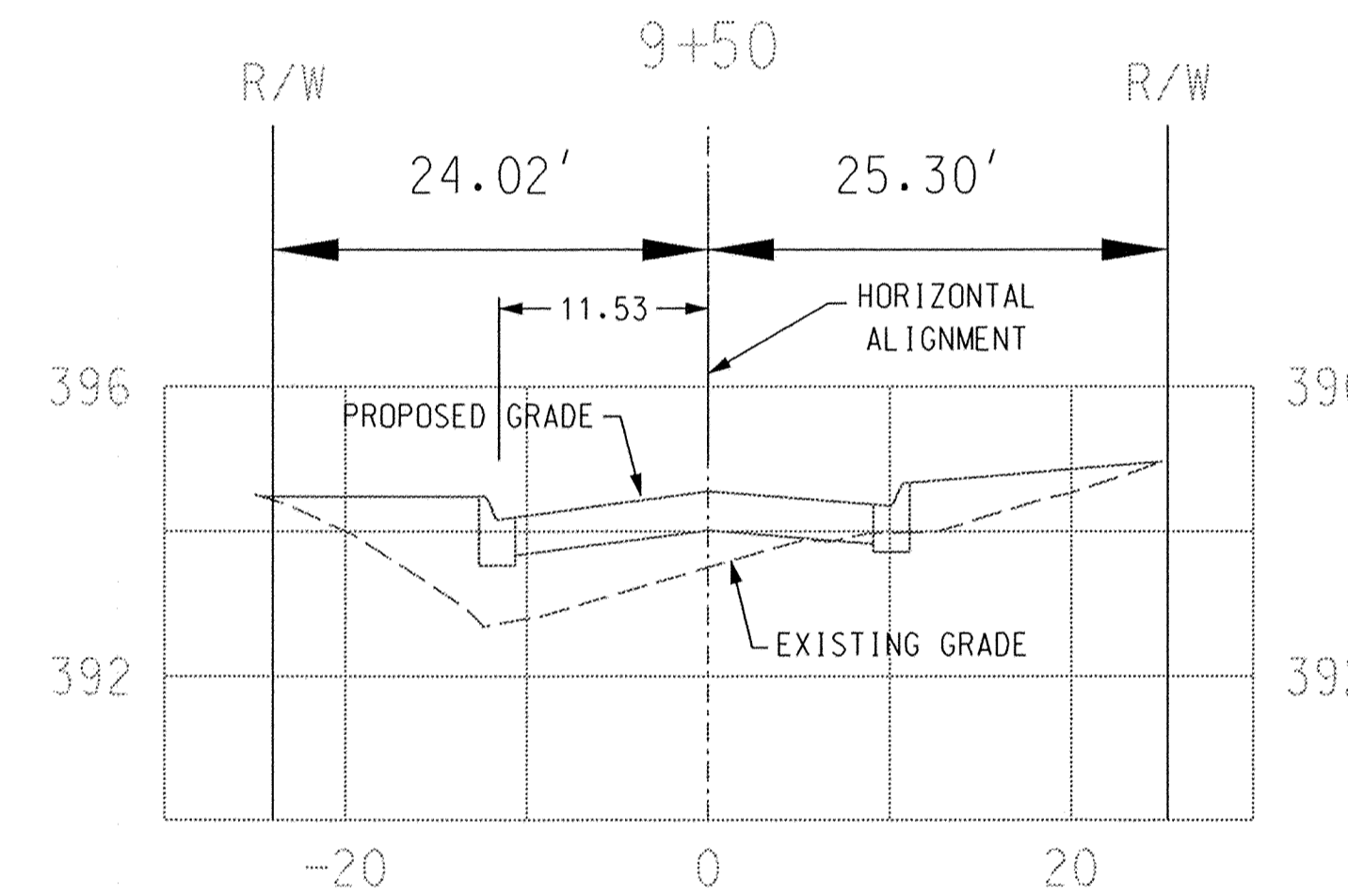
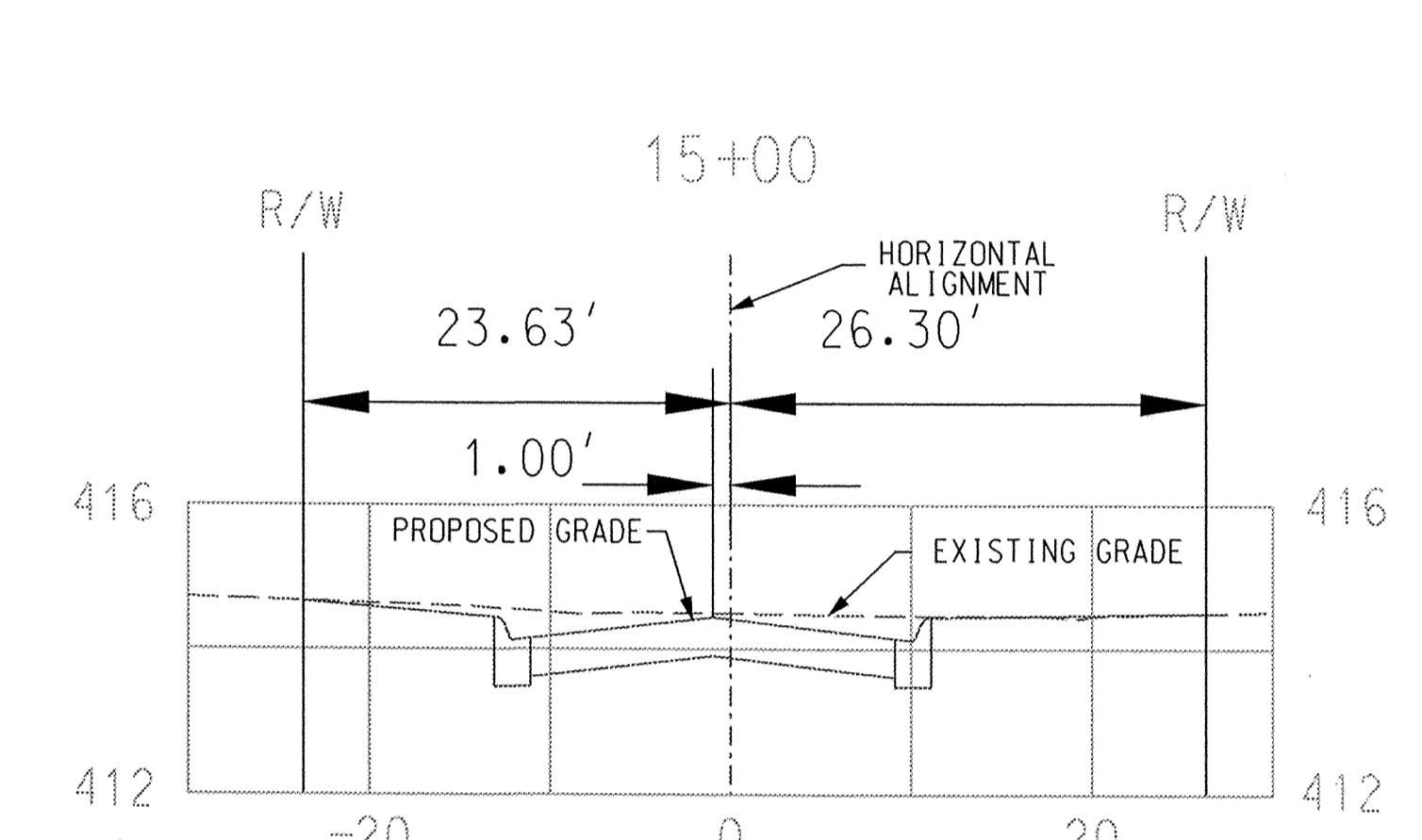
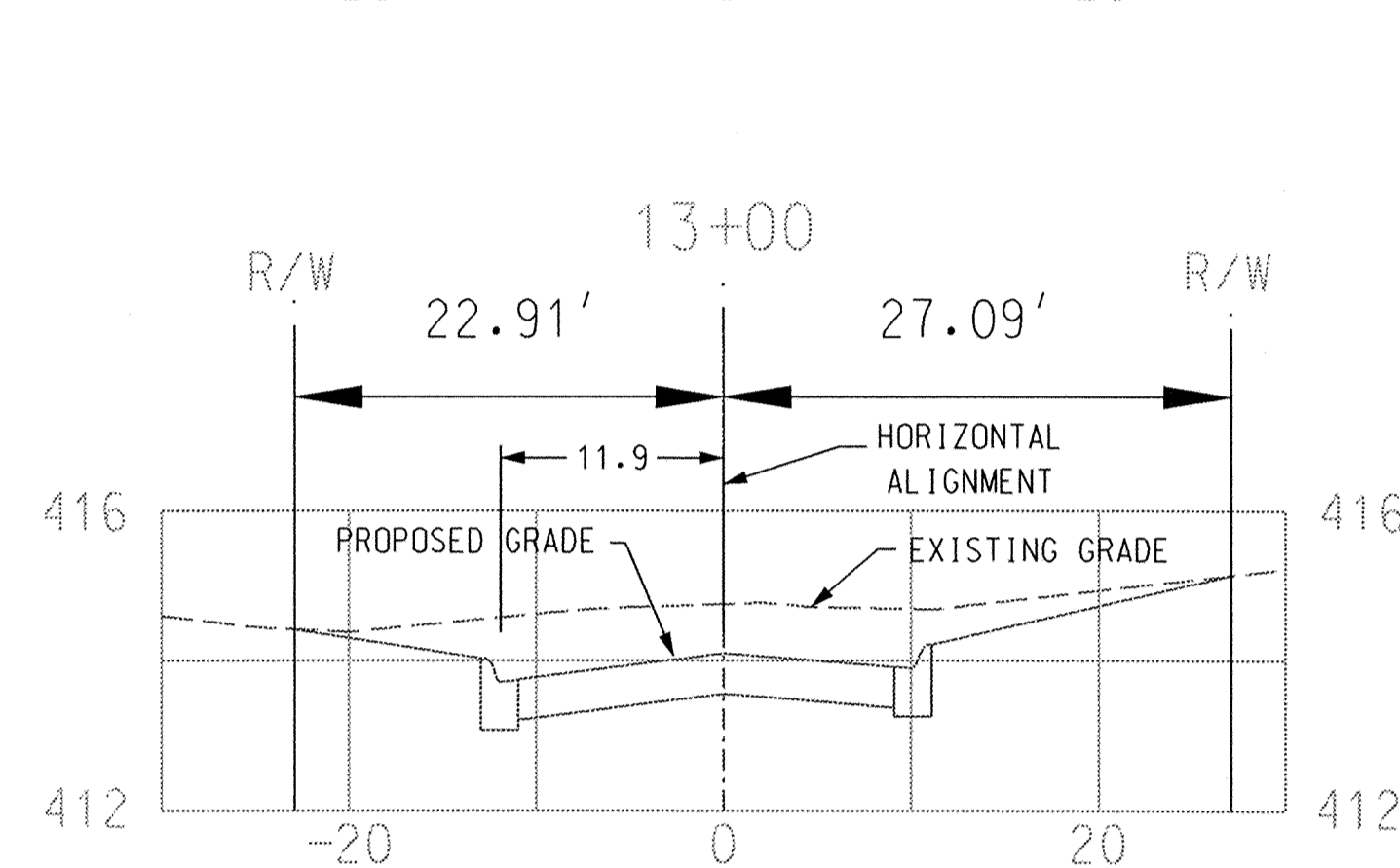
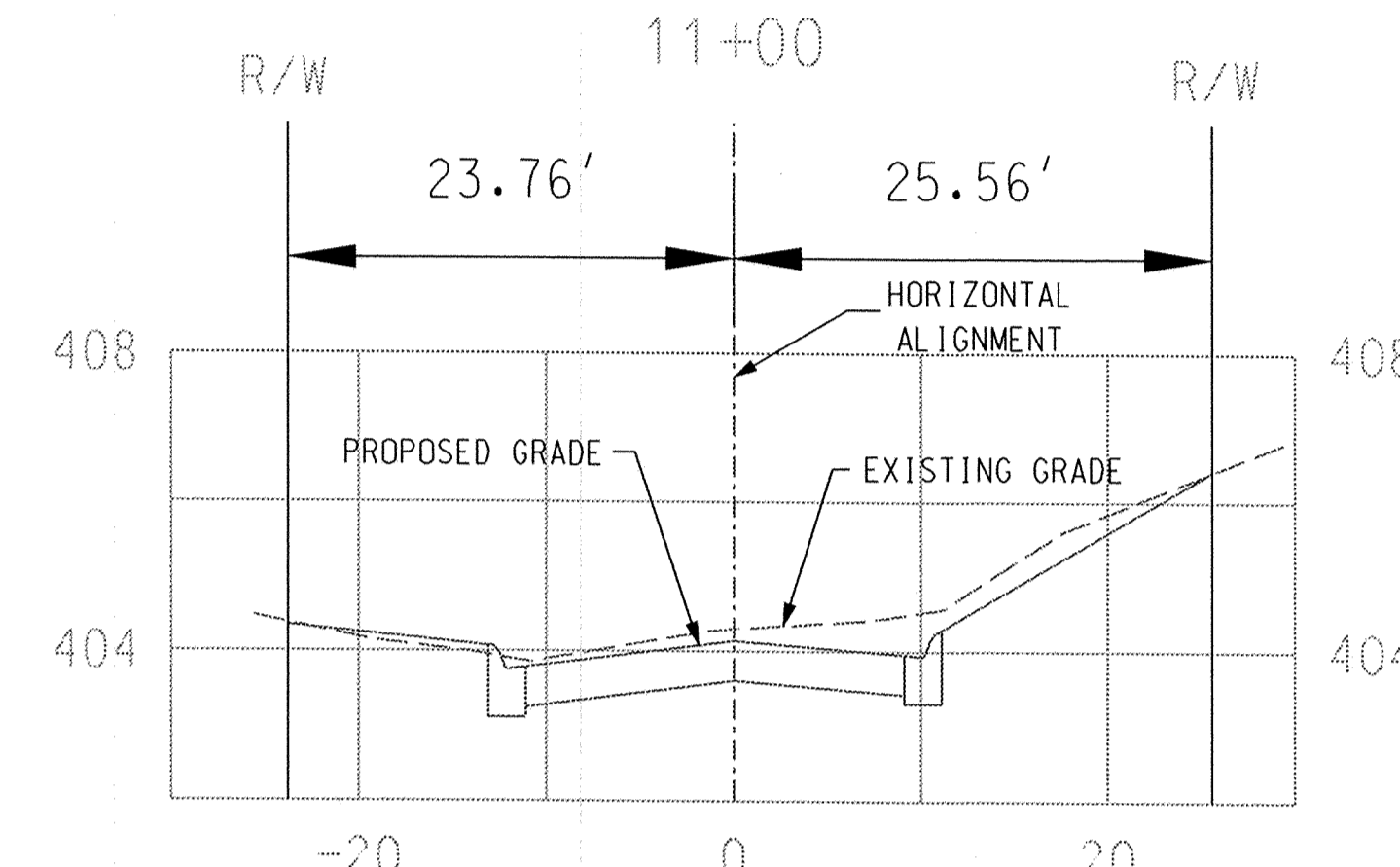
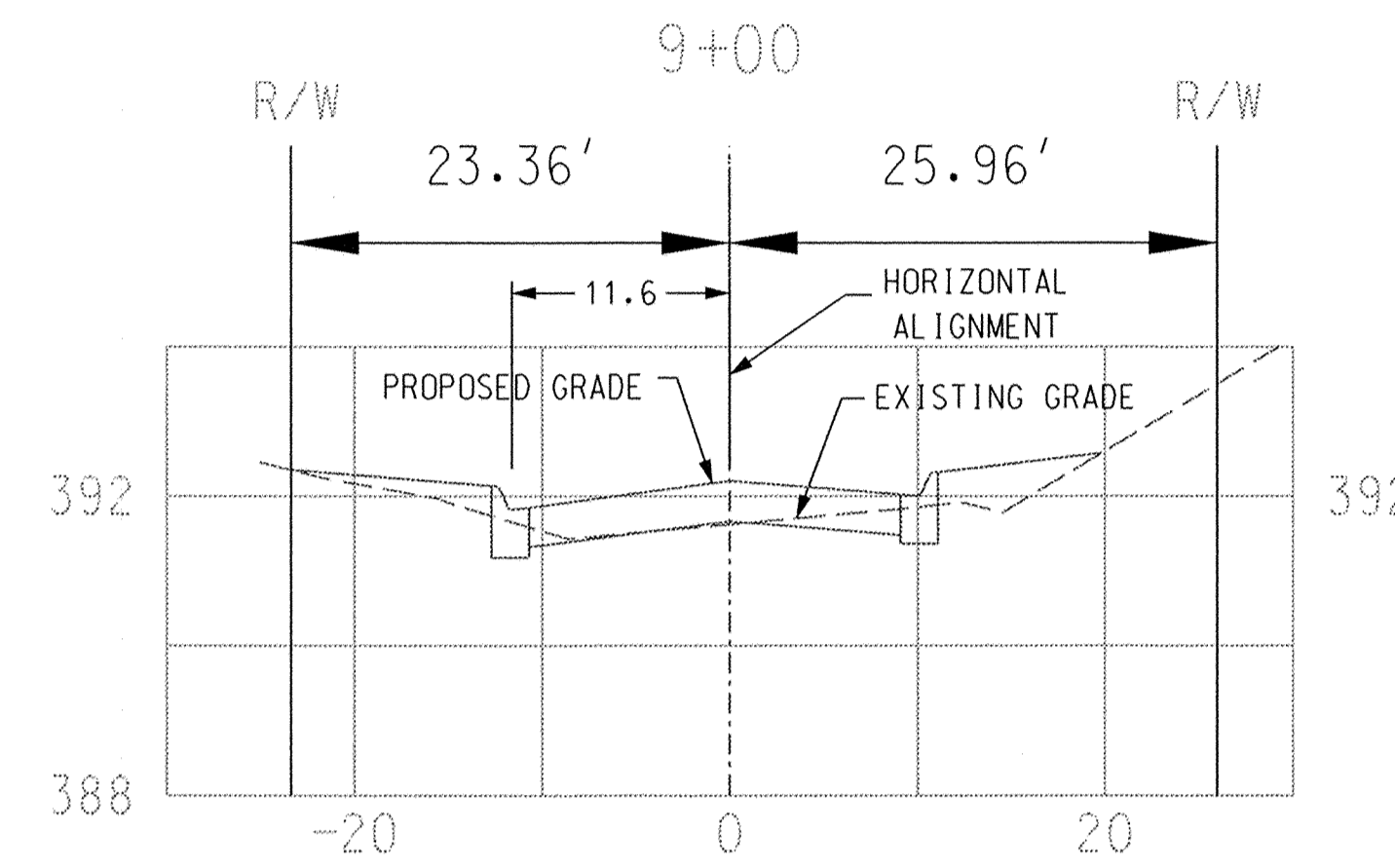
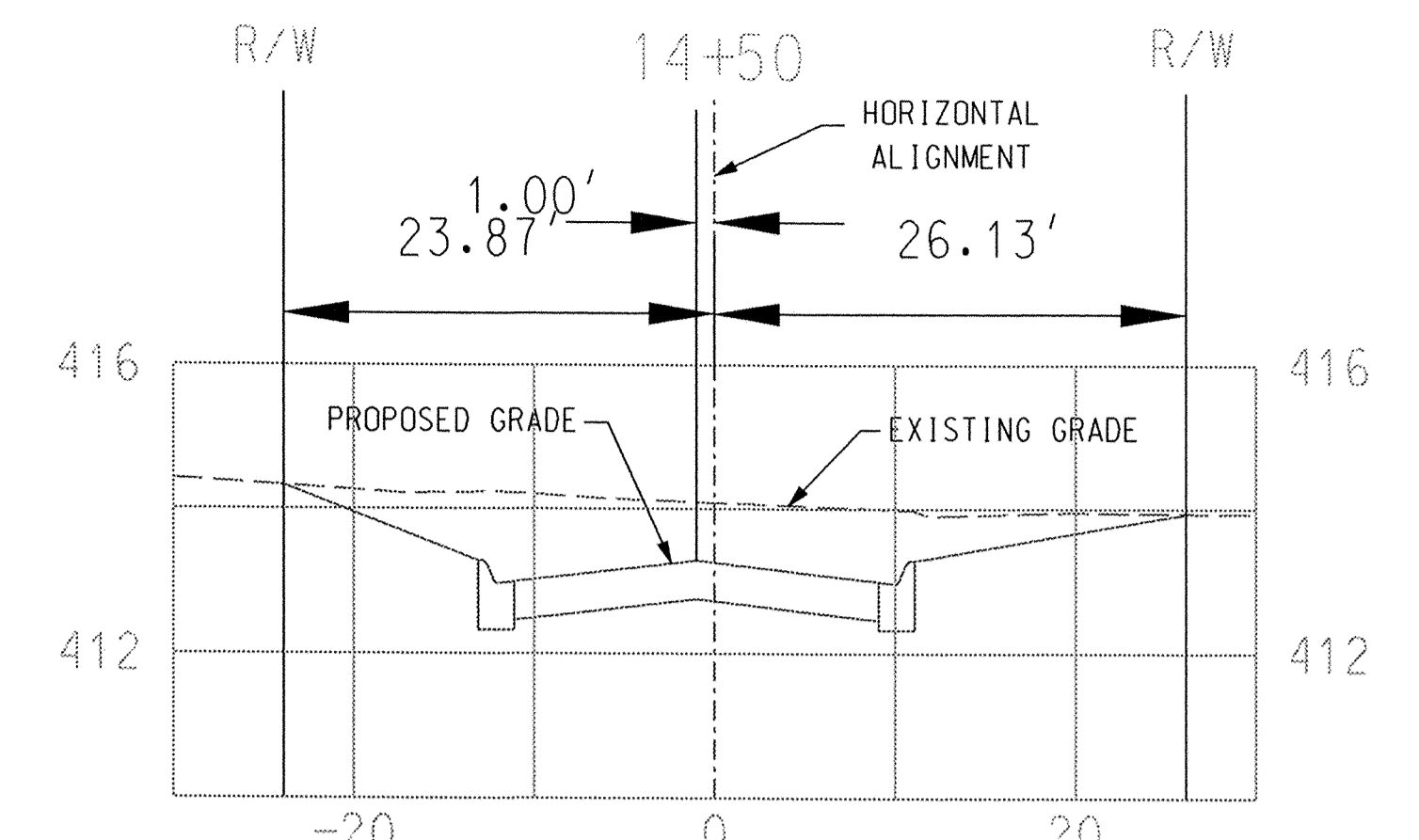
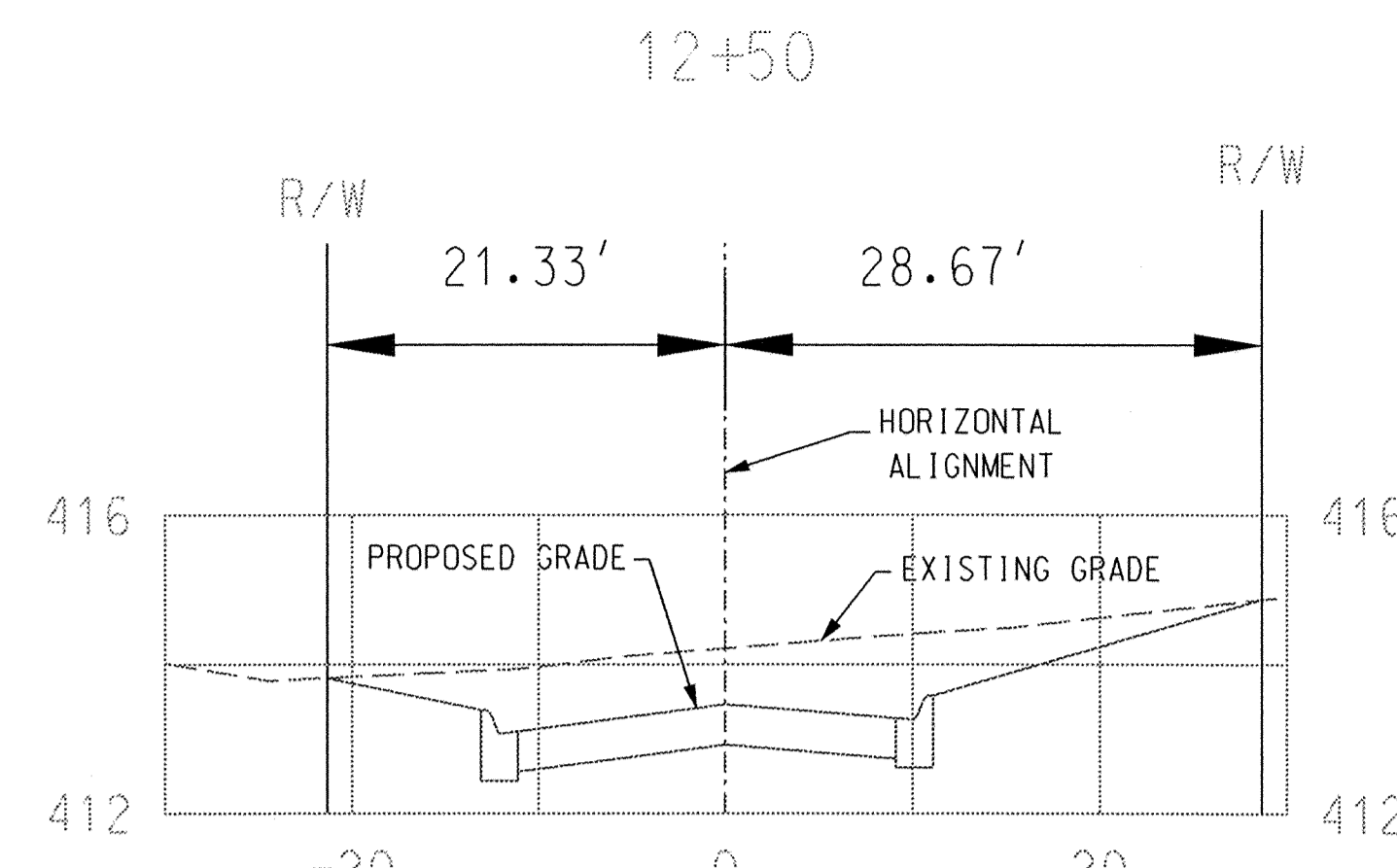
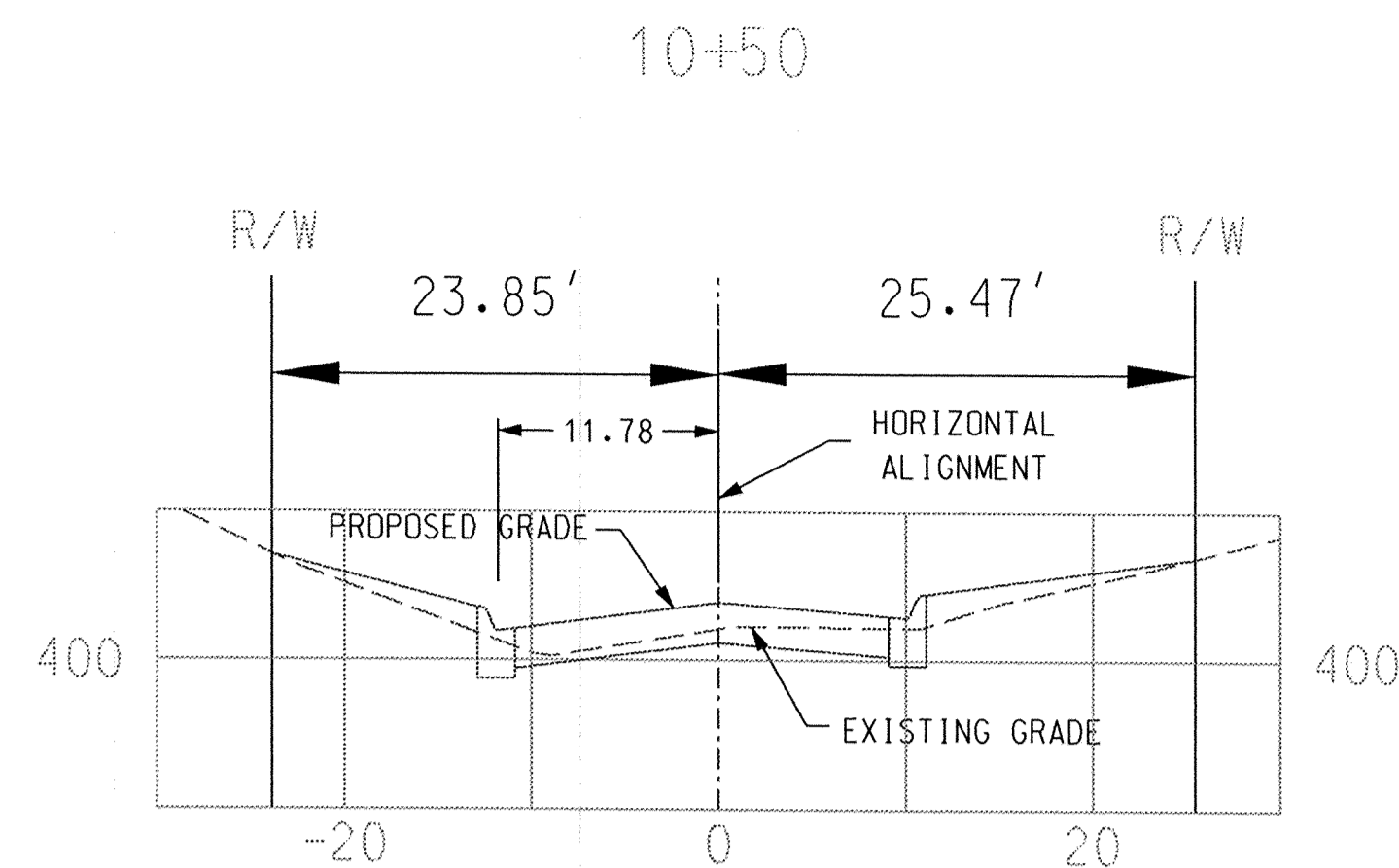
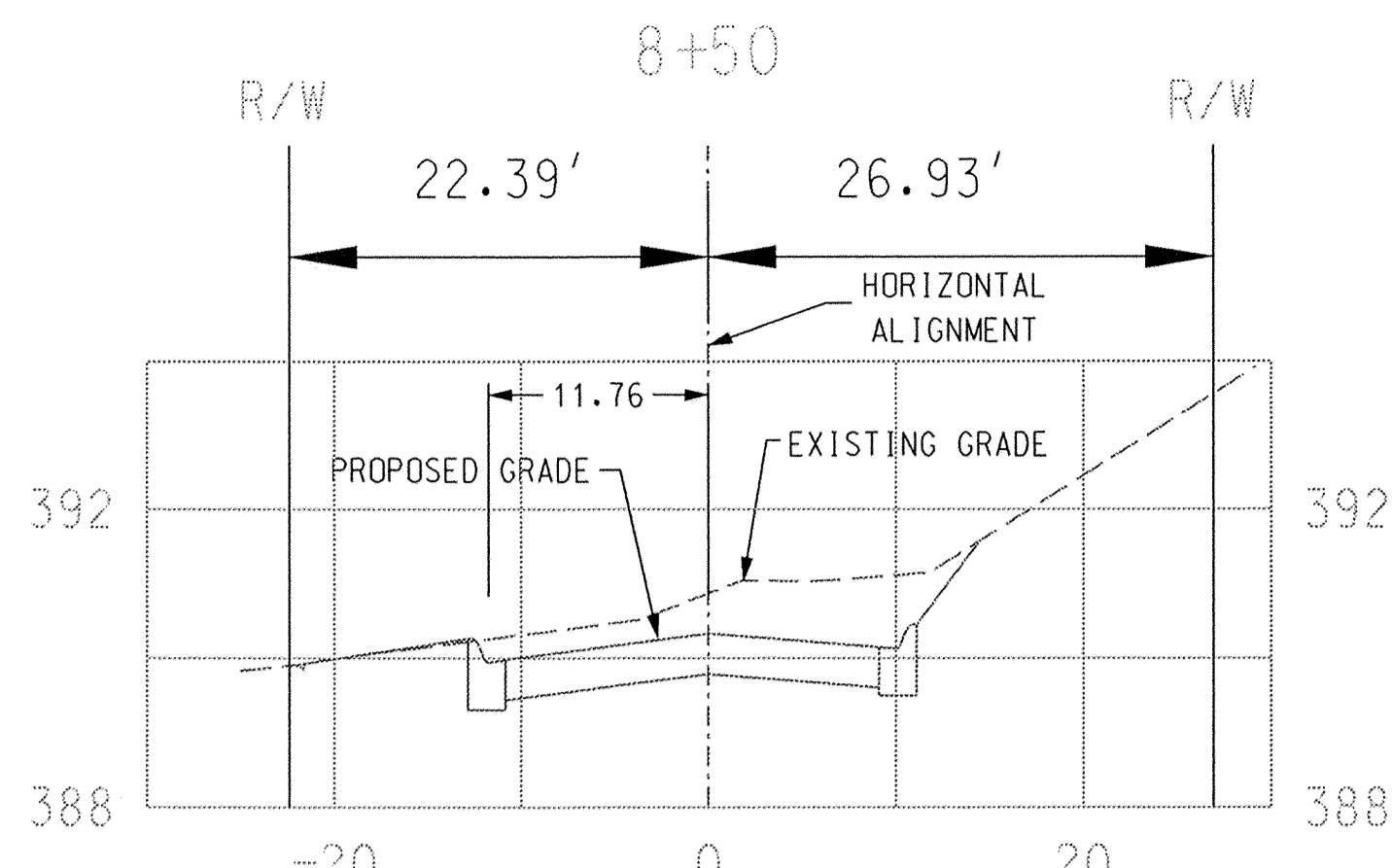


DES: R. T.
 DRN: J. O. T.
 CHK: M. C. B.
 DATE: 4/16/04
 BY: NO. DATE

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 VALLEY ROAD
 HOWARD COUNTY, MARYLAND

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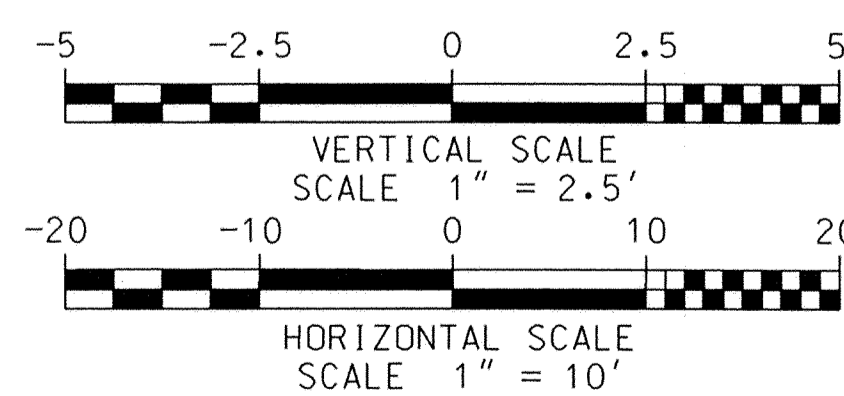
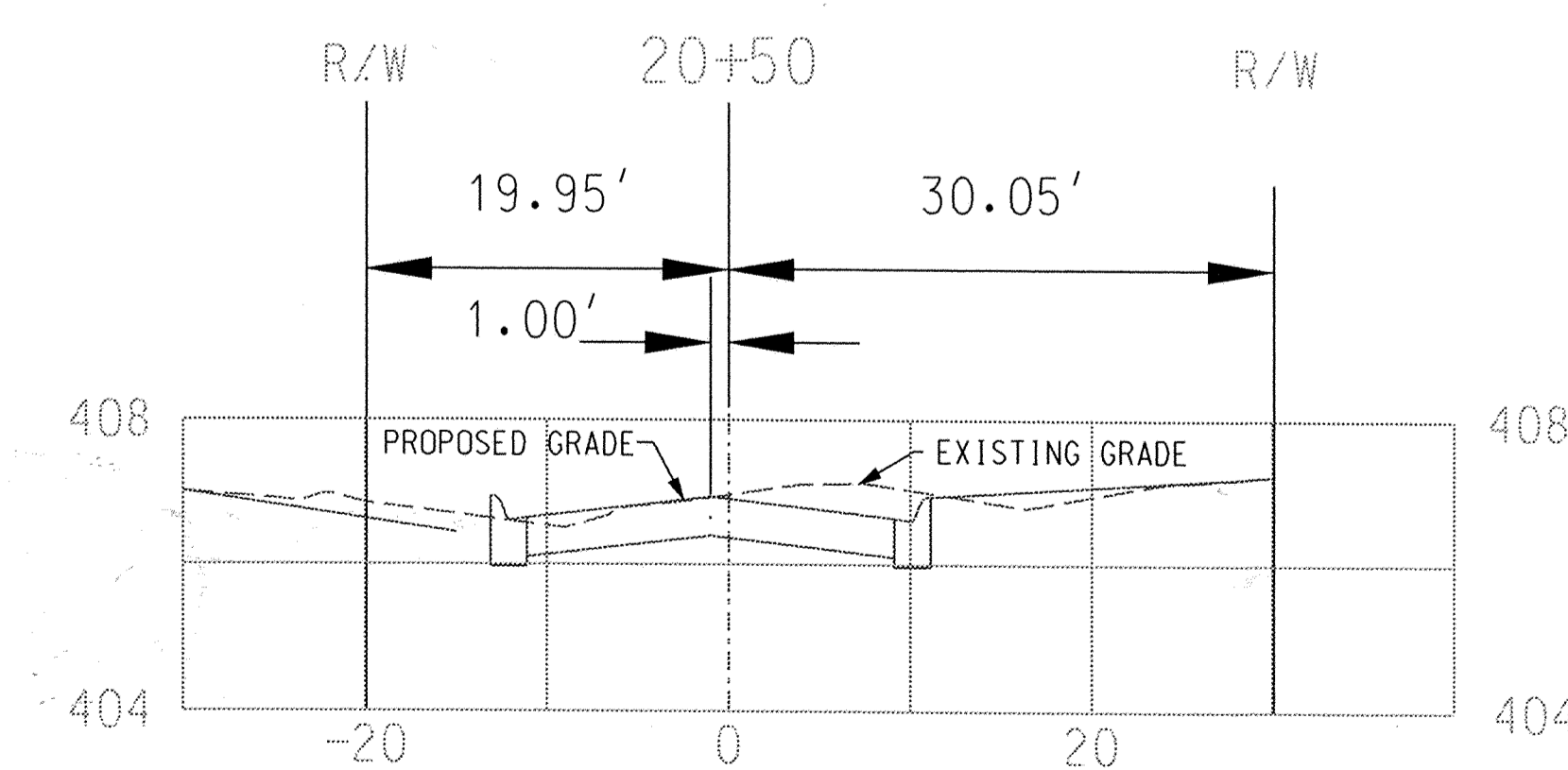
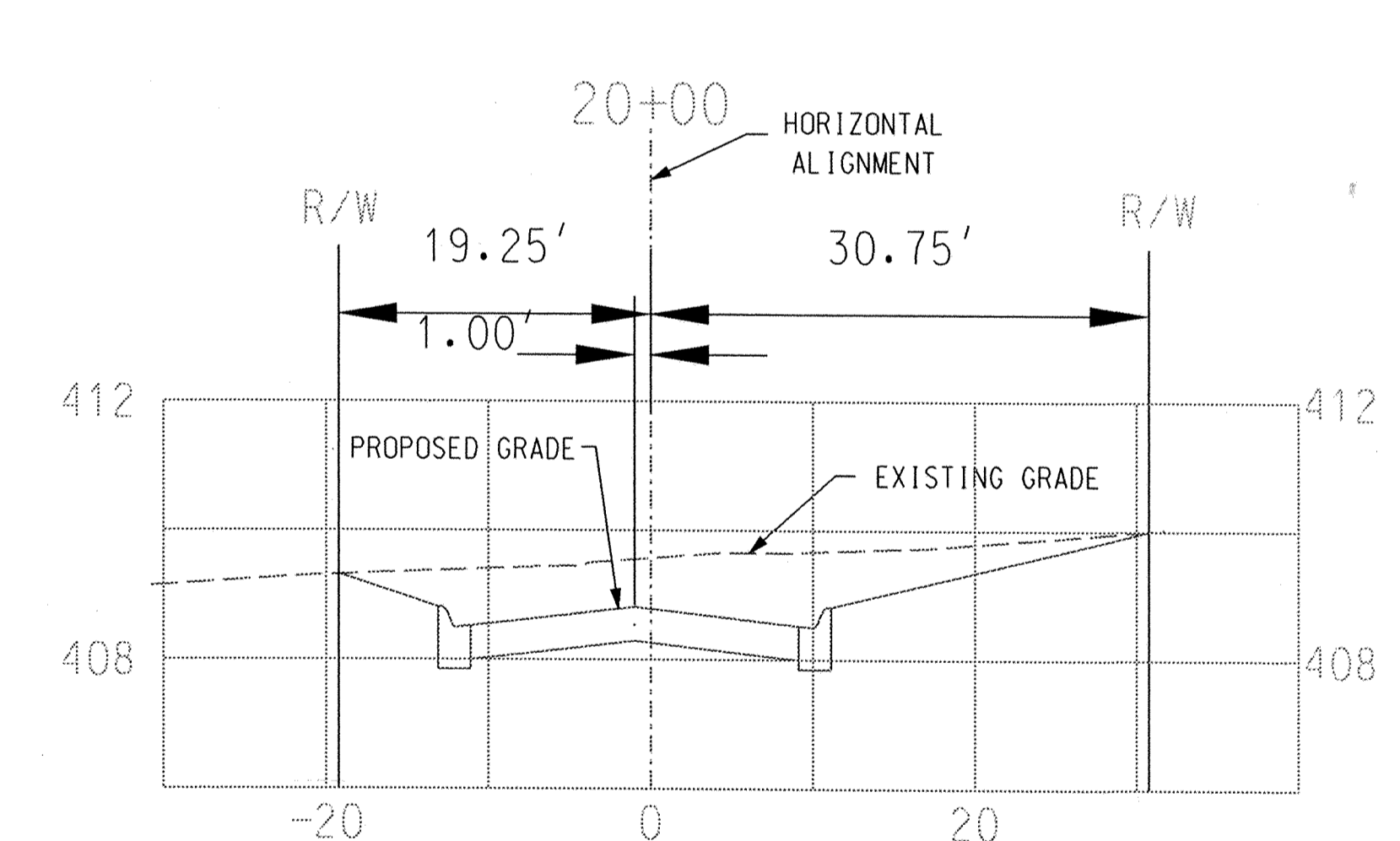
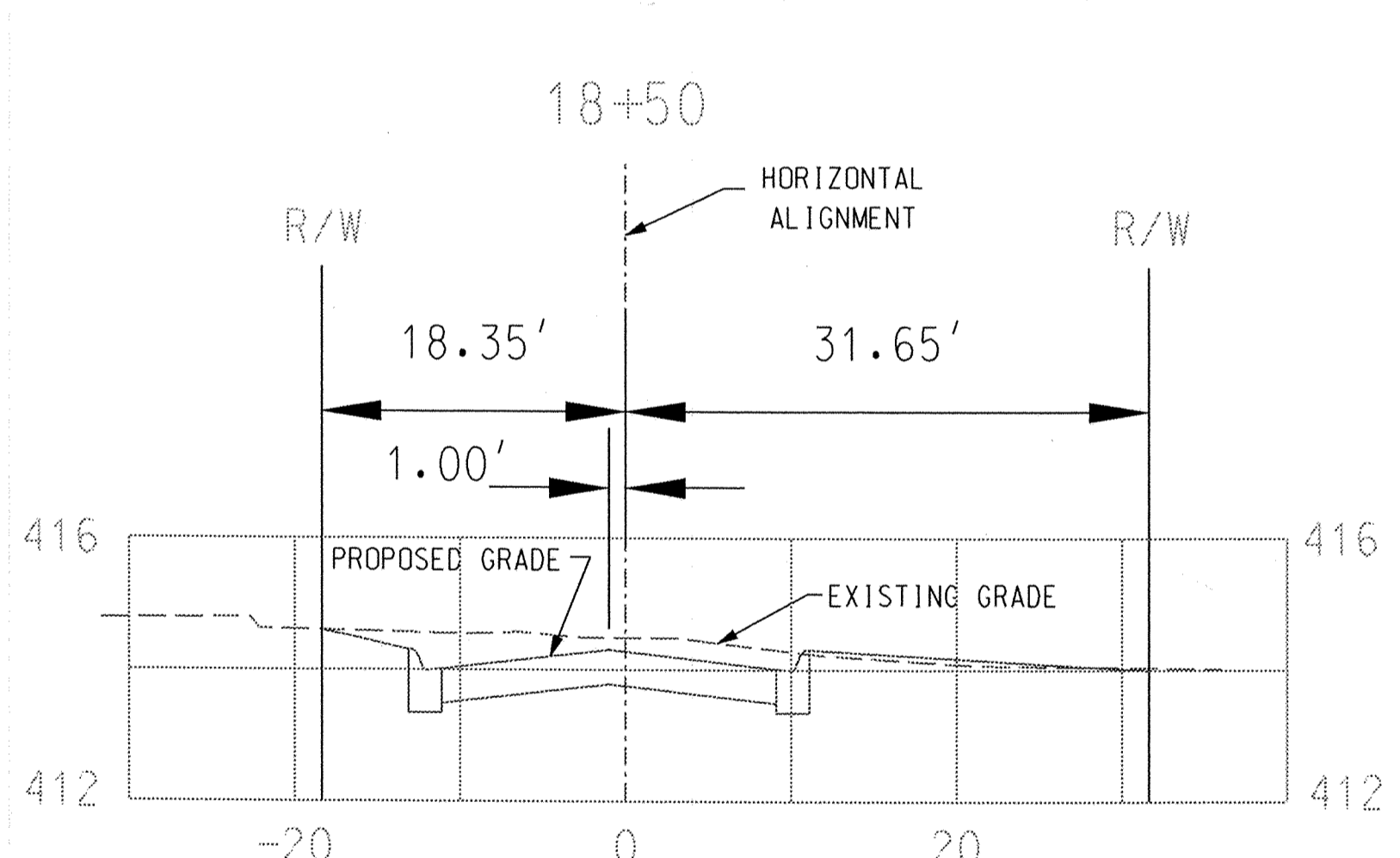
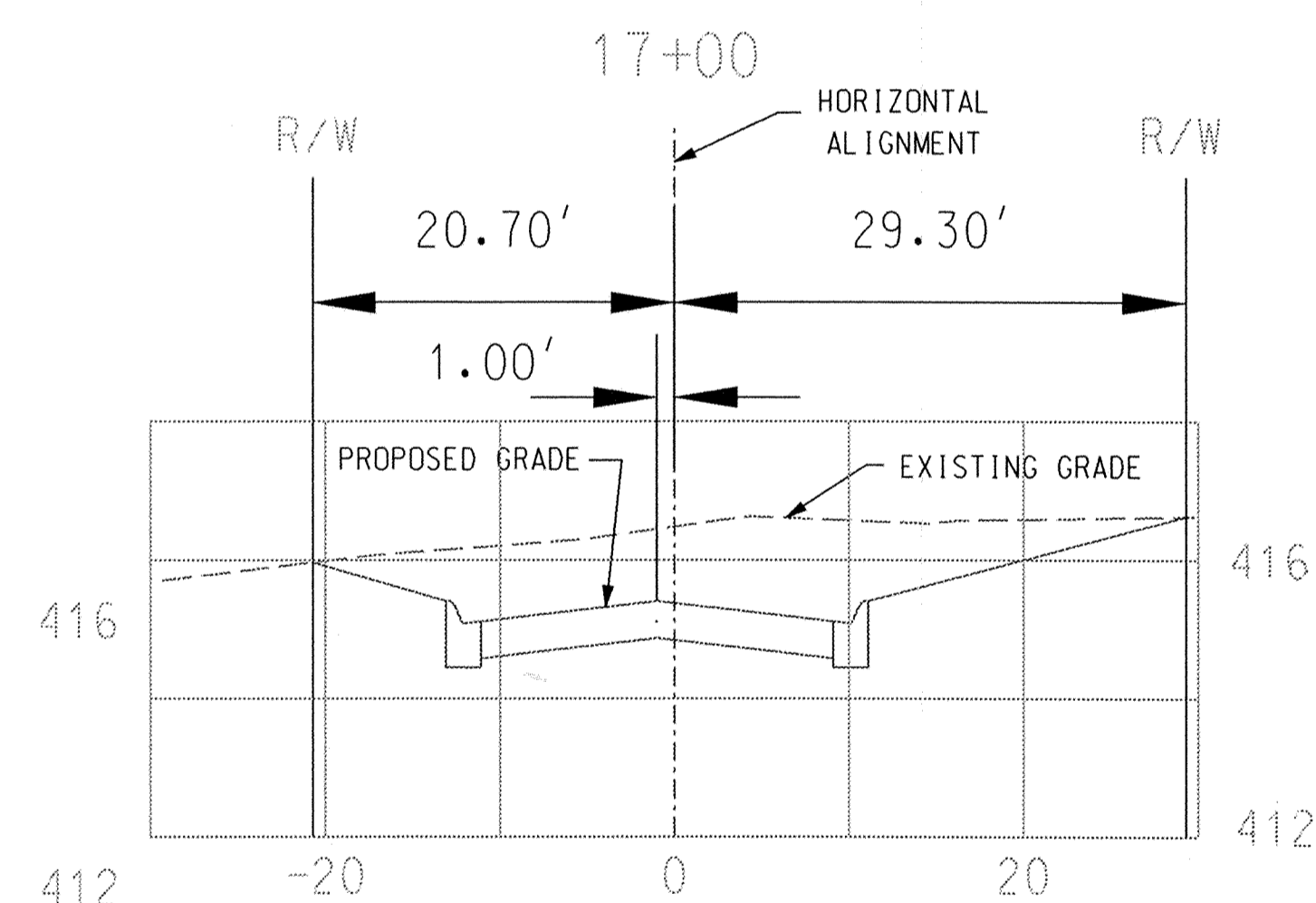
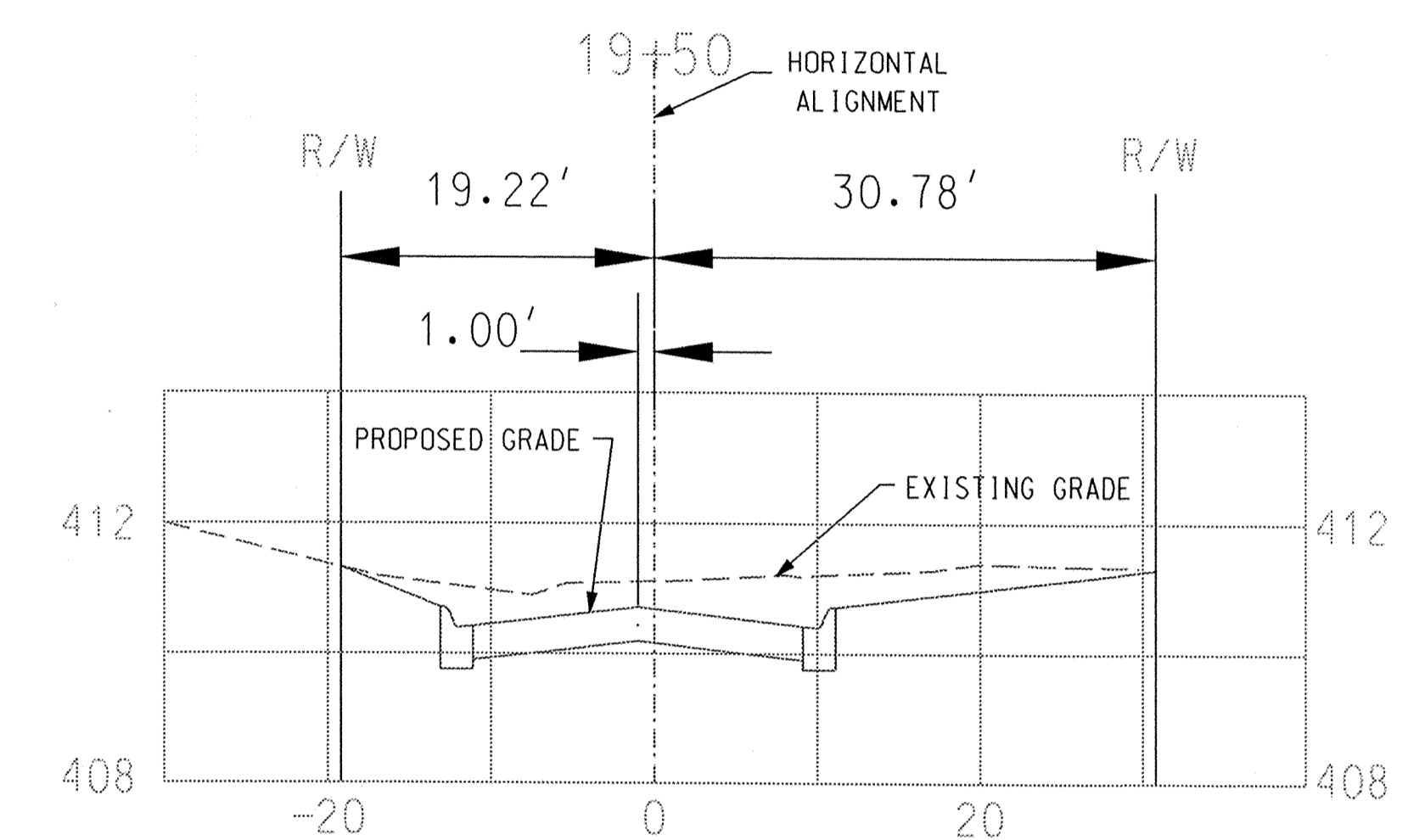
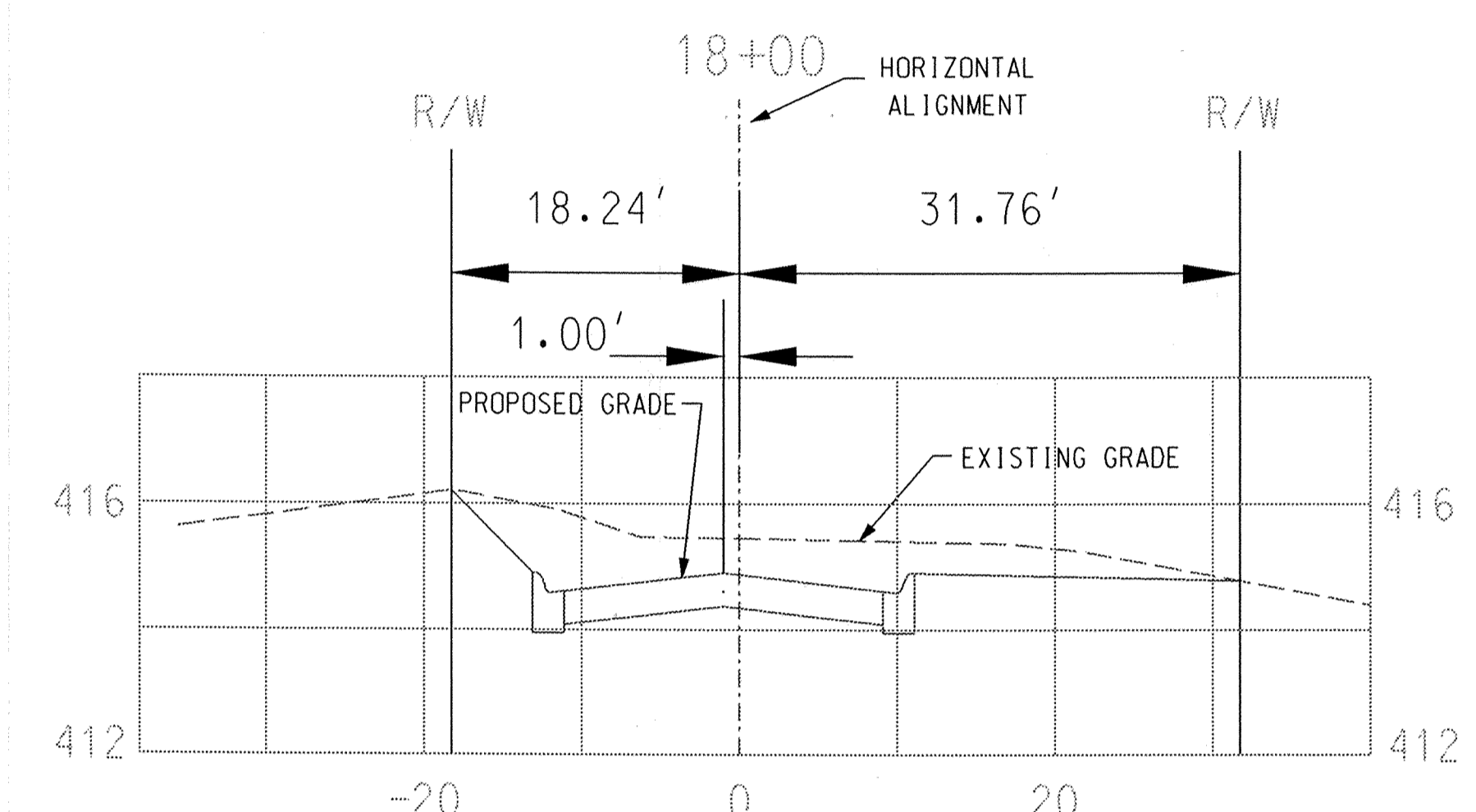
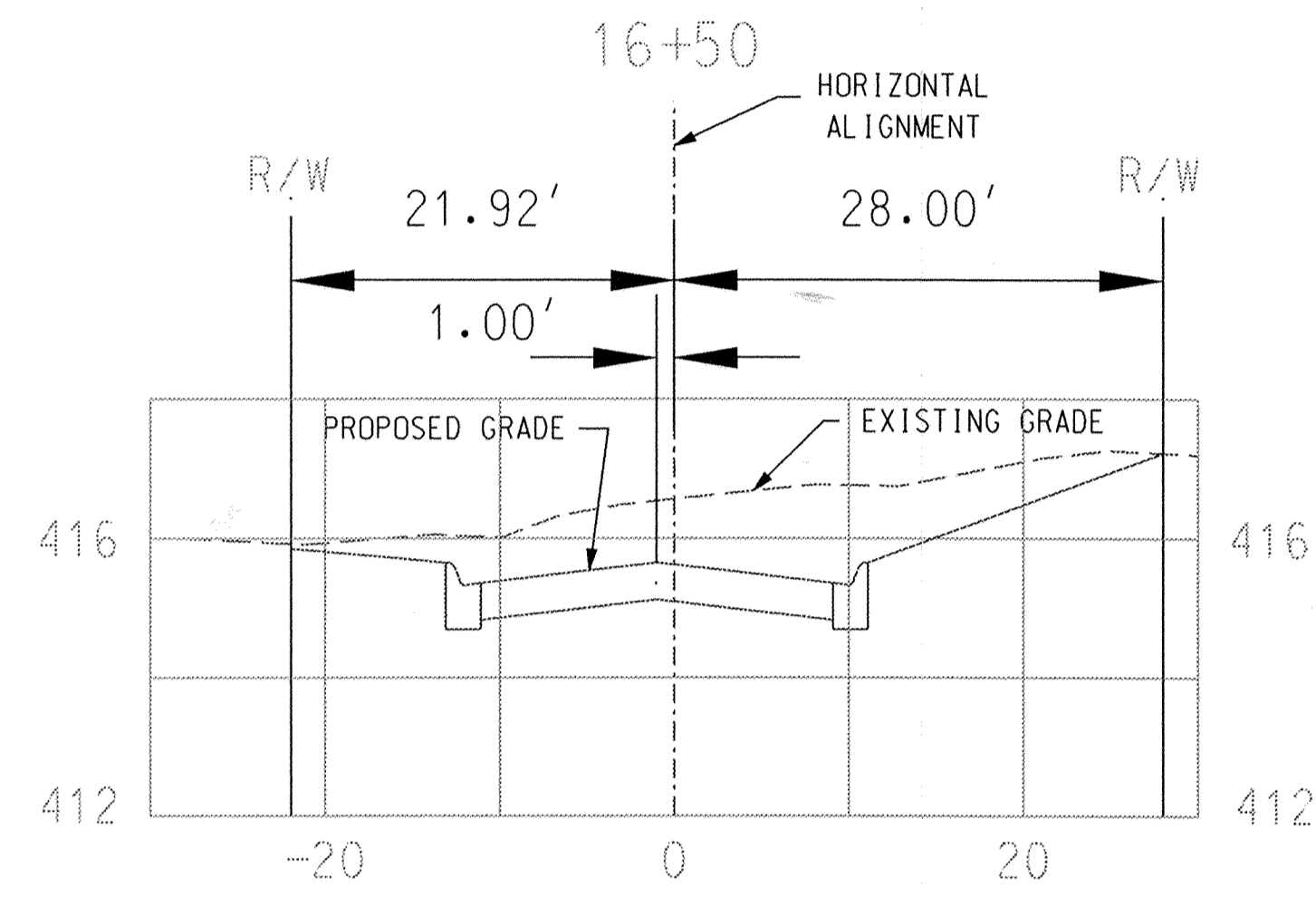
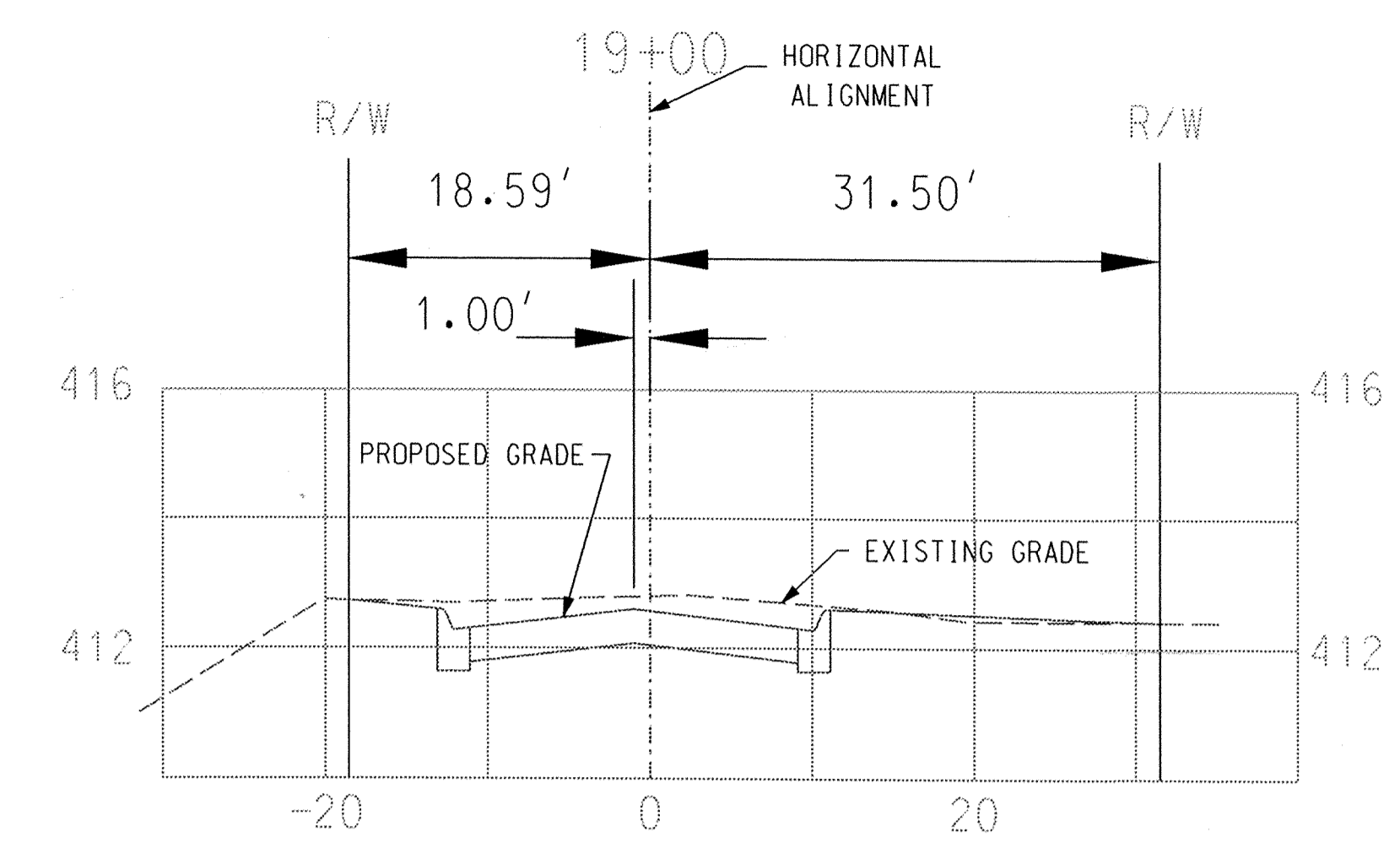
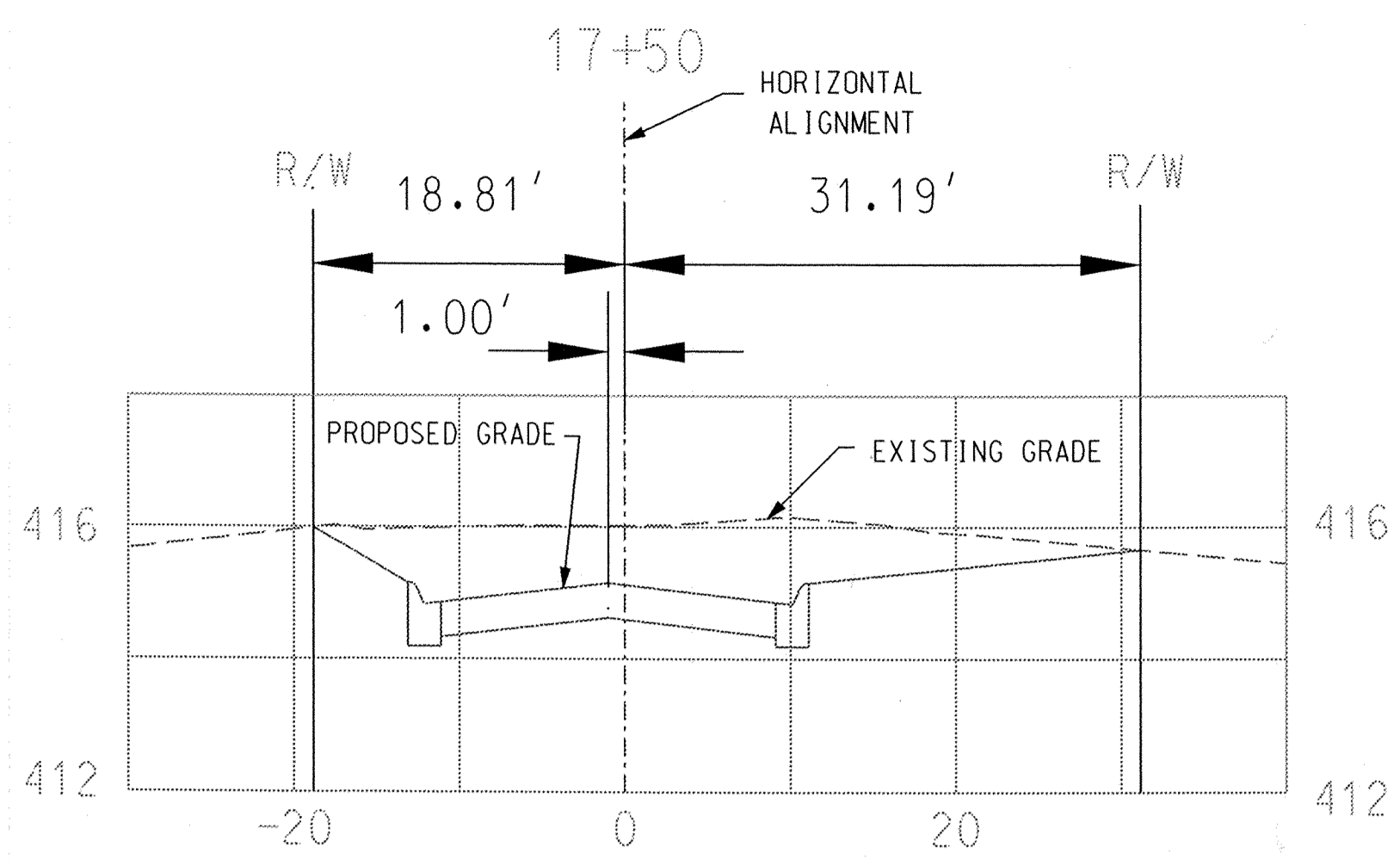
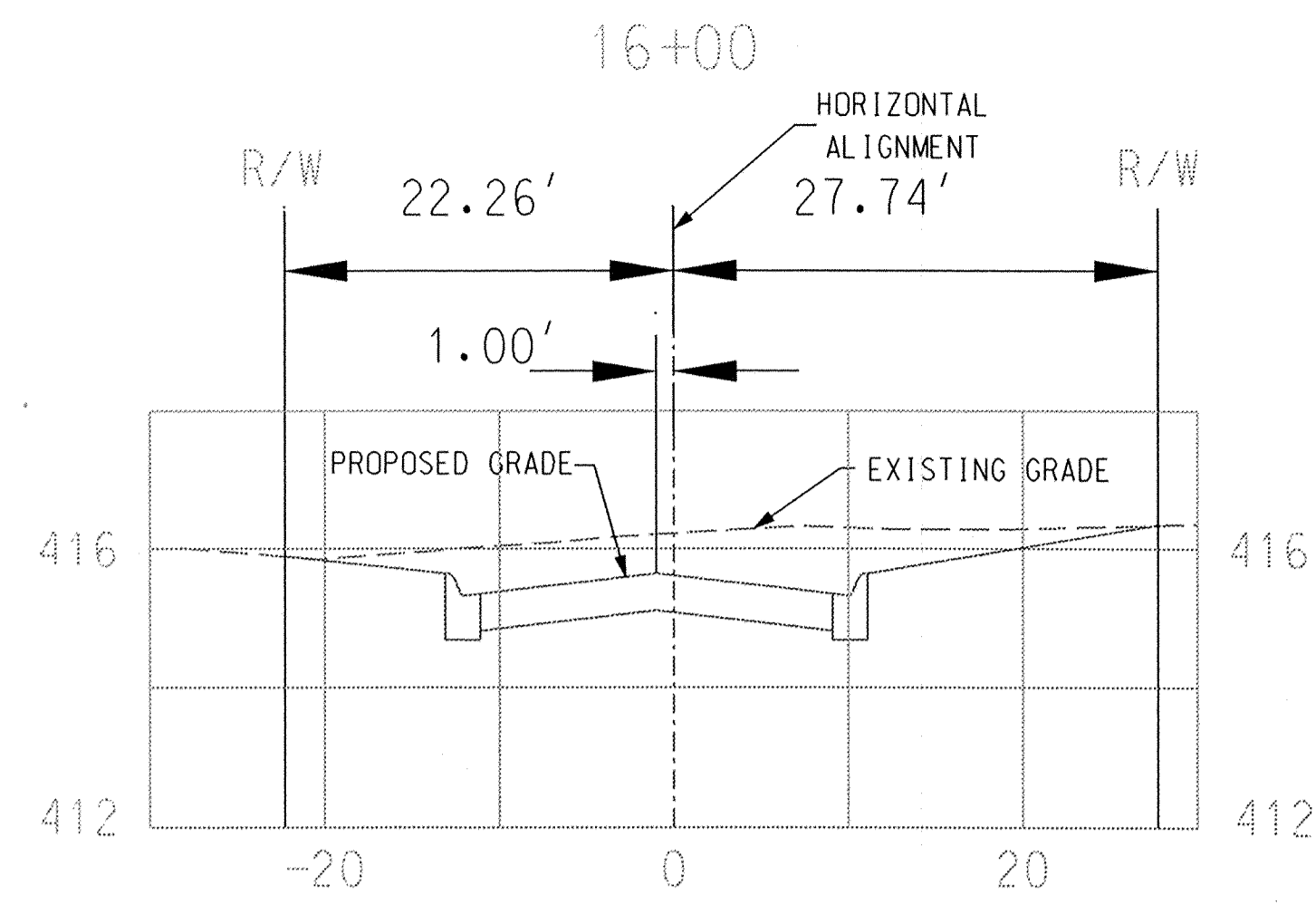
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: *John J. ...* DATE: 6/1/04
 Chief, Bureau of Engineering: *Robert ...* DATE: 6/1/04
 Chief, Bureau of Highways: *William ...* DATE: 5-28-04
 Chief, Division of Transportation and Special Projects: *Steve ...* DATE: 5/28/04

Baker
 MICHAEL BAKER JR. INC.
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 801 Cromwell Park Drive
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