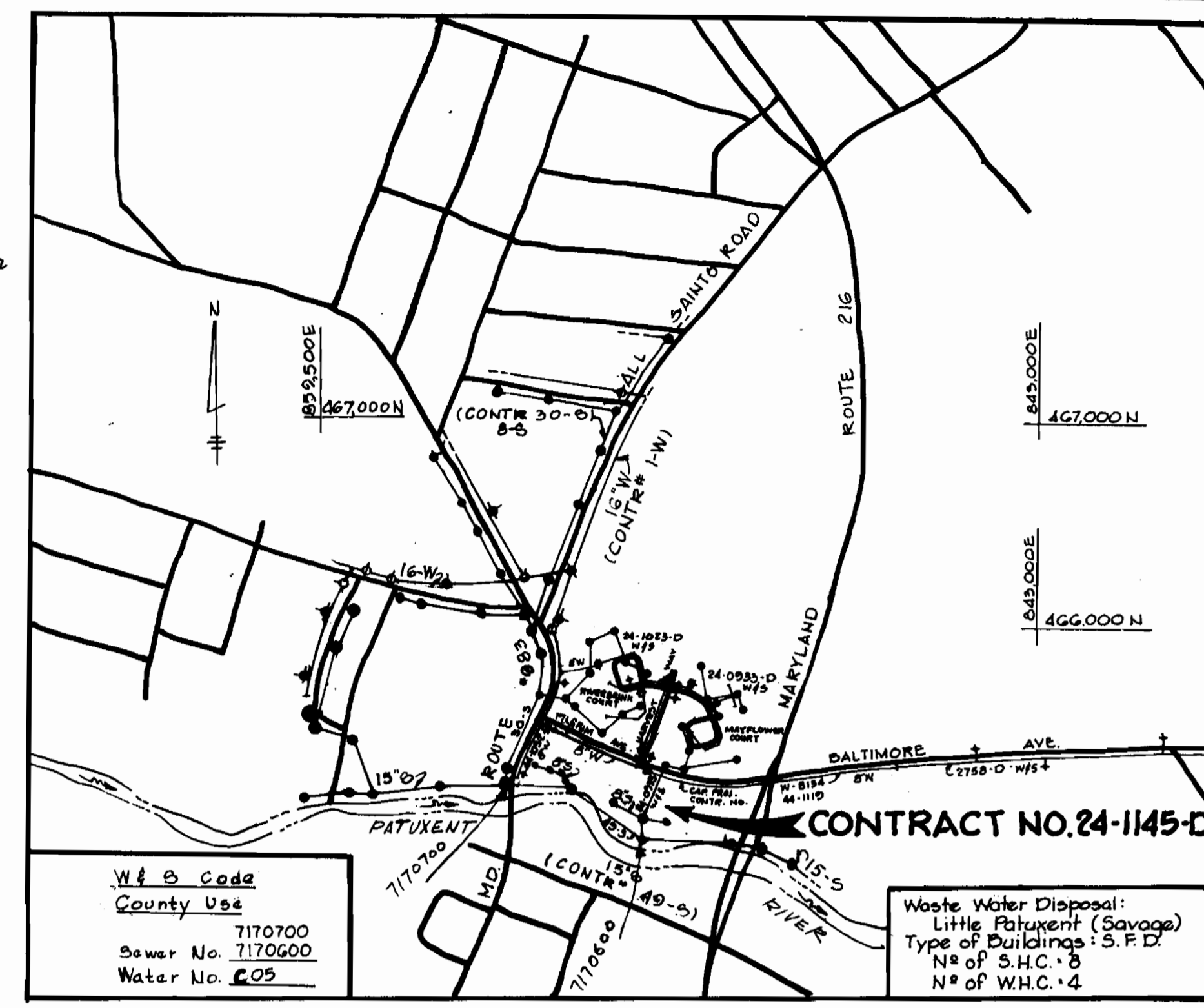


BENCH MARKS

B.M. #1 Elev. 200.03
Nail in 36" Oak 15'± left of Transverse between P.I. #105 and P.I. #106

B.M. #2 Elev. 221.98
Nail in 48" Oak 340'± West of Route 216 265'± North West of Baltimore Ave. and Route 216.



VICINITY MAP
SCALE: 1"=600'

GENERAL NOTES

- Approximate location of existing mains are shown. The contractor shall take all necessary precautions to protect existing mains and services and maintain uninterrupted supply. Any damage incurred shall be repaired immediately to the satisfaction of the Engineer, at the Contractor's expense.
- All horizontal controls are based on Maryland State Coordinates.
- All vertical controls are based on U.S.G.S. Datum.
- All pipe elevations shown are invert elevations.
- Clear all utilities by a minimum of 6". Clear all poles by 2'-0" minimum or tunnel as required. Any cost incurred to the contractor for tunneling or bracing at poles shall be included in unit prices bid for excavation and backfill.
- For details not shown on the drawings use Howard County Standard Details.
- For materials and construction methods use Howard County Standard Specifications.
- Contractor shall locate existing utilities a minimum of two weeks in advance of construction operations in the vicinity of proposed utilities at his own expense.
- Contractor shall notify the following utilities or agencies at least five working days before starting work shown on these plans:
 - State Highway Administration - 531-5535
 - Baltimore Gas & Electric Company - Underground Electric Distribution Customer Service - 685-0123
 - Baltimore Gas & Electric Company - Underground Gas Distribution Customer Service - 685-0123
 - Engineering - "Damage Control" - 234-5621
 - Misc Utility - 1-558-0100
 - Chesapeake & Potomac (C&P) Telephone Company - 725-9976
 - American Telephone and Telegraph - Cable Location Division - 393-3553
 - Colonial Pipeline Company - 781-4641
 - Bureau of Utilities Howard County - 992-2366
- Trees are to be protected from damage to maximum extent. Trees located within the construction strip are not to be removed or damaged by the contractor.
- Contractor shall remove trees, stumps and roots along line of excavation as directed by the Engineer. Payment for such removal shall be included in the unit price bid for excavation and backfill.
- Place regulation "Men Working" and warning signs as required to comply with Maryland State Highway Administration Manual of Traffic Control for Highway Construction and Maintenance Operations.
- All water mains to be D.I.P. unless otherwise noted.
- Top of all water mains to have a minimum of 3-1/2" cover unless otherwise noted.
- Valves adjacent to tees shall be trapped to tees.
- Block all fittings with concrete.
- Bury line elevations on fire hydrants shall be set to the elevations shown on the drawings. All fire hydrants shall be strapped and buttressed with concrete in accordance with standard details. Soil around the fire hydrants to be compacted in accordance with Section 37.01 & 37.05 of the Standard Specifications.
- All water house connections shall be for an inside meter setting.
- The contractor shall not operate any water main valves on the existing system.
- All sewer mains shall be C.S.P.P., V.C.P.P., P.V.C., D.I.P. or A.C.P. Class 2400 unless otherwise noted.
- The contractor shall provide a joint in all sewer mains within 2'-0" of exterior manhole walls.
- All manholes shall be 4'-0" inside diameter, unless otherwise noted.
- For all copper house connections utilize flared type fittings only.
- Manholes shown with 12" and 16" walls are brick manholes only.
- Manholes designated W.T. in plan and profile shall have watertight frames and covers, Standard Detail 3-12 (RCR-63A). Where watertight manhole frames and covers are used, set top of frame 1'-6" above finished grade.
- Houses with the symbol "C.N.S." indicate that cellar can not be served.
- All water house connections shall have a minimum vertical clearance of 12" above all sanitary sewer crossings.
- All sanitary sewer house connections shall have a minimum vertical clearance of 12" below all main crossings.
- Profile stations shall be adjusted as necessary to conform to plan dimensions.
- No pipe shall be laid until lines of excavation have been brought to subgrade.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH ARTICLE 15 OF THE SPECIFICATIONS AND FINAL PLAN # F-93-138

HOWARD SOIL CONSERVATION DISTRICT:
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

James M. Helm 9/1/83
D.D. SOIL CONSERVATION SERVICE DATE

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

Danny Kame 9/8/83
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. Helm 10/7/83
DIRECTOR OF PUBLIC WORKS - DATE

Robert M. Reimer 10-5-83
CHIEF - BUREAU OF UTILITIES - DATE

William E. Reimer 10/1/83
CHIEF BUREAU OF ENGINEERS - DATE

William E. Reimer 10/1/83
CHIEF - LAND DEVELOPMENT DIVISION

CONTRACT NO. 24-1145-D

QUANTITIES			
ITEM	ESTIMATED	AS BUILT	MATERIAL/SUPPLIER
8" SEWER	410 LF.	402 LF.	FC DEWEY & SONS P.O. # J.M. CORP
MANHOLES	25 Y.F.	25 Y.F. G.M.H.	FC DEWEY & SONS P.O. # J.M. CORP
8" WATER	50 LF.	510 LF.	FC DEWEY & SONS P.O. # J.M. CORP
8" D.I.P. (SEWER)	70 LF.	79 LF.	FC DEWEY & SONS P.O. # J.M. CORP
8" x 8" T.S. & V.	1 EA.	1 EA.	U.S. PIPE & FOUND CO P.O. # J.M. CORP
6" S.H.C.	20 LF.	79 LF.	FC DEWEY & SONS P.O. # J.M. CORP
1" W.H.C.	30 LF.	30 LF.	FC DEWEY & SONS P.O. # J.M. CORP
3/4" W.H.C.	12 LF.	12 LF.	FC DEWEY & SONS P.O. # J.M. CORP

PLAN OF
WATER AND SEWER MAINS

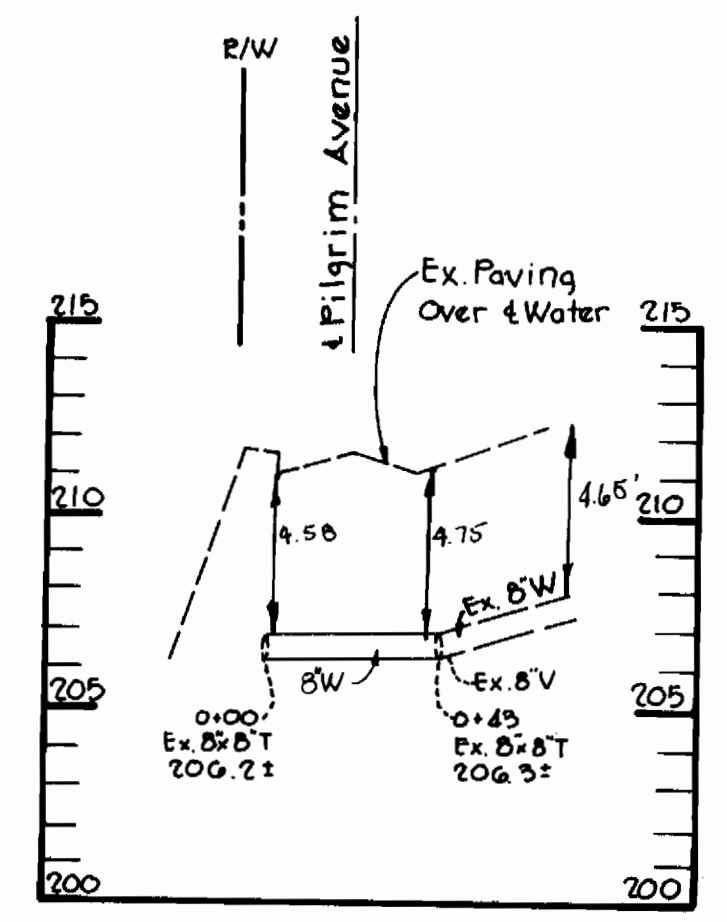
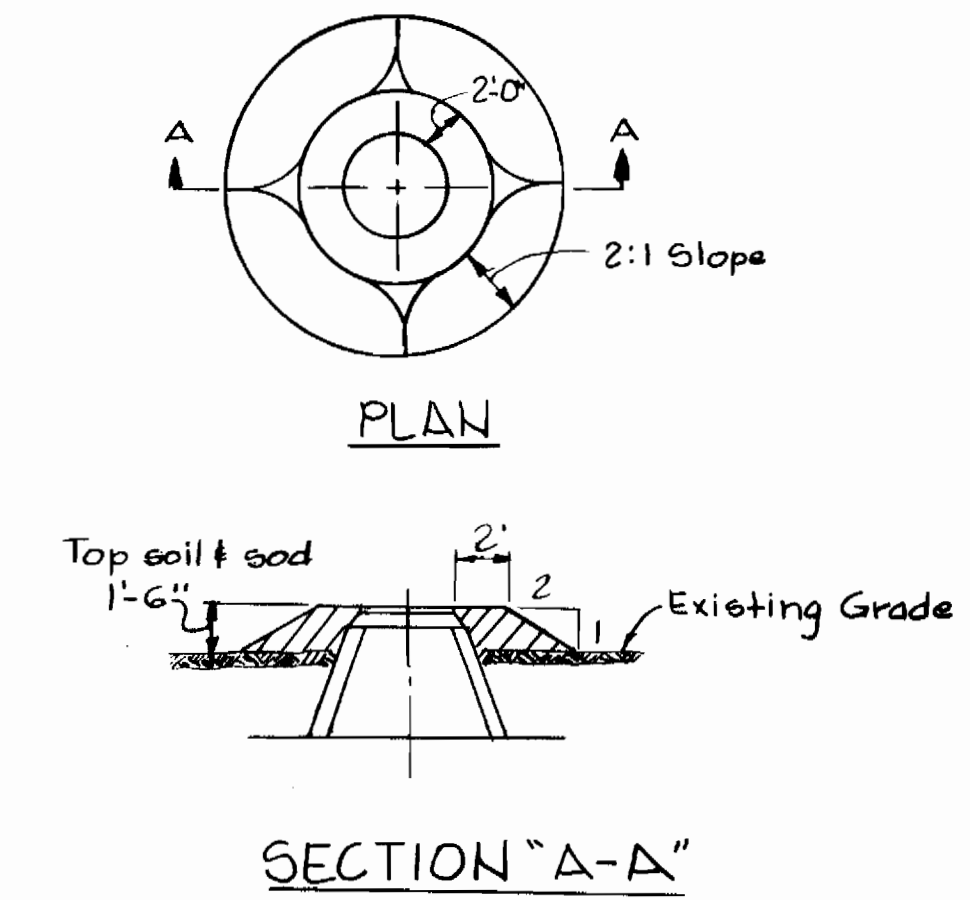
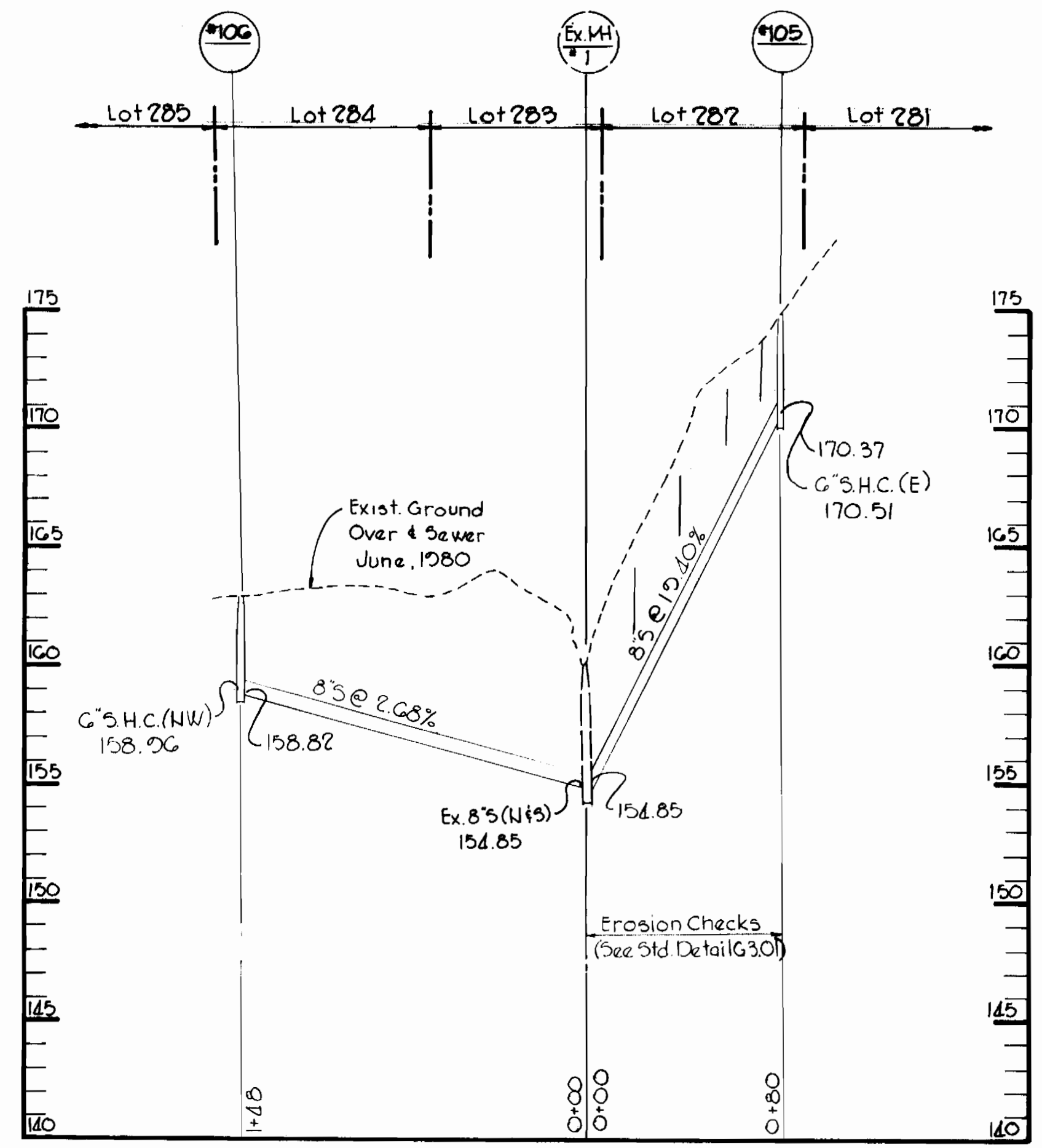
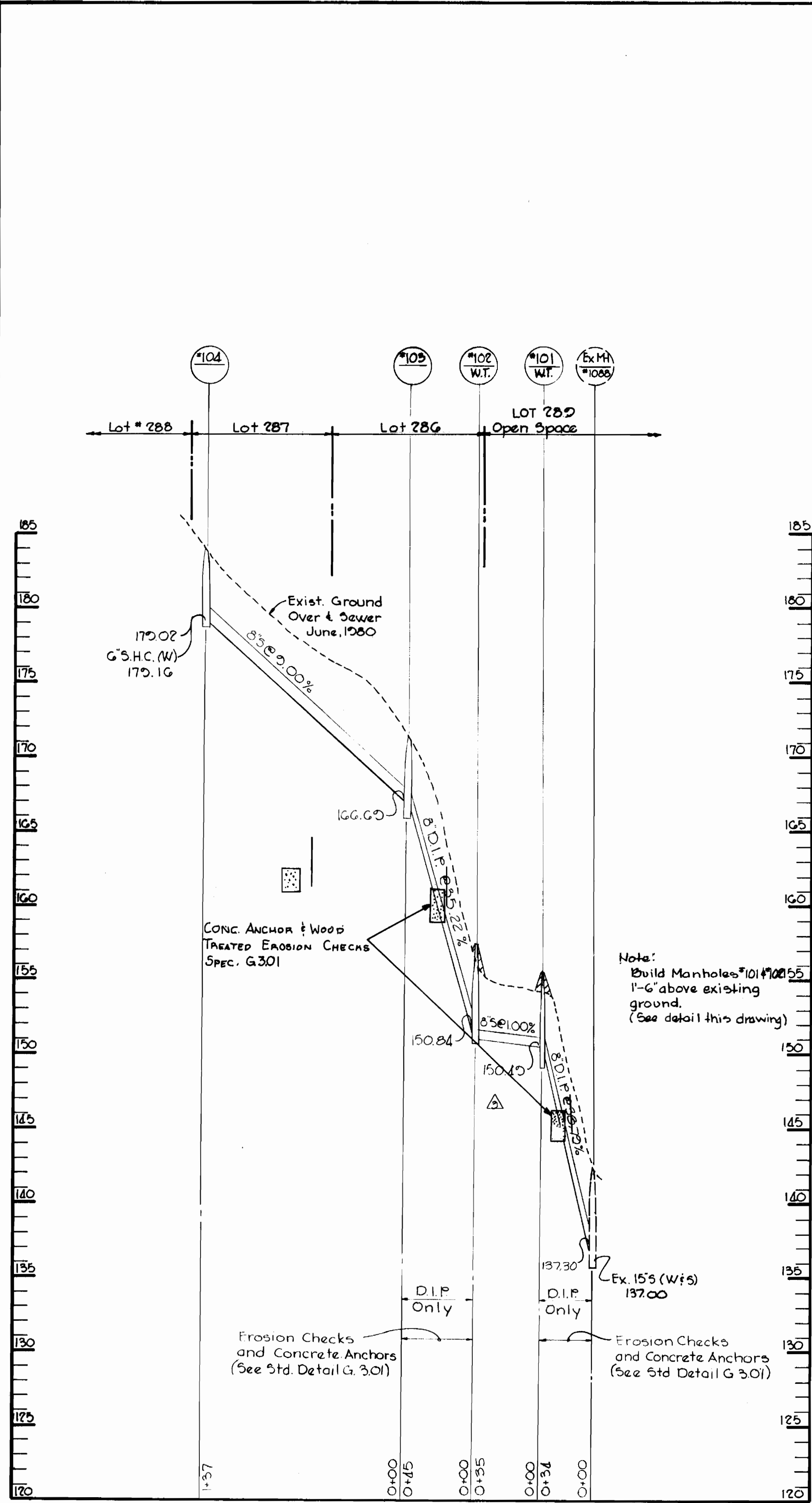
SUPPLIER
BELAIR ROAD SUPPLY INC.
1760 PULASKI HWY
BALT. MD 21257

2 9/27-85 Changed location of MH #101
1 9/27-84 Changed all lot numbers
No. Date Revision

Settlers Landing
Section 3
Contract No. 24-1145-D

DRAWING NO. 1 OF 2 SCALE 1"=50'

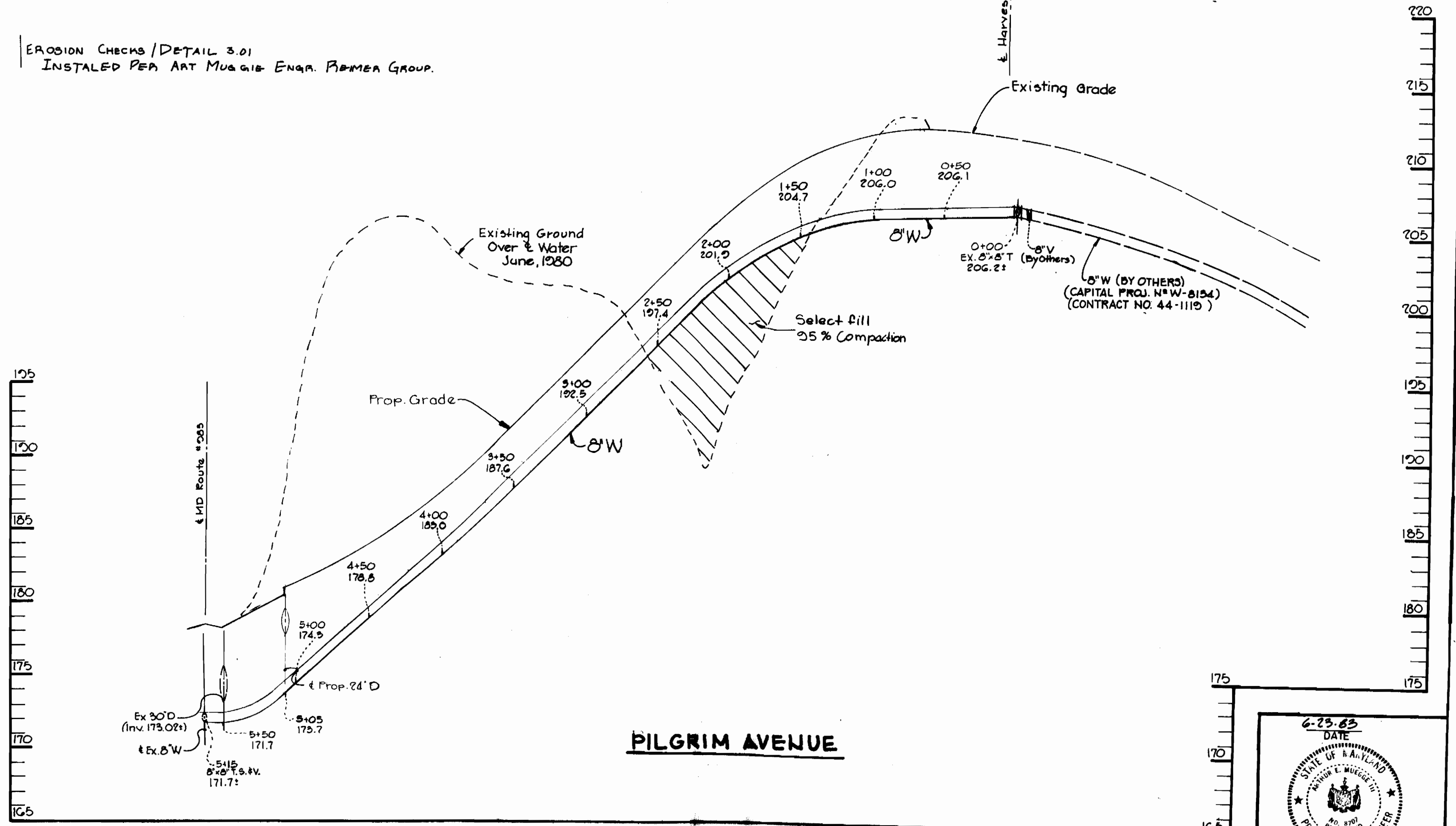
Richard E. Mugg
PROFESSIONAL ENGR. NO. 8707



- Notes:
- 1) All manhole frame and covers shall be flush with grade except when shown on profile to be set higher than grade.
 - 2) Manhole frame and covers to be set higher than grade shall be set in accordance with this detail.
 - 3) Manhole frames and covers to be set higher than 1'-6" shall be set as noted on the profile and in accordance with this detail.

FILL DETAIL AROUND
MANHOLES #101 #102
NO SCALE

EROSION CHECKS / DETAIL 3.01
INSTALLED PER ART MUGAIB ENGR. FIRMEN GROUP.



THE RIEMER GROUP, INC.
8659 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21043

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *[Signature]* 10/7/83
Chief Bureau of Engineers: *[Signature]* 9/1/83

Chief Bureau of Utilities: *[Signature]* 10-5-83
Chief Land Development Division: *[Signature]* 10-7-83

No.	Date	Revisions
3	9/27/83	Changed lengths, inverts and slopes between 4+1000 #108
2	5/7/84	Changed all lot numbers
1	10/10/83	Added profile of Water Main crossing Pilgrim Avenue
N/A	Date	Revision

CONTRACT NO. 24-1145-D

PLAN OF
WATER AND SEWER MAINS

SETTLERS LANDING SECTION - 3
6TH ELECTION DISTRICT

Settlers Landing
Section 3
Contr. No. 24-1145-D

DRAWING NO. 2 OF 2

SCALE
H: 1" = 50'
V: 1" = 5'

AS-BUILT 8-6-86

OCTOBER 10, 1983

