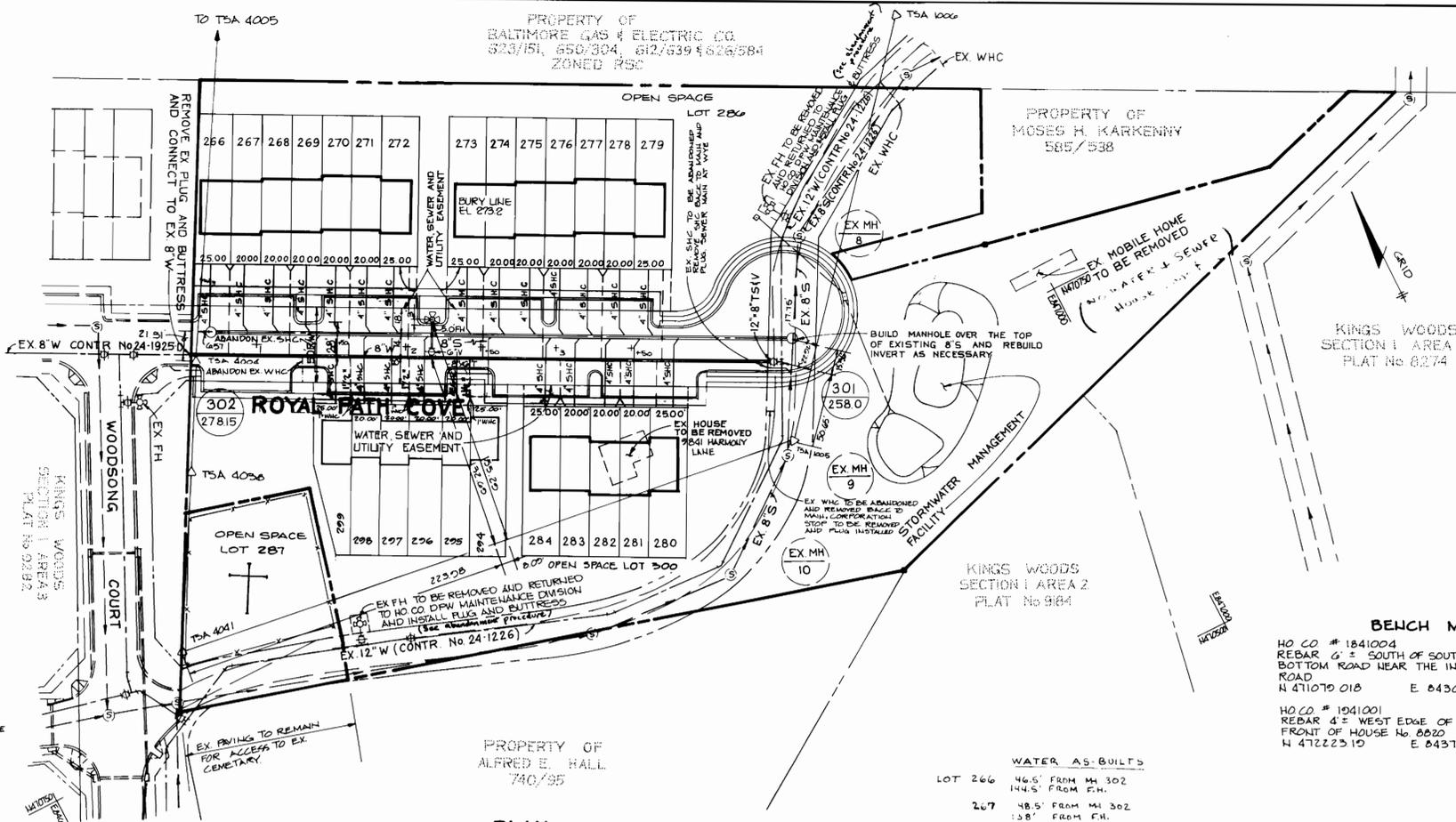


**SEWER HOUSE CONNECTION
INVERT ELEVATION @ PROPERTY LINE**

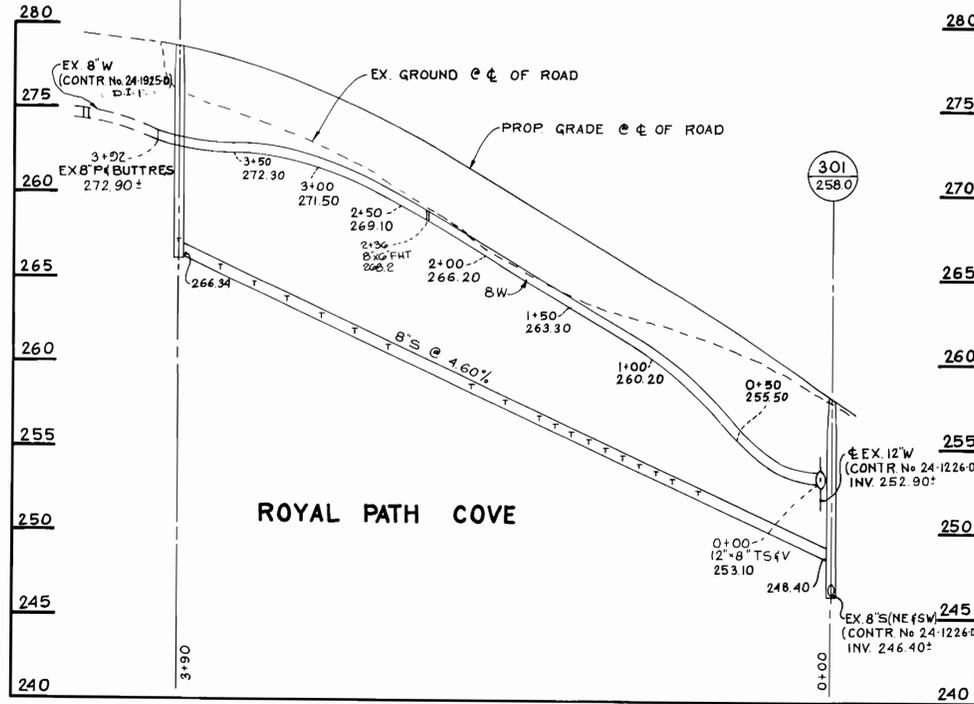
STA	LOT	INV @ PL	MIN. CELLAR ELEV.
3+90	266	267.30	271.00
3+65	267	266.15	269.90
3+45	268	265.23	268.90
3+25	269	264.31	268.00
3+05	270	263.39	267.10
2+85	271	262.41	266.10
2+65	272	261.55	265.30
2+15	273	259.25	263.00
1+95	274	258.33	262.00
1+75	275	257.41	261.10
1+55	276	256.49	260.20
1+35	277	255.53	259.30
1+15	278	254.65	258.40
0+95	279	253.73	257.40
1+65	284	256.95	260.70
1+45	283	256.03	259.70
1+25	282	255.11	258.80
1+05	281	254.19	257.90
0+80	280	253.04	256.70
2+04	294	258.72	262.02
2+25	295	259.69	262.99
2+47	296	260.70	264.00
2+68	297	261.67	264.97
2+88	298	262.59	265.89
3+08	299	263.51	266.81
		264.06	267.36

SEWER AS-BUILTS

LOT	AS-BUILT	LOT	AS-BUILT
266	46' FROM MH 302	280	92' FROM MH 301
	153' FROM F.H.		172' FROM F.H.
267	50' FROM MH 302	281	115' FROM MH 301
	134' FROM F.H.		146' FROM F.H.
268	62' FROM MH 302	282	135' FROM MH 301
	112' FROM F.H.		127' FROM F.H.
269	80' FROM MH 302	283	155' FROM MH 301
	92' FROM F.H.		110' FROM F.H.
270	96' FROM MH 302	284	172' FROM MH 301
	75' FROM F.H.		93' FROM F.H.
271	114' FROM MH 302	672	81' FROM MH 302
	59' FROM F.H.		81' FROM F.H. VALVE
272	132' FROM MH 302	673	92' FROM MH 302
	46' FROM F.H.		67' FROM F.H.V.
273	141' FROM F.H.	674	115' FROM MH 302
	222' FROM MH 301		49' FROM F.H.V.
274	57' FROM F.H.	675	133' FROM MH 302
	202' FROM MH 301		33' FROM F.H.V.
275	74' FROM F.H.	676	153' FROM MH 302
	181' FROM MH 301		25' FROM F.H.V.
276	92' FROM F.H.	677	26' FROM F.H.V.
	147' FROM MH 301		
277	111' FROM F.H.	678	44' FROM F.H.V.
	144' FROM MH 301		
278	130' FROM F.H.		
	125' FROM MH 301		
279	150' FROM F.H.		
	117' FROM MH 301		



**PLAN
SCALE 1"=50'**



**PROFILE
SCALE VERT 1"=5'
HORIZ 1"=50'**

WATER AS-BUILTS

LOT	AS-BUILT
266	146.5' FROM MH 302
	144.5' FROM F.H.
267	48.5' FROM MH 302
	138' FROM F.H.
268	62.5' FROM MH 302
	103.5' FROM F.H.
269	72.2' FROM MH 302
	97' FROM F.H.
270	101' FROM MH 302
	68' FROM F.H.
271	108.4' FROM MH 302
	63' FROM F.H.
272	140' FROM MH 302
273	16.5' FROM F.H.
	216' FROM MH 301
274	49' FROM F.H.
	209' FROM MH 301
275	65' FROM F.H.
	177' FROM MH 301
276	72' FROM F.H.
	170' FROM MH 301
277	117' FROM F.H.
	140' FROM MH 301
278	122' FROM F.H.
	132.6' FROM MH 301
279	158' FROM F.H.
	97.5' FROM MH 301
280	162' FROM MH 301
	160' FROM F.H.
281	21' FROM MH 301
	140' FROM F.H.
282	129' FROM MH 301
	135' FROM F.H.
283	157' FROM MH 301
	104' FROM F.H.
284	147' FROM MH 301
	100' FROM F.H.
672	74' FROM MH 302
	74' FROM F.H. VALVE
673	90' FROM MH 302
	56' FROM F.H.V.
674	107' FROM MH 302
	54' FROM F.H.V.
675	143' FROM MH 302
	39' FROM F.H.V.
676	148' FROM MH 302
	29' FROM F.H.V.
677	31' FROM F.H.V.
678	35' FROM F.H.V.
	31' FROM F.H.
6\"/>	

**ABANDONMENT PROCEDURES FOR
FIRE HYDRANTS TO BE REMOVED**

- 1) CLOSE VALVE TO FIRE HYDRANT
- 2) REMOVE FIRE HYDRANT FROM FIRE HYDRANT LEAD
- 3) REMOVE FIRE HYDRANT LEAD AND INSTALL PLUG AND BUTTRISS BEHIND VALVE
- 4) REMOVE VALVE BOX
- 5) RETURN FIRE HYDRANT TO HO CO D.P.W. MAINTENANCE DIVISION.

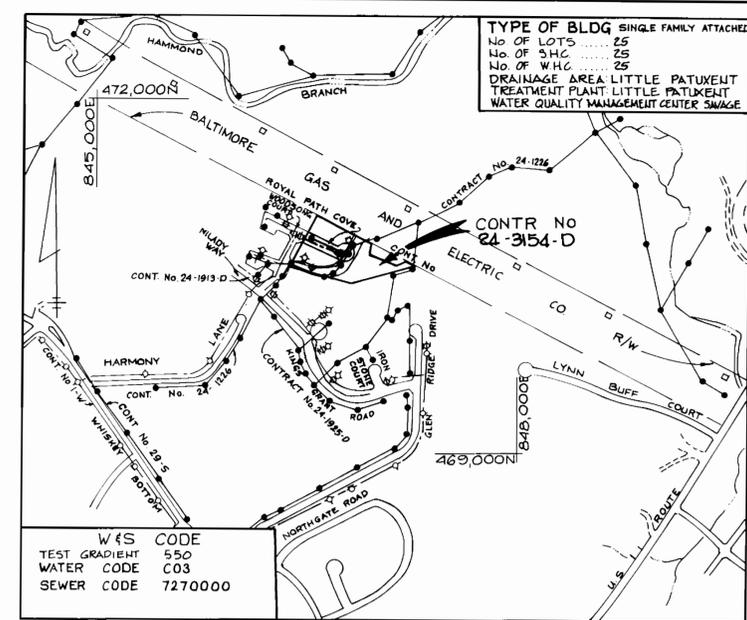
ABANDONMENT PROCEDURE FOR EX. W.H.C.

ABANDON THE HOUSE CONNECTION BACK TO THE WATER MAIN AND REMOVE OPERATOR. STOP AND PLUG THE MAIN. REPAIR PAVING IN ACCORDANCE WITH COUNTY SPECIFICATIONS.

ABANDONMENT PROCEDURE FOR EX. S.H.C.

REMOVE S.H.C. BACK TO THE SEWER MAIN AND PLUG SEWER MAIN AT WTE. REPAIR PAVING IN ACCORDANCE WITH COUNTY SPECIFICATIONS.

ITEM	QUANTITY	QUANTITIES	
		AS-BUILT	SUPPLIER
8\"/>			



**VICINITY MAP
SCALE 1"=600'**

GENERAL NOTES

1. 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.
2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.C. DATA.
4. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED TO THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL VOLUME IV, STANDARD SPECIFICATIONS AND DETAIL FOR CONSTRUCTION. THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
7. WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
8. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 - STATE HIGHWAY ADMINISTRATION.....531-5533
 - BALTIMORE GAS & ELECTRIC CO. CONTRACTOR SERVICES.....850-4620
 - BALTIMORE GAS & ELECTRIC CO. UNDERGROUND DAMAGE CONTROL.....787-8068
 - MISS UTILITY.....1-800-257-7777
 - COLONIAL PIPELINE CO.....795-1390
 - BUREAU OF UTILITIES
 - HOWARD CO. DEPT. OF PUBLIC WORKS.....313-4900
9. TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR. CONTRACTOR SHALL REMOVE TRUNKS, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- PART II - WATER
 1. ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
 2. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2" COVER UNLESS OTHERWISE NOTED.
 3. VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
 4. ALL FITTINGS SHALL BE BUTTRISSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
 5. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRISSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
 6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
 7. ALL WATER HOUSE CONNECTIONS SHALL BE IN FLOOR METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.
- PART III - SEWER
 1. ALL SEWER MAINS SHALL BE DIP, RCP, VOPX, CSPX, RSPS AND P.V.C. UNLESS OTHERWISE NOTED.
 2. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2' - 0" OF EXTERIOR MANHOLE WALL.
 3. ALL MANHOLES SHALL BE 4' - 0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
 4. FORCE MAINS SHALL BE D.I.P. ONLY.
 5. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
 6. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL 65-52, WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1" - 6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
 7. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.

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

James M. Phelps 10/11/91
U.S. SOIL CONSERVATION SERVICE DATE

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

John R. Robertson 10/11/91
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE
IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE
HOWARD COUNTY STANDARD SPECIFICATIONS AND AS PER
ROAD CONSTRUCTION PLANS F-21-173

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE 10-17-91
Robert M. Beinger 10-4-91
CHIEF, BUREAU OF UTILITIES DATE
CHIEF, LAND DEVELOPMENT DIVISION DATE

TSA GROUP, INC.

planning • engineering • surveying
8480 Baltimore National Pike • Suite 418
Ellicott City, Maryland 21043



DES: DAM			
DRN: I P			
CHK:	JWG	ADD LOTS 294 - 299 AND EXTEND CONNECTIONS TO	4/16/98
	MM	AS-BUILTS	3/23/92
DATE:	8/28/91	ADD S.H.C.'S AND W.H.C.'S FOR FUTURE LOTS	2/4/92
BY NO.			
REVISIONS			
DATE			

**PLAN OF
WATER & SEWER MAINS**

600'SCALE MAP NO. 47 BLOCK NO. 22

**KING'S WOODS
SECTION 3, AREA 1**

ELECTION DISTRICT NO. 6
CONTRACT NO. 24-3154-D

SCALE
AS
SHOWN

SHEET
1 OF 1

AS-BUILT

AS-BUILT 3-23-92