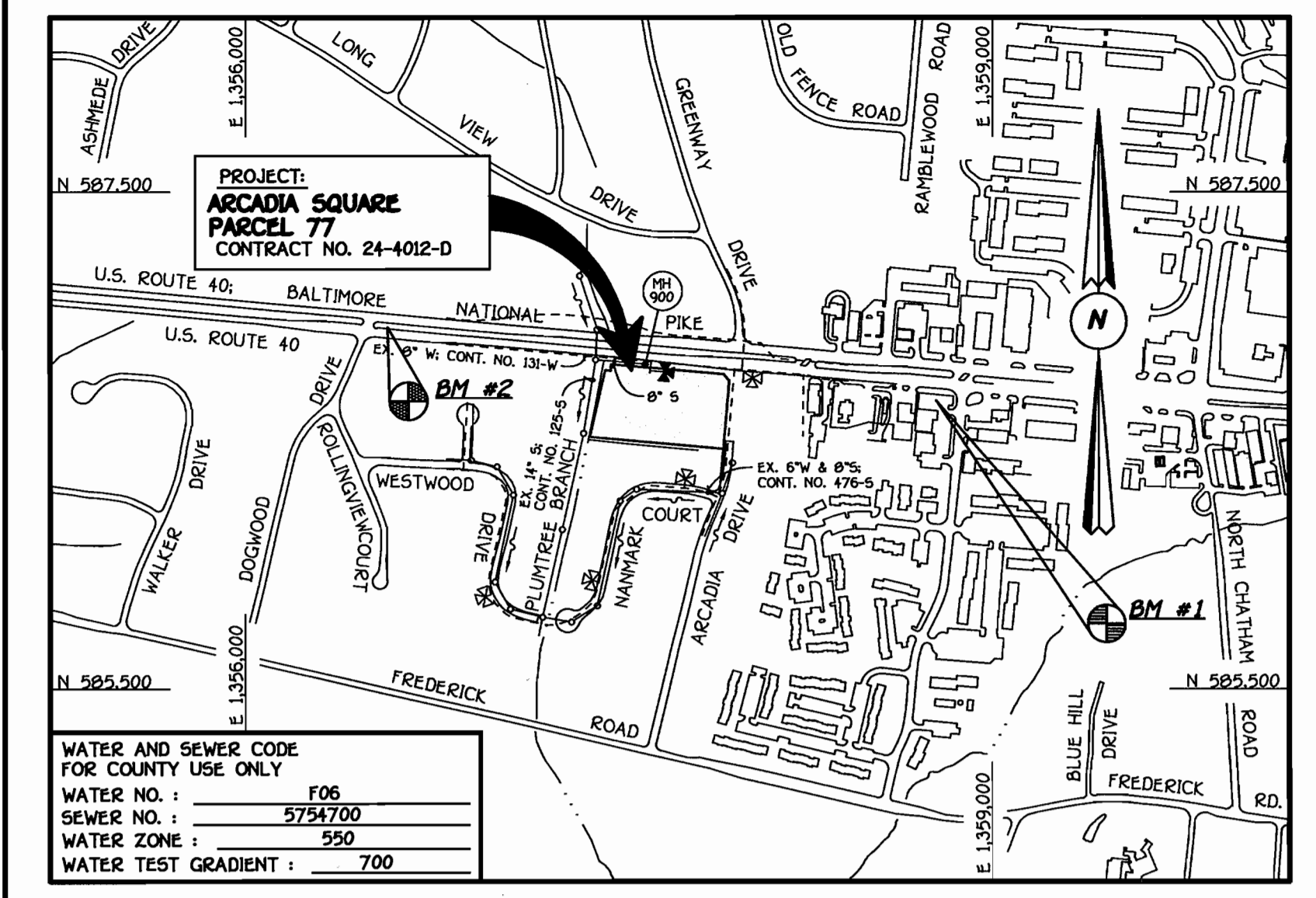


QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" WATER	38.93 LF.			
6" WATER	57.91 LF.			
4" WATER	7 LF.			
FIRE HYDRANTS	1 EACH			
8" X 8" TAPPING SLEEVE & VALVE	1 EACH			
8" X 6" TEE	1 EACH			
8" X 4" REDUCER	1 EACH			
8" VALVES	1 EACH			
6" VALVES	2 EACH			
6" PLUG & BUTTRESS	1 EACH			
8" SEWER D.I.P.	115 LF.			
6" SEWER	21 LF.			
SEWER MANHOLES	2 EACH			
6" C.O.	1 EACH			

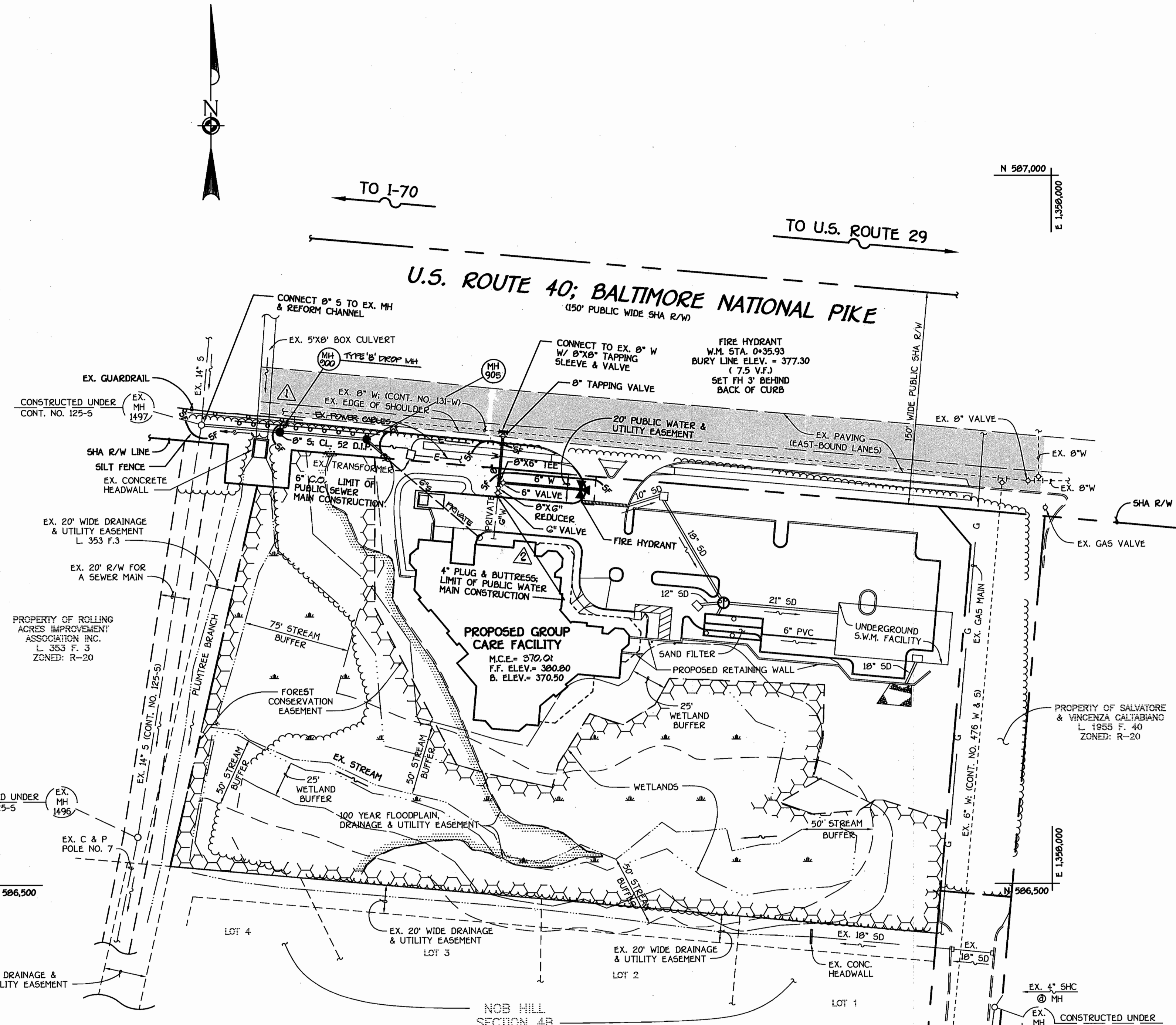
NAME OF UTILITY CONTRACTOR:  
SURVEY & DRAFTING DIVISION AS-BUILT DATE:



PROJECT:	ARCADIA SQUARE
PARCEL:	77
CONTRACT NO.:	24-4012-D
WATER AND SEWER CODE FOR COUNTY USE ONLY	
WATER NO.:	F06
SEWER NO.:	5754700
WATER ZONE:	550
WATER TEST GRADIENT:	700
TYPE OF BUILDING: COMMERCIAL; GROUP CARE FACILITY	
NUMBER OF PARCELS:	1
NO. OF WATER HOUSE CONNECTIONS:	1
NO. OF SEWER HOUSE CONNECTIONS:	1
DRAINAGE AREA:	LITTLE PATUXENT
TREATMENT PLANT:	LITTLE PATUXENT WATER RECLAMATION CENTER
PLAN REFERENCE NUMBERS: 50P02-113	

NOTE: SEE SHEET 2 OF 2 FOR TRAFFIC CONTROL PLAN FOR WATER AND SEWER MAIN CONSTRUCTION WITHIN THE R/W OF U.S. ROUTE 40

SEE SHEET 2 OF 2 FOR WATER MAIN TABULATION CHART



PLAN  
SCALE: 1" = 50'

**DEVELOPER'S CERTIFICATION**  
I, WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

*Paul W. Reibel* FOR: LEWAL PARTNERSHIP  
SIGNATURE OF DEVELOPER  
11/07/02  
DATE

**ENGINEER'S CERTIFICATION**  
I HEREBY 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.

*Paul W. Reibel*  
SIGNATURE OF ENGINEER  
11-07-02  
DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*Jim Myers* 12/3/02  
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE  
DATE

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

APPROVED:  
*John Robertson* 12/3/02  
HOWARD COUNTY SOIL CONSERVATION DISTRICT  
DATE

EROSION CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND AS SHOWN ON 50P02-113 AND ON THESE PLANS.

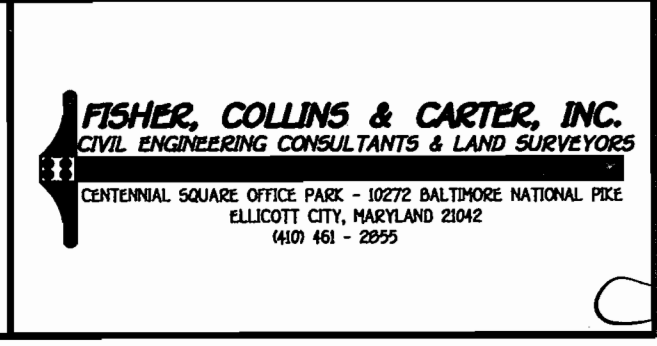
*Paul W. Reibel* FOR: LEWAL PARTNERSHIP  
SIGNATURE OF DEVELOPER  
11/07/02  
DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Rita B...* 11-21-02  
CHIEF, BUREAU OF UTILITIES  
DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

*John D...* 12/13/02  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE



DESIGNED BY:	P.W.K.		
DRAWN BY:	M.D.T.		
CHECKED BY:	P.W.K.	4/20/02	REVISE WATER SERVICE CONNECTIONS; 4" TO 6"
DATE:	NOVEMBER, 2002	4/20/02	REVISE SEWER MAIN ALIGNMENT; REVISE QUANTITIES
BY:	NO.		REVISION

WATER AND SEWER MAINS PLAN VIEW	
600' SCALE MAP NO.:	24 BLOCK NO. 3
F.C.C. WORK ORDER NO.:	40399
FILE NAME:	40399 FINAL WATER & SEWER MAIN PLAN SHT 1

**ARCADIA SQUARE**  
PARCEL 77  
CONTRACT NO. 24-4012-D  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 OF 2

**GENERAL NOTES**

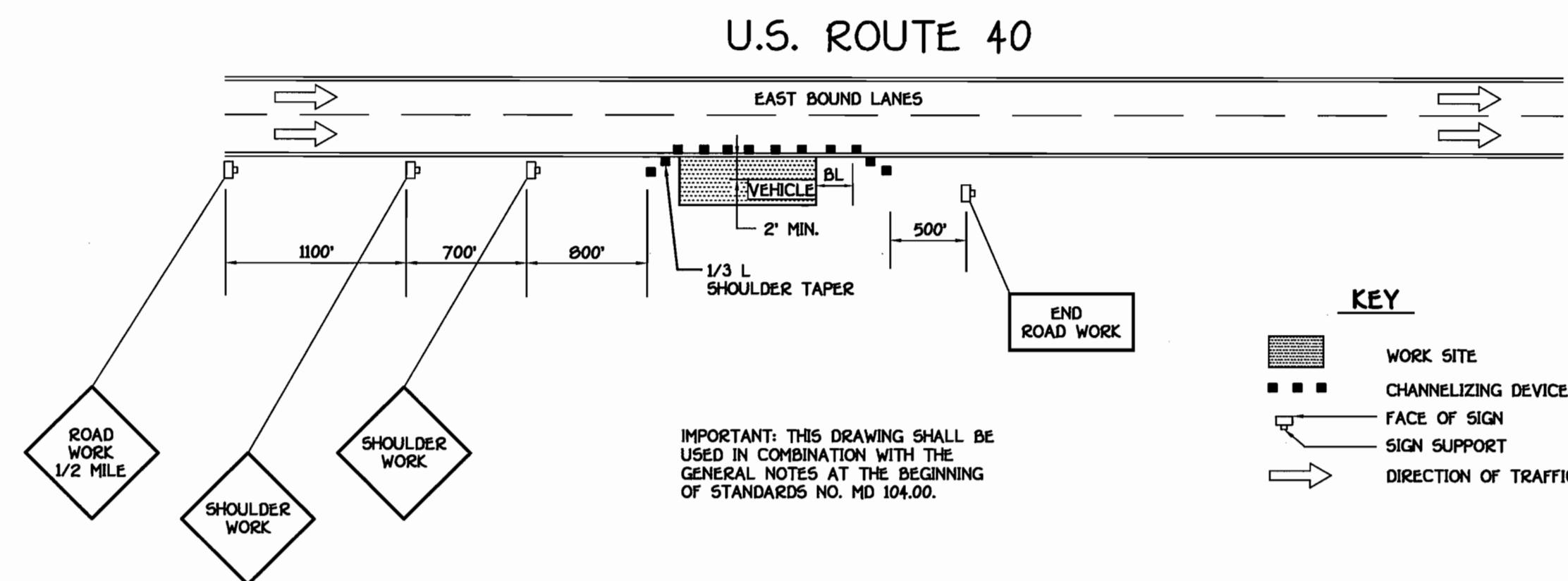
- PART I**
- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
  - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES, NAD 83/91.
  - ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.
  - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
  - CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF THE ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
  - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
  - WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL  $\oplus$  AT THE LOCATIONS OF THE TEST PITS. 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.
  - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
AT&T . . . . . 1-800-252-1133  
BGE (CONTRACTOR SERVICES) . . . . . 410-950-4620  
BGE (UNDERGROUND DAMAGE CONTROL) . . . . . 410-787-9068  
BUREAU OF UTILITIES . . . . . 410-313-4900  
COLONIAL PIPELINE CO . . . . . 410-795-1390  
MISS UTILITY . . . . . 1-800-257-7777  
STATE HIGHWAY ADMINISTRATION . . . . . 410-531-5533  
VERIZON . . . . . 1-800-743-0033/410-224-9210
  - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
  - CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE CONSTRUCTION OF THE MAIN.
  - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410-313-7450) AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(d) OF THE HOWARD COUNTY CODE.
- PART II: WATER**
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
  - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
  - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
  - ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
  - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
  - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- PART III: SEWER**
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
  - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
  - FORCE MAINS SHALL BE D.I.P. ONLY.
  - MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR BRICK MANHOLES ONLY.
  - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVER, STANDARD DETAIL G5.52. WHERE WATER-TIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
  - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.

WATER MAIN TABULATION CHART			
W.M. STATION	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN			
0+00.00	8"X8" TAPPING SLEEVE	506819.35	1357614.59
0+03.00	8" TAPPING VALVE	506816.36	1357614.32
0+35.93	8"X6" FIRE HYDRANT TEE	506783.57	1357611.33
0+38.93	8"X6" REDUCER	506780.59	1357611.05
0+41.93	6" VALVE	506777.60	1357610.78
0+45.93	6" PLUG & BUTTRESS	506773.61	1357610.42

MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION *
900	506,819.35	1,357,457.10	370.00
905	506,814.27	1,357,510.86	372.00

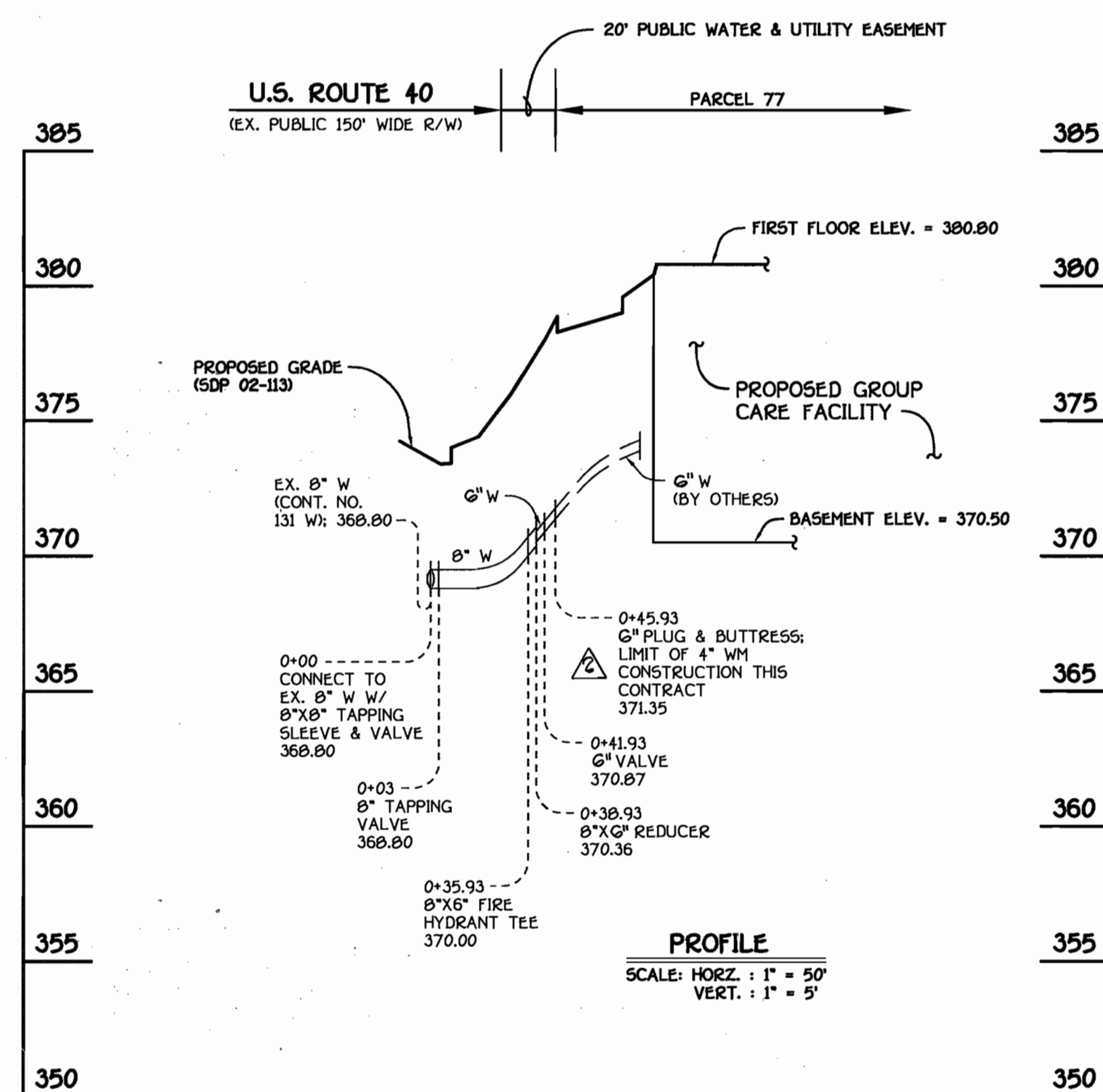
\* SET W/4 RIM FLUSH W/PROPOSED FINISHED GRADE

NOTE: SET RIM OF MANHOLE NO. 900 FLUSH W/ PROPOSED GROUND; SEE MANHOLE TABULATION CHART THIS SHEET.

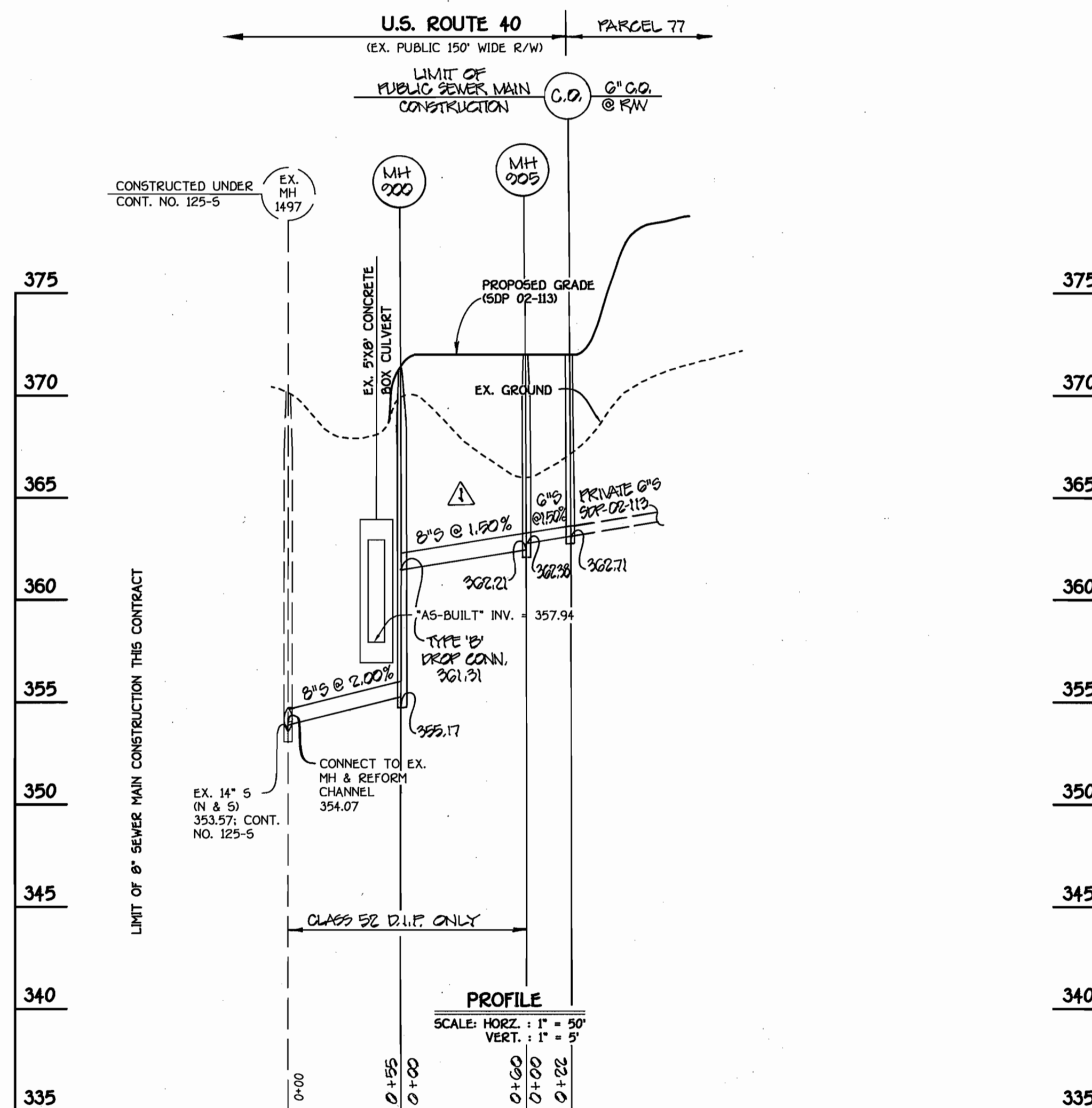


TRAFFIC CONTROL PLAN  
NO SCALE

SEE THIS SHEET FOR WATER MAIN TABULATION CHART



8" WATER MAIN



8" SEWER MAIN

MAINTENANCE OF TRAFFIC: SPECIAL PROVISIONS

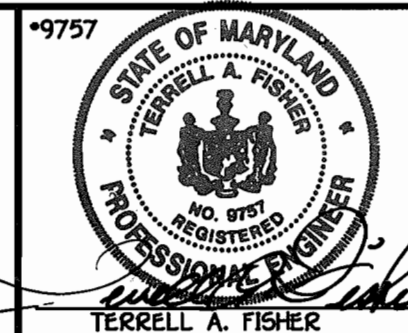
GENERAL

- THE PURPOSE OF THESE SPECIAL PROVISIONS IS TO ESTABLISH THE TRAFFIC CONTROL REQUIREMENTS NECESSARY FOR THE SAFE AND EFFICIENT MAINTENANCE OF TRAFFIC WITHIN WORK AREAS, AND TO MINIMIZE ANY INCONVENIENCES TO THE TRAVELLING PUBLIC AND THE CONTRACTOR.
- PROPER TRAFFIC CONTROL THROUGH WORK AREAS IS ESSENTIAL FOR INSURING THE SAFETY OF THE TRAVELLING PUBLIC AND THAT OF HIGHWAY WORKERS AND HAS THE HIGHEST PRIORITY OF ALL TASKS WITHIN THIS PROJECT. THE PROPER APPLICATION OF THE APPROVED TRAFFIC CONTROL PLAN (TCP) WILL PROVIDE THE DESIRED LEVEL OF SAFETY.
- THROUGHOUT THESE SPECIAL PROVISIONS, ANY MENTION OF THE TCP SHALL BE IMPLIED TO INCLUDE ANY COMBINATION OF TYPICAL TRAFFIC CONTROL STANDARDS WHICH FORM THE OVERALL TCP FOR THIS PROJECT AND WHICH HAS BEEN APPROVED BY THE APPROPRIATE SHA TRAFFIC ENGINEER.
- THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE MANUAL OF THE UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 1988 EDITION, ESPECIALLY PART VI, AND TO SECTION B14 OF THE MARYLAND DOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (JANUARY, 1982), INCLUDING ALL REVISIONS AND SUPPLEMENTS TO EACH.
- THE CONTRACTOR SHALL BE REQUIRED TO ADHERE TO THE REQUIREMENTS ESTABLISHED IN THE TCP AND THESE SPECIAL PROVISIONS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY REQUESTS TO MAKE MINOR CHANGES TO THE TCP OR THE SPECIAL PROVISIONS WITH REGARD TO THE TRAFFIC CONTROL ITEMS SHALL BE MADE IN WRITING TO THE ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE PROPOSED SCHEDULE CHANGE. THE CONTRACTOR SHALL HAVE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO THE IMPLEMENTATION OF ANY CHANGE.
- NO WORK SHALL BEGIN ON ANY WORK ACTIVITY OR WORK PHASE UNTIL ALL REQUIRED TRAFFIC CONTROL PATTERNS AND DEVICES INDICATED ON THE TCP FOR THAT ACTIVITY OR PHASE ARE COMPLETELY AND CORRECTLY IN PLACE AND HAVE BEEN CHECKED FOR APPROVED USAGE.
- GENERAL AND SPECIFIC WARNING SIGNS SHALL ONLY BE IN PLACE WHEN SPECIFIC WORK TASKS AND ACTIVITIES ARE ACTUALLY UNDERWAY OR CONDITIONS EXIST THAT POSE A POTENTIAL HAZARD TO THE PUBLIC. NOTE: THE PRACTICE OF PLACING SIGNING AND OTHER TRAFFIC CONTROL DEVICES IN ADDITION TO THOSE INDICATED ON THE APPROVED TCP IS NOT PERMITTED.
- THE CONTRACTOR SHALL PROVIDE MAINTAIN IN NEW CONDITION, AND MOVE WHEN NECESSARY, OR AS DIRECTED BY THE ENGINEER, ALL TRAFFIC CONTROL DEVICES USED FOR THE GUIDANCE AND PROTECTION OF MOTORISTS, PEDESTRIANS, AND WORKERS.
- ALL TRAFFIC CONTROL DEVICES REQUIRED BY THE TCP SHALL BE KEPT IN GOOD CONDITION, FULLY PERFORMING AS SET FORTH IN THE TCP, THE MUTCD, AND/OR SECTION B14 OF THE SPECIFICATIONS. FOR REFLECTIVE DEVICES, A PARTICULAR DEVICE IS ASSUMED TO HAVE FAILED TO MEET MINIMUM OPERATIONAL STANDARDS WHEN THE DEVICE NO LONGER HAS RETRO-REFLECTANCE CAPABILITY OF AT LEAST 50% OF THE SPECIFIED MINIMUM VALUE OVER AT LEAST 90% OF THE VISIBLE REFLECTIVE SURFACE.
- ALL TRAFFIC CONTROL DEVICES NOT REQUIRED FOR THE SAFE CONDUCT OF TRAFFIC SHALL BE PROMPTLY REMOVED, COMPLETELY COVERED, TURNED AWAY FROM TRAFFIC, OR OTHERWISE TAKEN OUT OF SERVICE. IT IS INTENDED THAT NO TRAFFIC CONTROL DEVICE IS TO BE IN SERVICE WHEN THERE IS NO CLEAR CUT REASON FOR THE DEVICE.
- THROUGHOUT THE PERIODS OF WORK ACTIVITIES, TRAFFIC SHALL BE MAINTAINED BY IMPLEMENTING THE APPROVED TCP.
- THROUGHOUT THESE SPECIAL PROVISIONS, WHERE SPEED OF TRAFFIC IS NOTED, THIS MEANS THE POSTED SPEED OR PREVAILING TRAVEL SPEED, WHICHEVER IS HIGHER, UNLESS OTHERWISE NOTED.
- TRAFFIC SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT, UNLESS OTHERWISE NOTE. NO TRAVEL LANE(S) OTHER THAN THOSE DESIGNATED FOR POSSIBLE CLOSURE IN THE TCP SHALL BE CLOSED WITHOUT OBTAINING PRIOR APPROVAL FROM THE ENGINEER. ALL INGRESS AND EGRESS TO THE WORK AREA BY THE CONTRACTOR SHALL BE PERFORMED WITH THE FLOW OF TRAFFIC.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE BUILDING - 2872 BALTIMORE NATIONAL PIKE  
ELLSWORTH CITY, MARYLAND 21042  
(410) 461-2955



DESIGNED BY:	P.W.K.
DRAWN BY:	M.D.T.
CHECKED BY:	P.W.K.
DATE:	NOVEMBER, 2002
BY NO.	REVISION
1	REVISE WATER SERVICE CONNECTION; 4" TO 6"
2	REVISE SEWER MAIN PROFILE PER REVISED ALIGNMENT

WATER AND SEWER MAINS  
PROFILES & TRAFFIC PLAN

600' SCALE MAP NO. 24 BLOCK NO. 3  
F.C.C. WORK ORDER NO. 40399  
FILE NAME: 40359 FINAL WATER & SEWER MAIN PROFILES SHT 2

ARCADIA SQUARE  
PARCEL 77  
CONTRACT NO. 24-4012-D  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE  
AS  
SHOWN

SHEET  
2 of 2

CONTRACT NO. 24-4012-D  
ARCADIA SQUARE  
PARCEL 77  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

Ruth Benin  
CHIEF, BUREAU OF UTILITIES

11-21-02  
DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

12/18/02  
DATE

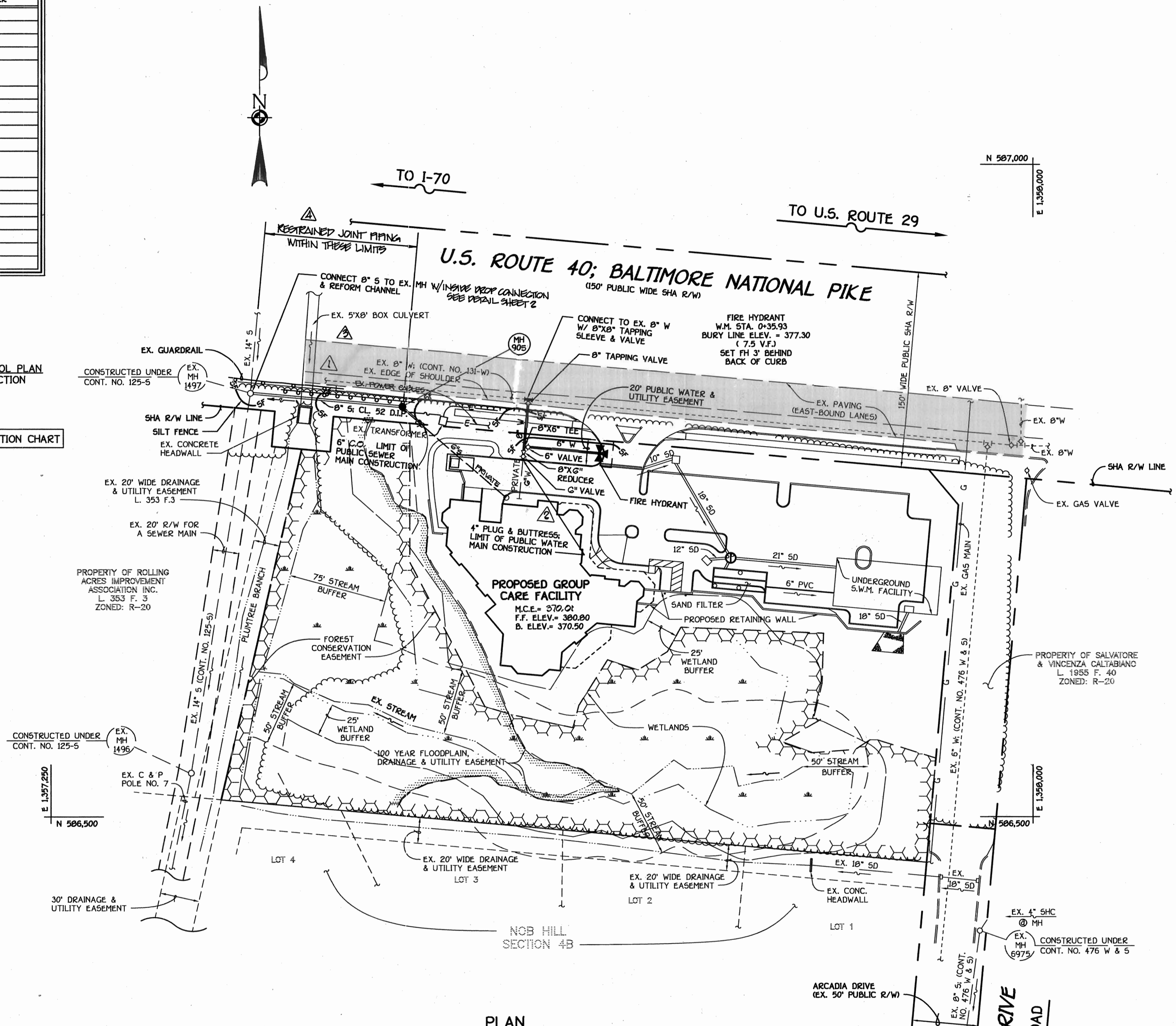
K:\Drawings\440359 Arcadia Square\Water and Sewer\Profiles\SH 2.dwg, 11/07/02 10:11:30 AM

QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" WATER	38.93 L.F.			
6" WATER	57.91 L.F.			
4" WATER	7 L.F.			
FIRE HYDRANTS	1 EACH			
8" X 8" TAPPING SLEEVE & VALVE	1 EACH			
8" X 6" TEE	1 EACH			
8" X 4" REDUCER	1 EACH			
8" VALVES	1 EACH			
6" VALVES	2 EACH			
6" PLUG & BUTTRESS	1 EACH			
8" SEWER, D.I.P.	115 L.F.			
6" SEWER	21 L.F.			
SEWER MANHOLES	1 EACH			
6" C.C.	1 EACH			

NAME OF UTILITY CONTRACTOR:  
SURVEY & DRAFTING DIVISION AS-BUILT DATE:

NOTE: SEE SHEET 2 OF 2 FOR TRAFFIC CONTROL PLAN FOR WATER AND SEWER MAIN CONSTRUCTION WITHIN THE R/W OF U.S. ROUTE 40

SEE SHEET 2 OF 2 FOR WATER MAIN TABULATION CHART



PLAN  
SCALE 1" = 50'

**DEVELOPER'S CERTIFICATION**

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

*Paul W. Reibel* FOR:  
**LEWAL PARTNERSHIP**  
SIGNATURE OF DEVELOPER  
11/07/02  
DATE

**ENGINEER'S CERTIFICATION**

I HEREBY 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.

*Paul W. Reibel*  
SIGNATURE OF ENGINEER  
11-07-02  
DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*Jim Meyer* 12/3/02  
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE  
DATE

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

APPROVED:  
*John Robertson* 12/3/02  
HOWARD SOIL CONSERVATION DISTRICT  
DATE

EROSION CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND AS SHOWN ON SDP02-113 AND ON THESE PLANS.

*Paul W. Reibel* FOR:  
**LEWAL PARTNERSHIP**  
SIGNATURE OF DEVELOPER  
11/07/02  
DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
INTERNATIONAL SQUARE OFFICE PARK - 10772 BALTIMORE NATIONAL, P.O.  
ELLSWORTH CITY, MARYLAND 21042  
(410) 661-2055



DESIGNED BY:	P.W.K.	DATE
DRAWN BY: <td>PCC</td> <td>4/14/04</td>	PCC	4/14/04
CHECKED BY: <td>P.W.K.</td> <td>4/22/03</td>	P.W.K.	4/22/03
DATE: <td></td> <td>NOVEMBER, 2002</td>		NOVEMBER, 2002

WATER AND SEWER MAINS PLAN VIEW	
600' SCALE MAP NO.	24 BLOCK NO. 3
F.C.C. WORK ORDER NO.	40359
FILE NAME:	40359 FINAL WATER & SEWER MAIN PLAN SHT. 1

**ARCADIA SQUARE**  
PARCEL 77  
CONTRACT NO. 24-4012-D  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 OF 2

**GENERAL NOTES**

- PART I
- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND HANTAL UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
  - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES, NAD 83/91.
  - ALL VERTICAL CONTROLS ARE BASED ON NAVD 83.
  - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
  - CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 9'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF THE ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
  - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
  - WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL @ AT THE LOCATIONS OF THE TEST PITS. 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 DIG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
  - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
    - AT&T . . . . . 1-800-252-1133
    - BGE (CONTRACTOR SERVICES) . . . . . 410-850-4620
    - BGE (UNDERGROUND DAMAGE CONTROL) . . . . . 410-787-9068
    - BUREAU OF UTILITIES . . . . . 410-313-9900
    - COLONIAL PIPELINE CO. . . . . 410-795-1390
    - MISS UTILITY . . . . . 1-800-257-7777
    - STATE HIGHWAY ADMINISTRATION . . . . . 410-531-5533
    - VERIZON . . . . . 1-800-743-0033/410-224-9210
  - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
  - CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE CONSTRUCTION OF THE MAIN.
  - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT 410-313-7150 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 1B.14(a) OF THE HOWARD COUNTY CODE.
- PART II: WATER
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
  - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 2'-6" OF COVER UNLESS OTHERWISE NOTED.
  - VALVES ADJACENT TO TREES SHALL BE STRAPPED TO TREES.
  - ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
  - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
  - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- PART III: SEWER
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
  - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
  - FORCE MAINS SHALL BE D.I.P. ONLY.
  - MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR BRICK MANHOLES ONLY.
  - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL G5.52. WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
  - HOUSES WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.

TYPE OF BUILDING : COMMERCIAL GROUP CARE FACILITY

NUMBER OF PARCELS : 1

NO. OF WATER HOUSE CONNECTIONS : 1

NO. OF SEWER HOUSE CONNECTIONS : 1

DRAINAGE AREA : LITTLE PATUXENT

TREATMENT PLANT : LITTLE PATUXENT WATER RECLAMATION CENTER

PLAN REFERENCE NUMBERS:  
SDP02-113

**VICINITY MAP**

SCALE : 1" = 600'

**BENCHMARK INFORMATION**

B.M.#1 - HOWARD COUNTY CONTROL STATION 2483  
N 48661.215  
E 1359226.415  
ELEVATION = 385.199

B.M.#2 - HOWARD COUNTY CONTROL STATION 2485  
N 586956.233  
E 1358570.840  
ELEVATION = 390.945

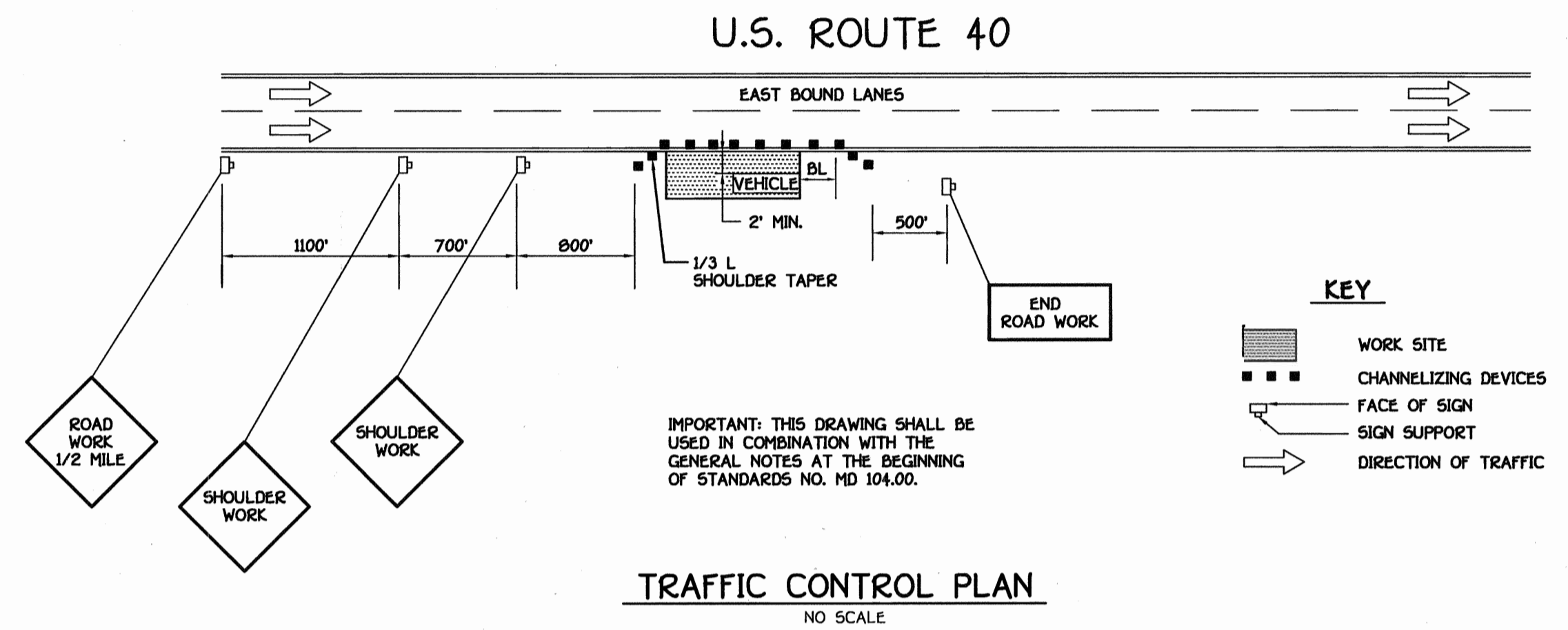
K:\Drawings\440359 Arcadia Square\Water and Sewer Plan Sht. revised.dwg, 11/07/02 10:17:39 AM

WATER MAIN TABULATION CHART			
W.M. STATION	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN			
0+00.00	8"X8" TAPPING SLEEVE	506819.35	1357614.59
0+03.00	8" TAPPING VALVE	506816.36	1357614.32
0+35.93	8"X6" FIRE HYDRANT TEE	506783.57	1357611.33
0+38.93	8"X6" REDUCER	506780.59	1357611.05
0+41.93	6" VALVE	506777.60	1357610.78
0+45.93	6" PLUG & BUTTRESS	506773.61	1357610.42

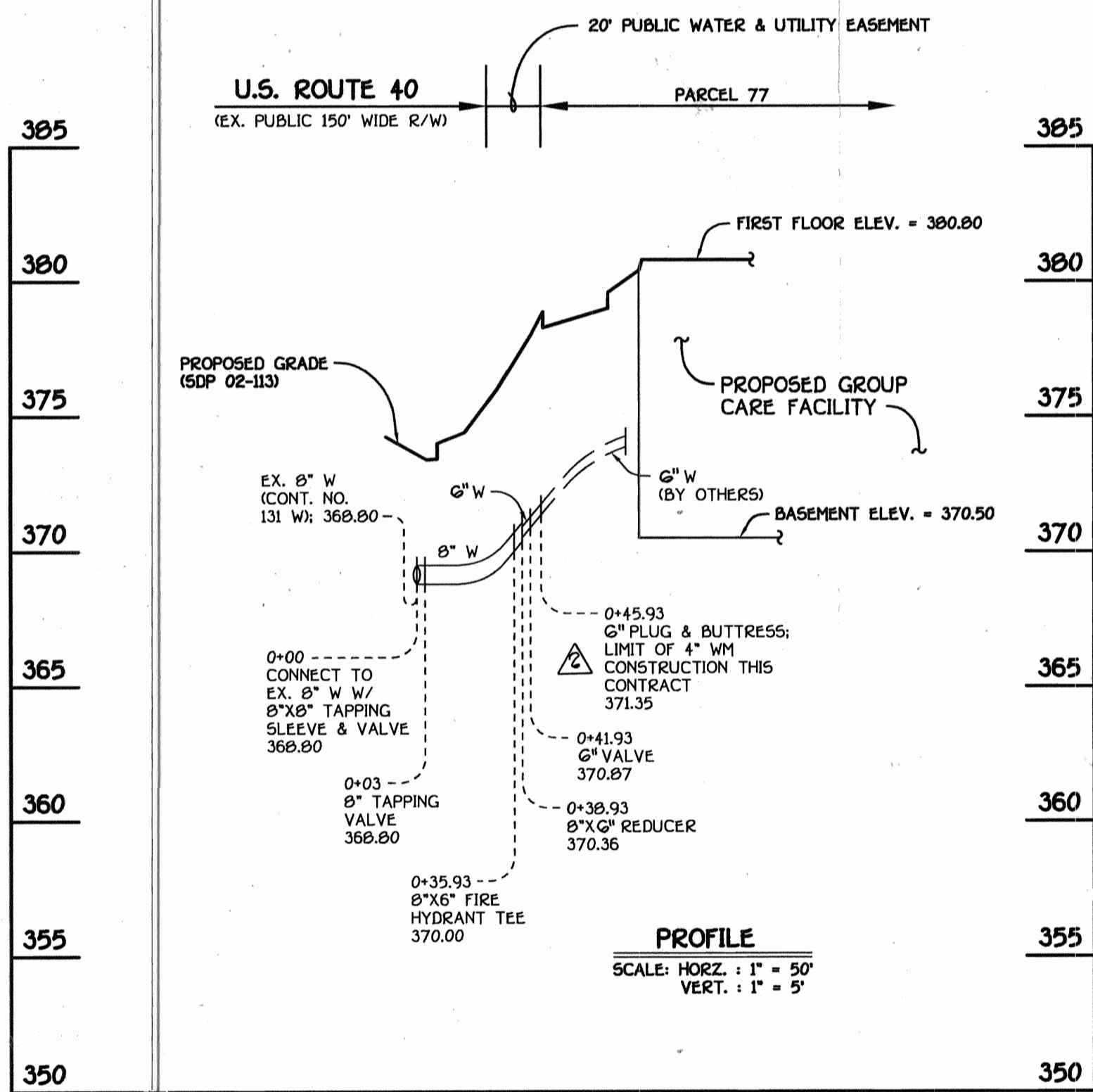
MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION *
905	506814.27	1,357,510.80	372.00

\* SET MH RIMS FLUSH W/ PROPOSED FINISHED GRADE

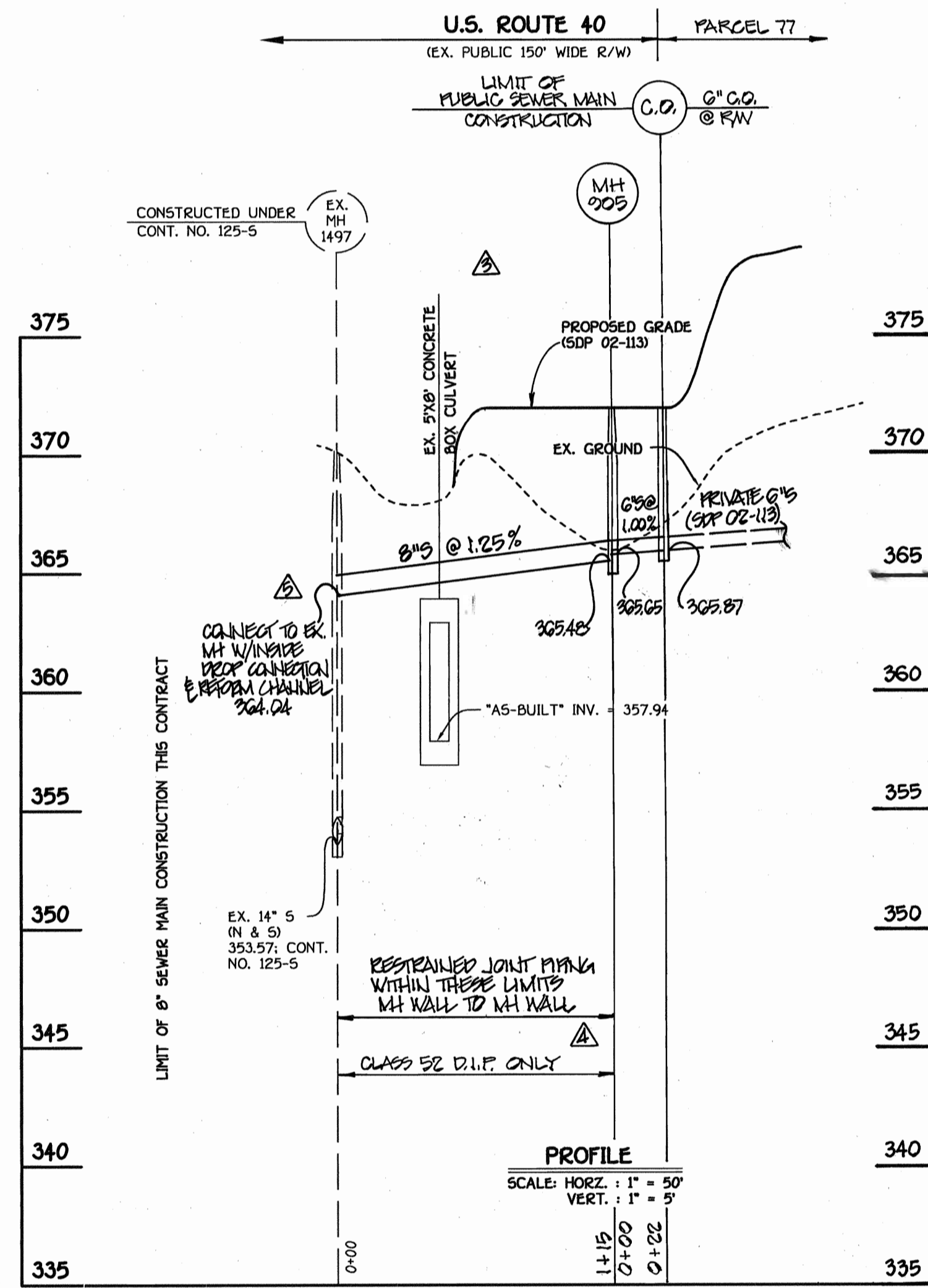
NOTE: SET RIM OF MANHOLE NO. 900 FLUSH W/ PROPOSED GROUND; SEE MANHOLE TABULATION CHART THIS SHEET.



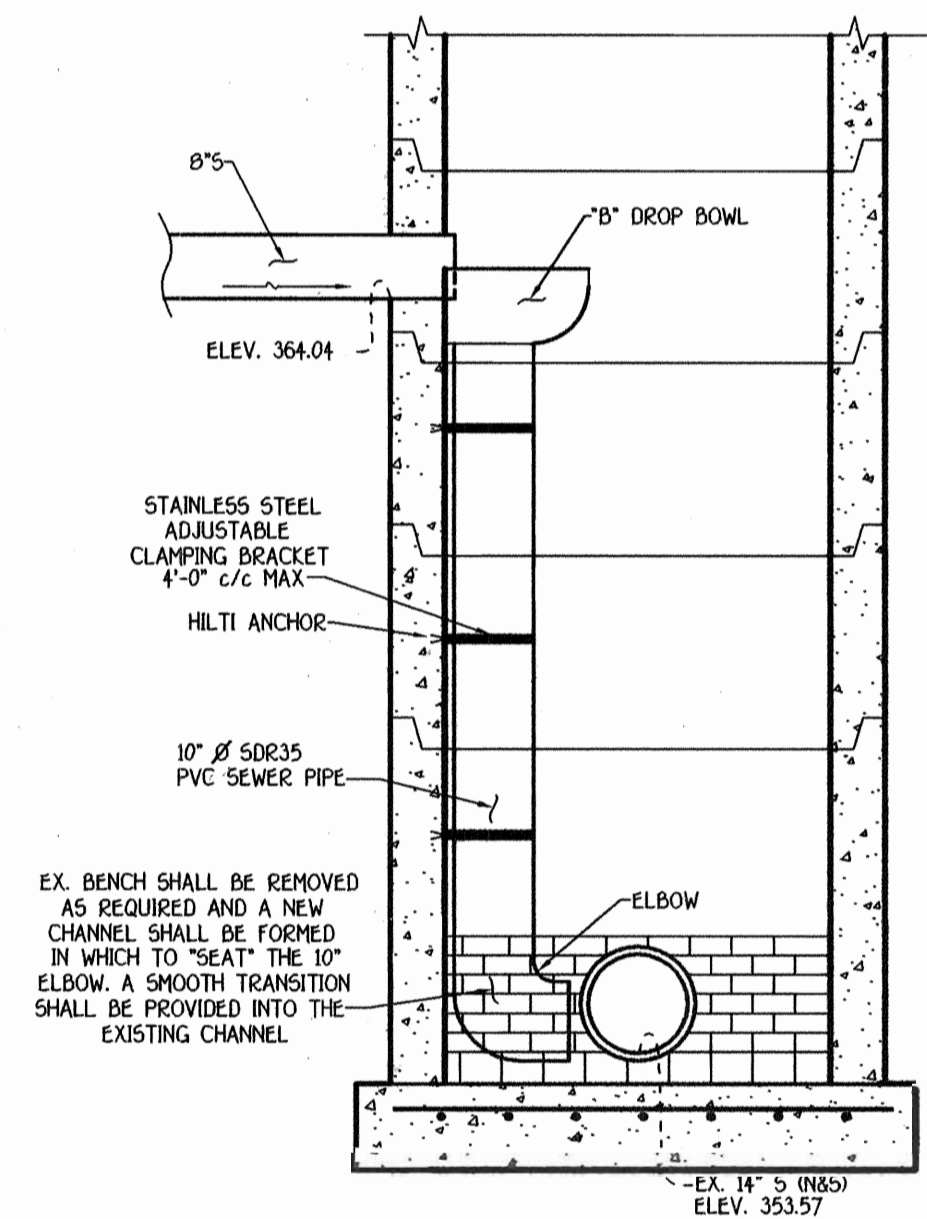
SEE THIS SHEET FOR WATER MAIN TABULATION CHART



8" WATER MAIN



8" SEWER MAIN



NOTE: THE INSIDE DROP CONNECTION SYSTEM SHALL BE AS MANUFACTURED BY RELINER-DURAN INC.

INSIDE DROP CONNECTION AT EX. MH #1497  
NO SCALE

MAINTENANCE OF TRAFFIC: SPECIAL PROVISIONS

GENERAL

- THE PURPOSE OF THESE SPECIAL PROVISIONS IS TO ESTABLISH THE TRAFFIC CONTROL REQUIREMENTS NECESSARY FOR THE SAFE AND EFFICIENT MAINTENANCE OF TRAFFIC WITHIN WORK AREAS, AND TO MINIMIZE ANY INCONVENIENCES TO THE TRAVELING PUBLIC AND THE CONTRACTOR.
- PROPER TRAFFIC CONTROL THROUGH WORK AREAS IS ESSENTIAL FOR INSURING THE SAFETY OF THE TRAVELLING PUBLIC AND THAT OF HIGHWAY WORKERS AND HAS THE HIGHEST PRIORITY OF ALL TASKS WITHIN THIS PROJECT. THE PROPER APPLICATION OF THE APPROVED TRAFFIC CONTROL PLAN (TCP) WILL PROVIDE THE DESIRED LEVEL OF SAFETY.
- THROUGHOUT THESE SPECIAL PROVISIONS, ANY MENTION OF THE TCP SHALL BE IMPLIED TO INCLUDE ANY COMBINATION OF TYPICAL TRAFFIC CONTROL STANDARDS WHICH FORM THE OVERALL TCP FOR THIS PROJECT AND WHICH HAS BEEN APPROVED BY THE APPROPRIATE SHA TRAFFIC ENGINEER.
- THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE MANUAL OF THE UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 1980 EDITION, ESPECIALLY PART VI AND TO SECTION 814 OF THE MARYLAND DOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (JANUARY, 1982), INCLUDING ALL REVISIONS AND SUPPLEMENTS TO EACH.
- THE CONTRACTOR SHALL BE REQUIRED TO ADHERE TO THE REQUIREMENTS ESTABLISHED IN THE TCP AND THESE SPECIAL PROVISIONS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY REQUESTS TO MAKE MINOR CHANGES TO THE TCP OR THE SPECIAL PROVISIONS WITH REGARD TO THE TRAFFIC CONTROL ITEMS SHALL BE MADE IN WRITING TO THE ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE PROPOSED SCHEDULE CHANGE. THE CONTRACTOR SHALL HAVE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO THE IMPLEMENTATION OF ANY CHANGE.
- NO WORK SHALL BEGIN ON ANY WORK ACTIVITY OR WORK PHASE UNTIL ALL REQUIRED TRAFFIC CONTROL PATTERNS AND DEVICES INDICATED ON THE TCP FOR THAT ACTIVITY OR PHASE ARE COMPLETELY AND CORRECTLY IN PLACE AND HAVE BEEN CHECKED FOR APPROVED USAGE.
- GENERAL AND SPECIFIC WARNING SIGNS SHALL ONLY BE IN PLACE WHEN SPECIFIC WORK TASKS AND ACTIVITIES ARE ACTUALLY UNDERWAY OR CONDITIONS EXIST THAT POSE A POTENTIAL HAZARD TO THE PUBLIC. NOTE: THE PRACTICE OF PLACING SIGNING AND OTHER TRAFFIC CONTROL DEVICES IN ADDITION TO THOSE INDICATED ON THE APPROVED TCP IS NOT PERMITTED.
- THE CONTRACTOR SHALL PROVIDE, MAINTAIN IN NEW CONDITION, AND MOVE WHEN NECESSARY, OR AS DIRECTED BY THE ENGINEER, ALL TRAFFIC CONTROL DEVICES USED FOR THE GUIDANCE AND PROTECTION OF MOTORISTS, PEDESTRIANS, AND WORKERS.
- ALL TRAFFIC CONTROL DEVICES REQUIRED BY THE TCP SHALL BE KEPT IN GOOD CONDITION, FULLY PERFORMING AS SET FORTH IN THE TCP, THE MUTCD, AND/OR SECTION 814 OF THE SPECIFICATIONS. FOR REFLECTIVE DEVICES, A PARTICULAR DEVICE IS ASSURED TO HAVE FAILED TO MEET MINIMUM OPERATIONAL STANDARDS WHEN THE DEVICE NO LONGER HAS RETRO-REFLECTANCE CAPABILITY OF AT LEAST 60% OF THE SPECIFIED MINIMUM VALUE OVER AT LEAST 90% OF THE VISIBLE REFLECTIVE SURFACE.
- ALL TRAFFIC CONTROL DEVICES NOT REQUIRED FOR THE SAFE CONDUCT OF TRAFFIC SHALL BE PROMPTLY REMOVED, COMPLETELY COVERED, TURNED AWAY FROM TRAFFIC, OR OTHERWISE TAKEN OUT OF SERVICE. IT IS INTENDED THAT NO TRAFFIC CONTROL DEVICE IS TO BE IN SERVICE WHEN THERE IS NO CLEAR CUT REASON FOR THE DEVICE.
- THROUGHOUT THE PERIOD(S) OF WORK ACTIVITIES, TRAFFIC SHALL BE MAINTAINED BY IMPLEMENTING THE APPROVED TCP.
- THROUGHOUT THESE SPECIAL PROVISIONS, WHERE SPEED OF TRAFFIC IS NOTED, THIS MEANS THE POSTED SPEED OR PREVAILING TRAVEL SPEED, WHICHEVER IS HIGHER, UNLESS OTHERWISE NOTED.
- TRAFFIC SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT, UNLESS OTHERWISE NOTE. NO TRAVEL LANE(S) OTHER THAN THOSE DESIGNATED FOR POSSIBLE CLOSURE IN THE TCP SHALL BE CLOSED WITHOUT OBTAINING PRIOR APPROVAL FROM THE ENGINEER. ALL INGRESS AND EGRESS TO THE WORK AREA BY THE CONTRACTOR SHALL BE PERFORMED WITH THE FLOW OF TRAFFIC.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
20 NATIONAL SQUARE OFFICE PARK - 10275 BALTIMORE NATIONAL FEE  
ELLSWORTH CITY, MARYLAND 21041  
(410) 481-2855



DESIGNED BY:	RL	ADD INSIDE DROP CONNECTION DETAIL	4/14/02
DRAWN BY:	RL	REVISE SEWER MAIN PROFILE (OVER EX. CULVERT)	4/14/02
CHECKED BY:	RL	REVISE USE OF RESTRAINED JOINT MANHOLE	4/14/02
DATE:	P.W.K.	DELETE INSTALLATION OF MH 900	4/20/02
NOVEMBER, 2002	RL	REVISE WATER SERVICE CONNECTION; 4" TO 6"	4/20/02
	RL	REVISE SEWER MAIN PROFILE PER REVISED ALIGNMENT	4/20/02

WATER AND SEWER MAINS  
PROFILES & TRAFFIC PLAN

600' SCALE MAP NO. 24 BLOCK NO. 3  
F.C.L. WORK ORDER NO. 15522  
DATE FILE NAME: 40359 FINAL WATER & SEWER MAIN PROFILES SHIT 2

ARCADIA SQUARE  
PARCEL 77  
CONTRACT NO. 24-4012-D  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

CONTRACT NO. 24-4012-D  
ARCADIA SQUARE  
PARCEL 77  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

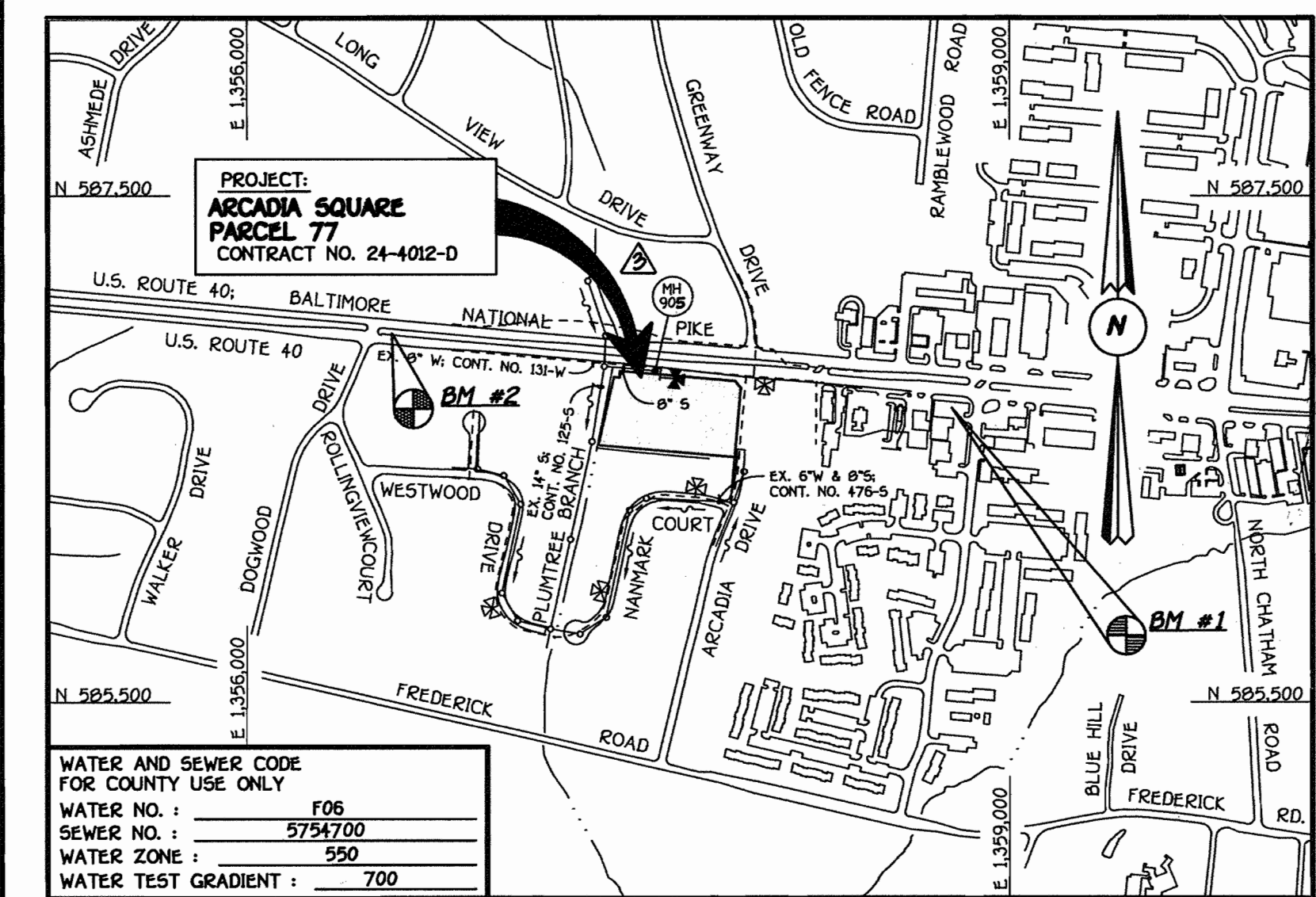
SCALE  
AS  
SHOWN

SHEET  
2 OF 2

K:\Drawings\40359 Arcadia Square Water and Sewer Profiles SHIT 2.dwg, 11/20/02 9:51:33 AM

QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" WATER	36.93 L.F.	40.0	D.I.P.	
6" WATER	57.91 L.F.	62.0	D.I.P.	
4" WATER	7 L.F.	7.0	D.I.P.	
FIRE HYDRANTS	1 EACH	1EA	S.S.	
8" X 8" TAPPING SLEEVE & VALVE	1 EACH	1EA	S.S.	
8" X 6" TEE	1 EACH	1EA	D.I.P.	
8" X 4" REDUCER	1 EACH	1EA	D.I.P.	
8" VALVES	1 EACH	2EA	R.S.	
6" VALVES	2 EACH	1EA	R.S.	
6" PLUG & BUTTRESS	1 EACH	1EA		
8" SEWER D.I.P.	119 L.F.	107.0	D.I.P.	DIAMOND
6" SEWER	21 L.F.	20.0		CHARLOTTE PIPE
SEWER MANHOLES	1 EACH	2EA	PRECAST	ATLANTIC CONC.
6" C.O.	1 EACH	1EA	P.V.C.	CHARLOTTE PIPE

NAME OF UTILITY CONTRACTOR: ANICELAZZI BROTHERS  
SURVEY & DRAFTING DIVISION AS-BUILT DATE:



WATER AND SEWER CODE FOR COUNTY USE ONLY	
WATER NO.:	F06
SEWER NO.:	5754700
WATER ZONE:	550
WATER TEST GRADIENT:	700

TYPE OF BUILDING: COMMERCIAL GROUP CARE FACILITY  
NUMBER OF PARCELS: 1  
NO. OF WATER HOUSE CONNECTIONS: 1  
NO. OF SEWER HOUSE CONNECTIONS: 1  
DRAINAGE AREA: LITTLE PATUXENT  
TREATMENT PLANT: LITTLE PATUXENT WATER RECLAMATION CENTER

PLAN REFERENCE NUMBERS: SDP02-113

VICINITY MAP  
SCALE: 1" = 600'

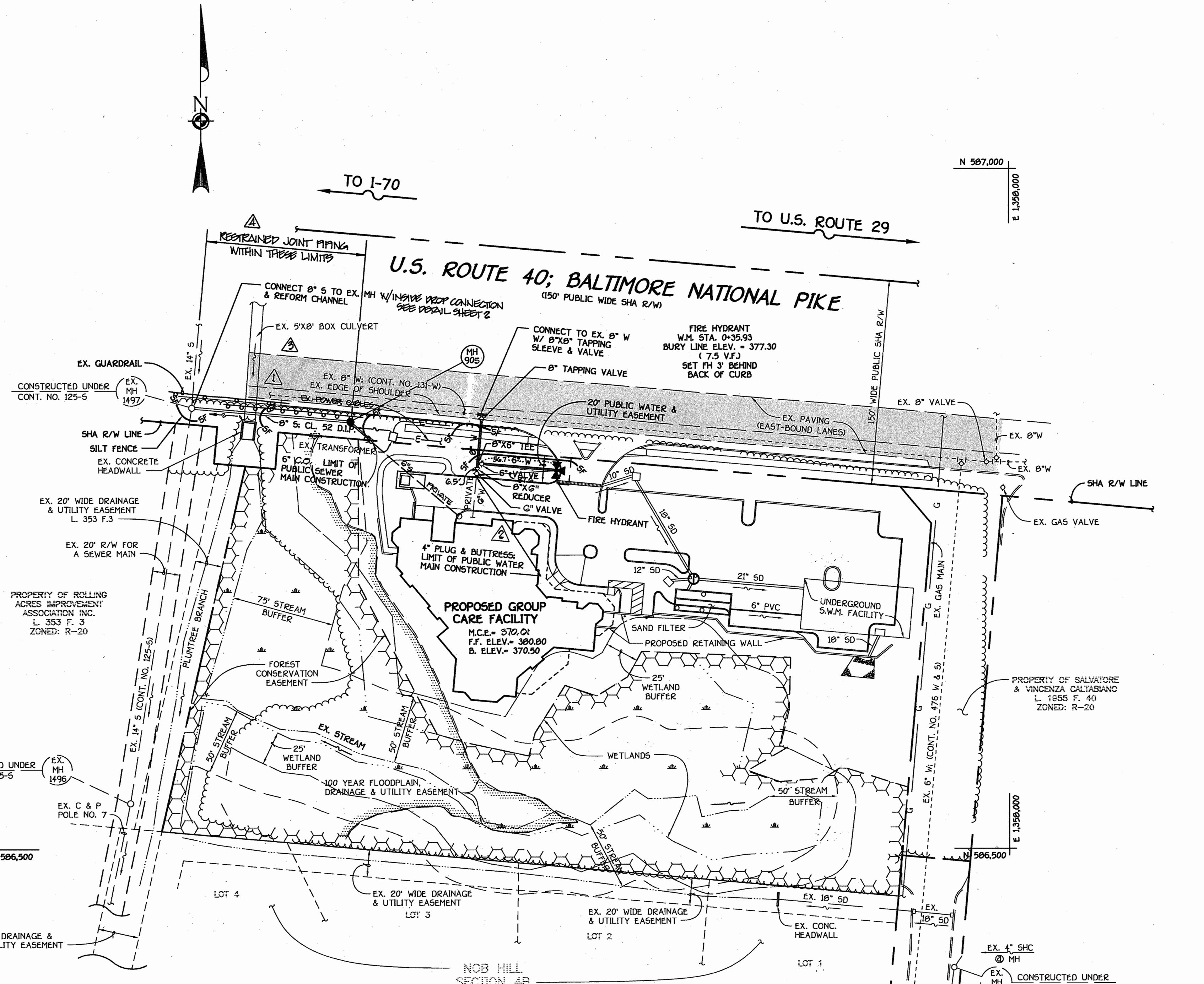
BENCHMARK INFORMATION

BM-1 - HOWARD COUNTY CONTROL STATION 24B3  
N 586661.215  
E 1359226.415  
ELEVATION = 385.199

BM-2 - HOWARD COUNTY CONTROL STATION 24B5  
N 586956.233  
E 1358570.840  
ELEVATION = 390.945

GENERAL NOTES

- PART I
- APPROXIMATE LOCATIONS OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
  - ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES, NAD 83/91.
  - ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.
  - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
  - CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF THE ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED TO THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
  - FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
  - WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL  $\odot$  AT THE LOCATIONS OF THE TEST PITS. 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.
  - THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
    - AT&T . . . . . 1-800-252-1133
    - BGE (CONTRACTOR SERVICES) . . . . . 410-950-4620
    - BGE (UNDERGROUND DAMAGE CONTROL) . . . . . 410-787-9068
    - BUREAU OF UTILITIES . . . . . 410-313-1900
    - COLONIAL PIPELINE CO. . . . . 410-795-1390
    - MISS UTILITY . . . . . 1-800-257-7777
    - STATE HIGHWAY ADMINISTRATION . . . . . 410-531-5533
    - VERIZON . . . . . 1-800-743-0033/410-224-9210
  - TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
  - CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE CONSTRUCTION OF THE MAIN.
  - THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT 410-313-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 10.114(d) OF THE HOWARD COUNTY CODE.
- PART II: WATER
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
  - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF COVER UNLESS OTHERWISE NOTED.
  - VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
  - ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
  - FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
  - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- PART III: SEWER
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
  - ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
  - FORCE MAINS SHALL BE D.I.P. ONLY.
  - MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR BRICK MANHOLES ONLY.
  - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVER. STANDARD DETAIL G5.52 WHERE WATER-TIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
  - HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.



PLAN  
SCALE: 1" = 50'

NOTE: SEE SHEET 2 OF 2 FOR TRAFFIC CONTROL PLAN FOR WATER AND SEWER MAIN CONSTRUCTION WITHIN THE R/W OF U.S. ROUTE 40

SEE SHEET 2 OF 2 FOR WATER MAIN TABULATION CHART

**DEVELOPER'S CERTIFICATION**

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF THE ENVIRONMENT 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 OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

Paul W. Reibel FOR LEWAL PARTNERSHIP  
SIGNATURE OF DEVELOPER  
11/07/02  
DATE

**ENGINEER'S CERTIFICATION**

I HEREBY 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.

Paul W. Reibel  
SIGNATURE OF ENGINEER  
11-07-02  
DATE

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyer 12/3/02  
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE  
DATE

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

APPROVED: John Robertson 12/3/02  
HOWARD SOIL CONSERVATION DISTRICT  
DATE

EROSION CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AND AS SHOWN ON SDP02-113 AND ON THESE PLANS.

Paul W. Reibel FOR LEWAL PARTNERSHIP  
SIGNATURE OF DEVELOPER  
11/07/02  
DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Ruth B. 11-21-02  
CHIEF, BUREAU OF UTILITIES  
DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

12/13/02  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE



DESIGNED BY: P.W.K.  
DRAWN BY: M.D.T.  
CHECKED BY: P.W.K.  
DATE: NOVEMBER, 2002

NO.	REVISION	DATE
1	AS-BUILT DATA SHOWN ON PLAN	06/29/04
2	REVISE USE OF RESTRAINED JOINT PIPING	4/14/04
3	REVISE INSTALLATION OF MH 900	4/14/04
4	REVISE WATER SERVICE CONNECTION; 4" TO 6"	4/20/03
5	REVISE SEWER MAIN ALIGNMENT; REVISE QUANTITIES	4/20/03

WATER AND SEWER MAINS PLAN VIEW

600' SCALE MAP NO. 24 BLOCK NO. 3  
F.C.C. WORK ORDER NO. 40359  
FILE NAME: 40359 FINAL WATER & SEWER MAIN PLAN SHT 1

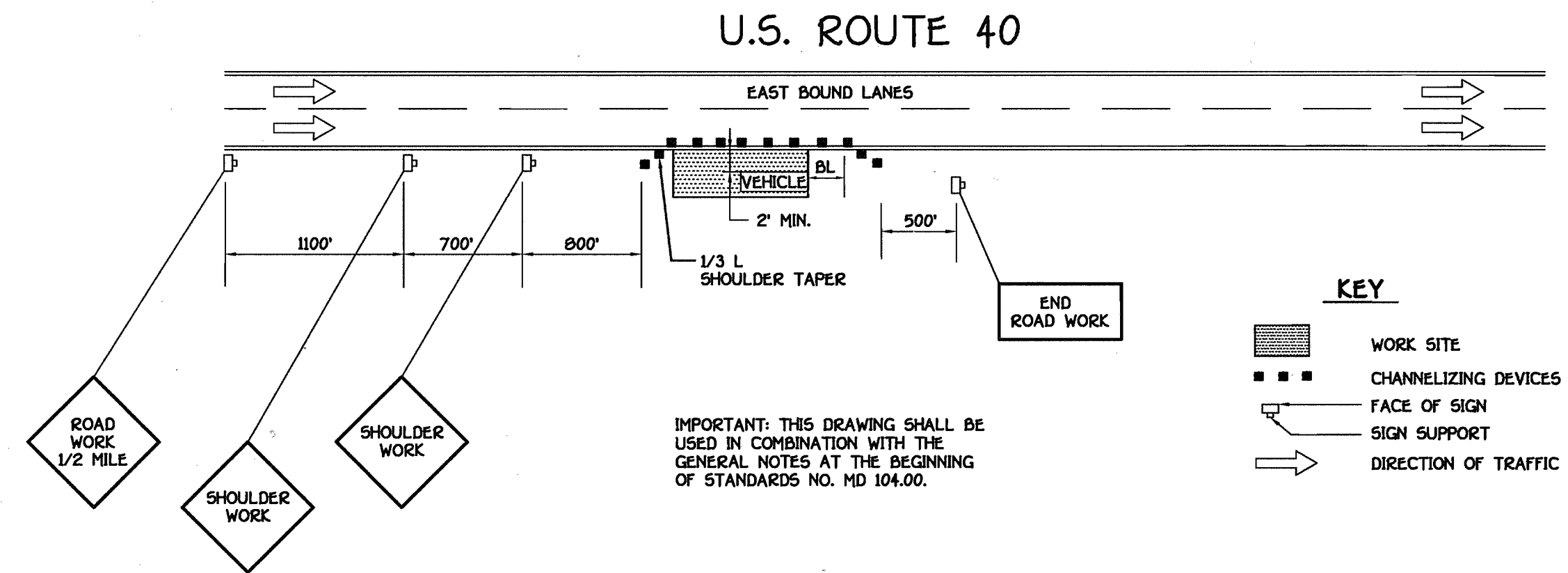
ARCADIA SQUARE  
PARCEL 77  
CONTRACT NO. 24-4012-D  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 OF 2

WATER MAIN TABULATION CHART			
W.M. STATION	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN			
0+00.00	8" X 8" TAPPING SLEEVE	506019.35	1357614.59
0+03.00	8" TAPPING VALVE	506016.36	1357614.32
0+35.93	8" X 6" FIRE HYDRANT TEE	506703.57	1357611.33
0+38.93	8" X 6" REDUCER	506700.59	1357611.05
0+41.93	6" VALVE	506777.60	1357610.70
0+45.93	6" PLUG & BUTTRESS	506773.61	1357610.42

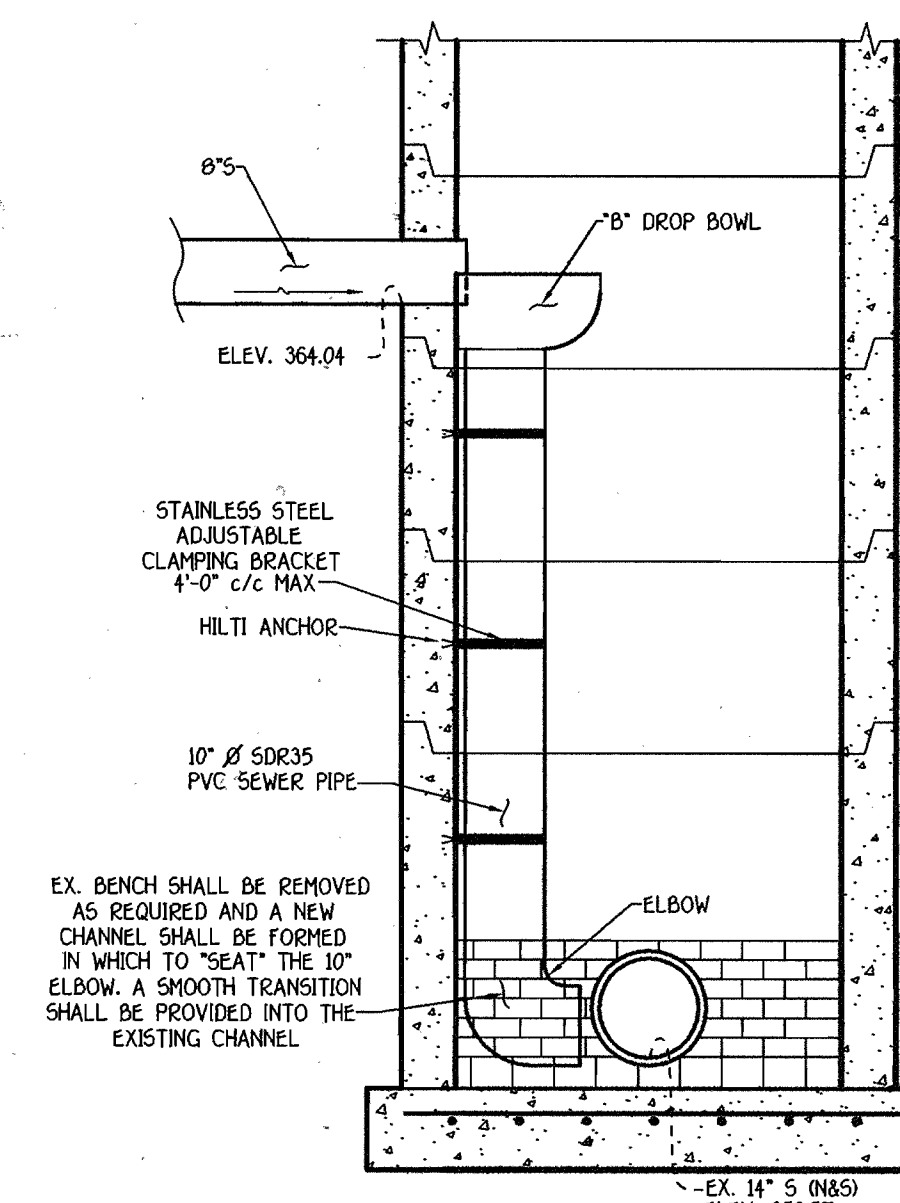
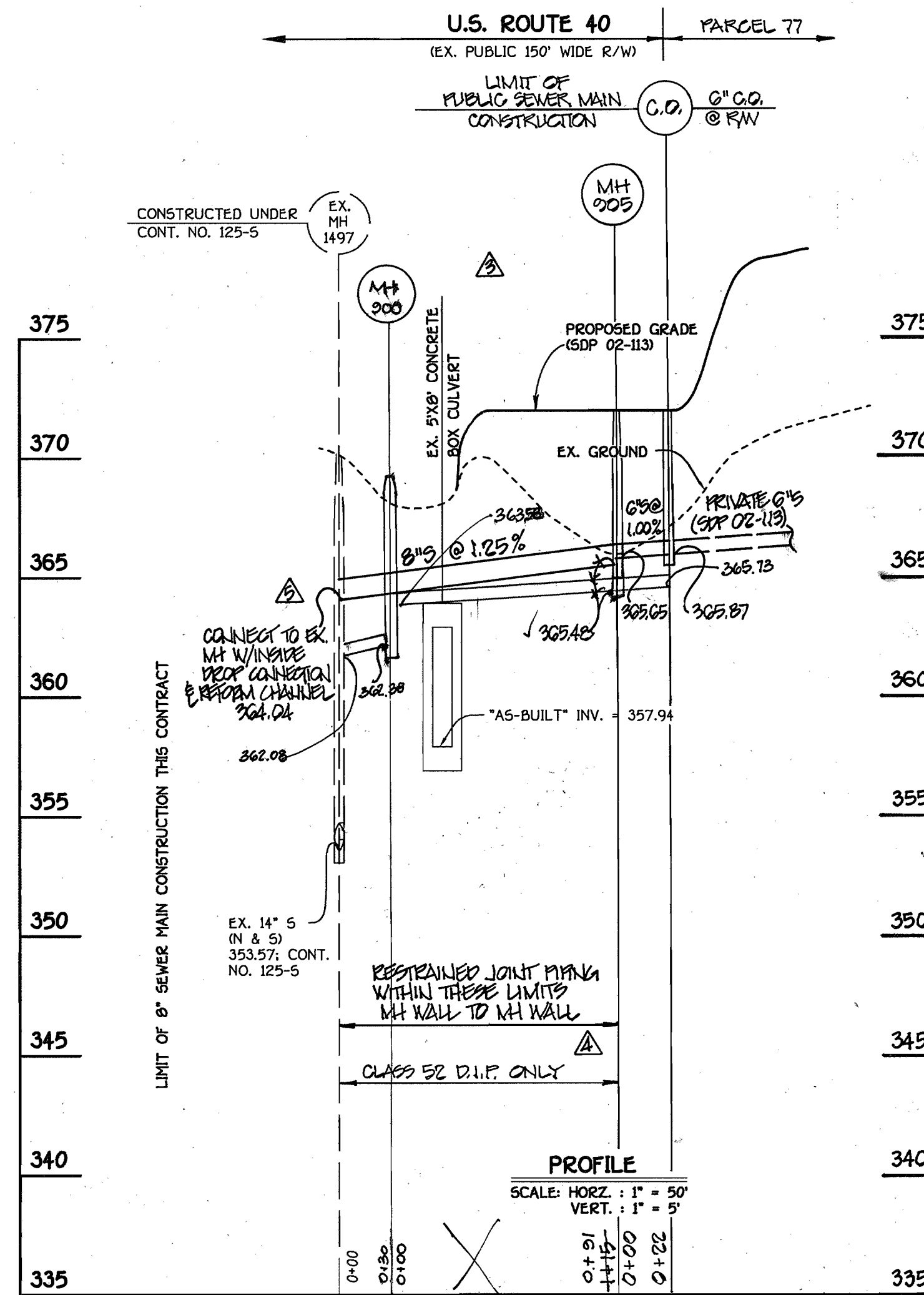
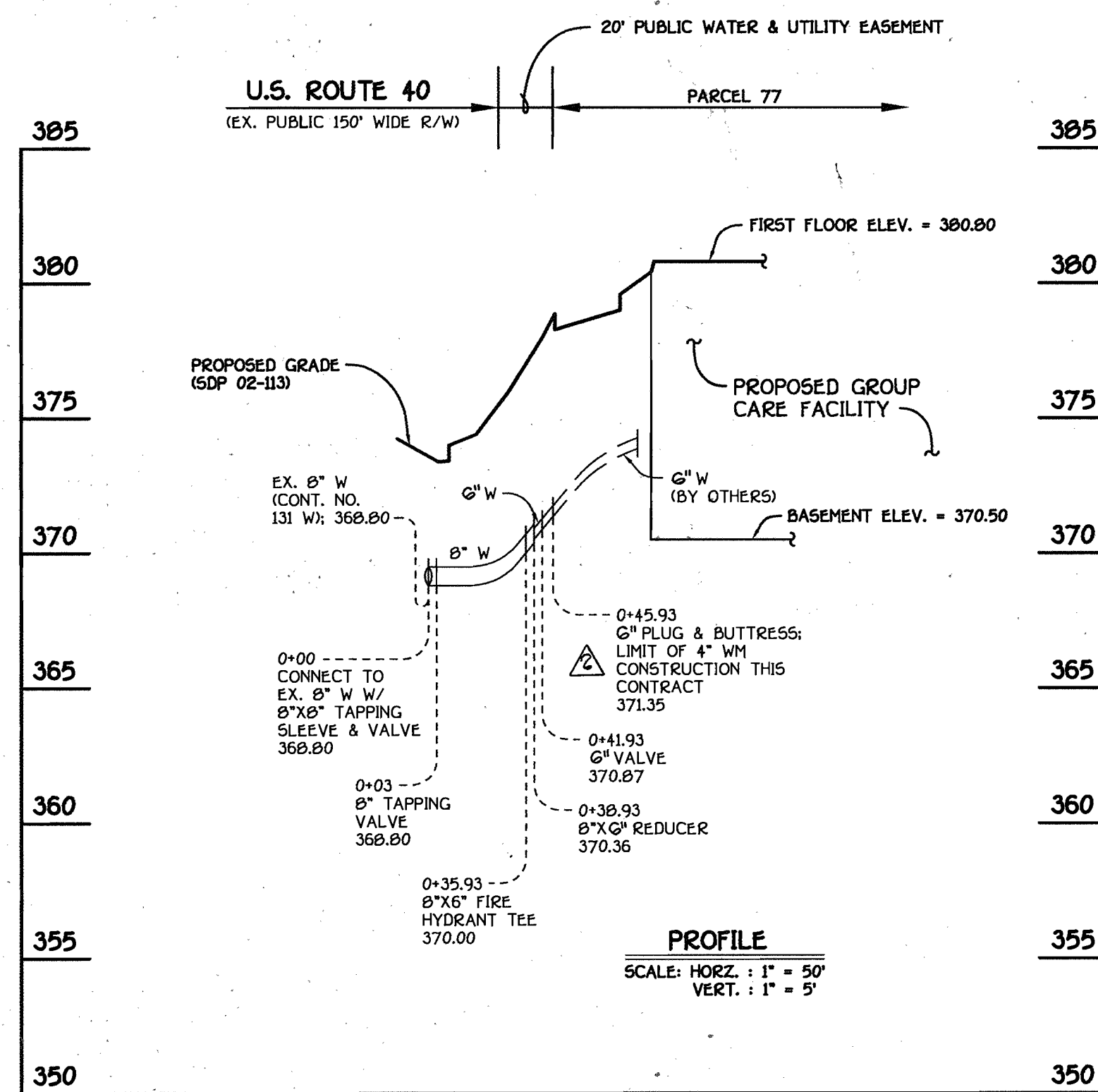
MANHOLE TABULATION CHART			
NO.	NORTHING	EASTING	RIM ELEVATION *
905	506,014.27	1,357,510.86	372.00

\* SET RIM FLUSH W/ PROPOSED FINISHED GRADE



NOTE: SET RIM OF MANHOLE NO. 900 FLUSH W/ PROPOSED GROUND; SEE MANHOLE TABULATION CHART THIS SHEET.

SEE THIS SHEET FOR WATER MAIN TABULATION CHART



**MAINTENANCE OF TRAFFIC: SPECIAL PROVISIONS**

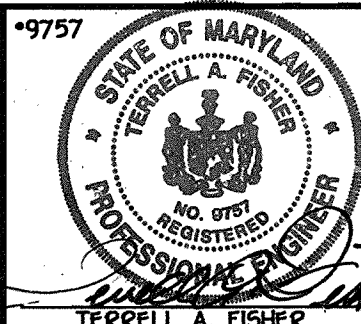
**GENERAL**

- THE PURPOSE OF THESE SPECIAL PROVISIONS IS TO ESTABLISH THE TRAFFIC CONTROL REQUIREMENTS NECESSARY FOR THE SAFE AND EFFICIENT MAINTENANCE OF TRAFFIC WITHIN WORK AREAS, AND TO MINIMIZE ANY INCONVENIENCES TO THE TRAVELLING PUBLIC AND THE CONTRACTOR.
- PROPER TRAFFIC CONTROL THROUGH WORK AREAS IS ESSENTIAL FOR INSURING THE SAFETY OF THE TRAVELLING PUBLIC AND THAT OF HIGHWAY WORKERS AND HAS THE HIGHEST PRIORITY OF ALL TASKS WITHIN THIS PROJECT. THE PROPER APPLICATION OF THE APPROVED TRAFFIC CONTROL PLAN (TCP) WILL PROVIDE THE DESIRED LEVEL OF SAFETY.
- THROUGHOUT THESE SPECIAL PROVISIONS, ANY MENTION OF THE TCP SHALL BE IMPLIED TO INCLUDE ANY COMBINATION OF TYPICAL TRAFFIC CONTROL STANDARDS WHICH FORM THE OVERALL TCP FOR THIS PROJECT AND WHICH HAS BEEN APPROVED BY THE APPROPRIATE SHA TRAFFIC ENGINEER.
- THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE MANUAL OF THE UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), 1999 EDITION, ESPECIALLY PART VII, AND TO SECTION 014 OF THE MARYLAND DOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS (JANUARY, 1992), INCLUDING ALL REVISIONS AND SUPPLEMENTS TO EACH.
- THE CONTRACTOR SHALL BE REQUIRED TO ADHERE TO THE REQUIREMENTS ESTABLISHED IN THE TCP AND THESE SPECIAL PROVISIONS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. ANY REQUESTS TO MAKE MINOR CHANGES TO THE TCP OR THE SPECIAL PROVISIONS WITH REGARD TO THE TRAFFIC CONTROL ITEMS SHALL BE MADE IN WRITING TO THE ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE PROPOSED SCHEDULE CHANGE. THE CONTRACTOR SHALL HAVE WRITTEN APPROVAL OF THE ENGINEER PRIOR TO THE IMPLEMENTATION OF ANY CHANGE.
- NO WORK SHALL BEGIN ON ANY WORK ACTIVITY OR WORK PHASE UNTIL ALL REQUIRED TRAFFIC CONTROL PATTERNS AND DEVICES INDICATED ON THE TCP FOR THAT ACTIVITY OR PHASE ARE COMPLETELY AND CORRECTLY IN PLACE AND HAVE BEEN CHECKED FOR APPROVED USAGE.
- GENERAL AND SPECIFIC WARNING SIGNS SHALL ONLY BE IN PLACE WHEN SPECIFIC WORK TASKS AND ACTIVITIES ARE ACTUALLY UNDERWAY OR CONDITIONS EXIST THAT POSE A POTENTIAL HAZARD TO THE PUBLIC. NOTE: THE PRACTICE OF PLACING SIGNING AND OTHER TRAFFIC CONTROL DEVICES IN ADDITION TO THOSE INDICATED ON THE APPROVED TCP IS NOT PERMITTED.
- THE CONTRACTOR SHALL PROVIDE, MAINTAIN IN NEW CONDITION, AND MOVE WHEN NECESSARY, OR AS DIRECTED BY THE ENGINEER, ALL TRAFFIC CONTROL DEVICES USED FOR THE GUIDANCE AND PROTECTION OF MOTORISTS, PEDESTRIANS, AND WORKERS.
- ALL TRAFFIC CONTROL DEVICES REQUIRED BY THE TCP SHALL BE KEPT IN GOOD CONDITION, FULLY PERFORMING AS SET FORTH IN THE TCP, THE MUTCD, AND/OR SECTION 014 OF THE SPECIFICATIONS. FOR REFLECTIVE DEVICES, A PARTICULAR DEVICE IS ASSUMED TO HAVE FAILED TO MEET MINIMUM OPERATIONAL STANDARDS WHEN THE DEVICE NO LONGER HAS RETRO-REFLECTANCE CAPABILITY OF AT LEAST 60% OF THE SPECIFIED MINIMUM VALUE OVER AT LEAST 90% OF THE VISIBLE REFLECTIVE SURFACE.
- ALL TRAFFIC CONTROL DEVICES NOT REQUIRED FOR THE SAFE CONDUCT OF TRAFFIC SHALL BE PROMPTLY REMOVED, COMPLETELY COVERED, TURNED AWAY FROM TRAFFIC, OR OTHERWISE TAKEN OUT OF SERVICE. IT IS INTENDED THAT NO TRAFFIC CONTROL DEVICE IS TO BE IN SERVICE WHEN THERE IS NO CLEAR CUT REASON FOR THE DEVICE.
- THROUGHOUT THE PERIODS OF WORK ACTIVITIES, TRAFFIC SHALL BE MAINTAINED BY IMPLEMENTING THE APPROVED TCP.
- THROUGHOUT THESE SPECIAL PROVISIONS, WHERE SPEED OF TRAFFIC IS NOTED, THIS MEANS THE POSTED SPEED OR PREVAILING TRAVEL SPEED, WHICHEVER IS HIGHER, UNLESS OTHERWISE NOTED.
- TRAFFIC SHALL BE MAINTAINED AT ALL TIMES THROUGHOUT THE ENTIRE LENGTH OF THE PROJECT, UNLESS OTHERWISE NOTED. NO TRAVEL LANE(S) OTHER THAN THOSE DESIGNATED FOR POSSIBLE CLOSURE IN THE TCP SHALL BE CLOSED WITHOUT OBTAINING PRIOR APPROVAL FROM THE ENGINEER. ALL INGRESS AND EGRESS TO THE WORK AREA BY THE CONTRACTOR SHALL BE PERFORMED WITH THE FLOW OF TRAFFIC.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 1072 BALTIMORE NATIONAL PIKE  
ELKLOTT CITY, MARYLAND 21042  
410 461 - 2855



DESIGNED BY :	P.W.K.	DATE :	NO.
ADD INSIDE DROP CONNECTION DETAIL	FLC	06/05/02	1/1/02
REVISE SEWER MAIN PROFILE (OVER EX. CULVERT)	FLC	06/05/02	1/1/02
REVISE USE OF RESTRAINED JOINT MANHOLE	FLC	06/05/02	1/1/02
REVISE INSTALLATION OF MH 900	FLC	06/05/02	1/1/02
REVISE WATER SERVICE CONNECTION; 4" TO 6"	FLC	06/05/02	1/1/02
REVISE SEWER MAIN PROFILE PER REVISED ALIGNMENT	FLC	06/05/02	1/1/02

WATER AND SEWER MAINS  
PROFILES & TRAFFIC PLAN

600' SCALE MAP NO. 28	BLOCK NO. 3
F.C.C. WORK ORDER NO. 40399	
FILE NAME : 40399 FINAL WATER & SEWER MAIN PROFILES SHT. 2	

**ARCADIA SQUARE**  
PARCEL 77  
CONTRACT NO. 24-4012-D  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 2 OF 2

CONTRACT NO. 24-4012-D  
ARCADIA SQUARE  
PARCEL 77  
WATER AND SEWER MAIN EXTENSIONS  
HOWARD COUNTY, MARYLAND

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