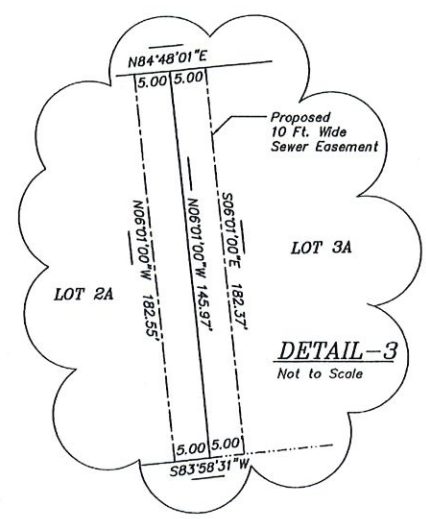
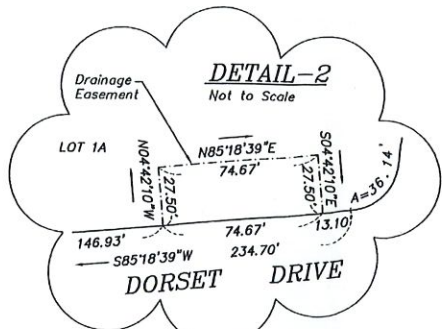
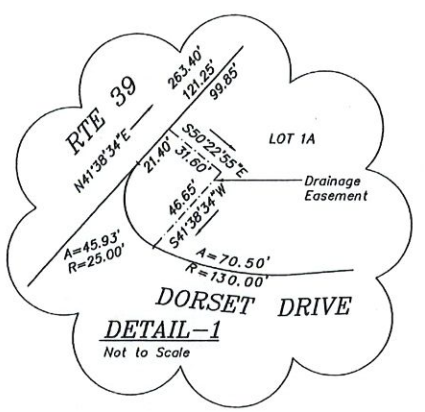


I certify that this plan was prepared in accordance with the rules and regulations of the Register of Deeds as adopted January 1, 1976 and amended January 7, 1988.

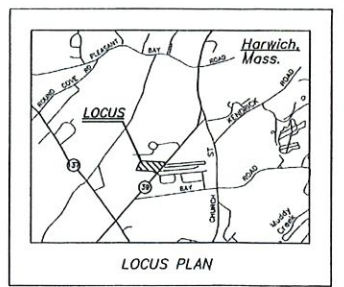
Date 3/15/2023

P.L.S.



ZONING COMPLIANCE TABLE			
SUBJECT	Zone R-R	Zone WRPD	PROPOSED
Lot Area	40,000 S.F.	40,000 S.F.	40,000 S.F. min
Frontage	150 Ft.	N/A	65.92 Ft. min*
Front Setback	25 Ft.	N/A	25 Ft. min
Side Setback	20 Ft.	N/A	20 Ft. min
Rear Setback	20 Ft.	N/A	20 Ft. min
Lot Coverage	25% max.	40% max.	25 %
Building Coverage	15% max.	20% max.	15 %
Shape Factor	< 22	< 22	20.9

\* Section 325-18 (L) (1)  
Lot frontage and width within the panhandle portion shall be a minimum of 35 ft.

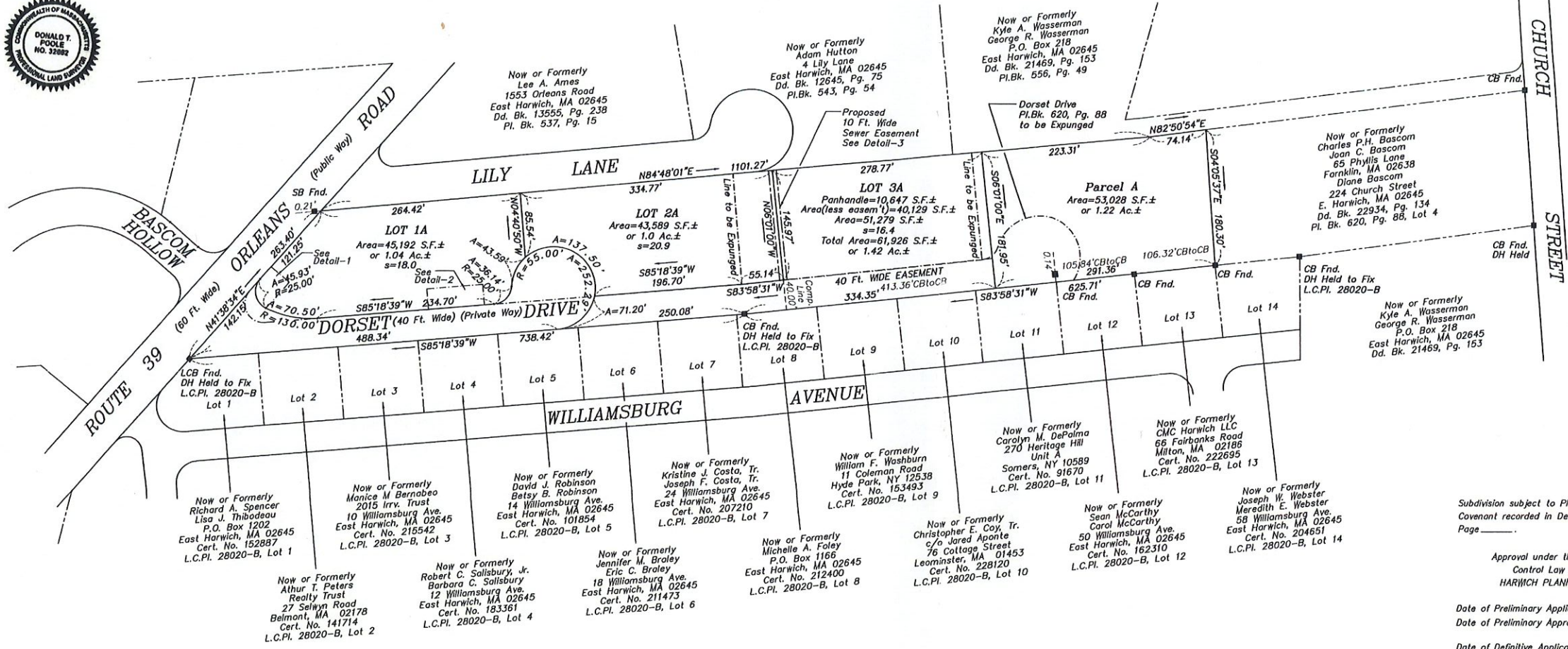


Assessors' Map 98 Parcels B1, B2, B3 & B4

**OWNERS OF RECORD:**

- David W.L. Bascom  
Laura Bascom  
65 Phyllis Lane  
Franklin, MA 02638  
Deed Book 23743, Page 190  
Plan Book 620, Page 88  
Lot 1
- Kimberly J. Veach  
15 Elmwood Avenue  
Salem, NH 03079  
Deed Book 27642, Page 111  
Plan Book 620, Page 88  
Lot 2
- Diane Bascom  
224 Church Street  
Harwich, MA 02645  
Deed Book 34211, Page 296  
Plan Book 620, Page 88  
Lot 3

**LOCUS TOTAL AREA**  
Area=232,575 S.F.±  
or 5.3 Ac.±



Subdivision subject to Planning Board  
Covenant recorded in Deed Book \_\_\_\_\_,  
Page \_\_\_\_\_.

Approval under the Subdivision  
Control Law required.  
HARWICH PLANNING BOARD

Date of Preliminary Application \_\_\_\_\_  
Date of Preliminary Approval \_\_\_\_\_

Date of Definitive Application \_\_\_\_\_  
Date of Definitive Approval \_\_\_\_\_

Date of Endorsement \_\_\_\_\_

**DEFINITIVE SUBDIVISION PLAN PRIOR WAIVERS GRANTED**

**DEFINITIVE SUBDIVISION PLAN**

- Drainage Calculations
- Road Profile
- Road Cross-Section

**FULL ROAD CONSTRUCTION**

- As-Built Drawings
- 22 Ft. Paved Roadway Width to 16 Ft. Wide Gravel
- Cul-De-Sac Construction

**MODIFICATION SUBDIVISION PLAN NEW WAIVERS**

**MODIFICATION SUBDIVISION PLAN**

- Plan Scale  
1" = 40' Maximum Scale Required  
1" = 80' Scale Waiver Requested
- Roadway Width  
20 Ft. Paved Roadway Required  
14 Ft. Paved Roadway Proposed  
6 Ft. Waiver Requested

**NOTE**  
Parcel A lacks frontage on a Way and is not considered a building lot. Parcel to be conveyed and combined with land of abutter.

I, Emily Mitchell, Clerk of the Town of Harwich, hereby certify that notice of approval of this plan by the Planning Board has been received and recorded at this office and no notice of appeal was received during the twenty days next after such receipt and recording of said notice.

Date \_\_\_\_\_  
Town Clerk



**MODIFICATION SUBDIVISION PLAN**  
2,6,10 Dorset Dr. & 224 Church St, East Harwich, MA

Prepared For  
**EASTWARD HOMES  
BUSINESS TRUST**  
Applicant

**CLARK ENGINEERING LLC**  
156 Crowell Road Suite B, Chatham, MA. 02633  
Tel.: (508) 945-5454; Fax.: (508) 945-5458

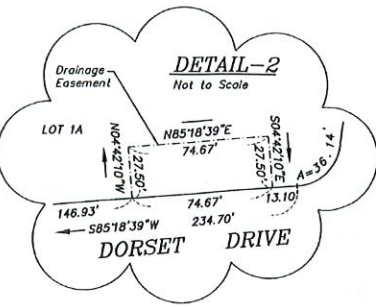
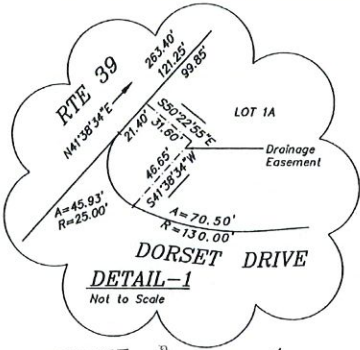
**OUTERMOST LAND SURVEY, INC.**  
46 Main Street, Brewster, MA 02631  
Tel.: (508) 255-0477

Rev. #	Description of Revision	Date
1	revised panhandle width, areas of lots 2A, 3A & parcel A	03-06-23

Date: 02-03-2023 Drawing No.: 0010-202A  
Scale: 1" = 80' Sheet No.: 1

**LEGEND**

- Existing Contour
- Proposed Contour
- Existing Spot Grade
- Proposed Spot Grade
- Water Service
- Overhead Utility Line(s)
- Underground Utility Line(s)
- Gas Line
- Concrete Bound (CB)
- Utility Pole
- Catch Basin
- Fire Hydrant
- Tree or Hedge Line
- Conc. Monument to be Set



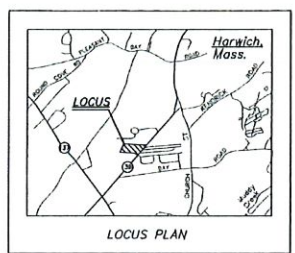
**SUBMISSION RULES & REGULATIONS COMPLIANCE TABLE**  
3 Lots - Way

Subject	REQUIRED	PROPOSED
Right of Way Width	50 Ft.	40 Ft.
Roadway Width	22 Ft.	14 Ft.
Sidewalk	4 Ft.	None
Maximum Centerline Radius	150 Ft.	150 Ft.
Minimum Vertical Curve	100 Ft.	100 Ft.
Maximum Grade	8 %	3 %
Minimum Grade	1 %	2 %
Minimum Intersection Angle	70°	90°
Minimum Centerline Offset	125 Ft.	194 Ft./206 Ft.
Minimum Rounding	15 Ft.	15 Ft.
Clear Intersection	100 Ft.	289 Ft.
Maximum Road Length	1,200 Ft.	608 Ft.
Minimum Circle Turnaround	45 Ft.	45 Ft.
Pavement Thickness	3 in.	4 in.
Base Course	8 in.	8 in.
Storm Frequency	25 years	100 years

**ZONING COMPLIANCE TABLE**

SUBJECT	Zone R-R	Zone WRPD	PROPOSED
Lot Area	40,000 S.F.	40,000 S.F.	40,000 S.F. min
Frontage	150 Ft.	N/A	65.92 Ft. min*
Front Setback	25 Ft.	N/A	25 Ft. min
Side Setback	20 Ft.	N/A	20 Ft. min
Rear Setback	20 Ft.	N/A	20 Ft. min
Lot Coverage	25% max.	40% max.	25 %
Building Coverage	15% max.	20% max.	15 %
Shoep Factor (s)	< 22	< 22	20.9

\* Section 325-18 (L) (1)  
Lot frontage and width within the panhandle portion shall be a minimum of 35 ft.



Assessors' Map 98 Parcels B1, B2, B3 & B4

**OWNERS OF RECORD:**

- David W.L. Bascom  
Laura Bascom  
65 Phyllis Lane  
Franklin, MA 02638  
Deed Book 23743, Page 190  
Plan Book 620, Page 88  
Lot 1
- Kimberly J. Veach  
16 Elmwood Avenue  
Salem, NH 03079  
Deed Book 27642, Page 111  
Plan Book 620, Page 88  
Lot 2
- Diane Bascom  
224 Church Street  
Harwich, MA 02645  
Deed Book 34211, Page 296  
Plan Book 620, Page 88  
Lot 3

**LOCUS TOTAL AREA**  
Area=232,575 S.F.±  
or 5.3 Ac.±



**TOPOGRAPHY PLAN**

2,610 Dorset Dr. & 224 Church St, East Harwich, MA

Prepared For  
**EASTWARD HOMES BUSINESS TRUST**  
Applicant

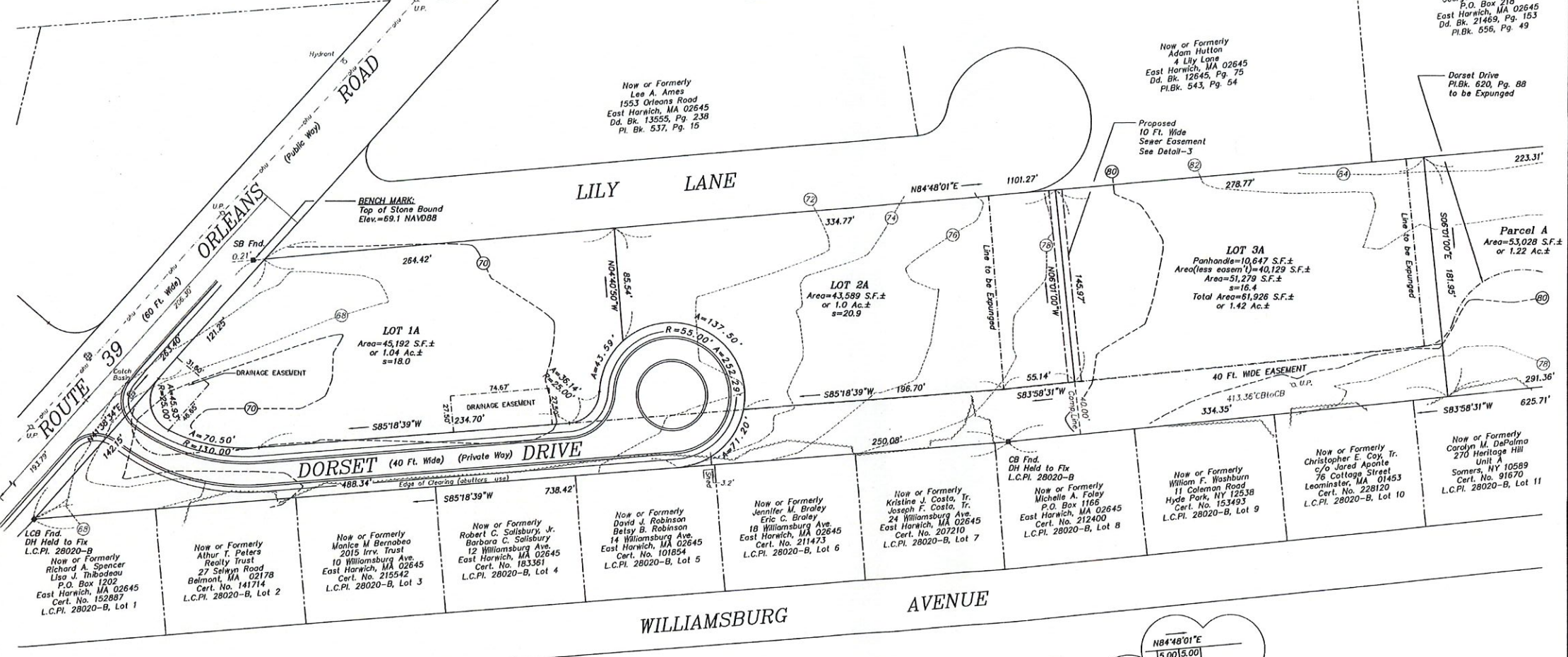
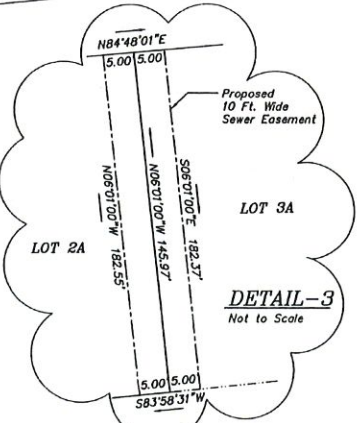
**CLARK ENGINEERING LLC**  
156 Crowell Road Suite B, Chatham, MA 02633  
Tel.: (508) 945-5454; Fax: (508) 945-5458

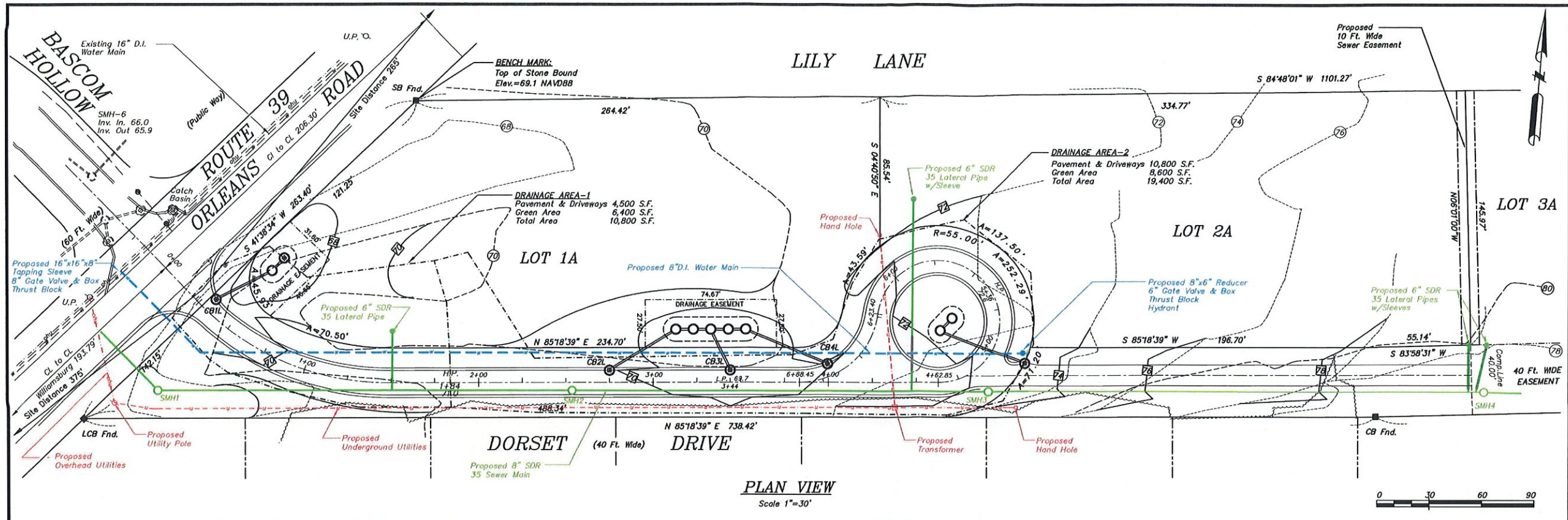
**OUTERMOST LAND SURVEY, INC.**  
46 Main Street, Brewster, MA 02631  
Tel.: (508) 255-0477

Rev. #	Description of Revision	Date
1	revised panhandle width, areas of lots 2A, 3A & parcel A	03-06-23

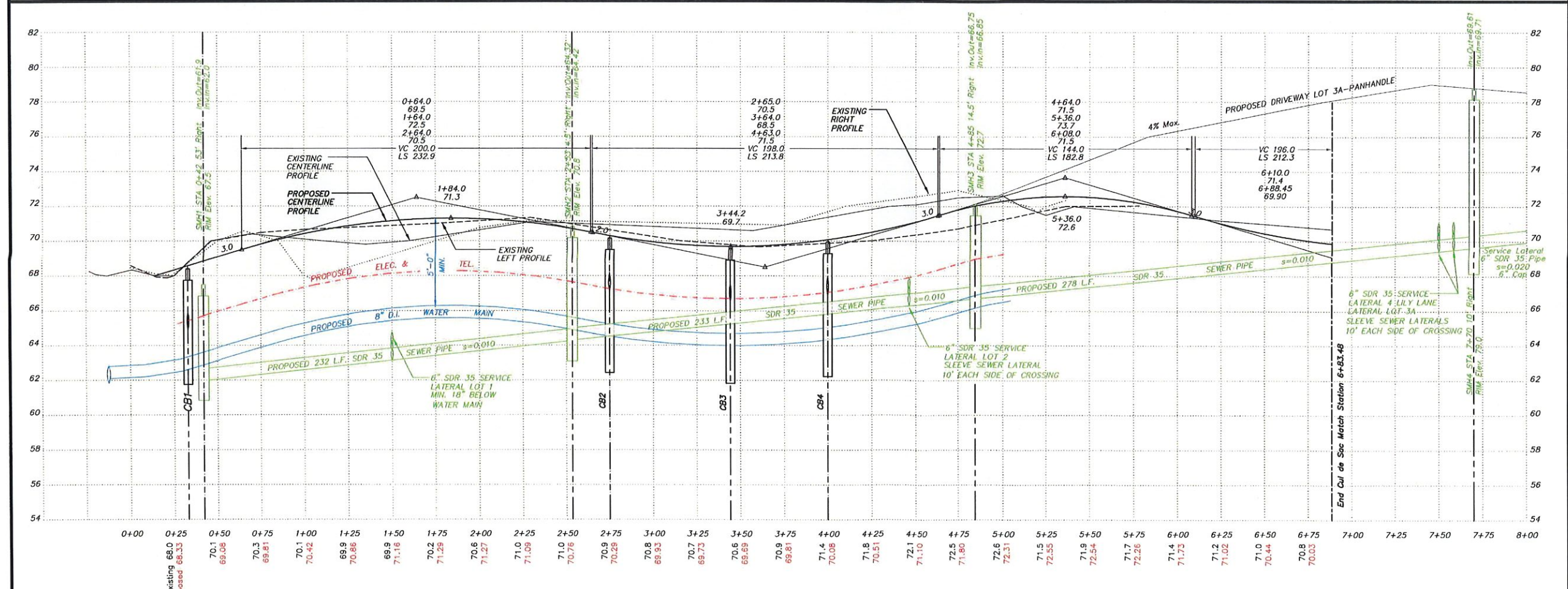
Date: 02-03-2023  
Scale: 1" = 40'  
Drawing No.: 0010-202A  
Sheet No.: 2 of 6

I hereby certify that the features shown hereon are located as they exist on the ground.  
Date: 3/15/2023  
P.L.S.





- DRAINAGE AREA-1**  
**STA. 0+33 8.31'**  
 1 - Precast Concrete 4' I.D. Catch Basin  
 Rim Elev.=68.40  
 Invert Out Elev.=64.9  
**STA. 0+50 42.1'**  
 2 - 6x6 Precast Concrete Leaching Basins with 4 Ft. of Double Washed 3/4"-1-1/2" Stone  
 Invert In Elev.=64.2  
 Bottom Elev.=59.7  
 Top Elev.=66.4  
 Cast Iron Frame & Grate  
 Grate Elev.=67.2
- DRAINAGE AREA-2**  
**STA. 2+75 7.01'**  
 1 - Precast Concrete 4' I.D. Catch Basin  
 Rim Elev.=70.15  
 Invert Out Elev.=67.1  
**STA. 3+44 7.01'**  
 1 - Precast Concrete 4' I.D. Catch Basin  
 Rim Elev.=69.56  
 Invert Out Elev.=66.5  
**STA. 4+00 7.01'**  
 1 - Precast Concrete 4' I.D. Catch Basin  
 Rim Elev.=69.94  
 Invert Out Elev.=66.9  
**STA. 3+13 30.51'**  
 5 - 6x6 Precast Concrete Leaching Basins with 4 Ft. of Double Washed 3/4"-1-1/2" Stone  
 Invert In Elev.=66.3  
 Bottom Elev.=61.8  
 Top Elev.=68.5  
 Cast Iron Frame & Grate  
 Grate Elev.=69.0
- DRAINAGE AREA-3 Panhandle Driveway**  
**STA. 5+00 20.01'**  
 1 - Precast Concrete 4' I.D. Catch Basin  
 Rim Elev.=72.7  
 Invert Out Elev.=69.7  
**STA. 3+13 30.51'**  
 2 - 6x6 Precast Concrete Leaching Basins with 4 Ft. of Double Washed 3/4"-1-1/2" Stone  
 Invert In Elev.=69.5  
 Bottom Elev.=65.0  
 Top Elev.=71.7  
 Cast Iron Frame & Cover  
 Cover Elev.=73.0



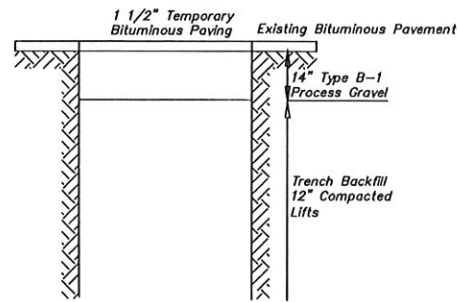
**ROAD PROFILE PLAN**  
 2,6,10 Dorset Dr. & 224 Church St., East Harwich, MA

Prepared For  
**EASTWARD COMPANIES BUSINESS TRUST**  
 Applicant

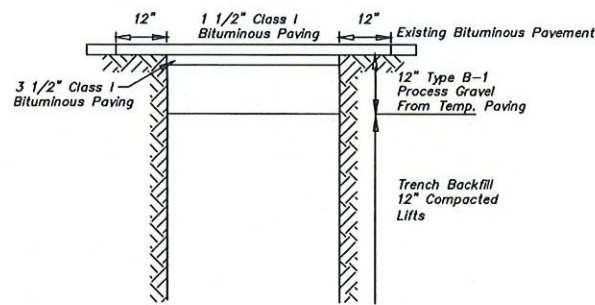
**CLARK ENGINEERING LLC**  
 156 Crowell Road Suite B, Chatham, MA. 02633  
 Tel.: (508) 945-5454; Fax: (508) 945-5458

Rev. #	Description of Revision	Date
1	revised panhandle width, areas of lots 2A, 3A & parcel A	
	Extended sewer main to end of panhandle w/ lateral for 4 Lily Lane	03-06-23

Date: 02-03-2023 Drawing No.: 0010-202A  
 Scale: SEE PLAN Sheet No.: 3 of 6

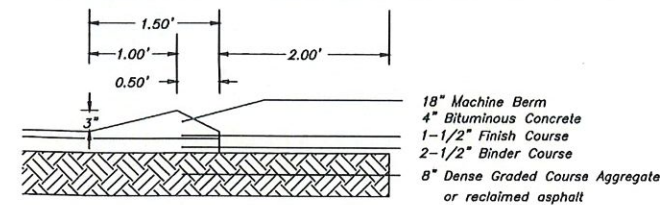
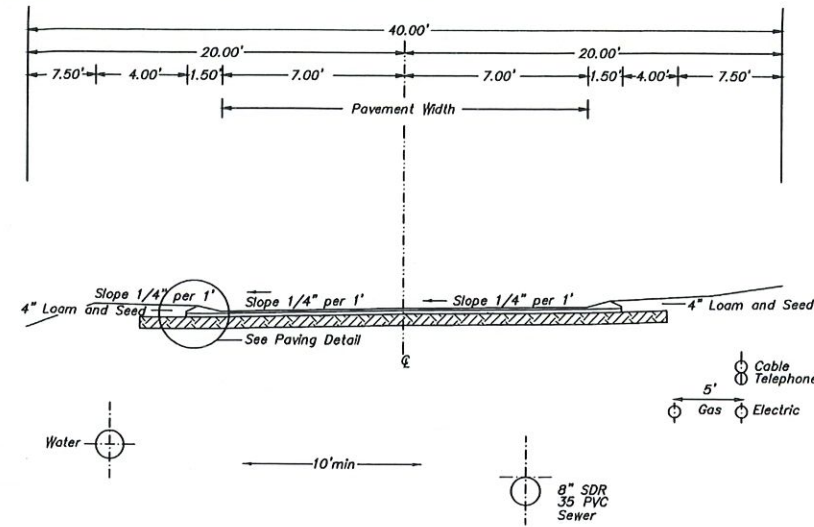


**TOWN ROAD REPAIR TEMPORARY PAVING DETAIL**  
Not to Scale



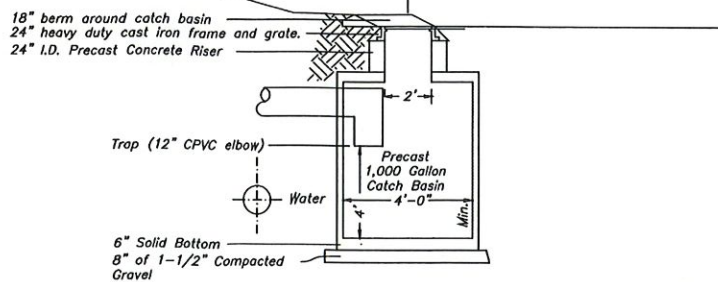
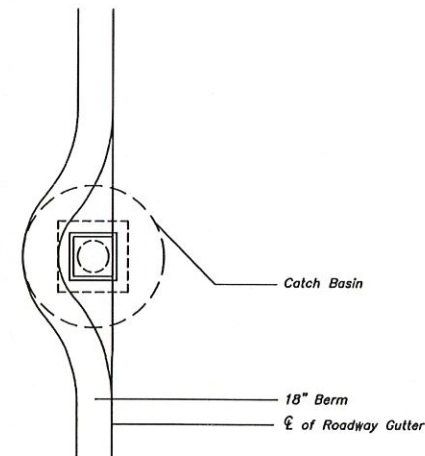
**TOWN ROAD REPAIR PAVING DETAIL**  
Not to Scale

**TYPE-A CROSS-SECTION ROADWAY**  
Not to Scale



**PAVING DETAIL**  
Not to Scale

**PLAN VIEW CATCH BASIN**  
Not to Scale



**CROSS-SECTION CATCH BASIN**  
Not to Scale

**MANHOLE CONSTRUCTION**

GENERAL: Manholes shall be of precast concrete, 4 feet in diameter. Precast concrete sections shall conform to ASTM C 478, except that Portland cement shall conform to ASTM C 150, Type II. Concrete shall have a minimum compressive strength of 4,000 psi at 28 days. All sections shall be cast solid, without lifting holes. The eccentric top shall have a minimum diameter of 30".

Joints for precast reinforced concrete manhole sections shall be O-Ring rubber gaskets or compressible filler such as ConSeal CS-101 joint sealant or approved equal.

Exterior surfaces of manholes shall be painted with two coats of Bitumastic No. 28 as manufactured by Koppers Company, or approved equal.

All manhole bases shall extend a minimum of 6" beyond the outside wall of the manhole and shall be a minimum of 8" thick.

Install an compacted gravel base in accordance with the drawings. Manhole steps shall be provided in all manholes. Steps shall be cast into the walls of the structures so as to form a continuous ladder with a distance of 12" between steps.

**TRENCH CONSTRUCTION**

(streets, sidewalks, berms, curbs or driveway aprons only)

1. All trenches opened within the town layout (streets, sidewalks, berms, curbs or driveway aprons) will be opened wide enough to allow a mechanical tamper to compact material in layers greater than six (6) inches. Each layer will be compacted to a density equal to that of adjacent original material so that pavement can be replaced immediately. All cross trenches will be opened so that they can be properly filled and compacted before sunset with a temporary patch of asphalt applied.

2. The backfill will consist of the excavated material if it is declared suitable by the Dept. of Public Works Director or his designee. Backfill will be placed in successive layers of not more than six (6) inches of compacted depth. If, in the opinion of the Dept. of Public Works Director, the excavated material is unsuitable, the entire rejected material will be disposed of by the applicant at no cost to the town. In its place, the applicant will bring in suitable fill material consisting of approved material as directed. After thorough tamping around the utility, the six (6) inch layers of back fill will be thoroughly compacted as follows: If dry, it shall be moistened and then compacted by tamping with a mechanical tamper. The final six (6) inches of a street, driveway apron, berm or sidewalk backfill will, in all cases, be processed stone (or equal) thoroughly tamped.

3. After backfill is in place and satisfactorily compacted, the applicant will apply at once a 3" inch temporary patch course over the entire excavated area. This temporary patch is to be left in place for at least 90 days and not more than four months, until no further settling can be reasonably expected. At this time the applicant under the direction of the highway superintendent will saw cut 12 inches past the farthest point of trench excavation settlement. The permanent patch must be four (4) inch bituminous concrete (Type 1-1 in two layers). A project could also call for a complete overlay depending on the condition (age) of the road. At no time will the temporary patch be removed by a machine bucket with teeth so not to destabilize the base material. When the patch has been completed, the joints should be painted with a suitable emulsion and sealed with fine sand.

**WATER MAIN CONSTRUCTION**

1. All work shall conform to the Town of Harwich Water and Sewer Department rules and regulations for the installation of water mains and appurtenances.

2. The developer/contractor is responsible for paying for the necessary inspection of the water and sewer as well as providing a minimum of two weeks notification to the Department of Public Works for scheduling same.



**DRAINAGE & PAVING DETAILS**

2,6,10 Dorset Dr. & 224 Church St., East Harwich, MA

Prepared For  
**EASTWARD HOMES BUSINESS TRUST**  
Applicant

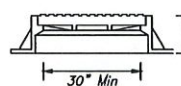
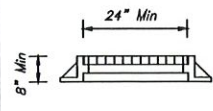
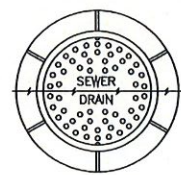
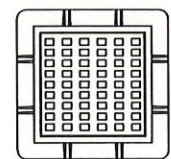
**CLARK ENGINEERING LLC**  
156 Crowell Road Suite B, Chatham, MA 02633  
Tel.: (508) 945-5454; Fax.: (508) 945-5458

Rev. #	Description of Revision	Date
1	Changed paving detail	03-16-23

Date: 02-03-2023 Drawing No.: 0010-202A

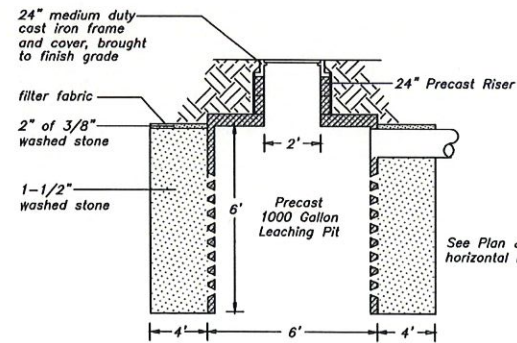
Scale: SEE PLAN Sheet No.: 4 of 6

Heavy Duty Square Inlet Grate & Frame, 475 lbs. (also available with square holes. Specify B-1867-B)



**FRAME & GRATE/COVER DETAIL**

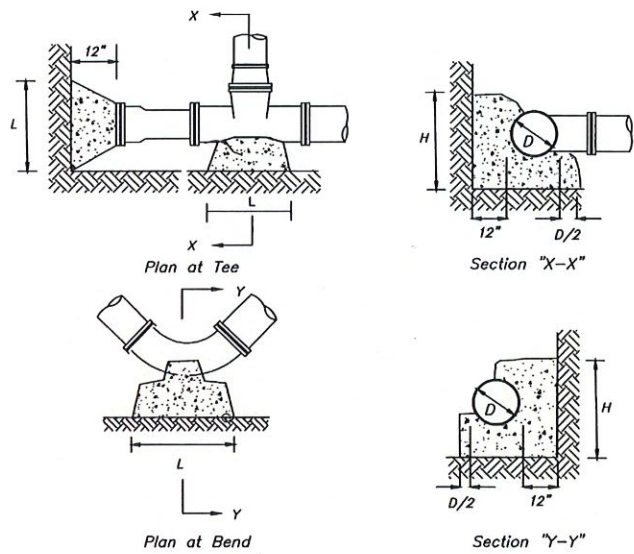
Not to Scale



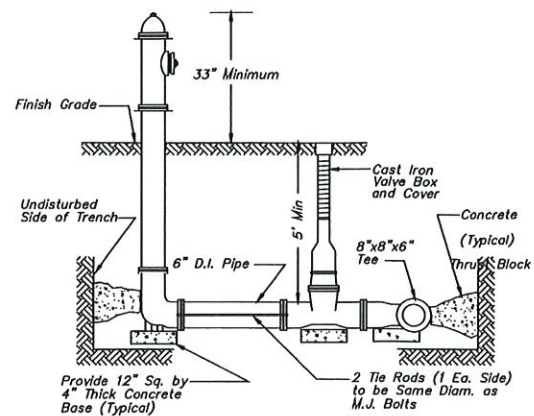
**CROSS-SECTION LEACHING PIT**

Not to Scale

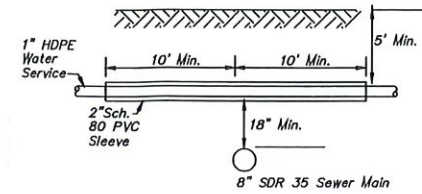
THRUST BLOCK DIMENSIONS								
Diameter D	End & Tees		1/4 Bend		1/8 Bend		1/16 Bend	
	H	L	H	L	H	L	H	L
6"	18"	18"	16"	24"	12"	18"	9"	12"
8"	20"	24"	18"	30"	15"	24"	12"	16"
10"	32"	36"	32"	48"	24"	36"	18"	24"



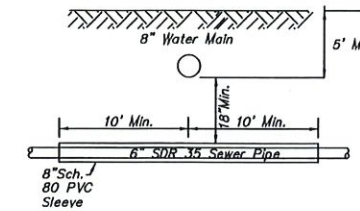
**TYPICAL THRUST BLOCK DETAILS**  
Not to Scale



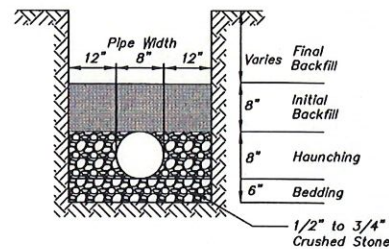
**HYDRANT DETAIL**  
Not to Scale



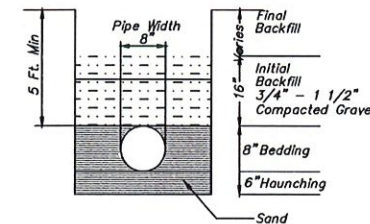
**WATER SERVICE SLEEVE**  
Not to Scale



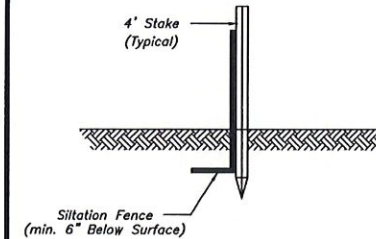
**SEWER LATERAL SLEEVE**  
Not to Scale



**TRENCH SECTION FOR SDR 35 PIPE**  
Not to Scale

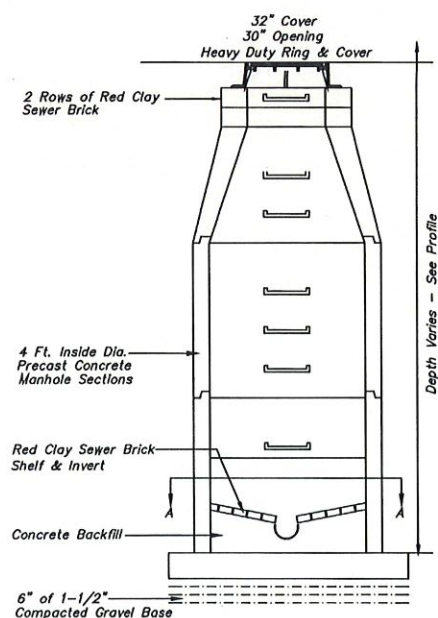


**8" D.I. WATERMAIN TRENCH**  
Not to Scale

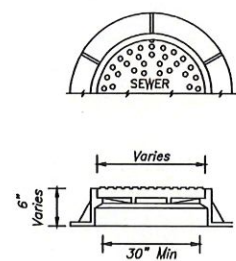


**SILTATION BARRIER**  
Not to Scale

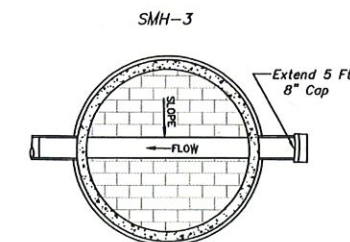
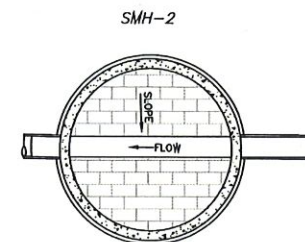
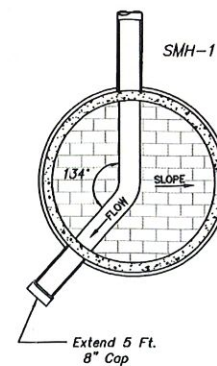
Miscellaneous:  
Magnetic marking tape two (2) inches wide with the words "SANITARY SEWER BELOW," shall be installed not more than 2 feet below finished grade on all mainline and service laterals.



**SEWER MANHOLE DETAIL**  
Not to Scale



**MANHOLE COVER**  
Not to Scale  
SMH-1



PLAN VIEWS A-A



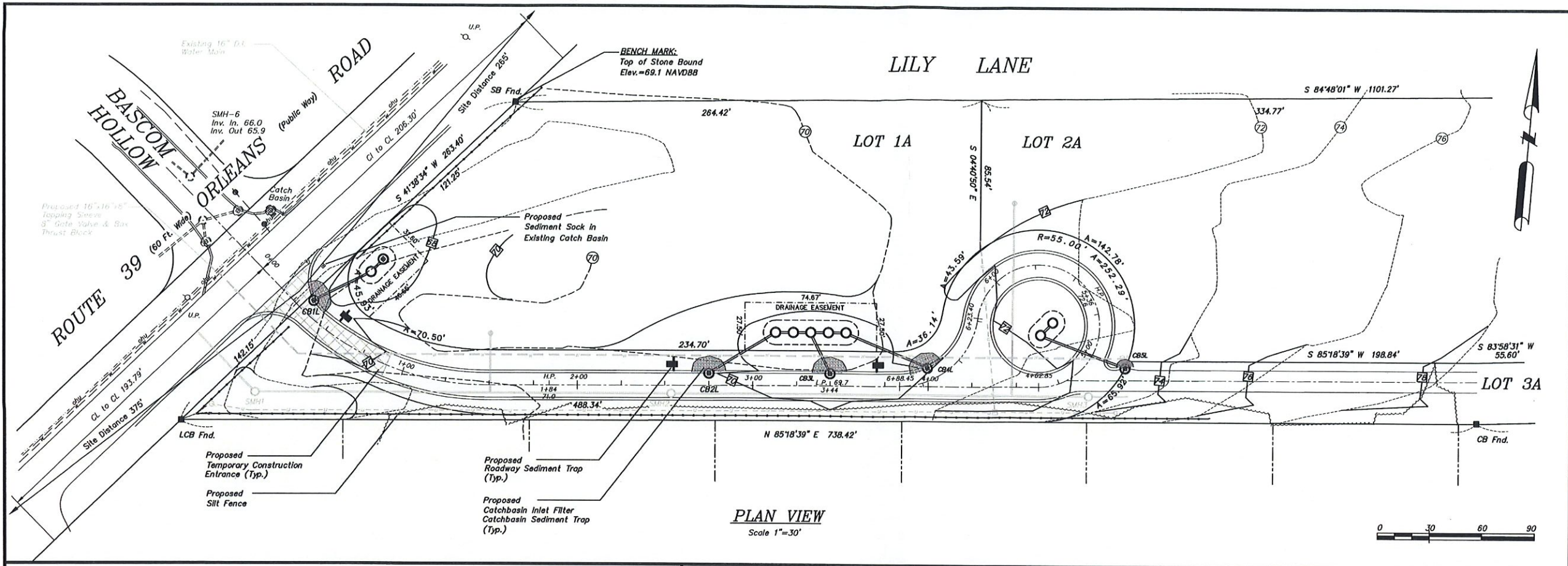
**WATER AND SEWER DETAILS**  
2,6,10 Dorset Dr. & 224 Church St., East Norwich, MA

Prepared For  
**EASTWARD HOMES BUSINESS TRUST**  
Applicant

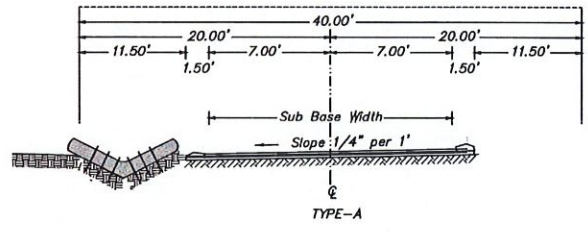
**CLARK ENGINEERING LLC**  
156 Crowell Road Suite B, Chatham, MA. 02633  
Tel.: (508) 945-5454; Fax.: (508) 945-5458

Rev. #	Description of Revision	Date

Date: 02-03-2023 Drawing No.: 0010-202A  
Scale: SEE PLAN Sheet No.: 5 of 6



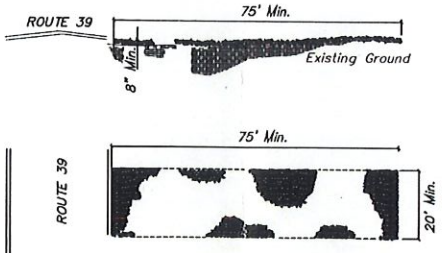
**PLAN VIEW**  
Scale 1"=30'



**CROSS-SECTION ROADWAY**  
Not to Scale

**WATTLE CHECK DAM**

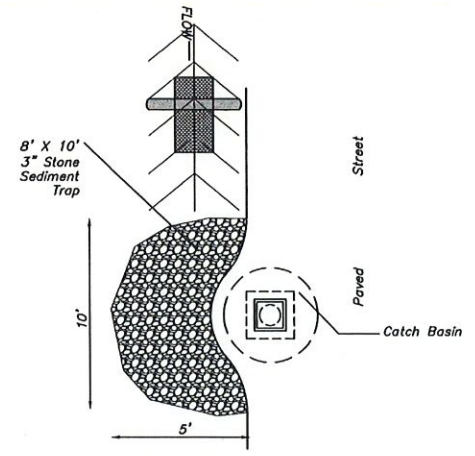
1. Use Minimum 12 Inch Diameter Fiber Wattle.
2. Use 2 Ft. Wooden Stakes With A 2 In. x 2 In. Normal Cross Section.
3. Only Install Wattle(s) To A Height In Ditch So Flow Will Not Wash Around Wattle And Scour Ditch Slopes And As Directed.
4. Install A Minimum Of 2 Upslope Stakes And 4 Downslope Stakes At An Angle To Wedge Wattle To Bottom Of Ditch.
5. Provide Staples Made Of 0.125 In. Diameter Steel Wire Formed Into A U Shape Not Less Than 12" In Length.
6. Install Staples Approximately Every 1 Linear Foot On Both Sides Of The Wattle And At Each End To Secure It To The Soil.
7. Install Matting In Accordance With Manufacturers Specifications.



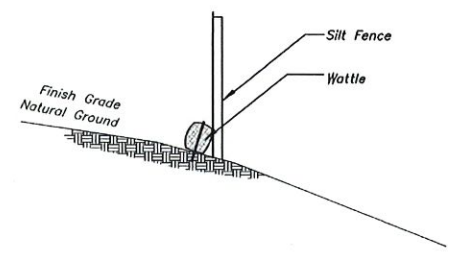
**TEMPORARY CONSTRUCTION ENTRANCE**  
Not to Scale

**NOTES:**

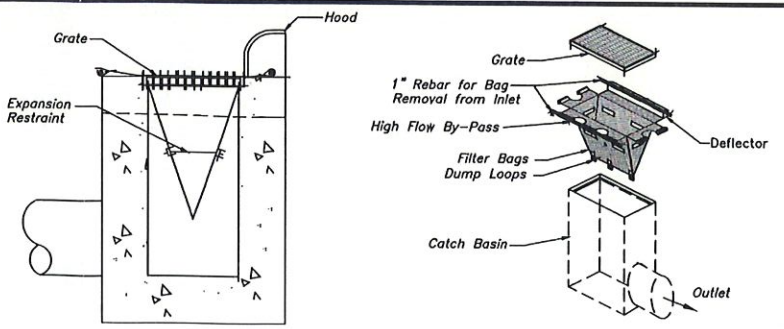
1. A Stabilized Entrance Pad Of 2"-3" Washed Stone Shall Be Located Where Traffic Will Enter Or Leave The Construction Site Onto A Public Street.
2. Filter Fabric Or Compacted Crusher Run Stone Shall Be Used As A Base For The Construction Entrance.
3. The Entrance Shall Be Maintained In A Condition Which Will Prevent Tracking Or Flowing Of Sediments Onto Public Streets Or Existing Pavement. This May Require Periodic Top Dressing With Additional Stone As Conditions Warrant And Repair Or Cleanout Of Any Measures Used To Trap Sediment.
4. Any Sediment Spilled, Dropped, Washed, Or Tracked Onto Public Streets Must Be Removed Immediately.
5. When Appropriate, Wheels Must Be Cleaned To Remove Sediment Prior To Entering A Public Street. When Washing Is Required, It Shall Be Done In An Area Stabilized With Crushed Stone Which Drains Into An Approved Sediment Basin.



**PLAN VIEW CATCH BASIN**  
Not to Scale



**SILT FENCE/BERM DETAIL**  
Not to Scale



**BASIN INLET FILTER**  
Not to Scale

**NOTES:**

1. Inlet Maintenance Shall Be Documented In Project Log Book.
2. Filter Types Shall Be approved By The Inspector Prior To Installation.
3. Filter Bags May Be Removed When Site Is Stabilized At The Direction Of The Engineer.
4. Filter Bags Shall Be Removed Prior To Street Acceptance.
5. Filter Bags Shall Be Cleaned Or Replaced On A Regular Basis (NOT BE MORE THAN HALF FULL AT ANY TIME).
6. Filter Bags Shall Not Be Allowed In Existing Town or MA DOT Roads.



**EROSION CONTROL PLAN**  
2,610 Dorset Dr. & 224 Church St., East Harwich, MA

Prepared For  
**EASTWARD COMPANIES  
BUSINESS TRUST**  
Applicant

**CLARK ENGINEERING LLC**  
156 Crowell Road Suite B, Chatham, MA. 02633  
Tel.: (508) 945-5454; Fax.: (508) 945-5458

Rev. #	Description of Revision	Date

Date: 02-03-2023 Drawing No.: 0010-202A  
Scale: SEE PLAN Sheet No.: 6 of 6