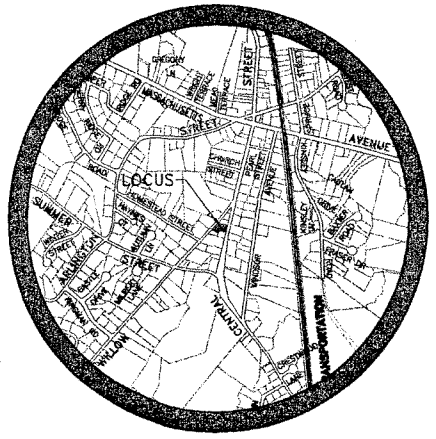
# COMPREHENSIVE PERMIT PLAN

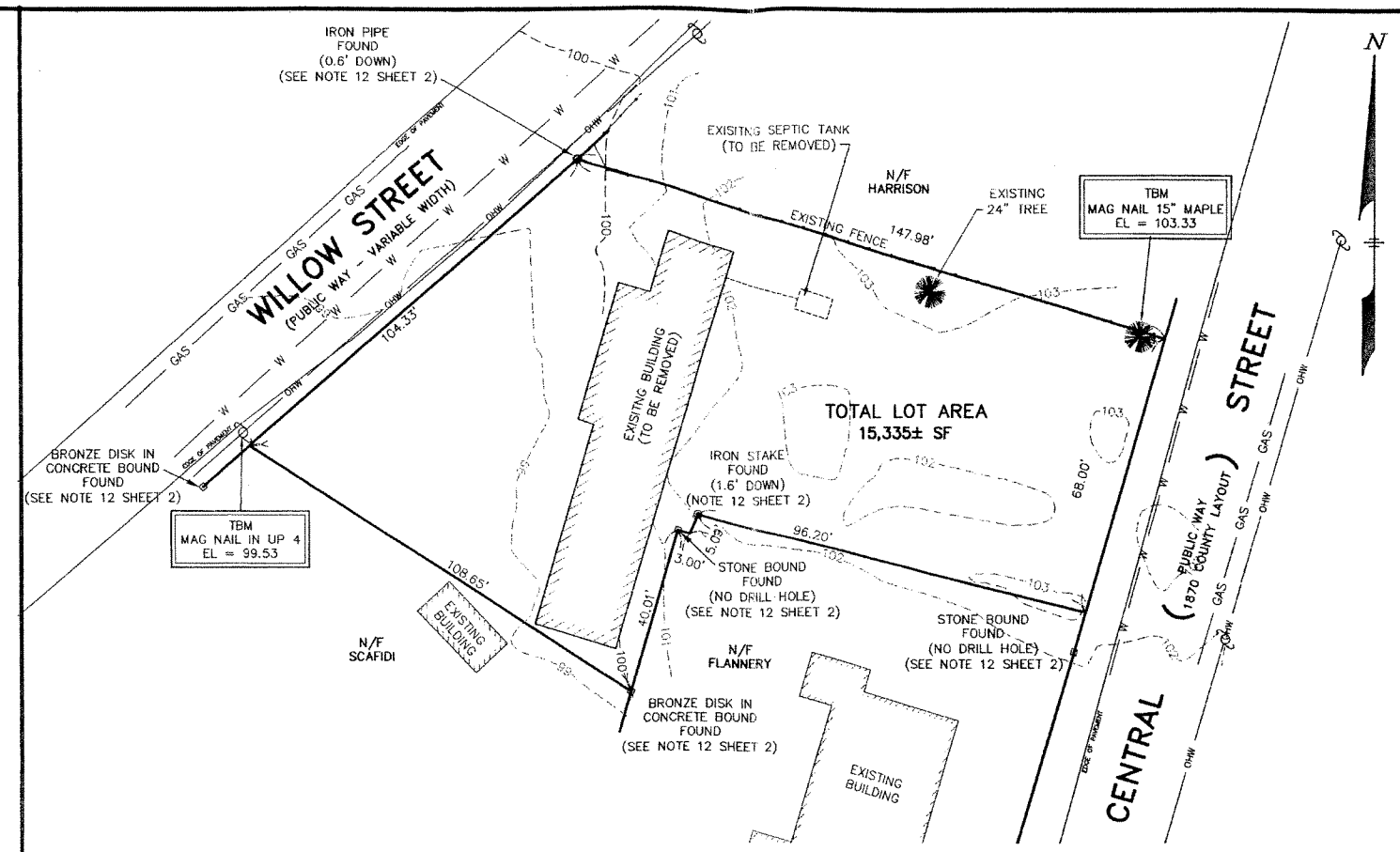
## FOR

## 28 WILLOW STREET & 212 - 214 CENTRAL STREET ACTON, MASSACHUSETTS




LOCUS PLAN
SCALE: 1"=1200'

0 600 1200 2400 3600




NATURAL FEATURES AND EXISTING CONDITIONS PLAN
SCALE: 1"=20'

## LEGEND:

EXISTING

| | |
|---|---|
| N/F | NOW OR FORMERLY |
| 101 | CONTOUR (INTERMEDIATE) |
| 100 | CONTOUR (INDEX) |
| OHW | OVERHEAD WIRES |
| | UTILITY POLE |
| GAS | GAS MAIN |
| W | WATER MAIN |

## NOTES:

1. PROPERTY LINE DATA AND MONUMENTATION SHOWN HEREON WERE COMPILED FROM "PLAN OF LAND IN ACTON, MASSACHUSETTS PREPARED FOR THE TOWN OF ACTON, 28 WILLOW STREET AND 214 CENTRAL STREET, BY THE TOWN OF ACTON ENGINEERING DEPARTMENT, DATED MARCH 1, 2006, SCALE: 1"=10'" AND ARE NOT THE RESULT OF A FIELD SURVEY.

2. TOPOGRAPHIC DATA SHOWN HEREON TAKEN FROM "PROPOSED SEWAGE DISPOSAL PLAN, 28 WILLOW STREET & 214 CENTRAL STREET, DATED REVISED MAY 10, 2006" AND IS NOT THE RESULT OF A FIELD SURVEY.

3. THE CERTIFICATION HEREON IS INTENDED TO MEET THE REQUIREMENTS OF THE REGISTRY OF DEEDS ONLY, AND IS NOT CERTIFICATION TO THE TITLE OR OWNERSHIP OF THE PROPERTY SHOWN, OR AS TO THE EXISTENCE OF UNRECORDED EASEMENTS. OWNERSHIP OF ABUTTING PROPERTIES ARE FROM CURRENT ASSESSOR'S RECORDS.

## DATUM

SEE NOTE 1

## INDEX:


SHEET 1 OF 4 – TITLE SHEET, EXISTING CONDITIONS PLAN AND LAYOUT PLAN

SHEET 2 OF 4 – SITE DEVELOPMENT/EROSION AND SEDIMENTATION CONTROL PLAN

SHEET 3 OF 4 – PRELIMINARY UTILITIES PLAN

SHEET 4 OF 4 – RECORD PLAN


## APPLICANT:

ACTON COMMUNITY HOUSING CORPORATION (A.C.H.C.)
ACTON TOWN HALL, ROOM 126
472 MAIN STREET
ACTON, MA 01720

## ENGINEER/SURVEYOR:


STAMSKI AND MCNARY, INC.
80 HARRIS STREET
ACTON, MASSACHUSETTS 01720
(978) 263-8585


COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH CIVIL #40472 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS WILLIAM J. McNARY No. 30753

APPROVED BY:
TOWN OF ACTON
ZONING BOARD OF APPEALS

DATE

## RECORD OWNER:

TOWN OF ACTON
472 MAIN STREET
ACTON, MA 01720

## ZONING DISTRICT:

VR (VILLAGE RESIDENTIAL)
GROUNDWATER PROTECTION DISTRICT ZONE 3

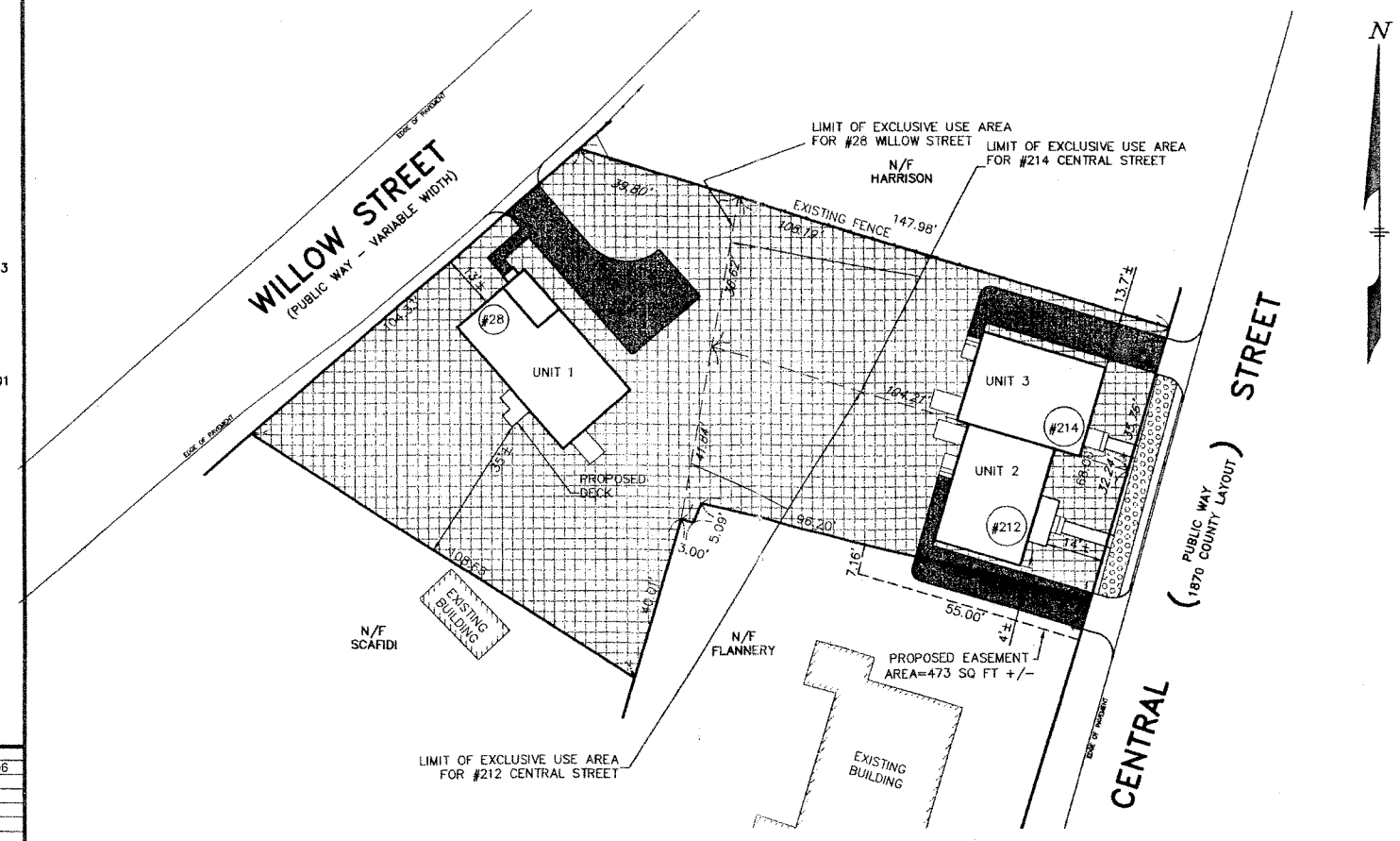
## REFERENCE:

MSDRD DEED BOOK 28812, PAGES 600, 601
MSDRD PLAN NO. 438 OF 2006

ASSESSORS MAP F-28
PARCEL 64 (28 WILLOW STREET)
PARCEL 65 (214 CENTRAL STREET)

| REVISION # | DESCRIPTION | DATE |
|---|---|---|
| 1 | TOWN COMMENTS | 8-15-06 |

DATE: JUNE 2, 2006




LAYOUT PLAN
SCALE: 1"=20'

PROJECT TABULATION

A. BUILDING BY CONSTRUCTION TYPE
1 – TWO UNIT BUILDING WITH 5 BEDROOMS
1 – ONE UNIT BUILDING (BUNGALO STYLE) WITH 3 BEDROOMS
TOTAL NUMBER OF BEDROOMS IS 8

B. FLOOR AREA SCHEDULE
TWO UNIT BUILDING = 2,306± SF
ONE UNIT BUILDING (BUNGALO STYLE) = 1,748± SF

C. PERCENT BREAKDOWN GROUND COVERAGE
TWO UNIT BUILDING = 8.35%
ONE UNIT BUILDING (BUNGALO STYLE) = 5.43%
PAVED AREA = 10.20%
OPEN AREA = 76.02%
TOTAL LOT AREA = 100% (15,335± SF)

D. PARKING
TOTAL EXTERIOR SPACES: 6

E. SEWAGE FLOW
8 BEDROOMS x 110 GPD/BEDROOM = 880 GPD MIN

LEGEND:
PROPOSED SIDEWALK
OPEN SPACE (O.S.)
#28 STREET NUMBER

## GENERAL NOTES

1. THIS PLAN HAS BEEN COMPILED IN PART FROM A PLAN ENTITLED "PROPOSED SEWAGE DISPOSAL PLAN, 28 WILLOW STREET & 214 CENTRAL STREET, DATED REVISED MAY 10, 2006" AND ON FILE AT THE TOWN OF ACTON ENGINEERING DEPARTMENT.

2. ALL UNDERGROUND UTILITIES SHOWN HERE WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS FROM VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE EXCAVATING, BLASTING, INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION OR REPAIRING. ALL UTILITY COMPANIES, PUBLIC AND PRIVATE, MUST BE CONTACTED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN. SEE CHAPTER 370, ACTS OF 1963 MASS. WE ASSUME NO RESPONSIBILITY FOR DAMAGE INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE PLANNING FUTURE CONNECTIONS, THE APPROPRIATE PUBLIC UTILITY ENGINEERING DEPARTMENT MUST BE CONSULTED. DIG-SAFE TELE. NO. (888) 344-7233.

3. ALL LIMITS OF WORK SHALL BE LOCATED IN THE FIELD PRIOR TO CONSTRUCTION.

4. ALL WATER SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE ACTON WATER SUPPLY DISTRICT REQUIREMENTS.

5. ALL STUMPS AND OTHER CONSTRUCTION DEBRIS SHALL BE PROPERLY REMOVED FROM THE SITE.

6. ANY FILL MATERIAL USED SHALL BE FREE OF HAZARDOUS MATERIALS OR WASTE.

7. TRANSPORTATION OF FILL, EARTH, OR CONSTRUCTION DEBRIS TO OR FROM THE SITE SHALL BE RESTRICTED TO DAYTIME HOURS (9 AM TO 4 PM) MONDAY THROUGH FRIDAY.

8. SEE SEWAGE DISPOSAL PLAN BY TOWN OF ACTON ENGINEERING DEPARTMENT ON FILE AT THE BOARD OF HEALTH FOR SOIL ABSORPTION SYSTEM AND COMPONENT INSTALLATION.

9. FINAL BUILDING FOOTPRINT SUBJECT TO BUILDING INSPECTOR REVIEW.

10. CONSTRUCTION VEHICLES SHALL BE PROHIBITED FROM PARKING ON OR ALONG WILLOW OR CENTRAL STREET.

11. A FOUNDATION DRAIN SYSTEM EMPLOYING SUMP PUMPS IS RECOMMENDED.

12. EXISTING SURVEY MONUMENTS SHALL BE MARKED IN THE FIELD PRIOR TO CONSTRUCTION. IF EXISTING SURVEY MONUMENTS ARE DAMAGED OR DESTROYED DURING CONSTRUCTION, THE APPLICANT SHALL BE REQUIRED TO HIRE A REGISTERED LAND SURVEYOR TO RESET THE MONUMENTS AND CERTIFY THE NEW LOCATIONS.

13. THE CONTRACTOR IS REQUIRED TO APPLY FOR A PERMIT TO WORK WITHIN A PUBLIC WAY.

## EROSION AND SEDIMENTATION CONTROL NOTES

1. SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY CONSTRUCTION ON THE SITE.

2. ALL SOIL STOCKPILES SHALL HAVE EROSION CONTROL MEASURES AROUND THEIR EDGES AT ALL TIMES.

3. UNLESS OTHERWISE INDICATED, ALL DISTURBED AREAS SHALL RECEIVE 6" OF LOAM AND BE SEEDED TO PREVENT EROSION.

4. THE CONTRACTOR IS RESPONSIBLE TO CLEAN UP ANY SEDIMENT OR DEBRIS WHICH ERODES FROM THE SITE ONTO PUBLIC ROADS AND PRIVATE PROPERTY AND TO REMOVE SEDIMENT OR DEBRIS THAT ENTERS ANY EXISTING DRAINAGE SYSTEM INCLUDING CATCH BASIN SUMPS, PIPE LINES, MANHOLES, AND DITCHES.

5. THE CONTRACTOR SHALL FOLLOW STANDARD PRACTICE AND LOAM AND SEED ALL DISTURBED AREAS FOLLOWING CONSTRUCTION.

6. OPERATOR PERSONNEL MUST INSPECT THE CONSTRUCTION SITE AT LEAST EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 0.5 INCHES OR MORE. DISTURBED AREAS THAT HAVE BEEN STABILIZED MUST BE INSPECTED AT LEAST ONCE PER MONTH.

## DRAINAGE SYSTEM OPERATION AND MAINTENANCE PLAN

1. BMP OWNER:

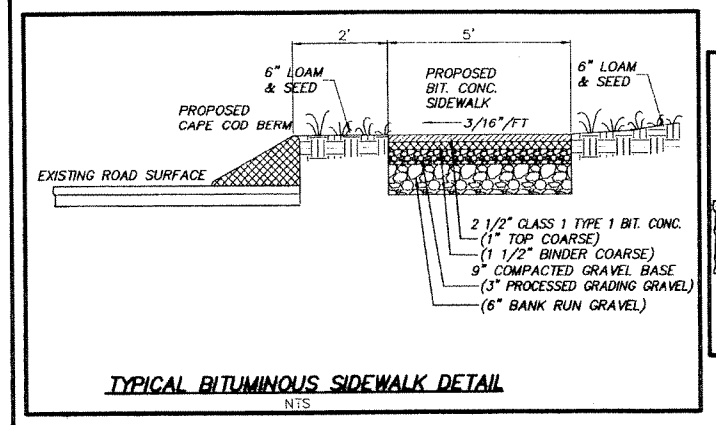
| DURING CONSTRUCTION: | AFTER CONSTRUCTION: |
|---|---|
| SITE CONTRACTOR | OWNERS OF 28 WILLOW AND 212 CENTRAL STREET |

2. PARTIES RESPONSIBLE FOR OPERATION AND MAINTENANCE: SAME AS ABOVE

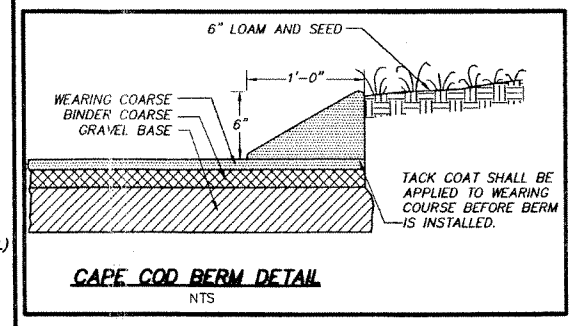
3. SCHEDULE FOR OPERATION AND MAINTENANCE:

ROOF DRAIN DRYWELL
THE DRYWELL SHALL BE INSPECTED AFTER EVERY MAJOR STORM FOR THE FIRST FEW MONTHS TO ENSURE PROPER STABALIZATION AND FUNCTION AND INSPECT ANNUALLY THEREAFTER. THE INSPECTION SHALL CONSIST OF REMOVING THE INSPECTION PORT CAP AND OBSERVING THE WATER LEVEL. THE DRYWELL SHOULD BE DRY 72 HOURS AFTER A MAJOR STORM. IF WATER REMAINS IN THE DRYWELL FOR MORE THAN 72 HOURS THE DRYWELL MAY BE CLOGGED AND NEED TO BE REPLACED.

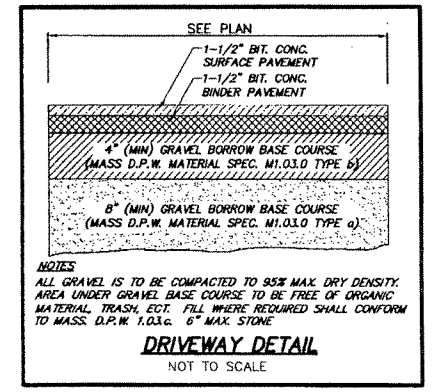
INFILTRATION TRENCH
THE INFILTRATION TRENCH SHALL BE INSPECTED ANNUALLY. THE FILTER FABRIC SHALL BE CHECKED FOR EXCESSIVE SEDIMENT BUILD UP. IF APPRECIABLE AMOUNTS OF SEDIMENT ARE OBSERVED THEN THE PEASTONE SHALL BE MOVED ASIDE AND THE FILTER FABRIC REPLACED. THE PEASTONE SHALL THEN BE WASHED AND PLACED OVER THE NEW FILTER FABRIC IN A 3 INCH LAYER AS SHOWN ON THE DETAIL.




TYPICAL BITUMINOUS SIDEWALK DETAIL
NTS




CAPE COD BERM DETAIL
NTS




DRIVEWAY DETAIL
NOT TO SCALE

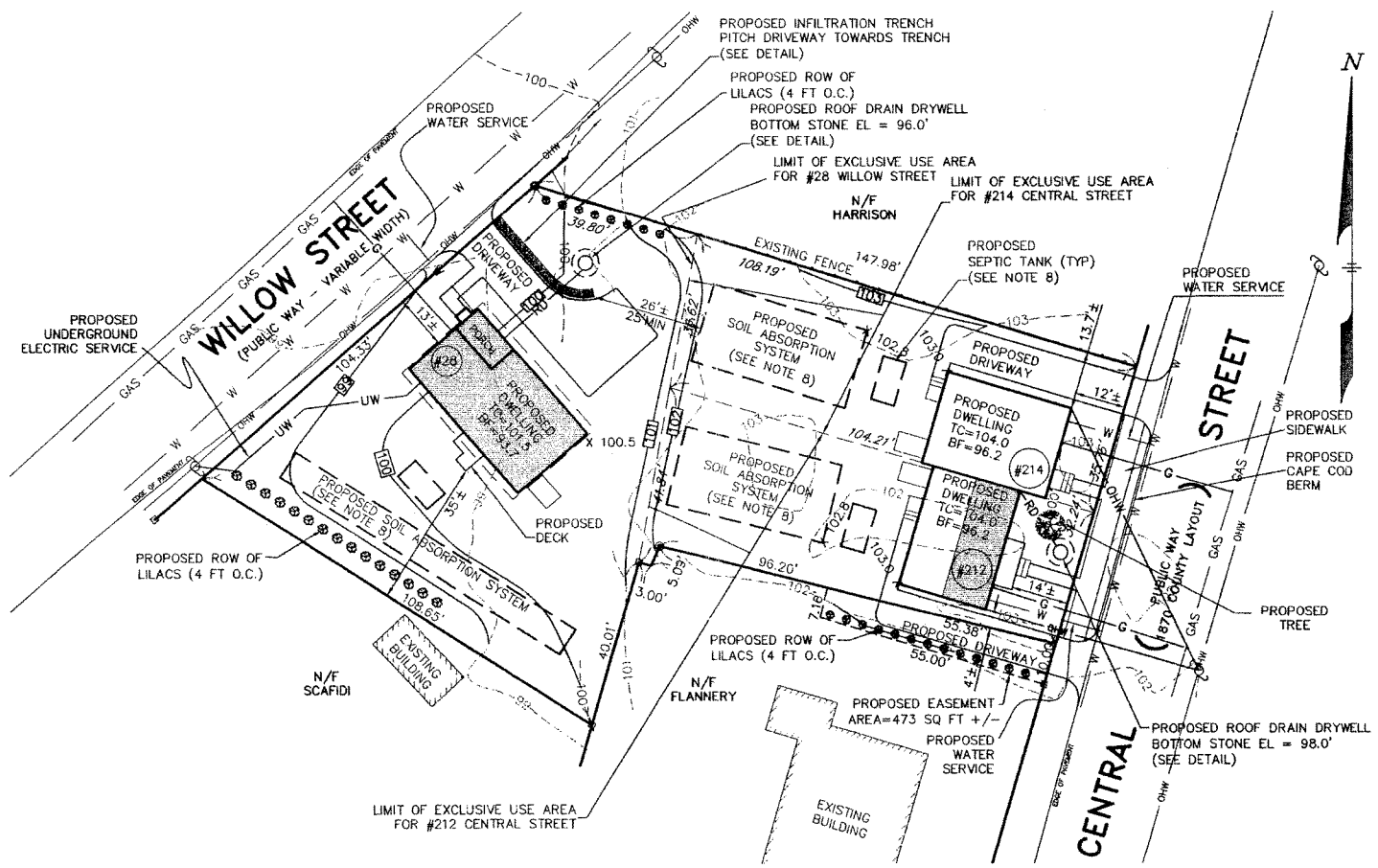
## LEGEND:

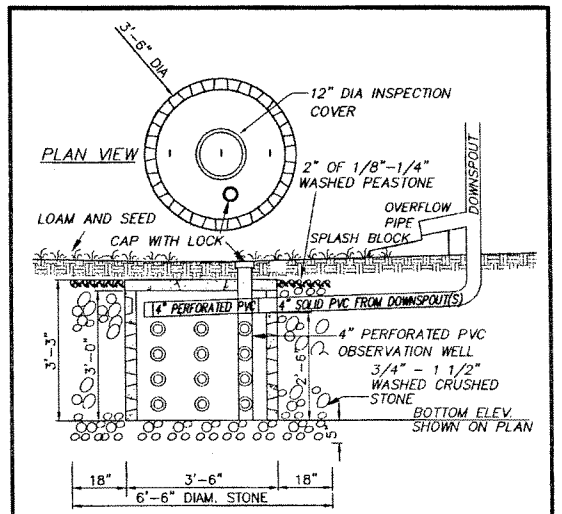
PROPOSED

| | |
|---|---|
| TC=104.0' | TOP OF CONCRETE |
| BF=96.2± | BASEMENT FLOOR |
| 102.8 x | SPOTGRADE |
| 100 | CONTOUR |
| UW | UNDERGROUND WIRES (ELECTRIC, CABLE, TELEPHONE) |
| OHW | OVERHEAD WIRES (ELECTRIC, CABLE, TELEPHONE) |
| W | WATER SERVICE |
| RD | ROOF DRAIN |
| G | GAS SERVICE |
| | ROOF AREA TO DRAIN TO DRYWELL |

EXISTING

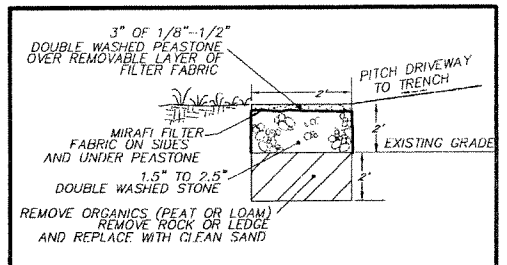
| | |
|---|---|
| N/F | NOW OR FORMERLY |
| 218 | CONTOUR (INTERMEDIATE) |
| 220 | CONTOUR (INDEX) |
| OHW | OVERHEAD WIRES |
| | UTILITY POLE |




NOTES:
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. ALSO AVAILABLE IN ONE PIECE.
3. AS MANUFACTURED BY SHEA CONCRETE OR APPROVED EQUAL

ROOF DRAIN DRYWELL
N.T.S.




INFILTRATION TRENCH DETAIL
NOT TO SCALE

APPROVED BY:
TOWN OF ACTON
ZONING BOARD OF APPEALS

DATE

| REVISION # | DESCRIPTION | DATE |
|---|---|---|
| 1 | TOWN COMMENTS | 8-15-06 |

COMPREHENSIVE PERMIT PLAN
28 WILLOW STREET AND 212 CENTRAL STREET
ACTON, MASSACHUSETTS

SITE DEVELOPMENT PLAN
EROSION AND SEDIMENTATION CONTROL PLAN
CONSTRUCTION DETAILS PLAN
FOR: ACTON COMMUNITY HOUSING CORPORATION
SCALE: 1"=20' JUNE 2, 2006

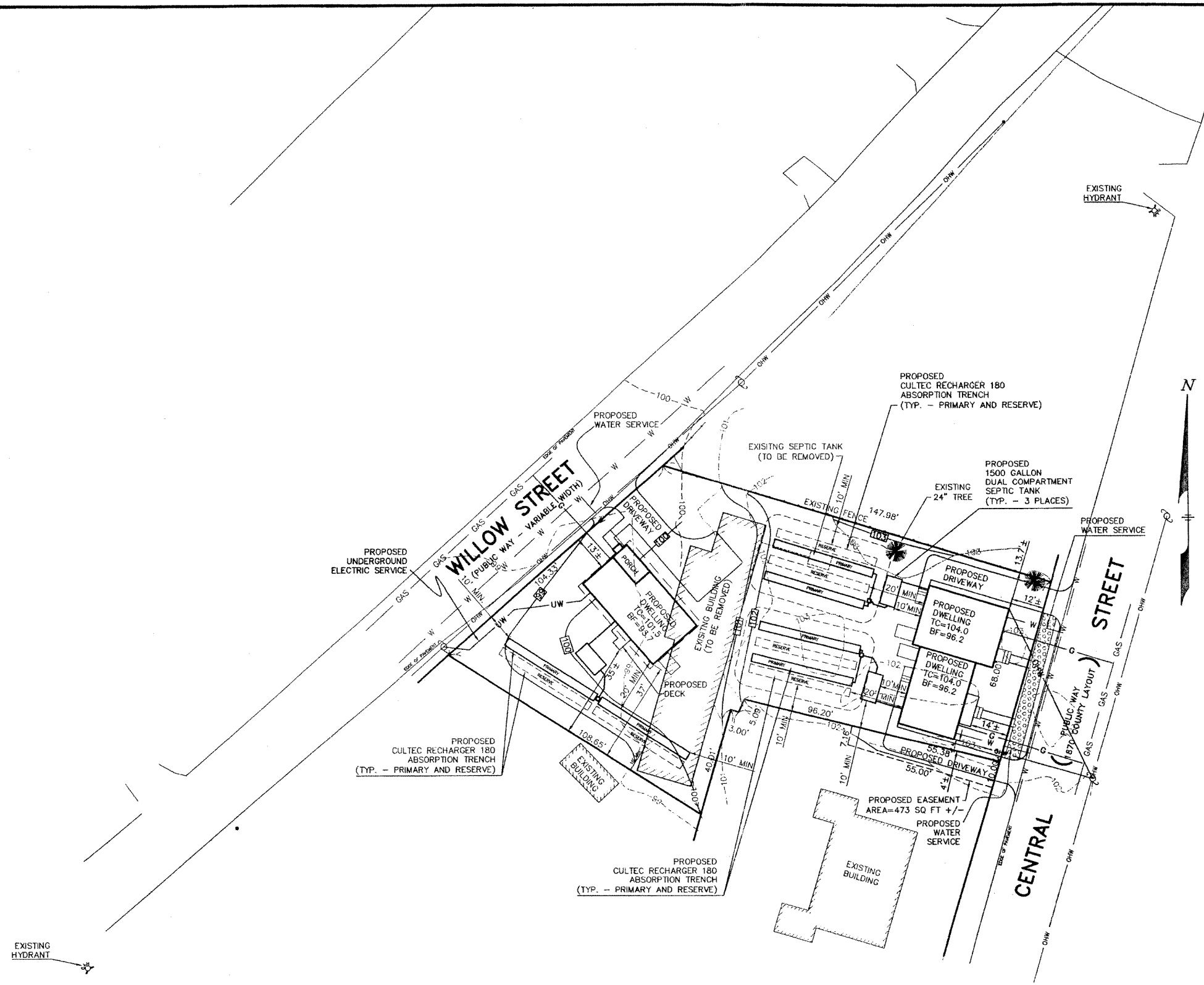

STAMSKI AND MCNARY, INC.
80 HARRIS STREET ACTON, MASSACHUSETTS
(978) 263-8585
ENGINEERING - PLANNING - SURVEYING


0 10 20 40 60 80 FT

(3905 COMP PERMIT.DWG) SHEET 2 OF 4 SM-3905

WILLIAM F. McNARY No. 30753 PROFESSIONAL ENGINEER

JOSEPH MARCH CIVIL #40472 REGISTERED PROFESSIONAL ENGINEER




## LEGEND:

### PROPOSED

| | |
|---|---|
| TC=104.0 | TOP OF CONCRETE |
| BF=96.2 | BASEMENT FLOOR |
| F.G. 103.0 X | SPOTGRADE |
| 100 | CONTOUR |
| W | WATER SERVICE |
| UW | UNDERGROUND WIRES (ELECTRIC, CABLE, TELEPHONE) |
| G | GAS SERVICE |

### EXISTING

| | |
|---|---|
| N/F | NOW OR FORMERLY |
| 103 | CONTOUR (INTERMEDIATE) |
| 100 | CONTOUR (INDEX) |
| | UTILITY POLE |

APPROVED BY:
TOWN OF ACTON
ZONING BOARD OF APPEALS

DATE

| REVISION # | DESCRIPTION | DATE |
|---|---|---|
| 1 | TOWN COMMENTS | 8-15-06 |

COMPREHENSIVE PERMIT PLAN
28 WILLOW STREET AND 212 CENTRAL STREET
# ACTON, MASSACHUSETTS

PRELIMINARY UTILITIES PLAN

FOR: ACTON COMMUNITY HOUSING CORPORATION

SCALE: 1"=20' JUNE 2, 2006

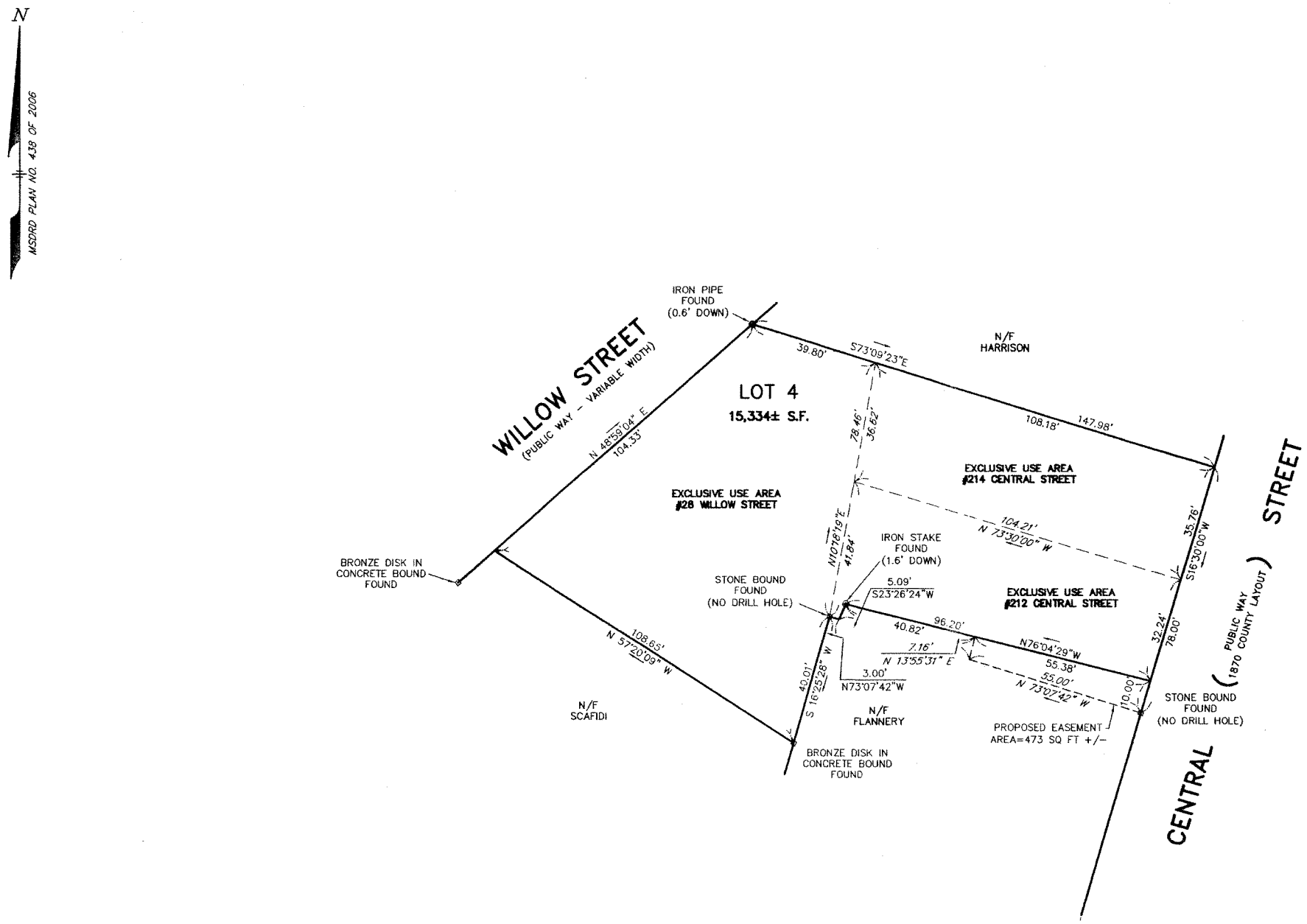
STAMSKI AND MCNARY, INC.
80 HARRIS STREET ACTON, MASSACHUSETTS
(978) 263-8585
ENGINEERING - PLANNING - SURVEYING

0 10 20 40 60 80 FT

(3905 COMP PERMIT.DWG) SHEET 3 OF 4 SM-3905

COMMONWEALTH OF MASSACHUSETTS WILLIAM F. McNARY No. 30753 PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS JOSEPH MARCH CIVIL #40472 REGISTERED PROFESSIONAL ENGINEER




## RECORD OWNER

TOWN OF ACTON
472 MAIN STREET
ACTON, MA 01720

## ZONING DISTRICT

VR (VILLAGE RESIDENTIAL)
GROUNDWATER PROTECTION DISTRICT ZONE 3

## REFERENCE

MSDRD DEED BOOK 28812, PAGES 600, 601
MSDRD PLAN NO. 438 OF 2006

ASSESSORS MAP F-2B
PARCEL 64 (28 WILLOW STREET)
PARCEL 65 (214 CENTRAL STREET)

RESERVED FOR REGISTRY USE

I CERTIFY THAT THIS PLAN SHOWS THE PROPERTY LINES THAT ARE THE LINES OF EXISTING OWNERSHIP, AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF OWNERSHIP OR FOR NEW WAYS ARE SHOWN; AND THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

17 AUG 06
DATE

REGISTERED PROFESSIONAL LAND SURVEYOR

COMPREHENSIVE PERMIT PLAN
28 WILLOW STREET AND 212 CENTRAL STREET
# ACTON, MASSACHUSETTS

RECORD PLAN

FOR: ACTON COMMUNITY HOUSING CORPORATION

SCALE: 1"=20' AUGUST 15, 2006

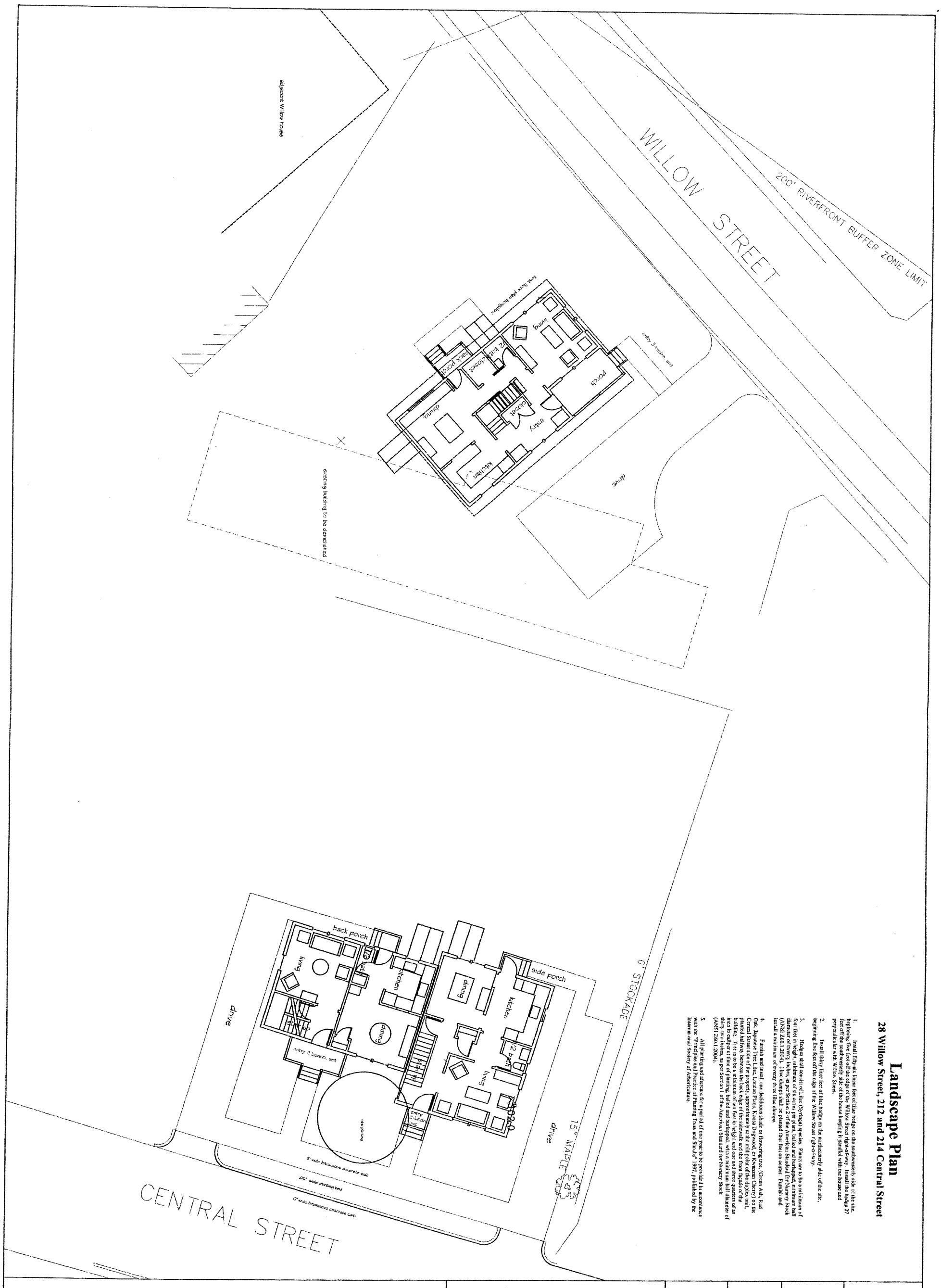
STAMSKI AND MCNARY, INC.
80 HARRIS STREET ACTON, MASSACHUSETTS
(978) 263-8585
*ENGINEERING – PLANNING – SURVEYING*

0 10 20 40 60 80 FT

(3905 COMP PERMIT.DWG) SHEET 4 OF 4 SM-3905

WILLIAM F. McNARY No. 30753

JOSEPH MARCH CIVIL #40472




# Landscape Plan

## 28 Willow Street, 212 and 214 Central Street

1. Install Elly-ak linear feet of lilac hedge on the southwesterly side of the site, beginning five feet off the edge of the Willow Street right-of-way. Install the hedge 27 feet off the southwesterly side of the house keeping it parallel with the house and perpendicular with Willow Street.

2. Install thirty linear feet of lilac hedge on the northeasterly side of the site, beginning five feet off the edge of the Willow Street right-of-way.

3. Hedges shall consist of Lilac (Syringa) species. Plants are to be a minimum of four feet in height, minimum of six canes per plant, balled and burlapped, minimum ball diameter of twenty inches, as per Section 2 of the American Standard for Nursery Stock (ANSI Z60.1.2004). Lilac clumps shall be planted four feet on center. Furnish and install a minimum of twenty three lilac clumps.

4. Furnish and install one deciduous shade or flowering tree, (Green Ash, Red Oak, Japanese Tree Lilac, Louisiana Plane, Kousa Dogwood, or Kwanzan Cherry) on the Central Street side of the property, approximately at the mid point of the duplex unit, planted halfway between the back edge of the sidewalk and the front facade of the building. This is to be a minimum of ten feet in height and one and three quarters of an inch in caliper at time of planting, balled and burlapped, with a minimum ball diameter of thirty two inches, as per Section 1 of the American Standard for Nursery Stock (ANSI Z60.1.2004).

5. All planting and aftercare for a period of one year be provided in accordance with the "Principles and Practice of Planting Trees and Shrubs" 1997, published by the International Society of Arboriculture.

| | | | | |
|---|---|---|---|---|
| WILLOW/CENTRAL RESIDENCES<br>for Acton Community Housing Corportation, Acton, MA | PROPOSED SCHEMATIC SITE PLAN<br>showing first floor plans of Willow and Central houses<br>1/8" = 1' 6/6/05<br>TERRENCE G. HEINLEIN AIA ARCHITECT<br>1 ABERDEEN ROAD WESTON MA | | | S-1 |

# WILLOW/CENTRAL RESIDENCES

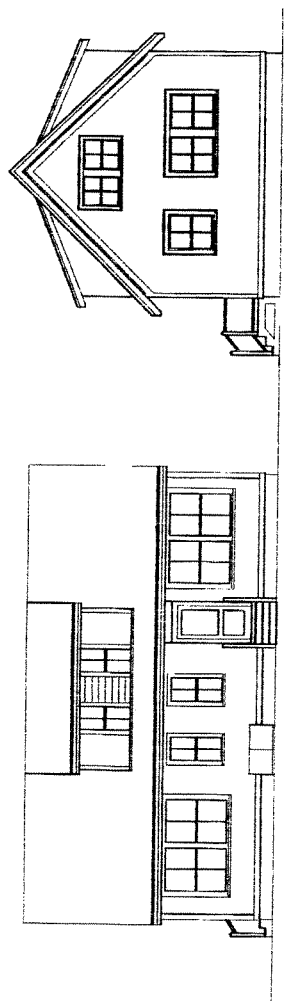
for Acton Community Housing Corporation, Acton, MA

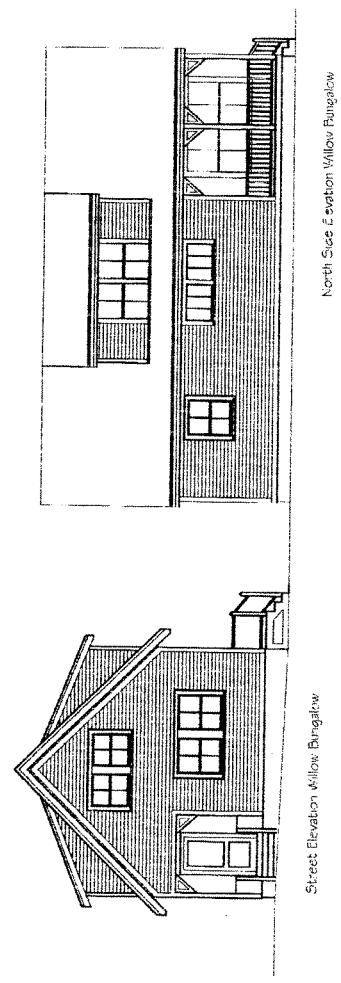
## PROPOSED SCHEMATIC ELEVATIONS

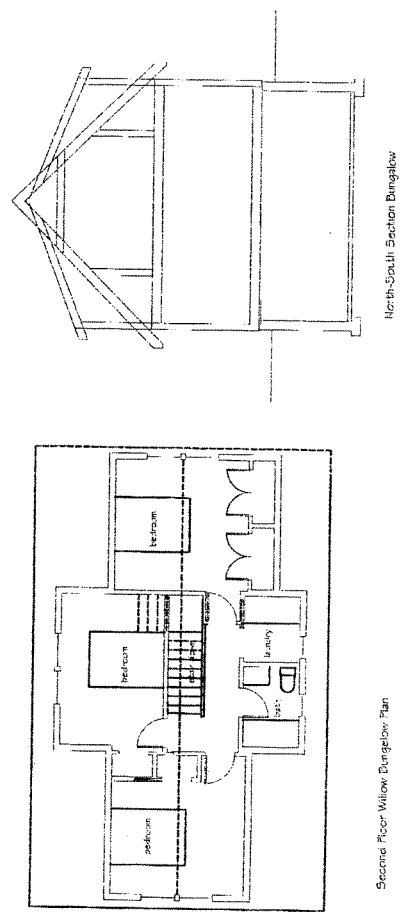
1/8" = 1'  6/6/05

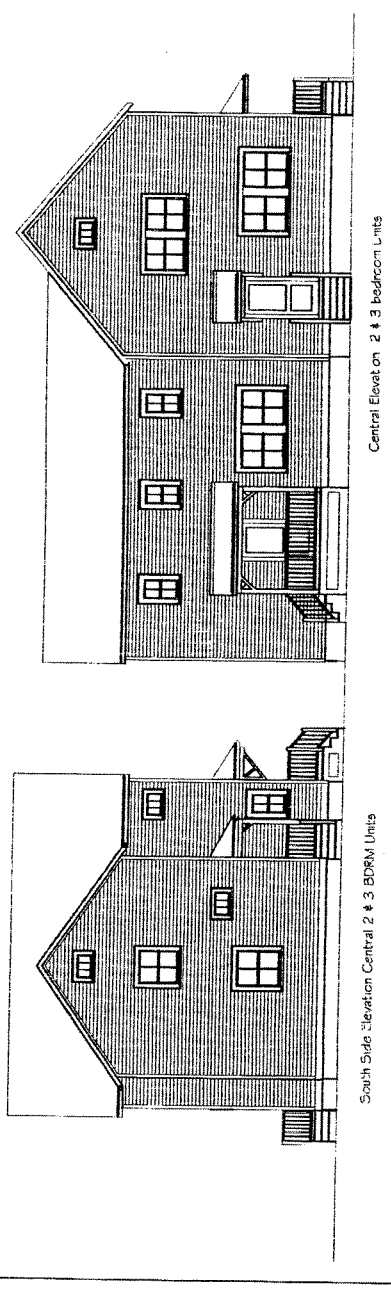
TERRENCE G. HEINLEIN AIA ARCHITECT
1 ABERDEEN ROAD  WESTON MA

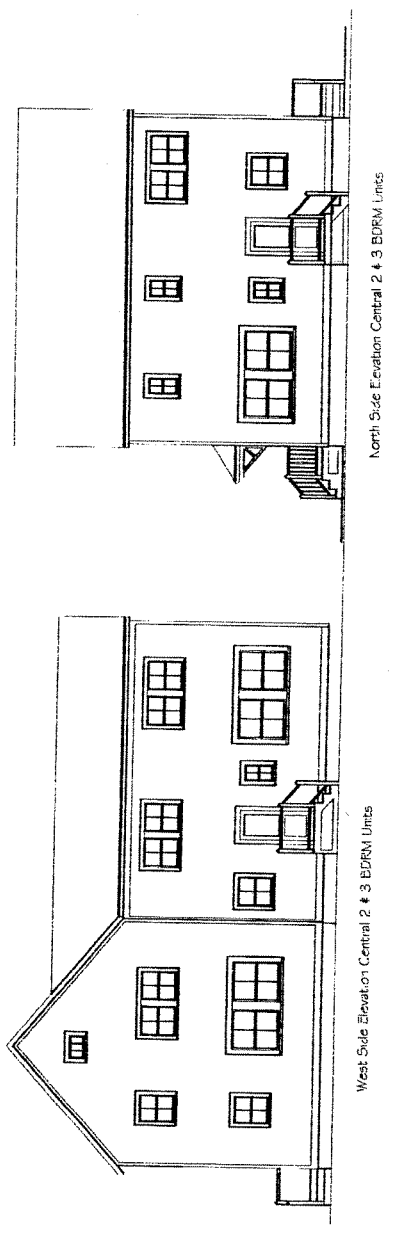
A-1

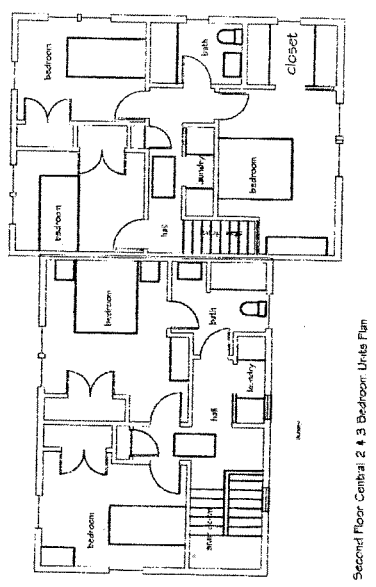


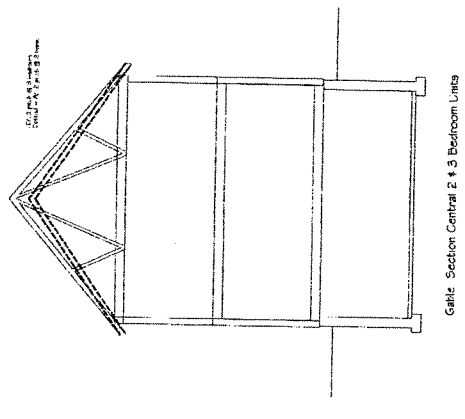



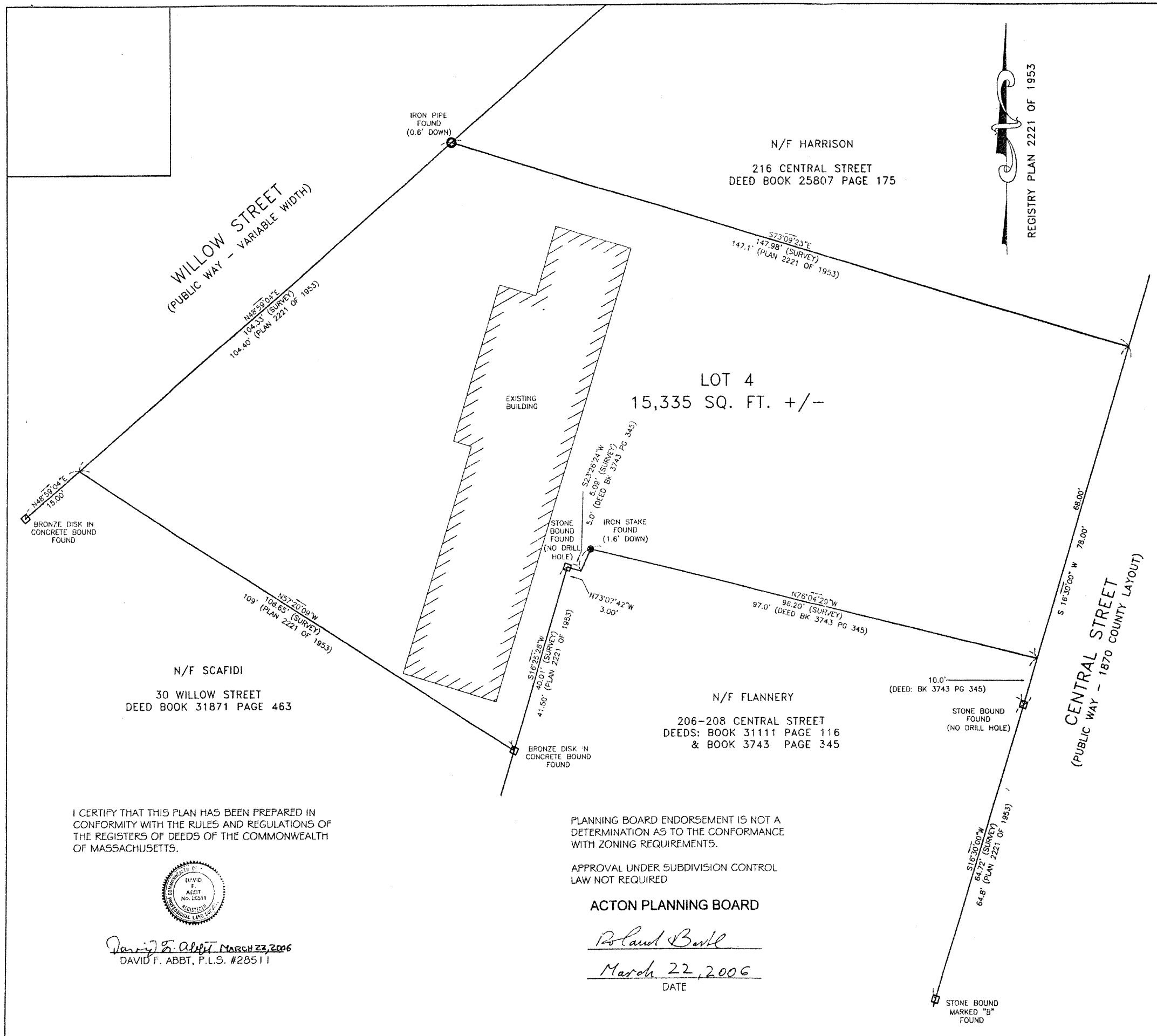






NOTES:

1. THE SUBJECT PROPERTIES TO BE COMBINED ARE PARCELS 64 & 65 ON SHEET F-2B OF THE ACTON TOWN ATLAS.
2. ZONING DISTRICT: VILLAGE RESIDENTIAL (V-R)
3. GROUNDWATER PROTECTION DISTRICT - ZONE 3
4. FLOOD AREA - ZONE X - OUTSIDE OF THE 500-YEAR FLOOD PLAIN.
5. THE EXISTING PROPERTY MONUMENTATION WAS LOCATED FROM A FIELD SURVEY CONDUCTED BY THE TOWN OF ACTON ENGINEERING DEPARTMENT FROM FEBRUARY 6 - 8, 2006.
6. THE PURPOSE OF THIS PLAN IS TO COMBINE LOT 2 AND LOT 3 FROM REGISTRY PLAN 2221 OF 1953 AND CREATE A NEW LOT 4 WITH A TOTAL LAND AREA OF 15,335 SQUARE FEET.

SEE THE FOLLOWING DOCUMENTS RECORDED AT THE MIDDLESEX SOUTH DISTRICT REGISTRY OF DEEDS:

DEEDS- BOOK 28812 PG 600 (TOWN ATLAS MAP F-2B PARCELS 65)
- BOOK 28812 PG 601 (TOWN ATLAS MAP F-2B PARCELS 64)
- BOOK 12870 PG 293 (TOWN ATLAS MAP F-2B PARCELS 64 & 65)
- BOOK 25807 PG 175 (TOWN ATLAS MAP F-2B PARCEL 59)
- BOOK 31871 PG 463 (TOWN ATLAS MAP F-2B PARCEL 75)
- BOOK 31111 PG 116 (TOWN ATLAS MAP F-2B PARCEL 76)
- BOOK 3743 PG 345 (TOWN ATLAS MAP F-2B PARCEL 76)

PLANS- BOOK 8188 PG END (2221 OF 1953)
- BOOK 9040 PG 541 (1531 OF 1957)
- BOOK 4730 PG END

SEE ALSO THE FOLLOWING PLANS IN THE TOWN OF ACTON ENGINEERING DEPARTMENT:
- 1870 COUNTY LAYOUT OF CENTRAL STREET ENTITLED "PLAN OF COUNTY ROAD LEADING FROM THE HARVARD TURNPIKE SO CALLED IN WEST ACTON TO THE CEMETERY, PREPARED BY W. D. TUTTLE, ENGINEER" (PLAN #H018)

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

COMMONWEALTH OF MASSACHUSETTS DAVID F. ABBT No. 28511 REGISTERED PROFESSIONAL LAND SURVEYOR

David F. Abbt MARCH 23, 2006
DAVID F. ABBT, P.L.S. #28511

PLANNING BOARD ENDORSEMENT IS NOT A DETERMINATION AS TO THE CONFORMANCE WITH ZONING REQUIREMENTS.

APPROVAL UNDER SUBDIVISION CONTROL LAW NOT REQUIRED

ACTON PLANNING BOARD

Roland Bartl
March 22, 2006
DATE

# PLAN OF LAND
IN
# ACTON, MASSACHUSETTS
(MIDDLESEX COUNTY)

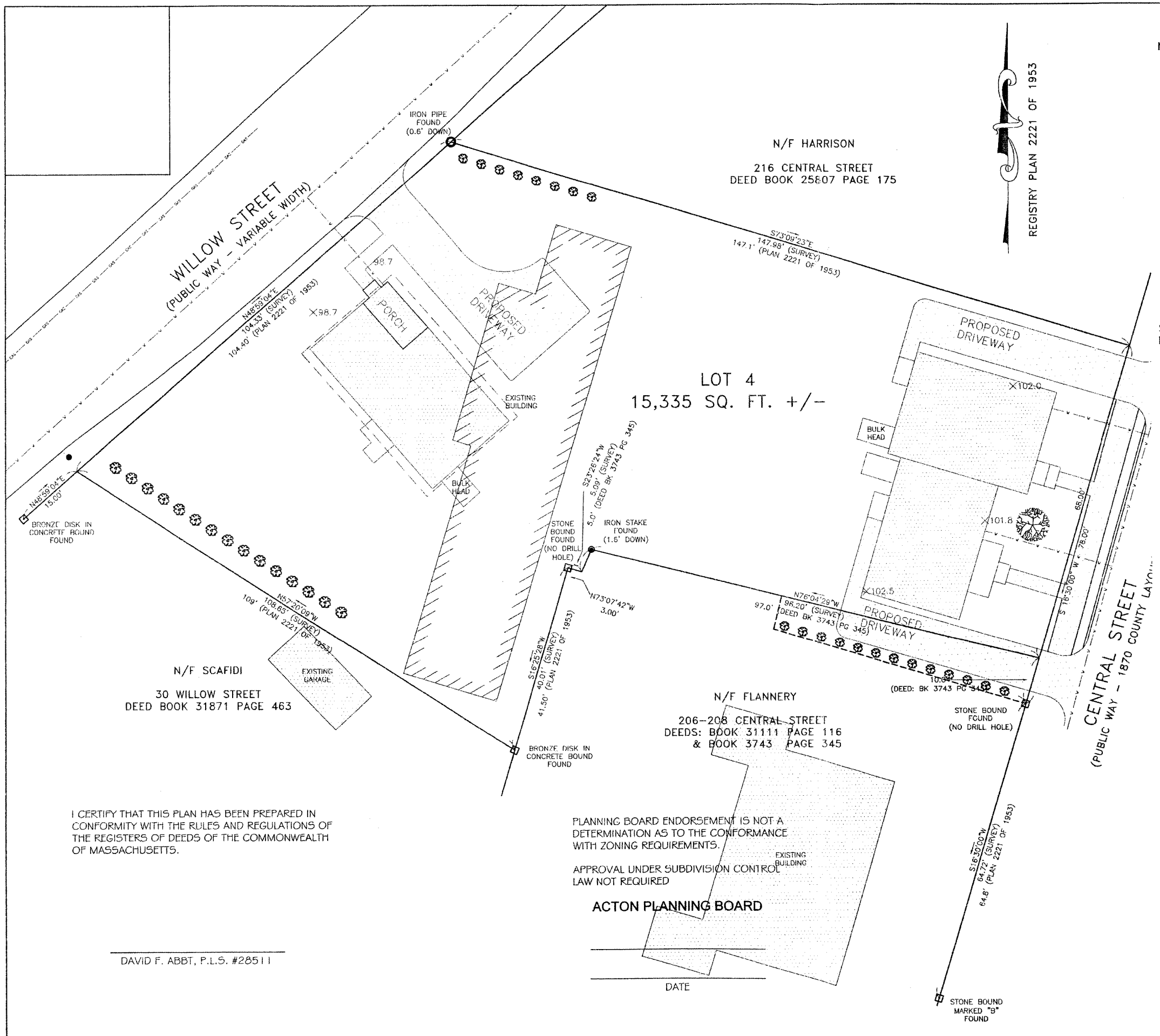
PREPARED FOR THE TOWN OF ACTON
28 WILLOW STREET &
214 CENTRAL STREET

SCALE: 1" = 10' MARCH 1, 2006

PREPARED BY
THE TOWN OF ACTON ENGINEERING DEPARTMENT
472 MAIN STREET ACTON, MA 01720

SCALE IN FEET
0 10 25 50
0 5 10 15
SCALE IN METERS

ACTON ENGINEERING DEPT. - FILENAME: WILLOW STREET - ACHC - ST NO 28.DWG - 2006 - PREPARED BY C. YORK




NOTES:

1. THE SUBJECT PROPERTIES TO BE COMBINED ARE PARCELS 64 & 65 ON SHEET F-2B OF THE ACTON TOWN ATLAS.
2. ZONING DISTRICT: VILLAGE RESIDENTIAL (V-R)
3. GROUNDWATER PROTECTION DISTRICT - ZONE 3
4. FLOOD AREA - ZONE X - OUTSIDE OF THE 500-YEAR FLOOD PLAIN.
5. THE EXISTING PROPERTY MONUMENTATION WAS LOCATED FROM A FIELD SURVEY CONDUCTED BY THE TOWN OF ACTON ENGINEERING DEPARTMENT FROM FEBRUARY 6 - 8, 2006.
6. THE PURPOSE OF THIS PLAN IS TO COMBINE LOT 2 AND LOT 3 FROM REGISTRY PLAN 2221 OF 1953 AND CREATE A NEW LOT 4 WITH A TOTAL LAND AREA OF 15,335 SQUARE FEET.

SEE THE FOLLOWING DOCUMENTS RECORDED AT THE MIDDLESEX SOUTH DISTRICT REGISTRY OF DEEDS:

DEEDS- BOOK 28812 PG 600 (TOWN ATLAS MAP F-2B PARCELS 65)
- BOOK 28812 PG 601 (TOWN ATLAS MAP F-2B PARCELS 64)
- BOOK 12870 PG 293 (TOWN ATLAS MAP F-2B PARCELS 64 & 65)
- BOOK 25807 PG 175 (TOWN ATLAS MAP F-2B PARCEL 59)
- BOOK 31871 PG 463 (TOWN ATLAS MAP F-2B PARCEL 75)
- BOOK 31111 PG 116 (TOWN ATLAS MAP F-2B PARCEL 76)
- BOOK 3743 PG 345 (TOWN ATLAS MAP F-2B PARCEL 76)

PLANS- BOOK 8188 PG END (2221 OF 1953)
- BOOK 9040 PG 541 (1531 OF 1957)
- BOOK 4730 PG END

SEE ALSO THE FOLLOWING PLANS IN THE TOWN OF ACTON ENGINEERING DEPARTMENT:
- 1870 COUNTY LAYOUT OF CENTRAL STREET ENTITLED "PLAN OF COUNTY ROAD LEADING FROM THE HARVARD TURNPIKE SO CALLED IN WEST ACTON TO THE CEMETERY, PREPARED BY W. D. TUTTLE, ENGINEER" (PLAN #H018)

# PLAN OF LAND
IN
# ACTON, MASSACHUSETTS
(MIDDLESEX COUNTY)

PREPARED FOR THE TOWN OF ACTON
28 WILLOW STREET &
214 CENTRAL STREET

SCALE: 1" = 10' MARCH 1, 2006

PREPARED BY
THE TOWN OF ACTON ENGINEERING DEPARTMENT
472 MAIN STREET ACTON, MA 01720

I CERTIFY THAT THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

DAVID F. ABBT, P.L.S. #28511

PLANNING BOARD ENDORSEMENT IS NOT A DETERMINATION AS TO THE CONFORMANCE WITH ZONING REQUIREMENTS.

APPROVAL UNDER SUBDIVISION CONTROL LAW NOT REQUIRED

**ACTON PLANNING BOARD**

DATE

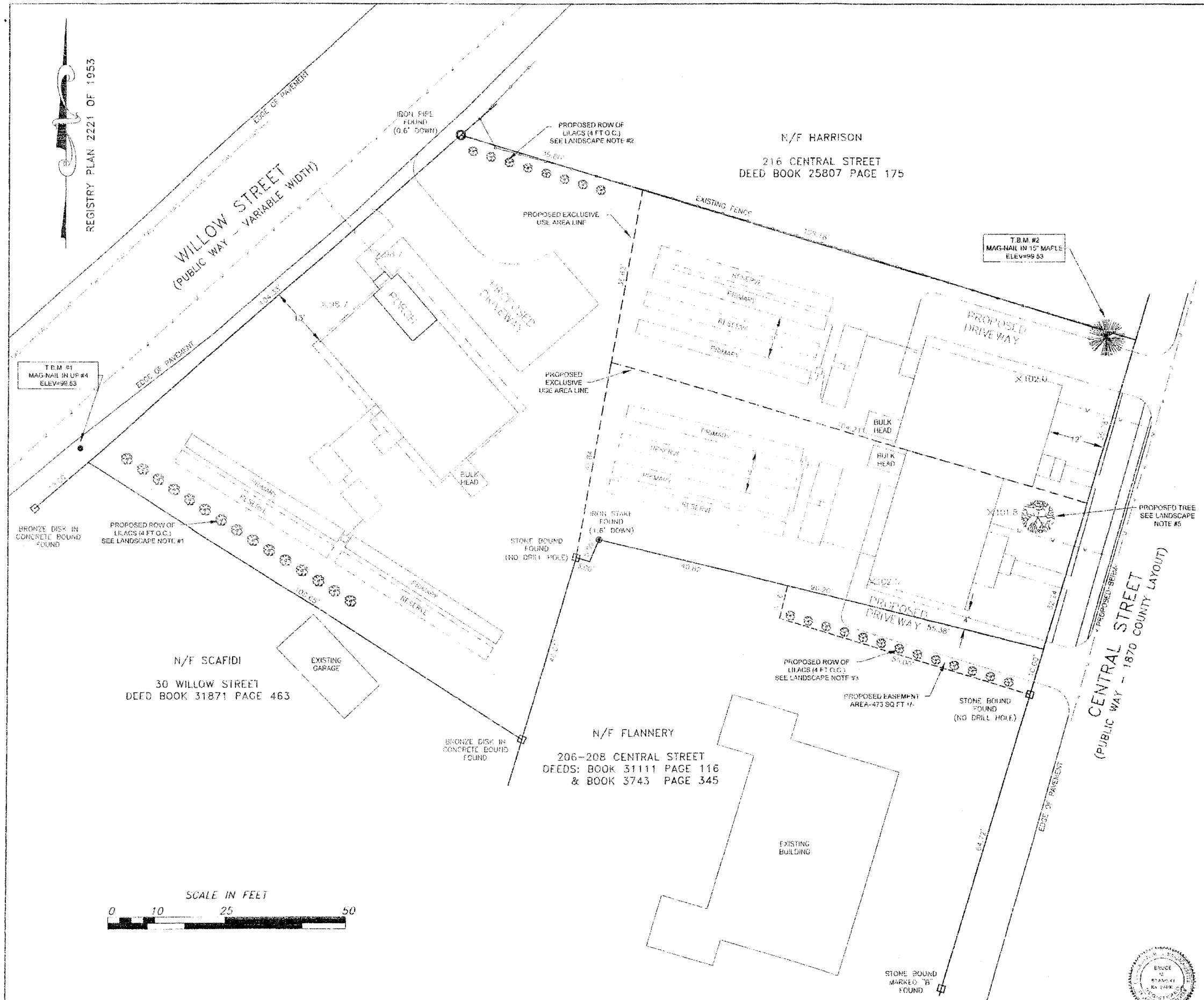
SCALE IN FEET

0 10 25 50

0 5 10 15

SCALE IN METERS

ACTON ENGINEERING DEPT. - FILENAME: WILLOW STREET - ACHC - ST NO 28.DWG - 2006 - PREPARED BY C. YORK




## GENERAL NOTES

BOUNDARY LINE INFORMATION TAKEN FROM THE PLANS AND DEEDS ON FILE AT THE SOUTH DISTRICT REGISTRY OF DEEDS AND ALSO FROM A RECENT SURVEY PLAN TO BE RECORDED AT THE REGISTRY ENTITLED "PLAN OF LAND IN ACTON, MASSACHUSETTS (MIDDLESEX COUNTY), PREPARED FOR THE TOWN OF ACTON, 28 WILLOW STREET & 214 CENTRAL STREET, SCALE 1"= 10' " DATED MARCH 1, 2006 AND PREPARED BY THE TOWN OF ACTON ENGINEERING DEPARTMENT.

CONTRACTOR SHALL NOTIFY DIG-SAFE (888) 344-7233 AT LEAST 72 HOURS PRIOR TO START OF ANY SITE WORK.

## LANDSCAPE NOTES

28 WILLOW STREET, 212 AND 214 CENTRAL STREET

1.) INSTALL 56 LINEAR FEET OF LILAC HEDGE ON THE SOUTHWESTERLY SIDE OF THE SITE, BEGINNING 5 FEET OFF THE EDGE OF THE WILLOW STREET RIGHT OF WAY.

2.) INSTALL 30 LINEAR FEET OF LILAC HEDGE ON THE NORTHEASTERLY SIDE OF THE SITE, BEGINNING 5 FEET OFF THE EDGE OF THE WILLOW STREET RIGHT OF WAY.

3.) INSTALL 48 LINEAR FEET OF LILAC HEDGE ALONG THE PROPOSED EASEMENT LINE, BEGINNING 5 FEET OFF THE EDGE OF THE CENTRAL STREET RIGHT OF WAY.

4.) HEDGES SHALL CONSIST OF LILAC (SYRINGA) SPECIES. PLANTS ARE TO BE A MINIMUM OF 4 FEET IN HEIGHT, MINIMUM OF 6 CANES PER PLANT, BALLED AND BURLAPPED, MINIMUM BALL DIAMETER OF 20 INCHES, AS PER SECTION 2 OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004). LILAC CLUMPS SHALL BE PLANTED 4 FEET ON CENTER. FURNISH AND INSTALL A MINIMUM OF 23 LILAC CLUMPS.

5.) FURNISH AND INSTALL 1 DECIDUOUS SHADE OR FLOWERING TREE. (GREEN ASH, RED OAK, JAPANESE TREE LILAC, LONDON PLANE, KOUSA DOGWOOD, OR KWANZAN CHERRY) ON THE CENTRAL STREET SIDE OF THE PROPERTY, APPROXIMATELY AT THE MIDPOINT OF THE DUPLEX UNIT, PLANTED HALFWAY BETWEEN THE BACK EDGE OF THE SIDEWALK AND THE FRONT FACADE OF THE BUILDING.

TREE IS TO BE A MINIMUM OF 10 FEET IN HEIGHT AND 1-$\frac{3}{4}$ OF AN INCH IN CALIPER AT TIME OF PLANTING, BALLED AND BURLAPPED, WITH A MINIMUM BALL DIAMETER OF 32 INCHES, AS PER SECTION 1 OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1-2004).

6.) ALL PLANTING AND AFTERCARE FOR A PERIOD OF 1 YEAR TO BE PROVIDED IN ACCORDANCE WITH THE "PRINCIPLES AND PRACTICE OF PLANTING TREES AND SHRUBS" 1997, PUBLISHED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE.

LEGEND

U.P. • UTILITY POLE

LILAC SHRUB

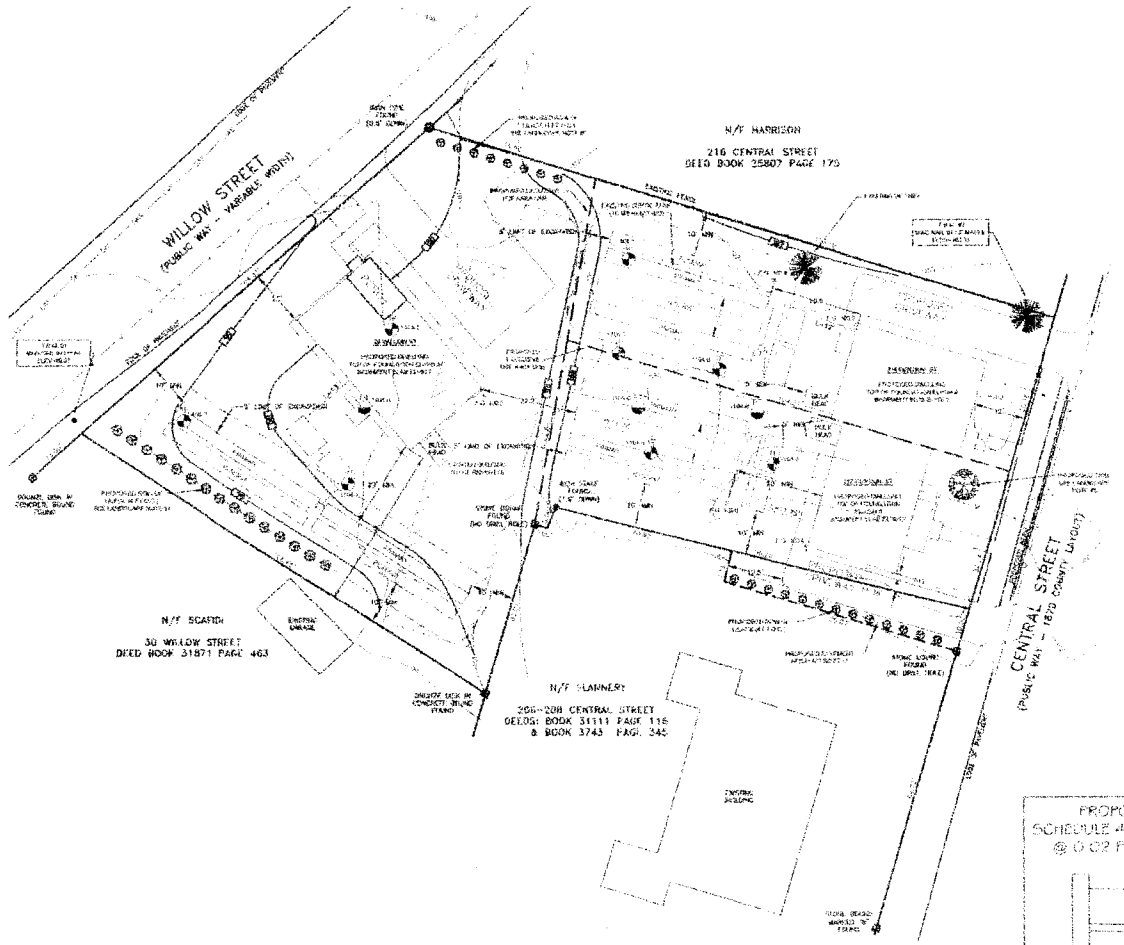
STOCKADE FENCE

BRUCE M. STAMSKI, P.E.

| | |
|---|---|
| SURVEY: D. ABBT<br>C. YORK | TOWN OF ACTON ENGINEERING DEPARTMENT |
| DESIGN: C. YORK | PROPOSED SEWAGE DISPOSAL PLAN<br>28 WILLOW STREET &<br>214 CENTRAL STREET |
| DRAFTING: C. YORK | LANDSCAPE PLAN |
| CHECKED: B. STAMSKI | SCALE: AS NOTED / DATE: 3/17/2006 |

ACTON ENGINEERING DEPT. – FILENAME: WILLOW STREET – ACHC - ST NO 28 – LANDSCAPE PLAN.DWG – 2006 – PREPARED BY C. YORK

REGISTRY PLAN 2221 OF 1953




LEGEND

U.P. UTILITY POLE
DEEP SOIL OBSERVATION HOLE
PERCOLATION TEST
STOCKADE FENCE

SCALE IN FEET
0 20 50 100
0 10 25
SCALE IN METERS

## GENERAL NOTES

BOUNDARY LINE INFORMATION TAKEN FROM THE PLANS AND DEEDS ON FILE AT THE SOUTH DISTRICT REGISTRY OF DEEDS AND ALSO FROM A RECENT SURVEY PLAN RECORDED AS PLAN 438 OF 2006 AT THE REGISTRY. THE PLAN IS ENTITLED "PLAN OF LAND IN ACTON, MASSACHUSETTS (MIDDLESEX COUNTY), PREPARED FOR THE TOWN OF ACTON, 28 WILLOW STREET & 214 CENTRAL STREET, SCALE 1"=10'" DATED MARCH 1, 2006 AND PREPARED BY THE TOWN OF ACTON ENGINEERING DEPARTMENT.

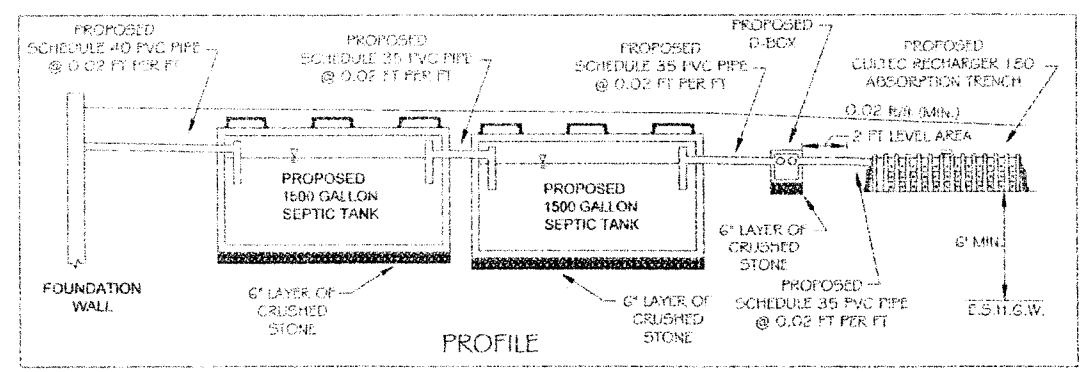
THE ELEVATIONS USED ON THIS PLAN ARE FROM AN ASSUMED BENCHMARK.

ELEVATIONS, SOIL INFORMATION, PERCOLATION RATES AND EXISTING CONDITIONS WERE COMPILED FROM THE SEWAGE DISPOSAL SYSTEM PLAN PREPARED BY GOLDSMITH, PRIEST & RINGWALL, INC. AND APPROVED BY THE BOARD OF HEALTH UNDER PERMIT #05-41NR.

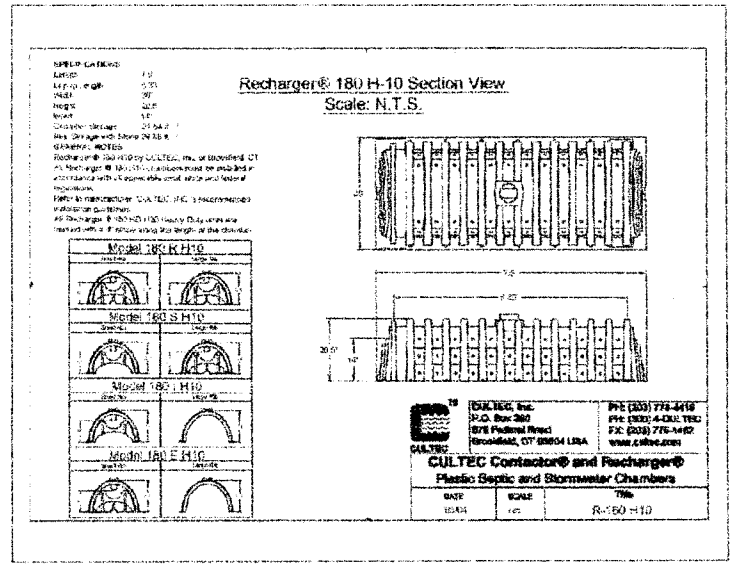
CONTRACTOR SHALL NOTIFY DIG-SAFE (888) 344-7233 AT LEAST 72 HOURS PRIOR TO START OF ANY SITE WORK.

### SOIL ABSORPTION AREA SCHEDULE OF ELEVATIONS

| | 28 Willow Street | 212 Central Street | 214 Central Street |
|---|---|---|---|
| TOP OF FOUNDATION | 101.50 | 104.00 | 104.00 |
| 4" INV (OUT) FOUNDATION | 98.33 | 101.02 | 101.11 |
| 4" SEPTIC TANK-1 INVERT (IN) | 98.07 | 100.78 | 100.87 |
| 4" SEPTIC TANK-1 INVERT (OUT) | 97.82 | 100.53 | 100.62 |
| 4" SEPTIC TANK-2 INVERT (IN) | 97.78 | 100.51 | 100.60 |
| 4" SEPTIC TANK-2 INVERT (OUT) | 97.53 | 100.26 | 100.35 |
| 4" DISTRIBUTION BOX INVERT (IN) | 97.43 | 100.21 | 100.22 |
| 4" DISTRIBUTION BOX INVERT (OUT) | 97.27 | 100.04 | 100.05 |
| 4" TRENCH INVERT (IN) | 97.27 | 99.87 | 99.87 |
| BOTTOM TRENCH | 96.10 | 98.70 | 98.70 |




PROFILE




### DESIGN STANDARDS

THE RECHARGER 180 IS AN OPEN-BOTTOM LEACHING UNIT MOLDED FROM HIGH DENSITY, HIGH MOLECULAR WEIGHT POLYETHYLENE (HDPE) WITH A 3.5 TO 4.5 OUNCE NON-WOVEN GEOSYNTHETIC FILTER FABRIC COVER (CULTEC NO. 410™). THE CHAMBERS HAVE BEEN DESIGNED AS AN ABSORPTION TRENCH WITHOUT AGGREGATE IN ACCORDANCE WITH THE REQUIREMENTS IN 310 CMR 15.251.

THE MINIMUM SEPARATION BETWEEN TRENCHES COMPLIES WITH 310 CMR 15.251.

THE EFFECTIVE LEACHING AREA FOR THE RECHARGER 180 IS 8.9 SF/LF

THE SOIL ABSORPTION SYSTEMS HAVE BEEN DESIGNED WITH AN AREA THAT IS GREATER THAN 400 SQUARE FEET AS SPECIFIED IN THE MODIFIED CERTIFICATION FOR GENERAL USE OF THE CULTEC RECHARGER 180 CHAMBERS..

### GENERAL CONDITIONS

THE FACILITY SERVED BY THE CULTEC CHAMBERS, AND THE CHAMBERS ITSELF, SHALL BE OPEN TO INSPECTION AND SAMPLING BY THE LOCAL APPROVING AUTHORITY AT ALL REASONABLE TIMES.

DESIGN, INSTALLATION AND USE OF THE CULTEC RECHARGER 180 CHAMBERS SHALL BE IN STRICT CONFORMANCE WITH THE CULTEC'S DEP APPROVED PLANS AND SPECIFICATIONS AND 310 CMR 15.000, SUBJECT TO THE MODIFIED CERTIFICATION FOR GENERAL USE (TRANSMITTAL NUMBER: W037676)

### CONDITIONS APPLICABLE TO THE SYSTEM OWNER

THE CULTEC CHAMBERS ARE APPROVED FOR THE TREATMENT AND DISPOSAL OF SANITARY SEWAGE ONLY. ANY WASTES THAT ARE NON-SANITARY SEWAGE GENERATED OR USED AT THE FACILITY SERVED BY THESE CHAMBERS SHALL NOT BE INTRODUCED INTO THE ON-SITE SEWAGE DISPOSAL SYSTEM AND SHALL BE LAWFULLY DISPOSED OF.

THE OWNER OF THE CULTEC RECHARGER 180 CHAMBERS SHALL AT ALL TIMES PROPERLY OPERATE AND MAINTAIN THE ON-SITE SEWAGE DISPOSAL SYSTEM.

NO OWNER SHALL AUTHORIZE OR ALLOW THE INSTALLATION OF THE SYSTEM OTHER THAN BY A PERSON TRAINED BY CULTEC TO INSTALL THE SYSTEM.

### CONDITIONS APPLICABLE TO INSTALLERS OF THE SYSTEM

THE CULTEC RECHARGER 180 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND THE CONDITIONS OF THE DEP CERTIFICATION.

## SEWAGE DISPOSAL DESIGN CRITERIA

DESIGN FLOW: 110 GPD PER BEDROOM

MAXIMUM NUMBER OF BEDROOMS PER UNIT: 3

TOTAL DAILY FLOW PER UNIT: 330 GPD

GARBAGE GRINDER: NO

SEPTIC TANK SIZE: 330 GPD X 200% = 660 GALLONS REQUIRED
= 1500 GALLON SEPTIC TANK PROVIDED

DESIGN PERCOLATION RATE: 2 MINUTES PER INCH
(TESTING PERFORMED ON 11/2/2004)

SOIL TEXTURAL CLASS: 1

EFFLUENT LOADING RATES:
(LONG TERM ACCEPTANCE RATES - LTAR)
0.74 GPD / SQ. FT. - TITLE V
0.5 GPD / SQ. FT. - LOCAL (BOTTOM LTAR)
0.74 GPD / SQ. FT. - LOCAL (SIDEWALL LTAR)

MINIMUM SEPARATION BETWEEN BOTTOM OF STONE & ESHGW: 6 FEET
REQUIRED (LOCAL REGULATION 16.6)

CULTEC CHAMBERS - RECHARGER MODEL 180HD
DEP - MODIFIED CERTIFICATION FOR GENERAL USE
TRANSMITTAL NUMBER: W037676
DATE OF ISSUANCE: DEC. 17, 2003

EFFECTIVE LEACHING AREA - 8.9 SQ. FT. PER LINEAR FOOT
1.67 X (BOTTOM WIDTH + (2 X INVERT HEIGHT)) FOR
SYSTEMS < OR = 3 FT WIDE

## SEWAGE DISPOSAL SYSTEM CALCULATIONS

INDIVIDUAL SEPTIC SYSTEMS FOR EACH UNIT USING CULTEC CHAMBERS (RECHARGER MODEL 180HD)

3 BEDROOMS X 110 GALLONS PER DAY PER BEDROOM = 330 GALLONS PER DAY (GPD)

EACH SYSTEM HAS TWO 38 FOOT LONG TRENCHES WITH 6 CULTEC CHAMBERS.

TITLE 5
- EFFECTIVE CAPACITY - 2 TRENCHES X 38 FT. LENGTH X 8.9 SQ. FT. PER L.F. = 676.4 SQ. FT.
676.4 SQ. FT. X 0.74 GALLONS PER SQ. FT. = 500.5 GPD
500.5 GPD > 330 GPD

TOWN OF ACTON
- EFFECTIVE CAPACITY - 1.67 X [(2 TRENCHES X 38 FT. LENGTH X 3 FT. WIDTH X 0.5) +
(2 TRENCHES X 38 FT. LENGTH X 2 SIDEWALLS X 1.16 FT. HEIGHT X 0.74 GALLONS PER SQ. FT)]
= 408.3 GPD

408.3 GPD > 330 GPD

ACTUAL LEACHING AREA
- 2 TRENCHES X 38 FT. LENGTH X (3 FT. WIDTH + (2 SIDEWALLS X 1.16 FT. HEIGHT)) = 404.3 SQ. FT.
- TITLE V MINIMUM AREA = 400 SQ. FT. (MODIFIED CERTIFICATION FOR GENERAL USE)
- TOWN OF ACTON MINUMUM AREA* = 800 SQ. FT. (LOCAL REGULATION 11-9.1)

* UNLESS A WAIVER FROM THE LOCAL REGULATION 11-9.1 IS GRANTED, TWO 1500 GALLON SEPTIC TANKS ARE REQUIRED AS SHOWN ON THIS PLAN.

A WAIVER IS ALSO REQUIRED FROM LOCAL REGULATION 11-9.7 TO ALLOW THE SEPARATION BETWEEN THE SIDEWALLS OF THE PRIMARY TRENCHES TO BE 9 FT AS SPECIFIED IN TITLE V INSTEAD OF THE LOCAL REQUIREMENT OF 12 FT. LOCAL REGULATION REQUIRES 12 FOOT SEPARATION WHEN THE AREA BETWEEN THE PRIMARY TRENCHES IS USED FOR A RESERVE AREA.

### SOIL TEST ELEVATIONS

| HOLE NO. | GRADE | ESHGW | BOTTOM |
|---|---|---|---|
| 1104-1 | 98.9 | 89.9 | 89.2 |
| 1104-2 | 99.1 | 90.1 | 89.4 |
| 1104-3 | 101.8 | 91.1 | 91.1 |
| 1104-4 | 102.9 | 92.7 | 92.7 |
| 1104-5 | 102.2 | 91.3 | 91.3 |
| 1104-6 | 102.9 | 92.2 | 92.2 |
| 1104-A | 98.8 | N/A | 94.6 |
| 1104-B | 102.4 | N/A | 98.0 |
| 1104-C | 102.6 | N/A | 98.6 |
| 406-1 | 102.4 | 91.4 | 91.4 |
| 406-2 | 98.7 | 89.7 | 88.7 |

BRUCE M. STAMSKI, P.E.

| | | |
|---|---|---|
| SURVEY: D. ABBT, C. YORK, S. DUARTE | TOWN OF ACTON ENGINEERING DEPARTMENT | |
| DESIGN: C. YORK | PROPOSED SEWAGE DISPOSAL PLAN<br>28 WILLOW STREET &<br>214 CENTRAL STREET | |
| DRAFTING: C. YORK | SUBSURFACE SEWAGE DISPOSAL PLAN | |
| CHECKED: B. STAMSKI | SCALE: AS NOTED | DATE: 4/25/2006 |

ACTON ENGINEERING DEPT. – FILENAME: WILLOW STREET – ACHC – ST NO 28 – REVISED SITE PLAN.DWG – 2006 – PREPARED BY C. YORK

## GENERAL NOTES

LOCATION OF EXISTING UNDERGROUND UTILITIES, OBSTRUCTIONS, SYSTEMS SHOWN HEREON ARE APPROXIMATE ONLY. ALL UTILITIES, OBSTRUCTIONS, SYSTEMS MAY NOT BE SHOWN. LOCATE AND PROTECT ALL UNDERGROUND UTILITIES, OBSTRUCTIONS, SYSTEMS, WHETHER OR NOT SHOWN HEREON.

INSTALL ALL NEW UTILITIES UNDERGROUND, UNLESS SPECIFICALLY INDICATED OTHERWISE.

EMPLOY A LICENSED PROFESSIONAL LAND SURVEYOR TO LAY OUT BUILDING AND SITE IMPROVEMENTS FOR CONSTRUCTION.

CONTRACTOR IS RESPONSIBLE FOR SAFETY MEASURES, CONSTRUCTION METHODS AND CONTROL OF WORK.

REPAIRS AND/OR REPLACEMENT OF ANY EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION THAT ARE NOT DESIGNATED FOR DEMOLITION AND/OR REMOVAL HEREON ARE THE RESPONSIBILITY OF CONTRACTOR. REPAIR SUCH DAMAGE TO THE SATISFACTION OF OWNER(S).

THIS PLAN IS NOT INTENDED TO SHOW AN ENGINEERING BUILDING FOUNDATION DESIGN, WHICH WOULD INCLUDE DETAILS AND ELEVATION OF FOOTINGS, WALLS AND SUBSURFACE DRAINS TO PREVENT INTERIOR FLOODING. SEE ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS.

PRIOR TO IMPLEMENTATION, SEEK ENGINEER REVIEW AND APPROVAL OF ANY INTENDED REVISION OF HORIZONTAL AND/OR VERTICAL DESIGN LOCATION OF IMPROVEMENTS SHOWN HEREON.

PROMPTLY NOTIFY ENGINEER UPON COMMENCEMENT OF CONSTRUCTION IN ORDER TO ENSURE THAT REQUIRED INSPECTIONS ARE PERFORMED IN A TIMELY AND EFFICIENT MANNER. MAINTAIN DISPOSAL SYSTEM IN AN UNCOVERED CONDITION UNTIL AUTHORIZED TO BACKFILL BY ENGINEER AND LOCAL BOARD OF HEALTH.

NOTIFY ENGINEER UPON DISCOVERY OF ANY UNFORESEEN SURFACE OR SUBSURFACE CONDITIONS THAT MAY IMPACT SYSTEM INSTALLATION REGULATORY APPROVAL, OR FUNCTION.

INSTALL FINISH RIM ELEVATIONS TO MATCH FINISH PAVEMENT, GRADING OR LANDSCAPING SURFACE, UNLESS SPECIFICALLY INDICATED OTHERWISE.

PLUG/CAP/FILL EXISTING UTILITY LINES/STRUCTURES THAT ARE TO BE CUT/BROKEN DOWN/ABANDONED, IN ACCORDANCE WITH UTILITY OWNER REQUIREMENTS.

WHERE THE WORD "INSTALL" IS USED HEREIN, IT IS INTENDED TO DIRECT CONTRACTOR TO "FURNISH, INSTALL, AND PLACE IN OPERATION" THE COMPONENT REFERRED TO.

THE ISSUANCE OF A CERTIFICATE OF COMPLIANCE IS NOT A GUARANTEE THAT THE DISPOSAL SYSTEM WILL FUNCTION SATISFACTORILY.

INSTALL EROSION CONTROL MEASURES, SUCH AS SILT FENCE OR HAY BALES AS MAY BE SHOWN HEREON, BEFORE EARTH DISTURBANCE OCCURS.

THE SUBJECT SYSTEM HAS BEEN DESIGNED TO PROCESS ONLY DOMESTIC SEWAGE AT THE INDICATED LOADING RATE. THE SYSTEM IS NOT DESIGNED TO ACCOMMODATE A GARBAGE DISPOSAL.

COORDINATE WITH ENGINEER REGARDING REMOVAL OF TREES ADJACENT SOIL ABSORPTION AREA AND ALL OTHER DISPOSAL SYSTEM COMPONENTS.

THESE DRAWINGS DO NOT ADDRESS PLUMBING REQUIRED INSIDE BUILDINGS TO ROUTE APPROPRIATE DRAINS TO BUILDING SEWER. OWNER SHALL EMPLOY A LICENSED PLUMBER TO COMPLETE SUCH WORK AS IS NECESSARY TO DRAIN ALL BLACKWATER AND GREYWATER TO THE PROPOSED SEWAGE DISPOSAL SYSTEM.

## REGULATORY NOTES

A LICENSED DISPOSAL SYSTEM INSTALLER SHALL PERFORM ALL WORK ON THE SEWAGE DISPOSAL SYSTEM.

CONTACT DIG-SAFE FOR UNDERGROUND UTILITY MARKING AT 888-344-7233 AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ANY WORK.

OBTAIN ALL CONSTRUCTION PERMITS REQUIRED BY REGULATORY AUTHORITIES.

PRIOR TO COMMENCEMENT OF ANY WORK, REVIEW AND THOROUGHLY UNDERSTAND ALL CONSTRUCTION REQUIREMENTS, CONDITIONS, AND LIMITATIONS IMPOSED BY PERMITS AND APPROVALS ISSUED BY REGULATORY AUTHORITIES.

COMPLETE ALL WORK THAT IS OUTSIDE OF BUILDING AND LESS THAN 10 FEET FROM THE INSIDE FACE OF BUILDING FOUNDATION IN CONFORMANCE WITH THE UNIFORM STATE PLUMBING CODE OF MASSACHUSETTS, 248 CMR 2.00.

## SITE NOTES

ALL SEWAGE DISPOSAL SYSTEM COMPONENTS ARE GREATER THAN 400 FEET FROM SURFACE WATER RESERVOIRS AND GREATER THAN 200 FEET FROM TRIBUTARIES TO SURFACE WATER RESERVOIRS.

THERE ARE NO KNOWN EXISTING WELLS WITHIN 150 FEET OF PROPOSED SOIL ABSORPTION AREA, OR WITHIN 50 FEET OF PROPOSED SEPTIC TANK.

ALL KNOWN WELLS WITHIN 200 FEET OF SEWAGE DISPOSAL SYSTEM ARE SHOWN HEREON.

WATER SERVICE VIA CONNECTION TO MUNICIPAL WATER MAIN.

## GENERAL CONSTRUCTION REQUIREMENTS FOR ALL SYSTEM COMPONENTS (15 CMR 15.221).

THE SEPTIC TANKS AND DISTRIBUTION BOXES SHALL BE WATERTIGHT THROUGH MANUFACTURER'S SPECIFICATION AND WARRANTY, OR MADE WATERTIGHT BY THE MANUFACTURER, EQUIPMENT SUPPLIER OR INSTALLER USING ASPHALT OR SYNTHETIC POLYMER SEALER SPECIFIED BY THE CONCRETE OR SYNTHETIC MATERIAL MANUFACTURER. MANUFACTURER: SHEA CONCRETE PRODUCTS INC., WILMINGTON, MA (978-658-2645) OR EQUAL.

SEPTIC TANKS AND DISTRIBUTION BOXES SHALL BE CONSTRUCTED OR SET LEVEL AND TRUE TO GRADE ON A LEVEL STABLE BASE WHICH HAS BEEN MECHANICALLY COMPACTED. IF THE COMPONENT IS PLACED IN FILL, PROPER COMPACTION IS REQUIRED TO ENSURE STABILITY AND TO PREVENT SETTLING. NATIVE GROUND WITH A SIX INCH STONE BASE IS OTHERWISE ADEQUATE.

SEPTIC TANKS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS MANHOLE WITH A MINIMUM DIAMETER OF 20 INCHES AND CONSTRUCTED OF DURABLE MATERIAL.

ALL SYSTEM COMPONENTS SHALL BE CONSTRUCTED OF CORROSION RESISTANT MATERIALS.

DISTRIBUTION BOXES SHALL HAVE A MINIMUM INSIDE DIMENSION OF 12 INCHES AND A MINIMUM SUMP DEPTH OF 6 INCHES BELOW THE OUTLET INVERT.

THE TOP OF ALL SYSTEM COMPONENTS, INCLUDING THE SEPTIC TANK, DISTRIBUTION BOXES AND THE SOIL ABSORPTION SYSTEM, SHALL BE INSTALLED NO MORE THAN 36" BELOW FINISH GRADE.

## SEPTIC TANKS (310 CMR 223)

SEPTIC TANKS SHALL HAVE AN EFFECTIVE LIQUID CAPACITY IN THE TANK AS MEASURED BELOW THE OUTLET INVERT ELEVATION TO BE 1,500 GALLONS.

THE LIQUID DEPTH OF THE TANK, MEASURED FROM THE OUTLET TEE INVERT TO THE TANK BOTTOM, SHALL BE A MINIMUM OF FOUR FEET.

THE RECTANGULAR SEPTIC TANKS SHALL HAVE A MINIMUM INSIDE LENGTH TO WIDTH RATIO OF NO LESS THAN 1.5 TO 1. THE INSIDE LENGTH OF ALL TANKS, MEASURED FROM THE INLET TEE TO THE OUTLET TEE, SHALL BE A MINIMUM OF SIX FEET. THE INSIDE WIDTH OF THE TANK SHALL BE A MINIMUM OF THREE FEET.

## CONSTRUCTION OF SEPTIC TANKS (310 CMR 15.226)

SEPTIC TANKS SHALL BE CONSTRUCTED OF SOUND AND DURABLE WATERTIGHT MATERIALS NOT SUBJECT TO EXCESSIVE CORROSION, DECAY, OR FROST DAMAGE, OR CRACKING OR BUCKLING DUE TO SETTLEMENT OR BACKFILLING.

PRECAST CONCRETE SEPTIC TANK CONSTRUCTION MATERIALS SHALL MEET THE FOLLOWING MINIMUM SPECIFICATIONS:

CONCRETE
- CONCRETE STRENGTH 4,000 PSI @ 28 DAYS, DENSITY 140 PCF
- CEMENT, PORTLAND TYPE I OR II PER ASTM C150-81
- ADMIXTURES PER ASTM C233-82
- REINFORCING PER ASTM A615 FOR WIRE FABRIC
- GRADE 40/60 REQUIRED OR EQUIVALENT.
- DESIGN LOADING H-10
- MINIMUM WALL THICKNESS: 4 INCHES
- 3 INCH THICKNESS IS ALLOWABLE IF REINFORCED

SEPTIC TANK SHALL BE EMBOSSED WITH A SEAL STATING THAT A QUALITY CONTROL/QUALITY ASSURANCE PROGRAM IN CONFORMITY WITH ASTM STANDARD C 1227-93 HAS BEEN MET.

## PLACEMENT AND ACCESSIBILITY OF SEPTIC TANK (310 CMR 15.228)

SEPTIC TANKS SHALL BE INSTALLED LEVEL AND TRUE TO GRADE ON A LEVEL STABLE BASE THAT HAS BEEN MECHANICALLY COMPACTED AND ON TO WHICH SIX INCHES OF CRUSHED STONE HAS BEEN PLACED TO MINIMIZE UNEVEN SETTLING. IF THE SEPTIC TANK IS PLACED IN FILL, PROPER COMPACTION IS REQUIRED TO ENSURE STABILITY AND TO PREVENT SETTLING. SEPTIC TANKS SHALL HAVE A MINIMUM COVER OF NINE INCHES.

THREE 20 INCH MANHOLES WITH READILY REMOVABLE IMPERMEABLE COVERS OF DURABLE MATERIAL SHALL BE PROVIDED. ACCESS PORTS SHALL BE PLACED AT THE CENTER AND OVER EACH INLET AND OUTLET TEE.

SEPTIC TANKS SHALL BE ACCESSIBLE FOR INSPECTION AND MAINTENANCE. NO STRUCTURES SHALL BE LOCATED DIRECTLY UPON OR ABOVE THE SEPTIC TANK ACCESS LOCATIONS WHICH INTERFERE WITH PERFORMANCE, ACCESS, INSPECTION, PUMPING, OR REPAIR.

## PLACEMENT AND CONSTRUCTION OF TEES (310 CMR 15.227)

INLET AND OUTLET TEES SHALL BE SCHEDULE 40 PVC AND SHALL EXTEND A MINIMUM OF SIX INCHES ABOVE THE FLOW LINE OF THE SEPTIC TANK AND BE ON THE CENTER LINE OF THE SEPTIC TANK LOCATED DIRECTLY UNDER THE CLEAN-OUT MANHOLE.

CROSS-SECTIONAL FLOW BAFFLES SHALL NOT BE USED AS SUBSTITUTES FOR INLET OR OUTLET TEES.

THE MINIMUM SEPARATION BETWEEN INLET AND OUTLET TEES SHALL BE NO LESS THAN THE LIQUID DEPTH OF THE SEPTIC TANK.

THERE SHALL BE AN AIR SPACE OF AT LEAST THREE INCHES BETWEEN THE TOPS OF THE TEES AND THE INSIDE OF THE TANK COVER. THE TOPS OF THE TEES SHALL BE LEFT OPEN TO PROVIDE VENTILATION OR SEPARATE VENTILATION SHALL BE PROVIDED. THE OUTLET TEE AND COMPARTMENT CONNECTION SHALL BE EQUIPPED WITH GAS BAFFLES.

THE INLET PIPE ELEVATION SHALL BE NO LESS THAN TWO INCHES NOR MORE THAN THREE INCHES ABOVE THE INVERT ELEVATION OF THE OUTLET PIPE.

THE INLET TEE SHALL EXTEND A MINIMUM OF TEN INCHES BELOW THE FLOW LINE. THE OUTLET SHALL BE PROVIDED WITH A TEE EXTENDING BELOW THE FLOW LINE IN ACCORDANCE WITH THE FOLLOWING TABLE:

| LIQUID DEPTH IN SEPTIC TANK | DEPTH OF OUTLET TEE BELOW FLOW LINE |
|---|---|
| 4 FEET | 14 INCHES |
| 5 FEET | 19 INCHES |
| 6 FEET | 24 INCHES |
| 7 FEET | 29 INCHES |
| 8 FEET | 34 INCHES |

## BUILDING SEWERS (310 CMR 15.222)

THE BUILDING SEWER SHALL BE FOUR INCHES IN DIAMETER.

THE BUILDING SEWER SHALL BE CONSTRUCTED OF CORROSION RESISTANT MATERIAL AND EQUIPPED WITH WATER TIGHT JOINTS, CAST-IRON, SCHEDULE 40 PVC PIPE OR THE EQUIVALENT.

ALL PIPE JOINTS OF THE BUILDING SEWER SHALL BE MADE WATER-TIGHT AND PROTECTED AGAINST DAMAGE BY ROOTS. POURED TYPE JOINTS SHALL BE PROPERLY WIPED ON THE INSIDE TO ELIMINATE OBSTRUCTION OF FLOW.

THE BUILDING SEWER SHALL BE LAID ON A COMPACTED FIRM BASE.

THE FOUR-INCH DIAMETER BUILDING SEWER SHALL BE LAID AT A SLOPE OF 0.02 (¼ INCH PER FOOT).

THE BUILDING SEWER SHALL BE LAID ON A CONTINUOUS GRADE AND AS NEARLY AS POSSIBLE IN A STRAIGHT LINE.

## SOIL ABSORPTION SYSTEMS (310 CMR 15.240)

EACH SOIL ABSORPTION SYSTEM HAS BEEN DESIGNED TO SERVE THREE BEDROOMS.

NO DRIVEWAY, PARKING OR TURNING AREA OR OTHER IMPERVIOUS AREA SHALL BE LOCATED ABOVE THE SOIL ABSORPTION SYSTEM.

REMOVE FROM SOIL ABSORPTION AREA ALL TOPSOIL, BOULDERS LARGER THAN 24 INCHES (LONGEST DIMENSION), OR OTHER UNSUITABLE MATERIAL ENCOUNTERED DURING EXCAVATION.

THE BOTTOM OF EACH SOIL ABSORPTION SYSTEM SHALL BE EXCAVATED TO A LEVEL GRADE. IF THE REMOVAL OF STONES OR BOULDERS IS REQUIRED, CREATING LOCALIZED DEPRESSIONS, THE DEPRESSION WILL BE FILLED TO GRADE WITH THE EXCAVATED SOIL.

THE SOIL PLACED AS BACKFILL OVER THE SYSTEM SHALL BE A MINIMUM OF NINE INCHES, EXCLUDING TOPSOIL, PLACED IN LIFTS AND SUFFICIENTLY COMPACTED TO PREVENT DEPRESSIONS DUE TO SETTLING WHICH MAY INTERCEPT OR COLLECT SURFACE WATER RUNOFF ABOVE THE SYSTEM.

BACKFILL MUST BE CLEAN AND FREE OF STONES AND BOULDERS GREATER THAN SIX INCHES IN SIZE. TAILINGS, CLAY OR SIMILAR MATERIALS ARE PROHIBITED.

FINAL COVER ABOVE THE SYSTEM SHALL BE GRADED TO REDUCE INFILTRATION OF SURFACE WATER AND MINIMIZE EROSION. FINISH GRADE SHALL HAVE A MINIMUM SLOPE OF 0.02 FEET PER FOOT.

SURFACE DRAINAGE SHALL BE DIRECTED AWAY FROM THE SOIL ABSORPTION SYSTEM.

## EXCAVATION AND FLAGGING OF SOIL ABSORPTION SYSTEM (310 CMR 15.246)

CARE SHOULD BE TAKEN WHILE EXCAVATING THE SOIL ABSORPTION SYSTEM TO ASSURE THAT THE SOIL AT THE BOTTOM OF THE EXCAVATION IS NOT COMPACTED OR SMEARED. THE BOTTOM AND SIDES OF THE EXCAVATION SHALL BE LEVEL AND SCARIFIED. VEHICULAR TRAFFIC AND PARKING OF VEHICLES OR EQUIPMENT IN OR ON THE AREA OF THE SOIL ABSORPTION SYSTEM SHOULD BE AVOIDED AT ALL TIMES PRIOR, DURING AND AFTER CONSTRUCTION OF THE SYSTEM.

FROM THE DATE OF THE INSTALLATION OF THE SOIL ABSORPTION SYSTEM UNTIL RECEIPT OF A CERTIFICATE OF COMPLIANCE FROM THE APPROVING AUTHORITY IN ACCORDANCE WITH 310 CMR 15.021, THE PERIMETER OF THE SOIL ABSORPTION SYSTEM SHALL BE STAKED AND FLAGGED TO PREVENT THE USE OF SUCH AREA FOR ALL ACTIVITIES WHICH MIGHT DAMAGE THE SOIL ABSORPTION SYSTEM. SUCH FLAGGING IS NOT INTENDED TO PRECLUDE THE FINAL GRADING AND LANDSCAPING OF THE AREA OF THE SOIL ABSORPTION SYSTEM.

STOCKPILING OF MATERIALS OR EQUIPMENT WITHIN THE AREA IS PROHIBITED.

## TRENCHES (310 CMR 15.251)

DISTRIBUTION LINES FROM THE DISTRIBUTION BOX TO THE TRENCHES SHALL BE PVC SCHEDULE 35 NSF SINCE THE SYSTEMS ARE DESIGNED FOR LESS THAN 2,000 GPD AND THERE WILL BE NO VEHICULAR TRAFFIC.

ALL CONNECTIONS AND JOINTS SHALL BE MECHANICALLY SOUND AND TIGHT.

DIAMETER OF EACH DISTRIBUTION LINE SHALL BE FOUR INCHES.

DISTRIBUTION LINES CONNECTING THE DISTRIBUTION BOX TO THE SOIL ABSORPTION TRENCHES SHALL BE UNPERFORATED WITH WATER TIGHT CONNECTIONS AND JOINTS.

## CONSTRUCTION IN FILL (310 CMR 15.255)

ALL FILL MATERIAL FOR THE SOIL ABSORPTION SYSTEM SHALL BE SIZED USING THE SOIL TYPE OF THE UNDERLYING NATURALLY PERVIOUS MATERIAL.

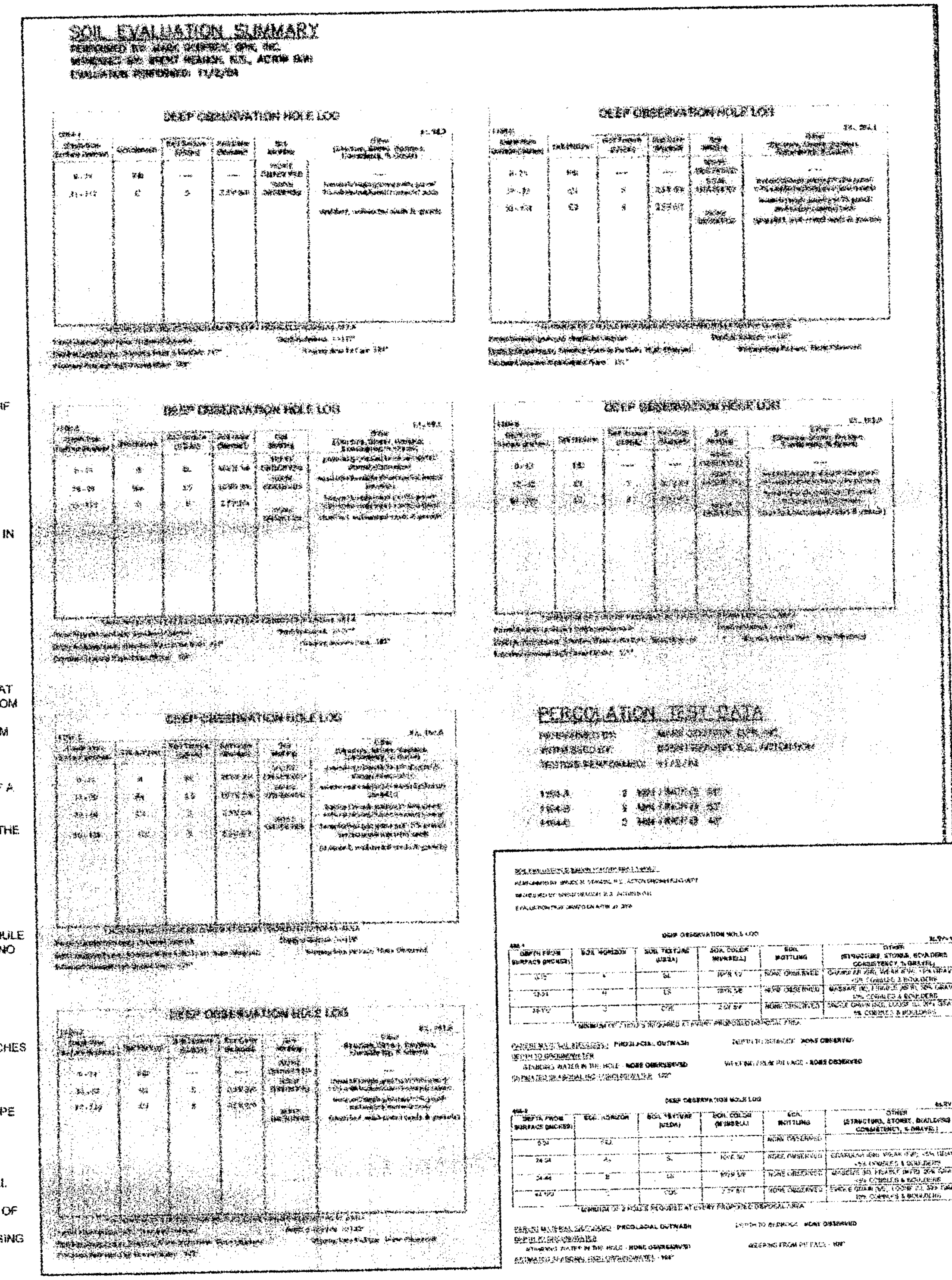
FILL MATERIAL SHALL CONSIST OF SELECT ON-SITE OR IMPORTED SOIL MATERIAL. THE FILL SHALL BE COMPRISED OF CLEAN GRANULAR SAND, FREE FROM ORGANIC MATTER AND DELETERIOUS SUBSTANCES. MIXTURES AND LAYERS OF DIFFERENT CLASSES OF SOIL SHALL NOT BE USED. THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN TWO INCHES. A SIEVE ANALYSIS, USING A #4 SIEVE, SHALL BE PERFORMED ON A REPRESENTATIVE SAMPLE OF THE FILL. UP TO 45% BY WEIGHT OF THE FILL SAMPLE MAY BE RETAINED ON THE #4 SIEVE. SIEVE ANALYSES ALSO SHALL BE PERFORMED ON THE FRACTION OF THE FILL SAMPLE PASSING THE #4 SIEVE. SUCH ANALYSES MUST DEMONSTRATE THE FOLLOWING:

| SIEVE SIZE | EFFECTIVE PARTICLE SIZE | PERCENT PASS |
|---|---|---|
| # 4 | 4.75 MM | 100% |
| # 50 | 0.30 MM | 10 - 100% |
| #100 | 0.15 MM | 0 - 20% |
| #200 | 0.075 MM | 0 - 5% |

IF REQUIRED BY THE LOCAL APPROVING AUTHORITY, A MINIMUM OF ONE REPRESENTATIVE SAMPLE MAY BE TAKEN FROM THE IN-PLACE FILL FOR A SYSTEM SERVING A SINGLE FAMILY RESIDENCE AND TESTED FOR COMPLIANCE WITH THE GRAIN SIZE DISTRIBUTION SPECIFICATION.

WHERE FILL IS REQUIRED TO REPLACE UNSUITABLE OR IMPERMEABLE SOILS, THE EXCAVATION OF THE UNSUITABLE MATERIAL SHALL EXTEND A MINIMUM OF FIVE FEET LATERALLY IN ALL DIRECTIONS BEYOND THE OUTER PERIMETER OF THE SOIL ABSORPTION SYSTEM TO THE DEPTH OF NATURALLY OCCURRING PERVIOUS MATERIAL AS REQUIRED BY 310 CMR 15.240 (SOIL ABSORPTION SYSTEMS) AND REPLACED WITH FILL MATERIAL MEETING THE SPECIFICATIONS OF 310 CMR 15.255(3).

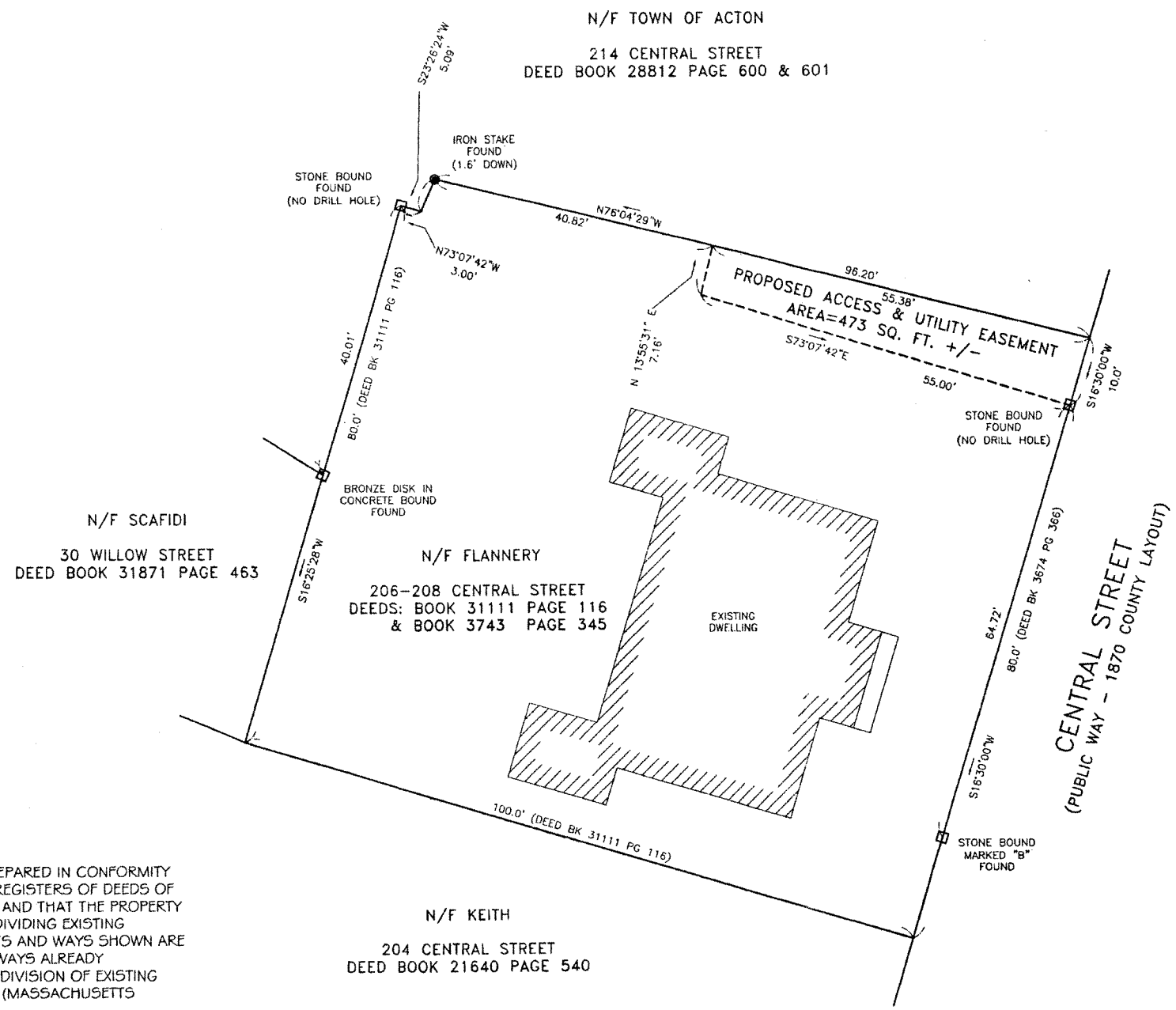
PRIOR TO PLACEMENT OF THE FILL, WHICH SHALL BE STOCKPILED AT THE EDGE OF THE EXCAVATION AND FILLED IN GRADUALLY, THE BOTTOM SURFACE OF THE EXCAVATION SHALL BE SCARIFIED AND RELATIVELY DRY. FILL SHALL NOT BE PLACED DURING RAIN OR SNOW STORMS.



BRUCE M. STAMSKI, P.E.

| SURVEY: N/A | TOWN OF ACTON ENGINEERING DEPARTMENT | |
|---|---|---|
| | PROPOSED SEWAGE DISPOSAL PLAN<br>28 WILLOW STREET &<br>214 CENTRAL STREET | |
| DESIGN: C. YORK | | |
| DRAFTING: C. YORK | CONSTRUCTION DETAILS AND SPECIFICATIONS | |
| CHECKED: B. STAMSKI | SCALE: N/A | DATE: 4/25/2006 |

REGISTRY PLAN 2221 OF 1953




NOTES:

1. THE SUBJECT PROPERTY IS SHOWN AS PARCEL 76 ON SHEET F-2B OF THE ACTON TOWN ATLAS.
2. ZONING DISTRICT: VILLAGE RESIDENTIAL (V-R)
3. GROUNDWATER PROTECTION DISTRICT - ZONE 3
4. FLOOD AREA - ZONE X - OUTSIDE OF THE 500-YEAR FLOOD PLAIN.
5. THE EXISTING PROPERTY MONUMENTATION WAS LOCATED FROM A FIELD SURVEY CONDUCTED BY THE TOWN OF ACTON ENGINEERING DEPARTMENT FROM FEBRUARY 6 - 8, 2006.

SEE THE FOLLOWING DOCUMENTS RECORDED AT THE MIDDLESEX SOUTH DISTRICT REGISTRY OF DEEDS:

DEEDS- BOOK 31111 PG 116 (TOWN ATLAS MAP F-2B PARCEL 76)

- BOOK 3743 PG 345 (TOWN ATLAS MAP F-2B PARCEL 76)
- BOOK 3674 PG 366 (TOWN ATLAS MAP F-2B PARCEL 76)
- BOOK 28812 PG 600 (TOWN ATLAS MAP F-2B PARCELS 65)
- BOOK 28812 PG 601 (TOWN ATLAS MAP F-2B PARCELS 64)
- BOOK 12870 PG 293 (TOWN ATLAS MAP F-2B PARCELS 64 & 65)
- BOOK 31871 PG 463 (TOWN ATLAS MAP F-2B PARCEL 75)
- BOOK 21640 PG 540 (TOWN ATLAS MAP F-2B PARCEL 77)

PLANS- PLAN ENTITLED "PLAN OF LAND IN ACTON, MASSACHUSETTS (MIDDLESEX COUNTY), PREPARED FOR THE TOWN OF ACTON, 28 WILLOW STREET & 214 CENTRAL STREET, SCALE 1"=10', MARCH 1, 2006, PREPARED BY THE TOWN OF ACTON ENGINEERING DEPARTMENT" TO BE RECORDED HEREWITH.

- BOOK 8188 PG END (2221 OF 1953)
- BOOK 4730 PG END

SEE ALSO THE FOLLOWING PLANS IN THE TOWN OF ACTON ENGINEERING DEPARTMENT:

- 1870 COUNTY LAYOUT OF CENTRAL STREET ENTITLED "PLAN OF COUNTY ROAD LEADING FROM THE HARVARD TURNPIKE SO CALLED IN WEST ACTON TO THE CEMETERY, PREPARED BY W. D. TUTTLE, ENGINEER" (PLAN #H018)

# EASEMENT PLAN OF LAND
IN
## ACTON, MASSACHUSETTS
(MIDDLESEX COUNTY)

OWNED BY CECELIA JOAN FLANNERY
206 CENTRAL STREET

SCALE: 1" = 10' MARCH 15, 2006

PREPARED BY
THE TOWN OF ACTON ENGINEERING DEPARTMENT
472 MAIN STREET ACTON, MA 01720

I CERTIFY THAT THIS PLAN WAS HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS, AND THAT THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIPS, AND THE LINES OF THE STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN (MASSACHUSETTS GENERAL LAWS CHAPTER 41 SECTION 81X).

COMMONWEALTH OF MASSACHUSETTS
DAVID F. ABBT
No. 28511
REGISTERED PROFESSIONAL LAND SURVEYOR

David F. Abbt APR. 5, 2006
DAVID F. ABBT, P.L.S. #28511

SCALE IN FEET

0 10 25 50

0 5 10

SCALE IN METERS

ACTON ENGINEERING DEPT. - FILENAME: CENTRAL STREET-FLANNERY-ST NO 206-208-EASEMENT PLAN.DWG - 2006 - PREPARED BY C. YORK