O.S.R.D OPEN SPACE RESIDENTIAL DESIGN PLANS

PROJECT GENERAL NOTES

- EXISTING BOUNDARY LINE, TOPOGRAPHIC, AND SITE UTILITY INFORMATION IS BASED UPON SURVEY PERFORMED BY DONOHOE SURVEY, INC.
- PRIOR TO THE START OF CONSTRUCTION IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THAT ALL REQUIRED APPROVALS HAVE BEEN ISSUED AND THAT THE CONTRACTOR HAS RECEIVED AND REVIEWED ALL APPROVALS/CONDITIONS FOR THE PROJECT ISSUED BY THE TOWN OF ROWLEY.
- PRIOR TO WORK, CONTRACTOR SHALL HAVE THE PROPOSED SITE LAID OUT VERTICALLY AND HORIZONTALLY BY A PROFESSIONAL LAND SURVEYOR.
- 4. IN ACCORDANCE WITH CHAPTER 82 SECTION 40 INCLUDING AMENDMENTS, THE CONTRACTOR SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO EXCAVATION WORK AND CALL DIG-SAFE AT I-800-DIG-SAFE PRIOR TO COMMENCING WORK.
- 5. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATIONS, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT
- CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL EXISTING UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL PROVIDE ADEQUATE BRACING AND SHORING OF ALL EXCAVATIONS IN ACCORDANCE WITH THE REQUIREMENTS OF ALL GOVERNING CODES AND REGULATIONS.
- CONTRACTOR SHALL COORDINATE WITH THE STATE POLICE AND/OR THE LOCAL POLICE DEPARTMENT FOR TRAFFIC RELATED ISSUES PRIOR TO COMMENCING WORK. CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC COORDINATION AND POLICE DETAILS AS REQUIRED BY THE CITY, TOWN OR STATE.
- 10. CONTRACTOR SHALL SAW-CUT PAVEMENT WHERE PAVEMENT TO BE REMOVED ABUTS PAVEMENT WHICH IS TO REMAIN AND WHERE NEW PAVEMENT ABUTS EXISTING PAVEMENT.
- CONTRACTOR SHALL MAINTAIN ALL NEW AND EXISTING UTILITIES IN GOOD WORKING ORDER AND SHALL PROTECT THEM FROM DAMAGE AT ALL TIMES THROUGHOUT CONSTRUCTION UNTIL WORK IS COMPLETED AND ACCEPTED.
- 12. PRIOR TO CONSTRUCTION CONTRACTOR SHALL OBTAIN THE NPDES CONSTRUCTION GENERAL PERMIT.
- 13. TOWN OF ROWLEY DEPARTMENT OF PUBLIC WORKS SHALL BE NOTIFIED 12 HOURS IN ADVANCE TO MARK OUT TOWN OF ROWLEY UTILITIES.
- 14. ALL WATER, SEWER, CURB CUT, STREET OPENING AND JACKIES'S LAW EXCAVATION PERMITS SHALL BE OBTAINED AT THE DEPARTMENT OF PUBLIC WORKS PRIOR TO ANY EXCAVATION.
- 15. FINAL APPROVAL OF DRIVEWAY LAYOUT AND LOCATION SHALL BE SUBMITTED TO THE PLANNING BOARD PRIOR TO BUILDING PERMITS.
- 16. FINAL STREET ADDRESSES NUMBERS SHALL BE ISSUED BY TOWN OF ROWLEY BUILDING DEPARTMENT UPON APPLICATION OF THE BUILDING PERMIT FOR EACH LOT.
- ALL SITE WORK SHALL BE INSPECTED BY THE TOWN OF ROWLEY ENGINEERING REPRESENTATIVE OR THE DEPARTMENT OF PUBLIC WORKS. THE APPLICANT/OWNER'S CONTRACTOR SHALL SUBMIT A CONSTRUCTION SCHEDULE FOR THE PROPOSED WORK, ALL INSPECTIONS SHALL BE SCHEDULED 24 HOURS IN ADVANCE.
- AN APPROVED SITE AS-BUILT PLAN SHALL BE SUBMITTED TO THE ENGINEERING DIVISION OR PLANNING BOARD WITHIN 60 DAYS OF THE CERTIFICATED OF OCCUPANCY. THE AS-BUILT SHALL BE SUBMITTED IN MYLAR AND IN ELECTRONIC AUTOCAD FORMAT.
- 19. SUBDIVISIONS PLANS WILL ALSO BE SUBMITTED TO THE ROWLEY CONSERVATION COMMISSION FOR NOTICE OF INTENT APPROVAL.

DIG SAFE NOTES

- I. IN ACCORDANCE WITH CHAPTER 82 SECTION 40 INCLUDING AMENDMENTS, THE CONTRACTOR SHALL NOTIFY IN WRITING ALL UTILITY COMPANIES AND GOVERNMENT AGENCIES PRIOR TO EXCAVATION WORK AND CALL DIG-SAFE AT 1-800-DIG-SAFE PRIOR TO COMMENCING WORK.
- 2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- 3. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATIONS, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- 4. CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL EXISTING UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING WORK.

BEFORE CONSTRUCTION CALL (72 HOURS IN ADVANCE):

 "DIG SAFE" AT I-888-DIG SAFE • 1-888-344-7233



C12-1 - C12-2 SHEET

GENERAL UTILITY NOTES

PRIOR TO CONSTRUCTION AND THE PURCHASE OF ANY DRAINAGE PIPE, SEWER PIPE, FITTINGS, AND MANHOLES, THE CONTRACTOR SHALL FIELD VERIFY ALL OFF-SITE UTILITY CROSSINGS. THE CONTRACTOR SHALL CONDUCT TEST PITS AND/OR VACUUM EXCAVATION TO CONFIRM VERTICAL AND HORIZONTAL LOCATIONS FOR ALL UTILITY CROSSINGS. REPORT AND DISCREPANCIES TO THE ENGINEER AND THE TOWN OF ROWLEY DEPARTMENT OF PUBLIC WORKS (DPW). IF REQUIRED FIELD ADJUSTMENTS WILL BE COORDINATED WITH THE TOWN OF ROWLEY DPW.

UTILITY ASSUMPTIONS

THE FOLLOWING ASSUMPTIONS WERE MADE BY THE DESIGNER CONCERNING THE VERTICAL LOCATION OF OFF-SITE EXISTING UTILITIES:

- I. ALL WATER LINES (TRUNK LINES AND SERVICES) WERE ASSUMED TO BE 5' BELOW THE EXISTING SURFACE TO TOP OF PIPE.
- 2. ALL GAS PIPES AND GAS SERVICES WERE ASSUMED TO BE 3' BELOW THE EXISTING SURFACE TO TOP OF PIPE.

FALCON RIDGE 430 WETHERSFIELD STREET ROWLEY, MA

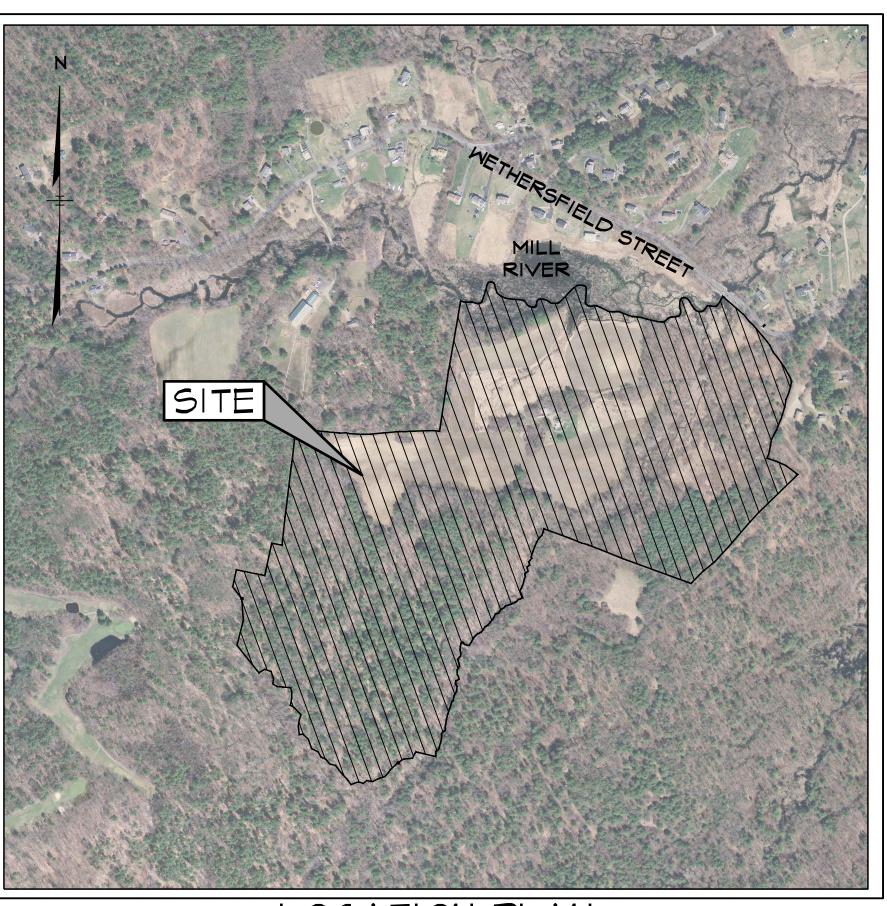
PREPARED FOR APPLICANT:

TAYLOR LANE LLC 357 NORTH STREET GEORGETOWN, MA 01833

PREPARED BY:

ASB design group LLC

363 boston street, route 1 topsfield ma 01983 phone 978.500.8419



LOCATION PLAN

SOURCE: MA GIS DIGITAL RASTER GRAPHIC (DRG)

INDEX OF SHEETS COVER SHEET: INDEX & NOTES 1 OF 42 2 OF 42 PERIMETER PLAN - DONOHOE SURVEY INC C2A-1 - C2A-8 SHEET EXISTING CONDITIONS & TOPOGRAPHIC PLANS - DONOHOE SURVEY INC OPEN SPACE PLAN - DONOHOE SURVEY INC LOTTING/ROADWAY PLAN - DONOHOE SURVEY INC. OVERALL SITE PLAN, NRCS SOIL DATA 17 OF 42 & SITE GRADING DETAILS 18-30 OF 42 SITE GRADING, UTILITY, DRAINAGE, & SWPP PLAN 31-36 OF 42 O.S.R.D. ROADWAY PROFILES C7-1 - C7-6SITE DETAILS 38 OF 42 UTILITY DETAILS 39 OF 42 DRAINAGE DETAILS BMP & STORMWATER RECHARGE DETAILS

41-42 OF 42 EROSION CONTROL DETAILS

CURRENT OWNERS:

CHERYL MORAN & PATRICIA SIMON 430 WETHERSFIELD STREET ROWLEY, MA. 01969 E.S.R.D 33945/310

EDWARD T. MOORE AS TRUSTEE OF SEASIDE REALTY TRUST 8 DOAKS LANE MARBLEHEAD, MA 01945 E.S.R.D 36202/194

BRUCE E. TOMPKINS AND STEPHANIE **WETLANDS** DESJARDINS, TRUSTEES OF THE NORSE ENVIRONMENTAL TOMPKINS-DESJARDINS TRUST SERVICES, INC. 74 LONG HILL ROAD ROWLEY, MA 01969 92 MIDDLESEX ROAD E.S.R.D 13094/275 TYNGSBORO, MA 01879 E.S.R.D | 13896/223 978.649.9932

VERTICAL DATUM:

DATUM BASE N.A.V.D. 1988 AT THE COMPLETION OF CLEARING, GRUBBING AND STUMP REMOVAL AND PRIOR TO ROADWAY CONSTRUCTION, THE SURVEYOR WILL SET BENCHMARKS ALONG THE PROPOSED ROADWAY FOR ROADWAY AND UTILITY

CONSTRUCTION.

NOTES:

A NOTICE OF INTENT PREPARED BY NORSE ENVIRONMENTAL, INC. WILL BE SUBMITTED TO ROWLEY CONSERVATION COMMISSION FOR REVIEW, COMMENT AND APPROVAL.

2. D.E.P No. #63-0693 - NOTICE OF INTENT FOR TAYLOR BROOK STREAM CROSSING. RECORDED 37977 / 305

O.R.A.D. - 37723 / 384 O.R.A.D. - 36988 / 478

FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN CONFORMS

TO THE RULES AND REGULATIONS OF

THE REGISTERS OF DEEDS.

DATE: 1.16.2020

SITE GRADING AND BUILDING COORDINATION NOTES:

PRIOR TO CONSTRUCTION AND PURCHASE OF ANY BUILDING AND/OR SITE UTILITY MATERIALS THE CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL DRAWINGS TO CONFIRM THE FOLLOWINGS ITEMS:

CONSULTANTS

DESIGN TEAM:

MANN & MANN COUNSELORS AT LAW

191 S MAIN STREET #104 MIDDLETON, MA. 01949

CIVIL ENGINEER:

363 BOSTON STREET

TOPSFIELD MA 01983

DONOHOE SURVEY, INC.

363 BOSTON STREET

TOPSFIELD MA 01983

GEOTECHNICAL:

978.278.4800

GZA GEOENVIRONMENTAL, INC

NEWBURYPORT MA 01950

372 MERRIMAC STREET

ASB DESIGN GROUP, LLC

ATTORNEY:

978.762.6238

978.500.8419

SURVEYOR:

978.887.6161

- I.I. BUILDING FLOOR ELEVATIONS.
- I.2. EXTERIOR SITE GRADING INTERFACE WITH THE BUILDING FACADE.
- 1.3. EXTERIOR SITE LANDSCAPING INTERFACE WITH THE BUILDING FACADE.
- 1.4. SEE ARCHITECTURAL DRAWINGS FOR FINAL VERTICAL AND HORIZONTAL LOCATION OF ALL BUILDING UTILITIES 10' FROM THE FOUNDATION INCLUDING BUT NOT LIMITED TO SEWER, WATER, FIRE PROTECTION, GAS, ELECTRIC/COMMUNICATIONS AND FLOOR DRAINS (IF APPLICABLE). VERTICAL AND HORIZONTAL LOCATION OF UTILITIES SERVICES SHOWN TO THE BUILDING ARE FOR PLANING PURPOSES ONLY.
- 1.5. EXTERIOR BUILDING LIGHTING.
- 2. IT IS THE RESPONSIBILITY OF THE ARCHITECT TO COORDINATE SITE GRADING SHOWN ON THE PROPOSED GRADING PLANS, SHEETS C6-1 TO C6-13, WITH BUILDINGS EXTERIOR FACADE/FOUNDATION.
- 3. MINIMUM FOUNDATION EXPOSED ABOVE FINISH GRADE TO BE 12".
- 4. BUILDINGS WILL BE GRADED TO PROVIDE FOR WALK OUT BASEMENTS IF APPLICABLE TO THE LOT.
- 5. BUILDINGS WILL BE GRADED TO PROVIDE FOR STEP IN FOUNDATIONS AS SHOWN ON SHEETS C6-1 TO C6-13.
- 6. CONTRACTOR SHALL GRADE EACH UNIT TO PROVIDE FOR:
- 6.1. ADEQUATE SLOPE TO DIRECT STORMWATER RUNOFF AWAY FROM THE BUILDING AND FOUNDATION.
- 6.2. ADEQUATE SLOPE TO DIRECT STORMWATER RUNOFF AWAY FROM THE GARAGE FLOOR.
- 6.3. GUTTERS WILL BE DIRECTED TO STORMWATER INFILTRATION SYSTEMS.
- 6.4. LOCATION OF UNIT STORM-WATER INFILTRATION SYSTEMS WILL BE DETERMINED IN COORDINATION WITH FINAL ARCHITECTURAL DESIGN DRAWINGS AND SEPTIC SYSTEM PLANS.

PROPOSED LOT HOUSE LAYOUT AND SEPTIC SYSTEMS:

- PROPOSED HOUSES, DRIVEWAYS, AND GRADING SPECIFIC TO EACH LOT, ARE SHOWN CONCEPTUAL FOR PLANNING PURPOSES ONLY. FINAL DESIGN FOR EACH LOT WITHIN THE BUILDING ENVELOPE AS SHOWN WILL BE REQUIRED PRIOR TO CONSTRUCTION.
- 2. SEPTIC SYSTEMS SHOWN ON SHEETS C6-I TO C6-I3 HAVE BEEN DESIGNED FOR 4 BEDROOMS (150 GALLONS PER BEDROOM - ROWLEY BOARD OF HEALTH) WITH A PERCOLATION RATE OF 10 MINUETS AND INCH.
- 3. IT IS THE RESPONSIBILITY OF EACH LOT OWNER TO COORDINATE FINAL BUILDING PLANS WITH THE TOWN OF ROWLEY BUILDING DEPARTMENT.

SEPTIC SYSTEM DESIGN DRAWINGS

FINAL SEPTIC SYSTEM DESIGN PLANS WILL BE SUBMITTED TO THE ROWLEY BOARD OF HEALTH FOR REVIEW AND APPROVAL. SEPTIC SYSTEM PLANS WILL INCLUDE (AT A MINIMUM) THE FOLLOWING ITEMS: SEPTIC SYSTEM SIZING CALCULATIONS.

- 2. SOIL LOGS.
- . SEPTIC SYSTEM LAYOUT.
- 4. PUMP SIZING DATA AND DETAILS (IF REQUIRED).
- . PUMP CHAMBER DETAILS (IF REQUIRED). 6. SYSTEM PROFILE AND CROSS-SECTION.
- 7. SEPTIC TANK INVERTS. 8. PUMP ALARM SYSTEM.
- 9. SEPTIC SYSTEM OPERATION AND MAINTENANCE

design group, LLC

civil engineering traffic engineering architecture landscape design & construction

363 boston street, route 1 topsfield, ma 01983

ROWLEY, MA

PLANNING BOARD APPROVAL UNDER THE SUBDIVISION CONTROL LAW REQUIRED

project title:

FALCON RIDGE SUBDIVISION

prepared for applicant: TAYLOR LANE LLC 357 NORTH STREET

GEORGETOWN, MA 01833

parcel identification:

map: <u>9 & 12</u>

block: N.A. parcel: N.A.

lot: 2, 3, 4, & 23

revisions

no.	date	description
0	1.16.2020	ISSUED FOR REVIEW
I	4.27.20	REVIEW COMMENTS
2	6.21.20	REVIEW COMMENTS

plan submission

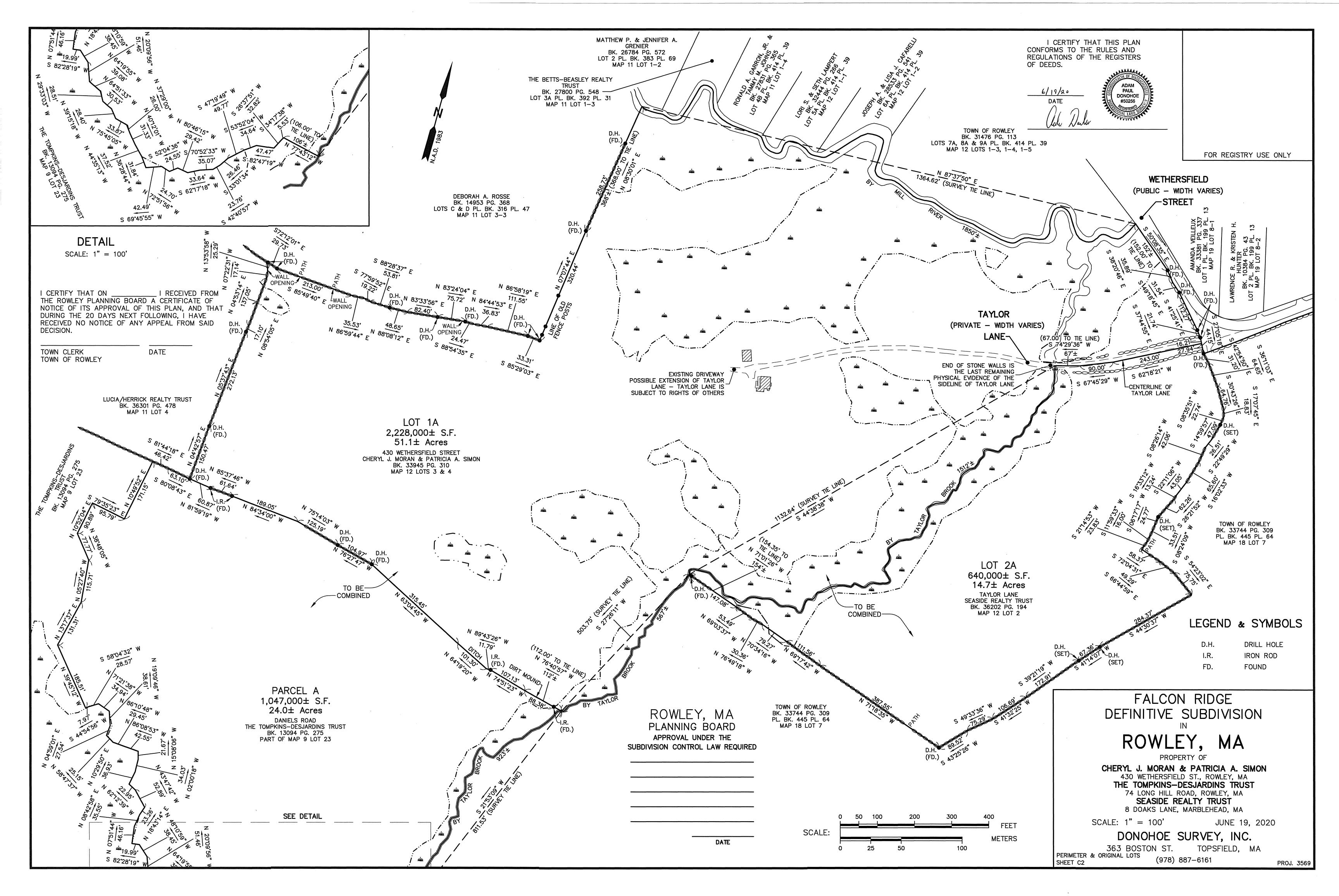
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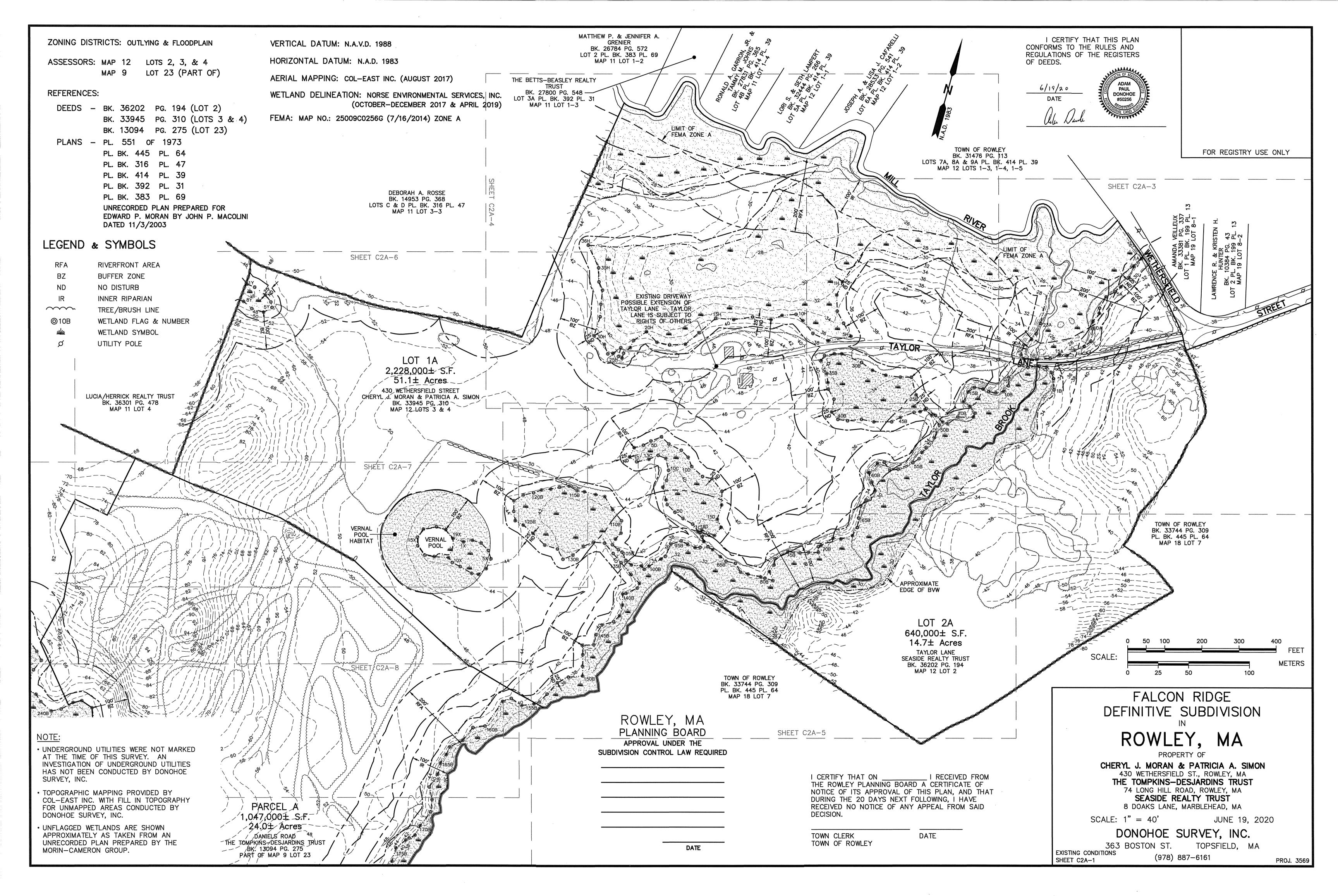
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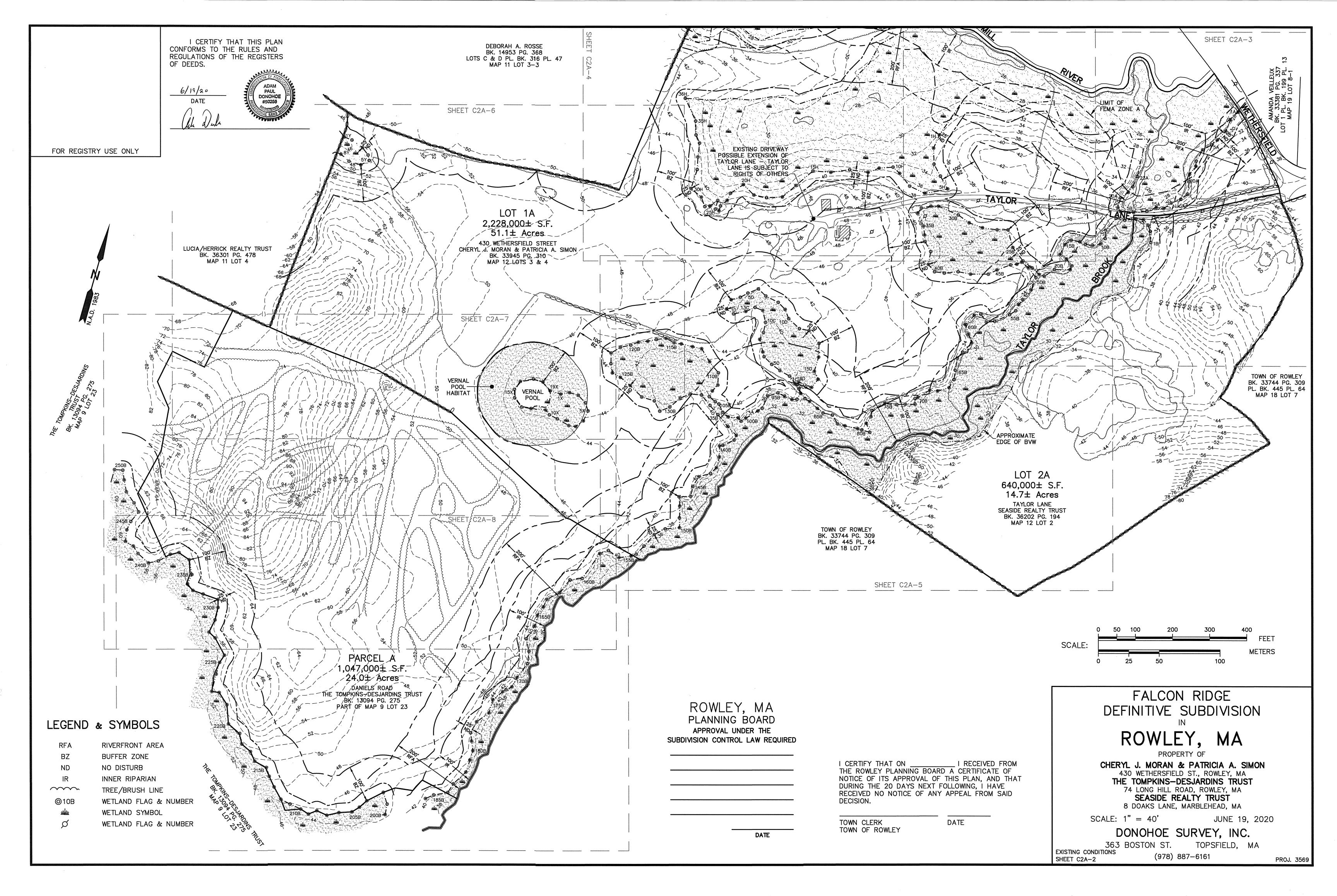


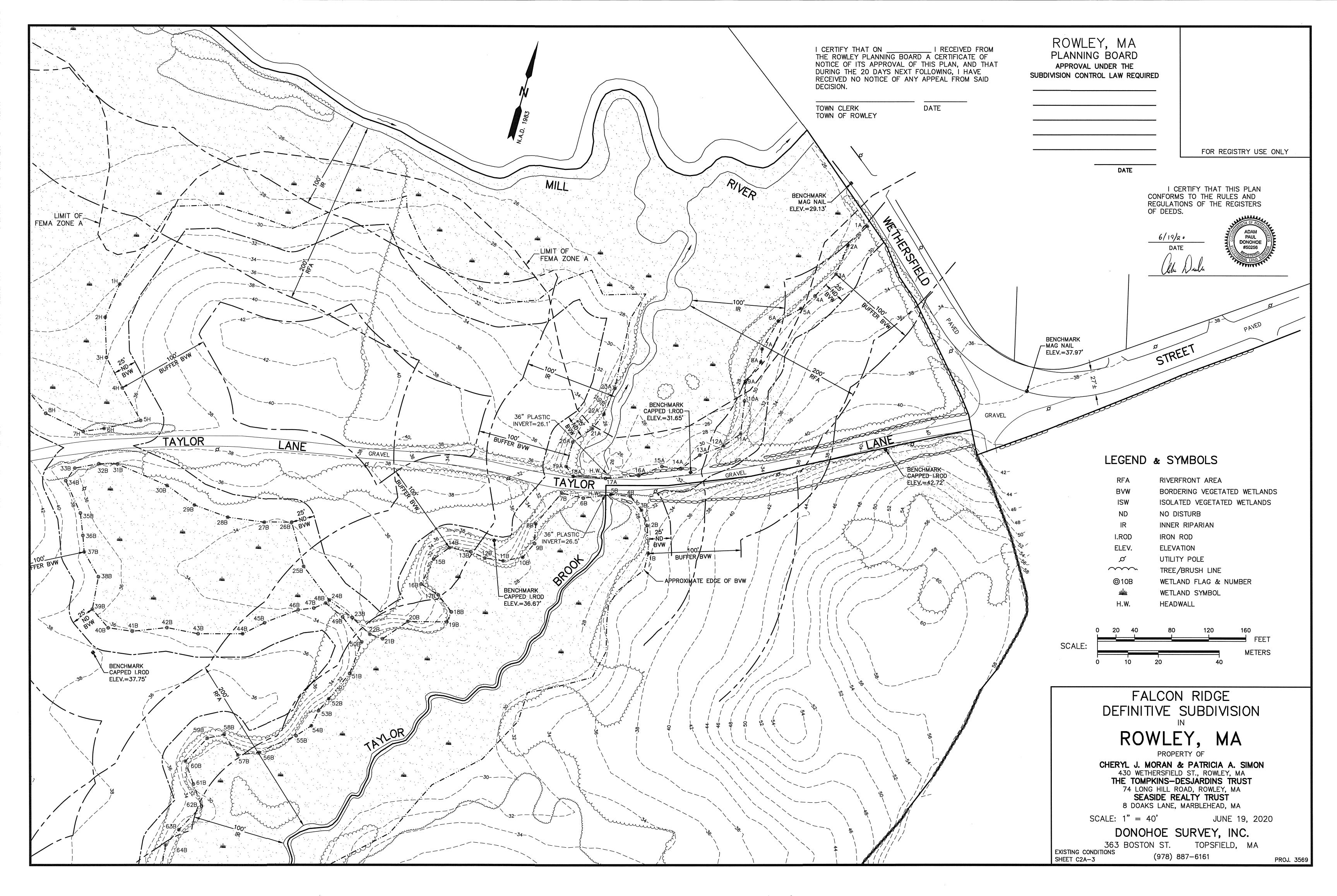
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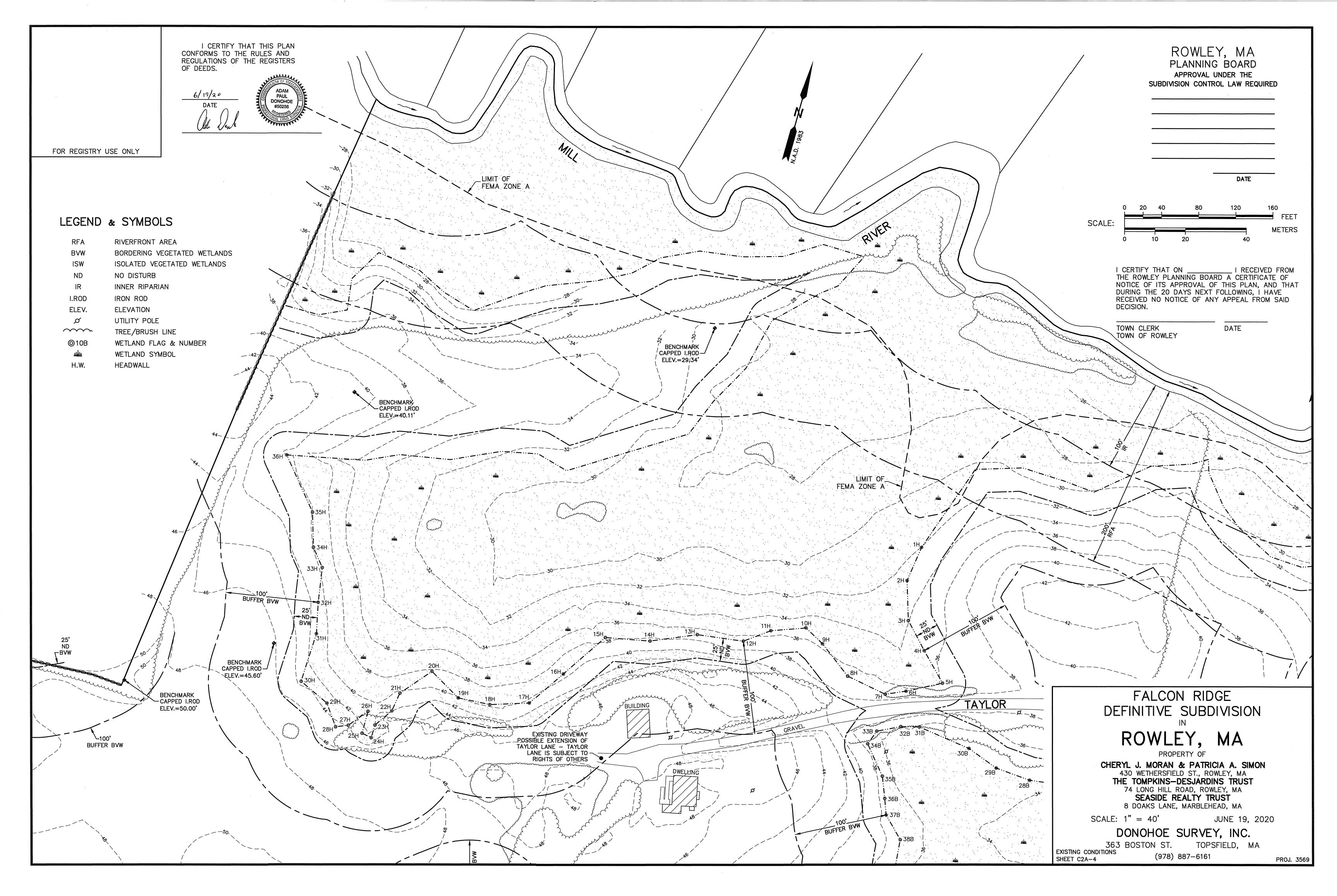


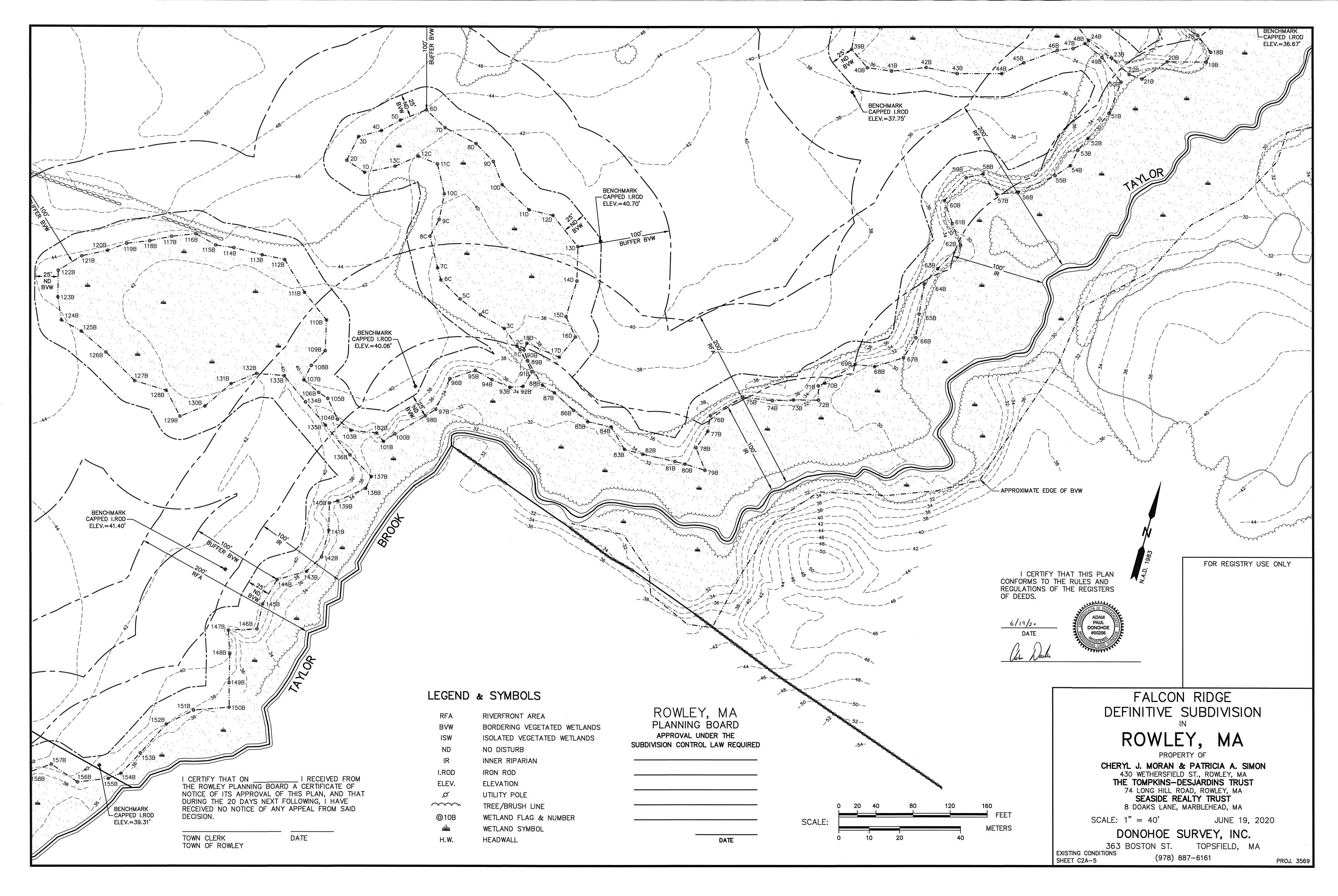


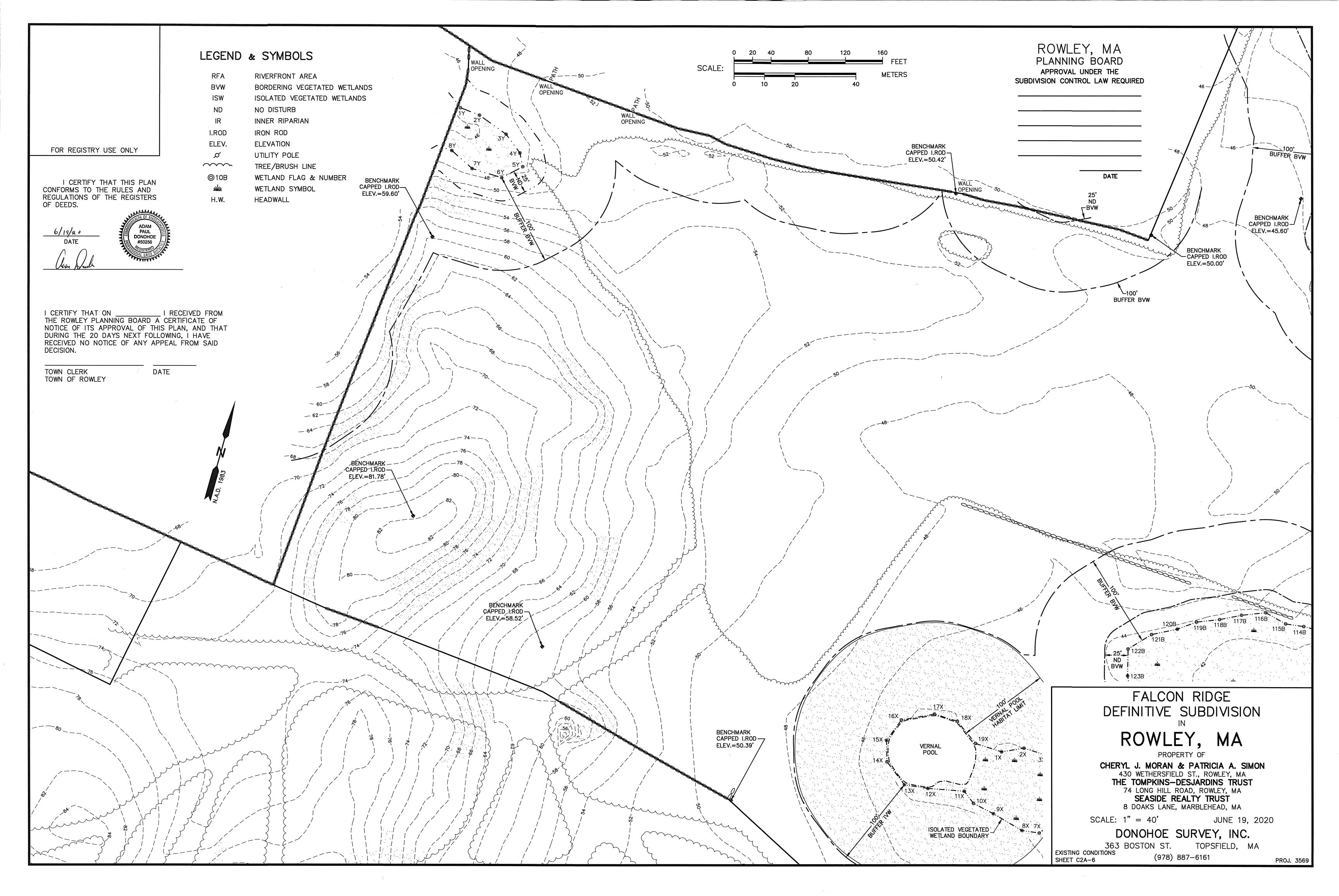


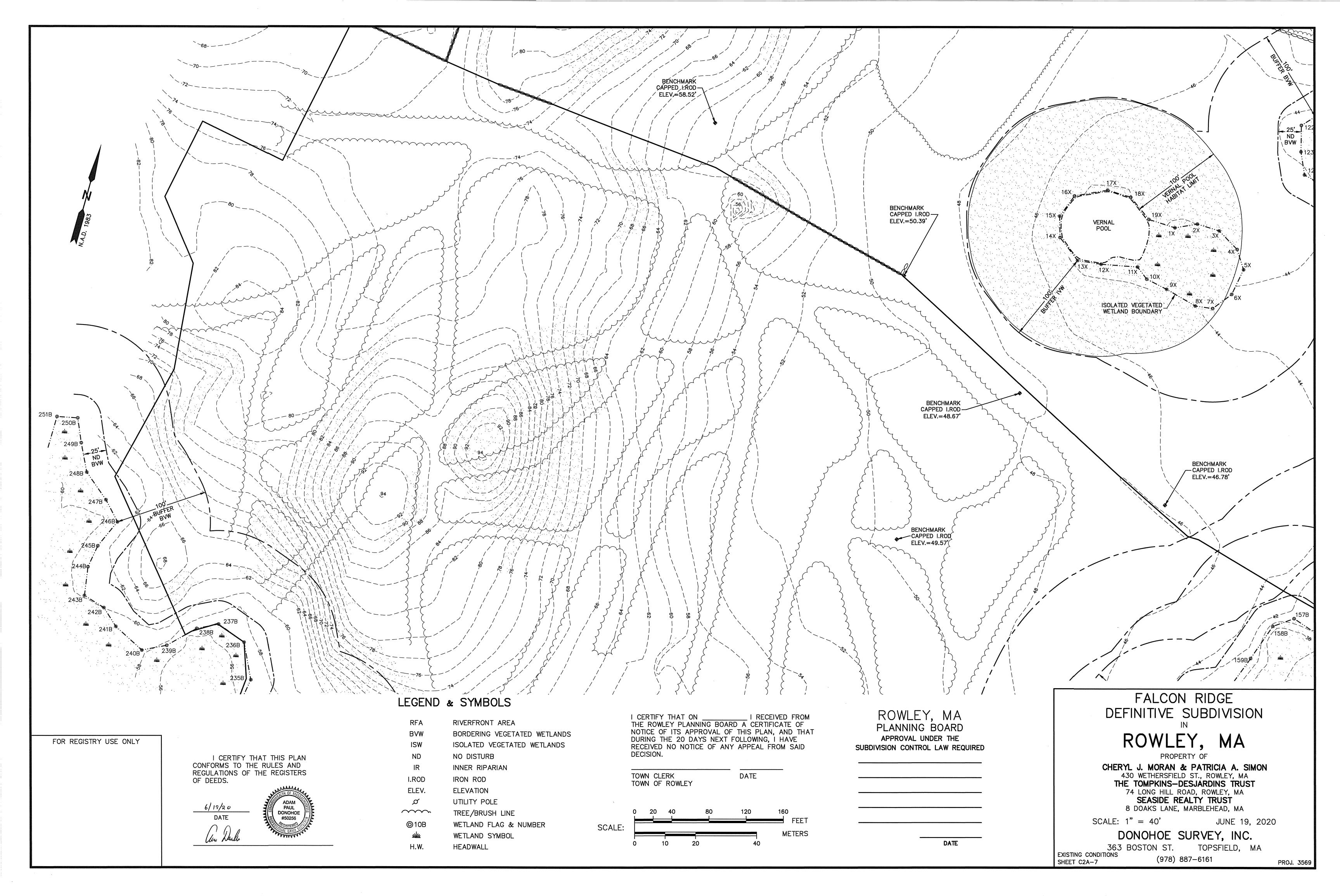


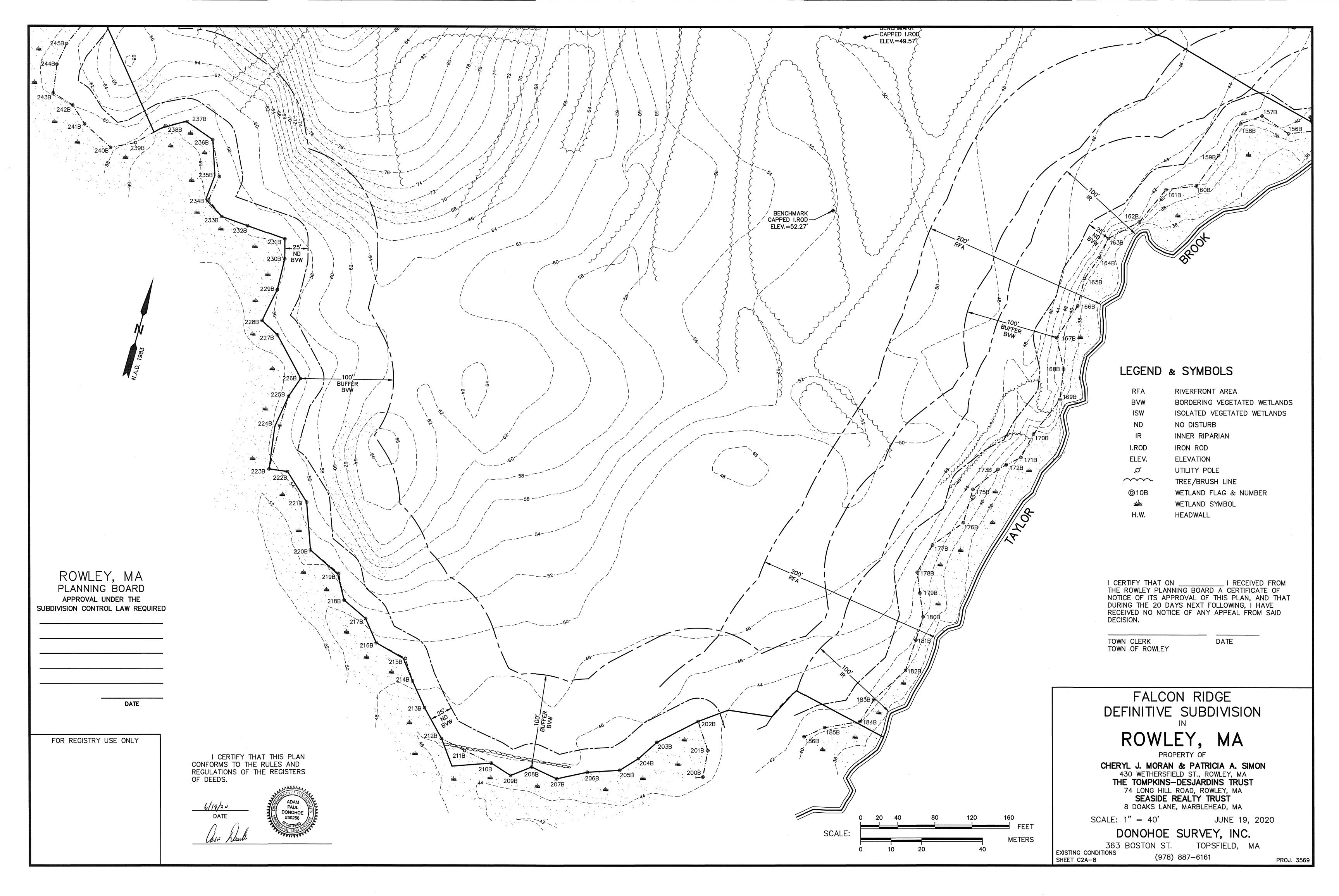


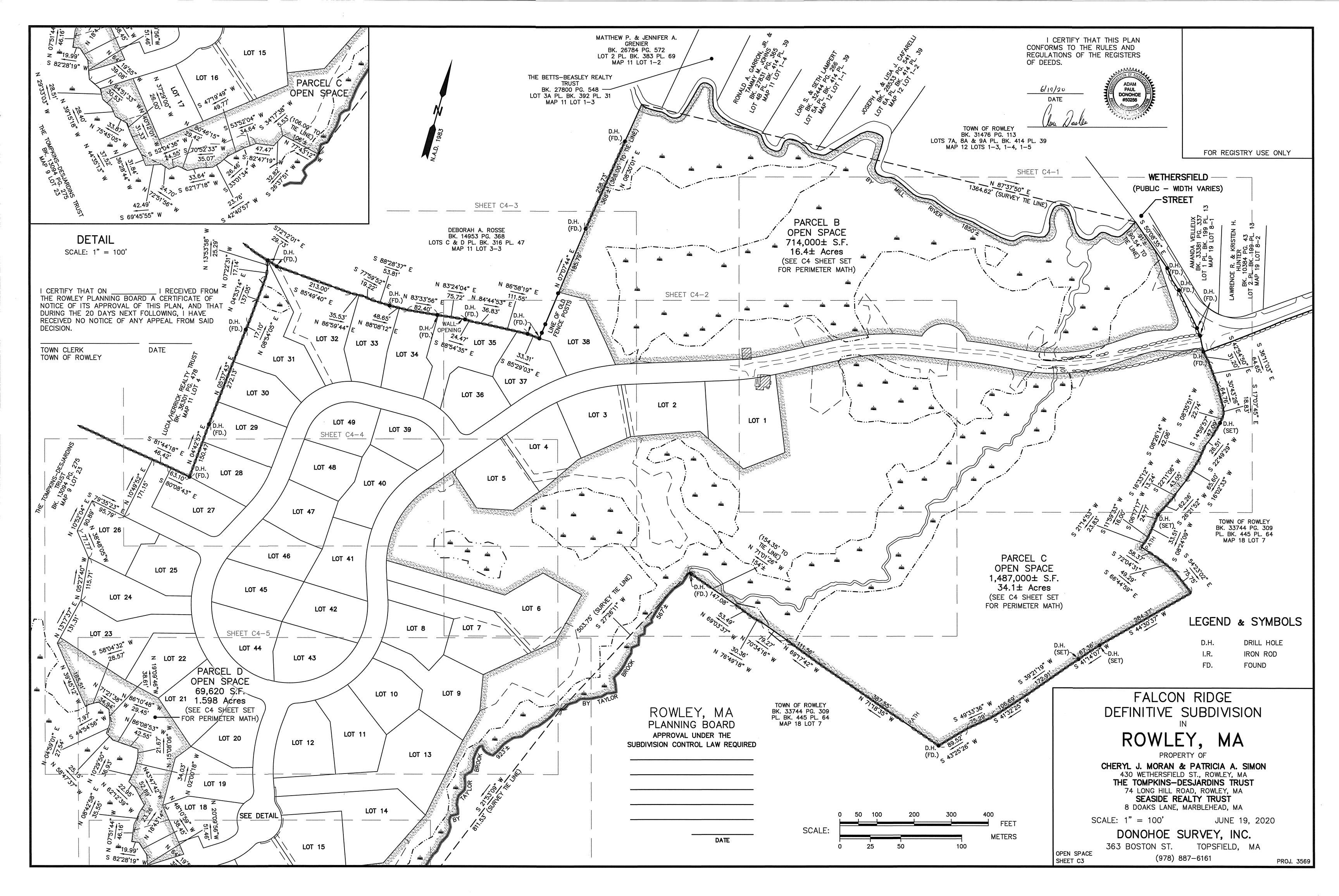


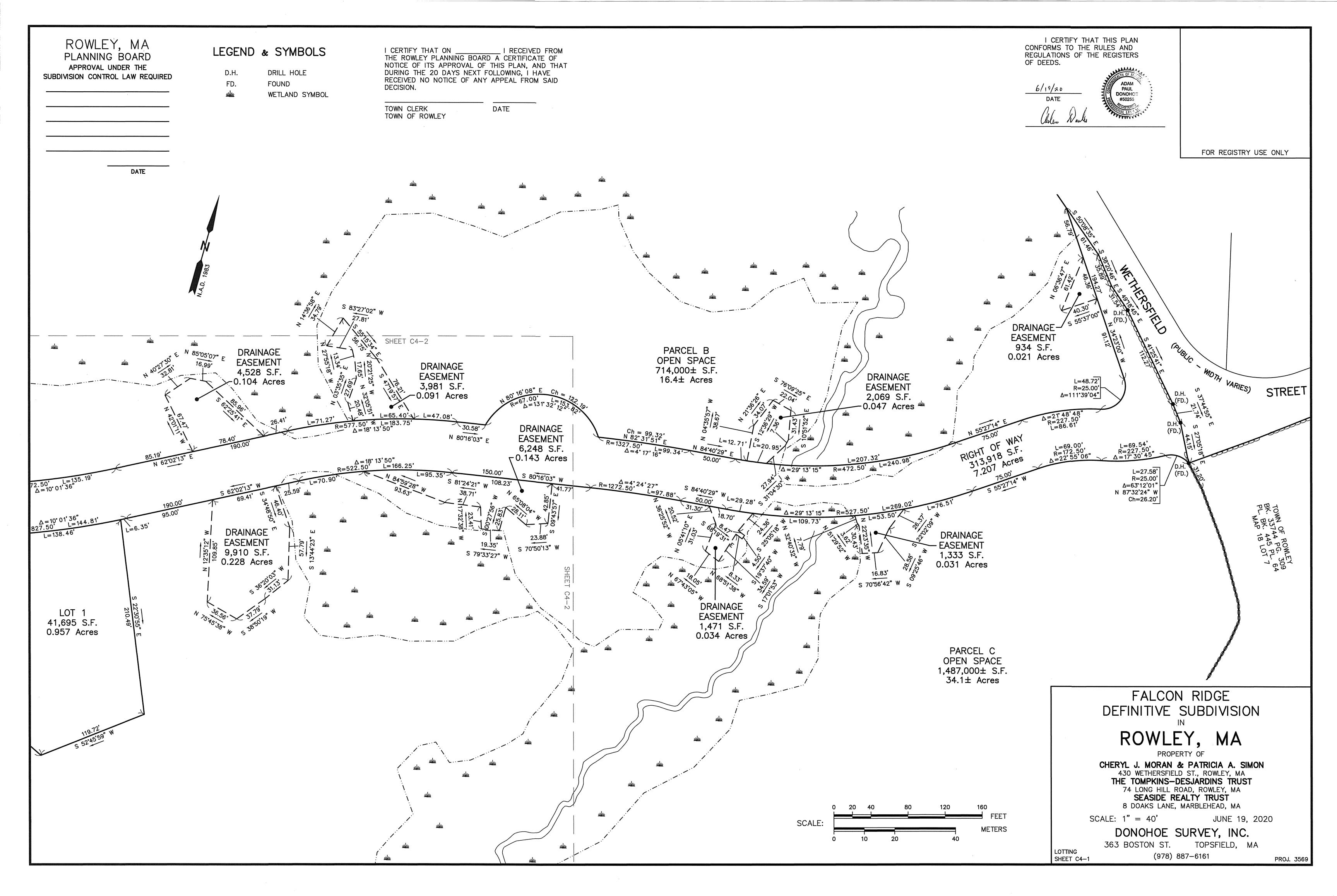


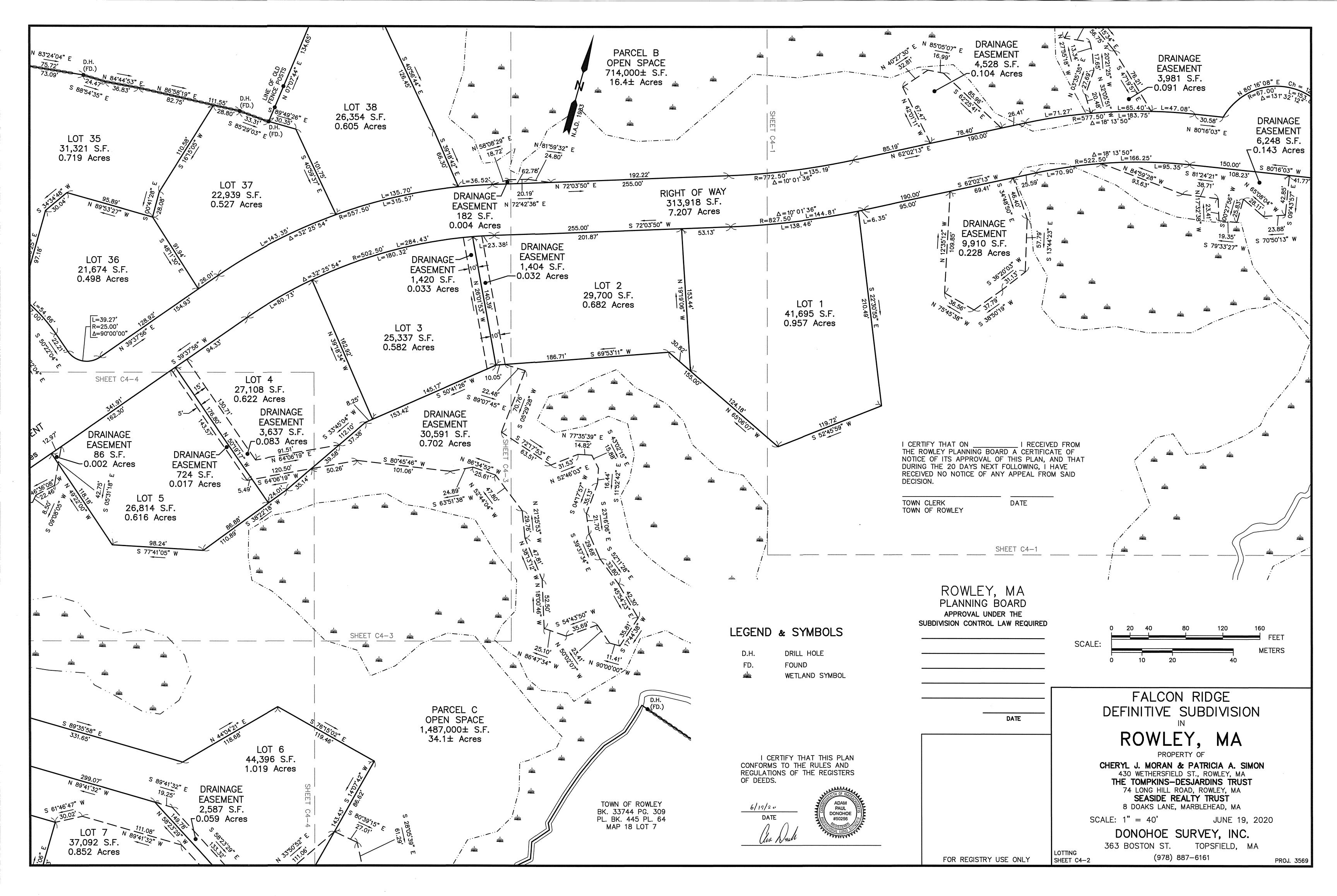


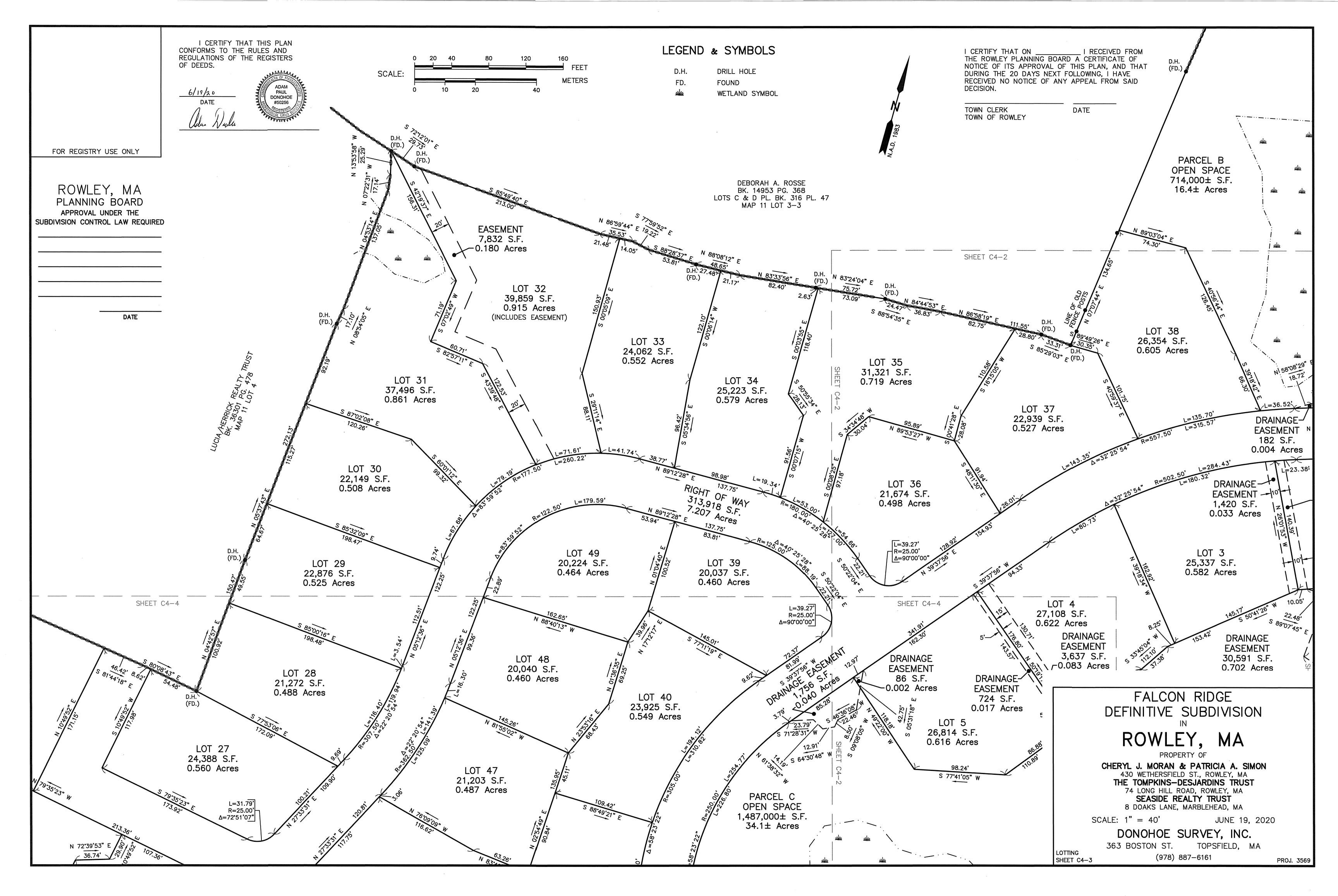


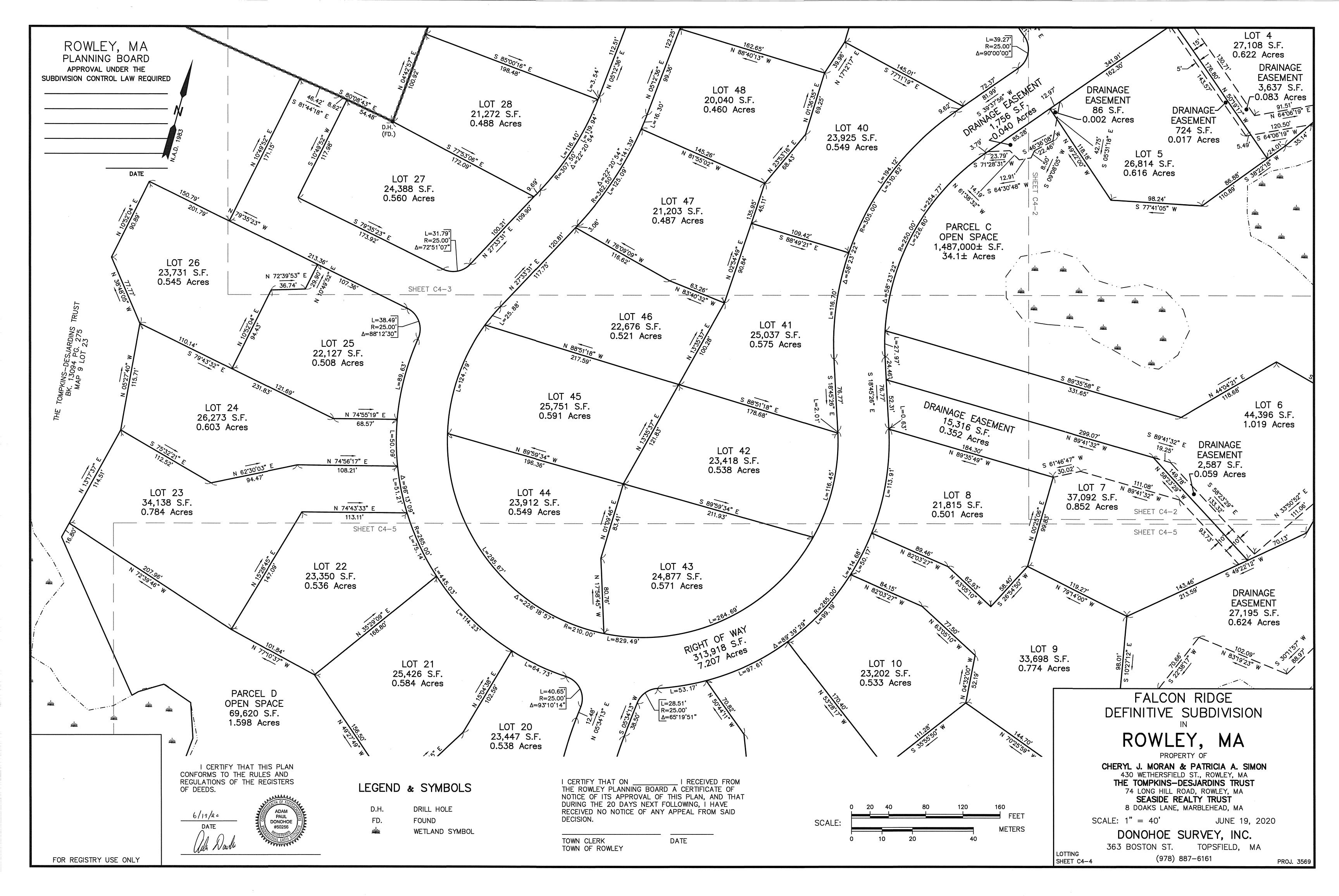


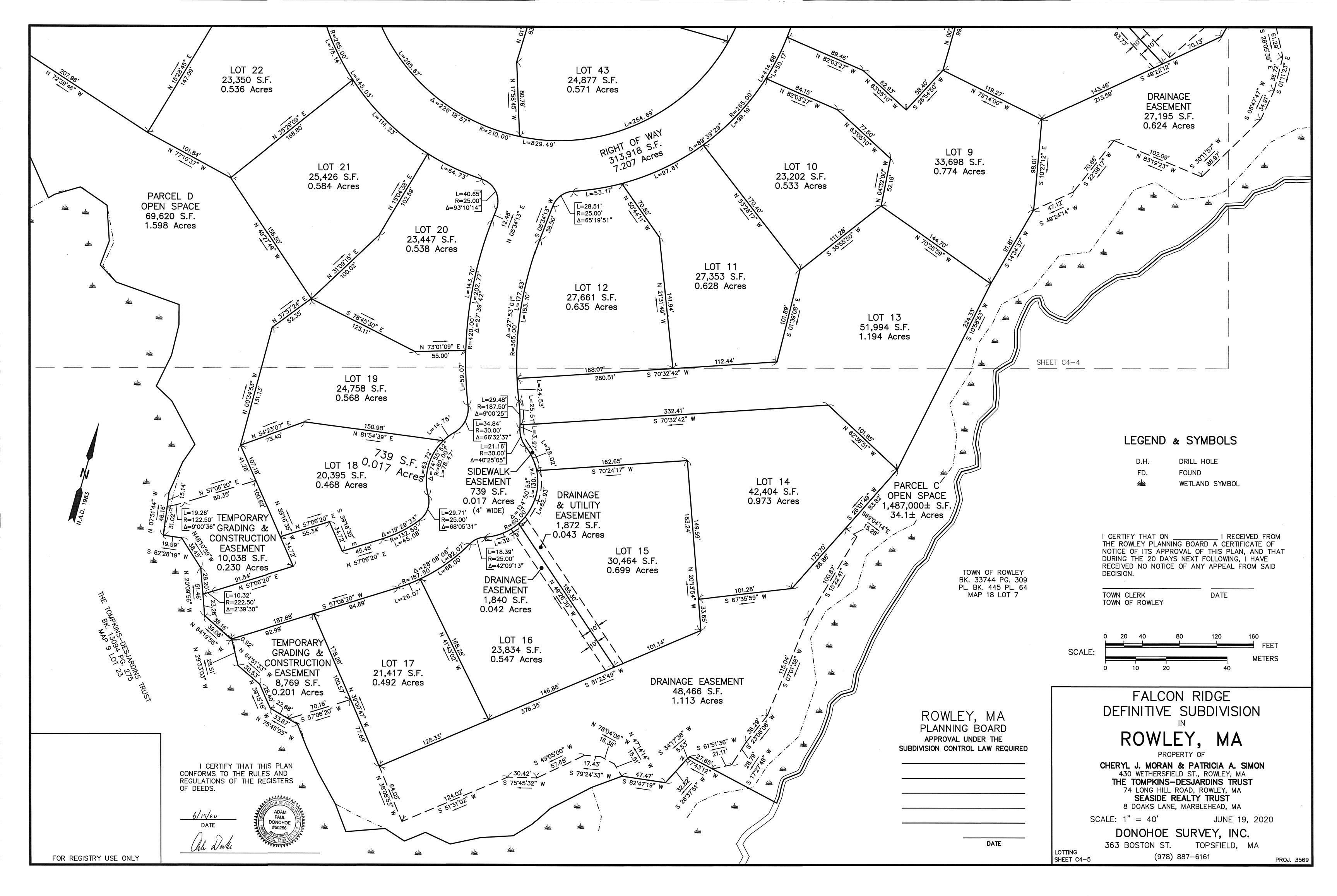


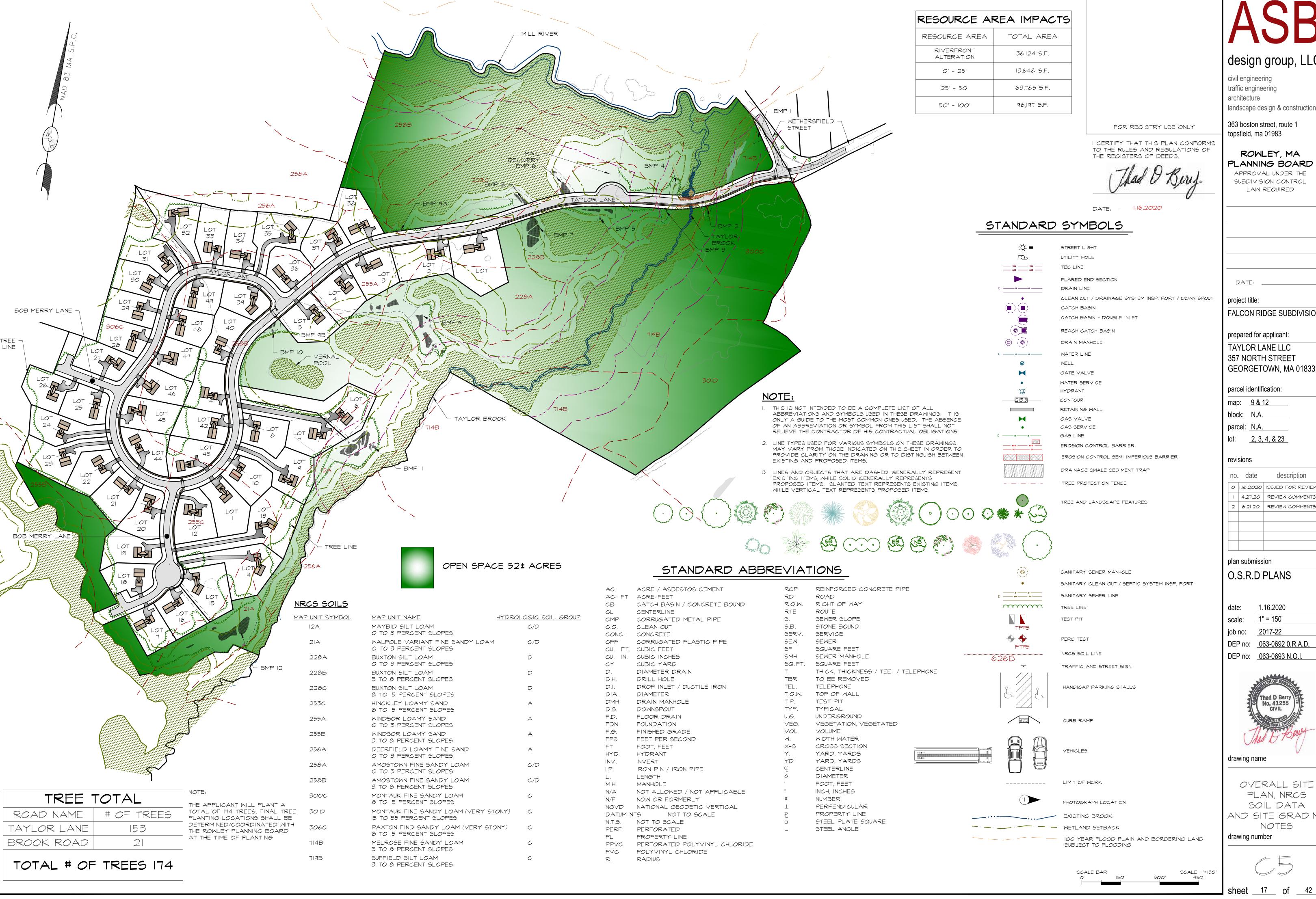












civil engineering traffic engineering architecture landscape design & construction

363 boston street, route 1 topsfield, ma 01983

ROWLEY, MA

PLANNING BOARD APPROVAL UNDER THE

SUBDIVISION CONTROL LAW REQUIRED

FALCON RIDGE SUBDIVISION

prepared for applicant: TAYLOR LANE LLC 357 NORTH STREET

map: <u>9 & 12</u>

block: N.A. parcel: N.A.

lot: <u>2, 3, 4, & 23</u>

no. date description O 1.16.2020 ISSUED FOR REVIEW 4.27.20 REVIEW COMMENTS 2 6.21.20 REVIEW COMMENTS

O.S.R.D PLANS

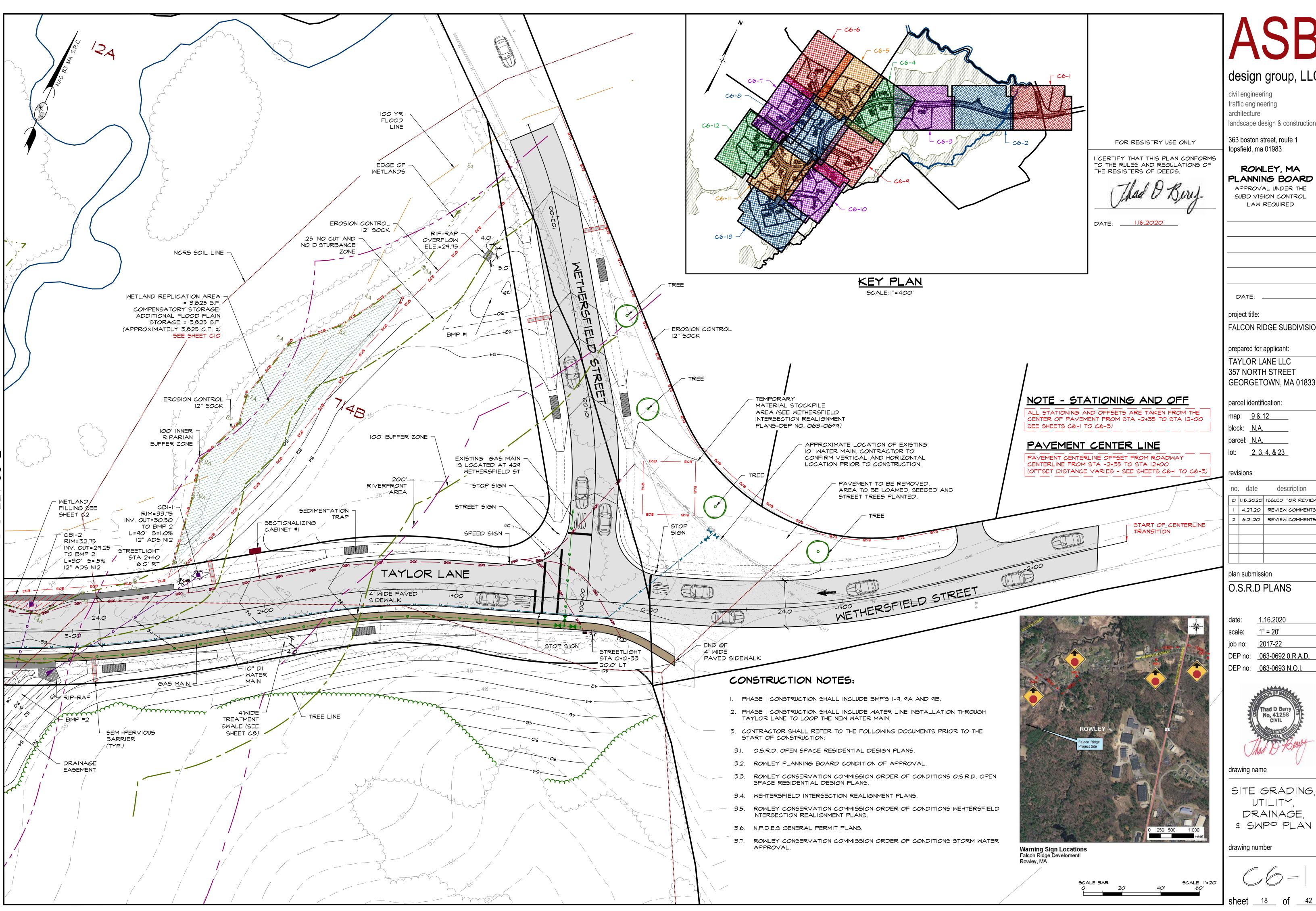
1.16.2020 1" = 150'

DEP no: <u>063-0692 0.R.A.D.</u> DEP no: <u>063-0693 N.O.I.</u>

OVERALL SITE PLAN, NRCS SOIL DATA AND SITE GRADING

NOTES





traffic engineering landscape design & construction

363 boston street, route 1

ROWLEY, MA PLANNING BOARD APPROVAL UNDER THE

FALCON RIDGE SUBDIVISION

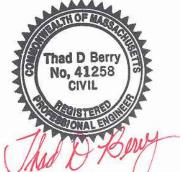
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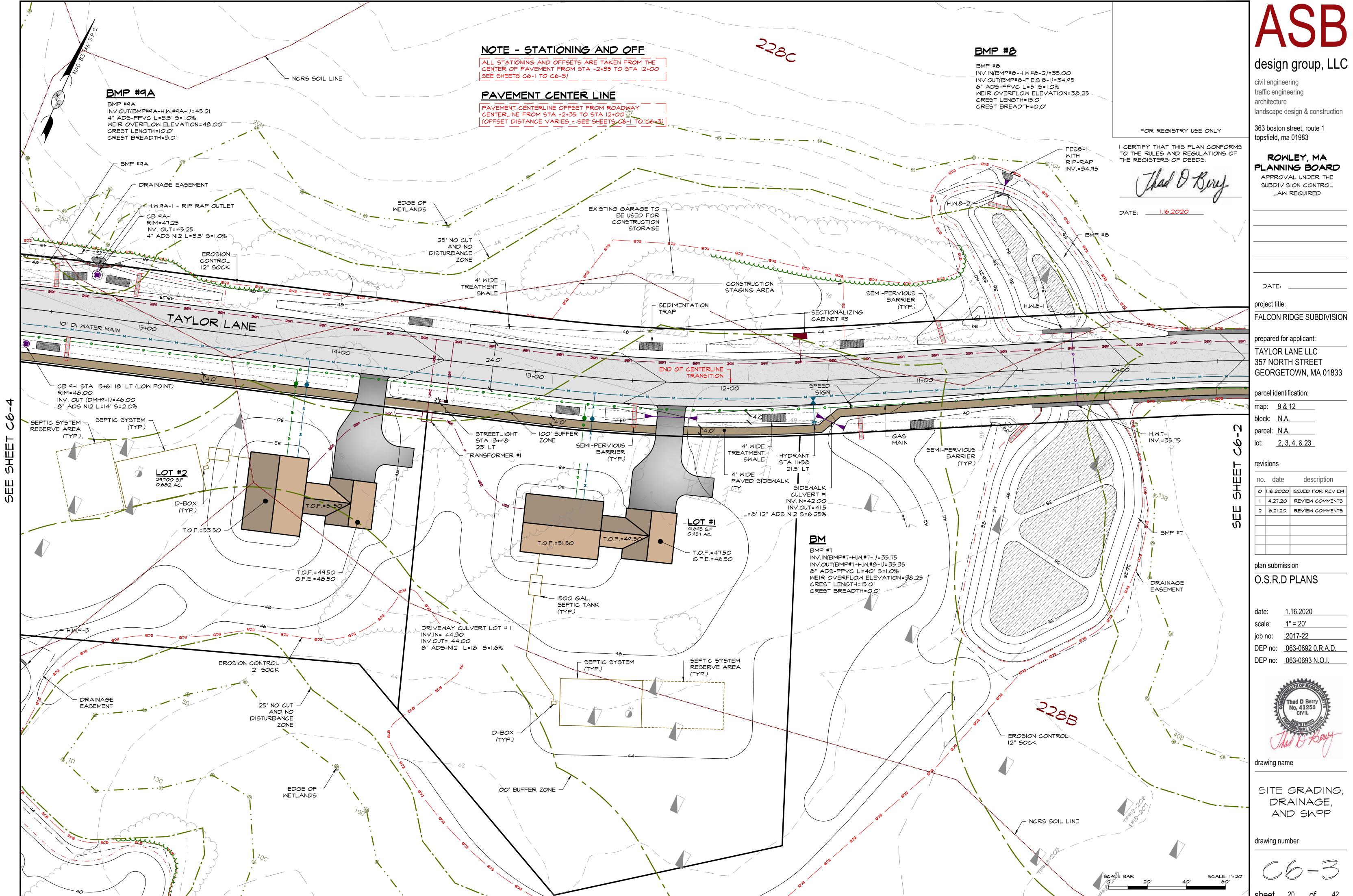
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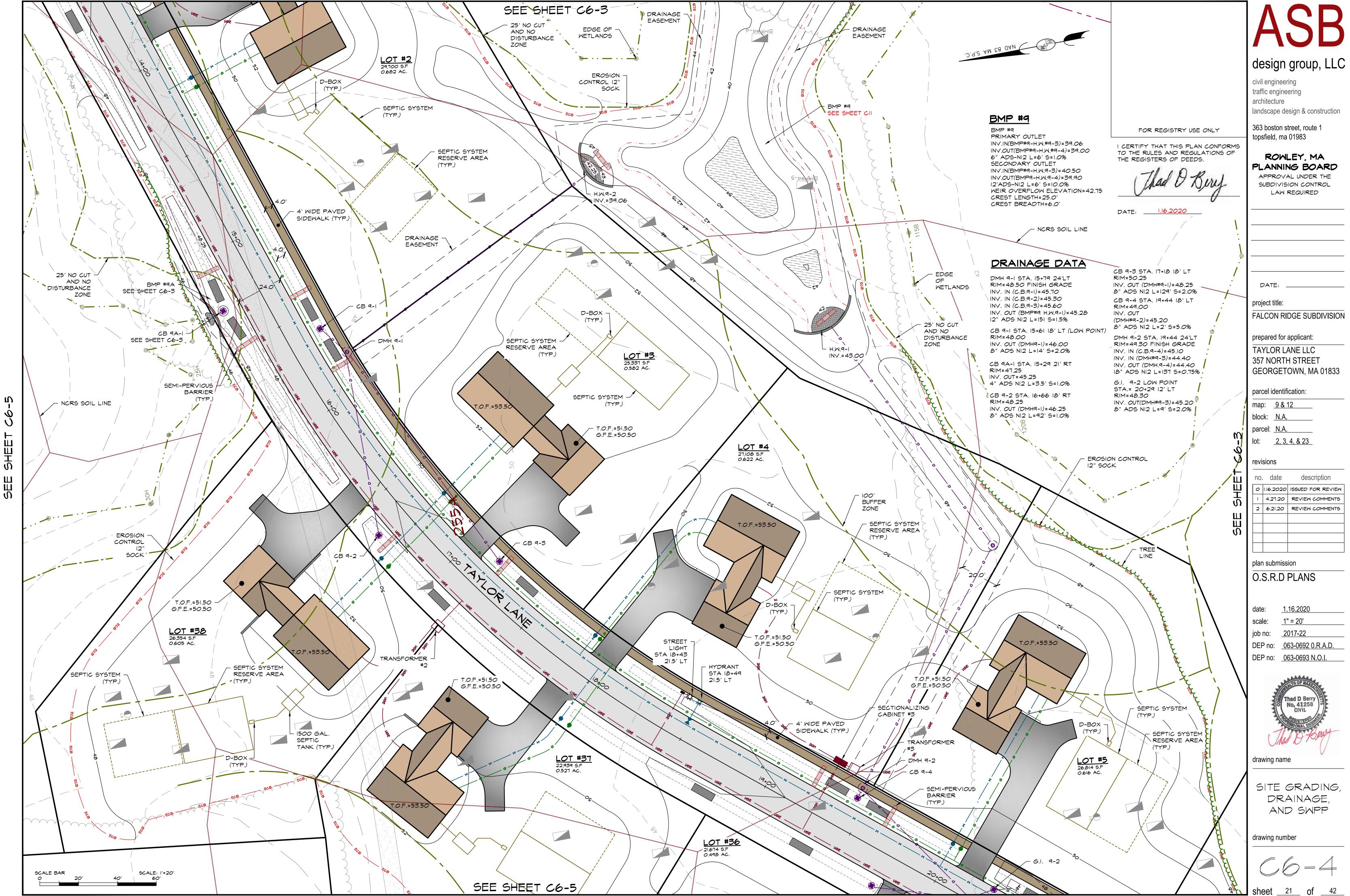


SITE GRADING, UTILITY, DRAINAGE, \$ SWPP PLAN

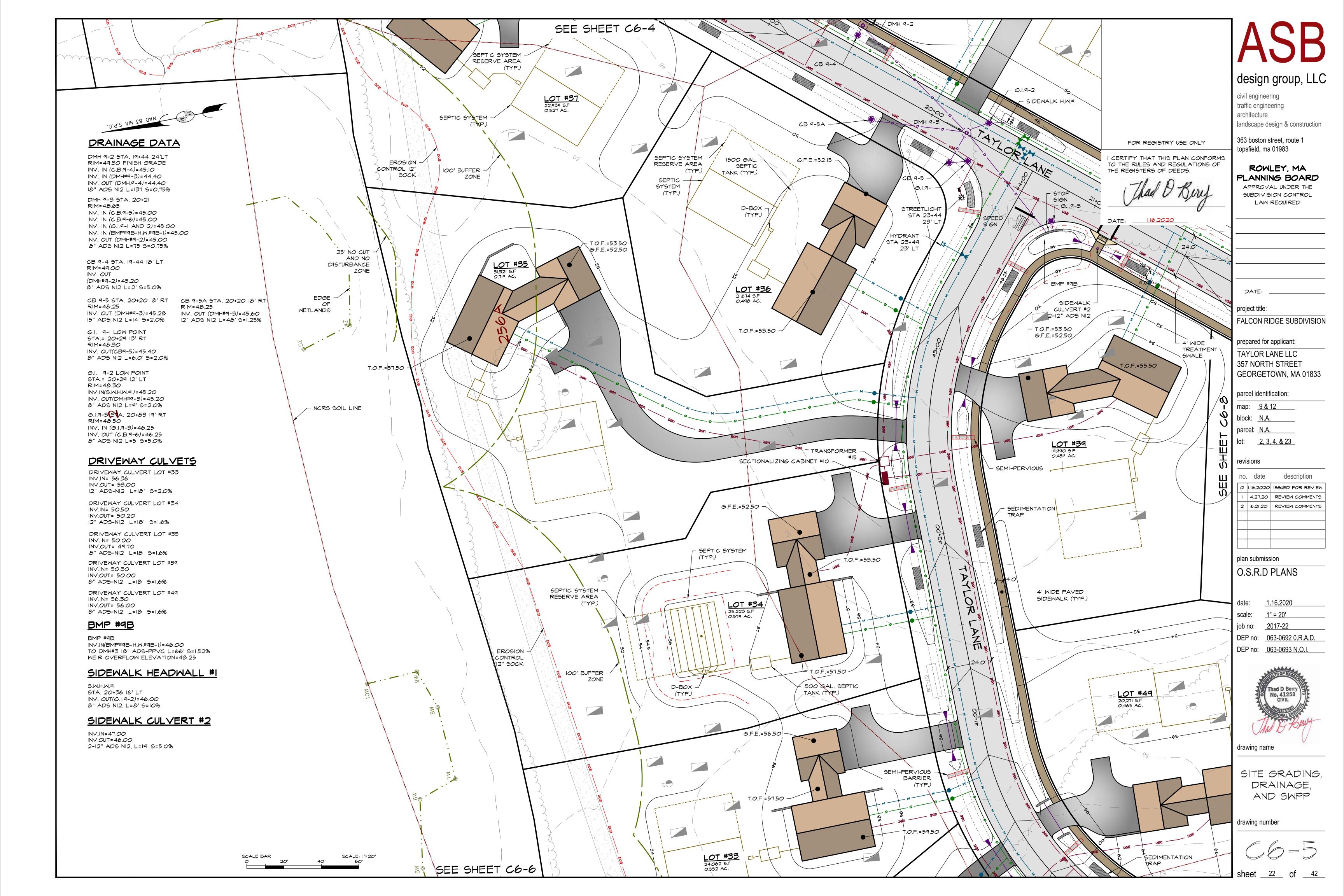
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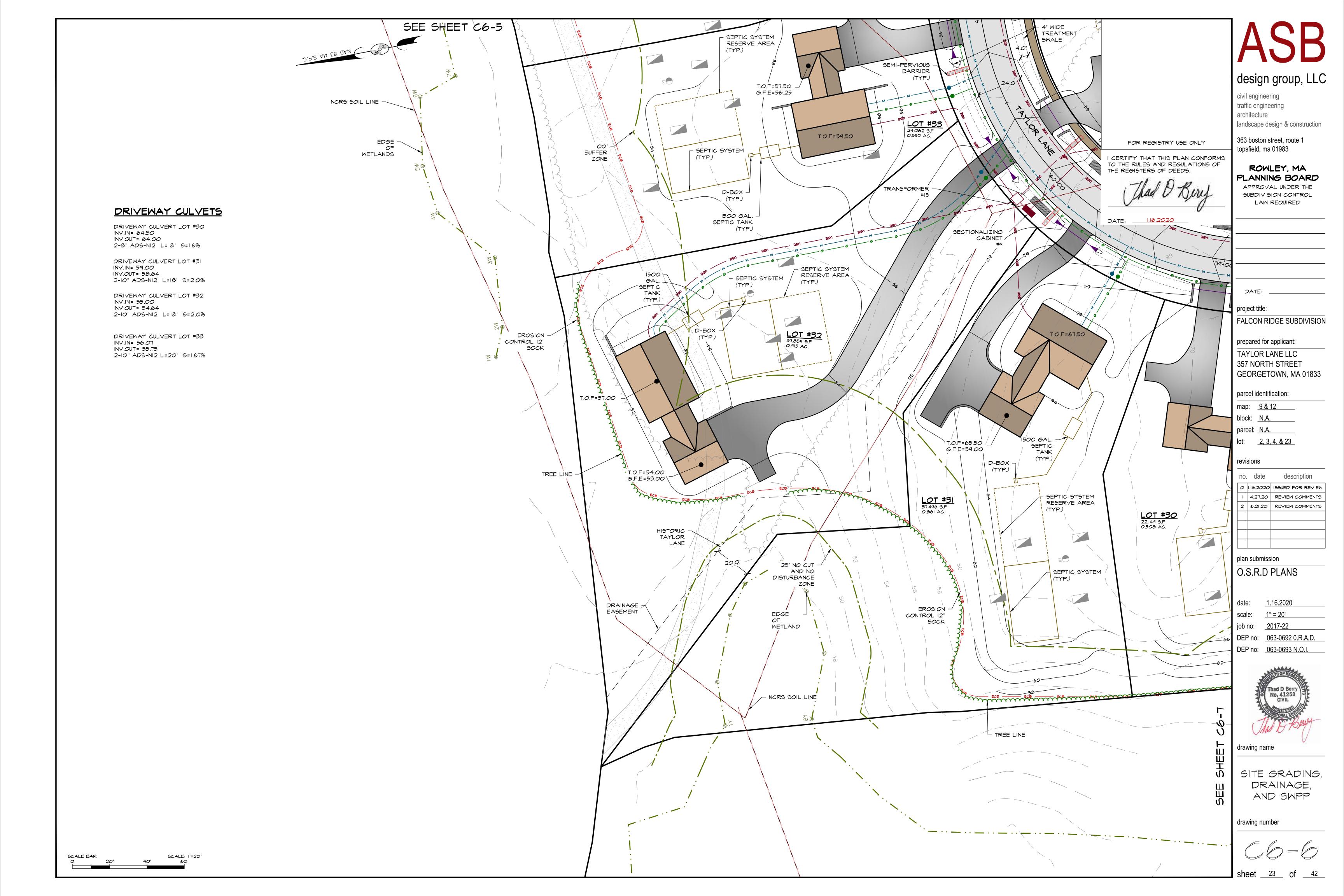


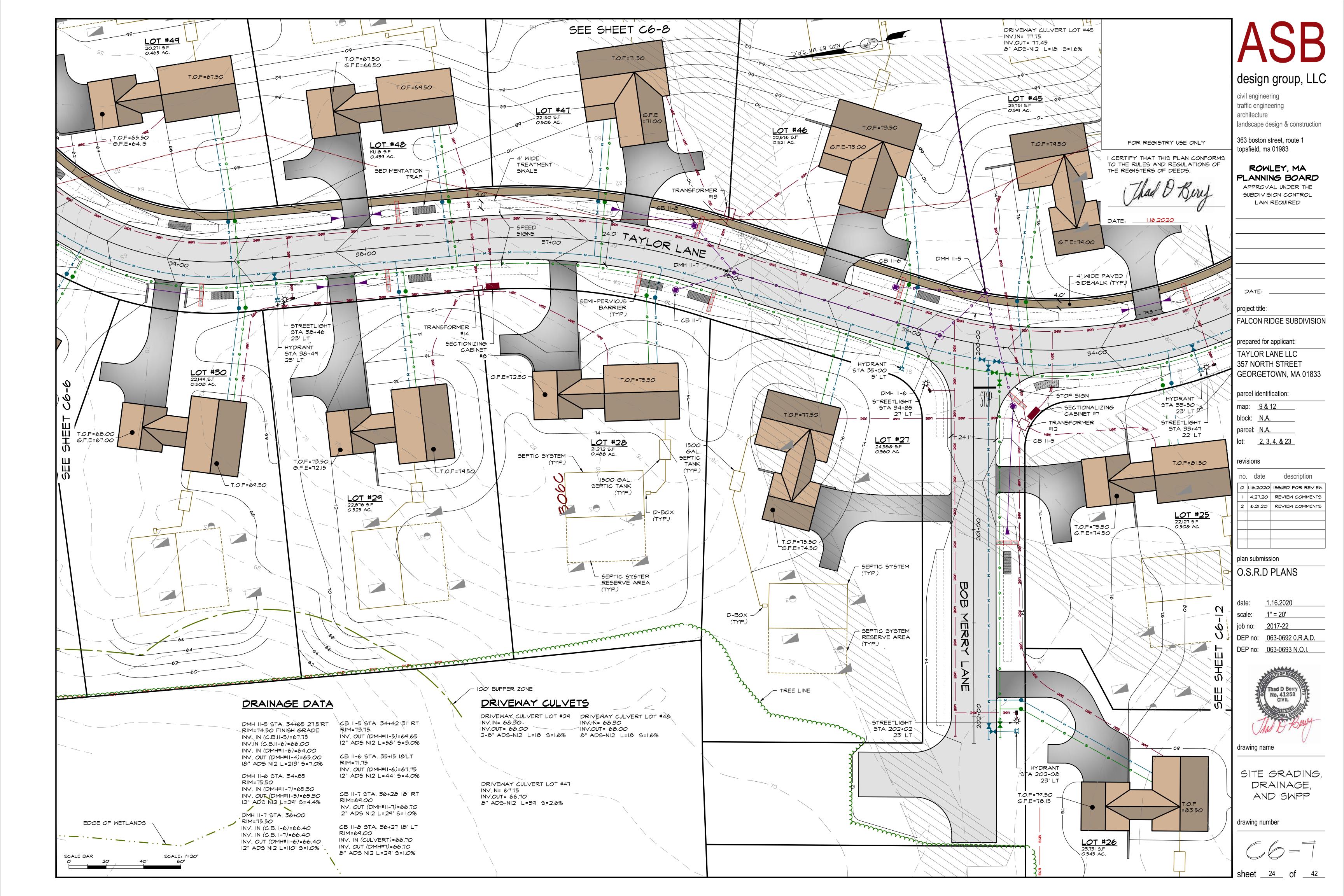
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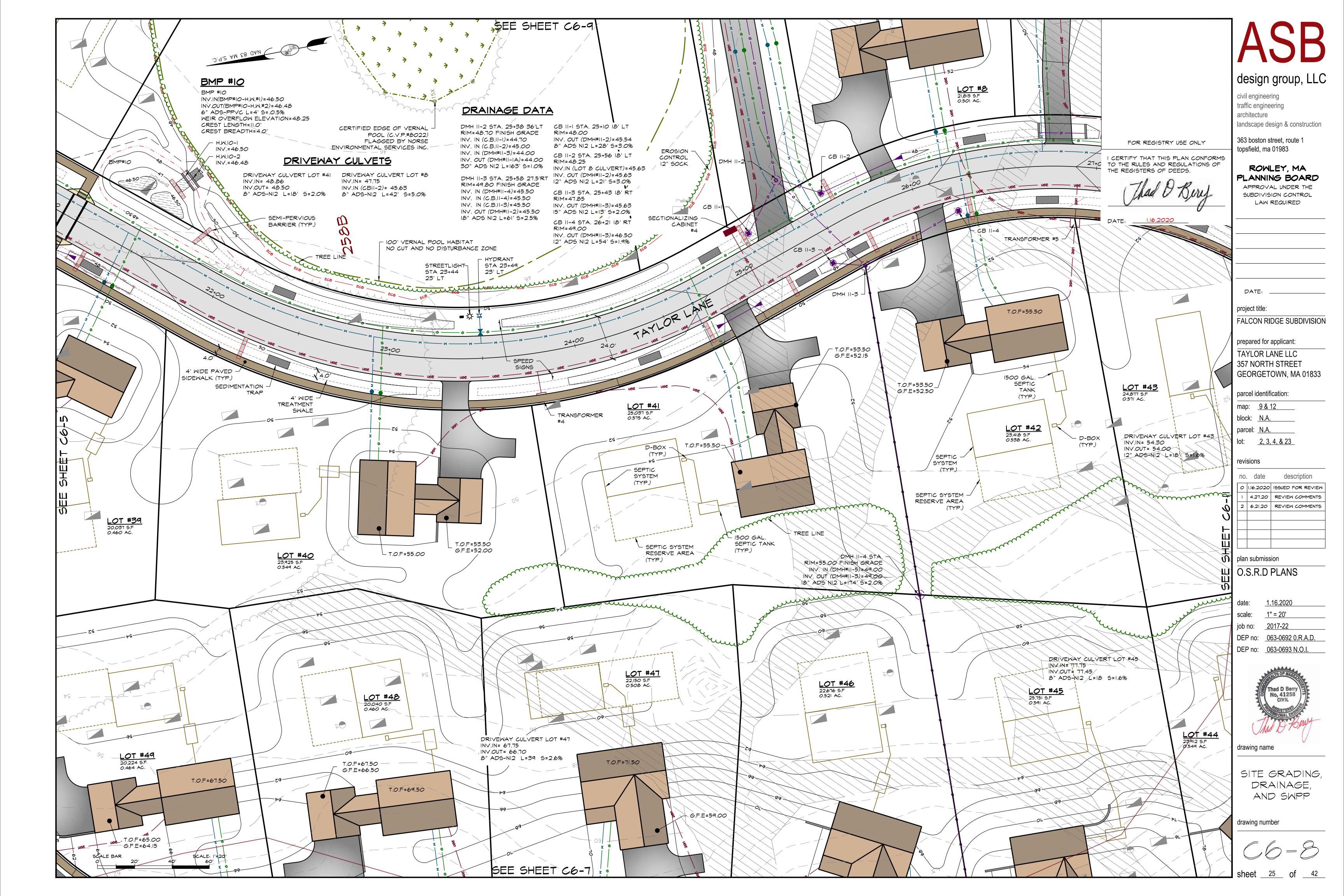


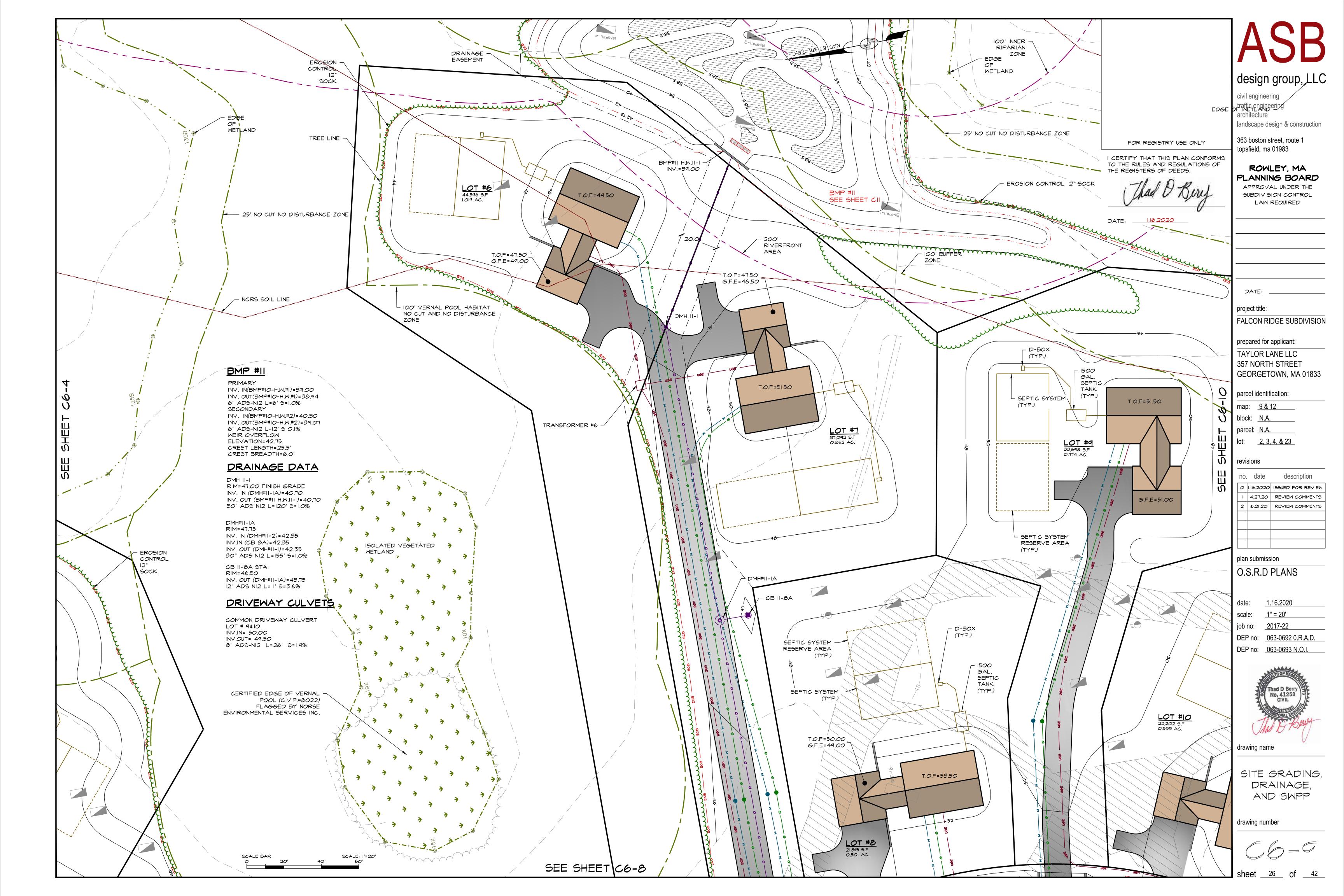
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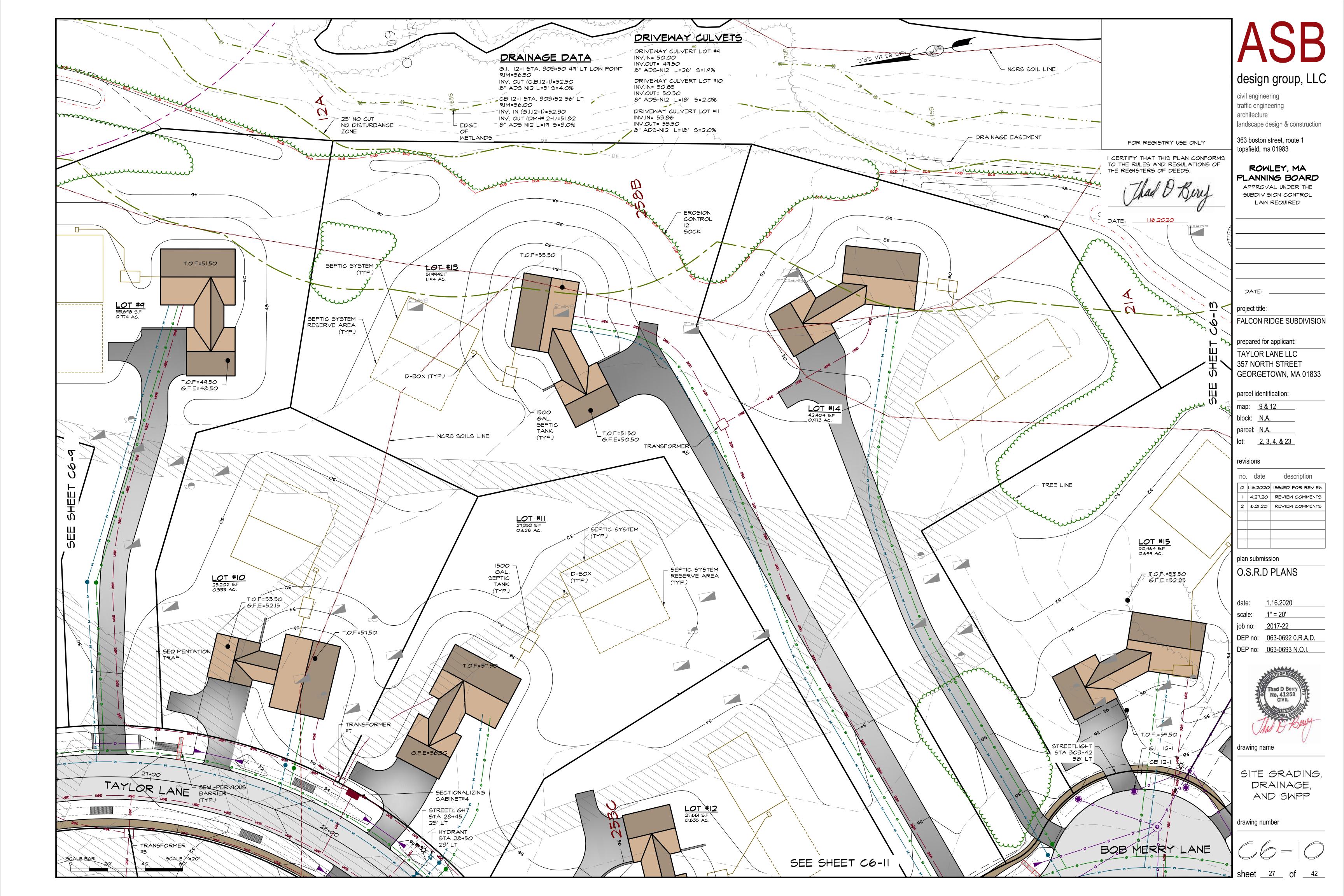


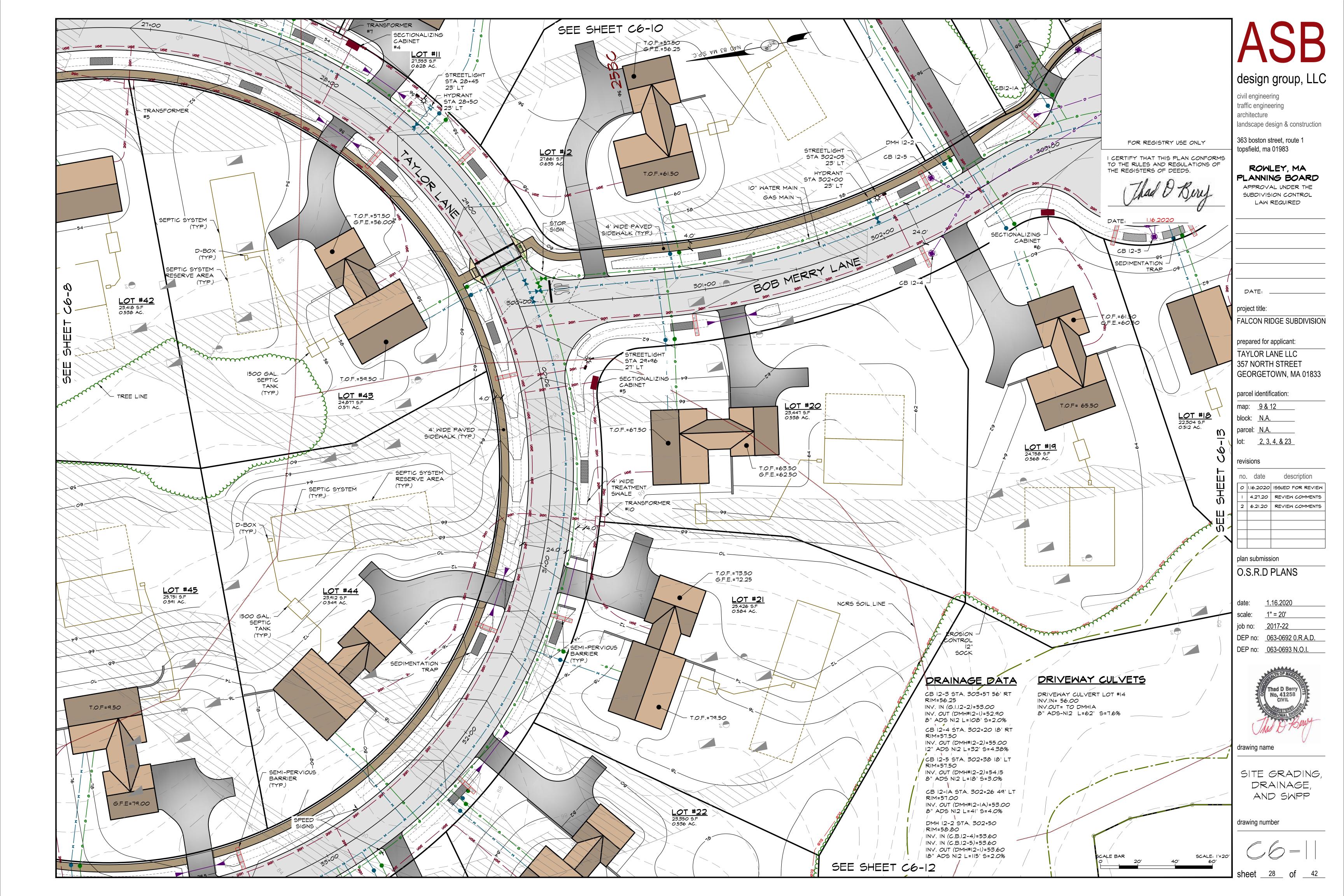


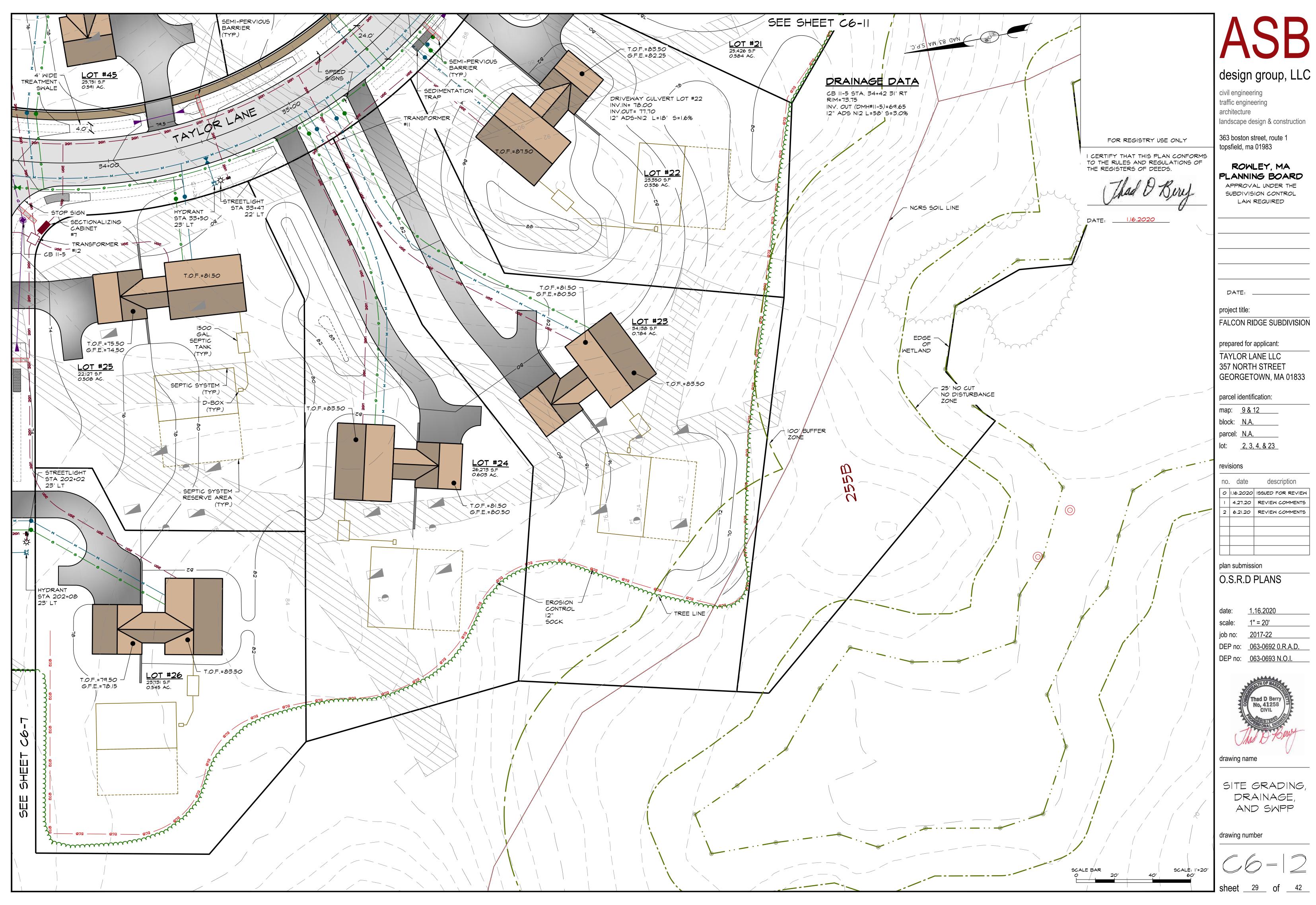




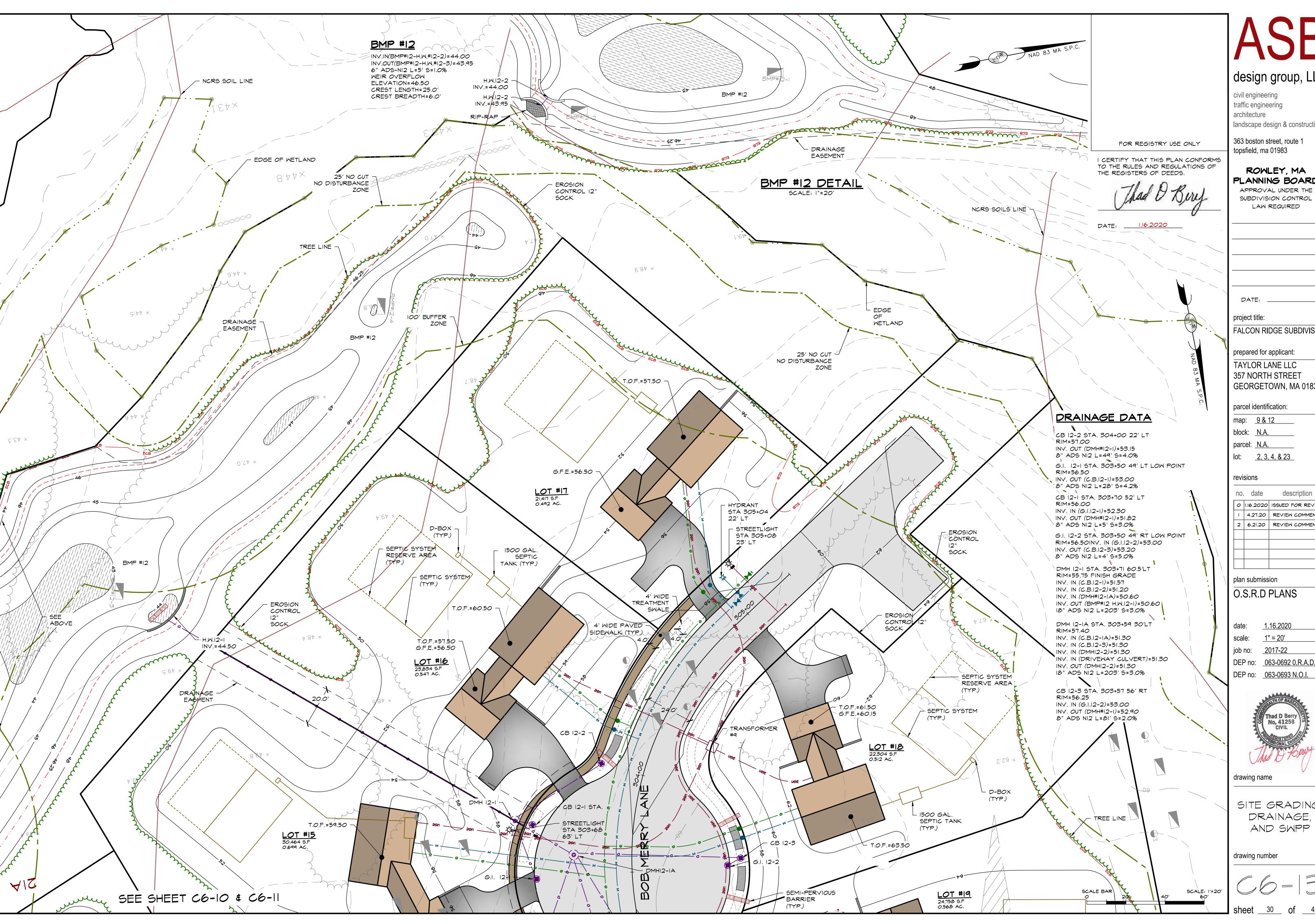








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civil engineering traffic engineering architecture landscape design & construction

363 boston street, route 1 topsfield, ma 01983

LAW REQUIRED

ROWLEY, MA PLANNING BOARD

project title:

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prepared for applicant: TAYLOR LANE LLC 357 NORTH STREET GEORGETOWN, MA 01833

parcel identification:

map: <u>9 & 12</u>

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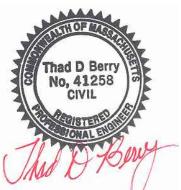
lot: <u>2, 3, 4, & 23</u>

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plan submission

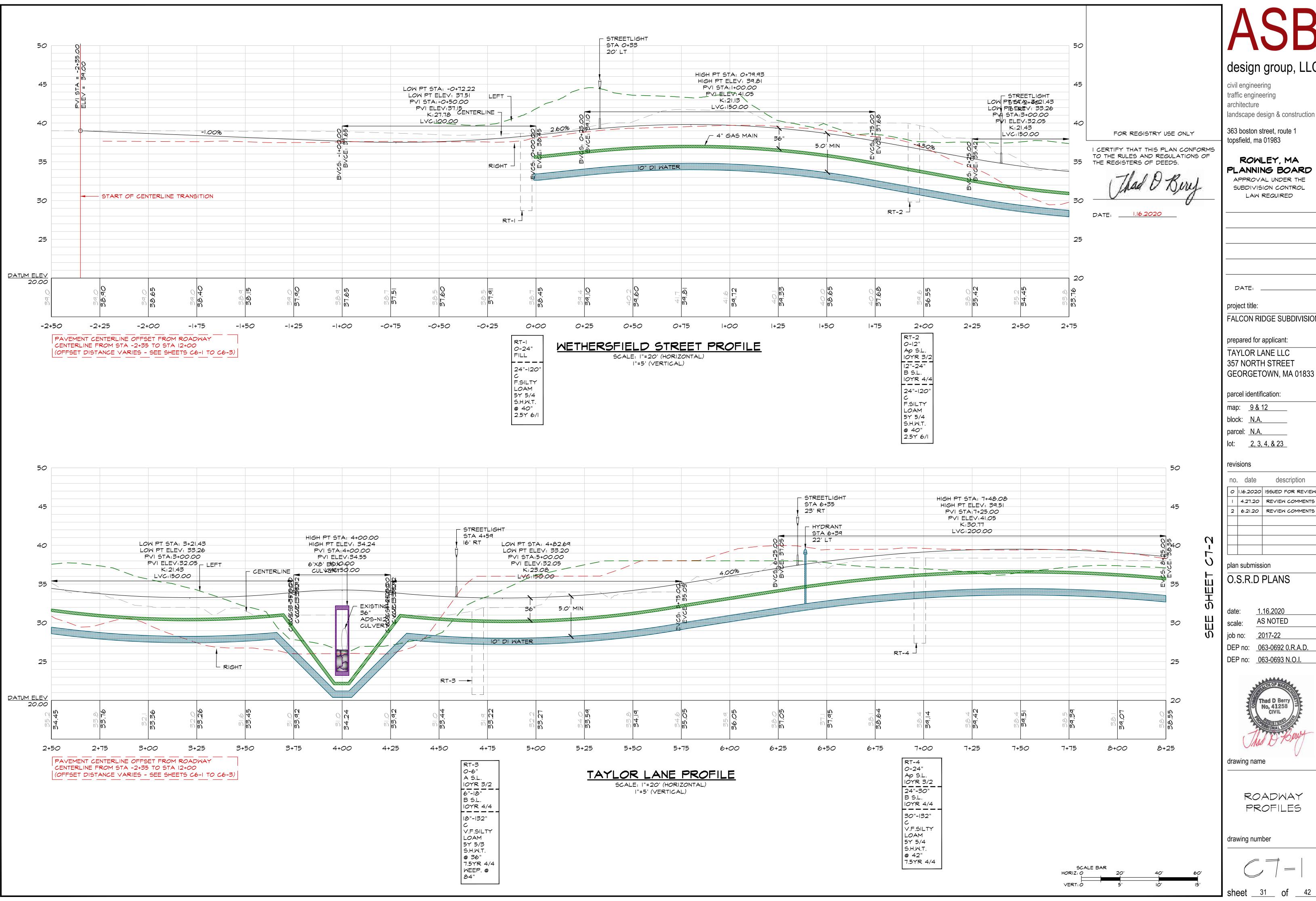
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drawing name

SITE GRADING, DRAINAGE, AND SWPP



ROWLEY, MA PLANNING BOARD APPROVAL UNDER THE SUBDIVISION CONTROL

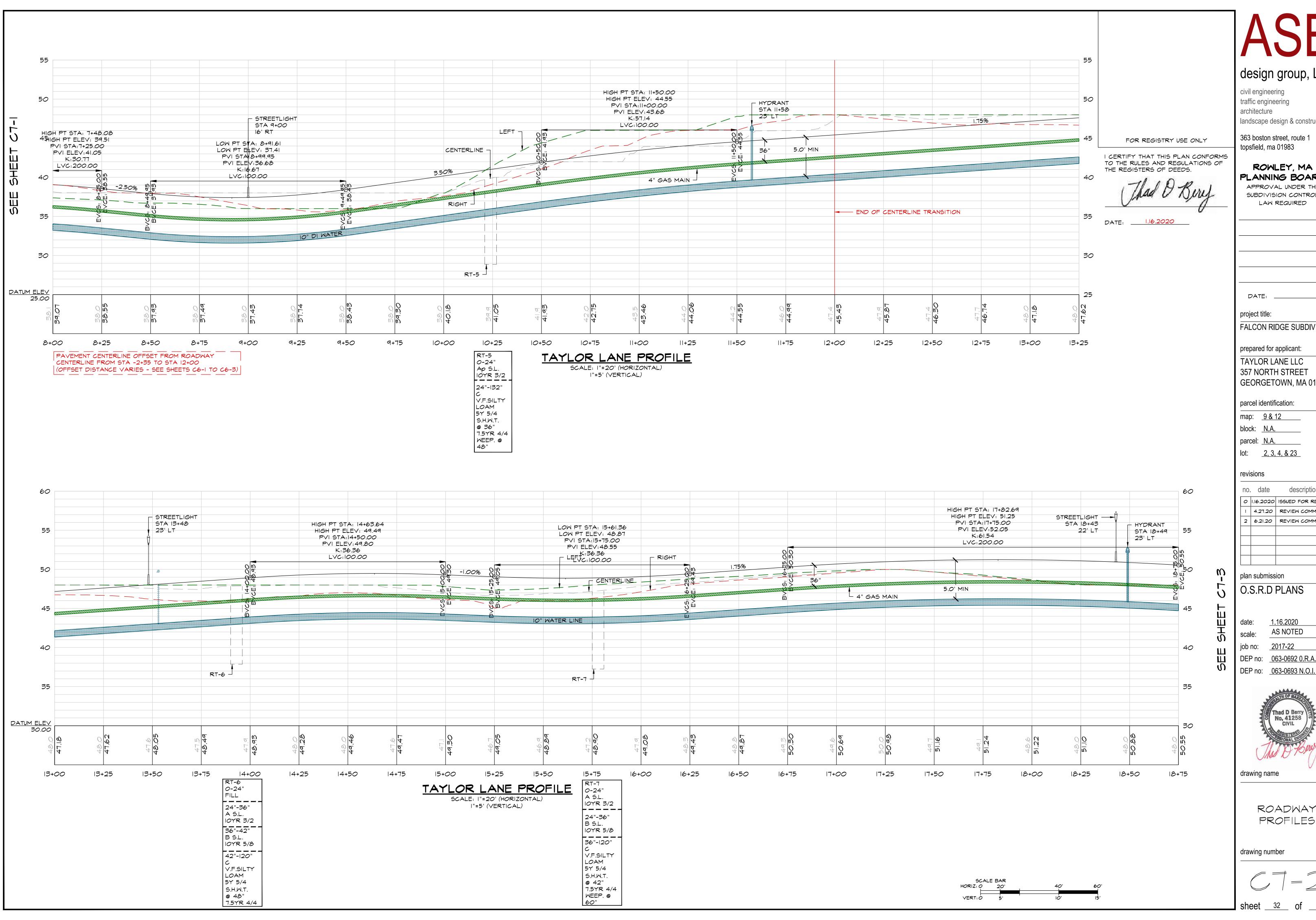
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357 NORTH STREET

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ROADWAY PROFILES



+10.0

design group, LLC

civil engineering traffic engineering architecture landscape design & construction

363 boston street, route 1 topsfield, ma 01983

ROWLEY, MA PLANNING BOARD APPROVAL UNDER THE SUBDIVISION CONTROL LAW REQUIRED

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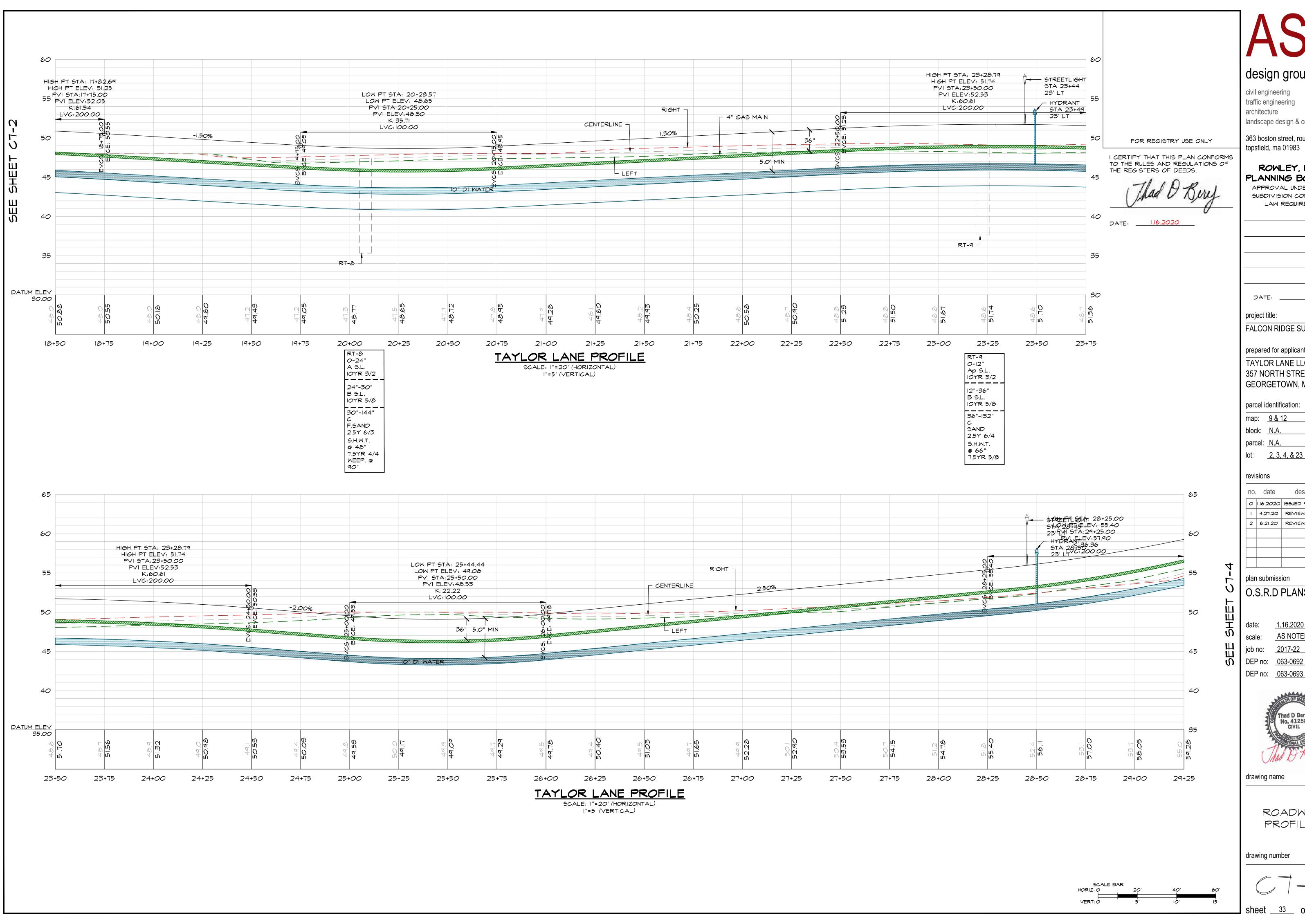
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drawing name

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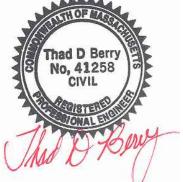
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plan submission O.S.R.D PLANS

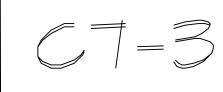
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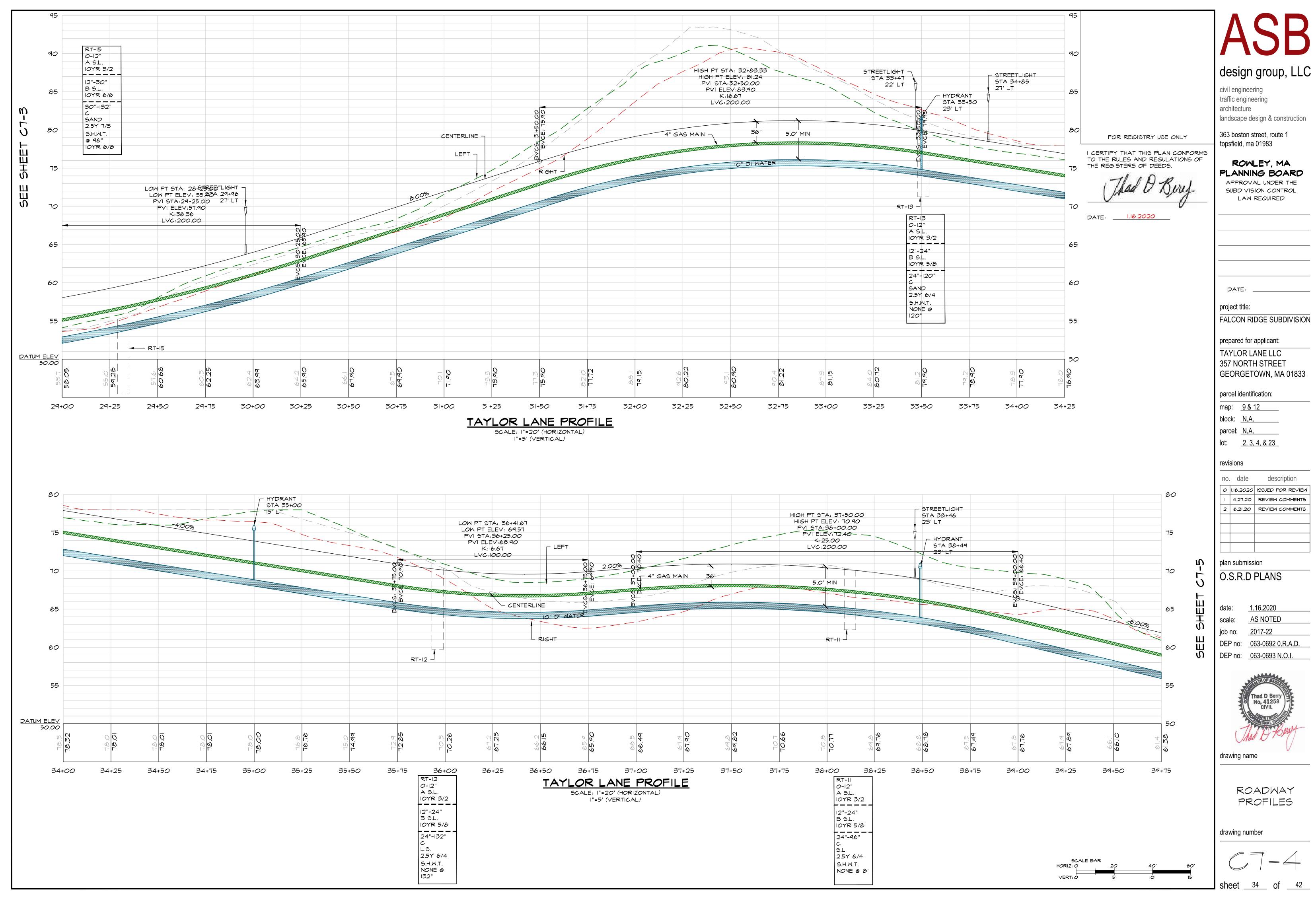
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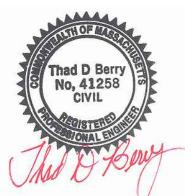
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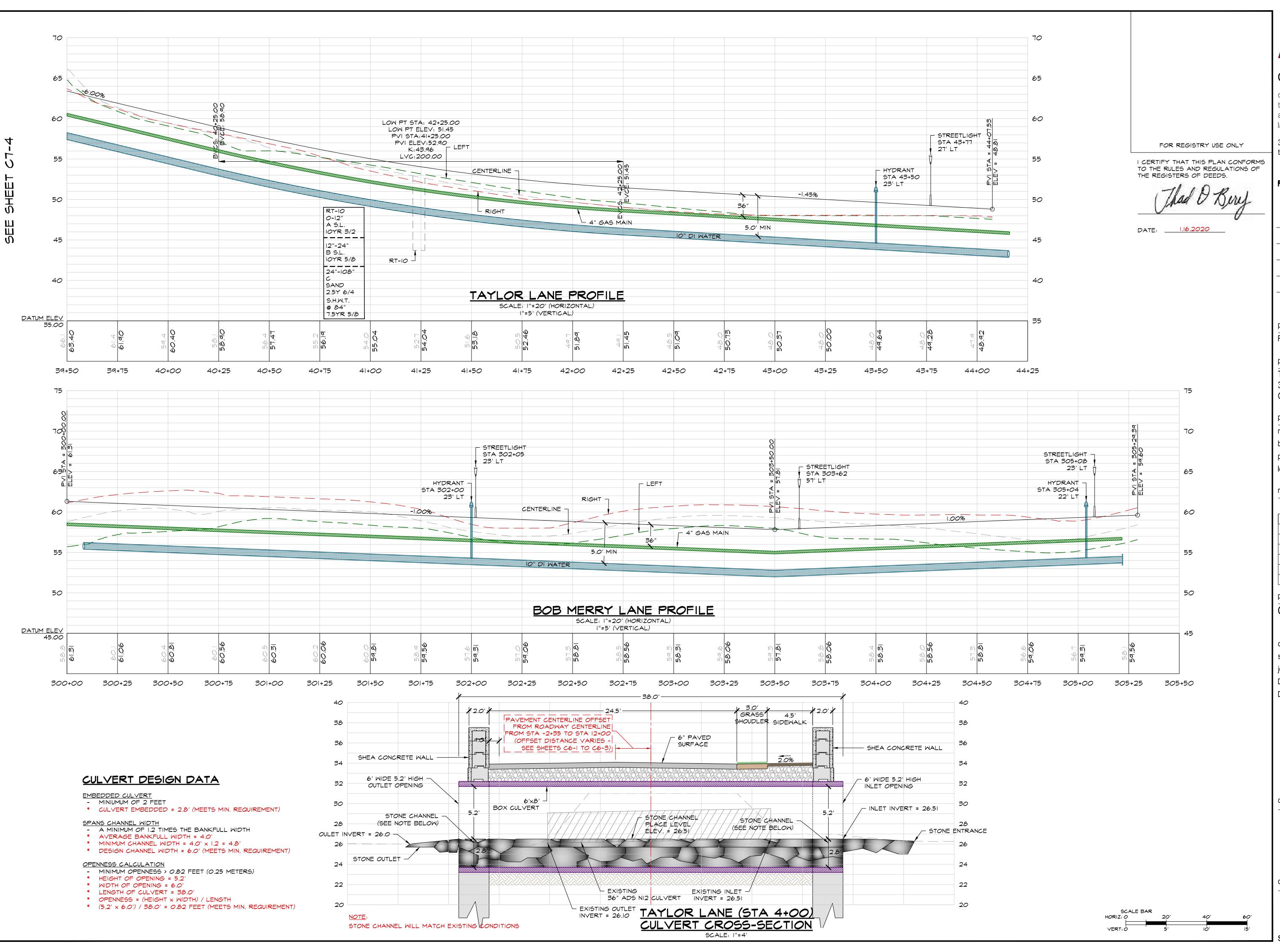
ROADWAY PROFILES





no.	date	description
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ASB

design group, LLC

civil engineering
traffic engineering
architecture
landscape design & construction

363 boston street, route 1 topsfield, ma 01983

ROWLEY, MA
PLANNING BOARD
APPROVAL UNDER THE
SUBDIVISION CONTROL
LAW REQUIRED

_ . __

project title:

FALCON RIDGE SUBDIVISION

prepared for applicant:

TAYLOR LANE LLC

357 NORTH STREET

GEORGETOWN, MA 01833

parcel identification:

map: <u>9 & 12</u>
block: <u>N.A.</u>
parcel: <u>N.A.</u>

lot: <u>2, 3, 4, & 23</u>

revisions

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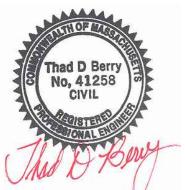
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 1.16.2020

 scale:
 AS NOTED

 job no:
 2017-22

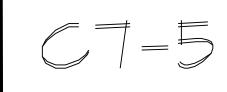
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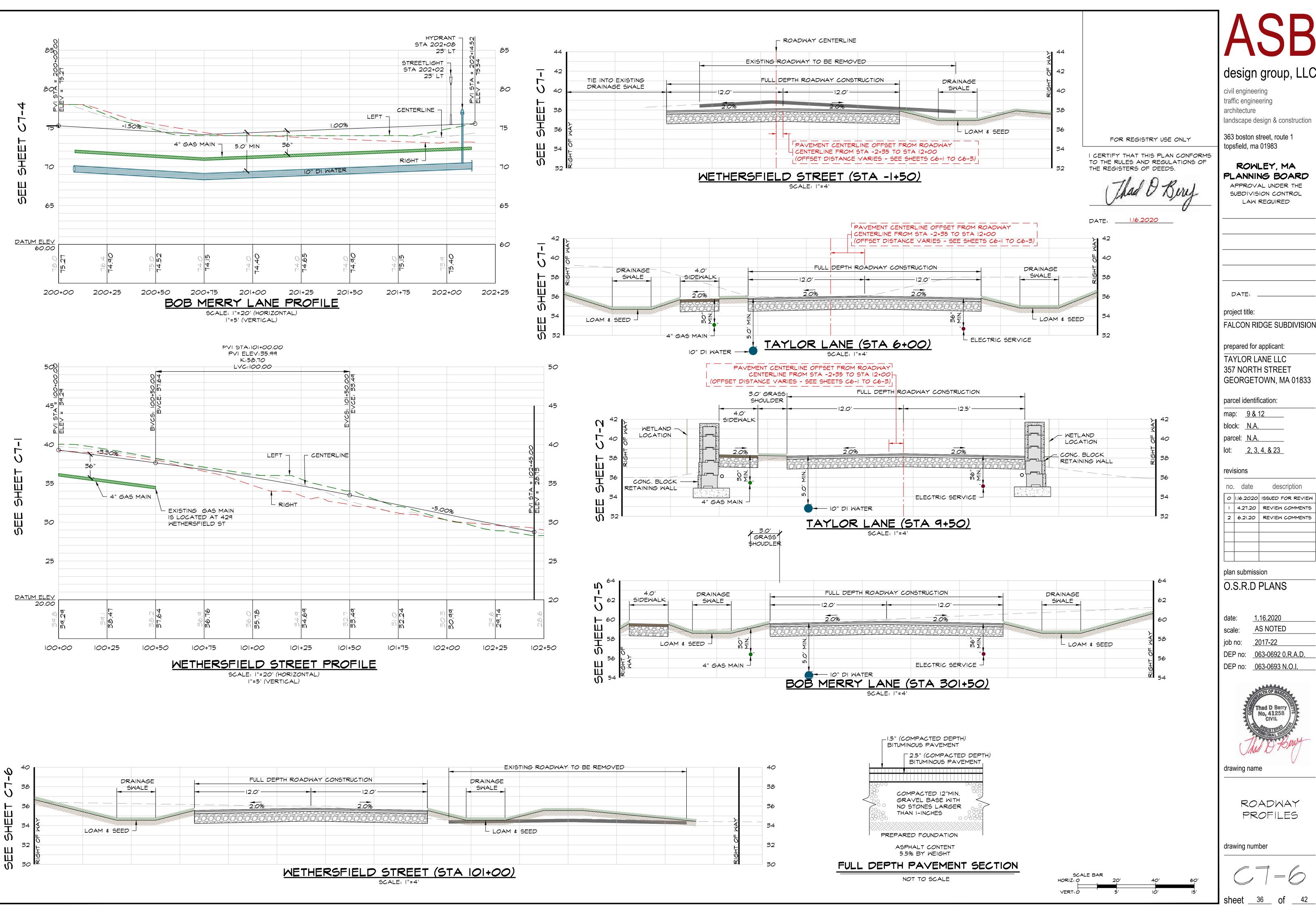
DEP no: 063-0693 N.O.I.



drawing name

ROADWAY PROFILES





civil engineering traffic engineering architecture landscape design & construction

363 boston street, route 1 topsfield, ma 01983

APPROVAL UNDER THE

LAW REQUIRED

ROWLEY, MA PLANNING BOARD

project title:

prepared for applicant: TAYLOR LANE LLC

357 NORTH STREET GEORGETOWN, MA 01833

parcel identification:

map: <u>9 & 12</u> block: N.A. parcel: N.A. lot: <u>2, 3, 4, & 23</u>

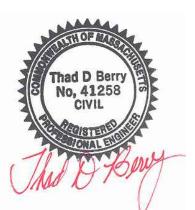
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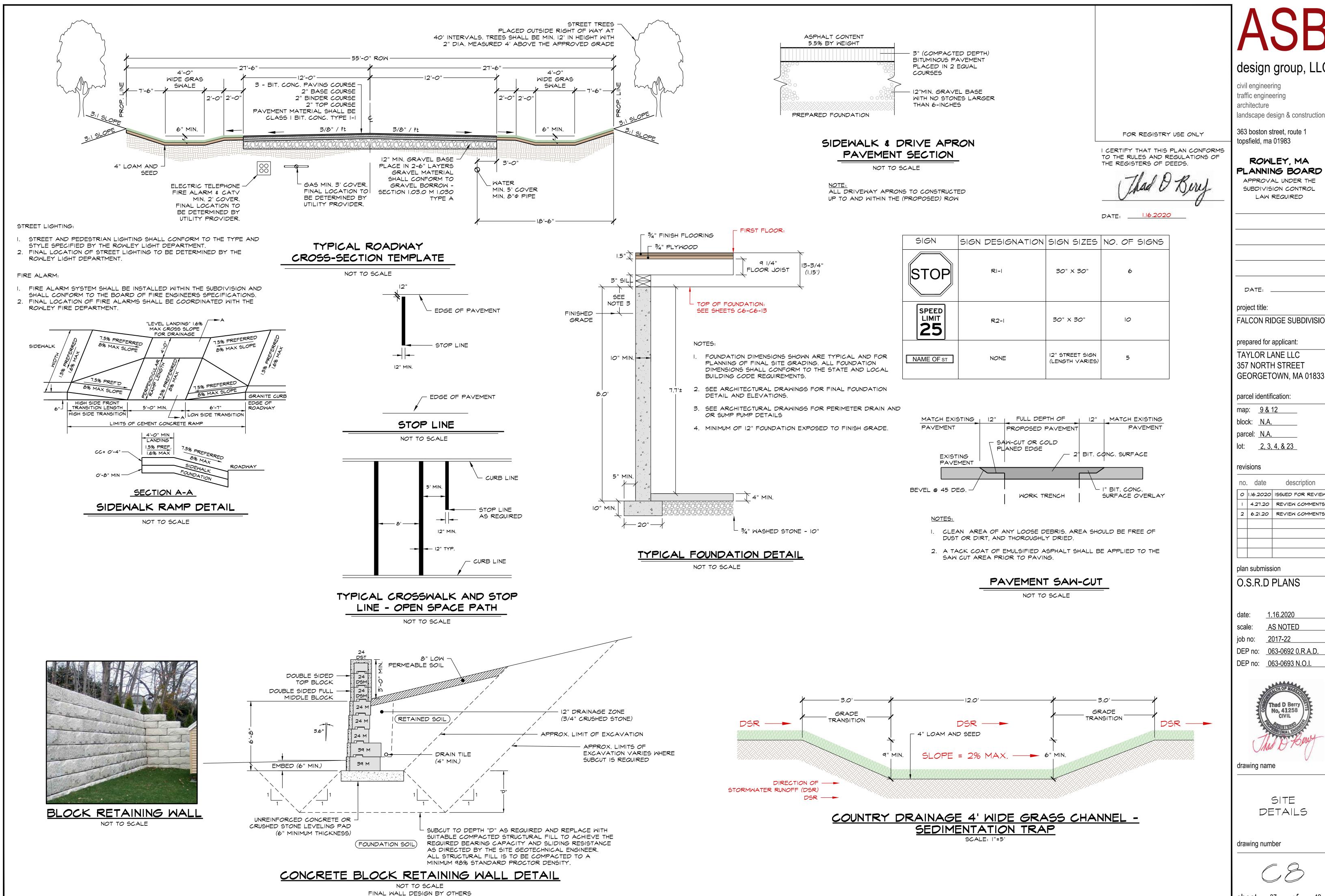
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DEP no: <u>063-0692 0.R.A.D.</u> DEP no: <u>063-0693 N.O.I.</u>



drawing name

ROADWAY PROFILES



civil engineering traffic engineering architecture landscape design & construction

363 boston street, route 1

topsfield, ma 01983

ROWLEY, MA PLANNING BOARD APPROVAL UNDER THE

project title:

FALCON RIDGE SUBDIVISION

prepared for applicant: TAYLOR LANE LLC 357 NORTH STREET

parcel identification:

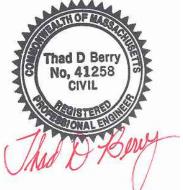
block: N.A. parcel: N.A.

TEVISIONS		
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1.16.2020 AS NOTED

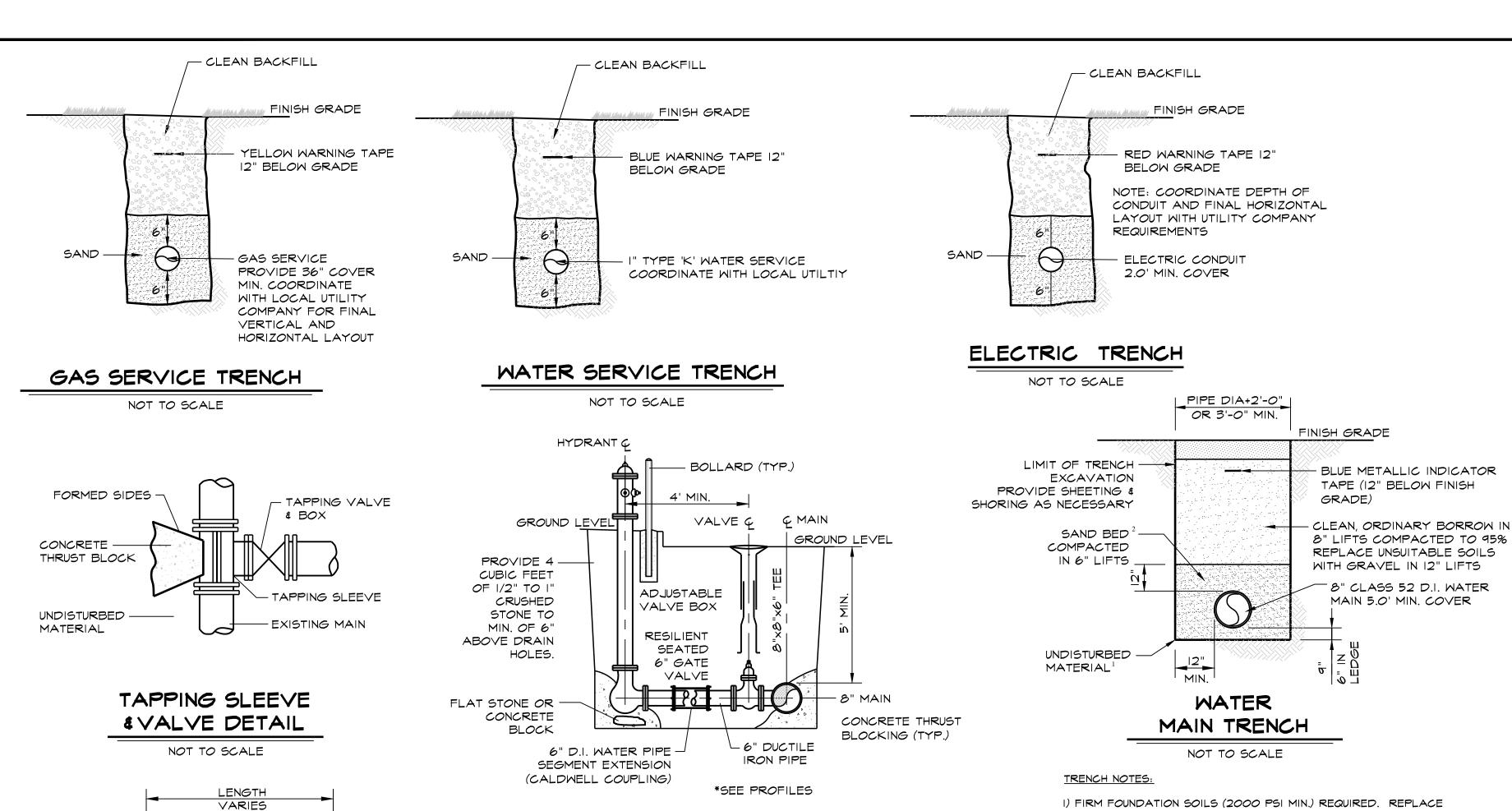
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drawing name

SITE DETAILS



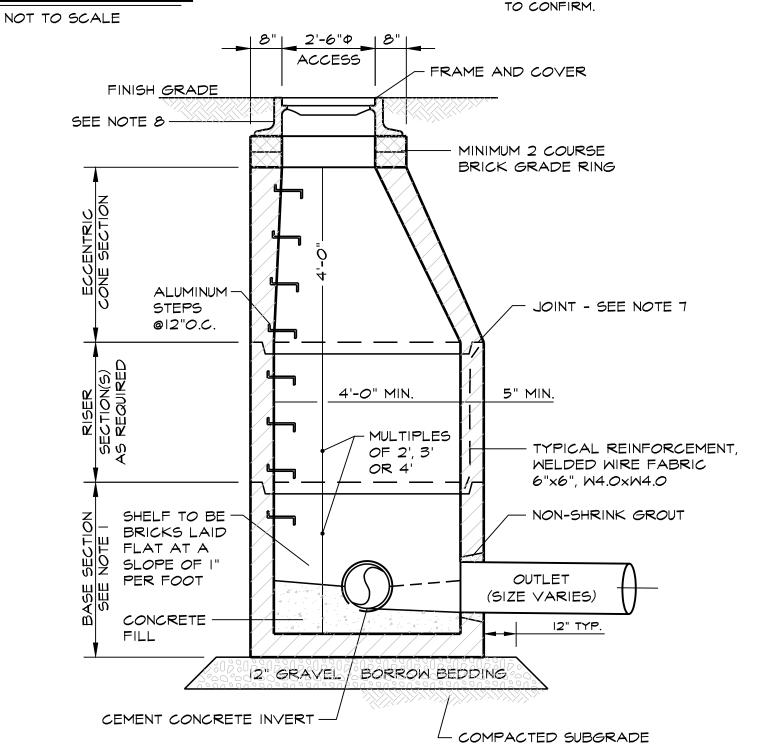


HYDRANT & GATE VALVE DETAIL

I) FIRM FOUNDATION SOILS (2000 PSI MIN.) REQUIRED. REPLACE UNSUITABLE SOILS WITH GRAVEL AS DIRECTED.

2) MHD MI.04.0 SAND SPEC. FOR WATER PIPE.

3) TRENCH TO CONFORM TO TOWN STANDARDS - CONTRACTOR TO CONFIRM.



PRE-CAST CONCRETE DRAIN MANHOLE NOT TO SCALE

DRAIN MANHOLE NOTES:

I) BASE SECTION SHALL BE MONOLITHIC WITH 48-INCH INSIDE DIAMETER.

2) ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING

3) CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000psi TYPE II CEMENT.

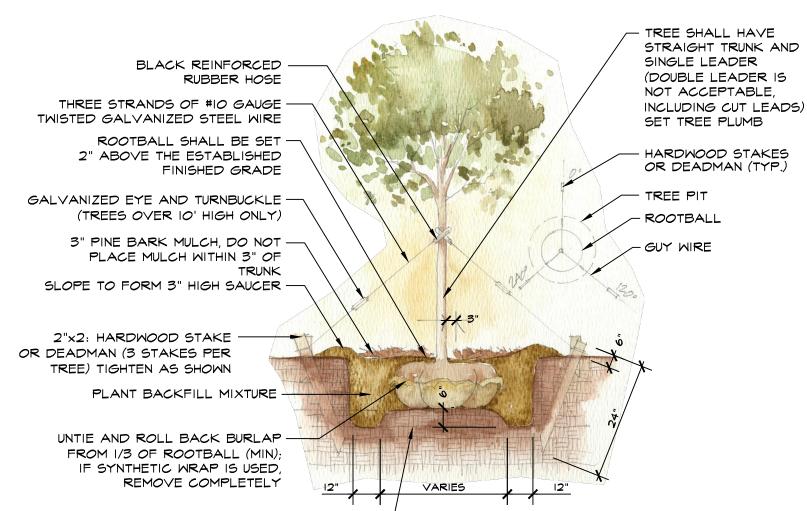
4) PROVIDE "V" KNOCKOUTS FOR PIPES WITH I" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.

5) MANHOLE STEPS SHALL BE INSTALLED @12"OC FOR THE FULL DEPTH OF THE STRUCTURE.

6) JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PERFORMED BUTYL RUBBER.

7) STANDARD DRAIN MANHOLE FRAME SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 COURSE MAXIMUM).

8) FRAME AND COVER SHALL BE LABARON LS 328-2 OR ENGINEER APPROVED EQUAL. THE WORD "DRAIN" SHALL BE CAST INTO THE COVER WITH 3-INCH LETTERS.



FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS.

DATE: <u>1.16.2020</u>

DECIDUOUS TREE PLANTING

NOT TO SCALE

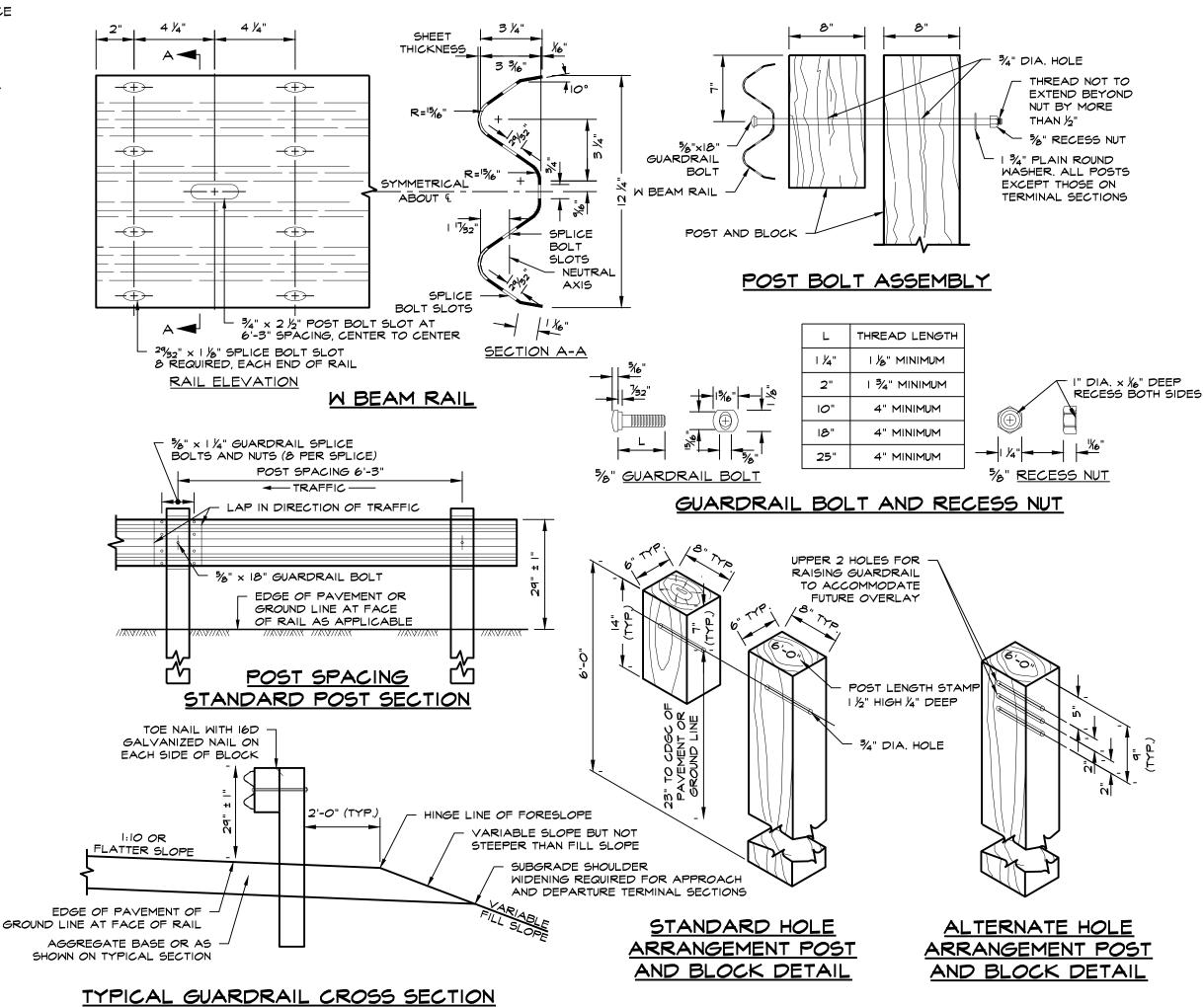
NOTES:

- STREET TREES TO CONFORM TO THE STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
- SPECIES TO BE APPROVED BY THE ROWLEY TREE WARDEN AND/OR PLANNING BOARD. TREES TO PLACED AT 40' INTERVALS

EXISTING SUBGRADE, OR TOPSOIL-

MOUND, COMPACTED

- MINIMUM HEIGHT AT TIME OF PLANTING SHALL BE 12' WITH A 2" DIAMETER MEASURED 4' ABOVE FINISHED
- 5. A TOTAL OF 174 STREET TREES WILL BE PLANTED. FINAL TREE PLANTING LOCATIONS SHALL BE DETERMINED/COORDINATED WITH THE ROWLEY PLANNING BOARD AT THE TIME OF PLANTING



64 W-BEAM GUARDRAIL WOOD POSTS

NOT TO SCALE

<u>NOTES:</u>

- DIMENSION TOLERANCES NOT SHOWN OR IMPLIED ARE INTENDED TO BE THOSE CONSISTENT WITH THE PROPER FUNCTIONING OF THE PART, INCLUDING ITS APPEARANCE, AND ACCEPTED MANUFACTURING PRACTICES.
- 2. END TREATMENTS ON GUARDRAILS ARE TO BE TANGENT END TREATMENT (TL-2) OR FLARED END TREATMENT (TL-2).

design group, LLC

civil engineering traffic engineering architecture

363 boston street, route 1 topsfield, ma 01983

landscape design & construction

ROWLEY, MA PLANNING BOARD

APPROVAL UNDER THE SUBDIVISION CONTROL LAW REQUIRED

project title:

FALCON RIDGE SUBDIVISION

prepared for applicant: TAYLOR LANE LLC 357 NORTH STREET

GEORGETOWN, MA 01833

parcel identification: map: <u>9 & 12</u>

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O.S.R.D PLANS

<u>1.16.2020</u> date: AS NOTED scale:

job no: DEP no: <u>063-0692 0.R.A.D.</u>

DEP no: <u>063-0693 N.O.I.</u>

drawing name

UTILITY DETAILS

drawing number

THRUST BLOCK DETAILS

GROUND

PIPE

BEND-PLAN

CONCRETE AGAINST

UNDISTURBED MATERIAL

PLUG ELEVATION

CONCRETE AGAINST

UNDISTURBED MATERIAL

TEE-PLAN

FORMED SIDES -

WATER MAIN

WATER MAIN

FORMED

SIDES

CORPORATION -

DUCTILE IRON -

WATER MAIN

STOP

TRENCH

TYPICAL WATER SERVICE

NOT TO SCALE

CONCRETE AGAINST

FORMED SIDES

NATER MAIN

UNDISTURBED MATERIAL

NOTE:

12

- CURB BOX

- CURB STOP

SERVICE TUBING

I) CONCRETE FOR THRUST BLOCKS

2) THRUST BLOCK BEARING AREAS

TO BE IN ACCORDANCE WITH TABLE

TABLE OF BEARING AREAS (S.F.)

SIZE OF | 90°* | TEES &* | 45°

MAIN (IN.) BEND PLUGS BEND

* RESTRAINED JOINTS ARE

9

12

ALSO REQUIRED

COMPREHENSIVE STRENGTH OF

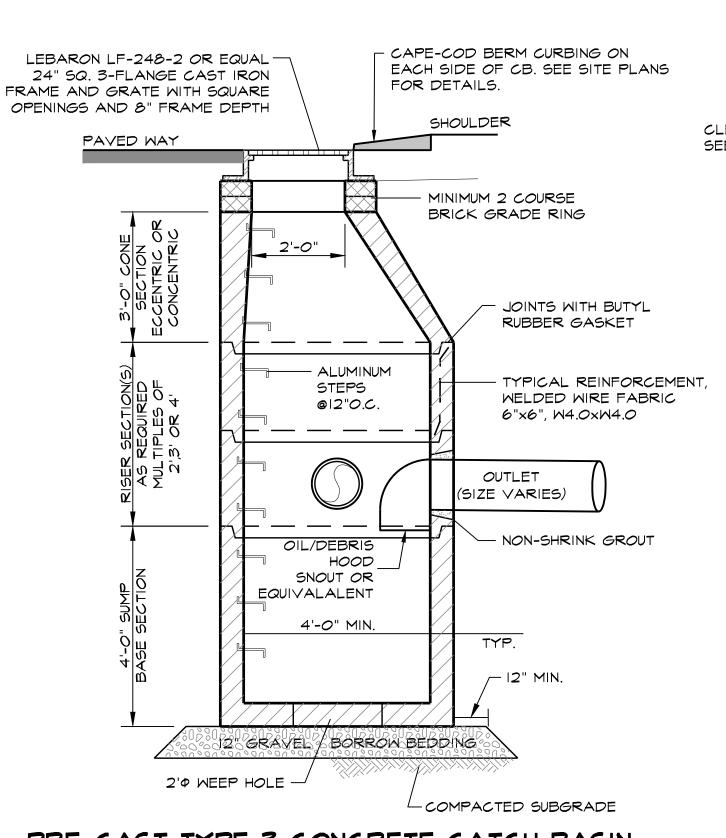
BELOW, UNLESS DETERMINED

OTHERWISE BY THE ENGINEER BECAUSE OF SOIL CONDITIONS

SHALL HAVE A MINIMUM

2000 PSI AT 28 DAYS

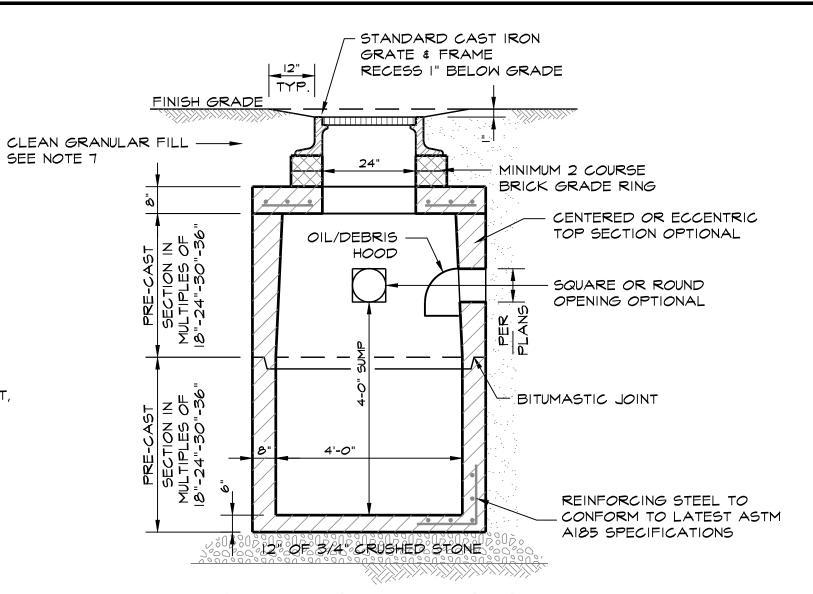
NOT TO SCALE



PRE-CAST TYPE 3 CONCRETE CATCH BASIN

NOT TO SCALE

*NOTE: MINIMUM SUMP OF 4-FFET REQUIRED FOR ALL PIPES LESS THAN 18-INCHES IN DIAMETER. FOR PIPES GREATER THAN 18-INCHES IN DIAMETER, MINIMUM SUMP SHALL BE TWO TIMES THE PIPE DIAMETER (2 \times ϕ).



FLAT TOP CATCH BASIN

NOT TO SCALE

CATCH BASIN NOTES:

I) BASE SECTION SHALL BE MONOLITHIC WITH 48-INCH INSIDE DIAMETER.

2) ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING.

3) CONCRETE SHALL BE COMPRESSIVE STRENGTH 4000psi TYPE II CEMENT. PRE-CAST REINFORCED CONCRETE SHALL BE ASTM C-478.

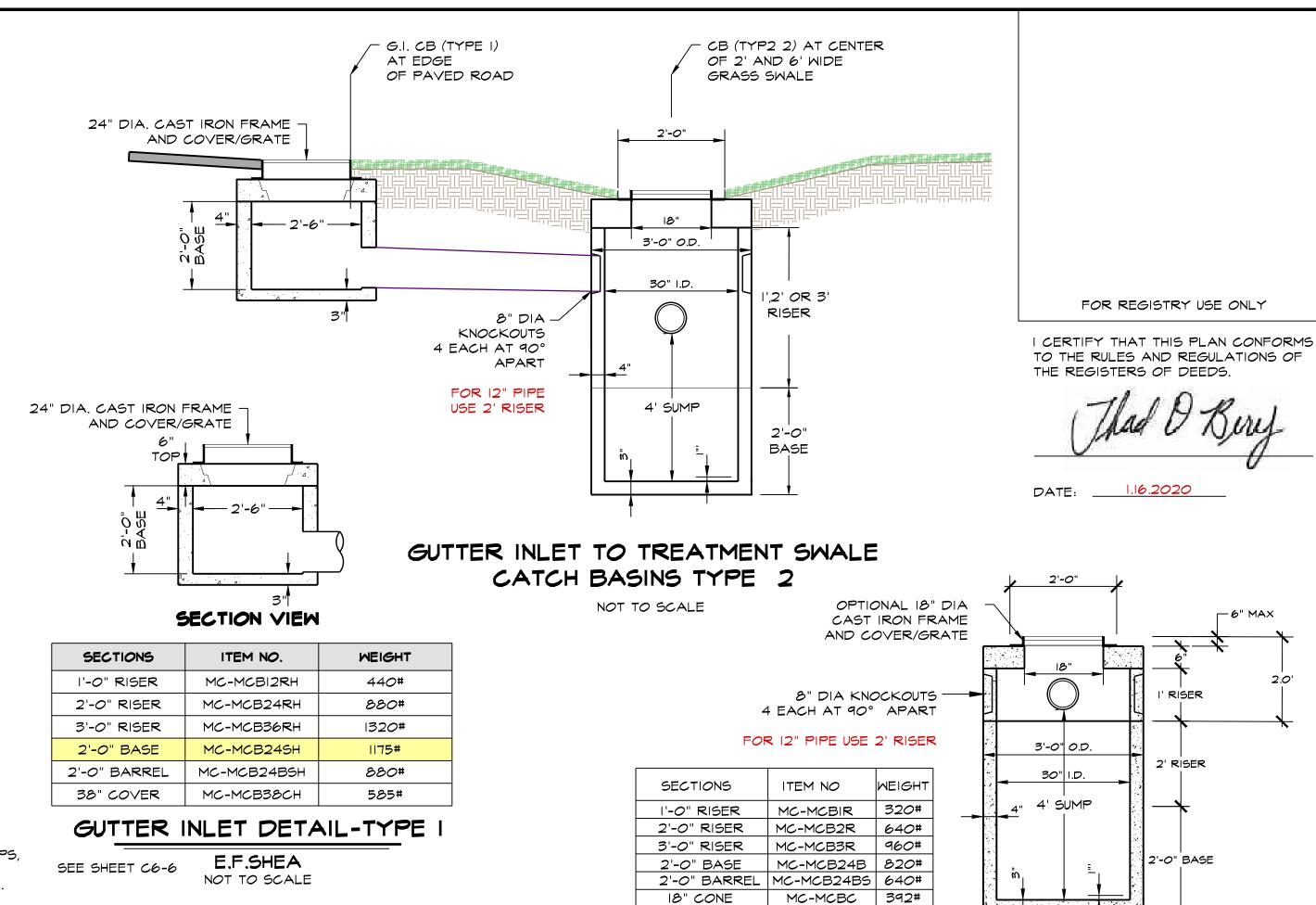
4) STANDARD GRATE & FRAME SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 COURSE MAXIMUM).

5) GRATE AND FRAME SHALL BE LEBARON CAST IRON OR ENGINEER APPROVED EQUAL. ALL GRATES TO BE BICYCLE SAFE.

6) CLEAN GRANULAR FILL SHALL BE FREE FROM FROM ORGANIC MATTER, LARGE STONES, STUMPS, MASONRY, FROZEN EARTH, WOOD, TREE BRANCHES & WASTE CONSTRUCTION MATERIAL. PLACE AND MECHANICALLY COMPACT IN 12" LIFTS TO 95% OF MAX. STANDARD PROCTOR COMPACTION.

7) TRENCH SHEETING & BRACING TO BE SUPPLIED AS REQUIRED.

8) ALL CATCH BASIN OUTLETS TO BE EQUIPPED WITH OIL/DEBRIS SEPARATION HOOD, AS REQUIRED BY CITY/TOWN.



NOTES:

1) CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.

2) FLAT COVER WITH CLEANOUT CAN BE USED IN PLACE OF CONE.

3) OPTIONAL ROUND CONCRETE COVER CAN BE USED IN PLACE OF CAST IRON FRAME AND COVER.

30" CATCH BASIN - TYP, 2
TREATMENT SWALE CATCH BASIN

E.F.SHEA

WETLAND IMPACTS

SPOT GRADES

WETLAND FILLING AREA #1

29 7 FINISH GRADE SPOT ELEVATION

WETLAND FILLING AREA #2

FILL AREA = 1,385 S.F.

TOTAL FILL AREA = 1,796 S.F.

FILL AREA = 411 S.F.

REPLICATION AREA = 2 X 1,796 = 3,592 S.F.

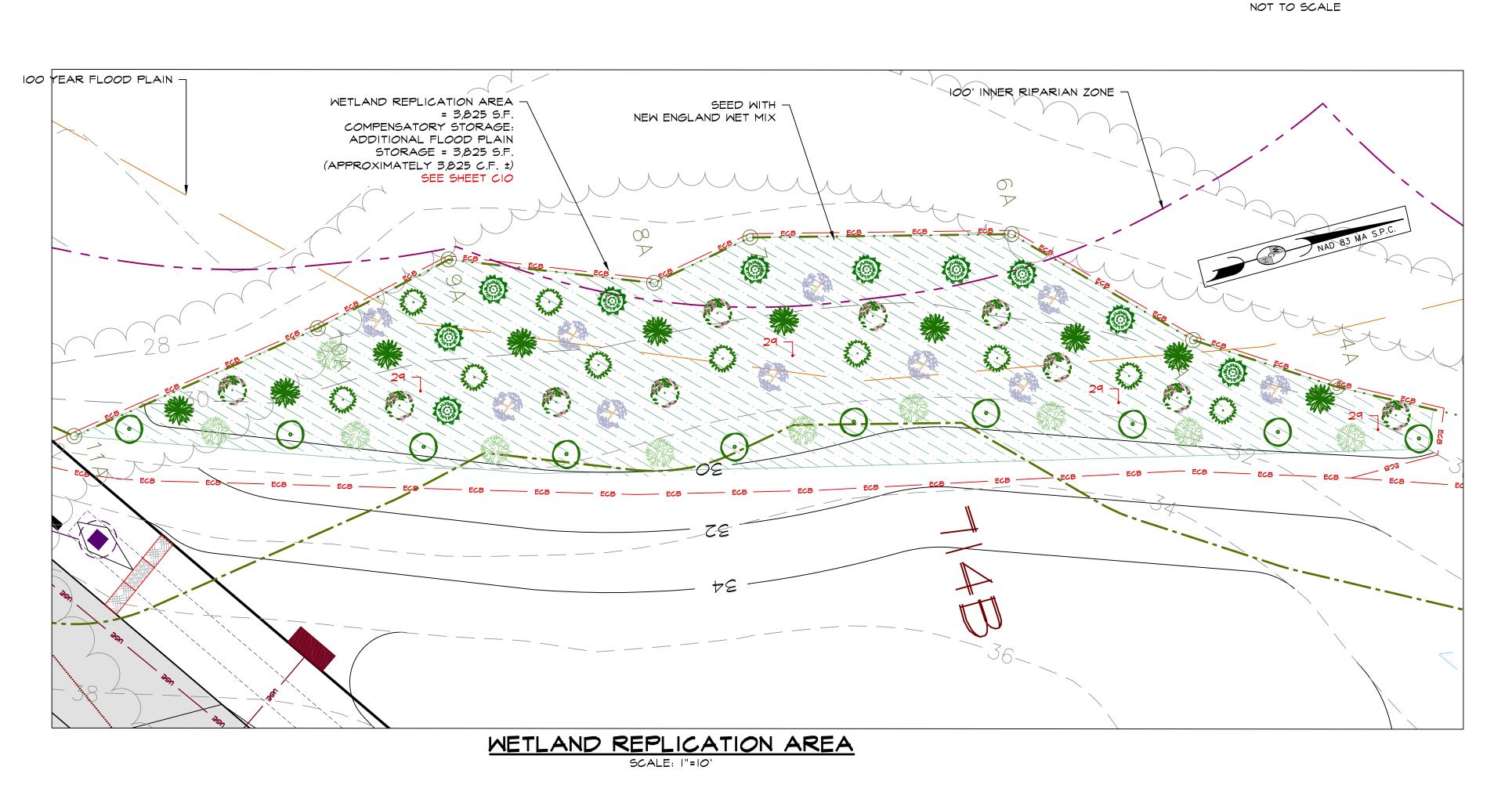
REPLICATION AREA = $2 \times 1,196 = 3,592 \text{ S.f.}$ REPLICATION AREA PROVIDED = 3,690 S.f.

WETLAND PLANTING LIST

	Common	Latin Name	Wildlife Benefits
_	Name		Food, Cover & Nesting
\bigcirc	_Red Maple	Acer rubrum	American robin, cardinal, squirrels, chipmunks, warbler and American goldfinch
	_Arrow-wood	Viburnum dentatum	Ruffed grouse, brown thrasher, American Robin, Eastern Bluebird & Gray Catbird
Firmer -	_Azalea, Swamp	Rhododendron viscosum	Waterfowl, Deer, & small mammals
	Dogwood, Silky	Cornus amomum	Wild Turkey, White Tailed Deer, & Gray Catbird
@ —	Dogwood, Graystem	Cornus foemina racemosa	Grouse, Pheasant, Waterfowl, White-tailed deer, beaver, cottontail rabbit, woodchuck, & American woodcock
	Winterberry, Common	Ilex verticillata	Red-Winged Blackbird, American Crow, American Robin, Rabbit, Squirrel
	High Bush Blueberry	Vaccinium corymbosum	Fruits eaten by birds & mammals; favorites of scarlet tanagers, bluebirds, grouse

NOTES:

- I. A TOTAL OF TEN OF EACH SPECIES LISTED ABOVE SHALL BE PLACED WITHIN THE WETLAND REPLICATION AREA. RED MAPLE TREES WILL BE SPACED AT 20' INTERVALS AND ALL OTHER SPECIFIES WILL BE PLACED AT 6'-10'. FINAL PLANTING LOCATION AND SPACING WILL BE DETERMINED IN THE FIELD BY NORSE ENVIRONMENTAL SERVICES, INC. IN COORDINATION WITH THE ROWLEY CONSERVATION COMMISSION
- PLANTING LAYOUT SHOWN IS CONCEPTUAL ONLY.
 METLAND SEED MIX CAN BE PURCHASED FROM NEW ENGLAND WETLAND PLANTS, INC. IN AMHERST, MA. (413) 548-8000 WWW.NEWP.COM



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map: 9 & 12

parcel: <u>N.A.</u> lot: <u>2, 3, 4, & 23</u>

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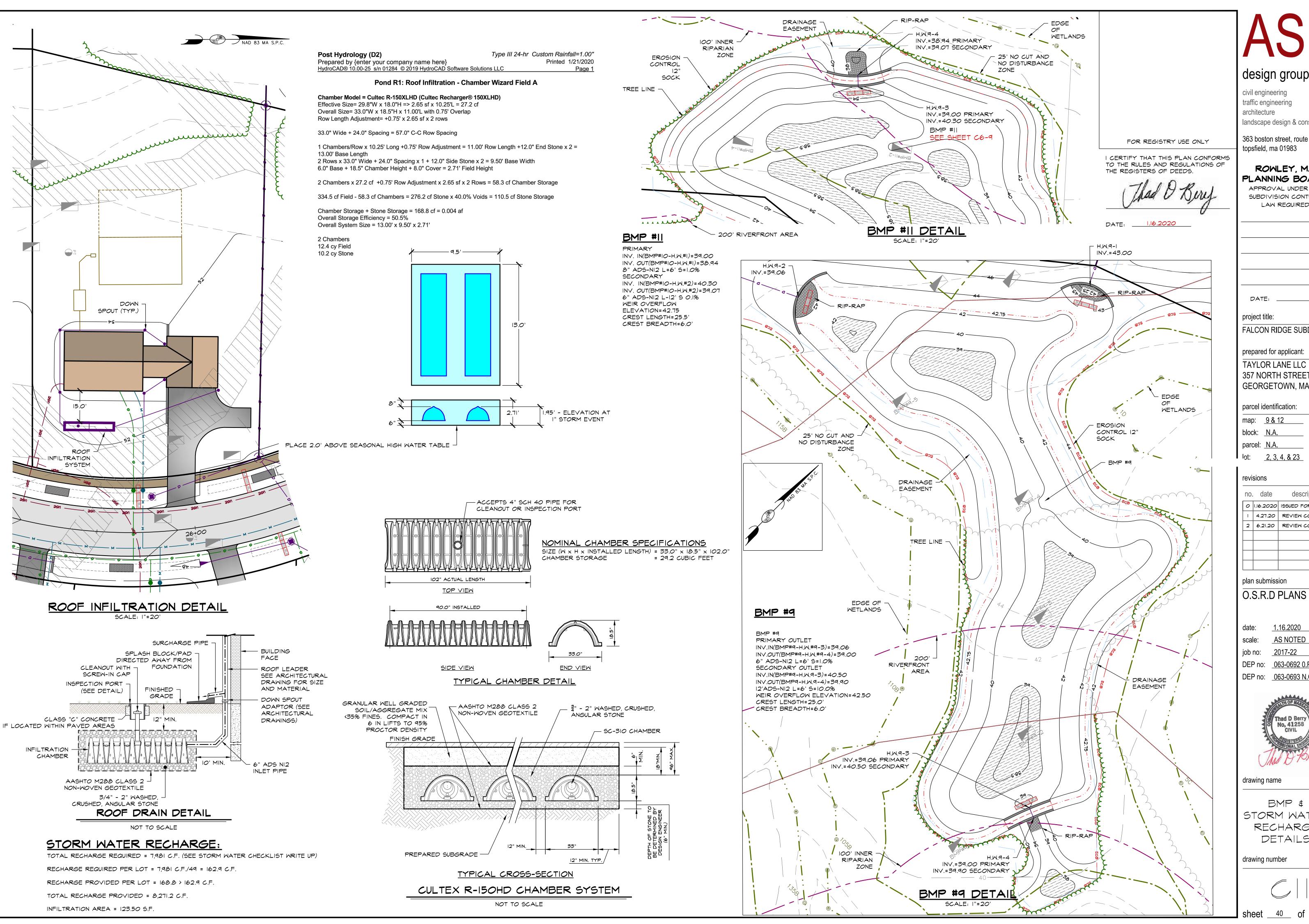
drawing name

DRAINAGE DETAILS

drawing number



sheet 39 of 42



civil engineering traffic engineering architecture landscape design & construction

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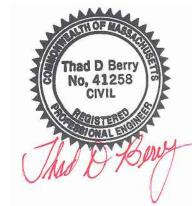
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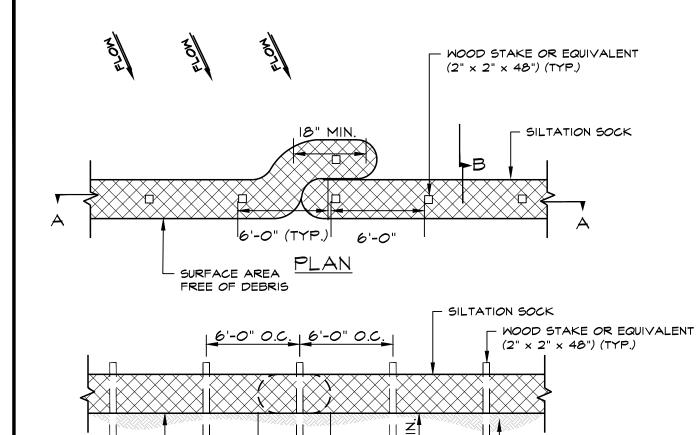
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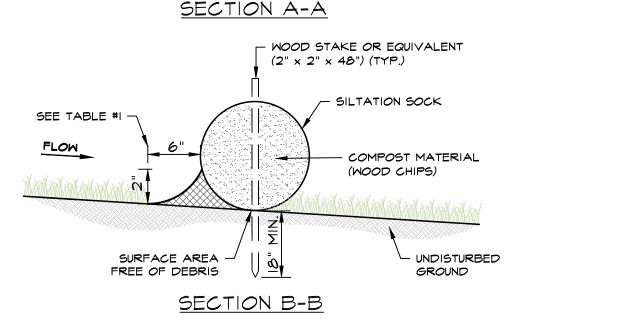


drawing name

BMP \$ STORM WATER RECHARGE DETAILS







UNDISTURBED GROUND

SILTATION SOCK DETAIL NOT TO SCALE

INSTALLATION NOTES:

ROADWAY

SURFACE AREA -

FREE OF DEBRIS

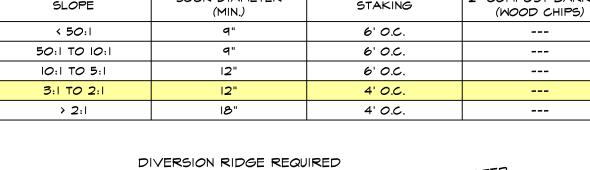
I. INSTALL SILT SOCK ON A SURFACE CLEAR OF DEBRIS.

TO" MIN.

OVERLAP

- 2. OVERLAP ENDS BY A MINIMUM OF 18-INCHES.
- 3. END OF SILT SOCK TO BE DIRECTED UP SLOPE.
- 4. PLACE STAKES THROUGH SILT SOCK OR ON DOWNSTREAM SIDE.
- 5. ON SLOPES GREATER THAN 2:1 (>2:1) SEED COMPOST SOCK IS RECOMMENDED

	TAB	LE #I	
SLOPE	SOCK DIAMETER (MIN.)	STAKING	2" COMPOST BARRIER (WOOD CHIPS)
< 5 <i>O</i> :1	9"	6' O.C.	
50:1 TO 10:1	9"	6' O.C.	

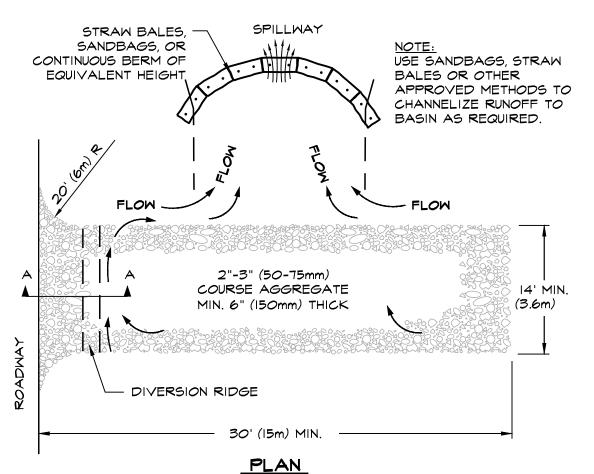


2 % OR GREATER

FILTER FABRIC

SECTION A - A

WHERE GRADE EXCEEDS 2%

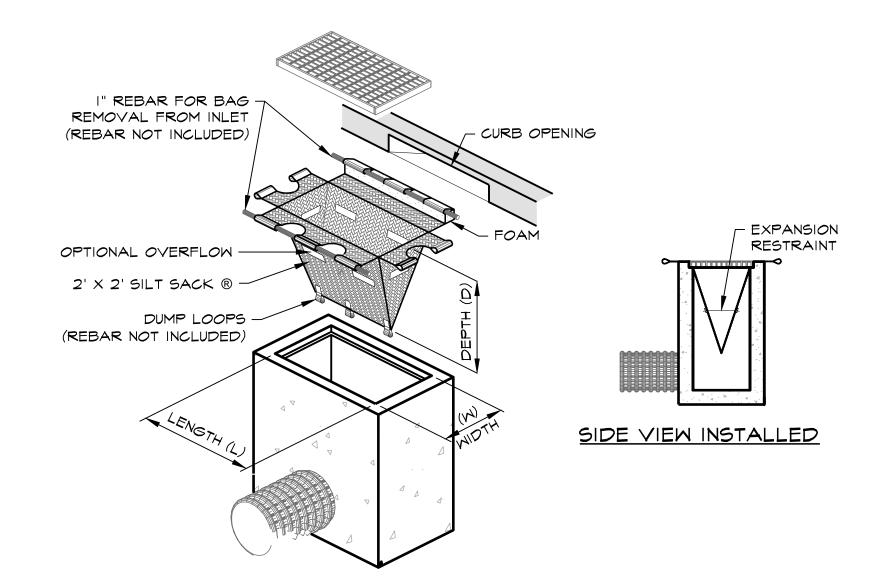


NOTES:

I. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP

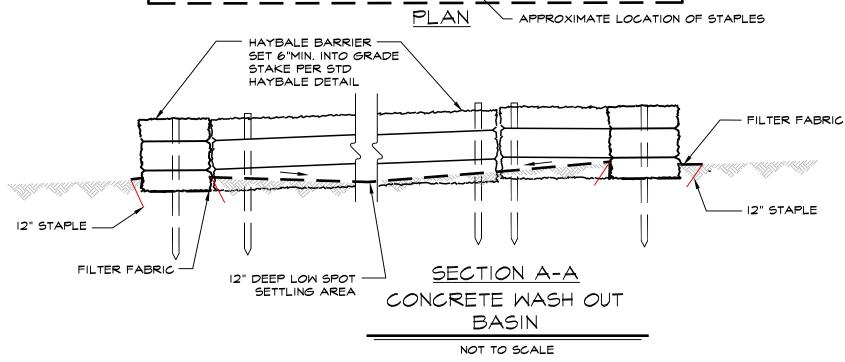
- 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY
- 3. ADJACENT STREETS SHALL BE SWEPT.

TEMPORARY CONSTRUCTION ENTRANCE NOT TO SCALE

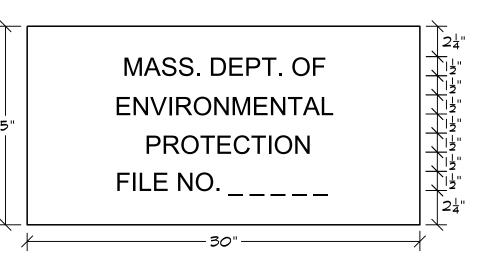


SILT BAG INLET PROTECTECTION NOT TO SCALE

LIMIT OF FILTER FABRIC HAYBALE BARRIER -ET 6"MIN, INTO GRADE 54.0 2'-0" × 2'-0" LOW SPOT



ALL CONCRETE WASTE TO BE REMOVED AND DISPOSED OF OFF SITE IN ACCORDANCE WILL ALL FEDERAL, STATE AND LOCAL RULES AND REGULATIONS



NOTES:

LETTERING = BLACK BACKGROUND = WHITE

- 2. THE SIGN IS TO BE PLACED ON ALL PROJECTS SUBJECT TO THE PROVISIONS OF THE MASSACHUSETTS WETLAND PROTECTION ACT.
- 3. THE LOCATION OF THE SIGN IS TO BE DETERMINED BY THE ENGINEER

MASSDEP SIGN DETAIL

NOT TO SCALE

EROSION CONTROL NOTES

EROSION CONTROL PRINCIPLES

PROTECTED.

- A. THE FOLLOWING EROSION CONTROL PRINCIPLES SHALL APPLY TO THE LAND GRADING AND CONSTRUCTION PHASES:
- I) STRIPPING OF VEGETATION, GRADING, OR OTHER SOIL DISTURBANCE
- SHALL BE DONE IN A MANNER WHICH WILL MINIMIZE SOIL EROSION. 2) WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED AND
- 3) EXTENT OF AREA WHICH IS EXPOSED AND FREE OF VEGETATION AND DURATION OF ITS EXPOSURE SHALL BE KEPT WITHIN PRACTICAL
- 4) TEMPORARY SEEDING, MULCHING, OR OTHER SUITABLE STABILIZATION MEASURES SHALL BE USED TO PROTECT EXPOSED CRITICAL AREAS DURING PROLONGED CONSTRUCTION OR OTHER LAND DISTURBANCE
- 5) DRAINAGE PROVISIONS SHALL ACCOMMODATE INCREASED RUNOFF RESULTING FROM MODIFICATIONS OF SOIL AND SURFACE CONDITIONS DURING AND AFTER DEVELOPMENT OR DISTURBANCE. SUCH PROVISIONS SHALL BE IN ADDITION TO EXISTING REQUIREMENTS
- 6) SEDIMENT SHALL BE RETAINED ON-SITE.
- 7) EROSION CONTROL DEVICES SHALL BE INSTALLED AS EARLY AS POSSIBLE IN THE CONSTRUCTION SEQUENCE PRIOR TO START OF CLEARING AND GRUBBING OPERATIONS AND EXCAVATION WORK.
- B. CUT AND FILL SLOPES AND STOCKPILED MATERIALS SHALL BE PROTECTED TO PREVENT EROSION, SLOPES SHALL BE PROTECTED WITH PERMANENT EROSION PROTECTION WHEN EROSION EXPOSURE PERIOD IS GREATER THAN OR EQUAL TO SIX MONTHS, AND TEMPORARY EROSION PROTECTION WHEN EROSION EXPOSURE PERIOD IS EXPECTED TO BE LESS THAN SIX MONTHS (SEE NOTE 18).
- I) PERMANENT EROSION PROTECTION SHALL BE ACCOMPLISHED BY SEEDING WITH GRASS AND COVERING WITH AN EROSION PROTECTION MATERIAL, AS APPROPRIATE FOR PREVAILING CONDITIONS.
- 2) EXCEPT WHERE SPECIFIED SLOPE IS INDICATED ON DRAWINGS, FILL SLOPES SHALL BE LIMITED TO A GRADE OF 3:1 (HORIZONTAL: VERTICAL) AND CUT SLOPES SHALL BE LIMITED TO A GRADE OF 3:1.

SILTATION SOCK

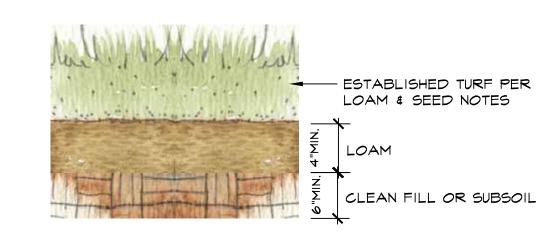
INSTALL SILTATION SOCK IN ACCORDANCE WITH THE PLAN DETAIL.

MAINTENANCE AND REMOVAL OF CONTROL DEVICES

- A. WETLAND AREAS, WATER COURSES, AND DRAINAGE SWALES ADJACENT TO CONSTRUCTION ACTIVITIES SHALL BE MONITORED TWICE EACH MONTH FOR EVIDENCE OF SILT INTRUSION AND OTHER ADVERSE ENVIRONMENTAL IMPACTS, WHICH SHALL BE CORRECTED IMMEDIATELY UPON DISCOVERY.
- B. CULVERTS AND DRAINAGE DITCHES SHALL BE KEPT CLEAN AND CLEAR OF OBSTRUCTIONS DURING CONSTRUCTION PERIOD.
- C. EROSION CONTROL DEVICES:
- I) SEDIMENT BEHIND THE EROSION CONTROL DEVICE SHALL BE CHECKED TWICE EACH MONTH AND AFTER EACH HEAVY RAIN. SILT SHALL BE REMOVED IF GREATER THAN 6-INCHES DEEP.
- 2) CONDITION OF EROSION CONTROL DEVICE SHALL BE CHECKED TWICE EACH MONTH OR MORE FREQUENTLY AS REQUIRED. DAMAGED AND/OR DETERIORATED ITEMS SHALL BE REPLACED. EROSION CONTROL DEVICES SHALL BE MAINTAINED IN-PLACE AND IN EFFECTIVE CONDITION.
- 3) HAY BALES SHALL BE INSPECTED FREQUENTLY AND MAINTAINED OR REPLACED AS REQUIRED TO MAINTAIN BOTH EFFECTIVENESS AND INSTALLED CONDITION. UNDERSIDE OF BALES SHALL BE KEPT IN CLOSE CONTACT WITH THE EARTH BELOW AT ALL TIMES, AS REQUIRED TO PREVENT WATER FROM WASHING BENEATH BALES.
- 4) SEDIMENT SHALL BE REMOVED FROM THE RETENTION PONDS AT THE COMPLETION OF THE PROJECT AND PERIODICALLY DURING CONSTRUCTION. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN SEDIMENT HAS ACCUMULATED TO A DEPTH OF 6 INCHES, OR AS DIRECTED.
- 5) SEDIMENT DEPOSITS SHALL BE DISPOSED OF OFF-SITE, IN A LOCATION AND MANNER WHICH WILL NOT CAUSE SEDIMENT NUISANCE ELSEWHERE.

D. REMOVAL OF EROSION CONTROL DEVICES:

- I) THE CONSERVATION COMMISSION AGENT MUST INSPECT THE SITE AND APPROVE REMOVAL OF ANY EROSION CONTROL DEVICE.
- 2) EROSION CONTROL DEVICES SHALL BE MAINTAINED UNTIL ALL DISTURBED EARTH HAS BEEN PAVED OR VEGETATED, AT WHICH TIME THEY SHALL BE REMOVED. AFTER REMOVAL, AREAS DISTURBED BY THESE DEVICES SHALL BE RE-GRADED AND SEEDED.
- 3) EROSION CONTROL NETTING SHALL BE KEPT SECURELY ANCHORED UNTIL START OF PERMANENT TURF CONSTRUCTION.
- 4) EROSION PROTECTION MATERIAL SHALL BE KEPT SECURELY ANCHORED UNTIL ACCEPTANCE OF COMPLETED SLOPE OR ENTIRE PROJECT, WHICHEVER IS LATER.



LOAM & SEED DETAIL

design group, LLC

civil engineering traffic engineering architecture landscape design & construction

363 boston street, route 1 topsfield, ma 01983

FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN CONFORMS

TO THE RULES AND REGULATIONS OF

THE REGISTERS OF DEEDS.

DATE: <u>1.16.2020</u>

ROWLEY, MA PLANNING BOARD APPROVAL UNDER THE

LAW REQUIRED

SUBDIVISION CONTROL

FALCON RIDGE SUBDIVISION

prepared for applicant:

TAYLOR LANE LLC 357 NORTH STREET GEORGETOWN, MA 01833

parcel identification:

map: <u>9 & 12</u>

block: N.A.

parcel: N.A.

no. date description 0 1.16.2020 ISSUED FOR REVIEW 4.27.20 | REVIEW COMMENTS

REPAIRS AND MAINTENANCE

ESTABLISHED.

PLANTING OR MAINTENANCE OPERATIONS.

LOAM AND SEED NOTES

ON SITE FOR FINAL STORAGE.

I. IF REQUIRED THE CONTRACTOR SHALL FURNISH ALL TOPSOIL OR

ADDITIONAL TOPSOIL NEEDED TO COMPLETE THE JOB. IF THE

EXISTING TOPSOIL IS SUFFICIENT TO COMPLETE THE JOB, ANY

EXCESS TOPSOIL WILL REMAIN ON SITE. AN AREA WILL BE PROVIDED

2. THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED ON THE DESIGNATED

AREAS AND IT SHALL BE A MINIMUM DEPTH OF SIX INCHES AFTER

PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE

DEPRESSIONS OR WATER POCKETS. TOPSOIL SHALL NOT BE PLACED

WHILE IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBGRADE IS

UNIFORMLY MIXED INTO THE TOP FOUR INCHES OF SOIL BY DISCING,

FROM FERTILIZING, LIMING, SURFACE ROUGHINING OR OTHER CAUSES

SHALL BE LEVELED PRIOR TO SEEDING. FLOODED, WASHED-OUT OR

OTHERWISE DAMAGED AREAS SHALL BE RECONSTRUCTED AND ALL

WITH THE DRAWINGS AND/ OR OTHER APPLICABLE SPECIFICATIONS.

GRADES RE-ESTABLISHED BY THE CONTRACTOR IN ACCORDANCE

EXCESSIVLY WET, OR IN A CONDITION THAT MAY OTHERWISE BE

DETRIMENTAL TO PROPER GRADING OR PROPOSED SEEDING.

3. AFTER LOAM HAS BEEN PLACED, LIME AND FERTILIZER SHALL BE

4. ANY UNDULATIONS OR IRREGULARITIES IN THE SURFACE RESULTING

PRIOR TO SEEDING THE SURFACE SHALL BE CLEARED OF ALL

TRASH, DEBRIS AND STONES LARGER THAN ONE AND ONE-HALF

INCHES IN DIAMETER, AND OF ALL ROOTS, BRUSH, WIRE, GRADE

BROADCAST SEED AND MULCH, PLACE STRAW AND ANCHOR IT TO

TOPSOIL. IF SOIL MOISTURE IS DEFICIENT, SUPPLY NEW SEEDLINGS WITH ADEQUATE WATER FOR PLANT GROWTH. (1/2"-1" EVERY 3-4

STAKES AND OTHER OBJECTS THAT WOULD INTERFERE WITH

RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE

SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL

CORRECTED IN ORDER TO PREVENT THE FORMATION OF

HARROWING OR USING OTHER APPROVED METHODS.

FIRMING. SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT

INSPECT ALL SEEDED AREAS FOR FAILURES AND MAKE NECESSARY REPAIRS, REPLACEMENTS AND RESEEDINGS WITHIN THE PLANTING SEASON.

DAYS DEPENDING ON SOIL TEXTURE) UNTIL THEY ARE FIRMLY

- ONCE THE VEGETATION IS ESTABLISHED, THE SITE SHALL HAVE 95% GROUNDCOVER TO BE CONSIDERED ADEQUATELY STABILIZED.
- 2. IF THE STAND PROVIDES LESS THAN 40% GROUND COVERAGE, REESTABLISH FOLLOWING ORIGINAL LIME, FERTILIZER, SEEDBED PREPARATION AND SEEDING RECOMMENDATIONS.
- 3. IF THE STAND PROVIDES BETWEEN 40% AND 94% GROUND COVER AGE, OVERSEEDING AND FERTILIZING USING HALF OF THE RATES ORIGINALLY APPLIED MAY BE NECESSARY.

SURFACE PREPARATION

- STRIP AND STOCKPILE ALL EXISTING LOAM FROM PROPOSED WORK AREAS. PROTECT LOAM FROM EROSION. ALL LOAM WILL REMAIN ON SITE UNLESS THE OWNER APPROVES OF OFF SITE REMOVAL
- 2. SET FIELD GRADES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. PROVIDE PROPER SURVEY CONTROL AND MAINTAIN THROUGHOUT CONSTRUCTION. PROVIDE ENGINEER WITH COPIES OF ALL SURVEY NOTES AND LOCATIONS OF BOTH VERTICAL AND HORIZONTAL CONTROL.
- 3. BRING BASE MATERIAL TO FINISH GRADE, PROVIDE ENGINEER WITH AS-BUILT DRAWINGS SHOWING FINISH ELEVATIONS AND CONTOURS PRIOR TO PLACEMENT OF LOAM.
- 4. SOIL TESTS SHALL BE MADE TO DETERMINE THE EXACT REQUIREMENTS FOR BOTH LIME AND FERTILIZER. SOIL TESTS SHALL BE CONDUCTED BY A STATE LABORATORY OR RECOGNIZED COMMERCIAL LABORATORY. PROVIDE ENGINEER WITH COPY OF TEST RESULTS AND RECOMENDATIONS FOR LIMING AND FERTILIZING.
- 5. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN APPROVED BY THE OWNER OR ENGINEER, AND IMMEDIATLY PRIOR TO DUMPING AND SPREDDING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENED BY ROUGHENING TO THE DEPTH OF AT LEAST TWO INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SUBSOIL AND TO INCORPORATE THE LIME.
- 6. ACCEPTANCE SHALL BE GIVEN BY THE OWNER OR ENGINEER UPON SATISFACTORY COMPLETION OF EACH SECTION OR AREA AS INDICATED ON THE DRAWINGS OR AS OTHERWISE SPECIFIED BEFORE PLACEMENT OF TOPSOIL.

project title:

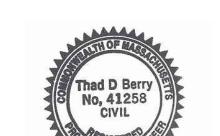
lot: <u>2, 3, 4, & 23</u>

revisions

2 | 6.21.20 | REVIEW COMMENTS

plan submission O.S.R.D PLANS

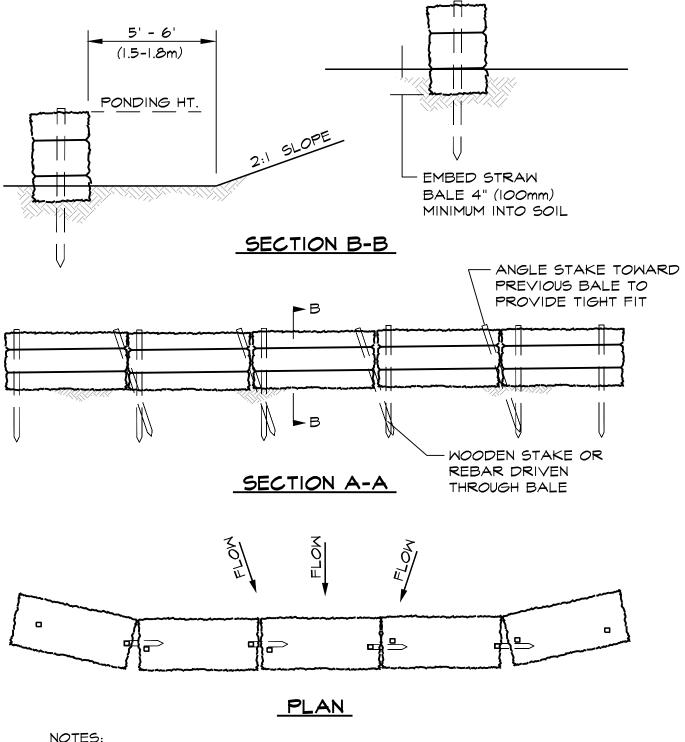
<u>1.16.2020</u> date: AS NOTED scale: job no: DEP no: <u>063-0692 0.R.A.D.</u> DEP no: <u>063-0693 N.O.I.</u>



drawing name

EROSION CONTROL DETAILS



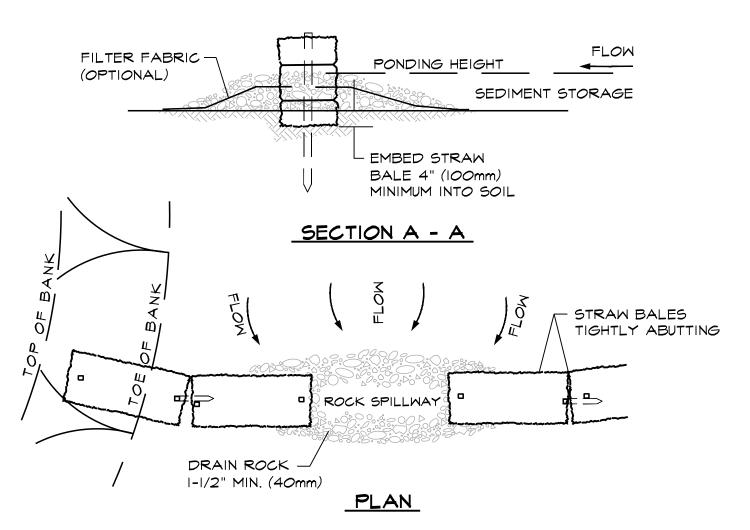


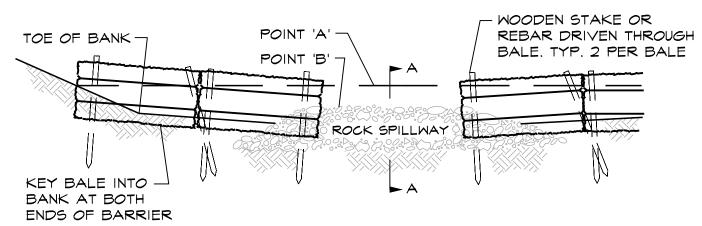
NOTES:

- I. THE STRAW BALES SHALL BE PLACED ON SLOPE CONTOUR.
- 2. BALES TO BE PLACED IN A ROW WITH THE ENDS TIGHTLY ABUTTING.
- 3. KEY IN BALES TO PREVENT EROSION OR FLOW UNDER BALES.

STRAW BALE DIKE

NOT TO SCALE





VIEW LOOKING UPSTREAM

NOTES:

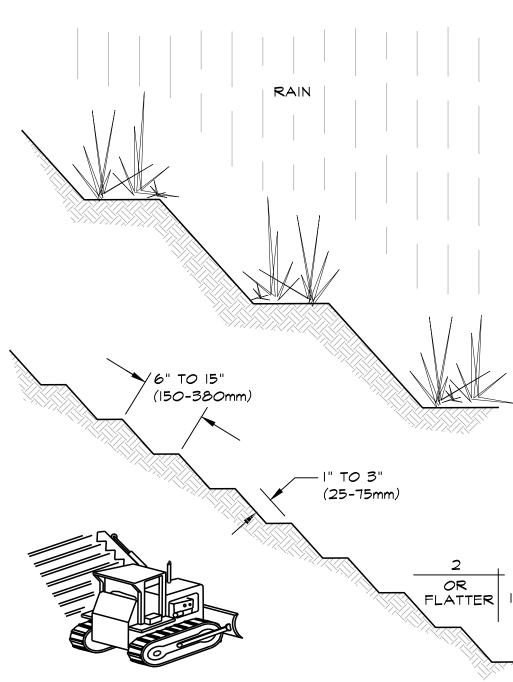
I. PLACE BALES PERPENDICULAR TO FLOW.

2. EMBED THE BALE 4" (IOOMM) INTO THE SOIL AND "KEY" THE END BALES INTO THE CHANNEL BANKS TO PREVENT FLOW AROUND THE BALES.

- 3. BALES PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING.
- 4. POINT "A" SHALL BE HIGHER THAN POINT "B".
- 5. SPILLWAY HEIGHT SHALL NOT EXCEED 24" (O.6m).

SEMI-PERVIOUS STRAW BALE SEDIMENT BARRIER

NOT TO SCALE



GROOVE BY CUTTING SERRATIONS ALONG THE CONTOUR. IRREGULARITIES IN THE SOIL SURFACE CATCH RAINWATER, SEED, MULCH AND FERTILIZER.

GROOVED OR SERRATED SLOPE

NOT TO SCALE

NEW ENGLAND WETLAND PLANTS, INC

820 WEST STREET, AMHERST, MA 01002 PHONE: 413-548-8000 FAX 413-549-4000 EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM New England Conservation/Wildlife Mix

Botanical Name	Common Name	Indicator
Elymus virginicus	Virginia Wild Rye	FACW-
Schizachyrium scoparium	Little Bluestem	FACU
Andropogon gerardii	Big Bluestem	FAC
Festuca rubra	Red Fescue	FACU
Sorghastrum nutans	Indian Grass	UPL
Panicum virgatum	Switch Grass	FAC
Chamaecrista fasciculata	Partridge Pea	FACU
Desmodium canadense	Showy Tick Trefoil	FAC
Asclepias tuberosa	Butterfly Milkweed	NI
Bidens frondosa	Beggar Ticks	FACW
Eupatorium purpureum (Eutrochium maculatum)	Purple Joe Pye Weed	FAC
Rudbeckia hirta	Black Eyed Susan	FACU-
Aster pilosus (Symphyotrichum pilosum)	Heath (or Hairy) Aster	UPL
Solidago juncea	Early Goldenrod	

PRICE PER LB. \$39.50 MIN. QUANITY 2 LBS. TOTAL: \$79.00 APPLY: 25 LBS/ACRE :1750 sq ft/lb The New England Conservation/Wildlife Mix provides a permanent cover of grasses, wildflowers, and legumes For both good erosion control and wildlife habitat value. The mix is designed to be a no maintenance seeding, and is appropriate for cut and fill slopes, detention basin side slopes, and disturbed areas adjacent to commercial and residential projects. New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is \$/bulk pound, FOB warehouse, Plus SH and applicable taxes.

NEW ENGLAND WETLAND PLANTS, INC

820 WEST STREET, AMHERST, MA 01002 PHONE: 413-548-8000 FAX 413-549-4000 EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM New England Wildflower Mix

Botanical Name	Common Name	Indicator
Schizachyrium scoparium	Little Bluestem	FACU
Sorghastrum nutans	Indian Grass	UPL
Chamaecrista fasciculata	Partridge Pea	FACU
Elymus virginicus	Virginia Wild Rye	FACW-
Elymus canadensis	Canada Wild Rye	FACU+
Festuca rubra	Red Fescue	FACU
Asclepias tuberosa	Butterfly Milkweed	NI
Vernonia noveboracensis	New York Ironweed	FACW+
Oenothera biennis	Evening Primrose	FACU-
Aster novae-angliae (Symphyotrichum novae-anglia	New England Aster	FACW-
Rudbeckia hirta	Black Eyed Susan	FACU-
Solidago juncea	Early Goldenrod	
Eupatorium fistulosum (Eutrochium fistulosum)	Hollow-Stem Joe Pye Weed	FACW
Aster lateriflorus (Symphyotrichum lateriflorum)	Starved/Calico Aster	FACW

PRICE PER LB. \$75.00 MIN. QUANITY 1 LBS. **TOTAL:** \$75.00 APPLY: 23 LBS/ACRE:1900 sq ft/lb New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is \$/bulk pound, FOB warehouse, Plus SH and applicable taxes.

EROSION CONTROL

STORMWATER POLLUTION PREVENTION PLAN NOTES:

- I. EROSION CONTROL BARRIER TO BE STAKED IN THE FIELD BY SURVEYOR PRIOR TO CONSTRUCTION.
- 2. MATERIAL STOCKPILE AREA WILL BE SURROUNDED BY AN EROSION CONTROL BARRIER. (HAY BALES, SILTATION FENCE, AND/OR SILTATION SOCK), FINAL MATERIAL STOCKPILE AREAS WILL BE DETERMINED AT THE TIME OF CONSTRUCTION, CONTRACTOR SHALL PROVIDE CONSTRUCTION SCHEDULE AND FINAL STORMWATER POLLUTION PREVENT PLAN DETAILING MATERIAL STOCKPILE AREAS FOR ROADWAY AND BMP CONSTRUCTION. DURING CONSTRUCTION. MATERIAL STOCKPILE AREAS SHALL BE PLACED WITHIN AREA TO BE CLEAR FOR UNIT CONSTRUCTION AND OUTSIDE THE 100' BUFFER ZONE.
- 3. ALL LOAM IS TO REMAIN ON SITE UNTIL ALL AREAS ARE LOAMED AND SEEDED. EXCESS LOAM SHALL BE REMOVED FROM THE SITE AT THE COMPLETION FOR ROADWAY AND LOT CONSTRUCTION.
- 4. FOR INDIVIDUAL UNIT CONSTRUCTION CONTRACTOR SHALL PLACE ALL MATERIALS WITHIN THE ZONE OF CONSTRUCTIONS SURROUNDED BY EROSION CONTROL BARRIER (HAY BALES, SILTATION FENCE, AND/OR SILTATION SOCK). CONTRACTOR IS RESPONSIBLE FOR MOVEMENT OF ALL MATERIALS ON THE LOT IN ORDER TO COMPLETE CONSTRUCTION IN CONFORMANCE WITH THE PLANS, DETAILS, SPECIFICATIONS AND NORTH READING CONSERVATION COMMISSION ORDER OF CONDITIONS.
- 5. CONSTRUCTION ENTRANCE WILL BE INSTALLED FOR VEHICLE ACCESS TO CONSTRUCTION STAGING AREA.
- 6. CONCRETE WASHOUT AREA WILL BE A MINIMUM OF 6'X6' AND BE SURROUNDED BY A SINGLE ROW OF STACKED HAY BALES. ALL HARDENED CONCRETE WILL BE REMOVED AND DISPOSED OF OFF SITE IN ACCORDANCE WITH THE MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION'S (MADEP) RULES AND REGULATIONS.
- 7. ALL CATCH BASINS WILL BE PROTECTED BY A "SILT BAG INLET PROTECTION".
- 8. BMP'S WILL ACT AS TEMPORARY SEDIMENTATION POND DURING CONSTRUCTION. THEREFOR THE INITIAL BASIN EXCAVATION SHOULD BE TAKEN TO NO MORE THAN I FT OF THE FINISH BASIN FLOOR ELEVATION EXCEPT TO ACCOMMODATE THE BASIN OUTLET. ACCUMULATED SEDIMENTS SHALL BE REMOVED DURING FINAL BMP CONSTRUCTION AND STABILIZATION. REMOVE SEDIMENTS WHEN DEPTH REACHES 12".
- 9. DURING BUILDING CONSTRUCTION A VEHICLE WASH AREA WILL BE LOCATED WITHIN THE GENERAL BUILDING AREA CONSTRUCTION
- IO. CONTRACTOR SHALL OBTAIN NPDES GENERAL PERMIT PRIOR TO CONSTRUCTION.
- II. CONTRACTOR SHALL KEEP A COPY OF THE APPROVED PLANS ALONG WITH THE NORTH READING CONSERVATION COMMISSION'S ORDER OF CONDITIONS AND NORTH READING PLANING BOARD CONDITIONS OF APPROVAL AT ALL TIMES.

SEED MIX PLANTING

FINAL SEEDING LOCATIONS OTHER THAN THOSE IN THE BMPS WILL BE DETERMINED AT TIME OF FINAL SITE RESTORATION.

NEW ENGLAND WETLAND PLANTS, INC

820 WEST STREET, AMHERST, MA 01002 PHONE: 413-548-8000 FAX 413-549-4000 EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM New England Wetmix (Wetland Seed Mix)

iew England Wetmix (Wetland Seed IVIIX)		
Common Name	Indicator	
Fox Sedge	OBL	
Blunt Broom Sedge	FACW	
Lurid Sedge	OBL	
Hop Sedge	OBL	
Fowl Bluegrass	FACW	
Beggar Ticks	FACW	
Green Bulrush	OBL	
Swamp Milkweed	OBL	
Fringed Sedge	OBL	
New York Ironweed	FACW+	
Soft Rush	FACW+	
Starved/Calico Aster	FACW	
Blue Flag	OBL	
American Mannagrass	OBL	
Square Stemmed Monkey Flower	OBL	
Spotted Joe Pye Weed	OBL	
	Common Name Fox Sedge Blunt Broom Sedge Lurid Sedge Hop Sedge Fowl Bluegrass Beggar Ticks Green Bulrush Swamp Milkweed Fringed Sedge New York Ironweed Soft Rush Starved/Calico Aster Blue Flag American Mannagrass Square Stemmed Monkey Flower	

The New England Wetmix (Wetland Seed Mix) contains a wide variety of native seeds that are suitable for most wetland restoration sites that are not permanently flooded. All species are best suited to moist ground as found in most wet meadows, scrub shrub, or forested wetland restoration areas. The mix is well suited for detention basin borders and the bottom of detention basins not generally under standing water. The seeds will not germinate under inundated conditions. If planted during the fall months the seed mix will germinate the following spring. During the first season of growth several species will produce seeds while other species will produce seeds after the second growing season. Not all species will grow in all wetland situations. This mix is comprised of the wetland species most likely to grow in created/restored wetlands and should produce more than 75% ground cover in two full growing seasons.

The wetland seeds in this mix can be sown by hand, with a hand-held spreader, or hydro-seeded on large or hard to reach sites. Lightly rake to insure good seed-to-soil contact. Seeding can take place on frozen soil, as the freezing and thawing weather of late fall and late winter will work the seed into the soil. If spring conditions are drier than usual watering may be required. If sowing during the summer months supplemental watering will likely be required until germination. A light mulch of clean, weed free straw is recommended. New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is \$/bulk pound, FOB warehouse, Plus SH and applicable taxes.

NEW ENGLAND WETLAND PLANTS, INC

820 WEST STREET, AMHERST, MA 01002 PHONE: 413-548-8000 FAX 413-549-4000 EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM

Botanical Name	Common Name	Indicator
Elymus riparius	Riverbank Wild Rye	FACW
Elymus virginicus	Virginia Wild Rye	FACW-
Festuca rubra	Red Fescue	FACU
Panicum virgatum	Switch Grass	FAC
Carex scoparia	Blunt Broom Sedge	FACW
Cornus amomum	Silky Dogwood	FACW
Carex lurida	Lurid Sedge	OBL
Iris versicolor	Blue Flag	OBL
Asclepias incarnata	Swamp Milkweed	OBL
Viburnum dentatum	Arrow Wood Viburnum	FAC
Aster novae-angliae (Symphyotrichum novae-angli	a New England Aster	FACW-
Eupatorium perfoliatum	Boneset	FACW
Eupatorium maculatum (Eutrochium maculatum)	Spotted Joe Pye Weed	OBL
Sambucus canadensis	Elderberry	FACW-
Scirpus atrovirens	Green Bulrush	OBL
Aster umbellatus (Doellingeria u.)	Flat Topped/Umbrella Aster	FACW
PRICE PER LB. \$65.00 MIN. QUANITY 1 LB	S. TOTAL: \$65.00	APPLY: 35 LBS/ACRE

The New England Roadside Matrix Mixes are designed for use along roads and highways. These mixes are unusual in that tey contain native grasses, wildflowers, and shrubs that are blended together as a native matrix seed mix. In areas that receive frequent mowing, the cold season grasses will dominate, such as those areas closet to the roadway shoulder. In areas farther from the road, which may be mown only once each year, or in hard to mow areas, such as around sign posts, the wildflower component will become dominant.. Along cuts and side slopes which may never be mown, the shrub component will add diversity and beauty to the roadside plantings.it is a particularly appropriate seed mix for roadsides, industrial sites, or cut and fill slopes. These mixes may be applied by hydroseeding, or by mechanical spreader. Always apply on a clean, wed-free seed bed. After sowing, lightly rake or roll the site to improve seed-to-soil contact. Best results are obtained with a mid-late spring seeding.summer seeding will benefit from a light mulching of clean, weed-free straw to conserve soil

New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is \$/bulk pound, FOB warehouse, Plus SH and applicable taxes.

design group, LLC

civil engineering traffic engineering architecture landscape design & construction

363 boston street, route 1 topsfield, ma 01983

FOR REGISTRY USE ONLY

I CERTIFY THAT THIS PLAN CONFORMS TO THE RULES AND REGULATIONS OF

THE REGISTERS OF DEEDS.

DATE: 1.16.2020

ROWLEY, MA PLANNING BOARD APPROVAL UNDER THE SUBDIVISION CONTROL

LAW REQUIRED

project title:

FALCON RIDGE SUBDIVISION

prepared for applicant: TAYLOR LANE LLC 357 NORTH STREET

GEORGETOWN, MA 01833

parcel identification:

map: <u>9 & 12</u> block: N.A.

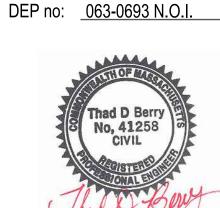
parcel: N.A.

lot: <u>2, 3, 4, & 23</u>

revisions no. date description 0 1.16.2020 ISSUED FOR REVIEW 4.27.20 | REVIEW COMMENTS 2 | 6.21.20 | REVIEW COMMENTS

plan submission O.S.R.D PLANS

<u>1.16.2020</u> date: AS NOTED scale: job no: 063-0692 0.R.A.D.



drawing name

EROSION CONTROL DETAILS

