

TOWN OF SPENCER  
LOCUS MAP  
PROPOSED DRAINAGE IMPROVEMENTS

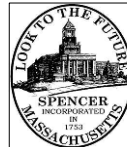
SCALE 1"=5000'

March 14, 2018

SHEET 1 OF 47

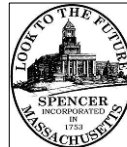
## GENERAL NOTES

1. THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, SHALL VERIFY THE LOCATION OF ALL UTILITIES AND CONTACT DIG-SAFE AT 1-888-344-7233. THE TOWN SHALL FIELD VERIFY THE LOCATION OF ALL PROPOSED WORK PRIOR TO INSTALLATION.
2. ANY AREA DISTURBED BY THE CONTRACTOR OUTSIDE THE LIMIT OF WORK SHALL BE RESTORED TO ORIGINAL CONDITION AT NO COST TO THE OWNER.
3. ALL GROUND SURFACES SHALL BE PROTECTED TO PREVENT EROSION AND SEDIMENT ON THE SITE.
4. THE CONTRACTOR SHALL PROVIDE DUST CONTROL FOR EXCAVATION AND CONSTRUCTION OPERATIONS.
5. THE CONTRACTOR SHALL PERFORM HIS WORK IN A MANNER ACCEPTABLE TO THE ENGINEER SO THAT INTERFERENCE WITH AND INCONVENIENCE TO ABUTTERS ON ACCOUNT OF THE CONSTRUCTION WORK IS KEPT TO A MINIMUM.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE APPROXIMATE LOCATION OF SUBSURFACE ROCK. IT SHALL BE THE RESPONSIBILITY OF THE BIDDER TO MAKE HIS OWN DETERMINATION AS TO THE LOCATION OF SUBSURFACE ROCK AND INCLUDE IT IN HIS BID PRICE.
7. WATER LEVELS OF BODIES OF WATER SHOWN ON THE DRAWINGS FLUCTUATE. ALL DEWATERING TO COMPLETE THE WORK IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. WHERE THE CONTRACTOR IS TO ABUT PROPOSED WORK TO EXISTING CONDITIONS, THE PROPOSED WORK SHALL MATCH THE GRADE, SHAPE AND CONTOUR OF THE EXISTING CONDITIONS. ALL EXISTING CONDITIONS TO REMAIN WHICH ARE DISTURBED BY THE CONSTRUCTION OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR AT HIS OWN EXPENSE.



## GENERAL NOTES (CON'T)

9. UNLESS OTHERWISE INDICATED, ALL EXISTING DRAINAGE CULVERTS, SEWERS, WATER MAINS, GAS MAINS, SERVICE CONNECTIONS AND OTHER UTILITIES ENCOUNTERED IN THE EXCAVATION SHALL BE SUPPORTED AND MAINTAINED DURING CONSTRUCTION AND REPLACED IF DAMAGED BY THE CONTRACTOR. ALL OF THIS WORK WILL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
10. FLOW OF SEWAGE, WATER, AND DRAINAGE MUST BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
11. DEPTHS OF EXISTING UNDERGROUND STRUCTURES AND UTILITIES SHALL BE VERIFIED PRIOR TO CONSTRUCTION. ADJUST GRADE AND LOCATIONS OF NEW DRAINAGE TO AVOID INTERFERENCES THAT ARE IDENTIFIED.
12. CONTACT THE TOWN OF SPENCER AND DIGSAFE A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION TO HAVE UNDERGROUND UTILITIES SERVICES LOCATED.
13. THE CONTRACTOR SHALL PROVIDE SURVEY TO PROVIDE CONTROL AND TO DETERMINE EXISTING EXISTING PIPE INVERTS PRIOR TO CONSTRUCTION OPERATIONS AND ESTABLISH PROPOSED PIPE INVERTS AT THE INLET AND OUTLET TO ENSURE PROPER WATER FLOW THROUGH THE CULVERT. THE SURVEY SHALL FURTHER VERIFY THAT THE DRAINAGE STRUCTURES (DMH, CB AND DI) CAN SUPPORT A POSITIVE FLOW UPON PIPE INSTALLATION.
14. AFTER HEADWALL INSTALLATION AT EACH CULVERT LOCATION, CONTRACTOR SHALL MEASURE AND VERIFY, WITH THE TOWN, LENGTH OF PIPE TO CONNECT HEADWALLS.



## ENVIRONMENTAL CONTROL NOTES









1. STAKED/TRENCHED SILT FENCES AND COMPOST FILTER TUBES ARE PROPOSED ALONG WETLANDS. THESE SHALL BE MAINTAINED UNTIL ALL CONSTRUCTION AND LANDSCAPING IS COMPLETED AND ALL AREAS ARE STABILIZED. THE CONSERVATION COMMISSION WILL BE NOTIFIED WHEN THE EROSION CONTROL MEASURES HAVE BEEN INSTALLED FOR INSPECTION AND APPROVAL.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUAL MAINTENANCE OF ALL CONTROL DEVICES THROUGHOUT THE DURATION OF THE PROJECT.
3. EXCAVATED MATERIAL STOCKPILED ON THE SITE SHALL BE SURROUNDED BY A RING OF UNBROKEN SEDIMENT AND EROSION CONTROL FENCE. THE LIMITS OF ALL GRADING AND DISTURBANCE SHALL BE KEPT TO A MINIMUM WITHIN THE APPROVED AREA OF CONSTRUCTION. ALL AREAS OUTSIDE OF THE LIMIT OF CONTRACT SHALL REMAIN TOTALLY UNDISTURBED UNLESS OTHERWISE APPROVED BY OWNER'S REPRESENTATIVE.
4. ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS.

## PAVEMENT NOTES











1. MATCH EXISTING PAVEMENT THICKNESS WITH MASSDOT DENSE BINDER PLACED IN MULTIPLE LIFTS (1.75" MINIMUM AND 2.75" MAXIMUM).
2. ALL EDGES SHALL BE SAWCUT AND SHALL HAVE HOT RUBBER APPLIED PRIOR TO PATCH PAVING.

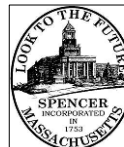


## LEGEND - PROPOSED FEATURES

COMPOST FILTER TUBE VARIOUS SIZE	
CATCH BASIN	
CONCRETE HEADWALL W/ WINGWALL	
CONCRETE HEADWALL	
DRAIN LINE VARIOUS SIZE	
SAWCUT LINE	
LOAM AND SEED SWALE	
RIPRAP SWALE	

## LEGEND - EXISTING FEATURES

PERENNIAL STREAM	
INTERMITTENT STREAM	
HYDROLOGIC CONNECTION	
OPEN WATER	
WETLAND	
200' BUFFER	
100' BUFFER	
EXIST EDGE OF PAVEMENT	
PROPERTY LINE	
EXIST PIPE	

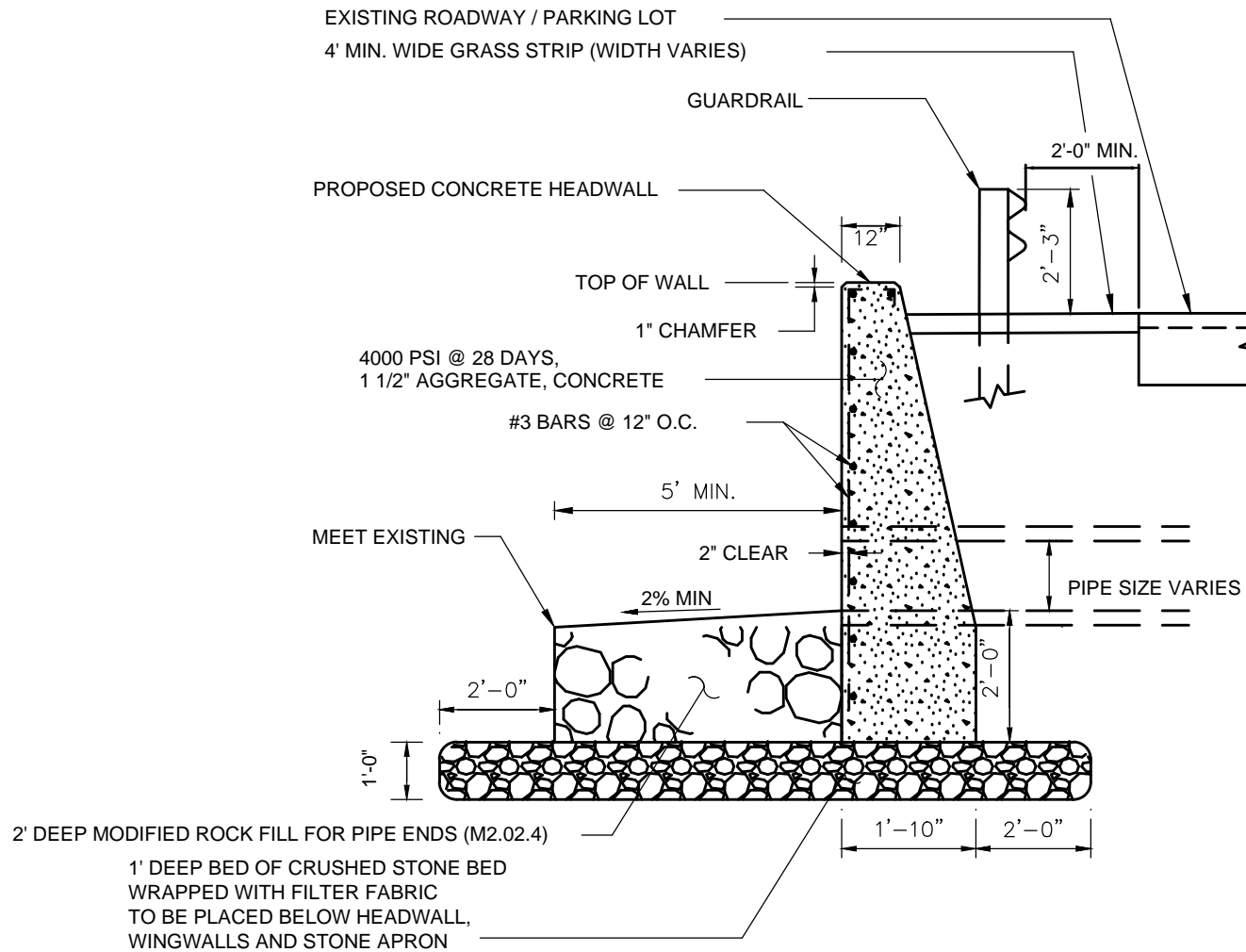


## CONSTRUCTION SCHEDULE

THE CONTRACTOR SHALL SUBMIT A CONSTRUCTION PROGRESS SCHEDULE SHOWING THE ORDER IN WHICH HE PROPOSES TO CARRY ON THE WORK, INCLUDING THE DATE AS WHICH VARIOUS PARTS OF THE WORK AND ESTIMATED DATE OF COMPLETION OF EACH PART. AS SUCH, THE ANTICIPATED ORDER OF CONSTRUCTION ACTIVITIES SHALL BE AS FOLLOWS:

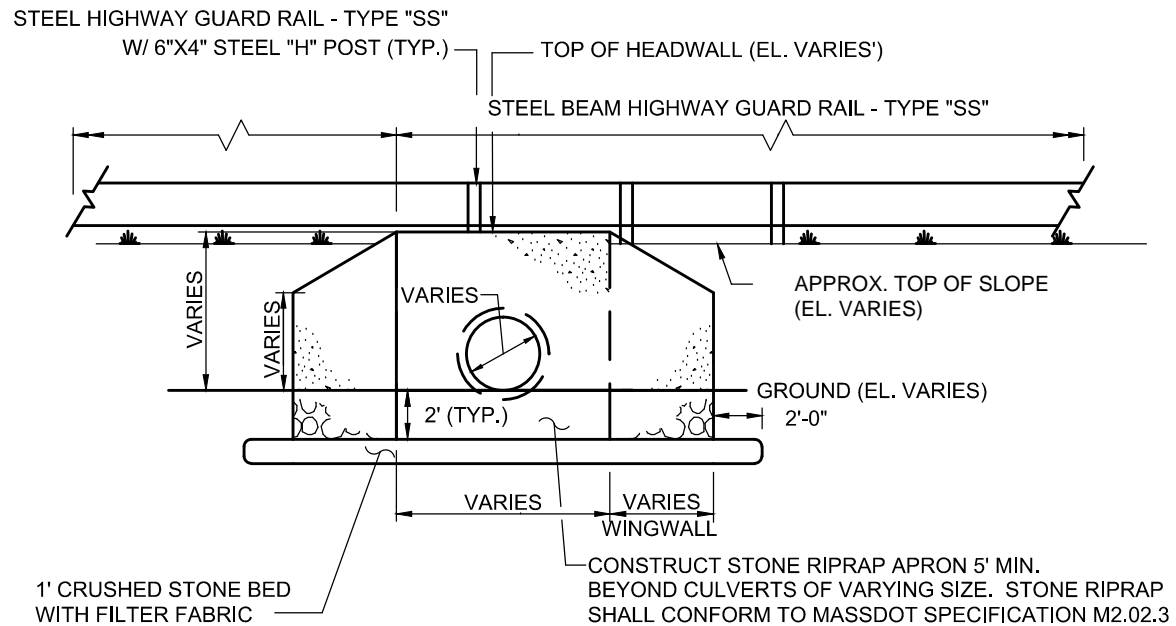
1. MOBILIZE EQUIPMENT, MATERIALS, AND PERSONNEL.
2. INSTALL EROSION CONTROL MEASURES TO PROTECT ADJACENT RESOURCE AREAS AND DEMARCAT THE LIMIT OF WORK.
3. CONTACT THE SPENCER CONSERVATION AGENT TO SCHEDULE INSPECTION OF EROSION CONTROL. CONSERVATION AGENT APPROVAL IS NECESSARY PRIOR TO COMMENCING ANY CONSTRUCTION .
4. REMOVE THE EXISTING CULVERT AND HEADWALLS.
5. INSTALL PROPOSED HEAD/WINGWALLS AND HDPE DRAINAGE PIPES.
6. INSTALL 2' MINIMUM DEPTH OF VARIOUS SIZE STONE ON 12" DEPTH OF CRUSHED STONE BEDDING WRAPPED WITH FILTER FABRIC AT CULVERT INLET AND OUTLET. INSTALL ADDITIONAL RIPRAP AS DIRECTED BY ENGINEER.
7. CONTROL OF WATER AND DEWATER AS NECESSARY.
8. REMOVE THE EXISTING CATCH BASIN, GUTTER INLET OR DROP INLET STRUCTURE.
9. INSTALL NEW DRAIN MANHOLE AND CATCH BASIN STRUCTURES.
10. REPAIR GUARD RAIL IF DAMAGED DURING CONSTRUCTION OPERATIONS.
11. PLACE HOT MIX ASPHALT FOR PATCHING.
12. RESTORE THE WORK AREA, INCLUDING SEEDING OF ALL DISTURBED VEGETATED AREAS, AND THE INSTALLATION OF EROSION CONTROL MEASURES AS NEEDED TO PREVENT EROSION DURING THE ESTABLISHMENT OF VEGETATION.
13. MONITOR THE SITE AND, IF NECESSARY, RE-SEED AREAS WHERE VEGETATION HAS NOT ESTABLISHED AND/OR REPAIR AREAS OF EROSION.
14. ONCE VEGETATION HAS BEEN ESTABLISHED ON DISTURBED AREAS A POST CONSTRUCTION INSPECTION SHALL BE SCHEDULED WITH CONSERVATION AGENT TO OBTAIN APPROVAL TO REMOVE SEDIMENT AND EROSION CONTROL MEASURES.
15. REMOVE AND DISPOSE OF ALL SEDIMENT AND EROSION CONTROL MEASURES.



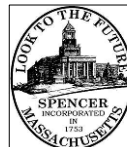


**TYPICAL CULVERT HEADWALL SECTION**  
NOT TO SCALE

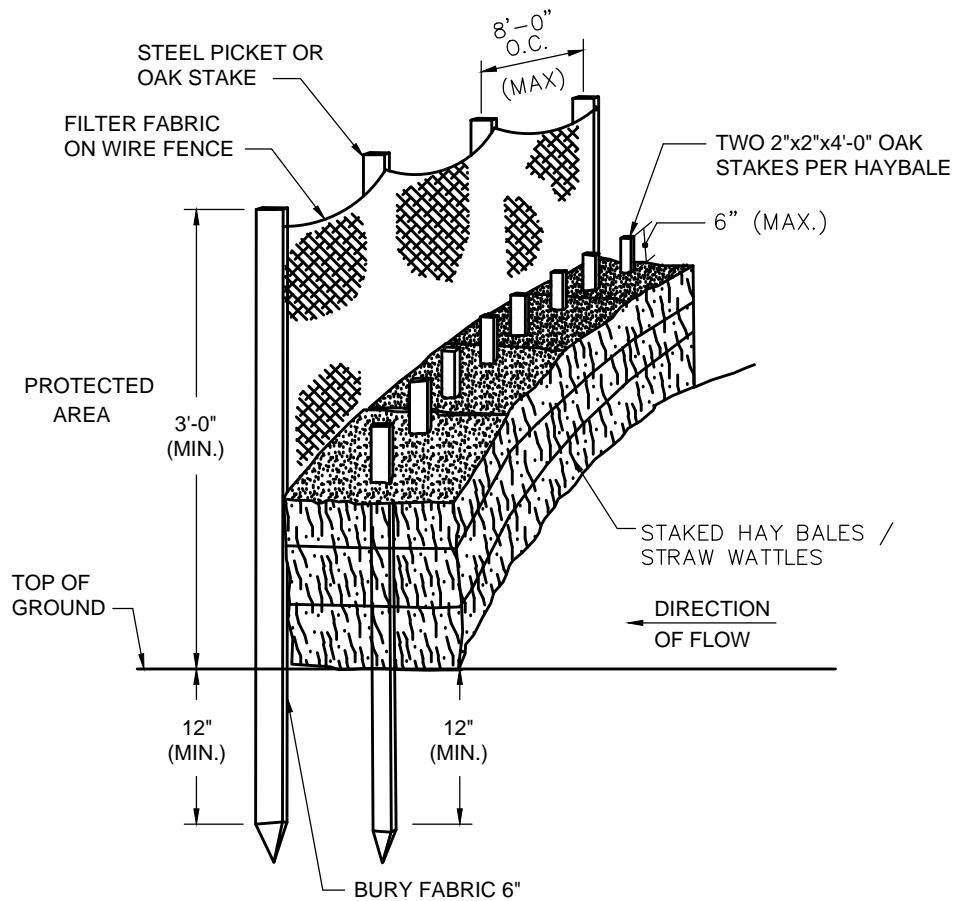




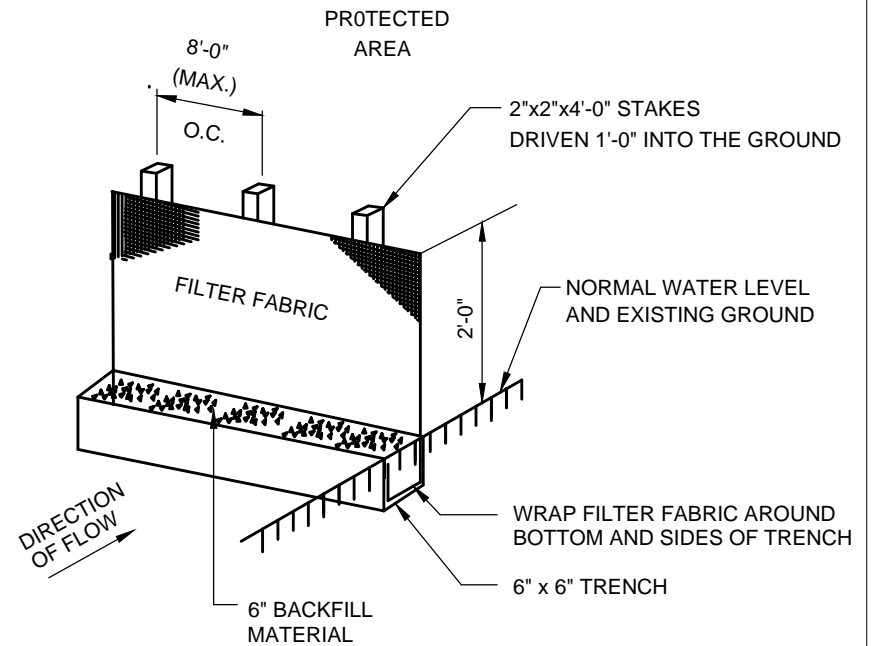
PROPOSED CULVERT HEADWALL W/ WINGWALL INLET ELEVATION VIEW  
NOT TO SCALE





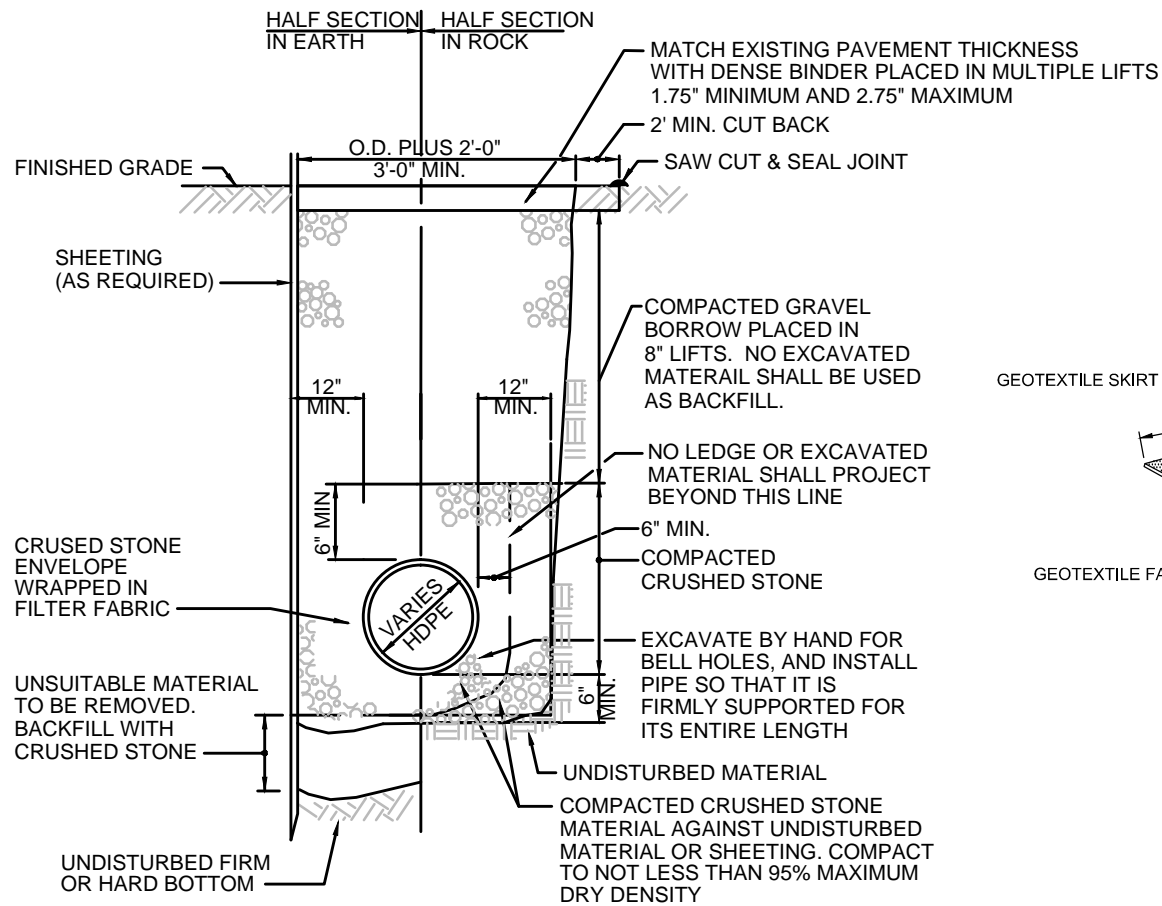


**STAKED HAY BALE / STRAW WATTLE  
AND SEDIMENTATION FENCE  
NOT TO SCALE**



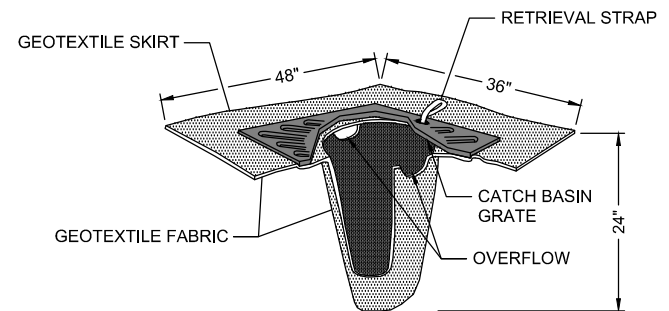
**EROSION CONTROL FENCING  
NOT TO SCALE**





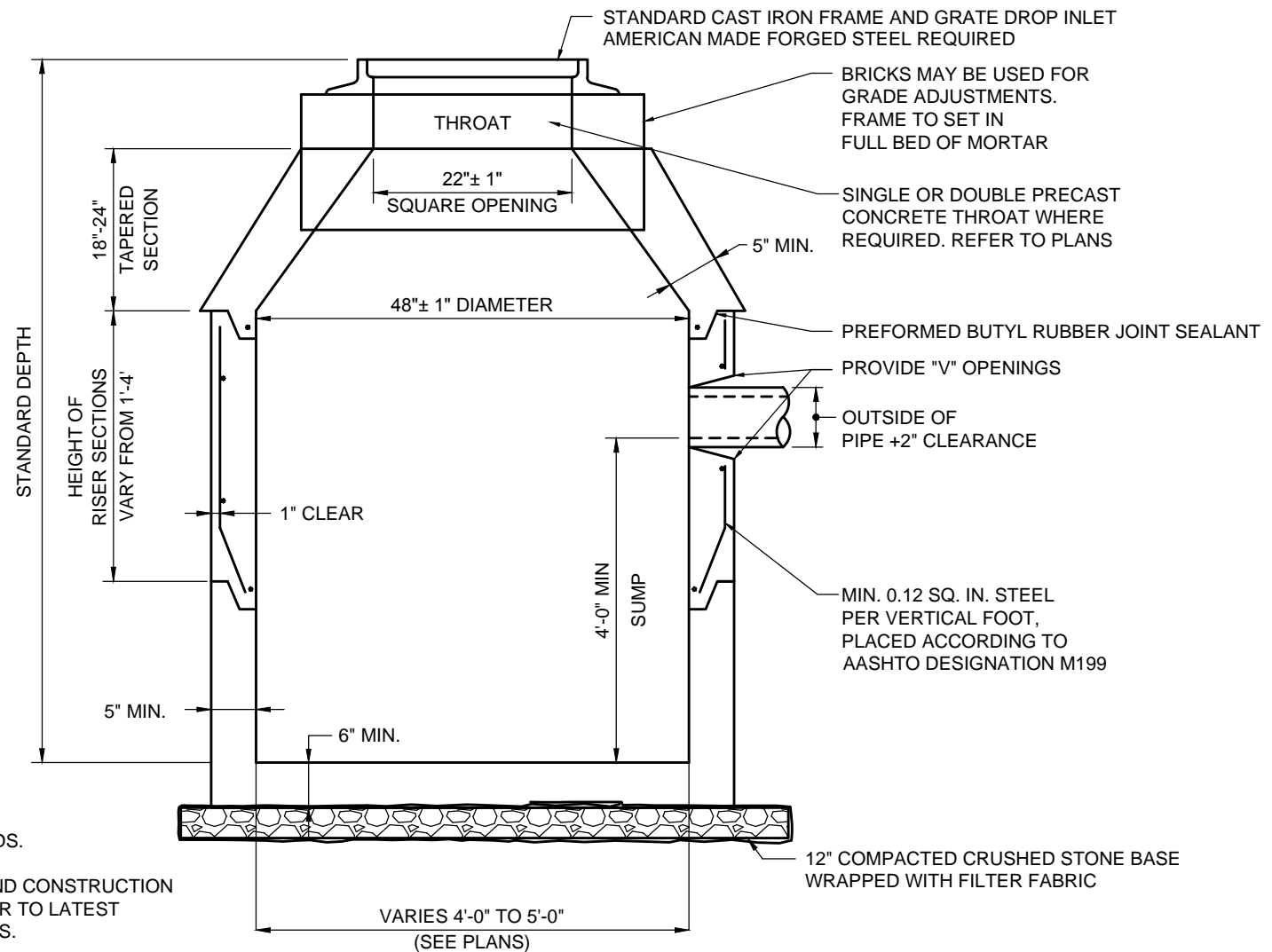
**TRENCH CROSSING DETAIL**

NOT TO SCALE



**SILT SACK**  
NOT TO SCALE





NOTES:

1. DETAILS NOT INDICATED ABOVE SHALL BE SIMILAR TO THOSE SHOWN OR REFERRED TO ON DRAWING NUMBER E203.5.0 OF THE DEC. 2016 MASSDOT CONSTRUCTION STANDARDS.

2. FOR DESCRIPTIONS, MATERIALS AND CONSTRUCTION METHODS AND REQUIREMENTS REFER TO LATEST MASSDOT STANDARD SPECIFICATIONS.

3. MINIMUM SUMP DEPTH MAY BE REDUCED BY TOWN APPROVAL IN INSTANCES OF LEDGE OR UNUSUAL CONDITIONS

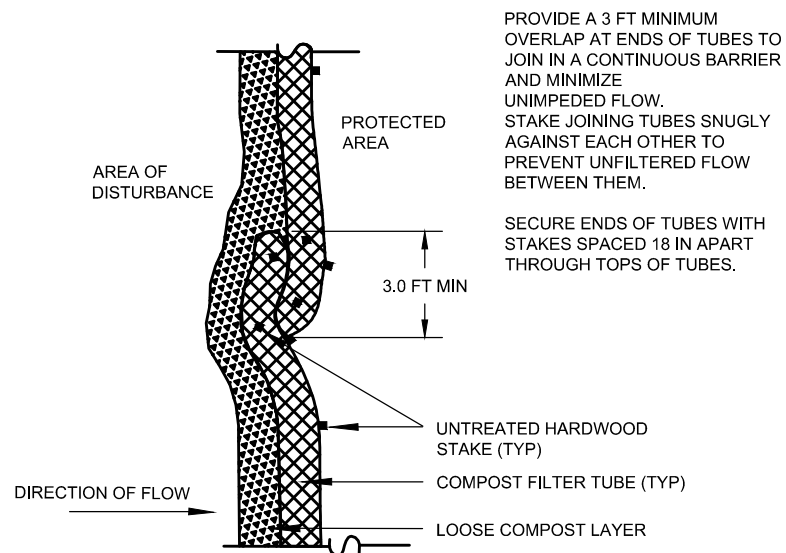
**PRECAST CATCH BASIN  
NOT TO SCALE**



TOWN OF SPENCER  
CONST DETAILS  
PROPOSED DRAINAGE IMPROVEMENTS

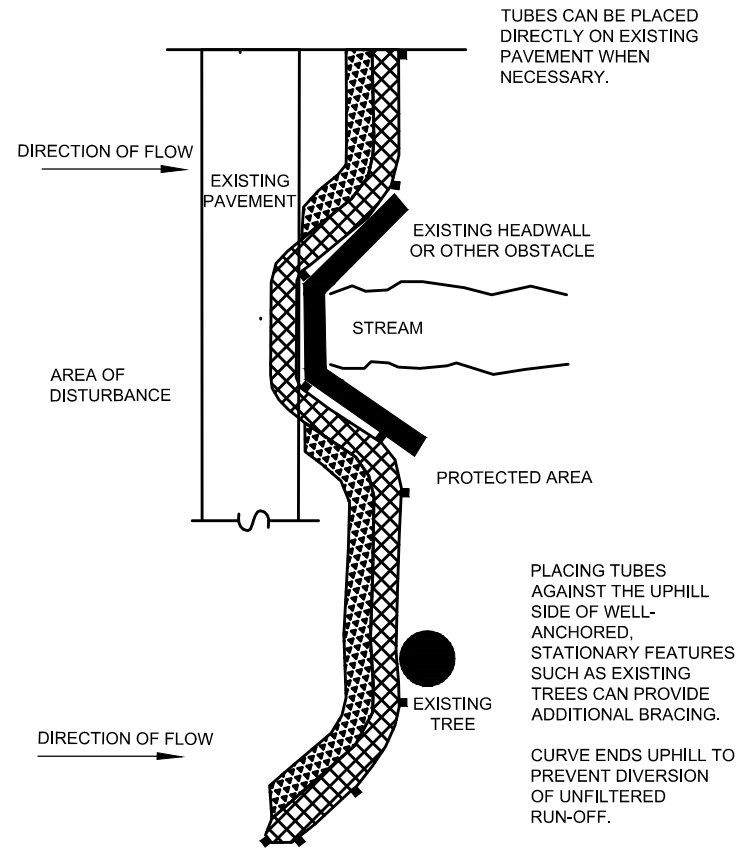
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PLAN VIEW - JOIN DETAIL

COMPOST FILTER TUBE DETAILS  
NOT TO SCALE

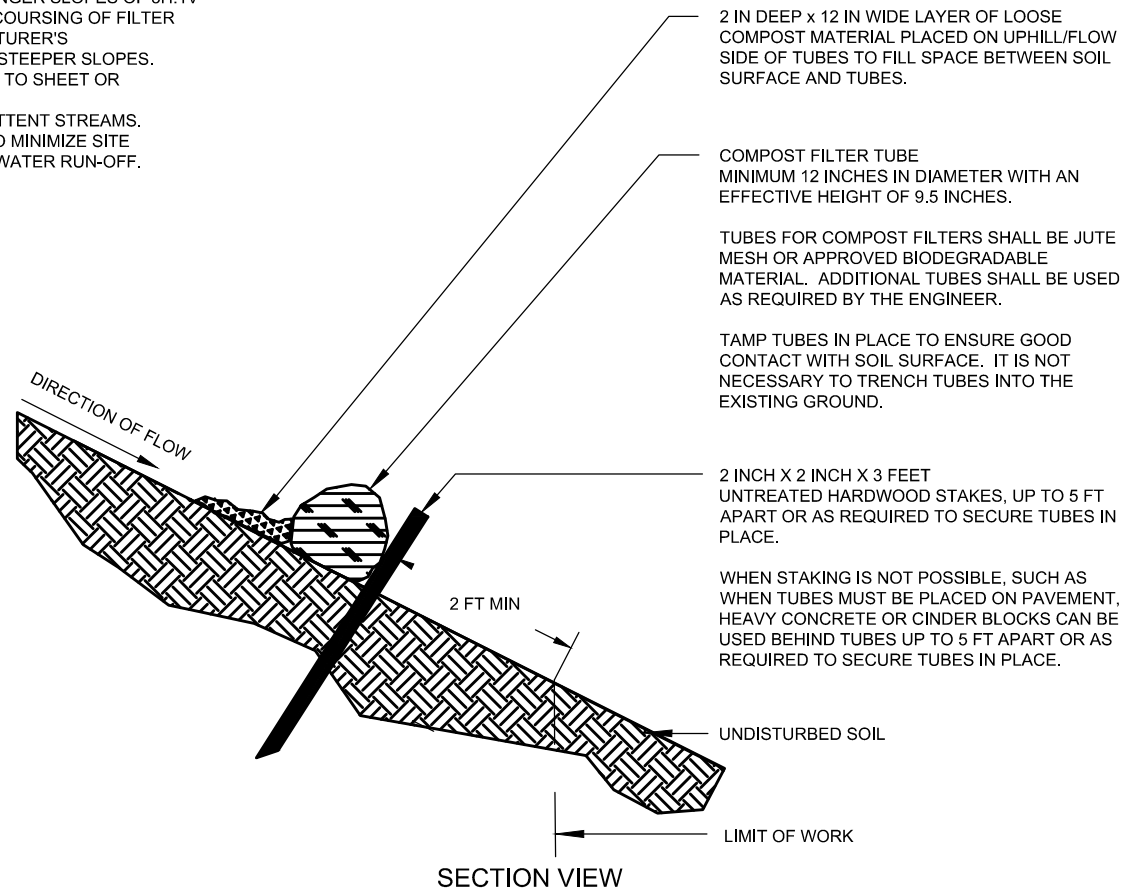


PLAN VIEW



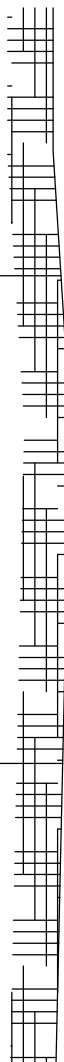
GENERAL NOTES FOR COMPOST FILTER TUBE:

1. PROVIDE A MINIMUM TUBE DIAMETER OF 12 INCHES FOR SLOPES UP TO 50 FEET IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER TUBE DIAMETER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATIONS WITH LONGER OR STEEPER SLOPES.
2. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
3. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
4. CONFIGURE TUBES AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF.



COMPOST FILTER TUBE DETAILS  
NOT TO SCALE

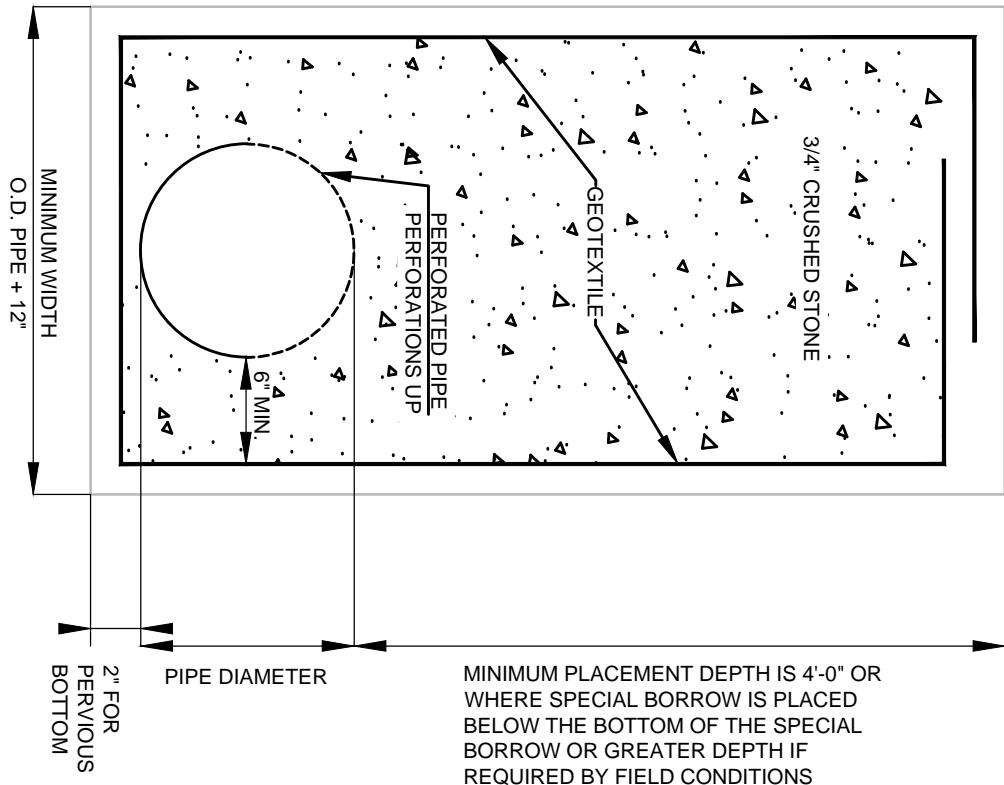




SURFACE TREATMENT:

- 4" PLANTABLE SOIL AND SEED OVER
- 8" COMPACTED GRAVEL

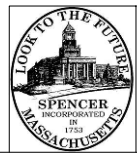
SURFACE TREATMENT

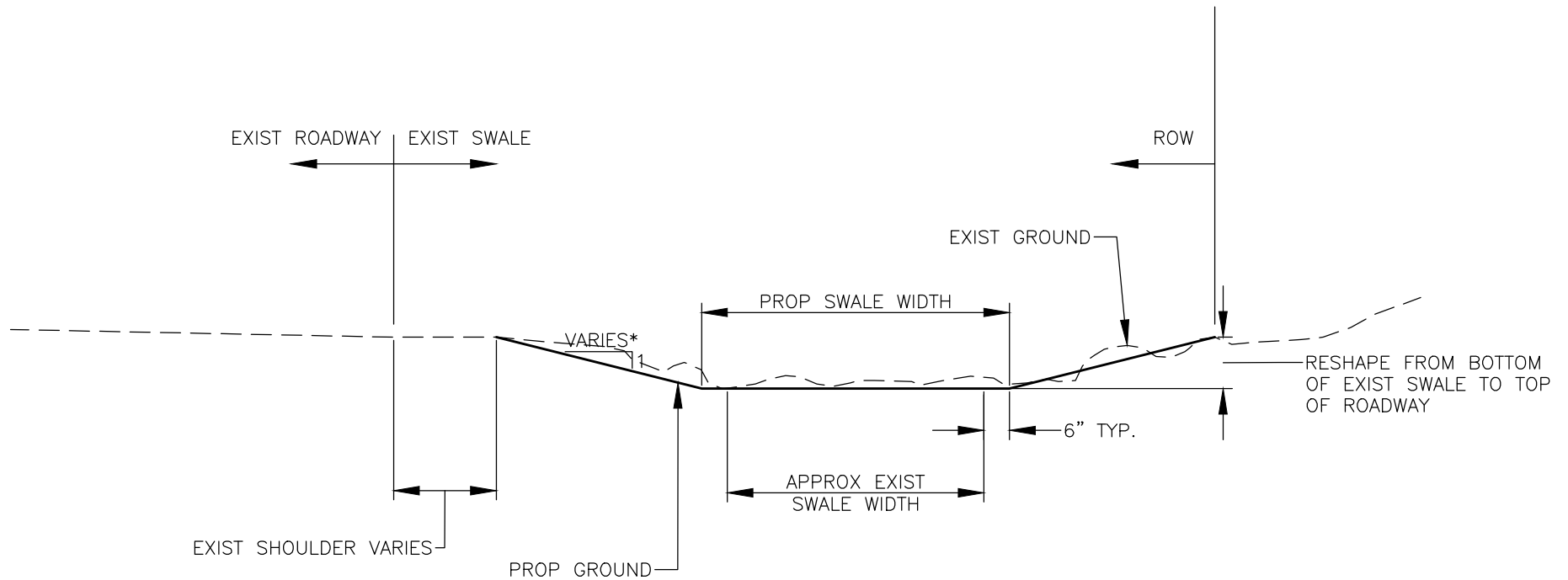


SUBDRAIN DETAIL  
NOT TO SCALE

NOTES:

1. GEOTEXTILE FABRIC AS DESCRIBED IN SECTION M9.50
2. PIPE SHALL BE SET AT BOTTOM OF TRENCH FOR IMPERVIOUS BOTTOM
3. SUBDRAIN LOCATED APPROXIMATELY AT INTERSECTION OF TANGENTS (SEE DWG. E102.1.0)
4. GRAVEL (AND SPECIAL BORROW WHERE REQUIRED) SHALL INTERSECT CRUSHED STONE FOR SUBDRAIN





**REGRADE SWALE DETAIL**  
**NOT TO SCALE**

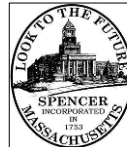
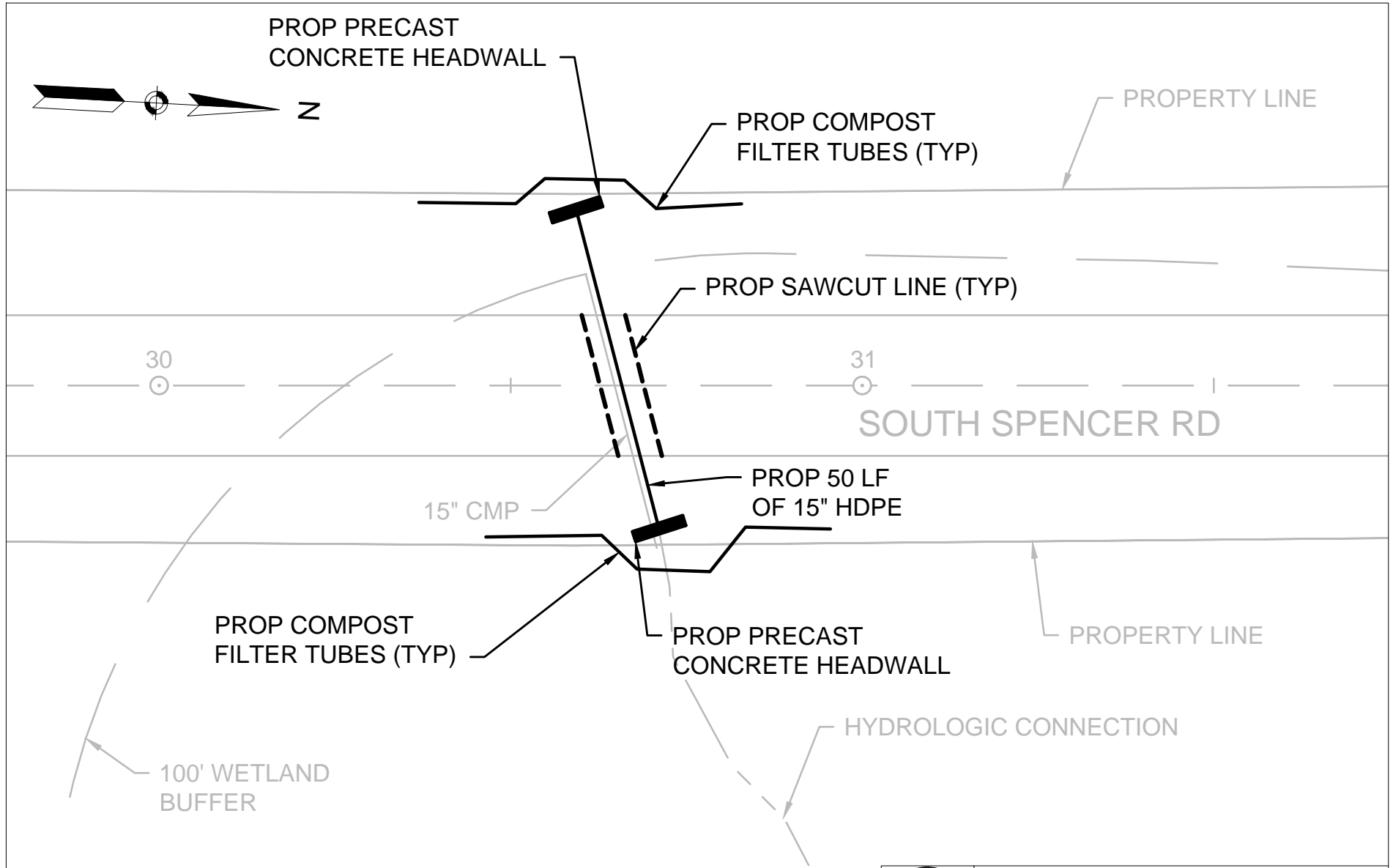
\* — MATCH EXISTING SLOPE



TOWN OF SPENCER  
 CONST DETAILS  
 PROPOSED DRAINAGE IMPROVEMENTS

March 14, 2018

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TOWN OF SPENCER  
SOUTH SPENCER RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

March 14, 2018

SCALE 1"=20'

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PROP PRECAST  
CONCRETE HEADWALL

PROP COMPOST  
FILTER TUBES (TYP)

PROPERTY LINE

PROP 52 LF  
OF 15" HDPE

PROP SAWCUT  
LINE (TYP)

34  
SOUTH SPENCER RD

35

15" CMP

PROP COMPOST  
FILTER TUBES (TYP)

PROPERTY LINE

PROP PRECAST  
CONCRETE HEADWALL

100' WETLAND  
BUFFER

WETLAND  
LIMIT

HYDROLOGIC  
CONNECTION

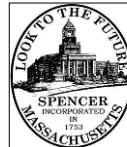
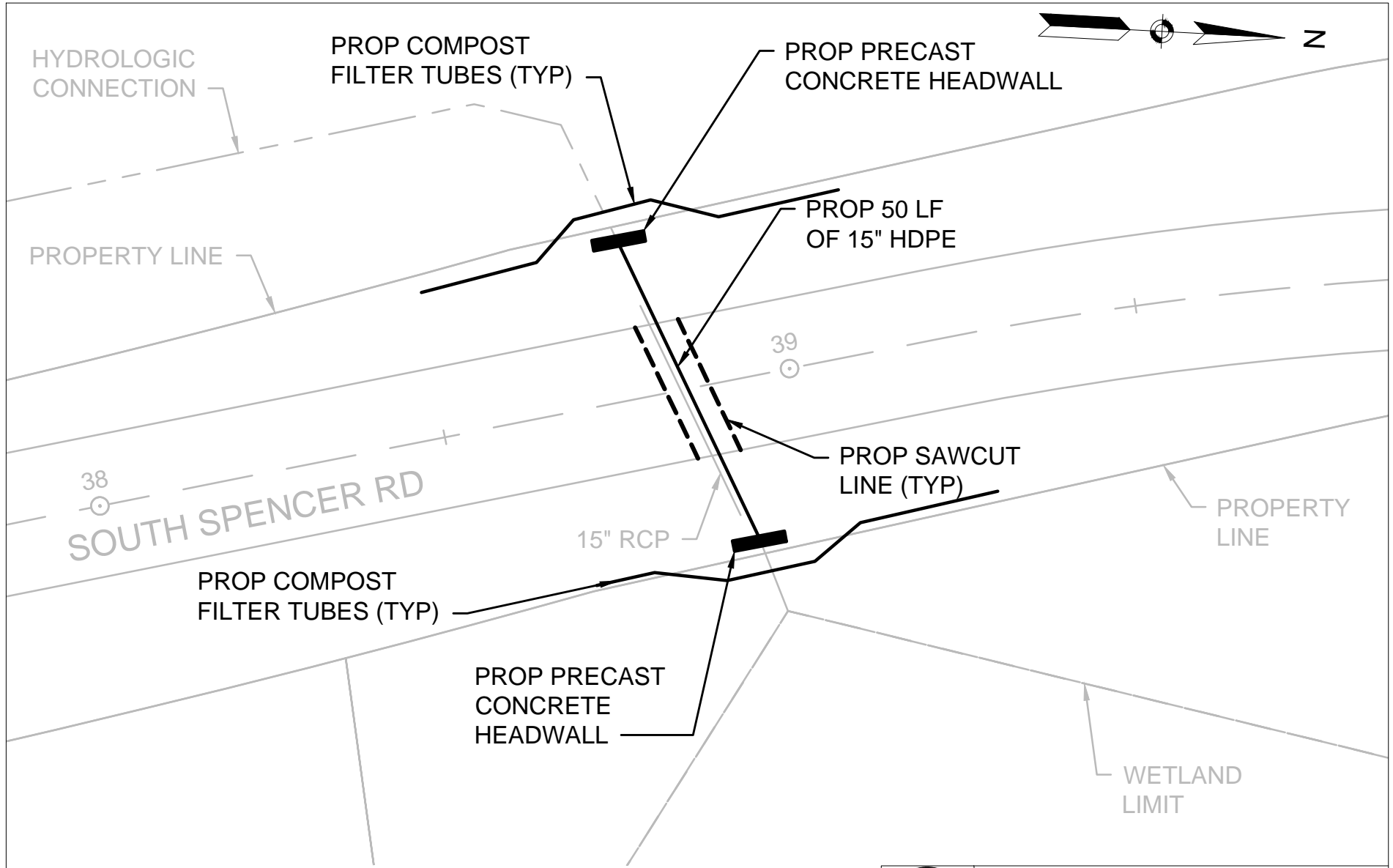


TOWN OF SPENCER  
SOUTH SPENCER RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

March 14, 2018

SCALE 1"=20'

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TOWN OF SPENCER  
SOUTH SPENCER RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

March 14, 2018

SCALE 1"=20'

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PROP PRECAST CONCRETE  
HEADWALL W/ WINGWALLS

PROP COMPOST  
FILTER TUBES (TYP)

PROP 46 LF  
OF 18" HDPE

SOUTH SPENCER RD

18" CMP

PROP CATCH BASIN  
VERIFY THROAT REQUIREMENT  
WITH TOWN

PROP 6 LF  
OF 15" HDPE

PROP COMPOST  
FILTER TUBES (TYP)

PROP PRECAST  
CONCRETE HEADWALL

PROP 130 LF  
OF 12" HDPE

100' WETLAND BUFFER

PROPERTY LINE

PROP 5' CATCH BASIN  
VERIFY THROAT  
REQUIREMENT WITH TOWN

45

PROP 30 LF  
OF 15" HDPE

HEBERT RD

PROPERTY LINE

INTERMITTENT STREAM



TOWN OF SPENCER  
SOUTH SPENCER RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

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PROPERTY LINE

PROP 130 LF OF 12" HDPE

PROP CATCH BASIN  
VERIFY THROAT  
REQUIREMENT WITH TOWN

N

HEBERT RD

PROPERTY LINE

100' WETLAND BUFFER

BUFFER

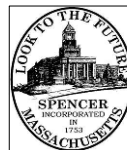
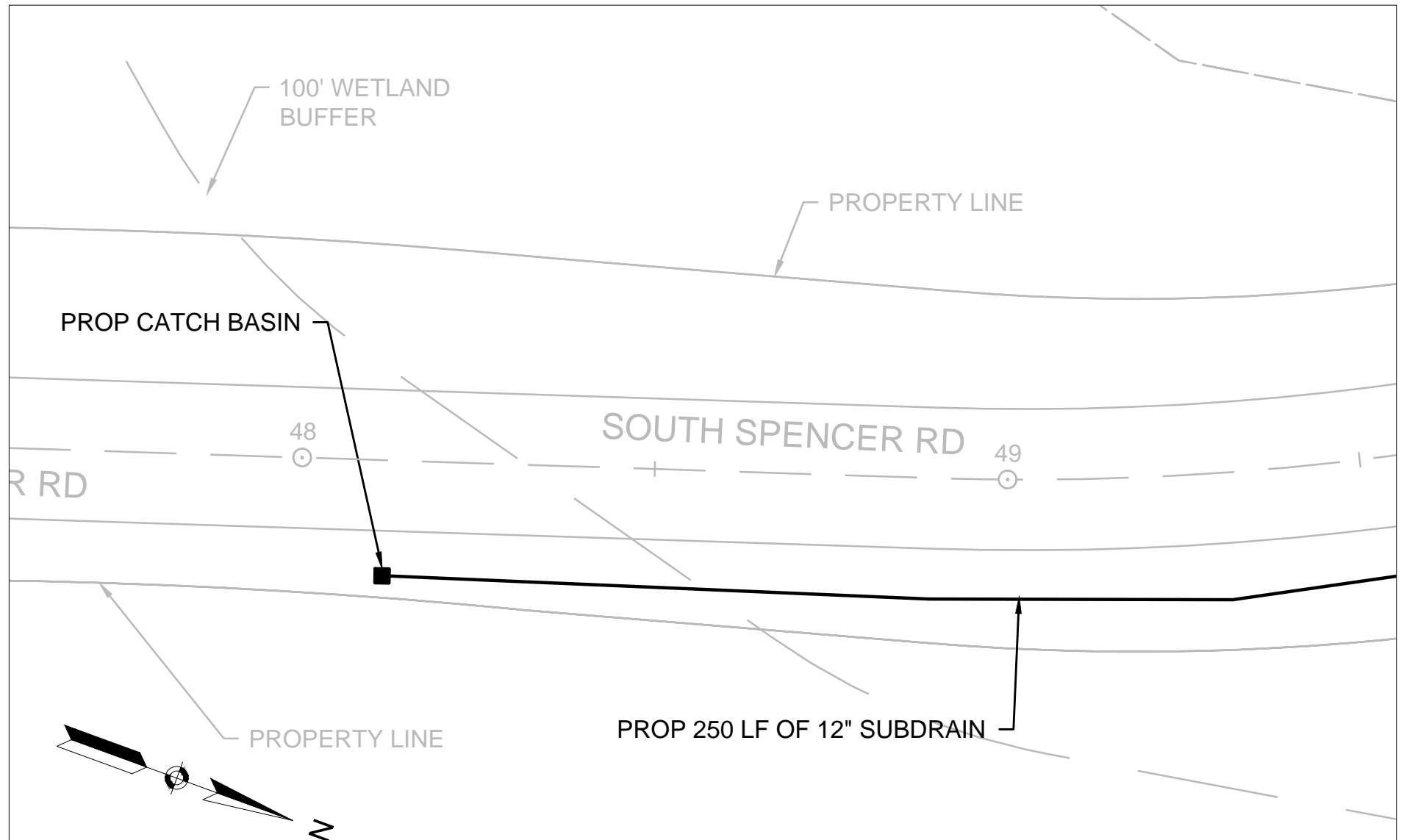


TOWN OF SPENCER  
SOUTH SPENCER RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

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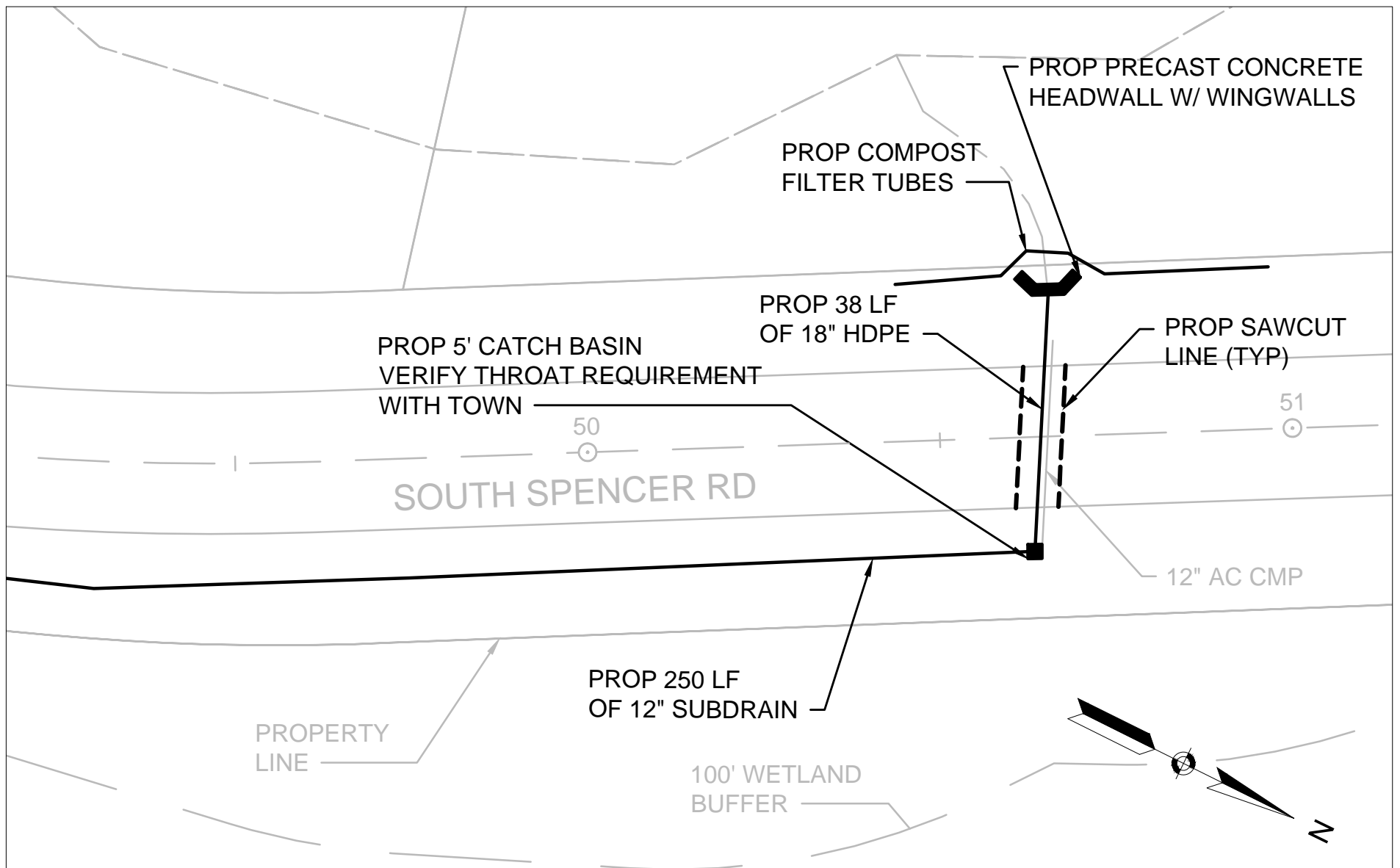


TOWN OF SPENCER  
SOUTH SPENCER RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

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TOWN OF SPENCER  
SOUTH SPENCER RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

March 14, 2018

SCALE 1"=20'

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TOM CASEY RD

PROPERTY LINE

HYDROLOGIC CONNECTION

PROP PRECAST CONCRETE  
HEADWALL W/ WINGWALLS

PROP COMPOST  
FILTER TUBES (TYP)

PROP 32 LF  
OF 12" HDPE PIPE

12" CM AL

SOUTH SPENCER RD

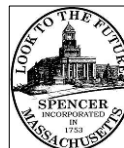
55

56

PROPERTY LINE

PROP DOUBLE THROAT  
CATCH BASIN

PROP SAWCUT  
LINE (TYP)

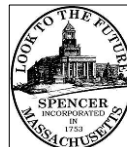
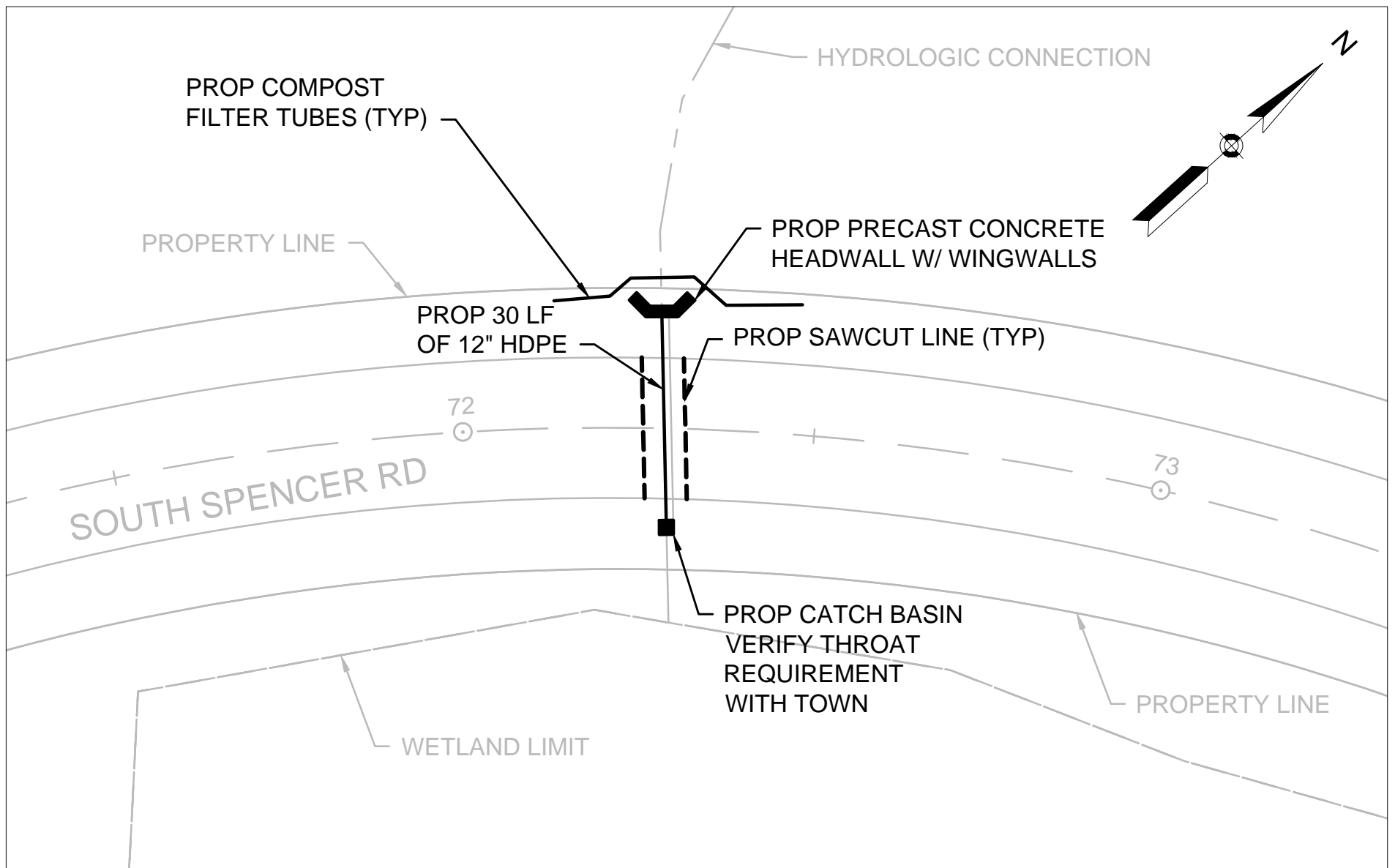


TOWN OF SPENCER  
SOUTH SPENCER RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

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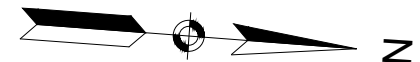
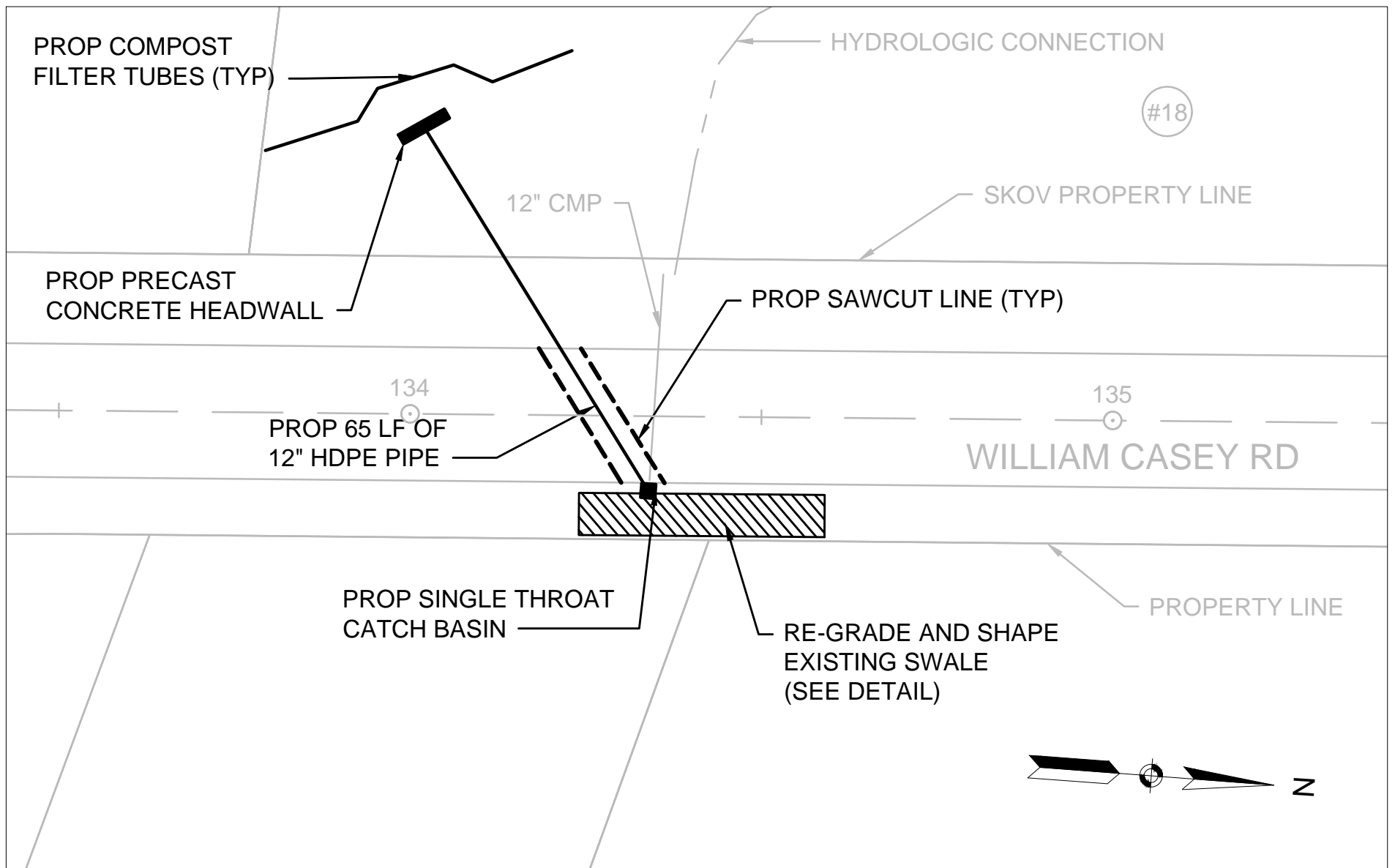
TOWN OF SPENCER  
SOUTH SPENCER RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

March 14, 2018

SCALE 1"=20'

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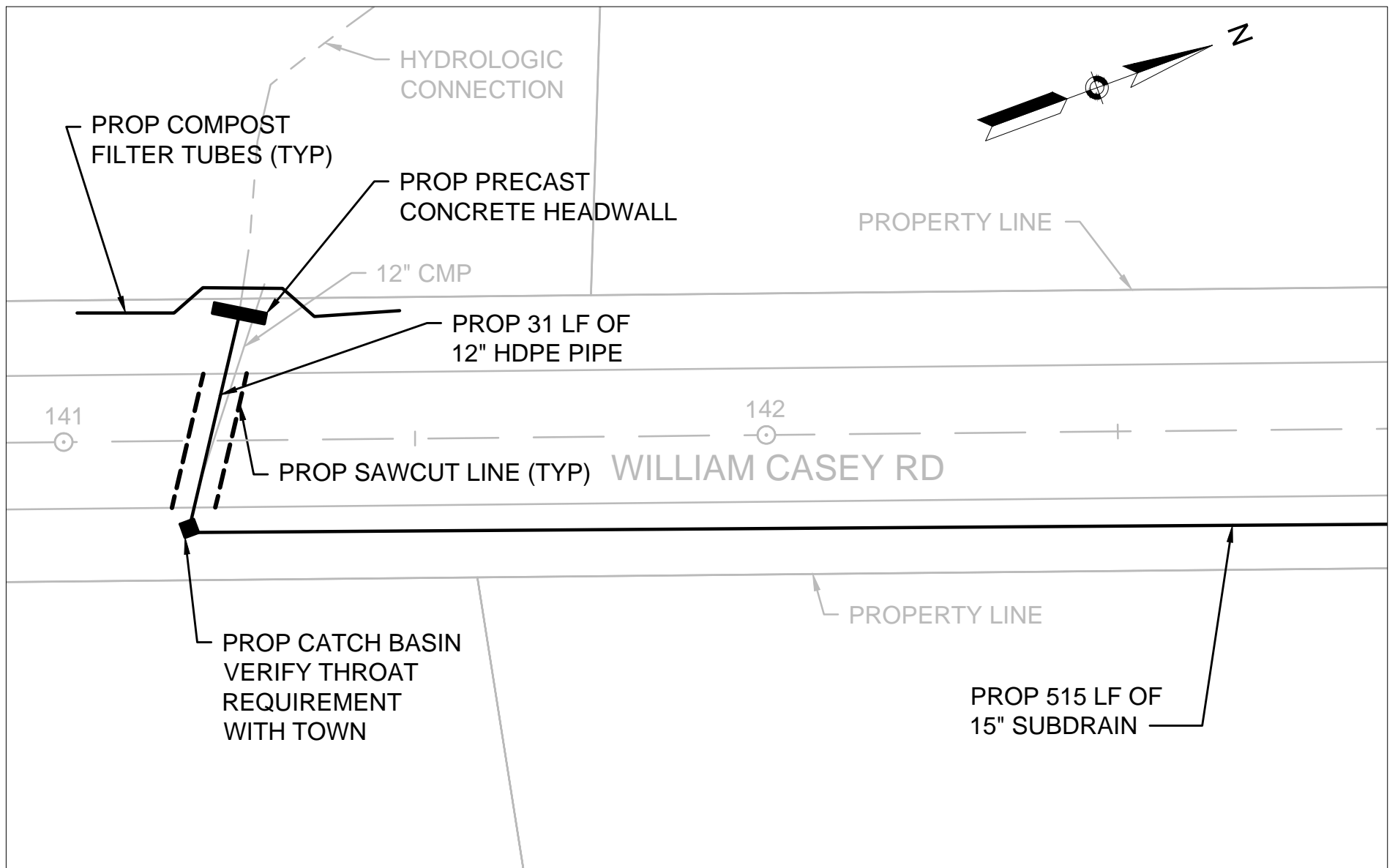


TOWN OF SPENCER  
 WILLIAM CASEY RD  
 PROPOSED DRAINAGE IMPROVEMENTS  
 FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

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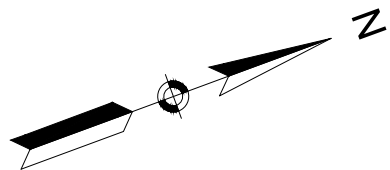


TOWN OF SPENCER  
 WILLIAM CASEY RD  
 PROPOSED DRAINAGE IMPROVEMENTS  
 FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

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PROPERTY LINE

143

WILLIAM CASEY RD

144

PROP CATCH BASIN  
VERIFY THROAT  
REQUIREMENT  
WITH TOWN

PROPERTY LINE

PROP 515 LF OF 15" SUBDRAIN

PROP PAVED DRIVEWAY

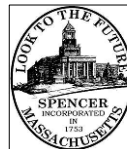
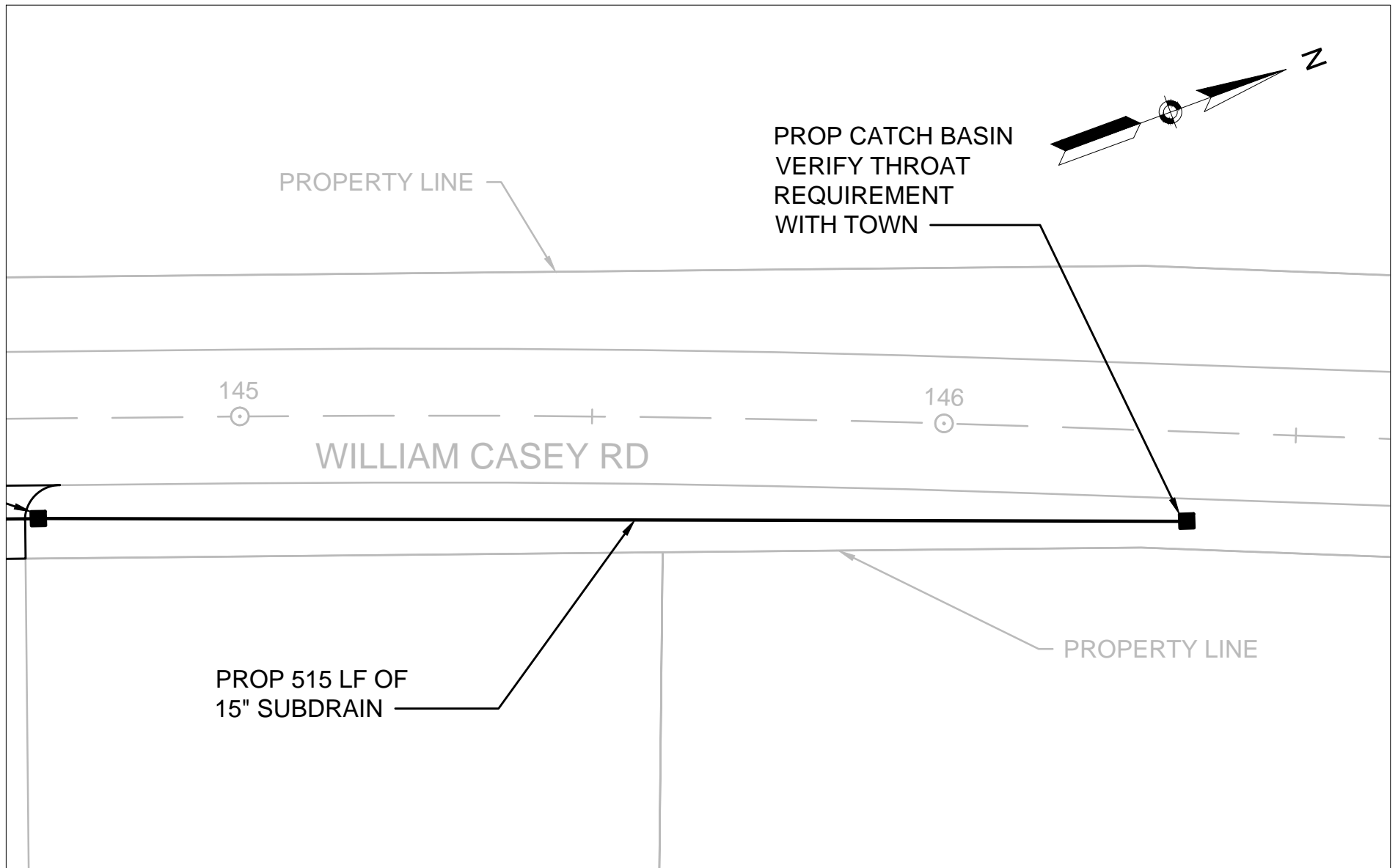


TOWN OF SPENCER  
WILLIAM CASEY RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

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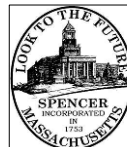
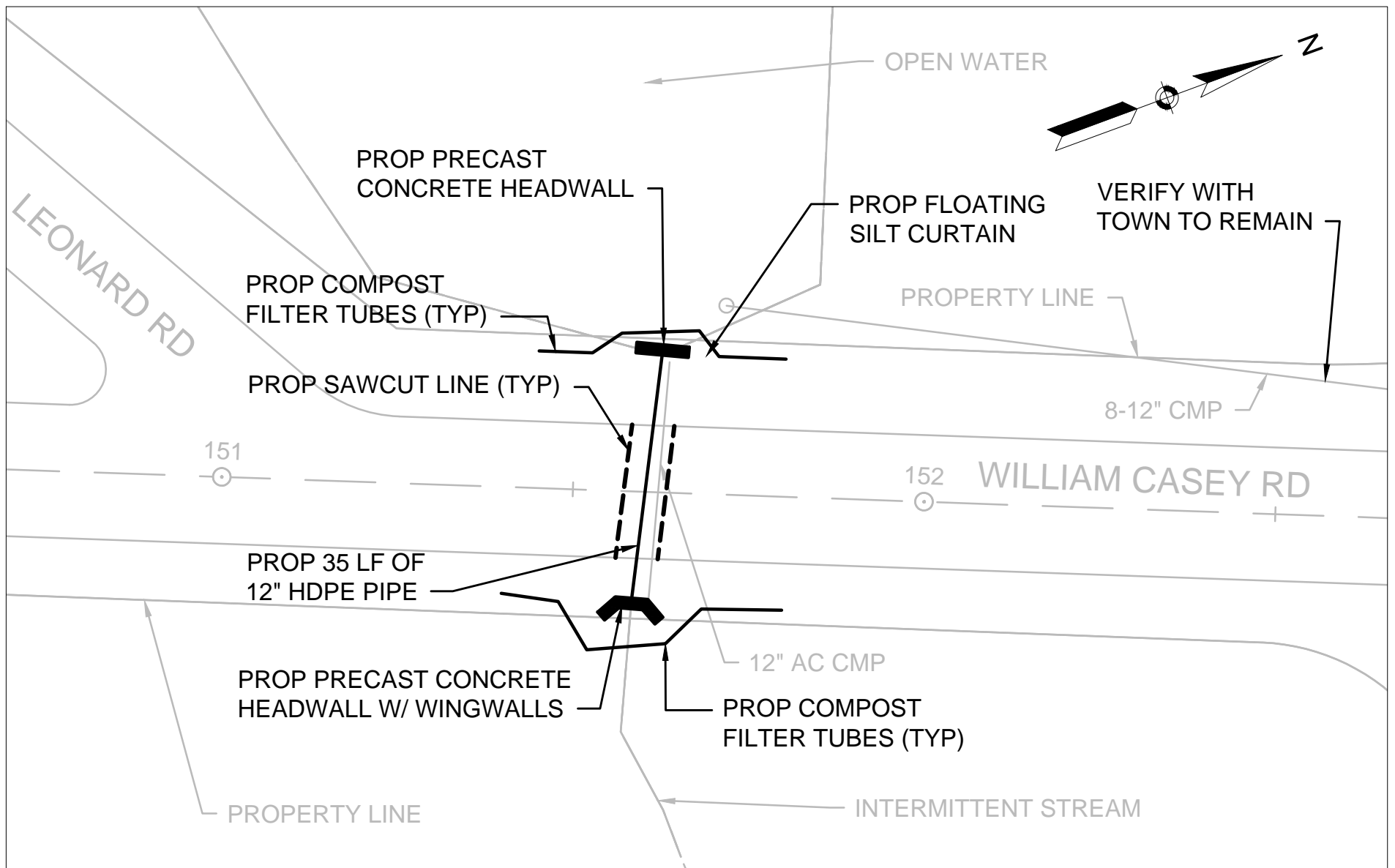


TOWN OF SPENCER  
 WILLIAM CASEY RD  
 PROPOSED DRAINAGE IMPROVEMENTS  
 FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

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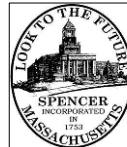
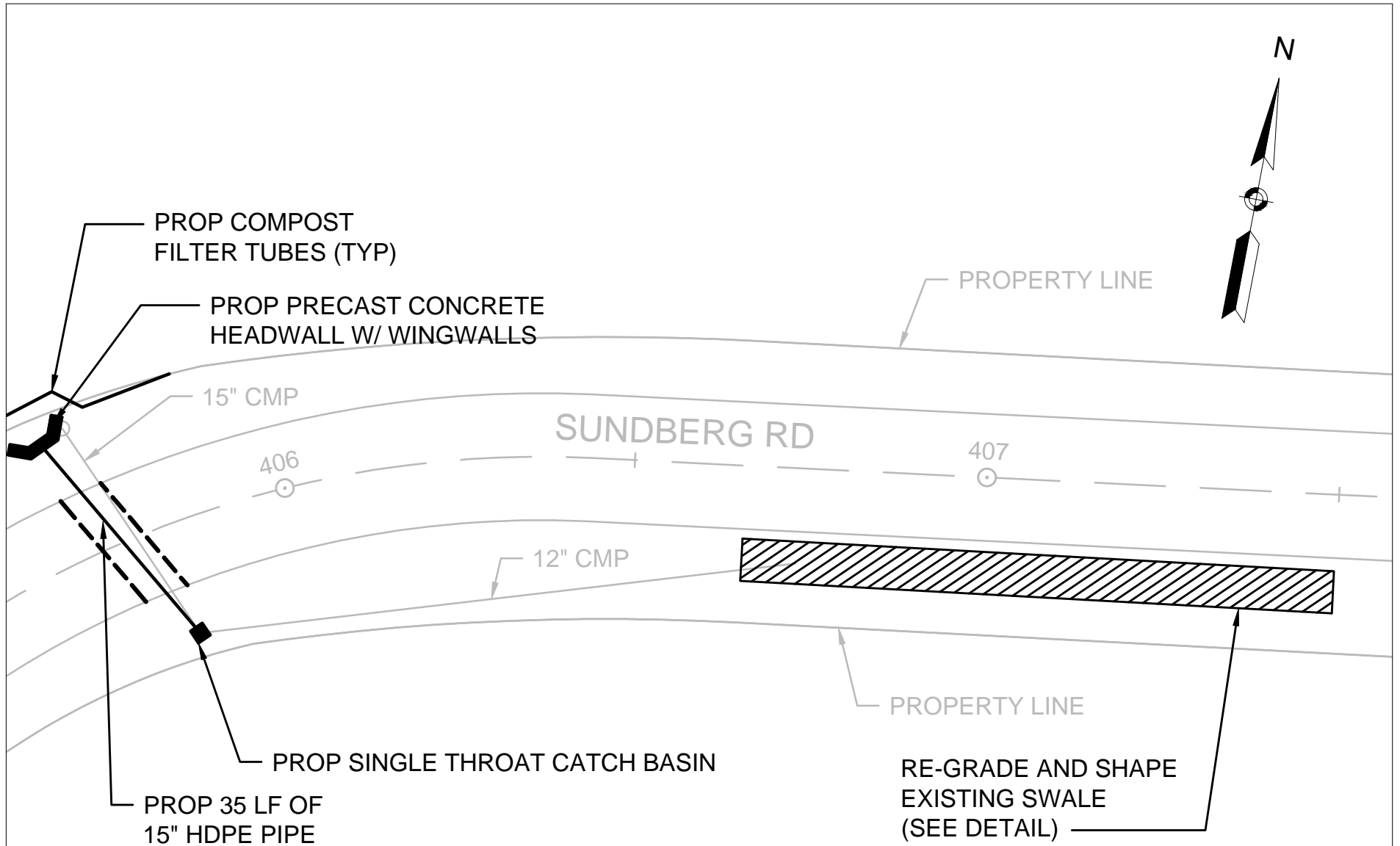


TOWN OF SPENCER  
WILLIAM CASEY RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

March 14, 2018

SCALE 1"=20'

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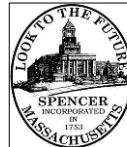
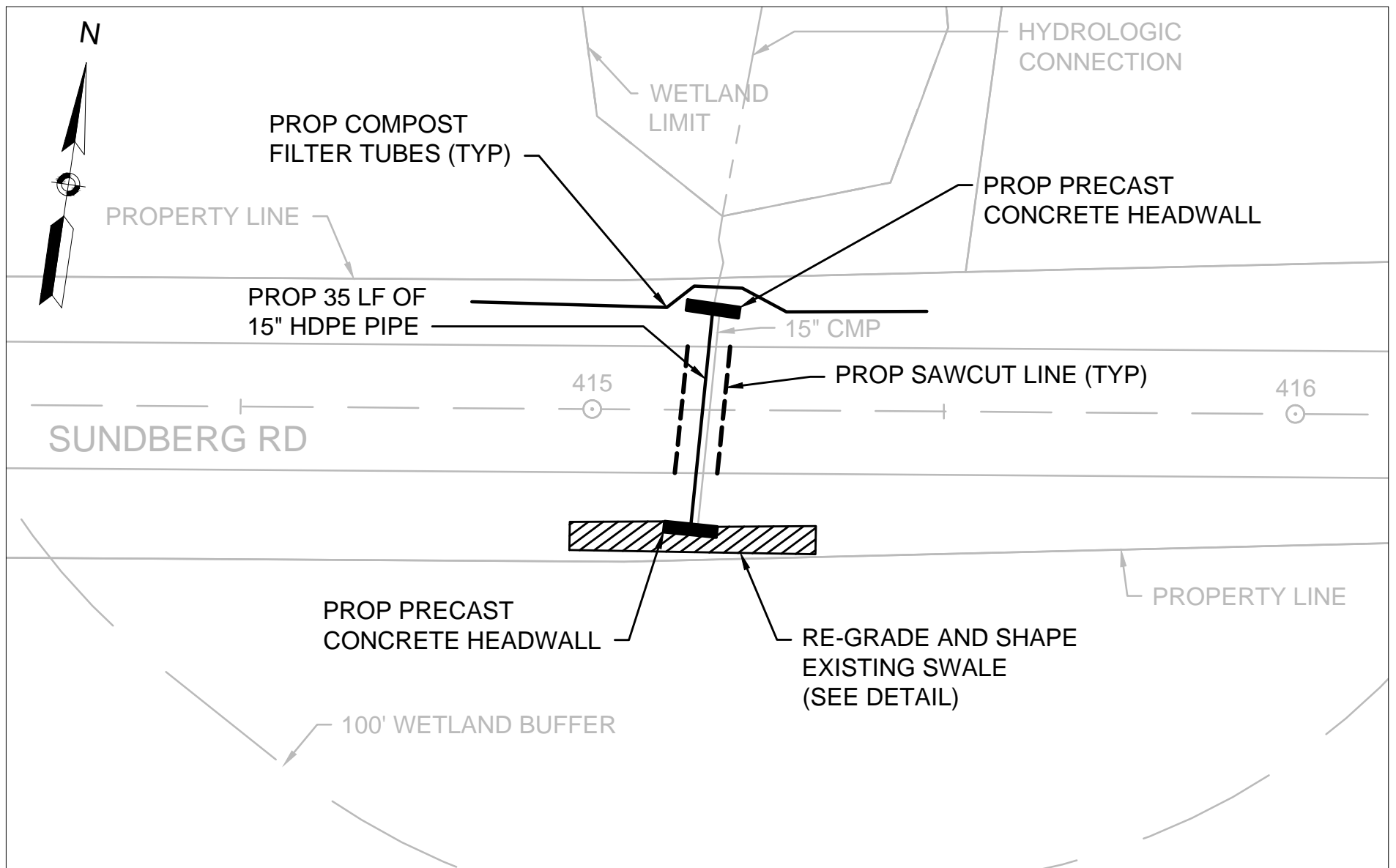


TOWN OF SPENCER  
 SUNDBERG RD  
 PROPOSED DRAINAGE IMPROVEMENTS  
 FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

SHEET 30 OF 47

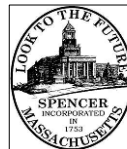
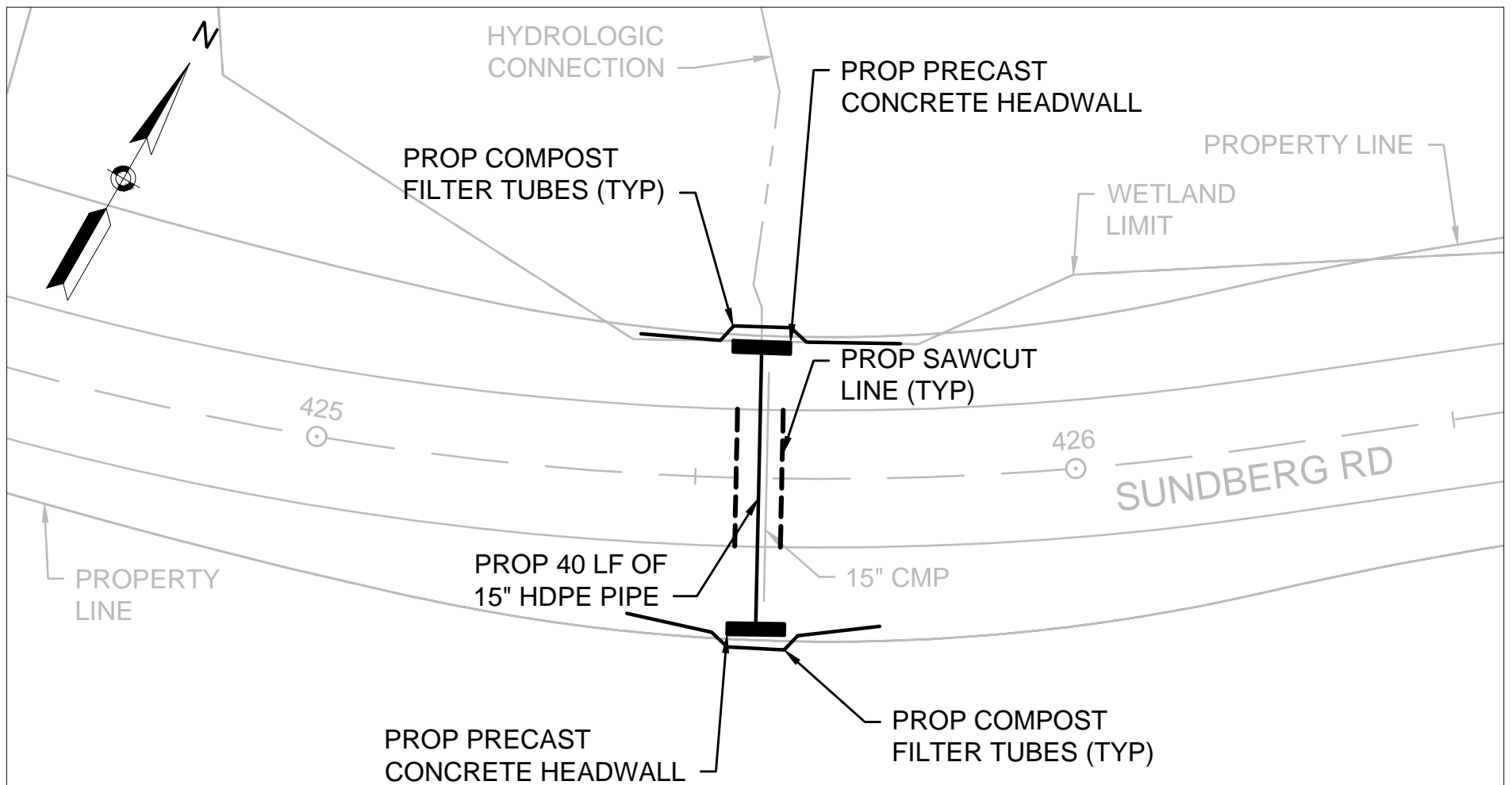


TOWN OF SPENCER  
SUNDBERG RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

March 14, 2018

SCALE 1"=20'

SHEET 31 OF 47



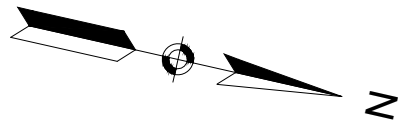
TOWN OF SPENCER  
 SUNDBERG RD  
 PROPOSED DRAINAGE IMPROVEMENTS  
 FUTURE SHIM & RUBBER CHIP SEAL

March 14, 2018

SCALE 1"=20'

SHEET 32 OF 47





PROP PRECAST  
CONCRETE  
HEADWALL W/ WINGWALLS

PROP COMPOST  
FILTER TUBES (TYP)

PROPERTY LINE

PROP 32 LF OF  
18" HDPE PIPE

PROP SAWCUT LINE (TYP)

18" CMP

PROP 125 LF OF  
15" HDPE PIPE

231

EAST CHARLTON RD

232

EXISTING DRAIN  
PIPE

PROP PRECAST  
CONCRETE HEADWALL

ALL EXISTING PIPE SHALL  
BE REMOVED OR ABANDONED  
PER SPEC

PROP COMPOST  
FILTER TUBES (TYP)

PROPERTY LINE

100' WETLAND  
BUFFER

INTERMITTENT STREAM

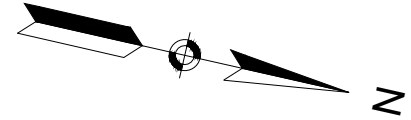
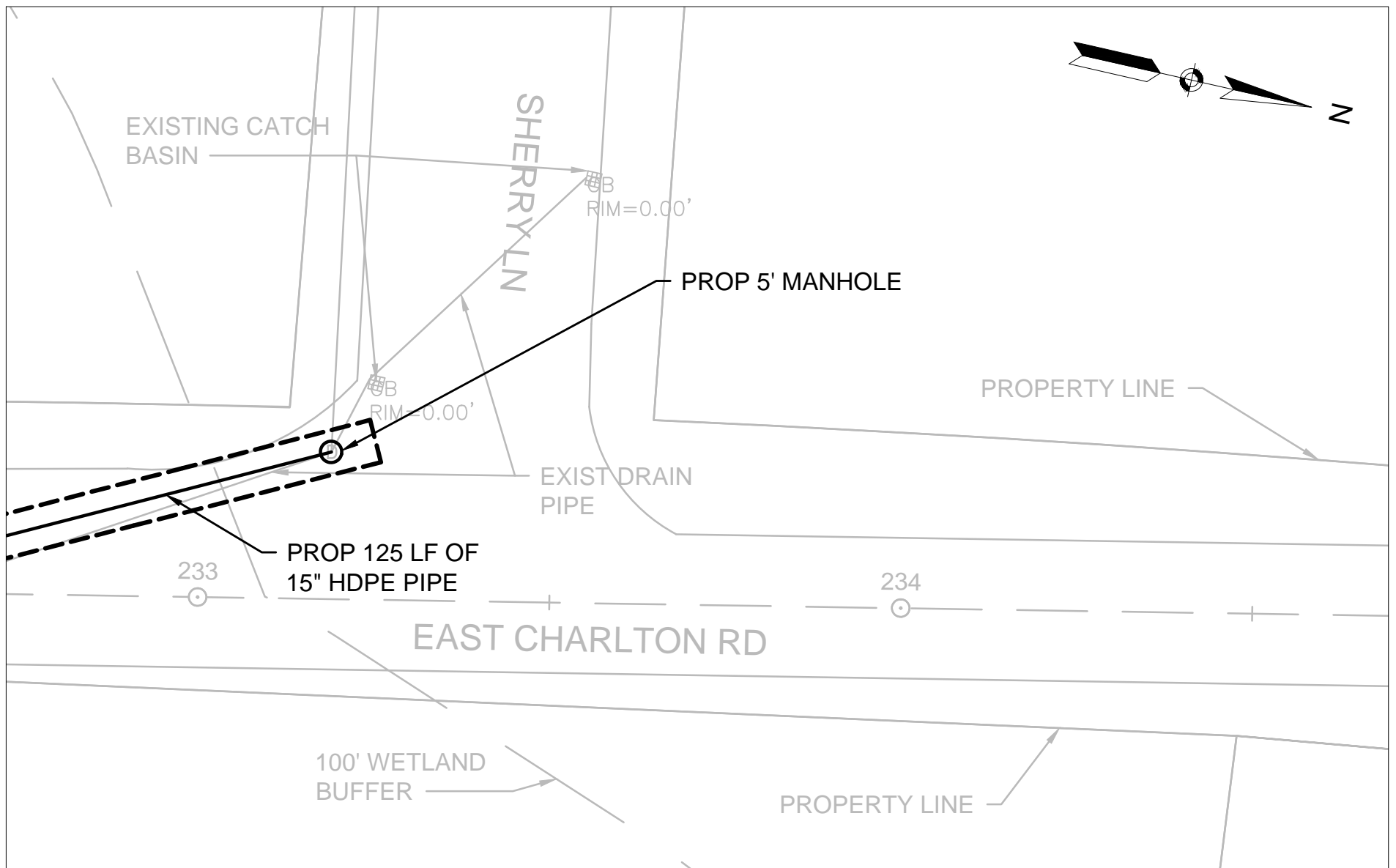


TOWN OF SPENCER  
EAST CHARLTON RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

March 14, 2018

SCALE 1"=20'

SHEET 33 OF 47

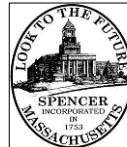
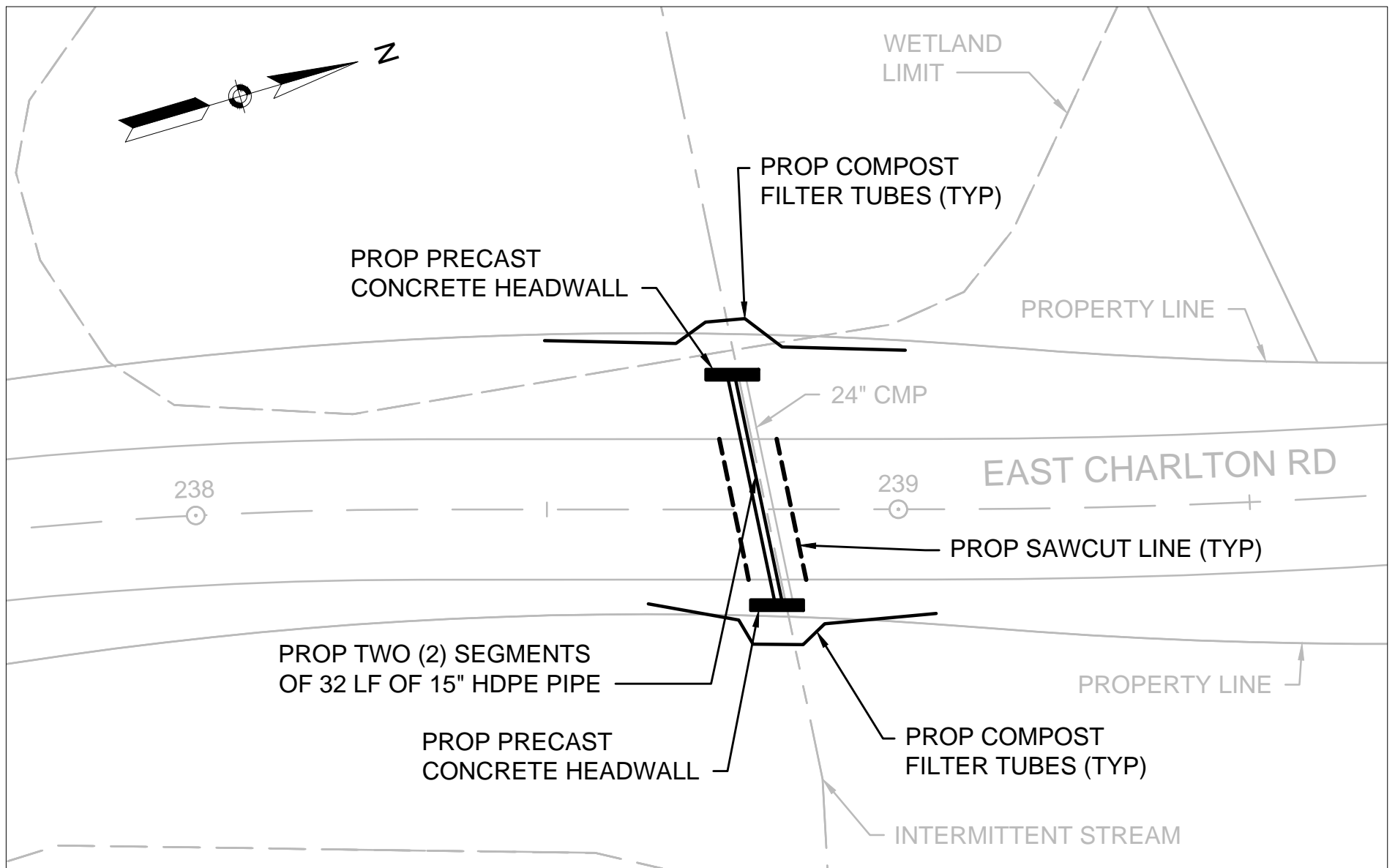


TOWN OF SPENCER  
EAST CHARLTON RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

March 14, 2018

SCALE 1"=20'

SHEET 34 OF 47

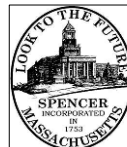
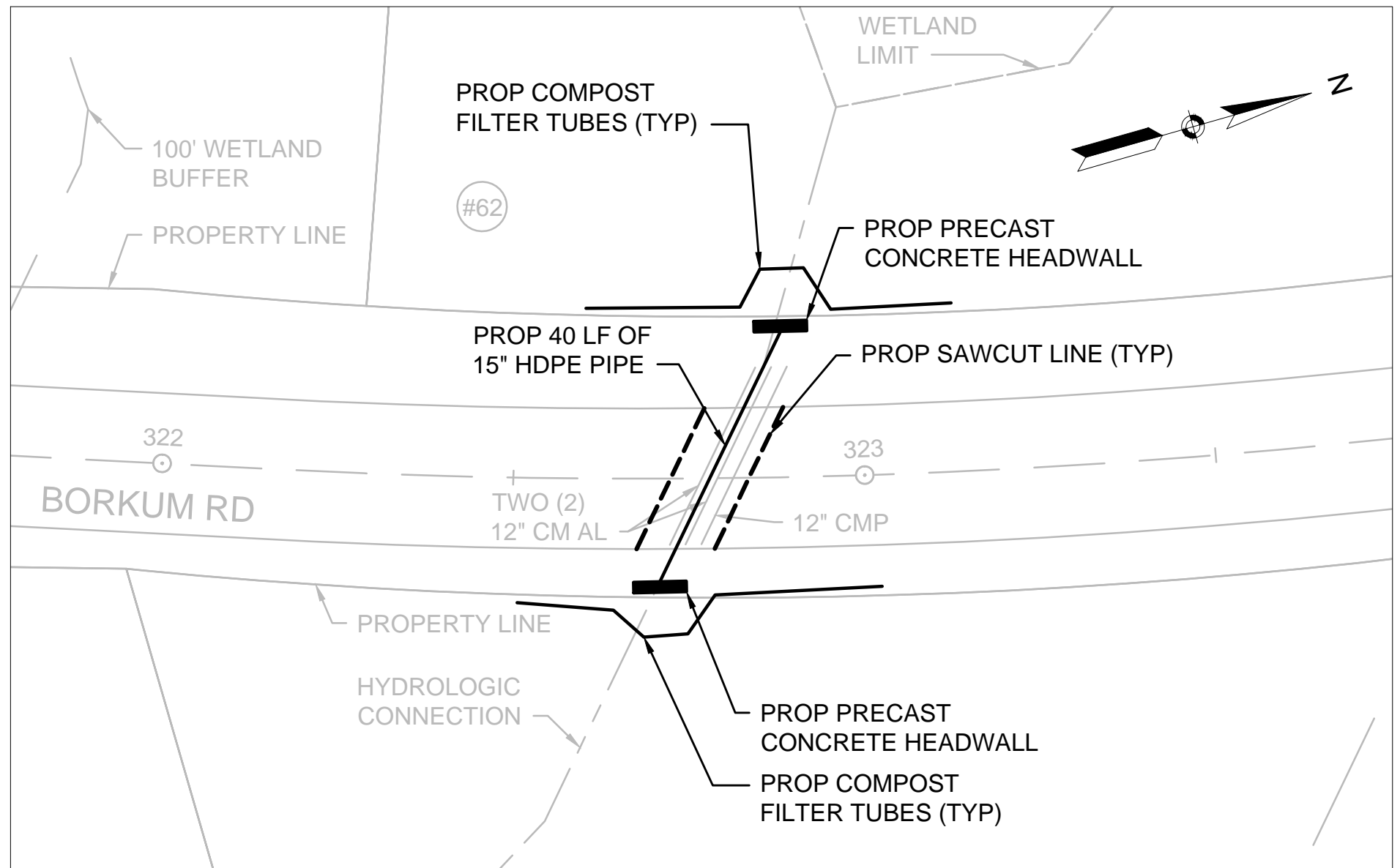


TOWN OF SPENCER  
EAST CHARLTON RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

SHEET 35 OF 47



TOWN OF SPENCER  
BORKUM RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

SHEET 36 OF 47



OPEN WATER  
LIMIT

PROP PRECAST  
CONCRETE HEADWALL

PROP FLOATING  
SILT CURTAIN

PROPERTY LINE

337

PROP 35 LF OF  
12" HDPE PIPE

PROP SAWCUT  
LINE (TYP)

338

BORKUM RD

12" CMP

PROP PRECAST  
CONCRETE HEADWALL

PROPERTY LINE

PROP COMPOST  
FILTER TUBES (TYP)

HYDROLOGIC  
CONNECTION

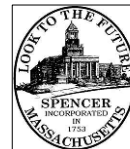
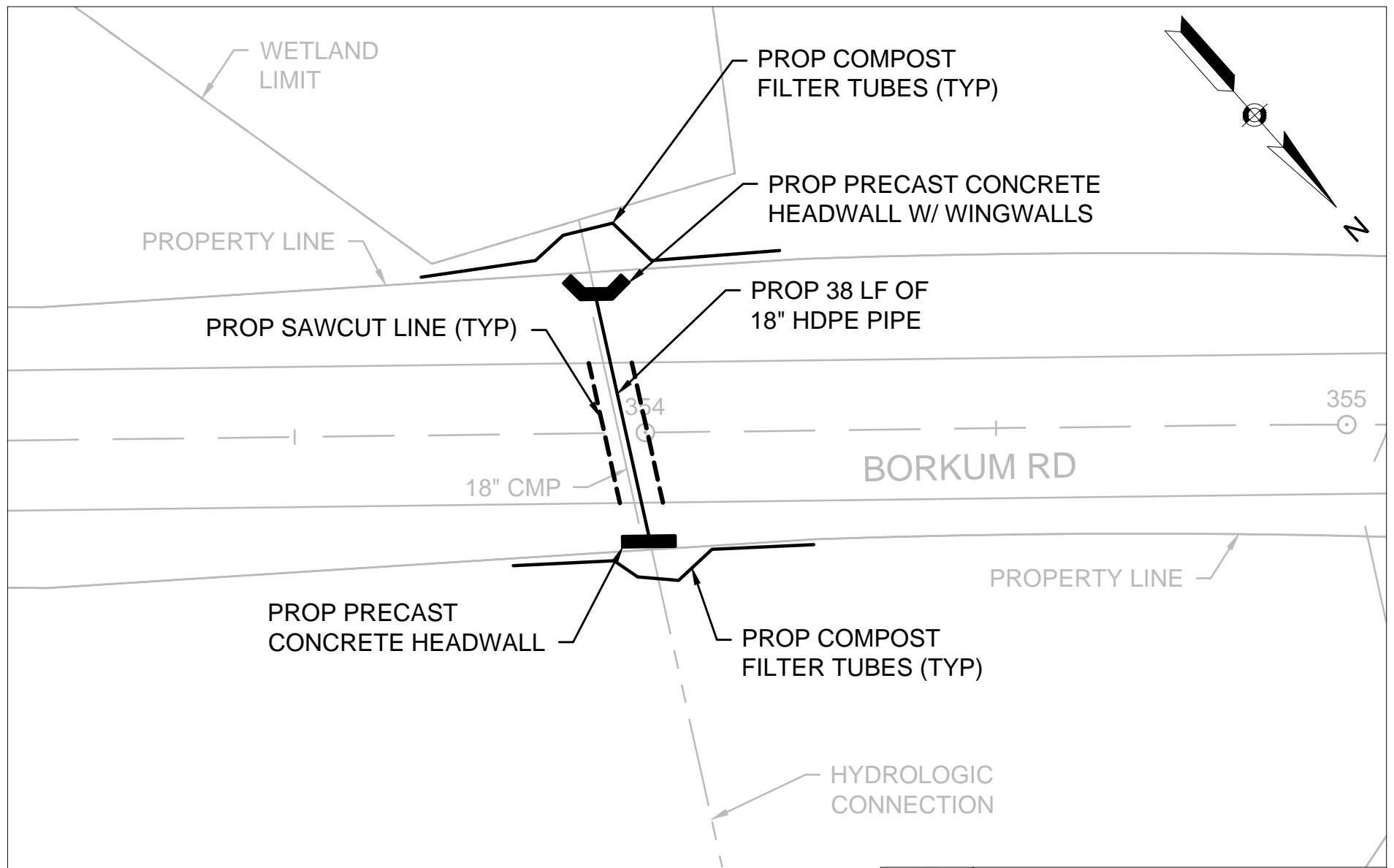


TOWN OF SPENCER  
BORKUM RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

SHEET 37 OF 47

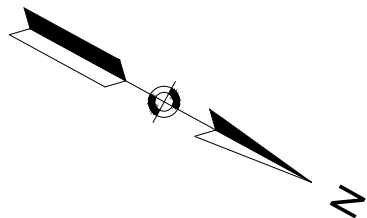


TOWN OF SPENCER  
BORKUM RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

SHEET 38 OF 47



PROPERTY LINE

370

BORKUM RD

371

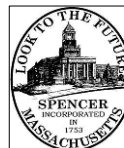
12" CMP

PROPERTY LINE

PROP CATCH BASIN  
VERIFY THROAT  
REQUIREMENT WITH TOWN

PROP 895 LF  
OF 15" SUBDRAIN

PROP CATCH BASIN  
VERIFY THROAT  
REQUIREMENT WITH TOWN



TOWN OF SPENCER  
BORKUM RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

SHEET 39 OF 47

PROPERTY LINE

12" CMP

372

BORKUM RD

373

PROPERTY LINE

PROP 895 LF  
OF 15" SUBDRAIN



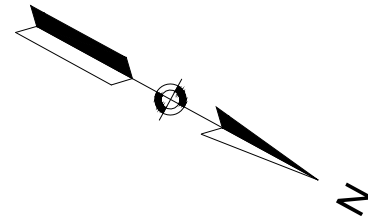
TOWN OF SPENCER  
BORKUM RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

SHEET 40 OF 47





PROPERTY LINE

12" CMP

374

375

BORKUM RD

PROPERTY LINE

PROP 895 LF  
OF 15" SUBDRAIN

PROP CATCH BASIN  
VERIFY THROAT  
REQUIREMENT WITH TOWN

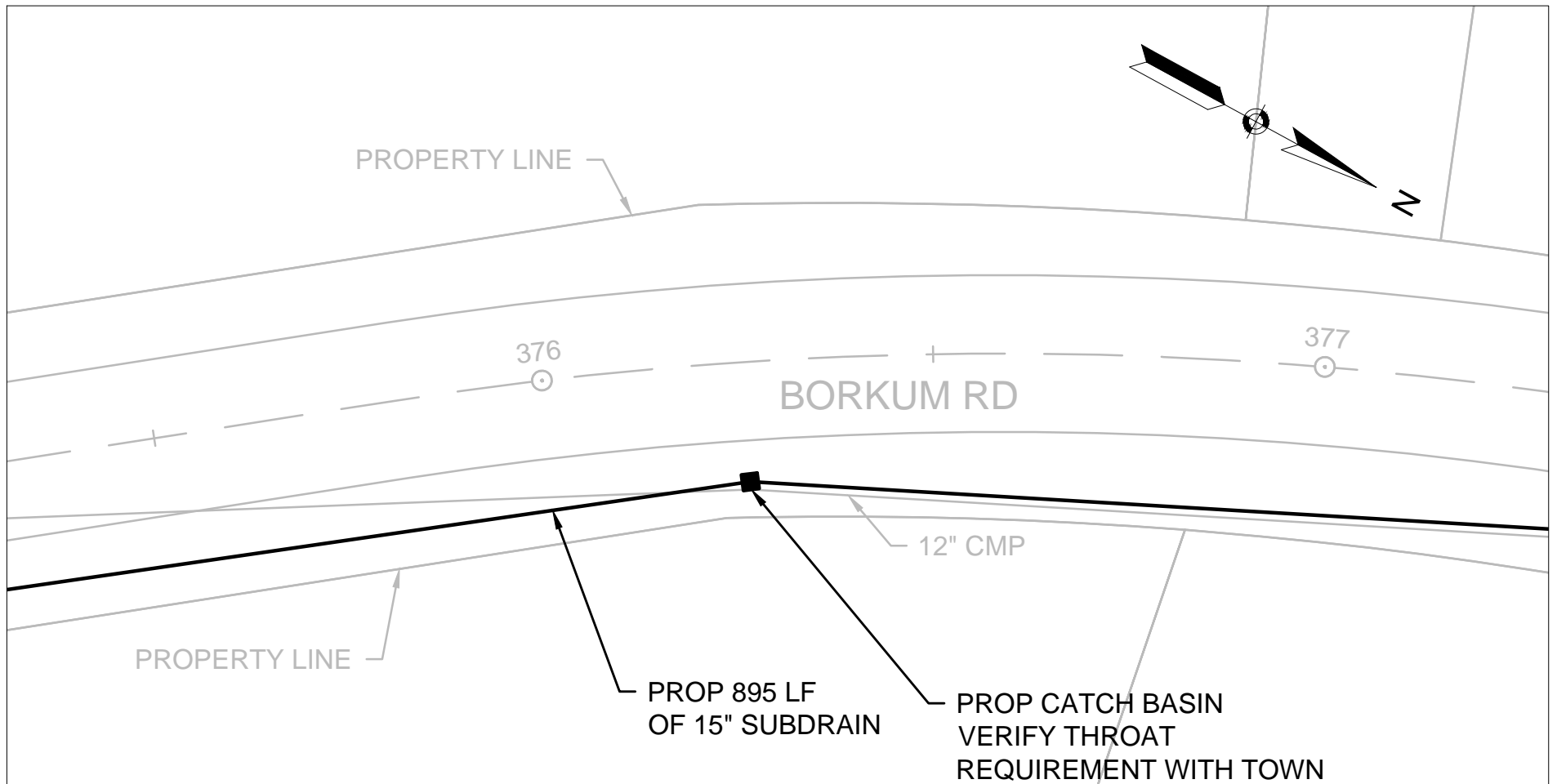


TOWN OF SPENCER  
BORKUM RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

SHEET 41 OF 47

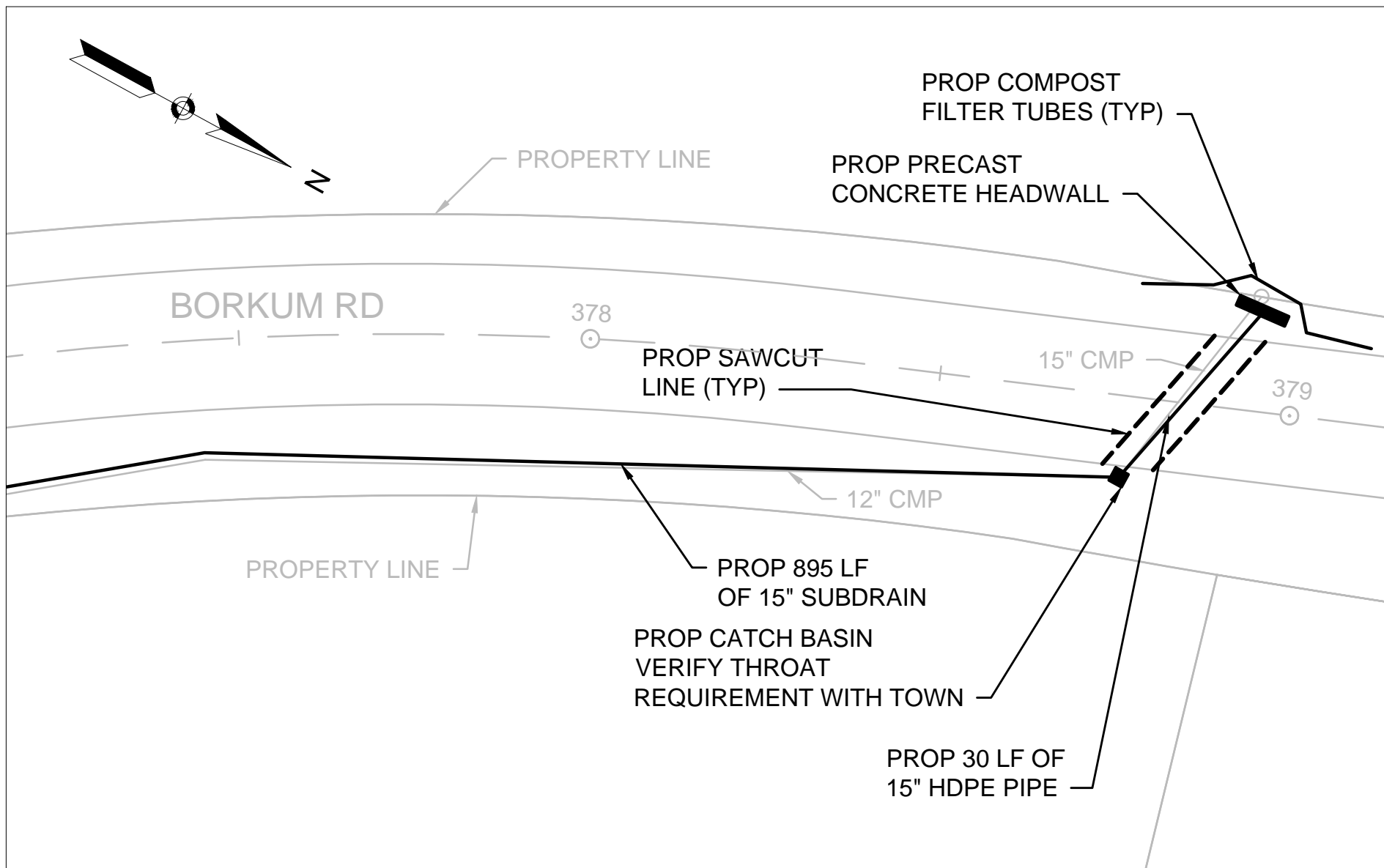


TOWN OF SPENCER  
BORKUM RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE SHIM & RUBBER CHIP SEAL

March 14, 2018

SCALE 1"=20'

SHEET 42 OF 47

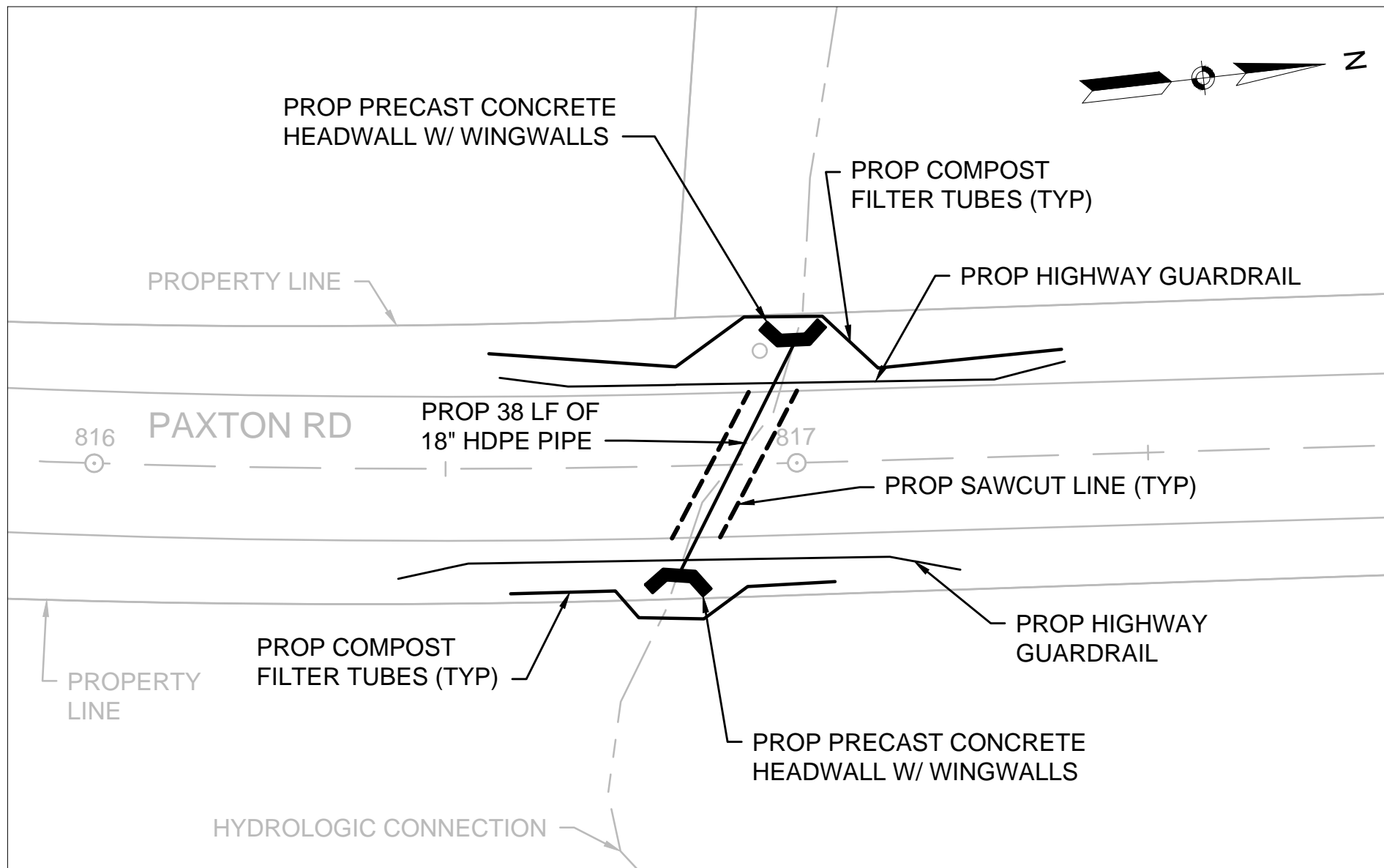


TOWN OF SPENCER  
 BORKUM RD  
 PROPOSED DRAINAGE IMPROVEMENTS  
 FUTURE SHIM & RUBBER CHIP SEAL

SCALE 1"=20'

March 14, 2018

SHEET 43 OF 47

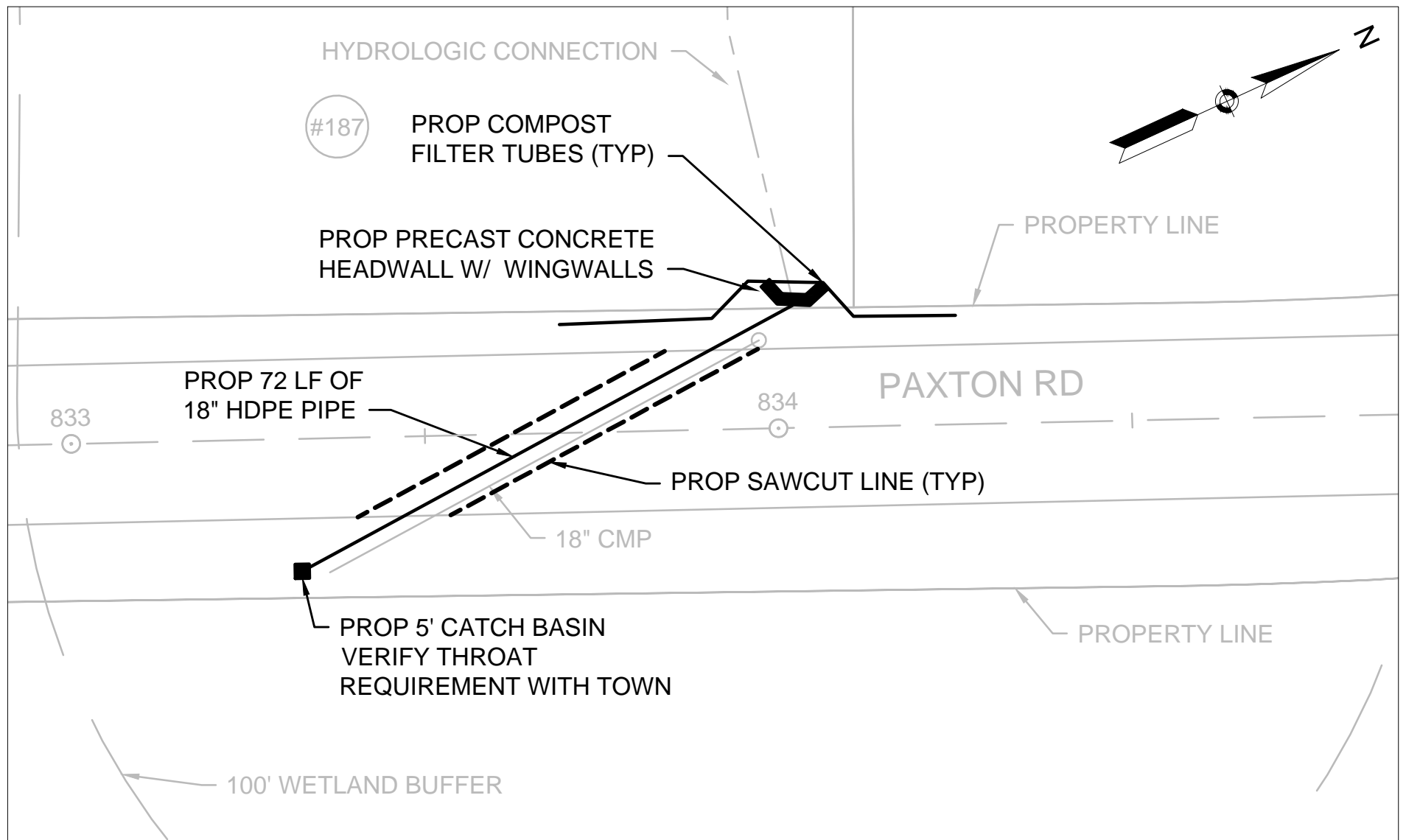


TOWN OF SPENCER  
PAXTON RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE PAVEMENT RECLAMATION

SCALE 1"=20'

March 14, 2018

SHEET 44 OF 47

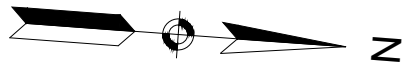


TOWN OF SPENCER  
PAXTON RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE PAVEMENT RECLAMATION

SCALE 1"=20'

March 14, 2018

SHEET 45 OF 47



100' WETLAND BUFFER

PROP COMPOST  
FILTER TUBES (TYP)

PROP PRECAST CONCRETE  
HEADWALL W/ WINGWALLS

PROP 34 LF OF  
18" HDPE PIPE

PROPERTY LINE

PROP SAWCUT LINE (TYP)

838

839

PAXTON RD

18" RCP

PROPERTY LINE

PROP 5' CATCH BASIN  
VERIFY INLET TYPE  
WITH TOWN

PROP RIPRAP SWALE (TYP)

PROP PAVED  
DRIVEWAY/SWALE

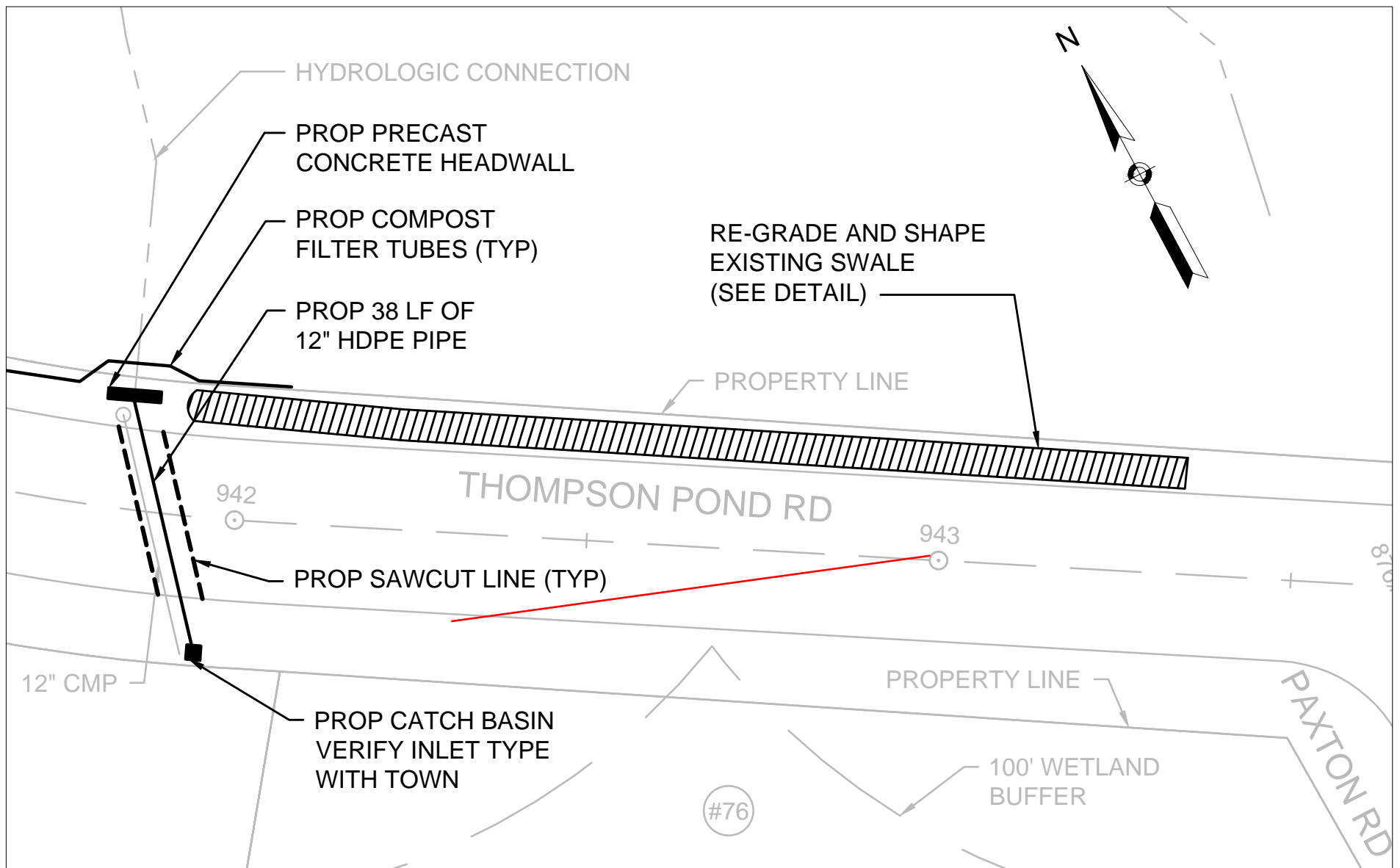


TOWN OF SPENCER  
PAXTON RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE PAVEMENT RECLAMATION

March 14, 2018

SCALE 1"=20'

SHEET 46 OF 47

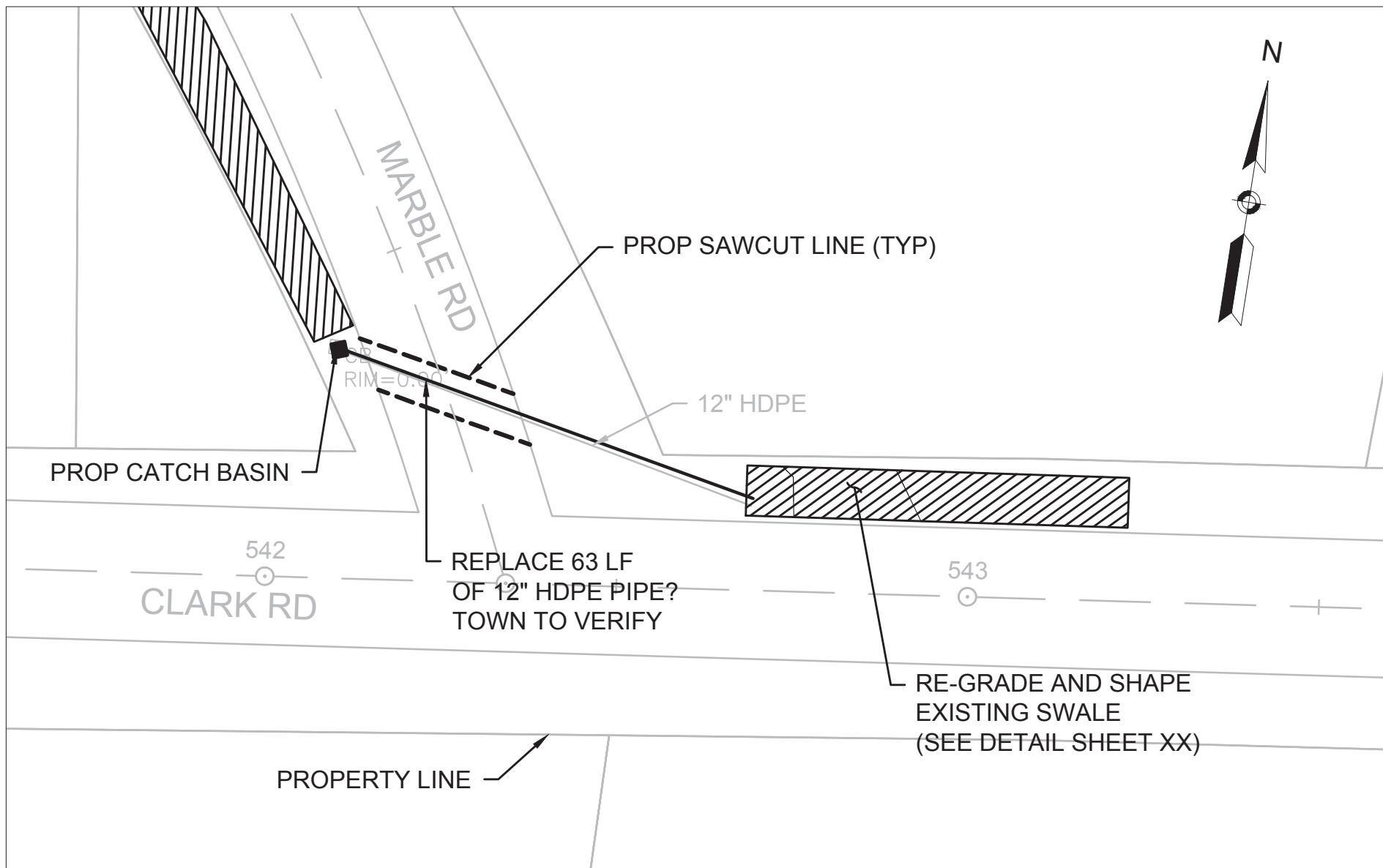


TOWN OF SPENCER  
THOMPSON POND RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE PAVEMENT RECLAMATION

SCALE 1"=20'

March 14, 2018

SHEET 47 OF 47

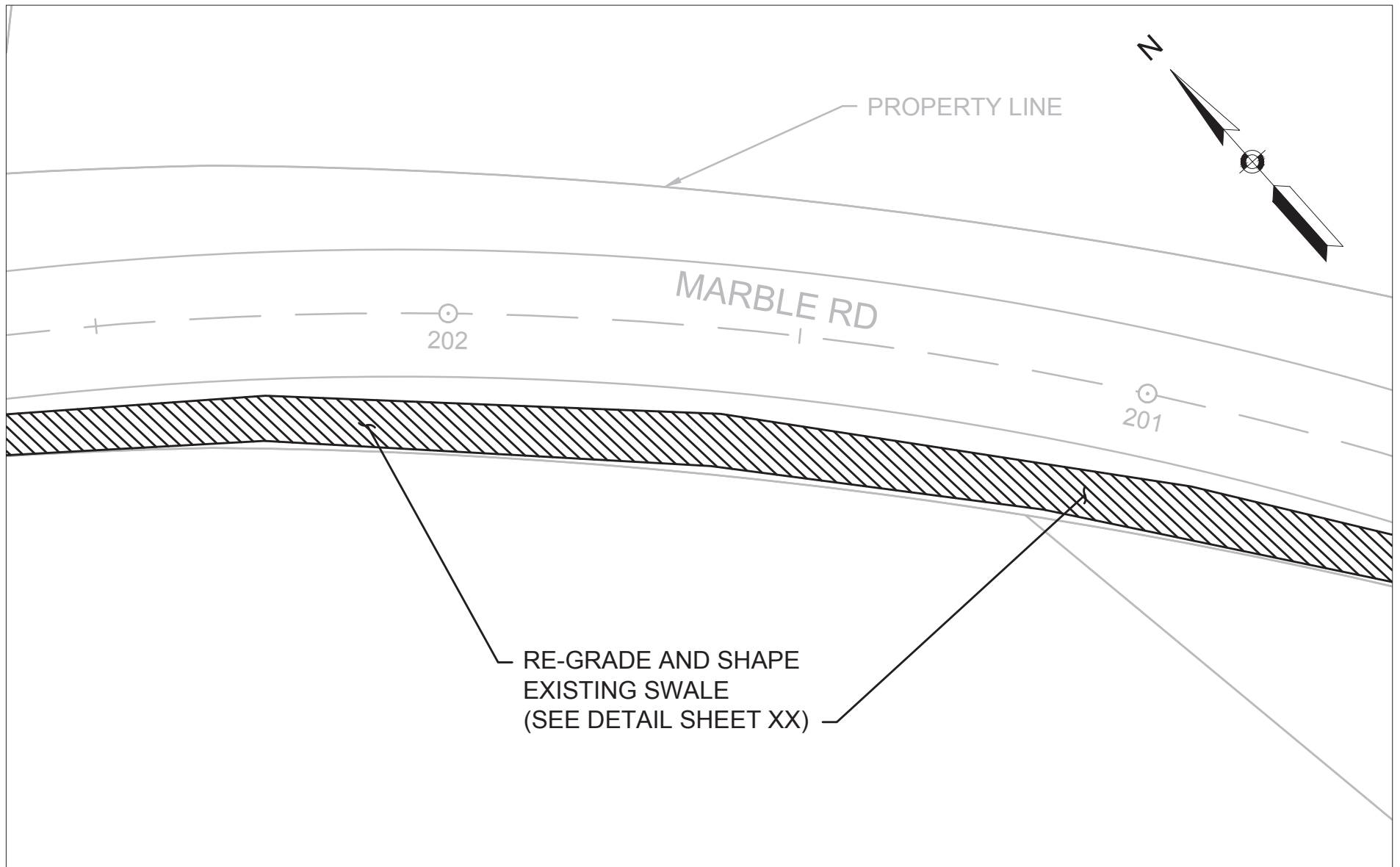


TOWN OF SPENCER  
MARBLE RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE PAVEMENT RECLAMATION

SCALE 1"=20'

SHEET 48 OF 90





TOWN OF SPENCER  
MARBLE RD  
PROPOSED DRAINAGE IMPROVEMENTS  
FUTURE PAVEMENT RECLAMATION

SCALE 1"=20'

SHEET 49 OF 90

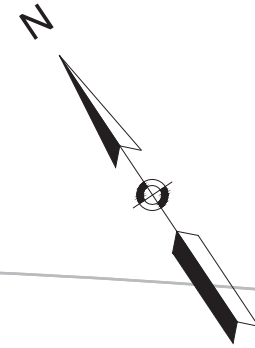
PROPERTY LINE

MARBLE RD

204

203

RE-GRADE AND SHAPE  
EXISTING SWALE  
(SEE DETAIL SHEET XX)



TOWN OF SPENCER  
MARBLE RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

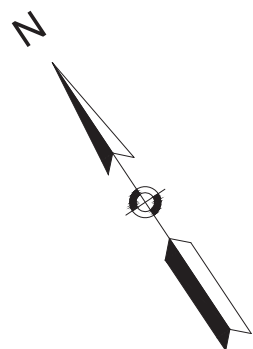
SHEET 50 OF 90

PROPERTY LINE

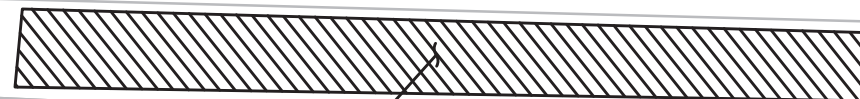
MARBLE RD

206

205



RE-GRADE AND SHAPE  
EXISTING SWALE  
(SEE DETAIL SHEET XX)



TOWN OF SPENCER  
MARBLE RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 51 OF 90

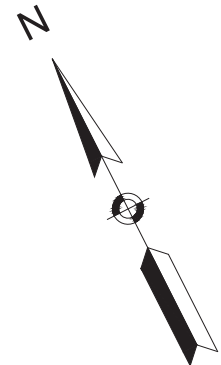
PROPERTY LINE

211

210

REPLACE EXISTING PAVED  
GUTTER (SEE DETAIL SHEET XX)

#34



TOWN OF SPENCER  
MARBLE RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

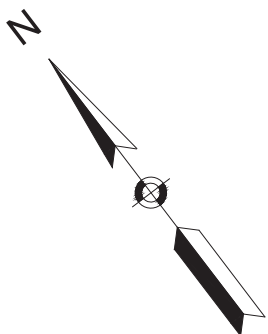
SHEET 52 OF 90

PROPERTY LINE

213

212

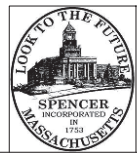
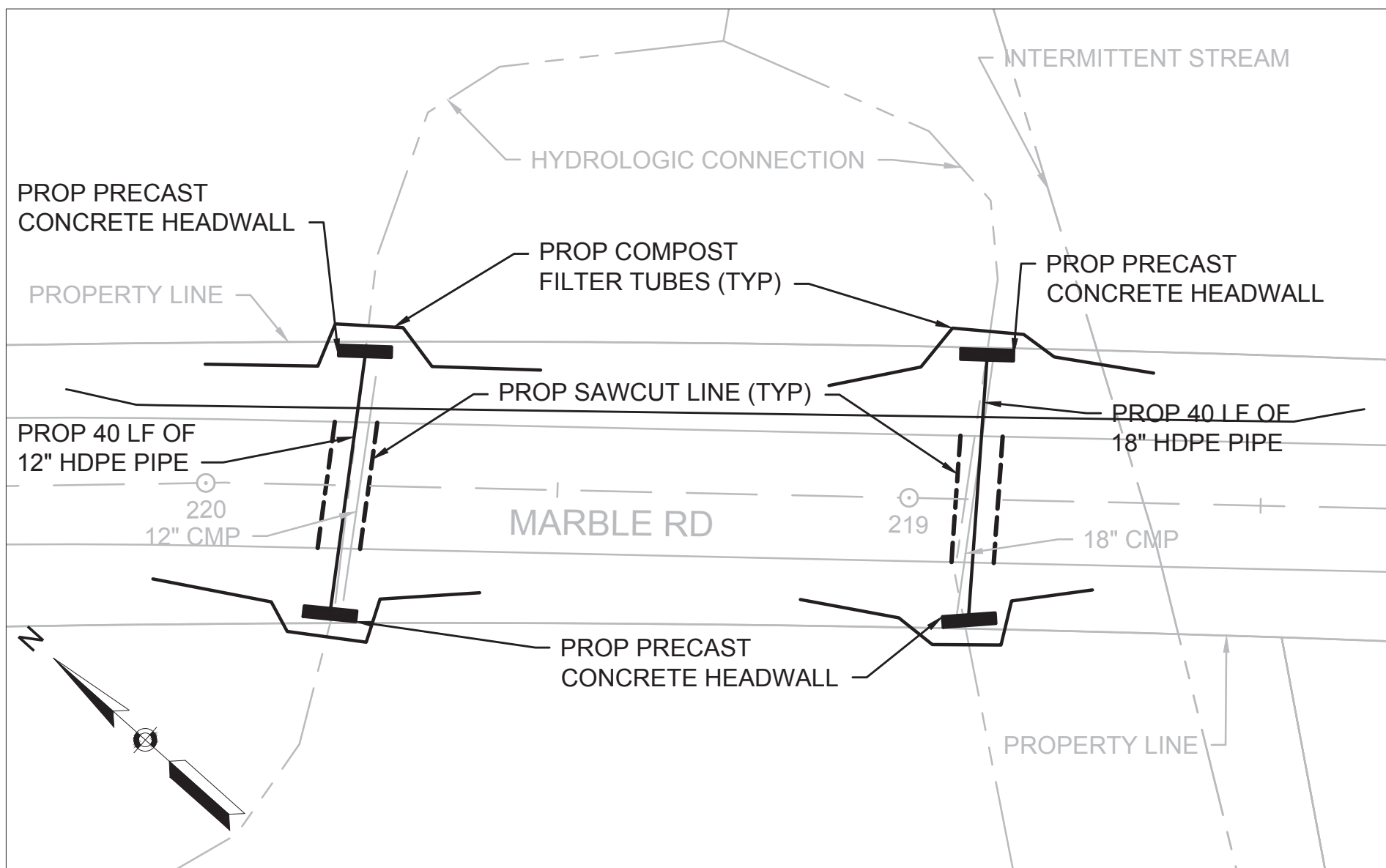
REPLACE EXISTING PAVED  
GUTTER (SEE DETAIL SHEET XX)



TOWN OF SPENCER  
MARBLE RD  
PROPOSED DRAINAGE IMPROVEMENTS

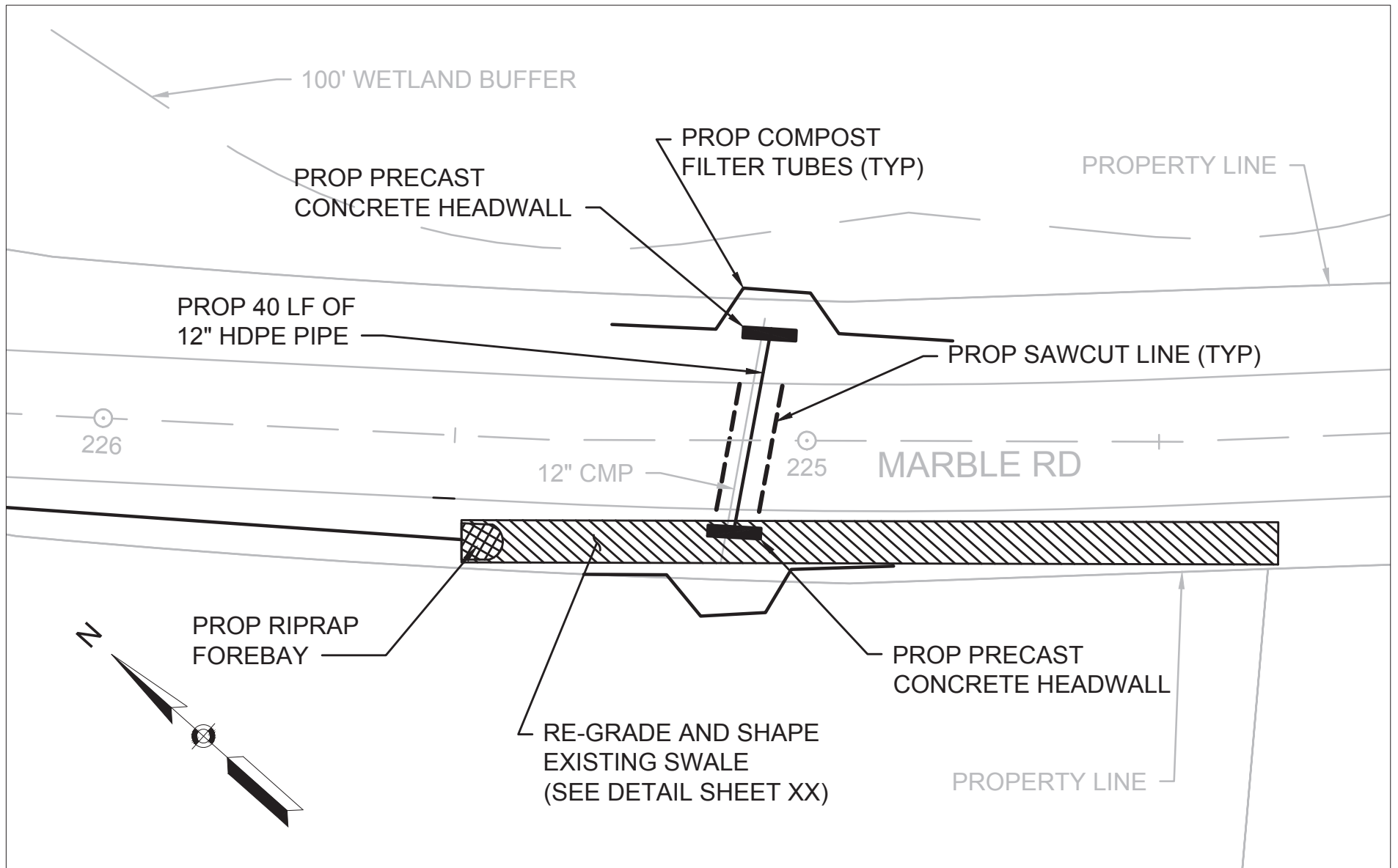
SCALE 1"=20'

SHEET 53 OF 90



TOWN OF SPENCER  
MARBLE RD  
PROPOSED DRAINAGE IMPROVEMENTS

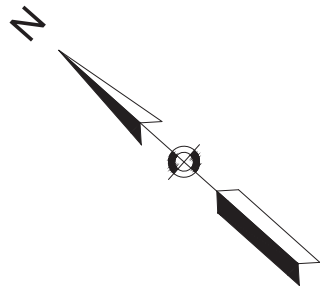
SCALE 1"=20'



TOWN OF SPENCER  
MARBLE RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 55 OF 90



MARBLE RD

PROPERTY LINE

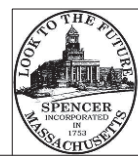
227

PROPERTY LINE

228

PROP 240 LF OF 12" SUBDRAIN

PROP CATCH BASIN



TOWN OF SPENCER  
MARBLE RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 56 OF 90



PROPERTY LINE

#5

PROPOSED CATCH BASIN

CB  
RIM=0.00'

205

206

PROPERTY LINE

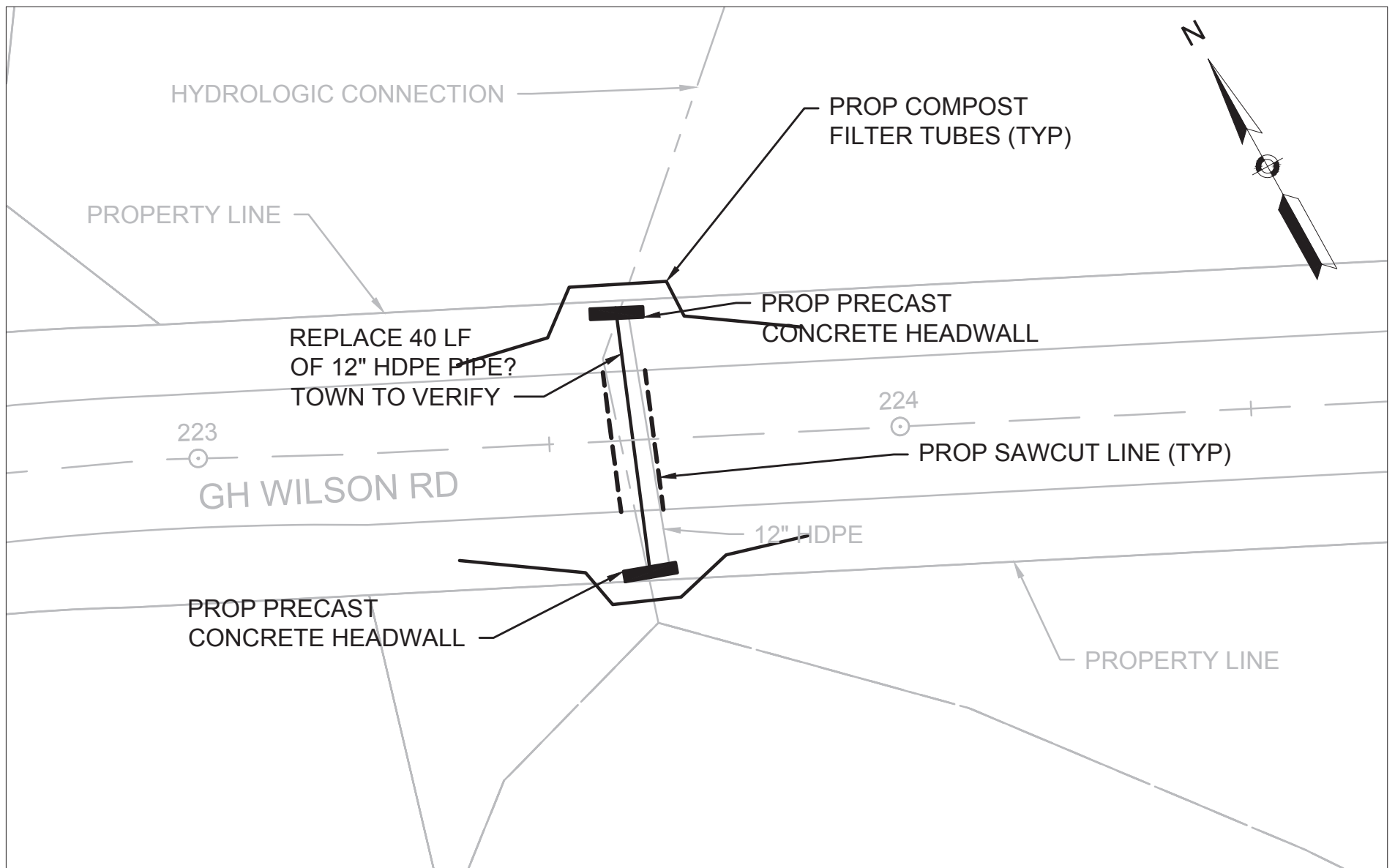
N



TOWN OF SPENCER  
MARBLE RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

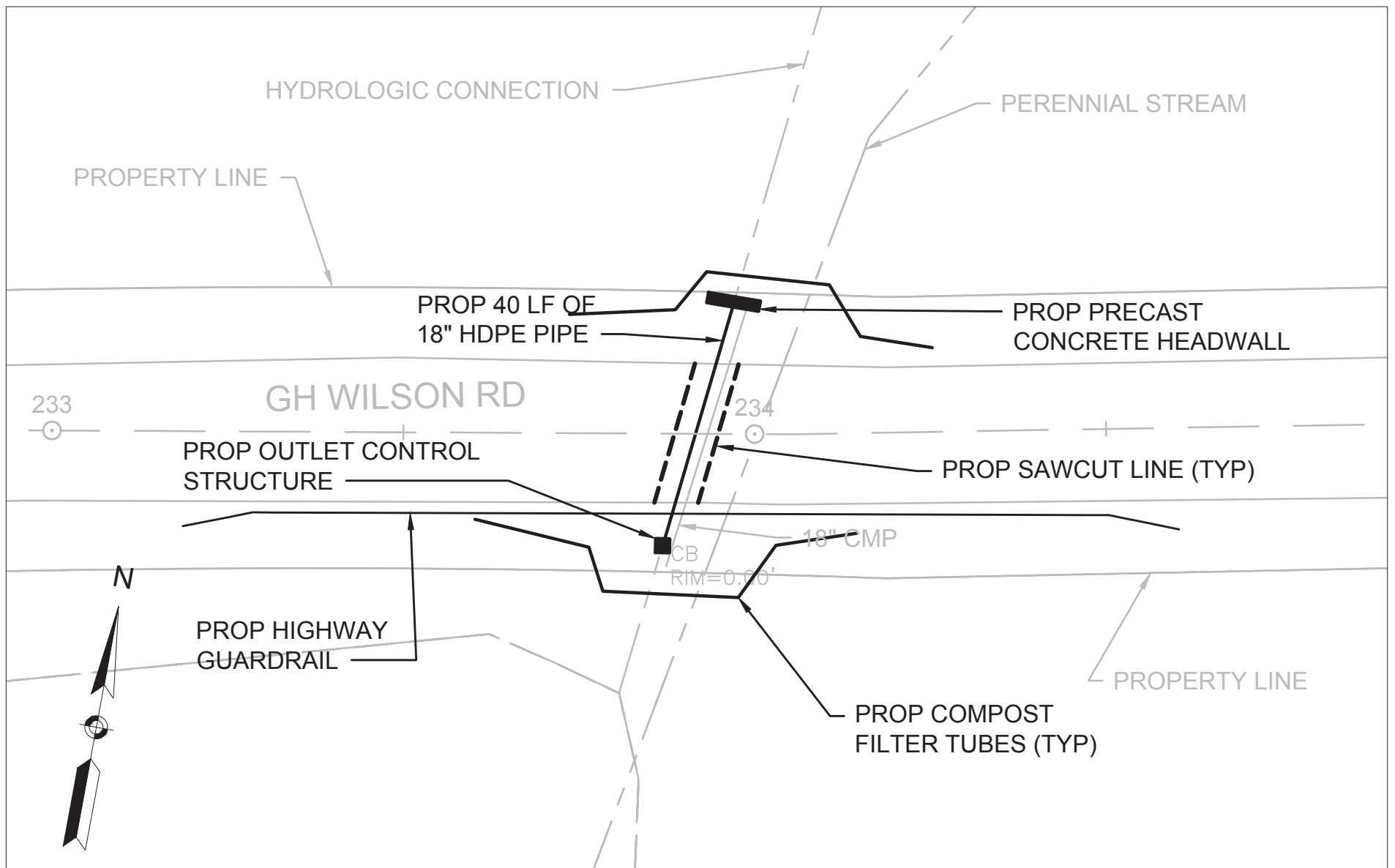
SHEET 57 OF 90



TOWN OF SPENCER  
MARBLE RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 58 OF 90



TOWN OF SPENCER  
GH WILSON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 59 OF 90

PROPERTY LINE

N

239

240

RE-GRADE AND SHAPE  
EXISTING SWALE  
(SEE DETAIL SHEET XX)

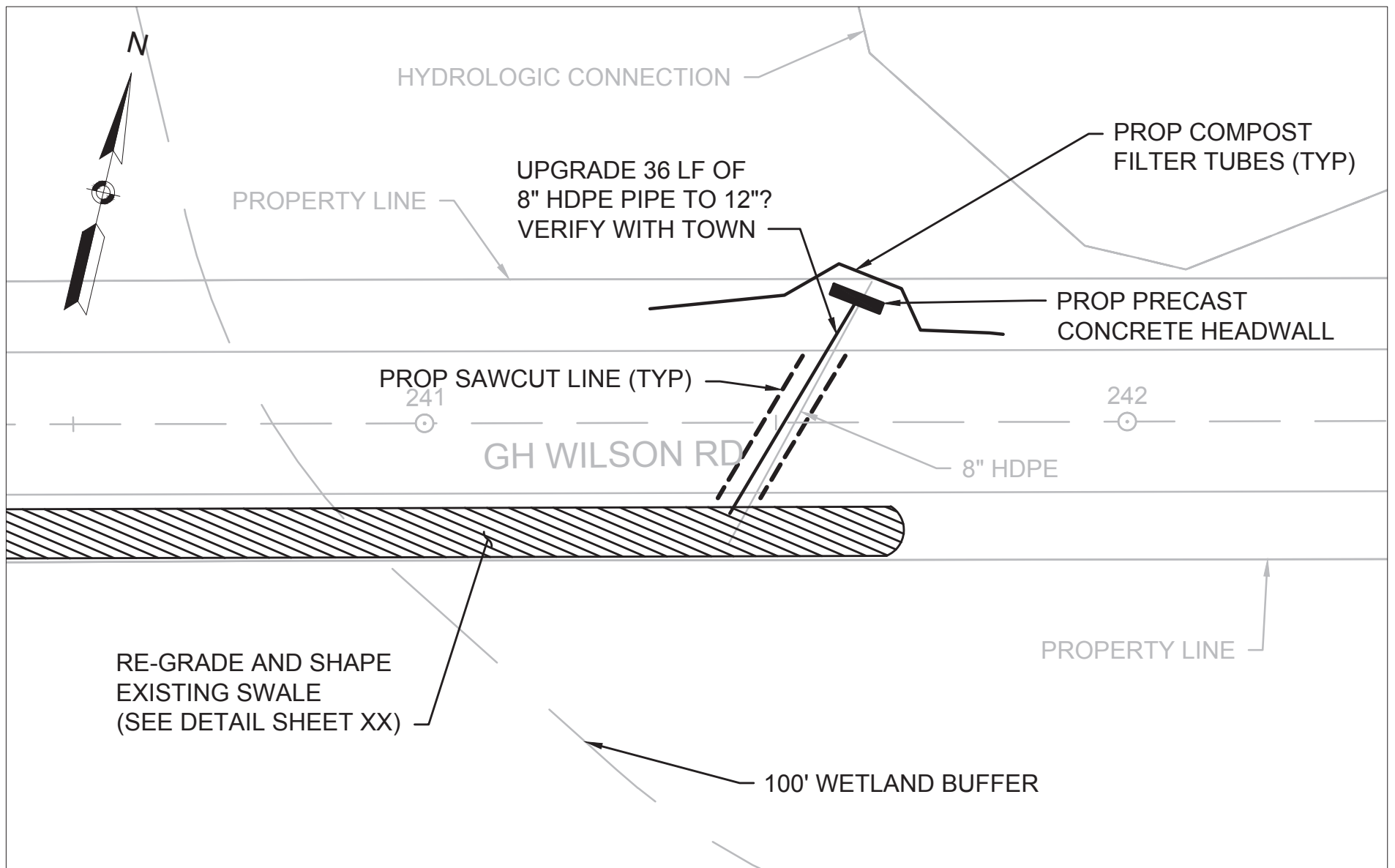
PROPERTY LINE



TOWN OF SPENCER  
GH WILSON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

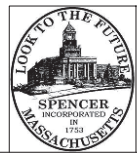
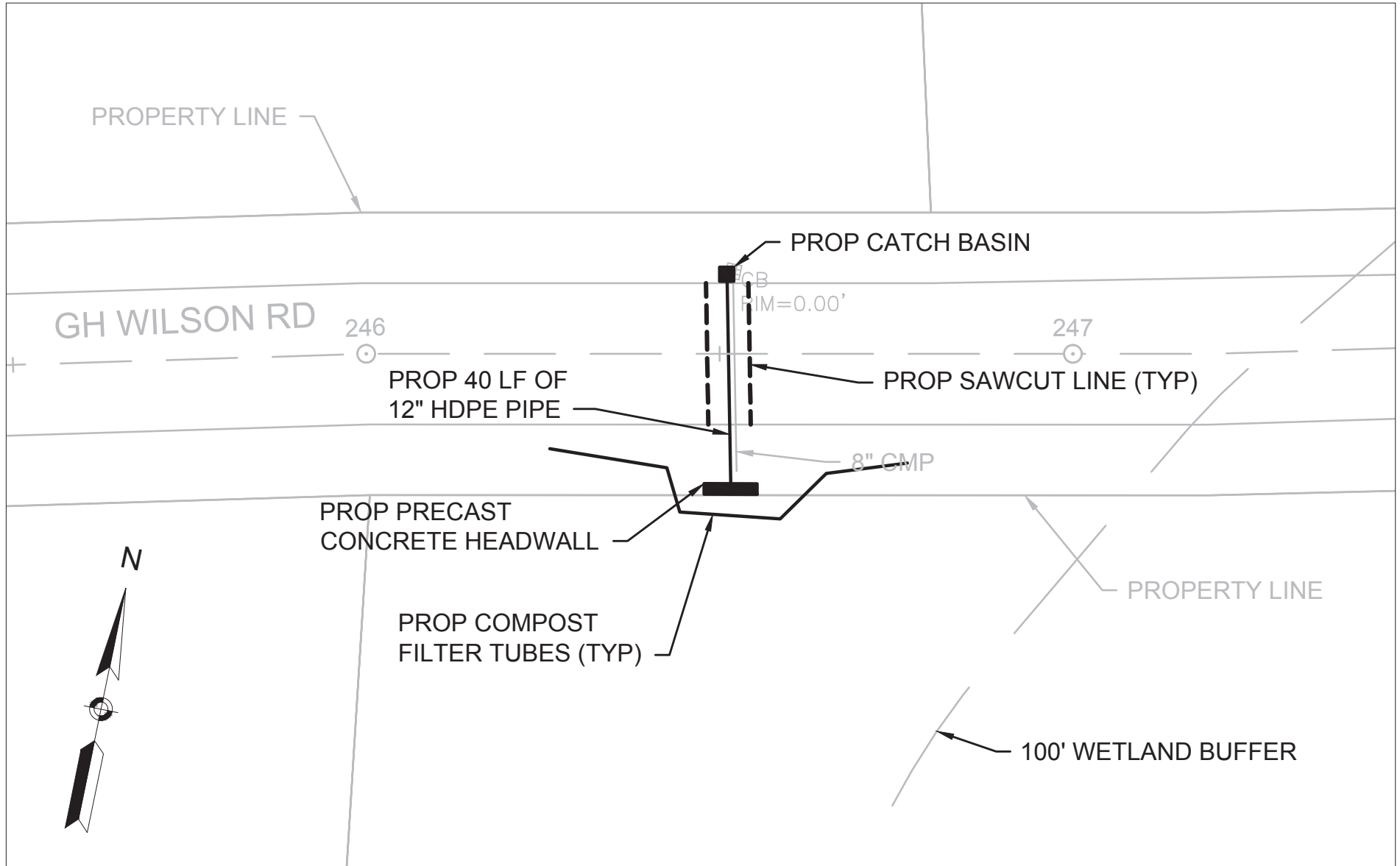
SHEET 60 OF 90



TOWN OF SPENCER  
 GH WILSON RD  
 PROPOSED DRAINAGE IMPROVEMENTS

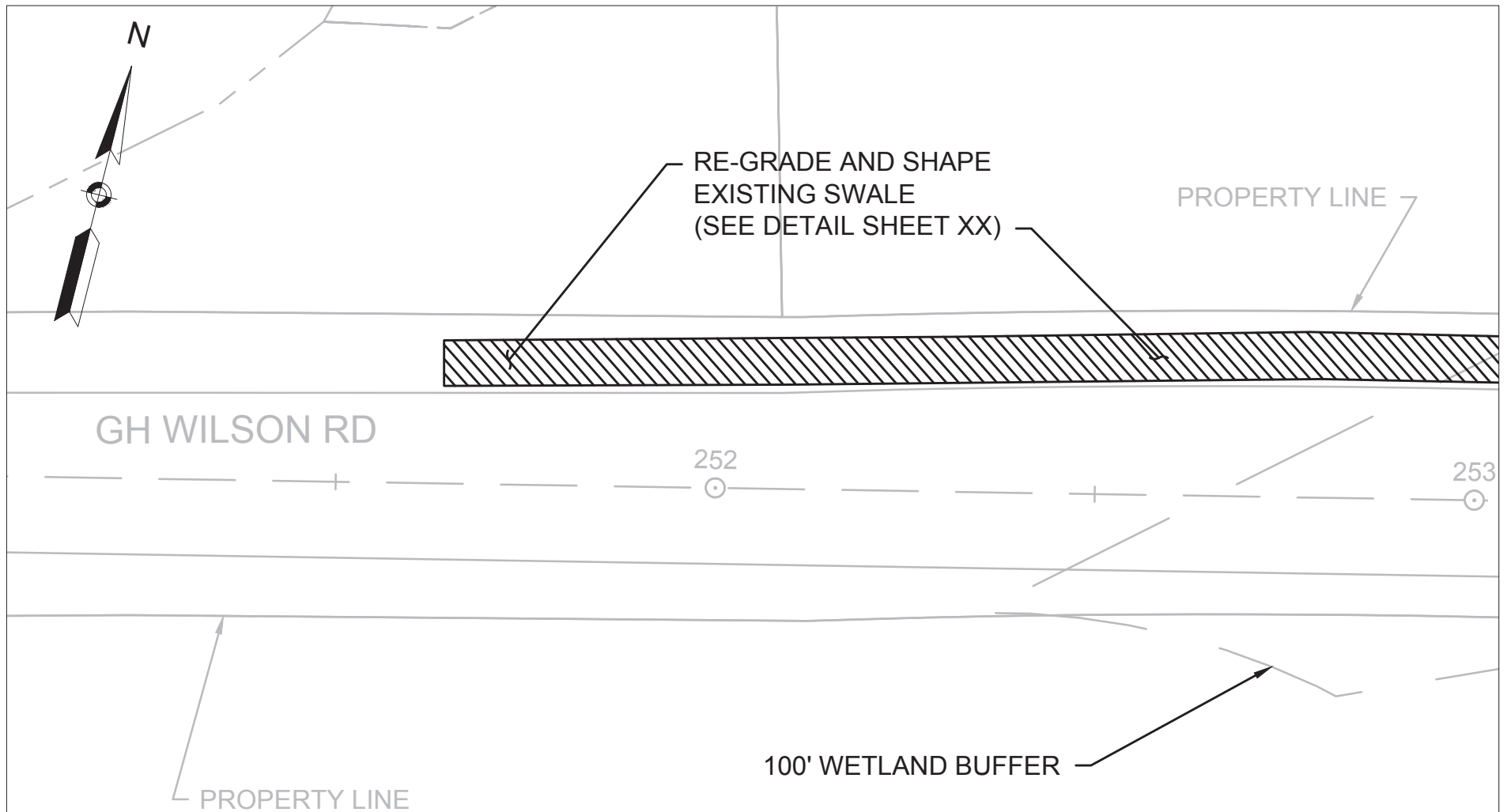
SCALE 1"=20'

SHEET 61 OF 90



TOWN OF SPENCER  
GH WILSON RD  
PROPOSED DRAINAGE IMPROVEMENTS

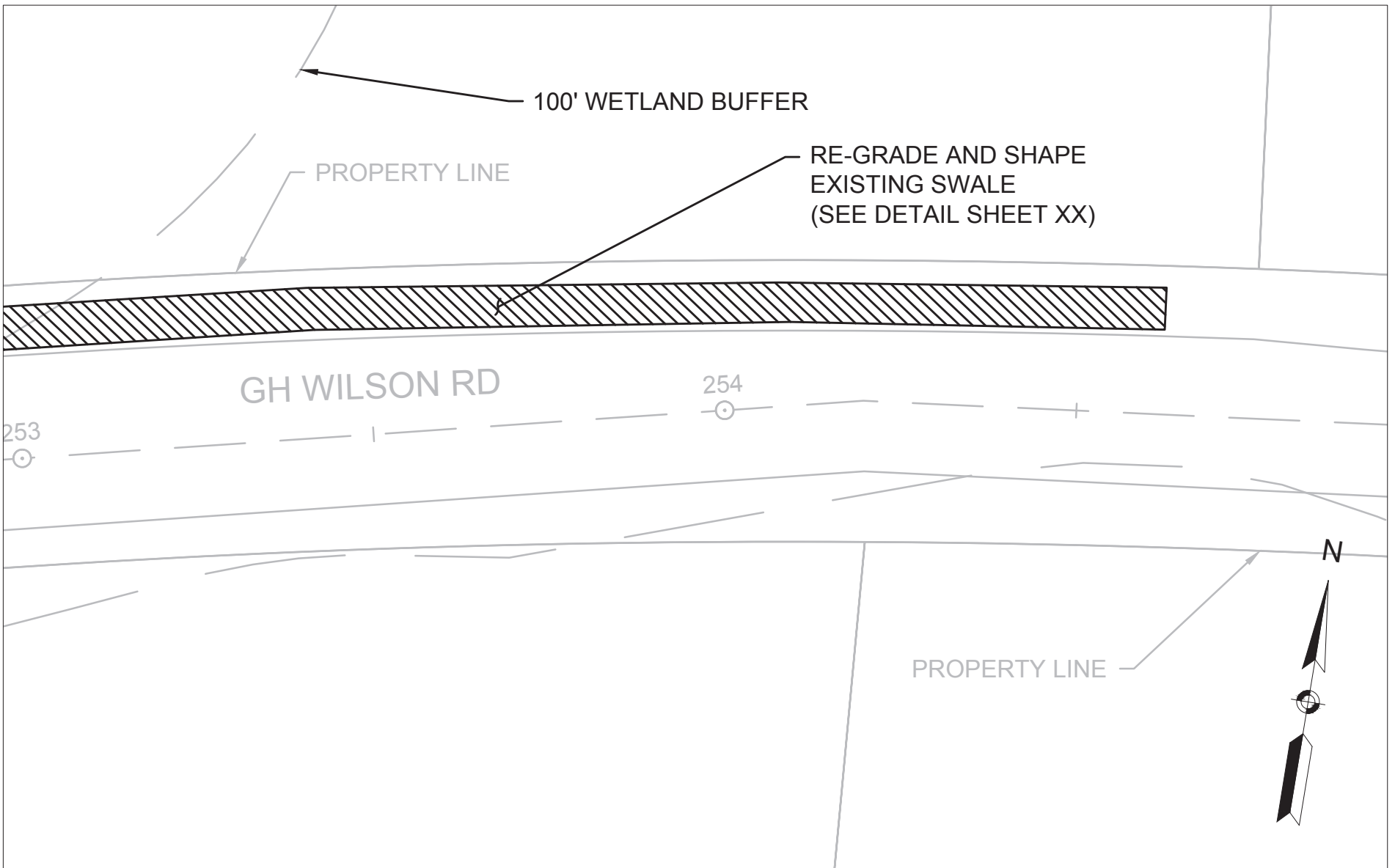
SCALE 1"=20'



TOWN OF SPENCER  
GH WILSON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 63 OF 90

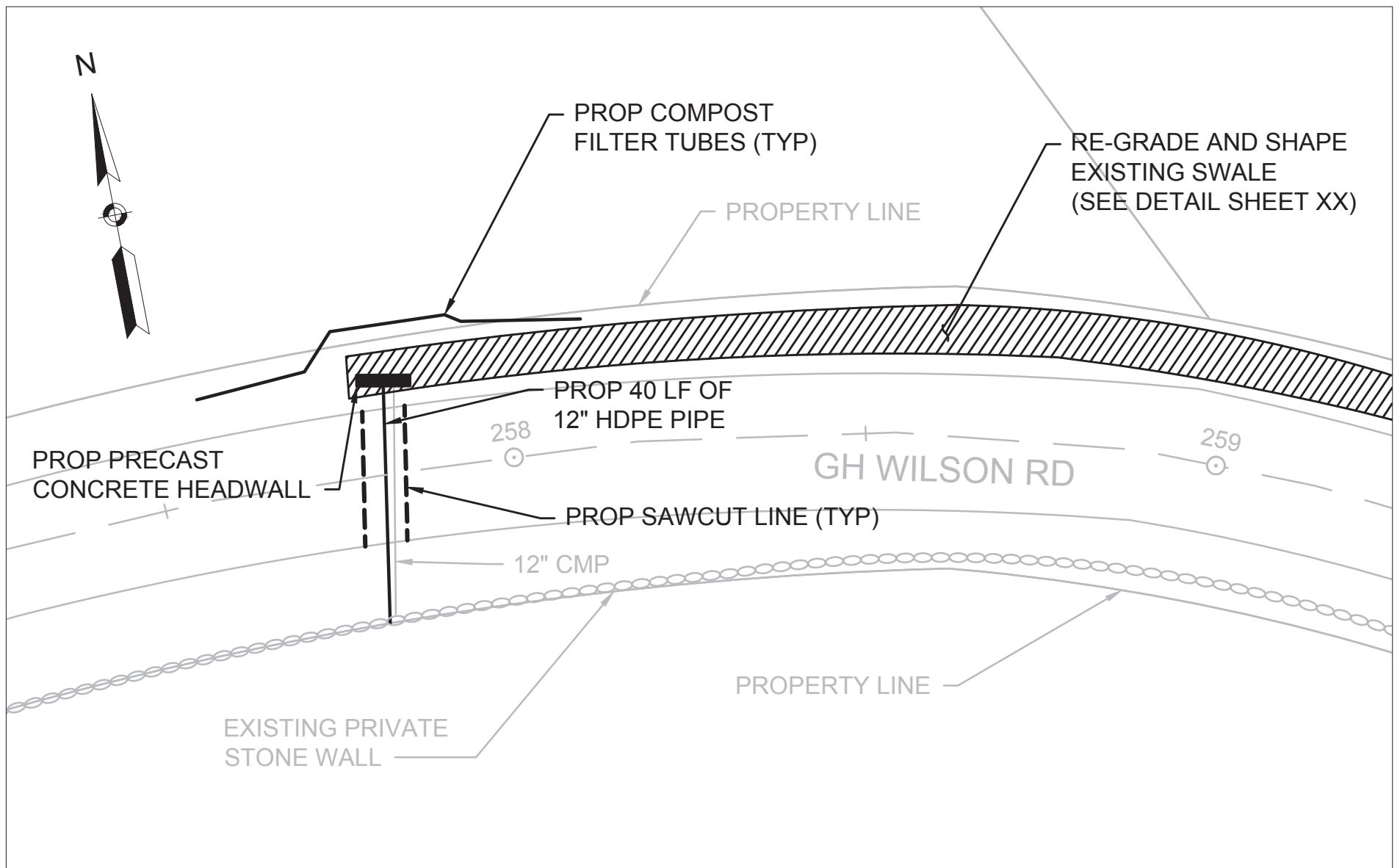


TOWN OF SPENCER  
GH WILSON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 64 OF 90

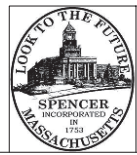
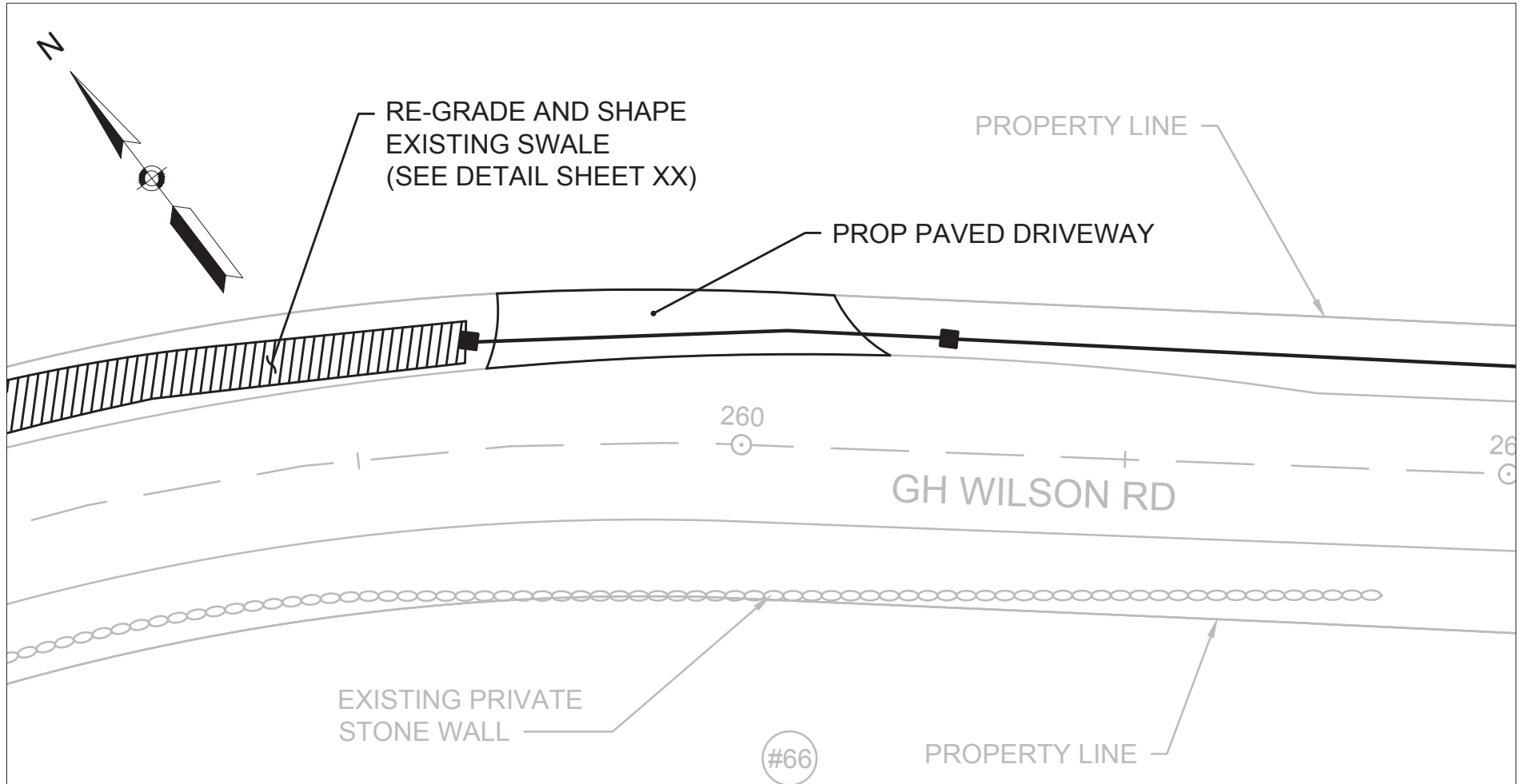




TOWN OF SPENCER  
GH WILSON RD  
PROPOSED DRAINAGE IMPROVEMENTS

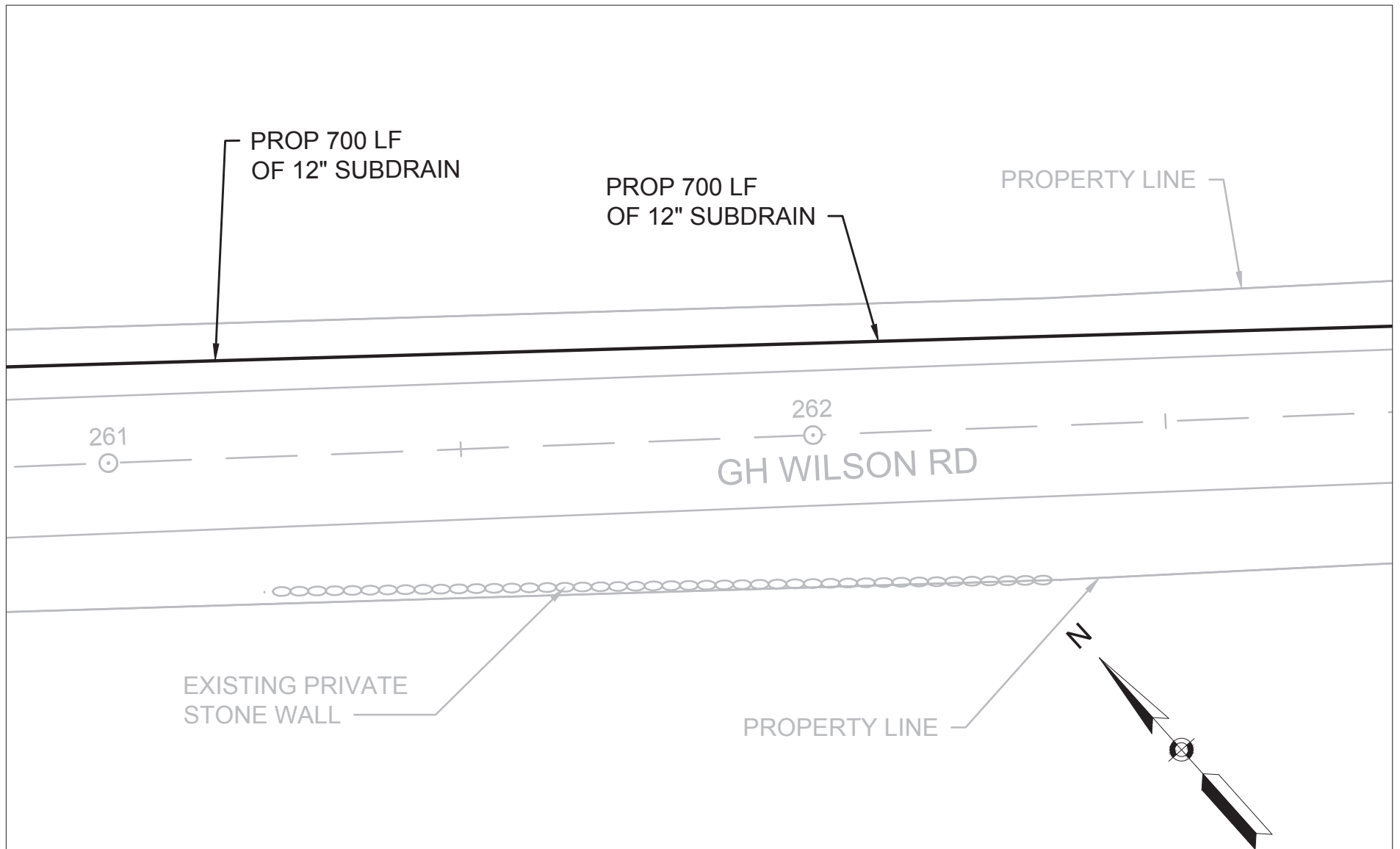
SCALE 1"=20'

SHEET 65 OF 90



TOWN OF SPENCER  
GH WILSON RD  
PROPOSED DRAINAGE IMPROVEMENTS

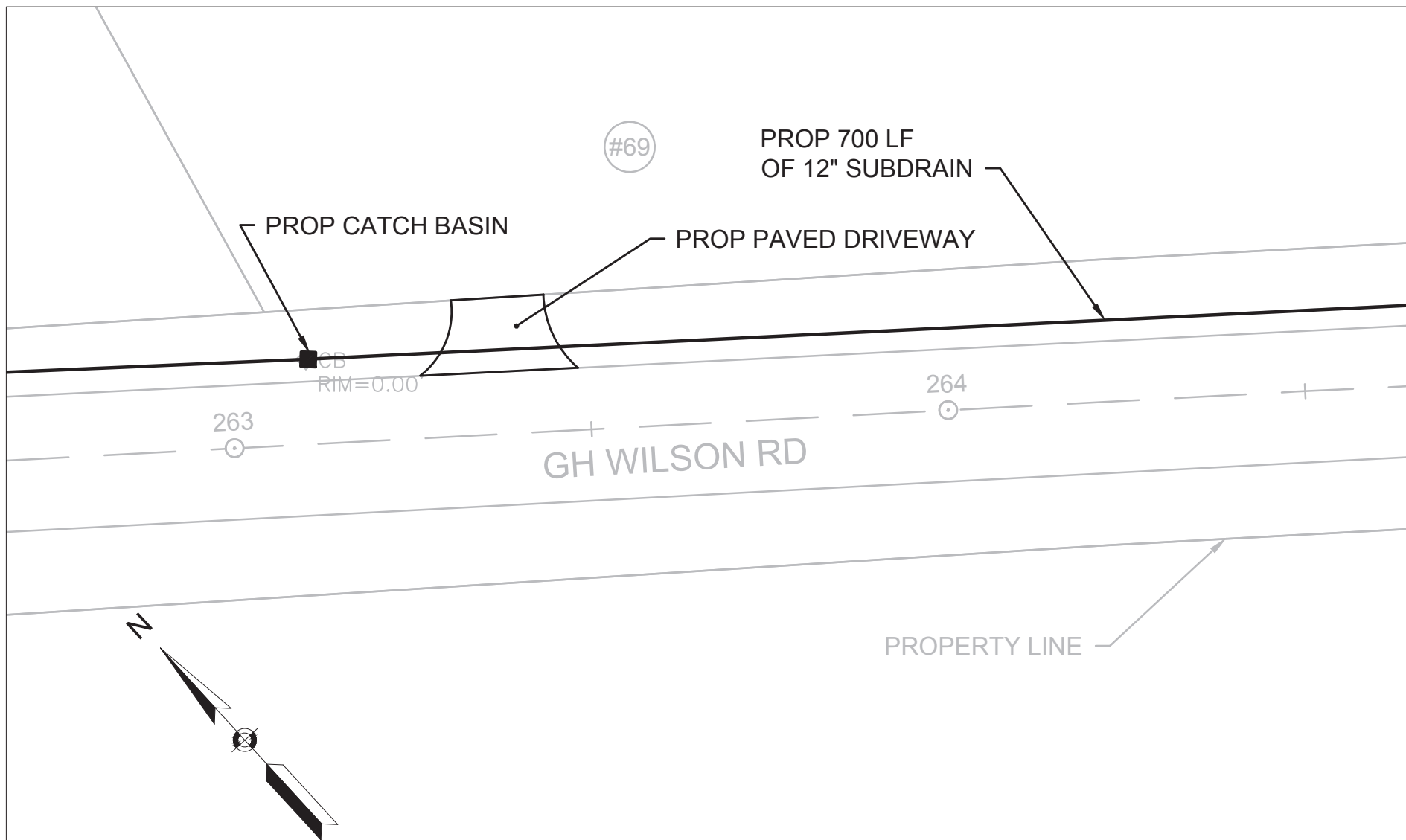
SCALE 1"=20'



TOWN OF SPENCER  
GH WILSON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 67 OF 90



TOWN OF SPENCER  
GH WILSON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 68 OF 90

100' WETLAND BUFFER

PROPERTY LINE

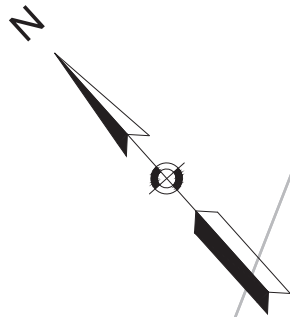
PROP 590 LF  
OF 12" SUBDRAIN

265

GH WILSON RD

266

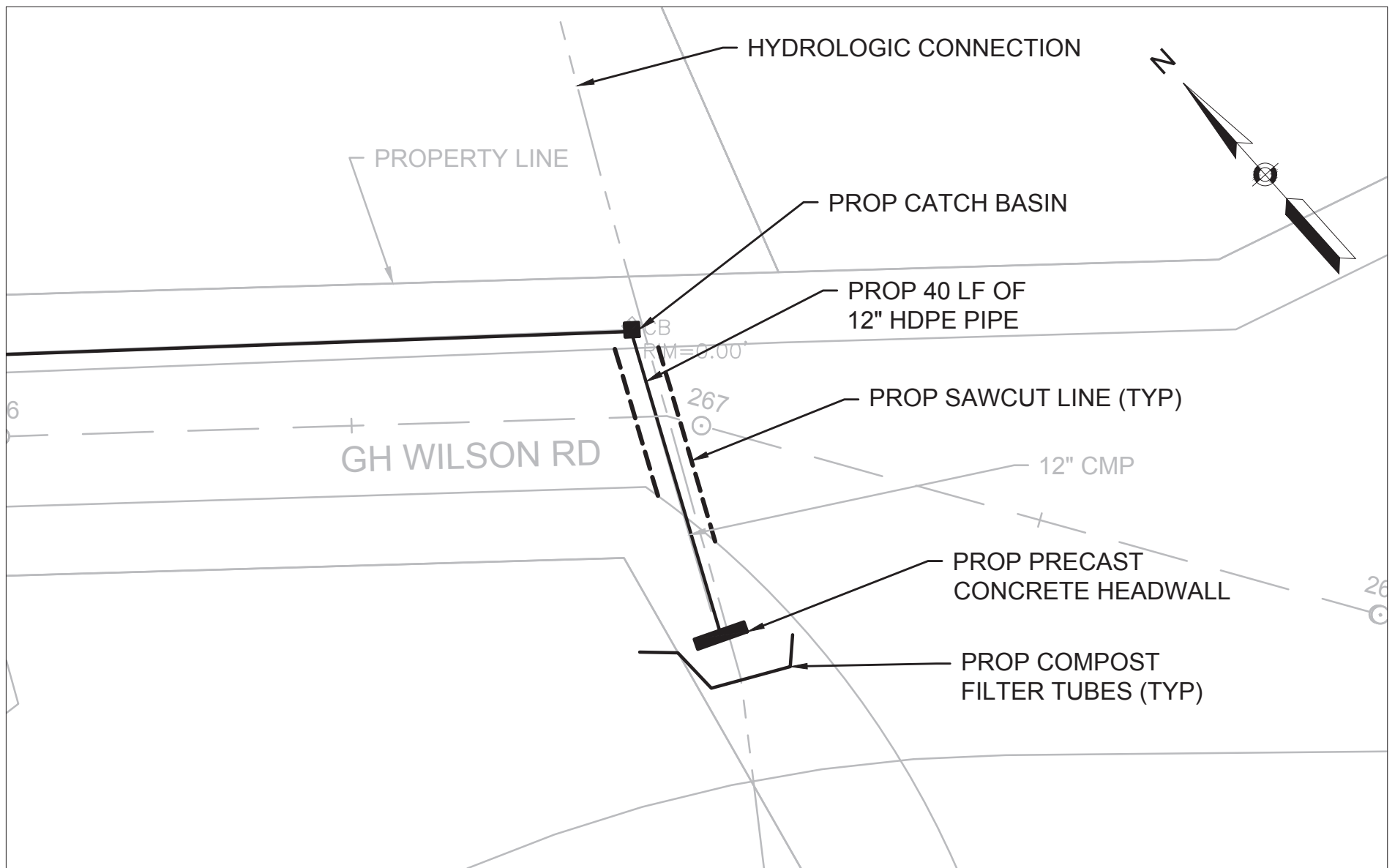
PROPERTY LINE



TOWN OF SPENCER  
GH WILSON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

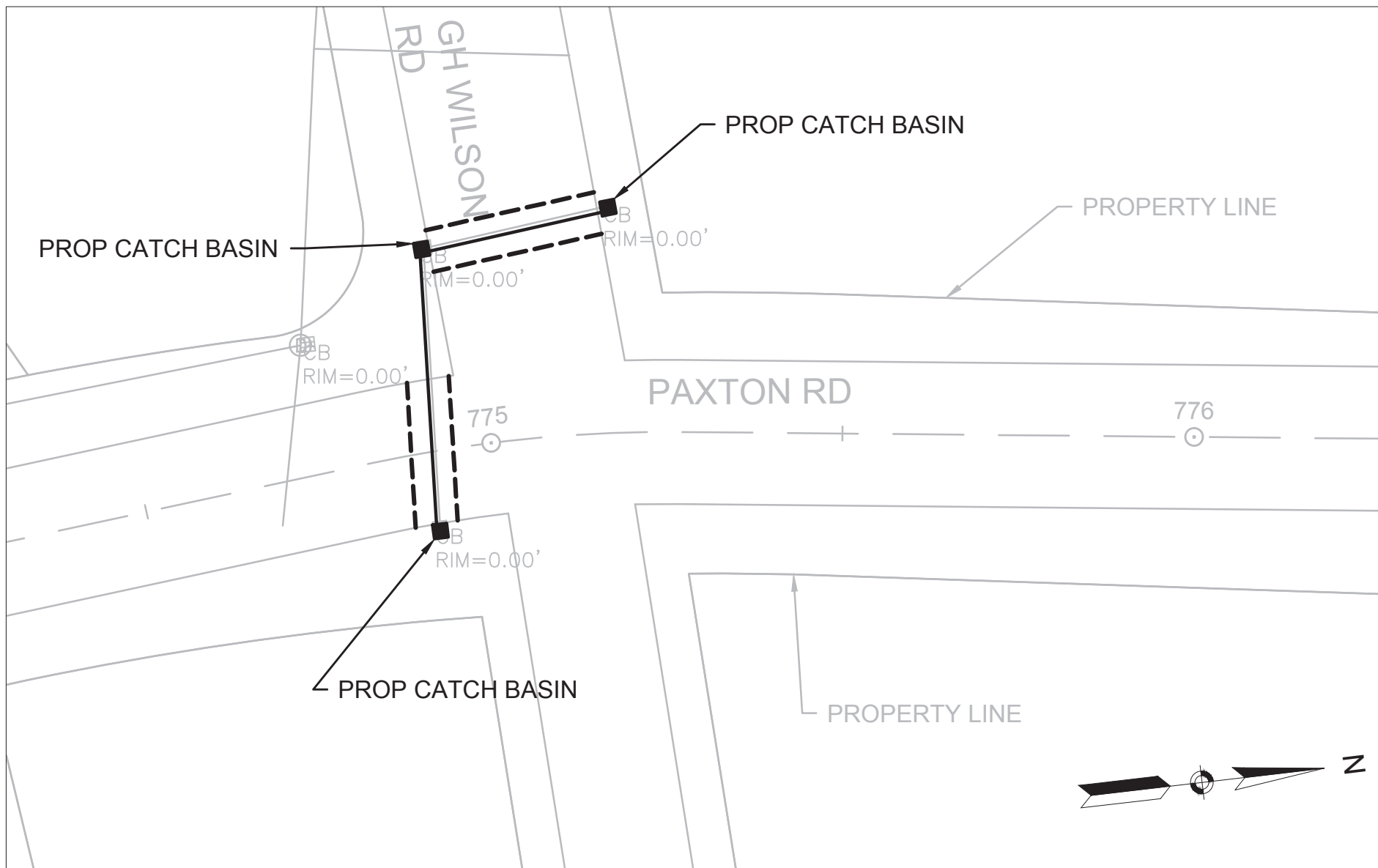
SHEET 69 OF 90



TOWN OF SPENCER  
GH WILSON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 70 OF 90



TOWN OF SPENCER  
PAXTON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 71 OF 90



PROPERTY LINE

778

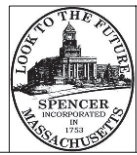
779

PAXTON RD

PROPERTY LINE

RE-GRADE AND SHAPE  
EXISTING SWALE  
(SEE DETAIL SHEET XX)

200' RIVERFRONT BUFFER

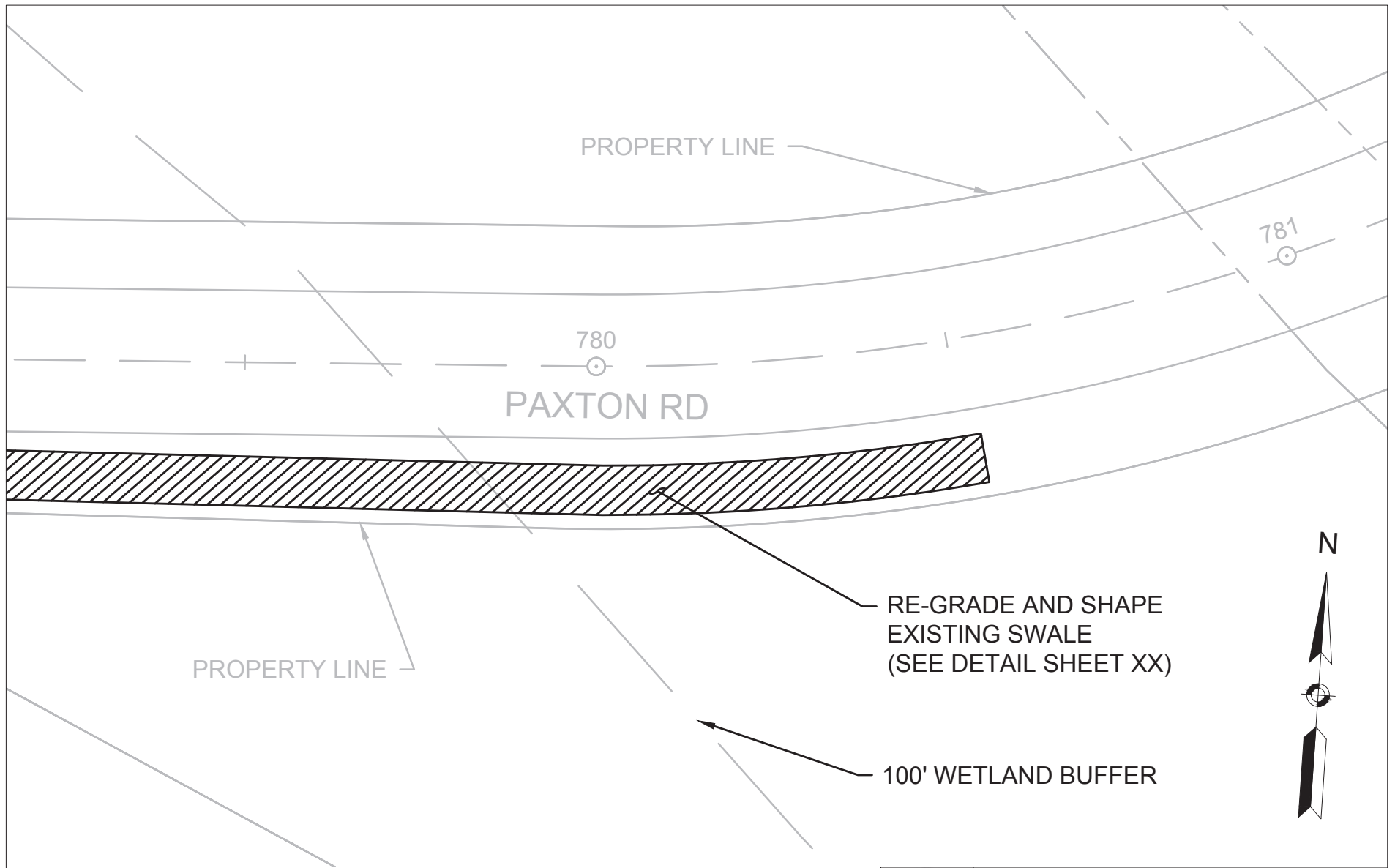


TOWN OF SPENCER  
PAXTON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 72 OF 90

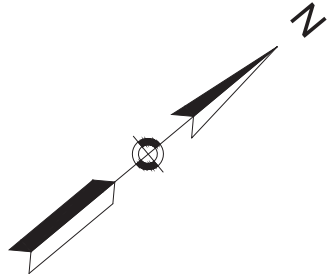




TOWN OF SPENCER  
PAXTON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 73 OF 90



200' RIVERFRONT BUFFER

REPLACE EXISTING PAVED  
GUTTER (SEE DETAIL SHEET XX)

#129

PROPERTY LINE

783

784

PAXTON RD

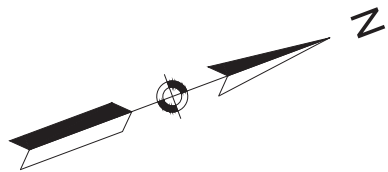
PROPERTY LINE



TOWN OF SPENCER  
PAXTON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 74 OF 90



PROPERTY LINE

800

801

PAXTON RD

PROPERTY LINE

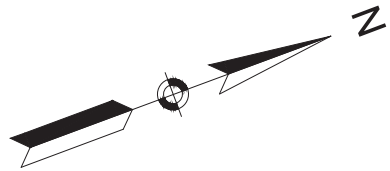
REPLACE EXISTING PAVED  
GUTTER (SEE DETAIL SHEET XX)



TOWN OF SPENCER  
PAXTON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 75 OF 90



PROPERTY LINE

802

803

PAXTON RD

REPLACE EXISTING PAVED  
GUTTER (SEE DETAIL SHEET XX)

RE-GRADE AND SHAPE  
EXISTING SWALE  
(SEE DETAIL SHEET XX)

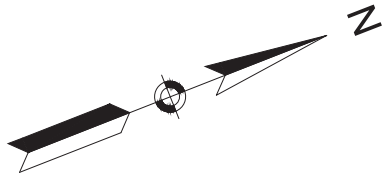
PROPERTY LINE



TOWN OF SPENCER  
PAXTON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 76 OF 90

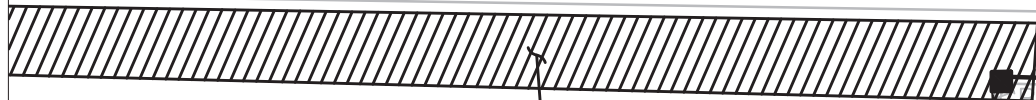


PROPERTY LINE

804

PAXTON RD

805



RE-GRADE AND SHAPE  
EXISTING SWALE  
(SEE DETAIL SHEET XX)

PROPERTY LINE

RIM=0.00'

PROP CATCH BASIN

PROP PAVED DRIVEWAY

PROP 590 LF  
OF 12" SUBDRAIN

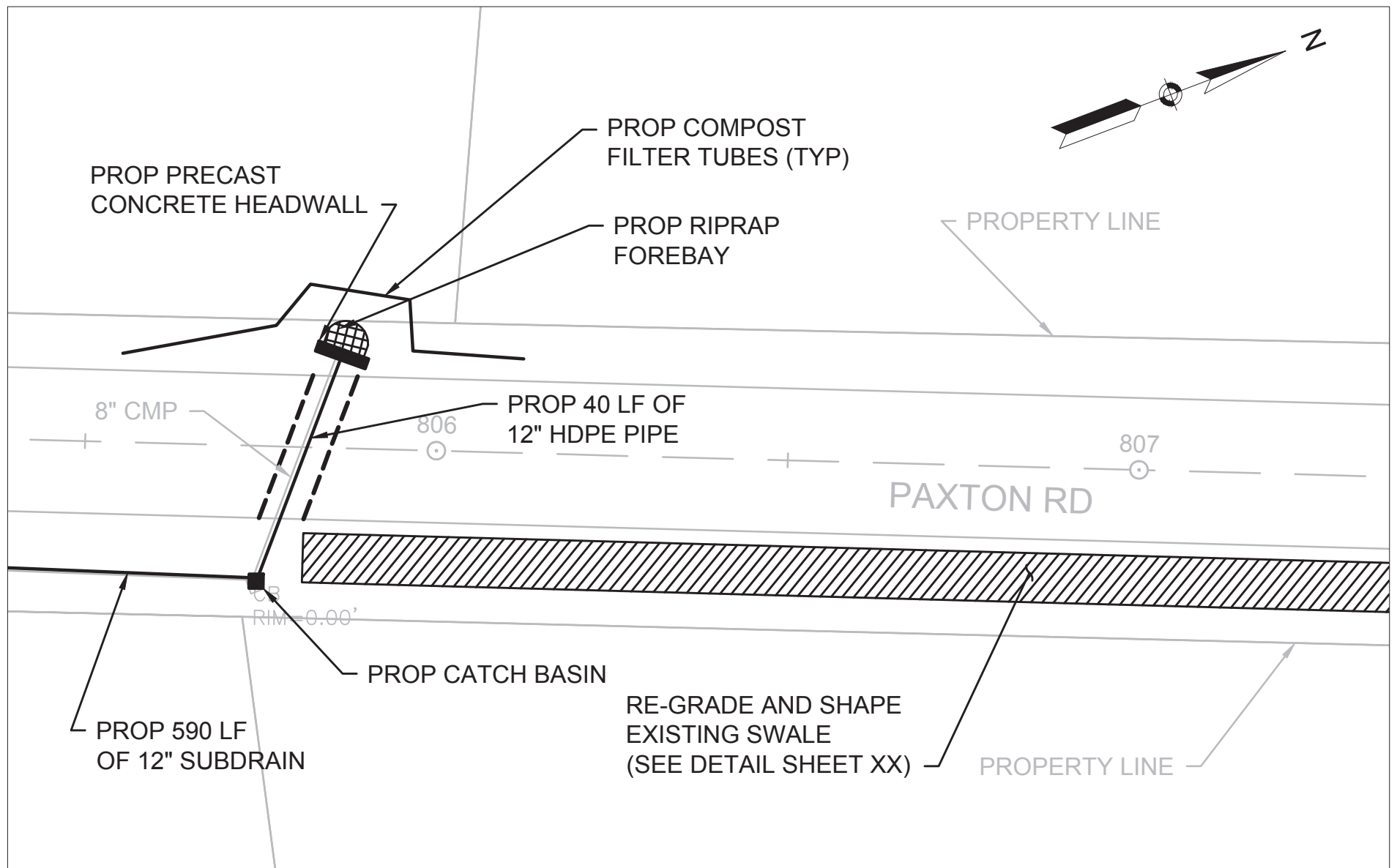
#156



TOWN OF SPENCER  
PAXTON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

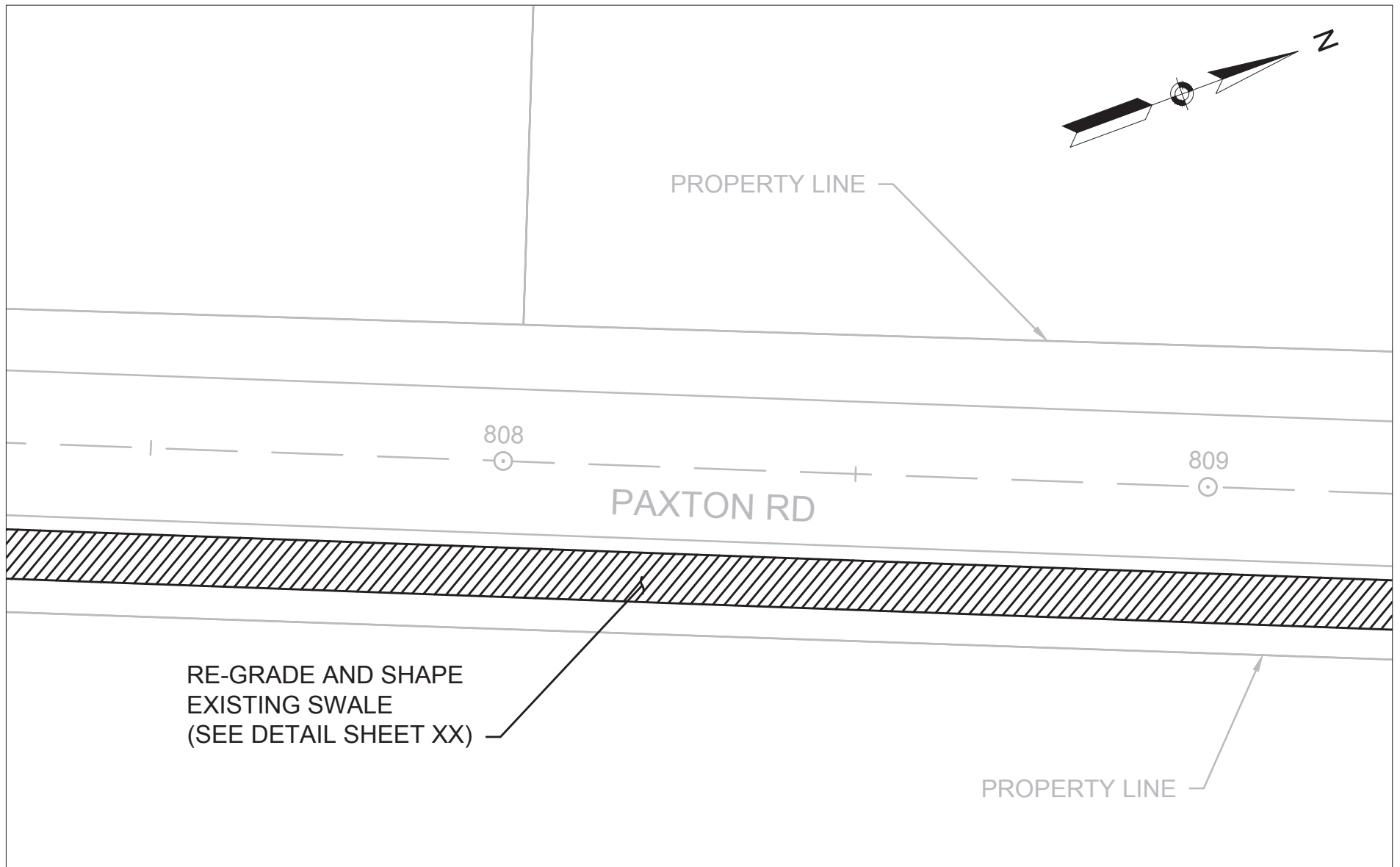
SHEET 77 OF 90



TOWN OF SPENCER  
PAXTON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

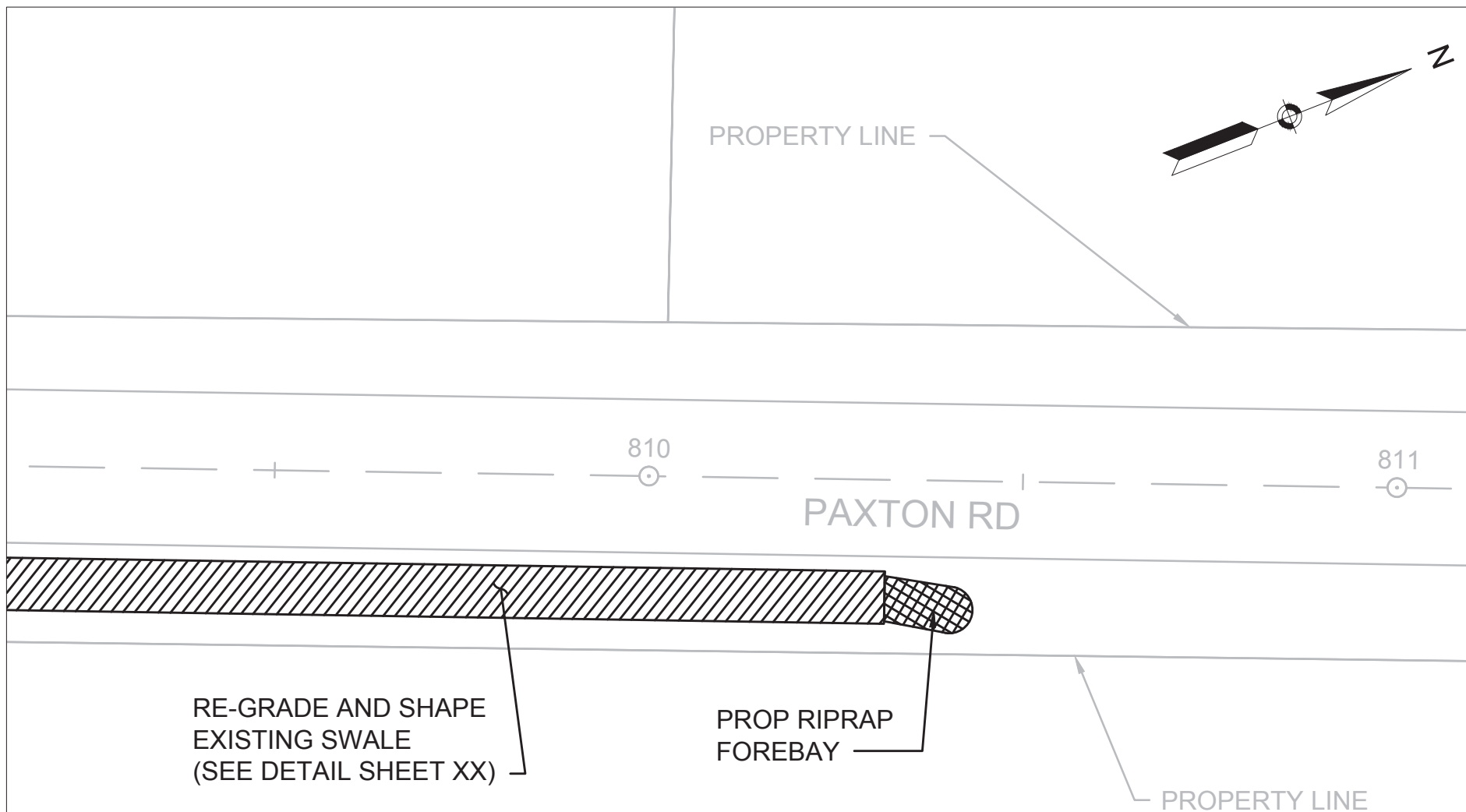
SHEET 78 OF 90



TOWN OF SPENCER  
PAXTON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'

SHEET 79 OF 90



TOWN OF SPENCER  
PAXTON RD  
PROPOSED DRAINAGE IMPROVEMENTS

SCALE 1"=20'