Planning Department, July 19, 2023

APPLICANT: Spofford Development

(Owner: Watts Auto Salvage)

DEVELOPER: Eric Spofford

PROJECT: NA

LOCATION: Parcel ID 05038-001, 109 Rockingham Road

PURPOSE: The purpose of this site plan is for a mixed-use development to include

23,300 square feet of commercial space, 63 apartments, and 9 townhomes. The property is located in the West Running Brook District.

TOWN DEPARTMENT SIGNATURES: All town departments have reviewed and signed the plan.

WAIVERS: See memo dated February 23, 2023, from the Dubay Group, Inc.

Derry Zoning Ordinance-Section 165.32.4.I.2.a. sidewalks along the road frontage.

Derry Zoning Ordinance-Section 165.32.4.I.2.c. two points of entry and

egress into the site.

Derry Zoning Ordinance-Section 165.32.4.J.2. allow for (3) studio apartments.

STATE PERMITS: NHDES Alteration of Terrain Permit (pending).

RECOMMENDATION: I would recommend approval of both the waiver requests and site plan application.

BY:

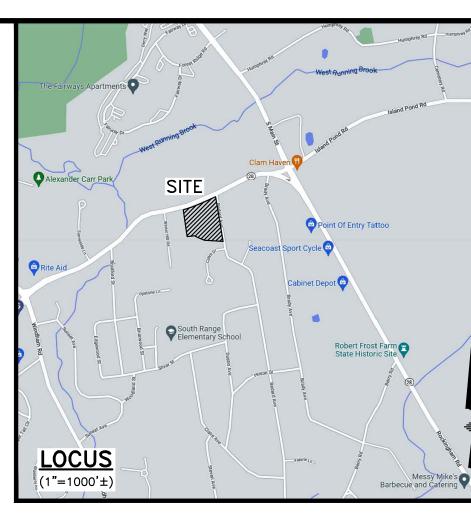
George H. Sloras, Planning Director

MIXED-USE SITE PLAN 109 ROCKINGHAM ROAD

MAP 5 LOT 38-1

DERRY, NH







SHEET INDEX

- TITLE SHEET
- **EXISTING CONDITIONS PLAN**
- SITE SPECIFIC SOILS PLAN
- PREPARATION PLAN
- SITE LAYOUT PLAN
- LANDSCAPE PLAN & DETAILS
- GRADING & DRAINAGE PLAN
- UTILITY PLAN
- SEWER PROFILES
- DRAINAGE PROFILES
- EROSION CONTROL PLAN LIGHTING PLAN
- 13
- IMPERVIOUS AREA SUMMARY
- 15-22 SITE DETAILS
- SIGHT DISTANCE PROFILE

BUILDING ELEVATIONS

TOWN OF DERRY SIGNATURE BLOCK		
me L	DATE _	6/16/23
PUBLIC WORKS DIRECTOR		•
Ant Marky	DATE 9	6-21-23
CODE ENFORCEMENT OFFICER		
Din & Gootme	DATE _	6/20/23
FIRE DEPARTMENT		,
NA	DATE _	
CONSERVATION COMMISSION CHAIR		,
I I MI	DATE _	6/16/23
POLICE DEPARTMENT		

OWNER'S SIGNATURE	
	DATE

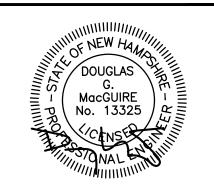
THE DERRY N.H. PLANNING BOARD ON DATE: _

CERTIFIED BY:



Engineers Planners

Surveyors TheDubayGroup.com



	REVISIONS:				
REV:	DATE:	COMMENT:	BY:		
1	6/3/22	TRC COMMENTS	SJK		
2	10/19/22	REVS PER DRIVEWAY RELOCATION	SJK		
3	2/22/23	TOWN COMMENTS	SJK		
4	6/13/23	TOWN COMMENTS	SJK		

DRAWN BY: CHECKED BY: DATE: SCALE: FILE: DEED REF: 491-COVER

109 ROCKINGHAM ROAD

MAP 5 LOT 038-001 109 ROCKINGHAM ROAD

DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

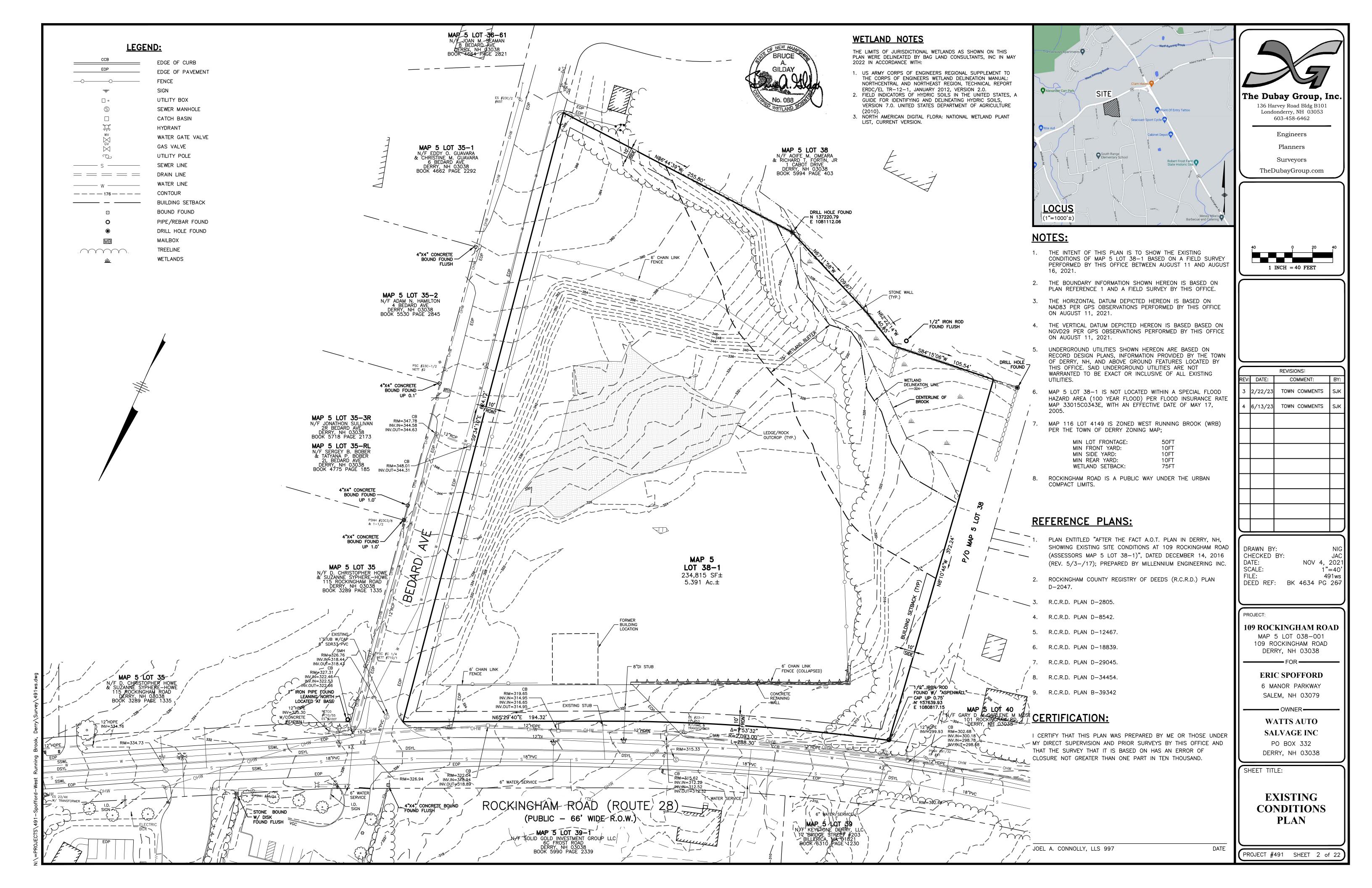
WATTS AUTO SALVAGE INC

PO BOX 332 DERRY, NH 03038

SHEET TITLE:

TITLE SHEET

PROJECT #491 SHEET







136 Harvey Road Bldg B101 Londonderry, NH 03053 603-458-6462

Engineers

Planners

Surveyors TheDubayGroup.com



EV: DATE: COMMENT:

REVISIONS:

DRAWN BY: CHECKED BY: DATE: SCALE: FILE:

NOV 4, 2021 1"=40' 491-SOILS

PROJECT:

109 ROCKINGHAM ROAD MAP 5 LOT 038-001

109 ROCKINGHAM ROAD DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

--- OWNER----

WATTS AUTO

SALVAGE INC

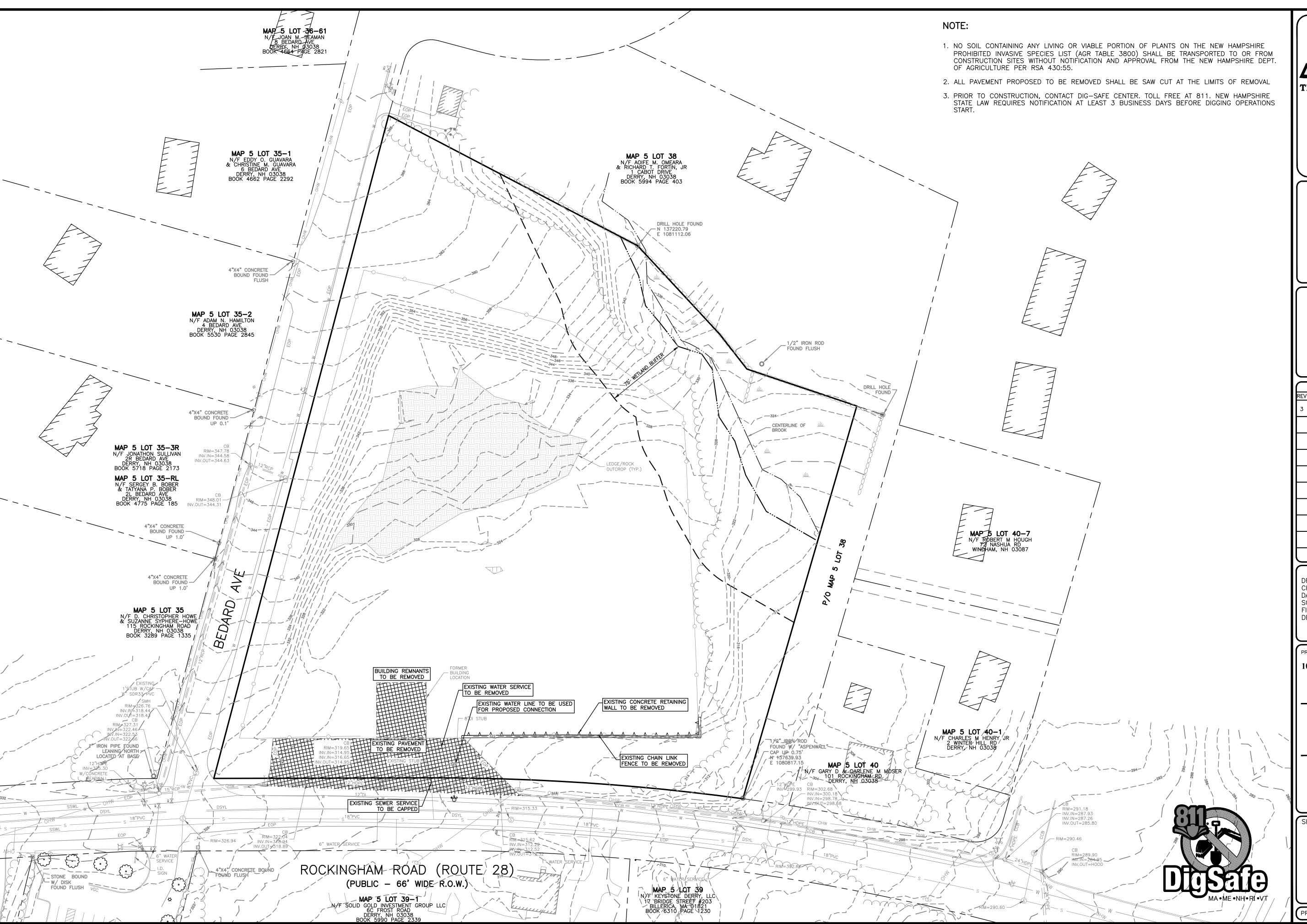
PO BOX 332

DERRY, NH 03038

SHEET TITLE:

SITE SPECIFIC **SOIL PLAN**

PROJECT #491 SHEET 3 of 22





136 Harvey Road Bldg B101 Londonderry, NH 03053 603-458-6462

Engineers

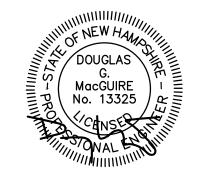
Planners

Surveyors

TheDubayGroup.com



1 INCH = 40 FEET



REVISIONS:			
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3	2/22/23	TOWN COMMENTS	SJK

DRAWN BY: SJK
CHECKED BY: DGM
DATE: NOV 4, 2021
SCALE: 1"=40'
FILE: 491—PREPARATION
DEED REF: —

PROJECT:

109 ROCKINGHAM ROAD

MAP 5 LOT 038-001 109 ROCKINGHAM ROAD DERRY, NH 03038

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ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

WATTS AUTO

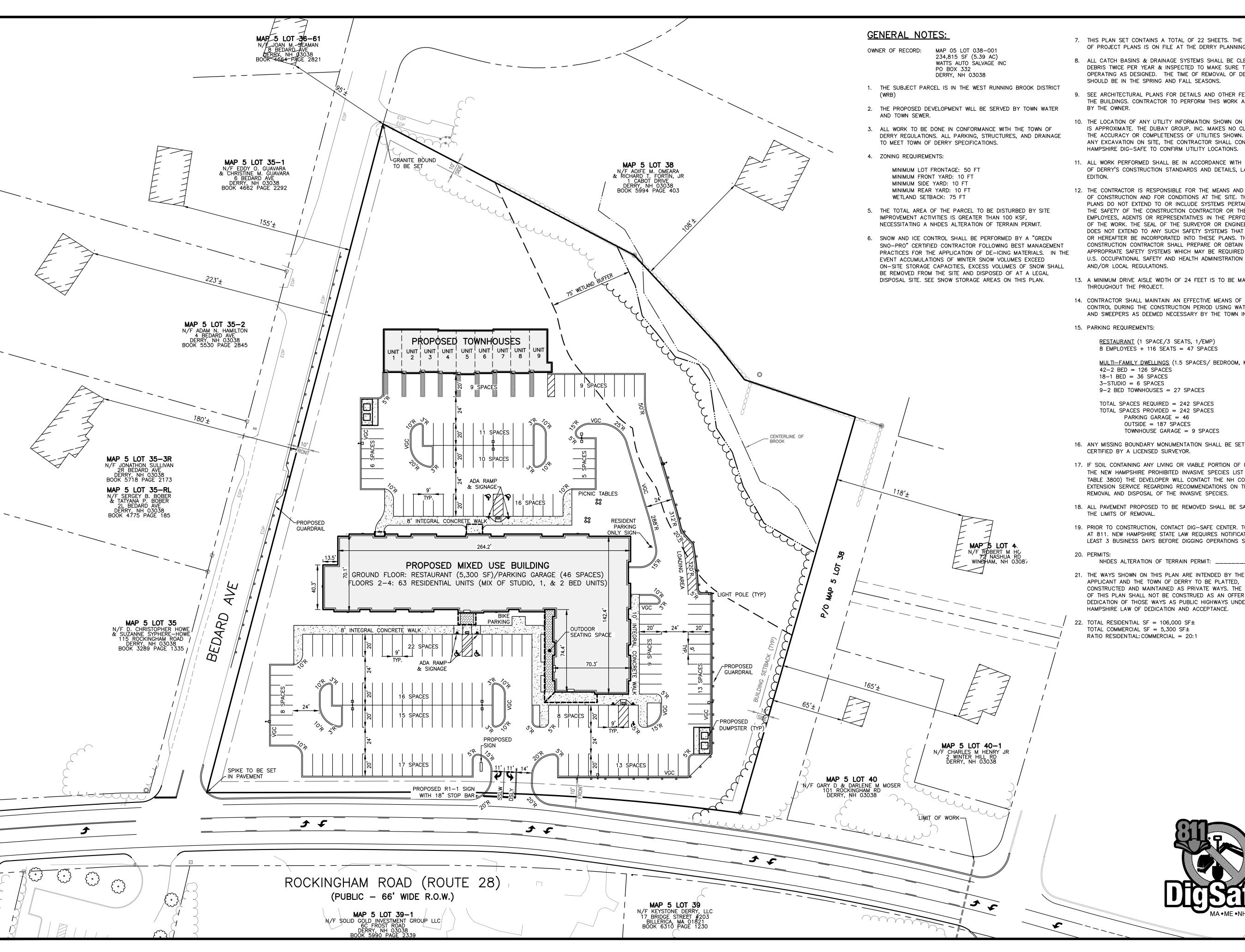
SALVAGE INC
PO BOX 332

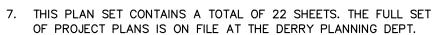
DERRY, NH 03038

SHEET TITLE:

PREPARATION PLAN

PROJECT #491 SHEET 4 of 22





- 8. ALL CATCH BASINS & DRAINAGE SYSTEMS SHALL BE CLEANED OF DEBRIS TWICE PER YEAR & INSPECTED TO MAKE SURE THEY ARE OPERATING AS DESIGNED. THE TIME OF REMOVAL OF DEBRIS
- 9. SEE ARCHITECTURAL PLANS FOR DETAILS AND OTHER FEATURES AT THE BUILDINGS. CONTRACTOR TO PERFORM THIS WORK AS DIRECTED
- 10. THE LOCATION OF ANY UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. THE DUBAY GROUP, INC. MAKES NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. PRIOR TO ANY EXCAVATION ON SITE, THE CONTRACTOR SHALL CONTACT NEW HAMPSHIRE DIG-SAFE TO CONFIRM UTILITY LOCATIONS.
- 11. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH THE TOWN OF DERRY'S CONSTRUCTION STANDARDS AND DETAILS, LATEST
- 12. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK. THE SEAL OF THE SURVEYOR OR ENGINEER HEREON DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PREPARE OR OBTAIN THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)
- 13. A MINIMUM DRIVE AISLE WIDTH OF 24 FEET IS TO BE MAINTAINED
- 14. CONTRACTOR SHALL MAINTAIN AN EFFECTIVE MEANS OF DUST CONTROL DURING THE CONSTRUCTION PERIOD USING WATER TRUCKS AND SWEEPERS AS DEEMED NECESSARY BY THE TOWN INSPECTOR.

RESTAURANT (1 SPACE/3 SEATS, 1/EMP)

MULTI-FAMILY DWELLINGS (1.5 SPACES/ BEDROOM, MIN 2)

TOTAL SPACES REQUIRED = 242 SPACES TOTAL SPACES PROVIDED = 242 SPACES

- 16. ANY MISSING BOUNDARY MONUMENTATION SHALL BE SET AND
- 17. IF SOIL CONTAINING ANY LIVING OR VIABLE PORTION OF PLANTS ON THE NEW HAMPSHIRE PROHIBITED INVASIVE SPECIES LIST (AGR TABLE 3800) THE DEVELOPER WILL CONTACT THE NH COOPERATIVE EXTENSION SERVICE REGARDING RECOMMENDATIONS ON THE
- 18. ALL PAVEMENT PROPOSED TO BE REMOVED SHALL BE SAW CUT AT
- 19. PRIOR TO CONSTRUCTION, CONTACT DIG-SAFE CENTER. TOLL FREE AT 811. NEW HAMPSHIRE STATE LAW REQUIRES NOTIFICATION AT LEAST 3 BUSINESS DAYS BEFORE DIGGING OPERATIONS START.

NHDES ALTERATION OF TERRAIN PERMIT:

- APPLICANT AND THE TOWN OF DERRY TO BE PLATTED, CONSTRUCTED AND MAINTAINED AS PRIVATE WAYS. THE RECORDING OF THIS PLAN SHALL NOT BE CONSTRUED AS AN OFFER OF DEDICATION OF THOSE WAYS AS PUBLIC HIGHWAYS UNDER NEW HAMPSHIRE LAW OF DEDICATION AND ACCEPTANCE.
- TOTAL RESIDENTIAL SF = 106,000 SF±



The Dubay Group, Inc.

136 Harvey Road Bldg B101 Londonderry, NH 03053 603-458-6462

Engineers

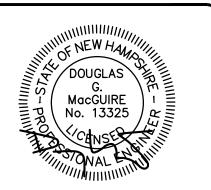
Planners

Surveyors

TheDubayGroup.com



1 INCH = 40 FEET



REVISIONS:				
REV:	DATE:	COMMENT:	BY:	
1	6/3/22	TRC COMMENTS	SJK	
2	10/19/22	REVS PER DRIVEWAY RELOCATION	SJK	
3	2/22/23	TOWN COMMENTS	SJK	
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PROJECT:

109 ROCKINGHAM ROAD

MAP 5 LOT 038-001 109 ROCKINGHAM ROAD DERRY, NH 03038

ERIC SPOFFORD 6 MANOR PARKWAY

SALEM, NH 03079

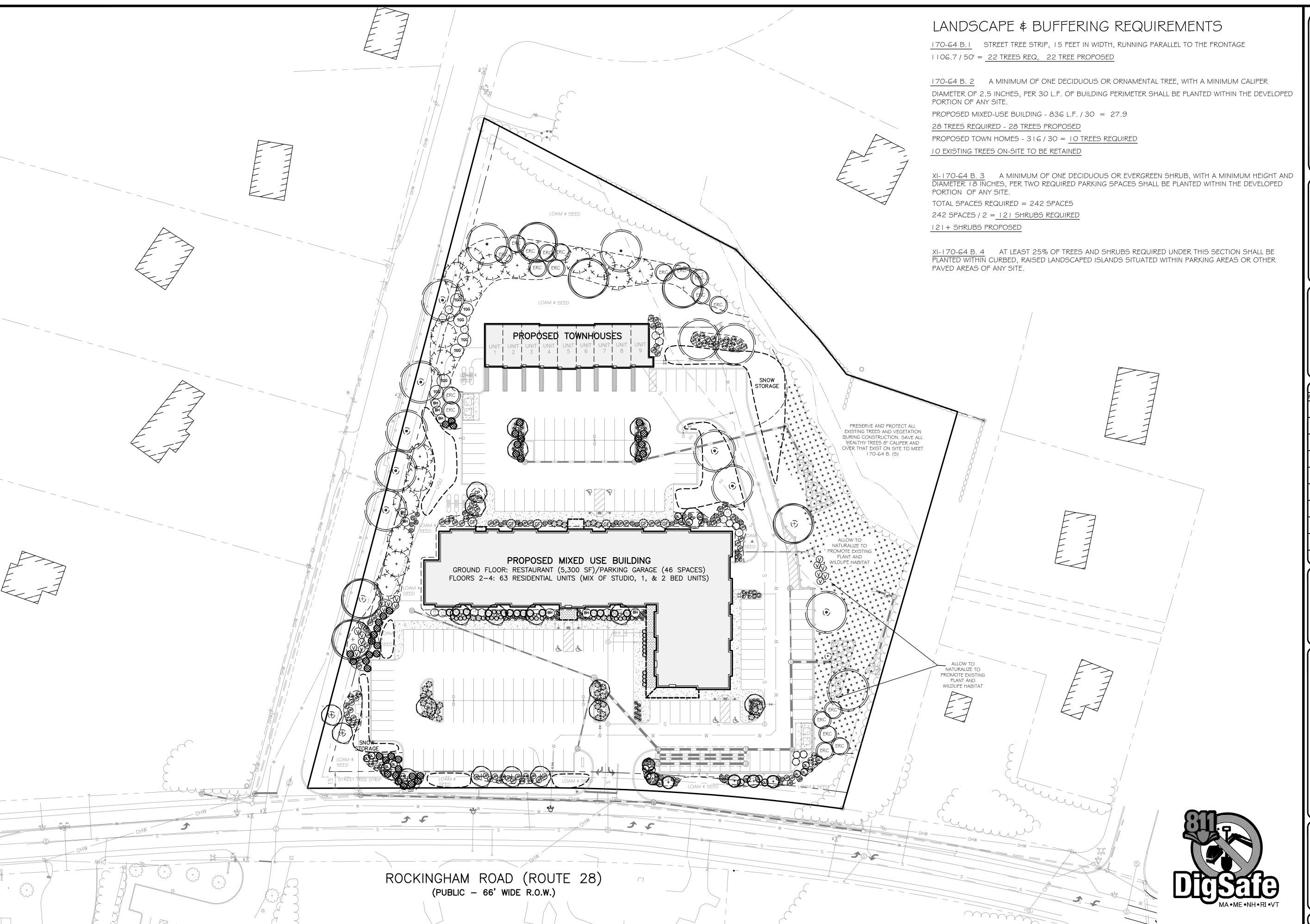
WATTS AUTO SALVAGE INC

PO BOX 332 DERRY, NH 03038

SHEET TITLE:

SITE PLAN

PROJECT #491 SHEET 5 of 22





136 Harvey Road Bldg B101 Londonderry, NH 03053 603-458-6462

Engineers

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Planners

Surveyors TheDubayGroup.com



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2	10/19/22	REVS PER DRIVEWAY RELOCATION	REK
3	2/22/23	TOWN COMMENTS	SJK

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SCALE:	1"=40
FILE:	491-LANDSCAPE
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PROJECT:

109 ROCKINGHAM ROAD MAP 5 LOT 038-001

109 ROCKINGHAM ROAD DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

WATTS AUTO SALVAGE INC

PO BOX 332 DERRY, NH 03038

SHEET TITLE:

LANDSCAPE PLAN

PROJECT #491 SHEET 6 of 22

2. WHEREVER POSSIBLE EXISTING TREES SHALL BE PRESERVED AND PROTECTED DURING CONSTRUCTION. DISTURBED SIDE SLOPES SHALL BE ALLOWED TO NATURALLY VEGETATE TO SUSTAIN EXISTING WILDLIFE AND PLANT LIFE.

3. THE PROPOSED DECIDUOUS TREES SHALL BE A MIN. 2.5" CALIPER WITH EVERGREENS AT 6' HT.

4. ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED WITH A MINIMUM OF 6" SUITABLE LOAM, EXCEPT UNDER THE MULCH BEDS. SLOPES GREATER THAN 3:1 SHALL BE PROTECTED WITH AN EROSION CONTROL BLANKET. (SEE PLANS BY ENGINEER)

5. PLANTS SHALL NOT BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED WITHIN THE IMMEDIATE AREA OF THE PLANTING.

6. ALL TREES SHALL BE BALLED AND BURLAP UNLESS OTHERWISE NOTED.

7. ANY PROPOSED PLANT MATERIAL SUBSTITUTIONS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT.

8. WHERE APPLICABLE THE CONTRACTOR SHALL HAVE ALL FALL TRANSPLANTING HAZARD PLANTS DUG IN THE SPRING.THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT. LAYOUT TO BE APPROVED BY OWNERS REPRESENTATIVE PRIOR TO INSTALLATION.

9. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY: HAVE NORMAL GROWTH HABITS: WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE FROM DEFECTS AND INJURIES.

10. CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL.

II. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISION SHALL BE MADE FOR A GROWTH GUARANTEE OF AT LEAST ONE YEAR FROM THE DATE OF ACCEPTANCE FOR TREES AND SHRUBS. REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.

12. INSOFAR AS IT IS PRACTICABLE, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE DAY PERIOD AFTER DELIVERY. ANY PLANTS NOT INSTALLED DURING THIS PERIOD WILL BE REJECTED.

13. QUALITY AND SIZE OF PLANTS, SPREAD OF ROOTS, AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH ANSI 260 (REV. 1996) "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.

14. ALL PLANTS SHALL BE PLANTED IN AMENDED TOP SOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BACK FILLING PROGRESSES. PLANTING MIX TO BE AS SHOWN ON PLANTING DETAILS. LARGE PLANTING AREAS TO INCORPORATE FERTILIZER AND SOIL CONDITIONERS AS STATED IN PLANTING SPECIFICATIONS.

I 5. PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE BALL ONLY.

I G. PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE. PLANTS SHALL NOT BE INSTALLED IN TOPSOIL THAT IS IN A MUDDY OR FROZEN CONDITION. ALL PLANT MATERIAL SHALL BE SPRAYED WITH 'WILT-PRUF' OR EQUAL AS PER MANUFACTURER'S INSTRUCTIONS.

17. NO PLANT, EXCEPT GROUND COVERS, SHALL BE PLANTED LESS THAN TWO FEET FROM EXISTING STRUCTURES AND SIDEWALKS.

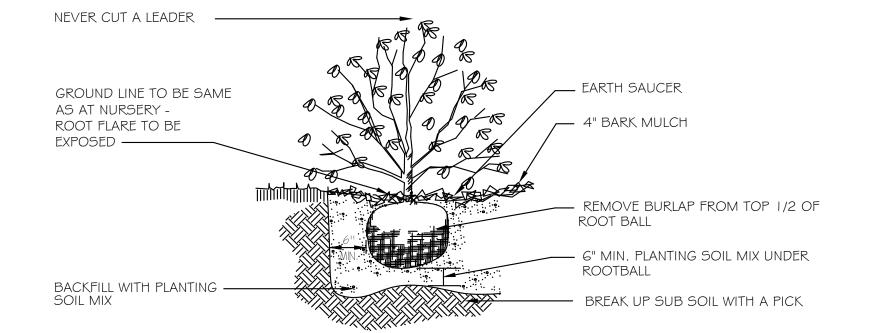
18. SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANT IN THE CENTER OF THE PIT.

19. ALL PLANTING BEDS SHALL BE MULCHED WITH 4" LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH.

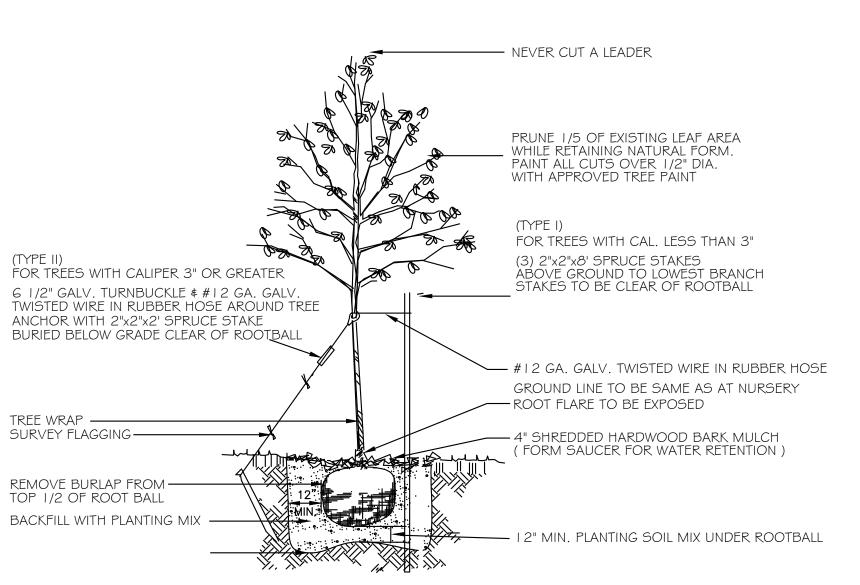
20. NO SOIL CONTAINING ANY LIVING OR VIABLE PORTION OF PLANTS ON THE NEW HAMPSHIRE PROHIBITED INVASIVE SPECIES LIST (AGR TABLE 3800) SHALL BE TRANSPORTED TO OR FROM CONSTRUCTION SITES WITHOUT NOTIFICATION AND APPROVAL FROM THE NEW HAMPSHIRE DEPT. OF AGRICULTURE PER RSA 430:55.

NEVER CUT A LEADER— FOR TREES 5FT IN HEIGHT OR GREATER #12 GA. GALV. TWISTED WIRE IN RUBBER HOSE AROUND TREE AT 2/3 HEIGHT OF TREE (3) #12 GA. GALV. TWISTED WIRES AT 120° SPACING WITH 6 1/2" GAL. TURNBUCKLE WIRE IN RUBBER HOSE AROUND TREE FROM GRADE ATTACH TO TREE AT 1/2 TO 2/3 HEIGHT OF TREE ABOVE GRADE
ANCHOR WITH 2"x2x2" SPRUCE STAKE
BURIED BELOW GRADE CLEAR OF ROOTBALL FOR TREES LESS THAN 5' IN HEIGHT (3) 2"x2"x5' SPRUCE STAKES AT 120° - SPACING, A MINIMUM OF 36" IN GROUND. STAKES TO BE CLEAR OF ROOTBALL GROUND LINE TO BE SAME AS AT NURSERY SURVEY FLAGGING-- ROOT FLARE TO BE EXPOSED 4" SHREDDED HARDWOOD BARK MULCH (FORM SAUCER FOR WATER RETENTION) REMOVE BURLAP FROM TOP 1/2 OF ROOT BALL . BACKFILL WITH PLANTING MIX -— 6" MIN. PLANTING SOIL MIX UNDER ROOTBALL SCARIFY SUB SOIL WITH PICK.

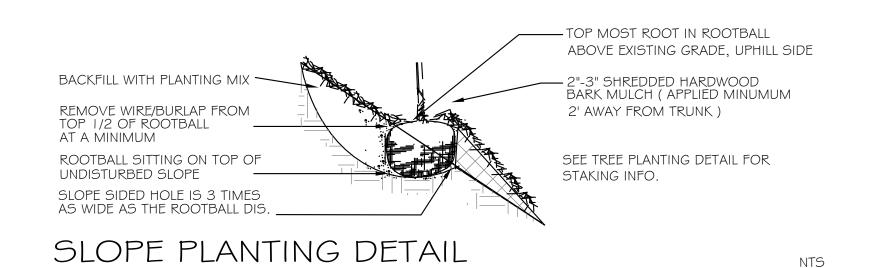
EVERGREEN PLANTING DETAIL



SHRUB PLANTING DETAIL



DECIDUOUS TREE PLANTING DETAIL



LANDSCAPE LEGEND:

SIZE & REMARKS MATURE HT. MATURE WIDTH BOTONICAL NAME / COMMON NAME

DECIDUOUS SHADE TREE

12 ACER SACCHARUM 'COMMEMORATION' / COMMEMORATION SUGAR MAPLE 40'-60' 2.5" CAL. B¢B 30'-40' 6 ACER RUBRUM 'OCTOBER GLORY' / OCTOBER GLORY RED MAPLE 40'-60' 30'-40' 2.5" CAL. B\$B

DECIDUOUS UPRIGHT

3	ACER RUBRUM 'KARPICK' / KARPICK RED MAPLE	2.5" CAL. B\$B	40'-60'	15'-20'
15	PYRUS CALLERYANNA 'CHANTICLEER' / CHANTICLEER FLOWERING PEAR	2.5" CAL. B\$B	30'-40'	15'-20'
10	QUERCUS PALUSTRIS GREEN PILLAR / GREEN PILLAR OAK	2.5" CAL. B¢B	40'	10'-15'

6' HT. B\$B

30" B\$B

3 GAL.

5 GAL.

5 GAL.

NARROW EVERGREEN

LARGE EVERGREEN TREE

17 ABIES FRASERI / FRASER FIR

19	JUNIPERUS VIRGINIANA / EASTERN RED CEDAR	G' HT. B¢B	30-40'	15-20'
7	THUJA PLICATA GREEN GIANT / GREEN GIANT ABORVITAE	6' HT.	30'-40'	15'-20'
EV	ERGREEN SHRUB / DWARF			
6	CHAMAECYPARIS OBTUSA 'FERNSPRAY GOLD' / GOLD HINOKI FALSECYPRESS	4' HT. B\$B	10'-15'	8'-10'

TGG

6	CHAMAECYPARIS OBTUSA 'FERNSPRAY GOLD' / GOLD HINOKI FALSECYPRESS	4' HT. B¢B	10'-15'	8'-10'
5	JUNIPERUS CHINENSIS 'BLUE POINT' / BLUE POINT JUNIPER	4' HT. B\$B	8'-10'	8'-10'
8	ILEX MESERVEAE BLUE PRINCE / BLUE PRINCE HOLLY	4' HT.	8'-10'	6'-8'
E\ 20 4	JUNIPERUS VIRGINIANA ' GREY OWL' / GREY OWL JUNIPER	30" B\$B 30" B\$B 30" B\$B	3'-4' 2'-3' 2'-3'	6'-8' 6'-8' 5'-6'
/ 2	J. CHINLINGIS TETTZENIANA COIVII ACTA / COIVII ACT TETTZEN JUNII EN	JU 141	د-ی	J-6

35 LEUCOTHE FONTANESIANA SILVER RUN / SILVER RUN LEUCOTHOE EVERGREEN GROUNDCOVER 36 TAXUS MEDIA 'EVER-LOW' / EVER-LOW YEW

14 TAXUS MEDIA 'GREENWAVE' / GREENWAVE SPREADING YEW

34 SPIRAEA BUMALDA 'ANTHONY WATERER' / ANTHONY WATERER SPIRAEA

DECIDUOUS SHRUB LARGE			
I 5 HYDRANGEA PANICULATA 'LITTLE QUICK FIRE'	4' HT. B≢B	8'-10'	8'-10'
19 VACCINIUM CORYMBOSUM / HIGH BUSH BLUEBERRY	4' HT. B\$B	8'-10'	8'-10'
DECIDUOUS SHRUB MEDIUM			

DECIDUOUS SHRUB SMALL 44 ILEX VERTICILLATA 'RED SPRITE' / RED SPRITE WINTERBERRY 3 GAL. 3'-4' 3 RHUS AROMATICA 'GROW LOW' / GROW LOW SUMAC 3 GAL. 18"-24"

PERE	NNIAL/ GRASSES			
59	GRASS HAKONECHELOA MACRA AUREOLA - GOLDEN JAPANESE FOREST GRASS	2 GAL.	2-3'	2-3'
8	PENNISETUM AKOPECUROIDES HAMELIN / DWARF FOUNTAIN GRASS	2 GAL.	2'-3'	2'-3'

The Dubay Group, Inc.

136 Harvey Road Bldg B101 Londonderry, NH 03053

> Engineers Planners

603-458-6462

Surveyors

TheDubayGroup.com

20'-30'

6'-8'

3'-4'

5'-6'

5'-6'

3'-4'

6'-8'

30'-40'

3'-4'

2'-3'

5'-6'

REVISIONS: COMMENT: TRC COMMENTS REVS PER DRIVEWAY RELOCATION TOWN COMMENTS

SJI DGN 4, 202 1"=40 NDSCAPE
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PROJECT:

109 ROCKINGHAM ROAD MAP 5 LOT 038-001 109 ROCKINGHAM ROAD

DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

> OWNER — WATTS AUTO SALVAGE INC

PO BOX 332 DERRY, NH 03038

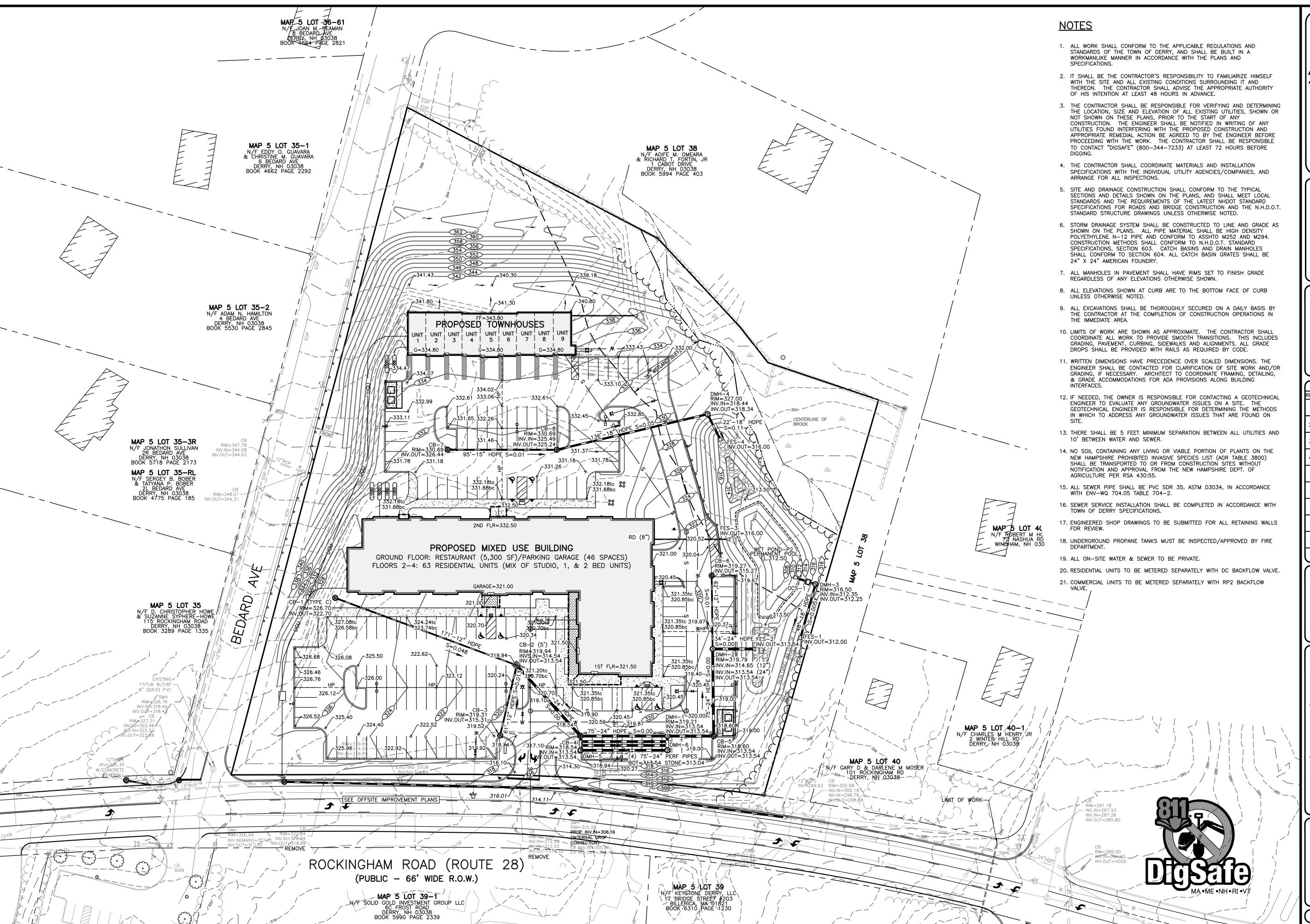
SHEET TITLE:

LANDSCAPE NOTES AND DETAILS

PROJECT #491 SHEET 7 of 22

THE LOCATION OF ANY UTILITY INFORMATION SHOWN ON THIS PLAN IS APPROXIMATE. WE MAKE NO CLAIM TO THE ACCURACY OR COMPLETENESS OF UTILITIES SHOWN. 72 HOURS PRIOR TO ANY EXCAVATION ON SITE, THE CONTRACTOR SHALL CONTACT

DIG-SAFE AT 1-888-DIG-SAFE.





136 Harvey Road Bldg B101 Londonderry, NH 03053

Engineers

Planners

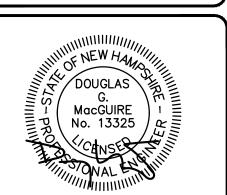
603-458-6462

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1 INCH = 40 FEET



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PROJECT:

109 ROCKINGHAM ROAD MAP 5 LOT 038-001

109 ROCKINGHAM ROAD DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

WATTS AUTO

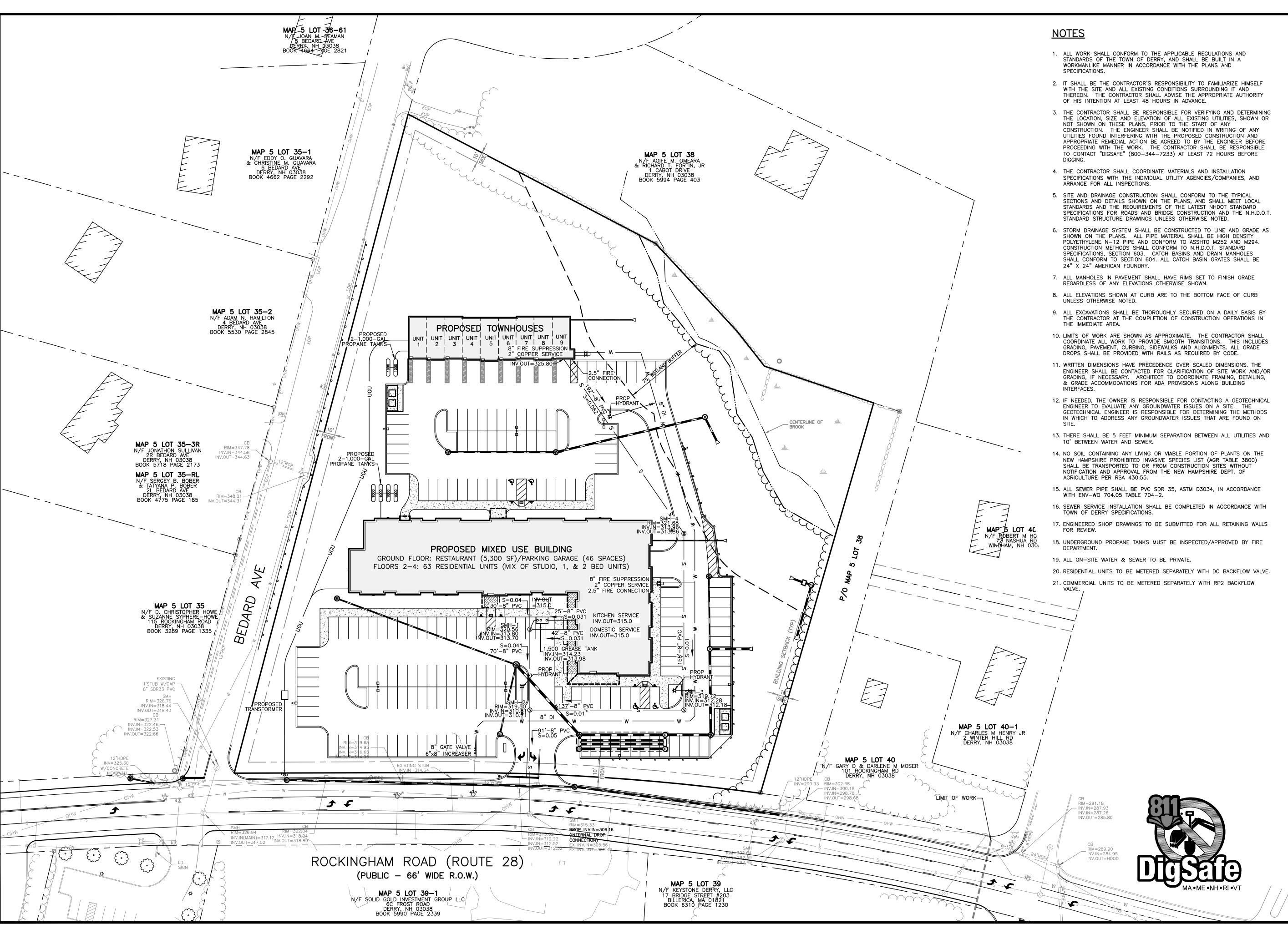
SALVAGE INC
PO BOX 332

DERRY, NH 03038

SHEET TITLE:

GRADING & DRAINAGE PLAN

PROJECT #491 SHEET 8 of 22





136 Harvey Road Bldg B101 Londonderry, NH 03053

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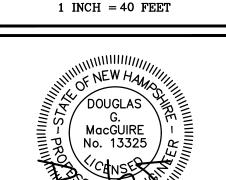
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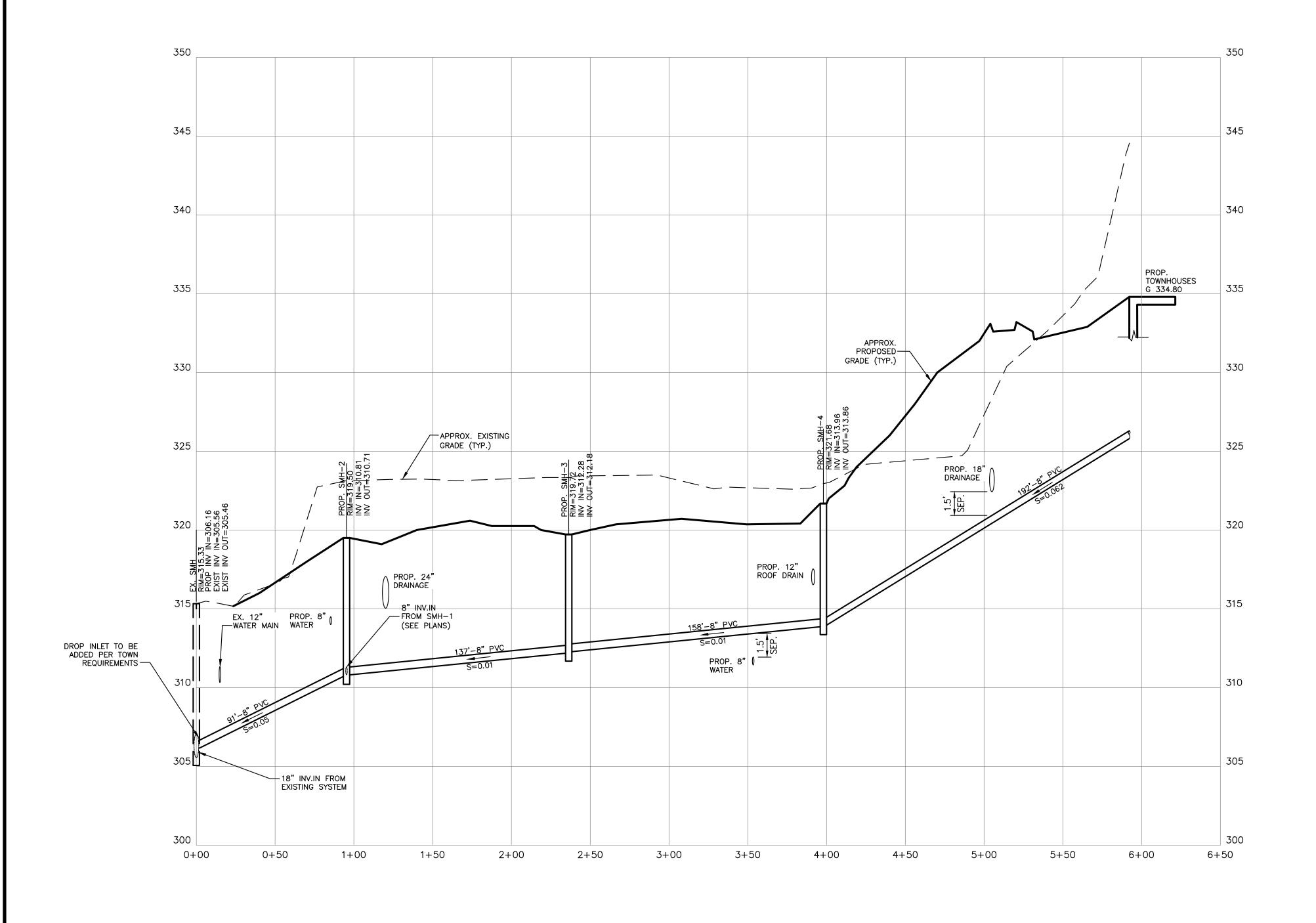
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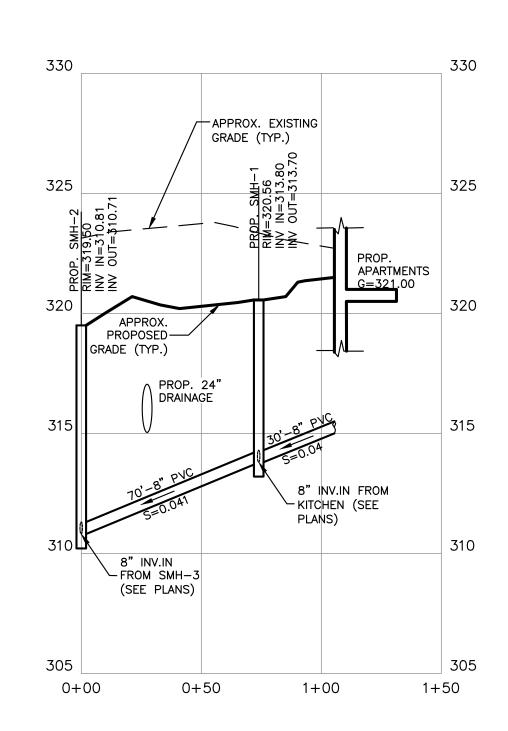
SALVAGE INC
PO BOX 332
DERRY, NH 03038

SHEET TITLE:

UTILITY PLAN

PROJECT #491 SHEET 9 of 22





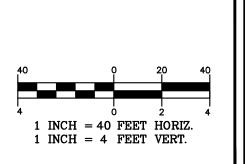


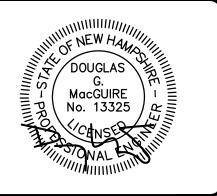
136 Harvey Road Bldg B101 Londonderry, NH 03053 603-458-6462

Engineers

Planners

Surveyors TheDubayGroup.com





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2	10/19/22	REVS PER DRIVEWAY RELOCATION	SJI		
3	2/22/23	TOWN COMMENTS	SJI		
4	6/13/23	TOWN COMMENTS	SJI		

DRAWN BY: TRL
CHECKED BY: DGM
DATE: NOV 4, 2021
SCALE: 1"=40'
FILE: 491—SEWER
DEED REF: —

PROJECT:

109 ROCKINGHAM ROAD
MAP 5 LOT 038-001

109 ROCKINGHAM ROAD DERRY, NH 03038

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ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

OWNER -

WATTS AUTO SALVAGE INC

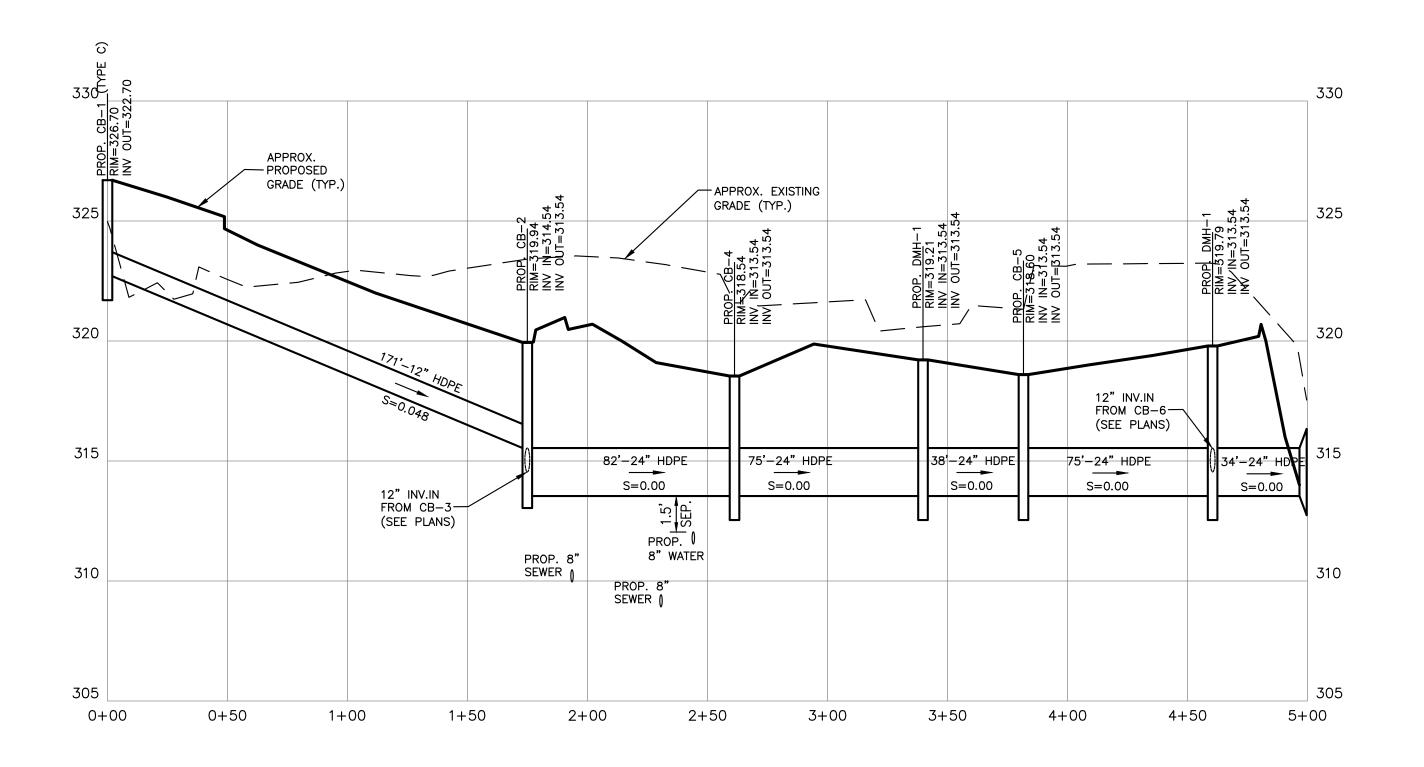
PO BOX 332 DERRY, NH 03038

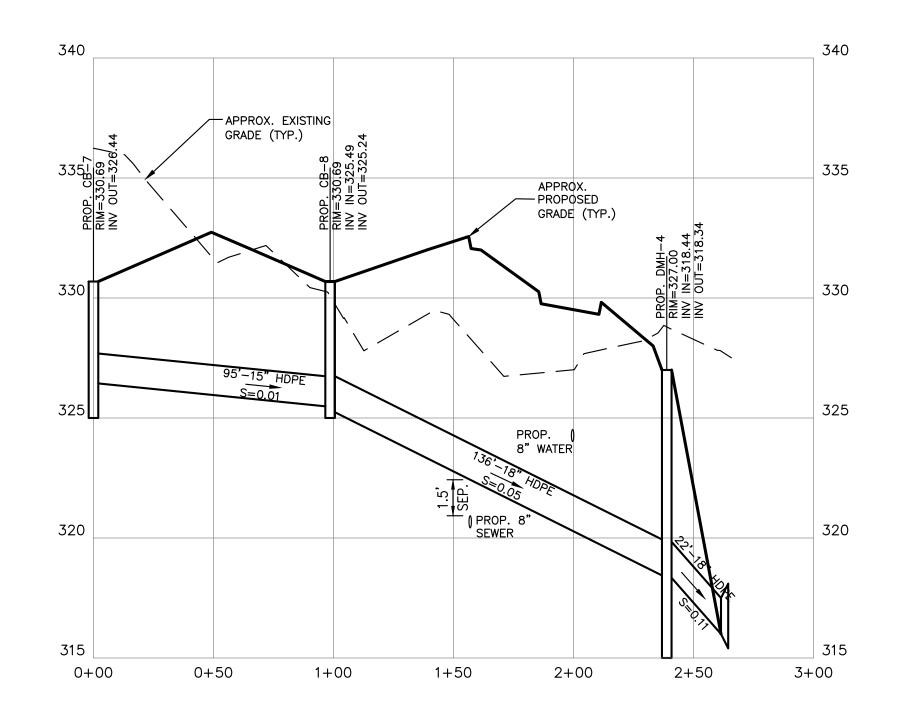
SHEET TITLE:

SEWER PROFILES

PROJECT #491 SHEET 10 of 22

PROJECTS\491-Spofford-West Running Brook, Derry\DWG\CURRENT\491-SEWER.dwg







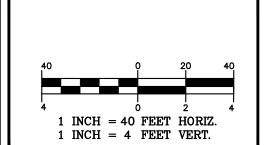
136 Harvey Road Bldg B101 Londonderry, NH 03053 603-458-6462

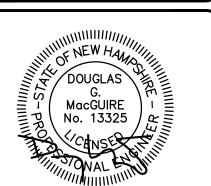
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Planners

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Surveyors





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2	10/19/22	REVS PER DRIVEWAY RELOCATION	SJK
3	2/22/23	TOWN COMMENTS	SJK

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PROJECT:

109 ROCKINGHAM ROAD MAP 5 LOT 038-001

109 ROCKINGHAM ROAD DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

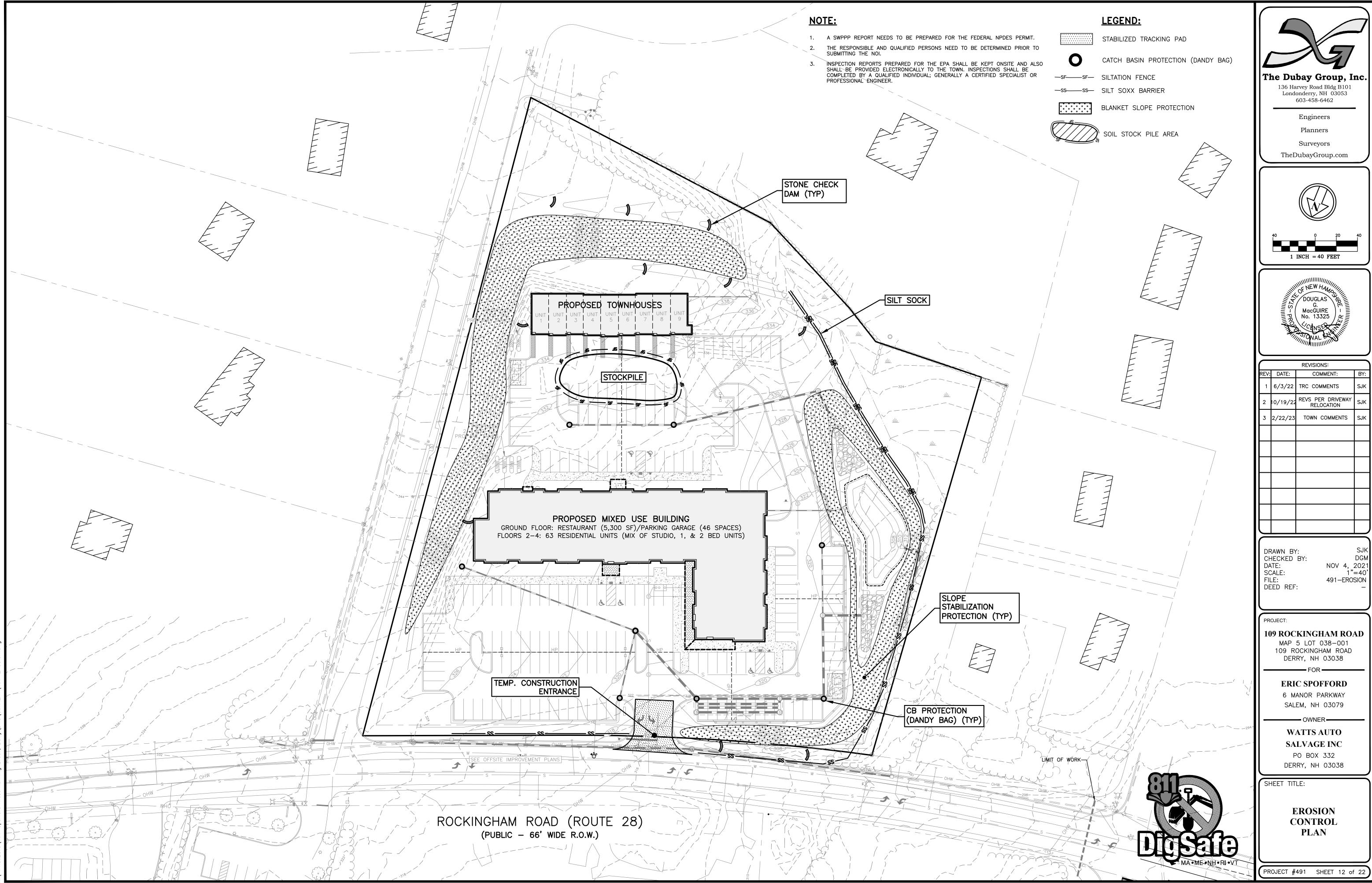
WATTS AUTO SALVAGE INC

PO BOX 332 DERRY, NH 03038

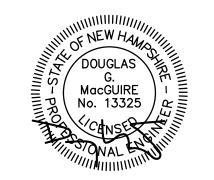
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DRAINAGE PROFILES

PROJECT #491 SHEET 11 of 22





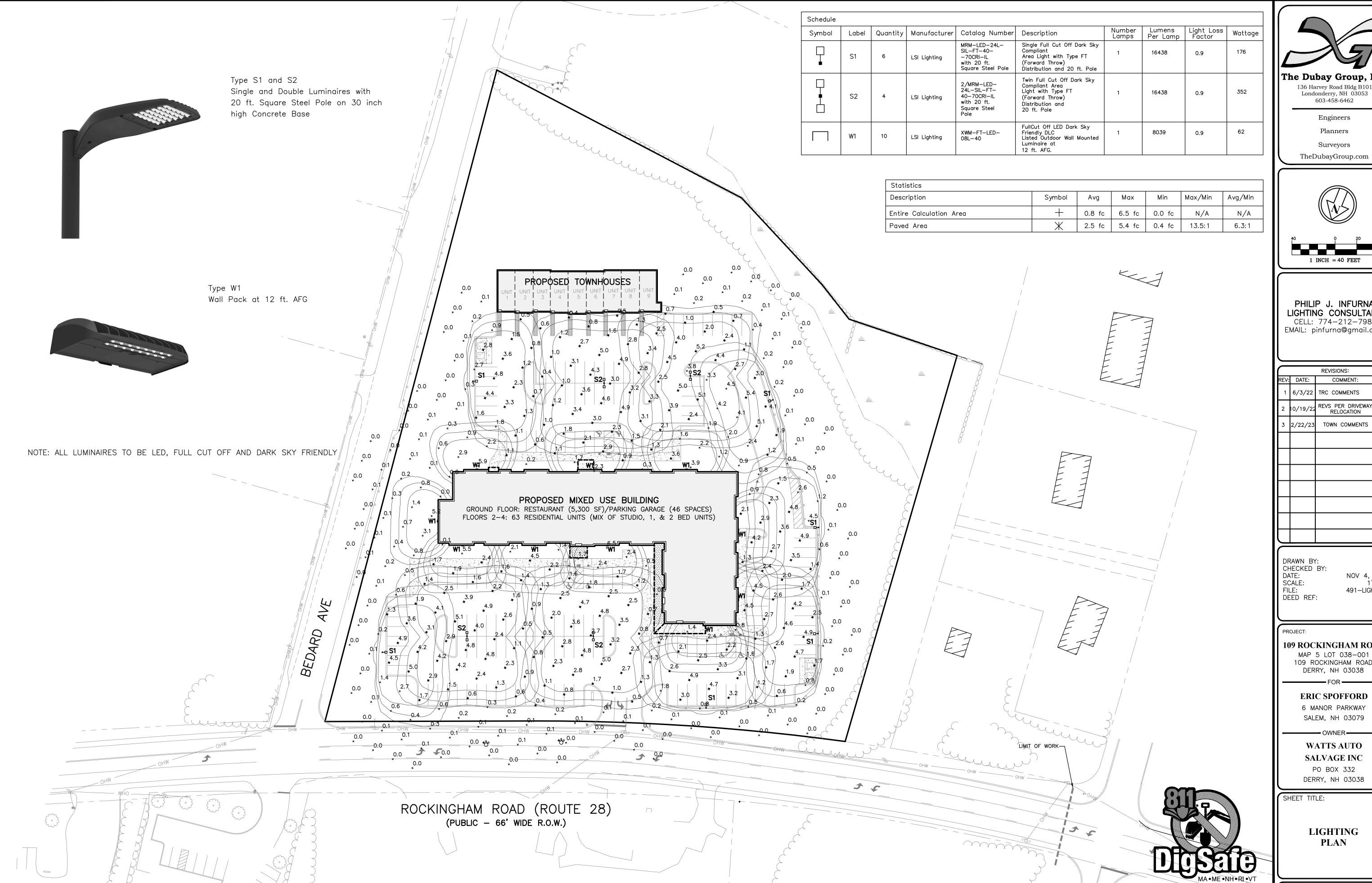


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2) -	10/19/22	REVS PER DRIVEWAY RELOCATION	SJK
3	3	2/22/23	TOWN COMMENTS	SJK

109 ROCKINGHAM ROAD

6 MANOR PARKWAY SALEM, NH 03079

PROJECT #491 SHEET 12 of 22



The Dubay Group, Inc. 136 Harvey Road Bldg B101

Engineers

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Surveyors TheDubayGroup.com



1 INCH = 40 FEET

PHILIP J. INFURNA LIGHTING CONSULTANT CELL: 774—212—7981 EMAIL: pinfurna@gmail.com

H	REVISIONS:			
	REV:	DATE:	COMMENT:	BY:
	1	6/3/22	TRC COMMENTS	SJK
	2	10/19/22	REVS PER DRIVEWAY RELOCATION	SJK
	3	2/22/23	TOWN COMMENTS	SJK

NOV 4, 2021 1"=40' 491-LIGHTING

109 ROCKINGHAM ROAD MAP 5 LOT 038-001 109 ROCKINGHAM ROAD DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

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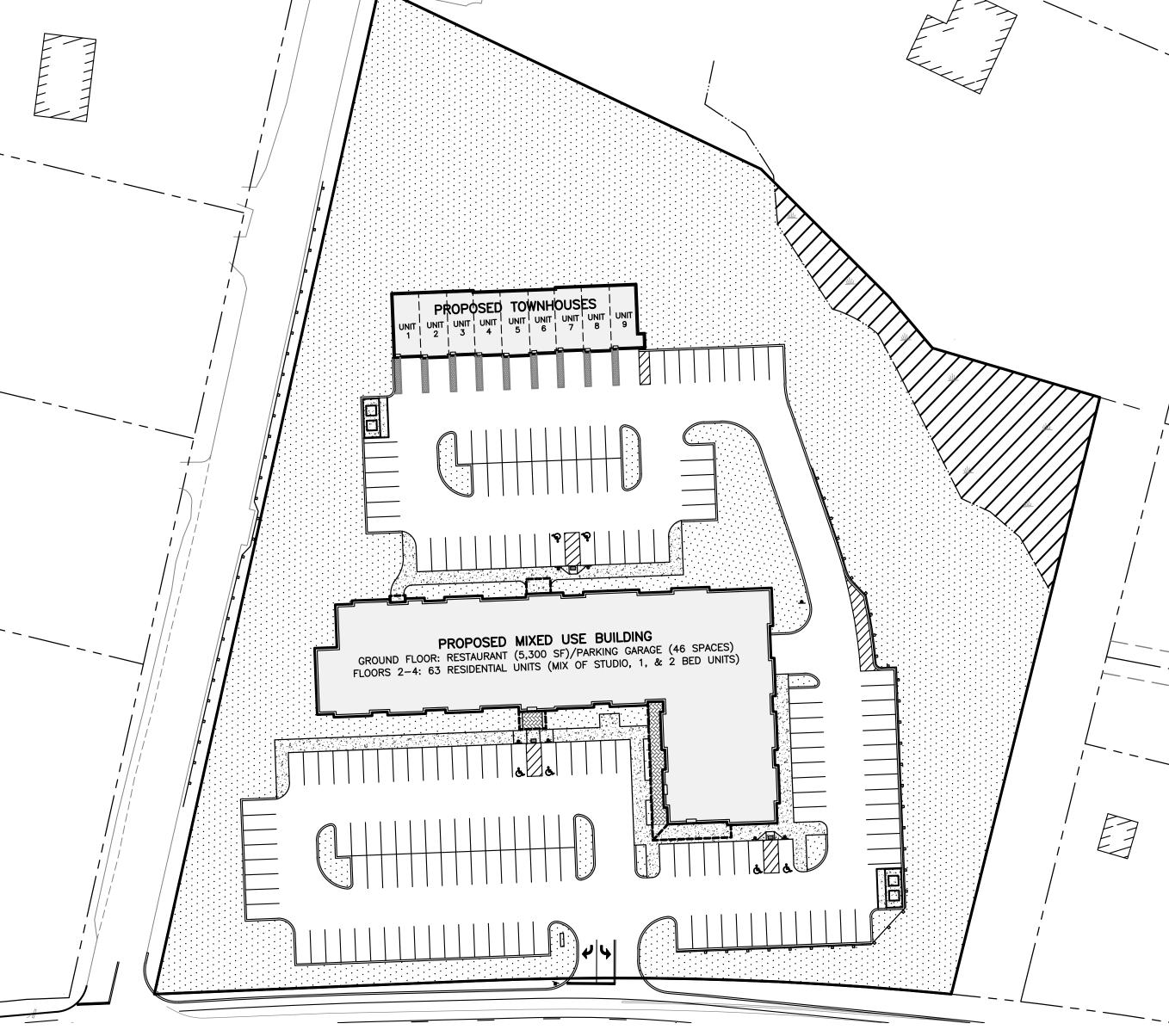
LIGHTING **PLAN**

PROJECT #491 SHEET 13 of 22



EXISTING IMPERVIOUS AREA SUMMARY

TOTAL AREA OF LOT = 234,815 SF OR 5.39 AC. PERVIOUS AREA = 215,894 SF WETLAND AREA = 11,935 SF IMPERVIOUS AREA = 6,986 SF LOT AREA LESS WETLANDS = 222,880 SF GREEN SPACE PERCENT = 215,894 SF/222,880 SF = 97%



IMPERVIOUS AREA FIGURE

SCALE: 1"=50'

PROPOSED IMPERVIOUS AREA SUMMARY

TOTAL AREA OF LOT = 234,815 SF OR 5.39 AC. PERVIOUS AREA = 110,217 SF WETLAND AREA = 11,935 SF IMPERVIOUS AREA = 112,663 SF LOT AREA LESS WETLANDS = 222,880 SF GREEN SPACE PERCENT = 110,217 SF/222,880 SF = 49%MINIMUM REQUIRED = 33% (COMPLIES)

<u>LEGEND</u>



PERVIOUS AREA



WETLAND AREA



136 Harvey Road Bldg B101

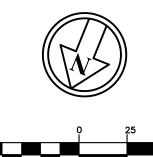
Londonderry, NH 03053 603-458-6462

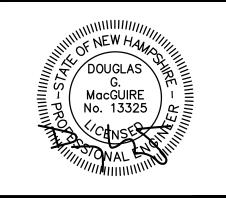
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109 ROCKINGHAM ROAD

MAP 5 LOT 038-001 109 ROCKINGHAM ROAD DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

WATTS AUTO SALVAGE INC

PO BOX 332 DERRY, NH 03038

SHEET TITLE:

IMPERVIOUS AREA SUMMARY

PROJECT #491 SHEET 14 of 22

EROSION CONTROL NOTES

CONSTRUCTION SEQUENCE

- 1. PRIOR TO CONSTRUCTION, AN INITIAL PRE CONSTRUCTION MEETING(S) SHALL TAKE PLACE WITH THE CONTRACTOR, OWNER AND TOWN AGENTS.
- 2. THIS SITE WILL REQUIRE A USEPA NPDES PERMIT FOR STORMWATER DISCHARGE FOR THE SITE CONSTRUCTION SINCE THE DISTURBANCE EXCEEDS ONE ACRE. THE CONSTRUCTION SITE OPERATOR SHALL DEVELOP AND IMPLEMENT A CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN (SWPPP), WHICH SHALL REMAIN ON SITE AND MADE ACCESSIBLE TO THE PUBLIC. A COMPLETED NOTICE OF TERMINATION (NOT) SHALL BE SUBMITTED TO NPDES PERMITTING AUTHORITY WITHIN 30 DAYS AFTER EITHER OF THE FOLLOWING CONDITIONS HAVE BEEN MET: FINAL STABILIZATION HAS BEEN ACHIEVED ON ALL PORTIONS OF THE SITE FOR WHICH THE PERMITTED IS RESPONSIBLE; OR ANOTHER OPERATOR/PERMITTEE HAS ASSUMED CONTROL OVER ALL AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
- 3. THE PROJECT WILL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53
 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
- 4. INSTALL PERIMETER CONTROLS, I.E SILT FENCE AND/OR SILTSOXX AROUND THE LIMITS OF DISTURBANCE BEFORE ANY EARTH MOVING OPERATION.
- 5. CONSTRUCT TEMPORARY CONSTRUCTION EXIT.
- 6. CLEAR AND GRUB WITHIN AREAS OF DISTURBANCE UNLESS OTHERWISE NOTED.
- 7. REMOVE AND STOCKPILE MATERIALS AS REQUIRED. STOCKPILE SHALL BE SURROUNDED WITH AN EROSION CONTROL DEVICE TO PREVENT EROSION. STOCKPILE AREAS ARE LIMITED AND THUS MANAGEMENT OF MATERIALS WILL BE REQUIRED. SEDIMENT TRAPS AND/OR BASINS SHALL BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL BASIN/PONDS ARE STABILIZED.
- 8. SHAPE PROPOSED DRAINAGE PONDS, DITCHES AND/OR SWALES.
- 9. PERFORM ROUGH SITE GRADING. INSTALL DRAINAGE SYSTEMS AND UTILITIES.
- 10. BEGIN BUILDING CONSTRUCTION.
- 11. INSTALL UNDERGROUND UTILITIES AND PLACE EROSION CONTROL MEASURES AROUND ANY CATCH BASINS PRIOR TO DIRECTING ANY RUNOFF TO THEM. DRAINAGE SYSTEMS SHALL BE CONSTRUCTED AND STABILIZED PRIOR TO DIRECTING ANY FLOW TO THEM. ALL SIDE SLOPES SHALL BE STABILIZED WITHIN 72 HOURS.
- 12. LAYOUT AND INSTALL ALL BURIED UTILITIES AND SERVICES.
- 13. FINISH GRADE SITE, BACKFILL ROAD SUBBASE GRAVEL IN TWO, COMPACTED LIFTS. PROVIDE TEMPORARY EROSION PROTECTION TO DITCHES AND SWALES WHERE APPLICABLE, IN THE FORM OF MULCHING, JUTE MATTING OR STONE CHECK DAMS.
- 14. INSTALL EXTERIOR LIGHT POLE BASES, AND MAKE FINAL CONNECTIONS TO CONDUIT.
- 15. ANY PERMANENT DITCHES AND SWALES SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM.
- 16. PLACE BINDER LAYER OF PAVEMENT, THEN RAISE CATCH BASIN FRAMES TO FINAL GRADE. REINSTALL BASIN INLET PROTECTION.
- 17. PLANT LANDSCAPING IN AREAS OUT OF WAY OF BUILDING CONSTRUCTION. PREPARE AND STABILIZE FINAL SITE GRADING BY ADDING TOPSOIL, SEED, MULCH AND FERTILIZER.
- 18. AFTER BUILDINGS ARE COMPLETED, FINISH ALL REMAINING LANDSCAPED WORK.
- 19. CONSTRUCT ASPHALT WEARING COURSE.
- 20. REMOVE TRAPPED SEDIMENTS FROM COLLECTION DEVICES AS APPROPRIATE, AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES UPON COMPLETION OF FINAL STABILIZATION OF THE SITE.

GENERAL CONSTRUCTION NOTES

- 1. THE TEMPORARY BMPS ASSOCIATED WITH THIS PROJECT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND LANDOWNER, WHO WILL BE RESPONSIBLE FOR INSPECTION, OPERATION, AND MAINTENANCE.
- 2. EROSION CONTROL PROCEDURES SHALL CONFORM TO SECTION 645 OF THE "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION OF THE NHDOT". EROSION CONTROL SHALL BE INSTALLED DOWNHILL OF ALL AREAS WHERE WORK WILL EXPOSE UNPROTECTED SOIL TO PREVENT SEDIMENT FROM ENTERING CATCH BASINS, DRAINAGE STRUCTURES AND/OR DRAINAGE WAYS. INSTALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES PRIOR TO ANY EARTH MOVING OPERATIONS. THE CONTRACTOR SHALL MANAGE THE PROJECT IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
- 3. EROSION CONTROL DEVICES SHALL BE INSTALLED WHERE REQUIRED PRIOR TO ANY ON—SITE GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. EROSION CONTROL MEASURES SHALL BE MAINTAINED DURING DEVELOPMENT AND SHALL BE CHECKED PERIODICALLY AND EXCESS SILT SHALL BE REMOVED.
- 4. ALL DISTURBED AREAS WHICH ARE FINISH GRADED SHALL BE LOAMED (6" MINIMUM) AND SEEDED. SEE SEEDING AND FERTILIZER SPECIFICATION. SEE SLOPE DESIGN AND/OR LANDSCAPE PLAN FOR ADDITIONAL INFORMATION.
- 5. ANY DISTURBED AREAS WHICH ARE TO BE LEFT TEMPORARILY, AND WHICH WILL BE REGRADED LATER SHALL BE MACHINED STRAW MULCHED AND SEEDED WITH SLOPE STABILIZATION SEED MIXTURE TO PREVENT EROSION. STRAW MULCH SHALL BE APPLIED AT A RATE OF 2 TONS/ACRE.
- 6. ALL DRAINAGE SYSTEMS (DITCHES, SWALES, DRAINAGE PONDS/BASINS, ETC.) SHALL BE STABILIZED PRIOR TO DIRECTING RUNOFF TO THEM. STORMWATER FLOWS ARE NOT TO BE DIRECTED TO THESE SYSTEMS UNTIL CONTRIBUTING AREAS HAVE ALSO BEEN FULLY STABILIZED.
- 7. CONTRACTOR SHALL PROVIDE DUST CONTROL MEASURES IN ACCORDANCE WITH NHDES, EPA & TOWN REQUIREMENTS FOR THE DURATION OF THE PROJECT. WATER FOR DUST CONTROL SHALL BE PROVIDED ON SITE. FUGITIVE DUST IS CONTROLLED IN ACCORDANCE WITH ENV-A 1000.
- . ALL EROSION CONTROLS ARE TO BE INSPECTED BIWEEKLY AND AFTER 0.25" OR GREATER OF RAINFALL WITHIN A 24 HOUR PERIOD.
- 9. ALL FILLS SHALL BE PLACED AND COMPACTED TO 90% MODIFIED PROCTOR DENSITY IN LAYERS NOT EXCEEDING 18 INCHES IN THICKNESS UNLESS OTHERWISE NOTED. FILL MATERIAL SHALL BE FREE FROM STUMPS, WOOD, ROOTS, ETC. AND SHALL NOT BE PLACED ON FROZEN FOUNDATION SUBGRADE.
- 10. SILT FENCES AND/OR SILTSOXX SHALL BE PERIODICALLY INSPECTED DURING THE LIFE OF THE PROJECT AND AFTER EACH STORM. ALL DAMAGED SILT FENCES AND/OR SILTSOXX SHALL BE REPAIRED. SEDIMENT DEPOSITS SHALL PERIODICALLY BE REMOVED AND DISPOSED IN A SECURE LOCATION.
- 11. PAVED AREAS MUST BE KEPT CLEAN AT ALL TIMES.
- 12. ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA.
- 13. THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE DISTURBED AREAS ARE STABILIZED. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 72 HOURS AFTER FINAL GRADING. EXPOSURE OF UNSTABILIZED SOILS SHALL BE TEMPORARILY STABILIZED AS SOON AS POSSIBLE BUT NO LATER THAN 45 DAYS OF INITIAL DISTURBANCE.
- 14. WINTERIZATION EFFORTS FOR AREAS NOT STABILIZED BY OCTOBER 15TH SHALL BE MADE BY THE APPROPRIATE USE OF MATTING, BLANKETS, GRAVEL, MULCH AND SEEDING.

- 15. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- A. BASE COURSE GRAVELS HAS BEEN INSTALLED IN AREAS TO BE PAVED;
- B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
- C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP RAP HAS BEEN INSTALLED; OR D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- 16. IF, DURING CONSTRUCTION, IT BECOMES APPARENT THAT ADDITIONAL EROSION CONTROL MEASURES ARE REQUIRED TO STOP ANY EROSION ON THE CONSTRUCTION SITE DUE TO ACTUAL SITE CONDITIONS, THE

CONTRACTOR SHALL BE REQUIRED TO IMMEDIATELY INSTALL AND MAINTAIN THE NECESSARY EROSION

SEEDING SPECIFICATION

1. TEMPORARY SEED

PROTECTION.

- A. TEMPORARY VEGETATIVE COVER SHOULD BE APPLIED WHERE EXPOSED SOIL SURFACES WILL NOT BE FINAL GRADED WITHIN 45 DAYS.
- B. SEED BED PREPARATION SHALL BE IN ACCORDANCE WITH THE NHDES STORMWATER MANAGEMENT MANUAL.
- VOLUME 3, TEMPORARY VEGETATION SECTION.

C. SE	C. SEEDING MIXTURE						
<u>M</u>	IIXTURE	SPECIES	POUNDS PER ACRE	POUNDS PER 1,000 SQ.			
		WINTER RYE	112	2.50			
		OATS	80	2.00			
		ANNUAL RYEGRASS	40	1.00			
		PERENNIAL RYEGRASS	30	0.70			
		TOTAL	262	6.20			

2. SEEDING SCHEDULE

- A. SPRING SEEDING USUALLY GIVES THE BEST RESULTS FOR ALL SEED MIXES OR WITH LEGUMES.
- B. PERMANENT SEEDING SHOULD BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST. IF SEEDING CANNOT BE DONE WITHIN THE SPECIFIED SEEDING DATES, MULCH ACCORDING TO THE NEW HAMPSHIRE STORMWATER MANAGEMENT MANUAL, VOLUME 3, CONSTRUCTION PHASE EROSION AND SEDIMENT CONTROLS AND DELAY SEEDING UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- 3. ESTABLISHING A STAND OF GRASS
- A. STONES AND TRASH SHOULD BE REMOVED FROM LOAMED AREAS SO AS NOT TO INTERFERE WITH THE SEEDING PROCESS.
- B. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF 2 INCHES BEFORE APPLYING FERTILIZER. LIME AND SEED.
- C. IF APPLICABLE, FERTILIZER AND ORGANIC SOIL AMENDMENTS SHOULD BE APPLIED DURING THE GROWING SEASON.
- D. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 600 POUNDS PER ACRE OR 13.8 POUNDS PER 1,000 SQUARE FEET OF LOW PHOSPHATE FERTILIZER (N-P205-K20) OR EQUIVALENT. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF 3 TONS PER ACRE (138 LB. PER 1,000 SQUARE FEET).
- E. FERTILIZER SHOULD BE RESTRICTED TO A LOW PHOSPHATE, SLOW RELEASE NITROGEN FERTILIZER
- 4. SEED SHOULD BE SPREAD UNIFORMLY BY A METHOD MOST APPROPRIATE FOR THE SITE. METHODS INCLUDING HAND, CYCLONE SEEDER, DRILL, CULTIPACKER TYPE SEEDER OR HYDROSEEDER.
- A. INOCULATE ALL LEGUME SEED WITH THE CORRECT TYPE AND AMOUNT OF INOCULANTS.
- B. NORMAL SEEDING DEPTH IS FROM 1/4 TO 1/2 INCH. HYDROSEEDING THAT INCLUDES MULCH MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10 % WHEN HYDROSEEDING.
- C. WHERE FEASIBLE, EXCEPT WHERE EITHER A CULTIPACKER TYPE SEEDER OR HYDROSEEDER IS USED, THE SEEDBED SHOULD BE FIRMED FOLLOWING SEEDING OPERATIONS WITH A ROLLER, OR LIGHT DRAG.
- D. THE GRADE "A" OF SEEDING MIXTURE SHOULD BE USED WITH THE FOLLOWING SEEDING RATES, BASED ON THE SEEDING GUIDE.

MIXTURE	SPECIES	POUNDS PER ACRE	POUNDS PER 1,000 SQ. FT.
Α	TALL FESCUE	20	0.45
	CREEPING RED FESCUE	20	0.45
	REDTOP	2	0.05
	TOTAL	42	0.95

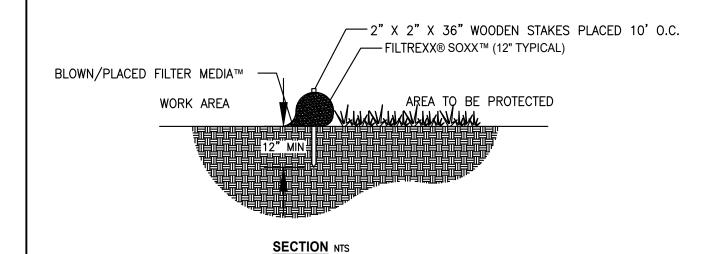
- 5. ALTERNATE PERMANENT SEEDING FOR AREAS NOT RECEIVING LAWN OR LANDSCAPING SHALL BE AS FOLLOWS:
- A. THE NEW ENGLAND EROSION CONTROL/RESTORATION MIX CONTAINS A SELECTION OF NATIVE GRASSES AND WILDFLOWERS DESIGNED TO COLONIZE GENERALLY MOIST, RECENTLY DISTURBED SITES WHERE QUICK GROWTH OF VEGETATION IS DESIRED TO STABILIZE THE SOIL SURFACE. THIS MIX IS PARTICULARLY APPROPRIATE FOR DETENTION BASINS WHICH DO NOT NORMALLY HOLD STANDING WATER. THE PLANTS IN THIS MIX CAN TOLERATE INFREQUENT INUNDATION, BUT NOT CONSTANT FLOODING. IN NEW ENGLAND, THE BEST RESULTS ARE OBTAINED WITH A SPRING OR EARLY FALL SEEDING. SUMMER AND FALL SEEDING CAN BE SUCCESSFUL WITH A LIGHT MULCHING OF WEED-FREE STRAW TO CONSERVE MOISTURE. LATE FALL AND WINTER DORMANT SEEDING REQUIRE A SLIGHT INCREASE IN THE SEEDING RATE. FERTILIZATION IS NOT REQUIRED UNLESS THE SOILS ARE PARTICULARLY INFERTILE.
- B. APPLICATION RATE: 35 LBS/ACRE 1245 SQ FT/LB
- C. SPECIES: SWITCHGRASS (PANICUM VIRGATUM), CREEPING RED FESCUE (FESTUCA RUBRA), VIRGINIA WILD RYE (ELYMUS VIRGINICUS), FOX SEDGE (CAREX VULPINOIDEA), CREEPING BENTGRASS (AGROSTIS STOLONIFERA), SILKY WILD RYE (ELYMUS VILLOSUS), NODDING BUR-MARIGOLD (BIDENS CERNUA), SOFT RUSH (JUNCUS EFFUSUS), GRASS-LEAVED GOLDENROD (SOLIDAGO GRAMINIFOLIA), SENSITIVE FERN (ONOCLEA SENSIBILIS), JOE-PYE WEED (EUPATORIUM MACULATUM), BONESET (EUPATORIUM PERFOLIATUM), FLAT-TOP ASTER (ASTER UMBELLATUS), NEW YORK ASTER (ASTER NOVI-BELGII), BLUE VERVAIN (VERBENA HASTATA).

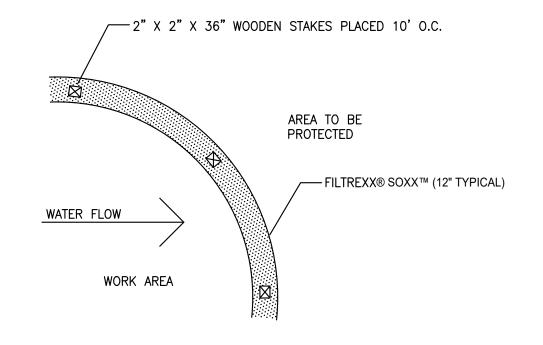
WINTER NOTES

- 1. ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS;
- 2. ALL AREAS TO BE PLANTED WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15TH, OR WHICH ARE DISTURBED AFTER OCTOBER 15TH, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.
- 3. AFTER OCTOBER 15TH, INCOMPLETE SURFACES TO BE PAVED, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3 OR CRUSHED STONE.

MAINTENANCE AND PROTECTION

- 1. THE CONTRACTOR SHALL TAKE WHATEVER MEASURES ARE NECESSARY TO PROTECT THE GRASS WHILE IT DEVELOPS.
- 2. TO BE ACCEPTABLE, SEEDED AREAS SHALL CONSIST OF A UNIFORM STAND OF AT LEAST 90 PERCENT ESTABLISHED PERMANENT GRASS SPECIES, WITH A UNIFORM COUNT OF AT LEAST 100 PLANTS PER SQUARE FOOT.
- 3. SEEDED AREAS WILL BE FERTILIZED AND RE-SEEDED AS NECESSARY TO INSURE VEGETATIVE ESTABLISHMENT.
- 4. THE SWALES WILL BE CHECKED WEEKLY AND REPAIRED WHEN NECESSARY, UNTIL ADEQUATE VEGETATION IS ESTABLISHED.
- 5. THE SILT FENCE AND/OR SILTSOXX BARRIER SHALL BE CHECKED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
- 6. SILT FENCE AND/OR SILTSOXX SHALL BE REMOVED ONCE VEGETATION IS ESTABLISHED, AND DISTURBED AREAS RESULTING FROM SLIT FENCE AND/OR SILTSOXX REMOVAL SHALL BE PERMANENTLY SEEDED.





<u>PLAN</u> NTS

NOTES:

1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.

2. FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS.

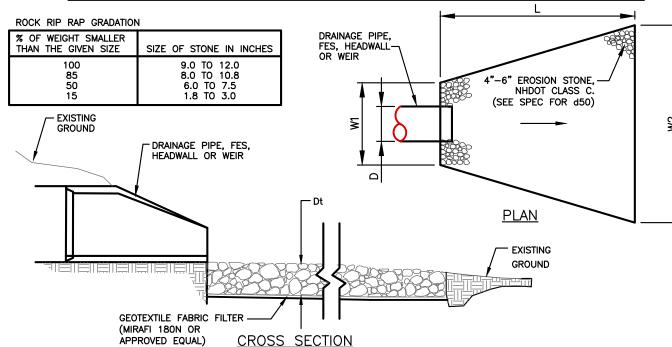
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

FILTREXX® SEDIMENT CONTROL

NTS

(FOR PERMANENT STABILIZATION OF AREAS, TYPICALLY LOCATED AROUND PERIMETER OF FINAL EXCAVATION WORK LIMITS.)

	LOCATION	L	W1	W2	d50	Dt	
	FES-1	19	5	12	6	15	
	FES-2	21	6	14	6	15	
	FES-3	16	3	9	6	15	
	FES-4	17	5	11	6	15	
IP I	P RAP GRADATION						
/EIG	GHT SMALLER DRAINAGE PIPE,						



CONSTRUCTION NOTES:

- 1. THE SUBGRADE, GEOTEXTILE FABRIC, AND RIPRAP SHALL BE PREPARED TO THE LINES AND GRADES SHOWN ON THE PLANS.
- 2. THE ROCK OR GRAVEL USED FOR RIPRAP SHALL CONFORM TO THE SPECIFIED GRADATION.
- 3. GEOTEXTILE FABRICS SHALL BE PROTECTED FROM PUNCTURE OR TEARING DURING THE PLACEMENT OF THE ROCK RIPRAP. DAMAGED AREAS IN THE FABRIC SHALL BE REPAIRED BY PLACING A PIECE OF FABRIC OVER THE DAMAGED AREA OR BY COMPLETE REPLACEMENT OF THE FABRIC. ALL OVERLAPS REQUIRED FOR REPAIRS OR JOINING TWO PIECES OF FABRIC SHALL BE A MINIMUM OF 12 INCHES.
- 4. STONE FOR THE RIPRAP MAY BE PLACED BY EQUIPMENT AND SHALL BE CONSTRUCTED TO THE FULL LAYER THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO PREVENT SEGREGATION OF THE STONE SIZES.
 5. THE MEDIAN STONE DIAMETER FOR THE RIPRAP APRON IS d50. FIFTY PERCENT BY WEIGHT OF THE RIPRAP MIXTURE SHALL BE SMALLER THAN THE MEDIAN STONE SIZE. THE LARGEST STONE SIZE IN THE MIXTURE SHALL BE 1.5 TIMES THE d50.
- MAINTENANCE

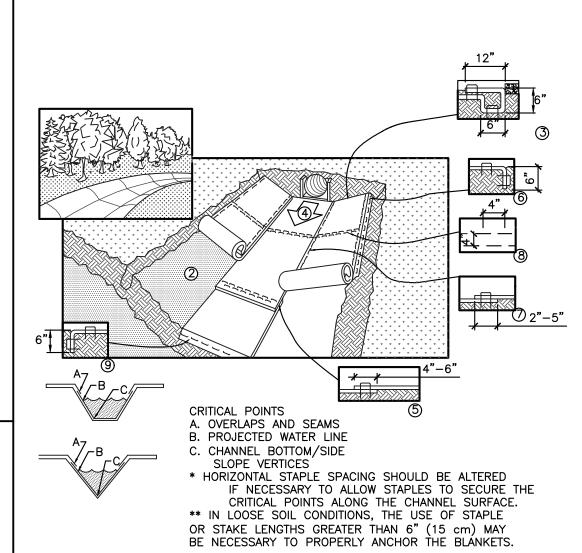
 1. THE OUTLET PROTECTION SHOULD BE CHECKED AT LEAST ANNUALLY AND AFTER EVERY MAJOR STORM WITHIN THE GROWING STABILIZATION PERIOD. IF THE RIPRAP HAS BEEN DISPLACED, UNDERMINED OR DAMAGED, IT SHOULD BE REPAIRED IMMEDIATELY. THE CHANNEL IMMEDIATELY BELOW THE OUTLET SHOULD BE CHECKED TO SEE THAT EROSION IS NOT OCCURRING. THE DOWNSTREAM CHANNEL SHOULD

BE KEPT CLEAR OF OBSTRUCTIONS SUCH AS FALLEN TREES, DEBRIS, AND SEDIMENT THAT COULD CHANGE FLOW PATTERNS AND/OR TAILWATER DEPTHS ON THE PIPES. REPAIRS MUST BE CARRIED OUT IMMEDIATELY TO AVOID ADDITIONAL DAMAGE TO THE OUTLET

STONE LINED OUTLET PROTECTION



- 1. INSTALL PRODUCT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS
- 2. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL—O—SEED, DO NOT SEED PREPARED AREA. CELL—O—SEED MUST BE INSTALLED WITH THE PAPER SIDE DOWN.
- 3. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE BLANKET IN A 6"DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP—SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
- 4. ROLL CENTER BLANKET IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
- 5. PLACE CONSECUTIVE BLANKETS END OVER END (SHINGLE STYLE) WITH A 4"-6" OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER TO SECURE
- 6. FULL—LENGTH EDGE OF BLANKETS AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6"DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- 7. ADJACENT BLANKETS MUST BE OVERLAPPED APPROXIMATELY 2"-5" (DEPENDING ON BLANKET TYPE) AND STAPLED TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE BLANKET BEING OVERLAPPED.
- 8. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30' TO 40' INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" APART AND 4" ON CENTER OVER ENTIRE WIDTH OF CHANNEL.
- THE TERMINAL END OF THE BLANKETS MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN A 6"DEEP X 6"WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.



ROLLED EROSION CONTROL MATTING (WHERE NEEDED FOR SWALE WORK)

NOT TO SCALE

136 Harvey Road Bldg B101

The Dubay Group, Inc.

Londonderry, NH 03053 603-458-6462

Engineers

Planners
Surveyors

REVISIONS:

REV: DATE: COMMENT: BY:

2 10/19/22 REVS PER DRIVEWAY RELOCATION

3 2/22/23 TOWN COMMENTS SJK

DRAWN BY: SJK
CHECKED BY: DGM
DATE: NOV 4, 202°
SCALE:
FILE: 491-DETAILS
DEED REF: -

PROJECT:

109 ROCKINGHAM ROAD

MAP 5 LOT 038-001 109 ROCKINGHAM ROAD DERRY, NH 03038

ERIC SPOFFORD

– OWNER –

DERRY, NH 03038

6 MANOR PARKWAY SALEM, NH 03079

WATTS AUTO
SALVAGE INC
PO BOX 332

SHEET TITLE:

SITE DETAILS - 1

PROJECT #491 SHEET 15 of 22

TEMPORARY CONSTRUCTION EXIT

- 1. THE MINIMUM STONE USED SHALL BE 3-INCH CRUSHED STONE.
- 2. THE MINIMUM LENGTH OF THE PAD SHALL BE 75 FEET, EXCEPT THAT THE MINIMUM LENGTH MAY BE REDUCED TO 50 FEET IF A 3-INCH TO 6-INCH HIGH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
- 3. THE PAD SHALL EXTEND THE FULL WIDTH OF THE CONSTRUCTION ACCESS ROAD OR 15 FEET, WHICHEVER IS GREATER.
- 4. THE PAD SHALL SLOPE AWAY FROM THE EXISTING ROADWAY.
- 5. THE PAD SHALL BE AT LEAST 6 INCHES THICK. A GEOTEXTILE FILTER FABRIC SHALL BE PLACED BETWEEN THE STONE PAD AND THE EARTH SURFACE BELOW
- 6. THE PAD SHALL BE MAINTAINED OR REPLACED WHEN MUD AND SOIL PARTICLES CLOG THE VOIDS IN THE STONE SUCH THAT MUD AND SOIL PARTICLES ARE TRACKED OFF-SITE.
- 7. A STABILIZED CONSTRUCTION EXIT CONSISTS OF A PAD OF STONE AGGREGATE PLACED ON A GEOTEXTILE FILTER FABRIC, LOCATED AT ANY POINT WHERE TRAFFIC WILL BE LEAVING A CONSTRUCTION SITE TO AN EXISTING ACCESS ROAD WAY OR OTHER PAVED SURFACE. ITS PURPOSE IS TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES. THIS HELPS PROTECT RECEIVING WATERS FROM SEDIMENT CARRIED BY STORMWATER RUNOFF FROM PUBLIC ROADS.
- ONLY CONSTRUCTION TRAFFIC LEAVING THE SITE SHALL TO USE THE TEMPORARY STABILIZED EXIT. CONSIDER PROVIDING A SEPARATE, UNPROTECTED, ENTRANCE FOR TRAFFIC ENTERING THE SITE. THIS WILL INCREASE THE LONGEVITY OF THE STABILIZED EXIT BY ELIMINATING HEAVY LOADS ENTERING THE SITE AND REDUCING THE TOTAL TRAFFIC OVER THE DEVICE.
- 9. LOCATE CONSTRUCTION ENTRANCES AS SHOWN ON THE PLAN.
- 10. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF\-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR MAINTENANCE OF ANY MEASURES USED TO TRAP
- 11. THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY.
- 12. WHEN THE CONTROL PAD BECOMES INEFFECTIVE, THE STONE SHALL BE REMOVED ALONG WITH THE COLLECTED SOIL MATERIAL, REGRADED ON SITE, AND STABILIZED. THE ENTRANCE SHALL THEN BE RECONSTRUCTED.
- 13. THE CONTRACTOR SHALL SWEEP THE PAVEMENT AT EXITS WHENEVER SOIL MATERIALS ARE TRACKED ONTO THE ADJACENT PAVEMENT OR TRAVELED WAY.
- 14. WHEN WHEEL WASHING IS REQUIRED, IT SHALL BE CONDUCTED ON AN AREA STABILIZED WITH AGGREGATE, WHICH DRAINS INTO AN APPROVED SEDIMENT-TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS.
- 15. NATURAL DRAINAGE THAT CROSSES THE LOCATION OF THE STONE PAD SHALL BE INTERCEPTED AND PIPED BENEATH THE PAD, AS NECESSARY, WITH SUITABLE OUTLET PROTECTION.
- 16. THESE REQUIREMENTS MAY BE ADJUSTED TO SPECIFIC SITE CONDITIONS PER THE DIRECTION OF JURISDICTIONAL TOWN AND STATE AUTHORITIES, PER SWPPP INSPECTION/MANAGEMENT PROCESSES, AND PER BEST MANAGEMENT PRACTICES.

STABILIZED TRACKING PAD DETAIL NOT TO SCALE

SILT SCREEN FABRIC 1-3/4"X1-3/4" (MIN) \ METAL OR WOOD POST FABRIC ANCHORAGE TRENCH W/TAMPED NATURAL ŚOIL DIRECTION OF RUNOFF FLOW OLD GROUND . OLD GROUND SUPPORT POST ANCHORAGE MATERIAL, IF REQUIRED SILT FENCE **ELEVATION END VIEW**

CRITERIA FOR SILT FENCES:

- 1) SILT FENCE FILTER CLOTH: THE FABRIC FOR THE SILT FENCE SHALL MEET THE FOLLOWING SPECIFICATIONS:
- TEST METHOD FABRIC PROPERTIES VALUES GRAB TENSILE STRENGTH (lbs) 90 ASTM D1682 ELONGATION AT FAILURE (%) ASTM 1682 MULLEN BURST STRENGTH (PSI) 190 ASTM D3786 PUNCTURE STRENGTH (lbs) ASTM D751 EQUIVALENT OPENING SIZE 40-80 US STD SIEVE
- 2) FENCE POSTS (FOR FABRICATED UNITS) THE POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND SPACED A MINIMUM OF 6 FEET. WOOD POSTS WILL BE OF SOUND QUALITY HARDWOOD WITH A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES.
- 3) PREFABRICATED UNITS PREFABRICATED UNITS MAY BE USED IN LIEU OF THE ABOVE METHOD PROVIDING: (1) THE FILTER CLOTH AND FENCE POSTS MEET THE ABOVE CRITERIA; AND (2) THE UNIT IS INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

- 1) SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS THAT ARE REQUIRED SHALL BE MADE
- 2) IF THE FABRIC ON A SILT FENCE SHOULD DECOMPOSE OR BECOME INEFFECTIVE DURING THE EXPECTED LIFE OF THE FENCE, THE FABRIC SHALL BE REPLACED WITHIN 24 HOURS.

- 3) SEDIMENT DEPOSITS SHOULD BE INSPECTED AFTER EVERY STORM EVENT. THE DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE
- 4) SEDIMENT DEPOSITS THAT ARE REMOVED OR LEFT IN PLACE AFTER THE FABRIC HAS BEEN REMOVED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND

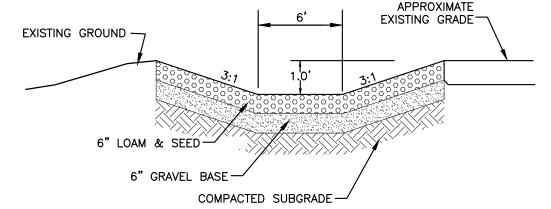
CONSTRUCTION SPECIFICATIONS:

- 1) THE GEOTEXTILE FABRIC SHALL MEET THE DESIGN CRITERIA FOR SILT FENCES.
- 2) THE FABRIC SHALL BE <u>EMBEDDED A MINIMUM OF 8 INCHES INTO THE GROUND</u> AND THE SOIL COMPACTED OVER THE EMBEDDED FABRIC.
- 3) FILTER CLOTH SHALL BE FASTENED SECURELY TO THE WOODEN STAKES EVERY 12 INCHES.
- 4) WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO WOOD STAKE.
- 5) POSTS SHALL BE A MINIMUM OF 36 INCHES LONG AND DRIVEN A MINIMUM OF 16 INCHES INTO THE GROUND, AND OF SOUND QUALITY HARDWOOD AND SHALL HAVE A MINIMUM CROSS SECTIONAL AREA OF 3.0 SQUARE INCHES.
- 6) MAINTENANCE SHALL BE PERFORMED AS NEEDED TO PREVENT BULGES IN THE SILT FENCE DUE TO DEPOSITION

SILTATION FENCING DETAIL NOT TO SCALE

MAINTENANCE REQUIREMENTS:

- GRASSED CHANNELS SHOULD BE INSPECTED PERIODICALLY (AT LEAST ANNUALLY) FOR SEDIMENT ACCUMULATION, EROSION, AND CONDITION OF SURFACE LINING (VEGETATION OR RIP-RAP). REPAIRS, INCLUDING STONE OR VEGETATION REPLACEMENT, SHOULD BE MADE BASED ON THIS INSPECTION.
- REMOVE SEDIMENT AND DEBRIS ANNUALLY, OR MORE FREQUENTLY AS WARRANTED
- MOW VEGETATED CHANNELS BASED ON FREQUENCY SPECIFIED BY DESIGN. MOWING AT LEAST ONCE PER YEAR IS REQUIRED TO CONTROL ESTABLISHMENT OF WOODY VEGETATION. IT IS RECOMMENDED TO CUT GRASS NO SHORTER THAN 4 INCHES.



TYPICAL GRASS LINED **SWALE**

NOT TO SCALE

ITEM 641.04 6" ROLLED LOAM & SEED

642. LIMESTONE

645.1 MULCH

DISTANCE OF STONE CHECK DAMS VARIES. TOE OF UPSTREAM CHECK

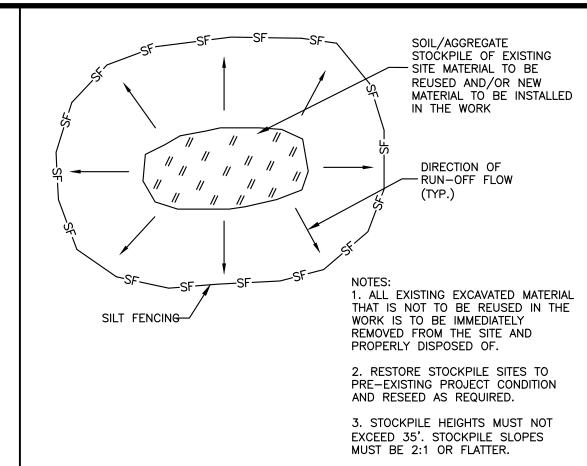
DAM SHALL BE AT SAME ELEVATION

AS TOP OF DOWNSTREAM CHECK

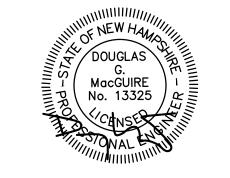
643.11 FERTILIZER

LOAM & SEED DETAIL

NOT TO SCALE



MATERIALS STOCKPILE DETAIL



The Dubay Group, Inc

136 Harvey Road Bldg B101 Londonderry, NH 03053

603-458-6462

Engineers

Planners

Surveyors

TheDubayGroup.com

	REVISIONS:						
REV:	DATE:	COMMENT:	BY				
3	2/22/23	TOWN COMMENTS	SJŁ				

PROJECT:

DRAWN BY: DGM CHECKED BY: DATE: NOV 4, 2021 SCALE: FILE: 491-DETAILS DEED REF:

109 ROCKINGHAM ROAD

MAP 5 LOT 038-001

109 ROCKINGHAM ROAD

DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY

SALEM, NH 03079

WATTS AUTO

SALVAGE INC

PO BOX 332

DERRY, NH 03038

- OWNER ---

LIFT STRAPS STANDARD FABRIC IS AN ORANGE WOVEN MONOFILAMENT DUMPING STRAP ALLOWS FOR EASY REMOVAL OF CONTENTS

INSTALLATION

INSTALLATION: REMOVE THE GRATE FROM CATCH BASIN. IF USING OPTIONAL OIL ABSORBENTS; PLACE ABSORBENT PILLOW IN UNIT. STAND THE GRATE ON END. MOVE THE TOP LIFTING STRAPS OUT OF THE WAY AND PLACE THE GRATE INTO THE DANDY BAG®II SO THAT THE GRATE IS BELOW THE TOP STRAPS AND ABOVE THE LOWER STRAPS. HOLDING THE LIFTING DEVICES, INSERT THE GRATE INTO THE INLET. MAINTENANCE

MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM VICINITY OF UNIT AFTER EACH STORM EVENT. AFTER EACH STORM EVENT AND AT REGULAR INTERVALS, LOOK INTO THE DANDY BAG II. II. IF THE CONTAINMENT AREA IS MORE THAN 1/3 FULL OF SEDIMENT, THE UNIT MUST BE EMPTIED. TO EMPTY UNIT, LIFT THE UNIT OUT OF THE INLET USING THE LIFTING STRAPS AND REMOVE THE GRATE. IF USING OPTIONAL OIL ABSORBENTS; REPLACE ABSORBENT WHEN NEAR SATURATION.

—CENTER OF STONE CHECK DAMS MINIMUM 2/3 DEPTH OF CHANNEL — SHALL BE MIN. 6" BELOW SIDES. THROUGHOUT WIDTH OF CHECK DAM. 5% (MAX.) STONE (TYP.)

DITCH CROSS-SECTION

2" TO 3" STONE (TYP.)

CONSIDERATIONS

THIS PRACTICE IS INTENDED FOR USE IN AREAS WITH CONCENTRATED FLOW BUT MUST NOT BE USED IN STREAM CHANNELS (WHETHER PERENNIAL OR INTERMITTENT).

THE CHECK DAM MAY BE LEFT IN PLACE PERMANENTLY TO AVOID UNNECESSARY DISTURBANCE OF THE SOIL ON REMOVAL, BUT ONLY IF THE PROJECT DESIGN HAS ACCOUNTED FOR THEIR HYDRAULIC PERFORMANCE AND CONSTRUCTION PLANS CALL FOR THEM TO BE RETAINED.

IF IT IS NECESSARY TO REMOVE A STONE CHECK DAM FROM A GRASS-LINED CHANNEL THAT WILL BE MOWED, CARE SHOULD BE TAKEN TO ENSURE THAT ALL STONES ARE REMOVED. THIS INCLUDES STONE THAT HAS WASHED DOWNSTREAM.

GENERAL DESCRIPTION

TEMPORARY CHECK DAMS ARE SMALL TEMPORARY DAMS CONSTRUCTED ACROSS A SWALE OR DRAINAGE DITCH. CHECK DAMS ARE USED TO REDUCE THE VELOCITY OF CONCENTRATED STORMWATER FLOWS. THEREBY REDUCING EROSION OF THE SWALE

CHECK DAMS MY ALSO CATCH SMALL AMOUNTS OF SEDIMENT GENERATED IN THE DITCH ITSELF. HOWEVER, THE CHECK DAM IS NOT A SEDIMENT TRAPPING PRACTICE AND SHOULD NOT BE USED AS SUCH.

THE PRACTICE IS LIMITED TO USE IN SMALL OPEN CHANNELS THAT DRAIN ONE ACRE OR LESS. IT SHOULD NOT BE USED IN EITHER PERENNIALLY FLOWING STREAMS OR INTERMITTENT STREAM CHANNELS.

CHECK DAMS CAN BE CONSTRUCTED OF STONE, IN LOCATIONS WHERE STONE IS NOT AVAILABLE, TIMBER CHECK DAMS MAY BE CONSIDERED. TYPICAL APPLICATIONS INCLUDE TEMPORARY OR PERMANENT DITCHES OR SWALES, WHICH NEED PROTECTION DURING THE ESTABLISHMENT OF GRASS LININGS.

HAY OR STRAW BALES SHOULD GENERALLY NOT BE USED AS CHECK DAMS, OR IN ANY LOCATION WHERE THERE IS CONCENTRATED FLOW. HOWEVER, THEY MAY BE USED FOR CHECK DAMS IN APPLICATIONS WHERE INSTALLATION ACCESS OR OTHER CONDITIONS PREVENT THE USE OF PREFERRED MATERIALS SUCH AS STONE; IN SUCH CASES, INSTALLATION MUST PROVIDE PROPER EMBEDMENT OF THE STRAW OR HAY BALE BARRIER, LIMIT CONTRIBUTING DRAINAGE AREA TO LESS THAN ONE ACRE, AND PROVIDE FOR FREQUENT MONITORING OF BARRIER.

MAINTENANCE REQUIREMENTS

CHECK DAMS SHOULD BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL AND NECESSARY REPAIRS SHOULD BE MADE IMMEDIATELY.

INSPECTIONS SHOULD VERIFY THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.

EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM MUST BE CORRECTED IMMEDIATELY. IF EVIDENCE OF SILTATION IN THE WATER IS APPARENT DOWN STREAM OF THE CHECK DAM, THE CHECK DAM SHOULD BE INSPECTED AND ADJUSTED IMMEDIATELY.

CHECK DAMS SHOULD BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE HALF OF THE ORIGINAL HEIGHT OR BEFORE.

> STONE CHECK DAM DETAIL NOT TO SCALE

SPECIFICATIONS

TEMPORARY CHECK DAMS SHOULD CONFORM TO THE FOLLOWING REQUIREMENTS:

CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH.

LONGITUDINAL SECTION

THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE DAM SHOULD BE LESS THAN ONE ACRE.

THE MINIMUM HEIGHT OF THE DAM SHOULD BE ONE FOOT ON

THE MAXIMUM HEIGHT OF THE DAM SHOULD BE TWO FEET.

THE CENTER OF THE DAM SHOULD BE AT LEAST 6 INCHES LOWER THAN THE OUTER EDGES.

THE MAXIMUM SPACING BETWEEN THE DAMS SHOULD BE SUCH THAT THE TOE OF THE UPSTREAM DAM IS AT THE SAME ELEVATION AS THE OVERFLOW ELEVATION OF THE DOWNSTREAM

THE CHECK DAM SHOULD NOT BE USED IN A FLOWING STREAM.

STONE CHECK DAMS SHOULD BE CONSTRUCTED OF A WELL-GRADED ANGULAR 2-INCH TO 3-INCH STONE. 3/4-INCH STONE ON THE UPGRADIENT FACE IS RECOMMENDED FOR BETTER

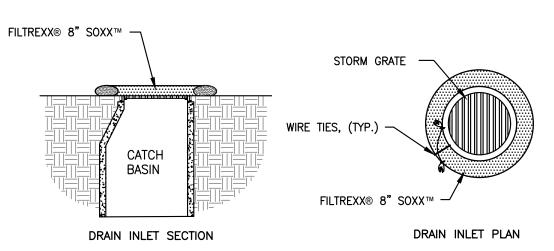
IF CAREFULLY INSTALLED AND MONITORED, TIMBER CHECK DAMS MAY BE USED. AND SHOULD BE CONSTRUCTED OF 4-INCH TO 6-INCH LOGS EMBEDDED AT LEAST 18 INCHES DEEP INTO THE SOIL. HOWEVER, STONE CHECK DAMS ARE GENERALLY PREFERRED. THE STONE HAS THE ABILITY TO CONFORM TO THE CHANNEL AND SETTLE IF SCOUR OCCURS, RENDERING STONE CHECK DAMS LESS SUSCEPTIBLE TO SCOUR AROUND THE ENDS AND DOWNSTREAM OF THE DEVICES.

IF PROVIDED BY DESIGN AND CONSTRUCTION PLANS, LEAVE THE DAM IN PLACE PERMANENTLY.

TEMPORARY STRUCTURES SHOULD BE REMOVED ONCE THE SWALE OR DITCH HAS BEEN STABILIZED:

IN TEMPORARY DITCHES AND SWALES, CHECK DAMS SHOULD BE REMOVED AND THE DITCH FILLED WHEN ITS NO LONGER

IN PERMANENT STRUCTURES, CHECK DAMS SHOULD BE REMOVED WHEN A PERMANENT LINING HAS BEEN ESTABLISHED. IF THE PERMANENT LINING IS VEGETATION. THE THE CHECK DAM SHOULD BE RETAINED UNTIL THE GRASS HAS BEEN MATURED TO PROTECT THE DITCH OR SWALE. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL.



ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS. FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

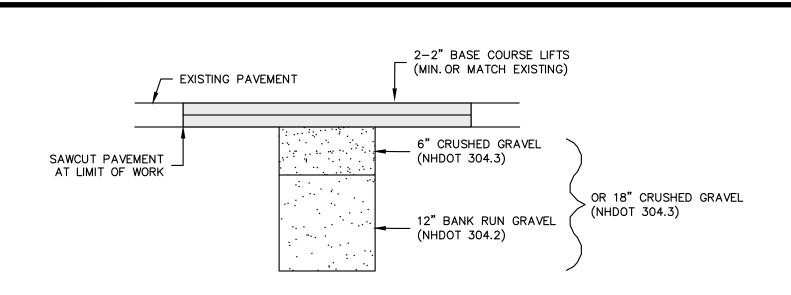
SILT SOCK INLET PROTECTION DETAIL

SHEET TITLE:

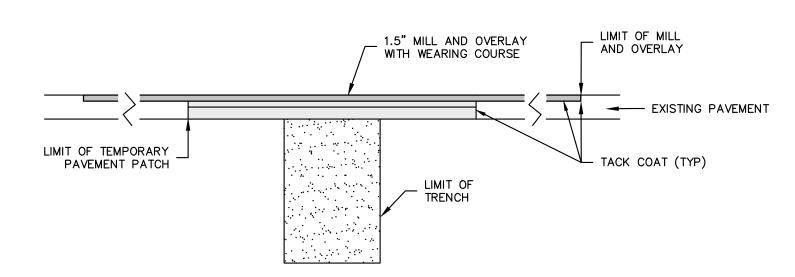
SITE

DETAILS - 2

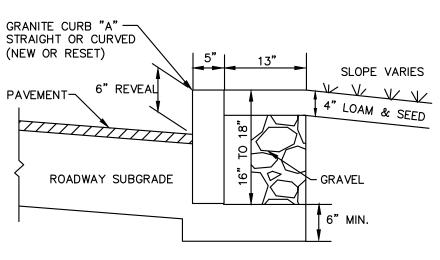
PROJECT #491 SHEET 16 of 22



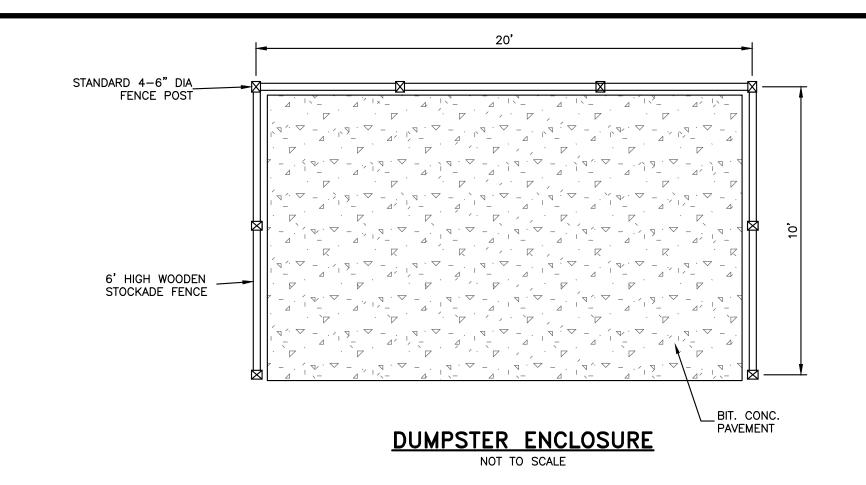
TRENCH BITUMINOUS PAVEMENT PATCH

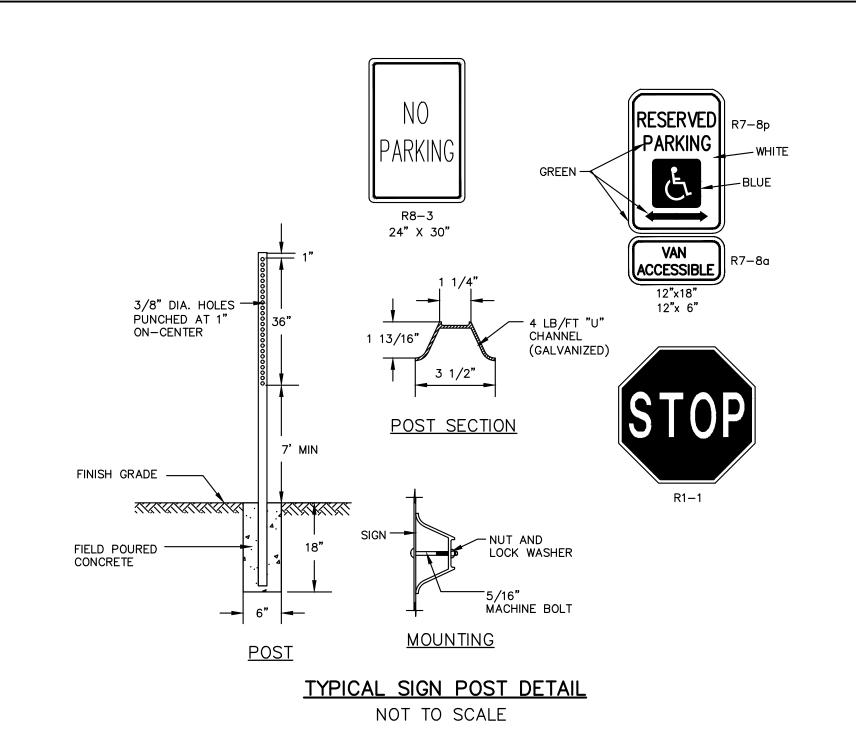


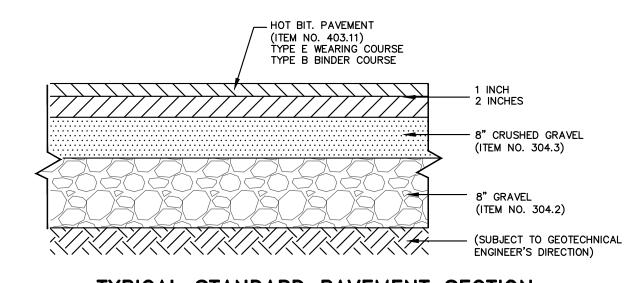
TRENCH MILL AND OVERLAY DETAIL



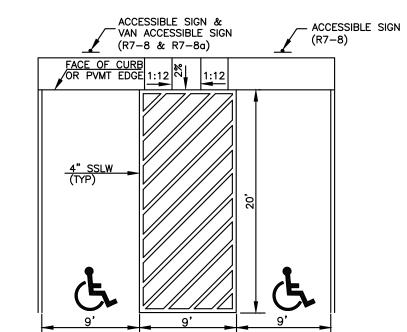
GRANITE CURB "A" DETAIL NOT TO SCALE







TYPICAL STANDARD PAVEMENT SECTION





GENERAL NOTES: ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE CURRENT EDITION OF MUTCD.

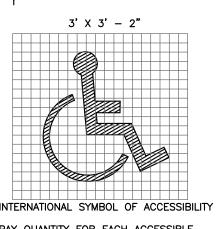
WIDTH OF LINES SHALL VARY NO MORE THAN 1/4 INCH FROM THAT SPECIFIED.

THE WET FILM THICKNESS OF A PAINTED LINE SHALL BE A MINIMUM OF 15 MILS THROUGHOUT THE ENTIRE WIDTH AND LENGTH OF LINE SPECIFIED.

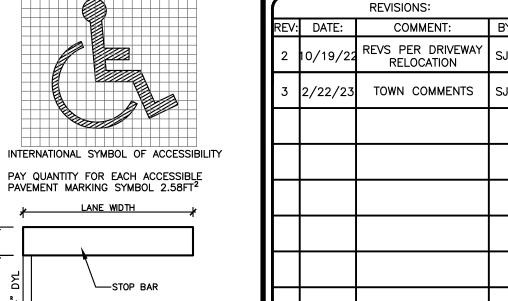
OVERSPRAY SHALL BE KEPT TO AN ABSOLUTE MINIMUM.

ALL STOP BARS (18") AND DOUBLE YELLOW LINES (4") SHALL BE THERMOPLASTIC

TYPICAL PAVEMENT STRIPING DETAILS NOT TO SCALE



NOTES:
1. PAINT COLOR TO BE "YELLOW" FOR
DOUBLE YELLOW CENTERLINE AND "WHITE"
FOR ALL OTHER ITEMS



DRAWN BY: DGM CHECKED BY: DATE: NOV 4, 2021 SCALE: FILE: 491-DETAILS DEED REF:

The Dubay Group, Inc.

136 Harvey Road Bldg B101

Londonderry, NH 03053

603-458-6462

Engineers

Planners

Surveyors

TheDubayGroup.com

DOUGLAS

MacGUIRE

PROJECT:

109 ROCKINGHAM ROAD MAP 5 LOT 038-001

109 ROCKINGHAM ROAD

DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

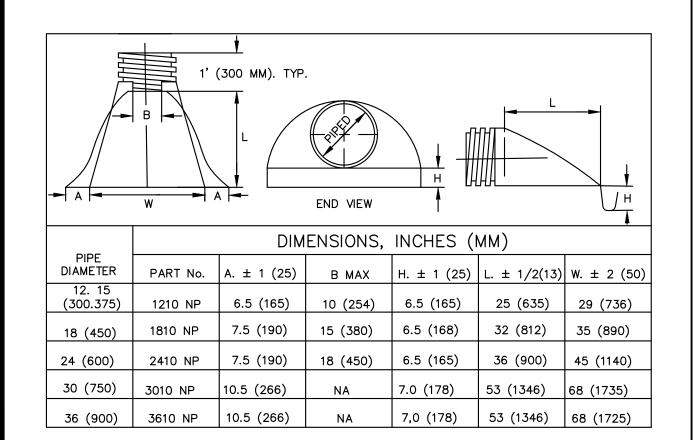
OWNER —— WATTS AUTO SALVAGE INC

PO BOX 332 DERRY, NH 03038

SHEET TITLE:

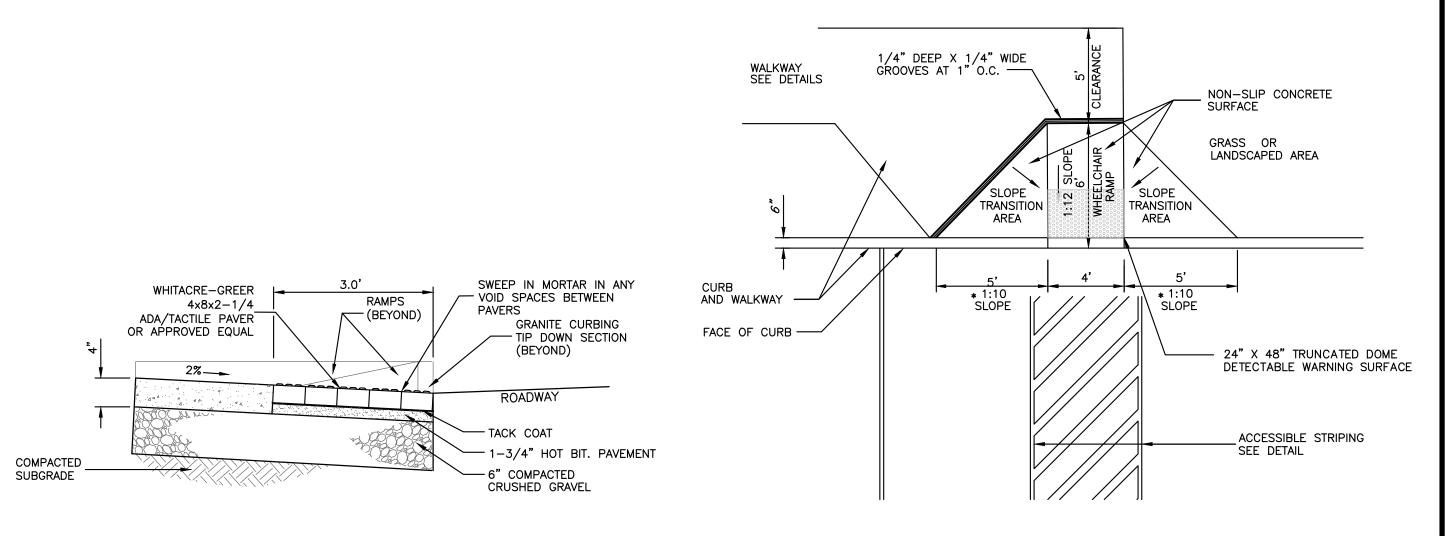
SITE DETAILS - 3

PROJECT #491 SHEET 17 of 22

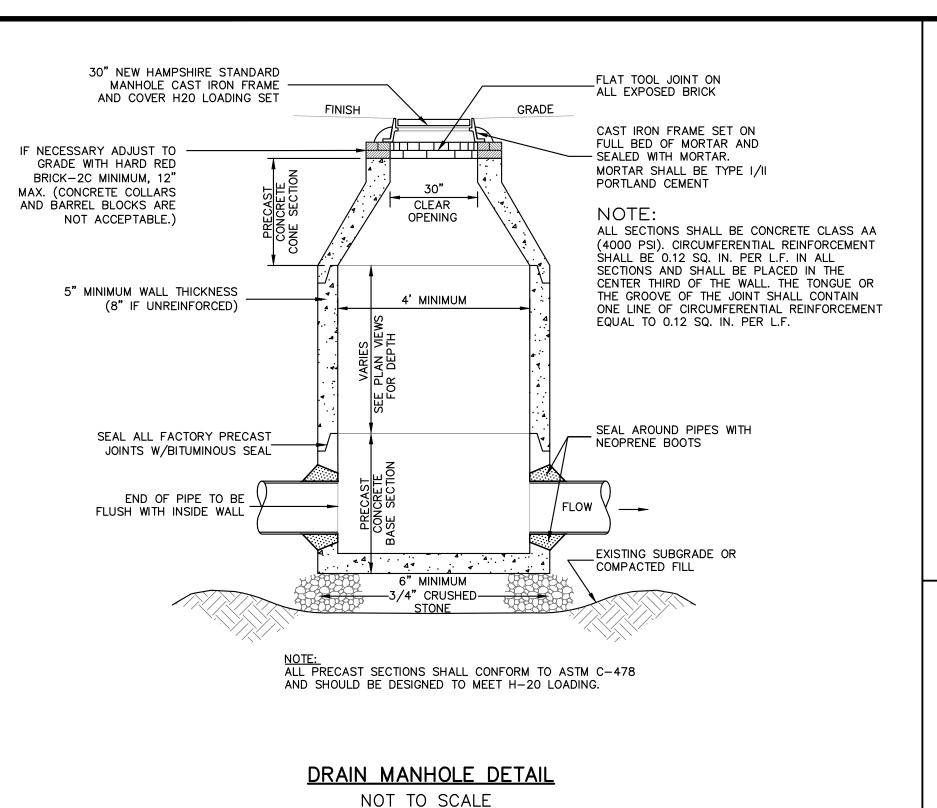


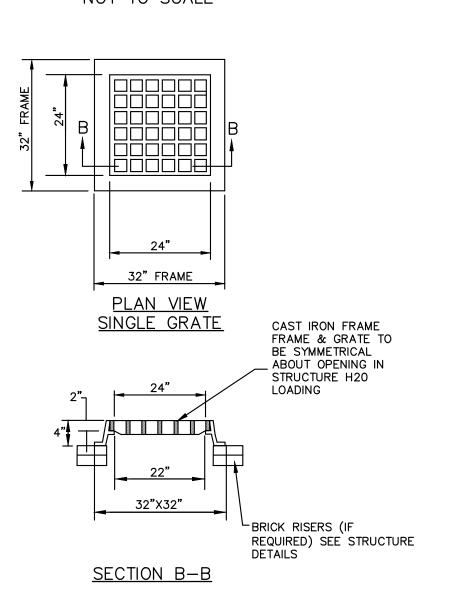
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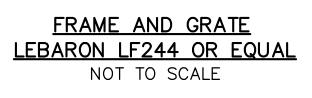
NOT TO SCALE



ACCESSIBLE RAMP DETAIL







- REINFORCE WITH 2 -#4'S

CONTINUOUS

-1" EASED EDGE

/--PAVEMENT

TOPSOIL (TYPICAL LANDSCAPE AREA)

1 SEE SITE PLAN FOR DIMENSIONS-SLOPE 1" MIN.

TOOLED JOINT

INTEGRAL CONCRETE WALK DETAIL

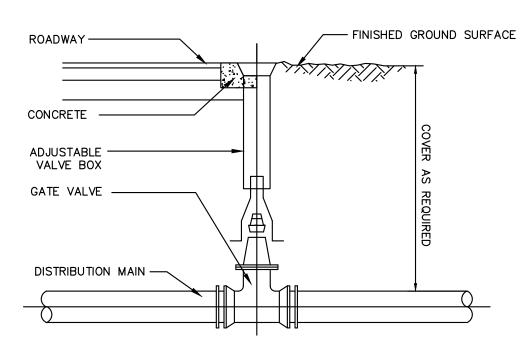
NOT TO SCALE

- 4" CONCRETE WALK (BROOM FINISH)

WITH 6X6 - W2.9XW2.9W.W.F.

L8" COMPACTED PROCESSED

GRAVEL SUBBASE. (NO VAPOR



BREAK FLANGE -

GROUND LINE -

FILTER CLOTH TO COVER STONE

CRUSHED ·

UNDISTURBED -

HYDRANT WASTE

ORIFACE

EARTH

HYDRANT

ALL BUILDING SITE DISTRIBUTION PIPING TO BE 4 INCH CLDI-CL 52 CONNECTION PIECE TO BE DETERMINED -RETAINER GLAND NOTE: PROVIDE "WET-TAP" OR AS APPROVED BY WATER WORKS TYPICAL WATER & GAS GATE VALVE TYPICAL WATER MAIN CONNECTION NOT TO SCALE

—GATE BOX

TIE BOLTS GLANDS

(3 REQD)

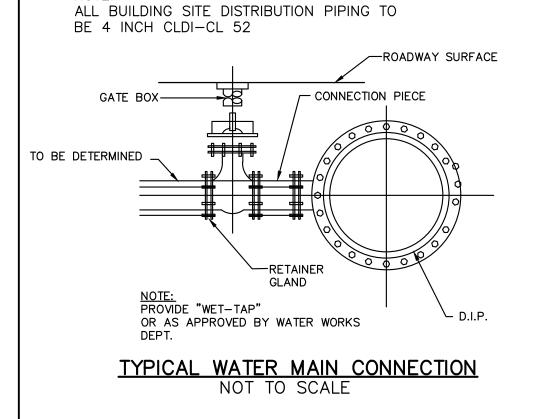
TYPICAL HYDRANT INSTALLATION

AMERICAN DARLING B-84B HYDRANT

NOT TO SCALE

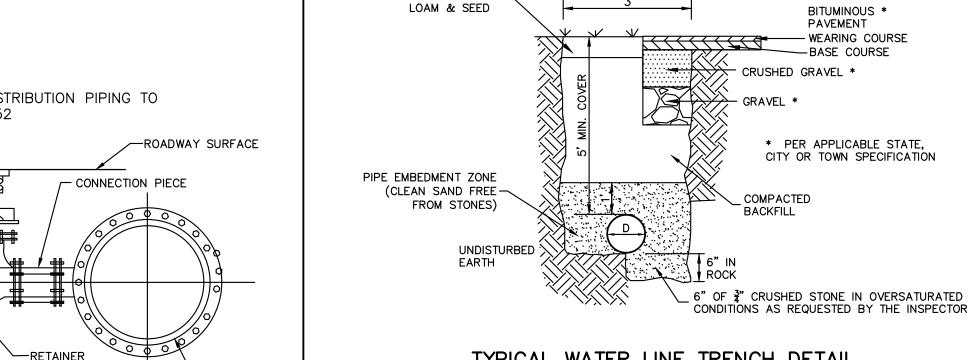
RETAINER

-HYDRANT CONNECTION PIECE

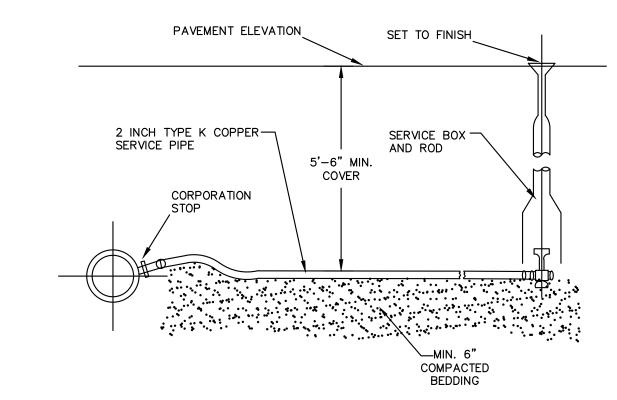


-ROADWAY SURFACE

- WATER MAIN

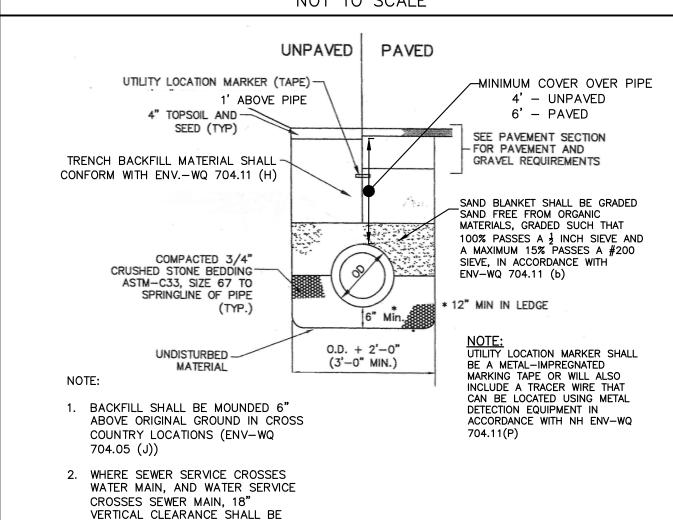


TYPICAL WATER LINE TRENCH DETAIL NOT TO SCALE



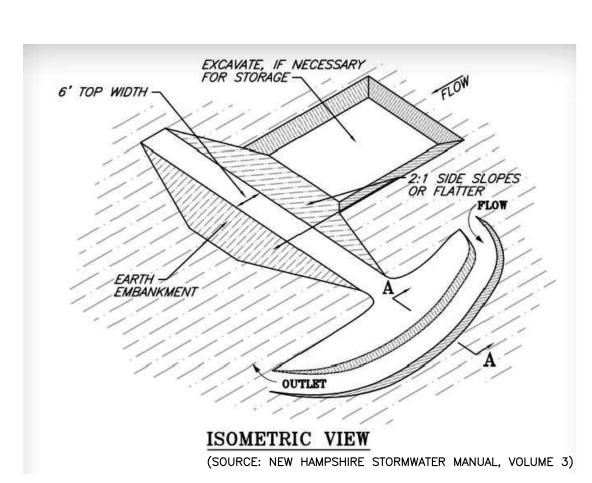
TYPICAL WATER SERVICE CONNECTION

NOT TO SCALE



TYPICAL SEWER PIPE TRENCH

NOT TO SCALE



PROVIDED WITH WATER OVER SEWER.

VARIES - SEE PLAN MEET EXISTING GRADE-VARIES - SEE PLAN 4" MIN. LOAM OR TOPSOIL & SEED WITH EROSION CONTROL AND REVEGETATION MAT (ECRM) $^{\perp}$ (EXCELSIOR, JUTE, MIRIMAT, OR EQUAL) OR SOD

SEE PLANS (VARIES)

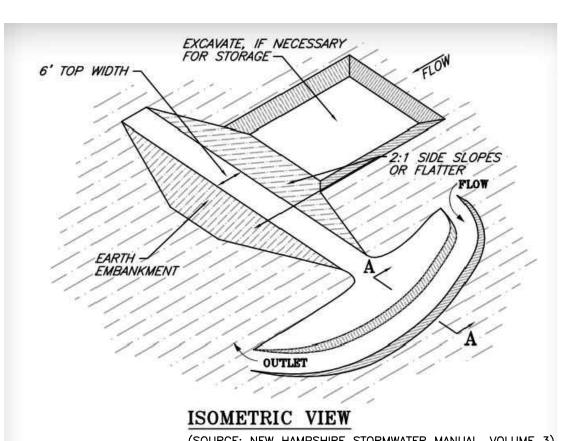
COVER

- FLAT STONE

NOTES

- 1. AT A MINIMUM, SEDIMENT PONDS MUST PROVIDE STORAGE FOR EITHER (1) THE CALCULATED VOLUME OF RUNOFF FROM THE 2-YEAR, 24-HOUR STORM (SEE CGP APP. H), OR (2) 3,600 CUBIC FEET PER ACRE DRAINED.
- 2. SEDIMENT PONDS MUST ALSO UTILIZE OUTLET STRUCTURES THAT WITHDRAW WATER FROM THE SURFACE, UNLESS INFEASIBLE.
- 3. REFER TO ENV-WQ 1506.10 FOR GUIDANCE AND DESIGN

TEMPORARY SEDIMENT TRAP



The Dubay Group, Inc. 136 Harvey Road Bldg B101

603-458-6462 Engineers

> Planners Surveyors

TheDubayGroup.com

Londonderry, NH 03053

NEW HA ✓ DOUGLAS MacGUIRE

No. 13325

REVISIONS: EV: DATE: COMMENT: TOWN COMMENTS

> DRAWN BY: DGM CHECKED BY: DATE: NOV 4, 2021 SCALE: FILE: 491-DETAILS DEED REF:

PROJECT:

109 ROCKINGHAM ROAD MAP 5 LOT 038-001

109 ROCKINGHAM ROAD DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

OWNER —

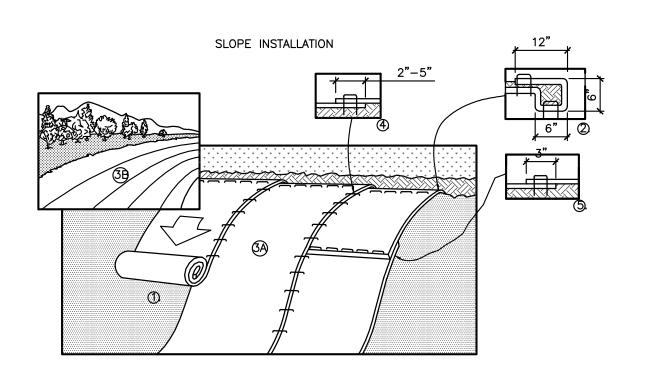
WATTS AUTO SALVAGE INC PO BOX 332

DERRY, NH 03038 SHEET TITLE:

SITE

PROJECT #491 SHEET 18 of 22

DETAILS - 4



MATTING INSTALLATION NOTES

WIDTH OF THE BLANKET.

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.

2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE

3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE 8. AVOID THE USE OF WELDED PLASTIC OR SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING OPTIONAL DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.

4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM

STITCH ON THE PREVIOUSLY INSTALLED BLANKET.

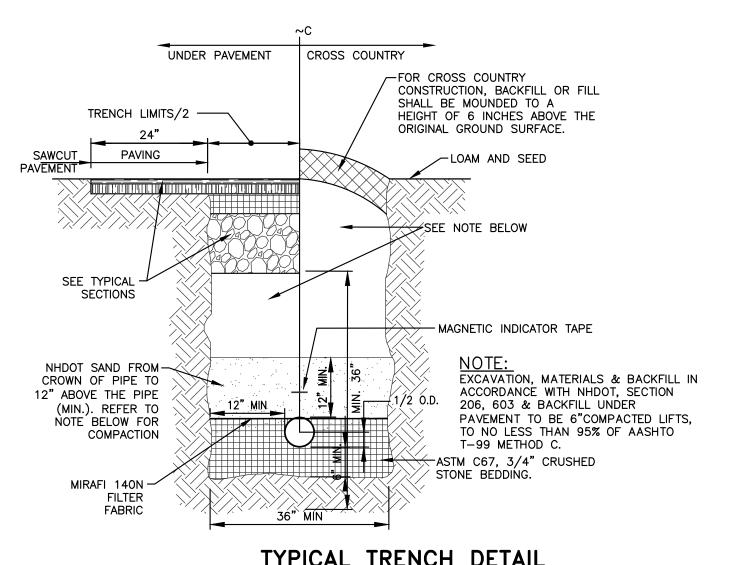
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLÉ THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET

6. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

7. INSTALL PRODUCT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

'BIODEGRADABLE PLASTIC' NETTING OR THREAD IN EROSION CONTROL MATTING. THE MATTING USED SHALL BE 'WILDLIFE FRIENDLY' OPTIONS SUCH AS WOVEN ORGANIC MATERIAL. THESE OPTIONS INCLUDE CURLEX III FIBRENET AND COCO MATTING.

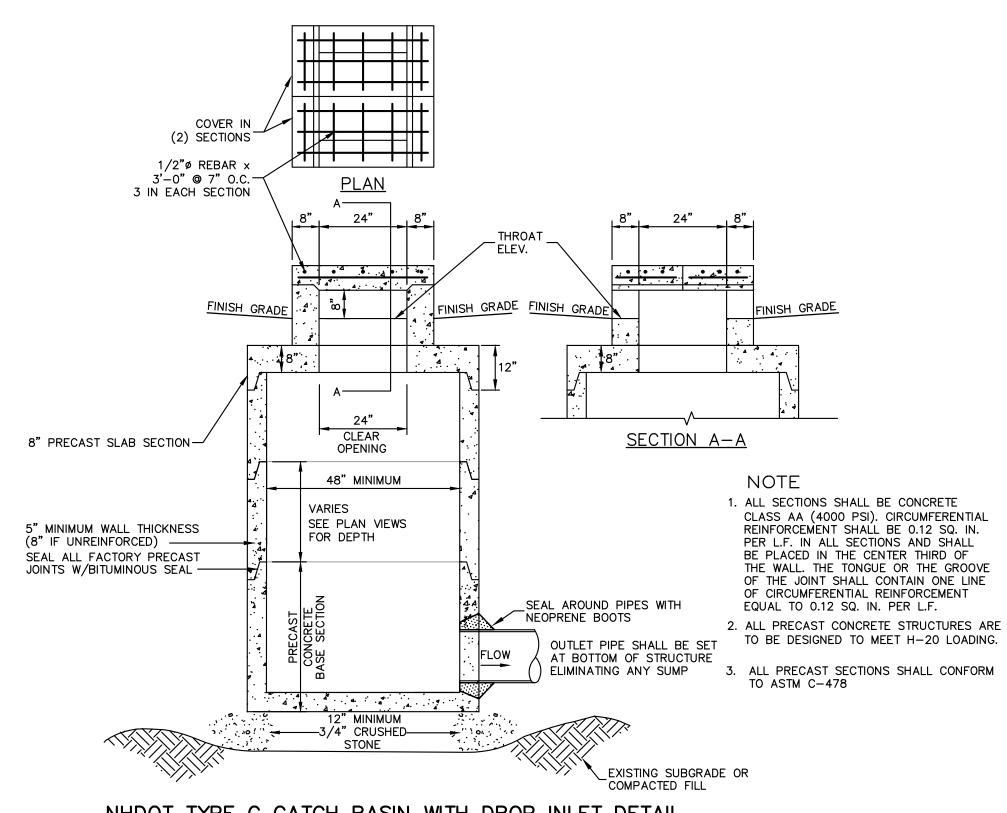
SLOPE PROTECTION EROSION CONTROL MATTING



TYPICAL TRENCH DETAIL

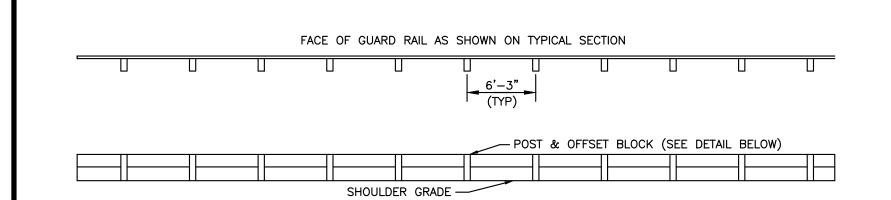
NOT TO SCALE

(TYPICAL TO ALL NON-INFILTRATION PIPES)

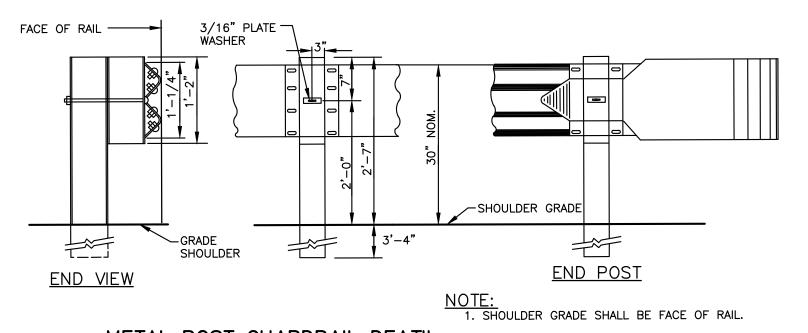


NHDOT TYPE C CATCH BASIN WITH DROP INLET DETAIL

NOT TO SCALE

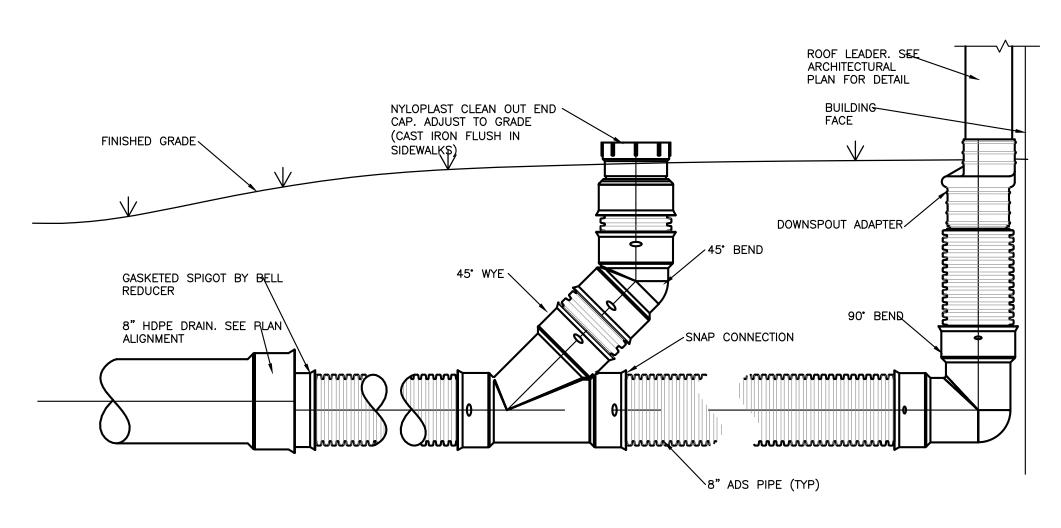


STANDARD SECTION GUARD RAIL NOT TO SCALE



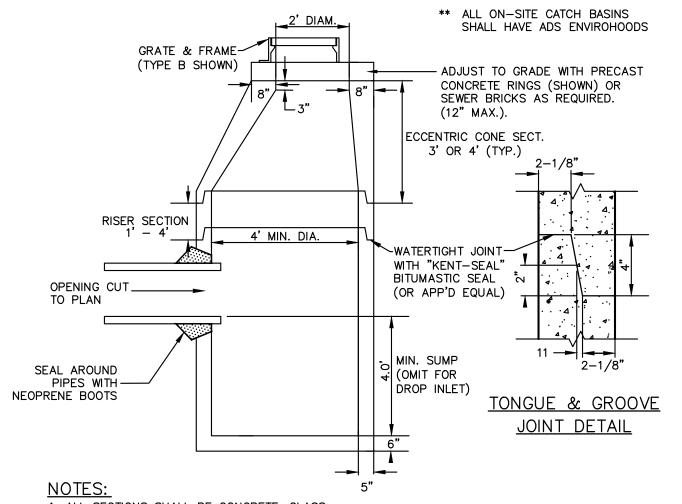
METAL POST GUARDRAIL DEATIL NOT TO SCALE

2. WHEN GUARD RAIL IS SET 0'-4' BEHIND CURB USE FINISHED PAVEMENT GRADE AT FACE OF CURB, WHEN GUARD RAIL IS SET 4' AND BEYOND USE GRADE AT FACE OF GUARD RAIL.



ADS ROOF DRAIN DETAIL

NOT TO SCALE



1. ALL SECTIONS SHALL BE CONCRETE, CLASS AA, (4,000 PSI), CIRCUMFER- ENTIAL REINFORCEMENT SHALL BE 0.12 SQ. IN. PER L.F. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.

2. THE TONGUE OR GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER L.F. 3. RISERS OF 1'-4' MAY BE USED TO REACH THE DESIRED ELEVATION.

4. STEPS ARE NOT ALLOWED.

5. A 6" STONE BEDDING IS REQUIRED.

6. BACKFILL AROUND STRUCTURE SHALL BE 3 IN MINUS SUITABLE MATERIAL.

TYPICAL CATCH BASIN DETAIL

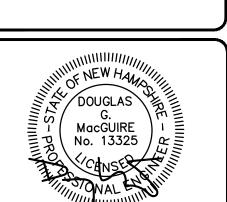
NOT TO SCALE



Engineers

Planners

Surveyors TheDubayGroup.com



		REVISIONS:	
REV:	DATE:	COMMENT:	BY:
2	10/19/22	REVS PER DRIVEWAY RELOCATION	SJK
3	2/22/23	TOWN COMMENTS	SJK

DRAWN BY: DGM CHECKED BY: DATE: NOV 4, 2021 SCALE: FILE: 491-DETAILS DEED REF:

PROJECT:

109 ROCKINGHAM ROAD MAP 5 LOT 038-001

109 ROCKINGHAM ROAD DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY

SALEM, NH 03079 OWNER

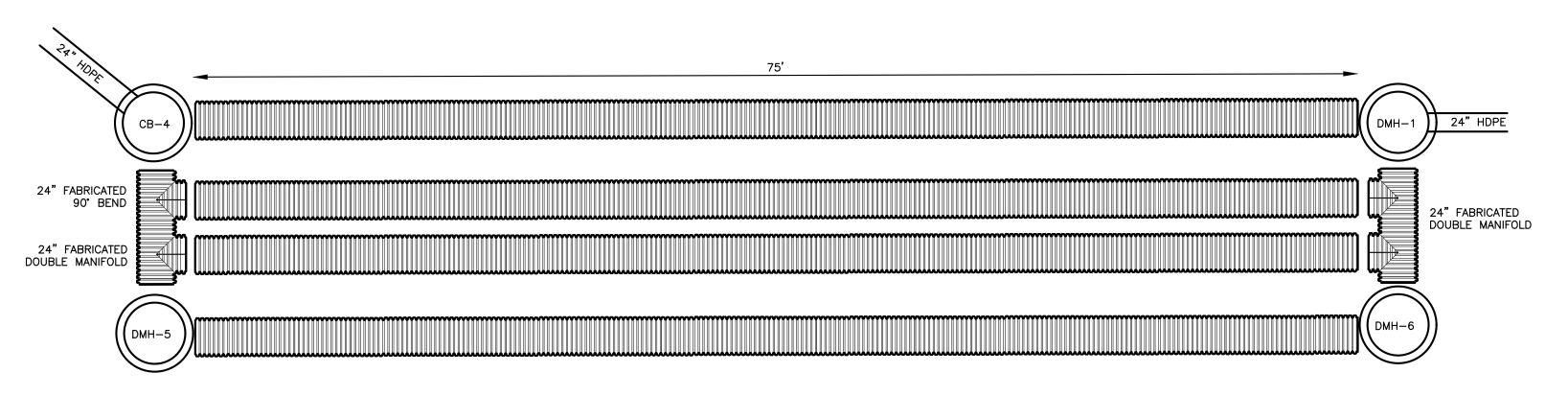
WATTS AUTO SALVAGE INC

PO BOX 332 DERRY, NH 03038

SHEET TITLE:

SITE DETAILS - 5

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TYPICAL SUBSURFACE INFILTRATION SYSTEM LAYOUT NOT TO SCALE

42"

24" ADS N-12
PERFORATED PIPE
PROPOSED PAVEMENT (SEE DETAIL)

2 MIN
12"
2 MIN
12"
2 MIN
0 FILTER FABRIC
(MIRAFI 140N
OR EQUAL)

TYPICAL SUBSURFACE INFILTRATION CROSS SECTION

INFILTRATION SYSTEM
3/4" CRUSHED STONE

COMPACTED IN MAX. 8"

- AMENDED SOIL

(SEE AMENDED

SOIL NOTES)

GENERAL NOT

- 1. ALL REFERENCES TO SAND, STONE, OR GRAVEL MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
- 2. ALL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
- 3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
- 4. <u>FILTER FABRIC:</u> GEOTEXTILE FABRIC SHALL BE MIRAFI 140N (OR APPROVED EQ.) TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
- FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE GEOTECHNICAL ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE GEOTECHNICAL ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE GEOTECHNICAL ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 MINIMUM COVER: MINIMUM COVER OVER ALL SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM TOP OF PIPE TO
- GROUND SURFACE. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 36" MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

 7. DRAINAGE PIPE SHALL BE PERFORATED CORRUGATED HIGH—DENSITY POLYETHYLENE PIPE DUAL WALL, SMOOTH INTERIOR AS MANUFACTURED BY ADS, INC., OR APPROVED EQUAL, UNLESS OTHERWISE NOTED ON PLAN.
- 8. CONTRACTOR SHALL CONFIRM SYSTEM PARTS AND OBTAIN SHOP DRAWINGS FROM MANUFACTURER. SUBSTITUTIONS AND SHOP DRAWINGS SHALL BE APPROVED BY THE ENGINEER.
- 9. PARTS SPECIFICATIONS SHOWN ARE AS PROVIDED BY ADS, INC., OR APPROVED EQUAL. ANY CHANGES TO THESE SPECIFICATIONS SHALL BE APPROVED BY DESIGN ENGINEER FOR PERFORMANCE.

CONSTRUCTION CRITERIA:

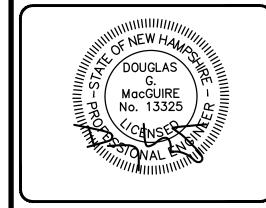
- 1. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO INFILTRATION BASINS.
- DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION BASIN.
- AFTER THE BASIN IS EXCAVATED TO FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
- 4. DO NOT PLACE INFILTRATION SYSTEMS INTO SERVICE UNTIL CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

AMENDED SOIL NOTES:

- . THE CONTRACTOR SHALL ENSURE 2 FEET OF PROPOSED MATERIAL BELOW AND ON THE SIDES OF THE BED MEETS AN INFILTRATION RATE OF 10 INCHES PER HOUR YIELDING A DESIGN RATE OF 5 INCHES PER HOUR.
- A QUALIFIED SOIL SCIENTIST, GEOLOGIST, OR ENGINEER SHALL BE RETAINED TO DESIGN THE SOIL AMENDMENT AND PERFORM INFILTRATION TESTING AT
 THE BASIN LOCATION. THE INFORMATION AND TEST RESULTS SHALL BE PROVIDED TO THE NHDES ALTERATION OF TERRAIN BUREAU TO VERIFY THE
 ASSUMED INFILTRATION RATES USED IN THE HYDROLOGIC MODEL.

TYPICAL INFILTRATION PIPE TRENCH (ALL PERFORATED PIPES)

NOT TO SCALE



The Dubay Group, Inc.

136 Harvey Road Bldg B101 Londonderry, NH 03053

603-458-6462

Engineers

Planners

Surveyors

TheDubayGroup.com

		REVISIONS:	
REV:	DATE:	COMMENT:	BY:
		REVS PER DRIVEWAY RELOCATION	SJK
3	2/22/23	TOWN COMMENTS	SJK

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PROJECT:

DEED REF:

109 ROCKINGHAM ROAD

DGM

491-DETAILS

MAP 5 LOT 038-001 109 ROCKINGHAM ROAD DERRY, NH 03038

FOR —

ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

--- OWNER-

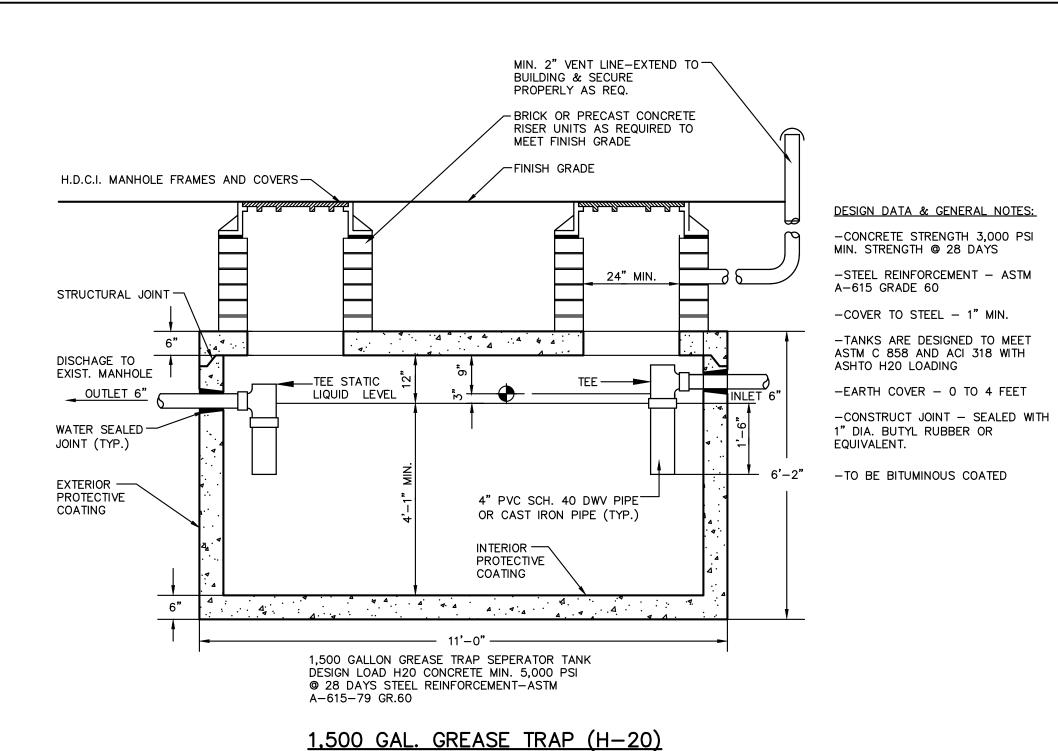
WATTS AUTO SALVAGE INC

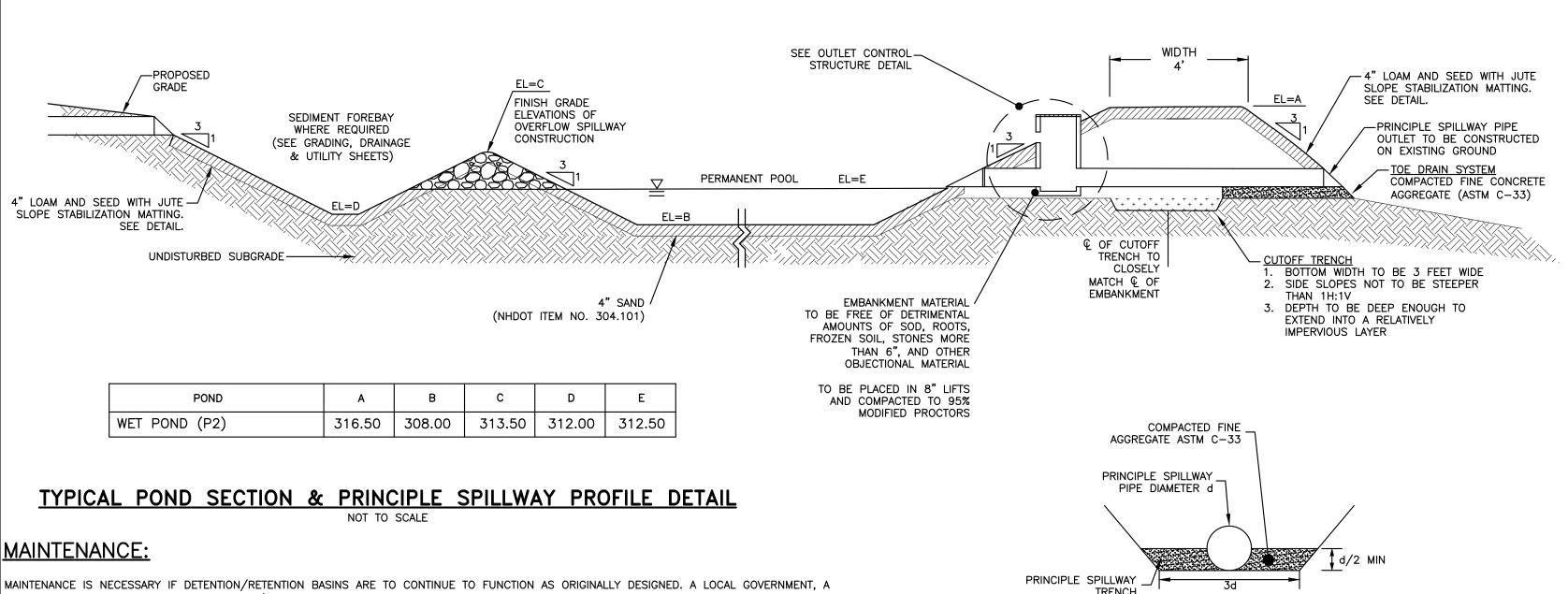
PO BOX 332 DERRY, NH 03038

SHEET TITLE:

SITE DETAILS - 6

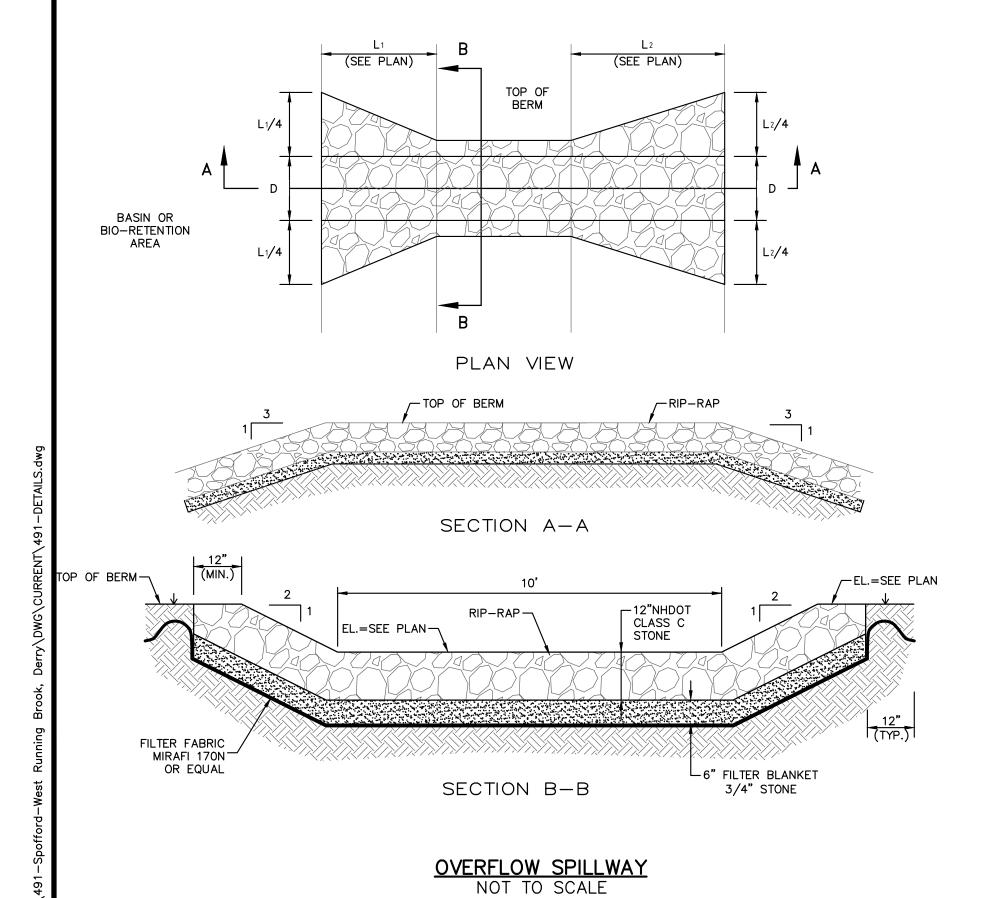
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MAINTENANCE IS NECESSARY IF DETENTION/RETENTION BASINS ARE TO CONTINUE TO FUNCTION AS ORIGINALLY DESIGNED. A LOCAL GOVERNMENT, A DESIGNATED GROUP SUCH AS A HOMEOWNERS' ASSOCIATION OR SOME INDIVIDUAL MUST BE ASSIGNED RESPONSIBILITY FOR MAINTAINING THE STRUCTURES AND THE BASIN AREA. A MAINTENANCE PLAN SHOULD BE DEVELOPED THAT OUTLINES THE MAINTENANCE OPERATIONS AND A SCHEDULE FOR CARRYING OUT THE PROCEDURES.

- THE FOLLOWING ARE SOME ITEMS WHICH SHOULD BE CONSIDERED IN FORMULATING A MAINTENANCE PLAN.
- EMBANKMENT THE EMBANKMENT SHOULD BE INSPECTED ANNUALLY TO DETERMINE IF RODENT BURROWS, WET AREAS, OR EROSION OF THE FILL IS TAKING PLACE.
- VEGETATION THE VEGETATED AREAS OF THE STRUCTURE SHOULD BE PROTECTED FROM DAMAGE BY FIRE, GRAZING, TRAFFIC, AND DENSE WEED GROWTH. LIME AND FERTILIZER SHOULD BE APPLIED AS NECESSARY AS DETERMINED BY SOIL TESTS. TREES AND SHRUBS SHOULD BE KEPT OFF THE EMBANKMENT AND EMERGENCY SPILLWAY AREAS.
- INLETS PIPE INLETS AND SPILLWAY STRUCTURES SHOULD BE INSPECTED ANNUALLY AND AFTER EVERY MAJOR STORM. ACCUMULATED DEBRIS AND SEDIMENT SHOULD BE REMOVED. IF PIPES ARE COATED, THE COATING SHOULD BE CHECKED AND REPAIRED AS NECESSARY.
- 4. OUTLETS PIPE OUTLETS SHOULD BE INSPECTED ANNUALLY AND AFTER EVERY MAJOR STORM. THE CONDITION OF THE PIPES SHOULD BE NOTED AND REPAIRS MADE AS NECESSARY. IF EROSION IS TAKING PLACE THEN MEASURES SHOULD BE TAKEN TO STABILIZE AND PROTECT THE AFFECTED AREA OF THE OUTLET.
- SEDIMENT SEDIMENT SHOULD BE CONTINUALLY CHECKED IN THE BASIN. WHEN SEDIMENT ACCUMULATIONS REACH THE PREDETERMINED DESIGN ELEVATION, THEN THE SEDIMENT SHOULD BE REMOVED AND PROPERLY DISPOSED OF.
- SAFETY INSPECTIONS ALL PERMANENT IMPOUNDMENTS SHOULD BE INSPECTED BY A QUALIFIED PROFESSIONAL ENGINEER ON A PERIODIC BASIS. IF THERE IS A POTENTIAL FOR SIGNIFICANT DAMAGE OR LOSS OF LIFE DOWNSTREAM, THEN THE INSPECTION SHOULD BE CARRIED OUT ANNUALLY. THE DESIGNATED INDIVIDUAL OR GROUP SHOULD ALSO MAKE INSPECTIONS AFTER EVERY MAJOR STORM EVENT.



CONSTRUCTION CRITERIA:

1. FOUNDATION PREPARATION - THE FOUNDATION AREA SHALL BE CLEARED OF TREES, LOGS, STUMPS, ROOTS, BRUSH, BOULDERS, SOD, AND RUBBISH. IF NEEDED TO ESTABLISH VEGETATION, THE TOPSOIL AND SOD SHALL BE STOCKPILED AND SPREAD ON THE COMPLETED DAM AND SPILLWAYS, FOUNDATION SURFACES SHALL BE SLOPED NO STEEPER THAN 1:1. THE FOUNDATION AREA SHALL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF THE MATERIAL. THE SURFACE SHALL HAVE MOISTURE ADDED OR IT SHALL BE COMPACTED IF NECESSARY SO THAT THE FIRST LAYER OF FILL MATERIAL CAN BE COMPACTED AND BONDED TO THE FOUNDATIONS.

TOE DRAIN DETAIL

THE CUTOFF TRENCH AND ANY OTHER REQUIRED EXCAVATIONS SHALL BE DUG TO THE LINES AND GRADES SHOWN ON THE PLANS OR AS STAKED IN THE FIELD. IF THEY ARE SUITABLE, EXCAVATED MATERIALS SHALL BE USED IN THE PERMANENT FILL.

EXISTING STREAM CHANNELS IN THE FOUNDATION AREA SHALL BE SLOPED NO STEEPER THAN 1:1 AND DEEPENED AND WIDENED AS NECESSARY TO REMOVE ALL STONES, GRAVEL, SAND, STUMPS, ROOTS, AND OTHER OBJECTIONABLE MATERIAL AND TO ACCOMMODATE COMPACTION EQUIPMENT.

FOUNDATION AREAS SHALL BE KEPT FREE OF STANDING WATER WHEN FILL IS BEING PLACED ON THEM.

2. FILL PLACEMENT - THE MATERIAL PLACED IN THE FILL SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SOD, ROOTS, FROZEN SOIL, STONES MORE THAN 6 INCHES IN DIAMETER (EXCEPT FOR ROCK FILLS), AND OTHER OBJECTIONABLE MATERIAL.

SELECTED BACKFILL MATERIAL SHALL BE PLACED AROUND STRUCTURES, PIPE CONDUITS, AND ANTISEEP COLLARS AT ABOUT THE SAME RATE ON ALL SIDES TO PREVENT DAMAGE FROM UNEQUAL LOADING.

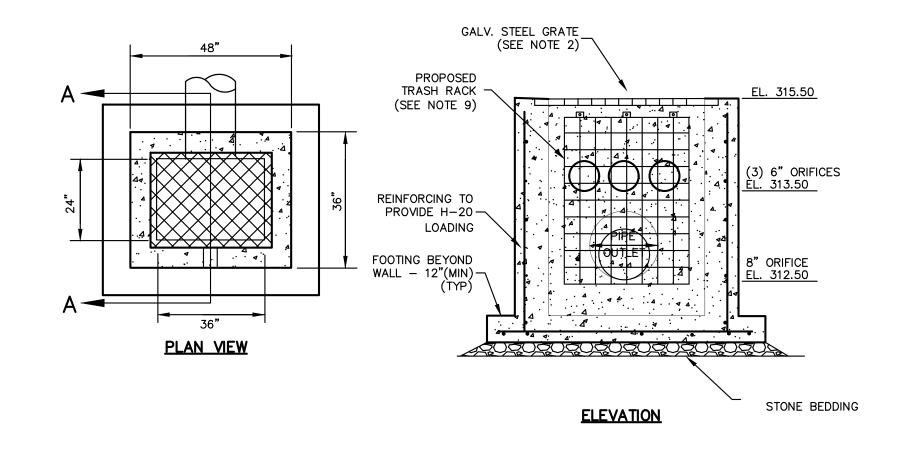
THE PLACING AND SPREADING OF FILL MATERIAL SHALL BE STARTED AT THE LOWEST POINT OF THE FOUNDATION AND THE FILL BROUGHT UP IN HORIZONTAL LAYERS OF SUCH THICKNESS THAT THE REQUIRED COMPACTION CAN BE OBTAINED. THE FILL SHALL BE CONSTRUCTED IN CONTINUOUS HORIZONTAL LAYERS EXCEPT WHERE OPENINGS OR SECTIONALIZED FILLS ARE REQUIRED. IN THOSE CASES, THE SLOPE OF THE BONDING SURFACES BETWEEN THE EMBANKMENT IN PLACE AND THE EMBANKMENT TO BE PLACED SHALL NOT BE STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL. THE BONDING SURFACE SHALL BE TREATED THE SAME AS THAT SPECIFIED FOR THE FOUNDATION SO AS TO INSURE A GOOD BOND WITH THE NEW FILL.

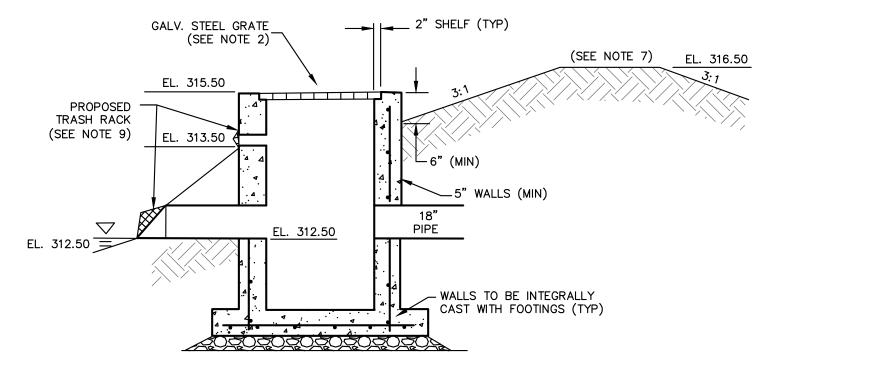
THE DISTRIBUTION AND GRADATION OF MATERIALS SHALL BE SUCH THAT NO LENSES, POCKETS, STREAKS, OR LAYERS OF MATERIAL DIFFER SUBSTANTIALLY IN TEXTURE OF GRADATION FROM THE SURROUNDING MATERIAL. IF IT IS NECESSARY TO USE MATERIALS OF VARYING TEXTURE AND GRADATION, THE MORE IMPERVIOUS MATERIAL SHALL BE PLACED IN THE CENTER AND UPSTREAM PARTS OF THE FILL. IF ZONED FILLS OF SUBSTANTIALLY DIFFERING MATERIALS ARE SPECIFIED, THE ZONES SHALL BE PLACED ACCORDING TO THE LINES AND GRADES SHOWN ON THE DRAWINGS. THE COMPLETE WORK SHALL CONFORM TO THE LINES, GRADES, AND ELEVATIONS SHOWN ON THE DRAWINGS OR AS STAKED IN THE FIELD.

- 3. MOISTURE CONTROL THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE ADEQUATE FOR OBTAINING THE REQUIRED COMPACTION. MATERIAL THAT IS TOO WET SHALL BE DRIED TO MEET THIS REQUIREMENT, AND MATERIAL THAT IS TOO DRY SHALL HAVE WATER ADDED AND MIXED UNTIL THE REQUIREMENT IS MET.
- 4. COMPACTION CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER THE AREAS OR EACH LAYER OF FILL TO INSURE THAT THE REQUIRED COMPACTION IS OBTAINED. SPECIAL EQUIPMENT SHALL BE USED IF NEEDED TO OBTAIN THE REQUIRED COMPACTION.
- IF A MINIMUM REQUIRED DENSITY IS SPECIFIED, EACH LAYER OF FILL SHALL BE COMPACTED AS NECESSARY TO OBTAIN THAT DENSITY.
- FILL ADJACENT TO STRUCTURES, PIPE CONDUITS, AND ANTISEEP COLLARS SHALL BE COMPACTED TO A DENSITY EQUIVALENT TO THAT OF THE SURROUNDING FILL BY MEANS OF HAND TAMPING OR MANUALLY DIRECTED POWER TAMPER OR PLATE VIBRATORS. FILL ADJACENT TO CONCRETE STRUCTURES SHALL NOT BE COMPACTED UNTIL THE CONCRETE IS STRONG ENOUGH TO SUPPORT THE LOAD.
- 5. PROTECTION A PROTECTIVE COVER OF VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SURFACES OF THE EMBANKMENT, SPILLWAY, AND BORROW AREA IF SOIL AND CLIMATIC CONDITIONS PERMIT. IF SOIL OR CLIMATIC CONDITIONS PRECLUDE THE USE OF VEGETATION AND PROTECTION IS NEEDED, NON-VEGETATIVE MEANS, SUCH AS MULCHES OR GRAVEL, MAY BE USED. IN SOME PLACES, TEMPORARY VEGETATION MAY BE USED UNTIL CONDITIONS PERMIT ESTABLISHMENT OF PERMANENT VEGETATION. THE EMBANKMENT AND SPILLWAY SHALL BE FENCED IF NECESSARY TO PROTECT THE VEGETATION.

SEEDBED PREPARATION, SEEDING, FERTILIZING, AND MULCHING SHALL COMPLY WITH THE APPROPRIATE VEGETATIVE

- 6. CONCRETE THE MIX DESIGN AND TESTING OF CONCRETE SHALL BE CONSISTENT WITH THE STRENGTH REQUIREMENTS OF THE JOB. MIX REQUIREMENTS OR NECESSARY STRENGTH SHALL BE SPECIFIED. THE TYPE OF CEMENT, AIR ENTRAINMENT, SLUMP, AGGREGATE, OR OTHER PROPERTIES SHALL BE SPECIFIED IF NECESSARY. ALL CONCRETE IS TO CONSIST OF A WORKABLE MIX THAT CAN BE PLACED AND FINISHED IN AN ACCEPTABLE MANNER. NECESSARY CURING SHALL BE SPECIFIED. REINFORCING STEEL SHALL BE PLACED AS INDICATED ON THE PLANS AND SHALL BE HELD SECURELY IN PLACE DURING CONCRETE PLACEMENT. SUBGRADES AND FORMS SHALL BE INSTALLED TO LINE AND GRADE, AND THE FORMS SHALL BE MORTAR TIGHT AND UNYIELDING AS THE CONCRETE IS
- 7. DO NOT DISCHARGE SEDIMENT-LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS) TO INFILTRATION BASINS.
- 8. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION BASIN.
- 9. VEGETATION SHOULD BE ESTABLISHED IMMEDIATELY.
- 10. DO NOT PLACE SYSTEMS INTO SERVICE UNTIL CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
- 11.POND SHALL BE CONTAINED WITH AN IMPERMEABLE LINER, WHICH SHALL BE 6" OF CLAY COMPACTED TO ENSURE STABILITY.

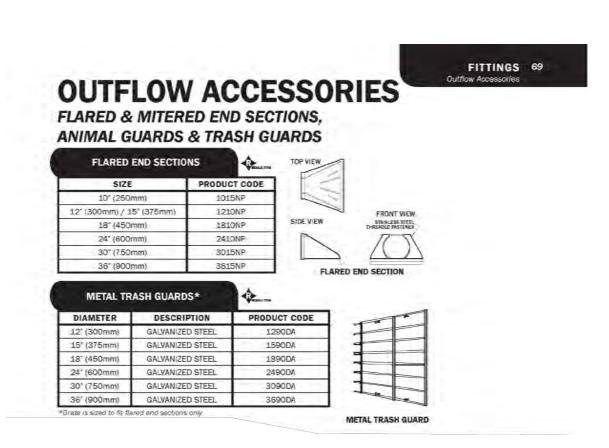




SECTION A-A

- 1. ALL CEMENT CONCRETE TO BE 4000 PSI (MIN).
- 2. GALVANIZED STEEL GRATE SHALL BE BOLTED TO TOP OF STRUCTURE.
- 3. OUTLET PIPE SHALL NOT BE LESS THAN 15" (MIN).
- 4. A TRASH RACK SHALL BE ADDED TO THE OUTLET PIPE.
- 5. ALL OPENINGS CAST IN AS REQUIRED.
- 6. PRECAST REINFORCED CONCRETE STRUCTURE TO MEET ASTM-C-478 DESIGNATION AND H-20 LOADING.
- 7. CONTROL ORIFICES SHALL BE SIZED TO MITIGATE DESIGN STORM AS REQUIRED BY THE REGULATIONS.
- 8. MINIMUM EMBANKMENT ELEVATION TO BE 12" ABOVE 100 YEAR STORM
- 9. PROPOSED TRASH RACK SHALL BE \$" HOT DIPPED GALVANIZED ROUND BAR @ 4" SPACING. RACK SHALL BE BOLTED TO STRUCTURE WITH 3" STAINLESS STEEL HILTIS. SHOP DRAWINGS TO BE PROVIDED TO THE TOWN FOR APPROVAL PRIOR TO INSTALLATION.

OUTLET CONTROL STRUCTURE DETAIL



FLARED END SECTION TRASH GUARD DETAIL



Engineers

Planners

603-458-6462

Surveyors TheDubayGroup.com

NEW HA DOUGLAS MacGUIRE No. 13325

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REV:	DATE:	COMMENT:	BY			
2	10/19/22	REVS PER DRIVEWAY RELOCATION	SJł			
3	2/22/23	TOWN COMMENTS	SJł			

DRAWN BY: CHECKED BY: DATE: SCALE: 491-DETAILS DEED REF:

PROJECT:

109 ROCKINGHAM ROAD

MAP 5 LOT 038-001 109 ROCKINGHAM ROAD DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY SALEM, NH 03079

> – OWNER – WATTS AUTO

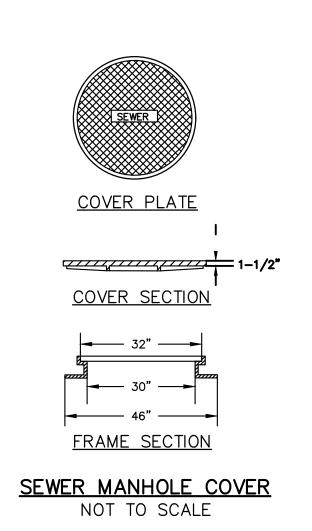
DERRY, NH 03038

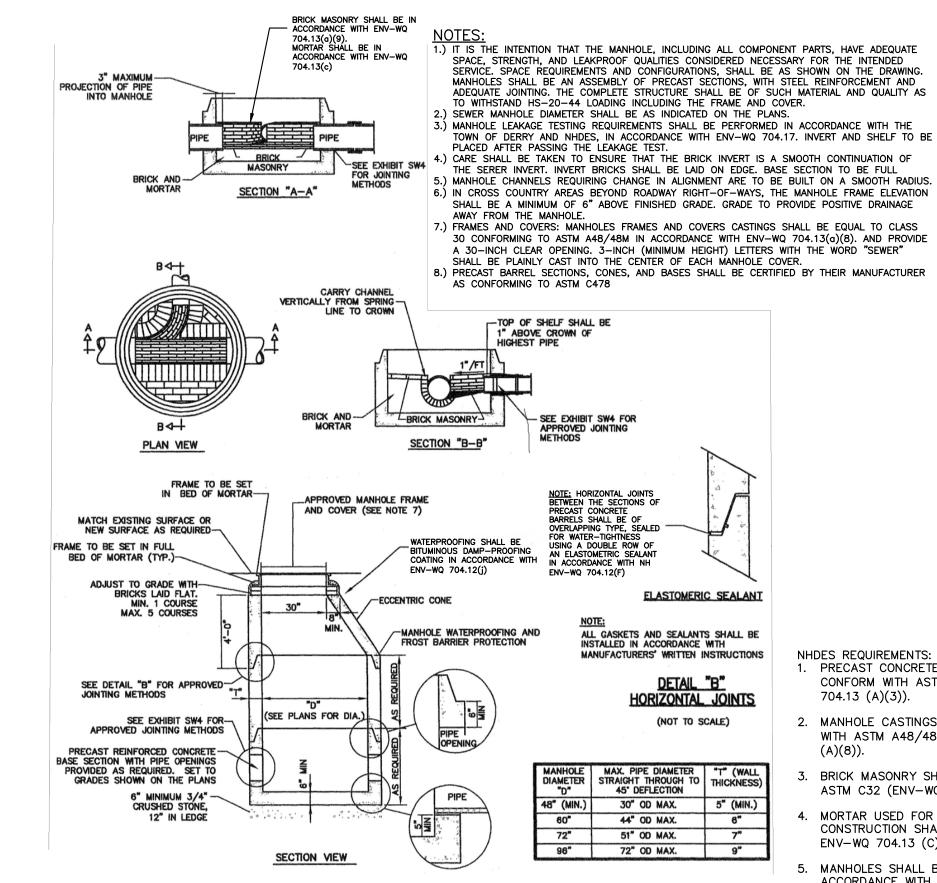
SALVAGE INC PO BOX 332

SHEET TITLE:

SITE **DETAILS - 7**

PROJECT #491 SHEET 21 of 22

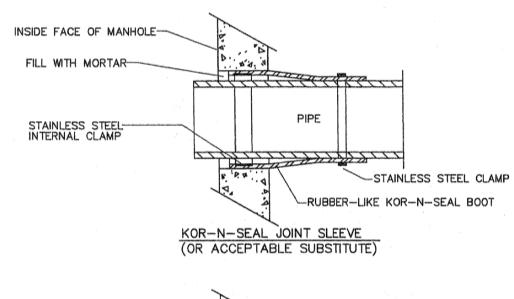


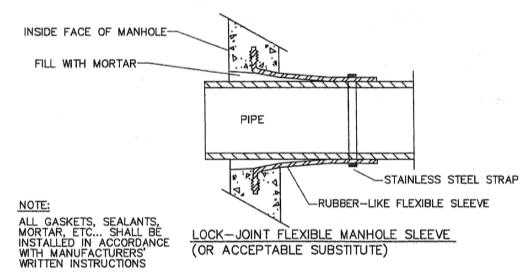


TYPICAL SEWER MANHOLE

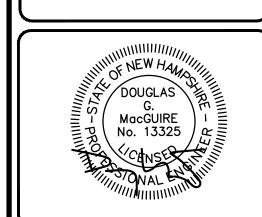
NHDES REQUIREMENTS: PRECAST CONCRETE MANHOLES SHALL CONFORM WITH ASTM C478 (ENV-WQ 704.13 (A)(3)).

- 2. MANHOLE CASTINGS SHALL CONFORM WITH ASTM A48/48M ENV-WQ 704.13
- 3. BRICK MASONRY SHALL CONFORM WITH ASTM C32 (ENV-WQ 704.13 (A)(9)).
- 4. MORTAR USED FOR MANHOLE CONSTRUCTION SHALL CONFORM WITH ENV-WQ 704.13 (C).
- 5. MANHOLES SHALL BE TESTED IN ACCORDANCE WITH ENV-WQ 704.17





PIPE TO SEWER MANHOLE JOINTS EXHIBIT SW4



The Dubay Group, Inc.

136 Harvey Road Bldg B101

Londonderry, NH 03053

603-458-6462

Engineers

Planners

Surveyors

TheDubayGroup.com

		REVISIO	NS:	
REV:	DATE:	CO	MMENT:	BY:
3	2/22/23	TOWN	COMMENTS	SJK
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DRAWN BY: DGM CHECKED BY: DATE: NOV 4, 2021 SCALE: FILE: 491-DETAILS DEED REF:

PROJECT:

109 ROCKINGHAM ROAD MAP 5 LOT 038-001

109 ROCKINGHAM ROAD DERRY, NH 03038

ERIC SPOFFORD

6 MANOR PARKWAY

SALEM, NH 03079 OWNER

WATTS AUTO

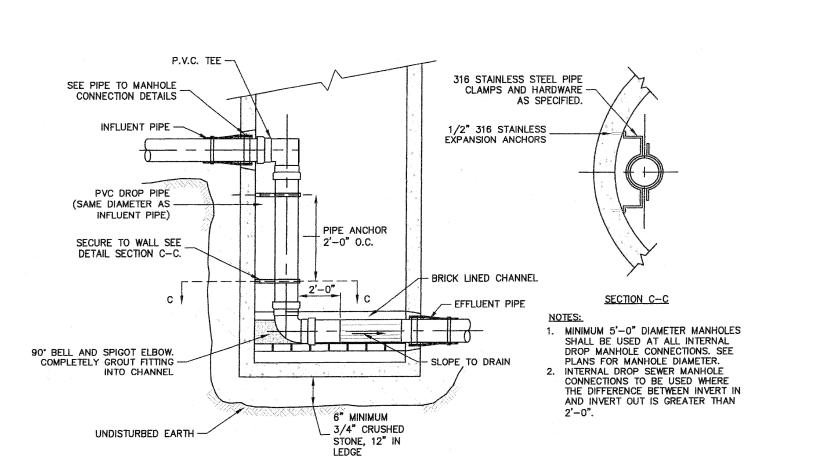
SALVAGE INC PO BOX 332

DERRY, NH 03038

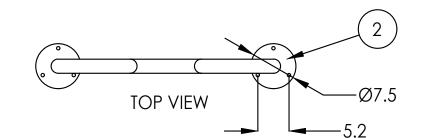
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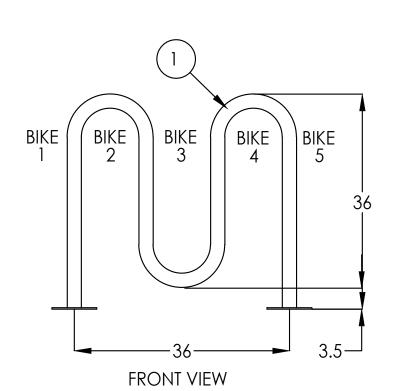
DETAILS - 8

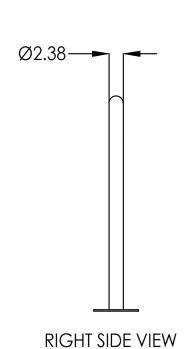
PROJECT #491 SHEET 22 of 22



TYPICAL SEWER MANHOLE WITH INTERNAL DROP CONNECTION EXHIBIT SW3







MATERIALS LIST

SERPENTINE BICYCLE RACK NOT TO SCALE

(1) Tubing - Ø 2 3/8" x .154" Wall Steel Tubing

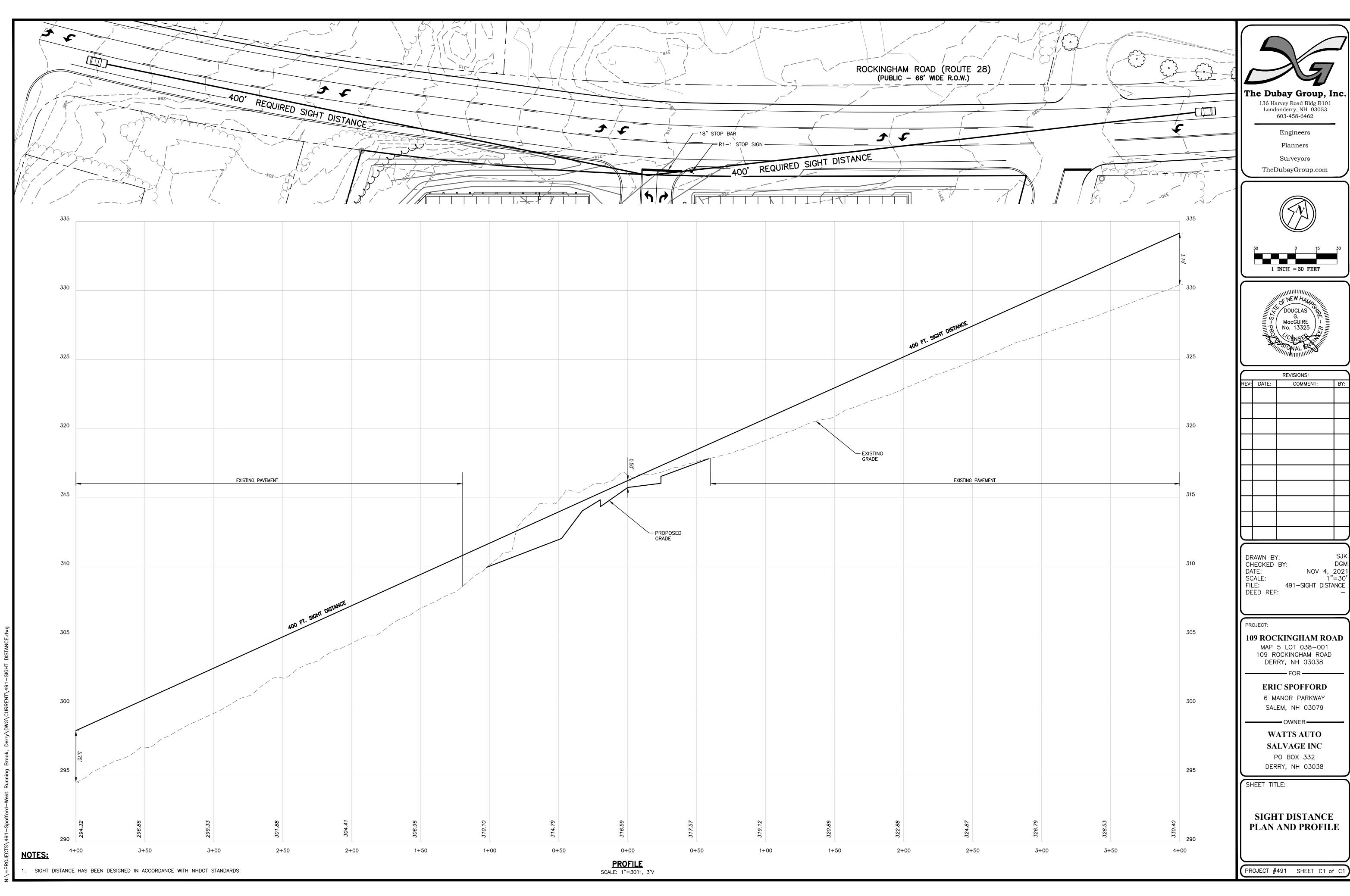
Steel Plate with Three Ø 9/16" Mounting Holes

(3) Mounted with Six Ø 1/2" x 4-5" Stainless Steel

(2) Surface Plate - Ø 7 1/2" x 1/4" Thick

Anchor Bolts (Customer Supplied)

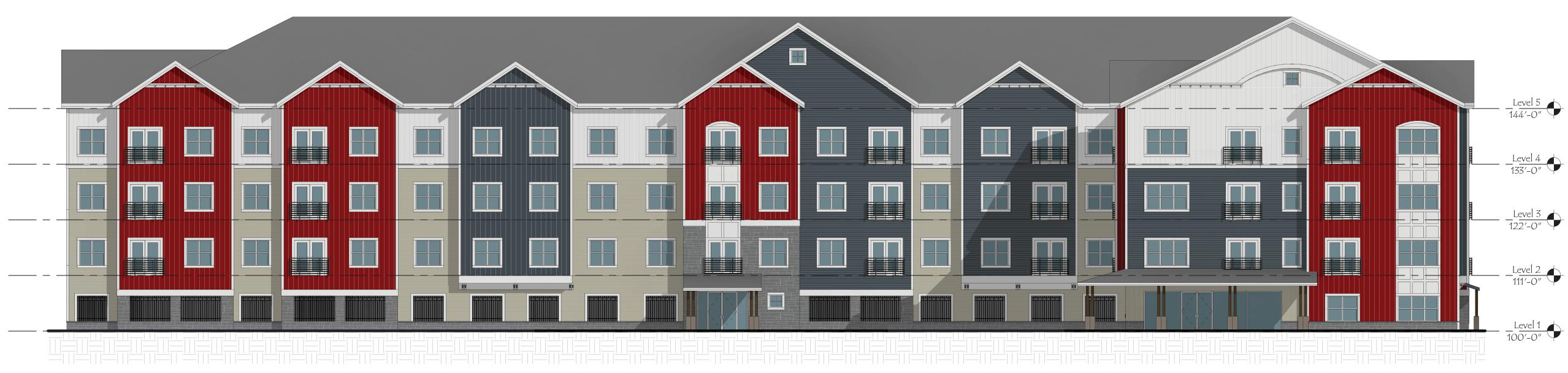
SITE



	REVISIONS:					
REV:	DATE:	COMMENT:	BY:			
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PROJECT 2021063 NO.

109 ROCKINGHAM ROAD

EXTERIOR ELEVATIONS











PROJECT 2021063 NO.

109 ROCKINGHAM ROAD

EXTERIOR ELEVATIONS



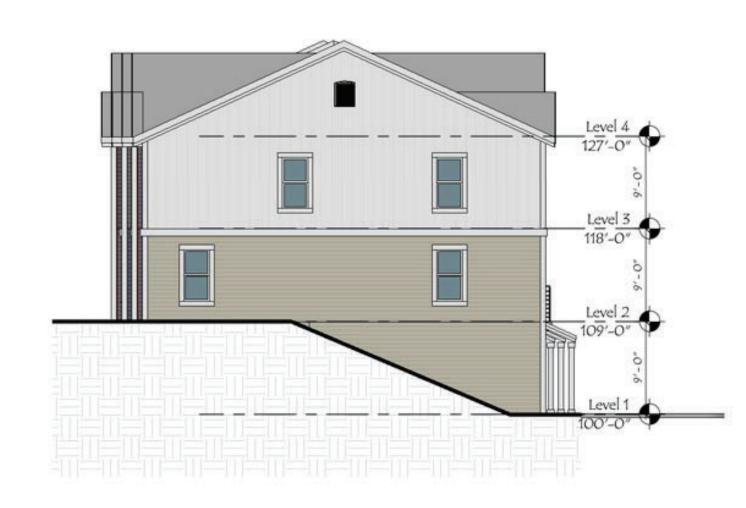




LEFT SIDE ELEVATION

SCALE: 1/8" = 1'-0"

1 REAR ELEVATION



FRONT ELEVATION

2 RIGHT SIDE ELEVATION

SCALE: 1/8"=1'-0"



