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Via Electronic Mail and Hand Delivery

October 21, 2024

Zoning Board of Appeals, City of Greenfield
14 Court Square
Greenfield, MA 01301

Re: Additional Requirements for the Special Permit and Variance Application Pursuant to Greenfield Zoning Ordinances – 112 Newton Street, Greenfield MA

To Whom It May Concern,


On behalf of our client, Viridi Wireless, LLC (the “**Applicant**”) enclosed please find additional application requirements pursuant to the City of Greenfield’s Zoning Ordinances for the proposed construction of a wireless communication facility (the “**Project**”) located at 112 Newton Street, Greenfield, MA (the “**Site**”):

1. Completed Site Plan Submission Checklist
2. Copy of the stamped Site Plan’s (eleven 11”x 17” copies and one 24”x 36” copy have been delivered to City of Greenfield Zoning Board of Appeals (the “ZBA”))
3. Soil Description (**Section 200-52(G)(2)(c)**)
4. Map of Signal Coverage (**Section 200-52(G)(2)(f)**)
5. Proof of Permits for AT&T (**Section 200-52(G)(2)(g)**)
6. Narrative Report (**Section 200-52(G)(2)(h)**)

The balloon floating test as required by (**Section 200-52(E)(3)**), photos of the balloon floating test (**Section 200-52(G)(2)(e)**) and a color rendition of the facility (**Section 200-52(G)(2)(d)**) shall be produced and presented to the ZBA prior to the hearing for this application scheduled for November 14, 2024.

If you have any questions please do not hesitate to contact me at your convenience. Thank you for assistance with this matter.

Respectfully yours,



Michael D. Rosen, Esq

Mr. Eric Twarog, Planning Director
October 21, 2024

cc: Viridi Wireless (via email only)
DuBois & King (via email only)

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City of Greenfield

The Commonwealth of Massachusetts

SITE PLAN SUBMISSION CHECKLIST

Please read all sections in the Greenfield Zoning Ordinance which pertain to your project; additional information not listed on this checklist may be required for application submittal.

*For site plans accompanying special permit applications for dog kennels, requirements 1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 21 and 26 shall be submitted.

*For site plans accompanying special permit applications for signage, requirements 1, 2, 3, 4, 5, 6, 7, 8, 11, 12, 21 and 26 shall be submitted.

*For all other site plans submitted, everything must be submitted unless the Site Plan Reviewing Authority states in writing what is not applicable.

In order for the Site Plan Reviewing Authority to consider an application packet "COMPLETE" all of the following items must be submitted as specified above. A written explanation for any omissions from these submission requirements must be included if any box is not checked off.

Applicant: Viridi Wireless, LLC

Assessor's Tax Map and Lot #: Map R24, Lot 11

Type of Development: Residential _____ Commercial/Industrial X

Date of Application: 10/21/2024

#	Submittal Requirements	Site Plan Reviewing Authority requirement	Submitted (check-off)
General Submission Requirements			
1.	One (1) copy of the completed Application Form.	<input checked="" type="checkbox"/> Yes / No	✓
2.	Twelve (12) copies of Site Plan prints showing all requested information.	<input checked="" type="checkbox"/> Yes / No	✓
3.	Application fee as indicated in the Fee Schedule	<input checked="" type="checkbox"/> Yes / No	✓
4.	Notarized letter of authorization from property owner for applicant to act as his/her agent, if applicant is not the property owner.	<input checked="" type="checkbox"/> Yes / No	✓
Site Plan Content Requirements			
5.	The location and boundaries of the lot with dimensions (Section 200-8.4 D. (1)(b))	<input checked="" type="checkbox"/> Yes / No	✓
6.	Adjacent streets or ways, with names and the location (Section 200-8.4 D. (1)(b))	<input checked="" type="checkbox"/> Yes / No	✓
7.	The location and owner's names of all abutting properties (Section 200-8.4 D. (1)(b))	<input checked="" type="checkbox"/> Yes / No	✓
8.	North arrow	<input checked="" type="checkbox"/> Yes / No	✓
9.	Graphic scale	<input checked="" type="checkbox"/> Yes / No	✓
10.	Date of plan	<input checked="" type="checkbox"/> Yes / No	✓
11.	Name of applicant, designer and surveyor	<input checked="" type="checkbox"/> Yes / No	✓

7/6/2022

12.	Locus map (Section 200-8.4 D. (1)(a))	<input checked="" type="checkbox"/> Yes / No	✓
13.	Existing and proposed vegetation and topography, including contours (Section 200-8.4 D. (1)(c))	<input checked="" type="checkbox"/> Yes / No	✓
14.	The location of wetlands, streams, water bodies, drainage swales, areas subject to flooding, and unique natural land features Existing and proposed vegetation and topography, including contours (Section 200-8.4 D. (1)(c))	<input checked="" type="checkbox"/> Yes / No	✓
15.	Existing and proposed structures including dimensions (ingress, egress, loading areas, etc.) (Section 200-8.4 D. (1)(d))	<input checked="" type="checkbox"/> Yes / No	✓
16.	The location and dimensions of parking and loading areas; driveways, walk ways, access and egress points and distance to the nearest driveways and intersections (Section 200-8.4 D. (1)(e))	<input checked="" type="checkbox"/> Yes / No	✓
17.	The location and description of all proposed septic systems (Section 200-8.4 D. (1)(f))	Yes / <input checked="" type="checkbox"/> No	
18.	The location and description of all water supply to include gallons per day (Section 200-8.4 D. (1)(f))	Yes / <input checked="" type="checkbox"/> No	
19.	The location and description of all storm drainage systems (Section 200-8.4 D. (1)(f))	<input checked="" type="checkbox"/> Yes / No	✓
20.	The location and description of all proposed and existing utilities (Section 200-8.4 D. (1)(f))	<input checked="" type="checkbox"/> Yes / No	✓
21.	The location and description of all proposed and existing lighting (cut sheets of all fixtures) (Section 200-8.4 D. (1)(f))	<input checked="" type="checkbox"/> Yes / No	✓
22.	The location and description of all proposed and existing refuse and other waste disposal methods (Section 200-8.4 D. (1)(f))	Yes / <input checked="" type="checkbox"/> No	
23.	The location and description of all existing and proposed exterior storage	Yes / <input checked="" type="checkbox"/> No	
24.	The location and description of all existing and proposed easements	<input checked="" type="checkbox"/> Yes / No	✓
25.	Proposed landscape features including the location and a description of screening, fencing and plantings (Section 200-8.4 D. (1)(g))	<input checked="" type="checkbox"/> Yes / No	✓
26.	Locations, dimensions, height and characteristics of proposed signs (Section 200-8.4 D. (1)(h))	<input checked="" type="checkbox"/> Yes / No	✓
27.	The location and description of proposed open space of recreation areas (Section 200-8.4 D. (1)(i))	Yes / <input checked="" type="checkbox"/> No	
28.	A snow storage/removal plan	Yes / <input checked="" type="checkbox"/> No	
29.	Percentage of Open Space	Yes / <input checked="" type="checkbox"/> No	
30.	Handicapped parking/access	Yes / <input checked="" type="checkbox"/> No	
31.	Bicycle Parking	Yes / <input checked="" type="checkbox"/> No	
32.	The existing and proposed interior layout of the structure	Yes / <input checked="" type="checkbox"/> No	
33.	Measures to prevent pollution of surface and groundwater, increased runoff, changes in groundwater levels, and flooding (Section 200-8.4 D. (2)(a))	<input checked="" type="checkbox"/> Yes / No	✓
34.	Design features which will integrate the proposed development into the existing landscape, maintain neighborhood character, enhance aesthetic asset and screen objectionable features from neighbors and roadways (Section 200-8.4 D. (2)(b))	<input checked="" type="checkbox"/> Yes / No	✓
35.	Control measures to prevent erosion and sedimentation during and after construction and the sequence of grading and construction activities, location of temporary measures, and final stabilization of the site (Section 200-8.4 D. (2)(c))	<input checked="" type="checkbox"/> Yes / No	✓
36.	Estimated average daily and peak hour vehicle trips to be generated by the site and traffic flow patterns for both vehicles and pedestrians showing adequate access to and from the site and adequate circulation within the site. (Section 200-8.4 D. (2)(d))	Yes / <input checked="" type="checkbox"/> No	

Requirement numbers 37 - 41 are only for projects located in the Corridor Overlay District			
37.	Facade elevations of all proposed new construction or renovation including at least one (1) color rendering. <i>(Section 200-4.16 I. (2)(a))</i>	Yes / <input checked="" type="checkbox"/> No	
38.	Photographs showing the proposed building site and surrounding properties. <i>(Section 200-4.16 I. (2)(b))</i>	Yes / <input checked="" type="checkbox"/> No	
39.	Drawings of proposed signs as they are to be located on the property including at least one (1) copy of a color rendering. <i>(Section 200-4.16 I. (2)(c))</i>	Yes / <input checked="" type="checkbox"/> No	
40.	A landscaping plan including plan and elevation views with at least one (1) color rendering. <i>(Section 200-4.16 I. (2)(d))</i>	Yes / <input checked="" type="checkbox"/> No	
41.	Narrative addressing all guidelines in the document titled, "Corridor Design Guidelines" <i>(Section 200-4.16 J.)</i>	Yes / <input checked="" type="checkbox"/> No	
Requirement numbers 42 - 46 are only for projects which fall under Major Development Review			
42.	Eight (8) copies of the impact statement prepared in accordance with the Major Development Review Rules and Regulations for Impact Statements	Yes / <input checked="" type="checkbox"/> No	
43.	Facade elevations of all sides of any new building or structure or alterations to any existing building or structure <i>(Section 200-7.12 D. (1)(a))</i>	Yes / <input checked="" type="checkbox"/> No	
44.	Photographs showing the proposed building site and abutting properties. <i>(Section 200-7.12 D. (1)(b))</i>	Yes / <input checked="" type="checkbox"/> No	
45.	Plans for phased construction. <i>(Section 200-7.12 D. (1)(c))</i>	Yes / <input checked="" type="checkbox"/> No	
46.	Contingency plans or bond relative to financial ability to complete the project. <i>(Section 200-7.12 D. (1)(d))</i>	Yes / <input checked="" type="checkbox"/> No	

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SITE INFORMATION:

1. SITE ADDRESS:

FAIRVIEW STREET WEST
GREENFIELD, MA 01301
2. LATITUDE:
LONGITUDE:

42°-34'-57.98"±
72°-37'-10.66"±
3. GROUND ELEVATION:

209.0' A.M.S.L.
4. TAX MAP NUMBER:

R24-11-0
5. PARCEL AREA:

7.136 ACRES
6. PARCEL OWNER:

GEORGE MARCHACOS
246 SILVER STREET
GREENFIELD, MA 01301
7. ZONING DISTRICT:

GC
8. STRUCTURE TYPE:

MONOPOLE
9. STRUCTURE HEIGHT:

170' A.G.L.

DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED TO BE FULL SIZE AT 22"X34". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE DESIGNER/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE THE STATE OF VERMONT LOW RISK SITE HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.

PROJECT TEAM:

1. APPLICANT:

VIRIDI WIRELESS, LLC
945 CONCORD STREET
FRAMINGHAM, MA 01701
(617) 834-1025
2. ENGINEERING FIRM:

DUBOIS & KING, INC.
6 GREEN TREE DRIVE
SOUTH BURLINGTON, VT 05403
(802) 878-7661

CODE COMPLIANCE:

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.

1. 2015 INTERNATIONAL BUILDING CODE

8. ANSI/TIA-222-G
2. 2017 NATIONAL ELECTRICAL CODE

9. TIA 607
3. NFPA 1 FIRE CODE, 2015 EDITION

10. INSTITUTE FOR ELECTRICAL
& ELECTRONICS ENGINEER 81
4. NFPA 101 LIFE SAFETY CODE, 2015 EDITION

11. IEEE C2 NATIONAL ELECTRIC
SAFETY CODE LATEST EDITION
5. AMERICAN CONCRETE INSTITUTE

12. TELECORDIA GR-1275
6. AMERICAN INSTITUTE OF STEEL CONSTRUCTION

13. ANSI/T 311
7. MANUAL OF STEEL CONSTRUCTION 13TH EDITION



FAIRVIEW STREET WEST
GREENFIELD, MA 01301



LOCATION MAP
SCALE: 1" = 1,000'

DRAWING INDEX:

- T-1

TITLE SHEET
- C-1

GENERAL NOTES
- C-2

OVERALL SITE PLAN
- C-3

ABUTTER PLAN
- C-4

PROPOSED VARIANCE
- C-5

PLAN AND PROFILE
- C-6

DETAIL SITE PLAN
- C-7

TOWER ELEVATIONS
- C-8

CIVIL DETAILS
- C-9

CIVIL DETAILS
- C-10

ANTENNA DETAILS
- C-11

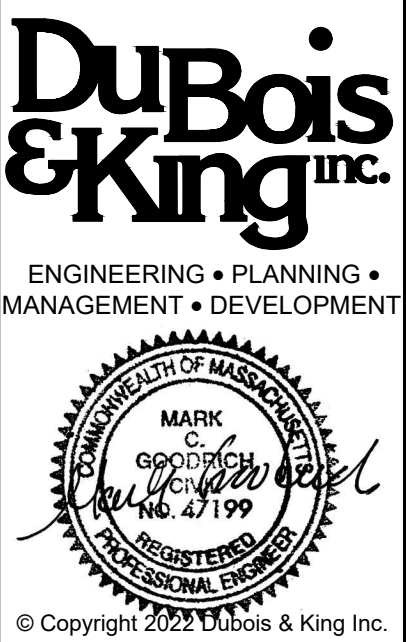
EPSC DETAILS
- SW-1

EXISTING DRAINAGE AREA PLAN
- SW-2

PROPOSED DRAINAGE AREA PLAN

APPROVAL BLOCK:

	APPROVED	APPROVED AS NOTED	DISAPPROVED/ REVISE
PROPERTY OWNER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SITE ACQUISITION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONSTRUCTION MANAGER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RF ENGINEER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



NOT FOR
CONSTRUCTION
PRELIMINARY
PLANS

NO.	DATE	DESCRIPTION
9	8-15-24	ISSUED FOR ZBA PERMITTING
8	6-03-24	REVISED TO 18' WIDE ACCESS DRIVE
7	8-07-23	UPDATED PROPERTY LINES
6	3-13-23	REPLACED SILT FENCE WITH FILTER SOCK
5	1-27-23	REVISED BACK TO EXISTING TAX MAPS
4	1-13-23	ISSUED FOR PERMITTING
3	12-19-22	DRAFT FOR REVIEW
2	10-10-22	ADDED BOUNDARY SURVEY PLAN
1	7-21-22	CONCEPT FOR REVIEW
NO.	DATE	DESCRIPTION



GREENFIELD,
MA

FAIRVIEW ST WEST
GREENFIELD, MA
01301

SHEET TITLE

TITLE SHEET

PERMIT PLANS

DRAWN BY JWP	DATE JUL. 2022
CHECKED BY LJH	D&K PROJECT # 427207L
PROJ. ENG. LJH	D&K ARCHIVE #

SHEET NUMBER

T-1

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PROJECT DESCRIPTION:

1. TYPE OF PROJECT: TELECOMMUNICATION FACILITY
2. DESCRIPTION OF MAJOR PROJECT COMPONENTS: AN UNMANNED 50'x50' TELECOMMUNICATIONS COMPOUND WILL BE CONSTRUCTED ON A 7.136 ACRE PARCEL ON FAIRVIEW STREET WEST. THE EXISTING SITE IS LOCATED IN THE WOODED SECTION OF THE PARCEL. PROPOSED OVERHEAD SERVICE WILL CONNECT FROM AN EXISTING UTILITY POLE ON FAIRVIEW STREET WEST TO A PROPOSED UTILITY POLE NEXT TO THE PROPOSED ACCESS DRIVE, AND UNDERGROUND TO THE EQUIPMENT BACKBOARD. A NEW EQUIPMENT CABINET AND GENERATOR WILL BE INSTALLED WITHIN THE PROPOSED FENCED COMPOUND AND NEW ANTENNA ARRAY WILL BE INSTALLED ON THE PROPOSED TOWER.
3. POSTED SPEED LIMIT: 30 M.P.H.
4. TOTAL ACREAGE OF TEMPORARY EARTH DISTURBANCE: 12,199 S.F. (0.28 ACRES)
5. TOTAL ACREAGE OF TREE CLEARING: 13,894 S.F. (0.32 ACRES)
6. TOTAL AREA OF PERMANENT EARTH DISTURBANCE: 7,307 S.F. (0.17 ACRES)
7. IMPERVIOUS AREA

7.1. EXISTING = 0 S.F. (0.00 ACRES)

7.2. PROPOSED = 7,307 S.F. (0.17 ACRES)

7.3. TOTAL = 7,307 S.F. (0.17 ACRES)
8. SEQUENCE OF MAJOR PROJECT COMPONENTS:

8.1. INSTALL EPSC MEASURES

8.2. INSTALL ACCESS ROAD & TOWER COMPOUND

8.3. INSTALL UNDERGROUND ELECTRIC/TELCO

8.4. INSTALL EQUIPMENT CABINET AND GENERATOR AND ANTENNA ARRAY

8.5. SITE STABILIZATION, SURFACE TREATMENT, RE-SEEDING
9. PROPOSED POLLUTION PREVENTION STRATEGIES: CONTRACTOR TO ENSURE THAT THE SITE REMAINS CLEAN AND ALL DEBRIS AND UNUSED MATERIALS ARE REMOVED AT THE END OF EACH DAY.
10. MAXIMUM CONCURRENT EARTH DISTURBANCE: THE PROJECT WILL BE LIMITED TO LESS THAN 1 ACRE OF EARTH DISTURBANCE.
11. USE OF VEGETATED BUFFERS: THE PROJECT WILL NOT HAVE STORMWATER DISCHARGES FROM THE CONSTRUCTION SITE TO WETLANDS AND DRAINAGE CHANNELS FROM THE ACCESS ROAD THAT DO NOT FIRST FILTER THROUGH A 25 FT. VEGETATED BUFFER.
12. NAME OF RECEIVING WATERS: UNNAMED TRIBUTARY TO GREEN RIVER
13. NUMBER OF EXISTING STREAM CROSSINGS: 0
14. WETLAND IMPACTS:

14.1. AREA OF WETLANDS IMPACTED BY PROPOSED ACTIVITIES: 0 S.F. (0.00 ACRE)

14.2. AREA OF WETLAND BUFFERS IMPACTED BY PROPOSED ACTIVITIES: 8,419 S.F. (0.19 ACRE)

14.3. WETLANDS PERMIT REQUIRED: YES, REFER TO WPA FORM 5 – ORDER OF CONDITIONS (MASSDEP FILE #: 1383125) FOR PROJECT SPECIFIC CONDITIONS AND REQUIREMENTS.

14.4. ARMY CORPS OF ENGINEERS PERMIT REQUIRED: NO
15. RIVER AND STREAM IMPACTS: NONE

15.1. LOCATED IN A FLOOD HAZARD AREA: NO

15.2. LOCATED IN A TITLE 5 BUFFER: YES
16. RARE, THREATENED, OR ENDANGERED SPECIES IMPACTS: NO IDENTIFIED CONCERNS
17. SIGNIFICANT NATURAL COMMUNITY: NO IDENTIFIED CONCERNS
18. WATER SUPPLY SOURCE PROTECTION AREA IMPACTS: NONE
19. NATURAL RESOURCES HABITAT IMPACTS:

19.1. DEER WINTERING AREA: NO IDENTIFIED CONCERNS

19.2. BEAR HABITAT AREA: NO IDENTIFIED CONCERNS

19.3. SONG BIRD HABITAT AREA: NO IDENTIFIED CONCERNS

19.4. BAT HABITAT AREA: NO IDENTIFIED CONCERNS
20. LOCAL ZONING – CITY OF GREENFIELD

20.1. ZONING DISTRICT: GENERAL COMMERCIAL (GC)

20.2. OVERLAY DISTRICT: NONE
21. PROPERTY LINE INFORMATION PROVIDED BY THE CITY OF GREENFIELD TAX MAPS AND SURVEY PLAN BY HERITAGE LAND SURVEYING & ENGINEERING, DATED SEPTEMBER 29, 2022. DUBOIS & KING, INC. DID NOT PERFORM A BOUNDARY SURVEY.
22. TOPOGRAPHIC SURVEY PERFORMED BY DUBOIS & KING, INC. ON JULY 21 & 22, 2021.
23. ELEVATIONS FROM GPS OBSERVATIONS.
24. WETLAND DELINEATION AND HABITAT REVIEW PERFORMED BY VHB ON JUNE 24, 2022.

STORMWATER MANAGEMENT SYSTEM
OPERATION & MAINTENANCE PLAN

DURING CONSTRUCTION

1. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL FACILITIES PRIOR TO THE COMMENCEMENT OF EARTHWORK OPERATIONS.
2. THE CONTRACTOR SHALL MAINTAIN EROSION PREVENTION AND SEDIMENT CONTROL DEVICES THROUGHOUT THE PROJECT SITE FOR THE DURATION OF THE CONSTRUCTION UNTIL THE PROJECT HAS BEEN COMPLETED.
3. THE CONTRACTOR SHALL IDENTIFY AN ON-SITE PLAN COORDINATOR (OSPC) PRIOR TO THE START OF CONSTRUCTION. THE OSPC OR A PERSON ACTING UNDER THE DIRECTION OF THE OSPC SHALL CONDUCT A SITE INSPECTION AND COMPLETE OSPC INSPECTION REPORT FORM AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A STORM EVENT. DURING WINTER CONSTRUCTION (OCTOBER 15–APRIL 15) INSPECTIONS SHALL BE CONDUCTED DAILY DURING ACTIVE EARTHWORK. INSPECTIONS MAY BE LIMITED TO ONCE PER MONTH IF ALL AREAS OF THE SITE HAVE TEMPORARY OR PERMANENT STABILIZATION. ALL INSPECTION REPORTS ALONG WITH THE EPSC PLAN SHALL BE RETAINED ON SITE FOR THE DURATION OF THE PROJECT. INSPECTIONS SHALL COVER ALL AREAS OF THE SITE DISTURBED BY CONSTRUCTION ACTIVITY INCLUDING AREAS OF TEMPORARY STABILIZATION AND ALL DISCHARGE LOCATIONS.

a. A STORM EVENT SHALL BE DEFINED AS ANY OF THE FOLLOWING:

i. A STORM IN WHICH RAIN IS PREDICTED TO LAST FOR TWELVE CONSECUTIVE HOURS OR MORE,

ii. A STORM FOR WHICH A FLASH FLOOD WATCH OR WARNING IS ISSUED,

iii. A SINGLE STORM PREDICTED TO HAVE A CUMULATIVE RAINFALL OF GREATER THAN ONE–HALF INCH,

iv. A STORM NOT MEETING THE PREVIOUS THREE THRESHOLDS, BUT WHICH WOULD MARK A THIRD CONSECUTIVE DAY OF MEASURABLE RAINFALL.
4. ALL DISTURBED AREAS SHALL BE STABILIZED IN A MANNER TO MITIGATE EROSION OR SEDIMENTATION FROM EXITING THE LIMIT OF WORK AS QUICKLY AS FEASIBLY POSSIBLE, AND SHALL BE RESTORED IN–KIND UPON COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL STOCKPILE SUFFICIENT QUANTITIES OF SILT FABRIC, STAKES AND STRAW BALES/WATTLES, AND EROSION CONTROL MATTING TO REPAIR A MINIMUM 50 FOOT LONG BREACH OR FAILURE IN ESTABLISHED BARRIERS.
5. ALL SLOPES GREATER THAN 1V:3H SHALL BE PROTECTED FROM EROSION WITH EROSION CONTROL BLANKETS OR OTHER APPROPRIATE SLOPE STABILIZATION CONTROL MEASURES WITHIN 72 HOURS FOLLOWING COMPLETION OF LOAMING, SEEDING AND MULCHING. THE CONTRACTOR SHALL MAINTAIN EROSION CONTROL PROTECTION UNTIL VEGETATION GROWTH AS BEEN ESTABLISHED. ALL SLOPE STABILIZATION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER’S RECOMMENDATION.
6. ALL SWALES AND DITCHES WITH SLOPES EXCEEDING 5% SLOPE SHALL BE PROTECTED FROM EROSION WITH MATTING OR CRUSHED STONE. ALL MATTING SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER’S RECOMMENDATION. ALL SWALES AND DITCHES SHALL BE PROPERLY STABILIZED PRIOR TO DIRECTING FLOW TO THEM.
7. ALL WORK MUST BE DONE IN A MANNER WHICH MINIMIZES THE POTENTIAL FOR THE DISCHARGE OF SEDIMENT–LADEN WATER. THE CONTRACTOR IS RESPONSIBLE FOR DIVERTING, PUMPING OR OTHERWISE CONTROLLING WATER AS NECESSARY.
8. ALL EXISTING STORM DRAINAGE INLETS WITHIN THE WORK AREA OR THAT MAY BE AFFECTED BY THE WORK SHALL BE PROTECTED BY CATCH BASIN FILTER BASKETS, OR OTHER BMP TO PREVENT ENTRY OF SEDIMENT FROM RUNOFF WATERS INTO THE STORM DRAIN SYSTEM.
9. TEMPORARY EROSION CONTROL MEASURES ARE CONCEPTUALLY SHOWN. THE CONTRACTOR MAY RELOCATE TEMPORARY MEASURES TO IMPROVE EROSION CONTROL. SILT FENCE SHALL NOT BE INSTALLED ACROSS CONTOURS.
10. ENSURE THAT ALL WORKERS UNDERSTAND THE PROVISIONS OF THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN AS WELL AS THE INTENT OF THE MEASURES AND THE POSSIBLE NEED FOR ADDITIONAL MEASURES SHOULD UNEXPECTED CONDITIONS ARISE.
11. DISTURBED AREAS WITH POTENTIAL TO DISCHARGE SEDIMENT–LADEN WATER INTO THE SEWER SYSTEM OR OFF THE SITE MUST BE PROTECTED WITH TEMPORARY EROSION CONTROL MEASURES (E.G., SILT FENCE) AT THE COMPLETION OF EACH WORK DAY THE CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT BEFORE IT HAS REACHED ONE–HALF OF THE ORIGINAL INSTALLED HEIGHT OF THE BARRIER.
12. ALL STOCKPILES SHALL BE SURROUNDED BY SILT FENCE AT THE END OF EACH WORK DAY AND PRIOR TO ANY PRECIPITATION EVENT.
13. EXISTING VEGETATION IS TO REMAIN UNDISTURBED TO THE EXTENT POSSIBLE.
14. ALL DISTURBED AREAS SHALL BE RE–VEGETATED AS QUICKLY AS POSSIBLE. PERMANENT OR TEMPORARY COVER MUST BE IN PLACE BEFORE THE GROWING SEASON ENDS. COMPLETE SEEDING AFTER APRIL 15 AND BEFORE SEPTEMBER 15 FOR AREAS WHERE FINAL STABILIZATION IS NOT SCHEDULED TO OCCUR PRIOR TO THE WINTER CONSTRUCTION PERIOD. NO DISTURBED AREA SHALL BE LEFT EXPOSED DURING WINTER MONTHS.
15. REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SUCH AS SILT FENCE WITHIN 30 DAYS OF ACHIEVING FINAL STABILIZATION OF DISTURBED AREAS. AREAS DISTURBED BY REMOVAL OF THESE MEASURES SHALL BE IMMEDIATELY SEEDED AND MULCHED.
16. AN AREA IN CONSIDERED “STABLE” IF ONE OF THE FOLLOWING IS OCCURRED:

a. BASE COURSE GRAVELS HAVE BEEN INSTALLED,

b. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED,

c. A MINIMUM OF 3” OF NON–EROSIVE MATERIAL (SUCH AS STONE FILL) HAS BEEN INSTALLED,

d. EROSION CONTROL FABRIC HAS BEEN PROPERLY INSTALLED.
17. THE LOCAL DEPARTMENT OF PUBLIC WORKS AND OR CONSERVATION COMMISSION SHALL BE NOTIFIED OF ANY SIGNIFICANT FAILURE OF STORMWATER MANAGEMENT SYSTEMS OR EROSION AND SEDIMENT CONTROL MEASURES AND SHALL BE NOTIFIED OF ANY RELEASE OF POLLUTANTS TO A WATER BODY (STREAM, BROOK, POND, WETLAND, ETC.).

EXISTING FEATURES LEGEND

-
- APPROXIMATE PROPERTY LINE
-
- OVERHEAD UTILITY LINE
-
- EXISTING TREE LINE
-
- DELINEATED STREAM
-
- RIPARIAN BUFFER
-
- 50’ WETLAND BUFFER
-
- DELINEATED WETLAND
-
- MINOR CONTOUR LINE
-
- MAJOR CONTOUR LINE
-
- UTILITY POLE
-
- BENCHMARK
-
- DECIDUOUS TREE
-
- EVERGREEN TREE

PROPOSED FEATURES LEGEND

-
- LIMITS OF DISTURBANCE
-
- LIMITS OF CONSTRUCTION
-
- REINFORCED SILT FENCE
-
- PROPOSED TREE LINE
-
- UNDERGROUND ELEC & TEL LINE
-
- CHAIN LINK FENCE
-
- PROPOSED UTILITY POLE
-
- PROPOSED WATER BAR
-
- TEMPORARY WATER BAR

POST–CONSTRUCTION

STORMWATER MANAGEMENT SYSTEM OWNER: VIRIDI WIRELESS, LLC

PARTY RESPONSIBLE FOR OPERATION & MAINTENANCE: VIRIDI WIRELESS, LLC

INSPECTION & MAINTENANCE SCHEDULE & LOG:
ROUTINE MAINTENANCE OPERATIONS ARE REQUIRED TO ENSURE PROPER PERFORMANCE AND COMPLIANCE WITH STATE AND LOCAL PERMITS. THE SITE SHALL BE INSPECTED ANNUALLY TO ENSURE THE FACILITY IS STABLE AND THERE IS NO EROSION OR SEDIMENT TRANSPORT THAT IS IMPEDING THE FUNCTIONS OF THE STORMWATER TREATMENT SYSTEM. ANY SYSTEM FAILURE SHALL BE IMMEDIATELY REPORTED TO THE SYSTEM OWNER AND A CORRECTIVE ACTION PLAN SHALL BE PUT IN PLACE.

1. ROADSIDE SWALE:

a. INSPECT THE ROADSIDE SWALE FOR SIGNS OF EROSION. REPAIR OR REPLACE ANY FAILED CHECK DAMS. REMOVE ACCUMULATED SEDIMENT. RESEED OR OTHERWISE STABILIZE WITH CRUSHED STONE AS NECESSARY.
2. SEDIMENT FOREBAY:

a. THE SEDIMENT FOREBAY SHALL BE INSPECTED ANNUALLY OR AS NEEDED IF EROSION OF THE ROADSIDE SWALE HAS OCCURRED. REMOVE ACCUMULATED SEDIMENT AND RESEED AS NECESSARY.
3. WATER QUALITY SWALE:

a. THE WATER QUALITY SWALE SHALL BE INSPECTED ANNUALLY FOR SEDIMENT BUILD–UP, LITTER AND DEBRIS, STRUCTURAL DAMAGE, AND EROSION. ANY ERODED AREAS SHALL BE REPAIRED AND STABILIZED IMMEDIATELY. WOODY VEGETATION AND DEAD VEGETATION SHALL BE REMOVED AS NECESSARY. REMOVE INVASIVE SPECIES AS NEEDED TO PREVENT SPREAD INTO WETLAND AREA.

b. INSPECT THE OVERFLOW DISCHARGE TO ENSURE IT IS STABLE AND THERE ARE NO SIGNS OF EROSION. IF EROSION HAS OCCURRED, REPAIR AND STABILIZE TO PREVENT FURTHER DEGRADATION.

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NOT FOR
CONSTRUCTION
PRELIMINARY
PLANS

LUH	LUH	JWP	ISSUED FOR ZBA PERMITTING	8–15–24	9
LUH	LUH	JWP	REVISED TO 18' WIDE ACCESS DRIVE	6–03–24	8
LUH	LUH	JWP	UPDATED PROPERTY LINES	8–07–23	7
LUH	LUH	JWP	REPLACED SILT FENCE WITH FILTER SOCK	3–13–23	6
LUH	LUH	JWP	REVISED BACK TO EXISTING TAX MAPS	1–27–23	5
LUH	LUH	JWP	ISSUED FOR PERMITTING	1–13–23	4
LUH	LUH	JWP	DRAFT FOR REVIEW	12–19–22	3
LUH	LUH	JWP	ADDED BOUNDARY SURVEY PLAN	10–10–22	2
LUH	LUH	JWP	CONCEPT FOR REVIEW	7–21–22	1
CK'D	BY		DESCRIPTION	DATE	NO.

Viridi Wireless
WIRELESS COMMUNICATIONS

GREENFIELD,
MA

FAIRVIEW ST WEST
GREENFIELD, MA
01301

SHEET TITLE

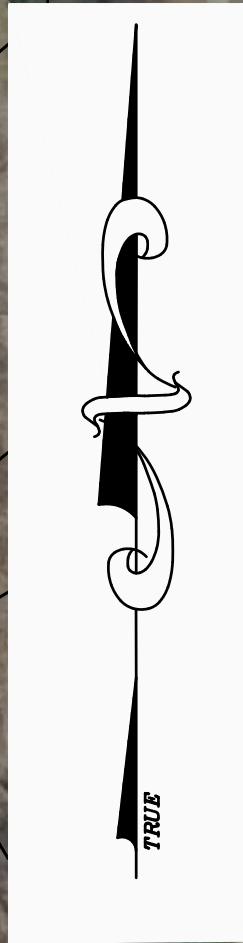
GENERAL
NOTES

PERMIT PLANS

DRAWN BY JWP	DATE JUL. 2022
CHECKED BY LJH	D&K PROJECT # 427207L
PROJ. ENG. LJH	D&K ARCHIVE #

SHEET NUMBER

C-1



I-91 SOUTH BOUND

I-91 NORTH BOUND

WETLAND BOUNDARY

FAIRVIEW STREET WEST

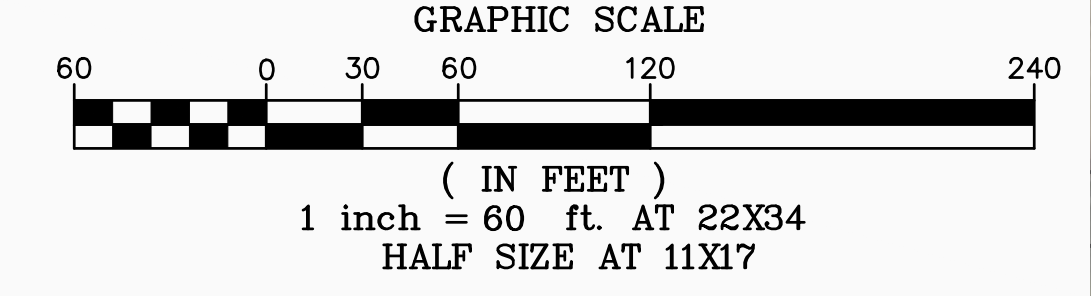
NEWTON STREET

100' WETLAND BUFFER

PROJECT LOCATION:
LAT: 42°-34'-57.98"±
LONG: 72°-37'-10.66"±

170' RADIUS FALL ZONE

NOTE:
PROPERTY LINES SHOWN ARE BASED ON TOWN OF GREENFIELD TAX MAPS AND BOUNDARY SURVEY TITLED "PLAN OF LAND IN GREENFIELD, MASSACHUSETTS SURVEYED FOR GEORGE MARCHACOS" BY HERITAGE LAND SURVEYING & ENGINEERING, DATED OCTOBER 19, 2022 AND RECORDED IN BOOK 151 ON PAGE 97. DUBOIS & KING, INC. DID NOT PERFORM A BOUNDARY SURVEY.



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**NOT FOR
CONSTRUCTION
PRELIMINARY
PLANS**

NO.	DATE	DESCRIPTION	BY	CHK'D
9	8-15-24	ISSUED FOR ZBA PERMITTING	JWP	LJH
8	6-03-24	REVISED TO 18' WIDE ACCESS DRIVE	JWP	LJH
7	8-07-23	UPDATED PROPERTY LINES	JWP	LJH
6	3-13-23	REPLACED SILT FENCE WITH FILTER SOCK	JWP	LJH
5	1-27-23	REVISED BACK TO EXISTING TAX MAPS	JWP	LJH
4	1-13-23	ISSUED FOR PERMITTING	JWP	LJH
3	12-19-22	DRAFT FOR REVIEW	JWP	LJH
2	10-10-22	ADDED BOUNDARY SURVEY PLAN	JWP	LJH
1	7-21-22	CONCEPT FOR REVIEW	JWP	LJH

Viridi Wireless

**GREENFIELD,
MA**

FAIRVIEW ST WEST
GREENFIELD, MA
01301
SHEET TITLE

OVERALL
SITE PLAN

PERMIT PLANS	
DRAWN BY	DATE
JWP	JUL. 2022
CHECKED BY	D&K PROJECT #
LJH	427207L
PROJ. ENG.	D&K ARCHIVE #
LJH	

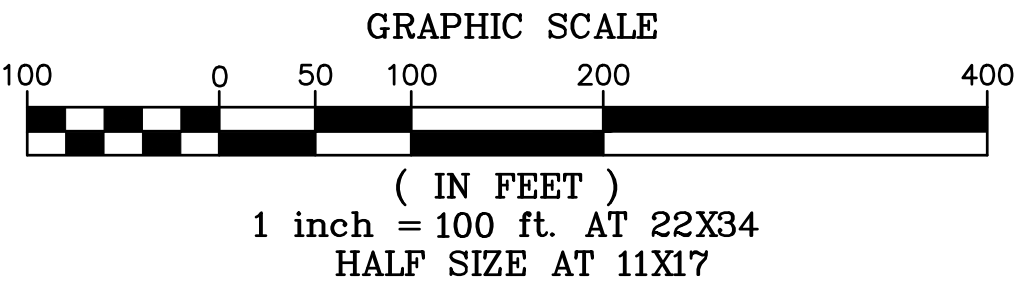
SHEET NUMBER
C-2



NOTE:
PROPERTY LINES SHOWN ARE BASED ON TOWN OF GREENFIELD TAX MAPS AND BOUNDARY SURVEY TITLED
"PLAN OF LAND IN GREENFIELD, MASSACHUSETTS SURVEYED FOR GEORGE MARCHACOS" BY HERITAGE LAND
SURVEYING & ENGINEERING, DATED OCTOBER 19, 2022 AND RECORDED IN BOOK 151 ON PAGE 97.
DUBOIS & KING, INC. DID NOT PERFORM A BOUNDARY SURVEY.

- PROPERTY OWNER:
GEORGE MARCHACOS
246 SILVER STREET
GREENFIELD, MA 01301
- ABUTTER LIST:
- A. PARCEL #: 35-3-0
N/F FWP NEWTON-FAIRFIELD MA, LLC
1900 BRIDGE LAND, 5B
STEAMBOAT SPRINGS, CO 80487
 - B. PARCEL #: R24-11-0
N/F PREMIER SELF STORAGE, LLC
26 BISSONETTE CIRCLE
SOUTHAMPTON, MA 01073
 - C. PARCEL #: R24-11A-0
N/F FWP NEWTON-FAIRFIELD MA, LLC
1900 BRIDGE LAND, 5B
STEAMBOAT SPRINGS, CO 80487
 - D. PARCEL #: R24-5-0
N/F 95 LAUREL PROPCO, LLC
2 SAMPSONDALE AVENUE
WEST HAVERSTRAW, NY 10993
 - E. PARCEL #: R24-52-0
N/F DEPARTMENT OF TRANSPORTATION MASSACHUSETTS
10 PARK PLAZA
BOSTON, MA 02116
 - F. PARCEL #: R24-53-0
N/F DEPARTMENT OF TRANSPORTATION MASSACHUSETTS
10 PARK PLAZA
BOSTON, MA 02116
 - G. PARCEL #: R24-6-0
N/F IJAZ ESTATES, LLC
65 WEST STREET
AMHERST, MA 01002

PROJECT LOCATION:
LAT: 42°-34'-57.98"±
LONG: 72°-37'-10.66"±



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9	8-15-24	ISSUED FOR ZBA PERMITTING	JWP	LJH
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6	3-13-23	REPLACED SILT FENCE WITH FILTER SOCK	JWP	LJH
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4	1-13-23	ISSUED FOR PERMITTING	JWP	LJH
3	12-19-22	DRAFT FOR REVIEW	JWP	LJH
2	10-10-22	ADDED BOUNDARY SURVEY PLAN	JWP	LJH
1	7-21-22	CONCEPT FOR REVIEW	JWP	LJH
NO.	DATE	DESCRIPTION	BY	CK'D

**GREENFIELD,
MA**

FAIRVIEW ST WEST
GREENFIELD, MA
01301
SHEET TITLE

ABUTTER
PLAN

PERMIT PLANS

DRAWN BY	DATE
JWP	JUL. 2022
CHECKED BY	D&K PROJECT #
LJH	427207L
PROJ. ENG.	D&K ARCHIVE #
LJH	

SHEET NUMBER

C-3



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PLANS**

9	8-15-24	ISSUED FOR ZBA PERMITTING	JWP	LJH
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7	8-07-23	UPDATED PROPERTY LINES	JWP	LJH
6	3-13-23	REPLACED SILT FENCE WITH FILTER SOCK	JWP	LJH
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4	1-13-23	ISSUED FOR PERMITTING	LJH	LJH
3	12-19-22	DRAFT FOR REVIEW	JWP	LJH
2	10-10-22	ADDED BOUNDARY SURVEY PLAN	JWP	LJH
1	7-21-22	CONCEPT FOR REVIEW	LJH	LJH
N.O.	DATE	DESCRIPTION	BY	CK'D



**GREENFIELD,
MA**

FAIRVIEW ST WEST GREENFIELD, MA 01301
SHEET TITLE

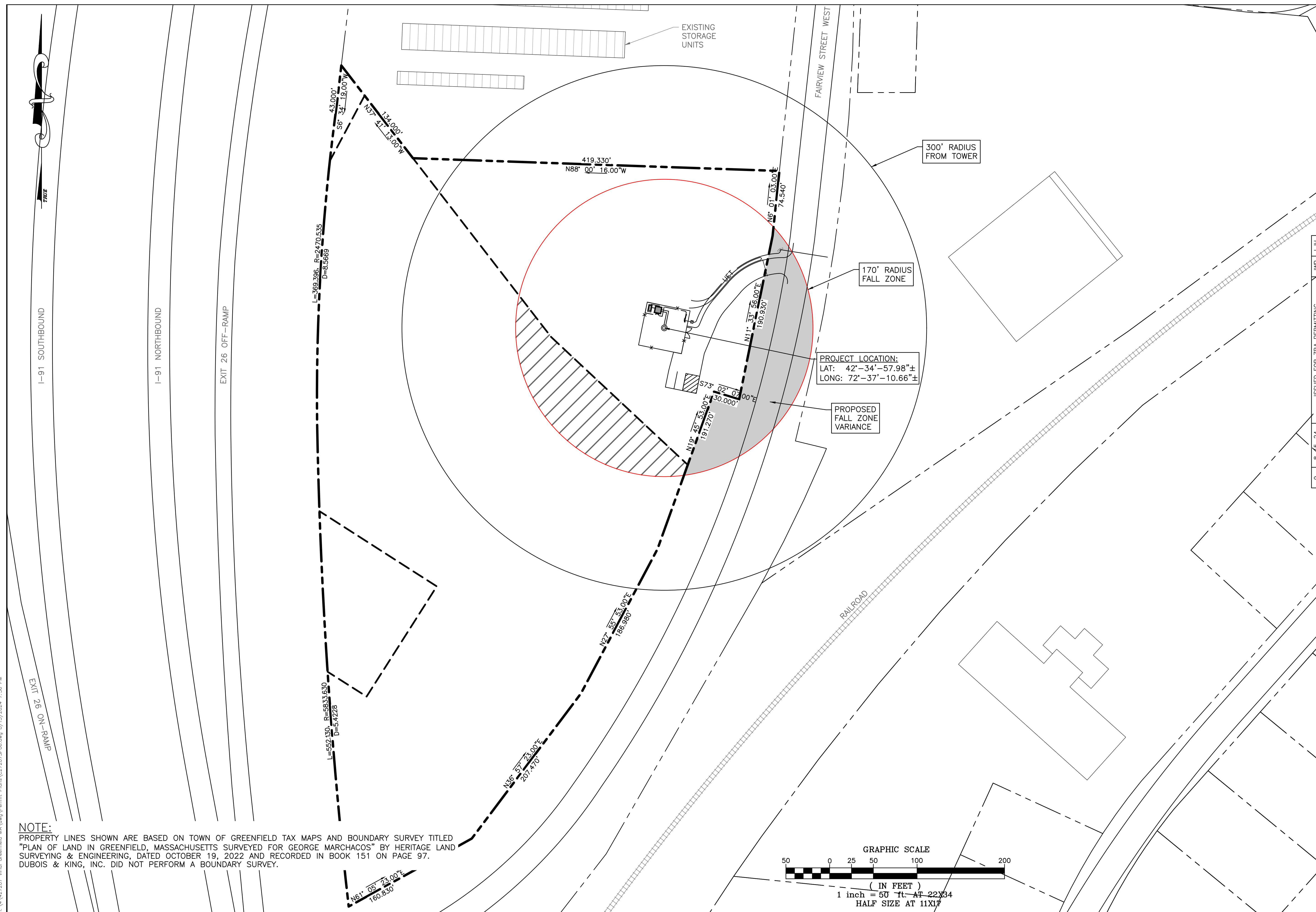
PROPOSED
VARIANCE

PERMIT PLANS

DRAWN BY JWP	DATE JUL. 2022
CHECKED BY LJH	D&K PROJECT # 427207L
PROJ. ENG. LJH	D&K ARCHIVE #

	SHEET NUMBER
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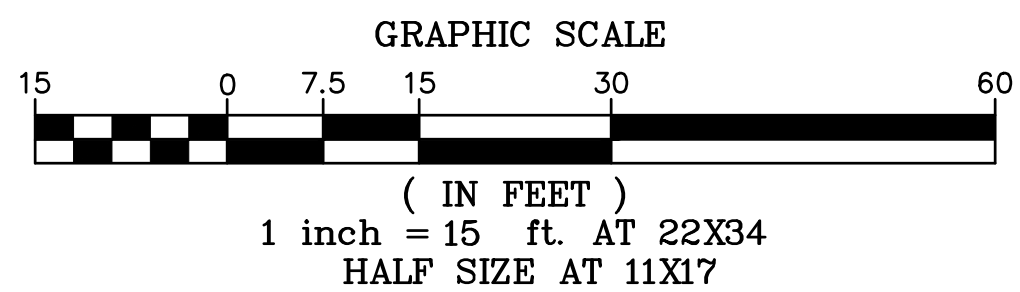
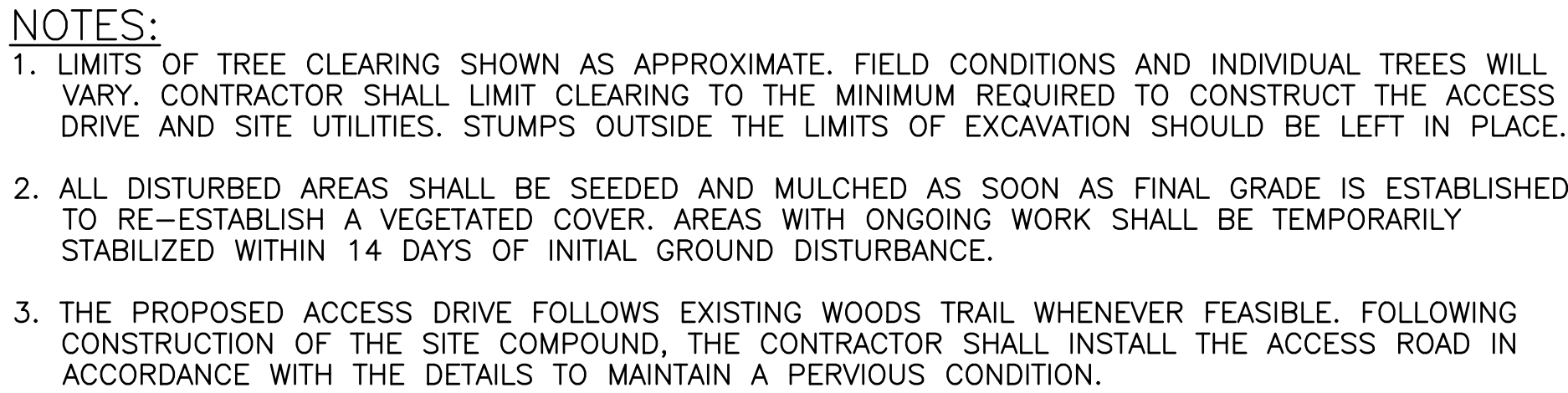
C-4

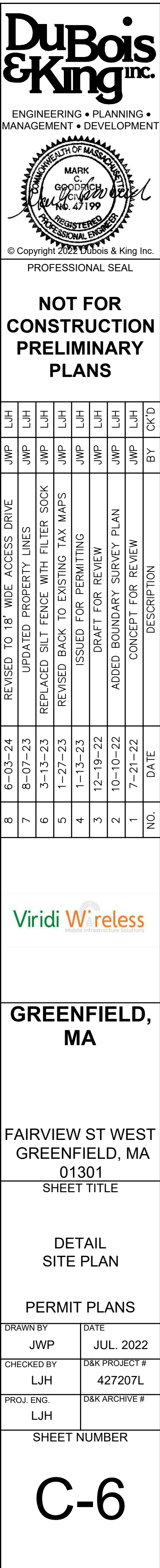
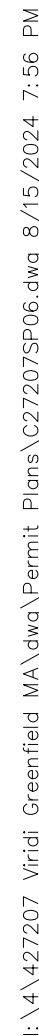


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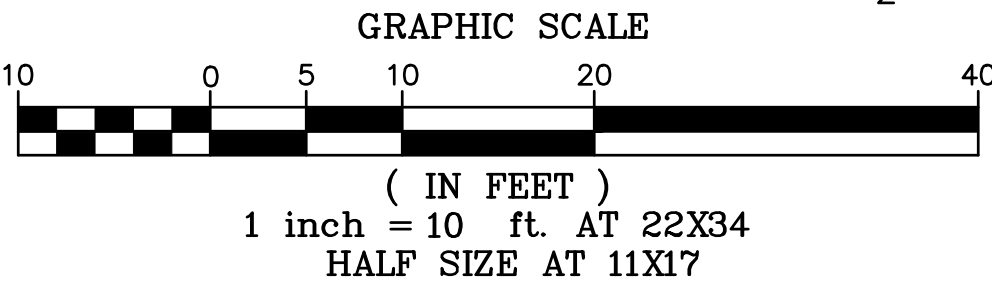
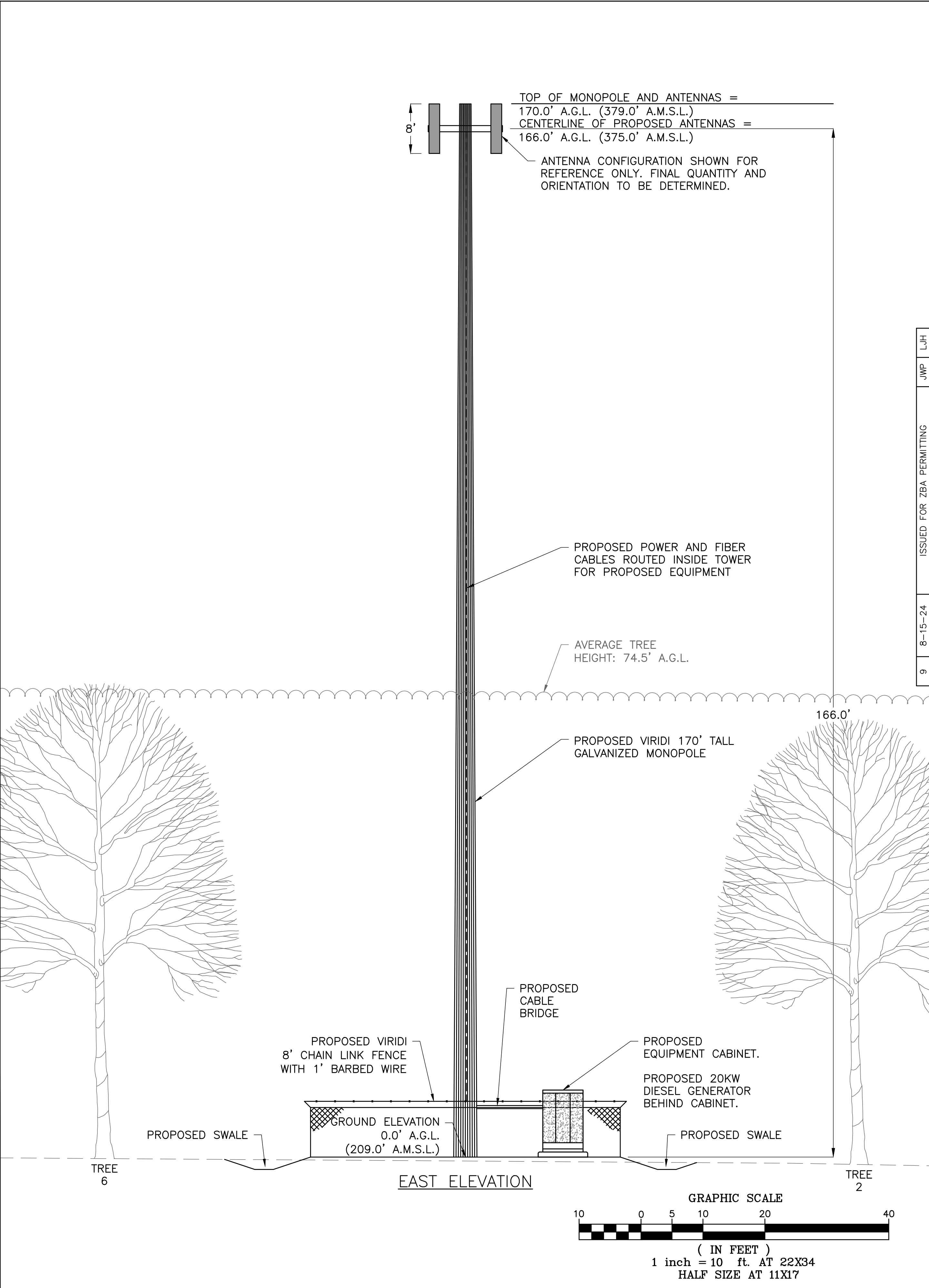
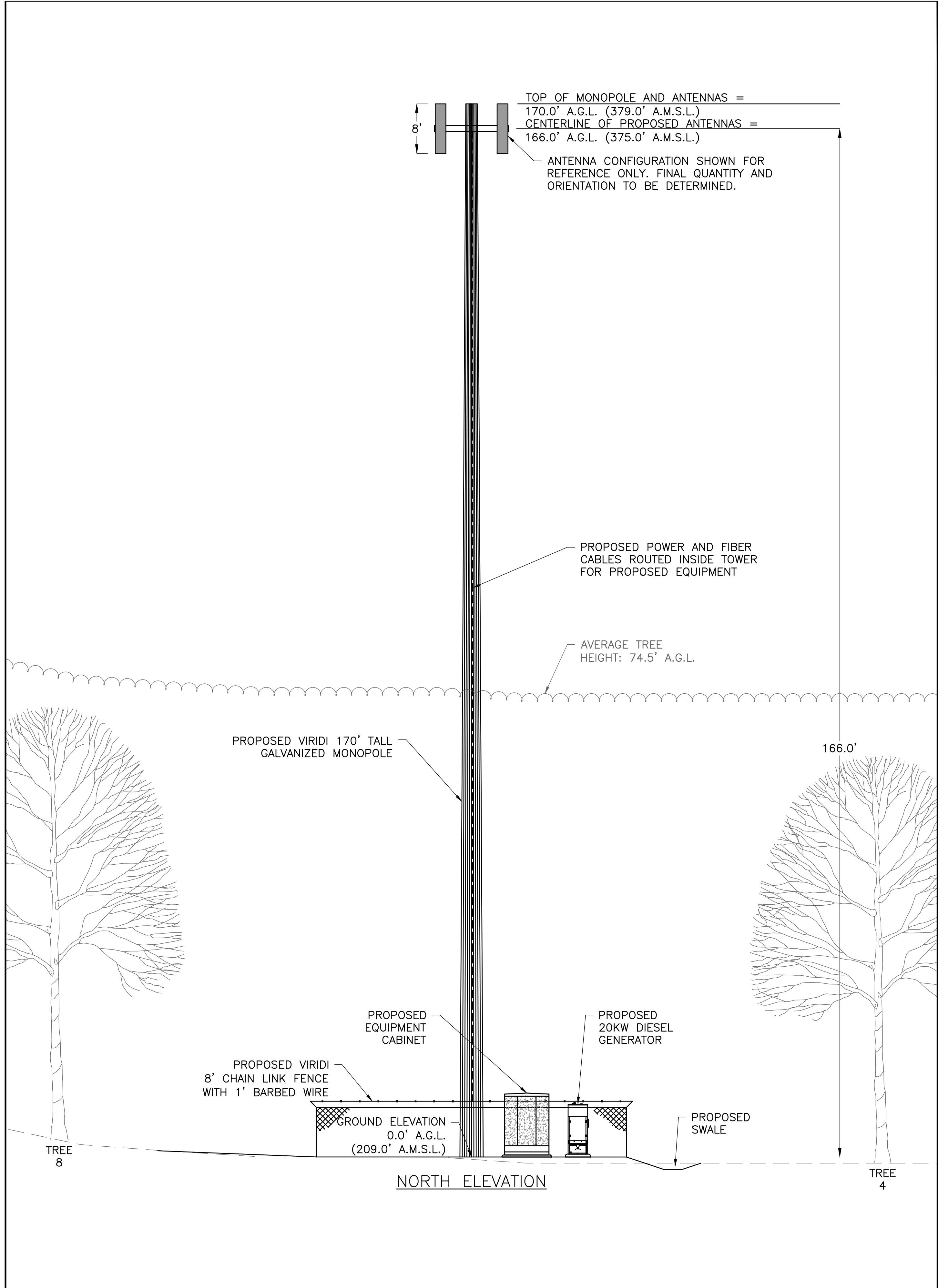
NOTE: PROPERTY LINES SHOWN ARE BASED ON TOWN OF GREENFIELD TAX MAPS AND BOUNDARY SURVEY TITLED "PLAN OF LAND IN GREENFIELD, MASSACHUSETTS SURVEYED FOR GEORGE MARCHACOS" BY HERITAGE LAND SURVEYING & ENGINEERING, DATED OCTOBER 19, 2022 AND RECORDED IN BOOK 151 ON PAGE 97. DUBOIS & KING, INC. DID NOT PERFORM A BOUNDARY SURVEY.

DUBOIS & KING, INC. DID NOT PERFORM A BOUNDARY SURVEY





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PLANS

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NO.	DATE	DESCRIPTION	BY	CK'D

GREENFIELD,
MA

FAIRVIEW ST WEST
GREENFIELD, MA
01301
SHEET TITLE

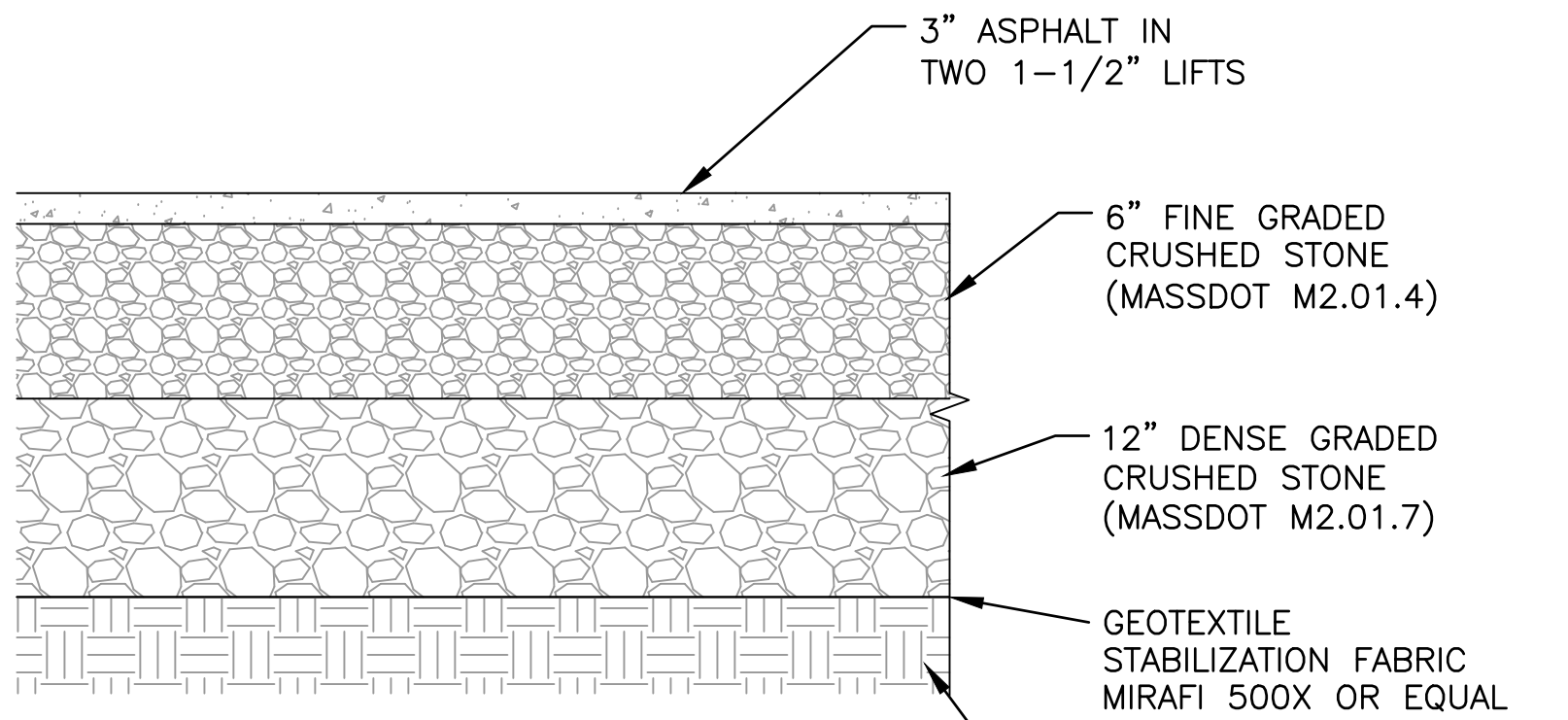
TOWER
ELEVATIONS

PERMIT PLANS

DRAWN BY	DATE
JWP	JUL. 2022
CHECKED BY	D&K PROJECT #
LJH	427207L
PROJ. ENG.	D&K ARCHIVE #
LJH	

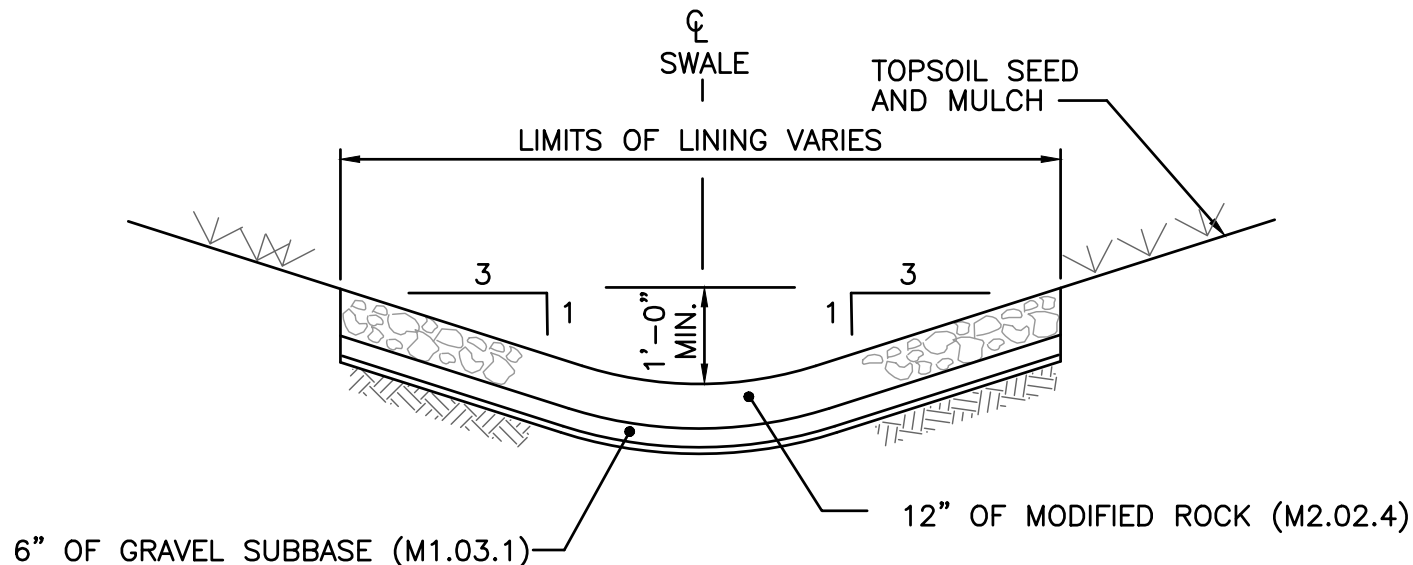
SHEET NUMBER

C-7

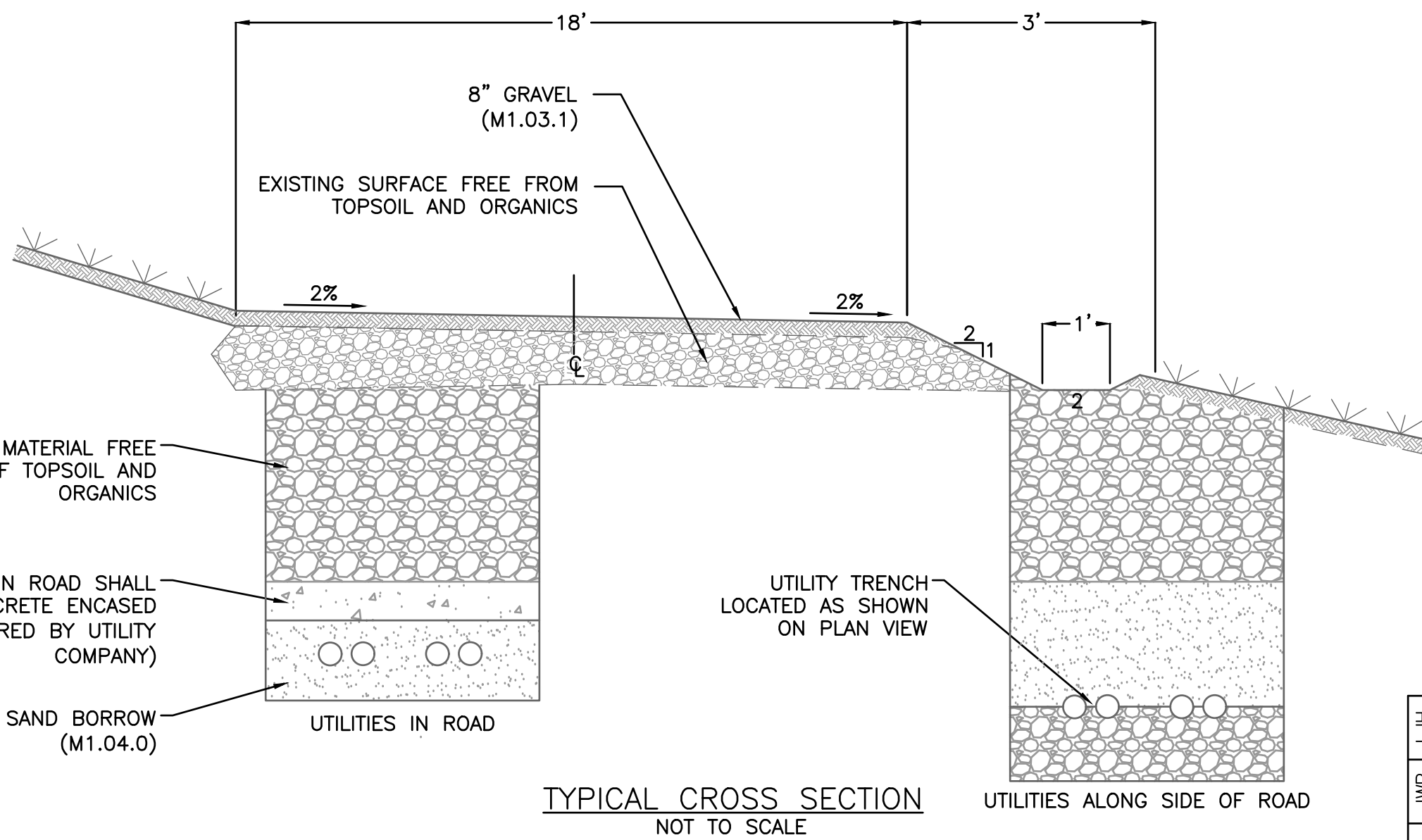


- NOTES:
1. VERIFY RATES OF COMPACTION AND DEPTHS OF SUB-BASE AND BASE COURSE MATERIALS PRIOR TO INSTALLATION.
 2. INSTALL IN ACCORDANCE WITH MASSDOT SPECIFICATIONS SECTION 702

ASPHALT DRIVEWAY
NOT TO SCALE

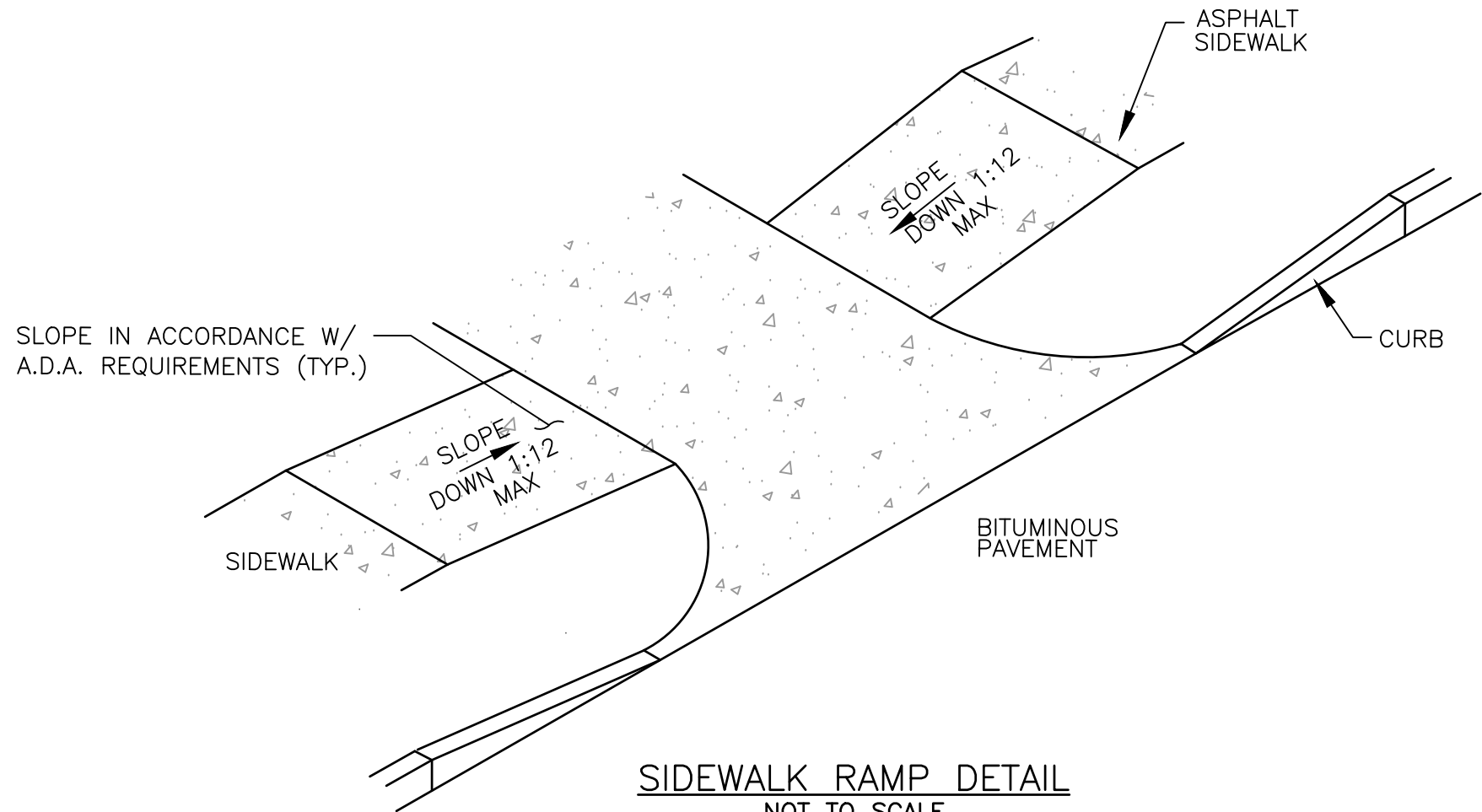


NOTE: ALL SWALES GREATER THAN 5% SHALL BE STONE LINED
TYPICAL STONE LINED SWALE
NOT TO SCALE

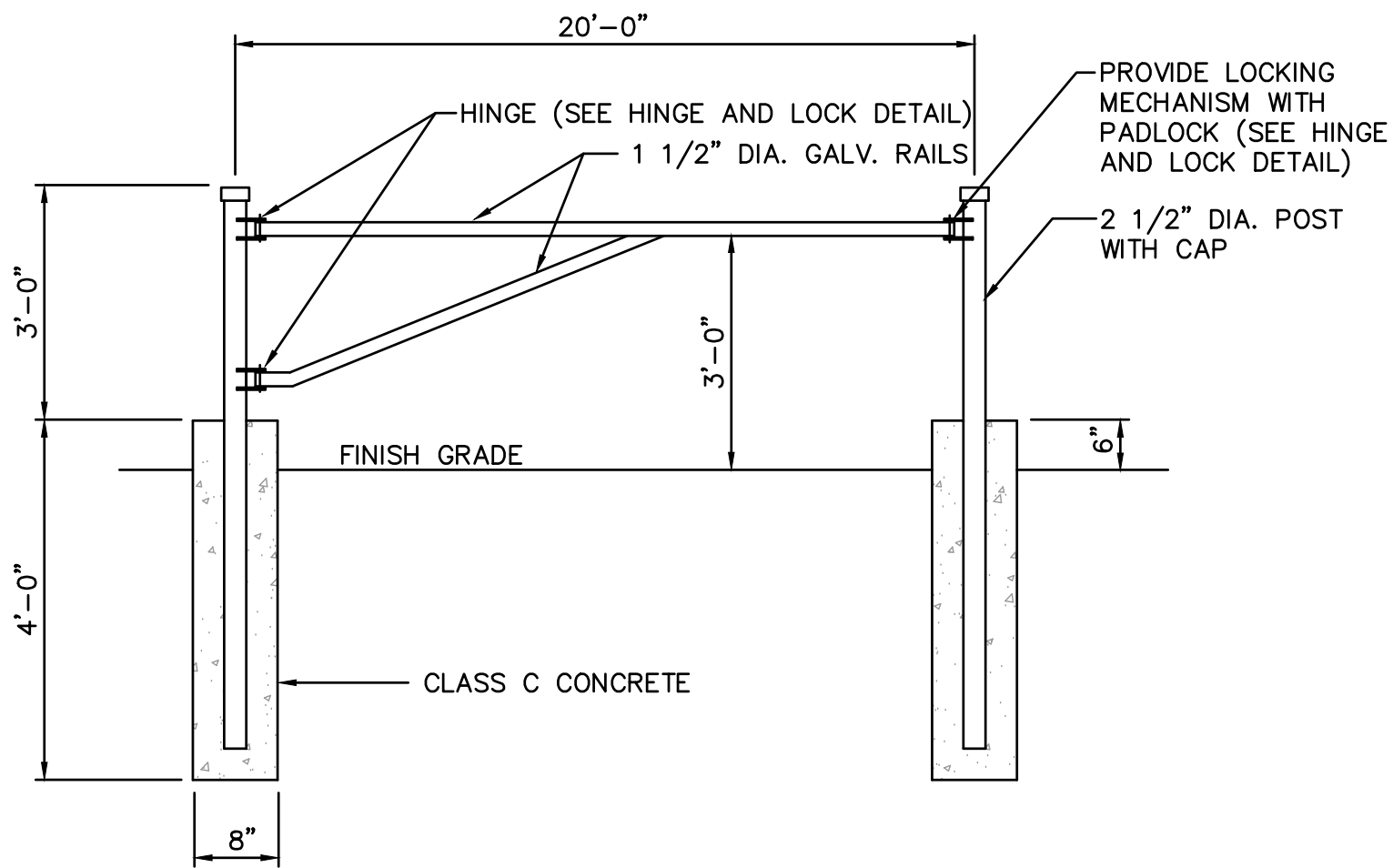


TYPICAL CROSS SECTION
NOT TO SCALE

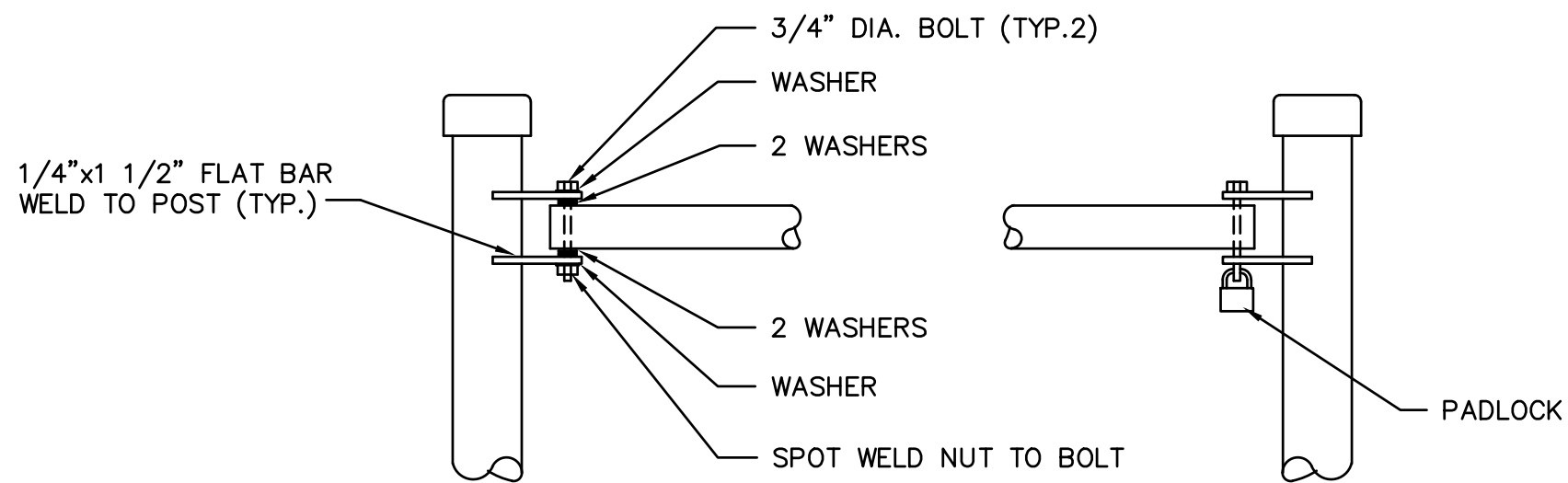
- NOTES:
1. ACCESS TO FOLLOW EXISTING PATHS WHENEVER FEASIBLE.
 2. TREE CLEARING SHALL BE LIMITED TO THE MINIMUM REQUIRED (APPROXIMATELY 20'±) TO PERMIT CONSTRUCTION VEHICLE ACCESS.
 3. UTILITY TRENCH LOCATION SHOWN AS TYPICAL.
 4. SEED AND MULCH ALL EXPOSED SOILS AS SOON AS FEASIBLE.
 5. FILL LOW AREAS AND SLOPE TO PROVIDE POSITIVE DRAINAGE OFF ROAD.



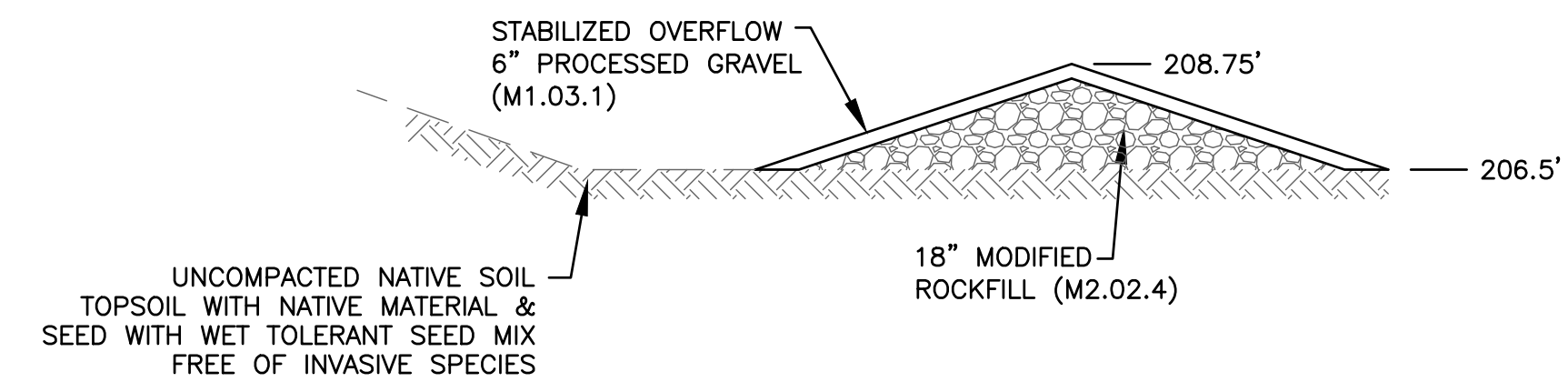
SIDEWALK RAMP DETAIL
NOT TO SCALE



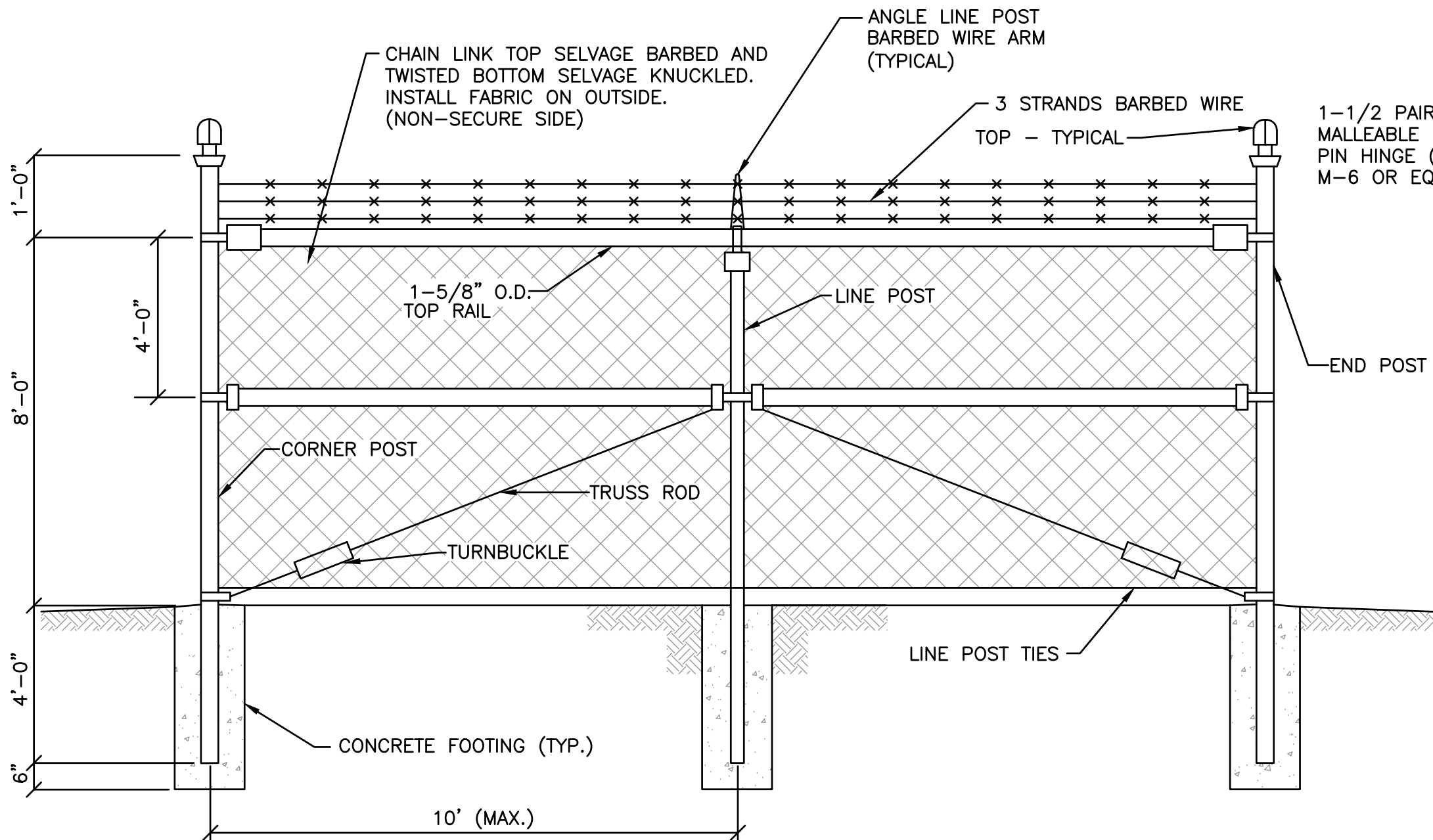
ACCESS ROAD GATE DETAIL (IF NEEDED)
NOT TO SCALE



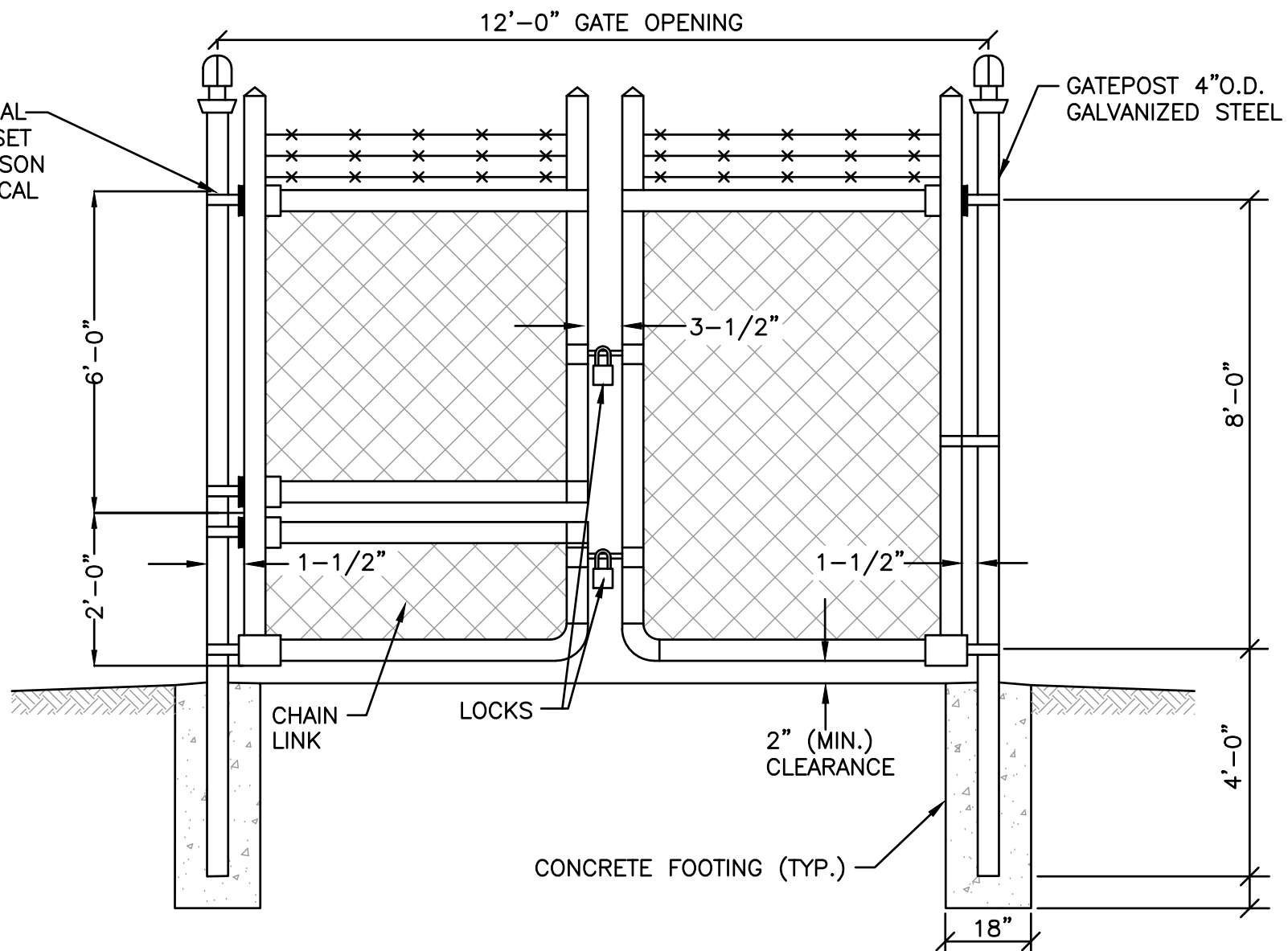
GATE HINGE AND LOCK DETAIL (IF NEEDED)
NOT TO SCALE



STABILIZED OVERFLOW
NOT TO SCALE



PROPOSED CHAIN LINK FENCE DETAIL
NOT TO SCALE

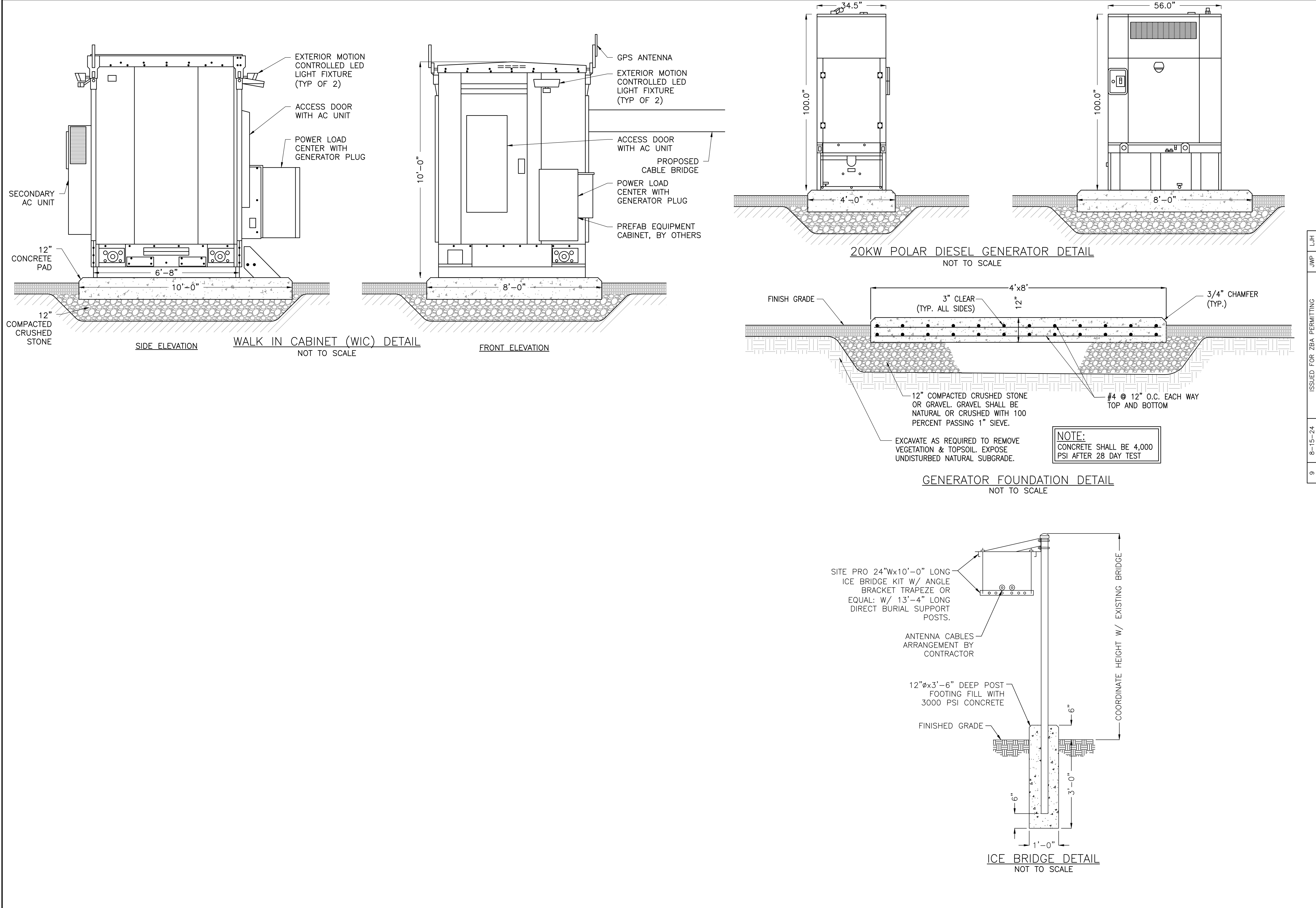


PROPOSED DOUBLE SWING GATE DETAIL
NOT TO SCALE

NO.	DATE	DESCRIPTION	BY	CHK'D
9	8-15-24	ISSUED FOR ZBA PERMITTING	JWP	LUH
8	8-03-24	REVISED TO 18' WIDE ACCESS DRIVE	JWP	LUH
7	8-07-23	UPDATED PROPERTY LINES	JWP	LUH
6	3-13-23	REPLACED SILT FENCE WITH FILTER SOCK	JWP	LUH
5	1-27-23	REVISED BACK TO EXISTING TAX MAPS	JWP	LUH
4	1-13-23	ISSUED FOR PERMITTING	JWP	LUH
3	12-19-22	DRAFT FOR REVIEW	JWP	LUH
2	10-10-22	ADDED BOUNDARY SURVEY PLAN	JWP	LUH
1	7-21-22	CONCEPT FOR REVIEW	JWP	LUH

DRAWN BY	DATE
JWP	JUL. 2022
CHECKED BY	D&K PROJECT #
LJH	427207L
PROJ. ENG.	D&K ARCHIVE #
LJH	

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9	8-15-24	ISSUED FOR ZBA PERMITTING	JWP	LJH	CK'D
8	6-03-24	REVISED TO 18' WIDE ACCESS DRIVE	JWP	LJH	
7	8-07-23	UPDATED PROPERTY LINES	JWP	LJH	
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3	12-19-22	DRAFT FOR REVIEW	JWP	LJH	
2	10-10-22	ADDED BOUNDARY SURVEY PLAN	JWP	LJH	
1	7-21-22	CONCEPT FOR REVIEW	JWP	LJH	
NO.	DATE	DESCRIPTION	BY		

GREENFIELD, MA

FAIRVIEW ST WEST
GREENFIELD, MA
01301

SHEET TITLE

CIVIL
DETAILS

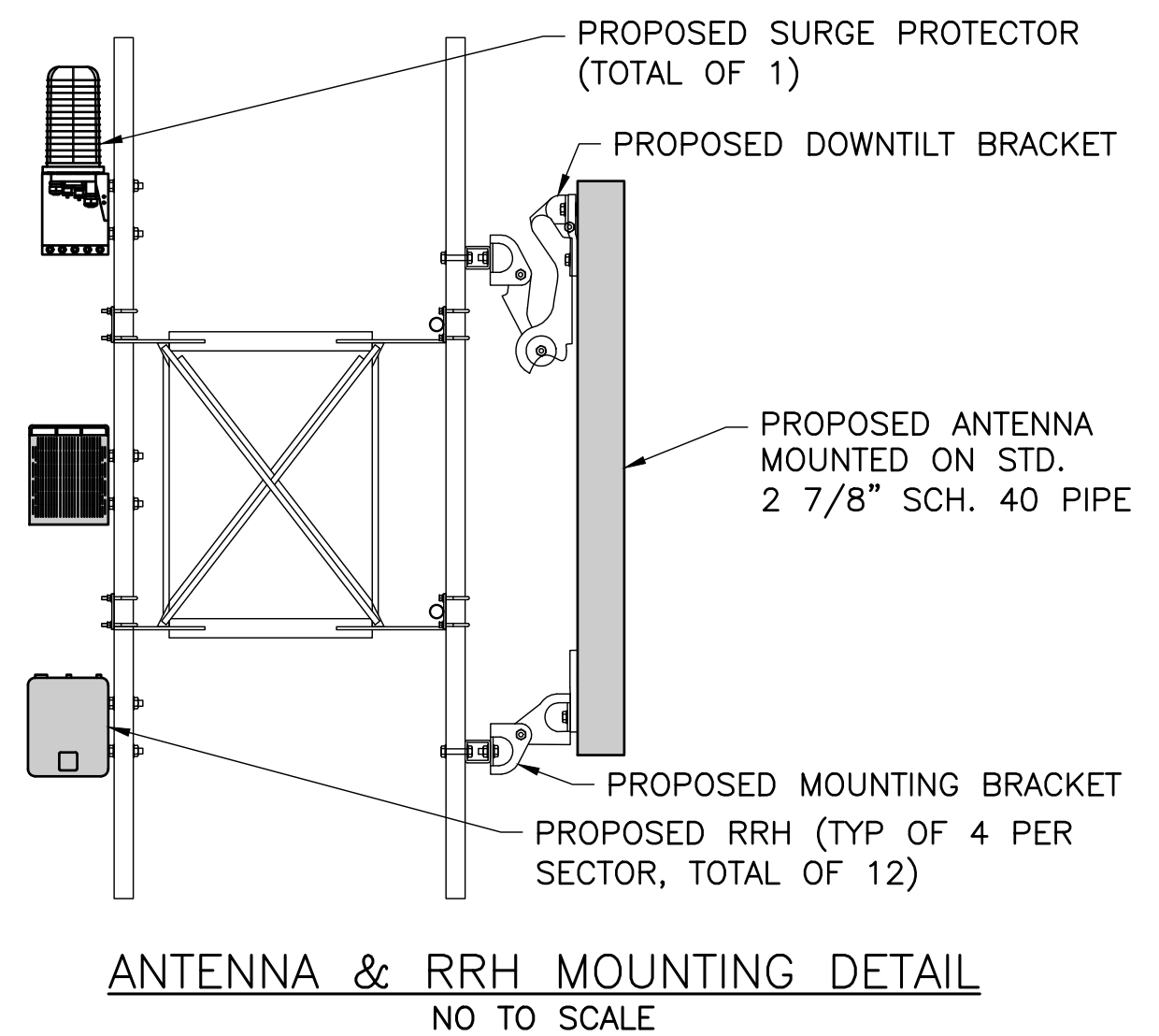
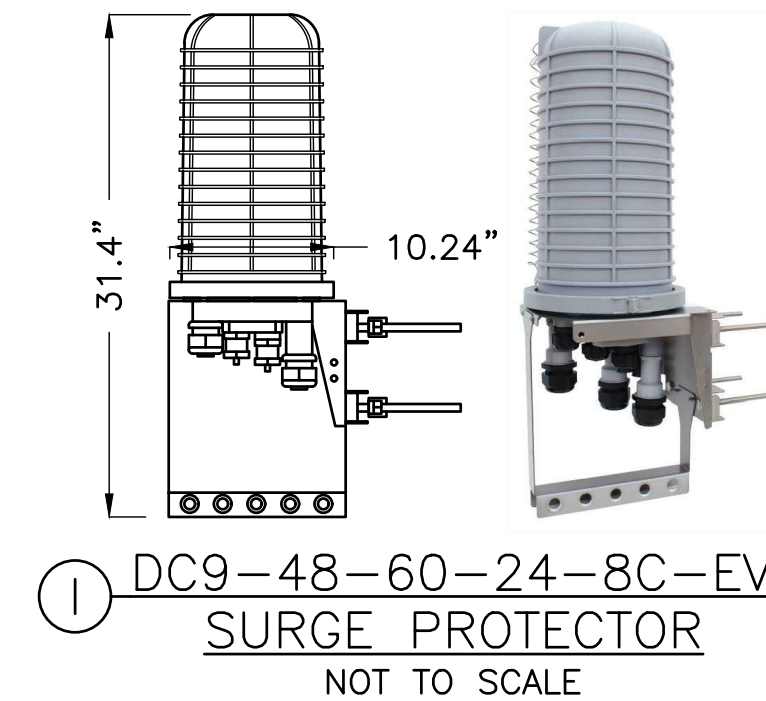
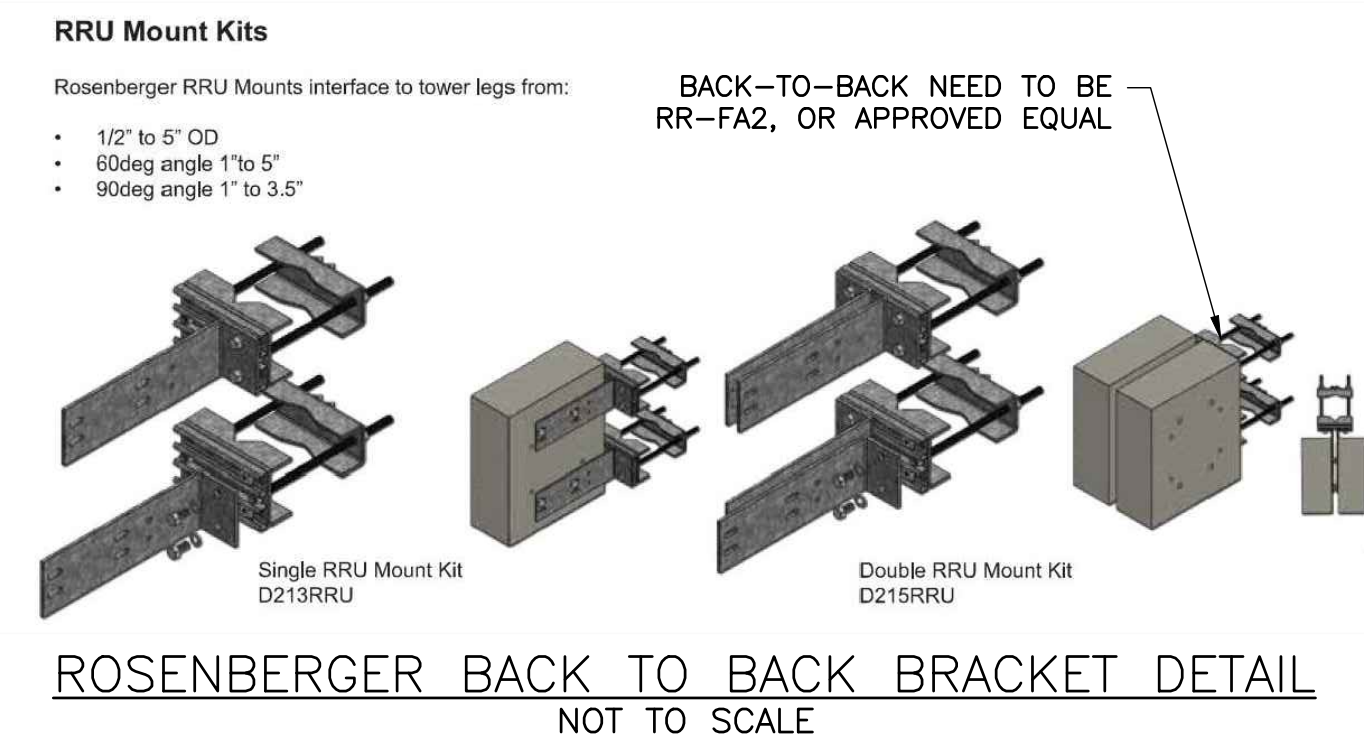
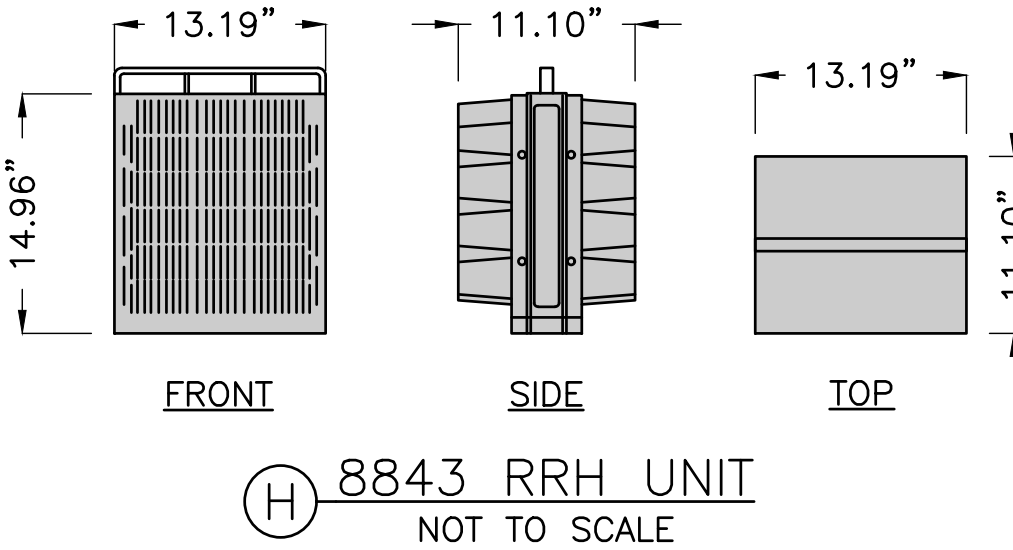
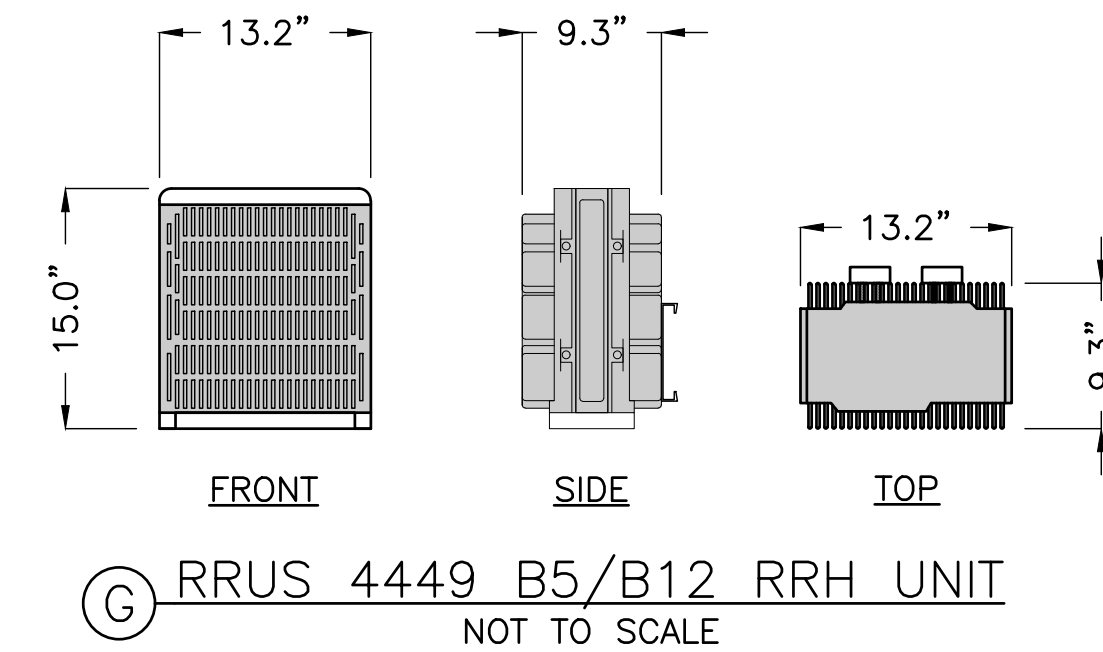
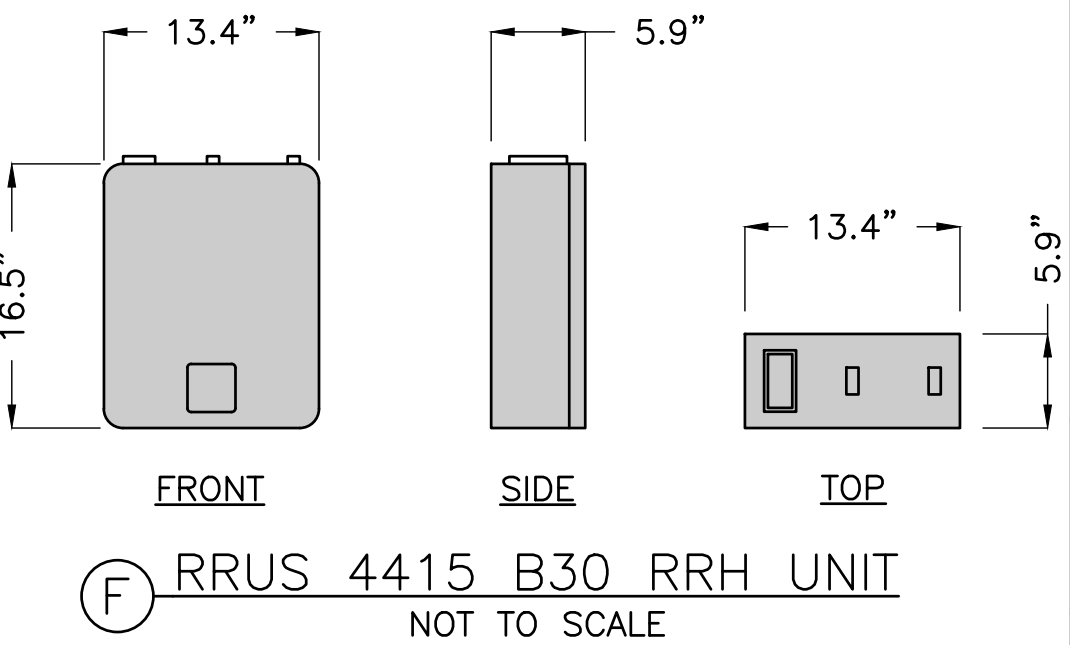
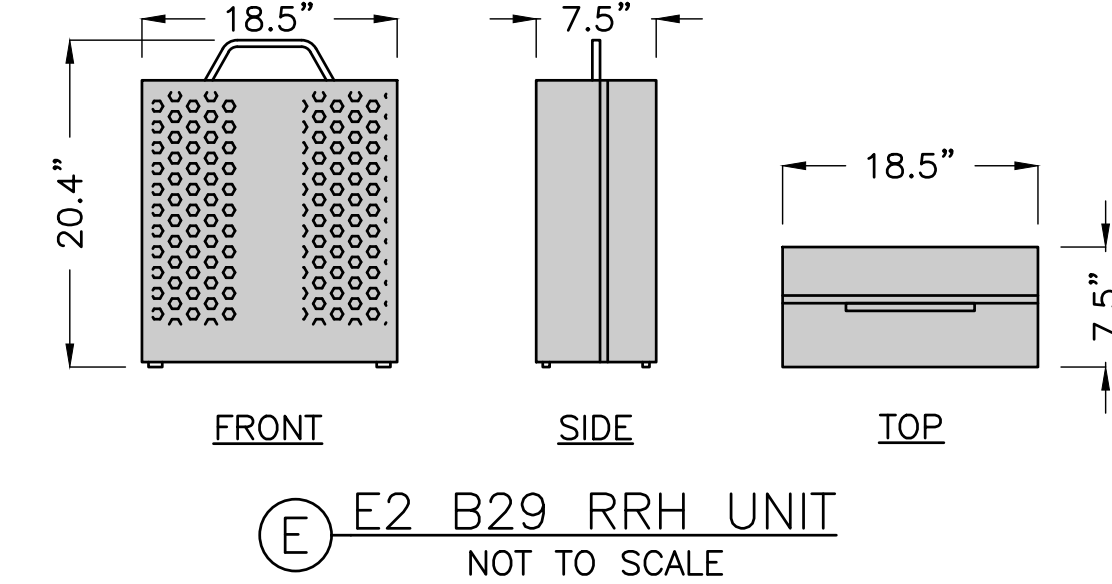
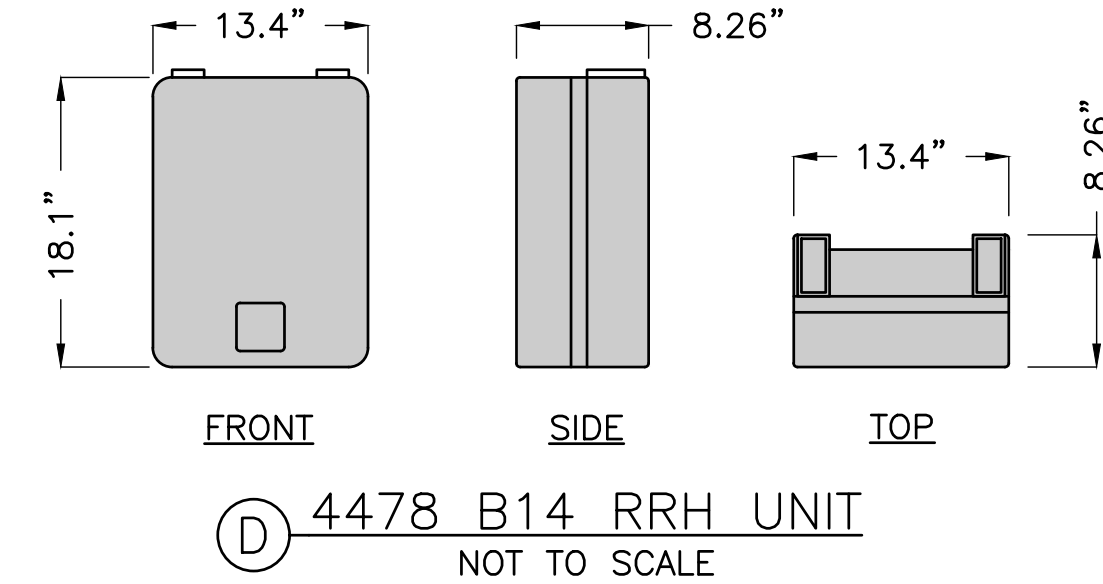
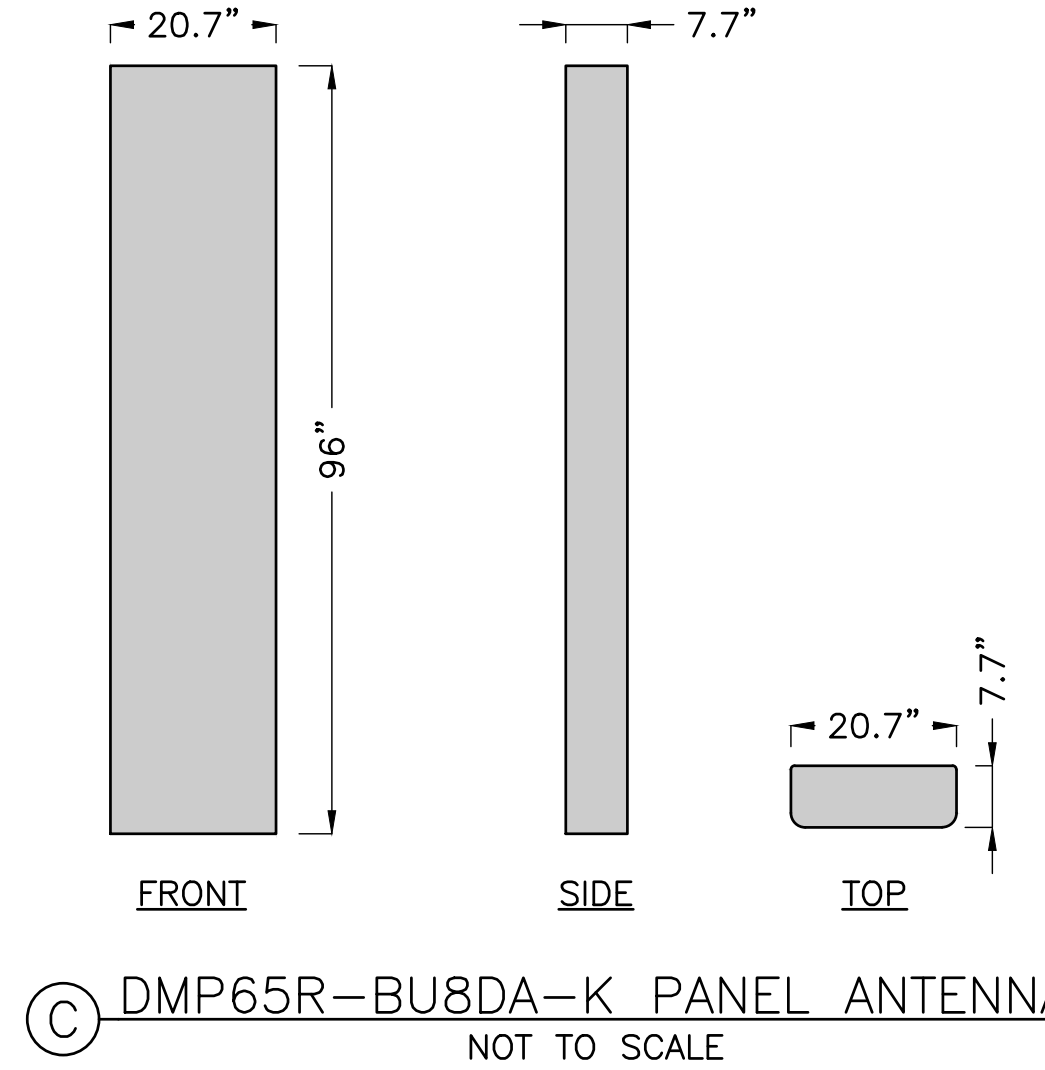
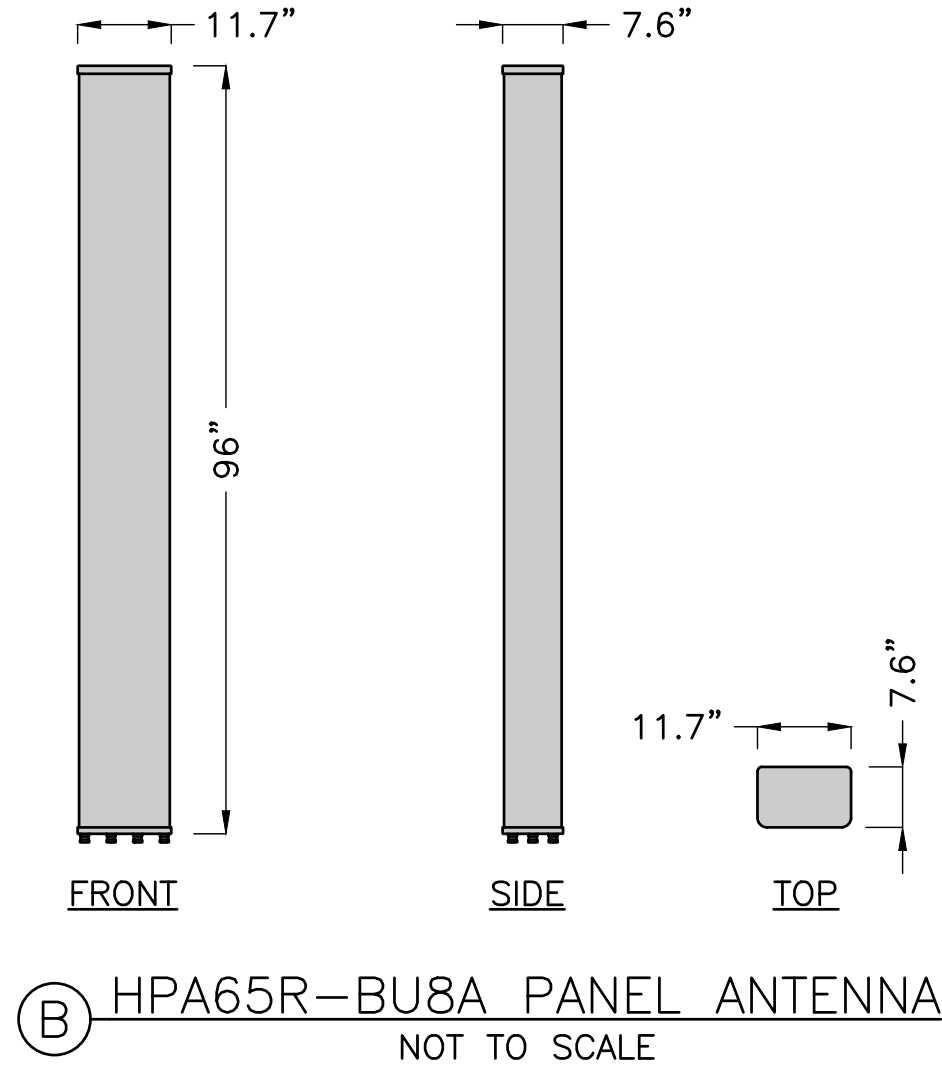
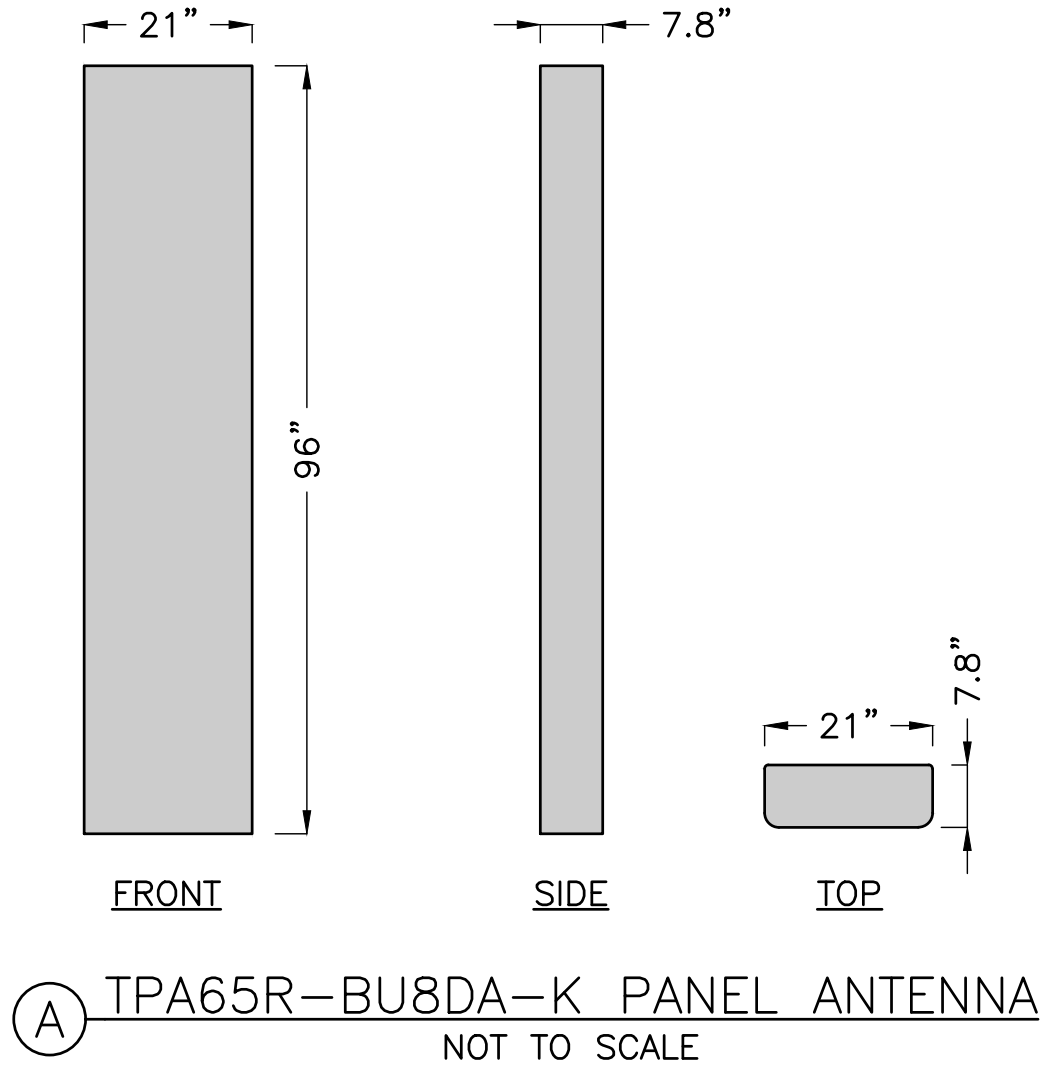
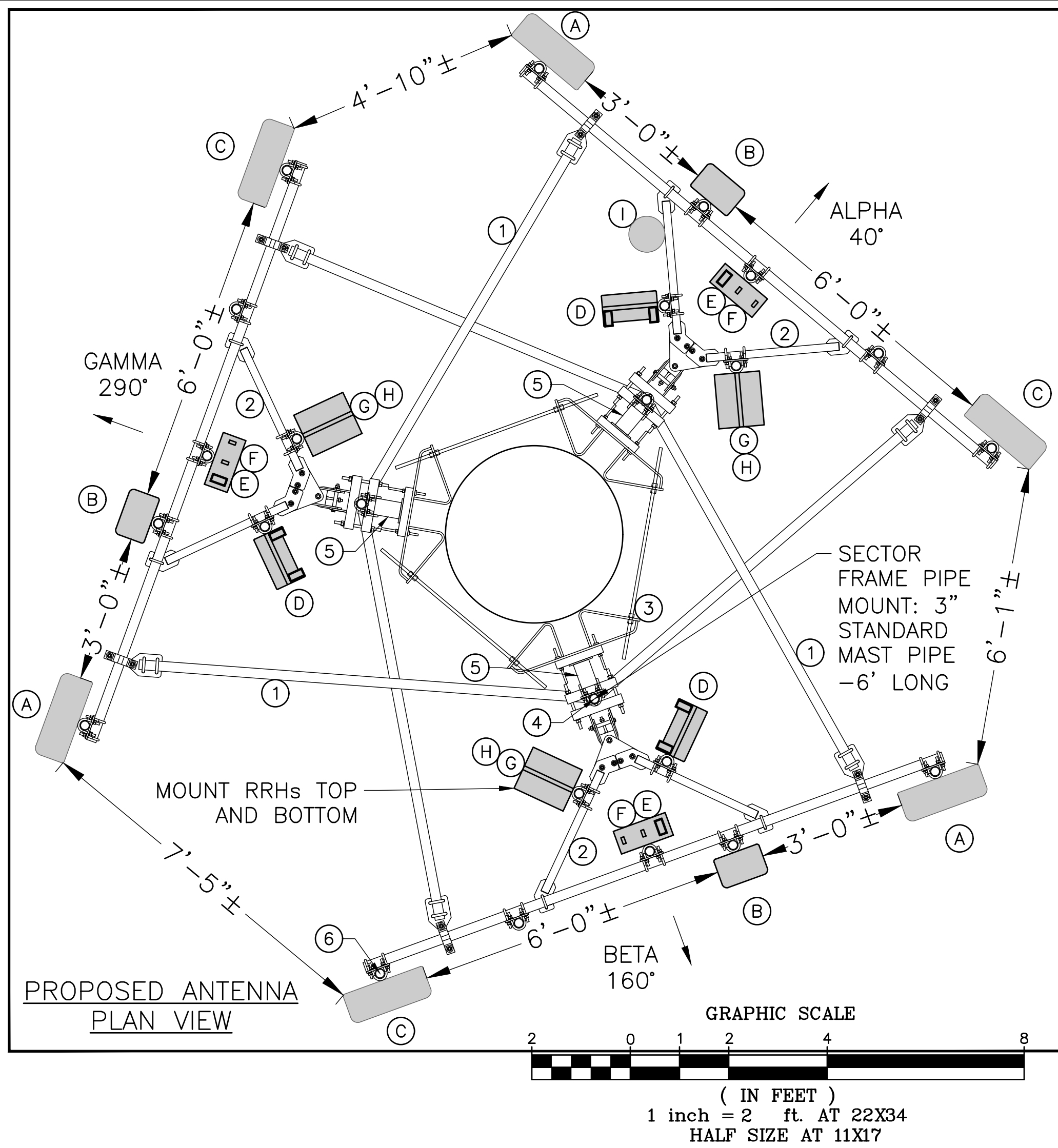
PERMIT PLANS

DRAWN BY	DATE
JWP	JUL. 2022
CHECKED BY	D&K PROJECT #
LJH	427207L
PROJ. ENG.	D&K ARCHIVE #
LJH	

SHEET NUMBER

C-9

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ANTENNA FACIAL SURFACE AREA						
	DESCRIPTION	HEIGHT (in)	WIDTH (in)	SURFACE AREA (sq. ft.)	NUMBER OF UNITS	EXPOSED SURFACE AREA (sq. ft.)
(A)	ANTENNA: TPA65R-BU8DA-K	96.00	21.00	14.00	3	42.00
(B)	ANTENNA: HPA65R-BU8A	96.00	11.70	7.80	3	23.40
(C)	ANTENNA: DMP65R-BU8DA-K	96.00	20.70	13.80	3	41.40
(D)	RRH UNIT: 4478 B14	18.10	13.40	1.68	3	5.04
(E)	RRH UNIT: E2 B29	20.40	18.50	2.62	3	7.86
(F)	RRH UNIT: 4415 B30	16.50	13.40	5.90	3	17.70
(G)	RRH UNIT: 4449 B5/B12	15.00	13.20	1.38	3	4.14
(H)	RRH UNIT: 8843 B2/B66A	14.96	13.19	1.37	3	4.11
(I)	SURGE: DC9-48-60-24-8C-EV	31.40	10.24	2.23	1	2.23
(1)	SECTOR FRAME: 2" TIEBACK	N/A	N/A	N/A	6	N/A
(2)	SECTOR FRAME: SITE PRO1 P/N VFA 12-WLL-30120	N/A	N/A	N/A	3	N/A
(3)	COLLAR MOUNT: LWRM	N/A	N/A	N/A	3	N/A
(4)	SECTOR FRAME PIPE MOUNT: 3" STANDARD MAST PIPE - 6' LONG	N/A	N/A	N/A	3	N/A
(5)	MM01: 8" STANDOFFS	N/A	N/A	N/A	3	N/A
(6)	PIPE MOUNT: 2 7/8" MAST PIPE	N/A	N/A	N/A	18	N/A
	TOTAL =					106.80

**NOT FOR
CONSTRUCTION
PRELIMINARY
PLANS**

NO.	DATE	DESCRIPTION	BY	CHK'D
9	8-15-24	ISSUED FOR ZBA PERMITTING	JWP	LUH
8	8-03-24	REVISED TO 18' WIDE ACCESS DRIVE	JWP	LUH
7	8-07-23	UPDATED PROPERTY LINES	JWP	LUH
6	3-13-23	REPLACED SILT FENCE WITH FILTER SOCK	JWP	LUH
5	1-27-23	REVISED BACK TO EXISTING TAX MAPS	JWP	LUH
4	1-13-23	ISSUED FOR PERMITTING	JWP	LUH
3	12-19-22	DRAFT FOR REVIEW	JWP	LUH
2	10-10-22	ADDED BOUNDARY SURVEY PLAN	JWP	LUH
1	7-21-22	CONCEPT FOR REVIEW	JWP	LUH

Viridi Wireless

**GREENFIELD,
MA**

FAIRVIEW ST WEST
GREENFIELD, MA
01301
SHEET TITLE

ANTENNA
DETAILS

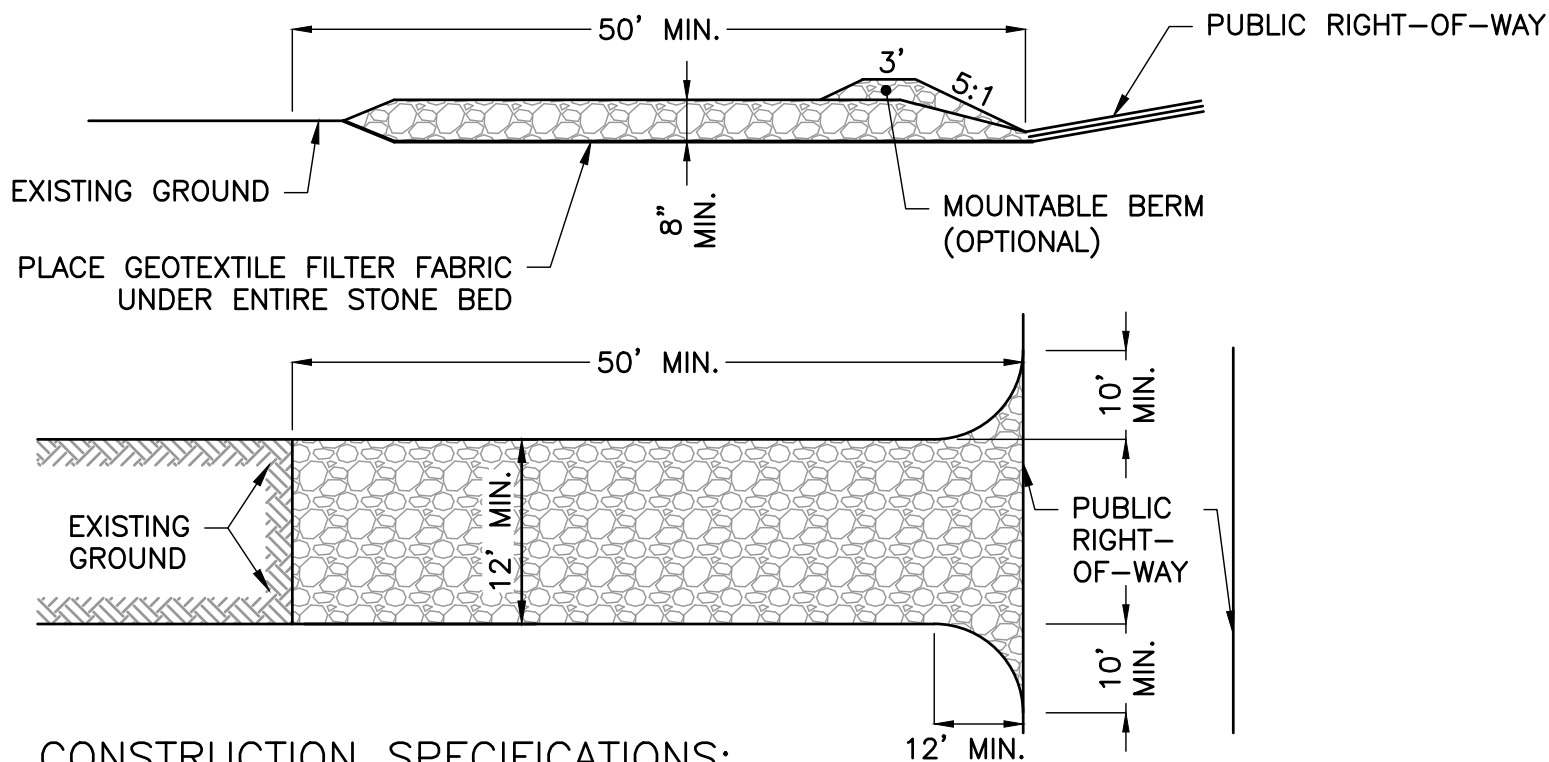
PERMIT PLANS

DRAWN BY JWP	DATE JUL. 2022
CHECKED BY LJH	D&K PROJECT # 427207L
PROJ. ENG. LJH	D&K ARCHIVE #

SHEET NUMBER

C-10

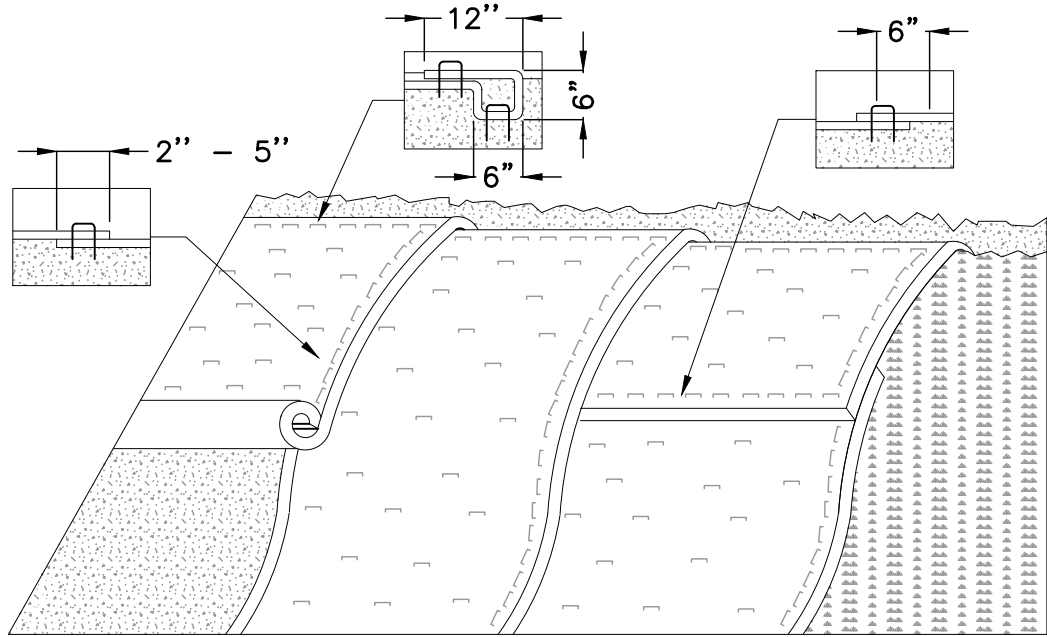
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CONSTRUCTION SPECIFICATIONS:

- STONE SIZE SHALL BE A MIX OF 1 TO 4 INCH STONE.
- LENGTH SHALL NOT BE LESS THAN 50 FEET.
- THICKNESS SHALL NOT BE LESS THAN 8 INCHES.
- WIDTH SHALL BE 12 FEET MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FEET IF SINGLE ENTRANCE TO SITE.
- GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER.** ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- WASHING.** WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE, WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH, OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, BOARDS, OR OTHER APPROVED METHODS.
- MAINTENANCE.** THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH 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 CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

STABILIZED CONSTRUCTION ENTRANCE NOT TO SCALE



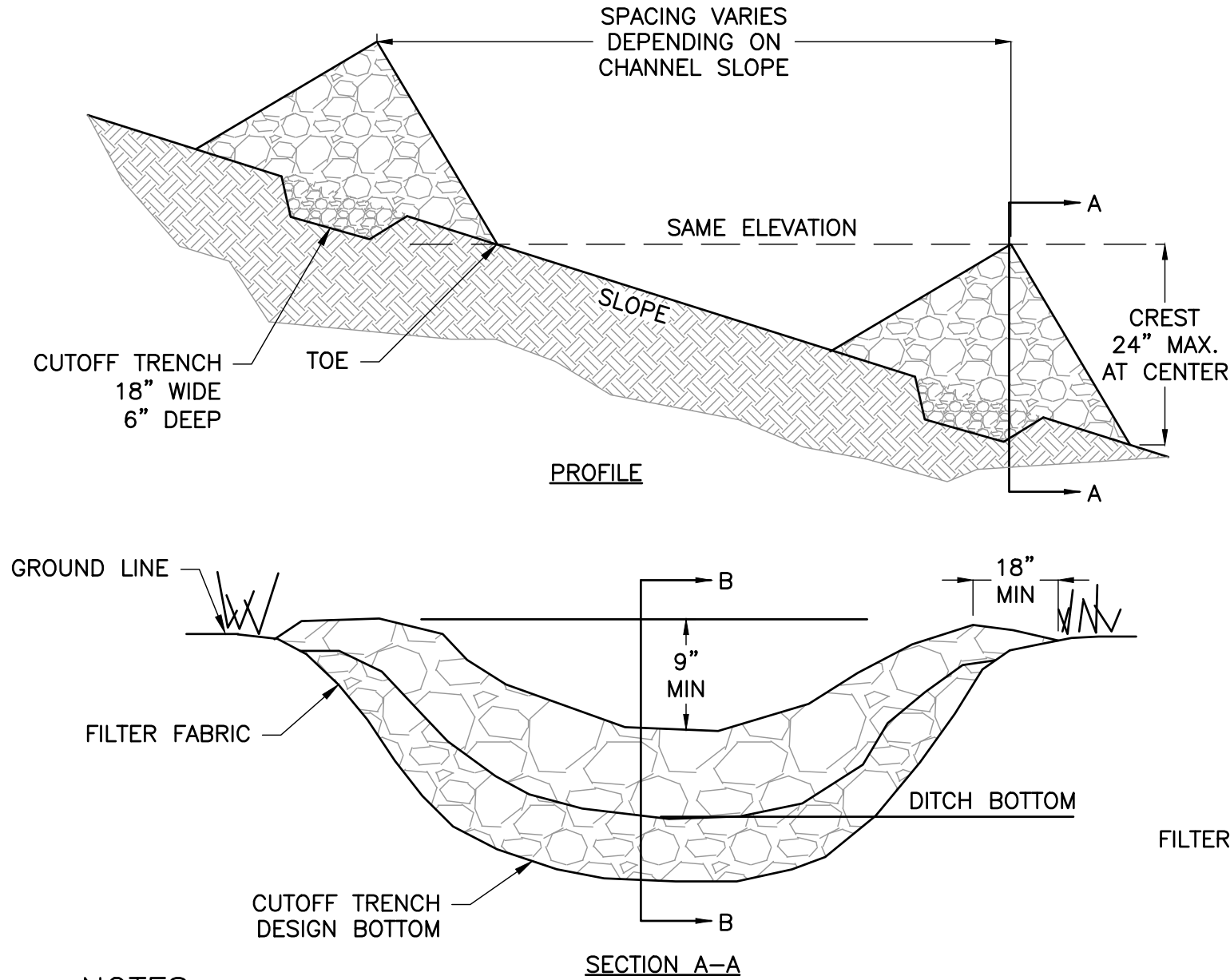
APPLICATION NOTES:

- THE PURPOSE OF MATTING ON SIDE SLOPES IS TO REDUCE EROSION AND AID THE STABLISHMENT OF VEGETATION.
- EROSION CONTROL MATTING SHALL BE USED FOR THE FOLLOWING REASONS:
 - SIDE SLOPES > 3:1 (H:V)
 - AREAS WHERE SEED AND MULCH WILL NOT STAY IN PLACE ALONE
 - WHERE SEEDING IS OUTSIDE THE GROWING SEASON.

GENERAL NOTES:

- GRADE AND SMOOTH THE SLOPE TO PROVIDE GOOD MATTING TO SOIL SURFACE CONTACT.
- APPLY FERTILIZER, LIME, AND SEED PRIOR TO PLACING MATTING.
- ANCHOR MATTING AS SHOWN, UTILIZING ANCHOR STAPLES. STAPLE PLACEMENT SHALL BE DETERMINED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- UNROLL MATTING VERTICALLY DOWN SLOPE IN THE DIRECTION OF WATER FLOW.
- OVERLAP UPPER MATTING OVER LOWER MATTING AS SHOWN.
- OVERLAP ADJACENT MATTING AS SHOWN.
- CUT EXCESS MATTING AT END OF SLOPE AND ANCHOR THE END.
- MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS MINIMUM AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
- MATTING SHALL BE REPAIRED AND RESTAPLED AS NECESSARY TO ENSURE PROPER FUNCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION AND MAINTENANCE OF ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES.

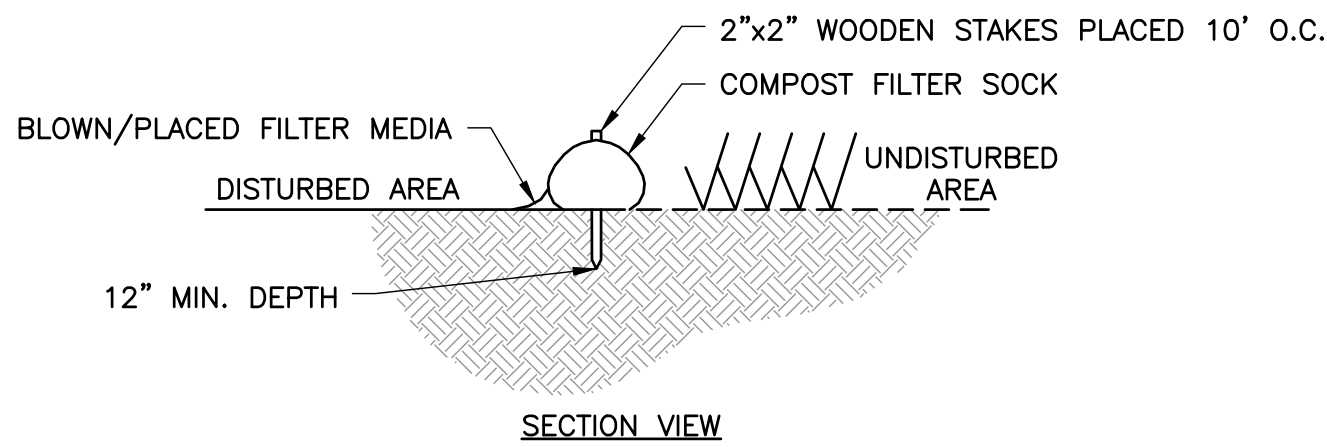
EROSION PREVENTION FOR SIDE SLOPES NOT TO SCALE



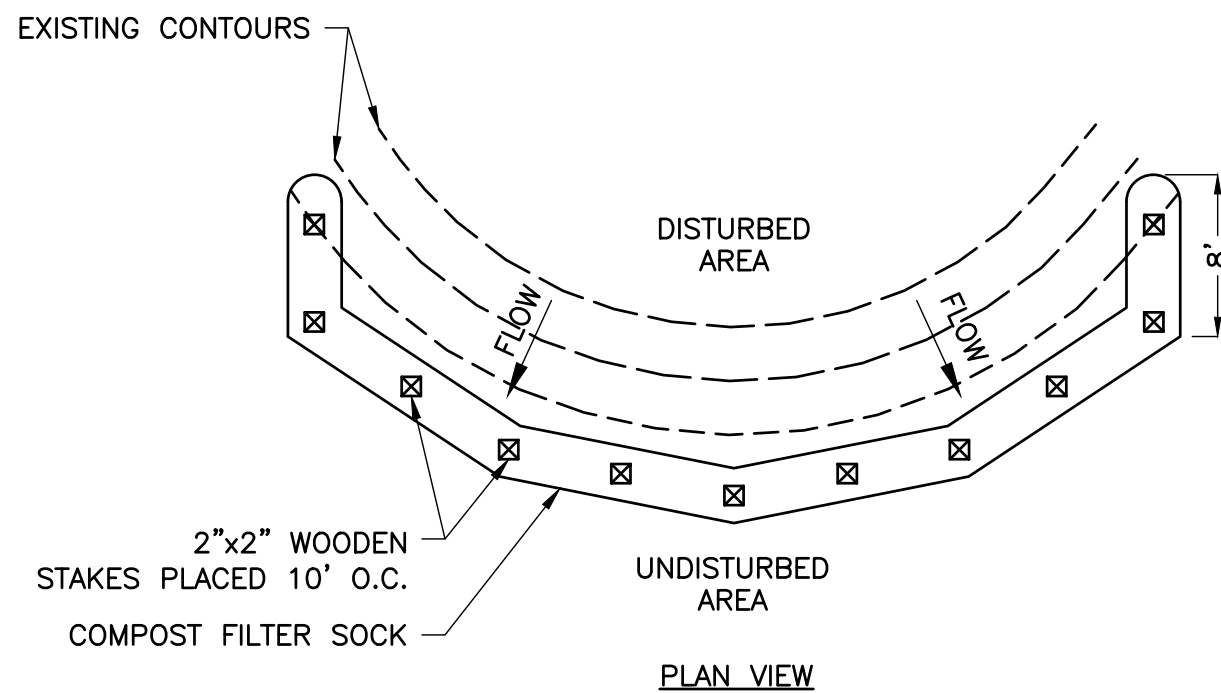
NOTES:

- STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES, AND LOCATIONS SHOWN ON THE PLAN.
- SET SPACING OF CHECK DAMS SO THAT THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
- EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
- PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
- ENSURE THAT CHANNEL APPURTENANCE SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

STONE CHECK DAM NOT TO SCALE

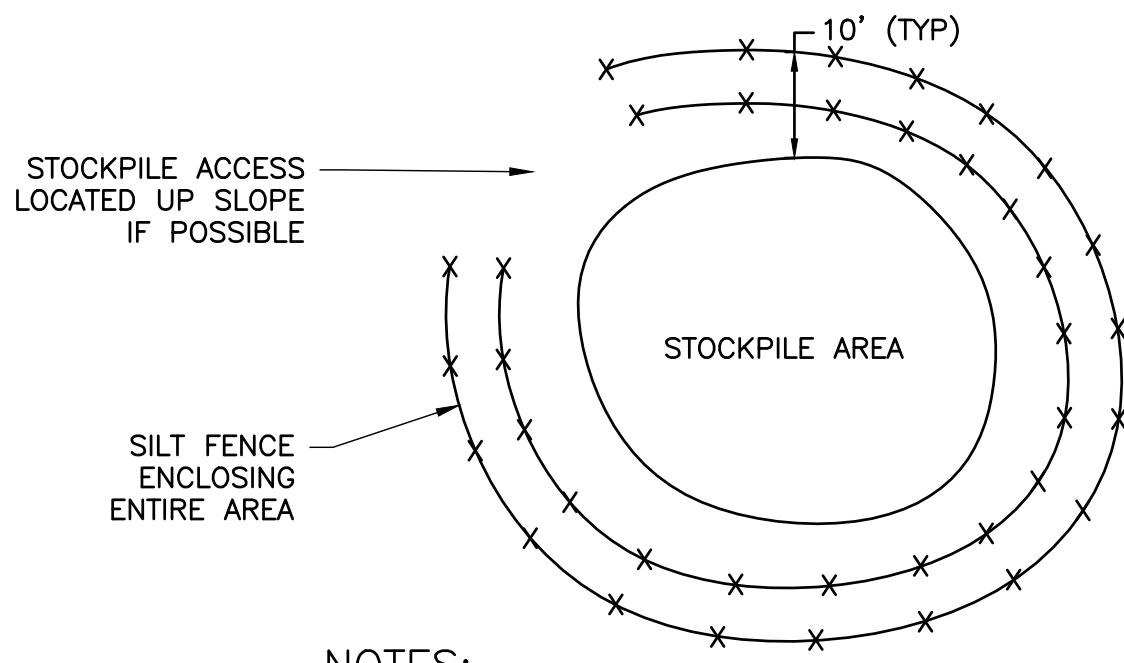


SECTION VIEW



PLAN VIEW

COMPOST FILTER SOCK NOT TO SCALE



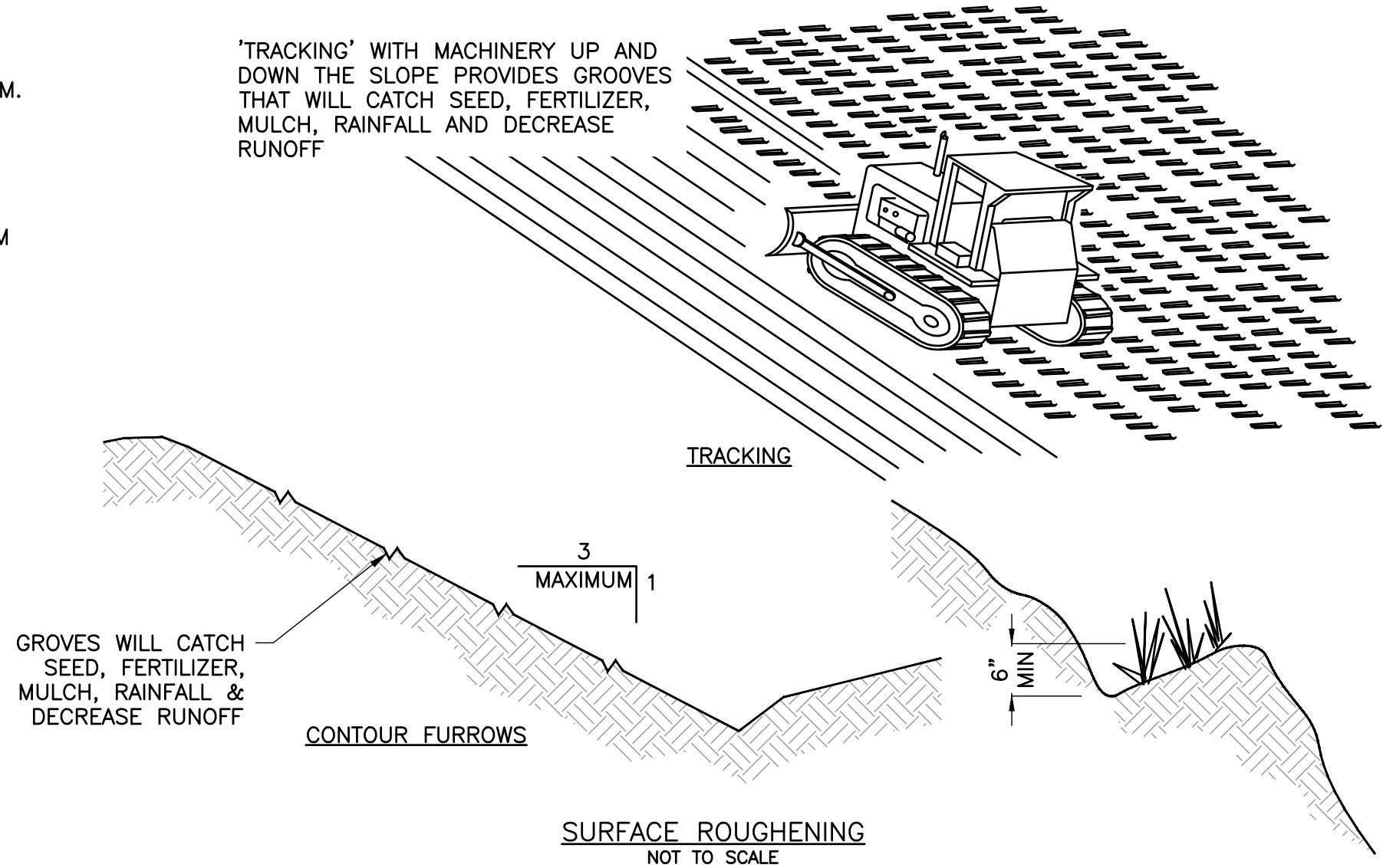
NOTES:

- ALL AREAS NOT TO BE WORKED FOR 14 DAYS OR MORE SHALL BE TEMPORARILY STABILIZED WITH MULCH, MATTING, OR OTHER MEASURES SUITABLE TO THE LOCATION.

STOCKPILE AREA ISOLATION DETAIL NOT TO SCALE

EROSION CONTROL SCHEDULE	
FOR SITE CONDITIONS	USE TYPE
AREAS FLATTER THAN 1:5 (20%) AND WITHIN WETLAND/WETLAND BUFFER AREAS	STRAW MULCH
AREAS 1:5 (20%) OR STEEPER	MATTING/BLANKETS
ALL DISTURBED AREAS	SEED AND MULCH OR SOD
ACROSS SLOPES	SILT FENCES
AROUND CATCH BASINS	
AROUND STOCK PILE AND BORROW AREAS	
TOES OF SLOPE	
ALONG STREAMS AND WATER BODIES	
AS SHOWN ON DRAWINGS	CHECK DAMS
ACROSS SLOPES	
AROUND CATCH BASINS	
IN DRAINAGE DITCHES	
9% SLOPE OR LESS – PLACE 100 FT. APART	SEDIMENT BASINS
10% TO 19% – PLACE 50 FT. APART	
20% OR GREATER – PLACE 25 FT. APART	
AS SHOWN ON DRAWINGS	
IN DITCHES	STABILIZED CONST. ENTRANCE
PRIOR TO DISCHARGE TO BODIES OF WATER	
AS SHOWN ON DRAWINGS	
STABILIZED CONST. ENTRANCE	
AS SHOWN ON DRAWINGS	

'TRACKING' WITH MACHINERY UP AND DOWN THE SLOPE PROVIDES GROOVES THAT WILL CATCH SEED, FERTILIZER, MULCH, RAINFALL AND DECREASE RUNOFF



SURFACE ROUGHENING NOT TO SCALE

WINTER CONSTRUCTION

SITE CONSTRUCTION MAY CONTINUE THROUGH THE WINTER MONTHS ON THIS PROJECT. IT IS IMPERATIVE THAT ALL EROSION PREVENTION AND SEDIMENT CONTROL MEASURES BE IN PLACE AND FUNCTIONING TO ENSURE THEIR EFFECTIVENESS THROUGH THE WINTER AND SPRING SEASON. WINTER IN VERMONT CAN DIMINISH THE EFFECTIVENESS OF CONTROLS AND PREDISPOSE A SITE TO SEVERE EROSION AND SEDIMENTATION. DISTURBED AND BARE SOIL THAT IS WELL-FROZEN IS QUITE RESISTANT TO EROSION. HOWEVER, SEVERE EROSION OCCURS DURING THE MIDWINTER AND SPRING THAWS WHEN MELTING SNOW, THAWING SOILS AND HEAVY RAINS PRODUCE INTENSE RUNOFF OVER SATURATED UNSTABLE SOILS. FOR THESE REASONS, SOIL DISTURBANCES SHALL BE STABILIZED BY PRIOR TO THE START OF THE WINTER CONSTRUCTION SEASON (OCTOBER, 15TH). ALL EARTHWORK CONTINUING DURING THE WINTER CONSTRUCTION SEASON SHALL BE STABILIZED IN ACCORDANCE WITH THE STATE OF VERMONT EROSION PREVENTION AND SEDIMENT CONTROL REQUIREMENTS FOR WINTER CONSTRUCTION.

INSPECTION AND MAINTENANCE

INSPECT EROSION PREVENTION AND SEDIMENT CONTROL MEASURES MORE FREQUENTLY IN THE WINTER AND SPRING THAN IN THE SUMMER. PAY CAREFUL ATTENTION TO WEATHER PREDICTIONS. WATCH FOR PREDICTED THAWS OR HEAVY RAINS. BEFORE SUCH EVENTS, CHECK ALL CONTROL MEASURES TO BE SURE THAT STRUCTURES WILL MANAGE THE POTENTIALLY HEAVY AND INTENSE RUNOFF AND SEDIMENT. PRACTICALLY CONSTANT MAINTENANCE OF CRITICAL CONTROL MEASURES MAY BE NECESSARY DURING THE WINTER AND EARLY SPRING TO PREVENT FAILURE OR OVERLOADING OF CONTROL MEASURES. BE PREPARED TO QUICKLY INSTALL A SECOND LINE OF DEFENSE IF PROBLEMS OCCUR. BE PREPARED TO DEVOTE A SUBSTANTIAL AMOUNT OF TIME, EQUIPMENT AND MANPOWER TO EROSION PREVENTION AND SEDIMENT CONTROL.

FOLLOW-UP

AS EARLY AS IS PRACTICAL, AT THE BEGINNING OF THE NEXT GROWING SEASON, INSTALL PERMANENT VEGETATIVE CONTROLS AS SPECIFIED IN THIS EPSC PLAN.

NOT FOR CONSTRUCTION PRELIMINARY PLANS

9	8-15-24	ISSUED FOR ZBA PERMITTING	JWP	LUH
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1	7-21-22	CONCEPT FOR REVIEW	JWP	LUH
		DESCRIPTION		CK'D
				BY
				DATE
				NO.

GREENFIELD, MA

FAIRVIEW ST WEST
GREENFIELD, MA
01301
SHEET TITLE

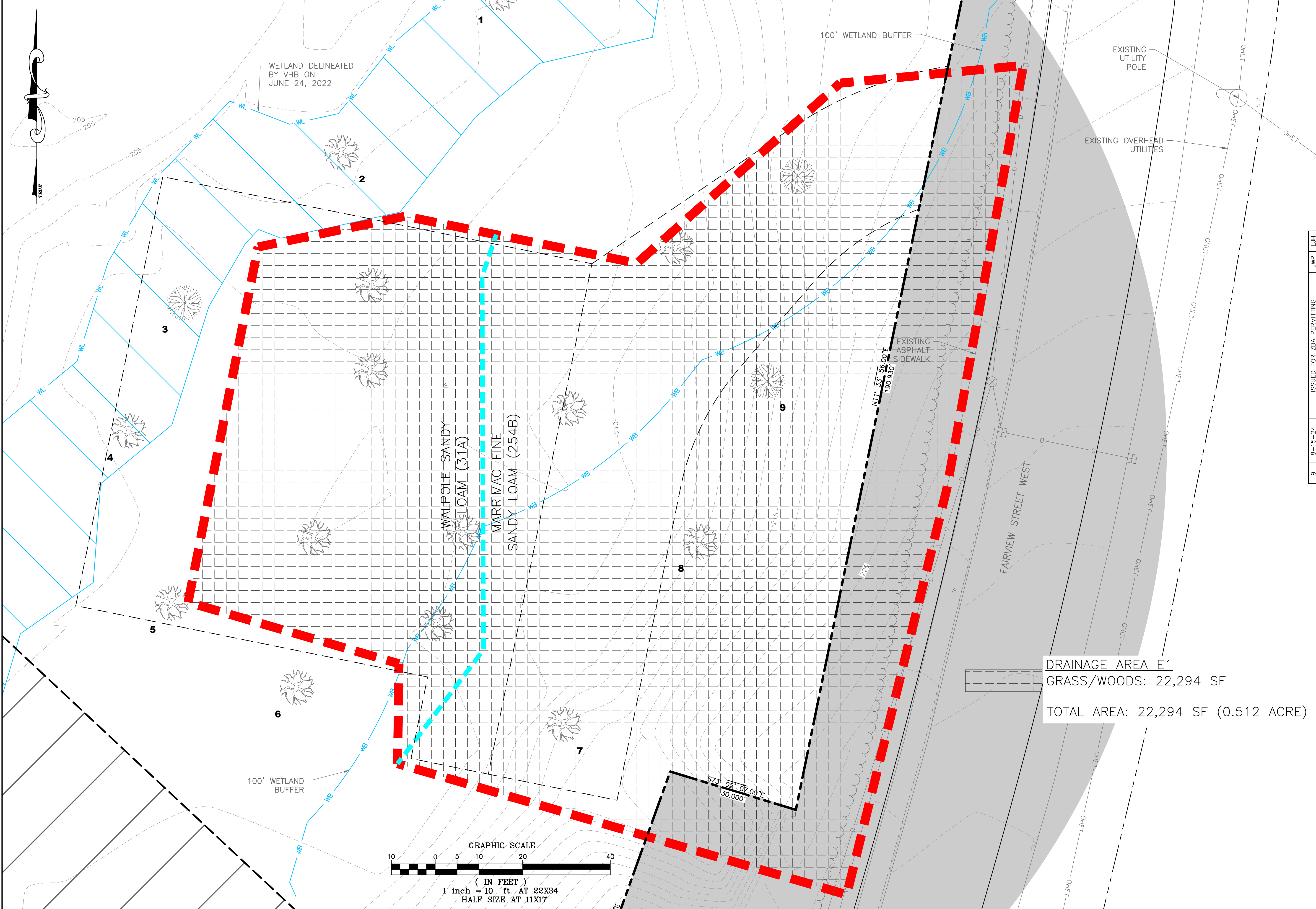
EPSC DETAILS

PERMIT PLANS

DRAWN BY	DATE
JWP	JUL. 2022
CHECKED BY	D&K PROJECT #
LJH	427207L
PROJ. ENG.	D&K ARCHIVE #
LJH	

SHEET NUMBER

C-11





United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for Franklin County, Massachusetts

Viridi Greenfield



October 17, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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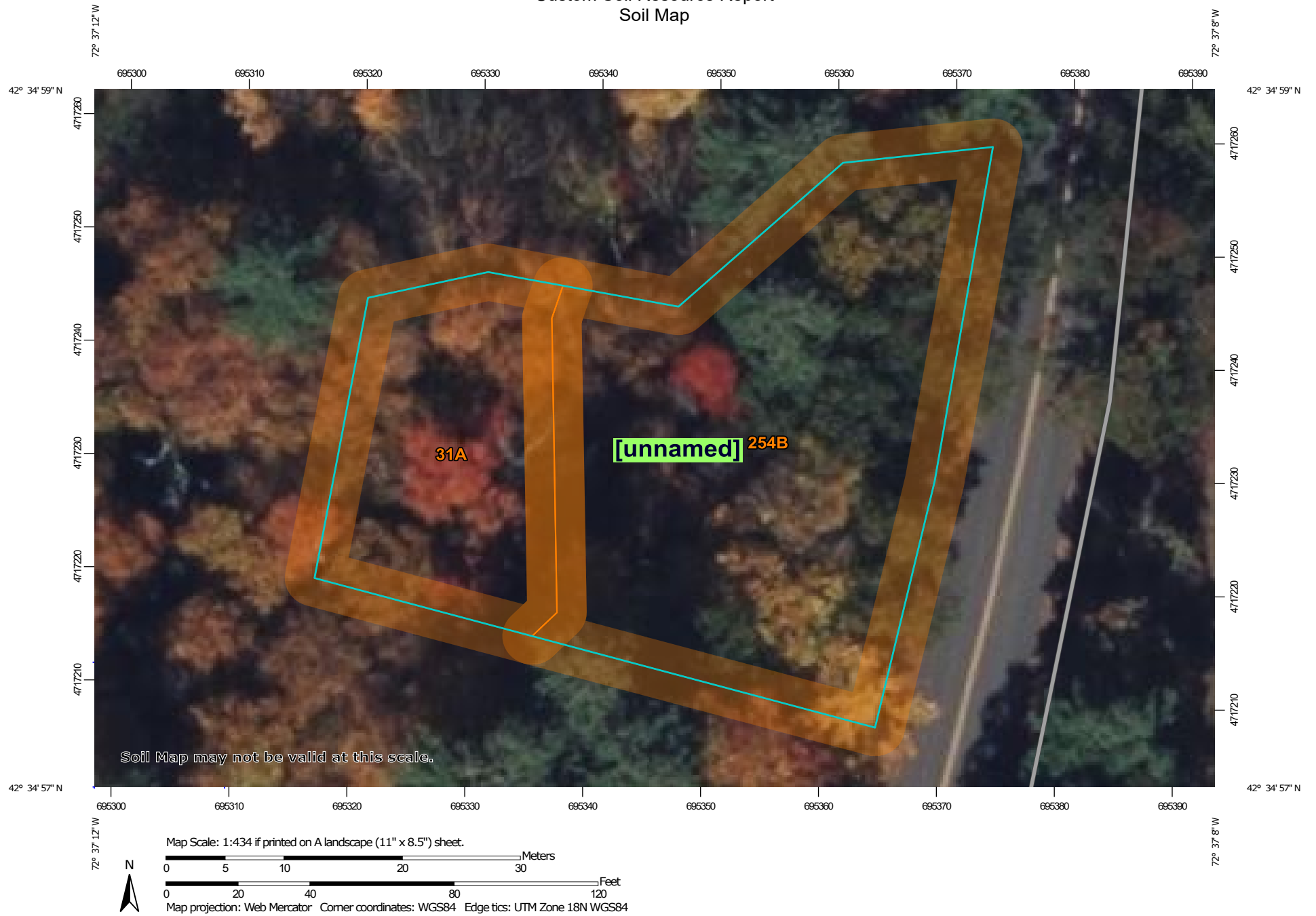
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Soil Map	5
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Legend.....	7
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Map Unit Descriptions.....	8
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254B—Merrimac fine sandy loam, 3 to 8 percent slopes.....	11
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Soil Map


The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow


 Marsh or swamp


 Mine or Quarry


 Miscellaneous Water


 Perennial Water


 Rock Outcrop


 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole


 Slide or Slip


 Sodic Spot


 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other


 Special Line Features

Water Features

 Streams and Canals


Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Franklin County, Massachusetts
Survey Area Data: Version 19, Aug 27, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 15, 2020—Oct 31, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
31A	Walpole sandy loam, 0 to 3 percent slopes	0.1	28.5%
254B	Merrimac fine sandy loam, 3 to 8 percent slopes	0.3	71.5%
Totals for Area of Interest		0.5	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Franklin County, Massachusetts

31A—Walpole sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2svkl
Elevation: 0 to 1,350 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 250 days
Farmland classification: Not prime farmland

Map Unit Composition

Walpole and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Walpole

Setting

Landform: Depressions
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy glaciofluvial deposits derived from igneous, metamorphic and sedimentary rock

Typical profile

Oe - 0 to 1 inches: mucky peat
A - 1 to 7 inches: sandy loam
Bg - 7 to 21 inches: sandy loam
BC - 21 to 25 inches: gravelly sandy loam
C - 25 to 65 inches: very gravelly sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.14 to 14.17 in/hr)
Depth to water table: About 0 to 4 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 6.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: B/D
Ecological site: F144AY028MA - Wet Outwash
Hydric soil rating: Yes

Minor Components

Scarboro

Percent of map unit: 10 percent
Landform: Depressions
Landform position (three-dimensional): Tread
Down-slope shape: Concave
Across-slope shape: Concave
Ecological site: F144AY031MA - Very Wet Outwash
Hydric soil rating: Yes

Sudbury

Percent of map unit: 10 percent
Landform: Outwash plains
Landform position (three-dimensional): Dip
Down-slope shape: Concave
Across-slope shape: Linear
Ecological site: F144AY027MA - Moist Sandy Outwash
Hydric soil rating: No

254B—Merrimac fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2tyqs
Elevation: 0 to 1,290 feet
Mean annual precipitation: 36 to 71 inches
Mean annual air temperature: 39 to 55 degrees F
Frost-free period: 140 to 240 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Merrimac and similar soils: 86 percent
Minor components: 14 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Merrimac

Setting

Landform: Outwash plains, outwash terraces, moraines, eskers, kames
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Side slope, crest, riser, tread
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Loamy glaciofluvial deposits derived from granite, schist, and gneiss over sandy and gravelly glaciofluvial deposits derived from granite, schist, and gneiss

Typical profile

Ap - 0 to 10 inches: fine sandy loam
Bw1 - 10 to 22 inches: fine sandy loam

Custom Soil Resource Report

Bw2 - 22 to 26 inches: stratified gravel to gravelly loamy sand

2C - 26 to 65 inches: stratified gravel to very gravelly sand

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Somewhat excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 99.90 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 2 percent

Maximum salinity: Nonsaline (0.0 to 1.4 mmhos/cm)

Sodium adsorption ratio, maximum: 1.0

Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: A

Ecological site: F145XY008MA - Dry Outwash

Hydric soil rating: No

Minor Components

Hinckley

Percent of map unit: 5 percent

Landform: Deltas, kames, eskers, outwash plains

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Head slope, nose slope, side slope, crest, rise

Down-slope shape: Convex

Across-slope shape: Convex, linear

Hydric soil rating: No

Sudbury

Percent of map unit: 5 percent

Landform: Deltas, terraces, outwash plains

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Tread, dip

Down-slope shape: Concave

Across-slope shape: Linear

Hydric soil rating: No

Windsor

Percent of map unit: 3 percent

Landform: Dunes, deltas, outwash terraces, outwash plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Tread, riser

Down-slope shape: Convex, linear

Across-slope shape: Convex, linear

Hydric soil rating: No

Walpole

Percent of map unit: 1 percent

Custom Soil Resource Report

Landform: Depressions

Landform position (three-dimensional): Tread

Down-slope shape: Concave

Across-slope shape: Concave

Ecological site: F144AY028MA - Wet Outwash

Hydric soil rating: Yes

References

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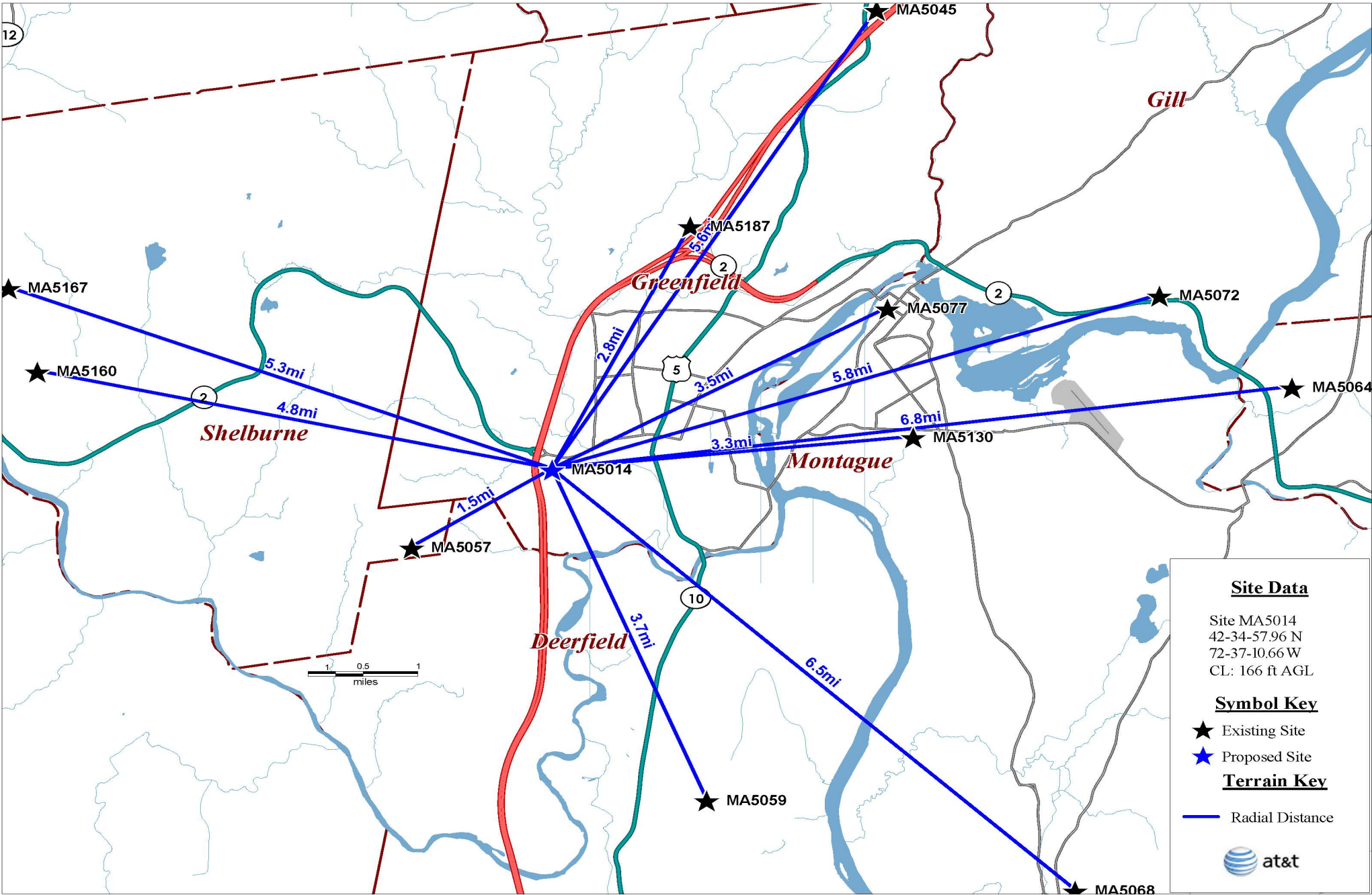
Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

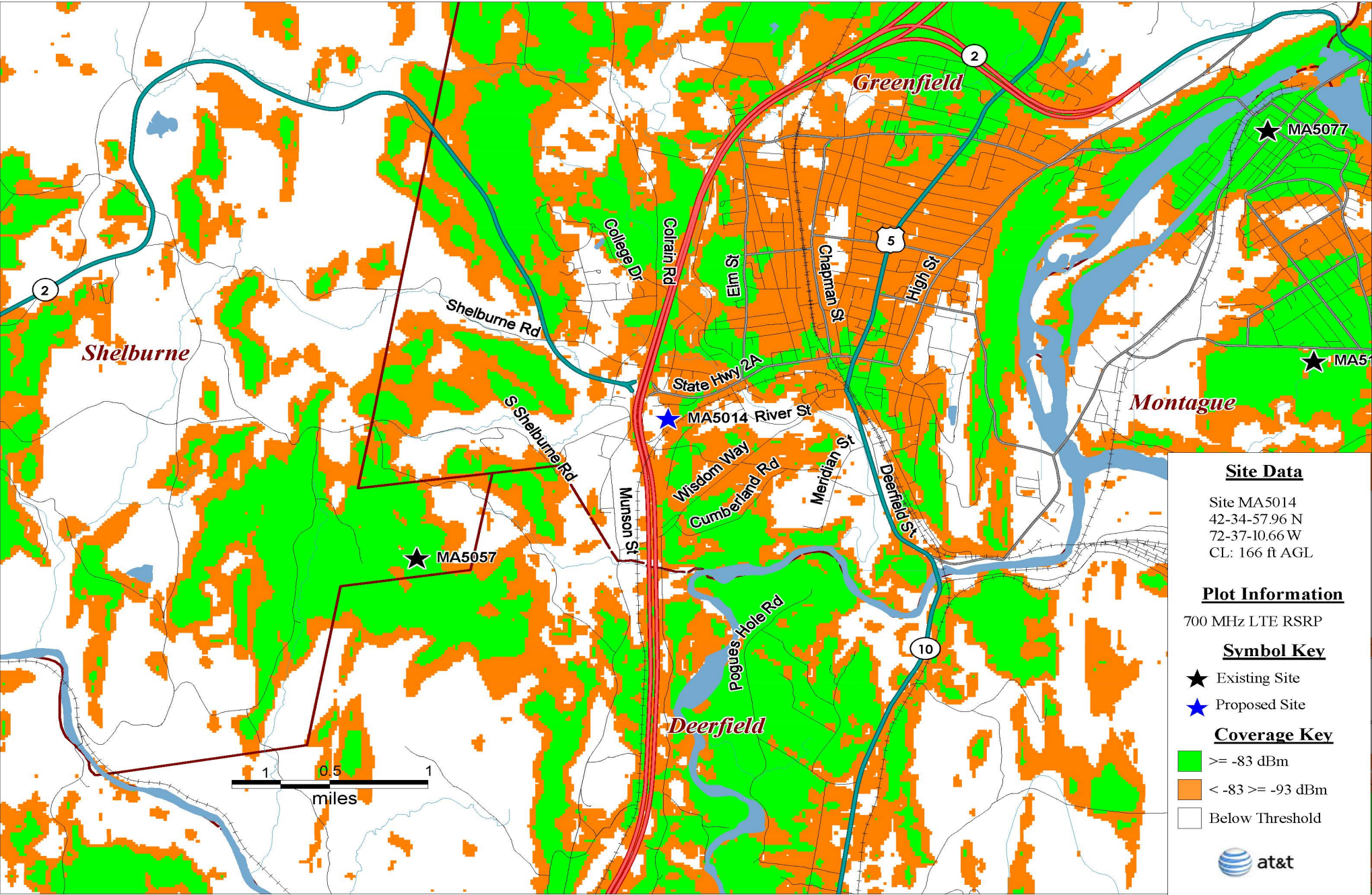
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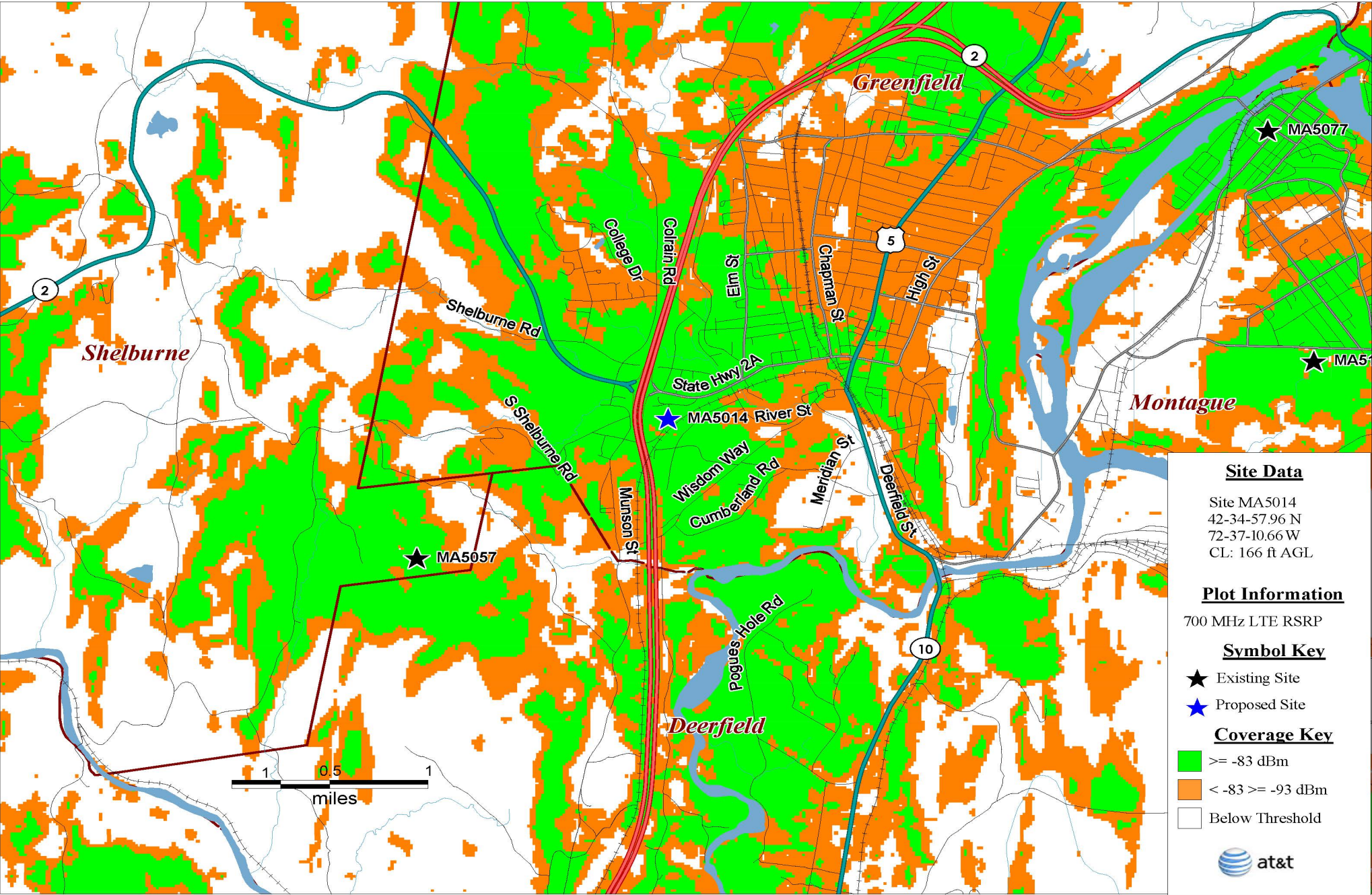
MA5014 - Neighbor Sites & Radial Distances



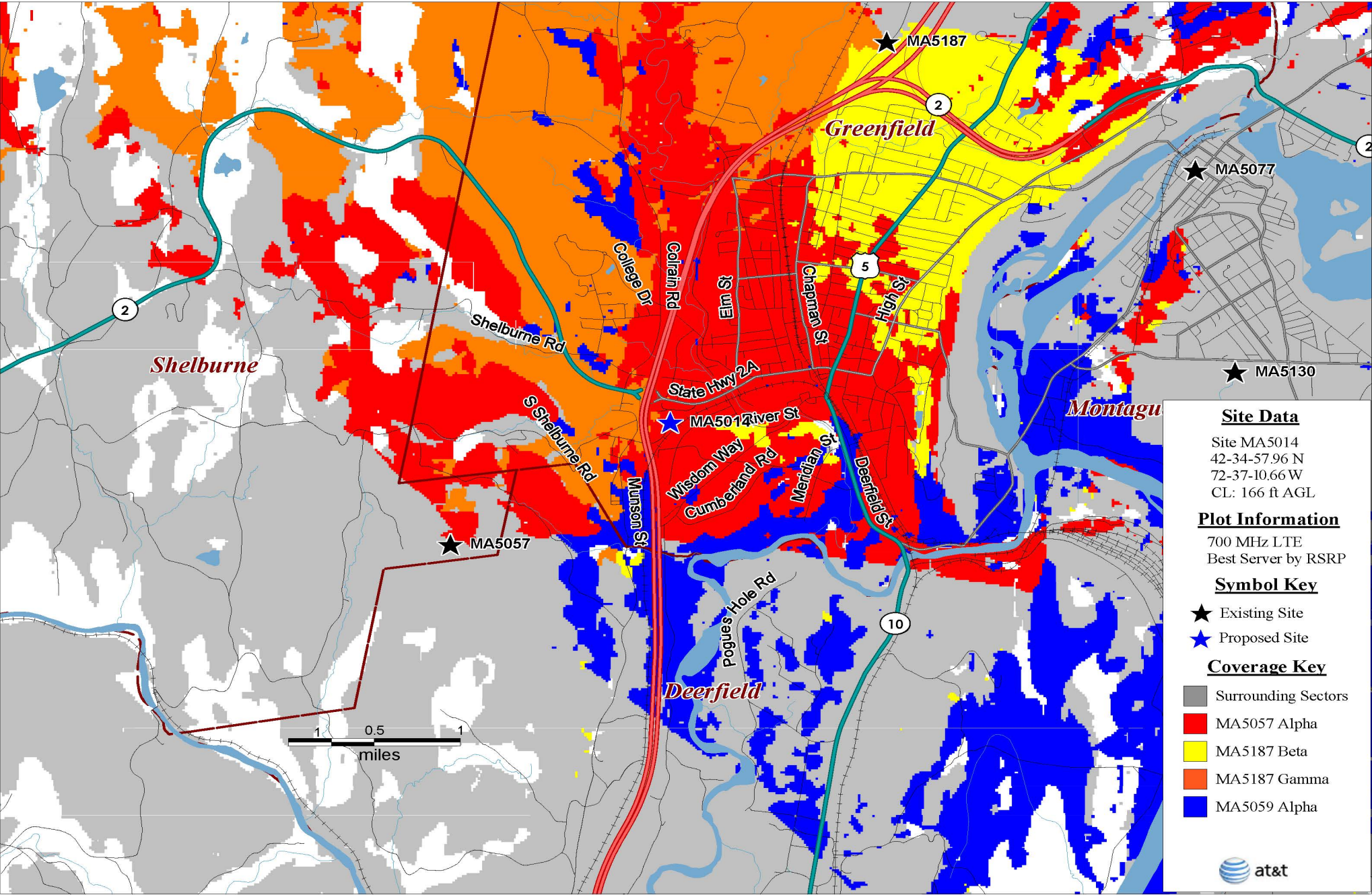
MA5014 - Existing 700 MHz LTE Coverage



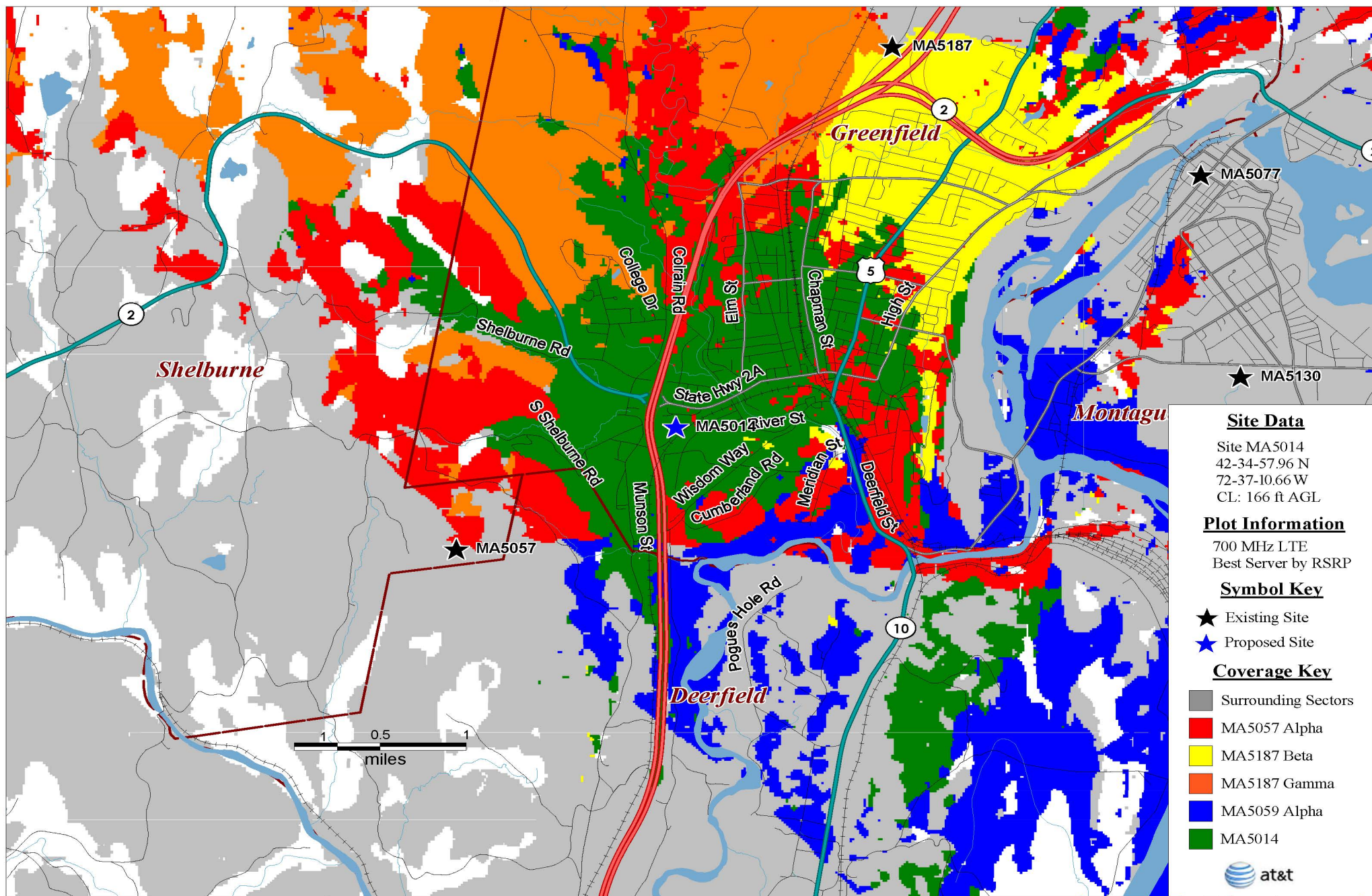
MA5014 - Existing 700 MHz LTE Coverage with Proposed Site



MA5014 - Existing 700 MHz LTE Coverage



MA5014 - 700 MHz LTE Sector Footprints with Proposed Site



AWS (1710-1755 MHz and 2110-2155 MHz) License - WQGD550 - AT&T Mobility Spectrum LLC

Call Sign	WQGD550	Radio Service	AW - AWS (1710-1755 MHz and 2110-2155 MHz)
Status	Active	Auth Type	Regular
Rural Service Provider Bidding Credit			
Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?			

Reserved Spectrum

Reserved Spectrum

Market

Market	CMA470 - Massachusetts 1 - Franklin	Channel Block	A
Submarket	0	Associated Frequencies (MHz)	001710.00000000-001720.00000000 002110.00000000-002120.00000000

3.7 GHz License Type

3.7 GHz Linked License

Dates

Grant	04/27/2023	Expiration	12/18/2036
Effective	01/24/2024	Cancellation	

Buildout Deadlines

1st	2nd
-----	-----

Discontinuance Dates

1st	2nd
-----	-----

Notification Dates

1st	2nd	05/27/2021
-----	-----	------------

ECIP Information

ECIP Flag	
Small Carrier or Tribal Nation Transaction	Rural-Focused Transaction

ECIP Dates

5-Year Holding Period
Begins

5-Year Holding Period
Ends

Required Operational Filing Dates

IORN Operation Begin
Date

FORN Deadline Date

FORN Filed Date

Licensee

FRN 0014980726

Type

Limited Liability Company

Licensee

AT&T Mobility Spectrum LLC
208 S Akard St, 20F
Dallas, TX 75202
ATTN National Regulatory Compliance

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E:FCCMW@att.com

Contact

AT&T Services, Inc.
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Ownership and Qualifications

Radio Service Type Fixed, Mobile

Regulatory Status Non-Common Carrier Interconnected No

Alien Ownership

The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

700 MHz Lower Band (Blocks A, B & E) License - WQIZ377 - AT&T Mobility Spectrum, LLC

PA This license has pending applications: 0010538588

Call Sign	WQIZ377	Radio Service	WY - 700 MHz Lower Band (Blocks A, B & E)
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	CMA470 - Massachusetts 1 - Franklin
Submarket	0

Channel Block	B
Associated Frequencies (MHz)	000704.00000000-000710.00000000 000734.00000000-000740.00000000

3.7 GHz License Type

3.7 GHz Linked License

Dates

Grant	07/24/2019
Effective	01/24/2024

Expiration	06/13/2029
Cancellation	

Buildout Deadlines

1st	12/13/2016
-----	------------

2nd	06/13/2019
-----	------------

Discontinuance Dates

1st	
-----	--

2nd	
-----	--

Notification Dates

1st	10/17/2013
-----	------------

2nd	12/13/2018
-----	------------

ECIP Information

ECIP Flag

Small Carrier or Tribal
Nation Transaction

Rural-Focused
Transaction

ECIP Dates

5-Year Holding Period
Begins

5-Year Holding Period
Ends

Required Operational Filing Dates

IORN Operation Begin
Date

FORN Deadline Date

FORN Filed Date

Licensee

FRN 0014980726

Type

Limited Liability Company

Licensee

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Ownership and Qualifications

Radio Service Type Fixed, Mobile

Regulatory Status Common Carrier, Non-
Common Carrier Interconnected Yes

Alien Ownership

The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender



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Upper Microwave Flexible Use Service License - WREU718 - Nextel West Corp.

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Call Sign	WREU718	Radio Service	UU - Upper Microwave Flexible Use Service
Status	Active	Auth Type	Regular
Rural Service Provider Bidding Credit			
Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?		No	

Reserved Spectrum

Reserved Spectrum

Market

Market	PEA069 - Springfield, MA	Channel Block	F
Submarket	0	Associated Frequencies (MHz)	025050.00000000-025150.00000000
3.7 GHz License Type		3.7 GHz Linked License	

Dates

Grant	12/11/2019	Expiration	12/11/2029
Effective	08/23/2024	Cancellation	

Buildout Deadlines

1st	2nd
-----	-----

Discontinuance Dates

1st	2nd
-----	-----

Notification Dates

1st	2nd
-----	-----

ECIP Information

ECIP Flag

Small Carrier or Tribal
Nation TransactionRural-Focused
Transaction**ECIP Dates**5-Year Holding Period
Begins5-Year Holding Period
Ends**Required Operational Filing Dates**IORN Operation Begin
Date

FORN Deadline Date

FORN Filed Date

LicenseeFRN 0001608363
([View Ownership Filing](#))

Type Corporation

LicenseeNextel West Corp.
12502 Sun Valley Drive, M/S: VARESA0209
Reston, VA 20196
ATTN Government AffairsP:(800)572-8256
F:(703)443-4483
E:fcclicensing@sprint.com**Contact**

Kiechel Law

P:(202)487-6770
E:doane@kiechellaw.com4005 Garrison Street, NW
Washington, DC 20016
ATTN Doane F. Kiechel**Ownership and Qualifications**

Radio Service Type	Fixed, Mobile		
Regulatory Status	Common Carrier, Non- Common Carrier, Private Comm	Interconnected	Yes

Alien Ownership

Is the applicant a foreign government or the representative of any foreign government?	No
--	----

Is the applicant an alien or the representative of an alien? No

Is the applicant a corporation organized under the laws of any foreign government? No

Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country? No

Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country? Yes

The Applicant has received a declaratory ruling(s) approving its foreign ownership, and the application involves only the acquisition of additional spectrum for the provision of a wireless service in a geographic coverage area for which the Applicant has been previously authorized. ✓

Basic Qualifications

The Applicant answered "No" to each of the [Basic Qualification](#) questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

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PCS Broadband License - KNLF216 - New Cingular Wireless PCS, LLC

Call Sign	KNLF216	Radio Service	CW - PCS Broadband
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	MTA008 - Boston-Providence	Channel Block	A
Submarket	27	Associated Frequencies (MHz)	001850.00000000-001865.00000000 001930.00000000-001945.00000000

3.7 GHz License Type

3.7 GHz Linked License

Dates

Grant	06/02/2015	Expiration	06/23/2025
Effective	01/24/2024	Cancellation	

Buildout Deadlines

1st	06/23/2000	2nd	06/23/2005
-----	------------	-----	------------

Discontinuance Dates

1st		2nd	
-----	--	-----	--

Notification Dates

1st	06/28/2000	2nd	03/08/2005
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ECIP Information

ECIP Flag	
Small Carrier or Tribal Nation Transaction	Rural-Focused Transaction

ECIP Dates

5-Year Holding Period
Begins

5-Year Holding Period
Ends

Required Operational Filing Dates

IORN Operation Begin
Date

FORN Deadline Date

FORN Filed Date

Licensee

FRN 0003291192

Type

Limited Liability Company

Licensee

New Cingular Wireless PCS, LLC
208 S Akard St, 20F
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Ownership and Qualifications

Radio Service Type Mobile

Regulatory Status Common Carrier Interconnected Yes

Alien Ownership

The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

Cellular License - KNKN769 - AT&T Mobility Spectrum, LLC

 **This license has pending applications:** 0010538588

Call Sign	KNKN769	Radio Service	CL - Cellular
Status	Active	Auth Type	Regular

Market

Market	CMA470 - Massachusetts 1 - Franklin	Channel Block	B
Submarket	0	Phase	2

Dates

Grant	09/08/2021	Expiration	10/01/2031
Effective	01/24/2024	Cancellation	

Five Year Buildout Date

11/07/1996

ECIP Information

ECIP Flag	
Small Carrier or Tribal Nation Transaction	Rural-Focused Transaction

ECIP Dates

5-Year Holding Period Begins	5-Year Holding Period Ends
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Required Operational Filing Dates

IORN Operation Begin Date	FORN Deadline Date	FORN Filed Date
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Control Points

1	100 LOWDER BROOK, WESTWOOD, MA P: (617)462-7094
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Licensee

FRN	0014980726	Type	Limited Liability Company
-----	------------	------	---------------------------

Licensee

AT&T Mobility Spectrum, LLC
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Ownership and Qualifications

Radio Service Type	Mobile		
Regulatory Status	Common Carrier	Interconnected	Yes

Alien Ownership

The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Demographics

Race

Ethnicity

Gender

700 MHz Lower Band (Blocks C, D) License - WPWV378 - AT&T Mobility Spectrum, LLC

PA This license has pending applications: 0010538588

Call Sign	WPWV378	Radio Service	WZ - 700 MHz Lower Band (Blocks C, D)
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	CMA470 - Massachusetts 1 - Franklin	Channel Block	C
Submarket	0	Associated Frequencies (MHz)	000710.00000000-000716.00000000 000740.00000000-000746.00000000

3.7 GHz License Type

3.7 GHz Linked License

Dates

Grant	07/23/2019	Expiration	06/13/2029
Effective	01/24/2024	Cancellation	

Buildout Deadlines

1st	06/13/2019	2nd	
-----	------------	-----	--

Discontinuance Dates

1st		2nd	
-----	--	-----	--

Notification Dates

1st	04/04/2018	2nd	04/04/2018
-----	------------	-----	------------

ECIP Information

ECIP Flag	
Small Carrier or Tribal Nation Transaction	Rural-Focused Transaction

ECIP Dates

5-Year Holding Period
Begins

5-Year Holding Period
Ends

Required Operational Filing Dates

IORN Operation Begin
Date

FORN Deadline Date

FORN Filed Date

Licensee

FRN 0014980726

Type

Limited Liability Company

Licensee

AT&T Mobility Spectrum, LLC
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Ownership and Qualifications

Radio Service Type Mobile

Regulatory Status Common Carrier Interconnected No

Alien Ownership

The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender



Universal Licensing System

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3.7 GHz Service License - WRNJ491 - AT&T Spectrum Frontiers LLC

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MAIN

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MAP

Call Sign WRNJ491

Status Active

Radio Service PM - 3.7 GHz Service

Auth Type Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit? No

Reserved Spectrum

Reserved Spectrum

Market

Market PEA069 - Springfield, MA

Submarket 0

Channel Block C2

Associated Frequencies (MHz) 003920.00000000-003940.00000000

3.7 GHz License Type Final

3.7 GHz Linked License

Dates

Grant 07/23/2021

Effective 01/26/2024

Expiration 07/23/2036

Cancellation

Buildout Deadlines

1st 07/23/2029

2nd 07/23/2033

Discontinuance Dates

1st

2nd

Notification Dates

1st

2nd

ECIP Information

ECIP Flag

Small Carrier or Tribal
Nation TransactionRural-Focused
Transaction**ECIP Dates**5-Year Holding Period
Begins5-Year Holding Period
Ends**Required Operational Filing Dates**IORN Operation Begin
Date

FORN Deadline Date

FORN Filed Date

LicenseeFRN 0027840180
([View Ownership Filing](#))

Type Limited Liability Company

LicenseeAT&T Spectrum Frontiers LLC
208 S Akard St, 20F
Dallas, TX 75202
ATTN National Regulatory ComplianceP:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com**Contact**AT&T Services, Inc.
Jessica J Dunk
208 S Akard St, 20F
Dallas, TX 75202
ATTN NRCP:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com**Ownership and Qualifications**

Radio Service Type	Fixed, Mobile		
Regulatory Status	Common Carrier, Non- Common Carrier	Interconnected	Yes

Alien OwnershipThe Applicant answered "No" to each of the [Alien Ownership](#) questions.

Basic Qualifications

The Applicant answered "No" to each of the [Basic Qualification](#) questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

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Wireless Communications Service License - KNLB297 - New Cingular Wireless PCS, LLC

PA This license has pending applications: 0009220775, 0009628011, 0009705149

Call Sign	KNLB297	Radio Service	WS - Wireless Communications Service
Status	Active	Auth Type	Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

Reserved Spectrum

Reserved Spectrum

Market

Market	REA001 - Northeast	Channel Block	D
Submarket	0	Associated Frequencies (MHz)	002345.00000000-002350.00000000
3.7 GHz License Type		3.7 GHz Linked License	

Dates

Grant	02/28/2020	Expiration	07/21/2027
Effective	01/23/2024	Cancellation	

Buildout Deadlines

1st	2nd	09/13/2021
-----	-----	------------

Discontinuance Dates

1st	2nd
-----	-----

Notification Dates

1st	2nd
-----	-----

ECIP Information

ECIP Flag	
Small Carrier or Tribal Nation Transaction	Rural-Focused Transaction

ECIP Dates

5-Year Holding Period
Begins

5-Year Holding Period
Ends

Required Operational Filing Dates

IORN Operation Begin
Date

FORN Deadline Date

FORN Filed Date

Licensee

FRN 0003291192

Type

Limited Liability Company

Licensee

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Ownership and Qualifications

Radio Service Type Fixed, Mobile

Regulatory Status Common Carrier, Non- Interconnected Yes
Common Carrier

Alien Ownership

The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

Upper Microwave Flexible Use Service License - WREV201 - Nextel West Corp.

Call Sign	WREV201	Radio Service	UU - Upper Microwave Flexible Use Service
Status	Active	Auth Type	Regular
Rural Service Provider Bidding Credit			
Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?		No	
Reserved Spectrum			
Reserved Spectrum			
Market			
Market	PEA069 - Springfield, MA	Channel Block	G
Submarket	0	Associated Frequencies (MHz)	025150.00000000-025250.00000000
3.7 GHz License Type		3.7 GHz Linked License	
Dates			
Grant	12/11/2019	Expiration	12/11/2029
Effective	08/23/2024	Cancellation	
Buildout Deadlines			
1st		2nd	
Discontinuance Dates			
1st		2nd	
Notification Dates			
1st		2nd	
ECIP Information			
ECIP Flag			
Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	
ECIP Dates			
5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing DatesIORN Operation Begin
Date

FORN Deadline Date

FORN Filed Date

Licensee

FRN 0001608363

Type

Corporation

LicenseeNextel West Corp.
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Reston, VA 20196
ATTN Government AffairsP:(800)572-8256
F:(703)443-4483
E:fcclicensing@sprint.com**Contact**

Kiechel Law

P:(202)487-6770
E:doane@kiechellaw.com4005 Garrison Street, NW
Washington, DC 20016
ATTN Doane F. Kiechel**Ownership and Qualifications**

Radio Service Type Fixed, Mobile

Regulatory Status Common Carrier, Non- Interconnected Yes
Common Carrier, Private
Comm**Alien Ownership**

Is the applicant a foreign government or the representative of any foreign government? No

Is the applicant an alien or the representative of an alien? No

Is the applicant a corporation organized under the laws of any foreign government? No

Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country? No

Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country? Yes

The Applicant has received a declaratory ruling(s) approving its foreign ownership, and the application involves only the acquisition of additional spectrum for the provision of a wireless service in a geographic coverage area for which the Applicant has been previously authorized.



Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender



Universal Licensing System

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ULS License

3.7 GHz Service License - WRNJ489 - AT&T Spectrum Frontiers LLC

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MAIN

ADMIN

MARKET

MAP

Call Sign

WRNJ489

Status

Active

Radio Service

PM - 3.7 GHz Service

Auth Type

Regular

Rural Service Provider Bidding Credit

Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?

No

Reserved Spectrum

Reserved Spectrum

Market

Market

PEA069 - Springfield, MA

Submarket

0

Channel Block

B5

Associated Frequencies (MHz)

003880.00000000-003900.00000000

3.7 GHz License Type

Final

3.7 GHz Linked License

Dates

Grant

07/23/2021

Expiration

07/23/2036

Effective

01/26/2024

Cancellation

Buildout Deadlines

1st

07/23/2029

2nd

07/23/2033

Discontinuance Dates

1st

2nd

Notification Dates

1st

2nd

ECIP Information

ECIP Flag

Small Carrier or Tribal
Nation TransactionRural-Focused
Transaction**ECIP Dates**5-Year Holding Period
Begins5-Year Holding Period
Ends**Required Operational Filing Dates**IORN Operation Begin
Date

FORN Deadline Date

FORN Filed Date

LicenseeFRN 0027840180
([View Ownership Filing](#))

Type Limited Liability Company

LicenseeAT&T Spectrum Frontiers LLC
208 S Akard St, 20F
Dallas, TX 75202
ATTN National Regulatory ComplianceP:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com**Contact**AT&T Services, Inc.
Jessica J Dunk
208 S Akard St, 20F
Dallas, TX 75202
ATTN NRCP:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com**Ownership and Qualifications**

Radio Service Type	Fixed, Mobile		
Regulatory Status	Common Carrier, Non- Common Carrier	Interconnected	Yes

Alien OwnershipThe Applicant answered "No" to each of the [Alien Ownership](#) questions.

Basic Qualifications

The Applicant answered "No" to each of the [Basic Qualification](#) questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

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=

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Federal Communications Commission
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3.7 GHz Service License - WRNJ490 - AT&T Spectrum Frontiers LLC

Call Sign	WRNJ490	Radio Service	PM - 3.7 GHz Service
Status	Active	Auth Type	Regular
Rural Service Provider Bidding Credit			
Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?		No	
Reserved Spectrum			
Reserved Spectrum			
Market			
Market	PEA069 - Springfield, MA	Channel Block	C1
Submarket	0	Associated Frequencies (MHz)	003900.00000000-003920.00000000
3.7 GHz License Type	Final	3.7 GHz Linked License	
Dates			
Grant	07/23/2021	Expiration	07/23/2036
Effective	01/26/2024	Cancellation	
Buildout Deadlines			
1st	07/23/2029	2nd	07/23/2033
Discontinuance Dates			
1st		2nd	
Notification Dates			
1st		2nd	
ECIP Information			
ECIP Flag			
Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	
ECIP Dates			
5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing DatesIORN Operation Begin
Date

FORN Deadline Date

FORN Filed Date

Licensee

FRN 0027840180

Type

Limited Liability Company

LicenseeAT&T Spectrum Frontiers LLC
208 S Akard St, 20F
Dallas, TX 75202
ATTN National Regulatory ComplianceP:(855)699-7073
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E:FCCMW@att.com**Contact**AT&T Services, Inc.
Jessica J Dunk
208 S Akard St, 20F
Dallas, TX 75202
ATTN NRCP:(855)699-7073
F:(214)746-6410
E:FCCMW@att.com**Ownership and Qualifications**

Radio Service Type Fixed, Mobile

Regulatory Status Common Carrier, Non-
Common Carrier Interconnected Yes**Alien Ownership**

The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

3.7 GHz Service License - WRNJ488 - AT&T Spectrum Frontiers LLC

Call Sign	WRNJ488	Radio Service	PM - 3.7 GHz Service
Status	Active	Auth Type	Regular
Rural Service Provider Bidding Credit			
Is the Applicant seeking a Rural Service Provider (RSP) bidding credit?		No	
Reserved Spectrum			
Reserved Spectrum			
Market			
Market	PEA069 - Springfield, MA	Channel Block	B4
Submarket	0	Associated Frequencies (MHz)	003860.00000000-003880.00000000
3.7 GHz License Type	Final	3.7 GHz Linked License	
Dates			
Grant	07/23/2021	Expiration	07/23/2036
Effective	01/26/2024	Cancellation	
Buildout Deadlines			
1st	07/23/2029	2nd	07/23/2033
Discontinuance Dates			
1st		2nd	
Notification Dates			
1st		2nd	
ECIP Information			
ECIP Flag			
Small Carrier or Tribal Nation Transaction		Rural-Focused Transaction	
ECIP Dates			
5-Year Holding Period Begins		5-Year Holding Period Ends	

Required Operational Filing DatesIORN Operation Begin
Date

FORN Deadline Date

FORN Filed Date

Licensee

FRN 0027840180

Type

Limited Liability Company

LicenseeAT&T Spectrum Frontiers LLC
208 S Akard St, 20F
Dallas, TX 75202
ATTN National Regulatory ComplianceP:(855)699-7073
F:(214)746-6410
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F:(214)746-6410
E:FCCMW@att.com**Ownership and Qualifications**

Radio Service Type Fixed, Mobile

Regulatory Status Common Carrier, Non-
Common Carrier Interconnected Yes**Alien Ownership**

The Applicant answered "No" to each of the Alien Ownership questions.

Basic Qualifications

The Applicant answered "No" to each of the Basic Qualification questions.

Tribal Land Bidding Credits

This license did not have tribal land bidding credits.

Demographics

Race

Ethnicity

Gender

October 21, 2024

City of Greenfield
Zoning Board of Appeals
14 Court Square
Greenfield, MA 01301

Reference: **Narrative Report for Special Permit and Variance Application to Zoning Board of Appeals**

Project: **170' Wireless Communication Facility**

Applicant: **Viridi Wireless, LLC ("Viridi")**

Location: **112 Newton Street, Greenfield, MA (Map R24, Lot 11)**

Owner: **George Marchacos**

Dear Members of the Board:

I write on behalf of Viridi Wireless, LLC ("Viridi") as Applicant for the the installation and operation of a new wireless communication structure comprised of ground-based equipment cabinets and antennas mounted on top of a monopole measuring 170 feet in height at the location referred to as Fairview Street West in Greenfield, Massachusetts, in order to fill a coverage gap that currently exists in AT&T's existing network, while providing prioritized, preemptive wireless services for first responders by way of the First Responder Network Authority, with such proposal as further described in the plans prepared by DuBois & King, Inc. ("Plans"), and additional supporting documents provided to the City of Greenfield Zoning Board of Appeals (the "ZBA") with such Plans (collectively, the "Application").

A. Application Background

Viridi proposes to construct a 170' wireless communications facility ("WCF") with a total of nine (9) antennas at a location commonly known as and numbered 112 Newton Street, Greenfield, Massachusetts (the "Site"), in order to provide enhanced specialized mobile radio communications services which are within the definition of "personal wireless services" set forth in federal law, 47 U.S.C. §332(c)(7)(C). The owner of the Site, George Marchacos, has leased an area to Viridi for purposes of installing the WCF on the Site.

AT&T, a wireless network carrier, utilizes sophisticated computer engineering models which evaluate area topography, population patterns, and land use concerns, in order to evaluate its network requirements and to identify specific geographic regions or "cells" to be serviced by each antenna facility in the network. In designing the "grid" of cell sites necessary to support its network, AT&T also analyzes the capacity of existing cell sites within each region. Its goal is to meet its mandate under the license issued by

the Federal Communications Commission (the “FCC”) to provide adequate service to all of its actual and potential customers in the region. “Adequate service” in today’s terms means a network which at all times provides service equivalent to wireline service to all users, wherever they are located. It also means a network capable of supporting services such as data and wireless internet, in addition to voice.

B. Site Justification

As a result of this engineering research, various areas known as search rings or coverage gap areas, are identified as necessary for a transmission facility (cell site) to ensure adequate coverage and capacity to the area. Once a search ring has thus been identified, AT&T engages Viridi’s site selection consultants to identify potential specific sites within the search ring. Viridi’s consultants then work to determine whether such sites can support the radio frequency characteristics at a required height. Top priority is given to existing towers or other tall structures and, if none are available, then to “raw land” sites in business, commercial and industrial areas or upon sites with similar such characteristics.

In this particular instance, Viridi determined that there are no suitable existing structures within the ring. Therefore, Viridi began to review other possible options within the ring, which included the Site proposed in Viridi’s Application. The Site is within the search ring, and Viridi was drawn to it due to its topographic uniqueness and suitability for placement of the WCF, as well as the current industrial/commercial uses adjacent to the Site.

As part of its due diligence, Viridi reviewed the feasibility of numerous alternative parcels located within the identified search ring or “Coverage Gap Area.” Viridi determined that each and every parcel located with an “existing or approved wireless communications structure or existing nonresidential structure” or located within a “General and Planned Industry District” (“Preferred Locations”) fail to meet AT&T’s coverage needs. Other locations outside of the Preferred Locations and the Site would have required zoning relief substantially similar or greater to that being requested here. For various reasons including, but not limited to, the lack of adequate coverage, the inability to lease alternative sites, lack of available room within existing church steeples in which to place antennas and to construct equipment shelters, limited options for properties containing wireless communications structures or existing nonresidential structures, limited ground space available in the Preferred Locations, and/or the need for more extensive dimensional or other zoning relief, each of the alternative parcels were considered more intrusive than the proposed Site.

Within the Coverage Gap Area, the Site was one of fourteen locations originally identified as potentially viable candidates, the other sites were eliminated for various reasons. By way of example, the WHAI Radio Tower was eliminated because the

Radio Frequency waves of the existing dishes on the tower would cause interference with the WCF, and the rooftop of the Hampton Inn was rejected because the rooftop was too low for the WCF to be able to fill the Coverage Gap Area. Other parcels of raw land were also reviewed by AT&T's engineers out of those fourteen locations.

Viridi believes that the construction of the WCF on this Site will not adversely impact the adjacent properties, the neighborhood, the City, the environment, and areas of historic or scenic value, that there is no existing or approved structure that can accommodate the proposed WCF.

C. Justification of Height

i. Establishing Propagation

As discussed above, no site from which the coverage gap could be closed could be found which met all of the City's zoning requirements. Viridi has attempted to locate a site within the Coverage Gap Area which would be the least intrusive means for closing AT&T's coverage gap and to work with City officials to address all of the City's concerns. As a result, Viridi has respectfully proposed the construction of the WCF at a height of 170 feet, in order to address the concerns of the Coverage Gap Area.

An adequate network requires the strategic deployment of antenna structures throughout the area to be covered, which are connected to receivers and transmitters that operate in a limited geographic area known as a "cell". Mobile subscriber handsets and wireless devices operate by transmitting and receiving low power radio frequency signals to and from these cell sites. The signals are transferred through ground telephone lines (or other means of backhaul transport) and routed to their destinations by sophisticated electronic equipment. The size of the area served by each cell site is dependent on several factors including the number of antennas used, the height at which the antennas are deployed, the topography of the surrounding land, vegetative cover, and natural or man-made obstructions in the area. As customers move throughout the service area, the transmission from the portable device is automatically transferred to the wireless network provider facility with the best reception, without interruption in service, provided that there is overlapping coverage between the cells.

In order to fill in the Coverage Gap Area effectively, there must be adequate overlapping coverage between the "serving cell" and "adjoining cells". This not only allows access to the network, but once connected allows for the transfer or "hand-off" of calls from one cell to another and prevents involuntary disconnections or "dropped calls." The network's antennas also must be located high enough above ground level to allow transmission (a.k.a. propagation) of the radio frequency signals above trees, buildings and other natural or man-made structures that may obstruct or diminish the

signals. Areas without adequate radio frequency coverage have substandard service characterized by poor voice quality, dropped and blocked calls, slow data connections and transmissions, or no wireless service at all. These areas are commonly referred to as “coverage gaps.” We have concluded that by installing the proposed wireless communication facility on the proposed monopole at Site at an antenna centerline height of 166.0’ AGL (above ground level), AT&T will be able to provide additional capacity and coverage improvement to residents, businesses, and traffic corridors within Greenfield that are currently located within the Coverage Gap Area.

ii. *Fall Zone*

The Applicant acknowledges that one of the primary safety considerations when drafting ordinances related to wireless communication facilities is creating a buffer between the base of the tower and surrounding property such that in the extreme case a structure is to fall over, no damage shall be caused to any person or property. This buffer is often referred to as a “fall zone”, as it is here in the applicable City of Greenfield ordinance. The City’s fall zone requires the minimum distance from the base of the structure to the border of other parcels of land or public ways to be the same distance as the overall height of the structure. While we understand the intent behind such an ordinance, the fall zone requirement of this size effectively creates a prohibition from providing wireless service.

As outlined in the accompanying documents, in order to effectively serve a Coverage Gap Area, the height of the proposed WCF needs to be tall enough for the WCF’s antenna’s to relay signals to surrounding WCFs. Here, the minimum height required to do this is 170 feet. Applying the City’s fall zone ordinance to the proposed WCF would result in a 170 foot radius around the base of the structure, requiring a minimum of 2.09 acres of open space (if measured as a circle, and 2.65 acres if measured as a square). In the Coverage Gap Area, Viridi was unable to find or acquire rights to any property that holds that much open space and affords AT&T the ability to place antenna at the necessary height. As it stands, the required fall zone for the proposed WCF would possibly encroach upon a small portion of the public way known as Fairview Street West and it would not encroach upon an other property. However, any concerns for the safety to Fairview Street West can be mitigated by the proposed design of the WCF.

The supporting documentation regarding the design of the WCF will show that as a safety measurement, the tower of the WCF will be designed in accordance with the latest governing revision of the Telecommunications Industry Association (“TIA”) standards and will include a “failure point” in the tower structure. When a tower structure includes a failure point, a point in the structure is designed to collapse just above the mid-point of the structure upon experiencing weather-induced overloads such as heavy winds. This will cause the top half of the structure to fold over prior to any similar

structural damage near the base of the tower. Therefore, if winds were ever high enough to cause the tower to become unstable, the failure point would buckle and the upper half of the tower would fold over the bottom half, lowering the tower's height to around 85± feet and effectively dividing the "fall zone" of the tower in half. The TIA standards for this type of structure have been nationally recognized and have a long history of reliability. In fact, the company tasked with building the structure, Valmont Telecom, has no recorded instances of failure of its communications structure related to weather-induced overload. Fairview Street West is located around 140 feet from the base of the proposed WCF, therefore a 170 foot WCF structure imploring TIA standards would not be in danger of falling on or damaging the public way.

D. Capacity

The proposed WCF consists of nine (9) panel antennas, fifteen (15) Remote Radio Heads and one (1) Overvoltage Protection mounted on three (3) heavy duty sector frames. The tower is designed to support four-to-five total carrier installations of a similar size. An exact quantity is difficult to predict as it those numbers would depend on the size and types of antennas, type of mount used and other factors. Based on potential carrier arrays that are smaller in size, the WCF has the capacity to support up to five (5) carrier installations, although, if the fellow carrier installations are of similar size as AT&T, then this tower would only allow support four (4) total.

E. Projected Future Needs

The proposed WCF addresses the currently identified needs of AT&T in Greenfield, and while conditions could change, there are no specific additional sites in Greenfield that are a part of AT&T's present build plans.

Beyond the agreement to host the AT&T carrier installation, there is currently no agreement in place for any additional carrier installations. Viridi does have expectations to accommodate at least two (2) other carriers at this location after final approval, with a potential total of five (5) carriers possible, as well as the possibility to accommodate DISH. Beyond installation of the additional carrier antennas and Remote Radio Heads, no additional construction is anticipated for this location.

F. Sample Lease Agreement for Co-Location

Lease agreements for Co-Location contain proprietary and confidential business information. However, Viridi is open to sharing a redacted version of their lease, subject to a confidentiality agreement.

G. Minimizing Visual and Environmental Impacts

i. Visual Impacts

The proposed tower is designed to be a slender self-support monopole, with a single pole structure as opposed to a lattice and guyed towers which occupy a significantly more amount of visual space than the single monopole. The self-support design reduces the need for guy anchors to be strapped to the poles, and eliminating the need to disturb more of the site to accomodate additional structures to be built on the ground area. In addition, the tower will be grey in color to blend in with the skyline.

Photographs of the “balloon float” test and additional color renderings of the structure as required by Sections 200-52(G)(2)(e) and 200-52(G)(2)(d), will be produced prior to the ZBA hearing date and presented to the Greenfield Zoning Board of Appeals (the “ZBA”) at the hearing prior to the ZBA hearing date. The renderings and balloon test will aid in establishing the nominal visual impacts of this WCF.

ii. Environmental Impacts

The lack of guy anchors, due to the self-support design of the tower, reduces the need for additional clearings of trees, shrubbery and other natural vegetation of the surrounding area. The lack of guy anchors also reduces interference with bats and birds that may habitat nearby. The clearing that is required for construction of the WCF is limited to the minimum area required to construct the tower and all areas outside the driveway and tower compound will be allowed to naturally revegetate. This Site was chosen to minimize the impact of the wetland buffer, and the placement of the tower was chosen to further reduce interference of said buffer. In addition, the stormwater treatment swale has been designed to treat and retain all runoff from the driveway and tower compound.

To reduce impact to surrounding wildlife, the tower does not require lighting, which reduces light pollution to nocturnal animals in the area. The internal lighting at the tower compound will be motion activated from within the locked fence compound and will only be activated when maintenance personnel are on-site. Finally, the lights will be down lit and dark sky compliant.

City of Greenfield
October 21, 2024
Page 7

Thank you for your consideration with respect to this matter.

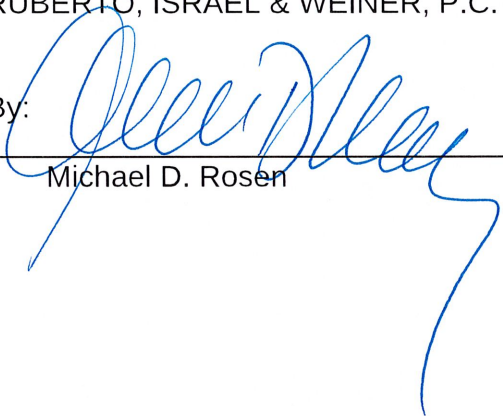
Respectfully yours,

VIRDI WIRELESS, LLC

By its Attorneys,

RUBERTO, ISRAEL & WEINER, P.C.

By:



Michael D. Rosen

cc: Viridi Wireless, LLC
DuBois & King, Inc.