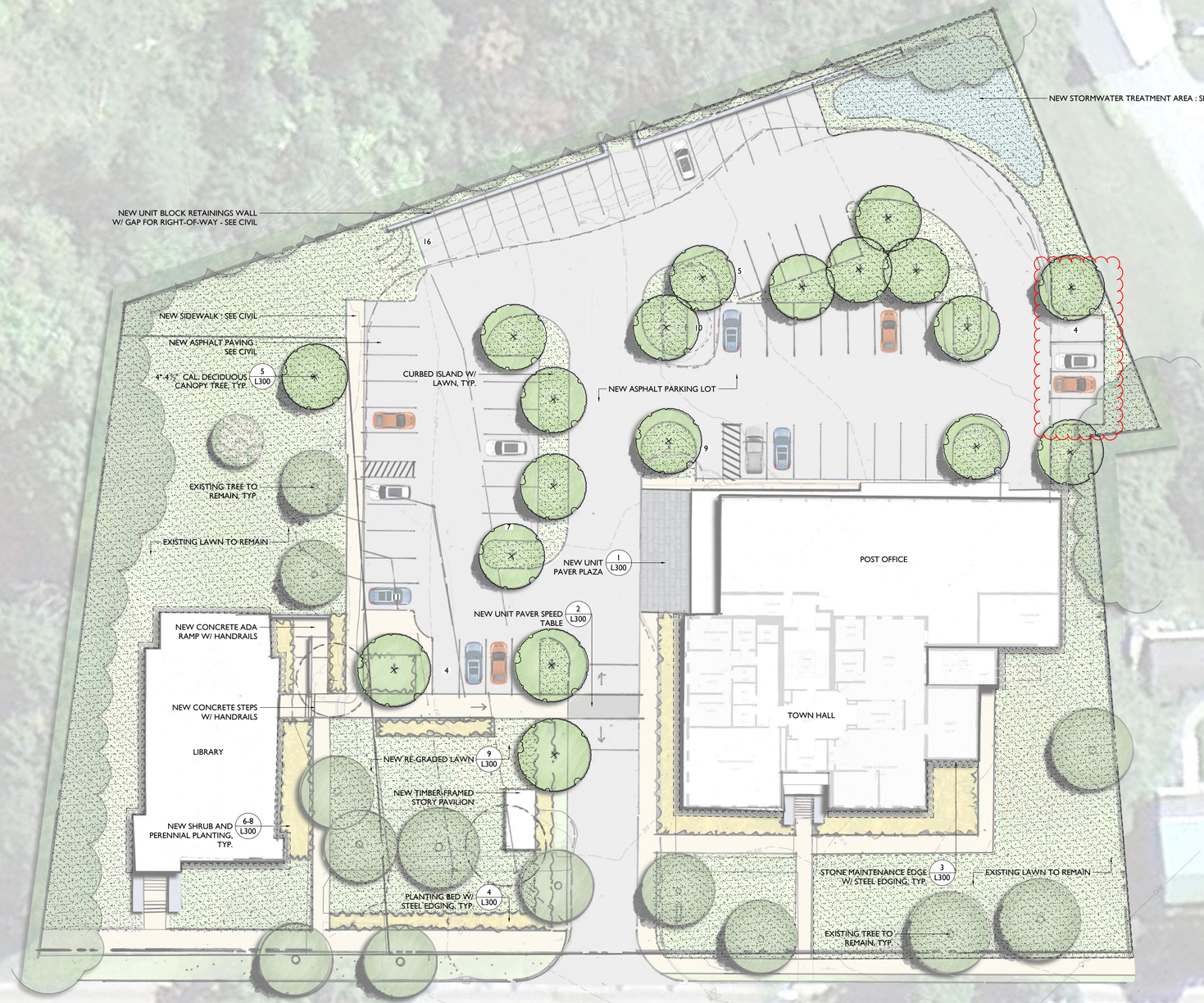

GENERAL PLANT SCHEDULE

(19) 4"-4½" CAL. DECIDUOUS CANOPY TREES
(338) 1 GAL. GROUNDCOVERS AND PERENNIALS
- 75% OF TOTAL PLANTING BED AREA SHOWN @ 15" O.C.

(16) 3 GAL. SHRUBS
- 15% OF TOTAL PLANTING BED AREA SHOWN @ 30" O.C.

(8) 5 GAL. SHRUBS
- 10% OF TOTAL PLANTING BED AREA SHOWN @ 36" O.C.

20 0 20 40
SCALE OF FEET

WHLA
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LANDSCAPE ARCHITECTURE
VT 802.864.0010 NY 518.567.1791 wagnerhodgson.com

PRICING SET
NOT FOR CONSTRUCTION

NO.	DESCRIPTION	DATE

RICHMOND TOWN CENTER

BRIDGE STREET
RICHMOND, VT 05477

CONCEPTUAL SITE PLAN

JOB NO. 22-299
SCALE: 1"=20'-0"
DRAWN BY: CS
DATE: 07.31.2023

L000

FEASIBILITY DRAWINGS - NOT FOR CONSTRUCTION

PLOT DATE: 8/1/2023 12:40 PM

EXISTING PLANTING ISLANDS TO BE REMOVED / ADJUSTED PER PLAN, TYP.

MAILBOX TO BE REMOVED AND RELOCATED PER POST OFFICE

EXISTING TREE TO BE REMOVED

EXISTING ASPHALT PARKING LOT SURFACE TO BE REMOVED : APPROX. 34,000 SQ. FT. RETAIN BASE MATERIAL IN AREAS THAT OVERLAP WITH NEW PARKING LOT

EXISTING ENTRY PLAZA TO BE REMOVED : APPROX 765 SQ. FT.

BOOK RETURN TO BE REMOVED AND RELOCATED PER LIBRARY

EXISTING TREE TO BE REMOVED

EXISTING STAIRS AND RAMP TO BE REMOVED

EXISTING STAIRS AND PATHS TO BE REMOVED, APPROX. 1130 SQ. FT.

EXISTING SIDEWALKS TO BE REMOVED, TYP. APPROX. 950 SQ. FT. TOTAL

EXISTING EV CHARGING STATION AND SIGNAGE TO BE RELOCATED

EXISTING HEDGE TO BE REMOVED

EXISTING TREE TO BE REMOVED

EXISTING ADA PARKING AREA (APPROX. 600 SQ. FT.) AND SIGNAGE TO BE REMOVED

OHE

20 0 20 40
SCALE OF FEET

FEASIBILITY DRAWINGS - NOT FOR CONSTRUCTION

PLOT DATE: 8/1/2023 2:02 PM

WHLA
WAGNER HODGSON

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PRICING SET
NOT FOR CONSTRUCTION

NO.	DESCRIPTION	DATE

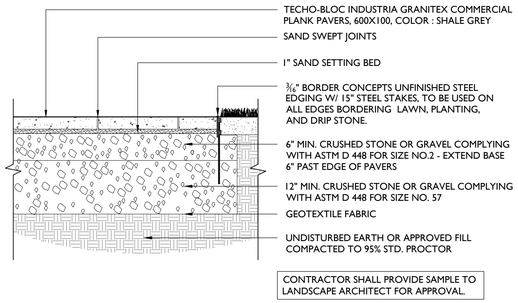
RICHMOND TOWN CENTER

BRIDGE STREET
RICHMOND, VT 05477

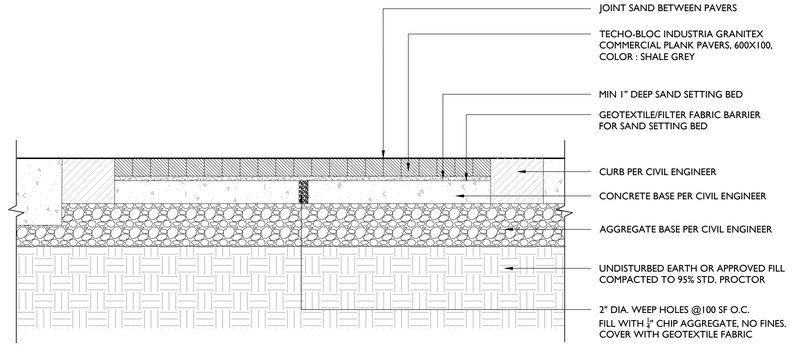
CONCEPTUAL DEMOLITION PLAN

JOB NO.	22-299
SCALE:	1"=20'-0"
DRAWN BY:	CS
DATE:	07.31.2023

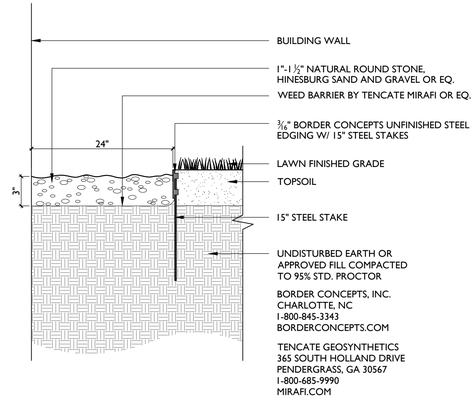
L001



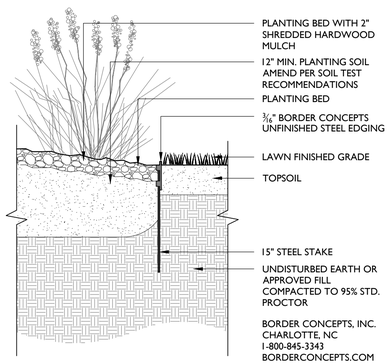
1 PEDESTRIAN CONCRETE PAVING
3/4" = 1'-0"



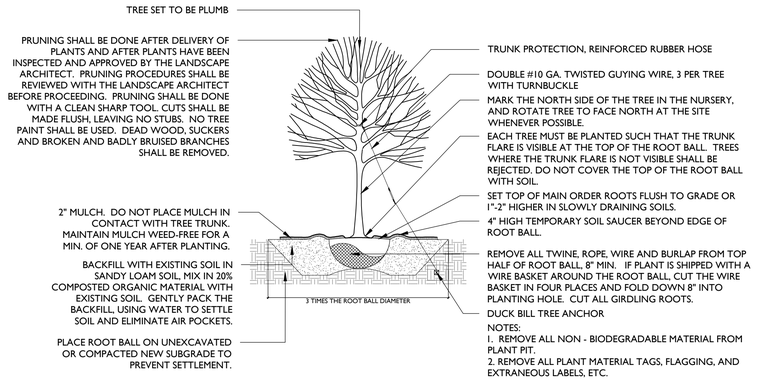
2 VEHICULAR CONCRETE PAVING (SPEED TABLE)
3/4" = 1'-0"



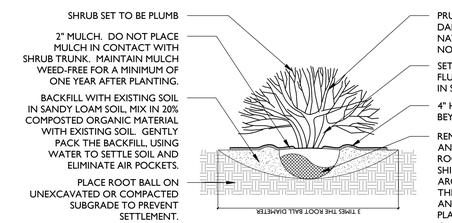
3 STONE MAINTENANCE EDGE
NTS



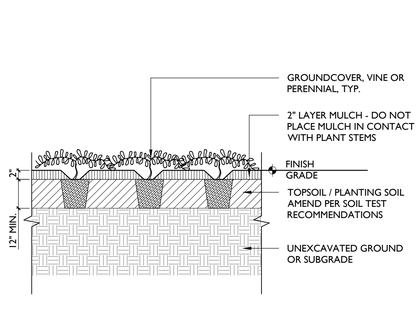
4 PLANTING BED W/ STEEL EDGING
NTS



5 TREE PLANTING
NTS



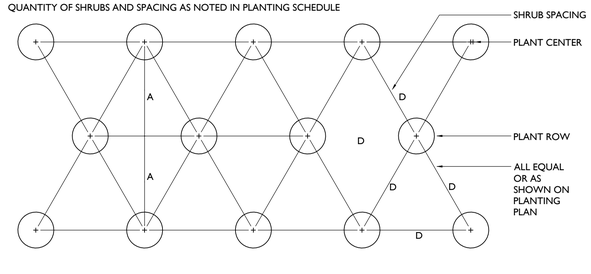
6 SHRUB PLANTING
NTS



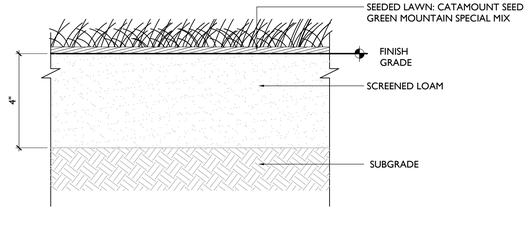
7 GROUNDCOVER AND PERENNIAL PLANTING
NTS

SPACING "D"	ROW "A"	NUMBER OF PLANTS/SQ.FT.
60" O.C.	51.96"	0.04
48" O.C	41.52"	0.07
42" O.C.	36.52"	0.10
36" O.C.	31.20"	0.12
30" O.C.	26.00"	0.18
24" O.C.	20.76"	0.28

NOTE:
QUANTITY OF SHRUBS AND SPACING AS NOTED IN PLANTING SCHEDULE



8 GROUNDCOVER AND PERENNIAL SPACING
NTS



9 SEEDED GRASS PLANTING
NTS

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VT 802.864.0010 NY 518.567.1791 wagnerhodgson.com

PRICING SET
NOT FOR CONSTRUCTION

NO.	DESCRIPTION	DATE

RICHMOND TOWN CENTER
BRIDGE STREET
RICHMOND, VT 05477

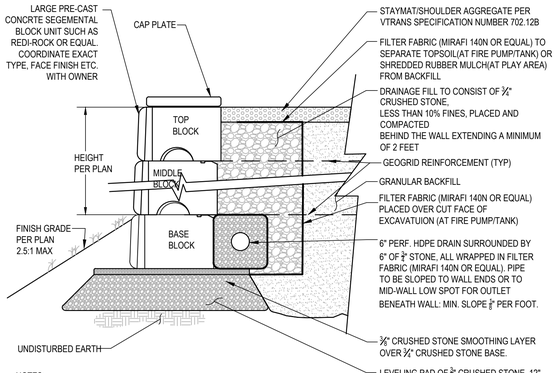
CONCEPTUAL DETAILS

JOB NO. 22-299
SCALE: VARIES
DRAWN BY: CS
DATE: 07.31.2023

L300

FEASIBILITY DRAWINGS - NOT FOR CONSTRUCTION

PLOT DATE: 8/1/2023 11:59 AM

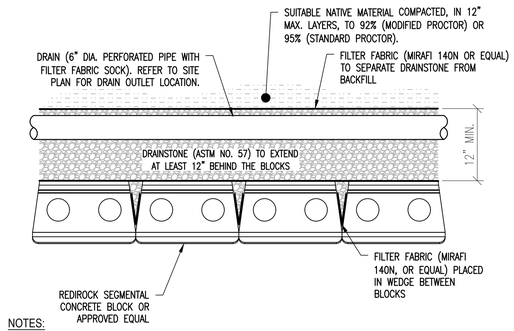


NOTES:

1. CONTRACTOR TO SUBMIT DRAWING STAMPED BY VT LICENSED PROFESSIONAL GEO-TECHNICAL ENGINEER FOR APPROVAL BY PROJECT ENGINEER AND CITY OF WINOOSKI.
2. STRIP ALL VEGETATION, ORGANIC SOILS AND UNSUITABLE FILL SOILS FROM THE WALL ALIGNMENT AREA.
3. BENCH CUT ALL EXCAVATED SLOPES.
4. DO NOT OVER EXCAVATE UNLESS DIRECTED TO DO SO BY THE OWNER'S SITE REPRESENTATIVE IN ORDER TO REMOVE UNSUITABLE SOIL.
5. THE OWNER'S SITE REPRESENTATIVE SHALL VERIFY FOUNDATION SOILS AS BEING COMPETENT PER THE DESIGN STANDARDS AND PARAMETERS.
6. LEVELING PAD SHALL CONSIST OF COMPACTED, ¾" CRUSHED GRAVEL, 12" THICK AND EXTENDING AT LEAST 12" TO EITHER SIDE OF THE BASE BLOCK. A SMOOTHING SURFACE OF ¾" CRUSHED STONE MAY BE UTILIZED.
7. MINIMUM EMBEDMENT OF WALL BELOW FINISH GRADE SHALL BE AS INDICATED ON THE WALL FACE DRAWING.
8. FOLLOW APPLICABLE PROVISIONS OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS, ESPECIALLY WITH REGARDS TO LEVELING OF BLOCKS AND BASE.
9. DRAINAGE FILL SHALL CONSIST OF ¾" CRUSHED STONE, LESS THAN 10% FINES, PLACED AND COMPACTED BEHIND THE WALL EXTENDING A MINIMUM OF 2 FEET, OR THE LENGTH OF THE REQUIRED GEO-GRID TIE BACK, WHICHEVER IS GREATER. BEHIND THE WALL. A FILTER FABRIC SHALL BE PLACED OVER THE CUT OR FILL FACE BEHIND THE WALL AREA TO PREVENT SOIL MIGRATION INTO THE DRAINAGE MATERIAL.
10. WHERE PERFORATED HDPE DRAINS ARE USED, PROVIDE OUTLETS AT THE ENDS OF THE WALL OR AT A LOW COLLECTION POINT ALONG THE WALL. (ALTERNATIVE OUTLET METHODS MAY BE APPROVED BY THE DESIGN ENGINEER.)
11. BACKFILL AND COMPACT THE FILL MATERIAL BEHIND THE WALL AS THE WALL IS INSTALLED.
12. COMPACTION TESTS SHALL BE TAKEN AS THE WALL IS INSTALLED. THE MINIMUM NUMBER OF TESTS SHALL BE DETERMINED BY THE OWNER'S SITE REPRESENTATIVE.
13. PLACE FILTER FABRIC (MIRAFFI 140N, OR EQUAL) OVER THE DRAINAGE MATERIAL TO MINIMIZE SOIL MIGRATION FROM THE SURFACE MATERIAL INTO THE DRAINAGE MATERIAL.
14. COMPACTION SHALL BE TO 92% (MODIFIED PROCTOR) OR 95% (STANDARD PROCTOR).
15. PROVIDE LATERAL DRAINAGE SWALES TO DIRECT FLOWS AROUND THE ENDS OF THE WALL AND AWAY FROM THE WALL DURING CONSTRUCTION. DO NOT CONSTRUCT A SWALE BEHIND THE WALL AS PART OF THE FINISHED WALL. GRADE ABOVE THE WALL SO THAT WATER FLOWS OVER THE FACE OR TO A POINT AT LEAST AS FAR BEHIND THE WALL AS THE WALL HEIGHT.
16. TURF, OR SOME ACCEPTABLE FORM OF SOIL EROSION PROTECTION, SHOULD BE ESTABLISHED AT THE TOP OF THE WALL (WHERE REQUIRED) BY THE LANDSCAPE CONTRACTOR AS SOON AS THE WALL IS COMPLETED.
17. FINAL WALL ALIGNMENT SHALL BE LOCATED IN THE FIELD.
18. RECOMMENDED COMPACTION EQUIPMENT WITHIN 15 FEET OF THE BACK OF THE WALL IS AS FOLLOWS:
    - 0-4 FEET HAND TAMP OR VIBRATE PLATE COMPACTOR
    - 4-15 FEET NOTHING LARGER THAT TWO-DRUM, WALK BEHIND VIBRATORY ROLLER
    - (LARGER ROLLERS CAN BE USED STATICALLY, PROVIDED LIFT SIZE DOES NOT COMPROMISE ACHIEVEMENT OF NECESSARY COMPACTION RATES.)

SEGMENTAL BLOCK WALL DETAIL

SCALE: NONE (1)

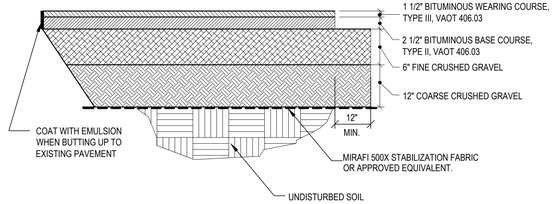


NOTES:

1. SLOPE DRAIN TO WALL ENDS, MIN. ¼" PER FOOT, OR SLOPE TO LOW POINT AND DROP THE DRAIN UNDER THE WALL.
2. WALL DRAIN TO RUN TO RAIN GARDEN AREA. CONSTRUCTION DOCUMENT PLANS WILL BE UPDATED TO REFLECT ROUTING.

SEGMENTAL BLOCK WALL DRAIN DETAIL

SCALE: NONE (2)

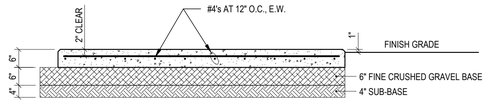


PAVEMENT PATCHING NOTES:

1. IN ALL PAVEMENT AREAS TO BE PATCHED, SAW CUT AND REMOVE EXISTING PAVEMENT.
2. EXCAVATE BASE MATERIAL AND SUB-BASE MATERIAL IF INADEQUATE.
3. COMPACT ALL FILL MATERIAL TO 95% MODIFIED PROCTOR

TYPICAL PAVEMENT DETAIL

SCALE: NONE (3)

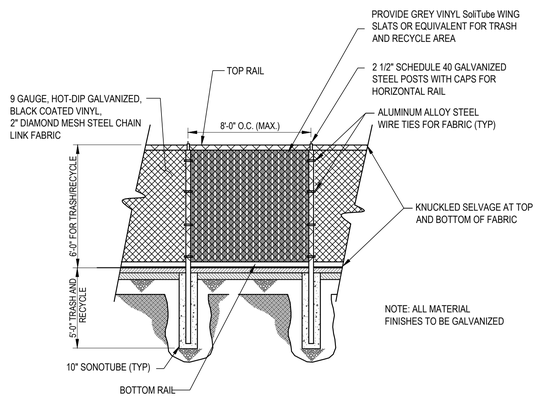


NOTES:

1. CONCRETE TO BE 4000psi WITH 4-6% AIR ENTRAINMENT.
2. SURFACE TO BE BROOM FINISHED.

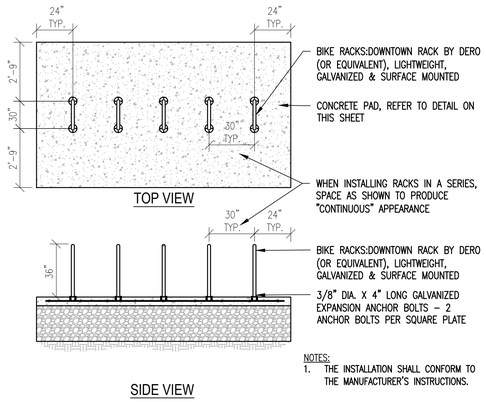
DUMPSTER/RECYCLING CONCRETE PAD DETAIL

SCALE: NONE (4)



DUMPSTER/RECYCLING FENCE DETAIL

SCALE: NONE (5)

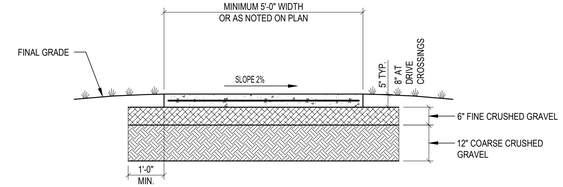


NOTES:

1. THE INSTALLATION SHALL CONFORM TO THE MANUFACTURER'S INSTRUCTIONS.

TYPICAL BIKE RACK DETAIL

SCALE: NONE (6)



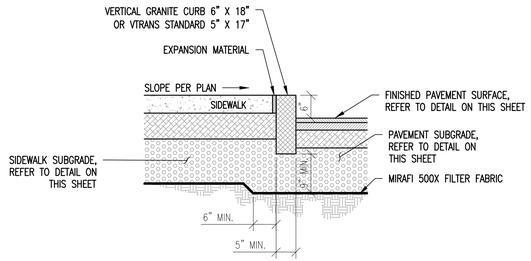
SIDEWALK DETAIL

CONCRETE SIDEWALK NOTES:

1. PLACE A TOOLED JOINT 1/8" WIDE AND AT LEAST 1/3 OF THE DEPTH, TYPICALLY AT INTERVALS MATCHING THE SIDEWALK WIDTH, OR AS NOTED ON PLANS (NOT TO EXCEED 10'-0").
2. PLACE EXPANSION JOINT AS INDICATED ON PLANS, NOT TO EXCEED 20'-0" MAX. ALL EXPANSION JOINTS SHALL BE DOWELED WITH A ¾" DIAMETER SMOOTH DOWEL AT 12" O.C. DOWEL SHALL BE 15" IN LENGTH AND SHALL HAVE AN EXPANSION CAP INSTALLED AT THE END. SEE DETAIL ON THIS SHEET.
3. BROOM FINISH WITH SMOOTH TROWELED EDGES. TREAT WITH SILANE-SILOXANE OR EQUAL.
4. CAST-IN-PLACE CONCRETE TO BE 4000 psi CONCRETE, 5%-7% AIR ENTRAINMENT WITH 6x6-W4.0xW4.0 REINFORCING CENTERED IN SIDEWALK.
5. WHERE SIDEWALK IS ADJACENT TO ENTRY/EXIT DOOR PADS WITH FROST WALL FOUNDATIONS, SIDEWALK SHALL BE DOWELED TO PAD WITH 24" LONG #4 DOWELS (CENTERED) AT 1'-6" oc (PORTION OF DOWEL IN SIDEWALK TO BE GREASED).
6. WHERE SIDEWALK IS ADJACENT TO CURB, BOLLARD OR OTHER HARD FEATURE, INSTALL 1/4" EXPANSION MATERIAL (FULL DEPTH OF SIDEWALK), BETWEEN FEATURE AND SIDEWALK.
7. COMPACT ALL FILL MATERIAL TO 95% MODIFIED PROCTOR.

SIDEWALK DETAIL

SCALE: NONE (7)



VERTICAL GRANITE CURB NOTES:

1. GRANITE CURBS SHALL BE INSTALLED IN ACCORDANCE WITH PROJECT AND STATE SPECIFICATIONS.
2. WHERE CURB IS ADJACENT TO ENTRY/EXIT DOOR PADS WITH FROST WALL FOUNDATIONS, CURB SHALL BE DOWELED TO PAD WITH 24" LONG #4 DOWELS (CENTERED) AT 1'-6"oc (PORTION OF DOWEL IN CURB TO BE GREASED).
3. WHERE CURB IS ADJACENT TO SIDEWALK, BOLLARD OR OTHER HARD FEATURE, BACKSIDE OF CURB SHALL BE SAW CUT. 1/4" EXPANSION MATERIAL (FULL DEPTH OF CURB), SHALL BE INSTALLED BETWEEN FEATURE AND CURB.

VERTICAL GRANITE CURB DETAIL

SCALE: NONE (8)

Stamp

No.	Description	Date

ENGINEERING VENTURES PC
208 Flynn Avenue, Suite 2A, Burlington, VT 05401 • 802-863-6225
85 Mechanic Street, Suite E2-3, Lebanon, NH 03766 • 603-442-9333
414 Union Street, Schenectady, NY 12305 • 518-630-9614
www.engineeringventures.com

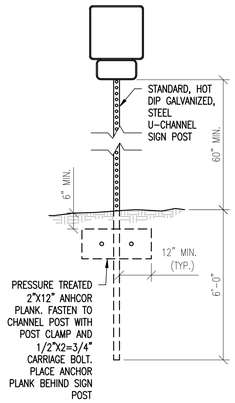
Town of Richmond
203 Bridge Street
Richmond, Vermont
(802) 434-2221

Sheet Title: Site Details 1 of 2

Project Title: RICHMOND TOWN CENTER
RICHMOND, VT

EV Project #	22305
Drawn By:	TB
Checked By:	KW
Scale:	As Noted
Date:	7/28/2023

C3.1



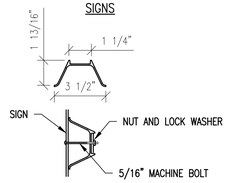
SIGN POST INSTALLATION

SIGN A

SIGN B

SIGN KEY:			
SIGN	MUTCD DESIGNATIONS	COMMON NAME	SIZE
A	D9-6	HANDICAPPED	24" x 24"
B	D9-6P	VAN ACCESSIBLE (PLAQUE)	18" x 9"

SIGNS

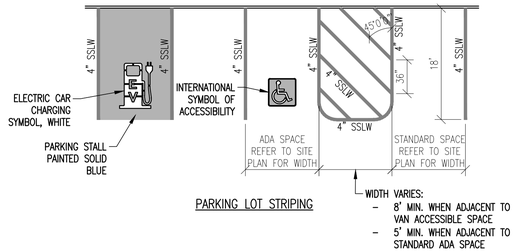


POST SECTION AND SIGN MOUNTING

SIGN AND POST DETAILS

SCALE: NONE

9



PARKING LOT STRIPING

PAVEMENT MARKINGS DETAIL

SCALE: NONE

10

EARTHWORK NOTES

1. PRIOR TO THE START OF WORK, A PRE-CONSTRUCTION MEETING WILL BE HELD WITH THE CONTRACTOR, OWNER, PROJECT ENGINEER AND TOWN DPW TO REVIEW PROCEDURES AND IDENTIFY RESPONSIBILITIES. 4 WEEKS NOTICE SHALL BE GIVEN TO THE TOWN PRIOR TO START OF CONSTRUCTION. UNLESS STATED OTHERWISE STATED, ALL MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH THE MOST RECENT VERSION OF THE VTRANS SPECIFICATIONS.

2. CLEARING AND GRUBBING- SITE TO BE RESTORED TO PRE-CONSTRUCTION CONDITIONS, INCLUDING DRIVEWAYS, STONE WALLS, AND GRASS AREAS. THE DRIVEWAY SUB-GRADE MATERIAL SHALL EXTEND ONE FOOT BEYOND THE EDGE OF PAVING.

3. COMPACTION OF ALL MATERIALS SHALL BE PERFORMED USING VIBRATORY ROLLERS AND WATER IN LIFTS OF NO GREATER THAN TWELVE INCHES. COMPACTION SHALL BE PERFORMED UNTIL THE REQUIRED DENSITY IS ACHIEVED. DENSITY SHALL BE DETERMINED BY ASTM D2922 AND SHALL NOT BE LESS THAN THE REQUIRED AMOUNT AS DETERMINED IN ACCORDANCE WITH ASTM D1557.

4. COMPACTION TESTING SHALL BE PERFORMED FOR EVERY LAYER OF MATERIAL PLACED AND FOR EVERY 2500 SQUARE FEET OF AREA.

5. PAVEMENT SHALL MEET THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AS PUBLISHED BY VTRANS.

6. PAVEMENT SHALL NOT BE INSTALLED WHEN THE OUTSIDE AIR TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT, NOR WHEN THE ROAD BASE TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT. PAVEMENT SHALL NOT FALL BELOW 185 DEGREES FAHRENHEIT PRIOR TO THE COMPLETION OF ROLLING. PAVEMENT SHALL NOT BE INSTALLED WHEN THE SUBGRADE IS FROZEN OR THE GRADES ARE INCORRECT.

7. ALL REMAINING DISTURBED AREAS SHALL BE FERTILIZED AND SEEDED IN ACCORDANCE WITH APPLICABLE STATE SPECIFICATIONS FOR EROSION CONTROL.

8. THE SEEDING OF 10% OR GREATER SLOPES SHALL REQUIRE THE USE OF EROSION CONTROL MATTING.

9. ALL EARTHWORK MATERIALS SHALL BE OBTAINED FROM APPROVED SOURCES. THEY SHALL CONSIST OF SATISFACTORILY GRADED, FREE DRAINING MATERIAL, REASONABLY FREE FROM LOAM, SILT, CLAY AND ORGANIC MATERIAL. EARTHWORK MATERIALS SHALL MEET THE REQUIREMENTS OF THE FOLLOWING TABLES:

A. SAND BLANKET/BEDDING:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
2 INCHES	100
1-1/2 INCHES	90 - 100
1/2 INCH	70 - 100
NO. 4	60 - 100
NO. 100	0 - 20
NO. 200	0 - 8

B. 3/4" CRUSHED STONE:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
1 INCH	100
3/4 INCHES	90 - 100
3/8 INCH	20 - 55
NO. 4	0 - 10
NO. 8	0 - 5

C. 1 1/2" CRUSHED STONE:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
1 3/4 INCH	100
1 1/2 INCH	90 - 100
1 INCH	20 - 55
3/4 INCH	0 - 15
3/8 INCH	0 - 5

D. COARSE CRUSHED GRAVEL:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
4 INCHES	95 - 100
NO. 4	25 - 50
NO. 100	0 - 12
NO. 200	0 - 6

E. FINE CRUSHED GRAVEL:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
2 INCHES	100
1-8 INCHES	90 - 100
NO. 4	30 - 60
NO. 100	0 - 12
NO. 200	0 - 6

F. GRANULAR BACKFILL:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
3 INCHES	100
2 1/2 INCHES	90 - 100
NO. 4	45 - 75
NO. 100	0 - 12
NO. 200	0 - 6

G. TYPE I STONE FOR STONE FILL

THE LONGEST DIMENSION OF THE STONE SHALL VARY FROM 1 INCH TO 12 INCHES, AND AT LEAST 50 PERCENT OF THE VOLUME OF THE STONE IN PLACE SHALL HAVE A LEAST DIMENSION OF FOUR INCHES.

H. TYPE II STONE FOR STONE FILL

THE LONGEST DIMENSION OF THE STONE SHALL VARY FROM TWO INCHES TO 36 INCHES, AND AT LEAST 50 PERCENT OF THE VOLUME OF THE STONE IN PLACE SHALL HAVE A LEAST DIMENSION OF 12 INCHES.

I. TOPSOIL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE SPECIFICALLY STATED IN THE CONTRACT DOCUMENTS:

1. THE pH OF THE MATERIAL SHALL BE BETWEEN 5.5 AND 7.6.
2. THE ORGANIC CONTENT SHALL BE NOT LESS THAN 2% NOR MORE THAN 20%.
3. GRADATION:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
2 INCHES	100
1 INCH	85 - 100
1/4 INCH	65 - 100
NO. 200	20 - 80

THE CONTRACTOR MAY AMEND NATURAL TOPSOIL WITH APPROVED MATERIALS AND BY APPROVED METHODS TO MEET THE ABOVE SPECIFICATIONS.

J. DRAINAGE AGGREGATE:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
1 INCH	100
3/4 INCH	90 - 100
3/8 INCH	20 - 55
NO. 4	60 - 100
NO. 100	0 - 10
NO. 200	0 -5

K. AGGREGATE FOR EROSION PREVENTION AND SEDIMENT CONTROL

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
4 INCH	80 - 100
3 INCH	40 - 60
2 INCH	0 - 20

L. DENSE GRADED CRUSHED STONE FOR SUBBASE

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
3 1/2 INCH	100
3 INCH	90 - 100
2 INCH	75 - 100
1 INCH	50 - 80
1/2" INCH	30 - 60
NO. 4	15 - 40
NO. 200	0 - 6

M. 2" CRUSHED STONE

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
3 INCH	100
2 INCH	75 - 100
1 INCH	0 - 10
1/4" INCH	0 - 5

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No.	Description	Date

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Sheet Title: Site Details 2 of 2

Project Title: RICHMOND TOWN CENTER
RICHMOND, VT

EV Project #	22305
Drawn By:	TB
Checked By:	KW
Scale:	As Noted
Date:	7/28/2023

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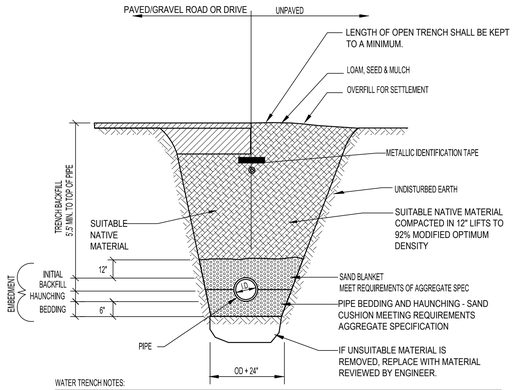


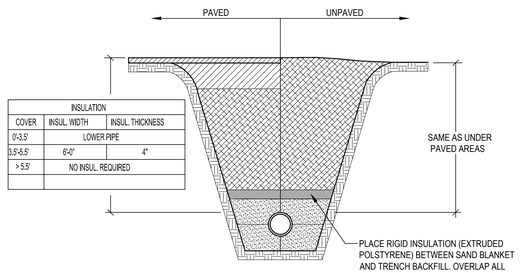
WATER TRENCH NOTES:

1. BEDDING TO PROVIDE A FIRM, STABLE, CONTINUOUS AND UNIFORM SUPPORT FOR THE FULL LENGTH OF PIPE.
2. PROVIDE 6' MINIMUM COVER OVER WATER PIPE.
3. INSTALL WATER PIPE IN ACCORDANCE WITH AWWA STANDARD C600.
4. COMPACT SOILS IN ACCORDANCE WITH SPECIFICATION
5. BACKFILL SHALL BE OF A SUITABLE NATIVE MATERIAL REMOVED FROM EXCAVATION EXCEPT WHERE OTHER MATERIAL IS SPECIFIED. DEBRIS, FROZEN MATERIAL, LARGE CLODS OR STONES, ORGANIC MATTER OR OTHER UNSTABLE MATERIAL SHALL NOT BE USED FOR BACKFILL.

TYPICAL WATER TRENCH DETAIL

SCALE: NONE

1



INSULATION		
COVER	INSUL. WIDTH	INSUL. THICKNESS
0'-3.5'	LOWER PIPE	
3.5'-5.5'	6'-0"	4"
> 5.5'	NO INSUL. REQUIRED	

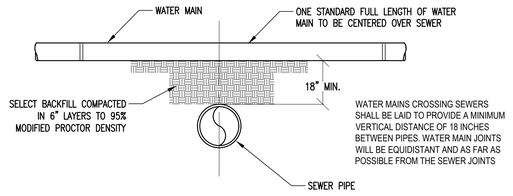
TRENCH NOTES:

1. REFER TO APPLICABLE TRENCH DETAIL FOR SPECIFIC BACKFILL INFORMATION.

INSULATION OVER SHALLOW WATER LINE DETAIL

SCALE: NONE

2



WATER MAIN ABOVE SEWER

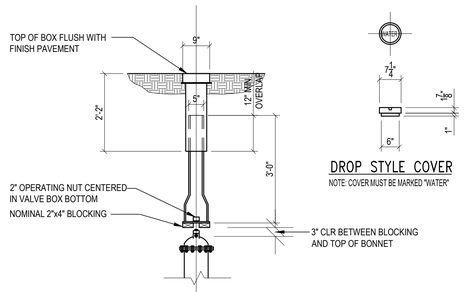
SEPARATION NOTES:

1. WATER MAIN RELATIONS TO SEWER SHALL BE IN ACCORDANCE WITH THE "RECOMMENDED STANDARDS FOR WATER WORKS" SO-CALLED TEN STATE STANDARDS.
2. WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWERS. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. IF THIS DISTANCE CANNOT BE OBTAINED, THEN THE PIPES SHALL BE INSTALLED IN A SEPARATE TRENCH AT AN ELEVATION SO THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER.
3. WHEN IT IS IMPOSSIBLE TO MAINTAIN 18" VERTICAL SEPARATION OR WHERE THE SEWER MUST BE LAID ABOVE THE WATER MAIN; 1) THE CROSSING SHALL BE ARRANGED SO THAT ONE FULL LENGTH OF SEWER IS CENTERED ABOVE OR BELOW THE WATER LINE WITH SEWER JOINTS AS FAR AS POSSIBLE FROM WATER JOINTS; 2) THE SEWER PIPE MUST BE CONSTRUCTED TO WATER MAIN STANDARDS FOR A MINIMUM DISTANCE OF 20 FEET EITHER SIDE OF THE CROSSING OR A TOTAL OF THREE PIPE LENGTHS, WHICH EVER IS GREATER; 3) THE SECTION CONSTRUCTED TO WATER MAIN STANDARDS MUST BE PRESSURE TESTED TO MAINTAIN 50 psi FOR 15 MINUTES WITHOUT LEAKAGE PRIOR TO BACKFILLING BEYOND ONE FOOT ABOVE THE PIPE TO ASSURE WATER TIGHTNESS.

SANITARY SEWER/WATER LINE CROSSING

SCALE: NONE

4



BOTTOM DETAIL

DROP STYLE COVER

NOTE: COVER MUST BE MARKED "WATER"

VALVE BOX NOTES:

1. ALL MATERIALS AND INSTALLATION PROCEDURES WILL CONFORM TO TECHNICAL SPECIFICATIONS.
2. ALL PIPES SHOULD HAVE A MINIMUM DEPTH OF 5.5' FROM TOP OF PIPE TO FINISH GRADE.
3. ALL GATE VALVES SHALL BE OPEN RIGHT.

TYPICAL VALVE BOX DETAIL

SCALE: NONE

5

WATER NOTES

WATER MAINS
1. PERFORM A HYDROSTATIC AND LEAKAGE TEST ACCORDING TO AWWA C600(LATEST REVISION) ON EACH PIPE LINE.
2. THE ENGINEER SHALL BE GIVEN AT LEAST 48 HOURS NOTICE BEFORE THE TEST IS CONDUCTED. TEST MUST BE WITNESSED BY THE ENGINEER.
3. SPECIFIED TEST PRESSURE IS A MINIMUM OF 200 PSI OR 1.5X THE WORKING PRESSURE, WHICHEVER IS GREATER, AND PRESSURE DURING TEST SHALL NOT VARY BY MORE THAN 5 PSI. SEE THE CURRENT EDITION OF AWWA C600 FOR ALLOWABLE LEAKAGE.

EXISTING UTILITIES
1. LOCATION OF UTILITY INSTALLATIONS AND UNDERGROUND STRUCTURES ARE SHOWN AS APPROXIMATE ON THE CONTRACT DOCUMENTS SOME UTILITIES MAY NOT BE SHOWN.
2. ALL UTILITIES SHALL BE LOCATED BY THE CONTRACTOR PRIOR TO BEGINNING CONSTRUCTION.
3. EXISTING UTILITIES SHALL BE PROTECTED AND SUPPORTED DURING CONSTRUCTION.
4. ALL WATER, GAS, CABLE, TELEPHONE, ELECTRIC, SEWER, AND OTHER UTILITIES FOUND TO INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED IN A MANNER ACCEPTABLE TO THE ENGINEER, PRIOR TO COMMENCING DEMOLITION.

PIPE BEDDING
1. SAND BLANKET/BEDDING SHALL MEET REQUIREMENTS OF EARTHWORK SPECIFICATIONS
2. TRENCH FINAL BACKFILL MATERIAL - MATERIAL WILL EXCLUDE PIECES OF PAVEMENT, ORGANIC MATTER, TOPSOIL, ALL WET OR SOFT MUCK, PEAT, CLAY, LARGE ROCKS(GREATER THAN 12" DIMENSION), OR ANY MATERIAL DETERMINED BY THE ENGINEER THAT WILL NOT BE SUITABLE.

PIPE TRENCH BACKFILL
1. MEET EARTHWORK SPECIFICATIONS FOR PLACEMENT AND COMPACTION.

DUCTILE IRON PIPE (WATER)
1. D.I. PIPE CONFORM TO AWWA/ANSI C151.
2. LININGS AND LINING REPAIR TO AWWA/ANSI C104.
3. JOINTS CONFORM TO AWWA/ANSI C 111 AND C115.
4. FITTINGS CONFORM TO AWWA/ANSI C110, C153, C105.
5. KEEP INSIDE OF PIPE CLEAN AND FREE OF DEBRIS.
6. REJECT ANY PIPE WHICH IS DROPPED DURING HANDLING.
7. MECHANICAL JOINT GLANDS SHALL BE "MEGA-LUG" RETAINER GLANDS.
8. DUCTILE IRON FITTINGS: ANSI A21.10, 350 PSI PRESSURE RATING.
9. JOINTS: MECHANICAL, PUSH-ON, AND FLANGED:
   A. RUBBER GASKET JOINT, ANSI A21.11
10. GASKETS:
   A: MECHANICAL AND PUSH-ON JOINTS: ANSI A21.11
   B. FLANGED JOINT: 1/8" THICK RING OR FULL FACED RUBBER, ANSI A21.15.
11. BOLTS/NUTS
   A. MECHANICAL JOINT: ANSI A21.11
   B. FLANGED JOINT: ANSI A21.15
12. LININGS:
   A. INTERIOR- CEMENT LINED, DOUBLE THICKNESS BITUMINOUS SEAL
   B. EXTERIOR-BITUMINOUS COATING APPROX. 1 MIL THICK, ANSI A21.51, ANSI A21.15, AND ANSI A21.10.
   C. FLANGE MACHINED FACE COATING: ANSI A21.15.
13. LAYING PIPE
   A. PIPE SHALL BE LAID WITH BELL ENDS FACING IN THE DIRECTION OF LAYING.
   B. WHERE PIPE IS LAID ON A SLOPE OF 5% OR MORE, THE LAYING SHALL START AT THE LOW END AND PROCEED UPHILL, WITH THE BELL ENDS UPGRADE.
   C. A WATERTIGHT PLUG SHALL BE PLACED IN THE OPEN ENDS OF INSTALLED PIPE WHEN PIPE LAYING IS NOT IN PROGRESS.
   D. MAX. PERMISSIBLE DEFLECTION IS 75% OF AWWA SPEC. C600.

CHLORINATION OF DOMESTIC WATER LINES
1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 48 HOURS IN ADVANCE OF BEGINNING ANY DISINFECTION OF WATER MAINS
2. CONTRACTOR SHALL BE RESPONSIBLE FOR BACTERIOLOGICAL TESTING AS REQUIRED BY THIS SPECIFICATION AND REFERENCE STANDARDS MENTIONED.
3. DISINFECT ALL NEW PIPELINE SYSTEMS IN ACCORDANCE WITH AWWA C651, INCLUDING:
   A. METHOD OF CHLORINE APPLICATION. USE CONTINUOUS FEED METHOD OR SLUG METHOD (TABLET METHOD IS NOT ACCEPTABLE).
   B. FORM OF CHLORINE UTILIZED.
   C. FINAL FLUSHING.
   D. BACTERIOLOGICAL TESTING
   E. REPETITION OF PROCEDURE

GATE VALVES:
1. RESILIENT SEAT GATE VALVES BY KENNEDY "KEN-SEAL" OR EQUAL.
2. IRON BODY GATE VALVES TO MEET AWWA C-509-87.
3. STEM CONSTRUCTION: NON-RISING.
4. STEM SEALS: DOUBLE O-RING.
5. GATE: CAST IRON RESILIENT WEDGE WITH SYNTHETIC ELASTOMER COATING, AND SHALL BE EPOXY COATED (FUSION BONDED) INSIDE AND OUT.
6. BONNET HARDWARE SHALL MEET ASTM A307, CADMIUM PLATED.
7. OUTLET CONNECTION: STANDARD MECHANICAL JOINT
8. OPERATION: OPEN COUNTERCLOCKWISE.

TAPPING SLEEVES AND VALVES

TAPPING VALVES
1. TAPPING VALVES TO MEET ANSI/AWWA C509-87, STANDARD FOR RESILIENT SEATED GATE VALVES.
2. VALVES SHALL HAVE A MINIMUM WORKING PRESSURE OF 150 PSI.
3. VALVES SHALL OPEN COUNTERCLOCKWISE.
4. INLET FLANGES SHALL BE CLASS 125, ANSI B16.1, OR ANSI/AWWA C110/A21.10.
5. OUTLET CONNECTION: STANDARDIZED MECHANICAL JOINT.
6. STEM SEALS: O RING.
7. STEM CONSTRUCTION: NON-RISING.
8. SEATING: PARALLEL SEAT
9. END CONNECTIONS: MECHANICAL ON RUN, FLANGED ON BRANCH.
10. BURIED TAPPING VALVES SHALL BE PROVIDED WITH A 2 INCH SQUARE WRENCH NUT AND CAST IRON VALVE BOX. IF DEPTH FROM GRADE TO TOP OF VALVE OPERATING NUT IS GREATER THAN 6'-0 , A VALVE STEM RISER MADE OF HIGH STRENGTH STEEL SHALL BE PROVIDED. DEPTH FROM VALVE STEM RISER NUT TO GRADE WILL BE 4 TO 6 FEET.

TAPPING SLEEVES
1. AWWA C509, LATEST REVISION.
2. AWWA C207, CLASS D, MAX. WORKING PRESSURE OF 150 PSI.
3. SLEEVES: SPLIT SLEEVES OF CAST IRON OR DUCTILE IRON.
4. MECHANICAL JOINT ENDS WITH END AND GASKET SEALS.
5. BOLTS AND NUTS, MECHANICAL JOINTS: HIGH STRENGTH CAST IRON OR HIGH STRENGTH LOW ALLOY STEEL, ANSI/AWWA C111/A21.11-90.
6. BOLTS AND NUTS, FLANGED JOINTS: HIGH STRENGTH, LOW CARBON STEEL CONFORMING TO ANSI/AWWA C110/A21.10-87, APPENDIX
7. COAT ALL NUTS AND BOLTS WITH A RUST RESISTANT LUBRICANT.
8. ALL BOLTS AND NUTS USED WITH PIPE SLEEVES SHALL BE BRUSH COATED HEAVILY AFTER FINAL TIGHTENING WITH BITUMASTIC COLD-APPLIED MATERIAL TO THOROUGHLY COVER ALL EXPOSED SURFACES OF BOLTS AND NUTS.

VALVE BOXES
1. ACCEPTABLE MANUFACTURER'S: MUELLER, CLOW, OR EQUAL.
2. CLOW F-2452 SLIDING TYPE, TWO PIECE, OR EQUAL.
3. 5¼ INCH SHAFT.
4. SIZE 664-A (40-60 INCH OVERALL LENGTH).
5. CAST IRON.
6. CLOW F-2490 LIDS OR EQUAL.
7. THE WORD "WATER" TO BE CAST INTO TOP OF COVERS, AND ARROW SHOWING DIRECTION OF OPENING.

CONCRETE
1. CONCRETE SHALL HAVE:
   A. MIN. COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS
   B. AIR ENTRAINMENT OF 4% TO 6% BY VOLUME.
   C. WATER CEMENT RATIO OF 0.49 LBS. WATER/CEMENT.
   D. SLUMP OF 2 TO 4 INCHES.
2. CONCRETE SHALL NOT BE PLACED WHEN AMBIENT TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT OR MORE THAN 90 DEGREES FAHRENHEIT.
3. CONCRETE SHALL NOT BE DROPPED MORE THAN SIX FEET INSIDE A FORM.
4. MAINTAIN TEMPERATURE OF CONCRETE SURFACE AT MINIMUM 50 DEGREES FAHRENHEIT FOR 72 HOURS AFTER PLACING CONCRETE. PREHEAT ALL ENCLOSURES FOR A MINIMUM OF 2 HOURS TO PROVIDE A MIN. SURFACE TEMPERATURE OF 45 DEGREES FAHRENHEIT.
5. ALLOW TO SET AND CURE ALL THRUST BLOCKS, CONCRETE SUPPORTS, AND ANCHORS A MINIMUM OF 24 HOURS BEFORE BACKFILLING.
6. COMPLETELY CURE AND SET CONCRETE BEFORE ANY HYDROSTATIC OR LEAKAGE TESTING OF PIPELINE SYSTEMS.
7. NONSHRINK GROUT SHALL BE HALCO TRADEMARK, AS MANUFACTURED BY LEHN & FINK INDUSTRIAL PRODUCTS.
8. DO NOT PLACE ANY MORTAR OR GROUT WHEN AMBIENT TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT.
9. MORTAR FOR MANHOLES SHALL CONSIST OF THE FOLLOWING:
   A. CEMENT-TYPE II, ASTM C150.
   B. HYDRATED LIME-TYPE N, ASTM C207.
   C. SAND- ASTM C 33, FINE AGGREGATES FOR CONCRETE.
   D. WATER-CLEAN, SUITABLE FOR DRINKING.
10. MIX(BY VOLUME): 1 PART CEMENT, ½ PART LIME, 4½ PARTS SAND.

GENERAL
1. CONTRACTOR SHALL NOTIFY BURLINGTON DEPARTMENT OF PUBLIC WORKS AT LEAST 48 HOURS BEFORE BEGINNING WATER LINE WORK..
2. "AS BUILT" DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR AT THE TIME OF COMPLETION OF THE SYSTEM.

Stamp

No.	Description	Date

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Sheet Title: Water Details

Project Title: RICHMOND TOWN CENTER
RICHMOND, VT

EV Project #	22305
Drawn By:	TB
Checked By:	KW
Scale:	As Noted
Date:	7/28/2023

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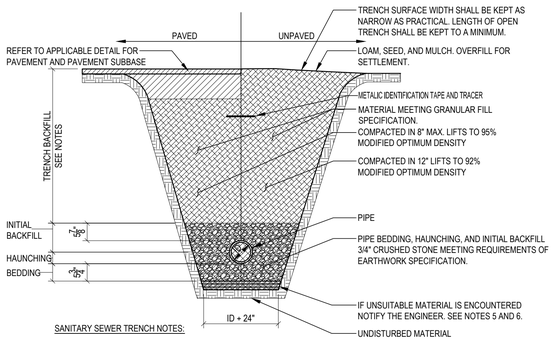


SANITARY SEWER TRENCH NOTES:

1. UNLESS OTHERWISE NOTED, ASSUME CLASS "C" SOILS. PERFORM ALL EXCAVATIONS TO OSHA REQUIREMENTS.
2. BEDDING TO PROVIDE A FIRM, STABLE, CONTINUOUS AND UNIFORM SUPPORT FOR FULL LENGTH OF PIPE.
3. FOR BUILDING SEWERS THE MINIMUM DEPTH TO THE TOP OF THE PIPE SHALL BE 4'-0". WHERE BUILDING SEWERS ARE TO BE INSTALLED AT A DEPTH LESS THAN 3'-0" UNDER DRIVEWAYS, EXTRA HEAVY CAST IRON OR OTHER HIGH STRENGTH PIPE SHALL BE USED. OTHERWISE, REFER TO INSULATION OVER SHALLOW SEWER LINE DETAIL.
4. FOR SEWER COLLECTION SYSTEMS THE MINIMUM DEPTH TO THE TOP OF THE PIPE SHALL BE 5'-0". THIS DEPTH SHALL BE INCREASED TO 6'-0" IN AREAS TO BE PLOWED DURING THE WINTER MONTHS. OTHERWISE, REFER TO INSULATION OVER SHALLOW SEWER LINE DETAIL.
5. BACKFILL SHALL BE OF A SUITABLE NATIVE MATERIAL REMOVED FROM EXCAVATION EXCEPT WHERE OTHER MATERIAL IS SPECIFIED. DEBRIS, FROZEN MATERIAL, LARGE CLODS OR STONES, ORGANIC MATTER OR OTHER UNSTABLE MATERIAL SHALL NOT BE USED FOR BACKFILL.
6. LEDGE, ROCK, BOULDERS AND LARGE STONES SHALL BE REMOVED TO PROVIDE A MINIMUM CLEARANCE OF FOUR INCHES BELOW AND ON EACH SIDE OF ALL PIPES.
7. SEWERS ON 20 PERCENT SLOPES OR GREATER SHALL BE ANCHORED SECURELY WITH CONCRETE ANCHORS OR EQUIVALENT, SPACED AS FOLLOWS:
   A. NOT OVER 36 FEET CENTER TO CENTER ON GRADES 20 PERCENT AND UP TO 35 PERCENT
   B. NOT OVER 24 FEET CENTER TO CENTER ON GRADES 35 PERCENT AND UP TO 50 PERCENT
   C. NOT OVER 16 FEET CENTER TO CENTER ON GRADES 50 PERCENT AND OVER

SANITARY SEWER TRENCH DETAIL

1

SCALE: NONE

INSULATION IN PAVED AREAS:		
COVER	INSUL. WIDTH	INSUL. THICKNESS
0'-3'	LOWER DRAIN	
3'-4'	6'-0"	3"
4'-5'	4'-0"	2"
> 5'	NO INSUL. REQUIRED	

INSULATION IN UNPAVED AREAS:		
COVER	INSUL. WIDTH	INSUL. THICKNESS
0'-2'	LOWER DRAIN	
2'-3'	6'-0"	3"
3'-4'	4'-0"	2"
> 4'	NO INSUL. REQUIRED	

TRENCH NOTES:

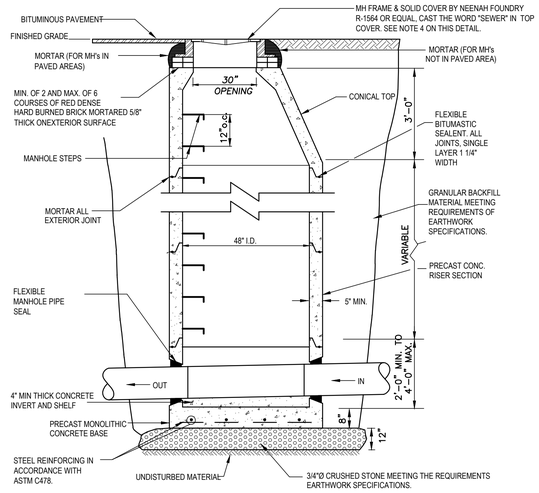
1. REFER TO APPLICABLE TRENCH DETAIL FOR SPECIFIC BACKFILL INFORMATION.

2. RIGID EXTRUDED POLYSTYRENE INSULATION SHALL CONFORM WITH ASTM C578 - STANDARD SPECIFICATION FOR RIGID CELLULAR POLYSTYRENE THERMAL INSULATION AND SHALL BE DOW STYROFOAM HIGH LOAD 40 OR EQUIVALENT.

INSULATION OVER SHALLOW SEWER LINE DETAIL

2

SCALE: NONE



MANHOLE NOTES

1. PROVIDE SMOOTH SWEEPING TRANSITIONS BETWEEN INVERTS OF INTERSECTING PIPE.

2. IF DEPTH OF MANHOLE IS 7 ft. OR LESS FROM RIM TO CENTERLINE INVERT, THEN A FLAT TOP WILL BE INSTALLED. IF DEPTH OF MANHOLE FROM RIM TO CENTERLINE INVERT IS MORE THAN 7 ft., THEN A CONICAL TOP WILL BE INSTALLED.

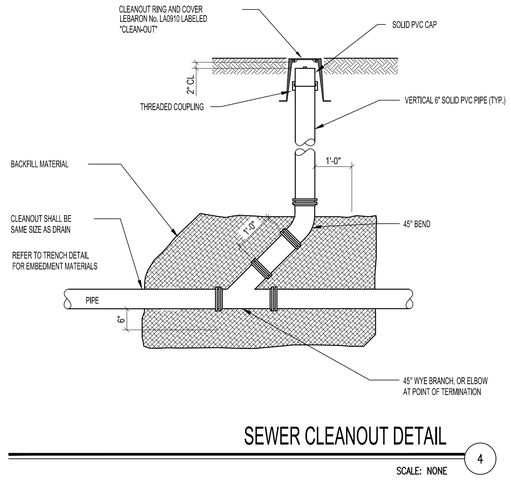
3. MANHOLE AND COVER SHALL BE DESIGNED FOR H20 LOADING.

4. FOR MANHOLES THAT ARE NOTED ON THE PLAN AS HAVING A BOLTABLE COVER PROVIDE A COVER THAT IS BOLTS TO THE FRAME WITH A MINIMUM OF (2) - 3/8" STAINLESS STEEL BOLTS.

MANHOLE DETAIL

3

SCALE: NONE



SEWER CLEANOUT DETAIL

4

SCALE: NONE

SEWER NOTES

CONTRACTOR SHALL CONFORM TO GUIDELINES DETAILED IN THE VERMONT STATE SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR READING AND FOLLOWING THE FULL COMPLETE EDITION PROVIDED BY THE STATE.

A. THE BUILDING SEWER SHALL BE CONSTRUCTED IN A MANNER WHICH WILL PREVENT LEAKING, BREAKING OR CLOGGING.

B. SIZING AND SLOPE: MINIMUM BUILDING SEWER SIZE IS 4 INCHES (UNLESS SHOWN ON THE PLAN) AND A MINIMUM SLOPE IS 1/8" PER FOOT.

C. CLEANOUTS: CLEANOUTS SHALL BE PROVIDED AT EACH HORIZONTAL CHANGE IN DIRECTION OF THE BUILDING SEWER GREATER THAN 45 DEGREES AND WHERE INDICATED ON THE DESIGN DRAWINGS. BUILDING SEWER CHANGES IN DIRECTION WHICH EXCEED 45 DEGREES SHOULD BE MADE WITH TWO 45 DEGREE ELLS OR LONG SWEEP FITTINGS. MANHOLES ARE ACCEPTABLE IN LIEU OF CLEANOUTS. WHERE BUILDING SEWERS ARE TO BE INSTALLED AT A DEPTH OF LESS THAN 3 FEET UNDER DRIVEWAYS ARE ANTICIPATED, EXTRA HEAVY CAST IRON PIPE SHALL BE USED.

D. LEAKAGE: BUILDING SEWERS SHALL MEET THE LEAKAGE STANDARDS PRESCRIBED IN THE STATE OF VERMONT SPECIFICATIONS (EPR- CHAPTER 1). SEE BELOW FOR MORE DETAIL.

E. SLOPE, VELOCITY: ALL GRAVITY SEWER LINES SHALL BE INSTALLED WITH NOT LESS THAN THE SLOPES SHOWN BELOW:

PIPE SIZE (INCHES)	SLOPE (FEET/100 FEET)
4"	2%
6"	1%
8"	0.4%

F. CHANGES IN PIPE SIZE: WHEN A SMALLER SEWER JOINS A LARGE ONE, THE INVERT OF THE LARGER SEWER SHALL BE LOWERED SUFFICIENTLY TO MAINTAIN THE SAME ENERGY GRADIENT.

G. MATERIAL: PVC SDR 35, ASTM D3034, WITH PUSH-ON GASKETED JOINTS. GASKETS SHALL CONFORM TO ASTM D3212. SEWER JOINTS SHALL BE CONSTRUCTED TO MINIMIZE INFILTRATION AND TO PREVENT THE ENTRANCE OF ROOTS INTO THE SYSTEM.

H. TRENCHING: LEDGE, ROCK, BOULDERS AND LARGE STONES SHALL BE REMOVED TO PROVIDE A MINIMUM CLEARANCE OF FOUR INCHES BELOW AND ON EACH SIDE OF ALL PIPES.

I. BEDDING: SEE TRENCH DETAIL DRAWING FOR MATERIALS. TRENCH BACKFILL SHALL BE OF A SUITABLE NATIVE MATERIAL FREE FROM DEBRIS, FROZEN MATERIAL, LARGE CLODS OR STONES, ORGANIC MATTER, OR OTHER UNSTABLE MATERIALS.

J. LEAKAGE TESTS: UPON COMPLETION OF SEWER LINE CONSTRUCTION, THE SEWER LINE SHALL BE TESTED IN ACCORDANCE WITH THE STATE OF VERMONT SPECIFICATIONS (EPR - CHAPTER 1, APPENDIX "A").

LEAKAGE TESTS FOR GRAVITY SEWERS

PERFORM A PRESSURIZED AIR TEST ON THE GRAVITY LINE IN ACCORDANCE WITH THE VERMONT ENVIRONMENTAL PROTECTION RULES ON EACH SECTION OF THE GRAVITY SEWER. THE ENGINEER SHALL BE GIVEN 72 HOURS NOTICE BEFORE THE TEST IS CONDUCTED. TEST MUST BE WITNESSED BY THE ENGINEER.

PLUG ALL OPENINGS IN THE TEST SECTION. ADD AIR UNTIL THE INTERNAL PRESSURE OF THE LINE IS RAISED TO APPROXIMATELY 4.0 POUNDS/SQUARE INCH (PSI) GREATER THAN THE AVERAGE PRESSURE OF ANY GROUND WATER. AFTER THIS PRESSURE IS REACHED, ALLOW THE PRESSURE TO STABILIZE. THE PRESSURE WILL NORMALLY DROP AS THE AIR TEMPERATURE STABILIZES. THIS USUALLY TAKES 2 TO 5 MINUTES DEPENDING ON THE PIPE SIZE. THE PRESSURE MAY BE REDUCED TO 3.5 PSI BEFORE STARTING THE TEST.

WHEN THE PRESSURE HAS STABILIZED AND IS AT OR ABOVE THE STARTING TEST PRESSURE OF 3.5 PSI ABOVE THE PIPE, START THE TEST. IF THE PRESSURE DROPS MORE THAN 1.0 PSI DURING THE TEST TIME, THE LINE IS PRESUMED TO HAVE FAILED THE TEST. IF A 1.0 PSI DROP DOES NOT OCCUR WITHIN THE TEST TIME, THE LINE HAS PASSED THE TEST. THE TEST TIME SHALL BE DERIVED FROM THE FOLLOWING TABLE. IF THE SECTION OF LINE TO BE TESTED INCLUDES MORE THAN ONE PIPE SIZE, CALCULATE THE TEST TIME FOR EACH SIZE AND ADD THE TEST TIMES TO ARRIVE AT THE TOTAL TEST TIME FOR THE SECTION.

PIPE SIZE (IN)	T (TIME) (MIN./100FT)
3	0.2
4	0.3
6	0.7
8	1.2

K. INSTALLATION: PIPE SHALL BE LAID WITH BELL ENDS FACING UPGRADE AND LAYING SHALL START AT THE DOWNGRADE END.

L. WATER LINE SEPARATION

a. HORIZONTAL SEPARATION: SEWERS SHALL BE LAID FLAT AT LEAST TEN FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE.

WHERE IMPOSSIBLE OR IMPRACTICABLE TO MAINTAIN THE TEN FOOT SEIWER/WATER PIPE HORIZONTAL SEPARATION, (DUE TO LEDGE, BOULDERS OR OTHER UNUSUAL CONDITIONS) THE WATER LINE MAY BE IN A SEPARATE TRENCH OR ON AN EARTH SHELF IN THE SEWER TRENCH PROVIDED THAT THE BOTTOM OF THE WATER LINE IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER. WHEREVER IMPOSSIBLE OR IMPRACTICAL TO MAINTAIN THE 18 INCH VERTICAL SEPARATION, THE SEWER LINE SHALL BE CONSTRUCTED USING PRESSURE PIPE TO NORMAL WATER LINE STANDARDS AND PRESSURE TESTED TO 50 PSI FOR 15 MINUTE PRIOR TO BACKFILLING.

b. CROSSINGS: SEWERS CROSSING WATER MAINS SHALL BE LAID BENEATH THE WATER MAIN WITH AT LEAST 18 INCHES VERTICAL CLEARANCE BETWEEN THE OUTSIDE OF THE SEWER AND THE OUTSIDE OF THE WATER MAIN. WHEN IT IS IMPOSSIBLE TO MAINTAIN THE 18 INCH VERTICAL SEPARATION;

1.) THE CROSSING SHALL BE ARRANGED SO THAT ONE FULL LENGTH OF SEWER IS CENTERED ABOVE OR BELOW THE WATER LINE WITH SEWER JOINTS AS FAR AWAY AS POSSIBLE FROM WATER JOINTS;
2.) THE SEWER PIPE MUST BE CONSTRUCTED TO WATER MAIN STANDARDS FOR A MINIMUM DISTANCE OF 20 FEET EITHER SIDE OF THE CROSSING OR A TOTAL OF THREE PIPE LENGTHS, WHICHEVER IS GREATER;
3.) THE SECTION CONSTRUCTED TO WATER MAIN STANDARDS MUST BE PRESSURE TESTED TO MAINTAIN 50 PSI FOR 15 MINUTES WITHOUT LEAKAGE PRIOR TO BACKFILLING BEYOND ONE FOOT ABOVE THE PIPE TO ASSURE WATER TIGHTNESS;
4.) WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.

M. MANHOLES

a. DIAMETER: THE MINIMUM DIAMETER OF MANHOLES SHALL BE 48 INCHES; LARGE DIAMETERS ARE PREFERRED FOR CONNECTION TO LARGE DIAMETER SEWERS. A MINIMUM ACCESS DIAMETER OF 24 INCHES SHALL BE PROVIDED.
b. FLOW CHANNEL: FLOW CHANNELS SHALL BE PROVIDED IN THE BASE OF ALL MANHOLES AND THE FLOW CHANNEL THROUGH MANHOLES SHOULD BE MADE TO CONFORM IN SHAPE AND SLOPE TO THAT OF THE SEWERS.
c. MANHOLES SHALL BE OF THE PRE-CAST CONCRETE OR POUR-IN PLACE CONCRETE TYPE. MANHOLES SHALL BE WATERPROOFED ON THE EXTERIOR.
d. INLET AND OUTLET PIPES SHALL BE JOINED TO THE MANHOLE WITH A RUBBER-GASKETED FLEXIBLE WATERTIGHT CONNECTION THAT ALLOWS DIFFERENTIAL SETTLEMENT OF THE PIPE AND MANHOLE WALL TO TAKE PLACE.
e. ALL MANHOLES SHALL BE TESTED FOR LEAKAGE. LEAKAGE TESTING OF GRAVITY SEWERS UTILIZING THE WATER TESTING PROCEDURES TAKES INTO ACCOUNT THE LEAKAGE FROM ONE MANHOLE IN THE TEST SECTION. OTHERWISE, MANHOLES SHALL BE TESTED FOR LEAKAGE IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:

AFTER THE MANHOLE HAS BEEN ASSEMBLED IN PLACE, ALL LIFTING HOLES AND EXTERIOR JOINTS SHALL BE FILLED WITH AND POINTED WITH AN APPROVED NON-SHRINKING MORTAR. ALL PIPES AND OTHER OPENINGS INTO THE MANHOLE SHALL BE SUITABLY PLUGGED AND THE PLUGS PLACED TO PREVENT BLOWOUT.

EACH MANHOLE SHALL BE CHECKED FOR INFILTRATION BY FILLING WITH WATER TO THE TOP OF THE CONE SECTION. A STABILIZATION PERIOD OF ONE HOUR SHALL BE PROVIDED TO ALLOW FOR ABSORPTION. AT THE END OF THIS PERIOD, THE MANHOLE SHALL BE REFILLED TO THE TOP OF THE CONE, IF NECESSARY, AND THE MEASURING TIME OF AT LEAST SIX HOURS BEGUN. AT THE END OF THE TEST PERIOD, THE MANHOLE SHALL BE REFILLED TO THE TOP OF THE CONE MEASURING THE VOLUME OF WATER ADDED. THIS AMOUNT SHALL BE CONVERTED TO A 24 HOUR RATE AND THE LEAKAGE DETERMINED ON THE BASIS OF DEPTH. THE LEAKAGE FOR EACH MANHOLE SHALL NOT EXCEED ONE GALLON PER VERTICAL FOOT FOR A 24 HOUR PERIOD FOR EXFILTRATION AND THERE SHALL BE NO VISIBLE INFILTRATION. IF AN AIR TEST IF PERFORMED ON THE MANHOLE, INSTEAD OF THE WATER TEST, THE MANHOLE SHALL REMAIN UN-BACKFILLED DOWN TO THE SEWER LINE INVERTS DURING THE AIR TEST.

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No.	Description	Date

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203 Bridge Street
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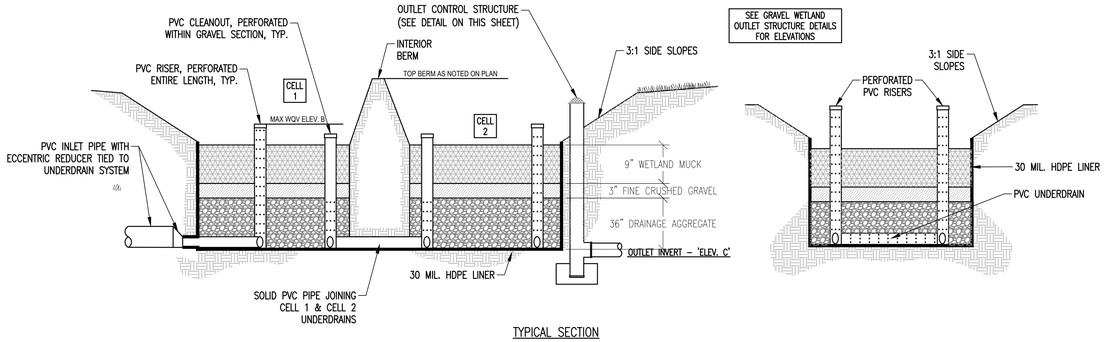
Sheet Title: Sewer Details

Project Title: RICHMOND TOWN CENTER
RICHMOND, VT

EV Project #	22305
Drawn By:	TB
Checked By:	KW
Scale:	As Noted
Date:	7/28/2023

C3.4



TYPICAL SECTION

NOTES:
1. FOR TREATMENT AREA ELEVATIONS, REFER TO GRAVEL WETLAND OUTLET STRUCTURE DETAIL ON THIS SHEET.
2. REFER TO LANDSCAPING PLAN FOR PLAN SPECIES, PLANT LOCATIONS, SOURCES OF PLANT MATERIAL AND ANY REQUIRED SOIL AMENDMENTS.
3. NO WOODY VEGETATION GREATER THAN 2-INCHES IN DIAMETER SHALL BE PLANTED OR ALLOWED TO GROW ON THE DAM, WITHIN 15-FEET OF THE DAM OR THE TOE OF EMBANKMENT, OR WITHIN 25-FEET OF A PRINCIPAL SPILLWAY OUTLET.

GRAVEL WETLAND SOIL SPECIFICATION

1. WETLAND SOIL SHALL BE FINE-GRAINED, WORKABLE SOIL, FREE OF REFUSE, ROOTS, STONES, BRUSH, WEEDS, HAZARDOUS WASTES, OR OTHER MATERIAL THAT WOULD BE DETRIMENTAL TO THE PROPER DEVELOPMENT OF PLANT GROWTH. THIS MATERIAL IS TO BE BLENDED FROM GRANULAR AND ORGANIC MATERIALS AS INDICATED BELOW. WETLAND SOIL SHALL MEET THE REQUIREMENTS AS INDICATED BELOW. ANY BLENDED MATERIAL THAT IS STOCKPILED ON SITE SHALL BE LOCATED HIGH AND DRY, PROTECTED FROM PRECIPITATION, AND PREVENTED FROM MINGLING WITH STORMWATER RUNOFF. THE PROPOSED PARTICLE SIZE DISTRIBUTION (PSD) FOR WETLAND SOIL IS PROVIDED BELOW AND REFLECTS A POORLY DRAINED SOIL WITH A MEDIAN PARTICLE SIZE (D50) OF 0.15 MM AND IS A CLAY OR SILT LOAM IN THE USDA SOIL TEXTURAL TRIANGLE. THIS WILL ALLOW FOR POTENTIAL TO EMPLOY APPROPRIATE ONSITE EXCAVATED MATERIALS INTO SELECT SOIL MIXES. ONSITE MATERIALS SHOULD BE EVALUATED BY THE ENGINEER TO ENSURE APPLICABILITY.
2. THE PLACEMENT OF WETLAND SOIL SHALL OCCUR SUCH THAT THE WETLAND PLANTINGS CAN BE INSTALLED IMMEDIATELY THEREAFTER, OR AS SOON AS PRACTICABLE, AS APPROVED BY THE ENGINEER AND LANDSCAPE ARCHITECT.
3. WETLAND SOIL IN AN UNWORKABLE CONDITION DUE TO EXCESSIVE MOISTURE, FROST OR OTHER CONDITIONS SHALL NOT BE PLACED UNTIL IT IS SUITABLE FOR SPREADING. WETLAND SOIL SHALL BE PLACED ON THE DESIGNATED AREA AND SPREAD TO THE SPECIFIED THICKNESS. AFTER THE WETLAND SOIL IS SPREAD, ALL LARGE STIFF CLODS, ROCKS, ROOTS AND OTHER FOREIGN MATTER SHALL BE CLEARED AND DISPOSED OF BY THE CONTRACTOR SO THAT THE FINISHED SURFACE IS READY FOR PLANTING.

A. GRANULAR SOIL SHALL BE GUARANTEED CLEAN FILL MATERIAL OBTAINED FROM A COMMERCIAL SAND AND GRAVEL PIT, NOT ORIGINATING FROM RECONSTITUTED OR RECYCLED PAVEMENT MATERIALS. THE GRANULAR SOIL PORTION SHALL CONSTITUTE 80% – 85% OF THE MIXTURE BY VOLUME, AND SHALL HAVE THE FOLLOWING GRADATION:

SIEVE SIZE	PERCENT PASSING BY WEIGHT
0.5	100 ±10.0
NO. 10	90–75 ±5.0
NO. 100	40–50 ±5.0
NO. 200	25–35 ±5.0

B. THE ORGANIC PORTION SHALL CONSTITUTE 15%–20% OF THE MIXTURE, AND BE COMPRISED OF WELL PULVERIZED AND COMPOSTED LEAF MULCH.
C. THE SURFACE INFILTRATION RATES OF THE GRAVEL WETLAND SOIL SHOULD BE SIMILAR TO A LOW HYDRAULIC CONDUCTIVITY WETLAND SOIL (0.1–0.01 FT/DAY = 3.5x10−5 CM/SEC TO 3.5x10−6 CM/SEC)
D. SALINITY (ELECTRICAL CONDUCTIVITY) SHALL BE LESS THAN 0.1 S/m AS DETERMINED BY A 1:2 (BY VOLUME) SOIL TO WATER MIX. SALINITY TEST SAMPLES SHALL NOT BE OVEN DRIED.
E. THE pH OF THE WETLAND SOIL SHALL BE NOT LESS THAN 6.0 OR GREATER THAN 7.0.

GRAVEL WETLAND SOIL PHOSPHORUS TESTING REQUIREMENTS

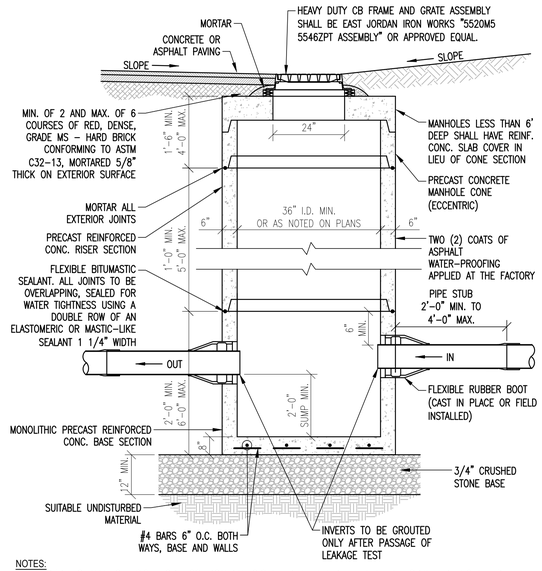
1. WETLAND MUCK FINAL MIXES MUST HAVE A PHOSPHORUS SATURATION RATIO (PSR) LESS THAN OR EQUAL TO 0.10. PSR IS TO BE DETERMINED USING THE FOLLOWING PROTOCOL:
   1.1. SAMPLES ARE TO BE AIR DRIED AND SIEVED THROUGH 2 MM PRIOR TO TESTING
   1.2. AIR-DRIED, SIEVED SOIL SAMPLES ARE TO THEN BE EXTRACTED WITH THE MEHLICH-3 SOLUTION (0.2M CH3COOH + 0.25 M NH4NO3 + 0.015 M NH4F + 0.013 M HNO3 + 0.001 M EDTA) BY SHAKING A SOIL–SOLUTION SUSPENSION FOR 5 MINUTES AT A 1:10 RATIO (SOIL MASS IN GRAMS: SOLUTION VOLUME IN ML), FOLLOWED BY FILTERING TO REMOVE PARTICLES (PORE SIZE OF 2 MM IS RECOMMENDED, MAX PORE SIZE = 8 MM).
   1.3. EXTRACTS FROM THE MEHLICH-3 PROCEDURE ARE TO BE ANALYZED FOR P, FE, AND AL BY ICP–OES. THE PHOSPHORUS SATURATION RATIO (PSR) IS THEN CALCULATED AS FOLLOWS:

   $PSR = (P_{M3}/31) / [(Fe_{M3}/56)+(Al_{M3}/27)]$ WHERE,

   P_{M3} = MEHLICH–3 P IN MG P PER KG DRY SOIL
   Fe_{M3} = MEHLICH–3 Fe IN MG FE PER KG DRY SOIL
   Al_{M3} = MEHLICH–3 Al IN MG AL PER KG DRY SOIL

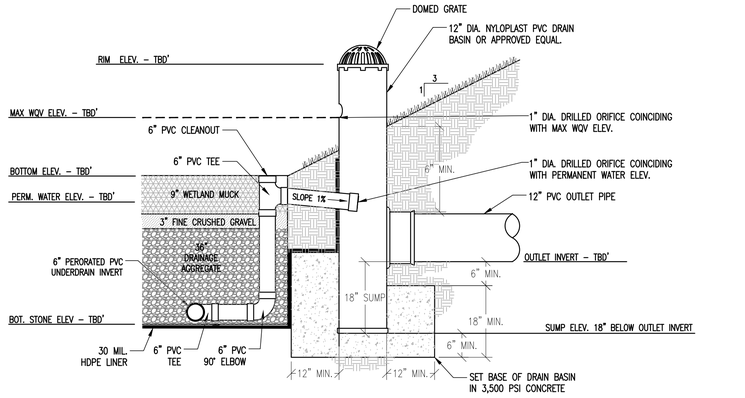
2. MEHLICH–3 EXTRACTIONS FOLLOW THE ABOVE PROTOCOL (FOR MORE DETAILS, SEE WOLF AND BEEGLE, 2009).
3. OTHER SOIL TEST EXTRACTIONS, INCLUDING MODIFIED MORGAN TESTS, OXALATE EXTRACTIONS, WATER EXTRACTIONS, OR EXTRACTIONS USED TO QUANTIFY TOTAL ELEMENTS, ARE NOT ACCEPTABLE.
4. IN CASES WHERE INGREDIENT MIXING HAS NOT YET OCCURRED, INGREDIENTS CAN BE MIXED AT THE INTENDED VOLUMETRIC PROPORTIONS IN A SMALL BATCH (AT LEAST ONE QUART IN VOLUME) FOR TESTING PURPOSES. IF THIS SMALL BATCH TESTING APPROACH IS TAKEN, THE FINAL MATERIAL TO BE USED DURING INSTALLATION MUST BE RE–TESTED TO CONFIRM ACCEPTABLE PSR.

TYPICAL GRAVEL WETLAND DETAIL (1)
SCALE: NONE



NOTES:
1. IF DEPTH OF MANHOLE IS 6 FT. OR LESS FROM RIM TO CENTERLINE INVERT, THEN A FLAT TOP WILL BE INSTALLED. IF DEPTH OF MANHOLE FROM RIM TO CENTERLINE INVERT IS MORE THAN 6 FT., THEN AN ECCENTRIC CONICAL TOP WILL BE INSTALLED.
2. CATCH BASIN AND GRATE SHALL BE DESIGNED FOR H20 LOADING.
3. PROVIDE A 3 FLANGE GRATE AND FRAME NEXT TO CURBS AND A 4 FLANGE FRAME AND GRATE AT ALL OTHER LOCATIONS.

CATCH BASIN DETAIL (3)
SCALE: NONE



GRAVEL WETLAND OUTLET STRUCTURE DETAIL (2)
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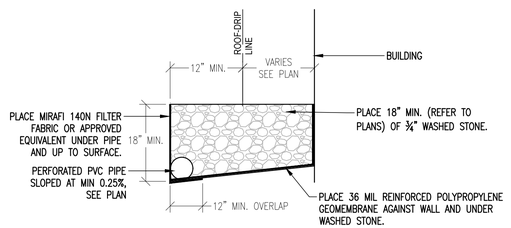
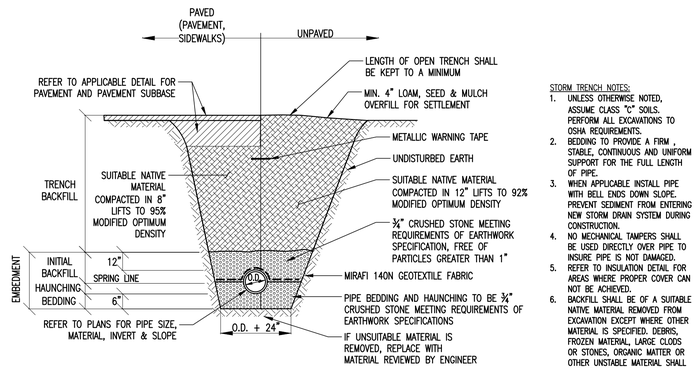


TYPICAL DRIP EDGE DETAIL (5)
SCALE: NONE



STORM TRENCH NOTES:
1. UNLESS OTHERWISE NOTED, ASSUME CLASS "C" SOILS. PERFORM ALL EXCAVATIONS TO OSHA REQUIREMENTS.
2. BEDDING TO PROVIDE A FIRM , STABLE, CONTINUOUS AND UNIFORM SUPPORT FOR THE FULL LENGTH OF PIPE.
3. WHEN APPLICABLE INSTALL PIPE WITH BELL ENDS DOWN SLOPE. PREVENT SEDIMENT FROM ENTERING NEW STORM DRAIN SYSTEM DURING CONSTRUCTION.
4. NO MECHANICAL TAMPERS SHALL BE USED DIRECTLY OVER PIPE TO INSURE PIPE IS NOT DAMAGED.
5. REFER TO INSULATION DETAIL FOR AREAS WHERE PROPER COVER CAN NOT BE ACHIEVED.
6. BACKFILL SHALL BE OF A SUITABLE NATIVE MATERIAL REMOVED FROM EXCAVATION EXCEPT WHERE OTHER MATERIAL IS SPECIFIED. DEBRIS, FROZEN MATERIAL, LARGE CLODS OR STONES, ORGANIC MATTER OR OTHER UNSTABLE MATERIAL SHALL NOT BE USED FOR BACKFILL.

TYPICAL STORM DRAIN TRENCH (4)
SCALE: NONE

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Sheet Title: Storm Details

Project Title: RICHMOND TOWN CENTER
RICHMOND, VT

EV Project #	22305
Drawn By:	TB
Checked By:	KW
Scale:	As Noted
Date:	7/28/2023

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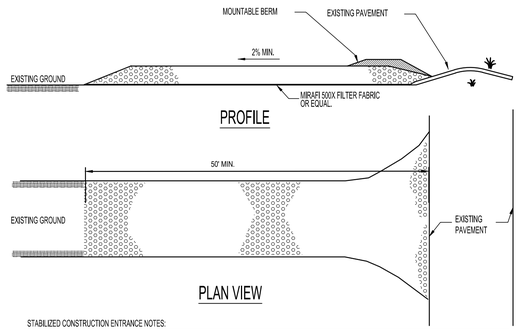
FEASIBILITY DRAWINGS - NOT FOR CONSTRUCTION

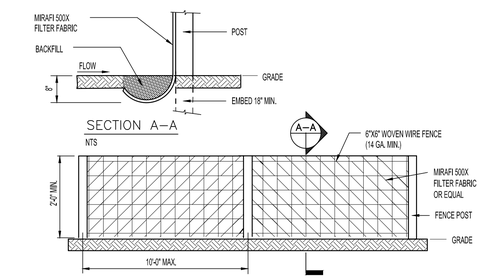


STABILIZED CONSTRUCTION ENTRANCE NOTES:

1. STONE SIZE: USE 1-1/2" CRUSHED STONE.
2. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED ACROSS THE ENTRANCE.
3. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. REPAIR AND/OR CLEANOUT ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
4. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.
5. WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

CONSTRUCTION ENTRANCE DETAIL

SCALE: NONE (1)

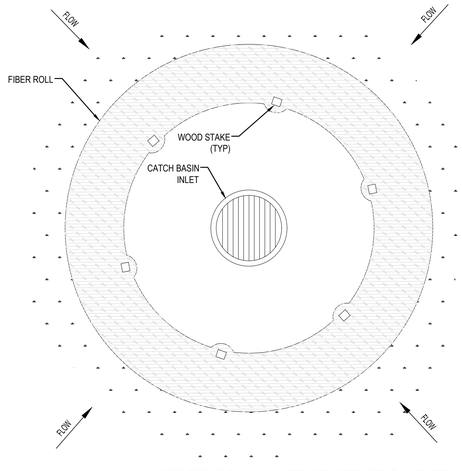


SILT FENCE NOTES:

1. SILT FENCE SHALL BE PRE-FABRICATED EROSION CONTROL FENCE BY MIRAFI OR EQUAL, OR CONSTRUCTED IN PLACE AS SPECIFIED HEREIN.
2. CONSTRUCTED IN PLACE SILT FENCE:
   - A. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
   - B. FILTER FABRIC TO BE FASTENED SECURELY TO WOVEN WIRE FENCE TIES SPACED EVERY 24" AT TOP OF MID SECTION.
   - C. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6", FOLDED AND STAPLED.
3. INSPECTION SHALL BE FREQUENT (MINIMUM ONCE A WEEK AND AFTER EVERY RAINFALL). MAINTENANCE SHALL BE PER-FORMED AS NEEDED, AND SEDIMENT REMOVED WHEN "BULGES" DEVELOP IN SILT FENCE.

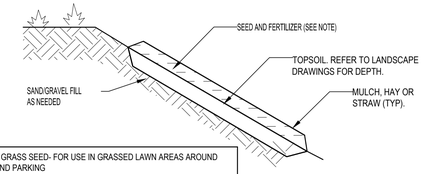
SILT FENCE DETAIL

SCALE: NONE (2)



FIBER ROLL INLET PROTECTION DETAIL

SCALE: NONE (3)



URBAN MIX GRASS SEED- FOR USE IN GRASSED LAWN AREAS AROUND BUILDING AND PARKING		
% BY WEIGHT	LBS. LIVE SEED BY ACRE	TYPE OF SEED
44.44	20.0	CREEPING RED FESCUE
44.44	20.0	KENTUCKY BLUEGRASS
11.11	5.0	RYEGRASS
100	45.0 # LIVE SEED/ ACRE	

CONSERVATION MIX GRASS SEED- FOR USE IN ALL OTHER AREAS		
% BY WEIGHT	LBS. LIVE SEED PER ACRE	TYPE OF SEED
50	15.0	SMOOTH BROMEGRASS
16.67	5.0	RYEGRASS
33.33	10.0	BIRDSFOOT TREFOIL
100	30.0 # LIVE SEED/ACRE	

FERTILIZER- 40 LBS. PER 1000S.F.
USE STANDARD 10-20-20 WHEN NO SOIL TEST DATA IS AVAILABLE
SPRING SEEDING
FALL SEEDING

LIME- 100 LBS. PER 1000S.F.
DOLOMITIC GROUND LIMESTONE
NOT LESS THAN 85% OF THE TOTAL CARBONATE

TOP SOIL
6" MINIMUM TOPSOIL

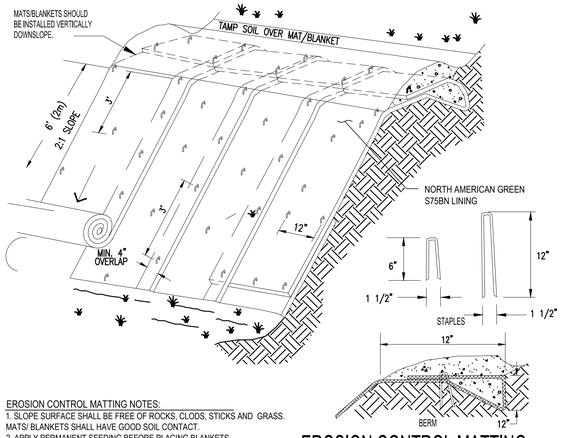
HAY OR STRAW MULCH- 90-100LBS PER 1000S.F.
APPLY BINDER OR NETTING AS NEEDED

NOTES FOR SEEDED AND MULCHED AREAS

1. ALL DISTURBED SURFACES SHALL BE TEMPORARILY OR PERMANENTLY SEEDED AND MULCHED WITHIN 7 DAYS OF DISTURBANCE.
2. SEEDING AND MULCHING OF DISTURBED AREAS SHALL TAKE PLACE WITHIN 48 HOURS OF FINAL GRADING.
3. MULCH: TYPICALLY HAY OR STRAW MAY BE UTILIZED AND SHALL BE APPLIED AT A RATE OF 90-100 LBS/1,000 SF. MULCH SHALL NOT BE PLACED ON SLOPES OF GREATER THAN 3:1. SEED IMPREGNATED EROSION CONTROL NETTING SHALL BE USED IN ITS PLACE.
4. SEED: SEEDING SHALL OCCUR AFTER APRIL 15 AND PRIOR TO SEPTEMBER 15TH IN ORDER TO ESTABLISH A STAND OF GRASS PRIOR TO GROUND FREEZING. SEED SHALL BE IN ACCORDANCE WITH SEED SPECIFICATION ON THIS SHEET.
5. COVER SEED WITH $\frac{1}{4}$ INCH SOIL UNLESS A HYDROSEEDER IS USED.
6. MULCH ANCHORING: SHALL BE ACCOMPLISHED BY DEGRADABLE MULCH NETTING. USE WHEN SLOPES ARE GREATER THAN 10%.
7. TOPSOIL AND MULCHING NOT TO BE APPLIED IN AREAS OF TRAVEL WAYS.

SEEDED AND MULCHED AREAS DETAIL

SCALE: NONE (4)



EROSION CONTROL MATTING NOTES:

1. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS AND GRASS.
2. APPLY PERMANENT SEEDING BEFORE PLACING BLANKETS.
3. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL. DO NOT STRETCH.
4. MATTING SHALL BE NATURAL FIBER.

EROSION CONTROL MATTING

SCALE: NONE (5)

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Town of Richmond
203 Bridge Street
Richmond, Vermont

Sheet Title: EPSC Details

Project Title: RICHMOND TOWN CENTER

EV Project #
Drawn By:
Checked By:
Scale:
Date:

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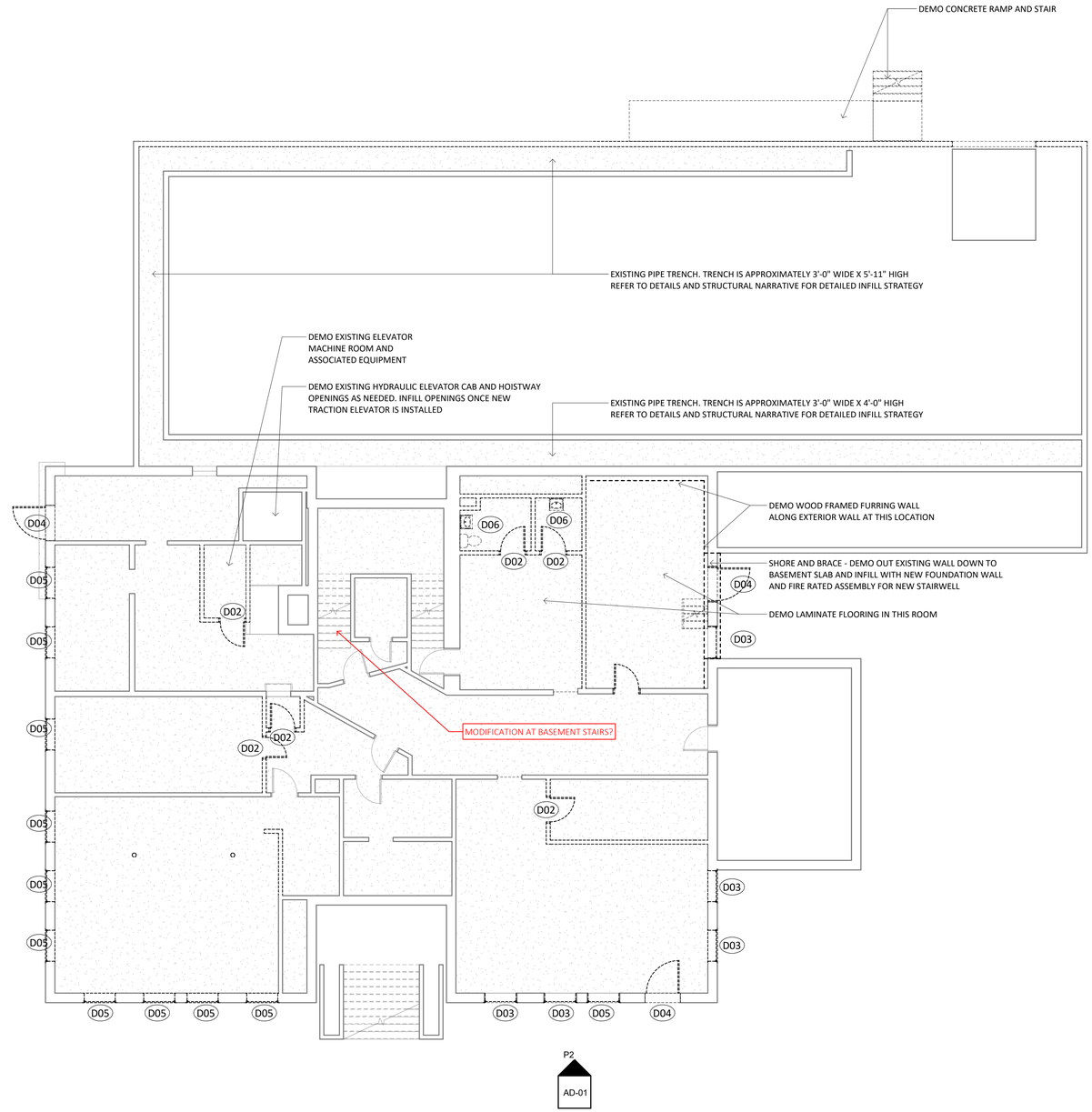
DEMOLITION NOTES	
KEYNOTE#	KEYNOTE DESCR.

D01	DEMO WOOD FRAMED WALL
D02	DEMO DOOR AND FRAME
D03	DEMO DOUBLE HUNG WINDOW
D04	DEMO ACCESS DOOR AT MASONRY OPENING
D05	DEMO WOOD INFILLING PANEL AT MASONRY OPENING
D06	DEMO PLUMBING FIXTURE(S)



2 P2
SCALE: 1 1/2" = 1'-0"

1 DEMOLITION PLAN - BASEMENT
SCALE: 1/8" = 1'-0"

RICHMOND TOWN HALL

RICHMOND, VERMONT

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

BASEMENT DEMO PLAN

SCALE As indicated

DATE 9/29/2022

DRAWN BY ADM

CHECKED BY Checker

AD-01

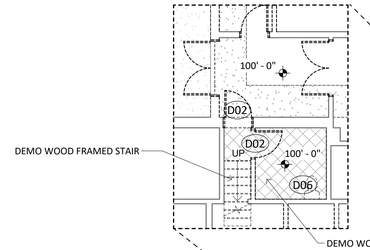
FEASIBILITY DRAWINGS - NOT FOR CONSTRUCTION

9/7/2023 8:38:19 AM

RITC

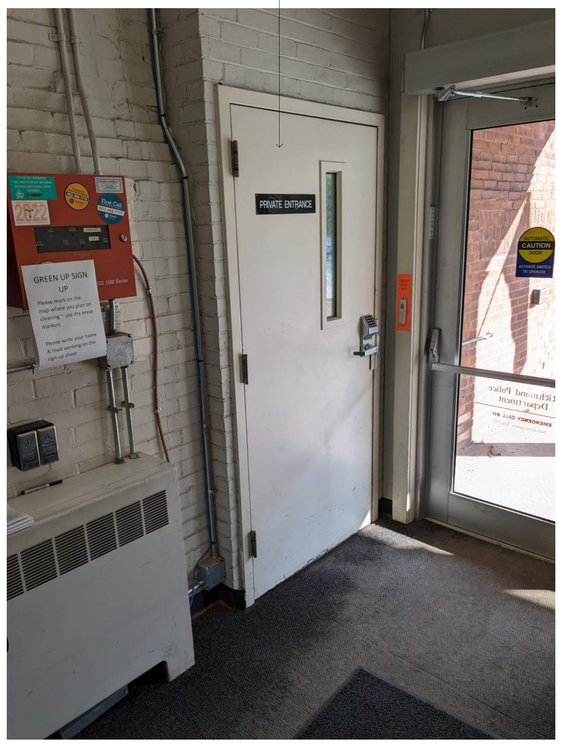
DEMOLITION NOTES - FEASIBILITY

- REFER TO ROOM SCHEDULES FOR ADDITIONAL INFORMATION RELATED TO DEMOLITION OF FLOORING & CEILINGS



3 PARTIAL DEMO PLAN @ GROUND LEVEL
SCALE: 1/8" = 1'-0"

EXISTING DOOR TO BE REMOVED. INFILL WITH MASONRY



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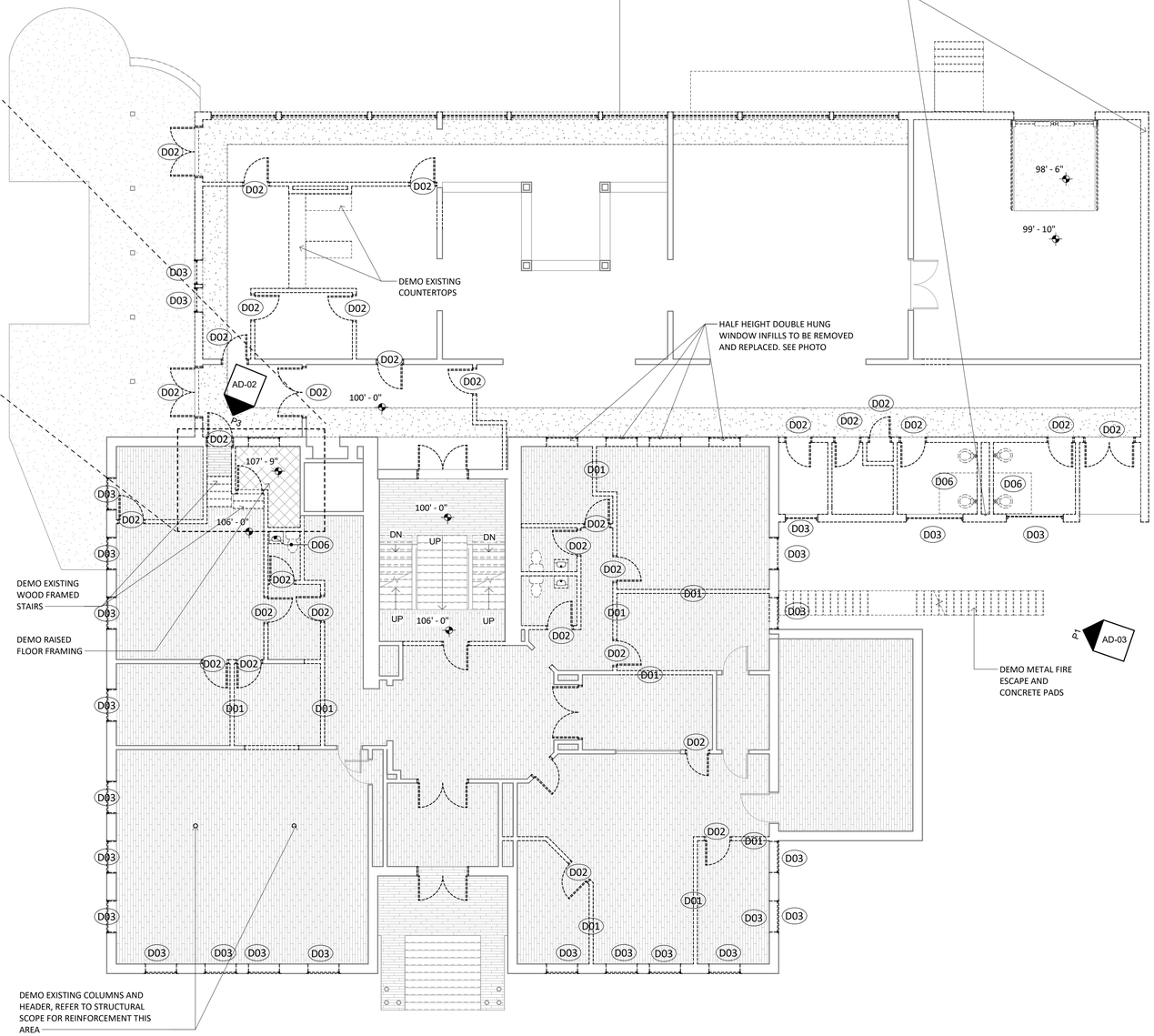

1 DEMOLITION PLAN - GROUND LEVEL
SCALE: 1/8" = 1'-0"

8/2/2023 8:38:20 AM

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RICHMOND TOWN HALL

RICHMOND, VERMONT

BLACK RIVER DESIGN
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MONTPELIER VERMONT 05602

REVISIONS

GROUND LEVEL DEMO PLAN

SCALE As indicated

DATE 9/29/2022

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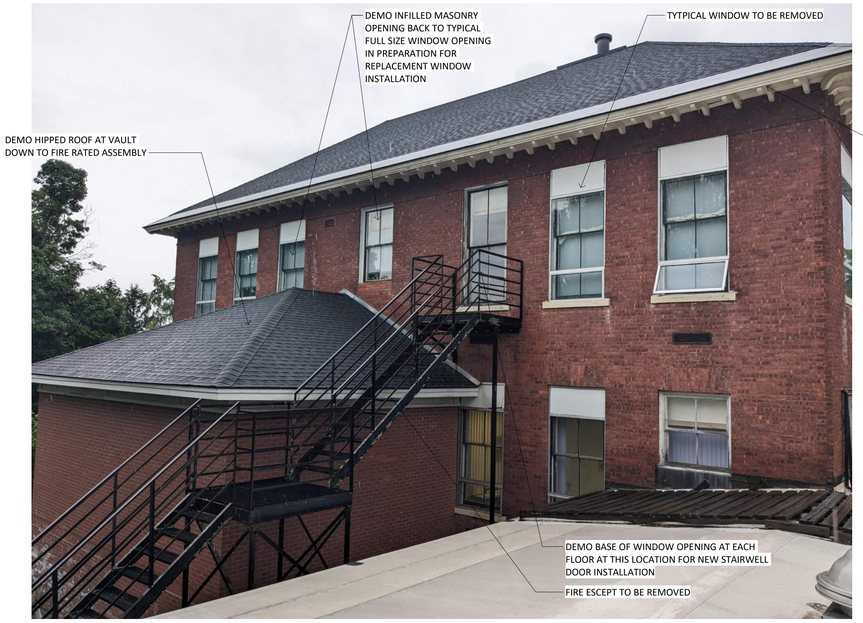
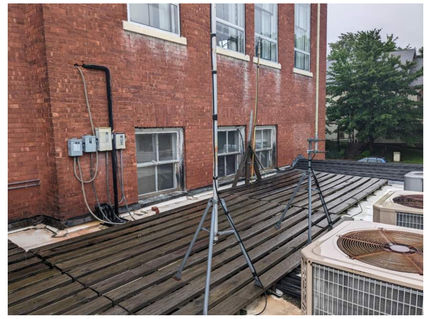
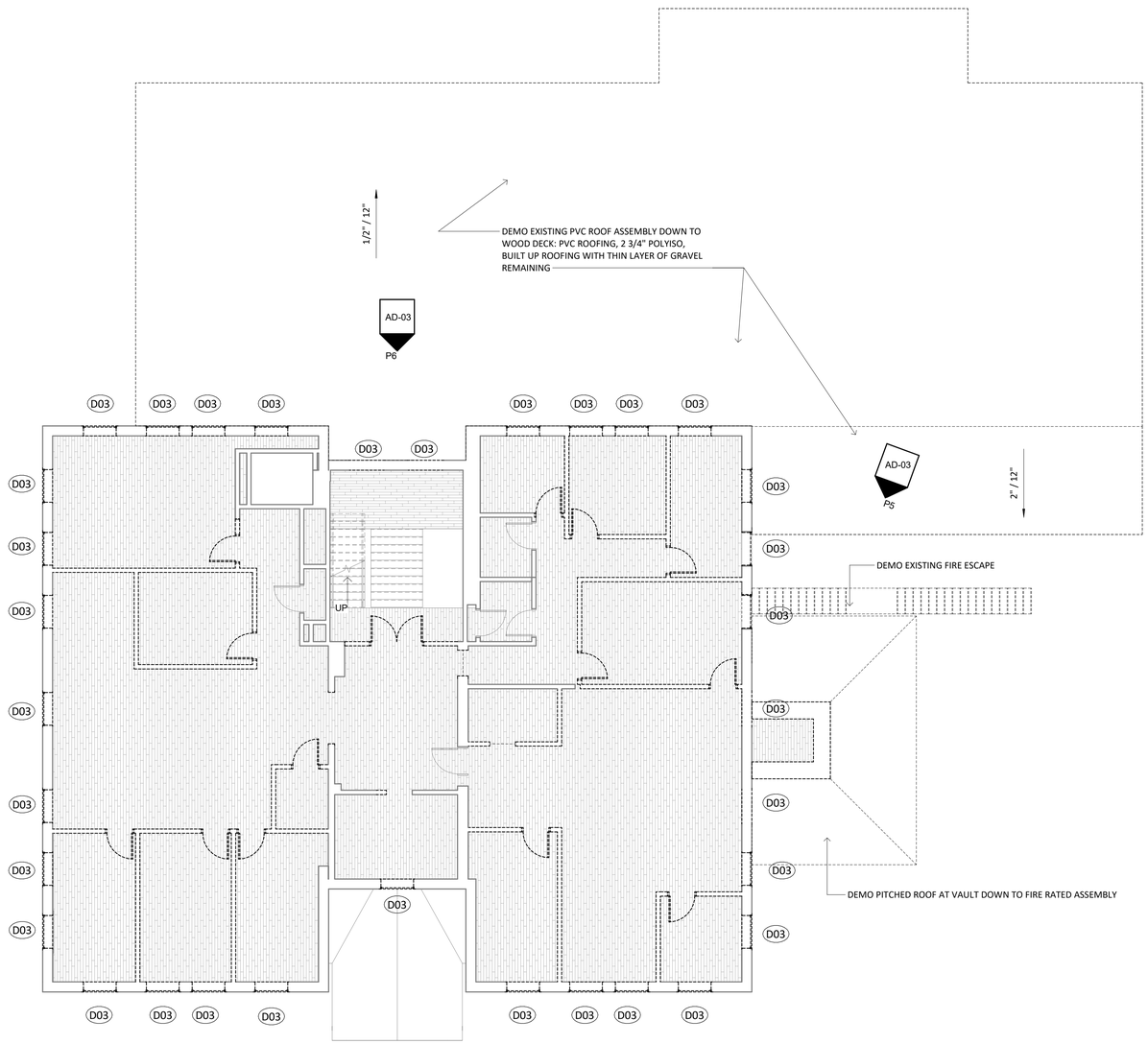


3 P5
SCALE: 1 1/2" = 1'-0"



4 P6
SCALE: 1 1/2" = 1'-0"

2 P1
SCALE: 1 1/2" = 1'-0"



1 DEMOLITION PLAN - LEVEL 2
SCALE: 1/8" = 1'-0"

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RICHMOND, VERMONT

BLACK RIVER DESIGN
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REVISIONS

SECOND FLOOR DEMO PLAN

SCALE As indicated

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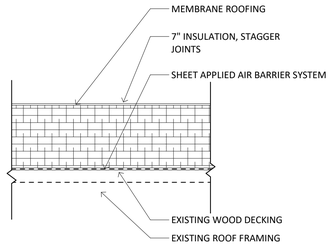
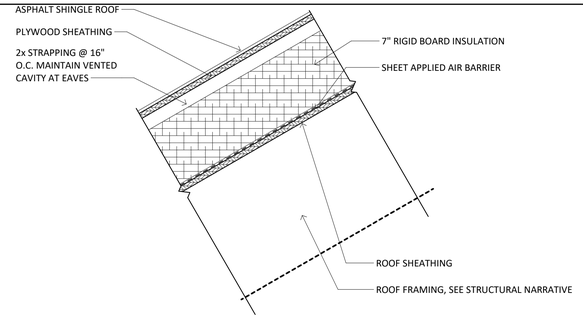


*REFER TO ROOF PLAN FOR AREA OF ADDITIONAL TAPERED INSULATION

SECTION

3 MEMBRANE ROOF - R1

SCALE: 1 1/2" = 1'-0"



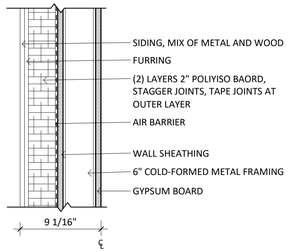
SECTION

6 ASPHALT SHINGLE ROOF - R2

SCALE: 1 1/2" = 1'-0"

SD - ROOF SCHEDULE		
Type Mark	Area	Comments
R1	412 SF	PROVIDE PARAPET WALL AT EAVE OF VAULT AND SCUPPER
R1	5,355 SF	DEMO EXISTING ROOF AT POST OFFICE, PROVIDE TAPERED INSULATION IN AREA INDICATED ON ROOF PLAN
R1	258 SF	AREA TO RECEIVE ADDITIONAL TAPERED INSULATION
R2	577 SF	NEW ROOF AT STAIRWELL

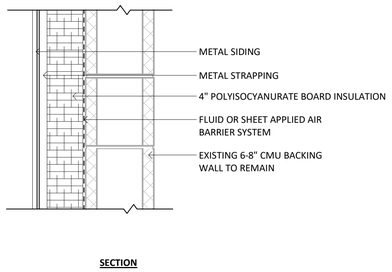
SD - EXTERIOR WALL SCHEDULE		
Type Mark	Comments	Area
		637 SF
MAS1	EXTERIOR WALL REBUILD AT POST OFFICE, SEE POST OFFICE PLAN AND SECTIONS FOR ADDITIONAL SCOPE DEFINITION	42 SF
MAS-2	WOOD FRAMED, BRICK VENEER WALL ASSEMBLY INFILLING MASONRY OPENINGS AT HISTORIC BUILDING	92 SF
S1	THERMALLY BROKEN KAWNEER UT STOREFRONT	784 SF
W1	EXTERIOR INSULATED STAIRWELL WALL ASSEMBLY	1,696 SF
W2	12" FOUNDATION WALL WITH EXTERIOR XPS INSULATION	504 SF



SECTION

4 W1

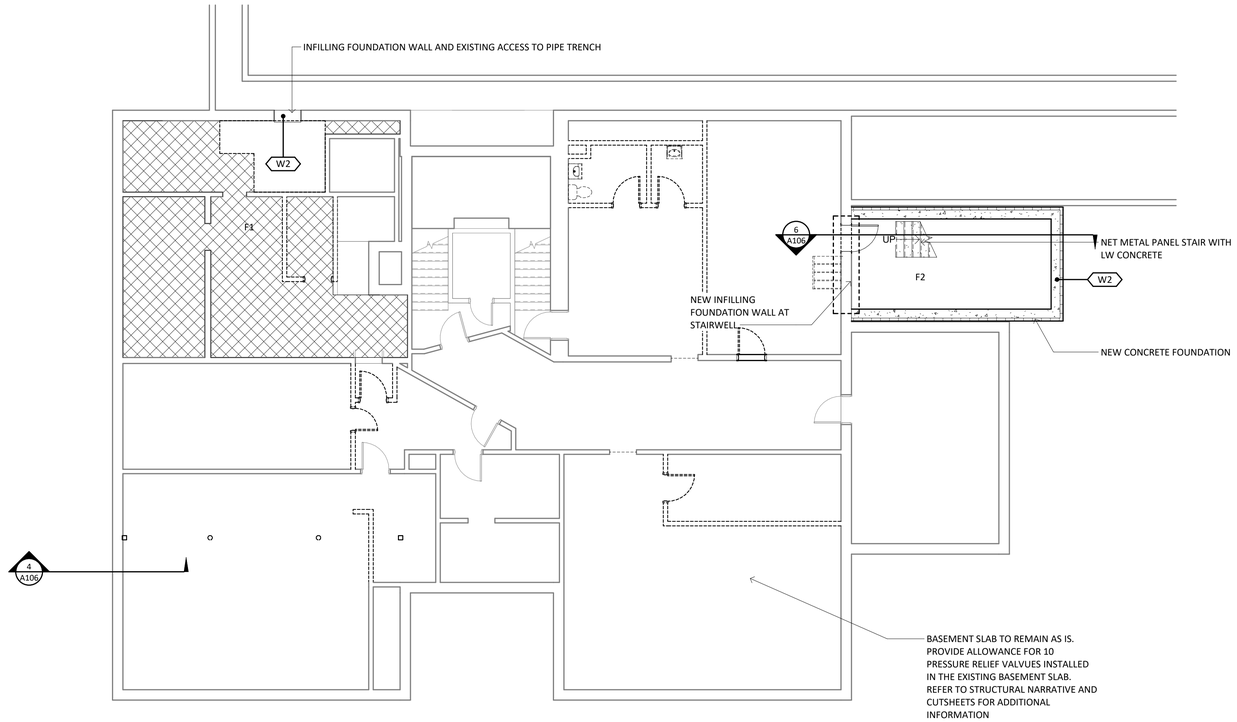
SCALE: 1 1/2" = 1'-0"



SECTION

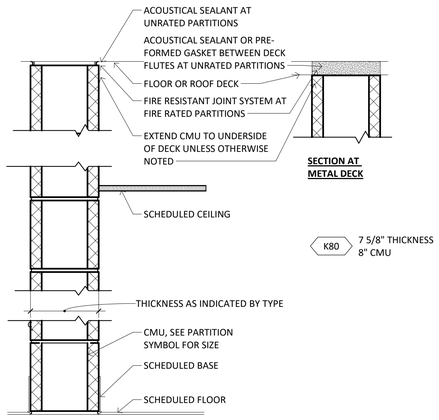
5 MAS-1

SCALE: 1 1/2" = 1'-0"



1 BASEMENT PLAN

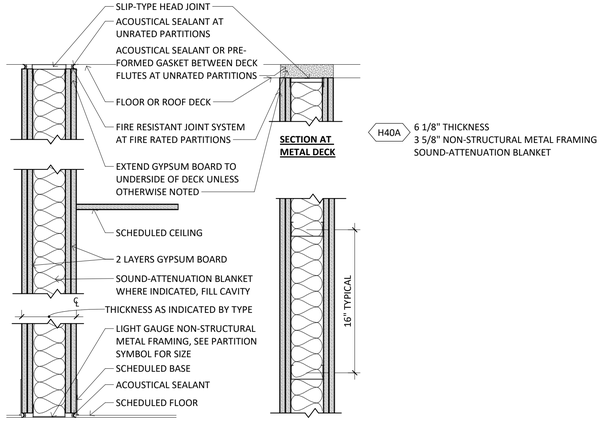
SCALE: 1/8" = 1'-0"



SECTION

2 PARTITION TYPE K

SCALE: 1 1/2" = 1'-0"



SECTION **PLAN**

H40A 6 1/8" THICKNESS
3 5/8" NON-STRUCTURAL METAL FRAMING
SOUND-ATTENUATION BLANKET

7 PARTITION TYPE H

SCALE: 1 1/2" = 1'-0"

SD - INTERIOR WALL SCHEDULE (NEW)			
SD - WALL CATEGORY	Type Mark	Comments	Area
INTERIOR SD	H40A		6,260 SF
INTERIOR SD	K80		663 SF
INTERIOR SD	S2	INTERIOR ALUMINUM STOREFRONT	315 SF

SD - SLAB SCOPE		
Type Mark	Comments	Area
F1	4" SLAB AT LIMITED AREA OF BASEMENT. SEE PLAN. PROVIDE VAPOR BARRIER	666 SF
F2	SLAB ON GRADE WITH 2" UNDERSLAB INSULATION AT STAIRWELL BASEMENT	225 SF
F2	SLAB ON GRADE AT INFILLED PIPE TRENCH. SEE DETAILS FOR ADDITIONAL INFORMATION	840 SF
F3	2" TOPPING SLAB AT POST OFFICE LOADING BAY	730 SF
F4	WOOD FRAMED FLOOR ASSEMBLY INFILL . SEE PLAN	104 SF

RICHMOND TOWN HALL

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REVISIONS

FLOOR PLAN & ASSEMBLY TYPES

SCALE As indicated

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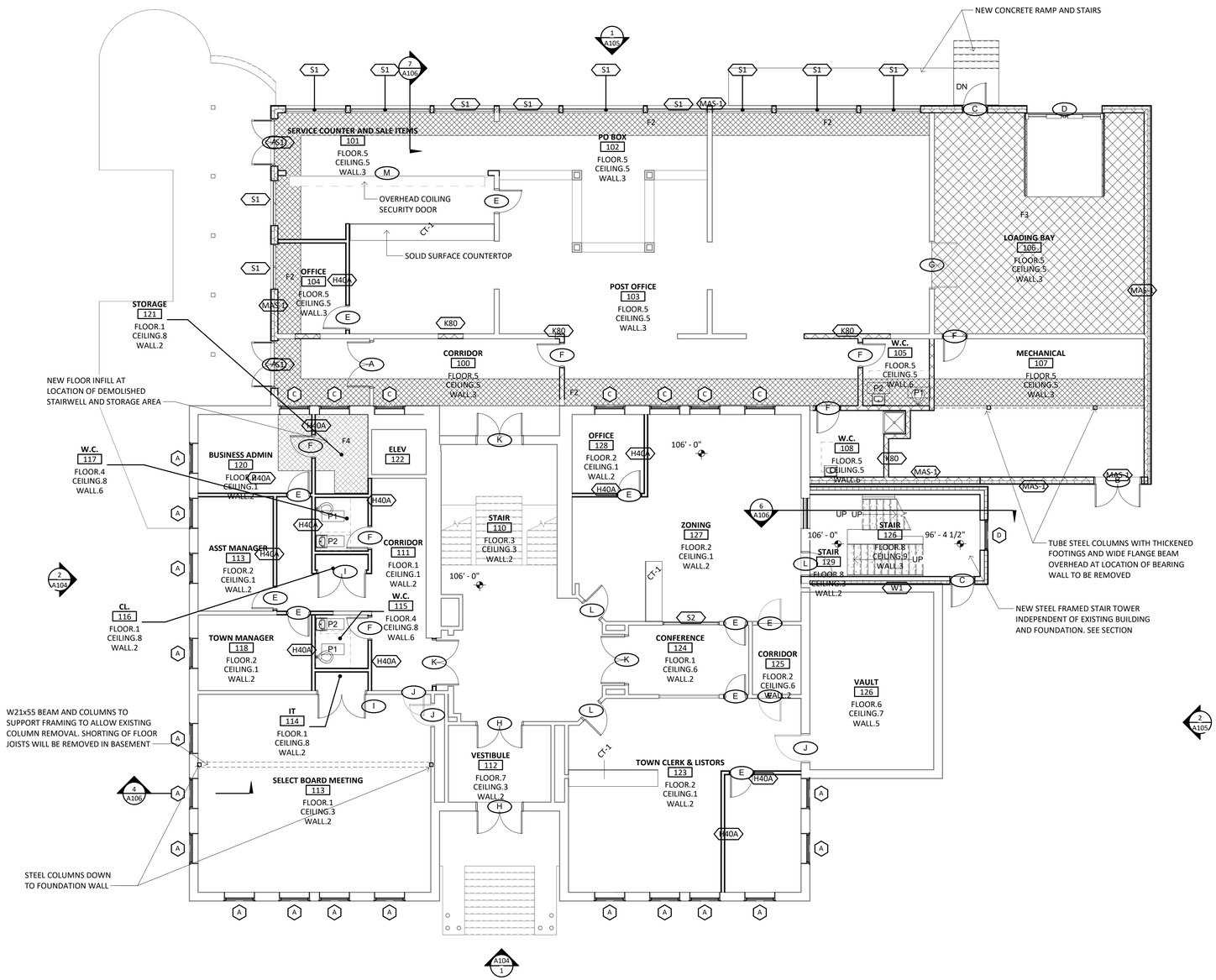
RITC

KEY SCHEDULE - SD FLOOR SCOPE							
SD - FLOOR SCOPE TAG	SD - EXISTING FLOOR	SD - FLOOR DEMO	FLOOR MATERIAL	Floor Finish	SD - FLOOR COMMENTS	BASE MATERIAL	Base Finish
FLOOR.1	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.2	CARPET OVER WOOD	DEMO CARPET	FLOTEX CARPET	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.3	CARPET OVER WOOD	DEMO CARPET	WOOD TREADS & RISER WITH RUBBER RUNNERS	PAINT/----	SCRAPE AND STAIN EXISTING HANDRAILS	EXISTING WOOD	STAIN
FLOOR.4	CARPET OVER WOOD	DEMO CARPET & WOOD	CERAMIC TILE	---		TILE	---
FLOOR.5	SHEET GOOD/VCT TILE	DEMO TILE DOWN TO CONCRETE	NEW SHEET GOOD	---		4" RUBBER	---
FLOOR.6	VCT	NO WORK	EXISTING	---	NO WORK	EXISTING	---
FLOOR.7	WOOD	---	WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.8	---	---	LW CONCRETE WITH RUBER TREADS/RISERS	POLISHED		4" RUBBER	---
FLOOR.9	CARPET OVER WOOD	DEMO CARPET	CORK UNDERLAYMENT AND FLOTEX	---		EXISTING WOOD AT PERIMETER/NEW	STAIN

KEY SCHEDULE - SD CEILING SCOPE					
SD - CEILING SCOPE TAG	SD - EXISTING CEILING	SD - EXISTING CEILING DEMO	CEILING MATERIAL	Ceiling Finish	SD - CEILING COMMENTS
CEILING.1	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.2	HARD CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING HARD CEILING	PAINT	
CEILING.3	TIN CEILING	--	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.4	TIN CEILING	REMOVE TIN & SALVAGE	GYP. BD.	PAINT	
CEILING.5	ADHERED APC CEILING	DEMO ACOUSTIC CEILING	SUSPENDED APC	---	
CEILING.6	HARD CEILING	DEMO EXISTING	SUSPENDED APC	---	
CEILING.7	EXISTING	---	EXISTING	PAINT	
CEILING.8	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING AND SALVAGE TIN	GYP. BD.	PAINT	
CEILING.9	---	---	GYP. BD.	PAINT	

KEY SCHEDULE - SD WALL SCOPE		
SD - WALL SCOPE TAG	WALL MATERIAL	Wall Finish
WALL.1	GYP. BD.	PAINT
WALL.2	EXIST PLASTER/GYP. BD.	PAINT
WALL.3	GYP BD./CMU	PAINT
WALL.4	CMU	PAINT
WALL.5	EXIST	PAINT
WALL.6	CERAMIC TILE UP TO 4' AFF, GYP	---/PAINT

*REFER TO A107 AND A108 FOR MORE DETAILED ROOM SCHEDULES WITH AREAS AND PERIMETERS



2 PROPOSED GROUND LEVEL

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

RICHMOND TOWN HALL

RICHMOND, VERMONT

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73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

FLOOR PLAN

SCALE 1/8" = 1'-0"

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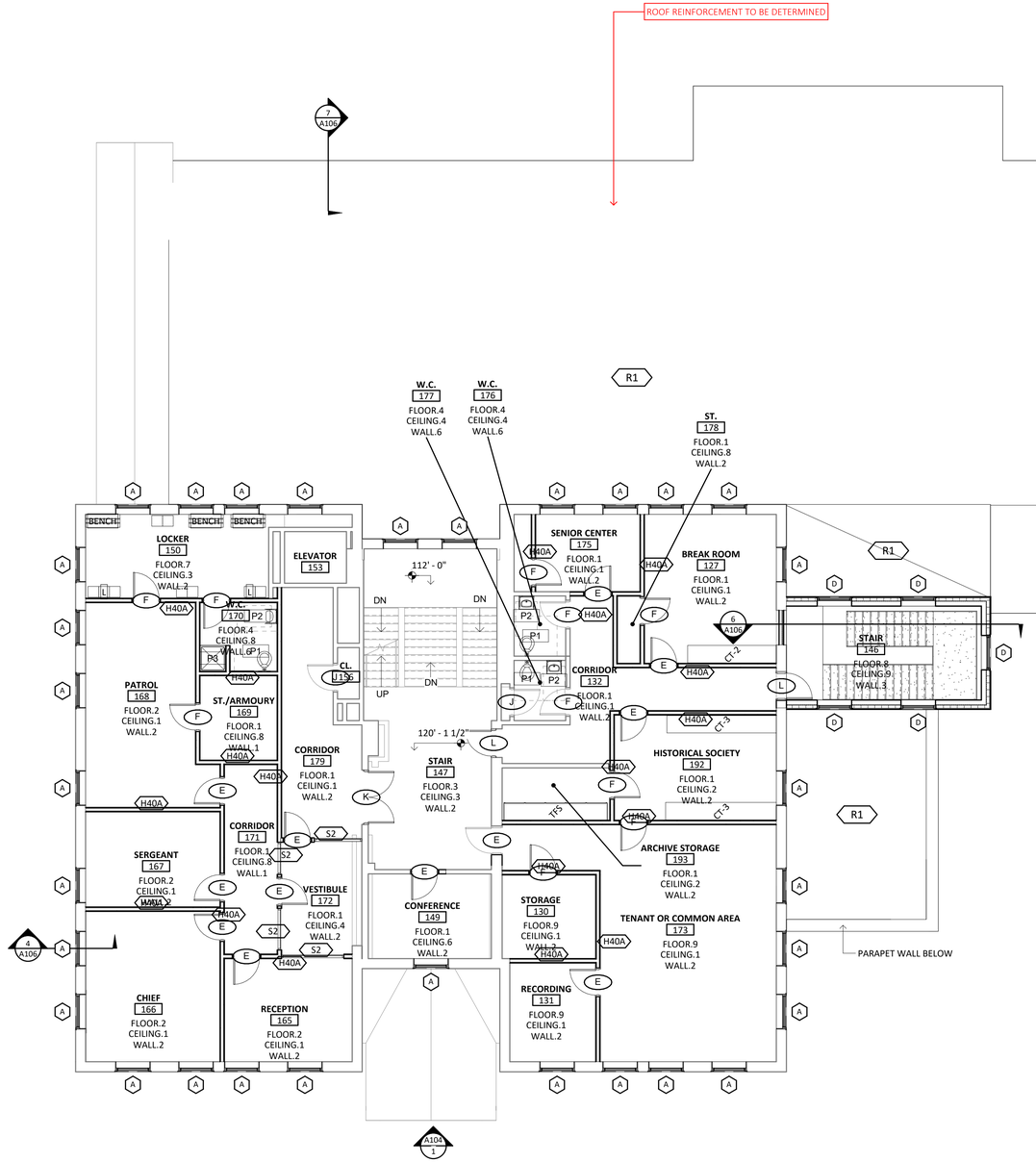
KEY SCHEDULE - SD FLOOR SCOPE							
SD - FLOOR SCOPE TAG	SD - EXISTING FLOOR	SD - FLOOR DEMO	FLOOR MATERIAL	Floor Finish	SD - FLOOR COMMENTS	BASE MATERIAL	Base Finish
FLOOR.1	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.2	CARPET OVER WOOD	DEMO CARPET	FLOTEX CARPET	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.3	CARPET OVER WOOD	DEMO CARPET	WOOD TREADS & RISER WITH RUBBER RUNNERS	PAINT/----	SCRAPE AND STAIN EXISTING HANDRAILS	EXISTING WOOD	STAIN
FLOOR.4	CARPET OVER WOOD	DEMO CARPET & WOOD	CERAMIC TILE	---		TILE	---
FLOOR.5	SHEET GOOD/VCT TILE	DEMO TILE DOWN TO CONCRETE	NEW SHEET GOOD	---		4" RUBBER	---
FLOOR.6	VCT	NO WORK	EXISTING	---	NO WORK	EXISTING	---
FLOOR.7	WOOD	---	WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.8	---	---	LW CONCRETE WITH RUBER TREADS/RISERS	POLISHED		4" RUBBER	---
FLOOR.9	CARPET OVER WOOD	DEMO CARPET	CORK UNDERLAYMENT AND FLOTEX	---		EXISTING WOOD AT PERIMETER/NEW	STAIN

KEY SCHEDULE - SD CEILING SCOPE					
SD - CEILING SCOPE TAG	SD - EXISTING CEILING	SD - EXISTING CEILING DEMO	CEILING MATERIAL	Ceiling Finish	SD - CEILING COMMENTS
CEILING.1	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.2	HARD CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING HARD CEILING	PAINT	
CEILING.3	TIN CEILING	--	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.4	TIN CEILING	REMOVE TIN & SALVAGE	GYP. BD.	PAINT	
CEILING.5	ADHERED APC CEILING	DEMO ACOUSTIC CEILING	SUSPENDED APC	---	
CEILING.6	HARD CEILING	DEMO EXISTING	SUSPENDED APC	---	
CEILING.7	EXISTING	---	EXISTING	PAINT	
CEILING.8	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING AND SALVAGE TIN	GYP. BD.	PAINT	
CEILING.9	---	---	GYP. BD.	PAINT	

KEY SCHEDULE - SD WALL SCOPE		
SD - WALL SCOPE TAG	WALL MATERIAL	Wall Finish
WALL.1	GYP. BD.	PAINT
WALL.2	EXIST PLASTER/GYP. BD.	PAINT
WALL.3	GYP BD./CMU	PAINT
WALL.4	CMU	PAINT
WALL.5	EXIST	PAINT
WALL.6	CERAMIC TILE UP TO 4' AFF, GYP	---/PAINT

*REFER TO A107 AND A108 FOR MORE DETAILED ROOM SCHEDULES WITH AREAS AND PERIMETERS



1 PROPOSED LEVEL 2
SCALE: 1/8" = 1'-0"

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RICHMOND TOWN HALL

RICHMOND, VERMONT

BLACK RIVER DESIGN
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REVISIONS

FLOOR PLAN

SCALE 1/8" = 1'-0"

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A102

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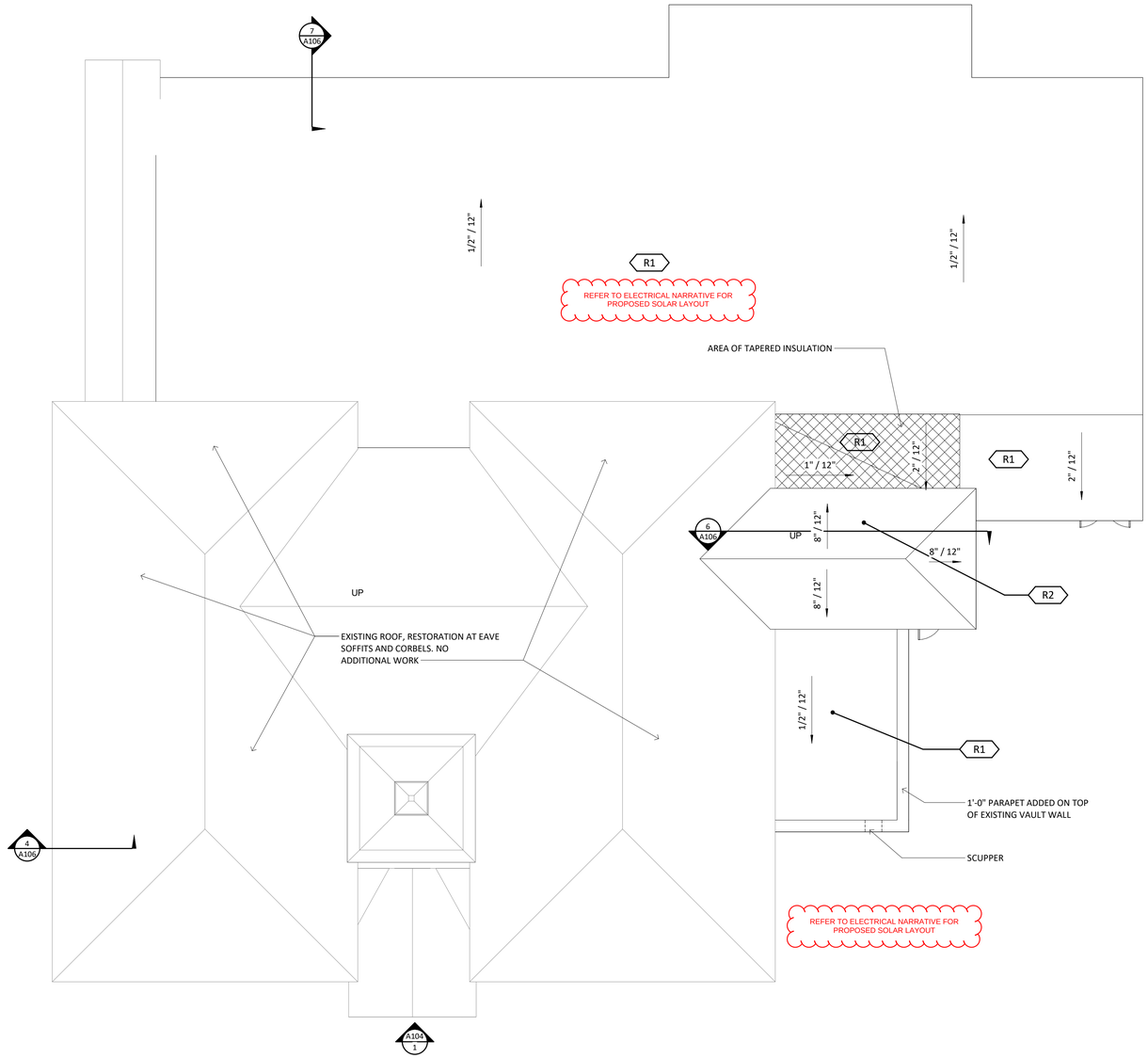

1 ROOF PLAN
SCALE: 1/8" = 1'-0"

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RICHMOND, VERMONT

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73 MAIN STREET
MONTPELIER VERMONT 05602

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ROOF PLAN

SCALE
1/8" = 1'-0"

DATE
9/29/2022

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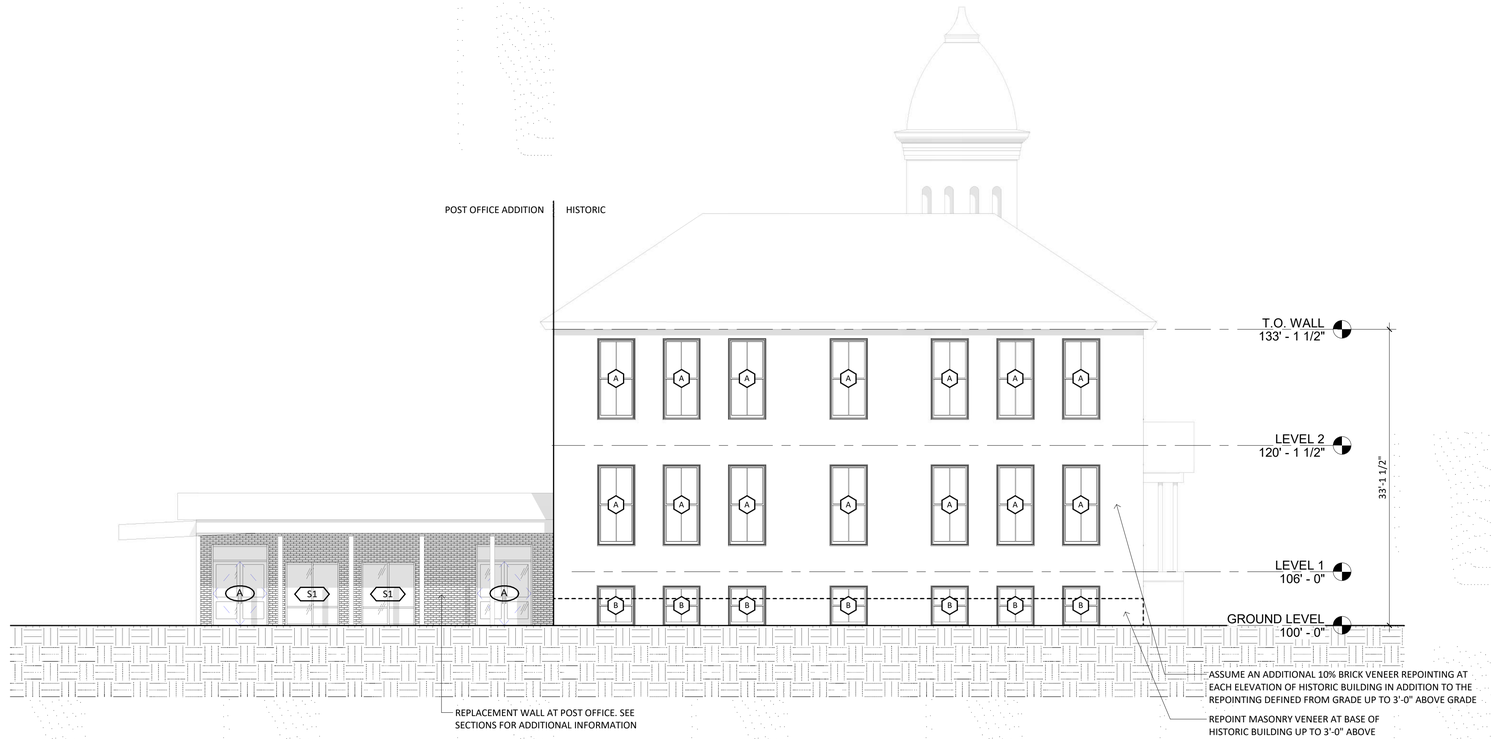
1 WEST ELEVATION
SCALE: 1/8" = 1'-0"



2 NORTH ELEVATION
SCALE: 1/8" = 1'-0"

RICHMOND TOWN HALL

RICHMOND, VERMONT

BLACK RIVER DESIGN
73 MAIN STREET
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REVISIONS

BUILDING ELEVATIONS

SCALE
1/8" = 1'-0"

DATE
9/29/2022

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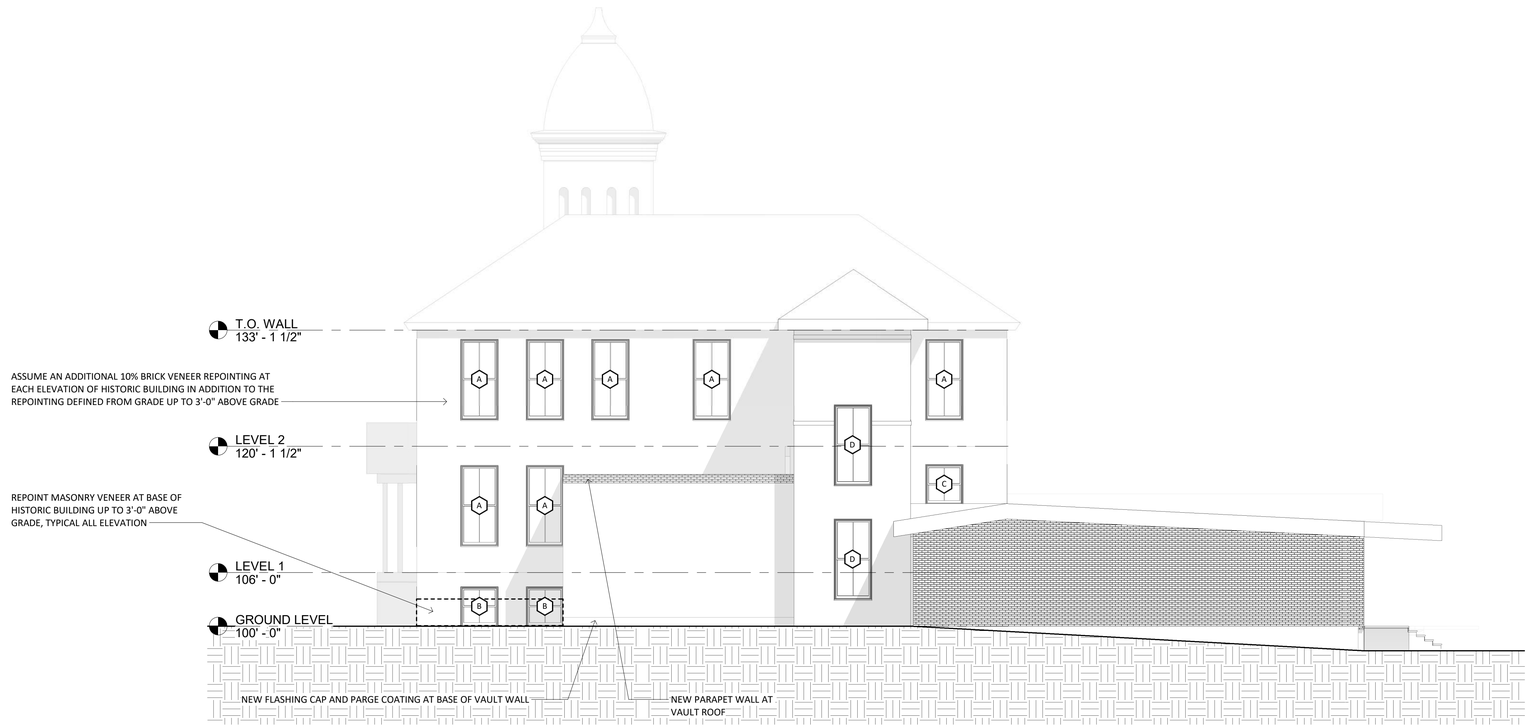
1 EAST ELEVATION
SCALE: 1/8" = 1'-0"



2 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

8/7/2023 8:38:27 AM

RICHMOND TOWN HALL

RICHMOND, VERMONT

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REVISIONS

BUILDING ELEVATIONS

SCALE
1/8" = 1'-0"

DATE
9/29/2022

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ADM

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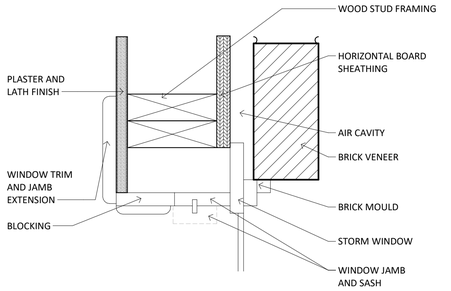
A105

FEASIBILITY SCOPE SET

FEASIBILITY DRAWINGS - NOT FOR CONSTRUCTION

RITC



1 EXISTING WINDOW JAMB DETAIL
SCALE: 3" = 1'-0"

SD - DOOR SCHEDULE

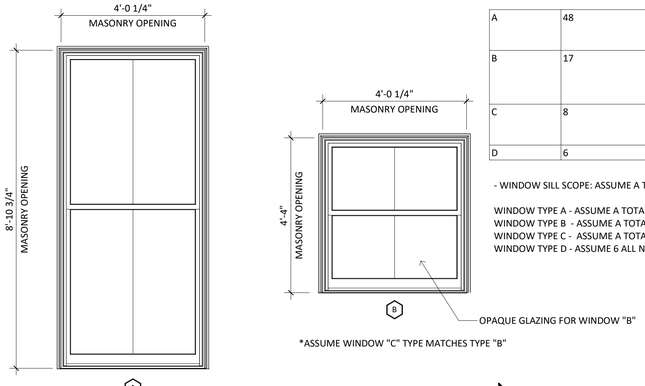
SD-DOOR TYPE (TAG)	Count	SD - DOOR DESCRIPTION	SD - DOOR FUNCTION	SD - DOOR PANEL	DOOR MATERIAL	Finish	Frame Type	FRAME FINISH
A	3	KAWNEER EXTERIOR ALUMINUM STOREFRONT	EXTERIOR	2	ALUMINUM	ANODIZED	ALUMINUM	ANODIZED
B	1	INSULATED METAL FLUSH PANEL DOOR	EXTERIOR	2	INSULATED METAL	PAINTED	HOLLOW METAL	PAINT
C	2	INSULATED METAL HG PANEL DOOR	EXTERIOR	1	INSULATED METAL	PAINTED	HOLLOW METAL	PAINT
D	1	OVERHEAD SECTIONAL DOOR	EXTERIOR	1				
H	2	WOOD PANEL HALF GLASS DOOR & TRANSOM	EXTERIOR	2	WOOD	STAIN	WOOD	STAIN
E	23	SOLID CORE WOOD HG LITE DOOR	INTERIOR	1	SOLID CORE WOOD	POLY	HOLLOW METAL	PAINT
F	17	SOLID CORE WOOD FLUSH DOOR	INTERIOR	1	SOLID CORE WOOD	POLY	HOLLOW METAL	PAINT
G	1	HOLLOW METAL FLUSH DOOR	INTERIOR	2	HOLLOW METAL	PAINT	HOLLOW METAL	PAINT
I	2	SOLID CORE WOOD FLUSH DOOR	INTERIOR	2	SOLID CORE WOOD	POLY	HOLLOW METAL	PAINT
J	5	EXISTING TO REMAIN	INTERIOR	1	EXISTING	PAINT	EXISTING	PAINT
K	4	WOOD PANEL HALF GLASS DOOR & TRANSOM	INTERIOR	2	WOOD PANEL	STAIN	WOOD	STAIN
L	6	WOOD PANEL HALF GLASS DOOR & TRANSOM	INTERIOR	1	WOOD PANEL	STAIN	WOOD	STAIN
M	1	OVERHEAD COILING SECURITY GRILLE	INTERIOR	1	STAINLESS STEEL	---		

WINDOW SCOPE

Type Mark	Count	Type Comments	Height	Width	Comments
A	48	NEW REPLACEMENT WINDOW IN EXISTING OPENING	8' - 10 3/4"	4' - 0 1/4"	EXISTING OPENING TO REMAIN. DEMO EXISTING WINDOW AND INSTALL NEW REPLACEMENT WINDOW, AIRSEALING WEIGHT POCKET
B	17	NEW REPLACEMENT WINDOW IN EXISTING OPENING	4' - 4"	4' - 0 1/4"	EXISTING OPENING TO REMAIN. DEMO EXISTING WINDOWS OR INFILLED PANELS. DEMO EXISTING MASONRY SILL. REPLACE WITH NEW GRANITE MASONRY SILL. INSTALL REPLACEMENT WINDOW
C	8	NEW REPLACEMENT WINDOW IN MODIFIED OPENING	4' - 4"	4' - 0 1/4"	REPLACEMENT WINDOW IN HISTORIC WINDOW OPENING MODIFIED BY POST OFFICE ROOF. PREVIOUS WINDOW OPENING MATCHES TYPE A WINDOW
D	6	NEW WINDOW IN NEW OPENING	8' - 10 3/4"	4' - 0 1/4"	NEW WINDOW IN NEW OPENING IN STAIRWELL ADDITION

- WINDOW SILL SCOPE: ASSUME A TOTAL OF 46 NEW GRANITE SILLS AS FOLLOWING

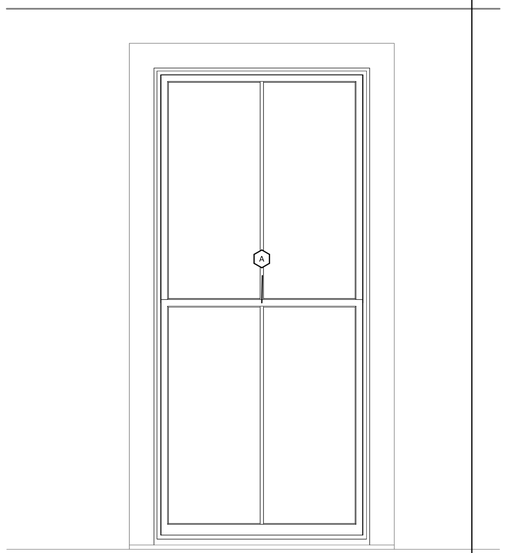
WINDOW TYPE A - ASSUME A TOTAL OF 15 REPLACEMENT SILLS
WINDOW TYPE B - ASSUME A TOTAL OF 17 REPLACEMENT SILL
WINDOW TYPE C - ASSUME A TOTAL OF 8 REPLACEMENT SILLS
WINDOW TYPE D - ASSUME 6 ALL NEW GRANITE SILLS



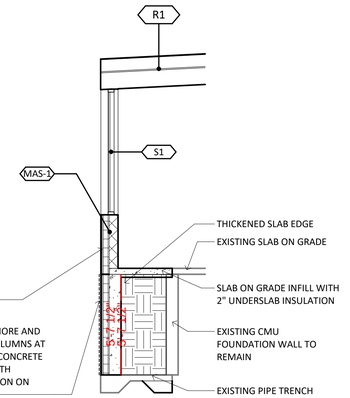
*ASSUME WINDOW "C" TYPE MATCHES TYPE "B"

WINDOW "D" TO MATCH PROFILE OF WINDOW "A"

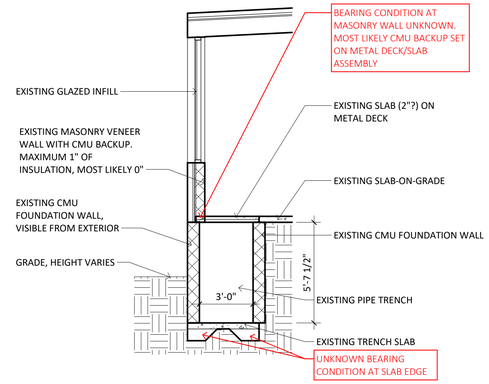
WINDOW ELEVATIONS



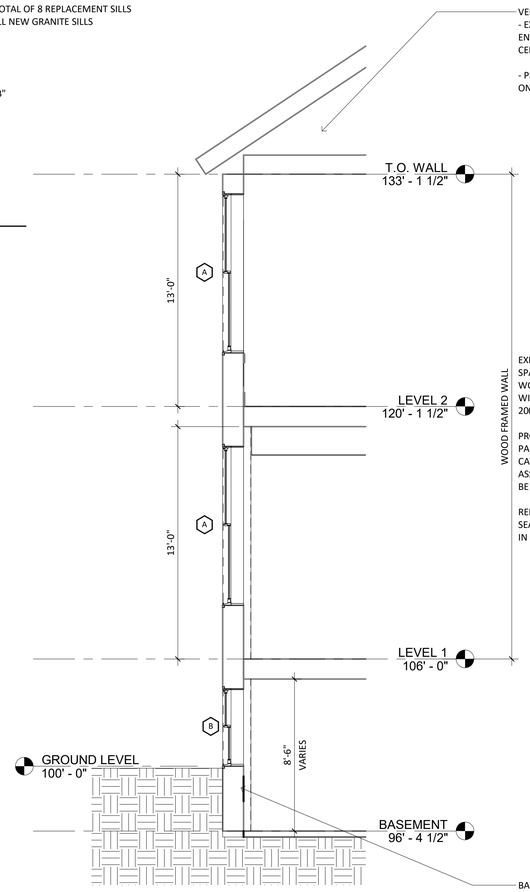
2 TYPICAL EXTERIOR WALL FINISH
SCALE: 3/4" = 1'-0"



7 PROPOSED WORK AT PIPE TRENCH
SCALE: 1/4" = 1'-0"



8 EXISTING PIPE TRENCH AT EXTERIOR WALL
SCALE: 1/4" = 1'-0"



VENTED ROOF ASSEMBLY
- EXISTING: COLD ROOF. 1" SPRAY FOAM SKIM COAT AT ENTIRE SURFACE OF CEILING FRAMING, WITH 12-14" OF CELLULOSE/FIBERGLASS INSULATION ON TOP.

- PROPOSED: ADD 6" OF ADDITIONAL CELLULOSE INSULATION ON TOP OF EXISTING TO TARGET R-49 MINIMUM

EXISTING: BRICK VENEER, +/- 1" AIR SPACE, WOOD BOARD SHEATHING, 4" WOOD STUDS (BALOONED FRAMED?) WITH DENSE PACK CELLULOSE CIRCA 2002, PLASTER AND LATHE FINISH

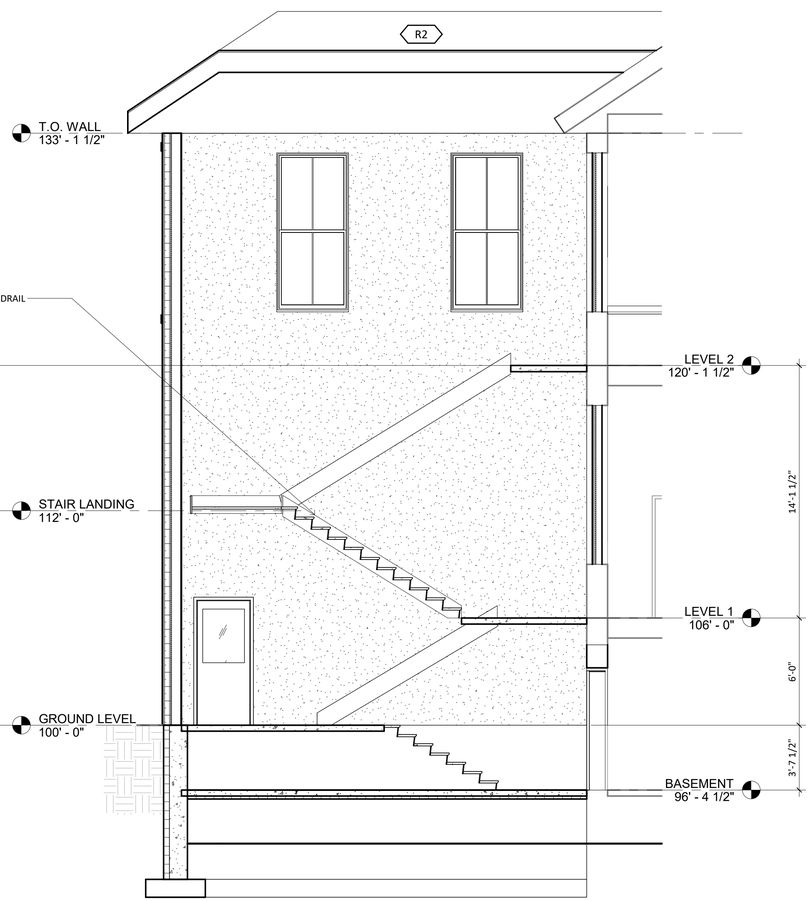
PROPOSED: ASSUMPTION IS THAT DENSE PACK CELLULOSE HAS SETTLED. TOP OFF CAVITY INSULATION IN ALL STUD BAYS. ASSUME 15% OF TOTAL WALL HEIGHT TO BE REPLACED.

REFER TO WINDOW SCOPE FOR AIR SEALING AROUND WINDOWS (INCLUDED IN PROPOSAL FROM PELLA)

BASEMENT WALL
- EXISTING: EXISTING FOUNDATION VARIES BETWEEN STONE AND CONCRETE

- PROPOSED: ASSUME 2" OF SPRAY APPLIED INSULATION WITH DRAINAGE MAT AND PERIMETER DRAINAGE

4 SECTION AT TYPICAL HISTORIC BUILDING
SCALE: 1/4" = 1'-0"



6 SECTION AT STAIRWELL
SCALE: 1/4" = 1'-0"

RICHMOND TOWN HALL
RICHMOND, VERMONT

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

SECTIONS, DETAILS, AND SCHEDULES

SCALE As indicated

DATE 9/29/2022

DRAWN BY ADM

CHECKED BY

A106

FEASIBILITY DRAWINGS - NOT FOR CONSTRUCTION

8/7/2023 8:38:28 AM

RITC

SD FINISH SCHEDULE BY TYPE - FLOORING

SD - FLOOR SCOPE TAG	Level	Name	Number	Area	Perimeter	SD - EXISTING FLOOR	SD - FLOOR DEMO	FLOOR MATERIAL	Floor Finish	SD - FLOOR COMMENTS	BASE MATERIAL	Base Finish
FLOOR.1	LEVEL 1	CORRIDOR	111	321 SF	118' - 5 25/64"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 1	SELECT BOARD MEETING	113	818 SF	114' - 9"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 1	IT	114	17 SF	18' - 11 1/4"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 1	CL.	116	14 SF	18' - 0 25/64"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 1	STORAGE	121	74 SF	35' - 1 23/64"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 1	CONFERENCE	124	148 SF	50' - 6 7/128"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 2	BREAK ROOM	127	266 SF	65' - 4 19/128"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 2	CORRIDOR	132	228 SF	104' - 2 57/64"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 2	CONFERENCE	149	141 SF	48' - 3 57/64"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 2	ST./ARMOURY	169	88 SF	37' - 7 1/2"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 2	CORRIDOR	171	136 SF	56' - 5"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 2	VESTIBULE	172	121 SF	44' - 8 3/4"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 2	SENIOR CENTER	175	132 SF	47' - 2 245/256"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 2	ST.	178	21 SF	20' - 11 31/128"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 2	CORRIDOR	179	220 SF	77' - 4 3/4"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 2	HISTORICAL SOCIETY	192	231 SF	62' - 2 51/128"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.1	LEVEL 2	ARCHIVE STORAGE	193	77 SF	37' - 3 45/128"	CARPET OVER WOOD	DEMO CARPET	EXISTING WOOD/NEW WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
				3,050 SF	957' - 6 21/64"							
FLOOR.2	LEVEL 1	ASST MANAGER	113	152 SF	50' - 5 9/64"	CARPET OVER WOOD	DEMO CARPET	FLOTEX CARPET	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.2	LEVEL 1	TOWN MANAGER	118	152 SF	50' - 4 3/4"	CARPET OVER WOOD	DEMO CARPET	FLOTEX CARPET	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.2	LEVEL 1	BUSINESS ADMIN	120	158 SF	51' - 2 23/64"	CARPET OVER WOOD	DEMO CARPET	FLOTEX CARPET	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.2	LEVEL 1	TOWN CLERK & LISTORS	123	790 SF	111' - 6 31/32"	CARPET OVER WOOD	DEMO CARPET	FLOTEX CARPET	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.2	LEVEL 1	CORRIDOR	125	60 SF	31' - 5 81/128"	CARPET OVER WOOD	DEMO CARPET	FLOTEX CARPET	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.2	LEVEL 1	ZONING	127	719 SF	114' - 0 37/64"	CARPET OVER WOOD	DEMO CARPET	FLOTEX CARPET	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.2	LEVEL 1	OFFICE	128	100 SF	40' - 1 23/64"	CARPET OVER WOOD	DEMO CARPET	FLOTEX CARPET	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.2	LEVEL 2	RECEPTION	165	178 SF	53' - 8 3/4"	CARPET OVER WOOD	DEMO CARPET	FLOTEX CARPET	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.2	LEVEL 2	CHIEF	166	273 SF	66' - 2 3/4"	CARPET OVER WOOD	DEMO CARPET	FLOTEX CARPET	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.2	LEVEL 2	SERGEANT	167	173 SF	53' - 4 3/4"	CARPET OVER WOOD	DEMO CARPET	FLOTEX CARPET	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.2	LEVEL 2	PATROL	168	319 SF	78' - 10 3/4"	CARPET OVER WOOD	DEMO CARPET	FLOTEX CARPET	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
				3,075 SF	701' - 5 101/128"							
FLOOR.3	LEVEL 1	STAIR	110	661 SF	127' - 1 103/128"	CARPET OVER WOOD	DEMO CARPET	WOOD TREADS & RISER WITH RUBBER RUNNERS	PAINT/----	SCRAPE AND STAIN EXISTING HANDRAILS	EXISTING WOOD	STAIN
FLOOR.3	LEVEL 2	STAIR	147	553 SF	107' - 11 181/256"	CARPET OVER WOOD	DEMO CARPET	WOOD TREADS & RISER WITH RUBBER RUNNERS	PAINT/----	SCRAPE AND STAIN EXISTING HANDRAILS	EXISTING WOOD	STAIN
				1,213 SF	235' - 1 131/256"							
FLOOR.4	LEVEL 1	W.C.	115	50 SF	28' - 2 1/2"	CARPET OVER WOOD	DEMO CARPET & WOOD	CERAMIC TILE	---		TILE	---
FLOOR.4	LEVEL 1	W.C.	117	50 SF	28' - 2"	CARPET OVER WOOD	DEMO CARPET & WOOD	CERAMIC TILE	---		TILE	---
FLOOR.4	LEVEL 2	W.C.	170	70 SF	39' - 11 1/2"	CARPET OVER WOOD	DEMO CARPET & WOOD	CERAMIC TILE	---		TILE	---
FLOOR.4	LEVEL 2	W.C.	176	42 SF	26' - 0"	CARPET OVER WOOD	DEMO CARPET & WOOD	CERAMIC TILE	---		TILE	---
FLOOR.4	LEVEL 2	W.C.	177	42 SF	26' - 0"	CARPET OVER WOOD	DEMO CARPET & WOOD	CERAMIC TILE	---		TILE	---
				254 SF	148' - 4"							
FLOOR.5	GROUND LEVEL	CORRIDOR	100	409 SF	108' - 2 3/4"	SHEET GOOD/VCT TILE	DEMO TILE DOWN TO CONCRETE	NEW SHEET GOOD	---		4" RUBBER	---
FLOOR.5	GROUND LEVEL	SERVICE COUNTER AND SALE ITEMS	101	446 SF	95' - 7"	SHEET GOOD/VCT TILE	DEMO TILE DOWN TO CONCRETE	NEW SHEET GOOD	---		4" RUBBER	---
FLOOR.5	GROUND LEVEL	PO BOX	102	296 SF	89' - 10 137/256"	SHEET GOOD/VCT TILE	DEMO TILE DOWN TO CONCRETE	NEW SHEET GOOD	---		4" RUBBER	---
FLOOR.5	GROUND LEVEL	POST OFFICE	103	2,023 SF	310' - 1 197/256"	SHEET GOOD/VCT TILE	DEMO TILE DOWN TO CONCRETE	NEW SHEET GOOD	---		4" RUBBER	---
FLOOR.5	GROUND LEVEL	OFFICE	104	109 SF	42' - 2 1/2"	SHEET GOOD/VCT TILE	DEMO TILE DOWN TO CONCRETE	NEW SHEET GOOD	---		4" RUBBER	---
FLOOR.5	GROUND LEVEL	W.C.	105	79 SF	35' - 7 1/2"	SHEET GOOD/VCT TILE	DEMO TILE DOWN TO CONCRETE	NEW SHEET GOOD	---		4" RUBBER	---
FLOOR.5	GROUND LEVEL	LOADING BAY	106	823 SF	114' - 9 1/2"	SHEET GOOD/VCT TILE	DEMO TILE DOWN TO CONCRETE	NEW SHEET GOOD	---		4" RUBBER	---
FLOOR.5	GROUND LEVEL	MECHANICAL	107	558 SF	104' - 11 1/4"	SHEET GOOD/VCT TILE	DEMO TILE DOWN TO CONCRETE	NEW SHEET GOOD	---		4" RUBBER	---
FLOOR.5	GROUND LEVEL	W.C.	108	96 SF	43' - 2 3/4"	SHEET GOOD/VCT TILE	DEMO TILE DOWN TO CONCRETE	NEW SHEET GOOD	---		4" RUBBER	---
				4,840 SF	944' - 7 141/256"							
FLOOR.6	LEVEL 1	VAULT	126	391 SF	80' - 4"	VCT	NO WORK	EXISTING	---	NO WORK	EXISTING	---
				391 SF	80' - 4"							
FLOOR.7	LEVEL 1	VESTIBULE	112	140 SF	47' - 10"	WOOD	---	WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.7	LEVEL 2	LOCKER	150	222 SF	81' - 6"	WOOD	---	WOOD	POLY	ASSUME 10% WOOD REPLACEMENT	EXISTING WOOD AT PERIMETER/NEW	STAIN
				362 SF	129' - 4"							
FLOOR.8	GROUND LEVEL	STAIR	126	247 SF	67' - 2"	---	---	LW CONCRETE WITH RUBER TREADS/RISERS	POLISHED		4" RUBBER	---
FLOOR.8	LEVEL 1	STAIR	129	247 SF	67' - 2"							
FLOOR.8	LEVEL 2	STAIR	146	247 SF	67' - 2"	---	---	LW CONCRETE WITH RUBER TREADS/RISERS	POLISHED		4" RUBBER	---
				742 SF	201' - 6"							
FLOOR.9	LEVEL 2	STORAGE	130	106 SF	41' - 3"	CARPET OVER WOOD	DEMO CARPET	CORK UNDERLAYMENT AND FLOTEX	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.9	LEVEL 2	RECORDING	131	115 SF	42' - 11 1/2"	CARPET OVER WOOD	DEMO CARPET	CORK UNDERLAYMENT AND FLOTEX	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
FLOOR.9	LEVEL 2	TENANT OR COMMON AREA	173	626 SF	118' - 11 1/4"	CARPET OVER WOOD	DEMO CARPET	CORK UNDERLAYMENT AND FLOTEX	---		EXISTING WOOD AT PERIMETER/NEW	STAIN
				847 SF	203' - 1 3/4"							

Casework Schedule

Type Mark	Count	Description
CT-1	3	SOLID SURFACE COUNTERTOP, SEE FLOOR PLANS. WALL SUPPORT
CT-2	1	SOLID SURFACE COUNTERTOP WITH UNDERCOUNTER CABINETS, SEE FLOOR PLANS
CT-3	2	EPOXY COUNTERTOP WITH UNDERCOUNTER CABINETS
TFS	1	8'-0" TALL CUSTOM WOOD SHELVING

Furniture Schedule

Type Mark	Count	Description
BENCH	3	HARDWOOD LOCKERROOM BENCH. SEE PLAN
L	9	15" X 72" METAL LOCKERS

Plumbing Fixture Schedule

Type Mark	Count	Description
P1	6	Wall Hunt Water Closet
P2	7	Wall-Hung Lavatory
P3	2	Roll-In Shower

RICHMOND TOWN HALL

RICHMOND, VERMONT

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

SCHEDULES

SCALE

DATE
9/29/2022

DRAWN BY
ADM

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A107

8/7/2023 8:38:28 AM

FEASIBILITY DRAWINGS - NOT FOR CONSTRUCTION

RITC

SD FINISH SCHEDULE BY TYPE - CEILING

CLARIFICATION; 20% REPLACEMENT/80% RESTORED FOR BOTH TIN CEILING AND CROWN MOULDING

TAG # - SEE PLANS	LEVEL	ROOM NAME	ROOM #	AREA	Perimeter	EXISTING CONDITION	DEMO	CEILING MATERIAL	Ceiling Finish	SD - CEILING COMMENTS
CEILING.1	LEVEL 1	CORRIDOR	111	321 SF	118' - 5 25/64"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 1	ASST MANAGER	113	152 SF	50' - 5 9/64"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 1	TOWN MANAGER	118	152 SF	50' - 4 3/4"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 1	BUSINESS ADMIN	120	158 SF	51' - 2 23/64"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 1	TOWN CLERK & LISTORS	123	790 SF	111' - 6 31/32"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 1	ZONING	127	719 SF	114' - 0 37/64"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 1	OFFICE	128	100 SF	40' - 1 23/64"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 2	BREAK ROOM	127	266 SF	65' - 4 19/128"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 2	STORAGE	130	106 SF	41' - 3"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 2	RECORDING	131	115 SF	42' - 11 1/2"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 2	CORRIDOR	132	228 SF	104' - 2 57/64"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 2	RECEPTION	165	178 SF	53' - 8 3/4"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 2	CHIEF	166	273 SF	66' - 2 3/4"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 2	SERGEANT	167	173 SF	53' - 4 3/4"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 2	PATROL	168	319 SF	78' - 10 3/4"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 2	TENANT OR COMMON AREA	173	626 SF	118' - 11 1/4"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 2	SENIOR CENTER	175	132 SF	47' - 2 245/256"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.1	LEVEL 2	CORRIDOR	179	220 SF	77' - 4 3/4"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
				5,028 SF	1,285' - 10 13/256"					
CEILING.2	LEVEL 2	HISTORICAL SOCIETY	192	231 SF	62' - 2 51/128"	HARD CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING HARD CEILING	PAINT	
CEILING.2	LEVEL 2	ARCHIVE STORAGE	193	77 SF	37' - 3 45/128"	HARD CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING	EXISTING HARD CEILING	PAINT	
				307 SF	99' - 5 3/4"					
CEILING.3	LEVEL 1	STAIR	110	661 SF	127' - 1 103/128"	TIN CEILING	--	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.3	LEVEL 1	VESTIBULE	112	140 SF	47' - 10"	TIN CEILING	--	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.3	LEVEL 1	SELECT BOARD MEETING	113	818 SF	114' - 9"	TIN CEILING	--	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.3	LEVEL 1	STAIR	129	247 SF	67' - 2"					
CEILING.3	LEVEL 2	STAIR	147	553 SF	107' - 11 181/256"	TIN CEILING	--	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
CEILING.3	LEVEL 2	LOCKER	150	222 SF	81' - 6"	TIN CEILING	--	EXISTING TIN/NEW TIN	PAINT	ASSUME 20% TIN REPLACEMENT WITH NEW INCLUDING TIN CROWN MOULDING
				2,641 SF	546' - 4 131/256"					
CEILING.4	LEVEL 2	VESTIBULE	172	121 SF	44' - 8 3/4"	TIN CEILING	REMOVE TIN & SALVAGE	GYP. BD.	PAINT	
CEILING.4	LEVEL 2	W.C.	176	42 SF	26' - 0"	TIN CEILING	REMOVE TIN & SALVAGE	GYP. BD.	PAINT	
CEILING.4	LEVEL 2	W.C.	177	42 SF	26' - 0"	TIN CEILING	REMOVE TIN & SALVAGE	GYP. BD.	PAINT	
				205 SF	96' - 8 3/4"					
CEILING.5	GROUND LEVEL	CORRIDOR	100	409 SF	108' - 2 3/4"	ADHERED APC CEILING	DEMO ACOUSTIC CEILING	SUSPENDED APC	---	
CEILING.5	GROUND LEVEL	SERVICE COUNTER AND SALE ITEMS	101	446 SF	95' - 7"	ADHERED APC CEILING	DEMO ACOUSTIC CEILING	SUSPENDED APC	---	
CEILING.5	GROUND LEVEL	PO BOX	102	296 SF	89' - 10 137/256"	ADHERED APC CEILING	DEMO ACOUSTIC CEILING	SUSPENDED APC	---	
CEILING.5	GROUND LEVEL	POST OFFICE	103	2,023 SF	310' - 1 197/256"	ADHERED APC CEILING	DEMO ACOUSTIC CEILING	SUSPENDED APC	---	
CEILING.5	GROUND LEVEL	OFFICE	104	109 SF	42' - 2 1/2"	ADHERED APC CEILING	DEMO ACOUSTIC CEILING	SUSPENDED APC	---	
CEILING.5	GROUND LEVEL	W.C.	105	79 SF	35' - 7 1/2"	ADHERED APC CEILING	DEMO ACOUSTIC CEILING	SUSPENDED APC	---	
CEILING.5	GROUND LEVEL	LOADING BAY	106	823 SF	114' - 9 1/2"	ADHERED APC CEILING	DEMO ACOUSTIC CEILING	SUSPENDED APC	---	
CEILING.5	GROUND LEVEL	MECHANICAL	107	558 SF	104' - 11 1/4"	ADHERED APC CEILING	DEMO ACOUSTIC CEILING	SUSPENDED APC	---	
CEILING.5	GROUND LEVEL	W.C.	108	96 SF	43' - 2 3/4"	ADHERED APC CEILING	DEMO ACOUSTIC CEILING	SUSPENDED APC	---	
				4,840 SF	944' - 7 141/256"					
CEILING.6	LEVEL 1	CONFERENCE	124	148 SF	50' - 6 7/128"	HARD CEILING	DEMO EXISTING	SUSPENDED APC	---	
CEILING.6	LEVEL 1	CORRIDOR	125	60 SF	31' - 5 81/128"	HARD CEILING	DEMO EXISTING	SUSPENDED APC	---	
CEILING.6	LEVEL 2	CONFERENCE	149	141 SF	48' - 3 57/64"	HARD CEILING	DEMO EXISTING	SUSPENDED APC	---	
				349 SF	130' - 3 37/64"					
CEILING.7	LEVEL 1	VAULT	126	391 SF	80' - 4"	EXISTING	---	EXISTING	PAINT	
				391 SF	80' - 4"					
CEILING.8	LEVEL 1	IT	114	17 SF	18' - 11 1/4"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING AND SALVAGE TIN	GYP. BD.	PAINT	
CEILING.8	LEVEL 1	W.C.	115	50 SF	28' - 2 1/2"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING AND SALVAGE TIN	GYP. BD.	PAINT	
CEILING.8	LEVEL 1	CL.	116	14 SF	18' - 0 25/64"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING AND SALVAGE TIN	GYP. BD.	PAINT	
CEILING.8	LEVEL 1	W.C.	117	50 SF	28' - 2"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING AND SALVAGE TIN	GYP. BD.	PAINT	
CEILING.8	LEVEL 1	STORAGE	121	74 SF	35' - 1 23/64"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING AND SALVAGE TIN	GYP. BD.	PAINT	
CEILING.8	LEVEL 2	ST./ARMOURY	169	88 SF	37' - 7 1/2"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING AND SALVAGE TIN	GYP. BD.	PAINT	
CEILING.8	LEVEL 2	W.C.	170	70 SF	39' - 11 1/2"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING AND SALVAGE TIN	GYP. BD.	PAINT	
CEILING.8	LEVEL 2	CORRIDOR	171	136 SF	56' - 5"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING AND SALVAGE TIN	GYP. BD.	PAINT	
CEILING.8	LEVEL 2	ST.	178	21 SF	20' - 11 31/128"	TIN CEILING ABOVE DROPPED CEILING	DEMO DROPPED CEILING AND SALVAGE TIN	GYP. BD.	PAINT	
				519 SF	283' - 4 95/128"					
CEILING.9	GROUND LEVEL	STAIR	126	247 SF	67' - 2"	---	---	GYP. BD.	PAINT	
CEILING.9	LEVEL 2	STAIR	146	247 SF	67' - 2"	---	---	GYP. BD.	PAINT	
				495 SF	134' - 4"					

SD FINISH SCHEDULE BY TYPE - WALL

SD - WALL SCOPE TAG	LEVEL	ROOM NAME	ROOM #	AREA	Perimeter	WALL MATERIAL	Wall Finish
WALL.1	LEVEL 2	ST./ARMOURY	169	88 SF	37' - 7 1/2"	GYP. BD.	PAINT
WALL.1	LEVEL 2	CORRIDOR	171	136 SF	56' - 5"	GYP. BD.	PAINT
				224 SF	94' - 0 1/2"		
WALL.2	LEVEL 1	STAIR	110	661 SF	127' - 1 103/128"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	CORRIDOR	111	321 SF	118' - 5 25/64"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	VESTIBULE	112	140 SF	47' - 10"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	SELECT BOARD MEETING	113	818 SF	114' - 9"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	ASST MANAGER	113	152 SF	50' - 5 9/64"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	IT	114	17 SF	18' - 11 1/4"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	CL.	116	14 SF	18' - 0 25/64"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	TOWN MANAGER	118	152 SF	50' - 4 3/4"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	BUSINESS ADMIN	120	158 SF	51' - 2 23/64"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	STORAGE	121	74 SF	35' - 1 23/64"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	TOWN CLERK & LISTORS	123	790 SF	111' - 6 31/32"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	CONFERENCE	124	148 SF	50' - 6 7/128"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	CORRIDOR	125	60 SF	31' - 5 81/128"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	ZONING	127	719 SF	114' - 0 37/64"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	OFFICE	128	100 SF	40' - 1 23/64"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 1	STAIR	129	247 SF	67' - 2"		
WALL.2	LEVEL 2	BREAK ROOM	127	266 SF	65' - 4 19/128"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	STORAGE	130	106 SF	41' - 3"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	RECORDING	131	115 SF	42' - 11 1/2"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	CORRIDOR	132	228 SF	104' - 2 57/64"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	STAIR	147	553 SF	107' - 11 181/256"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	CONFERENCE	149	141 SF	48' - 3 57/64"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	LOCKER	150	222 SF	81' - 6"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	RECEPTION	165	178 SF	53' - 8 3/4"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	CHIEF	166	273 SF	66' - 2 3/4"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	SERGEANT	167	173 SF	53' - 4 3/4"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	PATROL	168	319 SF	78' - 10 3/4"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	VESTIBULE	172	121 SF	44' - 8 3/4"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	TENANT OR COMMON AREA	173	626 SF	118' - 11 1/4"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	SENIOR CENTER	175	132 SF	47' - 2 245/256"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	ST.	178	21 SF	20' - 11 31/128"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	CORRIDOR	179	220 SF	77' - 4 3/4"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	HISTORICAL SOCIETY	192	231 SF	62' - 2 51/128"	EXIST PLASTER/GYP. BD.	PAINT
WALL.2	LEVEL 2	ARCHIVE STORAGE	193	77 SF	37' - 3 45/128"	EXIST PLASTER/GYP. BD.	PAINT
				8,571 SF	2,199' - 8 113/128"		
WALL.3	GROUND LEVEL	CORRIDOR	100	409 SF	108' - 2 3/4"	GYP BD./CMU	PAINT
WALL.3	GROUND LEVEL	SERVICE COUNTER AND SALE ITEMS	101	446 SF	95' - 7"	GYP BD./CMU	PAINT
WALL.3	GROUND LEVEL	PO BOX	102	296 SF	89' - 10 137/256"	GYP BD./CMU	PAINT
WALL.3	GROUND LEVEL	POST OFFICE	103	2,023 SF	310' - 1 197/256"	GYP BD./CMU	PAINT
WALL.3	GROUND LEVEL	OFFICE	104	109 SF	42' - 2 1/2"	GYP BD./CMU	PAINT
WALL.3	GROUND LEVEL	LOADING BAY	106	823 SF	114' - 9 1/2"	GYP BD./CMU	PAINT
WALL.3	GROUND LEVEL	MECHANICAL	107	558 SF	104' - 11 1/4"	GYP BD./CMU	PAINT
WALL.3	GROUND LEVEL	STAIR	126	247 SF	67' - 2"	GYP BD./CMU	PAINT
WALL.3	LEVEL 2	STAIR	146	247 SF	67' - 2"	GYP BD./CMU	PAINT
				5,159 SF	1,000' - 1 77/256"		
WALL.5	LEVEL 1	VAULT	126	391 SF	80' - 4"	EXIST	PAINT
				391 SF	80' - 4"		
WALL.6	GROUND LEVEL	W.C.	105	79 SF	35' - 7 1/2"	CERAMIC TILE UP TO 4' AFF, GYP	---/PAINT
WALL.6	GROUND LEVEL	W.C.	108	96 SF	43' - 2 3/4"	CERAMIC TILE UP TO 4' AFF, GYP	---/PAINT
WALL.6	LEVEL 1	W.C.	115	50 SF	28' - 2 1/2"	CERAMIC TILE UP TO 4' AFF, GYP	---/PAINT
WALL.6	LEVEL 1	W.C.	117	50 SF	28' - 2"	CERAMIC TILE UP TO 4' AFF, GYP	---/PAINT
WALL.6	LEVEL 2	W.C.	170	70 SF	39' - 11 1/2"	CERAMIC TILE UP TO 4' AFF, GYP	---/PAINT
WALL.6	LEVEL 2	W.C.	176	42 SF	26' - 0"	CERAMIC TILE UP TO 4' AFF, GYP	---/PAINT
WALL.6	LEVEL 2	W.C.	177	42 SF	26' - 0"	CERAMIC TILE UP TO 4' AFF, GYP	---/PAINT
				429 SF	227' - 2 1/4"		

RICHMOND TOWN HALL

RICHMOND, VERMONT

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

SCHEDULES

SCALE

DATE
9/29/2022

DRAWN BY
ADM

CHECKED BY

A108

FEASIBILITY DRAWINGS - NOT FOR CONSTRUCTION

8/2/2023 8:38:28 AM

RITC

EXISTING TOWN CENTER PARCEL LOT COVERAGE: 65.7%
PROPOSED TOWN CENTER PARCEL LOT COVERAGE: 64.2%

EXISTING LIBRARY PARCEL LOT COVERAGE: 29.2%
PROPOSED LIBRARY PARCEL LOT COVERAGE: 33%

EXISTING PARKING SPACES: 66
PROPOSED PARKING SPACES: 66

EXISTING ACCESS TO NEIGHBORING PARCEL
STORMWATER TREATMENT AREA (SIZE TBD)
PROPOSED GRAVEL WETLAND, REVIEW OUTLET PIPE AND CONFIRM CONDITION
UNIT BLOCK RETAINING WALL
EDGE OF EXISTING DEVELOPMENT
POSSIBLE COMPENSATORY FLOOR STORAGE
REDI-ROCK SEGMENTED CONCRETE RETAINING WALL WITH PERFORATED FOOTING DRAIN AND GRANULAR BACK FILL
PROPOSED SHADE TREE
PROPOSED 10"PVC PIPE AND CATCH BASINS, DISCHARGE TO GRAVEL WETLAND
ADA PARKING
ADA PARKING
FUTURE LIBRARY EXPANSION
TOWN HALL
PAVERS
SPEED TABLE
81'
17'
19'
<5%
LIBRARY
315'
314'
313'
EVENT LAWN
PROPOSED 10"PVC PIPE AND CATCH BASINS, DISCHARGE TO GRAVEL WETLAND
PROPOSED DRIP EDGE WITH 2" WASHED RIVER STONE, 6" PERFORATED PVC PIPE AND MEMBRANE LINER BELOW.
NEW SIDEWALK
STORY TIME PAVILLION
INFILL GRADE IN THIS AREA TO LESSON GRADE DIFFERENTIAL BETWEEN BUILDINGS
EXISTING TREES TO REMAIN, TYP.

PLOT DATE: 5/8/2023 8:13:39 PM

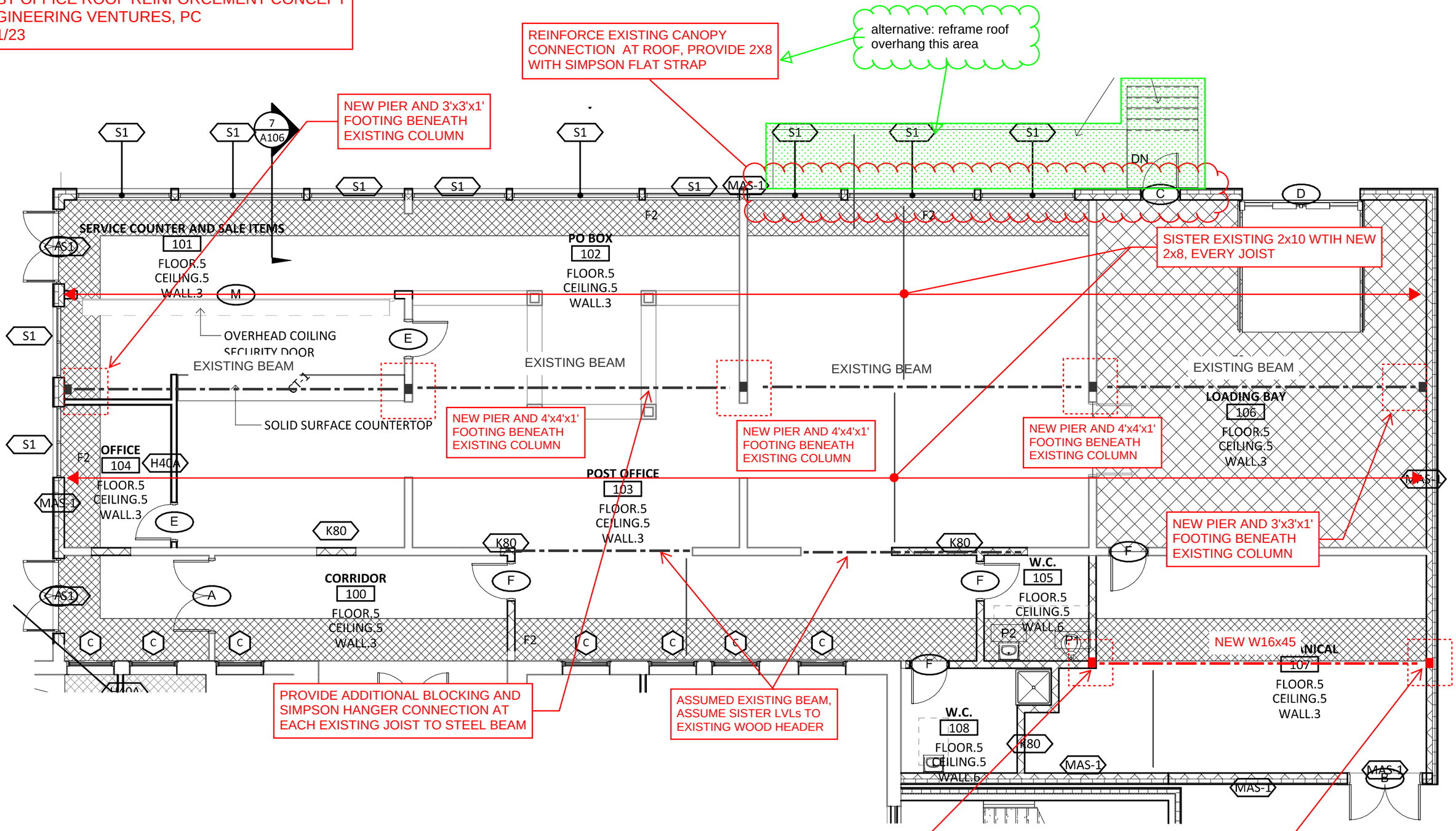
SCALE: 1" = 20'
05.11.2023

RICHMOND TOWN CENTER | CONCEPTUAL SITE PLAN

FEASIBILITY DRAWINGS - NOT FOR CONSTRUCTION

WHLA WAGNER HODGSON

22305 - RICHMOND TOWN HALL
POST OFFICE ROOF REINFORCEMENT CONCEPT
ENGINEERING VENTURES, PC
8/21/23



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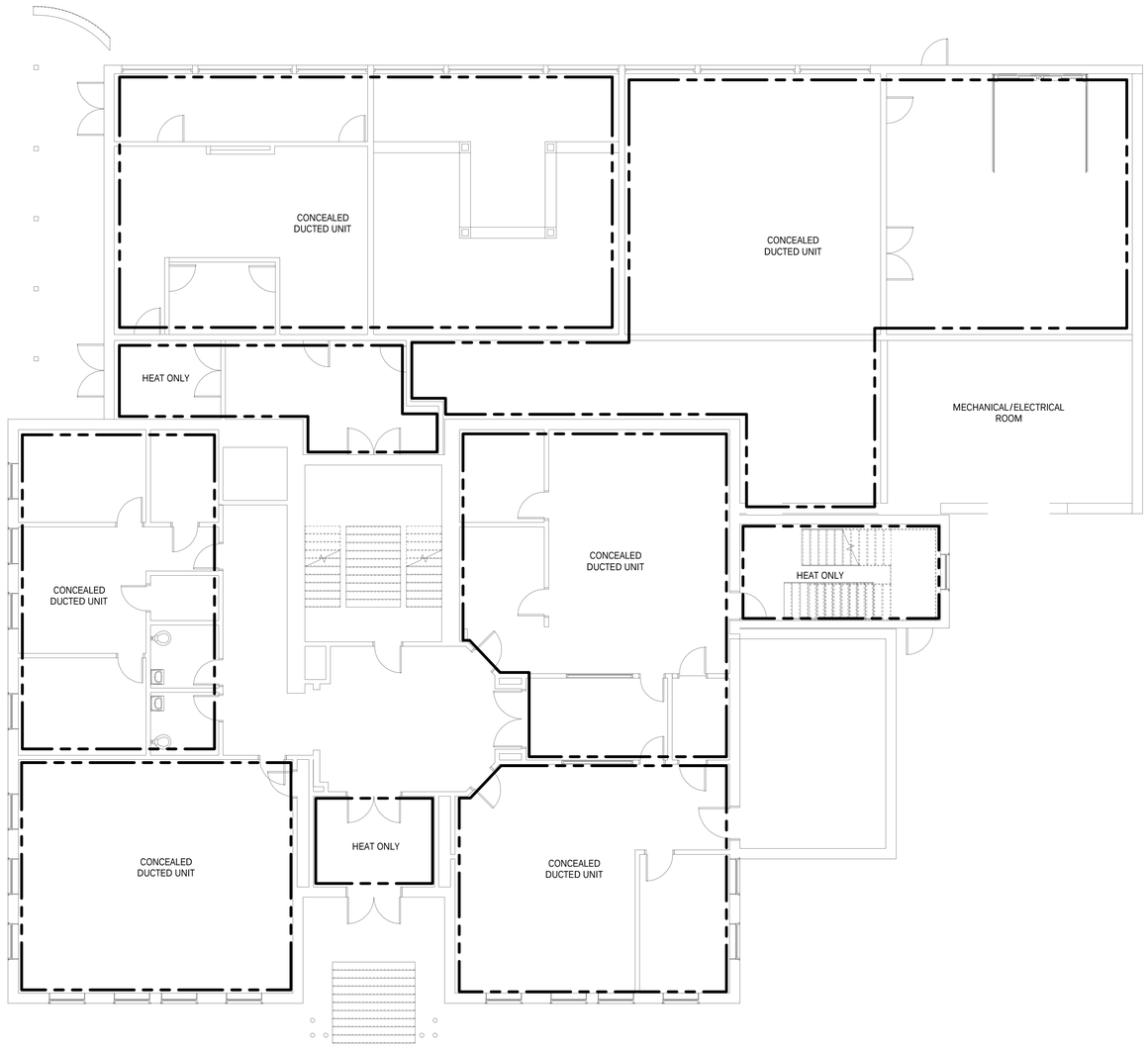

FIRST FLOOR MECHANICAL ZONING PLAN

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

HORIZONTAL SCALE IN FEET

8 4 0 8 16 24 32

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NEW HAMPSHIRE, MAINE &
NEW YORK

REVISIONS

NUMBER	DATE	REVISION DESCRIPTION	BY

Owner

PROJECT NAME:

RICHMOND TOWN HALL

SHEET TITLE:

MECHANICAL FIRST FLOOR ZONING PLAN

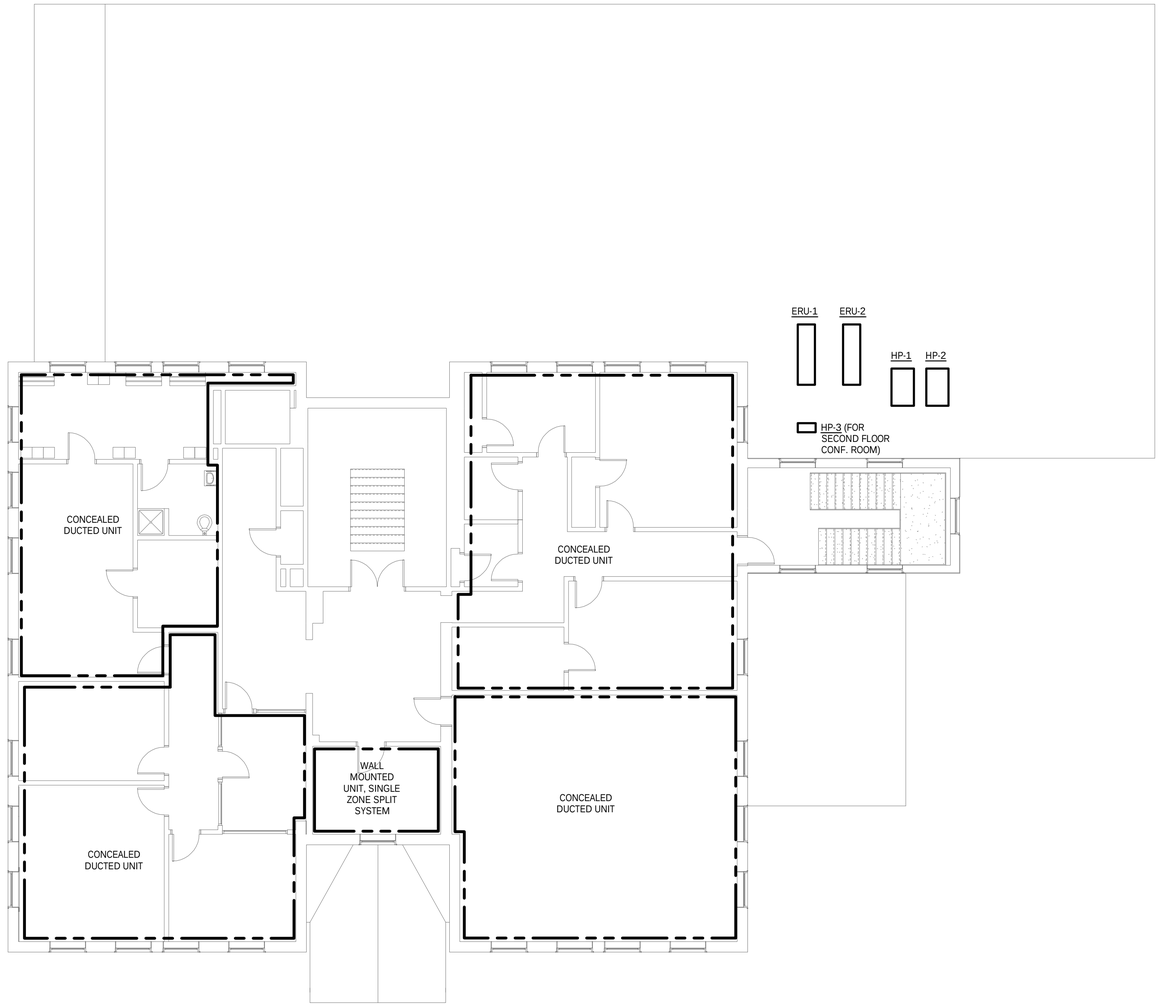
DRAWN BY: DLA	DATE:
CHECKED BY: -	D&K PROJECT #: 528714
PROJ. ENG.: DLA	D&K ARCHIVE #:

SHEET NUMBER

M1.1

SCHEMATIC LAYOUT 7/28/23

FEASIBILITY DRAWINGS - NOT FOR CONSTRUCTION



SECOND FLOOR MECHANICAL ZONING PLAN

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

HORIZONTAL SCALE IN FEET

8 4 0 8 16 24 32

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REVISIONS

NUMBER	DATE	REVISION DESCRIPTION	BY

Owner

PROJECT NAME:

RICHMOND TOWN HALL

SHEET TITLE:

MECHANICAL SECOND FLOOR ZONING PLAN

DRAWN BY	DATE
DLA	
CHECKED BY	D&K PROJECT #
	528714
PROJ. ENG.	D&K ARCHIVE #
DLA	

SHEET NUMBER

M1.2

SCHEMATIC LAYOUT 7/28/23

FEASIBILITY DRAWINGS - NOT FOR CONSTRUCTION

Trane® / Mitsubishi Electric HVRF

Meet Trane® / Mitsubishi Electric HVRF: an all-electric, two-pipe hydronic VRF system. This future-forward, decarbonization solution uses refrigerant to connect outdoor units to the Hybrid Branch Controller (HBC) and water to connect the HBC to indoor units. It combines the advantages of VRF and hydronic chiller system into an all-electric heat pump that heats and cools simultaneously.

TRANE

MITSUBISHI ELECTRIC

INDOORS

Indoor Units

Ducted or ductless styles, including medium static ducted, wall mounts and cassettes.

Air bleed valve: Releases air from the hydronic piping and heat exchanger.

Closed loop heating: Hot water that heats the room, gets cooler, then is returned by the indoor unit to the HBC or Sub HBC where it is reheated by the heat exchangers to provide continuous heating to the spaces that need it.

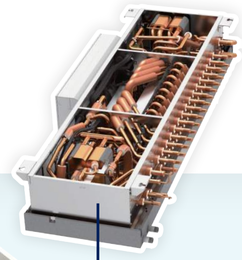
Sub Hybrid Branch Controller: The main HBC supplies both cold and hot water to the refrigerant-free Sub HBC which in turn feeds the water to up to 16 connected zones. 8 or 16 ports.

Water Line Set

Multi-layer composite piping (MLP) costs less than copper, and joints connect easier without brazing.

Hybrid Branch Controller

Exchanges heat between refrigerant (exterior) and water (interior). It allows for heat recovery, meaning the system can heat and cool simultaneously.



- Refrigerant-to-water heat exchangers
- HBC control panel communicates with the outdoor unit and indoor units
- 8 or 16 ports

Decarbonize! HVRF reduces overall system refrigerant use by up to 20%*.

Perfect for multi-zone spaces such as hotels, dorms, offices and multi-family living facilities.

Easier compliance with ASHRAE® 15 standards.

Built-in algorithms optimize HVRF system performance.

SYSTEM ENHANCEMENTS

Trane® Horizon® Dedicated Outdoor Air Systems

Designed to condition up to 100% of outdoor air year-round, reduce latent loads and maintain indoor air quality.

Tracer® SC+

Trane's powerful building automation system integrates systems to simplify command and provide better control over comfort and efficiency.

Refrigerant Line Set

Refrigerant (R-410A) transfers heat through the outdoor line sets.

OUTDOORS

Air-source and water-source options.

Outdoor Units (N-Generation CITY MULTI®)

Heat exchanger: Unique all-aluminum design. Reliably operates within -13°F and 60°F for heating, 23°F to 126°F for cooling.

Compressor: Varies the amount of circulating refrigerant by adjusting the operating frequency based on the system's data.

Fan: Variable speed controlled by the unit to optimize heat exchange and energy efficiency.

TRANE TECHNOLOGIES

*Compared to conventional VRF

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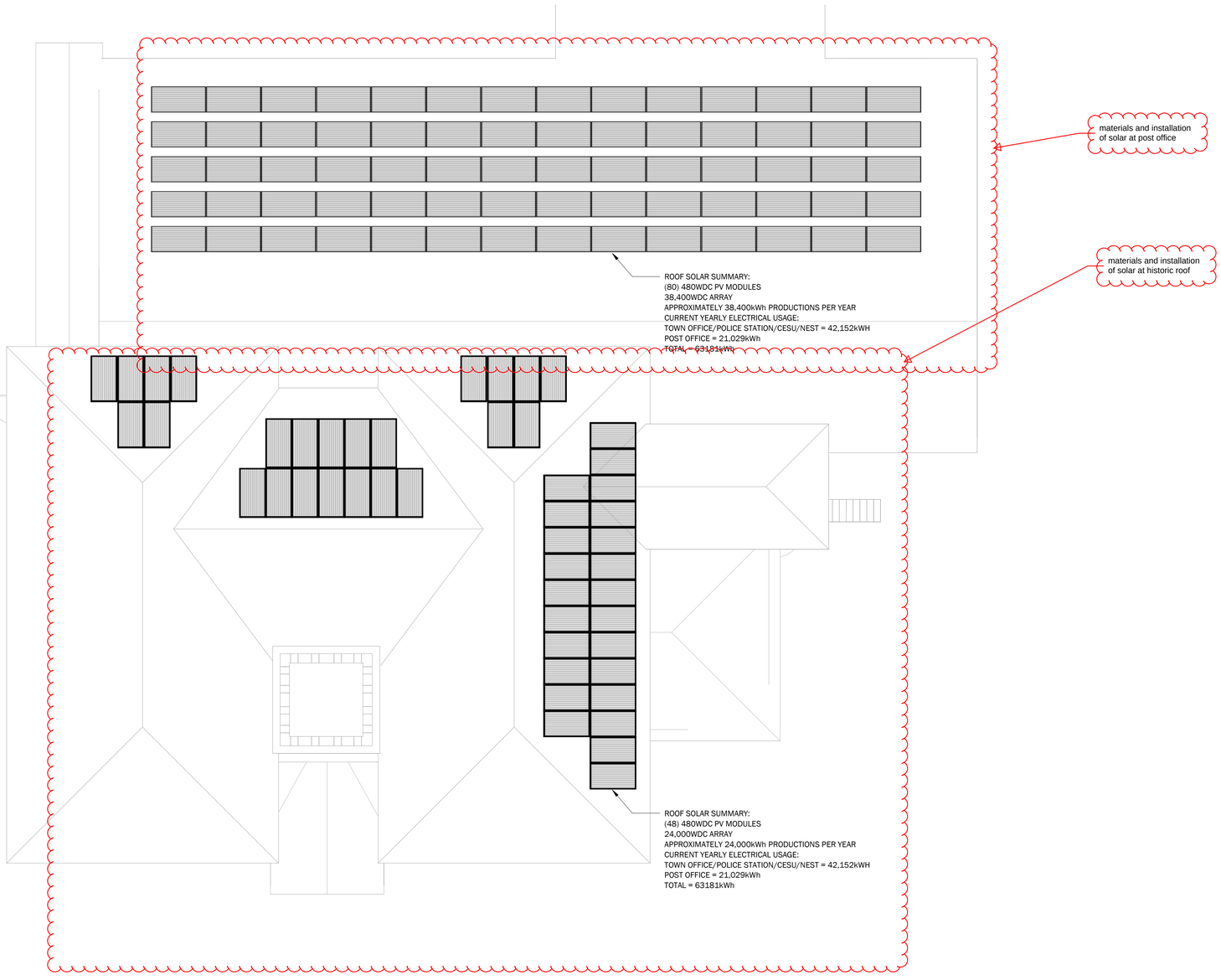

1 ROOF SOLAR PLAN
1/8" = 1'-0"

RICHMOND TOWN HALL

RICHMOND, VERMONT

BLACK RIVER DESIGN
73 MAIN STREET
MONTPELIER VERMONT 05602

REVISIONS

ROOF SOLAR PLAN

SCALE
1/8" = 1'-0"

DATE
8/1/23

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RMR

CHECKED BY
RMR

E1.0

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8/1/2023 3:30:24 PM

Project Number

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EDGE OF EXISTING DEVELOPMENT
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PROPOSED SHADE TREE
NEW DUAL PORTEV CHARGER
ADA PARKING
ADA PARKING
FUTURE LIBRARY EXPANSION
TOWN HALL
PAVERS
SPEED TABLE
LIBRARY
<5%
NEW DUAL PORT EV CHARGER
EVENT LAWN
NEW UNDERGROUND SERVICE TO NEW ELECTRICAL ROOM
NEW SIDEWALK
STORY TIME PAVILLION
INFILL GRADE IN THIS AREA TO LESSON GRADE DIFFERENTIAL BETWEEN BUILDINGS
NEW UTILITY POLE
EXISTING TREES TO REMAIN, TYP.
NEW OVERHEAD 3-PHASE PRIMARY

PLOT DATE: 5/8/2023 8:13 PM

SCALE: 1" = 20'
05.11.2023

RICHMOND TOWN CENTER | CONCEPTUAL SITE PLAN

FEASIBILITY DRAWINGS - NOT FOR CONSTRUCTION

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