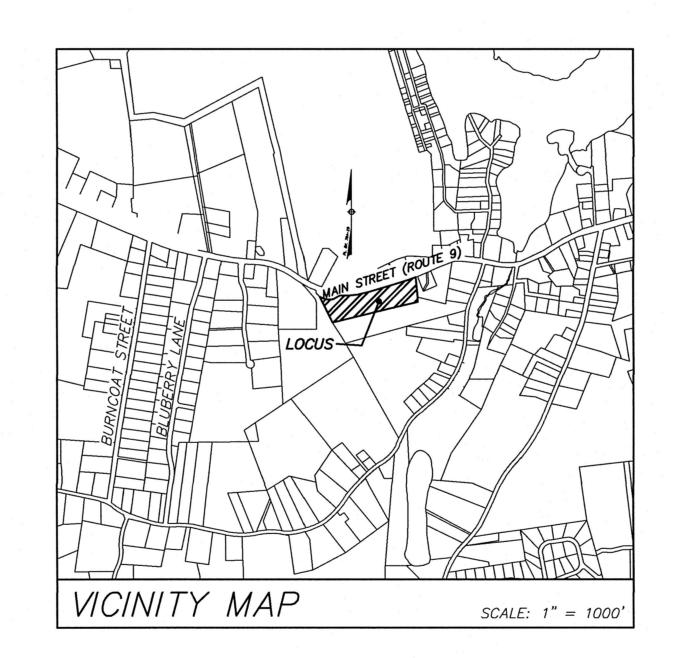
SITE DEVELOPMENT PLAN SOLAR ENERGY STORAGE SYSTEM (ESS) 1355 MAIN STREET IN LEICESTER, MASSACHUSETTS SEPTEMBER 21, 2021 REVISIONS THROUGH OCTOBER 19, 2021



APPLICANT:

ZP BATTERY DEVCO, LLC BRENDON GOVE 10 E. WORCESTER STREET, SUITE 3A WORCESTER, MASSACHUSETTS 01604

OWNER:

WR ENTERPRISES, LLC 1323 MAIN STREET LEICESTER, MASSACHUSETTS 01420

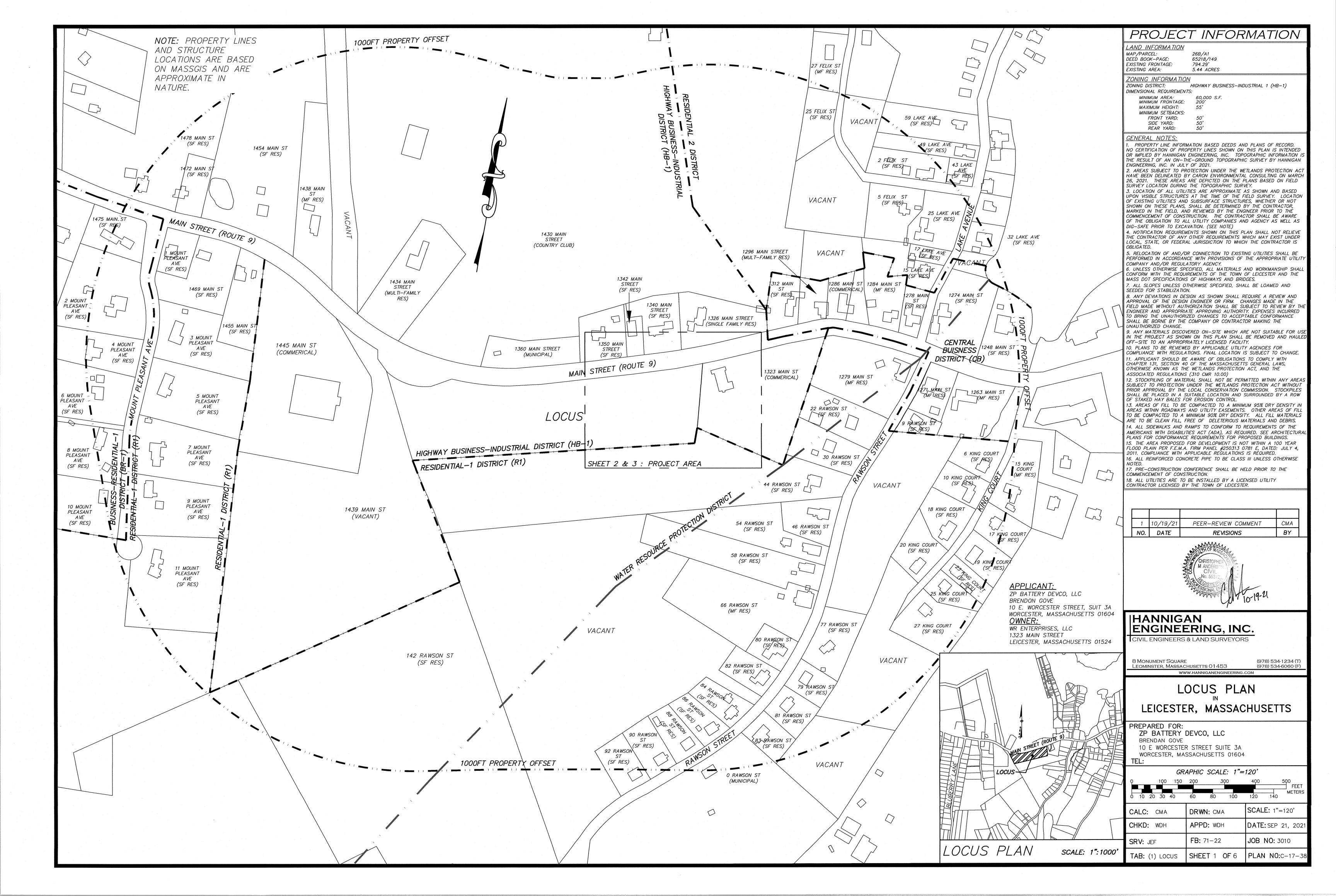
CIVIL ENGINEER & LAND SURVEYOR:

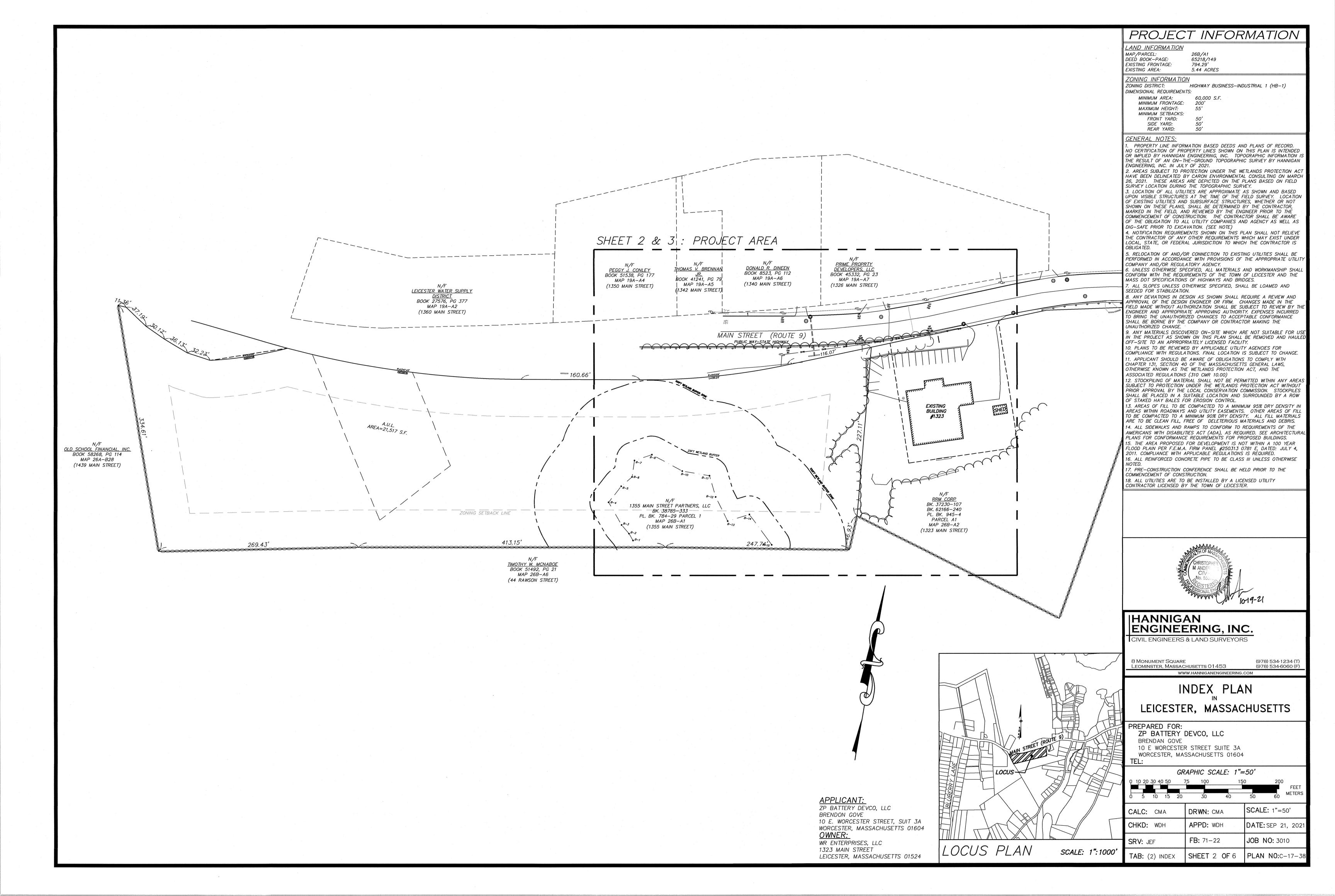
HANNIGAN ENGINEERING, INC. 8 MONUMENT SQUARE LEOMINSTER, MASSACHUSETTS 01453 TEL: (978) 534 - 1234

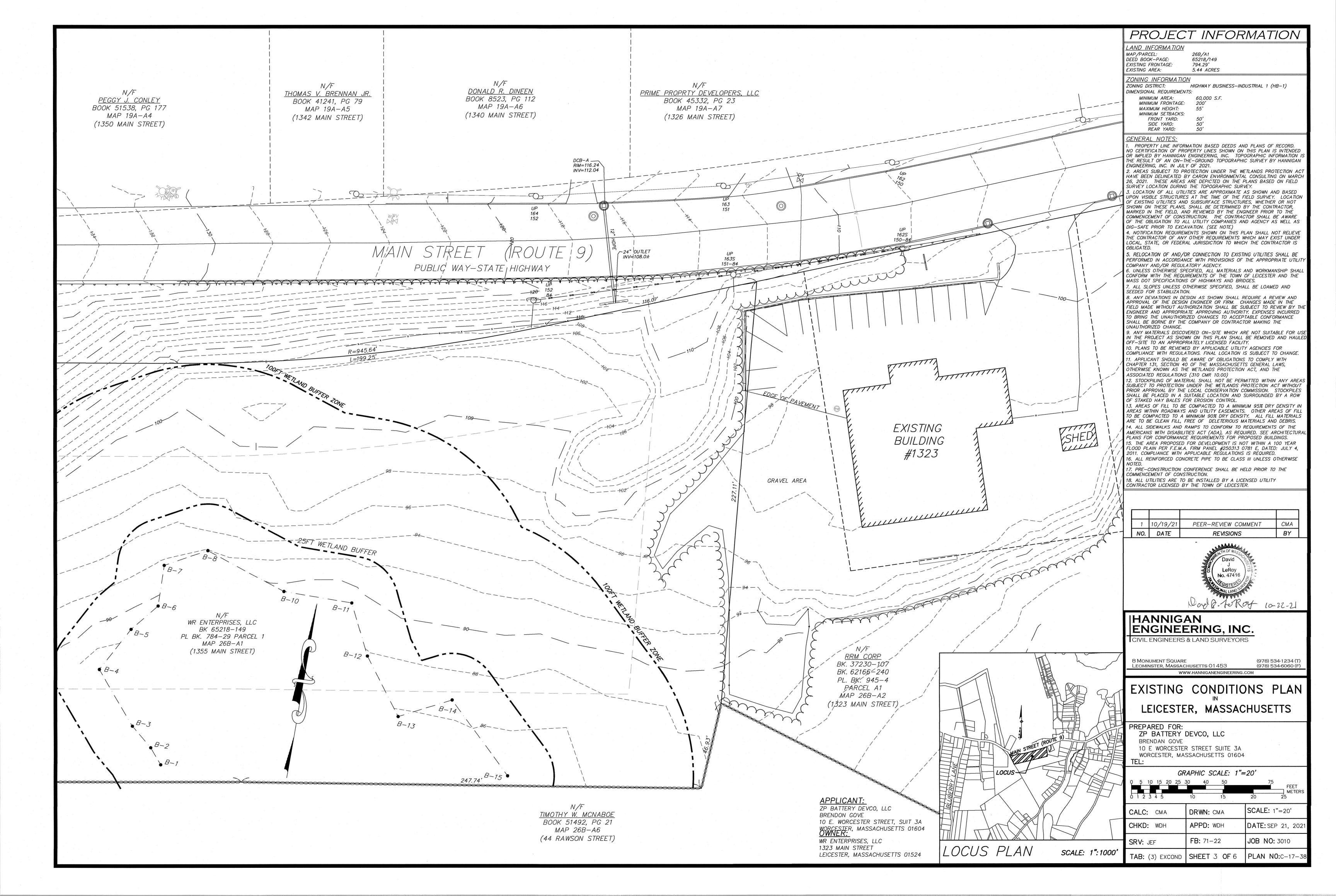
PLAN INDEX

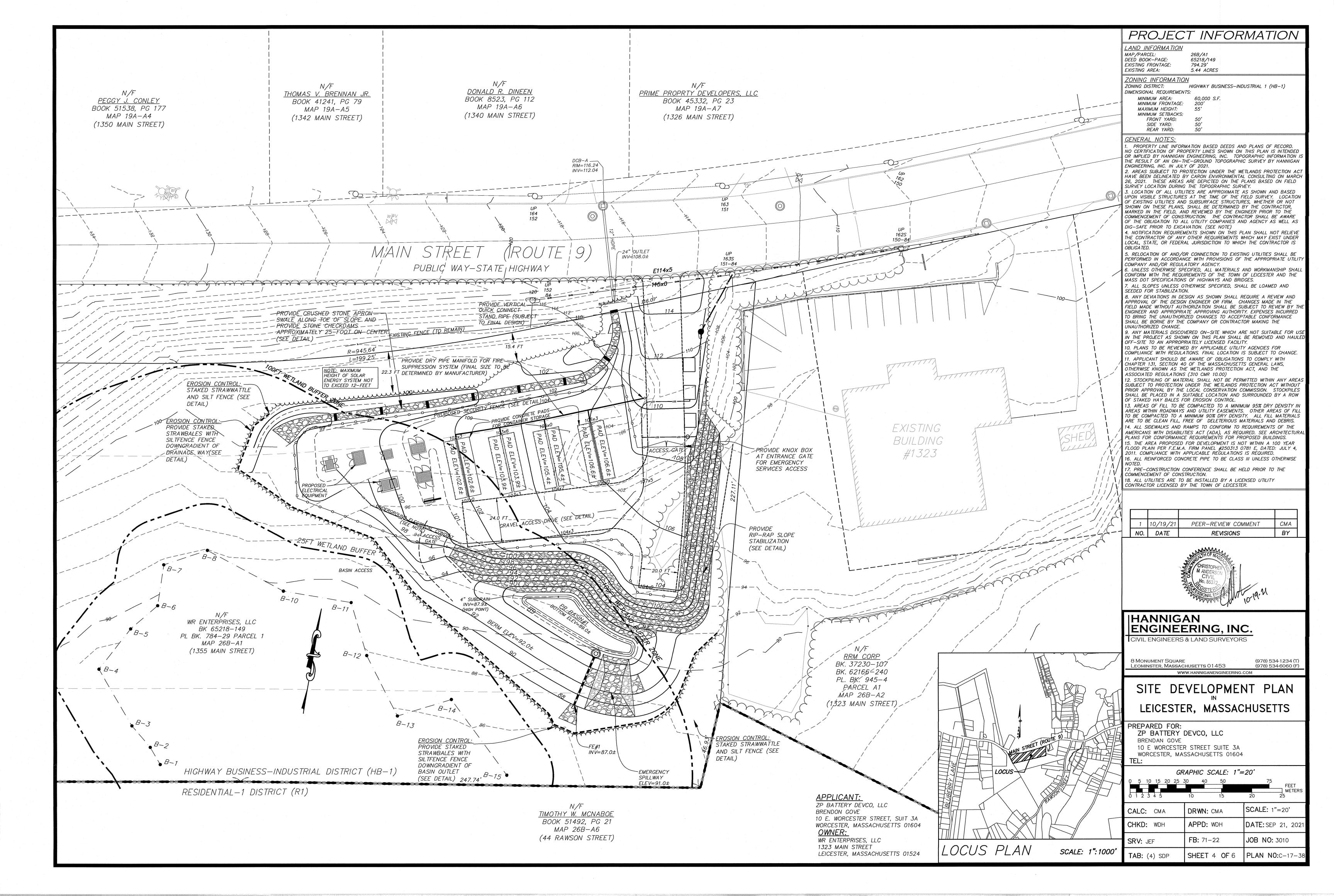
SHEET	1	LOCUS PLAN
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PERMITTING SET - NOT FOR CONSTRUCTION









EROSION & SEDIMENTATION CONTROL PLAN

THE PURPOSE OF THIS PLAN IS TO PRESENT A PREVENTIVE METHOD OF CONSTRUCTION TO MINIMIZE THE IMPACT OF THE CONSTRUCTION ACTIVITIES UPON WETLAND AND OTHER SENSITIVE AREAS. THE DATA CONTAINED ON THIS PLAN IS INTENDED TO SUPPLEMENT THE DEVELOPER OR CONTRACTORS' EXPERTISE AND IS NOT MEANT TO CIRCUMVENT LOGICAL DECISIONS REQUIRED BY A VARIETY OF FIELD CONDITIONS NCLUDING WEATHER AND THE TYPE OF EQUIPMENT AVAILABLE TO THE

. THE CONTRACTOR IS TO BE AWARE OF THE REQUIREMENTS AND OBLIGATIONS TO COMPLY WITH CHAPTER 131, SECTION 40 OF THE MASSACHUSETTS GENERAL LAWS, OTHERWISE KNOWN AS THE WETLANDS PROTECTION ACT, AND ITS ASSOCIATED REGULATIONS (310 CMR 10.00). CERTAIN PERMITS IN THE FORM OF AN ORDER OF CONDITIONS, OR OTHER FORMAT, MAY BE REQUIRED FOR THE CONSTRUCTION AS DEPICTED ON THIS PLAN. THESE PERMITS SHALL BE REVIEWED AND ADHERED TO BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS. THE CONTRACTOR SHALL ALSO MAINTAIN COPIES OF ALL PERMITS ON SITE

3. IF CHANGES IN THE PROJECT ARE REQUIRED DUE TO FIELD CONDITIONS THE DEVELOPER/CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER FOR REVIEW OF THESE CONDITIONS. UPON REVIEW, AND PRIOR O THE IMPLEMENTATION OF ANY CHANGE, THE CONTRACTOR AND THE ENGINEER SHALL MEET WITH THE APPROPRIATE LOCAL AND/OR STATE OFFICIAL, OR ITS AGENT, TO DETERMINE IF THE CHANGE REQUIRES MODIFICATION TO EXISTING APPROVED PERMITS.

. ALTERATION AND/OR DESTRUCTION OF WETLAND AREAS WITHOUT PRIOR CONSENT OF THE CONSERVATION COMMISSION IS PROHIBITED SILTATION PLUMES, ILLICIT DISCHARGES, OR INADVERTANT ALTERATION SHALL BE CONSIDERED AS ACTIVITIES NOT PERMITTED BY THE ORDER AND SHALL BE REPORTED TO THE CONSERVATION COMMISSION ALONG WITH THE PROPOSED MITIGATIVE MEASURES.

PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE EROSION AND SEDIMENT CONTROL BARRIER SHALL BE INSTALLED AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN THE EROSION CONTROL BARRIER UNTIL ALL WORK IS COMPLETE AND ALL AREAS HAVE BEEN STABILIZED. THE REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE ONLY UPON THE APPROVAL OF THE CONSERVATION COMMISSION.

6. EROSION AND SEDIMENTATION CONTROL DEVICES, SUCH AS CHECK DAMS, SEDIMENT BASINS, ETC. ARE TO BE INSTALLED AS SHOWN ON THE SITE DEVELOPMENT PLANS WITH ASSOCIATED DETAILS, AS APPROPRIATE.

CONSTRUCTION OPERATIONS SHALL NOT CAUSE NOTICEABLE SEDIMENTATION PLUMES TO OCCUR ON OR SURROUNDING THE PROJECT. SHOULD SEDIMENT EXTEND BEYOND THE EROSION CONTROL BARRIERS, HE CONTRACTOR SHALL STOP WORK AND INSTALL ADDITIONAL MITIGATION MEASURES TO PREVENT FURTHER SEDIMENTATION.

B. NO MATERIAL SUBJECT TO EROSION SHALL BE STOCKPILED OVERNIGHT WITHIN 100 FEET OF ANY WETLAND AREAS WITHOUT PROPER EROSION AND SEDIMENTATION DEVICES IN PLACE.

D. EQUIPMENT SHALL NOT BE PARKED WITHIN WETLAND OR BUFFER AREAS EXCEPT DURING ACTUAL OPERATIONS REQUIRING SAID EQUIPMENT. D. ACCUMULATED SEDIMENT ALONG EROSION CONTROL BARRIERS SHALL E PERIODICALLY REMOVED AND DISPOSED OF BY THE CONTRACTOR AS REQUIRED BY THE CONSERVATION COMMISSION OR AS DIRECTED BY THE

EROSION CONTROL METHODS:

. IT IS OF GREAT IMPORTANCE THAT CONCENTRATION OF RUNOFF BE AVOIDED IN ORDER TO PREVENT THE TRANSPORT OF SEDIMENT.

THE PRIMARY EROSION CONTROL METHOD TO BE UTILIZED IS TO LIMIT THE AREA OF DISTURBANCE DURING CONSTRUCTION ACTIVITIES. THIS IS ACCOMPLISHED BY PROMPT STABILIZATION OF DISTURBED AREAS UPON COMPLETION OF SEQUENCES OF CONSTRUCTION.

3. EROSION AND SEDIMENT CONTROL DEVICES SUCH AS HAY BALES, SILT FENCES, DIVERSION BERMS, ETC. SHALL BE UTILIZED FOR THE PROTECTION OF THE AREAS BEYOND THE LIMIT OF CONSTRUCTION.

DEMARCATION OF SENSITIVE AREAS:

IT IS RECOMMEND THAT BARRIERS BE PLACED ON THE SITE TO CONTROL THE LIMITS OF THE DISTURBANCE. AS AN EXAMPLE, HAY BALE BARRIERS PROVIDE SUCH DEMARCATION AND OTHER METHODS SUCH AS LOG BARRIERS, ROPE WITH FLAGGING, ETC. MAY BE UTILIZED. CARE SHOULD BE TAKEN IN THE OPERATION OF EQUIPMENT, SUCH THAT ONLY THE MINIMUM AREA NEEDED TO BE ALTERED IS DISTURBED.

1. ACCESS TO THE SITE SHALL BE MADE IN THE AREA OF A PERMANENT DRIVEWAY OR ROADWAY UNLESS DOING SO WOULD RESULT IN A TRAFFIC

2. AN AREA OF CRUSHED STONE SHALL BE PLACED AT THE DRIVEWAY ENTRANCE TO INSURE THAT MUD IS NOT TRACKED ONTO THE EXISTING ROAD (SEE CONSTRUCTION ENTRANCE DETAIL). IF MUD IS INADVERTENTLY TRACKED ONTO THE ROAD, IT SHOULD BE PROMPTLY REMOVED.

LABORERS VEHICLES SHALL BE PARKED IN A DESIGNATED AREA AS O MINIMIZE DISTURBED SURFACES AND TO INSURE THAT RUTS ARE NOT CREATED AND WHICH COULD CARRY WATER TO A WETLAND OR OTHER SENSITIVE AREA.

SUITABLE MEASURES SHALL BE TAKEN TO INSURE THAT LARGE DELIVERY TRUCKS SERVICING THE SITE DO NOT DAMAGE TO AREAS OF EXISTING VEGETATION OR CAUSE DISTURBANCE TO STABILIZED AREAS.

ORDERLY CONSTRUCTION PROCEDURES:

. THE CONTRACTOR SHALL PERFORM SITE CONSTRUCTION IN A MANNER WHICH WILL INSURE THE STABILIZATION OF AREAS IN PROXIMITY OF OR TRIBUTARY TO WETLAND AREAS AS SOON AS POSSIBLE.

. EROSION CONTROL DEVICES SUCH AS HAY BALE BARRIERS, SILT FENCES AND MULCH SHALL BE BROUGHT TO THE SITE AND STOCKPILED

3. THE CONTRACTOR SHALL PROVIDE AREAS FOR THE TEMPORARY STORAGE OF CONSTRUCTION DEBRIS. CONSTRUCTION DEBRIS SHALL NOT BE ALLOWED TO ACCUMULATE FOR AN EXTENDED PERIOD OF TIME.

. LAND CLEARING SHALL BE PERFORMED IN PHASES CONSISTENT WITH ACTUAL CONSTRUCTION REQUIREMENTS. FINAL LAND CLEARING SHALL BE LIMITED TO RETURN TO GRADE SLOPES.

TREES SHALL BE CUT FOR ENTIRE SITE LEAVING SUMPS IN PLACE TO MAINTAIN SOIL STABILIZATION. 3. STUMPS SHALL BE PULLED AND STOCKPILED FOR GRINDING.

4. BRUSH AND BRANCHES SHOULD BE CHIPPED AND UTILIZED FOR WOOD MULCH IF PRACTICAL.

VEHICLES UTILIZED IN THE CLEARING OPERATION SHOULD NOT TRAVERSE WETLANDS OR FLOWING BROOKS OR STREAMS WITHOUT PRIOR APPROVAL FROM THE LOCAL CONSERVATION COMMISSION OR AGENT.



PERIMETER SIGNAGE NO SCALE 12" x 9"

SIGNS TO BE PLACED ALONG FENCELINE AT 50 FT INTERVALS

ROUGH GRADING:

. THE ROUGH GRADING OF THE SITE SHALL FOLLOW THE FILL AND EXCAVATION SEQUENCES AS DESCRIBED ON THE CONSTRUCTION PHASING PLANS. SLOPES SHALL BE MAINTAINED AWAY FROM WETLANDS AND SENSITIVE AREAS AS MUCH IS PRACTICAL.

2. DURING THIS PROCESS THE EROSION POTENTIAL IS HIGH. SUFFICIENT EROSION CONTROL BARRIERS SHOULD BE KEPT IN PROXIMITY TO THE WORK AREA TO ALLOW QUICK ACTION SHOULD EROSION BECOME AN ISSUE AND TO INSURE THAT NO SEDIMENT REACHES WETLANDS OR

OTHER SENSITIVE AREAS. 3. IN AREAS OF CUT AND/OR FILL WHERE SLOPES COULD DIVERT WATER TOWARD WETLAND AREAS, DIVERSION TRENCHES AND/OR SWALES SHOULD BE CONSIDERED AND IMPLEMENTED TO DIVERT WATER AWAY

4. STEEP SIDE SLOPES IN EXCAVATION OR FILL SHOULD BE AVOIDED. DISTURBED AREAS SHALL BE STABILIZED BY LOAMING AND SEEDING OR RIPRAPPED IMMEDIATELY AFTER THE FINISH GRADE HAS BEEN MET. IF FINAL GRADING DOES NOT OCCUR DURING THE GROWING SEASON, THESE AREAS SHALL BE MULCHED WITH HAY WITH A TACKIFIER, IF NECESSARY SLOPED AREAS MAY REQUIRE ADDITIONAL CONTROLS SUCH

6. A GROUND COVER SUFFICIENT TO RETAIN SOILS IN A STABILIZED CONDITION MUST BE PROVIDED WITHIN 14 WORKING DAYS, SEASON PERMITTING. ON ANY PORTION OF THE TRACT UPON WHICH FURTHER ACTIVE CONSTRUCTION IS NOT BEING UNDERTAKEN.

1. IF DRAINAGE PIPES OR SWALES ARE TO BE INSTALLED, THEY SHALL BE CONSTRUCTED FROM DOWNSTREAM UP AND CONSTRUCTION SHALL INCLUDE THE PLACEMENT OF OUTFALL RIPRAP AND OTHER MITIGATIVE

2. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, HAY BALES OR OTHER SUITABLE METHODS TO ENTRAP SEDIMENT SHALL BE PLACED 3. THE TOE OF EMBANKMENTS SHALL BE STABILIZED IMMEDIATELY,

CREATION OF DETENTION BASIN:

MULCHED AND TACKED DOWN BY SUITABLE MEANS.

AS EROSION CONTROL SOCKS OR HAYBALES.

THE DETENTION BASIN HAS BEEN PLACED AS A SEPARATE ITEM TO EMPHASIZE THE IMPORTANCE OF EROSION CONTROL DURING ITS CONSTRUCTION.

THE PRIMARY EROSION CONTROL METHOD FOR BASIN CONSTRUCTION, AS WELL AS FOR THE SITE IS THE RAPID STABILIZATION OF ALL SURFACES. SECONDARY IN IMPORTANCE IS THE CONCENTRATION OF RUNOFF BE AVOIDED IN ORDER TO PREVENT THE TRANSPORT OF

CLEAN-

REGULARLY

STRAW WATTLE DETAIL

NO SCALE

"FACILITY NAME"

OWNER CONTACT INFORMATION

(###) ### — ####

OPERATOR CONTACT INFORMATION

(###) ### — ####

EMERGENCY CONTACT INFORMATION

(###) ### — ####

TYPICAL PROJECT SIGN

24" x 24"

DETAIL OF

SPLICE

BOTTOM TRENCH AND

AS TOP TRENCH)

ANCHORS (SAME SPACING

ANCHOR PATTERN SIGNS TO BE PLACED AT ENTRANCE OF PROJECT

3. DURING CONSTRUCTION, THE FILL AND EXCAVATION SEQUENCES SHOWN ON THE CONSTRUCTION PHASING PLANS, ALONG WITH THE DETAILS PROVIDED IN THIS PLAN SET SHALL BE UTILIZED. THESE SEQUENCES REQUIRE THAT SLOPED AREAS LEFT FOR ANY PERIOD OF TIME NOT SLOPED TOWARDS THE WETLAND OR SENSITIVE AREA, BUT RATHER BACK INTO THE FILL MATERIAL.

THE BASIN BERM IS TO BE CONSTRUCTED BY EQUIPMENT WORKING ON STABLE MATERIAL ONLY. HAY BALES SHALL BE PLACED AT THE TOE OF SLOPE UNTIL SURFACES ARE STABILIZED.

5. NO EXCAVATION WITHIN THE BASIN SHALL COMMENCE UNTIL THE BERM IS IN PLACE.

6. CARE SHOULD BE TAKEN TO INSURE THAT ORGANIC MATERIAL REMOVED FROM THE BASIN AREA IS RESERVED FOR FINISH GRADING AND THE STABILIZATION OF DISTURBED AREAS.

. IF DEWATERING IS NECESSARY, PUMPING TO A SETTLING BASIN SHALL BE PERMITTED IF SETTLING BASIN IS CONSTRUCTED, MAINTAINED AND OPERATED EFFECTIVELY.

8. AT NO TIME SHALL RUNOFF CARRYING SEDIMENT BE ALLOWED TO FLOW TO THE WETLANDS OR SENSITIVE AREAS.

9. THE WORK AREA SHALL REMAIN FREE OF LITTER AND DEBRIS AT ALL TIMES AND MONITORED ON A DAILY BASIS TO ENSURE COMPLIANCE. 10. ALL MATERIALS STOCKPILED SHALL BE LOCATED, MULCHED OR OTHERWISE TREATED TO INSURE THAT MATERIALS CONTAINED, THEREIN, AREA NOT CARRIED INTO THE WETLANDS.

11. ANY MATERIALS BLOWN OR CARRIED BY WATER AWAY FROM THE CONSTRUCTION SITE OR INTO THE WETLAND AREAS SHALL BE PROMPTLY REMOVED AS REQUIRED BY THE LOCAL CONSERVATION COMMISSION. 12. A GEOTECHNICAL FILTER FABRIC SHALL BE PLACED OVER THE BASIN SUBDRAIN DURING CONSTRUCTION TO PREVENT SEDIMENT FROM ENTERING AND CLOGGING THE DRAIN. THE FABRIC SHALL BE REMOVED FOR BASIN

GRUBBING AND STRIPPING:

PROTECTED AND SUPPLEMENTED.

PREPARATION FOR FINAL STABILIZATION.

1. TOP SOIL SHALL BE RETAINED AND STOCKPILED FOR LANDSCAPING

2. GRUBBING AND STRIPPING OF SLOPES LEADING TO WETLAND AREAS SHOULD NOT BE UNDERTAKEN DURING PERIODS OF INTENSE RAINFALL. 3. TOP SOIL STOCKPILE LOCATIONS ARE DEPICTED ON THE SITE DEVELOPMENT PLAN, THE EROSION CONTROL PLAN, AND/OR THE CONSTRUCTION PHASING PLAN AND SHALL BE ADHERED TO. 4. WHEN WORKING IN THE VICINITY OF WETLANDS. TOP SOIL SATURATED

WITH WATER SHALL BE REMOVED, AND CONTAINED PRIOR TO BEING USED. 5. AREAS LEADING TO WETLANDS SHALL HAVE HAY BALE BARRIERS INSTALLED ACROSS THEM IN ARCS POINTING DOWN THE HILL AT

INTERVALS SUFFICIENT TO MITIGATE RUNOFF CARRYING SEDIMENT.

S. DURING PERIODS OF INTENSE RAINFALL, OR IF THE PROJECT IS TO BE LEFT FOR A PERIOD OF TIME, CONSIDERATION SHOULD BE GIVEN TO SUPPLEMENT HAY BALE BARRIERS WITH EITHER CRUSHED STONE OR ARMORED BARRIERS. CONSIDERATION MAY ALSO BE GIVEN TO DIVERTING RUNOFF INTO TEMPORARY SEDIMENTATION CONTROL AREAS. 7. WHENEVER PRACTICAL, NATURAL VEGETATION SHALL BE RETAINED,

6' SPACING

3' SPACING

SPLICE

ANCHOR

PATTERN_

9ga ALUMINUM WIRE TIES TWISTED SELVAGE COLOR OF ALL MATERIALS ARE GALVANIZED @18" O.C. INCLUDES 1QTY 20' WIDE DOUBLE GATE ga TENSION WIRE GATE POSTS 4" 2 1/2" DQ40 LINE -TERMINAL POSTS 3" LINE POSTS 2.5" TOP TENSION WIRE 7ga HOG RINGS WITH STEEL CORE " DQ40 TERMINAL: CORNER POST TENSION BANDS @ 12" 9ga ALUMINUM WIRE TIES @12" APART *WIRE 9ga TENSION* WIRE TO MATCH FABRIC. WITH 9GA AL HOG RINGS @ BOTTOM TENSION WIRE WITH 9ga AL HOG RINGS TENSION BAR WITH-TENSION BANDS @ 12" DOME CAPS RAIL ENDS 2 1/2" DQ40 LINE POST 9ga TIE WIRES WITH STEEL CORE 3" BRACE BANDS STEEL CORE GALVANIZED with 9ga PVC EXTRUDED POLY VINYL CHLORIDE CONCRETE FOOTINGS~ 6" CLEARANCE COATED STEEL CHAIN LINK FABRIC AS PER ASTM F668 KNUCKLED SELVAGE

CHAIN LINK FENCE DETAIL FILTER FABRIC NO SCALE CONSTRUCTION SIDE SIDE EMRED INTO TRENCH SURFACE **ACCUMULATED** SILT AND DEBRIS 3.000 P.S.I. AIR ENTRAINED CONCRETE CORNER AND GATEPOST LINE POST

NO SCALE WIDTH VARIES (SEE SITE PLAN) ------

UNDISTURBED EARTH OR SUITABLE MATERIAL

COMPACTED TO 95% DRY DENSITY

(FOR ACCESS TO SITE AND DETENTION BASIN)

SLOPE

NO SCALE

12" COMPACTED GRANULAR BASE M1.03.0- TYPE A SUB-BASE MATERIAL, CLEAN FILL COMPACTED TO 95% DRY DENSITY GRAVEL ACCESS LANE SECTION

FENCE POST TWO STAKES/BALE FILTER FABRIC CONSTRUCTION WETLAND SIDE 6" MINIMUM EDGE OF FABRIC TO STAKE BE SECURED IN 6" PENETRATION \ DEEP TRENCH STRAW BALE WITH SILT FENCE DETAIL

* * * *

SEE TYPICAL RESURFACING DETAIL

9" MIN.

CONDUIT TRENCH

AND TRACER WIRE 1

BELOW FINISH GRADE DIRECTLY ABOVE ELECTRICAL LINE

FILTER CLOTH

(WHERE REQUIRED) TO BE PLACED AGAINST

EXISTING GRADE *** FINISH GRADE ✓ MAINTAIN

SLOPE AWAY

FROM DISTURBED

¹REAS EXCAVATED AREA SHOULD BE AS REQUIRE SENSITIVE AREA WITH FACE AS TO INSURE ENTRAPMENT OF WATER FROM DISTURBED SHOWN IN PHASE 1 WITH FINISH BASE GRADES PHASE III PHASE IV - EXISTING GRADE -EXISTING GRADE **** ***** FINISH GRADE-EXCAVATE AS SHOWN IN PHASE 2 LEAVE 2 FOOT HIGH BERM UNTIL GRASS IS ESTABLISHED AT TOE OF BERM AREA IS STABILIZED LOAM AND SEED & MULCH BERM AREA FILL SEQUENCE NO SCALE PHASE PHASE II—A PLACE MATERIAL WITH EXCAVATE AREAS SENSITIVE AREAS ONLY AS REQUIRED PRIOR TO PLACEMENT OF MATERIALS GRUB AND STRIP SITE LEAVING DIKES UNDISTURBED MATERIAL INSTALL SEDIMENT _____ ENTRAPMENT DEVICES IN RUNOFF ON A LOCALIZED PROXIMITY OF DISTURBANCE IF MATERIAL CANNOT BE PLACED AS IN PHASE 2—A PHASE II-B

EXCAVATION SEQUENCE

PHASE I

-EXISTING GRADE

PLACE MATERIAL WITH SLOPE TO SENSITIVE AREA. BUT,

PRESENT. FORM DIKES DIVERT

(NOT RETAIN) WATER TO UNDISTURBED AREA CAPABLE

EROSION POTENTIAL

EXCAVATIO

WORKING FACE

SHALL ALWAYS

SLOPE AWAY FROM

NO SCALE

LOAM AND SEED EXCAVATED AREAS

INSTALL DEVICE TO PROTECT STEEP SLOPES

SLOPES AND MULCH IF REQUIRED

FROM EROSION

DEVICE TO RETAIN

DEVICE TO LIMIT

SENSITIVE AREAS

PORTION OF SLOPE

AS SOON AS POSSIBLE

PROVIDE MOISTURE TOLERANT GRASSES FOR SIDE SLOPES. SWALE DEPTH (2' AVERAGE) ANGULAR STONES (50 LB. - 125 LB.) (MHD SPEC. M2.02.3) PLACED TO FORM A COMPACT, STABLE CHANNEL STONED BOTTOM DRAINAGE

PHASE

APPROPRIATE SEEDING

SAND BACKFILL MATERIAL

TO BE WITHIN 6" OF PIP

TOP OF **FROSION** CONTROL BLANKE TOP TRENCH AND ANCHORS

PROCEDURES FOR INSTALLATION OF EROSION CONTROL BLANKET: PREPARE SLOPES WITH FINAL GRADING AND LOAM PLACEMENT. RAKE AND SMOOTH FINAL SURFACE, APPLY APPLICABLE SEED MIX. 2) START AT THE TOP OF SLOPE BY ANCHORING BLANKETS IN A 6" DEEP x 6"

WIDE ANCHOR TRENCH. PLACE BLANKETS, STAPLE (8" STAPLES), BACKFILL AND COMPACT WITH FABRIC OVERLAP OF 12". 3) ROLL BLANKETS DOWN THE SLOPE. STAPLE THE OPEN BLANKET EDGE USING ONE ROW OF STAPLES AT 2' INTERVALS. THE INTERIOR OF THE BLANKET SHOULD BE STAPLED USING A 2' WIDE x 3' HIGH STAPLE PATTERN. BE SURE TO LAY BLANKETS LOOSLY ON THE GROUND ALLOWING A GOOD CONTACT BETWEEN SOIL

4) USE AN 6" OVERLAP BETWEEN BLANKET SPLICES. USE A SINGLE ROW OF STAPLES TO ANCHOR BLANKETS TOGETHER.

5) PROVIDE 6"x 6" ANCHOR TRENCH AT TOE OF SLOPE. 6) EROSION CONTROL BLANKET TYPE SHALL BE PROPERLY SELECTED FOR SOIL CONDITIONS AND MAXIMUM ALLOWABLE SLOPE.

7) ANY/ALL METALLIC ANCHORS SHALL BE PROMPTLY REMOVED ONCE THE VEGETATIVE COVER HAS BEEN ESTABLISHED. 8) GRASS SEED VARIETY SHALL BE PROPERLY CHOSEN FOR SPECIFIC SITE

EROSION CONTROL BANKET PLACEMENT NO SCALE

CONDITIONS (SHADE OR SUN, ETC.)

SECURE THE STRAW WATTLE WITH NOOD STAKES EVERY 3-4 FEET AND WITH A STAKE AT EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING 2-3" OF THE STAKE EXPOSED. STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE. (SEE STRAW WATTLE DETAIL) SPACING STRAW 180 FEET `WATTLE 100 FEE 60 FEET 30 FEET 20 FEET -BASED ON SLOPE GRADIENT (SEE TABLE) ***** * * * * **APPLICANT:** · · ·

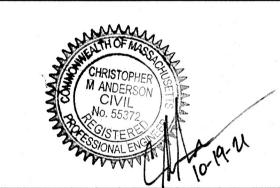
EROSION CONTROL SLOPE DETAIL

ZP BATTERY DEVCO, LLC BRENDON GOVE 10 E. WORCESTER STREET, SUIT 3A WORCESTER, MASSACHUSETTS 01604 OWNER: WR ENTERPRISES, LLC 1323 MAIN STREET LEICESTER, MASSACHUSETTS 01524

ADJACENT STRAW

WATTLE SHALL TIGHTLY OVERLAP

PEER-REVIEW COMMENT 10/19/21 CMANO. DATE REVISIONS BY



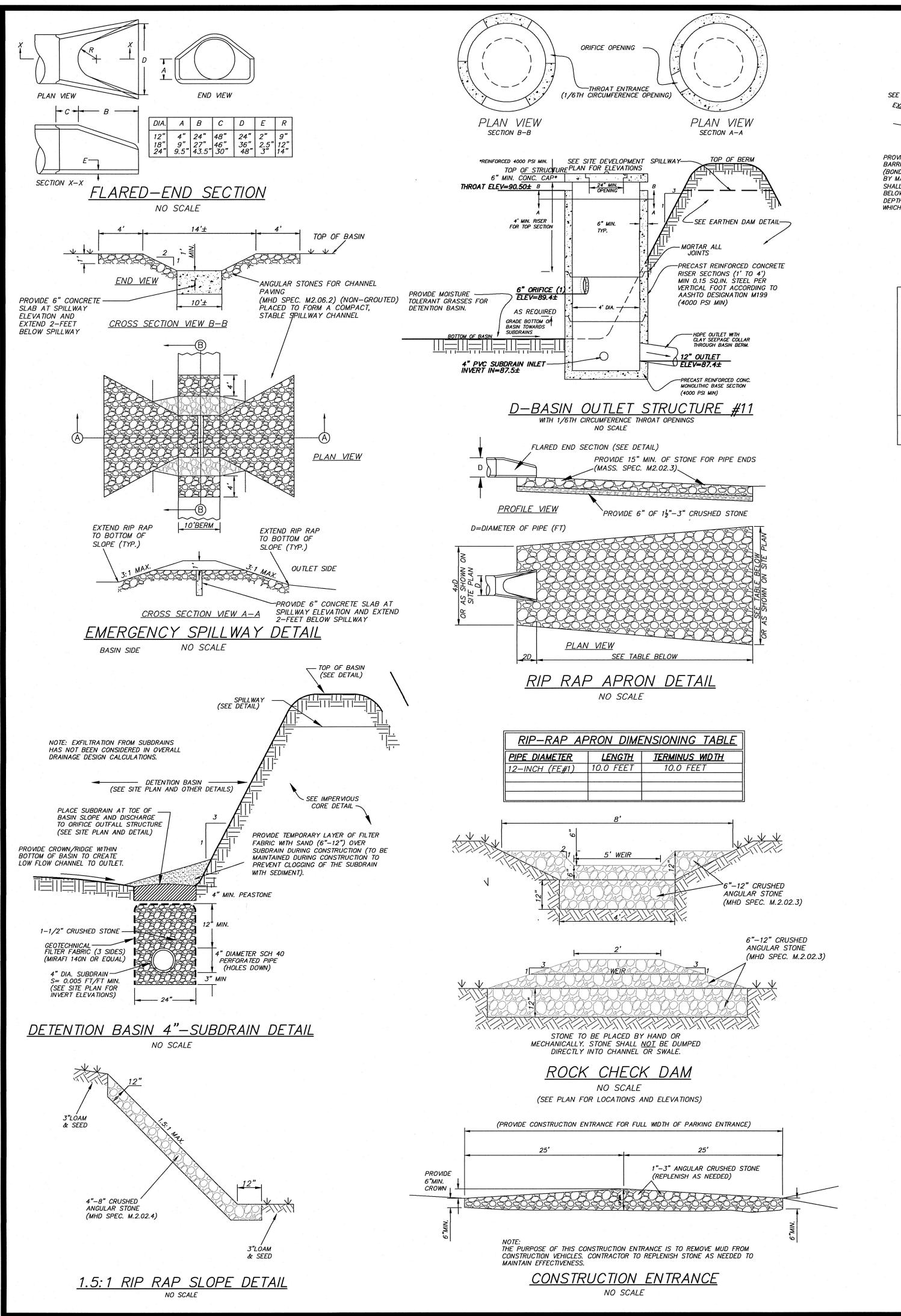
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8 MONUMENT SQUARE (978) 534-1234 (T) LEOMINSTER, MASSACHUSETTS 01453 (978) 534-6060 (F) WWW.HANNIGANENGINEERING.COM

CONSTRUCTION DETAILS LEICESTER, MASSACHUSETTS

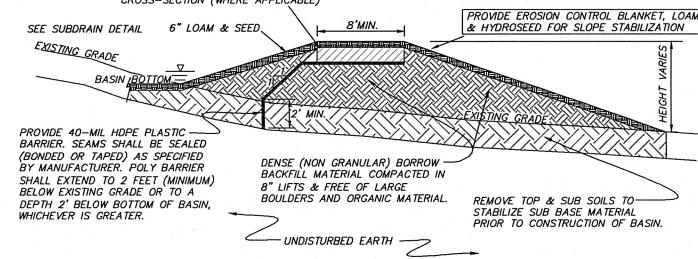
PREPARED FOR: ZP BATTERY DEVCO, LLC BRENDAN GOVE 10 E WORCESTER STREET SUITE 3A WORCESTER, MASSACHUSETTS 01604

SCALE: NA DRWN: CMA CALC: CMA APPD: WDH CHKD: WDH DATE: SEP 21, 202 **JOB NO:** 3010 SRV: JEF SHEET 5 OF 6 **TAB:** (5-6)DET PLAN NO:C-17-3

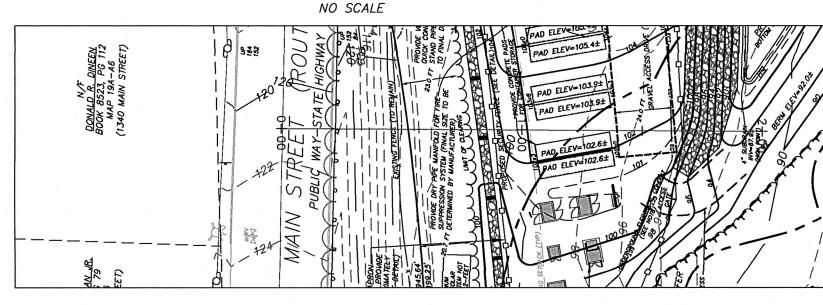


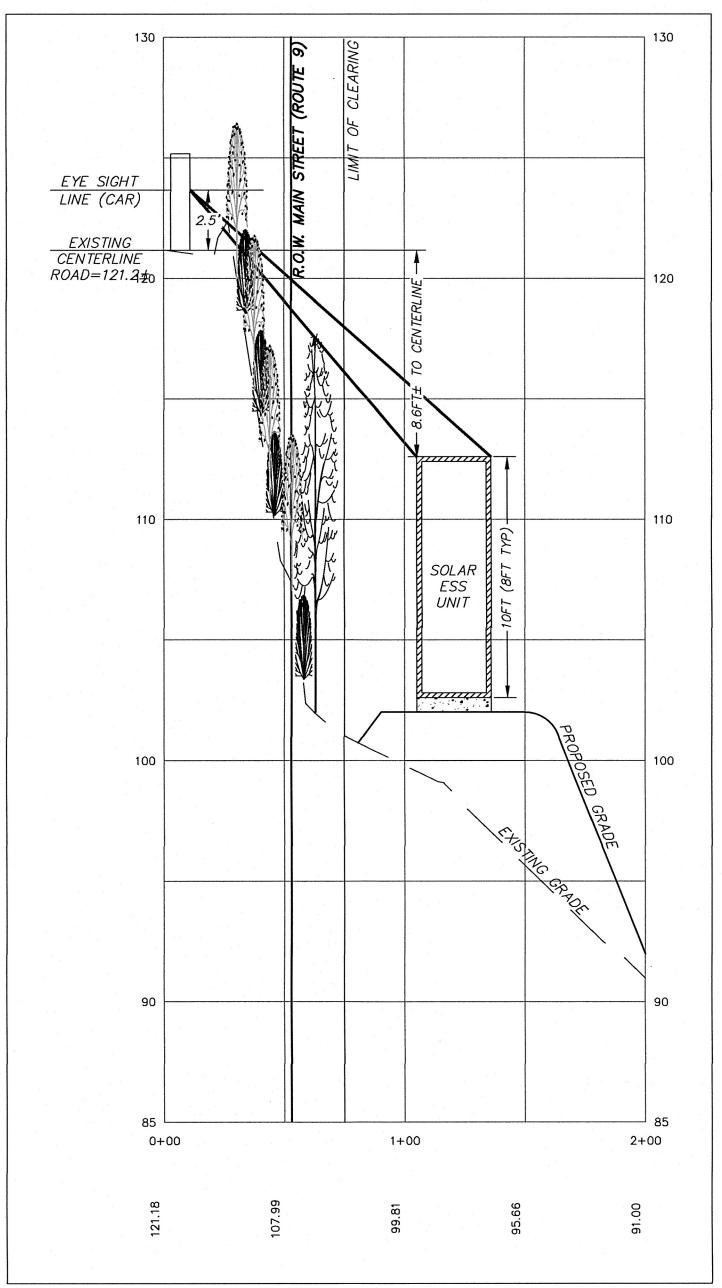
NOTE: FOUNDATION FOR BERM CONSTRUCTION SHALL BE CLEARED OF ALL TOP SOIL, ROCKS, DEBRIS, STUMPS, ETC. TO A FIRM SURFACE. IN NO CASE SHALL THIS EXCAVATION BE LESS THAN 12 INCHES SUBGRADE SHALL BE SCARIFIED AND MOISTENED TO A DEPTH

REFER TO TYPICAL ACCESS LANE CROSS-SECTION (WHERE APPLICABLE)



DETENTION BASIN BERM (REQUIRED FOR DETENTION BASIN CONSTRUCTION)





PROJECT SIGHT LINE

HORIZONTAL SCALE=1": 40' VERTICAL SCALE=1": 4'

STORMWATER OPERATION AND MAINTENANCE PLAN

THE FOLLOWING SHALL BE CONSIDERED THE OPERATION & MAINTENANCE PLAN (OMP) FOR THE STORMWATER COLLECTION FACILITY FOR THIS DEVELOPMENT. THIS OMP HAS BEEN PREPARED IN ACCORDANCE WITH THE STORMWATER MANAGEMENT POLICY AS ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

SYSTEM OWNERSHIP THE SYSTEM SHALL INCLUDE THE DRAINAGE INFRASTRUCTURE AND ALL OF ITS COMPONENTS AS SHOWN ON THE SITE DEVELOPMENT PLANS, INCLUDING THE DETENTION FACILITIES AND OUTFALL AREAS OF THE DRAINAGE SYSTEM. THE STRUCTURES OF THE SYSTEM SHALL INCLUDE THE DRAINAGE SWALES AND THE OUTFALL & CONTROL STRUCTURES. THE SYSTEM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CONSTRUCTION DETAILS AND THE APPROVED PLANS.

UPON THE COMPLETION OF CONSTRUCTION THE DRAINAGE SYSTEM DESCRIBED ABOVE AND AS DEPICTED ON THE SITE PLANS SHALL BECOME PROPERTY OF THE LAND OWNER, WITH SPECIFIC EASEMENT RIGHTS TO THE OPERATOR OF THE SOLAR SYSTEM TO MAINTAIN THE DRAINAGE SYSTEM AS DEPICTED ON THE APPROVED PLANS. SAID EASEMENT RIGHTS SHALL BE SPECIFICALLY DESCRIBED IN LEASE DOCUMENTS FOR THE PROJECT.

THE OPERATOR OF THE SOLAR SYSTEM SHALL BE CONSIDERED THE RESPONSIBLE PARTY FOR THE OPERATION AND MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM. THE SYSTEM SHALL INCLUDE THE DRAINAGE INFRASTRUCTURE AND ALL OF ITS COMPONENTS AS SHOWN ON THE APPROVED PLANS. THE SYSTEM SHALL ALSO INCLUDE THE DETENTION FACILITIES AND THE OUTFALL AREAS OF THE DRAINAGE SYSTEM.

III. INSPECTION & MAINTENANCE SCHEDULE THE FOLLOWING MAINTENANCE SCHEDULE SHALL BE FOLLOWED IN ORDER TO MAINTAIN THE EFFECTIVENESS OF THE STORMWATER MANAGEMENT SYSTEM.

STRUCTURE TYPE REMOVE DEBRIS & ADD STONE TWICE A YEAR RIP/RAP APRONS EVERY 10 YEARS TWICE A YEAR REPLACE PEASTONE EVERY 4 YEARS SUBDRAINS MONTHLY (MAY-OCT) MOW GRASS AREAS & REMOVE DEBRIS DETENTION BASINS MONTHLY (MAY-OCT) REMOVE SEDIMENT IF PRESENT OUTFALL STRUCTURES: TWICE A YEAR EVERY 10 YEARS REMOVE DEBRIS & ADD STONE SPILLWAYS

NOTE: THE DETENTION BASINS ON THIS PROJECT MAY GROW VEGETATION IN THE BOTTOM WHICH MAY INCLUDE SPECIES PART OF THE WETLAND PROTECTION ACT. THESE PLANTS SHALL NOT BE CONSTRUED AS HAVING PROTECTION UNDER THE ACT AND SHALL BE CONSIDERED OPPORTUNISTIC GROWTH PLANTS. ADDITIONALLY, THIS AREA SHALL NOT BE CONSIDERED A

SEEDING OPERATION AND MAINTENANCE PLAN

THE OPERATOR OF THE SOLAR SYSTEM SHALL BE CONSIDERED THE RESPONSIBLE PARTY FOR THE OPERATION AND MAINTENANCE OF THE GRASS & VEGETATION. THE VEGETATION SHALL INCLUDE ALL OF ITS AREAS AS SHOWN ON THE APPROVED PLANS. THE SYSTEM SHALL ALSO INCLUDE THE GRASSED AREAS AROUND THE PANELS AND DRAINAGE

INSPECTION & MAINTENANCE SCHEDULE

THE FOLLOWING MAINTENANCE SCHEDULE SHALL BE FOLLOWED IN ORDER TO MAINTAIN THE VEGETATED AREAS MAINTENANCE

GRASS HEIGHT TO BE ALLOWED TO GROW TO A GRASS CUTTING MONTHLY HEIGHT OF NO MORE THAN 18 INCHES AND BE CUT TO A HEIGHT OF 4 TO 6 INCHES.

3 TO 5 POUNDS PER ACRE

80 TO 100 POUNDS PER ACRE

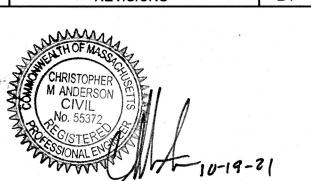
APPROPIATE SEED MIX AND APPLICATION RATES THE FOLLOWING SEED SCHEDULE SHALL BE FOLLOWED IN ORDER TO PROPERLY MAINTAIN VEGETATED AREAS SEED TYPE (NATIVE SEED REQUIRED) APPLICATION RATE WILDFLOWER SEED MIX 5 TO 10 POUNDS PER ACRE 50%

THERE WILL NO HERBICIDES OR PESTICIDES USED ON THIS PROJECT.

WHITE CLOVER SEED MIX

KENTUCKY BLUEGRASS

10/19/21 PEER-REVIEW COMMENT CMABY NO. DATE REVISIONS



(978) 534-1234 (T

(978) 534-6060 (F)

10%

40%

|HANNIGAN ENGINEERING, INC.

CIVIL ENGINEERS & LAND SURVEYORS

8 MONUMENT SQUARE LEOMINSTER, MASSACHUSETTS 01453

CONSTRUCTION DETAILS LEICESTER, MASSACHUSETTS

WWW.HANNIGANENGINEERING.COM

PREPARED FOR: ZP BATTERY DEVCO, LLC BRENDAN GOVE 10 E WORCESTER STREET SUITE 3A WORCESTER, MASSACHUSETTS 01604

<u>APPLICAN</u> ZP BATTERY BRENDON GO 10 E. WORCE WORCESTER, **OWNER:** WR ENTERPRI 1323 MAIN S LEICESTER, M

NT:			
OVE	CALC: CMA	DRWN: CMA	SCALE: NA
ESTER STREET, SUIT 3A MASSACHUSETTS 01604	CHKD: WDH	APPD: WDH	DATE: SEP 21, 20
RISES, LLC	SRV: JEF	FB: 71–22	JOB NO: 3010
STREET MASSACHUSETTS 01524	TAB: (5-6) DET	SHEET 6 OF 6	PLAN NO:C-17-