

SOUTHERN MAINE COMMUNITY COLLEGE HORTICULTURE GREENHOUSE

SOUTH PORTLAND, MAINE

BGS PROJECT #3674

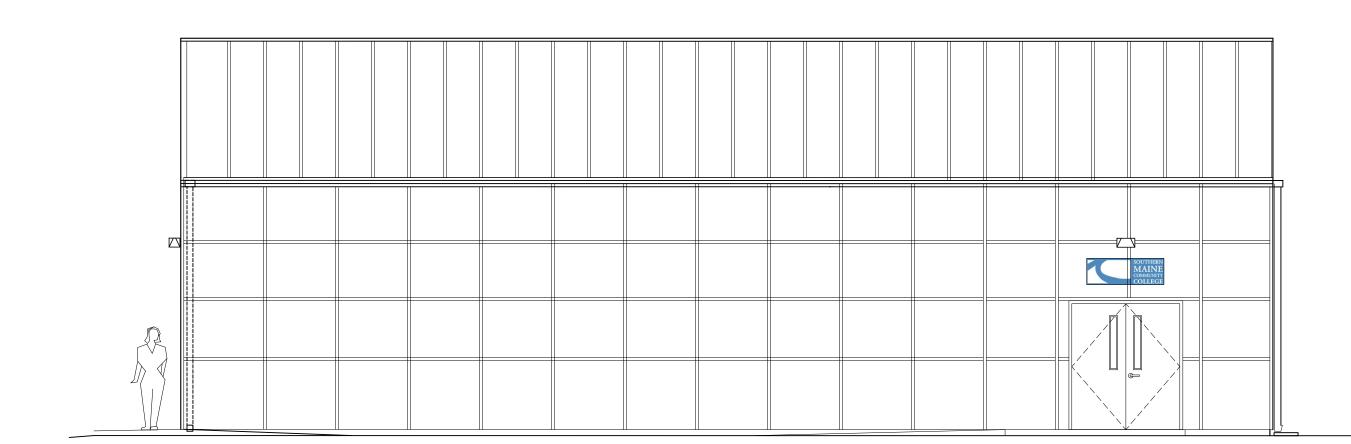
CONSTRUCTION DRAWINGS

JUNE 2025

LIST OF DRAWINGS

COVER SHEET

- C1 COVER SHEET
- C2 EXISTING CONDITIONS AND DEMOLITION PLAN
- C3 SITE LAYOUT AND UTILITY PLAN
- C4 GRADING PLAN
- C5 EROSION CONTROL PLAN
- C6 SITE DEVELOPMENT DETAILS
- C7 EROSION CONTROL DETAILS AND NOTES
- L1 LANDSCAPE PLAN
- L2 LIGHTING PLAN
- A01 DOOR SCHEDULE, DETAILS & STANDARDS
- A02 LIFE SAFETY PLAN & CODE REVIEW
- A10 FLOOR & ROOF PLANS
- A20 EXTERIOR ELEVATIONS
- A30 BUILDING SECTIONS & DETAILS
- A40 WALL SECTIONS
- S0.1 STRUCTURAL NOTES
- S1.1 FOUNDATION PLAN
- S5.1 SECTIONS AND DETAILS
- M101 MECHANICAL PLAN
- M201 MECHANICAL LEGEND AND DETAILS
- E00 GENERAL NOTES & DETAILS
- E10 ELECTRICAL SITE PLAN
- E11 ELECTRICAL AND LIGHTING PLANS





SOUTH 199 prospect street, suite A portland, maine 04101

NORTH 26 balsam drive Millinocket, maine 04462

PH: 207.347.5252 arcadiadesignworks.com







SITELINES

GENERAL NOTES:

1. DRAWINGS ARE BASED ON BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION FROM MULTIPLE SOURCES BY SITELINES, PA.

2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION HAS NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES AND IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE (1-800-DIG-SAFE) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IN AREAS OF POTENTIAL CONFLICTS TEST PITS SHALL BE REQUIRED TO VERIFY EXISTING UTILITY LOCATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

3. RIM ELEVATIONS OF PROPOSED SANITARY SEWER MANHOLES AND ASSOCIATED STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH AND CONSISTENT WITH THE GRADING PLANS. ADJUST ALL OTHER RIM ELEVATIONS OF MANHOLES, WATER GATES, GAS GATES AND OTHER UTILITIES TO FINISH GRADE WITHIN LIMITS OF WORK.

4. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, CABLE AND FIRE ALARM). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH CONSTRUCTION MANAGER AND ARCHITECT.

5. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION, SIZE, INVERTS AND TYPES OF EXISTING PIPES AT ALL PROPOSED POINTS OF CONNECTION PRIOR TO ORDERING MATERIALS. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATIONS, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE

6. THE CONTRACTOR SHALL VERIFY ALL CRITICAL DIMENSIONS AND GRADES BEFORE WORK BEGINS. CONTRACTOR SHALL CONFIRM LOCATION AND DEPTH ALL UTILITY LINE CROSSINGS WITH TEST PITS PRIOR TO BEGINNING WORK. CONFLICTS SHALL BE REPORTED IN WRITING TO CONSTRUCTION MANAGER FOR RESOLUTION OF THE CONFLICT.

7. ALL AREAS OUTSIDE THE LIMIT OF WORK THAT ARE DISTURBED SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. ALL AREAS DISTURBED DURING CONSTRUCTION NOT COVERED WITH BUILDINGS, STRUCTURES, OR PAVEMENT SHALL RECEIVE 4 INCHES OF LOAM AND SEED.

8. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS AND SHALL BE RESPONSIBLE FOR PAYING ANY FEES FOR ANY POLE RELOCATION AND FOR THE ALTERATION OR ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, CABLE, FIRE ALARM AND ANY OTHER PRIVATE UTILITIES BY THE

9. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY PERMITS, PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS AND AS SPECIFIED.

10. ALL PROPERTY MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE RESET TO THEIR ORIGINAL LOCATION BY A MAINE REGISTERED LICENSED PROFESSIONAL LAND SURVEYOR (PLS) AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL PREPARE AN AS-BUILT PLAN SURVEY SHOWING LOCATIONS OF ALL SURFACE FEATURES AND SUBSURFACE UTILITY SYSTEMS INCLUDING THE LOCATION

11. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES PRIOR TO EARTHWORK OPERATION AND MAINTAIN ALL EROSION CONTROL MEASURES AND SEEDED EMBANKMENTS DURING CONSTRUCTION. EROSION CONTROL SHALL BE REMOVED ONLY UPON THE ESTABLISHMENT OF ALL LANDSCAPED AREAS. ALL WORK SHALL BE IN COMPLIANCE WITH THE ENVIRONMENTAL QUALITY HANDBOOK FOR EROSION AND SEDIMENT CONTROL, LATEST EDITION, AS ADOPTED BY THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

12. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. ALL CONSTRUCTION ACTIVITY SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.

13. ALL MATERIALS AND CONSTRUCTION METHODS USED WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO ALL LOCAL MUNICIPAL STANDARDS AND MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

14. THE CONTRACTOR IS REQUIRED TO CONTROL DUST DURING CONSTRUCTION. EXPOSED SOIL AREAS SHALL BE SPRAYED WITH WATER AS NEEDED TO CONTROL DUST EMISSIONS. COVER EXPOSED SOIL AREAS AS QUICKLY AS PRACTICAL TO PREVENT WINDS FROM GENERATING

15. ALL HANDICAP ACCESSIBLE PARKING SPACES, RAMPS AND SIDEWALKS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA).

16. ALL SITE SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. 17. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE

18. ALL MATERIALS SHALL BE NEW AND PROVIDED BY THE CONTRACTOR.

19. CONTRACTOR SHALL PROVIDE NOTIFICATION TO THE NAVY COORDINATOR PRIOR TO START OF CONSTRUCTION.

LAYOUT NOTES:

1. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR FOUNDATION.

2. OFFSETS TO CATCH BASINS AND MANHOLES ARE TO THE CENTER OF THE FRAME.

3. PIPE LENGTH EQUALS THE CENTER TO CENTER DISTANCES BETWEEN CATCH BASINS AND/OR MANHOLES MINUS ONE HALF THE DIAMETER OF EACH CATCH BASIN OR MANHOLE.

4. BOUNDARY INFORMATION ON LAYOUT PLAN IS FOR REFERENCE ONLY, REFER TO CERTIFIED BOUNDARY PLANS FOR BOUNDARY

GRADING AND DRAINAGE NOTES:

1. UNLESS OTHERWISE NOTED, ALL STORM DRAIN PIPE SHALL BE IN ACCORDANCE WITH MDOT SPECIFICATIONS SECTION 603. PIPE CULVERTS AND STORM DRAINS, LATEST REVISION WITH THE EXCEPTION THAT THE ONLY ACCEPTABLE TYPES OF PIPE ARE AS FOLLOWS:

POLYVINYL CHLORIDE PIPE (PVC) SDR 35 SMOOTH BORE POLYETHYLENE PIPE - HDPE N-12 ADS OR SDR 35

2. TOPSOIL STRIPPED IN AREAS OF CONSTRUCTION THAT IS SUITABLE FOR REUSE AS LOAM SHALL BE STOCKPILED ON SITE AT A LOCATION

TO BE DESIGNATED BY OWNER. UNSUITABLE SOIL SHALL BE SEPARATED, REMOVED AND DISPOSED OF AT AN APPROVED DISPOSAL LOCATION

3. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.

PERMITTING REQUIREMENTS:

AGENCY:

CITY OF SOUTH PORTLAND

PERMIT:

BUILDING

SITE PLAN REVIEW

APPROVED 06/11/25 (BY CONTRACTOR)

STATUS:

SMCC GREENHOUSE BULDING

37 SLOCUM DRIVE SOUTH PORTLAND, MAINE

PREPARED FOR:

MAINE TECHNICAL COLLEGE SYSTEM 3 ADAMS STREET SOUTH PORTLAND, ME 04106

TOWN/UTILITY CONTACTS

CODE ENFORCEMENT

NICHOLAUS RICHARD CITY OF SOUTH PORTLAND 829 SAWYER STREET SOUTH PORTLAND, MAINE 04106 207-767-7603

ELECTRIC SERVICE

CENTRAL MAINE POWER 57 OLD WINTHROP ROAD AUGUSTA, MAINE 04330 207-629-9555

CITY ENGINEER

LACEY KREMER. P.E. 11 WATERMAN DRIVE SOUTH PORTLAND, MAINE 04106 207-767-7675

WATER SERVICE

PORTLAND WATER DISTRICT **HEATHER FIELDS** 225 DOUGLASS STREET PORTLAND, MAINE 04104 207-774-5961 EXT. 3199

SANITARY SEWER

WATER RESOURCE PROTECTION DEPARTMENT FRED DILLON, DIRECTOR 111 WATERMAN DRIVE SOUTH PORTLAND, MAINE 04106 207-767-7675 EXT. 7581

PUBLIC WORKS DEPARTMENT

MELISSA HUTCHINS, PUBLIC WORKS DIRECTOR 929 HIGHLAND AVENUE SOUTH PORTLAND, MAINE 04106 207-767-7635

BRUNSWICK FIRE DEPARTMENT

PHIL SELBERG, FIRE CHIEF 684 BROADWAY SOUTH PORTLAND, MAINE 04106 207-799-3314

PROJECT TEAM

SITELINES P.A. ATTN: JOSEPH J. MARDEN P.E. 119 PURINTON ROAD, SUITE A **BRUNSWICK. MAINE 04011** 207-725-1200

CIVIL ENGINEER

SURVEYOR

WWW.SITELINESPA.COM

SITELINES P.A. ATTN: KEVIN CLARK, PLS 119 PURINTON ROAD, SUITE A BRUNSWICK, MAINE 04011 207-725-1200 WWW.SITELINESPA.COM

ISSUED FOR

PRICING

GEOTECHNICAL SUMMIT GEOENGINEERING SERVICES ATTN: CRAIG COOLIDGE, P.E. 173 PLEASANT STREET **ROCKLAND. MAINE 04841** PHONE: 207-318-7761

ARCHITECTURE

ARCADIA DESIGNWORKS 199 PROSPECT STREET, SUITE A PORTLAND, ME 04101 PHONE: 207-347-5252

LOCATION MAP

EXISTING	LEGEND	PROPOSED
		TROI COLD
	IRON MARKER FOUND 5/8" REBAR TOPPED WITH AN ALUMINUM MANHOLE/CATCH BASIN SEWER MANHOLE FIRE HYDRANT WATER GATE VALVE WATER SHUT-OFF	I.D. CAP © S W O
	BLOW-OFF/CLEAN-OUT	0
——————————————————————————————————————	UTILITY POLE	-
OVERHEAD UTILITY LIN	UTILITY LINE	——— UGE ——— (OVERHEAD UTILITY LINE)
	PROPERTY LINE PROPERTY LINE EASEMENTS SETBACK/BUFFER STREAM CURB EDGE OF PAVEMENT	(OVERNIEAD ONETT EINE)
////////	BUILDING	
	SEWER LINE(SEE PLAN FOR SIZE)	6"S
	SLOPE ARROW CONTOURS	<u>-1.5%</u>
. ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	TREE LINE	
	SEDIMENT BARRIER	SB
	RIPRAP	
	PROPOSED PAVEMENT	
	SPOT GRADE	T100.50 B100.00
	CONCRETE	4 . A . A

SHEET INDEX				
SHEET TITLE:	SCALE:			
COVER SHEET	NTS			
EXISTING CONDITIONS AND DEMOLITION PLAN	1"=20'			
SITE LAYOUT AND UTILITY PLAN	1"=20'			
GRADING AND DRAINAGE PLAN	1"=20'			
EROSION CONTROL PLAN	1"=20'			
SITE DEVELOPMENT DETAILS	NTS			
EROSION CONTROL NOTES	NTS			
LIGHTING PLAN	1"=20'			
LANDSCAPE PLAN	1"=20'			
	SHEET TITLE: COVER SHEET EXISTING CONDITIONS AND DEMOLITION PLAN SITE LAYOUT AND UTILITY PLAN GRADING AND DRAINAGE PLAN EROSION CONTROL PLAN SITE DEVELOPMENT DETAILS EROSION CONTROL NOTES LIGHTING PLAN			

OTTOOM INTOOM

PROGRESS PRINT THIS PLAN IS ISSUED FOR REVIEW AND INFORMATION PURPOSES ONLY. THIS PLAN IS SUBJECT TO CHANGE AND IS NOT FOR PRICING OR CONSTRUCTION. PRICING BASED ON THIS PLAN IS NOT BINDING UNLESS SIGNED BY BOTH CONTRACTOR AND OWNER.

COVER SHEET

5. 06-24-25 REVISED PLAN TO ADD PROPANE TANK

4. 06-23-25 ADDED CONDITIONS OF APPROVAL

2. 05-05-25 REVISED PER MECHANICAL PLANS 1. 04-21-25 SUBMITTED TO CITY FOR REVIEW

3. 05-29-25 REVISED PER CITY COMMENTS

GREENHOUSE BUILDING 37 SLOCUM DRIVE, SOUTH PORTLAND, ME 04106

PREPARED FOR: MAINE TECHNICAL COLLEGE SYSTEM 3 ADAMS STREET, SOUTH PORTLAND, ME 04106







SCALE: NTS JOB #: 5113 DRN BY: RPL CH'D BY: JJM MAP/LOT: 4/2 FILE: 5113-COV-DET DATE: 04/03/25

STATE LAW REQUIRES ADVANCE NOTICE OF AT LEAST 3 BUSINESS DAYS BEFORE YOU DIG GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITIES

CALL DIG SAFE UTILITY LOCATION

DEMOLITION NOTES:

- 1. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN STRICT ADHERENCE TO ALL FEDERAL, STATE AND LOCAL REGULATIONS. CONTRACTOR TO INSTALL EROSION CONTROL DEVICES IN ACCORDANCE WITH GRADING & DRAINAGE PLAN PRIOR TO BEGINNING DEMOLITION ACTIVITIES.
- 2. DEMOLISH CONCRETE IN ALL SECTIONS.

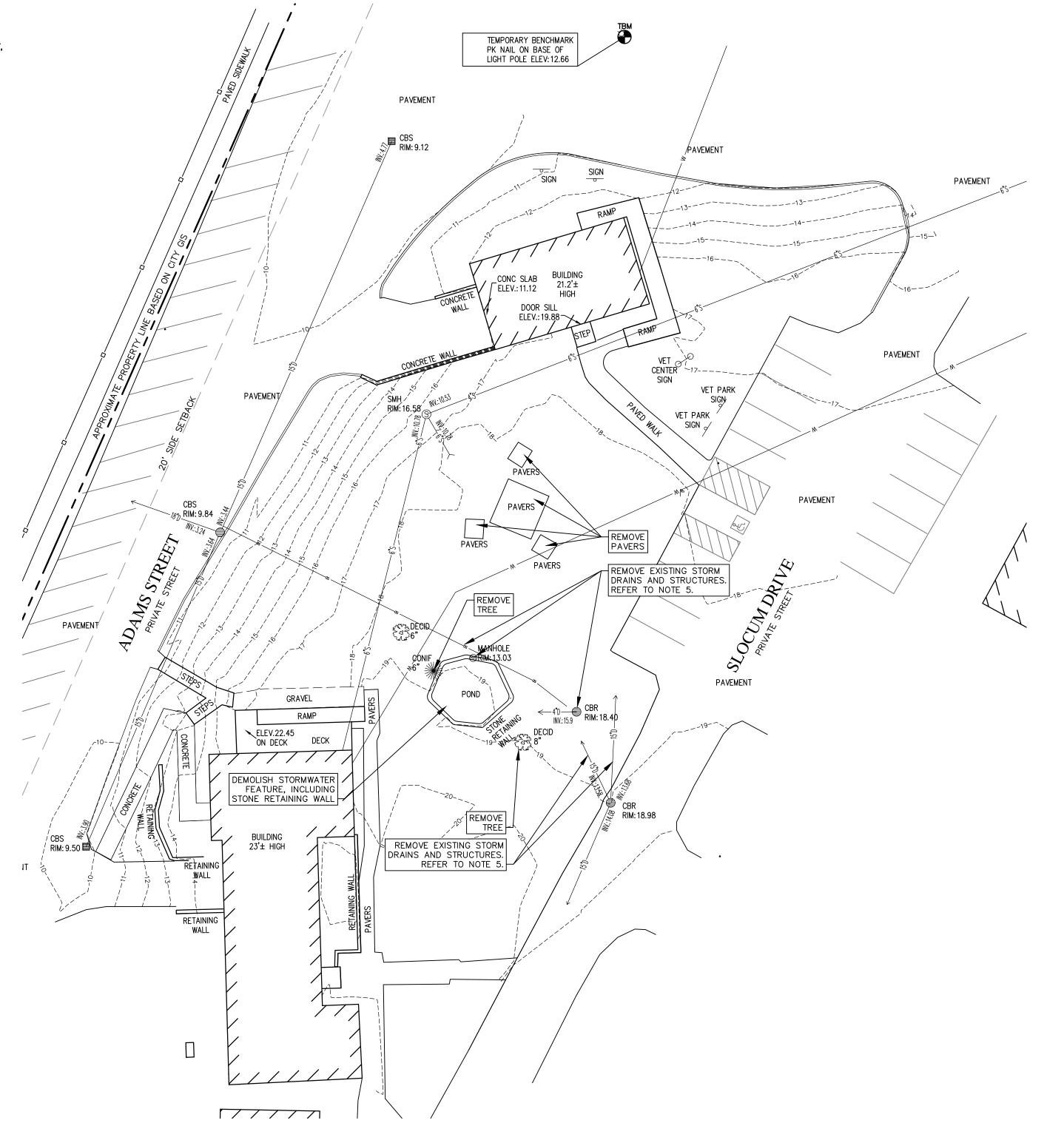
AND APPLICABLE GOVERNMENTAL AUTHORITIES.

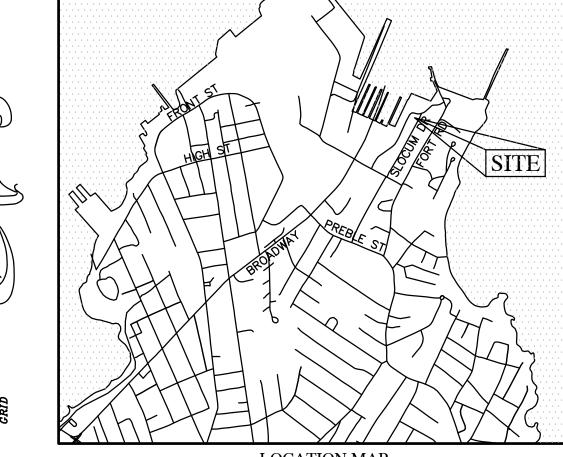
APPLICABLE GOVERNMENTAL REGULATIONS.

- 3. BREAK UP CONCRETE SLABS-ON-GRADE UNLESS OTHERWISE DIRECTED BY THE
- CONSTRUCTION MANAGER.

 4. CONDUCT ALL DEMOLITION OPERATIONS IN A MANNER THAT WILL PREVENT INJURY, DAMAGE
- TO STRUCTURES, ADJACENT BUILDINGS AND ALL PERSONS.

 5. REFRAIN FROM USING EXPLOSIVES WITHOUT PRIOR WRITTEN CONSENT OF THE DEVELOPER
- 6. CONDUCT DEMOLITION SERVICES IN SUCH A MANNER TO INSURE MINIMUM INTERFERENCE WITH ROADS. STREETS. WALKS AND OTHER ADJACENT FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS. WALKS OR OTHER OCCUPIED FACILITIES WITHOUT PRIOR WRITTEN PERMISSION OF THE DEVELOPER AND APPLICABLE GOVERNMENTAL AUTHORITIES. PROVIDE ALTERNATIVE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS IF REQUIRED BY
- 7. USE WATERING, TEMPORARY ENCLOSURES AND OTHER SUITABLE METHODS, AS NECESSARY, TO LIMIT THE AMOUNT OF DUST AND DIRT RISING AND SCATTERING IN THE AIR. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. RETURN ALL ADJACENT AREAS TO THE CONDITIONS EXISTING PRIOR TO THE START OF WORK.
- 8. ACCOMPLISH AND PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME.
- 9. REMOVE FROM THE DESIGNATED SITE, AT THE EARLIEST POSSIBLE TIME, ALL DEBRIS RUBBISH, SALVAGEABLE ITEMS. HAZARDOUS AND COMBUSTIBLE SERVICES. REMOVED MATERIALS MAY NOT BE STORED, SOLD OR BURNED ON SITE. REMOVAL OF HAZARDOUS AND COMBUSTIBLE MATERIALS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PROCEDURES AS AUTHORIZED BY THE FIRE DEPARTMENT OR OTHER APPROPRIATE REGULATORY AGENCIES AND DEPARTMENTS.
- 10. PROTECT EXISTING DRAINAGE SYSTEM(S) AS NECESSARY TO PREVENT SEDIMENT FROM ENTERING DURING CONSTRUCTION. SEE DETAIL SHEETS FOR EROSION CONTROL DEVICES.
- 11. THE LIMITS OF WORK SHALL BE CLEARLY MARKED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION OR SITE CLEARING.





LOCATION MAP NOT TO SCALE

NOTES:

THIS PLAN DEPICTS CONDITIONS FOUND AND SURVEYED BY SITELINES PA AS OF MARCH 2025. SUPPORTING DATA IS FROM THE INFORMATION BELOW.

1. TITLE REFERENCE FOR SURVEYED PARCEL:

BK 18694, PG 52

2. AREA INFORMATION:

12.97 ACRES (PER ASSESSING DATA)

3. TAX MAP REFERENCE:

TAX MAP 4, LOT 2

ITILITY INFORMATION

4. <u>UTILITY INFORMATION:</u>

THERE MAY BE UNDERGROUND CONDUIT, WIRES, CABLES AND/OR STRUCTURES NOT SHOWN ON THIS PLAN. THE LOCATIONS SHOWN ARE BASED ON SURFACE FEATURES VISIBLE AT THE TIME OF SURVEY AND POSSIBLY FROM INFORMATION PROVIDED BY THE OWNER, MUNICIPAL GIS DATA, AND/OR UTILITY COMPANIES. NO EXCAVATIONS WERE MADE DURING THE COURSE OF THE SURVEY TO VERIFY OR LOCATE ANY UNDERGROUND STRUCTURES. IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO VERIFY THE LOCATION OF ANY UNDERGROUND UTILITIES PRIOR TO EXCAVATING BY CONTACTING THE APPROPRIATE UTILITY COMPANY. STATE LAW REQUIRES DIG—SAFE BE CONTACTED PRIOR TO EXCAVATION.

5. LOCATION OF EXISTING STORM DRAINS IS BASED ON BEST AVAILABLE DATA. THERE ARE CONFLICTS BETWEEN THE DATA IN THE FIELD AND THE INFORMATION AVAILABLE FROM SMCC GIS SYSTEM. CONTRACTOR SHALL REMOVE ANY EXISTING STORM DRAINS OR STRUCTURES FOUND WITHIN THE FOOTPRINT OF THE NEW GREENHOUSE BUILDING.

5. 06-24-25 REVISED PLAN TO ADD PROPANE TANK

4. 06-23-25 ADDED CONDITIONS OF APPROVAL

3. 05-29-25 REVISED PER CITY COMMENTS

2. 05-05-25 REVISED PER MECHANICAL PLANS

1. 04-21-25 SUBMITTED TO CITY FOR REVIEW

JJM

EXISTING CONDITIONS AND DEMOLITION PLAN

PROJECT:

GREENHOUSE BUILDING

37 SLOCUM DRIVE, SOUTH PORTLAND, ME 04106

PREPARED FOR:

MAINE TECHNICAL COLLEGE SYSTEM

3 ADAMS STREET, SOUTH PORTLAND, ME 04106

SITELINES

119 PURINTON ROAD, SUITE A
BRUNSWICK, MAINE 04011
207.725.1200
CIVIL ENGINEERS - PLANNERS - LAND SURVEYORS

 FIELD WK: CJH
 SCALE: 1"=20'

 DRN BY: RPL
 JOB #: 5113

 CH'D BY: JJM
 MAP/LOT: 4/2

 DATE: 04/03/25
 FILE: 5113-SITE

PROGRESS PRINT
THIS PLAN IS ISSUED FOR
REVIEW AND INFORMATION
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PLAN IS SUBJECT TO
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CONTRACTOR AND OWNER.



Know what's below Call before you dig.

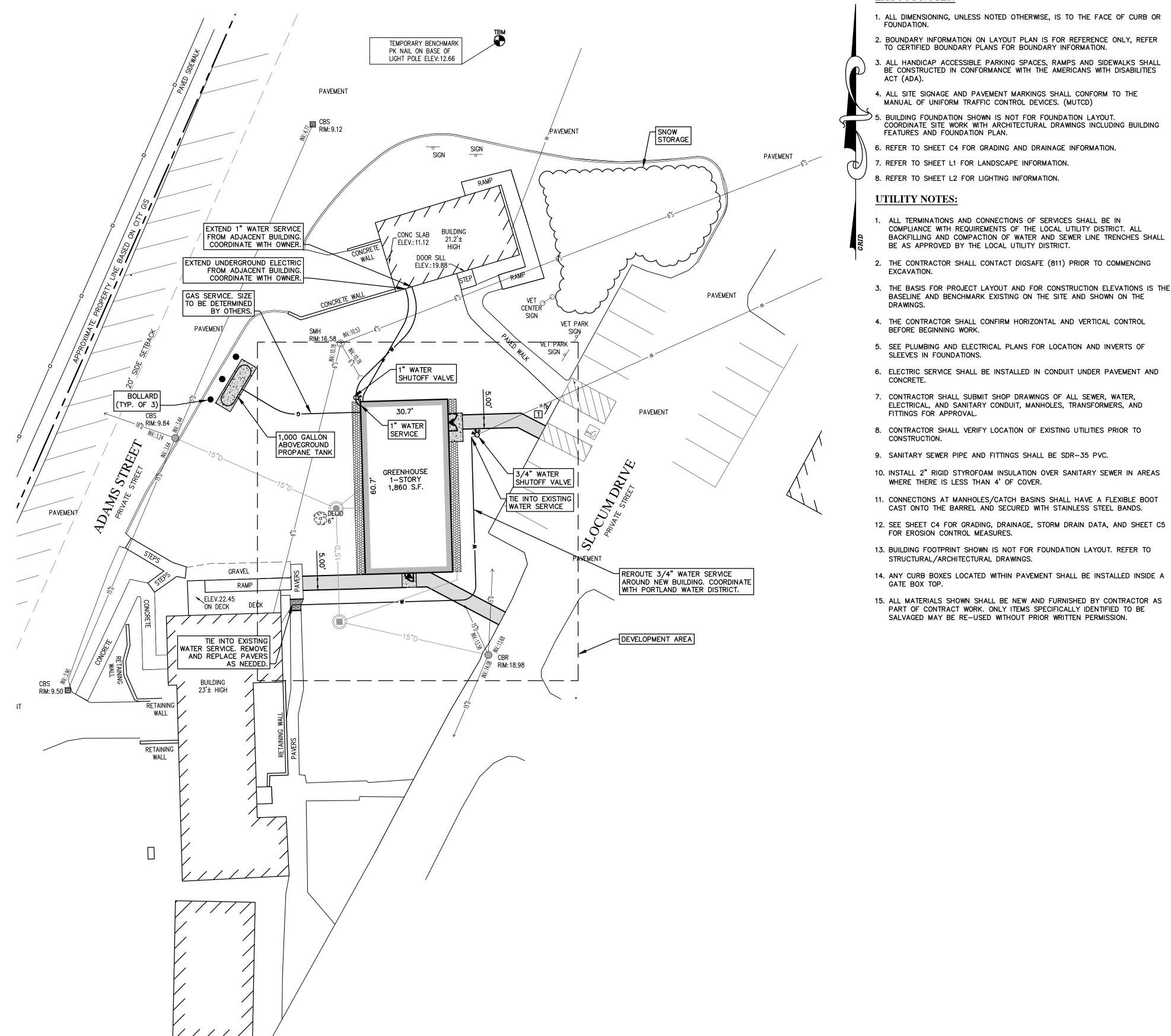
STATE LAW REQUIRES ADVANCE NOTICE OF AT LEAST 3 BUSINESS DAYS BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITIES

GRAPHIC SCALE



CONDITIONS OF APPROVAL:

- THIS APPROVAL IS DEPENDENT UPON AND LIMITED TO THE PROPOSALS AND PLANS CONTAINED IN THE APPLICATION AND SUPPORTING DOCUMENTS SUBMITTED AND AFFIRMED TO BY THE APPLICANT. ANY VARIATION FROM THE PLANS, PROPOSALS AND SUPPORTING DOCUMENTS, EXCEPT CHANGES AS DETERMINED BY THE PLANNING DIRECTOR WHICH DO NOT AFFECT APPROVAL STANDARDS AND ARE NOT SUBJECT TO DE MINIMIS CHANGE REVIEW BY THE PLANNING BOARD PURSUANT TO ZONING ORDINANCE SECTION 27-140 OR SUBDIVISION ORDINANCE 24-27,IS SUBJECT TO THE REVIEW AND APPROVAL OF THE PLANNING BOARD PRIOR TO IMPLEMENTATION.
- ALL CONDITIONS OF APPROVAL AND ANY WAIVERS GRANTED SHALL APPEAR ON THE FACE OF THE PLANS SUBMITTED FOR BUILDING PERMITS, AND THE FACE OF THE SUBDIVISION PLAN, IF APPLICABLE
- PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, OR RELEASE OF THE RECORDING SUBDIVISION-SIGNING PLAN IF APPLICABLE, THE APPLICANT SHALL PAY ALL OUTSTANDING REVIEW ESCROW ACCOUNT FEES, POST THE NECESSARY PERFORMANCE GUARANTEE(S) IN SUCH AMOUNT(S) AS ESTABLISHED BY THE CITY, POST EROSION AND SEDIMENTATION CONTROL INSPECTION ESCROW, HOLD A PRE-CONSTRUCTION MEETING WITH THE CITY IF NECESSARY, AND PAY COMPENSATION AND/OR IMPACT FEES AS DETERMINED BY THE PLANNING BOARD.
- THIS PLANNING BOARD APPROVAL IS VALID FOR 24 MONTHS FROM THE DATE OF APPROVAL. UNLESS THE SPECIAL EXCEPTION USE HAS COMMENCED, IF APPLICABLE, OR START OF CONSTRUCTION, AS DEFINED IN SECTION 27-201 AND VERIFIED BY THE CODE ENFORCEMENT OFFICE, IS COMPLETED WITHIN THAT PERIOD, THE APPROVAL SHALL EXPIRE.
- PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, THE APPLICANT SHALL SUBMIT DIGITAL PLANS TO THE PLANNING DIVISION WITH ALL CONDITIONS AND WAIVERS LISTED ON THE
- 6. THE APPLICANT SHALL PROVIDE THE PLANNING AND DEVELOPMENT DIRECTOR WITH SATISFACTORY EVIDENCE THAT ONE OF THE FIRST SIX METHODS SET FORTH IN SECTION 3(B) OF THE CITY'S SITE PLAN APPLICATION FORM RELATING TO THE APPLICANT'S FINANCIAL CAPACITY IS IN PLACE.
- PRIOR TO HOLDING A PRE-CONSTRUCTION MEETING AND SUBMITTING A BUILDING PERMIT, THE APPLICANT SHALL FINALIZE AND PROVIDE A STORMWATER MANAGEMENT DRAINAGE MAINTENANCE AGREEMENT THAT WILL BE REVIEWED BY THE PLANNING DIRECTOR AND THEN RECORDED AT THE CUMBERLAND COUNTY REGISTRY OF DEEDS. THE OWNER OF THE PROPERTY AND ALL FUTURE OWNERS SHALL BE REQUIRED TO OPERATE, REPAIR, MAINTAIN, AND REPLACE THE STORMWATER MANAGEMENT FACILITIES AS SHOWN IN THE STORMWATER MANAGEMENT PLAN.
- THE APPLICANT SHALL CONTRACT WITH A PRIVATE WASTE HAULER FOR THE REMOVAL OF CONSTRUCTION WASTE, OR PROVIDE OTHER EVIDENCE OF A SUFFICIENT PLAN FOR SOLID WASTE REMOVAL DURING CONSTRUCTION FOR REVIEW AND APPROVAL BY THE PLANNING
- THE APPLICANT SHALL SECURE A BUILDING PERMIT FROM THE CODE ENFORCEMENT OFFICE IN COORDINATION WITH THE PLANNING DIVISION, FIRE DEPARTMENT, AND ALL RELEVANT REVIEW AUTHORITIES, PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES.
- PRIOR TO BUILDING PERMIT ISSUANCE, THE APPLICANT SHALL PROVIDE TO THE CITY'S CODE ENFORCEMENT OFFICE A COPY OF THE NOTIFICATION SUBMITTED TO MAINE DEP TO INFORM THEM THAT CONSTRUCTION WILL BE UNDERTAKEN UNDER THE EXEMPTION IN 38 MRSA
- PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, THE APPLICANT SHALL SUBMIT A SOIL QUALITY PERMIT WITH THE CODE ENFORCEMENT OFFICE IN ACCORDANCE WITH CHAPTER 32, LANDCARE MANAGEMENT.
- PRIOR TO HOLDING A PRE-CONSTRUCTION MEETING AND SUBMITTING A BUILDING PERMIT, THE DESIGNATED FOR PRESERVATION IN THE APPROVED SITE PLAN. NO CONSTRUCTION STAGING OR OTHER CONSTRUCTION-RELATED ACTIVITY IS PERMITTED WITHIN THE DRIP LINE FENCE BARRIER UNLESS REVIEWED AND APPROVED BY THE PLANNING DIRECTOR.
- 13. THE APPLICANT SHALL REPLACE ANY TREES REMOVED ON SITE AT A RATE OF 5 TREES FOR EACH PROTECTED TREE REMOVED WITHIN THE SHORELAND AREA OVERLAY DISTRICT.
- 14. ALL SPREADING OF MANURE SHALL BE ACCOMPLISHED IN CONFORMANCE WITH THE MANURE UTILIZATION GUIDELINES PUBLISHED BY THE DEPARTMENT OF AGRICULTURE ON NOVEMBER 1, 2001, AND THE NUTRIENT MANAGEMENT LAW (7 M.R.S. §§ 4201-4209, AS MAY BE AMENDED). MANURE SHALL NOT BE STORED OR STOCKPILED WITHIN SEVENTY-FIVE (75) FEET. HORIZONTAL DISTANCE, OF THE NORMAL HIGH-WATER LINE OF WATER BODIES, TRIBUTARY STREAMS, OR WETLANDS. ALL MANURE STORAGE AREAS WITHIN THE SHORELAND AREA MUST BE CONSTRUCTED OR MODIFIED SUCH THAT THE FACILITY PRODUCES NO DISCHARGE OF EFFLUENT OR CONTAMINATED STORM WATER. USE OF MANURE AT THE PROPERTY SHALL REQUIRE REVIEW FROM THE WATER RESOURCES PROTECTION DIVISION AND APPROVAL THROUGH A DE MINIMIS CHANGE APPLICATION TO THE PLANNING DIRECTOR.
- 15. ALL EXTERIOR LIGHTING SHALL BE DARK SKY COMPLIANT.
- 16. THE LANDSCAPING PLAN SHALL ONLY USE NATIVE PLANT SPECIES AND SHALL NOT INCLUDE TREES AND SHRUB SPECIES LISTED ON THE STATES ADVISORY LIST OF INVASIVE PLANTS.
- 17. PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, THE APPLICANT SHALL SUBMIT TO THE PLANNING DIRECTOR A CERTIFIED "AS-BUILT" GRADING PLAN & CADD FILE MEETING THE CITY'S G.I.S. REQUIREMENTS; GRADES WILL NOT BE MODIFIED FROM THE APPROVED GRADING PLAN WITHOUT PLANNING BOARD APPROVAL.
- THE APPLICANT SHALL PROVIDE FINAL CONNECTION DETAILS RELATED TO NATURAL GAS TO THE PLANNING DIRECTOR FOR REVIEW AND APPROVAL PRIOR TO INSTALLING THE UTILITY SERVICE, AND THE LOCATION OF A GAS CONNECTION SHALL BE PROVIDED IN AN UPDATED PLAN SET TO BE HELD ON RECORD AT THE PLANNING DEPARTMENT. THE GAS UTILITY CONNECTION SHALL BE INCLUDED IN PLANS SUBMITTED FOR BUILDING PERMITS.



LAYOUT NOTES:

- 1. ALL DIMENSIONING, UNLESS NOTED OTHERWISE, IS TO THE FACE OF CURB OR
- 2. BOUNDARY INFORMATION ON LAYOUT PLAN IS FOR REFERENCE ONLY, REFER TO CERTIFIED BOUNDARY PLANS FOR BOUNDARY INFORMATION.
- . ALL HANDICAP ACCESSIBLE PARKING SPACES, RAMPS AND SIDEWALKS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE AMERICANS WITH DISABILITIES
- 4. ALL SITE SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE
- MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. (MUTCD) BUILDING FOUNDATION SHOWN IS NOT FOR FOUNDATION LAYOUT. COORDINATE SITE WORK WITH ARCHITECTURAL DRAWINGS INCLUDING BUILDING
- 6. REFER TO SHEET C4 FOR GRADING AND DRAINAGE INFORMATION.
- 7. REFER TO SHEET L1 FOR LANDSCAPE INFORMATION.

FEATURES AND FOUNDATION PLAN.

8. REFER TO SHEET L2 FOR LIGHTING INFORMATION.

UTILITY NOTES:

FITTINGS FOR APPROVAL.

- . ALL TERMINATIONS AND CONNECTIONS OF SERVICES SHALL BE IN COMPLIANCE WITH REQUIREMENTS OF THE LOCAL UTILITY DISTRICT. ALL BACKFILLING AND COMPACTION OF WATER AND SEWER LINE TRENCHES SHALL BE AS APPROVED BY THE LOCAL UTILITY DISTRICT.
- 2. THE CONTRACTOR SHALL CONTACT DIGSAFE (811) PRIOR TO COMMENCING
- 3. THE BASIS FOR PROJECT LAYOUT AND FOR CONSTRUCTION ELEVATIONS IS THE BASELINE AND BENCHMARK EXISTING ON THE SITE AND SHOWN ON THE
- 4. THE CONTRACTOR SHALL CONFIRM HORIZONTAL AND VERTICAL CONTROL BEFORE BEGINNING WORK.
- 5. SEE PLUMBING AND ELECTRICAL PLANS FOR LOCATION AND INVERTS OF SLEEVES IN FOUNDATIONS.
- 6. ELECTRIC SERVICE SHALL BE INSTALLED IN CONDUIT UNDER PAVEMENT AND
- 7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL SEWER. WATER. ELECTRICAL, AND SANITARY CONDUIT, MANHOLES, TRANSFORMERS, AND
- 8. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- 9. SANITARY SEWER PIPE AND FITTINGS SHALL BE SDR-35 PVC.
- 10. INSTALL 2" RIGID STYROFOAM INSULATION OVER SANITARY SEWER IN AREAS WHERE THERE IS LESS THAN 4' OF COVER.
- 11. CONNECTIONS AT MANHOLES/CATCH BASINS SHALL HAVE A FLEXIBLE BOOT CAST ONTO THE BARREL AND SECURED WITH STAINLESS STEEL BANDS.
- 12. SEE SHEET C4 FOR GRADING, DRAINAGE, STORM DRAIN DATA, AND SHEET C5 FOR EROSION CONTROL MEASURES.
- 13. BUILDING FOOTPRINT SHOWN IS NOT FOR FOUNDATION LAYOUT. REFER TO STRUCTURAL/ARCHITECTURAL DRAWINGS.
- GATE BOX TOP. 15. ALL MATERIALS SHOWN SHALL BE NEW AND FURNISHED BY CONTRACTOR AS

PART OF CONTRACT WORK. ONLY ITEMS SPECIFICALLY IDENTIFIED TO BE

SALVAGED MAY BE RE-USED WITHOUT PRIOR WRITTEN PERMISSION.

LOCATION MAP NOT TO SCALE GENERAL NOTES:

1. TITLE REFERENCE FOR SURVEYED PARCEL:

BK 18694, PG 52

LOT AREA: 12.97 ACRES (BASED ON CITY ASSESSING DATA)

3. TAX MAP REFERENCE:

2. AREA INFORMATION:

TAX MAP 4, LOT 2

4. BASIS OF BEARINGS:

BEARINGS ARE REFERENCED TO MAGNETIC.

5. ELEVATION DATUM:

REFER TO PLANS FOR BENCHMARK INFORMATION.

6. ZONING INFORMATION:

7. FLOOD ZONE INFORMATION:

THE PROPOSED USE IS LOCATED WITHIN THE SPRING POINT (SP) ZONING DISTRICT (SEE ZONING TABLE BELOW) AND IS ALSO LOCATED WITHIN THE SHORELAND OVERLAY DISTRICT. AS THE USE IS LOCATED WITHIN THE SHORELAND OVERLAY DISTRICT, THE PROJECT IS SUBJECT TO THE APPLICABLE ZONING STANDARDS WITHIN SEC. 27—1322. PERFORMANCE STANDARDS OF THE SOUTH PORTLAND ZONING ORDINANACE.

THE DEVELOPMENT AREA IS LOCATED WITHIN ZONE X (AREAS OF MINIMAL FLOOD HAZARD) OF THE FLOOD INSURANCE RATE MAPS FOR CUMBERLAND COUNTY, MAINE. THE PROJECT IS LOCATED ON PANEL 731 OF 837 (COMMUNITY PANEL 23005C0713F, EFF. DATE JUNE 20, 2024)

8. <u>IMPERVIOUS AREA (WITHIN DEVELOPMENT AREA):</u>

3,067 S.F. (0.07 AC) EXISTING IMPERVIOUS AREA: PROPOSED IMPERVIOUS AREA: 5,579 S.F. (0.13 AC) NET CHANGE IN IMPERVIOUS AREA: +2,512 S.F. (0.06 AC)

UTILITY NOTES:

1. INFORMATION REGARDING THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS A COMPILATION OF THAT FOUND IN THE FIELD AND THAT SHOWN ON A PREVIOUS PLANS, AND SHALL NOT BE CONSIDERED AN AS-BUILT PLAN. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING UTILITY LOCATIONS PRIOR TO COMMENCING WORK. NOTIFY ENGINEER OF ANY DISCREPANCY BETWEEN UTILITIES AS SHOWN AND AS FOUND. CONTRACTOR SHALL NOTIFY DIG-SAFE (811) PRIOR TO EXCAVATION.

SPRING PO	DINT ZONING DISTRICT (S	iP)
ZONING STANDARD	REQUIRED	PROPOSED
MIN. LOT AREA:	30,000 S.F.	12.97 AC.
MIN. STREET FRONTAGE:	100'	~523'
IIN. SETBACKS:		
FRONT:	20'	~835'*
REAR:	20'	~365'*
SIDE:	20'	~95'*
MAX. HEIGHT:	86'	21.7'
MAX. BLDG COVERAGE:	40%	19%**

*APPLIES TO PROPOSED GREENHOUSE BUILDING ONLY **BASED ON AERIAL IMAGERY CALCULATION OF EXISTING BUILDINGS ON

TLE	:		
١.	04-21-25	SUBMITTED TO CITY FOR REVIEW	JJM
2.	05-05-25	REVISED PER MECHANICAL PLANS	JJM
3.	05-29-25	REVISED PER CITY COMMENTS	JJM
4.	06-23-25	ADDED CONDITIONS OF APPROVAL	JJM
5.	06-24-25	REVISED PLAN TO ADD PROPANE TANK	JJM

SITE LAYOUT AND UTILITY PLAN

JOSEPH

MARDEN

12828

GREENHOUSE BUILDING

37 SLOCUM DRIVE, SOUTH PORTLAND, ME 04106

PREPARED FOR:

MAINE TECHNICAL COLLEGE SYSTEM

3 ADAMS STREET, SOUTH PORTLAND, ME 04106

119 PURINTON ROAD, SUITE A **BRUNSWICK. MAINE 04011** 207.725.1200 **CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS**

	FIELD WK: CJH	SCALE: 1"=20'
,	DRN BY: RPL	JOB #: 5113
	CH'D BY: JJM	MAP/LOT: 4/2
5	DATE: 04/03/25	FILE: 5113-SITE

PROGRESS PRINT THIS PLAN IS ISSUED FOR REVIEW AND INFORMATION PURPOSES ONLY. THIS PLAN IS SUBJECT CHANGE AND IS NOT FOR PRICING OR CONSTRUCTION. PRICING BASED ON THIS PLAN IS NOT BINDING UNLESS SIGNED BY BOTH CONTRACTOR AND OWNER.



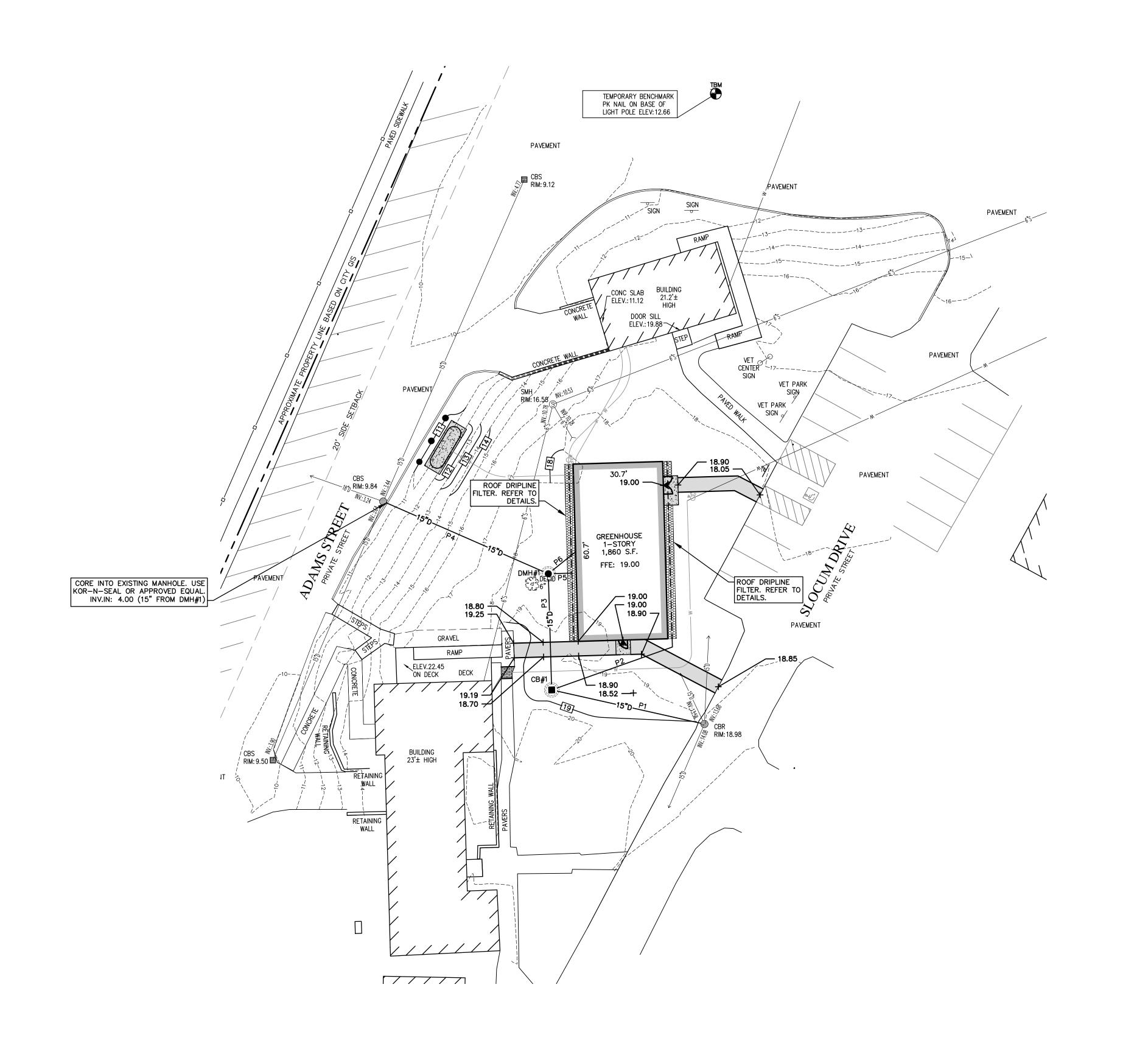
Know what's below Call before you dig.

STATE LAW REQUIRES ADVANCE NOTICE OF AT LEAST 3 BUSINESS DAYS BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND UTILITIES

GRAPHIC SCALE (IN FEET) 1 inch = 20 ft.

PRICING

ISSUED FOR:





1. THE CONTRACTOR SHALL PHASE GRADING EFFORTS SUCH THAT TOTAL SITE DISTURBANCE IS MINIMIZED. TEMPORARY EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO GRADING EFFORTS OR WITHOUT DELAY UPON THEIR COMPLETION, DEPENDENT UPON THE SITUATION.

2. ALL FILL SLOPES SHALL BE A MINIMUM OF 3:1 HORIZONTAL TO VERTICAL UNLESS OTHERWISE NOTED OR DIRECTED.

3. THE LIMITS OF DISTURBANCE SHALL GENERALLY BE THE MINIMAL EXTENT NECESSARY ONLY TO PERFORM THE GRADING EFFORTS SHOWN ON THE DRAWINGS. SPECIAL CARE SHALL BE TAKEN TO AVOID DISTURBANCE OF OBJECTS AND AREAS NOT SPECIFICALLY IDENTIFIED FOR MODIFICATION OR

4. ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED IN ACCORDANCE WITH THE DRAWINGS, UNLESS INTENDED FOR OTHER SURFACE COVER.

5. STORM DRAINS SHALL BE CONSTRUCTED CONCURRENTLY WITH GRADING EFFORTS TO PROVIDE ADEQUATE CONVEYANCE FOR ANY SITE RUNOFF CONDITIONS.

6. WHERE FINAL GRADING HAS BEEN COMPLETED, SURFACE RESTORATION FOR DISTURBED AREAS WILL BE COMPLETED AS SOON AS PRACTICABLE. FOR VEGETATIVE AREAS, VEGETATION WILL BE PROGRESSIVELY ESTABLISHED.

7. UNLESS OTHERWISE NOTED, ALL STORM DRAIN PIPE SHALL BE IN ACCORDANCE WITH MDOT SPECIFICATIONS SECTION 603. PIPE CULVERTS AND STORM DRAINS, LATEST REVISION WITH ACCEPTABLE TYPES OF PIPE ARE AS FOLLOWS:

SMOOTH BORE POLYETHYLENE PIPE - HDPE N-12 ADS

8. BENCHMARK INFORMATION: SEE PLAN

9. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL DRAINAGE STRUCTURES AND PIPING PRIOR TO ORDERING.

10. RIM ELEVATIONS OF PROPOSED DRAINAGE STRUCTURES ARE APPROXIMATE. FINAL ELEVATIONS ARE TO BE SET FLUSH AND CONSISTENT WITH THE GRADING

11. TRANSITIONS BETWEEN SLOPES ARE TO BE GENERALLY GRADUAL AND RESULT IN A SMOOTH, ROUNDED APPEARANCE.

DRAINAGE STRUCTURE DATA:

RIM: 18.10

INV.IN: 13.42 (4" FROM UNDERDRAIN)

INV.IN: 10.31 (15" FROM EX.CB)

INV.OUT: 10.21 (15" TO DMH#1)

RIM: 18.50

INV.IN: 13.94 (4" FROM UNDERDRAIN)

INV.IN: 13.00 (4" FROM FOUNDATION DRAIN) INV.IN: 7.87 (15" FROM CB#1)

INV.OUT: 7.77 (15" TO EX.CB)

P1: 15" HDPE L=50' S=0.0654

P2: 4" PVC L=58' S=0.0100

P3: 15" HDPE L=36' S=0.0650 P4: 15" HDPE L=58' S=0.0650

P5: 4" PVC L=6' S=0.0100

P6: 4" PVC L=10' S=0.0050 MIN.

5. 06-24-25 REVISED PLAN TO ADD PROPANE TANK 4. 06-23-25 ADDED CONDITIONS OF APPROVAL 3. 05-29-25 REVISED PER CITY COMMENTS 2. 05-05-25 REVISED PER MECHANICAL PLANS 1. 04-21-25 SUBMITTED TO CITY FOR REVIEW

GRADING PLAN

GREENHOUSE BUILDING

37 SLOCUM DRIVE, SOUTH PORTLAND, ME 04106

PREPARED FOR:

MAINE TECHNICAL COLLEGE SYSTEM 3 ADAMS STREET, SOUTH PORTLAND, ME 04106

119 PURINTON ROAD, SUITE A BRUNSWICK, MAINE 04011 207.725.1200

CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS SCALE: 1"=20'

FIELD WK: CJH JOB #: 5113 DRN BY: RPL CH'D BY: JJM MAP/LOT: 4/2 FILE: 5133-SITE DATE: 04/03/25

PROGRESS PRINT THIS PLAN IS ISSUED FOR

REVIEW AND INFORMATION

PURPOSES ONLY. THIS PLAN IS SUBJECT

CHANGE AND IS NOT FOR

PRICING OR CONSTRUCTION.

PRICING BASED ON THIS

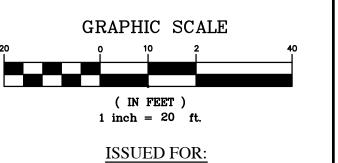
PLAN IS NOT BINDING

CONTRACTOR AND OWNER.

UNLESS SIGNED BY BOTH

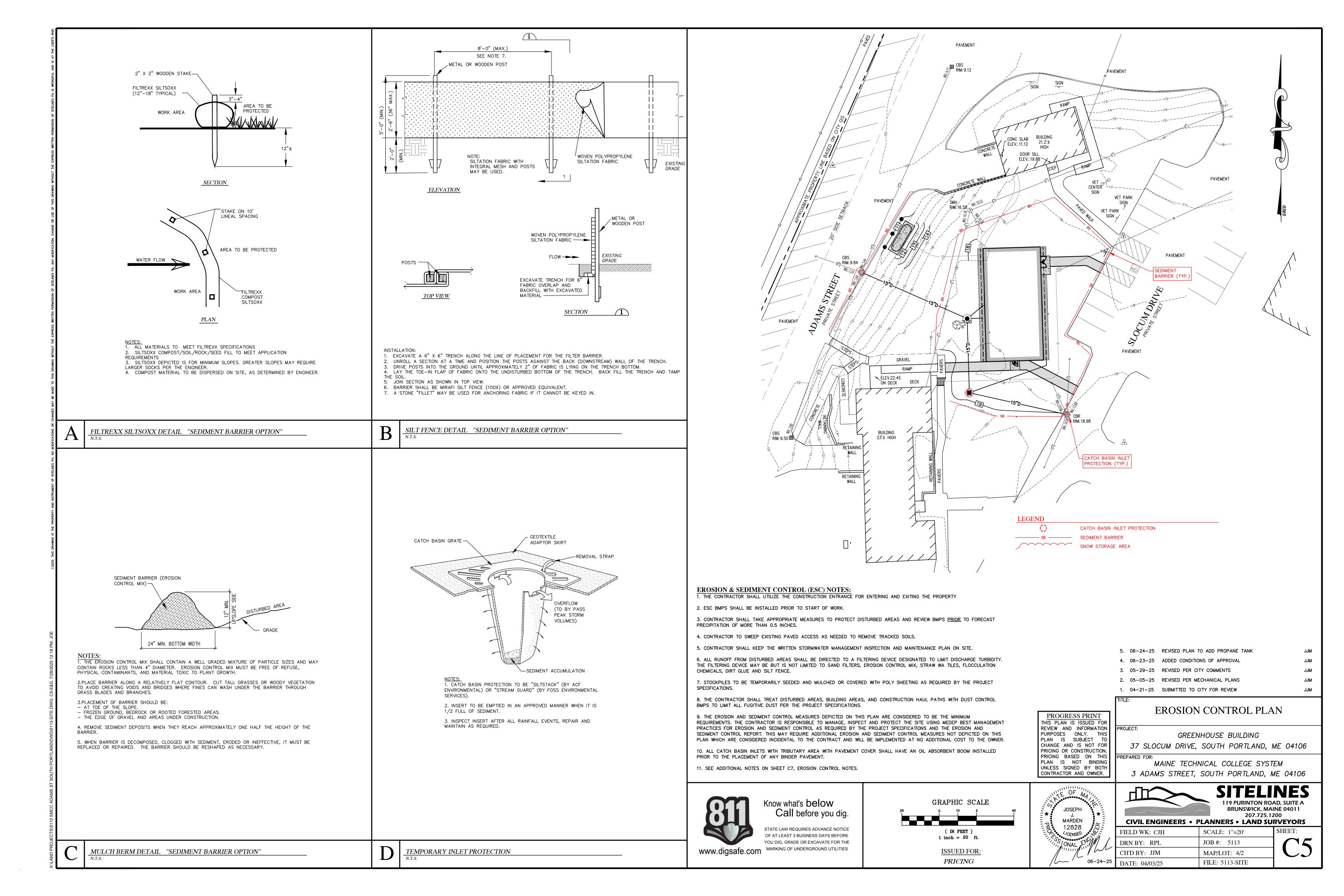


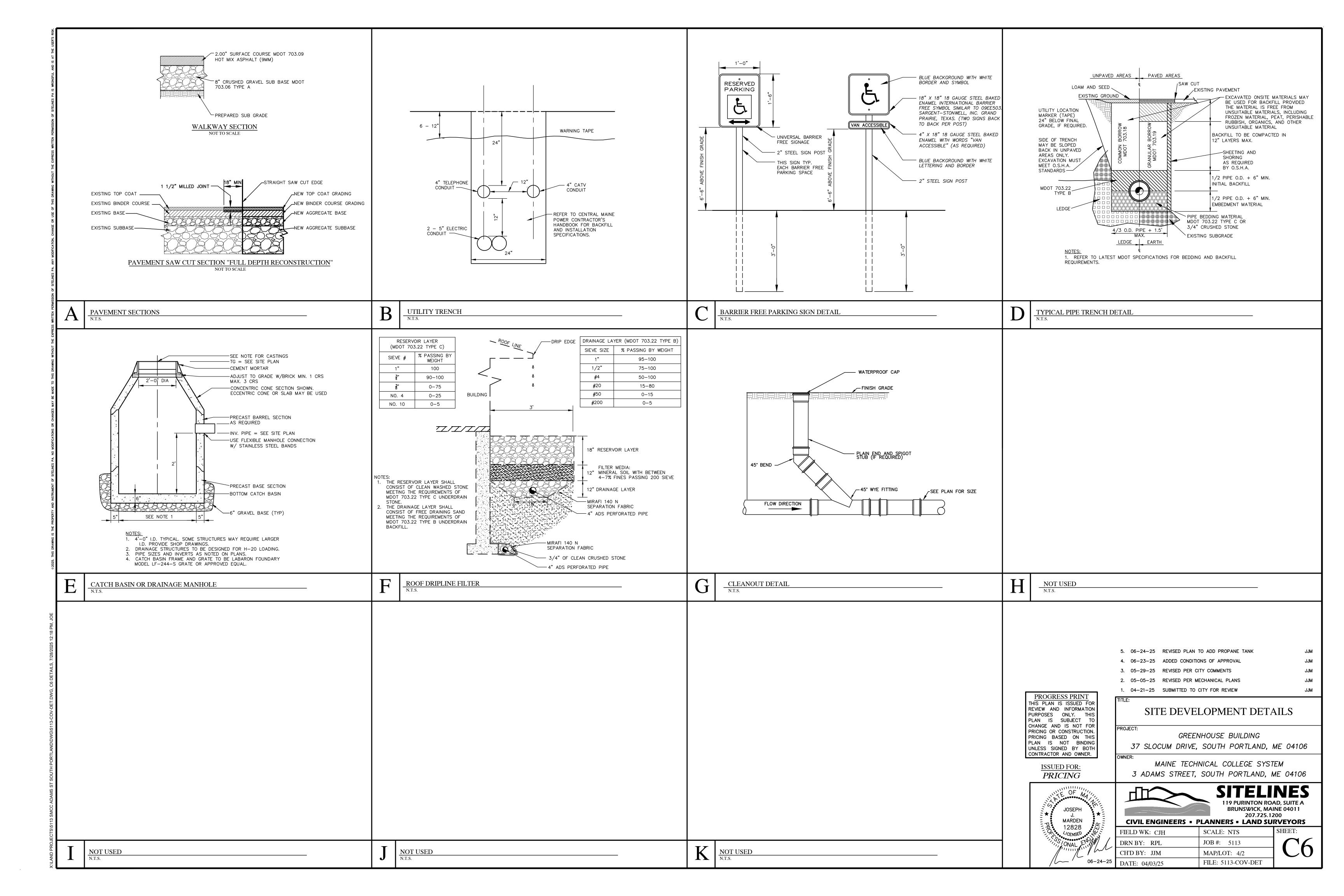
STATE LAW REQUIRES ADVANCE NOTICE OF AT LEAST 3 BUSINESS DAYS BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE www.digsafe.com MARKING OF UNDERGROUND UTILITIES



PRICING







EROSION AND SEDIMENTATION NOTES:

CONTRACTOR SHALL FOLLOW BEST MANAGEMENT PRACTICES OF THE CUMBERLAND COUNTY SOIL CONSERVATION SERVICE AND THE MAINE DEP BEST MANAGEMENT PRACTICES HANDBOOK.

GENERAL EROSION AND SEDIMENTATION CONTROL PRACTICES:

EROSION/SEDIMENT CONTROL DEVICES:

THE FOLLOWING EROSION SEDIMENTATION CONTROL DEVICES ARE PROPOSED FOR CONSTRUCTION ON THIS PROJECT. INSTALL THESE DEVICES AS INDICATED ON THE PLANS.

SEDIMENT BARRIER: SILT SOXX OR APPROVED EQUAL WILL BE INSTALLED ALONG THE DOWN GRADING EDGES OF DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL THE SITE IS STABILIZED. IN AREAS WHERE STORMWATER DISCHARGES THE SEDIMENT BARRIER WILL BE REINFORCED WITH HAY BALES TO HELP MAINTAIN THE INTEGRITY OF THE SEDIMENT BARRIER AND TO PROVIDE ADDITIONAL TREATMENT.

RIPRAP: PROVIDE RIPRAP IN AREAS WHERE CULVERTS DISCHARGE OR AS SHOWN ON THE PLANS.

LOAM, SEED, & MULCH: ALL DISTURBED AREAS, WHICH ARE NOT OTHERWISE TREATED, SHALL RECEIVE PERMANENT SEEDING AND MULCH TO STABILIZE THE DISTURBED AREAS. THE DISTURBED AREAS WILL BE REVEGETATED WITHIN 5 DAYS OF FINAL GRADING. SEEDING REQUIREMENTS ARE PROVIDED AT THE END OF THIS SPECIFICATION.

STRAW AND HAY MULCH: USED TO COVER DENUDED AREAS UNTIL PERMANENT SEED OR EROSION CONTROL MEASURES ARE IN PLACE. MULCH BY ITSELF CAN BE USED ON SLOPES LESS THAN 15% IN SUMMER AND 8% IN WINTER. JUTE MESH IS TO BE USED OVER MULCH ONLY.

5. IN LIEU OF MULCH, USE EROSION CONTROL BLANKET (EQUAL TO NORTH AMERICAN GREEN SC150) TO STABILIZE AREAS OF CONCENTRATED FLOW AND DRAINAGE WAYS.

TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES:

PROVIDE THE FOLLOWING TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION OF THE DEVELOPMENT:

SEDIMENT BARRIER ALONG THE DOWNGRADIENT SIDE OF THE PARKING AREAS AND OF ALL FILL SECTIONS. THE SEDIMENT BARRIER WILL REMAIN IN PLACE UNTIL THE SITE IS 85% REVEGETATED.

HAY BALES PLACED AT KEY LOCATIONS TO SUPPLEMENT THE SEDIMENT BARRIER.

PROTECT TEMPORARY STOCKPILES OF STUMPS, GRUBBINGS, OR COMMON EXCAVATION AS FOLLOWS:

A. SOIL STOCKPILE SIDE SLOPES SHALL NOT EXCEED 2:1. B. AVOID PLACING TEMPORARY STOCKPILES IN AREAS WITH SLOPES OVER 10 PERCENT, OR NEAR DRAINAGE SWALES. SEE ITEM 3 IN CONSTRUCTION PHASE NOTES BELOW.

C. STABILIZE STOCKPILES WITHIN 7 DAYS BY TEMPORARILY SEEDING WITH A HYDROSEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER OR BY COVERING THE STOCKPILE WITH MULCH.

D. SURROUND STOCKPILE SOIL WITH SEDIMENT BARRIER AT BASE OF PILE. ALL DENUDED AREAS WHICH HAVE BEEN ROUGH GRADED AND ARE NOT LOCATED WITHIN THE BUILDING PAD, OR PARKING AND DRIVEWAY SUBBASE AREA SHALL RECEIVE MULCH WITHIN 30 DAYS OF INITIAL DISTURBANCE OF SOIL OR WITHIN 7 DAYS AFTER COMPLETING THE ROUGH GRADING OPERATIONS. IN THE EVENT THE CONTRACTOR COMPLETES FINAL GRADING AND INSTALLATION OF LOAM AND SOD WITHIN THE TIME PERIODS PRESENTED ABOVE, INSTALLATION OF MULCH AND NETTING, WHERE

5. EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 10 ACRES OF THE SITE IS WITHOUT STABILIZATION AT ANY ONE TIME.

IF WORK IS CONDUCTED BETWEEN OCTOBER 15 AND APRIL 15, ALL DENUDED AREAS ARE TO BE COVERED WITH HAY MULCH, APPLIED AT TWICE THE NORMAL APPLICATION RATE, AND ANCHORED WITH FABRIC NETTING. THE PERIOD BETWEEN FINAL GRADING AND MULCHING SHALL BE REDUCED TO A 15 DAY MAXIMUM.

TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE HAS BEEN STABILIZED OR IN AREAS WHERE PERMANENT EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY WETLAND. IF DISTURBANCE ACTIVITIES TAKE PLACE BETWEEN 30 FEET AND 50 FEET OF ANY WETLAND, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE WETLAND, PERIMETER EROSION CONTROLS MUST BE DOUBLED. IF DISTURBANCE ACTIVITIES TAKE PLACE LESS THAN 30 FEET FROM ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED AND DISTURBED AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 7 DAYS.

AREAS WITHIN 75 FT OF A WETLAND WILL BE STABILIZED WITHIN 48 HOURS OF INITIAL DISTURBANCE OF THE SOIL OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.

9. ALL AREAS WITHIN 75 FEET OF A WETLAND MUST BE PROTECTED WITH A DOUBLE ROW OF SEDIMENT BARRIERS DURING WINTER CONSTRUCTION (NOVEMBER 1 THROUGH APRIL 15).

10. TEMPORARY SEDIMENT BASINS MAY BE INSTALLED DOWNGRADIENT OF THE DISTURBED AREAS. THESE BASINS MUST BE DESIGNED TO PROVIDE STORAGE FOR EITHER THE CALCULATED RUNOFF FROM A 2-YEAR, 24-HOUR STORM OR PROVIDE FOR 3,600 CUBIC FEET OF CAPACITY PER ACRE DRAINING TO THE BASIN. OUTLET STRUCTURES MUST DISCHARGE WATER FROM THE SURFACE OF THE BASIN WHENEVER POSSIBLE. EROSION CONTROLS AND VELOCITY DISSIPATION DEVICES MUST BE USED IF THE DISCHARGING WATERS ARE LIKELY TO CREATE EROSION. ACCUMULATED SEDIMENT MUST BE REMOVED AS NEEDED FROM THE BASIN TO MAINTAIN AT LEAST 1/2 OF THE DESIGN CAPACITY OF THE BASIN.

PERMANENT EROSION CONTROL MEASURES:

APPLICABLE, IS NOT REQUIRED.

THE FOLLOWING PERMANENT CONTROL MEASURES ARE REQUIRED BY THIS EROSION/SEDIMENTATION CONTROL PLAN: ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC.), WILL BE LOAMED, LIMED, FERTILIZED AND SEEDED. NATIVE TOPSOIL SHALL BE STOCKPILED AND REUSED FOR FINAL RESTORATION WHEN IT IS OF SUFFICIENT QUALITY.

2. SLOPES GREATER THAN 2:1 WILL RECEIVE RIPRAP. (NONE ANTICIPATED)

POST-CONSTRUCTION REVEGETATION:

THE FOLLOWING GENERAL PRACTICES WILL BE USED TO PREVENT EROSION AS SOON AS AN AREA IS READY TO UNDERGO FINAL GRADING.

A MINIMUM OF 6" OF LOAM WILL BE SPREAD OVER DISTURBED AREAS AND GRADED TO A UNIFORM DEPTH AND NATURAL APPEARANCE, OR STONE WILL BE PLACED ON SLOPES TO STABILIZE SURFACES.

2. IF FINAL GRADING IS REACHED DURING THE NORMAL GROWING SEASON (4/15 TO 9/15), PERMANENT SEEDING WILL BE DONE AS SPECIFIED BELOW. PRIOR TO SEEDING, LIMESTONE SHALL BE APPLIED AT A RATE OF 138 LBS/1000 SQ. FT. AND 10: 20: 20 FERTILIZER AT A RATE OF 18.4 LBS/1000 SQ.FT WILL BE APPLIED. BROADCAST SEEDING AT THE FOLLOWING RATES: LAWNS SHALL BE: ALLEN, STERLING & LATHROP 'TUFFTURF', 70% DIAMOND TALL FESCUE, 20% PLEASURE OLUS PERENNIAL

AN AREA SHALL BE MULCHED IMMEDIATELY AFTER IS HAS BEEN SEEDED. MULCHING SHALL CONSIST OF HAY MULCH, HYDRO-MULCH, JUTE NET OVER MULCH, PRE-MANUFACTURED EROSION MATS OR ANY SUITABLE SUBSTITUTE DEEMED ACCEPTABLE BY THE DESIGNER.

RYEGRASS, 10% BARON KENTUCKY BLUEGRASS, SEEDING RATE SHALL BE 7-LBS./1,000 SQ, FT.

A. HAY MULCH SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. HAY MULCH SHALL BE SECURED BY EITHER: (NOTE: SOIL SHALL NOT BE VISIBLE)

BEING DRIVEN OVER BY TRACKED CONSTRUCTION EQUIPMENT ON GRADES OF 5% AND LESS. II. BLANKETED BY TACKED PHOTODEGRADABLE/BIODEGRADABLE NETTING, OR WITH SPRAY, ON GRADES GREATER THAN 5%.

III. SEE NOTE 6, GENERAL NOTES, AND NOTE 8, WINTER CONSTRUCTION. B. HYDRO-MULCH SHALL CONSIST OF A MIXTURE OF EITHER ASPHALT, WOOD FIBER OR PAPER FIBER AND WATER

SPRAYED OVER A SEEDED AREA. HYDRO-MULCH SHALL NOT BE USED BETWEEN 9/15 AND 4/15. CONSTRUCTION SHALL BE PLANNED TO ELIMINATE THE NEED FOR SEEDING BETWEEN SEPTEMBER 15 AND APRIL 15.

SHOULD SEEDING BE NECESSARY BETWEEN SEPTEMBER 15 AND APRIL 15 THE FOLLOWING PROCEDURE SHALL BE FOLLOWED. ALSO REFER TO NOTE 9 OF WINTER CONSTRUCTION. A. ONLY UNFROZEN LOAM SHALL BE USED. B. LOAMING, SEEDING AND MULCHING WILL NOT BE DONE OVER SNOW OR ICE COVER. IF SNOW EXISTS, IT MUST BE

REMOVED PRIOR TO PLACEMENT OF SEED. WHERE PERMANENT SEEDING IS NECESSARY, ANNUAL WINTER RYE (1.2 LBS/1000 SQ.FT) SHALL BE ADDED TO THE

PREVIOUSLY NOTED AREAS.

WHERE TEMPORARY SEEDING IS REQUIRED, ANNUAL WINTER RYE (2.6 LBS/1000 SQ. FT.) SHALL BE SOWN INSTEAD OF THE PREVIOUSLY NOTED SEEDING RATE.

FERTILIZING, SEEDING AND MULCHING SHALL BE APPLIED TO LOAM THE DAY THE LOAM IS SPREAD BY MACHINERY. F. ALTERNATIVE HAY MULCH SHALL BE SECURED WITH PHOTODEGRADABLE/BIODEGRADABLE NETTING. TRACKING BY MACHINERY ALONE WILL NOT SUFFICE.

FOLLOWING FINAL SEEDING, THE SITE WILL BE INSPECTED EVERY 15 DAYS UNTIL 90% COVER HAS BEEN ESTABLISHED. RESEEDING WILL BE CARRIED OUT BY THE CONTRACTOR WITHIN 10 DAYS OF NOTIFICATION BY THE ENGINEER THAT THE EXISTING CATCH IS INADEQUATE.

MONITORING SCHEDULE:

THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING, MONITORING, MAINTAINING, REPAIRING, REPLACING AND REMOVING ALL OF THE EROSION AND SEDIMENTATION CONTROLS OR APPOINTING A QUALIFIED SUBCONTRACTOR TO DO SO. MAINTENANCE MEASURES WILL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. AFTER EACH RAINFALL, A VISUAL INSPECTION WILL BE MADE OF ALL EROSION AND SEDIMENTATION CONTROLS AS FOLLOWS:

HAY BALE BARRIERS, SEDIMENT BARRIER, AND STONE CHECK DAMS SHALL BE INSPECTED AND REPAIRED ONCE A WEEK OR IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL. SEDIMENT TRAPPED BEHIND THESE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6" AND REDISTRIBUTED TO AREAS UNDERGOING FINAL GRADING. SHOULD THE HAY BALE BARRIERS PROVE TO BE INEFFECTIVE, THE CONTRACTOR SHALL INSTALL SEDIMENT BARRIER BEHIND THE HAY BALES.

VISUALLY INSPECT RIPRAP ONCE A WEEK OR AFTER EACH SIGNIFICANT RAINFALL AND REPAIR AS NEEDED. REMOVE SEDIMENT TRAPPED BEHIND THESE DEVICES ONCE IT ATTAINS A DEPTH EQUAL TO 1/2 THE HEIGHT OF THE DAM OR RISER. DISTRIBUTE REMOVED SEDIMENT OFF-SITE OR TO AN AREA UNDERGOING FINAL GRADING.

REVEGETATION OF DISTURBED AREAS WITHIN 25' OF DRAINAGE-COURSE/STREAM WILL BE SEEDED WITH THE "MEADOW AREA MIX" AND INSPECTED ON A WEEKLY BASIS OR AFTER EACH SIGNIFICANT RAINFALL AND RESEEDED AS NEEDED. EXPOSED AREAS WILL BE RESEEDED AS NEEDED UNTIL THE AREA HAS OBTAINED 100% GROWTH RATE. PROVIDE PERMANENT RIPRAP FOR SLOPES IN EXCESS OF 3:1 AND WITHIN 25' OF DRAINAGE COURSE.

HOUSEKEEPING:

SPILL PREVENTION. CONTROLS MUST BE USED TO PREVENT POLLUTANTS FROM CONSTRUCTION AND WASTE MATERIALS STORED ON SITE TO ENTER STORMWATER, WHICH INCLUDES STORAGE PRACTICES TO MINIMIZE EXPOSURE OF THE MATERIALS TO STORMWATER. THE SITE CONTRACTOR MUST DEVELOP, AND IMPLEMENT AS NECESSARY, APPROPRIATE SPILL PREVENTION, CONTAINMENT, AND RESPONSE PLANNING MEASURES.

NOTE: ANY SPILL OR RELEASE OF TOXIC OR HAZARDOUS SUBSTANCES MUST BE REPORTED TO THE DEPARTMENT. FOR OIL SPILLS, CALL 1-800-482-0777 WHICH IS AVAILABLE 24 HOURS A DAY. FOR SPILLS OF TOXIC OR HAZARDOUS MATERIAL, CALL 1-800-452-4664 WHICH IS AVAILABLE 24 HOURS A DAY. FOR MORE INFORMATION, VISIT THE DEPARTMENT'S WEBSITE AT: HTTP: //WWW.MAINE.GOV/DEP/SPILLS/EMERGSPILLRESP/

GROUNDWATER PROTECTION. DURING CONSTRUCTION, LIQUID PETROLEUM PRODUCTS AND OTHER HAZARDOUS MATERIALS WITH THE POTENTIAL TO CONTAMINATE GROUNDWATER MAY NOT BE STORED OR HANDLED IN AREAS OF THE SITE DRAINING TO AN INFILTRATION AREA. AN "INFILTRATION AREA" IS ANY AREA OF THE SITE THAT BY DESIGN OR AS A RESULT OF SOILS, TOPOGRAPHY AND OTHER RELEVANT FACTORS ACCUMULATES RUNOFF THAT INFILTRATES INTO THE SOIL. DIKES, BERMS, SUMPS, AND OTHER FORMS OF SECONDARY CONTAINMENT THAT PREVENT DISCHARGE TO GROUNDWATER MAY BE USED TO ISOLATE PORTIONS OF THE SITE FOR THE PURPOSES OF STORAGE AND HANDLING OF THESE MATERIALS. ANY PROJECT PROPOSING INFILTRATION OF STORMWATER MUST PROVIDE ADEQUATE PRE-TREATMENT OF STORMWATER PRIOR TO DISCHARGE OF

STORMWATER TO THE INFILTRATION AREA, OR PROVIDE FOR TREATMENT WITHIN THE INFILTRATION AREA, IN ORDER TO PREVENT

THE ACCUMULATION OF FINES, REDUCTION IN INFILTRATION RATE, AND CONSEQUENT FLOODING AND DESTABILIZATION. NOTE: LACK OF APPROPRIATE POLLUTANT REMOVAL BEST MANAGEMENT PRACTICES (BMPS) MAY RESULT IN VIOLATIONS OF THE DURING WINTER CONSTRUCTION, THE EROSION CONTROL MEASURES SHALL BE INSPECTED AFTER EACH RAINFALL, SNOWSTORM, OR

FUGITIVE SEDIMENT AND DUST. ACTIONS MUST BE TAKEN TO ENSURE THAT ACTIVITIES DO NOT RESULT IN NOTICEABLE EROSION $\frac{2}{3}$ OF SOILS OR FUGITIVE DUST EMISSIONS DURING OR AFTER CONSTRUCTION. OIL MAY NOT BE USED FOR DUST CONTROL, BUT OTHER WATER ADDITIVES MAY BE CONSIDERED AS NEEDED. A STABILIZED CONSTRUCTION ENTRANCE (SCE) SHALL BE INSTALLED AT THE END OF THE EXIST PAVED ACCESS TO THE SITE TO MINIMIZE TRACKING OF MUD AND SEDIMENT. IF OFF-SITE TRACKING OCCURS, PUBLIC ROADS SHOULD BE SWEPT IMMEDIATELY AND NO LESS THAN ONCE A WEEK AND PRIOR TO SIGNIFICANT STORM EVENTS. OPERATIONS DURING DRY MONTHS, THAT EXPERIENCE FUGITIVE DUST PROBLEMS, SHOULD WET DOWN UNPAVED ACCESS ROADS ONCE A WEEK OR MORE FREQUENTLY AS NEEDED WITH A WATER ADDITIVE TO SUPPRESS FUGITIVE SEDIMENT AND DUST.

DEBRIS AND OTHER MATERIALS. MINIMIZE THE EXPOSURE OF CONSTRUCTION DEBRIS, BUILDING AND LANDSCAPING MATERIALS, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE AND OTHER MATERIALS TO PRECIPITATION AND STORMWATER RUNOFF. THESE MATERIALS MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE.

EXCAVATION DE-WATERING. EXCAVATION DE-WATERING IS THE REMOVAL OF WATER FROM TRENCHES. FOUNDATIONS. COFFER DAMS, PONDS, AND OTHER AREAS WITHIN THE CONSTRUCTION AREA THAT RETAIN WATER AFTER EXCAVATION, NO EXCAVATION DEWATERING IS ANTICIPATED FOR THIS PROJECT. SHOULD IT BE NECESSARY, THE COLLECTED WATER REMOVED FROM THE PONDED AREA, EITHER THROUGH GRAVITY OR PUMPING, MUST BE SPREAD THROUGH NATURAL WOODED BUFFERS OR REMOVED TO AREAS THAT ARE SPECIFICALLY DESIGNED TO COLLECT THE MAXIMUM AMOUNT OF SEDIMENT POSSIBLE, LIKE A COFFERDAM SEDIMENTATION BASIN. AVOID ALLOWING THE WATER TO FLOW OVER DISTURBED AREAS OF THE SITE. A DEWATERING DISCHARGE PLAN SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.

AUTHORIZED NON-STORMWATER DISCHARGES. IDENTIFY AND PREVENT CONTAMINATION BY NON-STORMWATER DISCHARGES. WHERE ALLOWED NON-STORMWATER DISCHARGES ARE NECESSARY, THEY MUST BE IDENTIFIED AND STEPS SHOULD BE TAKEN TO ENSURE THE IMPLEMENTATION OF APPROPRIATE POLLUTION PREVENTION MEASURES FOR THE NON-STORMWATER COMPONENT(S) OF THE DISCHARGE. AUTHORIZED NON-STORMWATER DISCHARGES ARE:

(a) DISCHARGES FROM FIREFIGHTING ACTIVITY;

(b) FIRE HYDRANT FLUSHINGS; (c) VEHICLE WASHWATER IF DETERGENTS ARE NOT USED AND WASHING IS LIMITED TO THE EXTERIOR OF VEHICLES (ENGINE, UNDERCARRIAGE AND TRANSMISSION WASHING IS PROHIBITED);

(d) DUST CONTROL RUNOFF IN ACCORDANCE WITH PERMIT CONDITIONS AND APPENDIX (C)(3); (e) ROUTINE EXTERNAL BUILDING WASHDOWN, NOT INCLUDING SURFACE PAINT REMOVAL, THAT DOES NOT INVOLVE

(f) PAVEMENT WASHWATER (WHERE SPILLS/LEAKS OF TOXIC OR HAZARDOUS MATERIALS HAVE NOT OCCURRED, UNLESS ALL SPILLED MATERIAL HAD BEEN REMOVED) IF DETERGENTS ARE NOT USED;

(q) UNCONTAMINATED AIR CONDITIONING OR COMPRESSOR CONDENSATE; UNCONTAMINATED GROUNDWATER OR SPRING WATER;

GROUNDWATER QUALITY STANDARD ESTABLISHED BY 38 M.R.S.A. §465-C(1).

FOUNDATION OR FOOTER DRAIN-WATER WHERE FLOWS ARE NOT CONTAMINATED;

UNCONTAMINATED EXCAVATION DEWATERING (SEE REQUIREMENTS IN APPENDIX C(5));

(k) POTABLE WATER SOURCES INCLUDING WATERLINE FLUSHINGS; AND

LANDSCAPE IRRIGATION.

UNAUTHORIZED NON-STORMWATER DISCHARGES. THE MDEP APPROVAL UNDER CHAPTER 500 DOES NOT AUTHORIZE A DISCHARGE THAT IS MIXED WITH A SOURCE OF NON-STORMWATER, OTHER THAN THOSE DISCHARGES IN COMPLIANCE WITH THE AUTHORIZED NON-STORMWATER DISCHARGES INDICATED ABOVE. SPECIFICALLY, THE DEPARTMENT'S APPROVAL DOES NOT AUTHORIZE DISCHARGES OF THE FOLLOWING:

(a) WASTEWATER FROM THE WASHOUT OR CLEANOUT OF CONCRETE, STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS OR OTHER CONSTRUCTION MATERIALS;

(b) FUELS, OILS OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; SOAPS, SOLVENTS, OR DETERGENTS USED IN VEHICLE AND EQUIPMENT WASHING; AND

(d) TOXIC OR HAZARDOUS SUBSTANCES FROM A SPILL OR OTHER RELEASE.

CONSTRUCTION PHASE:

THE FOLLOWING GENERAL PRACTICES WILL BE USED TO PREVENT EROSION DURING CONSTRUCTION OF THIS PROJECT.

INSTALL STABILIZED CONSTRUCTION ENTRANCE AND MAINTAIN UNTIL SITE IS PAVED.

ONLY THOSE AREAS NECESSARY FOR CONSTRUCTION WILL BE DISTURBED.

PRIOR TO THE START OF CONSTRUCTION, SEDIMENT BARRIER WILL BE INSTALLED ACROSS THE SLOPE(S). ON THE CONTOUR, AT OR JUST BELOW THE LIMITS OF CLEARING OR GRUBBING, AND/OR JUST ABOVE ANY ADJACENT TRAVELLED WAY TO PROTECT IT FROM CONSTRUCTION-RELATED EROSION.

CLEAR AND GRUB WORK SITE AS NEEDED TO EXECUTE PLANS USING CAUTION NOT TO OVER EXPOSE THE SITE.

STORMWATER MANAGEMENT SYSTEM WILL BE INSTALLED PRIOR TO CONSTRUCTION OF SITE ELEMENTS THAT DISCHARGE TO THESE SYSTEMS. CATCH BASIN INLET PROTECTION SHALL BE INSTALLED IN ALL NEW AND EXISTING CATCH BASINS THAT WILL RECEIVE RUNOFF FROM THE PROJECT. NO STORMWATER SHOULD BE DIRECTED TO THE WET POND UNTIL THE SITE IS COMPLETELY STABILIZED.

DISTURBED AREAS WILL BE PERMANENTLY STABILIZED WITHIN 15 DAYS OF FINAL GRADING, OR TEMPORARILY STABILIZED

WITHIN 30 DAYS OF THE INITIAL DISTURBANCES OF SOILS. DISTURBED AREAS WILL BE STABILIZED BEFORE STORMS. LOAM WILL BE SAVED FOR LATER USE WHERE POSSIBLE. EXCESS SOIL MATERIALS WILL BE USED AS FILL OR REMOVED FROM SITE TO AN

AT A MINIMUM, THE EROSION CONTROL MEASURES SHALL BE REVIEWED AND REPAIRED ONCE A WEEK OR IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOWMELT. SEDIMENT TRAPPED BEHIND THESE BARRIERS SHALL BE EXCAVATED WHEN IT REACHES A DEPTH OF 6 INCHES AND BE DISCARDED ON THE SITE. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS.

LOAM, LIME, FERTILIZE, SEED, AND MULCH LANDSCAPED AND OTHER DISTURBED AREAS.

ONCE THE SITE IS STABILIZED AND A 90% CATCH OF VEGETATION HAS BEEN OBTAINED, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

10. TOUCH UP LOAM AND SEED.

NOTE: ALL DENUDED AREAS NOT SUBJECT TO FINAL PAVING, RIPRAP OR GRAVEL SHALL BE REVEGETATED.

EROSION CONTROL DURING WINTER CONSTRUCTION: WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.

WINTER EXCAVATION AND EARTHWORK SHALL BE COMPLETED SUCH THAT NO MORE THAN 1 ACRE OF THE SITE IS

WITHOUT STABILIZATION AT ANY ONE TIME. EXPOSED AREA SHALL BE LIMITED TO THOSE AREAS TO BE MULCHED IN ONE DAY PRIOR TO ANY SNOW EVENT. AT THE END OF EACH WORK WEEK NO AREAS MAY BE LEFT UNSTABILIZED OVER THE WEEKEND.

CONTINUATION OF EARTHWORK OPERATIONS ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED, SUCH THAT NO LARGER AREA OF THE SITE IS WITHOUT EROSION CONTROL PROTECTION AS LISTED IN ITEM 2 ABOVE.

AN AREA SHALL BE CONSIDERED TO HAVE BEEN STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR HAY AT A RATE OF 150 LB. PER 1000 S.F. (WITH OR WITHOUT SEEDING) OR DORMANT SEEDED, MULCHED AND ANCHORED SUCH THAT SOIL SURFACE IS NOT VISIBLE THROUGH THE MULCH. NOTE: AN AREA IS ALSO CONSIDERED STABLE IF SODDED, COVERED WITH GRAVEL (PARKING LOTS) OR STRUCTURAL SAND. BETWEEN THE DATES OF OCTOBER 15 AND APRIL 1, LOAM OR SEED WILL NOT BE REQUIRED. DURING PERIODS OF

ABOVE FREEZING TEMPERATURES THE SLOPES SHALL BE FINE GRADED AND EITHER PROTECTED WITH MULCH OR TEMPORARILY SEEDED AND MULCHED UNTIL SUCH TIME AS THE FINAL TREATMENT CAN BE APPLIED. IF THE DATE IS AFTER NOVEMBER 1 AND IF THE EXPOSED AREA HAS BEEN LOAMED, FINAL GRADED WITH A UNIFORM SURFACE, THEN THE AREA MAY BE DORMANT SEEDED AT A RATE OF 3 TIMES HIGHER THAN SPECIFIED FOR PERMANENT SEED AND THEN MULCHED. IF CONSTRUCTION CONTINUES DURING FREEZING WEATHER, ALL EXPOSED AREAS SHALL BE CONTINUOUSLY GRADED BEFORE FREEZING AND THE SURFACE TEMPORARILY PROTECTED FROM EROSION BY THE APPLICATION OF MULCH. SLOPES SHALL NOT BE LEFT UNEXPOSED OVER THE WINTER OR ANY OTHER EXTENDED TIME OF WORK SUSPENSION UNLESS TREATED IN THE ABOVE MANNER. UNTIL SUCH TIME AS WEATHER CONDITIONS ALLOW, DITCHES TO BE FINISHED WITH THE PERMANENT SURFACE TREATMENT, EROSION SHALL BE CONTROLLED BY THE INSTALLATION OF BALES OF HAY, SEDIMENT BARRIER OR STONE CHECK DAMS IN ACCORDANCE WITH THE STANDARD DETAILS SHOWN ON THE DESIGN DRAWINGS. NOTE: DORMANT SEEDING SHOULD NOT BE ATTEMPTED UNLESS SOIL TEMPERATURE REMAINS BELOW 50 DEGREES AND DAY TIME TEMPERATURES REMAIN IN THE 30'S.

MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS, SLOPES GREATER THAN 3% FOR SLOPES EXPOSED TO DIRECT WINDS AND FOR ALL OTHER SLOPES GREATER THAN 8%. VEGETATED DRAINAGE SWALES SHALL BE LINED WITH STRAW-COCONUT EROSION CONTROL BLANKET (NORTH AMERICAN GREEN SC150 OR APPROVED EQUAL).

BETWEEN THE DATES OF OCTOBER 15 TO NOVEMBER 1, WINTER RYE IS RECOMMENDED FOR STABILIZATION. AFTER NOVEMBER 1, WINTER RYE IS NOT EFFECTIVE. AROUND NOVEMBER 15 OR LATER, ONCE TEMPERATURES OF THE AIR AND SOIL PERMIT, DORMANT SEEDING IS EFFECTIVE.

IN THE EVENT OF SNOWFALL (FRESH OR CUMULATIVE) GREATER THAN 1 INCH DURING WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM THE AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

SITE INSPECTION AND MAINTENANCE:

WEEKLY INSPECTIONS, AS WELL AS ROUTINE INSPECTIONS FOLLOWING EACH RAINFALL, SNOWSTORM, OR THAWING, SHALL BE CONDUCTED BY THE GENERAL CONTRACTOR OF ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES UNTIL FINAL ACCEPTANCE OF THE PROJECT (90% GRASS CATCH). RAINFALL OF 0.5 INCHES OR MORE IN 24 CONSECUTIVE HOURS SHALL IRIGGER AN INSPECTION. SNOWFALL OF 2 INCHES OR MORE SHALL TRIGGER AN INSPECTION. CORRECTIVE ACTION SHALL BE STARTED BY THE END OF THE NEXT WORK DAY AND COMPLETED WITHIN SEVEN (7) DAYS OR BEFORE THE NEXT STORM EVENT AS NOTED ABOVE. INSPECTIONS SHALL BE PERFORMED BY SOMEONE WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT ISSUED FOR THE PROJECT. THE SCOPE OF CONSTRUCTION INSPECTIONS INCLUDES DISTURBED AREAS AND IMPERVIOUS AREAS, MATERIAL STORAGE AREAS, AND VEHICLE ACCESS POINTS IN ADDITION TO ESC MEASURES. NECESSARY REPAIRS SHALL BE MADE TO CORRECT UNDERMINING OR DETERIORATION. FINAL ACCEPTANCE SHALL INCLUDE A SITE INSPECTION TO VERIFY THE STABILITY OF ALL DISTURBED AREAS AND SLOPES. UNTIL FINAL INSPECTION, ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL IMMEDIATELY BE CLEANED, AND REPAIRED BY THE GENERAL CONTRACTOR AS REQUIRED. DISPOSAL OF ALL TEMPORARY EROSION AND CONTROL DEVICES SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. RECORDS OF INSPECTIONS SHALL BE KEPT FOR THREE (3) YEARS.

IT IS RECOMMENDED THAT THE OWNER HIRE THE SERVICES OF THE DESIGN ENGINEER TO PROVIDE COMPLIANCE INSPECTIONS (DURING ACTIVE CONSTRUCTION) RELATIVE TO IMPLEMENTATION OF THE STORMWATER AND EROSION CONTROL PLANS. SUCH INSPECTIONS SHOULD BE LIMITED TO ONCE A WEEK OR AS NECESSARY AND BE REPORTABLE TO THE OWNER, MUNICIPALITY, AND

THAWING, AND A MINIMUM OF ONCE PER WEEK.

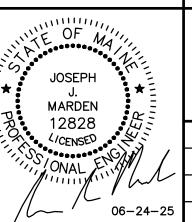
SHORT-TERM SEDIMENTATION MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAN OUT ALL SWALES AND STRUCTURES PRIOR TO TURNING PROJECT OVER.

LONG-TERM PROVISIONS FOR PERMANENT MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROL DEVICES AFTER ACCEPTANCE OF THE PROJECT SHALL BE THE RESPONSIBILITY OF THE OWNER.

> PROGRESS PRINT THIS PLAN IS ISSUED FOI REVIEW AND INFORMATION PURPOSES ONLY. THIS PLAN IS SUBJECT TO CHANGE AND IS NOT FOR PRICING OR CONSTRUCTION. PRICING BASED ON THIS PLAN IS NOT BINDING

UNLESS SIGNED BY BOTH CONTRACTOR AND OWNER. **ISSUED FOR:**

PRICING



1. 04-21-25 SUBMITTED TO CITY FOR REVIEW **EROSION CONTROL DETAILS** AND NOTES

PROJECT: GREENHOUSE BUILDING 37 SLOCUM DRIVE, SOUTH PORTLAND, ME 04106

5. 06-24-25 REVISED PLAN TO ADD PROPANE TANK

4. 06-23-25 ADDED CONDITIONS OF APPROVAL

2. 05-05-25 REVISED PER MECHANICAL PLANS

3. 05-29-25 REVISED PER CITY COMMENTS

MAINE TECHNICAL COLLEGE SYSTEM

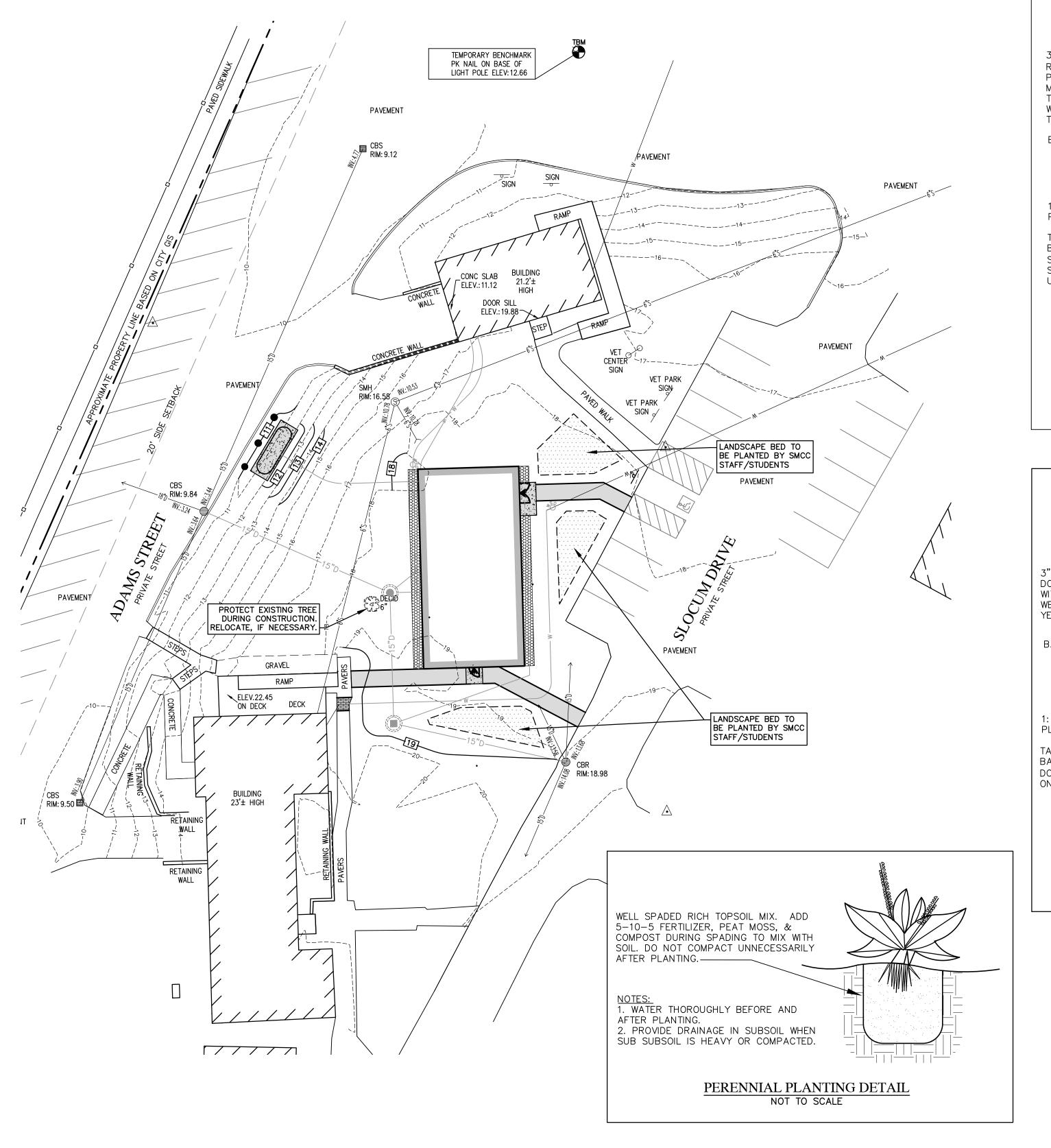
3 ADAMS STREET, SOUTH PORTLAND, ME 04106

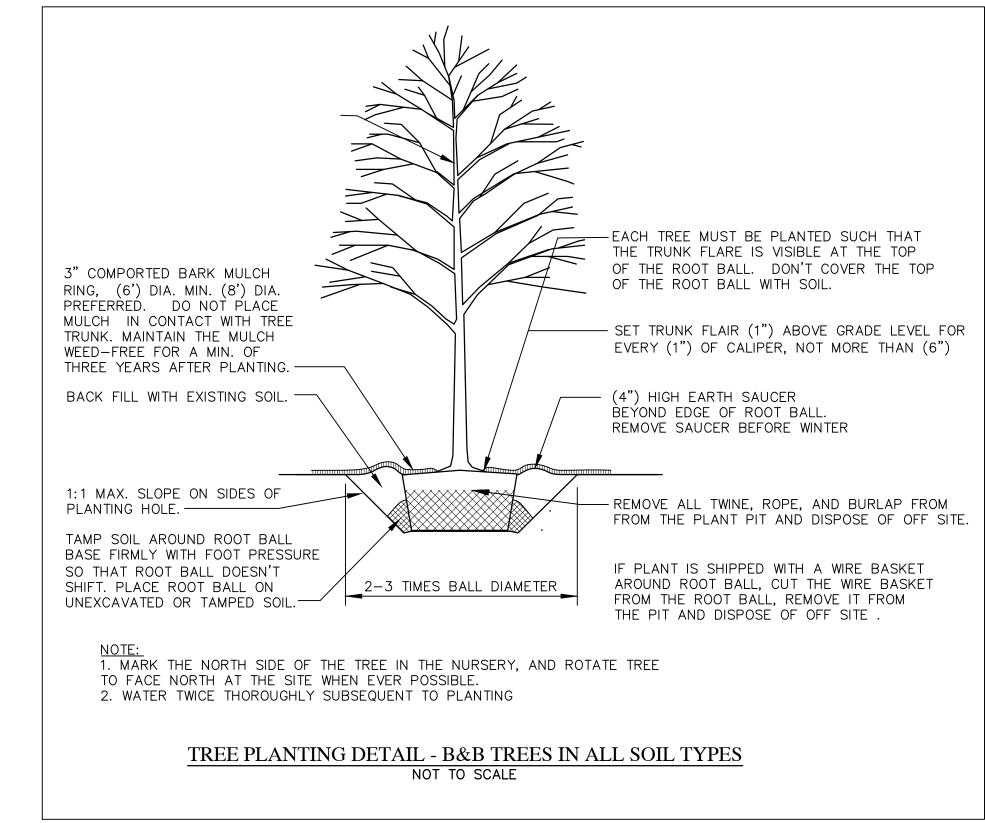


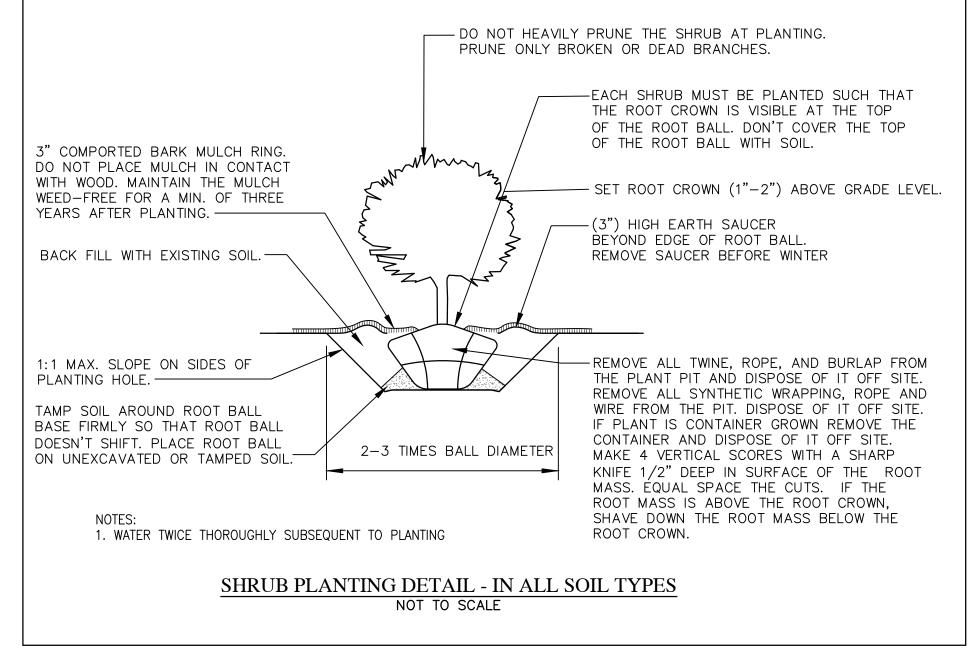
119 PURINTON ROAD, SUITE A **BRUNSWICK, MAINE 04011**

207.725.1200

FIELD WK: CJH SCALE: NTS JOB #: 5113 DRN BY: RPL CH'D BY: JJM MAP/LOT: 4/2FILE: 5113-COV-DET DATE: 04/03/25







5. 06-24-25 REVISED PLAN TO ADD PROPANE TANK 4. 06-23-25 ADDED CONDITIONS OF APPROVAL 3. 05-29-25 REVISED PER CITY COMMENTS 2. 05-05-25 REVISED PER MECHANICAL PLANS 1. 04-21-25 SUBMITTED TO CITY FOR REVIEW

LANDSCAPE PLAN

PROJECT:

GREENHOUSE BUILDING

37 SLOCUM DRIVE, SOUTH PORTLAND, ME 04106

PREPARED FOR:

MAINE TECHNICAL COLLEGE SYSTEM

3 ADAMS STREET, SOUTH PORTLAND, ME 04106

119 PURINTON ROAD, SUITE A

BRUNSWICK, MAINE 04011

207.725.1200

CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS

SCALE: 1"=20' FIELD WK: CJH JOB #: 5113 DRN BY: RPL CH'D BY: JJM MAP/LOT: 4/2 FILE: 5113-SITE DATE: 04/03/25

Know what's below STATE LAW REQUIRES ADVANCE NOTICE OF AT LEAST 3 BUSINESS DAYS BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE www.digsafe.com MARKING OF UNDERGROUND UTILITIES

PROGRESS PRINT THIS PLAN IS ISSUED FOR

REVIEW AND INFORMATION

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CHANGE AND IS NOT FOR

PRICING OR CONSTRUCTION.

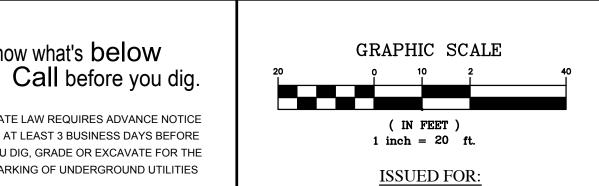
PRICING BASED ON THIS

PLAN IS NOT BINDING

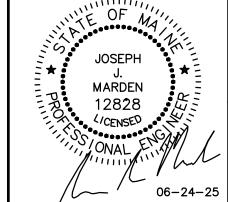
CONTRACTOR AND OWNER.

UNLESS SIGNED BY BOTH

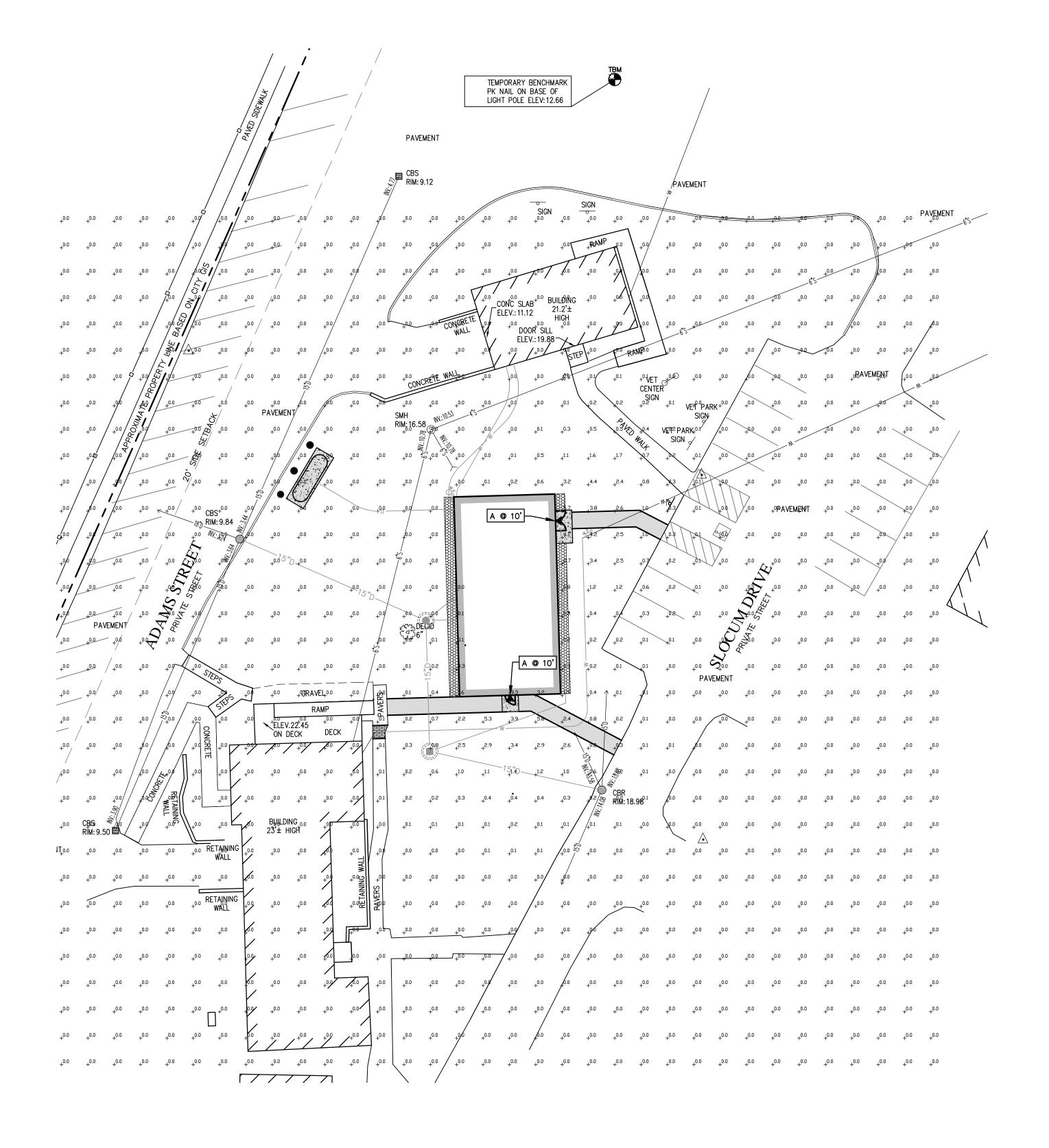
PLAN IS SUBJECT



PRICING







Schedule									
Symbol	Label	QTY	Catalog Number	Description	Lamp	Number Lamps	Lumens per Lamp	LLF	Wattage
7	А	2	LMC-30LU-3K-4	LAREDO LMC, 30 LED, 3000K, TYPE 4, 700mA	30- NICHIA 3K LEDS	1	4534.53	0.9	70

5. 06-24-25 REVISED PLAN TO ADD PROPANE TANK 4. 06-23-25 ADDED CONDITIONS OF APPROVAL 3. 05-29-25 REVISED PER CITY COMMENTS 2. 05-05-25 REVISED PER MECHANICAL PLANS 1. 04-21-25 SUBMITTED TO CITY FOR REVIEW

LIGHTING PLAN

PROJECT:

GREENHOUSE BUILDING

37 SLOCUM DRIVE, SOUTH PORTLAND, ME 04106

PREPARED FOR:

MAINE TECHNICAL COLLEGE SYSTEM

3 ADAMS STREET, SOUTH PORTLAND, ME 04106

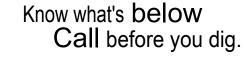
207.725.1200 **CIVIL ENGINEERS • PLANNERS • LAND SURVEYORS**

119 PURINTON ROAD, SUITE A

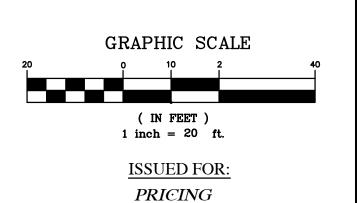
BRUNSWICK, MAINE 04011

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STATE LAW REQUIRES ADVANCE NOTICE OF AT LEAST 3 BUSINESS DAYS BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE www.digsafe.com MARKING OF UNDERGROUND UTILITIES



4 0 - - ■	JOSEPH J. MARDEN 12828 LICENSED ONAL
	06-24-2

-	CIVIL LIVOIVLLING - I	LAMENS - LAME
	FIELD WK: CJH	SCALE: 1"=20'
	DRN BY: RPL	JOB #: 5113
	CH'D BY: JJM	MAP/LOT: 4/2
-25	DATE: 04/03/25	FILE: 5113-SITE

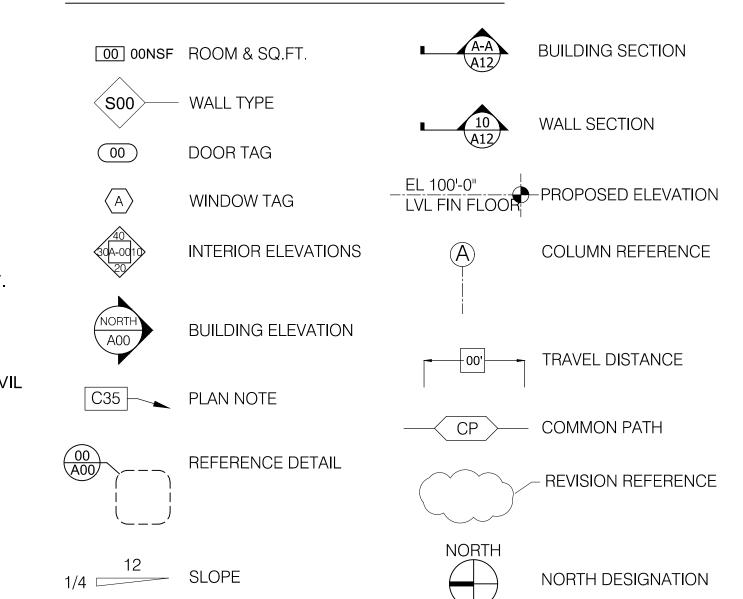
- 1. EXACT MOUNTING DETAILS TO BE DETERMINED AT JOBSITE BY OTHERS.
- 2. CALCULATIONS DO NOT SHOW THE EFFECT OF SHADOWING CAUSED BY BUILDINGS AND OBJECTS WITHIN THE CALCULATED SPACE OR IN THE SITE AREA.
- 3. READINGS SHOWN ARE INITIAL HORIZONTAL FOOTCANDLES ON A FLAT SITE WITHOUT REFLECTIONS OR OBSTRUCTIONS UNLESS OTHERWISE INDICATED.
- 4. THIS LAYOUT DRAWING MUST BE COORDINATED WITH THE SITE LOCATION FOR CORRECT FIXTURE ORIENTATION.
- 5. DOCUMENTS PRINTED OR PLOTTED FROM ELECTRONIC FILES MAY APPEAR AT OTHER THAN THE DESIRED OR ASSUMED GRAPHIC SCALES. IT IS THE RESPONSIBILITY OF THE RECIPIENT TO VERIFY THAT THE PRINTED OR PLOTTED—TO—SCALE DRAWING IS PRINTED TO SCALE.

GENERAL NOTES

GENERAL CONTRACTOR TO:

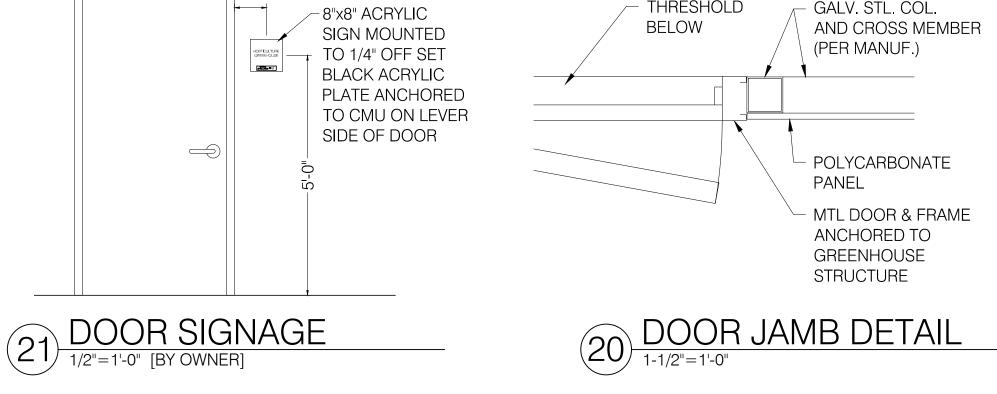
- 01. FIELD VERIFY ALL DIMENSIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
- 02. MAINTAIN STRUCTURAL INTEGRITY AND WEATHER TIGHTNESS DURING CONSTRUCTION.
- 03. COORDINATE ALL TRADES, SCHEDULING OF WORK, AND INSPECTIONS. 04. ABIDE BY BUILDING AND LIFE SAFETY CODES ADOPTED BY AUTHORITY HAVING
- JURISDICTION (AHJ) AND OSHA STANDARDS.
- 05. MAINTAIN A CLEAN BUILDING SITE BOTH INSIDE AND OUTSIDE. 06. ALL CONCRETE DIMENSIONS ARE NOMINAL AND ARE TO FACE OF WALL, SLAB
- OR STRUCTURAL FRAME UNLESS OTHERWISE NOTED. 07. ALL EXTERIOR DOORS & FRAMES TO BE PROVIDED BY THE GREENHOUSE MANF.
- 08. BEFORE PENETRATING OR OTHERWISE MODIFYING JOISTS, BEAMS, OR OTHER STRUCTURAL MEMBERS, CONSULT WITH ARCHITECT AND ENGINEERS ON MAXIMUM SIZE AND LOCATION.
- 09. VERIFY SIZE AND LOCATION OF ALL EXISTING UNDERGROUND UTILITIES AND NOTIFY ANY DISCREPANCIES FROM THE DRAWINGS TO THE ARCHITECT AND CIVIL ENGINEER BEFORE PROCEEDING WITH THE WORK.
- 10. PROVIDE, COORDINATE AND INSTALL SOLID WOOD BLOCKING IN WALLS FOR ALL WALL MOUNTED EQUIPMENT.
- 11. PRESSURE-TREATED LUMBER TO BE USED AT ALL LOCATIONS OR AREAS EXPOSED TO CONTINUOUS MOISTURE.
- 12. FOAM INSULATE ALL EXTERIOR DOOR FRAMES AND THRESHOLDS.

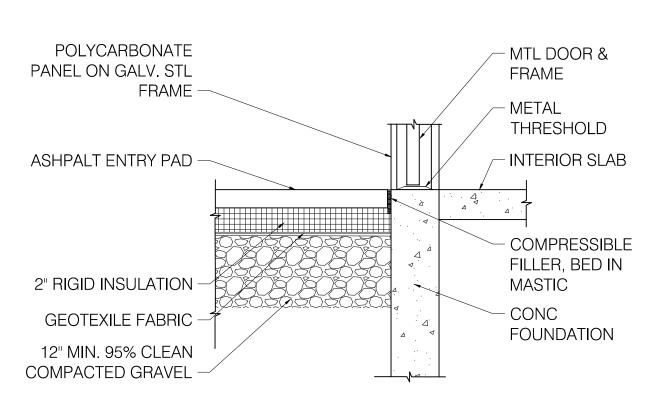
ARCHITECTURAL SYMBOLS

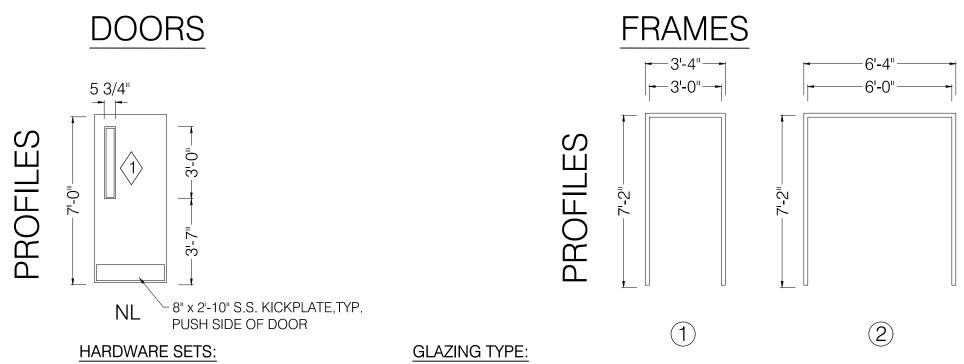


GALV. STL COLUMN, BEYOND [PER MANF.] — POLYCARB	ONATE				OOR S	SCHEDUL			
GALV. STL CROSS MEMBER [PER MANF.]	DOOR TAG	ROOM NAME	SIZE	DOOR PROFILE	MTRL	FRAME PROFILE	MTRL	HARDWARE SET	REMARKS
MTL DOOR ANCHOREI GREENHOU STRUCTUR	O TO JSE 10	GREENHOUSE	(2) 3' x 7'	NL	ALUM	2	ANOD. ALUM		LOCKABLE, LEVER, CLOSER, WEATHERSTRIP & KICKPLATE; (GREENHOUSE MANUF. TO SUBMIT DATA)
	11	GREENHOUSE	3' x 7'	NL	ALUM	1	ANOD. ALUM	А	LOCKABLE, LEVER, CLOSER, WEATHERSTRIP & KICKPLATE; (GREENHOUSE MANUF. TO SUBMIT DATA)
30 DOOR HEAD DETAIL									
THRESHOLD GALV. STL. COL.	=D								

NOTE: EXTERIOR DOORS IN POLYCARBONATE GREENHOUSE SYSTEM TO BE PROVIDED BY GREENHOUSE MANUF. AS INTEGRAL TO THE GREENHOUSE SYSTEM.







- A ENTRY -6 PIN KEYED CYLINDER (1) CLEAR TEMPERED FLOAT GLASS
- ALL DOORS W/ CONTINUOUS HINGES, LEVER W/ RETURN HANDLES & OVERHEAD DOOR STOPS. EXTERIOR DOORS WITH CLOSERS, ALUM THRESHOLDS, PUSH SIDE KICKPLATES & WEATHER TRIM 3. LOCKSETS TO BE 'MEDECO' - S-1 KEYWAY CYLINDERS TO MATCH OWNER FACILITY KEYING

REVISIONS:

CONTRACTOR TO MATCH SPECIFIED DOORS AND FRAMES WITH MANUFACTURERS STANDARD DOOR AND FRAME. HARDWARE TO BE PROVIDED AS NOTED ABOVE NO EXCEPTIONS.

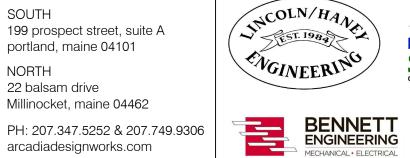
ARCHITECTURAL ABBREVIATIONS

ABV AFF AP ACT	ABOVE ABOVE FINISHED FLOOR ACCESS PANEL ACOUSTICAL TILE	IN INCL INFO INSUL	INCH INCLUDED INFORMATION INSULATION
ADD'L ADJ A/C ALUM ALT AVG	ADDITIONAL ADJUSTABLE AIR CONDITIONING ALUMINUM ALTERNATE AVERAGE	MANF MO MAX MECH MTL MIN	MANUFACTURER MASONRY OPENING MAXIMUM MECHANICAL METAL MINIMUM
BM BLK BLKG BD	BEAM BLOCK BLOCKING BOARD	MISC M.R. MNTD	MISCELLANEOUS MOISTURE RESISTANT MOUNTED
BS BOT BRK	BOTH SIDES BOTTOM BREAK	NSF NA	NET SQUARE FEET NOT APPLICABLE
BLDG CLG	BUILDING CEILING	OC OPNG OPP	ON CENTER OPENING OPPOSITE
CL CT CLR CLO COL CONC CMU CONT CONTR CJ CV	CENTERLINE CERAMIC TILE CLEAR CLOSET COLUMN CONCRETE CONCRETE MASONRY UNIT CONTINUOUS CONTRACTOR CONTROL JOINT COVE	PTD PNL PERF PLAM PLMBG PLYWD PT	PAINTED PANEL PERFORATED PLASTIC LAMINATE PLUMBING PLYWOOD PRESSURE TREATED
DTL DIA DISP DR DO D'BL DWG	DETAIL DIAMETER DISPENSER DOOR DOOR OPENING DOUBLE DRAWING	RECOM REF REINF RT REQ'D RM RO	RECOMMENDATION REFERENCE REINFORCMENT RESILIENT TILE REQUIRED ROOM ROUGH OPENING
EA EW ELEC EL ELEV EQ EXIST EXISTG EXP EXT	EACH EACH WAY ELECTRIC ELEVATION ELEVATION EQUAL EXISTING EXISTING EXPANSION EXTERIOR	SAN SCH SHT SIM STC SPEC STND SS STD STL STO	SANITARY SCHEDULET SHEET SIMILAR SOUND TRANSIMISSION SPECIFICATION STAINED STAINLESS STEEL STANDARD STEEL STORAGE
FG FE FIN FIXT FLR FD FND FRT FTG	FIBERGLASS FIRE EXTINGUISHER FINISH FIXTURE FLOOR FLOOR DRAIN FOUNDATION FRONT FOOTING	STRUCT SYS TBR TEL T/D TEMP THK T.P. T&G	STRUCTURAL SYSTEM TO BE REMOVED TELEPHONE TELEPHONE & DATA TEMPERATURE THICK TOILET PAPER TONGUE & GROOVE
GA GALV GB GRND GSF GYP GWB	GAUGE GALVANIZED GRAB BAR GROUND GROSS SQUARE FEET GYPSUM GYPSUM WALLBOARD	TYP UL VCT VERT VEST	TYPICAL UNDERWRITERS LABORAT VINYL COMPOSITE TILE VERTICAL VESTIBULE
H/C HRDWR HI DENS HM HORIZ HB HR	HANDICAPPED HARDWARE HIGH DENSITY HOLLOW METAL HORIZONTAL HOSE BIB HOUR	WR WIN W/ WD WP	WALL RECEPTACLE WINDOW WITH WOOD WATERPROOFING





DESIGNWORKS







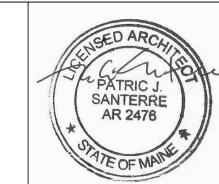
SUMMIT



CONSTRUCTION DRAWINGS



PRINTED FOR DISTRIBUTION: JUNE 2025





Building & Life Safety Code Review Single-Bay Greenhouse - Southern Maine Community College South Portland Campus, Slocum Drive, South Portland, Maine

Subject property conforming to requirements of applicable local jurisdiction Zoning Information:

Spring Point (SP), within Shoreland Area Overlay District Zoning District:

Parcel 004-000-002, PID 542, Unknown Acres - Project is fully within Southern Maine Community College Lot Area:

property. Area proposed for new greenhouse lays between Slocum Drive (formerly Fort Rd.) and Adam Street,

which does not abut any adjacent property lines.

Signage: Permitted separately.

2021 Maine Uniform Building and Energy Code (MUBEC)

2018 Life Safety Code- NFPA 101

Americans with Disabilities Act, ADA, 1990 / Amended 2008. 2010 ADA Standards for Accessible Design

Project Description: Business/Agriculture

Building Construction Type: Unprotected Ordinary: Type (200)

New Construction - Pre-engineered and manufactured steel and polycarbonate greenhouse structure.

No Automatic Sprinkler or Fire Alarm System

The single-bay greenhouse is a manufactured building installed on a site-constructed concrete foundation and slab for growing plants traditionally in potted soil and hydroponically for teaching horticulture.

Occupancy: 100 sq.ft. per occupant NFPA and 300 sq.ft. per occupant IBC.

No. ROOM SIZE (NSF) NFPA IBC 10 MECH 144 11 CONTAINER PRODUCTION 1.614 FIXED PLANT BENCH/COUNTER AREA (581)

1,031 /100 = 11 /300 = 0411 TOTAL OCCUPANTS*

* TYPICAL HORTICULTURE CLASS RANGES FROM 10 TO 16 STUDENTS.

NFPA 101

Chapter 4 - General: Number of Means of Egress - Each room has multiple exit doors on-grade.

Chapter 6 - Classification of Occupancy: Business/Industrial NFPA and Agriculture IBC - Bays and potting areas for growing plants.

Chapter 7 - Means of Egress

Minimum door leaf width. Doors 3'-0" wide with no doors encroaching upon means of egress.

Horizontal Exits and Exit Passageways - Comply

Exit access from rooms or spaces shall be permitted to be through adjoining or intervening rooms or areas provided

that such rooms are accessory to the area served. [Rooms comply.]

7.6 Measurement of Travel Distance to Exits

Table A.7.6 Common path (CP), dead end (DE), and travel distance (TD) limits.

Industrial - CP 100 ft [25 ft Longest] DE 50ft [None Exist] TD 200 [35 ft Longest]

Discharge Through Areas on Level of Exit Discharge. Complies

Illumination - Emergency lighting to comply with overhead fixtures with central battery backup.

Marking of Means of Egress - Exits properly labeled with illuminated signage.

Chapter 8 - Features of Fire Protection

8.2 Construction and Compartmentation

Table A.8.2.1.2 Fire Resistance Rating - Type V(200). Concrete, galvanized steel framing, polycarbonate walls and

roof panels, and insulated metal siding on north end.

Chapter 9 - Fire Protection Equipment: Emergency lighting, exits properly labeled and fire extinguishers at multiple locations.

Chapter 10 - Interior Finish, Contents, and Furnishings: Wall polycarbonate and floor concrete finishes comply.

INTERNATIONAL BUILDING CODE 2015

Chapter 3 - Use and Occupancy Classification - Group U - Agriculture.

Chapter 4 - Special Detailed Requirements Based on Use and Occupancy - No hazardous storage.

Chapter 5 - General Building Heights and Areas - Allowable building height 40 feet. Actual building height 22 feet.

Chapter 6 - Types of Construction - Table 601 - Primary structural frame Type VB.

Chapter 7 - Fire and Smoke Protection Features - Adjacent buildings are greater than 30 feet from new building.

Chapter 8 - Interior Finishes - Exposed concrete floor and polycarbonate wall panels typical to greenhouse construction.

Chapter 9 - Building does not have a sprinkler system. The building area is 1,800 GSF. Occupant load is less than 500 Occupants and entire building on grade with each room having multiple exit doors.

Fire extinguishers to be provided at specific locations.

Chapter 10 - Means of Egress

Section 1003 General Means of Egress - Ceiling Heights shall be greater than 7'-6". No projections shall encroach upon clear means of egress beyond the 4-1/2". Floor surfaces shall be slip-resistant and no elevation changes or slope surfaces exist beyond thresholds.

Section 1004 Occupant Load - Agricultural occupancy as noted in above matrix.

Section 1005 Egress Width - All means of egress widths greater than 36".

Section 1008 - Proper illumination will be provided.

NORTH

Section 1016 Exit Access - Egress from adjoining mechanical room is accessory to greenhouse.

Section 1017 Exit Access Travel Distance - Travel distance is less than 200 feet.

Section 1018 Corridors - There are established corridors and no dead end corridors.

Section 1021 Number of Exits and Continuity - Two exit doors on ground level to the outside.

Section 1027 Exit Discharge - All exits discharge directly to the exterior on grade.

LIFE SAFETY EQUIPMENT LEGEND



- WALL MOUNTED SMOKE DETECTOR



-WALL MOUNTED LIGHT W/ BATTERY

FOR EMERGENCY LIGHTING



- WALL MNTD

1. WALL MOUNTED LIGHT FIXTURES TO HAVE BATTERY BACKUP FOR EMERGENCY LIGHTING PROVIDING THE MINIMUM REQUIRED FOOTCANDLES AND LUMENS AT THE EXITS AND DOORS.

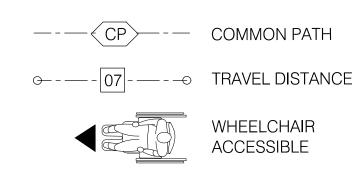
2. CLASS K FIRE EXTINGUISHERS TO BE INSTALLED AT PRIMARY EXITS.

3. COORDINATE EMERGENCY LIGHTING WITH ELECTRICAL CONTRACTOR, LIFE SAFETY EQUIPMENT TO FOLLOW NFPA & NEC GUIDELINES. MOUNTING HEIGHT PER CODE. PROVIDE BLOCKING IN WALLS FOR ALL EQUIPMENT.

4. ALL HARDSCAPE ASPHALT AND CONCRETE WALKWAYS TO BE LESS THAN 1:20 SLOPE WITH THRESHOLDS AT THE DOORS NO GREATER THAN 1/2" HEIGHT SIGNAGE TO EACH DOOR TO BE MOUNTED NO HIGHER THAN 42 INCHES AND INCLUDE BRAILLE LETTERING.



- EYE WASH STATION



GROW BENCHES, TABLES, COUNTERS & SHELVING

SIZE [FT]	SQ.FT.	QUANTITY	TOTAL SQUARE FEET
3 x 4	12	8 TABLES	96
3 x 10.5	31.5	2 BENCH	63
4 x 11.5	46	8 BENCH	368
2 x 12	24	1 COUNTER	24
2 x 5	10	3 SHELVES	_30
			581

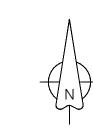
ASPHALT ENTRY PAD LEVEL @ THRESHOLD & SLOPED AWAY FROM BLDG. ALTERNATE 01: CONC. ENTRY PAD [SEE STRUCT]

LIFE SAFETY PLAN

CODE REVIEW









OWNER

PNL

IT EQUIP

│GROW SYS

SCONTROLS

WATER &

NUTRIENT

STÓRAGE

[BY OWNER]

-11'**-**6"

0

TANKS

46 SF

46 SF

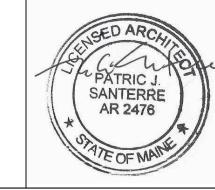
46 SF

46 SF

32 SF

COORDINATED

W/ LOCAL UTILITY



- NEW

ASPHALT

WALKWAY

TO STREET

LIFE SAFETY PLAN & CODE REVIEW

ADAR202502



ASPHALT ENTRY PAD LEVEL @

THRESHOLD & SLOPED AWAY

CONC. ENTRY PAD [SEE STRUCT]

NEW ASPHALT WALKWAY TO

PARKING -

FROM BLDG. ALTERNATE 01

EXIT'

 $\overline{\omega}$

POTTING TABLES

[SUPPLIED BY OWNER] \circ

CONTAINER

PRODUCTION!

10 1.614 NSF

13 BENCHES × 70 SQFT = 910 NSF

[SUPPLIED BY OWNER]

GROW BÉNCHES

46 SF

46 SF

ARCADIA DESIGNWORKS

STICOLN/HAND 199 prospect street, suite A portland, maine 04101 22 balsam drive Millinocket, maine 04462





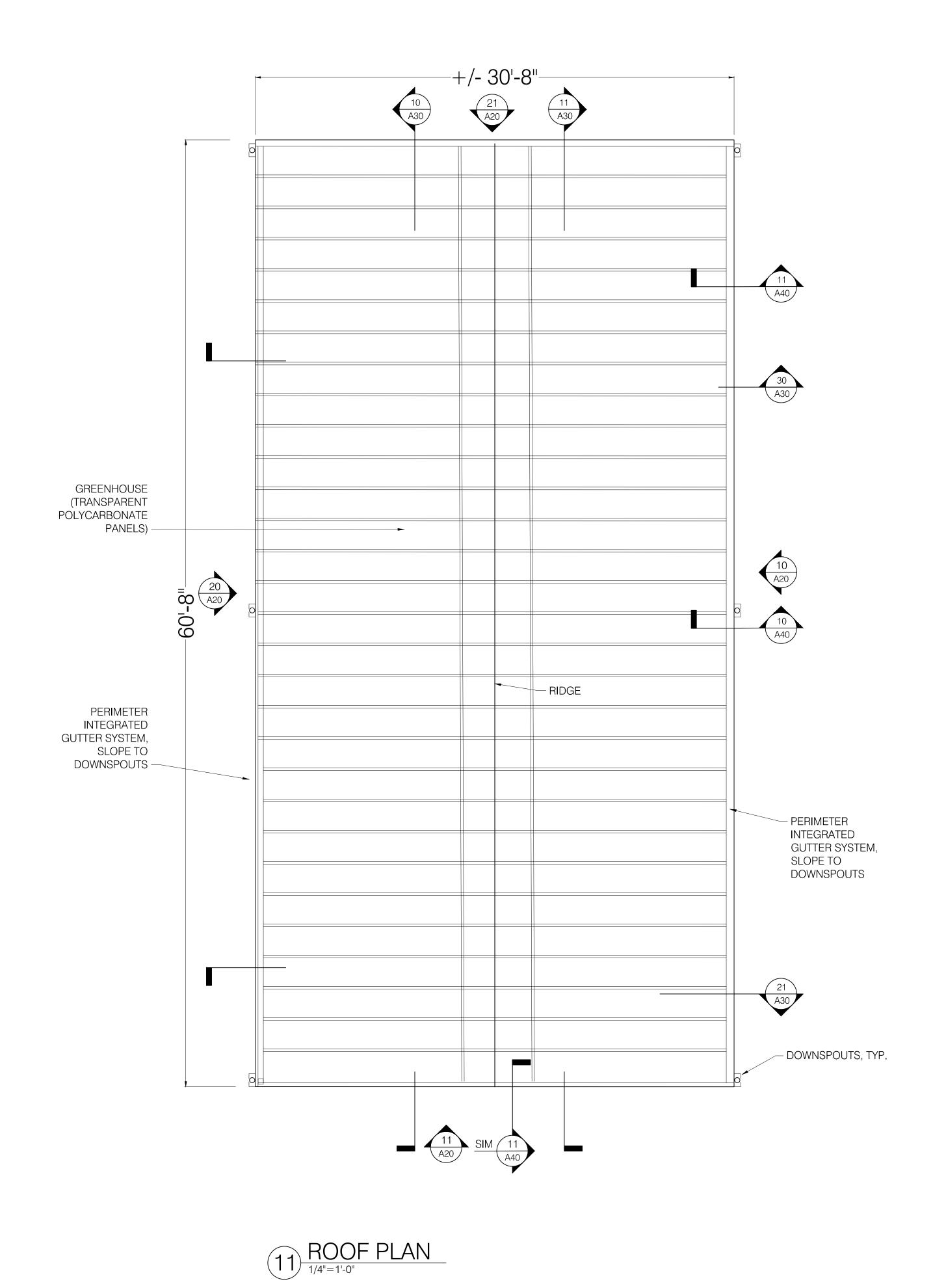


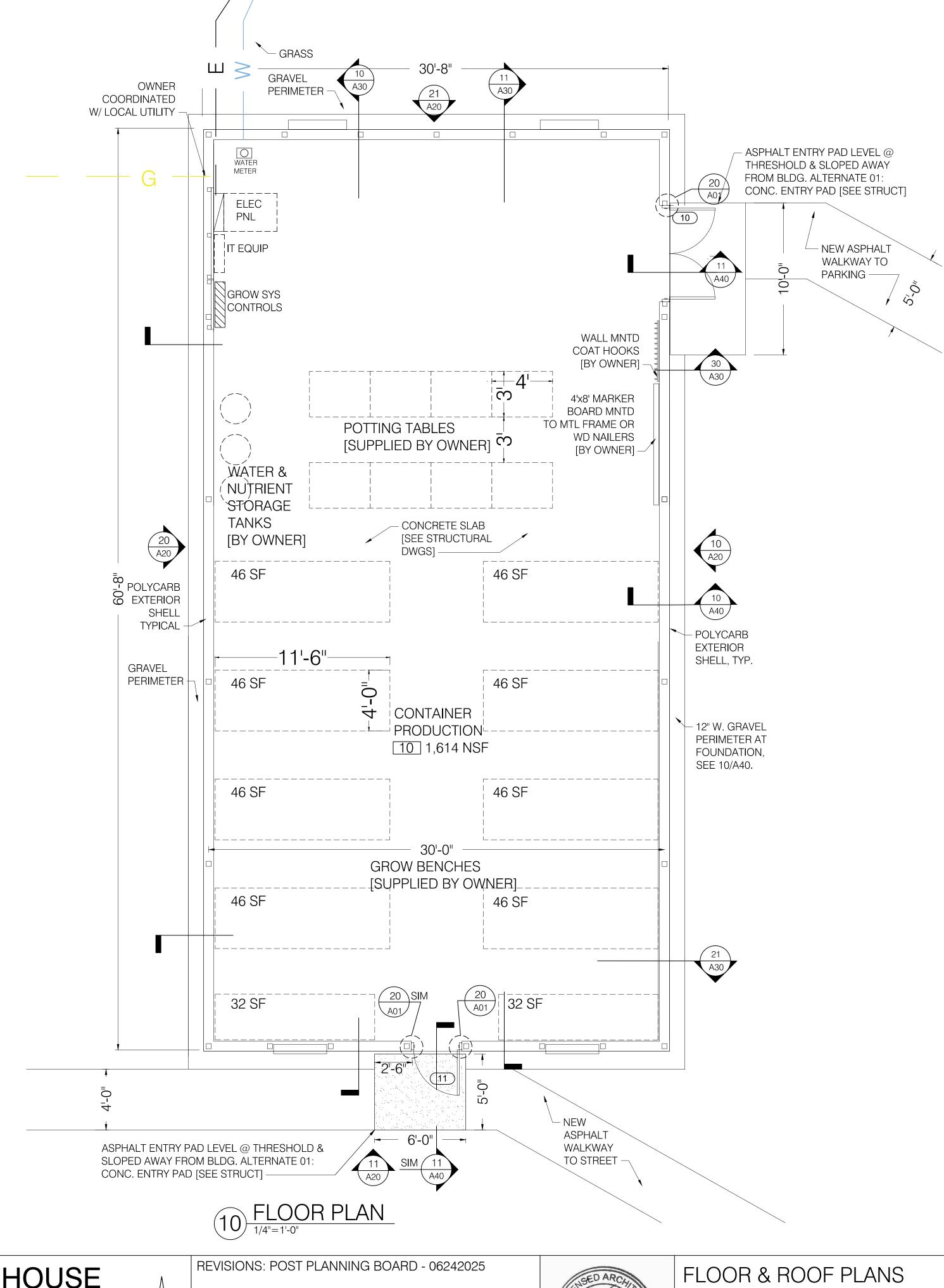






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SOUTH
199 prospect street, suite A
portland, maine 04101

NORTH
22 balsam drive
Millinocket, maine 04462

PH: 207.347.5252 & 207.749.9306
arcadiadesignworks.com





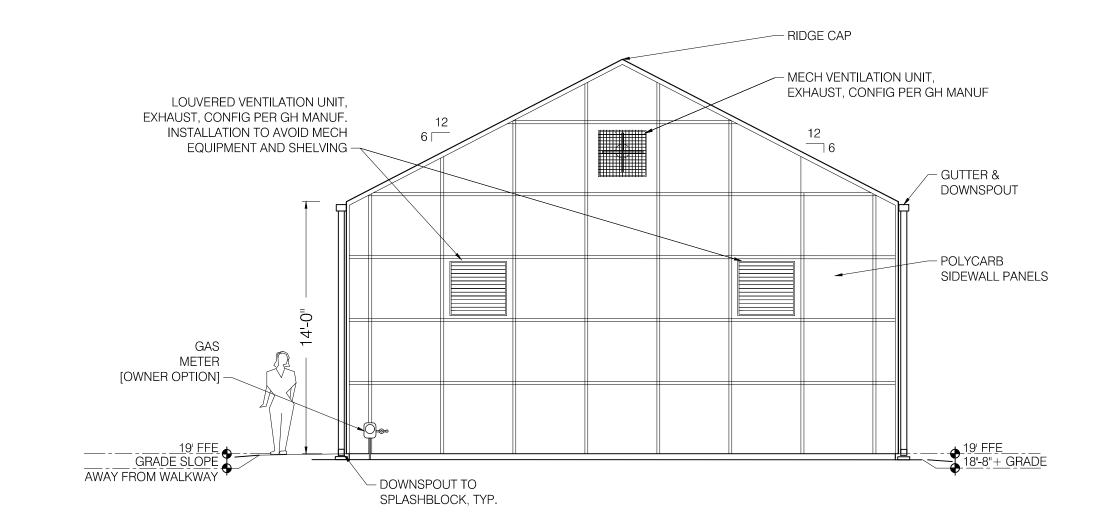
SUMMIT GEOENGINEERING SERVICES

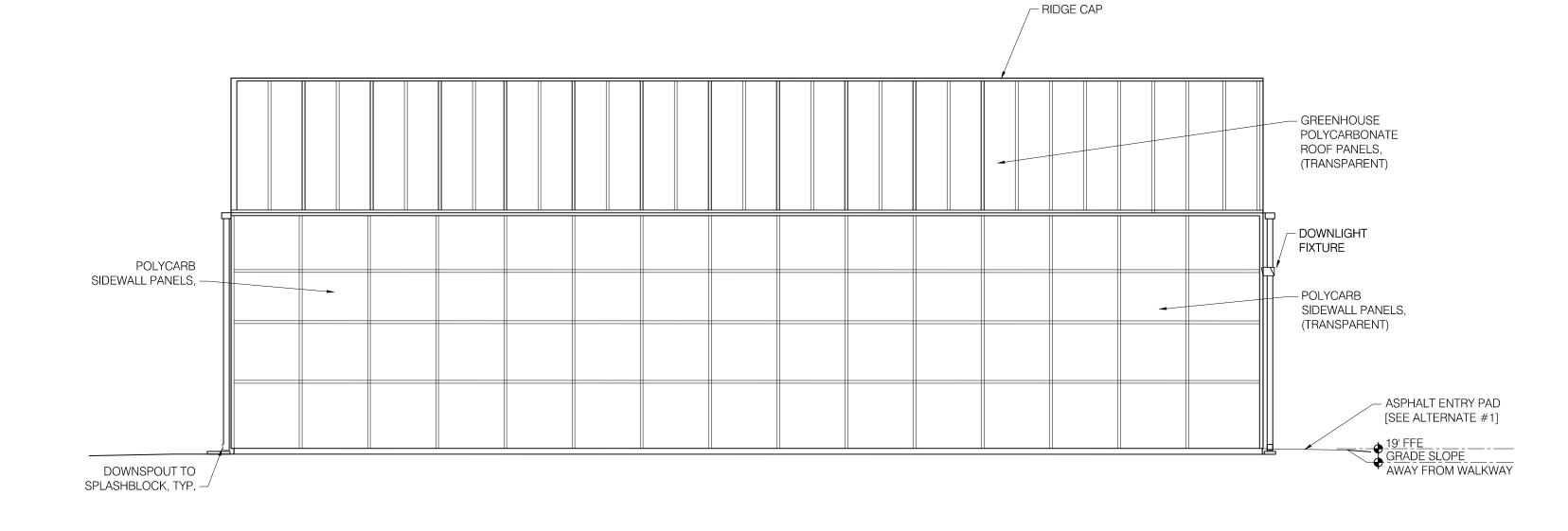


HORTICULTURE GREENHOUSE SOUTHERN MAINE COMMUNITY COLLEGE SOUTH PORTLAND, MAINE



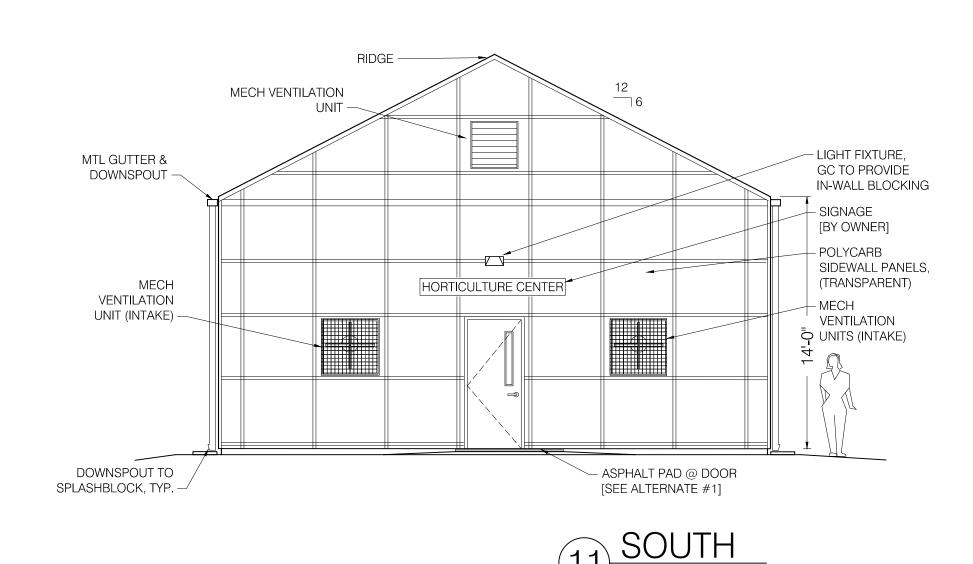


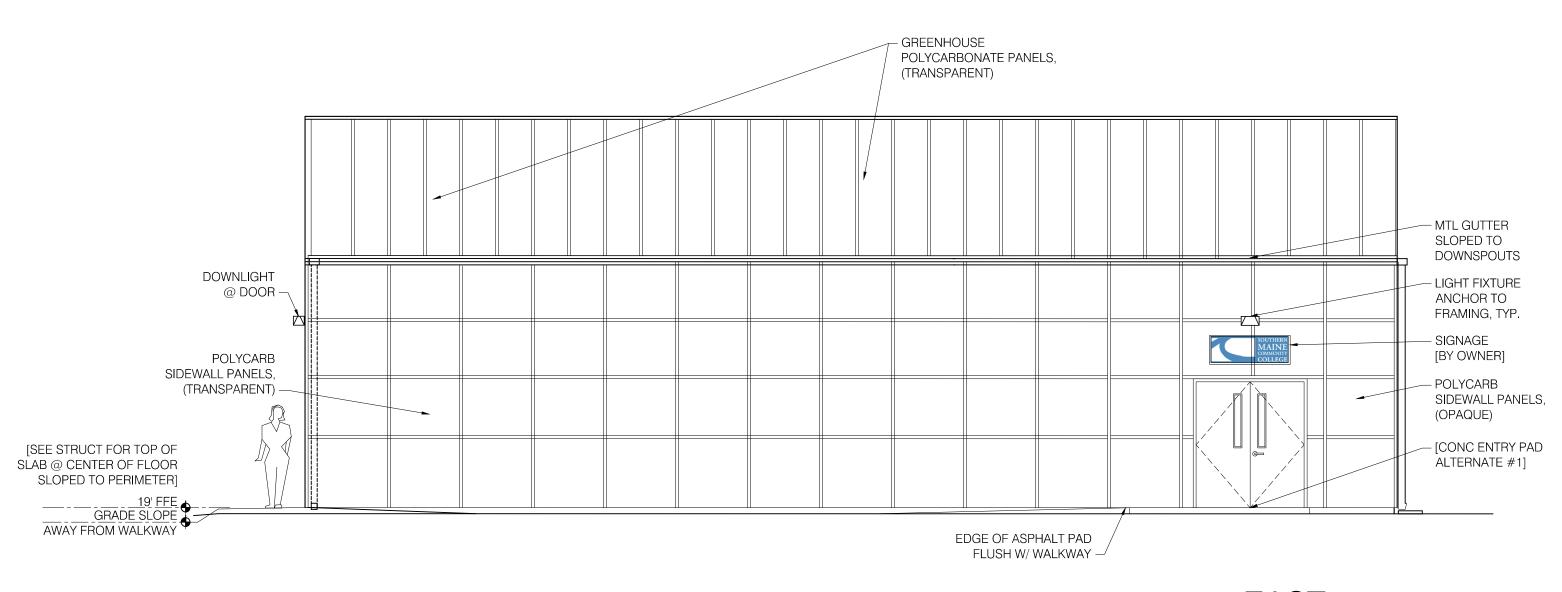




21) NORTH

20 WEST 3/16"=1'-0"





 $10^{-10} \frac{EAS}{3/16"}$

ARCADIA

SOUTH
199 prospect street, suite A
portland, maine 04101

NORTH
22 balsam drive
Millinocket, maine 04462

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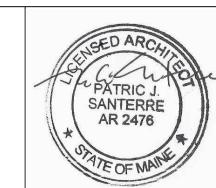


CONSTRUCTION DRAWINGS

HORTICULTURE GREENHOUSE SOUTHERN MAINE COMMUNITY COLLEGE SOUTH PORTLAND, MAINE

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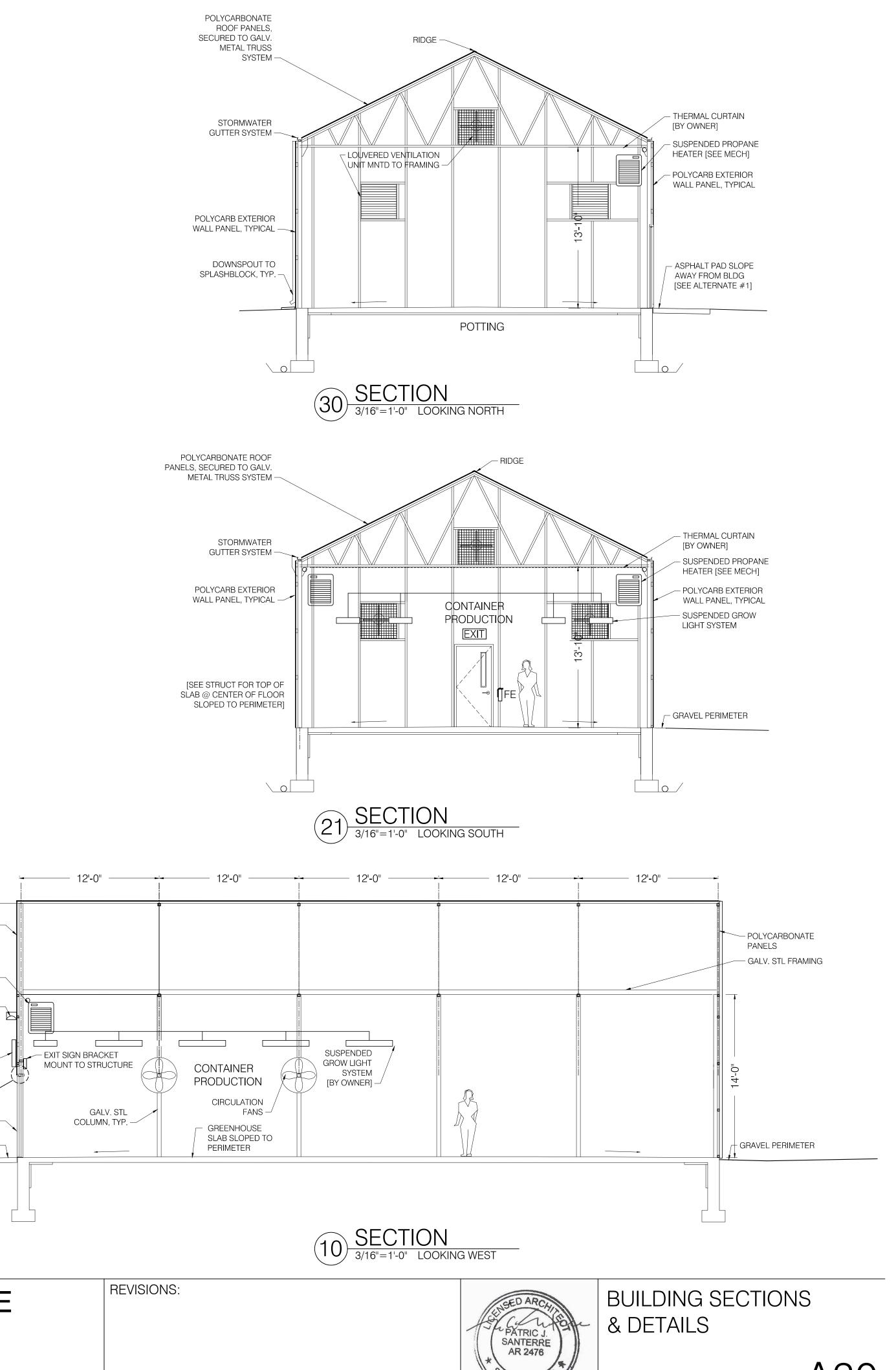
REVISIONS:





ADAR202502

A2



ADAR202502

EXTERIOR WALL PANEL, TYPICAL -

WALL MNTD LIGHT

MTL DOOR, FRAME & THRESHOLD —

ASPHALT PAD [SEE ALTERNATE #1] —

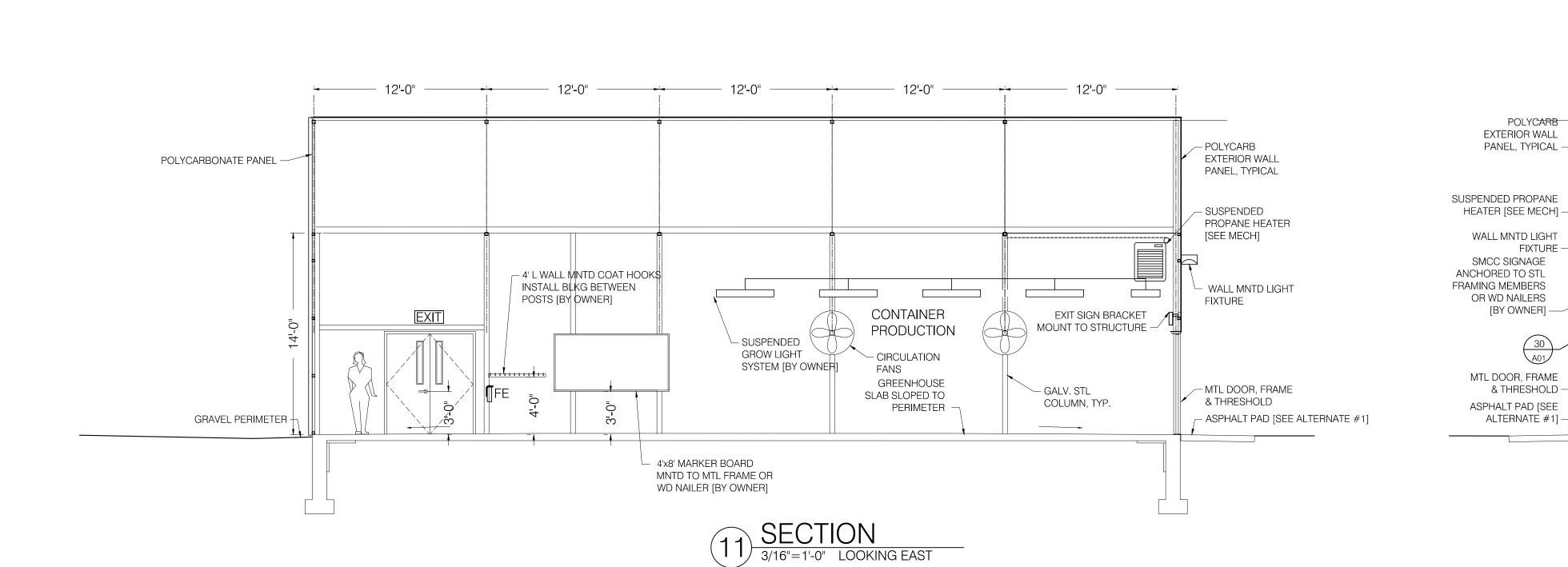
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HORTICULTURE GREENHOUSE

SOUTHERN MAINE COMMUNITY COLLEGE

SOUTH PORTLAND, MAINE

FIXTURE -



SITELINES
Civil Engineers - Land Surveyors

SUMMIT GEOENGINEERING SERVICES

BENNETT ENGINEERING MECHANICAL ELECTRICAL

199 prospect street, suite A

PH: 207.347.5252 & 207.749.9306 arcadiadesignworks.com

portland, maine 04101

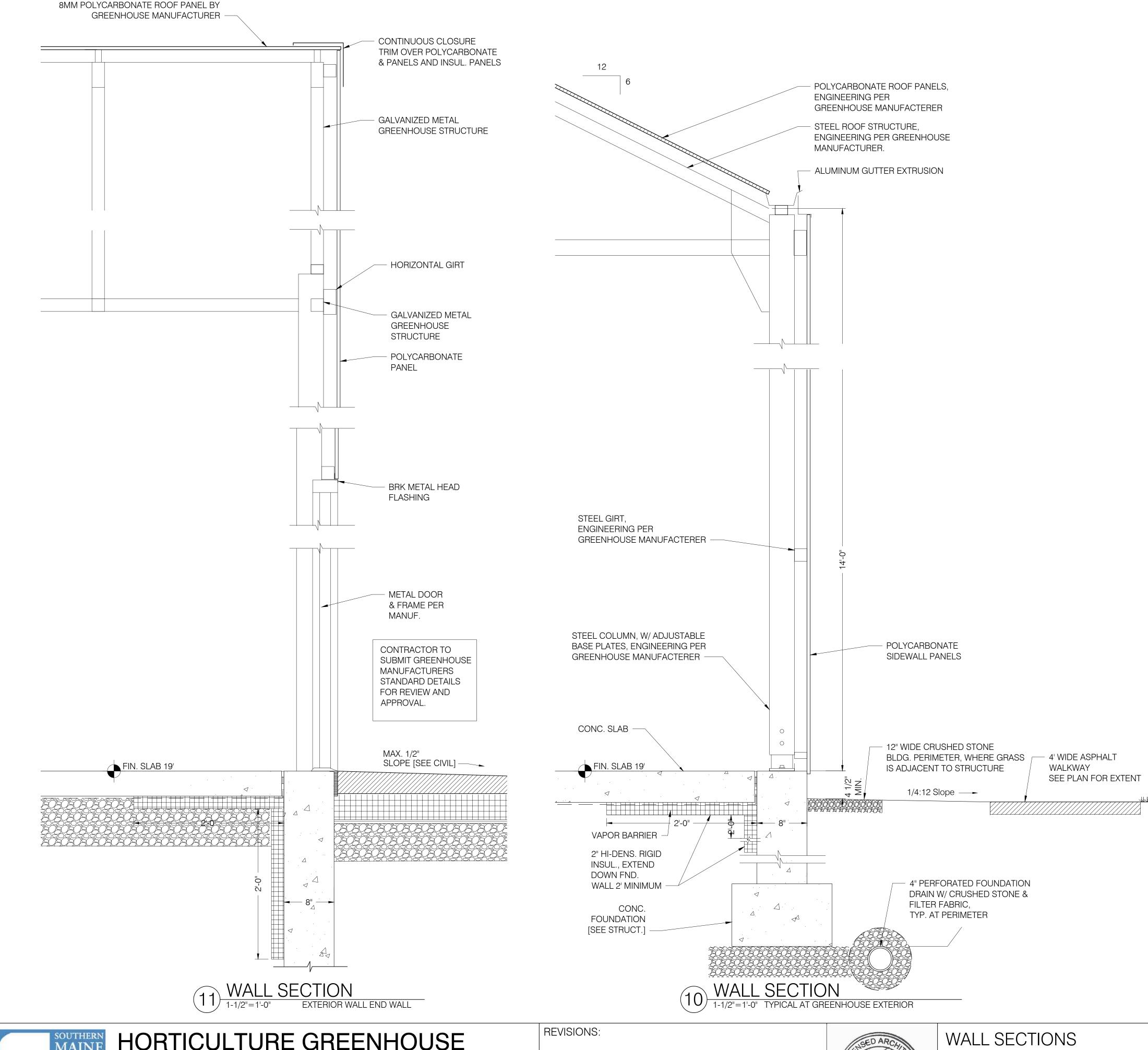
22 balsam drive

ARCADIA

DESIGNWORKS

MAINE COMMUNITY COLLEGE

CONSTRUCTION DRAWINGS





199 prospect street, suite A portland, maine 04101 22 balsam drive Millinocket, maine 04462 BENNETT ENGINEERING MECHANICAL · ELECTRICAL arcadiadesignworks.com







HORTICULTURE GREENHOUSE SOUTHERN MAINE COMMUNITY COLLEGE SOUTH PORTLAND, MAINE

PRINTED FOR DISTRIBUTION: JUNE 2025 CONSTRUCTION DRAWINGS



DESIGN NOTES

- I. THE SMCC GREENHOUSE IS DESIGNED TO COMPLY WITH THE 2021 EDITION OF "THE INTERNATIONAL BUILDING CODE" AND THE 2016 EDITION OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"
- ASCE 7-16. 2. FLOOR LIVE LOAD - 150 PSF
- 3. ROOF FRAMING IS DESIGNED FOR LOADS AS FOLLOWS:
- A. GROUND SNOW LOAD Pg = 50 PSF.
- B. FLAT ROOF SNOW LOAD Pf = 35 PSF
- C. SNOW EXPOSURE FACTOR Ce = 1.0.
- D. SNOW IMPORTANCE FACTOR I = I.O.
- E. THERMAL FACTOR Ct = 1.0
- 4. DESIGN FOR WIND IS IN ACCORDANCE WITH LOADING AS FOLLOWS:
- A. ULTIMATE DESIGN WIND SPEED Vult = 112 MPH.
- B. NOMINAL DESIGN WIND SPEED Vasa = 87 MPH
- C. RISK CATEGORY II
- D. WIND EXPOSURE EXPOSURE B.
- E. INTERNAL PRESSURE COEFFICIENT GCPI = O. (DESIGN AS AN OPEN BUILDING."
- F. DESIGN COMPONENTS AND CLADDING FOR ROOF WIND LOAD PRESSURE OF +/-12 PSF FOR ALLOWABLE STRESS DESIGN AND FACTORED LOADS OF +/-19 PSF FOR LOAD AND RESISTANCE FACTOR DESIGN
- G. DESIGN COMPONENTS AND CLADDING FOR WALL WIND LOAD DESIGN FOR + IIPSF AND -14 PSF FOR ALLOWABLE STRESS DESIGN. FOR LOAD AND RESISTANCE FACTOR DESIGN, FACTORED LATERAL LOADS SHALL BE + 18 PSF AND -23 PSF.

5. SEISMIC DESIGN

- A. SEISMIC IMPORTANCE FACTOR | = 1.0
- B. RISK CATEGORY = II.
- C. MAPPED SPECTRAL RESPONSE ACCELERATION Ss = .282
- D. MAPPED SPECTRAL RESPONSE ACCELERATION SI = .072
- E. SITE CLASS = D.
- F. DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETER Sds = 0.296
- G. DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETER SdI =0.115
- H. SEISMIC DESIGN CATEGORY = B.
- I. BASIC SEISMIC FORCE RESISTING SYSTEM = STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE.
- J. DESIGN BASE SHEAR: V = 4.02 KIPS.
- K. SEISMIC RESPONSE COEFFICIENT Cs = 0.099
- L. RESPONSE MODIFICATION FACTOR R = 3.0.
- M. ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE ANALYSIS.

FOUNDATION EARTHWORK NOTES

- I. FOUNDATIONS ARE DESIGNED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT FOR THE GREENHOUSE AT SLOCUM DRIVE, SOUTH PORTLAND, MAINE, PREPARED BY SUMMIT GEOENGINEERING SERVICES ON APRIL 16, 2025. THE CONTRACTOR SHALL OBTAIN A COPY OF THE REPORT AND COMPLY WITH THE RECOMMENDATIONS THEREIN
- 2. THESE NOTES ARE PROVIDED TO SPECIFY EARTHWORK REQUIREMENTS INCIDENTAL TO BUILDING CONSTRUCTION. REFER TO CIVIL/SITE DOCUMENTS FOR REQUIREMENTS FOR SITEMORK FEATURES OUTSIDE OF THE BUILDING.
- 3. FOUNDATIONS ARE DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 3000
- 4. REMOVE ALL TOPSOIL, ORGANIC MATERIAL, AND OTHER DELETERIOUS MATERIALS TO A MINIMUM DEPTH OF I'-O", FOR A PLAN AREA THAT EXTENDS 5 FEET FROM THE PROPOSED OUTSIDE FACE OF FOUNDATION.
- 5. REMOVE THE EXISTING STONE RETAINING WALL WHERE IT INTERFERES WITH THE BUILDING CONSTRUCTION. EXTEND REMOVAL FOR A MINIMUM DISTANCE OF 5 FEET FROM THE PROPOSED OUTSIDE FACE OF FOUNDATION WALL. INFILL WITH COMPACTED GRAVEL BORROW.
- 6. THERE IS A MAN-MADE POND ON SITE WHERE THE NEW GREENHOUSE IS TO BE CONSTRUCTED. DEWATER THE POND AND INFILL WITH COMPACTED GRAVEL BORROW.SOILS ARE FROST SUSCEPTIBLE. PROTECT SUBGRADES FROM FREEZING. THE USE OF HEAT BLANKETS OR SIMILAR PROTECTION METHODS MAY BE REQUIRED. IF SOILS BECOME FROZEN, REMOVE TO DEPTH REQUIRED TO ATTAIN UNFROZEN MATERIAL.
- 7. EXCAVATE FOR PERIMETER WALLS TO SPECIFIED BOTTOMS OF FOOTINGS UNLESS DEEPER EXCAVATION IS REQUIRED PROVIDE A MINIMUM OF 4'-O" OF SOIL COVER OVER THE FOOTING BEARINGS. FINISH EXCAVATION WITH A SMOOTH BUCKET TO AVOID DISTURBING IN-PLACE MATERIAL. COMPLY WITH OSHA REQUIREMENTS FOR SIDE SLOPES PER 29CRF-1926.650, 1926.650, 1926.651, AND 1926.652 IN SUBPART P.
- 8. IF COBBLES OR BOULDERS ARE ENCOUNTERED WITHIN FOUNDATION WALL EXCAVATIONS, OVER-EXCAVATE 12 INCHES BELOW FOOTINGS TO PERMIT INSTALLATION OF A 12" LAYER OF CRUSHED STONE BENEATH FOOTINGS. TAMP STONE. WRAP STONE WITH GEPTEXTILE FILTER FABRIC, MIRAFI FW404 OR EQUAL.
- 9. WHERE EXCAVATIONS DO NOT INCLUDE COBBLES OR BOULDERS, FOOTINGS SHALL BEAR ON DRY, GRANUAL, EXISTING SOILS. SOILS SHALL BE PROOFROLLED WITH A MINIMUM OF 5 PASSES IN THE NORTH-SOUTH DIRECTION FOLLOWED BY 5 PASSES IN THE EAST-WEST DIRECTION USING A VIBRATORY ROLLER.
- 10. FOOTING SUBGRADES SHALL BE INSPECTED BY SUMMIT GEOENVIROMENTAL SERVICES PRIOR TO CONSTRUCTING FORMS.
- II. EXERCISE CARE TO AVOID DISTURBING FOOTING SUBGRADES DURING FORM CONSTRUCTION AND CONCRETE PLACEMENT. REMOVE ANY DISTURBED BEARING MATERIAL AND REPLACE WITH CRUSHED STONE IN ACCORDANCE WITH NOTE 6.
- 12. EXCAVATIONS FOR FOOTINGS SHALL EXTEND LATERALLY A MINIMUM OF 24 INCHES FROM THE FACES OF THE FOOTINGS.
- 13. AT PERIMETER FOOTINGS, INSTALL A 4" DIAMETER PVC FOUNDATION DRAIN WITH A MINIMUM THICKNESS OF 6" OF CRUSHED STONE AROUND THE PERIMETER, WRAPPED WITH FILTER FABRIC, MIRAFI FW404 OF EQUAL. LOCATE AT THE BOTTOMS OF FOOTINGS UNLESS OTHERWISE INDICATED. SLOPE AT 16" PER FOOT TO OUTLET. INSTALL PERFORATED PIPE WITH PERFORATIONS DIRECTED DOWN. USE SOLID (UNPERFORATED) PIPE BETWEEN THE BUILDING AND OUTLET. IF PIPE OUTLETS WITH EXPOSED ENDS, SCREEN ENDS OR PROTECT FROM WILDLIFE ENTRY BY OTHER MEANS.
- 14. SOILS ARE FROST SUSCEPTIBLE. PROTECT SUBGRADES FROM FREEZING. THE USE OF HEAT BLANKETS OR SIMILAR PROTECTION METHODS MAU BE REQUIRED. IF SOILS BECOME FROZEN, REMOVE TO DEPTH REQUIRED TO ATTAIN UNFROZEN MATERIAL. INFILL WITH COMPACTED GRANULAR FILL OR CRUSHED STONE.

- 15. DEWATER TO 12" BELOW FOOTING SUBGRADES. DO NOT PLACE CONCRETE OR BACKFILL OVER STANDING WATER OR FROZEN SOILS. REMOVE ANY SOFT OR YIELDING SOILS.
- A. THE CONTRACTOR SHALL MAINTAIN EXPOSED SUBGRADES PROPERLY DRAINED AND FREE OF PONDED WATER.

B. MINIMIZE MACHINE AND FOOT TRAFFIC OVER SUBGRADES TO AVOID DISTURBANCE.

- 16. PLACEMENT OF FILL MATERIALS OCCUR IN DRY CONDITIONS WITH TEMPATURES ABOVE FREEZING. PROTECT THE EXCAVATION FROM WATER ACCUMULATION, FREEZING, AND EXCESSIVE EQUIPMENT AND PERSONNEL TRAFFIC. BACKFILL AND CONCRETE PLACEMENTS SHALL PROCEED WITHOUT DELAYS.
- A. PROTECT SUBGRADES FROM FREEZING. PROTECTION MEASURES SHALL INCLUDE THE USE OF HEAT BLANKETS OR OVERFILLING TO ALLOW REMOVAL OF THE TOP 6" DIRECTLY BEFORE FOOTING OR SLAB PLACEMENT.
- B. DURING FREEZING WEATHER, BACKFILL FOOTINGS IMMEDIATELY AFTER FORM REMOVAL. INSTALL TEMPORARY PROTECTION OF FOOTING BEARINGS AS REQUIRED TO PREVENT FREEZING WHILE FORMS ARE IN PLACE.
- 17. BACKFILL BOTH SIDES OF FOUNDATION WALLS WITH FOUNDATION BACKFILL. ALL OTHER FILL MATERIALS PLACED WITHIN THE BUILDING SHALL BE GRAVEL BORROW. ALL FILL SHALL BE COMPACTED TO WITHIN 95% OF THE MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM DI557.
- 18. GRAVEL BORROW SHALL CONSIST OF WELL-GRADED GRANULAR MATERIAL WITH A MAXIMUM PARTICLE SIZE OF 6". THE PORTION PASSING THE 3" SIEVE SHALL COMPLY WITH THE FOLLOWING:

SEIVE SIZE	PERCENT PASSING BY WEIGHT
1/4 INCH	0-70
NO. 200	0-10

- A. PLACE GRAVEL BORROW IN 6 TO 12 INCH LIFTS, LOOSE MEASUREMENT. COMPACT TO 95% OF THE MAXIMUM DRY DENSITY AS DEFINED BY ASTM DI557.
- B. MATERIAL SHALL COMPLY WITH MDOT SPECIFICATION 703.20, GRAVEL BORROW
- 19. FOUNDATION BACKFILL SHALL HAVE A MAXIMUM PARTICLE SIZE OF 6". THE PORTION PASSING THE 3" SIEVE SHALL COMPLY WITH THE FOLLOWING GRADATION:

SEIVE SIZE	PERCENT PASSING BY WEIGHT
1/4 INCH	25 TO 100
NO. 40	0 TO 50
NO. 200	0 TO 7

- A. PLACE FOUNDATION BACKFILL IN 12 INCH LIFTS (MAXIMUM), LOOSE MEASUREMENT. COMPACT TO 95% OF MAXIMUM DRY DENSITY AS DEFINED BY ASTM DI557.
- B. FOUNDATION BACKFILL SHALL COMPLY WITH MDOT SPECIFICATION 703.06, TYPE E

20. CRUSHED STONE SHALL MEET THE FOLLOWING GRADATION:

SEIVE SIZE	PERCENT PASSING BY WEIGHT
INCH	100
3/4 INCH	90 TO 100
1/2 INCH	20 TO 55
3/8 INCH	O TO 15
NO. 4	0 TO 5

- A. TAMP CRUSHED STONE TO LOCK THE STONE STRUCTURE.
- B. MATERIAL SHALL COMPLY WITH MDOT SPECIFICATION 703.13, CRUSHED STONE, 3/4 INCH
- 21. INASMUCH AS POSSIBLE, BACKFILL BOTH SIDES OF FOUNDATION WALLS SIMULTANEOUSLY. 22. GRADE TOPS OF BACKFILL TO SLOPE AWAY FROM THE BUILDING.
- 23. UNDER-SLAB MATERIALS NOTE THAT THE FLOOR IS SLOPED. SUBGRADES SHALL ALSO BE SLOPED TO PROVIDE CONCRETE OF UNIFORM THICKNESS UNLESS OTHERWISE NOTED. GRADE THE SLAB BEARING SURFACE TO A TOLERANCE OF PLUS 3/2 INCH AND MINUS I INCH. EXCAVATE AS REQUIRED TO INSTALL A MINIMUM THICKNESS OF 12" OF GRAVEL BORROW BENEATH THE FLOOR SLAB. PROOFROLL THE SUBGRADE WITH A MINIMUM OF 5 PASSES IN THE NORTH-SOUTH DIRECTION FOLLOWED BY 5 PASSES IN THE EAST-WEST DIRECTION, USING A VIBRATORY ROLLER. PLACE GRAVEL BORROW IN LIFTS WITH A LOOSE THICKNESS LESS THANI2" AND COMPACT TO 95% OF THE MAXIMUM DRY DENSITY PER ASTM DI556. PROTECT THE SURFACE FROM DISTURBANCE BETWEEN COMPACTION AND CONCRETE SLAB PLACEMENT.

CONCRETE NOTES

- I. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS IN ACI 318-19, ACI 301-20 \$ ACI 117-10.
- 2. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTHS AS FOLLOWS:
- A. FOUNDATIONS: 4500 PSI
- B. INTERIOR SLABS: 4000 PSI
- 3. ALL CONCRETE EXPOSED TO FREEZE-THAM CYCLES IN SERVICE SHALL BE AIR ENTRAINED FOR EXPOSURE CLASS F2 PER ACI 318.
- 4. NO CONCRETE SHALL BE PLACED ON OR IN WATER OR ON FROZEN GROUND.
- 5. DURING COLD MEATHER, CONCRETING PROCEDURES SHALL CONFORM TO ACI 306, COLD WEATHER CONCRETE PRACTICES. MAINTAIN CONCRETE TEMPERATURE ABOVE 50 DEGREES F FOR 7 DAYS AFTER PLACEMENT.
- 6. DURING HOT WEATHER, CONCRETING PROCEDURES SHALL CONFORM TO ACI 305, HOT WEATHER CONCRETE PRACTICES.
- 7. ALL REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60.
- 8. REINFORCEMENT SHALL HAVE THE FOLLOWING MINIMUM CONCRETE COVER:
- A. CONCRETE DEPOSITED ON THE GROUND
- B. CONCRETE EXPOSED TO THE GROUND OR WEATHER
- C. CONCRETE NOT EXPOSED TO THE GROUND OR WEATHER
- 9. ALL REINFORCEMENT SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE "ACI MANUAL OF STANDARD PRACTICE" (ACI-315). IO. ALL LAP SPLICES SHALL BE CONSIDERED CLASS B TENSION LAP SPLICES PER ACI 318
- UNLESS OTHERWISE NOTED. II. INSTALL ANCHOR RODS SPECIFIED BY THE GREENHOUSE DESIGNER. COORDINATE PLACEMENT TOLERANCE WITH BASE PLATE DETAILS.

- 12. REINFORCEMENT SHALL BE LOCATED AT MID-DEPTH OF CONCRETE SLABS UNLESS OTHERWISE NOTED. SUPPORT WELDED WIRE FABRIC ON CHAIRS OR OTHER SUITABLE SUPPORTS AT A MAXIMUM SPACING OF 3 FEET ON CENTER. THE USE OF LIFTING HOOKS TO SET SLAB REINFORCEMENT IN POSITION IS PROHIBITED.
- 13. CHAMFER ALL EXPOSED CONCRETE EDGES 3/4"
- 14. COORDINATE CONCRETE WORK WITH OTHER TRADES. PROVIDE BOND-OUTS FOR WALL PENETRATIONS AND INFILL AFTER INSTALLATION. STEP DOWN FOOTINGS SUCH THAT PIPING DOES NOT PASS THROUGH FOOTINGS AND DOES NOT UNDERMINE FOOTINGS. STEP FOOTINGS BACK TO SPECIFIED DEPTHS AT EACH SIDE OF PENETRATION.
- 15. CONCRETE MIXTURES SHALL BE COMPRISED OF THE FOLLOWING MATERIALS;
- A. CEMENT: PORTLAND CEMENT, ASTM C150, TYPE I, TYPE II, OR TYPE I/II. ONE OF THE FOLLOWING SUPPLEMENTARY CEMENTITIOUS MATERIALS (SCM) MAY BE SUBSTITUTED FOR A PORTION OF THE CEMENT IN THE MIX, SUBJECT TO THE LIMITATIONS IDENTIFIED
 - (I). FLY ASH: ASTM C 618, CLASS C OR F, 25% MAXIMUM.
 - (2). GROUND GRANULATED BLAST-FURNACE SLAG: ASTM C989, GRADE 100 OR
- B. AGGREGATES: NORMAL WEIGHT, UNIFORMLY GRADED, CONFORMING TO ASTM C33.
 - (I). PROVIDE CLASS 3S COARSE AGGREGATE, COMPLYING WITH SIZE LIMITS IN ACI 301. BLENDED GRADATIONS OF COARSE AGGREGATE SHALL HAVE A BLEND THAT COMPLIES WITH AN AGGREGATE GRADATION SPECIFIED IN ASTM C33.
- C. WATER: POTABLE AND COMPLYING WITH ASTM C94.
- D. ADMIXTURES: ADMIXTURES CERTIFIED BY MANUFACTURER TO CONTAIN NOT MORE THAN O.I PERCENT WATER-SOLUBLE CHLORIDE IONS BY MASS OF CEMENTITIOUS MATERIAL AND TO BE COMPATIBLE WITH OTHER ADMIXTURES AND CEMENTITIOUS MATERIALS. DO NOT USE ADMIXTURES CONTAINING CALCIUM CHLORIDE.
 - (I). AIR-ENTRAINING ADMIXTURE: ASTM C260.

ASTM C494, TYPE F

- (2). WATER REDUCING ADMIXTURE (OPTIONAL): ASTM C494, TYPE A.
- (3). HIGH-RANGE WATER-REDUCING ADMIXTURE (OPTIONAL)
- 16. MEASURE, BATCH, MIX, AND DELIVER CONCRETE ACCORDING TO ASTM C94 AND ASTM CIII6, AND FURNISH BATCH TICKET INFORMATION. CLEARLY INDICATE ON THE BATCH
- TICKET THE TIME THE CEMENT IS ADDED TO THE MIX. A. WHEN AIR TEMPERATURE IS BETWEEN 85 AND 90 DEG F (30 AND 32 DEG C), REDUCE MIXING AND DELIVERY TIME FROM I-I/2 HOURS TO 75 MINUTES; WHEN AIR TEMPERATURE
- IS ABOVE 90 DEG F (32 DEG C), REDUCE MIXING AND DELIVERY TIME TO 60 MINUTES. B. MIXING TIME WILL BE MEASURED FROM THE TIME THE CEMENT IS ADDED TO THE MIX.
- 17. CONSTRUCT CONTROL AND CONSTRUCTION JOINTS IN WALLS AND SLABS AS INDICATED. CONTROL AND CONSTRUCTION JOINTS MAY BE USED INTERCHANGEABLY. WHERE SLABS VARY IN THICKNESS, ADJUST THE DEPTH OF SAW-CUT CONTROL JOINTS TO MAINTAIN THE JOINT DEPTH AT A MINIMUM OF 14 OF THE MEMBER THICKNESS. WHERE SLAB JOINTS ARE CREATED BY SAM-CUTS, JOINTS SHALL BE CUT WITHIN 12 HOURS OF CONCRETE
- 18. CONSOLIDATE CONCRETE WITH A MECHANICAL VIBRATOR USING EQUIPMENT AND PROCEDURES SPECIFIED IN ACI 309R. DO NOT UTILIZE VIBRATORS TO TRANSPORT CONCRETE WITHIN FORMS.
- 19. ALL INTERIOR FLOORS SHALL RECEIVE A TROWEL FINISH. PROVIDE FLOOR SURFACES INDICATED TO BE LEVEL ON PLAN WITHIN THE FOLLOWING TOLERANCES PER ASTM EII55:
- A. FLOOR FLATNESS (FF): SPECIFIED OVERALL VALUE = 35. MINIMUM LOCAL VALUE = 24.
- B. FLOOR LEVELNESS (FL): SPECIFIED OVERALL VALUE = 25. MINIMUM LOCAL VALUE = 18. 20. AT SLOPED FLOOR SURFACES, SLAB SURFACE SHALL BE SLOPED UNIFORMLY BETWEEN
- DEFINED LOW AND HIGH POINTS WITH THE MAXIMUM DEVIATION OF 1/4 INCH IN 10 FEET. 21. MAINTAIN CONCRETE CONTINUOUSLY MOIST FOR 7 DAYS AFTER PLACEMENT. ACCEPTABLE
- CURING METHODS INCLUDE:
- A. LEAVING FORMS ON FORMED SURFACES.
- B. COATING SURFACES WITH AN APPROVED CURING COMPOUND. DO NOT USE CURING COMPOUND WHERE ITS PRESENCE WILL INTERFERE WITH SUCCESSIVE SURFACE TREATMENTS.
- C. COVERING WITH MOISTURE-RETAINING COVER COMPLYING WITH ASTM CITI.
- D. COVERING WITH ABSORPTIVE COVER, BURLAP CLOTH MADE FROM JUTE OR KENAF, WEIGHING APPROXIMATELY 9 OZ PER SQ YD, COMPLYING WITH AASHTO MI82, CLASS 2. MAINTAIN ABSORPTIVE COVER WET THROUGHOUT CURING PERIOD
- E. OTHER CURING METHODS MAY BE ACCEPTABLE SUBJECT TO APPROVAL.

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BENNET

ENGINEERING

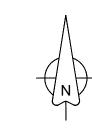


SUMMIT



ISSUED FOR CONSTRUCTION

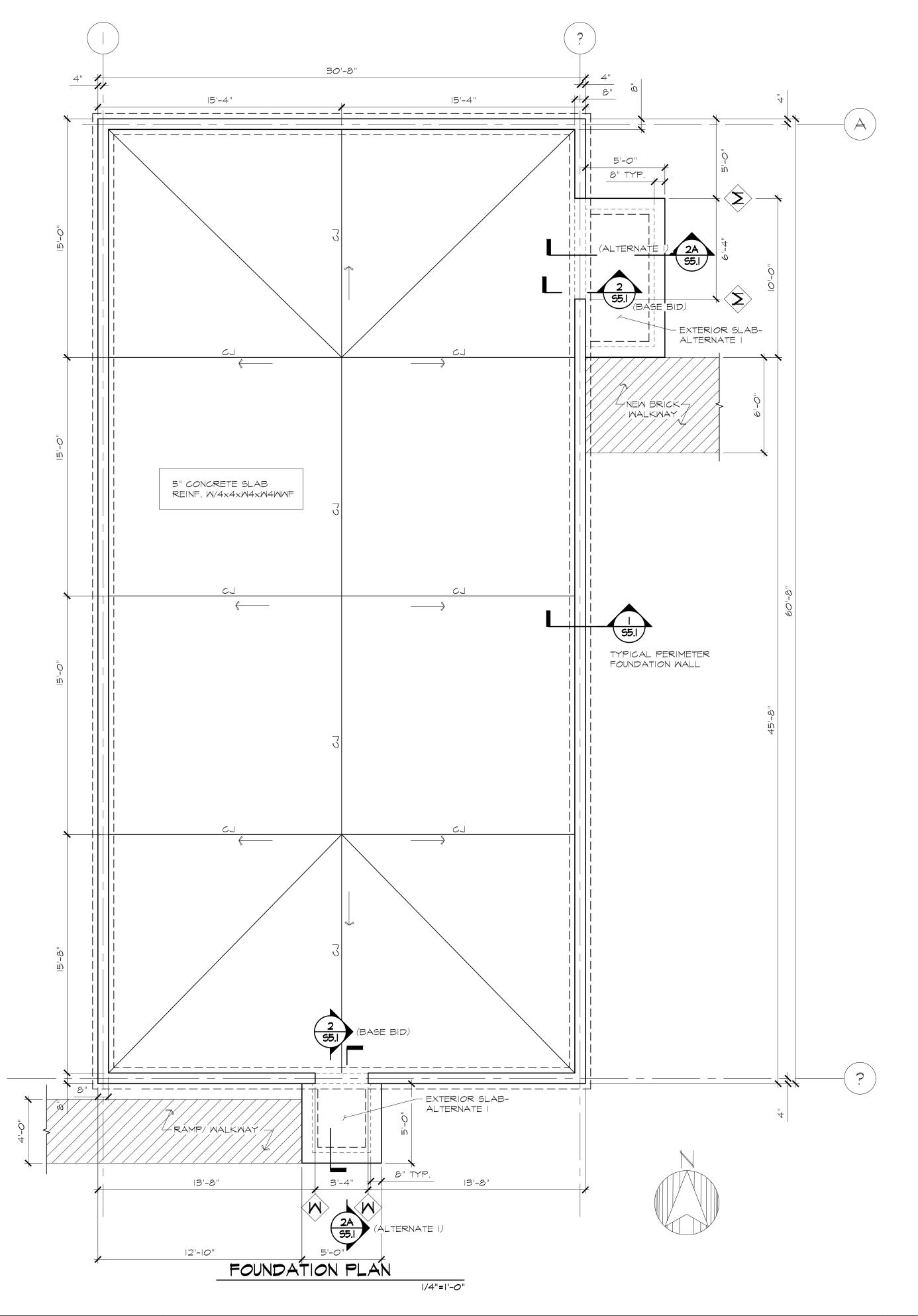
HORTICULTURE GREENHOUSE SOUTHERN MAINE COMMUNITY COLLEGE SOUTH PORTLAND, MAINE



REVISIONS:



STRUCTURAL NOTES



SHEET NOTES:

- I. SEE SHEET SO.I FOR GENERAL STRUCTURAL NOTES.
- 2. TOP OF FOOTING ELEVATION = 15'-O" EXCEPT AS OTHERWISE NOTED.
- 3. C.J. DESIGNATES SLAB CONTROL JOINT OR CONSTRUCTION JOINT CONTRACTOR'S OPTION; CONSTR. JT. DESIGNATES REQUIRED CONSTRUCTION
- 4. COORDINATE UTILITY PIPE ENTRANCES W/ PLUMBING & CIVIL DRAWINGS. STEP FOOTINGS AS REQUIRED FOR PIPING TO PASS THROUGH FOUNDATION WALLS W/ A MINIMUM CLEARANCE OF 6" ABOVE THE TOP OF THE FOOTING. SEE DETAIL 9/S5.1.
- 5. REFER TO GREENHOUSE DRAWINGS FOR ANCHOR ROD SIZES AND LAYOUT. INSTALL IN ACCORDANCE WITH THE BUILDING DESIGNERS SPECIFICATIONS.
- 6. TOP OF SLAB AT HIGH POINT SHALL BE ELEVATION 19'-2". SEE DETAIL 1/S5.1 FOR ELEVATION AT EDGE OF CONCRETE SLAB.

LEGEND:

STEP IN TOP OF FOOTING

STEP IN TOP OF FOUNDATION WALL

T/SLAB TOP OF SLAB ELEVATION

TOP OF WALL ELEVATION

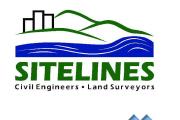
TOP OF FOOTING ELEVATION

INDICATES DIRECTION OF SLOPE OF CONCRETE SLAB

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SOUTH 199 prospect street, suite A portland, maine 04101 22 balsam drive BENNETT ENGINEERING MECHANICAL ELECTRICAL



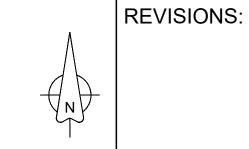


SUMMIT GEOENGINEERING SERVICES

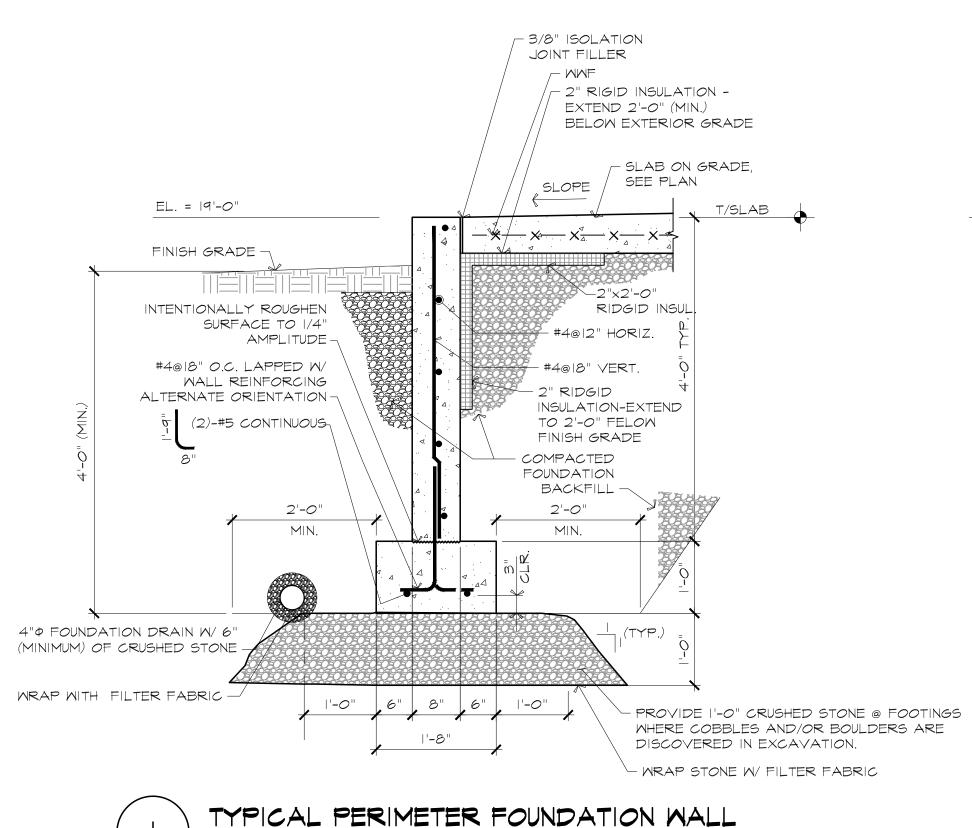


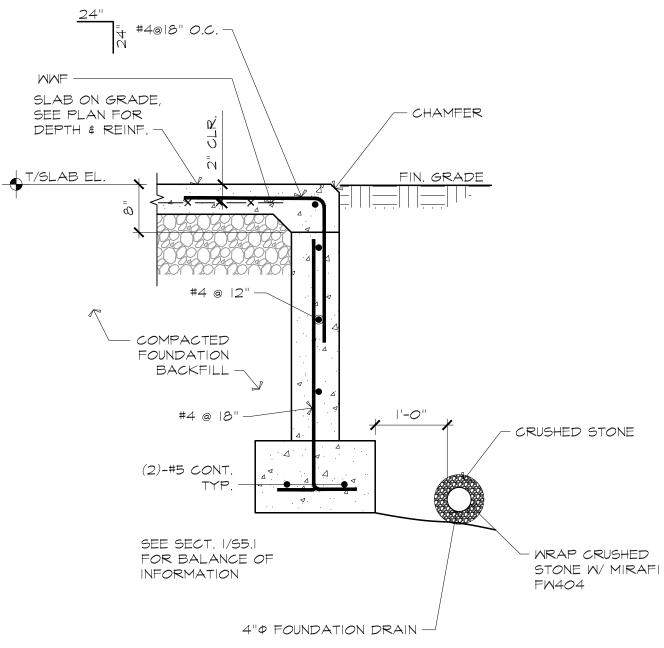
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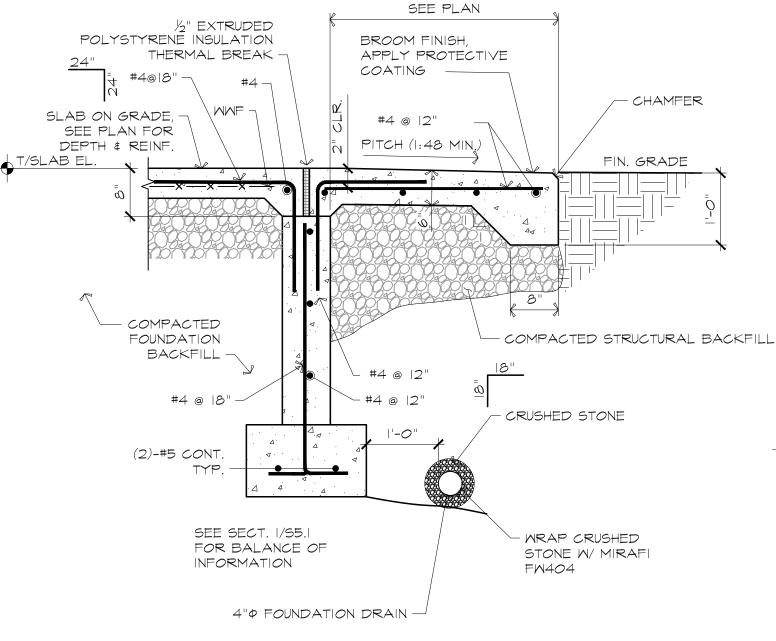


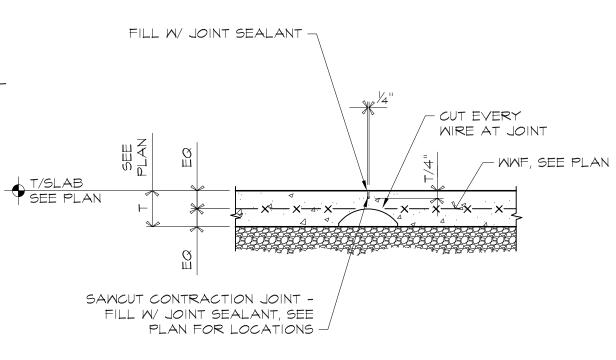








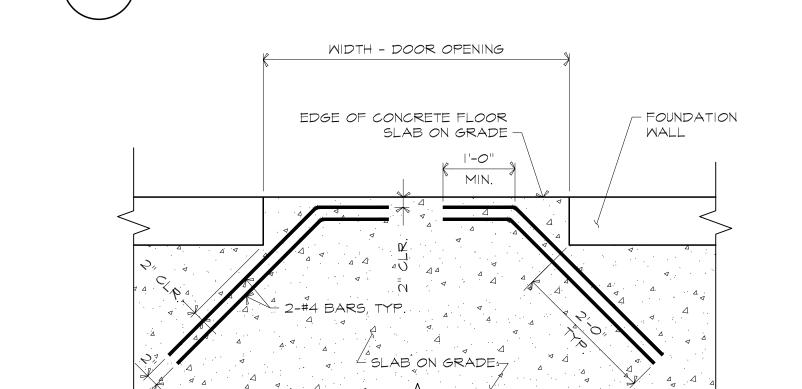




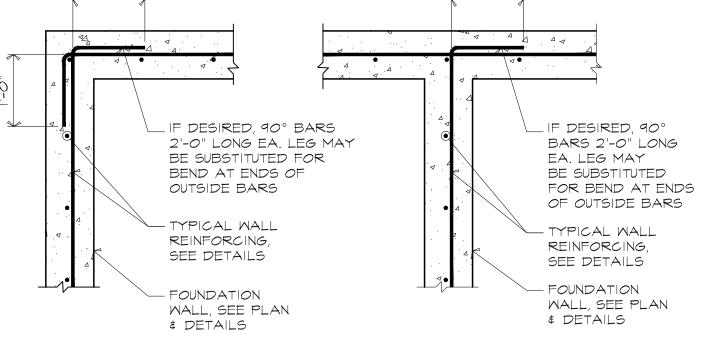
TYPICAL EXTERIOR SLAB @ DOOR BASE BID

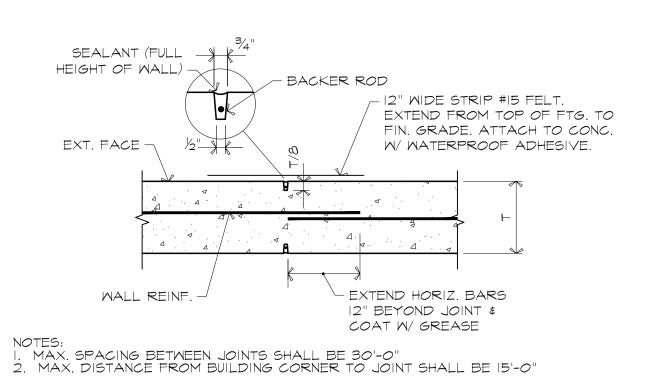
TYPICAL EXTERIOR SLAB @ DOOR 3/4"=1'-0" ALTERNATE

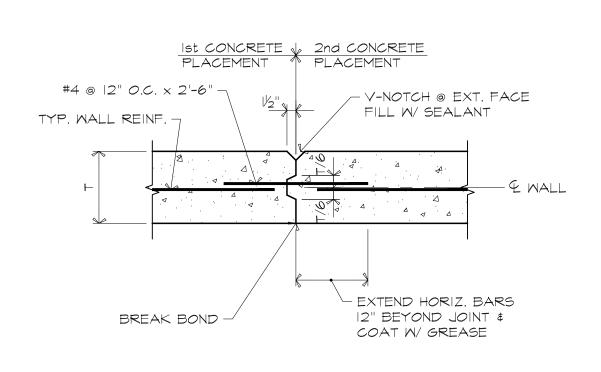
TYPICAL SANCUT CONTRACTION JOINT AT SLAB ON GRADE 3/4"=1'-0"



TYPICAL SLAB REINFORCING AT WALL





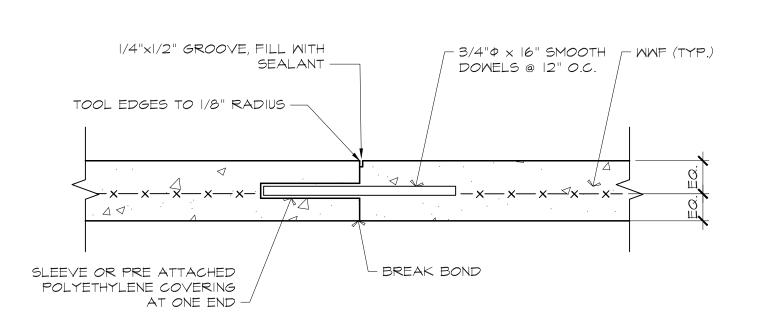


3/4"=1'-0"

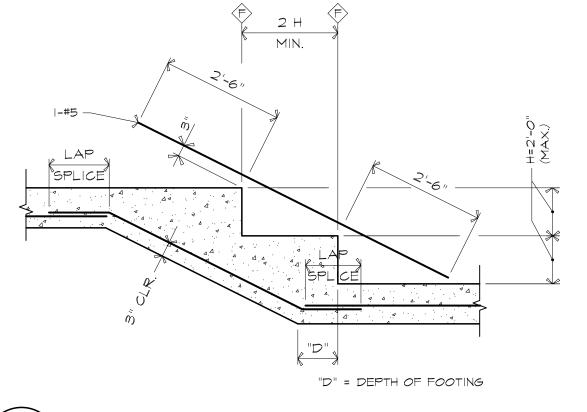
TYPICAL FOUNDATION WALL CORNER AND INTERSECTING WALL REINFORCEMENT 3/4"=1'-0"

TYPICAL CONTROL JOINT IN WALL

TYPICAL CONSTRUCTION JOINT IN WALL



OPENING

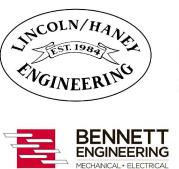


TYPICAL STEPPED FOOTING

TYPICAL 5" SLAB ON GRADE CONSTRUCTION JOINT |-|/2"=|'-0"



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3/4"=1'-0"

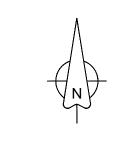


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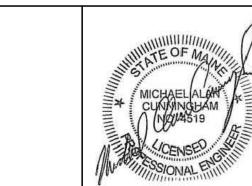


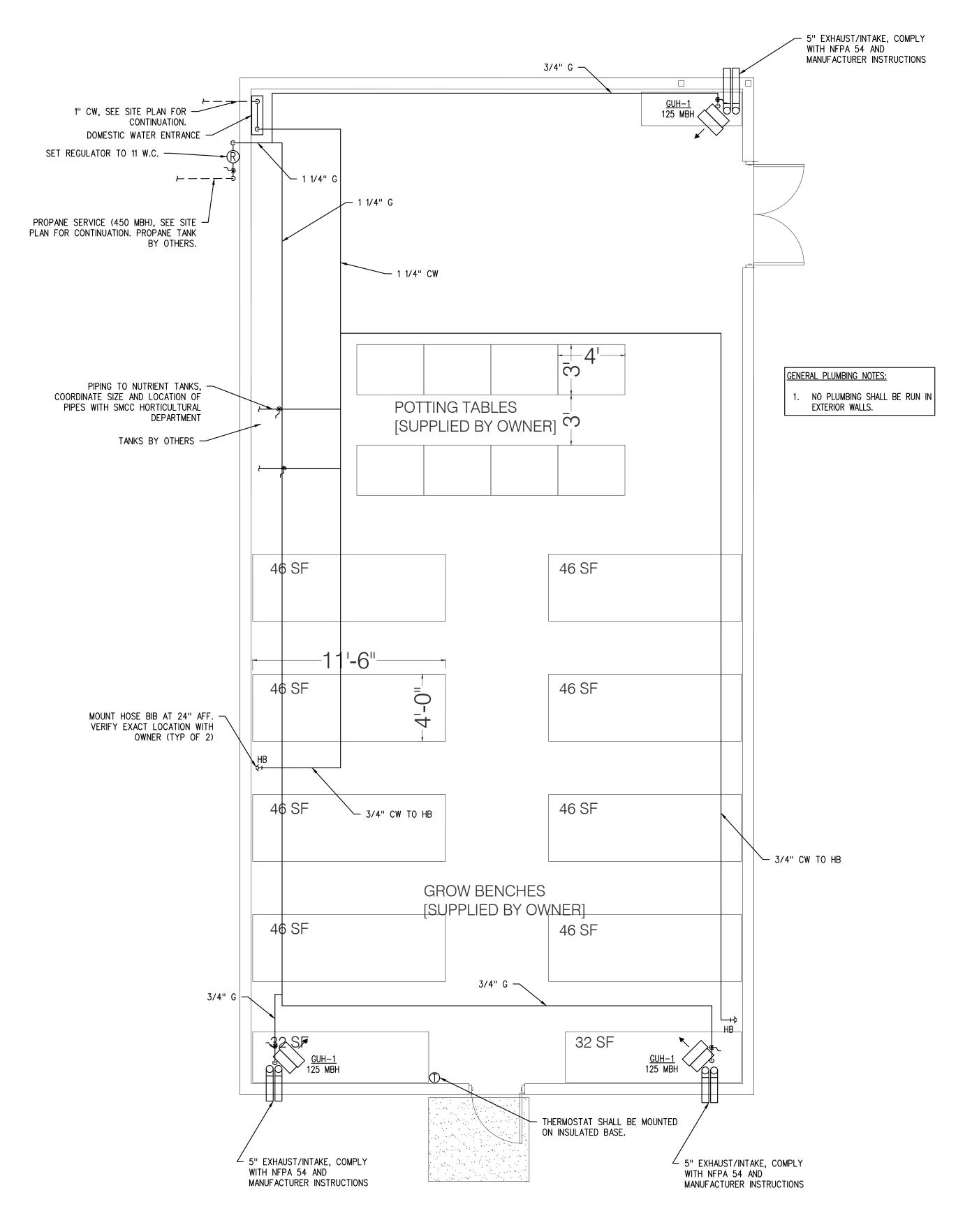


NTS



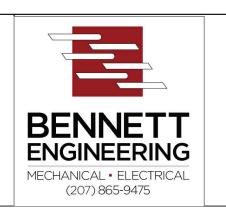
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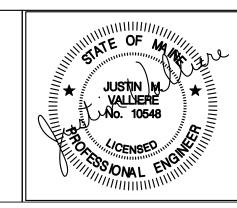


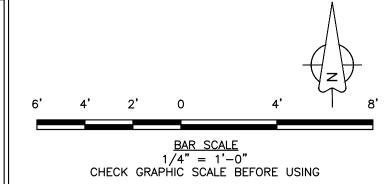




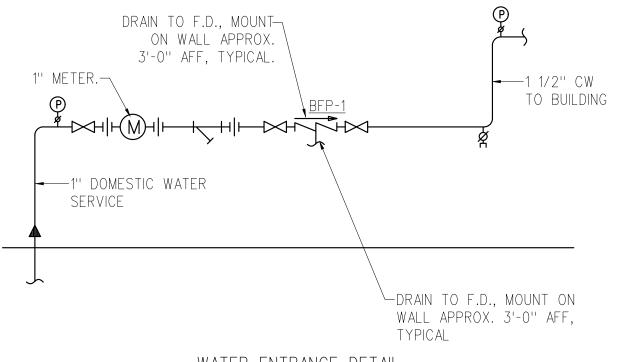
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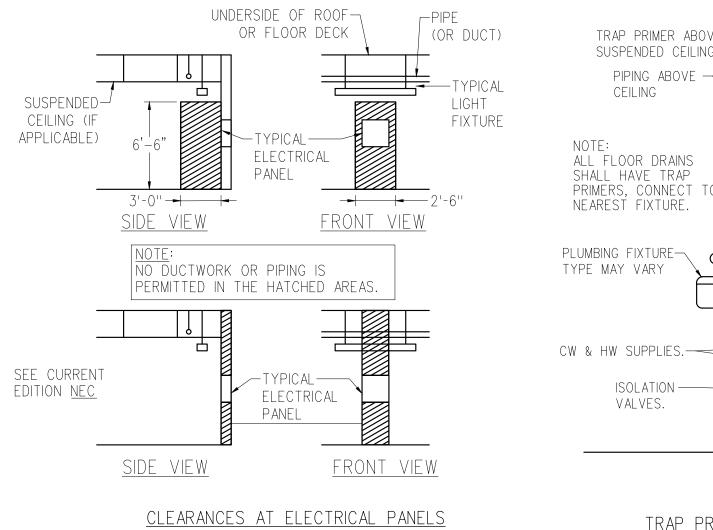


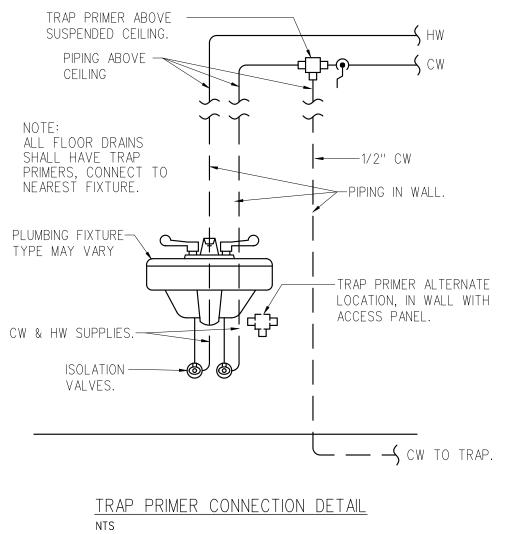


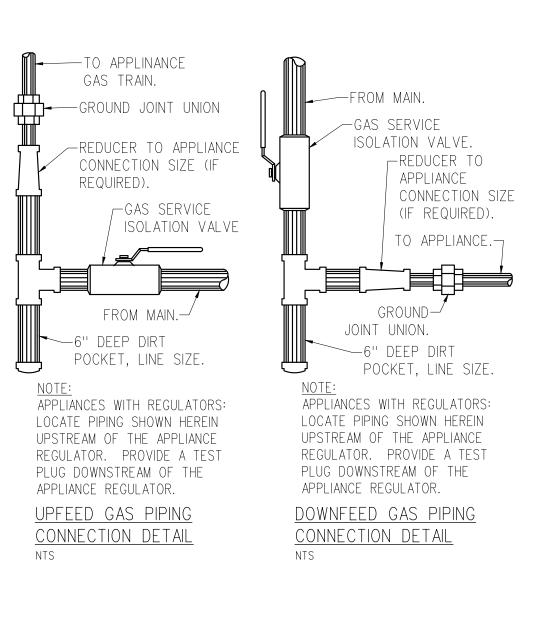
MECHANICAL PLAN

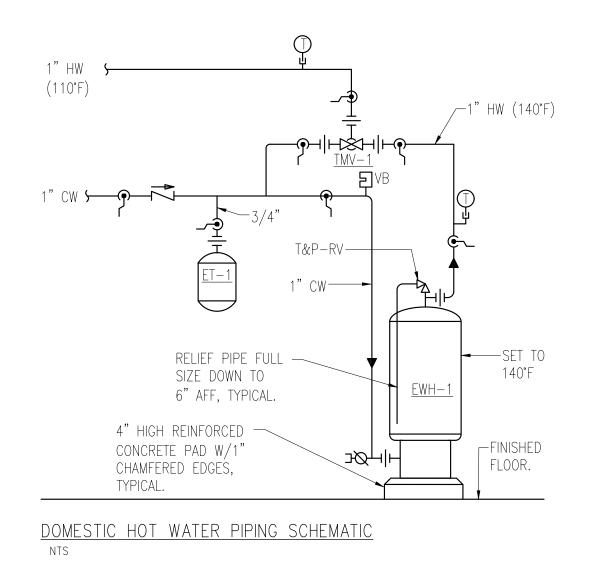


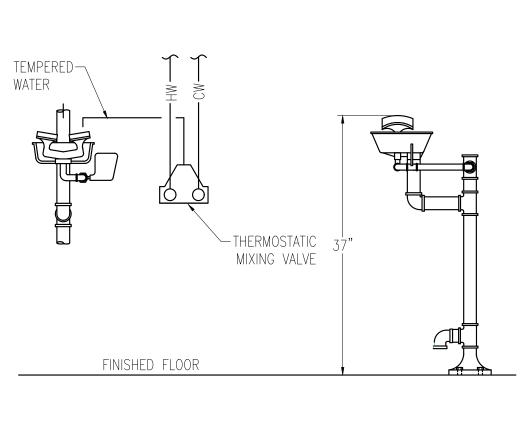
WATER ENTRANCE DETAIL









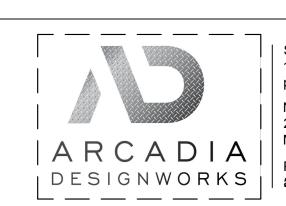


EMERGENCY EYEWASH DETAIL NTS

MECHANICAL AND PLUMBING SYMBOLS AND ABBREVIATIONS LEGEND NOTE - USE SYMBOLS AND ABBREVIATIONS AS APPLICABLE FOR THIS MECHANICAL DRAWING SET.

SOME SYMBOLS AND ABBREVIATIONS IN THIS LEGEND MAY NOT APPLY.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
—— CA——	COMPRESSED AIR PIPING (CA)		BACKFLOW PREVENTER (BFP)	<u>a</u> -5-	PRESSURE GAGE WITH GAGE COCK	AAV	AUTOMATIC AIR VENT	EAT	ENTERING AIR TEMPERATURE	HWS/R	HOT WATER SUPPLY AND RETURN	RLA	RUNNING LOAD AMPS
— C —	CONDENSATE DRAIN PIPING (C)		CHECK VALVE	\bigcirc \rightarrow	THERMOMETER IN WELL	AD	ACCESS DOOR	EDB	ENTERING DRY BULB	I=B=R	INSTITUTE OF BOILER AND	RPM	REVOLUTIONS PER MINUTE
—— CTR ——	COOLING TOWER RETURN PIPING (CTR)	\otimes	BALANCING VALVE (ADJUSTABLE)		WATER FLOW SWITCH	AFF	ABOVE FINISHED FLOOR	EDC-#	ELECTRIC DUCT COIL TAG	IN.	RADIATOR MANUFACTURERS	RPZ	REDUCED PRESSURE ZONE
—— CTS ——	COOLING TOWER SUPPLY PIPING (CTS)	•	AUTOMATIC FLOW CONTROL VALVE		PRESSURE SWITCH OR SENSOR	AHU-#	AIR HANDLING UNIT TAG	EER	ENERGY EFFICIENCY RATIO	IN.	INCHES	RTU	ROOM TEMPERATURE SENSOR
—— CWR ——	CHILLED WATER RETURN PIPING (CWR)		RELIEF VALVE (RV)	<u> </u>	EMURSION TEMPERATURE SENSOR	AMS	AIRFLOW MONITORING STATION	FF-#	EXHAUST FAN TAG	#	LOUVER TAG	RV	RELIEF VALVE
—— CWS —	CHILLED WATER SUPPLY PIPING (CWS)	\varnothing	BALL VALVE		DUCT MOUNTED SMOKE DETECTOR	AMPS	AMPERES	EFF	EFFICIENCY	LAT	LEAVING AIR TEMPERATURE	RWL	RAINWATER LEADER
—— FOR ——	FUEL OIL RETURN PIPING (FOR)	•	BALL VALVE	R	ROOM TEMPERATURE SENSOR	AP	ACCESS PANEL	ESP	EXTERNAL STATIC PRESSURE	LB	POUNDS	SA	SUPPLY AIR
——FOS —	FUEL OIL SUPPLY PIPING (FOS)	ØE	3/4" BALL VALVE WITH 3/4" HOSE END	$ \bigcirc $	THERMOSTAT OR SENSOR ON WALL	APD	AIR PRESSURE DROP	ET-#	EXPANSION TANK TAG	LWS/R	LOOP WATER SUPPLY/RETURN	SAN	SANITARY (DRAIN & WASTE)
— G —	GAS PIPING (G)		GATE VALVE	⊕ a	TSTAT OR SENSOR W/ TAMPERPROOF GUARI		AIR SEPARATOR TAG	EWB	ENTERING WET BULB	LRA	LOCKED ROTOR AMPS	SD	SMOKE DAMPER
——HWR——	HOT WATER RETURN PIPING (HWR)		PRESSURE REDUCING VALVE	\bigcirc	MANUAL AIR VENT	ATC	AUTOMATIC TEMPERATURE CONTROL	EWH-#	ELECTRIC WATER HEATER TAG	LWCO	LOW WATER CUTOUT	SEER	SEASONAL ENERGY EFFICIENCY RATIO
——HWS——	HOT WATER SUPPLY PIPING (HWS)	\bowtie	FUSIBLE VALVE	(2)	NOTE TAG (NUMBER)	BD-#	BYPASS DAMPER TAG	EWT	ENTERING WATER TEMPERATURE	LWT	LEAVING WATER TEMPERATURE	SF	SUPPLY FAN
—— RL ——	REFRIGERANT LIQUID PIPING (RL)		STRAINER W/BLOWDOWN BALL VALVE	(A) 250	AIR DEVICE TAG (LETTER) WITH CFM	BFP-#	BACKFLOW PREVENTER TAG	EXG	EXISTING	MAX	MAXIMUM	SP	STATIC PRESSURE
—— RG ——	REFRIGERANT GAS PIPING (RG)		2-WAY CONTROL VALVE	101	ROOM NUMBER	ВНР	BRAKE HORSEPOWER	EXH	EXHAUST	MBH	THOUSANDS OF BTU PER HOUR	\triangle T	TEMPERATURE DIFFERENTIAL
	SANITARY PIPING BELOW FLOOR (SAN)		SOLENOID VALVE	((((((TURNING VANES	BTUH	BRITISH THERMAL UNITS PER HOUR	FC	FLEXIBLE CONNECTION	MCA	MINIMUM CIRCUIT AMPACITY	TEMP.	TEMPERATURE
	SANITARY PIPING ABOVE FLOOR (SAN)		3-WAY CONTROL VALVE		DUCT W/MANUAL DAMPER	C C - #	COOLING COIL TAG	FCO	FLOOR CLEANOUT	MIN	MINIMUM	TCP	TEMPERATURE CONTROL PANEL
	SANITARY VENT PIPING	-1	3-WAY CONTROL VALVE (TOP VIEW)		DUCT W/FLEXIBLE CONNECTION (FC)	CRD	CEILING RADIATION DAMPER	FD	FIRE DAMPER	NC	NOISE CRITERION	TMV-#	THERMOSTATIC MIXING VALVE TAG
	RAINWATER LEADER ABOVE SLAB (RWL)		4-WAY CONTROL VALVE (TOP VIEW)		LAGGED DUCT	CFM	CUBIC FEET PER MINUTE	FD-#	FLOOR DRAIN TAG	NIC	NOT IN CONTRACT	TSP	TOTAL STATIC PRESSURE
	COLD WATER PIPING (CW)				DUCT W/ACOUSTIC LINING	СО	CLEANOUT	FLA	FULL LOAD AMPS	NTS	NOT TO SCALE	TYP	TYPICAL
	HOT WATER PIPING (HW)	무 그네는	2 BUTTERFLY VALVES W/SINGLE ACTUATOR	R	DUCT W/SQUARE-TO-ROUND TRANSITION	CP-#	CIRCULATING PUMP TAG	FPHB	FROST PROOF HOSE BIBB	ОА	OUTSIDE AIR	UH-#	UNIT HEATER TAG
			BUTTERFLY VALVE W/ACTUATOR	\sim	FLEXIBLE DUCT	Cv	VALVE COEFFICIENT	FPM	FEET PER MINUTE	OBD	OPPOSED BLADE DAMPER	VB	VACUUM BREAKER
]	PIPE CAP		TRIPLE-DUTY VALVE	MOD	MOTOR OPERATED DAMPER	CW	COLD WATER	FSD	COMBINATION FIRE & SMOKE DAMPER	O.D.	OUTSIDE DIAMETER	VFD	VARIABLE FREQUENCY DRIVE
_ _	DIRECTION OF FLUID FLOW	' ' 	UNION		AIRFLOW OUT	DB	DRY BULB	FT	FEET	OED	OPEN ENDED DUCT	VTR	VENT THRU ROOF
	ELBOW UP		PIPE FLANGE	─	AIRFLOW IN	dB RE	DECIBELS RELATIVE TO	GA.	GAGE	OPD	OVERCURRENT PROTECTIVE DEVICE	V/PH/HZ	VOLTS/PHASES/HERTZ
	ELBOW DOWN		PUMP WITH FLANGES	φ	DIAMETER OR FLAT OVAL	DC	DOUBLE CHECK	GAL	GALLONS	P-#	PLUMBING FIXTURE TAG	WB	WET BULB
	PIPE TEE UP		BASE MOUNTED PUMP		FIRE DAMPER	DCA	DOUBLE CHECK ATMOSPHERIC	GPH	GALLONS PER HOUR	PSIA	POUNDS PER SQUARE INCH ABSOLUTE	WCO	WALL CLEANOUT
 -	PIPE TEE DOWN	1.196.			ROUND OR FLAT OVAL DUCT DOWN	DEG F	DEGREES FAHRENHEIT	GPM	GALLONS PER MINUTE	PSIG	POUNDS PER SQUARE INCH GAGE	WG	WATER GAGE
	PIPE REDUCER		CARTRIDGE TYPE INLINE PUMP		ROUND OR FLAT OVAL DUCT UP	DIA	DIAMETER	HC-#	HEATING COIL TAG	PVC	POLYVINYL CHLORIDE (PIPE)	WPD	WATER PRESSURE DROP
	DIDE WITH CHIDE		VERTICAL INLINE PUMP		SUPPLY DIFFUSER	DIW	DOWN IN WALL	HP	HORSEPOWER	RA	RETURN AIR	WTD	WATER TEMPERATURE DROP
					RETURN GRILLE	DN	DOWN	HRV-#	HEAT RECOVERY VENTILATOR TAG	RD	ROOF DRAIN	W/	WITH
	MOTES 1. DIVICES SHAWNERS OF RESERVING AND ADDRESS AN	FC M	FLEXIBLE PIPE CONNECTION (FC)		STEAM TRAP	ΕA	EXHAUST AIR	HW	HOT WATER	RHW	RECIRCULATED HOT WATER		
l'	BUITERFLY VALVE I I I I I I I I I I I I I I I I I I I	as J Codes A	PITCH DOWN		WATER HAMMER ARRESTOR								
7	JO W I DITTL VILLE	O	PETCOCK	CBD	COUNTER BALANCE DAMPER								



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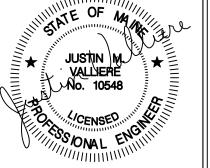


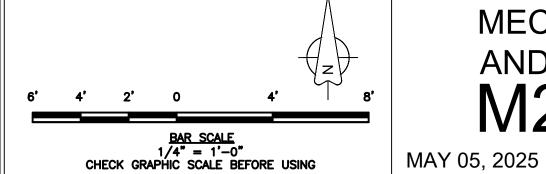


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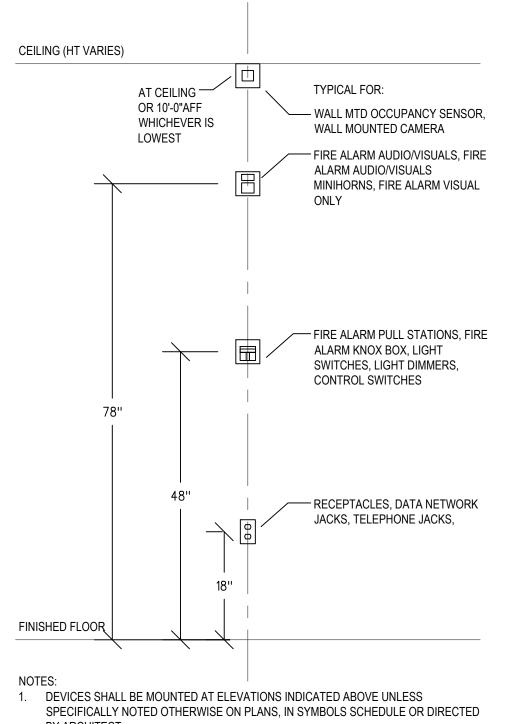
CBD —-- COUNTER BALANCE DAMPER







- WORK ACCORDINGLY. COMPLY WITH SPECIFICATIONS AND NOTES BELOW AS APPLICABLE. 2. ALL RECEPTACLES SHALL BE INSTALLED 18" AFF TO CENTERLINE OF BOX UNLESS NOTED OTHERWISE.
- 3. MOUNT PANELS IN RESIDENTIAL SPACES SO NO CIRCUIT BREAKER HANDLE IS HIGHER THAN 44" AFF.
- 4. ALL WIRING SHALL BE COPPER UNLESS DESIGNATED AS "AL". UNLESS OTHERWISE NOTED ALL WIRING SHALL BE 2 #12 AWG AND 1 #12 EQUIPMENT GROUNDING CONDUCTOR. HOMERUNS FED FROM A 20A/1P, 120V CIRCUIT IN EXCESS OF 70' SHALL BE #10 AWG.
- 5. CONNECT BATTERY BACKED EMERGENCY AND EXIT LIGHTING TO NEAREST LIGHTING CIRCUIT AHEAD OF ANY SWITCHING. CONNECT REMOTE HEADS WITH #10 AWG COPPER CONDUCTORS. AC EXIT FIXTURES SHALL BE CONNECTED TO NEAREST EMERGENCY
- CIRCUIT OR AS INDICATED. 6. TEST ALL EMERGENCY LIGHTING UNITS FOR PROPER OPERATION OF LAMPS AND
- 7. SEE MECHANICAL PLAN FOR HVAC UNITS, PUMPS AND FANS CONTROLLED BY THERMOSTATS (PROVIDED BY ATC CONTRACTOR).
- 8. FUSES AND OVERLOAD UNITS FOR MOTORS SHALL BE SIZED BASED ON ACTUAL MOTOR NAMEPLATE DATA AND IN ACCORDANCE WITH NEC. CIRCUIT BREAKERS FOR MOTORS ARE SUPPLIED AT MAX VALUE PER NEC (2.5 x FLA). SIZE IN THE FIELD IN ACCORDANCE WITH MFGR RECOMMENDATION.
- 9. ALL WORK SHALL COMPLY WITH NFPA70, NFPA72, NFPA101 & ALL FEDERAL, STATE & LOCAL REGULATIONS.
- 10. ALL PENETRATIONS THROUGH FLOORS, RATED WALLS AND PARTITIONS SHALL BE SEALED WITH UL APPROVED FIRE SEALANT MATERIAL TO MAINTAIN FIRE RATING FOR THE
- 11. ALL ENCLOSURES, CONDUIT BODIES AND THEIR COVERS CONTAINING FIRE ALARM SYSTEM CONDUCTORS SHALL BE PAINTED RED.
- 12. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH ALL FEEDERS AND BRANCH CIRCUITS, SIZE IN ACCORDANCE WITH NFPA 70 ARTICLE 250.
- 13. COORDINATE INSTALLATION OF VOICE/DATA OUTLETS WITH OWNER, MIS OR COMMUNICATIONS CONTRACTOR.
- 14. LOCATE DISCONNECTS AT EQUIPMENT AS REQUIRED BY MANUFACTURER. LOCATIONS ON
- DRAWINGS ARE APPROXIMATE. 15. PROVIDE RISER OR PLENUM RATED CABLES ABOVE SUSPENDED CEILINGS.
- 16. THE CONTRACTOR SHALL SET ALL ELECTRONIC BREAKERS TO SPECIFIED TRIP SETTINGS BEFORE ENERGIZING EQUIPMENT.
- 17. PROVIDE EXPANSION FITTINGS FOR ALL UNDERGROUND RACEWAYS ENTERING ENCLOSURES ATTACHED TO FIXED STRUCTURES.
- 18. OUTDOOR RECEPTACLE COVERS SHALL COMPLY WITH NFPA 70 ARTICLE 406.9. 19. ALL CONDUCTOR INSULATION FOR BUILDING WIRE SHALL BE THWN/THHN UNLESS NOTED
- 20. PROVIDE LABEL ON SERVICE EQUIPMENT INDICATING AVAILABLE SHORT CIRCUIT CURRENT
- OBTAIN VALUES FROM ENGINEER. 21. PROVIDE ARC FAULT LABELS PER NFPA 70-ARTICLE 110.24
- 22. OUTLETS INSTALLED IN FIRE RATED WALLS BACK TO BACK SHALL BE SEPARATED BY 24" MINIMUM OR BE PROTECTED WITH "PUTTY PADS" PER 2009 INTERNATIONAL BUILDING CODE SECTION 713.3.2.
- 23. PROVIDE AIR VAPRO BARRIER BOXES FOR WIRING DEVICES IN EXTERIOR WALLS AND INTERIOR SOUND CONTROL WALLS BETWEEN RESIDENT ROOMS. INSTALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE LESSCO MODEL NUMBER: VAPORBOX.
- 24. MINIMUM WIRE SIZE ON ALL BRANCH CIRCUITS SHALL BE #12.



- BY ARCHITECT.
- 2. WIRING DEVICES (DATA NETWORK JACKS, RECEPTACLES, ETC.) SHOWN SIDE BY SIDE ELECTRICAL PLANS SHALL BE MOUNTED IN A SINGLE BOX AND FACEPLATE. 3. LIGHTING SWITCHES AND DIMMERS SHOWN SIDE BY SIDE ON ELECTRICAL PLANS
- SHALL BE MOUNTED IN A SINGLE BOX AND FACEPLATE. 4. LOCATIONS OF ELECTRICAL DEVICES AND LIGHTING SWITCHES/DIMMERS ARE SHOWN SCHEMATICALLY ON ELECTRICAL PLANS. ALIGN DEVICES SHOWN ADJACENT TO ONE
- ANOTHER ON ELECTRICAL PLANS VERTICALLY AS SHOWN ABOVE. 5. MOUNTING HEIGHTS INDICATED ARE TO CENTERLINE OF DEVICE.

DEVICE ALIGNMENT DETAIL

∖ E0.0 */* SCALE: NONE

199 prospect street, suite A portland, maine 04101

ABBREVIATIONS

ALUMINUM

AMP TRIP

AWG AMERICAN WIRE GAUGE

CIRCUIT BREAKER

CMU CONCRETE MASONRY UNIT

DAMP LOCATION

EXHAUST FAN

EXISTING RELOCATE

FURNISHED WITH UNIT

GAS UNIT HEATER

HOA HAND-OFF-AUTOMATIC

HORSEPOWER

HERTZ

GROUND FAULT INTERRUPTER

DC DIRECT CURRENT

GND GROUND

EXISTING REMOVE

EUH ELECTRIC UNIT HEATER

ELECTRICAL CONTRACTOR

EXISTING REMAINS IN PLACE

CAST IRON

CENTERLINE

AUTOMATIC TEMPERATURE CONTROL

AUTOMATIC TRANSFER SWITCH

ADA

AFCI

AFF

AFG

ΑT

ATC

ATS

CB

CI

CU

DL

EF

ER

ERL

ERM

FWU

GFI

GUI

HP

HΖ

ICB

JB

KVA

KW

LCP

BLDG BUILDING

C CONDUIT

CKT CIRCUIT

AMP		LP	LIGHTING PANELBOARD
ALTERNATING CURRENT, ABO'	VE COUNTER	LTG	LIGHTING
AMERICANS WITH DISABILITIES	S ACT	LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, GROUND FAULT CIRCUIT
AMP FRAME			BREAKER TRIP FUNCTIONS AS INDICATED
ARC FAULT CIRCUIT INTERRU	PTER	MCC	MOTOR CONTROL CENTER
ABOVE FINISHED FLOOR		MCCB	MOLDED CASE CIRCUIT BREAKER
ABOVE FINISHED GRADE		MCB	MAIN CIRCUIT BREAKER
AMPERES INTERRUPTING CAP	ACITY	MDP	MAIN DISTRUBITION PANEL

MH

MLO MAIN LUGS ONLY MTS MANUAL TRANSFER SWITCH NORMALLY CLOSED OF NURSE CALL NEC NATIONAL ELECTRICAL CODE NFPA NATIONAL FIRE PROTECTION ASSOCIATION

MANHOLE

- NIGHT LIGHT NORMALLY OPEN NUMBER OVERLOAD POLE
- CMP CENTRAL MAINE POWER (ELECTRIC UTILITY) PA PUBLIC ADDRESS PUSH BUTTON
- CT CURRENT TRANSFORMER PF POWER FACTOR CONC CONCRETE PH PHASE CS CARBON STEEL PNL PANEL COPPER
- TP1-2 TELE/POWER POLE POLE & CIRCUIT NUMBER AS INDICATED CUH CABINET UNIT HEATER PSNH PUBLIC SERVICE OF NEW HAMPSHIRE (ELECTRIC UTILITY)
 - PΤ POTENTIAL TRANSFORMER PVC POLYVINYL CHLORIDE ELECTRICAL EQUIPMENT TO BE RELOCATED
 - ELECTRICAL EQUIPMENT TO REMAIN RSC RIGID STEEL CONDUIT
 - RTU ROOF TOP UNIT ELECTRICAL EQUIPMENT TO REMOVE RVNR REDUCED VOLTAGE, NON-REVESING
- EWH ELECTRICAL WATER HEATER FACP FIRE ALARM CONTROL PANEL SMART BOARD FAPS FIRE ALARM PULL STATION SF SUPPLY FAN
- SLD SINGLE LINE DIAGRAM FIBER REINFORCED PLASTIC FVNR FULL VOLTAGE, NON-REVERSING SM MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD DEVICE, MOUNTED AT UNIT
 - SOLID STATE SWBD-1 SWITCHBOARD NUMBER AS DESIGNATED
 - TIME CLOCK TS TRANSFER SWITCH
 - T&B TOP AND BOTTOM TYP TYPICAL UG UNDERGROUND
- HPS HIGH PRESSURE SODIUM VOLT VOLT-AMPERE INSULATED CASE CIRCUIT BREAKER
 - VARIABLE FREQUENCY DRIVE JUNCTION BOX VFD THOUSAND AMP INTERRUPTING CAPACITY WATT W
 - WITH THOUSAND CIRCULAR MIL WEATHERPROOF THOUSAND VOLTS XFMR TRANSFORMER THOUSAND VOLT-AMPS XP EXPLOSION PROOF THOUSAND WATTS (KILOWATT)
- THREE PHASE LIGHTING CONTACTORS 4W FOUR WIRE LATERAL CONTROL PIT THREE WIRE LED LIGHT EMITTING DIODE

LP-1 200A (EXISTING) 120/208 3PH BAY BUILDING ____ (1) 2" CDT- (4) #1, 1 #6 GND (1) 2" CDT - SPARE GENERATOR [PLUG (EXTERIOR) - (1) 2" CDT- (4) #1, 1 #6 GND (1) 2" CDT - SPARE 100A 120/208 3PH

ONE-LINE DIAGRAM

REVISIONS:

SCALE: NONE

E0.0

MAINE

SYMBOL LEGEND

POWER SYMBOLS

- ELECTRICAL PANELBOARD, SEE DRAWING FOR DETAILS
- CONTROL PANEL, SEE DRAWING FOR DETAILS
- JUNCTION BOX OH = OVERHEAD DOOR
- TAMPER-PROOF, DUPLEX RECEPTACLE, 20A, 125V, SPEC GRADE, GROUNDING TYPE, FLUSH MOUNTED IN FLOOR, PROVIDED W/MATCHING FACEPLATE,
- TAMPER-PROOF, DUPLEX RECEPTACLE, 20A, 208V, SPEC GRADE, GROUNDING TYPE, SURFACE MOUNTED ON UNISTRUT FOR FUTURE GROW LIGHTS
- ARC-FAULT RATED, TAMPER-PROOF, DUPLEX RECEPTACLE, 20A, 125V, SPEC GRADE, GROUNDING TYPE, FLUSH MOUNTED, PROVIDED W/MATCHING FACEPLATE,
 - DW = DISHWASHERGD = GARBAGE DISPOSAL
- ARC-FAULT RATED, GFCI RATED, TAMPER-PROOF, DUPLEX RECEPTACLE 20A, 125V, SPEC GRADE, GROUNDING TYPE, FLUSH MOUNTED, PROVIDED W/MATCHING FACEPLATE
 - AC = MOUNTED W/IN 6" OF COUNTERTOPWP = WEATHERPROOF RECEPTACLE W/IN AN IN-USE WEATHER-PROOF COVER
- DISCONNECT SWITCH, SIZE AND NUMBER OF POLES AS INDICATED ON DRAWING. PROVIDED BY EC UNLESS NOTED OTHERWISE. PROVIDE FUSES WHERE RECOMMENDED BY MANUFACTURER.

TELECOMMUNICATIONS SYMBOLS

- ▼ TELECOM DUAL JACK W/CAT 6 CABLE RUN BACK TO LOW VOLTAGE WIRING BOX WITHIN UNIT CLOSET. MOUNT 18"AFF UNLESS OTHERWISE NOTED
- WN (P) WIFI ROUTER CONNECTION, TELECOM JACK W/CAT 6 CABLE RUN BACK TO TBB, MOUNT ABOVE CEILING OR AT 12" BELOW CEILING AS DIRECTED BY ARCHITECT
- LOW VOLTAGE WIRING BOX W/IN UNIT
- POE CAMERA LOCATION. PROVIDE CAT 6 CABLE AND CDT PUNCHED DOWN AND READY FOR FOR VENDOR TO INSTALL CAMERA. RUN CAT 6 CABLE BACK TO CLOSEST NETWORK SERVER RACK.

LIGHTING SYMBOLS

LIGHTING FIXTURES, LETTERS DENOTE TYPE PER LIGHTING FIXTURE SCHEDULE. C1 🔾

SELF CONTAINED EMERGENCY LIGHT W/2 HEADS DUAL-LITE (LED) MODEL LZ25NI-03L, 25 WATTS FOR 90 MINUTES, COLOR BY ARCHITECT

EXIT/ EMERGENCY LIGHT COMBO, DUAL-LITE No EVCU-R-D4-I OR APPROVED EQUAL COLOR BY ARCHITECT

LIGHTING CONTROL SYMBOLS

- PROVIDE POWER PACKS, SENSORS AND RELAYS NEEDED TO CONTROL CIRCUITS IN CEILING MOUNTED DUAL TECHNOLOGY MOTION SENSOR (WATTSTOPPER OR EQUAL) SPACES INDICATED. DEVICES SHALL PROVIDE FULL COVERAGE IN AREAS INSTALLED. DT INDICATES DUAL TECHNOLOGY PIR INDICATED PASSIVE INFRARED TECHNOLOGY
- $\$_{3a}\$_{4}$ Single pole switch, 120V, 20A, spec grade, grounding type, mount 48" aff, 3=3-way, 4=4-way, lower case letter indicates fixture or controlled load.
- D^{5}_{D3} Single pole Dimmer Switch, 120V, 20A, SPEC GRADE, GROUNDING TYPE, MOUNT 48" AFF, 3=3-WAY, 4=4-WAY, LOWER CASE LETTER INDICATES FIXTURE OR CONTROLLED LOAD.

WIRING SYMBOLS

 RACEWAY & WIRING OR MC CABLE RUN
CONCEALED IN WALLS/CEILINGS
 RACEWAY & WIRING RUN EXPOSED
 RACEWAY & WIRING RUN CONCEALED
UNDER FLOOR OR BURIED 30" BELOW
FINISH GRADE

CIRCUIT NUMBER

(1)1/2"C-2#12AWG+1#12GND UNLESS OTHER WISE NOTED. (*)ASTERISK DENOTED #10AWG FOR ALL CIRCUITS CONTAINED IN HOME RUN. (**)DOUBLE ASTERISK DENOTES (1)3/4"C-2#8AWG+1#10GND.

BRANCH CIRCUIT WIRING SHALL CONSIST OF

PROVIDE EQUIPMENT GROUNDS IN ACCORDANCE WITH → HP-XX HOME RUN TO PANEL, WITH PANEL AND NFPA 70, ARTICLE 250.

LIGHT FIXTURE SCHEDULE

TYPE	MANUFACTURER AND MODEL NUMBER	LAMP INFO	REMARKS
Ι Δ	BEACON LIGHTING QSP1-24L-25-3K7-3-277-PSS-SCP	25W/3000K/ 2640 LUMENS	EXTERIOR SURFACE MOUNT WALL PACK FIXTURE, TYPE 3 DISTRIBUTION, ZERO UPLIGHT DARK SKY COMPLIANT. OCCUPANCY SENSOR AND INTEGRAL BATTERY BACKUP. FINISH; PLATINUM SILVER SMOOTH.
	COOPER LIGHTING SL-4'	6W/ft /3000K/ 503 LUMENS	SURFACE MOUNTED LINEAR SIGN LIGHT. EXTRUDED ALUMINUM HOUSING, ACRYLIC SHIELDING. UNIVERSAL VOLTAGE REMOTE DRIVER (TO BE INSTALLED INDOORS). WET LOCATION RATED.
l G	CURRENT LIGHTING GEHE-V-XXX-4-X-N-2-	VARIES	SURFACE MOUNTED HORTICULTURE GROW LIGHT. CONTRACTOR TO COORDINATE WITH OWNER ON LIGHT SPECTRUM SELECTION. CONTRACTOR TO COORDINATE PLUG TYPE AND MOUNTING.
l I	COLUMBIA LIGHTING MPS8-30XW-CW-EU + CM48SCF3-KIT	36.2W/3500K/ 5146 LUMENS	PENDANT MOUNT 8' LINEAR UTILITY LIGHT. CODE GAUGE STEEL HOUSING, FROSTED LENS. FOR PENDANT MOUNTED PURCHASE WITH ACCESSORY CM48SCF3-KIT FOR 48" ADJUSTABLE CABLE MOUNTING KIT.
1 11	COLUMBIA LIGHTING W3B4-35VW-SFA-ED-U	23W/3500K/ 3171 LUMENS	SURFACE MOUNT ON WALL 4' LINEAR UTILITY LIGHT. EXTRUDED ALUMINUM HOUSING, WITH THERMOPLASTIC ALUMINUM ENDCAPS. FROSTED WRAPPED ACRYLIC LENS. FINISH: WHITE

		, , , , , , , , , , , , ,	<u>, ,</u>	, 20	2000		, , , , , , , , , ,		IEMA TYPE 1 (SURFACE)						
CKT#	LOAD DESCRIPTION	AT	Р	СА	DF	DA	VA	CKT#	LOAD DESCRIPTION	АТ	Р	CA	DF	DA	V۸
1	SPARE	30	3	25	0.50	13	1501 1501	2	GROW LIGHTS	20	2	16	1.00	16	192 192
5 7							1501 1921	6	GROW LIGHTS	20	2	16	1.00	16	192 192
9	GROW LIGHTS	20	2	16	1.00	16	1921	10	PRODUCTION RECEPTACLES	20	1	6	1.00	6	72
11 13	GROW LIGHTS	20	2	16	1.00	16	1921 1921		PRODUCTION RECEPTACLES PRODUCTION RECEPTACLES	20 20	1	6	1.00 1.00	6	72 72
15	IT RECEPTACLE	20	1	3	1.00	3	360	16	NUTRIENT TANK RECEPTACLES	20	1	3	1.00	3	36
17	CURTAIN MOTORS	20	1	4	1.00	4	480	18	SINK RECEPTACLES	20	1	3	1.00	3	36
19	WALL VENT MOTORS	20	1	4	1.00	4	480	20	GENERAL RECEPTACLES	20	1	4	1.00	4	48
21	GENERAL LIGHTING	20	1	6	1.00	6	721	22	IT EQUIPMENT RECEPTACLES	20	1	4	1.00	4	48
23	ROOF VENT MOTOR	20	1	5	1.00	5	600	24	GENERAL LIGHTING	20	1	6	1.00	6	72
	UH-1	15	1	5	1.00	5	648		EXTERIOR WALL PACKS	20	1	10	1.00	10	12
	CP-1 & CP-2	15	1	4	1.00	4	480		EXTERIOR SIGN LIGHT	20	1	10	1.00	10	12
	B-1	15	1		1.00	0	0		SPARE	20	1		1.00	0	(
	SPARE	15	1		1.00	0	0		SPARE	20	1		1.00	0	(
	SPARE	20	1		1.00	0	0		SPARE	20	1		1.00	0	(
	SPARE	20	1		1.00	0	0		SPARE	20	1		1.00	0	(
	SPARE	20	1		1.00	0	0		SPARE	20	1		1.00	0	(
	SPARE	20	1		1.00	0	0	40	SPARE	20	1		1.00	0	C
41	SPARE	20	1		1.00	0	0	42	SPARE	20	1		1.00	0	(

Panel Voltage 208 30.61 Total Demand KVA Tot Demand Amps 84.97

P - Poles A - Amps CA - Connected Amperes DF - Demand Factor (1 - .1) DA - Demand Amperes VA-VoltAmps

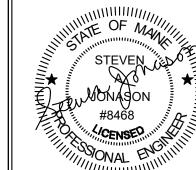
MLO - Main Lug Only MCB - Main Circuit Breaker

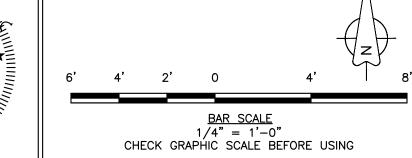
AT - Amp Trip

HORTICULTURE GREENHOUSE

SOUTHERN MAINE COMMUNITY COLLEGE

SOUTH PORTLAND, MAINE





GENERAL NOTES AND **DETAILS**

JUNE 24, 2025

NORTH BENNETT 22 balsam drive Millinocket, maine 04462 ARCADIA **ENGINEERING** PH: 207.347.5252 & DESIGNWORKS MECHANICAL • ELECTRICAL **20**7a**7i4:01.9Si06**works.com (207) 865-9475

GENERAL NOTES - SITE ELECTRICAL

1. THE COMPLETE INSTALLATION SHALL CONFORM WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, CODES AND ORDINANCES, INCLUDED BUT NOT LIMITED TO APPROVED EDITIONS OF THE FOLLOWING: NATIONAL ELECTRICAL SAFETY CODE (ANSI C2): NATIONAL ELECTRICAL CODE (NFPA 70): OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) AND ALL AMENDMENTS THERETO. NOTHING CONTAINED IN THE DRAWINGS AND SPECIFICATIONS SHALL BE CONSTRUED TO CONFLICT WITH THESE LAWS, CODES, AND ORDINANCES, AND THEY ARE THEREBY INCLUDED IN THESE SPECIFICATIONS. OBTAIN PERMITS AND REQUEST INSPECTIONS FROM ALL AUTHORITIES HAVING JURISDICTION. COMPLY WITH ALL POWER, TELEPHONE, CABLE TELEVISION PROVIDER REGULATIONS AND STANDARDS.

2. THE FOLLOWING ELECTRICAL WORK SHALL BE PERFORMED UNDER THIS CONTRACT: UNDERGROUND CONDUIT, FITTINGS, AND ALL DEVICES; PROVISION OF UNDERGROUND CONDUIT AND WIRE TO SERVE NEW SUBPANEL IN NEW STRUCTURE;

3. PROVIDE UNDERGROUND ELECTRICAL WARNING TAPE: 6" WIDE PLASTIC TAPE, COLORED RED WITH SUITABLE LEGEND DESCRIBING BURIED ELECTRICAL LINES FOR ALL UNDERGROUND CONDUITS. LOCATE 6 INCHES BELOW FINISHED GRADE.

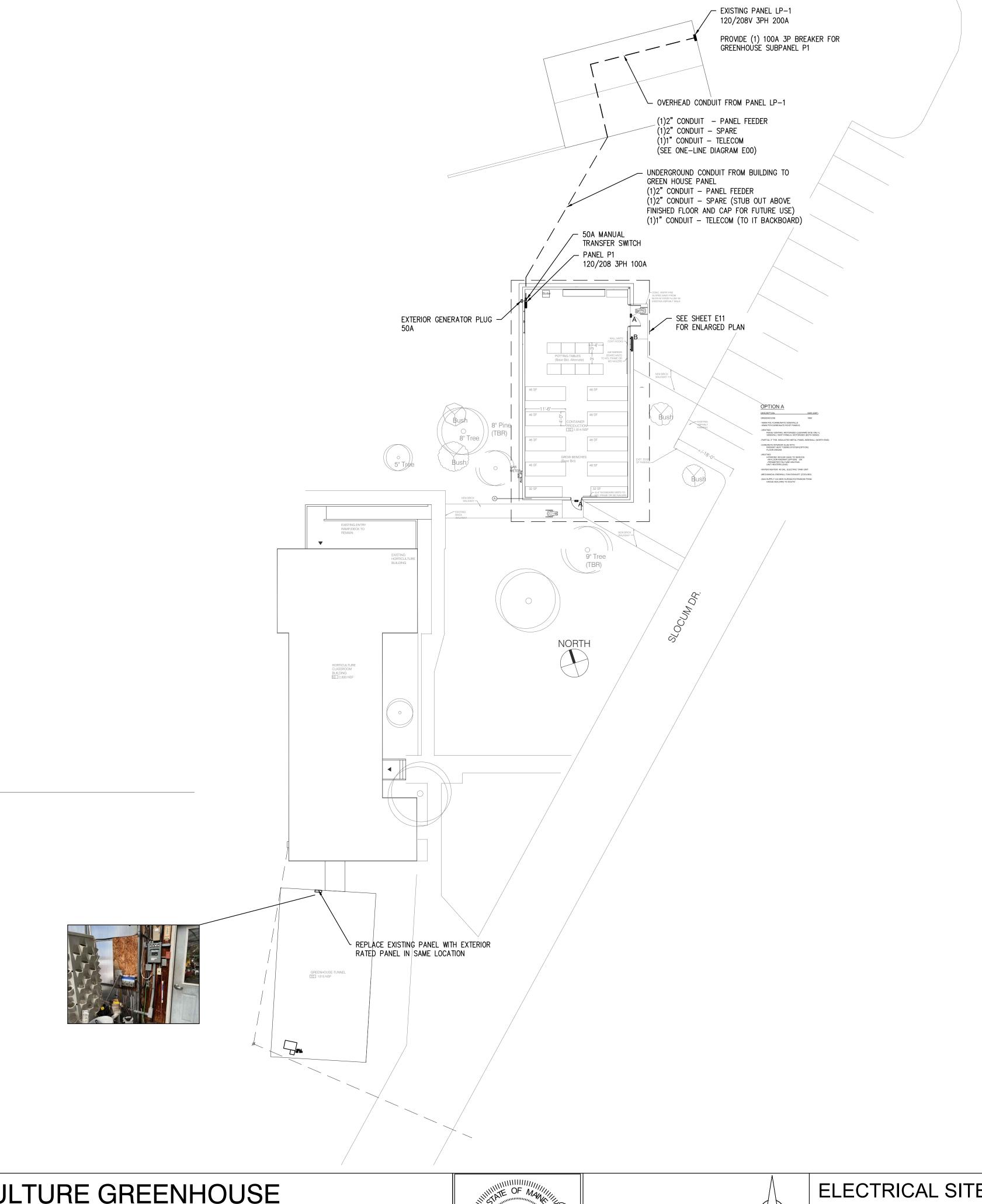
4. REFER TO CIVIL DRAWINGS FOR EXCAVATION AND BACKFILL OF ALL UNDERGROUND WORK.

5. EXISTING UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD VERIFIED. CONTRACTORS SHALL CONTACT DIG SAFE BEFORE BEGINNING ANY EXCAVATIONS.

6. UNDERGROUND CONDUIT SHALL BE SCHED 40 PVC. ABOVE GRADE CONDUIT SHALL BE RGS. ALL CONDUIT SWEEPS SHALL BE RGS LONG SWEEPS.

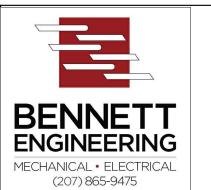
7. PROVIDE EXPANSION FITTINGS FOR ALL UNDERGROUND CONDUIT CONNECTED TO FIXED ABOVE GROUND STRUCTURES.

8. REFER TO ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION.





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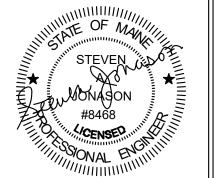


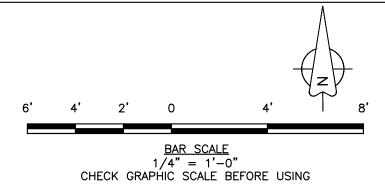


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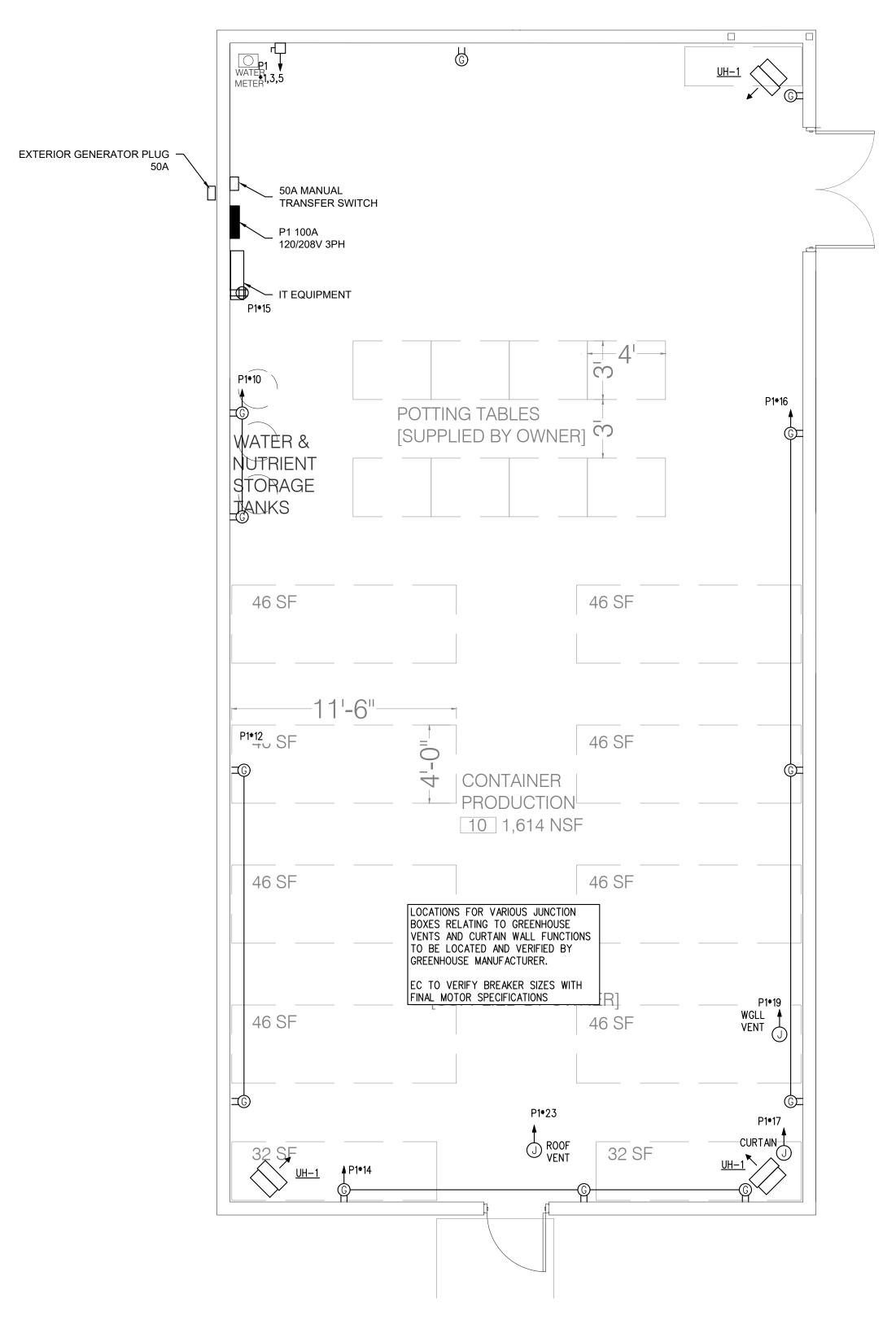


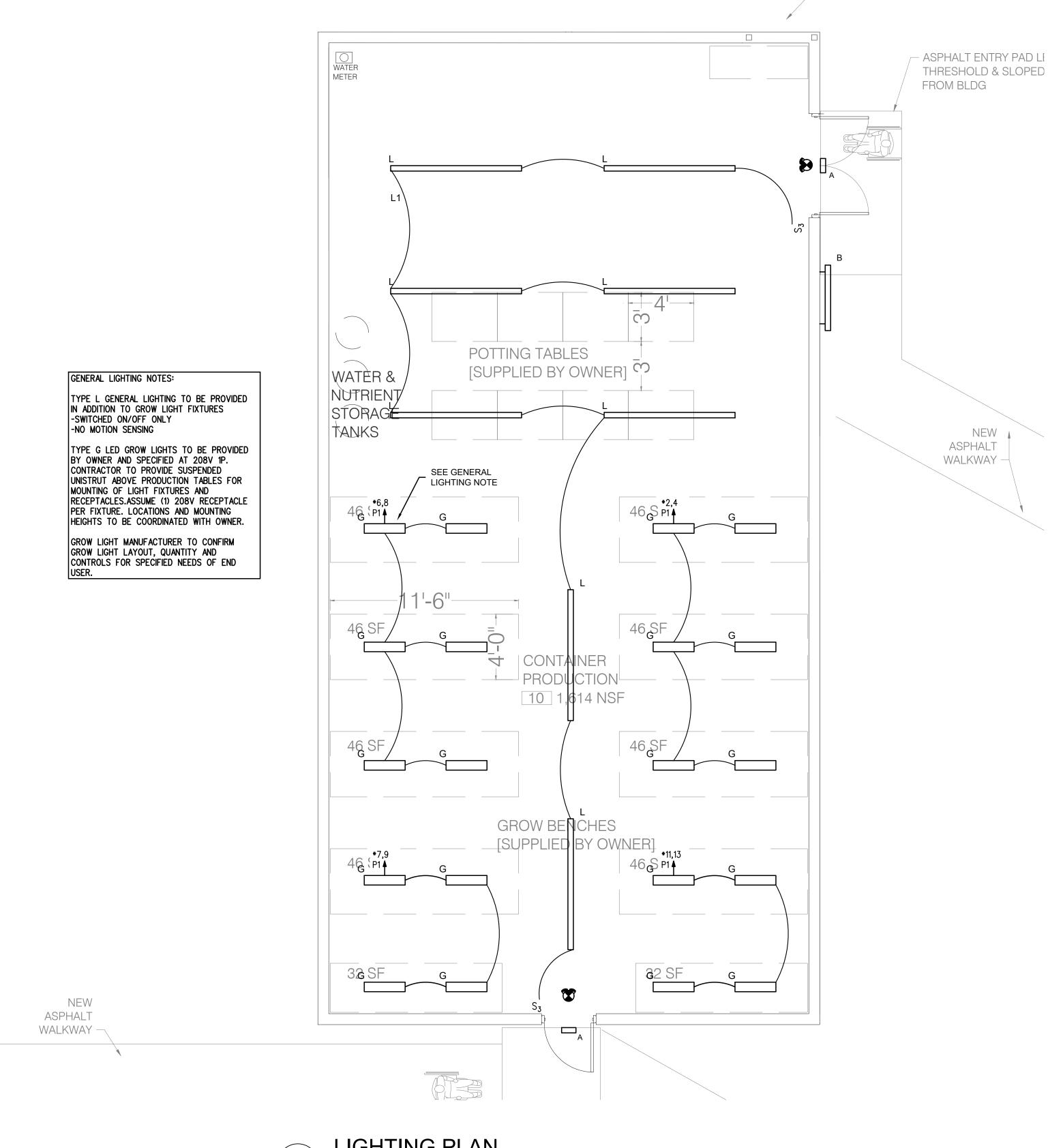
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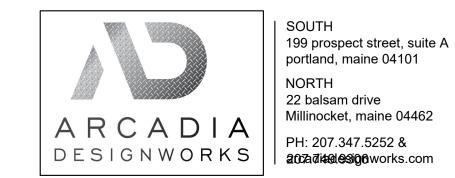
ELECTRICAL SITE PLAN

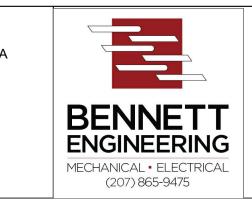






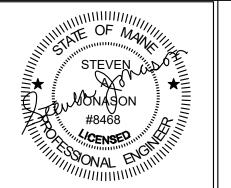


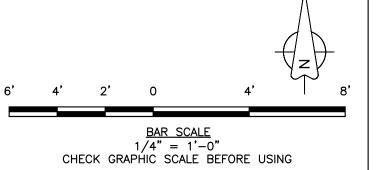












ELECTRICAL AND LIGHTING PLANS