

4 December 2019

Dexter Legg, Planning Board Chair City of Portsmouth 1 Junkins Avenue Portsmouth, NH 03801

RE: Request for Design Review at 60 Penhallow Street, Brick Market, Redevelopment Site Plan

Dear Mr. Legg and Planning Board Members:

On behalf of Mark McNabb and Dagny Taggart, LLC we are pleased to submit the attached plan set for **Planning Board Design Review** for the above-mentioned project at your December 19, 2019 Planning Board Meeting. The project includes proposed new construction of a 4 story commercial building to be known as 60 Penhallow Street with the associated required site improvements. The site is currently a surface parking lot at the corner of Penhallow and Daniel Streets, on the opposite corner of the McIntire Building. The site redevelopment offers and excellent opportunity to link the McIntire Building site with Market Square by creating public access across the submitted and adjacent properties owned by the applicant and known as Tax Map 107, Lots 27 and 31. The Board considered this project at a Conceptual Consultation on November 21, 2019. The comments we received, specifically in regards to the Community Space Plan, have been incorporated into this submission.

We seek Planning Board input herein under **Planning Board Design Review** and request that the Board determine that there is sufficient information to accept the plans as presented and schedule a Public Hearing for the next Planning Board meeting.

The following plans are included in our submission:

- Cover Sheet This shows the Development Team, Legend, Site Location, and Site Zoning.
- Standard Boundary Survey Plan and Easement Plan These plans show the existing property boundaries and property easements on the entire Community Development Area.
- Master Plan Exiting Conditions This plan shows the existing features and boundary of the Development Area.
- Master Plan Community Space This plan shows the 30 % of the Development Area that will be dedicated as Community Space.

- Existing Conditions Plan C1 This plan shows the existing conditions on the property.
- Demolition Plan C2 This plan shows site preparation for construction.
- Site Layout Plan C3 This plan shows the proposed site development at 60 Penhallow in detail with the associated Zoning Calculations.
- Landscape Plans These plans shows Site Landscape and Hardscape for the proposed development.
- Utility Plan C4 This plan shows proposed site utilities.
- Grading and Drainage Plan C5 This plan shows proposed site grading and drainage features. We reviewed possible flow mitigation options, given the increase to covered area. Understanding the desire to provide a site covered with appropriate urban useable space amenities (i.e. walkways and pedestrian areas) the increase is a part of the fabric of creating this Community Space. There is some space that will be rededicated to a Pocket Park (design in progress).
- Offsite Improvements C6 This plan shows the offsite improvements at Pleasant Street.
- Floor Plan A0.01 This plan shows the building First Floor Level.
- Exterior Elevation Plan A0.02 & A0.03 These plan shows the proposed building exterior elevations.
- First and Second Parking Floor Plans A0.00A and A0.00B These plans show the two parking decks within the building that will provide underground parking to service the building.
- Lighting Plans These plans show the proposed lighting design.

Also included herewith are the following to assist in the review of the project: Façade Glazing Calculations, Green Building Statement, Trip Generation Report, Trash Chutes Example, Community Space Example Deed, Drainage Analysis (Front End Report), and a Lighting Schedule and Lighting Cut Sheets.

We look forward to the Planning Boards review of this submission and feedback on the proposed design. We request that the Board schedule a Public Hearing for the next Planning Board meeting

Sincerely,

John R. Chagnon, PE

CC: Mark McNabb, Tracy Kozak, Robbi Woodburn, FX Bruton

SITE REDEVELOPMENT

BRICK MARKET

60 PENHALLOW STREET PORTSMOUTH, NEW HAMPSHIRE PLANNING BOARD DESIGN REVIEW

PORTSMOUTH ZONING BOARD: PENDING

PROPOSED

PORTSMOUTH HDC: APPROVED 11-13-19

PERMIT LIST:

LEGEND:

EMOTITO	THOI OULD		
		PROPERTY LINE	
		SETBACK	
s	видиническия S исполнять	SEWER PIPE	
SL	SL	SEWER LATERAL	
G	— G —	GAS LINE	
D	D	STORM DRAIN	
w	w	WATER LINE	
ws	ws	WATER SERVICE	
UGE		UNDERGROUND ELECTRIC	
OHW	—— OHW ——	OVERHEAD ELECTRIC/WIRES	
Onw	UD	FOUNDATION DRAIN	
		EDGE OF PAVEMENT (EP)	
100	100	CONTOUR	
97x3	98x0	SPOT ELEVATION	
	•	UTILITY POLE	
min min		WALL MOUNTED EXTERIOR LIGHTS	
		TRANSFORMER ON CONCRETE PAD	
		ELECTRIC HANDHOLD	
450 cgo	450 GS0	SHUT OFFS (WATER/GAS)	
\bowtie	GV	GATE VALVE	
•	+++HYD	HYDRANT	
CB CB	СВ	CATCH BASIN	
(S)	SMH	SEWER MANHOLE	
(6)	DMH	DRAIN MANHOLE	
	TMH	TELEPHONE MANHOLE	
14	14	PARKING SPACE COUNT	
(PM)		PARKING METER	
LSA	V V V V	LANDSCAPED AREA	
TBD	TBD	TO BE DETERMINED	
CI	CI	CAST IRON PIPE	
COP	COP	COPPER PIPE	
DI	DI	DUCTILE IRON PIPE	
PVC	PVC	POLYVINYL CHLORIDE PIPE	
SSO	GV HYD GB SMH M M M M M M M M M M M M	ELECTRIC HANDHOLD SHUT OFFS (WATER/GAS) GATE VALVE HYDRANT CATCH BASIN SEWER MANHOLE DRAIN MANHOLE TELEPHONE MANHOLE PARKING SPACE COUNT PARKING METER LANDSCAPED AREA TO BE DETERMINED CAST IRON PIPE COPPER PIPE DUCTILE IRON PIPE	

REINFORCED CONCRETE PIPE

ASBESTOS CEMENT PIPE

TEMPORARY BENCH MARK

VITRIFIED CLAY PIPE

EDGE OF PAVEMENT

FINISHED FLOOR

ELEVATION

SLOPE FT/FT

INVERT

TYPICAL

PLANNING BOARD DESIGN REVIEW **BRICK MARKET 60 PENHALLOW STREET** PORTSMOUTH, N.H.

TYP



RCP

INV

TBM

TYP

AMBIT ENGINEERING, INC. Civil Engineers & Land Surveyors 200 Griffin Road - Unit 3 Portsmouth, N.H. 03801-7114 Tel (603) 430-9282 Fax (603) 436-2315

PLAN SET SUBMITTAL DATE: 3 DECEMBER 2019

OWNER: DAGNY TAGGART, LLC APPLICANT:

MCNABB PROPERTIES, LTD 30 PENHALLOW ST. STE 300 EAST PORTSMOUTH, NH 03801 (603) 427-0725

CIVIL ENGINEER & LAND SURVEYOR:

AMBIT ENGINEERING, INC. 200 GRIFFIN ROAD, UNIT 3 PORTSMOUTH, N.H. 03801 Tel. (603) 430-9282 Fax (603) 436-2315

STRUCTURAL ENGINEER:

JSN ASOCIATES, LLC 1 AUTUMN STREET PORTSMOUTH NH, 03801 TEL.(603) 433-8639

MEP & FIRE PROTECTION:

PETERSEN ENGINEERING 127 PARROTT AVENUE PORTSMOUTH NH, 03801 TEL.(603) 436-4233

LIGHTING DESIGNER:

J&M LIGHTING DESIGN, INC. PO BOX 4 WOODLAND AVENUE KENNEBUNKPORT ME, 04046-1659 TEL.(207) 967-5223

ATTORNEY:

FX BRUTON BRUTON & BERUBE, PLLC 601 CENTRAL AVENUE DOVER, NH 03820 (603) 749-4529

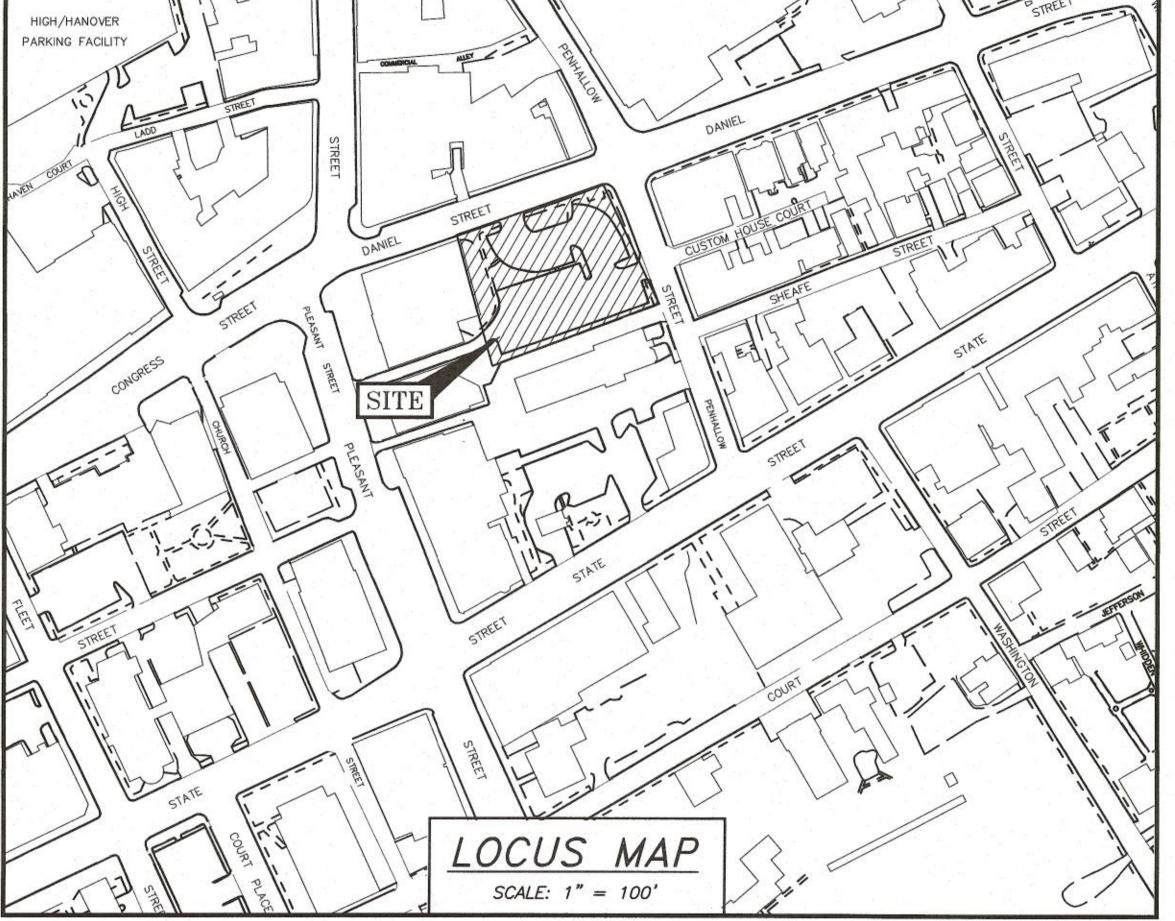
LANDSCAPE ARCHITECT:

WOODBURN & COMPANY 103 KENT PLACE NEWMARKET, NH 03857 TEL. (603) 659-5949 FAX (603) 659-5939

ARCHITECT:

JSA ARCHITECTS 273 CORPORATE DRIVE SUITE 100 PORTSMOUTH NH 03801 TEL. (603) 436-2551 FAX (603) 436-6973

GEOTECHNICAL ENGINEER:



DIG SAFE

CABLE:

COMCAST

155 COMMERCE WAY

ATTN: MIKE COLLINS

PORTSMOUTH, N.H. 03801

Tel. (603) 679-5695 (X1037)

18 COTE AVENUE #11 GOFFSTOWN NH 03045 TEL. (603) 624-2722

Downtown Overlay District SITE MRO HANCOCKST GATES ST GRB CHARACTER DISTRICT LINE

PORTSMOUTH APPROVAL CONDITIONS NOTE: ALL CONDITIONS ON THIS PLAN SET SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE CITY OF PORTSMOUTH SITE PLAN REVIEW REGULATIONS.

APPROVED BY THE PORTSMOUTH PLANNING BOARD

CHAIRMAN

DATE

INDEX OF SHEETS

DWG No. STANDARD BOUNDARY SURVEY

> EASEMENT PLAN MASTER PLAN - EXISTING CONDITIONS

MASTER PLAN - COMMUNITY SPACE EXISTING CONDITIONS PLAN

DEMOLITION PLAN SITE LAYOUT PLAN

Map 10.5A21A **Character Districts**

Historic District

CD4 Character District 4

CD4-W Character District 4-W

CD4-L1 Character District 4-L1

CD4-L2 Character District 4-L2

Character Districts

Civic District

Civic District

Municipal District

Municipal District

LANDSCAPE PLANS UTILITY PLAN

GRADING & DRAINAGE PLAN OFFSITE IMPROVEMENTS

ARCHITECTURAL PLANS AND ELEVATION ARCHITECTURAL PARKING PLANS LIGHTING PLANS

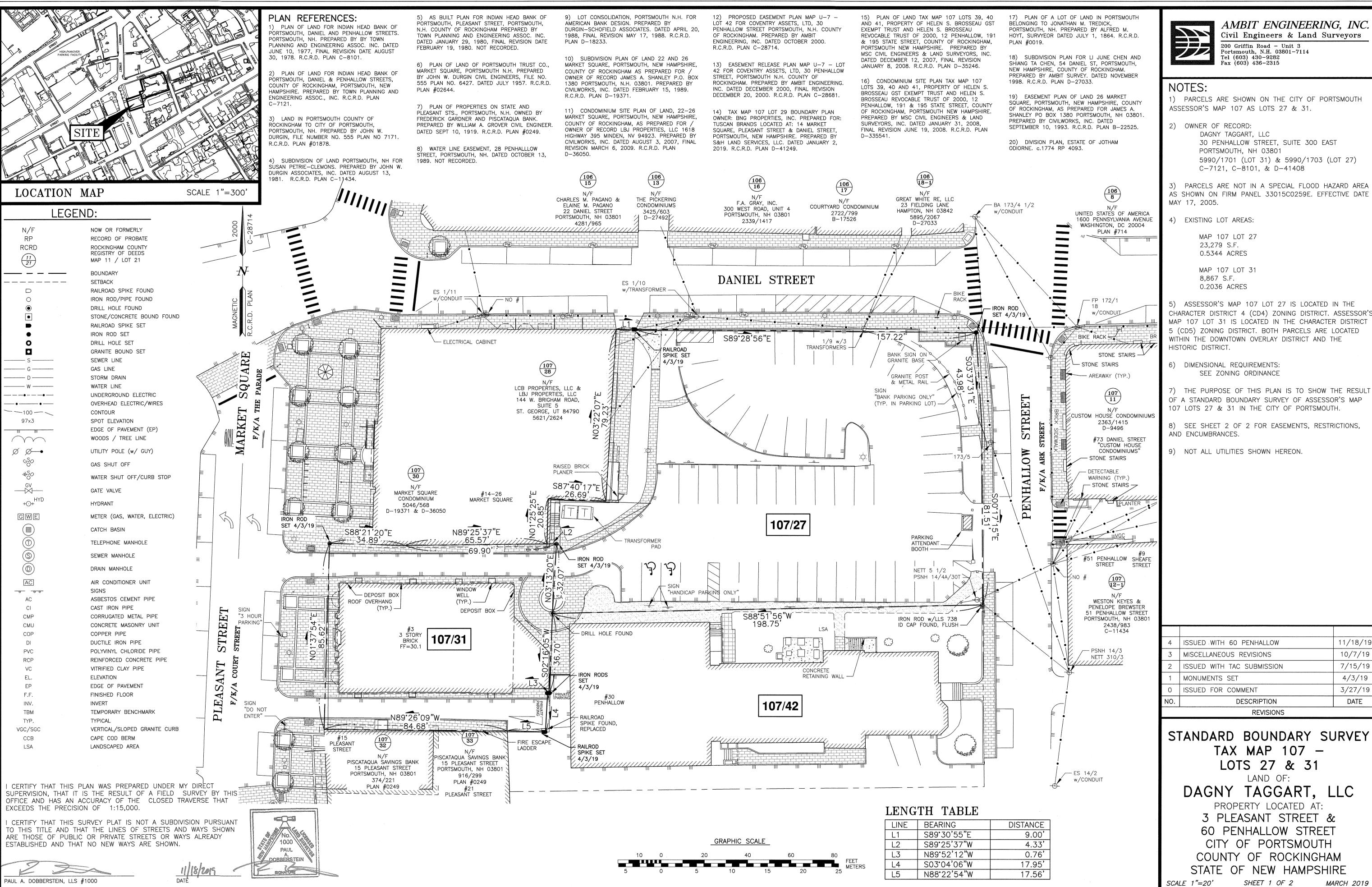
UTILITY CONTACTS

ELECTRIC: EVERSOURCE 1700 LAFAYETTE ROAD PORTSMOUTH, N.H. 03801 Tel. (603) 436-7708, Ext. 555.5678 ATTN: MICHAEL BUSBY, P.E. (MANAGER)

SEWER & WATER: PORTSMOUTH DEPARTMENT OF PUBLIC WORKS 680 PEVERLY HILL ROAD PORTSMOUTH, N.H. 03801 Tel. (603) 427-1530 ATTN: JIM TOW

NATURAL GAS: 325 WEST ROAD PORTSMOUTH, N.H. 03801 Tel. (603) 294-5144 ATTN: DAVE BEAULIEU

COMMUNICATIONS: FAIRPOINT COMMUNICATIONS JOE CONSIDINE 1575 GREENLAND ROAD GREENLAND, N.H. 03840 Tel. (603) 427-5525



Civil Engineers & Land Surveyors 200 Griffin Road - Unit 3 Portsmouth, N.H. 03801-7114

1) PARCELS ARE SHOWN ON THE CITY OF PORTSMOUTH

30 PENHALLOW STREET, SUITE 300 EAST 5990/1701 (LOT 31) & 5990/1703 (LOT 27)

3) PARCELS ARE NOT IN A SPECIAL FLOOD HAZARD AREA AS SHOWN ON FIRM PANEL 33015C0259E. EFFECTIVE DATE

5) ASSESSOR'S MAP 107 LOT 27 IS LOCATED IN THE CHARACTER DISTRICT 4 (CD4) ZONING DISTRICT. ASSESSOR'S MAP 107 LOT 31 IS LOCATED IN THE CHARACTER DISTRICT 5 (CD5) ZONING DISTRICT. BOTH PARCELS ARE LOCATED WITHIN THE DOWNTOWN OVERLAY DISTRICT AND THE

7) THE PURPOSE OF THIS PLAN IS TO SHOW THE RESULT OF A STANDARD BOUNDARY SURVEY OF ASSESSOR'S MAP 107 LOTS 27 & 31 IN THE CITY OF PORTSMOUTH.

8) SEE SHEET 2 OF 2 FOR EASEMENTS, RESTRICTIONS,

9) NOT ALL UTILITIES SHOWN HEREON.

		DEMICIONIC	
N	10.	DESCRIPTION	DATE
(0	ISSUED FOR COMMENT	3/27/19
	1	MONUMENTS SET	4/3/19
2	2	ISSUED WITH TAC SUBMISSION	7/15/19
	3	MISCELLANEOUS REVISIONS	10/7/19
4	4	ISSUED WITH 60 PENHALLOW	11/18/19

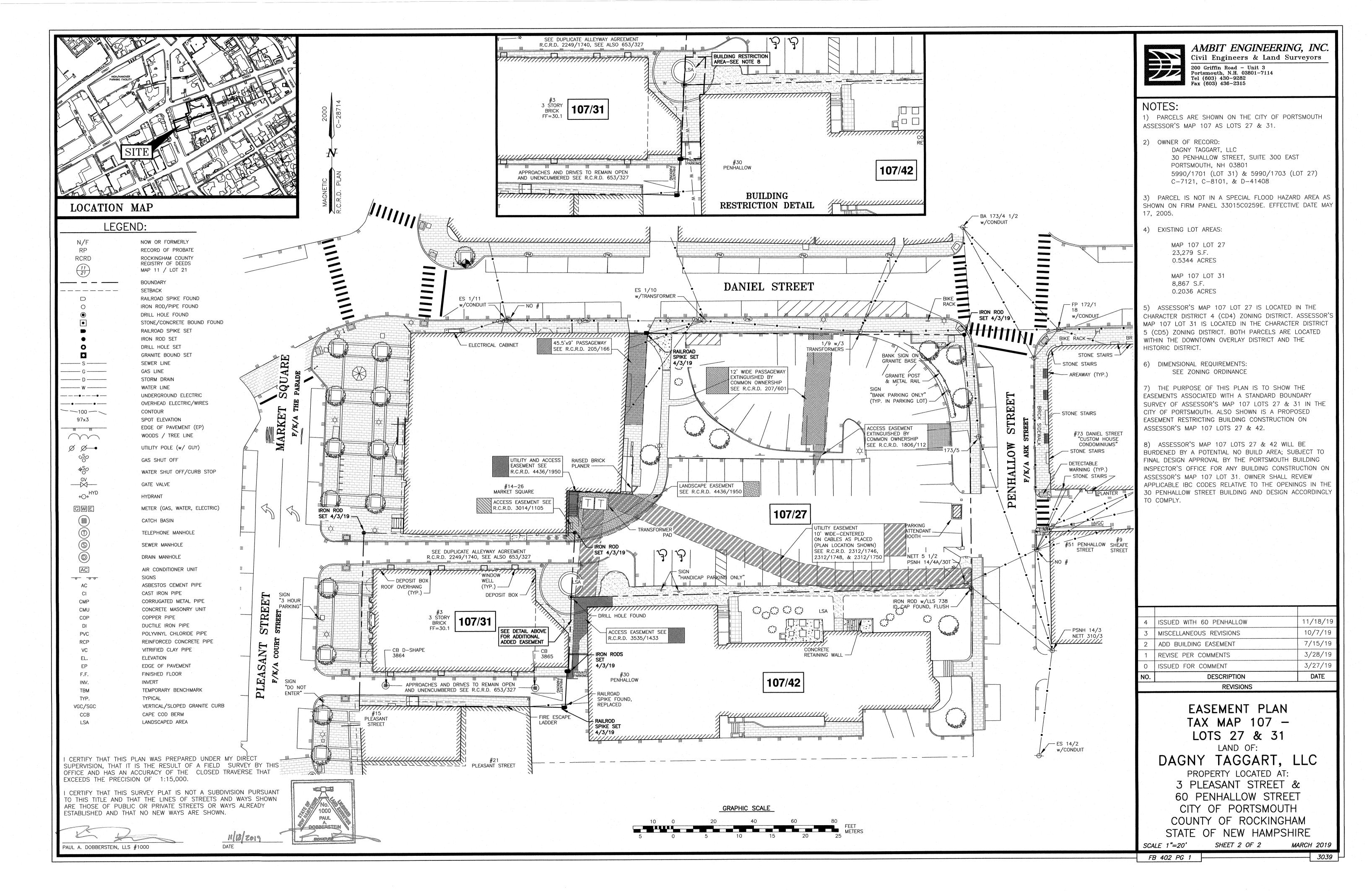
STANDARD BOUNDARY SURVEY TAX MAP 107 -LOTS 27 & 31

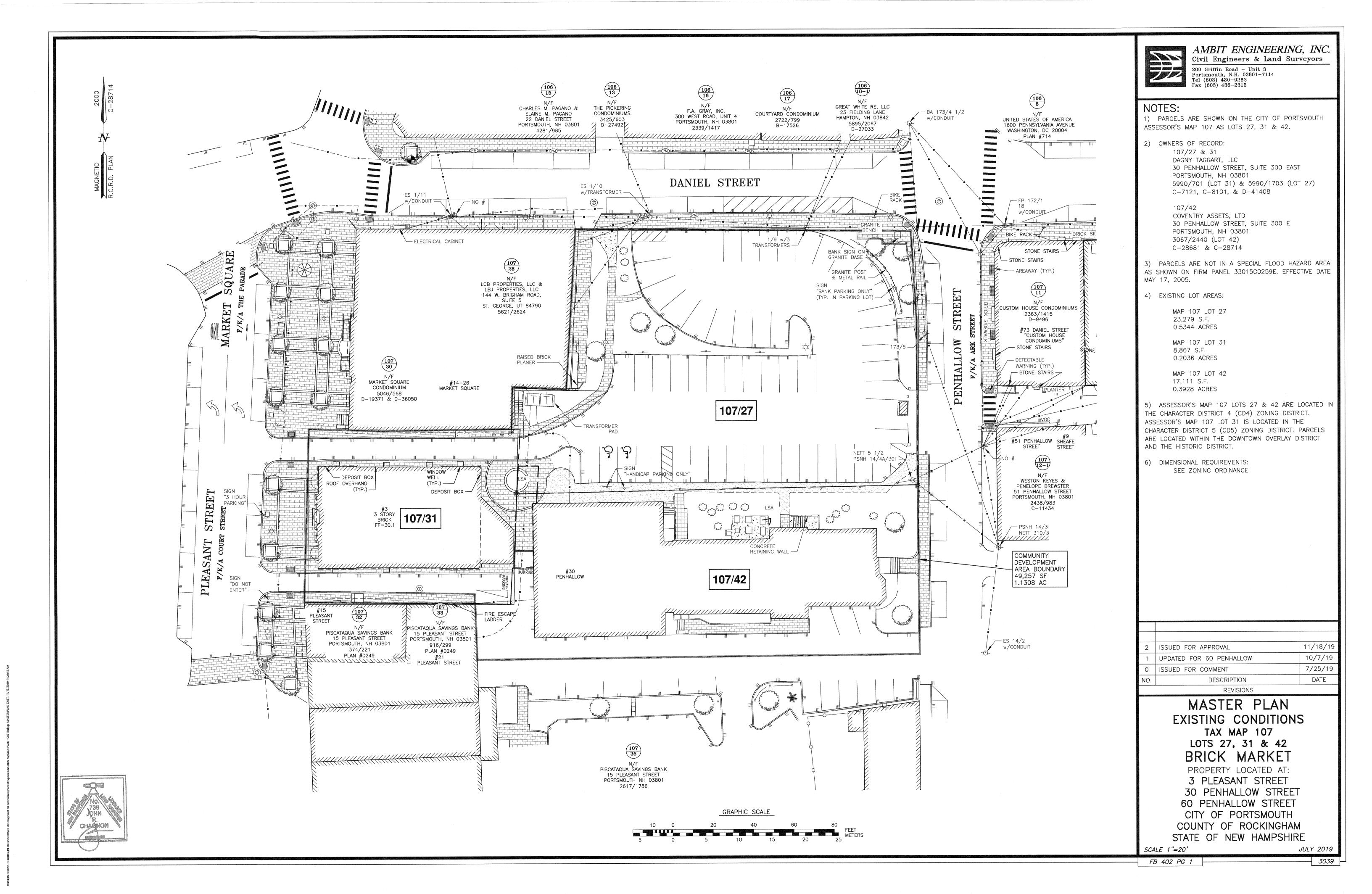
DAGNY TAGGART, LLC

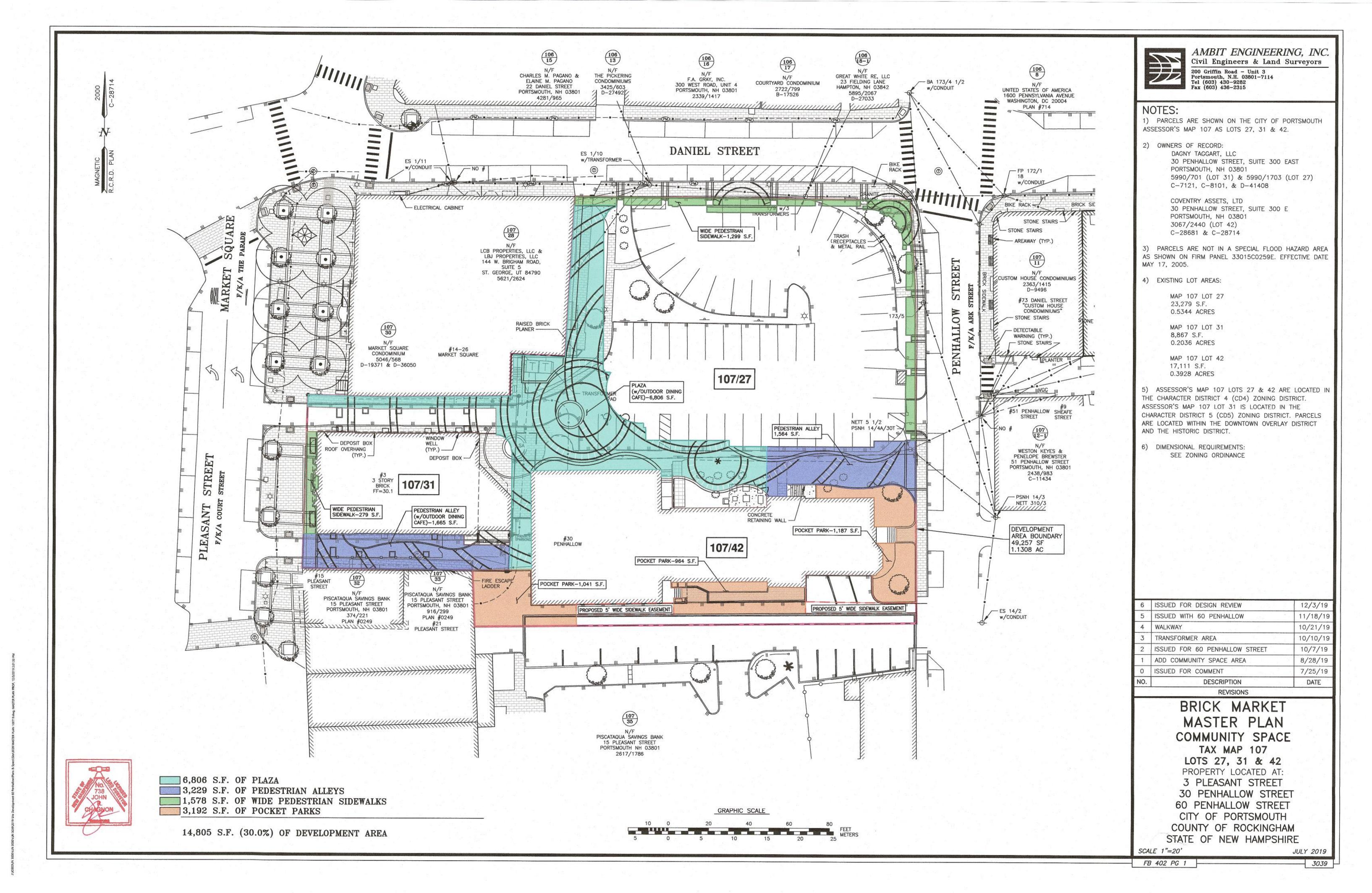
3 PLEASANT STREET & 60 PENHALLOW STREET CITY OF PORTSMOUTH COUNTY OF ROCKINGHAM STATE OF NEW HAMPSHIRE

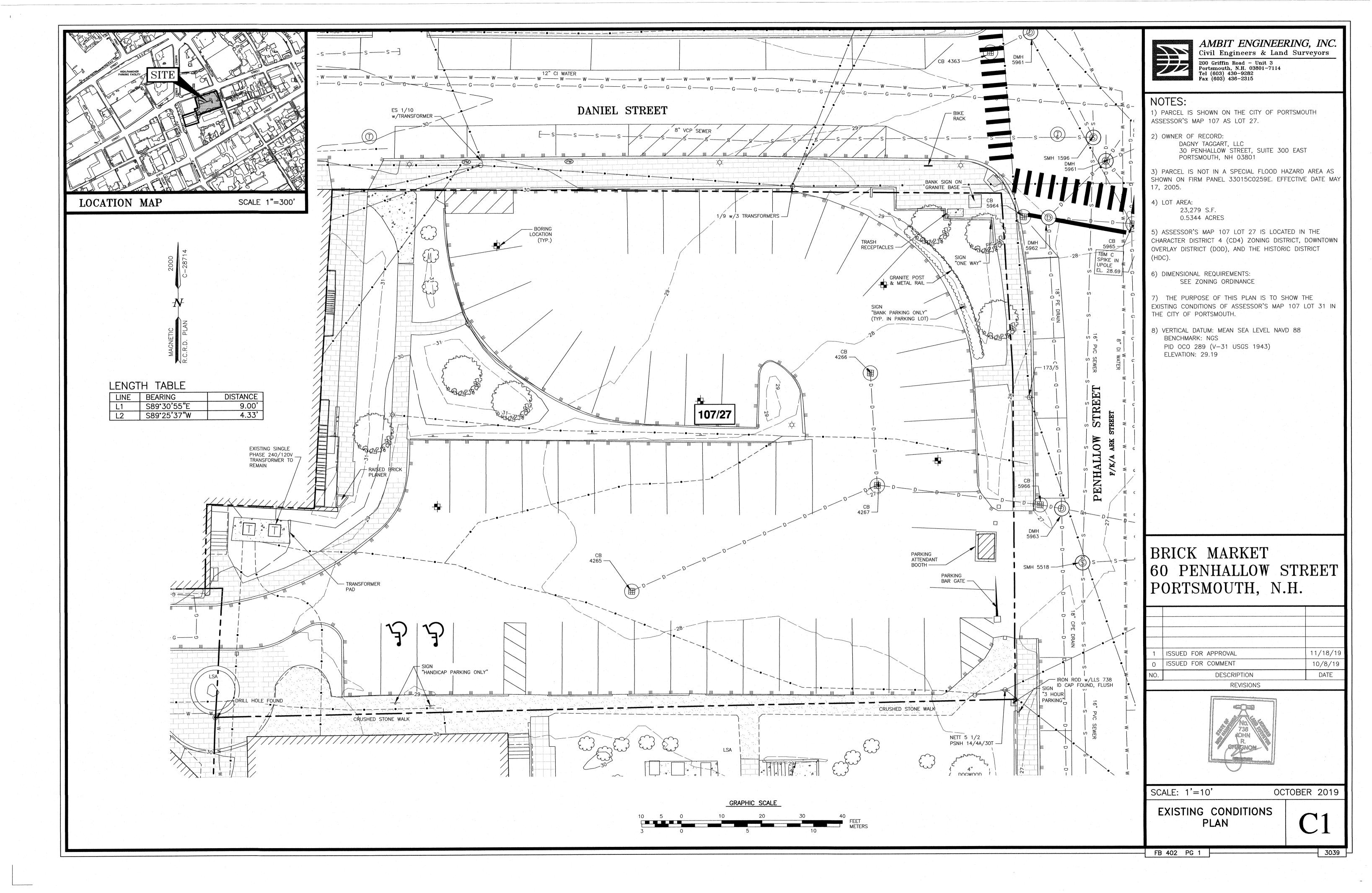
MARCH 2019

FB 402 PG 1

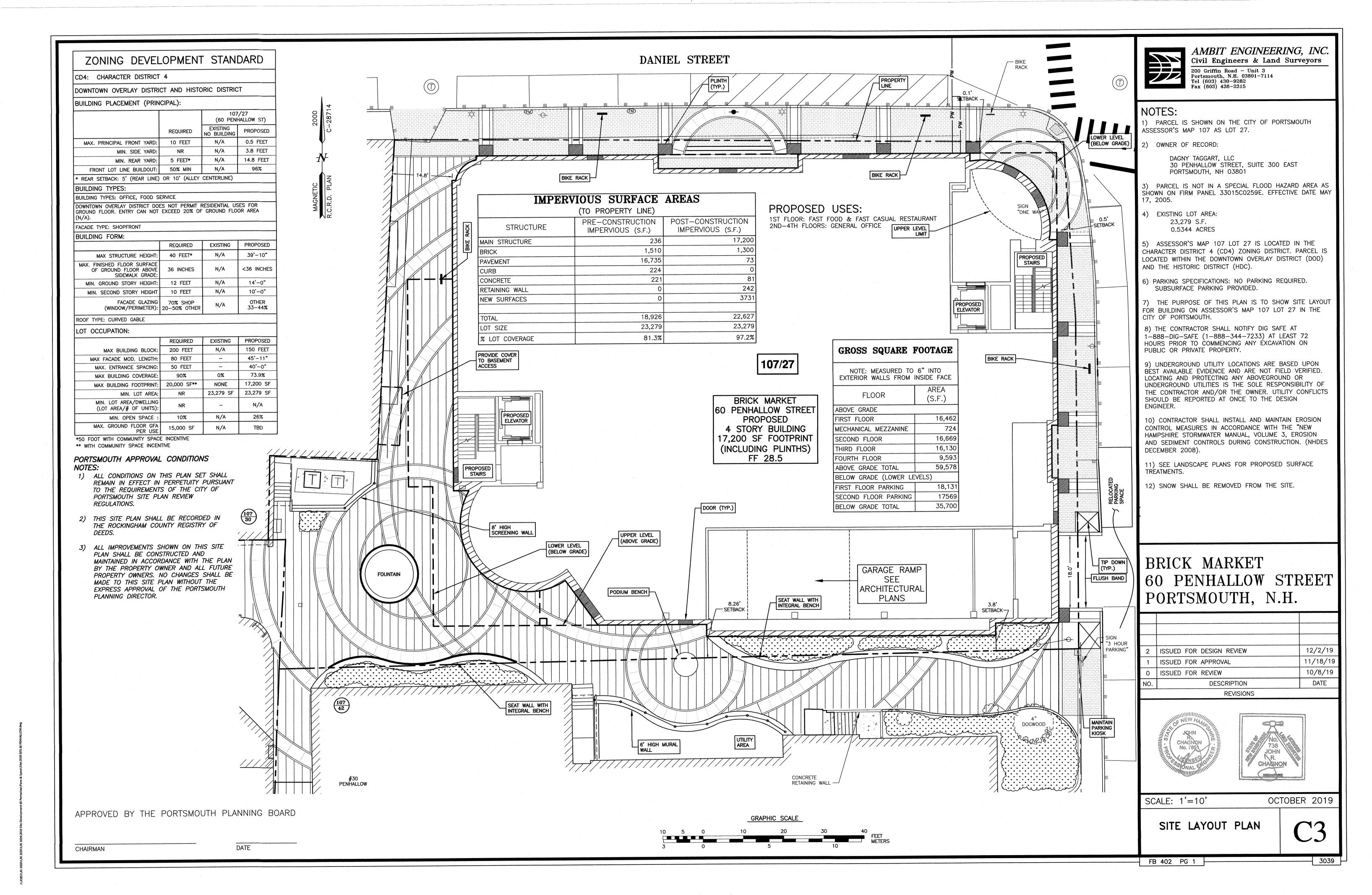








AMBIT ENGINEERING, INC. Civil Engineers & Land Surveyors 200 Griffin Road - Unit 3 Portsmouth, N.H. 03801-7114 **DEMOLITION NOTES** Tel (603) 430-9282 Fax (603) 436-2315 A) THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE DESIGNER. IT IS THE NOTES: CONTRACTORS' RESPONSIBILITY TO LOCATE UTILITIES AND ANTICIPATE CONFLICTS. CONTRACTOR SHALL REPAIR DANIEL STREET EXISTING UTILITIES DAMAGED BY THEIR WORK AND ES 1/10 1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT RELOCATE EXISTING UTILITIES THAT ARE REQUIRED TO BE w/TRANSFORMER -RACK 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 RELOCATED PRIOR TO COMMENCING ANY WORK IN THE HOURS PRIOR TO COMMENCING ANY EXCAVATION ON IMPACTED AREA OF THE PROJECT. REMOVE PARKING METERS AS NEEDED PUBLIC OR PRIVATE PROPERTY. TIP DOWN DURING CONSTRUCTION. RETURN METERS RELOCATE B) ALL MATERIALS SCHEDULED TO BE REMOVED SHALL TO REMAIN TO DEPARTMENT OF PUBLIC WORKS, THEN BIKE RACK BECOME THE PROPERTY OF THE CONTRACTORS UNLESS 2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON RE-INSTALL UPON COMPLETION OF WORK OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL LOCATING AND PROTECTING ANY ABOVEGROUND OR FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF AND CODES. THE CONTRACTOR SHALL COORDINATE THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS REMOVAL, RELOCATION, DISPOSAL, OR SALVAGE OF ____ UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY SHOULD BE REPORTED AT ONCE TO THE DESIGN GRANITE BASE COMPANY. C) ANY EXISTING WORK OR PROPERTY DAMAGED OR RECEPTACLES -3) CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION DISRUPTED BY CONSTRUCTION/ DEMOLITION ACTIVITIES CONTROL MEASURES IN ACCORDANCE WITH THE "NEW SHALL BE REPLACED OR REPAIRED TO THE ORIGINAL TREE TO 1/9 w/3 TRANSFORMERS — HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION EXISTING CONDITIONS BY THE CONTRACTOR AT NO CONCRETE AND SEDIMENT CONTROLS DURING CONSTRUCTION. (NHDES ADDITIONAL COST TO THE OWNER. REMOVED TREE TO REMOVED DECEMBER 2008). TRASH RECEPTACLE BRICK, CURB, D) THE CONTRACTOR SHALL VERIFY LOCATION OF ALL REMOVED TO BE RETURNED TO SIGN AND ONE WAY SIGN EXISTING UTILITIES AND CALL DIG SAFE AT LEAST 72 DEPARTMENT OF BENCHES TO BE TO BE RETURNED TREES TO BE HOURS PRIOR TO THE COMMENCEMENT OF ANY PUBLIC WORKS REMOVED REMOVED DEMOLITION/CONSTRUCTION ACTIVITIES. OF PUBLIC WORKS E) SAWCUT AND REMOVE PAVEMENT ONE FOOT OFF REMOVED -PROPOSED EDGE OF PAVEMENT OR EXISTING CURB LINE ALL PAVEMENT & METAL RAIL IN AREAS WHERE PAVEMENT TO BE REMOVED ABUTS IN LOT TO BE REMOVED EXISTING PAVEMENT OR CONCRETE TO REMAIN. TO BE REMOVED F) IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL THE PERMIT SIDEWALK TO "BANK PARKING ONLY" APPROVALS. BE REMOVED (TYP. IN PARKING LOT) -TREE TO BE LANDSCAPE ISLAND FIRE ESCAPES AND REMOVED INCLUDING CURB G) THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL BASEMENT ACCESS TO BE REMOVED TO BE REMOVED CONSTRUCTION PERMITS, NOTICES AND FEES NECESSARY TO REMAIN TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR ANY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL AND 4266 ---SIDEWALK TO OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO REMOVED BE REMOVED COMPLETE THE WORK. TREE TO BE REMOVED CONCRETE TO H) THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL BE REMOVED EXISTING STRUCTURES, CONCRETE, UTILITIES, VEGETATION, POLE TO BE PAVEMENT, AND CONTAMINATED SOIL WITHIN THE WORK REMOVED BY LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO LIGHT TO BE REMOVED FAIRPOINT REMOVED REMAIN. ANY EXISTING MONITORING WELLS IN THE LIGHT TO BE PROJECT AREA IDENTIFIED DURING THE CONSTRUCTION REMOVED AND NOT CALLED OUT ON THE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER TO COORDINATE MONITORING WELL REMOVAL AND/OR RELOCATION WITH NHDES AND OTHER AUTHORITY WITH SYSTEM TO BE REMOVED JURISDICTION PRIOR TO CONSTRUCTION. FENCE TO BE I) ALL WORK WITHIN THE CITY OF PORTSMOUTH RIGHT OF REMOVED EXISTING SIGNS WAY SHALL BE COORDINATED WITH THE CITY OF TO BE REMOVED PORTSMOUTH DEPARTMENT OF PUBLIC WORKS (DPW). - RAISED BRICK PLANER FENCE POSTS TRANSFORMER TO J) CONTRACTOR SHALL PROTECT ALL PROPERTY TO BE REMOVED TO BE REMOVED BE REPLACED MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED, THE CONTRACTOR SHALL EMPLOY A NH LICENSED LAND SURVEYOR TO REPLACE 4267 — REMOVED K) PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH TO BE REMOVED BRICK WALL TO BASINS WITHIN CONSTRUCTION LIMITS AND IMMEDIATELY BE REMOVED BRICK MARKET BE REMOVED OFF-SITE TO BE MAINTAIN FOR THE DURATION OF THE PROJECT, INLET PROTECTION BARRIERS SHALL BE HIGH 107/27 FLOW SILT SACK BY ACF ENVIRONMENTAL OR APPROVED 60 PENHALLOW STREET ALL PAVEMENT EQUAL, INSPECT BARRIERS WEEKLY AND AFTER EACH ATTENDANT IN LOT TO BE REMOVED 4265 — RAIN OF 0.25 INCHES OR GREATER. CONTRACTOR SHALL REMOVED COMPLETE A MAINTENANCE INSPECTION REPORT AFTER PORTSMOUTH, N.H. EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF BAR GATE -TRANSFORMER WARRANTED OR FABRIC BECOMES CLOGGED. EROSION TO BE REMOVED PAD REMOVE LIGHT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES. LANDSCAPE ISLAND INCLUDING CURB L) THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TO BE REMOVED TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFELY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION 11/18/19 ISSUED FOR APPROVAL M) ANY CONTAMINATED MATERIAL REMOVED DURING THE ISSUED FOR COMMENT 10/8/19 COURSE OF THE WORK WILL REQUIRE HANDLING IN ACCORDANCE WITH NHDES REGULATIONS. CONTRACTOR DATE DESCRIPTION SHALL HAVE A HEALTH AND SAFETY PLAN IN PLACE, AND REVISIONS "HANDICAP PARKING ONLY" COMPLY WITH ALL APPLICABLE PERMITS, APPROVALS, AUTHORIZATIONS, AND REGULATIONS CRUSHED STONE WALK CRUSHED STONE WALK NETT 5 1/2 PSNH 14/44/30T OCTOBER 2019 SCALE: 1'=10' APPROVED BY THE PORTSMOUTH PLANNING BOARD GRAPHIC SCALE **DEMOLITION PLAN** DATE CHAIRMAN FB 402 PG 1



Landscape Notes

- Design is based on drawings by Ambit Engineering dated November 18, 2019 and may require adjustment due to actual field conditions.
- The contractor shall follow best management practices during construction and shall take all means necessary to stabilize and protect the site from erosion.
- 3. Erosion Control shall be in place prior to construction.
- 4. The Contractor shall verify layout and grades and inform the Landscape Architect or Client's Representative of any
- discrepancies or changes in layout and/or grade relationships prior to construction.

 5. It is the contractor's responsibility to verify drawings provided are to the correct scale prior to any bid, estimate or installation. A graphic scale bar has been provided on each sheet for this purpose. If it is determined that the scale of the drawing is
- incorrect, the landscape architect will provide a set of drawings at the correct scale, at the request of the contractor.
 Trees to Remain within the construction zone shall be protected from damage for the duration of the project by snow fence or other suitable means of protection to be approved by Landscape Architect or Client's Representative. Snow fence shall be located at the drip line at a minimum and shall include any and all surface roots. Do not fill or mulch on the trunk flare. Do not disturb roots. In order to protect the integrity of the roots, branches, trunk and bark of the tree(s) no vehicles or construction equipment shall drive or park in or on the area within the drip line(s) of the tree(s). Do not store any refuse or construction materials or portalets within the tree protection area.
- This plan is for review purposes only, NOT for Construction. Construction Documents will be provided upon request.
- Location, support, protection, and restoration of all existing utilities and appurtenances shall be the responsibility of the Contractor
- The Contractor shall verify exact location and elevation of all utilities with the respective utility owners prior to construction. Call DIGSAFE at 1-888-344-7233.
- 10. The Contractor shall procure any required permits prior to construction.
- 11. Prior to any landscape construction activities Contractor shall test all existing loam and loam from off-site intended to be used for lawns and plant beds using a thorough sampling throughout the supply. Soil testing shall indicate levels of pH, nitrates, macro and micro nutrients, texture, soluble salts, and organic matter. Contractor shall provide Landscape Architect with test results and recommendations from the testing facility along with soil amendment plans as necessary for the proposed plantings to thrive. All loam to be used on site shall be amended as approved by the Landscape Architect prior to placement.
- 12. Contractor shall notify landscape architect or owner's representative immediately if at any point during demolition or construction a site condition is discovered which may negatively impact the completed project. This includes, but is not limited to, unforeseen drainage problems, unknown subsurface conditions, and discrepancies between the plan and the site. If a contractor is aware of a potential issue, and does not bring it to the attention of the landscape architect or owner's representative immediately, they may be responsible for the labor and materials associated with correcting the problem.
- 13. The Contractor shall furnish and plant all plants shown on the drawings and listed thereon. All plants shall be nursery-grown under climatic conditions similar to those in the locality of the project. Plants shall conform to the botanical names and standards of size, culture, and quality for the highest grades and standards as adopted by the American Association of Nurserymen, Inc. in the American Standard of Nursery Stock, American Standards Institute, Inc. 230 Southern Building, Washington, D.C. 20005.
- 14. A complete list of plants, including a schedule of sizes, quantities, and other requirements is shown on the drawings. In the
- event that quantity discrepancies or material omissions occur in the plant materials list, the planting plans shall govern.

 All plants shall be legibly tagged with proper betapical name.
- 15. All plants shall be legibly tagged with proper botanical name.
- The Contractor shall guarantee all plants for not less than one year from time of acceptance.
- 17. Owner or Owner's Representative will inspect plants upon delivery for conformity to Specification requirements. Such approval shall not affect the right of inspection and rejection during or after the progress of the work. The Owner reserves the right to inspect and/or select all trees at the place of growth and reserves the right to approve a representative sample of each type of shrub, herbaceous perennial, annual, and ground cover at the place of growth. Such sample will serve as a minimum standard for all plants of the same species used in this work.
- 18. No substitutions of plants may be made without prior approval of the Owner or the Owner's Representative for any reason.
- All landscaping shall be provided with either of the following
 a. An underground sprinkling system
- b. An outside hose attachment within 150 feet
- 20. If an automatic irrigation system is installed, all irrigation valve boxes shall be located within planting bed areas.
- 21. The contractor is responsible for all plant material from the time their work commences until final acceptance. This includes but is not limited to maintaining all plants in good condition, the security of the plant material once delivered to the site, and watering of plants. Plants shall be appropriately watered prior to, during and after planting. It is the contractor's responsibility to provide water from off site, should it not be available on site.
- 22. All disturbed areas will be dressed with 6" of topsoil and planted as noted on the plans or seeded except plant beds. Plant beds shall be prepared to a depth of 12" with 75% loam and 25% compost.
- 23. Trees, ground cover, and shrub beds shall be mulched to a depth of 2" with one-year-old, well-composted, shredded native bark not longer than 4" in length and ½" in width, free of woodchips and sawdust. Mulch for ferns and herbaceous perennials shall be no longer than 1" in length. Trees in lawn areas shall be mulched in a 5' diameter min. saucer. Color of mulch shall be black.
- 24. In no case shall mulch touch the stem of a plant nor shall mulch ever be more than 3" thick total (including previously applied mulch) over the root ball of any plant.
- 25. Secondary lateral branches of deciduous trees overhanging vehicular and pedestrian travel ways shall be pruned up to a height of 6' to allow clear and safe passage of vehicles and pedestrians under tree canopy.
- 26. Snow shall be removed from the site.
- 27. Landscape Architect is not responsible for the means and methods of the contractor.

City of Portsmouth Notes

- 1. The property owner and all future property owners shall be responsible for the
- maintenance, repair and replacement of all required screening and landscape materials.
 All required plant materials shall be tended and maintained in a healthy growing condition, replaced when necessary, and kept free of refuse and debris. All required
- fences and walls shall be maintained in good repair.
 The property owner shall be responsible to remove and replace dead or diseased plant materials immediately with the same type, size and quantity of plant materials as originally installed, unless alternative plantings are requested, justified and approved by the Planning Board or Planning Director.

Plant List

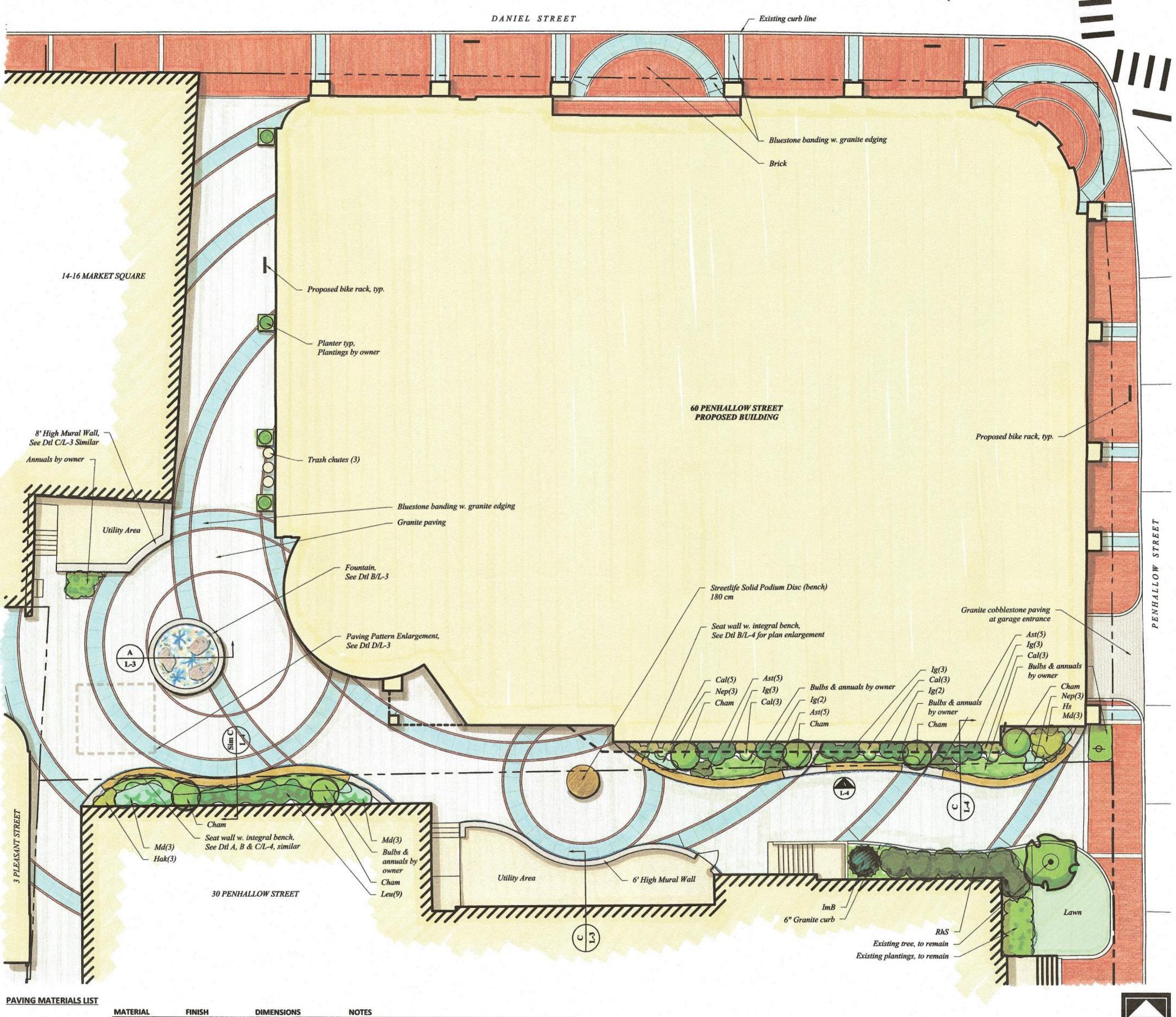
Plant List

SHRUBS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
 Cham	Chamaecyparis obtusa 'Gracilis'	Gracilis Falsecypress	6	7-8' ht	B&B Matched Specimen
Hs	Hibiscus syriacus 'Ardens'	Ardens Rose-of -Sharon	1	6-7' ht	B&B Full
lg	llex glabra 'Shamrock'	Shamrock Inkberry	13	5 gal	Full
ImB	llex meserve 'Blue Maid'	Blue Maid Holly	1	6-7' ht	B&B Full
Leu	Leucothoe fontanesiana 'Silver Run'	Silver Run Leucothoe	9	3 gal	
Md	Microbiota decussata	Russian Cypress	9	5 gal	
RhS	Rhododendron 'Scintillation'	Scintillation Rhododendron	6	2.5-3' ht	B&B

PERENNIALS, GROUNDCOVERS, VINES and ANNUALS

Symbol	Botanical Name	Common Name	Quantity	Size	Comments
Ast	Astilbe 'Fanal'	Rubyred Astilbe	15	1 gal	
Cal	Calamagrostis acutifolia 'Karl Foerster'	Feather Reed Grass	14	3 gal	
Hak	Hakonechioa macra 'Aureola'	Golden Japanese Forest Grass	3	1 gal	
Nep	Nepeta faassenii x 'Six Hills Giant'	Lavender blue Catmint	6	1 gal	



Woodburr
&company
LANDSCAPE ARCHITECTUR
Newmarket, New Hampshire Phone: 603.659.59

WOOO WOOO COM SKent Place New Hampsh

60 PENHALLOW LANDSCAPE PLA

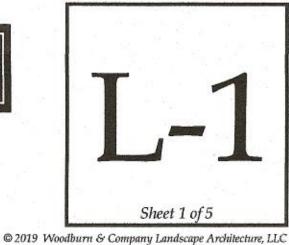
Drawn By: VM

Checked By: RW

Scale: 1" = 10' - 0"

Date: November 18, 2019

Revisions:
November 26, 2019



Brick Clay paving brick

Select Bluestone

Deer Isle Granite Thermal

Wausau Granite Thermal

Bluestone Banding

Granite Paving

Granite Edging in Plaza

Specification TBD

or spalling.

Custom radius pieces (see plans). Contractor to provide shop

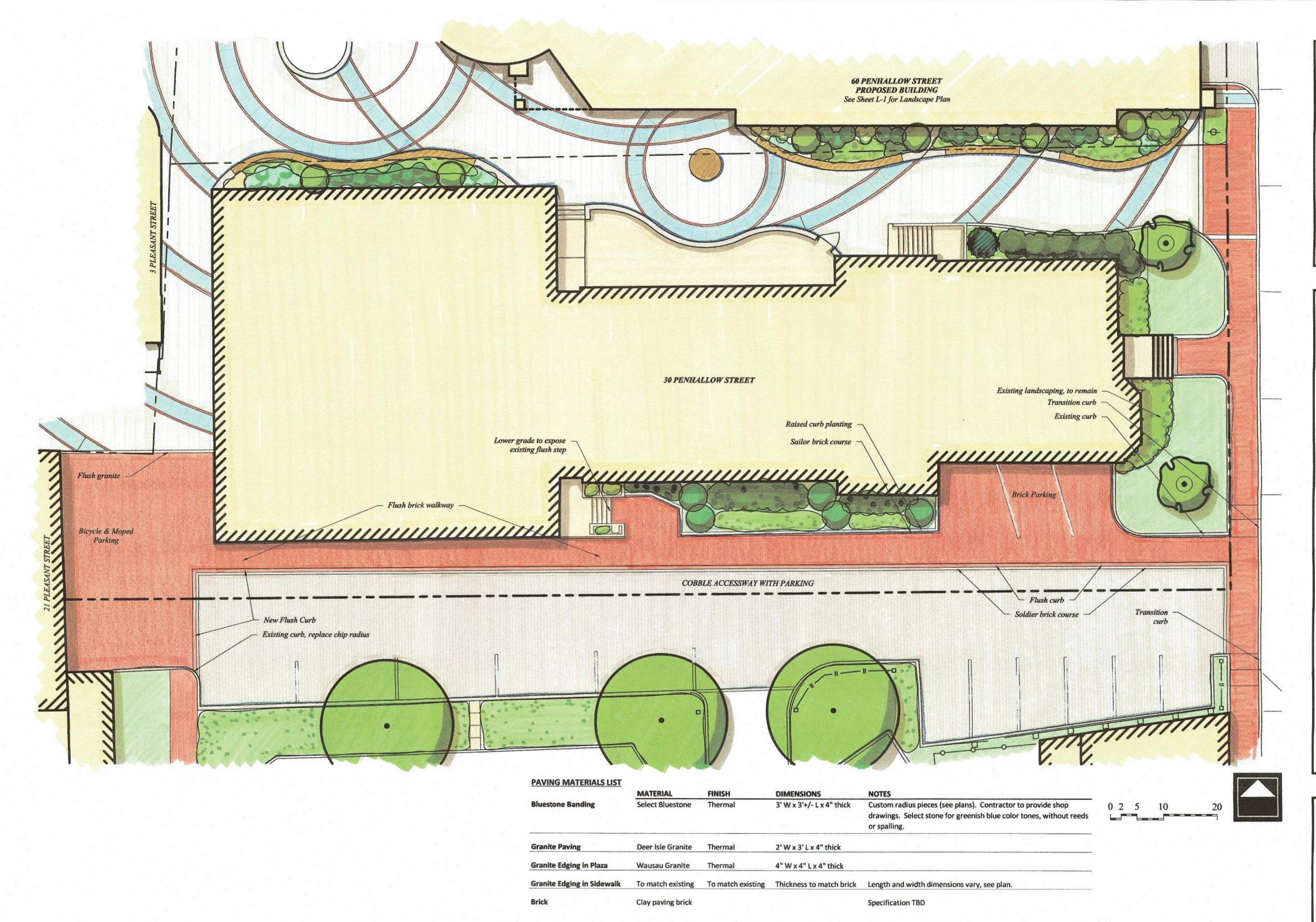
drawings. Select stone for greenish blue color tones, without reeds

3' W x 3'+/- L x 4" thick

2' W x 3' L x 4" thick

4" W x 4" L x 4" thick

Granite Edging in Sidewalk To match existing To match existing Thickness to match brick Length and width dimensions vary, see plan.





0

≥%

Drawn By: VM

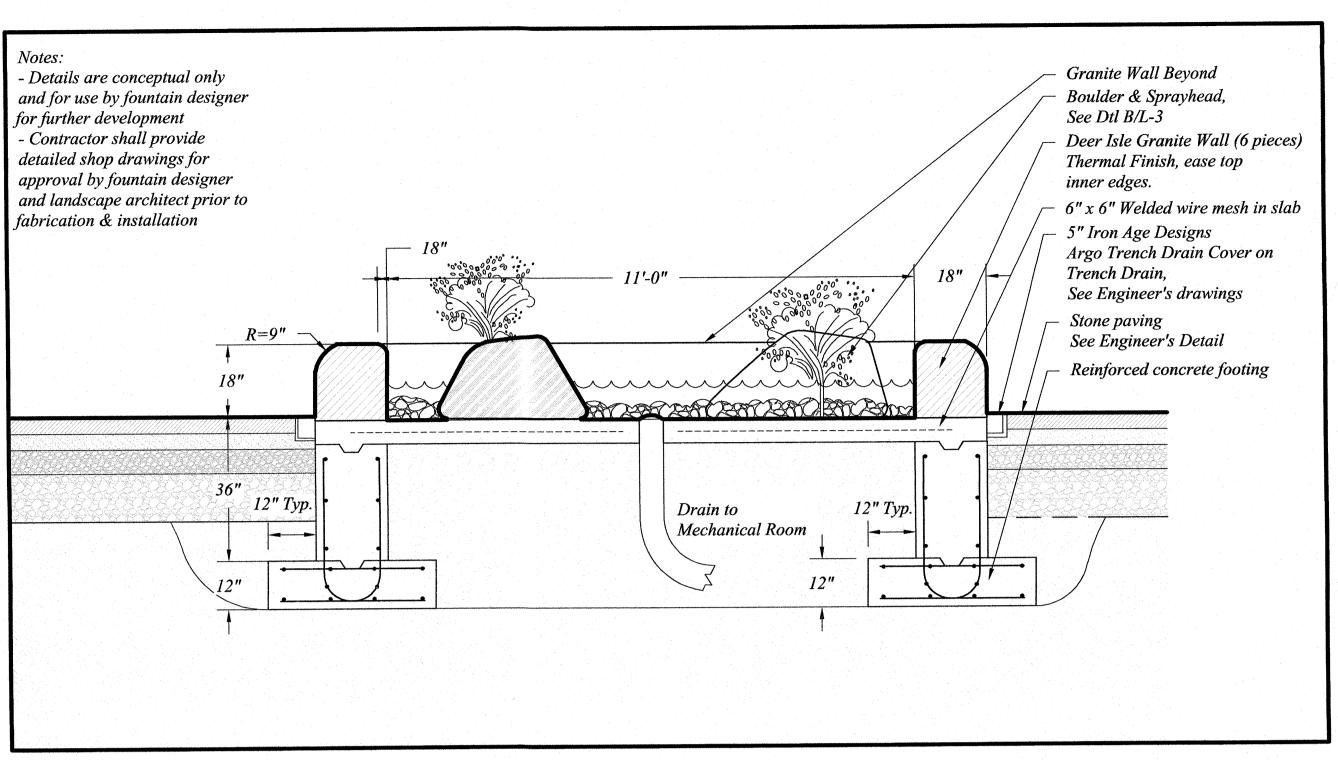
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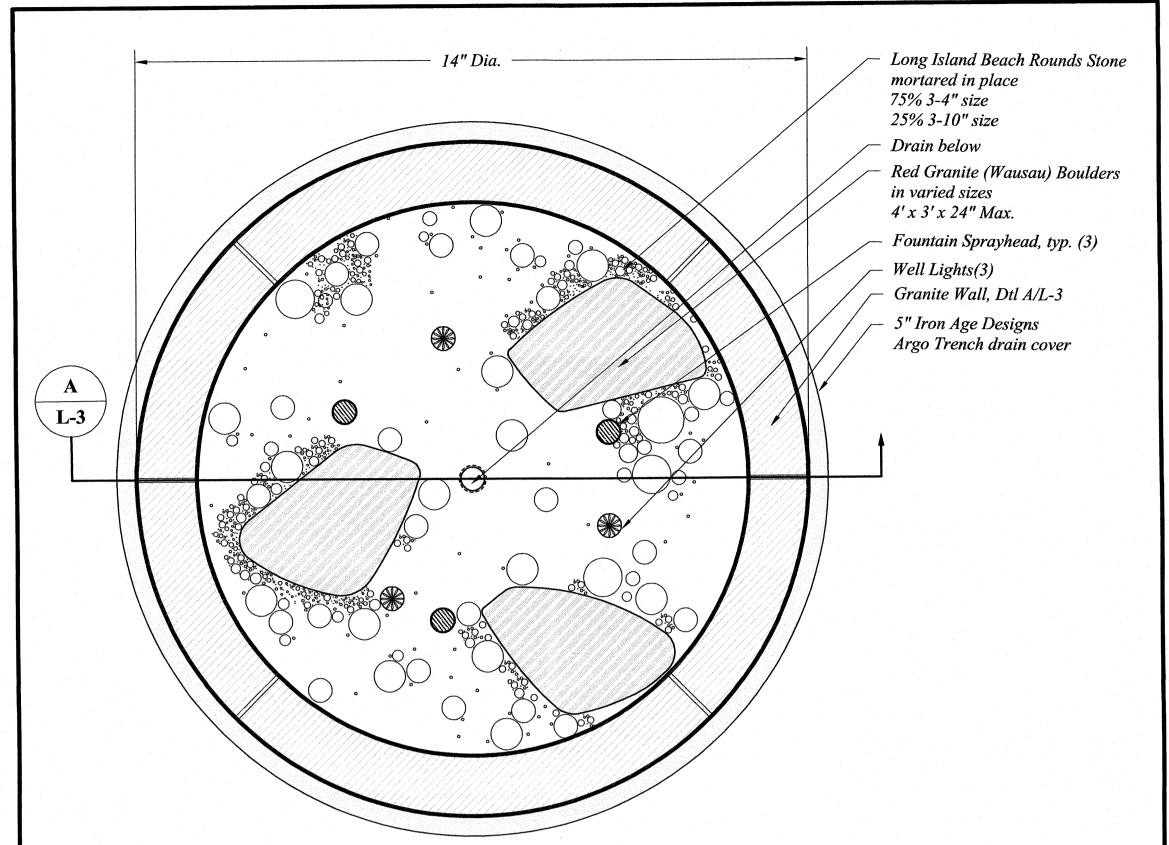
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Date: November 26, 2019

Revisions:

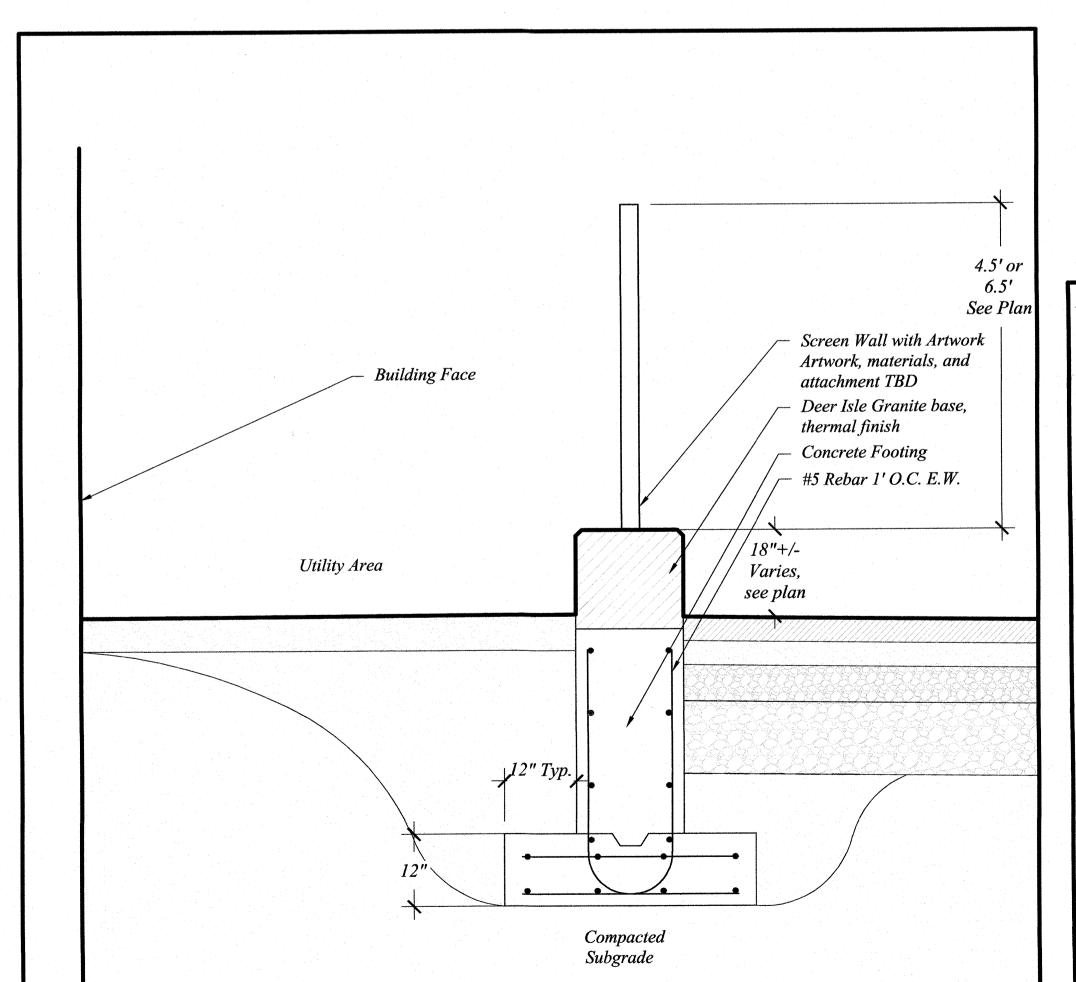
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Sheet 2 of 5

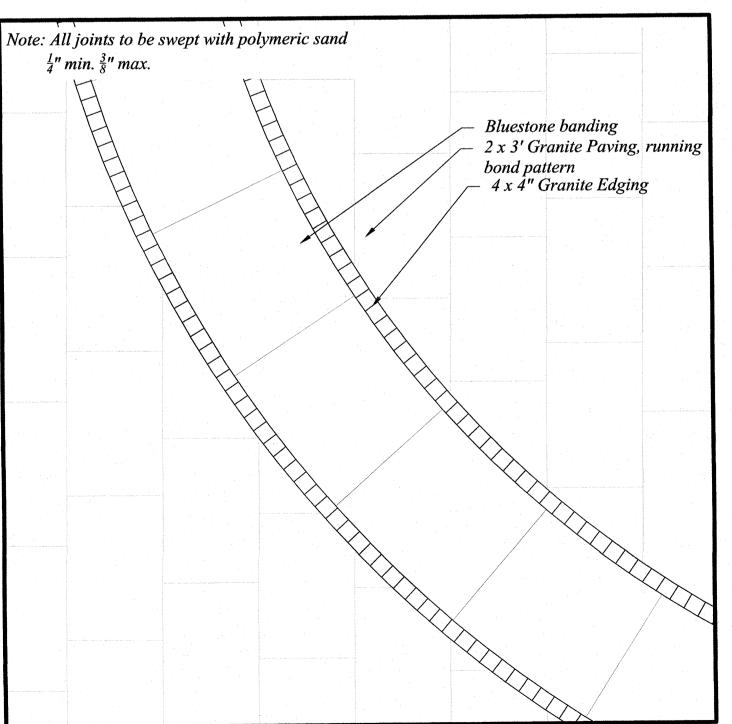




A Fountain Section

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





Fountain Plan

Scale: ½"=1'-0"

PAVING MATERIALS LIST					
	MATERIAL	FINISH	DIMENSIONS	NOTES	
Bluestone Banding	Select Bluestone	Thermal	3' W x 3'+/- L x 4" thick		s). Contractor to provide shop enish blue color tones, without reeds
Granite Paving	Deer Isle Granite	Thermal	2' W x 3' L x 4" thick		
Granite Edging in Plaza	Wausau Granite	Thermal	4" W x 4" L x 4" thick		
Granite Edging in Sidewalk	To match existing	To match existing	Thickness to match brick	Length and width dimensions v	vary, see plan.
Brick	Clay paving brick			Specification TBD	

Mural Wall Section

D Paving Enlargement

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

1 2 4

Brick Market

LANDSCAPE DETA

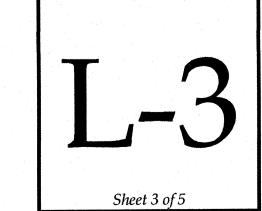
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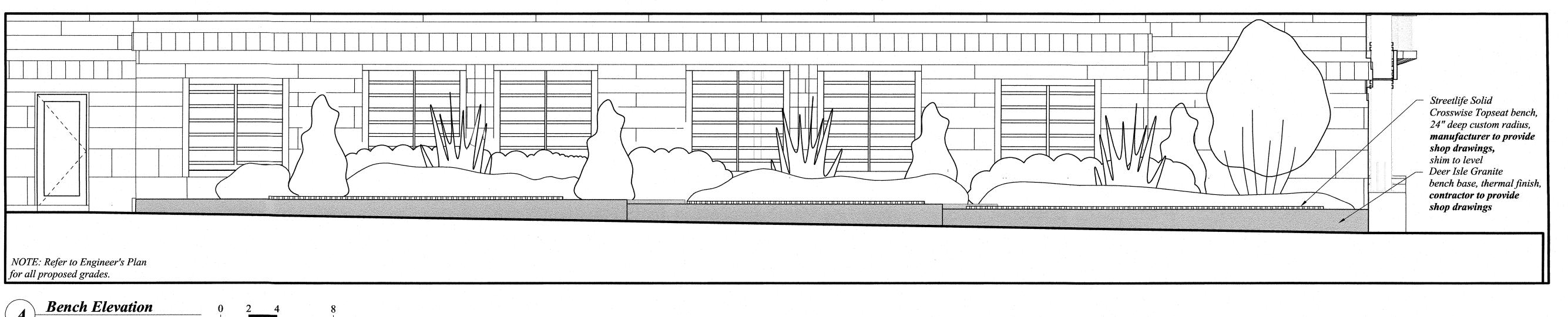
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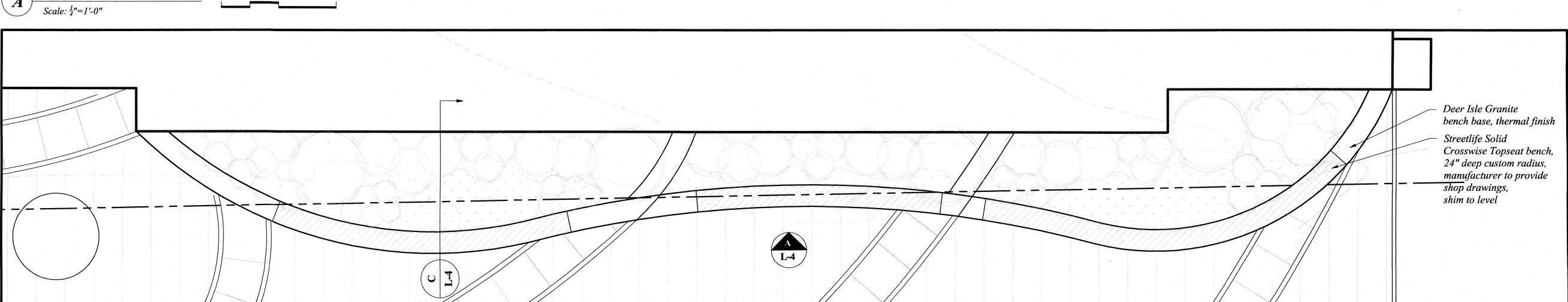
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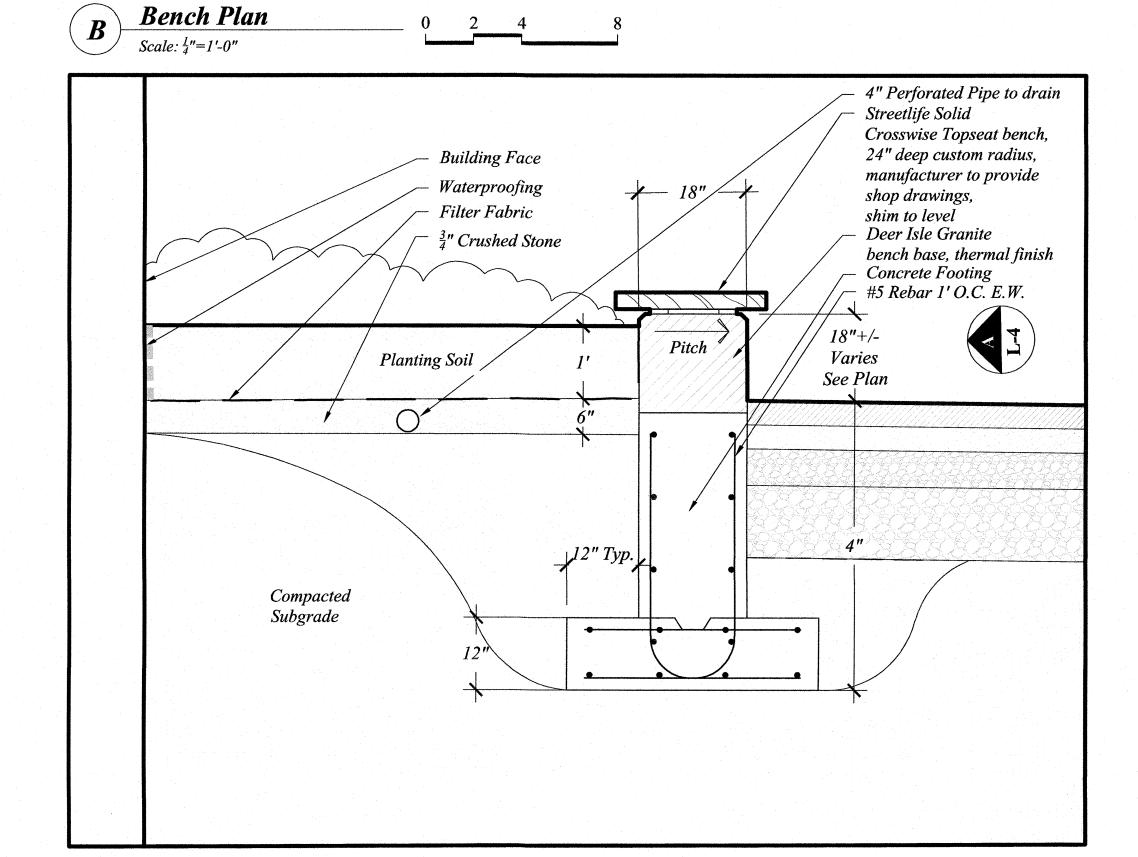
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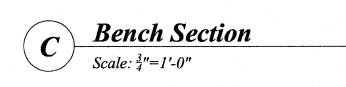
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Checked By: RW
Scale: See details
Date: November 18, 2019
Revisions:
November 26, 2019











Brick Market LANDSCAPE DETAIL

New Hampshire

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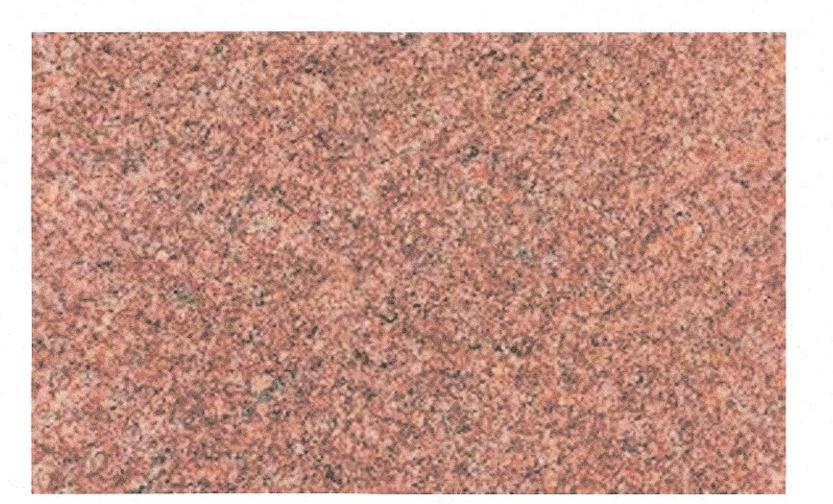
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Date: November 18, 2019
Revisions:
November 26, 2019

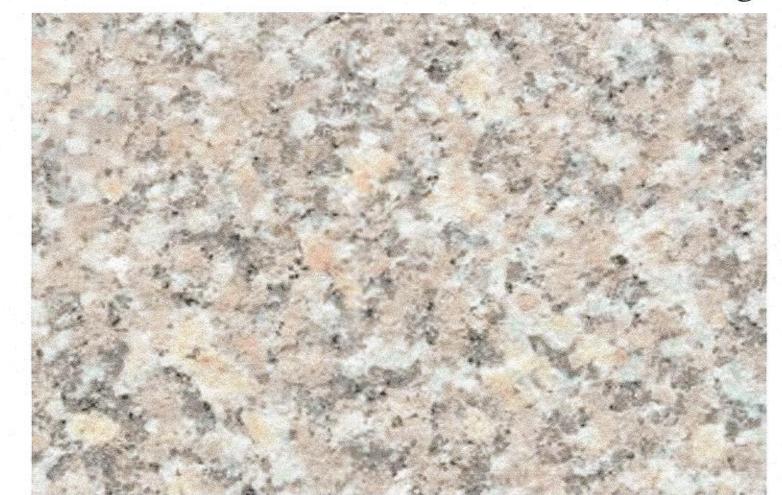


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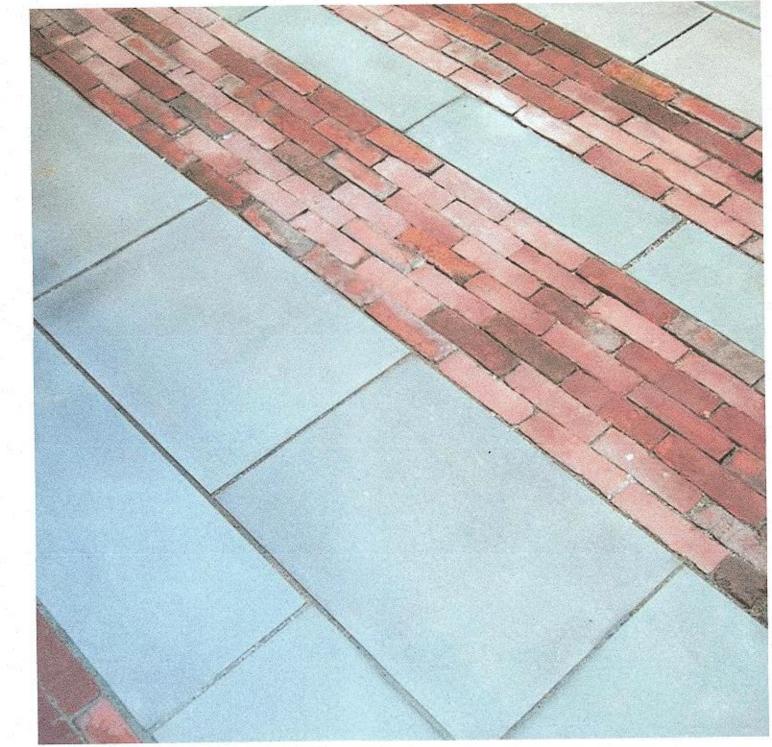




Wausau Red Granite - Slim banding

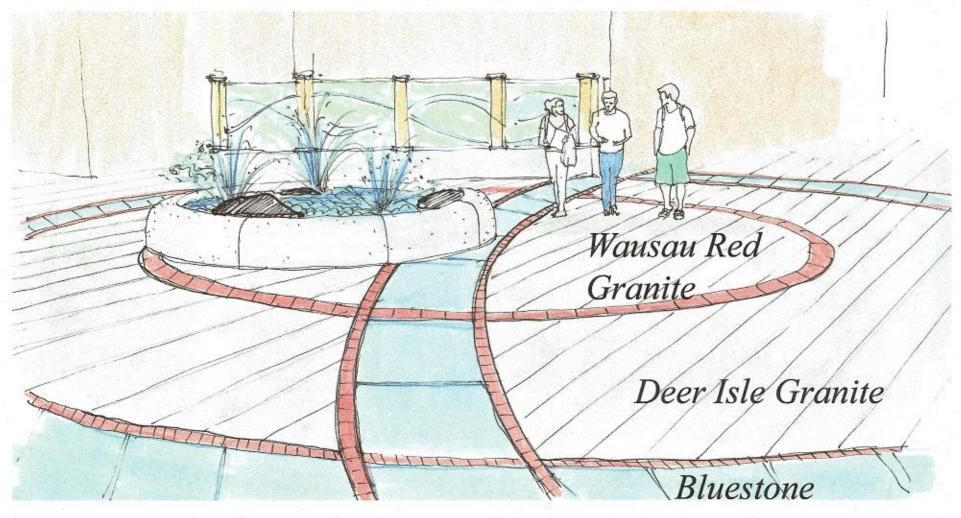


Deer Isle Granite - Paving Field

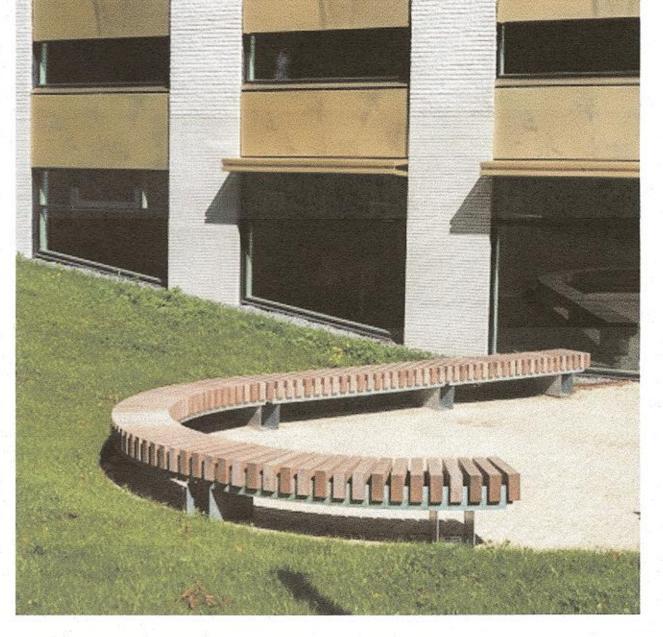


Bluestone





Podium Bench - 6' diameter



Wood Bench Top - sits on Deer Isle granite wall base instead of steel feet as shown here 18"w x 14" -20" base (varies with grade)

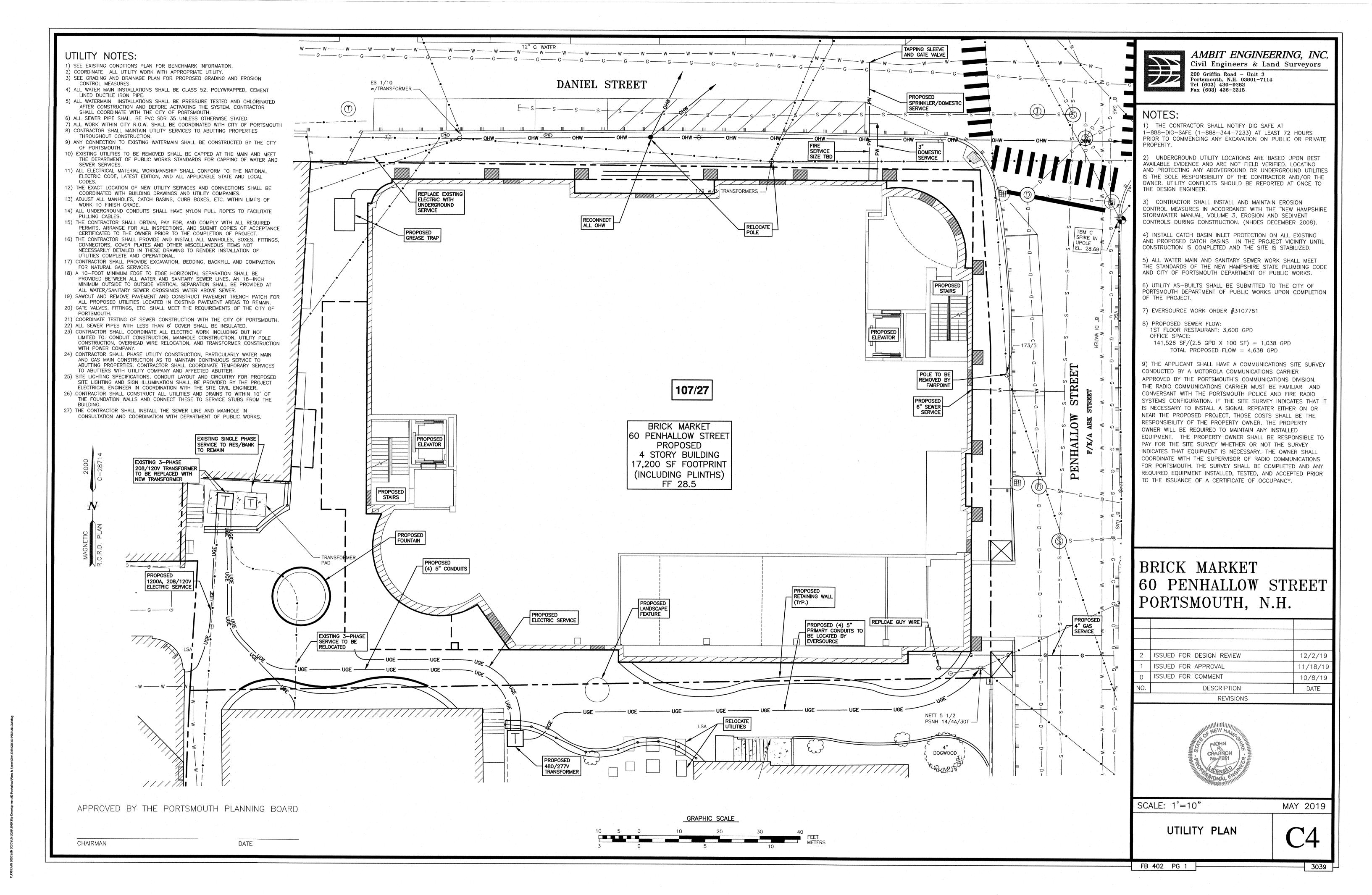
Granite Fountain - low sprays 18" high x 14' diameter

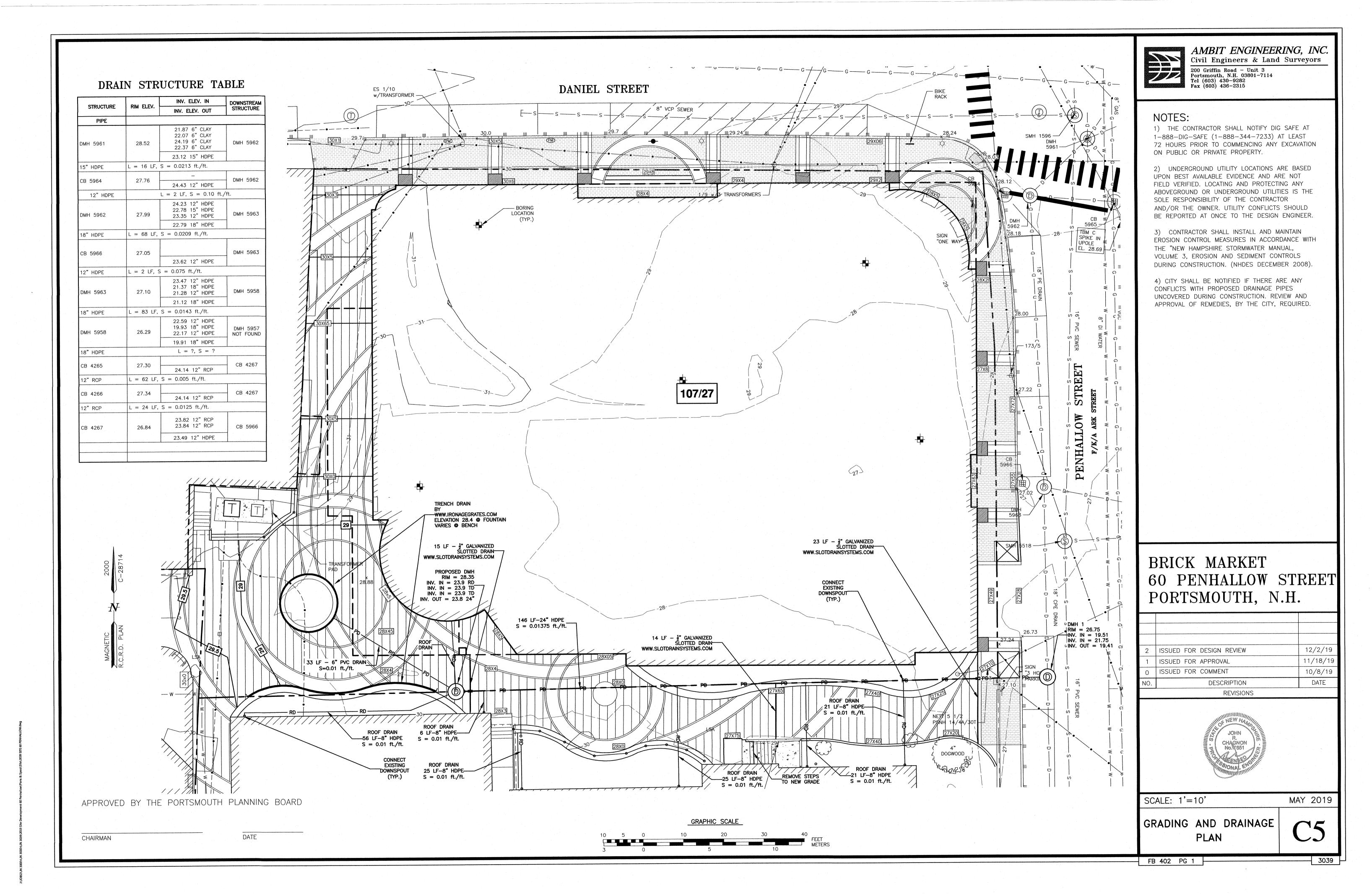
> Tree planters shown as core ten here 3'x3'x3'

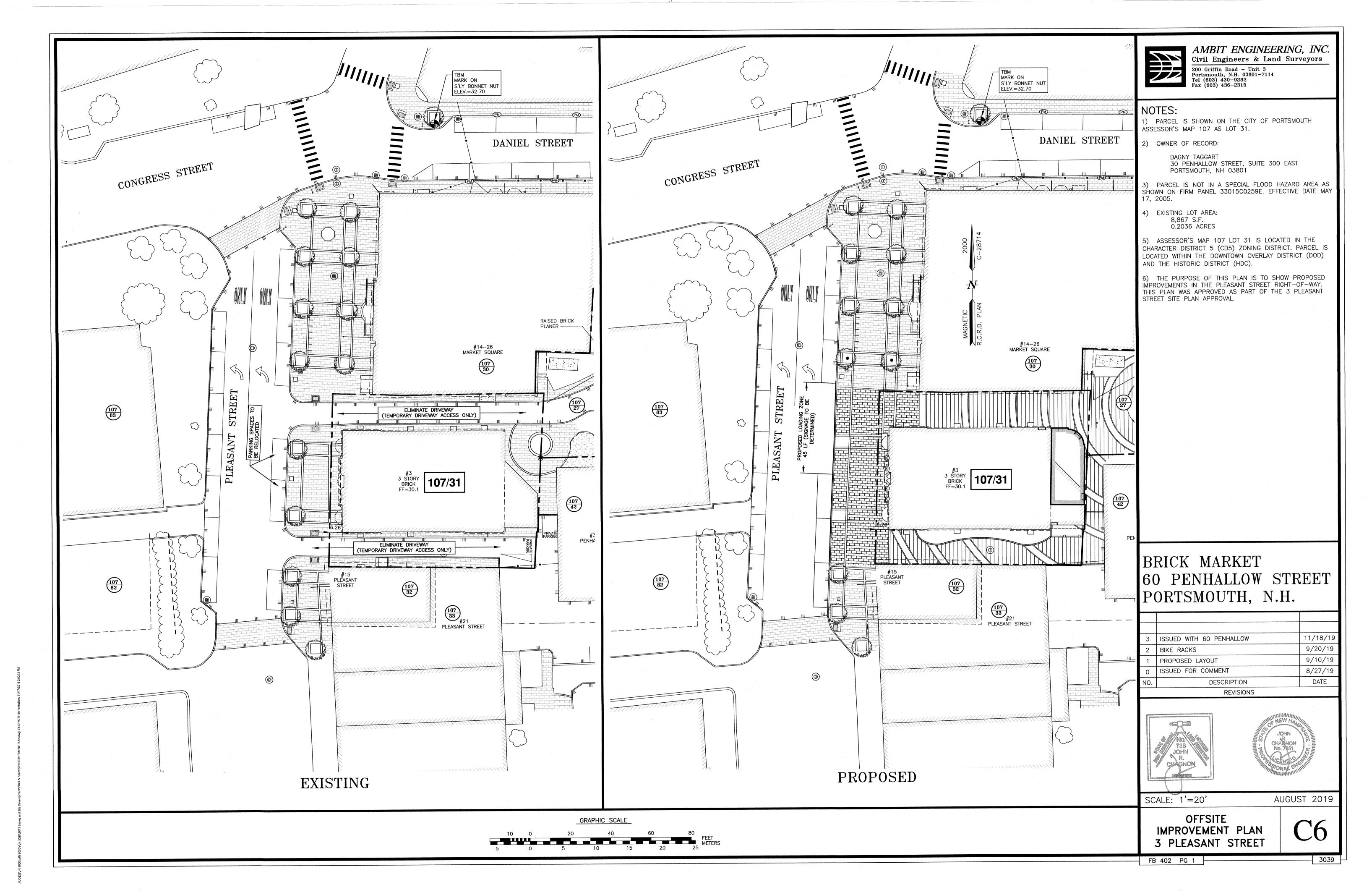


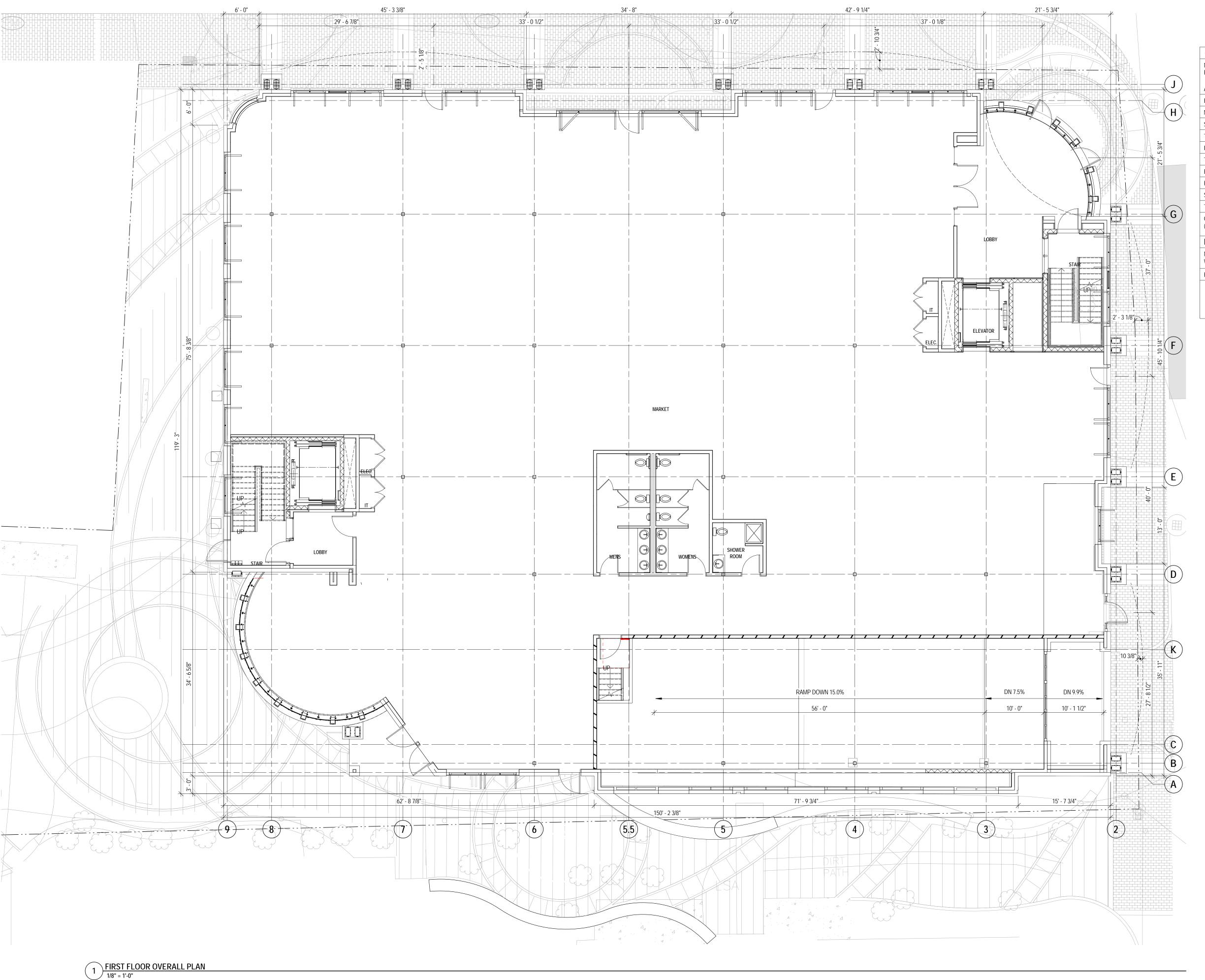
Mural Wall - Height 6' and 8' see plan - Granite base 18x18" Posts wood to match building

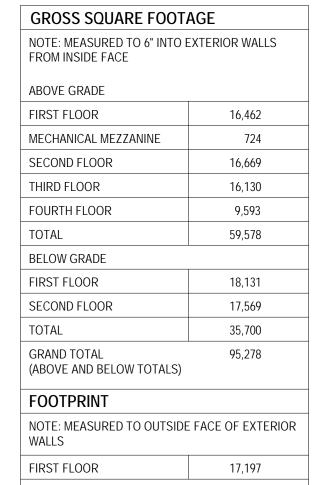
) 2019 Woodburn & Company Landscape Architecture, LLC











JSA ARCHITECTS INTERIORS

I N T E R I O R S
P L A N N E R S

273 CORPORATE DRIVE
PORTSMOUTH, NH 03801

T 603.436.2551 F 603.436.6973

www.jsainc.com

60 PENHALLOW STREET at BRICK MARKET

Penhallow Street Portsmouth, NH

DAGNY TAGGART LLC McNABB PROPERTIES

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

 Date:
 11/18/2019

 Project Number:
 P19081.02

REVISIONS

NO. DESCRIPTION DATE

TAC SUBMISSION

FIRST FLOOR PLAN

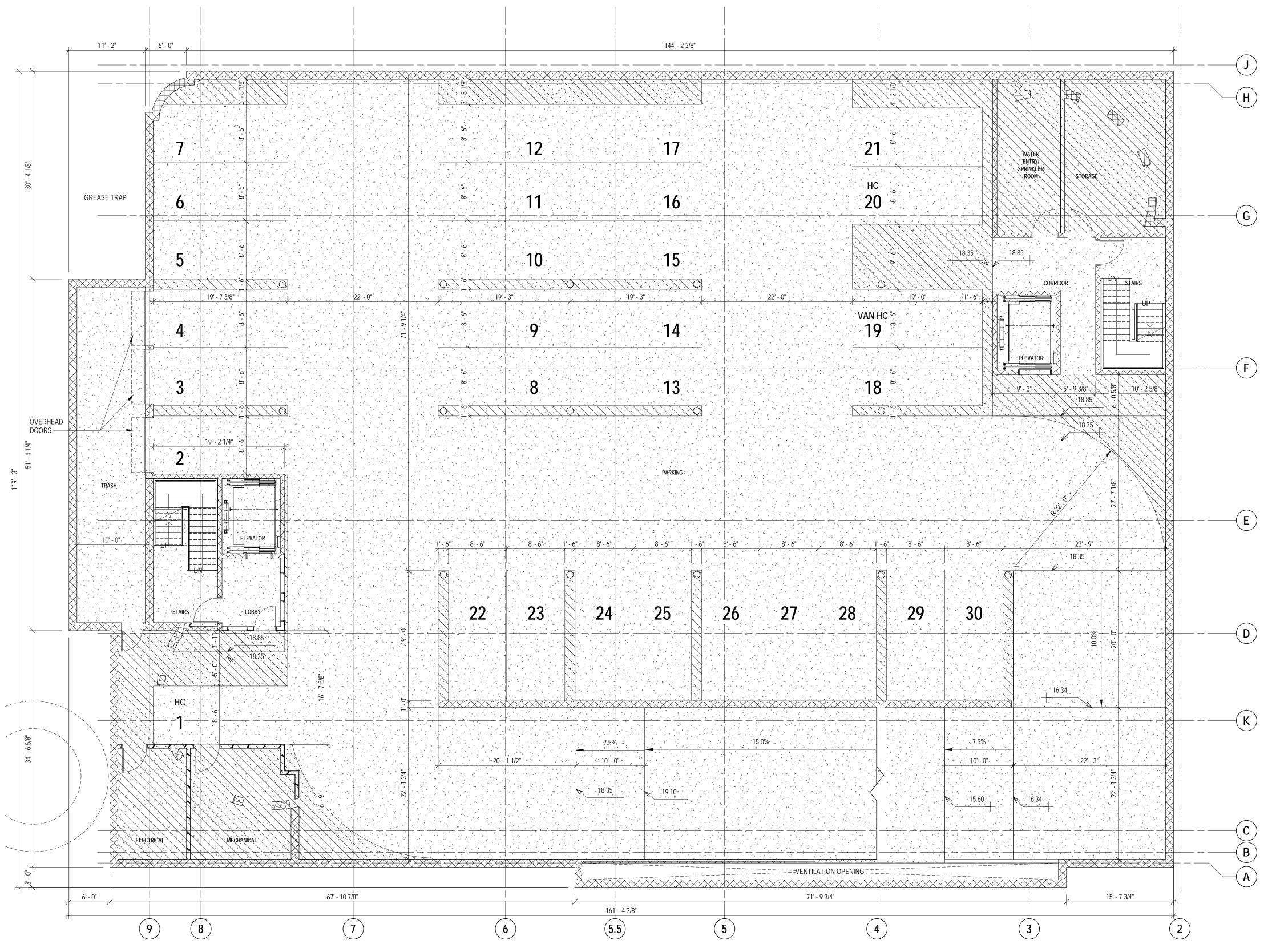
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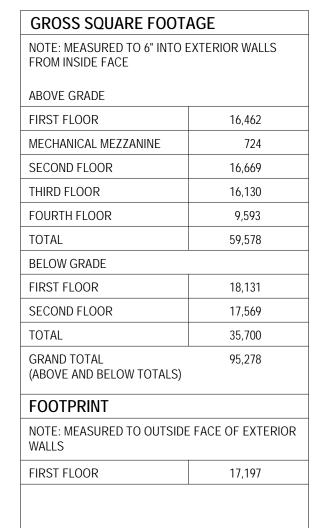
COPYRIGHT 2019

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

0' 4' 8'

1 PARKING LEVEL 1 PLAN
1/8" = 1'-0"





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

0' 4' 8'

AGE

XTERIOR WALLS

16,462

724

16,669

16,130

9,593

59,578

18,131

17,569

35,700

60 PENHALLOW STREET at BRICK MARKET

Penhallow Street Portsmouth, NH

DAGNY TAGGART LLC McNABB PROPERTIES

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

 Date:
 11/18/2019

 Project Number:
 P19081.02

REVISIONS

NO. DESCRIPTION DATE

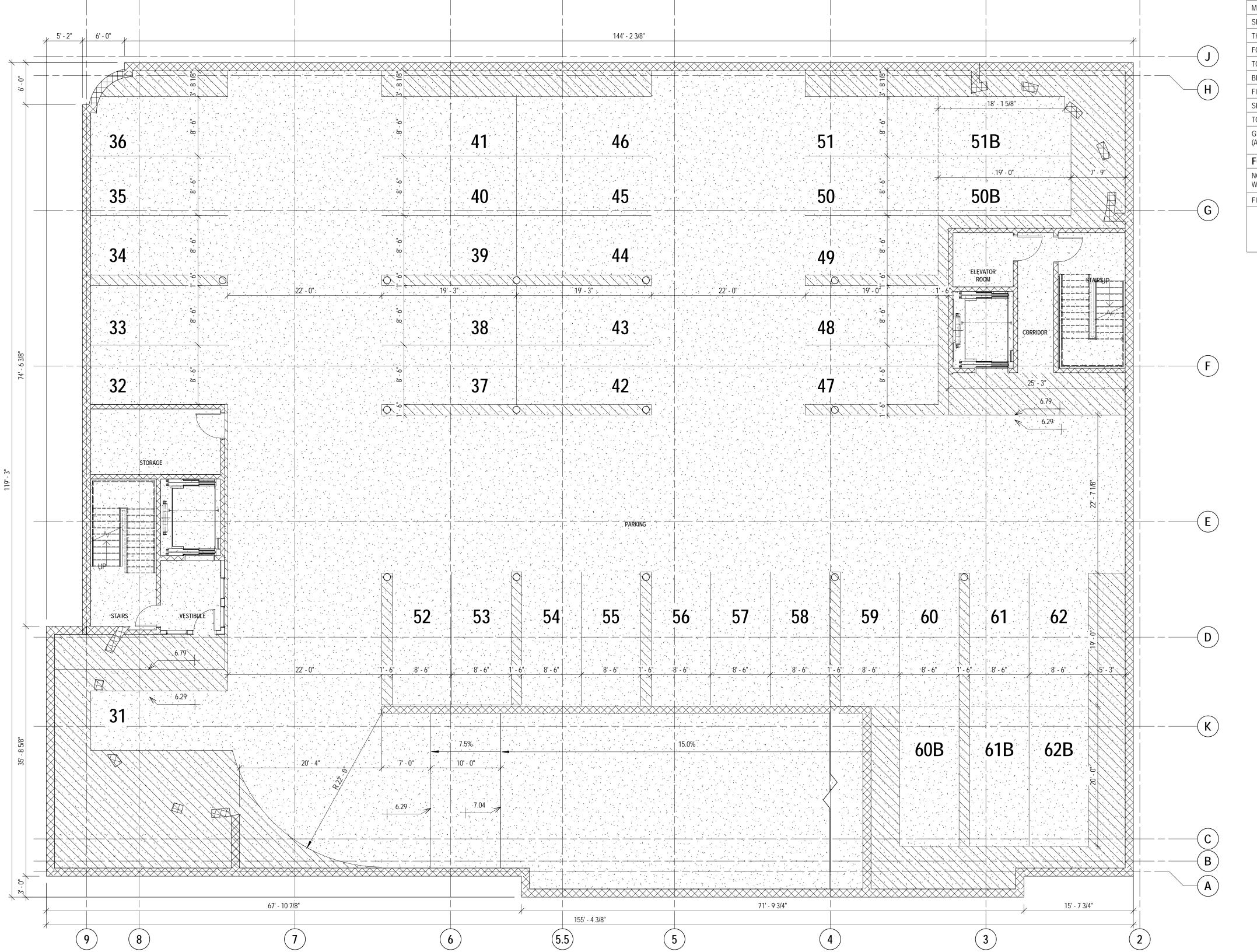
TAC SUBMISSION

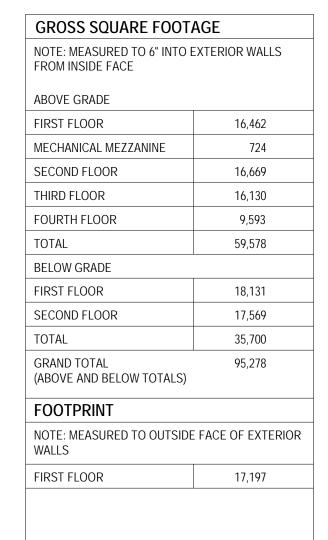
PARKING LEVEL 1 PLAN

A0.01A

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1 PARKING LEVEL 2 PLAN
1/8" = 1'-0"





60 PENHALLOW STREET at BRICK MARKET

ARCHITECTS

I N T E R I O R S

PLANNERS

273 CORPORATE DRIVE

PORTSMOUTH, NH 03801

T 603.436.2551 F 603.436.6973

www.jsainc.com

Penhallow Street Portsmouth, NH

DAGNY TAGGART LLC McNABB PROPERTIES

1/8" = 1'-0" Scale: Date: 11/18/2019 Project Number: P19081.02

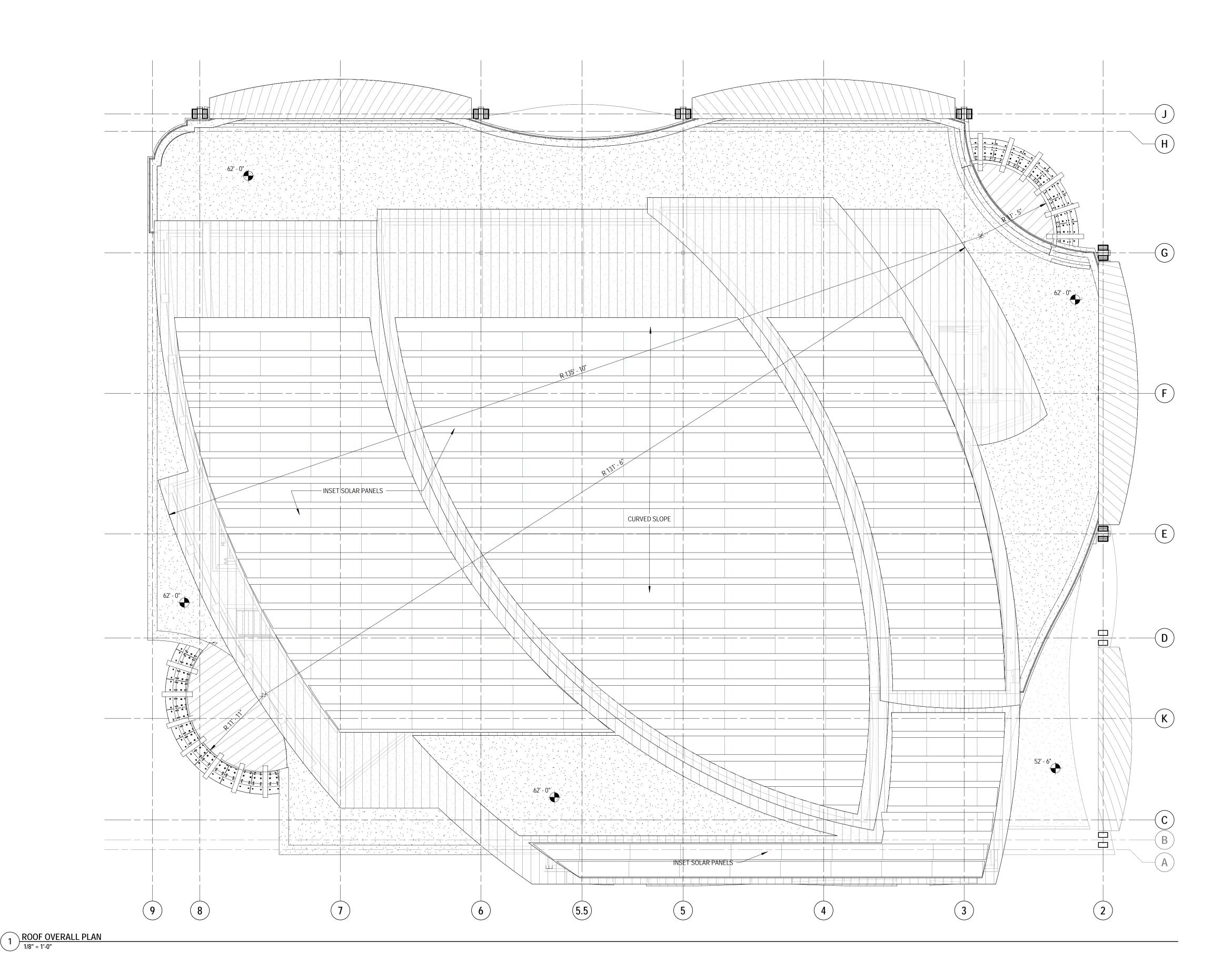
REVISIONS NO. DESCRIPTION DATE

TAC SUBMISSION

PARKING LEVEL 2 PLAN

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GRAPHIC SCALE: 1/8" = 1'-0"
0' 4' 8'





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60 PENHALLOW STREET at BRICK MARKET

Penhallow Street Portsmouth, NH

DAGNY TAGGART LLC McNABB PROPERTIES

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

 Date:
 11/18/2019

 Project Number:
 P19081.02

REVISIONS

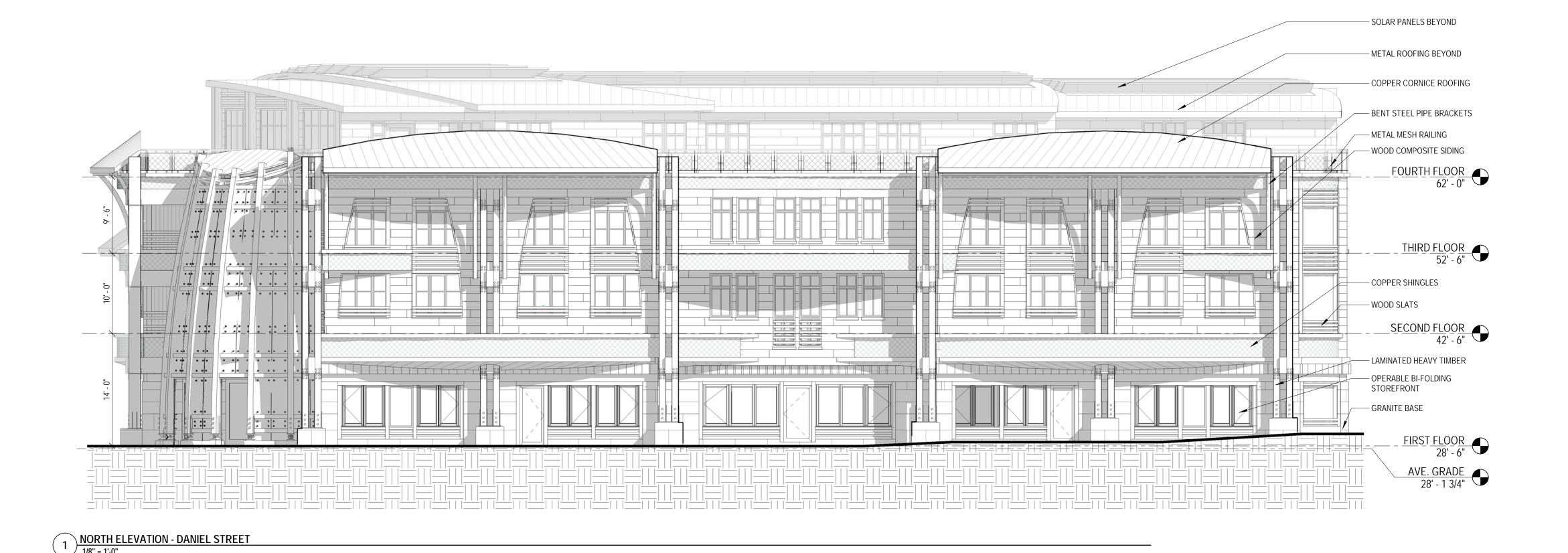
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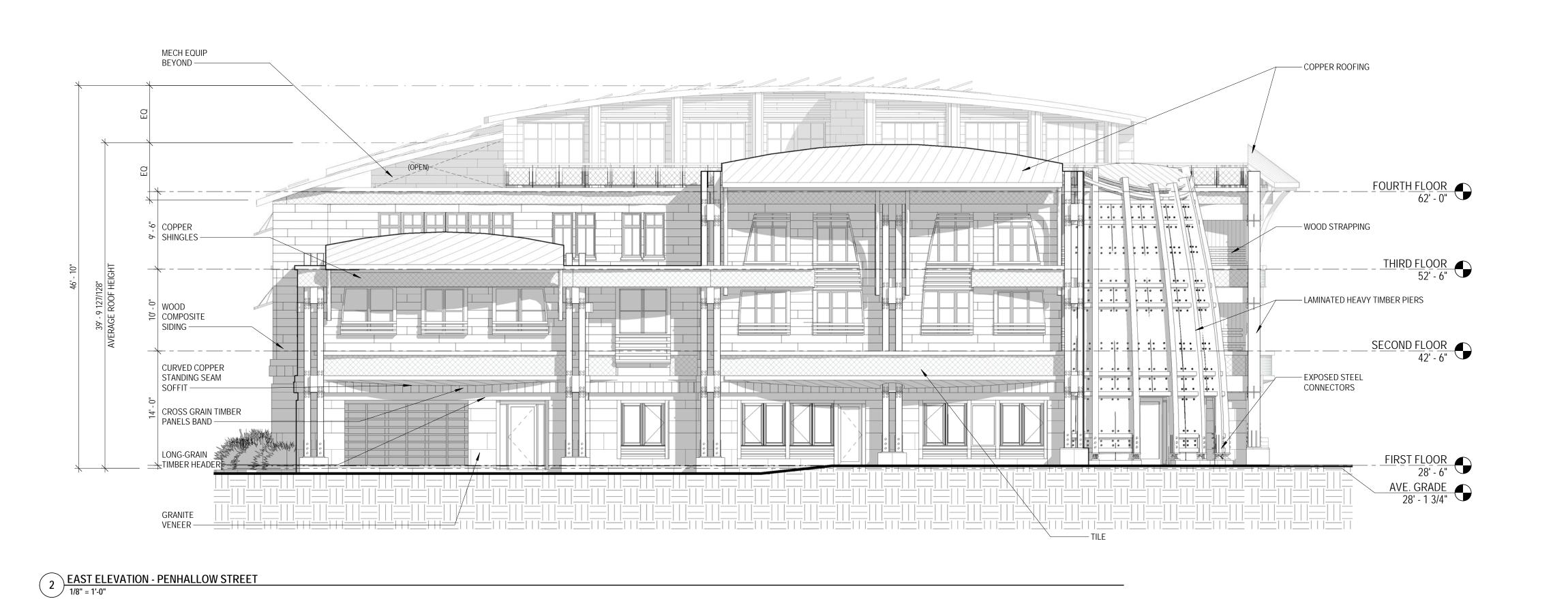
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ROOF PLAN

GRAPHIC SCALE: 1/8" = 1'-0"
0' 4' 8' 16

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60 PENHALLOW STREET at BRICK MARKET

Penhallow Street Portsmouth, NH

DAGNY TAGGART LLC McNABB PROPERTIES

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

 Date:
 11/18/2019

 Project Number:
 P19081.02

REVISIONS

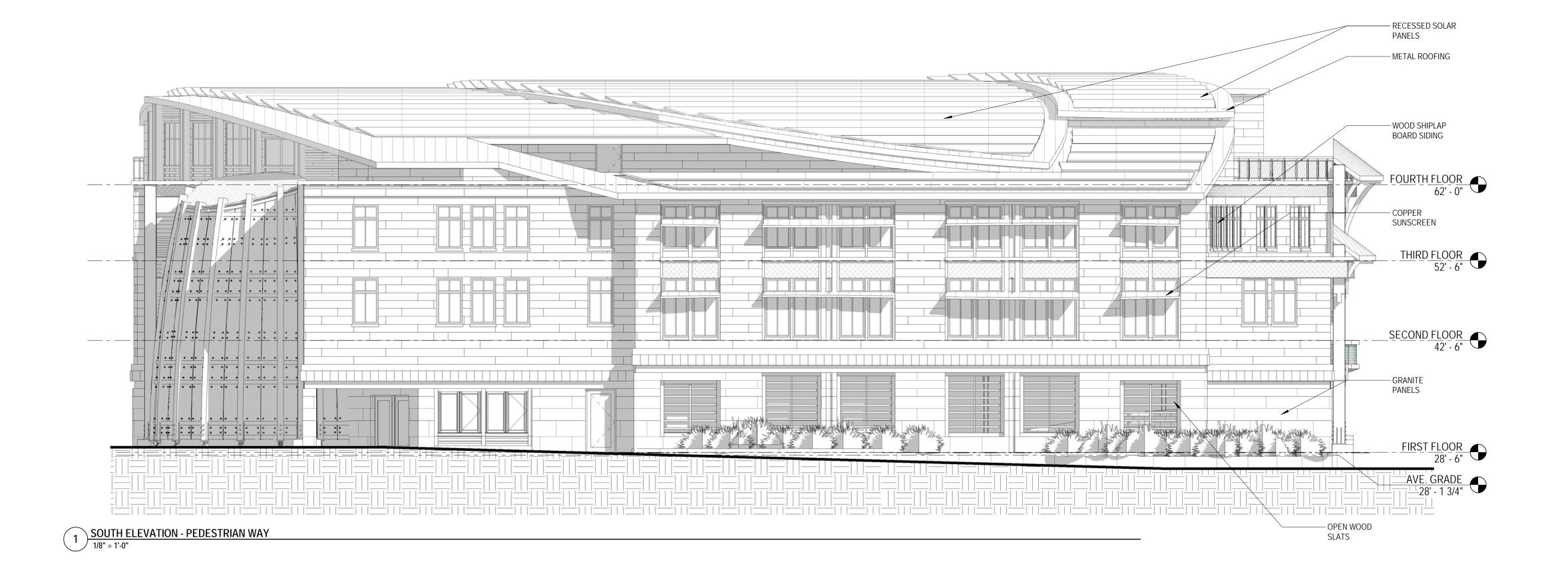
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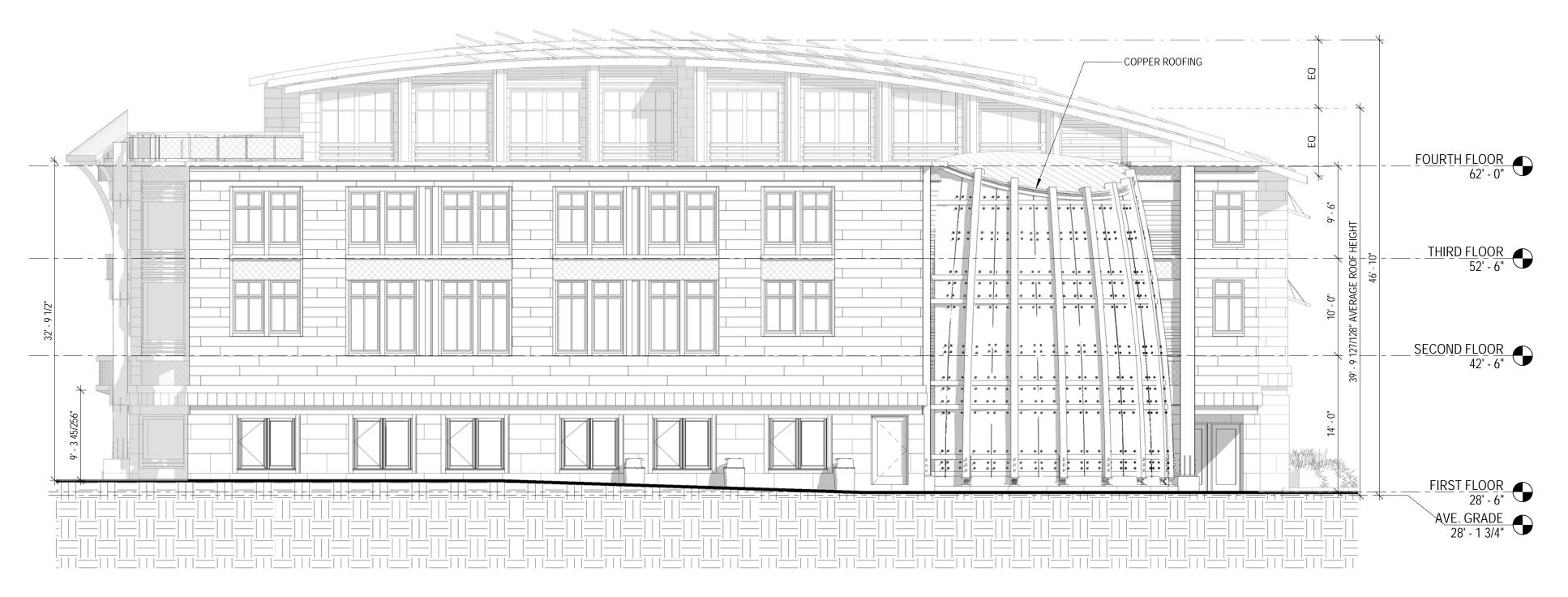
TAC SUBMISSION

EXTERIOR ELEVATIONS

A0.03

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WEST ELEVATION - PEDESTRIAN WAY
1/8" = 1'-0"

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60 PENHALLOW STREET at BRICK MARKET

Penhallow Street Portsmouth, NH

DAGNY TAGGART LLC McNABB PROPERTIES

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

 Date:
 11/18/2019

 Project Number:
 P19081.02

REVISIONS

NO. DESCRIPTION DATE

TAC SUBMISSION

EXTERIOR ELEVATIONS

A0.04

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NORTHEAST VIEW



SOUTHWEST VIEW



NORTHWEST VIEW



SOUTHEAST VIEW



ARCHITECT INTERIOR PLANNER

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60 PENHALLOW STREET at BRICK MARKET

Penhallow Street Portsmouth, NH

DAGNY TAGGART LLC McNABB PROPERTIES

Scale:

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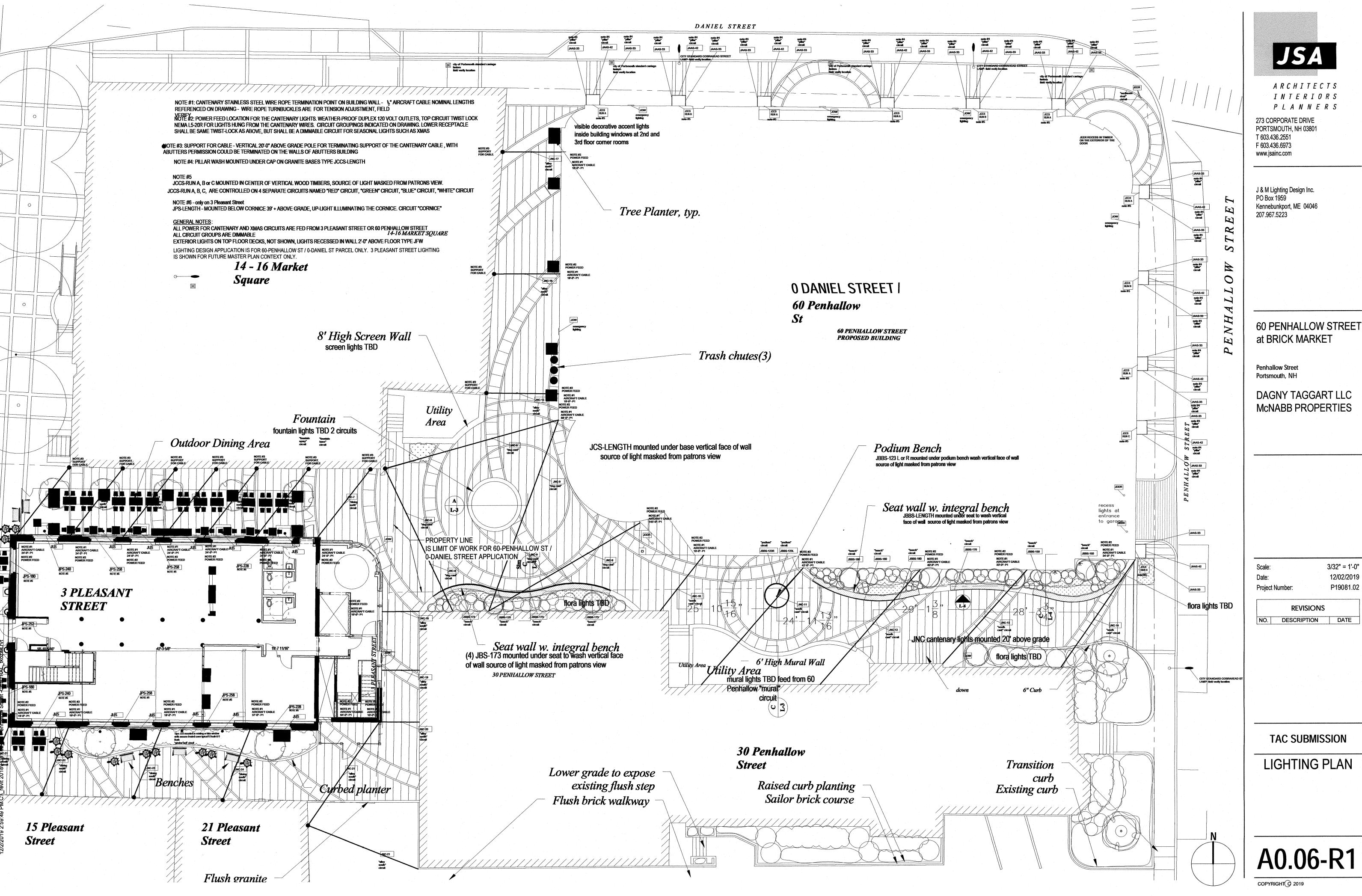
REVISIONS

NO. DESCRIPTION DATE

TAC SUBMISSION

TANGRAM RENDERINGS

A0.05



ARCHITECTS INTERIORS PLANNERS

273 CORPORATE DRIVE PORTSMOUTH, NH 03801 T 603.436.2551 F 603.436.6973

J & M Lighting Design Inc. PO Box 1959 Kennebunkport, ME 04046

60 PENHALLOW STREET at BRICK MARKET

Penhallow Street Portsmouth, NH

DAGNY TAGGART LLC McNABB PROPERTIES

3/32" = 1'-0"

REVISIONS

TAC SUBMISSION

PHOTOMETRIC **PLAN**

COPYRIGHT © 2019



0 Daniel Street (60 Penhallow Street)
Site Plan Review 11-18-2019
Green Building Statement

WATER

- Protect water quality Eliminate surface parking lot.
- Conserve Water -- Target 30% reduction in fixtures water use over building code, meeting EPACT 2005.

ENERGY

- Conserve Energy -- Target 50% Energy Use Index (EUI) Reduction over code compliance (IECC2015) in each building. Use early energy modeling to analyze effective scenarios. Provide high performance thermal envelope. Achieve Energy Star certification and associated rebates. Use Heat Recovery for ventilation. Commission energy using systems. LED lighting throughout.
- Renewable Energy Rooftop Solar Photovoltaic system for portion of building's energy needs.
- Building Performance -- Use industry tools to annually monitor and benchmark buildings. Train staff on proper building operation with comprehensive Facilities Staff Training and Systems Manuals.
- Reduce Low level ozone (smog) -- Provide safe and secure bicycle storage. Use only low-VOC products for construction and operation.

MATERIALS & RESOURCES

- Minimize waste (during construction and operation)
- · Use regional, renewable, low carbon footprint materials

INDOOR ENVIRONMENTAL QUALITY

- Thermal comfort -- Meet ASHRAE 55 Thermal Comfort Code. Address thermal envelope per above. Provide multiple zones of heating and cooling in each apartment.
- · Indoor air quality (before and during occupancy) -- MEET ASHRAE 62 Ventilation Code in all occupied spaces. MEET LEED IEQ credit requirements.
- Views / connection to outdoors -- Provide views to outdoors for every regularly occupied space.
- Daylighting -- Achieve Daylight Factor of 2% minimum for every regularly occupied space.
- Individual controls (light, heat etc...) -- Provide individual controls for temperature and lighting.



November 18, 2019

MAX-2019184.00

Mr. Eric B. Eby, P.E.
Department of Public Works
City of Portsmouth
680 Peverly Hill Road
Portsmouth, New Hampshire 03801

SUBJECT: Trip Generation Summary Letter

#60 Penhallow Street - Portsmouth, NH

Dear Mr. Eby:

Greenman-Pedersen, Inc. (GPI) is in the process of preparing a *Traffic Impact and Access Study (TIAS)* for a proposed mixed-use development, referred to as Brick Market, to located at #60 Penhallow Street in Portsmouth, New Hampshire. The existing site is currently a public 50-space parking lot with a single full-access / egress curb cut on Penhallow Street. The project consists of constructing a mixed-use development with a ±16,800 square foot (SF) of fast-food and fast-casual restaurant space on the first floor and ±41,600 SF of general office space on the second through fourth floors. The existing driveway will remain at Penhallow Street but be modified to provide garage access below street level. The site location in relation to the surrounding roadways is shown on the Project Location Map in Figure 1.

GPI and the Applicant met with representatives of the City of Portsmouth Planning Department on October 28, 2019 to review the scope of the TIAS. During this meeting, the Planning Department requested that the trip generation and distribution assumptions of the Project be provided to the City's Parking and Transportation Engineer for review prior to finalizing the TIAS. This letter is intended to provide a summary of the project-generated trips, mode split, and the corresponding trip distribution for review. A more comprehensive TIAS will be provided once the trip generation and distribution assumptions have been approved.

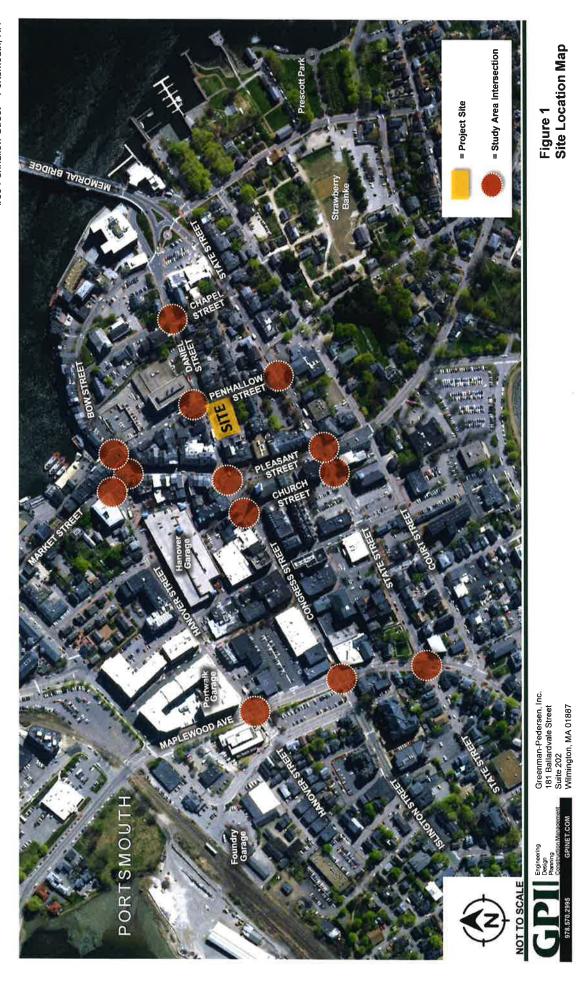


Figure 1 Site Location Map

Mr. Eric B. Eby November 18, 2019 Page 3

TRIP GENERATION

The Project is proposed to consist of the construction of approximately 41,600 SF of office space and 16,800 SF of restaurant space. The restaurant space will be a food-court style restaurant, similar to Faneuil Hall in Boston, with a mix of fast-food and fast-casual dining options with shared seating. To estimate the volume of traffic to be generated by the proposed redevelopment, trip-generation rates published by the Institute of Transportation Engineers (ITE) *Trip Generation Manual* were utilized for Land Use Code (LUC) 710 (General Office), LUC 930 (Fast Casual Restaurant), and LUC 933 (Fast-Food Restaurant without Drive-Through Window). Approximately half of the restaurant space was assumed to be fast-food style and half was assumed to be fast-casual style. The detailed trip generation calculations are provided as an Attachment and are summarized in Table 1.

Multi-Use Trips

Internal Capture

Studies have shown that for developments of mixed-use or multi-use sites, it is realistic to assume that there will be some multi-use trips within the site itself. For example, someone working in the office spaces may dine at one of the restaurants on-site. Therefore, a reduction in the overall trips experienced at the site driveway can be anticipated as a result of multi-use trips that include stops at more than one use on the site. Based on information published in ITE's *Trip Generation Handbook* ², it is estimated that multi-use trips account for 2 to 10 percent of the trips generated by the site. The Multi-Use Development Trip Generation and Internal Capture Worksheets are provided in the Attachments.

External Capture

The proposed development is located within the downtown central business district of Portsmouth, in close proximity to numerous other retail, restaurant, office, residential, entertainment, hotel, and commercial uses. While many of the office trips generated by the project will be new to the area, a large portion of the restaurant trips will be shared with other retail, office, residential, and other uses within the downtown area. It is anticipated that patrons will park at a single location either within one of the public parking garages or within on-street parking spaces and visit multiple uses within the downtown, stopping at one of the restaurants as part of their trip. In addition, employees of surrounding area businesses, residents of downtown, or patrons of area hotels may choose to dine at one of the on-site restaurants. These patrons would likely walk to the site from other locations and would not be new to the area. GPI utilized the Multi-Use Development Trip Generation and Internal Capture worksheets contained within ITE's *Trip Generation Handbook* to estimate the potential number of trips that could be shared between the proposed restaurants and the surround area businesses, hotels, and residences. Based on this information, 45 to 75 percent of restaurant trips are anticipated to be shared with other downtown uses.

Pass-by Trips

Studies have shown that for restaurant developments, a substantial portion of the site-generated vehicle trips are already present in the adjacent passing stream of traffic or are diverted from another route to the proposed site. For example, some vehicles which are already on the roadways may decide to visit the site on their way to another destination. Based on information published in the ITE *Trip Generation Handbook*, the average *pass-by* trip percentage is 43 to 50 percent for fast-food and high-turnover sit-down restaurants. Due to the location of the proposed restaurants in the downtown business district, it is likely that pass-by trips will arrive to the site

¹ Trip Generation, 10th Edition. Institute of Transportation Engineers; Washington, DC; 2017.

² Trip Generation Handbook, 3rd Edition. Institute of Transportation Engineers; Washington, DC; September, 2017.

Mr. Eric B. Eby November 18, 2019 Page 4

in the form of walking trips from patrons parking at another location downtown and visiting multiple stops before returning to their vehicle. For example, an area employee may stop at the restaurants to purchase dinner before leaving the downtown in their vehicle, or a person shopping in the downtown area may stop at the restaurant to grab lunch while shopping. Therefore, any pass-by trips generated by the proposed restaurant have been accounted for within the *external capture multi-use trips* described above.

Walking and Bicycling Trips

As previously noted, the proposed development is located within downtown Portsmouth in close proximity to multiple retail, restaurant, office, and commercial developments. In addition, a strong sidewalk network on the surrounding area roadways provides pedestrian connections between the site and these establishments. The City of Portsmouth has also made concerted efforts to provide bicycle accommodations throughout the downtown including dedicated bicycle lanes, shared lanes, and bicycle parking. As described in the *Multi-Use Trips — External Capture* section of this letter, approximately 45 to 75 percent of the restaurant trips are anticipated to be shared with surrounding area businesses and residences, and will travel to the site via walking or bicycling. In addition, based on U.S. Census Bureau information on means of travel for residence of Portsmouth, approximately 7.7 percent of Portsmouth residents travel to work via walking or biking. To provide a conservative (worse case) analysis scenario, 5 percent of the office trips were assumed to travel to/from the site via walking or bicycle.

Transit Trips

The Cooperative Alliance for Seacoast Transportation (COAST) and the University of New Hampshire (UNH) Wildcat Transit provide bus service along Congress Street / Daniel Street, Hanover Street, and Maplewood Avenue in the vicinity of the site. Based on U.S. Census Bureau data for residence of Portsmouth, approximately 1.4 percent of Portsmouth residents utilize public transit services to travel to/from work. It should be noted that this percentage includes also Portsmouth residents traveling to all places of employment, most of which may be located outside of the City. The percentage of residents using public transit to travel to places of employment within the City is likely to be much higher. To provide a conservative (worse case) analysis condition, no credit was applied for trips traveling to the site via public transportation.

The detailed trip generation and mode split calculations are provided in the Attachments. Table 1 provides a summary of the resulting site-generated trips.

TRIP-GENERATION SUMMARY Table 1

Mr. Mark A. McNabb November 18, 2019 Page 5

	Extern	External Trips	Walking /	Walking / Biking Trips	Z	New Primary Trips	sdi
Time Period / Direction	Office Trips ª	Restaurant Trips ^b	Office Trips °	Restaurant Trips ^d	Office Trips ^e	Restaurant Trips f	Total Trips 9
Weekday Daily	377	5,479	19	3,534	358	1,945	2,303
Weekday AM Peak Hour In <u>Out</u> Total	8 ლ <u>გ</u>	132 82 214	N 01 N	131 40 171	93 50	1 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	48 93
Weekday PM Peak Hour In <u>Out</u> Total	6 88 85	182 171 353	0 110	96 <u>131</u> 227	6 37 43	86 40 126	92 77 169
Saturday Daily	80	8,510	4	4,846	92	3,664	3,740
Saturday Midday Peak Hour In <u>Out</u> Total	7 8 15	380 <u>358</u> 738	0 0 0	204 <u>130</u> 334	7 8 15	176 228 404	183 236 419

^a Based on ITE LUC 710 (General Office) for ±41,600 SF.

^b Based on sum of ITE LUC 930 (Fast Casual Restaurant) for ±8,400 SF and ITE LUC 933 (Fast-Food Restaurant without Drive-Through) for ±8,400 SF. Five percent of office trips based on U.S. Census data.
 Trips based on mixed-use percentages to retail, residential, hotel, and entertainment uses.
 General office external trips minus walking / biking trips.
 Restaurant external trips minus walking / biking trips.
 New Primary Office Trips plus New Primary Restaurant Trips.

Mr. Mark A. McNabb November 18, 2019 Page 6

TRIP DISTRIBUTION

Having estimated project-generated vehicle trips, the next step is to determine the distribution of project traffic and assign these trips to the local roadway network.

Office Trips

The distribution of site-generated office trips was based on a Journey-to-Work model using U.S. Census Data for the place of residency of employees of Portsmouth, which was prepared as part of the Traffic Impact Study for the proposed McIntyre Building Federal property redevelopment project by Tighe & Bond. As part of the #60 Penhallow Street project, 77 parking spaces will be provided on-site within an underground garage to accommodate the proposed office use. Therefore, the trip distribution prepared as part of the McIntyre Building study was slightly modified to account for vehicles traveling directly to/from the on-site parking garage. The resulting trip distribution is graphically depicted in Figure 2 and summarized in Table 2 below.

Restaurant Trips

Similarly, the McIntyre Building redevelopment includes a residential component and is located in close proximity to the #60 Penhallow Street site. Therefore, the trip distribution assumptions used for the McIntyre project were utilized to distribute restaurant trips for the #60 Penhallow Street project. As previously noted in the *Trip Generation* section of this letter, the majority of restaurant trips are likely to be shared with other uses in the downtown area and will travel to/from the site via walking. However, the portion of *new primary* trips traveling to the proposed restaurants will likely park in nearby parking garages and walk to the site. The Hanover Garage and Portwalk Garage provide a large amount of parking at relatively low costs and are in close proximity to the site. Therefore, all of the *new primary* restaurant trips were assumed to travel to one of these two garages on Hanover Street. The resulting trip distribution is graphically depicted in Figure 3 and summarized in Table 2 below.

Table 2
TRIP DISTRIBUTION SUMMARY

Direction	Office Distribution (%)	Restaurant Distribution (%)
Middle Street to/from South Market Street to/from North	5 20	25 15
Maplewood Avenue to/from North	60	30
Memorial Bridge to/from East <u>Islington Street to/from West</u>	10 	20 _10
Total	100	100

The site-generated trips were distributed to the study area intersections based on the percentages in Table 2 above. The resulting site-generated trips are illustrated in Figures 4A, 4B, and 4C for the weekday AM, weekday PM, and Saturday midday peak hours, respectfully.

Mr. Eric B. Eby November 18, 2019 Page 7

SUMMARY

GPI has estimated the site-generated vehicle trips associated with the proposed redevelopment of #60 Penhallow Street as described in this letter. This information will be utilized in the preparation of a comprehensive Traffic Impact and Access Study and will determine the extents of the study area. Therefore, we respectfully request your review and approval of the assumptions and resulting trip generation and distribution prior to moving forward with completion of the traffic study.

Should you have any questions, or require additional information, please contact me at (978) 570-2946.

Sincerely,

GREENMAN-PEDERSEN, INC.

Rebecca L. Brown, P.E., PTOE

Senior Project Manager

Enclosures:

Site-Generated Vehicle Trip Traffic-Volume Networks Trip Generation Calculations Mode Split Calculations Trip Distribution Calculations

cc: Mark McNabb – Dagny Taggart, LLC (via email)
John Chagnon, P.E., LLS – Ambit Engineering (via email)

Office Vehicle Trip Distribution

4 6 6
4 54
2
173
171
۰
722
247
-
700
-

Units Land Use
SF LUC 710
SF LUC 933
SF LUC 930

41,600 SF 8,400 SF 8,400 SF

Institute of Transportation Engineers (ITE)

Land Use Code (LUC) 710 - General Office Building

General Urban/Suburban

Average Vehicle Trips Ends vs:

1000 Sq. Feet Gross Floor Area

Independent Variable (X):

41.600

AVERAGE WEEKDAY DAILY

$$Ln(T) = 0.97 Ln(X) + 2.50$$

$$Ln(T) = 0.97$$
 $Ln(41.600) + 2.50$

Ln(T) = 6.12

T = 453.17

T = 454vehicle trips

with 50% (227

vpd) entering and 50% (227 vpd) exiting.

WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

+ 26.49

$$T = 0.94 * (X) + 26.49$$

T = 0.94T = 65.59

* 41.600

T = 66vehicle trips

with 86% (57 vph) entering and 14% (9 vph) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

$$Ln(T) = 0.95 Ln(X) + 0.36$$

$$Ln(T) = 0.95$$
 $Ln(41.600) + 0.36$

Ln(T) = 3.90

T = 49.49

T = 49vehicle trips

with 16% (8

vph) entering and 84% (41 vph) exiting.

SATURDAY DAILY

$$T = 2.21 * (X)$$

$$T = 2.21$$

* 41.600

T = 91.94

T = 92

vehicle trips

with 50% (

vph) entering and 50% (46 vph) exiting.

SATURDAY PEAK HOUR OF GENERATOR

$$T = 0.53 * (X)$$

$$T = 0.53$$
 * 41.600

T = 22.05

T = 22vehicle trips

with 54% (

vph) entering and 46% (10 vph) exiting.

Institute of Transportation Engineers (ITE)

Land Use Code (LUC) 933 - Fast-Food Restaurant without Drive-Through Window General Urban/Suburban

Average Vehicle Trips Ends vs: 1,000 Sq. Ft. Gross Floor Area

Independent Variable (X): 8.400

AVERAGE WEEKDAY DAILY

T = 346.23 * (X)

T = 346.23 * 8.400

T = 2908.33

T = 2,908 vehicle trips

with 50% (1,454 vpd) entering and 50% (1,454 vpd) exiting.

WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 25.10 * (X)

T = 25.1 * 8.400

T = 210.84

T = 211 vehicle trips

with 60% (127 vph) entering and 40% (84 vph) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 28.34 * (X)

T = 28.34 * 8.400

T = 238.06

T = 238 vehicle trips

with 50% (119 vph) entering and 50% (119 vph) exiting.

SATURDAY DAILY

T = 696.00 * (X)

T = 696.00 * 8.400

T = 5846.40

T = 5,846 vehicle trips

with 50% (2,923 vpd) entering and 50% (2,923 vpd) exiting.

SATURDAY PEAK HOUR OF GENERATOR

T = 54.60 * (X)

T = 54.60 * 8.400

T = 458.64

T = 459 vehicle trips

with 49% (225 vph) entering and 51% (234 vph) exiting.

Institute of Transportation Engineers (ITE)

Land Use Code (LUC) 930 - Fast Casual Restaurant

General Urban/Suburban

Average Vehicle Trips Ends vs:

1,000 Sq. Ft. Gross Floor Area

Independent Variable (X): 8.400

openius / unusio (11).

AVERAGE WEEKDAY DAILY

```
T = 315.17 * (X)
```

T = 315.17 * 8.400

T = 2647.43

T = 2,648 vehicle trips

with 50% (1,324 vpd) entering and 50% (1,324 vpd) exiting.

WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

$$T = 2.07 * (X)$$

T = 2.07 * 8.400

T = 17.39

T = 17 vehicle trips

with 67% (11 vph) entering and 33% (6 vph) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

T = 14.13 * (X)

T = 14.13 * 8.400

T = 118.69

T = 119 vehicle trips

with 55% (65 vph) entering and 45% (54 vph) exiting.

SATURDAY DAILY

T = 318.62 * (X)

T = 318.62 * 8.400

T = 2676.41

T = 2,676 vehicle trips

with 50% (1,338 vpd) entering and 50% (1,338 vpd) exiting.

SATURDAY PEAK HOUR OF GENERATOR

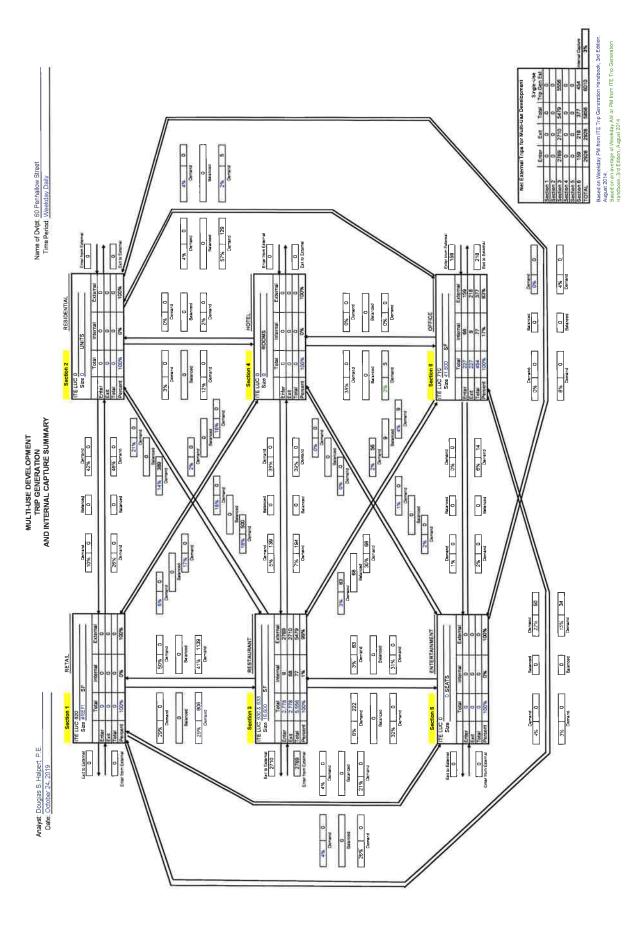
T = 34.02 * (X)

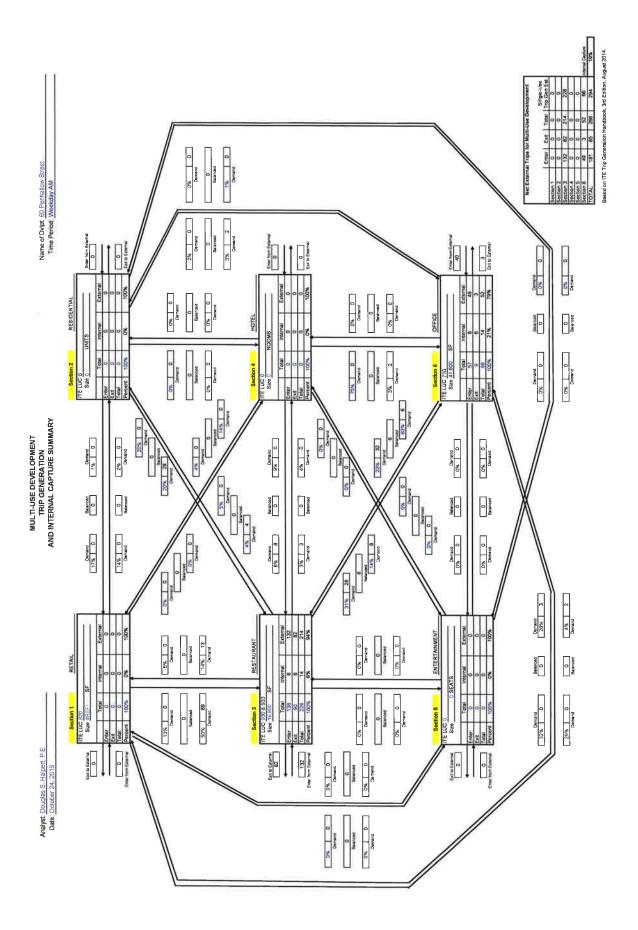
T = 34.02 * 8.400

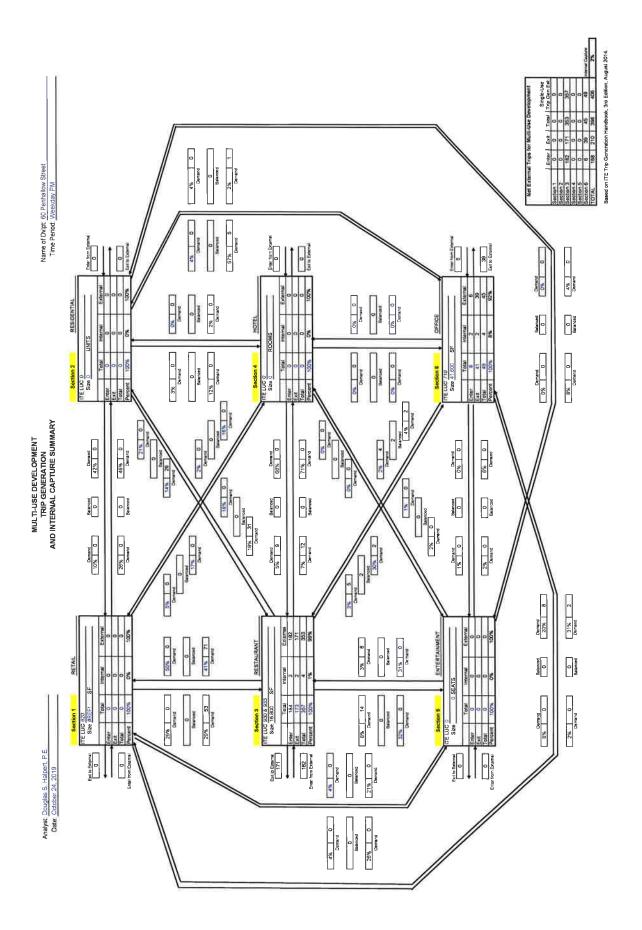
T = 285.77

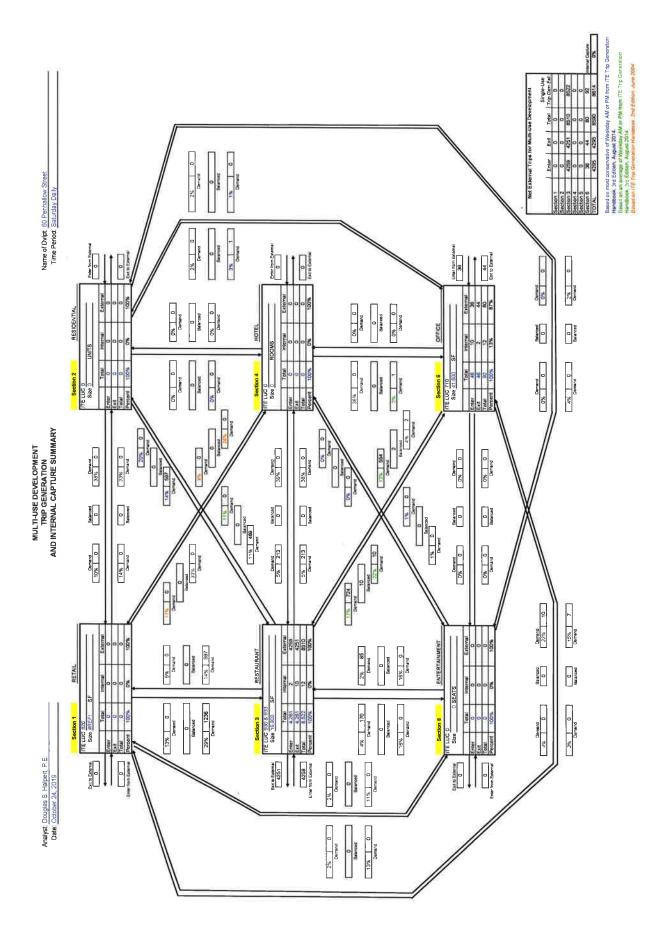
T = 286 vehicle trips

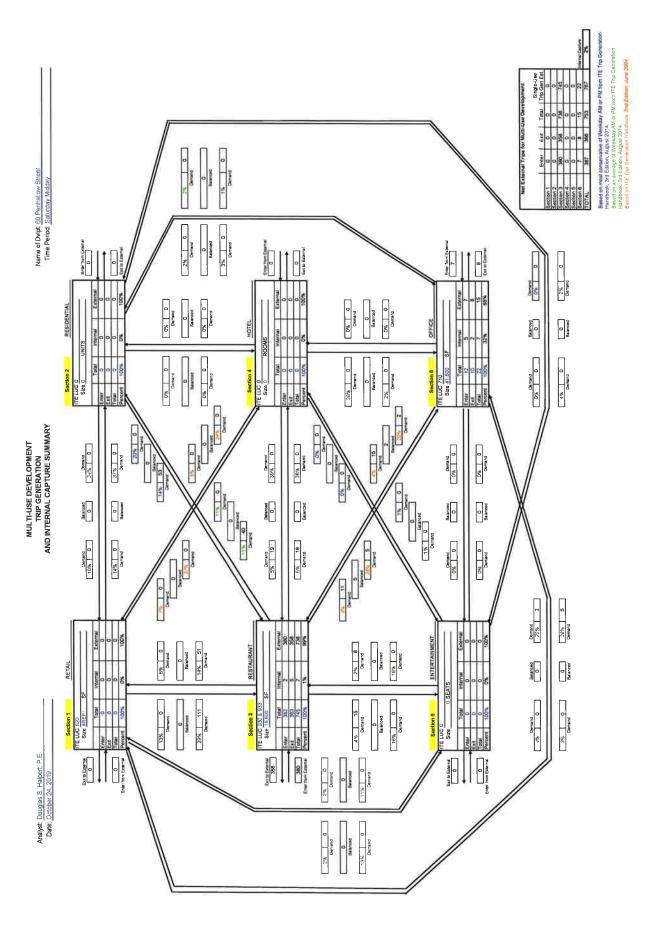
with 55% (157 vph) entering and 45% (129 vph) exiting.













B08101

MEANS OF TRANSPORTATION TO WORK BY AGE

Universe: Workers 16 years and over 2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	Portsmouth city, I	New Hampshire
	Estimate	Margin of Error
fotal:	12,584	+/-398
16 to 19 years	381	+/-161
20 to 24 years	1,265	+/-251
25 to 44 years	6,084	+/-431
45 to 54 years	2,327	+/-249
55 to 59 years	1,096	+/-198
60 to 64 years	714	+/-168
65 years and over	717	+/-141
Car, truck, or van - drove alone:	9,564	+/-465
16 to 19 years	145	+/-68
20 to 24 years	981	+/-267
25 to 44 years	4,631	+/-414
45 to 54 years	1,859	+/-245
55 to 59 years	838	+/-187
60 to 64 years	512	+/-120
65 years and over	598	+/-131
Car, truck, or van - carpooled:	896	+/-235
16 to 19 years	132	+/-106
20 to 24 years	54	+/-37
25 to 44 years	475	+/-173
45 to 54 years	97	+/-63
55 to 59 years	84	+/-58
60 to 64 years	54	+/-44
65 years and over	0	+/-21
Public transportation (excluding taxicab):	180	+/-79
16 to 19 years	0	+/-21
20 to 24 years	57	+/-47
25 to 44 years	71	+/-58
45 to 54 years	21	+/-24
55 to 59 years	15	+/-15
60 to 64 years	16	+/-17
65 years and over	0	+/-21
Walked:	761	+/-240
16 to 19 years	79	+/-86

1 of 2

	Portsmouth city, I	New Hampshire
	Estimate	Margin of Error
20 to 24 years	131	+/-88
25 to 44 years	376	+/-154
45 to 54 years	70	+/-60
55 to 59 years	27	+/-22
60 to 64 years	57	+/-58
65 years and over	21	+/-24
Taxicab, motorcycle, bicycle, or other means:	210	+/-90
16 to 19 years	6	+/-11
20 to 24 years	0	+/-21
25 to 44 years	134	+/-74
45 to 54 years	55	+/-39
55 to 59 years	0	+/-21
60 to 64 years	15	+/-16
65 years and over	0	+/-21
Worked at home:	973	+/-225
16 to 19 years	19	+/-45
20 to 24 years	42	+/-58
25 to 44 years	397	+/-115
45 to 54 years	225	+/-70
55 to 59 years	132	+/-63
60 to 64 years	60	+/-46
65 years and over	98	+/-64

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

Workers include members of the Armed Forces and civilians who were at work last week.

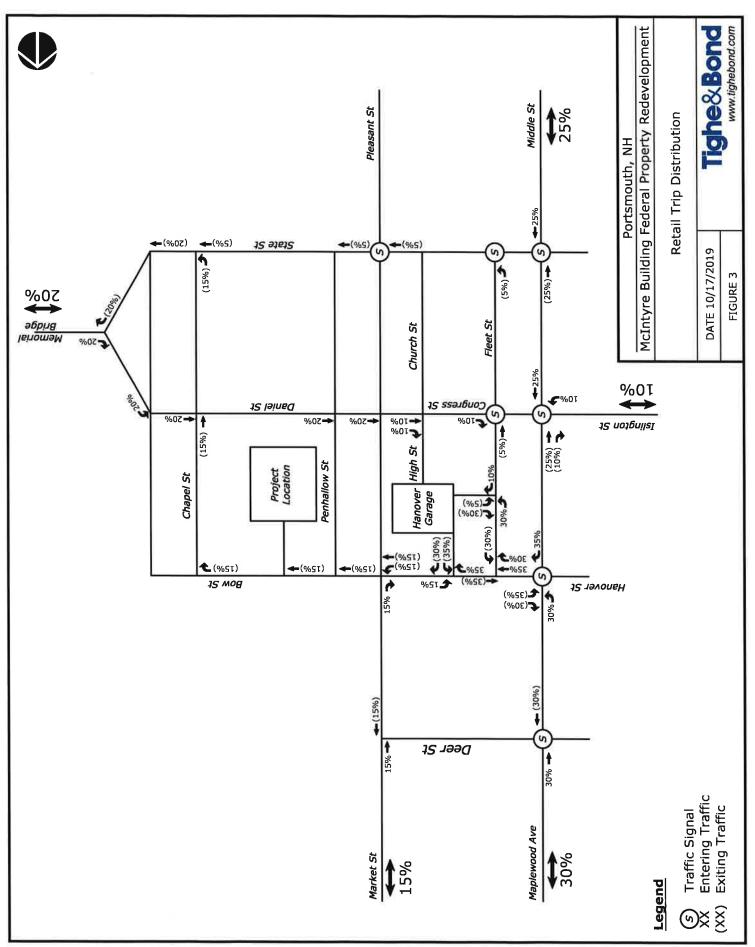
While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

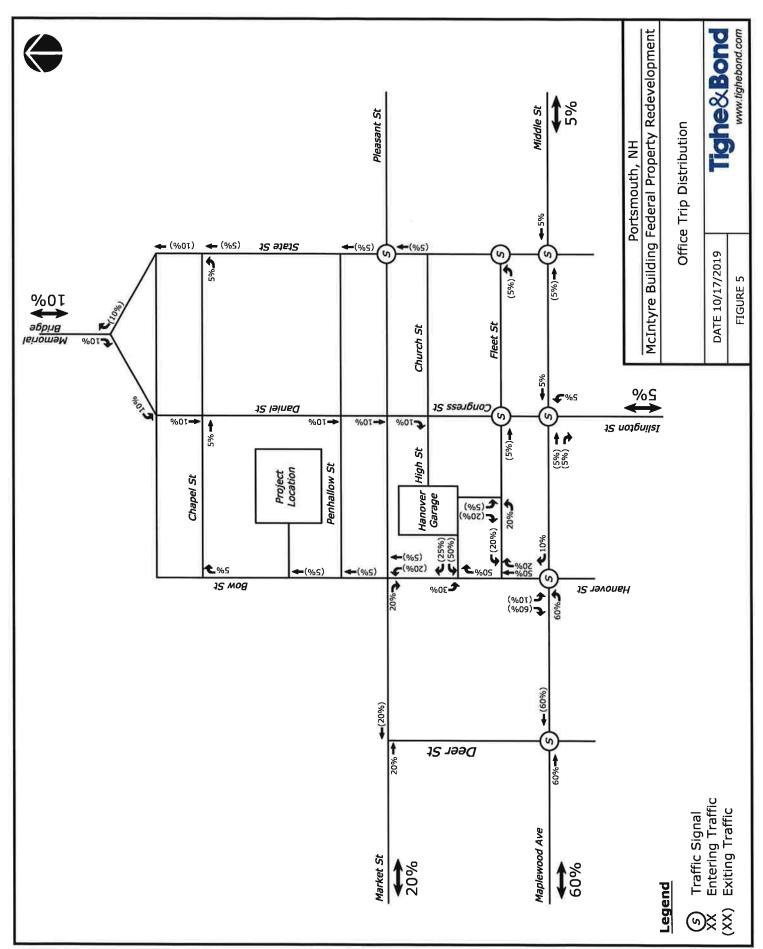
Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

- 1. An *** entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
- 2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
 - 3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
 - 4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
- 5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
 - 6. An '***** entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
- 7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
 - 8. An '(X)' means that the estimate is not applicable or not available.





MENU





[/en]

Swing o Mat

The underground system with a foldable walkway platform

The walkway platform of our Swing o Mat underground container system is 90° foldable. Thus, no emptying hook is visible, and the waste can be collected with either a steel container or big bag

Product Specifications

- Volume: 3,0 = 5,0 m³
- Modular System
- Steel Container or Big Bag
- Throw-in column: different models available
- Emptying Hooks:

Mushroom, 1 Hook

Suitable to collect

- Mixed Waste
- Paper + Cardboard
- Plastic + Plastic Bottles
- Aluminium
- Recycables

Options



Fill Level Sensor







[/en/products/options/verwiegungss/etd/adrvices/service-

TRASH CHUTES

Get in touch with us

EASEMENT FOR PUBLIC ACCESS AND USE OF COMMUNITY SPACE

THIS EASEMENT HEREIN IS GRANTED this _____ day of ______, 2019 by Dagny Taggart, LLC, a New Hampshire limited liability company having an address of 30 Penhallow Street, Suite 300 East, City of Portsmouth, County of Rockingham, State of New Hampshire 03801, ("Grantor") unto the City of Portsmouth, New Hampshire ("Grantee") for public access to and use of certain pocket parks, use of community space and sidewalks as set forth herein.

WITNESSETH

WHEREAS, Grantor acquired a tract of land located at 3 Pleasant Street, City of Portsmouth, County of Rockingham, State of New Hampshire described in Exhibit A attached hereto and made a part hereof (the "Property"); and

WHEREAS, reference is made to a plan entitled "Brick Market, Master Plan, Community Space, Tax Map 107, Lots 27, 31 & 42, Owners: Dagny Taggart, LLC & Coventry Assets, Ltd. Property Located At: 3 Pleasant Street, 30 & 60 Penhallow Street, City of Portsmouth, County of Rockingham, State of New Hampshire," prepared by Ambit Engineering, Inc., dated July 25, 2019, as revised and recorded herewith at the Rockingham County Registry of Deeds (the "Community Space Plan"); and

WHEREAS, the Grantor, as provided herein, wishes to dedicate a certain portion of the Property as Community Space, as defined by the Portsmouth Zoning Ordinance further, to convey an easement for public access to, and use of community space and sidewalks, all as shown on the Community Space Plan;

NOW THEREFORE, in consideration of the sum of One Dollar (\$1.00), to be paid by the City, and other good and valuable consideration, the receipt of which is hereby acknowledged by the Grantor, Grantor conveys the easement as follows:

- 1. Grant of Easements. Grantor hereby grants, transfers and conveys to Grantee, for the benefit of the public, with only pedestrian access thereto, a nonexclusive permanent right to use and enjoy those portions of the Property depicted on the Community Space Plan consisting of an area of 3,952 square feet on the Property, to be used concurrently with similar Community Space on Tax Map 107, Lot 31 and Tax Map 107 Lot 42, with an aggregate Community Space with all three lots of 11,962 square feet, all as shown on the Community Space Plan (the "Community Space Easement").
- **Restrictions.** The Community Space Easement shall be used by the public pursuant to this instrument only during the hours of 8:00 a.m. through 10:00 p.m. Notwithstanding any provision of this instrument to the contrary, the Grantor reserves the right, in its sole discretion, to change the hours during which the Community Space Easement is available for use by the public and to impose reasonable restrictions on the use of the Community Space Easement to enable Grantor to maintain and repair the Property and improvements thereon, provided that such restrictions do not substantially and permanently impair or diminish the rights of the public provided herein. Subject to the terms of this instrument, the public use of the Community Space Easement shall be governed by the City Ordinances of the City of Portsmouth, including without limitation, Chapter 3, Public Health, Article IV Noise Control, Section 3.401 et seq. ("City Ordinance"), so long as the City Ordinance does not conflict with any existing easements affecting the Property or conflict with the existing use of the Property by the Grantor.
- 3. Reserved Rights. Grantor reserves the rights to conduct all legally permitted activities within the Community Space Easement, and to alter and improve the Community Space Easement, provided that such activities, alterations and/or improvements do not substantially interfere with the rights granted hereby. Not by way of limitation of the foregoing, Grantor shall have the right to use the Community Space Easement as collateral for subsequent borrowings, provided that any mortgage or lien arising from such borrowing shall be subordinated to this Community Space Easement. Grantor may, from time to time, relocate one or more portions of the Community Space Easement to another location on the Property, subject to approval by the Grantee, which approval shall not be unreasonably withheld, conditioned or delayed.
- 4. Nonexclusive Easement. The Community Space Easement is nonexclusive. Grantor retains the right to make any use of the Community Space Easement, including, but not limited to, the right to utilize the Community Space Easement for outside activities including, the placement of tables, umbrellas and chairs for customer dinning from restaurants during seasonal weather when patrons desire to sit outside, the creation of staging and audience areas for artists, musical performances and other entertainment purposes provided such uses do not unreasonably interfere with the Grantee's and the public's use and enjoyment of the Community Space Easement. Grantor also retains the right to grant concurrent and additional easements on, over or under the Community Space Easement to third parties for such uses as the location of underground improvements, the location of utilities and drainage or otherwise, provided such use or uses to not unreasonably interfere with Grantee's and the public's use and enjoyment of the Community Space Easement. Nothing contained in this Community Space Easement shall be construed an exclusive right to the Grantee, or the general public, and/or as affording the

public a right of access to any portion of the Property other than access which is consistent with this Community Space Easement.

- 5. <u>Maintenance and Repair.</u> The maintenance of the Community Space Easement shall be the sole responsibility of the Grantor, and its successors and assigns.
- 6. <u>Encroachments</u>. The Community Space Easement is subject to all existing encroachments of utilities and improvements on, over and under the Community Space Easement, and to all future encroachments of utilities and improvements constructed or installed on or around the Community Space Easement (subject, however, to the terms of the preceding paragraphs).
- Costs and Liabilities. Grantor agrees to bear all costs and liabilities of any kind related to the operation, upkeep, and maintenance of the Property, and to defend, indemnify, hold harmless, and release the City of Portsmouth, from and against any and all actions, claims, damages, liabilities, or expenses that may be asserted by any person or entity, including Grantor, relating thereto. Without limiting the foregoing, the City of Portsmouth shall not be liable to Grantor or any other person or entity in connection with any entry upon the Property pursuant to this Community Space Easement, or on account of any claim, liability, damage, or expense suffered or incurred by or threatened against Grantor or any other person or entity, except as such claim, liability, damage, or expense is the result of the City of Portsmouth's, its agents or employee's negligence or willful misconduct.
- 8. <u>Acts Beyond Grantor's Control</u>. Nothing contained in this Community Space Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Community Space Easement resulting from causes beyond Grantor's control, including, without limitation, natural processes, by force majeure, without limitation, fire, flood, storm, and earth movement, or from any prudent action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Community Space Easement or the remainder of the Property resulting from such causes.
- 9. <u>Covenants Run with the Land.</u> The Community Space Easement granted herein shall be perpetual in nature, shall run with the land and shall benefit and be binding upon the Grantor, its successors and assigns. This Community Space Easement shall be recorded in the Rockingham County Registry of Deeds.
- 10. <u>City Ordinance Application.</u> The use, public or private, of the Community Space Easement shall be subject to and comply with the City Ordinances of the City of Portsmouth.
- 11. <u>Notices.</u> Any notice, demand, request, or other communication that either party desires or is required to give to the other under this Community Space Easement shall be in writing and either served personally or sent by United States mail, postage prepaid, certified, return receipt requested, and shall be mailed to the parties at the following addresses:

To Grantor:

Dagny Taggart, LLC, 30 Penhallow Street, Suite 300 East Portsmouth, NH 03801

To City:

City of Portsmouth, New Hampshire 1 Junkins Avenue Portsmouth, NH 03801

- 12. <u>Amendment.</u> Grantor, or its successors and/or assigns, and City may mutually agree to amend or modify this Community Space Easement, provided that any such amendment or modification is in writing and signed by both parties, and is consistent with the purpose of this Community Space Easement. No amendment or modification of this Community Space Easement shall take effect unless and until it is recorded in the Rockingham County Registry of Deeds.
- 13. <u>Applicable Law.</u> This Community Space Easement shall be construed and interpreted according to the substantive law of the State of New Hampshire.

Meaning and intending to convey an easement over a portion of the Property conveyed to the Grantor by Warranty Deed of Jarbel Realty, LLC, dated April 5, 2019 and recorded at the Rockingham County Registry of Deeds at Book 5990, Page 1701.

This is an exempt transfer pursuant to RSA 78-B:2(I).

IN WITNESS WHEREOF, Grantor and City have executed this Community Space Easement as set forth, below.

Grantor: Dagny Taggart, LLC,
By: Mark A. McNabb, Manager
Grantee: City of Portsmouth, New Hampshire
By: John P. Bohenko, City Manager

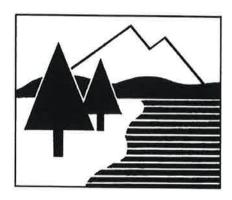
ACKNOWLEDGEMENTS

STATE OF NEW HAMPSHIRE	
COUNTY OF ROCKINGHAM	
personally appeared Mark A. McNabb, I limited liability company, proved to me t was a valid driver's license, to be the personal	, 2019, before me, the undersigned notary public, Manager of Dagny Taggart, LLC, a New Hampshire through satisfactory evidence of identification, which on whose name is signed on the preceding or attached ne/she signed it voluntarily for its stated purpose.
	Notary Public: My Commission Expires:
STATE OF NEW HAMPSHIRE COUNTY OF ROCKINGHAM	
COUNTY OF ROCKINGHAM	
personally appeared John P. Bohenko, Ma proved to me through satisfactory evident license, to be the person whose name is si	019, before: me, the undersigned notary public, mager of the City of Portsmouth New Hampshire, nce of identification, which was a valid driver's igned on the preceding or attached document, and in his capacity as stated therein and voluntarily for
	Notary Public:
	My Commission Expires:

DRAINAGE ANALYSIS

SITE REDEVELOPMENT

60 PENHALLOW STREET PORTSMOUTH, NH



October 8, 2019

Revised: November 18, 2019



Ambit Engineering, Inc.

Civil Engineers and Land Surveyors 200 Griffin Road, Unit 3 Portsmouth, NH 03801

Phone: 603.430.9282; Fax: 603.436.2315 E-mail: jlm@ambitengineering.com

(Ambit Job Number 3039)



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APPENDIX

- A. Vicinity (Tax) Map
- B. Tables, Charts, Etc.
- C. HydroCAD Drainage Analysis Calculations
- D. Soil Survey Information
- E. Inspection & Maintenance Plan

ATTACHMENTS

Existing Drainage Plan - W1

Proposed Drainage Plan - W2

EXECUTIVE SUMMARY

This drainage analysis examines the pre-development (existing) and post-development (proposed) stormwater drainage patterns for the proposed development which includes a constructing a multi-story mixed use building at 60 Penhallow Street in Portsmouth, NH. The site is shown on the City of Portsmouth Assessor's Tax Map 107 as Lot 27. The lot size is 23,279 square-feet (0.53 acres).

The new building will be serviced by public water and public sewer. The development has the potential to increase stormwater runoff to adjacent properties, and therefore must be designed in a manner to prevent that occurrence. This will be done primarily by capturing stormwater runoff and routing it through appropriate stormwater facilities, designed to ensure that there will be no increase in peak runoff from the site as a result of this project.

The hydrologic modeling uses the "Extreme Precipitation" values from The Northeast Regional Climate Center (Cornell University) for modeling purposes. Because Portsmouth is in the Seacoast area, we have increased these values by 15% and incorporated these values in this report.

SITE REDEVELOPMENT

60 Penhallow Street

PORTSMOUTH, NH

INTRODUCTION / PROJECT DESCRIPTION

This drainage report is designed to assist the owner, planning board, contractor, regulatory reviewer, and others in understanding the impact of the proposed development project on local surface water runoff and quality. The project site is shown on the City of Portsmouth, NH Assessor's Tax Map 107 Lot 27.

Bounding the site to the north is Daniel Street. Bounding the site to the West are commercial buildings with frontage along Daniel Street and Market Square / Pleasant Street. Bounding the site to the south is a commercial building with frontage on Penhallow Street. Bounding the Site to the east is Penhallow Street. The subject property is situated in the Character District 4 (CD4), Downtown Overlay District (DOD) and the Historic District (HDC). A vicinity map is included in the Appendix to this report.

The proposed development plan is to construct a new commercial building with a below grade, two level garage and other associated improvements such as utilities and landscaping. The project is anticipated to begin construction in the spring of 2020 and be substantially completed by the summer of 2021.

This report includes information about the existing site and the proposed development necessary to analyze stormwater runoff and to design any required mitigation. The report includes maps of pre-development and post-development watersheds, sub-catchment areas and calculations of runoff. The report will provide a narrative of the stormwater runoff and describe numerically and graphically the surface water runoff patterns for this site. Proposed stormwater management and treatment structures and methods will also be described, as well as erosion and sediment control practices. To fully understand the proposed site development the reader should also review a complete site plan set in addition to this report.

METHODOLOGY

This report uses the US Soil Conservation Service (SCS) Method for estimating stormwater runoff. The SCS method is published in The National Engineering Handbook (NEH), Section 4 "Hydrology" and includes the Technical Release No. 20, (TR-20) "Computer Program for Project Formulation Hydrology", and Technical Release No. 55 (TR-55) "Urban Hydrology for Small Watersheds" methods. This report uses the HydroCAD version 10.0 program, written by HydroCAD Software Solutions LLC, Chocorua, N.H., to apply these methods for the calculation of runoff and for pond modeling. Hydrologic modeling employs the "Extreme Precipitation" values from The Northeast Regional Climate Center (Cornell University) increased by 15%. These values have been used and are included in this report.

Time of Concentration (Tc) is calculated by entering measured flow path data such as flow path type, length, slope and surface characteristics into the HydroCAD program. For the purposes of this report, and as directed by TR55, a minimum time of concentration of 5 minutes is used.

The storm events used for the calculations in this report are the 2-year, 10-year and 50-year (24-hour) storms. Watershed basin boundaries have been delineated and subsequently revised using topographic maps prepared and updated by Ambit Engineering survey data, record plans and field observations to confirm.

SITE SPECIFIC INFORMATION

Based on the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), Soil Survey of Rockingham County, New Hampshire, the site is made up of one soil type:

699 – Urban land. This soil has been assigned a Hydrologic Soil Group (HSG) classification of B, with a Low runoff class.

The physical characteristics of the site consist of (3-15%) grades that generally slope downward into the center of the site. At least three catch basins located on site provide adequate drainage in the existing conditions. Elevations on the site range from 30 to 27 feet above sea level. Currently the site is a private commercial parking lot. The existing vegetation around the lot consists of established grasses, shrubs and trees.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) number 33015C0259E (effective date May 17, 2005), the project site is not located in a floodplain. A copy of the FIRM map is included in the Appendix.

PRE-DEVELOPMENT DRAINAGE

The existing site drains via overland flow from the outer bounds of the property towards the center of the site to three catch basins located within the parking lot. These three catch basins combine and discharge to a 12" HDPE through CB 5966 located along the curb line in Penhallow Street. We have placed the design point at the end of the existing 12" HDPE, entering CB 5966 and then into an 18" HDPE main trunkline at DMH 5963. There is no existing stormwater detention or treatment on the site.

In the pre-development condition, the site has been analyzed as four watershed basins (ES1, ES2, ES3 and ES4) based on localized topography and discharge location. As described above, ES1 represents the majority of on site runoff while ES2, ES3 and ES4 are the offsite runoff from adjacent streets. The runoff curve number (CN) for Subcatchment ES1 is calculated to be 91 with impervious coverage of 76.9%. The runoff curve numbers for ES2, ES3 and ES4 is 98 since they are entirely impervious surface consisting of asphalt and brick sidewalk.

Table 1: Pre-Development Watershed Basin Summary

Watershed Basin ID	Basin Area (SF)	Tc (MIN)	CN	2-Year Runoff (CFS)	10-Year Runoff (CFS)	50-Year Runoff (CFS)	Design Point
ES1	30,432	5.0	91	2.25	3.67	5.80	DP1
ES2	4,330	5.0	98	0.37	0.56	0.86	DP1
ES3	1,701	5.0	98	0.14	0.22	0.34	DP1
ES4	803	5.0	98	0.07	0.10	0.16	DP1

POST-DEVELOPMENT DRAINAGE

The proposed development has been designed to match the pre-development drainage patterns to the greatest extent feasible. In the post-development condition, the site has been analyzed as four (4) separate subcatchments (PS1, PS2, PS3 and PS4) based on localized topography and discharge locations. In general, the proposed subcatchments are similar area as the existing subcatchemnts. Basin PS1 is the rooftop runoff from the new building. PS2 is the runoff from Daniel Street. PS3 is the runoff from Penhallow Street. PS4 is runoff from the alley way that flows out to Penhallow Street.

The runoff curve number (CN), Time of Concentration (TC), % Impervious, and Peak Flow Rate (CFS) for the Post Development Watersheds are shown in Table 2: Post Development Water Shed Summary below.

Table 2: Post-Development Watershed Basin Summary

Watershed Basin ID	Basin Area (SF)	Tc (MIN)	CN	2-Year Runoff (CFS)	10-Year Runoff (CFS)	50-Year Runoff (CFS)	Design Point
PS1	17,104	5.0	98	1.46	2.23	3.39	DP1
PS2	5,601	5.0	98	0.48	0.73	1.11	DP1
PS3	1,995	5.0	98	0.17	0.26	0.40	DP1
PS4	12,558	5.0	94	1.00	1.58	2.45	DP1

The overall impervious coverage of the area analyzed in this report for all basins **increases** from 30,251 square feet (81.1%) in the pre-development condition to 35,773 square feet (95.9%) in the post-development condition. In the existing condition, parking is on the surface and surfaces treated with asphalt and used for vehicles are known to be high pollutant load areas. In the proposed condition this parking is located underground and since runoff from the site in the proposed condition is largely roof top and brick type paver walkways, there is no real need for treatment of stormwater runoff as the runoff will be relatively clean.

Table 3 shows a summary of the comparison between pre-developed flows and post-developed flows for the design point.

Table 3: Pre-Development to Post-Development Comparison

	Q2 (CFS)	Q10	(CFS)	Q25 ((CFS)	Q50 (CFS)			
Design Point DP1	Pre	Post	Pre	Post	Pre	Post	Pre	Post		
DP1	2.83	3.11	4.56	4.80	5.90	6.11	7.16	7.34		

EROSION AND SEDIMENT CONTROL PRACTICES

The erosion potential for this site as it exists is low due to the existing pavement at the site. During construction, the major potential for erosion is wind and stormwater runoff. The

contractor will be required to inspect and maintain all necessary erosion control measures, as well as installing any additional measures as required. All erosion control practices shall conform to "The Stormwater Management and Erosion Control Handbook for Urban and Developing Areas in New Hampshire." Some examples of erosion and sediment control measures to be utilized for this project during construction may include:

- Silt Soxx (or approved alternative) located at the toe of disturbed slopes
- Stabilized construction entrance at access point to the site
- Temporary mulching and seeding for disturbed areas
- Spraying water over disturbed areas to minimize wind erosion

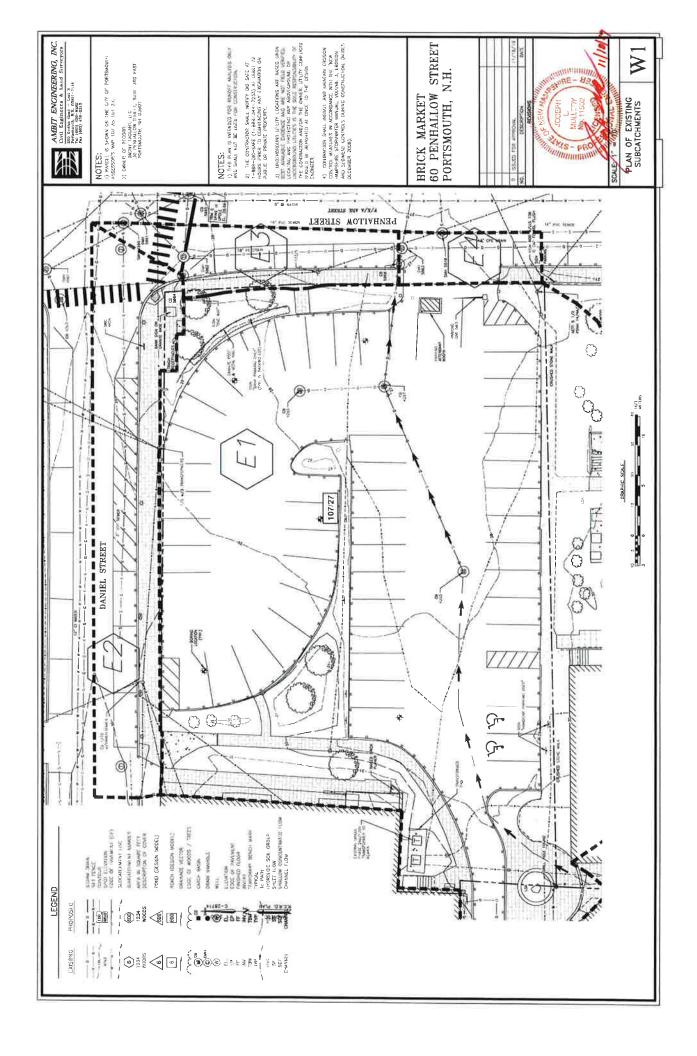
After construction, permanent stabilization will be accomplished by permanent seeding, landscaping and surfacing the access drives and parking areas with asphalt paving

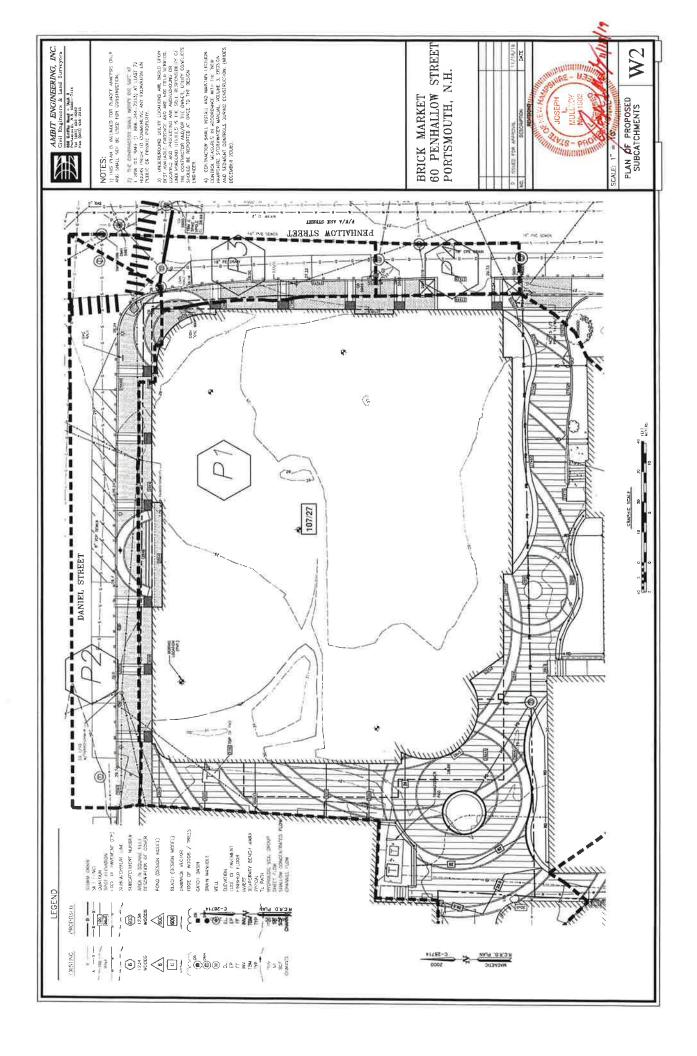
CONCLUSION

The existing site is largely impervious surface. The proposed development will add a nominal amount of impervious surface to the overall area. This results in marginal increases between 0.28 cfs and 0.18 cfs in stormwater runoff for the range of storms analyzed. Considering that there is a closed drainage system located within Penhallow Street, in our opinion these increases can be absorbed with no concern for negative impacts.

REFERENCES

- 1. City of Portsmouth, NH. Site Plan Review Regulations amended September 15, 2016.
- 2. Comprehensive Environmental Inc. and New Hampshire Department of Environmental Services. *New Hampshire Stormwater Manual (Volumes 1, 2 and 3)*, December 2008 (Revision 1.0).
- 3. Minnick, E.L. and H.T. Marshall. Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire, prepared by Rockingham County Conservation District, prepared for New Hampshire Department of Environmental Services, in cooperation with USDA Soil Conservation Service, August 1992.
- 4. HydroCAD Software Solution, LLC. HydroCAD Stormwater Modeling System Version 10.0 copyright 2013. HydroCAD Software Solution, LLC. HydroCAD Stormwater Modeling System Version 10.0 copyright 2013.
- 5. University of New Hampshire Stormwater Center 2009 Biannual Report, Pages 14-21 for references to Lag time (TC) for Porous Pavement and Filtration Basins.





-	REVIEWER	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSÊN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD
×	NOTES																
*	EXTERIOR CIRCUIT GROUP	DINING	DINING	DINING	DINING	DINING	DINING	DINING	RING CANT	RING CANT	SOUTH CANT	SOUTH CANT	SOUTH CANT	SOUTH CANT	SOUTH CANT	ALLEY NORTH	ALLEY NORTH
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	WEIGHT (IN 185)																
	LOW	%0	%0	%0	%	%0	%0	%0	%0	%	%0	%	%0	%0	%0	%0	%0
2	DIMMING	MLV	MLV	MLV	MLV	MLV	MLV	MLV	MLV	MLV	MLV	MLV	MLV	MLV	MLV	MLV	MLV
	VOLTS	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120
0	5		0	0	0		0			0	0						
	AL COLOR TS TEMP	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
2	TS/ TOTAL		A 10	A 10	A 30	A 10	A 10	A 10	A 30	A 30	A 10	A 10	A 10	10	01	10	а 10
1	AL WATTS/ ENS FT	6 N/A	6 N/A	N/A	N/A	N/A	N/A	N/A	B N/A	IS N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4	15/ TOTAL		876	876	876	876	876	876	2,628	2,628	876	876	876	878	876	876	876
	R LUMENS/		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
-	LENGTH, DIAMETER OR BEAM SPREAD	10,28"	10.28"	10.28"	10.28"	10,28"	10.28"	10.28"	10.28"	10,28"	10,28"	10,28"	10,28"	10,28"	10,28"	10.28"	10.28"
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9	CATALOG NUMBER	(1) CZXL-16i-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SJTN 12"	(1) CZXL-16i-CAT-GSL-10 WATT-30-57- ABK 1201/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SJTN 12'	(1) CZXL-16i-CAT-GSL-10 WATT-30-57- ABK 1201/2° CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SITN 12'	(1) CZXL-16I-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SITN 12'	(1) CZXL-16F-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SJTN 12'	(1) CZXL-16F-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SJTN 12'	(1) CZXL-16i-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SITN 12'	[1) CZXL-16i-CAT-GSL-10 WATT-30-57- ABK 1201/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SITN 12'	(1) CZXL-16F-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SJTN 12"	(1) CZXI-16i-CAT-GSI-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 STN 12'	(1) CZXL-16i-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SJTN 11'	(1) CZXL-16i-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SITN 19'	(1) CZXI-16i-CAT-GSI-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SJTN 17'	(1) CZXL-16i-CAT-6SL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SJTN 19'	(1) CZXL-16i-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SITN 19"	(1) CZXL-16F-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SITN 19'
	MANUFACTURER	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP
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٥	MOUNTING		CANTENARY	CANTENARY	CANTENARY	CANTENARY	CANTENARY	CANTENARY	CANTENARY	CANTENARY	CANTENARY	CANTENARY	CANTENARY	CANTENARY	CANTENARY	CANTENARY	CANTENARY ALLEY NORTH
Ü	ROOM OR	NORTH EXTERIOR-3 PLEASANT	NORTH EXTERIOR-3 PLEASANT	NORTH EXTERIOR-3 PLEASANT	NORTH EXTERIOR-3 PLEASANT	NORTH EXTERIOR-3 PLEASANT	NORTH EXTERIOR-3 PLEASANT	NORTH EXTERIOR-3 PLEASANT	AROUND FOUNTAIN EXTERIOR	AROUND FOUNTAIN EXTERIOR	SOUTH EXTERIOR 60 CANTENARY SOUTH CANT	SOUTH EXTERIOR - 60 PEN	SOUTH EXTERIOR - 60 PEN	SOUTH EXTERIOR - 60 PEN	SOUTH EXTERIOR - 60 PEN	WEST EXTERIOR - 60 PEN	WEST EXTERIOR - 60 PEN
80	DRAWING	JNC-1	JNC-2	INC-3	JNC-4	JNC-5	JNC-6	JNC-7	JNC-8	JNC-9	JNC-10	JNC-11	JNC-12	JNC-13	JNC-14 B	JNC-15	JNC-16
٧	PROJECT	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	60 PENHALLOW	60 PENHALLOW	60 PENHALLOW	60 PENHALLOW	60 PENHALLOW	60 PENHALLOW	60 PENHALLOW	60 PENHALLOW	60 PENHALLOW	60 PENHALLOW

12/2/2019

`	REVIEWER	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD:	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	PETERSEN- JMLD	PETERSEN-	JSA- PETERSÉN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	PETERSEN- JMLD
×	NOTES																			
*	EXTERIOR CIRCUIT GROUP	ALLEY NORTH	ALLEY SOUTH	ALLEY SOUTH	ALLEY SOUTH	SOUTH	SOUTH	SOUTH	SOUTH		CORNICE	CORNICE	CORNICE	CORNICE	CORNICE	CORNICE	CORNICE	CORNICE	CORNICE	CORNICE
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s	WEIGHT (IN LBS)																			
œ	LOW	%0	%	%0	%0	%0	%0	%0	%0		%0	%0	%0	%	%0	%0	%0	%0	%0	%0
o	DIMMING	MLV	MLV	MLV	MLV	MLV	MLV	MLV	MLV		MLV	MLV	MLV	MLV	MLV	MLV	MLV	MLV	MLV	MLV
4	VOLTS	120	120	120	120	120	120	120	120	120	24VDC	24VDC	24VDC	24VDC	120/24	24VDC	24VDC	24VDC	24VDC	120/24
٥	8										16	25	76	76	N/A	26	16	97	76	A/A
z	TEMP	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000		3,000	3,000	3,000	3,000	N/A	3,000 :	3,000	3,000	3,000	N/A
×	TOTAL	10	01	10	50	10	10	10	11	22	28.5	30	32,25	32,25	200	28.5	30	32.25	32,25	200
_	WATTS/	A A	N/A	N/A	N/A	N/A	N/A	A/A	N/A		1.5	1.5	1.5	15	A/A	1.5	1.5	1,5	1,5	N/A
×	TOTAL	876	876	876	876	876	876	876	928		3268	3440	3698	3698	N/A	3268	3440	8698	3698	N/A
-	LUMENS/ FT.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		271	172	172	172	N/A	172	172	172	172	N/A
-	LENGTH, DIAMETER OR I BEAM SPREAD	10.28"	10.28"	10.28"	10.28"	10.28"	10.28"	10,28"	10.28"		61	20	21,5	21.5	N/A	19	50	21.5	21.5	N/A
I	SOURCE	LED	PE	FD	g	(ED	LED	LED	9	91	9	9	CED	E	GBJ	LED	TED	Œ	93	ED
9	CATALOG NUMBER	(1) CZXL-16i-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SITN 19'	(1) CZXL-16-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SJTN S'	(1) CZXL-16:-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUIO TIGHT CORD GRIP IN BLACK- 18/3 SITN 5'	(2) CZXL-16i-CAT-GSL-10 WATT-3D-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SITN 15'	(1) CZXL-16i-CAT-65L-10 WATT-30-57- ABK 1201/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SITN 10'	(1) CZXL-16i-CAT-6SL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SITN 12"	(1) CZXL-16:-CAT-GSL-10 WATT-30-57- ABK 1201/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SITN 13'	(1) CZXL-16I-CAT-GSL-10 WATT-30-57- ABK 120-1/2" CANTENARY CABLE- LIQUID TIGHT CORD GRIP IN BLACK- 18/3 SITN 14'	MUE-AC-20-X-W-TBD	SW24/1,5-WET-30-BW-CL5-228"-WIDE. BK-PL-DF-S1-228"	SW24/1,5-WET-30-BW-CLS-240"-WIDE- BK-PL-DF-S1-240"	SW24/1,5-WET-30-BW-CLS-258"-WIDE- BK-PL-DF-S1-258"	SW24/1.5-WET-30-BW-CL5-258"-WIDE BK-PL-DF-S1-258"	QTM200-DC+CAP-120-24-2 X 4 CKS	SW24/1.5-WET-30-BW-CL5-228"-WIDE, BK-PL-DF-51-228"	5W24/15-WET-30-6W-CLS-240"-WIDE- BK-PL-DF-S1-240"	SW24/1.5-WET-30-8W-CLS-358"-WIDE- BK-PL-DF-51-258"	SW24/1_S-WET-30-BW-CLS-258"-WIDE, BK-PL-DF-S1-258"	QTM200-DC+CAP-120-24-2 X 4 CKS
	MANUFACTURER	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	HK LIGHTING GROUP	SIGNTEX LIGHTING	Q-TRAN	Q-TRAN	Q-TRAN	Q-TRAN	Q-TRAN	Q-TRAN	Q-TRAN	Q-TRAN	Q-TRAN	Q-TRAN
	FUNCTION	ALLEY NORTH	АШЕҮ SOUTH	CANTENARY ALLEY SOUTH	CANTENARY ALLEY SOUTH	CANTENARY SOUTH DINING	SOUTH DINING	SOUTH DINING	SOUTH DINING	EGRESS- EMERGENCY	CORNICE MOLDING	UPLIGHT ON CORNICE MOLDING	UPLIGHT ON CORNICE MOLDING	OPLIGHT ON CORNICE MOLDING	POWER	UPLIGHT ON CORNICE MOLDING	UPLIGHT ON CORNICE MOLDING	UPLIGHT ON CORNICE MOLDING	UPLIGHT ON CORNICE MOLDING	POWER
0	MOUNTING	CANTENARY	CANTENARY	CANTENARY		CANTENARY	CANTENARY	CANTENARY	CANTENARY	WALL	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE	SURFACE
ç	RDOM OR AREA	WEST EXTERIOR - 60 PEN	EAST EXTERIOR - 3 PLEASANT	EAST EXTERIOR - 3 PLEASANT	EAST EXTERIOR	SOUTH EXTERIOR - 3 PLEASANT	SOUTH EXTERIOR - 3 PLEASANT	SOUTH EXTERIOR - 3 PLEASANT	SOUTH EXTERIOR - 3 PLEASANT	VARIOUS EGRESS DOORS	CORNICE	EXTERIOR CORNICE NORTH	EXTERIOR CORNICE NORTH	EXTERIOR CORNICE NORTH	T8D	EXTERIOR CORNICE SOUTH	EXTERIOR CORNICE SOUTH	CORNICE	EXTERIOR CORNICE SOUTH	TBD
8	DRAWING	JNC-17	JNC-18	JNC-19	JNC-20	JNC-21	JNC-22	JNC-23	JNC-24	WOI	JPS-228	JPS-240	JPS-258	JPS-258	JPS-TRA-1	JPS-228	JPS-240	JPS-258	JPS-258	JPS-TRA-2
٧	PROJECT	60 PENHALLOW	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	60 PENHALLOW	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET	3 PLEASANT STREET

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DRAWING	ROOM OR	MOUNTING	Ş	MAN	CATALOG NUMBER	SOURCE	LENGTH, DIAMETER OR BEAM SPREAD	LUMENS/	TOTAL	WATTS/	TOTAL	COLOR	8	VOLTS PRC	DIMMING	LOW END WE	WEIGHT (IN LBS) CO	COLOR	GENERATED SHOP DRAWINGS & BILL OF MATERIAL	ΔĐ	EXTERIOR CIRCUIT GROUP	NOTES
4		-	UPLIGHT ON CORNICE	Q-TRAN	SW24/1,5-WET-30-BW-CLS-180"-WIDE- BK-PL-DF-S1-180"		15		2580	ži	22.5		1		MEV	%0		BLACK	ON.	18	CORNICE	
JPS-180	EXTERIOR CORNICE WEST	SURFACE	UPLIGHT ON CORNICE MOLDING	Q-TRAN	SW24/1.5-WET-30-BW-CLS-180"-WIDE BK-PL-DF-S1-180"	g	15	172	2580	1.5	22.5	3,000	97 24	24VDC	MLV	%0		BLACK	ON	18	CORNICE	
JPS-252	EXTERIOR CORNICE WEST	SURFACE	UPLIGHT ON CORNICE MOLDING	Q-TRAN	\$W24/1,5-WET-30-BW-CLS-252"-WIDE BK-PL-DF-\$1-252"	TED	27	27.1	3612	21	31,5	3,000	97 24	24VDC	MLV	%0		BLACK	O _N	18	CORNICE	
JPS-TRA-3	TBD	SURFACE	POWER	Q-TRAN	QTM100-DC+CAP-120-24-2 X 4 CKS	ED	N/A	N/A	N/A	N/A	100	N/A	N/A 120	120/24	MLV	%0	,	STND	ON	г	CORNICE	
	NORTH	SURFACE	WELL LIGHTS	PRESCOLITE	LBSLEDA101-30K-9-WH	ED	N/A	N/A	1,000	N/A	17	000'E	1 06	120	ELV	15%	>	WHITE	ON	9	WINDOW	MOUNT FOR UP-LIGHT
	SOUTH	SURFACE	WINDOW WELL LIGHTS	PRESCOLITE	LBSLEDA101-30K-9-WH	9	N/A	N/A	1,000	N/A	17	3,000	90 1	120	ELV	15%	>	WHITE	ON	9	WINDOW	MOUNT FOR UP-LIGHT
JAAS-33	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SWZ4/4_0-WET-30-BW-BW-33"-TORQ- BK-PL-ENC/TL-51-33"	ĘĘ.	2,75	373	1025,75	4	а	3,000	90	24	MLV	%0		STND	PROVIDE CONTRACTOR SHOP DRAWING	1	PILLAR	
JAAS-33	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4.0-WET-30-BW-BW-33"-TORQ- BK-PL-ENC/TL-51-33"	PP	2,75	373	1025,75	्यः	п	3,000	06	24	MLV	%0	0,	STND	PROVIDE CONTRACTOR SHOP DRAWING	н	PILLAR	
JAAS-42	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4,0-WET-30-BW-BW-42"-TORQ- BK-PL-DF-S1-42"	g	3.5	373	1305,5	4	14	3,000	90	24	MLV	%	91	STND CI	PROVIDE CONTRACTOR SHOP DRAWING		PILLAR	
JAAS-33	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4.0-WET-30-BW-BW-33"-1080; BK-PL-ENC/TL-51-33"	CED	2.75	373	1025,75	4	п	3,000	06	24	MLV	%6	υ,	STND	PROVIDE CONTRACTOR SHOP DRAWING	н	PILLAR	
JAAS-33	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4,0-WET-30-BW-BW-33"-TORQ- BK-PL-ENC/TL-S1-33"	GED	2,75	373	1025,75	4	п	3,000	90	24	MLV	%	v1	STND	PROVIDE CONTRACTOR SHOP DRAWING	1	PILLAR	
JAAS-42	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4,0-WET-30-BW-BW-42"-TORQ- BK-PL-DF-51-42"	G	3.5	373	1305,5	4	14	3,000	90	24	MLV	%	vi	STND	PROVIDE CONTRACTOR SHOP DRAWING	44	PILLAR	
JAAS-33	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4.0-WET-30-BW-BW-33"-TORQ- BK-PL-ENC/TL-51-33"	E	2,75	373	1025,75	4	11	3,000	90 2	24	MLV	%0	VI	STND	PROVIDE CONTRACTOR SHOP DRAWING	н	PILLAR	
JAAS-33	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4_0-WET-30-BW-BW-33"-TORQ- BK-PL-ENC/TL-51-33"	EE	2,75	373	1025,75	4	п	3,000	90	24	MLV	%0	. Di	STND	PROVIDE CONTRACTOR SHOP DRAWING	1	PILLAR	
JAAS-42	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4.0-WET-30-BW-BW-42"-TORQ- BK-PL-DF-51-42"	9	3.5	373	1305.5	4	14	3,000	90 2	24	MLV	%		STND	PROVIDE CONTRACTOR SHOP DRAWING	1	PILLAR	
JAAS-33	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4.0-WET-30-BW-BW-33"-TORQ- BK-PL-ENC/TL-51-33"	B	2,75	373	1025.75	4	п	3,000	90 2	24	MLV	%	VI	STND	PROVIDE CONTRACTOR SHOP DRAWING	1	PILLAR	
JAAS-33	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4,0-WET-30-8W-BW-33"-TORQ- BK-PL-ENC/TL-S1-33"	99	2,75	373	1025,75	-	11	3,000	30	24	MILV	%	VI	STND	PROVIDE CONTRACTOR SHOP DRAWING	т	PILLAR	
JAAS-42	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4_D-WET-30-BW-BW-42"-TORQ- BK-PL-DF-51-42"	G97	3.5	373	1305.5	4	14	3,000	30	24	MLV	%	OI .	STND CC	PROVIDE CONTRACTOR SHOP DRAWING	1	PILLAR	
JAAS-33	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4.0-WET-30-BW-BW-33"-TORQ- BK-PL-ENC/TL-S1-33"	TED	2,75	£7£	1025,75	4	11	3,000	90 2	24	MLV	%	vi	STND	PROVIDE CONTRACTOR SHOP DRAWING	п	PILLAR	JSA- PETERSEN- JIMLD
JAAS-33	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4,0-WET-30-BW-BW-33"-TORQ- BK-PL-ENC/TL-51-33"	ΓED	2.75	373	1025.75	4	11	3,000	30 2	24	MLV	%	5	STND	PROVIDE CONTRACTOR SHOP DRAWING	н	PILLAR	JSA- PETERSEN- JMLD
JAAS-42	EXTERIOR	SURFACE	PILLAR WASH	Q-TRAN	SW24/4_0-WET-30-BW-BW-42"-TORQ- BK-PL-DF-51-42"	TED	3.5	373	1305.5	4	14	3,000	2 06	24	MLV	%0	57	STND CC	PROVIDE CONTRACTOR SHOP DRAWING	н	PILLAR	
JAAS-TRA-1	TBD	SURFACE	POWER	Q-TRAN	QTM200-DC+CAP-120-24-2 X 4 CKS	Gg	N/A	373	N/A	N/A	200	N/A	N/A 120	120/24	MLV	960	vi	STIND	ON	н	PILLAR	

NOTES

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PROVIDE FACTORY
GENERATES SHO FORWANINGS & BILL OF
MATERIAL
PROVIDE
CONTRACTOR SHOP
DRAWNIOE
PROVIDE

COLOR STND STND

WEIGHT (IN LBS) END DIM

VOLTS

8

COLOR

TOTAL

WATTS/

TOTAL

LENGTH, DIAMETER OR BEAM SPREAD 2.75 2.75

8 % 8

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ED 읍 믑 읩 LED

SW24/4_0-WET-30-8W-BW-33" BK-PL-ENC/TL-51-33"

PILLAR WASH

SURFACE

JAAS-33

PENHALLOW PENHALLOW

58 9 19 62 69 2 53 99 67 89 69 70 7.1

ROOM OR AREA EXTERIOR EXTERIOR EXTERIOR

DRAWING

PROJECT REFERENCE

12/2/2019

PILLAR V

SURFACE

JAAS-33

CATALOG NUMBER

MANUFACTURER Q-TRAN Q-TRAN

3,000

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1025,75 1305,5 1025 75

373 373

PILLAR BENCH

PROVIDE CONTRACTOR SHOP DRAWING

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3,5

SW24/4 0-WET-30-BW-BW-42" BK-PL-ENC/TL-51-42" 0-WET-30-BW-BW-33" BK-PL-ENC/TL-S1-33"

Q-TRAN

PILLAR

SURFACE

JAAS-42

SW24/4

Q-TRAN

PILLAR WASH PILLAR WASH

EXTERIOR

JAAS-33 JAAS-33

I.O-WET-30-BW-BW-33" BK-PL-ENC/TL-S1-33"

CONTRACTOR SHOP DRAWING

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CONTRACTOR SHOP DRAWING PROVIDE CONTRACTOR SHOP DRAWING PROVIDE

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1025,75

373

SW24/4 0-WET-30-BW-BW-33". BK-PL-ENC/TL-S1-33"

Q-TRAN

SURFACE

EXTERIOR PILLAR EXTERIOR PILLAR

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Q-TRAN Q-TRAN Q-TRAN

PILLAR V

EXTERIOR

JAAS-33 JAAS-33 JAA5-42

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SW24/4 0-WET-30-BW-BW-42" BK-PL-ENC/TL-51-42" SW24/4 0-WET-30-BW-BW-33" BK-PL-ENC/TL-S1-33"

Q-TRAN

PILLAR WASH

SURFACE SURFACE

JAAS-42

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TORQ-

SW24/4.0-WET-30-BW-BW-33" BK-PL-ENC/TL-51-33" SW24/4.0-WET-30-BW-BW-42"-BK-PL-ENC/TL-51-42" .D-WET-30-8W-BW-33"-BK-PL-ENC/TL-S1-33" SW24/4,0-WET-30-BW-BW-33"-BK-PL-ENC/TL-51-33"

PILLAR WASH PILLAR WASH PILLAR WASH PILLAR WASH PILLAR WASH PILLAR WASH

SURFACE

EXTERIOR

PILLAR

SURFACE SURFACE

EXTERIOR EXTERIOR

CONTRACTOR SHOP DRAWING PROVIDE CONTRACTOR SHOP DRAWING

PROVIDE CONTRACTOR SHOP DRAWING

PROVIDE CONTRACTOR SHOP DRAWING

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24

8 90 9 90 90 90

1025.75

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Q-TRAN

1025,75 1305.5 1025.75 1025,75 1305.5

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PROVIDE CONTRACTOR SHOP

EXTERIOR CIRCUIT GROUP PILLAR

BENCH

DRAWING PROVIDE CONTRACTOR SHOP DRAWING

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90

3,000

1.5

1770

118

BENCH

CONTRACTOR SHOP

SUPPLY
WIRE
SUPLY
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NEUTRAL
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2

PROVIDE
CONTRACTOR SHOP
DRAWING
PROVIDE
CONTRACTOR SHOP
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%0 %0 %0 86

1.5

1670.88

14,16

KUR -SW-WSC-WET-30-S0-ENC-TL-SZ-BW-N/A-170 WSC-WET-30-S0-ENC-TL-S2-BW-180 -SW-WSC-WET-30-S0-ENC-TL-S2-BW-180 KUR -SW-WSC-WET-30-S0-ENC-TL-S2-BW-180

1.5 1.5

1770 1770

15 15 12

CUR. KUR.

WALL-WASH

JBBS-180

BBS-180

Q-TRAN

WALL-WASH

JBBS-180

80

PLANING BOARD SUBMISSION - NOT FOR CONSTRUCTION

Q-TRAN

WALL-WASH

WALL-WASH

SURFACE UNDER SEAT SURFACE UNDER SEAT SURFACE UNDER SEAT SURFACE UNDER SEAT

JBBS-170

BENCH BENCH

BENCH

CONTRACTOR SHOP DRAWING

PROVIDE CONTRACTOR SHOP DRAWING PROVIDE

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18.75 18.75 21,24 22.5 22.5 22.5

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N/A

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QTM200-DC+CAP-120-24-2 X 4 CKS -SW-WSC-WET-3D-SO-ENC-TL-S5/6-BW-N/A-150 -SW-WSC-WET-30-SO-ENC-TL-SS/6-8W-N/A-1S0

KUR-KUR-

> WALL-WASH WALL-WASH

SURFACE UNDER SEAT SURFACE UNDER SEAT

SOUTH OF 60-NORTH WALL SOUTH OF 60-NORTH WALL

JBBS-150 JBBS-150

PENHALLOW PENHALLOW PENHALLOW PENHALLOW PENHALLOW PENHALLOW

POWER SUPPLY

SURFACE

TBD

60 PENHALLOW

74 75 76 17

SURFACE

373

3.5

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CONTRACTOR SHOP

DRAWING DRAWING

CONTRACTOR SHOP DRAWING PROVIDE CONTRACTOR SHOP DRAWING

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3,000 3,000

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2,75

Q-TRAN

SURFACE SURFACE

JAAS-33

PENHALLOW 9

Q-TRAN Q-TRAN Q-TRAN Q-TRAN Q-TRAN Q-TRAN

EXTERIOR PILLAR EXTERIOR

> JAAS-33 JAAS-42 IAAS-TRA-;

60 PENHALLOW 60 PENHALLOW

2,75

373

E IS

0-WET-30-BW-BW-42" BK-PL-ENC/TL-51-42" IO-WET-30-8W-BW-33" BK-PL-ENC/TL-S1-33" SW24/4.0-WET-30-BW-BW-33". 5W24/4.0-WET-30-8W-8W-42" BK-PL-ENC/7L-51-42"

Q-TRAN

SURFACE SURFACE

EXTERIOR PILLAR

PILLAR

JAAS-33 JAAS-33 JAAS-42

EXTERIOR PILLAR EXTERIOR

8

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CONTRACTOR SHOP
DRAWING
PROVIDE
CONTRACTOR SHOP
DRAWING

	111111111111111111111111111111111111111	REVIEWER JSA-	PETERSEN- JMLD	JSA- PETERSEN- JMLD	PETERSEN-	JSA	JMID	JSA- PETERSEN- JMLD	JSA- PETERSEN-	JSA-	PETERSEN-	JSA- PETERSEN-	JMLD	-ISA-	PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JIMLD	JSA- PETERSEN- JMLD
×		NOTES		SUPPLY NEUTRAL WIRE	SUPPLY	SUPPLY	WIRE	SUPPLY NEUTRAL WIRE		SUPPLY	NEUTRAL	SUPPLY	WIRE		LUMENS	LUMENS		LUMENS	LUMENS		LUMENS	LUMENS		LUMENS	LUMENS		LUMENS
*	CIRCUIT	GROUP	BENCH	BENCH	BENCH	HONSE		BENCH	BENCH		PODICIM	PobluM	PODIUM	17 WAS ST	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN,	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE
>	į	F O		1	-			н	1		Н	9	,		н	н		н	1		а	н	+	н	н	e	н п
PROVIDE FACTORY	GENERATED SHOP DRAWINGS & BILL OF	MATERIAL	ON	CONTRACTOR SHOP	CONTRACTOR SHOP	PROVIDE CONTRACTOR SHOP	DRAWING	PROVIDE CONTRACTOR SHOP DRAWING	ON	PROVIDE	CONTRACTOR SHOP DRAWING	PROVIDE CONTRACTOR SHOP	DRAWING		YES	YES	YES	YES									
		COLOR	STND	STND	STND	CNT		STND	STND		STND	DIVID	STND		BLACK	BLACK	STND	BLACK									
0	WEIGHT	(IN 185)				Ī				Ī																	
œ		M	%	%	%	ğ	5	%	%		%0	%0	%		%0	%	8	š	%0	%0	%0	%	%	%0	%0	%0	%0
a	DIMMING	PROTOCOL	MLV	MLV	MLV	2		MLV	MLV		MLV	MLV	MIC		DMX	DMX	DMX	DMX									
o.		VOLTS	120/24	24	24	5	1.7	24	120/24	T	24	24	120/24		24	24	120/24	54	24	120/24	24	24	120/24	24	24	120/24	24
0		8	N/A	8	96	8	2	90	N/A		8	86	N/A		N/A	N/A	A/N	N/A	N/A	A/N	N/A	N/A	N/A	N/A	N/A	A/N	N/A
z		TEMP	N/A	3,000	3,000	8	_	3,000	N/A	+	3,000	3,000	N/N		3,000	3,000	N/A	3,000									
2		WATES	200	21,615	21,615	25 12	CT0.177	21,615	99		15,375	15,375	8	3	85,32	85,32	200	92,52	92.52	200	85,32	85.32	200	85.32	85.32	200	92,52
	WATTS/	t	N/A	1,5	1,5	,	9	1.5	N/A		1,5	1.5	A/A		vo.	w	N/A	9	ш	N/A	u	9	N/A	۵	9	N/A	w
×		IUMENS	N/A	1700,38	1700,38	00.0021	7100.30	1700,38	N/A		1209.5	1209.5	N/A		4152,24	4152 24	N/A	4502.64	4502,64	N/A	4152.24	4152.24	N/A	4152.24	4152.24	N/A	4502.64
-	LUMENS/	ᄩ	N/A	118	118	;	917	118	N/A		118	118	4/4	2	292	292	N/A	292									
	LENGTH, DIAMETER OR	BEAM SPREAD	N/A	14,41	14.41		1641	14.41	N/A		10.25	10,25	A/N	C /A	14 22	14 22	N/A	15,42	15.42	N/A	14.22	14.22	N/A	14.22	14 22	N/A	15.42
I		SOURCE	9	9	9		9	TED TED	9	Ī	9	9	6	9	GD.	LED	N/A	TED TE	G	N/A	9	9	N/A	LED	Gg .	N/A	PE
v		CATALOG NUMBER 5	QTM200-DC+CAP-12D-24-2 X 4 CKS	KUR -SW-WSC-WET-30-SO-ENC-TL-S2- BW-N/A-173	KUR -SW-WSC-WET-30-50-ENC-TL-55- RW-N/A-173	KUR -SW-WSC-WET-3D-SO-ENC-TL-S6-	BW-N/A-173	KUR -SW-WSC-WET-30-S0-ENC-TL-SZ- BW-N/A-173	QTM60-DC+CAP-120-24-2 X 4 CKS	111.5	RUK-5W-WSC-WEI-3U-5U-ENC-1C-55- BW-N/A-123	KUR -SW-WSC-WET-30-S0-ENC-TL-S6-	BW-N/A-123		RGBW24/6.0-WET-RGBW-30-BW-N/A- 170,75-WIDE-BK-PL-DF-51-170,75	RGBW24/6.0-WET-RGBW-30-BW-N/A- 170,75-WIDE-BK-PL-DF-S1-170,75	QTM-eled-dmx	RG6W24/6.0-WET-RG6W-30-6W-N/A- 185.04-WIDE-8K-PL-DF-51-185.04	RGBW24/6.0-WET-RGBW-30-BW-N/A- 185.04-WIDE-BK-PL-0F-51-185.04	QTM-eLED-DMX	RGBW24/6.D-WET-RGBW-30-BW-N/A- 170,75-WIDE-BK-PL-DF-51-170,75	RGBWZ4/6.0-WET-RGBW-30-8W-N/A- 170.75-WIDE-8K-PL-DF-S1-170.75	QTM-eLED-DMX	RGBW2A/6 O-WET-RGBW-30-BW-N/A- 170.75-WIDE-BK-PL-DF-S1-170.75	RGBW24/6.0-WET-RGBW-30-6W-N/A- 170.75-WIDE-8K-PL-DF-S1-170.75	QTM-eLED-DMX	RGBW24/6.D-WET-RGBW-30-BW-N/A- 185.04-WIDE-BK-PL-DF-51-185.04
-		MANUFACTURER	Q-TRAN	Q-TRAN	Q-TRAN		U-1KAN	Q-TRAN	Q-TRAN		Q-TRAN	O-TRAN	NAGE	- Regis	Q-TRAN	Q-TRAN	Q-TRAN	Q-TRAN									
		FUNCTION	POWER	WALL-WASH	WALL-WASH	1	WALL-WASH	WALL-WASH	POWER		WALL-WASH	WALL-WASH		SUPPLY	COLOR	VERTICAL COLOR CHANGE	POWER SUPPLY	VERTICAL	VERTICAL	POWER SUPPLY	COLOR	VERTICAL	POWER SUPPLY	COLOR	VERTICAL COLOR CHANGE	POWER SUPPLY	VERTICAL
٥		MOUNTING	WALL	SURFACE UNDER SEAT	SURFACE	SURFACE	UNDER SEAT	SURFACE UNDER SEAT	WALL	10.00	UNDER SEAT	SURFACE	UNDER SEAT	EXTERIOR	VERTICAL	VERTICAL	SURFACE	VERTICAL									
U	ROOM OR	AREA	SOUTH OF 60- NORTH WALL	SOUTH OF 60- NORTH WALL	SOUTH OF 60-	SOUTH OF 60-	NORTH WALL	SOUTH OF 60- NORTH WALL	SOUTH OF 60- NORTH WALL		NORTH WALL			NORTH WALL	EXTERIOR	EXTERIOR	TBD	EXTERIOR	EXTERIOR	78D	EXTERIOR	EXTERIOR	TBD	EXTERIOR	EXTERIOR	780	EXTERIOR
en.	DRAWING	TYPE	1885-TRA-1	S 885-173	S E71-388L		JBBS-173 1	S E71-288L	JBBS-TRA-2		JBBS-123R	S IFC-173I		JBBY I KA-3	JCCS-RUN A	JCCS-RUN A	JCCS-TRA-1	JCCS-RUN B	JCCS-RUN B	JCCS-TRA-2	JCCS-RUN A	JCCS-RUN A	JCCS-TRA-3	JCCS-RUN A	JCCS-RUN A	JCCS-TRA-4	JCCS-RUN B
4	PROJECT	1 REFERENCE	60 PENHALLOW	60 PENHALLOW	90 ep	83	PENHALLOW	60 PENHALLOW		98	PENHALLOW	99	BB PENHALLOW 60	89 PENHALLOW	90 PENHALLOW	60 PENHALLOW	60 PENHALLOW	60 PENHALLOW									

	REVIEWER	JSA- PETERSEN+ JMLD	JSA- PETERSEN- JMLD:	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSÉN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD	JSA- PETERSEN- JMLD
<	NOTES	LUMENS		LUMENS	LUMENS																		
	EXTERIOR CIRCUIT GROUP	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREÉN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	RED, GREEN, BLUE, WHITE	SOUTHWEST	GARAGE
	Δ	1	п		1	1	п	н	añ.	н	г		п	н	н	-11	н	e.	п	1	1	See 1.	2
PROVIDE FACTORY	GENERATED SHOP DRAWINGS & BILL OF MATERIAL	YES	YES	YES	YES	YES	ON	DN															
	COLOR	BLACK	STND	BLACK	BLACK	STND	WHITE/WHITE	WHITE/WHITE															
	WEIGHT (IN LBS)																						
	LOW END DIM	%	%0	%0	%0	%	8	%0	%	%0	%0	%	%	8	%6	%0	%0	%	%0	%	%	1%	1%
,	DIMMING	DMX	DMX	DMX	XMC	DMX	DMX	DMX	DMX	DMX	DMX	DMX	0-10V	0-100									
	VOLTS	24	120/24	24	24	120/24	24	24	120/24	24	24	120/24	24	24	120/24	24	24	120/24	24	24	120/24	7,72/021	772/021
	8	N/A	N/A	N/A	N/A	A/A	N/A	N/A	N/A	N/A	A/A	N/A	80 1	80									
	COLOR	3,000	N/A	3,000	3,000	N/A	3,000	3,000	A/N	3,000	3,000	N/A	3,000	3,000									
E	TOTAL	92.52	300	85,32	85,32	D02	85.32	85,32	200	92,52	92.52	200	85.32	85.32	200	63.36	63,36	200	63,36	63.36	200	16	16
1	WATTS/ FT	9	N/A	9	9	N/A	9	9	N/A	ω	9	N/A	9	49	N/A	w	u	N/A	ص	9	N/A	N/A	N/A
	TOTAL	4502.64	N/A	4152,24	4152.24	N/A	4152.24	4152.24	N/A	4502,64	4502,64	N/A	4152.24	4152,24	N/A	3083,52	3083,52	N/A	3083,52	3083.52	N/A		
	LUMENS/ FT.	292	N/A	292	292	N/A	N/A	N/A															
-	LENGTH, DIAMETER OR BEAM SPREAD	15.42	N/A	14.22	14.22	N/A	14.22	14,22	N/A	15.42	15,42	N/A	14.22	14.22	N/A	10 56	10.56	N/A	10.56	10.56	N/A	70 degree	20 degree
r	SOURCE	G P	N/A	9	9	N/A	9	9	N/A	ED	E	N/A	GJ GJ	9	N/A	PP	FE	N/A	LEO	9	N/A	g	ED FE
5	CATALOG NUMBER: S	RGBW24/6_D-WET-RGBW-3D-BW-N/A- 185_04-WIDE-BK-PL-DF-51-185_04	QTM-eLED-DMX	RGBW24/6.0-WET-RGBW-30-BW-N/A- 170.75-WIDE-BK-PL-DF-S1-170.75	RGBW24/6.0-WET-RGBW-30-BW-N/A- 170,75-WIDE-BK-PL-DF-S1-170,75	QTM-eLED-DMX	RGBW24/6.0-WET-RGBW-30-BW-N/A- 170,75-WIDE-BK-PL-DF-51-170,75	RGBW24/6,0-WET-RGBW-30-BW-N/A- 170,75-WIDE-8K-PL-DF-51-170,75	QTM-eLED-DMX	RGBW24/6.0-WET-RGBW-3D-BW-N/A- 185.04-WIDE-BK-PL-DF-51-185.04	RGBW24/6,0-WET-RGBW-30-BW-N/A- 185,04-WIDE-BK-PL-DF-51-185,04	QTM-eLED-DMX	RGBW24/6,0-WET-RGBW-30-BW-N/A- 170,75-WIDE-BK-PL-DF-51-170,75	RGBW24/E.D-WET-RGBW-3D-BW-N/A- 170,75-WIDE-BK-PI-DF-S1-170,75	QTM-eLED-DMX	RG8W24/6.0-WET-RG9W-30-BW-N/A- 126.77-WIDE-BK-PL-DF-S1-126.77	RG3W24/6.0-WET-RGBW-30-BW-N/A- 126,77-WIDE-BK-PL-DF-51-126,77	QTM-eLED-DMX	RGBW24/6 0-WET-RGBW-30-BW-N/A- 126 77-WIDE-BK-PL-DF-51-126 77	RGBW24/6.0-WET-RGBW-30-BW-N/A- 126.77-WIDE-BK-PL-DF-S1-126.77	QTM-eLED-DMX	BARCF-16C3-30KS-70-S-WH-WH-NCIC- UNV-D6E	BARCF-16C3-30KS-70-5-WH-WH-NCIC- UNV-D6E
	MANUFACTURER	Q-TRAN	Q-TRAN	Q-TRAN	Q-TRAN	Q-TRAN	USAI	USAI															
3	FUNCTION		POWER SUPPLY	VERTICAL	VERTICAL COLOR CHANGE	POWER SUPPLY	VERTICAL COLOR CHANGE	VERTICAL COLOR CHANGE	POWER SUPPLY	VERTICAL	VERTICAL COLOR	POWER SUPPLY	ENTRY LIGHTS	ENTRY LIGHTS									
0	MOUNTING	VERTICAL	SURFACE	VERTICAL	VERTICAL	SURFACE	RECESS	RECESS															
o	ROOM OR AREA		TBD	EXTERIOR	EXTERIOR	TBD	EXTERIOR	EXTERIOR	TB0	EXTERIOR	EXTERIOR	TBD	SOUTHWEST	GARAGE									
m	DRAWING	-	JCCS-TRA-5	JCCS-RUN A	JCCS-RUN A	JCCS-TRA-6	JCCS-RUN A	JCCS-RUN A	JCCS-TRA-7	JCCS-RUN B	JCCS-RUN B	JCCS-TRA-8	JCCS-RUN A	JCCS-RUN A	JCCS-TRA-9	JCCS-RUN C	JCCS-RUN C	JCCS-TRA-10	JCCS-RUN C	JCCS-RUN C	JCCS-TRA-11	NDDR S	MOOL
<	PROJECT (_	60 J	60 M	60 JE	60 PENHALLOW	60 JENHALLOW	60 JO PENHALLOW	60 PENHALLOW	60 JO	60 H	60 L PENHALLOW		60 JG	60 Ju		60 JG	60 JC		60 JE	60 JC	60 PENHALLOW	60 PENHALLOW

J M LIGHTING DESIGN, INC. 207-967-5223 jmlight2@roadrunner.com

ISA-PETERSEN-JMLD

CIRCUIT GROUP NORTHEAST ENTRY

è

YES YES

BRONZE COLOR

3,000 80 6 VOLT DC

n/a N/A

900 009

N/a N/A

60 degree N/A

밀 N/A

MANUFACTURER HUNZA HUNZA

RECESS ENTRY LIGHTS

TCI-122413-1050MA/PC-17-02 EAVE/T6/L-S-EBZ-60-3 CATALOG NUMBER

POWER

SURFACE

N/A N/A VOLT DC

STND

PROVIDE FACTORY GENERATED SHOP DRAWINGS & BILL OF MATERIAL

WEIGHT (IN LBS) LOW END DIM 1% 1%

> DIMMING 0-100 0-100

LENGTH,
DIAMMETER OR LUMENS/ TOTAL WATTS/ TOTAL COLOR
SOURCE BEAM SPREAD FT. LUMENS FT WATTS TEMP CRI VOLTS

NORTHEAST

PLANING BOARD SUBMISSION - NOT FOR CONSTRUCTION

12/2/2019

SW24/4.0

C NEC (103 ord 40.14



STRIP - STATIC WHITE

or 42 **PILLARS**

TYPE JAAS-33



V/WATTS	RATED	CCT - LUMENS/CRI	² CONNECTOR/ WIRE IN	² CONNECTOR/ WIRE OUT	ILLUMINATED LENGTH (IN)
SW24/4.0	WEI	30	BW	BW	33 or 42
Voltage: 24 VDC Watlage: 4,0 W/ft	DRY	20 - 2000K 309/93 22 - 2200K 314/96 24 - 2400K 306/95 27 - 2700K 349/98 30 - 3000K 373/98	¹ BW BRL CLS	CLS ¹ BW BRL	1"-288" OR ² MATCH 1" increments Matches EXT
	DMP	35 - 3500K 389/98 40 - 4000K 369/96 24 - 2400K 284/94 27 - 2700K 276/97 30 - 3000K ***/**	¹BW	CLS ¹BW	length ordered 1"-180" OR ² MATCH 1" increments Matches EXT length ordered
	³ ENC	35 - 3500K	BRL	BRL	² MATCH Matches EXT length ordered
ENC RATED STRIP ARE NOT FIFED CUITARIE	WET	27 - 2700K 285/95 30 - 3000K 299/96 35 - 3500K 323/96 40 - 4000K 337/96	¹ BW BRL	¹ BW BRL	1"-288" OR ² MATCH 1" increments Matches EXT length ordered

- NOTES: Field modifications must comply with Q-Tran's installation methods otherwise warranty is null and void
 All data has +/- 5% tolerance
 - 5 year warranty
 - NRTL Listed for install in Storage Areas with Clothing, NEC Field 410.2 and 410.16 when assembled as a lixture, at O-Tran facility (Not applicable for encapsulation)
 - * Title 24 JA8-2016 Strips: Dry raled, 2200K and above

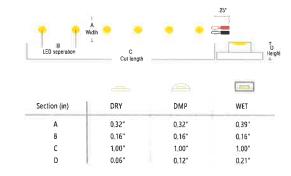
TECHNICAL INFORMATION [L70 = 30000 HRS]

*Tested with SW24/4,0-DRY

CCT	Lumen/ft	CRI Ra	CRI R9	TM30 Rf	TM30 Rg
2000K	309	93	60	89	103
2200K	314	96	90	94	101
2400K	306	95	97	94	103
2700K	349	98	93	94	101
3000K	373	98	95	94	101
3500K	389	98	96	92	100
4000K	369	96	90	90	101

- 1 BW comes in standard 24"- request custom length (Max 120") by writing it in inches next to "BW" in the order code box (ex. BW48)
- 2. Wire orientation for MATCH will be dictated by extrusion Feed In/Feed Out selection
- Connector/Wire In or Out not needed to specify product. Standard configuration is BW for Wire In and CLS for Wire out
 If ordering an encapsulated extrusion, ENC (Encapsulated in Extrusion) must be chosen for your strip

DIMENSIONS



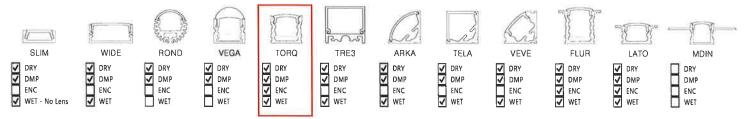
CONNECTOR/WIRE IN



CONNECTOR/WIRE OUT



COMPATIBLE EXTRUSIONS



PROJECT NAME

DATE

COMPANY

TYPE

NOTE



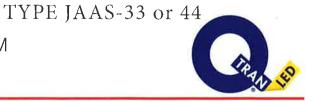
TORQ

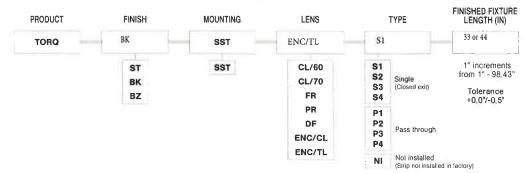
EXTRUSIONS - ALUMINUM





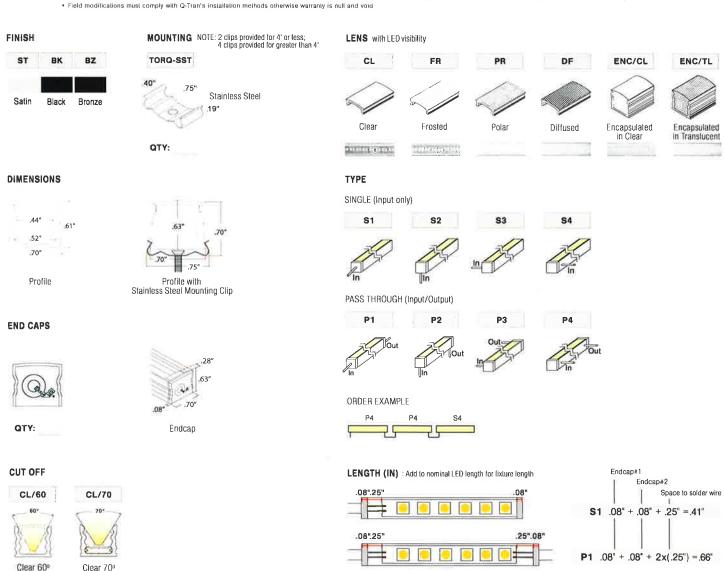






NOTES: • UL Listed when assembled with STRIP LEDs at Q-Tran

- NRTL Listed for install in Storage Areas with Clothing, NEC Field 410.2 and 410.16 when assembled as a fixture, with 4.0 w/lt or less, at Q-Tran facility (Not applicable for encapsulation)



PROJECT NAME	DATE	COMPANY	TYPE	NOTE

TYPE JBBS - UNDER BENCH &

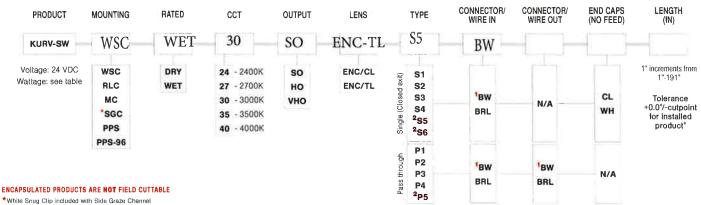
PODIUM

FIXTURES - FLEXIBLE (Q-CAP)



KURV-SW



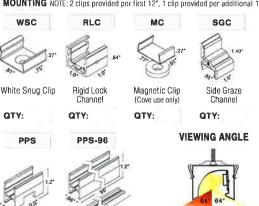


- NOTES: Field modifications are not covered under Q-Tran warranty
 - Data subject to change, all data has +/- 5% tolerance
- 1 •BW comes in standard 24"- request custom length (Max 120") by writing it in inches next to "BW" in the order code box (ex. BW48)
- *Connector/Wire In or Out not needed to specify product, Standard configuration is Type \$1, Connector/Wire In: BW & Connector/Wire Out: N/A with White Endcap (WH)
- 2 PPS mounting clip recommended for seamless applications

OUTPUT Tested for KURV-SW-WSC-DRY [L70 = 40000 HRS]

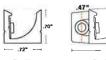
25	s	S landa	SO rd Out	put		High	I O Outpu	t	Ve		HO gh Out	put
	ENC		Wft ENC	C/TL	ENC		W/ft ENC	:/TL	ENC	-	W/ft ENC	C/TL
CCT	LM	CRI	LM	CRI	LM	CRI	LM	CRI	LM	CRI	LM	CRI
2400K	110	94	103	95	197	93	182	93	274	94	261	94
2700K	110	98	103	97	208	98	195	98	279	99	247	99
3000K	118	98	109	98	213	98	198	98	298	97	277	97
3500K	121	96	115	95	213	96	203	97	305	97	295	97
4000K	128	96	121	96	229	97	213	97	294	97	284	97

MOUNTING NOTE: 2 clips provided per first 12", 1 clip provided per additional 12"





PVC Mount Clip



Profile (Standard)



Profile (Seamless Bare Wire)

PVC Channel

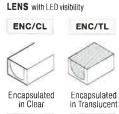


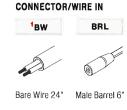
LEDs visible

Diode Free

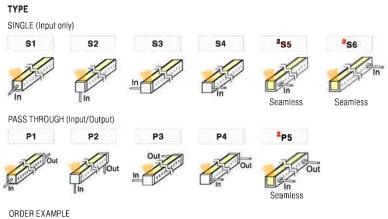
ENC/CL only

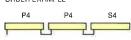
Profile (Seamless Barrel)

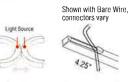






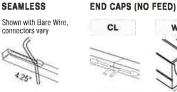




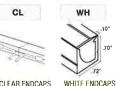




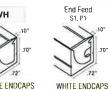
FLEXIBILITY



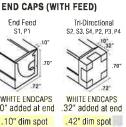
Omnidirectional Wireways S5, S6, P5



CLEAR ENDCAPS .0" added at end .0" added at end



.0" added at end .10" dim spot



PROJECT NAME	DATE	COMPANY	TYPE	NOTE

TYPE JCCS-LENGTHS



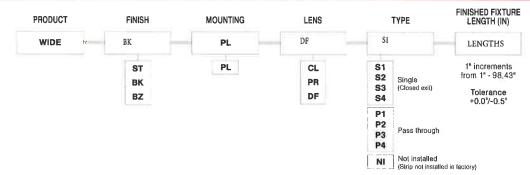
EXTRUSIONS - ALUMINUM

WIDE





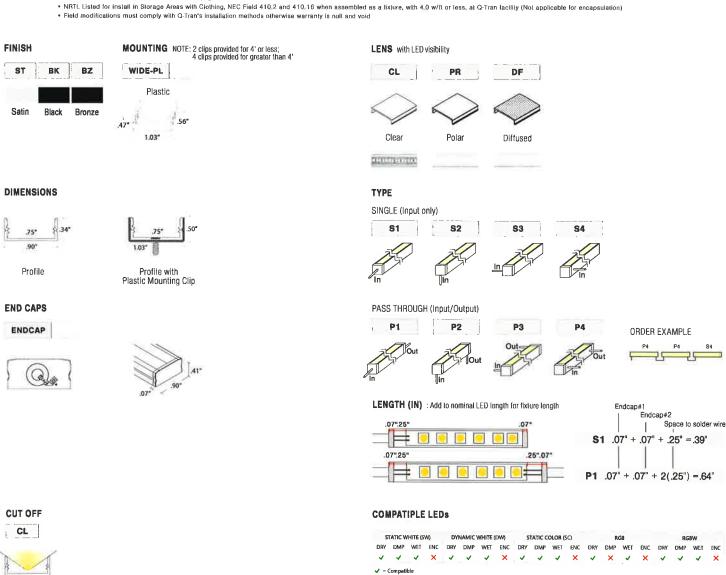




NOTES: • Ut Listed when assembled with STRIP LEDs at Q-Tran

Clear 97°

PROJECT NAME



COMPANY

X = NOT Compatible

TYPE

NOTE

TYPE JCCS-LENGTHS

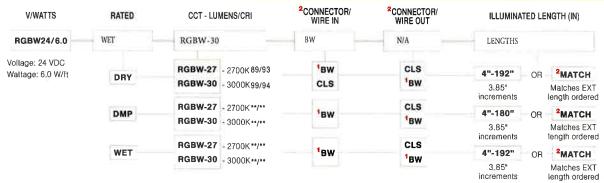
RGBW24/6.0



STRIP - DYNAMIC COLOR







ENC RATED STRIP ARE NOT FIELD CUTTABLE

- NOTES: Field modifications must comply with Q-Tran's installation methods otherwise warranty is null and void

 - All data has +/- 5% tolerance

 - 5 year warranty
 Consent factory for alternate Kelvin temperature

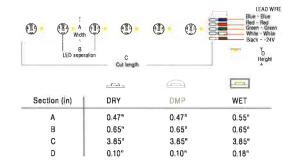
- 1 BW comes in standard 24"- request custom length (Max 120") by writing it in inches next to "BW" in the order code box (ex. BW48)
- 2. Wire orientation for MATCH will be dictated by extrusion Feed In/Feed Out selection
- Connector/Wire In or Out not needed to specify product, Standard configuration is BW for Wire In and CLS for Wire out

TECHNICAL INFORMATION [L70 = 30000 HRS]

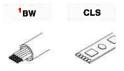
*Tested with RGBW24/6_0-DRY

ССТ	Lumen/ft	Wavelength	Circuit Wattage			
Red	37	630	1,5			
Green	124	513	1.5			
Blue	32	466	1.5			
ССТ	Lumen/ft	CRI Ra	CRI R9	TM30 Rf	TM30 Rg	Circuit Wattage
2700K	89	93	67	92	100	1.5
3000K	99	94	75	91	102	1.5

DIMENSIONS



CONNECTOR/WIRE IN



Bare Wire 24"

Not soldered DRY ONLY

CONNECTOR/WIRE OUT



Bare Wire 24"

Not soldered

COMPATIBLE EXTRUSIONS



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4.5" Round Deep Regress Downlight - B4RC



Universal and Field Convertible - Trim | Trimless | Millwork

Trimmed - B4RCF



Trimless - B4RCL



Millwork - B4RCM



usailighting.com/beveled

FEATURES

- · Field Flexibility between trimmed, trimless and millwork
- · Dry/damp/wet location rated for bathrooms and showers, including trimless and millwork
- 1% dimming standard + more dimming options
- · Clear overspray protector for installation convenience
- · Full family platform
- · Iconic beveled look

COMPANION FAMILY PRODUCTS







Downlight - B4RD usailighting.com/B4RD

Adjustable - B4RA usailighling.com/B4RA

Wall Wash - B4RW usailighting.com/B4RW

DEEP REGRESS DOWNLIGHT PERFORMANCE DATA

LED COLOR CHOICES

		1,000							
		Clas	ssic White			Warm G	low Dimming	Co Co	lor Select
9W	12W	16W	24W	33W	36W	16W	32W	16W	32W
1150	1300	1725	2400	3025	4150	1275	2150	1250	2075
70	69	68	64	58	85	56	47	54	52
625	825	1100	1550	1925	2950	900	1500	850	1525
	450	Delivered Lun	nens (nominal)		350 Deliver	ed Lumens	375 Deliver	ed Lumens
	1150 70	1150 1300 70 69 625 825	1150 1300 1725 70 69 68 625 825 1100	1150 1300 1725 2400 70 69 68 64 625 825 1100 1550	1150 1300 1725 2400 3025 70 69 68 64 58	1150 1300 1725 2400 3025 4150 70 69 68 64 58 85 625 825 1100 1550 1925 2950	1150 1300 1725 2400 3025 4150 1275 70 69 68 64 58 85 56 625 825 1100 1550 1925 2950 900	1150 1300 1725 2400 3025 4150 1275 2150 70 69 68 64 58 85 56 47 625 825 1100 1550 1925 2950 900 1500	1150 1300 1725 2400 3025 4150 1275 2150 1250 70 69 68 64 58 85 56 47 54 625 825 1100 1550 1925 2950 900 1500 850

^{*}Based on 3000K, 80+ CRI. Performance varies for each specific beamspread and color temperature. See IES files for exact values at usailighting.com.

	w Dimming	Warm Glow I	rm Glow Dimming	C	Color Select	
Color Rendering Index: 80+ 80+ 90+ 80+ 90+ 80+ 90+ 80+ 90+ 80+ 90+ 80+ 90+ 80+ 80+ 80+ 80+ 80+ 80+ 80+ 80+ 80+ 8	00K	3000	3000K 350	K 2200K 270	OK 3500K 4000K	6000K 6000K
	+ 90+	0+ 80+	80+ 90+ 80-	80+ 80-	+ 80+ 80+	80+ 80+
Multiplier for Lumen Output: 0.72 0.94 0.78 1.00 0.78 1.00 1.00 1.06 1.06 0.94 0.74 1.00 0.80 1.07 0.	0.80	.74 1.00	1.00 0.80 1.0	0.87 0.9	6 1.04 1.09	1.13 1.18

More Sizes and Shapes

THE COMPLETE BEVELED FAMILY PLATFORM

More Ceiling Applications



Armstrong® Ceiling Solutions Compatible



Sloped Ceiling

BeveLED Block

Cylinders

BeveLED Micro

BeveLED Mini

BeveLED 5.0

Trimless Acoustical Connect TechZone BeveLED Connect

4.5" Round Deep Regress Downlight - B4RC



Specify fixture part number. (All boxes must be filled in to correctly order)

B4RC_	16C3	30KS	70	S	WH	WH	NCIC	UNV	D6E	
BeveLED Trim Style	Wattage Options	LED Color Options	Beam Options	Lens Options	Bevel Trim Finish Options	*Flange/ Millwork Collar Finish	Housing Options	Voltage Options Select one	Dimming Driver Options	Acessories (Optional)*
F Trimmed	Classic	: White Light		S Solite	WH White	WH White	NCSM New	UNV 120V-277V	For use with Universal Voltage 120V - 277V	CB27 27" C-Channel Bars
with Flange (use with all materials)	09C3 9W LED	22KS (1) 2200K, 80+ CRI	25° beam	(provided standard)	SC Conduit Silver	SC Conduit Silver	Construction Narrow Width		No Additional Charge D6E	CB32 32" C-Channel Bars
L Trimless	12C3 12W LED	27KS 2700K, 80+ CRI	40° beam	SF Solite Frosted	GR Grey	GR Grey	NC New		EldoLED 0-10V, 1% (provided standard)	CB52 52" C-Channel Bars
Spackle-in (use with	16 C3 16W LED	27KH 2700K, 90+ CRI	70 70° beam	BF Borosilicate	BL Black	BL Black	Construction NCCP		D6F EldoLED 0-10V, 1%	EM Emergency Battery (7)
sheetrock and plaster only)	24C3 24W LED	30KS 3000K, 80+ CRI		Frosted	BZ Bronze	BZ Bronze	Chicago Plenum		D4A Lutron Hilume Premier ECO,	EMW Emergency Battery
М	33C3 33W LED	30KH 3000K, 90+ CRI			PR Primer Finish	PR Primer Finish	NCIC Insulation		0,1% (1, 2, 3, 5, 6) D4E	Wet Location (7)
Millwork Knife-Edge (use with	36E1 36W LED	35KS 3500K, 80+ CRI			AC Clear Matte	AC Clear Matte	Contact Rated /		Lutron 5 ECO, 5% (2, 3, 4) D4H	*Residential grade nailer bars provided standard
wood and stone)		35KH 3500K, 90+ CRI			Anodized	Anodized WH	Airtight (1)		Lutron H ECO, 1% Fade (2, 3, 4)	
		40KS 4000K, 80+ CRI				White GR			D4P Lutron Hilume Premier ECO,	
		40KH 4000K, 90+ CRI				Grey			1% (1, 5, 6) D6A	
	Warm	Glow Dimming				BL Black			EldoLED 0-10V, 0.1% D6B	
	16WG2 16W LED	2722KS 2700K-2200K, 80+ CRI	25 25° beam		AB Piano Gloss Black	AB Piano Gloss Black			EldoLED 0-10V, 0.1%	
	32WG2 32W LED	2722KH 2700K-2200K,	40 40°		3.03.0	WH White			EldoLED DALI, 0.1% D18 Moons DMX, 0.1% (2, 3)	
20		90+ CRI 3022KS	beam 65			GR Grey		120V	For use with 120V only	
		3000K-2200K, 80+ CRI	65° beam			BL Black			No Additional Charge	
		3022KH 3000K-2200K, 90+ CRI			RAL Custom Color	RAL Custom Color			Phase 2-wire, 1% (1, 2, 3, 4, 5)	
		3522KS 3500K-2200K,			Specify RAL #	Specify RAL #			D3 Lutron 2-wire, 1%	
	L	80+ CRI				*Leave blank for Trimless		347V	For use with 347V only	
		Select Tunable Whi				Tot miniess			D15 0-10V dim, 1% 347V only	
	16CS1 16W LED 32CS1	6022KS 6000K-2200K, Tunable	30 30° beam						(2, 3)	
	32W LED	White Light 80+ CRI	40 40° beam	2	Not available with 3 Not available for W Not available for Co	arm Glow.	4 Not available with 5 Not available with 6 For use with 16V	h 33W	Not available with 347V. For NC ar NCSM housing requires above cei	
			50 50° beam	3		J.J. Suredi.	lower only.	- urru		

TRIM FINISH OPTIONS













Custom colors and primer finish also available

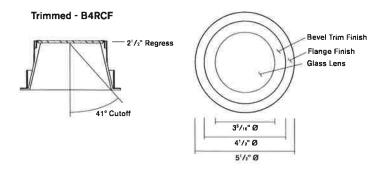
inish also available

4.5" Round Deep Regress Downlight - B4RC



Trimmed - B4RCF

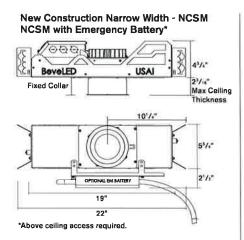
TRIM DETAILS

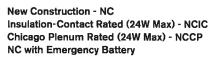


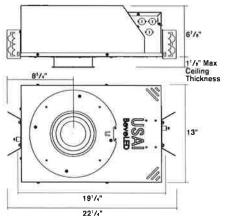


Clear acrylic overspray protector provided standard with every housing to keep out dust and contaminants during construction. Allows for use as work light.

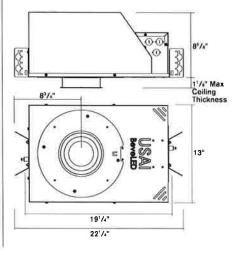
HOUSING OPTIONS







Insulation-Contact Rated (32W-33W) - NCIC Chicago Plenum Rated (32W-36W) - NCCP



info@usailighting.com

4.5" Round Deep Regress Downlight - B4RC



BEVELED 2.2 SPECIFICATIONS

FIELD REPLACEABLE LED LIGHT ENGINE

is serviceable through the aperture without tools or with a Philips screwdriver. All USAI Lighting light engines feature industry-leading color consistency.

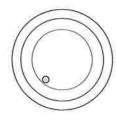
FIELD REPLACEABLE DRIVER

Unless otherwise specified, a 0-10V, 100%-1% solid state electronic constant current integral D6E dimming driver with a high power factor is provided standard and sources 2mA, All integral dimming drivers are located within the fixture housing and are serviceable from below the ceiling through the aperture. Some ontime delay may be experienced depending on control system used. All dimming drivers comply with IEEE C62.41 surge protection.

EMERGENCY BATTERY

IOTA emergency battery provides backup power for 90 minutes. NC EM fixtures are provided with an integral emergency battery with integral test switch and can be serviced through the aperture from below the ceiling plane. NCSM EM fixtures are provided with an integral emergency battery with a remote test switch, which comes with a 24" lead length for location of the test switch. Remote EM test switch is dry/damp only; select EMW emergency option for a wet location-rated EM test switch. NCSM EM fixtures require above ceiling access for service of the EM pack. Fixtures that have no USAI EM option may be connected to an inverter (by others) for emergency lighting. Battery is not available with 347V.







Remote Emergency Test Switch included with NCSM housing (above ceiling access required).

Integral Emergency Test Switch included with NC housing

HOUSING

All BeveLED 2.2 fixtures are field-flexible which allows for field changes from trimless to trimmed or millwork with a simple components change with parts from USAI, Housings are fabricated of 20 ga. steel construction with thru wire J-box, 4 in 4 out at min. 90°C, #12 AWG thru branch circuit wiring, except for NCSM which is fabricated of 18 ga. steel. NCIC housing for use with 9W, 12W, and 16W light engines only are rated for direct contact with spray foam insulation of R-42 or less.

MOUNTING

B4RCF overlap flange fixtures are designed for use in sheetrock, acoustical ceiling tile, and many other ceiling materials. B4RCL trimless fixtures are provided with a spackle collar and are designed for use in sheetrock/mud-in ceiling applications, B4RCM millwork fixtures are provided with a millwork collar in finish to match trim finish specified and are designed for use in wood/millwork, stone and tile construction applications. Butterfly brackets and residential grade adjustable nailer bars extendible from 14" to 24" centers with integral nails are provided standard for attachment to building structure, C-channel bars are optionally available for acoustical ceiling applications.



Residential-grade nailer bars provided standard.

FIXTURE WEIGHT

NC, NCIC, and NCCP housings weigh 16 lbs. NCSM housing weighs 10 lbs. NCSM with EM weighs 16.5 lbs, and NC housing with EM weighs 24.5 lbs.

WARRANTY

Based on IESNA LM80-2008, BeveLED has a 50,000 hour rated life at 70% lumen maintenance (L70). USAI Lighting Warranty covers replacement parts for 5 years from date of shipment. Ambient temperatures at fixture location should not exceed 40°C during normal operation.

CEILING CUT OUT

B4RCF Trimmed Overlap Flange: 5-1/16" Ø B4RCL Trimless Spackle-in: 5-1/2" Ø B4RCM Millwork Knife-edge: 4-15 /16" Ø

LISTINGS

Dry/Damp/Wet location. UL2043 rated for use in air handling plenums. AC and AB trim finishes are dry/damp only. Remote EM test switch is dry/damp only. Select EMW option for wet location remote test switch. NRTL/CSA-US tested to UL standards. IBEW union made.

NOTES

· Use of pressure washer voids warranty

PHOTOMETRICS

Consult factory or website for IES files. Tested in accordance with IESNA LM79.

Page 6

4.5" Round Deep Regress Downlight - B4RC



LED COLOR OPTIONS



Classic White Light

Our proprietary LED light engines achieve a 2-step MacAdam ellipse along the black body locus, resulting in reliable and uniform color from fixture to fixture. You'll see the results in consistently beautiful light throughout your space, whichever USAI LED product you specify.







Warm Glow® Dimming

Warm Glow Dimming provides warmth and glow once possible only in dimmed incandescent sources. Utilizing our patented proprietary algorithm and circuitry, Warm Glow Dimming technologies precisely mimic the black body curve of a standard 100W A19 lamp by gradually transitioning from 2700K , 3000K or 3500K down to 2200K. The result is virtually indistinguishable from an incandescent light source.







Color Select® Tunable White

Color Select represents the next innovation in color temperature control for advanced LED recessed downlighting. Color Select® products allow users to adjust color temperature from 6000K down to 2200K while independently adjusting intensity to achieve ultimate control over the quality of light in a space with a single fixture type. Color Select interfaces with standard dimming and control systems:







DIMMING DRIVER COMPATIBILITY SELECTION GUIDE D6A / DIML6A and D6E / DIML6E D6B / DIML6B and D6F / DIML6F

IMPORTANT SAFETY INSTRUCTIONS - SAVE THESE INSTRUCTIONS

- 1. Keep these instructions in a safe place for future reference.
- 2. Only qualified electricians in accordance to local codes should install these fixtures.
- 3. De-energize the electrical circuit at the circuit breaker prior to installation process or servicing.
- 4. Make sure all connections are in accordance with the National Electrical Code and any local regulations.
- 5. Cap any wires not used separately (not together).

D6A / DIML6A and D6E / DIML6E LED Dimming Compatibility Table

D6A / DIML6A and D6E / DIML6E are linearly programmed dimming drivers for use with the dimming controls listed in the table below.
D6A / DIML6A = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1%
D6E / DIML6E = EldoLED ECOdrive 0-10V control dims from 100% to 1%

D6A / DIML6A and D6E / DIML6E Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range	Oty Fixtures Per Dimmer*	
120V & 277V			DIML6A 6E	Refer to manufacturer's	
Lutron	Diva	DVTV/NFTV with PP-20	99% - 0.1% 1%	dimmer load rating for	
Lutron	Nova T	NTFTV with PP-20	99% - 0.1% 1%	maximum and minimum	
Lutron	Energi Savr Node	QSN-4T16-S	100% - 0.1% 1%	fixture quantities per	
Lutron	GP Dimming Panels	TVM2 Module	99% 0.1% 1%	dimmer.	
Lutron	Interfaces	GRX-TVI w/ GRX3503	100% - 0.1% 1%	Enlighted compatible.	
Sensor Switch	nIO	nIO EZ	100% - 0.1% 1%		
enlighted	Control Unit	CU-3E-1R	100% - 0.1% 1%		

D6B / DIML6B and D6F / DIML6F LED Dimming Compatibility Table

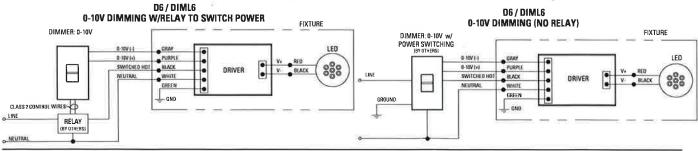
D6B / DIML6B and D6F / DIML6F are logarithmic-programmed dimming drivers for use with the dimming controls listed in the table below.

D6B / DIML6B = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1% D6F / DIML6F = EldoLED ECOdrive 0-10V control dims from 100% to 1%

D68 / DIML6B and D6F / DIML6F Dimmer Compatibility Chart				
Manufacturer	Product	Part Number	Dimmed Light Output Range	Qty Fixtures Per Dimmer*
120V & 277V			DIML6B 6F	
Bush-Jaeger	Electronic potentiometer	2112U-101	100% - 0.1% 1%	Refer to
Jung	Electronic potentiometer	240-10	1100% -10,1% 1 1%	monufacturar's
Leviton	lluma Tech dimmer	IP710-DLX	1100% -10.1% 1%	J:
Lightolier (Philips)	Momentum (120V ONLY)	ZP600FAM120	1100% -10.1% 1 1%	roting for
Merten	Electronic potentiometer	5729	1100% -10.1% 1 1%	maximum and
Pass & Seymour	Titan	CD4FB-W	110076 -10.176 176	-i-i fire
Watt Stopper	Miro	DCLV1	110076 -10, 176 176	guantitias nar
Synergy	Wallbox Dimmers	ISD BC	110076 - 0.176 176	dimmo
ABB	i-bus	SD/S 2.16.1	1100% -10.1% 1%	Enlighted
Crestron	Modules	GLX-DIMFLV8, GLXP-DIMFLV8	100% - 0.1% 1%	compatible
Crestron	Green Light	GLPAC-DIMFLV4-, GLPAC-DIMFLV8-	100% - 0.1% 1%	compannie.
Crestron	Green Light Power Pack	GLPP-DIMFLVEX-PM, GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM	100% - 0.1% 1%	
Crestron	DIN Rail Analog Output Module	DIN-A08	100% - 0.1% 1%	
Crestron	DIN Rail 0-10V Fluorescent Dimmer	DIN-4DIMFLV4	100% - 0.1% 1%	
Crestron	iLux 0-10V Dimmer Expansion Module	CLS-EXP-DIMFLV	100% - 0.1% 1%	
enlighted	Control Unit	CU-3E-1R	100% - 0.1% 1%	

DIMMING DRIVER WIRING SCHEMES:

NOTES: Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.





www-usailighting.com info@usailighting.com 1126 River Road New Windsor, NY 12553

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INTENSITY DIMMING DRIVER COMPATIBILITY **SELECTION GUIDE** DIML6A & 6B **DIML6E & DIML6F**

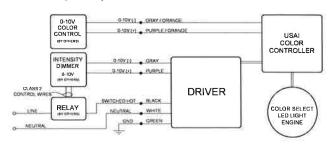


Covered By US Patents 8,581,520 and 8,456,109

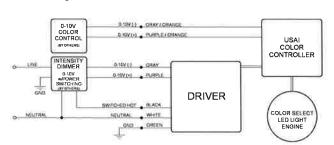
INTENSITY DIMMING DRIVER WIRING SCHEMES:

Note: Wiring diagrams are examples of typical installations intended to illustrate the number of wires that must be run to fixture. These diagrams are not intended to specify all equipment necessary for a given dimming circuit. Refer to specific dimmer manufacturer's documentation for details.

0-10V Dimming w/ Relay Switch to Power



0-10V Dimming



D6A / DIML6A and D6E / DIML6E LED Dimming Compatibility Table

D6A / DIML6A and D6E / DIML6E are linearly programmed dimming drivers for use with the dimming controls listed in the table below D6A / DIML6A = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1% D6E / DIML6E = EldoLED ECOdrive 0-10V control dims from 100% to 1%

	D6A / DIML6A and D	6E / DIML6E Dimmer Compatibility	Chart		
Manufacturer	Product	Part Number	Dimmed Light Output Range	Oty Fixtures Per Dimmer*	
120V & 277V			DIML6A 6E	Refer to manufacturer's	
Lutron	Diva	DVTV/NFTV with PP-20	99% - 0.1% 1%	dimmer load rating for	
Lutron	Nova T	NTFTV with PP-20	99% - 0.1% 1%	maximum and minimum	
Lutron	Energi Savr Node	QSN-4T16-S	100% - 0.1% 1%	fixture quantities per	
Lutron	GP Dimming Panels	TVM2 Module	99% - 0.1% 1%	dimmer.	
Lutron	Interfaces	GRX-TVI w/ GRX3503	100% - 0.1% 1%	Enlighted compatible.	
Sensor Switch	nlO	nIO EZ	100% - 0.1% 1%		
enlighted	Control Unit	CU-3E-1R	100% - 0.1% 1%		

D6B / DIML6B and D6F / DIML6F LED Dimming Compatibility Table

D6B / DIML6B and D6F / DIML6F are logarithmic-programmed dimming drivers for use with the dimming controls listed in the table below D6B / DIML6B = EldoLED SOLOdrive 0-10V control dims from 100% to 0.1% D6F / DIML6F = EldoLED ECOdrive 0-10V control dims from 100% to 1%

	D6B / DIML6B and D6F / DIML6F Dimmer Compatibility Chart					
Manufacturer	Product	Part Number	Dimmed Light Output Range		Oty Fixtures Per Dimmer*	
20V & 277V	(A-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0	10-200-000 100 10-000	DIM	L6B	6F	
Bush-Jaeger	Electronic potentiometer	2112U-101	100% -	0.1%	1%	Refer to
Jung	Electronic potentiometer	240-10	100% -	0.1%	1%	manufacturer's
Leviton	lluma Tech dimmer	IP710-DLX	100% -	0.1%	1%	dimmer load
Lightolier (Philips)	Momentum (120V ONLY)	ZP600FAM120	100% -	0.1%	40/	rating for
Merten	Electronic potentiometer	5729	100% -	0.1%	1%	maximum and
Pass & Seymour	Titan	CD4FB-W	100% -	0.1%	1%	minimum fixture
Watt Stopper	Miro	DCLV1	100% -	0.1%	1%	quantities per
Synergy	Wallbox Dimmers	ISD BC	100% -	0.1%	1%	d: '
ABB	i-bus	SD/S 2.16.1	100% -	0.1%	1%	Enlighted
Crestron	Modules	GLX-DIMFLV8, GLXP-DIMFLV8	100% -	0.1%	1%	compatible.
Crestron	Green Light	GLPAC-DIMFLV4-, GLPAC-DIMFLV8-	100% -	0.1%	1%	Compandie.
Crestron	Green Light Power Pack	GLPP-DIMFLVEX-PM, GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM	100% -	0.1%	1%	
Crestron	DIN Rail Analog Output Module	DIN-A08	100% -	0.1%	1%	
Crestron	DIN Rail 0-10V Fluorescent Dimmer	DIN-4DIMFLV4	100% -	0.1%	1%	
Crestron	iLux 0-10V Dimmer Expansion Module	CLS-EXP-DIMFLV	100% -	0.1%	1%	
enlighted	Control Unit	CU-3E-1R	100% -	0.1%	1%	



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Tilting Eave 6w **PURE LED**

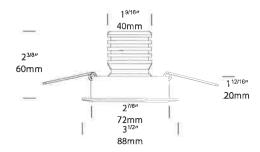
PROJECT:	
TYPE:	
SOURCE:	
NOTES:	

SPECIFICATIONS



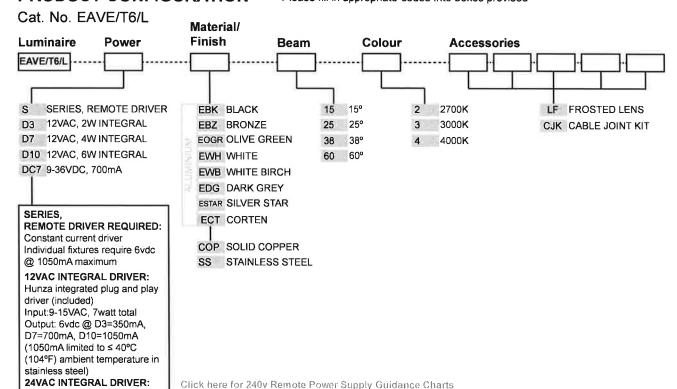
LED Chip	Cree XHP-50-2 Plug and Play field replaceable LED board 600 Lumens @ 1050mA (6 watts), 420 Lumens @ 350mA (2 watts), 240 Lumens @ 350mA (2 watts), delivered from luminaire with unobstructed beam.		
Luminaire Output			
Lumens Per Watt	100 Lumens @ 6 watts minimum, delivered from luminaire with unobstructed beam		
CRI (3000K)	90+		
Colour Temperatures	2700K, 3000K, 4000K		
Beam Angles	15, 25, 38, 60		
Ingress Protection	IP66		
Warranty	Electronics = 5 years Flange Cop / SS = 10 years Body Aluminium = 5 years		
Standards	AS/NZS 61046 cUL 2108 CSA C22.2 No. 250.0-08 CE		





PRODUCT CONFIGURATION

Please fill in appropriate codes into boxes provided



PURE OUTDOOR LIGHTING

Hunza integrated plug and play

driver (included) Input: 9-36vdc, 7 watt total Output: 6vdc nominal, 700mA

HUNZA FACTORY

130 Felton Mathew Ave Saint Johns Auckland 1072

Click here for 240v Remote Power Supply Guidance Charts

Click here for USA Remote Power Supply Guidance Charts

Ph: +64-9-528 9471 Fax: +64-9-528 9361 hunza@hunza.co.nz www.hunzalighting.com INTERNATIONAL CONTACTS: http://www.hunzalighting.com/contact.php Specifications may change without notice. This document contains proprietary information of Hunza. Its receipt or possession does not convey an rights to reproduce or disclose it

LUMINAIRE CONSTRUCTION

CNC machined from one of the following metals:

Aluminium:

Body: 45mm (13/4") anodised aluminium Flange: high corrosion resistant solid aluminium 88mm (31/2") rod with chromate substrate and high UV resistant polyester powder coat. Colours:

Black, Bronze, Silver Star, White, White Birch, Olive Green, Dark Grey, Corten.

Flange: solid copper 88mm (31/2") rod.

316 Stainless Steel:

Flange: 88mm (31/2") electro polished 316 stainless steel.

Step Lens:

8mm extra clear, low iron, glass lens. Lifetime Warranty.

Gaskets:

Silicone, iron impregnated 220°C (428°F)

Mounting:

This fitting is designed to fit through a 72mm (2") holes and be fixed into position by two spring clips.

Luminaire Weight:

Low voltage Alum: 0,300kg (11oz) Cop: 0.800kg (1lb 12oz) SS: 0.750kg (1lb 10oz)

ACCESSORIES

BEAM ANGLES

High efficiency PMMA TIR lenses, Field replaceable

IES files available for download: hunzalighting.com/downloads

15° FWHM TIR

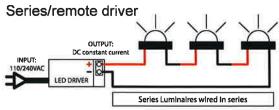
25° FWHM

TIR

38° FWHM TIR

60° FWHM TIR

WIRING GUIDE



Diagrams are a guide only, wire colours and polarity may change depending on fixture and country

Available for download: hunzalighting.com/downloads 12v integral driver OUTPUT: INPUT: 00 110/240VAC TRANSFORMER Luminaires with 12VAC internal driver wired in parallel

Specifications may change without notification

Aug 2017

New Zealand

MUE.5.18.15

The Brightest Idea is Emergency Lighting with LEDs

GENERAL DESCRIPTION

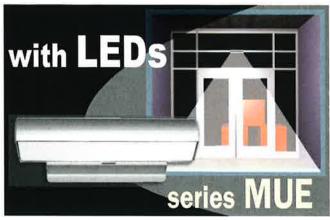
Operating in emergency mode or optional normal- on, this fixture is designed to mount directly on structural mullion beams used in typical glass-fronted entrances, with vertical surface as small as 2". This fixture has full 90° cut-off and will provide efficient emergency lighting in front of egress doorways, or along extended pathways.

CONSTRUCTION

- Rugged extruded aluminum housing with stainless hardware is corrosion proof.
- Wet location listed UL 924. Certified IP66.
- Uniform, high brightness lighting over the path of egress.
- Full 90° cut- off.
- · Three versions are available:
 - RE= Central Battery System Series CBS or other qualified source 12V- 24 VDC.
 - **BB**= Battery backup from Remote Battery Supply Series RPS.
 - AC= 120/ 277 VAC supply.

ELECTRONICS

- Dual operation from either a battery or optional normally on power source.
- · Lamps are connected in parallel-series strings, as required to meet requirements of NEC and Life Safety Codes. Lighting continues even after failure of One lamp or circuit.
- LED color temperature standard 5300K; available color temperatures from 2900K, 3200K, to 3800K.



ENERGY EFFICIENT OPERATION

- Dual function operation for optional normally on night or security lighting as well as emergency lighting.
- Very low power consumption in optional night/ security mode. The security lighting circuit is independent of emergency lighting and may be switched manually, by an exterior photocell, or other automatic means.
- Over 50,000 hour lamp life in normal use.
- IES photometric data available for all models.

CODES

· Manufactured and tested to UL Standard 924 and NFPA Life Safety Code 101.

WARRANTY

 5 year total customer satisfaction warranty. For Details see product catalog technical data section.

FIXTURE SCHEDULE

MODEL	CATALOG NO
APPROVAL	JOB INFORMATION





Moonlite LED®

Mullion Mount Emergency Light LED Outdoor Egress Emergency with Night Lighting Option Series MUE

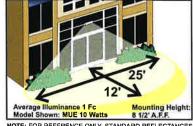
SPACING GUIDE

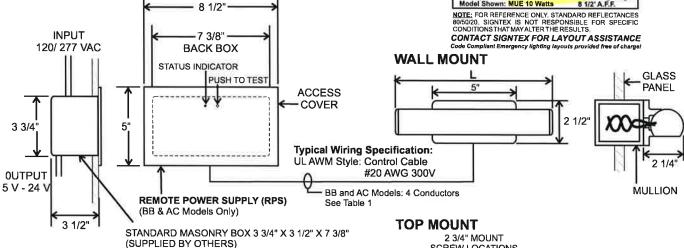
MUF.5-18-15

SUGGESTED SPECIFICATIONS:

Supply and install the MOONLITE LED Series MUE Mullion Mount emergency lighting fixture manufactured by Signtex Lighting Inc. The MUE assembly shall be listed for installation in wet locations in compliance with UL 924 and IP66 standards and shall be capable of operating from Signtex remote power supply Series RPS, the Signtex central battery system Series CBS, or from other remote power sources supplying 12-24 VDC or VAC. Upon loss of AC building power, emergency models shall operate for a minimum of 90 minutes in compliance with UL Standard 924 and NFPALSC 101.

MOUNTING DATA & DIMENSIONS:





TYPICAL STOCK MODELS: CROUSE HINDS #TP693 **RACO # 698**

TABLE 1 **MAXIMUM WIRING LENGTH** FROM RPS TO FIXTURE

MODEL

LENGTH TABLE

POWER	L
10 Watts	10"
20 Watts*	19"

*RE & AC Models Only

SECURITY LIGHTING CONTROL

RE Models: Requires SEC Option 'S' with CBL Requires Option '-SB120' for connection

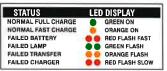
Requires Option '-SD277' for connection to 277 VAC

SCREW LOCATIONS

BB-DG Models: Requires Option '-SD' for connection to 120/ 277 VAC

RPS SELF-TEST DIAGNOSTIC FUNCTIONS

BB MODELS WITH DG FUNCTION



FIXTURE ORDERING INFORMATION: EXAMPLE: MUEBB10AW-DG MUE 10 BB

SERIES RE= Central Battery or other 12- 24 VDC MUE Remote Source BB= Battery Backup (Includes RPS) AC= No Battery (Includes RPS)

OPERATION

POWER

10= 10 Watts Emergency & Normal On Power 20= 20 Watts Emergency & Normal On power

(RE & AC Models Only)

HOUSING COLOR

W= Satin White A= Aluminum B= Dark Bronze X= Custom

T= Ton W= Wall

MOUNT

SUITABLE FOR WET LOCATIONS **AMBIENT TEMPERATURE LIMITS:** -40° C to +50° C

-DG **OPTIONS**

DG= Self- Test Diagnostics (BB Models Only)

SB120= Security Lighting with Control Switch for Standard BB Operation (120V)

SD277= Security Lighting with Control Switch for Standard BB Operation

Security Lighting with Control Switch for BB Operation with DG option (120/277V)

CW1= Custom Window Filter- 3800K CW2=Custom Window Filter- 3200K CW3=Custom Window Filter- 2900K DAC= Dual AC Input

2HT= 2" Canopy Height 5HT= 5" Canopy Height

TEL:(410)827-8300 Fax:(410)827-8866 sales@signtexinc.com www.signtexinc.com

DISTRIBUTOR:

Specifications and Dimensions subject to change without notice.