

P0595-008 April 20, 2020

Ms. Juliet Walker Planning Director City of Portsmouth Planning Department 1 Junkins Avenue Portsmouth, New Hampshire 03801

Re: Site Review Permit & Conditional Use Permit Applications
Proposed Moxy Hotel, 299 Vaughan Street & 53 Green Street, Portsmouth, NH

### Dear Juliet:

On behalf of Stone Creek Realty, LLC & Vaughan Street Hotel, LLC (owners) and XSS Hotels, LLC (applicant), we are pleased to submit via the City of Portsmouth online permitting system the following information to support a request for a Site Review Permit and Conditional Use Permit for Shared Parking for the above referenced project:

- Site Plan Set last revised April 20, 2020;
- Owner Authorization dated December 23, 2019;
- Applicant Authorization dated December 23, 2019;
- Site Review Checklist dated April 20, 2020;
- Shared Parking Analysis last revised April 20, 2020;
- Trip Generation Analysis last revised April 20, 2020;
- Drainage Analysis Memorandum last revised April 20, 2020;
- Fire Truck Turning Exhibit dated April 20, 2020;
- Community Space Exhibit last revised April 20,2020;
- Unitil Will Service Letter dated April 17, 2020
- Application fee calculation form for the Site Review Permit;

The proposed project is located at 299 Vaughan Street and 53 Green Street identified as Map 124 Lot 10 and Map 119 Lot 2 respectively on the City of Portsmouth Tax Maps. The proposed project consists of a 5-story hotel along Green Street that includes 1<sup>st</sup> floor lobby area and 77 hotel rooms on floors 2 through 5. The project will include associated site improvements such as paving, utilities, lighting, landscaping and community space. The project is proposing 30% community space in order to meet the North End incentive requirements to construct an additional story on the building. The community space calculation is depicted in the enclosed Community Space Exhibit.

The project will include a lot line revision between Map 124 Lot 10 and Map 119 Lot 2 as shown in the enclosed Site Plans. The proposed hotel will be located on the revised Map 124 Lot 10 parcel. The applicant anticipates filing a Lot Line Revision Plan and application to the Planning Board by the next fling deadline of April 29<sup>th</sup>.

In addition, a Conditional Use Permit for shared parking on a separate lot is requested for the project. The project will share parking for the existing AC Hotel, proposed Moxy Hotel and existing office between Map 124 Lot 10 and Map 119 Lot 2. The project meets the Downtown Overlay District (DOD) parking requirements by sharing parking between the two (2) lots as shown on the enclosed Site Plans. In addition, a Shared Parking Analysis is also enclosed to further support the request for shared parking between the two (2) lots.



Under separate cover, a Site Plan Review application fee in the amount of \$3,200 and a Conditional Use Permit for Share Parking application fee in the amount of \$200 have been mailed to the Planning Department by the applicant. A copy of the application fee calculation form is enclosed.

We respectfully request to be placed on the Technical Advisory Committee (TAC) meeting agenda for May 5, 2020. If you have any questions or need any additional information, please contact Patrick Crimmins by phone at (603) 433-8818 or by email at <a href="mailto:pmcrimmins@tighebond.com">pmcrimmins@tighebond.com</a>.

Sincerely,

**TIGHE & BOND, INC.** 

Patrick M. Crimmins, PE Senior Project Manager

Cc: Stone Creek Realty, LLC (via e-mail)
Vaughan Street Hotel, LLC (via e-mail)

XSS Hotels, LLC (via e-mail)

Neil A. Hansen, PE Project Engineer

# PROPOSED MOXY HOTEL

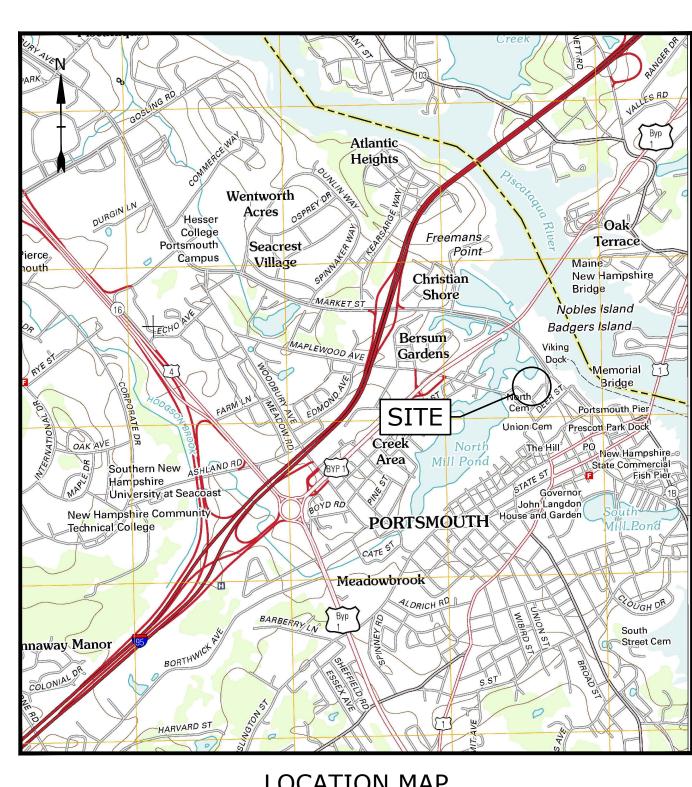
# 299 VAUGHAN STREET & 53 GREEN STREET PORTSMOUTH, NEW HAMPSHIRE

JANUARY 2, 2020

LAST REVISED: APRIL 20, 2020

LIST OF DRAWINGS				
SHEET NO.	T NO. SHEET TITLE LAST REVISE			
	COVER SHEET	4/20/2020		
C-101	OVERALL EXISTING CONDITIONS PLAN	4/20/2020		
C-101.1	DEMOLITION PLAN	4/20/2020		
C-102	OVERALL SITE PLAN	4/20/2020		
C-102.1	SITE PLAN	4/20/2020		
C-103	GRADING, DRAINAGE AND EROSION CONTROL PLAN	4/20/2020		
C-104	UTILITIES PLAN	4/20/2020		
C-201	WATER MAIN REPLACEMENT PLAN	4/20/2020		
C-501	EROSION CONTROL NOTES AND DETAILS SHEET	4/20/2020		
C-502	DETAILS SHEET	4/20/2020		
C-503	DETAILS SHEET	4/20/2020		
C-504	DETAILS SHEET	4/20/2020		
L-1	LANDSCAPE PLAN	4/14/2020		

LIST OF PERMITS				
LOCAL	STATUS	DATE		
SITE PLAN REVIEW PERMIT	PENDING			
LOT LINE REVISION PERMIT	PENDING			
CONDITIONAL USE PERMIT - SHARED PARKING	PENDING			
STATE				
NHDES - SHORELAND PERMIT	PENDING			
NHDES - SEWER CONNECTION PERMIT	PENDING			



LOCATION MAP

SCALE: 1" = 2,000'

# PREPARED BY:

# Tighe&Bond

177 CORPORATE DRIVE
PORTSMOUTH, NEW HAMPSHIRE 03801
603-433-8818

# **OWNERS:**

TAX MAP 119, LOT 12
STONE CREEK REALTY, LLC
C/O DOUGLAS PINCIARO
PO BOX 121
NEW CASTLE, NEW HAMPSHIRE 03854

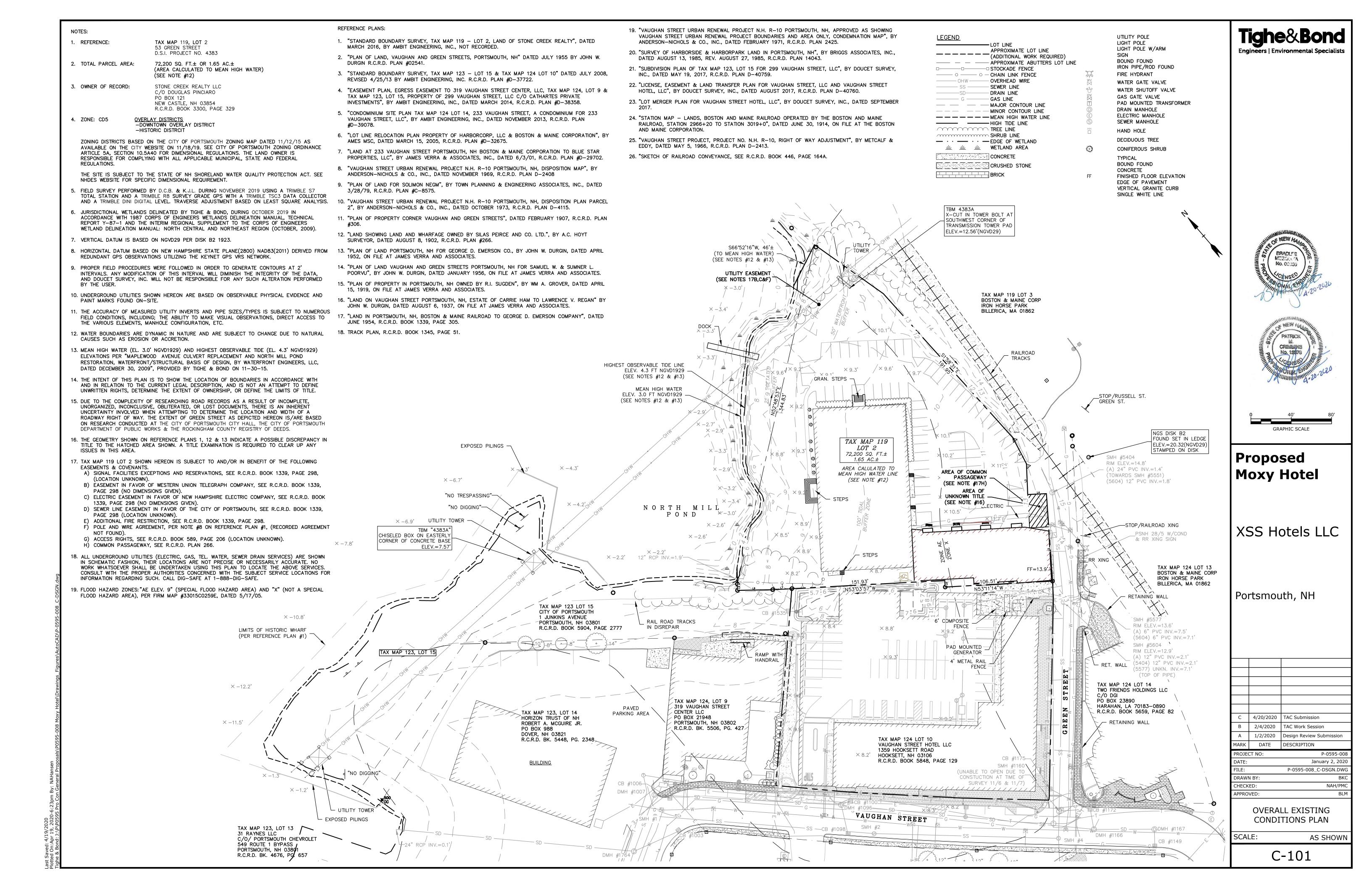
TAX MAP 124, LOT 10
VAUGHAN STREET HOTEL LLC
1359 HOOKSETT ROAD
HOOKSETT, NEW HAMPSHIRE 03106

# **APPLICANT:**

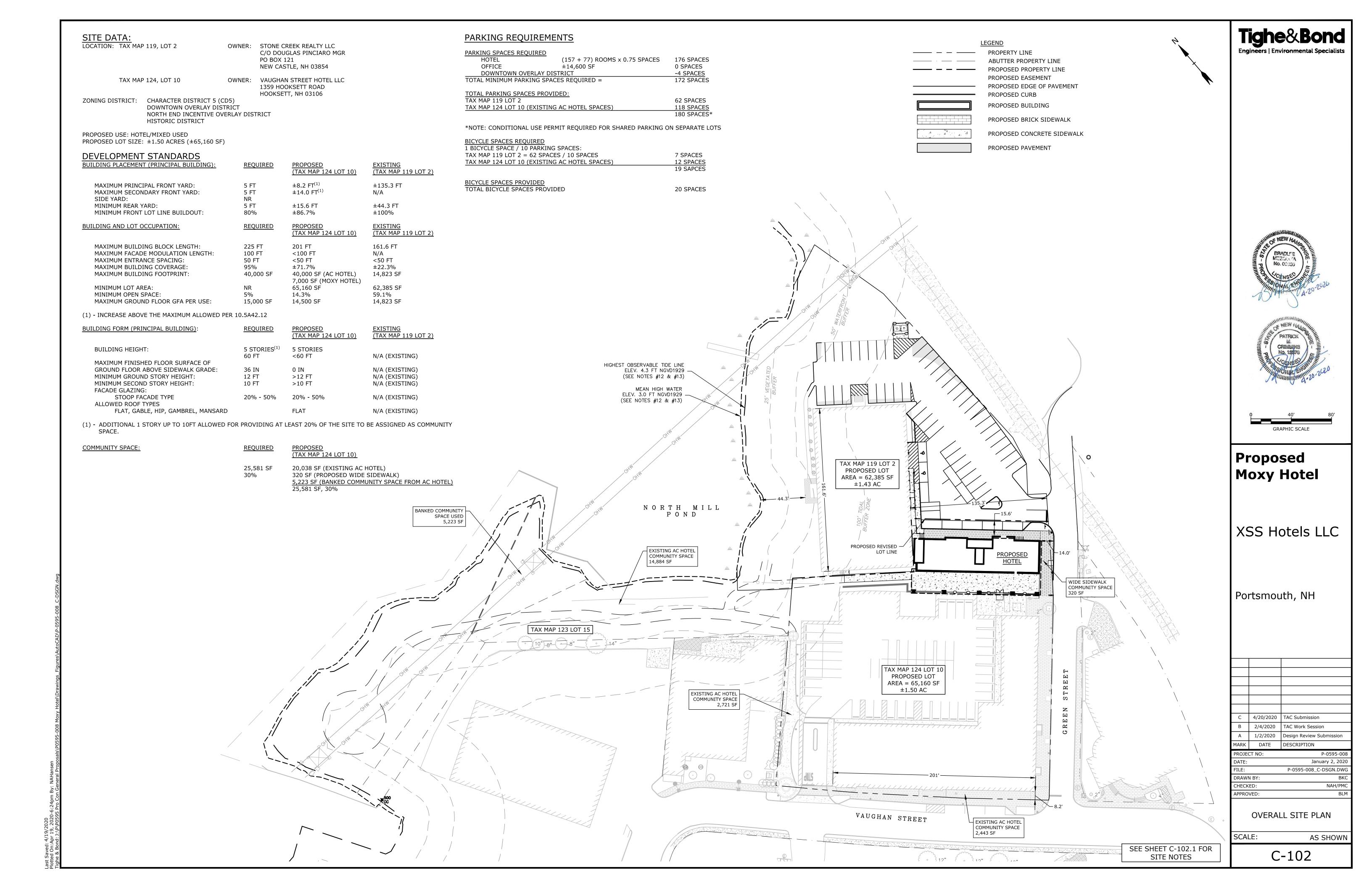
XSS HOTELS LLC
PO BOX 4430
MANCHESTER, NEW HAMPSHIRE 03108

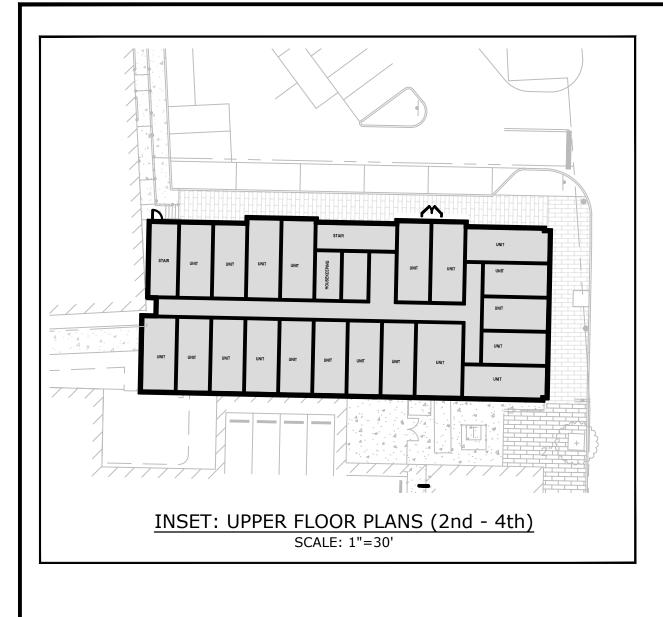


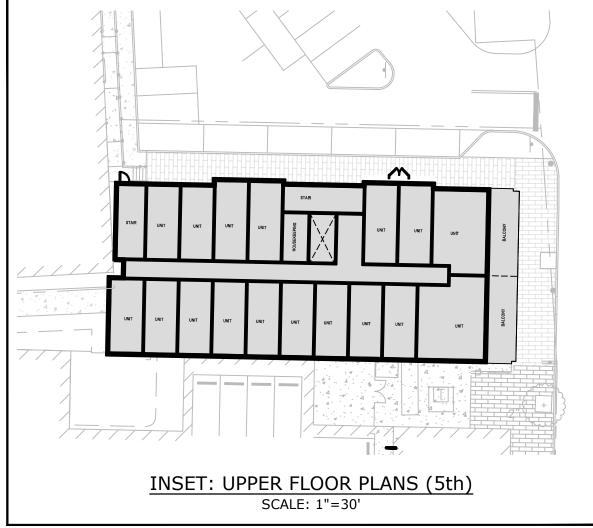
TAC SUBMISSION SET COMPLETE SET 13 SHEETS



### **DEMOLITION NOTES** THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES APPROXIMATE LIMIT OF REQUIRED TO COMPLETE THE WORK. PROPOSED SAW CUT 2. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES. CALL DIG SAFE AT LEAST 72 LIMIT OF WORK HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES. 3. ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS PROPOSED SILT SOCK OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE LIMIT OF SEWER TO BE ABANDONED WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES. 4. COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROXIMATE LIMIT OF APPROPRIATE UTILITY COMPANY. PAVEMENT TO BE REMOVED 5. ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/ DEMOLITION BUILDING TO BE REMOVED ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. TO BE REMOVED TAX MAP 119 LOT 3 6. SAW CUT AND REMOVE PAVEMENT ONE (1) FOOT OFF PROPOSED EDGE OF PAVEMENT OR EXISTING CURB BOSTON & MAINE CORP BLDG... BUILDING LINE IN ALL AREAS WHERE PAVEMENT TO BE REMOVED ABUTS EXISTING PAVEMENT OR CONCRETE TO IRON HORSE PARK TYP···· TYPICAL BILLERICA, MA 01862 COORD ---COORDINATE 7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS. 8. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL PERMITS, NOTICES AND FEES NECESSARY TO CONST SILT SOCK (TYP) COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION. 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS. 10. UTILITIES SHALL BE TERMINATED AT THE MAIN LINE PER UTILITY COMPANY STANDARDS. THE CONTRACTOR SHALL REMOVE ALL ABANDONED UTILITIES LOCATED WITHIN THE LIMITS OF WORK. CONTRACTOR SHALL VERIFY ORIGIN OF ALL DRAINS AND UTILITIES PRIOR TO REMOVAL/TERMINATION TO DETERMINE IF DRAINS OR UTILITY IS ACTIVE, AND SERVICES ANY ON OR OFF-SITE STRUCTURE TO REMAIN. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY SUCH UTILITY FOUND AND SHALL RAILROAD MAINTAIN THESE UTILITIES UNTIL PERMANENT SOLUTION IS IN PLACE. TRACKS 11. PAVEMENT REMOVAL LIMITS ARE SHOWN FOR CONTRACTOR'S CONVENIENCE. ADDITIONAL PAVEMENT REMOVAL MAY BE REQUIRED DEPENDING ON THE CONTRACTOR'S OPERATION. CONTRACTOR TO VERIFY FULL LIMITS OF PAVEMENT REMOVAL PRIOR TO BID. 12. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE PADS, UTILITIES AND PAVEMENT WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO EDGE OF REMAIN. ITEMS TO BE REMOVED INCLUDE BUT ARE NOT LIMITED TO: CONCRETE, PAVEMENT, CURBS, PAVEMENT LIGHTING, MANHOLES, CATCH BASINS, UNDER GROUND PIPING, POLES, STAIRS, SIGNS, FENCES, RAMPS, WALLS, BOLLARDS, BUILDING SLABS, FOUNDATION, TREES AND LANDSCAPING. 13. COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH. LIMIT OF — 14. REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND WORK (TYP) PATRICK REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF SITE IN ACCORDANCE WITH \_STOP/RUSSELL ST. FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS. GREEN ST. 15. CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED BY BY THE CONTRACTOR, THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED SURVEYOR TO REPLACE DISTURBED MONUMENTS. 16. PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS/CURB INLETS WITHIN CONSTRUCTION LIMITS AS WELL AS CATCH BASINS/CURB INLETS THAT MAY RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INLET PROTECTION BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. HIGHEST OBSERVABLE TIDE LINE INLET PROTECTION BARRIERS SHALL BE "HIGH FLOW SILT SACK" BY ACF ENVIRONMENTAL OR EQUAL. ELEV. 4.3 FT NGVD1929 INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN EVENT OF 0.25 INCHES OR GREATER. CONTRACTOR (SEE NOTES #12 & #13) SHALL COMPLETE A MAINTENANCE INSPECTION REPORT AFTER EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED OR MEAN HIGH WATER TAX MAP 119 SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE BARRIER. - ELEV. 3.0 FT NGVD1929 LOT 2 17. THE CONTRACTOR SHALL PHASE DEMOLITION AND CONSTRUCTION AS REQUIRED TO PROVIDE (SEE NOTES #12 & #13) 72,200 SQ. FT.± CONTINUOUS SERVICE TO EXISTING BUSINESSES AND HOMES THROUGHOUT THE CONSTRUCTION PERIOD. EXISTING BUSINESS AND HOME SERVICES INCLUDE, BUT ARE NOT LIMITED TO ELECTRICAL, APPROXIMATE LIMIT -AREA CALULATED TO OF SAWCUT (TYP) COMMUNICATION, FIRE PROTECTION, DOMESTIC WATER AND SEWER SERVICES. TEMPORARY SERVICES, IF MEAN HIGH WATER LINE Proposed REQUIRED, SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. (SEE NOTE #12) CONTRACTOR SHALL PROVIDE DETAILED CONSTRUCTION SCHEDULE TO OWNER PRIOR TO ANY SMH #5404 Moxy Hotel RIM ELEV.=14.8' DEMOLITION/CONSTRUCTION ACTIVITIES. $\rightarrow$ (A) 24" PVC INV.=1.4" 18. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR PAVEMENT TBR (TOWARDS SMH #5551) DEMOLITION ACTIVITIES. (5604) 12" PVC INV.=1.8' 19. THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE. CONCRETE PLATFORM TBR 20. SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL UTILITIES TO BE REMOVED AND PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN. XSS Hotels LLC STEPS -NORTH MILL STEPS TBR P O N D Portsmouth, NH $\times -2.6'$ ─ WATER LINE TBR AC UNIT -TO BE RELOCATED 12" RCP INV.=1.9'— CONST SILT SOCK (TYP) LOT LINE TO BE RELOCATED C 4/20/2020 TAC Submission 2/4/2020 Design Review Submissio MARK DATE DESCRIPTION PROJECT NO: P-0595-00 January 2, 202 P-0595-008\_C-DSGN.DW TRACKS DRAWN BY: CHECKED: NAH/PM APPROVED: X 8.8' RIM FLEV.=12.9 DEMOLITION PLAN TAX MAP 124 LOT 10 VAUGHAN STREET HOTEL LLC 1359 HOOKSETT ROAD 4' METAL RAI HOOKSETT, NH 03106 SCALE: AS SHOWN RIM ELEV.=13.6' R.C.R.D. BOOK 5848, PAGE 129 (A) 6" PVC INV.=7.5' C-101.1 × 9.3'





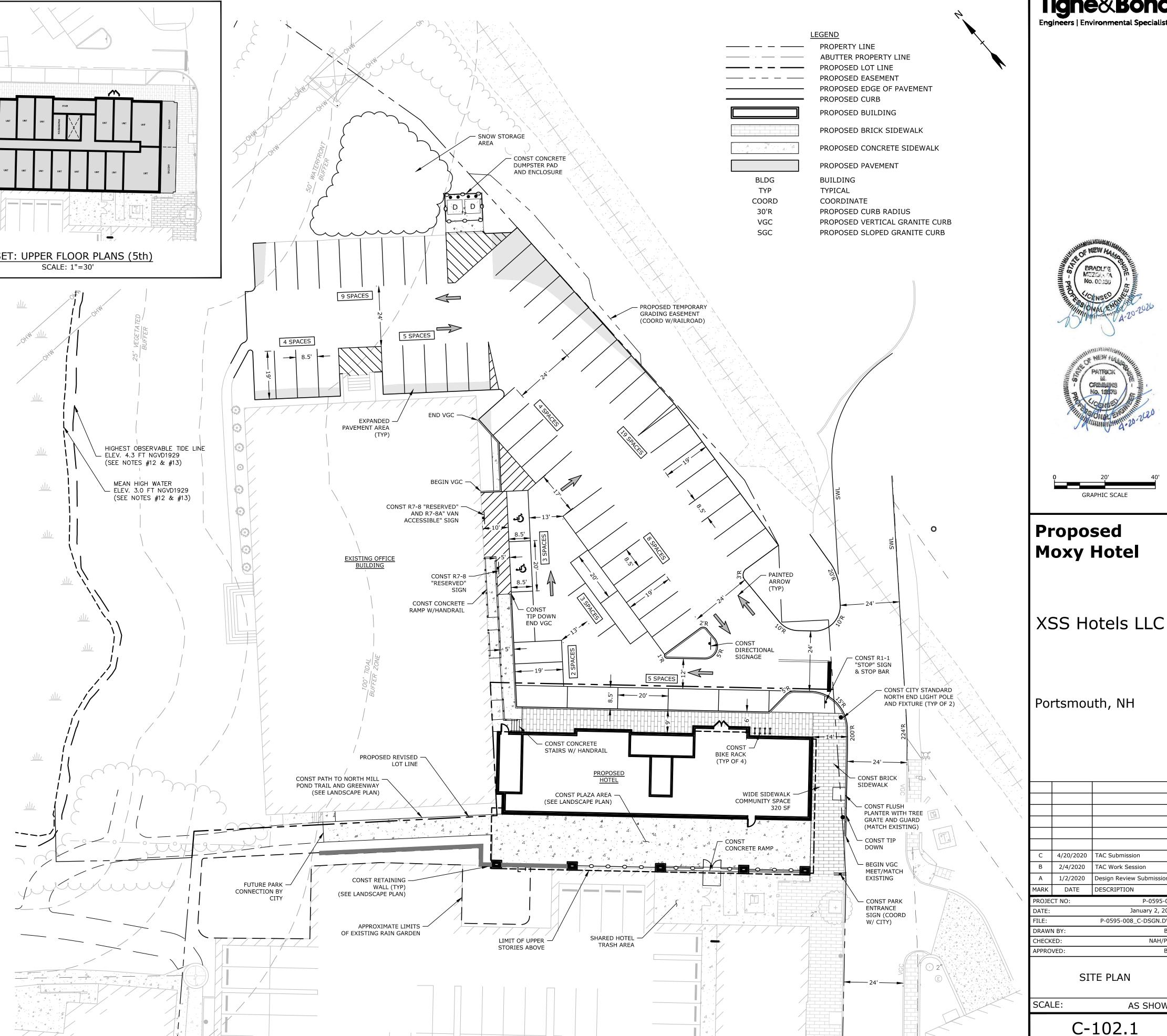




- STRIPE PARKING AREAS AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, ADA SYMBOLS, PAINTED ISLANDS, CROSS WALKS, ARROWS, LEGENDS AND CENTERLINES SHALL BE THERMOPLASTIC MATERIAL. THERMOPLASTIC MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO AASHTO M249. (ALL MARKINGS EXCEPT CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT. CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT. ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F").
- ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS, LATEST EDITIONS.
- 3. SEE DETAILS FOR PARKING STALL MARKINGS, ADA SYMBOLS, SIGNS AND SIGN POSTS.
- 4. CENTERLINES SHALL BE FOUR (4) INCH WIDE YELLOW LINES. STOP BARS SHALL BE EIGHTEEN (18) INCHES
- 5. PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4)
- 6. THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED LAND SURVEYOR TO DETERMINE ALL LINES AND GRADES.
- 7. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAW CUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
- 8. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND CITY CODES & SPECIFICATIONS.
- 9. COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH.
- 10. CONTRACTOR TO SUBMIT AS-BUILT PLANS ON REPRODUCIBLE MYLARS AND IN DIGITAL FORMAT (.DWG FILE) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
- 11. SEE BUILDING DRAWINGS FOR ALL CONCRETE PADS & SIDEWALKS ADJACENT TO BUILDING.
- 12. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS.
- 13. CONTRACTOR TO PROVIDE BACKFILL AND COMPACTION AT CURB LINE AFTER CONCRETE FORMS FOR SIDEWALKS AND PADS HAVE BEEN STRIPPED. COORDINATE WITH BUILDING CONTRACTOR.
- 14. COORDINATE ALL WORK ADJACENT TO BUILDING WITH BUILDING CONTRACTOR.
- 15. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- 16. THE STREET LIGHTING TYPE TO BE DISTRICT STYLE FIXTURE AND POLE TO MATCH EXISTING LIGHTING ON
- 17. ALL CONDITIONS ON THIS PLAN SHALL REMAIN IN EFFECT IN PERPETUITY PURSUANT TO THE REQUIREMENTS OF THE SITE PLAN REVIEW REGULATIONS.
- 18. THE APPLICANT SHALL HAVE A SITE SURVEY CONDUCTED BY A RADIO COMMUNICATIONS CARRIER APPROVED BY THE CITY'S COMMUNICATIONS DIVISION. THE RADIO COMMUNICATIONS CARRIER MUST BE FAMILIAR AND CONVERSANT WITH THE POLICE AND RADIO CONFIGURATION. IF THE SITE SURVEY INDICATES IT IS NECESSARY TO INSTALL A SIGNAL REPEATER EITHER ON OR NEAR THE PROPOSED PROJECT, THOSE COSTS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER. THE OWNER SHALL COORDINATE WITH THE SUPERVISOR OF RADIO COMMUNICATIONS FOR THE CITY.
- 19. ALL TREES PLANTED ARE TO BE INSTALLED UNDER THE SUPERVISION OF THE CITY OF PORTSMOUTH DPW USING STANDARD INSTALLATION METHODS.
- 20. THE APPLICANT SHALL PREPARE A CONSTRUCTION MITIGATION AND MANAGEMENT PLAN (CMMP) FOR REVIEW AND APPROVAL BY THE CITY'S LEGAL AND PLANNING DEPARTMENTS.
- 21. A TEMPORARY SUPPORT OF EXCAVATION (SOE) PLAN SHALL BE PREPARED BY THE APPLICANT'S CONTRACTOR TO CONFIRM ANY TEMPORARY ENCUMBRANCES OF THE CITY'S RIGHT-OF-WAY. IF LICENSES ARE REQUIRED FOR THE SOE, THE APPLICANT WILL BE REQUIRED TO OBTAIN THESE FROM THE CITY PRIOR TO CONSTRUCTION.

### SITE RECORDING NOTES:

- THIS SITE PLAN SHALL BE RECORDED IN THE ROCKINGHAM COUNTY REGISTRY OF DEEDS.
- 2. ALL IMPROVEMENTS SHOWN ON THIS SITE PLAN SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PLAN BY THE PROPERTY OWNER AND ALL FUTURE PROPERTY OWNERS. NO CHANGES SHALL BE MADE TO THIS SITE PLAN WITHOUT THE EXPRESS APPROVAL OF THE PORTSMOUTH PLANNING DIRECTOR.
- 3. THIS IS NOT A BOUNDARY SURVEY AND SHALL NOT BE USED AS SUCH.



C 4/20/2020 TAC Submission

1/2/2020

MARK DATE

PROJECT NO:

DRAWN BY:

CHECKED:

APPROVED:

SCALE:

DATE:

2/4/2020 TAC Work Session

DESCRIPTION

SITE PLAN

C-102.1

Design Review Submission

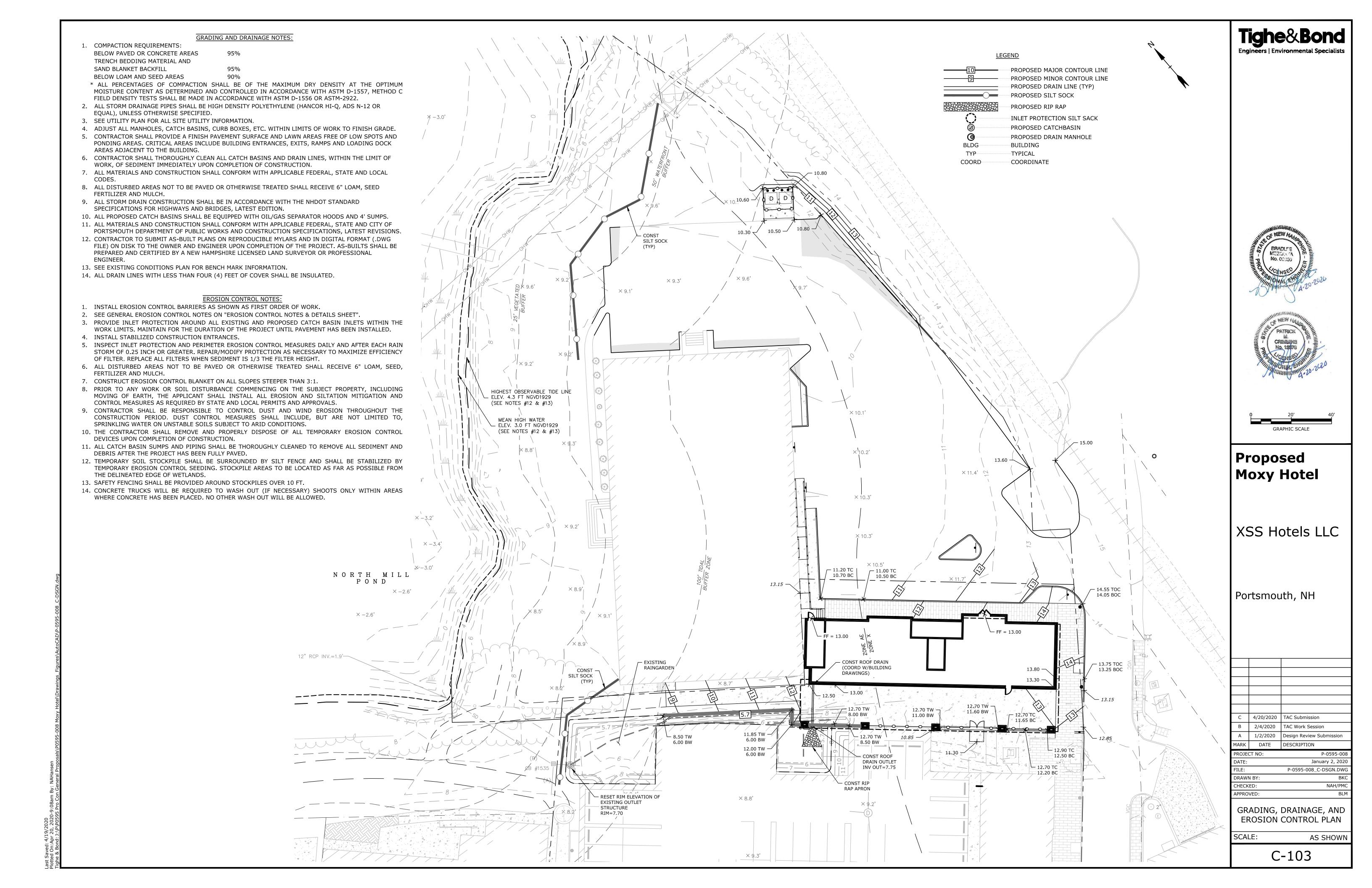
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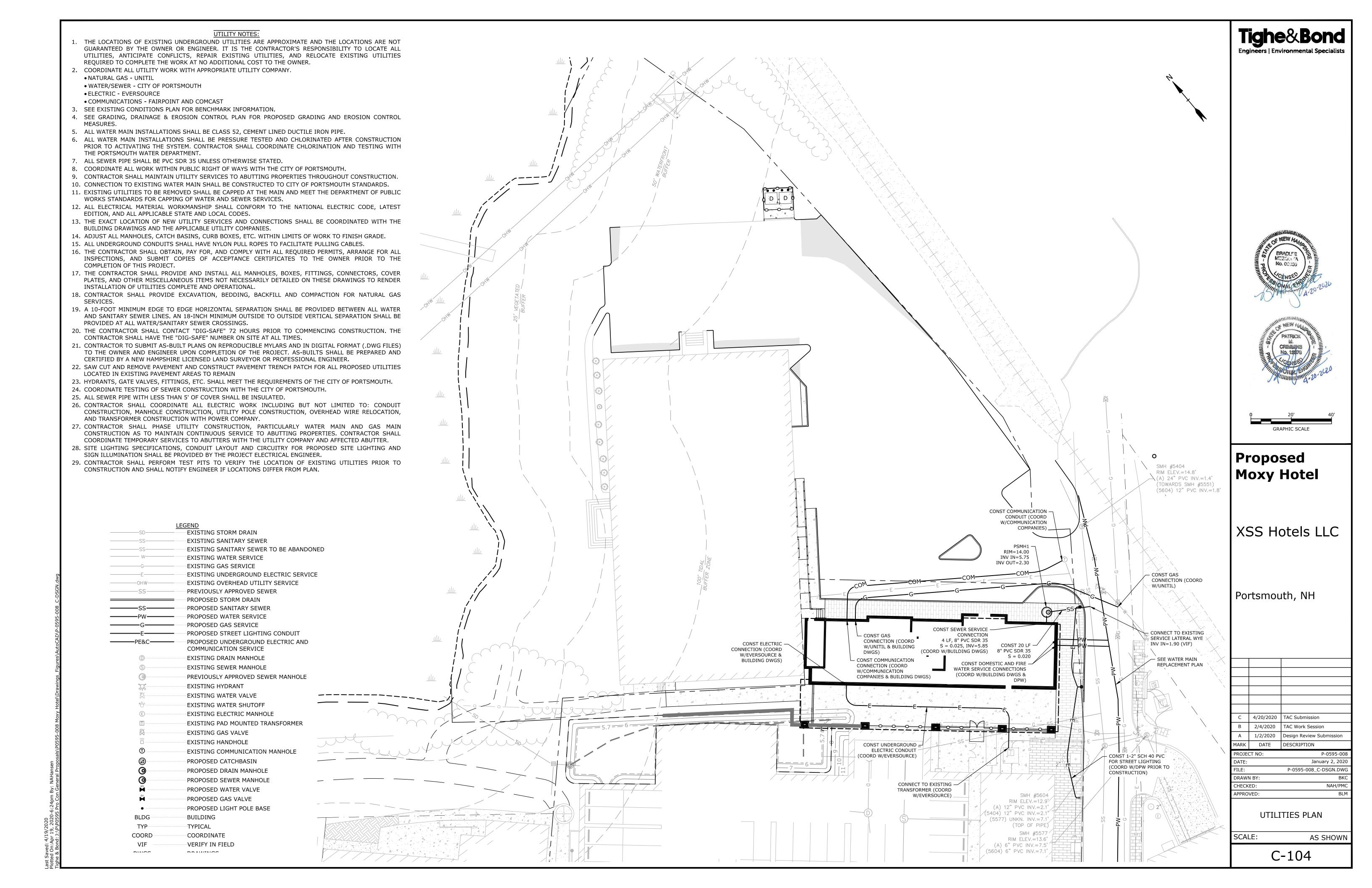
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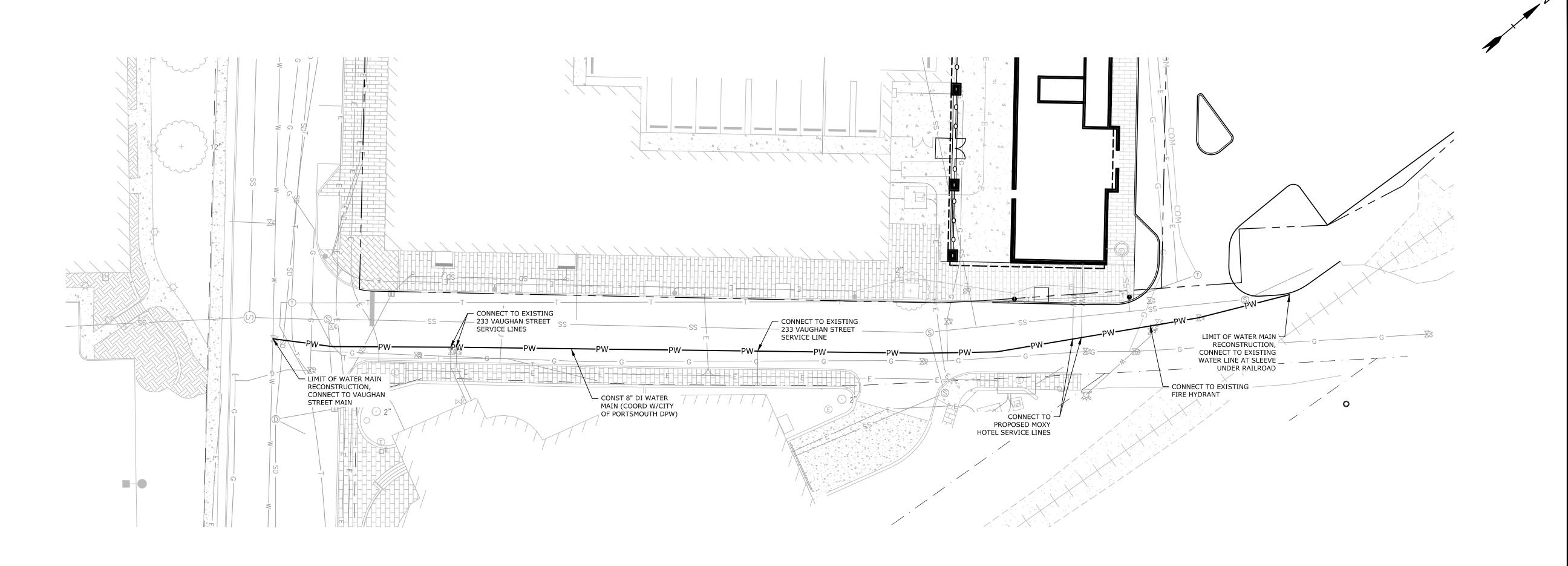
NAH/PMC

January 2, 202

AS SHOWN







### UTILITY NOTES

- 1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES, AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
- 2. COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
- NATURAL GAS UNITIL
- WATER/SEWER CITY OF PORTSMOUTH
- ELECTRIC EVERSOURCE
- COMMUNICATIONS FAIRPOINT AND COMCAST
- 3. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.

LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER.

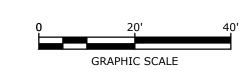
- 4. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL 5. ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE.
- 6. ALL WATER MAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE CHLORINATION AND TESTING WITH THE PORTSMOUTH WATER DEPARTMENT.
- 7. COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH.
- 8. CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ABUTTING PROPERTIES THROUGHOUT CONSTRUCTION.
- 9. CONNECTION TO EXISTING WATER MAIN SHALL BE CONSTRUCTED TO CITY OF PORTSMOUTH STANDARDS.
- 10. EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE DEPARTMENT OF PUBLIC WORKS STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.
- 11. THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE APPLICABLE UTILITY COMPANIES.
- 12. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO THE COMPLETION OF THIS PROJECT.
- 13. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL. 14. A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER
- AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS. 15. THE CONTRACTOR SHALL CONTACT "DIG-SAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. THE
- CONTRACTOR SHALL HAVE THE "DIG-SAFE" NUMBER ON SITE AT ALL TIMES. 16. CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG FILES) TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE
- 17. SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN
- 18. HYDRANTS, GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH.
- 19. CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION, PARTICULARLY WATER MAIN CONSTRUCTION AS TO MAINTAIN CONTINUOUS SERVICE TO ABUTTING PROPERTIES. CONTRACTOR SHALL COORDINATE TEMPORARY SERVICES TO ABUTTERS WITH THE UTILITY COMPANY AND AFFECTED ABUTTER.
- 20. CONTRACTOR SHALL PERFORM TEST PITS TO VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION AND SHALL NOTIFY ENGINEER IF LOCATIONS DIFFER FROM PLAN.

	LEGEND
——————————————————————————————————————	EXISTING STORM DRAIN
SS	EXISTING SANITARY SEWER
SS	EXISTING SANITARY SEWER TO BE ABANDON
W	EXISTING WATER SERVICE
G	EXISTING GAS SERVICE
————E———	EXISTING UNDERGROUND ELECTRIC SERVICE
OHW	EXISTING OVERHEAD UTILITY SERVICE
SS	PREVIOUSLY APPROVED SEWER
	PROPOSED STORM DRAIN
———SS———	PROPOSED SANITARY SEWER
———PW———	PROPOSED WATER SERVICE
———G———	PROPOSED GAS SERVICE
———E———	PROPOSED STREET LIGHTING CONDUIT
PE&C-	PROPOSED UNDERGROUND ELECTRIC AND COMMUNICATION SERVICE
<u> </u>	EXISTING DRAIN MANHOLE
<u>S</u>	EXISTING SEWER MANHOLE
<u></u>	PREVIOUSLY APPROVED SEWER MANHOLE
	EXISTING HYDRANT
WV	EXISTING WATER VALVE
11 <sup>S</sup> C	EXISTING WATER SHUTOFF
(E)······	EXISTING ELECTRIC MANHOLE
TI	EXISTING PAD MOUNTED TRANSFORMER
-	EXISTING GAS VALVE
НН	EXISTING GAS WALVE
<u></u>	EXISTING HANDHOLE  EXISTING COMMUNICATION MANHOLE
9	
	PROPOSED CATCHBASIN
_	PROPOSED DRAIN MANHOLE
<b>O</b>	PROPOSED SEWER MANHOLE
<b>X</b>	PROPOSED WATER VALVE
	PROPOSED GAS VALVE
•	PROPOSED LIGHT POLE BASE
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
VIF	VERIFY IN FIELD
DWGS	DRAWINGS



Tighe&Bond





# Proposed **Moxy Hotel**

XSS Hotels LLC

Portsmouth, NH

C 4/20/2020 TAC Submission B 2/4/2020 TAC Work Session A 1/2/2020 Design Review Submission MARK DATE DESCRIPTION PROJECT NO: P-0595-008 January 2, 2020 P-0595-008\_C-DSGN.DWG

> WATER MAIN REPLACEMENT PLAN

NAH/PMC

SCALE: AS SHOWN

DRAWN BY:

CHECKED:

APPROVED:

43°-04'-48"N 70°-45'-43"W

### PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE CONSTRUCTION OF A FIVE-STORY HOTEL WITH ASSOCIATED SITE

### **DISTURBED AREA**

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 0.90 ACRES.

### SOIL CHARACTERISTICS

BASED ON THE NRCS WEB SOIL SURVEY FOR ROCKINGHAM COUNTY - NEW HAMPSHIRE, THE SOILS ON SITE CONSIST OF URBAN LAND.

### NAME OF RECEIVING WATERS

THE STORMWATER RUNOFF FROM THE SITE WILL BE DISCHARGED VIA AN EXISTING OUTLET PIPE TO NORTH MILL POND AND WILL ULTIMATELY FLOW TO THE PISCATAQUA RIVER.

### **CONSTRUCTION SEQUENCE OF MAJOR ACTIVITIES:**

- CUT AND CLEAR TREES
- CONSTRUCT TEMPORARY AND PERMANENT SEDIMENT, EROSION AND DETENTION CONTROL FACILITIES. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL INFLUENCE STORMWATER RUNOFF SUCH AS:
  - NEW CONSTRUCTION CONTROL OF DUST
  - NEARNESS OF CONSTRUCTION SITE TO RECEIVING WATERS
- CONSTRUCTION DURING LATE WINTER AND EARLY SPRING ALL PERMANENT DITCHES, SWALES, DETENTION, RETENTION AND SEDIMENTATION BASINS TO BE STABILIZED USING THE VEGETATIVE AND NON-STRUCTURAL BMPS PRIOR TO DIRECTING
- RUNOFF TO THEM. CLEAR AND DISPOSE OF DEBRIS.
- CONSTRUCT TEMPORARY CULVERTS AND DIVERSION CHANNELS AS REQUIRED.
- GRADE AND GRAVEL ROADWAYS AND PARKING AREAS ALL ROADS AND PARKING AREA SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE
- BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, PERIMETER EROSION CONTROL MEASURES, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
- FINISH PAVING ALL ROADWAYS AND PARKING LOTS.
- 9. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES. 10. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
- REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE
- TEMPORARY EROSION CONTROL MEASURES.

- ALL EROSION CONTROL MEASURES AND PRACTICES SHALL CONFORM TO THE "NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3: EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" PREPARED BY THE NHDES
- PRIOR TO ANY WORK OR SOIL DISTURBANCE, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EROSION CONTROL MEASURES AS REQUIRED IN THE PROJECT MANUAL
- CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL BARRIERS, INCLUDING HAY BALE, SILT FENCES, MULCH BERMS, SILT SACKS AND SILT SOCKS AS SHOWN IN THESE DRAWINGS AS THE FIRST ORDER OF WORK
- SILT SACK INLET PROTECTION SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AND BE MAINTAINED FOR THE DURATION OF THE
- PERIMETER CONTROLS INCLUDING SILT FENCES, MULCH BERM, SILT SOCK, AND/OR HAY BALE BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL NON-PAVED AREAS HAVE BEEN STABILIZED.
- THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
- ALL DISTURBED AREAS NOT OTHERWISE BEING TREATED SHALL RECEIVE 6" LOAM, SEED AND
- INSPECT ALL INLET PROTECTION AND PERIMETER CONTROLS WEEKLY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT. CONSTRUCT EROSION CONTROL BLANKETS ON ALL SLOPES STEEPER THAN 3:1.
- STABILIZATION:
- AN AREA SHALL BE CONSIDERED STABLE WHEN ONE OF THE FOLLOWING HAS OCCURRED
- A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED; B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
- C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED;
- D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.
- WINTER STABILIZATION PRACTICES: A. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL
- BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS;
- ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS;
- AFTER NOVEMBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT;
- STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES, AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL NOT OCCUR FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. STABILIZATION MEASURES TO BE USED INCLUDE:
- A. TEMPORARY SEEDING;
- B. MULCHING.
- WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF NEARBY SURFACE WATERS OR DELINEATED WETLANDS, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN THESE AREAS, SILT FENCES, MULCH BERMS, HAY BALE BARRIERS AND ANY
- EARTH/DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED. DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT FENCES, MULCH BERMS, HAY BALE BARRIERS, OR SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH
- DUST CONTROL:
- THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE

RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY NOVEMBER 15.

- CONSTRUCTION PERIOD.
- DUST CONTROL METHODS SHALL INCLUDE, BUT BE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY
- DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ABUTTING AREAS.

LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CATCH BASINS, SWALES, AND

- 2. ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES
- PRIOR TO THE ONSET OF PRECIPITATION. 3. PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE. THE
- INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH WORKING DAY. 4. PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING TEMPORARY EROSION CONTROL MEASURES SUCH AS BERMS, SILT SOCK, OR OTHER APPROVED PRACTICE TO PREVENT
- MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.

### **OFF SITE VEHICLE TRACKING:**

1. THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE(S) PRIOR TO ANY **EXCAVATION ACTIVITIES.** 

- TEMPORARY GRASS COVER: A. SEEDBED PREPARATION:
- a. APPLY FERTILIZER AT THE RATE OF 600 POUNDS PER ACRE OF 10-10-10. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF THREE (3)
- B. SEEDING a. UTILIZE ANNUAL RYE GRASS AT A RATE OF 40 LBS/ACRE;
- b. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL
- TO A DEPTH OF TWO (2) INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED; c. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, OR HYDROSEEDER (SLURRY
- INCLUDING SEED AND FERTILIZER). HYDROSEEDINGS, WHICH INCLUDE MULCH, MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING;
- a. TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED. AT A MINIMUM, 95% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER BARRIERS, CHECK DAMS, ETC.).
- 2. VEGETATIVE PRACTICE: A. FOR PERMANENT MEASURES AND PLANTINGS:
  - a. LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF THREE (3) TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5;
  - b. FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 800 POUNDS PER ACRE OF 10-20-20
- c. SOIL CONDITIONERS AND FERTILIZER SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS
- WEIGHING BETWEEN 4-1/2 POUNDS AND 5-1/2 POUNDS PER INCH OF WIDTH d. SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4 INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH;
- e. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AS INDICATED ABOVE;
- f. THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED WITH GRASS SHALL BE RESEEDED, AND ALL NOXIOUS WEEDS REMOVED;
- g. THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED; h. A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE APPLIED AT THE INDICATED RATE:

CREEPING RED FESCUE 20 LBS/ACRE TALL FESCUE 20 LBS/ACRE

2 LBS/ACRE IN NO CASE SHALL THE WEED CONTENT EXCEED ONE (1) PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH STATE AND FEDERAL SEED LAWS. SEEDING SHALL BE DONE NO LATER THAN SEPTEMBER 15. IN NO CASE SHALL SEEDING TAKE PLACE OVER SNOW.

- DORMANT SEEDING (SEPTEMBER 15 TO FIRST SNOWFALL):
- A. FOLLOW PERMANENT MEASURES SLOPE, LIME, FERTILIZER AND GRADING REQUIREMENTS APPLY SEED MIXTURE AT TWICE THE INDICATED RATE. APPLY MULCH AS INDICATED FOR PERMANENT MEASURES.

### **CONCRETE WASHOUT AREA:**

- THE FOLLOWING ARE THE ONLY NON-STORMWATER DISCHARGES ALLOWED. ALL OTHER NON-STORMWATER DISCHARGES ARE PROHIBITED ON SITE:
- A. THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES
- AT THEIR OWN PLANT OR DISPATCH FACILITY; B. IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER;
- C. CONTRACTOR SHALL LOCATE WASHOUT AREAS AT LEAST 150 FEET AWAY FROM STORM DRAINS, SWALES AND SURFACE WATERS OR DELINEATED WETLANDS;
- D. INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

### **ALLOWABLE NON-STORMWATER DISCHARGES:**

- FIRE-FIGHTING ACTIVITIES;
- FIRE HYDRANT FLUSHING; WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
- WATER USED TO CONTROL DUST;
- POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
- ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED: 7. PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED:
- 8. UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;
- 9. UNCONTAMINATED GROUND WATER OR SPRING WATER; 10. FOUNDATION OR FOOTING DRAINS WHICH ARE UNCONTAMINATED;
- 11. UNCONTAMINATED EXCAVATION DEWATERING;

DISPOSAL BY THE SUPERINTENDENT.

12. LANDSCAPE IRRIGATION.

### **WASTE DISPOSAL**

- WASTE MATERIAL
- A. ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;
- B. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE; C. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE
- 2. HAZARDOUS WASTE: A. ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER; B. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
- SANITARY WASTE A. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

### **SPILL PREVENTION:**

- 1. CONTRACTOR SHALL BE FAMILIAR WITH SPILL PREVENTION MEASURES REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT SPILL PREVENTION PRACTICES OUTLINED BELOW.
- 2. THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:

- A. GOOD HOUSEKEEPING THE FOLLOWING GOOD HOUSEKEEPING PRACTICE SHALL BE FOLLOWED ON SITE DURING CONSTRUCTION
- a. ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB SHALL BE STORED ON SITE; b. ALL MATERIALS STORED ON SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE;
- c. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE
- d. THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS;
- e. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER;
- f. WHENEVER POSSIBLE ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
- B. HAZARDOUS PRODUCTS THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
- g. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE

THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL

- h. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED FOR IMPORTANT
- PRODUCT INFORMATION; i. SURPLUS PRODUCT THAT MUST BE DISPOSED OF SHALL BE DISCARDED ACCORDING TO
- C. PRODUCT SPECIFIC PRACTICES THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE **FOLLOWED ON SITE:**
- a. PETROLEUM PRODUCTS: a.1. ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE;
- a.2. PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
- b. FERTILIZERS: b.1. FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS;
- b.2. ONCE APPLIED FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER b.3. STORAGE SHALL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF
- ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
- c.1. ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR
- c.2. EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM;
- c.3. EXCESS PAINT SHALL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS D. SPILL CONTROL PRACTICES - IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL
- MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP: a. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY
- POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES; b. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS SHALL INCLUDE BUT NOT
- BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS c. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY;
- d. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A
- HAZARDOUS SUBSTANCE; e. SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE LOCAL, STATE OR FEDERAL AGENCIES AS REQUIRED;
- f. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. E. VEHICLE FUELING AND MAINTENANCE PRACTICE:
- a. CONTRACTOR SHALL MAKE AN EFFORT TO PERFORM EQUIPTMENT/VEHICAL FUELING AND MAINTENANCE AT AN OFF-SITE FACILITY; b. CONTRACTOR SHALL PROVIDE AN ON-SITE FUELING AND MAINTENANCE AREA THAT IS
- CLEAN AND DRY;
- c. IF POSSIBLE THE CONTRACTOR SHALL KEEP AREA COVERED; d. CONTRACTOR SHALL KEEP A SPILL KIT AT THE FUELING AND MAINTENANCE AREA; CONTRACTOR SHALL REGULARLY INSPECT VEHICLES FOR LEAKS AND DAMAGE;

f. CONTRACTOR SHALL USE DRIP PANS, DRIP CLOTHS, OR ABSORBENT PADS WHEN

REPLACING SPENT FLUID.

1" REBAR FOR BAG

SILT SACK —

SILT SACK

OR EQUAL

REMOVAL FROM INLET

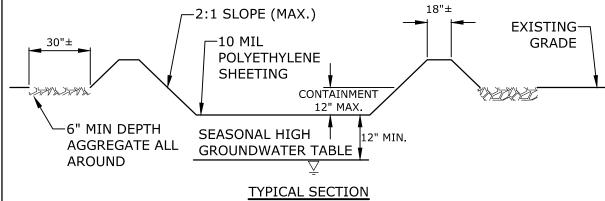
**EROSION CONTROL OBSERVATIONS AND MAINTENANCE PRACTICES** THIS PROJECT DOES NOT EXCEED ONE (1) ACRE OF DISTURBANCE AND THUS DOES NOT REQUIRE A

L" REBAR FOR BAG

REMOVAL FROM INLET

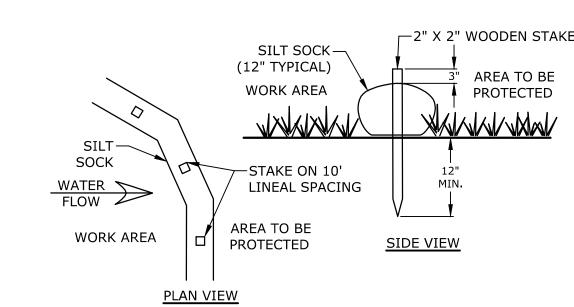
(TYP. OF W)

### ALL CONCRETE TRUCKS -BLACK LETTERS ON WHITE BACKGROUND SHALL WASHOUT HERE -GALVANIZED "U" CHANNEL POST —FINISH GRADE -POLYETHYLENE SHEETING SIGN SHALL BE PLACED IN 3"-0" MIN SOIL A PROMINENT LOCATION **EMBEDMENT** AT WASHOUT AREA -AGGREGATE WASHOUT SIGN



- 1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
- 2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
- 3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL. 4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE
- BY CONCRETE TRUCKS. 5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND
- MAY BE RELOCATED AS CONSTRUCTION PROGRESSES. 6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND

# **CONCRETE WASHOUT AREA**



SILT SOCK SHALL BE SILT SOXX BY FILTREXX OR APPROVED EQUAL INSTALL SILT SOCK IN ACCORDANCE WITH...

> SILT SOCK NO SCALE

Proposed **Moxy Hotel** 

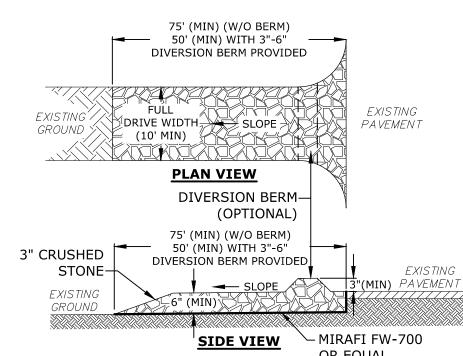
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PATRICK

CRIMINIS

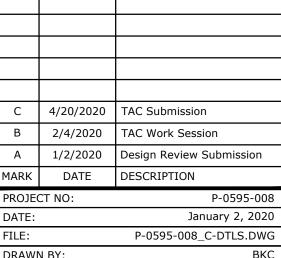
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XSS Hotels LLC



SITE. WHEN WASHING IS REQUIRED, IT SHALL BE DONE SO RUNOFF DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS

NO SCALE



**EROSION CONTROL NOTES** AND DETAILS SHEET

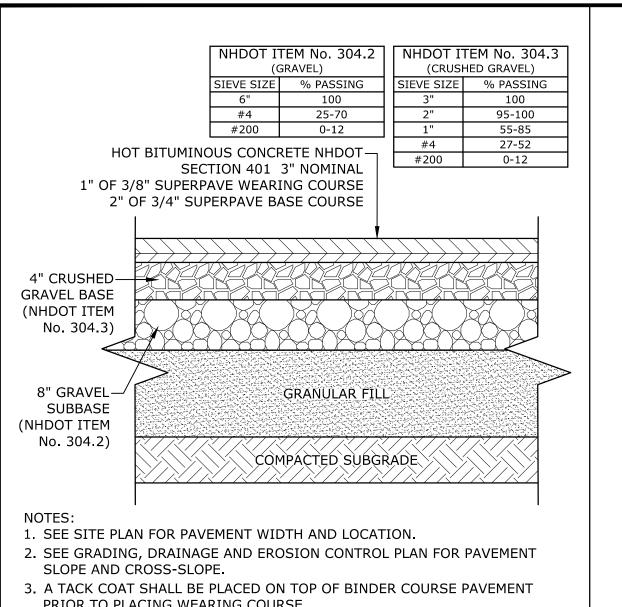
OR EQUAL 1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT FROM THE

STABILIZED CONSTRUCTION EXIT

Portsmouth, NH

CHECKED: NAH/PMC APPROVED:

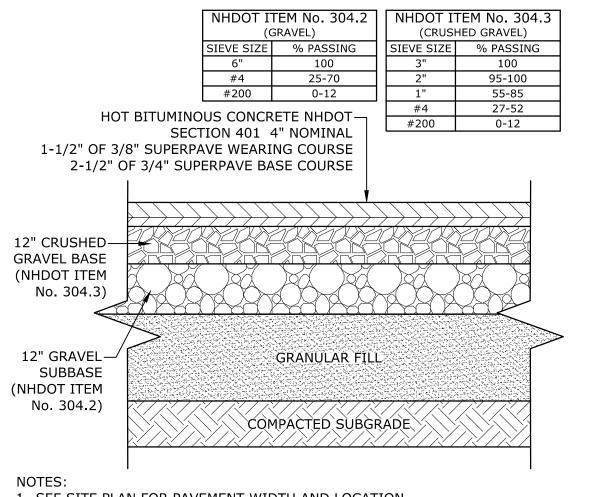
SCALE: AS SHOWN



PRIOR TO PLACING WEARING COURSE. 4. REFER TO CITY SPECIFICATIONS FOR ASPHALT MIX DESIGN.

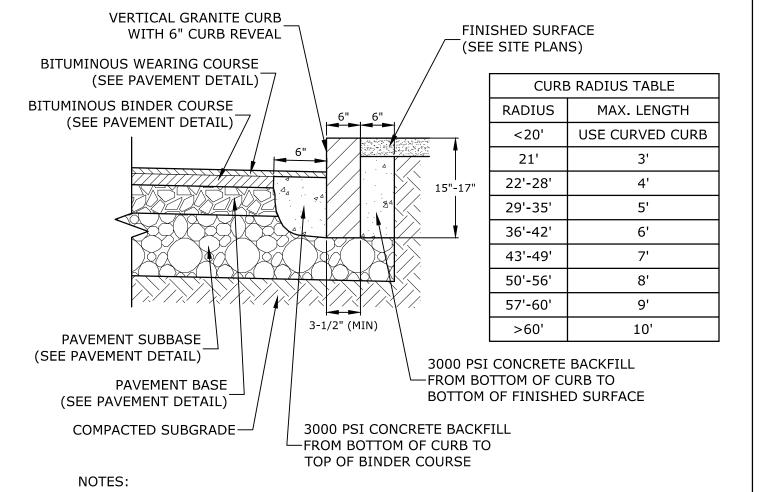
# **ON-SITE PAVEMENT SECTION**

NO SCALE



- 1. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
- 2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
- 3. A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.
- 4. REFER TO CITY SPECIFICATIONS FOR ASPHALT MIX DESIGN.

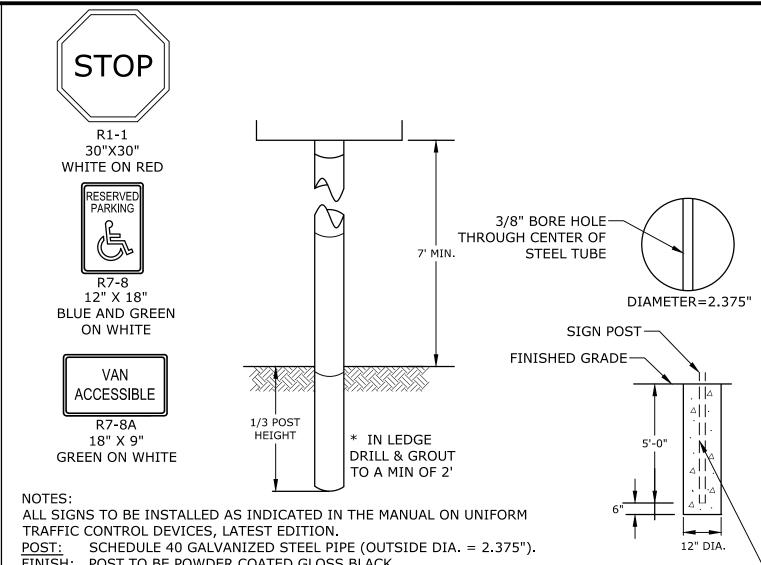
### **CITY RIGHT-OF-WAY PAVEMENT SECTION NO SCALE**



- 1. SEE SITE PLAN(S) FOR LIMITS OF VERTICAL GRANITE CURB (VGC).
- 2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
- 3. MINIMUM LENGTH OF STRAIGHT CURB STONES = 3'
- 4. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 10' 5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
- 6. ALL RADII 20 FEET AND SMALLER SHALL BE CONSTRUCTED USING CURVED SECTIONS.
- 7. JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE

NO SCALE

### MORTARED. **VERTICAL GRANITE CURB**



FINISH: POST TO BE POWDER COATED GLOSS BLACK LENGTH: AS REQUIRED

WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN.) HOLES: 3/8" DIAMETER (AS REQUIRED)

SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASTM A-576 (GRADE 1070-1080)

CAST IRON DETECTABLE—

WARNING SURFACE

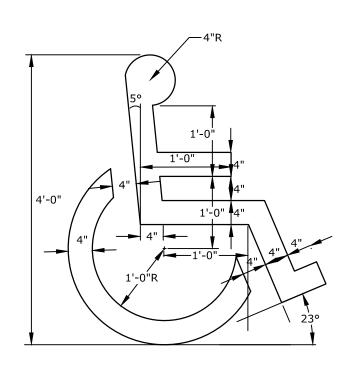
(SEE DETAIL)

LINE POST SET IN-

CONCRETE FOOTING

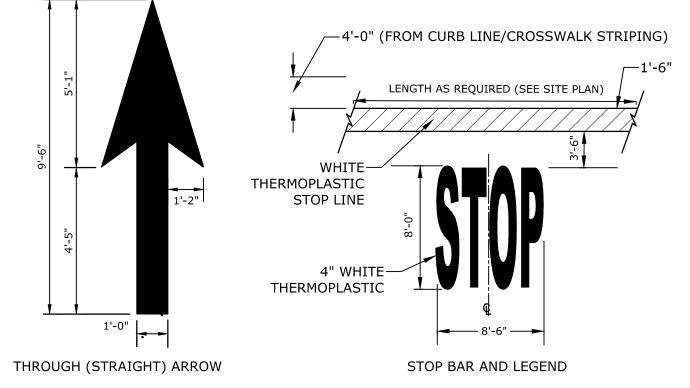
(3,000psi CONCRETE)

### **SIGN LEGEND & SIGN POST** NO SCALE



- 1. SYMBOL SHALL BE CONSTRUCTED IN ALL ACCESSIBLE SPACES USING FAST DRYING TRAFFIC PAINT MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F
- PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER 2. SYMBOL SHALL BE CONSTRUCTED TO THE LATEST ADA, STATE AND LOCAL

### **ACCESSIBLE SYMBOL** NO SCALE

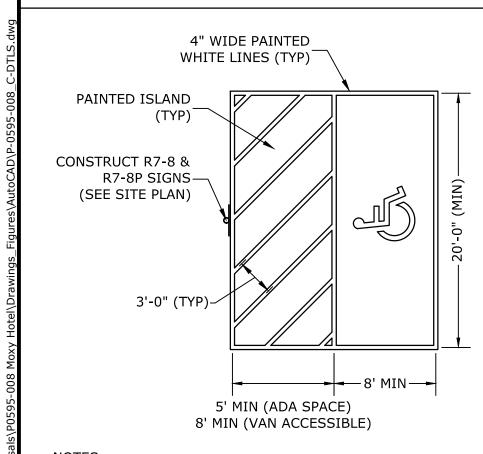


PAVEMENT MARKINGS TO BE INSTALLED IN LOCATIONS AS SHOWN ON SITE PLAN.

2. ALL STOP BARS, WORDS, SYMBOLS AND ARROWS SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTERIZED PAVEMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505

### PAVEMENT MARKINGS

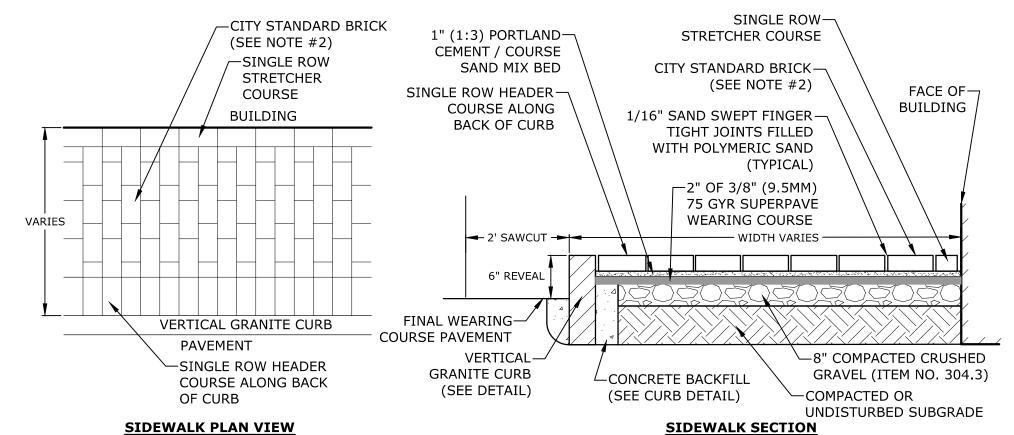
NO SCALE



- 1. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
- 2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICAN W/DISABILITIES ACT.

NO SCALE

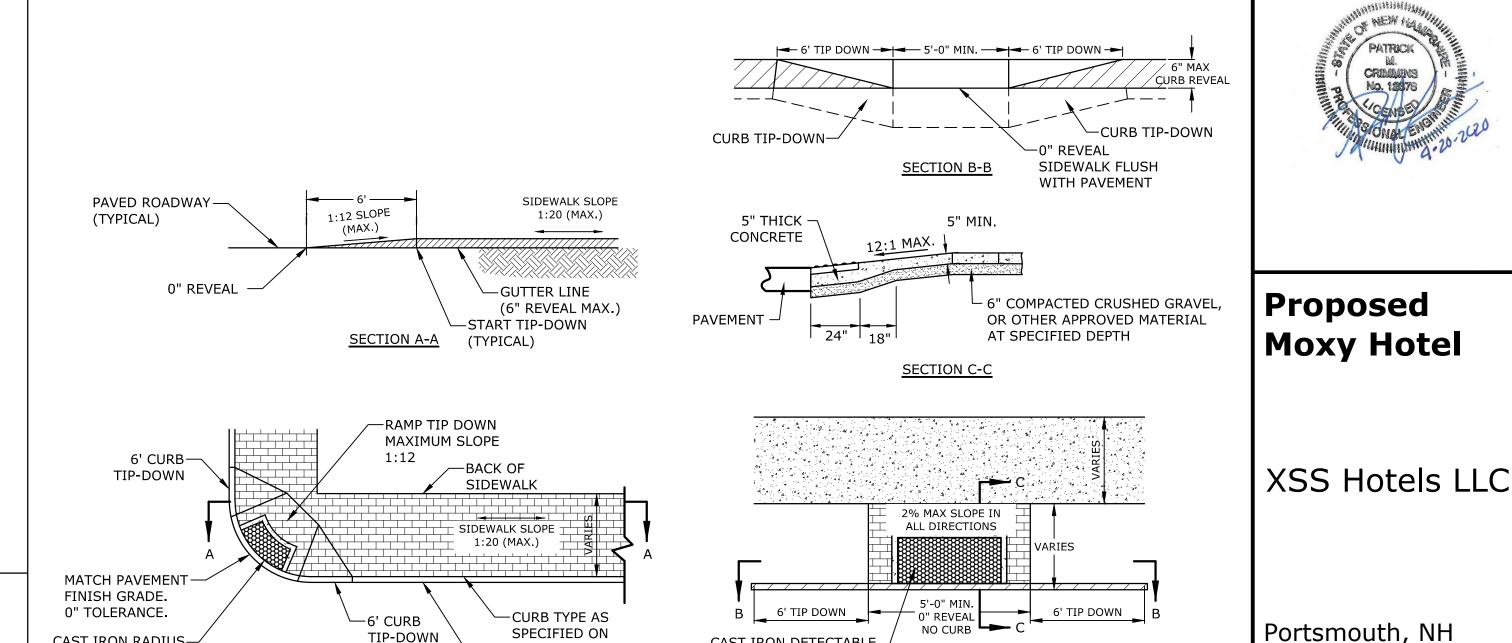
**ACCESSIBLE PARKING STALL** 



- 1. BRICK SIDEWALK SHALL BE INSTALLED AS DETAILED AND PER CITY OF PORTSMOUTH REQUIREMENTS/SPECIFICATIONS AND SHALL
- INCLUDE A CONTINUOUS APPROVED PAVER EDGE RESTRAINT SYSTEM AT ALL LOCATIONS NOT ADJACENT TO CURB OR BUILDINGS. 2. CITY STANDARD BRICK SHALL BE TRADITIONAL EDGE, PATHWAY, FULL RANGE 2.25"X4"X8" PAVER, BY PINE HALL BRICK, INC. BRICK MATERIAL SAMPLES SHALL BE PROVIDED TO DPW PRIOR TO INSTALLATION FOR REVIEW AND APPROVAL.
- BEDDING MATERIAL SHALL BE A PORTLAND CEMENT / COURSE SAND MIX THAT IS 1 PART PORTLAND CEMENT AND 3 PARTS COURSE SAND. SAND SHALL CONFORM WITH ASTM C-33 AND CEMENT SHALL BE PORTLAND CEMENT TYPE I/TYPE II

### **BRICK SIDEWALK**

NO SCALE



CAST IRON RADIUS-

TYPE DETECTABLE

(SEE DETAIL)

WARNING SURFACE

- 1. RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS.
- 2. A 6" COMPACTED CRUSHED GRAVEL BASE (NHDOT ITEM No. 304.3) SHALL BE PROVIDED BENEATH RAMPS.

TIP-DOWN

PLAN A

3. DETECTABLE WARNING PANEL SHALL BE CAST IRON SET IN CONCRETE (SEE DETAIL.) 4. PROVIDE DETECTABLE WARNING SURFACES ANYTIME THAT A CURB RAMP, BLENDED TRANSITION, OR LANDING CONNECTS TO A

LANDING SHALL NOT EXCEED 2% IN ANY DIRECTION.

STREET.

DRAWINGS

—6" (MAX.) REVEAL

- 5. LOCATE THE DETECTABLE WARNING SURFACES AT THE BACK OF THE CURB ALONG THE EDGE OF THE LANDING. 6. THE MAXIMUM RUNNING SLOPE OF ANY SIDEWALK CURB RAMP IS 12:1, THE MAXIMUM CROSS SLOPE IS 2%. THE SLOPE OF THE
- 7. TRANSITIONS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. ROADWAY SHOULDER SLOPES ADJOINING SIDEWALK CURB RAMPS SHALL BE A MAXIMUM OF 5% (FULL WIDTH) FOR A DISTANCE OF 2 FT. FROM THE ROADWAY CURBLINE.
- 8. THE BOTTOM OF THE SIDEWALK CURB RAMP OR LANDING, EXCLUSIVE OF THE FLARED SIDES, SHALL BE WHOLLY CONTAINED WITHIN THE CROSSWALK MARKINGS.
- 9. DETECTABLE WARNING PANELS SHALL BE A MINIMUM OF 2 FEET IN DEPTH. THE ROWS OF TRUNCATED DOMES SHALL BE ALIGNED PERPENDICULAR TO THE GRADE BREAK BETWEEN THE RAMP, BLENDED TRANSITION, OR LANDING AND THE STREET.
- 10. THE TEXTURE OF THE DETECTABLE WARNING FEATURE MUST CONTRAST VISUALLY WITH THE SURROUNDING SURFACES (EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT).

CONCRETE WHEELCHAIR ACCESSIBLE RAMP

(CRUSI	(CRUSHED GRAVEL)		
SIEVE SIZE	% PASSING		
3"	100		
2"	95-100		
1"	55-85		
#4	27-52		
#200	0-12		

NHDOT ITEM No. 304.3

PLAN VIEW

DETAILS SHEET

C 4/20/2020 TAC Submission

MARK DATE DESCRIPTION

1/2/2020

PROJECT NO:

DRAWN BY:

CHECKED:

APPROVED:

DATE:

2/4/2020 TAC Work Session

Design Review Submission

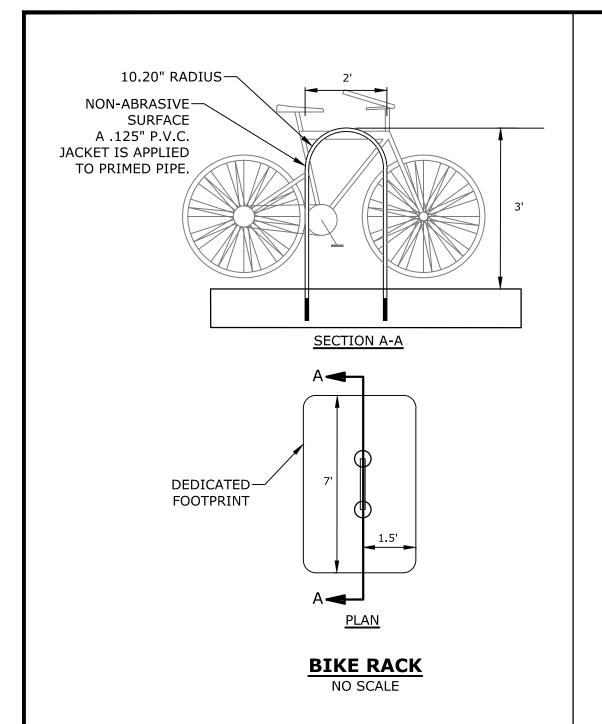
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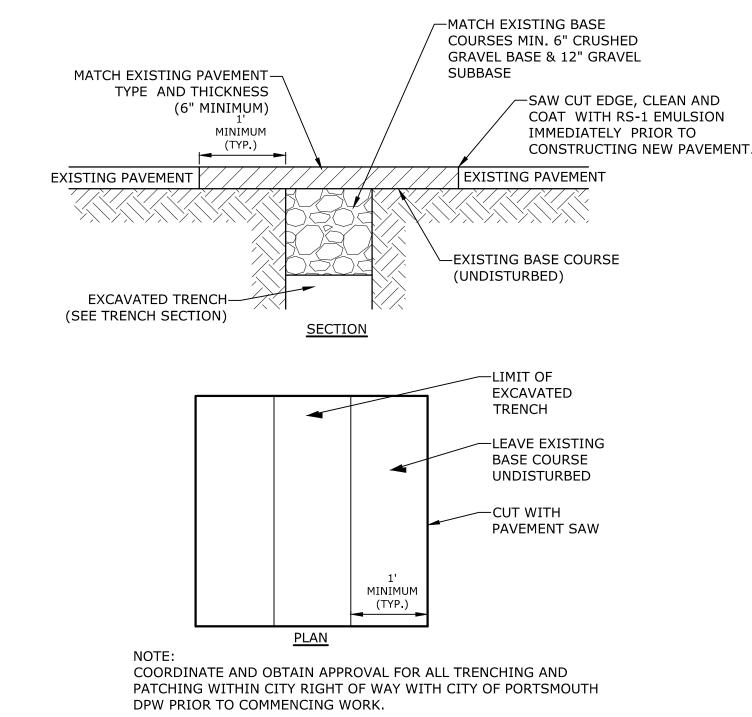
NAH/PMC

January 2, 202

P-0595-008\_C-DTLS.DWG

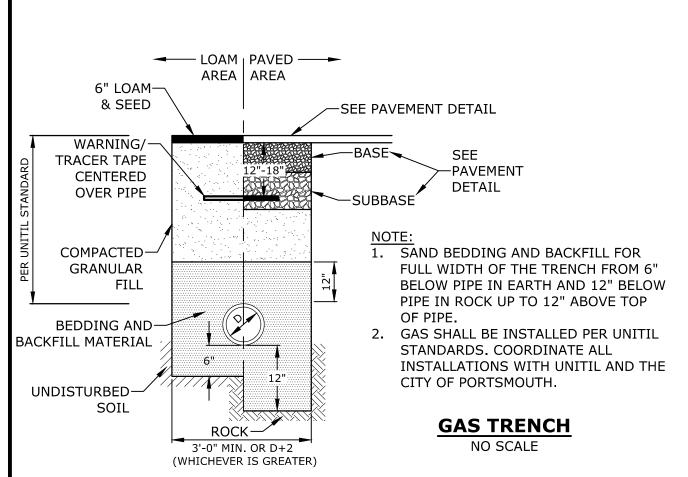
SCALE: AS SHOWN

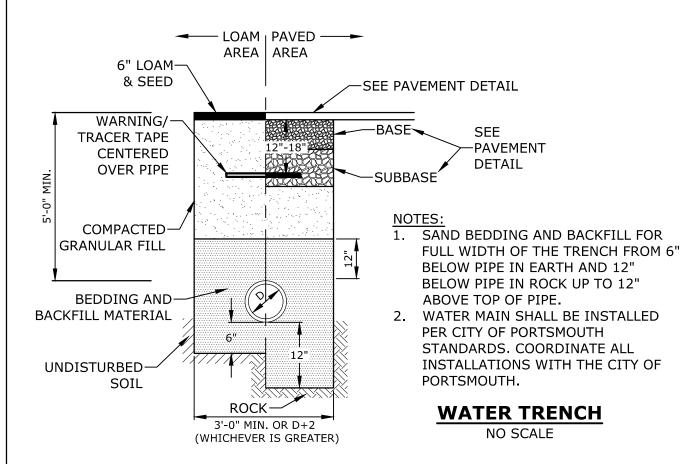


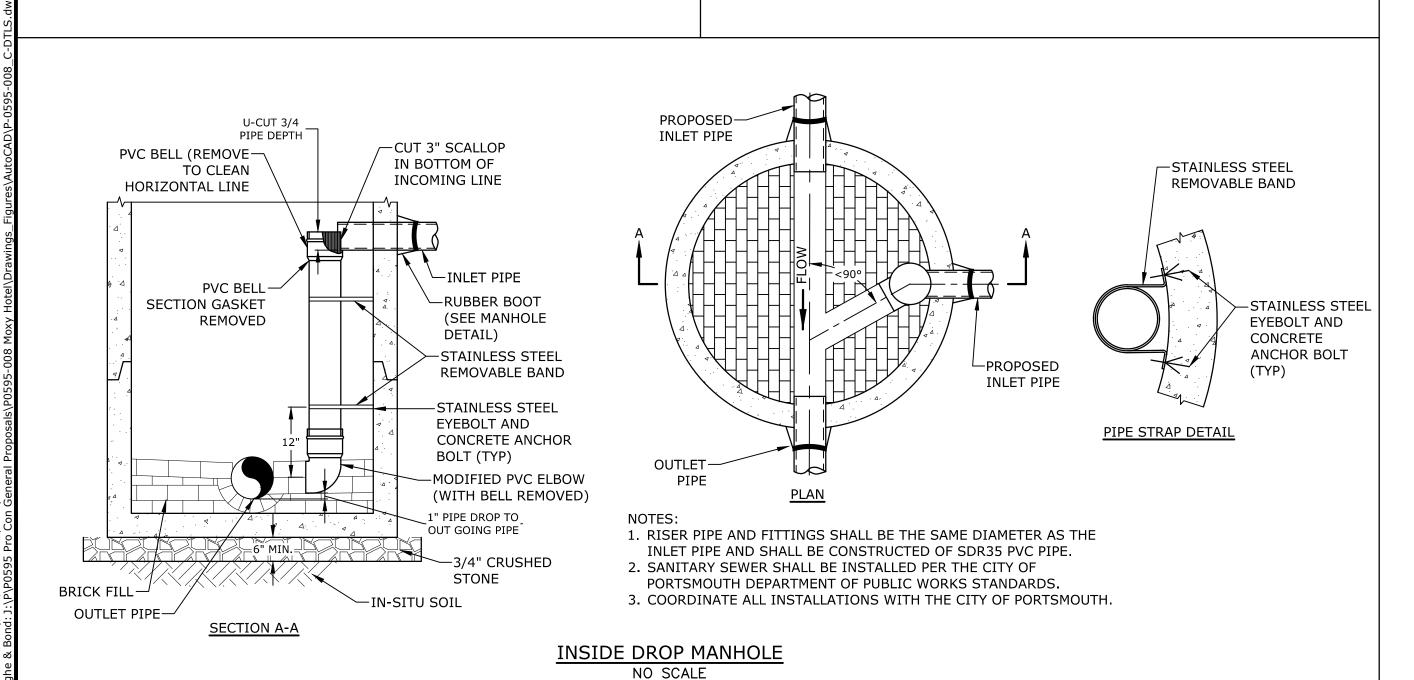


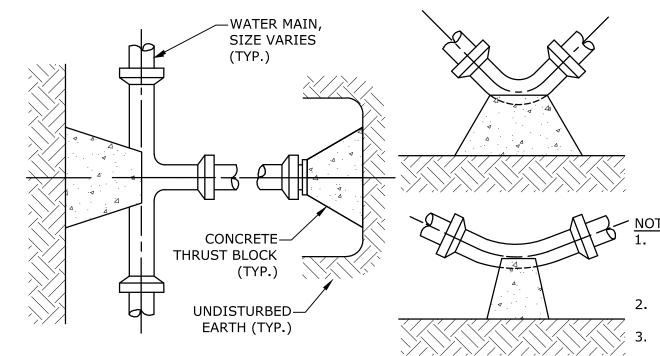
**ROADWAY TRENCH PATCH** 

NO SCALE









THRUST BLOCKING DETAIL

NO SCALE

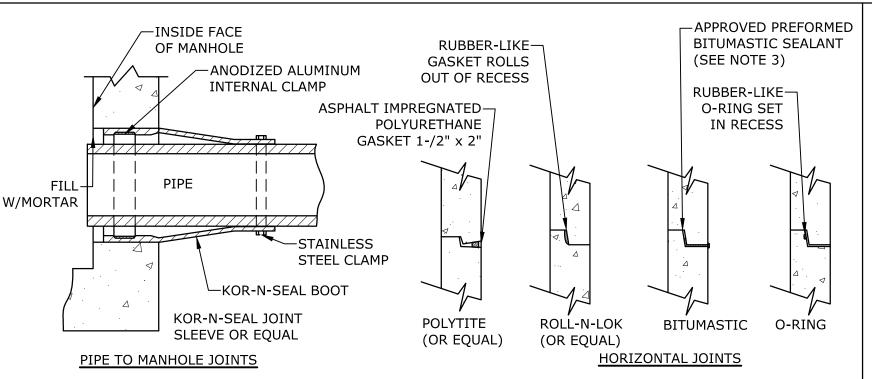
	SIZE VARIES		200p		UND.	ISTURBED	MATERIA	L	
7	(TYP.)		: 20	REACTION			PIPE SIZE		
_	?// <i>&gt;</i> //		RE =	TYPE	4"	6"	8"	10"	12"
		13-4-4	SU	A 90°	0.89	2.19	3.82	11.14	17.24
			ZES.	B 180°	0.65	1.55	2.78	8.38	12.00
		A	T PR	C 45°	0.48	1.19	2.12	6.02	9.32
		- XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	TES	D 22-1/2°	0.25	0.60	1.06	3.08	4.74
1		\//\//\//\//\//\//\//\//\//\//\//\//\//	·	E 11-1/4°	0.13	0.30	0.54	1.54	2.38
		NOT NOT	ES:						
١	CONCRETE—/	$\langle \mathcal{M} \rangle$ $\mathcal{M}^{\prime}$ 1	POI	JR THRUST BI	OCKS AGA	AINST UND	ISTURBE	) MATERIA	J. WHE

TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.

SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON

ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF

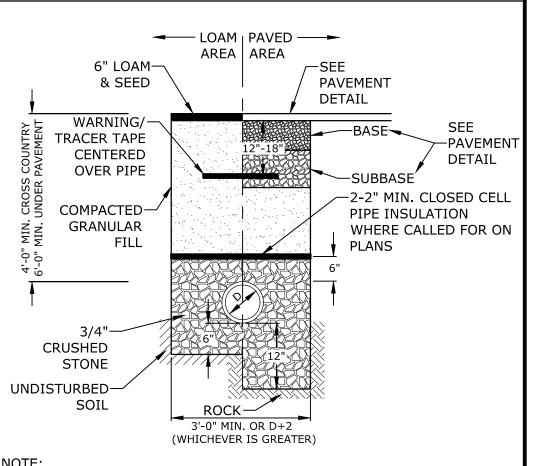
- 3. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST
- 4. WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLAND MAY BE
- SUBSTITUTED FOR END BLOCKINGS.
- 5. INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE WITH CITY OF PORTSMOUTH WATER DEPARTMENT STANDARDS.



- 1. HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE PER CITY OF PORTSMOUTH DPW STANDARD AND SHALL BE SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW ELASTOMERIC OR MASTIC-LIKE GASKET.
- 2. PIPE TO MANHOLE JOINTS SHALL BE PER CITY OF PORTSMOUTH STANDARD.
- 3. FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
- 4. ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

### MANHOLE JOINTS

NO SCALE

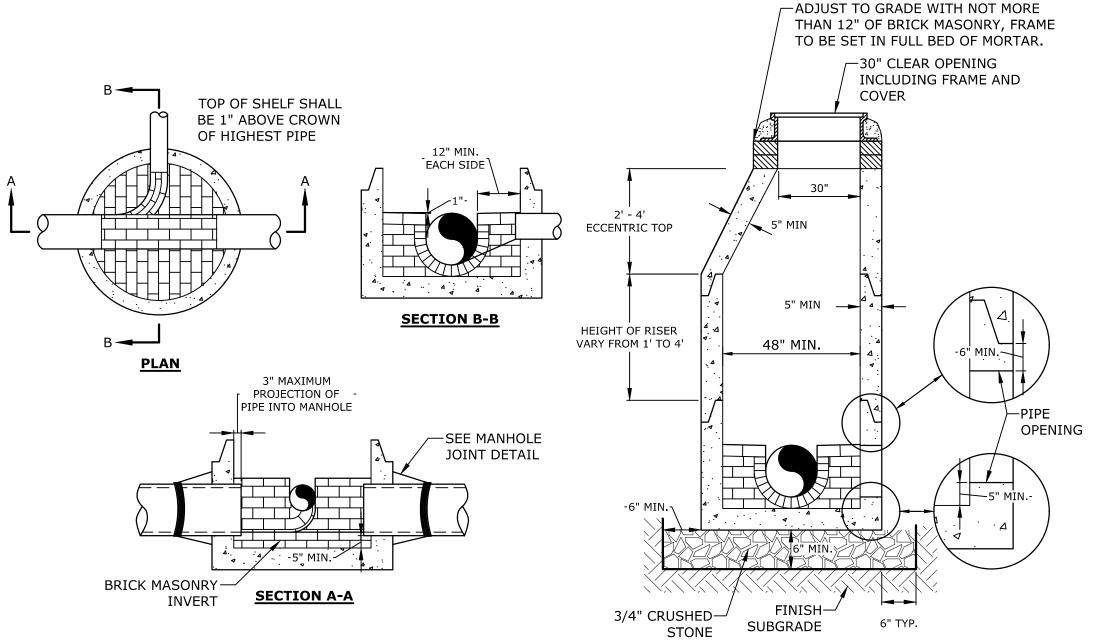


1. CRUSHED STONE BEDDING FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK. CRUSHED STONE SHALL ALSO COMPLETELY ENCASE THE PIPE AND COVER THE PIPE TO A GRADE 6" OVER THE TOP OF THE PIPE FOR THE ENTIRE WIDTH OF THE TRENCH.

2. COORDINATE ALL INSTALLATIONS WITH THE CITY OF PORTSMOUTH

# **SEWER SERVICE TRENCH**

NO SCALE



1. INVERT AND SHELF TO BE PLACED AFTER EACH LEAKAGE TEST.

- 2. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
- 3. INVERT BRICKS SHALL BE LAID ON EDGE.
- 4. TWO (2) COATS OF BITUMINOUS WATERPROOF COATING SHALL BE APPLIED TO ENTIRE EXTERIOR OF MANHOLE.
- 5. FRAMES AND COVERS: MANHOLE FRAMES AND COVERS WITHIN CITY RIGHT OF WAY SHALL BE CITY STANDARD HINGE COVERS MANUFACTURED BY EJ. FRAMES AND COVERS WILL BE PURCHASED FROM THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS. ALL OTHER MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30-INCH CLEAR OPENING. A 3-INCH (MINIMUM HEIGHT) WORD "SEWER" SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER.

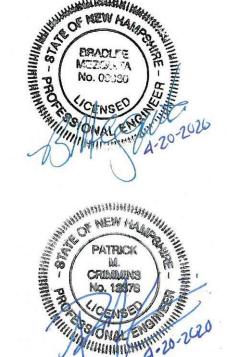
TYPICAL SECTION

- 6. HORIZONTAL JOINTS SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE SEALANT.
- 7. BARREL AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE DESIGNED FOR H20 LOADING, AND CONFORMING TO ASTM C478-06.

### **SEWER MANHOLE**

NO SCALE





# Proposed **Moxy Hotel**

XSS Hotels LLC

Portsmouth, NH

С	4/20/2020	TAC Submission
В	2/4/2020	TAC Work Session
Α	1/2/2020	Design Review Submission
MARK	DATE	DESCRIPTION
PROJE	CT NO:	P-0595-008
DATE:		January 2, 2020
FILE:		P-0595-008_C-DTLS.DWG

DRAWN BY:

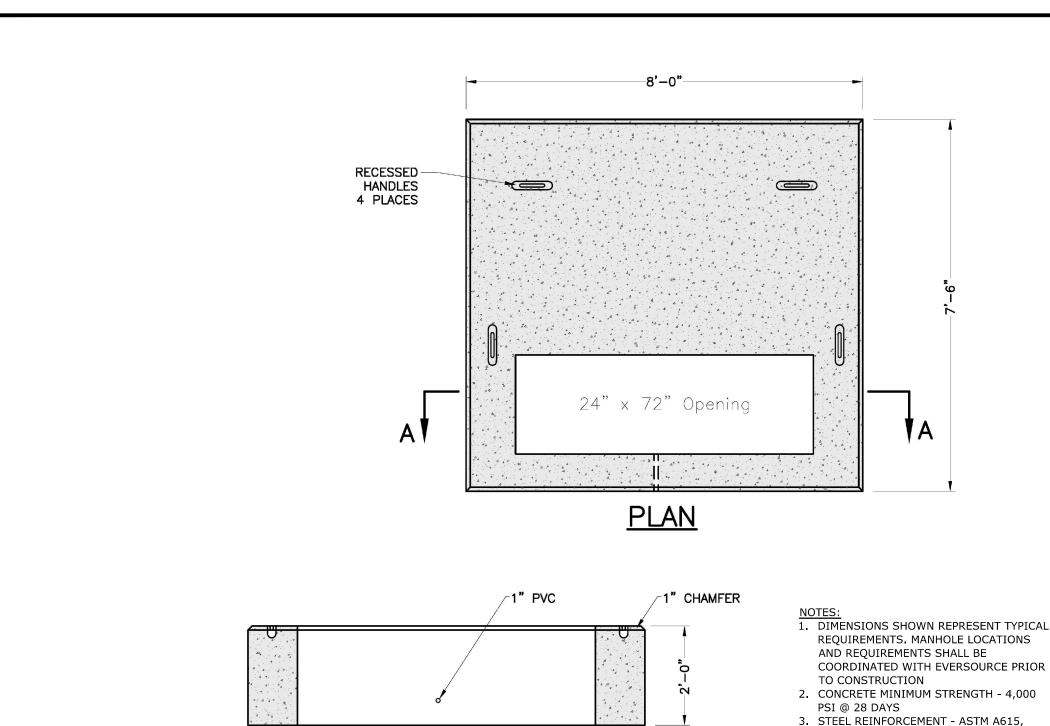
CHECKED:

APPROVED:

**DETAILS SHEET** 

NAH/PMC

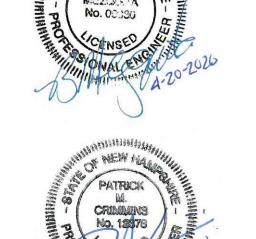
SCALE: AS SHOWN



SECTION A-A

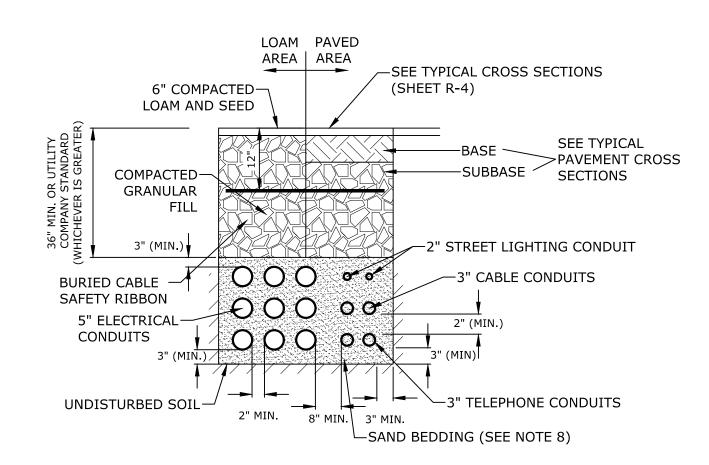
NEC APPROVED CONNECTOR GROUND ROD CONCRETE SLAB OR SECTOR FOUNDATION CABLE COMPARTMENT -8' SLACK #2 BARE STRANDED LEADS SHALL BE IN . COPPER GROUND GRID 1" PVC CONDUIT SLEEVE IF BROUGHT THROUGH CONCRETE. **NEC APPROVED** CONNECTOR GROUND ROD THE GROUND GRID SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR AND IS TO BE BURIED AT LEAST 12 INCHES BELOW GRADE. EIGHT FEET OF EXTRA WIRE FOR EACH GROUND GRID LEG SHALL BE LEFT EXPOSED IN THE CABLE COMPARTMENT TO ALLOW FOR THE CONNECTION TO THE TRANSFORMER. THE TWO 8-FOOT GROUND RODS MAY BE EITHER GALVANIZED STEEL OR COPPERWELD AND THEY SHALL BE CONNECTED TO THE GRID WITH NEC APPROVED CONNECTORS.

Market Market Market



PAD-MOUNTED EQUIPMENT GROUNDING GRID DETAIL

NO SCALE

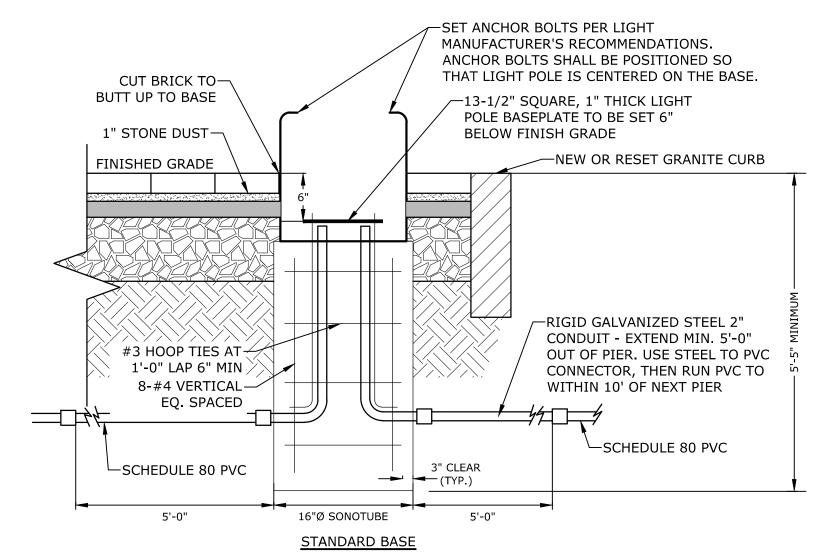


### NOTES:

- 1. NUMBER, MATERIAL, AND SIZE OF UTILITY CONDUITS TO BE DETERMINED BY LOCAL UTILITY OR AS SHOWN ON ELECTRICAL DRAWINGS. CONTRACTOR TO PROVIDE ONE SPARE CONDUIT FOR EACH UTILITY TO BUILDING.
- DIMENSIONS SHOWN REPRESENT OWNERS MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS MAY BE GREATER BASED ON UTILITY COMPANY STANDARDS, BUT SHALL NOT BE LESS THAN THOSE SHOWN.
   NO CONDUIT RUN SHALL EXCEED 360 DEGREES IN TOTAL BENDS.
- 4. A SUITABLE PULLING STRING, CAPABLE OF 200 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE UTILITY COMPANY IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT.
- 5. UTILITY COMPANY MUST BE GIVEN THE OPPORTUNITY TO INSPECT THE CONDUIT PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS SHOULD THE UTILITY COMPANY BE UNABLE TO INSTALL ITS CABLE IN A SUITABLE MANNER.
- 6. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND, WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE.
- 7. ALL 90° SWEEPS WILL BE MADE USING RIGID GALVANIZED STEEL. SWEEPS WITH A 36 TO 48 INCH RADIUS.
- 8. SAND BEDDING TO BE REPLACED WITH CONCRETE ENCASEMENT WHERE COVER IS LESS THAN 3 FEET, WHEN LOCATED BELOW PAVEMENT, OR WHERE SHOWN ON THE UTILITIES PLAN.

### **ELECTRICAL AND COMMUNICATION CONDUIT**

NO SCALE



### NOTES:

GRADE 60

**3-PHASE TRANSFORMER PAD** 

NO SCALE

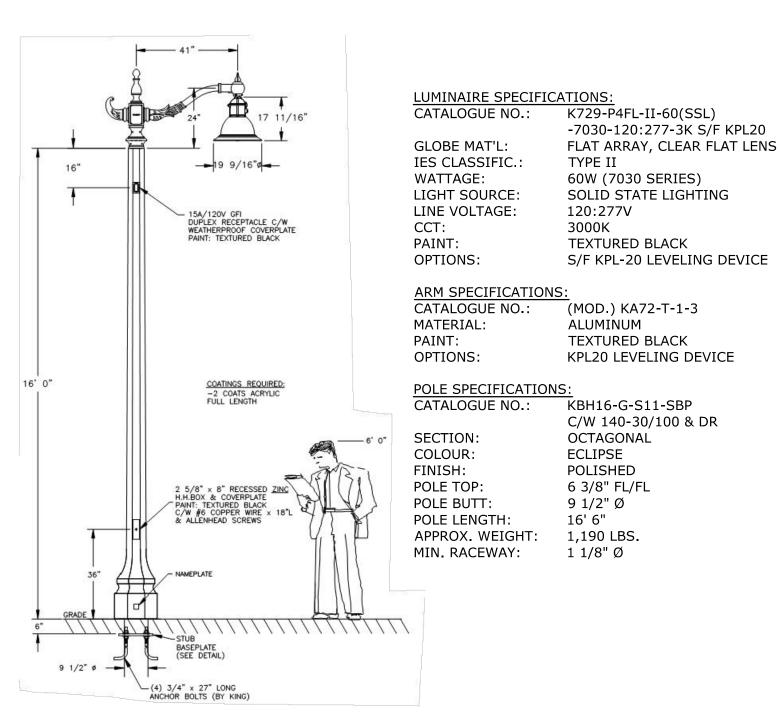
SPECIFICATIONS

4. PAD MEETS OR EXCEEDS EVERSOURCE

- 1. REFER TO ELECTRICAL PLANS FOR WIRING DETAILS.
- CONCRETE: 4000 PSI, AIR ENTRAINED STEEL: 60 KSI
   LIGHT POLE FOUNDATIONS SHALL BE PLACED PRIOR TO INSTALLATION OF BRICK PAVERS.
- 4. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL, TO INCLUDE PERFORMANCE SPECIFICATIONS, CALCULATIONS AND NH LICENSED STRUCTURAL ENGINEER'S STAMP FOR LIGHT POLE FOUNDATION.
- 5. STANDARD BASE SHALL BE CONSTRUCTED UNLESS THERE IS CONFLICT WITH THE EXISTING DUCT BANK. SPREAD FOOTING BASE SHALL BE USED IN LIEU OF STANDARD BASE IN LOCATIONS WHERE TOP OF DUCT BANK ELEVATION WILL CONFLICT WITH STANDARD POLE BASE DEPTH. CONTRACTOR SHALL VERIFY LOCATIONS WHERE SPREAD FOOTINGS ARE REQUIRED PRIOR TO CONSTRUCTION. SEE NOTE#4 FOR SUBMITTAL REQUIREMENTS.

### **NORTH END LIGHT FIXTURE BASE**

NO SCALE



NORTH END LIGHT POLE & FIXTURE

NO SCALE

# Proposed Moxy Hotel

XSS Hotels LLC

Portsmouth, NH

С	4/20/2020	TAC Submission
В	2/4/2020	TAC Work Session
Α	1/2/2020	Design Review Submission
٩RK	DATE	DESCRIPTION
ROJE	CT NO:	P-0595-008
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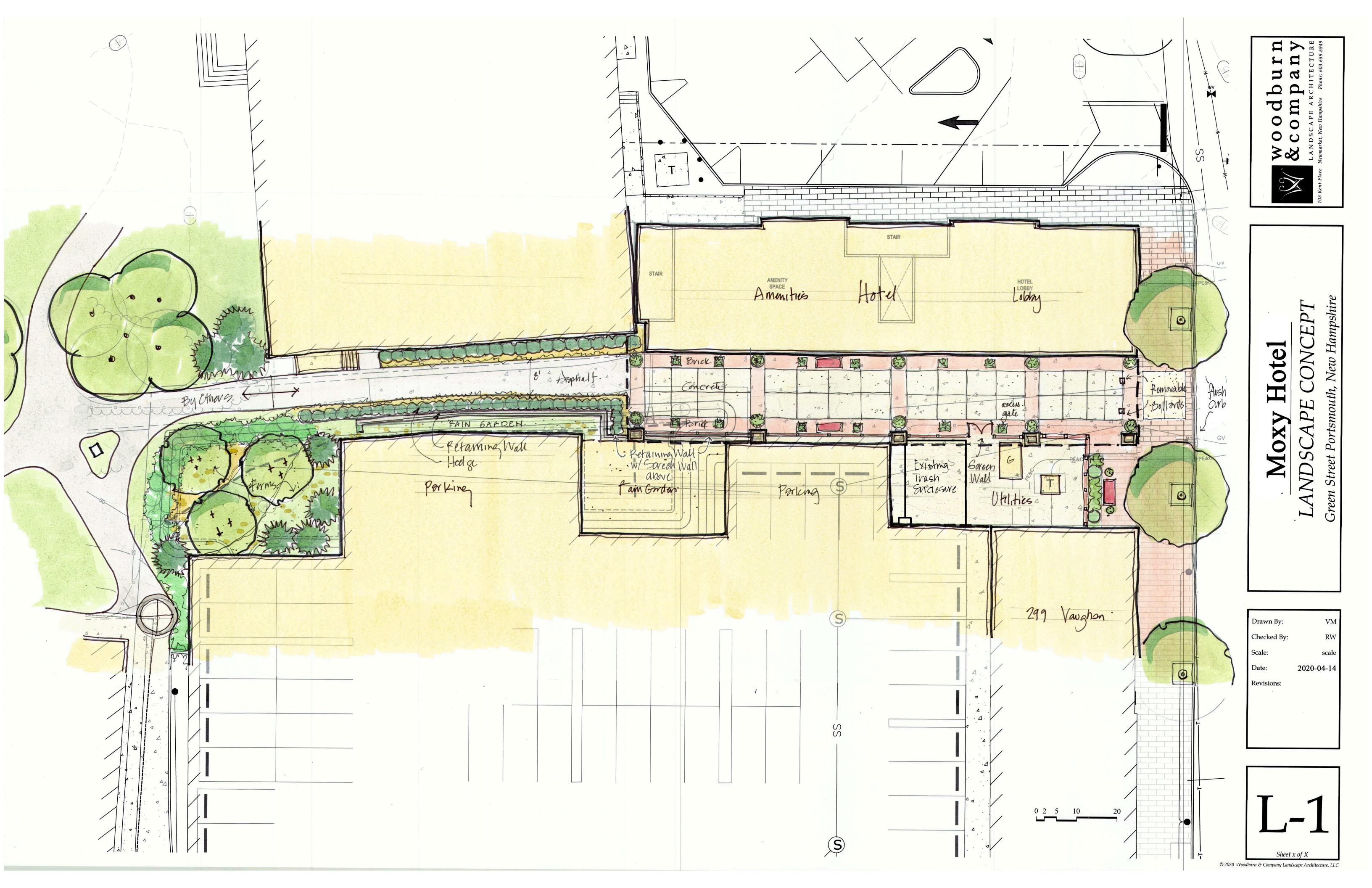
DETAILS SHEET

NAH/PMC

DRAWN BY:

CHECKED:

SCALE: AS SHOWN



Memorandum Tighe&Bond

### **Moxy Hotel - Shared Parking Analysis for Conditional Use Permit**

**To:** City of Portsmouth Technical Advisory Committee & Planning Board

**FROM:** Patrick M. Crimmins, PE

Neil A. Hansen, PE

**COPY:** Stone Creek Realty, LLC & Vaughan Street Hotel, LLC (Owners)

XXS Hotels, LLC (Applicant)

DATE: April 20, 2020 (revised)

Tighe & Bond, Inc. (Tighe & Bond) has prepared this Shared Parking Analysis for the proposed Moxy Hotel (the "Project") located at 299 Vaughan Street (Map 124 Lot 10) and 53 Green Street (Map 119 Lot 2) in Portsmouth, New Hampshire. This analysis is provided to support a request for a Conditional Use Permit for shared parking between these two (2) separate lots

### **Project Background**

The proposed project is a 5-story hotel located along Green Street on what is the existing Map 119 Lot 2 parcel. The proposed project will include a lot line revision between Map 124 Lot 10 and Map 119 Lot 2 placing the proposed hotel on the revised Map 124 Lot 10.

Located on the existing Map 124 Lot 10 is the 157-room AC Hotel. The AC Hotel has a two-story parking deck and provides a total of 118 parking spaces. There are two existing one story buildings on Map 119 Lot 2, a brick office building which will remain, and the second building which will be removed as part of this project which contains a spa and a physical therapy office. 62 parking spaces are proposed to be provided on Map 119 Lot 2. Between the two lots, a total of 180 spaces are provided.

### **Downtown Overlay District Parking Requirement**

Parking required for the project was calculated using Section 10.1115, Off-Street Parking Provisions in the Downtown Overlay District. The existing AC Hotel has 157 rooms and the proposed Moxy Hotel is proposed to have 77 rooms, for a total of 234 rooms. This requires a total of 176 parking spaces at 0.75 spaces per room. There is no requirement for other nonresidential uses such as office within the Downtown Overlay District. As per Section 10.1115.23, a 4-space reduction is applied to the total number of spaces required for projects in the Downtown Overlay District which calculates the project's total parking required to 172 spaces. There are 180 spaces proposed to be provided between Map 124 Lot 10 and Map 119 Lot 2. Thus, the project meets the parking requirements of Section 10.1115 for the Downtown Overlay District.

### **Shared Parking Calculation**

A shared parking calculation was performed in accordance with Section 10.1112.60 of the City of Portsmouth Zoning Ordinance. The number of parking spaces were determined for each use using Section 10.1115.21, Number of Required Off-Street Parking Spaces in the Downtown Overlay District. As there is no required parking for office use within the Downtown Overlay District, the Shared Parking Calculation uses the parking space requirements for Office Use per Section 10.1112.321, Use No. 5.10-5.30 of the Zoning Ordinance.

The minimum required parking for each land use was multiplied by each parking occupancy rate in each of the five time periods in the Parking Occupancy Rate table from Section 10.1112.61 and shown in the attached Shared Parking Calculation. The minimum required shared parking for each time period was determined and the highest resulting time period is

MEMO Tighe&Bond

the weekday evening from 6:00PM to Midnight with 184 total parking spaces required. The 4-space reduction from Section 10.1115 of the Downtown Overlay District was then applied resulting in 180 spaces required to be shared between Map 124 Lot 10 and Map 119 Lot 2 where 180 spaces is provided.

As demonstrated by the shared parking calculation, the hotel and office uses are complimentary for parking due differing peak parking periods. It should also be noted that parking for the exiting AC hotel and proposed Moxy hotel are valet managed parking systems.

### **Conclusions**

As described above and demonstrated in the enclosed shared parking calculation, the 180 total spaces proposed between Map 124 Lot 10 and Map 119 Lot 2 will provide enough parking for the existing AC Hotel, the proposed Moxy Hotel and the existing office. The parking provided between the two (2) properties meets the parking requirements of the Zoning Ordinance for both the Downtown Overlay District in Section 10.1115 and the Shared Parking Calculation in Section 10.1112.60. Thus, the applicant respectfully requests that a Conditional Use Permit for shared parking on a separate lot be granted for the project.

### **Attachments**

Shared Parking Calculation Related Sections of the City of Portsmouth Zoning Ordinance



April 20, 2020

Shared Parking Calculation					
Moxy Hotel, Portsmouth, NH					
		ed Parking Req		- <b>-</b> 1	
	Wee			kend	Nighttime
	Daytime (8:00 AM–	Evening (6:00 PM–	Daytime (8:00 AM–	Evening (6:00 PM-	
	5:00 PM)	Midnight)	5:00 PM)	Midnight)	(Midnight– 6:00 AM)
Office Use Parking			1 Space / 350 SF		
Requirements <sup>(1)</sup>			14,600 SF <b>41.7 Spaces</b>		
Office Use Shared Parking Rate	100%	20%	10%	5%	5%
Office Use Shared Parking Required	41.7	8.3	4.2	2.1	2.1
AC Hotel Parking Requirements		0	0.75 Spaces / Room 157 Rooms 117.8 Spaces		
Use Hotel Shared Parking Rate	70%	100%	75%	100%	100%
AC Hotel Shared Parking Required	82.4	117.8	88.3	117.8	117.8
Moxy Hotel Parking Requirements	0.75 Spaces / Room 77 Rooms 57.8 Spaces				
Use Hotel Shared Parking Rate	70%	100%	75%	100%	100%
Moxy Hotel Shared Parking Required	40.4	57.8	43.3	57.8	57.8
Subtotal Shared Parking Required	164.6	183.8	135.8	177.6	177.6
DOD Parking	-4.0	-4.0	-4.0	-4.0	-4.0
Total Shared Parking Spaces Required	160.6	179.8	131.8	173.6	173.6

<sup>(1) -</sup> Assumes typical parking space requirements for Office Use within the City of Portsmouth as there are no Office Use parking requirements within the Downtown Overlay District

Shared Parking Spaces Provided			
Tax Map 119, Lot 2, 53 Green Street	62		
Tax Map 124, Lot 10, 299 Vaughan Street	118		
Total Shared Parking Spaces Provided	180		

Use No.	Use	Requirement		
3.80	Municipally operated park and related activities	No requirement		
4. Recreational Uses				
4.10	Religious, sectarian or private non-profit recreational use	Parking demand analysis		
4.20	Cinema or similar indoor amusement <b>use</b> with no live performance	0.4 per seat, or Parking demand analysis		
4.30	Indoor recreation <b>use</b> , such as bowling alley or arcade	1 per 4 persons maximum occupancy		
4.40	Health club, yoga studio, martial arts school, or similar <b>use</b>	1 per 250 sf GFA		
4.50	Outdoor recreation use	Parking demand analysis		
4.60	Amusement park, water park or theme park	NA – Prohibited Use		
5. Office Use	s, Non-Medical			
5.10-5.30	Professional, business and financial services	1 per 350 sf GFA		
5.40	Social service campus	Apply standards for component uses		
5.50	Media studio	1 per 1,000 sf GFA		
5.60	Publishing facility or similar electronic production operation	1 per 1,000 sf GFA		
5.70	Call Center	1 per 250 sf GFA		
6. Medical Se	ervices and Health Care			
6.10	Hospital	Parking demand analysis		
6.20	<b>Medical offices</b> and <b>clinics</b> (outpatient only)	1 per 250 sf GFA		
6.30	Clinics with inpatient care	Greater of: - 2 per bed - 1 per 250 sf GFA		
6.40	Ambulatory surgical center	1 per 250 sf GFA		
6.50	Substance abuse treatment facility	Parking demand analysis		
6.60	Psychiatric hospital for the criminally insane	NA – Prohibited Use		
7. Services, Other Than Health Care				
7.11	Family day care facility	4 spaces (including 2 for the single-family dwelling)		

### 10.1112.60 Shared Parking

### 10.1112.61 Methodology

Developments that contain a mix of uses on the same parcel shall reduce the number of **off-street parking** spaces in accordance with the following methodology:

- (1) Determine the minimum number of **off-street parking** spaces for each land **use** within the development in accordance with Sections 10.1112.10 through 10.1112.50.
- (2) Multiply the minimum parking requirement for each land use by the corresponding parking occupancy rates for each of the five time periods set forth in Columns (B) through (F) of the Parking Occupancy Rates table below.

### **Parking Occupancy Rates**

	Weekday		Wee		
(A) Land Use	(B) Daytime (8:00 AM– 5:00 PM)	(C) Evening (6:00 PM– Midnight)	(D) Daytime (8:00 AM– 5:00 PM)	(E) Evening (6:00 PM– Midnight)	(F) Nighttime (Midnight– 6:00 AM)
Residential	60%	100%	80%	100%	100%
Office/ Industrial	100%	20%	10%	5%	5%
Retail/Service	60%	90%	100%	70%	5%
Hotel/Motel	70%	100%	75%	100%	100%
Restaurant	70%	100%	80%	100%	10%
Entertainment	40%	100%	80%	100%	10%
Conference/ Convention	100%	100%	100%	100%	5%
Place of Worship*	10%	5%	100%	50%	5%
Other Institutional	100%	20%	10%	10%	5%

<sup>\*</sup> For a religious use that holds its principal services on a weekday, the weekday and weekend ratios shall be reversed.

(3) Add the resulting shared parking requirements for each time period to determine the minimum parking requirement for that period.

The required minimum number of parking spaces for the development shall be the highest of the five time-period totals.

### 10.1112.62 Shared Parking on Separate Lots

The Planning Board may grant a conditional use permit to allow a reduction in the number of required **off-street parking** spaces for uses on separate **lot**s, whether in common or separate ownership, subject to the following:

- (1) The shared parking requirement may be determined using the methodology in Section 10.1112.61, or by another method approved or required by the Planning Board.
- (2) The shared parking arrangement shall be secured by a covenant acceptable to the City and recorded at the Rockingham County Registry of Deeds.

### 10.1113 Location of Vehicular Use Facilities

### **10.1113.10** Proximity to Principal Use

- 10.1113.11 All required **off-street parking** spaces shall be located on the same **lot** as the **principal use** they are required to serve except as follows:
  - 10.1113.111 Required parking spaces may be located on a separate **lot** from the **principal use** which they serve where a municipally owned or operated covered parking facility is constructed as part of the overall **development**.
  - 10.1113.112 The Board of Adjustment may authorize a special exception for the provision of required parking on another **lot** in the same ownership as the **lot** in question and within 300 feet of the property line of the **lot** in question.
- 10.1113.12 In no case shall parking be permitted within any Residential or Mixed Residential District other than that which is accessory to a **principal use** allowed within the district.

### 10.1113.20 Location of Parking Facilities on a Lot

Required off-street parking spaces shall not be located in any required front yard, or between a principal building and a street (including on a corner lot). This restriction shall not apply to required off-street parking for a single-family dwelling or two-family dwelling.

# 10.1113.30 Minimum Distance from Residential and Mixed Residential Zoning Districts

10.1113.31 **Off-street parking** areas, **accessway**s, maneuvering areas and traffic aisles serving **use**s in a Business or Industrial

- 10.1114.42 Pedestrian areas shall be clearly distinguished from vehicular and bicycle traffic areas through the use of paving materials, **landscaping** buffers, or other means.
- 10.1114.43 Continuous off-**street** vehicle routes shall be no more than 200 feet in length before interruption by pedestrian crosswalks over speed tables, T-intersections or other design elements to calm vehicle movement on site.

### 10.1115 Off-Street Parking Provisions in the Downtown Overlay District

### 10.1115.10 Purpose

- 10.1115.11 This Section 10.1115 establishes modified **off-street**parking standards for lots in the Downtown Overlay District
  in recognition of the availability of municipal on-street and

  off-street parking facilities, private shared parking
  facilities, and public transit, and the pedestrian-oriented
  pattern of lots and uses.
- 10.1115.12 Except as specifically modified by this Section 10.1115, **lot**s in the Downtown Overlay District shall comply with all other provisions of Section 10.1110.

### 10.1115.20 Number of Required Off-Street Parking Spaces

10.1115.21 The following requirements shall apply in the Downtown Overlay District in lieu of the requirements in Section 10.1112.30:

Use	Required Parking Spaces
Residential use (dwelling)	Same as Section 10.1112.30
Hotel or motel	0.75 space per guest room, plus 1 space per 25 sf of conference or banquet facilities
Other nonresidential use	No requirement

- 10.1115.22 The requirements in Section 10.1115.21 shall be applied to all **uses** on a **lot**, and not to individual **uses**.
- 10.1115.23 For any **lot**, the number of **off-street parking** spaces that would be required by applying the ratios in Section 10.1115.21 shall be reduced by 4 spaces. (Therefore, any **lot** that would be required to provide 4 or fewer **off-street parking** spaces shall not be required to provide any spaces.)
- 10.1115.24 The provisions of Section 10.1112.50, Maximum Number of Parking Facilities, shall not apply to **building**s and **use**s within the Downtown Overlay District.



P0595-008 April 20, 2020 (revised)

Mr. Eric Eby, City Traffic Engineer City of Portsmouth Department of Public Works 680 Peverly Hill Road Portsmouth New Hampshire

Re: **Trip Generation Analysis** 

Proposed Moxy Hotel - 53 Green St., Portsmouth, NH

### Dear Eric:

Tighe & Bond has performed a trip generation analysis for traffic related to the proposed 80 room hotel development on a parcel of land located at 53 Green Street that is identified as Map 119 Lot 002 on the City of Portsmouth Tax Maps.

This analysis was performed utilizing Institute of Transportation Engineers (ITE) Trip Generation Manual, latest edition. For purposes of analysis, we have compared the existing and proposed changed uses for the parcel. The parcel's existing use consists of 14,600 SF of office, 3,000 SF of medical office and 4,070 SF of spa. The proposed uses for the parcel are 14,600 SF of office and a 77-room hotel. The 14,600 SF of office use on site is not proposed to change as part of this project and was not included in this Trip Generation Analysis. The supporting trip generation calculations are enclosed with this letter.

	Existing		Proposed	
	<u>Spa</u>	Medical Office	<u>Hotel</u>	Net Trips
Weekday AM Peak Hour				
Trips Entering	5	6	21	+10
Trips Exiting	0	2	15	+13
<b>Total Vehicle Trips</b>	5	8	36	+23
Weekday PM Peak Hour				
Trips Entering	1	3	23	+19
Trips Exiting	5	7	23	+11
<b>Total Vehicle Trips</b>	6	10	46	+30
Saturday Peak Hour				
Trips Entering	8	5	32	+19
Trips Exiting	13	4	25	+9
<b>Total Vehicle Trips</b>	21	9	57	+27

As depicted above, the proposed 77-room hotel in place of existing 3,000 SF of medical office use and 4,070 SF of spa use will result in approximately 1 additional vehicle trip every 2-1/2 minutes during the Weekday AM Peak Hour and approximately 1 additional vehicle every 2 minutes during the Weekday PM Peak Hour and Saturday Peak Hour. It is anticipated these additional trips will have minimal impact to the surrounding roadway network during these times.

### Tighe&Bond

Please feel free to contact us if you have any questions or need any additional information.

Sincerely, TIGHE & BOND, INC.

Neil A. Hansen, PE **Project Engineer** 

Patrick M. Crimmins, PE Senior Project Manager

Enclosures: ITE Trip Generation Data (Land Use Codes 310, 720 & 918)

### **Hotel**

(310)

Vehicle Trip Ends vs: Rooms

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

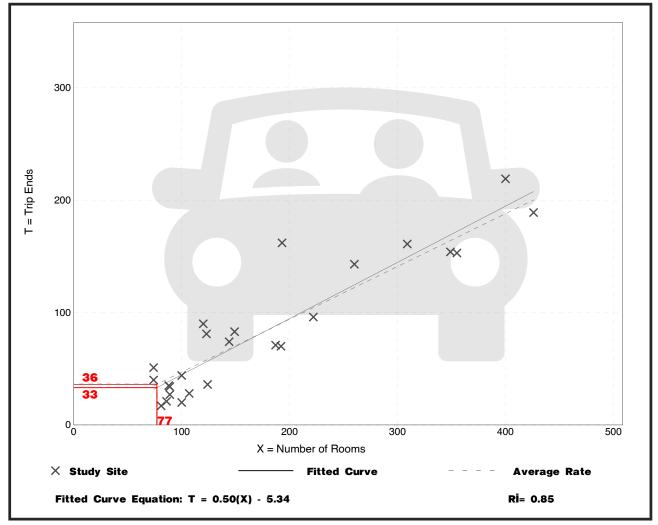
Setting/Location: General Urban/Suburban

Number of Studies: 25 Avg. Num. of Rooms: 178

Directional Distribution: 59% entering, 41% exiting

### Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.47	0.20 - 0.84	0.14



*Trip Gen Manual,* 10th Ed + Supplement • Institute of Transportation Engineers

### **Hotel**

(310)

Vehicle Trip Ends vs: Rooms

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

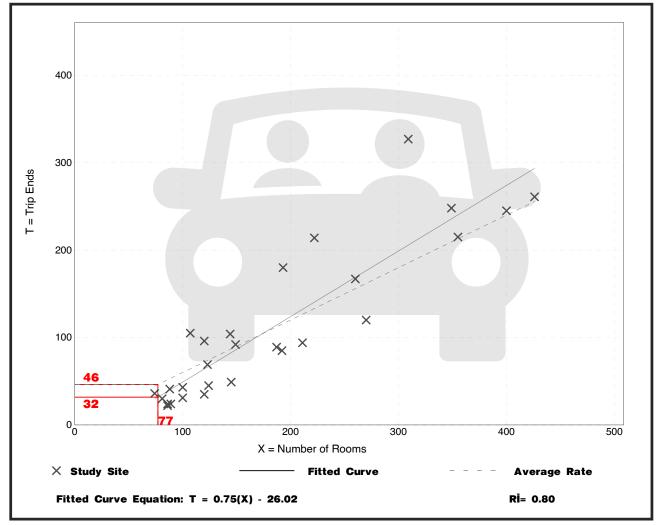
Setting/Location: General Urban/Suburban

Number of Studies: 28 Avg. Num. of Rooms: 183

Directional Distribution: 51% entering, 49% exiting

### Vehicle Trip Generation per Room

Average Rate	Range of Rates	Standard Deviation
0.60	0.26 - 1.06	0.22



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# **Hotel** (310)

Vehicle Trip Ends vs: Rooms

On a: Weekday

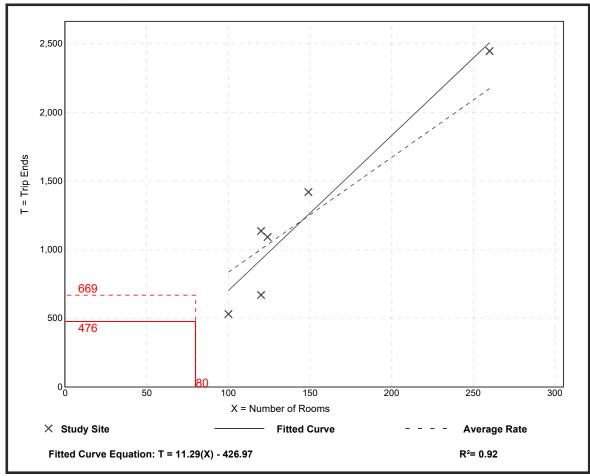
Setting/Location: General Urban/Suburban

Number of Studies: 6 Avg. Num. of Rooms: 146

Directional Distribution: 50% entering, 50% exiting

### **Vehicle Trip Generation per Room**

Average Rate	Range of Rates	Standard Deviation
8.36	5.31 - 9.53	1.86



Trip Generation Manual, 10th Edition ● Institute of Transportation Engineers

# **Medical-Dental Office Building** (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.

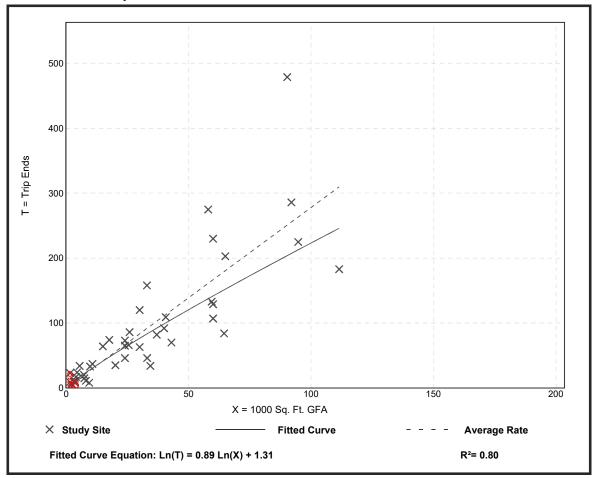
Setting/Location: General Urban/Suburban

Number of Studies: Avg. 1000 Sq. Ft. GFA: 32

Directional Distribution: 78% entering, 22% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
2.78	0.85 - 14.30	1.28



Trip Generation Manual, 10th Edition ● Institute of Transportation Engineers

# **Medical-Dental Office Building** (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Weekday,

Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.

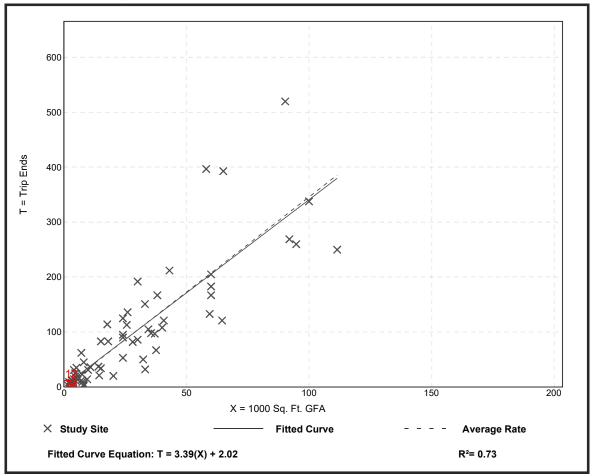
Setting/Location: General Urban/Suburban

Number of Studies: 65 Avg. 1000 Sq. Ft. GFA: 28

28% entering, 72% exiting Directional Distribution:

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.46	0.25 - 8.86	1.58



Trip Generation Manual, 10th Edition ● Institute of Transportation Engineers

# **Medical-Dental Office Building** (720)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA

On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban

Number of Studies: 4 Avg. 1000 Sq. Ft. GFA: 28

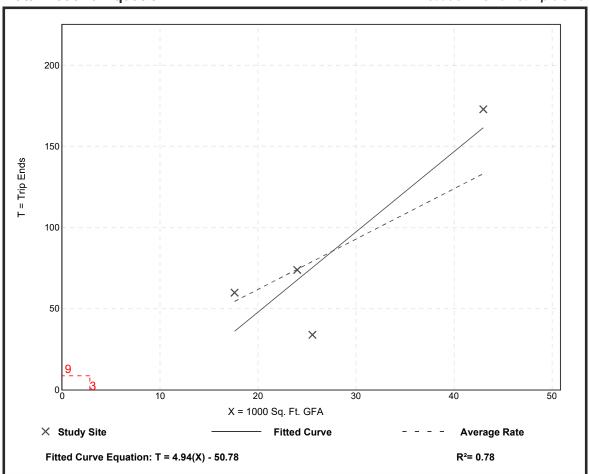
Directional Distribution: 57% entering, 43% exiting

### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.10	1.33 - 4.02	1.20

### **Data Plot and Equation**

### Caution - Small Sample Size



Trip Generation Manual, 10th Edition ● Institute of Transportation Engineers

## Institute of Transportation Engineers (ITE) Land Use Code (LUC) 918 - Hair Salon

Average Vehicle Trips Ends vs: 1,000 Sq. Feet Gross Floor Area Independent Variable (X): 4.070

### WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

```
T = 1.21 * (X) 

T = 1.21 * 4.070 

T = 4.92 

T = 5 vehicle trips 

with 100% ( 5 vph) entering and 0% ( 0 vph) exiting.
```

### WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

### **SATURDAY PEAK HOUR OF GENERATOR**

```
T = 26.31 * (X)
T = 26.31 * 4.070
T = 20.68
T = 21 \text{ vehicle trips}
with 36% ( 8 vph) entering and 64% ( 13 vph) exiting.
```

Tighe & Bond, Inc. 918-SF.xls

### **Drainage Analysis**

**To:** City of Portsmouth Technical Advisory Committee (TAC)

City of Portsmouth Planning Board

**FROM:** Patrick M. Crimmins, PE

Neil A. Hansen, PE

COPY: Stone Creek Realty, LLC & Vaughan Street Hotel, LLC, Owners

XSS Hotels, LLC, Applicant

**DATE:** February 4, 2020 **LAST REVISED:** April 20, 2020

### 1.0 Project Description

The proposed project is located on two lots located at 299 Vaughan Street and 53 Green Street in Portsmouth, New Hampshire. The proposed project is a 5-story hotel located along Green Street on what is the existing Map 119 Lot 2 parcel. The proposed project will include a lot line revision between Map 124 Lot 10 and Map 119 Lot 2 placing the proposed hotel on the revised Map 124 Lot 10.

Located on the existing Map 124 Lot 10 is the 157-room AC Hotel. There are two existing one story buildings on Map 119 Lot 2, a brick office building in the center of the lot which will remain, and the second one story building located in the south corner of the lot which will be removed as part of this project.

The project site is bound to the north by North Mill Pond, to the east by the railroad tracks, to the south by Green Street and to the west by Vaughan Street and 3S Artspace. The topography of the site has a high point along Green Street and slopes gradually towards North Mill Pond.

Runoff generated by the site ultimately flows to one discharge point. The point of analysis is located in North Mill Pond. The portion of the site that flows towards Vaughan Street enters the municipal drainage system which flows to the pond. Runoff from the roof and second story parking deck of the AC Hotel discharges to and is treated by a raingarden located in the northern corner of Map 124 Lot 10. Runoff from Map 119 Lot 2 travels via roof drain and overland flow to North Mill Pond. This discharge point was used as the one (1) point of analysis for this Memorandum.

The proposed project consists of the construction of a 5-story hotel, and associated site improvements. The hotel is proposed to connect to the existing stormwater management system that consists of a rain garden along the northern property line of Map 124 Lot 10. The rim of the outlet structure has been raised to provide additional treatment volume for the additional on-site impervious area discharging to the rain garden.

The New Hampshire Department of Environmental Services (NHDES) was contacted to determine whether the proposed project would need to amend the Alteration of Terrain (AoT) Permit for the AC Hotel. It was determined by NHDES that the scope of work proposed does not require any further AoT permitting.

### 2.0 Drainage Analysis

### 2.1 Calculation Methods

The parcels on-site watersheds were analyzed under this section. The design storms analyzed in this study are the 2-year, 10-year, 25-year and 50-year 24-hour duration storm as per

TECHNICAL MEMORANDUM Tighe&Bond

NHDES AoT Regulations (Env-Wq 1500). The stormwater modeling system, HydroCAD 10.0 was utilized to predict the peak runoff rates from these storm events. A Type III storm pattern was used in the model.

The time of concentration was computed using the TR-55 Method, which provides a means of determining the time for an entire watershed to contribute runoff to a specific location via sheet flows, shallow concentrated flow and channel flow. Runoff curve numbers were calculated by estimating the coverage areas and then summing the curve number for the coverage area as a percent of the entire watershed.

### References

- 1. HydroCAD Stormwater Modeling System, by HydroCAD Software Solutions LLC, Chocorua, New Hampshire.
- 2. New Hampshire Stormwater Management Manual, Volume 2, Post-Construction Best Management Practices Selection and Design, December 2008.

TECHNICAL MEMORANDUM Tighe&Bond

### 2.2 Pre-Development Calculations

The pre-development condition is characterized by three (3) watershed areas modeled at two (2) points of analysis as depicted on Pre-Development Watershed Plan, C-801.

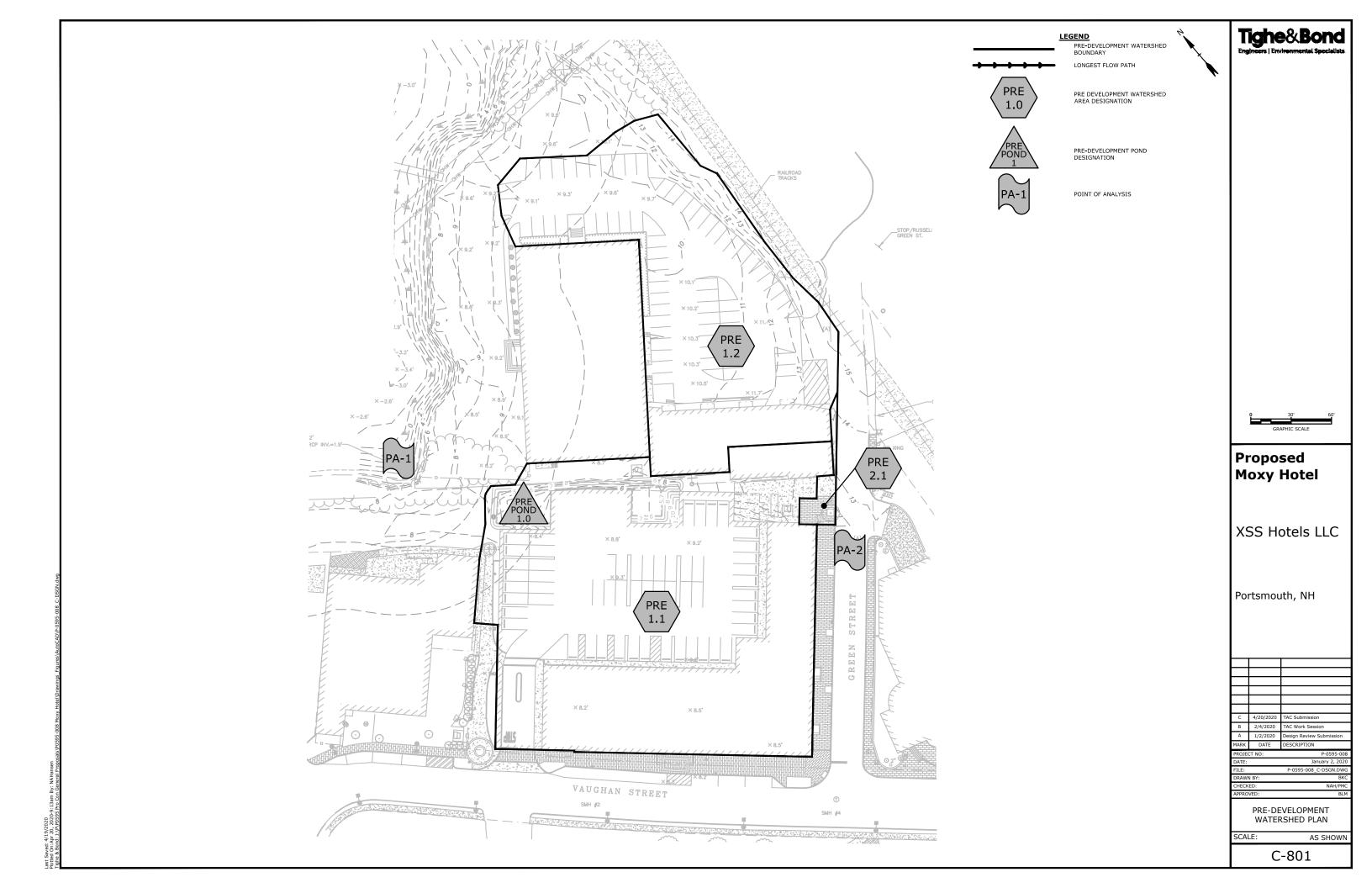
### Point of Analysis One (PA1)

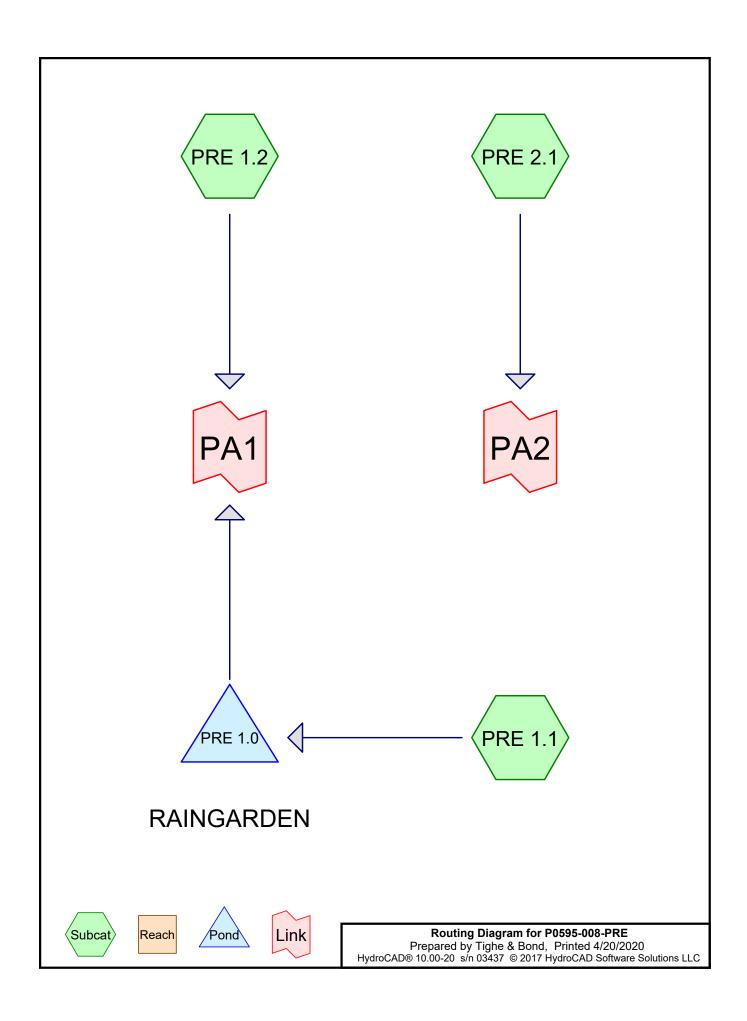
Pre-Development Watershed 1.1 (PRE 1.1) is comprised primarily of roof area surrounded by paved and grass areas. Runoff from this watershed area travel via roof drains and overland flow to an existing rain garden. The rain garden discharges to the North Mill Pond (PA1).

Pre-Development Watershed 1.2 (PRE 1.2) is comprised primarily of paved parking areas and roof runoff. Runoff from this watershed area travel via roof drains and overland flow to the North Mill Pond (PA1).

### Point of Analysis Two (PA2)

Pre-Development Watershed 2.1 (PRE 2.1) is comprised primarily of sidewalks and existing roadway areas. Runoff from this watershed travels via overland flow to the existing municipal drainage system located in Vaughan Street and ultimately discharge to the North Mill Pond (PA1).





# P0595-008-PRE

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# Area Listing (all nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
0.228	80	>75% Grass cover, Good, HSG D (PRE 1.1, PRE 1.2)
1.120	98	Paved parking & roofs, HSG D (PRE 1.1, PRE 2.1)
0.531	98	Paved parking, HSG D (PRE 1.2)
0.115	98	Roofs, HSG D (PRE 1.2)
1.994	96	TOTAL AREA

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# Soil Listing (all nodes)

Area	Soil	Subcatchment
(acres)	Group	Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
1.994	HSG D	PRE 1.1, PRE 1.2, PRE 2.1
0.000	Other	
1.994		TOTAL AREA

Type III 24-hr 2 Year Storm Rainfall=3.20"

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPRE 1.1: Runoff Area=52,624 sf 90.88% Impervious Runoff Depth=2.75"

Flow Length=255' Tc=5.0 min CN=96 Runoff=3.65 cfs 0.277 af

**SubcatchmentPRE 1.2:** Runoff Area=33,276 sf 84.53% Impervious Runoff Depth=2.64"

Tc=5.0 min CN=95 Runoff=2.25 cfs 0.168 af

SubcatchmentPRE 2.1: Runoff Area=974 sf 100.00% Impervious Runoff Depth=2.97"

Flow Length=171' Tc=5.0 min CN=98 Runoff=0.07 cfs 0.006 af

Pond PRE 1.0: RAINGARDEN Peak Elev=7.53' Storage=4,641 cf Inflow=3.65 cfs 0.277 af

Outflow=3.02 cfs 0.241 af

Link PA1: Inflow=5.08 cfs 0.409 af

Primary=5.08 cfs 0.409 af

Link PA2: Inflow=0.07 cfs 0.006 af

Primary=0.07 cfs 0.006 af

Total Runoff Area = 1.994 ac Runoff Volume = 0.451 af Average Runoff Depth = 2.71" 11.45% Pervious = 0.228 ac 88.55% Impervious = 1.766 ac

#### P0595-008-PRE

Type III 24-hr 10 Year Storm Rainfall=4.86"

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPRE 1.1: Runoff Area=52,624 sf 90.88% Impervious Runoff Depth=4.39"

Flow Length=255' Tc=5.0 min CN=96 Runoff=5.68 cfs 0.442 af

SubcatchmentPRE 1.2: Runoff Area=33,276 sf 84.53% Impervious Runoff Depth=4.28"

Tc=5.0 min CN=95 Runoff=3.55 cfs 0.273 af

**SubcatchmentPRE 2.1:** Runoff Area=974 sf 100.00% Impervious Runoff Depth=4.62"

Flow Length=171' Tc=5.0 min CN=98 Runoff=0.11 cfs 0.009 af

Pond PRE 1.0: RAINGARDEN Peak Elev=7.68' Storage=5,031 cf Inflow=5.68 cfs 0.442 af

Outflow=4.87 cfs 0.406 af

Link PA1: Inflow=8.19 cfs 0.679 af

Primary=8.19 cfs 0.679 af

Link PA2: Inflow=0.11 cfs 0.009 af

Primary=0.11 cfs 0.009 af

Total Runoff Area = 1.994 ac Runoff Volume = 0.723 af Average Runoff Depth = 4.35" 11.45% Pervious = 0.228 ac 88.55% Impervious = 1.766 ac

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### **Summary for Subcatchment PRE 1.1:**

[49] Hint: Tc<2dt may require smaller dt

Runoff = 5.68 cfs @ 12.07 hrs, Volume= 0.442 af, Depth= 4.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 10 Year Storm Rainfall=4.86"

_	Α	rea (sf)	CN E	escription		
		4,799	80 >	75% Gras	s cover, Go	ood, HSG D
*		47,825	98 F	aved park	ing & roofs,	HSG D
		52,624	96 V	Veighted A	verage	
		4,799	9	.12% Perv	ious Area	
		47,825	9	0.88% Imp	ervious Are	ea
	Tc	Length	Slope	Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.2	100	0.0200	1.38		Sheet Flow,
						Smooth surfaces n= 0.011 P2= 3.20"
	2.1	155	0.0070	1.25		Shallow Concentrated Flow,
_						Grassed Waterway Kv= 15.0 fps
	3.3	255	Total, I	ncreased t	o minimum	Tc = 5.0 min

## **Summary for Subcatchment PRE 1.2:**

[49] Hint: Tc<2dt may require smaller dt

Runoff = 3.55 cfs @ 12.07 hrs, Volume= 0.273 af, Depth= 4.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 10 Year Storm Rainfall=4.86"

_	Are	ea (sf)	CN	Description			
		4,993	98	Roofs, HSC	D D		
		5,147	80	>75% Grass cover, Good, HSG D			
	2	3,136	98	Paved park	ing, HSG D	D	
	3	3,276	95	Weighted A	verage		
		5,147		15.47% Pervious Area			
	2	8,129	84.53% Impervious Area				
	Tc	Length	Slope	,	Capacity	·	
	(min)	(feet)	(ft/ft	) (ft/sec)	(cfs)		
						B' (E (	

5.0 Direct Entry,

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## **Summary for Subcatchment PRE 2.1:**

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.11 cfs @ 12.07 hrs, Volume= 0.009 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 10 Year Storm Rainfall=4.86"

	Α	rea (sf)	CN D	escription		
*		974	98 P	aved park	ing & roofs	, HSG D
		974	1	00.00% Im	npervious A	Area
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
	1.4	100	0.0150	1.23		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.20"
	0.4	53	0.0150	2.49		Shallow Concentrated Flow, Paved Kv= 20.3 fps
_	0.1	18	0.0200	2.12		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps
	4.0	474	<b>T</b> ( ) (	1.4		T 50 :

<sup>1.9 171</sup> Total, Increased to minimum Tc = 5.0 min

## **Summary for Pond PRE 1.0: RAINGARDEN**

Inflow Area = 1.208 ac, 90.88% Impervious, Inflow Depth = 4.39" for 10 Year Storm event 
Inflow = 5.68 cfs @ 12.07 hrs, Volume= 0.442 af 
Outflow = 4.87 cfs @ 12.12 hrs, Volume= 0.406 af, Atten= 14%, Lag= 3.1 min 
Primary = 4.87 cfs @ 12.12 hrs, Volume= 0.406 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Peak Elev= 7.68' @ 12.12 hrs Surf.Area= 2,519 sf Storage= 5,031 cf Flood Elev= 8.00' Surf.Area= 2,688 sf Storage= 5,854 cf

Plug-Flow detention time= 215.2 min calculated for 0.406 af (92% of inflow) Center-of-Mass det. time= 173.0 min (935.2 - 762.1)

Volume	Invert	Ava	il.Storage	Storage Descrip	tion	
#1	2.70'		5,854 cf	Custom Stage Data (Prismatic)Listed below (Recalc)		
Elevation	Surf.	.Area	Voids	Inc.Store	Cum.Store	
(feet)	(:	sq-ft)	(%)	(cubic-feet)	(cubic-feet)	
2.70	•	1,431	0.0	0	0	
4.20	•	1,431	40.0	859	859	
5.70	•	1,431	10.0	215	1,073	
6.00	•	1,643	100.0	461	1,534	
7.00	2	2,154	100.0	1,899	3,433	
8.00	2	2,688	100.0	2,421	5,854	

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Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	12.0" Round Culvert
			L= 62.0' RCP, end-section conforming to fill, Ke= 0.500
			Inlet / Outlet Invert= 3.00' / 1.06' S= 0.0313 '/' Cc= 0.900
			n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Device 1	3.15'	12.0" Round Culvert
			L= 5.0' CPP, end-section conforming to fill, Ke= 0.500
			Inlet / Outlet Invert= 3.15' / 3.10' S= 0.0100 '/' Cc= 0.900
			n= 0.012, Flow Area= 0.79 sf
#3	Device 2	3.15'	6.0" Vert. Orifice/Grate C= 0.600
#4	Device 3	6.00'	7.000 in/hr Exfiltration over Surface area above 6.00'
			Excluded Surface area = 1,643 sf
#5	Device 2	7.20'	<b>14.2" x 14.2" Horiz. Orifice/Grate</b> C= 0.600
			Limited to weir flow at low heads
#6	Primary	7.75'	
			Head (feet) 0.20 0.40 0.60 0.80 1.00
			Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=4.78 cfs @ 12.12 hrs HW=7.67' TW=0.00' (Dynamic Tailwater)

**1=Culvert** (Passes 4.78 cfs of 7.73 cfs potential flow)

-2=Culvert (Passes 4.78 cfs of 7.59 cfs potential flow)

-3=Orifice/Grate (Passes 0.14 cfs of 1.95 cfs potential flow)
-4=Exfiltration (Exfiltration Controls 0.14 cfs)

-5=Orifice/Grate (Orifice Controls 4.64 cfs @ 3.32 fps)

-6=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

## **Summary for Link PA1:**

1.972 ac, 88.42% Impervious, Inflow Depth > 4.13" for 10 Year Storm event Inflow Area =

8.19 cfs @ 12.09 hrs, Volume= 0.679 af Inflow

Primary 8.19 cfs @ 12.09 hrs, Volume= 0.679 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

# **Summary for Link PA2:**

Inflow Area = 0.022 ac,100.00% Impervious, Inflow Depth = 4.62" for 10 Year Storm event

Inflow 0.11 cfs @ 12.07 hrs, Volume= 0.009 af

**Primary** 0.11 cfs @ 12.07 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

#### P0595-008-PRE

Type III 24-hr 25 Year Storm Rainfall=6.16"

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPRE 1.1: Runoff Area=52,624 sf 90.88% Impervious Runoff Depth=5.69"

Flow Length=255' Tc=5.0 min CN=96 Runoff=7.26 cfs 0.573 af

**SubcatchmentPRE 1.2:** Runoff Area=33,276 sf 84.53% Impervious Runoff Depth=5.57"

Tc=5.0 min CN=95 Runoff=4.55 cfs 0.355 af

SubcatchmentPRE 2.1: Runoff Area=974 sf 100.00% Impervious Runoff Depth=5.92"

Flow Length=171' Tc=5.0 min CN=98 Runoff=0.14 cfs 0.011 af

Pond PRE 1.0: RAINGARDEN Peak Elev=7.82' Storage=5,375 cf Inflow=7.26 cfs 0.573 af

Outflow=6.22 cfs 0.537 af

Link PA1: Inflow=10.44 cfs 0.891 af

Primary=10.44 cfs 0.891 af

**Link PA2:** Inflow=0.14 cfs 0.011 af

Primary=0.14 cfs 0.011 af

Total Runoff Area = 1.994 ac Runoff Volume = 0.938 af Average Runoff Depth = 5.64" 11.45% Pervious = 0.228 ac 88.55% Impervious = 1.766 ac

#### P0595-008-PRE

Type III 24-hr 50 Year Storm Rainfall=7.37"

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPRE 1.1: Runoff Area=52,624 sf 90.88% Impervious Runoff Depth=6.89"

Flow Length=255' Tc=5.0 min CN=96 Runoff=8.72 cfs 0.694 af

**SubcatchmentPRE 1.2:** Runoff Area=33,276 sf 84.53% Impervious Runoff Depth=6.77"

Tc=5.0 min CN=95 Runoff=5.48 cfs 0.431 af

SubcatchmentPRE 2.1: Runoff Area=974 sf 100.00% Impervious Runoff Depth=7.13"

Flow Length=171' Tc=5.0 min CN=98 Runoff=0.16 cfs 0.013 af

Pond PRE 1.0: RAINGARDEN Peak Elev=7.89' Storage=5,559 cf Inflow=8.72 cfs 0.694 af

Outflow=8.33 cfs 0.658 af

Link PA1: Inflow=13.47 cfs 1.089 af

Primary=13.47 cfs 1.089 af

**Link PA2:** Inflow=0.16 cfs 0.013 af

Primary=0.16 cfs 0.013 af

Total Runoff Area = 1.994 ac Runoff Volume = 1.138 af Average Runoff Depth = 6.85" 11.45% Pervious = 0.228 ac 88.55% Impervious = 1.766 ac

## 2.3 Post-Development Calculations

The proposed drainage condition has been evaluated at the same two (2) points of analysis as in the pre-development condition as depicted on Post-Development Watershed Plan, C-802.

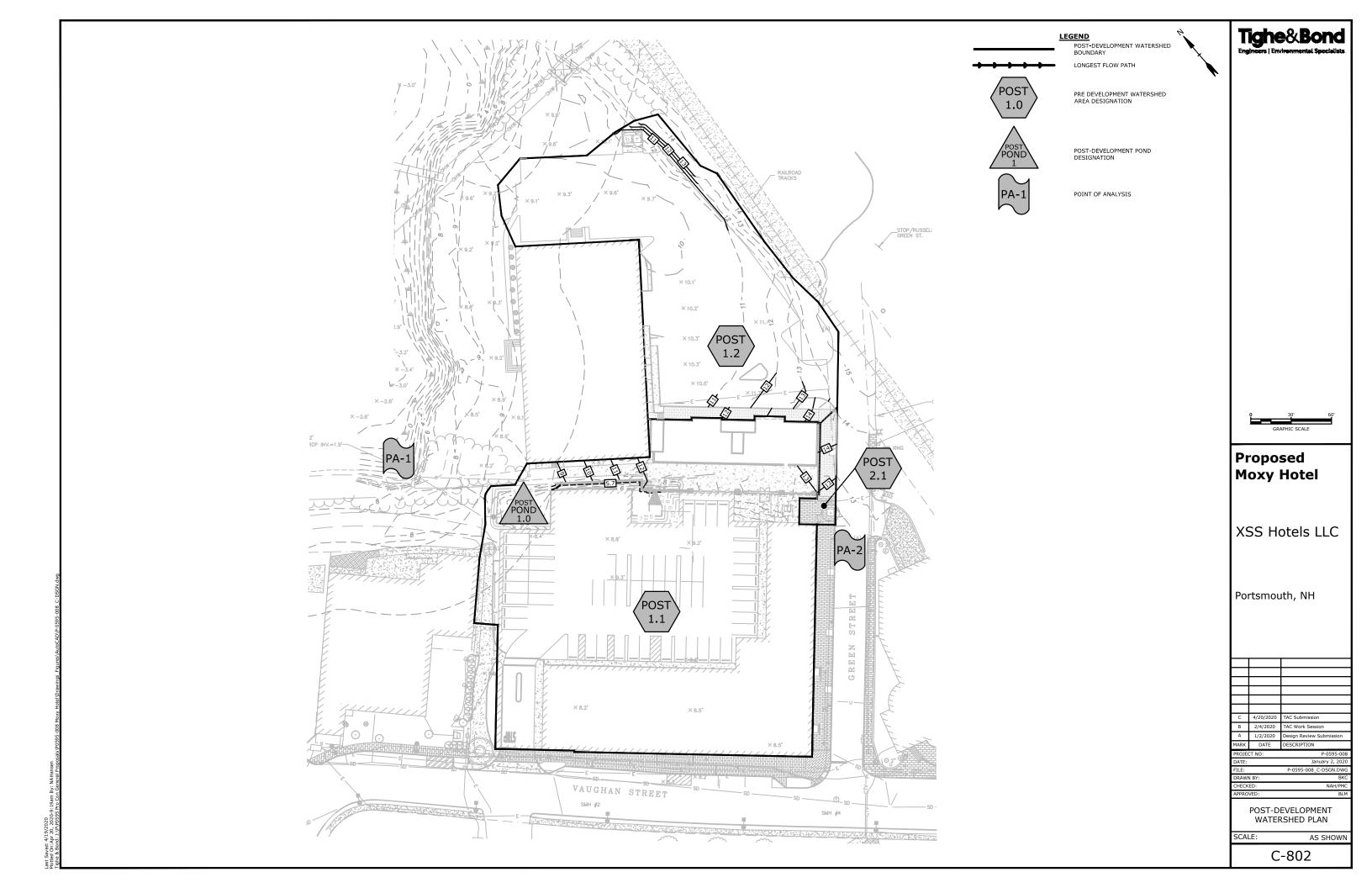
#### Point of Analysis One (PA1)

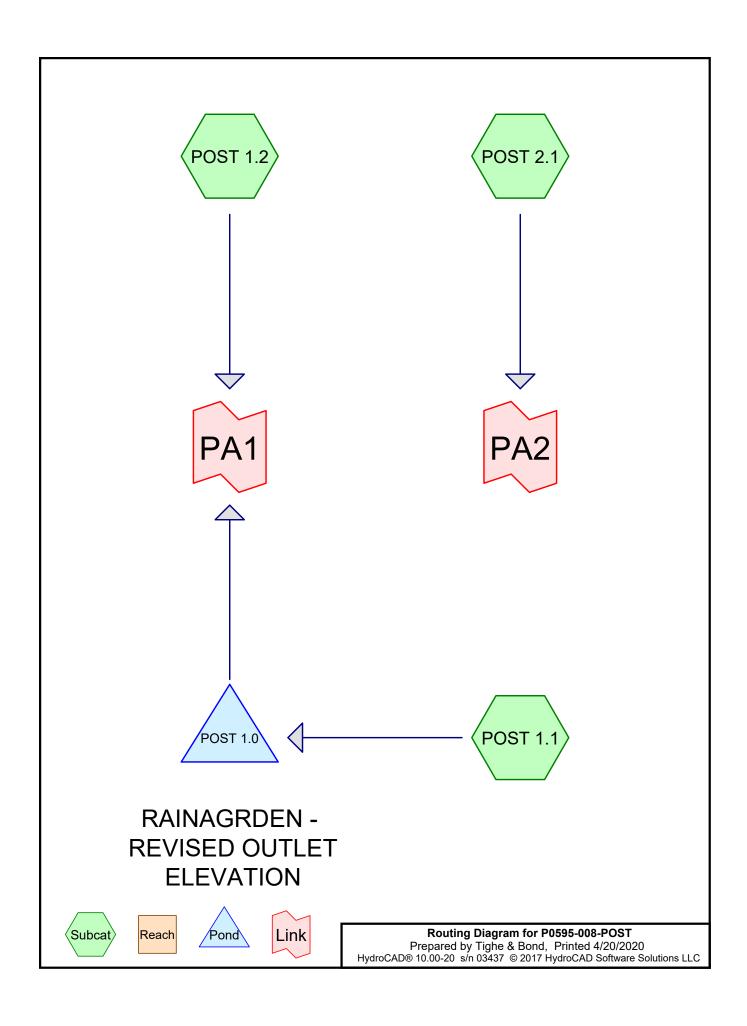
Post-Development Watershed 1.1 (POST 1.1) is comprised primarily of roof area surrounded by paved and grass areas. Runoff from this watershed area travel via roof drains and overland flow to an existing rain garden with a modified overflow rim elevation. The rain garden has been sized to treat the impervious area prior to releasing it to the North Mill Pond (PA1).

Post-Development Watershed 1.2 (POST 1.2) is comprised primarily of paved parking areas runoff. Runoff from this watershed area travel via overland flow to the North Mill Pond (PA1).

#### Point of Analysis Two (PA2)

Post-Development Watershed 2.1 (POST 2.1) is comprised primarily of sidewalks and existing roadway areas. Runoff from this watershed travels via overland flow to the existing municipal drainage system located in Vaughan Street and ultimately discharge to the North Mill Pond (PA1).





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# **Area Listing (all nodes)**

	Area	CN	Description
(	acres)		(subcatchment-numbers)
	0.204	80	>75% Grass cover, Good, HSG D (POST 1.1, POST 1.2)
	1.791	98	Paved parking & roofs, HSG D (POST 1.1, POST 1.2, POST 2.1)
	1.994	96	TOTAL AREA

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# Soil Listing (all nodes)

Area	Soil	Subcatchment
(acres)	Group	Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
1.994	HSG D	POST 1.1, POST 1.2, POST 2.1
0.000	Other	
1.994		TOTAL AREA

Type III 24-hr 2 Year Storm Rainfall=3.20"

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPOST 1.1: Runoff Area=56,097 sf 94.50% Impervious Runoff Depth=2.86"

Flow Length=120' Tc=5.0 min CN=97 Runoff=3.96 cfs 0.307 af

SubcatchmentPOST 1.2: Runoff Area=29,478 sf 80.37% Impervious Runoff Depth=2.54"

Tc=5.0 min CN=94 Runoff=1.94 cfs 0.143 af

SubcatchmentPOST 2.1: Runoff Area=1,299 sf 100.00% Impervious Runoff Depth=2.97"

Flow Length=171' Tc=5.0 min CN=98 Runoff=0.09 cfs 0.007 af

Pond POST 1.0: RAINAGRDEN- REVISED Peak Elev=7.86' Storage=5,483 cf Inflow=3.96 cfs 0.307 af

Outflow=4.18 cfs 0.261 af

Link PA1: Inflow=5.98 cfs 0.405 af

Primary=5.98 cfs 0.405 af

Link PA2: Inflow=0.09 cfs 0.007 af

Primary=0.09 cfs 0.007 af

Total Runoff Area = 1.994 ac Runoff Volume = 0.457 af Average Runoff Depth = 2.75" 10.21% Pervious = 0.204 ac 89.79% Impervious = 1.791 ac

Type III 24-hr 10 Year Storm Rainfall=4.86"

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPOST 1.1: Runoff Area=56,097 sf 94.50% Impervious Runoff Depth=4.51"

Flow Length=120' Tc=5.0 min CN=97 Runoff=6.11 cfs 0.484 af

**SubcatchmentPOST 1.2:** Runoff Area=29,478 sf 80.37% Impervious Runoff Depth=4.17"

Tc=5.0 min CN=94 Runoff=3.10 cfs 0.235 af

SubcatchmentPOST 2.1: Runoff Area=1,299 sf 100.00% Impervious Runoff Depth=4.62"

Flow Length=171' Tc=5.0 min CN=98 Runoff=0.14 cfs 0.011 af

Pond POST 1.0: RAINAGRDEN- REVISED Peak Elev=7.90' Storage=5,585 cf Inflow=6.11 cfs 0.484 af

Outflow=6.02 cfs 0.437 af

Link PA1: Inflow=9.05 cfs 0.672 af

Primary=9.05 cfs 0.672 af

Link PA2: Inflow=0.14 cfs 0.011 af

Primary=0.14 cfs 0.011 af

Total Runoff Area = 1.994 ac Runoff Volume = 0.730 af Average Runoff Depth = 4.39" 10.21% Pervious = 0.204 ac 89.79% Impervious = 1.791 ac

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## **Summary for Subcatchment POST 1.1:**

[49] Hint: Tc<2dt may require smaller dt

Runoff 6.11 cfs @ 12.07 hrs, Volume= 0.484 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 10 Year Storm Rainfall=4.86"

_	Α	rea (sf)	CN [	Description			
		3,083	80 >	75% Gras	s cover, Go	ood, HSG D	
*		53,014	98 F	Paved park	ing & roofs	, HSG D	
		56,097	97 V	Veighted A	verage		
		3,083					
		53,014	14 94.50% Impervious Area				
	_						
	Tc	Length	Slope	Velocity	Capacity	Description	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		
	1.2	100	0.0200	1.38		Sheet Flow,	
						Smooth surfaces n= 0.011 P2= 3.20"	
	0.3	20	0.0070	1.25		Shallow Concentrated Flow,	
_						Grassed Waterway Kv= 15.0 fps	
	1.5	120	Total. I	ncreased t	o minimum	Tc = 5.0 min	

## **Summary for Subcatchment POST 1.2:**

[49] Hint: Tc<2dt may require smaller dt

3.10 cfs @ 12.07 hrs, Volume= Runoff 0.235 af, Depth= 4.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 10 Year Storm Rainfall=4.86"

	Α	rea (sf)	CN	Description			
		5,787	80	>75% Gras	s cover, Go	Good, HSG D	
*		23,691	98	Paved park	ing & roofs	s, HSG D	
		29,478	94	Weighted A	verage		
		5,787		19.63% Pe	rvious Area	a	
		23,691		80.37% lmp	pervious Ar	ırea	
	т.	1 41-	Ola ia a	\/-  <del>!</del> 4	0	. Description	
	Tc	Length	Slope	,	Capacity	•	
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)		_
	5.0					Direct Entry,	

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## **Summary for Subcatchment POST 2.1:**

[49] Hint: Tc<2dt may require smaller dt

Runoff = 0.14 cfs @ 12.07 hrs, Volume= 0.011 af, Depth= 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 10 Year Storm Rainfall=4.86"

	Α	rea (sf)	CN E	Description			
*		1,299	98 F	Paved park	ing & roofs	, HSG D	
		1,299	1	00.00% In	npervious A	Area	
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description	
	1.4	100	0.0150	1.23		Sheet Flow, Smooth surfaces n= 0.011 P2= 3.20"	
	0.4	53	0.0150	2.49			
	0.1	18	0.0200	2.12		Shallow Concentrated Flow, Grassed Waterway Kv= 15.0 fps	

1.9 171 Total, Increased to minimum Tc = 5.0 min

## **Summary for Pond POST 1.0: RAINAGRDEN - REVISED OUTLET ELEVATION**

Inflow Area = 1.288 ac, 94.50% Impervious, Inflow Depth = 4.51" for 10 Year Storm event

Inflow = 6.11 cfs @ 12.07 hrs, Volume= 0.484 af

Outflow = 6.02 cfs @ 12.09 hrs, Volume= 0.437 af, Atten= 2%, Lag= 1.2 min

Primary = 6.02 cfs @ 12.09 hrs, Volume= 0.437 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Peak Elev= 7.90' @ 12.09 hrs Surf.Area= 2,344 sf Storage= 5,585 cf

Flood Elev= 8.00' Surf.Area= 2,375 sf Storage= 5,819 cf

Plug-Flow detention time= 289.8 min calculated for 0.437 af (90% of inflow)

Center-of-Mass det. time= 241.9 min ( 997.3 - 755.4 )

Volume	Invert Ava	il.Storage	Storage Descrip	tion	
#1	2.70'	5,819 cf	Custom Stage I	Data (Prismatic)Listed below	(Recalc)
Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	
2.70 4.20	1,579 1,579	0.0 40.0	0 947	0 947	
5.70 6.00 7.00	1,579 1,763 2,064	10.0 100.0 100.0	237 501 1,914	1,184 1,686 3,599	
8.00	2,375	100.0	2,220	5,819	

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Device	Routing	Invert	Outlet Devices
#1	Primary	3.00'	12.0" Round Culvert
	•		L= 62.0' RCP, end-section conforming to fill, Ke= 0.500
			Inlet / Outlet Invert= 3.00' / 1.06' S= 0.0313 '/' Cc= 0.900
			n= 0.012 Concrete pipe, finished, Flow Area= 0.79 sf
#2	Device 1	3.15'	12.0" Round Culvert
			L= 5.0' CPP, end-section conforming to fill, Ke= 0.500
			Inlet / Outlet Invert= 3.15' / 3.10' S= 0.0100 '/' Cc= 0.900
			n= 0.012, Flow Area= 0.79 sf
#3	Device 2	3.15'	6.0" Vert. Orifice/Grate C= 0.600
#4	Device 3	6.00'	7.000 in/hr Exfiltration over Surface area above 6.00'
			Excluded Surface area = 1,763 sf
#5	Device 2	7.70'	<b>14.2" x 14.2" Horiz. Orifice/Grate</b> C= 0.600
			Limited to weir flow at low heads
#6	Primary	7.70'	18.0' long x 0.5' breadth Broad-Crested Rectangular Weir
			Head (feet) 0.20 0.40 0.60 0.80 1.00
			Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=5.89 cfs @ 12.09 hrs HW=7.90' TW=0.00' (Dynamic Tailwater)

**1=Culvert** (Passes 1.45 cfs of 7.93 cfs potential flow)

-2=Culvert (Passes 1.45 cfs of 7.79 cfs potential flow)

-3=Orifice/Grate (Passes 0.09 cfs of 2.01 cfs potential flow)
-4=Exfiltration (Exfiltration Controls 0.09 cfs)

-5=Orifice/Grate (Weir Controls 1.36 cfs @ 1.45 fps)

-6=Broad-Crested Rectangular Weir (Weir Controls 4.43 cfs @ 1.25 fps)

# **Summary for Link PA1:**

Inflow Area = 1.965 ac, 89.63% Impervious, Inflow Depth > 4.11" for 10 Year Storm event

9.05 cfs @ 12.08 hrs, Volume= 0.672 af Inflow

Primary 9.05 cfs @ 12.08 hrs, Volume= 0.672 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

# **Summary for Link PA2:**

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth = 4.62" for 10 Year Storm event

Inflow 0.14 cfs @ 12.07 hrs, Volume= 0.011 af

**Primary** 0.14 cfs @ 12.07 hrs, Volume= 0.011 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Type III 24-hr 25 Year Storm Rainfall=6.16"

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPOST 1.1: Runoff Area=56,097 sf 94.50% Impervious Runoff Depth=5.80"

Flow Length=120' Tc=5.0 min CN=97 Runoff=7.79 cfs 0.623 af

SubcatchmentPOST 1.2: Runoff Area=29,478 sf 80.37% Impervious Runoff Depth=5.46"

Tc=5.0 min CN=94 Runoff=4.00 cfs 0.308 af

SubcatchmentPOST 2.1: Runoff Area=1,299 sf 100.00% Impervious Runoff Depth=5.92"

Flow Length=171' Tc=5.0 min CN=98 Runoff=0.18 cfs 0.015 af

Pond POST 1.0: RAINAGRDEN- REVISED Peak Elev=7.94' Storage=5,667 cf Inflow=7.79 cfs 0.623 af

Outflow=7.69 cfs 0.576 af

Link PA1: Inflow=11.60 cfs 0.884 af

Primary=11.60 cfs 0.884 af

Link PA2: Inflow=0.18 cfs 0.015 af

Primary=0.18 cfs 0.015 af

Total Runoff Area = 1.994 ac Runoff Volume = 0.945 af Average Runoff Depth = 5.69" 10.21% Pervious = 0.204 ac 89.79% Impervious = 1.791 ac

Type III 24-hr 50 Year Storm Rainfall=7.37"

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

SubcatchmentPOST 1.1: Runoff Area=56,097 sf 94.50% Impervious Runoff Depth=7.01"

Flow Length=120' Tc=5.0 min CN=97 Runoff=9.34 cfs 0.752 af

SubcatchmentPOST 1.2: Runoff Area=29,478 sf 80.37% Impervious Runoff Depth=6.66"

Tc=5.0 min CN=94 Runoff=4.82 cfs 0.375 af

SubcatchmentPOST 2.1: Runoff Area=1,299 sf 100.00% Impervious Runoff Depth=7.13"

Flow Length=171' Tc=5.0 min CN=98 Runoff=0.22 cfs 0.018 af

Pond POST 1.0: RAINAGRDEN- REVISED Peak Elev=7.97' Storage=5,738 cf Inflow=9.34 cfs 0.752 af

Outflow=9.23 cfs 0.705 af

Link PA1: Inflow=13.96 cfs 1.081 af

Primary=13.96 cfs 1.081 af

Link PA2: Inflow=0.22 cfs 0.018 af

Primary=0.22 cfs 0.018 af

Total Runoff Area = 1.994 ac Runoff Volume = 1.146 af Average Runoff Depth = 6.89" 10.21% Pervious = 0.204 ac 89.79% Impervious = 1.791 ac

## 2.4 Peak Rate Comparisons

Table 2.4.1 summarizes and compares the pre- and post-development peak runoff rates for the 2-year, 10-year, 25-year and 50-year storm events.

Table 2.4.1 - Comparison of Pre- and Post-Development Flows (cfs)					
Point of Analysis	Pre/ <b>Post</b> 2-Year Storm (cfs)	Pre/ <b>Post</b> 10-Year Storm (cfs)	Pre/ <b>Post</b> 25-Year Storm (cfs)	Pre/ <b>Post</b> 50-Year Storm (cfs)	
PA1	5.08/ <b>5.98</b>	8.19/ <b>9.05</b>	10.44/ <b>11.60</b>	13.47/ <b>13.96</b>	
PA2	0.07/ <b>0.09</b>	0.11/ <b>0.14</b>	0.14/ <b>0.18</b>	0.16/ <b>0.22</b>	

As depicted in Table 2.4.1, post-development peak runoff rates are greater than the predevelopment condition for PA1. However, runoff from the project directly discharges to tidal waters and is exempt from Peak Runoff Control Requirements per NHDES Alteration of Terrain regulation Env-Wq 1507.06(d). There is a negligible increase in runoff that flows to the municipal drainage system in Vaughan Street prior to discharging to North Mill Pond (PA2). TECHNICAL MEMORANDUM Tighe&Bond

#### 2.5 Stormwater Treatment

The stormwater management system has been designed to provide stormwater treatment as required by the City of Portsmouth Site Review Regulations and NHDES AoT Regulations (Env-Wq 1500).

Runoff generated from impervious area will be treated by the existing rain garden located along the northern property line near North Mill Pond. Treatment is provided by filtering runoff through vegetation, bioretention filter media and gravel bed. The proposed rain garden has been designed in accordance with the New Hampshire Stormwater Manual. The roof runoff does not require pretreatment and will be discharged directly into the rain garden for treatment.

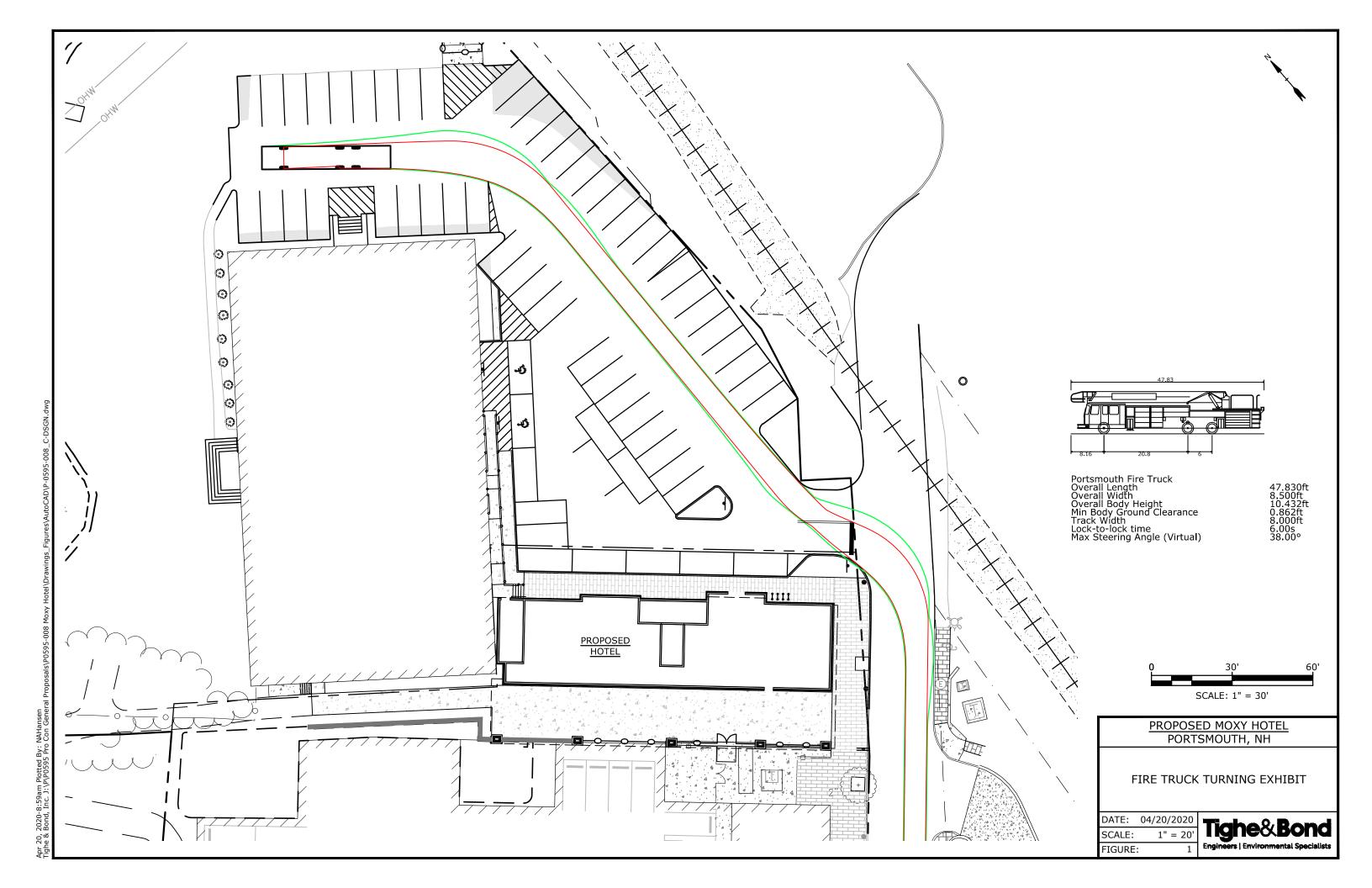
The rain garden was sized to meet the Water Quality Volume requirements for the NHDES AoT Regulations as shown in Table 2.5.1.

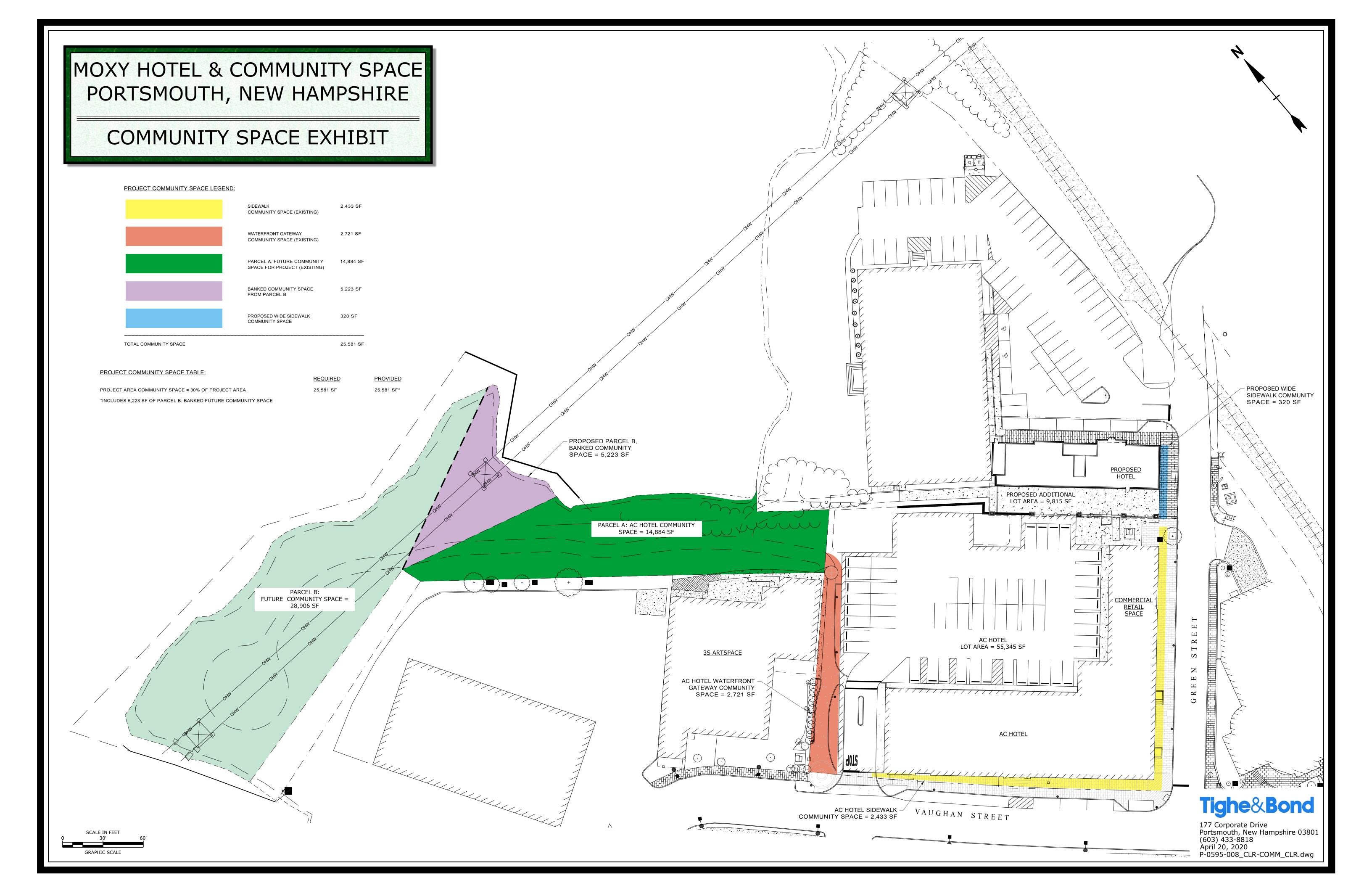
Table 2.5.1 - Treatment Area Existing Rain Garden Water Quality Volume Calculations				
VARIABLE	DESCRIPTION	VALUE		
Р	1 Inch of Rainfall	1 inch		
А	Total Area Draining to Design Structure	1.29 AC		
Ai	Impervious Area Draining to Design Structure	1.22 AC		
I	% Impervious Area Draining to Design Structures	94%		
Rv	Runoff Coefficient, $Rv = 0.05 + (0.9*I)$	0.90		
wQv	WQV Water Quality Volume, WQV = P*A*Rv			
Vs	Total Available Storage	4,288 CF		

The Storage Volume provided is greater than the Water Quality Volume required.

#### 3.0 Conclusion

The proposed project will result in an increase in post-development peak runoff rates from the pre-development condition. However, runoff from the project directly discharges to tidal waters and is exempt from Peak Runoff Control Requirements per NHDES Alteration of Terrain regulation Env-Wq 1507.06(d). There is no increase in runoff that flows to the municipal drainage system in Vaughan Street prior to discharging to North Mill Pond The impervious area resulting from the proposed project will be treated by the existing rain garden prior to discharging to North Mill Pond.







4/17/20

XSS Hotels, LLC c/o Neil Hansen w/ Tighe & Bond 53 Green Street Portsmouth, NH 03801

RE: Natural gas service to 53 Green Street, Portsmouth, NH

Unitil's natural gas division has reviewed the requested site for natural gas service.

Unitil hereby confirms natural gas is available from Green Street to supply the proposed Development.

Please contact me with any questions at 603-294-5144.

Sincerely,

David Beaulieu

**Business Development Executive** 

Unitil

325 West Road

Portsmouth, NH 03801

# **Site Plan Review Application Fee**

Project:	Moxy Hotel		Map/Lot: 119	9/2				
Applicant:	XSS Hotels							
All development								
Base fee \$500	)			\$500.00				
Plus \$5.00 pe	r \$1,000 of site costs Site costs	\$500,000		+ \$2,500.00				
Plus \$10.00 p	er 1,000 S.F. of site developn Site development area	nent area 20,000 S	.F.	+ \$200.00				
			Fee	e \$3,200.00				
Maximum fee	e: \$15,000.00							
Fee received	by:		D	Pate:				

Note: Initial application fee may be based on the applicant's estimates of site costs and site development area. Following site plan approval, the application fee will be recalculated based on the approved site plan and site engineer's corresponding site cost estimate as approved by the Department of Public Works, and any additional fee shall be paid prior to the issuance of a building permit.



# City of Portsmouth, New Hampshire Site Plan Application Checklist

This site plan application checklist is a tool designed to assist the applicant in the planning process and for preparing the application for Planning Board review. A pre-application conference with a member of the planning department is strongly encouraged as additional project information may be required depending on the size and scope. The applicant is cautioned that this checklist is only a guide and is not intended to be a complete list of all site plan review requirements. Please refer to the Site Plan review regulations for full details.

**Applicant Responsibilities (Section 2.5.2):** Applicable fees are due upon application submittal along with required attachments. The application shall be complete as submitted and provide adequate information for evaluation of the proposed site development. Waiver requests must be submitted in writing with appropriate justification.

Name of Owner/Applicant:			Date Submitted:	
Pł	none l	Number: E-mai	ail:	
Si	te Ad	dress:	Lot:	
Zc	oning	District: Lot area:	a: sq. ft.	
		Application Requir	uirements	
	V	Required Items for Submittal	Item Location Wai (e.g. Page or Reque Plan Sheet/Note #)	iver ested
		Fully executed and signed Application form. (2.5.2.3)	N/	/A
		All application documents, plans, supporting documentation other materials provided in digital Portable Document Form on compact disc, DVD or flash drive.  (2.5.2.8)		/A

	Site Plan Review Application Required Information		
Ø	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
	Statement that lists and describes "green" building components and systems. (2.5.3.1A)		
	Gross floor area and dimensions of all buildings and statement of uses and floor area for each floor.  (2.5.3.1B)		N/A
	Tax map and lot number, and current zoning of all parcels under Site Plan Review. (2.5.3.1C)		N/A
	Owner's name, address, telephone number, and signature. Name, address, and telephone number of applicant if different from owner. (2.5.3.1D)		N/A

	Site Plan Review Application Required Info	ormation	
V	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
	Names and addresses (including Tax Map and Lot number and zoning districts) of all direct abutting property owners (including properties located across abutting streets) and holders of existing conservation, preservation or agricultural preservation restrictions affecting the subject property.  (2.5.3.1E)		N/A
	Names, addresses and telephone numbers of all professionals involved in the site plan design.  (2.5.3.1F)		N/A
	List of reference plans. (2.5.3.1G)		N/A
	List of names and contact information of all public or private utilities servicing the site. (2.5.3.1H)		N/A

	Site Plan Specifications			
V	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested	
	Full size plans shall not be larger than 22 inches by 34 inches with match lines as required, unless approved by the Planning Director. Submittals shall be a minimum of 11 inches by 17 inches as specified by Planning Dept. staff.  (2.5.4.1A)	Required on all plan sheets	N/A	
	Scale: Not less than 1 inch = 60 feet and a graphic bar scale shall be included on all plans.  (2.5.4.1B)	Required on all plan sheets	N/A	
	GIS data should be referenced to the coordinate system New Hampshire State Plane, NAD83 (1996), with units in feet. (2.5.4.1C)	Required on all plan sheets	N/A	
	Plans shall be drawn to scale. (2.5.4.1D)	Required on all plan sheets	N/A	
	Plans shall be prepared and stamped by a NH licensed civil engineer. (2.5.4.1D)	Required on all plan sheets	N/A	
	Wetlands shall be delineated by a NH certified wetlands scientist. (2.5.4.1E)		N/A	
	Title (name of development project), north point, scale, legend. (2.5.4.2A)	Required on all plan sheets	N/A	
	Date plans first submitted, date and explanation of revisions. (2.5.4.2B)	Required on all plan sheets	N/A	
	Individual plan sheet title that clearly describes the information that is displayed.  (2.5.4.2C)	Required on all plan sheets	N/A	

	Site Plan Specifications		
V	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
	Source and date of data displayed on the plan. (2.5.4.2D)	Required on all plan sheets	N/A
	A note shall be provided on the Site Plan stating: "All conditions on this Plan shall remain in effect in perpetuity pursuant to the requirements of the Site Plan Review Regulations."  (2.5.4.2E)	Required on all plan sheets	N/A
	Plan sheets submitted for recording shall include the following notes:  a. "This Site Plan shall be recorded in the Rockingham County Registry of Deeds."  b. "All improvements shown on this Site Plan shall be constructed and maintained in accordance with the Plan by the property owner and all future property owners. No changes shall be made to this Site Plan without the express approval of the Portsmouth Planning Director."  (2.13.3)		N/A
	Plan sheets showing landscaping and screening shall also include the following additional notes:  a. "The property owner and all future property owners shall be responsible for the maintenance, repair and replacement of all required screening and landscape materials."  b. "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."  c. "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."  (2.13.4)		N/A

	Site Plan Specifications – Required Exhibits and Data		
Ø	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
	1. Existing Conditions: (2.5.4.3A)		
	a. Surveyed plan of site showing existing natural and built features;		
	b. Zoning boundaries;		
	c. Dimensional Regulations;		
	d. Wetland delineation, wetland function and value assessment;		
	e. SFHA, 100-year flood elevation line and BFE data.		
	2. Buildings and Structures: (2.5.4.3B)		
	a. Plan view: Use, size, dimensions, footings, overhangs, 1st fl. elevation;		
	<ul> <li>Elevations: Height, massing, placement, materials, lighting, façade treatments;</li> </ul>		
	c. Total Floor Area;		
	d. Number of Usable Floors;		
	e. Gross floor area by floor and use.		
	3. Access and Circulation: (2.5.4.3C)		
	a. Location/width of access ways within site;		
	<ul> <li>b. Location of curbing, right of ways, edge of pavement and sidewalks;</li> </ul>		
	<ul> <li>c. Location, type, size and design of traffic signing (pavement markings);</li> </ul>		
	d. Names/layout of existing abutting streets;		
	e. Driveway curb cuts for abutting prop. and public roads;		
	<li>f. If subdivision; Names of all roads, right of way lines and easements noted;</li>		
	<ul> <li>g. AASHTO truck turning templates, description of minimum vehicle allowed being a WB-50 (unless otherwise approved by TAC).</li> </ul>		
	4. Parking and Loading: (2.5.4.3D)		
	<ul> <li>a. Location of off street parking/loading areas, landscaped areas/buffers;</li> </ul>		
	b. Parking Calculations (# required and the # provided).		
	5. Water Infrastructure: (2.5.4.3E)		
	<ul> <li>Size, type and location of water mains, shut-offs, hydrants &amp; Engineering data;</li> </ul>		
	b. Location of wells and monitoring wells (include protective radii).		
	6. Sewer Infrastructure: (2.5.4.3F)		
	<ul> <li>Size, type and location of sanitary sewage facilities &amp; Engineering data.</li> </ul>		
	7. Utilities: (2.5.4.3G)		
	a. The size, type and location of all above & below ground utilities;		
	b. Size type and location of generator pads, transformers and other fixtures.		

Site Plan Specifications – Required Exhibits and Data			
V	Required Items for Submittal	Required Items for Submittal Item Location (e.g. Page/line or Plan Sheet/Note #)	
	8. Solid Waste Facilities: (2.5.4.3H)		
	a. The size, type and location of solid waste facilities.		
	9. Storm water Management: (2.5.4.3I)		
	a. The location, elevation and layout of all storm-water drainage.		
	10. Outdoor Lighting: (2.5.4.3J)		
	<ul> <li>a. Type and placement of all lighting (exterior of building, parking lot and any other areas of the site) and;</li> <li>b. photometric plan.</li> </ul>		
	<b>11.</b> Indicate where dark sky friendly lighting measures have been implemented. <b>(10.1)</b>		
	12. Landscaping: (2.5.4.3K)		
	a. Identify all undisturbed area, existing vegetation and that which is to be retained;		
	<b>b.</b> Location of any irrigation system and water source.		
	13. Contours and Elevation: (2.5.4.3L)		
	Existing/Proposed contours (2 foot minimum) and finished grade elevations.		
	14. Open Space: (2.5.4.3M)		
	a. Type, extent and location of all existing/proposed open space.		
	15. All easements, deed restrictions and non-public rights of ways. (2.5.4.3N)		
	16. Location of snow storage areas and/or off-site snow removal. (2.5.4.30)		
	17. Character/Civic District (All following information shall be included): (2.5.4.3Q)		
	a. Applicable Building Height (10.5A21.20 & 10.5A43.30);		
	b. Applicable Special Requirements (10.5A21.30);		
	c. Proposed building form/type (10.5A43);		
	d. Proposed community space (10.5A46).		

	Other Required Information			
Ø	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested	
	Traffic Impact Study or Trip Generation Report, as required.			
	(Four (4) hardcopies of the full study/report and Six (6) summaries to be			
	submitted with the Site Plan Application) (3.2.1-2)			
	Indicate where Low Impact Development Design practices have			
	been incorporated. (7.1)			
	Indicate whether the proposed development is located in a wellhead			
	protection or aquifer protection area. Such determination shall be			
	approved by the Director of the Dept. of Public Works. (7.3.1)			
	Indicate where measures to minimize impervious surfaces have			
	been implemented. (7.4.3)			
	Calculation of the maximum effective impervious surface as a			
	percentage of the site. (7.4.3.2)			
	Stormwater Management and Erosion Control Plan.			
	(Four (4) hardcopies of the full plan/report and Six (6) summaries to be			
	submitted with the Site Plan Application) (7.4.4.1)			

	Final Site Plan Approval Required Information			
V		Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested
	All local	approvals, permits, easements and licenses required,		
	includin	g but not limited to:		
	a.	Waivers;		
	b.	Driveway permits;		
	c.	Special exceptions;		
	d.	Variances granted;		
	e.	Easements;		
	f.	Licenses.		
	(2.5.3.2			
	_	data, reports or studies that may have been required as		
	-	he approval process, including but not limited to:		
		Calculations relating to stormwater runoff;		
	b.	Information on composition and quantity of water demand		
		and wastewater generated;		
	C.	Information on air, water or land pollutants to be		
		discharged, including standards, quantity, treatment and/or controls;		
	d.	Estimates of traffic generation and counts pre- and post-construction;		
	e.	Estimates of noise generation;		
	f.	A Stormwater Management and Erosion Control Plan;		
	g.	Endangered species and archaeological / historical studies;		
	h.	Wetland and water body (coastal and inland) delineations;		
	i.	Environmental impact studies.		
	(2.5.3.2)	·		

	Final Site Plan Approval Required Information			
V	Required Items for Submittal	Item Location (e.g. Page/line or Plan Sheet/Note #)	Waiver Requested	
	A document from each of the required private utility service providers indicating approval of the proposed site plan and indicating an ability to provide all required private utilities to the site.  (2.5.3.2D)			
	A list of any required state and federal permit applications required for the project and the status of same.  (2.5.3.2E)			
	AMS.			

Applicant's Signature:	1 / C	Date:
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