29-L-1
207-209 Fore St.
2 unit Condo.
Opechee Construction

Winter Stabilization is necessary when construction activity is performed during the period from November 1st through April 15th. If disturbed areas are not stabilized with permanent measures by November 1st or new soil disturbance occurs after November 1st, but before April 15th, then these areas must be protected and runoff from them must be controlled by additional measures and restrictions.

Permanent Stabilization measures shall be performed if an area will not be worked for more than one year or has been brought to final grade, then permanently stabilize the area within 7 days by planting vegetation, seeding, sod, or through the use of permanent mulch, or riprap, or road sub-base. If using vegetation for stabilization, select the proper vegetation for the light, soil, and moisture conditions; amend areas of disturbed subsoils with topsoil, compost, or fertilizers; protect seeded areas with mulch or, if necessary, erosion control blankets; and schedule sodding, planting, and seeding to avoid die-off from summer drought and fall frosts. Newly seeded or sodded areas must be protected from vehicle traffic, excessive pedestrian traffic, and concentrated runoff until the vegetation is well-established. If necessary, areas must be seeded and mulched again if germination is sparse, plant coverage is spotty, or topsoil erosion is evident. One or more of the following may apply to a particular.

An area shall be considered permanently stable if:

(a) *Seeded Areas* shall have a 90% cover of healthy plants with no evidence of washing or rilling of the topsoil.
(b) *Sodded Areas* shall have a complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.
(c) *Permanent Mulched* areas shall have a total coverage of the exposed area with an approved mulch material. Erosion control mix may be used as mulch for permanent stabilization according to the approved application rates and limitations.
(d) *Riprap* used to stabilize slopes shall have an appropriate backing of well-graded gravel or approved geotextile to prevent soil movement from behind the stone. The stone must be sized appropriately. It is recommended that angular stone be used.
(e) *Paved areas* shall have competed installing the compacted gravel subbase.
(f) *Ditches, Channels, and Swales* shall have 90% cover of healthy vegetation, with a well-graded riprap lining, or with another non-erosive lining such as concrete or asphalt pavement. There must be no evidence of slumping of the channel lining, undercutting of the channel banks, or down-cutting of the channel.

Use permanent seed mixes and rates between 5/15 and 9/30. Permanent lawn mixtures shall be as follows:

Sun areas:	7 to 9 pounds per 1,000 sq.ft.	50% fine fescue 20% perennial ryegrass 20% Kentucky bluegrass 10% Dutch white clover
Shade areas:	4 to 5 pounds per 1,000 sq.ft.	70% fine fescue 20% perennial ryegrass 10% Kentucky bluegrass * *(shade tolerant variety)

Prior to seeding, apply 100 lbs/1,000 sq.ft. of lime and till into the upper 3 inches of soil. Then rake a starter-type fertilizer into the upper inch of soil that delivers 1 lb. of actual Nitrogen per 1000 sq.ft. After seeding, areas shall be mulched with straw.

2.3 - Temporary Erosion Control Devices:

- Silt Fences are a barrier of geotextile fabric (filter cloth) used to intercept sediment in diffuse runoff. They must be firmly anchored and may require additional support, such as, reinforcing with wire mesh. Used alone, silt fences are usually inappropriate for flows of concentrated high volume or high velocity. They must be carefully maintained to ensure structural stability and be cleaned of excess sediment. Silt fence is installed along all fill side-slopes and down-slope boundaries along all wetland boundaries.

- Silt Sacks are sediment trap devices to be used with catch basin grates to filter out all the sediment-laden stormwater. The suspended solids are allowed to settle out of the slowed flow and are captured by the sack after entering the catch basin inlet.

- Stabilized Construction Exit are a stone stabilized pad located where vehicles leave a construction site. They provide an area where mud can be dislodged from tires before the vehicle leaves the construction site to reduce the amount of mud transported onto paved roads.

2.4 - Schedule of Controls/Measures:

- Prior to construction, properly install the Stabilized Construction Exit
- Prior to construction, properly install sediment barriers at the edge of any down gradient disturbed area and adjacent to any drainage channels within the disturbed area.
- Prior to construction, properly install silt sacks in inlets of any down gradient catch basins from the disturbed area.
- Maintain the sediment controls until the disturbed area is permanently stabilized.
- Once construction activity ceases permanently in an area, that area will be stabilized with permanent seed or mulch. After the entire site is stabilized, all accumulated sediment will be removed from any grassed swales, catch basins, riprap, and silt fences.
- Remove any temporary sediment control measures within 30 days after permanent stabilization in attained.
- A log shall be kept to document the timing and description of grading and stabilization activities. Please see Appendix I for the Grading and Stabilization Activities Log.

SECTION 3 Good Housekeeping BMPS

3.1 - Waste Management:

- Construction waste materials

All waste materials will be collected and stored securely in a metal dumpster rented from a local solid waste management company. The dumpster will meet all local and state solid waste management regulations. The dumpster will be emptied as necessary, and the trash will be hauled to the local dump or transfer center. No waste materials generated by construction will be buried onsite. All personnel will be

instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer and the site superintendent managing the day-to-day site operations; will be responsible for seeing that these procedures are followed.

- Hazardous waste

All hazardous waste materials will be disposed of in the manner specified by local or state regulation or by the manufacturer. Site personnel will be instructed in these practices and the site superintendent will be responsible for seeing that these practices are followed.

- Sanitary Waste

A local licensed sanitary waste management contractor will collect all sanitary waste from the portable units.

3.2 - Offsite Vehicle Tracking:

A stabilized construction entrance will be provided to help reduce vehicle tracking of sediments. The paved street into to the site entrance will be swept as necessary (could be as frequent as daily during heavy earth hauling operations) to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be covered with a tarpaulin.

3.3 - Concrete Washout Area:

Concrete trucks shall only discharge washed out surplus concrete or drum wash water into an above grade concrete washout area. The temporary concrete washout area will be constructed with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. The washout area shall be lined with plastic sheeting at least 10 mils thick and free of any holes or tears. Concrete mixer trucks and chutes will be washed in the designated area or concrete wastes will be properly disposed of off-site. The washout area will be cleaned out once the area is filled to 75 percent of the holding capacity or when the temporary washout area is no longer needed for the construction project. The concrete wastes will be allowed to harden; the concrete wastes will be broken up, removed and taken to a landfill for disposal. If the washout area is needed, the plastic sheeting will be replaced if tears occur during the removal of concrete wastes.

The wash water is alkaline and contains high levels of chromium, which can leach into the ground and contaminate groundwater. It can also migrate to a storm drain, which can increase the pH of area waters and harm aquatic life. Solids that are improperly disposed of can clog storm drain pipes and cause flooding. Installing concrete washout facilities not only prevents pollution but also is a matter of good housekeeping at your construction site.

3.4 – Spill Prevention:

- The following are material management practices that will be followed onsite during the construction project to reduce the risk of spills or other accidental exposures of material and substances to stormwater runoff.
  - An effort will be made to store only enough product required to do the job
  - All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure
  - Products will be kept in their original containers with the original manufacturer's label
  - Substances will not be mixed with one another unless recommended by the manufacturer

- Whenever possible, all of a product will be used up before disposing of the container
- Manufacturer's recommendations for proper use and disposal will be followed
- The site superintendent will inspect daily to ensure proper use and disposal of materials
- Products will be kept in original containers unless they are not re-sealable
- Original labels and material safety data will be retained; they contain important product information
- If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.

- The following product specific practices will be followed onsite:
  - Petroleum Products:
    All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.

  - Fertilizers:
    Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to stormwater. Storage will be in a covered shed or trailer. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

  - Paints:
    All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed of according to manufacturers' instructions or State and local regulations.

- In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:
  - Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
  - Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dustpans, mops, rags, gloves, goggles, absorbent (i.e. clay kitty litter), sand, sawdust, and plastic and metal trash containers specifically for this purpose.
  - All spills will be cleaned up immediately after discovery.
  - The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
  - Spills of toxic or hazardous material shall be reported to the appropriated state or local government agency, regardless of the size of the area involved or the quantity of material spilled.
  - The spill prevention plan shall be adjusted to include measures to prevent this type of spill from reoccurring and how to cleanup the spill if it recurs.
  - The site superintendent responsible for the day-to-day site operations will be the spill prevention and cleanup coordinator. All site sub-contractors are responsible for providing at least one site personnel apiece who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel will be posted in the material storage area and in the office trailer onsite.

SECTION 4 Inspections

4.1 – Inspection Personnel

- Opechee Construction Corporation's on-site project manager is the compliance officer for OCC and is responsible for site compliance with the SWPPP and EPA's Construction General Permit. Opechee Construction Corporation's on-site project manager will conduct inspections for all areas of the site disturbed by construction activities, areas used for storage of materials that are exposed to precipitation, discharge points, and construction exits.

  In absence of an Opechee Construction Corporation's on-site project manager, the SWPPP contact for the operator (OCC) will conduct inspections

4.2 – Inspection Schedule and Procedures:

Schedule:

- Inspections of the site will be performed once every 14 days and within 24-hours of the end of a storm event of one-half inch or greater. The inspections will verify that all BMPs required in this SWPPP are implemented, maintained, and effectively minimizing erosion and preventing stormwater contamination from construction materials. For a copy of the inspection report, see Appendix J.

Procedures:

- Silt fences will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground
- Built-up sediment shall be removed from the silt fences when it has reached one-half the height of the fence (or manufacturer's recommended height, whichever is less).
- Accumulated sediment shall be removed from the dandy sacks when the containment sack is one-third full. Remove the sacks with lifting straps and empty using dumping straps.
- The catch basin sumps will be inspected for sediment build-up and cleaned when sediment has accumulated within 12" of the outlet.
- The underground detention system shall be inspected after significant storm events and/or when the upstream catch basins require maintenance.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts and healthy growth
- A maintenance inspection report will be made after each inspection
- All necessary repairs to erosion control measures must be made as soon as possible.

Corrective Actions:

- If corrective actions are identified by OCC's on-site project manager during the inspection, they will notify and submit a copy of the inspection report to the OCC's project manager. For corrective actions identified, OCC's on-site project manager will be responsible for initiating the corrective action within 24-hours of the report and completing maintenance as soon as possible or before the next storm event. For any corrective actions requiring a SWPPP amendment or change to a stormwater conveyance or control design, OCC's on-site project manager will notify the project manager as soon as possible before initiating the corrective action.

- When corrective actions are completed, a log will be kept to describe the repair, replacement, and maintenance of BMPs undertaken as a result of the inspections and maintenance procedures

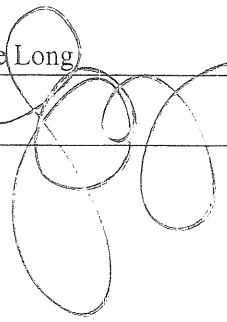
described above. The log entry should reference the specific inspection report related to finding the deficiencies. Please see Appendix H for the Corrective Action Log.

- If changes and updates of the SWPPP are necessary, a log will be kept to describe any additions of new BMPs, replacement of failed BMPs, significant changes in the activities or their timing on the project, changes in personnel, changes in inspection and maintenance procedures, updates to site maps, and so on. Please see Appendix G for the Corrective Action Log.

SECTION 5 CERTIFICATION AND NOTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Steve Long Title: Project Manager

Signature:  Date: 06-24-10

SWPPP APPENDICES

Attach the following documentation to the SWPPP:

Appendix A – Stormwater Permit by Rule & Maine Construction General Permit NOI

Appendix B – General Map

Appendix C –Essential Habitat & Historic Preservation Inquiry Results

Appendix D – Delegation of Authority

Appendix E – Subcontractor Certifications/Agreements

Appendix F –General Permit – Construction Activity

Appendix G – SWPPP Amendment Log

Appendix H – Corrective Action Log

Appendix I – Grading and Stabilization Activities Log

Appendix J – Inspection Form

Appendix K – Erosion Control Plans for Demolition & Construction

Appendix A: Stormwater Permit by Rule & Maine Construction General Permit NOI

Maine is a delegated permitting authority for the EPA's NPDES Construction General Permit

– see next page

STORMWATER PBR APPLICATION FORM
PLEASE TYPE OR PRINT IN *INK ONLY*

1. **Name of Applicant:**	Fore India Middle, LLC	5. **Name of Agent: (if applicable)**	Opechee Construction Corporation
2. **Applicant's Mailing Address:**	11 Corporate Drive Belmont, NH 03220	6. **Agent's Mailing Address:**	11 Corporate Drive Belmont, NH 03220
3. **Applicant's Daytime Phone #:**	603-527-9090	7. **Agent's Daytime Phone #:**	603-527-9090
4. **Applicant's Fax #: (if available)**	603-527-9191	8. **Agent's Fax # and email address:**	603-527-9191
9. **Location of Project: (Road, Street, Rt.#)**	207 & 209 Fore Street	10. **Town:**	Portland
		11. **County:**	Cumberland

12. **Is this PBR for renewal of an individual stormwater permit? If yes, skip to Block 27 and signature page.** ☐ Yes ☒ No

13. **Type of Direct Watershed: (Check all that apply)**	☐ Lake not most at risk ☐ Lake most at risk ☐ Lake most at risk, severely blooming ☐ River, stream or brook ☐ Urban impaired stream ☐ Freshwater wetland ☒ Coastal wetland ☐ Wellhead of public water supply	14. **Amount of Developed Area:**	☒ Total # of 1.07 acres OR ☐ Total # of _____ square feet
		15. **Amount of Impervious Area:**	☐ Total # of _____ acres OR ☒ Total # of (-)5,096 square feet

16. **Creating a common plan of development or sale?**	☒ Yes ☐ No	17. **Name of waterbody(ies) to which the project site drains:**	Casco Bay
18. **Brief Project Description:**	See attached sheet		
19. **Size of Lot or Parcel:**	47,473 ☐ Total of ____ square feet OR ☐ Total of ____ acres	20. **UTM Locations:(if known)**	UTM Northing: 4834609 UTM Easting: 19 0399115
21. **Deed Reference Numbers:**	Book#: 27,850 Page#: 68	22. **Map and Lot Numbers:**	Map #: 29-L Lot #: 1,2,&3
23. **Project started prior to application?**	☐ Yes ☒ No	**If yes, Completed?** ☐ Yes ☒ No	24. **Resubmission of Application?** ☐ Yes ☒ No
25. **Written Notice of Violation?**	☐ Yes ☐ No	**If yes, name of DEP enforcement staff involved:**	
26. **Detailed Directions to the Project Site: (Attach separate sheet if necessary)**	I-295. Exit 7 onto US Route 1 East (Franklin Street Arterial). Site is abandon Jordan's Meats site in the northerly quadrant of the intersection of US Route 1 (Franklin Street Arterial) and Fore Street.		

27. **SUBMISSIONS** ▼

☒ This form (signed and dated) ☒ Fee	☐ Dept. of Inland Fisheries and Wildlife Approval (if in Essential Habitat)	☒ Photos of Area ☒ ESC Plan ☒ Location Map ☒ Site Plan	**For Renewal of an individual Stormwater permit only:** ☐ This form (signed and dated) ☐ Copy of original stormwater permit ☐ Fee

CERTIFICATIONS AND SIGNATURES LOCATED ON PAGE 2

OFFICE USE ONLY	Ck.#		Staff	Staff	
PBR #	FP	Date	Acc. Date	Def. Date	After Photos

CERTIFICATIONS / SIGNATURES

Applicant's Statement:

I am applying for a Stormwater PBR and have attached the required PBR submissions. I have read the requirements herein and I affirm that my project satisfies the applicable stormwater management standards. I authorize staff of State and Federal agencies having jurisdiction over this activity, to access the project site for the purpose of determining compliance with the rules.

Signed: _____ **Date:** 6·24·10

Notice of Intent to Comply with Maine Construction General Permit	With this Stormwater PBR notification form and my signature below, I am filing notice of my intent to carry out work which meets the requirements of the Maine Construction General Permit. I have read and will comply with all of the MCGP standards. In addition, I will file a Notice of Termination (NOT) within 20 days of project completion. If this form is not being signed by the landowner or lessee of the property, attach documentation showing authorization to sign. Signed _____ Date: 6·24·10

Block 18

Fore India Middle, LLC of 11 Corporate Drive, Belmont, NH 03220 has retained Opechee Construction Corporation, located at the same address, to develop the lot adjacent to the previously approved Hotel, Restaurant & Residences – Old Port.

The proposed parking structure and residences is a mixed-use condominium that will be constructed on newly created Lot 2 on the former Jordan's Meats site. The condominium will consist of six units: an upper level parking deck at Middle Street grade level, a lower level parking surface at Fore Street grade level, and four residential town houses on Middle Street. The condominium will also be expandable to accommodate an additional structure on or above the upper level parking deck (which would be the subject of a future site plan application when the use is identified).

The lower level parking surface will contain (110) spaces which will be dedicated to the Hotel and Residences on adjacent Lot 1 (to replace the 90 spaces on the surface parking lot that is currently approved.) The upper level parking deck will contain 103 parking spaces, of which 95 spaces will available for public fee/lease parking until needed to support future development on Lot 2. Four residential townhouses would be constructed above a portion of the upper level parking deck, and 8 spaces on the upper deck would be covered by and dedicated to the townhouses.

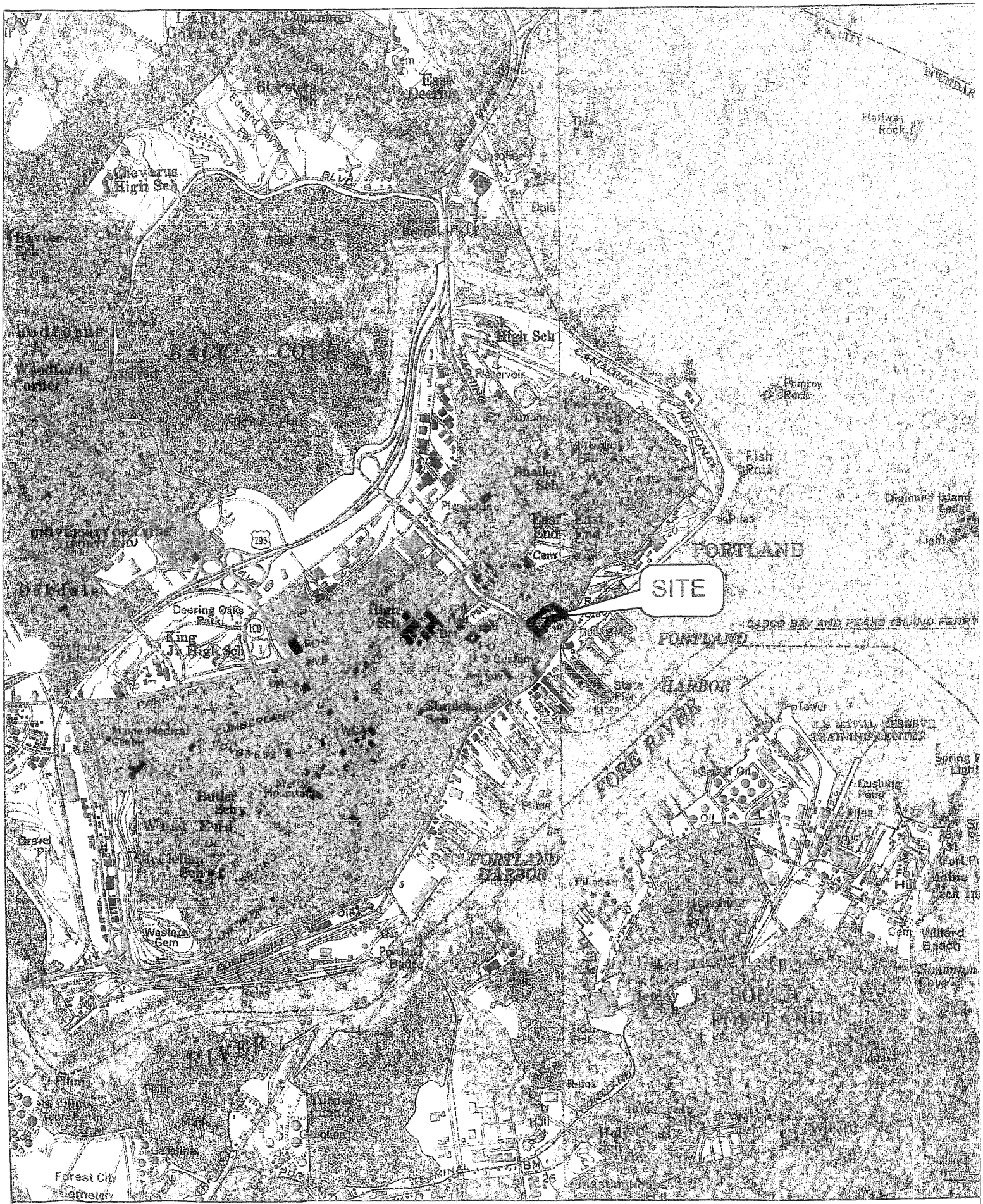
The proposed project is the redevelopment of a previous development consisting of existing impervious areas that were created prior to 11/16/05. In the post-development condition, the decrease in impervious area from what currently exists today will be as follows:

Existing development: (Jordan's Meats factory site) = 70,565 sq.ft
Post-development: (Phase I and Phase II) = 65,469 sq.ft.
Net decrease: 5,096 sq.ft.

Because the project results in a decrease of impervious area from the previous development; the project will be submitted to the Maine Department of Environmental Protection for a Stormwater Management Law Permit by Rule. Therefore the "Basic Standards" (section 500.4.A) and the "Other Applicable Standards" (Section 500.5) of the Stormwater Management Law apply.

Runoff from the project site enters the municipal combined sewer system and is conveyed to combined sewer overflow structures in Franklin Arterial. Normal low flow discharges within the system are conveyed to an interceptor in Commercial Street and on to the City of Portland wastewater treatment plant. Combined overflows during large storm events are diverted to a 48" diameter combined sewer overflow drain that runs down the center of Franklin Arterial, eventually discharging to Casco Bay south of Commercial Street.

Appendix B - General Map



Name: PORTLAND EAST
Date: 2/10/2010
Scale: 1 inch equals 2000 feet

Location: 043° 39' 36.03" N 070° 15' 14.57" W NAD27

Appendix C: Essential Habitat & Historic Preservation Inquiry Results

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Maine Field Office – Ecological Services
17 Godfrey Drive, Suite #2
Orono, ME 04473
(207) 866-3344 Fax: (207) 866-3351

In Reply Refer To: 53411-2010-SL-0120
FWS/Region5/ES/MEFO

February 24, 2010

Steve Long
Opeechee Construction Corporation
11 Corporate Drive
Belmont, NH 03220

Dear Mr. Long:

Thank you for your letter dated February 5, 2010 requesting information or recommendations from the U.S. Fish and Wildlife Service. This letter provides the Service's response pursuant to Section 7 of the Endangered Species Act (ESA), as amended (16 U.S.C. 1531-1543), Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d, 54 Stat. 250) and the Fish and Wildlife Coordination Act, as amended (16 U.S.C. 661-667d).

Project Name/Location: Hotel, Fore Street, Portland, ME

Federally listed species

Based on the information currently available to us, no federally threatened or endangered species under the jurisdiction of the Service are known to occur in the project area. Accordingly, no further action is required under Section 7 of the ESA, unless: (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner that was not considered in this review; or (3) a new species is listed or critical habitat determined that may be affected by the identified action.

Other protected species

We have not reviewed this project for state-threatened and endangered wildlife, wildlife species of special concern, and significant wildlife habitats protected under the Maine Natural Resources Protection Act. I recommend that you contact the Maine Department of Inland Fisheries and Wildlife:

Steve Timpano
Maine Department of Inland Fisheries and Wildlife
284 State St.
State House Station 41
Augusta, ME 04333-0041
Phone: 207 287-5258

I recommend that you contact the Maine Natural Areas Program for additional information on state-threatened and endangered plant species, plant species of special concern, and rare natural communities.

Lisa St. Hilaire
Maine Natural Areas Program
Department of Conservation
93 State House Station
Augusta, ME 04333
Phone: 207 287-8046

Bald eagles

Occasional, transient bald eagles (*Haliaeetus leucocephalus*) may occur in the area. Based on the information currently available to use, there are no bald eagle nests near your project. The bald eagle was removed from the federal threatened list on August 9, 2007 and is now protected from take under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. "Take" means to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb. The term "disturb" under the Bald and Golden Eagle Protection Act was recently defined within a final rule published in the Federal Register on June 5, 2007 (72 Fed. Reg. 31332). "Disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle; 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.

Further information on bald eagle delisting and their protection can be found at http://www.fws.gov/migratorybirds/baldeagle.htm.

Please consult with our new national bald eagle guidelines, which can found at http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf.

These Guidelines are voluntary and were prepared to help landowners, land managers and others meet the intent of the Eagle Act and avoid disturbing bald eagles. If you believe your project will result in taking or disturbing bald or golden eagles, please contact our office for further guidance. We encourage early and frequent consultations to avoid take of eagles.

If you have any questions, please call Mark McCollough, endangered species biologist, at (207) 866-3344 ext.115.

Sincerely,

Lori Nordstrom, Project Leader
Maine Field Office

STATE OF MAINE
DEPARTMENT OF CONSERVATION
22 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0022

JOHN ELIAS BALDACCI
GOVERNOR

ELIZA TOWNSEND
ACTING COMMISSIONER

February 17, 2010

Steve Long
Opechee Construction Corporation
11 Corporate Drive
Belmont, NH 03220

Re: Rare and exemplary botanical features in proximity to: Proposed Hotel/Restaurant Development, Portland, Maine.

Dear Mr. Long:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request of February 5, 2010 for information on the presence of rare or unique botanical features documented from the vicinity of the project site in Portland, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

www.maine.gov/doc
PHONE: 207-287-4900
FAX: 207-287-2400
TTY: 888-577-6690

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

The Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $75.00 for our services.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Sarah Demers

Sarah Demers
Environmental Review Coordinator
Maine Natural Areas Program
207-287-8670
sarah.demers@maine.gov

Enclosures

Rare and Exemplary Botanical Features in the Project Vicinity

ocumented within a four-mile radius of the proposed Hotel/Restaurant Development, Portland, Maine.

Feature Name	Global Rank	State Rank	State Status	EO Number	Last Seen	Habitat
Chimaphila maculata	G5	S2	E	11	1991-09	Hardwood to mixed forest (forest, upland)
Viola palmata	G5	SH	PE	1	1908	Hardwood to mixed forest (forest, upland)
Carex polymorpha	G3	S1	E	9	1911-06-29	Dry barrens (partly forested, upland)
Allium canadense	G5	S2	SC	6	1918-07-16	Hardwood to mixed forest (forest, upland)
Allium tricoccum	G5	S3	SC	17	1978-06-28	Forested wetland
Platanthera flava var. herbiola	G4T4Q	S2	SC	27	1907-07-05	Non-tidal rivershore (non-forested, seasonally wet)
Elymus hystrix	G5	S3	SC	10	1905-09-13	Hardwood to mixed forest (forest, upland)
Eleocharis engelmannii	G4G5Q	SH	PE	2	1916-08-31	Open wetland, not coastal nor rivershore (non-forested, wetland)
Adlumia fungosa	G4	S1	T	9	1860-10	Rocky summits and outcrops (non-forested, upland)
Suaeda calceoliformis	G5	S2	T	5	1932-09-12	Tidal wetland (non-forested, wetland)
Zannichellia palustris	G5	S2	SC	9	1913-09-13	Tidal wetland (non-forested, wetland)
Aureolaria pedicularia	G5	S3	SC	13	1902-09-02	Dry barrens (partly forested, upland)
Polygala cruciata var. aquilonia	G5T4	SH	PE	1	1903-08-18	Dry barrens (partly forested, upland)
Lobelia siphilitica	G5	SX	PE	3	1905-09	Forested wetland
Alli[illegible]m canadense	G5	S2	SC	5	1921-07-26	Forested wetland
Saxifraga pensylvanica	G5	S3	SC	3	1913-06-11	Forested wetland

Rare and Exemplary Botanical Features in the Project Vicinity

Documented within a four-mile radius of the proposed Hotel/Restaurant Development, Portland, Maine.

Feature Name	Global Rank	State Rank	State Status	EO Number	Last Seen	Habitat
Proserpinaca pectinata	G5	S1	E	1	1906-09-29	Open wetland, not coastal nor rivershore (non-forested, wetland)
Triosteum aurantiacum	G5	S1	E	5	1910-06-19	Non-tidal rivershore (non-forested, seasonally wet)
Lonicera dioica	G5	S2	E	5	1905-06	Hardwood to mixed forest (forest, upland)
Allium tricoccum	G5	S3	SC	42	2003-06-17	Hardwood to mixed forest (forest, upland)
Wolffia columbiana	G5	S2	SC	2	2002-08-04	Open water (non-forested, wetland)

STATE RARITY RANKS

S1	Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
S2	Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
S3	Rare in Maine (20-100 occurrences).
S4	Apparently secure in Maine.
S5	Demonstrably secure in Maine.
SU	Under consideration for assigning rarity status; more information needed on threats or distribution.
S#?	Current occurrence data suggests assigned rank, but lack of survey effort along with amount of potential habitat create uncertainty (e.g. S3?).

Note: **State Rarity Ranks** are determined by the Maine Natural Areas Program.

GLOBAL RARITY RANKS

G1	Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extinction.
G2	Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
G3	Globally rare (20-100 occurrences).
G4	Apparently secure globally.
G5	Demonstrably secure globally.
GNR	Not yet ranked.

Note: **Global Ranks** are determined by NatureServe.

STATE LEGAL STATUS

Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's **Endangered** and **Threatened** plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

E	ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future; or federally listed as Endangered.
T	THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

NON-LEGAL STATUS

SC	SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.
PE	Potentially Extirpated; Species has not been documented in Maine in past 20 years or loss of last known occurrence has been documented.

ELEMENT OCCURRENCE RANKS - EO RANKS

Element Occurrence ranks are used to describe the quality of a rare plant population or natural community based on three factors:

- **Size**: Size of community or population relative to other known examples in Maine. Community or population's viability, capability to maintain itself.
- **Condition**: For communities, condition includes presence of representative species, maturity of species, and evidence of human-caused disturbance. For plants, factors include species vigor and evidence of human-caused disturbance.
- **Landscape context**: Land uses and/or condition of natural communities surrounding the observed area. Ability of the observed community or population to be protected from effects of adjacent land uses.

These three factors are combined into an overall ranking of the feature of A, B, C, or D, where A indicates an excellent example of the community or population and D indicates a poor example of the community or population. The Maine Natural Areas Program tracks all occurrences of rare (S1-S3) plants and natural communities as well as A and B ranked common (S4-S5) natural communities.

Note: **Element Occurrence Ranks** are determined by the Maine Natural Areas Program.

STATE OF MAINE
DEPARTMENT OF CONSERVATION
22 STATE HOUSE STATION
AUGUSTA, MAINE
04333-0022

JOHN ELIAS BALDACCI
GOVERNOR

ELIZA TOWNSEND
ACTING COMMISSIONER

February 17, 2010

Steve Long
Opechee Construction Corporation
11 Corporate Drive
Belmont, NH 03220

Re: Rare and exemplary botanical features in proximity to: Proposed Hotel/Restaurant Development, Portland, Maine.

Dear Mr. Long:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request of February 5, 2010 for information on the presence of rare or unique botanical features documented from the vicinity of the project site in Portland, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

www.maine.gov/doc
PHONE: 207-287-4900
FAX: 207-287-2400
TTY: 888-577-6690

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

The Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $75.00 for our services.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Sarah Demers

Sarah Demers
Environmental Review Coordinator
Maine Natural Areas Program
207-287-8670
sarah.demers@maine.gov

Enclosures

Rare and Exemplary Botanical Features in the Project Vicinity

Documented within a four-mile radius of the proposed Hotel/Restaurant Development, Portland, Maine.

Feature Name	Global Rank	State Rank	State Status	EO Number	Last Seen	Habitat
Chimaphila maculata	G5	S2	E	11	1991-09	Hardwood to mixed forest (forest, upland)
Viola palmata	G5	SH	PE	1	1908	Hardwood to mixed forest (forest, upland)
Carex polymorpha	G3	S1	E	9	1911-06-29	Dry barrens (partly forested, upland)
Allium canadense	G5	S2	SC	6	1918-07-16	Hardwood to mixed forest (forest, upland)
Allium tricoccum	G5	S3	SC	17	1978-06-28	Forested wetland
Platanthera flava var. herbiola	G4T4Q	S2	SC	27	1907-07-05	Non-tidal rivershore (non-forested, seasona wet)
Elymus hystrix	G5	S3	SC	10	1905-09-13	Hardwood to mixed forest (forest, upland)
Eleocharis engelmannii	G4G5Q	SH	PE	2	1916-08-31	Open wetland, not coastal nor rivershore (non-forested, wetland)
Adlumia fungosa	G4	S1	T	9	1860-10	Rocky summits and outcrops (non-forested, upland)
Suaeda calceoliformis	G5	S2	T	5	1932-09-12	Tidal wetland (non-forested, wetland)
Zannichellia palustris	G5	S2	SC	9	1913-09-13	Tidal wetland (non-forested, wetland)
Aureolaria pedicularia	G5	S3	SC	13	1902-09-02	Dry barrens (partly forested, upland)
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F ture Name	Global Rank	State Rank	State Status	EO Number	Last Seen	Habitat
Proserpinaca pectinata	G5	S1	E	1	1906-09-29	Open wetland, not coastal nor rivershore (non-forested, wetland)
Triosteum aurantiacum	G5	S1	E	5	1910-06-19	Non-tidal rivershore (non-forested, seasonal wet)
Lonicera dioica	G5	S2	E	5	1905-06	Hardwood to mixed forest (forest, upland)
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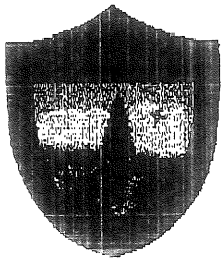
Note: Element Occurrence Ranks are determined by the Maine Natural Areas Program.

Maine Department of Inland
Fisheries and Wildlife
358 Shaker Road
Gray, Maine 04039

Telephone: 207-657-2345 ext.113
Fax: 207-657-2980
Email: brian.lewis @maine.gov



John Elias Baldacci, Governor — Roland Martin, Commissioner

March 8, 2010

Steve Long
11 Corporate Drive
Belmont, New Hampshire 03220

RE: Proposed Hotel/Restaurant, Fore Street, Portland

Dear Steve Long,

I have reviewed your request for fishery resource information, and there are no known threatened/endangered fish species or habitat in the vicinity of the proposed project. There are also no known fisheries resources within the proposed project area. In the event any streams are encountered in the course of your project our regional riparian buffer policy is outlined below.

Stream systems are vulnerable to environmental impacts associated with increased development and encroachment. If present, this project should be sensitive to these resource issues by including provisions for riparian buffers and minimizing any other potential stream impacts. Our regional buffer policy requests 100 foot undisturbed buffers along both sides of any stream or stream-associated wetlands. Buffers should be measured from the upland wetland edge of stream-associated wetlands, and if the natural vegetation has been previously altered then restoration may be warranted. This buffer requirement improves erosion/sedimentation problems; reduces thermal impacts; maintains water quality; supplies leaf litter and woody debris for the system; and provides valuable wildlife habitat. Protection of these important riparian functions insures that the overall health of the stream habitat is maintained.

Stream crossings, if applicable, must include provisions for adequate fish passage, and any in-stream work needs to be done between the first of July and the first of October. Project design should minimize the number of stream crossings. I have forwarded your information requests to our wildlife division and they will be responding separately. If you have any additional questions or concerns then feel free to contact us.

Sincerely,

Brian Lewis
Fishery Specialist
MDIFW

OPECHEE
CONSTRUCTION CORPORATION

RECEIVED
FEB 17 2010
By 2765-05

February 10, 2010

Earle G. Shettleworth, Jr. Director
Maine Historic Preservation Commission
55 Capitol Street, 65 State House Station
Augusta, ME 04333

Re: Proposed Hotel, Restaurant and Residences, Fore Street, Portland Maine
Subject: Historic Preservation Commission Review ; Map 29 lots 1, 2 & 3

Dear Earle

Enclosed please find plans and photographs for the above mentioned project and for a previous project proposed at the same location. The subject property is the former Jordans Meats Facility. This site was previously reviewed in 2005 for a Westin Hotel. We are asking for an updated review of our project. As you can see from the attached plans the current project will be much smaller in size and height than the previously approved project.

Please do not hesitate to contact me if you need more information. Thank you in advance for your assistance.

Sincerely,

Steve Long PE
Project Manger

Enclosures

As proposed, the project will not adversely affect historic properties. Pursuant to 800.5(c), if no consulting parties object to this finding within the 30-day review period, the project may proceed, as proposed, unless resources are discovered during project implementation pursuant to 800.13.

Kirk F. Mohney
Kirk F. Mohney,
Deputy State Historic Preservation Officer

3/4/10
Date

11 CORPORATE DRIVE, BELMONT, NH 03220
PHONE (603) 527-9090 FAX (603) 527-9191

Appendix D: Delegation of Authority

Delegation of Authority:

I, Gregory R. Kirsch, hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the Maine Construction General Permit, at the Hotel, Restaurant, and Portside Residences at 207 & 209 Fore Street, Portland, ME construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

Person: Steve Long
Address: Opechee Construction Corporation, 11 Corporate Drive, Belmont, NH 03220
Phone: 603-527-9090

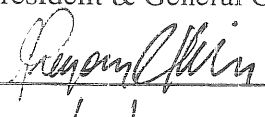
By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix G, Maine's Construction General Permit (MCGP), and that the designee above meets the definition of a "duly authorized representative" as set forth in Appendix G.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Gregory R. Kirsch

Company: Opechee Construction Corporation

Title: Vice President & General Counsel

Signature: 

Date: 6/29/2010

Appendix E: Subcontractor Certifications/Agreements

Appendix E – Subcontractor Certifications/Agreements

SUBCONTRACTOR CERTIFICATION
STORMWATER POLLUTION PREVENTION PLAN

Project Name: Parking Lot and Residences, Portland, ME

Operator(s): Opechee Construction Corporation, Steve Long

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the BMPs and practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company:

Address:

Telephone Number:

Type of construction service to be provided:

Signature:

Title:

Date:

Appendix F : General Permit – Construction Activity

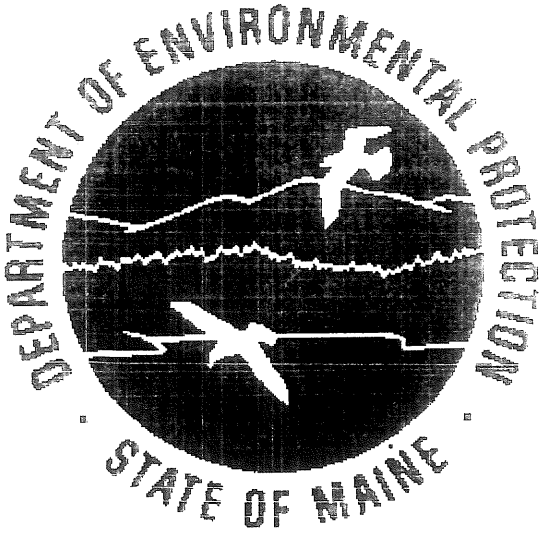
Maine Pollutant Discharge Elimination System (MPDES)

STATE OF MAINE

DEPARTMENT OF ENVIRONMENTAL PROTECTION

General Permit – Construction Activity

Maine Pollutant Discharge Elimination System (MPDES)
With Basic Performance Standards Appendices



Bureau of Land and Water Quality
No. DEPLW0801

July 21, 2006

Northern Maine Regional Office
1235 Central Drive
Skyway Park
Presque Isle, ME 04769
(207) 764-0477
FAX 764-1507

Eastern Maine Regional Office
106 Hogan Road
Bangor, ME 04401
(207) 941-4570
FAX 941-4584

Central Maine Regional Office
17 State House Station
Augusta, ME 04333-0017
(207) 287-7688
(800) 452-1942

Southern Maine Regional Office
312 Canco Road
Portland, ME 04103
(207) 822-6300
FAX 822-6303

GENERAL PERMIT -- CONSTRUCTION ACTIVITY
Maine Pollutant Discharge Elimination System (MPDES)

Contents

Part I. General permit coverage 1
Part II. Definitions 2
Part III. Requirements 4
Part IV. Procedure 5
Part V. Limitations on coverage 10
Part VI. Relationship to other programs 11
Part VII. Standard conditions 12
Appendices -- Basic Performance Standards
Appendix A. Erosion and sedimentation control 1
Appendix B. Inspection and maintenance 4
Appendix C. Housekeeping 4

PART I -- General Permit Coverage

A. **General coverage of this permit.** This general permit authorizes the direct discharge (point source discharge) of stormwater associated with construction activity to waters of the state other than groundwater, provided that the discharge meets the requirements of this general permit and applicable provisions of Maine's waste discharge and water classification statutes and rules. This general permit also authorizes the direct discharge of stormwater from support activities. "Construction activity" is defined in Part II (page 2).

This general permit is effective July 21, 2006, and authorization to discharge under this general permit expires January 20, 2008. This general permit applies in those parts of the State of Maine for which the Department has received delegated authority under the federal NPDES program. See Part V (page 10), for a list of specific limitations on coverage of this general permit.

B. **Authority.** A permit is required for the direct or indirect discharge of pollutants to waters of the State.[1] A general permit may be issued for point discharges (direct discharges) of stormwater.[2] A violation of a condition or requirement of a general permit constitutes a violation of Maine's water quality laws and the federal Clean Water Act, and subjects the discharger to penalties under 38 M.R.S.A. § 349, and § 309 of the Clean Water Act. Nothing in this general permit is intended to limit the Department's authority under the waste discharge and water classification statutes or rules. This general permit does not affect requirements under other applicable Maine statutes such as Site Location of Development (Site Law), Stormwater Management, Land Use Regulation Commission (LURC), and Natural Resources Protection (NRPA).

C. **Continuation of expired General Permit.** If this permit is not reissued, revoked or replaced prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedures Act and remain in force and effect. Any permittee who was granted permit coverage prior to the expiration date will automatically remain covered by the continued permit until the earlier of:

[1] See 38 M.R.S.A. § 413.
[2] See 06-096 CMR 529(2)(a)(2)(i).

1. Reissuance or replacement of this general permit, at which time the permittee must comply with the notice of intent conditions of the new permit to maintain authorization to discharge; or
2. The permittee's submittal of a Notice of Termination; or
3. Issuance of an individual permit for the permittee's discharges; or
4. A formal permit decision by the Director not to reissue this general permit, at which time the permittee must seek coverage under an alternative general permit or individual permit.

This general permit does not prevent a municipality from adopting stricter standards than contained in this general permit, or in state or federal law.

PART II -- Definitions

The following terms have the following meanings when used in this general permit. Additional definitions are found in 06-096 CMR 520 and in the waste discharge and classification laws.

A. **Construction activity**. "Construction activity" or "activity" means:

1. Construction activity including one acre or more of disturbed area, or activity with less than one acre of total land area that is part of a common plan of development or sale, if the common plan of development or sale will ultimately disturb equal to or greater than one acre; or

2. Any other construction activity designated by the Department based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the State.

Note: Based upon Maine's soils, topography, and extensive water resources, the Department has determined that the great majority of construction activities disturbing one acre or more will result in discernable concentrated flows (direct discharges) to waters of the state.

B. **Common plan of development or sale.** A "common plan of development or sale" means a subdivision as determined by the Land Use Regulation Commission (LURC), or a subdivision under municipal law as determined by the municipality where the subdivision is located.

C. **Department.** "Department" means the State of Maine Department of Environmental Protection.

D. **Direct discharge.** "Direct discharge" or "point source" means any discernible, confined and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft, from which pollutants are or may be discharged.[3]

E. **Direct watershed of a waterbody or wetland**. "Direct watershed of a waterbody or wetland" is the land area that drains, via overland flow, natural or man-made drainage systems, or waterbodies or wetlands, to a given waterbody or wetland without first passing through an upstream waterbody classified as GPA.

F. **Disturbed area**. "Disturbed area" is clearing, grading and excavation, which means all the land areas that are stripped, graded, grubbed, filled, or excavated at any time during the site preparation or removing vegetation for, or construction of, a project. "Disturbed area" does not include routine

[3] 38 MRSA § 466(5) (definition of "direct discharge") and 06-096 CMR 520 (definition of "point source").

maintenance, but does include redevelopment and new impervious areas. "Routine maintenance" is maintenance performed to maintain the original line and grade, hydraulic capacity, and original purpose of the facility. Paving an impervious gravel surface while maintaining the original line and grade, hydraulic capacity and original purpose of the facility is considered *routine* maintenance. Cutting of trees, without grubbing, stump removal, disturbance or exposure of soil is not considered "disturbed area".

G. **Drainageway.** "Drainageway" is a natural or man-made channel or course within which and from which surface discharge of water may occur. Drainageways include, but are not limited to rivers, streams and brooks (whether intermittent or perennial), swales, ditches, pipes, culverts, and wetlands with localized discharge of water.

H. **Impaired waterbody.** An "impaired waterbody" means a waterbody that is not attaining water quality criteria or standards, as determined by the Department and listed in Chapter 502.[4]

1. **Best currently available data.** The Department may use the best currently available data to determine the status of a waterbody, rather than relying upon the list published in Chapter 502, Direct Watersheds of Lakes Most at Risk from New Development, and Urban Impaired Streams, when the activity itself may have caused or contributed to the impairment, or when the Department reviews an application for a permit such as an individual Waste Discharge license or Site Law permit.

I. **Notice of Intent ("NOI").** "Notice of Intent or "NOI" means a notification of intent to seek coverage under this general permit made by the applicant to the Department on a notification form provided by the Department.

J. **Notice of Termination ("NOT").** "Notice of Termination" or "NOT" means a notification of intent to end coverage under this general permit on a form provided by the Department.

K. **Person.** "Person" means an individual, firm, corporation, municipality, quasi-municipal corporation, state agency, federal agency or other legal entity.[5]

L. **Stormwater.** "Stormwater" means the part of precipitation, including runoff from rain or melting ice and snow that flows across the surface as sheet flow, shallow concentrated flow, or in drainageways. "Stormwater" has the same meaning as "storm water".

M. **Stream.** "Stream" means a river, stream or brook as defined in the Natural Resources Protection Act at 38 M.R.S.A. § 480-B.

N. **Support activities.** "Support activities" means support activities associated with a construction activity (e.g. concrete or asphalt batch plants, equipment storage yards, material storage areas, excavated material disposal areas, borrow areas) provided the following requirements are met.

1. **Direct relationship.** The support activity is directly related to a construction site that is required to have waste discharge permit coverage for discharges of storm water associated with construction activity.
2. **Type of operation.** The support activity is not a commercial operation serving multiple unrelated construction projects by different persons, and does not operate beyond the completion of the construction activity at the last construction project it supports.

---

[4] See 06-096 CMR 502

[5] See 38 M.R.S.A. § 361-A(4).

PART III -- Requirements

Part III describes the requirements for obtaining authorization under this general permit. See Part IV for general submission requirements and procedures related to Notices of Intent (NOIs) and Notices of Termination (NOTs).

A person may not construct or cause to be constructed or operate or cause to be operated or, in the case of a common plan of development or sale (subdivision), sell or lease, offer for sale or lease or cause to be sold or leased any area affected by construction activity without obtaining approval from the Department. A person having an interest in or undertaking an activity on a parcel of land affected by this general permit may not act contrary to this general permit.

A. **Construction activity (other than a common plan of development or sale).** Construction activity including one acre or more of disturbed area on the parcel, or other construction activity designated by the Department, must meet the following requirements.

1. Submit NOI and NOT.
2. Meet the standards in Appendices A-C of this general permit.
3. Erosion and sedimentation control (ESC) plan development and maintenance. This plan demonstrates how the standards in Appendix A will be met. An ESC plan is required pursuant to the Site Law and this general permit, however additional requirements may apply pursuant to the Site Law. See Part III (D) concerning referencing a plan submitted as part of a Site Law application.

B. **Common plan of development or sale.** A common plan of development or sale must meet the following requirements.

1. **Site Law, Stormwater, or LURC.** A common plan of development or sale is considered to meet the requirements of this general permit if:

   a. A Site Law, Stormwater (38 M.R.S.A. § 420-D), or LURC permit is required, and the requirements of Part III (A) are met; and
   b. If a Stormwater permit is required, the requirements of Part III(A) are also met on all associated lots in the subdivision, as determined by the Department.

   The Department will assume that one acre of disturbed area will be created per 3 lots (1/3 ac. per lot), unless the person proposing the common plan of development or sale provides information concerning actual disturbed area.

2. **Other.** If the project does not require a Site Law, Stormwater, or LURC permit, and is not located within an area subject to the jurisdiction of LURC, then the project must meet the standards of the Maine Erosion and Sedimentation Control Law. An NOI is not required.

A lot buyer or subsequent transferee within a common plan of development or sale must submit an individual NOI if he or she proposes a construction activity as defined at Part II (A), regardless of whether the developer has filed an NOI.

The standards apply to the lots in the subdivision as well as associated facilities such as roads, pads, and ponds.

Note: The LURC Development Law only applies to areas of the state administered by the Land Use Regulation Commission (LURC). The Maine Site Law (in regard to subdivisions), Erosion and Sedimentation Control Law, and Stormwater Management Law, apply to projects or portions of projects outside the jurisdiction of LURC.

C. **Total maximum daily load (TMDL).** If the waterbody to which a direct discharge drains is impaired and has an EPA approved TMDL, then the discharge must be consistent with any waste load allocation (WLA) contained in the TMDL and any implementation plan.

D. **ESC plan.** Material submitted with an application for a Site Law or Stormwater Management Law permit may be referenced to the extent it substantively addresses the standards in Appendix A. If all the standards are not addressed, supplementary material must be provided with the NOI. If an applicant wishes the Department to rely in whole or part on a submission that is part of a Site Law or Stormwater Management Law application, the applicant should submit a letter with the NOI describing the previous submission and the extent to which it should be relied upon, and listing the standards addressed by any supplementary material.

PART IV. Procedure

A. **Notice of Intent (NOI).** When the applicant submits a notification form, NOI, he or she agrees to comply with the standards and requirements of this general permit. An NOI must be submitted to the Department with the appropriate fee.

1. **Processing of NOI.** An NOI must be reviewed and approved by the Department prior to beginning construction activity or causing soil disturbance except as provided in Part IV(K).

   The NOI is deemed approved 14 calendar days after the Department receives the notification form, unless the Department approves the notification or finds the notification deficient prior to that date. Within the 14 day period, the Department may notify the applicant in writing or through verbal communication that the project is ineligible for coverage under this general permit, or that additional information is needed or further review is required.. If the DEP does not inform the applicant that the notification is unacceptable within this 14-day period, the notification is deemed accepted by the Department and the applicant may proceed to carry out the activity

   Activities that require a permit under the Site Location of Development or the Storm Water Management Acts may not proceed until any required permit under those laws is obtained. Any NOI and supplementary information required by this subsection should be submitted at the same time as any required Stormwater Management or Site Law application for the activity in order to avoid delays in processing. The NOI may not be filed before these applications. The Department may consolidate application materials with these or other programs. When application materials are consolidated, the review period for the NOI is extended to coincide with the review period of the other program.

2. **Submission.** Applicants for a Maine CGP must submit the notification form, fee and other information for the Department's review and approval. This information includes a location map, site plan, erosion and sedimentation plan, and photographs of the area to be developed. Also, if the project is located in Essential Habitat, approval from Department of Inland Fisheries and Wildlife will need to be submitted. A landowner or leasehold owner, or his or her authorized representative, must file the NOI using a form provided by the Department. The NOI must contain information specified by the Department that is listed in this subsection. The Department

may require the submission of additional information as necessary. Send the completed NOI form to the DEP office serving the area where the project is located. This general permit contains a map showing the municipalities served by the Department regional offices and the regional office mailing addresses.

a. The legal name, address, telephone number, and any email address of the landowner or leasehold owner.
b. The legal name, address, telephone number, and any email address of the agent or contractor.
c. A narrative describing in detail how to get to and access the parcel and construction activities, and a USGS or similar map with the location marked.
d. A narrative describing the project and its purpose.
e. UTM Northing and UTM Easting (if known)
f. The size of disturbed area proposed.
g. Name of the receiving water(s) or if the discharge is through a municipal separate storm sewer system, the name of the municipal operator of the storm sewer.
h. Signature of applicant (landowner or lessee) or authorized representative with documentation showing authorization. For signatory requirements, see 06-096 CMR 521(5).
i. For any construction activity occurring within an essential habitat or that may violate protection guidelines, written approval of the activity from the Department of Inland Fisheries and Wildlife (IF&W). The applicant must follow any conditions stated in the IF&W approval.[6]

Note: Maps showing areas of essential habitat are available from the Department of Inland Fisheries and Wildlife regional headquarters, municipal offices, the Land Use Regulation Commission (or areas within LURC's jurisdiction) and DEP regional offices. If the activity is located in essential habitat, IF&W must be contacted to request and obtain a "certification of review and approval."

B. **Location map.** The Notification form must be accompanied by a photocopy of a portion of a 7.5 minute USGS topographic map or a DeLorme Atlas map showing the site's location and approximate property boundaries, if the size of the parcel and scale of the map allows it. A USGS topographic map can be useful for showing the general contour and topography of the project site.

C. **Site plan.** Submit a scaled plan showing, at a minimum, the locations of structures and roads, the extent of disturbed land, pre-construction site topography, post-construction site topography, on-site and adjacent surface waterbodies, and all erosion and sedimentation control measures to be used on the site. Such measures include, but are not limited to, sedimentation barriers, ditch lining, rip rap, and culvert inlet and outlet designs. Identify retained downgradient buffers, or explain in a narrative why such buffers will not be retained (see Pollution Prevention standard, Appendix A(1)). Identify protected natural resources, such as wetlands, streams, or high water line of ponds or coastal wetlands on the site plan. It is not necessary to have the plan professionally prepared. However, it must be legible and drawn to a scale that allows clear representation of distances and measurements on the plan.

An applicant may substitute the following information for surveyed pre-development and post-development site topography on the location plans:

1. the locations of high points on the site,
2. the locations of any ponds or other runoff storage depressions on the site,

[6] A state agency may not license a project that will significantly alter habitat of any species designated as threatened or endangered, or violate protection guidelines, without a determination from IF&W. See 12 M.R.S.A. § 7755-A.

3. the locations and flow direction of any drainage ditches, brooks, or streams,
4. the locations of any catch basin inlets or culvert inlets, and
5. arrows showing the general direction(s) of overland drainage for the site.

D. **Erosion and Sedimentation Control plan.** In addition to a site plan, an erosion control plan must be included which contains, at a minimum, permanent stabilization measures to be taken (e.g. paving or planting vegetation), installation details of the erosion control measures proposed to be used, seeding and mulching rates, and a construction schedule with the proposed construction dates and timeframe for major earth moving and construction events. **This plan and its details may be included on the site plan instead of being a separate submission.**

An erosion and sedimentation control plan must be designed by a professional who is registered, licensed, or certified in a related land-use field, or by education, training, or experience is knowledgeable in erosion and sedimentation control, or has received specific training in erosion and sedimentation control at a department-sponsored erosion and sedimentation control workshop.

Note: A person who conducts, or causes to be conducted, an activity that involves filling, displacing or exposing soil or other earthen materials shall take measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource as defined in 38 M.R.S.A. § 480-B. Sediment control measures must be in place before the activity begins. Measures must remain in place and functional until the site is permanently stabilized. Adequate and timely temporary and permanent stabilization measures must be taken. The site must be maintained to prevent unreasonable erosion and sedimentation. See 38 M.R.S.A § 420-C (in part). Other or additional standards may apply, under the Natural Resources Protection Act, to a project located in or adjacent to a protected natural resource.

E. **Photos.** Provide photographs of the project site that show the existing character and topography of the area proposed for development.

F. **Notice of Termination (NOT).** The permittee shall submit a Notice of Termination (NOT) on a form provided by the Department within 20 days of the completion of permanent stabilization or within 20 days of obtaining coverage under an alternative MEPDES permit. If the property is transferred and construction activity is ongoing, the permittee is not required to file an NOT if the new owner or lessee files an NOI to continue authorization under this general permit for a continuing discharge.

1. **Common plan of development or sale.** A person who has filed an NOI for a common plan of development or sale shall file an NOT as follows.

   a. For areas of the site over which the developer has control, the NOT must be filed after permanent stabilization has been completed.-

   b. For areas of the site over which the developer does not have control (ex. lots sold in an undeveloped or partially undeveloped state), the NOT must be filed after (i) temporary stabilization including perimeter controls for individual lots have been completed if the developer has done prep work (stripping or grading) on the lots, (ii) the developer has informed the lot buyers of the requirements of this general permit, and (iii) the developer has provided the buyers with copies of any erosion control plan, or portion of a plan applicable to the lots, required to be certified or provided to the Department under the requirements of this general permit.

A lot buyer within a common plan of development or sale is required to meet the standards of this general permit, except that residential lot buyers are not required to maintain inspection logs as provided in Appendix A(2).

2. **Timing.** A permittee's authorization to discharge under this permit terminates at midnight on the day the NOT is signed.

3. **Submission.** The NOT must include information specified by the Department, including the following:

   a. The legal name, address, telephone number, and any email address of the landowner or leasehold owner.
   b. The legal name, address, telephone number, of the agent or contractor.
   c. Photographs showing the completed project and the affected area. Exception: a person filing an NOT for a common plan of development is not required to include photographs for disturbed areas created by lot buyers or lessees.
   d. Signature of the permittee or authorized person together with documentation demonstrating authorization. If documentation has been previously submitted and is still current, it may be referenced.

G. **Mail/copy.** The notification forms must be sent to the DEP by certified mail (return receipt requested) or other service providing a record of DEP's receipt of the item to the sender, or hand delivered to the DEP and date stamped by the Department. The applicant must keep a copy of the notification forms and all materials provided to the Department.

H. **Retention of records**

1. **Documents.** The permittee shall retain copies of the ESC plan and any forms, submissions, reports, or other materials required by this general permit for a period of at least three years from the completion of permanent stabilization. This period may be extended by request of the Department.

2. **Accessibility.** Employees and agents of the Department may enter any property at reasonable hours in order to determine compliance.[7] The permittee shall retain a copy of the ESC plan and this general permit at the construction site or other location accessible to the Department, local government officials, and any operator of a municipal separate stormwater sewer receiving discharges from the site, from project initiation to permanent stabilization. The permittee shall ensure that a copy of the ESC plan and this general permit are available for the use of any contractors on the site undertaking work regulated by this general permit.

I. **Changes in the activity or owner/lessee.** Coverage under this general permit will be continued provided there are no changes in the discharge as described in the NOI and associated submissions. If any changes are proposed in the activity, the person having filed the NOI must notify the Department through the submission of updated information in writing, including submitting or obtaining certification for any revisions to an ESC plan required in Part III.

The updated information must be submitted with a new NOI if the permittee proposes to expand or relocate disturbed area of one acre or more beyond what was indicated in the original NOI, or to

[7] See 38 M.R.S.A. § 347-C(in part).

change the waterbody to which the stormwater will be discharged. Information concerning other changes may be submitted in a letter.

If the owner or lessee of the land changes, the new owner or lessee must file an NOI if he or she wishes to continue coverage under this general permit. Materials submitted with an NOI by a prior owner or lessee may be referenced if they are still current. Exception: a lot buyer or subsequent transferee of a lot within a common plan of development or sale is not required to file an NOI unless he or she proposes a construction activity as defined in Part II(A).

J. **Request to be excluded.** A person may request that an activity be excluded from coverage under this general permit and apply for an individual waste discharge permit pursuant to the Department's rules. When an individual permit is issued to a person otherwise subject to this general permit, the applicability of this general permit to that person is automatically terminated on the effective date of the individual permit.

K. **Effect of prior approvals.**

1. **Construction activity including one acre or more of disturbed area.** This subsection applies for purposes of determining jurisdiction under the "one acre" threshold only.

a. Persons disturbing less than 5 acres. A person with on-going construction activity as of July 21, 2006, who received authorization to discharge under a prior MCGP(s) and whose activity includes less than 5 acres of disturbed area and, that have not submitted a NOT do not have to submit a new NOI to obtain coverage under this general permit and are authorized under this general permit provided that the activity meets the standards of this general permit.

b. Persons disturbing 5 or more acres. A person with on-going construction activity as of July 21, 2006, who received authorization to discharge for the activity under a prior MCGP(s) and have or will disturb five or more acres shall submit a new notice of intent (NOI) prior to or on October 20, 2006. The new NOI may reference information in prior NOI submissions to the extent it is still current.

2. **Common plan of development or sale.** This subsection applies for purposes of determining jurisdiction under the "common plan of development or sale" threshold only.

A common plan of development or sale (subdivision) is not required to meet the requirements of this general permit if it received approval from LURC or the municipality where it is located before March 10, 2003.

a. If a subdivision that received municipal or LURC approval prior to March 10, 2003, is modified on or after the effective date of this permit so as to add three or more subdivision lots as determined by LURC or the municipality, this general permit applies to those lots and their associated facilities as provided in Part III.

b. If a subdivision receives approval on or after March 10, 2003, then this general permit does not apply to lots transferred before March 10, 2003.

Note: A person subdividing land must still file an NOI if he or she will undertake construction activity on the parcel that includes one or more acres of disturbed area, as provided in Part III(A). Examples of such activity would be road or pad construction, or stripping and grading. A single NOI may be filed for both the common plan of development or sale and this disturbed area.

PART V -- Limitations on Coverage

A. **Individual permit or other general permit.** This general permit does not authorize a stormwater discharge associated with construction activity that requires an individual waste discharge permit or is required to obtain coverage under another waste discharge general permit. See Part VI(A) for information on related waste discharge permits.

The Department may require any person with a discharge authorized by this general permit to apply for and obtain an individual permit.[8] When the DEP notifies an applicant than an individual permit is required, no work may be begun or continued unless and until the individual permit is obtained. Any interested person may petition the Department to take action under this paragraph. Examples of when an individual waste discharge permit may be required are specified in rule.[9]

B. **Compliance with this general permit.** This general permit does not authorize a stormwater discharge that is not in compliance with the requirements of this general permit. If the Department determines that the standards of this general permit have not been met, the Department shall notify the person and may:

1. Authorize coverage under this general permit after appropriate controls and implementation procedures designed to bring the discharge into compliance with this general permit and water quality standards have been implemented as determined by the Department;

2. Require an individual waste discharge permit; or

3. Inform the person that the discharge is prohibited.

Compliance with this subparagraph does not preclude any enforcement activity under Maine law for an underlying violation.

C. **Non-stormwater.** This general permit does not authorize a discharge that is mixed with a source of non-stormwater, other than those discharges in compliance with Appendix C(6).

D. **Total maximum daily load (TMDL).** This general permit does not authorize a direct discharge that is inconsistent with any EPA approved TMDL for the waterbody to which the direct discharge drains as provided in Part III(C).

E. **Discharge of hazardous substances, chemicals, or oil.** This general permit does not authorize the discharge of hazardous substances, chemicals, or oil resulting from an on-site spill.

F. **Violation of water quality standards.** This general permit does not authorize a discharge that may cause or contribute to a violation of a water quality standard.

G. **Related laws.** This general permit does not authorize stormwater discharges that are not in conformance with the terms and conditions of permits issued under Site Location of, 38 M.R.S.A. §§ 481-490; Stormwater Management, 38 M.R.S.A. § 420-D; Natural Resources Protection, 38 M.R.S.A. §§ 480-A - 480-Z; or the Land Use Regulation Commission §§ 481 et. seq.. This general permit does not authorize stormwater discharges that are not in conformance with the Maine Erosion and Sedimentation Control Law, 38 M.R.S.A. § 420-C.

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[8] See 06-096 CMR 529(2)(B)(3).

[9] 06-096 CMR 529(2)(b)(3)

H. **Post-construction discharges.** This general permit does not authorize stormwater discharges after the completion of permanent stabilization.

I. **Metallic mineral mining or advanced exploration.** This general permit does not authorize discharges from metallic mineral mining or advanced exploration. Stormwater and erosion and sedimentation standards related to construction are specified in the Site Location of Development permit and LURC permit and, if required, an individual waste discharge permit.

J. **Exemptions.** Certain exemptions apply and are specified in the Maine Waste Discharge Law. An exemption in a Maine law other than the Maine Waste Discharge Law, such as the Site Law or Maine Stormwater Management Law, does not create an exemption to the Maine Waste Discharge Law or the requirements of this general permit. Each law has its own set of statutory exemptions.

K. **Reopener.** This general permit may be modified or reopened as provided in 38 M.R.S.A. § 414-A(5).

Part VI -- Relationship to other programs

An activity may include "construction activity" and also be regulated under other programs.

A. Related waste discharge permits

1. **Multi-sector.** A stormwater discharge requiring approval as an industrial activity other than 06-096 CMR 521(b)(14)(x) is not authorized under this general permit.

2. **Waste discharge permit (surface water).** A waste discharge permit may be required for activities such as combined sewer overflows (CSOs), spray irrigation, process water treatment systems, metallic mine drainage, and other discharges inadequately covered by this general permit, as determined by the Department.

3. **Waste discharge permit (groundwater).** A waste discharge permit may be required for the discharge of stormwater through any well or wells, including drywells and subsurface fluid distribution systems. For complete requirements, see 06-096 CMR 543.

   A "subsurface fluid distribution system" is an assemblage of perforated pipes, drain tiles, or similar mechanisms intended to distribute fluids below the surface of the ground. A "well" is a bored, drilled, or driven shaft the depth of which is greater than the largest surface dimension, whether the shaft is typically dry or contains liquid; or a dug hole the depth of which is greater than the largest surface dimension; or a subsurface fluid distribution system. "Well injection" means the subsurface discharge of fluids into or through a well.

B. **Quarry or an excavation for borrow, clay, topsoil, or silt.** Clearing, grading or excavation activities conducted as part of the exploration and construction phase of a mineral mining operation must meet the requirements of this general permit, if they will result in the direct discharge of stormwater to waters of the state other than groundwater, will disturb one or more acres of land, and occur on or after March 10, 2003. These requirements do not apply to an area that is internally drained. Construction activity includes the building of site access roads and removal of overburden and waste rock to expose mineable materials. If the activity must meet the requirements of this general permit, the following exceptions apply.

1. **Stabilization deadlines.** The 14 day time limit for temporary stabilization in Appendix A(3), and the one-year time limit for permanent stabilization in Appendix A(5) do not apply.

2. **If under the Gravel Pit or Quarry Program -- may need to do an ESC plan.** If the clearing, grading, or excavation activity subject to this general permit is also required to meet the Performance Standards for Excavations for Borrow, Clay, Topsoil or Silt,[10] or Performance Standards for Quarries[11], then the operator does not have to meet the requirements specified in Part III of this general permit, except for the ESC plan requirements in Part III(A)(2).

In some cases, an area that is not internally drained initially may become internally drained during construction. For an area that has become internally drained, it is not necessary to undertake stabilization as otherwise required under this general permit before filing the NOT.

C. **Other programs such as Site Law, Stormwater, and Waste.** The Department may combine application requirements for this general permit and other programs administered by the Department. Other programs may include facilities and projects regulated pursuant to programs such as 38 M.R.S.A. § 1310-N (Solid waste facility licenses), 1319-R (facility siting), 1319-X (criteria for development of waste oil facilities and biomedical facilities), 38 M.R.S.A. § 483-A (Site Location), 38 M.R.S.A. 420-C (Stormwater Management), and 12 M.R.S.A. § 685-A (LURC). In case of a conflict between the standards in Appendix A, B, and C and those adopted pursuant to any of these laws, the stricter standard applies, as determined by the Department. The review period for the NOI may be extended as provided in Part IV(A)(1)(b). The Department may waive the fee required with the NOI pursuant to this general permit for certain combined applications. Completing a stormwater Permit By Rule notification meets the requirements of this general permit.

D. **Silvicultural activities.** Authorization under this general permit is not required for non-point silvicultural activities as provided in 06-096 CMR 521(10).

E. **Maine Department of Transportation.** Construction activities conducted by the Maine Department of Transportation (MDOT) or the Maine Turnpike Authority (MTA) pursuant to a Memorandum of Agreement between the Department, and MDOT and MTA, are authorized under this general permit within the limits of coverage specified in this general permit. MDOT and MTA are considered qualifying state programs as provided in 40 CFR 122.44(s).

PART VII -- Standard Conditions

A. **General restrictions.** A discharge covered by a General Permit may not:

1. Be to a body of water classified as Class GPA, AA, A or SA;[12]
2. Be to a body of water having a drainage area of less than 10 square miles;
3. Contain any pollutant, including toxic substances, in quantities or concentrations, which may cause or contribute to any adverse impact on the receiving water;

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[10] 38 M.R.S.A. §§ 490-A et. seq.

[11] 38 M.R.S.A. §§ 490-W et. seq.

[12] This standard condition is required by 06-096 CMR 529(3), effective January 12, 2001. However, note that 38 M.R.S.A. 465-A(1)(C), 465(1)(C) allow discharge of stormwater to GPA, AA and SA waters if the discharge is in compliance with state and local requirements. For requirements applicable to discharges to Class A waters, see 38 MRSA 465(2)(C). The Department is proposing emergency legislation to allow certain stormwater discharges to Class A waters and to watersheds of less than 10 square miles. The statutory provisions control for purposes of this general permit.

4. Be to a receiving water which is not meeting its classification standard for any characteristic which may be affected by the discharge; or
5. Impart color, taste, turbidity, radioactivity, settleable materials, floating substances or other properties that cause the receiving water to be unsuitable for the designated uses ascribed to its classification.

B. **Removed substances.** Pollutants removed or resulting from the treatment of wastewaters must be disposed of in a manner approved by the Department.

C. **Monitoring requirement.** The Department may require monitoring of an individual discharge as may be reasonably necessary in order to characterize the nature, volume or other attributes of that discharge or its sources.

D. **Other information.** When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report to the Department, he or she shall promptly submit such facts or information.

E. **Other applicable conditions.** The conditions in 06-096 CMR 523(2) also apply to discharges pursuant to this general permit[13] and are incorporated herein as if fully set forth. These conditions address areas such as: duty to comply; need to reduce or halt activity not a defense; duty to mitigate; permit actions; property rights; duty to provide information; and inspection and entry.

F. **Duty to reapply.** If the permittee wishes to continue an activity regulated by this general permit after the expiration date of this general permit, the permittee must apply for and obtain a new permit.

G. **Severability.** The conditions of this general permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

[13] See 06-096 CMR 529(3)(i).

Appendix G: SWPPP Amendment Log

Appendix G – SWPPP Amendment Log

SWPPP Contact: Steve Long, Opechee Construction Corporation

Amendment No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

Appendix H: Corrective Action Log

Appendix H – Corrective Action Log

SWPPP Contact: Steve Long, Opechee Construction Corporation

Inspection Date	Inspector Name(s)	Description of BMP Deficiency	Corrective Action Needed (including planned date/responsible person)	Date Action Taken/Responsible person

Appendix I: Grading and Stabilization Activities Log

Appendix I –Grading and Stabilization Activities Log

SWPPP Contact: Steve Long, Opechee Construction Corporation

Date Grading Activity Initiated	Description of Grading Activity	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures are Initiated	Description of Stabilization Measure and Location

Appendix J: Inspection Form

Parking Lot and Residences

Storm Water Pollution Prevention Plan

Inspection and Maintenance Form

To be completed every 14 days and within 24 hours of a rainfall event of 0.5 inches or more.

Inspector, Company: _____ Date: _____

Date of last rainfall: _____ Amount of last rainfall: _____inches

STABILIZATION MEASURES

	Are there areas that have not had disturbance in the last 7 days? (yes / no)	If yes, are those areas temporarily stabilized? (yes / no / na)	Stabilized with or will be stabilized with? (grass / gravel / blankets / na)

If deficiencies, has the Site Contractor been notified (circle one) Yes or No

Any corrective measures to be performed on or before:_____

Stabilization notes: _____

_____

SILT FENCE

	Is fence properly secured to the post? (yes / no)	Are there any washouts or overtopping of the fence? (yes / no)	Has silt reached 1/3 of fence height? (yes / no)

If deficiencies, has the Site Contractor been notified (circle one) Yes or No

Any corrective measures to be performed on or before:_____

Silt fence maintenance notes: _____

_____

STABILIZED CONSTRUCTION ENTRANCE

	Does all traffic use the stabilized entrance to leave the site? (yes / no)	Is sediment being tracked on to road? (yes / no)	Are the voids in the stone clogged with sediment? (yes / no)	Will the pad be top-dressed with new stone or a complete replacement? (stone / replaced / na)
Entrance Driveway				

If deficiencies, has the Site Contractor been notified (circle one) Yes or No

Any corrective measures to be performed on or before:_____

Stabilized construction entrance maintenance notes: _____

_____

OPECHEE CONSTRUCTION CORPORATION

CATCH BASINS (when applicable)

Proposed Catch Basin Number	Are there any Silt Sacks 1/3 full of accumulated sediment? (yes / no)	If yes, will the Silt Sack be emptied? (yes / na)	If maintaining the Silt sack, inspect the CB sump. Has sediment built-up to within 12" of the Outlet? (yes / no)	If yes, will the sump be pumped out? (yes / na)

If deficiencies, has the Site Contractor been notified (circle one) Yes or No

Any corrective measures to be performed on or before: _____

Catch basin maintenance notes: _____

_____

Appendix K: Erosion Control Plans for Demolition & Construction

Attachment 5

OPECHEE
CONSTRUCTION CORPORATION

July 20, 2010

Ms. Molly Casto, Senior Planner
Planning Division
389 Congress Street, 4th floor
Portland, ME 04101

Re: Parking Structure And Residences; Fore India Middle, LLC
Address: 78 Middle Street CBL: 029 – L-001-001
Applicant: Fore India Middle, LLC

Dear Molly,

Enclosed please find seven (7) sets of revised Site Plans and Subdivision Plans, full size Architectural Plans and colored renderings. The site plans and subdivision plans are being resubmitted as two separate sets of plans. The parking structure accompanying sectional subdivision plan will be the first phase of this project. The townhouses and accompanying sectional subdivision plan will be the second phase. We have incorporated revisions into the plans as follows:

▶Planning Review, City of Portland:

1. The submitted exterior lighting plan includes lighting levels that do not meet City illumination standards. Illumination levels for areas intended to be lighted, as measured at grade shall not excess 5.0 fc(maximum), 0.2 fc (minimum) and 1.25 fc (average). The fixture type and pole height are acceptable. There does not appear to be any additional pole or wall mounted lighting proposed for the development. If this is not the case, all proposed exterior lighting must be shown on the site lighting plan and is subject to review.
The exterior lighting plan has been revised. The plan meets the City illumination standards therefore a waiver will not be required.

2. On the April, 2010 approved plan (Phase 1) there are street lights that were approved along Middle Street. These do not appear on the revised plan. Please confirm if the approved street lighting is to be retained as part of this application. If so, please show it on the revised plans.
The street lights will remain and are shown on the plan.

3. There does not appear to be a Fire Department Checklist in your application packet. Please submit applicable materials for review by the Portland Fire Department.
Captain Keith Gautreau stated that he has adequate information to complete a preliminary review of the proposal. A detailed review of the building design will be required as part of the building permit submission.

11 CORPORATE DRIVE, BELMONT, NH 03220
PHONE (603) 527-9090 FAX (603) 527-9191

4. There is not detail for the proposed fencing along the perimeter of the upper parking deck. Please detail the proposed design, color and materials for the fence.
The proposed fencing/wall along the perimeter of the upper parking deck is shown on the attached building renderings. The fencing will be black metal. Details of the fence will be part of the architectural plan set.

5. You noted that the proposal is subject to MDEP Permit by Rule and that you have submitted an application to the state. Please submit a copy of your application for our records.
Three copies of the approved MDEP Permit by Rule application and supporting documentation are attached.

6. This proposal will be subject to applicable B3 Design Standards of Section 14-526 the Land Use Code (14-526(a) 16). A detailed design review is pending. Please submit a brief narrative outlining how the proposal addressed the applicable design standards of the B3 Zone.
A narrative addressing the applicable design standards of the B3-Zone is attached.

7. The Planning Authority may request additional information during the continued review of the proposal according to applicable laws, ordinances and regulations.
We intend to provide the planning authority with any additional information.

8. Please submit seven (7) complete sets of revised final plans to address staff comments.
Seven (7) complete sets of revised final plans are being submitted for review.

► Woodard & Curran, Dan Goyette, P.E:

1. The total number of parking spaces shown in the plans matches the spaces specified in the application, but not those in the proposed development plan.
The site plan has been revised to indicate that Lot 2 will have 106 parking spaces on the lower level. There will be 3 uncovered spaces and 103 covered spaces. These spaces will be dedicated to the hotel and residences located on Lot 1. There will be 103 spaces located on the upper parking level. When the townhouses are constructed, 8 of the 103 spaces located on the upper level will be dedicated to use by the townhouse residents.

2. The ADA requires a minimum of 7 handicap spaces for parking structures with 201 and 300 spaces.
The plan has been revised to indicate 7 handicap spaces.

3. The two handicap spaces on the northeast side of the structure should be locates closer to an accessible entrance.
The two ADA accessible spaces on the Middle Street grade level have been relocated closer to an accessible entrance as recommended.

4. The crushed aggregate base course in the Bituminous Sidewalk with Granite curb detail should be MDOT type A.
The detail has been revised.

5. Details for catch basins and manholes must be shown.
Details for catch basins and manholes have been added to the plan set.

6. The submitted Stormwater Management Plan is not consistent with the Grading and Utilities Plans. The Hydro CAD model shows FD5, FD6, FD7, and FD8 connecting to the storm drain line running between Middle Street and Fore Street. Based on the Grading and utilities Plans, it appears that the upper floor drains (FD1-FD4) connect into the storm drain line, and the lower floor drains (FD5-FD8) connect to the sewer. The stormwater management plan should clarify what flow will be entering the stormdrain and sanitary sewer lines.
The Stormwater Management Plan has been revised to indicate that FD1 through FD4 connect to the storm drain. Three copies of the revised Stormwater Management Plan are attached.

7. An oil/water separator is required for the floor drains.
The floor drains are directed through an oil/water separator. A detail of this device has also been added to the plans.

►Marge Schmuckal, Zoning Administrator, City of Portland:

1. This new project is located on lot #2 in the B-3 Zone. The proposal is proposing an two story parking garage (which is a listed permitted use) and four town house condominiums (also a listed permitted use). The applicant is requesting that the approval be considered for two phases: first the parking garage and then the four residential units.
No response necessary.

2. My count of parking spaces on the plans shows that there are 104 parking spaces on the lower level instead of the 110 spaces stated in the submitted text. There will be 103 spaces on the upper level just as outlined in the narrative. Additionally there are three surface parking spaces that are located 35' from Middle Street.
The site plan has been revised to indicate that Lot 2 will have 106 parking spaces on the lower level. There will be 3 uncovered spaces and 103 covered spaces. These spaces will be dedicated to the hotel and residences located on Lot 1. There will be 103 spaces located on the upper parking level. When the townhouses are constructed, 8 of the 103 spaces located on the upper level will be dedicated to use by the townhouse residents.

3. I believe that the parking garage is exempt from the minimum 35' building height requirement under section 14-220(h)(1) which gives an exemption to the 35' minimum height for "accessory building components and structures such as truck loading docks, covered parking, mechanical equipment and refrigeration units". I have determined that the parking structure meets the requirement of covered parking.
No response necessary

4. The project does not meet the 5' setback of the street wall build-to line. The Ordinance allows the PB to approve the differences under 14-526(a) (16).
Please see the attached response addressing B-3 Design Standards (Section 14-526 (a) 16.

5. The project will need to go to the PB for a subdivision approval on the 4 residential dwelling units.
No response necessary.

6. The project is not in the Historic District nor a PAD district. The street line along Middle Street is a PAD Encouragement area.
No response necessary.

7. I believe that all other B-3 Zone requirements are being met. I would like to get a scaled drawing of the town houses for further reviews. Only unscaleable sketches were submitted.
Scaled elevations of the parking structure and townhouses are attached. Copies of the Average Building Calculation are also attached.

►T.Y. Lin International, Thomas A. Errico, PE,

1. The first and second floor parking levels will require waivers for parking stall size (both width and length). I need to review the layout in greater detail before I render a decision on a waiver.
No response necessary.

2. I have reviewed the proposed driveway entrance design and find it to be acceptable. In my professional opinion the driveway meets City standards for width (it will serve commercial uses) and therefore a waiver from the City's Technical standards is not needed. I support a waiver for reduced radii for driveway. The ramps at the driveway shall include detectible warning devices.
If the planning board and administration is in agreement with Mr. Errico, the waiver request for driveway width will be withdrawn. Detectible warning devices have been added to the curb ramps on the plan and a detail is located in the plan set.

3. The applicant should provide data on the amount of traffic entering and entering the second floor parking level under full occupancy (during AM and PM peak hours) and provide an assessment of conditions as it relates to traffic operations in respect to the India Street/Middle Street intersection.
The scope of the traffic analysis has been discussed with Mr. Errico. Sebago Technics is in the process of developing the Analysis. A copy of this report will be forwarded under separate cover.

4. The applicant will be responsible for incorporating all changes to parking signs on Middle Street near the proposed driveway. The exact details on on-street parking will be determined by the City.
A note has been added to the Site Plan indicating this.

5. The applicant should consider pedestrian accessibility between the second floor parking level and destinations toward Fore Street.
An additional pedestrian access has been added to the upper parking deck near the intersection of Middle and India Streets. Subsequent development phases may provide interior access from the second level parking lot to the Fore Street sidewalk.

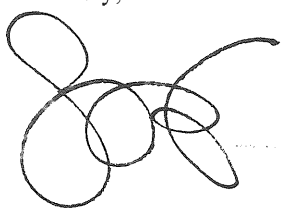
▶Jeff Tarling, City Arborist, City of Portland:

1. The first recommendation would be to include additional landscape planting area between the townhouse building and the Middle Street Sidewalk, ideally in a raised curb planter. Clarify if the landscape plantings shown on sheet "b" are displaced as sown on sheet "c" in the townhouse area along Middle Street.
Raised planters are now shown on the Landscaping Plan for the Townhouses. The landscape plantings that will be displaced by construction of the Townhouses have also been added to the Landscaping Plan.

2. Second recommendation is to extend landscape and tree planting along India Street. This could include the space between the parking area and back of sidewalk. Adding contour to the lawn/landscape space vs. flat lawn area would add interest.
Street trees have been added along the sidewalk adjacent to India Street. A stonewall has also been added near the intersection of Fore and India Streets. This should add interest and help pedestrian movement is this area.

Please feel free to give me a call with any questions you may have.

Sincerely,



Steve Long, PE
Project Manager

Attachment 4

Sebago Technics
Engineering Expertise You Can Build On

Traffic Analysis Memo

Project: 05090

To: **William Needelman, AICP, Senior Planner, City Portland,**

From: John Q. Adams, P.E., PTOE, Senior Transportation Engineer
Sebago Technics, Inc.

Date: July 23, 2010

Subject: **Requested Traffic Analysis**
Old Port Hospitality, LLC – Phase 2
Fore Street, Portland

STATE OF MAINE
JOHN QUENTIN ADAMS
No. 11083
PROFESSIONAL ENGINEER
LICENSED

Description

Old Port Hospitality has proposed the Phase 2 portion of their project located on Fore Street and Middle Street in Portland. The Phase 2 portion will include the development of 4 Condominium/Townhouses along Fore Street and a 2nd story parking lot. A future Phase 3 will be built and is planned to include 70,000 sf of general office space.

City staff has reviewed the initial submission for the Phase 2 portion of the development. The purpose of this memo is to address the traffic comments from the City's Traffic Engineer. Our understanding is that the following items have been requested from the applicant.

1. A Traffic capacity and queuing analysis has been requested for the intersection of Middle St and India St for both the weekday AM and PM peak hours under full build-out. The full build-out condition will include the 4 townhouses and the future 70,000 sf of general office space.
2. There is also a concern that the proposed site entrance location on Middle Street could be blocked by traffic queuing on the Middle Street eastbound approach to India Street under the full build condition. Therefore, from the analysis in Item 1 we will review the 95th percentile queue lengths on the Middle Street eastbound approach to confirm that the Middle Street site entrance will not be blocked.

Trip Generation

Trip generation calculations were completed for the four Condominium/Townhouses and the 70,000 sf of office space. Land Use Code (LUC) 230 for Residential Condominium/Townhouses and LUC 710 was used for General Office Space. Table 1 below summarizes the results.

Table 1
Trip Generation
Townhouses/General Office Space

PROPOSED USE			
GENERAL OFFICE BUILDING, LUC 710			
BY 1000 SF	SF	RATE (Trips/1000SF)	TOTAL
WEEKDAY AM PEAK HOUR	70,000	1.55	109
WEEKDAY PM PEAK HOUR	70,000	1.49	104

PROPOSED USE			
RESIDENTIAL CONDOMINIUM/TOWNHOUSE, LUC 230			
PER DWELLING UNIT	Dwelling Units	RATE (Dwelling Unit)	TOTAL
WEEKDAY AM PEAK HOUR	4	0.44	2
WEEKDAY PM PEAK HOUR	4	0.52	2

TOTAL TRIP GENERATION			
	TOTAL TRIPS	ENTER	EXIT
WEEKDAY AM PEAK HOUR	110	96	14
WEEKDAY PM PEAK HOUR	106	19	87

Reference: ITE Trip Generation Manual, 7th Edition.

The results indicate that the general office space and townhouses will generate 110 AM peak hour trip-ends (96 enter, 14 exit), and 106 PM peak hour trip-ends (19 enter, 87 exit).

Trip Assignment

To determine assignment of trips on Middle Street at the site entrance to/from Franklin Arterial and India Street we reviewed our traffic counts on Franklin Arterial from the Phase 1 Application Submission (3/22/10). This indicated that during the PM peak hour there would be a bi-directional traffic volume of 1,104 vehicles on Franklin Street at Middle Street and 306 vehicles on India Street at Middle Street. In addition, the AM peak hour volumes on India were substantially lower than the PM peak hour with only 135 vehicles. Based on this, we assumed the trip assignment would be approximately 20% utilizing India Street/Middle Street and 80% using the Franklin Arterial/Middle Street intersection. This is consistent with the distribution that was used in the Phase 1 application.

The site generated trips are shown in Figure 2 at the end of this report. Traffic counts were taken for the AM and PM weekday peak hours at the intersection of Middle Street and India Street on Wednesday July 21 and are shown in Figure 1 at the end of the report. A more detailed traffic count table is included in the appendix. Since these counts were taken during the peak time of year (July) that were not seasonally adjusted. The site generated trips were combined with the traffic counts to arrive at the Full-Build traffic volumes shown in Figure 3 at the end of this report.

Traffic Operations

Traffic operations analysis was performed for the AM and PM peak hours for the intersection of Middle Street and India Street. Under the build condition the site entrance on Middle Street was included for analysis. The analysis was completed using existing traffic control, which includes stop signs on both Middle Street approaches and free operation on India Street. We utilized the Synchro software with the Highway Capacity Manual Report for analysis and also reviewed the SimTraffic results for the build condition for comparison purposes. Synchro and SimTraffic analysis outputs are enclosed in the appendix. Table 2 below summarizes the results.

Table 2
Traffic Operations Analysis – 2-Way Stop Condition
Middle St at India St
(Delay/LOS/95thQueue)

Approach	AM Peak Hour			PM Peak Hour		
	Existing (Synchro)	Build (Synchro)	Build SimTraffic	Existing (Synchro)	Build (Synchro)	Build SimTraffic
Middle EB	15.9s/C/75'	16.4s/C/76'	7.3s/A/107'	30.3s/D/94'	35.1s/E/115'	9.8s/A107'
Middle WB	13.7s/B/43'	14.0s/B/44'	5.6s/A/82'	106s/F/297'	123s/F/322'	12.9s/B/137'
India NB	3.5s/A/3'	3.7s/A/3'	1.3s/A/18'	4.8s/A/10'	4.9s/A/10'	2.4s/A/55'
India SB	1s/A/0'	1s/A/0'	1s/A/4'	2.4s/A/2'	2.4s/A/2'	1.4s/A/32'
Overall	12.2s/B	11.6/B	5.4/A	42.3s/E	48.6s/E	7.3/A

The results indicate that the intersection of Middle Street at India Street will function satisfactory during the AM peak hour under the Build condition. The Synchro results indicate that the 95th percentile queue on the Middle Street eastbound approach will be 76 ft long and will not block the proposed site entrance. We also reviewed the SimTraffic results and they indicate that the intersection will function at a better LOS, with an overall LOS "A" with all approaches at LOS "A" or better. Simtraffic estimates a 95th percentile queue of 107 ft on the Middle Street eastbound approach.

During the PM peak hour the intersection of Middle Street at India Street will function at an overall LOS of "E." This is due to the Middle Street stop controlled approaches which will experience some delay. According to the Synchro results the 95th percentile queue on the Middle Street eastbound approach will be 115 ft which will not block the proposed site entrance. We also reviewed the SimTraffic results and they indicate that the intersection will function at a better LOS, with an overall LOS "A" with all approaches at LOS "B" or better. In addition Simtraffic estimates a 95th percentile queue of 107 ft on the Middle Street eastbound approach.

The analysis also indicated that the site entrance will function at LOS "A" and all approaches will function at LOS "B" or better.

As requested we also performed traffic analysis of the intersection of Middle Street at India St with a proposed all-way stop traffic control. Table 2, below, summarizes the results.

Table 3
Traffic Operations Analysis 4-Way Stop Condition
Middle St at India St
(Delay/LOS/95th Queue)

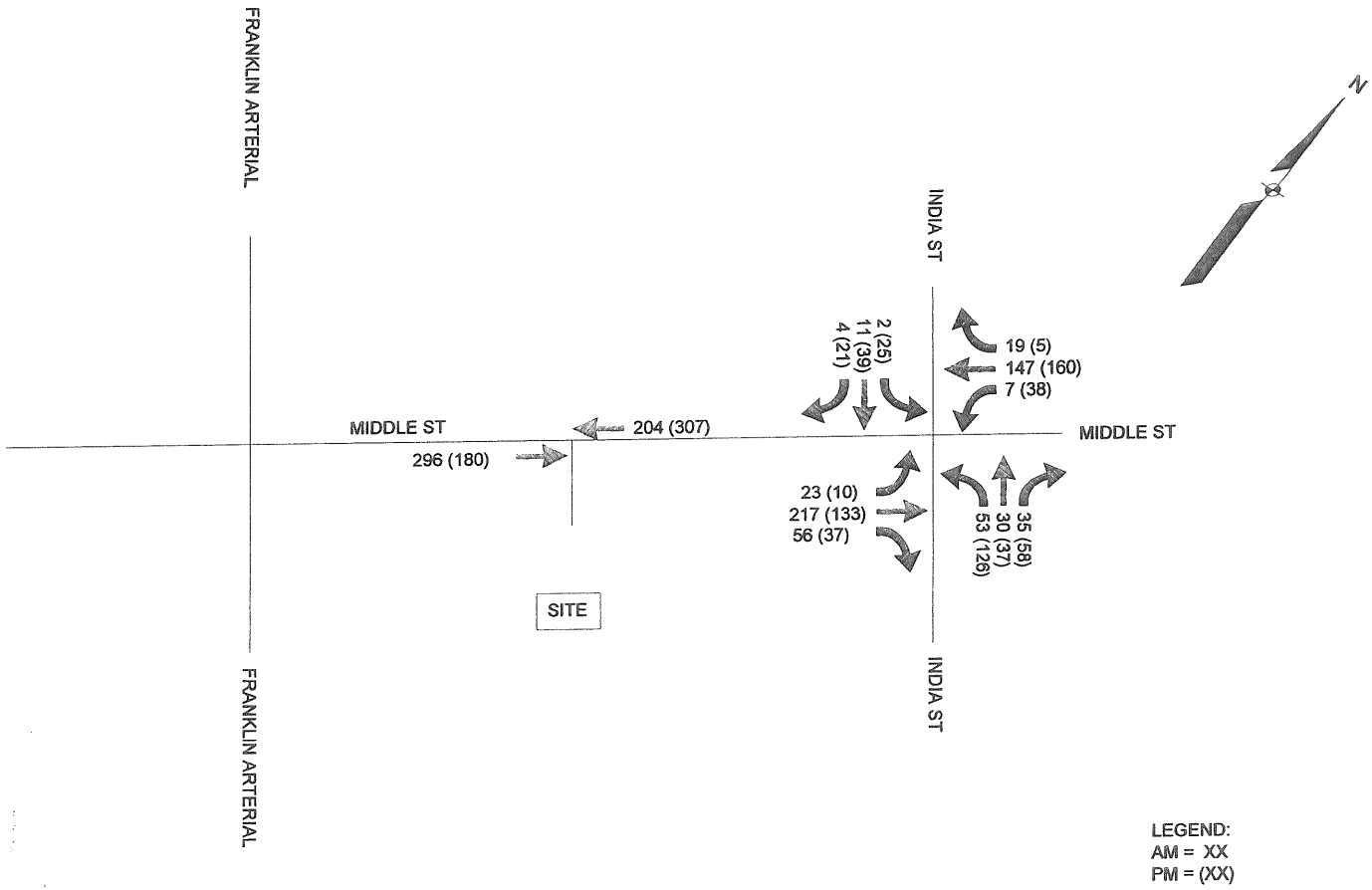
Approach	AM Peak Hour	PM Peak Hour
	Build	Build
Middle EB	11s/B/91'	12s/B/85'
Middle WB	5.6s/A/77'	14.5s/B/102'
India NB	1.3s/A/61'	14.5s/B/98'
India SB	1s/A/44'	11s/B/66'
Overall	5.4s/A	10s/B

*Queue lengths shown are from SimTraffic

The results of the four-way stop analysis indicate that from a LOS standpoint the intersection overall will function at a better LOS ("A" in the AM & "B" in the PM) than with the current two-way stop on Middle Street. Also all of the 95th percentile queues are moderate on all approaches for both the AM and PM peak hours, in the range of 44 to 102 ft. It also indicates that the queues on the Middle Street eastbound approach will not block the site entrance.

Summary/Conclusions

1. This analysis reviewed traffic operations at the intersection of Middle Street at India Street for both the AM and PM peak hours and its impact, if any, of the proposed Phase 2 site entrance on Middle Street. The proposed site entrance is approximately 120 ft from India Street.
2. In performing this analysis we utilized the full-build condition, which included the four townhouses in Phase 2 and the 70,000 sf of general office space in the planned Phase 3.
3. Our trip assignment was consistent with the Phase 1 Traffic Movement Permit and had 80% of vehicles utilizing the Franklin Arterial/Middle intersection and 20% utilizing Middle Street at India Street.
4. Our analysis indicates that the 95th percentile queue on the Middle Street eastbound approach will not block the site entrance under the Build condition during the AM (76 ft.) and PM (115 ft.) peak hours.
5. The Synchro traffic analysis indicated satisfactory LOS during the Build condition for the AM peak hour with an overall LOS of "B" and all approaches at LOS "C" or better. During the Build condition for the PM peak hour the intersection will function at an overall LOS "E" with delay experienced on both Middle Street approaches. We also reviewed the SimTraffic results for the Build Condition and it indicated that the LOS would be better, with an overall LOS "A" in the AM peak hour with all approaches at LOS "A" and during the PM peak hour there would be an overall LOS of "A" with all approaches at LOS "B" or better.
6. We also reviewed traffic operations under the Build condition with Middle Street at India Street under four-way stop control. The results indicated that overall the intersection functioned at an overall LOS "A" during the AM peak hour and "B" during the PM peak hour. In addition the 95th percentile queues would be moderate on all approaches in the range of 44 to 102 ft.



Traffic Volume Counts Conducted by Sebago Technics, Inc. July 21st, 2010.

Sebago Technics
Engineering Expertise You Can Build On
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

2010 AM & PM BACKGROUND TRAFFIC VOLUMES

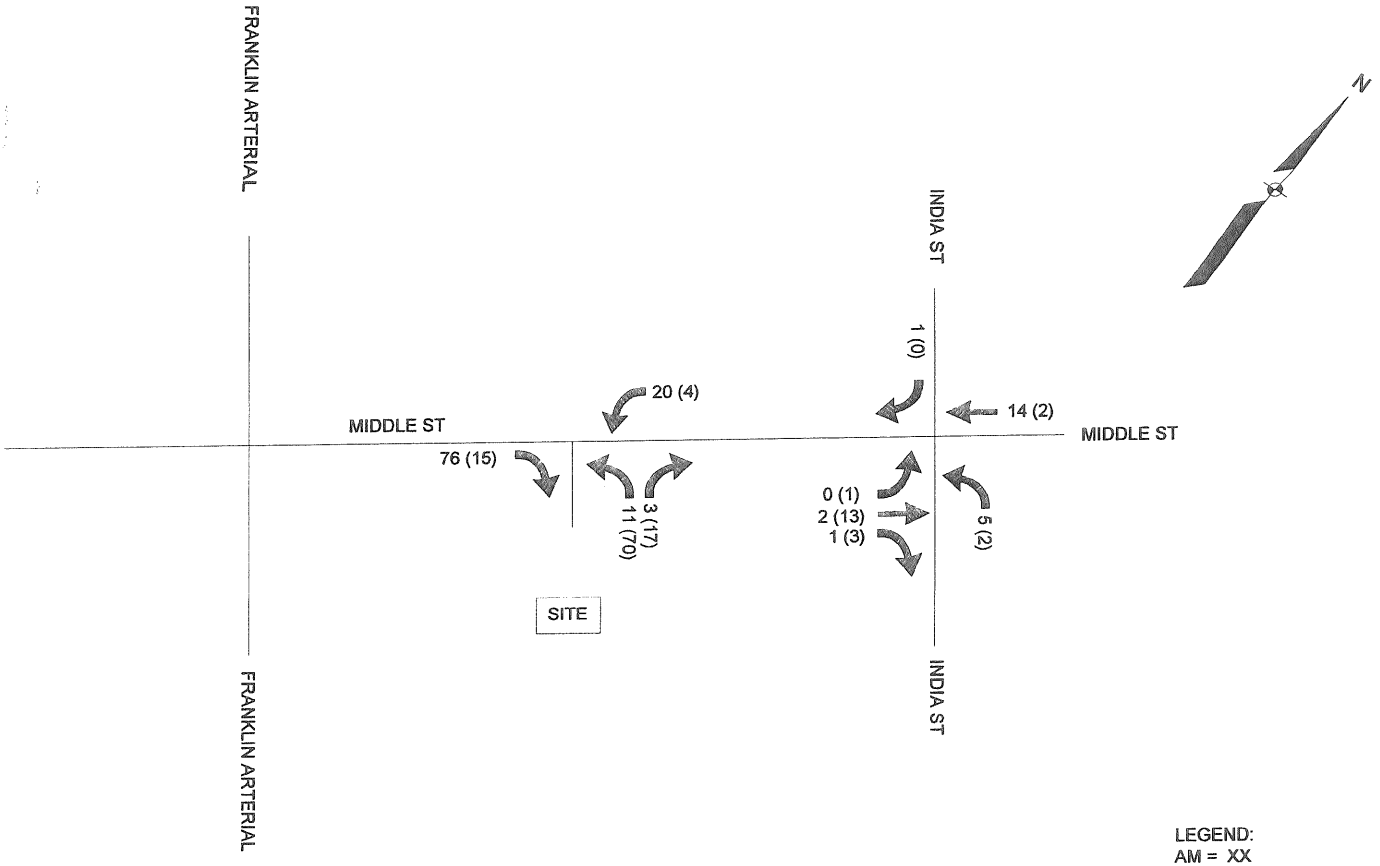
MIDDLE STREET AT INDIA STREET

SCALE:	NTS
DATE:	07/22/2010
SHEET:	Fig. 1

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

05090TRAFFIC(PHASE2).DGN



SITE GENERATED TRIPS INCLUDE TRIPS FROM BOTH PHASE 2 (4 CONDO/TOWNHOUSES)
AND PHASE 3 (70,000 SF GENERAL OFFICE SPACE)

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Westbrook, Me 04098-1339
Tel (207) 856-0277

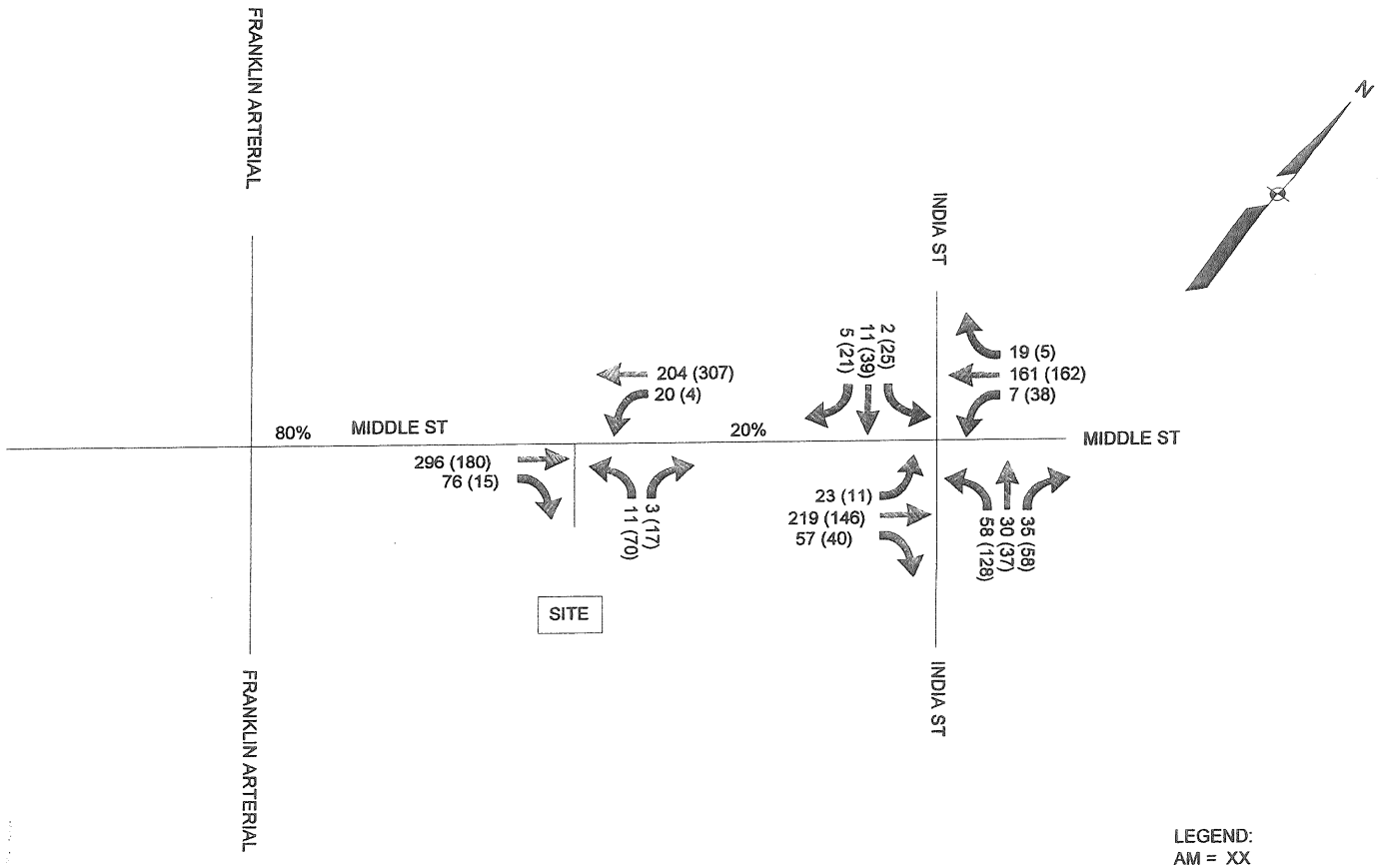
AM & PM SITE GENERATED TRIPS
PHASE 2 & PHASE 3 INCLUDED

SCALE: NTS
DATE: 07/22/2010
SHEET: Fig. 2

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

05090TRAFFIC(PHASE2).DGN



LEGEND:
AM = XX
PM = (XX)

FULL-BUILD TRAFFIC VOLUMES INCLUDE TRIPS FROM BOTH PHASE 2 (4 CONDO/TOWNHOUSES) AND PHASE 3 (70,000 SF GENERAL OFFICE SPACE)

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One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

FULL BUILD VOLUMES

SCALE: NTS
DATE: 07/22/2010
SHEET: Fig. 3

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

05090TRAFFIC(PHASE2).DGN

July 8, 2010
August 5, 2010

To: Barbara Barhydt
Jean Fraser
From: David Margolis-Pineo
Public Services Review Comments
Re: 144 Fore Street

The Department of Public Services has the following comments.

1. Applicant should show site surface drainage.
2. Applicant should consider applying some means of stormwater treatment. **There is evidence of ponding water through out the applicant's property. The applicant has the opportunity to improve drainage and improve the longevity of the asphalt surface by reducing ponding areas. The applicant is under no obligation to either improve drainage or provide stormwater treatment.**

Public Services have no comments.

Molly Casto - Comments re: 207 Fore Street parking garage

From: Christian MilNeil <c.neal.milneil@gmail.com>
To: Molly Casto <MPC@portlandmaine.gov>, Bill Needelman <WBN@portlandmaine.g...
Date: 7/12/2010 3:05 PM
Subject: Comments re: 207 Fore Street parking garage
CC: Markos Miller <markossmiller@hotmail.com>, <hbassett@portlandlandmarks.o...

Hi planners,

I won't be able to make it to today's planning board workshop, at which you'll be discussing the proposed parking garage on Fore Street, on the site of the old Jordan's factory. But I hope you'll share these thoughts with the developers:

In general, I have strong concerns at the amount of parking being proposed on this site, to the exclusion of other uses. This is a valuable and prominent property in the middle of our city. Putting a parking deck on this block will depress property values on surrounding streets, and undermine the city's goal to create a walkable district with active street-level facades.

Some specific concerns:

- FISCAL: This garage would be built across India Street from the massive city-subsidized Ocean Gateway Garage. This garage is tremendously underutilized. Under a development agreement arranged by Jack Lufkin, the city's former economic development officer, the City of Portland is still making payments of $2,000 - $4,000 a month to the garage operator - guaranteed payments for 110 parking spaces, whether or not they're actually used. Ideally, the City should be able to lease out these 110 spaces to other tenants, and at least break even. That won't happen if Opechee builds 200 more cheap parking spaces right next door.

  A parking deck is also a low-value land use that undermines the City's potential property tax revenue - not just on this parcel, but also on adjacent parcels, where land values will diminish (see below).

- TRAFFIC/COMPREHENSIVE PLANNING: The City's newly-adopted Peninsula Transit Plan calls for moving more people by transit, by foot or by bicycle, instead of by car, in part to reduce traffic on the City's network of streets. Subsidizing the storage of 200 more cars in downtown Portland undermines these goals. It also undermines the efforts underway to transform Franklin Street - which would be one of the main access corridors to this garage - into a pleasant, walkable, and economically vibrant street.

- LAND VALUES AND BUSINESS: In the downtown district, land values are strongly correlated with foot traffic, economic activity, and architectural interest of surrounding buildings and streetscapes. While the proposed townhouses at least mitigate the effect somewhat along Middle Street, the proposal as it stands will abandon long stretches of India, Fore, and Middle Streets to empty, inactive space devoid of any economic activity or visual interest. Foot traffic will suffer, and so will land values and business patronage on surrounding blocks.

I should say that I'm not opposed to any parking at all on this site. I am opposed to building so much

parking without any other active, productive uses of the property and its valuable street frontages. A good compromise might be to remove four 9' wide parking stalls from each row of the proposed garage (losing only 32 spaces) to make room for a new 36' deep building along India Street, for instance. The city would gain new space for housing and/or business, the neighborhood would gain a more active, interesting steetscapes, and the developer would gain greater rental income.

The new peninsula transit plan makes a compelling case that developers can create high-value projects by embracing walkable streetscapes, and saving millions on the construction costs of new parking garages. Opechee should embrace these strategies to create a more profitable project.

-Christian

Attachment G b

Sebago Technics
Engineering Expertise You Can Build On

Revised Traffic Analysis Memo

Project: 05090

To: **Molly Casto, Planner, City Portland**

From: John Q. Adams, P.E., PTOE, Senior Transportation Engineer
Sebago Technics, Inc.

Date: August 4, 2010

Subject: **Response to Traffic Comments**
Old Port Hospitality, LLC – Phase 2
Fore Street, Portland

This memo serves to respond to comments received from the City's traffic engineer in his e-mail dated July 30, 2010. In his email he had the following comments, which we have written our response to after each.

1. Knowing that several other developments in the area have been permitted it is unclear whether the build traffic volumes include approved projects (Village Café site, Ocean Gateway, Phase Hotel, etc.). These projects should be included.

   Response: We have included other development trips for the Riverwalk and Bayview projects. The other development trips are shown in Figure 3 enclosed at the end of this report.

2. Looking at the turning movement volumes, I was surprised at the distribution. Examples include the low volume turning right onto Middle Street from southbound India Street in the morning and the reverse movement in the evening. Please check the data. Also, please note whether there were any substantial traffic detours in the area during the time of the count.

   Response: We have reviewed our traffic counts from July 21st and made some adjustments. These are shown in Figure 1. We have also attached a copy of the Temporary Traffic Control Plan that was in effect on the date of our traffic counts. It appears from the plan that more vehicle traffic may have been using the intersection of Middle Street at India Street due to Fore Street being closed to thru traffic and only open for local traffic. With this condition in effect we still felt the traffic counts would be valid and may provide a more conservative analysis.

3. It does not appear that pedestrian volumes were included in the analysis. Did you collect pedestrian volumes? Pedestrians are significant at India/Middle.

Response: *As was discussed with the City's traffic engineer, we made field observations of pedestrian traffic during both the AM and PM peak hours at the intersection of India St and Middle Street on Tuesday August 3, 2010. The pedestrian volumes have been included in the revised traffic operations analysis discussed in Comment 5 below.*

4. Please conduct a four-way STOP sign warrant evaluation with the data you have at the India/Middle intersection. You likely will not have all required hours, but please try to draw some conclusion.

Response: *Listed below in Table 1 are the required warrants for the Four-way Stop from the Manual on Uniform Traffic Control Devices. The combined major street vehicular volumes need to be 300 vehicles for eight hours of the day while the minor street volumes, which includes vehicles and pedestrians needs to total 200 vehicles for the same eight hours.*

Table 1
4-Way Stop Sign Warrants – India St at Middle St

Time	Major St – India St		Minor St – Middle St		Warrant Met For Hour?
	Volume	Warrant	Volume	Warrant	
7 – 8 AM	350	300	89	200	No
8 – 9 AM	507*	300	161*	200	No
4 – 5 AM	349	300	262	200	**Yes**
5 – 6 PM	436*	300	355*	200	**Yes**

*includes bike & ped volumes.

Our analysis of the four hours that we counted indicates that the volume warrants are met for two of the four hours and is close on a 3rd hour. It is likely more hours of the day meet the 4-way stop sign warrant volumes. It may be worthwhile for the City to undertake a full twelve hour count (6 AM to 6 PM) of vehicles and pedestrians at the intersection after the Old Port Hospitality has completed Phases 2 and 3 to verify if the full 8-hour 4-way Stop Sign Warrant is met at that time. In addition it appears that overall the intersection of Middle Street at India St may function better under 4-way stop sign control. This will be covered in more detail below in Comment 5.

5. For the comparison of LOS/Delay, please use SimTraffic results only. It will simply things and I believe is the better data. I would like some reply on how the SimTraffic results compares to field conditions, particularly from a queuing perspective. Talk to the person who did the count. Also, provide LOS/Delay data in tabular form in the Memo for the site drive.

Response: *Listed below are tables which summarize the traffic operations analysis utilizing the SimTraffic results. Table 2, summarizes the intersection of Middle Street at India Street under the existing and Build condition and also shows the Build condition under 4-way stop control. Conflicting pedestrian volumes have been included in this*

analysis. The build condition includes the four townhouses in Phase 2 and the 70,000 s.f. of general office space in Phase 3. Table 3, shows the operations analysis at the proposed site entrance on Middle Street. The site entrance on Middle Street has been revised to be located approximately 240 ft. from India Street.

Table 2
Traffic Operations Analysis
Middle St at India St
(Delay/LOS/95th Queue)

Approach	AM Peak Hour			PM Peak Hour		
	Existing	Build	Build w/ 4-Way Stop	Existing	Build	Build w/ 4-Way Stop
Middle EB	8.2s/A/78'	10.2s/B/93'	5.4s/A/70'	17.1s/C/173'	61.3s/F/225'	15.5s/C/158'
Middle WB	8.8s/A/49'	8.5s/A/51'	6.1s/A/51'	11.2s/B/83'	14.2s/B/102'	8.8s/A/76'
India NB	0.8s/A/27'	1.2s/A/43'	7.8s/A/83'	1.5s/A/47'	2.3s/A/71'	14.8s/B/176'
India SB	1.2s/A/34'	1.5s/A/40'	8.5s/A/112'	1.1s/A/31'	1.1s/A/34'	9.3s/A/102'
Overall	7.9s/A	3.5/A	7.5/A	7.9s/A	24.6s/C	13.1/B

The results indicate that the intersection of India Street functions satisfactory for all approaches under the Build condition for both the AM and PM peak hours except for the Middle Street eastbound approach. All approaches function at LOS "C" or better except for the Middle Street eastbound approach which will experience some delay with an average delay of 61.3 seconds. We also ran the analysis under 4-way stop control and it indicated that overall the intersection would function at a better LOS "B" compared to LOS "C" and the Middle Street eastbound approach would function at LOS "C" compared to LOS "F."

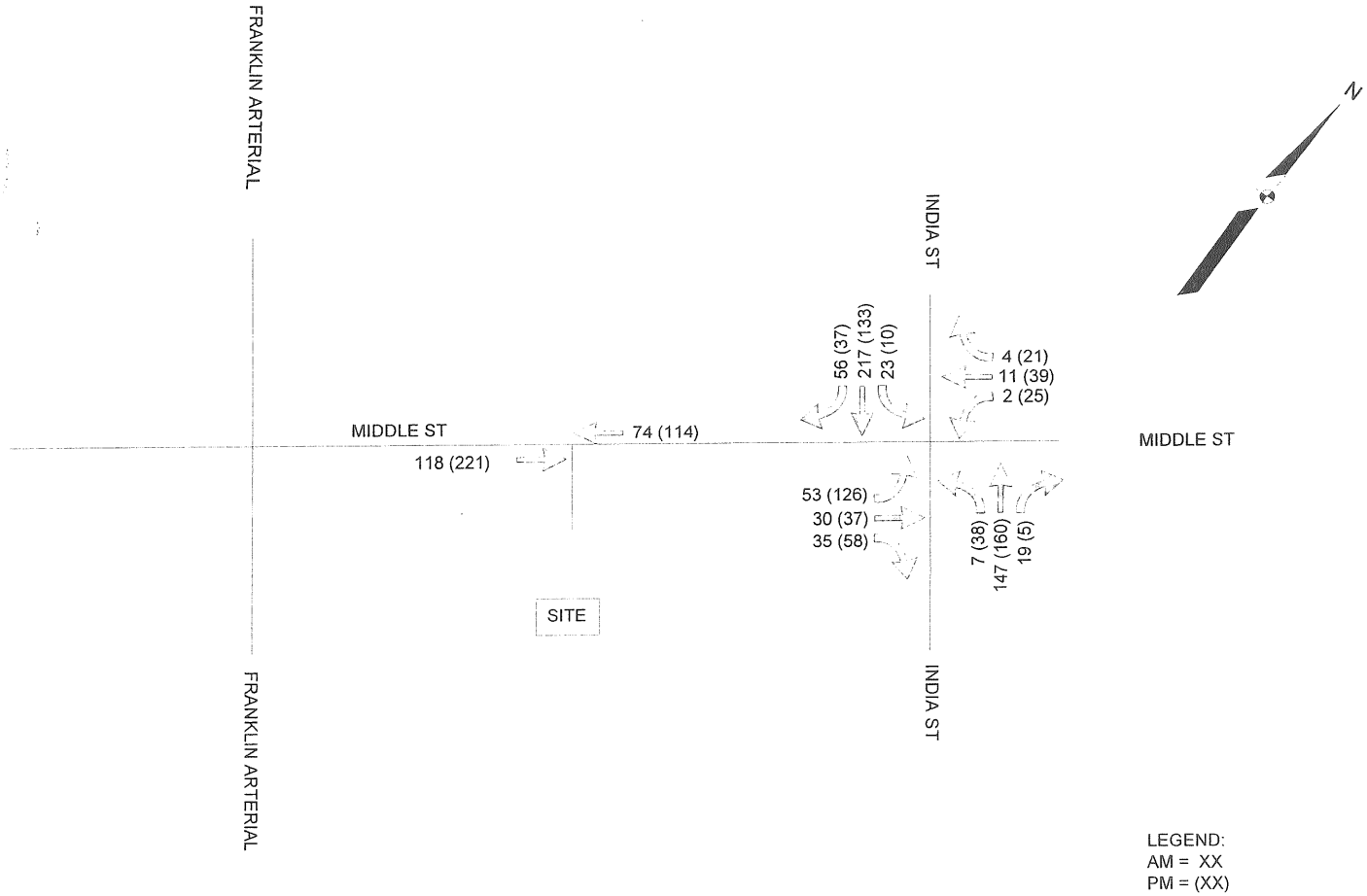
In addition, the 95th percentile queue length for the Middle Street eastbound approach will be approximately 225 ft., which should not block the proposed site entrance on Middle Street which is approximately 240 ft. from the intersection.

Table 3
Traffic Operations Analysis
Site Entrance at Middle St
(Delay/LOS/95th Queue)

Approach	AM Peak Hour		PM Peak Hour	
	Build	Build w/ 4-Way Stop	Build	Build w/ 4-Way Stop
Site NB	2.4s/A/33'	3.7s/A/31'	5.5s/A/64'	5.3S/A/65'
Middle EB	4.8s/A/80'	0.5S/A/0'	1.0s/A/32'	0.6S/A/19'
Middle WB	5.0s/A/48'	1.2S/A/24'	1.0s/A/12'	1.4S/A/14'
Overall	4.8s/A	0.9S/A	1.7s/A	1.6 A

The results indicate that the site entrance will function satisfactory under the build condition with all approaches functioning at LOS "A."

We are confident that we have responded to your comments satisfactorily. Please contact me should you need any further information.



Traffic Volume Counts Conducted by Sebago Technics, Inc. July 21st, 2010.

Sebago Technics
Engineering Expertise You Can Build On
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

2010 AM & PM BACKGROUND TRAFFIC VOLUMES

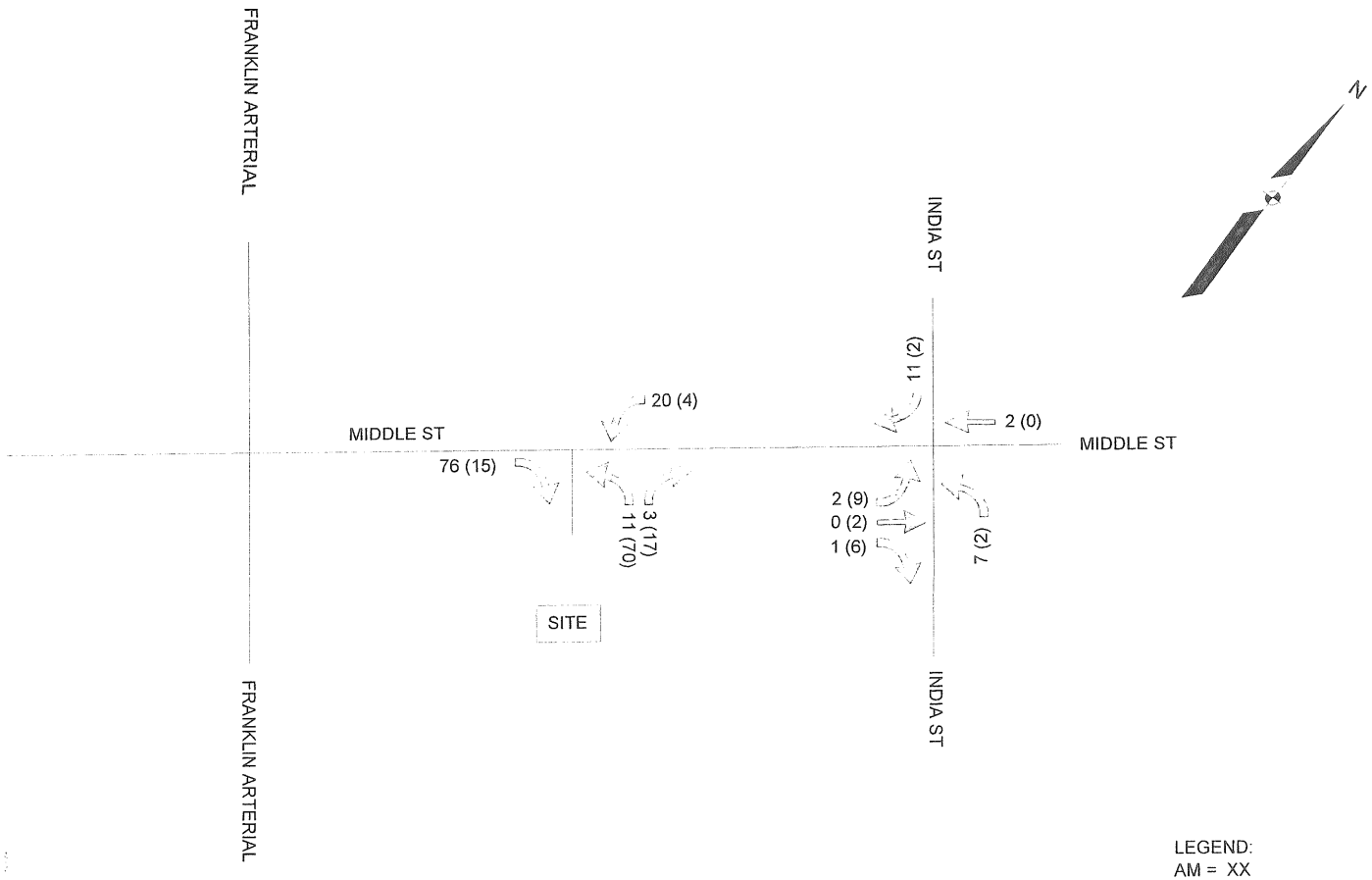
MIDDLE STREET AT INDIA STREET

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

SCALE: NTS
DATE: 07/22/2010
SHEET: Fig. 1

05090TRAFFIC(PHASE2).DGN



LEGEND:
AM = XX
PM = (XX)

SITE GENERATED TRIPS INCLUDE TRIPS FROM BOTH PHASE 2 (4 CONDO/TOWNHOUSES) AND PHASE 3 (70,000 SF GENERAL OFFICE SPACE)

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One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

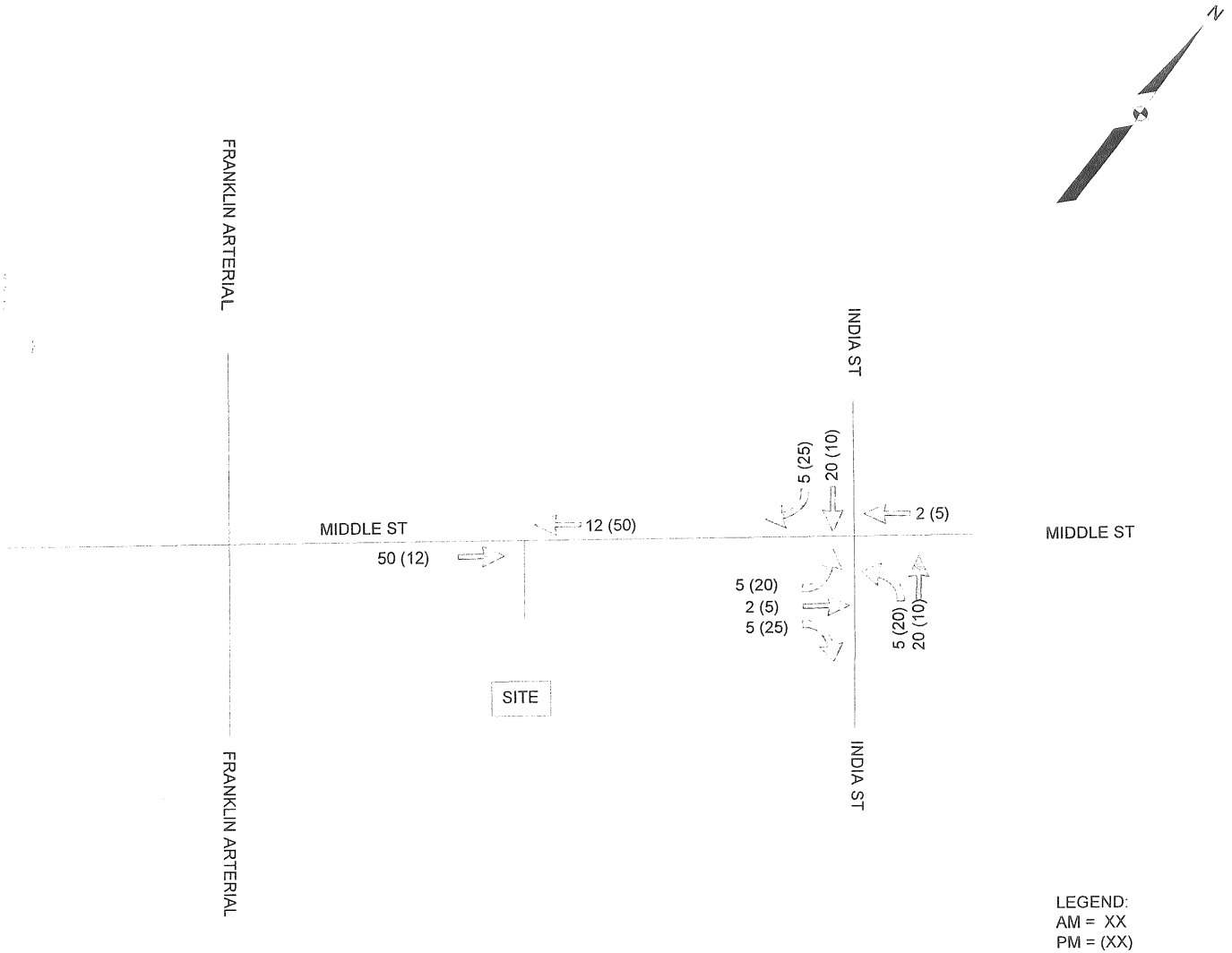
AM & PM SITE GENERATED TRIPS
PHASE 2 & PHASE 3 INCLUDED

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

SCALE: NTS
DATE: 07/22/2010
SHEET: Fig. 2

05090TRAFFIC(PHASE2).DGN



OTHER DEVELOPMENT TRIPS INCLUDE: BAYVIEW AND RIVERWALK PROJECTS.

OTHER DEVELOPMENT TRIPS

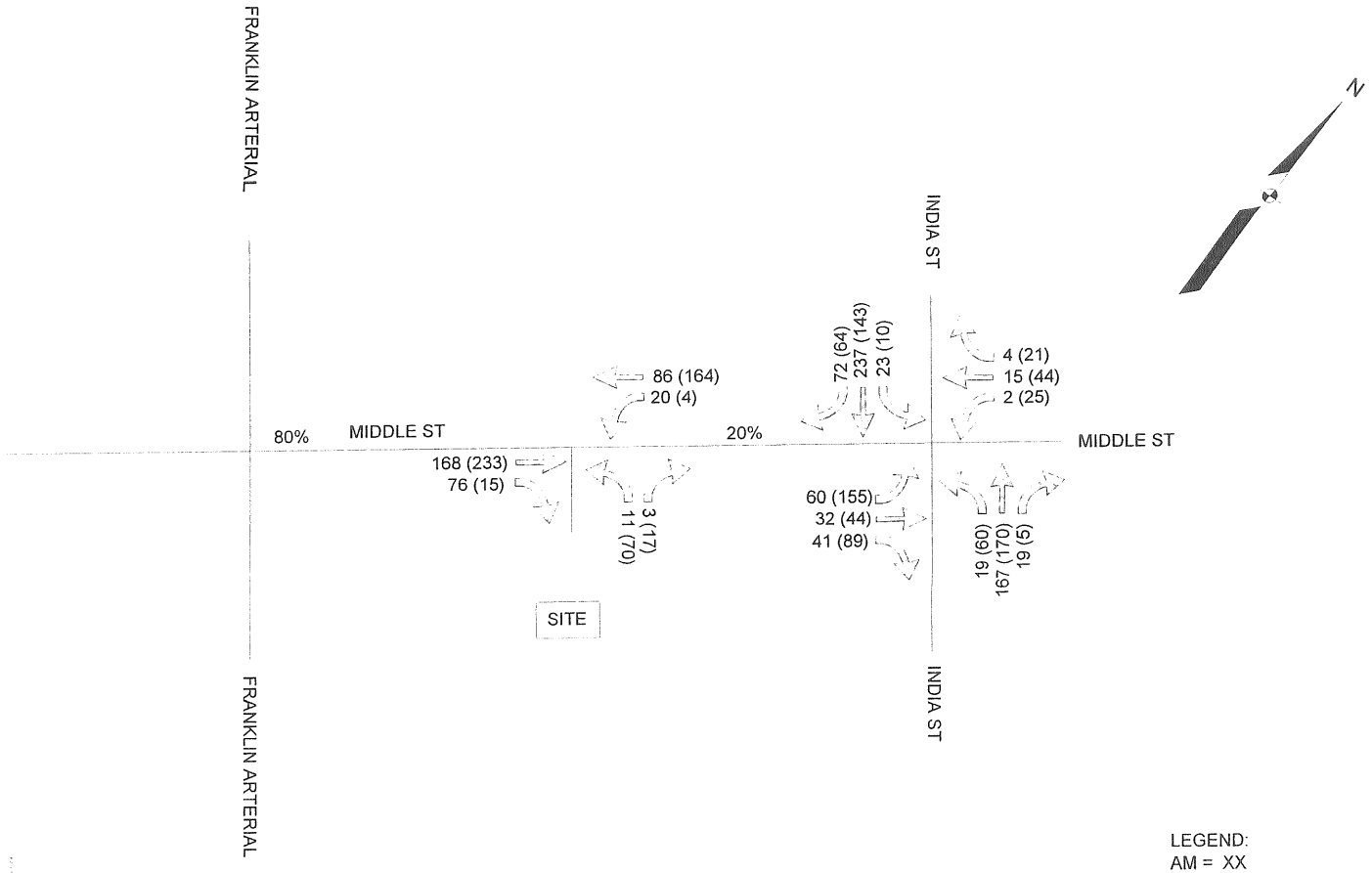
Sebago Technics
Engineering Expertise You Can Build On
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

SCALE: NTS
DATE: 07/22/2010
SHEET: Fig. 3

05090TRAFFIC(PHASE2).DGN



LEGEND:
AM = XX
PM = (XX)

FULL-BUILD TRAFFIC VOLUMES INCLUDE TRIPS FROM BOTH PHASE 2 (4 CONDO/TOWNHOUSES) AND PHASE 3 (70,000 SF GENERAL OFFICE SPACE)

Sebago Technics
Engineering Expertise You Can Build On
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

FULL BUILD VOLUMES

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

SCALE: NTS
DATE: 07/22/2010
SHEET: Fig. 4

05090TRAFFIC(PHASE2).DGN

Appendix

- Traffic Counts: India Street at Middle Street

- SimTraffic AM and PM Peak Hour Operations Analysis: India Street at Middle Street

    - Existing Conditions
    - Build Conditions
    - Build Conditions with 4-way Stop

TRAFFIC COUNTS
WEEKDAY AM PM PEAK HOUR COUNTS

MIDDLE ST AT INDIA ST
PORTLAND, ME

Time	Middle From North					India From East					Middle From South					India From West					15-Minute	Hourly
	LT	TH	RT	Peds	Crossings	LT	TH	RT	Peds	Crossings	LT	TH	RT	Peds	Crossings	LT	TH	RT	Peds	Crossings	Total	Total
7:15	1	2	10			1	13/1	0			5	3	1/1			1	30	4			69	
7:30	0	3	0			1	14	2			6	2	2			4	42	12			88	
7:45	5	6	1			1	32/3	3			5	0	4			0	38	5			98	
8:00	3	4	0			0	37/2	9			5	10	10			7	70/1	17			94	349
8:15	***1***	***0***	***0***	***5***	***3***	***0***	***18***	***8***	***8***	***3***	***12***	***8***	***8***	***8***	***5***	***6***	***51***	***11***	***6***	***3***	***164***	444
8:30	***0***	***3***	***0***	***13***	***10***	***0***	***22***	***4***	***6***	***3***	***8***	***4***	***8***	***5***	***4***	***6***	***58***	***13***	***4***	***4***	***175***	531
8:45	***1***	***3***	***1***	***6***	***4***	***4***	***54/3***	***0***	***2***	***2***	***20***	***7***	***7/1***	***2***	***2***	***4***	***61/1***	***18***	***7***	***4***	***196***	629
9:00	***0***	***5***	***3***	***9***	***6***	***3***	***50***	***7***	***5***	***5***	***13***	***11***	***11***	***11***	***9***	***7***	***46***	***14***	***0***	***0***	***215***	***750***
PEAK HR TOTAL	***2***	***11***	***4***	***33***	***23***	***7***	***147***	***19***	***21***	***13***	***53***	***30***	***35***	***26***	***20***	***23***	***217***	***56***	***17***	***11***		
PHF		0.53					0.71					0.84					0.88					
4:15	6	13	0			0	43	3			19	10	35			0	18	6			153	
4:30	1	6	4			8	51	0			24	7	14			1	36	13			165	
4:45	0	9	6			13	51	3			40	5	16			1	32	8			184	
5:00	3	5	3			3	15	5			15	3	18			5	23	11			109	611
5:15	***6***	***20***	***10***	***15***	***10***	***5***	***30***	***0***	***10***	***8***	***44***	***13***	***21***	***13***	***9***	***3***	***29***	***15***	***5***	***4***	***261***	719
5:30	***4***	***7***	***2***	***5***	***5***	***12***	***63***	***3***	***5***	***4***	***29***	***8***	***17***	***11***	***10***	***2***	***43***	***7***	***6***	***3***	***237***	791
5:45	***0***	***9***	***8***	***13***	***10***	***9***	***32***	***0***	***4***	***2***	***30***	***6***	***8***	***15***	***10***	***3***	***26***	***6***	***13***	***4***	***191***	798
6:00	***15***	***3***	***1***	***5***	***5***	***12***	***35***	***2***	***6***	***4***	***23***	***10***	***12***	***10***	***7***	***2***	***35***	***9***	***4***	***3***	***196***	***885***
PEAK HR TOTAL	***25***	***39***	***21***	***38***	***30***	***38***	***160***	***5***	***25***	***18***	***126***	***37***	***58***	***49***	***36***	***10***	***133***	***37***	***28***	***14***		
PHF		0.59					0.65					0.71					0.87					

X car
x/y car/truck

COUNTS PERFORMED BY SEBAGO TECHNICS, INC ON JULY 21, 2010 BETWEEN 7-9 am & 4-6 pm, PED COUNTS PERFORMED ON TUESDAY 8/3/10.

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	8.2	8.8	0.8	1.2	2.7

Total Network Performance

Delay / Veh (s)	3.3

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	104	49	57	54
Average Queue (ft)	46	23	5	8
95th Queue (ft)	78	49	27	34
Link Distance (ft)	463	441	426	448
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 0

Attachment 3b

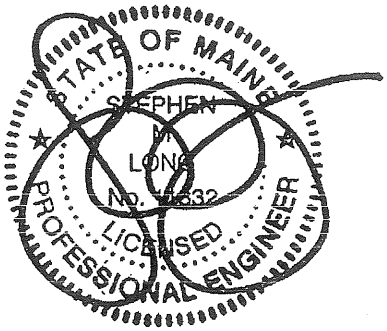
OPECHEE
CONSTRUCTION CORPORATION

STORMWATER MANAGEMENT PLAN ADDENDUM

Parking Lot and Residences
207 & 209 Fore Street
Portland, ME

Applicant:
Fore India Middle, LLC
11 Corporate Drive
Belmont, NH 03220

June 22, 2010
Revised: July 20, 2010



Prepared By

Opechee Construction Corporation
11 Corporate Drive
Belmont, NH 03220
(603) 527-9090

Parking Lot and Residences

Stormwater Management Plan Addendum

June 22, 2010

Revised July 20, 2010

Opechee Construction Corporation has prepared this Stormwater Management Plan Addendum to present revised stormwater management calculations for the next phase of development at 207 and 209 Fore Street on the site of the former Jordan's Meats facility in Portland, Maine. The Analysis is an addendum to the Stormwater Management Plan prepared by Sebago Technics, LLC.

Summary of Revisions:

The future development of this site will include a two story parking structure and four residential townhouses to be developed in phases. The parking structure will be developed first, the townhouses next. This project will be constructed where the surface parking lot for the hotel and residences is currently proposed.

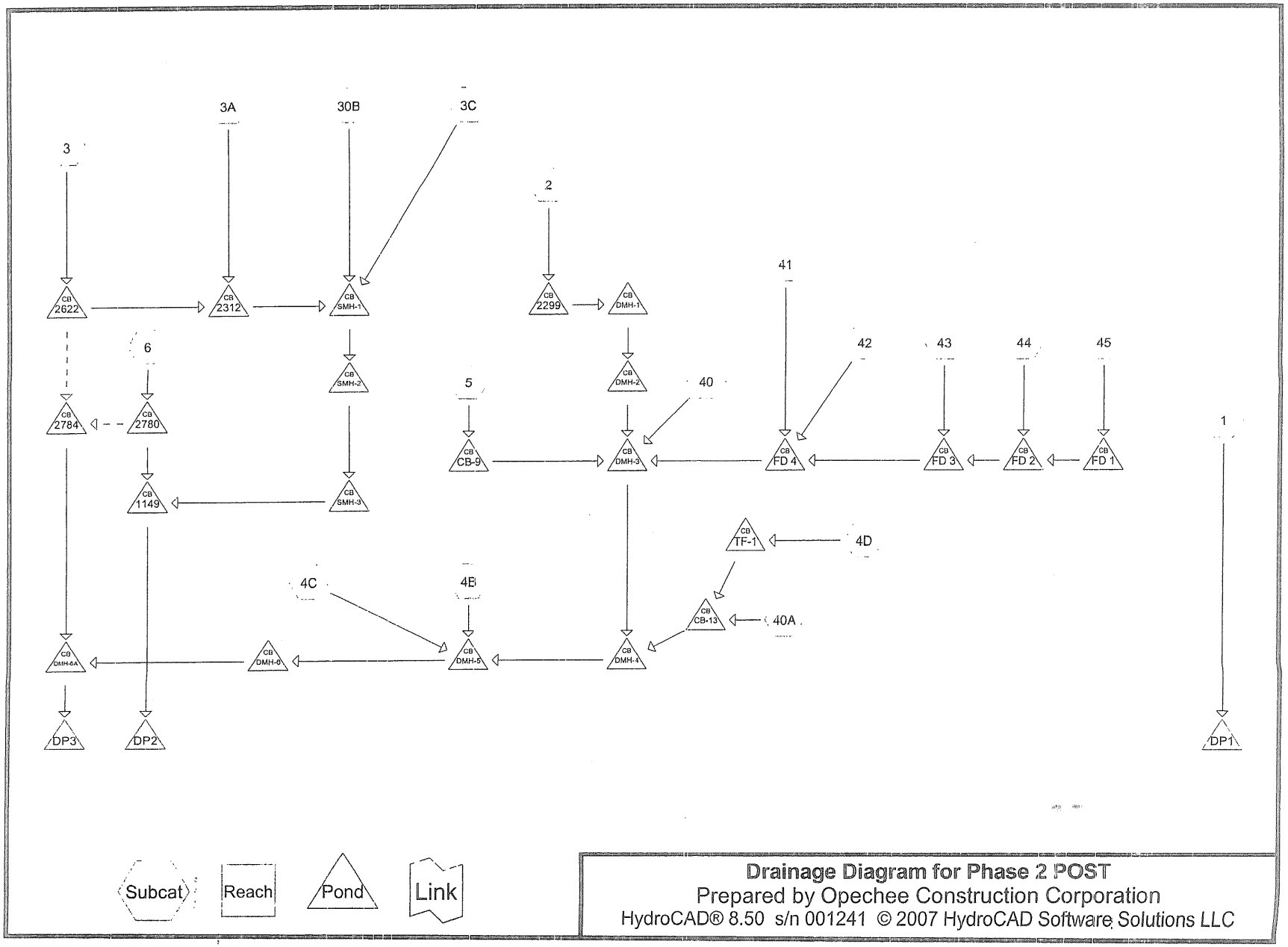
The majority of runoff from the site will be directed into floor drains located in the parking deck. This drainage will tie into the new drain line running from Middle Street to Fore Street via drain manhole 5013. A portion of the townhouse roof runoff (flat roof deck) will be connected to the parking deck floor drains also. The rest of the townhouse roof runoff (sloped roof) will be directed towards the surrounding streets and into existing catch basins.

Overall	2-year Storm		10-year Storm		25-year Storm	
Design Point	Pre	Post	Pre	Post	Pre	Post
DP1	49.1 cfs	49.1 cfs	88.6 cfs	88.6 cfs	107.1 cfs	107.1 cfs
DP2	29.7 cfs	24.8 cfs	37.5 cfs	32.3 cfs	42.6 cfs	33.5 cfs
DP3	28.3 cfs	30.0 cfs	64.6 cfs	65.9 cfs	79.4 cfs	84.4 cfs

The proposed revisions do not significantly change the overall rate of runoff as presented in the Stormwater Management Plan prepared by Sebago Technics, Inc. dated February 16, 2010, revised March 23, 2010.

ATTACHMENT A

Stormwater Modeling – Post-Development Model



Drainage Diagram for Phase 2 POST
Prepared by Opechee Construction Corporation

PARKING LOT
AND RESIDENCES

PROJECT

POST-DEVELOPMENT
DRAINAGE PLAN

CONSTRUCTION CORPORATION

DP1

INDIA STREET

MIDDLE STREET

FORE STREET

FRANKLIN STREET ARTERIAL

GRAPHIC SCALE

2-Year Storm Event

Time span=0.00-36.00 hrs, dt=0.04 hrs, 901 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Runoff Area=32.350 ac 85.00% Impervious Runoff Depth=1.90"
Flow Length=3,409' Tc=19.3 min CN=89 Runoff=49.1 cfs 5.122 af

Subcatchment 2: Runoff Area=4.280 ac 85.00% Impervious Runoff Depth=1.90"
Flow Length=1,148' Tc=6.1 min CN=89 Runoff=9.4 cfs 0.678 af

Subcatchment 3: Runoff Area=18.320 ac 85.00% Impervious Runoff Depth=1.90"
Flow Length=1,120' Tc=13.0 min CN=89 Runoff=32.4 cfs 2.900 af

Subcatchment 3A: Runoff Area=0.640 ac 85.00% Impervious Runoff Depth=1.90"
Flow Length=100' Tc=6.0 min CN=89 Runoff=1.4 cfs 0.101 af

Subcatchment 3C: Runoff Area=0.080 ac 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.2 cfs 0.018 af

Subcatchment 4B: Runoff Area=0.430 ac 100.00% Impervious Runoff Depth=2.77"
Flow Length=114' Slope=0.0200 '/' Tc=6.0 min CN=98 Runoff=1.2 cfs 0.099 af

Subcatchment 4C: Runoff Area=0.110 ac 100.00% Impervious Runoff Depth=2.77"
Flow Length=88' Slope=0.0200 '/' Tc=6.0 min CN=98 Runoff=0.3 cfs 0.025 af

Subcatchment 4D: Runoff Area=0.300 ac 53.33% Impervious Runoff Depth=0.71"
Flow Length=120' Tc=6.0 min CN=70 Runoff=0.2 cfs 0.018 af

Subcatchment 5: Runoff Area=0.510 ac 92.16% Impervious Runoff Depth=2.25"
Flow Length=103' Tc=6.0 min CN=93 Runoff=1.3 cfs 0.096 af

Subcatchment 6: Runoff Area=4.420 ac 85.00% Impervious Runoff Depth=1.90"
Flow Length=475' Tc=6.0 min CN=89 Runoff=9.7 cfs 0.700 af

Subcatchment 30B: Runoff Area=0.210 ac 90.48% Impervious Runoff Depth=2.16"
Tc=6.0 min CN=92 Runoff=0.5 cfs 0.038 af

Subcatchment 40: Runoff Area=0.100 ac 60.00% Impervious Runoff Depth=0.91"
Tc=6.0 min CN=74 Runoff=0.1 cfs 0.008 af

Subcatchment 40A: Runoff Area=0.190 ac 68.42% Impervious Runoff Depth=1.19"
Flow Length=233' Tc=6.0 min CN=79 Runoff=0.3 cfs 0.019 af

Subcatchment 41: Runoff Area=0.070 ac 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.2 cfs 0.016 af

Subcatchment 42: Runoff Area=0.180 ac 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.5 cfs 0.042 af

Subcatchment 43: Runoff Area=0.180 ac 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.5 cfs 0.042 af

Subcatchment 44: Runoff Area=0.190 ac 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.5 cfs 0.044 af

Subcatchment 45: Runoff Area=0.120 ac 100.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=98 Runoff=0.3 cfs 0.028 af

Pond 1149: Peak Elev=7.14' Inflow=24.8 cfs 3.310 af
30.0" x 100.0' Culvert Outflow=24.8 cfs 3.310 af

Pond 2299: Peak Elev=16.59' Inflow=9.4 cfs 0.678 af
24.0" x 26.0' Culvert Outflow=9.4 cfs 0.678 af

Pond 2312: Peak Elev=17.57' Inflow=14.6 cfs 2.554 af
24.0" x 36.0' Culvert Outflow=14.6 cfs 2.554 af

Pond 2622: Peak Elev=22.99' Inflow=32.4 cfs 2.900 af
Primary=13.5 cfs 2.453 af Secondary=18.9 cfs 0.447 af Outflow=32.4 cfs 2.900 af

Pond 2780: Peak Elev=7.50' Inflow=9.7 cfs 0.700 af
Primary=9.7 cfs 0.700 af Secondary=0.0 cfs 0.000 af Outflow=9.7 cfs 0.700 af

Pond 2784: Peak Elev=6.67' Inflow=18.9 cfs 0.447 af
48.0" x 65.0' Culvert Outflow=18.9 cfs 0.447 af

Pond CB-13: Peak Elev=12.78' Inflow=0.5 cfs 0.037 af
18.0" x 67.0' Culvert Outflow=0.5 cfs 0.037 af

Pond CB-9: Peak Elev=13.44' Inflow=1.3 cfs 0.096 af
12.0" x 45.0' Culvert Outflow=1.3 cfs 0.096 af

Pond DMH-1: Peak Elev=14.23' Inflow=9.4 cfs 0.678 af
24.0" x 88.0' Culvert Outflow=9.4 cfs 0.678 af

Pond DMH-2: Peak Elev=13.63' Inflow=9.4 cfs 0.678 af
24.0" x 44.0' Culvert Outflow=9.4 cfs 0.678 af

Pond DMH-3: Peak Elev=13.25' Inflow=12.9 cfs 0.952 af
30.0" x 115.0' Culvert Outflow=12.9 cfs 0.952 af

Pond DMH-4: Peak Elev=12.54' Inflow=13.4 cfs 0.988 af
30.0" x 50.0' Culvert Outflow=13.4 cfs 0.988 af

Pond DMH-5: Peak Elev=11.84' Inflow=14.9 cfs 1.113 af
30.0" x 75.0' Culvert Outflow=14.9 cfs 1.113 af

Pond DMH-6: Peak Elev=10.26' Inflow=14.9 cfs 1.113 af
24.0" x 104.0' Culvert Outflow=14.9 cfs 1.113 af

Pond DMH-6A: Peak Elev=6.31' Inflow=30.0 cfs 1.560 af
48.0" x 283.0' Culvert Outflow=30.0 cfs 1.560 af

Pond DP1: Inflow=49.1 cfs 5.122 af
Primary=49.1 cfs 5.122 af

Pond DP2: Inflow=24.8 cfs 3.310 af
Primary=24.8 cfs 3.310 af

Pond DP3: Inflow=30.0 cfs 1.560 af
Primary=30.0 cfs 1.560 af

Pond FD 1: Peak Elev=15.17' Inflow=0.3 cfs 0.028 af
12.0" x 54.0' Culvert Outflow=0.3 cfs 0.028 af

Pond FD 2: Peak Elev=14.82' Inflow=0.9 cfs 0.072 af
12.0" x 80.0' Culvert Outflow=0.9 cfs 0.072 af

Pond FD 3: Peak Elev=14.19' Inflow=1.4 cfs 0.113 af
12.0" x 77.0' Culvert Outflow=1.4 cfs 0.113 af

Pond FD 4: Peak Elev=13.66' Inflow=2.1 cfs 0.171 af
12.0" x 49.0' Culvert Outflow=2.1 cfs 0.171 af

Pond SMH-1: Peak Elev=16.65' Inflow=15.3 cfs 2.611 af
24.0" x 80.0' Culvert Outflow=15.3 cfs 2.611 af

Pond SMH-2: Peak Elev=11.02' Inflow=15.3 cfs 2.611 af
24.0" x 143.0' Culvert Outflow=15.3 cfs 2.611 af

Pond SMH-3: Peak Elev=9.45' Inflow=15.3 cfs 2.611 af
24.0" x 200.0' Culvert Outflow=15.3 cfs 2.611 af

Pond TF-1: Peak Elev=12.97' Inflow=0.2 cfs 0.018 af
12.0" x 40.0' Culvert Outflow=0.2 cfs 0.018 af

Summary for Subcatchment 1:

Runoff = 49.1 cfs @ 12.26 hrs, Volume= 5.122 af, Depth= 1.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
32.350	89	Urban commercial, 85% imp, HSG A
4.853		Pervious Area
27.497		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.7	20	0.0100	0.09		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.00"
11.2	430	0.0010	0.64		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.9	292	0.0110	5.15	4.05	**Circular Channel (pipe),** Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
0.6	435	0.0520	11.21	8.80	**Circular Channel (pipe),** Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
0.7	629	0.0602	13.99	17.17	**Circular Channel (pipe),** Diam= 15.0" Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
0.7	403	0.0280	9.54	11.71	**Circular Channel (pipe),** Diam= 15.0" Area= 1.2 sf Perim= 3.9' r= 0.31' n= 0.012
0.6	488	0.0490	14.25	25.19	**Circular Channel (pipe),** Diam= 18.0" Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012
0.3	262	0.0370	13.73	33.02	**Circular Channel (pipe),** Diam= 21.0" Area= 2.4 sf Perim= 5.5' r= 0.44' n= 0.012
0.6	450	0.0250	12.33	38.75	**Circular Channel (pipe),** Diam= 24.0" Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
19.3	3,409	Total			

Summary for Subcatchment 2:

Runoff = 9.4 cfs @ 12.09 hrs, Volume= 0.678 af, Depth= 1.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
4.280	89	Urban commercial, 85% imp, HSG A
0.642		Pervious Area
3.638		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.5	45	0.0570	0.21		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.00"
1.4	263	0.0230	3.08		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
1.2	840	0.0320	11.52	20.36	**Circular Channel (pipe),** Diam= 18.0" Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012
6.1	1,148	Total			

Summary for Subcatchment 3:

Runoff = 32.4 cfs @ 12.18 hrs, Volume= 2.900 af, Depth= 1.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
18.320	89	Urban commercial, 85% imp, HSG A
2.748		Pervious Area
15.572		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.6	150	0.0400	0.24		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.00"
0.7	57	0.0400	1.40		**Shallow Concentrated Flow,** Short Grass Pasture Kv= 7.0 fps
0.5	85	0.0180	2.72		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.6	300	0.0130	8.89	27.94	**Circular Channel (pipe),** Diam= 24.0" Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
0.3	259	0.0420	15.99	50.23	**Circular Channel (pipe),** Diam= 24.0" Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012
0.3	269	0.0224	15.30	108.14	**Circular Channel (pipe),** Diam= 36.0" Area= 7.1 sf Perim= 9.4' r= 0.75' n= 0.012
13.0	1,120	Total			

Summary for Subcatchment 3A:

Runoff = 1.4 cfs @ 12.09 hrs, Volume= 0.101 af, Depth= 1.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.640	89	Urban commercial, 85% imp, HSG A
0.096		Pervious Area
0.544		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.3	56	0.0530	0.22		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.00"
0.3	44	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
4.6	100	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 3C:

Runoff = 0.2 cfs @ 12.08 hrs, Volume= 0.018 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.080	98	Paved parking & roofs
0.080		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 4B:

Runoff = 1.2 cfs @ 12.08 hrs, Volume= 0.099 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.430	98	Paved parking & roofs
0.430		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.3	108	0.0200	1.35		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.0	6	0.0200	6.95	5.46	**Circular Channel (pipe),** Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
1.3	114	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 4C:

Runoff = 0.3 cfs @ 12.08 hrs, Volume= 0.025 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.110	98	Paved parking & roofs
0.110		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	88	0.0200	1.30		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
1.1	88	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 4D:

Runoff = 0.2 cfs @ 12.10 hrs, Volume= 0.018 af, Depth= 0.71"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.160	98	Paved parking & roofs
0.140	39	>75% Grass cover, Good, HSG A
0.300	70	Weighted Average
0.140		Pervious Area
0.160		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
3.1	25	0.0600	0.13		**Sheet Flow,** Grass: Dense n= 0.240 P2= 3.00"
0.5	95	0.0500	3.35		**Shallow Concentrated Flow,** Grassed Waterway Kv= 15.0 fps
3.6	120	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 5:

Runoff = 1.3 cfs @ 12.09 hrs, Volume= 0.096 af, Depth= 2.25"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.470	98	Paved parking & roofs
0.040	39	>75% Grass cover, Good, HSG A
0.510	93	Weighted Average
0.040		Pervious Area
0.470		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	43	0.3300	0.43		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.00"
0.1	24	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.2	36	0.0050	3.47	2.73	**Circular Channel (pipe),** Diam= 12.0" Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.012
2.0	103	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 6:

Runoff = 9.7 cfs @ 12.09 hrs, Volume= 0.700 af, Depth= 1.90"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
4.420	89	Urban commercial, 85% imp, HSG A
0.663		Pervious Area
3.757		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.1	150	0.0600	2.24		**Sheet Flow,** Smooth surfaces n= 0.011 P2= 3.00"
0.4	150	0.0933	6.20		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.4	130	0.0920	6.16		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
0.1	45	0.0100	6.44	11.38	**Circular Channel (pipe),** Diam= 18.0" Area= 1.8 sf Perim= 4.7' r= 0.38' n= 0.012
2.0	475	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 30B:

Runoff = 0.5 cfs @ 12.09 hrs, Volume= 0.038 af, Depth= 2.16"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.190	98	Paved parking & roofs
0.020	39	>75% Grass cover, Good, HSG A
0.210	92	Weighted Average
0.020		Pervious Area
0.190		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 40:

Runoff = 0.1 cfs @ 12.10 hrs, Volume= 0.008 af, Depth= 0.91"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.040	39	>75% Grass cover, Good, HSG A
0.060	98	Paved parking & roofs
0.100	74	Weighted Average
0.040		Pervious Area
0.060		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 40A:

Runoff = 0.3 cfs @ 12.09 hrs, Volume= 0.019 af, Depth= 1.19"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.060	39	>75% Grass cover, Good, HSG A
0.130	98	Paved parking & roofs
0.190	79	Weighted Average
0.060		Pervious Area
0.130		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.8	41	0.2400	0.37		**Sheet Flow,** Grass: Short n= 0.150 P2= 3.00"
1.1	192	0.0200	2.87		**Shallow Concentrated Flow,** Paved Kv= 20.3 fps
2.9	233	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 41:

Runoff = 0.2 cfs @ 12.08 hrs, Volume= 0.016 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.070	98	Paved parking & roofs
0.070		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 42:

Runoff = 0.5 cfs @ 12.08 hrs, Volume= 0.042 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.180	98	Paved parking & roofs
0.180		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 43:

Runoff = 0.5 cfs @ 12.08 hrs, Volume= 0.042 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.180	98	Paved parking & roofs
0.180		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Summary for Subcatchment 44:

Runoff = 0.5 cfs @ 12.08 hrs, Volume= 0.044 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.190	98	Paved parking & roofs
0.190		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Subcatchment 45:

Runoff = 0.3 cfs @ 12.08 hrs, Volume= 0.028 af, Depth= 2.77"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Type III 24-hr 2-yr Rainfall=3.00"

Area (ac)	CN	Description
0.120	98	Paved parking & roofs
0.120		Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Summary for Pond 1149:

Inflow Area = 23.670 ac, 85.10% Impervious, Inflow Depth = 1.68" for 2-yr event
Inflow = 24.8 cfs @ 12.09 hrs, Volume= 3.310 af
Outflow = 24.8 cfs @ 12.09 hrs, Volume= 3.310 af, Atten= 0%, Lag= 0.0 min
Primary = 24.8 cfs @ 12.09 hrs, Volume= 3.310 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 7.14' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.40'	**30.0" x 100.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 4.00' S= 0.0040 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=24.5 cfs @ 12.09 hrs HW=7.11' TW=0.00' (Dynamic Tailwater)
↑—**1=Culvert** (Barrel Controls 24.5 cfs @ 5.74 fps)

Summary for Pond 2299:

Inflow Area = 4.280 ac, 85.00% Impervious, Inflow Depth = 1.90" for 2-yr event
Inflow = 9.4 cfs @ 12.09 hrs, Volume= 0.678 af
Outflow = 9.4 cfs @ 12.09 hrs, Volume= 0.678 af, Atten= 0%, Lag= 0.0 min
Primary = 9.4 cfs @ 12.09 hrs, Volume= 0.678 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 16.59' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	15.20'	**24.0" x 26.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 13.16' S= 0.0785 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=9.2 cfs @ 12.09 hrs HW=16.57' TW=14.17' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 9.2 cfs @ 3.99 fps)

Summary for Pond 2312:

Inflow Area = 18.960 ac, 85.00% Impervious, Inflow Depth = 1.62" for 2-yr event
Inflow = 14.6 cfs @ 12.14 hrs, Volume= 2.554 af
Outflow = 14.6 cfs @ 12.14 hrs, Volume= 2.554 af, Atten= 0%, Lag= 0.0 min
Primary = 14.6 cfs @ 12.14 hrs, Volume= 2.554 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 17.57' @ 12.16 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	15.53'	**24.0" x 36.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 14.73' S= 0.0222 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=14.4 cfs @ 12.14 hrs HW=17.55' TW=16.64' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 14.4 cfs @ 4.59 fps)

Summary for Pond 2622:

Inflow Area = 18.320 ac, 85.00% Impervious, Inflow Depth = 1.90" for 2-yr event
Inflow = 32.4 cfs @ 12.18 hrs, Volume= 2.900 af
Outflow = 32.4 cfs @ 12.18 hrs, Volume= 2.900 af, Atten= 0%, Lag= 0.0 min
Primary = 13.5 cfs @ 12.18 hrs, Volume= 2.453 af
Secondary = 18.9 cfs @ 12.18 hrs, Volume= 0.447 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 22.99' @ 12.18 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	19.72'	**18.0" x 205.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 15.63' S= 0.0200 '/' Cc= 0.900 n= 0.012
#2	Device 3	22.20'	**8.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s) 2.0' Crest Height
#3	Secondary	18.88'	**36.0" x 230.0' long Culvert** RCP, square edge headwall, Ke= 0.500

Outlet Invert= 5.16' S= 0.0597 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=13.5 cfs @ 12.18 hrs HW=22.98' TW=17.55' (Dynamic Tailwater)
└─**1=Culvert** (Inlet Controls 13.5 cfs @ 7.63 fps)

Secondary OutFlow Max=18.5 cfs @ 12.18 hrs HW=22.98' TW=6.65' (Dynamic Tailwater)
└─**3=Culvert** (Passes 18.5 cfs of 54.9 cfs potential flow)
└─**2=Sharp-Crested Rectangular Weir** (Weir Controls 18.5 cfs @ 3.02 fps)

Summary for Pond 2780:

Inflow Area =	4.420 ac, 85.00% Impervious, Inflow Depth =	1.90"	for 2-yr event	
Inflow =	9.7 cfs @	12.09 hrs, Volume=	0.700 af	
Outflow =	9.7 cfs @	12.09 hrs, Volume=	0.700 af, Atten= 0%, Lag= 0.0 min	
Primary =	9.7 cfs @	12.09 hrs, Volume=	0.700 af	
Secondary =	0.0 cfs @	0.00 hrs, Volume=	0.000 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 7.50' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.70'	**30.0" x 80.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 4.40' S= 0.0037 '/' Cc= 0.900 n= 0.012
#2	Secondary	5.00'	**24.0" x 35.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 4.65' S= 0.0100 '/' Cc= 0.900 n= 0.012
#3	Device 1	6.00'	**30.0" Vert. Orifice/Grate** C= 0.600
#4	Device 2	7.93'	**5.0' long Sharp-Crested Rectangular Weir** 2 End Contraction(s) 2.0' Crest Height

Primary OutFlow Max=7.9 cfs @ 12.09 hrs HW=7.43' TW=7.11' (Dynamic Tailwater)
└─**1=Culvert** (Passes 7.9 cfs of 13.3 cfs potential flow)
└─**3=Orifice/Grate** (Orifice Controls 7.9 cfs @ 2.71 fps)

Secondary OutFlow Max=0.0 cfs @ 0.00 hrs HW=4.70' TW=4.32' (Dynamic Tailwater)
└─**2=Culvert** (Controls 0.0 cfs)
└─**4=Sharp-Crested Rectangular Weir** (Controls 0.0 cfs)

Summary for Pond 2784:

Inflow =	18.9 cfs @	12.18 hrs, Volume=	0.447 af	
Outflow =	18.9 cfs @	12.18 hrs, Volume=	0.447 af, Atten= 0%, Lag= 0.0 min	
Primary =	18.9 cfs @	12.18 hrs, Volume=	0.447 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 6.67' @ 12.18 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.32'	**48.0" x 65.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 4.10' S= 0.0034 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=19.7 cfs @ 12.18 hrs HW=6.65' TW=6.25' (Dynamic Tailwater)
↑—1=Culvert (Outlet Controls 19.7 cfs @ 3.74 fps)

Summary for Pond CB-13:

Inflow Area = 0.490 ac, 59.18% Impervious, Inflow Depth = 0.90" for 2-yr event
Inflow = 0.5 cfs @ 12.10 hrs, Volume= 0.037 af
Outflow = 0.5 cfs @ 12.10 hrs, Volume= 0.037 af, Atten= 0%, Lag= 0.0 min
Primary = 0.5 cfs @ 12.10 hrs, Volume= 0.037 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 12.78' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	12.40'	**18.0" x 67.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 11.73' S= 0.0100 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=0.4 cfs @ 12.10 hrs HW=12.75' TW=12.51' (Dynamic Tailwater)
↑—1=Culvert (Outlet Controls 0.4 cfs @ 1.79 fps)

Summary for Pond CB-9:

Inflow Area = 0.510 ac, 92.16% Impervious, Inflow Depth = 2.25" for 2-yr event
Inflow = 1.3 cfs @ 12.09 hrs, Volume= 0.096 af
Outflow = 1.3 cfs @ 12.09 hrs, Volume= 0.096 af, Atten= 0%, Lag= 0.0 min
Primary = 1.3 cfs @ 12.09 hrs, Volume= 0.096 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 13.44' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	12.65'	**12.0" x 45.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 12.40' S= 0.0056 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=0.9 cfs @ 12.09 hrs HW=13.38' TW=13.21' (Dynamic Tailwater)
↑—1=Culvert (Outlet Controls 0.9 cfs @ 2.07 fps)

Summary for Pond DMH-1:

Inflow Area = 4.280 ac, 85.00% Impervious, Inflow Depth = 1.90" for 2-yr event
Inflow = 9.4 cfs @ 12.09 hrs, Volume= 0.678 af
Outflow = 9.4 cfs @ 12.09 hrs, Volume= 0.678 af, Atten= 0%, Lag= 0.0 min
Primary = 9.4 cfs @ 12.09 hrs, Volume= 0.678 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 14.23' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	12.60'	**24.0" x 88.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 11.90' S= 0.0080 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=8.0 cfs @ 12.09 hrs HW=14.17' TW=13.56' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 8.0 cfs @ 4.12 fps)

Summary for Pond DMH-2:

Inflow Area = 4.280 ac, 85.00% Impervious, Inflow Depth = 1.90" for 2-yr event
Inflow = 9.4 cfs @ 12.09 hrs, Volume= 0.678 af
Outflow = 9.4 cfs @ 12.09 hrs, Volume= 0.678 af, Atten= 0%, Lag= 0.0 min
Primary = 9.4 cfs @ 12.09 hrs, Volume= 0.678 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 13.63' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	11.80'	**24.0" x 44.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 11.58' S= 0.0050 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=7.6 cfs @ 12.09 hrs HW=13.56' TW=13.21' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 7.6 cfs @ 3.46 fps)

Summary for Pond DMH-3:

Inflow Area = 5.630 ac, 87.18% Impervious, Inflow Depth = 2.03" for 2-yr event
Inflow = 12.9 cfs @ 12.09 hrs, Volume= 0.952 af
Outflow = 12.9 cfs @ 12.09 hrs, Volume= 0.952 af, Atten= 0%, Lag= 0.0 min
Primary = 12.9 cfs @ 12.09 hrs, Volume= 0.952 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 13.25' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	11.48'	**30.0" x 115.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 10.91' S= 0.0050 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=11.2 cfs @ 12.09 hrs HW=13.21' TW=12.50' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 11.2 cfs @ 4.37 fps)

Summary for Pond DMH-4:

Inflow Area = 6.120 ac, 84.93% Impervious, Inflow Depth = 1.94" for 2-yr event
Inflow = 13.4 cfs @ 12.09 hrs, Volume= 0.988 af
Outflow = 13.4 cfs @ 12.09 hrs, Volume= 0.988 af, Atten= 0%, Lag= 0.0 min
Primary = 13.4 cfs @ 12.09 hrs, Volume= 0.988 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 12.54' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	10.81'	**30.0" x 50.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 10.10' S= 0.0142 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=12.1 cfs @ 12.09 hrs HW=12.50' TW=11.82' (Dynamic Tailwater)
↑—1=Culvert (Outlet Controls 12.1 cfs @ 4.82 fps)

Summary for Pond DMH-5:

Inflow Area =	6.660 ac, 86.16% Impervious, Inflow Depth = 2.01" for 2-yr event			
Inflow =	14.9 cfs @	12.09 hrs, Volume=	1.113 af	
Outflow =	14.9 cfs @	12.09 hrs, Volume=	1.113 af, Atten= 0%, Lag= 0.0 min	
Primary =	14.9 cfs @	12.09 hrs, Volume=	1.113 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 11.84' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	10.00'	**30.0" x 75.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 9.55' S= 0.0060 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=14.7 cfs @ 12.09 hrs HW=11.82' TW=10.25' (Dynamic Tailwater)
↑—**1=Culvert** (Barrel Controls 14.7 cfs @ 5.33 fps)

Summary for Pond DMH-6:

Inflow Area =	6.660 ac, 86.16% Impervious, Inflow Depth = 2.01" for 2-yr event			
Inflow =	14.9 cfs @	12.09 hrs, Volume=	1.113 af	
Outflow =	14.9 cfs @	12.09 hrs, Volume=	1.113 af, Atten= 0%, Lag= 0.0 min	
Primary =	14.9 cfs @	12.09 hrs, Volume=	1.113 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 10.26' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	9.05'	**24.0" x 104.0' long Culvert X 2.00** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 7.65' S= 0.0135 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=14.7 cfs @ 12.09 hrs HW=10.25' TW=6.15' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 14.7 cfs @ 3.73 fps)

Summary for Pond DMH-6A:

Inflow Area =	6.660 ac, 86.16% Impervious, Inflow Depth = 2.81" for 2-yr event			
Inflow =	30.0 cfs @	12.14 hrs, Volume=	1.560 af	
Outflow =	30.0 cfs @	12.14 hrs, Volume=	1.560 af, Atten= 0%, Lag= 0.0 min	
Primary =	30.0 cfs @	12.14 hrs, Volume=	1.560 af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 6.31' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	4.00'	**48.0" x 283.0' long Culvert** RCP, square edge headwall, Ke= 0.500

Outlet Invert= 3.12' S= 0.0031 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=29.6 cfs @ 12.14 hrs HW=6.30' TW=0.00' (Dynamic Tailwater)
↑—**1=Culvert** (Barrel Controls 29.6 cfs @ 5.72 fps)

Summary for Pond DP1:

Inflow Area = 32.350 ac, 85.00% Impervious, Inflow Depth = 1.90" for 2-yr event
Inflow = 49.1 cfs @ 12.26 hrs, Volume= 5.122 af
Primary = 49.1 cfs @ 12.26 hrs, Volume= 5.122 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs

Summary for Pond DP2:

Inflow Area = 23.670 ac, 85.10% Impervious, Inflow Depth = 1.68" for 2-yr event
Inflow = 24.8 cfs @ 12.09 hrs, Volume= 3.310 af
Primary = 24.8 cfs @ 12.09 hrs, Volume= 3.310 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs

Summary for Pond DP3:

Inflow Area = 6.660 ac, 86.16% Impervious, Inflow Depth = 2.81" for 2-yr event
Inflow = 30.0 cfs @ 12.14 hrs, Volume= 1.560 af
Primary = 30.0 cfs @ 12.14 hrs, Volume= 1.560 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs

Summary for Pond FD 1:

Inflow Area = 0.120 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.3 cfs @ 12.08 hrs, Volume= 0.028 af
Outflow = 0.3 cfs @ 12.08 hrs, Volume= 0.028 af, Atten= 0%, Lag= 0.0 min
Primary = 0.3 cfs @ 12.08 hrs, Volume= 0.028 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 15.17' @ 12.10 hrs
Flood Elev= 17.50'

Device	Routing	Invert	Outlet Devices
#1	Primary	14.85'	**12.0" x 54.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 14.31' S= 0.0100 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=0.3 cfs @ 12.08 hrs HW=15.17' TW=14.81' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 0.3 cfs @ 2.23 fps)

Summary for Pond FD 2:

Inflow Area = 0.310 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 0.9 cfs @ 12.08 hrs, Volume= 0.072 af
Outflow = 0.9 cfs @ 12.08 hrs, Volume= 0.072 af, Atten= 0%, Lag= 0.0 min
Primary = 0.9 cfs @ 12.08 hrs, Volume= 0.072 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 14.82' @ 12.09 hrs
Flood Elev= 17.30'

Device	Routing	Invert	Outlet Devices
#1	Primary	14.31'	**12.0" x 80.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 13.51' S= 0.0100 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=0.8 cfs @ 12.08 hrs HW=14.81' TW=14.18' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 0.8 cfs @ 3.08 fps)

Summary for Pond FD 3:

Inflow Area = 0.490 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 1.4 cfs @ 12.08 hrs, Volume= 0.113 af
Outflow = 1.4 cfs @ 12.08 hrs, Volume= 0.113 af, Atten= 0%, Lag= 0.0 min
Primary = 1.4 cfs @ 12.08 hrs, Volume= 0.113 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 14.19' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	13.51'	**12.0" x 77.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 12.74' S= 0.0100 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=1.3 cfs @ 12.08 hrs HW=14.18' TW=13.62' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 1.3 cfs @ 3.21 fps)

Summary for Pond FD 4:

Inflow Area = 0.740 ac,100.00% Impervious, Inflow Depth = 2.77" for 2-yr event
Inflow = 2.1 cfs @ 12.08 hrs, Volume= 0.171 af
Outflow = 2.1 cfs @ 12.08 hrs, Volume= 0.171 af, Atten= 0%, Lag= 0.0 min
Primary = 2.1 cfs @ 12.08 hrs, Volume= 0.171 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 13.66' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	12.74'	**12.0" x 49.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 12.25' S= 0.0100 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=1.8 cfs @ 12.08 hrs HW=13.62' TW=13.20' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 1.8 cfs @ 3.21 fps)

Summary for Pond SMH-1:

Inflow Area = 19.250 ac, 85.12% Impervious, Inflow Depth = 1.63" for 2-yr event
Inflow = 15.3 cfs @ 12.12 hrs, Volume= 2.611 af
Outflow = 15.3 cfs @ 12.12 hrs, Volume= 2.611 af, Atten= 0%, Lag= 0.0 min
Primary = 15.3 cfs @ 12.12 hrs, Volume= 2.611 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 16.65' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	14.63'	**24.0" x 80.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 9.10' S= 0.0691 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=15.2 cfs @ 12.12 hrs HW=16.64' TW=11.01' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 15.2 cfs @ 4.85 fps)

Summary for Pond SMH-2:

Inflow Area = 19.250 ac, 85.12% Impervious, Inflow Depth = 1.63" for 2-yr event
Inflow = 15.3 cfs @ 12.12 hrs, Volume= 2.611 af
Outflow = 15.3 cfs @ 12.12 hrs, Volume= 2.611 af, Atten= 0%, Lag= 0.0 min
Primary = 15.3 cfs @ 12.12 hrs, Volume= 2.611 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 11.02' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	9.00'	**24.0" x 143.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 7.53' S= 0.0103 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=15.2 cfs @ 12.12 hrs HW=11.01' TW=9.44' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 15.2 cfs @ 4.85 fps)

Summary for Pond SMH-3:

Inflow Area = 19.250 ac, 85.12% Impervious, Inflow Depth = 1.63" for 2-yr event
Inflow = 15.3 cfs @ 12.12 hrs, Volume= 2.611 af
Outflow = 15.3 cfs @ 12.12 hrs, Volume= 2.611 af, Atten= 0%, Lag= 0.0 min
Primary = 15.3 cfs @ 12.12 hrs, Volume= 2.611 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 9.45' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	7.43'	**24.0" x 200.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 5.23' S= 0.0110 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=15.2 cfs @ 12.12 hrs HW=9.44' TW=7.07' (Dynamic Tailwater)
↑—**1=Culvert** (Inlet Controls 15.2 cfs @ 4.85 fps)

Summary for Pond TF-1:

Inflow Area = 0.300 ac, 53.33% Impervious, Inflow Depth = 0.71" for 2-yr event
Inflow = 0.2 cfs @ 12.10 hrs, Volume= 0.018 af
Outflow = 0.2 cfs @ 12.10 hrs, Volume= 0.018 af, Atten= 0%, Lag= 0.0 min
Primary = 0.2 cfs @ 12.10 hrs, Volume= 0.018 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.04 hrs
Peak Elev= 12.97' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	12.70'	**12.0" x 40.0' long Culvert** RCP, square edge headwall, Ke= 0.500 Outlet Invert= 12.40' S= 0.0075 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=0.2 cfs @ 12.10 hrs HW=12.96' TW=12.76' (Dynamic Tailwater)
↑—**1=Culvert** (Outlet Controls 0.2 cfs @ 1.73 fps)

10-Year Storm Event

Time span=0.00-36.00 hrs, dt=0.04 hrs, 901 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Runoff Area=32.350 ac 85.00% Impervious Runoff Depth=3.49"
Flow Length=3,409' Tc=19.3 min CN=89 Runoff=88.6 cfs 9.396 af

Subcatchment 2: Runoff Area=4.280 ac 85.00% Impervious Runoff Depth=3.49"
Flow Length=1,148' Tc=6.1 min CN=89 Runoff=16.8 cfs 1.243 af

Subcatchment 3: Runoff Area=18.320 ac 85.00% Impervious Runoff Depth=3.49"
Flow Length=1,120' Tc=13.0 min CN=89 Runoff=58.3 cfs 5.321 af

Subcatchment 3A: Runoff Area=0.640 ac 85.00% Impervious Runoff Depth=3.49"
Flow Length=100' Tc=6.0 min CN=89 Runoff=2.5 cfs 0.186 af

Subcatchment 3C: Runoff Area=0.080 ac 100.00% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=98 Runoff=0.4 cfs 0.030 af

Subcatchment 4B: Runoff Area=0.430 ac 100.00% Impervious Runoff Depth=4.46"
Flow Length=114' Slope=0.0200 '/' Tc=6.0 min CN=98 Runoff=2.0 cfs 0.160 af

Subcatchment 4C: Runoff Area=0.110 ac 100.00% Impervious Runoff Depth=4.46"
Flow Length=88' Slope=0.0200 '/' Tc=6.0 min CN=98 Runoff=0.5 cfs 0.041 af

Subcatchment 4D: Runoff Area=0.300 ac 53.33% Impervious Runoff Depth=1.82"
Flow Length=120' Tc=6.0 min CN=70 Runoff=0.6 cfs 0.045 af

Subcatchment 5: Runoff Area=0.510 ac 92.16% Impervious Runoff Depth=3.90"
Flow Length=103' Tc=6.0 min CN=93 Runoff=2.2 cfs 0.166 af

Subcatchment 6: Runoff Area=4.420 ac 85.00% Impervious Runoff Depth=3.49"
Flow Length=475' Tc=6.0 min CN=89 Runoff=17.4 cfs 1.284 af

Subcatchment 30B: Runoff Area=0.210 ac 90.48% Impervious Runoff Depth=3.80"
Tc=6.0 min CN=92 Runoff=0.9 cfs 0.066 af

Subcatchment 40: Runoff Area=0.100 ac 60.00% Impervious Runoff Depth=2.13"
Tc=6.0 min CN=74 Runoff=0.2 cfs 0.018 af

Subcatchment 40A: Runoff Area=0.190 ac 68.42% Impervious Runoff Depth=2.55"
Flow Length=233' Tc=6.0 min CN=79 Runoff=0.6 cfs 0.040 af

Subcatchment 41: Runoff Area=0.070 ac 100.00% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=98 Runoff=0.3 cfs 0.026 af

Subcatchment 42: Runoff Area=0.180 ac 100.00% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=98 Runoff=0.8 cfs 0.067 af

Subcatchment 43: Runoff Area=0.180 ac 100.00% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=98 Runoff=0.8 cfs 0.067 af

Subcatchment 44: Runoff Area=0.190 ac 100.00% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=98 Runoff=0.9 cfs 0.071 af

Subcatchment 45: Runoff Area=0.120 ac 100.00% Impervious Runoff Depth=4.46"
Tc=6.0 min CN=98 Runoff=0.5 cfs 0.045 af

Pond 1149: Peak Elev=8.06' Inflow=32.3 cfs 5.497 af
30.0" x 100.0' Culvert Outflow=32.3 cfs 5.497 af

Pond 2299: Peak Elev=17.44' Inflow=16.8 cfs 1.243 af
24.0" x 26.0' Culvert Outflow=16.8 cfs 1.243 af

Pond 2312: Peak Elev=18.33' Inflow=17.0 cfs 4.147 af
24.0" x 36.0' Culvert Outflow=17.0 cfs 4.147 af

Pond 2622: Peak Elev=23.56' Inflow=58.3 cfs 5.321 af
Primary=15.0 cfs 3.961 af Secondary=43.4 cfs 1.360 af Outflow=58.3 cfs 5.321 af

Pond 2780: Peak Elev=8.36' Inflow=17.4 cfs 1.284 af
Primary=15.0 cfs 1.254 af Secondary=4.3 cfs 0.030 af Outflow=17.4 cfs 1.284 af

Pond 2784: Peak Elev=8.32' Inflow=44.7 cfs 1.390 af
48.0" x 65.0' Culvert Outflow=44.7 cfs 1.390 af

Pond CB-13: Peak Elev=13.63' Inflow=1.2 cfs 0.086 af
18.0" x 67.0' Culvert Outflow=1.2 cfs 0.086 af

Pond CB-9: Peak Elev=14.40' Inflow=2.2 cfs 0.166 af
12.0" x 45.0' Culvert Outflow=2.2 cfs 0.166 af

Pond DMH-1: Peak Elev=15.99' Inflow=16.8 cfs 1.243 af
24.0" x 88.0' Culvert Outflow=16.8 cfs 1.243 af

Pond DMH-2: Peak Elev=15.10' Inflow=16.8 cfs 1.243 af
24.0" x 44.0' Culvert Outflow=16.8 cfs 1.243 af

Pond DMH-3: Peak Elev=14.23' Inflow=22.6 cfs 1.702 af
30.0" x 115.0' Culvert Outflow=22.6 cfs 1.702 af

Pond DMH-4: Peak Elev=13.60' Inflow=23.8 cfs 1.788 af
30.0" x 50.0' Culvert Outflow=23.8 cfs 1.788 af

Pond DMH-5: Peak Elev=12.73' Inflow=26.3 cfs 1.989 af
30.0" x 75.0' Culvert Outflow=26.3 cfs 1.989 af

Pond DMH-6: Peak Elev=10.80' Inflow=26.3 cfs 1.989 af
24.0" x 104.0' Culvert Outflow=26.3 cfs 1.989 af

Pond DMH-6A: Peak Elev=7.78' Inflow=65.9 cfs 3.378 af
48.0" x 283.0' Culvert Outflow=65.9 cfs 3.378 af

Pond DP1:
Inflow=88.6 cfs 9.396 af
Primary=88.6 cfs 9.396 af

Pond DP2:
Inflow=32.3 cfs 5.497 af
Primary=32.3 cfs 5.497 af

Pond DP3:
Inflow=65.9 cfs 3.378 af
Primary=65.9 cfs 3.378 af

Pond FD 1:
Peak Elev=15.29' Inflow=0.5 cfs 0.045 af
12.0" x 54.0' Culvert Outflow=0.5 cfs 0.045 af

Pond FD 2:
Peak Elev=15.10' Inflow=1.4 cfs 0.115 af
12.0" x 80.0' Culvert Outflow=1.4 cfs 0.115 af

Pond FD 3:
Peak Elev=14.94' Inflow=2.2 cfs 0.182 af
12.0" x 77.0' Culvert Outflow=2.2 cfs 0.182 af

Pond FD 4:
Peak Elev=14.72' Inflow=3.4 cfs 0.275 af
12.0" x 49.0' Culvert Outflow=3.4 cfs 0.275 af

Pond SMH-1:
Peak Elev=17.07' Inflow=18.2 cfs 4.243 af
24.0" x 80.0' Culvert Outflow=18.2 cfs 4.243 af

Pond SMH-2:
Peak Elev=11.44' Inflow=18.2 cfs 4.243 af
24.0" x 143.0' Culvert Outflow=18.2 cfs 4.243 af

Pond SMH-3:
Peak Elev=9.87' Inflow=18.2 cfs 4.243 af
24.0" x 200.0' Culvert Outflow=18.2 cfs 4.243 af

Pond TF-1:
Peak Elev=13.65' Inflow=0.6 cfs 0.045 af
12.0" x 40.0' Culvert Outflow=0.6 cfs 0.045 af

25-Year Storm Event

Time span=0.00-36.00 hrs, dt=0.04 hrs, 901 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1: Runoff Area=32.350 ac 85.00% Impervious Runoff Depth=4.25"
Flow Length=3,409' Tc=19.3 min CN=89 Runoff=107.1 cfs 11.463 af

Subcatchment 2: Runoff Area=4.280 ac 85.00% Impervious Runoff Depth=4.25"
Flow Length=1,148' Tc=6.1 min CN=89 Runoff=20.3 cfs 1.517 af

Subcatchment 3: Runoff Area=18.320 ac 85.00% Impervious Runoff Depth=4.25"
Flow Length=1,120' Tc=13.0 min CN=89 Runoff=70.5 cfs 6.492 af

Subcatchment 3A: Runoff Area=0.640 ac 85.00% Impervious Runoff Depth=4.25"
Flow Length=100' Tc=6.0 min CN=89 Runoff=3.1 cfs 0.227 af

Subcatchment 3C: Runoff Area=0.080 ac 100.00% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=98 Runoff=0.4 cfs 0.035 af

Subcatchment 4B: Runoff Area=0.430 ac 100.00% Impervious Runoff Depth=5.26"
Flow Length=114' Slope=0.0200 '/' Tc=6.0 min CN=98 Runoff=2.3 cfs 0.189 af

Subcatchment 4C: Runoff Area=0.110 ac 100.00% Impervious Runoff Depth=5.26"
Flow Length=88' Slope=0.0200 '/' Tc=6.0 min CN=98 Runoff=0.6 cfs 0.048 af

Subcatchment 4D: Runoff Area=0.300 ac 53.33% Impervious Runoff Depth=2.41"
Flow Length=120' Tc=6.0 min CN=70 Runoff=0.8 cfs 0.060 af

Subcatchment 5: Runoff Area=0.510 ac 92.16% Impervious Runoff Depth=4.69"
Flow Length=103' Tc=6.0 min CN=93 Runoff=2.6 cfs 0.199 af

Subcatchment 6: Runoff Area=4.420 ac 85.00% Impervious Runoff Depth=4.25"
Flow Length=475' Tc=6.0 min CN=89 Runoff=21.1 cfs 1.566 af

Subcatchment 30B: Runoff Area=0.210 ac 90.48% Impervious Runoff Depth=4.58"
Tc=6.0 min CN=92 Runoff=1.1 cfs 0.080 af

Subcatchment 40: Runoff Area=0.100 ac 60.00% Impervious Runoff Depth=2.77"
Tc=6.0 min CN=74 Runoff=0.3 cfs 0.023 af

Subcatchment 40A: Runoff Area=0.190 ac 68.42% Impervious Runoff Depth=3.24"
Flow Length=233' Tc=6.0 min CN=79 Runoff=0.7 cfs 0.051 af

Subcatchment 41: Runoff Area=0.070 ac 100.00% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=98 Runoff=0.4 cfs 0.031 af

Subcatchment 42: Runoff Area=0.180 ac 100.00% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=98 Runoff=1.0 cfs 0.079 af

Subcatchment 43: Runoff Area=0.180 ac 100.00% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=98 Runoff=1.0 cfs 0.079 af

Subcatchment 44: Runoff Area=0.190 ac 100.00% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=98 Runoff=1.0 cfs 0.083 af

Subcatchment 45: Runoff Area=0.120 ac 100.00% Impervious Runoff Depth=5.26"
Tc=6.0 min CN=98 Runoff=0.6 cfs 0.053 af

Pond 1149: Peak Elev=8.16' Inflow=33.5 cfs 6.501 af
30.0" x 100.0' Culvert Outflow=33.5 cfs 6.501 af

Pond 2299: Peak Elev=18.35' Inflow=20.3 cfs 1.517 af
24.0" x 26.0' Culvert Outflow=20.3 cfs 1.517 af

Pond 2312: Peak Elev=18.63' Inflow=17.9 cfs 4.873 af
24.0" x 36.0' Culvert Outflow=17.9 cfs 4.873 af

Pond 2622: Peak Elev=23.80' Inflow=70.5 cfs 6.492 af
Primary=15.1 cfs 4.646 af Secondary=55.6 cfs 1.846 af Outflow=70.5 cfs 6.492 af

Pond 2780: Peak Elev=8.48' Inflow=21.1 cfs 1.566 af
Primary=15.4 cfs 1.514 af Secondary=7.1 cfs 0.053 af Outflow=21.1 cfs 1.566 af

Pond 2784: Peak Elev=9.42' Inflow=55.3 cfs 1.899 af
48.0" x 65.0' Culvert Outflow=55.3 cfs 1.899 af

Pond CB-13: Peak Elev=14.70' Inflow=1.5 cfs 0.112 af
18.0" x 67.0' Culvert Outflow=1.5 cfs 0.112 af

Pond CB-9: Peak Elev=15.68' Inflow=2.6 cfs 0.199 af
12.0" x 45.0' Culvert Outflow=2.6 cfs 0.199 af

Pond DMH-1: Peak Elev=17.37' Inflow=20.3 cfs 1.517 af
24.0" x 88.0' Culvert Outflow=20.3 cfs 1.517 af

Pond DMH-2: Peak Elev=16.39' Inflow=20.3 cfs 1.517 af
24.0" x 44.0' Culvert Outflow=20.3 cfs 1.517 af

Pond DMH-3: Peak Elev=15.48' Inflow=27.2 cfs 2.064 af
30.0" x 115.0' Culvert Outflow=27.2 cfs 2.064 af

Pond DMH-4: Peak Elev=14.68' Inflow=28.8 cfs 2.175 af
30.0" x 50.0' Culvert Outflow=28.8 cfs 2.175 af

Pond DMH-5: Peak Elev=13.40' Inflow=31.6 cfs 2.412 af
30.0" x 75.0' Culvert Outflow=31.6 cfs 2.412 af

Pond DMH-6: Peak Elev=11.14' Inflow=31.6 cfs 2.412 af
24.0" x 104.0' Culvert Outflow=31.6 cfs 2.412 af

Pond DMH-6A: Peak Elev=8.59' Inflow=84.4 cfs 4.311 af
48.0" x 283.0' Culvert Outflow=84.4 cfs 4.311 af

Pond DP1: Inflow=107.1 cfs 11.463 af
Primary=107.1 cfs 11.463 af

Pond DP2: Inflow=33.5 cfs 6.501 af
Primary=33.5 cfs 6.501 af

Pond DP3: Inflow=84.4 cfs 4.311 af
Primary=84.4 cfs 4.311 af

Pond FD 1: Peak Elev=16.22' Inflow=0.6 cfs 0.053 af
12.0" x 54.0' Culvert Outflow=0.6 cfs 0.053 af

Pond FD 2: Peak Elev=16.21' Inflow=1.7 cfs 0.136 af
12.0" x 80.0' Culvert Outflow=1.7 cfs 0.136 af

Pond FD 3: Peak Elev=16.16' Inflow=2.6 cfs 0.215 af
12.0" x 77.0' Culvert Outflow=2.6 cfs 0.215 af

Pond FD 4: Peak Elev=15.97' Inflow=3.9 cfs 0.325 af
12.0" x 49.0' Culvert Outflow=3.9 cfs 0.325 af

Pond SMH-1: Peak Elev=17.27' Inflow=19.3 cfs 4.988 af
24.0" x 80.0' Culvert Outflow=19.3 cfs 4.988 af

Pond SMH-2: Peak Elev=11.98' Inflow=19.3 cfs 4.988 af
24.0" x 143.0' Culvert Outflow=19.3 cfs 4.988 af

Pond SMH-3: Peak Elev=10.29' Inflow=19.3 cfs 4.988 af
24.0" x 200.0' Culvert Outflow=19.3 cfs 4.988 af

Pond TF-1: Peak Elev=14.72' Inflow=0.8 cfs 0.060 af
12.0" x 40.0' Culvert Outflow=0.8 cfs 0.060 af

Attachment 3

Project: Parking Lot and Residences
Applicant: Fore India Middle, LLC
Date: July 16, 2010

Average Building Grade Calculation

Node	Spot Elevations	Interval (nodes)	Average Grade	Interval (feet)	
a	17.9	a-b	18.5	47.9	
b	19.0	b-c	19.4	72.4	
c	19.7	c-d	18.9	0.0	R.W.
d	18.0	d-e	18.0	6.0	
e	18.0	e-f	19.3	0.0	R.W.
f	20.5	f-g	23.3	41.7	
g	26.0	g-h	27.0	0.0	R.W.
h	28.0	h-i	28.3	20.6	
i	28.5	i-j	28.5	173.7	
j	28.5	j-k	29.0	22.4	
k	29.5	k-l	29.5	67.9	
l	29.5	l-m	29.3	27.7	
m	29.0	m-n	29.0	29.5	
n	29.0	n-o	29.3	24.9	
o	29.5	o-p	29.5	77.7	
p	29.5	p-q	29.3	15.9	
q	29.0	q-r	29.0	7.0	
r	29.0	r-s	29.0	26.4	
s	29.0	s-t	28.5	6.0	
t	28.0	t-u	24.0	23.7	
u	20.0	u-v	19.5	3.4	
v	19.0	v-w	18.5	18.3	
w	18.0	w-x	18.0	51.7	
x	18.0				

Building Perimeter: 764.8

Weighted Average Grade: 25.8

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:55	7:55	7:55	7:55	7:55	7:55
End Time	9:00	9:00	9:00	9:00	9:00	9:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	704	803	715	734	744	739
Vehs Exited	703	798	713	735	741	738
Starting Vehs	4	1	3	5	4	4
Ending Vehs	5	6	5	4	7	5
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	125	142	126	130	132	131
Travel Time (hr)	5.3	6.0	5.3	5.5	5.5	5.5
Total Delay (hr)	0.7	0.8	0.7	0.7	0.6	0.7
Total Stops	174	210	177	186	178	186
Fuel Used (gal)	10.9	13.1	10.6	11.9	10.3	11.4

Interval #0 Information Seeding

Start Time	7:55
End Time	8:00
Total Time (min)	5

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:00
End Time	9:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	704	803	715	734	744	739
Vehs Exited	703	798	713	735	741	738
Starting Vehs	4	1	3	5	4	4
Ending Vehs	5	6	5	4	7	5
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	125	142	126	130	132	131
Travel Time (hr)	5.3	6.0	5.3	5.5	5.5	5.5
Total Delay (hr)	0.7	0.8	0.7	0.7	0.6	0.7
Total Stops	174	210	177	186	178	186
Fuel Used (gal)	10.9	13.1	10.6	11.9	10.3	11.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.960			0.967			0.985			0.974	
Flt Protected		0.978			0.994			0.998			0.996	
Satd. Flow (prot)	0	1749	0	0	1790	0	0	1831	0	0	1807	0
Flt Permitted		0.978			0.994			0.998			0.996	
Satd. Flow (perm)	0	1749	0	0	1790	0	0	1831	0	0	1807	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		491			469			454			476	
Travel Time (s)		11.2			10.7			10.3			10.8	

Intersection Summary

Area Type: Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Volume (vph)	53	30	35	2	11	4	7	147	19	23	217	56
Confl. Peds. (#/hr)	11		13	13		11	20		23	23		20
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.53	0.53	0.53	0.71	0.71	0.71	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	63	36	42	4	21	8	10	207	27	26	247	64
Lane Group Flow (vph)	0	141	0	0	33	0	0	244	0	0	337	0

Intersection Summary

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	17.1	11.2	1.5	1.1	7.9

Total Network Performance

Delay / Veh (s)	8.7

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	207	92	66	54
Average Queue (ft)	97	50	15	6
95th Queue (ft)	173	83	47	31
Link Distance (ft)	697	441	426	448
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:55	4:55	4:55	4:55	4:55	4:55
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	898	976	957	970	984	957
Vehs Exited	894	980	960	964	977	956
Starting Vehs	6	9	9	3	6	5
Ending Vehs	10	5	6	9	13	9
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	180	195	192	194	196	191
Travel Time (hr)	8.7	9.6	9.4	9.8	9.8	9.5
Total Delay (hr)	2.0	2.3	2.3	2.6	2.5	2.3
Total Stops	447	479	482	484	489	476
Fuel Used (gal)	16.1	19.8	18.7	21.0	17.3	18.6

Interval #0 Information Seeding

Start Time	4:55
End Time	5:00
Total Time (min)	5

No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	898	976	957	970	984	957
Vehs Exited	894	980	960	964	977	956
Starting Vehs	6	9	9	3	6	5
Ending Vehs	10	5	6	9	13	9
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	180	195	192	194	196	191
Travel Time (hr)	8.7	9.6	9.4	9.8	9.8	9.5
Total Delay (hr)	2.0	2.3	2.3	2.6	2.5	2.3
Total Stops	447	479	482	484	489	476
Fuel Used (gal)	16.1	19.8	18.7	21.0	17.3	18.6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.964			0.966			0.997			0.972	
Flt Protected		0.972			0.986			0.991			0.997	
Satd. Flow (prot)	0	1745	0	0	1774	0	0	1840	0	0	1805	0
Flt Permitted		0.972			0.986			0.991			0.997	
Satd. Flow (perm)	0	1745	0	0	1774	0	0	1840	0	0	1805	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		725			469			454			476	
Travel Time (s)		16.5			10.7			10.3			10.8	

Intersection Summary

Area Type: Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Volume (vph)	126	37	58	25	39	21	38	160	5	10	133	37
Confl. Peds. (#/hr)	14		18	18		14	36		30	30		36
Confl. Bikes (#/hr)												
Peak Hour Factor	0.71	0.71	0.71	0.59	0.59	0.59	0.65	0.65	0.65	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	177	52	82	42	66	36	58	246	8	11	153	43
Lane Group Flow (vph)	0	311	0	0	144	0	0	312	0	0	207	0

Intersection Summary

1: Middle & Performance by approach

Approach	EB	WB	NB	All
Delay / Veh (s)	4.8	5.0	2.4	4.8

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	10.2	8.5	1.2	1.5	3.5

Total Network Performance

Delay / Veh (s)	5.9

Intersection: 1: Middle &

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	101	53	28
Average Queue (ft)	51	33	11
95th Queue (ft)	80	48	33
Link Distance (ft)	195	211	77
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	127	56	62	66
Average Queue (ft)	50	25	11	10
95th Queue (ft)	93	51	43	40
Link Distance (ft)	211	441	426	448
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:55	7:55	7:55	7:55	7:55	7:55
End Time	9:00	9:00	9:00	9:00	9:00	9:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	984	1000	993	964	946	977
Vehs Exited	985	999	992	968	941	976
Starting Vehs	7	11	11	9	6	6
Ending Vehs	6	12	12	5	11	8
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	159	159	158	156	152	157
Travel Time (hr)	7.6	7.6	7.7	7.7	7.3	7.6
Total Delay (hr)	1.5	1.5	1.6	1.7	1.5	1.6
Total Stops	568	586	667	617	594	606
Fuel Used (gal)	13.5	14.4	15.5	15.2	14.7	14.7

Interval #0 Information Seeding

Start Time	7:55
End Time	8:00
Total Time (min)	5

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:00
End Time	9:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	984	1000	993	964	946	977
Vehs Exited	985	999	992	968	941	976
Starting Vehs	7	11	11	9	6	6
Ending Vehs	6	12	12	5	11	8
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	159	159	158	156	152	157
Travel Time (hr)	7.6	7.6	7.7	7.7	7.3	7.6
Total Delay (hr)	1.5	1.5	1.6	1.7	1.5	1.6
Total Stops	568	586	667	617	594	606
Fuel Used (gal)	13.5	14.4	15.5	15.2	14.7	14.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.956			0.973			0.987			0.971	
Flt Protected		0.978			0.995			0.995			0.997	
Satd. Flow (prot)	0	1742	0	0	1803	0	0	1829	0	0	1803	0
Flt Permitted		0.978			0.995			0.995			0.997	
Satd. Flow (perm)	0	1742	0	0	1803	0	0	1829	0	0	1803	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			469			454			476	
Travel Time (s)		6.0			10.7			10.3			10.8	

Intersection Summary

Area Type: Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Volume (vph)	60	32	44	2	15	4	19	167	19	23	237	72
Confl. Peds. (#/hr)	11		13	13		11	20		23	23		20
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.53	0.53	0.53	0.71	0.71	0.71	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	71	38	52	4	28	8	27	235	27	26	269	82
Lane Group Flow (vph)	0	161	0	0	40	0	0	289	0	0	377	0

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Volume (vph)	168	76	20	86	11	3
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	183	83	22	93	12	3
Lane Group Flow (vph)	266	0	0	115	15	0

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.958				0.973	
Flt Protected				0.991	0.962	
Satd. Flow (prot)	1785	0	0	1846	1744	0
Flt Permitted				0.991	0.962	
Satd. Flow (perm)	1785	0	0	1846	1744	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	228			263	107	
Travel Time (s)	5.2			6.0	2.4	

Intersection Summary

Area Type: Other

1: Middle & Performance by approach

Approach	EB	WB	NB	All
Delay / Veh (s)	1.0	1.0	5.5	1.7

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	61.3	14.2	2.3	1.1	24.6

Total Network Performance

Delay / Veh (s)	24.4

Intersection: 1: Middle &

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	71	25	75
Average Queue (ft)	5	1	37
95th Queue (ft)	32	12	64
Link Distance (ft)	195	211	77
Upstream Blk Time (%)			0.00
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	226	130	97	53
Average Queue (ft)	154	56	27	8
95th Queue (ft)	225	102	71	34
Link Distance (ft)	211	441	426	448
Upstream Blk Time (%)	0.03			
Queuing Penalty (veh)	8			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 8

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:55	4:55	4:55	4:55	4:55	4:55
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	1262	1244	1215	1271	1230	1244
Vehs Exited	1257	1243	1212	1264	1231	1241
Starting Vehs	5	9	6	3	12	5
Ending Vehs	10	10	9	10	11	8
Denied Entry Before	1	0	0	0	0	0
Denied Entry After	0	0	0	0	10	3
Travel Distance (mi)	201	195	194	200	196	197
Travel Time (hr)	13.7	14.2	13.8	16.3	22.4	16.1
Total Delay (hr)	5.9	6.6	6.3	8.5	14.8	8.4
Total Stops	691	696	687	729	705	702
Fuel Used (gal)	22.1	24.1	24.3	27.1	29.3	25.4

Interval #0 Information Seeding

Start Time	4:55
End Time	5:00
Total Time (min)	5

No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1262	1244	1215	1271	1230	1244
Vehs Exited	1257	1243	1212	1264	1231	1241
Starting Vehs	5	9	6	3	12	5
Ending Vehs	10	10	9	10	11	8
Denied Entry Before	1	0	0	0	0	0
Denied Entry After	0	0	0	0	10	3
Travel Distance (mi)	201	195	194	200	196	197
Travel Time (hr)	13.7	14.2	13.8	16.3	22.4	16.1
Total Delay (hr)	5.9	6.6	6.3	8.5	14.8	8.4
Total Stops	691	696	687	729	705	702
Fuel Used (gal)	22.1	24.1	24.3	27.1	29.3	25.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.958			0.963			0.997			0.960	
Flt Protected		0.974			0.988			0.987			0.998	
Satd. Flow (prot)	0	1738	0	0	1772	0	0	1833	0	0	1785	0
Flt Permitted		0.974			0.988			0.987			0.998	
Satd. Flow (perm)	0	1738	0	0	1772	0	0	1833	0	0	1785	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		263			469			454			476	
Travel Time (s)		6.0			10.7			10.3			10.8	

Intersection Summary

Area Type: Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Volume (vph)	155	44	89	21	44	25	60	170	5	10	143	64
Confl. Peds. (#/hr)	14		18	18		14	36		30	30		36
Confl. Bikes (#/hr)												
Peak Hour Factor	0.71	0.71	0.71	0.59	0.59	0.59	0.65	0.65	0.65	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	218	62	125	36	75	42	92	262	8	11	164	74
Lane Group Flow (vph)	0	405	0	0	153	0	0	362	0	0	249	0

Intersection Summary

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%			0%	0%	
Storage Length (ft)		0	0		0	0
Storage Lanes		0	0		1	0
Turning Speed (mph)		9	15		15	9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.992				0.974	
Flt Protected				0.999	0.961	
Satd. Flow (prot)	1848	0	0	1861	1744	0
Flt Permitted				0.999	0.961	
Satd. Flow (perm)	1848	0	0	1861	1744	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)	30			30	30	
Link Distance (ft)	228			263	107	
Travel Time (s)	5.2			6.0	2.4	

Intersection Summary

Area Type: Other

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Volume (vph)	233	15	4	164	70	17
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	253	16	4	178	76	18
Lane Group Flow (vph)	269	0	0	182	94	0

Intersection Summary

1: Middle & Performance by approach

Approach	EB	WB	NB	All
Delay / Veh (s)	0.5	1.2	3.7	0.9

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	5.4	6.1	7.8	8.5	7.5

Total Network Performance

Delay / Veh (s)	8.5

Intersection: 1: Middle &

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	36	29
Average Queue (ft)	5	10
95th Queue (ft)	24	31
Link Distance (ft)	211	77
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	86	54	94	138
Average Queue (ft)	44	25	58	71
95th Queue (ft)	70	51	83	112
Link Distance (ft)	211	441	426	448
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:55	7:55	7:55	7:55	7:55	7:55
End Time	9:00	9:00	9:00	9:00	9:00	9:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	967	999	1006	1000	937	982
Vehs Exited	970	995	1005	1003	929	979
Starting Vehs	10	11	11	8	2	6
Ending Vehs	7	15	12	5	10	9
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	156	158	160	162	150	157
Travel Time (hr)	8.3	8.3	8.5	8.8	7.9	8.4
Total Delay (hr)	2.3	2.3	2.3	2.6	2.2	2.3
Total Stops	867	872	893	900	825	870
Fuel Used (gal)	16.4	19.5	19.0	19.1	18.8	18.6

Interval #0 Information Seeding

Start Time	7:55
End Time	8:00
Total Time (min)	5

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:00
End Time	9:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	967	999	1006	1000	937	982
Vehs Exited	970	995	1005	1003	929	979
Starting Vehs	10	11	11	8	2	6
Ending Vehs	7	15	12	5	10	9
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	156	158	160	162	150	157
Travel Time (hr)	8.3	8.3	8.5	8.8	7.9	8.4
Total Delay (hr)	2.3	2.3	2.3	2.6	2.2	2.3
Total Stops	867	872	893	900	825	870
Fuel Used (gal)	16.4	19.5	19.0	19.1	18.8	18.6

1: Middle & Performance by approach

Approach	EB	WB	NB	All
Delay / Veh (s)	0.6	1.4	5.3	1.6

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	15.5	8.8	14.8	9.3	13.1

Total Network Performance

Delay / Veh (s)	14.3

Intersection: 1: Middle &

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	29	30	74
Average Queue (ft)	1	2	37
95th Queue (ft)	19	14	65
Link Distance (ft)	195	211	77
Upstream Blk Time (%)			0.00
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	178	84	242	113
Average Queue (ft)	102	47	94	61
95th Queue (ft)	158	76	176	102
Link Distance (ft)	211	441	426	448
Upstream Blk Time (%)	0.00			
Queuing Penalty (veh)	1			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 1

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:55	4:55	4:55	4:55	4:55	4:55
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	1277	1292	1248	1222	1207	1250
Vehs Exited	1273	1292	1243	1218	1211	1248
Starting Vehs	5	9	9	4	12	7
Ending Vehs	9	9	14	8	8	8
Denied Entry Before	1	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	203	204	197	194	192	198
Travel Time (hr)	12.6	13.8	13.1	12.3	11.8	12.7
Total Delay (hr)	4.6	5.8	5.4	4.7	4.3	5.0
Total Stops	1269	1300	1250	1211	1196	1243
Fuel Used (gal)	25.9	28.6	26.3	26.4	24.5	26.3

Interval #0 Information Seeding

Start Time	4:55
End Time	5:00
Total Time (min)	5

No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	1277	1292	1248	1222	1207	1250
Vehs Exited	1273	1292	1243	1218	1211	1248
Starting Vehs	5	9	9	4	12	7
Ending Vehs	9	9	14	8	8	8
Denied Entry Before	1	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	203	204	197	194	192	198
Travel Time (hr)	12.6	13.8	13.1	12.3	11.8	12.7
Total Delay (hr)	4.6	5.8	5.4	4.7	4.3	5.0
Total Stops	1269	1300	1250	1211	1196	1243
Fuel Used (gal)	25.9	28.6	26.3	26.4	24.5	26.3

Attachment 7

RECEIVED

JUL-14-2010 15:03 MAINE DEP SMRO 2078226303 P.01/01

JUL 2 2010

STORMWATER PBR APPLICATION FORM
PLEASE TYPE OR PRINT IN *INK ONLY*

Page 1 *03/06*

City of Portland

	Fore India Middle, LLC		Opechee Construction Corporation
	11 Corporate Drive Belmont, NH 03220		11 Corporate Drive Belmont, NH 03220
	603-527-9090		603-527-9090
	603-527-9191		603-527-9191
	207 & 209 Fore Street		Portland
			Cumberland
			☐ Yes ☒ No
	☐ Lake not most at risk ☐ Lake most at risk ☐ Lake most at risk, severely blooming ☐ River, stream or brook ☐ Urban impaired stream ☐ Freshwater wetland ☒ Coastal wetland ☐ Wellhead of public water supply		☒ Total # of 1.07 acres OR ☐ Total # of ____ square feet ☐ Total # of ____ acres OR ☒ Total # of 45,096 square feet
	☒ Yes ☐ No		Casco Bay
	See attached sheet		
	☐ Total of 47,473 square feet OR ☐ Total of ____ acres		UTM Northing: 4834609 UTM Easting: 19 0399115
	Book#: 27,850 Page#: 68		Map #: 29-L Lot #: 1,2,&3
	☐ Yes➔ ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
	☐ Yes➔ ☐ No		
	I-295. Exit 7 onto US Route 1 East (Franklin Street Arterial). Site is abandon Jordan's Meats site in the northerly quadrant of the intersection of US Route 1 (Franklin Street Arterial) and Fore Street.		

☒ This form (signed and dated) ☒ Fee	☐ Dept. of Inland Fisheries and Wildlife Approval (if in Essential Habitat)	☒ Photos of Area ☒ ESC Plan ☒ Location Map ☒ Site Plan

For Renewal of an individual Stormwater permit only:
☐ This form (signed and dated)
☐ Copy of original stormwater permit
☐ Fee

OFFICE USE ONLY	Ck.# 66231		Staff JM	Staff		
PBR # 50547	$ $55.00	Date 6/28/10	Acc. Date 7/6/10	DAF Date		After Photos

TOTAL P.01

STORMWATER PBR APPLICATION FORM
PLEASE TYPE OR PRINT IN *INK ONLY*

1. Name of Applicant:	Fore India Middle, LLC	**5. Name of Agent: (if applicable)**	Opechee Construction Corporation
2. Applicant's Mailing Address:	11 Corporate Drive Belmont, NH 03220	**6. Agent's Mailing Address:**	11 Corporate Drive Belmont, NH 03220
3. Applicant's Daytime Phone #:	603-527-9090	**7. Agent's Daytime Phone #:**	603-527-9090
4. Applicant's Fax #: (if available)	603-527-9191	**8. Agent's Fax # and email address:**	603-527-9191
9. Location of Project: (Road, Street, Rt.#)	207 & 209 Fore Street	**10. Town:**	Portland
		11. County:	Cumberland

12. Is this PBR for renewal of an individual stormwater permit? If yes, skip to Block 27 and signature page. ☐ Yes ☒ No

13. Type of Direct Watershed: (Check all that apply)	☐ Lake not most at risk ☐ Lake most at risk ☐ Lake most at risk, severely blooming ☐ River, stream or brook ☐ Urban impaired stream ☐ Freshwater wetland ☒ Coastal wetland ☐ Wellhead of public water supply	**14. Amount of Developed Area:**	☒ Total # of 1.07 acres OR ☐ Total # of _____ square feet
		15. Amount of Impervious Area:	☐ Total # of _____ acres OR ☒ Total # of (-)5,096 square feet

16. Creating a common plan of development or sale?	☒ Yes ☐ No	**17. Name of waterbody(ies) to which the project site drains:**	Casco Bay
18. Brief Project Description:	See attached sheet		
19. Size of Lot or Parcel:	47,473 ☐ Total of ____ square feet OR ☐ Total of _____ acres	**20. UTM Locations: (if known)**	UTM Northing: 4834609 UTM Easting: 19 0399115
21. Deed Reference Numbers:	Book#: 27,850 Page#: 68	**22. Map and Lot Numbers:**	Map #: 29-L Lot #: 1,2,&3
23. Project started prior to application?	☐ Yes→ ☒ No	**If yes, Completed?** ☐ Yes ☒ No	**24. Resubmission of Application?** ☐ Yes ☒ No
25. Written Notice of Violation?	☐ Yes→ ☐ No	**If yes, name of DEP enforcement staff involved:**	
26. Detailed Directions to the Project Site: (Attach separate sheet if necessary)	I-295. Exit 7 onto US Route 1 East (Franklin Street Arterial). Site is abandon Jordan's Meats site in the northerly quadrant of the intersection of US Route 1 (Franklin Street Arterial) and Fore Street.		

27. SUBMISSIONS ▼

☒ This form (signed and dated)	☐ Dept. of Inland Fisheries and Wildlife Approval (if in Essential Habitat)	☒ Photos of Area	**For Renewal of an individual Stormwater permit only:**
☒ Fee		☒ ESC Plan	☐ This form (signed and dated)
		☒ Location Map	☐ Copy of original stormwater permit
		☒ Site Plan	☐ Fee

CERTIFICATIONS AND SIGNATURES LOCATED ON PAGE 2

OFFICE USE ONLY	Ck.#		Staff	Staff	
PBR #	FP	Date	Acc. Date	Def. Date	After Photos

CERTIFICATIONS / SIGNATURES

Applicant's Statement:

I am applying for a Stormwater PBR and have attached the required PBR submissions. I have read the requirements herein and I affirm that my project satisfies the applicable stormwater management standards. I authorize staff of State and Federal agencies having jurisdiction over this activity, to access the project site for the purpose of determining compliance with the rules.

Signed: _____ **Date:** 6.24.10

Notice of Intent to Comply with Maine Construction General Permit	With this Stormwater PBR notification form and my signature below, I am filing notice of my intent to carry out work which meets the requirements of the Maine Construction General Permit. I have read and will comply with all of the MCGP standards. In addition, I will file a Notice of Termination (NOT) within 20 days of project completion. If this form is not being signed by the landowner or lessee of the property, attach documentation showing authorization to sign. Signed _____ Date: 6.24.10

Block 18

Fore India Middle, LLC of 11 Corporate Drive, Belmont, NH 03220 has retained Opechee Construction Corporation, located at the same address, to develop the lot adjacent to the previously approved Hotel, Restaurant & Residences – Old Port.

The proposed parking structure and residences is a mixed-use condominium that will be constructed on newly created Lot 2 on the former Jordan's Meats site. The condominium will consist of six units: an upper level parking deck at Middle Street grade level, a lower level parking surface at Fore Street grade level, and four residential town houses on Middle Street. The condominium will also be expandable to accommodate an additional structure on or above the upper level parking deck (which would be the subject of a future site plan application when the use is identified).

The lower level parking surface will contain (110) spaces which will be dedicated to the Hotel and Residences on adjacent Lot 1 (to replace the 90 spaces on the surface parking lot that is currently approved.) The upper level parking deck will contain 103 parking spaces, of which 95 spaces will available for public fee/lease parking until needed to support future development on Lot 2. Four residential townhouses would be constructed above a portion of the upper level parking deck, and 8 spaces on the upper deck would be covered by and dedicated to the townhouses.

The proposed project is the redevelopment of a previous development consisting of existing impervious areas that were created prior to 11/16/05. In the post-development condition, the decrease in impervious area from what currently exists today will be as follows:

Existing development: (Jordan's Meats factory site) = 70,565 sq.ft
Post-development: (Phase I and Phase II) = 65,469 sq.ft.
Net decrease: 5,096 sq.ft.

Because the project results in a decrease of impervious area from the previous development; the project will be submitted to the Maine Department of Environmental Protection for a Stormwater Management Law Permit by Rule. Therefore the "Basic Standards" (section 500.4.A) and the "Other Applicable Standards" (Section 500.5) of the Stormwater Management Law apply.

Runoff from the project site enters the municipal combined sewer system and is conveyed to combined sewer overflow structures in Franklin Arterial. Normal low flow discharges within the system are conveyed to an interceptor in Commercial Street and on to the City of Portland wastewater treatment plant. Combined overflows during large storm events are diverted to a 48" diameter combined sewer overflow drain that runs down the center of Franklin Arterial, eventually discharging to Casco Bay south of Commercial Street.

Attachment 8

Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

July 7, 2010

Opechee Construction Corporation
11 Corporate Drive
Belmont, NH 03220

Attn: Steve Long, P.E.
Re: 207 & 209 Fore Street, Portland
Ability to serve with PWD water

Dear Mr. Long:

This letter is to confirm that there should be an adequate supply of clean and healthful water to serve the needs of the proposed two-story parking deck and four town houses located at 207 and 209 Fore Street in Portland. According to District records, there is an 8-inch cast iron water main on the southeast side of India Street as well as two hydrants located adjacent to the site.

The most current data from the nearest hydrant indicates there should be adequate capacity of water to serve the domestic water needs of your proposed project, as stated in your letter, dated June 15, 2010. If you would like more complete and current flow data for the area, please contact us to schedule a two-hydrant flow test. This test will be completed by the District and paid for by the developer.

Hydrant Location:	India Street at Fore Street
Hydrant Number:	POD-HYD00228
Static Pressure:	86 PSI
Residual Pressure:	Not measured
Flow:	1403 GPM
Last Tested:	7/6/1990

With regard to your fire protection needs, please notify your mechanical engineer of these results so that they can design your system to best fit the noted conditions. Also, please contact the Portland Fire Department to determine if the fire service capacity is sufficient for their needs. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

Please see the attached service cards for the locations of the existing 6-inch fire service and 4-inch domestic service. Please note that if these services are not reused as part of this project they will have to be removed at the main before any new services can be activated. This was also expressed in our ability to serve letter for Phase 1 of the project.

225 DOUGLASS STREET P.O. BOX 3553 PORTLAND, MAINE 04104-3553
PHONE: 207.774.5961 FAX: 207.761.8307 WEB: WWW.PWD.ORG

The Grading and Utilities Plan (First Floor) and (Second Floor), dated 6/14/2010, look acceptable as drawn with the following minor comments:

- If the intention is to have the 4-inch domestic service take from the 6-inch fire service at the southeast corner of the building then each service shall have its own service valve after the split. We require a P.E.-stamped drawing showing the services configured that way or a letter from your sprinkler designer stating that the system was designed with the understanding that the domestic service will take from the fire service.
- The 1-inch services to the townhouses will be tapped directly on the main. Tapping sleeves will not be necessary.
- The service valves (curb stops) for the 1-inch services shall be ball valves located approximately 6 in. from street-line, within the public right-of-way.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District

Jamie Paschal
Design Engineer

Attachment 9

Neighborhood Meeting Certification

I, Mark Woglom, Member of Fore India Middle, LLC, hereby certify that a neighborhood meeting was held on Thursday July 29th, 2010 at 6:05pm at the Portland High School lower cafeteria, 284 Cumberland Avenue, Portland, Maine 04101.

I also certify that on Tuesday July 20th, 2010, invitations were mailed to all addresses on the mailing list provided by the Planning Division, which I understand included the property owners within 500 feet of the proposed development and the residents on the "interested parties" list.

Signed,

Mark Woglom, Fore India Middle, LLC

August 3rd, 2010

Enclosed with this certification are:

1. Copy of the invitation sent
2. Meeting minutes with listed attendees

Fore India Middle, LLC
11 Corporate Drive
Belmont, NH 03220
603-527-9090

COPY

July 19, 2010

RE: Neighborhood Meeting Invitation – Discussion of Phase II Development Plans for the former Jordan's Meats Site

Dear Neighbor,

Please join us for a neighborhood meeting to discuss our phase II plans for a parking structure and residential townhouses located at 207-209 Fore Street, formerly known as 38 India St.

Meeting Location:	Portland High School – Lower Cafeteria (Please use the high school's back entrance) 284 Cumberland Avenue
Meeting Date:	Thursday, July 29, 2010
Meeting Time:	6:00PM

The City code requires that property owners within 500 feet of the proposed development and residents on an "interested parties list", be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.

If you have any questions, please call Steve Long at 603-527-9090.

Sincerely,

Steve Long
Fore India Middle, LLC

Note:
Under Section 14-32(C) of the City Code of Ordinances, an applicant for a major development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting at least seven days prior to the Planning Board public hearing on the proposal. Should you wish to offer additional comments on this proposed development, you may contact the Planning Division at 207-874-8721 or send written comments to the Department of Planning and Development, Planning Division 4th Floor, 389 Congress Street Portland, ME 04101 or by email to: bab@portlandmaine.gov.

Neighborhood Meeting Minutes
Site Plan Application for the Lot 2 Parking Lot & Townhouses
207-209 Fore Street (former Jordan's Meats site)

Date: July 29th, 2010
Location: Portland High School, Lower Cafeteria, 284 Cumberland Avenue Portland, ME

Presenter: Mark Woglom of Fore India Middle, LLC
Attendees: Andrew Novick, Hub Furniture
Sam Novick, Hub Furniture

Meeting started at approximately 6:05pm

Minutes:
A general overview was given by Mark Woglom to open up the meeting. Various renderings of the proposed building from several perspectives were on display along with colored site plans.

Questions:
General questions were asked by Andrew Novick, all of which were readily answered from the plan information:

"How many parking spaces?"
"How many hotel rooms?"
"Where will the driveways be?"

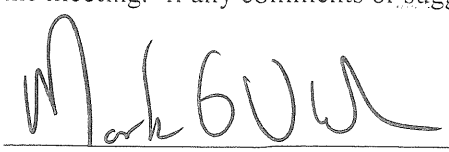
Q: *"Who would be parking on the upper deck until the easterly side of the development was complete?"*
A: *"We would rent it to the public in a similar fashion to what the site was being used for prior to our purchase of the property."*

Concerns:
Andrew Novick indicated his concern for keeping Franklin Street open as much as possible. He was pleased with how he was being notified of construction in the area.

There were no additional questions or comments from the neighbors.

Meeting ended at approximately 6:15 p.m.

The above are the best efforts of Mark Woglom to create a true and complete record of the meeting. If any comments or suggestions are missing it is unintentional.



Mark Woglom, Fore India Middle, LLC July 29th, 2010

Attachment 10

Standards for Development within the B3 Zone (Parking Lot)

(16) Development located within the B-3 zone shall also meet the following standards. Adequacy in meeting these standards will be evaluated on the basis of descriptions and illustrations in the Downtown Urban Design Guidelines. Nothing in this section is intended to discourage creative and responsive design or to mandate similarity or mimicry of design in order to achieve the standards herein:

a. Relationship to the pedestrian environment:

1. General: The exterior design of portions of buildings within the first thirty-five (35) feet of height shall enhance the character, attractiveness, comfort, security, and usability of the street level pedestrian environment. Factors to be considered include the design, placement, character and quality of the following:

(a) Storefronts and building facades, including such factors as relationship to adjacent or nearby structures or open space, pedestrian character, materials and detailing, transparency and
The materials and colors of the parking structures will compliment the façade of the adjacent hotel building. Lighted display windows for artwork and information are located adjacent to the brick walkway along Fore Street.

(b) Building entrances, including such factors as compatibility with the building's facade, prominence along the street, access to the street, and accessibility for physically handicapped or for those with special needs;
There are two pedestrian entrances from Fore Street to the lower level of parking. The will be two pedestrian entrances to the upper level of parking. Each level of parking has an accessible entrance.

(c) Blank facades; and
The blank façade located on the southerly face of the parking structure will be broken up by a stone wall and landscaping. The brick walkway has been widened and a granite bench has been added to improve the pedestrian interest.

(d) Special features, such as selective use of such features as building arcades and skywalks or elevated walkways.
NA

2. Pedestrian activities district (PAD): In addition to subsection 1 of this section, proposed development located within the pedestrian activities district (PAD) overlay zone, as shown on the pedestrian activities district map, a copy of which is on file in the department of planning and urban development, shall be designed and constructed to accommodate pedestrian-oriented uses at the street level. In determining such design, the following factors should be considered:

NA

3. Pedestrian activities district (PAD) encouragement areas: In addition to subsection 1 of this section, proposed development located within the pedestrian activities district (PAD) encouragement areas, as shown on the pedestrian activities district map, a copy of which is on file in the department of planning and urban development, shall be designed and constructed to be reasonably capable of being converted to accommodate uses permitted in the PAD overlay zone in accordance with the factors set forth in subsection 2 of this section.
This applies to Middle Street only.

(a) The exterior design of the street level building facade, including the placement of entrances, potential entrances, and window openings;
Along Middle Street there will be no façade associated with the parking lot. The positioning of the parking area will allow for future additions along the Middle Street frontage.

(b) The design and placement of impenetrable exterior building features such as columns, piers, bearing walls and retaining walls;
There are no impenetrable features proposed that will impede pedestrian movement along Middle Street.

(c) The orientation of proposed street level uses to the street and the accessibility of floor area to the street by virtue of grade elevations and access;
The proposed grading around the parking lot will allow for future additions to be constructed around the structure with street level entrances.

(d) The adequacy of the interior layout of the first twenty(20) feet in depth of the building along specified streets to accommodate viable pedestrian-oriented uses;
The positioning of the parking area will allow for future additions along the Middle Street frontage.

(e) The continuity of street level uses as impacted by service entrances to parking structures or lots, drive-through facilities or other interruptions.
The vehicle entrance to the upper level of the parking structure will be located on Middle Street. There will be handicap ramps with detectable warning panels allowing pedestrian movement across the entrance. The relocation of the parking lot entrance will allow for a longer building more continuous building façade.

4. Sidewalk areas and open space: The design of publicly accessible sidewalk areas and open space shall complement the general pattern of the downtown pedestrian environment, conform with special City of Portland streetscape

programs described in the Technical and Design Standards and Guidelines, and enhance the attractiveness, comfort, security, and usability of the pedestrian environment. Factors to be considered include the design, placement, character, durability, and quality of the following:

(a) Sidewalk, crosswalk, and street paving materials;
When all phases of the project have been completed there will be a continuous brick sidewalk around the entire block.

(b) Landscaping, planters, irrigation, and tree guards and grates;
Landscaping and street trees are proposed around the entire project. The landscaping will add to the pedestrian interest and screen the cars from pedestrian view.

(c) Lighting;
There is no new lighting proposed along the sidewalk areas. The proposed lighting levels within the upper parking area will meet the city's design standards.

(d) Pedestrian amenities such as benches and other seating, trash receptacles, kiosks, bus shelters, artwork, directional and informational signage, fountains, and other special features; and
Granite benches have been added around the building. Lighted display windows for artwork and information have been added to the parking structure façade along Fore Street.

(e) Sidewalk vendors and sidewalk cafes.
NA

b. Relationship to existing development:

1. General: Proposed development shall respect, enhance, and be integrated with the existing character of the general pattern of development in the downtown, surrounding building environment and streetscape, as described and illustrated in the Downtown Urban Design Guidelines. Factors to be considered include the relationship to the following existing patterns:

(a) Street walls and building setbacks;
Prevailing street walls will not be interrupted. The proposed structure allows for future additions in alignment with existing street walls.

(b) Open space;
NA

(c) Building form, scale and massing;
The parking lot will be compatible with the general development pattern

of the downtown area.

(d) Facade proportion and composition;
The Fore street façade is compatible with its surroundings.

(e) Pedestrian circulation and building entrances;
The parking structure will not interfere with existing pedestrian circulation or building entrances.

(f) Parking.
The lower level of the parking structure will provide parking for the hotel and residences on the adjacent lot. The parking structure will be constructed such that future additions can be added around and above it.

2. Standards for increasing setback beyond street build-to line: A proposed development may exceed maximum setbacks as required in section 14-220(c) only where the applicant demonstrates to the Planning Board that the introduction of increased building setbacks at the street level:

(a) Provides substantial and viable publicly accessible open space or other amenity at the street level that supports and reinforces pedestrian activity and interest. Such amenities may include without limitation plazas, outdoor eating spaces and cafes, or wider sidewalk circulation areas in locations of substantial pedestrian congestion;
The brick sidewalk has been extended to the parking structure between the hotel and central entrance allowing for pedestrians to view the proposed display cases. A granite benches have been added along with a stonewall and landscaping to add a border to the sidewalk.

(b) Does not substantially detract from the prevailing street wall character by introducing such additional setback at critical building locations such as prominent form-defining corners, or create a sense of discontinuity in particularly consistent or continuous settings;
Prevailing street walls will not be interrupted by the setback.

(c) Does not detract from existing publicly accessible open space by creating an excessive amount of open space in one (1) area or by diminishing the viability or liveliness of that existing open space; and
NA

(d) The area of setback is of high quality and character of design and of acceptable orientation to solar access and wind impacts as to be attractive

to pedestrian activity.
There will be a stonewall, landscaping, benches and street trees located within the setback area. These additions will enhance pedestrian activity in the area.

c. Roof top appurtenances: All mechanical equipment, ventilating and air conditioning and other building systems, elevators, stairways, radio or television masts or equipment, or other rooftop elements not intended for human occupancy shall be fully enclosed in a manner consistent with the character, shape and materials of the principal building, as described and illustrated in the Downtown Urban Design Guidelines;
The parking structure will not have roof top appurtenances.

d. Shadow impact on open space: The location, massing and orientation of portions of buildings in excess of sixty-five (65) feet in height shall be such that substantial shadow impacts on public plazas, parks, and other publicly accessible open space are avoided. In determining the impact of shadows, the following factors shall be taken into account: the amount of area shadowed, the time and duration of the shadow, and the importance of sunlight to the utility of the type of open space being shadowed, as described and illustrated in the Downtown Urban Design Guidelines;
NA

e. Wind impacts: The location, massing, orientation and architectural design of a new building or a building addition shall be such that no significant adverse wind impacts are created. In determining the impact of winds, the following factors shall be taken into account: the pre-development and projected post-development wind speeds and their impact on pedestrian movement, comfort and safety; and the impact of projected wind speed on the use of and comfort within existing and proposed pedestrian seating areas and other adverse impacts upon the surrounding area;
Undue wind impacts are not anticipated.

f. Setbacks from existing structures: The location and design of proposed structures shall not create a detrimental impact on the structural integrity or the safety of adjacent structures or the occupants thereof;
The proposed parking structure will be located adjacent to the hotel and residences currently under construction. The buildings will not be tied together structurally.

g. Building tops: Buildings or structures which exceed one hundred fifty (150) feet in height shall be designed so as to provide a distinctive top to the building which visually conveys a sense of interest and vertical termination to the building, as described and illustrated in the Downtown Urban Design Guidelines;
NA

Molly Casto - Comments re: 207 Fore Street parking garage

From: Christian MilNeil <c.neal.milneil@gmail.com>
To: Molly Casto <MPC@portlandmaine.gov>, Bill Needelman <WBN@portlandmaine.g...
Date: 7/12/2010 3:05 PM
Subject: Comments re: 207 Fore Street parking garage
CC: Markos Miller <markossmiller@hotmail.com>, <hbassett@portlandlandmarks.o...

Hi planners,

I won't be able to make it to today's planning board workshop, at which you'll be discussing the proposed parking garage on Fore Street, on the site of the old Jordan's factory. But I hope you'll share these thoughts with the developers:

In general, I have strong concerns at the amount of parking being proposed on this site, to the exclusion of other uses. This is a valuable and prominent property in the middle of our city. Putting a parking deck on this block will depress property values on surrounding streets, and undermine the city's goal to create a walkable district with active street-level facades.

Some specific concerns:

- FISCAL: This garage would be built across India Street from the massive city-subsidized Ocean Gateway Garage. This garage is tremendously underutilized. Under a development agreement arranged by Jack Lufkin, the city's former economic development officer, the City of Portland is still making payments of $2,000 - $4,000 a month to the garage operator - guaranteed payments for 110 parking spaces, whether or not they're actually used. Ideally, the City should be able to lease out these 110 spaces to other tenants, and at least break even. That won't happen if Opechee builds 200 more cheap parking spaces right next door.

  A parking deck is also a low-value land use that undermines the City's potential property tax revenue - not just on this parcel, but also on adjacent parcels, where land values will diminish (see below).

- TRAFFIC/COMPREHENSIVE PLANNING: The City's newly-adopted Peninsula Transit Plan calls for moving more people by transit, by foot or by bicycle, instead of by car, in part to reduce traffic on the City's network of streets. Subsidizing the storage of 200 more cars in downtown Portland undermines these goals. It also undermines the efforts underway to transform Franklin Street - which would be one of the main access corridors to this garage - into a pleasant, walkable, and economically vibrant street.

- LAND VALUES AND BUSINESS: In the downtown district, land values are strongly correlated with foot traffic, economic activity, and architectural interest of surrounding buildings and streetscapes. While the proposed townhouses at least mitigate the effect somewhat along Middle Street, the proposal as it stands will abandon long stretches of India, Fore, and Middle Streets to empty, inactive space devoid of any economic activity or visual interest. Foot traffic will suffer, and so will land values and business patronage on surrounding blocks.

I should say that I'm not opposed to any parking at all on this site. I am opposed to building so much

parking without any other active, productive uses of the property and its valuable street frontages. A good compromise might be to remove four 9' wide parking stalls from each row of the proposed garage (losing only 32 spaces) to make room for a new 36' deep building along India Street, for instance. The city would gain new space for housing and/or business, the neighborhood would gain a more active, interesting steetscapes, and the developer would gain greater rental income.

The new peninsula transit plan makes a compelling case that developers can create high-value projects by embracing walkable streetscapes, and saving millions on the construction costs of new parking garages. Opechee should embrace these strategies to create a more profitable project.

-Christian

Barbara Barhydt - Fwd: Hampton Inn Project

From: Denise Preisser <dpreisse@maine.rr.com>
To: <jeg@portlandmaine.gov>
Date: Friday, August 20, 2010 12:12 PM
Subject: Fwd: Hampton Inn Project

Begin forwarded message:

From: Denise Preisser <dpreisse@maine.rr.com>
Date: August 20, 2010 12:07:00 PM EDT
To: nmm@portlandmaine.gov
Cc: kjdonoghue@portlandmaine.gov, cl@portlandmaine.gov, janton@portlandmaine.gov, dwaxman@portlandmaine.gov, jegray@portlandmaine.gov
Subject: Hampton Inn Project

Dear Mayor Mavadones, Councilman Donoghue, and Planning Committee Members:

I am writing this email in regards to my discontent with the planning committees decision to incorporate yet another parking garage in the waterfront district. I am a citizen of Portland and a property owner at 25 Fore Street on Munjoy Hill. I received no notice of the meeting to voice an opinion in regards to this plan, before the vote was made. We all know the song lyrics "paved paradise to put up a parking lot."

After reading yesterdays newspaper and finding out that a parking garage for the Hampton Inn was planned in the Jordan Meat's location I have to express my disappointment in your decision to allow yet another parking garage in that area for a "noted" walking community ("Portland, Maine is a walking city; it's only a ten minute drive from the outer limits to downtown." Blue Tales July, 6 2010.) I agree with the comments of the local business owners (Press Herald, August 19, 2010.) I feel the streets of India/Middle/Hancock with this design will be compromised in lieu of the quaint productive appearance I had hoped for in the redevelopment.

I have walked down Fore Street to the Old Port for many years observing what development has been proposed and was built. I am generally in favor of development that enhances rather than distracts from the uniqueness that Portland offers. A few of my concerns and thoughts about your recent decisions:

1. When the Marriott and parking garage were being built I no longer walked, as I feared for my safety after hearing about a few muggings in that area. Lighting in the area was absent and there was over a year of construction.

2. Since the Marriott has been complete I am disappointed about their window fronts. From a walkers point of view, the Fore Street windows of that hotel are not at all pleasant. Shades pulled on windows for boiler room and staff lounge, empty conference rooms that recently had paper in the windows, the lounge area and lobby with curtains drawn. This creates a feeling of closed off rather than inviting to the neighborhood. I have addressed my discontent with management of street design to no avail.

3. It does not seem like a fit allowing a VA clinic/hospital? in the Express Copy site across from the hotel and the future Riverwalk Project. That is a big mistake...more parking concerns when all the employees and visitors will be looking for free on public streets with no meters.

4. The parking garage at Fore and India is a monstrosity for The HIll and now the only thing I notice is the structure of lights on flights into Portland at night. The uniqueness of the hill lost again. Did anyone consider the design from that view point? Future development needs to have that birds eye/skyline view as well.

5. In front of my condo "on street parking" is increasing and it is not by residents, as I know my neighbors. Many days I can not park in front of my own place to carry in groceries. I asked the people why they are leaving there cars here. Responses: I live on the Island and don't want to pay parking, I work on the islands and don't want to pay for parking, I work in the Old Port and don't want to pay parking, I am visiting here and don't want to pay parking. Eventually, the entire street will be full of cars parking in front of my residence (city code states 7 day limit before car needs to be moved.) On two occasions there was a motor home and semi truck that parked on the street here all day. Even if you build the parking lots - most people won't park there and pay. I have never paid to park in a parking garage in Portland. Hotels.....valet parking to an offsite location?

Thoughts for your consideration:

1. Create a "free" trolly system as done in Vero Beach, FL for the Old Port area for people visiting the Old Port/peninsula area. That was one of the previous developer's ideas for the Maine State Pier project which was just brilliant and the project I voted for for that reason. Folks can park in the Back Bay area or USM area and ride in. Future developers can be charged to subsidize the trolly, or the city can use the 10K? the developer pays the city for forgoing their parking space requirement as I read that as an option for a developer. This supports development as well as placing parking garages in less lucrative real estate areas. No more parking garages/lots within 12 blocks of the water/shoreline is my vote. That would only be a one mile walk.

2. Require that the new design for the proposed parking garage must have shops, restaurants, office space on first floor of all current street accessible sides of the parking garage and all parking is hidden from a onlookers view. I do not want to see yet another brick wall as the canvas site for more graffiti.

3. Designate the "residence side" of Fore Street to the Eastern Prom as parking for residents only with stickers or passes. I saw this plan in Newburyport, MA and I thought that was a great support for both residents and visitors. Change restricted 8-12 every Mon/Tue parking on Fore Street to first Monday/Tuesday of the month. That restriction seems very outdated for city services and needs to be considered. Street sweeping??on Monday while trash pick up is on Wednesday. I am not sure of what other city services are happening that require that much restricted parking time.

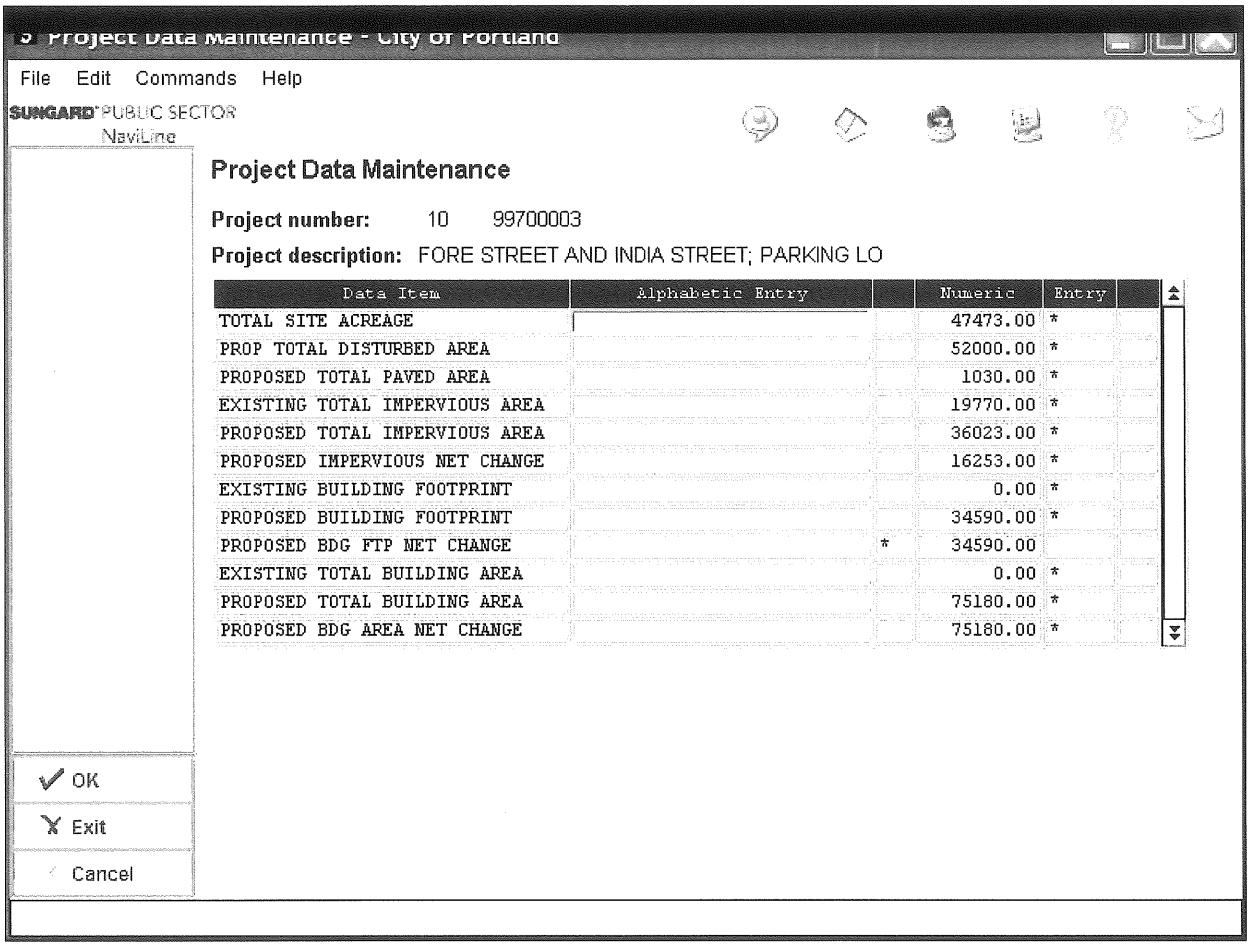
4. Be very clear in the businesses that are opening in the area to create an inviting "port of call" once the Ocean Gateway gets to it's capacity use. I see many of the cruise line passengers walking up India to Duck Fat, Micucci's, Amato's and other shops on Middle Street and that walk should look inviting as well.

Thank you for your time and consideration in your decision making.

Denise Preisser

Denise Preisser
dpreisse@maine.rr.com

Denise Preisser
dpreisse@maine.rr.com


Project Data Maintenance - City of Portland
File Edit Commands Help
SUNGARD PUBLIC SECTOR
NaviLine
Project Data Maintenance
Project number: 10 99700003
Project description: FORE STREET AND INDIA STREET; PARKING LO
Data Item | Alphabetic Entry | | Numeric Entry |
TOTAL SITE ACREAGE 47473.00 *
PROP TOTAL DISTURBED AREA 52000.00 *
PROPOSED TOTAL PAVED AREA 1030.00 *
EXISTING TOTAL IMPERVIOUS AREA 19770.00 *
PROPOSED TOTAL IMPERVIOUS AREA 36023.00 *
PROPOSED IMPERVIOUS NET CHANGE 16253.00 *
EXISTING BUILDING FOOTPRINT 0.00 *
PROPOSED BUILDING FOOTPRINT 34590.00 *
PROPOSED BDG FTP NET CHANGE * 34590.00
EXISTING TOTAL BUILDING AREA 0.00 *
PROPOSED TOTAL BUILDING AREA 75180.00 *
PROPOSED BDG AREA NET CHANGE 75180.00 *
OK
Exit
Cancel

Sebago Technics
Engineering Expertise You Can Build On

Revised Traffic Analysis Memo

Project: 05090

To: **Molly Casto, Planner, City Portland**

From: John Q. Adams, P.E., PTOE, Senior Transportation Engineer
Sebago Technics, Inc.

Date: August 4, 2010

Subject: **Response to Traffic Comments**
Old Port Hospitality, LLC – Phase 2
Fore Street, Portland

This memo serves to respond to comments received from the City's traffic engineer in his e-mail dated July 30, 2010. In his email he had the following comments, which we have written our response to after each.

1. Knowing that several other developments in the area have been permitted it is unclear whether the build traffic volumes include approved projects (Village Café site, Ocean Gateway, Phase Hotel, etc.). These projects should be included.

   Response: We have included other development trips for the Riverwalk and Bayview projects. The other development trips are shown in Figure 3 enclosed at the end of this report.

2. Looking at the turning movement volumes, I was surprised at the distribution. Examples include the low volume turning right onto Middle Street from southbound India Street in the morning and the reverse movement in the evening. Please check the data. Also, please note whether there were any substantial traffic detours in the area during the time of the count.

   Response: We have reviewed our traffic counts from July 21st and made some adjustments. These are shown in Figure 1. We have also attached a copy of the Temporary Traffic Control Plan that was in effect on the date of our traffic counts. It appears from the plan that more vehicle traffic may have been using the intersection of Middle Street at India Street due to Fore Street being closed to thru traffic and only open for local traffic. With this condition in effect we still felt the traffic counts would be valid and may provide a more conservative analysis.

3. It does not appear that pedestrian volumes were included in the analysis. Did you collect pedestrian volumes? Pedestrians are significant at India/Middle.

Response: *As was discussed with the City's traffic engineer, we made field observations of pedestrian traffic during both the AM and PM peak hours at the intersection of India St and Middle Street on Tuesday August 3, 2010. The pedestrian volumes have been included in the revised traffic operations analysis discussed in Comment 5 below.*

4. Please conduct a four-way STOP sign warrant evaluation with the data you have at the India/Middle intersection. You likely will not have all required hours, but please try to draw some conclusion.

Response: *Listed below in Table 1 are the required warrants for the Four-way Stop from the Manual on Uniform Traffic Control Devices. The combined major street vehicular volumes need to be 300 vehicles for eight hours of the day while the minor street volumes, which includes vehicles and pedestrians needs to total 200 vehicles for the same eight hours.*

Table 1
4-Way Stop Sign Warrants – India St at Middle St

Time	Major St – India St		Minor St – Middle St		Warrant Met For Hour?
	Volume	Warrant	Volume	Warrant	
7 – 8 AM	350	300	89	200	No
8 – 9 AM	507*	300	161*	200	No
4 – 5 AM	349	300	262	200	**Yes**
5 – 6 PM	436*	300	355*	200	**Yes**

*includes bike & ped volumes.

Our analysis of the four hours that we counted indicates that the volume warrants are met for two of the four hours and is close on a 3rd hour. It is likely more hours of the day meet the 4-way stop sign warrant volumes. It may be worthwhile for the City to undertake a full twelve hour count (6 AM to 6 PM) of vehicles and pedestrians at the intersection after the Old Port Hospitality has completed Phases 2 and 3 to verify if the full 8-hour 4-way Stop Sign Warrant is met at that time. In addition it appears that overall the intersection of Middle Street at India St may function better under 4-way stop sign control. This will be covered in more detail below in Comment 5.

5. For the comparison of LOS/Delay, please use SimTraffic results only. It will simply things and I believe is the better data. I would like some reply on how the SimTraffic results compares to field conditions, particularly from a queuing perspective. Talk to the person who did the count. Also, provide LOS/Delay data in tabular form in the Memo for the site drive.

Response: *Listed below are tables which summarize the traffic operations analysis utilizing the SimTraffic results. Table 2, summarizes the intersection of Middle Street at India Street under the existing and Build condition and also shows the Build condition under 4-way stop control. Conflicting pedestrian volumes have been included in this*

analysis. The build condition includes the four townhouses in Phase 2 and the 70,000 s.f. of general office space in Phase 3. Table 3, shows the operations analysis at the proposed site entrance on Middle Street. The site entrance on Middle Street has been revised to be located approximately 240 ft. from India Street.

Table 2
Traffic Operations Analysis
Middle St at India St
(Delay/LOS/95thQueue)

Approach	AM Peak Hour			PM Peak Hour		
	Existing	Build	Build w/ 4-Way Stop	Existing	Build	Build w/ 4-Way Stop
Middle EB	8.2s/A/78'	10.2s/B/93'	5.4s/A/70'	17.1s/C/173'	61.3s/F/225'	15.5s/C/158'
Middle WB	8.8s/A/49'	8.5s/A/51'	6.1s/A/51'	11.2s/B/83'	14.2s/B/102'	8.8s/A/76'
India NB	0.8s/A/27'	1.2s/A/43'	7.8s/A/83'	1.5s/A/47'	2.3s/A/71'	14.8s/B/176'
India SB	1.2s/A/34'	1.5s/A/40'	8.5s/A/112'	1.1s/A/31'	1.1s/A/34'	9.3s/A/102'
Overall	7.9s/A	3.5/A	7.5/A	7.9s/A	24.6s/C	13.1/B

The results indicate that the intersection of India Street functions satisfactory for all approaches under the Build condition for both the AM and PM peak hours except for the Middle Street eastbound approach. All approaches function at LOS "C" or better except for the Middle Street eastbound approach which will experience some delay with an average delay of 61.3 seconds. We also ran the analysis under 4-way stop control and it indicated that overall the intersection would function at a better LOS "B" compared to LOS "C" and the Middle Street eastbound approach would function at LOS "C" compared to LOS "F."

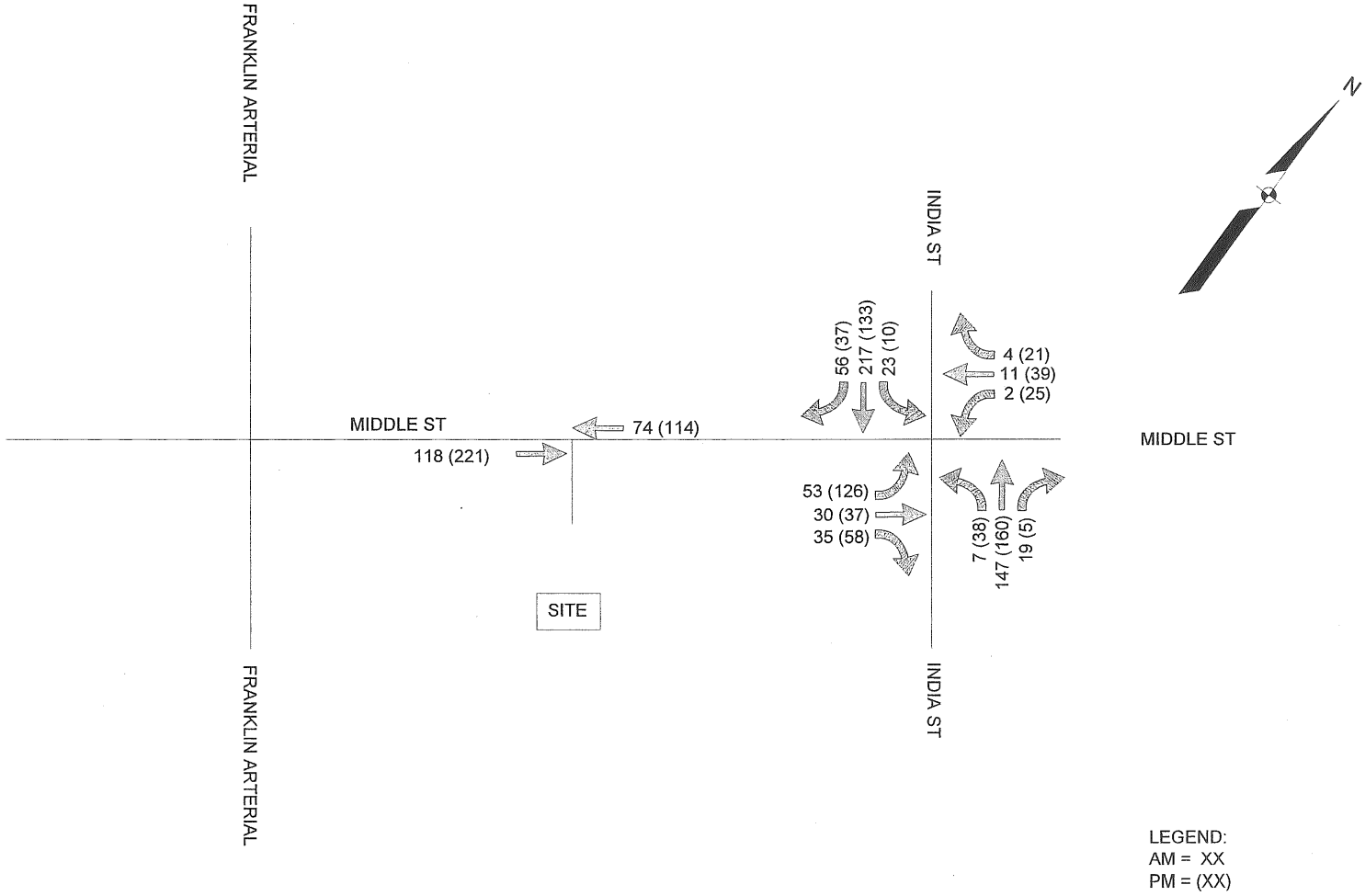
In addition, the 95th percentile queue length for the Middle Street eastbound approach will be approximately 225 ft., which should not block the proposed site entrance on Middle Street which is approximately 240 ft. from the intersection.

Table 3
Traffic Operations Analysis
Site Entrance at Middle St
(Delay/LOS/95thQueue)

Approach	AM Peak Hour		PM Peak Hour	
	Build	Build w/ 4-Way Stop	Build	Build w/ 4-Way Stop
Site NB	2.4s/A/33'	3.7s/A/31'	5.5s/A/64'	5.3S/A/65'
Middle EB	4.8s/A/80'	0.5S/A/0'	1.0s/A/32'	0.6S/A/19'
Middle WB	5.0s/A/48'	1.2S/A/24'	1.0s/A/12'	1.4S/A/14'
Overall	4.8s/A	0.9S/A	1.7s/A	1.6 A

The results indicate that the site entrance will function satisfactory under the build condition with all approaches functioning at LOS "A."

We are confident that we have responded to your comments satisfactorily. Please contact me should you need any further information.



Traffic Volume Counts Conducted by Sebago Technics, Inc. July 21st, 2010.

Sebago Technics
Engineering Expertise You Can Build On
One Chabot Street
Westbrook, Me 04098-1339
Tel (207) 856-0277

2010 AM & PM BACKGROUND TRAFFIC VOLUMES

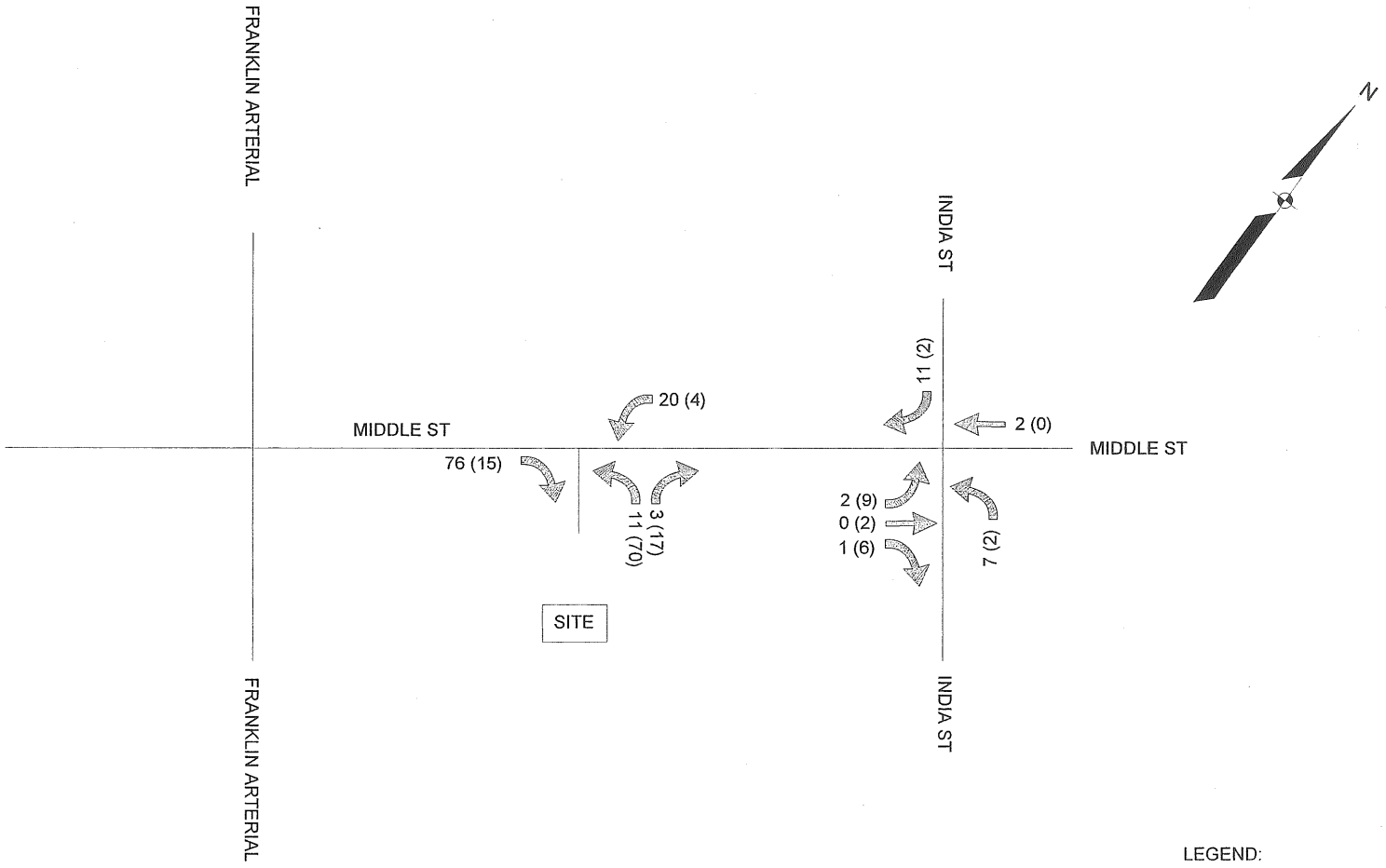
MIDDLE STREET AT INDIA STREET

SCALE:	NTS
DATE:	07/22/2010
SHEET:	Fig. 1

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

05090TRAFFIC(PHASE2).DGN



LEGEND:
AM = XX
PM = (XX)

SITE GENERATED TRIPS INCLUDE TRIPS FROM BOTH PHASE 2 (4 CONDO/TOWNHOUSES) AND PHASE 3 (70,000 SF GENERAL OFFICE SPACE)

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AM & PM SITE GENERATED TRIPS
PHASE 2 & PHASE 3 INCLUDED

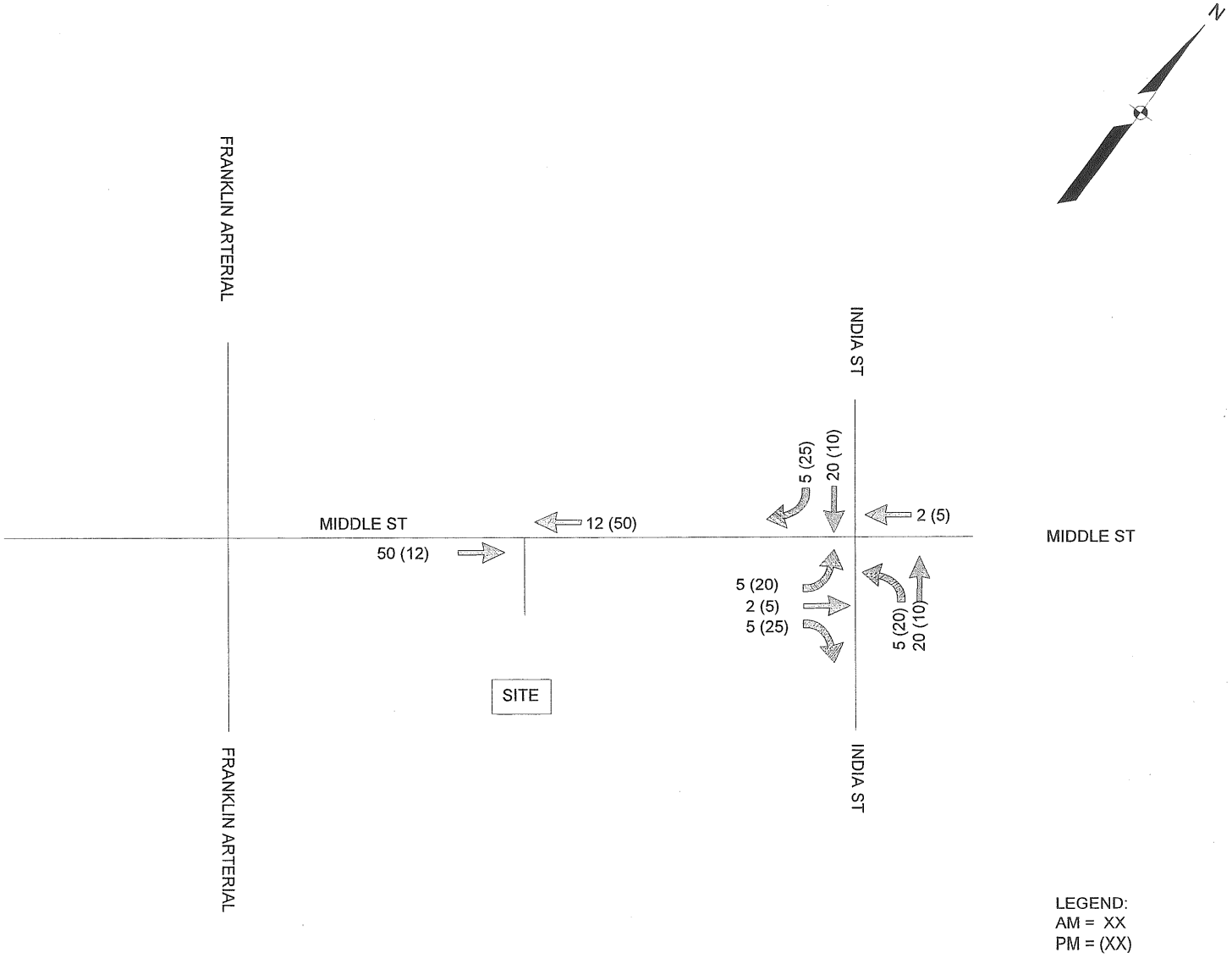
SCALE: NTS
DATE: 07/22/2010

LOCATION: MIDDLE ST.
PORTLAND, MAINE

FOR: OLD PORT HOSPITALITY, LLC.
BELMONT, NH 03220

SHEET: Fig. 2

05090TRAFFIC(PHASE2).DGN



OTHER DEVELOPMENT TRIPS INCLUDE: BAYVIEW AND RIVERWALK PROJECTS.

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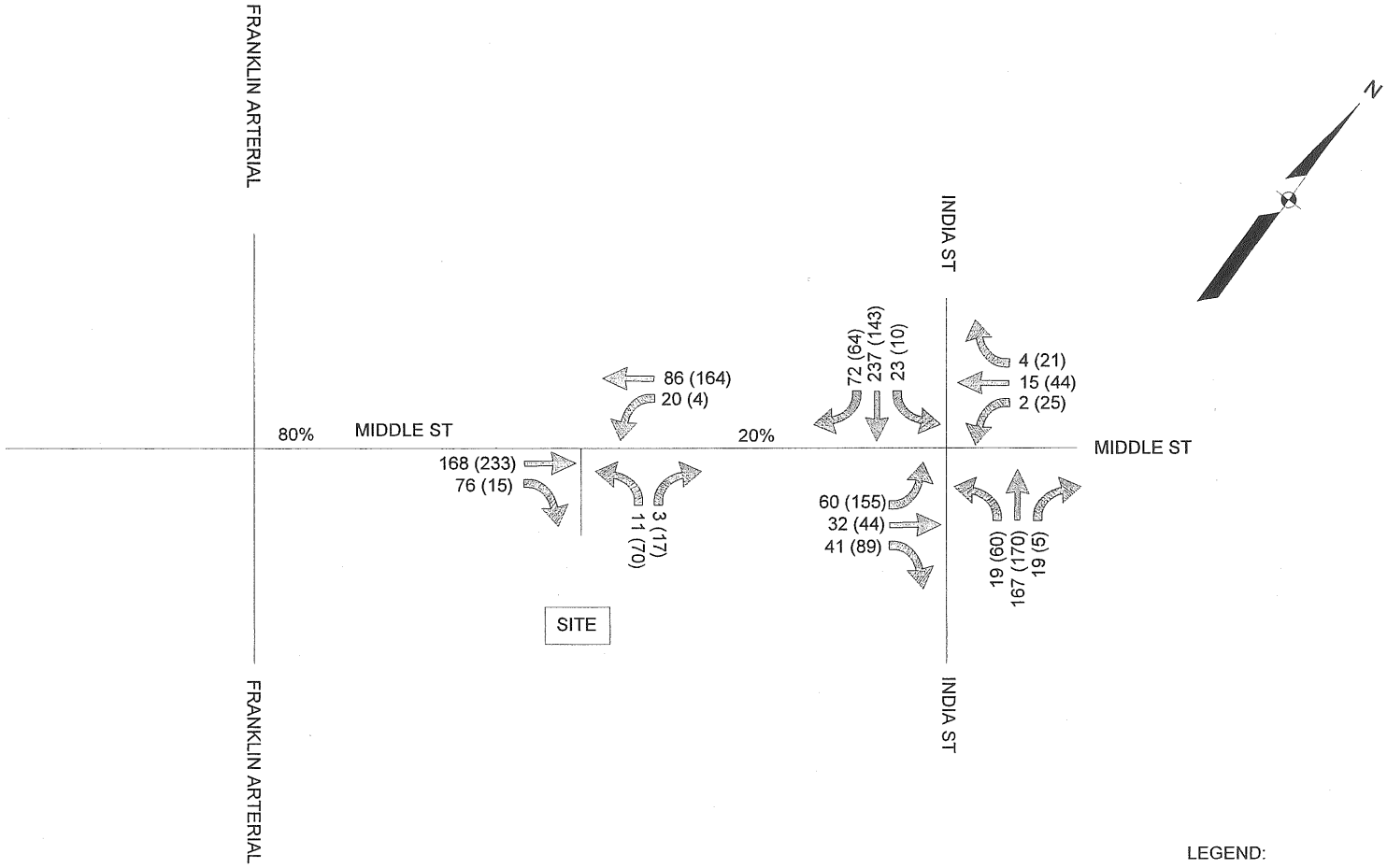
OTHER DEVELOPMENT TRIPS

LOCATION:	MIDDLE ST. PORTLAND, MAINE	FOR:	OLD PORT HOSPITALITY, LLC. BELMONT, NH 03220

SCALE: NTS
DATE: 07/22/2010
SHEET: Fig. 3

05090TRAFFIC(PHASE2).DGN



LEGEND:
AM = XX
PM = (XX)

FULL-BUILD TRAFFIC VOLUMES INCLUDE TRIPS FROM BOTH PHASE 2 (4 CONDO/TOWNHOUSES) AND PHASE 3 (70,000 SF GENERAL OFFICE SPACE)

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FULL BUILD VOLUMES

LOCATION:	MIDDLE ST. PORTLAND, MAINE	FOR:	OLD PORT HOSPITALITY, LLC. BELMONT, NH 03220

SCALE: NTS
DATE: 07/22/2010
SHEET: Fig. 4

05090TRAFFIC(PHASE2).DGN

Appendix

- Traffic Counts: India Street at Middle Street

- SimTraffic AM and PM Peak Hour Operations Analysis: India Street at Middle Street

    - Existing Conditions
    - Build Conditions
    - Build Conditions with 4-way Stop

TRAFFIC COUNTS
WEEKDAY AM PM PEAK HOUR COUNTS

MIDDLE ST AT INDIA ST
PORTLAND, ME

Time	Middle From North					India From East					Middle From South					India From West					15-Minute Total	Hourly Total
	LT	TH	RT	Peds	Crossings	LT	TH	RT	Peds	Crossings	LT	TH	RT	Peds	Crossings	LT	TH	RT	Peds	Crossings		
7:15	1	2	10			1	13/1	0			5	3	1/1			1	30	4			69	
7:30	0	3	0			1	14	2			6	2	2			4	42	12			88	
7:45	5	6	1			1	32/3	3			5	0	4			0	38	5			98	
8:00	3	4	0			0	37/2	9			5	10	10			7	70/1	17			94	349
8:15	***1***	***0***	***0***	***5***	***3***	***0***	***18***	***8***	***8***	***3***	***12***	***8***	***8***	***8***	***5***	***6***	***51***	***11***	***6***	***3***	***164***	444
8:30	***0***	***3***	***0***	***13***	***10***	***0***	***22***	***4***	***6***	***3***	***8***	***4***	***8***	***5***	***4***	***6***	***58***	***13***	***4***	***4***	***175***	531
8:45	***1***	***3***	***1***	***6***	***4***	***4***	***54/3***	***0***	***2***	***2***	***20***	***7***	***7/1***	***2***	***2***	***4***	***61/1***	***18***	***7***	***4***	***196***	629
9:00	***0***	***5***	***3***	***9***	***6***	***3***	***50***	***7***	***5***	***5***	***13***	***11***	***11***	***11***	***9***	***7***	***46***	***14***	***0***	***0***	***215***	***750***
PEAK HR TOTAL	***2***	***11***	***4***	***33***	***23***	***7***	***147***	***19***	***21***	***13***	***53***	***30***	***35***	***26***	***20***	***23***	***217***	***56***	***17***	***11***		
PHF	**0.53**					**0.71**					**0.84**					**0.88**						

4:15	6	13	0			0	43	3			19	10	35			0	18	6			153	
4:30	1	6	4			8	51	0			24	7	14			1	36	13			165	
4:45	0	9	6			13	51	3			40	5	16			1	32	8			184	
5:00	3	5	3			3	15	5			15	3	18			5	23	11			109	611
5:15	***6***	***20***	***10***	***15***	***10***	***5***	***30***	***0***	***10***	***8***	***44***	***13***	***21***	***13***	***9***	***3***	***29***	***15***	***5***	***4***	***261***	719
5:30	***4***	***7***	***2***	***5***	***5***	***12***	***63***	***3***	***5***	***4***	***29***	***8***	***17***	***11***	***10***	***2***	***43***	***7***	***6***	***3***	***237***	791
5:45	***0***	***9***	***8***	***13***	***10***	***9***	***32***	***0***	***4***	***2***	***30***	***6***	***8***	***15***	***10***	***3***	***26***	***6***	***13***	***4***	***191***	798
6:00	***15***	***3***	***1***	***5***	***5***	***12***	***35***	***2***	***6***	***4***	***23***	***10***	***12***	***10***	***7***	***2***	***35***	***9***	***4***	***3***	***196***	***885***
PEAK HR TOTAL	***25***	***39***	***21***	***38***	***30***	***38***	***160***	***5***	***25***	***18***	***126***	***37***	***58***	***49***	***36***	***10***	***133***	***37***	***28***	***14***		
PHF	**0.59**					**0.65**					**0.71**					**0.87**						

X car
x/y car/truck

COUNTS PERFORMED BY SEBAGO TECHNICS, INC ON JULY 21, 2010 BETWEEN 7-9 am & 4-6 pm, PED COUNTS PERFORMED ON TUESDAY 8/3/10.

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	8.2	8.8	0.8	1.2	2.7

Total Network Performance

Delay / Veh (s)	3.3

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	104	49	57	54
Average Queue (ft)	46	23	5	8
95th Queue (ft)	78	49	27	34
Link Distance (ft)	463	441	426	448
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	7:55	7:55	7:55	7:55	7:55	7:55
End Time	9:00	9:00	9:00	9:00	9:00	9:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	704	803	715	734	744	739
Vehs Exited	703	798	713	735	741	738
Starting Vehs	4	1	3	5	4	4
Ending Vehs	5	6	5	4	7	5
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	125	142	126	130	132	131
Travel Time (hr)	5.3	6.0	5.3	5.5	5.5	5.5
Total Delay (hr)	0.7	0.8	0.7	0.7	0.6	0.7
Total Stops	174	210	177	186	178	186
Fuel Used (gal)	10.9	13.1	10.6	11.9	10.3	11.4

Interval #0 Information Seeding

Start Time	7:55
End Time	8:00
Total Time (min)	5

No data recorded this interval.

Interval #1 Information Recording

Start Time	8:00
End Time	9:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	704	803	715	734	744	739
Vehs Exited	703	798	713	735	741	738
Starting Vehs	4	1	3	5	4	4
Ending Vehs	5	6	5	4	7	5
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	125	142	126	130	132	131
Travel Time (hr)	5.3	6.0	5.3	5.5	5.5	5.5
Total Delay (hr)	0.7	0.8	0.7	0.7	0.6	0.7
Total Stops	174	210	177	186	178	186
Fuel Used (gal)	10.9	13.1	10.6	11.9	10.3	11.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.960			0.967			0.985			0.974	
Flt Protected		0.978			0.994			0.998			0.996	
Satd. Flow (prot)	0	1749	0	0	1790	0	0	1831	0	0	1807	0
Flt Permitted		0.978			0.994			0.998			0.996	
Satd. Flow (perm)	0	1749	0	0	1790	0	0	1831	0	0	1807	0
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		491			469			454			476	
Travel Time (s)		11.2			10.7			10.3			10.8	

Intersection Summary	
Area Type:	Other

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Volume (vph)	53	30	35	2	11	4	7	147	19	23	217	56
Confl. Peds. (#/hr)	11		13	13		11	20		23	23		20
Confl. Bikes (#/hr)												
Peak Hour Factor	0.84	0.84	0.84	0.53	0.53	0.53	0.71	0.71	0.71	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	63	36	42	4	21	8	10	207	27	26	247	64
Lane Group Flow (vph)	0	141	0	0	33	0	0	244	0	0	337	0

Intersection Summary

3: Middle & India Performance by approach

Approach	EB	WB	NB	SB	All
Delay / Veh (s)	17.1	11.2	1.5	1.1	7.9

Total Network Performance

Delay / Veh (s)	8.7

Intersection: 3: Middle & India

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	207	92	66	54
Average Queue (ft)	97	50	15	6
95th Queue (ft)	173	83	47	31
Link Distance (ft)	697	441	426	448
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Nework Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	4:55	4:55	4:55	4:55	4:55	4:55
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intvls	1	1	1	1	1	1
Vehs Entered	898	976	957	970	984	957
Vehs Exited	894	980	960	964	977	956
Starting Vehs	6	9	9	3	6	5
Ending Vehs	10	5	6	9	13	9
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	180	195	192	194	196	191
Travel Time (hr)	8.7	9.6	9.4	9.8	9.8	9.5
Total Delay (hr)	2.0	2.3	2.3	2.6	2.5	2.3
Total Stops	447	479	482	484	489	476
Fuel Used (gal)	16.1	19.8	18.7	21.0	17.3	18.6

Interval #0 Information Seeding

Start Time	4:55
End Time	5:00
Total Time (min)	5

No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg
Vehs Entered	898	976	957	970	984	957
Vehs Exited	894	980	960	964	977	956
Starting Vehs	6	9	9	3	6	5
Ending Vehs	10	5	6	9	13	9
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Travel Distance (mi)	180	195	192	194	196	191
Travel Time (hr)	8.7	9.6	9.4	9.8	9.8	9.5
Total Delay (hr)	2.0	2.3	2.3	2.6	2.5	2.3
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