



December 3, 2013

Susan Redmond, Assistant Planner
CITY OF AUGUSTA
16 Cony Street
Augusta, Maine 04330-5298

RE: 375200 – Joint Forces Headquarters
Response to Comments

Dear Susan:

The purpose of this letter is to respond to questions dated November 29, 2013 regarding the conditional use and major development application for the proposed Joint Forces Headquarters project in Augusta. Our responses are in bold italics following a re-statement of the questions.

1. Title/right/interest. No title/right/interest has been submitted for the realignment of Blue Star Avenue across from Darin Drive. Demonstration of title/right/interest is required for all portions of the project in order for the application to be complete. The Planning Board cannot do the conditional use and major development application review until the applicant has demonstrated title/right/interest for the entire project. What is the status on the Maine Army National Guard receiving title/right/interest to the portion of the realigned access drive that is closest to Civic Center Drive? ***The quitclaim deed for the project parcel is included in the application package. The Maine Department of Transportation (MDOT) is planning to improve the existing unsignalized intersection at Civic Center Drive and Darin Drive. These improvements include the acquisition of title right or interest for a 3050 SF and a 2315 SF portion of the parcel located to the south of the project parcel. My understanding is that the MDOT is in the process of obtaining title right or interest for these areas and that they anticipate that negotiations will be concluded in the near future. Brian Keezer PE, multimodal project manager at MDOT, is coordinating this project (624-3612). Intersection construction is scheduled for 2015. Note that the utility easement on Darin Drive is not needed. See revised sheet CP100 – Site Overall Layout Plan and sheet CP102 – Site Layout & Materials Plan.***
2. Traffic signal. I don't believe that there is any mention of the proposed Darin Drive/Civic Center Drive/Blue Star Avenue traffic signal in the application. What information do you

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have to provide to the Board regarding the signal and changes to Civic Center Drive? ***The Maine Department of Transportation (MDOT) is planning to improve and signalize the existing unsignalized intersection at Civic Center Drive and Darin Drive to address existing capacity constraints. The traffic study prepared for the Joint Forces project, which is included in the application package, did not identify any additional capacity constraints due to the proposed Joint Forces project. The Joint Force Headquarters project will pay an impact fee to MaineDOT to assist in the costs of the intersection improvements and to mitigate their impact on the overall intersection. MDOT hired Gorrill Palmer to design the intersection improvements, which is currently underway. Intersection construction is scheduled for 2015.***

3. Buffers. A buffer is required within the front setback area from Civic Center Drive (the property line abuts the Civic Center Drive right of way in a few places). The planting multipliers listed in Bufferyard C shall be used in this area. A Bufferyard C is required between the proposal and the residential properties. A Bufferyard A is required between the parking lot and adjacent uses and right of ways. The applicant proposes to use a mixture of the existing wooded area and plantings for buffering. More specific information is needed on the plant types and quantity of plants within the existing wooded areas for staff to determine if the bufferyard requirements are met. ***See attached sheet SK100 – Planting Buffer Plan. For reference, a 25' wide "C" bufferyard is shown along the property line between the residential district and the proposed Joint Forces Headquarters project. The proposed buffer width is 45' to 300' and consists of native mixed forest. Consistent with 5.1.1.2(b), the applicant plans to maintain natural features to meet buffer requirements. Per Table 5.1.1-B, a 25' wide Buffer Yard "C" must contain at least 5 canopy & evergreen trees, 4 understory trees, 15 deciduous shrubs and 6 evergreen shrubs per 100 feet, with a 10% reduction for every 5' increase in buffer width. Therefore, the minimum number of plant types per 100' at the narrowest buffer width (45') is 3 canopy & evergreen trees, 3 understory trees, 10 deciduous shrubs and 4 evergreen shrubs. At this location, which is the maximum required density corresponding to the narrowest buffer width (45'), the applicant is proposing to plant 14 white pine & Norway spruce per 100'. These plantings, combined with native mixed forest, exceed Bufferyard "C" requirements. As the proposed buffer width increases, the required minimum number of plantings per 100' decreases. As can be seen visually on sheet SK100, existing mixed forest between the residential district and the proposed Joint Forces Headquarters project will exceed minimum planting requirements for a Bufferyard "C" per Table 5.1.1-B. Additionally, a portion of the existing entrance drive will be discontinued. As proposed, the existing gate on Civic Center Drive will remain and the entrance drive itself will be replaced with a meandering pedestrian walkway***

with plantings and meadow. At this point, the proposed guard house and site entry area is 320' from Civic Center Drive.

4. Stormwater. Please submit an executive summary of the detailed stormwater report in order for a layperson to better understand the treatment plan as a whole. ***See attached stormwater executive summary.***

Please contact me if you have any further comments or questions. Thank you.

Sincerely,

WBRC Architects / Engineers



John Kenney, PE LEED^{AP}
Civil Engineer

Cc: Norm Michaud, Andrew Flint, MLW, ARB

Enclosures: as noted

Stormwater Executive Summary

The proposed Joint Forces Headquarters facility is located on a 43.4-acre forested parcel adjacent to Civic Center Drive in Augusta. Stormwater runoff from the majority of the site drains to Stone Brook, which runs along the eastern side of the property and eventually flows to Bond Brook and the Kennebec River. Stormwater runoff from a smaller portion of the site drains to the west of the property toward Civic Center Drive.

The proposed project results in the conversion of a portion of the land cover from forested to grassed and impervious areas. Buildings, access drives, parking areas, pedestrian circulation and other hardscape areas are considered impervious. Overall drainage patterns will not change.

A Maine Department of Environmental Protection (MDEP) Site Location of Development Act (SLODA) Permit is in the process of being amended for this project. As part of the SLODA permit, post-development peak stormwater flows from the site for 2, 10 and 25-year storm events must be equal to or less than pre-development peak stormwater flows. In addition, stormwater runoff must be treated according to MDEP best management practices prior to discharge. A copy of the SLODA permit application has been submitted to the City of Augusta under separate cover.

Quantity

Post-development peak stormwater flows are less than pre-development peak stormwater flows for 2, 10 and 25-year storm events. The increase in impervious and non-impervious developed areas increase the rate at which stormwater leaves the site (measured in cubic feet per second or cfs). To maintain or decrease the rate of stormwater runoff from the site, the applicant is proposing to use two (2) MDEP Stormwater Best Management Practices: a wet pond and a grassed underdrained soil filter. Stormwater flows through ditching or to catch basins and piping to the respective best management practice device.

To analyze peak stormwater flow rates, we developed a HydroCAD model with two (2) outflow study points. Study Point #1 is located along the western side of the property and Study Point #2 is located to the south of the site where the majority of stormwater flows toward Stone Brook. The peak stormwater flows at these study points were determined for 2, 10, and 25-year storm events. All post-development peak stormwater flows are less than their corresponding pre-development peak stormwater flows (Table 1). Study point locations are shown on sheet SW101 – Pre-Stormwater Plan and sheet SW102 – Post-Stormwater Plan included in the plan set. HydroCAD calculations for the pre-development and post-development analysis are included in the application packet.

Table 1. Pre and post-development peak stormwater flows for each study point for 2, 10 and 25-year storm events

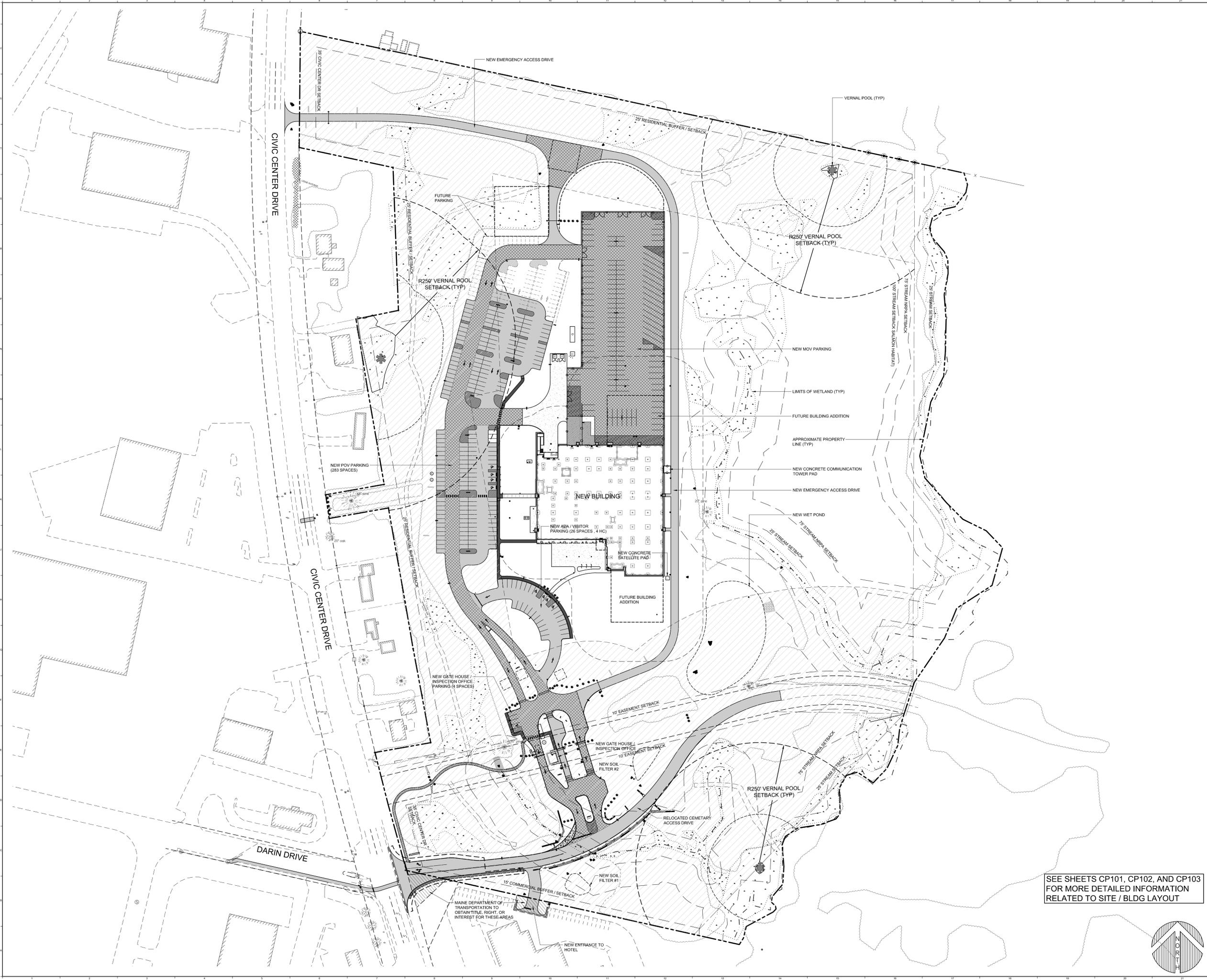
STUDY POINT #1	2 YR Storm Event	10 YR Storm Event	25 YR Storm Event
Pre-Construction	1.73 cfs	9.21 cfs	14.54 cfs
Post-Construction	0.97 cfs	6.52 cfs	10.75 cfs
STUDY POINT #2	2 YR Storm Event	10 YR Storm Event	25 YR Storm Event
Pre-Construction	7.34 cfs	20.38 cfs	28.27 cfs
Post-Construction	4.59 cfs	15.12 cfs	27.05 cfs

Quality

The proposed wet pond and grassed underdrained soil filters not only control the quantity of stormwater, but provide treatment as well. MDEP requires treatment for stormwater runoff from 95% of new impervious areas and 80% of new developed areas. Best management practices are sized to accommodate stormwater runoff from required treatment areas. As designed, required stormwater treatment is exceeded (Table 2). Treatment areas can be seen on sheet SW103 – Stormwater Treatment Plan included in the plan set.

Table 2. Required and proposed stormwater treatment areas

	New Impervious	New Developed
TOTAL Area	414,626 SF	560,944 SF
Treatment Factor	95 %	80 %
Factored Treatment Area	393,895 SF	448,755 SF
Treatment Provided through BMPS	395,775 SF	627,395 SF
Treatment %	95.4 %	>100 %



PLAN REFERENCE:
 1. THE BOUNDARY INFORMATION SHOWN ON THIS PLAN IS BASED ON A SITE SURVEY PROVIDED BY MORRIS LAND SURVEYORS, PROJECT # AU102K, DATED 01-18-2012.
 2. WETLANDS, PVP & STREAM CENTERLINE GIS INFORMATION PROVIDED BY CES INC. RECEIVED 03-14-2012.
 3. THE EXISTING CONDITIONS INFORMATION SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE BASED ON A SURVEY COMPLETED BY SHYLA SHEPARD & GARSTER LAND SURVEYORS. THE SITE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO BEGINNING ANY SITE CLEARING, UTILITY OR EARTHWORK ACTIVITIES.

EXISTING	LEGEND	PROPOSED
UTILITY POLE	UTILITY POLE	UTILITY POLE
STREET LIGHTING	STREET LIGHTING	STREET LIGHTING
CLAY WIRE	CLAY WIRE	CLAY WIRE
WATER SHUTOFF / GATE VALVE	WATER SHUTOFF / GATE VALVE	WATER SHUTOFF / GATE VALVE
TRANSFORMER PAD	TRANSFORMER PAD	TRANSFORMER PAD
DUMPSTER	DUMPSTER	DUMPSTER
GENERATOR PAD	GENERATOR PAD	GENERATOR PAD
DRAIN MANHOLE	DRAIN MANHOLE	DRAIN MANHOLE
SEWER MANHOLE	SEWER MANHOLE	SEWER MANHOLE
CATCH BASIN	CATCH BASIN	CATCH BASIN
FIRE HYDRANT	FIRE HYDRANT	FIRE HYDRANT
SION	SION	SION
FENCING	FENCING	FENCING
P.T. GUARD RAIL	P.T. GUARD RAIL	P.T. GUARD RAIL
PAVEMENT	PAVEMENT	PAVEMENT
SIDEWALK	SIDEWALK	SIDEWALK
CONCRETE PAD/LOADING AREA	CONCRETE PAD/LOADING AREA	CONCRETE PAD/LOADING AREA
HEAVY DUTY PAVEMENT	HEAVY DUTY PAVEMENT	HEAVY DUTY PAVEMENT
SLOPED GRANITE CURB	SLOPED GRANITE CURB	SLOPED GRANITE CURB
HOT MIX ASPHALT CURB	HOT MIX ASPHALT CURB	HOT MIX ASPHALT CURB
PRECAST CONC. WHEEL STOP	PRECAST CONC. WHEEL STOP	PRECAST CONC. WHEEL STOP
GEO BLOCK RETAINING WALL	GEO BLOCK RETAINING WALL	GEO BLOCK RETAINING WALL
STONE MAINTENANCE EDGE	STONE MAINTENANCE EDGE	STONE MAINTENANCE EDGE
PROPERTY SETBACK	PROPERTY SETBACK	PROPERTY SETBACK
PROPERTY LINE	PROPERTY LINE	PROPERTY LINE
ABUTTING PROPERTY LINE	ABUTTING PROPERTY LINE	ABUTTING PROPERTY LINE
LANDSCAPE BOULDER	LANDSCAPE BOULDER	LANDSCAPE BOULDER
TREE LINE	TREE LINE	TREE LINE

REV.	DESCRIPTION	DATE
1	PER CITY COMMENTS	12-3-2013

APPROVAL DRAWINGS
10.24.13

CURRENT ISSUE STATUS:



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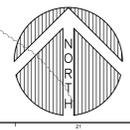
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JOINT FORCES HEADQUARTERS - PHASE I PN, 230113

SITE OVERALL LAYOUT PLAN

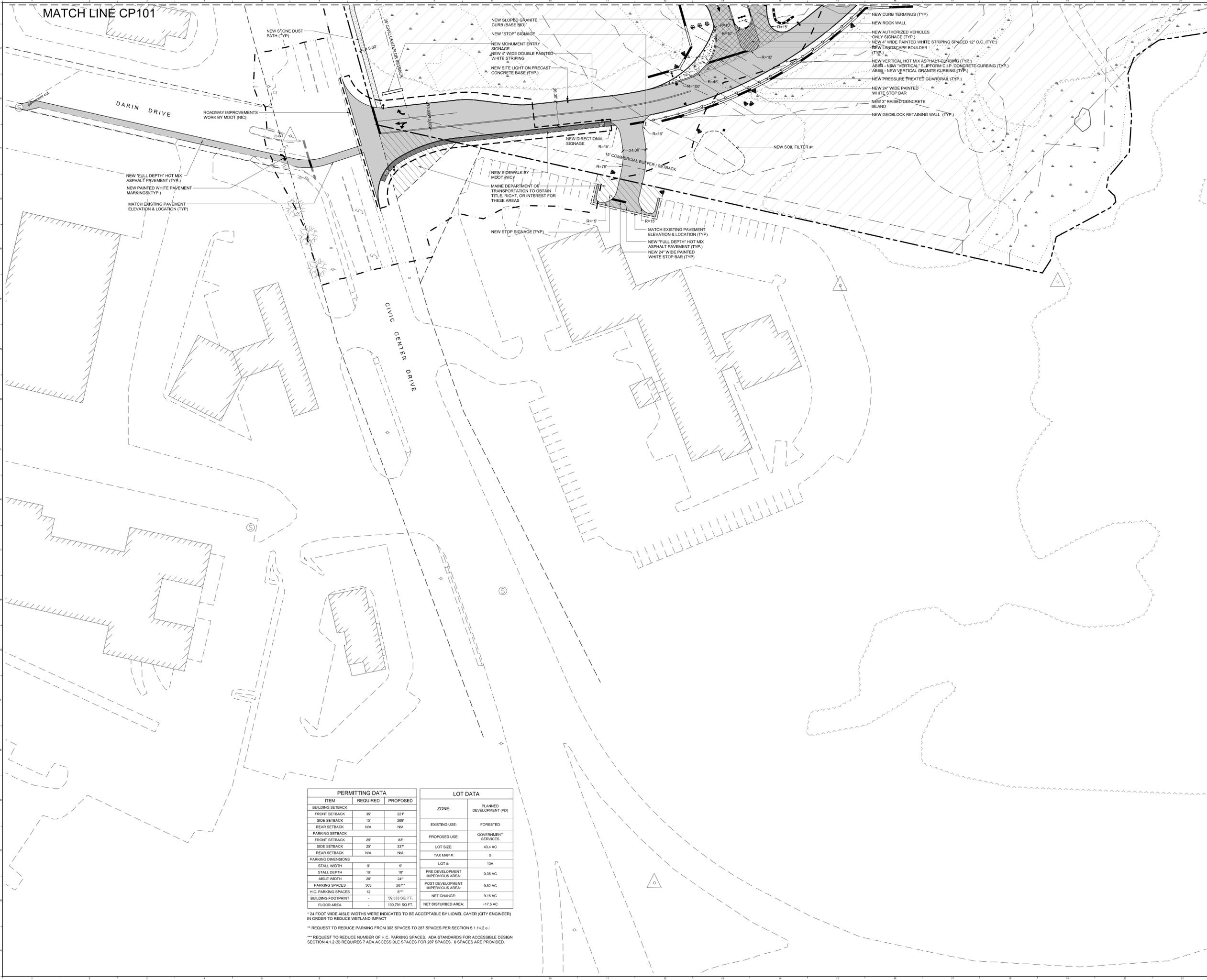
SHEET TITLE	375200 SP101.DWG
PROJECT NO.	3752.00
SCALE	1"=50'
PROJECT MANAGER	MLW
DRAWN BY	TAR
CHECKED BY	ARB

SEE SHEETS CP101, CP102, AND CP103 FOR MORE DETAILED INFORMATION RELATED TO SITE / BLDG LAYOUT



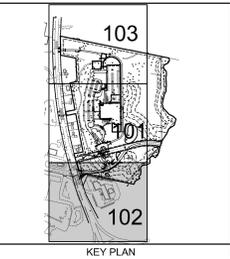
C:\Users\jls123\OneDrive\Documents\2013\12\13\1312200 SP101.dwg - jls123

MATCH LINE CP101



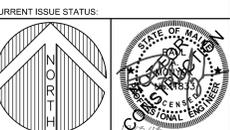
- LAYOUT NOTES:**
- SEE NOTES L1 THROUGH L3 ON SHEET C-001 FOR ADDITIONAL LAYOUT INFORMATION.
 - ALL CURB RADI SHALL BE 9' UNLESS OTHERWISE NOTED.
 - COORDINATE ALL SIDEWALK LOCATIONS WITH ARCH. AND STRUCTURAL DRAWINGS TO VERIFY NEW EXTERIOR DOOR LOCATIONS. FIELD ADJUST AS REQUIRED.
 - REFER TO STRUCTURAL SHEETS FOR NEW FOUNDATION LAYOUT. COORDINATE LAYOUT WITH FOUNDATION CONTRACTOR.
 - SEE THE SITE UTILITY PLANS FOR ADDITIONAL INFORMATION RELATED TO THE LAYOUT OF SITE LIGHTS AND UTILITY POLES AND THEIR RESPECTIVE CONDUIT AND WIRING. COORDINATE LAYOUT WITH THE ELECTRICAL CONTRACTOR.

EXISTING	LEGEND	PROPOSED
UTILITY POLE	UTILITY POLE	UTILITY POLE
STREET LIGHTING	STREET LIGHTING	STREET LIGHTING
CURB WIRE	CURB WIRE	CURB WIRE
WATER SHUTOFF / GATE VALVE	WATER SHUTOFF / GATE VALVE	WATER SHUTOFF / GATE VALVE
TRANSFORMER PAD	TRANSFORMER PAD	TRANSFORMER PAD
DUMPSTER	DUMPSTER	DUMPSTER
GENERATOR PAD	GENERATOR PAD	GENERATOR PAD
SEWER MANHOLE	SEWER MANHOLE	SEWER MANHOLE
CATCH BASIN	CATCH BASIN	CATCH BASIN
FIRE HYDRANT	FIRE HYDRANT	FIRE HYDRANT
SIGN	SIGN	SIGN
FENCING	FENCING	FENCING
R.T. GUARD RAIL	R.T. GUARD RAIL	R.T. GUARD RAIL
PAVEMENT	PAVEMENT	PAVEMENT
SIDEWALK	SIDEWALK	SIDEWALK
CONCRETE PADLOADING AREA	CONCRETE PADLOADING AREA	CONCRETE PADLOADING AREA
HEAVY DUTY PAVEMENT	HEAVY DUTY PAVEMENT	HEAVY DUTY PAVEMENT
SLOPED GRANITE CURB	SLOPED GRANITE CURB	SLOPED GRANITE CURB
HOT MIX ASPHALT CURB	HOT MIX ASPHALT CURB	HOT MIX ASPHALT CURB
PRECAST CONC. WHEEL STOP	PRECAST CONC. WHEEL STOP	PRECAST CONC. WHEEL STOP
GEO BLOCK RETAINING WALL	GEO BLOCK RETAINING WALL	GEO BLOCK RETAINING WALL
STONE MAINTENANCE EDGE	STONE MAINTENANCE EDGE	STONE MAINTENANCE EDGE
PROPERTY SETBACK	PROPERTY SETBACK	PROPERTY SETBACK
PROPERTY LINE	PROPERTY LINE	PROPERTY LINE
ABUTTING PROPERTY LINE	ABUTTING PROPERTY LINE	ABUTTING PROPERTY LINE
LANDSCAPE BOULDER	LANDSCAPE BOULDER	LANDSCAPE BOULDER
TREE LINE	TREE LINE	TREE LINE



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1	PER CITY COMMENTS	12-3-2013

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10.24.13



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JOINT FORCES
HEADQUARTERS -
PHASE I PN, 230113

PROJECT: AUGUSTA, MAINE

SITE LAYOUT &
MATERIALS PLAN

SHEET TITLE: 375200 CP101.DWG
PROJECT NO.: 3752.00 SHEET NO.: 07
SCALE: 1"=30'
PROJECT MANAGER: MLW SHEET NO.:
DRAWN BY: TAR CP102
CHECKED BY: ARB

PERMITTING DATA			LOT DATA	
ITEM	REQUIRED	PROPOSED	ZONE:	PLANNED DEVELOPMENT (PD)
BUILDING SETBACK			EXISTING USE:	FORESTED
FRONT SETBACK	30'	22'1"	PROPOSED USE:	GOVERNMENT SERVICES
SIDE SETBACK	15'	26'	LOT SIZE:	43.4 AC
REAR SETBACK	N/A	N/A	TAX MAP #:	5
PARKING SETBACK			LOT #:	13A
FRONT SETBACK	25'	83'	PRE DEVELOPMENT IMPERVIOUS AREA:	0.36 AC
SIDE SETBACK	25'	33'	POST DEVELOPMENT IMPERVIOUS AREA:	9.52 AC
REAR SETBACK	N/A	N/A	NET CHANGE:	9.16 AC
PARKING DIMENSIONS			NET DISTURBED AREA:	-17.5 AC
STALL WIDTH	9'	9'		
STALL DEPTH	18'	18'		
aisle WIDTH	26'	24'		
PARKING SPACES	303	287**		
H.C. PARKING SPACES	12	9***		
BUILDING FOOTPRINT		59,333 SQ. FT.		
FLOOR AREA		100,791 SQ. FT.		

* 24 FOOT WIDE AISLE WIDTHS WERE INDICATED TO BE ACCEPTABLE BY LIONEL CAYER (CITY ENGINEER) IN ORDER TO REDUCE WETLAND IMPACT

** REQUEST TO REDUCE PARKING FROM 303 SPACES TO 287 SPACES PER SECTION 5.1.14.2.c.j

*** REQUEST TO REDUCE NUMBER OF H.C. PARKING SPACES. ADA STANDARDS FOR ACCESSIBLE DESIGN SECTION 4.1.2 (6) REQUIRES 7 ADA ACCESSIBLE SPACES FOR 287 SPACES. 8 SPACES ARE PROVIDED.

CP101.dwg 11/20/13 11:20:00 AM C:\Users\jgibson\OneDrive\Documents\CP101.dwg - d:\jgibson

PLAN REFERENCE:
 1. THE BOUNDARY INFORMATION SHOWN ON THIS PLAN IS BASED ON A SITE SURVEY PROVIDED BY MORIN LAND SURVEYORS, PROJECT # AU102K, DATED 01-18-2012.
 2. WETLANDS, PVP & STREAM CENTERLINE GIS INFORMATION PROVIDED BY CES INC, RECEIVED 03-14-2012.

EXISTING ENTRANCE ROAD TO BE RE-VEGETATED MEADOW & MIXED PLANTINGS, ENTRANCE GATE TO REMAIN IN PLACE

ADDITIONAL 20' TO 275' WIDE BUFFER PROVIDED. BUFFER CONSISTS OF EXISTING DENSE MIXED FORESTED AREA

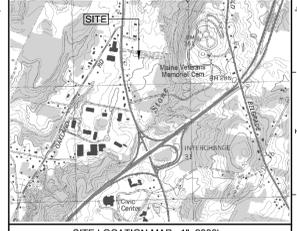
LIMITS OF REQUIRED 25' TYPE 'C' BUFFER

EXISTING VEGETATION TO REMAIN IN CORRIDOR 25' BUFFER REQUIRED 200' BUFFER PROVIDED

ADDITIONAL SCREENING PROVIDED

LEGEND

- = 5/8" IRON REBAR WITH I.D. CAP #2157 SET
- = 3/4" IRON REBAR WITH I.D. CAP #1059 FOUND
- = 1 3/4" IRON PIPE FOUND UNLESS OTHERWISE NOTED
- = GRANITE HIGHWAY MONUMENT FOUND
- = PROPERTY LINE
- — = CHAIN LINK FENCE
- x — = BARBED WIRE FENCE



REV.	DESCRIPTION	DATE

APPROVAL DRAWINGS
 10.24.13

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JOINT FORCES HEADQUARTERS - PHASE I
 PN, 230113
 PROJECT: AUGUSTA, MAINE

PLANTING BUFFER PLAN

SHEET TITLE:	375200 LP101.DWG
WBRC CAD FILE:	375200 LP101.DWG
PROJECT No:	3752.00
SCALE:	1"=50'
PROJECT MANAGER:	MLW
DRAWN BY:	TAR
CHECKED BY:	ARB
SHEET No.:	SK100

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