ITEM 1

ATTAR
ENGINEERING, INC
CIVIL STRUCTURAL MARINE

Mr. Bart McDonough, Town Planner
Town of Kittery, Maine
200 Rogers Road
Kittery, Maine 03904

April 8th, 2022
Project No. C206-21

RE: Site Plan Review Application – Peer Review Revisions
Terra Cotta Pasta Company (Tax Map 3, Lot 1)
52 State Road, Kittery, Maine

Dear Mr. McDonough:

On behalf of Kevin Cambridge and Terra Cotta Pasta Company, I have enclosed for your review and consideration a revised Plan Set and associated attachments for the above-referenced project. Revisions have been made to address comments presented in the Peer Review Memo prepared by CMA Engineers and dated 16 March 2022.

- The proposed rear parking lot has been slightly redesigned in order to accommodate an on-site detention pond that will receive stormwater runoff for the entire new parking lot. Proposed CB #3 has been moved further south to collect drainage from the southern half of the parking lot, which now daylights into the proposed detention pond. This redesign results in the loss of two (2) proposed parking spaces (from 30 total to 28 total).

- Spot grades and proposed contours have been slightly adjusted in the northern half of the proposed parking lot to pitch towards the detention pond. This BMP will allow for some collected runoff to infiltrate, while the remainder will route through a series of vertical orifices in the outlet structure, which flows into Proposed CB #2. Proposed CB #2 and CB #1 are unchanged from the previous submission.

- Sheet 4 (Site Details) has been updated to include a Typical Catch Basin Detail, Detention Pond Section Detail, and an Outlet Structure Detail for the detention pond that depicts the proposed vertical orifices and all relevant pipe sizes, elevations, and slopes.

- Sheet 3 has been revised to include rim elevation data and invert in/out elevation data for the appropriate existing municipal catch basin that receives all of the proposed drainage structures.

- Existing and Developed Conditions Stormwater Sheets have been revised to depict the appropriate analysis point '1L' of the correct municipal catch basin, as well as the revised developed condition subcatchments for the above-described site changes. The proposed detention pond allows for a peak flow reduction across all modeled storm events (2-, 10-, and 25-year).

- Stormwater Management Study, Stormwater Operation & Maintenance Program, and Erosion & Sedimentation Control notes on Sheet 4 have all been updated to reflect the project-specific BMP's for this project. A Post-Construction Housekeeping Punchlist has

been added to Sheet 4 to include the requested language on parking lot sweeping, catch basin cleaning, and the removal of erosion and sedimentation control measures from the construction process.

We look forward to discussing this project with the Planning Board at the April 28th Planning Board Meeting. Please contact me for any additional information or clarifications required.

Sincerely;

Michael J. Sudak, E.I.T.
Staff Engineer

cc: Kevin Cambridge, Terra Cotta Pasta Co.
C206-21 Cover SPR Rev 08Apr2022.doc

From: Kalinich, Jeffrey C < >
Sent: Thursday, June 10, 2021 8:41 AM
To: Bart McDonough < >
Subject: RE: 52 State Road--Kittery Maine

Good Morning Bart,

I have discussed the situation with my supervisor and we have determined that the piped segment of the mapped stream does not meet Kittery's definition and should be removed from the map. The mapped stream outside the pipe is borderline meeting Kittery's stream definition. In it's current condition a strong argument could be made that it does not because of the presence of aquatic vegetation. What I don't know is if this is a permanent change or if a channel will flush itself out after higher flows which commonly occurs with many low gradient systems.

Let me know if you have any questions.

Jeff

Jeffrey C. Kalinich
Maine Department of Environmental Protection
Assistant Shoreland Zoning Coordinator
Ph. (207) 615-7044
Fax. (207) 822-6303

From: Bart McDonough < >
Sent: Tuesday, June 8, 2021 11:54 AM
To: Kalinich, Jeffrey C < >
Subject: RE: 52 State Road--Kittery Maine

Sounds good. I'm inviting Code Enforcement to tag along too for both visits. Also, for the 52 State site visit, the applicant's agent will be present.

Best,
Bart

From: Kalinich, Jeffrey C [ ]
Sent: Tuesday, June 08, 2021 11:51 AM
To: Bart McDonough < >
Subject: RE: 52 State Road--Kittery Maine

Great, I would like your perspective. They will be sending me what was sent to the Town. I'll verify we have permission to enter the property.

Jeffrey C. Kalinich
Maine Department of Environmental Protection

ATTAR
ENGINEERING, INC
CIVIL STRUCTURAL MARINE

TERRA COTTA PASTA EXPANSION
STATE ROAD (U.S. ROUTE 1), KITTERY, MAINE
STORMWATER MANAGEMENT STUDY

Project No.: C206-21 April 8th, 2022

- **Scope**

This stormwater management plan has been prepared for Terra Cotta Pasta, an existing business, located on State Road, Kittery, Maine. The entire parcel contains approximately 0.65 acres; the site expansion will include a 1,760 square foot kitchen, a new patio/seating area, and an expanded parking lot. The project will create approximately 0.20 acres of impervious area.

- **Site and Watershed Description**

The project site is located in the Portsmouth Harbor watershed. Portsmouth Harbor empties to the Atlantic Ocean. A 7½ minute series U.S.G.S. map of the project area is attached.

The existing site is developed with a 1,050 S.F. structure (Terra Cotta Pasta Co.), an Existing Dwelling (separate) and associated driveways and parking. The remainder of the lot contains woodlands and grassed lawn.

As mentioned above, the site is located in the Portsmouth Harbor watershed approximately 80% of the site drains to the municipal storm sewer system (MS4). The remaining 20% drains off site and eventually to the MS4.

- **Soils/Hydrologic Soil Groups**

Soil types and their respective Hydrologic Soil Groups (HSG) were determined from the Soil Survey of York County, Maine. The site consists of Lyman Loam (LnC, HSG D) and Urban land (Ur).

- **Methodology**

The stormwater quantity analysis will be conducted using the HydroCAD Stormwater Modeling System by Applied Microcomputer Systems. The analysis determines the "Existing Condition" and "Developed Condition" stormwater flows. Both cases are analyzed for the 2, 10 and 25-year, 24-hour frequency storm events. The Existing Condition analyzes the site as it currently exists, and the Developed Condition models the site with the proposed improvements described above.

- **Water Quantity Analysis**

Existing Condition

The site was divided into three subcatchments (SC) for the Existing Condition analysis. SC 1 drains to an existing catch basin and eventually to AP 1. SC 2 drains to AP 2.

The APs were selected to provide convenient points to compare Existing Condition flows to Developed Condition flows.

Developed Condition

The Developed Condition analysis consists of 6 subcatchments. SC's 3 & 4 make up the entire proposed parking lot, which is routed through a detention basin and into the downstream drainage structure system. SC's 1, 2, & 5 all route through catch basins

(existing and proposed) and eventually drain to an existing catch basin and to AP 1. SC 6 drains directly to AP 2.

Changes in Stormwater Flows
Tables showing Existing Condition peak flows, Developed Condition peak flows and the change in peak flow from Existing Condition to Developed Condition are presented on a separate page.

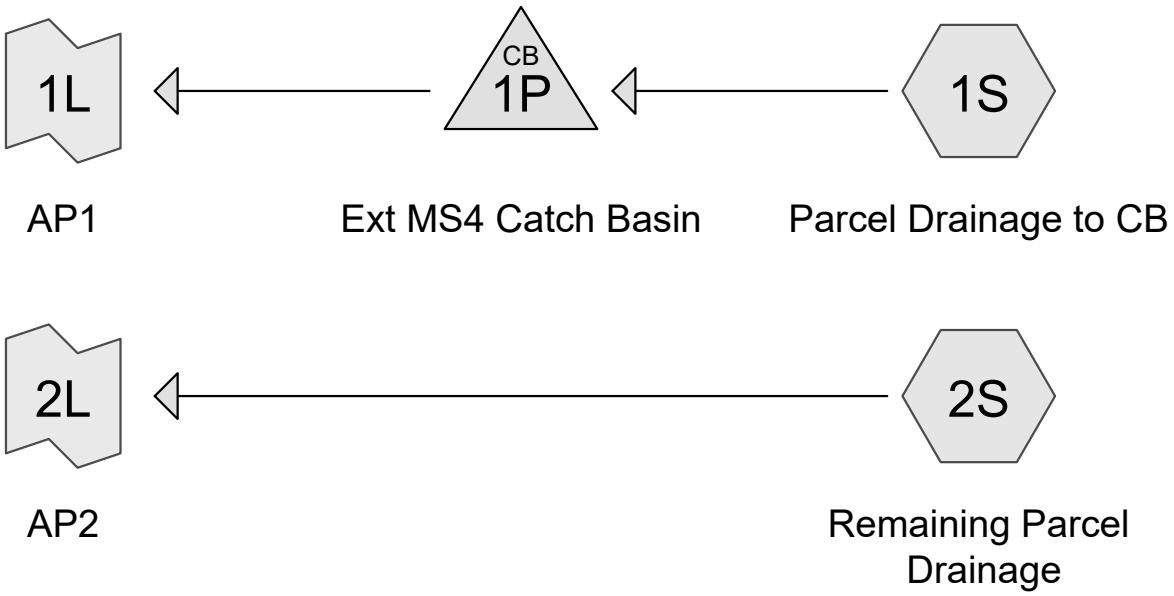
The analysis indicates a decrease in peak flow at AP1 and AP2 for all storm events (2, 10 and 25-year). See attached Quantity Analysis for stormwater flow rates.

- **Summary**

The use of a detention basin to collect on-site stormwater runoff and encourage infiltration prior to directing flow to the proposed catch basins allows for a decrease in peak flow that is received by the existing municipal storm sewer system (MS4). No adverse effects are anticipated on any downstream properties or drainage structures for the analyzed storm events.

Sincerely;

Michael J. Sudak, E.I.T.
Staff Engineer



Subcat Reach Pond Link

Routing Diagram for TCPC SWA EXT

Prepared by {enter your company name here}, Printed 4/8/2022

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.423	84	50-75% Grass cover, Fair, HSG D (1S, 2S)
0.081	96	Gravel surface, HSG D (1S)
0.134	98	Paved parking, HSG D (1S, 2S)
0.057	98	Roofs, HSG D (1S)
0.120	79	Woods, Fair, HSG D (1S, 2S)
0.816	**88**	**TOTAL AREA**

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Parcel Drainage to CB Runoff Area=29,816 sf 27.73% Impervious Runoff Depth>2.05"
Flow Length=249' Tc=25.2 min CN=89 Runoff=1.07 cfs 0.117 af

Subcatchment 2S: Remaining Parcel Runoff Area=5,728 sf 1.00% Impervious Runoff Depth>1.66"
Flow Length=227' Tc=25.3 min CN=84 Runoff=0.17 cfs 0.018 af

Pond 1P: Ext MS4 Catch Basin Peak Elev=20.78' Inflow=1.07 cfs 0.117 af
18.0" Round Culvert n=0.013 L=100.0' S=0.0050 '/' Outflow=1.07 cfs 0.117 af

Link 1L: AP1 Inflow=1.07 cfs 0.117 af
Primary=1.07 cfs 0.117 af

Link 2L: AP2 Inflow=0.17 cfs 0.018 af
Primary=0.17 cfs 0.018 af

Total Runoff Area = 0.816 ac Runoff Volume = 0.135 af Average Runoff Depth = 1.99"
76.58% Pervious = 0.625 ac 23.42% Impervious = 0.191 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Parcel Drainage to CB Runoff Area=29,816 sf 27.73% Impervious Runoff Depth>3.85"
Flow Length=249' Tc=25.2 min CN=89 Runoff=1.95 cfs 0.220 af

Subcatchment 2S: Remaining Parcel Runoff Area=5,728 sf 1.00% Impervious Runoff Depth>3.35"
Flow Length=227' Tc=25.3 min CN=84 Runoff=0.33 cfs 0.037 af

Pond 1P: Ext MS4 Catch Basin Peak Elev=20.98' Inflow=1.95 cfs 0.220 af
18.0" Round Culvert n=0.013 L=100.0' S=0.0050 '/' Outflow=1.95 cfs 0.220 af

Link 1L: AP1 Inflow=1.95 cfs 0.220 af
Primary=1.95 cfs 0.220 af

Link 2L: AP2 Inflow=0.33 cfs 0.037 af
Primary=0.33 cfs 0.037 af

Total Runoff Area = 0.816 ac Runoff Volume = 0.256 af Average Runoff Depth = 3.77"
76.58% Pervious = 0.625 ac 23.42% Impervious = 0.191 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Parcel Drainage to CB Runoff Area=29,816 sf 27.73% Impervious Runoff Depth>5.00"
Flow Length=249' Tc=25.2 min CN=89 Runoff=2.50 cfs 0.285 af

Subcatchment 2S: Remaining Parcel Runoff Area=5,728 sf 1.00% Impervious Runoff Depth>4.46"
Flow Length=227' Tc=25.3 min CN=84 Runoff=0.44 cfs 0.049 af

Pond 1P: Ext MS4 Catch Basin Peak Elev=21.09' Inflow=2.50 cfs 0.285 af
18.0" Round Culvert n=0.013 L=100.0' S=0.0050 '/' Outflow=2.50 cfs 0.285 af

Link 1L: AP1 Inflow=2.50 cfs 0.285 af
Primary=2.50 cfs 0.285 af

Link 2L: AP2 Inflow=0.44 cfs 0.049 af
Primary=0.44 cfs 0.049 af

Total Runoff Area = 0.816 ac Runoff Volume = 0.334 af Average Runoff Depth = 4.92"
76.58% Pervious = 0.625 ac 23.42% Impervious = 0.191 ac

Summary for Subcatchment 1S: Parcel Drainage to CB

Runoff = 2.50 cfs @ 12.34 hrs, Volume= 0.285 af, Depth> 5.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YEAR STORM Rainfall=6.60"

Area (sf)	CN	Description
4,652	79	Woods, Fair, HSG D
2,501	98	Roofs, HSG D
5,766	98	Paved parking, HSG D
3,547	96	Gravel surface, HSG D
13,350	84	50-75% Grass cover, Fair, HSG D
29,816	89	Weighted Average
21,549		72.27% Pervious Area
8,267		27.73% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0050	0.04		**Sheet Flow, SF 1** Woods: Light underbrush n= 0.400 P2= 3.33"
3.8	112	0.0050	0.49		**Shallow Concentrated Flow, SCF 1** Short Grass Pasture Kv= 7.0 fps
0.3	87	0.0640	5.14		**Shallow Concentrated Flow, SCF 2** Paved Kv= 20.3 fps
25.2	249	Total			

Summary for Subcatchment 2S: Remaining Parcel Drainage

Runoff = 0.44 cfs @ 12.34 hrs, Volume= 0.049 af, Depth> 4.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YEAR STORM Rainfall=6.60"

Area (sf)	CN	Description
592	79	Woods, Fair, HSG D
57	98	Paved parking, HSG D
5,079	84	50-75% Grass cover, Fair, HSG D
5,728	84	Weighted Average
5,671		99.00% Pervious Area
57		1.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0050	0.04		**Sheet Flow, SF 1** Woods: Light underbrush n= 0.400 P2= 3.33"
3.8	112	0.0050	0.49		**Shallow Concentrated Flow, SCF 1** Short Grass Pasture Kv= 7.0 fps
0.4	65	0.1230	2.45		**Shallow Concentrated Flow, SCF 2** Short Grass Pasture Kv= 7.0 fps
25.3	227	Total			

Summary for Pond 1P: Ext MS4 Catch Basin

[82] Warning: Early inflow requires earlier time span
[57] Hint: Peaked at 21.09' (Flood elevation advised)

Inflow Area = 0.684 ac, 27.73% Impervious, Inflow Depth > 5.00" for 25 YEAR STORM event
Inflow = 2.50 cfs @ 12.34 hrs, Volume= 0.285 af
Outflow = 2.50 cfs @ 12.34 hrs, Volume= 0.285 af, Atten= 0%, Lag= 0.0 min
Primary = 2.50 cfs @ 12.34 hrs, Volume= 0.285 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 21.09' @ 12.34 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	20.25'	**18.0" Round CMP_Round 18"** L= 100.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 20.25' / 19.75' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.49 cfs @ 12.34 hrs HW=21.09' (Free Discharge)
1=CMP_Round 18" (Barrel Controls 2.49 cfs @ 3.54 fps)

Summary for Link 1L: AP1

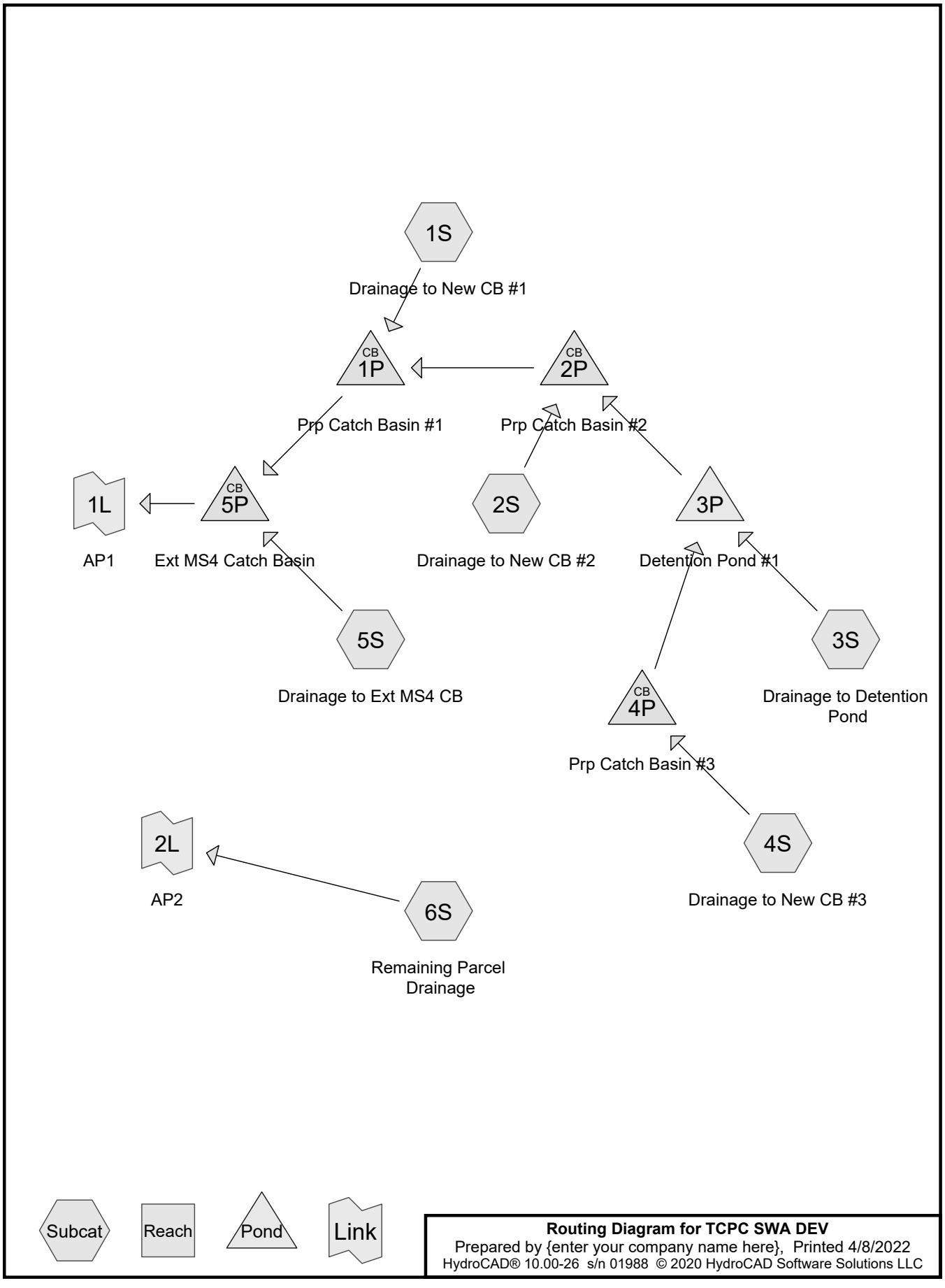
Inflow Area = 0.684 ac, 27.73% Impervious, Inflow Depth > 5.00" for 25 YEAR STORM event
Inflow = 2.50 cfs @ 12.34 hrs, Volume= 0.285 af
Primary = 2.50 cfs @ 12.34 hrs, Volume= 0.285 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link 2L: AP2

Inflow Area = 0.131 ac, 1.00% Impervious, Inflow Depth > 4.46" for 25 YEAR STORM event
Inflow = 0.44 cfs @ 12.34 hrs, Volume= 0.049 af
Primary = 0.44 cfs @ 12.34 hrs, Volume= 0.049 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs



Routing Diagram for TCPC SWA DEV

Prepared by {enter your company name here}, Printed 4/8/2022

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.354	80	>75% Grass cover, Good, HSG D (1S, 2S, 3S, 4S, 5S, 6S)
0.324	98	Paved parking, HSG D (1S, 2S, 3S, 4S, 5S, 6S)
0.096	98	Roofs, HSG D (1S, 2S, 5S)
0.041	79	Woods, Fair, HSG D (3S, 4S, 5S, 6S)
0.816	**89**	**TOTAL AREA**

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Drainage to New CB #1 Runoff Area=2,896 sf 64.23% Impervious Runoff Depth>2.34"
Flow Length=70' Tc=1.2 min CN=92 Runoff=0.21 cfs 0.013 af

Subcatchment 2S: Drainage to New CB #2 Runoff Area=3,404 sf 53.38% Impervious Runoff Depth>2.15"
Flow Length=65' Tc=4.9 min CN=90 Runoff=0.21 cfs 0.014 af

Subcatchment 3S: Drainage to Detention Runoff Area=9,263 sf 55.67% Impervious Runoff Depth>2.14"
Flow Length=108' Tc=21.5 min CN=90 Runoff=0.37 cfs 0.038 af

Subcatchment 4S: Drainage to New CB #3 Runoff Area=5,226 sf 65.48% Impervious Runoff Depth>2.33"
Flow Length=86' Tc=10.5 min CN=92 Runoff=0.29 cfs 0.023 af

Subcatchment 5S: Drainage to Ext MS4 CB Runoff Area=10,665 sf 54.96% Impervious Runoff Depth>2.15"
Flow Length=217' Tc=11.6 min CN=90 Runoff=0.54 cfs 0.044 af

Subcatchment 6S: Remaining Parcel Runoff Area=4,087 sf 5.09% Impervious Runoff Depth>1.45"
Flow Length=163' Tc=11.6 min CN=81 Runoff=0.14 cfs 0.011 af

Pond 1P: Prp Catch Basin #1 Peak Elev=22.10' Inflow=0.43 cfs 0.054 af
15.0" Round Culvert n=0.013 L=55.0' S=0.0055 '/' Outflow=0.43 cfs 0.054 af

Pond 2P: Prp Catch Basin #2 Peak Elev=23.01' Inflow=0.33 cfs 0.041 af
15.0" Round Culvert n=0.013 L=85.0' S=0.0106 '/' Outflow=0.33 cfs 0.041 af

Pond 3P: Detention Pond #1 Peak Elev=26.85' Storage=686 cf Inflow=0.59 cfs 0.061 af
Discarded=0.05 cfs 0.034 af Primary=0.28 cfs 0.027 af Outflow=0.33 cfs 0.061 af

Pond 4P: Prp Catch Basin #3 Peak Elev=27.04' Inflow=0.29 cfs 0.023 af
15.0" Round Culvert n=0.013 L=50.0' S=0.0050 '/' Outflow=0.29 cfs 0.023 af

Pond 5P: Ext MS4 Catch Basin Peak Elev=20.88' Inflow=0.91 cfs 0.098 af
18.0" Round Culvert n=0.013 L=235.0' S=0.0051 '/' Outflow=0.91 cfs 0.098 af

Link 1L: AP1 Inflow=0.91 cfs 0.098 af
Primary=0.91 cfs 0.098 af

Link 2L: AP2 Inflow=0.14 cfs 0.011 af
Primary=0.14 cfs 0.011 af

Total Runoff Area = 0.816 ac Runoff Volume = 0.144 af Average Runoff Depth = 2.11"
48.44% Pervious = 0.395 ac 51.56% Impervious = 0.421 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Drainage to New CB #1 Runoff Area=2,896 sf 64.23% Impervious Runoff Depth>4.18"
Flow Length=70' Tc=1.2 min CN=92 Runoff=0.36 cfs 0.023 af

Subcatchment 2S: Drainage to New CB #2 Runoff Area=3,404 sf 53.38% Impervious Runoff Depth>3.97"
Flow Length=65' Tc=4.9 min CN=90 Runoff=0.37 cfs 0.026 af

Subcatchment 3S: Drainage to Detention Runoff Area=9,263 sf 55.67% Impervious Runoff Depth>3.96"
Flow Length=108' Tc=21.5 min CN=90 Runoff=0.66 cfs 0.070 af

Subcatchment 4S: Drainage to New CB #3 Runoff Area=5,226 sf 65.48% Impervious Runoff Depth>4.17"
Flow Length=86' Tc=10.5 min CN=92 Runoff=0.50 cfs 0.042 af

Subcatchment 5S: Drainage to Ext MS4 CB Runoff Area=10,665 sf 54.96% Impervious Runoff Depth>3.97"
Flow Length=217' Tc=11.6 min CN=90 Runoff=0.96 cfs 0.081 af

Subcatchment 6S: Remaining Parcel Runoff Area=4,087 sf 5.09% Impervious Runoff Depth>3.07"
Flow Length=163' Tc=11.6 min CN=81 Runoff=0.30 cfs 0.024 af

Pond 1P: Prp Catch Basin #1 Peak Elev=22.27' Inflow=0.92 cfs 0.115 af
15.0" Round Culvert n=0.013 L=55.0' S=0.0055 '/' Outflow=0.92 cfs 0.115 af

Pond 2P: Prp Catch Basin #2 Peak Elev=23.13' Inflow=0.67 cfs 0.092 af
15.0" Round Culvert n=0.013 L=85.0' S=0.0106 '/' Outflow=0.67 cfs 0.092 af

Pond 3P: Detention Pond #1 Peak Elev=27.42' Storage=1,251 cf Inflow=1.04 cfs 0.112 af
Discarded=0.06 cfs 0.045 af Primary=0.59 cfs 0.066 af Outflow=0.65 cfs 0.110 af

Pond 4P: Prp Catch Basin #3 Peak Elev=27.14' Inflow=0.50 cfs 0.042 af
15.0" Round Culvert n=0.013 L=50.0' S=0.0050 '/' Outflow=0.50 cfs 0.042 af

Pond 5P: Ext MS4 Catch Basin Peak Elev=21.06' Inflow=1.69 cfs 0.196 af
18.0" Round Culvert n=0.013 L=235.0' S=0.0051 '/' Outflow=1.69 cfs 0.196 af

Link 1L: AP1 Inflow=1.69 cfs 0.196 af
Primary=1.69 cfs 0.196 af

Link 2L: AP2 Inflow=0.30 cfs 0.024 af
Primary=0.30 cfs 0.024 af

Total Runoff Area = 0.816 ac Runoff Volume = 0.266 af Average Runoff Depth = 3.91"
48.44% Pervious = 0.395 ac 51.56% Impervious = 0.421 ac

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Drainage to New CB #1 Runoff Area=2,896 sf 64.23% Impervious Runoff Depth>5.34"
Flow Length=70' Tc=1.2 min CN=92 Runoff=0.45 cfs 0.030 af

Subcatchment 2S: Drainage to New CB #2 Runoff Area=3,404 sf 53.38% Impervious Runoff Depth>5.13"
Flow Length=65' Tc=4.9 min CN=90 Runoff=0.48 cfs 0.033 af

Subcatchment 3S: Drainage to Detention Runoff Area=9,263 sf 55.67% Impervious Runoff Depth>5.12"
Flow Length=108' Tc=21.5 min CN=90 Runoff=0.84 cfs 0.091 af

Subcatchment 4S: Drainage to New CB #3 Runoff Area=5,226 sf 65.48% Impervious Runoff Depth>5.34"
Flow Length=86' Tc=10.5 min CN=92 Runoff=0.63 cfs 0.053 af

Subcatchment 5S: Drainage to Ext MS4 CB Runoff Area=10,665 sf 54.96% Impervious Runoff Depth>5.13"
Flow Length=217' Tc=11.6 min CN=90 Runoff=1.23 cfs 0.105 af

Subcatchment 6S: Remaining Parcel Runoff Area=4,087 sf 5.09% Impervious Runoff Depth>4.16"
Flow Length=163' Tc=11.6 min CN=81 Runoff=0.40 cfs 0.033 af

Pond 1P: Prp Catch Basin #1 Peak Elev=22.35' Inflow=1.19 cfs 0.156 af
15.0" Round Culvert n=0.013 L=55.0' S=0.0055 '/' Outflow=1.19 cfs 0.156 af

Pond 2P: Prp Catch Basin #2 Peak Elev=23.24' Inflow=1.08 cfs 0.126 af
15.0" Round Culvert n=0.013 L=85.0' S=0.0106 '/' Outflow=1.08 cfs 0.126 af

Pond 3P: Detention Pond #1 Peak Elev=27.56' Storage=1,408 cf Inflow=1.33 cfs 0.144 af
Discarded=0.06 cfs 0.048 af Primary=0.94 cfs 0.093 af Outflow=1.01 cfs 0.141 af

Pond 4P: Prp Catch Basin #3 Peak Elev=27.19' Inflow=0.63 cfs 0.053 af
15.0" Round Culvert n=0.013 L=50.0' S=0.0050 '/' Outflow=0.63 cfs 0.053 af

Pond 5P: Ext MS4 Catch Basin Peak Elev=21.15' Inflow=2.13 cfs 0.260 af
18.0" Round Culvert n=0.013 L=235.0' S=0.0051 '/' Outflow=2.13 cfs 0.260 af

Link 1L: AP1 Inflow=2.13 cfs 0.260 af
Primary=2.13 cfs 0.260 af

Link 2L: AP2 Inflow=0.40 cfs 0.033 af
Primary=0.40 cfs 0.033 af

Total Runoff Area = 0.816 ac Runoff Volume = 0.344 af Average Runoff Depth = 5.06"
48.44% Pervious = 0.395 ac 51.56% Impervious = 0.421 ac

Summary for Subcatchment 1S: Drainage to New CB #1

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

Runoff = 0.45 cfs @ 12.02 hrs, Volume= 0.030 af, Depth> 5.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YEAR STORM Rainfall=6.60"

Area (sf)	CN	Description
695	98	Roofs, HSG D
1,165	98	Paved parking, HSG D
1,036	80	>75% Grass cover, Good, HSG D
2,896	92	Weighted Average
1,036		35.77% Pervious Area
1,860		64.23% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.2	16	0.0500	1.40		**Sheet Flow, SF 1** Smooth surfaces n= 0.011 P2= 3.33"
1.0	54	0.0100	0.94		**Sheet Flow, SF 2** Smooth surfaces n= 0.011 P2= 3.33"
1.2	70	Total			

Summary for Subcatchment 2S: Drainage to New CB #2

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

Runoff = 0.48 cfs @ 12.07 hrs, Volume= 0.033 af, Depth> 5.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YEAR STORM Rainfall=6.60"

Area (sf)	CN	Description
865	98	Roofs, HSG D
952	98	Paved parking, HSG D
1,587	80	>75% Grass cover, Good, HSG D
3,404	90	Weighted Average
1,587		46.62% Pervious Area
1,817		53.38% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
4.6	20	0.0050	0.07		**Sheet Flow, SF 1** Grass: Short n= 0.150 P2= 3.33"
0.3	45	0.0150	2.49		**Shallow Concentrated Flow, SCF 1** Paved Kv= 20.3 fps
4.9	65	Total			

Summary for Subcatchment 3S: Drainage to Detention Pond

Runoff = 0.84 cfs @ 12.29 hrs, Volume= 0.091 af, Depth> 5.12"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YEAR STORM Rainfall=6.60"

Area (sf)	CN	Description
1,522	79	Woods, Fair, HSG D
5,157	98	Paved parking, HSG D
2,584	80	>75% Grass cover, Good, HSG D
9,263	90	Weighted Average
4,106		44.33% Pervious Area
5,157		55.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
21.1	50	0.0050	0.04		**Sheet Flow, SF 1** Woods: Light underbrush n= 0.400 P2= 3.33"
0.4	58	0.0150	2.49		**Shallow Concentrated Flow, SCF 1** Paved Kv= 20.3 fps
21.5	108	Total			

Summary for Subcatchment 4S: Drainage to New CB #3

Runoff = 0.63 cfs @ 12.14 hrs, Volume= 0.053 af, Depth> 5.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YEAR STORM Rainfall=6.60"

Area (sf)	CN	Description
154	79	Woods, Fair, HSG D
3,422	98	Paved parking, HSG D
1,650	80	>75% Grass cover, Good, HSG D
5,226	92	Weighted Average
1,804		34.52% Pervious Area
3,422		65.48% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.1	20	0.0050	0.03		**Sheet Flow, SF 1** Woods: Light underbrush n= 0.400 P2= 3.33"
0.4	66	0.0150	2.49		**Shallow Concentrated Flow, SCF 1** Paved Kv= 20.3 fps
10.5	86	Total			

Summary for Subcatchment 5S: Drainage to Ext MS4 CB

Runoff = 1.23 cfs @ 12.16 hrs, Volume= 0.105 af, Depth> 5.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YEAR STORM Rainfall=6.60"

Area (sf)	CN	Description
2,638	98	Roofs, HSG D
3,224	98	Paved parking, HSG D
22	79	Woods, Fair, HSG D
4,781	80	>75% Grass cover, Good, HSG D
10,665	90	Weighted Average
4,803		45.04% Pervious Area
5,862		54.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	50	0.0050	0.09		**Sheet Flow, SF 1** Grass: Short n= 0.150 P2= 3.33"
1.8	106	0.0190	0.96		**Shallow Concentrated Flow, SCF 1** Short Grass Pasture Kv= 7.0 fps
0.2	61	0.0640	5.14		**Shallow Concentrated Flow, SCF 2** Paved Kv= 20.3 fps
11.6	217	Total			

Summary for Subcatchment 6S: Remaining Parcel Drainage

Runoff = 0.40 cfs @ 12.16 hrs, Volume= 0.033 af, Depth> 4.16"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25 YEAR STORM Rainfall=6.60"

Area (sf)	CN	Description
76	79	Woods, Fair, HSG D
208	98	Paved parking, HSG D
3,803	80	>75% Grass cover, Good, HSG D
4,087	81	Weighted Average
3,879		94.91% Pervious Area
208		5.09% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
9.6	50	0.0050	0.09		**Sheet Flow, SF 1** Grass: Short n= 0.150 P2= 3.33"
1.6	48	0.0050	0.49		**Shallow Concentrated Flow, SCF 1** Short Grass Pasture Kv= 7.0 fps
0.4	65	0.1230	2.45		**Shallow Concentrated Flow, SCF 1** Short Grass Pasture Kv= 7.0 fps
11.6	163	Total			

Summary for Pond 1P: Prp Catch Basin #1

[82] Warning: Early inflow requires earlier time span
[57] Hint: Peaked at 22.35' (Flood elevation advised)
[79] Warning: Submerged Pond 2P Primary device # 1 OUTLET by 0.50'

Inflow Area = 0.477 ac, 58.95% Impervious, Inflow Depth > 3.92" for 25 YEAR STORM event
Inflow = 1.19 cfs @ 12.37 hrs, Volume= 0.156 af
Outflow = 1.19 cfs @ 12.37 hrs, Volume= 0.156 af, Atten= 0%, Lag= 0.0 min
Primary = 1.19 cfs @ 12.37 hrs, Volume= 0.156 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 22.35' @ 12.37 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	21.75'	**15.0" Round CMP_Round 15"** L= 55.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 21.75' / 21.45' S= 0.0055 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.18 cfs @ 12.37 hrs HW=22.35' (Free Discharge)
1=CMP_Round 15" (Barrel Controls 1.18 cfs @ 2.98 fps)

Summary for Pond 2P: Prp Catch Basin #2

[82] Warning: Early inflow requires earlier time span
[57] Hint: Peaked at 23.24' (Flood elevation advised)
[79] Warning: Submerged Pond 3P Primary device # 2 INLET by 0.24'

Inflow Area = 0.411 ac, 58.10% Impervious, Inflow Depth > 3.69" for 25 YEAR STORM event
Inflow = 1.08 cfs @ 12.39 hrs, Volume= 0.126 af
Outflow = 1.08 cfs @ 12.39 hrs, Volume= 0.126 af, Atten= 0%, Lag= 0.0 min
Primary = 1.08 cfs @ 12.39 hrs, Volume= 0.126 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 23.24' @ 12.39 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	22.75'	**15.0" Round CMP_Round 15"** L= 85.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 22.75' / 21.85' S= 0.0106 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.08 cfs @ 12.39 hrs HW=23.24' (Free Discharge)
1=CMP_Round 15" (Inlet Controls 1.08 cfs @ 2.39 fps)

Summary for Pond 3P: Detention Pond #1

[82] Warning: Early inflow requires earlier time span
[81] Warning: Exceeded Pond 4P by 0.54' @ 12.50 hrs

Inflow Area = 0.333 ac, 59.21% Impervious, Inflow Depth > 5.20" for 25 YEAR STORM event
Inflow = 1.33 cfs @ 12.20 hrs, Volume= 0.144 af
Outflow = 1.01 cfs @ 12.41 hrs, Volume= 0.141 af, Atten= 24%, Lag= 12.4 min
Discarded = 0.06 cfs @ 12.41 hrs, Volume= 0.048 af
Primary = 0.94 cfs @ 12.41 hrs, Volume= 0.093 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 27.56' @ 12.41 hrs Surf.Area= 1,119 sf Storage= 1,408 cf

Plug-Flow detention time= 37.9 min calculated for 0.140 af (98% of inflow)
Center-of-Mass det. time= 29.1 min (790.1 - 761.0)

Volume	Invert	Avail.Storage	Storage Description
#1	26.00'	1,925 cf	**Custom Stage Data (Prismatic)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
26.00	700	0	0
27.00	950	825	825
28.00	1,250	1,100	1,925

Device	Routing	Invert	Outlet Devices
#1	Discarded	26.00'	**2.400 in/hr Exfiltration over Surface area**
#2	Primary	23.00'	**15.0" Round CMP_Round 15"** L= 30.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 23.00' / 22.85' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#3	Device 2	27.25'	**6.0" Vert. Orifice/Grate X 2.00** C= 0.600
#4	Device 2	26.25'	**4.0" Vert. Orifice/Grate** C= 0.600

Discarded OutFlow Max=0.06 cfs @ 12.41 hrs HW=27.56' (Free Discharge)
└**1=Exfiltration** (Exfiltration Controls 0.06 cfs)

Primary OutFlow Max=0.94 cfs @ 12.41 hrs HW=27.56' (Free Discharge)
└**2=CMP_Round 15"** (Passes 0.94 cfs of 11.72 cfs potential flow)
  ├**3=Orifice/Grate** (Orifice Controls 0.49 cfs @ 1.90 fps)
  └**4=Orifice/Grate** (Orifice Controls 0.45 cfs @ 5.15 fps)

Summary for Pond 4P: Prp Catch Basin #3

[82] Warning: Early inflow requires earlier time span
[57] Hint: Peaked at 27.19' (Flood elevation advised)

Inflow Area = 0.120 ac, 65.48% Impervious, Inflow Depth > 5.34" for 25 YEAR STORM event
Inflow = 0.63 cfs @ 12.14 hrs, Volume= 0.053 af
Outflow = 0.63 cfs @ 12.14 hrs, Volume= 0.053 af, Atten= 0%, Lag= 0.0 min
Primary = 0.63 cfs @ 12.14 hrs, Volume= 0.053 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 27.19' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	26.75'	**15.0" Round CMP_Round 15"** L= 50.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 26.75' / 26.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.63 cfs @ 12.14 hrs HW=27.18' (Free Discharge)
1=CMP_Round 15" (Barrel Controls 0.63 cfs @ 2.47 fps)

Summary for Pond 5P: Ext MS4 Catch Basin

[82] Warning: Early inflow requires earlier time span
[57] Hint: Peaked at 21.15' (Flood elevation advised)

Inflow Area = 0.722 ac, 57.60% Impervious, Inflow Depth > 4.33" for 25 YEAR STORM event
Inflow = 2.13 cfs @ 12.12 hrs, Volume= 0.260 af
Outflow = 2.13 cfs @ 12.12 hrs, Volume= 0.260 af, Atten= 0%, Lag= 0.0 min
Primary = 2.13 cfs @ 12.12 hrs, Volume= 0.260 af

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 21.15' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	20.40'	**18.0" Round CMP_Round 18"** L= 235.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 20.40' / 19.20' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.11 cfs @ 12.12 hrs HW=21.14' (Free Discharge)
1=CMP_Round 18" (Barrel Controls 2.11 cfs @ 3.53 fps)

Summary for Link 1L: AP1

Inflow Area = 0.722 ac, 57.60% Impervious, Inflow Depth > 4.33" for 25 YEAR STORM event
Inflow = 2.13 cfs @ 12.12 hrs, Volume= 0.260 af
Primary = 2.13 cfs @ 12.12 hrs, Volume= 0.260 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Summary for Link 2L: AP2

Inflow Area = 0.094 ac, 5.09% Impervious, Inflow Depth > 4.16" for 25 YEAR STORM event
Inflow = 0.40 cfs @ 12.16 hrs, Volume= 0.033 af
Primary = 0.40 cfs @ 12.16 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Terra Cotta Expansion - Existing Condition Peak Flows

Analysis Point	2 Year Storm (cfs)	10 Year Storm (cfs)	25 Year Storm (cfs)
AP1	1.07	1.95	2.50
AP2	0.17	0.33	0.44

Rainfall Event Totals (in.)	
2-Year	3.33
10-Year	5.34
25-Year	6.60

Terra Cotta Expansion - Developed Condition Peak Flows

Analysis Point	2 Year Storm (cfs)	10 Year Storm (cfs)	25 Year Storm (cfs)
AP1	0.91	1.69	2.13
AP2	0.14	0.30	0.40

Terra Cotta Expansion - Change in Peak Flows

Analysis Point	2 Year Storm (cfs)	10 Year Storm (cfs)	25 Year Storm (cfs)
AP1	-0.16	-0.26	-0.37
AP2	-0.03	-0.03	-0.04

ATTAR
ENGINEERING, INC
CIVIL • STRUCTURAL • MARINE

TERRA COTTA PASTA CO. - EXPANSION
STATE ROAD (U.S. ROUTE 1)
KITTERY, MAINE

OPERATION AND MAINTENANCE PROGRAM STORMWATER MANAGEMENT BMP's

This project contains specific Best Management Practices (BMP's) for the conveyance, storage, and treatment of stormwater and the prevention of erosion. These BMP's consist of catch basins and culverts. All components should be inspected quarterly, and after every significant rain event of 1" in any 24-hour period.

The party responsible for implementing this Operation and Maintenance Program (O & M Program) shall be the property owner or owner's representative.

Stormwater Detention Areas
The Stormwater Detention Areas shall be inspected to ensure that there is no channeling of stormwater and that no debris accumulates within the detention areas. The vegetative cover conditions shall be maintained. The inlets and outlets shall be inspected for erosion and any evidence of debris that could clog the culverts.

Catch Basins
All catch basin grates, sumps, and inlets/outlets should be inspected for accumulation of debris, which could adversely affect the function of this BMP. Additionally, the basin inverts shall be inspected for clogging and material soundness. Sumps shall always be clear to a depth of 1' below the outlet invert. Inlet structures shall be inspected and cleaned of debris at least twice annually, once in the spring following snow melt and once in the autumn after leaf fall.

Culverts
Culvert inlets and outlets should be inspected for debris, which could clog the BMP. Additionally, the placement of rip-rap should be inspected to ensure that all areas remain smooth and no areas exhibit erosion in the form of rills or gullies.

Snow Removal
Snow shall be stockpiled only in the approved snow storage areas. Plowing of snow into wetland areas or detention ponds is prohibited. Additionally, a mostly sand mix (reduced salt) shall be applied during winter months to prevent excessive salt from leaching into wetland areas. Excess sand shall be removed from the storage areas, all paved surfaces and adjacent areas each spring.

Seeding, Fertilizing and Mulching
All exposed soil materials and stockpiles must be either temporarily or permanently seeded, fertilized and mulched in accordance with plan specifications. This is one of the most important features of the Erosion Control Plan, which will provide both temporary and permanent stabilization. Eroded or damaged lawn areas must be repaired until a 75% effective growth of vegetation is established and permanently maintained.

Record Keeping
Routine maintenance and inspections will be accomplished by the property owners of or a third party contracted by the respective owner. All inspections accomplished in accordance with this program shall be documented on the attached Inspection & Maintenance Log. Copies of the Log shall be kept by the property owner or owner's representative, and be made available to the Town of Kittery, upon request.

Additional responsibilities to include, on or by July 1 of each year, providing a completed and signed certification to the Code Enforcement Officer in a form provided by the Town, certifying that the person has inspected the stormwater management facilities and that they are adequately maintained and functioning as intended by the stormwater management plan, or that they require maintenance or repair, describing any required maintenance and any deficiencies found during inspection of the stormwater management facilities and, if the stormwater management facilities require maintenance or repair of deficiencies in order to function as intended by the approved stormwater management plan, the person must provide a record of the required maintenance or deficiency and corrective action(s) taken.

INSPECTION & MAINTENANCE LOG
TERRA COTTA PASTA CO.

Date	BMP[1]	Purpose[2]	Maintenance Done[3]	By

1. "BMP" refers to which site feature is being maintained. For example; Catch Basin, Culvert, Swale, Underdrained Soil Filter (USF) etc.
2. "Purpose" is the reason for the inspection. For example; "quarterly' or "after a significant rain event."
3. "Maintenance Done" means any maintenance required as a result of the inspection, such as trash removal or re-seeding of areas.

Inspector:_____ **Date:**_____

CATCH BASIN INSPECTION FORM

Catch Basin I.D.		**Final Discharge from Structure?** Yes ☐ No ☐ **If Yes, Discharge to Outfall No:**	
Catch Basin Label:	**Stencil** ☐ **Ground Inset** ☐ **Sign** ☐ **None** ☐ **Other**		
Basin Material:	Concrete ☐ Corrugated metal ☐ Stone ☐ Brick ☐ Other: ☐	**Catch Basin Condition:**	Good ☐ Poor ☐ Fair ☐ Crumbling ☐
Pipe Material:	Concrete ☐ HDPE ☐ PVC ☐ Clay Tile ☐ Other:	**Pipe Measurements:**	Inlet Dia. (in): d= Outlet Dia. (in): D=

Required Maintenance/ Problems (check all that apply):

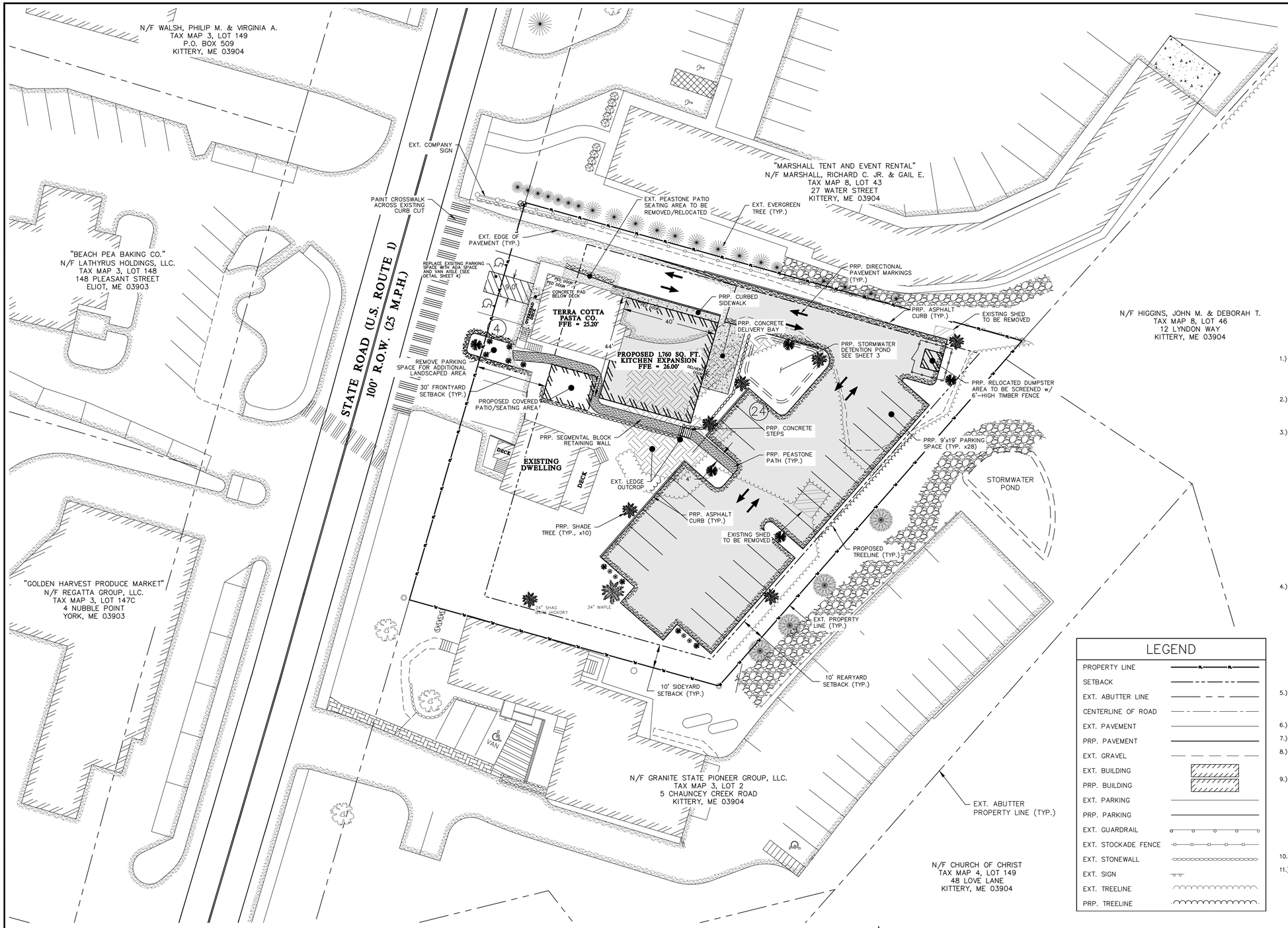
- ☐ Tree Work Required
- ☐ New Grate is Required
- ☐ Pipe is Blocked
- ☐ Frame Maintenance is Required
- ☐ Remove Accumulated Sediment
- ☐ Pipe Maintenance is Required
- ☐ Basin Undermined or Bypassed
- ☐ Cannot Remove Cover
- ☐ Ditch Work
- ☐ Corrosion at Structure
- ☐ Erosion Around Structure
- ☐ Remove Trash & Debris
- ☐ Need Cement Around Grate

Other:

Catch Basin Grate Type :	**Sediment Buildup Depth :**	**Description of Flow:**	**Street Name/ Structure Location:**
Bar: ☐ Cascade: ☐ Other: Properly Aligned: Yes ☐ No ☐	0-6 (in): 6-12(in): 12-18 (in): 18-24 (in): 24 + (in):	Heavy ☐ Moderate ☐ Slight ☐ Trickling ☐	

***If the outlet is submerged check yes and indicate approximate height of water above the outlet invert.** h above invert (in):	Yes ☐	No ☐

☐ **Flow** ☐ **Standing Water** **(check one or both)**	**Observations:**		**Circle those present:**
	Color:		Foam / Oil Sheen
	Odor:		Sanitary Waste / Bacterial Sheen
Weather Conditions :	Dry > 24 hours ☐	Wet ☐	Orange Staining / Floatables
Sample of Screenings Collected for Analysis? Yes ☐ No ☐			Excessive sediment / Pet Waste
Comments:			Other: / Optical Enhancers



LOCATION MAP

APPROX. SCALE: 1" = 2,000'

LEGEND

- PROPERTY LINE
- SETBACK
- EXT. ABUTTER LINE
- CENTERLINE OF ROAD
- EXT. PAVEMENT
- PRP. PAVEMENT
- EXT. GRAVEL
- EXT. BUILDING
- PRP. BUILDING
- EXT. PARKING
- PRP. PARKING
- EXT. GUARDRAIL
- EXT. STOCKADE FENCE
- EXT. STONEWALL
- EXT. SIGN
- EXT. TREELINE
- PRP. TREELINE

GENERAL NOTES

1.) THIS PLAN PROVIDES FOR AN EXPANSION TO THE EXISTING COMPANY "TERRA COTTA PASTA CO." LOCATED ON STATE ROAD IN KITTERY, MAINE ON TAX MAP 3, LOT 1. THE PARCEL IS 0.65 ACRES AND IS LOCATED WITHIN THE "BUSINESS – LOCAL 1" (B–L1) ZONING DISTRICT. THE PROPOSED EXPANSION INCLUDES ENLARGING THE EXISTING KITCHEN SPACE, EXPANDING THE REAR PARKING AREA, AND RELOCATING/ADDING A ROADSIDE COVERED PATIO/SEATING AREA.

2.) BOUNDARY SURVEY AND EXISTING MONUMENTATION ALONG PERIMETER AS PER REFERENCES 1, 2, AND 3. EXISTING CONDITIONS AND TOPOGRAPHY (ELEVATION DATUM NAVD88, INTERVAL 1') TAKEN FROM AN ON–SITE TOPOGRAPHIC SURVEY PERFORMED BY ATTAR ENGINEERING, INC. SEE REFERENCE 4 FOR CONFIRMATION OF BOUNDARY SURVEY.

3.) DIMENSIONAL REQUIREMENTS FOR THE BUSINESS – LOCAL 1 (B–L1) ZONING DISTRICT ARE AS FOLLOWS:
- MINIMUM LOT SIZE: 20,000 SQ. FT.
- SETBACKS: 30' FRONT YARD* ; 10' SIDE YARD & REAR YARD**
- MINIMUM LAND AREA PER DWELLING UNIT: 8,000 SQ. FT. WHEN ALL FLOORS ARE RESIDENTIAL; 3,500 SQ. FT. WHEN THE ENTIRE FIRST FLOOR IS NON–RESIDENTIAL USE
- MAXIMUM BUILDING COVERAGE: 50% (INCLUDING OUTDOOR STORED MATERIAL)
- MAXIMUM BUILDING HEIGHT: 40' MAXIMUM AND NOT TO EXCEED 3 STORIES
- MINIMUM STREET FRONTAGE: 50' PER BUILDING
- MINIMUM AREA DEDICATED TO LANDSCAPED AREA, AS PER §16.3.2.9.D.(4).(a): 15%

* – FRONT YARD SETBACK MUST BE DESIGNED TO PROMOTE A PEDESTRIAN PUBLIC SPACE, AS PER §16.3.2.9.D.(1).(e)
** – SIDE & REAR YARD SETBACKS MUST BE 15' WHEN ABUTTING A RESIDENTIAL ZONING DISTRICT, AS PER §16.3.2.9.D.(1).(f)

4.) PARKING CALCULATIONS FOR THE PROPOSED EXPANSION ARE AS FOLLOWS, AS PER §16.8.9.4.D:
- DWELLINGS – 2 SPACES PER EACH DWELLING UNIT => 2 SPACES REQUIRED (EXISTING DWELLING)
- RETAIL STORE – 1 PARKING SPACE FOR EACH 175 SQ. FT. OF GROSS FLOOR AREA (STORE + PATIO) => [1,032 + 300 SQ. FT. / 175] => 7.61 SPACES REQUIRED
- INDUSTRIAL KITCHEN – 1 PARKING SPACE PER 500 SQUARE FEET OF FLOOR AREA, OR 1:1 SPACES PER EMPLOYEE ON THE MAXIMUM SHIFT => [1,714 SQ. FT. / 500] => 3.43 SPACES => 7 MAX. CONCURRENT EMPLOYEES => 7 SPACES, 7 > 3.43 => 7 SPACES REQUIRED
- WAREHOUSE AND STORAGE – 1 PARKING SPACE PER 500 SQUARE FEET OF FLOOR AREA => 2ND FLOOR FOR BOTH EXISTING BUILDING & PROPOSED EXPANSION => [2,746 SQ. FT. / 500] => 6 SPACES
- TOTAL SPACES => [2 + 7.61 + 7 + 6] = 22.61 => 23 SPACES REQUIRED (28 PROVIDED)

5.) THE CONTRACTOR MUST CONTACT DIG SAFE AND ALL LOCAL UTILITIES PRIOR TO THE START OF CONSTRUCTION TO VERIFY THE LOCATION OF EXISTING SUBSURFACE UTILITIES AND CONDITIONS. LOCATING AND PROTECTING ANY UNDERGROUND OR ABOVE GROUND UTILITY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

6.) THE PROPERTY IS SERVED BY MUNICIPAL WATER (KWD) AND SEWER (KSD).

7.) EXISTING, OFF–SITE, STRUCTURES SHOWN WITHIN THIS PLAN SET ARE IN APPROXIMATE LOCATIONS.

8.) BUILDING COVERAGE CALCULATION:
- EXISTING CONDITION: [2,342 SQ. FT. / 30,959 SQ. FT.] = 7.56%
- DEVELOPED CONDITION: [4,182 SQ. FT. / 30,959 SQ. FT.] = 13.1% < 50% => OK

9.) PROPOSED SHADE TREES AND LANDSCAPING:
- PER §16.3.2.9.D.(4).(g) 1 TREE/1,000 SQ. FT. ADDED GROSS FLOOR AREA = [1,760/1,000] => 2 TREES
- PER §16.8.9.4.G. 1 TREE/8 PARKING SPACES (FOR AREAS CONTAINING 10 SPACES OR MORE) = [26/8] => 4 TREES; 10% OF INTERIOR PARKING AREA CONTAINING 25 SPACES OR MORE (26 PROPOSED IN EXPANDED REAR LOT) SHALL BE LANDSCAPED
- PER §16.3.2.9.D(4).(a) 15% OF LOT AREA WILL BE LANDSCAPED. =[11,052 SQ. FT. LANDSCAPED/ 30,960 SQ. FT. TOTAL SITE] => 35.6% LANDSCAPED

10.) THE PROPOSED EXPANSION SHALL NOT ALTER THE EXISTING HOURS OF OPERATION FOR THE DEVELOPED USE.

11.) IN THE INSTANCE THAT THE LOT REACHES MAXIMUM CAPACITY FOR SNOW STORAGE, ALL EXCESS SNOW WILL BE CARRIED OFF–SITE.

INDEX OF SHEETS

TOWN OF KITTERY
PLANNING BOARD — DATE

REFERENCES

1.) "STANDARD BOUNDARY SURVEY OF RICHARD R. & SANDRA WING, U.S. ROUTE ONE, KITTERY, MAINE" PREPARED BY ALICE GOODWIN, PLPS #1306 OF WRIGHT PIERCE ENGINEERS. PLAN DATED 10/28/1988 AND RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS IN DEED BOOK 178, PAGE 1.

2.) "SITE PLAN – MIXED USE BUILDING, 50 STATE ROAD, KITTERY, MAINE" PREPARED FOR GRANITE STATE PIONEER GROUP, LLC. PREPARED BY ATTAR ENGINEERING, INC. PLAN DATED 08/07/2012.

3.) "SITE PLAN AMENDMENT – MARSHALL RENTAL CENTER, 56 STATE ROAD, KITTERY, MAINE" PREPARED BY ATTAR ENGINEERING, INC. PLAN DATED 06/15/2012.

4.) WARRANTY DEED FOR THE SUBJECT PARCEL IS RECORDED AT THE YORK COUNTY REGISTRY OF DEEDS IN DEED BOOK 16592, PAGE 268. ADDITIONALLY, SETTLEMENT AND BOUNDARY LINE AGREEMENT IS RECORDED AT THE Y.C.R.D. IN DEED BOOK 4963, PAGE 253.

TAX MAP 3, LOT 1

NO.	DESCRIPTION	DATE
D	PEER REVIEW REVISIONS	04/08/22
C	PRELIMINARY PLAN REVISIONS	02/10/22
B	PRELIMINARY PLAN REVISIONS	12/02/21
A	PRELIMINARY PLAN SUBMISSION	10/28/21

REVISIONS

STATE OF MAINE — KENNETH A. WOOD No. 5992 — LICENSED PROFESSIONAL ENGINEER

OVERALL SITE PLAN
TERRA COTTA EXPANSION
STATE ROAD, KITTERY, MAINE

FOR: TERRA COTTA PASTA COMPANY
C/O KEVIN CAMBRIDGE, 52 STATE ROAD
KITTERY, ME 03904

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE ◆ SURVEYING
1284 STATE ROAD – ELIOT, MAINE 03903
PHONE: (207)439–6023 FAX: (207)439–2128

SCALE:	APPROVED BY:	DRAWN BY:
1" = 20'		MJS
DATE:		REVISION DATE:
04/22/21		D : 04/08/22
JOB NO: C206–21	FILE: TERRA COTTA BASE.DWG	SHEET: 1

MAP 3, LOT 1

N/F WALSH, PHILIP M. & VIRGINIA A.
TAX MAP 3, LOT 149
P.O. BOX 509
KITTERY, ME 03904

"BEACH PEA BAKING CO."
N/F LATHYRUS HOLDINGS, LLC.
TAX MAP 3, LOT 148
148 PLEASANT STREET
ELIOT, ME 03903

"GOLDEN HARVEST PRODUCE MARKET"
N/F REGATTA GROUP, LLC.
TAX MAP 3, LOT 147C
4 NUBBLE POINT
YORK, ME 03903

"MARSHALL TENT AND EVENT RENTAL"
N/F MARSHALL, RICHARD C. JR. & GAIL E.
TAX MAP 8, LOT 43
27 WATER STREET
KITTERY, ME 03904

N/F HIGGINS, JOHN M. & DEBORAH T.
TAX MAP 8, LOT 46
12 LYNDON WAY
KITTERY, ME 03904

N/F GRANITE STATE PIONEER GROUP, LLC.
TAX MAP 3, LOT 2
5 CHAUNCEY CREEK ROAD
KITTERY, ME 03904

N/F CHURCH OF CHRIST
TAX MAP 4, LOT 149
48 LOVE LANE
KITTERY, ME 03904

STATE ROAD (U.S. ROUTE 1)
100' R.O.W. (25 M.P.H.)

TERRA COTTA
PASTA CO.
FFE = 25.20'

EXISTING
DWELLING

EXT. COMPANY SIGN

EXT. MUNICIPAL BASIN
RIM ELEV. = 25.85'

EXT. 15" CPP
INV. IN = 21.60'

EXISTING RIP-RAP SWALE
SURFACE RUNOFF ENTERS
INTO DOWNSTREAM CULVERT

EXISTING
SHED

EXT. PAVED
PARKING AREA

EXT. LEDGE
OUTCROP

EXT. GRAVEL
PARKING AREA

EXT. TEMPORARY
DUMPSTER AREA

STORMWATER
POND

EXISTING
TREELINE (TYP.)

EXT. PROPERTY
LINE (TYP.)

EXT. ABUTTER
PROPERTY LINE (TYP.)

30' FRONTYARD
SETBACK (TYP.)

10' REARYARD
SETBACK (TYP.)

10' SIDEYARD
SETBACK (TYP.)

24" SHAG
BARK HICKORY

34" MAPLE

F.I.R. 0.2' HIGH IN CHAIN LINK FENCE LINE. THIS IRON DOES NOT APPEAR TO BE OCCUPYING THE POSITION DEPICTED ON REF. PLAN RECORDED AT Y.C.R.D. IN PLAN BOOK 178, PAGE 1.

F.I.R. 0.1' HIGH WITH PUNCH MARK IN ALUMINUM CAP AND STAMPED WRIGHT PIERCE PLS 1306. THIS IRON DOES NOT APPEAR TO BE OCCUPYING THE POSITION DEPICTED ON THE REFERENCE PLAN 178/1.

F.I.R. 0.1' HIGH WITH PUNCH MARK IN ALUMINUM CAP AND STAMPED WRIGHT PIERCE PLS 1306. HELD TO ANCHOR THE ALIGMENT OF REF. PLAN 178/1.

F.I.R. 0.1' HIGH WITH PUNCH MARK IN ALUMINUM CAP AND STAMPED WRIGHT PIERCE PLS 1306. HELD FOR ALIGNMENT OF PLAN REFERENCE PLAN 178/1.

S74°26'17"E
218.01'

N74°26'17"W
135.83'

N15°41'28"E
179.01'

S41°15'41"W
463.90'

S41°24'49"W
10.33'

TAX MAP 3, LOT 1

LEGEND

PROPERTY LINE	
SETBACK	
EXT. ABUTTER LINE	
CENTERLINE OF ROAD	
EXT. PAVEMENT	
EXT. GRAVEL	
EXT. BUILDING	
EXT. PARKING	
EXT. GUARDRAIL	
EXT. STOCKADE FENCE	
EXT. STONEWALL	
EXT. SIGN	
EXT. TREELINE	
EXT. MAJOR CONTOUR	XXX
EXT. MINOR CONTOUR	XXX
EXT. CATCH BASIN	
EXT. SEWER MANHOLE	S
EXT. POWER POLE	
EXT. STORM LINE	D
EXT. SEWER LINE	S
EXT. OVERHEAD ELEC	OHU
FOUND IRON ROD	

GRID

GRAPHIC SCALE
0 20 40 60 80 (FEET)

NO.	DESCRIPTION	DATE
C	PRELIMINARY PLAN REVISIONS	02/10/22
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	REVISIONS	

STATE OF MAINE
KENNETH A. WOOD
No. 5992
LICENSED PROFESSIONAL ENGINEER

EXISTING CONDITIONS PLAN
TERRA COTTA EXPANSION
STATE ROAD, KITTERY, MAINE

FOR: TERRA COTTA PASTA COMPANY
C/O KEVIN CAMBRIDGE, 52 STATE ROAD
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JOB NO: C206-21	FILE: TERRA COTTA BASE.DWG	SHEET: 2

MAP 3, LOT 1

GRADING & UTILITY NOTES

1.) ALL STORM DRAINS SHALL BE ADS N-12 (HDPE) OR APPROVED EQUAL (UNLESS NOTED OTHERWISE). PROPER TRENCHING AND BACKFILLING ARE VITAL TO THE LONG TERM PERFORMANCE AND DURABILITY OF HDPE CULVERT INSTALLATIONS. SEE HDPE CULVERT TRENCH DETAIL.

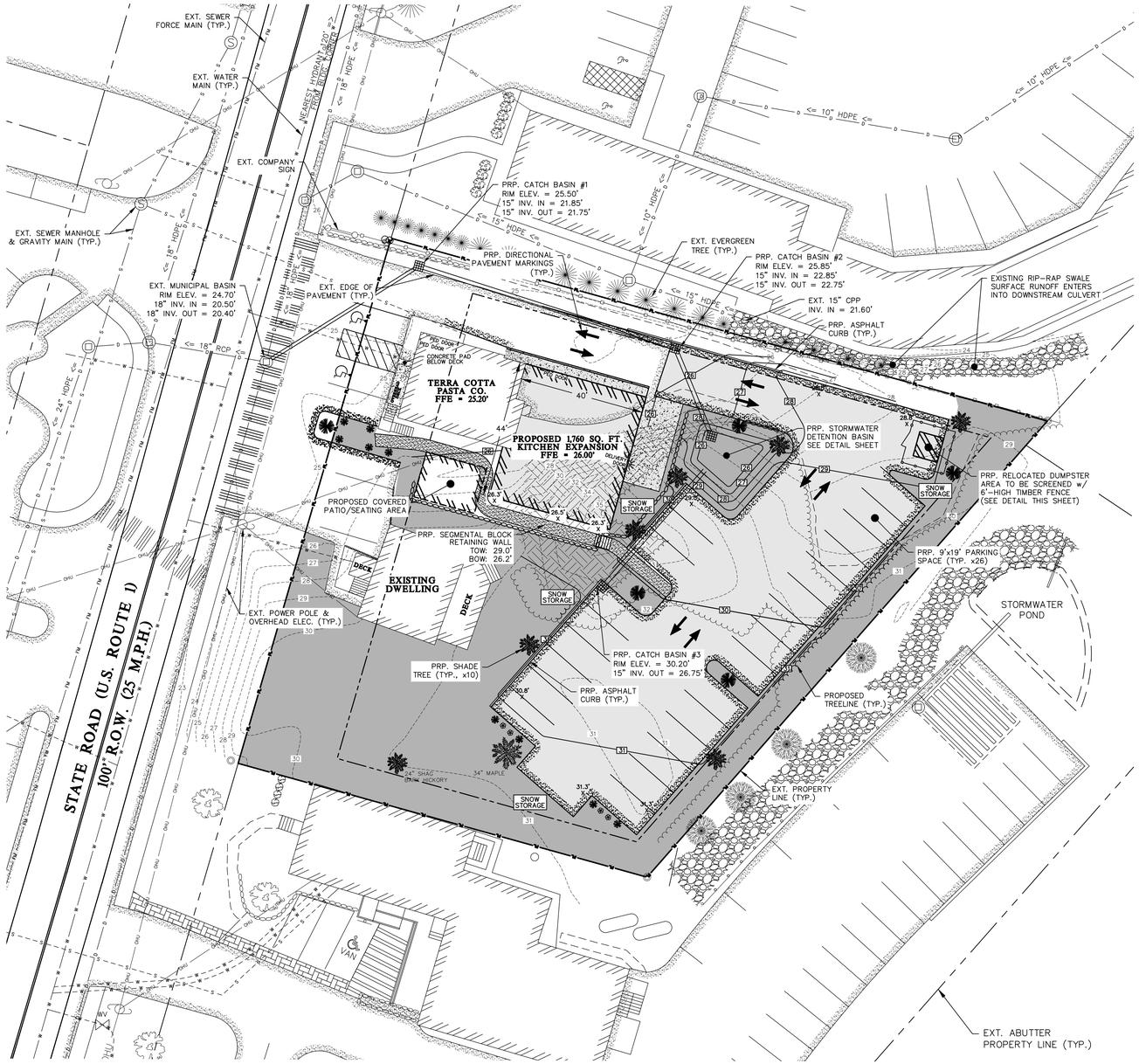
2.) PROPOSED CATCH BASINS AND STORM DRAIN LINES ARE SUBJECT TO A ROAD CONSTRUCTION PERMIT FOR THE MINOR DISTURBANCE TO THE U.S. ROUTE 1 RIGHT-OF-WAY. SITE STORMWATER RUNOFF SHALL BE DEDICATED THROUGN AN ON-SITE DETENTION BASIN BEFORE EXITING INTO THE MS4 SYSTEM THROUGH THE EXISTING BASIN DEPICTED IN THE FRONTYARD PARKING LOT OF THE CURRENT USE.

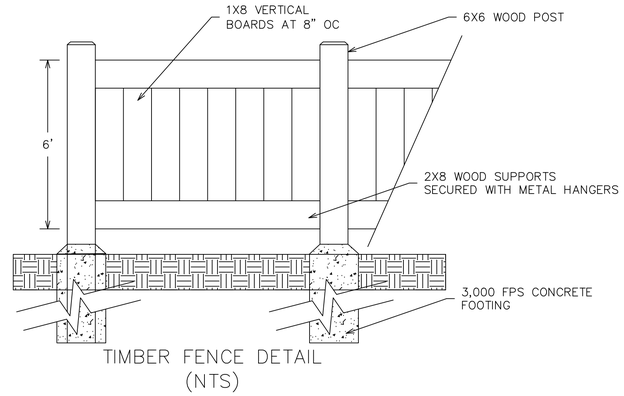
3.) ALL PROPOSED CATCH BASINS SHALL BE MAINTAINED IN ACCORDANCE WITH §16.8.8.2 "POST-CONSTRUCTION STORMWATER MANAGEMENT"

4.) LANDSCAPING CALCULATION (AS PER §16.3.2.9.D(1)(i)):

OVERALL LOT AREA	= 30,959 SQ. FT. (0.71 AC.)
LANDSCAPED AREA PROPOSED	= 11,280 SQ. FT. (0.26 AC.)
[11,280 / 30,959]	= 36.4% > 15% = OK

5.) IN AN INSTANCE WHERE THE DEVELOPED LOT REACHES ITS CAPACITY FOR SNOW STORAGE, ALL EXCESS SNOW SHALL BE CARRIED OFF-SITE.





TIMBER FENCE DETAIL
(NTS)

LEGEND

PROPERTY LINE	
SETBACK	
EXT. ABUTTER LINE	
CENTERLINE OF ROAD	
EXT. PAVEMENT	
PRP. PAVEMENT	
EXT. GRAVEL	
EXT. BUILDING	
PRP. BUILDING	
EXT. PARKING	
PRP. PARKING	
EXT. GUARDRAIL	
EXT. STOCKADE FENCE	
EXT. STONEWALL	
EXT. SIGN	
EXT. TREELINE	
PRP. TREELINE	
EXT. MAJOR CONTOUR	XXX
EXT. MINOR CONTOUR	XXX
PRP. MAJOR CONTOUR	XXX
PRP. MINOR CONTOUR	XXX
PRP. SPOT GRADE	102.0' x
EXT. CATCH BASIN	
PRP. CATCH BASIN	
EXT. SEWER MANHOLE	
EXT. POWER POLE	
EXT. STORM LINE	D
PRP. STORM LINE	D
EXT. SEWER LINE	S
EXT. OVERHEAD ELEC	OHU

SYM.	BOTANICAL NAME	COMMON NAME	QUAN.	SIZE/UNIT
AR	ACER RUBRUM 'OCTOBER GLORY'	RED MAPLE OCTOBER GLORY	5	2-2.5"C
LL	LARIX LARICINA	AMERICAN LARCH	6	2.5-3"C

SYM.	BOTANICAL NAME	COMMON NAME	QUAN.	SIZE/UNIT
IV	IRIS VERSICOLOR	BLUE FLAG IRIS	4	1'-3' HT
SS	JUNIPERUS COMMUNIS VAR. DEPRESSA	COMMON JUNIPER	8	1'-3' HT

GRID

GRAPHIC SCALE
0 20 40 60 80 (FEET)

TAX MAP 3, LOT 1

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KENNETH A. WOOD
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GRADING & UTILITY PLAN
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MAP 3, LOT 1

EROSION & SEDIMENTATION CONTROL NOTES

1. PRIOR TO ANY SNOW EVENT, SILTATION FENCE OR HAY BALE BARRIERS WILL BE INSTALLED DOWNSLOPE OF ALL STRIPPING OR CONSTRUCTION OPERATIONS. A DOUBLE SILT FENCE BARRIER SHALL BE INSTALLED DOWNSLOPE OF ANY SOIL MATERIAL STOCKPILES. SILT FENCES SHALL BE INSPECTED AFTER EACH RAIN EVENT AND DAILY DURING PROLONGED RAIN. SILT AND SOIL PARTICLES ACCUMULATING BEHIND THE FENCE SHALL BE REMOVED AFTER EACH SIGNIFICANT RAIN EVENT AND IN NO INSTANCE SHOULD ACCUMULATION EXCEED 1/2 THE HEIGHT OF THE FENCE. TORN OR DAMAGED AREAS SHALL BE REPAIRED.
2. TEMPORARY AND PERMANENT VEGETATION AND MULCHING IS AN INTEGRAL COMPONENT OF THE EROSION AND SEDIMENTATION CONTROL PLAN. ALL AREAS SHALL BE INSPECTED AND MAINTAINED UNTIL THE DESIRED VEGETATIVE COVER IS ESTABLISHED. THESE CONTROL MEASURES ARE ESSENTIAL TO EROSION PREVENTION AND ALSO REDUCE COSTLY REWORK OF GRADED AND SHAPED AREAS.
3. SEEDING, FERTILIZER AND LIME RATES AND TIME OF APPLICATION WILL BE DEPENDENT ON SOIL REQUIREMENTS. TEMPORARY VEGETATION SHALL BE MAINTAINED IN THESE AREAS UNTIL PERMANENT SEEDING IS APPLIED. ADDITIONALLY, EROSION AND SEDIMENTATION MEASURES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED.
4. ALL LAWN AREA, OUTER POND SIDE SLOPES AND SWALES SHALL BE PERMANENTLY SEEDED WITH THE FOLLOWING MIXTURE: 20 LB/ACRE CREEPING RED FESCUE, 2 LB/ACRE REDTOP AND 20 LB/ACRE TALL FESCUE FOR A TOTAL OF 42 LB/ACRE. FERTILIZER AND LIME RATES SHALL BE DEPENDENT ON SOIL TESTING. IN THE ABSENCE OF SOIL TESTS, FERTILIZE WITH 10-20-20 (N-P205-K201) AT 800 LB/ACRE AND LIME AT 3 TONS/ACRE. MULCH WITH HAY AT 70-90 LB/1000 S.F. 4" OF LOAM SHALL BE APPLIED PRIOR TO SEEDING.
5. POND BOTTOMS AND INNER POND SIDESLOPES SHALL BE PERMANENTLY SEEDED WITH THE FOLLOWING MIXTURE: 20 LB/ACRE CREEPING RED FESCUE, 8 LB/ACRE BIRDSFOOT TREFOIL AND 20 LB/ACRE TALL FESCUE FOR A TOTAL OF 48 LB/ACRE. SEE THE ABOVE NOTE FOR FERTILIZER, LIME AND MULCHING RATES.
6. TEMPORARY VEGETATION OF ALL DISTURBED AREAS, MATERIAL STOCKPILES AND OTHER SUCH AREAS SHALL BE ESTABLISHED BY SEEDING WITH EITHER WINTER RYE AT A RATE OF 112 LB/ACRE OR ANNUAL RYEGRASS AT A RATE OF 40 LB/ACRE. WINTER RYE SHALL BE USED FOR FALL SEEDING AND ANNUAL RYEGRASS FOR SHORT DURATION SEEDING. SEEDING SHALL BE ACCOMPLISHED BEFORE OCTOBER 1. TEMPORARY STABILIZATION WITH MULCH OF DISTURBED AREAS SHALL TAKE PLACE WITHIN 7 DAYS OF THE CESSATION OF CONSTRUCTION ACTIVITIES IN AN AREA THAT WILL NOT BE WORKED FOR MORE THAN 7 DAYS. AREAS WITHIN 75 FEET OF A WETLAND OR WATERBODY SHALL BE TEMPORARILY STABILIZED WITH MULCH WITHIN 48 HOURS OF THE INITIAL DISTURBANCE OR PRIOR TO ANY STORM EVENT, WHICHEVER COMES FIRST.
7. TEMPORARY SEEDING OF DISTURBED AREAS SHALL BE ACCOMPLISHED BEFORE OCTOBER 1. PERMANENT SEEDING SHALL BE ACCOMPLISHED BEFORE SEPTEMBER 15.
8. ALL SEEDED AREAS SHALL BE MULCHED WITH HAY AT A RATE OF 2 BALES (70-90 LB) PER 1000 S.F. OF SEEDED AREA.
9. ALL DISTURBED AREAS ON THE SITE SHALL BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF FINAL GRADING OR TEMPORARILY STABILIZED PER E&S NOTE 6. PERMANENT STABILIZATION MEANS 90% COVER WITH MATURE, HEALTHY PLANTS FOR PLANTED AREAS AND FOR SODDED AREAS, COMPLETE BINDING OF SOD ROOTS INTO THE UNDERLYING SOIL WITH NO SLUMPING OF THE SOD OR DIE-OFF.
10. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT ALL ACCESSES TO PUBLIC ROADS (SEE PLAN). TEMPORARY CULVERTS SHALL BE PROVIDED AS REQUIRED.
11. SLOPES BETWEEN 2:1 AND 3:1 (INCLUDING 3:1) SHALL BE TREATED WITH POLYJUTE OPEN WEAVE GEOTEXTILE (OR EQUIVALENT) AFTER SEEDING. JUTE MATS SHALL BE ANCHORED PER MANUFACTURER'S SPECIFICATIONS. SLOPES BETWEEN 2:1 AND 1.5:1 (INCLUDING 2:1) SHALL BE ANCHORED WITH RIPRAP. SLOPES ARE PROHIBITED FROM BEING STEEPER THAN 1.5:1.
12. EXCESSIVE DUST CAUSED BY CONSTRUCTION OPERATIONS SHALL BE CONTROLLED BY APPLICATION OF WATER OR CALCIUM CHLORIDE.
13. THE CONTRACTOR MAY OPT TO USE EROSION CONTROL MIX BERM AS A SEDIMENT BARRIER IN LIEU OF SILTATION FENCE OR HAY BALE BARRIERS WITH APPROVAL FROM THE INSPECTING ENGINEER.
14. SEDIMENT BARRIERS SHALL BE DOUBLED WITH 75' OF WETLANDS OR OTHER PROTECTED NATURAL RESOURCES.
15. TEMPORARY E&S CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS OF PERMANENT STABILIZATION. ACCUMULATED SEDIMENTS SHALL BE REMOVED AND THE AREA STABILIZED.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT. THESE STANDARDS CAN BE FOUND IN THE FOLLOWING DOCUMENT: MDEP CHAPTER 500 (STORMWATER MANAGEMENT), APPENDIX C. HOUSEKEEPING. HOUSEKEEPING PRACTICES INCLUDE, BUT ARE NOT LIMITED TO, SPILL PREVENTION, GROUNDWATER PROTECTION, FUGITIVE SEDIMENT AND DUST, DEBRIS AND OTHER MATERIALS, EXCAVATION DEWATERING, AUTHORIZED NON-STORMWATER DISCHARGES AND UNAUTHORIZED NON-STORMWATER DISCHARGES. ANY SPILL OR RELEASE OF HAZARDOUS SUBSTANCES MUST BE REPORTED TO THE MDEP; FOR OIL SPILLS, CALL 1-800-482-0777; FOR SPILLS OF TOXIC OR HAZARDOUS MATERIAL, CALL 1-800-452-4664.
17. WHENEVER PRACTICABLE, NO DISTURBANCE ACTIVITIES SHOULD TAKE PLACE WITHIN 50 FEET OF ANY PROTECTED NATURAL RESOURCE. IF DISTURBANCE ACTIVITIES TAKE PLACE BETWEEN 30 FEET AND 50 FEET OF ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED. IF DISTURBANCE ACTIVITIES TAKE PLACE LESS THAN 30 FEET FROM ANY PROTECTED NATURAL RESOURCE, AND STORMWATER DISCHARGES THROUGH THE DISTURBED AREAS TOWARD THE PROTECTED NATURAL RESOURCE, PERIMETER EROSION CONTROLS MUST BE DOUBLED AND DISTURBED AREAS MUST BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 7 DAYS.
18. ALL SEDIMENT BARRIERS AND EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION.
19. SEDIMENT BARRIERS SHALL BE INSTALLED DOWN-GRADIENT OF STOCKPILES, AND STORMWATER SHALL BE PREVENTED FROM RUNNING ONTO STOCKPILES.
20. THE PROPOSED STORMWATER MANAGEMENT AREAS INTENDED FOR USE AS PERMANENT, POST-CONSTRUCTION BMP'S SHALL BE USED TO TEMPORARILY MANAGE FLOWS DURING CONSTRUCTION. THESE BMP'S SHALL BE MAINTAINED DURING THEIR TEMPORARY USE BY INSTALLING THE APPROPRIATE MEASURES DURING CONSTRUCTION, INCLUDING UNDERDRAINS, SOIL FILTER MEDIA, ETC. SEDIMENT REMOVAL AND SLOPE STABILIZATION SHALL TAKE PLACE AS NECESSARY FOR TEMPORARY CONSTRUCTION MANAGEMENT.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATE HOUSEKEEPING PRACTICES DURING THE CONSTRUCTION OF THE PROJECT. THESE STANDARDS CAN BE FOUND IN THE FOLLOWING DOCUMENT: MDEP CHAPTER 500 (STORMWATER MANAGEMENT), APPENDIX C. HOUSEKEEPING. HOUSEKEEPING PRACTICES INCLUDE, BUT ARE NOT LIMITED TO, SPILL PREVENTION, GROUNDWATER PROTECTION, FUGITIVE SEDIMENT AND DUST, DEBRIS AND OTHER MATERIALS, EXCAVATION DEWATERING, AUTHORIZED NON-STORMWATER DISCHARGES AND UNAUTHORIZED NON-STORMWATER DISCHARGES(DETAILED BELOW).

ROAD & DRIVEWAY CONSTRUCTION NOTES

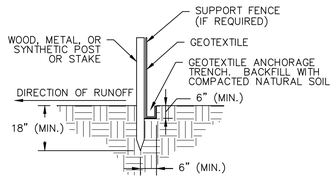
1. ROADS & DRIVEWAYS TO BE CONSTRUCTED IN ACCORDANCE WITH THE APPROPRIATE CROSS SECTION DETAIL. GRAVEL FILL TO BE COMPACTED TO 95% MODIFIED PROCTOR IN ACCORDANCE WITH ASTM D 1557. LIFT THICKNESSES TO BE A MAXIMUM OF 6".
2. ALL STUMPS, ORGANIC MATERIAL, ROCKS AND BOULDERS TO BE REMOVED TO A MINIMUM DEPTH OF 24" BELOW SUBBASE.
3. ALL STUMPS, LEDGE AND LARGE BOULDERS TO BE REMOVED FROM THE CONSTRUCTION AREA. THE CONSTRUCTION AREA SHALL BE CLEARED AND ROUGH GRADED.
4. ALL CULVERTS TO BE ADS N-12 (HDPE) OR APPROVED EQUAL. CULVERT INLETS AND OUTLETS TO BE PROTECTED IN ACCORDANCE WITH THE CULVERT INLET/OUTLET PROTECTION DETAIL.
5. THE CONTRACTOR MUST CONTACT DIG SAFE AND ALL LOCAL UTILITIES PRIOR TO THE START OF CONSTRUCTION TO VERIFY THE LOCATION OF EXISTING SUBSURFACE UTILITIES AND CONDITIONS. LOCATING AND PROTECTING ANY UNDERGROUND OR ABOVE GROUND UTILITY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

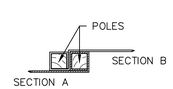
E&S INSPECTION/MAINTENANCE DURING CONSTRUCTION

A. INSPECTION AND CORRECTIVE ACTION. INSPECT DISTURBED AND IMPERVIOUS AREAS, EROSION CONTROL MEASURES, MATERIALS STORAGE AREAS THAT ARE EXPOSED TO PRECIPITATION, AND LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE. INSPECT THESE AREAS AT LEAST ONCE A WEEK, PRIOR TO COMPLETING PERMANENT STABILIZATION MEASURES, AS WELL AS BEFORE AND WITHIN 24 HOURS AFTER A STORM EVENT WHICH PRODUCES 0.5 INCHES OR MORE WITHIN SAID 24 HOUR PERIOD. A TOWN-APPOINTED ENGINEER WITH KNOWLEDGE OF EROSION AND STORMWATER CONTROL, INCLUDING THE STANDARDS AND CONDITIONS IN THE PERMIT, SHALL CONDUCT THE INSPECTIONS AND SHALL ALSO ENSURE THAT THE RECOMMENDED MAINTENANCE IS PERFORMED.

B. MAINTENANCE. IF BEST MANAGEMENT PRACTICES (BMPS) NEED TO BE REPAIRED, THE REPAIR WORK SHOULD BE INITIATED UPON DISCOVERY OF THE PROBLEM BUT NO LATER THAN THE END OF THE NEXT WORKDAY. IF ADDITIONAL BMPS OR SIGNIFICANT REPAIR OF BMPS ARE NECESSARY, IMPLEMENTATION MUST BE COMPLETED WITHIN 7 CALENDAR DAYS AND PRIOR TO ANY STORM EVENT WHICH PRODUCES 0.5 INCHES OR MORE WITHIN A 24 HOUR PERIOD. ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.

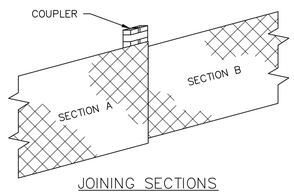
C. DOCUMENTATION. KEEP A LOG (REPORT) SUMMARIZING THE INSPECTIONS AND ANY CORRECTIVE ACTION TAKEN. THE LOG MUST INCLUDE THE NAME(S) AND QUALIFICATIONS OF THE PERSON MAKING THE INSPECTIONS, THE DATE(S) OF THE INSPECTIONS, AND MAJOR OBSERVATIONS ABOUT THE OPERATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS, MATERIALS STORAGE AREAS AND VEHICLES ACCESS POINTS TO THE PARCEL. MAJOR OBSERVATIONS MUST INCLUDE BMPS THAT NEED MAINTENANCE, BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION, AND LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED. FOR EACH BMP REQUIRING MAINTENANCE, BMP NEEDING REPLACEMENT, AND LOCATION NEEDING ADDITIONAL BMPS, NOTE IN THE LOG THE CORRECTIVE ACTION TAKEN AND WHEN IT WAS TAKEN. THE LOG MUST BE MADE ACCESSIBLE TO DEPARTMENT STAFF AND A COPY MUST BE PROVIDED UPON REQUEST. THE PERMITTEE SHALL RETAIN A COPY OF THE LOG FOR A PERIOD OF AT LEAST THREE YEARS FROM THE COMPLETION OF PERMANENT STABILIZATION.





TOP VIEW
(CONNECTION)

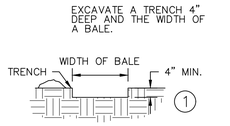
TOE-IN METHOD



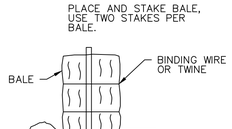
JOINING SECTIONS
THE COUPLER CAN BE ANY ACCEPTABLE DEVICE USED TO TIE THE POLES TOGETHER

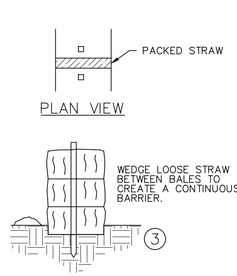
NOTES:
1. DEPENDING UPON THE CONFIGURATION, ATTACH GEOTEXTILE TO WIRE MESH WITH HOG RINGS, TO STEEL POSTS WITH TIE WIRES, AND TO WOOD POSTS WITH STAPLES.
2. POSTS MAY BE WIRED TOGETHER WHEN JOINING SECTIONS.

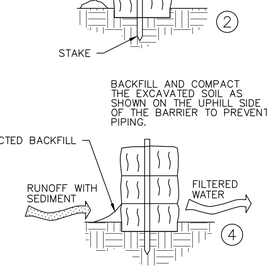
TEMPORARY SILT FENCE - NTS



PLAN VIEW

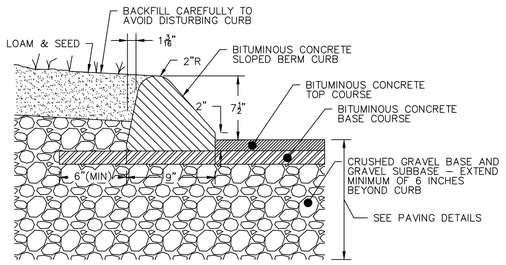






NOTES:
1. PLACE BALES IN A SINGLE ROW, LENGTHWISE ON THE CONTOUR.
2. PLACE BALES 10' AWAY FROM THE TOE OF SLOPE.
3. IN SLOPING AREAS WHERE SURFACE FLOW FOLLOWS THE BALE LINE, INSTALL PERPENDICULAR BALE CHECKS AT APPROPRIATE INTERVALS (100' MAX.)

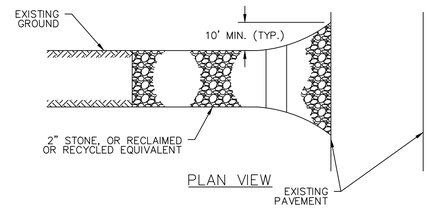
HAY BALE BARRIER - NTS



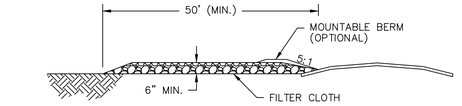
BITUMINOUS CONCRETE CURB

POST-CONSTRUCTION HOUSEKEEPING PUNCHLIST

1. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED, AND PLANTINGS SHALL BE ESTABLISHED (GRASS SEEDS HAVE GERMINATED WITHIN 90% VEGETATIVE COVER).
2. ALL TRASH, SEDIMENTS, DEBRIS, OR ANY SOLID WASTE SHALL BE REMOVED FROM STORMWATER CHANNELS, CATCH BASINS, DETENTION STRUCTURES, DISCHARGE POINTS, AND LEVEL SPREADERS.
3. ALL EROSION AND SEDIMENTATION DEVICES SHALL BE REMOVED (SILTATION FENCES AND POSTS, DIVERSIONS AND SEDIMENT STRUCTURES, ETC.)
4. ALL DELIVERABLES (CERTIFICATIONS, SURVEY INFORMATION, AS-BUILT PLANS, REPORTS, NOTICES OF TERMINATION, ETC.) IN ACCORDANCE WITH ALL PERMIT REQUIREMENTS SHALL BE SUBMITTED TO THE TOWN, THE MAINE DEP, HOMEOWNER'S ASSOCIATION, OWNER, AND/OR ALL APPROPRIATE ENTITIES.
5. THE PROPOSED REAR PARKING LOT SHALL BE SUBJECT TO PARKING LOT SWEEPING AS A BMP ON THE SAME OPERATION AND MAINTENANCE SCHEDULE AS OTHER BEST MANAGEMENT PRACTICES OF THIS PROJECT (CATCH BASIN CLEANING, INSPECTION AND MAINTENANCE OF THE DETENTION BASIN). ROUTINE SWEEPING WILL IMPROVE THE EFFECTIVENESS AND LIFESPAN OF THE ADJACENT DETENTION BASIN RECEIVING STORMWATER RUNOFF FROM THE PARKING LOT.



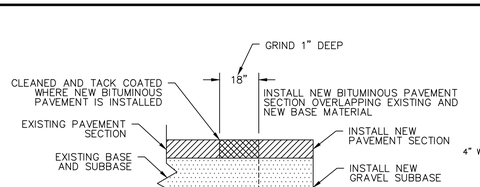
PLAN VIEW



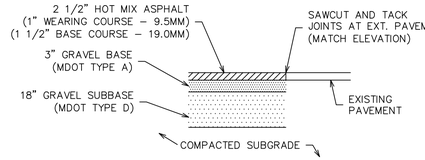
PROFILE

NOTES:
1. GEOTEXTILE: PLACE FILTER CLOTH OVER ENTIRE AREA TO BE COVERED WITH AGGREGATE. FILTER CLOTH WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENTIAL LOT.
2. PIPING OF SURFACE WATER UNDER ENTRANCE SHALL BE PROVIDED AS REQUIRED. IF PIPING IS IMOSSIBLE, A MOUNTABLE BERM WITH A 5:1 SLOPE WILL BE PERMITTED.

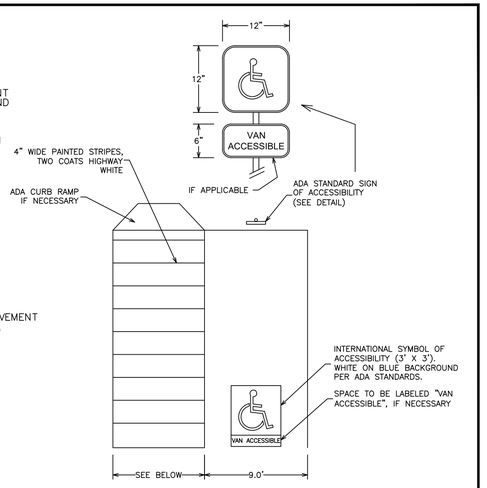
STABILIZED CONSTRUCTION ENTRANCE



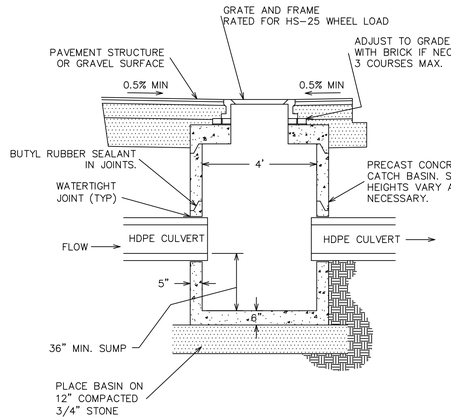
PAVEMENT JOINT CROSS SECTION
NEW PAVEMENT ABUTTING EXISTING PAVEMENT



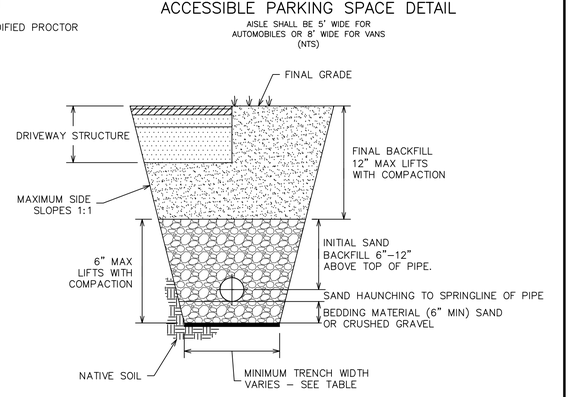
ASPHALT PARKING (DRIVEWAY) CROSS SECTION
(NTS)
GRAVEL FILL TO BE COMPACTED TO 95% MODIFIED PROCTOR



ACCESSIBLE PARKING SPACE DETAIL
AISLE SHALL BE 5' WIDE FOR AUTOMOBILES OR 8' WIDE FOR VANS
(NTS)



TYPICAL CATCH BASIN DETAIL
(NTS)
STUCTURE SHALL BE INSPECTED QUARTERLY WITH SEDIMENTS/FLOATABLES REMOVED AND LEGALLY DISPOSED OF AS NEEDED (MINIMUM ONCE PER YEAR).



HDPE CULVERT TRENCH DETAIL
(NTS)
TRENCH TO BE SUPPORTED BY SLOPING BACK AT 2:1 OR OTHER ACCEPTABLE METHOD.

NOMINAL DIAMETER (IN)	MIN. TRENCH WIDTH (IN)
4	21
6	23
8	25
10	28
12	31
15	34
18	39
24	48
30	66
36	78
42	83
48	89
60	102

TAX MAP 3, LOT 1

NO.	DESCRIPTION	DATE
	REVISIONS	
D	PEER REVIEW REVISIONS	04/08/22
C	PRELIMINARY PLAN REVISIONS	02/10/22
B	PRELIMINARY PLAN REVISIONS	12/02/21
A	PRELIMINARY PLAN SUBMISSION	10/28/21

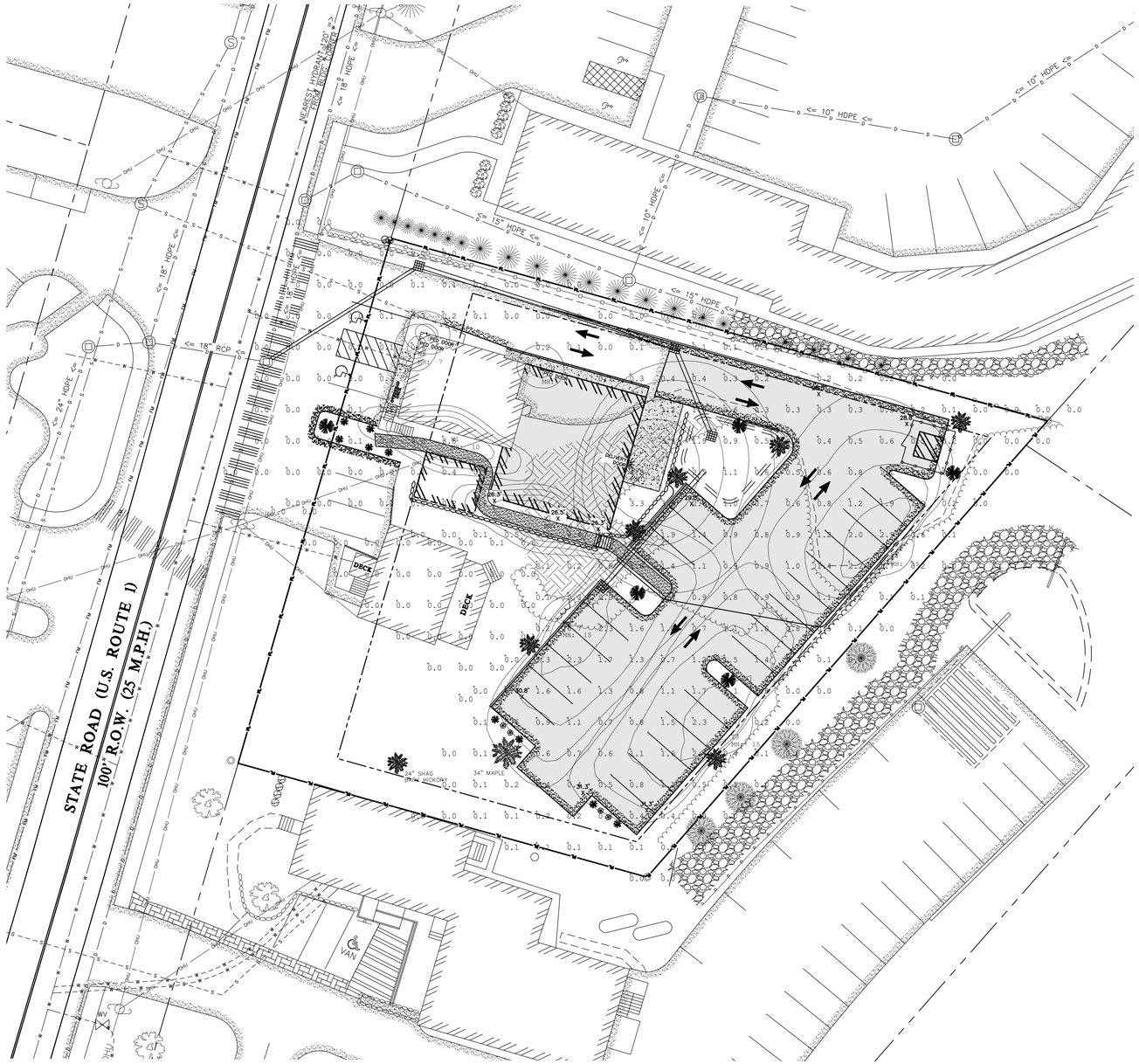
STATE OF MAINE
KENNETH A. WOOD
No. 5992
LICENSED PROFESSIONAL ENGINEER

SITE DETAILS
TERRA COTTA EXPANSION
STATE ROAD, KITTERY, MAINE

FOR: TERRA COTTA PASTA COMPANY
C/O KEVIN CAMBRIDGE, 52 STATE ROAD
KITTERY, ME 03904

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE ◆ SURVEYING
1284 STATE ROAD - ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

SCALE:	APPROVED BY:	DRAWN BY:
AS NOTED		MJS
DATE:		REVISION DATE:
04/22/21		D : 04/08/22
JOB NO: C206-21	FILE: TERRA COTTA BASE.DWG	SHEET: 4



Luminaire Schedule				
Symbol	Qty	Label	Arrangement	Description
	2	T3	Single	GPC-SA1A-740-U-SL3-HSS / SSS4A15SFN1 (15' AFG)
	1	T4	Single	GPC-SA1A-740-U-SL4-HSS / SSS4A15SFN1 (15' AFG)
	2	W1	Single	MERU-LED-AC-DB
	3	WL	Single	KICHLER 49899BKLED
	1	WP	Single	AXCS4A

GRAPHIC SCALE
0 20 40 60 80 (FEET)

Lumark — AXCS / AXCL Axcent

Product Specifications

Construction
- Die-cast aluminum housing
- External back fin design extracts heat from the surface to thermally optimize design for longer luminaire life

Optics
- Dark Sky Approved (Fixed mount, Full cutoff, and 3000K CCT only)
- Silicone-sealed optical LED chamber
- Acrylic refractive or full cutoff lens options for Type IV distributions

Electrical
- Standard universal voltage (120-277V, 50/60Hz)
- Driver incorporates 6kV surge protection
- -40°C minimum operating temperature
- 40°C maximum operating temperature
- <20% total harmonic distortion
- 0-10V dimming driver is standard with leads external to the fixture

Mounting
- Steel wedge mounting plate fits directly to 4" standard j-box or directly to wall with the "Hook-N-Lock" mechanism
- Stainless steel set screws
- Lumen Select Back Box accessory offers four 1/2" NPT conduit entry wire ways. Resistor Pack combinations allow field-dimming of 75% or 50% when connected to luminaire dimming leads
- Not suitable for indoor use when installed in inverted/uplight orientation

Emergency Egress
- Optional integral cold weather battery emergency egress includes emergency operation test switch, an AC-ON indicator light and a premium, maintenance-free battery pack
- The separate emergency lighting LEDs are wired to provide redundant emergency lighting. Listed to UL Standard 924, Emergency Lighting

Finish
- Five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness

Shipping Data
- Small fixture=5 lbs. [2.36 kgs.]
- Small with sensor or CBP=10 lbs. [4.40 kgs.]
- Large fixture=12 lbs. [5.45 kgs.]
- Large with sensor or CBP=17 lbs. [7.73 kgs.]
- Large with sensor & CBP=21 lbs. [9.54 kgs.]

Energy and Performance Data

Power and Lumens (Axcent Small)

Light Engine		AXCS1A	AXCS2A	AXCS3A	AXCS4A	AXCS5A
Power (Watts)		14	21	27	44	52
Input Current @ 120V (A)		0.12	0.18	0.23	0.37	0.43
Input Current @ 240V (A)		0.06	0.09	0.11	0.18	0.22
Input Current @ 277V (A)		0.05	0.08	0.10	0.16	0.19
Input Current @ 347V (A)		0.04	0.06	0.08	0.13	0.15
Input Current @ 480V (A)		0.03	0.04	0.06	0.09	0.11
Configuration						
Full Cutoff	4000K/5000K Lumens	1,806	2,561	3,537	5,520	6,300
	3000K Lumens	1,526	2,164	2,989	4,665	5,324
	BUG Rating	B1-U0-G0	B1-U0-G0	B1-U0-G0	B2-U0-G1	B2-U0-G1
Refractive Lens	4000K/5000K Lumens	1,915	2,716	3,704	5,858	6,699
	3000K Lumens	1,618	2,295	3,130	4,950	5,661
	BUG Rating	B1-U3-G2	B1-U3-G2	B1-U3-G2	B1-U4-G3	B1-U4-G3

Power and Lumens (Axcent Large)

Light Engine		AXCL6A	AXCL8A	AXCL10A	AXCL12A
Power (Watts)		56	72	102	123
Input Current @ 120V (A)		0.44	0.60	0.83	1.01
Input Current @ 240V (A)		0.22	0.31	0.41	0.51
Input Current @ 277V (A)		0.20	0.27	0.36	0.45
Input Current @ 347V (A)		0.17	0.22	0.30	0.37
Input Current @ 480V (A)		0.13	0.16	0.22	0.27
Configuration					
Full Cutoff	4000K Lumens	7,594	9,696	13,283	16,823
	5000K Rating	7,465	9,531	13,058	16,538
	3000K Lumens	6,619	8,450	11,577	14,662
	BUG Rating	B1-U0-G1	B1-U0-G1	B3-U0-G2	B3-U0-G2
Refractive Lens	4000K Lumens	7,809	9,970	13,641	17,346
	5000K Rating	7,689	9,817	13,450	17,034
	3000K Lumens	6,817	8,704	11,924	15,102
	BUG Rating	B1-U4-G4	B2-U5-G5	B2-U5-G5	B2-U5-G5

COOPER Lighting Solutions

PSS14102EN page 4
October 28, 2021 5:08 PM

Kent 14" LED Wall Light Black — 49899BKLED

SPECIFICATIONS

Certifications/Qualifications	
Title 24 Compliant	Yes www.kichler.com/warranty
Dimensions	
Base Backplate	14.50 X 7.75
Extension	8.50"
Weight	4.00 LBS
Height from center of Wall opening (Spec Sheet)	2.25"
Height	14.50"
Width	7.75"
Electrical	
Input Voltage	Single(120)V
Light Source	
Delivered Lumens	375
Dimmable	Yes
Expected Life Span (Hours)	40000
Lamp included	Integrated
Light Source	LED
Max or Nominal Watt	8W
# of Bulbs/LED Modules	1
Mounting/Installation	
Interior/Exterior	Exterior
Location Rating	Wet
Mounting Style	Wall Mount
Mounting Weight	3.20 LBS
Photometrics	
Color Rendering Index	90
Kelvin Temperature	3000K

FIXTURE ATTRIBUTES

Housing	
Diffuser Description	White Acrylic.
Primary Material	ALUMINUM
Product/Ordering Information	
SKU	49899BKLED
Finish	Black
Style	Transitional
UPC	783927540353
Finish Options	
Black	

ALSO IN THIS FAMILY

49899BKLED

LEGEND

PROPERTY LINE	
SETBACK	
EXT. ABUTTER LINE	
CENTERLINE OF ROAD	
EXT. PAVEMENT	
PRP. PAVEMENT	
EXT. GRAVEL	
EXT. BUILDING	
PRP. BUILDING	
EXT. PARKING	
PRP. PARKING	
EXT. GUARDRAIL	
EXT. STOCKADE FENCE	
EXT. STONEWALL	
EXT. SIGN	
EXT. TREELINE	
PRP. TREELINE	
EXT. MAJOR CONTOUR	XXX
EXT. MINOR CONTOUR	XXX
PRP. MAJOR CONTOUR	XXX
PRP. MINOR CONTOUR	XXX
PRP. SPOT GRADE	102.0' x
EXT. CATCH BASIN	
PRP. CATCH BASIN	
EXT. SEWER MANHOLE	S
EXT. POWER POLE	
EXT. STORM LINE	D
PRP. STORM LINE	D
EXT. SEWER LINE	S
EXT. OVERHEAD ELEC	OHU

TAX MAP 3, LOT 1

NO.	DESCRIPTION	DATE
	REVISIONS	
C	PRELIMINARY PLAN REVISIONS	02/10/22

STATE OF MAINE — KENNETH A. WOOD No. 5992 — LICENSED PROFESSIONAL ENGINEER

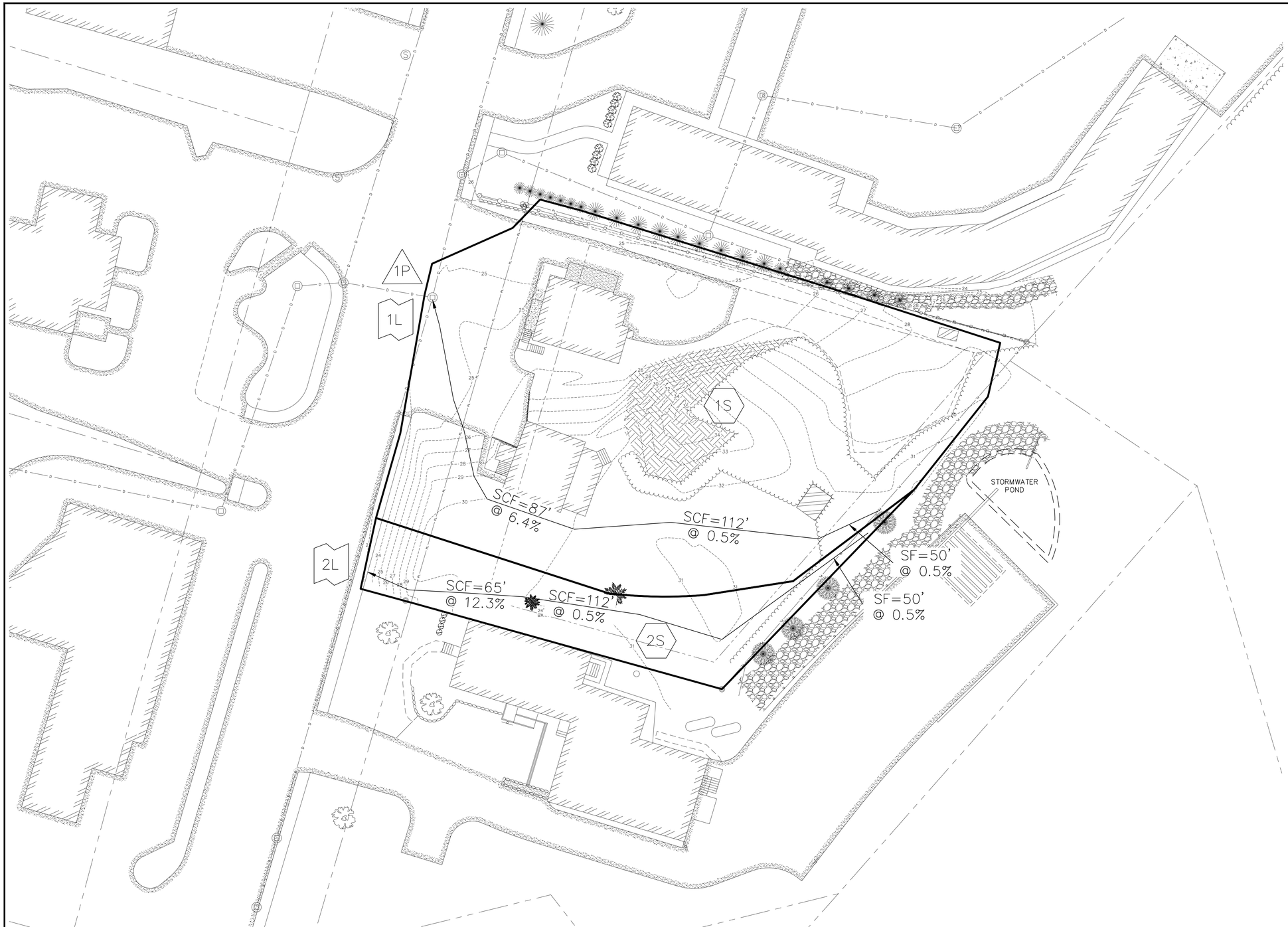
PHOTOMETRIC PLAN
TERRA COTTA EXPANSION
STATE ROAD, KITTERY, MAINE

FOR: TERRA COTTA PASTA COMPANY
C/O KEVIN CAMBRIDGE, 52 STATE ROAD
KITTERY, ME 03904

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE ◆ SURVEYING
1284 STATE ROAD – ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

SCALE:	APPROVED BY:	DRAWN BY:
1" = 20'		MJS
DATE:		REVISION DATE:
12/02/21		C : 02/10/22
JOB NO: C206-21	FILE: TERRA COTTA BASE.DWG	SHEET: 5

MAP 3, LOT 1



1S SUBCATCHMENT
1R REACH
1P POND (LEVEL SPREADER)
AP1 ANALYSIS POINT

LEGEND

PROPERTY LINE	
EXT. ABUTTER LINE	
EXT. PAVEMENT	
PRP. PAVEMENT	
EXT. CONCRETE	
CENTERLINE OF ROAD	
EXT. BUILDING	
PRP. BUILDING	
EXT. STONEWALL	
EXT. TREELINE	
PRP. TREELINE	
EXT. MAJOR CONTOUR	XXX
EXT. MINOR CONTOUR	XXX
PRP. MAJOR CONTOUR	XXX
PRP. MINOR CONTOUR	XXX
EXT. WETLAND BNDY	UPLAND WETLAND
EXT. WETLAND AREA	
SOIL TYPE BOUNDARY	
EXT. SUBCATCHMENT	
EXT. Tc FLOW LINE	
EXT. Tc GRADE CALC	SF=XXX' S X.XX%
PRP. SUBCATCHMENT	
PRP. Tc FLOW LINE	
PRP. Tc GRADE CALC	SF=XXX' S X.XX%

TAX MAP 3, LOT 1

GRAPHIC SCALE
0 20 40 60 80 (FEET)

NO.	DESCRIPTION	DATE
	REVISIONS	
A	PEER REVIEW REVISIONS	04/08/22

STATE OF MAINE
KENNETH A. WOOD
No. 5992
LICENSED PROFESSIONAL ENGINEER

EXISTING STORMWATER PLAN
TERRA COTTA EXPANSION
STATE ROAD, KITTERY, MAINE

FOR: TERRA COTTA PASTA COMPANY
C/O KEVIN CAMBRIDGE, 52 STATE ROAD
KITTERY, ME 03904

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SCALE: 1" = 20'	APPROVED BY:	DRAWN BY: MJS
DATE: 02/16/22		REVISION DATE: A : 04/08/22
JOB NO: C206-21	FILE: TERRA COTTA BASE.DWG	SHEET: 1 OF 2

MAP 3, LOT 1

Terra Cotta Expansion - Existing Condition Peak Flows

Analysis Point	2 Year Storm (cfs)	10 Year Storm (cfs)	25 Year Storm (cfs)
AP1	1.07	1.95	2.50
AP2	0.17	0.33	0.44

Terra Cotta Expansion - Developed Condition Peak Flows

Analysis Point	2 Year Storm (cfs)	10 Year Storm (cfs)	25 Year Storm (cfs)
AP1	0.91	1.69	2.13
AP2	0.14	0.30	0.40

Terra Cotta Expansion - Change in Peak Flows

Analysis Point	2 Year Storm (cfs)	10 Year Storm (cfs)	25 Year Storm (cfs)
AP1	-0.16	-0.26	-0.37
AP2	-0.03	-0.03	-0.04

Rainfall Event Totals (in.)	
2-Year	3.33
10-Year	5.34
25-Year	6.60

1S SUBCATCHMENT
1R REACH
1P POND (LEVEL SPREADER)
AP1 ANALYSIS POINT

LEGEND

PROPERTY LINE	
EXT. ABUTTER LINE	
EXT. PAVEMENT	
PRP. PAVEMENT	
EXT. CONCRETE	
CENTERLINE OF ROAD	
EXT. BUILDING	
PRP. BUILDING	
EXT. STONEWALL	
EXT. TREELINE	
PRP. TREELINE	
EXT. MAJOR CONTOUR	XXX
EXT. MINOR CONTOUR	XXX
PRP. MAJOR CONTOUR	XXX
PRP. MINOR CONTOUR	XXX
EXT. WETLAND BNDY	UPLAND / WETLAND
EXT. WETLAND AREA	
SOIL TYPE BOUNDARY	
EXT. SUBCATCHMENT	
EXT. Tc FLOW LINE	
EXT. Tc GRADE CALC	SF=XXX' / X.XX%
PRP. SUBCATCHMENT	
PRP. Tc FLOW LINE	
PRP. Tc GRADE CALC	SF=XXX' / X.XX%

GRID N

GRAPHIC SCALE
0 20 40 60 80 (FEET)

TAX MAP 3, LOT 1

NO.	DESCRIPTION	DATE
A	PEER REVIEW REVISIONS	04/08/22
	REVISIONS	

STATE OF MAINE — KENNETH A. WOOD No. 5992 — LICENSED PROFESSIONAL ENGINEER

PROPOSED STORMWATER PLAN
TERRA COTTA EXPANSION
STATE ROAD, KITTERY, MAINE

FOR: TERRA COTTA PASTA COMPANY
C/O KEVIN CAMBRIDGE, 52 STATE ROAD
KITTERY, ME 03904

ATTAR ENGINEERING, INC.
CIVIL ◆ STRUCTURAL ◆ MARINE ◆ SURVEYING
1284 STATE ROAD – ELIOT, MAINE 03903
PHONE: (207)439-6023 FAX: (207)439-2128

SCALE:	APPROVED BY:	DRAWN BY:
1" = 20'		MJS
DATE:		REVISION DATE:
02/16/22		A : 04/08/22
JOB NO: C206-21	FILE: TERRA COTTA BASE.DWG	SHEET: 2 OF 2

MAP 3, LOT 1