



**AGENDA REVIEW MEETING
CHESTERFIELD CITY COUNCIL
VIRTUAL MEETING VIA ZOOM
WEDNESDAY, SEPTEMBER 9, 2020
6:30PM**

Due to the recommendations of the President, the Governor, and the CDC, we will be conducting the meeting virtually. We invite you to join the virtual meeting <https://zoom.us/j/92238323663> or call (312) 626-6799 and enter Webinar ID: 922 3832 3663

I. Planning and Public Works Committee – Chairperson Dan Hurt, Ward III

A. Emerald Ash Borer Program & Street Tree Program

Recommendation that the City of Chesterfield continue with the remaining two years of the Emerald Ash Borer Plan with a supplemental 2021 allocation of \$475,000. **(Roll Call Vote) Planning & Public Works Committee recommends approval.**

B. Time Extension – 18626 Olive Street Road (P.Z. 05-2014)

A request for an eighteen (18) month extension of time to submit a Site Development Concept Plan or Site Development Plan for a 2.391 acre tract of land zoned “PI” Planned Industrial District located southeast of the intersection of Olive Street Road and Spirit Valley East Drive (17W510060). **(Voice Vote) Planning & Public Works Committee recommends approval.**

C. Bipolar Ionization Air Purification System

Recommendation to install a Bipolar Ionization Air Purification system throughout the City facilities at a cost of \$80,000. The project would be publicly bid and submitted directly to City Council at a later date. There is the potential for this expenditure to be reimbursed through the CARES Act. If reimbursement is not available, the BIAP system could be paid from existing funds within Account 120-079-5470 due to underruns and a freeze on a number of capital expenditures. No supplemental funding would be required. **(Roll Call Vote) Planning & Public Works Committee recommends approval.**

D. Next Meeting – September 10, 2020 (5:30pm)

II. Finance and Administration Committee – Chairperson Barb McGuinness, Ward I

III. Parks, Recreation and Arts Committee – Chairperson Michelle Ohley, Ward IV

IV. Public Health and Safety Committee – Chairperson Ben Keathley, Ward II

- A. Bill No. 3314** - An ordinance repealing Ordinance 50 (1988) of the municipal code of the City of Chesterfield pertaining to the requiring of protective headgear for the operator and passenger of a motorcycle or motor tricycle. **(Second Reading) Public Health and Safety Committee recommends approval.**

V. Report from the City Administrator & Other Items Requiring Action by City Council – Mike Geisel

VI. Other Legislation

VII. Unfinished Business – Mayor Bob Nation

VIII. New Business – Mayor Bob Nation

IX. Adjournment

NOTE: *City Council will consider and act upon the matters listed above and such other matters as may be presented at the meeting and determined to be appropriate for discussion at that time.*

Notice is hereby given that the City Council may also hold a closed meeting for the purpose of dealing with matters relating to one or more of the following: legal actions, causes of action, litigation or privileged communications between the City's representatives and its attorneys (RSMo 610.021(1) 1994; lease, purchase or sale of real estate (RSMo 610.021(2) 1994; hiring, firing, disciplining or promoting employees with employee groups (RSMo 610.021(3) 1994; Preparation, including any discussions or work product, on behalf of a public governmental body or its representatives for negotiations with employee groups (RSMo 610.021(9) 1994; and/or bidding specification (RSMo 610.021(11) 1994.



**AGENDA
CITY COUNCIL MEETING
VIRTUAL MEETING VIA ZOOM
WEDNESDAY, SEPTEMBER 9, 2020
7:00PM**

Due to the recommendations of the President, the Governor, and the CDC, we will be conducting the meeting virtually. We invite you to join the virtual meeting at <https://zoom.us/j/94118804952> or call (312) 626-6799 and enter Webinar ID: 941 1880 4952

- I. CALL TO ORDER** – Mayor Bob Nation
- II. PLEDGE OF ALLEGIANCE** – Mayor Bob Nation
- III. MOMENT OF SILENT PRAYER** – Mayor Bob Nation
- IV. ROLL CALL** – City Clerk Vickie McGownd
- V. APPROVAL OF MINUTES** – Mayor Bob Nation
 - A. City Council Meeting Minutes** – August 17, 2020
- VI. INTRODUCTORY REMARKS** – Mayor Bob Nation
 - A. Thursday, September 10, 2020 – Planning & Public Works (5:30pm)**
 - B. Monday, September 14, 2020 – Planning Commission (7pm)**
 - C. Monday, September 21, 2020 – City Council (7pm)**
 - D. Tuesday, September 22, 2020 – F&A Committee of the Whole (4pm)**
- VII. COMMUNICATIONS AND PETITIONS** – Mayor Bob Nation

VIII. APPOINTMENTS – Mayor Bob Nation

IX. COUNCIL COMMITTEE REPORTS

A. Planning and Public Works Committee – Chairperson Dan Hurt, Ward III

1. Emerald Ash Borer Program & Street Tree Program

Recommendation that the City of Chesterfield continue with the remaining two years of the Emerald Ash Borer Plan with a supplemental 2021 allocation of \$475,000. **(Roll Call Vote) Planning & Public Works Committee recommends approval.**

2. Time Extension – 18626 Olive Street Road (P.Z. 05-2014)

A request for an eighteen (18) month extension of time to submit a Site Development Concept Plan or Site Development Plan for a 2.391 acre tract of land zoned “PI” Planned Industrial District located southeast of the intersection of Olive Street Road and Spirit Valley East Drive (17W510060). **(Voice Vote) Planning & Public Works Committee recommends approval.**

3. Bipolar Ionization Air Purification System

Recommendation to install a Bipolar Ionization Air Purification system throughout the City facilities at a cost of \$80,000. The project would be publicly bid and submitted directly to City Council at a later date. There is the potential for this expenditure to be reimbursed through the CARES Act. If reimbursement is not available, the BIAP system could be paid from existing funds within Account 120-079-5470 due to underruns and a freeze on a number of capital expenditures. No supplemental funding would be required. **(Roll Call Vote) Planning & Public Works Committee recommends approval.**

4. Next Meeting – September 10, 2020 (5:30pm)

B. Finance and Administration Committee – Chairperson Barb McGuinness, Ward I

C. Parks, Recreation and Arts Committee – Chairperson Michelle Ohley, Ward IV

D. Public Health and Safety Committee – Chairperson Ben Keathley, Ward II

- 1. Bill No. 3314** - An ordinance repealing Ordinance 50 (1988) of the municipal code of the City of Chesterfield pertaining to the requiring of protective headgear for the operator and passenger of a motorcycle or motor tricycle. **(Second Reading) Public Health and Safety Committee recommends approval.**

X. REPORT FROM THE CITY ADMINISTRATOR – Mike Geisel

XI. OTHER LEGISLATION

XII. UNFINISHED BUSINESS – Mayor Bob Nation

XIII. NEW BUSINESS – Mayor Bob Nation

XIV. ADJOURNMENT

Public comment will be available to users logging in online. Public comment will also be available to users calling in to the meeting; however, you must call (636) 537-6716 no later than 5:00 p.m. on the day of the meeting to inform the City Clerk of the telephone number you will be calling in from.

Members of the public may also submit comments for this meeting by calling (636) 537-6716 and leaving a message or by emailing vmcgownd@chesterfield.mo.us no later than 5:00 p.m. on the day of the meeting. Comments left over voicemail and emailed in will be read at the meeting.

AGENDA REVIEW – WEDNESDAY 9/9/2020 – 6:30 PM

An AGENDA REVIEW meeting has been scheduled to start at **6:30 PM, on Wednesday, September 9, 2020.**

Please note:

There are two separate meetings, each of which will require a separate login and each will have distinct, different login invitations. This is necessary in order to provide full and complete transparency for both meetings.

We will have to initially log in to our Work Session meeting at 6:30 p.m. After conducting the routine work session per our normal processes, we will close that meeting and then log into our regular meeting prior to 7 PM. These meetings generally allow users to log in up to 15 minutes prior to the actual meeting.

Please let me know, ASAP, if you will be unable to attend this meeting.

City of Chesterfield
Excess Checks (=> \$5,000)
August 2020

DATE	CHECK #	VENDOR	DESCRIPTION	CHECK AMT	FUND
8/6/2020	46000	JOE MACHENS FORD	(2) FORD F-250 PICKUPS, 3/4 TON TRUCK	\$ 63,150.00	119
8/7/2020	46010	KIRKWOOD FENCE, INC.	CHAIN LINK FENCING INSTALLATION	10,350.00	119
8/6/2020	61387	AMCON MUNICIPAL CONCRETE, LLC	2020 SELECTIVE SLAB REPLACEMENT PROJECT A	98,026.61	120
8/6/2020	61390	AXON ENTERPRISE INC, ,	TASER CARTRIDGES(225)	6,512.50	121
8/6/2020	61402	ENERGY PETROLEUM CO.	NL PLUS 89 OCT RFG(7,336)	11,798.71	001
8/6/2020	61404	FOUR SEASONS SUBDIVISION	FOUR SEASONS SUBDIVISION - SNOW REMOVAL	6,127.00	001
8/6/2020	61407	GAMMA TREE EXPERTS	2019 STUMP GRINDING, 2020 STREET TREE REMOVAL	21,127.95	001/120
8/6/2020	61416	J. M. MARSCHUETZ	2020 SELECTIVE SLAB REPLACEMENT PROJECT B	72,847.22	120
8/6/2020	61417	J. M. MARSCHUETZ	BRANDYWINE NID PROJECT	225,962.34	120
8/6/2020	61425	RAINERI CONSTRUCTION, LLC	SIDEWALK REPLACEMENT PROJECT A	50,443.58	120
8/13/2020	61443	AMERICAN READY MIX CO.	2018-2019 CONCRETE	6,965.00	001
8/13/2020	61454	ESRI	ANNUAL SOFTWARE MAINTENANCE	18,031.00	001
8/13/2020	61456	GERSHENSON CONSTRUCTION	MONARCH LEVEE TRAIL REPAIR PUMP STATIONS #4 AND #6	21,400.00	120
8/13/2020	61457	GERSHENSON CONSTRUCTION	OLD CHESTERFIELD ROAD CULVERT REPLACEMENT	181,085.69	120
8/13/2020	61470	MCBRIDE & SON HOMES, INC.	LANDSCAPE SURETY RELEASE-MCBRIDE DESIGN SHOWROOM	7,500.00	808
8/20/2020	61492	AMEREN MISSOURI	690 CHESTERFIELD PKWY W-0627147004	17,050.78	001
8/20/2020	61503	DAIKIN TAYCON LLC	UPGRADE & EXPANSION OF BLDG AUTOMATION SYSTEM	31,379.51	120
8/20/2020	61505	DELTA DENTAL OF MISSOURI	AUG 2020 DENTAL INSURANCE-HIGH & LOW	14,118.33	001
8/20/2020	61515	GEOTECHNOLOGY INC.	2020 CONSTRUCTION AND INSPECTION TESTING SERVICES	7,664.59	120
8/20/2020	61530	MISSOURI DIVISION OF EMPLOYMENT SECURITY	2ND QTR 2020 CONTRIBUTIONS/CHARGES DUE	84,359.98	001
8/20/2020	61540	ST. LOUIS AREA HEALTH INSURANCE TRUST-MEDICAL	AUG 2020 HEALTH INSURANCE	201,650.24	001
8/20/2020	61546	THE HARTFORD-PRIORITY ACCOUNTS	AUG 2020 LIFE INSURANCE	10,684.32	001
8/20/2020	61547	TIMBERLINE PROFESSIONAL TREE CARE	2020 STREET TREE REMOVAL	12,925.00	120
8/27/2020	61558	AMERICAN READY MIX CO.	2018-2019 CONCRETE	5,364.25	001
8/27/2020	61571	GEORGE BUTLER ASSOCIATES, INC.	PROFESSIONAL SERVICES-CITY WIDE TRAVEL DEMAND MODEL IN VISUM	5,045.55	001
8/27/2020	61572	GEOTECHNOLOGY INC.	2020 CONSTRUCTION AND INSPECTION TESTING SERVICES	51,148.30	120
8/27/2020	61597	RUSH TRUCK CENTERS	COOLER REPLACED FOR S-107	9,713.96	001
8/27/2020	61608	TOPE PLUMBING	23 FOREST CREST - SEWER REPAIR	6,857.00	110
				<u>\$ 1,259,289.41</u>	

Respectfully submitted by,
John Hughes, Assistant Finance Director





RECORD OF PROCEEDING

MEETING OF THE CITY COUNCIL OF THE CITY OF CHESTERFIELD AT 690 CHESTERFIELD PARKWAY WEST

AUGUST 17, 2020

The meeting was called to order at 7 p.m.

Mayor Bob Nation led everyone in the Pledge of Allegiance and followed with a moment of silent prayer.

A roll call was taken with the following results:

PRESENT

ABSENT

Mayor Bob Nation
Councilmember Mary Monachella
Councilmember Barbara McGuinness
Councilmember Ben Keathley
Councilmember Mary Ann Mastorakos
Councilmember Dan Hurt
Councilmember Michael Moore
Councilmember Tom DeCampi
Councilmember Michelle Ohley

APPROVAL OF MINUTES

The minutes of the August 3, 2020 City Council meeting were submitted for approval. Councilmember Ohley made a motion, seconded by Councilmember Moore, to approve the August 3, 2020 City Council minutes. A voice vote was taken with a unanimous affirmative result and the motion was declared passed.

The minutes of the August 3, 2020 Executive Session were submitted for approval. Councilmember Ohley made a motion, seconded by Councilmember Mastorakos, to approve the August 3, 2020 Executive Session minutes. A voice vote was taken with a unanimous affirmative result and the motion was declared passed.

INTRODUCTORY REMARKS

Mayor Nation announced that the next meeting of City Council is scheduled for Wednesday, September 9, at 7 p.m.

COMMUNICATIONS AND PETITIONS

Mr. George Stock, 257 Chesterfield Business Parkway, indicated that he was available to answer questions pertaining to Bill No. 3311 (P.Z. 03-2020 Downtown Chesterfield [Wildhorse Village LP]) and Bill No. 3312 (P.Z. 04-2020 234 Chesterfield Industrial Boulevard [Success Promotions]).

Mr. Jeff Tegethoff, 2199 Innerbelt Business Center Drive, indicated that he was available to answer questions pertaining to Bill No. 3311 (P.Z. 03-2020 Downtown Chesterfield [Wildhorse Village LP]).

Ms. Kelli Unnerstall, 14649 Summer Blossom Lane, spoke in support of Bill No. 3311 (P.Z. 03-2020 Downtown Chesterfield [Wildhorse Village LP]).

APPOINTMENTS

Mayor Nation nominated Mr. John Walters and Mr. Howard Curtis for re-appointment to the Police Personnel Board. Councilmember Keathley made a motion, seconded by Councilmember Hurt, to re-appoint John Walters and Howard Curtis to the Police Personnel Board for terms of three years. A voice vote was taken with a unanimous affirmative result and the motion was declared passed.

COUNCIL COMMITTEE REPORTS AND ASSOCIATED LEGISLATION

Planning/Public Works Committee

Bill No. 3311	Amends City of Chesterfield Ordinance 3023 for a 99.6 acre tract of land located west and southwest of the intersection of U.S. Highway 40/I-64 and Chesterfield Parkway West (P.Z. 03-2020 Downtown Chesterfield [Wild Horse Village, LP] - 18T620185, 18T620206, 18T620053, 18T630272, 18T630195, 18T640248, 18T640260, 18T640271, 18T620174, 18T640183, 18S410240, 18S410206, 18S430259, 18S430282, 18T640336, 17T320158, 18T640237, 18T640259, 18T620064, 17T320169) (Second Reading) Planning Commission recommends approval. Planning & Public Works Committee recommends approval, as amended
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Councilmember Dan Hurt, Chairperson of the Planning/Public Works Committee, made a motion, seconded by Councilmember Ohley, for the second reading of Bill No. 3311.

Councilmember Hurt made a motion, seconded by Councilmember Ohley, to amend the language in Bill No. 3311 sections I.B.1 and I.B.2 Building Floor Heights to read, “First story height shall be 12-30 feet with the exception that the residential buildings in the geographic areas of Lots 1 and 6 on the Preliminary Development Plan shall be 9-30 feet.” A voice vote was taken with a unanimous affirmative result and the motion to amend was declared passed.

A voice vote was taken on the motion for second reading of Bill No. 3311 with a unanimous affirmative result and the motion was declared passed. Bill No. 3311 was read for the second time. A roll call vote was taken for the passage and approval of Bill No. 3311 with the following results: Ayes – Moore, Ohley, Hurt, Monachella, Mastorakos, McGuinness, Keathley and DeCampi. Nays – None. Whereupon Mayor Nation declared Bill No. 3311 approved, passed it and it became **ORDINANCE NO. 3114.**

Bill No. 3312 Amends the Unified Development Code of the City of Chesterfield by changing the boundaries of an “M3” Planned Industrial District to a “PI” Planned Industrial District for a 1.212 acre tract of land at 234 Chesterfield Industrial Boulevard, located south of the intersection of Edison Avenue and Chesterfield Industrial Boulevard (P.Z. 04-2020 {Success Promotions} 18U430158) **(Second Reading) Planning Commission recommends approval. Planning & Public Works Committee recommends approval**

Councilmember Hurt made a motion, seconded by Councilmember Monachella, for the second reading of Bill No. 3312. A voice vote was taken with a unanimous affirmative result and the motion was declared passed. Bill No. 3312 was read for the second time. A roll call vote was taken for the passage and approval of Bill No. 3312 with the following results: Ayes – Hurt, DeCampi, Keathley, McGuinness, Ohley, Mastorakos, Moore and Monachella. Nays – None. Whereupon Mayor Nation declared Bill No. 3312 approved, passed it and it became **ORDINANCE NO. 3115.**

Bill No. 3313 Amends Article 04-03 Lighting Standards of the Unified Development Code {P.Z. 05-2020 City of Chesterfield (Unified Development Code – Article 4)} **(Second Reading) Planning Commission recommends approval. Planning & Public Works Committee recommends approval**

Councilmember Hurt made a motion, seconded by Councilmember Moore, for the second reading of Bill No. 3313. A voice vote was taken with a unanimous affirmative result and the motion was declared passed. Bill No. 3313 was read for the second time. A roll call vote was taken for the passage and approval of Bill No. 3313 with the following results: Ayes – Keathley, McGuinness, Ohley, Moore, Hurt, Monachella, Mastorakos

and DeCampi. Nays – None. Whereupon Mayor Nation declared Bill No. 3313 approved, passed it and it became **ORDINANCE NO. 3116**.

Councilmember Hurt announced that the next meeting of this Committee is scheduled for Thursday, August 20, at 5:30 p.m.

Finance and Administration Committee

Councilmember Barbara McGuinness, Chairperson of the Finance and Administration Committee, indicated that she had no report this evening.

Parks, Recreation & Arts Committee

Councilmember Michelle Ohley, Chairperson of the Parks, Recreation & Arts Committee, informed City Council that the Department of Parks, Recreation and Arts has worked with several West County communities seeking a grant to fully fund a two-year lease of a vehicle to be used by these communities for senior day trips, in lieu of incurring the costs for chartered vehicles. At the end of the grant period, there is no further obligation, but the participating communities will re-assess and determine the efficacy of the transportation and develop a plan/strategy at that point. The Parks, Recreation and Arts Committee unanimously authorized staff to execute and participate in the grant request, which requires no up-front financial participation.

Public Health & Safety Committee

Councilmember Ben Keathley, Chairperson of the Public Health & Safety Committee, made a motion, seconded by Councilmember Monachella, to approve the proposed Crime Prevention Strategy as recommended by the Public Health and Safety Committee. A voice vote was taken with a unanimous affirmative result and the motion was declared passed.

Councilmember Keathley made a motion, seconded by Councilmember DeCampi, to reinstate budgeted funding in the amount of \$21,000 for the Automated License Plate Reader System (ALPRS) to implement portions of the Crime Prevention Strategy, as recommended by the Public Health and Safety Committee. A roll call vote was taken with the following results: Ayes – Ohley, Hurt, Mastorakos, DeCampi, Monachella, Moore, Keathley and McGuinness. Nays – None. Whereupon Mayor Nation declared the motion passed.

Councilmember Keathley made a motion, seconded by Councilmember Ohley, to authorize Staff to execute the proposed Memorandum of Understanding with Maryville University, as recommended by the Public Health and Safety Committee. A voice vote was taken with a unanimous affirmative result and the motion was declared passed.

Councilmember Keathley made a motion, seconded by Councilmember DeCampi, to authorize Staff to execute the proposed Memorandum of Understanding with Lafayette

Area Police Agencies, as recommended by the Public Health and Safety Committee. A voice vote was taken with a unanimous affirmative result and the motion was declared passed.

Bill No. 3314 Repeals Ordinance 50 (1988) of the municipal code of the City of Chesterfield pertaining to the requiring of protective headgear for the operation and passenger of a motorcycle or motortricycle **(First Reading) Public Health and Safety Committee recommends approval**

Councilmember Keathley made a motion, seconded by Councilmember Monachella, for the first reading of Bill No. 3314. A voice vote was taken with an affirmative result (Councilmember McGuinness voted “Nay”) and the motion was declared passed. Bill No. 3314 was read for the first time.

REPORT FROM THE CITY ADMINISTRATOR

City Administrator Mike Geisel indicated that he had no report this evening.

OTHER LEGISLATION

There was no “other legislation” scheduled for action this evening.

UNFINISHED BUSINESS

There was no unfinished business.

NEW BUSINESS

There was no new business.

ADJOURNMENT

There being no further business to discuss, Mayor Nation adjourned the meeting at 7:53 p.m.

Mayor Bob Nation

ATTEST:

Vickie McGownd, City Clerk

APPROVED BY CITY COUNCIL: _____

UPCOMING MEETINGS/EVENTS

A. Thursday, September 10, 2020 – Planning & Public Works (5:30pm)

B. Monday, September 14, 2020 – Planning Commission (7pm)

C. Monday, September 21, 2020 – City Council (7pm)

D. Tuesday, September 22, 2020 – F&A Committee of the Whole (4pm)

PLANNING AND PUBLIC WORKS COMMITTEE

Chair: Councilmember Hurt

Vice-Chair: Councilmember Ohley

The Planning and Public Works Committee has the following action items for the September 9, 2020 City Council Meeting.

Emerald Ash Borer Program & Street Tree Program

Recommendation that the City of Chesterfield continue with the remaining two years of the Emerald Ash Borer Plan with a supplemental 2021 allocation of \$475,000.

(Voice Vote) Planning & Public Works Committee recommends approval.

Time Extension – 18626 Olive Street Road (P.Z. 05-2014)

A request for an eighteen (18) month extension of time to submit a Site Development Concept Plan or Site Development Plan for a 2.391 acre tract of land zoned “PI” Planned Industrial District located southeast of the intersection of Olive Street Road and Spirit Valley East Drive (17W510060).

(Roll Call Vote) Planning & Public Works Committee recommends approval.

Bipolar Ionization Air Purification System

Recommendation to install a Bipolar Ionization Air Purification system throughout the City facilities at a cost of \$80,000. The project would be publicly bid and submitted directly to City Council at a later date. There is the potential for this expenditure to be reimbursed through the CARES Act. If reimbursement is not available, the BIAP system could be paid from existing funds within Account 120-079-5470 due to underruns and a freeze on a number of capital expenditures. No supplemental funding would be required.

(Voice Vote) Planning & Public Works Committee recommends approval.

NEXT MEETING

The next meeting of the Planning & Public Works Committee is scheduled for Thursday, September 10, 2020.

MEMORANDUM

TO: Mike Geisel, City Administrator

FROM: James Eckrich, Director of Public Works/City Engineer 

SUBJECT: Planning & Public Works Committee [Virtual](#) Meeting
Summary Thursday, August 20, 2020



A meeting of the Planning and Public Works Committee of the Chesterfield City Council was held virtually via Zoom on Thursday, August 20, 2020.

In attendance were: **Chair Dan Hurt**, (Ward III), **Councilmember Mary Monachella** (Ward I), **Councilmember Mary Ann Mastorakos** (Ward II), and **Councilmember Michele Ohley** (Ward IV).

Also in attendance were: Mayor Bob Nation; Planning Commission Chair Merrell Hansen; Jim Eckrich, Director of Public Works/City Engineer; Mike Knight, Assistant City Planner; Geoff Wegrzyn, City Arborist/Urban Forester; Tim Fister, Assistant Building Maintenance Supervisor; and Kathy Juergens, Recording Secretary.

The meeting was called to order at 5:30 p.m.

I. [APPROVAL OF MEETING SUMMARY](#)

A. Approval of the July 23, 2020 Committee Meeting Summary

Councilmember Ohley made a motion to approve the Meeting Summary of July 23, 2020. The motion was seconded by Councilmember Mastorakos.

Discussion after the Motion

Councilmember Monachella made a motion to amend the minutes to correct Motion 1 on Page 7 of the Meeting Summary. The minutes state that she both made and seconded the motion; Councilmember Mastorakos actually seconded the motion.

The motion to approve, as amended, passed by a voice vote of 4-0.

II. [UNFINISHED BUSINESS](#)

A. Status Report – Emerald Ash Borer Program & Street Tree Program

STAFF PRESENTATION

Jim Eckrich, Director of Public Works/City Engineer, presented a PowerPoint presentation depicting the following:

Emerald Ash Preparedness Plan (EAB Plan)

- City Council approved the Plan on November 16, 2015 with the reforestation component added on March 15, 2016.

- Plan was to remove 6,709 Ash trees over a 7-year period.
- Trees are being removed by in-house Street Maintenance personnel with one Street Maintenance Crew working exclusively on tree removals.
- To offset work not being done in-house, contractual sidewalk removal increased by \$300,000 per year.

Current Status

- To date, 4,327 Ash trees have been removed.
- The remaining 2,392 Ash trees are scheduled to be removed by December 31, 2022.
- It is anticipated that all Ash trees will soon die, with high concentrations in the next 2 to 3 years.
- Staff recommends continuing with the Plan to remove all Ash trees over the next 2 years.
- The EAB Plan is supported by industry experts.

Condition of Trees Remaining

- 75% of remaining Ash trees (1,795) are in poor to very poor condition.
- 20% of remaining Ash trees (570) are in fair condition.
- 5% of Ash trees remaining (122) are in good condition with 6 trees having been treated by a contractor.

Recommended EAB funding for 2021:

Contractual sidewalk	\$200,000
Stump grinding-1000/yr	75,000
Reforestation-500 trees	95,000
Supplemental Contractual Tree Removal	60,000
Temporary Personnel	<u>45,000</u>
TOTAL	\$475,000

Options for 2021 if Council wants to reduce costs:

- Eliminate or suspend the reforestation program.
This would save approximately \$155,000 in tree costs and a total cost reduction of \$200,000.
\$60,000 from General Fund for contractual tree removal
\$95,000 from EAB Plan for contractual tree planting
\$45,000 from EAB Plan for temporary employee

Future Tree Planting

- Tree planting has increased since inception of the EAB Plan.
- The original EAB Plan included a recommendation to plant trees on private property, near the street, whereby maintenance would be managed by the residents.
- After discussion, City Council determined residents wanted tree-lined streets managed by the City.
- Since the Plan is in its fifth year, it may not be effective to make a change now.

Mr. Eckrich recommends that the City continue with the EAB Plan as the dying Ash trees will become too much of a liability for the City if the Plan is discontinued now.

DISCUSSION

In response to questions, Mr. Eckrich stated that the EAB expenditure has not typically been included in the budget. It has been a supplemental allocation outside of the budget parameters. City Council can decide to discontinue the program at any time.

With regard to the reforestation component, Mr. Eckrich stated that if the program were to be suspended or eliminated, there would be a cost savings of approximately \$200,000 per year. If this occurred, the temporary employee previously hired as part of the EAB program would not be needed. The temporary position is only necessary for the duration of the EAB program to assist the City Arborist in managing the program, specifically the reforestation program. That employee helps with all aspects of the program, including marking trees for removal, updating the tree inventory, corresponding with residents, managing stump grinding, and managing the reforestation program. That said, if the reforestation program were suspended or eliminated, the other portions of the EAB program could be managed by the City Arborist.

In response to Councilmember Mastorakos' question, Mr. Eckrich stated that residents pay \$100 per tree and the City's portion is between \$225 to \$250 per tree. If trees were planted on private property and the roots caused the sidewalk to buckle, Councilmember Mastorakos asked who would be responsible for repairing the sidewalks. Mr. Eckrich stated that the City is responsible for sidewalks regardless of what causes the problem.

Mr. Eckrich explained why an increase in the allocation for contractual sidewalk replacements is necessary. He pointed out that before the EAB program, the City allocated \$200,000 per year for sidewalks. When the EAB program started, that amount was increased to \$500,000 because City crews were no longer able to repair sidewalks due to being re-assigned to tree removal only. Contractual sidewalk work was still budgeted for \$200,000, but was supplemented by an additional \$300,000 per year as part of the EAB program. Mr. Eckrich further stated that a \$200,000 baseline for contractual sidewalk replacement has proven to be inadequate. Therefore, he recommends \$300,000 as a baseline moving forward. After completion of the EAB program, isolated sidewalk repairs will then again be completed in-house. So for 2021 and 2022, the EAB program will supplement an additional \$200,000 worth of sidewalk replacements.

Councilmember Mastorakos made a motion to recommend a \$475,000 allocation in the 2021 budget to continue the Emerald Ash Borer Preparedness Plan. The motion was seconded by Chair Hurt.

Councilmember Monachella made a motion to amend the above motion to continue the Emerald Ash Borer Plan without reforestation with a \$275,000 allocation in the 2021 budget. The motion was seconded by Councilmember Ohley and resulted in a tie vote of 2-2 with Chair Hurt and Councilmember Mastorakos voting nay.

The original motion to recommend a \$475,000 allocation in the 2021 budget to continue the Emerald Ash Borer Preparedness Plan passed by a voice vote of 3-1 with Councilmember Ohley voting nay.

[Please see the attached report prepared by Jim Eckrich, Director of Public Works/City Engineer, for additional information on the Emerald Ash Borer Program & Street Tree Program.]

III. NEW BUSINESS

- A. **18626 Olive Street Rd (P.Z. 05-2014 Time Extension Request)**: A request for an eighteen (18) month extension of time to submit a Site Development Concept Plan or Site Development Plan for a 2.391 acre tract of land zoned "PI" Planned Industrial District located southeast of the intersection of Olive Street Road and Spirit Valley East Drive (17W510060) (Ward 4).

STAFF PRESENTATION

Mike Knight, Assistant City Planner, presented the request for an 18-month extension to the time period for submittal of a Site Development Concept Plan or Site Development Plan. Because the Applicant has not been able to secure a buyer for the property they are requesting a time extension to continue marketing efforts. This will be the fourth time extension.

DISCUSSION

Councilmember Ohley expressed her hesitancy to approve the extension based on the fact that this would be the fourth extension. Mr. Knight stated that the City Attorney recommends approving all time extensions otherwise the City would have to hold a public hearing to rezone the property. Councilmember Ohley stated that at some point in the future, the number of allowable time extensions should be addressed.

Mayor Nation recalled that time extensions had been discussed in the past and that the City did not have the authority to deny such a request so he questioned why time extensions are even included in Governing Ordinances. After some discussion, it was agreed that Mr. Knight would consult with the City Attorney on time extensions.

Councilmember Mastorakos made a motion to forward 18626 Olive Street Rd (P.Z. 05-2014 Time Extension Request) to City Council with a recommendation to approve. The motion was seconded by Councilmember Ohley and **passed by a voice vote of 4-0.**

[Please see the attached report prepared by Justin Wyse, Director of Planning, for additional information on 18626 Olive Street Rd (P.Z. 05-2014 Time Extension Request).]

B. **Bipolar Ionization Air Purification System**

STAFF PRESENTATION

Jim Eckrich, Director of Public Works/City Engineer, stated that since COVID-19, Staff has been searching for ways to operate City facilities such that they are safe for employees and the public.

Through its research, the Facility Maintenance Division has found a technology that can attack and kill bacteria, mold spores, and viruses, including COVID-19. This technology is known as Bipolar Ionization Air Purification (BIAP). This technology has been implemented by several regional leaders including Emerson Electric and RGA. It is implemented through attachments to the HVAC system. The BIAP system purifies the air by eliminating airborne particulates, odors and pathogens. Once installed, the BIAP system requires very little maintenance. The life expectancy of a BIAP system is 20 years. Mr. Eckrich then briefly explained how the system works.

Staff believes a BIAP system would be an effective tool in the City's fight against COVID-19 and future viruses. Staff, therefore, recommends an allocation of \$80,000 toward installation of a BIAP system at City Hall, the Public Works Facility, the Parks Maintenance Facility, Parks

Concessions Buildings, Amphitheater Concessions Building, and the Aquatic Center. This can be accomplished utilizing existing budgeted funds that were frozen due to COVID-19. If approved, the project would be publicly bid and managed by Staff.

Tim Fister, Assistant Building Maintenance Supervisor, stated that the Building Maintenance Division is responsible for the cleanliness of City facilities and they have tried to be proactive in their means and methods. He has done extensive research on this technology, which has been used since the 1970s. This technology provides a better, safer and cleaner environment and is effective against COVID-19 and other common pathogens.

DISCUSSION

Chair Hurt questioned the timeline of installation. Mr. Fister stated that upon approval, it would take approximately six weeks to receive the equipment and roughly another two weeks for installation. Chair Hurt stated that COVID-19 is an issue and health is a top priority, however, he questioned the rate of return on an \$80,000 investment when a COVID-19 vaccine is anticipated by the end of the year. He questioned whether this is the best time to spend the money. If RGA is currently utilizing the system, he questioned why their employees are working remotely instead of working in the building. He agreed this system might be a good future investment to promote good health but he questioned the timing.

Mr. Eckrich stated he understands Chair Hurt's concerns and stated that Mr. Fister has been in contact with the Director of the St. Louis County Department of Health to determine if this expenditure can be reimbursed through the CARES Act. The County currently has a team investigating this possibility. If the Committee prefers, this project can be tabled while Staff pursues the potential for reimbursement but there is no guarantee at this time.

Councilmember Mastorakos stated that she understands Chair Hurt's concerns, but everything about this virus is uncertain. Because it is not certain that a vaccine will be ready by the end of the year, and because this is an airborne virus, she has a concern with delaying the purchase even with the uncertainty that it will be reimbursed. Mr. Eckrich stated that if the Committee were to recommend the purchase, it would go forward to City Council for another recommendation. The project would still have to be bid, and the bid would also go before Council for approval. In the interim, Staff will try to determine if this expenditure will be reimbursable through the CARES Act.

Councilmember Ohley made a motion to forward to City Council a recommendation to purchase the Bipolar Ionization Air Purification System for all City facilities. The motion was seconded by Councilmember Mastorakos.

Discussion after the Motion

Councilmember Mastorakos asked why it would be installed in the concession buildings. Mr. Eckrich replied that the system would be installed wherever there is an HVAC unit. The primary reason for moving this forward now is because of COVID-19. However, as Mr. Fister's research has shown, this is a good public health investment in all City facilities both now and post-COVID. Mr. Fister stated that this system not only protects occupants from COVID-19 but influenza, MRSA and numerous other airborne viruses. This would be a long term investment for the City.

The above motion passed by a voice vote of 4-0.

[Please see the attached report prepared by Jim Eckrich, Director of Public Works/City Engineer, for additional information on Bipolar Ionization Air Purification System.]

IV. **OTHER** – None.

V. **ADJOURNMENT**

The meeting adjourned at 6:20 p.m.

DRAFT

Memorandum

Department of Public Works



TO: Michael O. Geisel, P.E.
City Administrator

FROM: James A. Eckrich, P.E. *JA*
Public Works Director / City Engineer

DATE: August 6, 2020

RE: Emerald Ash Borer Program and Street Tree Program
Status Report

As you know, the City of Chesterfield City Council adopted the Emerald Ash Borer Preparedness Plan (Plan) on November 16, 2015. The Plan was subsequently revised by City Council on March 15, 2016 in order to clarify and fund the reforestation component of the Plan.

The primary component of the Plan is the implementation of a seven-year program whereby all of the City Ash Trees will be removed. At the time the Plan was created there were 6,709 Ash Trees, comprising 28% of the total street trees. Since that time the City has removed 4,317 Ash Trees, leaving 2,392 Ash trees remaining. All of the remaining Ash Trees are scheduled for removal over the next 29 months, subject to City Council funding.

I have asked City Arborist Geoff Wegrzyn to provide a status report of the Plan, specifically detailing the conditions of the existing Ash Trees and challenges the City may face in removing the remainder of the Ash Trees. In response, Geoff provided the following breakdown. Note the term “dbh” is diameter at breast height, a common forestry designation used to describe the size of a tree.

Poor / Very Poor	75%, or 1,795 trees. 990 of these trees are size 20” dbh or larger. The remaining 805 trees in this condition are predominantly 15” – 19” dbh.
Fair	20%, or 570 trees. 95 of these trees are size 20” dbh or larger. The remaining 475 trees in this condition are predominantly 10” – 19” dbh.
Good	5% or 122 trees. All of these trees are 20” dbh or larger. Six have been treated by a contractor.

Below are photos of typical trees in the conditions described.

75% Poor/Very Poor- thin crown, die-back, severe infestation



20% Fair – thinning crown, branch loss, moderate infestation

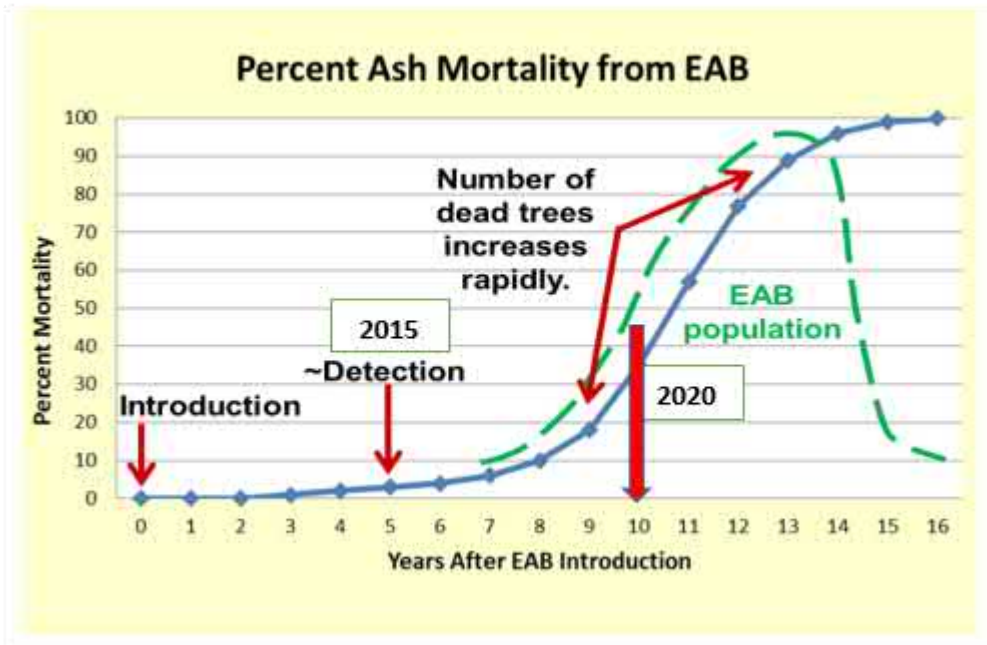


5% Good to Fair condition – Light borer infestation, good color, full crown



You will note in the description above that six of the Ash Trees in “good” condition have been treated. At the time of the implementation of the Plan the City made the decision not to treat its Ash Trees. The reasons the City made this decision were that treatment was expensive, it had to be completed annually in perpetuity, and many experts believed the treatment itself, which is very invasive, would ultimately kill the tree. Nevertheless, many residents are very proud of “their” large Ash Trees, and six of these trees have been treated by the adjacent residents. It is the City Staff’s plan to monitor these trees and remove them as necessary or when the residents decide they will no longer pay to have the tree professionally treated.

While completing this report, the City Arborist consulted with Robbie Doerhoff from the Missouri Dept of Conservation and State Forester Daniel Monchesky. They discussed the current EAB infestation status within the State of Missouri and St. Louis County. Both forestry experts commended the City on the action it has taken thus far, as many cities in the metropolitan area were slow to address the declining Ash and are now scrambling to keep up with rapidly dying trees. In the past two years most area municipalities have moved toward actively managing the Ash Trees by instituting mass removal plans, similar to the City of Chesterfield. Most industry experts agree with the initial EAB infestation assessment, that 99% of all Ash Trees will be killed by the EAB, and that there will be high concentrations of death within a two to three year period. See the chart on the next page.



In most cases, the poor condition of Ash Trees infested with EAB will manifest itself in the late summer. Signs of advanced EAB infestation include:

- D-shaped exit holes begin to appear lower in the trunk as EAB larvae move down the crown searching for more food.
- Ash Trees will experience bark “blonding”, which is caused by birds feeding on EAB larvae. It becomes noticeable when the grey outer bark is pecked off, revealing the white inner bark of mid to upper scaffold branches. Bird foraging holes created in the winter months exacerbate the tree branch decline by gouging out the exit hole and widening the already damaged tissue.
- Many Ash Trees will contain bark that splits. This can sometimes appear as if the branch exploded from the inside immediately over the borer feeding galleries.
- In some cases the tree will make a last ditch effort at survival by producing an abundance of epicormic shoots just below the EAB infested area. Generally, the lower the shoots the worse the infestation.

The City of Chesterfield Ash Trees are experiencing all of these signs and will certainly die, in many cases quickly, over the next few years. The trees that die will become brittle and hazardous to pedestrians, motorists, and property. **Accordingly, it is the recommendation of the City Arborist and me that the City continue its Plan to remove the remaining Ash Trees through 2022.**

As a reminder, the City is removing the vast majority of Ash Trees with in-house maintenance personnel. We did this by purchasing an additional Chipper and Bucket Truck in 2016, each of which were approved as part of the Plan. This

equipment is used by Street Maintenance personnel dedicated exclusively to tree removal. In order to account for the work which would otherwise have been completed by this crew, the City has supplemented contractual sidewalk work by an additional \$300,000 annually. **There seems to be widespread confusion about the additional sidewalk allocation. I want to be clear that the contractual sidewalk work is only related to the EAB Plan in that one of the three in-house maintenance crews is exclusively dedicated to tree removal. That crew would otherwise conduct sidewalk replacement. The sidewalk deficiencies within the City cannot responsibly be ignored. Therefore, this sidewalk work must be contracted, necessitating an additional allocation from City Council each year during the Plan.**

City Staff recommended, and City Council approved, this course of action because we were afraid that tree contractors would be overrun with work, leading to poor service and higher costs. It appears that fear was well founded, as that is indeed what is occurring throughout the St. Louis area. The City Arborist indicated that both of the City's tree contractors cannot take on additional tree removals. Per the City Arborist, area tree contractors have reported that they are experiencing record numbers of requests for tree related maintenance and removal. Accordingly, it is unlikely that the City would be able to successfully contract for the removal of its remaining 2,392 trees in a timely manner.

The EAB Plan approved by City Council included an estimated annual allocation of \$583,000. With five years of EAB experience we believe that estimate is still good, and that the allocation required over the remaining two years will be approximately \$475,000 per year, or a total of \$950,000 to complete the program. The estimate changed by \$100,000 per year because I have increased the annual allocation for sidewalk replacement within the Capital Projects Fund by \$100,000 to \$300,000. The reason for the change is that our sidewalk needs are substantive and the \$300,000 contractual project (Project A) will be necessary now and after the EAB program is finished. Once the EAB program is completed, the \$200,000 annual project (Project B) will be terminated and that work will move in-house. The adjusted annual breakdown is as follows:

Contractual Sidewalk	\$200,000
Stump Grinding - 1000 per year	\$75,000
Reforestation – 500 trees, including GF	\$95,000
Supplemental Contractual Tree Removal	\$60,000
<u>Temporary Personnel</u>	<u>\$45,000</u>
TOTAL	\$475,000

I realize that these are difficult financial times with the unknowns associated with COVID-19 and future revenues. That said, I simply cannot recommend the postponement or termination of this program at this time given the condition of the remaining Ash Trees.

The most reasonable way the City could reduce EAB expenditures over the next two years would be to reduce or eliminate the reforestation component of the program. This program allows residents to request a street tree in front of their house. The postponement or elimination of this program would reduce tree related expenditures by \$155,000 (\$60k from General Fund and \$95K from EAB program). Additionally, temporary personnel costs could also be reduced by \$45,000 if the reforestation program were eliminated or suspended, resulting in a total savings of \$200,000.

As a reminder, the temporary personnel costs referenced above are for an employee to help the City Arborist administer the EAB Plan. This position was filled by Doug Durham for the first 4.5 years of the Plan. Mr. Durham was furloughed earlier this year and has elected to retire instead of returning to the City in this position. We will not fill this temporary position until a decision is made on the remaining two years of the EAB Plan.

You may recall that the Temporary Forestry Tech position was discussed during the approval of the 2020 EAB Plan allocation. At that time there were questions as to whether the personnel component of the Plan should continue to be funded. As I stated at that time, the City Arborist position is a full-time position absent the EAB Plan. The City Arborist manages all aspects of the City's 18,456 street trees. This includes site investigations, meetings with residents, managing the reforestation plan, maintaining the street tree inventory, and reviewing the tree components of development plans. The City Arborist is certainly capable of managing the tree removals, stump grinding, tree plantings, and the associated resident notifications and discussions associated with the EAB Plan. However, given the magnitude of the EAB Plan he simply cannot do so at the service level we expect when this work is added to his regular workload. Geoff is an excellent employee and he will do his best – but asking him to do this puts him in a position where he is likely to fail, and I do not recommend it. My recommendation remains that we hire an employee to help us during the remaining two years of the EAB Plan, unless the Plan is revised.

The best way I see to reduce EAB expenditures over the next two years would be to temporarily eliminate the reforestation program. As referenced above, doing so could reduce costs by approximately \$200,000 per year. If the reforestation component were removed from the EAB Plan and the General Fund this would allow the City Arborist to take on the additional EAB work. It would push him, but I believe it could be effectively managed for a limited period of time. The major drawback to this action would be that residents desirous of trees could not get those trees replaced, and the City's overall tree canopy, reduced by EAB, would not rebound as quickly. The next page contains a table which shows the trees planted over the last ten years. As you can see, tree planting has increased dramatically since the implementation of the EAB Plan, as many residents desire to replace the trees that are removed due to the disease. The elimination of the reforestation program would certainly been seen as a negative by many residents.

Year	Number of Trees Planted
2010	154
2011	115
2012	134
2013	141
2014	268
2015	130
2016	357
2017	495
2018	521
2019	516

This leads to a larger discussion regarding the reforestation program, which was referenced at a recent PPW meeting. When the EAB Plan was presented to City Council, it included a Staff recommendation that new street trees be removed from the public right of way. Instead, trees could be planted in private front yards near the right of way, with all future maintenance being completed by the property owner. This recommendation was NOT accepted by City Council, who determined that residents desire tree lined streets with those trees being maintained by the City.

Tree maintenance is an expensive endeavor for the City, especially when you consider tree trimming, tree removals, tree plantings, and the damage that tree roots cause to sidewalks. That said, at this point the City is over 30 years old with 18,000+ trees in the public right of way. Any change at this juncture would take decades to become effective. In my opinion “the toothpaste is out of the bottle” regarding this matter, and even if new trees were planted outside the right of way it would not make a significant change due the magnitude of the existing condition. There is simply no way to remove the existing 18,000+ trees from the right of way unless there is another disaster similar to EAB. Hopefully that does not occur, but if a similar crisis were to occur this matter could be revisited at that time.

Action Recommended

It is my recommendation that the City of Chesterfield continue with the remaining two year of the EAB Plan. This will necessitate a supplemental 2021 allocation of \$475,000 from General Fund – Fund Reserves. As described above, that allocation could be reduced to \$275,000 if the reforestation program were to be postponed or eliminated.

This matter should be considered by the Planning and Public Works Committee. If the Committee concurs with Staff’s recommendation it should vote to forward it to City Council. If the Committee desires an alternate course of action it should advise Staff of such.

Please forward to the PPW committee for review and direction.

 **2020-8-6**

Memorandum

Department of Planning



To: Michael O. Geisel, City Administrator

From: Justin Wyse, Director of Planning

JW

Date: September, 09, 2020

RE: **18626 Olive Street Rd (P.Z. 05-2014 Time Extension Request):** A request for an eighteen (18) month extension of time to submit a Site Development Concept Plan or Site Development Plan for a 2.391 acre tract of land zoned "PI" Planned Industrial District located southeast of the intersection of Olive Street Road and Spirit Valley East Drive (17W510060).

Summary

Chesterfield Blue Valley has submitted a request for an eighteen (18) month extension to the time period for submittal of a Site Development Concept Plan or Site Development Plan listed in the governing ordinance for the site at 18626 Olive Street Road.

The current time period requirement expires on September 15, 2020. In a letter addressed to the city, Chesterfield Blue Valley stated marketing efforts have failed to secure a buyer for this property. The applicant is requesting an extension to continue marketing efforts.

City of Chesterfield Ordinance 2813 requires that a Site Development Concept Plan or Site Development Plan be submitted to the City within eighteen (18) months of the date of approval of the change of zoning. However, where due cause is shown by the developer, the time interval may be extended by the City Council for eighteen (18) months. Failure to comply with the established time limits will result in a new Public Hearing to be held at the time of the plan submittal. The applicant has requested the maximum extension permitted by Ordinance 2813. This is the fourth eighteen (18) month extension as the last was approved by City Council on March 04, 2019.

A copy of the request letter from the applicant is attached to this report. Staff has reviewed the request and recommends approval of an eighteen (18) month time extension to accommodate the time needed to secure a buyer. **If approved, the time extension would be valid until March 15, 2022.**

The Planning and Public Works Committee discussed this at their August 20, 2020 meeting. A motion was made to forward this item to City Council with a recommendation to approve and passed by a vote of 3-1.

Attachment: Request Letter



Figure 1: Aerial Image



August 5, 2020

Joseph Knight
Assistant City Planner
City of Chesterfield
690 Chesterfield Parkway West
Chesterfield, MO 63017

Re: PZ 05-2014 18626 Olive Street Road
Plan Submission – Request for Time Extension

Dear Mike:

Chesterfield Blue Valley (CBV) respectfully requests an eighteen (18) month extension of the time period for submittal of a Site Development Concept Plan or Site Development Plan regarding the rezoning of the subject property. The current extension is due to expire September 15, 2020. To date, CBV's marketing efforts have failed to secure a buyer for this property. An extension is necessary to continue our marketing efforts.

Thank you for your consideration of this request. Please do not hesitate to contact me at 314-651-8452 or my assistant, Debbie Mueller, at 314-862-8120 if you have any questions or need additional information.

Very truly yours,

A handwritten signature in blue ink that reads 'R. Dean Wolfe'.

R. Dean Wolfe

RDW/dm A handwritten signature in blue ink that appears to be 'RDW/dm'.

Memorandum

Department of Public Works



TO: Michael O. Geisel, P.E.
City Administrator

FROM: James A. Eckrich, P.E. *JAE*
Public Works Dir. / City Engineer

DATE: August 11, 2020

RE: Bipolar Ionization Air Purification System

The COVID-19 pandemic has affected people, businesses, and government agencies nationwide as we struggle with how to operate safely. The safe operation of City facilities is essential for local governments such as the City of Chesterfield that must continue to provide services including police and street maintenance. The Facility Maintenance Division allows City Hall to continue to function through its thorough cleaning and maintenance operations. Additionally, the Facility Maintenance Division is regularly researching new technologies, especially during the pandemic.

Through its research, the Facility Maintenance Division has found a technology which can attack and kill bacteria, mold spores, and viruses, including COVID-19. This technology is known as Bipolar Ionization Air Purification (BIAP). It is implemented by through attachments to the HVAC system. The BIAP system purifies the air by eliminating airborne particulates, odors, and pathogens. It does so through a process called agglomeration, whereby ions attach to the airborne particles, effectively increasing their mass and size. The ions take away hydrogen from the pathogens in the air, leaving them to die, resulting in clean and healthy indoor air.

This technology has been implemented by several regional leaders, including Emerson Electric and the Reinsurance Group of America (RGA). City Facility Maintenance personnel were invited to attend the BIAP installation at RGA. Once installed the BIAP system requires very little maintenance. The life expectancy of a BIAP system is twenty years.

The Facility Maintenance Staff has researched this technology extensively, as detailed in the attached memorandum from Assistant Building Maintenance Supervisor Tim Fister. We believe a BIAP system would be an effective tool in our fight against COVID-19 and future viruses. Additionally, we believe there is the potential for this expenditure to be reimbursed through the CARES Act. Facility Maintenance Staff

has contacted the Co-Director of the St. Louis County Department of Health, who is currently investigating the BIAP system further.

Regardless of whether the funding is later reimbursed, we believe the implementation of a BIAP system would be a worthwhile investment for the City, its residents, and its employees. Accordingly, the Facility Maintenance Division and I recommend the allocation of \$80,000 toward a BIAP system. Due to underruns and a freeze on a number of capital expenditures, the BIAP system could be paid from existing funds within Account 120-079-5470. No supplemental funding would be required.

If you have questions or need additional information, please let me know. Otherwise, I will have member of the Facility Maintenance Division available at the August 20, 2020 meeting to provide additional information and answer questions.

Action Recommended

The Planning and Public Works Committee of City Council should consider whether the City of Chesterfield should install a BIAP system **throughout the City facilities**. If the PPW Committee concurs with City Staff it should recommend the **\$80,000** allocation to the full City Council. If approved, the project would be publicly bid and submitted directly to City Council at a later date.

Please forward to PPW for review, discussion and recommendation. NOTE: \$80k request funds installation at multiple City Facilities. CARES funding is speculative and proposal is not contingent on said reimbursement.

 **2020-8-13**

Memorandum

Department of Public Works



TO: Jim Eckrich, Public Works Director

FROM: Tim Fister, Asst. Building Maint. Supervisor

DATE: 8/7/2020

RE: GPS Bipolar Ionization Air Purification System

During this COVID-19 pandemic period an extensive amount of research has been performed to increase our capability to keep both the public and the employees of the City of Chesterfield safe while in all of our facilities.

Bipolar Ionization Air Purification System (BPI) delivers a public health product that can deliver results so that we can start coming together again safely. Integrated into our HVAC systems, the technology utilizes specialized tubes that take oxygen molecules from the air and convert them into charged atoms that then cluster around microparticles, surrounding and deactivating harmful substances like a Human Coronavirus, Airborne Mold, Bacteria, Allergens, Clostridium Difficili, Staphylococcus (Staph), Methicillin-resistant staphylococcus aureus (MRSA), and Escherichia coli (E. Coli).

Once installed and operational little to no maintenance is required, a simply gentle wipe off of the stripes during filter change. The life cycle for BPI is reported to be twenty years.

The cost to purchase and install a BPI System throughout the City's facilities is approximately \$80,000 This cost is based upon a proposal to provide and install the BPI System from Murphy Company.

I was given the opportunity to visit RGA World Headquarters next door to City Hall and get a first hand look at a large scale installation and operation of a BPI System. Like us they performed the research and found this was a good option for them to protect their employees not only for the Coronavirus but additional harmful microparticles that can enter into their facilities.

The BPI System is superior to alternative such as Ultraviolet Germicidal Irradiation UVGI. UVGI in HVAC involves installing ultraviolet lights often referred to as “bulbs” in the HVAC system. The bulbs emit an intense, short wavelength light intended to kill or damage the cells inside microorganisms. The UVGI light generated from the bulbs is dangerous if people are exposed to it without protection. The estimated cost for a UVGI System is \$115,000 with annual bulb replacement estimated at \$10,000 to 12,000.

Action Recommended

The Facilities Division recommends that we purchase a BPI System and contract the installation at a cost of 80,000. Reimbursement of full or partial cost will be pursued through COVID funding. Please let me know if you have any questions or if additional information is needed.

References

- A. City of Chesterfield Facilities HVAC Equipment List
- B. Proposal Murphy Company
- C. (GPS) Global Plasma Solution Brochure
- D. Explanation of Coronavirus and Application of BPI to Disinfect Air and Surfaces Dr. Philip M. Tierno, N.Y. University School of Medicine
- E. GPS Eliminates Static SARS-CoV-3 with BPI Technology
- F. UVGI vs GPS Bipolar Ionization
- G. Independent Laboratory Test Results

City of Chesterfield Facilities HVAC Equipment List

City Hall

RTU 1 60 Ton Dakin RPS061DLAS5 / FBO151000201
 RTU 2 40 Ton Dakin RPS042DLAS5 / FBO151000187
 RTU 3 30 Ton Dakin RPS030DLAS5 / FBO151000230
 RTU 4 40 Ton Dakin RPS0420DLAS4 / FBO151000328
 RTU 5 35 Ton Dakin RPS035DLAS6 / FBO151000327
 AHU 1 60 Ton McQuay / CAH025FDAC Coil retrofit See attached cut sheet
 AHU 2 5 Ton Liebert MMD60E7CHELB / Y15JB10223

Public Works Facility

RTU 1 10 Ton Carrier 48PGDM12-D-50-AO / 1608G10015
 RTU 2 7.5 Ton Carrier 48HCTD08A2M5A0A3A0 / S1612G20326

Parks Maintenance Facility

AHU 1 40 Tons York XT1054X078-JAH046A / AGTMXT0200

Parks Concessions Buildings

CVAC A AHU 1 15 Tons Carrier 40RM016B611HV / 3806U24301
 CVAC B AHU 1 15 Tons Carrier 40RUAA16A2A6-A0A0 / 5014U07231
 CVAC C OMB AHU 1 2 1 / 2 Tons Trane 4TEC3F30B1000AA / 11196MBUAV
 CVAC D/E AHU 1 15 Ton Trane TWE180E300AA / 11232SP8WA
 CVAC F AHU 1 15 Ton Carrier 40RUAA16A6A60A0A0A / 0711U6013

Amphitheater Concessions Building

AHU 1 3 Ton Carrier FB4CNF036T00ABAA / 2610A72102
 AHU 2 3 Ton Carrier FB4CNF060T00ACAA / 3510A82994
 AHU 3 3 Ton Carrier FB4CNF060T00ACAA / 3510A82944

Swimming Pool Facility

AHU 1 5 Ton Carrier FB4CNP060 / 2618F11765



1233 North Price Road
 St. Louis, MO 63132-2303
 phone 314-997-6600
 fax 314-997-4536

PROPOSAL

July 24, 2020

Mr. Barry Johnson
 City of Chesterfield

Project: GPS System

Thanks for the opportunity to provide the following GPS system pricing.

City Hall:

- One (1) GPS-iMod-90 Snap
- Four (4) GPS-iMod-84-Snap
- One (1) GPS-iMod-66-Snap
- One (1) GPS-FC-24-AC

Total cost \$41,599.00

Public works:

- One (1) GPS-FC-48-AC

Total cost \$1,094.00

Amphitheater:

- Four (4) GPS-FC-24-AC

Total cost \$2,059.00

Park Maintenance:

- Two (2) GPS-iMod-90-Snap

Total cost \$7,388.00

Concession:

- Four (4) GPS-iMod-78-Snap
- One (1) GPS-FC-24-AC

Total cost \$16,328.00

Total \$79,204

Labor cost for installation \$10,736.00 (No electrical material included)

Please see the reverse side of the proposal for "General Terms and Conditions".

We appreciate the opportunity to be of service. If you have any questions, please call.



Sincerely,

Al Shields

Al Shields
Service Project Manager

Accepted: _____

Title: _____

Date: _____
please fax acceptance to 314-692-1100



GLOBAL PLASMA
SOLUTIONS



Engineering Air for a Cleaner World™



With over 30 patents and more than 150,000 installations worldwide using our NEEDLEPOINT BIPOLAR IONIZATION technology, also known as NPBI, GPS is truly the Indoor Air Quality (IAQ) revolutionIZER.

Our proven technology delivers clean indoor air that is safe and healthy – producing neither ozone nor other harmful by-products. All our NPBI products are UL and CE approved. Through NPBI, our products purify the air by eliminating airborne Particulates, Odors and Pathogens. All this while saving you 30% on Energy consumption and lowering your carbon footprint by reducing outdoor air intake by up to 75%.

Engineering Air for a Cleaner World™



GPS FACT: GPS can be installed in any system in any building...

- Agriculture
- Airports
- Animal Care
- Arenas & Stadiums
- Banks
- Casinos
- Child Care
- Convention Centers
- Fitness
- Food Service
- Healthcare
- Hospitality
- Hospitals
- Institutional
- Manufacturing
- Office Building
- Retail
- Schools & Universities
- Senior Care
- Transportation
- Theater
- Worship

Truly a revolutionIZER

A pioneer with many innovations:

1st

- ... with universal power supply
- ... with auto-cleaning
- ... duct-mounted design
- ... to use carbon fiber brush needlepoint emitters
- ... with ionization bar
- ... with flexible ionization strip
- ... modular ionization bar
- ... to achieve UL 867 Ozone Standard
- ... AND ONLY to pass the RCTA DO-160 standard for aircraft
- ... to be installed on a commercial jet
- ... to be certified by FAA
- ... to be installed in commercial hand driers
- ... AND ONLY to receive UL 2998 Ozone Free Certification
- ... to receive OSPHD seismic (OSP) certification

GPS DELIVERS P.O.P.E.



**PARTICLES
REDUCED**

Particle Reduction

The GPS NPBI technology reduces airborne particles (i.e., dust, pet dander, pollen) through agglomeration. The ions attach to the airborne particles. The particles are subsequently attracted to one another, effectively increasing their mass and size. The air filtration system easily captures the larger particles, increasing the capture efficiency of your HVAC system.



**PATHOGENS
KILLED**

Pathogen Reduction

During the GPS cleaning process the NPBI technology attacks and kills viruses, mold spores and bacteria. The ions steal away hydrogen from the pathogens, leaving them to die, and leaving you with clean and healthy indoor air.



**ODORS
NEUTRALIZED**

Odor Reduction

During the GPS cleaning process chemical, pet, cooking, and other odors are broken down into basic harmless compounds, leaving the indoor air fresh smelling and free of odor causing VOCs.



**ENERGY
SAVED**

Energy Saving

GPS' environmentally friendly cleaning process allows commercial buildings to significantly reduce the amount of outdoor air required to operate. This equates to a safer, more comfortable environment that requires up to 30% less energy to condition.

THE GPS ADVANTAGE

	GPS NPBI	OTHER BPI	CORONA DISCHARGE	HEPA FILTERS	CARBON FILTERS	ULTRAVIOLET (UV)	UV-PCO
Produces Harmful Byproducts	None	Yes	Yes	No	No	Yes	Yes
Reduces Airborne Particles	✓	Yes	Yes	Yes	No	No	No
Destroys VOCs	✓	Yes	Yes	No	Captures	No	Yes
Kills Pathogens	✓	Yes	Yes	No	Captures	Yes	Yes
Reduces Energy Cost	30%	Yes	Yes	No	No	No	No
UL 2998 No-Ozone Certified	✓	No	No	N/A	N/A	N/A	N/A
Treats In-Room Air	✓	Yes	Yes	No	No	No	No
No Replacement Parts	✓	No	No	No	No	No	No
Auto Self-Cleaning	✓	No	No	No	No	No	No
Simple to Install	✓	No	No	No	No	No	No
Low Total Cost	✓	Yes	No	No	No	No	No

AUTO-CLEANING NPBI

GPS-FC48-AC™

An automatic self-cleaning, lightweight NPBI system that handles up to **4,800 CFM or 12 tons**. Designed for multiple mounting options including fan inlet, interior duct walls or floors. The composite construction allows for mounting in corrosive environments.

UNIVERSAL VOLTAGE

Features

- > 400 Million + and – Ions Per cc/sec
- Universal Voltage Input (24 – 240 VAC)
- Programmable Auto-Cleaning Cycle
- Carbon Fiber Brush Emitters
- Alarm Contacts



MAINTENANCE FREE



GPS-FC24-AC™

An automatic self-cleaning, lightweight NPBI system that handles up to **2,400 CFM or 6 tons**. Designed for multiple mounting options including fan inlet, interior duct walls or floors. The composite construction allows for mounting in corrosive environments.

Features

- > 300 Million + and – Ions Per cc/sec
- Universal Voltage Input (24 – 240 VAC)
- Programmable Auto-Cleaning Cycle
- Carbon Fiber Brush Emitters
- Alarm Contacts



CARBON FIBER EMITTERS

APPLICATIONS

- | | |
|----------------------|--------------------------|
| • Agriculture | • Hospitality |
| • Airports | • Hospitals |
| • Animal Care | • Institutional |
| • Arenas & Stadiums | • Manufacturing |
| • Banks | • Office Building |
| • Casinos | • Retail |
| • Child Care | • Schools & Universities |
| • Convention Centers | • Senior Care |
| • Fitness | • Transportation |
| • Food Service | • Theaters |
| • Healthcare | • Worship |

GPS-DM48-AC™

The world's first automatic self-cleaning, duct mounted, lightweight NPBI electronic air cleaner. The maintenance free unit is designed for indoor or outdoor duct mounting and can handle up to **4,800 CFM or 12 tons**.

SELF-CLEANING

Features

- > 400 Million + and – Ions Per cc/sec
- Universal Voltage Input (24 – 240 VAC)
- Programmable Auto-Cleaning Cycle
- Carbon Fiber Brush Emitters
- Alarm Contacts
- 3/4 Quick-Turn Duct Adapter



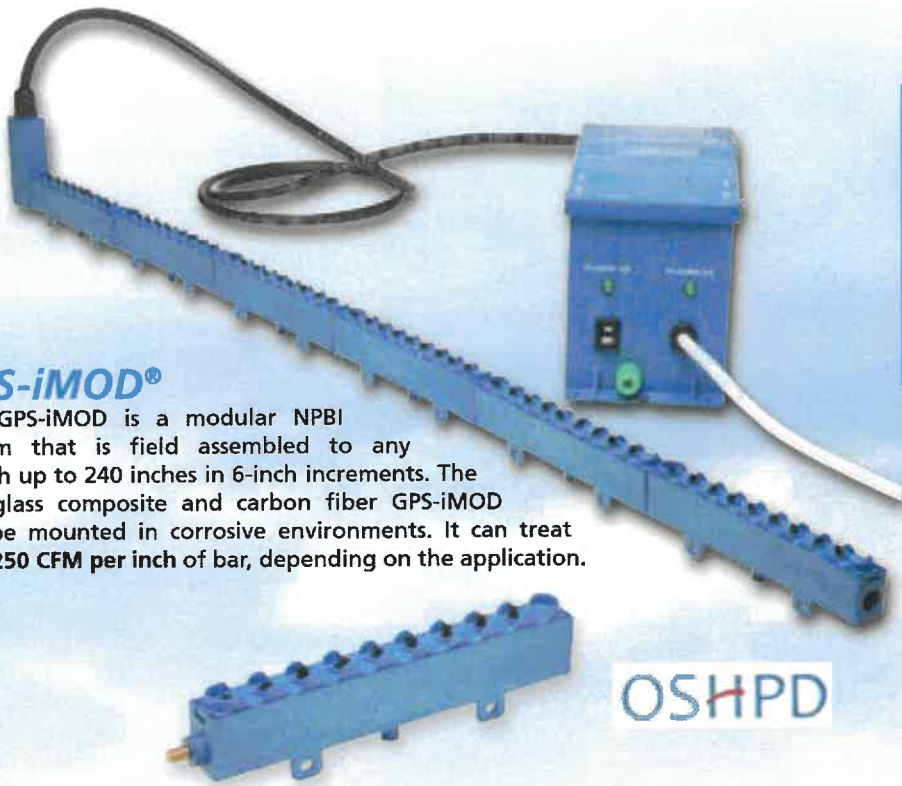
2016 IAQ GOLD AWARD WINNER



BARS & STRIPS

GPS-iMOD®

The GPS-iMOD is a modular NPBI system that is field assembled to any length up to 240 inches in 6-inch increments. The fiberglass composite and carbon fiber GPS-iMOD can be mounted in corrosive environments. It can treat 50 – 250 CFM per inch of bar, depending on the application.



OSHDPD

Features

- > 140 Million + and - Ions Per Inch/cc/sec
- Universal Voltage Selector Switch
- Six HV Output Ports
- Alarm Contacts
- Illuminated On/Off Switch
- Plasma on Indication Light
- UL 2998 Ozone Free



GPS-iRIB® 18/36

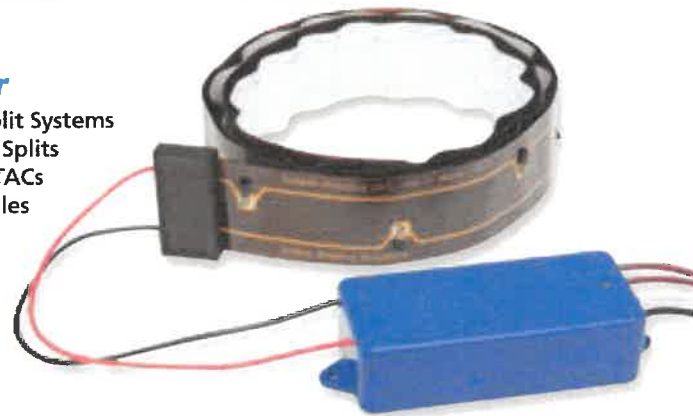
The GPS-iRIB is available in 18" and 36" lengths. They are made from a flexible chemical, heat and cold resistant Kapton® material containing a circuit with special carbon fiber ion emitters soldered into the circuit traces. This mechanism is engineered to deliver the highest level of ionization with the least amount of energy in the most compact size. **Designed for 3200 CFM or 8 tons.**

Features

- > 35 Million + and - Ions Per Foot/cc/sec
- Fold-To-Length Circuit
- Local LED Power Indication
- Integral Control Relay for BAS Interface
- Velcro® for Easy Installation
- Voltage Input 110VAC to 240VAC

Perfect For

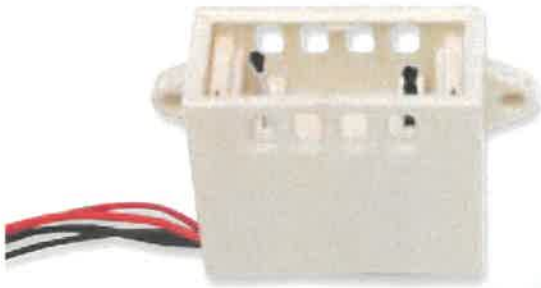
- Traditional Split Systems
- Ductless Mini Splits
- Heat Pump PTACs
- Ducted Modules
- Fan Coils



GPS-NEMA4-OE

The GPS-NEMA4-OE is a NEMA 4X-rated fiberglass enclosure designed to house one GPS-iMOD power supply. The panel adds a superior finished look to any project while providing the required protection against foreign substances, such as water and dust, when power supplies are mounted in non-NEMA 1 rated environment.

COMPACT NPBI



GPS-FC-1™ / GPS-FC-2™

The GPS-FC series is designed to be mounted inside fan coils, heat pumps, PTACs, ductless mini-splits and air handlers up to **1,200 CFM or 3 tons**. Their compact size allows them to be mounted almost anywhere in just a few minutes.

Features

- > 25 Million + and – Ions Per cc/sec
- GPS-FC-1 Powered by 110 - 120 Volts AC
- GPS-FC-2 Powered by 208 – 240 Volts AC
- Carbon Fiber Brushes
- LED Operation Status
- Carbon Fiber Brush Emitters



GPS-FC-3-BAS™

The GPS-FC-3-BAS unit is designed to be mounted inside fan coils, heat pumps, PTACs, ductless mini-splits, and air handlers up to **3,200 CFM or 8 tons**. Its compact size and simple mounting requirements allow it to be quickly mounted almost anywhere.

Features

- > 170 Million + and – Ions Per cc/sec
- Powered by 24 Volts AC
- Carbon Fiber Brush Emitters
- BAS Alarm Contacts
- LED Operation Status

SENSORS & MEASUREMENTS

GPS-iMEASURE™

The GPS-iMEASURE is the first commercially available ion detector that can be permanently mounted in the space to measure ion levels in real time and report back to a BAS.



MONITOR IONIZATION LEVELS REMOTELY

- Auto Calibration/Auto Zero
- 0 – 1,000,000 Ions/cc

GPS-iMEASURE-D™

The GPS-iMEASURE-D ion detector is permanently mounted in the duct downstream of any GPS ionization device. It measures ion levels in real time and reports back to a BAS. It includes three sensitivity levels: 20,000/200,000/2,000,000 ions/cc/sec that can be set based on the application and in-duct location.

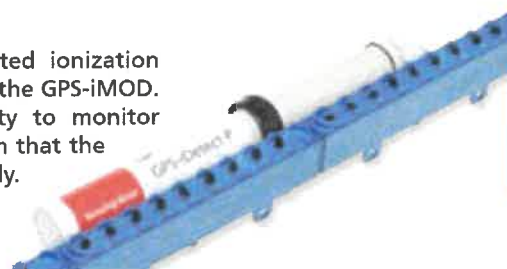
MONITOR IN-DUCT IONIZATION LEVELS

- 20,000 to 2M Ions/cc
- Input Voltage 12 to 24V AC or DC
- LED Operation Status



GPS-iDETECT-P™

The GPS-iDETECT-P is a plenum-mounted ionization detector that confirms the output from the GPS-iMOD. The GPS-iDETECT-P provides the ability to monitor ionization status in a plenum to confirm that the ionization equipment is working properly.



Features

- Universal Voltage Input
- 1,000 – 200,000,000 Ions/cc (+ or -)
- 0-100% Humidity

How Ionization Works

GPS' NPBI technology works to safely clean the air inside industrial, commercial and residential buildings. The patented technology uses an electronic charge to create a plasma field filled with a high concentration of + and - ions. As these ions travel with the air stream they attach to particles, pathogens and gas molecules. The ions help to agglomerate fine sub-micron particles, making them filterable. The ions kill pathogens by robbing them of life-sustaining hydrogen. The ions breakdown harmful VOCs with an Electron Volt Potential under twelve ($eV < 12$) into harmless compounds like O_2 , CO_2 , N_2 , and H_2O . The ions produced travel within the air stream into the occupied spaces, cleaning the air everywhere the ions travel, even in spaces unseen.



What is an Ion you may ask?

An ion is a molecule or atom that is positively or negatively charged, meaning that it has electrons to give or needs electrons to become uncharged, thus becoming stable.

Mother Nature's Way of Cleaning

GPS' technology generates the same ions as Mother Nature creates with lightning, waterfalls, and ocean waves. Mother Nature uses energy to break apart molecules. It is nature's way of cleansing the air naturally and creating a healthy environment. The only difference is that GPS' technology does it without forming ozone or other harmful byproducts.

GPS' NPBI technology has been certified by UL 867 and UL 2998 to be ozone free.



3rd Party Testing Summary

Pathogen	Time in Chamber	Kill Rate	Test Agency
Tuberculosis	60 minutes	69.09%	EMSL
Clostridium Difficile	30 minutes	86.87%	EMSL
Norovirus	30 minutes	93.50%	ATS Labs
MRSA	30 minutes	96.24%	EMSL
Staphylococcus	30 minutes	96.24%	EMSL
Mold Spores	24 hours	99.50%	GCA
E.coli	15 minutes	99.68%	EMSL
Legionella	30 minutes	99.71%	EMSL

**Airborne Mold Spores
Reduced by 95%**



ATS LABS
EXCELLENCE IN ANTIMICROBIAL TESTING

Owned by Accuratus Lab Services

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GPS PRODUCT CHART

AUTO-CLEANING LINE	VOLTAGE	CFM RATING	IONS/cc/sec
GPS-FC24-AC	24-240 VAC	2,400	> 300 million
GPS-FC48-AC	24-240 VAC	4,800	> 400 million
GPS-DM48-AC	24-240 VAC	4,800	> 400 million
COMPACT LINE	VOLTAGE	CFM RATING	IONS/cc/sec
GPS-FC-1	110-120 VAC	1,200	> 25 million
GPS-FC-2	208-240 VAC	1,200	> 25 million
GPS-FC-3-BAS	24 VAC	3,200	> 170 million
BARS & STRIPS LINE	VOLTAGE	CFM RATING	IONS/cc/sec
GPS-iMOD	24-240 VAC	50-250 CFM/inch	> 140 million/in
GPS-iRIB-18	110-240 VAC	3,200	> 35 million/ft
GPS-iRIB-36	110-240 VAC	3,200	> 35 million/ft

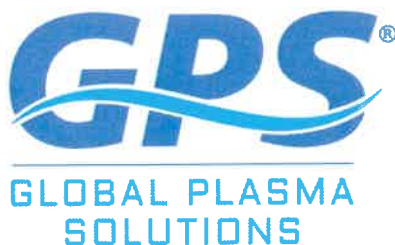
GPS FACT: Aviation Application

GPS' technology is the only active air purification system that has been designed and approved to operate in commercial and private aircraft. Aviation applications require passing the stringent RTCA DO-160 test proving the technology does not generate EMF, line noise or interfere with the avionics in any way. This is important to note because GPS' technology is used in many healthcare applications and will not cause interference with the imaging equipment.



RTCA

DO-160



Engineering Air for a Cleaner World™

980-279-5622

www.GlobalPlasmaSolutions.com

All technical information and advice given here are based on GPS previous experiences and/or test results. GPS gives this information to the best of its knowledge but assumes no legal responsibility. Customers are asked to check the suitability and usability in the specific application, since the performance of the product can only be judged when all necessary operating data are available. The above information is subject to change.

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Dr. Philip M. Tierno, Jr.
Professor of Microbiology & Pathology
New York University School of Medicine

March 23, 2020

Explanation of Coronavirus and Application of Bi-Polar Ionization to Disinfect Air and Surfaces

Coronaviruses were first identified in the 1960s. Coronaviruses are enveloped RNA viral particles. The symptoms of most ordinary coronaviruses are similar to any other upper-respiratory infection, including runny nose, coughing, sore throat, and varying fever. In most cases you won't know whether you have a coronavirus, or a different cold-causing virus such as a rhinovirus. These ordinary strains are easily treated by over-the-counter medication.

In some of the more serious strains, the coronavirus causes an infection that can spread to the lower respiratory tract and cause pneumonia, especially in older people, people with heart disease, or people with weakened immune systems. Sometimes, but not often, animal coronavirus can jump species & infect humans. Such is the case with the novel coronavirus COVID-19, originally isolated from patients from Wuhan, China and currently causing a global Pandemic. According to the World Health Organization, it likely originated from an animal and passed to humans by contact at a live animal market in Wuhan. There is clearly person-to-person transmission as well as airborne spread (the virus has been reported in the air up to 3 hours). It has also been shown to contaminate hard non-porous surfaces like stainless steel and plastics for up to 3 days. COVID-19 virus infections will likely increase with time. This strain can cause severe respiratory disease, pneumonia, and death in some people especially the elderly and the immunosuppressed.

Keep in mind that COVID-19 virus is among several other serious disease-causing strains of the virus. For example, more than 475 people have died from the MERS coronavirus (Middle East Respiratory Syndrome). The MERS strain originated in Jordan and then Saudi Arabia in 2012 before spreading to other countries in Middle East, Africa, Asia, and Europe. In May of 2015 there was an outbreak of MERS in Korea, the largest outbreak recorded. In 2003, another severe respiratory Coronavirus killed many people and caused several cases of the acute respiratory disease known as SARS (severe acute respiratory syndrome). COVID-19 virus has thus far has caused over 350,000 infections and over 15,000 deaths globally.

In general, most coronaviruses spread in the same manner as other cold-causing viruses: via **aerosols directly** (infected people coughing, sneezing or touching an infected person's hands or face) or **indirect contact** (touching fomites like doorknobs, elevator buttons, elevator buttons, etc. then touching your nose, eyes, or mouth, the conduits of entry into the body). Since the virus is spread via direct and indirect contact, the **continuous application** of Bi-Polar Ions emitted to ambient air by the AtmosAir System continuously disinfect both the breathing space and surfaces. It is the most effective system for continuously cleaning and decontaminating indoor air.

As mentioned above, the possibility of aerosolized spread of COVID-19 and the ability of particles to hang in the air for extended periods of time, would make the consideration of an active air cleaning strategy even more prudent.

Also, because Coronaviruses are enveloped viruses, they are easier to kill compared to naked viruses like Noroviruses. AtmosAir has shown significant reduction of bacteria and viruses in both laboratory and in situ testing. Spaces like airport terminals where travelers from affected regions may carry and spread this virus could implement the AtmosAir bi-polar ionization air cleaning system as a step to combat the spread of illness.

Dr. Philip M. Tierno, Jr
Professor of Microbiology & Pathology
New York University School of Medicine

**Global Plasma Solutions Virtually Eliminates Static SARS-CoV-2
with Proprietary NPBI™ Technology**

Global Plasma Solutions is the first air purification solution to test SARS-CoV-2, achieving a 99.4% reduction of the surface strain within 30 minutes

CHARLOTTE, NORTH CAROLINA — June 10, 2020 — Global Plasma Solutions, the leader in Indoor Air Quality, announced today industry-leading ionization testing results, demonstrating a 99.4% reduction rate on a SARS-CoV-2 (COVID-19) surface strain within 30 minutes, the first instance in which an air purification company has effectively neutralized SARS-CoV-2. Following initial testing of coronavirus 229E in March 2020, Global Plasma Solutions utilized its proprietary needlepoint bipolar ionization to inactivate SARS-CoV-2. The study was jointly executed with Aviation Clean Air.

In this laboratory study, Aviation Clean Air designed a test to mimic ionization conditions like that of a commercial aircraft's fuselage. Based on viral titrations, it was determined that at 10 minutes, 84.2% of the virus was inactivated. At 15 minutes, 92.6% of the virus was inactivated, and at 30 minutes, 99.4% of the virus was inactivated.

"The testing results we achieved through our proprietary needlepoint bipolar ionization technology clearly demonstrate that Global Plasma Solutions is the gold standard in air purification," said Global Plasma Solutions Founder and Chief Technology Officer, Charles Waddell. "For any kind of facility from commercial buildings to aircrafts, delivering the cleanest, safest indoor air environment will only become increasingly more important, and our ozone-free technology is one of the most sophisticated products on the market."

Understanding needlepoint bipolar ionization

Needlepoint bipolar ionization works to safely clean indoor air, leveraging an electronic charge to create a high concentration of positive and negative ions. These ions travel through the air continuously seeking out and attaching to particles. This sets in motion a continuous pattern of particle combination. As these particles become larger, they are eliminated from the air more rapidly.

Additionally, positive and negative ions have microbicidal effects on pathogens, ultimately reducing the infectivity of the virus. Global Plasma Solutions' needlepoint bipolar ionization is ozone-free and the only kind in its category to pass the RCTA DO-160 standard for aircraft. Traditional bipolar ionization systems produce harmful ozone as a byproduct.

About Global Plasma Solutions

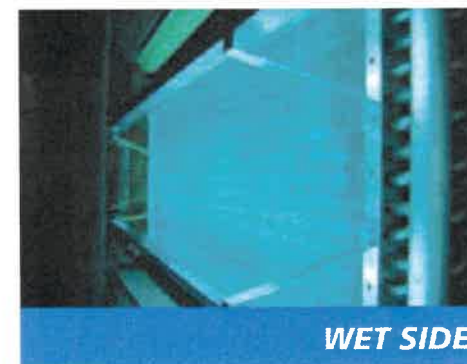
Global Plasma Solutions (GPS) is the leader in Indoor Air Quality, with over 30 patents and more than 150,000 installations worldwide using our needlepoint bipolar ionization (NPBI) technology to deliver clean indoor air that is safe and healthy – producing neither ozone nor other harmful by-products. All of our NPBI products are UL and CE certified and registered and use NPBI to purify the air by eliminating airborne particulates, odors and pathogens. GPS was founded in 2008 and is headquartered in Charlotte, North Carolina.

NPBI AS REPLACEMENT TO UVC

Needlepoint Bi-polar Ionization vs. UVC

	Bi-polar Ionization	UVC Light
Replacement Interval?	NONE	Annually
Produces Detectable Ozone?	NO	No
Kills Mold, Bacteria and Virus?	YES	Yes
Kills Pathogens in the Space?	YES	No
Controls Odors?	YES	No
Reduces Particulate?	YES	No
Contains Mercury?	NO	Yes
Electrodes Fragile?	NO	Yes
Shock Resistant?	YES	No
Hazardous Disposal Required?	NO	Yes

NOTE: Cleans entire coil depth, not just "line of sight"



INDEPENDENT LABORATORY TEST RESULTS

Pathogens



Reducing the Spread of Disease

GPS clears the air of particles faster

Particulate matter includes pollutants, dust, allergens, mold, bacteria – and viruses. GPS' technology constantly generates a high concentration of positively and negatively charged ions. These ions travel through the air continuously seeking out and attaching to particles. Larger by virtue of combination, these particles are removed from the air more rapidly.

GPS Inactivates Pathogens

When ions come into contact with pathogens, their microbicidal effects reduce the infectivity of the virus.

GPS is Safe

Our needlepoint bipolar ionization is OZONE free and safe to use across commercial, industrial and residential buildings. Traditional bipolar ionization systems produce harmful ozone as a byproduct.

Performance Validation*



SENSITIVITY TESTING

A petri dish containing a pathogen is placed underneath a laboratory hood, then monitored to assess the pathogen's reactivity to NPBI™ over time. This controlled environment allows for comparison across different types of pathogens.



SIMULATION TESTING

Counts of airborne pathogens are taken before and after aerosolizing them into a sealed, unoccupied laboratory environmental room installed with NPBI™ technology. The larger space more closely resembles a real-world environment.

*Global Plasma Solutions (GPS) uses multiple data points to formulate performance validation statements. GPS technology is used in a wide range of applications across diverse environmental conditions. Since locations will vary, clients should evaluate their individual application and environmental conditions when making an assessment regarding the technology's potential benefits.



SARS-CoV-2

Laboratory Name: Innovative Bioanalysis

Cap Lic No: 9501843

Date: 5/27/2020

Pathogen Tested: SARS-CoV-2

INNOVATIVE
BIOANALYSIS

creating solutions | getting results



SENSITIVITY TEST

Objective:

Aviation Clean Air commissioned testing on Global Plasma Solutions' GPS-DM48-AC model to assess its ability to neutralize SARS-CoV-2 in high-ion concentration specialty applications.

Methodology:

Single RE22 control chambers were set on a stainless steel table with pressure verification seals. The chambers had an internal working dimension of 16.5"W x 9"H x 12"D for a total cubic footage of 1.031. Under initial observation it was determined to seal the unit completely with no intake or exhaust port. Testing and control were conducted in an average ambient temperature of 72.6 degrees Fahrenheit.

A singular fan unit was set up at a 45-degree angle and affixed to the testing chamber. The initial control fan speed was measured at an average of 870 Ft/m. Under the original control section, the primary fan was set 10 inches away from ion production unit A and the average air flow speed past the ion producing nodes was 250Ft/m.

Experimental Results:

SARS-CoV-2 was exposed to needlepoint bipolar ionization for a period of 10, 15, and 30 minutes. Based on viral titrations it was determined that at 10 minutes 84.2% of the viral particles became inactive, at 15 minutes 92.6% of the viral particles became inactive, and at 30 minutes 99.4% of the viral particles became inactive.

TIME IN CHAMBER	RATE OF REDUCTION
30 MINUTES	99.4%

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3



Norovirus

Laboratory Name: ATS Labs

Project No: A14991

Date: 5/28/2013

Pathogen Tested: Feline Calicivirus

ATS LABS
EXCELLENCE IN ANTIMICROBIAL TESTING



SIMULATION TEST

Objective:

The testing was conducted on the GPS-2400-1 model for its ability to inactivate Feline Calicivirus bacteria in the air.

Methodology:

The middle support bracket was attached to the bar containing one GPS-2400-1 Cold Plasma Generator at each end of the bar. The generators were placed with the carbon fiber brushes pointing down, in the back of a hood with the hood sash closed. Minimum Essential Medium (MEM) was supplemented with 5% heat-inactivated fetal bovine serum, 100 units/mL penicillin, 10 ~g/mL gentamicin, and 2.5 ~g/mL amphotericin B.

Experimental Results:

A 93.5% average reduction in viral titer was demonstrated following a 30 minutes of exposure time, as compared to the average titer of the dried virus control. The average log reduction in viral titer was 1.19 log.



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Human Coronavirus

Laboratory Name: ALG Labs

Project No: A29381

Date: 4/14/2020

Pathogen Tested: Human Coronavirus,
ATCC VR-740, Strain 229E



SENSITIVITY TEST

Objective:

Testing was conducted on GPS' technology to assess its ability to inactivate Human Coronavirus on a glass surface.

Methodology:

A glass carrier with the pathogen was placed 1" from the carbon fiber brushes of the GPS technology. The petri dish carriers were exposed to GPS' needlepoint bipolar ionization device for 1 minutes, 5 minutes, 15 minutes, 30 minutes and 60 minutes at room temperature and relative humidity. Following the exposure time, the carrier was removed and an aliquot of test medium was added to the petri dish.

Experimental Results:

A 90.0% average reduction in viral titer was demonstrated following a 60 minutes of exposure time, as compared to the average titer of the dried virus control. The reduction in viral titer was 1.00 log.



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Legionella

Laboratory Name: EMSL Analytical, Inc.

EMSL No: 151508127

Date: 10/14/2015

Pathogen Tested: Legionella pneumophila



Objective:

Testing was conducted on the GPS-2400 model to assess its ability to inactivate bacteria on a solid surface.

Methodology:

Legionella pneumophila (L. pneumophila) was inoculated onto buffered charcoal yeast extract agar (BCYE) and incubated at 35°C for 48 hours. Colonies were harvested, suspended in phosphate buffer water, and vortexed for 1 minute to ensure homogenization. This suspension was then used to inoculate the test carriers.

Experimental Results:

The GPS-2400 system demonstrated the strongest efficacy after 30 minutes of exposure by inactivating 99.71% of the L. pneumophila bacteria.



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Clostridium Difficile

Laboratory Name: EMSL Analytical, Inc.

EMSL No: 371208933

Date: 6/26/2011

Pathogen Tested: Clostridium difficile ATCC 70057



SENSITIVITY TEST

Objective:

Objective: Testing was conducted on the GPS-iBAR-36 model to evaluate its effectiveness in disinfecting solid surfaces contaminated with C. Difficile.

Methodology:

The GPS-iBAR-36, needlepoint bipolar ionization system, was first set up facing down with 5 cm of clearance from the surface. The test carriers in their respective Petri-dishes were then placed under the GPS-iBAR-36 and the system was turned on. The control was not exposing to the ionizer and instead placed directly into 10 mL of PBS. Serial dilutions were then created for each carrier by taking 1mL out and placing it into the 9 mL of PBS. For each dilution 100µL was plated onto a TSAB plate. The inoculated plates were then incubated in anaerobic conditions at 37°C for 48 – 72 h. The colonies were counted and recorded.

Experimental Results:

In conclusion, the GPS-iBAR-36 demonstrated the ability to disinfect C. difficile on a solid surface with an observed percent reduction of 86.87% in 30 minutes.



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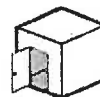
Tuberculosis

Laboratory Name: EMSL Analytical, Inc.

EMSL No: 371106420

Date: 7/15/2011

Pathogen Tested: Mycobacterium terrae ATCC 15755



SIMULATION TEST

Objective:

Testing was conducted on the GPS-iBAR-36 model to determine its ability to inactivate the bacteria in the air.

Methodology:

M. terrae first was inoculated on Tryptic Soy agar + 5% sheep blood (TSAB) and incubated at 35°C for 5 days under carbon dioxide conditions. A sterile inoculation loop was then used to collect colonies and place them into 5 mL of normal saline solution. Once testing was ready to begin, 60 psi of compressed air was pumped through the nebulizer, creating the release of 10.8 mL/h of aerosolized solution. This was run for 28 minutes, allowing for a total of 5 mL of solution being aerosolized into the test chamber.

Experimental Results:

After correcting for the natural rate of decay it was observed that there was a 0.38 log reduction after 30 minutes of exposure and a 0.51 log reduction after 60 minutes of exposure. In conclusion, the GPS-iBAR-36 was observed to reduce M. Terrae by 69.09%



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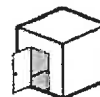
MRSA

Laboratory Name: EMSL Analytical, Inc.

EMSL No: 371106420

Date: 6/13/2011

Pathogen Tested: Methicillin Resistant Staphylococcus aureus (MRSA) ATCC 33591



SIMULATION TEST

Objective:

Testing was conducted on the GPS-iBAR-36 model to determine its ability to inactivate the bacteria in the air.

Methodology:

The nebulizer was connected to an air compressor with 1/4 inch plastic tubing and to the environmental test chamber through one of the testing openings created. The fan was turned on to create an air flow in the chamber but the ionizers were not turned on until after the initial sampling. Once testing was ready to begin, 50 psi of compressed air was pumped through the nebulizer creating the release of 10.8 mL/h of aerosolized solution. This was run for 28 minutes, allowing for a total of 5 mL of solution to be aerosolized into the test chamber.

Experimental Results:

In conclusion, the GPS-iBAR-36 demonstrated the ability to disinfect MRSA from the air with a 96.24% reduction after 30 minutes of exposure.



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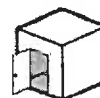
E. Coli

Laboratory Name: EMSL Analytical, Inc.

EMSL No: 371106420

Date: 7/21/2011

Pathogen Tested: Escherichia coli ATCC 8739



SIMULATION TEST

Objective:

Testing was conducted on the GPS-iBAR-36 model to determine its ability to inactivate the bacteria in the air.

Methodology:

The nebulizer was connected to an air compressor with 1/4 inch plastic tubing and to the environmental test chamber through one of the testing openings created. The fan was turned on to create an air flow in the chamber but the ionizers were not turned on until after the initial sampling. Once testing was ready to begin, 60 psi of compressed air was pumped through the nebulizer creating the release of 10.8 mL/h of aerosolized solution. This was run for 28 minutes allowing for a total of 5 mL of solution to be aerosolized into the test chamber.

Experimental Results:

In conclusion, the GPS-iBAR-36 demonstrated the ability to disinfect E. coli from the air with a 99.54% reduction after 30 minutes of exposure and a 99.23% reduction after 60 minutes of exposure.

Furthermore, these results demonstrate that the needlepoint bipolar ionization system tested does not require direct line of sight to produce inactivation rates comparable to those of ultraviolet light. The needlepoint bipolar ionization system's inactivation rates are indicative of those in the entire space.



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*Independent Laboratory
Testing Results Summary*



PATHOGEN	TIME IN CHAMBER	RATE OF REDUCTION	TESTING LAB
SARS-CoV-2	30 MINUTES	99.4%	INNOVATIVE BIOANALYSIS Quality Control Quality Results
Norovirus*	30 MINUTES	93.5%	ATS LABS EXCELLENCE IN MICROBIOLOGICAL TESTING
Human Coronavirus**	60 MINUTES	90.0%	ALG LAB GROUP
Legionella	30 MINUTES	99.7%	EMSL
Clostridium Difficile	30 MINUTES	86.8%	EMSL
Tuberculosis	60 MINUTES	69.0%	EMSL
MRSA	30 MINUTES	96.2%	EMSL
Staphylococcus	30 MINUTES	96.2%	EMSL
E. Coli	15 MINUTES	99.6%	EMSL

* Surrogate for Norovirus, actual strain tested was Feline Calicivirus, ATCC VR-782, Strain F-9

** Surrogate for Human Coronavirus SARS-CoV-2, actual strain tested was Human Coronavirus 229E

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FINANCE AND ADMINISTRATION COMMITTEE

Chair: Councilmember McGuinness

Vice-Chair:

The next meeting of the Finance and Administration Committee has not yet been scheduled.

If you have any questions or require additional information, please contact Finance Director Jeannette Kelly or me prior to Wednesday's meeting.

PARKS, RECREATION AND ARTS COMMITTEE

Chair: Councilmember Ohley

Vice Chair: Councilmember Moore

PUBLIC HEALTH AND SAFETY COMMITTEE

Chair: Councilmember Keathley

Vice Chair: Councilmember DeCampi

Bill No. 3314 - An ordinance repealing Ordinance 50 (1988) of the municipal code of the City of Chesterfield pertaining to the requiring of protective headgear for the operator and passenger of a motorcycle or motor tricycle. This bill is necessitated due to recent State legislation. **(Second Reading) Public Health and Safety Committee recommends approval.**

If you have any questions or require additional information, please contact Chief Ray Johnson or me prior Wednesday's meeting.

BILL NO. 3314

ORDINANCE NO. _____

AN ORDINANCE REPEALING ORDINANCE 50 (1988) OF THE MUNICIPAL CODE OF THE CITY OF CHESTERFIELD PERTAINING TO THE REQUIRING OF PROTECTIVE HEADGEAR FOR THE OPERATOR AND PASSENGER OF A MOTORCYCLE OR MOTORTRICYCLE

WHEREAS, The City of Chesterfield currently has in place an ordinance requiring every person operating or riding as a passenger on any motorcycle or motortricycle to wear protective headgear as required and specified by the State; and,

WHEREAS, The State has now enacted legislation which prohibits any political subdivision of the state from imposing a protective headgear requirement on the operator or passenger of a motorcycle or motortricycle, and;

WHEREAS, The City of Chesterfield is a political subdivision of the State and is therefore prohibited from imposing such a protective headgear requirement,

NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI, AS FOLLOWS:

Section 1. Ordinance 50 (1988) of the Municipal Code of the City of Chesterfield pertaining to the requiring of protective headgear for the operator and passenger of a motorcycle or motor-tricycle is hereby repealed in its entirety.

Section 2. This ordinance shall be in full force and effect from and after its passage and approval.

Passed and approved this _____ day of _____, 2020.

PRESIDING OFFICER

Bob Nation, MAYOR

ATTEST:

Vickie McGownd, CITY CLERK

FIRST READING HELD:

Words 1st search term or section number And 2nd search term

There are multiple enactments of 302.020

Title XIX MOTOR VEHICLES, WATERCRAFT AND AVIATION

Chapter 302

Effective - 28 Aug 2020, 3 histories

302.020. Operation of motor vehicle without proper license prohibited, penalty — motorcycles — special license — protective headgear, failure to wear, fine, amount — no points to be assessed. — 1. Unless otherwise provided for by law, it shall be unlawful for any person, except those expressly exempted by section 302.080, to:

- (1) Operate any vehicle upon any highway in this state unless the person has a valid license;
- (2) Operate a motorcycle or motortricycle upon any highway of this state unless such person has a valid license that shows the person has successfully passed an examination for the operation of a motorcycle or motortricycle as prescribed by the director. The director may indicate such upon a valid license issued to such person, or shall issue a license restricting the applicant to the operation of a motorcycle or motortricycle if the actual demonstration, required by section 302.173, is conducted on such vehicle;
- (3) Authorize or knowingly permit a motorcycle or motortricycle owned by such person or under such person's control to be driven upon any highway by any person whose license does not indicate that the person has passed the examination for the operation of a motorcycle or motortricycle or has been issued an instruction permit therefor;
- (4) Operate a motor vehicle with an instruction permit or license issued to another person.

2. Every person under twenty-six years of age who is operating or riding as a passenger on any motorcycle or motortricycle, as defined in section 301.010, upon any highway of this state shall wear protective headgear at all times the vehicle is in motion; except that, any person twenty-six years of age or older operating any motorcycle or motortricycle who has been issued an instruction permit shall wear protective headgear at all times the vehicle is in motion. The protective headgear shall meet reasonable standards and specifications established by the director. No political subdivision of this state shall impose a protective headgear requirement on the operator or

passenger of a motorcycle or motortricycle. No person shall be stopped, inspected, or detained solely to determine compliance with this subsection.

3. Notwithstanding the provisions of section 302.340 any person convicted of violating subdivision (1) or (2) of subsection 1 of this section is guilty of a misdemeanor. A first violation of subdivision (1) or (2) of subsection 1 of this section shall be punishable as a class D misdemeanor. A second violation of subdivision (1) or (2) of subsection 1 of this section shall be punishable as a class A misdemeanor. Any person convicted a third or subsequent time of violating subdivision (1) or (2) of subsection 1 of this section is guilty of a class E felony. Notwithstanding the provisions of section 302.340, violation of subdivisions (3) and (4) of subsection 1 of this section is a misdemeanor, the first violation punishable as a class D misdemeanor, a second or subsequent violation of this section punishable as a class C misdemeanor, and the penalty for failure to wear protective headgear as required by subsection 2 of this section is an infraction for which a fine not to exceed twenty-five dollars may be imposed. Notwithstanding all other provisions of law and court rules to the contrary, no court costs shall be imposed upon any person due to such violation. No points shall be assessed pursuant to section 302.302 for a failure to wear such protective headgear. Prior pleas of guilty and prior findings of guilty shall be pleaded and proven in the same manner as required by section 558.021.

(RSMo 1939 § 8444, A.L. 1951 p. 678, A.L. 1967 p. 409, A.L. 1984 H.B. 1045, A.L. 1988 H.B. 990, A.L. 1989 1st Ex. Sess. H.B. 3, A.L. 1995 H.B. 717, A.L. 1996 H.B. 1047, A.L. 1999 S.B. 19, A.L. 2011 H.B. 111, A.L. 2014 S.B. 491, A.L. 2020 H.B. 1963)

(1969) This section is within the police power of the state and is not unconstitutional. *State v. Darrah* (Mo.), 446 S.W.2d 745.

(1970) This section merely leaves details of implementation to director of revenue and is not an unconstitutional delegation of legislative powers and does not deprive motorcyclists of due process. *State v. Cushmen* (Mo.), 451 S.W.2d 17.

(1970) This section does not violate the fourteenth amendment to the U.S. Constitution. *State v. Elliott* (A.), 459 S.W.2d 526.

REPORT FROM THE CITY ADMINISTRATOR & OTHER ITEMS REQUIRING ACTION BY CITY COUNCIL

There are no City Administrator action items scheduled on the agenda for this meeting.

OTHER LEGISLATION

There is no “other legislation” scheduled for action at this meeting.

UNFINISHED BUSINESS

There are no “Unfinished Business” action items scheduled on the agenda for this meeting.

NEW BUSINESS