



TOWN BOARD REGULAR MEETING
September 22, 2014 - 7:00 P.M.
Town Board Chambers, 301 Walnut Street, Windsor, CO 80550

AGENDA

A. CALL TO ORDER

1. Roll Call
2. Pledge of Allegiance
3. Review of Agenda by the Board and Addition of Items of New Business to the Agenda for Consideration by the Board
4. Board Liaison Reports
 - Mayor Pro Tem Baker – Water & Sewer Board; North Front Range/MPO alternate
 - Town Board Member Morgan – Parks, Recreation & Culture; Great Western Trail Authority
 - Town Board Member Melendez – Downtown Development Authority; Chamber of Commerce
 - Town Board Member Rose – Clearview Library Board
 - Town Board Member Bishop-Cotner – Historic Preservation Commission; Planning Commission
 - Town Board Member Adams – Tree Board; Poudre River Trail Corridor Board
 - Mayor Vazquez – Windsor Housing Authority; North Front Range/MPO
5. Public Invited to be Heard

Individuals wishing to participate in Public Invited to be Heard (non-agenda item) are requested to sign up on the form provided in the foyer of the Town Board Chambers. When you are recognized, step to the podium, state your name and address then speak to the Town Board.

Individuals wishing to speak during the Public Invited to be Heard or during Public Hearing proceedings are encouraged to be prepared and individuals will be limited to three (3) minutes. Written comments are welcome and should be given to the Deputy Town Clerk prior to the start of the meeting.

B. CONSENT CALENDAR

1. Minutes of the September 8, 2014 Regular Town Board Meeting – B. Roome
2. Resolution No. 2014-55 - A Resolution Approving An Intergovernmental Agreement Between The Town Of Windsor And The RainDance Metropolitan District Nos.1-4 – I. McCargar

C. BOARD ACTION

1. Resolution No. 2014-56 – A Resolution Making Certain Findings of Fact Concerning the Harmony Ridge Annexation to the Town of Windsor, Colorado, Determining Substantial Compliance with Section 31-12-101, C.R.S. “The Municipal Annexation Act of 1965”; and Establishing Dates for Public Hearings before the Planning Commission and the Town Board of the Town of Windsor, Colorado with Regard to the Harmony Ridge Annexation
 - Legislative action

- Staff presentation: Joseph P. Plummer, AICP, Director of Planning
- 2. Site Plan Presentation – Great Western Industrial Park, Ninth Filing, Lot 2 Site Plan (Schlumberger Lift Solutions, 31660 Great Western Drive) – Schlumberger Lift Solutions, LLC, applicant / Michael Bray, dcb Construction Company, applicant’s representative – P. Hornbeck
 - Staff presentation: Paul Hornbeck, Associate Planner
- 3. Resolution No. 2014-57 – A Resolution of the Windsor Town Board Approving and Adopting the 2014-2016 Town of Windsor Strategic Plan
 - Staff presentation: Kelly Arnold, Town Manager
- 4. August Financial Report
 - Staff presentation: Dean Moyer, Director of Finance

D. COMMUNICATIONS

1. Communications from the Town Attorney
2. Communications from Town Staff
3. Communications from the Town Manager
4. Communications from Town Board Members

E. ADJOURN



TOWN BOARD REGULAR MEETING

September 8, 2014 - 7:00 P.M.

Town Board Chambers, 301 Walnut Street, Windsor, CO 80550

MINUTES

A. CALL TO ORDER

1. Roll Call

Mayor
Mayor Pro-Tem

John Vazquez
Myles Baker
Christian Morgan
Kristie Melendez
Ivan Adams

Absent:

Jeremy Rose
Robert Bishop-Cotner

Also present:

Town Manager
Town Attorney
Town Clerk/Assistant to Town Manager
Chief of Police
Director of Finance
Director of Parks, Recreation & Culture
Director of Planning
Director of Engineering
Chief Planner
Associate Planner

Kelly Arnold
Ian McCargar
Patti Garcia
John Michaels
Dean Moyer
Melissa Chew
Joe Plummer
Dennis Wagner
Scott Ballstadt
Josh Olhava

2. Pledge of Allegiance

Mr. Morgan led the Pledge of Allegiance.

3. Review of Agenda by the Board and Addition of Items of New Business to the Agenda for Consideration by the Board

Ms. Melendez motioned to approve the agenda as presented; Mr. Adams seconded the motion. Roll call on the vote resulted as follows: Yeas – Baker, Morgan, Melendez, Adams, Vazquez; Nays – None; Motion passed.

4. Board Liaison Reports

- Mayor Pro-Tem Baker – Water & Sewer Board, MPO
Mr. Baker stated no report for the Water and Sewer Board as there was no meeting. The MPO did meet producing the following highlights: Executive Director reported that the MPO has received all of the vans purchased under the FTA waiver; The Council approved the 2040 Regional Transportation Plan, Goals, Objectives, Performance Measures and Targets. These goals and objectives are federally mandated and the four that were approved were economic development, mobility, multi-modal & operations. Discussion on the scoring methods for projects were discussed, one for small and one for large communities and if partnerships should be scored as separate criteria. As of the meeting no decision has been made. Per Mayor Vazquez this was because they discovered that around 70% of the funding goes to the larger communities and they are trying to help the smaller communities that do not have large amounts of money to put towards their part of these projects.
Town Board Member Morgan – Parks, Recreation & Culture; Great Western Trail Authority
Mr. Morgan reported that the Parks, Recreation & Culture Board adopted a resolution on September 2nd to support the Town Board and their resolution for the ballot question. Also, Weld County Health did a presentation about banning smoking in parks and public areas. Many towns and cities have gone this route, such Golden, Avon, Arvada, Brighton, Commerce City, Durango. The Windsor-Severance Historical Society was present and gave a presentation on a project to potentially place a large art piece or sculpture in Boardwalk Park that represents Windsor and its roots.

Mr. Morgan further reported that the Great Western Trail Authority met on September 4th and there was discussion and a presentation on potentially forming a special district for the Great Western Trail. Research on what it would take to form a special taxing district and what a 1 mil increase on those areas taxes would mean financially to those homeowners. The Weld Youth Conservation Corp will be assisting on the trail on maintenance. The West Greeley Conservation Corp will assist with machinery and seeding for that project.

- Town Board Member Melendez – Downtown Development Authority; Chamber of Commerce
Ms. Melendez reported that the DDA will be meeting next Wednesday the 17th. Ms. Melendez noted the all DDA Board members will be attending the Downtown Colorado conference this week in Fort Collins. The Chamber met last Wednesday September 3rd and there will be no business before or after hours due to preparation for the Business Windsort Expo on September 23rd at 7 pm at the Community Recreation Center. This event is open to members of the community and citizens.
- Town Board Member Rose – Clearview Library Board
No report - absent
- Town Board Member Bishop-Cotner – Historic Preservation Commission; North Front Range/MPO alternate
No report - absent
- Town Board Member Adams – Poudre River Trail Corridor Board; Tree Board; Student Advisory Leadership Team (SALT)
Mr. Adams stated that he missed the Tree Board meeting due to other commitments. Regarding the Poudre River Trail Corridor Board, they met last Thursday and Becky Safarik gave report on Sheep Draw natural area, the corridor master plan status, and the status of property appraisals and all of it is about to be finalized. The 3rd Annual Poudre River Trail Full Moon Bike Ride took place on Monday, September 8, 2014 at 6:30pm starting at the 71st Avenue Trailhead to the River Bluffs Open Space Trailhead and back (about 28 miles round trip.) On September 20th at 10:00 am the Poudre River Challenge will take place at Island Grove Park, in Greeley, Colorado with 23 different obstacles that the Fire Department has put together. The committee is also working on river damage that has occurred from the flooding and trying to get the areas corrected.
- Mayor Vazquez – Windsor Housing Authority; North Front Range/MPO
Mayor Vazquez reported that Windsor Housing Authority will be meeting on September 11th.

5. Public Invited to be Heard

Mayor Vazquez opened the meeting for public comment.

Eric Shanfelt, 6143 Nearview Court, stated that he is in attendance to discuss the proposed oil & gas exploration that is in unincorporated Larimer County. A map was distributed to the Town Board which showed locations of Bison Ridge & Highpointe Estate subdivisions as well as the potential drilling sites in relation to those homes. Mr. Shanfelt wants to ensure that the full implications of how it impacts the development there are realized by the Town of Windsor and that the mitigations are properly in place.

Don Shanfelt, 8218 Spinnaker Bay Drive, spoke in support of his son Eric. Mr. Shanfelt has a background in urban planning, environmental issues, has spent the last ten years dealing with the oil and gas wells. and deals with this every day. Even though this in Larimer County and not in the Town of Windsor the impacts, if not done right, could cause problems for the Town. These wells cause noise and flares when in operation. These issues can be mitigated but not without cost and willingness from the oil and gas company as well as the Town working together.

Todd Sutherland, 1572 Yonkee Drive, is the president of the Bison Ridge Homeowners Association. In early August, the homeowner's in Bison Ridge received a letter from Great Western Oil & Gas Company notifying them that their homes were within 1,000 feet of oil and gas operations which are to occur in 2015. There are about 110 homes in Bison Ridge and it is clear that most homeowners are concerned about this. There are numerous concerns about the effect of this project on these homes including drainage, flooding, dust, noise, odor and lighting. There are only 17 State Inspectors for Colorado and over 47,000 active

wells. Because of this Mr. Sutherland feels that if Windsor were to annex this property they would benefit from the amendments to the State regulations that Windsor has added. Currently the property would fall under Larimer County and they do not have any additional regulations.

Val Schlageter, 2011 Kaplan Drive, lives in the Bison Ridge subdivision. Ms. Schlageter spoke about vacant land which provides excellent views of Long's Peak and the Rocky Mountains and that this is the future site of 13 oil wells by Great Western. The residents that live within 1,000 feet of this location were notified by mail of the pre-application made by Great Western. Ms. Schlageter believes that no one wants this in their "backyard" and encourages the Town of Windsor to annex this land so it will fall under the Town requirements. If annexed, the Town of Windsor can hold Great Western accountable as they have the staff with the expertise in this area. The residents do not trust Larimer County to actively oversee this project based on how they have handled the site in River West. This property has been surrounded by the Town of Windsor which makes it an enclave and she believes this gives the Town the authority to annex the area. She also asked the Town Board for support of legislation that would require a 1,000 foot setback in residential areas which would have stopped this from occurring.

Richard Wesolowski, 1577 Bison Run Drive, requests the Town Board consider annexing this property. Mr. Wesolowski came to Colorado 20 years ago as the director of Human Resource for Kodak. His responsibilities included air and water testing to assure that the air and water was pure and clean for the plant to assure Kodak did not have any negative impacts on the local environment.

Ann Marie Lynn McAbee, 1931 Kaplan Drive, asked the Town Board to annex the pasture land that this oil and gas project is going to happen on. This would allow the Town of Windsor to regulate the noise, road impacts, etc. that the drilling and fracking will cause. This would also give the residents a channel to work with for any complaints that might arise. There is currently a lot of commercial traffic on County Road 13 because of Kyger pit and 2 gravel pits, and this project will add even more traffic. Ms. McAbee feels there might be better use of the pasture land, including keeping a clear unobstructed view of the Rockies. Another possibility is using this site for more enhanced services from the Town of Windsor, such as a library or a school. Ms. McAbee also wondered if this could be an archeological site similar to Kaplan Bison Kill site, as there is evidence of Native American activity in the area.

Nick Luca, 1227 Walnut Street, who has recently been contacted for mineral rights. Mr. Luca requested the Town of Windsor to help guide residents through the Conditional Use Grant process. There is information on the Town website and Mr. Luca asked if there could be more to help guide those without an oil and gas background.

Mayor Vazquez addressed the crowd regarding lease vs forced pooling and stated that the Town is not here to give legal advice. The Town will do what it can to enhance the information that is out there without giving any advice.

Mayor Vazquez polled the approximately 120 citizens in attendance to find out how many were there regarding this specific topic. Seeing the majority of the audience was there for only this he asked how many were in support of the Town Board pursuing an enclave annexation of the Pace property. 85% - 90% of those in attendance were in favor.

Mayor Vazquez stated that the request for a forced annexation that has been requested is a very unique request. He stated that at the work session next week there will be time set aside for the board to be discussed and provide direction of staff.

Town Board Member Morgan asked District 2 residents if there is a meeting or an HOA meeting please contact him through town email and he would be happy to attend and gather and disseminate information.

Town Board Baker asked about water drainage and if annexation would help fix that. Mayor Vazquez stated that as part of Conditional Use Grant process it would be part of the review process.

J.D. Roybal, 224 N. 6th Avenue, stated that all contracts are negotiable as he received a \$2,000 signing bonus due to negotiation.

Nick Luca, 1227 Walnut Street, asked Mayor Vazquez for permission to address the Town Board again which was granted. Mr. Luca asked if residents grouped together to negotiate the terms of contracts if that might be realistic. Mayor Vazquez stated that there needs to be a significant amount of land rights to be able to negotiate effectively.

Terri Richter, 2057 Arroyo Court, stated that her home will face the gas on the other side of Highland Farms which means she will have a huge tank behind her house. She performed research and found a map that shows a proposed 17,000 oil and gas rigs will be going from I-25 up to Timnath down 7th Street to Crossroads. Ms. Richter stated she is concerned about the potential adverse health effect.

B. CONSENT CALENDAR

1. Minutes of the August 25, 2014 Regular Town Board Meeting – P. Garcia
2. Report of Bills August 2014 – D. Moyer

Mr. Adams motioned to approve the Consent Calendar as presented; Mr. Baker seconded the motion. Roll call on the vote resulted as follows: Yeas – Baker, Morgan, Melendez, Adams, Vazquez; Nays – None; Motion passed.

C. BOARD ACTION

1. Ordinance No. 2014-1477 - An Ordinance Of The Town Board Of The Town Of Windsor, Colorado, Approving The Service Plan For Eagle Crossing-Windsor Metropolitan District Nos. 1-4, And Authorizing The Execution Of An Intergovernmental Agreement Between The Town And The Districts
Super-majority vote required for adoption on second reading
 - Second reading
 - Legislative action
 - Staff presentation: Ian D. McCargar, Town Attorney; James Mock, Special District Counsel

Ms. Melendez motioned to approve Ordinance No. 2014-1477; Mr. Morgan seconded the motion.

Town Attorney McCargar reported on the ordinance noting this is the first second reading of four service plans ordinances that the Town Board will review and potentially approve tonight. Mr. McCargar stated that the majority of the work was done by the Town's Special District Counsel James Mock.

Mr. McCargar stated that the Model Service Plan is not identical to what is in the Town Code but is sufficiently close enough to the model that it does not offend the model. This plan is certainly in compliance with State law. This is identical to what was approved on the first reading from the last Town Board meeting and approval is recommended.

Mayor Vazquez opened the floor for public comment to which there was none.

Roll call on the vote resulted as follows: Yeas – Baker, Morgan, Melendez, Adams, Vazquez; Nays – None; Motion passed.

2. Ordinance No. 2014-1478 - An Ordinance Of The Town Board Of The Town Of Windsor, Colorado, Approving The Service Plan For Northlake Metropolitan District Nos. 1-5, And Authorizing The Execution Of An Intergovernmental Agreement Between The Town And The Districts
Super-majority vote required for adoption on second reading

- Second reading
- Legislative action
- Staff presentation: Ian D. McCargar, Town Attorney; James Mock, Special District Counsel

Mr. Baker motioned to approve Ordinance No. 2014-1478; Ms. Melendez seconded the motion.

Town Attorney McCargar restated his comments from the prior ordinance discussion (item C.1) and applied them in full to this ordinance before the Town Board noting it was second reading. This is identical to what was approved on the first reading from the last Town Board meeting and approval is recommended.

Mayor Vazquez opened the floor for public comment to which there was none.

Roll call on the vote resulted as follows: Yeas – Baker, Morgan, Melendez, Adams, Vazquez; Nays – None; Motion passed.

3. Ordinance No. 2014-1479 - An Ordinance Of The Town Board Of The Town Of Windsor, Colorado, Approving The Service Plan For Harmony Ridge Metropolitan District Nos. 1-3, And Authorizing The Execution Of An Intergovernmental Agreement Between The Town And The Districts
Super-majority vote required for adoption on second reading
 - Second reading
 - Legislative action
 - Staff presentation: Ian D. McCargar, Town Attorney; James Mock, Special District Counsel

Mr. Adams motioned to approve Ordinance No. 2014-1479; Mr. Baker seconded the motion.

Town Attorney McCargar restated his comments from the prior ordinance discussion (item C.1) and applied them in full to this ordinance before the Town Board noting it was second reading This is identical to what was approved on the first reading from the last Town Board meeting and approval is recommended.

Mayor Vazquez opened the floor for public comment to which there was none.

Roll call on the vote resulted as follows: Yeas – Baker, Morgan, Melendez, Adams, Vazquez; Nays – None; Motion passed.

4. Ordinance No. 2014-1480 - An Ordinance Of The Town Board Of The Town Of Windsor, Colorado, Approving The Service Plan For Tacinca Metropolitan District Nos. 1-5, And Authorizing The Execution Of An Intergovernmental Agreement Between The Town And The Districts
Super-majority vote required for adoption on second reading
 - Second reading
 - Legislative action
 - Staff presentation: Ian D. McCargar, Town Attorney; James Mock, Special District Counsel

Ms. Melendez motioned to approve Ordinance No. 2014-1480; Mr. Adams seconded the motion.

Town Attorney McCargar restated his comments from the prior ordinance discussion (item C.1) and applied them in full to this ordinance before the Town Board noting it was second reading. This is identical to what was approved on the first reading from the last Town Board meeting and approval is recommended.

Mr. McCargar stated that these are Special Districts that have been reviewed extensively at both the legal and administrative level. The terms of the service plans have been worked through by the Town's special district counsel James Mock, who recommended these be approved.

Mayor Vazquez opened the floor for public comment to which there was none.

Roll call on the vote resulted as follows: Yeas – Baker, Morgan, Melendez, Adams, Vazquez; Nays – None; Motion passed.

5. Ordinance No. 2014-1482 - An Emergency Ordinance Pursuant To Section 4.11 Of The Town Of Windsor Home Rule Charter Imposing A Temporary Moratorium On The Acceptance, Processing And Approval Of Any Application For A Town Of Windsor Permit Or License Concerning The Operation Of Any Cyber Café, Sweepstakes Café, Or Internet Sweepstakes Café, As Those Terms Are Used Herein, Declaring The Intention Of The Windsor Town Board To Consider The Adoption Of Appropriate Regulations Governing Such Businesses To The Extent Allowed By Law, And Directing Town Staff To Investigate The Town's Authority To Regulate Such Businesses And To Prepare Regulations For The Town Board's Consideration *Super-majority vote required for final adoption of an emergency ordinance - - single reading*
 - Legislative action
 - Staff presentation: Ian D. McCargar, Town Attorney

Mr. Morgan motioned to approve the Ordinance No. 2014-1482; Mr. Baker seconded the motion.

Town Attorney McCargar reported on the ordinance noting the intent of the emergency status and the purpose of the moratorium. Mr. McCargar provided a background related to the business in question and explained that this is a temporary hold on the Town processing any applications for cyber cafés for the length of the moratorium. He has met with the proprietors of the business and found them to be creative, informative, and also interested in doing the right thing. The question is if this will be the only business in the Town or if it is a springboard for multiple applications for similar businesses much like when the medical marijuana business came to Windsor and it started as one outlet and then had many applications at which time the Town Board established a moratorium. The purpose of the moratorium is not to ban the business but to give the Town Board and staff time to research the business and make certain the Town of Windsor makes sound policy before the business goes too far. Mr. McCargar stated he understands that the moratorium will affect the bottom line for the business owner but believes it is important that the policy becomes established at the local level. There is a business owner and advocate here to give the industry's perspective.

Mr. McCargar further stated that there are components of the business that he is uncomfortable with regarding sweepstakes and what is required of the players.

Town Manager Arnold stated that he went into the business and it was unlike any other business he has seen before. In the front room there were at least a dozen new computers and new chairs showing a significant investment of money, and the back corner had an area called "cashier". Mr. Arnold stated that he learned there are opportunities to win money but you don't have to participate. After the visit Mr. Arnold returned to Town Hall to check if they had a business license, which they did not. They have had building permit approvals for some work done in there, but the business has been closed by the Town for lack of a business license. The Downtown Development Authority has not discussed this yet which raises the question of is this an appropriate use in the downtown. Mr. Arnold stated he thinks 90 days is reasonable for the Town of Windsor to do their due diligence to report back their findings.

Mayor Vazquez asked how this is different from off-track betting. Mr. McCargar answered that the number of winners are predetermined in this café where off-track betting there are no predetermined winners. Mr. McCargar also stated that there are computers available for internet access as well as games. A customer can receive some free time on the computers which is equivalent to \$1 for one minute because the rate is \$60 for an hour to rent time on each computer. Mr. McCargar stated that based off of this he is still unsure if this is a sweepstakes or what it is exactly.

Mayor Vazquez asked who regulates this group of business. Mr. McCargar stated no one.

Mr. Morgan stated that the white paper from Lakewood Police explains the concerns of the internet sweepstakes cafés.

Mr. Baker stated that his concern is the fact this business did not get a business license, it seems almost as if they were trying to sneak into town unnoticed.

Dan Corsentino stated he is a four term elected sheriff in Pueblo County and has a history in law enforcement. His business located in Pueblo includes consulting for owners of cyber cafes. In the last legislative session the House tabled HB 1392, this was for internet cafés in Colorado. Speaking on behalf of bingo sweepstakes industry he stated that they want regulation and compliance. Mr. Corsentino gave Town Manager Arnold a proposed ordinance which municipalities could use for sweepstakes cafés. Part of that ordinance included rules and fees the industry wants to see such as background checks on employees, fees of a \$500 application fee and a \$2,500 yearly renewal fee as well as fees on machines and set hours of operation. They do not want to appear as a casino but like a coffee shop where customers can use the cyber cafes. Mr. Corsentino gave Town Manager Arnold another document that discusses the difference between gaming, gambling and online sweepstakes. The sweepstakes industry wants to be good partners with the municipalities but no municipality in the state has enacted an ordinance to allow for sweepstakes, but Pueblo might be the first. In the state of Colorado as of tonight there are 30 or less rooms operating in the last eight months with two having failed and others struggling to get by. He stated that he understand the moratorium but wants the Town Board to consider the owner who has invested in the business and is willing to work with law enforcement and the Town of Windsor. Mr. Corsentino noted the legality in the state of Colorado per Colorado Revised Statutes.

Mayor Vazquez discussed what is legal but what is acceptable citing Amendment 64 is an example. He respects the investment and knows the capital it takes to start a business. Mayor Vazquez noted the actions taken regarding Amendment 64 and how that is very similar to what is occurring here. He is concerned about what he doesn't know specifically citing the issues relative to other communities brought up by Mr. Morgan.

Mr. Adams stated that he felt Mr. Corsentino did not answer the question as to why this company did not get a business license like he promised would during his presentation.

Tri Nguyen, lives in Texas and is the owner of this sweepstakes location in Windsor. He explained that he has employees who build locations out for him but before he leased the location he went to the Chamber of Commerce and explained what they were doing. He then usually goes to city to ask permission including going to the planning department to ask if they have this type of business. His people pulled permits and built at the location, when the inspection was done they asked the inspector if there was anything else that needs to be done. Unfortunately the inspector is from Safebuilt which is contracted by the Town and would not know what the Town requires in regards to a business license. Mr. Nguyen believes Windsor is a good place to be and hopes to be able to stay. If the Town does ask them to leave he will and accepts the losses and will learn to take further steps beyond planning department.

Mr. Nguyen set up a location in Canon City where he took all the proper steps starting with getting a lease, then checked with zoning and did get his business license. This location has lost about \$30,000 - \$40,000 and is being closed because it failed.

Mr. Baker asked the applicant are the odds posted. Mr. Nguyen stated that yes; the odds are posted on the wall as well as on the computer. All of the games and the results are predetermined, there is no game of chance. Mr. Nguyen is just the operator, he has a software operator that takes care of the sweepstakes.

Mayor Vazquez feels that when there is not a regulator there is no one to guarantee there is a winner. He just wants to get a better understanding of the industry and hopes Mr. Nguyen is willing to work with the Mayor, Town Board, and staff on this process.

Mr. Morgan asked Mr. Nguyen where his locations are in Colorado. Mr. Nguyen answered one in Greeley and the one in Canon City that has failed. He also has associates that have locations in Pueblo, Denver, and Colorado Springs. His Greeley location is successful but many are failing because most people don't understand what this industry is about.

Mr. Morgan further asked how many are located in a commercial district and why did Mr. Nguyen not get a business license. He answered that Greeley gave him license two weeks after he was approved so he thought this was what was happening in Windsor. Mr. Nguyen also stated that he is in process of getting a location in Brighton and maybe getting that business license in 10 days.

Mr. Adams stated he heard the word chance and upon reading the information from Lakewood Police he is bothered by the language that says, "The developers of the products claim the chance aspect of the game has been taken out and the winning/losing status of the game is predetermined therefore it is not gambling." Mr. Adams, based off of that statement asked what is it if it is not gambling. Mr. Corsentino answered that in this situation the game played is static based on the predetermined outcome. This is somewhat similar to McDonalds or other types of sweepstakes that have a finite number of entries and finite number of winners.

Mr. Baker asked if this is similar to a raffle with a fixed quantity of tickets. Mr. Corsentino answered that he can't answer that question yes or no because he is not real familiar with raffle.

Mayor Vazquez wonders does this fall into the category of lottery or sweepstakes and he is having a hard time trying to classify what this enterprise does. Mr. Corsentino stated that this is a game of chance that excludes any skill.

Ms. Melendez stated she has seen businesses fall through the cracks regarding the issuance of business license. She wants to save her comments until she hears more information.

Mr. Corsentino asked the Town Board as they consider the moratorium that they also consider making this location in Windsor a pilot project, a chance to set the model for all future sweepstakes industry locations. Mr. Corsentino again noted the legality in the state of Colorado per Colorado Revised Statues.

Mayor Vazquez asked if there was any further discussion from the Town Board to which no one does.

Mayor Vazquez stated that he feels the only action item of how we move forward to create a constitutional defendable policy.

Mr. Baker does not take the emergency ordinance lightly, but feels that it is warranted to learn more about what the Town Board is dealing with, to learn how it is regulated, and how the Town might regulate it.

Roll call on the vote resulted as follows: Yeas – Baker, Morgan, Melendez, Adams, Vazquez; Nays – None; Motion passed.

6. Resolution No. 2014-54 - A Resolution of the Windsor Town Board Approving an Agreement for Certain Economic Inducements and Development Incentives between the Town of Windsor and Schlumberger Lift Solutions and Authorizing the Mayor to Execute the Same on the Town's Behalf
 - Legislative action
 - Staff presentation: Stacy Johnson, Director of Economic Development

Mr. Baker motioned to approve Resolution No. 2014-54; Mr. Morgan seconded the motion.

Ms. Johnson addressed the Town Board stating that last month she was directed to negotiate an incentive with Schlumberger Lift Solutions. She noted the location of the facility on 17.8 acres of land and pointed out that they hope to build a 14,000 square foot facility with initially 15 employees and adding 5 more each year with an average salary of \$73,000 per employee plus benefits. Main use of the facility is to provide

artificial rod lift equipment, field service, and maintenance optimization solutions to the oil and gas industry all over the United States. In May, the formal request was made for incentives under primary employer incentive guideline for a waiver or reimbursement of town development fees which was \$169,313. After negotiating the amount they are requesting is \$144,242 of total incentive with the water plant, sewer plant and drainage fee reimbursed. Staff recommends approval of Resolution 2014-54.

Ms. Johnson stated that Tracy Ferris, a representative of the business, is in attendance for any questions. Ms. Ferris stated that they are very excited to come to Windsor.

Roll call on the vote resulted as follows: Yeas – Baker, Morgan, Melendez, Adams, Vazquez; Nays – None; Motion passed.

D. COMMUNICATIONS

1. Communications from the Town Attorney

Mr. McCarger asked if the Town Board wants to explore the reappointment of the two municipal judges, there terms expire at the end of the year but if they are inclined to go through the RFP process we need to know soon to get that going. Mr. McCarger then stated that if Town Board is inclined to reappoint the sitting judges it can be done through a resolution before December. Both have indicated that they would like to serve another two years. Mayor Vazquez stated that he is comfortable with the individuals that we have but will go with how the Town Board wants to move. Mr. Adams stated he is comfortable with a resolution reappointing the current judges and agreement was reached to go this route.

2. Communications from Town Staff

Chief Michaels stated that Saturday, September 27th from 10 am – 2 pm is the next national drug take back day which will be advertised soon.

Ms. Johnson thanked the Town Board for coming out and supporting the grand opening of Summit Entertainment Center. The Summit is off to a great start as the Labor Day weekend was 35% above projections. This Wednesday Ms. Johnson is going to Portland, Oregon for an outbound trade mission conference with Fort Collins, Larimer County, Front Range Community College, Colorado State University, and Estes Park to see how the different entities to see how they operate from an Economic Development stand point. This is Ms. Johnson's first outbound trade mission she has taken and is quite excited to represent Windsor.

3. Communications from the Town Manager

Mr. Arnold thanked everyone for their work on Harvest Festival; people were appreciative of the Town's support of the event. Next week, Mr. Arnold and Ms. Unger are attending the annual International City/County Managers Association conference in Charleston, NC celebrating 100 years of the profession.

4. Communications from Town Board Members

Mr. Morgan will be attending the Special Districts Association annual conference this week to see what new trends are out there and take some classes and hopefully bring back some good information to the Town Board.

D. ADJOURN

Mr. Adams made a motion to adjourn the meeting; Ms. Melendez seconded the motion. Roll call on the vote resulted as follows: Yeas – Baker, Morgan, Melendez, Adams, Vazquez; Nays – None; Motion passed.

The Regular Meeting was adjourned at 8:55 p.m.

Patti Garcia, Town Clerk



MEMORANDUM

Date: September 22, 2014
To: Mayor and Town Board
Via: Regular meeting materials, September 22, 2014
From: Ian D. McCargar, Town Attorney
Re: Intergovernmental Agreement with RainDance Metropolitan Districts
Item #: B.2

Background / Discussion:

The Ordinance approving the RainDance Metropolitan Districts' Service Plan required that the Districts enter into an Intergovernmental Agreement (IGA) with the Town. Attached is a copy of the IGA bearing the Districts' representative signature. This IGA is before you tonight for approval.

The IGA covers the following basic topics:

- Reinforcement of the Service Plan's limits on operations and maintenance restrictions.
- Reinforcement of the Town's development standards and requirements for security sufficient to complete public improvements.
- Requirements for privately-placed debt, including certification by an external financial advisor.
- Limitations on service to areas outside of the defined Service Area, including within other district territory.
- Limitation on mill levy, interest rates, debt and debt increases.
- Express limitation on District exercise of eminent domain powers.
- A recognition that the approved Service Plan and Finance Plan are general in nature, and that any material modification of it will require Town Board approval.
- Affirmation of the \$2,500 per-dwelling improvement fee authorized in the Service Plan.
- Affirmation that the Districts may undertake covenant enforcement as defined in the Service Plan.

Financial Impact: None

Relationship to Strategic Plan: Managed Growth

Recommendation: Adopt the attached Resolution Approving An Intergovernmental Agreement Between The Town Of Windsor And The RainDance Metropolitan District Nos.1-4

Attachments: IGA and Resolution Approving An Intergovernmental Agreement Between The Town Of Windsor And The RainDance Metropolitan District Nos.1-4

**INTERGOVERNMENTAL AGREEMENT BETWEEN
THE TOWN OF WINDSOR, COLORADO
AND THE
RAINDANCE METROPOLITAN DISTRICT NOS. 1-4**

THIS AGREEMENT is made and entered into as of this 19 day of August, 2014, by and between the TOWN OF WINDSOR, a home rule municipal corporation of the State of Colorado (the "Town") and the RAINDANCE METROPOLITAN DISTRICT NOS. 1-4, each a quasi-municipal corporation and political subdivision of the State of Colorado (the "Districts"). The Town and the Districts are individually referred to as a "Party" and collectively referred to as the "Parties."

WITNESSETH:

WHEREAS, C.R.S. § 29-1-203 authorizes the Parties to cooperate and contract with one another regarding functions, services and facilities each is authorized to provide; and

WHEREAS, the Districts were organized to provide those services and to exercise powers as are more specifically set forth in the Districts' Service Plan approved by the Town on March 24, 2014 (the "Service Plan"); and

WHEREAS, the Service Plan makes reference to the execution of an intergovernmental agreement between the Town and the Districts; and

WHEREAS, the Parties have determined that any capitalized term not specifically defined in this Agreement shall have that meaning as set forth in the Service Plan; and

WHEREAS, the Parties have determined it to be in the best interests of their respective taxpayers, residents and property owners to enter into this Intergovernmental Agreement (the "Agreement").

NOW, THEREFORE, in consideration of the covenants and mutual agreements herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. Operations and Maintenance Limitation. The purpose of the Districts is to plan for, design, acquire, construct, install, relocate, redevelop and finance the Public Improvements. The Districts shall dedicate the Public Improvements (except for the Farmland Improvements) to the Town or other appropriate jurisdiction or owners association in a manner consistent with the Approved Development Plan and applicable provisions of the Town Code. To the extent the Public Improvements are not accepted by the Town or other appropriate jurisdiction, the Districts shall be authorized to operate and maintain any part or all of the Public Improvements, provided

that any increase in an operations mill levy beyond the limits set forth herein shall be subject to approval by the Town Board.

2. Development Standards. The Districts will ensure that the Public Improvements are designed and constructed in accordance with the standards and specifications of the Town and of other governmental entities having proper jurisdiction, as applicable. The Districts directly or indirectly through the developer of the Project will obtain the Town's approval of civil engineering plans and will obtain applicable permits for construction and installation of Public Improvements prior to performing such work. Unless waived by the Town, the Districts shall be required, in accordance with the Town Code, to post a surety bond, letter of credit, or other approved development security for any Public Improvements to be constructed by the Districts in connection with a particular phase. Such development security shall be released when the Districts (or the applicable District furnishing the security) have obtained funds, through bond issuance or otherwise, adequate to insure the construction of the applicable Public Improvements, or when the improvements have been completed and finally accepted. Any limitation or requirement concerning the time within which the Town must review a District proposal or application for an Approved Development Plan or other land use approval is hereby waived by the Districts.

3. Privately Placed Debt Limitation. Prior to the issuance of any privately placed Debt, the Districts shall obtain the certification of an External Financial Advisor substantially as follows:

We are [I am] an External Financial Advisor within the meaning of the District's Service Plan.

We [I] certify that (1) the net effective interest rate (calculated as defined in Section 32-1-103(12), C.R.S.) to be borne by the District for the [insert the designation of the Debt] does not exceed a reasonable current [tax-exempt] [taxable] interest rate, using criteria deemed appropriate by us [me] and based upon our [my] analysis of comparable high yield securities; and (2) the structure of [insert designation of the Debt], including maturities and early redemption provisions, is reasonable considering the financial circumstances of the District.

4. Inclusion and Exclusion Limitation. Unless otherwise provided for herein, the Districts shall not include within their respective boundaries, any property outside of the Service Area without the prior written consent of the Town Board. The property described in the Inclusion Area Boundaries may not be included in the boundaries of the Districts until such property has been annexed into the Town, and such inclusion shall be further subject to the other requirements set forth below for adjustments of boundaries of the Districts. The boundaries of the Districts may be adjusted within the boundaries of the Service Area by inclusion or exclusion provided that the following materials are furnished to the Town Planning Department: a) written notice of any proposed inclusion or exclusion is provided at the time of publication of notice of the public hearing thereon; b) an engineer's or surveyor's certificate is provided establishing that the resulting boundary adjustment will not result in legal boundaries for any District extending

outside of the Service Area; and c) to the extent the resulting boundary adjustment causes the boundaries of the Districts to overlap, that any consent to such overlap required by Section 32-1-107, C.R.S. is furnished, or, alternatively, a written statement from the overlapping Districts attorney(s) that no such consent to overlap is required. Otherwise, inclusions or exclusions shall require the prior approval of the Town Board by written agreement with the Districts whose boundaries are affected and, if approved, shall not constitute a material modification of this Service Plan.

5. Initial Debt Limitation. Prior to the effective date of approval of an Approved Development Plan relating to development within the Service Area, the Districts shall not issue any Debt.

6. Maximum Debt Authorization. The Districts shall not issue Debt in excess of \$93 million dollars. To the extent the Districts seeks to modify the Maximum Debt Authorization, it shall obtain the prior approval of the Town Board. Increases which do not exceed 25% of the amount set forth above, and which are approved by the Town Board in a written agreement, shall not constitute a material modification of this Service Plan.

7. Monies from Other Governmental Sources. The Districts shall not apply for or accept Conservation Trust Funds, Great Outdoors Colorado Funds, or other funds available from or through governmental or non-profit entities for which the Town is eligible to apply for, except pursuant to an intergovernmental agreement with the Town. This Section shall not apply to specific ownership taxes which shall be distributed to and a revenue source for the Districts without any limitation.

8. Consolidation Limitation. The Districts shall not file a request with any Court to consolidate with another Title 32 district without the prior written consent of the Town.

9. Eminent Domain Limitation. The Districts shall not exercise their statutory power of eminent domain, except as may be necessary to construct, install, access, relocate or redevelop the Public Improvements identified in the Preliminary Infrastructure Plan. Any use of eminent domain shall be undertaken strictly in compliance with State law and shall be subject to prior consent of the Town Board.

10. Service Plan Amendment Requirement. This Service Plan is general in nature and does not include specific detail in some instances because development plans have not been finalized. The Service Plan has been designed with sufficient flexibility to enable the Districts to provide required services and facilities under evolving circumstances without the need for numerous amendments. Modification of the general types of services and facilities making up the Public Improvements, and changes in proposed configurations, locations or dimensions of the Public Improvements shall be permitted to accommodate development needs consistent with the then-current Approved Development Plan(s) for the Project. The Districts shall be independent units of local government, separate and distinct from the Town, and their activities are subject to review by the Town only insofar as they may deviate in a material manner from the requirements of the Service Plan. Any action of the Districts which: (1) violates the limitations set forth in Sections V.A. above or (2) violates the limitations set forth in Section VI. below, shall be deemed to be a material modification to this Service Plan unless otherwise agreed by the Town

as provided for in Section X of this Service Plan or unless otherwise expressly provided herein. Unless otherwise expressly provided herein, any other departure from the provisions of this Service Plan shall be considered on a case-by-case basis as to whether such departure is a material modification. Any determination by the Town that a departure is not a material modification shall be conclusive and final and shall bind all residents, property owners and others affected by such departure.

To the extent permitted by law, the Districts may seek formal approval from the Town Board of modifications to this Service Plan which are not material, but for which the Districts may desire a written amendment and approval by the Town Board. Such approval may be evidenced by any instrument executed by the Town Manager, Town Attorney, or other specially designated representative of the Town Board as to the matters set forth therein and shall be conclusive and final.

11. Capital Improvement Fee Limitation. The Districts may impose and collect a one-time capital improvement fee as a source of revenue for repayment of debt and/or capital costs, but not in excess of \$2,500 per dwelling unit (the "Capital Improvement Fee"). No Capital Improvement Fee related to repayment of debt shall be authorized to be imposed upon or collected from taxable property owned or occupied by the End User subsequent to the issuance of a Certificate of Occupancy for said taxable property. Notwithstanding any of the foregoing, the restrictions in this definition shall not apply to any Fee imposed or collected from taxable property for the purpose of funding operation and maintenance costs of the Districts.

12. Bankruptcy Limitation. All of the limitations contained in this Service Plan, including, but not limited to, those pertaining to the Maximum Aggregate Mill Levy have been established under the authority of the Town to approve a Service Plan with conditions pursuant to Section 32-1-204.5, C.R.S. It is expressly intended that such limitations:

a. shall not be subject to set-aside for any reason or by any court of competent jurisdiction, absent a Service Plan amendment; and

b. are, together with all other requirements of Colorado law, included in the "political or governmental powers" reserved to the State under the U.S. Bankruptcy Code (11 U.S.C, Section 903) and are also included in the "regulatory or electoral approval necessary under applicable nonbankruptcy law" as required for confirmation of a Chapter 9 Bankruptcy Plan under Bankruptcy Code Section 943(b)(6).

13. Pledge in Excess of Maximum Aggregate Mill Levy – Material Modification. Any Debt issued with a pledge or which results in a pledge that exceeds the Maximum Aggregate Mill Levy shall be deemed a material modification of this Service Plan pursuant to Section 32-1-207, C.R.S., and shall not be an authorized issuance of Debt unless and until such material modification has been approved by the Town as part of a Service Plan Amendment.

14. Covenant Enforcement and Design Review Services Limitation. The Districts shall not impose assessments that might otherwise be authorized to be imposed and collected pursuant to a declaration of covenants, conditions and restrictions. The preceding sentence does not limit the Districts' ability to impose Fees to defray the costs of covenant enforcement and

design review services. The Districts shall be authorized to contract among themselves to assign responsibility for Covenant Enforcement and Design Review Services to the Coordinating District, but any such contract shall be terminable by any District upon reasonable notice to the Coordinating District, and any determinations made by the Coordinating District under such contract shall be appealable to the Board of Directors of the District where the property that is the subject of the determination is located.

15. Overlapping Districts.

None of the Districts shall have boundaries that overlap any other District without adopting a resolution consenting to the overlap as may be required by Section 32-1-107, C.R.S., and in the case of any such overlap, the maximum mill levy that may apply to the property included within such overlap, shall not exceed the Maximum Aggregate Mill Levy.

16. Financial Plan - General.

The Districts shall be authorized to provide for the planning, design, acquisition, construction, installation, relocation and/or redevelopment of the Public Improvements from its revenues and by and through the proceeds of Debt to be issued by the Districts. The Financial Plan for the Districts shall be to: (i) issue no more Debt than the Districts can reasonably pay within thirty (30) years for each series of Debt from revenues derived from the Maximum Debt Mill Levy and other legally available revenues and (ii) satisfy all other financial obligations arising out of the Districts' administrative and operations and maintenance activities. The total Debt that the Districts shall be permitted to issue shall not exceed the Maximum Debt Authorization; provided, however, that Debt issued to refund outstanding Debt of the Districts, including Debt issued to refund Debt owed to the developer of the Project pursuant to a reimbursement agreement or other agreement, shall not count against the Maximum Debt Authorization so long as such refunding Debt does not result in a net present value expense. District Debt shall be permitted to be issued on a schedule and in such year or years as the issuing District determines shall meet the needs of the Financial Plan referenced above and phased to serve the Project as it occurs. All Bonds and other Debt issued by the Districts may be payable from any and all legally available revenues of the Districts, including but not limited to general ad valorem taxes to be imposed upon all taxable property within the Districts, and Capital Improvement Fees. The Districts will also rely upon various other revenue sources authorized by law. These will include the power to assess fees, rates, tolls, penalties, or charges as provided in Section 32-1-1001(1), C.R.S., as amended from time to time. All Debt issued by the Districts must be issued in compliance with the requirements of Section 32-1-1101, C.R.S. and all other requirements of State law.

17. Maximum Voted Interest Rate and Maximum Underwriting Discount.

The interest rate on any Debt is expected to be the market rate at the time the Debt is issued. In the event of a default, the proposed maximum interest rate on any Debt is not permitted to exceed twelve percent (12%). The proposed maximum underwriting discount will be three percent (3%). Debt, when issued, will comply with all relevant requirements of this Service Plan, State law and Federal law as then applicable to the issuance of public securities.

18. Maximum Mill Levies.

The "Maximum Debt Mill Levy" shall be the maximum mill levy a District is permitted to impose upon the taxable property within such District for payment of Debt, and shall be thirty-nine (39) mills. If there are changes in the method of calculating assessed valuation or any constitutionally mandated or statutorily authorized tax credit, cut or abatement; the mill levy limitation applicable to such Debt may be increased or decreased to reflect such changes, such increases or decreases to be determined by the Board in good faith (such determination to be binding and final) so that to the extent possible, the actual tax revenues generated by the mill levy, as adjusted for changes occurring after January 1, 2014, are neither diminished nor enhanced as a result of such changes. For purposes of the foregoing, a change in the ratio of actual valuation to assessed valuation shall be deemed to be a change in the method of calculating assessed valuation.

The "Maximum Operations and Maintenance Mill Levy" shall be the maximum mill levy the Districts are permitted to impose upon the taxable property within the Districts for payment of administration, operations, maintenance, and capital improvements costs, and shall be thirty-nine (39) mills. If there are changes in the method of calculating assessed valuation or any constitutionally mandated or statutorily authorized tax credit, cut or abatement; the mill levy limitation applicable to such Debt may be increased or decreased to reflect such changes, such increases or decreases to be determined by the Board in good faith (such determination to be binding and final) so that to the extent possible, the actual tax revenues generated by the mill levy, as adjusted for changes occurring after January 1, 2014, are neither diminished nor enhanced as a result of such changes. For purposes of the foregoing, a change in the ratio of actual valuation to assessed valuation shall be deemed to be a change in the method of calculating assessed valuation.

The Maximum Aggregate Mill Levy shall be the maximum mill levy the District is permitted to impose upon the taxable property within the District for payment of Debt, capital improvements costs, and administration, operations, and maintenance costs, and shall be thirty-nine (39) mills. However, if, on or after January 1, 2014, there are changes in the method of calculating assessed valuation or any constitutionally mandated tax credit, cut or abatement, the preceding mill levy limitations may be increased or decreased to reflect such changes, with such increases or decreases to be determined by the Board in good faith (such determination to be binding and final) so that to the extent possible, the actual tax revenues generated by the mill levy, as adjusted for changes occurring after January 1, 2014, are neither diminished nor enhanced as a result of such changes. For purposes of the foregoing, a change in the ratio of actual valuation to assessed valuation shall be deemed to be a change in the method of calculating assessed valuation. By way of example, if a District has imposed a Debt mill levy of 30 mills, the maximum operations and maintenance mill levy that it can simultaneously impose is 9 mills.

19. Maximum Debt Term.

The scheduled final maturity of any Debt or series of Debt shall be limited to thirty (30) years, including refundings thereof, unless a majority of the Board of the issuing District are residents of the District and have voted in favor of a refunding of a part or all of the Debt and such refunding will result in a net present value savings as set forth in Section 11-56-101 *et seq.*, C.R.S.

The Districts shall not issue new Debt after May 6, 2034. With the express consent of the Town Board, the issuing District may depart from the Financial Plan by issuing Debt after the twenty-year period in order to provide the services outlined in this Service Plan if development phasing is of a duration that makes it impracticable to issue all Debt within such period.

20. Subdistricts.

The Districts may organize subdistricts or areas as authorized by Section 32-1-1101(1)(f), C.R.S., provided, however, that without the approval of the Town, any such subdistrict(s) or area(s) shall be subject to all limitations on debt and other provisions of this Service Plan. Neither the Maximum Debt Mill Levy, the Maximum Operations and Maintenance Mill Levy, nor any Debt limit shall be increased as a result of creation of a subdistrict. In accordance with Section 32-1-1101(1)(f)(I), C.R.S., the Districts shall notify the Town prior to establishing any such subdistrict(s) or area(s), and shall provide the Town with details regarding the purpose, location, and relationship of the subdistrict(s) or area(s). The Town Board may elect to treat the organization of any such subdistrict(s) or area(s) as a material modification of this Service Plan.

21. Special Improvement Districts.

The Districts are not authorized to establish a special improvement district without the prior approval of the Town Board.

22. Notices.

All notices, demands, requests or other communications to be sent by one party to the other hereunder or required by law, including the Annual Report, shall be in writing and shall be deemed to have been validly given or served by delivery of same in person to the address or by courier delivery, via Federal Express or other nationally recognized overnight air courier service, or by depositing same in the United States mail, postage prepaid, addressed as follows:

To the Districts:

RainDance Metropolitan District Nos. 1-4
Attn: Don Larrick
1625 Pelican Lakes Pointe, Suite 201
Windsor, CO 80550
Phone: _____
Email: _____

With a copy to:

White, Bear & Ankele Professional Corporation
Attn: William P. Ankele Jr.
2154 E. Commons Ave, Suite 2000
Centennial, CO 80122
Phone:(303)858-1800
Email: wpankele@wbapc.com

To the Town:

Town of Windsor
301 Walnut Street
Windsor, Colorado 80550
Attn: Town Manager
cc: Town Attorney
Phone: (970) 674-2400

All notices, demands, requests or other communications shall be effective upon such personal delivery or one (1) business day after being deposited with Federal Express or other nationally recognized overnight air courier service or three (3) business days after deposit in the United States mail. By giving the other party hereto at least ten (10) days written notice thereof in accordance with the provisions hereof, each of the Parties shall have the right from time to time to change its address.

23. Miscellaneous.

a) Effective Date. This Agreement shall be in full force and effect and be legally binding upon final approval of the governing bodies of the Parties. No Debt shall be issued by the Districts until after the effective date of this Agreement.

b) Nonassignability. No party to this Agreement may assign any interest therein to any person without the consent of the other party hereto at that time, and the terms of this Agreement shall inure to the benefit of and be binding upon the respective representatives and successors of each party hereto

c) Amendments. This Agreement may be amended from time to time by written amendment, duly authorized and signed by representatives of the parties hereto.

d) Severability. If any section, subsection, paragraph, clause, phrase, or other provision of this Agreement shall for any reason be held to be invalid or unenforceable, the invalidity or unenforceability of such section, subsection, paragraph, clause, phase, or other provision shall not affect any of the remaining provisions of this Agreement.

e) Execution of Documents. This Agreement shall be executed in two (2) counterparts, either of which shall be regarded for all purposes as one original. Each party agrees that it will execute any and all deeds, instruments, documents, and resolutions or ordinances necessary to give effect to the terms of this Agreement.

f) Waiver. No waiver by either party of any term or condition of this Agreement shall be deemed or construed as a waiver of any other term or condition, nor shall a waiver of any breach be deemed to constitute a waiver of any subsequent breach, whether of the same or of a different provision of this Agreement.

g) Default/Remedies. In the event of a breach or default of this Agreement by any party, the non-defaulting party shall be entitled to exercise all remedies available at law or in equity, specifically including suits for specific performance and/or monetary damages.

h) Governing Law and Venue. This Agreement shall be governed and construed under the laws of the State of Colorado. Venue for all actions brought hereunder shall be in District Court in and for Weld County.

i) Inurement. Each of the terms, covenants and conditions hereof shall be binding upon and inure to the benefit of the Parties hereto and their respective successors and assigns.

j) Paragraph Headings. Paragraph headings are inserted for convenience of reference only.

k) No Third Party Beneficiaries. No person or entity who or which is not a party to this Agreement will have any right of action under this Agreement.

l) Entirety. This Agreement merges and supersedes all prior negotiations, representations, and agreements between the parties hereto relating to the subject matter hereof and constitutes the entire Agreement between the Parties concerning the subject matter hereof; provided, however, that this Agreement does not modify, affect, or limit the Town's or any other person's right of action to enforce the provisions of the Service Plan separately from this Agreement.

IN WITNESS WHEREOF, this Agreement is executed by the Town and the Districts as of the date first above written.

Signature page to follow

TOWN OF WINDSOR, COLORADO

By: _____
Mayor

ATTEST:

Town Clerk

APPROVED AS TO FORM:

Town Attorney

**RAINDANCE METROPOLITAN DISTRICT
NOS. 1-4, a quasi-municipal corporation and
political subdivision of the State of Colorado**

By: _____
President

ATTEST:


Secretary

TOWN OF WINDSOR

RESOLUTION NO. 2014-55

A RESOLUTION APPROVING AN INTERGOVERNMENTAL AGREEMENT BETWEEN THE TOWN OF WINDSOR AND THE RAINDANCE METROPOLITAN DISTRICT NOS.1-4

WHEREAS, the Town of Windsor (“Town”) is a Colorado home rule municipality with all powers and authority provided by Colorado law; and

WHEREAS, the Town has given its approval to the creation of the RainDance Metropolitan District Nos. 1-4 (“District”), and the District has been duly created as provided by law; and

WHEREAS, the District’s Consolidated Service Plan (“Service Plan”) contains a requirement that certain understandings be reduced to writing and adopted by the governing bodies of both the Town and the District; and

WHEREAS, the attached Intergovernmental Agreement Between the Town of Windsor, Colorado, and the RainDance Metropolitan District Nos. 1-4, incorporated herein by this reference as if set forth fully (“IGA”), contains all agreed terms between the parties as intended by the Service Plan; and

WHEREAS, the Town Board has familiarized itself with the terms of the IGA, and has concluded that the IGA promotes the public health, safety and welfare; and

WHEREAS, pursuant to § 29-20-101, *et. seq.*, local governments are authorized and encouraged to cooperate with other units of government for the purposes of planning or regulating the development of land including, but not limited to, the joint exercise of planning, zoning, subdivision, building, and related regulations; and

WHEREAS, the Town Board wishes to approve the IGA and authorize the Mayor to execute it on the Town’s behalf.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN BOARD OF THE TOWN OF WINDSOR, COLORADO, AS FOLLOWS:

1. The attached Intergovernmental Agreement Between the Town of Windsor, Colorado and the RainDance Metropolitan District Nos. 1-4 is hereby approved.
2. The Mayor is hereby authorized to execute the said Agreement.
3. The Town Attorney is authorized to make such amendments and modifications to the form of the said Agreement in keeping with the findings set forth above.

Upon motion duly made, seconded and carried, the foregoing Resolution was adopted this 22nd day of September, 2014.

TOWN OF WINDSOR, COLORADO

By: _____
John S. Vazquez, Mayor

ATTEST:

Patti Garcia, Town Clerk



MEMORANDUM

Date: September 22, 2014
To: Mayor and Town Board
Via: Kelly Arnold, Town Manager
From: Joseph P. Plummer, AICP, Director of Planning
Josh Olhava, Associate Planner
Subject: Resolution No. 2014-56 – A Resolution Making Certain Findings of Fact Concerning the Harmony Ridge Annexation to the Town of Windsor, Colorado, Determining Substantial Compliance with Section 31-12-101, C.R.S. "The Municipal Annexation Act of 1965"; and Establishing Dates for Public Hearings before the Planning Commission and the Town Board of the Town of Windsor, Colorado with Regard to the Harmony Ridge Annexation
Location: North of Harmony Road (WCR 74) & South of WCR 76, between County Line Road (WCR 13) & west of WCR 15; adjacent to Windsor North Annexation & Alexander Estates Subdivision
Item #: C.1

Background:

The applicant, The Landhuis Company, doing business as HR Exchange, LLC, represented by Mr. Jeff Mark of the Landhuis Company, is requesting to annex approximately 181.2 acres to the Town of Windsor. The property as a whole is being zoned Residential Mixed Use (RMU). There are small areas of land being annexed as part of right-of-way adjacent to surrounding properties that reflect adjacent zoning and land use depictions from the Town of Windsor Zoning and Land Use Maps, such as General Commercial (GC) and Low-Density Estate Residential (E-1).

On November 25, 2013, the Town Board approved Resolution No. 2013-68, Initiating the Annexation Proceedings for the Harmony Ridge Annexation.

Conformance with Comprehensive Plan: The proposed use is consistent with the Annexation Goals and Policies of the Comprehensive Plan:

Goal: Ensure the logical extension of the Town boundaries so that Windsor may expand in a directed, logical and fiscally responsible manner.

Conformance with Vision 2025: The proposed application is consistent with the "Growth and Land Use Management" elements of the Vision 2025 document.

Recommendation: Staff recommends approval of Resolution No. 2014-56 as presented

Notification: None required for this Resolution

Enclosures: Resolution No. 2014-56
Annexation Petition
Annexation Plat

pc: HR Exchange LLC/Jeff Mark, The Landhuis Company, applicant

TOWN OF WINDSOR

RESOLUTION NO. 2014 -56

A RESOLUTION MAKING CERTAIN FINDINGS OF FACT CONCERNING THE HARMONY RIDGE ANNEXATION TO THE TOWN OF WINDSOR, COLORADO; DETERMINING SUBSTANTIAL COMPLIANCE WITH SECTION 31-12-101, *ET SEQ.*, C.R.S., "THE MUNICIPAL ANNEXATION ACT OF 1965"; AND ESTABLISHING DATES FOR PUBLIC HEARINGS BEFORE THE PLANNING COMMISSION AND THE TOWN BOARD OF THE TOWN OF WINDSOR, COLORADO, WITH REGARD TO THE HARMONY RIDGE ANNEXATION

WHEREAS, the Town Clerk has received an Annexation Petition dated October 17, 2013, a copy of which is attached hereto and incorporated herein by this reference as if set forth fully, seeking annexation of certain real property described therein and proposed as the "Harmony Ridge Annexation"; and

WHEREAS, pursuant to The Municipal Annexation Act of 1965, the Town Board is required to determine whether or not the aforementioned Annexation Petition is in substantial compliance with the requirements of said Act; and

WHEREAS, upon such determination, the Town Board is required to set public hearing dates in accordance with the requirements of said Act; and

NOW, THEREFORE, IT IS FOUND AND RESOLVED BY THE TOWN BOARD OF THE TOWN OF WINDSOR, COLORADO, AS FOLLOWS:

1. That pursuant to Section 31-12-107, C.R.S., an Annexation Petition has been filed with the Town Clerk for the annexation of certain real property known as the "Harmony Ridge Annexation", more fully and particularly described within said Annexation Petition.
2. That the Town Board finds that the aforesaid Annexation Petition is in substantial compliance with Section 31-12-107(1), C.R.S.
3. That in accordance with the Town Board's determination, public hearings shall be held before the Planning Commission and the Town Board to determine if the proposed annexation complies with Sections 31-12-104 and 105, C.R.S.
4. That a public hearing shall be held before the Planning Commission at 7:00 p.m. on Wednesday, November 5, 2014, at Windsor Town Hall, 301 Walnut Street, Windsor, Colorado.
5. That a public hearing shall be held before the Town Board at 7:00 p.m. on Monday, November 10, 2014, at Windsor Town Hall, 301 Walnut Street, Windsor, Colorado.

6. That the Town Clerk, or her designee, shall give notice of the aforesaid hearings in compliance with the Municipal Annexation Act of 1965.

Upon motion duly made, seconded and carried, the foregoing Resolution was adopted this 22nd day of September, 2014.

TOWN OF WINDSOR, COLORADO

John S. Vazquez, Mayor

ATTEST:

Patti Garcia, Town Clerk

ANNEXATION PETITION

Annexation Parcel 1 and Zoning Area 1 : RMU – Residential Mixed Use

(I, We) the landowner(s) of more than 50% of the territory, excluding public streets and alleys, described as:

A tract of land located in the Southwest Quarter of Section 31, Township 7 North, Range 67 West of the 6th Principal Meridian, County of Weld, State of Colorado being more particularly described as follows: Considering the South line of the Southwest Quarter of said Section 31 as bearing North 88°44'25" East and with all bearings contained herein relative thereto: Commencing at the South Quarter corner of said Section 31; thence, along the East line of the Southwest Quarter of said Section 31, North 00°27'55" East, 30.01 feet to a point on the North right-of-way line of Weld County Road No. 74; thence, along said North right-of-way line, South 88°44'25" West, 931.19 feet to the POINT OF BEGINNING; thence, continuing along said North right-of-way line, South 88°44'25" West, 1160.54 feet to a point on the West line of Lot A, Recorded Exemption No. 0705-31-3-RE 612 on file at the Office of the Clerk and Recorder of Weld County; thence, along said West line and along the North and East lines of said Lot A by the following four (4) courses and distances, North 01°15'33" West, 169.71 feet; thence, North 21°45'27" East, 250.06 feet; thence, North 88°44'27" East, 1062.77 feet; thence, South 01°15'33" East, 399.85 feet to the Point of Beginning.

containing 10.395 acres more or less, allege the following to be true and correct:

The perimeter of the proposed annexation has a distance of 3,043 feet, of which 3,043 feet are contiguous to the existing TOWN limits of the TOWN OF WINDSOR. A minimum of 1/6 of the perimeter of the proposed annexation is contiguous to the TOWN OF WINDSOR.

Annexation Parcel 2

(I, We) the landowner(s) of more than 50% of the territory, excluding public streets and alleys, described as:

A tract of land being Weld County Right-of-Way located in the Northwest Quarter of Section 31 and the Southwest Quarter of Section 30, Township 7 North, Range 67 West of the 6th Principal Meridian, County of Weld, State of Colorado being more particularly described as follows: Considering the North line of the Northwest Quarter of said Section 31 as bearing North 86°01'18" East and with all bearings contained herein relative thereto: Commencing at the Northwest corner of said Section 31; thence, along the North line of the Northwest Quarter of said Section 31, North 86°01'18" East, 30.12 feet to a point on the East right-of-way line of Weld County Road No. 13, said point being the POINT OF BEGINNING; thence, along said East right-of-way line, North 00°16'31" West, 30.06 feet to a point on the North right-of-way line of Weld County Road No. 76; thence, along said North right-of-way line, North 86°01'18" East, 2369.86 feet to a point on the East line of the Southwest Quarter of Section 30; thence, along said East line, South 00°27'38" West, 30.09 feet to the North Quarter corner of said Section 31; thence, along the East line of the Northwest Quarter of said Section 31, South 00°27'38" West, 30.09 feet to a point on the South right-of-way line of Weld County Road No. 76; thence, along said South line, South 86°01'18" West, 2369.08 feet to a point on the East right-of-way line of Weld County Road No. 13; thence, North 00°16'31" West, 30.06 feet to the Point of Beginning.

containing 3.263 acres more or less, allege the following to be true and correct:

The perimeter of the proposed annexation has a distance of 4,859 feet, of which 2,429 feet are contiguous to the existing TOWN limits of the TOWN OF WINDSOR. A minimum of 1/6 of the perimeter of the proposed annexation is contiguous to the TOWN OF WINDSOR.

Annexation Parcel 3:

(I, We) the landowner(s) of more than 50% of the territory, excluding public streets and alleys, described as:

A tract of land located in the East Half of Section 31 and the West Half of Section 32, Township 7 North, Range 67 West of the 6th P.M., County of Weld, State of Colorado, and being more particularly described as follows: Considering the South line of the Southeast Quarter of said Section 31 as bearing South 88°44'24" West and with all bearings contained herein relative thereto: Commencing at the South Quarter corner of said Section 31; thence, along the North/South Centerline of said Section 31, North 00°27'55" East, 30.01 feet to the POINT OF BEGINNING; thence, continuing along said North/South Centerline, North 00°27'55" East, 2,668.54 feet to the Center Quarter Corner of said Section 31; thence, along the East/West Centerline of said Section 31, North 87°23'08" East, 1,217.04 feet to the East line of the West Half of the Southeast Quarter of said Section 31; thence along said East line, North 00°04'50" West, 186.62 feet to a point on the Southerly line of Alexander Estates Subdivision; thence along said Southerly line the following six (6) courses and distances: South 82°52'47" East, 137.47 feet; thence, South 79°57'10" East, 257.15 feet; thence, North 71°08'24" East, 105.69 feet; thence, North 55°30'38" East, 241.98 feet; thence, North 71°26'30" East, 209.16 feet; thence, North 53°44'56" East, 99.46 feet; thence, North 42°59'28" East, 309.14 feet; thence, North 89°22'02" East, 60.00 feet to a point on the East right-of-way line of Weld County Road No. 15; thence, along said East right-of-way by the following five (5) courses and distances: South 00°37'58" East, 592.31 feet; thence, South 00°38'14" East, 2411.09 feet; thence North 89°24'09" East, 20.31 feet; thence, South 00°35'51" East, 83.32 feet; thence, South 12°27'51" East, 165.26 feet to a point on the North right-of-way line of Weld County Road No. 74; thence, along said North right-of-way line the following seven (7) courses and distances, North 89°03'42" West, 54.14 feet; thence South 88°44'24" West, 167.64 feet; thence, South 83°55'32" West, 483.65 feet; thence, South 85°59'28" West, 258.73 feet; thence, South 88°44'24" West, 150.94 feet; South 20°05'03" East, 17.96 feet; thence, South 88°44'24" West, 1460.62 feet to the Point of Beginning.

containing 160.834 acres more or less, allege the following to be true and correct:

The perimeter of the proposed annexation has a distance of 11,358 feet, of which 6,622 feet are contiguous to the existing TOWN limits of the TOWN OF WINDSOR. A minimum of 1/6 of the perimeter of the proposed annexation is contiguous to the TOWN OF WINDSOR.

We further allege:

1. It is desirable and necessary that said territory be annexed to the TOWN OF WINDSOR.
2. A community of interest exists between the said territory and the TOWN OF WINDSOR.
3. Said territory is urban or will be urbanized in the near future.
4. Said territory is integrated or capable of being integrated with the TOWN OF WINDSOR.
5. No land held in identical ownership is divided into separate parcels unless the owner of said tract has consented in writing or joins in this Petition.
6. No land in identical ownership comprises 20 acres and together with improvements had an assessed valuation in excess of \$200,000 in the year preceding the filing of this Petition.
7. No proceedings for annexation of the territory have been commenced for annexation to another municipality.
8. The singers hereof comprise the landowners of more than 50% of the territory proposed to be annexed exclusive of streets and alleys, and are in fact owners of 100% of the hereinafter described property.

Therefore, the undersigned hereby request that the TOWN OF WINDSOR approve the annexation of the area described above and do herewith pay the required fees.

In addition to the annexation, the undersigned request the zoning of RMU and GC for the above described property.

Date

10/17/13

Owners Signature



Mailing Address

212 N. Wabatch Ave., Suite 301
Colorado Springs, CO 80903

HARMONY RIDGE ANNEXATION

TRACTS OF LAND LOCATED IN THE SOUTHWEST QUARTER OF SECTION 30, SECTION 31 AND THE WEST HALF OF SECTION 32, TOWNSHIP 7 NORTH, RANGE 67 WEST, AND IN THE NORTHWEST QUARTER OF SECTION 5, TOWNSHIP 6 NORTH, RANGE 67 WEST OF THE 6th P.M., COUNTY OF WELD, STATE OF COLORADO

DESCRIPTION

ANNEXATION PARCEL 1 AND ZONING AREA 1: RMU

A tract of land located in the Southwest Quarter of Section 31, Township 7 North, Range 67 West of the 6th Principal Meridian, County of Weld, State of Colorado being more particularly described as follows:

Considering the South line of the Southwest Quarter of said Section 31 as bearing North 88°44'25" East and with all bearings contained herein relative thereto:

Commencing at the South Quarter corner of said Section 31; thence, along the East line of the Southwest Quarter of said Section 31, North 00°27'55" East, 30.01 feet to a point on the North right-of-way line of Weld County Road No. 74; thence, along said North right-of-way line, South 88°44'25" West, 931.19 feet to the **POINT OF BEGINNING**; thence, continuing along said North right-of-way line, South 88°44'25" West, 1160.54 feet to a point on the West line of Lot A, Recorded Exemption No. 0705-31-3-RE 612 on File at the Office of the Clerk and Recorder of Weld County; thence, along said West line and along the North and East lines of said Lot A by the following four (4) courses and distances, North 01°15'33" West, 169.71 feet; thence, North 21°45'27" East, 250.06 feet; thence, North 88°44'27" East, 1062.77 feet; thence, South 01°15'33" East, 399.85 feet to the Point of Beginning.

The above described tract of land contains 452,802 square feet or 10.395 acres more or less and is subject to all easements and rights-of-way now on record or existing.

Total perimeter of area to be annexed = 3,043 feet
One-sixth of total perimeter = 507 feet
Perimeter adjacent to existing town limits = 3,043 feet

ANNEXATION PARCEL 2 AND ZONING AREA 2: RMU

A tract of land being Weld County Right-of-Way located in the Northwest Quarter of Section 31 and the Southwest Quarter of Section 30, Township 7 North, Range 67 West of the 6th Principal Meridian, County of Weld, State of Colorado being more particularly described as follows:

Considering the North line of the Northwest Quarter of said Section 31 as bearing North 86°01'18" East and with all bearings contained herein relative thereto:

Commencing at the Northwest corner of said Section 31; thence, along the North line of the Northwest Quarter of said Section 31, North 86°01'18" East, 30.12 feet to a point on the East right-of-way line of Weld County Road No. 13, said point being the **POINT OF BEGINNING**; thence, along said East right-of-way line, North 00°16'31" West, 30.06 feet to a point on the North right-of-way line of Weld County Road No. 76; thence, along said North right-of-way line, North 86°01'18" East, 2369.86 feet to a point on the East line of the Southwest Quarter of Section 30; thence, along said East line, South 00°27'38" West, 30.09 feet to the North Quarter corner of said Section 31; thence, along the East line of the Southwest Quarter of said Section 31, South 00°27'38" West, 30.09 feet to a point on the South right-of-way line of Weld County Road No. 76; thence, along said South line, South 86°01'18" West, 2369.08 feet to a point on the East right-of-way line of Weld County Road No. 13; thence, North 00°16'31" West, 30.06 feet to the Point of Beginning.

The above described tract of land contains 142,168 square feet or 3.263 acres more or less and is subject to all easements and rights-of-way now on record or existing.

Total perimeter of area to be annexed = 4,859 feet
One-sixth of total perimeter = 810 feet
Perimeter adjacent to existing town limits = 2,429 feet

ANNEXATION PARCEL 3

A tract of land located in the East Half of Section 31 and the West Half of Section 32, Township 7 North, Range 67 West, and in the Northwest Quarter of Section 5, Township 6 North, Range 67 West of the 6th P.M., County of Weld, State of Colorado, and being more particularly described as follows:

Considering the South line of the Southeast Quarter of said Section 31 as bearing South 88°44'24" West and with all bearings contained herein relative thereto:

Commencing at the South Quarter corner of said Section 31; thence, along the North/South Centerline of said Section 31, North 00°27'55" East, 30.01 feet to the **POINT OF BEGINNING**; thence, continuing along said North/South Centerline, North 00°27'55" East, 2,668.68 feet to the Center Quarter Corner of said Section 31; thence, North 00°33'14" East, 120.64 feet to a point on the Southerly line of Alexander Estates Subdivision; thence along said Southerly line the following fourteen (14) courses and distances: South 79°01'12" East, 253.35 feet; thence, North 89°21'36" East, 150.94 feet; thence, North 69°53'38" East, 158.38 feet; thence, North 86°58'51" East, 160.29 feet; thence, North 76°14'54" East, 97.59 feet; thence, North 67°09'54" East, 157.66 feet; thence, North 85°31'34" East, 266.63 feet; thence, South 82°52'47" East, 137.47 feet; thence, South 79°57'10" East, 257.15 feet; thence, North 71°08'24" East, 105.69 feet; thence, North 55°30'38" East, 241.98 feet; thence, North 71°26'30" East, 209.16 feet; thence, North 53°44'56" East, 99.46 feet; thence, North 42°59'28" East, 309.14 feet to a point on the West right-of-way line of Weld County Road 15; thence along said West line, North 00°37'58" West, 614.67 feet; thence, North 89°43'32" West, 20.00 feet; thence, North 00°37'58" West, 1494.07 feet; thence, departing said West right-of-way line, North 86°01'08" East, 50.09 feet to a point on the East line of Section 31; thence along said East line, South 00°37'58" East, 1327.31 feet; thence, North 89°52'35" East, 30.00 feet to a point on the East right-of-way line of Weld County Road No. 15; thence along said East right-of-way line by the following nine (9) courses and distances: South 00°37'58" East, 1376.71 feet; thence, South 00°38'14" East, 2411.09 feet; thence, North 89°24'09" East, 20.31 feet; thence, South 00°35'51" East, 83.32 feet; thence, South 12°26'06" East, 165.13 feet; thence, South 06°11'38" East, 149.47 feet; thence, South 21°04'39" West, 124.61 feet; thence, South 01°27'21" East, 480.86 feet; thence, South 00°18'45" East, 695.64 feet; thence, South 89°41'15" West, 6.08 feet to a point on the East line of Harmony Third Annexation as described in Ordinance No. 2009-1346; thence along said East line, North 01°27'21" West, 1342.42 feet; thence, North 01°27'07" West, 99.90 feet to a point on the North right-of-way line of Weld County Road No. 74; thence along said North right-of-way line the following six (6) courses and distances: South 88°44'24" West, 166.23 feet; thence, South 83°53'12" West, 483.65 feet; thence, South 85°59'28" West, 258.73 feet; thence, South 88°44'24" West, 150.94 feet; South 20°05'03" East, 17.96 feet; thence, South 88°44'24" West, 1460.65 feet to the Point of Beginning.

The above described tract of land contains 7,297,071 square feet or 167.518 acres, more or less and is subject to all easements and rights-of-way now on record or existing.

Total perimeter of area to be annexed = 18,424 feet
One-sixth of total perimeter = 3,071 feet
Perimeter adjacent to existing town limits = 11,417 feet

ZONING AREA 3: RMU

A tract of land located in the East Half of Section 31 and the West Half of Section 32, Township 7 North, Range 67 West of the 6th P.M., County of Weld, State of Colorado, and being more particularly described as follows:

Considering the South line of the Southeast Quarter of said Section 31 as bearing South 88°44'24" West and with all bearings contained herein relative thereto:

Commencing at the South Quarter corner of said Section 31; thence, along the North/South Centerline of said Section 31, North 00°27'55" East, 30.01 feet to the **POINT OF BEGINNING**; thence, continuing along said North/South Centerline, North 00°27'55" East, 2,668.68 feet to the Center Quarter Corner of said Section 31; thence, North 00°33'14" East, 120.64 feet to a point on the Southerly line of Alexander Estates Subdivision; thence along said Southerly line the following fourteen (14) courses and distances: South 79°01'12" East, 253.35 feet; thence, North 89°21'36" East, 150.94 feet; thence, North 69°53'38" East, 158.38 feet; thence, North 86°58'51" East, 160.29 feet; thence, North 76°14'54" East, 97.59 feet; thence, North 67°09'54" East, 157.66 feet; thence, North 85°31'34" East, 266.63 feet; thence, South 82°52'47" East, 137.47 feet; thence, South 79°57'10" East, 257.15 feet; thence, North 71°08'24" East, 105.69 feet; thence, North 55°30'38" East, 241.98 feet; thence, North 71°26'30" East, 209.16 feet; thence, North 53°44'56" East, 99.46 feet; thence, North 42°59'28" East, 309.14 feet; thence, North 89°22'02" East, 60.00 feet to a point on the East right-of-way line of Weld County Road 15; thence along said East right-of-way line by the following six (6) courses and distances: South 00°37'58" East, 592.31 feet; thence, South 00°38'14" East, 2411.09 feet; thence, North 89°24'09" East, 20.31 feet; thence, South 00°35'51" East, 83.32 feet; thence, South 12°26'06" East, 165.13 feet to a point on the North right-of-way line of Weld County Road No. 74; thence along said North right-of-way line the following seven (7) courses and distances: North 89°21'44" West, 55.40 feet; thence, South 88°44'24" West, 166.23 feet; thence, South 83°53'12" West, 483.65 feet; thence, South 85°59'28" West, 258.73 feet; thence, South 88°44'24" West, 150.94 feet; South 20°05'03" East, 17.96 feet; thence, South 88°44'24" West, 1460.65 feet to the Point of Beginning.

The above described tract of land contains 7,147,375 square feet or 164.081 acres, more or less and is subject to all easements and rights-of-way now on record or existing.

ZONING AREA 4: E-1

A tract of land located in the East Half of Section 31 and the West Half of Section 32, Township 7 North, Range 67 West of the 6th P.M., County of Weld, State of Colorado, and being more particularly described as follows:

Considering the East line of the Northeast Quarter of said Section 31 as bearing South 00°37'58" East and with all bearings contained herein relative thereto:

Commencing at the Northeast Corner of said Section 31; thence along said East line, South 00°37'58" East, 50.09 feet to the **POINT OF BEGINNING**; thence along said East line, South 00°37'58" East, 1327.31 feet; thence, North 89°52'35" East, 30.00 feet to a point on the East right-of-way line of Weld County Road No. 15; thence along said East right-of-way line, South 00°37'58" East, 784.40 feet; thence, South 89°22'02" West, 60.00 feet to the West right-of-way line of Weld County Road 15, said point being the southeast corner of Lot 9, Alexander Estates Subdivision; thence along said West right-of-way line, North 00°37'58" West, 614.67 feet; thence, North 89°43'32" West, 20.00 feet; thence, North 00°37'58" West, 1494.07 feet; thence, departing said West right-of-way line, North 86°01'08" East, 50.09 feet to the Point of Beginning.

The above described tract of land contains 116,776 square feet or 2.681 acres, more or less and is subject to all easements and rights-of-way now on record or existing.

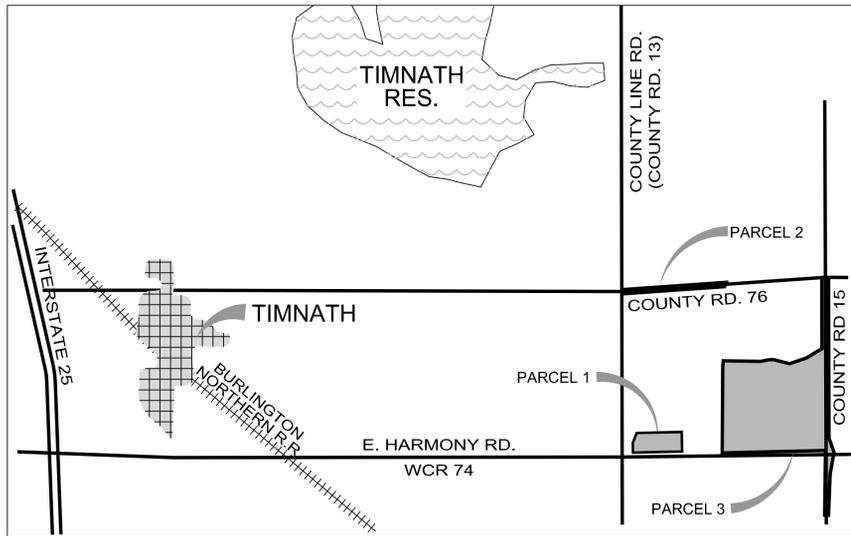
ZONING AREA 5: GC

A tract of land located in the Southwest Quarter of Section 32, Township 7 North, Range 67 West, and the Northwest Quarter of Section 5, Township 6 North, Range 67 West of the 6th P.M., County of Weld, State of Colorado, and being more particularly described as follows:

Considering the West line of the Northwest Quarter of said Section 5 as bearing South 01°27'21" East and with all bearings contained herein relative thereto:

Commencing at the Southwest corner of Section 32, Township 7 North, Range 67 West; thence along the West line of said Section 32, North 00°38'14" East, 100.00 feet to a point on the North right-of-way line of Weld County Road 74; thence along said right-of-way line, North 88°44'24" East, 28.63 feet to the **POINT OF BEGINNING**; thence, South 89°21'44" East, 55.40 feet; thence, South 06°11'38" East, 149.47 feet; thence, South 21°04'39" West, 124.61 feet; thence, South 01°27'21" East, 480.86 feet; thence, South 00°18'45" East, 258.29 feet; thence, South 89°21'02" West, 14.81 feet to a point on the East line of Harmony Third Annexation; thence along said line, North 01°27'21" West, 905.07 feet; thence, North 01°27'07" West, 99.90 feet to the Point of Beginning.

The above described tract of land contains 28,353 square feet or 0.651 acres, more or less and is subject to all easements and rights-of-way now on record or existing.



SURVEYOR
GERALD D. GILLILAND, PLS
NORTHERN ENGINEERING SERVICES, INC.
200 S. COLLEGE AVE., SUITE 10
FORT COLLINS, CO 80524
(970) 221-4158



OWNER
HR EXCHANGE LLC,
LANDHUIS COMPANY
212 N. WAHSATCH AVENUE, SUITE 301
COLORADO SPRINGS, CO 80903
719-635-3200
719-635-3244 FAX

OWNER
ROTH, ALBERT E./HARVEY A.
6911 RODNEY STREET
WINDSOR, CO 80550

ZONING AREA 6: RMU

A tract of land located in the Northwest Quarter of Section 5, Township 6 North, Range 67 West of the 6th P.M., County of Weld, State of Colorado, and being more particularly described as follows:

Considering the West line of the Northwest Quarter of said Section 5 as bearing South 01°27'21" East and with all bearings contained herein relative thereto:

Commencing at the Northwest corner of Section 5, Township 6 North, Range 67 West; thence along the West line of said Section 5, South 01°27'21" East, 904.65 feet; thence departing said line, North 89°21'02" East, 30.05 feet to the **POINT OF BEGINNING**; thence, North 89°21'02" East, 14.81 feet; thence, South 00°18'45" East, 437.35 feet; thence, South 89°41'15" West, 6.08 feet; thence, North 01°27'21" West, 437.35 feet to the Point of Beginning.

The above described tract of land contains 4567 square feet or 0.105 acres, more or less and is subject to all easements and rights-of-way now on record or existing.

ACKNOWLEDGEMENT OF OWNERSHIP INTEREST

Know all men by these presents that the undersigned, being all the owners, lienholders, and holders of any ownership interest as defined by the Town of Windsor, of the land described herein, have caused such land to be annexed and master planned as indicated on this plat under the name of HARMONY RIDGE ANNEXATION. In compliance with Town of Windsor regulations and by contractual agreement the landowners shall bear all expenses involved in improvements.

In witness whereof, we have hereunto set our hands and seals this the ___ day of _____, 20__.

Owner: H.R. Exchange, LLC

NOTARIAL CERTIFICATE (To be used in conjunction with all owner's signatures)

STATE OF _____
COUNTY OF _____
ss.

The foregoing instrument was acknowledged before me by (owner name), this ___ day of _____, 20__.

My commission expires: _____

Notary Public

ACKNOWLEDGEMENT OF OWNERSHIP INTEREST

Know all men by these presents that the undersigned, being all the owners, lienholders, and holders of any ownership interest as defined by the Town of Windsor, of the land described herein, have caused such land to be annexed and master planned as indicated on this plat under the name of HARMONY RIDGE ANNEXATION. In compliance with Town of Windsor regulations and by contractual agreement the landowners shall bear all expenses involved in improvements.

In witness whereof, we have hereunto set our hands and seals this the ___ day of _____, 20__.

Owner: Albert E. Roth

Owner: Harvey A. Roth

NOTARIAL CERTIFICATE (To be used in conjunction with all owner's signatures)

STATE OF _____
COUNTY OF _____
ss.

The foregoing instrument was acknowledged before me by (owner name), this ___ day of _____, 20__.

My commission expires: _____

Notary Public

SURVEYOR'S CERTIFICATION

I certify that this plat accurately represents the results of a survey made by me or under my direct supervision.

Gerald D. Gilliland
L.S. Colorado Reg. No. 14823

NOTICE:

According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years after the date of the certificate shown hereon.

ENGINEERING DEPARTMENT APPROVAL

Approved this ___ day of _____, 20__.

Director of Engineering

PLANNING COMMISSION APPROVAL

Approved this ___ day of _____, 20__.

Chairman,
Windsor Planning Commission

PLANNING DEPARTMENT APPROVAL

Approved this ___ day of _____, 20__.

Director of Planning

MAYOR'S CERTIFICATE

This is to certify that an annexation map of the property described herein was approved by Ordinance No. ___ of the Town of Windsor passed and adopted on the ___ day of _____, 20__, A.D. and that the Mayor of the Town of Windsor, as authorized by said ordinance, on behalf of the Town of Windsor, hereby acknowledges and adopts the said annexation map upon which this certificate is endorsed for all purposes indicated thereon.

ATTEST: _____
Mayor Town Clerk

TOWN MANAGER'S APPROVAL

Approved this ___ day of _____, 20__.

Town Manager

PUBLIC WORKS DEPARTMENT APPROVAL

Approved this ___ day of _____, 20__.

Director of Public Works

NOTICE OF OTHER DOCUMENTS

All persons take notice that certain documents have been executed pertaining to this development, which create certain rights and obligations of the development, the developer and/or subsequent owners of all or portions of the development site, many of which obligations constitute promises and covenants that run with the land. These documents are of record and are on file with the director of planning of the Town of Windsor and should be closely examined by all persons interested in purchasing any portion of the development site.

NOTES

- 1) Bearings are based on the assumption that the South line of the Southeast Quarter of Section 31 bears South 88°44'24" West between monuments shown and described hereon.
- 2) The described land is contiguous to the Town of Windsor and meets the requirements set forth in Colorado Revised Statutes 1973, 31-12-104-(1)(a) that one-sixth or more of the perimeter to be annexed is contiguous with annexing municipality.
- 3) Annexation Parcel 1 description is based on the written description of Windsor North Annexation Map. The drawing on Sheet 5 of Windsor North Annexation is in discrepancy with written description.
- 4) Annexation Parcel 3 description includes a portion of Weld County Road No. 15 Right-of-way lying South of Weld County Road No. 74. This area was shown on Harmony Third Annexation Map to be annexed, but was omitted in Ordinance No. 2009-1346 description.
- 5) Additional right-of-way shown to be dedicated with subdivision plat. No right-of-way will be dedicated with the Harmony Ridge Annexation.

Revisions:	By:	Date:

SECTION: 30, 31 & 32	TOWNSHIP: 7N	RANGE: 67W of the 6th P.M.
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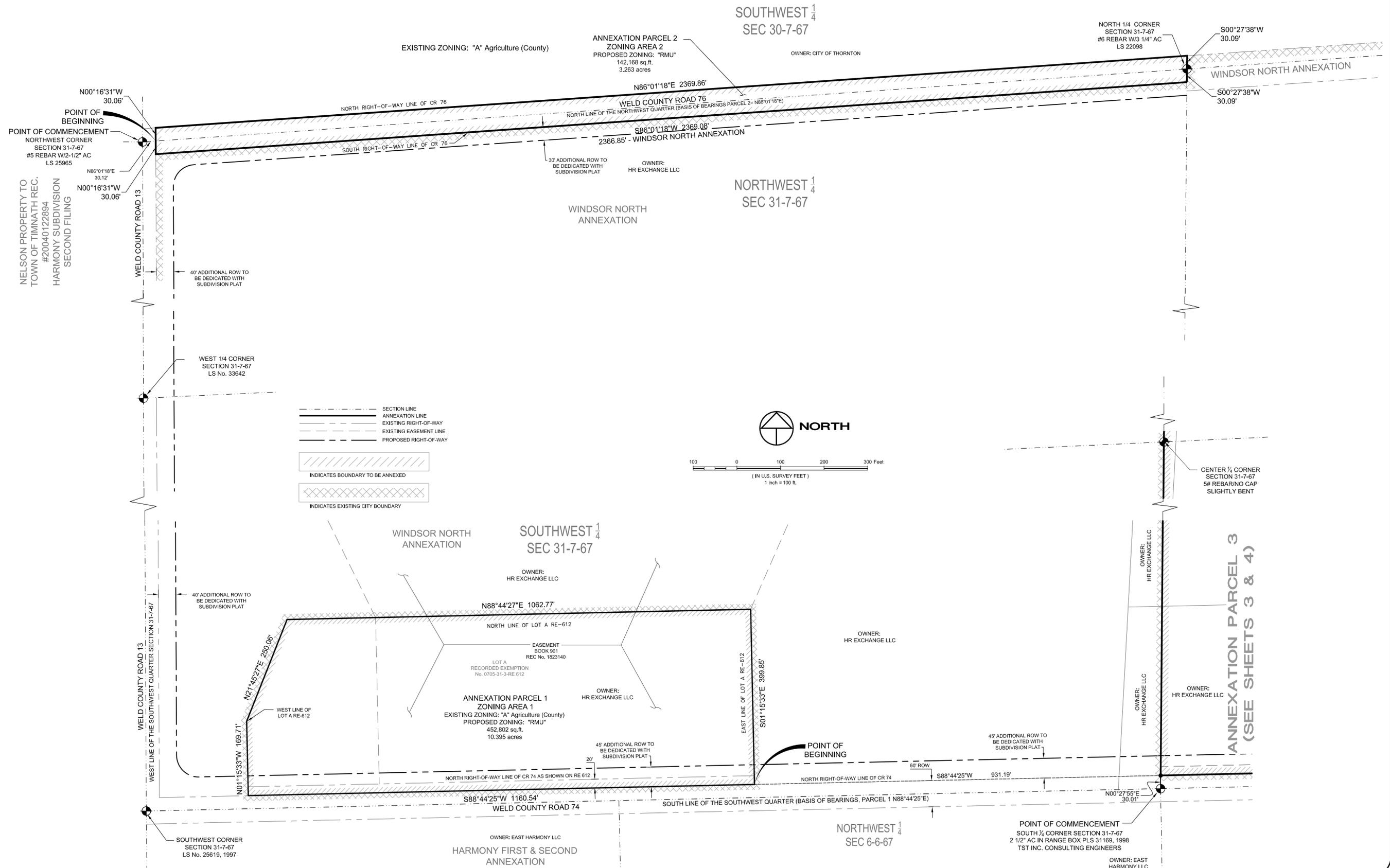
NORTHERN ENGINEERING
301 North Howe Street, Suite 100
Fort Collins, Colorado 80521
PHONE 970.231.4158 FAX 970.231.4159
www.northernengineering.com

PROJECT: 911-001	DATE: 09/27/14	SCALE: N/A	REVIEWED BY: G. Gilliland
CLIENT: Landhuis			
DRAWN BY: M. Kinrade			

HARMONY RIDGE ANNEXATION
LOCATED IN SECTIONS 30, 31 & 32, T7N, R67 W,
& SECTION 5, T6N, R67 W
WELD COUNTY, COLORADO

HARMONY RIDGE ANNEXATION

TRACTS OF LAND LOCATED IN THE SOUTHWEST QUARTER OF SECTION 30, SECTION 31 AND THE WEST HALF OF SECTION 32, TOWNSHIP 7 NORTH, RANGE 67 WEST, AND IN THE NORTHWEST QUARTER OF SECTION 5, TOWNSHIP 6 NORTH, RANGE 67 WEST OF THE 6th P.M., COUNTY OF WELD, STATE OF COLORADO



Date:	
By:	
Revisions:	

SECTION:	30, 31 & 32
TOWNSHIP:	7N
RANGE:	67W of the 6th PM

NORTHERN ENGINEERING

 301 North Hovea Street, Suite 100
 Fort Collins, Colorado 80521
 PHONE: 970.221.4158 FAX: 970.221.4159
 www.northernengineering.com

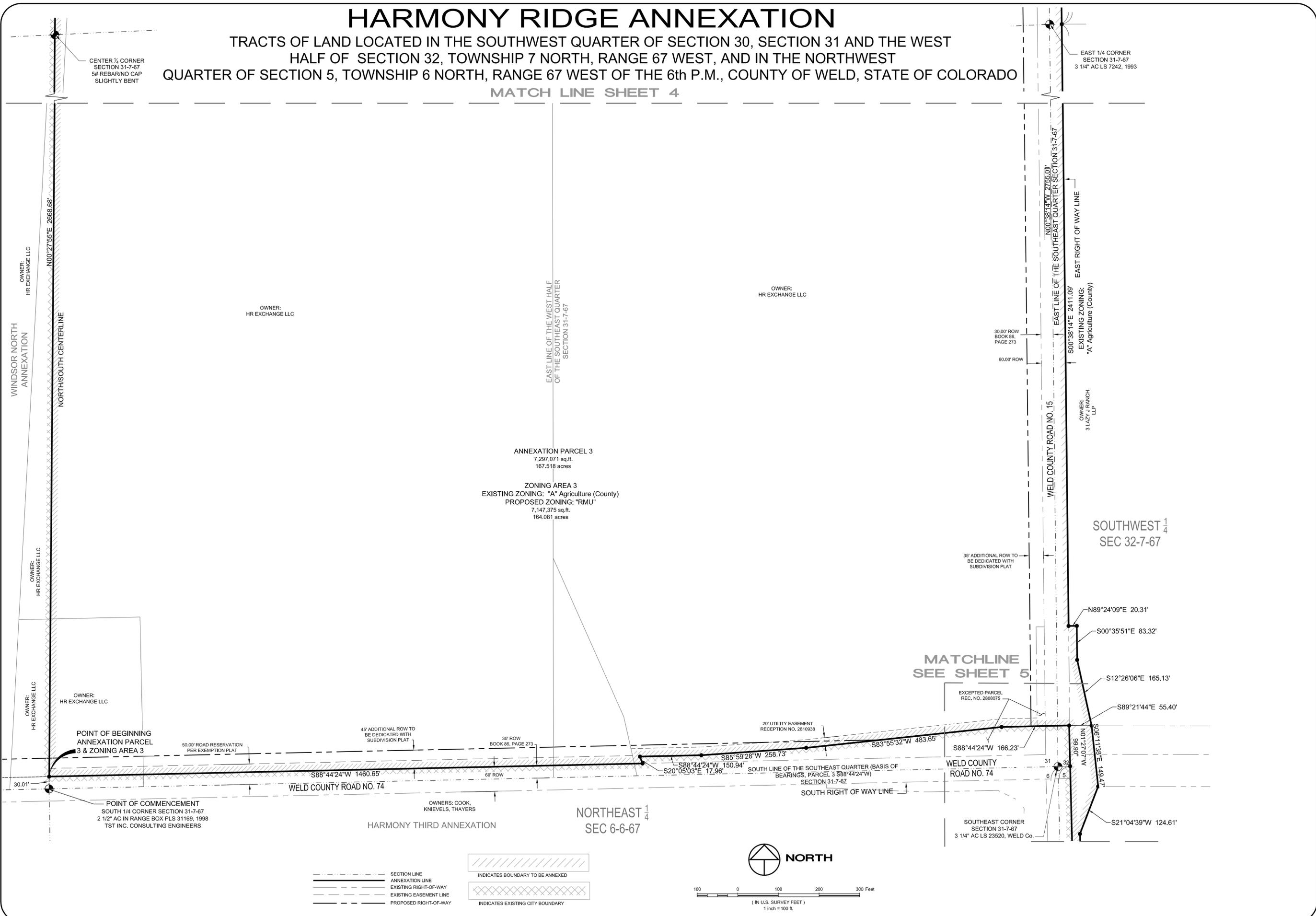
DATE:	09/27/14
SCALE:	1"=100'
PROJECT:	911-001
CLIENT:	Landhuis
DRAWN BY:	M. Kinrade
REVIEWED BY:	C. Gilliland

HARMONY RIDGE ANNEXATION
 LOCATED IN SECTIONS 30, 31 & 32, T7N, R67 W,
 & SECTION 5, T6N, R67 W
 WELD COUNTY, COLORADO

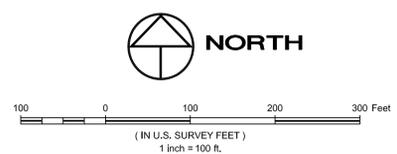
HARMONY RIDGE ANNEXATION

TRACTS OF LAND LOCATED IN THE SOUTHWEST QUARTER OF SECTION 30, SECTION 31 AND THE WEST HALF OF SECTION 32, TOWNSHIP 7 NORTH, RANGE 67 WEST, AND IN THE NORTHWEST QUARTER OF SECTION 5, TOWNSHIP 6 NORTH, RANGE 67 WEST OF THE 6th P.M., COUNTY OF WELD, STATE OF COLORADO

MATCH LINE SHEET 4



	SECTION LINE		INDICATES BOUNDARY TO BE ANNEXED
	ANNEXATION LINE		INDICATES EXISTING CITY BOUNDARY
	EXISTING RIGHT-OF-WAY		
	EXISTING EASEMENT LINE		
	PROPOSED RIGHT-OF-WAY		



Date:	
By:	
Revisions:	

SECTION:	30, 31 & 32
TOWNSHIP:	7N
RANGE:	67W of the 6th PM

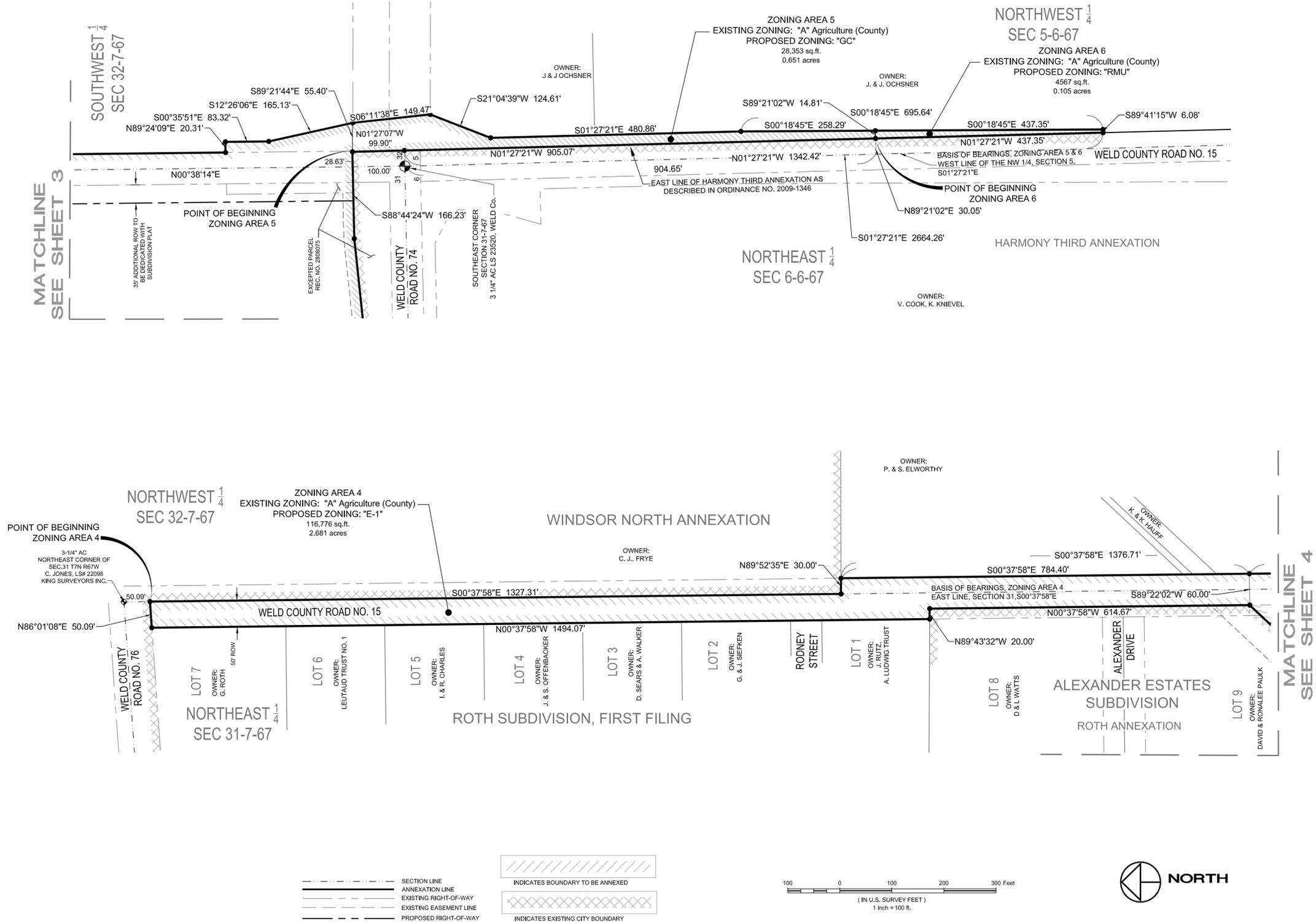
NORTHERN ENGINEERING
 301 North Howe Street, Suite 100
 Fort Collins, Colorado 80521
 PHONE 970.221.4158 FAX 970.221.4159
 www.northernengineering.com

PROJECT:	911-001	DATE:	09/27/14
CLIENT:	Landhuis	SCALE:	1"=100'
DRAWN BY:	M. Kinrade	REVIEWED BY:	C. Gilliland

HARMONY RIDGE ANNEXATION
 LOCATED IN SECTIONS 30, 31 & 32, T7N, R67 W,
 & SECTION 5, T6N, R67 W
 WELD COUNTY, COLORADO

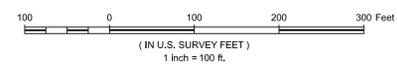
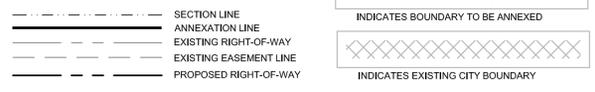
HARMONY RIDGE ANNEXATION

TRACTS OF LAND LOCATED IN THE SOUTHWEST QUARTER OF SECTION 30, SECTION 31 AND THE WEST HALF OF SECTION 32, TOWNSHIP 7 NORTH, RANGE 67 WEST, AND IN THE NORTHWEST QUARTER OF SECTION 5, TOWNSHIP 6 NORTH, RANGE 67 WEST OF THE 6th P.M., COUNTY OF WELD, STATE OF COLORADO



MATCHLINE
SEE SHEET 3

MATCHLINE
SEE SHEET 4



Revisions:	By:	Date:

SECTION: 30, 31 & 32	TOWNSHIP: 7N	RANGE: 67W of the 6th PM
-------------------------	-----------------	-----------------------------

NORTHERN ENGINEERING

 301 North Hovey Street, Suite 100
 Fort Collins, Colorado 80521
 PHONE: 970.221.4158 FAX: 970.221.4159
 www.northernengineering.com

PROJECT: 911-001	DATE: 09/27/14	REVIEWED BY: C. Gilliland
CLIENT: Landhuis	SCALE: 1"=100'	
DRAWN BY: M. Kinde		

HARMONY RIDGE ANNEXATION
 LOCATED IN SECTIONS 30, 31 & 32, T7N, R67 W,
 & SECTION 5, T6N, R67 W
 WELD COUNTY, COLORADO



MEMORANDUM

Date: September 22, 2014
To: Mayor and Town Board
Via: Kelly Arnold, Town Manager
From: Joseph P. Plummer, AICP, Director of Planning
Paul Hornbeck, Associate Planner
Subject: Site Plan Presentation – Great Western Industrial Park, Ninth Filing, Lot 2 - Schlumberger Lift Solutions - Schlumberger Lift Solutions, LLC, applicant / Troy Spraker, Lamp Rynearson & Associates, applicant's representative
Location: 31660 Great Western Drive
Item #s: C.2

Background:

The applicant, Schlumberger Lift Solutions, LLC, represented by Mr. Troy Spraker, Lamp Rynearson & Associates, is proposing to construct a new building in the Heavy Industrial (I-H) zoning district in the Great Western Industrial Park Subdivision, located at 31660 Great Western Drive.

Site characteristics include:

- 17.8 acres in size
- approximately 14,440 square foot metal building;
- approximately 13 acre outdoor storage yard;
- 34 off street parking spaces, including 2 ADA accessible parking spaces; and
- an irrigated landscaped area of approximately 6% of the total site and 23% of the developed portion of the site

The current presentation is intended for the Town Board's information. Should the Town Board have any comments or concerns pertaining to this project, please refer such comments to staff during the presentation so that they may be addressed during staff's review of the project. The site plan will be reviewed and approved administratively by staff, however, if the project review process reveals issues that cannot be resolved between the applicant and staff, the site plan will be brought back to the Planning Commission and Town Board for review.

Conformance with Comprehensive Plan: The application is consistent with the following Commercial goals and policies of the Comprehensive Plan:

Goals:

1. *All commercial and industrial development should provide a safe, aesthetically-appealing and healthy environment which does not have adverse impacts on surrounding areas.*
3. *Windsor should continue to encourage and promote commercial and industrial development, redevelopment and expansions in order to strengthen its tax base, increase revenue sources, and provide high-quality employment opportunities for its residents.*

Policies:

6. *All commercial and industrial site plans should provide landscaping plans for the exterior portions of the buildings, walkways, parking lots, and street frontages;*

develop specific landscaping regulations and requirements to implement this policy.

10. *Encourage employment centers to locate in areas where traffic generation and environmental impacts will have the least impact on adjacent areas, and where connections to existing economic activity can be maximized.*

Conformance with Vision 2025: The proposed application is consistent with various elements of the Vision 2025 document, particularly the chapter on Economic Vitality.

Notification: The Municipal Code does not require notification as this item is for presentation purposes

Recommendation: No recommendation as this item is for presentation purposes.

Enclosures: application materials
site plan narrative
staff PowerPoint

pc:
Tyler Texeira, Beacon Construction, LLC, applicant's representative

TOWN OF WINDSOR PLANNING DEPARTMENT
301 Walnut Street, Windsor, CO 80550
Phone: 970-674-2415; Fax: 970-674-2456

For office use only:
Project ID No.

LAND USE APPLICATION FORM

Land use applications shall include all items listed in the application submittal checklist and the Town of Windsor Municipal Code (Code). The Town of Windsor Planning Department reserves the right to refuse to accept incomplete submittals. Please see the Code for submittal requirements.

APPLICATION TYPE:

- ANNEXATION
- MASTER PLAN
- REZONING
- MINOR SUBDIVISION
- LOT LINE ADJUSTMENT
- MAJOR SUBDIVISION
- SITE PLAN
- ADMINISTRATIVE SITE PLAN
- SITE PLAN - Qualified Commercial or Industrial (Fast Track)

STATUS:

- (for MAJOR SUBDIVISIONS and SITE PLANS only)
- Preliminary
 - Final

PROJECT NAME*: Great Western Industrial Park Subdivision Ninth Filing, Lot 2, Site Plan

LEGAL DESCRIPTION*: Great Western Industrial Park Subdivision Ninth Filing, Lot 2

PROPERTY ADDRESS (if available): 31660 Great Western Drive

PROPERTY OWNER (APPLICANT):

Owner's Name(s)*: <u>Schlumberger Lift Solutions LLC.</u>
Company: <u>Schlumberger Lift Solutions LLC.</u>
Address*: <u>1325 South Dairy Ashford, Houston, TX 77077</u>
Primary Phone #*: _____ Secondary Phone #: _____
Fax #*: _____ E-Mail*: _____

OWNER'S AUTHORIZED REPRESENTATIVE:

Representative's Name: <u>Michael Bray</u>
Company: <u>dcb Construction Company</u>
Address: <u>909 East 62nd Avenue</u>
Primary Phone #: <u>(303) 287-5525</u> Secondary Phone #: _____
Fax #: <u>(303) 287-3697</u> E-Mail: <u>MichaelBray@dcb1.com</u>

All correspondence will only be sent to the owner's authorized representative. It is the sole responsibility of the representative to distribute correspondence to the owner and other applicable parties, i.e. engineers, architects, surveyors, attorneys, consultants, etc.

I hereby depose and state under the penalties of perjury that all statements, proposals, and/or plans submitted with or contained within the application are true and correct to the best of my knowledge.

Michael Bray 8/20/14
Signature: Owner or Owner's Authorized Representative** Date

**Proof of owner's authorization is required with submittal if signed by Owner's Authorized Representative.

Michael Bray
Print Name(s)

*Required fields
Revised 11/15/2013

TOWN OF WINDSOR PLANNING DEPARTMENT
 301 Walnut Street, Windsor, CO 80550
 Phone: 970-674-2415; Fax: 970-674-2456

For office use only:
Project ID No.

GENERAL APPLICATION OVERVIEW FORM

This form is to be completed for each application type and submitted at the same time the
 LAND USE APPLICATION FORM is submitted.

EXISTING ZONING: I-H	PROPOSED ZONING: I-H
TOTAL ACREAGE: 17.817 acres	
TOTAL # OF PROPOSED LOTS: 1	
AVERAGE LOT SIZE: n/a	
MINIMUM LOT SIZE: n/a	
TOTAL # OF PROPOSED PHASES: 1	
ACREAGE PER PHASE: n/a	
LOTS PER PHASE: n/a	
PARKLAND (sq. ft. & acreages): n/a	
PARKLAND (public or private): n/a	
IRRIGATION WATER (potable or non-potable): non-potable	

UTILITIES TO BE PROVIDED BY:
WATER: Town of Windsor
SEWER: Town of Windsor
GAS: Xcel
ELECTRIC: Xcel
PHONE: Century Link

IF THIS IS A FINAL APPLICATION, SUBMIT TOTALS OF THE FOLLOWING IN LINEAR FEET (use separate sheets if necessary):
PUBLIC STREETS (break down by classification/width): n/a
PRIVATE STREETS (break down by classification/width): n/a
TOTAL STREETS (break down by classification/width): n/a
WATER LINES (break down by line sizes): 1140'
SEWER LINES (break down by line sizes): 560'
CURB: 2988'
GUTTER: 2988'
SIDEWALK: 365'
OPEN SPACE (not to include detention areas) in sq ft & acres: 85,954 sq.ft
TRAIL EASEMENTS (break down by width): n/a
Developed trail (break down by width, depth & material): n/a
Undeveloped trail (break down by width, depth & material): n/a

For office use only:		
Applicable Corridor Plan:		
Metropolitan District:		
Application fee: \$	Date received:	By:

Schlumberger Lift Solutions, LLC
1325 South Dairy Ashford
Houston, TX 77077.

August 18, 2014

Re: The proposed Shores Lift Solutions Facility, Windsor Colorado

Shores Lift Solutions, through its parent company Schlumberger Lift Solutions, LLC, serves the oil and gas industry with pumping/ lifting equipment and service for that equipment. Pump Jacks, pumps, motor assembles and rods are the primary tools of our service. SLS wishes to build our service and inventory center in Windsor. This location will serve Colorado, Wyoming and Nebraska. The planned facility will allow us to improve inventory delivery and better serve our clients.

The facility will house inventory and act as the home base for our service and delivery team. Staffing will immediately require 20 people.

Expansion is planned with potentially up to a staff of 35 or more within a short period of time. We respectfully request a quick approval for temporary storage and use of the grounds during the construction process in order to capture this near term opportunity and justify continued investment in our Windsor property beyond our initial scope.

The shop and yard will support assembly and storage of equipment. A fleet of service and delivery trucks will be based here as well. Inventory will arrive shipping containers. The containers will be unloaded and the components assembled in preparation of delivery to the customer's site. Inventory will be arranged neatly in the yard for ease of identification and access.

Please see submitted drawings, which illustrate the size and characteristics of the proposed facility. The building type will similar to the Cargill facility and will be a pre-engineered building with similar wall panel colors to match the facilities immediately surrounding. There are no plans for additional future buildings on this site.



SITE PLAN PRESENTATION

GREAT WESTERN INDUSTRIAL PARK, NINTH FILING, LOT 2

SCHLUMBERGER
31660 GREAT WESTERN DRIVE

Paul Hornbeck, Associate Planner
September 22, 2014

Town Board

Item C.2



QUALIFIED COMMERCIAL & INDUSTRIAL SITE PLAN

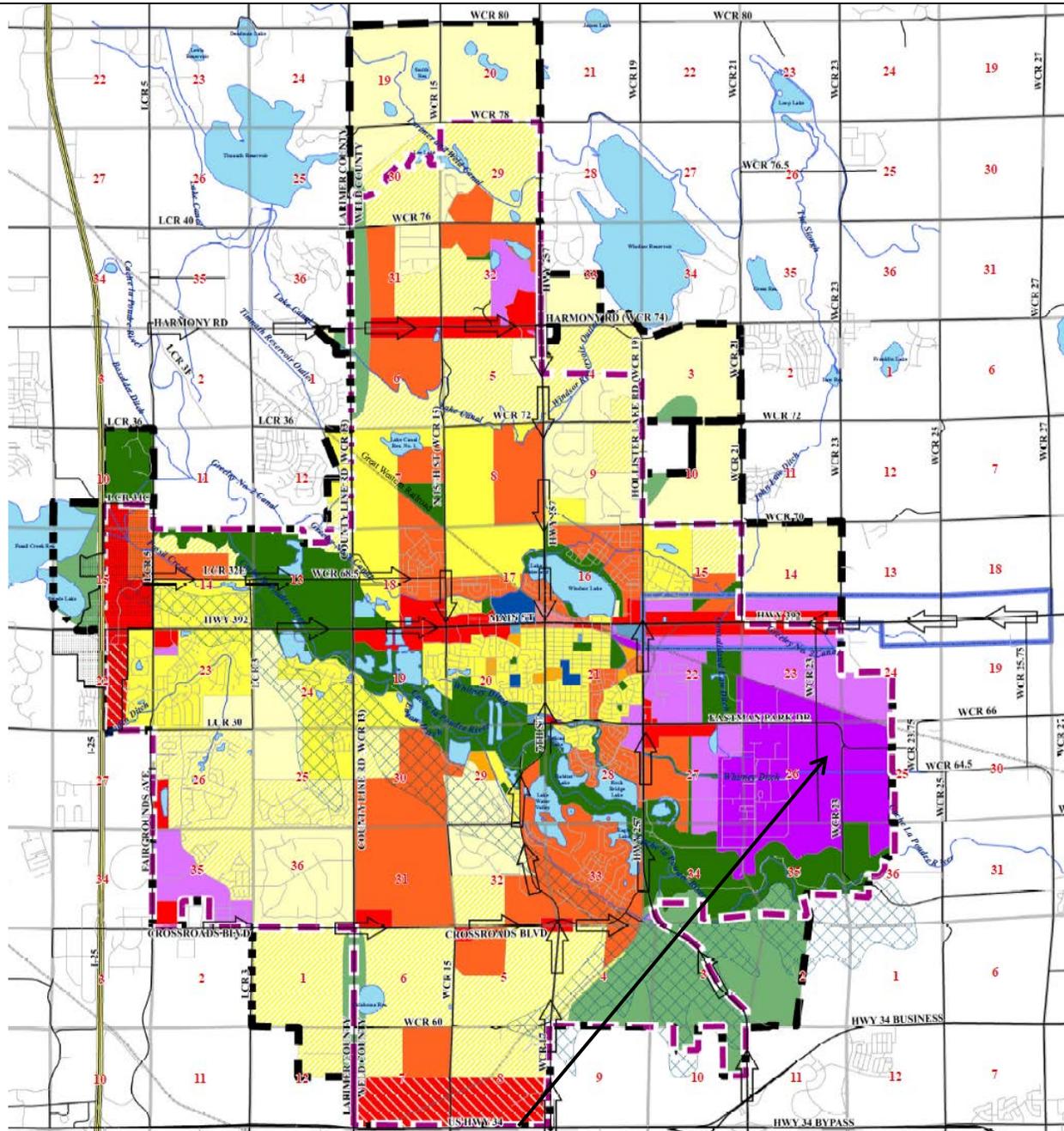
Article IX of Chapter 17 of the Municipal Code outlines the purposes of the Qualified Commercial & Industrial Site Plan process such that:

Sec. 17-9-10. Intent and Purpose

“Commercial and industrial site plans proposed to be developed on lots that have either previously been subdivided or are presently being subdivided as part of a minor subdivision shall qualify for administrative site plan review in accordance with the requirements of this Section.”



SITE VICINITY MAP



Site Location

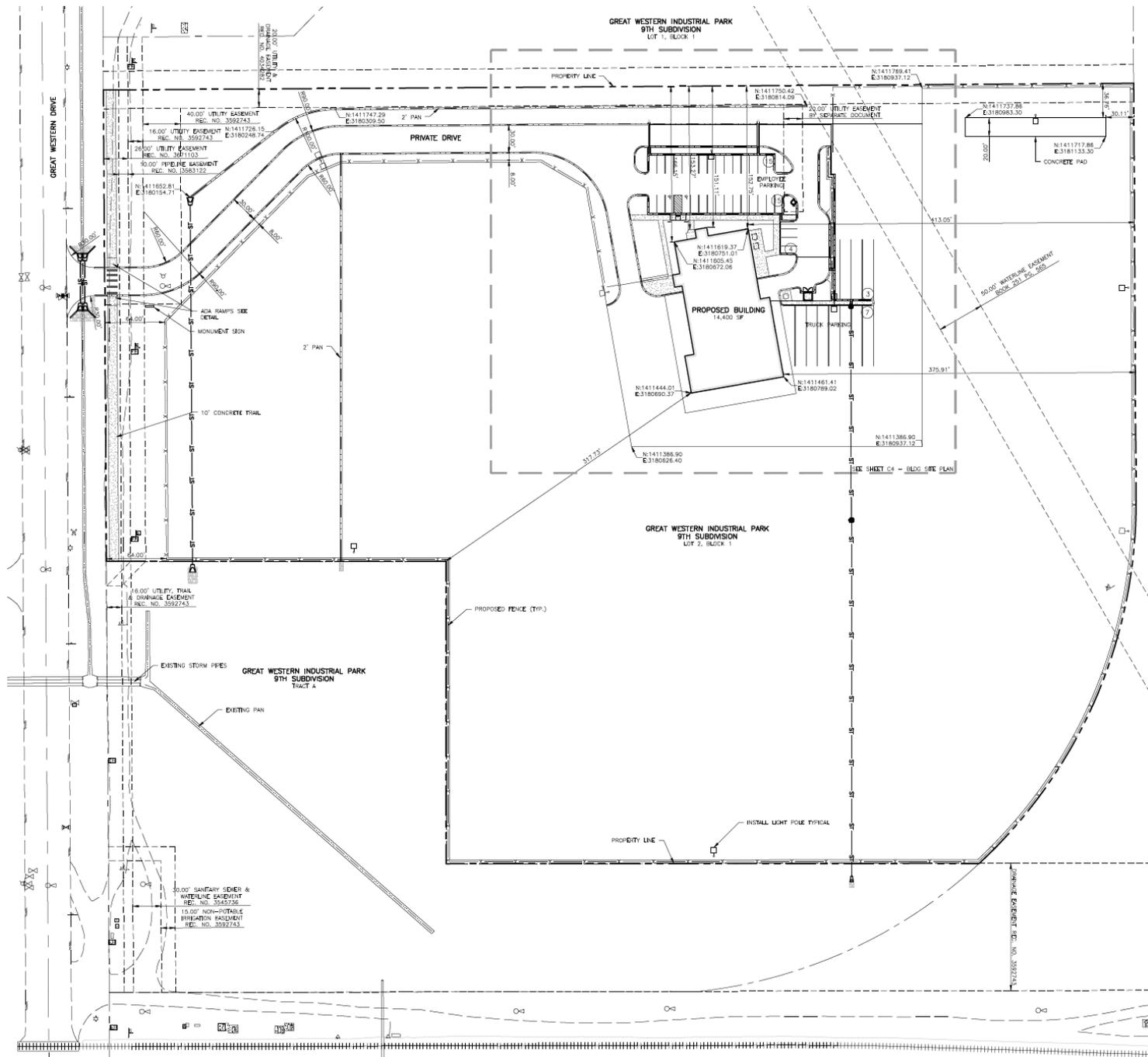


PROJECT SUMMARY

- 17.8 acre site
- 14,440 square foot metal building
- 13 acre outdoor storage yard
- 34 off street parking spaces, including 2 ADA accessible parking spaces
- 6% irrigated landscaped area (23% of the developed portion of the property)

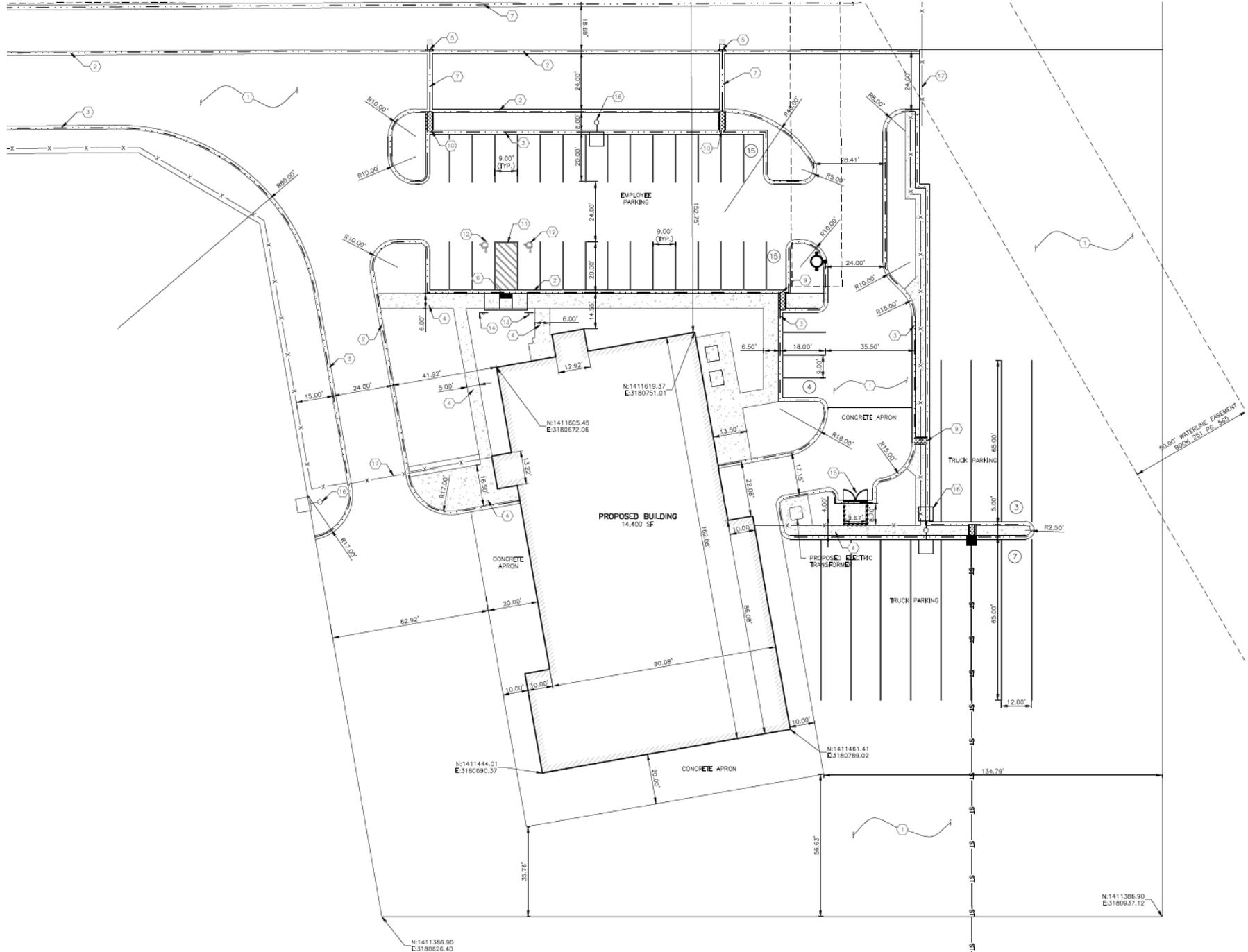


SCHLUMBERGER – SITE PLAN



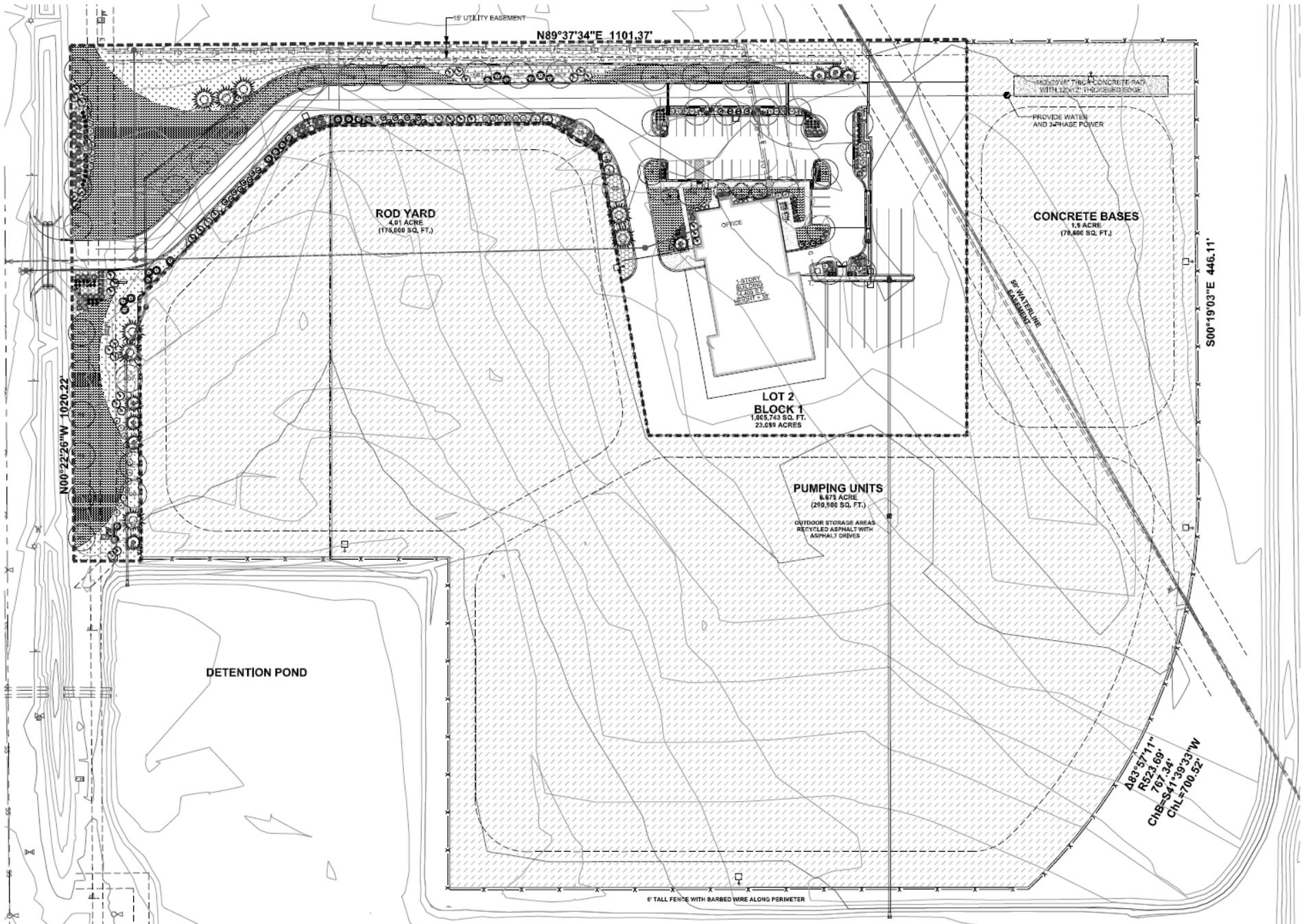


SCHLUMBERGER – SITE PLAN



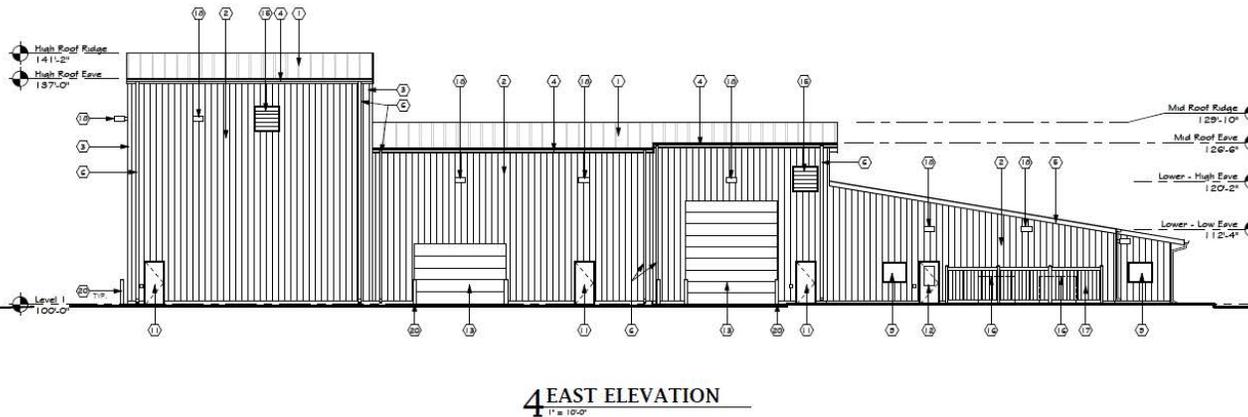
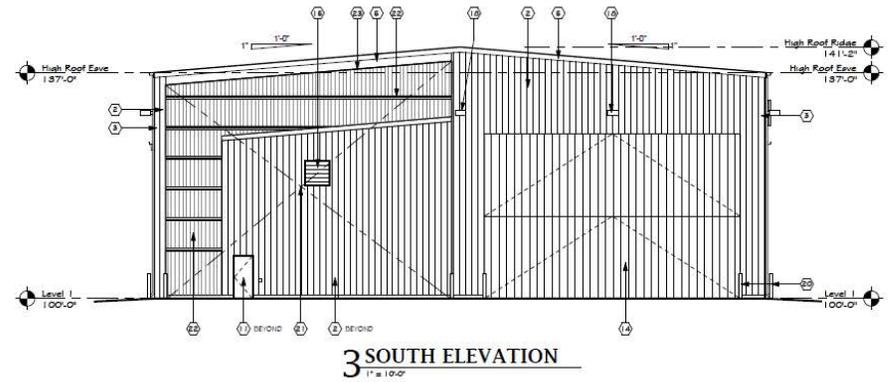
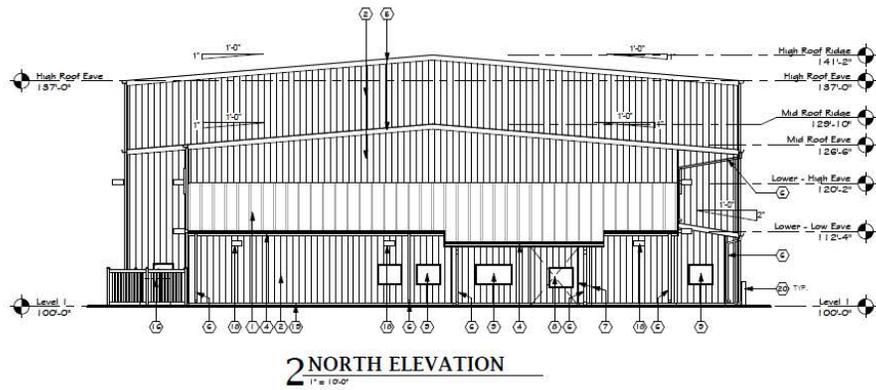
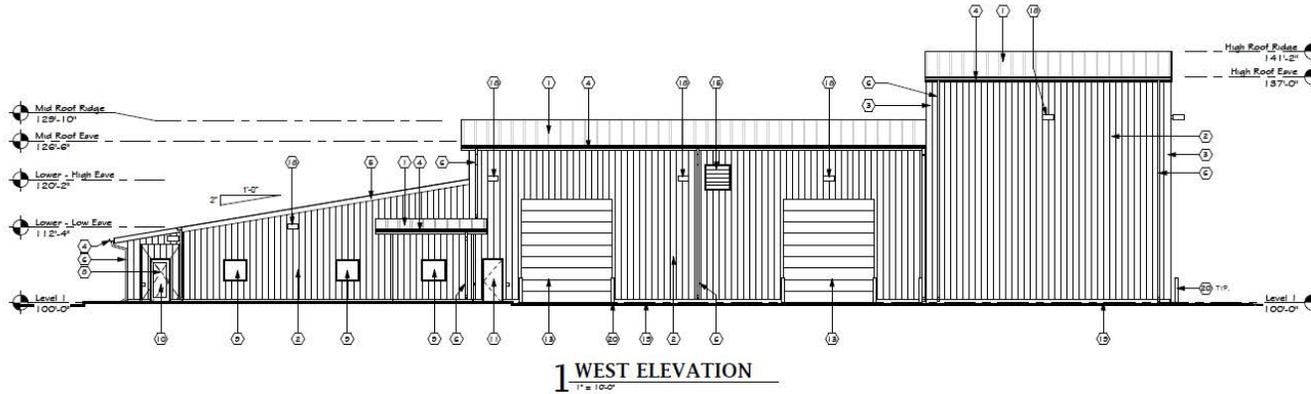


SCHLUMBERGER- LANDSCAPE PLAN





SCHLUMBERGER - BUILDING ELEVATIONS



- COLOR: NATURAL GRAY
- MP-1 METALLIC BUILDING COMPANY, PBR REVERSE ROLL
COLOR: SIGNATURE 200 SADDLE TAN
- MT-1 METALLIC BUILDING COMPANY
COLOR: SIGNATURE 200 SADDLE TAN
- MT-2 METALLIC BUILDING COMPANY
COLOR: SIGNATURE 200 GALLERY BLUE
- MR-1 METALLIC BUILDING COMPANY, DOUBLE-LOK
COLOR: GALVALUME
- P-4 SAFETY MARKING PAINT
COLOR: SAFETY YELLOW

BUILDING ELEVATION GENERAL NOTES

1. ALL MECHANICAL ACCESSORIES AT WALLS AND ROOFS SHALL HAVE FINISH TO MATCH OR BE PAINTED TO MATCH ADJACENT ROOF OR WALL FINISH OR COLOR.

ELEVATION KEYNOTES

- | | |
|---|---|
| <ul style="list-style-type: none"> ① PREFINISHED STANDING SEAM METAL ROOF, COLOR: MR-1 ② PREFINISHED VERTICAL RIBBED METAL PANEL COLOR: MR-1 ③ PREFINISHED METAL CORNER TRIM, COLOR: MT-1 ④ PREFINISHED METAL GUTTER, COLOR: MT-2 ⑤ PREFINISHED METAL FASCIA AND TRIM, COLOR: MT-2 ⑥ PREFINISHED OPEN-FACE DOWNSPOUT, MATCH MT-2 ⑦ PREFINISHED METAL COLUMN ENCLOSURE AT COVERED PATIO, COLOR: MR-1 ⑧ COVERED PATIO WITH PREFINISHED METAL SOFFIT ⑨ ALUMINUM STOREFRONT WINDOW SYSTEM, BLACK ANODIZED FRAME, SOLARBAN 60 GRAY TINT GLASS ⑩ ALUMINUM STOREFRONT ENTRANCE DOOR ⑪ HOLLOW METAL PEDESTRIAN DOOR, PAINT TO MATCH MT-2 ⑫ HOLLOW METAL PEDESTRIAN DOOR WITH HALF LIGHT GLAZING, PAINT TO MATCH MT-2 ⑬ INSULATED OVERHEAD SECTIONAL DOOR, EXTERIOR COLOR TO MATCH MR-1 | <ul style="list-style-type: none"> ⑭ VERTICAL BILFOLDING OVERHEAD DOOR, EXTERIOR FINISH TO MATCH MR-1 ⑮ SIDEWALL MOUNTED EXHAUST FAN OR AIR INTAKE LOUVER - PAINT TO MATCH MR-1 (TYPICAL) ⑯ GROUND-BASED MECHANICAL AIR CONDITIONING CONDENSER, SCREENED WITH FENCE ⑰ 6" TALL SCREEN FENCE: VINYL, SIMULATED WOOD PAINT ⑱ WALL MOUNTED LIGHT FIXTURE, RE: BITE LIGHTING PLAN ⑲ EXPOSED CONCRETE FOUNDATION WALL EXTENSION FINISH COAT, CONC-1 ⑳ BOLLARD - PAINT F-4 (TYPICAL) ㉑ OPEN BAY ㉒ EXPOSED PENB FRAMING AT WALL BEYOND IN OPEN BAY ㉓ EXPOSED PENB FRAME AT OPEN BAY |
|---|---|



MEMORANDUM

Date: September 22, 2014
To: Mayor and Town Board
Via: Kelly Arnold, Town Manager
From: Patti Garcia, Town Clerk/Assistant to Town Manager
Kelly Unger, Management Assistant
Re: Adoption of 2014-2016 Strategic Plan
Item #: C.3.

Background / Discussion:

The Strategic Plan update process began in early 2014 with Department Heads reviewing the status of the 2012-2014 Action Plan and discussing new projects that could be forthcoming. In May 2014 a retreat was attended by the Town Board, members of the management team and Gregg Piburn, Leaders Edge Consulting. Town Board members spent time team building, reviewing the 2012-2014 Strategic Plan and the Town's accomplishments. There was discussion on using a "less is more approach" with the Strategic Plan which was embraced by the Town Board.

Follow up meetings with the Town Board, Department Heads and Mr. Piburn resulted in minor revisions to the vision statement which included the removal of the reference to the downtown and lake which participants felt was too specific for the vision statement. The Goals and Priorities were addressed using the "less is more approach" with the final draft document being reviewed at the July 7, 2014 Town Board work session.

During the months of July and August the Town Board shared the Strategic Plan Goals and Priorities through a variety of venues such as Advisory Board/Commission meetings, Coffee with the Mayor, National Night Out, meetings with other taxing districts and a Town Hall meeting. Opportunities for citizens to comment on the vision, mission and goals were also provided through social media including the Town's website and Facebook page.

The strategic plan wrap up was held September 8, 2014 during a Town Board work session with the final adoption by the Town Board scheduled for September 22, 2014.

After the plan is adopted by the board, staff will complete the Action Plan and begin marketing, budget prioritization, and tracking accomplishments. A priority is for the Strategic Plan to be printed and distributed to advisory boards, other government agencies, availability at Town facilities and Clearview Library. As in the past, the Town website will have a Strategic Plan page where the plan itself, including the appendix, will be posted along with quarterly progress reports.

Recommendation:

Motion to approve Resolution No. 2014-57 – A Resolution of the Windsor Town Board Approving and Adopting the 2014-2016 Town of Windsor Strategic Plan

Attachments:

Resolution No. 2014-57
2014-2016 Strategic Plan

TOWN OF WINDSOR

RESOLUTION NO. 2014-57

A RESOLUTION OF THE WINDSOR TOWN BOARD APPROVING AND ADOPTING THE 2014-2016 TOWN OF WINDSOR STRATEGIC PLAN

WHEREAS, the Town of Windsor (“Town”) is a Colorado home rule municipality with all powers and authority provided by Colorado law; and

WHEREAS, following each regular municipal election, the Town Board engages in a strategic planning process, the purpose of which is to review and analyze general governing principles for the upcoming two years; and

WHEREAS, the strategic planning process promotes an established vision, mission and goal set for the Town Board, thus assuring that future policy is firmly rooted in an agreed roster of principles; and

WHEREAS, attached hereto and incorporated herein by this reference is a complete copy of the 2014-2016 Town of Windsor Strategic Plan; and

WHEREAS, the 2014-2016 Town of Windsor Strategic Plan has been the subject of ongoing internal and external outreach, and has been extensively evaluated for clarity and achievability; and

WHEREAS, by its adoption of this Resolution, the Town Board hereby states its intention to implement the goals, priorities and objectives set forth in the attached 2014-2016 Town of Windsor Strategic Plan wherever feasible.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN BOARD OF THE TOWN OF WINDSOR, COLORADO, AS FOLLOWS:

1. The attached 2014-2016 Town of Windsor Strategic Plan is hereby approved and adopted.
2. The Town Board and Town Manager will, to the extent feasible, adhere to the principles set forth in the said Strategic Plan until such time as a future Strategic Plan is adopted.

Upon motion duly made, seconded and carried, the foregoing Resolution was adopted this 22nd day of September, 2014.

TOWN OF WINDSOR, COLORADO

By: _____
John S. Vazquez, Mayor

ATTEST:

Patti Garcia, Town Clerk

TOWN
OF
WINDSOR

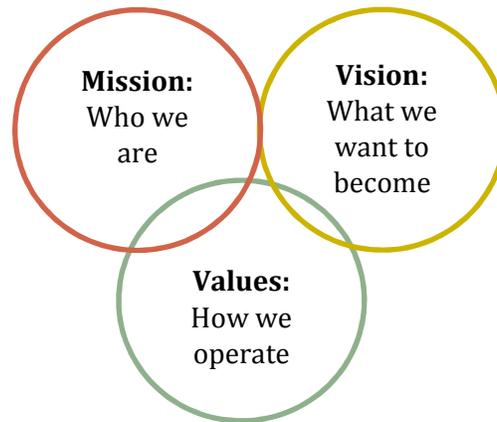


2014-2016
STRATEGIC
PLAN



Town of Windsor
301 Walnut Street
970.674.2400
www.windsorgov.com

MISSION, VISION & VALUES



MISSION STATEMENT

The Town of Windsor strengthens community through the fiscally responsible and equitable delivery of services, support of hometown pride, and encourages resident involvement.

VISION STATEMENT

1. Windsor's hometown feel fosters an energetic community spirit and pride that makes our town a special place in Northern Colorado.
2. Windsor has a strong local economy with diverse business sectors that provide jobs and services for residents.
3. Windsor promotes quality development.
4. Windsor enjoys a friendly community with a vibrant downtown, housing opportunities, choices for leisure, cultural activities, recreation and mobility for all.
5. Windsor is a good environmental steward.

VALUES

Producing Results – Responsibility - Integrity - Dedication - Exceptional Service

GOAL 1: Build Community Spirit and Pride

- A. Promote safety and security
- B. Provide opportunities for residents to be involved and informed in Town governance and in community service
- C. Encourage healthy, family-friendly neighborhoods for all ages
- D. Promote a “One Windsor-One Community” philosophy
- E. Lead through stewardship of natural resources
- F. Improve appearance and aesthetics of main corridors
- G. Support Windsor’s youth
- H. Encourage historic preservation

GOAL 2: Promote Windsor as a Destination

- A. Provide diverse and healthy choices in leisure, culture, and recreation
- B. Promote creative and artistic outlets

GOAL 3: Diversify, Grow, and Strengthen the Local Economy

- A. Foster business attraction tools and promote the business retention and expansion program
- B. Strengthen retail strategies for all commercial corridors
- C. Advance employment opportunities
- D. Support the Downtown Development Authority

GOAL 4: Develop and Maintain Effective Infrastructure

- A. Identify and address barriers to traffic flow
- B. Support multiple forms of alternative transportation
- C. Make street maintenance a priority
- D. Pursue water independence

2014 MONTHLY FINANCIAL REPORT

Special points of interest:

- Highest August sales tax collection on record at \$579,423.
- Single Family Residential (SFR) building permits total 176 through August. This is down from the August 2013 number of 270.
- 22 business licenses were issued in August, 14 of which were sales tax vendors.

Highlights and Comments

- * We recorded our highest gross sales tax collection for the single month of August.
- * August 2014 year-to-date gross sales tax increased 20.29% over August 2013.
- * Construction use tax through August is at 55.22% of the annual budget at \$966,262.
- * Year-to-date total revenue through August exceeded expenditures by roughly \$1M.



Hollister Lake Road/ HWY 392- Wet Concrete Vandal Caught on Camera

The right hand turning lane from WCR19 (aka Hollister Lake Road) to Hwy 392 is now complete. The project total cost is expected to be \$281,000, paid with Road Impact Fees. In response to public concerns, this improvement should ease the backup of traffic coming from the north onto Hwy 392.

—Photos courtesy of Kenneth Breneman, Construction Inspector, Town of Windsor.

Inside this issue:

Sales, Use and Property Tax	2
Year-to-Date Sales Tax	4
Monthly Sales Tax	5
All Fund Expenditures	6
General Fund Expenditures	7

Items of Interest

- See a list of Town projects at our website under Our Community/Town Projects.
- Summer Concerts wrapped up another successful season on August 7 in Boardwalk Park.
- Visit us at www.windsorgov.com and look for live streaming of Town Board and Planning Commission meetings.

Sales, Use and Property Tax Update**August 2014**

Benchmark =67%	Sales Tax	Construction Use	Property Tax	Combined
Budget 2014	\$5,944,547	\$1,749,737	\$4,146,285	\$11,840,569
Actual 2014	\$5,337,741	\$966,262	\$3,949,564	\$10,253,567
% of Budget	89.79%	55.22%	95.26%	86.60%
Actual Through August 2013	\$4,437,475	\$1,383,373	\$3,922,970	\$9,743,818
Change From Prior Year	20.29%	-30.15%	0.68%	5.23%

Ideally through the eighth month of the year you would like to see 67% collection rate on your annual budget number. We have reached that benchmark in two of the three tax categories, and are very close on the third.

At this point last year we had collected \$3.9M in property taxes, or 95.8% of the annual budget. We are on the exact pace this year.

Building Permit Chart**August 2014**

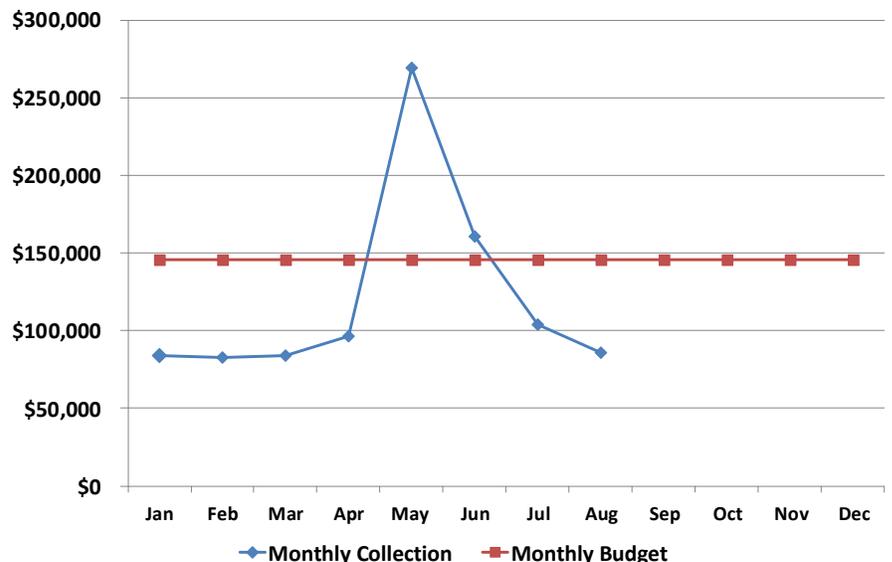
	SFR	Commercial	Industrial	Total
Through August 2014	176	3	2	181
Through August 2013	270	1	11	282
% change from prior year				-35.82%
2014 Budget Permit Total				373
% of 2014 Budget				48.53%

Building Permits and Construction Use Tax

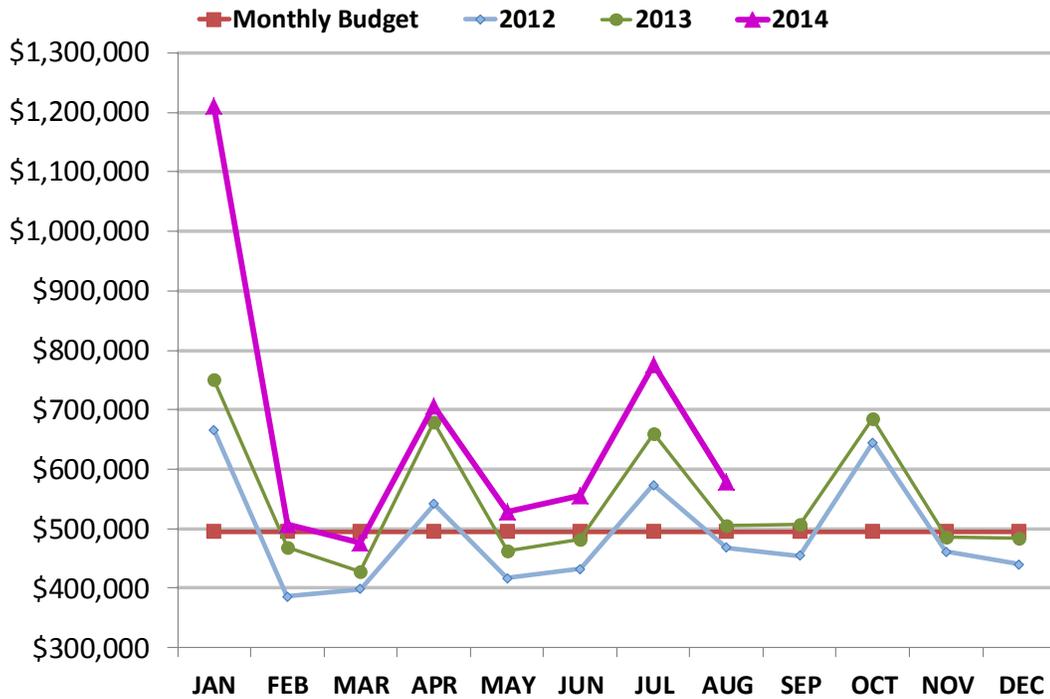
We are showing a 35.82% decrease in number of permits as compared to August 2013. We issued 176 SFR permits through August 2014 as compared to 270 through August of 2013.

Construction use tax is below our required monthly collection for the sixth month this year.

We issued 17 SFR permits in the month of August. Through eight months in 2014 we are averaging 22 SFR permits per month. Through August 2013 we averaged 33.75 SFR permits per month.

Construction Use Tax Collections

Sales Tax Collections in Dollars



Gross Sales tax collections for August 2014 were approximately \$75,000 higher than August 2013.

August Facts

August is a “single collection” month, meaning that the collections are for sales made in July. August produced a strong collection month, surpassing the two previous years in collections as well as our monthly budget collections requirement.

We did not receive any voluntary compliance or audit payments in August, adding strength to the positive indicator of higher collections than last year.

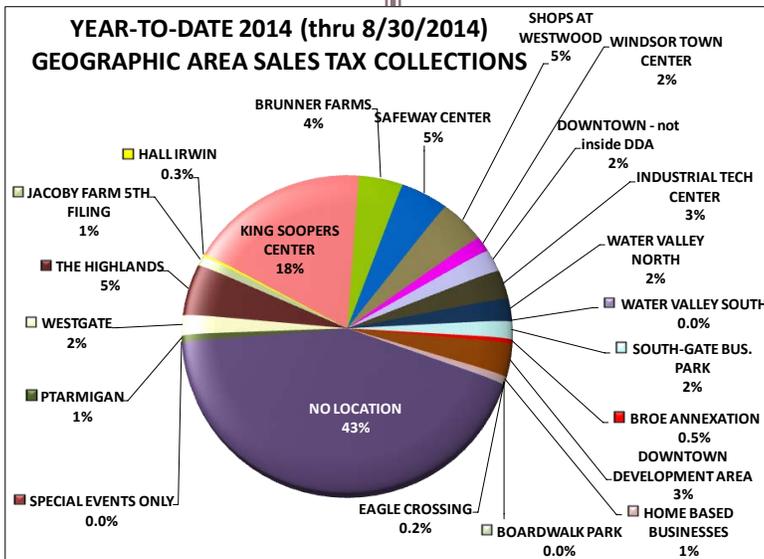
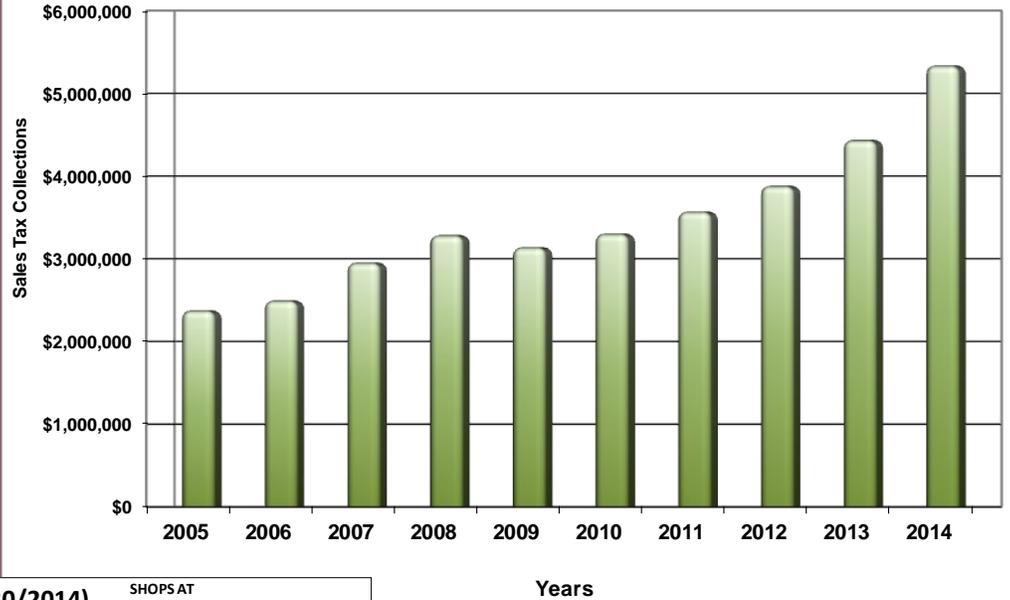
Looking Forward

We budgeted \$6M in sales tax for 2014, making our average monthly collection requirement \$500,000. We were above that mark for the seventh month out of eight for this year. In January we received a large “outlier” payment from a local manufacturer of \$319,175. Reducing January’s collection by this amount down to \$891,348, through the first eight months of 2014 we are averaging \$627,321 in collections per month. If we maintain this average through the end of the year, we will come in at \$7.5-\$7.8 in collections.

Through August we have collected \$5.3M in sales tax.

This is roughly \$900,000 higher than through August 2013.

Year-to-Date Sales Tax Collections Through August 2005-2014



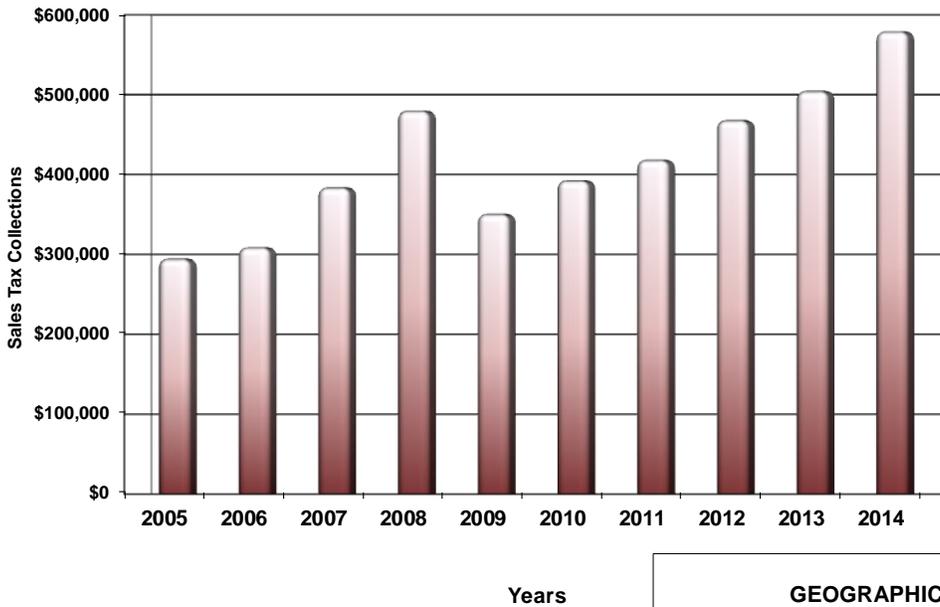
Our sales tax base is still anchored through groceries and utilities.

Year-to-Date Sales Tax

Our sales tax base has not changed a great deal over the past decade, with groceries and utilities leading our industry sectors in sales tax collection. Some of this increase can be attributed to an overall increase in prices and cost of living, estimated at 3% for the first half of 2014 in the Denver/Boulder/Greeley area.

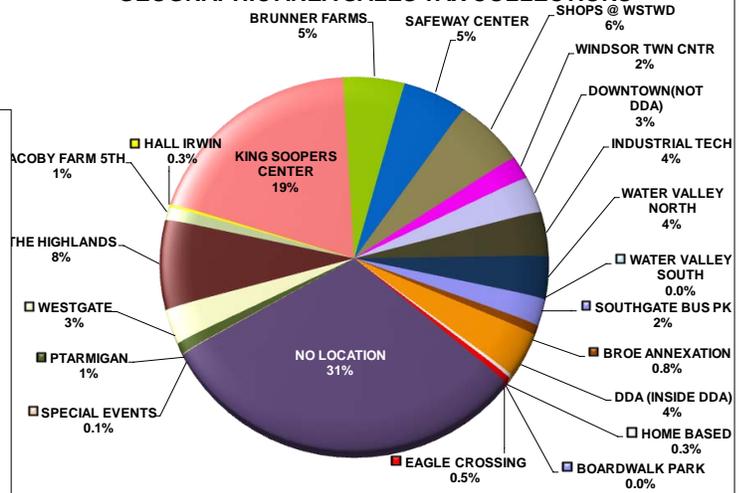
- Groceries, liquor, hardware, general merchandise, utilities and auto parts all increased collections over August 2013.
- Our current year to date collections through August of \$5,337,741 are equal to the entire year of collections for 2011. It also exceeds each of the individual annual collections of all of the years preceding 2011.
- The Highlands sales tax area surpassed the Safeway Center in terms of year to date sales tax collections. This area encompasses the Highland Meadows Golf Course, Wagner Equipment and other businesses

Sales Tax Collections Month of August 2005-2014



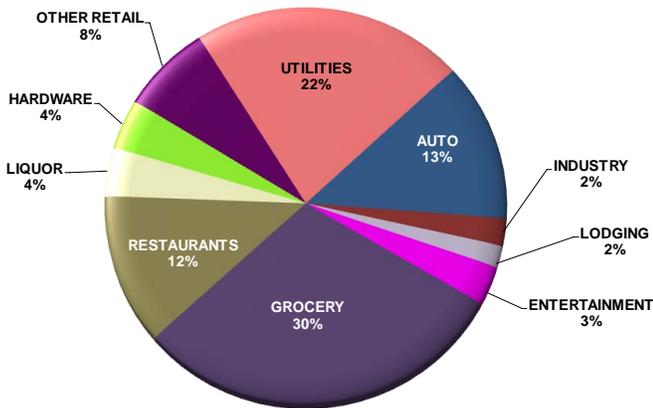
In the month of August 2014, we have collected \$579,423 in sales tax.

AUGUST 2014 GEOGRAPHIC AREA SALES TAX COLLECTIONS



AUGUST 2014

(This graph IS NOT inclusive of all tax payers)



Geographic area chart now shows a breakdown between the DDA and the rest of the Downtown

Monthly Sales Tax

- August gross collections of \$579,423 were 14.79% higher than August 2013. August 2014 was the highest August collection on record.
- Our sales tax base is necessity driven, as demonstrated in the pie graph above. Necessities of food, utilities and automobiles comprised 77% of our August sales tax collections.
- The King Soopers Center leads the way in collections by business with a physical presence in Windsor.
- The DDA collections were up roughly \$1,500 over August 2013.

All Funds Expense Chart**August 2014**

Benchmark = 67%

General Government	Current Month	YTD Actual	2014 Budget	% of Budget
General Fund	\$1,288,887	\$8,594,982	\$12,716,127	68%
Special Revenue	\$295,985	\$773,957	\$2,439,201	32%
Internal Service	\$236,015	\$2,039,852	\$3,104,165	66%
Other Entities(WBA)	\$12,090	\$96,720	\$145,080	67%
Sub Total Gen Govt Operations	\$1,832,977	\$11,505,511	\$18,404,573	63%
Enterprise Funds				
Water-Operations	\$474,994	\$2,036,391	\$3,467,536	59%
Sewer-Operations	\$205,529	\$1,121,366	\$1,591,886	70%
Drainage-Operations	\$53,970	\$295,821	\$402,276	74%
Sub Total Enterprise Operations	\$734,493	\$3,453,578	\$5,461,698	63%
Operations Total	\$2,567,470	\$14,959,089	\$23,866,271	63%

plus transfers to CIF and Non-Potable for loan

Operations expenditures are on track as a whole, expending 63% of the annual budget compared to the benchmark of 67%.

General Govt Capital	Current Month	YTD Actual	2014 Budget	% of Budget
Capital Improvement Fund	\$373,828	\$2,478,365	\$5,339,148	46%
Enterprise Fund Capital				
Water	\$557,354	\$5,098,850	\$7,134,081	71%
Sewer	\$0	\$8,087	\$512,875	2%
Drainage	\$0	\$138,062	\$1,894,231	7%
Sub Total Enterprise Capital	\$557,354	\$5,244,999	\$9,541,187	55%
Capital Total	\$931,182	\$7,723,364	\$14,880,335	52%
Total Budget	\$3,498,652	\$22,682,453	\$38,746,606	59%

Through August, operating and capital expenditures combined to equal 59% of the 2014 Budget.

All Funds Expenditures

We are behind our general capital benchmark but slightly ahead in the water fund capital expenditures. This is driven mostly by the purchase of the Kyger property in early March. In a few months we will begin paying for projects completed during the summer construction season. Our capital budget should catch up to the benchmark at that time.

Operations expenditures should slow for the rest of the year as our summer operations are coming to a close.

General Fund Expense Chart

Department		Current Month	YTD Actual	2014 Budget	% of Budget
410	Town Clerk/Customer Service	\$59,054	\$395,868	\$612,550	64.6%
411	Mayor & Board	\$26,460	\$285,770	\$477,796	59.8%
412	Municipal Court	\$1,442	\$11,207	\$19,930	56.2%
413	Town Manager	\$33,859	\$211,839	\$322,910	65.6%
415	Finance	\$55,176	\$445,310	\$606,852	73.4%
416	Human Resources	\$34,175	\$246,399	\$409,870	60.1%
418	Legal Services	\$47,351	\$239,506	\$329,869	72.6%
419	Planning & Zoning	\$62,895	\$381,451	\$610,990	62.4%
420	Economic Development	\$15,303	\$143,087	\$193,297	74.0%
421	Police	\$283,128	\$1,912,136	\$2,853,407	67.0%
428	Recycling	\$3,851	\$23,514	\$42,770	55.0%
429	Streets	\$81,332	\$681,481	\$1,009,692	67.5%
430	Public Works	\$39,361	\$286,553	\$430,818	66.5%
431	Engineering	\$65,964	\$425,323	\$618,026	68.8%
432	Cemetery	\$17,752	\$82,836	\$118,590	69.9%
433	Community Events	\$11,940	\$103,080	\$113,566	90.8%
450	Forestry	\$28,501	\$189,728	\$324,531	58.5%
451	Recreation Programs	\$190,442	\$1,222,963	\$1,708,136	71.6%
452	Pool/Aquatics	\$50,198	\$156,185	\$186,568	83.7%
454	Parks	\$143,216	\$801,199	\$1,206,005	66.4%
455	Safety/Loss Control	\$0	\$1,358	\$16,760	8.1%
456	Art & Heritage	\$18,745	\$185,846	\$264,560	70.2%
457	Town Hall	\$18,742	\$162,343	\$238,634	68.0%
Total General Fund Operations		\$1,288,887	\$8,594,982	\$12,716,127	67.6%

General Fund Expenditures

The general fund operations are right at the budget benchmark as we finish the summer season.

As one would expect through August, operations connected with community events and aquatics have almost completed their entire budget.

Finance is slightly ahead of the benchmark due to contract payments made to sales tax auditors.

Economic Development is ahead of the pace due to annual payments for memberships being made early in the year.

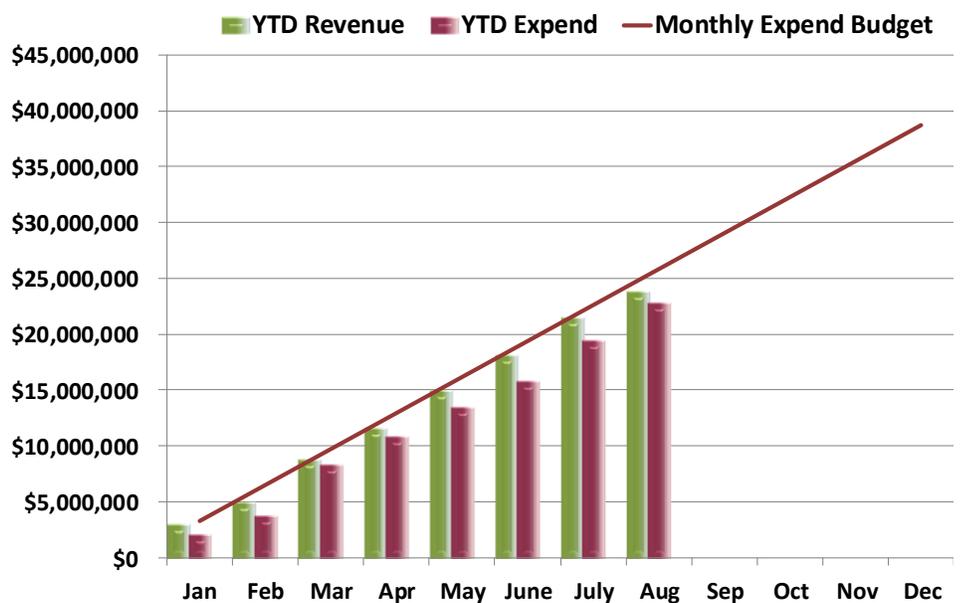
Revenue and Expenditure

The chart on the right shows monthly revenue compared to monthly expenditure as well as a trend line showing the total 2014 budget expended equally over twelve months.

Our monthly budgeted total expenditures equal \$3,228,884. In August we collected \$2,331,616 in total revenue. The chart on the right reflects our actual results through August.

August YTD revenue total exceeded expenditures by roughly \$1M.

Combined Revenue and Expenditures



Our Vision:

WINDSOR'S hometown feel fosters an energetic COMMUNITY SPIRIT AND PRIDE that makes our town a special place in Northern Colorado.

WINDSOR has a VIBRANT DOWNTOWN AND LAKE which is a community focal point and destination.

WINDSOR has a STRONG LOCAL ECONOMY with diverse business sectors that provide jobs and services for residents.

WINDSOR promotes quality development through MANAGED GROWTH.

WINDSOR residents enjoy a friendly community with HOUSING OPPORTUNITIES, CHOICES for LEISURE, CULTURAL ACTIVITIES, and RECREATION, and MOBILITY for all.

WINDSOR is a GOOD ENVIRONMENTAL STEWARD.



2014 Monthly Financial Report

Town of Windsor
301 Walnut Street
Windsor, CO 80550
Phone: 970-674-2400
Fax: 970-674-2456

The 2014 Budget continues to focus on fiscal responsibility while building a long-term sustainable community through strategic investments and emphasizing the maintenance of existing infrastructure. In order to achieve these goals, the 2014 Budget emphasizes the importance of funding the key day-to-day tools that lead to success. These tools are employees, technology, and providing services most highly rated by citizens.

The Town of WINDSOR strengthens community through the fiscally responsible and equitable delivery of services, support of hometown pride, and encourages resident involvement.

We're on the Web

www.windsorgov.com

TB Communications

PROJECT UPDATE REPORT

DATE: September, 2014

**PROJECT: Northern Integrated Supply Project-
NEPA Phase**

CONTACT: Carl Brouwer

PURPOSE: Complete the National Environmental Policy Act (NEPA) phase of the project and obtain a Record of Decision that will allow the project to be implemented.

PROJECT STATUS:

- Participation for the 15 participants is 40,000 acre-ft of permitted yield.
- A Supplemental DEIS will be prepared for the Project.
- **ERO is writing the SDEIS and Technical Reports. January 2015 for SDEIS.**

BUDGET ACTIVITY:

Category	ERO	NW	TRMWF	Ciruli&Sigler	Other	Total
Budget	\$1,034,000	\$ 220,000	\$ 60,000	\$ 40,000	\$ 30,000	\$1,384,000
January	\$ 80,678	\$ 20,721	\$ 8,103	\$ 175	\$ -	\$ 109,678
February	\$ 137,687	\$ 20,877	\$ 5,050	\$ 7,848	\$ -	\$ 171,462
March	\$ 140,328	\$ 25,589	\$ 4,144	\$ 919	\$ -	\$ 170,979
April	\$ 81,213	\$ 19,939	\$ 2,475	\$ -	\$ 468	\$ 104,094
May	\$ 83,013	\$ 16,620	\$ 1,813	\$ 7,921	\$ -	\$ 109,367
June	\$ 82,683	\$ 11,161	\$ 6,332	\$ -	\$ 370	\$ 100,546
July	\$ 129,386	\$ 28,076	\$ 7,299	\$ -	\$ 480	\$ 165,241
August	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
September	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
October	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
November	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
December	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Expenditure to Date	\$ 734,988	\$ 142,983	\$ 35,216	\$ 16,863	\$ 1,318	\$ 931,368
Budget Remaining	\$ 299,012	\$ 77,017	\$ 24,784	\$ 23,137	\$ 28,682	\$ 452,632
% Spent	71%	65%	59%	42%	4%	67%

ACTIVITY:

- *Chapters 1 and 2 reviewed and complete. Chapter 3 nearly ready to be submitted for external review. Geomorphology, Socioeconomics, and Operations Plan reports are reviewed and complete. Aquatics, Riparian, and Water Resources reports are under revision to address agency comments.*
- *Hydros is working on temperature analysis and GEI on constituent analysis to adequately address water quality issues for SDEIS. Both analyses are nearly complete. Will model in more detail for the 401 Certification following the SDEIS. Presentation to EPA and CDPHE scheduled for early October.*
- *Northern Water reviewing reports and working on Mitigation Plan.*
- *Working on alternative ditch company conveyance approaches to satisfy concerns and provide compensation.*
- *Meetings with various interest groups, newspapers, and other media.*

OUTSTANDING ISSUES:

- *Time in bringing the permitting phase to a conclusion.*
- *Continuing effort is being made by opponents to stop NISP.*

FUTURE ACTION:

- *Determine appropriate mitigation plan to meet the needs of the Corps and the State.*
- *Determine when to begin design activities.*
- *Work out agreements with New Cache and Larimer and Weld Ditch Companies.*



MEMORANDUM

Date: September 22, 2014
To: Mayor and Town Board
Via: Kelly Arnold, Town Manager
From: Melissa M. Chew, CPRP, Director of Parks, Recreation & Culture
Re: EAB Readiness and Response Plan
Item #: D.2.a.

Background / Discussion:

The Emerald Ash Borer (EAB) is an invasive species afflicting and killing millions of Ash trees across our nation. With no natural predator, it is only a matter of time until the insect attacks ash trees in our community. In fact, Boulder County has already detected presence of the insect, believe to have been brought into Colorado from firewood harvested in the Midwest.

Colorado State Forest Service and other local and national entities are encouraging and supporting communities' efforts towards having a plan in place that calls for monitoring, prevention, control and eradication – the action steps – identified in an EAB Readiness and Response Plan.

Using local and national examples as templates, Ken Kawamura, Town Forester, assembled the attached plan with assistance from professionals on the Tree Board. The Tree Board then formally endorsed the document at their August meeting. The document is provided to you as reference. Individual actions in the plan would be addressed through budget requests each year.

Financial Impact:

N/A at this time. Individual actions would be addressed through budget requests each year, depending on need.

Relationship to Strategic Plan:

Recommendation:

N/A

Attachments:

- b. EAB Readiness and Response Plan



Town of Windsor Emerald Ash Borer Readiness and Response Plan

Windsor Forestry
301 Walnut Street
Windsor CO 80550
(970) 674-2400

August 26, 2014



Acknowledgements:

Tree Board Members:

Alison Stoven, Chair
Mary Monroe, Vice Chair
Wendy Ball, Secretary
Bill Monroe
Janene Willey
Craig Bonesteel
Gene Morey, Ex Officio
Ivan Adams, Town Board Liaison

Parks, Recreation and Culture Department Staff:

Melissa Chew, Director
Wade Willis, Parks and Open Space Manager
Ken Kawamura, Town Forester

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TOWN OF WINDSOR EMERALD ASH BORER READINESS AND RESPONSE PLAN

INTRODUCTION

The Emerald ash borer (*Agrilus planipennis*) is an exotic wood boring beetle that attacks ash (*Fraxinus* spp.) and its cultivated varieties. Native to eastern Asia, the beetle was first discovered near Detroit, Michigan in 2002 and has since spread to 22 states where it has killed tens of millions of ash trees. Scientists believe it was unintentionally brought to the United States through infested ash crating or pallets.

State and federal quarantines, surveys, and containment efforts are in place within affected areas. However, the main population core of EAB is well established and peripheral states cannot rely solely on the eradication of this pest.

The emerald ash borer (EAB) is the greatest threat to Colorado's community forests since the introduction of Dutch elm disease in 1969. Ash is one of the most important and abundant species within Colorado's urban forest communities, comprising about 1/5th of the all deciduous trees. The loss of this species would have enormous economic, social, and ecological impacts in the state.

Ash trees are found in commercial and residential area throughout Windsor. Research has consistently shown that shoppers are more willing to pay for parking, foods and services in business districts with trees. Trees increase residential and business property values and the tax base, attract visitors, businesses and new residents to an area and increase occupancy and rental rates of apartments and offices. Shading from trees can defer maintenance longer for materials that are degraded by heat such as asphalt and pavement.

Windsor's urban tree canopy provides many environmental benefits to the community. Urban trees help mitigate climate change by contributing to reduction in carbon dioxide and other pollutants, improving water quality, reducing storm water runoff and saving energy through shading surfaces and reduced cooling demands. Ash trees are large maturing, long lived tree and therefore contribute more environmental benefits than expected by their percentage in the urban tree canopy. If left untreated, ash trees in infested areas will die from EAB causing high tree canopy losses and subsequent loss of environmental, economic and social benefits. Pesticides are an important component in EAB management programs and are effective in the prevention and spread of EAB. However, pesticide treatments whether public or private can have impacts to non-target organisms and the environment. Decisions about which pesticide products to apply and which trees to treat must be carefully balanced to provide the least overall harm to the environment.

Social scientists have shown trees and green spaces within cities provide social and psychological benefits and improve the quality of life for residents. Connection to trees and nature affects moods, activities and emotional health. Exposure to trees and green spaces can reduce stress and mental fatigue, enhance mental health, enhance recuperation rates in hospitals, reduce psychological

precursors to crime and increase recreational opportunities. A community's urban forest is usually the first impression a community projects to its visitor and is an extension of its pride and community spirit.

The Colorado Department of Agriculture (CDA), Colorado State Forest Service (CSFS), Colorado State University Extension Service (CSU-EXT), United States Department of Agriculture-Animal and Plant Health Inspection Service-Plant Protection and Quarantine (USDA-APHIS-PPQ), and others have worked to raise public awareness about the threat of EAB.

In September 2013, EAB was detected for the first time in Colorado in the City of Boulder in Boulder County. Since then, the agencies above along with surrounding municipalities including Windsor, has been involved with how to best deal with this pest. The Town of Windsor at this point, does not have any confirmed EAB sightings. It is important to learn from what Boulder has done and to stay up to date on the latest developments on how to best manage EAB in Colorado as it may react differently in this climate as it does in the Mid-Western states where it has been established for at least 12 years.

PURPOSE

The purpose of this plan is to provide Windsor a coordinated effort to minimize the destructive effects of EAB to ash resources. The primary goal is to prevent or delay introduction of EAB and to detect and contain EAB and mitigate impacts when EAB does arrive. This will result in the development of resource materials to assist in preparation for and responding to EAB introductions.

GENERAL READINESS

The key components addressed by this plan include:

- a. Reducing the risk of introduction of EAB
- b. Preparation to minimize the potential impact of EAB
- c. Detection of EAB
- d. Response to an EAB detection

REDUCE THE RISK OF INTRODUCTION (PREVENTION)

Objective: Identify major potential pathways of EAB introduction and implement actions to reduce the risk.

- A. Assess Risk
 - a. Assess the ash resource at risk by completing tree inventory in 2014
 - b. Identify key risk factors and high risk sites by plotting location
- B. Reduce Risk
 - a. Develop recommendations for reducing the risk of EAB introduction
 - avoid planting ash trees

- not transporting ash tree and material
 - select ash tree removals
 - public outreach
- b. Raise awareness about the risk of introducing EAB through firewood (public outreach)
 - c. Raise awareness about the risk of introducing EAB through ash nursery stock
 - i. Work with developers/landscape contractors and garden centers/nurseries about the importance of knowing the source of ash nursery stock and reducing the percentage of ash in landscapes.

PREPARATION AND MINIMIZE POTENTIAL IMPACTS

Objective: To inform town administrators to prepare for the introduction of EAB.

- A. Develop a template for community response plans and provide access to resources for incorporation into their plans (**attachments**)
- B. Develop a budget in response to detection of the insect (removal, replanting, preventative/mitigation treatment, educational material)
 - a. Cost for treatment of desirable trees (typical cost to treat 10" dbh tree range \$30 to \$60/tree)
 - b. Removal cost (depends on size of tree, typical cost ranges from \$1000 to \$3500)
 - c. Replacement of removed trees (typical cost is \$400/tree)
 - d. Educational material can vary (\$500 to \$2000/year)
- C. Obtain and distribute information for homeowners to prepare and respond to EAB.
- D. Develop a strategy plan to use as guidance
- E. Monitor ash populations for EAB
 - a. Inventory Town owned ash populations to be complete in 2014
 - b. Use current methods of detection
 - 1) Traps
 - 2) Catch logs
 - 3) Visual inspections
 - 4) Sample trees throughout town for early detection
- F. Promote diversification of community forests and other plantings
 - a. Develop resources to aid in diversification recommendations (e.g. tree species lists...)
 - b. Remove ash from recommended tree list
 - c. Pursue grant opportunities to assist with reforestation

- d. Work with developers/homeowners to diversify tree plantings
- G. Catalog wood disposal and utilization option and identify resources that would aid in development or expansion of options.
 - a. Establish approved collection and disposal site for ash wood (Diamond Valley brush recycling site will serve as holding and marshalling yard for ash wood)
 - b. Train staff of brush recycling site of EAB protocol and recognize ash wood
 - c. Work with local wood worker to take advantage of ash wood
 - d. Work with local industry to use ash wood as fuels
- H. Communicate best management practices for disposal to minimize the spread of the EAB infestations.

DETECT EAB INFESTATIONS PROMPTLY

Objective: Monitor to detect infestations EAB promptly; Implement delimitation survey to minimize spread of EAB and improve the chance to contain and slow the spread.

- A. Work with the City of Boulder where EAB is known to exist and assist where and when possible. Stay up to date of what is happening there and learn from their experiences.
- B. Educate professionals and the public to elicit their assistance in early detection.
 - a. Develop and provide training to community forestry staff, arborists, nurserymen, green industry professionals, public land managers, master gardeners and others.
 - b. Educate the general public through meetings, events, media, town website, press releases and public appeals to assist in detection of EAB
 - c. Develop web-based resources facilitating EAB detection and reporting.
- C. Utilize current detection technology in partnership with appropriate agencies to survey community forests identified as high risk for introduction of EAB.
- D. Utilize team of highly trained individuals to investigate highly suspicious reports of possible EAB infestations.
- E. Communicate protocols for reporting possible EAB sightings, official confirmation and official announcement of a detection
 - a. Reporting Possible EAB Sightings
 - Reports of suspect EAB infestations should be submitted to one of the following individuals:
 1. Town of Windsor Forestry (970-674-2440)
 2. Colorado Department of Agriculture (303-239-4131)
 3. Colorado State Forest Service (970-491-7282)
 4. Colorado State University Extension
 5. USDA-APHIS State Plant Health Director (303-371-3355)
 - b. Specimen submission protocol

- Specimens should be sent to:
Colorado State University Plant Diagnostic Clinic
(970-491-7314)
<http://plantclinic.agsci.colostate.edu/index.html>
- c. Specimen confirmation protocol
- If the specimen is initially identified as EAB by CSU, the Colorado Department of Agriculture State Plant Regulatory Official and USDA APHIS PPQ State Plant Health Director will be advised and the specimen will be sent to the official USDA APHIS identifier for confirmation.
 - Members of the Administrative Team will be advised that a suspect EAB is in the system for official confirmation. At this time, no information will be for public dissemination.
 - This process will be followed each time EAB is found in a new county.
- d. Notification and Official Announcement protocol
- Initial communication of official confirmation of EAB detection will go to the USDA APHIS PPQ State Plant Health Director and immediately to the Colorado Department of Agriculture State Plant Regulatory Official.
 - Official public announcement of EAB detection will be made by the Colorado Department of Agriculture and USDA APHIS PPQ per the response guidelines below.

RESPOND TO DETECTION OF EAB (Contain and Manage an EAB Infestation)

Objective: Contain and delay the spread of an Emerald Ash Borer infestation. (Determine if eradication is possible).

The Colorado Department of Agriculture (CDA) and the United States Department of Agriculture-Animal and Plant Health Inspection Service – Plant Protection and Quarantine (USDA-APHIS-PPQ) have the responsibility and authority for regulatory and quarantine actions to prevent or delay the spread of Emerald Ash borer.

Upon official confirmation and notification of EAB detection an Administrative Team consisting of CDA, USDA APHIS and the Colorado State Forest Service (CSFS) along with the Town of Windsor officials will implement coordinated efforts to contain the infestation under the leadership of CDA and APHIS.

An Incident Command System will be established to respond to the detection.

The following actions are anticipated.

1. The Town of Windsor with the cooperation with CDA and USDA APHIS PPQ and CSFS will immediately meet to determine a preliminary plan of action. APHIS participation will

include the APHIS Colorado State Plant Health Director, National Program Coordinator, Regional Program Manager and other advisers as necessary.

Topics to be addressed will include:

- Review details about the detection
- Identify staffing and resource needs
- Delimiting survey plans
- Regulatory Activities plans
- Quarantine determination and boundaries
- Review State and Federal Processes and timing including State Emergency quarantine, Federal Orders
- Finalize Incident Command structure and staffing

2. **Coordinate response with affected county and city governments and landowners**
 - a. Schedule meetings with local government representatives, landowners, regulated industries, utility companies, recreational areas and others within the affected areas.
3. **Convene Communications Team** (CDA, USDA) to coordinate the release of verified and accurate information to the press. CDA and USDA APHIS will take the lead.
4. **Conduct Delimiting Survey** to determine the extent of the infestation to provide information necessary to make quarantine determinations and establish quarantine boundaries. CDA and USDA APHIS PPQ will take the lead with support from CSFS and the Town of Windsor staff
5. **Investigate Potential Origin:** Mobilize an investigation to determine potential source(s) of the infestation and likelihood that the infestation may already have spread.
6. **Determination of Quarantine Action:** CDA and USDA-APHIS-PPQ, with input from the Town or Windsor will meet to determine quarantine actions. CDA may impose a temporary quarantine (Pest Control Act).
7. **Implement Communication Plan for quarantine information and the response** to advise all affected parties of the quarantine requirements to foster support and compliance. The CDA website will be the official and only location for quarantine information.
8. **Implement Regulatory Compliance Plan**

A regulatory compliance plan will be developed that describes acceptable treatments that would allow movement of regulated articles out of the quarantine area while minimizing the spread of EAB. CDA and USDA-APHIS are responsible for regulatory

compliance activities. Parties who are able to satisfy the treatment requirements will be placed under compliance agreements with CDA or USDA APHIS.

9. **Participate in a wood disposal/utilization taskforce.** CDA and USDA-APHIS will participate in a wood disposal/utilization taskforce convened by local government(s) to facilitate and assure that wood transport, treatment and disposal comply with quarantine requirements.
10. Municipalities and landowners shall be allowed to act under their own local authorities when local ordinances are applicable and consistent with the CDA and USDA APHIS PPQ quarantine requirements.

Public outreach and education regarding Emerald Ash Borer

Content should include information to address the following:

What is it: how to identify the insect and know the look a likes, life stages, how, when and what to treat, who to contact for more information

What types of ash are affected: how to identify ash trees, symptoms of infestation

What are the potential threats to our ash populations:

Where is it: (include boundary maps) has been confirmed in the City of Boulder. No other locations have been confirmed. Windsor at this time does not have any confirmed sites though it could be here but has not been seen or detected.

What percent of our community forest is made up of ash: (current numbers will be available following tree inventory)

- a. Public trees
- b. Private trees

Who to educate:

- a. General Public
- b. Arborists
- c. Other agencies, both private and public

Conduct periodic classes or workshops for professionals.

Conduct informative classes for the general public.

Implement reactive measures once EAB is positively identified within Town limits

- a. Condemnation if applicable
- b. Sanitation

- c. Prohibit private storage or transport of infested wood
- d. Establish methods for treatment of infested wood at approved collection, storage, sorting and processing sites
 - 1) Kiln heat treatment
 - 2) Milling into dimensional wood
 - 3) Chipping (possibility of using chips as fuel)
- a. Restrict movement of infested wood
- b. Promote use of ash wood products / utilization

Explore the possibility of grants or programs that could assist Windsor in:

- a. Control of EAB
- b. Utilize and process wood from removals
- c. Assist property owners with control/removal costs
- d. Replanting/species diversification

Begin with an inventory of your ash trees

- ❁ How many?
- ❁ Where are they?

Are some worth saving?

Yes. No.

- ❁ Valuable to landscape or owner?
- ❁ Healthy and few signs of EAB?
- ❁ Located in the right site?

Do you want to save your ash trees from EAB?

Ash trees may be killed and will need to be cut down.

Hire a Tree Care Professional

- ❁ Get at least two estimates
- ❁ Hire a certified licensed professional
- ❁ Ask for references and insurance

To find one in your area visit:
www.treesaregood.com

Team up with your neighbors and seek discounts for managing all your trees at once!

Yes.

I don't know.
A professional can help.

4.5 ft.

U.S. EPA

Save money. Have unwanted ash removed before they die.

Ensure that drenches are applied to bare soil within 1 ft. of the trunk.

Yes.
You will need professional insecticide treatment.

Are they greater than

diameter
15 in. DBH

?

Homeowners can treat trees themselves.

Consider using a soil drench containing imidacloprid. Treat trees between May 1st and June 15th. Always follow all insecticide label directions.

Determine how big your trees are. Get DBH.

Measure the distance around the trunk (at 4.5 ft. above the ground) and divide it by three to get Diameter at Breast Height.

Which trees can be saved?

Trees CAN be saved if they are:

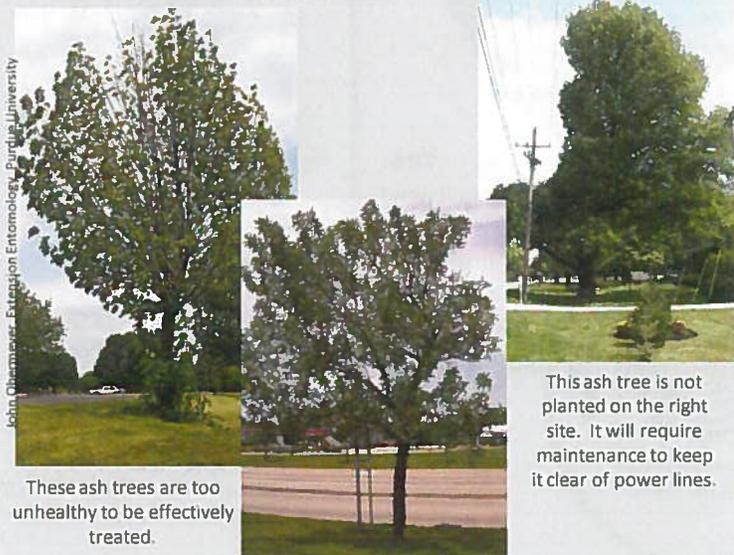
- **Healthy** and vigorously growing, with more than half their leaves.
- Enhancing the landscape.
- Valuable to the owner.
- Showing only few outward signs of EAB infestation.



These ash trees are healthy, have all of their leaves, and provide benefits to the landscape. They would be good treatment candidates.

Trees should NOT be saved if they are:

- **Unhealthy**, with dead branches and more than half of their leaves missing.
- Planted in poor sites or are not important to the landscape.
- Showing many outward signs of EAB or other insect infestation, such as woodpecker damage, bark splits, and water sprouts at the tree base.



These ash trees are too unhealthy to be effectively treated.

This ash tree is not planted on the right site. It will require maintenance to keep it clear of power lines.

Contact your city forester about local ordinances before performing any tree work!

What are the treatment options?

Homeowners can protect healthy ash trees:

- With a trunk **less than 15 in. Diameter** at **Breast Height** (see reverse for DBH measurement).
- With over the counter soil drench products. One option are products containing 1.47% imidacloprid. These products are most effective when applied between May 1st and June 15th.

Disclaimer: Over the counter formulations are not as strong as professional formulations and are not advised to be used on trees with a DBH of greater than 15 inches.

Professionals can protect ash trees:

- With a trunk **greater than 15 in. DBH**.
- Later in the year, using specialized equipment to apply insecticides that contain imidacloprid, dinotefuran, azadirachtin or emamectin benzoate.

For more information on treatments and your ash tree management zone
Go to: www.eabcolorado.com

Which new trees should be planted?

The tree species you choose should match the conditions of the site. Remember that some trees can become very large. Contact your city forester, Colorado State University Extension Office or your local garden center or nursery for advice on choosing a good replacement.

For a list of replacement trees, visit:

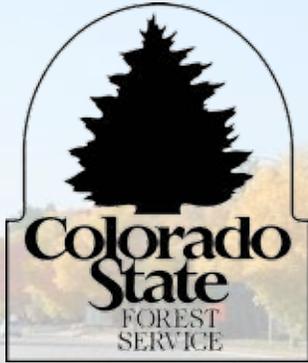
www.coloradotrees.org

or the

Front Range Tree Recommendation List[©]

www.greenco.org/images/FR%20tree%20rec%20list%202014.pdf

This document was developed by Annemarie M. Nagle and Cliff Sadof from Purdue University along with the Indiana Department of Natural Resources.



QUICK GUIDE SERIES

UCF 2014-1

Emerald Ash Borer

Much of the information for this brochure was provided by the USDA Animal and Plant Health Inspection Service, the Colorado Department of Agriculture and Colorado State University Extension.

What is the Emerald Ash Borer?

The emerald ash borer (EAB), *Agrilus planipennis*, is an exotic insect responsible for the death or decline of tens of millions of ash trees in more than 20 states and Canada. Native to Asia, the beetle most likely arrived in the U.S. in the 1990s, hidden in wood-packing materials commonly used for shipping. The first detection occurred in southeastern Michigan in 2002. EAB already has cost communities billions of dollars to treat, remove and replace ash trees. Infestations are difficult to detect, as the larvae reside under the bark, the adults generally are only present from May through September, and ash trees may be infested for up to four years before there are visible signs of decline.



Figure 1. Adult emerald ash borers are approximately ½-inch long. Photo: David Cappaert, Michigan State University*

Potential Impacts in Colorado

In Colorado, EAB was detected for the first time in September 2013 in the City of Boulder. As a non-native insect, EAB has no native predators to keep populations in check, and threatens all true ash species (*Fraxinus spp.*). As a result, the beetle poses a serious threat to Colorado's urban forests, where ash trees comprise an estimated 15 percent to 20 percent of all trees; the Denver Metro area alone has an estimated 1.45 million ash trees. Green and white ash, including 'Autumn Purple' ash and other varieties, have been widely planted in Colorado due to their fast growth, ability to tolerate urban growing conditions and high aesthetic value. Many of the state's ash trees are located on private property and in parks and other community areas.



Figure 2. Ash trees comprise an estimated 15 percent to 20 percent of all trees in Colorado cities, neighborhoods, parks and backyards. Photo: Colorado State University Facilities

This quick guide was produced by the Colorado State Forest Service to promote knowledge transfer.

April 2014
www.csfs.colostate.edu

Commonly mistaken for EAB:

Lilac/ash borer exit holes



Figure 3. When lilac/ash borers exit an ash tree, they create irregular round holes. Photo: Whitney Cranshaw, Colorado State University

Other metallic wood borers



Figure 4. Several metallic green beetles are native to Colorado, including *Phaenops gentilis* (left) and *Buprestis langii* (right), both associated with declining or recently killed conifers. Photo: Whitney Cranshaw, Colorado State University

Flatheaded appletree borer



Figure 5. Dead and dying branches on ash trees may be infested with the flatheaded appletree borer. Photo: James Solomon, USDA Forest Service

Life History

EAB adults are approximately ½-inch long, with a metallic, emerald-green head/back and a coppery reddish-purple abdomen. The adult beetles consume ash foliage, but cause little damage to affected trees, which allows them to remain unnoticed by homeowners.

Females lay eggs in bark crevices, where they develop into worm-like larvae in the fall. The larvae are cream colored and consist of bell-shaped segments. The EAB larvae feed on the inner bark of ash trees, girdling the tree and disrupting the transportation of water and nutrients, much like mountain pine beetle larvae affect pines.

The tunneling and feeding under the bark is what eventually kills impacted trees. Once the larvae mature into adults in the spring, they emerge from under the bark, leaving D-shaped exit holes. The adult beetles may fly up to a half-mile to infest new trees; however, under certain conditions, they are capable of flying up to several miles. Adults also may re-infest the same tree from which they emerged.



Figure 6. S-shaped emerald ash borer galleries under the bark. Photo: David Cappaert, Michigan State University*



Figure 7. Emerald ash borer larva. Photo: David Cappaert, Michigan State University*



Figure 8. Adult beetles can fly approximately a half-mile to infest a new tree. Photo: Howard Russell, Michigan State University*



Figure 9. EAB adults have an emerald-green head/back and a coppery reddish-purple abdomen. Photo: David Cappaert, Michigan State University*

Ash Tree Identification

Only ash trees are at risk from EAB – but all species of true ash (*Fraxinus spp.*) are at risk. To detect an EAB infestation, it is important to first identify the type of tree in question to ensure that it is an ash tree. In Colorado, ash trees can be found in most communities, although many private landowners may not realize they have them. Ash trees have the following characteristics:

- Leaves are compound, which means multiple leaflets occur on a common stalk, and typically have five to nine leaflets. The exception is single-leaf ash (*Fraxinus anomala*), which may have simple or compound leaves, with up to five leaflets.
- Leaflets are smooth or finely toothed along the edges.
- Seeds on female trees are paddle-shaped.
- Branches and buds grow in pairs, directly opposite from each other.
- Mature bark displays diamond-shaped ridges.

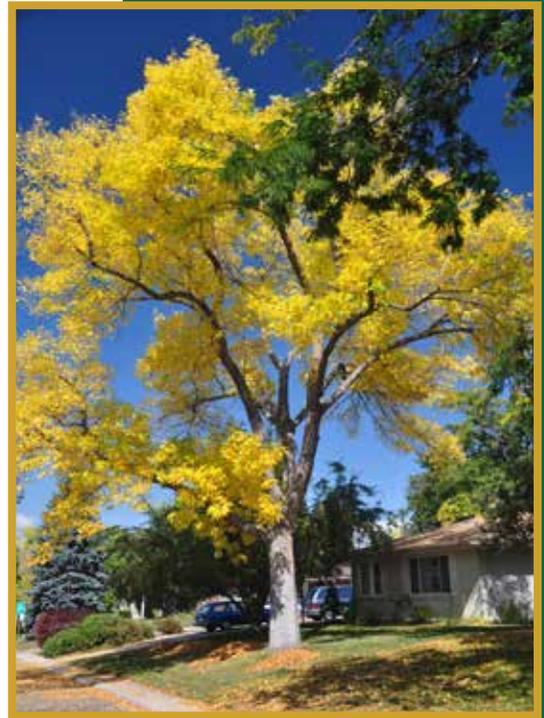


Figure 10. Ash trees have been planted extensively in Colorado over the last 50 years because they grow quickly and can tolerate the growing conditions in urban areas. Photo: William M. Ciesla



Figure 11. Ash trees have five to nine leaflets on each stalk. Photo: Robert Vidéki, Doronicum Kft.*



Figure 13. Seeds on ash trees are paddle-shaped. Photo: Franklin Bonner, USDA Forest Service*



Figure 12. The bark on mature ash trees has diamond-shaped ridges. Photo: Richard Webb, horticulturist*



Figure 14. Ash leaves can either have smooth or finely toothed edges. Photo: Robert Vidéki, Doronicum Kft.*



Figure 15. The buds on ash trees grow in pairs, directly opposite from each other. Photo: Paul Wray, Iowa State University*

Signs and Symptoms of EAB Infestation

Signs of EAB infestation include:

- Sparse leaves or branches in the upper part of the tree
- D-shaped exit holes approximately 1/8-inch wide
- New sprouts on the lower trunk or lower branches
- Vertical splits in the bark
- Winding, S-shaped tunnels under the bark
- Increased woodpecker activity

If an ash tree is experiencing dieback or appears unhealthy, have it examined by a professional. Landowners that suspect the presence of EAB in their ash trees should visit the website www.eabcolorado.com, contact the Colorado Department of Agriculture (CDA) at (888) 248-5535 or send an email to CAPS.program@state.co.us.



Figure 16. EAB is responsible for the death or decline of tens of millions of ash trees in more than 20 states. Photo: Jared Spokowsky, Indiana Department of Natural Resources*



Figure 17. New sprouts grow on the lower trunk of an ash tree infested with EAB. Photo: James W. Smith, USDA APHIS PPQ*



Figure 18. Woodpeckers are an important predator of EAB. Photo: David Cappaert, Michigan State University*



Figure 19. D-shaped exit holes can indicate the presence of EAB. Photo: Pennsylvania Department of Conservation and Natural Resources*



Figure 20. Ash trees may be infested with EAB for up to four years before signs of decline are visible. Photo: David Cappaert, Michigan State University*



Figure 21. Vertical splits in the bark are another sign that EAB has infested the tree. Photo: Joseph O'Brien, International Society of Arboriculture*



Figure 22. S-shaped tunnels or galleries can be found under the bark of an infested ash tree. Photo: Ryan Lockwood, CSFS

Responding to EAB

Quarantines

Like many other states, Colorado has established a quarantine and detection process to prevent the spread of EAB into new areas, and to reduce the impacts of EAB on ash trees in already impacted areas. The EAB quarantine prohibits the movement of all regulated material that has not met treatment requirements – which includes ash nursery stock, green lumber, ash wood products, all hardwood firewood and related products – out of EAB-regulated areas. To legally move regulated material out of a quarantined area, it must meet the treatment options defined by the federal quarantine. For updated information on the Colorado EAB quarantine and treatment requirements, visit www.eabcolorado.com.

Management & Prevention

The best EAB management option depends on the value of each ash tree to a landowner, and the costs associated with each option. Options for treating at-risk or infested trees include removal, replacement and chemical treatments. For more information about treatment options, visit www.eabcolorado.com.

Tree Removal

Trees killed by EAB will need to be removed at some point, but homeowners who are concerned about future infestation also may elect to remove dying or even healthy trees. Trees may become more expensive to remove as they decline and after they have died. Dead and dying trees also may represent a hazard to surrounding property and infrastructure. When choosing to remove an ash tree, it is best to hire a licensed and insured arborist or tree service company. A list is available at <http://www.isa-arbor.com/publicOutreach/findATreeCareService/index.aspx>.

Tree Replacement

Planning for tree replacement can begin prior to the removal of an ash tree. To reduce the impacts of EAB and other insect and disease threats in Colorado's urban and community forests, the Colorado State Forest Service encourages diversity when planting new trees. A single type of tree should comprise no more than 10 percent of all trees in a planted landscape. Ash trees (*Fraxinus* spp.) have been widely planted in Colorado, but due to the risk of EAB, future plantings are not recommended. The Colorado Tree Coalition maintains a list of trees suitable for planting in Colorado communities, which is available at www.coloradotrees.org/PDFs/TreeRecommendationList.pdf.

Chemical Treatments

Homeowners may opt to periodically apply insecticide treatments to help protect high-value trees; however, the early presence of EAB in Colorado may not warrant immediate preventive treatment. When an EAB population is low and known to occur in only a few isolated areas, treatments are not recommended for ash trees located more than 5 miles from the known boundary of the infestation. However, recommendations regarding EAB treatments in specific areas of Colorado will change over time, as the extent of the infestation broadens and EAB populations rise. Current information on the extent of the EAB infestation within the state is available at www.eabcolorado.com.



Figure 23. A CSFS forester and CSU Extension specialist assess the branch of an ash tree to determine the presence of EAB. Photo: Ryan Lockwood, CSFS



Figure 24. Planning for tree replacement is an effective management strategy for EAB. Photo: Vince Urbina, CSFS



Figure 25. A syringe-like applicator is used to inject imidacloprid to control EAB. Photo: David Cappaert, Michigan State University*

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*Photos are from www.forestryimages.org

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Trees not treated with an insecticide are at higher risk of EAB damage than those managed with periodic treatments. Ash trees can be chemically treated if they are healthy or are showing only early signs of EAB. If a tree appears unhealthy, or is showing many outward signs of EAB, it most likely is too late to save the tree. Talk to a forestry professional first when considering the use of chemical treatments to protect high-value trees, and only hire licensed professionals certified by the Colorado Department of Agriculture to administer treatments.

Don't Move Firewood!

Removed ash trees can be used for firewood or mulch at the removal site. However, this wood should not be transported to other locations due to the high risk of spreading EAB to healthy trees. Remember, moving regulated wood materials outside of a quarantine area is illegal and punishable by significant fines.

Never transport firewood or other untreated products from ash trees, including logs or nursery stock, as this is the most likely method of accidental spread. Transporting firewood is a primary cause of many costly insect introductions, often due to the larvae's ability to survive under the bark. When wood is moved from one place to another, pests can hitchhike to new locations and spread further. More information is available at www.dontmovefirewood.org.

For More Information

- General EAB information: www.EmeraldAshBorer.info or <http://stopthebeetle.info>
- EAB in Colorado (survey progress, identification, reporting, quarantine boundaries and treatment options): www.eabcolorado.com
- Facts about insects and diseases that threaten Colorado's trees (Colorado State Forest Service): www.csfs.colostate.edu
- Information about the dangers of moving firewood: www.dontmovefirewood.org
- Common problems of ash trees (Iowa State University): www.extension.iastate.edu/Publications/SUL21.pdf
- Treatment options (Colorado State University): <http://bspm.agsci.colostate.edu/files/2014/02/EAB-control-options-February-11.pdf>
- General tree facts (Colorado Tree Coalition): www.coloradotrees.org/find.php
- Insect Information Website (Colorado State University): <http://bspm.agsci.colostate.edu/outreach-button/insect-information/>



Control Options for Emerald Ash Borer in Colorado

Introduction – Some Common Questions Related to the Control of Emerald Ash Borer

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Introduction

Some Common Questions Related to the Control of Emerald Ash Borer (EAB)

Why should I try to control emerald ash borer? Emerald ash borer (EAB), *Agrilus planipennis*, is an extremely destructive insect of ash trees (*Fraxinus* species), including the kinds of ash (green ash, white ash) that are widely planted in Colorado. It is far more damaging to trees than any other insect that previously has been found in the state and, as populations of the insect increase in the infested areas, it very likely ultimately will kill any unprotected ash trees.



Adult of the emerald ash borer. Photograph courtesy of Howard Russell/Michigan State University and BugWood.org.

Emerald ash borer is a species native to parts of eastern Asia that was accidentally introduced into North America, probably sometime in the 1990s. It is not a very damaging insect in its native land, where the ash species that grow there have evolved resistance to it and natural controls limit its injury.

Unfortunately the species of ash that are native to North America have very little resistance to this new pest and emerald ash borer is devastating to the kinds of ash trees grown in the state. In the Midwest and eastern areas of North America where this insect has been present for several years, EAB has already killed many millions of ash trees. It is expected that emerald ash borer will ultimately kill almost every unprotected ash tree presently growing in North America.



Ash trees showing advanced thinning due to effects of emerald ash borer feeding injuries. This photograph was taken in Michigan in 2002, the first year emerald ash borer was detected in North America. Photograph courtesy of David Cappaert/Michigan State University and BugWood.org.

I have treated my ash trees in the past for borers. Wasn't this for the emerald ash borer?



There are several insects that are native to North America, long present in Colorado, and that tunnel into trunks and limbs of ash. Most commonly encountered is the **lilac/ash borer** (*Podosesia syringae*) a type of wood boring caterpillar that usually tunnels into the lower trunk of the tree. Various **ash bark beetles** (*Hylesinus* species) are fairly common in branches, particularly those that are damaged or overshadowed. Some other insects that may be found occasionally tunneling limbs of ash include the **flatheaded appletree borer** (*Chrysobothris femorata*) and **redheaded ash borer** (*Neoclytus acuminatus*).

Lilac/ash borer larvae and associated damage under the bark of ash. This insect has long been present in Colorado and has often been known as the 'ash borer'. It is far less damaging to ash trees than is the emerald ash borer. Photograph by David Leatherman/Colorado State Forest Service, retired.

These are all insects that are normal residents of ash trees. Most cause very little damage and may only be found in trees or limbs that are suffering from serious stress or injury. Of these native, wood boring insects of ash, the lilac/ash borer is potentially the most injurious. However, the damage potential of the emerald ash borer far exceeds any of these other insects.

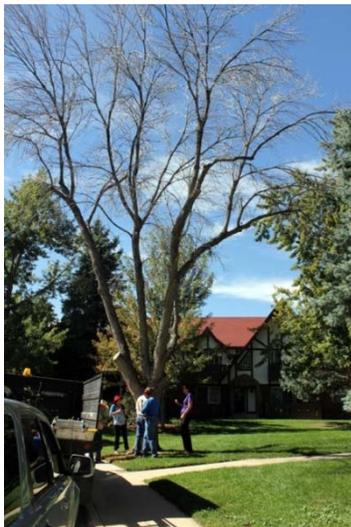
How fast does emerald ash borer kill ash trees?

Emerald ash borer damages trees by tunneling areas under the bark, producing girdling wounds that interfere with movement of water and nutrients. The damage is progressive, with more effects of infestation becoming visible as increasing numbers of insects develop within and damage the plant.

When emerald ash borer first arrives and becomes established in a neighborhood it is usually present in low numbers and is very difficult to detect. However, they survive and reproduce well so that populations build steadily and within a few years it may be possible to observe some external evidence of infestation. A thinning of the leaf canopy is the most consistent symptom associated with EAB injury.

Often, about the time symptoms first become noticeable the populations of EAB explode in numbers and damage accelerates greatly. During this period of peak outbreak even trees that previously appeared healthy may die within just a couple of years.

Where is emerald ash borer found in North America?



Emerald ash borer was originally detected in southern Michigan in 2002. It has since spread rapidly and, by the end of 2013, has been detected in 22 states and two provinces. Colorado is the most recent state where this insect has been detected, being found in Boulder in September 2013. It is also the first state in the western US where EAB has been detected.

At present (winter 2014) Boulder is the only place within Colorado where EAB has been detected. However, the insect will spread in the upcoming years and it is reasonable to expect that essentially all of northeastern Colorado will be infested within a decade.

'EAB tree #1', the first tree in Colorado where emerald ash borer was detected, in Boulder, in September 2013. Photograph by Whitney Cranshaw/Colorado State University.



Larva of the emerald ash borer. Photograph courtesy of David Cappaert/Michigan State University and BugWood.org.



Extensive larval tunneling in an ash tree killed by emerald ash borer. Photograph courtesy of Eric Day/VPI & SU and BugWood.org.



Also, with greater attention being given to this insect following the Boulder detection, it is now much more likely that any other infestations in the state, if any, may be identified. Any needed updates on the distribution of emerald ash borer in Colorado will be

An ash tree across the street from 'EAB tree #1'. This tree has been infested for several years and is showing EAB-related canopy thinning. Photograph by Whitney Cranshaw/Colorado State

made available through several outlets, including the Colorado Department of Agriculture site at www.eabcolorado.com

How does emerald ash borer spread? The adult beetle can fly and that is how it spreads naturally. Normally they will fly only short distances, staying in the near vicinity of the tree from which they developed. However, some will fly longer distances and, with the aid of favorable winds, it is

possible that a few may fly several miles if the right conditions come together. This natural spread will cause the present outbreak of EAB to expand beyond Boulder in the next few years to progressively encompass the areas of the state within the South Platte Drainage. This includes the greater Denver Metro area, Fort Collins, Greeley and all the communities further downriver.



Adult of the emerald ash borer with wings spread showing the purple abdomen. Photograph courtesy of David Cappaert/Michigan State University and BugWood.org.

However, emerald ash borer can also be spread if it is carried by humans. Transport of firewood or other ash materials harboring live emerald ash borers is the way that this insect is carried over long distances. This is undoubtedly the means by which it carried across the eastern plains and was introduced into Boulder, an event which seems to have occurred at least four years prior to its detection.

Geographic barriers present in Colorado, notably mountains and large expanses of ash-free forest, can be expected to prevent natural spread of EAB to much of Colorado outside the South Platte drainage. As a result these areas of the state (outside the South Platte drainage) remain no more nor less at risk of emerald ash borer infestation than they were before the Boulder detection. However, the entire state will always be at risk of the insect being introduced on infested firewood or other material containing live EAB that originated from some area where this insect is present. National quarantines of infested counties (including Boulder County in Colorado) are in place to try and prevent this type of human-assisted spread of EAB.

Can plants recover from injury by emerald ash borer? Trees can recover from EAB injury to a point. If one attempts to control EAB with insecticides it is most likely to be effective if the ash tree is still relatively healthy. If trees have already sustained EAB injuries that have caused the leaf canopy to thin 30-50%, it is probably too late to save the tree.

This is because most of the insecticides used for EAB control act systemically—the insecticide must be transported within the tree. In other words, a tree must be healthy enough to carry a systemic insecticide up the trunk and into the branches and canopy. When EAB larvae feed, their galleries injure the phloem and xylem that make up the plant's circulatory system. This interferes with the ability of the tree to transport nutrients and water, as well as insecticides. As a tree becomes more and more infested, the injury becomes more extensive. When damage has progressed too far, insecticides can no longer move within the tree in a manner to provide effective EAB control.



An ash tree that is showing epicormic branching on the trunk. Epicormic branching occurs when normal movement of nutrients and water is disrupted, such as occurs with the wounding produced by emerald ash borer. Photograph courtesy of Edward Czerwinski/Ontario Ministry of Natural Resources and BugWood.org.

Often if the canopy of a tree is already declining when insecticide treatments are initiated, the condition of the tree may continue to deteriorate during the first year of treatment. When effective controls are applied, in many cases, the tree canopy will begin to improve in the second year of treatment. This lag in the reversal of canopy decline probably reflects the time needed for the tree to repair its vascular system after the EAB infestation has been reduced.

Are there treatments to control emerald ash borer? There are several treatments that have been identified that can be used to manage emerald ash borer. All involve the use of insecticides which have to be applied on an annual or biannual basis to maintain control. These treatments are the subject of this publication and are discussed below.

What are the effects of these insecticides on other insects, birds, mammals, etc.? The best summary of the subject presently available is the sheet *Frequently Asked Questions Regarding Potential Side Effects of Systemic Insecticides Used To Control Emerald Ash Borer* (www.emeraldashborer.info/files/Potential_Side_Effects_of_EAB_Insecticides_FAQ.pdf) This was prepared by University Extension and research scientists from the Midwest and it attempts to answer the most commonly asked questions on this subject based on the information that is known.

Are there biological controls useful for control of emerald ash borer? In the areas of Asia where emerald ash borer is native there are several important natural controls at work. Most important are defenses produced by the trees, which protect them from attacks of invading organisms common to the region, such as emerald ash borer. In addition, there are numerous natural enemies, notably various species of parasitic wasps. Together, the inherent resistance of Asian species of ash combined with the natural enemies very effectively limit emerald ash borer so that it rarely causes serious damage.

Host plant resistance is largely absent from the native North American species of ash that we grow, and always will be, greatly undermining the potential of natural controls. However, there is work being done by federal agencies to identify parasites of the emerald ash borer present in

Asia. Some of these have been found suitable for introduction and release into North America. Already a few of these introduced natural enemies have been released in EAB outbreak areas of the Midwest and in some cases they seem to have proved capable of establishing and reproducing.

This work with natural enemies is ongoing. It is hoped that natural enemies may be useful in helping to suppress EAB populations in the post-outbreak phase. If effective, these may then allow some reduction in the need for treatments in the future and, possibly, allow some of the remaining native ash to survive without treatment. Only preliminary information is presently available but, in a few years, we can expect there to be a much better understanding of how much potential they may have in suppressing emerald ash borer in North America.

At some point in the future it may be decided that some of the more promising natural enemies may be suitable for introduction into Colorado. This is a decision that will be done by state and federal agencies, who will consider not only the possible benefits of such introductions but also possible risks.

Should I try to control emerald ash borer? The decision on what to do about managing this insect will have to be done individually by every owner for every ash tree in an area where this insect becomes established. This calculation will have to consider all the costs of treatment and balance these against the costs associated with not attempting to control EAB injury. Often the most critical factor in these decisions will be how much the tree is valued.

Unfortunately there will be costs associated with this insect regardless of what choice is made. Trees that are infested with emerald ash borer that are untreated or ineffectively treated will die prematurely, requiring their removal and, often, the purchase of replacement trees.

Some models exist to attempt to determine the economic value of trees, such as the National Tree Benefit Calculator: www.treebenefits.com/calculator/ These can come up with figures on values related to benefits the trees provide in terms of air quality, shade, property value, etc. What they cannot capture is personal value of the tree to the owner.

When should I begin to treat for emerald ash borer? There can be some benefit to the health of the tree if treatments are applied to trees that are already infested or can be expected to be infested with emerald ash borer during the present growing season. However, since EAB is extremely difficult to detect in trees in early stages of infestation this decision will often have to be an educated guess, based on the information available on where the insect is known to be present within Colorado.

As of January 2014 EAB had only been found within a relatively confined area of the City of Boulder and overall EAB populations still appear to be low at these areas. Trees within the area of known EAB infestation, and up to a 5 mile radius of this infestation, may benefit from EAB treatment beginning in 2014. However, over time emerald ash borer will expand its distribution and an increasingly larger area will be determined to be infested with EAB. **As new infestations are detected, information on the distribution of the insect in Colorado will be updated. One source summarizing the distribution of this insect in the state that is useful**

to reference is the web site maintained by the Colorado Department of Agriculture: www.eabcolorado.com.

Since most EAB treatments provide control for one year or, at most, two years following application there is no benefit in treating a tree prior to when EAB is present.

When can I discontinue treatments for emerald ash borer? Once established at a location emerald ash borer can be expected to survive in the area as long as any ash trees remain. Therefore some management of emerald ash borer will be required for as long as one wishes to maintain the tree.

Controls will have to be particularly intensive during the period when the insect populations increase to high levels and many ash trees in the neighborhood decline rapidly and die. After this wave of ash tree mortality is past, and populations of remaining trees consist largely of those that were effectively treated, numbers of emerald ash borers can be expected to decline dramatically. In this post-outbreak period it may be possible to reduce treatment intensity, although some management will always be required. Several years from now, when the first areas of Colorado affected by EAB go into the post-outbreak phase, there should be considerably more information available as to how to manage this phase of the emerald ash borer infestation.

Generalized Life History of the Emerald Ash Borer

Emerald ash borer in Colorado has a life cycle that normally takes one year to complete. During winter the life stage present is a full grown larva (a type of flatheaded borer) that lives within a chamber

Full grown larvae of emerald ash borer in the typical curled position they take during winter and prior to pupation. Photograph courtesy of Houping Liu/Michigan State University and BugWood.org.



borer) that lives cut into the outer sapwood of the wood.

In spring it will transform to the pupal stage, during which it transitions to the ultimate adult form.



Pupa of the emerald ash borer. Photograph courtesy of David Cappaert/Michigan State University and BugWood.org.

The adult, a type of metallic wood borer, emerges from the tree by cutting through the bark, producing a D-shaped exit hole. Adults of the emerald ash borer likely will normally begin to emerge in early-to-mid May, with peak emergence in June. However, there is some range in the time of beetle emergence, which may extend into midsummer.



(left) Emerald ash borer adults in process of emerging from trunk. Photograph courtesy of Debbie Miller/USDA Forest Service and BugWood.org.



(right) Mating pair of emerald ash borers. Photograph courtesy of David Cappaert/Michigan State University and BugWood.org.

They then move to the crown of the tree where they feed on ash leaves, making small cuts along the edges of the leaves. After about a week of feeding, the now mature adults will begin to mate and a few days after mating females will begin to lay eggs. Eggs are laid on

the surface of the bark, usually deposited singly into cracks and crevices. Females typically live for about a month and during this time will lay several dozen eggs.

Eggs hatch in about a week and the tiny, newly hatched larvae burrow through the bark. They enter and begin to feed on the tissues under the bark, the phloem, cambium and outer sapwood where they spend all of their larval life. During the course of feeding the larvae produce meandering galleries that progressively widen as the larvae grow. Ultimately the gallery produced by a single larva may range over an area ranging from 4 to 20" (10-50 cm) in length. Larvae feed until cooler fall temperatures arrive, when



Emerald ash borer eggs. Eggs are laid on bark and originally are white, darkening within a couple of days. Photograph courtesy of Debbie Miller/USDA Forest Service and BugWood.org.

they prepare for overwintering by tunneling a bit deeper into the sapwood to produce the overwintering chamber.



Emerald ash borer larvae. The larvae are minute after egg hatch but grow steadily through the summer. Photograph courtesy of David Cappaert/Michigan State University and BugWood.org.

Larval tunnels produced by emerald ash borer. Such wounds interfere with the movement of water, nutrients – and systemic insecticides. Photograph by Art



Nature of the Damage Produced by Emerald Ash Borer

Damage by the emerald ash borer is produced by the developing larvae, a type of flatheaded borer. They feed under the bark, chewing through the tissues of the phloem and outer sapwood of the tree, producing meandering tunnels that widen as the larvae grow.

These injuries interrupt the flow of water and nutrients through the tree. Continued infestation and damage cause progressive negative effects on the overall health of

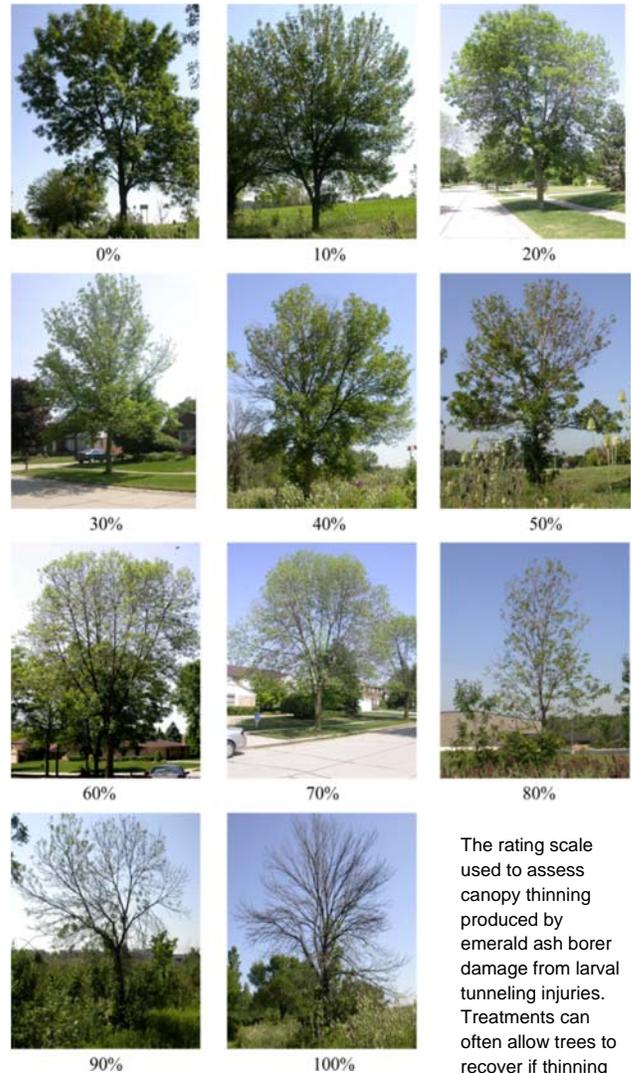
the tree. As effects of injuries from EAB accumulate, external symptoms begin to appear, notably a thinning of the leaf canopy. Left untreated, infestations of EAB will progress to ultimately kill the tree.

Trees have some ability to repair injuries produced by EAB larval tunneling, forming callous tissues that overgrow damaged areas. The ability of trees to recover is related to tree health, with vigorously growing trees best able to produce some recovery. Trees in poor health from stress such as poor siting, drought and previous injuries may have very little ability to tolerate and repair EAB damage. However, during peak periods of outbreaks, when large numbers of EAB are present laying eggs on trees, even the most vigorously growing ash trees will be quickly overwhelmed by EAB attacks and will decline rapidly.

The timely use of effective treatments for control of EAB can prevent much of the injury. And, to a point, treatments can stabilize the effects of past EAB injury. Where previous EAB injuries have not been too extensive and effective treatments are used, trees may recover. As a guideline, ash trees that are showing less than between 30-50% crown thinning as a result of EAB injuries may recover if effective treatments are employed; trees showing greater evidence of injury likely cannot be salvaged by any treatments.

Many factors will affect the speed that EAB will damage a tree. Initial tree health is one factor but most important is the size of the local EAB population. When EAB originally colonizes a neighborhood they are present in low numbers and trees may sustain little damage during this initial period of establishment. However, EAB populations build rapidly and often within 5 years of the initial infestation in a neighborhood very large numbers of EAB may be present. During this period, when EAB outbreaks peak, large number of eggs are laid and large amounts of injury may be done in a very short time. Trees may be so extensively damaged that they may die within a year or two during the outbreak phase.

The emerald ash borer is now a permanent resident in parts of northeastern Colorado, and, in areas where it is present, some control will have to be maintained for the life of any ash tree that the owner wishes to keep. However, after the peak outbreak passes and most ash trees have



The rating scale used to assess canopy thinning produced by emerald ash borer damage from larval tunneling injuries. Treatments can often allow trees to recover if thinning has not exceeded 30-50%. This series of photographs was provided courtesy of David Smitley/Michigan State University.

been killed, EAB populations will drop dramatically. It is thought that at this time, after the peak outbreak, it may be possible to reduce treatment intensity and still maintain adequate control of new injuries.

Target EAB Stages for Control and Control Options

Controls used for EAB generally target two of the life stages. Adults can be killed as they feed on ash leaves on trees treated with insecticides effective against EAB. These treatments are best timed to be present in trees during the peak period of adult activity, which likely will occur sometime between mid-May and late June.

Early stage larvae that tunnel under the bark can be killed with insecticides that move systemically in the tree to the tissues where they are feeding (phloem, outer sapwood). These treatments are optimally timed to be present when young larvae are present and before there has been extensive injury; prior injuries that disrupt movement of water and nutrients will similarly disrupt distribution of systemic insecticides. The peak period when early stage larvae are present will likely occur sometime between late May and early July.

In general there are four control approaches considered for use in management of emerald ash borer:

1. **Soil applications of systemic insecticides.** Two insecticides can be applied to the root system of ash trees and will subsequently be taken up by the roots—imidacloprid and dinotefuran.
2. **Non-invasive systemic trunk sprays.** The insecticide dinotefuran can be applied as a coarse spray onto the trunk of ash trees and will be absorbed through the bark.
3. **Trunk injections with systemic insecticides.** Some insecticides can be injected into the lower trunk of trees and then will move systemically in the tree. These include emamectin benzoate, azadirachtin, and imidacloprid.
4. **Persistent surface-applied contact insecticides.** A standard method of controlling many borers and bark beetles is to apply a persistent insecticide onto the trunk and branches to kill adults as they lay eggs and to kill newly hatched larvae before they enter the plant. Various pyrethroid insecticides are usually used for this purpose (e.g., bifenthrin, cyfluthrin, permethrin).



Emerald ash borer adult and associated chewing injury. Adults feed on leaves before they lay eggs and systemic insecticides can kill them during this period. Photograph courtesy of Debbie Miller/USDA Forest Service and BugWood.org.



Emerald ash borer egg just prior to hatch. After hatch the larva will begin to tunnel into the tree, ultimately settling below the bark where it spends most of its life. Photograph courtesy of Houping Liu/Michigan State University and BugWood.org.

Table 1. A Summary of Control Options Used for Emerald Ash Borer Control

Method of Application	Active Ingredient	Trade Names	Optimum Timing*	Notes
Soil drench, soil injection	imidacloprid	Merit®, Criterion®, Xytect®, Zenith®, Bandit®, several retail formulations	Around bud break	Relatively slow to move into tree so allow 4-6 weeks to reach highest levels in leaves. Soil must remain moist following application. Do not apply to any areas of soil where flowering plants that are visited by bees could pick up residues of the insecticide. Annual treatments required.
Soil drench, soil injection	dinotefuran	Safari®, Zylam®, Transect®	A few weeks after bud break, often mid-late May	Moves into plants faster than imidacloprid (2-3 weeks) so applications are later. Highly water soluble and should not be used if there is risk of leaching into water bodies or groundwater. Do not apply to any areas of soil where flowering plants that are visited by bees could pick up residues of the insecticide. Annual treatments required.
Systemic bark spray	dinotefuran	Safari®, Zylam®, Transect®	A few weeks after bud break, often mid-late May	Moves into plants at effective levels within 2-3 weeks. Some, but not all, formulations suggest use of adjuvant. Do not allow drift onto any flowering plants that are visited by bees that could pick up residues. Annual treatments required.
Trunk injection	emamectin benzoate	TREE-Age®	Typically when adults are starting to emerge and lay eggs. However, long residual activity allows considerable latitude in application timing.	<i>Restricted Use Pesticide</i> due to acute toxicity. Biannual application. Has repeatedly demonstrated high level of control that can persist at least two years. Requires drilling holes into lower trunk.
Trunk injection	azadirachtin	TreeAzin®	Typically when adults are starting to emerge and lay eggs (May).	Natural product derived from neem tree seeds. Annual treatments likely to be required but there is some evidence of ability to control larvae in second year of application. Requires drilling holes into lower trunk.
Trunk injection	imidacloprid	Ima-Jet®, Imicide®, Pointer®, Xytect® Infusible	Typically when adults are starting to emerge and lay eggs (May).	Requires drilling holes into lower trunk (Ima-Jet, Imicide, Xytect) or injecting insecticide directly under bark (Pointer). Annual treatments required.
Residual bark, foliage spray	bifenthrin, permethrin, cyfluthrin	Onyx®, Astro®, Tempo®, many other formulations	Applied to bark when adults lay eggs and egg hatch. Applications to foliage can kill adults when they feed after emergence.	Requires whole tree sprays that cover bark to kill adults on bark and larvae as they hatch from eggs before they enter trees. Spraying foliage to kill adults can improve control. Two applications normally will be needed annually. High potential for drift. Non-systemic in plants and will not kill larvae under bark.

* The target life stages of the emerald ash borer with systemic insecticides (soil injections, soil drenches, systemic bark sprays with dinotefuran, trunk injections) are adults that feed on leaves after emergence and young larvae under the bark. The target life stages of the residual bark surface sprays with pyrethroid insecticides (bifenthrin, permethrin, cyfluthrin) are primarily adults when they are on bark and the larvae as they hatch from eggs before they enter trees. Application to the foliage can kill adults feeding on foliage before eggs are laid.

Soil Applications of Systemic Insecticides

Two insecticides that can move systemically in plants can be applied to the soil and will subsequently move in the plant to help manage emerald ash borer. Imidacloprid is most widely available, including formulations available through retail outlets. Dinotefuran is marketed solely to commercial applicators. A summary of the available products for soil treatment use is in Table 1 (above).

Table 2. Systemic insecticides used for control of emerald ash borer that are applied to the soil. Percent active ingredient is in parentheses (). Rates of use are specified on the label directions and all insecticides must be used only in a manner that is consistent with specified label uses. Links to the labels of commercially marketed formulations are provided (links tested January 10, 2014).

Imidacloprid-containing insecticides sold for use by commercial applicators

Criterion® 2F (21.4%)	www.backedbybayer.com/lawn-and-landscape-management/insecticides/merit-2-f/label_and_sizes
Criterion® 75WSP (75%)	www.backedbybayer.com/lawn-and-landscape-management/insecticides/merit-75-wsp/label_and_sizes
Lesco Bandit® 2F (21.4%)	www.backedbybayer.com/lawn-and-landscape-management/insecticides/merit-2-f/label_and_sizes
Lesco Bandit® 75WSP (75%)	www.backedbybayer.com/lawn-and-landscape-management/insecticides/merit-75-wsp/label_and_sizes
Merit® 2F (21.4%)	www.backedbybayer.com/system/product/product_label_pdf/52/Merit-2F-432-1312-1-gal-110519AV1-SRL.pdf
Merit® 75WSP (75%)	www.backedbybayer.com/lawn-and-landscape-management/insecticides/merit-75-wsp/label_and_sizes
Merit® 75WP (75%)	www.backedbybayer.com/system/product/product_label_pdf/32/Merit-75-WP.pdf
Prokoz Zenith® 2F (21.4%)	www.backedbybayer.com/lawn-and-landscape-management/insecticides/merit-2-f/label_and_sizes
Prokoz Zenith® 75WSP (75%)	www.backedbybayer.com/lawn-and-landscape-management/insecticides/merit-75-wsp/label_and_sizes
Xytect® 2F (21.4%)	www.treecarescience.com/pdf/Insecticides/Xytect-2F_Specimen_Label.pdf
Xytect® 75WSP (75%)	www.treecarescience.com/pdf/Insecticides/Xytect-75-WSP_Specimen_Label.pdf

Imidacloprid-containing insecticides sold through retail outlets

Bayer® Advanced 12 Month Tree & Shrub Insect Control Concentrate (2.94%)	www.bayeradvanced.com/tree-shrub-care/products/12-month-tree-shrub-insect-control-landscape-formula/sizes
Bayer® Advanced 12 Month Tree & Shrub Protect & Feed (1.47%)	www.bayeradvanced.com/tree-shrub-care/products/12-month-tree-shrub-protect-feed/sizes
Bayer® Advanced 12 Month Tree & Shrub Protect & Feed Concentrate II (0.74% + 0.37% chlothianidin)	
Bonide® Annual Tree and Shrub Control (with Systemaxx) (1.47%)	www.bonide.com/lbonide/backlabels/l609.pdf
Ferti-lome® Tree and Shrub Systemic Insect Drench (1.47%)	www.fertilome.com/ProductFiles/10206%20Tree%20Shrub%20Systemic%20Insect%20Drench%20Approved%2003-26-12.pdf
Ortho Bug B gon Year-Long Tree & Shrub Insect Control (1.47%)	www.scotts.com/smg/goprod/ortho-bug-b-gon-year-long-tree-and-shrub-insect-control/prod10700018/ (Note: This link is not the label, which is apparently unavailable on-line)

Dinotefuran-containing insecticides sold for use by commercial applicators

Safari® 20SG (20%)	www.valent.com/Data/Labels/2012-SAF-0001%20Safai%2020%20SG%20-%20form%201510-D.pdf
Zylam® Liquid (10%)	www.gordonsprofessional.com/pdfs/ZylamLiquid-SL.pdf
Transtect® 75WSP (75%)	www.treecarescience.com/pdf/Insecticides/Transtect_Specimen_Label.pdf

Rates of use vary depending on the size of the tree. The diameter of the tree at breast height (DBH) is normally used as the measure of tree size and all formulations marketed for commercial application have label uses directions for amount to apply that is based on DBH. (DBH measurements are generally measured at 4.5 feet above the ground.) Most commercial formulations of imidacloprid (2F, 75WSP formulations) allow higher rates of use on larger trees (greater than 15 inches diameter). These higher rates are usually required to get consistent EAB control on large trees, which have a proportionately greater canopy and trunk volume than do small diameter trees.

Formulations of imidacloprid sold through retail outlets specify application rates that vary by *tree circumference* (about 3X tree diameter).

Both can be applied either as a soil drench or injected into the soil using special equipment for this latter type of application. With soil drench applications the amount of insecticide needed for the tree is premeasured and mixed with several gallons of water. It is then poured onto the soil at the base of the tree, within 2-3 feet of the trunk. If present, mulches and weed fabric barriers must be removed from the site where the insecticide is applied. Soil drench treatments cannot be applied to areas of soil where flowering plants are present that are visited by bees. If flowering plants are present at the base of the tree where treatments are applied (e.g., dandelion weeds, flowers planted at the base of the tree) alternative controls must be used.

Alternately these insecticides can be injected into the soil. This involves the use of specialized equipment that allows the injection of small amounts of diluted insecticide in

Altering Rates of Imidacloprid by Tree Size

Imidacloprid is the most widely accessible of the insecticides used for emerald ash borer and is primarily applied as a soil drench or injection early in the season around the time of bud break. It is then picked up by the roots of the tree and moves systemically to the leaves (where adults feed) and the phloem/sapwood area under the bark (where larvae feed).

All soil-applied imidacloprid products indicate that the amount of insecticide to be used varies by the size of the tree. This is normally determined by the trunk diameter at breast height (DBH). Retail formulations of imidacloprid sold through nurseries and hardware stores indicated rates of use based on trunk circumference.

Furthermore, all commercial formulations (2F, 75WSP) indicate a range of rates. For example, the 2F formulations normally allow uses of 0.1-0.2 fl. oz. of the product for each inch of trunk diameter. In this example the higher rate (0.2 fl. oz.) corresponds to what is often referred to in research trials as the "1X rate", which is equivalent to 1.4 grams of imidacloprid active ingredient per inch diameter.

Lower rates (1/2X-1X) are usually adequate for smaller ash trees, particularly when there are not large populations of EAB present. However, in larger trees, which have proportionately much greater volume, higher rates usually are needed to provide control of emerald ash borer. These higher rates—the "2X rate"—are allowed in trees exceeding 15 inches diameter and are recommended for control.

The amounts of various imidacloprid formulations that would provide a 1/2X, 1X, or 2X rate are summarized as follows:

1X Rate of Imidacloprid for Soil Application to Control Emerald Ash Borer

For the 75% Water Soluble Packet (75WSP) formulations: 1.6 oz (1 packet) for trees of 24 inches of cumulative trunk diameter (DBH)

For the Flowable (2F) formulations: 0.2 fl oz per inch of tree diameter (DBH)

For the Merit 75WP formulation: 1.4 teaspoons/inch trunk diameter (DBH)

2X Rate (Allowed only on trees exceeding 15 inches diameter)

For the 75% Water Soluble Packet (75WSP) formulations: 1.6 oz (1 packet) for trees of 12 inches of cumulative trunk diameter (DBH)

For the Flowable (2F) formulations: 0.4 fl oz per inch of tree diameter (DBH)

1/2X Rate (Generally used on smaller trees and when local infestations are low)

For the 75% Water Soluble Packet (75WSP) formulations: 1.6 oz (1 packet) for trees of 48 inches of cumulative trunk diameter (DBH)

For the Flowable (2F) formulations: 0.1 fl oz per inch of tree diameter (DBH)

For the Merit 75WP formulation: 0.7 teaspoons/inch trunk diameter (DBH)

For the 1.47% formulations sold at retail outlets: 1 fl. oz/inch of tree circumference*

Note: Rates of most formulations used for control of emerald ash borer as soil treatments are based on trunk diameter (DBH – diameter breast height) at 4.5 feet. * However, retail formulations (typically 1.47% active ingredient) have use directions based on *trunk circumference*.

multiple spots within the drip line of the tree. The use of soil injections avoids the presence of surface residues of the insecticide and allows the insecticide to bypass surface barriers (e.g., mulch, fabric barriers, thick layers of turfgrass thatch) that may prevent the insecticide from sufficiently reaching the root system of the tree.

The optimum timing of treatment depends on the product being used. Imidacloprid is relatively less water soluble and mobile in plants than is dinotefuran, but persists considerably longer. It is often best applied around the time of bud break or within a couple weeks after bud break—levels of insecticide needed to control EAB can be expected to be present in ash foliage about 3-6 weeks after application. Dinotefuran will be absorbed and mobilized in the plant much quicker, typically being present in foliage at sufficient levels for EAB control within 2-3 weeks after application. Soil applications of dinotefuran are therefore best applied a few weeks later than imidacloprid, typically in mid-May through early June. (Note: Trees will not begin to absorb and translocate any insecticides until leaves are present and water is moving through the plant for transpiration.)

Regardless of method of application, following treatment *the area where the insecticide was applied must be irrigated sufficiently to remain moist enough so that roots of the trees can absorb the insecticide*; soil applied insecticides will not be adequately taken up by plants from dry soil. The treated site should remain moist for at least two weeks following application. Excessive irrigation that saturates soils for long periods and/or allows run-off should be avoided as it will decrease uptake, and may cause insecticide to leach into groundwater or run-off the site. (Dinotefuran, being much more water soluble, carries far greater risks of run-off and leaching into groundwater than does imidacloprid.)

There is a restriction on the amount of imidacloprid that can be used on an area basis. Total use per year is limited to 0.4 lbs of imidacloprid (active ingredient)/acre.

Non-invasive Systemic Trunk Sprays

The systemic insecticide dinotefuran (Safari®, Zylam®, Transtect®) can be applied as a coarse spray onto the trunk. It is a highly water soluble insecticide and is quite mobile in plants, which allows it to be absorbed through the bark where it can then be moved through the tree to provide control. Under favorable



An application of a systemic insecticide being applied as a soil drench to the base of a tree. Photograph courtesy of University of California Statewide IPM Program.



A systemic insecticide (dinotefuran) being applied as a non-invasive trunk spray. Photograph courtesy of Utah State University IPM Program.

conditions it can be expected within 2-3 weeks after application to move into leaves in sufficient concentration to kill emerald ash borer adults feeding on leaves. It also will distribute to areas under the bark where larval stages of the emerald ash borer feed.

Rates of use are based on tree size (DBH) and a range of rates are listed on labels. Although not specified on labels, the higher rates are likely more appropriate on the larger diameter trees with thicker bark, whereas lower rates can be effectively used on smaller trees with thinner bark.

The use of a surfactant is included in the label directions of some formulations (e.g., Zylam) but not others. Surfactants may be useful in improving coverage and allowing the applied insecticide to move into the bark fissures where it is more readily absorbed by the tree.

Optimum timing of the dinotefuran trunk sprays for EAB control would be in the period beginning a couple weeks after bud break. Although it is readily absorbed by the tree, dinotefuran is less persistent than are the other systemic insecticide used for EAB control, and treatments made too early in the season may diminish in concentration during periods when emerald ash borer is active later in the season.

There is a restriction on the amount of dinotefuran that can be used on an area basis. Total use per year is limited to 0.54 lbs of dinotefuran (active ingredient)/acre.

Trunk Injections with Systemic Insecticides

Systemic insecticides can be applied to trees by injecting them into the trunk. Two insecticides used for control of emerald ash borer—TREE-Age® (emamectin benzoate) and TreeAzin®

Limits on the Maximum Use of Imidacloprid and Dinotefuran for Emerald Ash Borer Control

The use of injected systemic insecticides to trees always involves relatively high amounts of insecticide be applied/plant. Furthermore, most of the insecticides used in this manner—whether soil applied, trunk banded or trunk injected—do specify maximum amounts of the active ingredient that can be used on an area (acre) basis.

To date this has rarely, if ever, been a problem in Colorado since the maximum amounts of use have not been met by the suite of insect problems for which these insecticides have been applied in the past. However, with the establishment of emerald ash borer, and the treatments that will be used for its management, there will very likely be conflicts in this area. These will involve two of the systemic insecticides that are used for control, imidacloprid (Merit, Zenith, Xytect, etc.) and dinotefuran (Safari, Zylam, Transtect).

Imidacloprid. This is likely to be the most commonly used insecticide for emerald ash borer due to cost, effectiveness, and ease of use. It will be applied primarily as a soil drench/soil injection treatment; trunk injections may be a minor use. Application rates will typically be at the “1X” rate of 1.4 grams ai/inch of trunk diameter. On larger trees above 15 inches diameter the 2X rate is recommended. Homeowner/retail products of imidacloprid appear to allow a rate of use of about 1/2X.

The maximum rate of imidacloprid allowed per acre per year is 0.4 lbs, from all uses in a year. If imidacloprid is applied at the 1X rate the maximum amount of imidacloprid allowed per year is the amount that would be used to treat ash trees of a cumulative diameter (DBH) of 126 inches. At the 2X rate, required for larger trees, the maximum amount is met at when trees of a cumulative diameter of 63 inches are treated (e.g., 2 or 3 trees).

Dinotefuran. Dinotefuran will likely be used primarily as a trunk band spray, applied as a drenching spray to the lower trunk for uptake through the bark. It is also labeled for use as a soil injection but its higher cost (relative to imidacloprid) – and high potential for leaching—will likely mean it is little used in this manner.

The maximum amount of dinotefuran that can be used is 0.54 lbs/acre/year. (This is equivalent to 2.7 lbs of the formulated Safari 20SG product or 79 fl oz of Zylam Liquid). A range of rates are labelled for trunk spray applications of dinotefuran products that would allow trees of cumulative diameter between 64-120 inches be treated with this product per acre in a single growing season.

(azadirachtin) can only be used for EAB control when injected. Imidacloprid, most commonly used as a soil treatment for EAB control, can also be trunk injected (IMA-jet, Imicide, Pointer®, Zytect Infusible).



A systemic insecticide being injected into the soil near the base of a tree. Photograph courtesy of Utah State University IPM Program.

Trunk injected insecticides are most often applied by drilling holes into the base of the tree, typically at intervals of about 6 inches. The insecticides flow into the trees either from a series of individual capsules or a reservoir of insecticide used to treat the entire tree. Most applications are designed to allow the insecticide to flow fairly passively into the tree with minimal pressurization, although one system (Arbor-jet) uses a system of

sustained pressurization. The Wedgle® system, involving Pointer®, injects small amounts directly under the bark without drilling.

Injecting trees correctly requires considerable skill so that the insecticide may flow readily into the tree and to avoid excessive tree wounding. Trunk injections should only be done by licensed professional arborists with experience in the practice of injecting trees. Use of TREE-age® is further restricted being registered as a *Restricted Use Product*, which can only be used by a certified pesticide applicator or person under immediate supervision of a certified applicator.

The tree wounding required by trunk injections is of some concern. Evidence from the Midwest indicates that trunk injection wounds usually close over rapidly as callous tissues overgrow the wounded area. The ability to close over wounds will be related to the overall health of the tree, with more vigorous trees most capable of producing rapid wound closure. Slow growing trees with little stored energy reserves, such as ash trees grown on sites where drought and heat stress are common, can be expected to have poorer capacity to close over trunk injection wounds.

Trunk injected insecticides often can move rapidly into and through plants. Thus they are often best applied at some point after EAB adults have begun to emerge, are feeding on leaves, and are beginning to lay eggs. However, since all the insecticides used



Trunk injections require holes be drilled into the base of the tree. The insecticide is then injected into these openings. Photograph courtesy of Bob Hammon/Tri-River Extension, Colorado.



Trunk injection using the Arbor-jet system. For emerald ash borer control this is usually used to apply the insecticide TREE-Age® (emamectin benzoate). Photograph courtesy of David Cappaert/Michigan State University and BugWood.org.

as trunk injections can persist for months and can kill young larvae as well as adults, optimal treatment timing may occur over a several week period.

Another consideration of when to apply trunk injected insecticides is whether conditions exist for rapid uptake of the treatments during application and their subsequent movement through the plant. This occurs most rapidly when plants are actively transpiring (moving water through the plant and evaporating it through leaves and stems.) Conditions that favor transpiration include soil that is sufficiently moist, soil temperatures are above 45°F, and ambient air temperatures are between 40° to 90°F. Uptake of the insecticide and movement within the tree will be slow if soils are too dry (or persistently saturated), temperatures are too cold or too hot, and significant transpiration does not occur in the dormant season when leaves are not present.

The length of time these trunk injected insecticides can provide control varies by product. Imidacloprid trunk injections can provide control for a single season, as do the more commonly used soil applications of this product. At the other extreme, TREE-age® (emamectin benzoate) has been shown to consistently provide a very high level of EAB control for two years following application. TreeAzin® (azadirachtin), a product more recently marketed and used in the U.S., seems to provide intermediate persistence, showing some ability to control EAB larvae the year following application.



Trunk injection using the EcoJet system, which applies the emerald ash borer treatment TreeAzin® (azadirachtin). Photograph courtesy of Paul Bolan/BioForest Technologies, Inc.

Persistent Surface-Applied Contact Insecticides

Insecticides can be sprayed on the trunk, branches and (depending on the label) foliage to kill adult EAB beetles as they feed on ash leaves, and newly hatched larvae as they chew through the bark. Thorough coverage is essential for best results. Products that have been evaluated as cover sprays for control of EAB include some specific formulations of permethrin, bifenthrin, cyfluthrin, and carbaryl. Protective cover sprays are designed to prevent EAB from entering the tree and, unlike the control options with systemic activity, will have no effect on larvae feeding under the bark.



Trunk injection using the Mauget system. For emerald ash borer control this is usually used to apply the insecticide Imicide (imidacloprid). Photograph courtesy of David Cappaert/Michigan State University and BugWood.org.

Cover sprays should be timed to occur when most adult beetles are feeding and beginning to lay eggs. Adult activity can be difficult to monitor because there are no effective pheromone traps for EAB. However, first emergence of EAB adults generally occurs between 450-550 degree days (starting date of January 1, base temperature of 50°F), which in the Midwest

corresponds well with full bloom of black locust (*Robinia pseudoacacia*). Generally two applications have to be applied during late spring/early summer to maintain adequate coverage throughout the period when emerald ash borer is present on trees, laying eggs and eggs are hatching.

It must be noted that spraying large trees is likely to result in a considerable amount of insecticide drift, even when conditions are ideal. Drift and potential effects of insecticides on non-target organisms should be considered when selecting options for EAB control and the use of whole tree spraying increases many of these risks to non-target organisms, in comparison with other EAB control options.

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www.emeraldashborer.info/files/multistate_eab_insecticide_fact_sheet.pdf

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