City of Louisville
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Historic Preservation Commission
Agenda

May 16, 2016

Council Chambers, 2nd floor of City Hall

City Hall, 749 Main Street

6:30 – 9:00 PM

I. Call to Order

II. Roll Call

III. Approval of Agenda

IV. Approval of Minutes - April 18th

V. Public Comments on Items Not on the Agenda

VI. Probable Cause Determination – 1008 Grant Avenue

VII. Discussion/Direction/Action – 801 Grant Avenue Historic Structure Assessment Grant/Memory Square Park Expansion Update

VIII. **PUBLIC HEARING – 947 Pine Iconic Sign Designation**

IX. **PUBLIC HEARING – Grain Elevator Grant**

X. Referral – DELO Lofts

XI. Discussion/Direction – Historic Preservation Applications

XII. Committee Reports

XIII. Updates from Staff

- Upcoming Schedule
- Demolition Updates

XIV. Updates/Committees from Commission Members

XV. Discussion Items for future meetings – Historic Context RFP, Capstone Presentation

XVI. Adjourn

City of Louisville
Department of Planning and Building Safety
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City of Louisville
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Historic Preservation Commission

Meeting Minutes

April 18, 2016
City Hall, Council Chambers
749 Main Street
6:30 PM

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Call to Order – Chairperson Haley called the meeting to order at 6:30 pm.

Roll Call was taken and the following members were present:

Commission Members Present:	Lynda Haley Jessica Fasick Cyndi Thomas Chuck Thomas Debby Fahey, arrived late
Commission Members Absent:	Mike Koertje Peter Stewart
Staff Members Present:	Lauren Trice, Planner I

Approval of Agenda: Motion to approve the April 18, 2016 agenda made by **Chuck Thomas** and was approved by voice vote by all members.

Approval of Meeting Minutes: Motion to approve the March 21, 2016 by Cyndi Thomas and were approved by voice vote by all members.

Public Comments: None

Probable Cause Determination – 421 County Road, Louisville, CO

Conflict of Interest and Disclosure: None.

Staff Report of Facts and Issues:
Trice presents from Power Point:

- A request to find probable cause for a landmark designation to allow for funding for a historic structure assessment for 421 County Road.
- Building constructed circa 1908-1909
- One the five houses along County Road in 1914
- Home of the Madonna family from 1919 to 1983
- Developers of Bella Vista subdivision
- ARCHITECTURAL INTEGRITY
    - Location and rectangular form
    - Extension of roofline to create gable-front
    - Two rear additions
    - Windows replaced and openings altered

  - Window on front façade removed
  - Double door on north elevation
  - Front porch replaced
  - Clad in composite siding
  - Elements of the structure could be restored to enhance overall integrity
- Social Significance - *Exemplifies cultural, political, economic or social heritage of the community.*
- The structure was the home of the Madonna family for over 60 years. Members of the Madonna family were coal miners and developers of nearby Bella Vista subdivision.

Staff Recommendations:
Staff recommends finding there is probable cause to believe the building may be eligible for landmarking under the criteria in section 15.36.050 of the LMC, making the property eligible for up to $900 for the cost of a historic structure assessment. HPC may, by motion, approve or deny the finding of probable cause.

Applicant Presentation:
Rita Ross, 421 County Road, Louisville, CO
My husband and I have owned two prior houses built in 1922 and 1914. We have a real desire for old structures. Especially since Lauren Trice has provided the interesting beginnings of that area with the small houses, we are interested in preserving the building in its integrity in its location.

Commission Questions of Applicant:
Haley asks if you are looking at restoring it.
Ross says we don't know exactly what we want to do, but we are bent on keeping it as close to what it is as we can.

Closed Public Hearing and Discussion by Commission:
Chuck Thomas says ideally, I'd like to see the siding restored to its original, and possibly the openings and windows and doors, but once again, that is the decision of the homeowner.
Haley says at this point, we need to determine if it has enough of the criteria to potentially be landmarked.
Cyndi Thomas says with respect to the social history, it is definitely there. I would be in favor of probable cause at this point to explore it and understand the structural integrity.
Chuck Thomas says that it what it has going for it is the social history. The structural integrity of the regional structure is compromised by remodel over the years.
Haley says the architectural integrity has been altered a lot, but the fact that the Madonna family was there for 60 years and the significance in that area.
Fasick says I am questioning whether or not the social history is strong enough. It is the Madonna family which we know as an important name in Louisville. It talks about the Madonna family on Jefferson Avenue. Is this the property that would speak to the Madonna family most strongly?
Trice says I am not familiar enough with all the properties associated with the Madonna family. In visiting the site, it does have a fence which is similar at the mining cabins where it has the cartridges put in place in the 1920s. It is interesting from the way that area developed, and that row of houses is interesting in the picture.
Haley says regarding the other houses built in the picture, are they still there?

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Trice says four out of five are still there, including the house we are discussing.

Chuck Thomas says I defer to members of this community in terms of the cultural significance, but I would note that the Staff recommendation is to include it. Short of any compelling reason otherwise, I would concur with the Staff recommendation and move that the structure at 421 County Road, Louisville, CO meets the criteria in section 15.36.050 of the LMC for probable cause probable cause to believe the building may be eligible for landmarking, seconded by **Haley**. Roll call vote.

Name	Vote
Lynda Haley	Yes
Debbie Fahey	N/A
Peter Stewart	N/A
Mike Koertje	N/A
Jessica Fasick	Yes
Cyndi Thomas	Yes
Chuck Thomas	Yes
Motion passed/failed:	Pass

Motion passes 4-0.

PUBLIC HEARING – 1800 Plaza Drive Demolition

Conflict of Interest and Disclosure: None.

Staff Report of Facts and Issues:
Trice presents from Power Point.

- **1800 Plaza Drive "Hecla Casino"** Demolition #2016-003-DEMO
- The applicant is requesting to demolish the structures at 1800 and 1870 Plaza Drive as a part of the Balfour Senior Living expansion. The former Hecla Mine Casino, located at 1800 Plaza Drive, is the only structure being reviewed because it is the only structure constructed prior to 1955. The request is being heard by the full Commission because it is part of a Planned Unit Development (PUD) and Plat application.
- Constructed 1910 as a casino for the strikebreakers at the Hecla Mine
- Center of events during Coal Wars in Colorado
- After mines closed in 1920, Williams and Foster families lived in the structure and farmed the area
- Structure was relocated in 1991 from Louisville Plaza to 1800 Plaza Drive
- Moved from original location in 1991
    - Gable-roofed with two gable wings
    - Craftsman style: Overhanging eaves, exposed rafters, decorative brackets
    - Enclosed wrap-around porch
    - 25/1, double-hung windows
    - Clad in vinyl siding
    - Bay window added on south elevation
    - Additions to northeast and southeast
    - Integrity of location lost
    - Structure maintains much of its architectural elements

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- **Architectural Significance** – *Exemplifies specific elements of an architectural style or period.*
  - The structure has elements of the Craftsman style including the overhanging eaves, exposed rafters, window pattern, and prominent porch.
- **Social Significance** - *Site of historic event that had an effect upon society.*
  - The structure and the structure's current location are associated with the Hecla mine and the violent labor strikes that shaped the area's labor history.
- Social Significance - *Exemplifies cultural, political, economic or social heritage of the community.*
  - The structure played a role in both the mining and agricultural history of Louisville.

The HPC may release the permit, or place a stay on the application for up to 180 days from the date of date of issuance of the planning department referral, which was March 9, 2016. The stay would expire on September 5, 2016. Staff recommends the Historic Preservation Commission place the full stay of 180 days to allow the applicant to continue to work on strategies to relocate the structure.

Staff Recommendations:
Staff recommends the Historic Preservation Commission place the full stay of 180 days to allow the applicant to continue to work on strategies to relocate the structure.

Commission Questions of Staff: None.

Applicant Presentation:
Hunter McLeod, Balfour Senior Living, 1331 E Hecla Drive, Louisville, CO
I do not have a presentation per se. One of the things we submitted in our PUD was that an old hoist stone block on the site will be dedicated to the City with a plaque. We have hired an archaeologic firm to do a study of this structure and come up with the language of the plaque. I want to remind everyone that I believe we have been through this process once about six years ago. At that time, it was not found to be an historic structure.

Commission Questions of Applicant:
Haley says six years ago, was it not found to be historic?
Trice says she believes a stay was placed.

Public Comment:
Scott Simkus, 941 W. Maple Court, Louisville, CO
I have worked with Balfour for the last seven months in trying to find a way to secure resources and identify locations to take the historic building to a new home, one that could be permanent and serve as an asset to the community. Back in December 2015, I met with the Mayor and Staff and discussed different locations where my nonprofit SEEDS (Social Equity Economic Development for Sustainability) could take the building and try to preserve its integrity for the community. I met with BVSD and they have been pondering the idea of whether they could offer some land to take the building. On April 11, I received an email from BVSD indicating they could not offer up their land for the building. Plan B is to look at 1517 Main Street which Staff is familiar with, and that location has its share of challenges. It would be less visible to the community. Plan C is 1655 Main Street. In December 2015, my nonprofit submitted a grant application to the

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Federal Office of Economic Development, asking for assistance to help this effort to save the building and help identify some sources to help secure a piece of land. That application was denied based on the location identified in the application which was 1517 Main Street, which is immediately next to the school. That location was not found eligible and is not within the URA. I went back to the Economic Development Administration (EDA) and proposed the location of 1655 Main Street. I have not heard back from them, but I do know that location is within the URA (Urban Renewal Authority) which drives the question of, if it is a location that the landowner will work with our nonprofit and the City, perhaps that could be a location for the building to be placed. If the landowner, City, and federal government are interested in working together to make it happen, this is where I currently am. I am here to give you an update simply because Plan B, 1517 Main Street, is less feasible and is not the highest and best use for the building. I would like to work with a location that sets the building in a permanent location that offers it to the community in a longstanding way. 1655 Main Street offers that. It would be more land than we would need, but there are other opportunities that could present themselves along with the historic preservation of this building. I would like to get support from the HPC to talk with Staff about a potential application to the EDA with the 1655 Main Street address. If I can get the landowner to agree to sponsor and write a letter of support to consider their land for this application, this could be something the HPC could endorse.
Chuck Thomas asks what would be the timeframe on such a submission?
Simkus says it is an open window with EDA. It takes them about one month to respond. I asked them to expedite the submission and they did.
Haley says the school district is a "no" and the land adjacent to the school district is a "no." This is our last property and potentially we would know within a month from submission.
Simkus says the City asked me to try the school district first because it was the easiest path of resistance and the most politically supportive. That is not available anymore.

Tom Abbott, 1800 Plaza Drive, Louisville, CO
I have nothing planned to speak. I am surprised to hear from people with whom I have spoken. I want to speak up for the house. I have lived in it over eight years and have had a few different roommates. The energy of this house is very special. It is an interesting and lovely place. I have had guests come and everyone loves the house. It has such style to it. When I moved in eight years ago, there were still remnants of its history such as a stand-alone wardrobe and hooks on the ceilings where curtains were hung. I am told that I need to move now because they want to tear it down or move it. I am leaving. Every day that I think about leaving, I have more and more feeling for the house itself and the land around it. I will be sad to see it go. I know my neighbors who were unable to be here tonight really love the house too.

Closed Public Hearing and Discussion by Commission:
Fasick says clearly it is eligible because it has the integrity and has social history. It sounds like there are possibilities yet. I agree with Staff that we should put the stay on it of 180 days.
Cyndi Thomas says I agree. There is enough will out there currently to try and find some alternatives. We can't keep it there but that wasn't its original location. I am not extremely tied to that. We should let it play out until there are no other options. Why was moved from its original location in 1991?
Trice says it was moved because of King Soopers and Louisville Plaza.

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Haley asks who moved it, the City or the developer.
Trice says she doesn't know.
Chuck Thomas asks if there was another interested party regarding this structure.
Haley says Scott Simkus was the interested party.
Chuck Thomas says it appears that the last action we can do is to do a stay. That exhausts our ability to do anything with this property. I agree that it is a significant structure, both historically and culturally, and every effort should be made to encourage its relocation.

Chuck Thomas makes a motion to recommend a full stay on 1800 Plaza Drive, Louisville, CO of 180 days be placed to explore the possibility of relocation, seconded by **Fasick**. Roll call vote.

Name	Vote
Lynda Haley	Yes
Debbie Fahey	N/A
Peter Stewart	N/A
Mike Koertje	N/A
Jessica Fasick	Yes
Cyndi Thomas	Yes
Chuck Thomas	Yes
Motion passed/failed:	Pass

Motion passes 4-0.

Commissioner Debra Fahey arrives at 7:05 pm.

Referral – Balfour Senior Living, 1800 and 1870 Plaza Drive, Louisville, CO

Conflict of Interest and Disclosure: None.

Staff Report of Facts and Issues:
Trice presents.
This is a submittal for a planned unit development and plat for the Balfour Senior Living project located at 1800 & 1870 Plaza Drive. The proposal includes a 54-unit assisted living community. The total development proposal includes 60,000 square feet and with a combination of two and three stories. The applicant is requesting waivers for building height, setbacks, and landscaping. The applicant is proposing the preservation of the existing stone and concrete element remains, likely associated with hoisting coal cars, from the former Hecla mine. The structure would be preserved in a plaza area including an interpretive sign about Louisville's mining heritage and the labor strikes at the Hecla mine.

This referral is to give the Commission and opportunity to comment on historic preservation aspects of the project and impact the new construction. The comments go to the applicant, Planning Commission and City Council.

Applicant Presentation:
Hunter McLeod, Balfour Senior Living, 1331 E Hecla Drive, Louisville, CO
I want to follow up. We hired Mountain States Historical, Eric Twitty, to do a review of the structure shown. This should be prepared in the next 30 days. By the next meeting, I will have information along with **Eric Twitty** who will do an overview. In keeping with the

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character, we wanted to build something that reflected the style of Louisville, the American farm house. There are elements of some structures seen daily around here. The idea of stone in the front is to take the monument we are saving and bring it across the site continuously in certain areas, but not continuous, so it looks more historic versus a pure one layer platform. There will be two stories on the front and then it steps back to three stories. From Plaza Drive, you will not see the third story. We have oriented the building towards the detention pond to the south. We have tried to hide some of the unnatural esthetics of a senior housing complex. The porta cochere is built in versus sticking out. We will use lots of bright colors in landscaping. We are trying to keep the theme of Louisville moderate farm house and agricultural feel.

Commission Questions of Applicant: None.

Public Comment: None.
Tom Abbott, 1800 Plaza Drive, Louisville, CO
My good friend reminds me to speak my heart. I have heard numerous times that Louisville has been written up as a very special place to live in our country, apparently the best town in our country. When I moved in, the northwest part from the house was all dirt with no roads and the southeast was all grass fields with no roads. Every time I step outside now, it is a common theme to render these nicest places into not the nicest places anymore.

Closed Public Hearing and Discussion by Commission:
Chuck Thomas asks what is the nature of our recommendation?
Trice says these comments will be taken and placed in a letter to the applicant. It will have comments from all our referral agents. The applicant will respond to those. This will go into the Staff Report information for Planning Commission and City Council.
Fahey says I was not here for the first part of the 1800 Plaza presentation on demolition. Did the HPC vote for a stay on the demolition for 180 days? This presentation is what Balfour is proposing to build if and when the stay is lifted? The stone structure at the beginning will be saved as part of the new construction?
Trice says the HPC voted on a 180 day stay. Looking at the site plan, there is a historic element and it will be maintained with an interpretative sign which will be similar to what was worked on for the Hutchinson development. We worked with the Historical Commission to develop language, and the interpretative sign will be on a structure as part of the wayfinding program.
Cyndi Thomas says I would love to see the house moved and saved. I don't have any earth-shattering commentary. It is clear that there is a lot of green space existing there now, and it is a beautiful area. There is a ton of development going on around it. As part of the HPC, I am not sure that what is being proposed there impacts what we do on a daily basis. I am not opposed to it.
Fasick says I agree with that. I think the architectural style is nice. I think it would probably fit in well with all the new construction going in. Obviously, I'd prefer to have the historic building saved, but if that is not an option, I don't know that I have any problem with the proposal. I thank the applicant for proposing to save the mine piece.
Haley says the massing is sensitive to the area and to what it originally was. I appreciate the historic marker.
Chuck Thomas says I believe there are three historic preservation issues here. The original site as it was, the rural nature of it is gone. It was an issue but it has been built out around it at this point. A lot of the vistas have been lost from what I can see as a

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recent emigrant to Louisville. The second HPC issue is the structure and the social significance of it and the structure itself. I would lobby that we should move heaven and earth to preserve the structure, presumably in a new location, as a representative form of a significant cultural event in the history of Louisville; certainly, one of the most significant cultural events as I understand it in the mining history. The third HPC issue that we can affect today is the preservation of what remains of the mining facility, the anchor. There are so many structures throughout Louisville that people remember that no longer exist. This certainly could become one of those structures that could have some symbolic effort towards the history. It could contribute to some virtual reality at some point in examination of the cultural paths of the structures that no longer exist. I am not an architect but I have been a planner for 30 years, and I have no particular argument with the design of the structure. Certainly, it is the type of facility that is needed and I say that not because I am 66, but it is certainly needed in the community as well as affordable housing. In that regard, I would support it especially because it preserves some vista around the green space that otherwise would be lost.
Fahey says I agree with everything been said. There is going to be a third story. You say it is not going to be visible and in the drawing from the front, it is way back and high. Is it visible from any other perspective?
Trice says there is a rendering included from Hecla Lake.
McLeod says it is two stories on Plaza Drive. You will be able to see it, but you will have to look for it. The idea is to try and hide it with both saving trees and stepping it back from Plaza. Lauren has just pulled up the view from across Hecla Lake. You can see just the top of the building over the trees, but it should not impede significant views of the mountain range.
Fahey says there is no neighborhood around it that will be impacted by it, looking out to three stories.
McLeod says to the south, we have the detention pond for the entire planned community. To the north are the law offices, the old Karen's Kitchen that was converted. We have been in communication with them. I will say that all of our other communities are also three stories currently.
Fahey says I think it will be a good addition to the town. I agree it would be wonderful if we can save the old casino building, but I am really happy that you are saving the small stone structure. As **Chuck Thomas** just said, the site is essentially lost already.
Trice summarizes says HPC is excited and interested in saving the historic element on the property and learning more about what exactly it was. We will get a survey done by an archaeologist. We will get an interpretative sign in cooperation with the Historical Commission. There is no opposition to any design parts of the building. The HPC feels good about the vistas being preserved as well.

Referral: 105 Roosevelt Minor Subdivision

Conflict of Interest and Disclosure: None.

Staff Report of Facts and Issues:
Trice presents. This is a submittal for a two-lot minor subdivision at 105 Roosevelt Avenue. The property is zoned Residential Low Density (RL) and is located within the Old Town Overlay. The subject property includes four platted 30' X 150' lots in the Johnson's First Addition (platted in1890) and 10 feet of vacated alley. The existing home was built in 1952. The home is approximately 1,300 SF with three small sheds also on the property.

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On December 16, 2015, the property received approval from the Board of Adjustment for a variance from Section 17.12.040 of the Louisville Municipal Code (LMC) for lot area and lot width to allow for a two lot minor subdivision. This referral is to give the HPC an opportunity to comment on historic preservation aspects of the project and impact the new construction. The comments go to the applicant, Planning Commission, and City Council.

The existing house will be located on Lot 1, and there is the potential for another structure on Lot 2.

Commission Questions of Staff:
Fahey asks on Lot 1, is the width of the lot the normal width of a lot in Downtown.
Trice says it is a little wider. A lot of the lots are 25' wide, but most lots that are built on are combined on two lots together, so it is 50'. This lot will be 57' wide.
Chuck Thomas asks what is the rationale in dividing the lot at 57' versus 50'?
Trice says the location of the existing structure affected where the dividing line.
Fahey says it is going to cut off the little shed in the back. Is it historic?
Trice says I don't know. My guess it is not historic.
Fassick asks if there is a proposal at this time to develop the new lot.
Trice says they have not submitted any building permits. Looking at one of the photos, the shed does not look historic.
Fasick says if this is approved, it wouldn't come to us as a referral for new construction.
Trice says it would go straight to Building permit. After this, it will go to Planning Commission and City Council for approval of the subdivision, but it can be anything that complies with the RL zone district in the Old Town Overlay. It would be 27' feet high.
Fassick says we don't have any history of the existing house other than 1952.
Chuck Thomas says it is post war vernacular. The architectural context is not particularly unique.
Fasick has no issues. **Cyndi Thomas** has no issues. **Fahey** has no issues.
Trice says in the Board of Adjustment, this could have been a demolition where they built a house big enough for the whole lot. Subdividing it creates two smaller houses. That is good for the pattern of Old Town.

Discussion/Direction – **NAPC Forum**
Trice says the City of Louisville was approved for a Certified Local Government Grant for three HPC members and one staff member to attend the National Alliance of Preservation Commissions (NAPC) Forum. The dates for the Forum are July 27-31, 2016 and it will be held in Mobile, Alabama. Pre-registration for NAPC members end April 30, 2016. The HPC needs to finalize the three members who will attend the NAPC Forum.

For more information about the conference please see the preliminary program:
https://www.regonline.com/custImages/370000/370210/FORUM_2016_PreliminaryProgram_Final_Web.pdf

Trice says **Koertje** says he will go, but he has attended in the past and would like to give other members an opportunity if they are interested.
Fahey says she will go. **Haley** and **Koertje** are possible attendees.

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Julie Van Laanen from Historical Commission says I am your liason. I want to throw out the question, if you didn't fill those three spots, could someone from Historical Commission fill one? Can it be someone from City Council?
Trice says I would have to check and is a certified local government grant through the State that is intended for HPC members. I need to check with our contract.

Discussion/Direction – **Historic Preservation Commission Referrals**
Planning Staff refers land use applications, such as Planned Unit Developments (PUDs), to the Historic Preservation Commission. The HPC's comments on these land use applications are projects reviewed the applicants, staff, Planning Commission, and City Council.

It is the policy of Planning Staff to seek referral comments from the Historic Preservation Commission on the following types of land use applications:

- The application involves a structure constructed prior to 1955.
- The application is within the Old Town Overlay or Downtown.
- The application is directly adjacent to the Old Town Overlay and/or Downtown.

This does not include applications for variances before the Board of Adjustment.

There was a question earlier about whether we include social history on these projects. We have not talked about that before.
Chuck Thomas says I can see that issue being addressed in the first bullet point.
Trice says if it is part of a demolition permit, we would include a social history such as the Balfour application tonight.
Cyndi Thomas clarifies that the determination is a demolition.
Fahey asks if this is an attempt to clarify.
Chuck Thomas asks if this is a codification.
Trice is clarification, purely policy, not in the Code.

Committee Reports:
Grain Elevator – Fasick speaks. There was good attendance at the meeting. **Cyndi Thomas, Chuck Thomas, Peter Stewart,** and I were there. **Eric Hartronft**, **Randy Caranci, Aaron DeJong,** and **Lauren Trice** were there. There was a lot of explaining such as history and bringing everyone up to date on where we are in the process. **Cyndi Thomas** says we should expect another grant proposal from them by the next meeting.
Chuck Thomas says the sentiment that we expressed as commission members was the notion of finishing the preservation of the structure versus financing the utility of the structure for some commercial input. If we can entertain a proposal that accomplishes the preservation of the structure so that it can be made presentable in a commercial venture in the context of the larger development that they are talking about, it would be of interest to the members at that meeting. There was interest in preservation, not necessarily in funding commercialization.
Fahey asks as an update, how close are they to accomplishing what we gave the original funds for and actually landmarking it?
Trice says prior to the snow, it was by the end of the month. They are required to finish to stabilization prior to the closing and the final sale from the City to Louisville Mill Site LLC. I don't know if the snow impacted that process.
Fahey asks if there was a deadline date set for that.

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Trice says it has been extended a few times.

Mining Cabins – Haley says **Cyndi Thomas** and **Lauren Trice** met and brainstormed. We had the blackboard full of ideas. We prioritized the most feasible to the most unfeasible.
Trice says we asked **Bridget Bacon** to do a social history.

Updates from Staff:

- **Demolition Updates** – We had our first administrative demo review that I signed off on. It was relieving. It was a request to replace a roof. We looked through the permit history and found that the roof had been replaced.
- **Upcoming Schedule** –
  - **Tuesday, April 19, 2016, 7:00 pm** - HPC tax discussion will happen at City Council. This was moved from the April 5 meeting. I highly recommend you attend and be a part of that discussion.
  - **Thursday, May 5, 2016, 7:00 pm** – Tiny Houses Preservation Panel Discussion at the Library meeting room will be led by Bridget Bacon and a panel discussion of some of you and Felicity who is our grad student working on demolitions in Louisville.
  - **Saturday, May 7, 2016, 10:00 am –** Landmarking Ceremony. We will meet at 613 Grant Avenue. Mayor Muckle will be attending.
  - **Monday, May 16, 2016** – HPC Meeting
  - **Farmer's Market Schedule** – dates not determined
  - **Monday, June 20, 2016** – **Lauren Trice** will not be here. If there is no pressing matter that requires a time sensitive matter such as a demolition, we can postpone the meeting and move everything to the July 20, 2016. We can also discuss moving the meeting to June 27, 2016.
  - **Joint HPC and Historical Commission** work session. Decisions could be made. Discussion on HPC fund and work at the museum. We are targeting August 2016.

Updates/Committees from Commission Members: None.

Discussion Items for future meetings:

- Historic Context Request for Proposal
- Demolition Permit Transfer

Adjourn:
Chuck Thomas moves to adjourn meeting, **Fahey** seconds. Meeting adjourned at 7:50 pm.

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LOUISVILLE HISTORIC PRESERVATION COMMISSION

STAFF REPORT

May 16, 2016

ITEM:	Landmark eligibility probable cause determination for 1008 Grant Avenue
APPLICANT:	Eric Knapp 1008 Grant Avenue Louisville, CO 80027
OWNER:	Same
PROJECT INFORMATION:	
ADDRESS:	1008 Grant Avenue
LEGAL DESCRIPTION:	Lot 21-22, Block 2, Capitol Hill Addition
DATE OF CONSTRUCTION:	ca. 1906-1907
REQUEST:	A request to find probable cause for a landmark designation to allow for funding for a historic structure assessment for 1008 Grant Avenue

Under Resolution No. 2, Series 2014, a property may be eligible for reimbursement for a historic structure assessment (HSA) from the Historic Preservation Fund (HPF) if the Historic Preservation Commission finds “probable cause to believe the building may be eligible for landmarking under the criteria in section 15.36.050 of the Louisville Municipal Code.” Further, “a finding of probable cause under this Section is solely for the purposes of action on the pre-landmarking building assessment grant request, and such finding shall not be binding upon the HPC, City Council or other party to a landmarking hearing.”

1008 Grant Avenue Southwest Corner - Current Photo

1008 Grant Avenue Northwest Corner - Current Photo

1008 Grant Avenue West Elevation - Current Photo

1008 Grant Avenue – Rear Garage - Current Photo

1008 Grant Avenue – West elevation – Showing seam

HISTORICAL BACKGROUND:
Information from Bridget Bacon

The structure was owned by the Mudrock and Kasenga families until the early 1920s. The Rizzi Family lived in the structure from 1921 until 2002, over 80 years. Joseph Rizzi was a coal miner in the Paramount mine from the age of twelve.

1008 Grant Avenue – 1948 Assessor's Card

ARCHITECTURAL INTEGRITY:
The vernacular structure has maintained its form and location. The structure is clad in wood shiplap siding which appears to be original. The front facade structure has a gable-front wing and half porch. The gable end is clad in wooden, fish scale shingles. The rear addition on the structure appears in the 1948 photo and site plan. Since the 1948, a porch was added on the southeast corner of the structure. The sizes of the window openings have been altered and the windows replaced. The front porch posts were also replaced. Based on a seam in the siding on the front elevation, it appears that the front door has changed location.

A rear garage was constructed along the alley in 2012.

HISTORICAL SIGNIFICANCE AND CRITERIA FOR FINDING PROBABLE CAUSE FOR LISTING AS LOCAL LANDMARK:
To receive grant funding, the HPC must find probable cause that the property meets the landmark criteria. Landmarks must be at least 50 years old and meet one or more of

the criteria for architectural, social or geographic/environmental significance as described in Louisville Municipal Code (LMC) Section 15.36.050(A). The City Council may exempt a landmark from the age standard if it is found to be exceptionally important in other significance criteria:

1. *Historic landmarks shall meet one or more of the following criteria:*
    a. *Architectural.*
        (1) *Exemplifies specific elements of an architectural style or period.*
        (2) *Example of the work of an architect or builder who is recognized for expertise nationally, statewide, regionally, or locally.*
        (3) *Demonstrates superior craftsmanship or high artistic value.*
        (4) *Represents an innovation in construction, materials or design.*
        (5) *Style particularly associated with the Louisville area.*
        (6) *Represents a built environment of a group of people in an era of history that is culturally significant to Louisville.*
        (7) *Pattern or grouping of elements representing at least one of the above criteria.*
        (8) *Significant historic remodel.*
    b. *Social.*
        (1) *Site of historic event that had an effect upon society.*
        (2) *Exemplifies cultural, political, economic or social heritage of the community.*
        (3) *Association with a notable person or the work of a notable person.*
    c. *Geographic/environmental.*
        (1) *Enhances sense of identity of the community.*
        (2) *An established and familiar natural setting or visual feature that is culturally significant to the history of Louisville.*

2. *Prehistoric and historic archaeological sites shall meet one or more of the following:*
    a. *Architectural.*
        (1) *Exhibits distinctive characteristics of a type, period or manner of construction.*
        (2) *A unique example of structure.*
    b. *Social.*
        (1) *Potential to make an important contribution to the knowledge of the area's history or prehistory.*
        (2) *Association with an important event in the area's history.*
        (3) *Association with a notable person(s) or the work of a notable person(s).*
        (4) *A typical example/association with a particular ethnic group.*
        (5) *A unique example of an event in Louisville's history.*
    c. *Geographic/environmental.*
        (1) *Geographically or regionally important.*

3. *All properties will be evaluated for physical integrity and shall meet one or more of the following criteria:*
    a. *Shows character, interest or value as part of the development, heritage or cultural characteristics of the community, region, state, or nation.*

b. Retains original design features, materials and/or character.
c. Remains in its original location, has the same historic context after having been moved, or was moved more than 50 years ago.
d. Has been accurately reconstructed or restored based on historic documentation.

Staff has found probable cause to believe this application complies with the above criterion by the following:

Social Significance - *Exemplifies cultural, political, economic or social heritage of the community.*

The structure was the home of the Rizzi family for over 80 years.

Architectural Significance - *Represents a built environment of a group of people in an era of history that is culturally significant to Louisville.*

The small vernacular structure with Victorian elements is typical of coal mining families in Louisville.

RECOMMENDATION:
The structure at 1008 Grant Avenue has maintained its architectural integrity. The structure has social significance because of its association with the Rizzi family.

Staff recommends finding there is probable cause to believe the building may be eligible for landmarking under the criteria in section 15.36.050 of the LMC, making the property eligible for up to $900 for the cost of a historic structure assessment. HPC may, by motion, approve or deny the finding of probable cause.

SUPPORTING DOCUMENTATION AND INFORMATION:
Attached for your review are the following documents:

- 1008 Grant Avenue – Social History

Louisville Historical Museum
Department of Library & Museum Services
City of Louisville, Colorado
May 2016

1008 Grant Ave. History

Legal Description: Lots 21-22, Block 2, Capitol Hill Addition

Year of Construction: 1906-1907

Summary: Members of the Rizzi family owned this house for over 80 years.

History of the Capitol Hill Addition

J.C. Williams, who was a mine superintendent with the Rocky Mountain Fuel Company, and Irving Elberson, who was a banker, were the developers of the Capitol Hill Addition. The plat for this addition was filed with the County in 1904.

Earliest Ownership and Date of Construction

Online County property records show that Devot Strader (whom records indicate was a Denver bookkeeper) purchased this property from the developers, Irving Elberson and J.C. Williams. The deed was recorded with the County in 1907.

The County gives two different dates as the date of construction for this house, though they are not inconsistent with one another. Also, the County is sometimes in error with respect to the dates of construction of Louisville buildings, so other evidence is looked to. In this case, the County Assessor card completed for 1008 Grant in 1948 states that the house was constructed "Before 1908." The online County records state that the house was constructed in 1906. The indication in the property records that this parcel wasn't sold by the developers to a purchaser until 1907 might suggest that the house had not yet been built, but the possibility that the developers built the house or that the first owner built it before the deed was recorded cannot be ruled out. The house does appear in the correct location on the 1909 Drumm's Wall Map of Louisville, so it was standing by 1909. For these reasons, the estimated year of construction is "1906-1907."

Also by a deed recorded in 1907, Devot Strader sold 1008 Grant to Paul Mudrock.

Mudrock Family Ownership, 1907-1910

By a deed recorded in 1907, Paul G. Mudrock purchased 1008 Grant. A Paul G. Mudrock was born in Slovakia in 1863 and lived in Colorado, and his children were born in Colorado during the period of Paul G. Mudrock's ownership of this house. However, it could not be verified that it was this Paul G. Mudrock who owned 1008 Grant. (It seems likely, however, that the Paul Mudrock who owned 1008 Grant was related to the other members of the Mudrock family of Louisville.)

Kasenga Family Ownership, 1910-1919

In 1910, Joseph Kasenga (1885-1977) purchased 1008 Grant. He had arrived from Slovakia in about 1904 and in 1909 married Mary Sirokman (1891-1982), whose parents were also Slovak and who lived next door at 1016 Grant. The 1910 federal census shows Joe, Mary, and their baby son, Joe Jr., to be living in this location and next to Mary's parents and siblings. Joe and Mary also had children Elsie (1913-2006) and Margaret (1914-1996) while living at 1008 Grant, and had additional children after they moved away.

Elsie Kasenga Stucka later wrote a family history that included information about her father and 1008 Grant. She wrote that her father, when he first came to Colorado, worked in the steel mills in Pueblo and that in Louisville he worked in "practically all the mines in and around Louisville, Superior and Marshall." He was involved as a striker in the 1910-1914 strike, which was during his ownership of this house. She wrote, "[f]irst, we lived in town in a house one half block from St. Louis Catholic School, 1008 Grant Street, and we all went to St. Louis Catholic School, even after we moved out on the farm. When I was six in 1919 we moved out on a ten acre farm Northeast of Louisville."

About her mother, Mary Sirokman Kasenga, Elsie wrote, "She was only sixteen and a half when she married Joseph Kasenga, Sr. They had three children, Joseph, Jr., Margaret and myself during the Five Year Strike and she did a good job in rearing us." Elsie Kasenga's family history, which is contained in the Louisville Historical Museum's files, further describes her family's story after they away from 1008 Grant.

In 1919, Joseph Kasenga sold 1008 Grant to Elizabeth Philp.

Philp Family Ownership, 1919-1921

Elizabeth Philp (1875-1956) was a widow when she purchased 1008 Grant in 1919. Her husband, Peter, had died in 1910. The 1920 federal census shows Elizabeth to be living at 1008 Grant with her three sons: David, age 23; Peter, age 17; and Robert, age 12.

David's occupation was that of farmer, and Peter's occupation was given as laborer. They appear to have provided the family's only financial support.

In 1921, Elizabeth Philp sold 1008 Grant to Joseph Rizzi.

Rizzi Family Ownership, 1921-2002

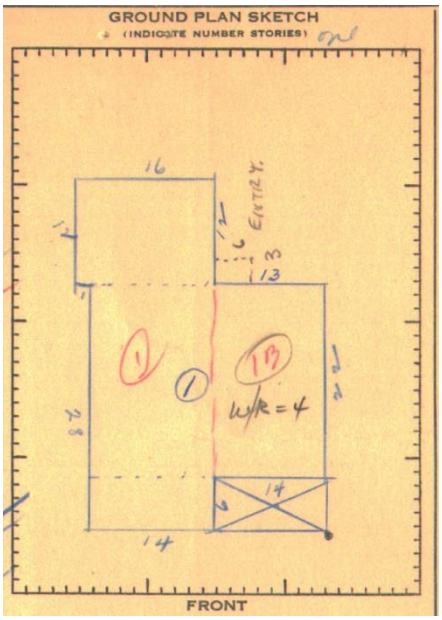
Joseph Rizzi (1898-1968) grew up at 1401 Cannon in Louisville's Little Italy neighborhood. In 1921, He married Christina DiGiacomo (1903-2001), whose family was also Italian and who had grown up on a farm northeast of Louisville near the intersection of 95th and South Boulder Road (northeast corner). They both attended the St. Louis Catholic School located a half-block south of 1008 Grant, though they both had far to walk to school.

Their child, Rita, was born in 1924. In 2005, she wrote a family history entitled "Dominic and Rita Ferrera's Family Story" that is in the collection of the Louisville Historical Museum. She wrote, "[m]y dad worked in the coal mines when he was twelve or thirteen years old. He said his lunch pail would drag on the ground as he walked to work. He met Christina when he worked on her family's farm in the summer. . . . They bought a house at 1008 Grant Ave. in Louisville and lived there all their married lives. My dad did a lot of remodeling on the house through the years."

Rita further described how her father, Joe, worked in the Paramount Mine north of Louisville: "I remember him coming home from work all covered in coal dust so black I could hardly recognize him. I would run to the corner to meet him and he always saved a banana from his lunch pail for me. In the summer months, he would work as a carpenter. . . . My dad built a workshop at his house."

Rita described more about the house at 1008 Grant: "Growing up I did not have a bedroom of my own. I slept on a day-bed in the dining room. Our house was very simple, but neat. My dad made the original back porch into a kitchen. We had a small kitchen, dining room, living room, and one bedroom. My dad added a second bedroom when I was in high school. It really felt great when I had my own room. It was a square room with short windows on one wall. We had a coal stove and when we took our baths it was in a large round wash tub and we would open the oven door to keep warm. We did not have bathrooms; we had outhouses."

The following photo and ground layout of the house are from the County Assessor Card and date from 1948. At that time, which was after the addition of the second bedroom, the square footage of the house was 892 square feet.



Joe Rizzi died in 1968 and Christina Rizzi died in 2001.

Later Owners

Following the death of Christina Rizzi in 2001, Rita Rizzi Ferrera and Dominic Ferrera sold 1008 Grant to Cary Cosper. Not long after, Christopher Ryan Cosper joined as owner. In 2009, the Cospers sold 1008 Grant to Karin Hagerman. As of 2012, ownership is in the name of Karin Hagerman Knapp, and she is still the owner of record.

Sources

The preceding research is based on a review of relevant and available online County property records, census records, oral history interviews, and related resources, and Louisville directories, newspaper articles, maps, files, obituary records, survey records, and historical photographs from the collection of the Louisville Historical Museum.

LOUISVILLE HISTORIC PRESERVATION COMMISSION

STAFF REPORT

May 16, 2016

ITEM:	Historic Structure Assessment Grant Request and Discussion of Memory Square Park Expansion
APPLICANT:	Kathy Martin Recreation and Senior Services Superintendent City of Louisville
OWNER:	City of Louisville
PROJECT INFORMATION:	
ADDRESS:	801 Grant Avenue
LEGAL DESCRIPTION:	LOT 5-11 BLK 5 PLEASANT HILL
DATE OF CONSTRUCTION:	1894
REQUEST:	A request for a $6,000 grant to conduct a Historic Structure Assessment of 801 Grant Avenue.

SUMMARY:

The City of Louisville is working with a citizen task force on the feasibility for a potential Recreation and Senior Center expansion and remodel as well as a remodel to the Memory Square Pool and Bathhouse. Since the fall of 2015, we have surveyed area facilities, researched industry trends, crunched budget numbers and solicited input on the citizen vision for the future of recreation in Louisville. A Citizen Task Force was authorized by City Council, under the chairmanship of Council Member Jeff Lipton with Council Member Susan Loo serving as vice-chair. The City selected Sink Combs Dethlefs as the consulting firm for the study. Sink Combs Dethlefs and City staff presented conceptual plans and preliminary recommendations to the public on May 4th. On July 19, 2016, City Council will consider a 1st reading on a ballot question seeking the voter approval necessary to fund Recreation Senior Center and Memory Square Swimming Pool improvements along with a second question to authorize funding for operations and maintenance associated with the expansion of the Louisville Recreation Senior Center.

Based on the magnitude of the improvements along with the functionality of the 1972 Memory Square bathhouse, Sink Combs Dethlefs is recommending that the bathhouse at Memory Square be replaced using essentially the same footprint along with replacement of the baby pool with a new baby pool, while leaving the main pool with an identical footprint.

The south wall of the 1972 bath house shares a common wall with the Center for the Arts, which is a Historically Landmarked structure. Because of the shared site and wall, the City of Louisville Parks and Recreation Department is requesting a Historic Structure Assessment to be accomplished in a timely manner with regard to the Arts Center.

The property at 801 Grant Avenue, the Center for the Arts, was landmarked by City Council through Resolution No. 33, Series 2005. The history of the building was written by Bridget Bacon in the summer 2010 Louisville Historian. (http://www.louisvilleco.gov/home/showdocument?id=1104).

801 Grant Avenue Southeast Corner - Current Photo

801 Grant Avenue- Connection facing Memory Square Park

801 Grant Avenue- Connection facing alley

REQUEST:

As a part of the exploring the expansion of the Memory Square pool, the applicant would like to examine the condition of the Center for the Arts building and the connection to the Memory Square Pool House. Under Resolution No. 2, Series 2012, a landmarked property is eligible for reimbursement for a historic structure assessment (HSA). The property is zoned Residential Medium Density (RM). Residential properties are typically given an HSA grant of up to $900. Due to the civic use of this property, the City is requesting $6000 from the Historic Preservation Fund to conduct a Historic Structure Assessment on the Louisville Center for the Arts to access the shared wall with Memory Square Pool.

RECOMMENDATION:

Staff recommends approval of a grant of up to $6,000 for the cost of a historic structure assessment. HPC may, by motion, approve or deny.

The applicant is also requesting feedback on the conceptual renderings for an expansion of the Memory Square Pool House due to its location on a landmark site.

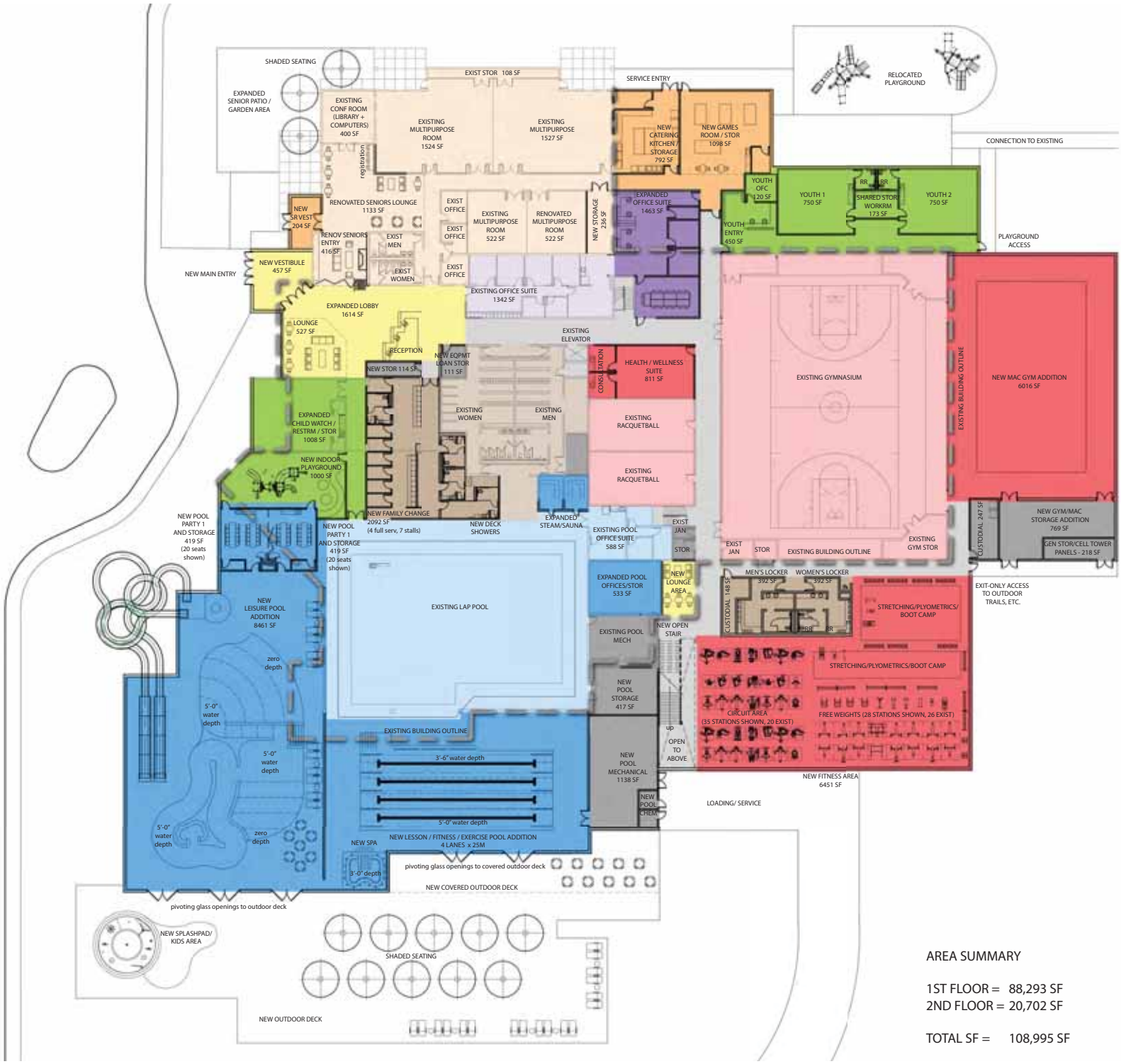
SUPPORTING DOCUMENTATION AND INFORMATION:
Attached for your review are the following documents:

- Memory Square Park Expansion Conceptual Images
- *Louisville Historian*, Summer 2010

SINK COMBS DETHLEFS
ARCHITECTURE DESIGN

LOUISVILLE RECREATION / SENIOR CENTER + AQUATIC CENTER EXPANSION STUDY
Louisville, CO
04 May 2016

RECREATION CENTER SITE PLAN
Not to Scale



AREA SUMMARY

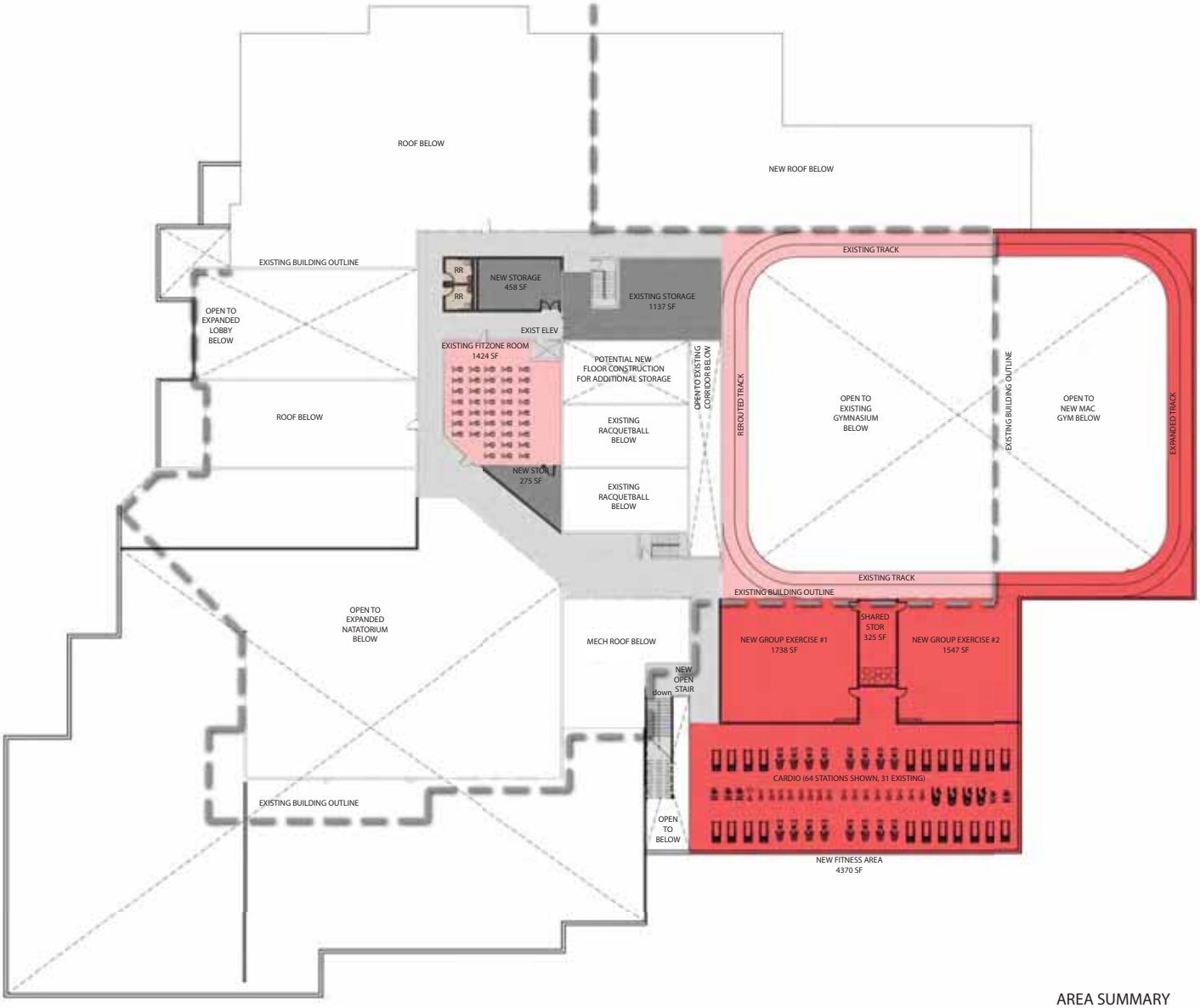
1ST FLOOR = 88,293 SF
2ND FLOOR = 20,702 SF

TOTAL SF = 108,995 SF

SINK COMBS DETHLEFS ARCHITECTURE DESIGN

LOUISVILLE RECREATION / SENIOR CENTER + AQUATIC CENTER EXPANSION STUDY
Louisville, CO
04 May 2016

FIRST FLOOR PLAN
3/32" = 1'-0"



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ARCHITECTURE DESIGN

LOUISVILLE RECREATION / SENIOR CENTER + AQUATIC CENTER EXPANSION STUDY
Louisville, CO
04 May 2016

SECOND FLOOR PLAN
3/32" = 1'-0"

SINK COMBS DETHLEFS
ARCHITECTURE DESIGN

LOUISVILLE RECREATION / SENIOR CENTER + AQUATIC CENTER EXPANSION STUDY
Louisville, CO
04 May 2016

MEMORY SQUARE SITE PLAN
No o S ale

SINK COMBS DETHLEFS
ARCHITECTURE DESIGN

LOUISVILLE RECREATION / SENIOR CENTER + AQUATIC CENTER EXPANSION STUDY
Louisville, CO
04 May 2016

MEMORY SQUARE FLOOR PLAN
No o S ale

The Louisville Historian

Issue #87 *A Publication of the Louisville Historical Commission and Society* Summer 2010

The Story of the Little Brick School House

By Bridget Bacon, Museum Coordinator

Louisville's "little brick school house," as it used to be called, has served our community in many ways for over 115 years. Today, the building is the Louisville Center for the Arts at 801 Grant and it continues to be at the center of cultural and recreational activity.

The story starts when the building was constructed with two rooms to be a school for first and second graders.

School Board Records Show When Building Was Constructed

The year of construction of a historic building can be difficult to ascertain, but important to know. County records of these dates are often inaccurate and should not be relied upon without examining all of the available evidence. Boulder County gives the year of construction of the Center for the Arts building as 1980, which clearly is not correct.

For decades, the year 1903 was repeated as the year in which the school house was constructed. This erroneous information may have originated with a 1933 newspaper article about Louisville schools. In fact, there was a school bond issue in 1903, and that may have led to the confusion. However, a review of the original school board minutes for Louisville School District #29 shows that the building was actually constructed nine years earlier, in 1894. Moreover, a written notation by Nelle Wolfer Willis, who was born in 1890, helped point away from the date of 1903. She wrote that she began attending first grade in the brick school starting in 1896.

Transition from a School to Other Uses

Louisville was a growing town that valued education, so it wanted and made sure that it got a real high school. A high school building was constructed and opened in 1920 at the southeast corner of Garfield and Walnut. This development is said to have freed up space in the grade school for the first and second graders and led to a new period of usage for the "little brick school house." It would continue to be owned by the Louisville School District for another forty years, but appears not to have been used for day-long school classes ever again.

Brick school house, early 1900s. (90-25-13)

For over 25 years, the children of Louisville's coal miners came to school here. These were hard times. During this period, Louisville went through the growing pains of becoming a real town, suffered economically through the 1910-14 coal mining strike, experienced the closure of the Louisville Bank and saw its town marshal killed in 1915, experienced epidemics such as the influenza epidemic of 1918, and saw the tragic deaths of six Louisville residents (with injuries to many other residents) in a 1920 Interurban train accident. It is hoped that young first and second graders were somewhat insulated from these hardships as they attended school in the brick school house.

Close up of a girl from a photo of her class taken by the brick school house. Circa 1900.

Close up of a boy from a photo of his class; the brick of the building is behind him. Circa 1900.

The building is remarkable for all of the community groups that have used or cared about the building: school children and teachers, library users, youth sports teams, arts and crafts students, scout groups, clubs, seniors, artists, musicians, theater groups, and others. One resident has recalled that even municipal court has been held in the building. In terms of contributions by boards and commissions, members of the Louisville Historical Commission and Arts and Humanities Council (now the Cultural Council) were key advocates in urging that the building and its cupola be restored, and it was the Historic Preservation Commission that moved to place it on the Louisville Register of Historic Places.

Teacher Virginia Hamilton with her class by the school, late 1890s or early 1900s. (E-K N-4)

The following timeline shows how the building transitioned from being a school to a community building and shows how, after a period marked by some neglect and a lack of funding for its care, it has reemerged as a treasured landmark.

1878: Louisville is founded.

Circa 1881: Following a few temporary locations for schools, a two story frame school building is constructed at the northwest corner of Spruce and Jefferson.

June 1894: As the town grows, the three-person Louisville School Board decides to put to the voters the question of whether to approve a bond issue for $3,000 to erect a new school building. Voters approve it, 31 to 20. A week later, the school board begins to order school desks, a teacher desk, slate, and a "No. 20 Single Bell."

Also in June 1894, there is a meeting to entertain bids for erecting the building. The contract is given to Owen Smith, who submits the middle bid of three, at $2,590. Later, more work and materials are added to the construction project.

August 1894: The school board votes to order a furnace for the new building, with the meeting held "at the new school house." It appears that the new school building is built during the summer months of 1894. It is said to have two rooms.

May 1895: Owen Smith, who was the contractor who built the brick school house, is elected President of the school board.

March 1898: 100 shade trees are planted around both the brick school and the larger frame school.

1900: Louisville teachers, of whom there are six for all of the grades, are paid $55 per month.

Photographer Ed Tangen captured an unusually candid moment of active children by the school in the early 1900s. (98-29-17B)

1903: Due to overcrowding, an election is held on the issue of whether to pass a bond issue for $8,000 to building another new school and purchase additional property for school grounds. A few months later, voters are asked to approve an additional $2,000, which they do. However, instead of a new building being constructed, the old frame building is substantially enlarged.

This photo from 1915 shows another brick building, Redmen Hall, to the north of the school building. Teeter totters are also visible.

1918: The Red Cross cares for victims of the flu epidemic in the brick school, according to research by local author Carolyn Conarroe.

1920: A building for the new Louisville High School is constructed at Garfield and Walnut, and there is once again room in the frame school for first and second graders. At this time, the brick school house is no longer being used for regular classes, but manual training for older students is held here beginning in about 1922.

Louisville High School manual training classes were held in the school. The photo from the early 1920s is the only known historical photo of the interior of the building.

1940s: The Chinook Public Library, operated by Louisville's Saturday Study Club, is located in the brick school house. In 1949, Lenore Riddock writes to the school board to announce the Club's decision to move the Library downtown: "Our reason for moving is that we hope to serve more patrons by being on Main Street." (The Chinook Public Library evolved into today's Louisville Public Library.)

The building is painted white at some point. Nelle Wolfer Willis would later write that this was done "to the regret of many who went thro it."

Photo of 801 Grant, circa 1940s.

1952: The brick school house is called **"**Recreational Hall" and the School Board approves the Lions Club to supervise recreational activities there.

1955: The School Board approves the removal of the "steeple" from Recreational Hall (the likely reason being that it was in disrepair). Also, Superintendent Samuel Barbiero asks the town to close Grant Avenue between Spruce and Walnut for safety reasons, because school play areas for children are on both sides of Grant. Despite the closure of Grant Avenue in front of the building, to this day it has the address of 801 Grant Avenue.

801 Grant Avenue when Grant was still a street in front of it. (2008.008.025)

1950s and 1960s: Recreational Hall hosts jacks tournaments and has ping pong and craft activities, and tennis courts are located to the north of the building. The

building is also used for the storage of sports equipment for youth teams.

1961: The Louisville School District conveys the brick school building and adjacent property to the town of Louisville to be used for recreation. In doing so, the Board notes that the property has not been used for school purposes for many years. Within the next few years, the Louisville School District becomes part of the Boulder Valley School District, the Louisville Grade School at Spruce and Jefferson is demolished, and Louisville Elementary School is constructed.

1973: Memory Square Park is dedicated, with the swimming pool opening in 1974. The brick school house is now referred to as the Community Building.
At some point, the white paint is sandblasted from the building.

1979-80: The City of Louisville finances the renovation of the Community Building. The work includes adding supports and repairing brickwork. The Louisville Historical Commission seeks to reconstruct the building's bell tower and dedicates $700 plus interest to the project from moneys left over from the fund drive to pay for the Miner Statue in front of City Hall.

1980-1990: The Community Building is used as Louisville's Senior Center. During at least some of this time, arts classes through the Parks & Recreation Department are also offered in the building. In 1990, the Senior Center moves into new space at the newly constructed Louisville Recreation Center.

The building after the paint was removed, c. 1980s. (90-25-14)

1990s: The City renovates the building so that it can be used for performances and the visual arts, and names it the Louisville Center for the Arts. (See accompanying article.)

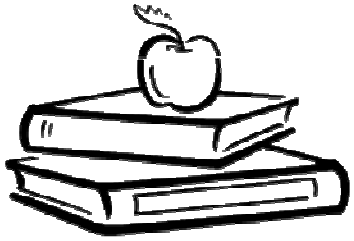
2004: A new bell tower, or cupola, is finally made and placed on the building. According to an article from *The Louisville Times*, it is financed by the City of Louisville with additional fundraising by the Louisville Arts and Humanities Council. Louisville architect Peter Stewart designs the cupola based on historical photos of the building.

A replica of the original cupola was added back to the building in 2004. Photo taken 2010.

2005: The Historic Preservation Commission and City Council list the building on the Louisville Register of Historic Places.

New landscaping has enhanced the area around the Center for the Arts building. Memory Square Pool is to the right of the building. Photo taken 2010.

2010: The City of Louisville continues to own and care for the building, and new landscaping and renovations to Memory Square Park and landscaping around the Arts Center area are paid for by the Conservation Lottery Fund. (Brick from Louisville's old water plant building is reused for the project.)



How Is The Arts Center Building Used Today?

By Julie Kovash, President, Louisville Cultural Council

In present day, the Louisville Center for the Arts is still an important hub for arts and culture in Louisville, and four non-profit arts organizations benefit from its use.

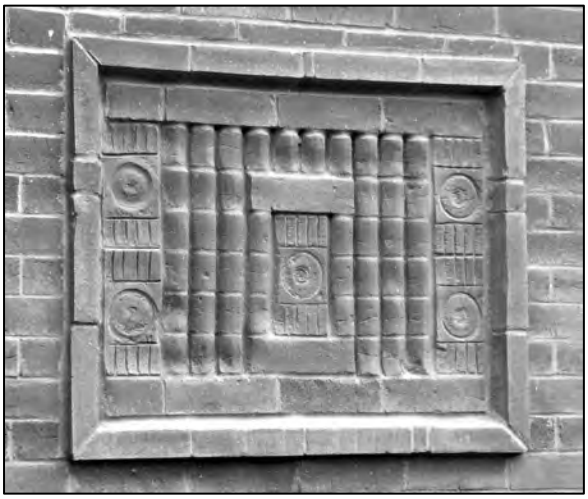
The Louisville Art Association (LAA) was founded in 1980, by Carolyn Markham, and uses the Arts Center for meetings, exhibits and programming. LAA is comprised of 7 Board Members and over 300 participating and honorary members focused on the advancement of visual arts in the community. Exhibits in the Arts Center include the Young Artists Art Show (for ages 4 – 18); The Tactile and Art Challenge Show (touchable art for the visually challenged and art by physically and mentally challenged artists); The National/Regional Juried Photography Show; The National Juried Fine Art Show; The Three Day Labor Day Craft Fair; The Fall Members Show; The Young Artist's Exhibit, which exhibits children's art work from all Louisville schools. More information is available at louisvilleart.org.

The Louisville Cultural Council (LCC) was established in 1989 by the City of Louisville to operate as a non-profit arts and humanities organization (originally called the Louisville Arts and Humanities Council). It is a volunteer council of 9 members appointed by the City Council, each member serving a three year term. LCC uses the Arts Center for a wide variety of events. The Coffeehouse Concert Series features both local musicians and national acts. Some featured artists include the Nashville duo the Cantrells, Juno award winner Jayme Stone, and Mary Flower. The Silent Film Series screens films in the Spring and Fall to live piano accompaniment by Louisville gem, Rodney Sauer, of the Mont Alto Motion Picture Orchestra. LCC also programs several participatory dance events and children's concerts in the facility. More information is available at louisvillearts.org.

Coal Creek Community Theater (CCCT) was established in 1990, and its 8 executive members insure an arena for the amateur to perform and participate in the theatrical arts. CCCT's philosophy is to concentrate efforts on producing high-quality, full scale productions including favorites such as Shakespeare Incorporated, You Can't Take It With You, The Voice of the Prairie and A Tuna Christmas. More information is available at ccctheater.org.

CenterStage Theatre Company (CSTC) is dedicated to extending quality theatre to the Colorado community, especially Boulder. Its 7 Staff Members insure a rich atmosphere that leads young people into excellence in the vast world of theatre arts; thus building confidence, self-esteem, community awareness, and friendships that last a lifetime. Although the Arts Center is not large enough for CSTC productions, it is used extensively as a rehearsal space. More information is available at centerstagetheatre.org.

The Arts Center falls under the Louisville Parks and Recreation Department, which manages day-to-day operations, maintenance and scheduling. After the four arts organizations block what they need for program scheduling, it is available for rental by the general public. It is also used for other City sponsored events.



Brickwork detail on the Center for the Arts building. Photo taken 2010.

Can These Mysteries Be Solved?

By Bridget Bacon, Museum Coordinator

For all that we know about the history of the brick school house, some questions remain:

- What happened to the bell that was in the original bell tower? (The old bell currently at Louisville Elementary came from the Louisville Grade School building at Spruce and Jefferson, not from the brick school house.)

- Owen Smith is named in the 1894 Louisville School Board minutes as the contractor for the brick school. There was an Owen Smith living in Louisville at that time and he was in the construction business. Does a family member

have more information about him? Did he build other schools or other buildings in our area?

- Are there additional historical photos of the school, or of the building when it was later used for other community purposes, tucked away with family photos in trunks or scrapbooks? If so, we would love to be able to scan them at the Historical Museum in order to increase our understanding of the building and how it was used by Louisville residents over the decades.

Thank you to Carolyn Markham, Julie Kovash, and the Parks & Recreation Department for the information that they provided about the little brick school house that became the Louisville Center for the Arts. Thank you to the Boulder Valley School District for granting access to records. Other sources of information include documents and photographs in the collection of the Louisville Historical Museum, newspaper articles that appeared at various times in The Louisville Times*, and research done by local author Carolyn Conarroe.*

Update on Robert Vaughan Photos

In the Spring 2010 issue of *The Louisville Historian*, a call went out for any photos of Robert Vaughan, the only person from Louisville to have been killed during his or her World War II service for whom the Historical Museum did not have a photo. Thank you so much to Historical Society member Sylvia Fotis Kilker, who responded immediately to the request by allowing the Historical Museum to copy three photos of Vaughan.

Sylvia's sister, Helen, was engaged to Robert Vaughan during the war. The accompanying photo shows Bob Vaughan and Helen Fotis by 801 Lincoln Ave, where the Fotis family lived. Interestingly, the pointed bell towers of both the brick school house building (today, the Louisville Center for the Arts) and the Louisville Grade School building (now gone) can be seen in the background. The photo was taken looking down Spruce towards downtown Louisville. Thank you again to Sylvia Kilker.

Robert Vaughan and Helen Fotis, early 1940s.

Oral History Program Continues to Elicit Stories of Louisville

By Bridget Bacon, Museum Coordinator

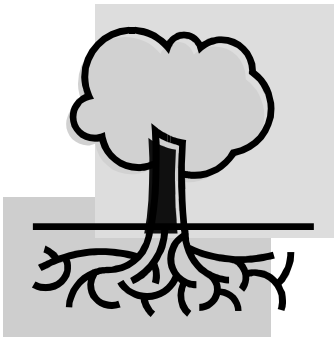
The Historical Museum's Oral History Program, which began in 2009, is thriving due to our volunteers! In order to be able to interview and tape even more people about their memories of Louisville, we are seeking additional interviewers and camera operators. No previous experience is necessary, and instruction and training will be provided. Please contact the Museum at 303-665-9048 or museum@louisvilleco.gov if you are interested – we would love to have you!

Thank you so much to volunteers Chris Wecker, Ady Kupfner, Jean Morgan, Katie Kingston, Barb Gigone, Diane Marino, and Dustin Sagrillo. Also, thank you to the Carnegie Branch Library for Local History in Boulder for providing help with our program, and to the Louisville Historical Commission for its financial support of this worthy project.

Also, thank you so much to the following people for sharing their stories of Louisville since the last update was given. As a small token of our appreciation, a complimentary annual membership is being given to each participant who is not already a lifetime member.

Robert Enrietto	Shirley & Richard Bodhaine
Ronald Fenolia	Carol Day
Edith Guenzi	Memory Delforge
Helen Warembourg	July De Santis
Mary Malmstrom	Judy DiGiacomo
John Ross	Marion Junior
Jack Steinbaugh	Ady Kupfner
Percy Conarroe	Dixie Lee Martella
Carolyn Conarroe	Mary Patete
Alvirda Williams	Joan Yust

It has been brought to our attention that the Lions Club may have conducted some interviews in the early 1980s relating to the histories of downtown businesses. Please contact the Museum if you have any information about these interviews.



Two More Summer Walking Tours of Louisville to Go!

Anne Robinson will lead two more Saturday walking tours of Louisville this summer, on September 4 and October 2. Meet at 10:30 AM on the front steps of the Louisville Public Library. The suggested donation to the Louisville Historical Commission is $5.00 per person.

This photo from the early 1900s shows a view of Front Street looking south from the intersection of Front and Walnut. On the left is a saloon that was later the site of a blacksmith shop.

New Book Features the Museum's Tomeo House

A new book, *The Walls Talk: Historic House Museums of Colorado* by Patricia Werner, includes the Louisville Historical Museum's Tomeo House among thirty-seven Colorado museum sites whose interesting histories are described in detail.

The Tomeo House was built in about 1904 and was primarily the home of the Tomeo family and the Rossi family of Louisville. The book particularly describes the years when Grace Rossi and her six children lived in the house. Today, it looks much as it did decades ago and can be toured by visitors to the Louisville Historical Museum.

The Walls Talk can be purchased at the Museum for $17 or borrowed from the Louisville Public Library.

<u>Other New Books for Sale at the Museum</u>
Two other books now being offered for sale at the Museum are specifically intended to introduce children to our coal mining heritage. The books *Coal* by Ron Edwards and Adrianna Edwards ($10) and *Life as a Miner* by Bobbie Kalman and Kate Calder ($8) give easy to understand explanations of coal and coal mining, and include wonderful illustrations and historic photographs.

In the Next Louisville Historian: The Untold Story of Louisville's Early Years

The next *Louisville Historian*, for Fall 2010, will look a little different. Pete Lindquist has researched the earliest history of Louisville and his writing of "The Untold Story of Louisville's Early Years" will make up the entire issue of the *Historian*. Pete has discovered that the town was founded as the result of an expensive miscalculation. For the rest of the story, don't miss the next *Louisville Historian*!

We will catch up on the regular features (such as listings of museum donations, memorial donations, and new members) in the following issue.

Thank You for Your Monetary Donations!

Thank you to the following people for their recent generous monetary donations, other than memorial donations, to the Louisville Historical Commission and Museum.

Robert Enrietto
Mr. and Mrs. Charles A. Hadley
Heather Houghton
Hank Dalton
Ann H. Kingston
Kim, Mark, & Nathan Riemer
Janice Lee & Tom Flewelling
Teresa & Jeremy Buch
Jeanne Thompson
Fred & Stephanie Nichols
Robert & Judith Barday
Nils & Linda Nordberg

Memorial Donations

Thank you so much for these recent memorial donations. Donations received after this issue went to print will be shown in the next issue.

In Memory of Tommy Cable (1919 - 2010)
Ronald & Arlene Leggett
David Ferguson
Eugene & Virginia Caranci

In Memory of Thomas DiGiallonardo (1945 - 2010)
David Ferguson
Gloria Green
Eugene & Virginia Caranci

The Museum Corner

By Bridget Bacon, Museum Coordinator

It was a lot of fun to put together the information that the Historical Museum has about the little brick school house that became the Center for the Arts. As always, I would welcome any additional information or corrections so that the record can be set straight.

The Museum's joint programming with the Louisville Public Library got off to a great start with two programs in May. "Why and How to Preserve Your Historic Property in Louisville," which was also sponsored by the Historic Preservation Commission, drew sixty audience members who wanted to learn about the City's new landmarking program with its financial incentives made possible by the Historic Preservation Tax that Louisville voters approved in 2008. Thank you to program presenters Michael Koertje, Heather Lewis, Peter Stewart, John Leary, Savannah Jameson, and Jancy Campbell.

The second program, "Rocky Flats and the Cold War West: Community Impacts and Historical Legacy" was given by representatives from the Rocky Flats Cold War Museum. It was wonderful to see so many local ex-Rocky Flats workers in the audience of, again, about sixty people. Many of them shared their stories of working there. Thank you to presenters Kim Grant and Ann Lockhart for a very enlightening program.

Museum volunteers will be participating in an interesting project in upcoming months: scanning the Boulder County Assessor cards that were completed for privately owned structures in Louisville beginning in 1948. Most of them include a photo dating back to 1948, and this date is significant because few historic homes in Louisville were significantly remodeled before the 1950s. In fact, the facades of quite a few homes in Louisville look just as they did in the 1948 County photos. Our goal is for owners of Louisville historic properties to be able to have easy access to these cards with their interesting property information and photos.

I want to let all of our readers and supporters know that it has been decided with the Historical Commission to not have the Holiday Home Tour this year. Obviously, this much-loved community event has been both an important fundraiser for the Commission and a fun way for the Museum to involve people in learning about Louisville's historical neighborhoods, homes, and founding families. The cutbacks to staff due to the City of Louisville's budget situation prompted this decision, as the event involves the coordination of many City volunteers. It is still our hope to be able to organize the tour again in 2011. If you would like to help with the Home Tour next year, please let me know!

Anyone is welcome to come to the monthly gatherings of the History Book Club organized by Historical Commission member Anne Robinson. The history topic for the September meeting is "Ethnic Groups in Colorado" (Wednesday, September 1, 6:30 PM, Louisville Public Library Board Room), while the topic for the October meeting is "Crime, Bootlegging, and Prohibition" (Wednesday, October 6, 6:30 PM, Louisville Public Library Board Room). Participants read whatever books they would like to read on the topics ahead of time.

In addition to the Museum's volunteers for its Oral History Program, who are thanked elsewhere in this issue, thank you so much to volunteers Mona Lee Doersam, who kindly does the layout for *The Louisville Historian*; Mary Kay Knorr; Debby Fahey; Gail Khasawneh; Pete Lindquist; Bill Buffo; Melanie Muckle; Ardeshir Sabeti; and Jessica Fasick.

Historical Museum Contact Information and Hours

Due to budget cutbacks, the Museum is open from 10 to 3 on only Wednesdays and the first Saturday of each month. Special appointments at other times are possible. Museum staff can be reached at museum@louisvilleco.gov or 303-665-9048.

The Louisville Historical Museum is owned and operated by the City of Louisville as part of the Department of Library & Museum Services. It is located at 1001 Main Street. Its mailing address is 749 Main Street, Louisville, CO 80027.

Don't Miss an Issue of The Louisville Historian!

Membership in the Louisville Historical Society is a must for those interested in Louisville's unique history and cultural character! Members receive the quarterly *Louisville Historian*.

A yearly membership is only $15.00 for an individual and $25.00 for a family. A yearly Business Sponsorship is $100.00. Visit the Historical Museum web site at http://www.louisvilleco.gov/ for a membership form or call the Museum at 303-665-9048. You may also write to us at Louisville Historical Museum, 749 Main Street, Louisville, Colorado, 80027. Please make checks payable to the Louisville Historical Commission.

Donations to the Museum's Collection and Records

The Louisville Historical Museum accepted the following donations during the months of April through July. The City sincerely appreciates these recent donations!

Steve Anderson – broom holder from Dalby's Supermarket (located in the State Mercantile Building), a commemorative medal from Louisville's 1978 Centennial celebration, and scans of two photos of Main Street parades from the 1960s and 1970s.

Steve Preston – numerous items from the estate of Lucille DiGiacomo Gray, including historical photos, postcards, directories, programs, bread oven paddle used with an outdoor bread oven, wedding dress, and handmade doll items.

David Ferguson – documents and other items from the Dionigi family, including original certificates in Italian that were brought to Louisville from Italy; historical photos; and records from the estate of Josephine Dionigi Robinson.

Don Ross – handwritten booklet of meeting minutes from the Walter Rhoades Post Auxiliary.

Darlieen DelPizzo – four issues of *The Louisville Times*, historical photos, and operating licenses for Louisville's grain elevator.

Lori Chase – calendars from Bungalow Drug and other items retrieved from a Louisville house.

Ronda Leggett – tax records from the McDonald and Leggett family property starting in 1913.

Monarch High School – Yearbook for the 2009-10 school year.

JoBelle Fischer Orvis – items from the Fischer family consisting of a hand plow, meat tenderizer, knife, and fork.

Aline Steinbaugh – four historical photos relating to Louisville schools.

Mark Zaremba – 1967 schedule for the Jefferson County midget football league, in which Louisville participated.

Jean Morgan – photo of miners in the Caribou area that pictures Louisville resident Walt Pasterski.

Richard Bodhaine – photo of his grandmother, Camille Bodhaine, and aunt, Pauline Bodhaine, along with information about his aunt's connection with Mother Cabrini.

Susanne Bell – T-shirt from Senor T's Restaurant

Sylvia Kilker – scans of three photos showing Robert Vaughan, who was killed in WWII.

Museum Wish List

The Louisville Historical Museum would like to add to its collection the items described below. If you would be willing to donate any of the described items, please email museum@Louisvilleco.gov or call us at 303-665-9048. If you would prefer not to part with an original photo or document, please contact us about how it can be scanned on our photo scanner. Donations to the Museum are tax deductible. Thank you for your support!

- Centaurus High School Yearbooks: 1974 to 2000.

- Photographs of Louisville High School's graduating classes:
  - All classes before 1936 except for 1909, 1915, 1921, 1923, and 1925
  - The classes of 1954, 1955, 1958, 1960, 1962, and 1964 through 1971

- Issues of *The Louisville Times*, or pages of it, from 1980 or earlier.

- Coal mine photos and ledgers, and journals, letters, receipts, and other handwritten documents that relate to the Louisville area.

- Historical photos of homes and businesses in the old town part of Louisville (with or without people in the photos). Specific buildings need not be identified.

- Photos of the interior or exterior of Redman Hall; scenes showing Louisville's Little Italy and Frenchtown; and interiors and exteriors of Louisville's saloons and pool halls.

- Old home movies and negatives of photos relating to the Louisville area.

- Photographs, programs, *The Lookout* school newspaper, and written memories relating to Louisville High School and Louisville Middle School.

- Photos of Victor Helburg and members of the Helburg family.

- Historical records relating to Louisville businesses.

New item:

- Photos and information relating to the brick school house that became the Center for the Arts building.

LOUISVILLE HISTORICAL COMMISSION

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Diane Marino
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Sean Moynihan
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Donald Ross
Dustin Sagrillo
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Thanks to New and Renewing Members

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Martin Ters, D.D.S.
Treadlight Renewable Resources
David A. Wertz, D.D.S., P.C.

Regrets

We extend our sincere sympathy to the family of Historical Society member Tommy Cable, who was interviewed about his life in 2009 as part of the Museum's oral history program.

Photos from the Collection of the Louisville Historical Museum

This undated photo shows Pine Street with 701 Grant (the former Baptist Church) on the right.

The Matchless Mine was located near what is now Via Appia, close to the Louisville Recreation Center.

Louisville Historical Society
749 Main Street
Louisville, CO 80027

Return Service Requested

The Louisville Historian, Issue #87, Summer 2010

LOUISVILLE HISTORIC PRESERVATION COMMISSION

STAFF REPORT

May 16, 2016

ITEM:	Case #2016-004-SIGN
APPLICANT:	Dave Hanel KTK General Contracting 3755 West 69th Place Westminster, CO 80030
OWNER:	KLT Gas and Grocery 19828 Krameria Street Thornton, CO 80027
PROJECT INFORMATION:	
ADDRESS:	947 Pine Street
LEGAL DESCRIPTION:	LOTS 6-7 BLK 11 PLEASANT HILL
DATE OF CONSTRUCTION:	1961
REQUEST:	A request to designate an iconic sign at 947 Pine Street.

REQUEST:
The applicant requests an Iconic Sign designation for the former Standard Oil sign on the corner of Front and Pine Streets. Granting the Iconic Sign designation allows the applicant to use the Standard Oil sign because it does not comply with the regulations in the City of Louisville Downtown Sign Manual.

947 Pine- Southeast corner - Current Photo

947 Pine- Iconic Sign - Current Photo

According to the City of Louisville Downtown Sign Manual an Iconic Sign is "an existing non-conforming sign with a distinctive architectural style that has been designated with the owner's consent as an Iconic Sign". The distinction between an Iconic Sign and a Landmark Sign is that an Iconic Sign can be removed if the owner chooses to do so. The applicant proposes to reface the sign the Shamrock logo. The shape of the sign will remain intact and the sign will not be illuminated.

The Downtown Sign Manual further describes the qualities of an Iconic Sign:

> *"An Iconic Sign should evoke a sense of quality and unique visual appearances. It may, or may not, have historic significance. Signs which have been officially designated as an Iconic Sign by the Historic Preservation Commission and City Council and which retain those dimensional, locational, and lighting standards that the sign possessed when it received such a designation shall benefit from the following privileges:*
>
> - *May remain on roofs, or exceed height limits found elsewhere in this design manual.*
> - *May exceed dimensional limits found elsewhere in this design manual.*
> - *May reference a product or business which is not related to the existing business on the property.*

- *May change the sign copy and logo while maintaining the architectural quality of the original sign.*

- *Shall not have the sign copy area deducted from the square footage of sign copy area granted by other standards of this design manual.*

- *May remain in a right-of-way unless it becomes a hazard.*

- *May retain its original lighting patterns and materials.*

- *May be removed by the owner if they so choose."*

HISTORIC BACKGROUND:
Information from Bridget Bacon

Fred Eberharter began operation of the Eberharter Service Station at 947 Pine Street in 1929. The current building was constructed in 1961 and the sign was likely installed at the same time. The then-owner, Trioco, arranged for brothers Ken and Bill Buffo to operate the new Standard service station, called the K&B Standard Station. Standard Oil Company eventually became Amoco Corporation. Records indicate that Waldo Prather leased the station to Amoco in 1973.

Attempts were made, but information could not be located with respect to the date when the interior of the sign, with the "Standard" graphics and letters, was removed.

947 Pine Street (1961 Assessor's Photo)

947 Pine Street – 1979 Photo with sign

947 Pine Street – 1982 Photo with sign

ICONIC SIGN REVIEW CRITERIA:

The Downtown Sign Manual outlines the review criteria and process for designating an Iconic Sign.

"The granting of the Iconic Sign designation is based upon a sign's distinct qualities. The following criteria will be used to provide guidance during the Historic Preservation Commission and City Council's review. An Iconic Sign shall meet at least three (3) of the following four (4) criteria:

1. *The sign, by its design, construction and location, will not have a substantial adverse effect on abutting property or the permitted use thereof, and will contribute to the City's unique character and quality of life;*

2. *The sign exhibits unique or rare characteristics that enhance the streetscape or identity of Downtown Louisville and it clearly provides a unique architectural style and appearance.*

3. *The sign contributes to the historical or cultural character of the streetscape or the community at large.*

4. *The sign and all parts, portions, and materials shall be maintained and kept in good repair. The display surface of all signs shall be kept clean, neatly painted, and free from rust and corrosion."*

Proposed Re-facing of Sign at 947 Pine Street

STAFF ANALYSIS:

The following are staff's findings and analysis of the Iconic Sign application for 947 Pine Street by the above criteria.

1. *The sign, by its design, construction and location, will not have a substantial adverse effect on abutting property or the permitted use thereof, and will contribute to the City's unique character and quality of life;*

The sign is located on the corner of Pine and Front Streets out of the 30' vision clearance triangle. Staff finds the re-facing improves the character of the intersection resulting in a positive impact on the surrounding properties. The unique sign is featured on a gateway into Downtown Louisville.

2. *The sign exhibits unique or rare characteristics that enhance the streetscape or identity of Downtown Louisville and it clearly provides a unique architectural style and appearance.*

The rare shape and prominent location of the Standard Oil sign captures mid-twentieth century character of Downtown Louisville.

3. *The sign contributes to the historical or cultural character of the streetscape or the community at large.*

The sign was constructed prior to 1961. With some modifications to the sign pole, the sign has been a part of the Louisville streetscape for over 50 years.

4. *The sign and all parts, portions, and materials shall be maintained and kept in good repair. The display surface of all signs shall be kept clean, neatly painted, and free from rust and corrosion.*

The current sign has issues with rust and deterioration. As a part of the re-facing of the sign, the applicant will repair and refurbish the sign structure.

RECOMMENDATION:
Staff finds that the application meets the Iconic Sign review criteria and recommends approval of the Iconic Sign designation for the former Standard Oil sign located at 947 Pine Street.

SUPPORTING DOCUMENTATION AND INFORMATION:
Attached for your review are the following documents:

- Resolution No. 2, Series 2016
- 947 Pine Street Iconic Sign Application
- 947 Pine Street Social History
- Downtown Sign Manual (refer to pages 26-27)

RESOLUTION NO. 02
SERIES 2016

A RESOLUTION MAKING FINDINGS AND RECOMMENDATIONS REGARDING THE ICONIC SIGN DESIGNATION ELIGIBILITY DETERMINATION FOR THE FORMER STANDARD OIL SIGN LOCATED AT 947 PINE STREET

WHEREAS, there has been submitted to the Louisville Historic Preservation Commission (HPC) an application requesting an Iconic Sign eligibility determination for the former Standard Oil sign located at 947 Pine Street, on property legally described ELY 95 FT LOTS 5 & 6 & ELY 95 FT OF SLY 13 FT LOT 4 LESS MIN BLK 3, Town of Louisville, City of Louisville, State of Colorado; and

WHEREAS, the City Staff and the HPC have reviewed the application and found it to be in compliance with the Downtown Sign Manual, establishing criteria for Iconic Sign designation; and

WHEREAS, the HPC has held a properly noticed public hearing on the proposed Iconic Sign application; and

WHEREAS, the HPC finds that the sign exhibits rare characteristics which contribute to the streetscape and the City's unique character.

NOW, THEREFORE, BE IT RESOLVED BY THE HISTORIC PRESERVATION COMMISSION OF THE CITY OF LOUISVILLE, COLORADO does hereby recommend approval of the application to designate the Iconic Sign at 947 Pine Street should be approved.

PASSED AND ADOPTED this _____ day of _____, 2016.

_____
Lynda Haley, Chairperson

KTK General Contracting Ltd

3755 W 69th Pl

Westminster CO 80030

To: Whom it may concern:

From: Richard G Keeran Jr

Date: 4/13/16

Subject: Shamrock Image at Louisville CO Gas station

KTK General contracting is an image contractor installing Gas Station images all over Colorado and surrounding states. We do work for Shamrock, Valero, Conoco, Phillips66, Sinclair to name a few. We work with cities all over Colorado to insure we meet their requirements on signage. This site in Louisville has an existing freestanding sign with an architectural feature we would like to keep. We have included drawings of the changes we want you to consider. Please review and let us know what are next steps will be.

Thanks,

Rich Keeran

Project Manager

KTK General Contracting Ltd

3755 W 69th place

Westminster CO 80030

303-355-0013

SHAMROCK

Site / Drawing #
26364 Dwg 53801

Date: 4/11/16
Project: Valero

Requested By: Will
Drawing By: Dann

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Louisville Historical Museum
Dept. of Library & Museum Services
City of Louisville, Colorado
May 2016

947 Pine St. – Standard Gas Station Sign History

The following information was collected with respect to the Standard sign located at 947 Pine St. This report is not intended to be a history of the building at 947 Pine.

From the time that Louisville was established in 1878 until the late 1920s, this property was the location of businesses that are believed to have included a saloon and a blacksmith shop.

947 Pine has been the location of a gas station since about 1929, when Fred Eberharter began to operate the Eberharter Service Station in a different building that is now gone. The small building was situated at an angle to the corner of Pine and Front.

A new building was constructed in 1961 and the sign is believed to have been installed at the same time. The then-owner, Trioco, arranged for brothers Ken and Bill Buffo to operate the new Standard service station. It was called the K&B Standard Station. The following is the County photo from 1961. Part of the sign is visible on the right.

This photo at the station was also taken in 1961:

In 1967, Waldo “Wally” Prather purchased the property. He or companies that he was associated with were the owners and/or operators until 2005. These owners included George Oil, Video Pit Stop, and Silco Oil.

Standard Oil Company eventually became Amoco Corporation. Records indicate that Waldo Prather leased the station to Amoco in 1973. The following 1979 photo shows the names of both Standard and Amoco and shows a good view of the sign, which appears to have had a tall, angled pole that is different from how the pole appears today.

The following photo dates from 1982 and also provides a view of the sign and its then-angled pole:

Attempts were made, but information could not be located with respect to the date when the interior of the sign, with the “Standard” graphics and letters, was removed. It is also not known for certain whether the sign was ever anything other than a sign for Standard. Today, the sign does not have any color, lettering, or graphics.

In 2005, Silco Oil (a company with which Waldo Prather was affiliated) sold 947 Front to Lion Gas Company, which sold it the same month to Louisville Gas and Grocery. Waldo Prather died in 2013. As of 2015, the owner is KLT Gas & Grocery, Inc.

The preceding research is based on a review of relevant and available online County property records, census records, oral history interviews, Louisville directories, and Louisville Historical Museum maps, files, obituary records, and historical photographs from the collection of the Louisville Historical Museum.

Downtown Louisville Sign

Manual

Prepared by: the Department of Planning and Building Safety

approved October 5, 2010
Ordinance #1580

TABLE OF CONTENTS

VISION AND PURPOSE 1

APPLICABILITY 2
- Sign Overview
- Sign Program and Multiple Signs
- General Standards
- Exemptions

DEFINITIONS 5

ALLOWED COPY AREA 9

REGULATIONS BY SIGN TYPE 11
- Wall Signs
- Marquee
- Awning and Canopy Signs
- Window Signs
- Projecting Signs
- Free Standing
- Sandwich Boards
- Restaurant Menu Box
- Murals
- Kiosks
- Temporary Signs

MATERIALS AND ILLUMINATION 23
- Materials
- Illumination

NONCONFORMING SIGNS 24
- Waivers

ICONIC AND LANDMARK SIGN DESIGNATION 25
- Iconic Signs
- Landmark Signs
- Iconic Sign Review Criteria
- Iconic Sign Designation

APPROVAL PROCESS 27
- Application Requirements
- Review Criteria
- Submittal Review
- Building and Electrical Codes
- Process
- Maintenance and Upkeep

CONTRIBUTORS 29

VISION AND PURPOSE

The vision statement for the Downtown Louisville Sign Manual is to:

Create a concise and flexible sign manual that promotes commerce, enables creativity, ensures visibility for all users, and requires compatibility with the historic architectural character and pedestrian scale of Downtown Louisville.

The purpose of this document is to illustrate the specific sign design guidelines for Downtown Louisville that accomplishes all of the following:

- Establish reasonable and improved standards for business identification;
- Encourage creative and innovative approaches to regulating signs consistent within the established principles of the Design Handbook for Downtown Louisville;
- Promote economic vitality in Downtown Louisville;
- Enhance overall visual environment in Downtown Louisville by discouraging signs which contribute to the visual clutter of the streetscape;
- Ensure commercial signs are designed for the purpose of identifying a business in an attractive and functional manner;
- Ensure signs on the façade of buildings reinforce the existing character and are complimentary to the architectural design of Downtown Louisville.

Downtown Louisville - Main Street

Downtown Louisville - Front Street

Downtown Louisville - Main Street

Downtown Louisville

Typeface and artwork for a unifying sign program should be consistent in color, material, style and overall aesthetic from sign to sign. This creates a recognizable consistency and unified appearance.

The requirements, standards, and guidelines set forth in this manual apply to all properties within Downtown Louisville as highlighted on the map and defined in Section 17.08.113 of the Louisville Municipal Code. Design guidelines identified within this manual replace the Design Standards for Signs contained in the Design Handbook for Downtown Louisville and Chapter 17.24 of the Louisville Municipal Code (LMC).

The Downtown Louisville Sign Manual includes typical illustrations and photographs intended to provide examples of preferred sign types within Downtown Louisville. The intent is to provide each business the opportunity to utilize creative design while meeting the City of Louisville's Downtown sign requirements. Only the following sign types are allowed in Downtown Louisville:

Building Sign Types:
- Wall Signs
- Marquee
- Awning Signs
- Canopy Signs
- Window Signs
- Projecting Signs

Other Types:
- Free Standing
- Sandwich Boards
- Restaurant Menu Boxes
- Kiosks
- Murals
- Temporary Signs

SIGN OVERVIEW

- All signs shall be architecturally integrated with their surroundings in terms of size, shape, color, texture, and lighting so they are complementary to the overall design of the buildings.
- Signs should reflect the character of the building and its use.
- Signs shall respect the immediate context of the building's location and the overall character of Downtown Louisville.
- Signs shall enhance the primary design elements or unique architectural features of buildings.
- Signs should be designed with the purpose of promoting retail, visibility, and street activity while enhancing the pedestrian experience.
- Signs shall not cover or obscure unique architectural features that contribute to the character of the building.
- Consideration of the layout and shape of architectural features of the building is necessary when determining the size and location of a sign.

SIGN PROGRAM AND MULTIPLE SIGNS

Each business which displays more than one exterior sign shall implement an exterior sign program. Sign programs serve to create a coordinated project theme of uniform design elements including: color, lettering style, material, and placement. Each business should have a consistent palette of signs designed in a similar character and style.

APPLICABILITY

GENERAL STANDARDS

- All signs in Downtown Louisville, except sandwich board signs, shall be located and maintained on the same lot as the permitted uses; and shall be clearly incidental, customary and commonly associated with the operation of the permitted use.
- No sign in Downtown Louisville shall be allowed to be erected, installed, placed or maintained in or on any public property, including sidewalks and parkways, except for sandwich board signs which comply with the requirements of this document; signs with a license agreement; or signs installed by a public agency.
- No sign shall be attached to a tree or utility pole whether on public or private property.
- No sign shall be placed or maintained at any location where its position, size, shape or color will obstruct, impair, obscure, interfere with the view of, or be confused with, any traffic control sign, signal or device, or interfere with, mislead or confuse traffic.
- No sign shall be located in any vision clearance area.
- Signs shall not flash, blink or fluctuate.
- Any request for an increase in the maximum allowable height, area, or number of signs permitted by this document must follow the procedures set forth in the Louisville Municipal Code for approval of a Final Planned Unit Development (PUD), where the applicant seeks approval from the Planning Commission and City Council. This process will be expedited by the Department of Planning and Building Safety. The review criteria on page 27 of this manual will be used as the basis of the evaluation. For iconic signs, such request may also be approved though the iconic sign designation process set forth in this document.

EXEMPTIONS

The following signs shall be exempt from the requirements of this document except for requirements relative to public safety:

- Flags or emblems of government, political, civic, philanthropic, educational or religious organization, displayed on private property, as long as such flag or emblem does not exceed 60 square feet;
- Signs of a duly constituted governmental body, including traffic or similar regulatory devices, legal notices, warnings at railroad crossings, and other instructional or regulatory signs having to do with health, hazard, parking, swimming, dumping, etc.;
- Address numerals and other signs required to be maintained by law or governmental order, rule or regulation; provided, the content and size of the sign do not exceed the requirements of such law, order, rule or regulation;
- Pennants, banners, posters, and sandwich board signs advertising a special civic event, provided such signs are erected no more than thirty (30) days prior to the event and are removed within two (2)

Street Faire Banner

Street Faire

Winter Skate Banner

Taste of Louisville

days after the termination of the event;

- Small signs, not exceeding five square feet in area, displayed on private property for the convenience of the public, including signs to identify entrance and exit drives, parking areas, one-way drives, restrooms, freight entrances and the like;
- Holiday decorations, clearly incidental and customary and commonly associated with any national, local or religious holiday; provided such signs shall be displayed for a period of not more than 45 consecutive days nor more than 60 days in any one year; and may be of any type, number, area, height, location, illumination or animation.

The following signs are exempt from the requirements of obtaining a sign permit but shall comply with all other regulations imposed in this document:

- Memorial signs and tablets displayed on private property;
- Identification signs not exceeding 15 square feet in gross surface area accessory to a church, school or public or nonprofit institution;
- Bulletin board signs not exceeding 15 square feet in gross surface area accessory to a church, school or public or nonprofit institution;
- Political signs;
- Real Estate Signs;
- Yard or garage sale signs directing the public to a yard or garage sale shall be allowed in any zone district and need not be located on the same lot as the permitted use, subject to the following specific additional requirements:
    - Shall be posted only on the day of the sale as identified on the sign;
    - Shall not exceed four feet in height and six square feet in area;
    - Shall bear the name and address of the person holding the yard or garage sale and the location and date of the sale;
    - Shall not be attached to any public sign pole nor placed in or on any street, sidewalk or other public right-of-way, or on any city property, or impede motor vehicle or pedestrian traffic;
    - Shall not be placed on private property without the permission of the owner;
    - Shall not be placed on residential property without the permission of the resident.

DEFINITIONS

Words, terms and phrases used in this design manual, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Animated sign: any sign flashing or simulating motion with an electronic or manufactured source of supply or contains wind-actuated motion.

Architectural Features: finished elements of a building that define a structure's architectural style and physical uniqueness, including, but not limited by windows, doors, trim, and ornamental features.

Architectural projection: any projection which is not intended for occupancy and extends beyond the face of an exterior wall of a building, including arcades, roof overhangs, mansards, unenclosed exterior balconies, marquees, canopies, fascias and the like, but not including signs.

Awning: a movable shelter supported entirely from the exterior wall of a building and of a type which can be retracted, folded or collapsed against the face of the supporting building.

Back-lit letter: an illuminated reverse channel letter (open or translucent back) so light from the letter is directed against the surface behind the letter producing a halo lighting effect around the letter. Also referred to as silhouette lit or halo lit.

Banner: any sign of lightweight fabric or similar material permanently mounted to a pole or a building by a frame at one or more edges. National flags, state or municipal flags, or the official flag of any institution or business shall not be considered banners.

Billboard: a sign identifying or communicating a commercial or noncommercial message related to an activity conducted, a service rendered, or a commodity sold at a location other than where the sign is located.

Cabinet sign: a sign structure consisting of the frame and face(s), not including the internal components, embellishments or support structure.

Canopy: any open, permanent roof-like accessory structure which is supported by the principal building.

Copy: the words, message, or logo displayed on a sign.

Copy area: the area that encloses the words, message, or logo on a sign.

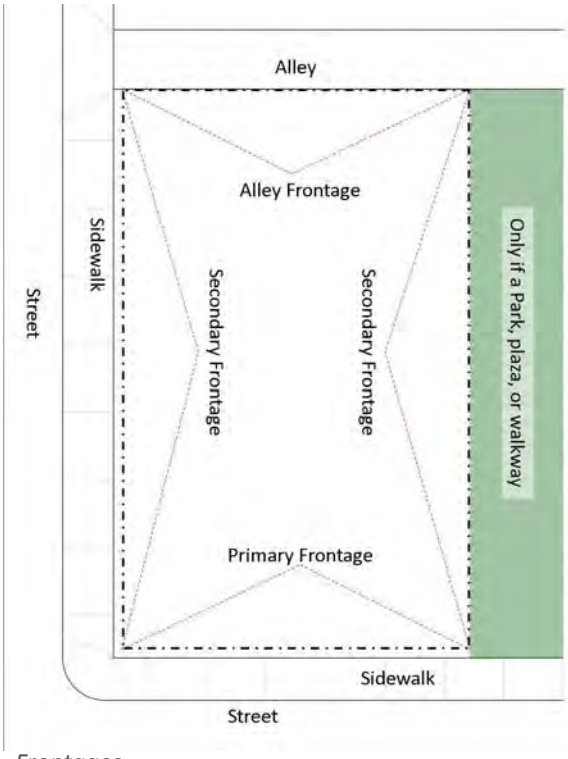
Channel letter: a dimensional letter with no face and, if illuminated the light source is visible. A clear, or translucent face for physical protection of internal components may be used.

Civic event: any transient amusement enterprise held on property or right-of-way owned, or controlled by the City of Louisville with a license agreement and sponsored by the City.

Neon lighting around the leaves. Back-lit , or Halo lighting for the tree and the word "grow". Channel lettering (not allowed) for the word "marketing".

Channel lettering - Not Allowed

Direct (internal) Illumination - Not Allowed



Frontages

Direct illumination: lighting by means of an unshielded light source (including neon tubing) which is effectively visible as a part of the sign, where light travels directly from the source to the viewer's eye.

Electric sign: any sign containing electrical wiring, but not including signs illuminated by exterior light sources, such as floodlights.

Fabric sign: any sign, banner, pennant, valance or advertising display constructed of cloth, canvas, fabric or other lightweight material, with or without frames, and is not permanently fixed to a supporting structure.

Freestanding sign: a sign which is supported by one or more exposed columns, uprights or braces in or upon the ground.

Frontage: the linear frontage - *Primary, Secondary, and Alley* - of a lot or parcel abutting on a public street, park, plaza, designated walkway, and alley. For a corner lot, the longest street right-of-way line shall be considered as the secondary frontage.

Iconic sign: an existing non-conforming sign with a distinctive architectural style and specifically designated as an Iconic Sign.

Indirect illumination: lighting by means of a light source which is directed at a reflecting surface in such a way as to illuminate the sign from the front, or a light source which is primarily designed to illuminate the entire building facade upon which a sign is displayed. Indirect illumination does not include lighting which is primarily used for purposes other than sign illumination; e.g., parking lot lights, or lights inside a building which may silhouette a window sign but which is primarily installed to serve as inside illumination.

Internal illumination: lighting by means of a light source which is within a sign having a translucent background, silhouetting opaque letters or designs, or which is within letters or designs which are themselves made of a translucent material.

Kiosk: a small structure, typically located within a pedestrian walkway or similar circulation area, and intended for use as a key, magazine or similar type of small shop, or for use as display space for posters, notices, exhibits, etc.

Landmark Sign: an existing sign with a distinctive architectural style and historic significance which has been officially designated as an Landmark Sign with the owner's consent by the Historic Preservation Commission and City Council consistent with the requirements of section 15.36.050 of the Louisville Municipal Code.

Light source: neon, fluorescent or similar tube lighting, incandescent bulb (including the light-producing elements therein), light-emitting diode (LED) and any reflecting surface which, by reason of its construction and/or placement, becomes in effect the light source.

DEFINITIONS

Lot: a portion or parcel of land, whether part of a platted subdivision or otherwise, occupied or intended to be occupied by a building or use and its accessories, together with such yards as are required under the provisions of the zoning ordinance. A lot must be an integral unit of land held under unified ownership in fee or in cotenancy, or under legal control tantamount to such ownership.

Maintenance: the replacing, repairing or repainting of a portion of a sign structure; periodic changing of bulletin board panels; or renewing of copy which has been made unusable by ordinary wear and tear, weather or accident. The replacing or repairing of a sign or sign structure which has been damaged to an extent exceeding 50 percent of the appraised replacement cost (as determined by the building official) shall be considered as maintenance only when such sign conforms to all of the applicable provisions of this Code and when the damage has been caused by an act of God or violent accident.

Marquee: a permanently-roofed structure with changeable messages attached to and supported by a building above an entrance, and projecting from the building no more than four (4) feet.

Monument sign: any sign which is anchored to the ground with a monolithic base and is independent of any other structure.

Multi-tenant building: a structure housing more than one retail business, office or commercial venture but not including residential apartment buildings, which share the same lot, access and/or parking facilities.

Nonconforming: a sign that does not conform to the provisions of this manual.

Off-premise: a sign which advertises or directs attention to products or activities not provided on the parcel upon which the sign is located.

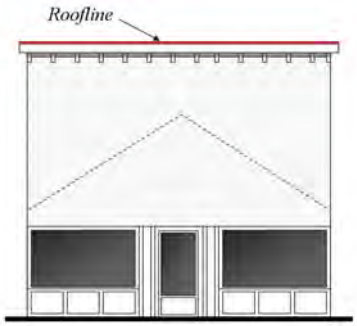
Pole-mounted: a sign supported by one or more poles and used for traffic regulation or to provide appropriate directions to loading and receiving areas, visitor parking, and other areas within each development site.

Projecting sign: a double-faced sign which projects more than 12 inches over private or public property, or hanging sign perpendicular to the street, and uses a building wall or canopy as its main source of support.

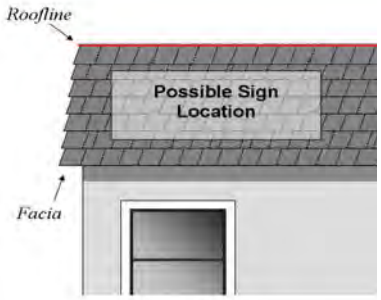
Roof line: the highest point on any building where an exterior wall encloses usable floor space, including floor area for housing mechanical equipment. The term "roof line" also includes the highest point on any parapet wall, providing such parapet wall extends around the entire perimeter of the building.

Roof sign: a sign erected upon or above a roof or parapet wall of a building and which is wholly or partially supported by such building.

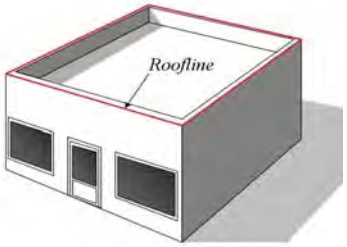
Setback: the distance from the property line to the nearest part of the



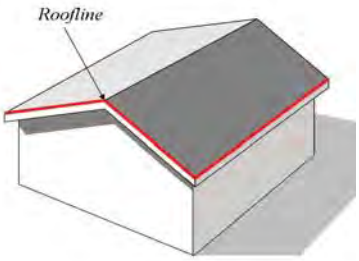
False Front - Roof Line



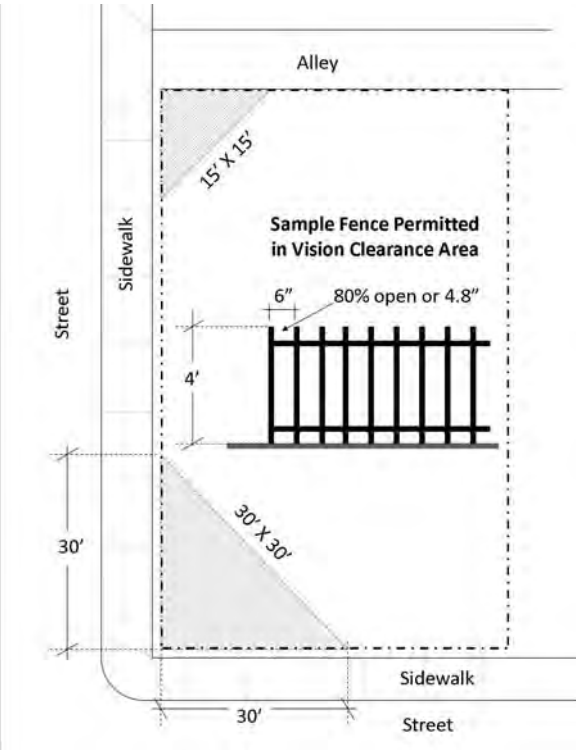
Mansard Roof - Roof Line



Parapet - Roof Line



Gable - Roof Line



Vision clearance area

applicable building, structure, or sign, measured perpendicularly to the property line.

Sign: any writing, pictorial representation, decoration (including any material used to differentiate sign copy from its background), form, emblem, or trademark, flag or banner, or any other figure of similar character which:

A. Is a structure or any part thereof (including the roof or wall of a building); or

B. Is written, printed, projected, painted, constructed or otherwise placed or displayed upon or designed into a building, board, plate, canopy, awning, vehicle, or upon any material object or device whatsoever; and

C. Which by reason of its form, color, wording, symbol, design, illumination, motion, or otherwise, attracts or is designed to attract attention to the subject thereof or is used as a means of identification, advertisement or announcement.

Sign face: the surface of a sign upon, against, or through which the message is displayed or illustrated.

Sign height: the vertical distance from the established grade at the base of the sign to the highest element or the uppermost point on the sign or sign structure.

Sign program: a design package that identifies a coordinated project theme of uniform design elements for all sign associated with a building, including color, lettering style, material, and placement.

Temporary sign: a sign which is intended to advertise community or civic projects, construction projects, real estate for sale or lease, or other special events on a temporary basis.

Vision clearance area: a triangular area on a lot at the intersection of two streets or a street and a railroad, two sides of which are lot lines measured from the corner intersection of the lot lines to a distance specified in the Louisville Municipal Code. The third side of the triangle is a line across the corner of the lot joining the ends of the other two sides. Where the lot lines and intersections have rounded corners, the lot lines will be extended in a straight line to a point of intersection. The vision clearance area contains no plantings, walls, structures, or temporary or permanent obstructions exceeding 30 inches in height measured from the top of the curb or existing grade unless such structures or obstructions are more than 80 percent open.

Wall sign: a sign which is affixed to any exterior wall of a building or structure, including hanging signs parallel to the street and which projects not more than twelve (12) inches.
Window sign: any interior sign within six (6) feet of a window, or painted, attached, glued, or otherwise affixed to a window for the purpose of being visible from the exterior of the building.

ALLOWED COPY AREA

In Downtown Louisville, each building's sign program will have a maximum allowed copy area. Each building will be allowed copy area for:

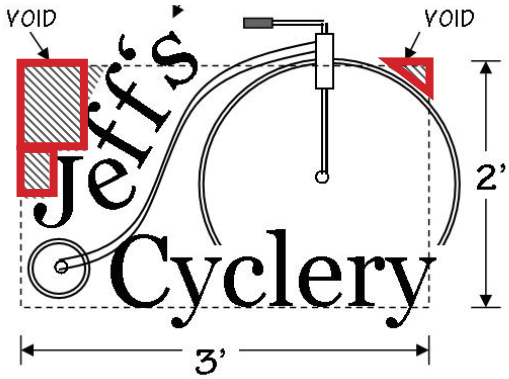
- A combination of wall, marquee, awning/canopy, and free standing signs for primary and secondary frontages for corner lots, or parcels adjoining a park space, civic plaza, or designated walkway;
- Wall signs for alley frontages with an entrance, or an access point to a designated walkway;
- Projecting signs for primary and secondary frontages;
- Projecting signs for alley frontages with an entrance, or an access point to a designated walkway;
- Window signs;
- A sandwich board sign; and
- A restaurant menu box.

MEASUREMENT

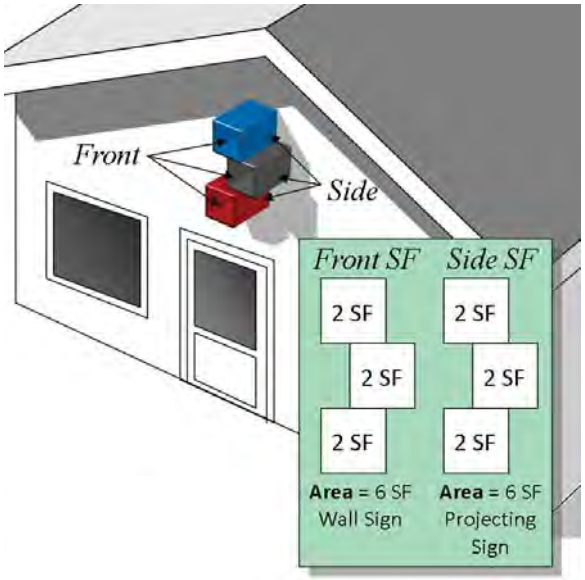
A sign's copy area shall be measured by including within a single continuous rectilinear perimeter of not more than eight straight lines which enclose the extreme limits of writing, representation, lines, emblems, or figures contained within all modules together with any air space, materials or colors forming an integral part or background of the display or materials used to differentiate such sign from the structure against which the sign is placed. The building's architectural features, structural supports and landscape elements shall not be included within the sign area.

- Areas of airspaces, or voids, on any sign will be subtracted from the sign's total copy area. These voids will be measured using the closest rectilinear shape.
- For all two-faced freestanding or projecting signs, the area measurement shall be determined by the measurement of one face of the sign only.
- Where three-dimensional figures are used as signs, the area shall be the total area of its silhouette as projected on a vertical plane.
- On corner and double-frontage lots, each building frontage abutting a street, public park, plaza, or designated walkway shall be considered to have both a primary and secondary frontage. The Planning and Building Safety Department shall make determinations of which frontage will be considered primary and secondary based upon consideration of line of sight requirements, driveway locations, pedestrian entrance, building height, safety, and character and compatibility with Downtown Louisville.

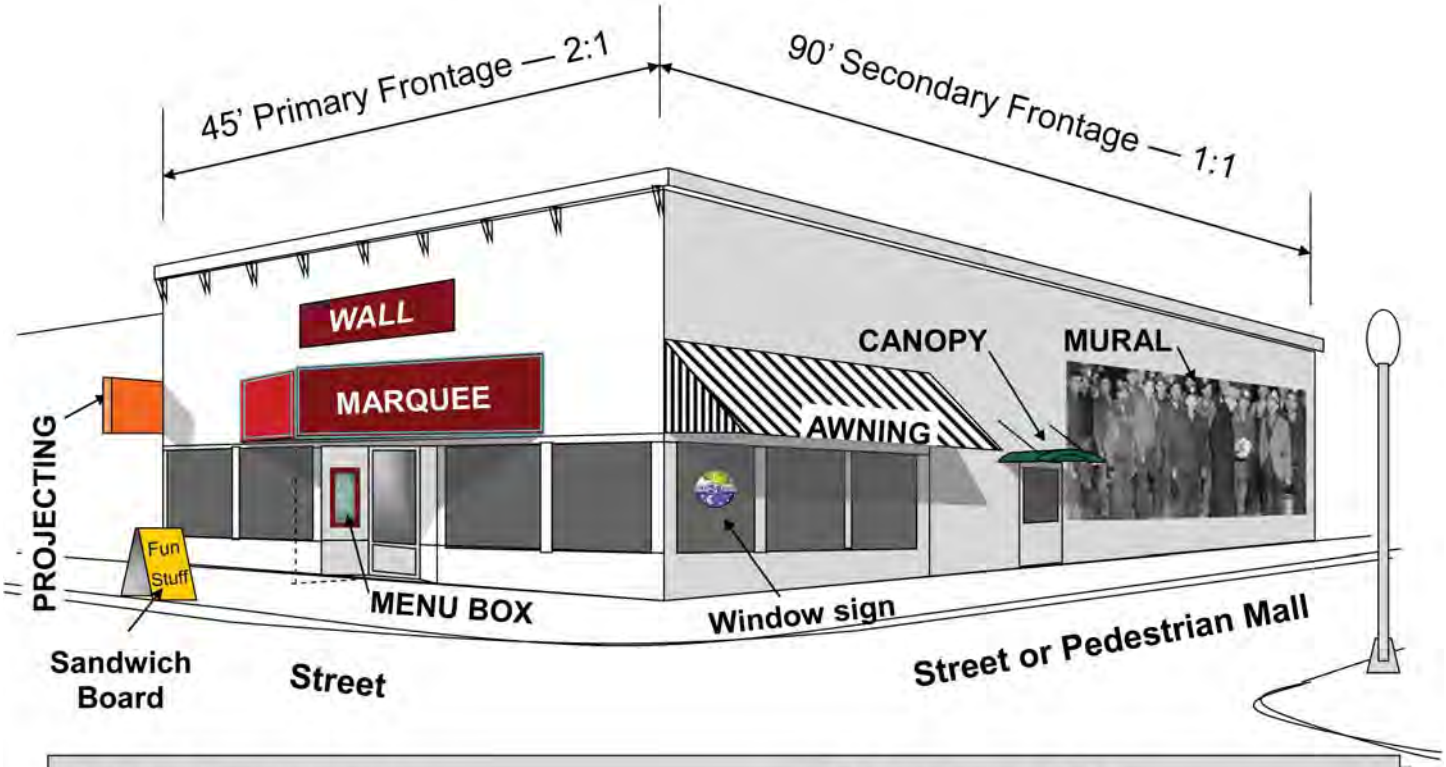
8-Line Measurement



Voids will be discounted by the closest rectilinear shape



A 3D sign will be measured area by its silhouette's projection on a vertical plane



Building Measurement:
45' (primary frontage)
90' (secondary frontage)

Sign Area:
*Primary—45' (2:1)= 90 SF
*Secondary—90' (1:1)=90 SF

*= May not cumulate the sign area

Wall sign area—36 SF
Marquee sign area—27 SF each side
Total sign area— 90 SF

Note:
In this example, the wall sign and marquee sign would need to share the area for the primary frontage.

WALL SIGNS

Wall signs are signs painted on, or mounted flush and fixed securely to a building wall, including hanging wall signs parallel to the street and projecting no more than twelve (12) inches from the face of a building.

Primary and Secondary Frontage – Size

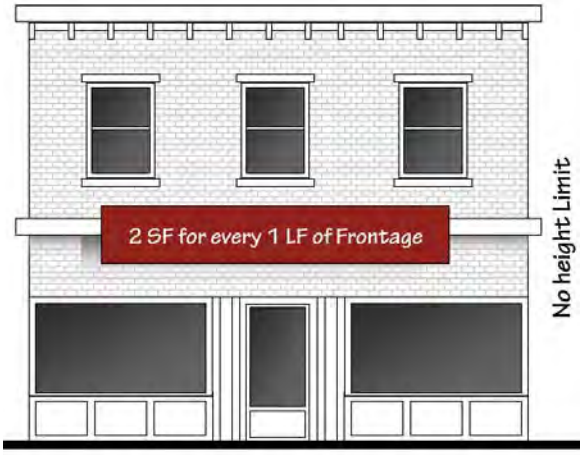
- The maximum copy area for the combination of any wall, marquee, awning/canopy, and free standing signs is two (2) square feet (SF) of sign area for every one (1) linear foot of primary frontage plus one (1) SF of sign area for every one (1) linear foot of secondary frontage for corner lots, or parcels adjoining a park space, civic plaza, or designated walkway. The maximum allowed copy area may be utilized with any combination wall, marquee, awning/canopy, and free standing signs.
- The total copy area of wall signs is two (2) SF of sign area for every one (1) linear foot of primary frontage plus one (1) SF of sign area for every one (1) linear foot of secondary frontage for corner lots, or parcels adjoining a park space, civic plaza, or designated walkway.

Alley Frontage - Size

- Wall signs are only allowed on a building's alley frontage if there is an operable entrance to the building, or access to a designated walkway.
- The maximum copy area for the combination of any wall and awning/canopy sign along an alley is one (1) SF of sign area for every one (1) linear foot of alley frontage.

Placement

- Wall signs should be located on the upper portion of the storefront, within or just above the framed opening.
- Hanging sign (parallel to the street) shall be located on the front eve of the building's roof line.
- Wall signs can extend up to the roof line, no more than twenty (20) feet from existing grade, and cannot extend above the 2nd story window sill of the building to which it is attached.
- The length of the wall sign shall not exceed the width of the framed storefront.
- Signs shall not obscure the building's windows, doors, or ornamental features.
- Wall signs shall be designed to be compatible with the storefront in scale, proportions, and color.



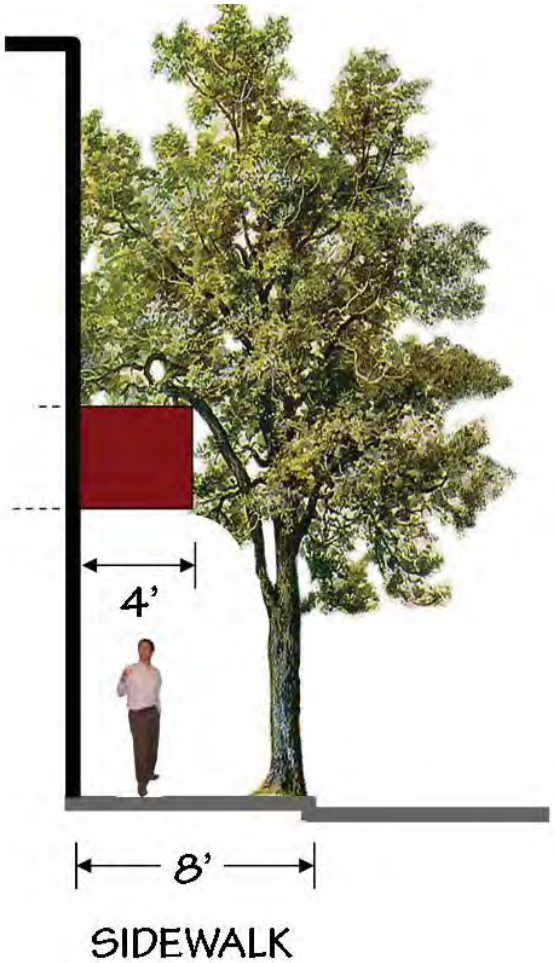
Wall sign placement compliments the building architecture

Wall Sign Diagram

Wall Sign Diagram

Code - Total allowable marquee sign area is 2 SF for every linear foot of the building (same as wall area).
25' (bldg. width) X 2' = 50 SF total allowable sign area

- Marquee sign area will count towards allowable wall sign area.
- Maximum width of marquee structure — building edge to building edge
- Maximum Height of marquee structure — 4'
- Maximum projection from building— 4'
- Minimum clearance from grade— 8'
- Maximum Height on building (from grade) — roofline or 20'



MARQUEE

A marquee is a permanently-roofed structure with changeable messages attached to and supported by a building above an entrance, and projecting from the building no more than four (4) feet. Marquees are allowed to have non-electric changeable letters and messages to advertise live entertainment events, or performances on premise.

Primary and Secondary Frontage - Size

- The maximum copy area for the combination of any wall, marquee, awning/canopy, and free standing signs is two (2) square feet (SF) of sign area for every one (1) linear foot of primary frontage plus one (1) SF of sign area for every one (1) linear foot of secondary frontage for corner lots, or parcels adjoining a park space, civic plaza, or designated walkway. The maximum allowed copy area may be utilized with any combination wall, marquee, awning/canopy, and free standing signs.
- The total copy area of a marquee sign is two (2) SF of sign area for every one (1) linear foot of primary frontage plus one (1) SF of sign area for every one (1) linear foot of secondary frontage for corner lots, or parcels adjoining a park space, civic plaza, or designated walkway.
- The sign on the marquee shall not be taller than four (4) feet.

Alley Frontage - Size

- Marquees are not allowed along an alley frontage.

Placement

- A marquee shall be located on the upper portion of the storefront, within or just above a framed storefront opening, no less than eight (8) feet above the ground.
- A marquee shall not extend above the roof line, or the 2nd story window sill of the building to which it is attached.
- The length of the marquee shall not exceed the width of the framed storefront.
- A marquee shall not obscure the building's windows, doors, or ornamental features.
- A marquee shall be designed to be compatible with the storefront in scale, proportions, and color.

AWNING AND CANOPY SIGNS

Awning and canopy signs are signs printed on, painted on, or attached to an awning or canopy above a business door, or window. They generally serve to bring color to the shopping environment and are oriented toward either pedestrians from the opposite side of the street, or walking along an adjacent sidewalk. Awning and canopy signs are regulated by the amount of primary and secondary frontages of the building and the length of the awning or canopy.

Primary and Secondary Frontage - Size

- The maximum copy area for the combination of any wall, marquee, awning/canopy, and free standing signs is two (2) square feet (SF) of sign area for every one (1) linear foot of primary frontage plus one (1) SF of sign area for every one (1) linear foot of secondary frontage for corner lots, or parcels adjoining a park space, civic plaza, or designated walkway. The maximum allowed copy area may be utilized with any combination wall, marquee, awning/canopy, and free standing signs.
- The copy area of the awning and canopy sign along a primary frontage and secondary frontage is one (1) SF of canopy sign area for every one (1) linear foot of awning, or canopy.

Alley Frontage - Size

- The maximum copy area for the combination of any wall and awning/canopy sign along an alley is one (1) SF of sign area for every one (1) linear foot of alley frontage.
- The maximum copy area of any awning/canopy sign along an alley is one (1) SF of canopy sign area for every one (1) linear foot of awning, or canopy.

Placement

- The minimum height of awnings shall be eight (8) feet from the lowest point of the awning to the sidewalk.
- The minimum height of canopies shall be twelve (12) feet from the lowest point to the sidewalk.
- Awnings and canopies shall be mounted on the horizontal framing element separating the storefront window from the transom (a crosspiece separating a doorway from a window).
- Awnings and canopies shall be designed to be compatible with the storefront in scale, proportions, and color.
- Awnings and canopies with backlit graphics or other kinds of interior illumination are not permitted.
- Matte finish canvas, glass, or metal are appropriate materials for awnings or canopies.

Awning Sign

Awning Sign

Freestanding Sign

Freestanding Sign

FREE STANDING SIGNS

A freestanding sign is a sign supported by one or more exposed columns, uprights or braces in, or upon the ground. Free standing signs are typically used for buildings separated from adjacent streets by substantial setbacks. A monument sign is a sign which is anchored to the ground with a monolithic base and are not allowed within Downtown Louisville.

Size

- The maximum copy area for the combination of any wall, marquee, awning/canopy, and free standing signs is two (2) square feet (SF) of sign area for every one (1) linear foot of primary frontage plus one (1) SF of sign area for every one (1) linear foot of secondary frontage for corner lots, or parcels adjoining a park space, civic plaza, or designated walkway. The maximum allowed copy area may be utilized with any combination wall, marquee, awning/canopy, and free standing signs.
- The copy area of a freestanding sign is nine (9) SF per side.
- The maximum height of a freestanding sign, including the sign base, is six (6) feet.

Placement

- Each building is allowed one free standing sign.
- The free standing sign shall not be placed on public right-of-way.
- Free standing signs shall be designed to be compatible with the storefront in material, scale, proportions, and color.
- Opaque backgrounds are required and shall be a non-reflective material.
- Free standing signs shall only be used when other alternative types of signage cannot provide adequate identification.

PROJECTING SIGNS

Projecting signs mean a double-faced sign which projects more than 12 inches over private or public property, or a hanging sign perpendicular to the street, and which uses a building wall or canopy as its main source of support.

Size

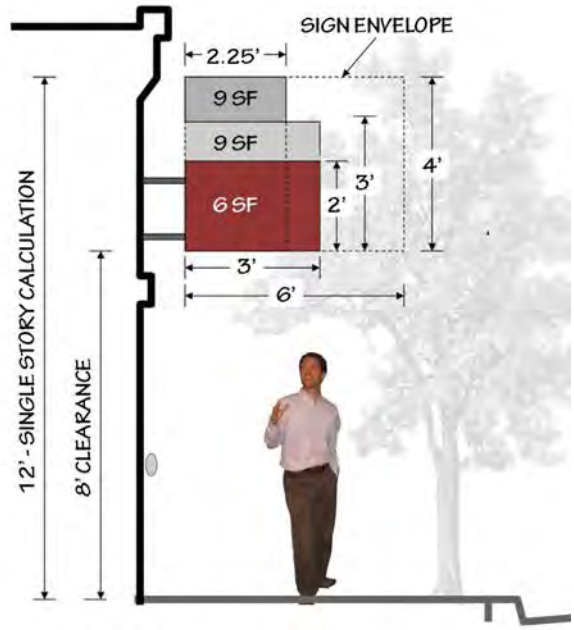
- The maximum copy area of each projecting sign along all building frontages is nine (9) square feet (SF) per side.
- Any end panel on a projecting sign is considered a face of the sign and is included in the measurement of the copy area for a wall sign if the end panel is twelve (12) inches, or more in width.

Primary and Secondary Frontage - Placement

- Single tenant buildings must place the projecting signs near a building entrance.
- Multi-tenant buildings may utilize one projecting sign per tenant.
- The minimum clearance of a projecting sign located over public property is eight (8) feet from the ground. There is no minimum clearance requirement for a projecting sign over private property.
- The maximum height of a projecting sign is twelve (12) feet above the sidewalk.
- Projecting signs shall not extend from the building façade for a greater distance than six (6) feet, or two/thirds the width of the adjacent sidewalk, whichever is less.
- For single tenant buildings with primary and secondary frontage longer than 25-feet, projecting signs shall be spaced a minimum of one every twenty-five (25) feet.
- Multi-tenant buildings can space projecting signs a minimum of one every ten (10) feet of linear primary and secondary frontage.

Alley Frontage - Placement

- The copy area of each projecting sign along any alley is nine (9) SF per side.
- A projecting sign can only be placed at a business entrance on the alley, or an access point to a pedestrian walkway from the alley.
- Projecting signs shall not extend from the building façade over the public right-of-way of the abutting alley frontage.
- Projecting signs shall not extend from the building façade for a greater distance than six (6) feet over private property along an alley.



Projecting Sign

Projecting Sign

Window Sign

Example: stylized guilding and typography

Any sign located on the interior within 6-feet of the window is considers a window sign

WINDOW SIGNS

Window signs are painted, posted, displayed, or etched on an interior translucent or transparent surface, including windows, or doors. This type of signage generally contains only text but in some circumstances can express a special business personality through graphic logos or images combined with color.

Any interior advertising display located within six (6) feet of a business window, or door is considered a window sign. Window signs should be created from high quality materials including paint, gold leaf, or vinyl. Recommended techniques for window signs include sandblasting, gilded or etched glass. Temporary posters announcing or advertising events sponsored by noncommercial organizations shall be exempt from the limitations for window signs.

Size

- The maximum copy area of a window sign is twenty (20) percent of the window, or eight (8) square feet, whichever is less.

SANDWICH BOARD SIGNS

A sandwich board sign is a moveable sign not secured or attached to the ground or surface upon which it is located, but supported by its own frame and most often forming the cross-sectional shape of an "A". Such signs are portable and are usually placed along public sidewalks to attract pedestrians into shopping areas.

Size

- A-frame, sandwich board signs are permitted in Downtown Louisville.
- The maximum copy area of a sandwich board sign is six (6) SF per side.
- Sandwich boards shall not exceed two (2) feet by three (3) feet and should not obstruct pedestrian traffic on sidewalks.

Placement

- Sandwich board signs may be placed in the public right-of-way on a sidewalk adjacent to a street and shall not obstruct vehicular, or bicycle traffic in the street, or obstruct pedestrian traffic on sidewalks.
- Each building tenant can have one sandwich board sign which must be located adjacent to the business that it advertises.
- Sandwich board signs shall be removed at the close of business each day for the business advertised.

Sandwich Board Sign

Menu Box Sign

Menu Box Sign

RESTAURANT MENU BOX SIGNS

Restaurant Menu Box Signs are signs incorporating a menu containing a listing of products and prices offered by the business. Such signs facilitate the customer in locating a restaurant in which to patronize. Therefore, prominently displayed menus with prices and other important information can help the customer in making this decision.

Size

- The allowable sign area for restaurant menu box signs shall be a maximum of eight (8) square feet.

Placement

- Restaurant menu box signs shall be located in a permanently mounted display box on the surface of the building within eight (8) feet of the entry. Taping a menu to a box is not an appropriate menu sign.
- High quality materials and artistic designs shall be used in the construction of menu box signs.
- Restaurant menu box signs are not included in the calculation of maximum sign area.
- Restaurant menu box signs shall be appropriate in material, size, location, and design to the character and architectural detail of the building as well as to the character of the restaurant.

MURALS

A mural is a large picture painted directly on a wall. Murals are valuable additions to Louisville in that they improve architecturally stark building facades and improve the visual interest of Downtown Louisville.

A mural cannot contain images, pictures, words or depictions that are obscene.

Murals using advertising content are regulated as a wall sign and are subject to the standards herein governing wall signs.

Murals using no advertising content are subject to the size requirement below.

Size

- Murals using advertising content are subject to the size requirements for wall signs.
- Other murals shall not exceed fifty (50) percent of a building facade.

Placement

- Murals are permitted only on walls with a minimum of five hundred (500) SF of uninterrupted space (no windows, architectural features, openings).

Mural

Mural

Kiosk

Kiosk

KIOSK

A kiosk is a small structure, typically located within a pedestrian walkway or similar circulation area (on either public or private property) and is intended for use as a key, magazine or similar type of small shop, or for use as display space for posters, notices, exhibits, etc. Kiosks may be permitted only if expressly authorized in an approved Final Planned Unit Development (PUD) development plan, or as a Special Review Use (SRU), which may contain additional standards and requirements concerning the design, construction, maintenance and operation of any kiosk.

Size

- The size of the kiosk is dependent on the proposed activity. Specific design considerations will be presented and discussed between the applicant and staff on an individual basis through the Final Planned Unit Development (PUD), or Special Review Use (SRU) process.

Placement

- The placement of the kiosk is dependent on the proposed activity. Specific design considerations will be presented and discussed between the applicant and staff on an individual basis through the Final Planned Unit Development (PUD), or Special Review Use (SRU) process.

TEMPORARY SIGNS

Temporary signs in Downtown Louisville shall be subject to the following specific requirements:

Construction Signs

Signs advertising subdivision, development, construction or other improvement of a property shall be permitted in any zoning district, and shall comply with the following:

- Such signs shall be limited to freestanding, wall or window signs; shall not exceed thirty-two (32) SF per face, shall not exceed eight (8) feet in height, and shall not be placed higher than twenty (20') feet, and cannot extend above the 2nd story window sill of the building to which it is attached.
- No riders or attachments to such signs shall be permitted.
- Residential developments consisting of five dwelling units or less, the maximum area permitted shall be six (6) SF per face for each dwelling unit being constructed.
- Construction signs shall be displayed only on the property to which the sign pertains. One such sign shall be permitted per street frontage upon the property which either has frontage or an entrance from a major thoroughfare provided the minimum distance between signs on any single development shall be 1,000 feet.

Political Signs

- Signs concerning candidacy for public office or urging action on any ballot issue in a primary, general or special election shall be permitted in Downtown Louisville subject to the area and height restrictions set forth in this document.
- Signs in a Commercial zone (including Downtown Louisville) shall have a maximum height of eight (8) feet, an area of thirty two (32) square feet, and shall not be placed higher than twenty (20') feet, and cannot extend above the 2nd story window sill of the building to which it is attached.
- The person or organization responsible for the erection or distribution of any political signs, or the owner of the property upon which the signs are located, shall remove the signs within ten (10) days after the primary or special elections to which the signs pertain. If the signs continue to be pertinent to a general election to be held within ninety (90) days, then the signs shall be removed within ten days after the general election to which they pertain.
- Signs shall be erected and maintained only on private land;
- Signs shall not be posted more than ninety (90) days prior to the election to which the sign is related;
- Shall be limited to wall, window and ground signs;
- Shall be limited to two signs for each street which the lot abuts for

Temporary Sign - Civic Event

Temporary Real Estate Sign

Temporary Construction Sign

Temporary Political Sign

each permitted use;

- Shall not be animated; and,
- Shall not flash, blink or fluctuate; and may be illuminated only from a concealed light source.

Real Estate Signs

- Shall not be over four (4) feet in height or six (6) SF in area and shall not be placed higher than twenty (20') feet, and cannot extend above the 2nd story window sill of the building to which it is attached.

Civic Events

- Shall erected no more than thirty (30) days prior to the event and must be removed within two (2) days after the termination of the event;
- Pennants and banners may be located on street light poles within public right-of-way located where they do not create safety hazards and only with approval from the Department of Planning and Building Safety;
- May be located off premise with approval from the Department of Planning and Building Safety;
- Must be installed only by, or under the supervision, or with permission from the Department of Public Works.

Special Event

- Shall be erected on the day of the event and must be removed at the conclusion of the event;
- Pennants and banners may be located on street light poles within public right-of-way located where they do not create safety hazards and only with approval from the Department of Planning and Building Safety;
- Shall be not be located off premise.

Other Temporary Signs

Temporary signs not specifically regulated by the preceding subsections shall be displayed only in accordance with the following conditions:

- Shall be limited to freestanding, window or wall signs only; and cannot extend above the 2nd story window sill of the building to which it is attached.

shall not exceed forty (40) SF in total surface area per use; shall comply with the placement requirements for each sign type.

- Shall remain in place for no more than two (2), thirty (30) day periods in any one calendar year, except the Planning and Building Safety Department may, for good cause, extend the time period up to thirty (30) days upon application.

MATERIALS AND ILLUMINATION

MATERIALS

- Exterior materials, finishes, and colors shall complement those of the building or structures on site.
- Signs shall be professionally constructed using only high quality materials including: metal, stone, hard wood, brass-plated, and exposed neon.
- Internally lit plastic letters and plastic box signs are not allowed.
- The colors and lettering styles shall compliment the building façade and harmonize with neighboring businesses.
- Exposed neon tubing may be used in conjunction with other types of materials to artistically emphasize the business name and/or logo.
- Supporting members of a sign shall appear to be free of any extra bracing angle iron, guy wires, cables, etc.
- The supports shall appear to be an architectural and integral part of the building and/or sign.

ILLUMINATION

Illumination of signs shall be in accordance with the following requirements:

- The following light sources are allowed in Downtown Louisville:
  - Indirect External Illumination - External light sources shall be placed close to, and directed onto, the sign and shielded to minimize glare into the street or onto adjacent properties.
  - Back-lit, halo-lit illumination, or reverse channel letters with halo illumination.
  - Neon Lettering may be used as a primary, or accent to a business name, or logo on a sign.
- Projecting light fixtures used for externally illuminated signs shall be simple and unobtrusive in appearance. They should not obscure the graphics of the sign.
- White is the only light color permitted within Downtown Louisville for illuminating a sign, excluding neon.
- Only downward facing indirect external light is allowed along an alley frontage adjacent to residential land uses.
- The following light sources are prohibited in Downtown Louisville:
  - Internal Illumination - both internal cabinet signs and channel lettering.
  - Moving, blinking, or flashing signs.
  - Bare bulb illumination.
- Visible raceways and transformers shall be prohibited. Sign installation details should clearly indicate the location of the transformer and other mechanical equipment.

Neon Lighting - Allowed

Reverse Channel / Halo-Lit - Allowed

Indirect Lighting - Allowed

Back-Lit / Halo-Lit - Allowed

Internal-Lit - Not Allowed

Channel Lettering - Not Allowed

Whenever one of the following conditions occurs, a sign which is nonconforming to the regulations of this manual shall be brought into conformance, or shall terminate:

- When there is a change in the business or use to which the sign pertains;
- When there is a change in the copy on a sign, other than on reader panels;
- When there is a permit granted to change the sign;
- If any such sign or nonconforming portion thereof is destroyed by any means to an extent of more than 50 percent of its appraised value for tax purposes at the time of the destruction, it shall not be reconstructed except in conformity with the applicable provisions of this title;
- When the location of the sign is moved or altered.

Signs which have been officially designated as Iconic Signs, or Landmark Signs will not be required to comply with the requirements for nonconforming signs.

WAIVERS

Any request for an increase in the maximum allowable height, area, or number of signs permitted by this document must follow the procedures set forth in the Louisville Municipal Code for approval of a final Planned Unit Development (PUD), where the applicant seeks approval from the Planning Commission and City Council. This process will be expedited by the Department of Planning and building Safety. The review criteria on page 27 of this manual will be used as the basis of the evaluation.

ICONIC AND LANDMARK SIGN DESIGNATION

ICONIC SIGN

An Iconic Sign should evoke a sense of quality and unique visual appearances. It may, or may not, have historic significance. Signs which have been officially designated as an Iconic Sign by the Historic Preservation Commission and City Council and which retain those dimensional, locational, and lighting standards that the sign possessed when it received such a designation shall benefit from the following privileges:

- May remain on roofs, or exceed height limits found elsewhere in this design manual.
- May exceed dimensional limits found elsewhere in this design manual.
- May reference a product or business which is not related to the existing business on the property.
- May change the sign copy and logo while maintaining the architectural quality of the original sign.
- Shall not have the sign copy area deducted from the square footage of sign copy area granted by other standards in this design manual.
- May remain in a right-of-way unless it becomes a hazard.
- May retain its original lighting patterns and materials.
- May be removed by the owner if they so choose.

LANDMARK SIGN

A Landmark Sign shall meet the criteria established for a landmark structure as outline in section 15.36.050 of the Louisville Municipal Code. When a sign receives a landmark designation, it shall benefit from the following privileges:

- May be eligible for historic preservation funds for restoration, repair, or maintenance, with approval from the Historic Preservation Commission and City Council.
- May remain on roofs, or exceed height limits found elsewhere in this design manual.
- May exceed dimensional limits found elsewhere in this design manual.
- May reference a product or business which is not related to the existing business on the property.
- May change the sign copy only with an alteration certificate from the Historic Preservation Commission.
- Shall not have the sign copy area deducted from the square footage of sign copy area granted by other standards of this design manual.
- May remain in a right-of-way unless it becomes a hazard.

Blue Parrot

Old Louisville Inn

State Mercantile

Empire Lounge

Casa Alegre

- May retain its original lighting patterns and materials.
- The granting of the Landmark Sign designation is based upon the criteria established in section 15.36.050 of the Louisville Municipal Code.

ICONIC SIGN REVIEW CRITERIA

The Department of Planning and Building Safety shall review all applications for the Iconic Sign designation for consistency with the review criteria and findings described below. The review shall include consideration of size, color, materials, illumination, location, as well as all other elements of creative sign design and construction. The application and staff report will then be forwarded to the Historic Preservation Commission for recommendation and City Council for official designation.

The granting of the Iconic Sign designation is based upon a sign's distinct qualities. The following criteria will be used to provide guidance during the Historic Preservation Commission and City Council's review. An Iconic Sign shall meet at least three (3) of the following four (4) criteria:

1. The sign, by its design, construction and location, will not have a substantial adverse effect on abutting property or the permitted use thereof, and will contribute to the City's unique character and quality of life.
2. The sign exhibits unique or rare characteristics that enhance the streetscape or identity of Downtown Louisville and it clearly provides a unique architectural style and appearance.
3. The sign contributes to the historical or cultural character of the streetscape or the community at large.
4. The sign and all parts, portions, and materials shall be maintained and kept in good repair. The display surface of all signs shall be kept clean, neatly painted, and free from rust and corrosion.

ICONIC SIGN DESIGNATION

The City of Louisville Historic Preservation Commission and City Council shall have the authority to approve or disapprove the designation of an Iconic Sign based upon the criteria stated above. At the time of submittal, the applicant must file all necessary information for the Department of Planning and Building Safety staff can determine if the sign meets the criteria. The Department of Planning and Building Safety has the authority to request additional information in order to form a recommendation to the Historic Preservation Commission and City Council. The burden of proof for meeting the criteria is upon the applicant. Once designated as an Iconic Sign, it shall be considered to be in compliance with this Downtown Louisville Sign Manual.

All signs painted, constructed, erected, remodeled, relocated, expanded or which have the copy of the sign changed or altered except those which are exempt, are required to obtain a permit from the City of Louisville Department Planning and Building Safety. No permit shall be issued unless there is full compliance with the provisions of this design manual and other applicable provisions of the Louisville Municipal Code.

APPROVAL PROCESS

APPLICATION REQUIREMENTS

All permanent signs, wall mounted, temporary, and sandwich board signs must submit a master sign program for review and approval by the Department of Planning and Building Safety. Each application submittal shall include the following:

- Proposed sign permit application (Four (4) sets).
- Full color 'to-scale' sketches of the proposed signs, displaying elevation and plan views, including materials, lighting, size, shape, design of all elements of the sign. (Four (4) sets).
- Illustrate the location of all signs in relation to the site plan, buildings, right-of-way, and property lines. (Show building and lot dimensions). A Final Planning Unit Development (PUD) site plan or an Improvement Location Certificate (ILC) can be used to complete this requirement.
- Additional submittal requirements may be requested at the discretion of the Department of Planning and Building Safety.

REVIEW CRITERIA

The purpose and intent of the review shall be to encourage uniform architectural standards and cohesive community development consistent with the purpose, intent and scope of this design manual. The Department of Planning and Building Safety may approve, approve with conditions, request modifications, or disapprove the issuance of a sign permit after consideration of the following criteria:

1. The proposed sign(s) shall be consistent and compatible with the color, materials, design of the on-site building(s).
2. The proposed signs(s) shall be scaled and located consistent with the scale of the lot and the massing of the building(s), with consideration of legibility of copy area.
3. The proposed sign(s) shall present a consistent and cohesive master design program, incorporating all site signage in similar color, materials, type-face, copy area, theme or design.
4. The proposed sign(s) are in conformity with the standards of this manual respecting the size, height, location, design and appearance of the sign(s) involved.
5. All existing and proposed signs must conform to the regulations and design standards of the building code of the city and all other applicable codes. Wiring of all electrical signs must conform to the electrical code of the city.

SUBMITTAL REVIEW

All sign permit applications shall be available through the Department of Planning and Building Safety. Each completed application shall be promptly reviewed. Any necessary modifications to the application shall be provided in writing to the applicant.

BUILDING AND ELECTRICAL CODES

All signs must conform to the regulations and design standards of the building code of the city and all other applicable codes. Wiring of all electrical signs must conform to the electrical code of the city.

PROCESS

Requests for a sign permit shall be approved, approved with conditions, or denied, or a request for modifications issued, within 15 days after City receipt of a complete application, unless such period is waived or extended by agreement of the applicant. If modifications are requested, a decision on the permit shall be entered within 15 days after City receipt of the applicant's response to the request for modifications, unless such period is waived or extended by agreement of the applicant.

MAINTENANCE AND UPKEEP

All signs, both currently existing and constructed in the future, and all parts thereof shall be maintained in a safe condition and the owner or lessee of any sign shall take all reasonable actions to maintain the sign so that any sign will be maintained.

CONTRIBUTORS

City Council

- Mayor Charles Sisk
- Dave Clabots
- Robert Muckle
- Sheri Marsella
- Frost Yarnell
- Hank Dalton
- Ron Sackett

Planning Commission

- Jeffrey Lipton
- Chris Pritchard
- Susan Loo
- Ann O'Connell
- Monica Sheets
- Scott Russell
- Steve Brauneis

Community Organizations and the City of Louisville Board / Commission Members

- Business Retention and Development
- Chamber of Commerce
- Downtown Business Association
- Historic Preservation Commission
- Louisville Revitalization Commission

Specific Downtown Business Owners

- Garrett McCarthy, Old Louisville Inn Restaurant
- Jim Cohen, Empire Lounge and Restaurant
- Joan Riggins, Blue Parrot Restaurant

Department of Planning and Building Safety

- Gavin McMillian, AICP, Planner II, Project Manager
- Troy Russ, AICP, Director
- Sean McCartney, Principal Planner
- Jolene Schwertfeger, Senior Administrative Assistant
- Sam Light, Light, Kelly, & Dawes, PC - City Attorney

Special Thanks To

- Michael Menaker for his insight and dedication to the project and to the downtown business community.

City of Louisville
Department of Planning and Building Safety
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LOUISVILLE HISTORIC PRESERVATION COMMISSION

STAFF REPORT

May 16, 2016

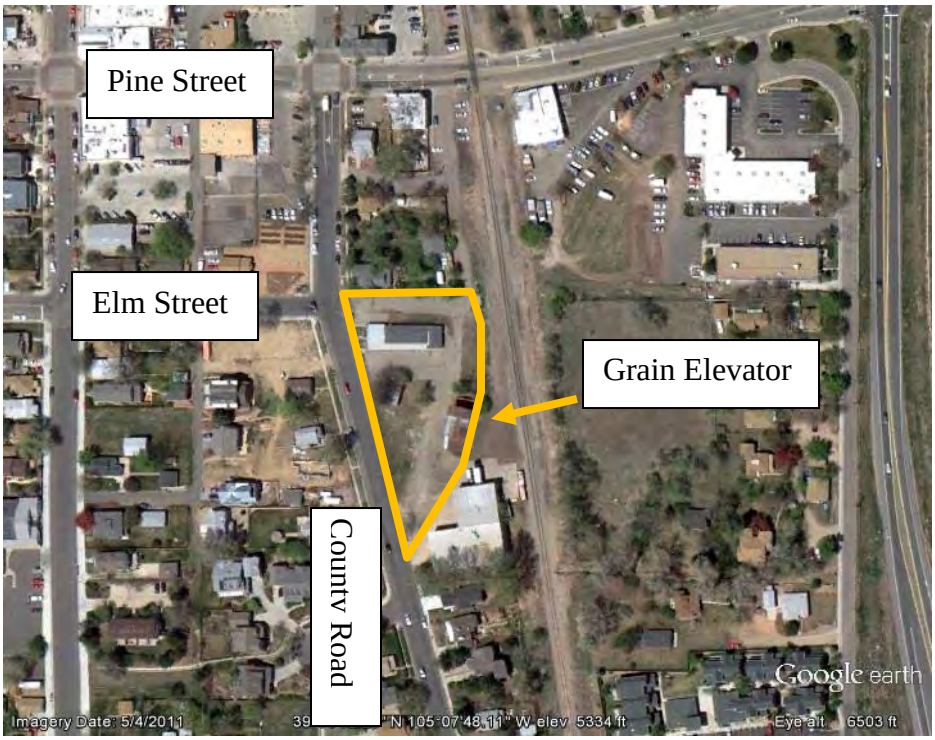
ITEM: Case #2016-004- GRANT

APPLICANT: Louisville Mill Site LLC
c/o Hartronft Associates p.c.
950 Spruce Street, Suite 1A
Louisville, CO 80027

OWNER: City of Louisville
749 Main Street
Louisville, CO 80027

PROJECT INFORMATION:
ADDRESS: 540 County Road
LEGAL DESCRIPTION: TRACT 712 8-1S-69 1.21 AC M/L PER DEED 952513 11/16/88 BCR
DATE OF CONSTRUCTION: circa 1904-1906

REQUEST: A request for a Historic Preservation Fund Grant for the next phase of work on the Grain Elevator.



HISTORICAL BACKGROUND:
Information from Historian Bridget Bacon

The grain elevator building is considered to be one of the Front Range area's last remaining wooden grain elevators. It was placed on the National Register of Historic Places in 1986 due to the elevator being "historically and visually the most significant structure associated with the agricultural history of the community." It is also listed on the Colorado Register of Historic Places. Its stacked plank construction style is considered to be rare.

John K. Mullen, an Irish immigrant, constructed the building and built and operated a number of grain elevators in Colorado in his capacity as President of the Colorado Milling & Elevator Co. The building is also associated with the Moore and Thomas families. Louisville resident Howard A. Moore and his son Donald Moore managed the elevator for about 35 years. In 1957, Louisville residents Charles Thomas and Quentin Thomas purchased the building. Charles Thomas was the brother-in-law of Donald Moore.

This building is connected with Boulder County's agricultural heritage, railroad history, mining history, and the history of the Irish in Colorado. It is located in Louisville's historic downtown area.

Grain Elevator – Historic Photo

Grain Elevator West Elevation - Current Photo

Grain Elevator East Elevation – Current Photo

Grain Elevator South Elevation – Current Photo

BACKGROUND:

The property was put on the National Register of Historic Places in 1986 as a part of the Louisville Multiple Resource Nomination. The City Council designated the Louisville Grain Elevator as a local Louisville landmark by City Council Resolution No. 30, Series 2015.

The applicant has completed the majority of the stabilization and exterior work approved by an alteration certificate in 2013 (Resolution 7, Series 2013). The four skylights on the shed roof on the south elevation were approved by an alteration certificate in 2014 (Resolution 5, Series 2014). The applicant was also granted an alteration certificate to construct two additions on the east and west elevations of the Grain Elevator in 2015 (Resolution No. 3, 2015).

The final Planned Unit Development for the Louisville Mill Site was approved by City Council Resolution No. 29, Series 2015.

GRANT REQUEST:

The applicant requests a Historic Preservation Fund grant for work on the Louisville Grain Elevator. Resolution No. 2, Series 2012 provides the procedures such grant requests. The grant request is to complete Phase II of the three phase rehabilitation project.

The City obtained a historic structure assessment for the property, completed by Anderson Hallas and paid for by the Historic Preservation Fund. The assessment (attached) makes several recommendations for the repair and rehabilitation of the existing structure.

The applicant has provided cost estimates from LMS LLC and George Weber Construction LLC. The applicant has divided the requested work into two priorities.

Priority 1 "Protection of Structure" items include:

- **Fire Sprinkler System, $111,851**
  Provide a new fire sprinkler system compliant with NFPA to provide fire protection for the entire structure.
- **Fire Alarm System, $23,738**
  Provide a new code-compliant fire alarm system with flow alarm and smoke detection to provide a monitored system to notify emergency personnel in case of fire, smoke or fire sprinkler system activation.
- **New Electrical System, $97,620**
  Replace old electrical service to prevent hazardous conditions, also includes a new electrical panel.

Total cost estimate for Priority 1 work is **$233,209.**

Priority 2 "Historic Rehabilitation items include:

- **Porte Cochere, Ramp & Boardwalk, $137,488**
  Reconstruct the boardwalk, wagon ramp, and porte cochere based on the existing fabric and historic photographs.
- **Window and Door Rehabilitation, $57,281**
  Restore existing wood windows and fit existing window openings with new wood windows. Restore four "barn" style doors and upper loading door.
- **Repaint Historic Sign, $10,988**
  Repaint historic sign based on historic photographs.
- **Re-install original scale on-site, $28,537**
  Return the equipment to the site from the Warembourg Farm and attempt to make the scale operational.
- **Grain bin floors, $23,737**
  Repair the floors of the grain bins and stacked plank liner walls.

Total cost estimate for Priority 2 work is **$258,031**.

The total cost estimate for the work is **$491,250.**

STAFF ANALYSIS

Eligibility of projects

Staff finds all of the requested items in Priority 1 are eligible for funding because they fall under rehabilitation section of Resolution No. 2, Series 2012 as *"sensitive upgrading*

of mechanical, electrical, and plumbing systems and other code-required work to make the property functional".

Staff also finds that the requested items in Priority 2 are eligible for funding. The following items in Priority 2 "sustain the existing form, integrity, and materials of a historic property":

- Window and Door Rehabilitation
- Grain bin floors

The additional items in Priority 2 aid in the "restoration of a property to a specific, significant point in its history" when the structure was a functioning grain elevator:

- Porte Cochere, Ramp & Boardwalk
- Repaint Historic Sign
- Re-install original scale on-site

Maximum Grant Amount

The property received a $500,000 grant for stabilization work in 2013 that is still being disbursed. The grant exceeded the maximum grant amount of $141,000 for a landmark commercial structure and $75,000 for new commercial construction as laid out in Resolution No. 2, Series 2012. Resolution No. 2, Series 2012, Section 7 (b) states the following regarding grant requests beyond the maximum amount:

> *"These limitations may be exceeded upon recommendation of the Historic Preservation Commission and approval by City Council upon a showing of extraordinary circumstances. Any grant exceeding the above limitations shall be conditioned on the applicant matching at least one hundred percent (100%) of the amount of the grant with expenditures or an equivalent value of approved in-kind services that are integral to the project that is deemed eligible for a grant from the Historic Preservation Fund." [Emphasis Added]*

The previous grant was awarded without the required match.

The applicant's current grant request from the Historic Preservation Fund is $491,250. The applicant proposes a 12% match of $58,850 as in-kind project management. Staff finds that the condition requiring a 100% match for any grant exceeded the maximum grant amount has not been met.

In addition, the applicant must show "extraordinary circumstances" exist to justify any grant in excess of the maximum grant allowed. Staff finds the grant request only shows "extraordinary circumstances" on the Priority 1 items. The applicant has shown the importance of the updated fire protection and electrical systems for the continued preservation and safety of the Grain Elevator. The Priority 2 items continue the work of rehabilitating the Grain Elevator; however, staff finds that these items do not fall under "extraordinary circumstances".

Fiscal impact
The fiscal impact would be the expenditure of up to $491,250 from the Historic Preservation Fund. The current balance of the HPF is **$906,000**. Approval of the grant would utilize 54% of the available funds.

Limiting the grant amount, as stated in Resolution No. 2, Series 2012 ensures multiple properties throughout Downtown and Old Town have equitable access to the Historic Preservation Fund. Due the recent implementation of the Revolving Loan Program, there are alternative funding sources available to the applicant to provide a match for the grant request that would not have the same impact on the fund balance.

RECOMMENDATION:
Based on maximum grant amounts and the lack of a 100% match from the applicant, and the lack of demonstration of "extraordinary circumstances" for the Priority 2 requests, staff recommends denial of this grant application. Staff recommends the applicant work with staff to apply for a Historic Preservation Fund Loan that could be used as the match on the Priority 1 grant request.

SUPPORTING DOCUMENTATION AND INFORMATION:
Attached for your review are the following supporting documents:

- Resolution No. 3, Series 2016
- Grant Application
- Resolution No. 2, Series 2012
- Approved PUD
- Social History
- Historic Structure Assessment

RESOLUTION NO. 3
SERIES 2016

A RESOLUTION MAKING FINDINGS AND RECOMMENDATIONS REGARDING THE HISTORIC PRESERVATION FUND GRANT APPLICATION FOR A HISTORIC INDUSTRIAL STRUCTURE LOCATED AT 540 COUNTY ROAD, KNOWN AS THE LOUISVILLE GRAIN ELEVATOR

WHEREAS, there has been submitted to the Louisville Historic Preservation Commission (HPC) an application requesting a Preservation and Restoration Grant for a historic industrial structure located at a 540 County Road, known as the Louisville Grain Elevator, on property legally described as TRACT 712 8-1S-69 1.21 AC M/L PER DEED 952513 11/16/88 BCR, Town of Louisville, City of Louisville, State of Colorado; and

WHEREAS, the City Council designated the Louisville Grain Elevator as a local landmark through Resolution No. 30, Series 2015; and

WHEREAS, the City Staff and the HPC have reviewed the application and found it to be out of compliance with City Council Resolution No. 2, Series 2012, establishing criteria for Historic Preservation Fund grants; and

WHEREAS, the Historic Preservation Commission held a properly noticed public hearing on May 16, 2016, where evidence and testimony were entered into the record, including without limitation the application and supporting materials, the Louisville Historic Preservation Commission Staff Report dated May 16, 2016 and all attachments included with such staff report, and additional written statements and other documents, as well as testimony from the staff and applicant; and

NOW, THEREFORE, BE IT RESOLVED BY THE HISTORIC PRESERVATION COMMISSION OF THE CITY OF LOUISVILLE, COLORADO:

Section 1. The foregoing recitals are incorporated herein.

Section 2. Based on the testimony of the witnesses and the documents and other evidence made a part of the record of the hearing before the Historic Preservation Commission, the Historic Preservation Commission finds as follows:

a. The application is for a Historic Preservation Fund grant for the property at 540 County Road, known as the Louisville Grain Elevator. The property is owned by City of Louisville. The applicant is Erik Hartronft, Louisville Mill Site, LLC.

e. The decision criteria that apply to the applicant's Historic Preservation Fund grant application are set forth in City Council Resolution No 2, Series 2012.

f. Resolution No. 2, Series 2012 allows grants that exceed the maximum amount set in the resolution when there is a “showing of extraordinary circumstances” and the application matches “at least one hundred percent (100%) of the amount of the grant with expenditures or in-kind services”.

Section 3. Based on the foregoing findings and the evidence and testimony presented at the hearing, the Historic Preservation Commission hereby concludes that the application should be denied for the following reasons:

a. Only the Priority 1 work items in the grant request show “extraordinary circumstances”.

a. The applicant is only providing a 12% match where a 100% match is required.

Section 4. In accordance with the above findings and conclusions, and based upon the evidence and testimony presented at the hearing, the Historic Preservation Commission of the City of Louisville hereby denies the application for a Historic Preservation Fund grant for the Louisville Grain Elevator at 540 County Road.

PASSED AND ADOPTED this _____ day of _____, 2016.

_____
Lynda Haley, Chairperson

DRAFT

City of Louisville
COLORADO • SINCE 1882

Historic Preservation Fund Application

The following information must be provided to ensure adequate review of your proposal. Please type or print answers to each question. Please keep your responses brief.

1. OWNER/APPLICANT INFORMATION

Owner or Organization

a. Name: Louisville Mill Site, LLC; Erik Hartronft and Randy Caranci, Managers

b. Mailing Address: 950 Spruce Street, Suite 2A, Louisville, CO 80027

c. Telephone: 303-673-9304

d. Email: erik@hapcdesign.com and randy@carancicorp.com

Applicant/Contact Person (if different than owner)

a. Name: _____

b. Mailing Address: _____

c. Telephone: _____

d. Email: _____

2. PROPERTY INFORMATION

a. Address: 540 County Road, Louisville, CO
Lot 2, Louisville Mill Site Subdivision

b. Year of construction or estimate: 1905-1908

C. Is the building designated as a landmark or in an historic district? (local, state, or federal) If so, what is the name of the landmarked property: _____

Louisville Grain Elevator (Tract 712 Louisville Milling & Elevator Co., Denver Elevator)
National Register of Historic Places
Louisville Historic Landmark

D. Attach information on the history of the site, including old photos and social history if available. See attached: "Louisville Grain Elevator History" prepared by Bridget Bacon, March 2012

E. Primary Use of Property (check one): ___*Residential*

X *Commercial*

3. PROJECT DESCRIPTION (Please do not exceed space provided below.)

a. Provide a brief description of the proposed scope of work.

The proposed work included in this grant application is the second phase of rehabilitation for the historic Louisville Grain Elevator. The scope of work is two-fold. First, to protect the historic structure with fire sprinklers, fire alarm, and upgraded electrical system for safety. Secondly, this scope of work will complete the restoration of key elements of the original structure to provide a more complete historic interpretation of the original grain elevator.

b. Describe how the work will be carried out and by whom. Include a description of elements to be rehabilitated or replaced and describe preservation work techniques that will be used.

The work will be performed in the same manner as the original phase 1 scope of work, utilizing the same general contractor and many of the same subcontractors. The work will be designed by Hartronft Associates and JVA Structural Engineers, as the original scope was designed. Please see attached Phase II Scope of Work for more detailed information regarding the construction to be accomplished. Rehabilitation includes new fire sprinkler and alarm system, and upgraded electrical. Reconstruction and restoration to include new or restored windows and doors, the reconstruction of the wagon ramp, boardwalk, porte cochere, non-structural bin repair, repainting the historic sign, and moving and re-installing the original scales from off-site, back to the grain elevator.

c. Explain why the project needs rehabilitation grant funds now. Include a description of community support and/or community benefits, if any.

When Louisville Mill Site LLC entered into contract to purchase, mitigate, and structurally stabilize the abandoned grain elevator in 2013, it was not known to what extent the structure and building envelope had deteriorated, or how expensive it would be to rehabilitate the structure. We agreed to complete the mitigation, stabilization and exterior repair to a certain level of rehabilitation, and the City agreed to grant $500,000 in HPF funds, with LMS paying $200,000 for the purchase. This agreement initially saved the City $875,000 based on the competing developer's proposal. As we are almost complete with the Phase 1 stabilization work, and will have expended the initial grant funding at the completion of Phase 1, we have accomplished more rehabilitation work than we had agreed to do within the initial grant funding, and we have been able to ascertain what we believe it will take to complete the remaining items critical to the preservation of the structure, and to provide a more accurate historic interpretation of the original building.

This structure is historically unique and iconic, representing Louisville's agricultural heritage like no other structure. We believe that protecting Louisville's and our investment so far in this preservation effort is extremely important. Completing the reconstruction of the character defining features of this property (porte cochere, windows, wagon ramp and boardwalk, etc.) will be a highly visible contribution to Louisville's historic fabric for current and future generations to understand the operation and aesthetic of one of Louisville's earliest, most important commercial structures. The rehabilitation of Louisville's historic Grain Elevator has very strong public support. If the phase 2 rehabilitation can be completed with grant funding, we believe that Louisville Mill Site LLC can justify the significant additional expense required to make the building usable for a commercial tenant.

4. DESCRIPTION OF REHABILITATION

Feature A - Priority 1	
NAME OF ARCHITECTURAL FEATURE: **Fire Sprinkler System** Describe feature and its condition: Currently there is no fire sprinkler system protecting this building.	Describe proposed work on feature: Provide a new fire sprinkler system compliant with NFPA to provide fire protection for the entire structure. System shall be a dry system interlocked with a new fire alarm system. Most sprinkler piping will be run exposed, in a manner sensitive to the historic fabric of the existing building.
Feature B - Priority 1	
NAME OF ARCHITECTURAL FEATURE: **Fire Alarm System** Describe feature and its condition: Currently there is no fire alarm system protecting this building.	Describe proposed work on feature: Provide a new code-compliant fire alarm system with flow alarm and smoke detection to provide a monitored system to notify emergency personnel in case of fire, smoke or fire sprinkler system activation.

4. DESCRIPTION OF REHABILITATION (continued)

Feature C - Priority 1	
NAME OF ARCHITECTURAL FEATURE: **New Electrical Service** Describe feature and its condition: Currently the existing electrical service is outdated. As part of the Phase 1 stabilization work, the existing branch circuits which appeared to be unsafe were disconnected and minor repairs are provided at the existing electrical panel to make it usable for construction activities, and minimal temporary lighting. The main service for the building is an outdated 'Delta' type system that is no longer used, and will not be serviced by Xcel in the future. This older Delta service is not grounded the way modern 'Wye' systems are gounded, which makes this system dangerous. Most electricians are unfamiliar with this type of older system and the potential for wiring errors is significant and hazardous.	Describe proposed work on feature: To aleviate the hazardous condions posed by this old electrical service, we propose to replace it with a new service. This would include the work required by Xcel Energy to provide the appropriate service conductors and transformer for this building, as well as the electrical service gear, main disconnect and meter equipment. This new service will need to be run underground per City requirements. A new electrical panel would be provided inside the structure as well as minimal branch wiring for utility lighting and convenience outlets on each level to avoid running extension cords throughout the building. The proposed branch wiring would be run within conduits, in a manner sensitive to the historic fabric of the existing building.

Feature D - Priority 2	
NAME OF ARCHITECTURAL FEATURE: **Porte Cochere, Wagon Ramp, Boardwalk** Describe feature and its condition: The original porte cochere, wagon ramp and boardwalk on the west side of the building have been removed at some point in the past, most likely due to structural instability and rot. During excavation around the building to address foundation concerns, we unearthed the foundations that previously supported these structures, as well as some previously buried wood elements. As part of the Phase 1 stabilization work, we have reinforced and capped the previous foundation remains with concrete that will support the reconstruction of the previously existing elements.	Describe proposed work on feature: We propose to reconstruct the boardwalk, wagon ramp and porte cochere to match the original condition as closely as possible based on the remaining construction in place and historic photographs. New construction will be built to current code requirements, and at-grade elements of the wagon ramp and scale area have to be raised slightly to match the current grade which is higher than the original condition. The below-grade boot pit hopper and auger chute used for unloading grain from wagons will be reconstructed and will be visible from inside the porte cochere. If possible, we will try to locate an auger for this area as well.

4. DESCRIPTION OF REHABILITATION (continued)

Feature E - Priority 2	
NAME OF ARCHITECTURAL FEATURE: **Window and Door Rehabilitation** Describe feature and its condition: There were originally 14 exterior windows and 6 exterior doors, plus several smaller openings and hatches. Two of the windows which were missing and deteriorated on section 5 have been replaced in Phase 1. There are two windows at the office area that have sashes intact which could be restored. There are 3 windows with partial frames and sashes. The remaining exterior window openings have no windows. As part of the initial stabilization project, the four main "barn" doors have been repaired to the extent that they can be secured, however they are not in good condition and additional work is needed. The main entry door at the north end of the west facade appears to be original, but has been modified over the years and is in poor condition. There is a door high on the east wall of the tower which was used for loading from the rail siding. This door is also in poor condition and in need of repair.	Describe proposed work on feature: Of the 14 original windows, it is anticipated that 2 windows will be within the interior if and when the planned east and west additions are constructed. There are 3 windows with partial frames and sashes which would be moved to the locations which will be interior. The 2 original windows that overlooked the scales and wagon ramp will be restored in place. The remaining eight exterior window openings with no windows would be fitted with new wood windows, which would be double pane, energy efficient windows, with dimensions, sash configuration, mutins and sightlines to match the original windows as closely as possible. The main northwest door will be restored and the four "barn" doors would be restored to original operation. The upper loading door at the tower will be repaired to be as close to original as possible, and to be weathertight.

Feature F - Priority 2	
NAME OF ARCHITECTURAL FEATURE: **Repaint Historic Sign** Describe feature and its condition: The original historic signage "Louisville M&E Co. Feed Grain & Grinding" with graphic of a bag of flour has been painted over, and has had different graphics painted in this area over the years. The existing condition at the start of the Phase 1 rehabilitation was a blank white painted wall. We have since removed the peeling paint and painted over the existing wood structure.	Describe proposed work on feature: We have high quality photographs of the historic building and the signage graphics. We are able to accurately recreate the original signage and graphics based on these photographs. Ed Helmstead, a local sign painter with significant experience recreating historic signage regionally and in Louisville, has been engaged to plan and execute this sign if the grant is approved.

4. DESCRIPTION OF REHABILITATION (continued)

Feature G - Priority 2	
NAME OF ARCHITECTURAL FEATURE: **Re-Install Original Scale On-Site** Describe feature and its condition: At some point the grain elevator was decomissioned (probably in the 1950's) and most of the equipment was removed. The scale equipment was moved to the Warembourg farm just south of Bella Vista drive on County Road. There it continued to be used for weighing grain trucks from local farms until about 15-20 years ago. The scale equipment is relatively intact, however the wood platform is rotted and unsafe at this point. The Owners have agreed to donate the equipment for Louisville Mill Site LLC to reinstall at the original location.	Describe proposed work on feature: The scale would be disassembled and moved to the grain elevator site for re-assembly. It is not possible to ascertain the condition of all of the underground equipment until the platform is removed and the scale is disassembled. We anticipate that most of the equipment is in a condition that would be suitable for recreating the physical configuration of the original equipment on site, but may not be able to be made functional without significant reconstruction. Therefore, the grant request would at a minimum, return the equipment to the site, and we will attempt to make it operational, however if there are broken and deteriorated parts that would be too expensive to replicate, we would assemble the remaining parts for historical reference, but not achieve an operable condition.

Feature H - Priority 2	
NAME OF ARCHITECTURAL FEATURE: **Grain Bin Floors** Describe feature and its condition: After the rotted grain, compost and animal waste was removed from the bottom of the grain bins, it revealed severe rotting of the floor boards and floor joists that supported the grain. The short stacked-plank liner walls are also deteriorated in many areas. At this time, the grain bins are somewhat accessible due to the openings existing after the rotted walls were cut out. Future construction of the wagon ramp and boardwalk, and the east addition will make it significantly more difficult to access these areas in the future.	Describe proposed work on feature: As part of the reconstruction of the boardwalk and wagon ramp, etc., while this area is still open and accessible, we propose to repair the floors of the grain bins and the stacked plank liner walls which were installed at the lower sections of the bins. If it is possible to utilize the structure in the future for tours and as an interpretive site, then the bottom of the grain bins would be viewed from above and would apear as they were originally constructed, instead of the deteriorated condition that currently exists.

5. COST ESTIMATE OF PROPOSED WORK

Please provide a budget that includes accurate estimated costs of your project. Include an ***itemized breakdown*** *of work to be funded by the incentives and the work to be funded by the applicant. Include only eligible work elements. Use additional sheets as necessary.* ***(Please reference this section in your contractor's bid attachment).***

Feature	Work to be Funded	Type and Amount of Incentive Sought	Applicant Cost Project Management
A.	Priority 1 - Protection of Structure FIRE SPRINKLER SYSTEM	$ 111,851	$ 13,400
B.	Priority 1 - Protection of Structure FIRE ALARM SYSTEM	$ 23,738	$ 2,850
C.	Priority 1 - Protection of Structure NEW ELECTRICAL SYSTEM	$ 97,620	$ 11,700
D.	Priority 2 - Historic Rehabilitation PORTE COCHERE, RAMP & BOARDWALK	$ 137,488	$ 16,500
E.	Priority 2 - Historic Rehabilitation WINDOW AND DOOR REHABILITATION	$ 57,281	$ 6,850
F.	Priority 2 - Historic Rehabilitation REPAINT HISTORIC SIGN	$ 10,998	$ 1,300
G.	Priority 2 - Historic Rehabilitation RE-INSTALL ORIGINAL SCALE ON-SITE	$ 28,537	$ 3,400
H.	Priority 2 - Historic Rehabilitation GRAIN BIN FLOORS	$ 23,737	$ 2,850
I.		$	$
J.		$	$
K.		$	$
	Subtotal Incentive Cost/Applicant Cost	$ 491,250	$ 58,850

Total Project Cost	$ 550,100

If partial incentive funding were awarded, would you complete your project?

☐ **YES** ☒ **NO** We could not justify the expense of completing the rehabilitation work based on the limited potential rental income from the property. We would accomplish whatever the grant award would cover, but not complete the remaining work unless other grant funding was provided.

6. ADDITIONAL MATERIALS REQUIRED

The following items must be submitted along with this application:

a. One set of photographs or slides for each feature as described in Item 4 "Description of Rehabilitation". Please label of each photograph with the address of your property and the feature number.

b. A construction bid if one has been made for your project (recommended).

c. Working or scaled drawings, spec sheets, or materials of the proposed work if applicable to your project.

7. Assurances

The Applicant hereby agrees and acknowledges that:

A. Funds received as a result of this application will be expended solely on described projects, and must be completed within established timelines.

B. Awards from the Historic Preservation Fund may differ in type and amount from those requested on an application.

C. Recipients must submit their project for any required design review by the Historic Preservation Commission and acquire any required building permits before work has started.

D. All work approved for grant funding must be completed even if only partially funded through this incentives program.

*E. Unless the conditions of approval otherwise provide, disbursement of grant or rebate funds will occur after completion of the project.

F. The incentive funds may be considered taxable income and Applicant should consult a tax professional if he or she has questions.

G. If this has not already occurred, Applicant will submit an application to landmark the property to the Historic Preservation Commission. If landmarking is not possible for whatever reason, Applicant will enter into a preservation easement agreement with the City of Louisville. Any destruction or obscuring of the visibility of projects funded by this grant program may result in the City seeking reimbursement.

H. The Historic Preservation Fund was approved by the voters and City Council of Louisville for the purpose of retaining the city's historic character, so all work completed with these funds should remain visible to the public.

J. Erik Hartronft, Manager Randy C. Caranci, Manager

04/20/16

Signature of Applicant/Owner Date

Louisville Mill Site LLC

Note that as of the date of this application, the City of Louisville is the owner of the property indicated herein. Louisville Mill Site LLC has a contract with the City of Louisville to purchase the property and it is anticipated that the closing, currently scheduled for 4/29/16 may be extended until May 2016 based on conditions precedent to closing. It is anticipated that Louisville Mill Site LLC will be the owner of the property at time that a grant would be awarded.

*Note - It is the intent of the Applicant/Owner that the disbursement of funds shall be consistent with the conditions of the previous grant funding for this project, specifically subject to the language indicated in our Purchase and Sale Agreement, dated 9/27/13, Article 9.20 with respect to use of funds and disbursement process.

It is intended that the total grant award would be utilized for qualified rehabilitation work identified in the Historic Structure Assessment prepared by Anderson Hallas Architects, dated May 2, 2011. Some elements identified in the scope of work may prove to be more expensive than indicated, and others may cost less than anticipated, but the entire grant award would be utilized within the parameters stated herein, however costs per category may shift depending on final bids and issues identified during the work on site.

Louisville Grain Elevator, Louisville, CO - Cost Estimate

Phase II - Louisville HPF Grant Application

Updated - 04/20/16

COST CODE DESCRIPTION	BUDGET	Quantity	Unit	Unit Cost	SUBTOTAL	NOTES
II.A. NEW FIRE SPRINKLER SYSTEM		Direct Contract w/LMS LLC				
Subcontract Bid - Freedom Fire Protection (+5% increase)	$50,122					2015 bid to be updated
Subcontract Bid - In & Out Excavating - Fire service line	$33,200					Excluded traffic control
Allowance: heater/compressor elect. traffic control, etc.	$5,000					Requires elect. and FA connection
SUBTOTAL - Construction:					**$88,322**	
Gen. Conditions: Temp. Facilities, Dumpster, Cleanup, etc.	$2,650					
GC. On-Site Management (No OH&P)	$5,299					
Gen. Labor, small tools, etc.	$1,766					
A/E Fees	$7,631					
Permit & Contingency	$6,183					
SUBTOTAL - GC, Fees & Contingency:					**$23,529**	
II.B. NEW FIRE ALARM SYSTEM		Direct Contract w/LMS LLC				
Estimate Only - Need final engineering for bidding	$18,000					
SUBTOTAL - Construction:					**$18,000**	
Gen. Conditions: Temp. Facilities, Dumpster, Cleanup, etc.	$540					
GC. On-Site Management (No OH&P)	$1,080					
Gen. Labor, small tools, etc.	$360					
A/E Fees	$2,138					
Permit & Contingency	$1,620					
SUBTOTAL - GC, Fees & Contingency:					**$5,738**	
II.C. NEW ELECTRICAL SERVICE		Direct Contract w/LMS LLC				
Subcontract Bid - Core Electric - Switchgear/Service	$38,727					
Subcontract Bid - Core Electric - Branch Circuts & Lighting	$18,000					Reduced scope and cost from orig. bid
Allowance for Xcel Charges:	$25,000					No estimate from Xcel without final design
SUBTOTAL - Construction:					**$81,727**	
Gen. Conditions: Temp. Facilities, Dumpster, Cleanup, etc.	$1,702					
GC. On-Site Management (No OH&P)	$3,404					
Gen. Labor, small tools, etc.	$1,135					
A/E Fees	$5,673					
Permit & Contingency	$3,980					
SUBTOTAL - GC, Fees & Contingency:					**$15,893**	

COST CODE DESCRIPTION		BUDGET	Quantity	Unit	Unit Cost	SUBTOTAL	NOTES
II.D. SITE WORK & CONCRETE - Scales and West Foundations			George Weber Const. LLC				
Excavation	complete	N/A	36	HR	$95.00		See Separate Scope of Work -Phase 1
Backfill & grade at existing scales and boot pit	complete	N/A	24	HR	$95.00		See Separate Scope of Work -Phase 1
Material export-import	complete	N/A	1	LS			See Separate Scope of Work -Phase 1
Granular backfill at all crawlspace areas - hand placed		$1,093	23	CY	$47.50		
Sump to drain at scale pit		$1,850	1	LS			Incl. plumbing equip.
Concrete Slab and Ftg. @ Loading Chute / Boot Pit		$4,600	1	LS			
Foundation - repair and cap existing foundations - west	complete	N/A	116	LF	$31.50		See Separate Scope of Work -Phase 1
Foundation - New foundation walls/pads - west	complete	N/A	61	LF	$75.00		See Separate Scope of Work -Phase 1
SUBTOTAL - Construction:						**$7,543**	(Balance in Separate Phase 1 Scope)
Gen. Conditions: Temp. Facilities, Dumpster, Cleanup, etc.		$226					
GC. On-Site Management (No OH&P)		$453					
GC. Overhead & Profit for turnkey portion	7%	$528					
Gen. Labor, small tools, etc.		$151					
A/E Fees		$652					
Permit & Contingency		$528					
SUBTOTAL - GC, Fees & Contingency:						**$2,537**	
II.D. WOOD & STL FRAMING & EXT FINISH - Wagon Ramp, Boardwalk & Porte Cochere			George Weber Const. LLC				
Beams/ledgers, posts		$2,318	122	LF	$19.00		
Beams/Posts - misc. setting labor etc.		$1,650	11	EA	$150.00		
Boardwalk Framing Matl./Labor		$7,611	516	SF	$14.75		
Boardwalk WP & Redwood Deck Planking		$12,728	688	SF	$18.50		
Railings at Boardwalk		$3,808	112	LF	$34.00		
Siding Repair Adjacent to Boardwalk	complete	N/A					See Separate Scope of Work -Phase 1
Boardwalk Paint/Stain		$4,816	1	LS			All other Ext. Painting - Separate Scope
Wagon Ramp Framing Matl./Labor		$6,825	420	SF	$16.25		
Wagon Ramp WP & Redwood Deck Planking		$7,770	420	SF	$18.50		
Wood/metal Auger Loading Chute at Boot Pit (below floor)		$6,000	Allowance				Does not include auger replacement B.O.
Glass Floor system at Boot Pit for viewing auger chute		$1,350	1	LS			
Porte Cochere - Framing Matl./Labor		$5,870	250	SF	$23.48		
Porte Cochere - Framing Matl./Labor - roof		$11,123	490	SF	$22.70		Incl. wood clg.
Porte Cochere - Insulation		$3,200	1	LS			All other Insul. - Separate Scope
Painting - Exterior (at reconstruction only)		$6,345	1	LS			All other Ext. Painting - Separate Scope
Metal roofing, gutters & downspouts -Porte Cochere only		$8,100	1	LS			All other Roofing - Separate Scope -Ph 1
Misc. fasteners, flashing, accessories		$300	1	LS			
Misc. Gen. Labor - Boardwalk & Porte Cochere		$3,375	Allowance				
SUBTOTAL - Construction:						**$93,189**	

COST CODE DESCRIPTION		BUDGET	Quantity	Unit	Unit Cost	SUBTOTAL	NOTES
Gen. Conditions: Temp. Facilities, Dumpster, Cleanup, etc.		$4,659					
GC. On-Site Management (No OH&P)		$5,591					
GC. Overhead & Profit for turnkey portion	7%	$6,523					
Gen. Labor, small tools, etc.		$1,864					
A/E Fees		$9,058					
Permit & Contingency		$6,523					
SUBTOTAL - GC, Fees & Contingency:						**$34,219**	
II.E. WINDOW AND DOOR REHABILITATION			George Weber Const. LLC				
(8) Window openings to be fitted with new windows to match hist.		$9,500	4	EA	$2,375.00		Full divided light - custom size to fit
(2) Windows at office to be restored in place		$3,000	2	EA	$1,500.00		
(2) Partial windows at office to be relocated to section 3 (interior)		$1,000	2	EA	$500.00		
Reconstruct/Repair Main Entry Door		$1,800	1	EA	$1,800.00		
Repair 4 'barn' doors and upper loading door into head house		$6,000	5	EA	$1,200.00		
Misc. Gen. Labor - Window/Door Repair & Replacement		$4,500	Allowance				Added for difficulty installing high windows
Misc. fasteners, flashing, accessories		$2,750	1	LS			
Painting - New Windows and Doors		$10,880	1	LS			All other Ext. Painting - Separate Scope
Hi-Lift Rental (4 wks.)		$2,800	2	Wks	$1,400.00		May have savings, combine with sign painting
SUBTOTAL - Construction:						**$42,230**	
Gen. Conditions: Temp. Facilities, Dumpster, Cleanup, etc.		$2,112					
GC. On-Site Management (No OH&P)		$2,534					
GC. Overhead & Profit for turnkey portion	7%	$2,956					
Gen. Labor, small tools, etc.		$845					
A/E Fees		$3,649					
Permit & Contingency		$2,956					
SUBTOTAL - GC, Fees & Contingency:						**$15,051**	
II.F. REPAINT HISTORIC SIGN GRAPHICS ON BUILDING			Direct Contract w/LMS LLC				
Historic Sign Restoration		$5,942	1	LS			
Hi-Lift Rental (4 wks.)		$2,800	2	Wks	$1,400.00		May have savings, combine with windows
Allowance for misc. surface prep. etc.		$500					
SUBTOTAL - Construction:						**$9,242**	
Gen. Conditions: Temp. Facilities, Dumpster, Cleanup, etc.		$370					
A/E Fees		$739					
Permit & Contingency		$647					
SUBTOTAL - GC, Fees & Contingency:						**$1,756**	

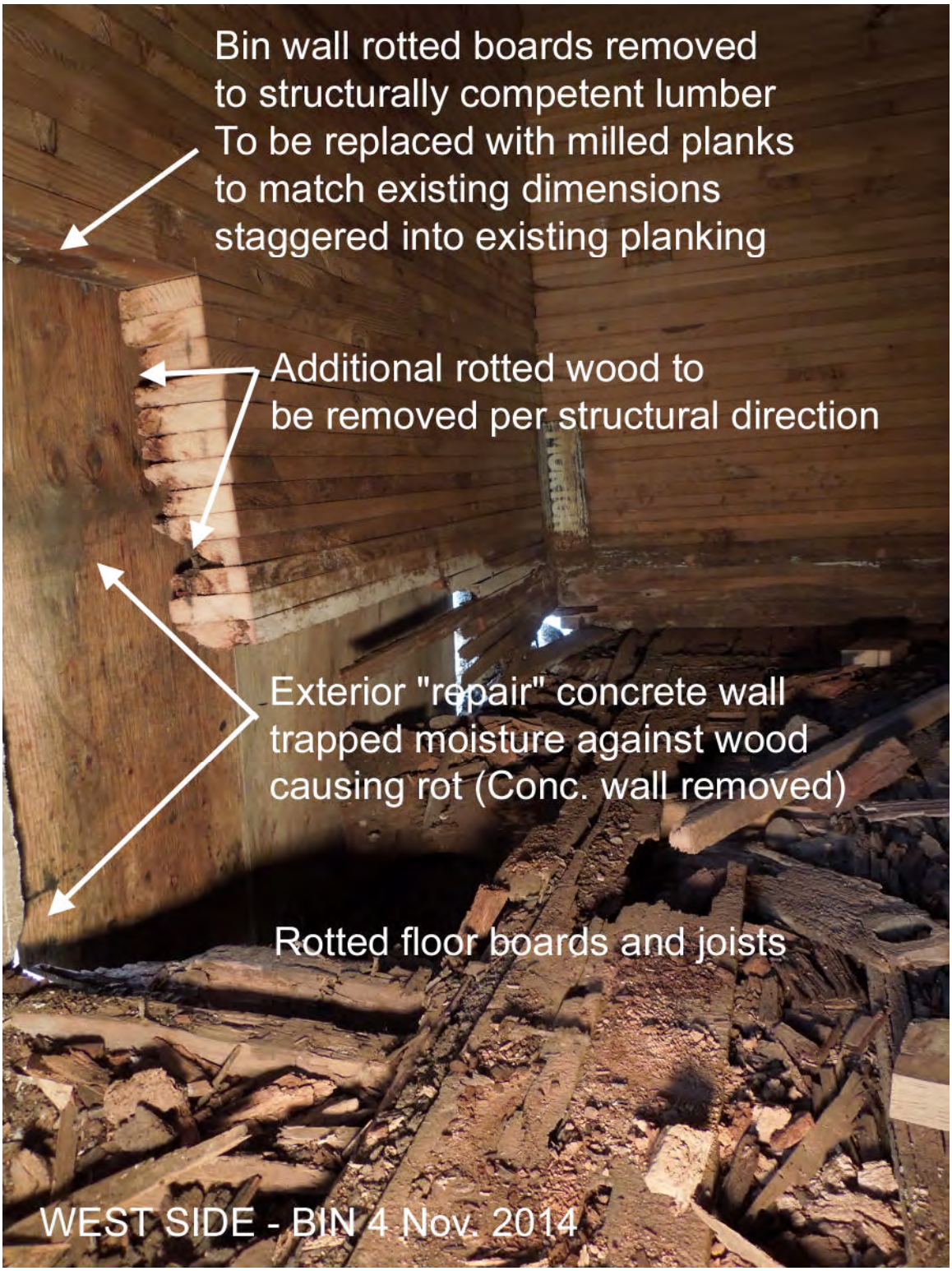
COST CODE DESCRIPTION		BUDGET	Quantity	Unit	Unit Cost	SUBTOTAL	NOTES
II.G. RESTORATION OF ORIGINAL SCALES			Direct Contract w/LMS LLC				
Allowance to disassemble scales, move and reassemble		$15,000	Allowance				
Scale Platform -Frame, WP & Redwood Deck Planking		$4,770	180	SF	$26.50		
Misc. fasteners, flashing, accessories		$1,200	1	LS			
Infill excavated scale pit at existing site		$1,500	1	LS			
SUBTOTAL - Construction:						**$22,470**	
Gen. Conditions: Temp. Facilities, Dumpster, Cleanup, etc.		$899					
GC. On-Site Management (No OH&P)		$1,348					
A/E Fees		$2,247					
Permit & Contingency		$1,573					
SUBTOTAL - GC, Fees & Contingency:						**$6,067**	
II.H. GRAIN BIN FLOOR & LINER REHABILITATION			George Weber Const. LLC				
(3) Bins with severe damage to floor joists and subfloor		$9,000	3	EA	$3,000.00		allowance
(3) Bins with minor damage to floor joists and subfloor		$4,500	3	EA	$1,500.00		allowance
(4) Bins with severe damage to plank liner walls		$3,000	4	EA	$750.00		allowance
(2) Bins with minor damage to plank liner walls		$1,000	2	EA	$500.00		allowance
SUBTOTAL - Construction:						**$17,500**	Note higher cost if done later due to logistics
Gen. Conditions: Temp. Facilities, Dumpster, Cleanup, etc.		$875					
GC. On-Site Management (No OH&P)		$1,050					
GC. Overhead & Profit for turnkey portion	7%	$1,225					
Gen. Labor, small tools, etc.		$350					
A/E Fees		$1,512					
Permit & Contingency		$1,225					
SUBTOTAL - GC, Fees & Contingency:						**$6,237**	
TOTAL - CONSTRUCTION ESTIMATE						**$491,250**	

Views from northwest showing: (D) Porte Cochere, Wagon Ramp, Boardwalk; (E) Windows and Doors to be Rehabilitated; and (F) Historic Sign.

Northeast view showing (E) Window and Doors to be Rehabilitated and interior windows for relocation.

Southwest view showing (D) Porte Cochere, Wagon Ramp, Boardwalk and (F) Historic Sign, Below new foundations and reinforced foundations from Phase 1 are ready for Phase 2 construction.

Excavations revealed pit for scales (G) to be relocated from Warembourg farm back to original location.
Below, main boot pit hopper and auger below porte cochere to be reconstructed (D)



Interior of bins where soil graded against the exterior rotted the walls and floor structure of the bins. The main foundation and stacked plank wall structures have been repaired and reconstructed as part of the Phase 1 Stabilization project. (H) Floor boards and joists have not been repaired due to lack of funding and the fact that these elements are not critical to the structural stabilization. However, it would be prudent to complete the removal of rotted elements and replace with new wood while these areas of the bins are easily accessible, prior to the construction of the boardwalk, porte cochere, etc.

GENERAL NOTES

1. Contractor shall be governed by the currently adopted edition of all codes and regulations having jurisdiction over aspects of this construction project.

2. Written dimensions and existing conditions shall be verified in the field by the Contractor and/or his Sub-Contractors. Do not scale drawings. If further clarification is required, contact Architect and provide him with field dimensions as required to assist him with his clarification.

3. Any discrepancy in dimensions and/or drawings and/or field measurements shall be brought to the attention of the Architect prior to the commencement of any work.

4. These drawings and specifications are the property and copyright of the Architect and shall not be used on any other work except by agreement with the Architect.

5. Duty of Cooperation: Release of these plans anticipates further cooperation among the Owner, Contractor, and Architect. Although the Architect and his consultants have performed their services with due care and diligence, they cannot guarantee perfection. Any ambiguity or discrepancy discovered shall be reported immediately to the Architect. Failure to cooperate by a simple notice to the Architect shall not relieve the Contractor from responsibility for all consequences. Changes made from the plans without the consent of the Architect are unauthorized, and shall relieve the Architect of responsibility for all consequences arriving out of such changes.

6. Plans reflect final building and site configuration. Demolition, site clearing, etc. is to be performed as required. No inference is made that all existing conditions are shown or all demolition noted. Contractor is to field confirm all existing conditions. Contractor is aware that this building is designated as an historic landmark. As such, it is imperative that existing historic materials are retained to the greatest extent possible. If any existing material or construction is to be removed, the disposition of the removed material or construction is to be confirmed with the Architect on site. Materials designated for salvage by the Architect shall be stored on site as directed for re-use. Only discard materials specifically indicated by the Architect to be discarded.

7. All products shall be installed per manufacturer's recommendations.

8. All work to be in accordance with "General Conditions of the Contract for Construction - A.I.A. Document A201" and other Contract Documents.

9. All Survey and Property information indicated herein is based upon the ALTA/ACSM Land Title Survey prepared by Scott, Cox & Associates Dated 06-11-2012.

10. The Contractor shall include any work required to make the end result building meet the intent of the Construction Documents. If equipment, material and/or construction are not detailed in drawings or specifications but are obviously required as industry standard for operative conditions, this work shall be included in base bid. If the Owner does not accept the Contractor's selection, the additional cost (to the Contractor) of that equipment or materials chosen by the Owner or Architect will be offset by Change Order.

11. The term "provide" as used herein shall mean that Contractor shall furnish and install said item, construction, equipment, materials, etc., for a complete, finished installation.

12. Do not use cadmium or cadmium plated products or products containing cadmium for work in place.

13. Do not use asbestos or asbestos containing products for work in place. Contractor shall not cut, drill, remove, or otherwise disturb any material, equipment, construction, etc., if it is thought to contain any hazardous material. If material, equipment, construction, etc., is encountered which appears to, or is likely to contain hazardous materials, notify Owner immediately.

14. Electrical equipment shall be certified as containing no PCB's.

15. Typographical errors or errors of spelling shall be brought to the Architect's attention for clarification. Interpretation of the meaning of mistyped or misspelled words without clarification from the Architect will be done by the Contractor with acceptance of responsibility for that interpretation and all consequences arriving therefrom.

16. Note: All dimensions to face of masonry, center line of structural steel or face of stud, typ. u.o.n. - All masonry dimensions indicated are nominal dimensions.

17. General Contractor shall be responsible for coordination of all trades doing work and coordination with Owner and Owner's sub-contractors regarding installation and provision for all equipment, materials and constructions indicated "by Owner" or "by others" on these documents.

18. All existing areas outside of contract limits are not to be used for construction activities without express written consent of the Owner. Contractor shall take all precautions necessary to protect these areas from damage, debris, and any other deleterious effects caused by this construction. Any areas affected by this construction shall be restored to original condition as required at completion of project.

19. The Contractor is responsible for protecting all existing items, utilities, or structures. The Contractor shall contact utility Owners or make exploratory excavations as necessary or as noted on the plans to determine the location of underground utilities and structures and the limits and character of soil and/or rock. If any item requires relocation, the Contractor shall notify the Owner of item well in advance of approach to the item and shall be responsible for making all arrangements with the Owner of the item for relocation if the item.

20. Note: The Scope of Work herein does not include any Electrical or Mechanical (Plumbing/HVAC) work. Owner will provide temporary lighting and power via the existing building electrical system. Contractor shall provide additional temporary lighting or power as required for the work to be done by the Contractor if Owner-provided utilities are inadequate.

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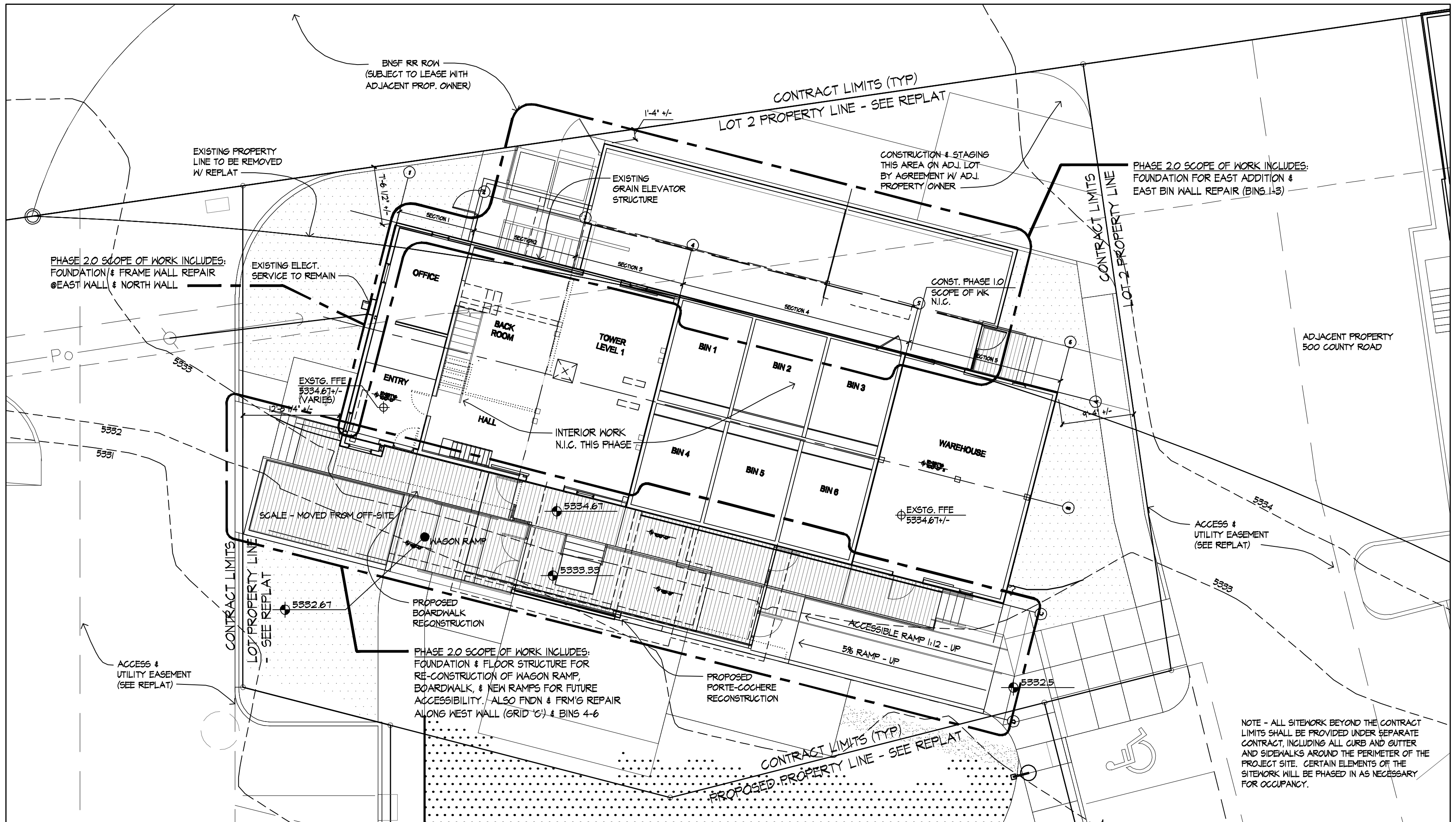
PROJECT DATA AND CODE INFO.

PROJECT DESCRIPTION:	Partial renovation of an existing grain elevator. The scope of work includes structural stabilization, Phase 2.0 for the portion of the existing structure from Grid 5 to the north (Section 1–4) and reconstruction of foundations for porte cochere and related walkways, ramps etc. west of Grid C and new foundation/counterforte at east addition, east of Grid A. No electrical or mechanical work is proposed in this phase.
ZONING:	CB – No change of use for this phase
BUILDING CODE:	2012 International Code Series (IBC, IMC, IPC, IFC, IECC) 2011 National Electrical Code (NEC) All as amended by City of Louisville Note – The existing building may not comply with all provisions of current building codes. New construction shall be required to be in compliance with applicable codes. However, as there is not a change in use, the existing non–compliant elements may remain per applicable code provisions (see chapter 34–IBC). The existing structure is being reinforced to meet current structural provisions of the Code for potential future change of use and occupancy, (See Struct. Drawings).
GROSS FLOOR AREA:	TOTAL = 4,094 SF GROSS
OCCUPANCY CLASSIFICATION:	EXISTING = U – Utility Occupancy No Change of Use proposed this phase
CONSTRUCTION TYPE:	EXISTING = Type V–B (Bldg. SF < 5,500 SF Allowable)
BUILDING HEIGHT:	EXISTING = 3 Stories, 49' +/– (Max Ht = 1–Story, 40')
OCCUPANT LOAD:	Warehouse = 500 s.f./Occupant (Gross) First Floor = 2,495 s.f./500 = 5 occ. Second Floor = 797 s.f./500 = 2 occ. Third Floor = 802 s.f./500 = 2 occ.
FIRE SEPARATION:	None
PLUMBING FIXTURES:	None
ACCESSIBILITY:	Existing building is not in compliance with ADA or IBC accessibility requirements. Future change of use and modifications for occupancy will provide for increased accessibility for persons with disabilities.

Carnegie Branch Library for Local History / Boulder Historical Society Collection

HISTORIC VIEW OF GRAIN ELEVATOR FROM THE NORTHWEST



A1 / A010b SITE PLAN / GROUND FLOOR PLAN - GRAIN ELEVATOR

1" = 10' (LOUISVILLE MILL SITE SUBDIVISION - LOT 2)

INDEX TO DRAWINGS

A010b	Site Plan, Index, General Information
A100b	Basement Plan
A110b	Main Level Plan
A200b	West Elevation
A205b	North Elevation
A240b	Building Section
A270b	Building Section
S001	Structural Cover Sheet
S002	Key Section, Typ Fndn Sections, Ft'g Schedule
S003	Typ Wood & Lateral Sections, Schedules
S004	Details
S005	Details
S100	Foundation Plan
S110	First Level Framing Plan
S200	Sections
S201	Sections
S202	Sections
S203	Sections
S204	Sections

PROJECT INFORMATION

LOUISVILLE HISTORIC GRAIN ELEVATOR

STABILIZATION & REHABILITATION PROJECT
CONSTRUCTION PHASE 2.0 – SECTION 1–4 (PARTIAL)

OWNER: LOUISVILLE MILL SITE LLC*
950 Spruce Street, #2A
Louisville, Colorado 80027
J. Erik Hartronft, erik@hapcdesign.com — P (303) 673-9304 F (303) 673-9319
Randy C. Caranci, randy@carancicorp.com — P (303) 910-0019 F (720) 890-9785

***Note: Current Owner is City of Louisville, 749 Main Street, Louisville, CO 80027. Louisville Mill Site LLC has a contract with the current owner to purchase the property and has an agreement with the current owner to renovate buildings on site. 'Owner' as referenced herein shall refer to Louisville Mill Site LLC. See Construction Contract(s) for additional information and responsibilities.**

ARCHITECT: HARTRONFT ASSOCIATES, P.C.
J. Erik Hartronft, AIA, erik@hapcdesign.com
950 Spruce Street, Suite 2A
Louisville, Colorado 80027
P (303) 673-9304 F (303) 673-9319

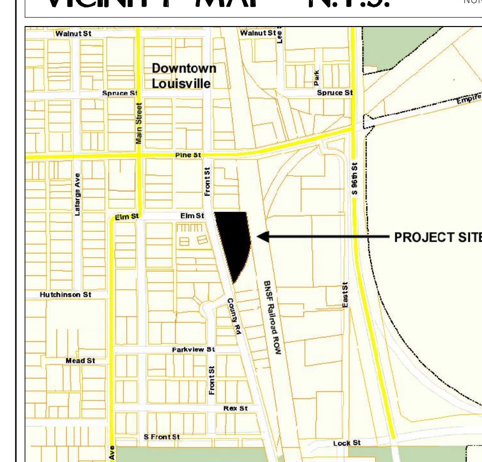
STRUCTURAL: JVA, Inc. Consulting Engineers
Ian R. Glaser, iglaser@jvajva.com
1319 Spruce Street
Boulder, Colorado 80301
P (303) 444-1951 F (303) 444-1957

EXISTING TOTAL SITE AREA: 46,546 SF 1.069 acres +/–
REPLAT TO CREATE LOT 2 AT 9,270 SF+/- = .21 ACRES

IBC AREA CALCULATION:

BASEMENT GROSS FLOOR AREA:	0 SF
FIRST FLOOR GROSS FLOOR AREA (INCL. BINS):	2,495 SF
SECOND FLOOR GROSS FLOOR AREA:	797 SF
THIRD FLOOR GROSS FLOOR AREA (MEZZ. INCL. @ 110GSF):	802 SF
TOTAL GROSS FLOOR AREA:	4,094 SF

VICINITY MAP N.T.S.



CONSTRUCTION PHASE 3.2 – SECTION 1–5

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Stabilization & Rehabilitation
540 COUNTY ROAD, LOUISVILLE, CO
Louisville Mill Site LLC – Caranci / Hartronft

PROJECT # 1252.40
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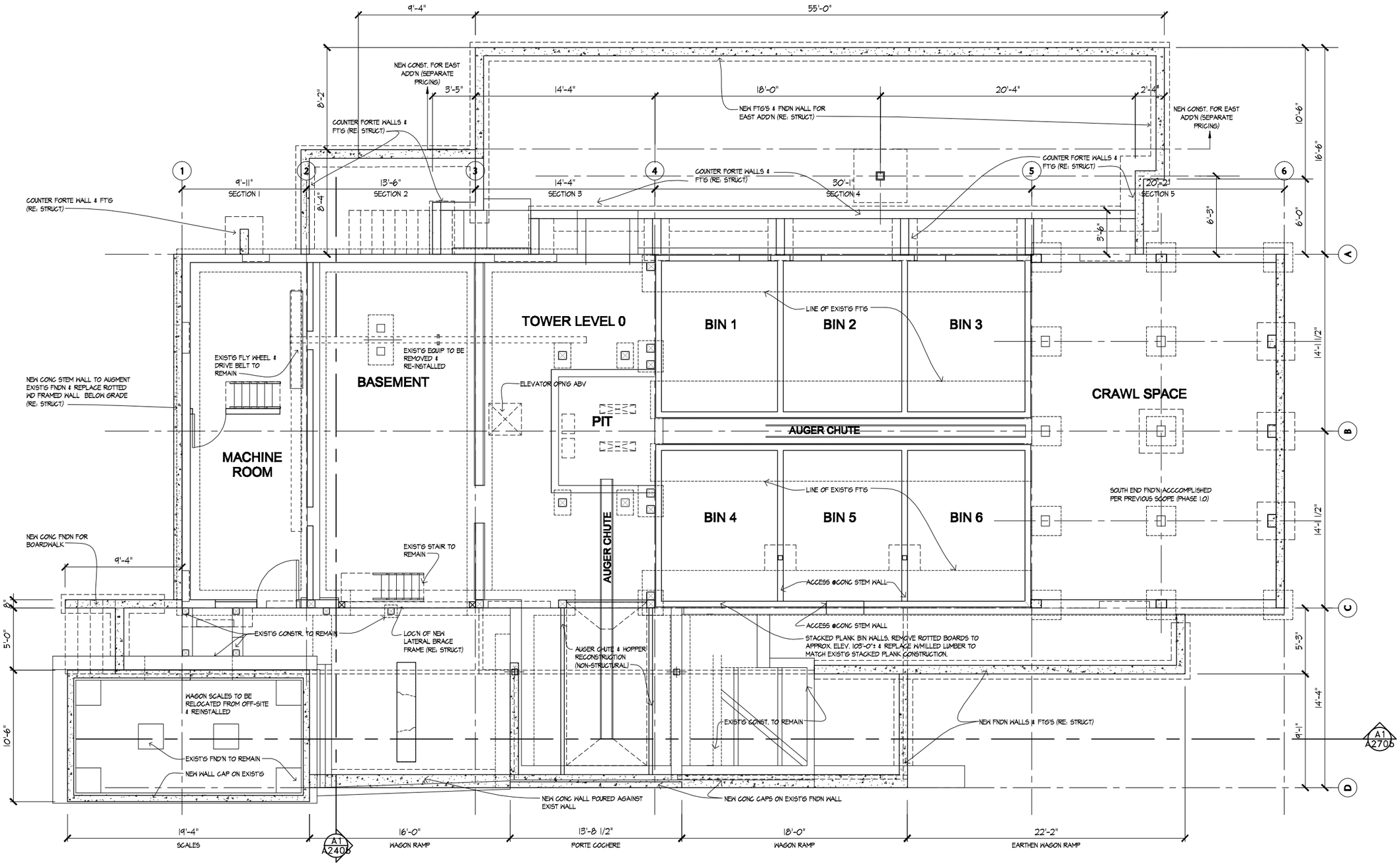
Site Plan Index General Information

Sheet

A010

1 of Sheets



ALL EXIST'G DIMS TO BE VERIFIED IN FIELD

A1 / A100b **FLOOR PLAN – BASEMENT / CRAWLSPACE**

1/4" = 1' – 0"

PLAN NORTH

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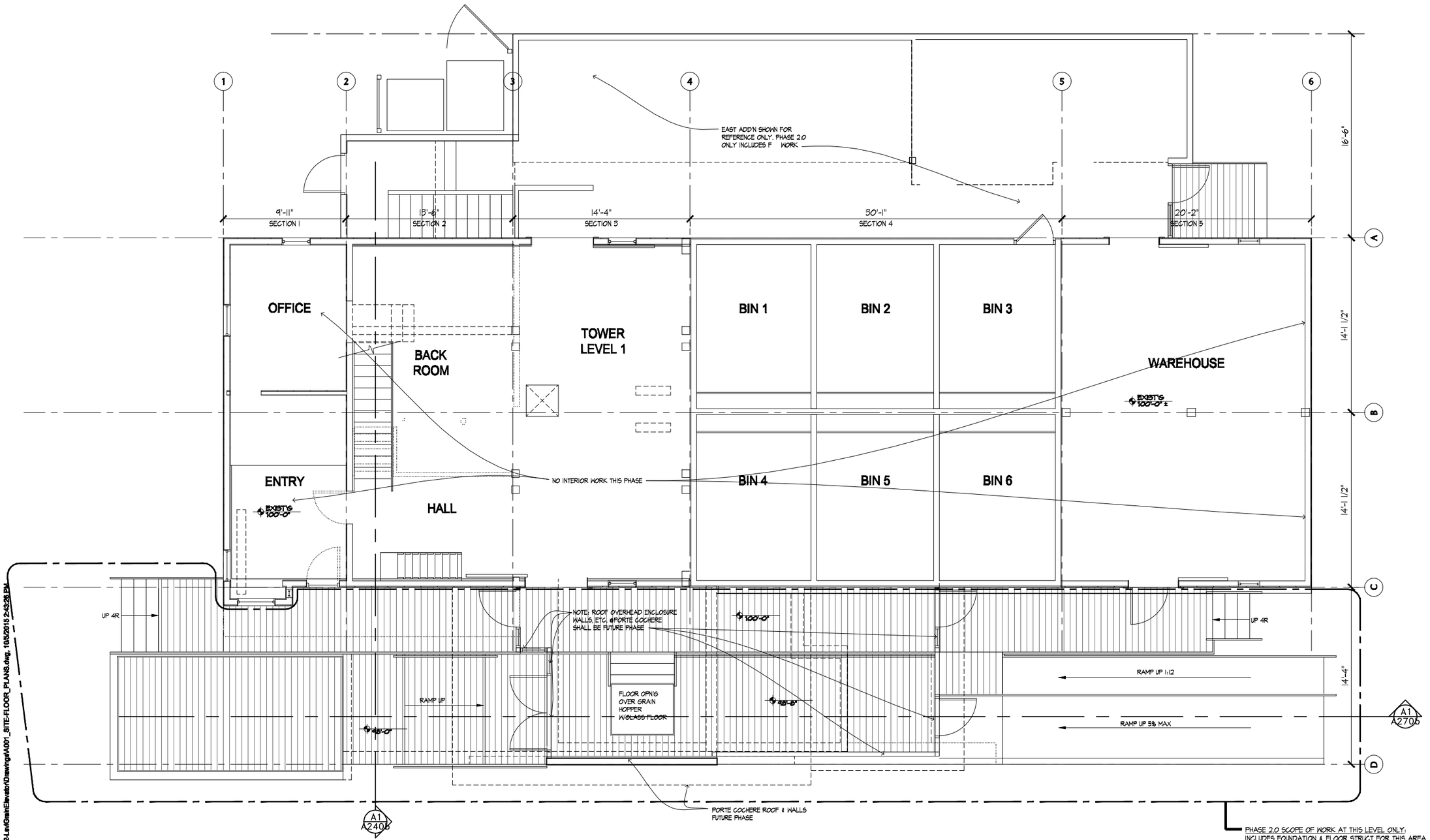
Basement Plan
First Level Plan

Sheet
A100

2 **of** 19 **Sheets**



C1 A110b FLOOR PLAN – FIRST LEVEL

1/4" = 1' – 0"

PLAN NORTH

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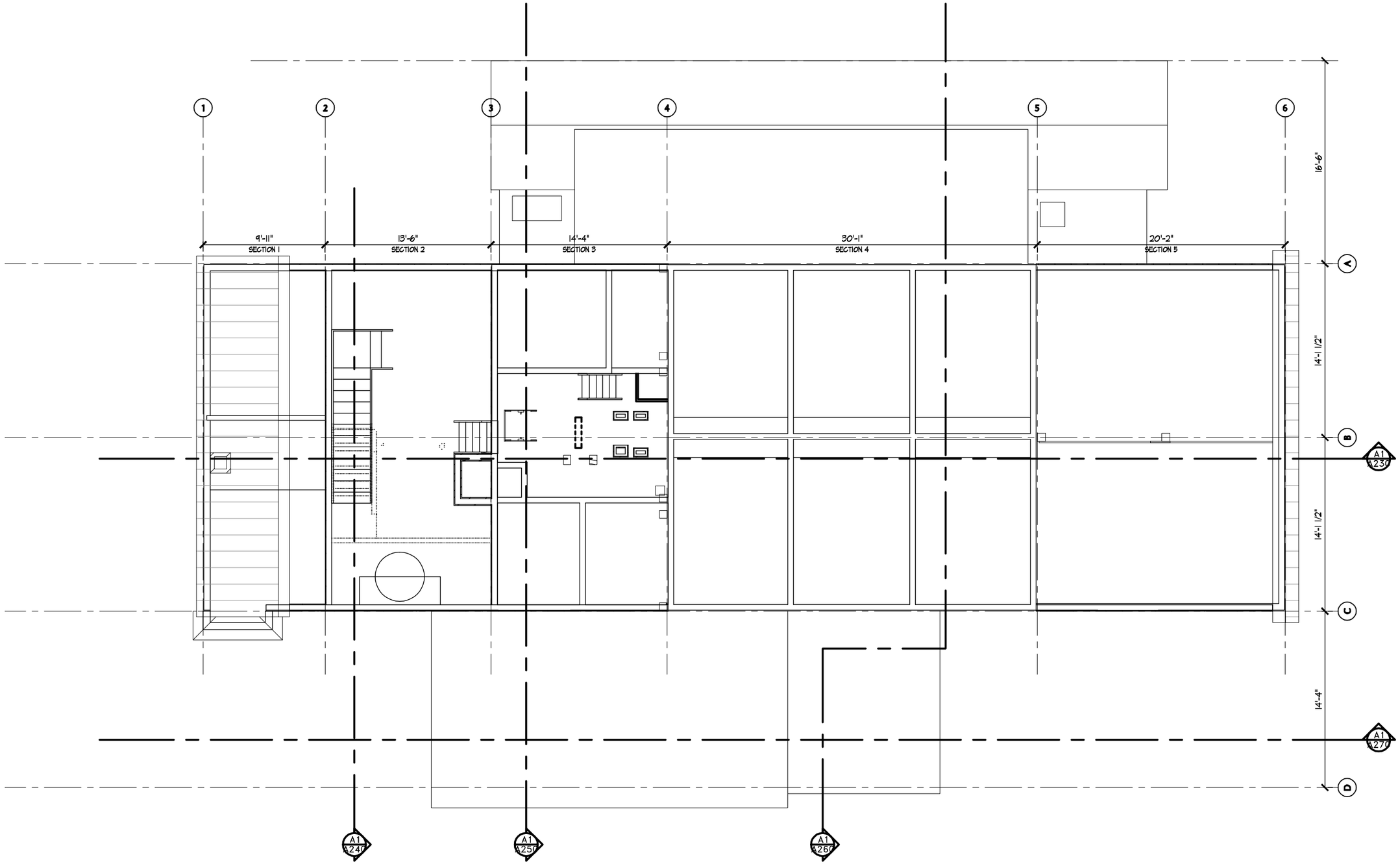
First Level Plan

Sheet
A110

3 of 19 Sheets



A1 A120 FLOOR PLAN – SECOND/THIRD LEVEL

1/4" = 1' – 0"

PLAN NORTH

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Sheet
A120
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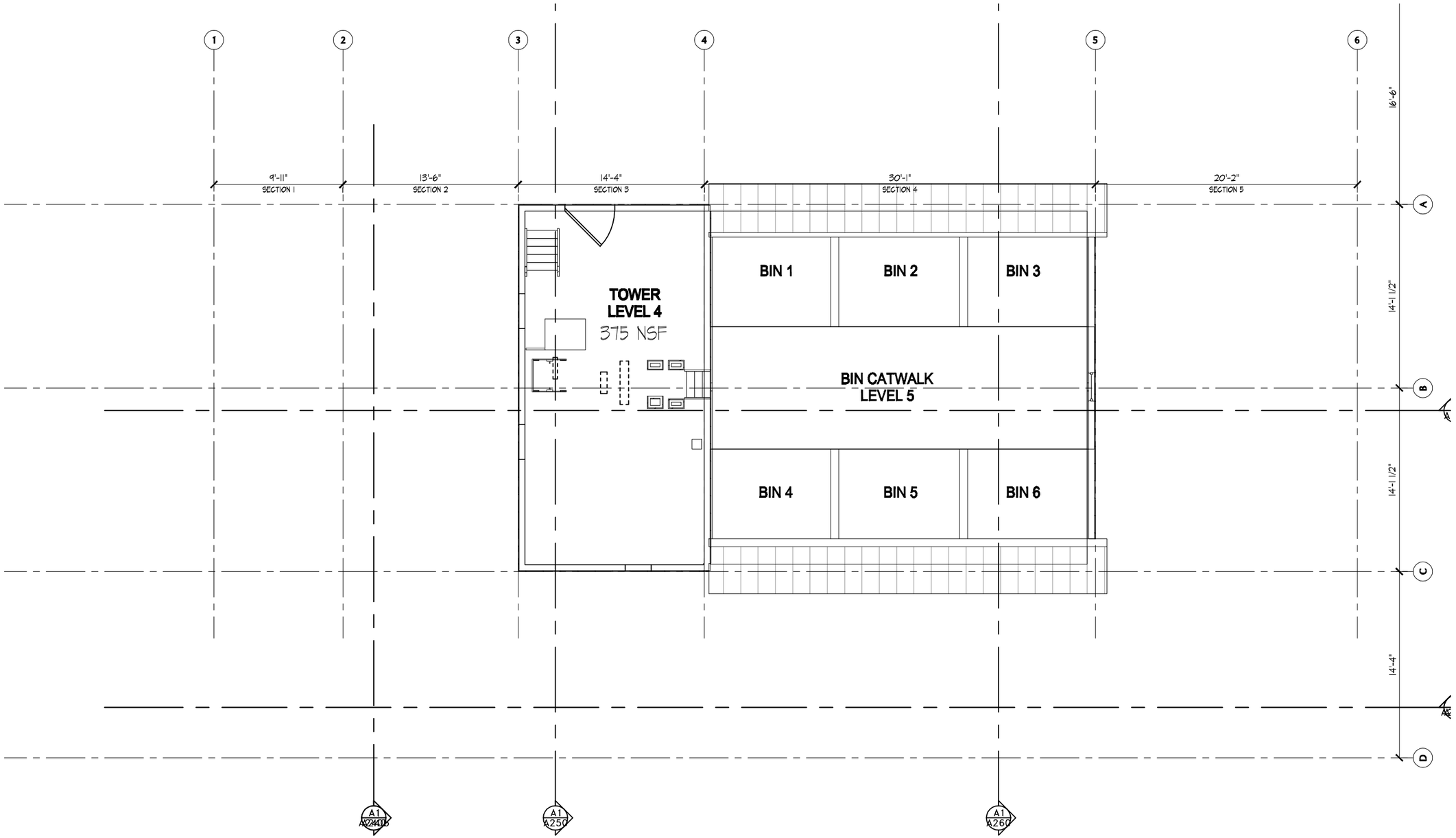

C1 A140 FLOOR PLAN – FOURTH/FIFTH LEVEL

1/4" = 1' – 0"

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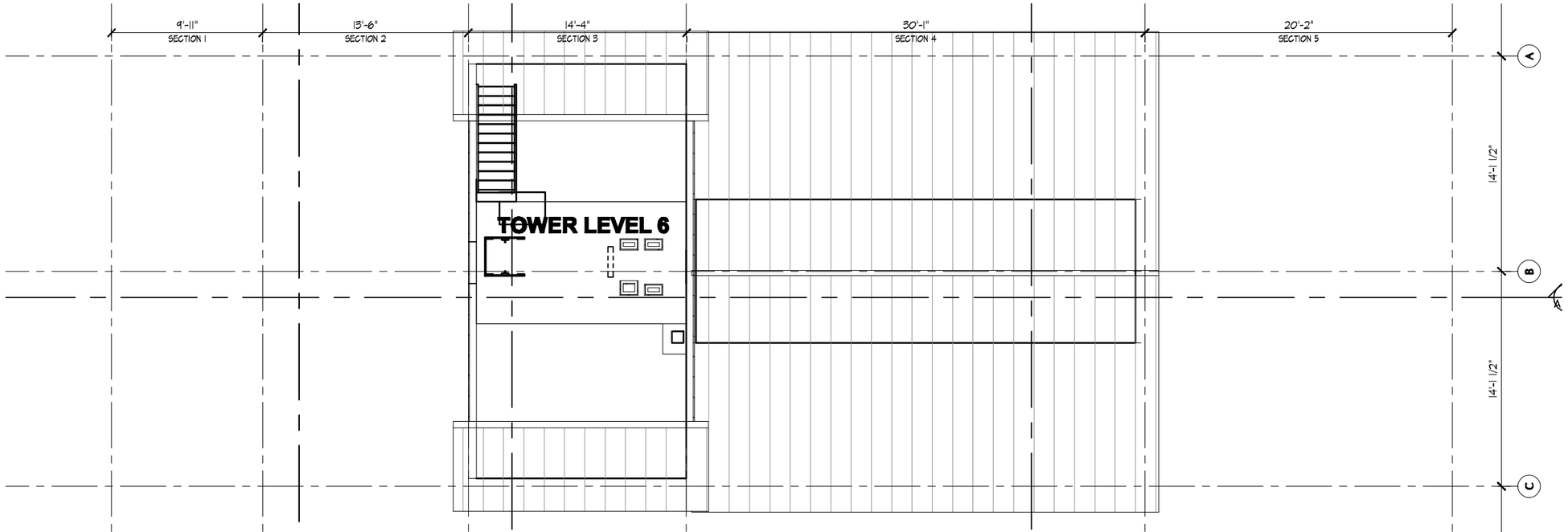
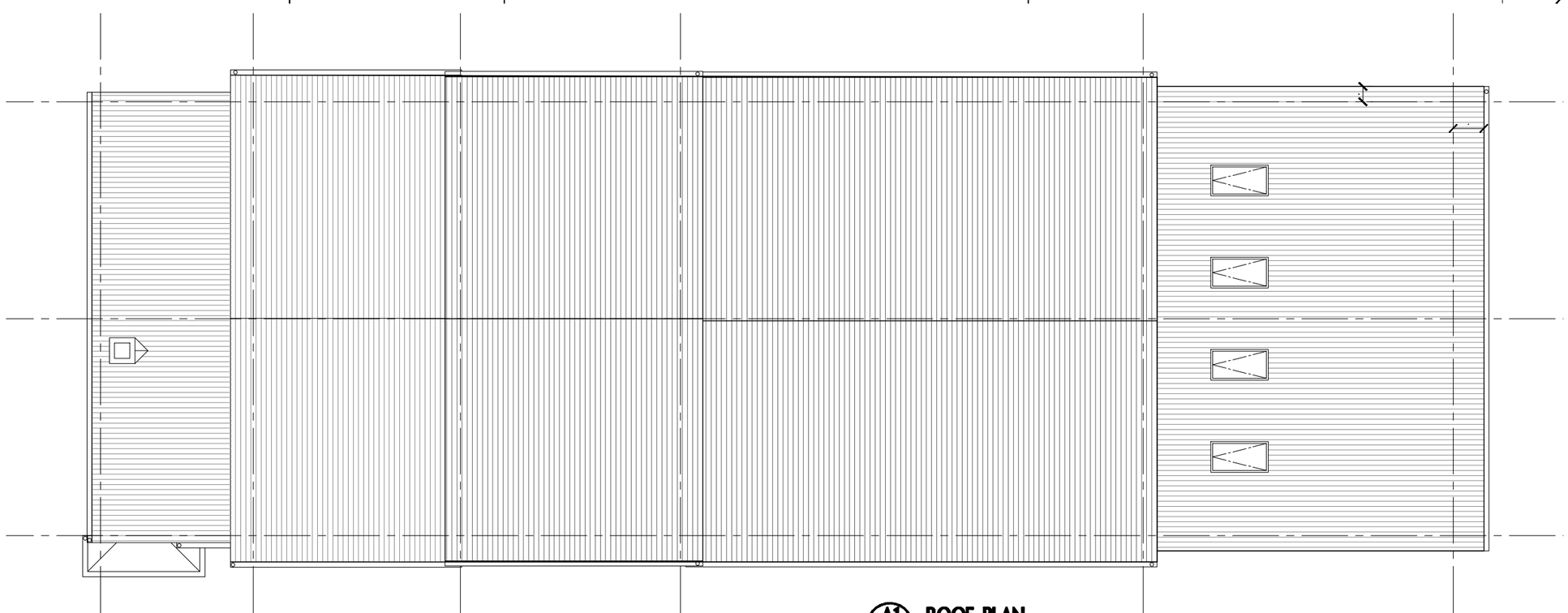


C1 / A130 FLOOR PLAN - SIXTH LEVEL
1/4" = 1' - 0"



A1 / A130 ROOF PLAN
1/4" = 1' - 0"

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A160
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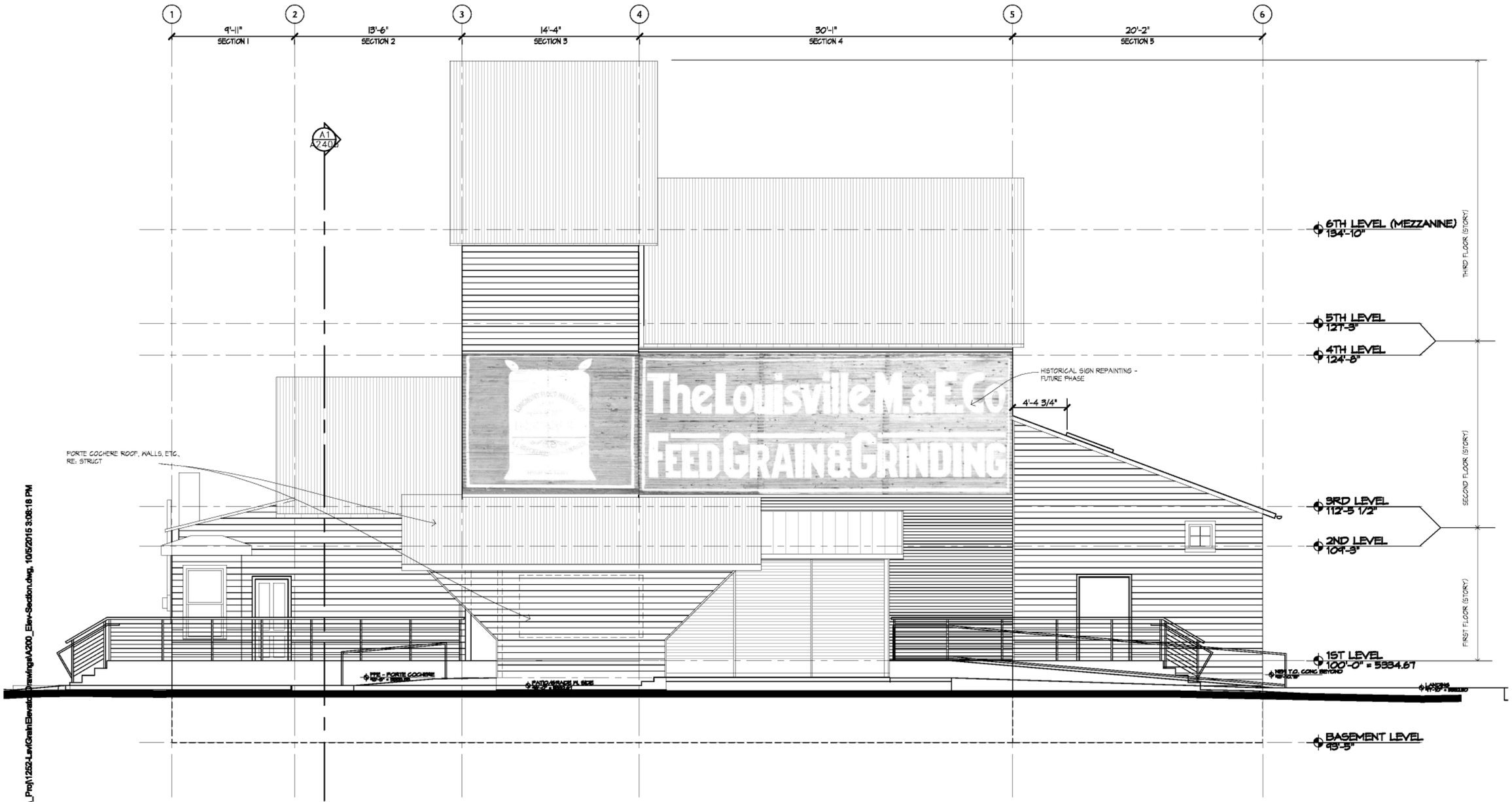

A1 / A200 WEST ELEVATION

1/4" = 1' - 0"

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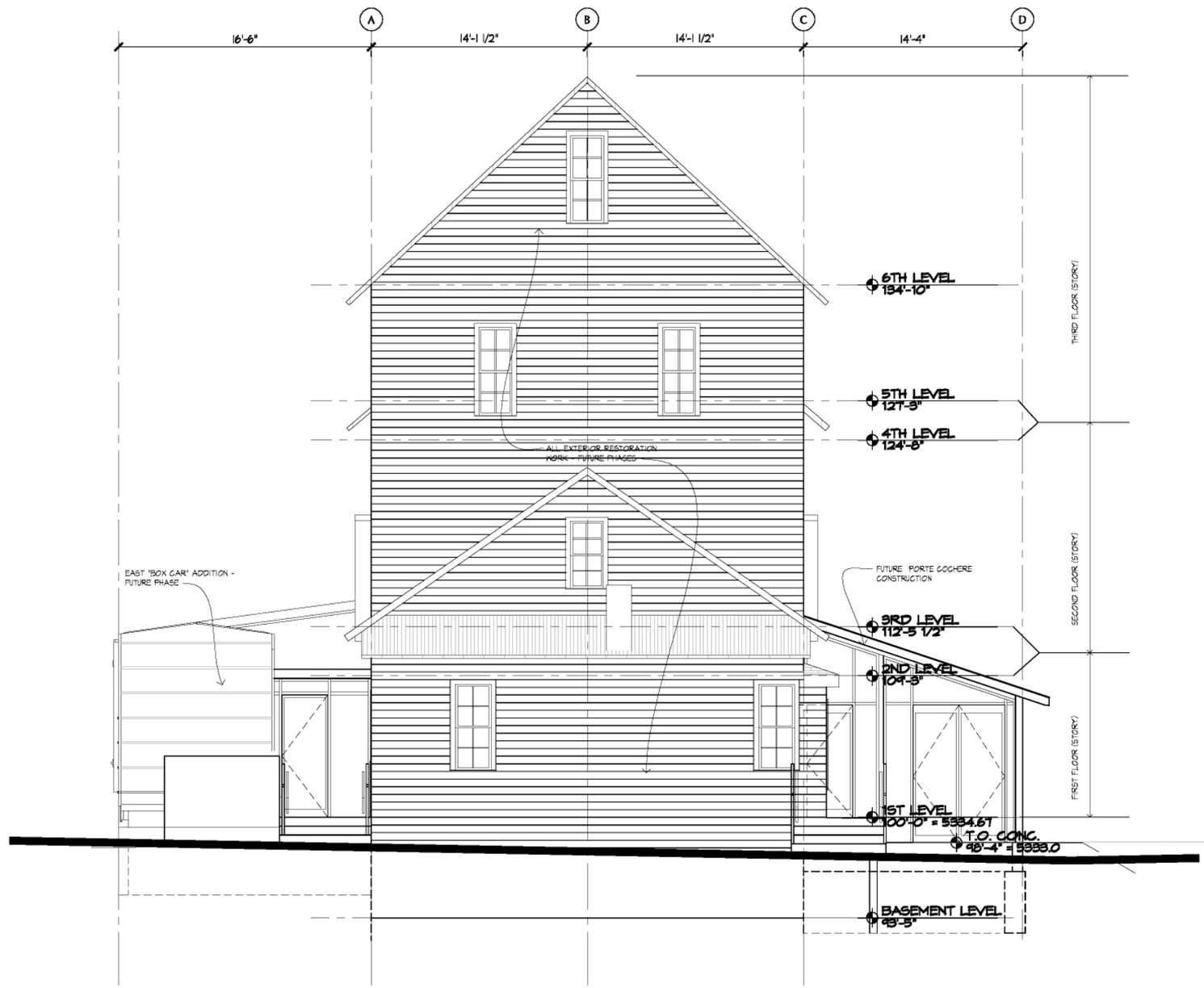
West Elevation

Sheet
A200



A3 / A205 NORTH ELEVATION

1/4" = 1' - 0"

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North Elevation

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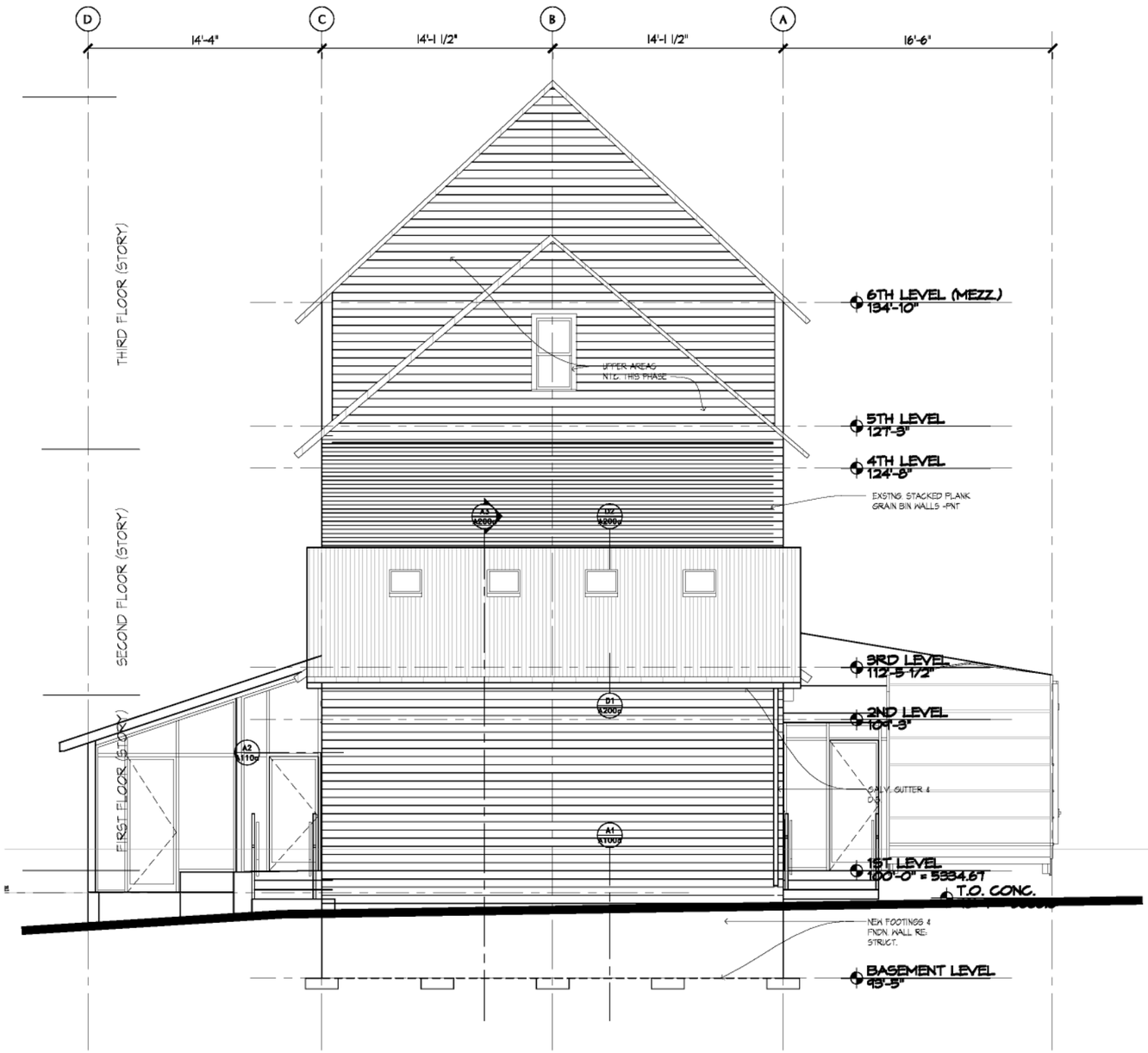

A1 / A210 SOUTH ELEVATION

1/4" = 1' - 0"

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South Elevation

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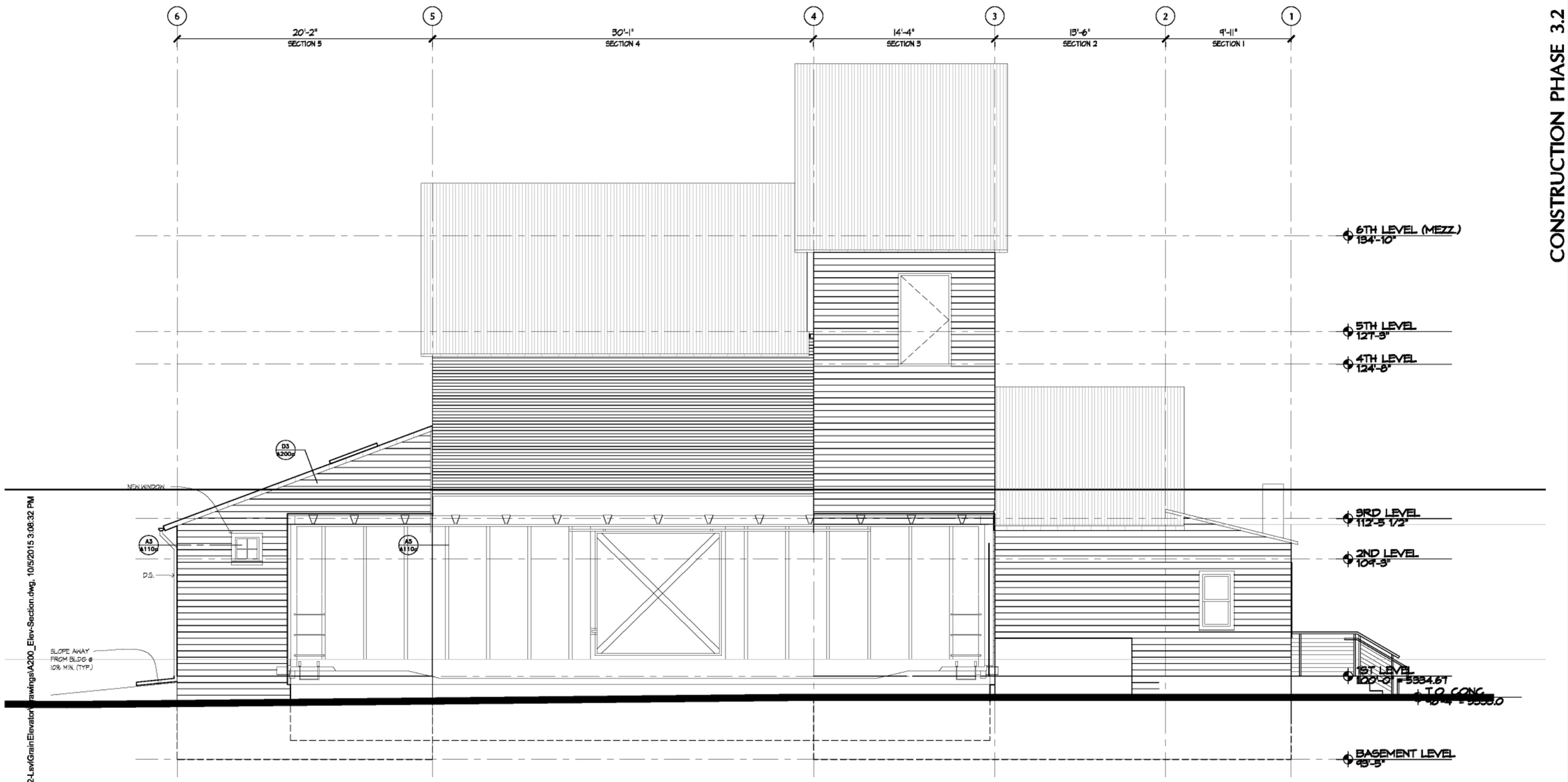

A1 / A220 EAST ELEVATION

1/4" = 1' - 0"

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East Elevation

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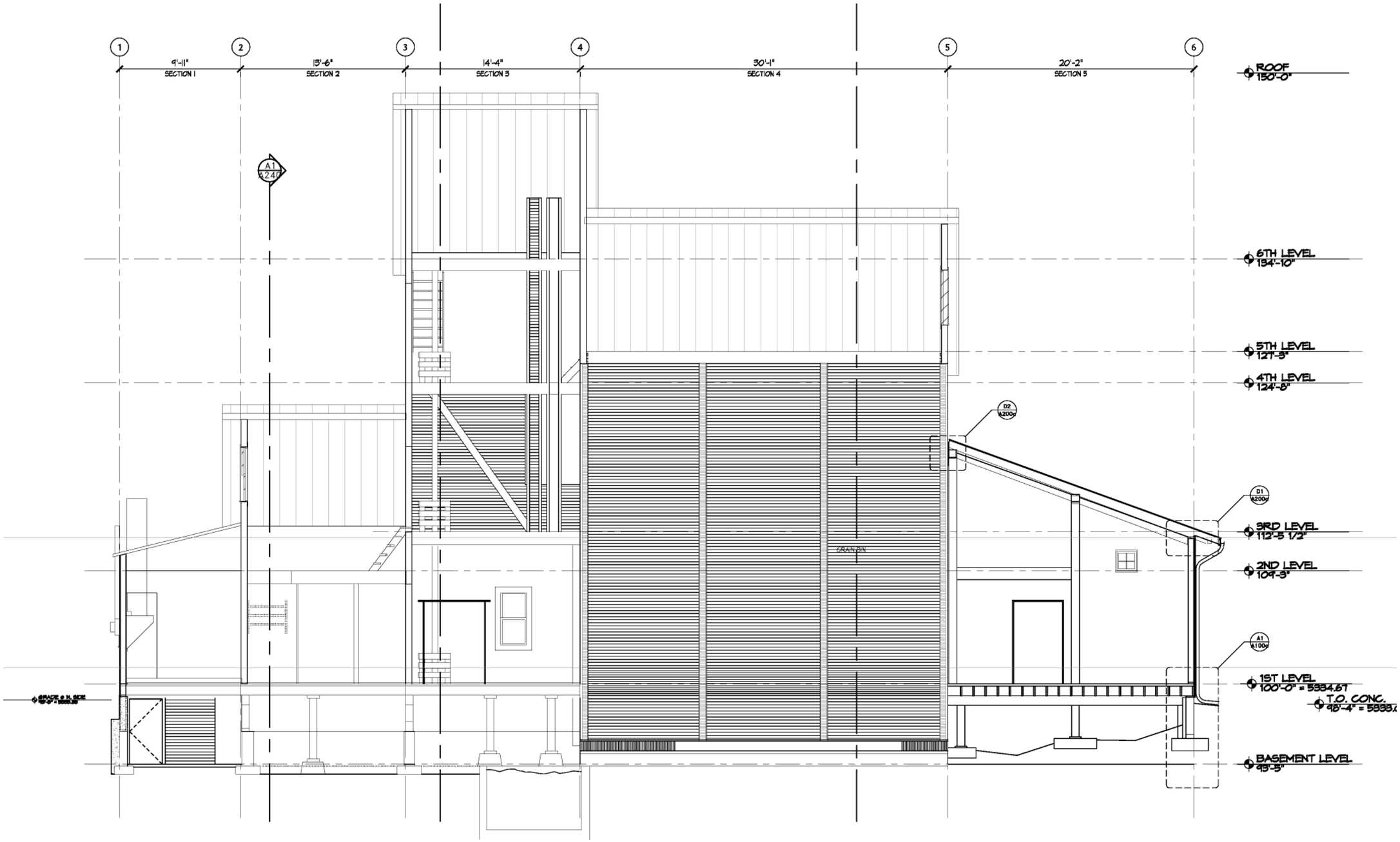

A1 A230 LONGITUDINAL SECTION

1/4" = 1' - 0"

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Louisville Mill Site LLC – Carand / Hartronft

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West Elevation

Sheet
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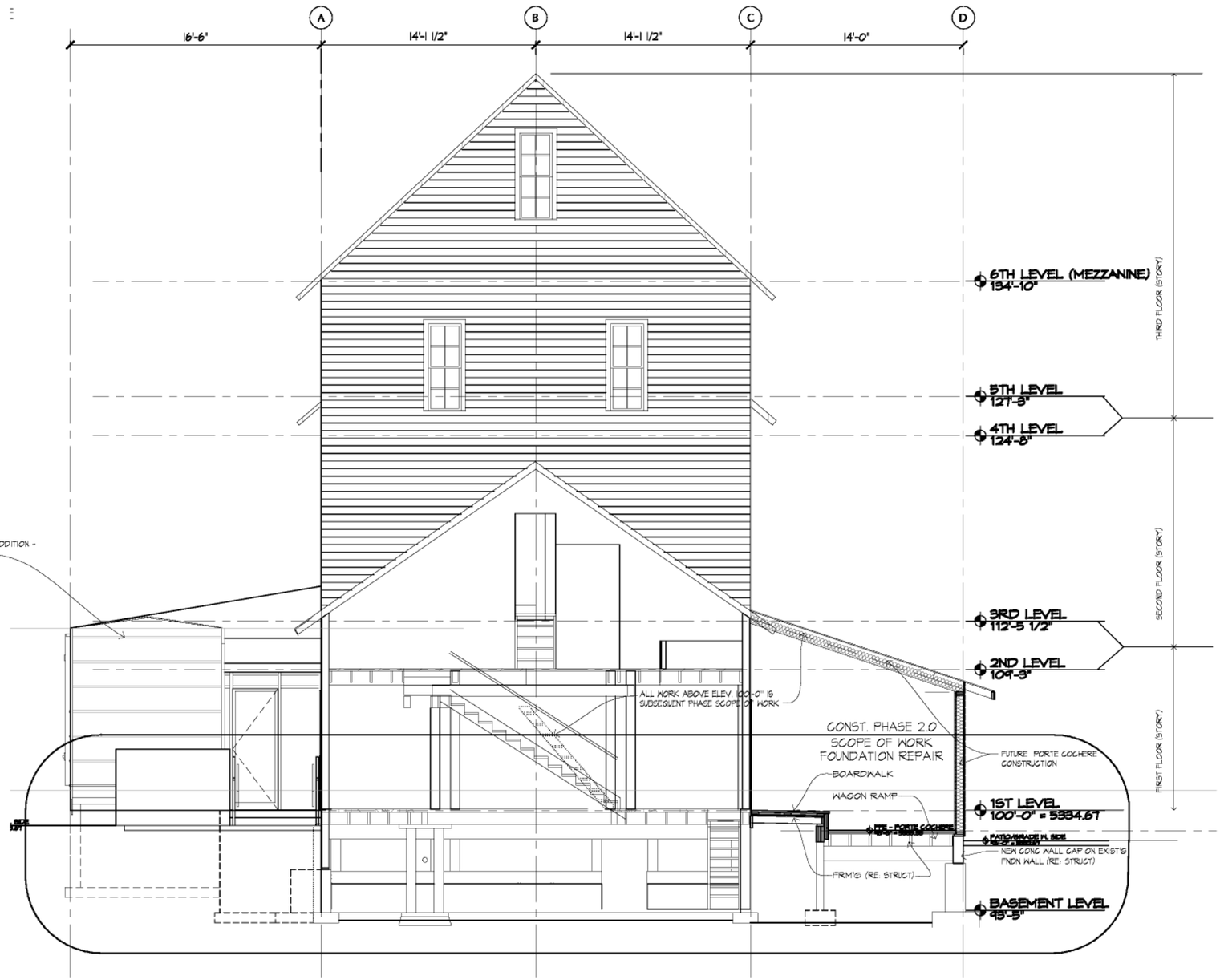

A1 / A240b BUILDING SECTION

1/4" = 1' - 0"

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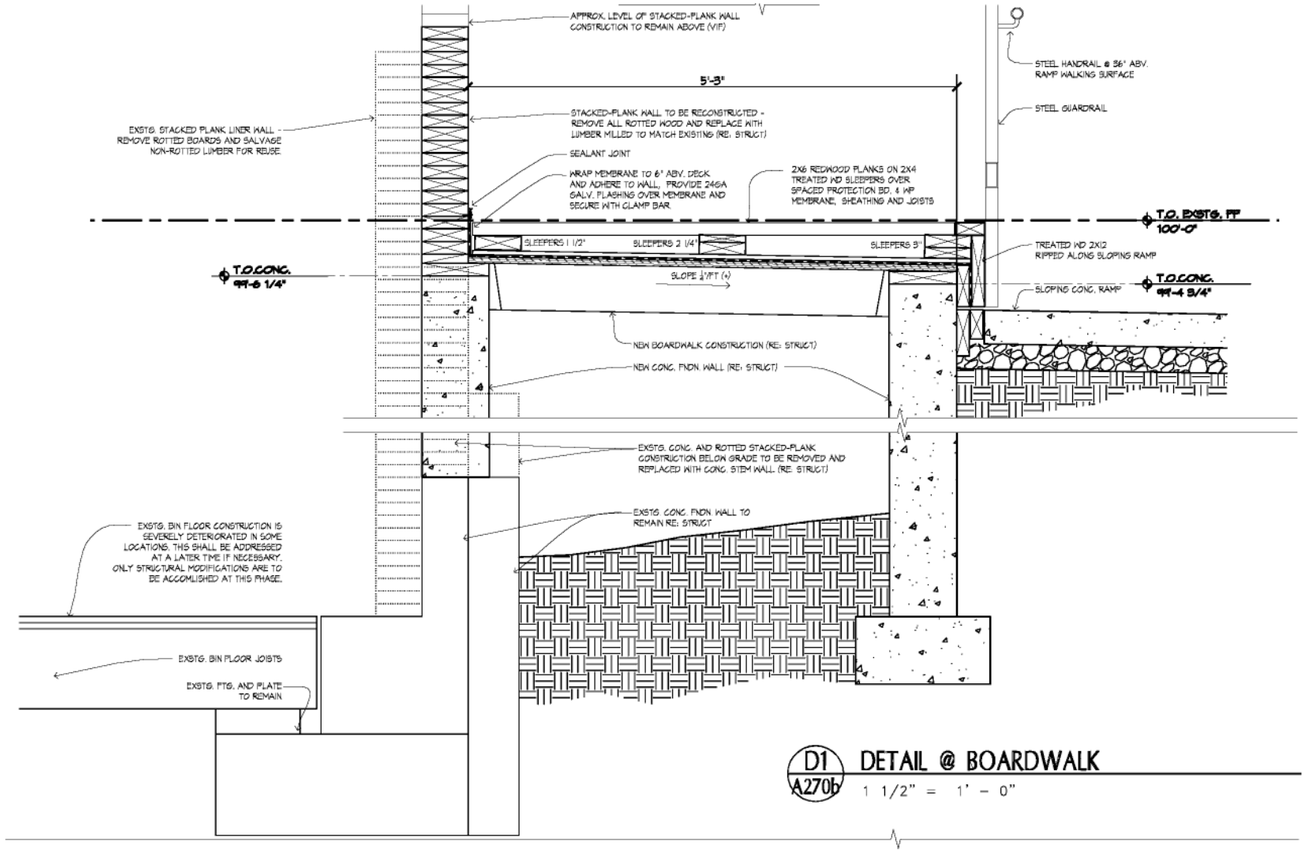
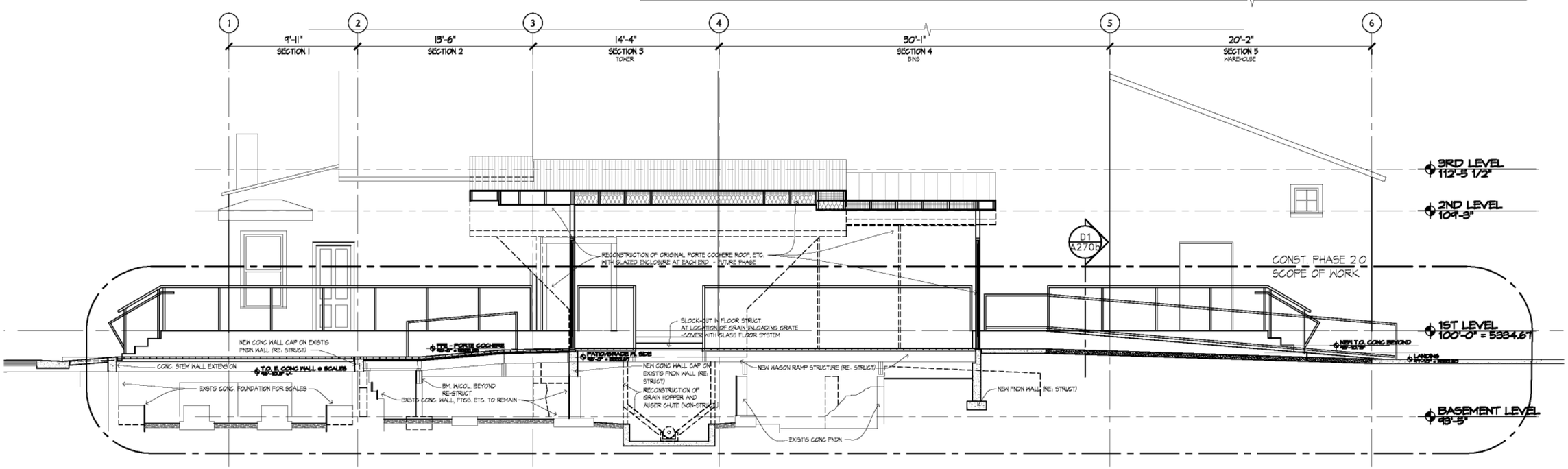
Building Sections

Sheet
A240b
6 of 19 Sheets



D1 A270b DETAIL @ BOARDWALK
1 1/2" = 1' - 0"



A1 A270b BUILDING SECTION AT SCALES, PORTE COCHERE & WAGON RAMP
1/4" = 1' - 0"

CONSTRUCTION PHASE 3.2 - SECTION 1-5

HARTRONFT ASSOCIATES
A Professional Corporation
Planning
Architecture
Interior Design
950 Spruce Street, #2A
Louisville, CO 80027
TEL: 303.673.9304
FAX: 303.673.9319

LOUISVILLE HISTORIC GRAIN ELEVATOR
Stabilization & Rehabilitation
540 COUNTY ROAD, LOUISVILLE, CO
Louisville Mill Site LLC - Carand / Hartronft

PROJECT # 1252.40
DATE: 08/15/14
DRAWN BY: HAPG
CHECKED BY: JEH
REVISIONS: 07/01/15
04/24/15

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Building Section & Details

Sheet
A270b
7 of 19 Sheets

CONSTRUCTION PHASE 2.0 SECTION 1-7

M:_MAIN_06_Proj\12524-Lev\Grain Elevator\Drawings\A200_Elev-Section.dwg, 10/6/2015 3:09:09 PM

RESOLUTION NO. 2
SERIES 2012

A RESOLUTION ESTABLISHING ADDITIONAL INCENTIVES FROM THE HISTORIC PRESRVATION FUND TO ENCOURAGE HISTORIC LANDMARK DESIGNATIONS AND NEW BUILDINGS OF CHARACTER FOR RESIDENTIAL AND COMMERCIAL PROPERTIES IN THE CITY OF LOUISVILLE AND TO FACILITATE THE ASSESSMENT OF PROTECTED STRUCTURES

WHEREAS, historic properties and buildings of character in the City of Louisville (the "City") are major contributors to the City's economic prosperity and quality of life; and,

WHEREAS, the Louisville City Council, pursuant to the City Charter, established a Historic Preservation Commission to assist it in the preservation and landmarking of these properties; and,

WHEREAS, when properties are locally landmarked they are preserved for future posterity and enjoyment and continue contribution to the unique character of the City; and

WHEREAS, at the November 4, 2008 election, the voters approved a ballot issue to levy one-eighth of one percent (1/8%) sales tax for purposes of historic preservation purposes within Historic Old Town Louisville; and,

WHEREAS, City council by Ordinance No. 1544, Series 2008, imposed the tax approved by the voters and established the Historic Preservation Fund; and

WHEREAS, the City Council by Resolution No. 20, Series 2009, created provisions related to the administration and uses of the Historic Preservation Fund; and

WHEREAS, Resolution No. 20, Series 2009, authorized the creation of a grant program to assist property owners in the rehabilitation and restoration of historic properties and new buildings of character;

WHEREAS, Resolution No. 20, Series 2010, authorized the creation of incentives to assist property owners in the rehabilitation and restoration of historic properties;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF LOUISVILLE, COLORADO:

In order to further facilitate and enhance the implementation of Resolution 20, Series 2009, and Resolution No. 20, Series 2010 the following provisions shall be enacted:

Section 1. Incentive program to encourage owners of historic structures and buildings of character to seek designations as landmarks or structures of merit:

a. An incentive of $10,000 shall be awarded to commercial property owners whose properties are declared landmarks pursuant to Chapter 15.36 of the Louisville Municipal Code, with the intended protections for landmarks pursuant to that chapter.

b. An incentive of $10,000 shall be awarded to commercial property owners whose properties are designated a Structure of Merit and who grant a conservation easement approved by the Louisville City Council. A property subject to a conservation easement is also subject to requirements for alteration certificates.

c. While property owners are encouraged to enhance and preserve the historic character of their property, incentives made under this section have no conditions other than landmark status or designation as a structure of merit.

Section 2. Grant program to conduct structural assessments of protected structures:

a. Any structure that is declared a landmark pursuant to Chapter 15.36 of the Louisville Municipal Code, or which is declared a Structure of Merit by the Historic Preservation Commission, shall undergo a building assessment to develop a preservation plan to establish priorities for the maintenance of the property.

b. For a period of 18 months from when a property is declared a landmark pursuant to Chapter 15.36 of the Louisville Municipal Code, or declared a Structure of Merit by the Historic Preservation Commission, the owner of the property shall be eligible for a grant from the Historic Preservation Fund in the amount of up to $900 for residential properties or up to $6,000 for commercial properties. Such grants shall be used solely to offset a portion or all of the cost of conducting a building assessment as described in this Section.

c. The assessment shall be conducted by a qualified consultant under contract with the City, or by a qualified consultant of the owner's choosing.

d. An exception to the requirement for a building assessment may be granted by the Historic Preservation Commission for good cause.

Section 3. Flexible grants for preserving, restoring, rehabilitating, or protecting landmarked property:

a. For a period of 18 months from when a property is declared a landmark pursuant to Chapter 15.36 of the Louisville Municipal Code the owner of the property shall be eligible for a grant from the Historic Preservation Fund in the amount of up to $5,000 for residential structures and up to $65,000 for commercial structures. These grants are available for the following purposes:

    i. Preservation and restoration: These projects include measures directed towards sustaining the existing form, integrity, and materials of a historic property, including preliminary measures to protect and stabilize the property. Up to 10% of a grant may be used for one-time actions considered routine maintenance. Routine maintenance includes painting, refinishing and exterior cleaning.

    ii. Rehabilitation: These projects include measures directed toward adapting a property to make efficient contemporary use of it while sensitively preserving the features of the property, which are significant to its historical, architectural, and cultural values. Sensitive upgrading of mechanical, electrical, and plumbing systems and other code-required work to make the property functional is appropriate within a rehabilitation project. This category also includes the restoration of a property to a specific, significant point in its history.

    iii. Pre-development: These projects include assessments of past and present historical features of a property for the purpose of properly and adequately documenting these characteristics. This includes assessing the physical condition of any existing historic features. Grants for this purpose will be available to individuals desiring to do restoration and renovation projects.

b. Grant funding may only be expended for the activities listed in this section for landmarked portions of a property.

Section 4. Incentive grants to encourage conservation easements on properties which contribute to the character, historical or architectural merit in Downtown Louisville and which are not eligible to be landmarked:

a. For a period of 18 months from when a property is designated by the City Council as a structure of merit, the owner of the property shall be eligible for a grant from the Historic Preservation Fund in the amount of up to $50,000. These grants are available for:

   i. Preserving, rehabilitating, restoring or protecting the property.

   ii. Offsetting costs of preserving the structural merit of a building that is being expanded pursuant to Section 17.16.280 and 17.28.050 of the Louisville Municipal Code.

b. Grant funding may only be expended for the activities listed in this section for those portions of a property designated to be a structure of merit.

Section 5. Focused preservation and/or restoration grants with matching funding requirements:

a. In addition to being eligible for the grants listed elsewhere in this Resolution, a property declared a landmark pursuant to Chapter 15.36 of the Louisville Municipal Code is eligible for a grant from the Historic Preservation Fund in the amount of up to $100,000 for commercial structures and up to $15,000 for residential structures activities described in this Section, or a series of grants totaling $100,000 for commercial structures and up to $15,000 for residential structures.

b. In addition to being eligible for the grants listed elsewhere in this Resolution, a property designated by the City Council as a structure of merit is eligible for a grant from the Historic Preservation Fund in the amount of up to $75,000 for commercial structures activities described in this Section.

c. Grants specified in this section may only be used for preservation and/or restoration projects: These projects include measures directed towards sustaining the existing form, integrity, and materials of a historic property. None of the funding awarded pursuant to this section may be used for any actions considered routine maintenance. Routine maintenance includes painting, refinishing and exterior cleaning.

d. All grants authorized under this Section shall be conditioned on the applicant matching at least one hundred percent (100 %) of the

amount of the grant with expenditures or an equivalent value of approved in-kind services that are integral to the project that is deemed eligible for a grant from the Historic Preservation Fund.

Section 6. New construction grants:

Owners of property on which new commercial structures or additions to existing commercial structures are proposed are eligible for grants of up to $75,000 total from the Historic Preservation Fund in order to limit mass, scale, and number of stories; to preserve setbacks, to preserve pedestrian walkways between buildings; and to utilize materials typical of historic buildings, above mandatory requirements.

Section 7. Maximum grant amounts and procedures:

a. The maximum combined amount of incentive and grant funding from the Historic Preservation Fund that any property may receive is limited to the following:

   i. $21,900 per property for a landmark residential structure

   ii. $181,000 per property for a landmark commercial structure

   iii. $141,000 per property for a designated commercial structure of merit

   iv. $75,000 for any new commercial construction project that limits the mass, scale, and number of stories; preserves setbacks, preserves pedestrian walkways between buildings; and utilizes materials typical of historic buildings, above mandatory requirements.

b. These limitations may be exceeded upon recommendation of the Historic Preservation Commission and approval by City Council upon a showing of extraordinary circumstances. Any grant exceeding the above limitations shall be conditioned on the applicant matching at least one hundred percent (100%) of the amount of the grant with expenditures or an equivalent value of approved in-kind services that are integral to the project that is deemed eligible for a grant from the Historic Preservation Fund.

c. The Historic Preservation Commission will review all grant applications and make recommendations to the City Council for approval or disapproval. The City Council may approve, deny or return a proposal to the HPC for further information.

d. Grants may be given in installments upon the satisfactory completion of portions of the project, or given in total upon the satisfactory completion of the project. Conditions for the satisfactory completion of the project shall be given when the grant is awarded. Grants may be revoked if the conditions are not met. Grants given prior to the beginning of a project may be given only in suitable situations, as recommended by the HPC and approved by City Council.

e. In addition to the procedures outlined herein, the administration of grants shall be in compliance with all applicable procedures in Resolution No. 20, Series 2009.

PASSED AND ADOPTED this 3RD day of January 2012.

Robert P. Muckle, Mayor

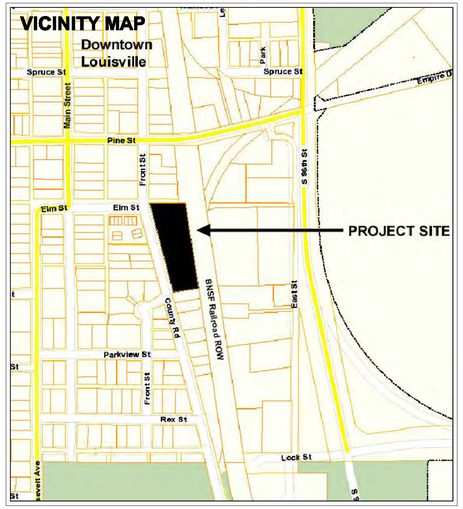
CITY OF LOUISVILLE SEAL COLORADO

ATTEST:

Nancy Varra, City Clerk

FINAL P.U.D.
LOUISVILLE MILL SITE REDEVELOPMENT
500, 540, 544 County Road
LOUISVILLE MILL SITE SUBDIVISION

LOCATED IN THE SOUTHEAST QUARTER OF SECTION 8, TOWNSHIP 1 SOUTH RANGE 69 WEST OF THE 6TH P.M., CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO



* Note: Current Owner is City of Louisville, 749 Main Street, Louisville, CO 80027. Louisville Mill Site LLC has a contract with the current owner to purchase the property and has an agreement to renovate the buildings on site. 'Owner' as referenced herein shall refer to Louisville Mill Site LLC. See related agreements for additional information and responsibilities.

SIGNATURES

OWNERSHIP SIGNATURE BLOCK

By signing this PUD, the owner acknowledges and accepts all the requirements and intent set forth in this PUD. Witness my/our hand(s) seal(s) this ___ day of _____, 20___.

_____
Owner Name and Signature

_____
Owner Name and Signature

_____ (Notary Seal)
Notary Name (print)

_____
Notary Signature

My Commission Expires _____

PLANNING COMMISSION CERTIFICATE

Approved this ___ day of _____, 20___ by the Planning Commission of the City of Louisville, Colorado.
Resolution No. _____, Series _____

CLERK AND RECORDER CERTIFICATE (COUNTY OF BOULDER, STATE OF COLORADO)

I hereby certify that this instrument was filed in my office at _____ o'clock, ____. M., this ____ day of _____, 20___, and is recorded in Plan File _____. Fee _____ paid. _____ Film No. _____ Reception.

_____
Clerk & Recorder

_____
Deputy

CITY COUNCIL CERTIFICATE

Approved this ___ day of _____, 20___ by the City Council of the City of Louisville, Colorado.
Resolution No. _____, Series _____

(City Seal)

_____
Mayor Signature

_____
City Clerk Signature

SHEET INDEX

SHEET	DESCRIPTION
ARCHITECTURAL	
A1	Cover Sheet, Project Data & Renderings
A2	Site Plan
A3	Landscape & Parking Plan, Alt Parking Plan
A4	Plans
A5	Building Elevations
A6	Site Photometric
SURVEY	
1	ALTA/ACSM Land Title Survey
CIVIL	
C1.0	Drainage Plan
C2.0	Utility Plan
EX-1	Autoturn Firetruck Exhibit
EX-2	Autoturn Firetruck Exhibit

PROJECT DIRECTORY

OWNER	Louisville Mill Site LLC * 950 Spruce Street, Suite 1A Louisville, Colorado 80027 Contact: Erik Hartronft 303-673-9304
ARCHITECT/PLANNER	Hartronft Associates, p.c. 950 Spruce Street, Suite 1A Louisville, Colorado 80027 Contact: Erik Hartronft, AIA 303-673-9304
CIVIL ENGINEER	JVA, Incorporated 1319 Spuce Street Boulder, Colorado 80302 Contact: Darren Stewart 303-444-1951

HISTORIC VIEW OF GRAIN ELEVATOR FROM THE NORTHWEST

Carnegie Branch Library for Local History / Boulder Historical Society Collection

VIEW OF PROPOSED MILL SITE BUILDING AND HISTORIC GRAIN ELEVATOR FROM THE SOUTHWEST

Louisville Mill Site - Use and Zoning Information

Final PUD and Plat - 11/6/14 (rev. 3/13/15)

Project Description:

The Louisville Mill Site Redevelopment project will combine two adjacent properties, and subdivide the combined land area into 3 building lots and one outlot for common use. The northern property currently contains the historic Louisville Grain Elevator building which will be landmarked and rehabilitated for commercial use with minor additions, and a 3,360sf commercial building, and small shed which will be both be removed. The southern property currently contains a commercial structure, formerly used as a warehouse, now home to a fitness-related business. An addition is planned for this building. The proposed uses for all buildings on the property is commercial, with retail, restaurant/bar, and similar allowable uses on the ground level, with offices anticipated on upper levels. There is a potential for some public or private museum space in the grain elevator structure.

Building Bulk and Density Standards:

Required Setbacks:		Proposed Setbacks:
Front	5'-25'	5' minimum
Rear	20'	Variance requested - see plan
Side (internal)	5'	10' minimum

Allowable Height:	Proposed Height:
2 story - 35' *	3 story - 36.5' *

* 35' from Main Level FFE to flat roof with allowance for rooftop screening
Due to floodplain grading requirements, building height from average Main Level FFE to flat roof is 36.5' with tower and roof screening to 41.5'

Addresses and Legal Descriptions:

See Plat and Survey for Legal Descriptions

	Caranci Lot 1	Grain Lot 2	Green Outlot A	Mill Site Lot 3
Address - County Road	500	540	-	544

Louisville Mill Site - Plat Areas & PUD Yield Per Lot Including Parking

Final PUD and Plat - 11/6/14 (rev. 3/13/15)

Existing Property Areas:

Existing Mill Site Land Area	46,546	sf +/-	69.18%
Existing Caranci Property Land Area	20,735	sf +/-	30.82%
Total Plat Area	67,281	sf +/-	100.00%
RR ROW Lease Area 1 (Caranci)	5,298	sf +/-	-existing
RR ROW Lease Area 2 (Proposed-Mill Site)	3,576	sf +/-	-future
Total Plat Area plus RR ROW	76,155	sf +/-	

Proposed Plat Areas:

Lot 1 - Caranci	25,190	sf	37.44%
Lot 2 - Grain Elevator	9,122	sf	13.56%
Outlot A - Mill Site Green	6,841	sf	10.17%
Combined Lot 2 + Outlot 15,963			
Lot 3 - Mill Site Building	26,128	sf	38.83%
Total Plat Area	67,281	sf	100.00%

Public Land Dedication: Public Land Dedication waiver was requested and approved as a condition of the purchase agreement between Louisville Mill Site LLC and the City of Louisville. Refer to the Purchase and Sale Agreement, Article 9, Paragraph 9.15 'Public Use Dedication Waived' which applies to all land in the Subdivision.

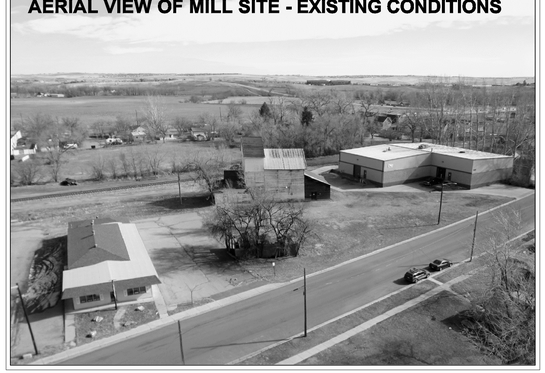
PUD Yield From Redevelopment

		Caranci Lot 1	Grain Lot 2	Green Outlot A	Mill Site Lot 3	Total
Lot Area		25,190	9,122	6,841	26,128	67,281
Additional RR ROW Area		5,298			3,576	8,874
					proposed	
Existing Building Area*		10,000	4,094		3,360	17,454
Additional Building Area / Lot		6,500	1,500		15,640	
Total Proposed Usable Building Area		16,500	3,560	0	19,000	39,060
Bldg Area Percentage of total		42.24%	9.11%		48.64%	100.00%
Total Unconditioned in Grain Elev.			2,034	+/-		
Net Area (-1ksf -util, circ, kit, etc)	0.9	13,950	1,404		17,100	32,454
Parking Required @ 1sp per	500	28	3		34	65
Parking Proposed						
On Site		19	3	0	34	56
Existing RR ROW		9				9
Potential addl on-site spaces**				9	5	14
Potential addl RR ROW***			12 shared/common			12

Notes:
* Existing bldg. area of Grain Elevator not all usable/not all counted "proposed usable"
* Existing Lot 3 Commercial (former Napa) to be removed, total is all new construction
** 9 net spaces if green space replaced by parking, 5 potential spaces tuck under bldg
*** Dependent upon successful negotiation with BNSF for extended lease area

A shared parking/access/maintenance agreement shall be executed by all Mill Site Subdivision property owners and recorded concurrently with the Final PUD and Plat.

AERIAL VIEW OF MILL SITE - EXISTING CONDITIONS



VIEW OF LOT 1 BUILDING AND GRAIN ELEVATOR FROM THE NORTHWEST

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LOUISVILLE MILL SITE REDEVELOPMENT
& HISTORIC GRAIN ELEVATOR
500, 540 & 544 COUNTY ROAD, LOUISVILLE, CO
Louisville Mill Site LLC – Caranci / Hartronft

FINAL PUD

PROJECT # 1252.10
DATE: 04/03/14
DRAWN BY: HAPC
CHECKED BY: JEH
REVISIONS:
PPC/PCC – 06/13/14
FINAL – 11/06/14
FPC – 03/13/15
FCC – 05/06/15

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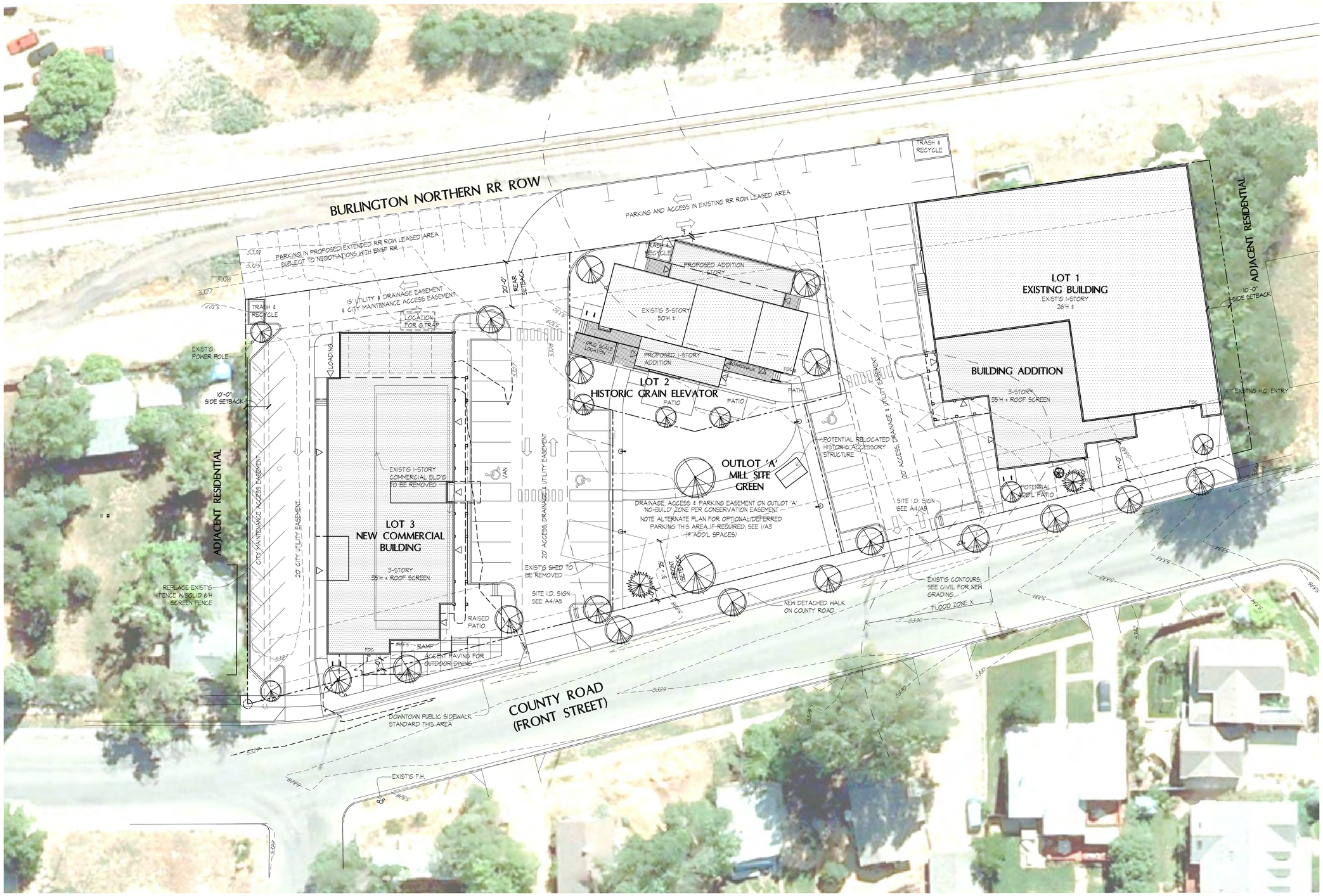
COVER SHEET
PROJECT DATA
RENDERINGS
SIGNATURES

Sheet
A1
of 4 Sheets



1 / A2 ARCHITECTURAL SITE PLAN

1" = 20'

NORTH

0 1 5 10 25 50 100 FEET

HARTRONFT ASSOCIATES
A Professional Corporation

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Architecture
Interior Design

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Louisville, CO 80027
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LOUISVILLE MILL SITE REDEVELOPMENT & HISTORIC GRAIN ELEVATOR

500, 540 & 544 COUNTY ROAD, LOUISVILLE, CO

Louisville Mill Site LLC – Caranci / Hartronft

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FCC – 05/08/15

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SITE PLAN

Sheet

A2

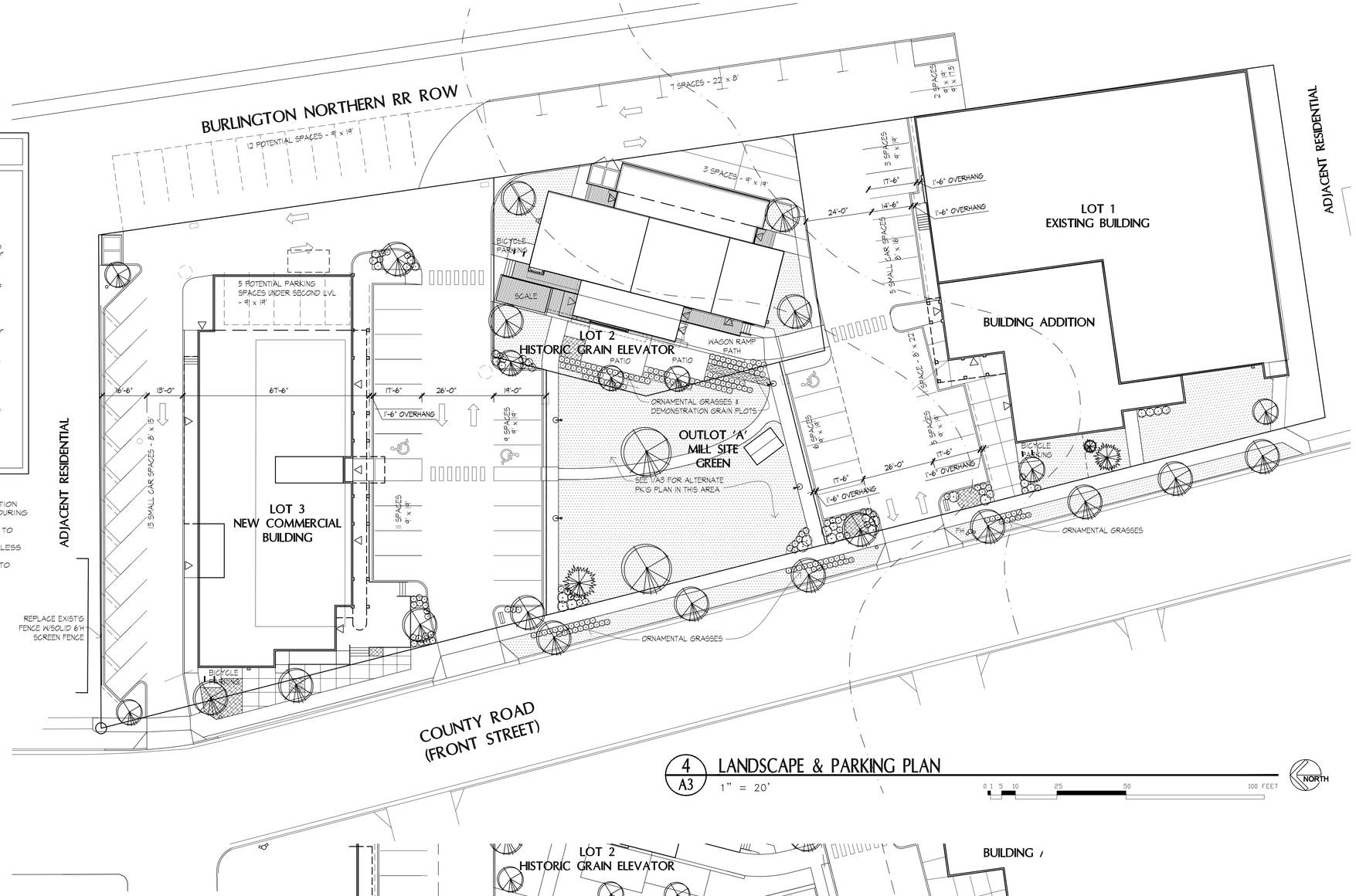
2 of 9 Sheets

LANDSCAPE LEGEND

- Planting bed - perrentals/ annuals
- Sod/Turf areas - 90% fescue/ 10% bluegrass
- Ornamental Grasses
- Coniferous Shrub 5 GAL.
- Deciduous Shrub 5 GAL.
- 2" - 3" Caliper Deciduous Tree
- Deciduous Tree 1-1/2" - 2" Caliper
- Coniferous Tree Min. 6 ft.
- Existing Coniferous Tree over 10" Caliper
- Existing Coniferous Tree 2" - 8" Caliper
- Existing Deciduous Tree over 10" Caliper
- Existing Deciduous Tree 6" - 10" Caliper
- Existing Deciduous Tree 3" - 6" Caliper
- Existing Deciduous Tree 1" - 3" Caliper
- Existing Shrub

NOTES:

1. APPLICANT TO PROVIDE DETAILED LANDSCAPE & IRRIGATION DRAWINGS TO PUBLIC WORKS FOR REVIEW & APPROVAL DURING THE CIVIL PLAN REVIEW
2. PARKWAY TREES SHALL BE PLANTED NO CLOSER THAN 5' TO CURB OR WALK
3. THE USE OF ROOF BARRIER IS REQUIRED FOR ALL TREES LESS THAN 5' FROM CURB OR WALK
4. THE PARKWAY IRRIGATION SYSTEM SHALL NOT SPRAY ONTO PAVED SERVICES

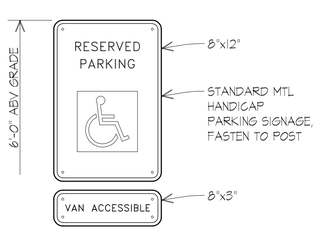


4 A3 LANDSCAPE & PARKING PLAN

1" = 20'

0 1 5 10 25 50 100 FEET

NORTH



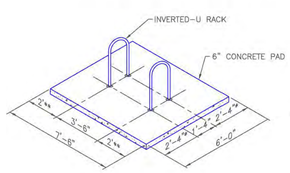
VERIFY SIGNAGE COMPLIES WITH REQUIREMENTS OF 2009 ANSI A117.1 SPECIFICATIONS

3 A3 H.C. PK'G SIGN DETAIL

N.T.S.

NOTES:

EXPOSED CONCRETE SURFACE TO BE BROOM FINISHED. PAD SIZE MAY VARY AS DIRECTED BY THE ENGINEER. PAD IS TO BE CONSTRUCTED WITH CLASS B CONCRETE. EXCAVATION AND/OR EMBANKMENT REQUIRED FOR PAD CONSTRUCTION WILL NOT BE PAID FOR SEPERATELY, BUT SHALL BE INCLUDED IN THE COST OF THE PAD. CONCRETE SHALL BE SLOPED AT 2% TO DRAIN.



SIDE-BY-SIDE

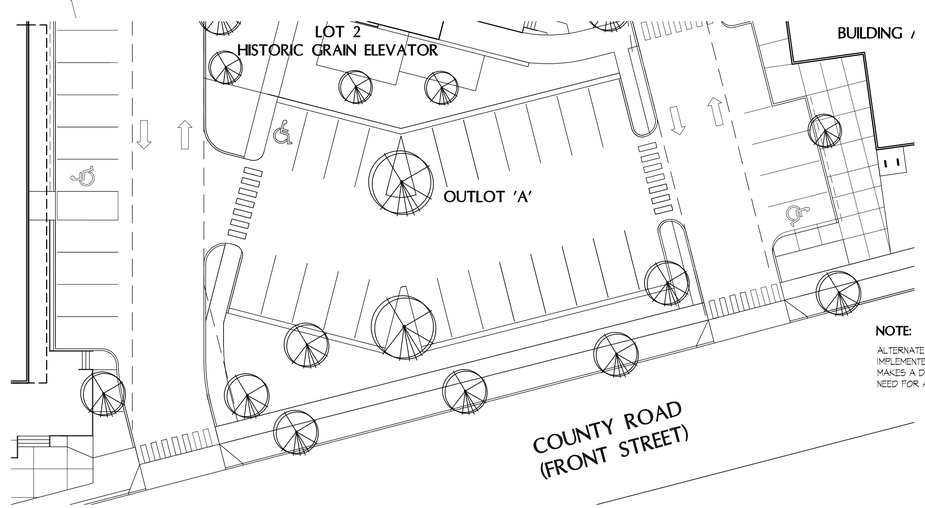
*3'-4" MINIMUM WHEN INSTALLED PERPENDICULAR TO A WALL OR CURB.

**3' MINIMUM WHEN INSTALLED PARALLEL TO A WALL OR CURB. 5' MINIMUM SEPARATION FROM CURB FACE WHEN INSTALLED ADJACENT TO A CURB WITH "HEAD-IN" AUTOMOBILE PARKING.

***10' MINIMUM IF MORE THAN TWO "U" RACKS IN A SERIES.

2 A3 U-RACK DETAIL @BICYCLE PK'G

N.T.S.



NOTE:

ALTERNATE PARKING PLAN SHALL ONLY BE IMPLEMENTED BY THE OWNER IF THE CITY MAKES A DETERMINATION THAT THERE IS A NEED FOR ADDITIONAL PARKING ON SITE.

1 A3 ALTERNATE PARKING PLAN

1" = 20'

0 1 5 10 25 50 100 FEET

NORTH

HARTRONFT ASSOCIATES
A Professional Corporation
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950 Spruce Street, #1A
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LOUISVILLE MILL SITE REDEVELOPMENT & HISTORIC GRAIN ELEVATOR

500, 540 & 544 COUNTY ROAD, LOUISVILLE, CO

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FINAL PUD

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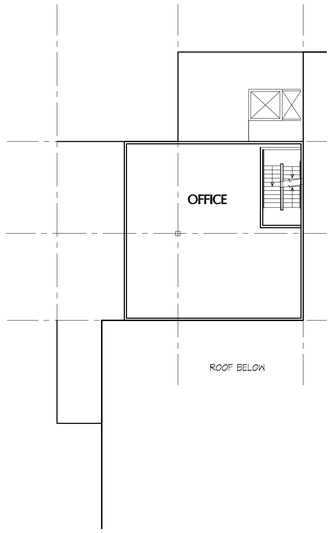
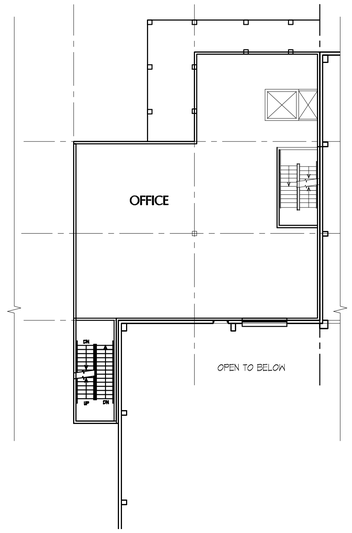
LANDSCAPE & PARKING PLAN
ALT PARKING PLAN

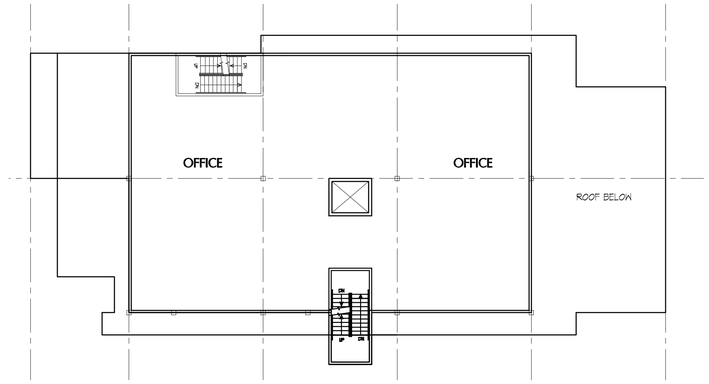
Sheet
A3
3 of 9 Sheets



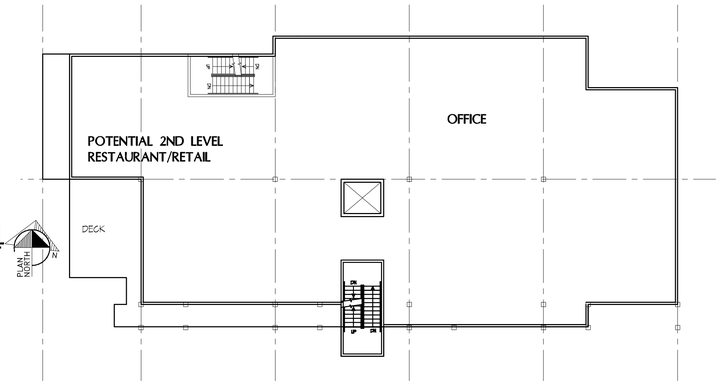
C4 / A4 FLOOR PLAN – THIRD LEVEL
SCALE: 1/16" = 1'-0"



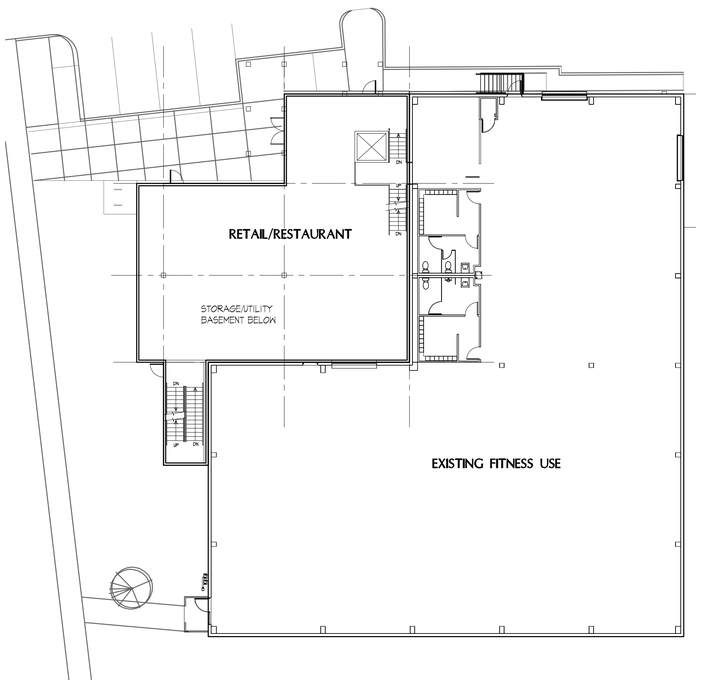
C3 / A4 FLOOR PLAN – SECOND LVL
SCALE: 1/16" = 1'-0"



C2 / A4 FLOOR PLAN – THIRD LEVEL
SCALE: 1/16" = 1'-0"

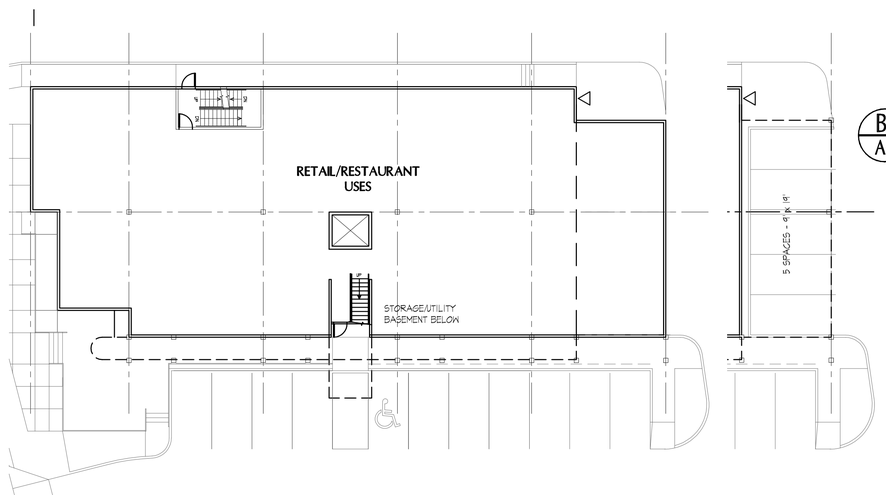


B2 / A4 FLOOR PLAN – SECOND LEVEL
SCALE: 1/16" = 1'-0"



A4 / A4 FLOOR PLAN – MAIN LEVEL
SCALE: 1/16" = 1'-0"

LOT 1 - CARANCI BUILDING



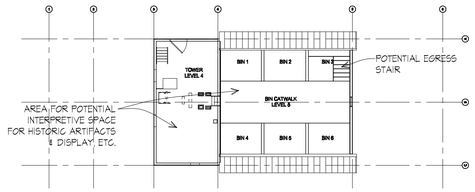
A2 / A4 FLOOR PLAN – MAIN LEVEL
SCALE: 1/16" = 1'-0"

PLAN @PK'G

LOT 3 - MILL SITE BUILDING

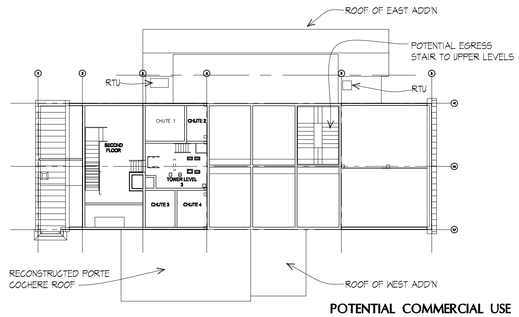
COMMERCIAL USE NOTES:

USE DESIGNATIONS ARE INTENDED TO DESCRIBE THE INTENDED CHARACTER OF THE SPACE TO BE CONSTRUCTED & DO NOT LIMIT ANY PERMITTED USE PER ZONING REGULATIONS OR AS OTHERWISE APPROVED, TYP.



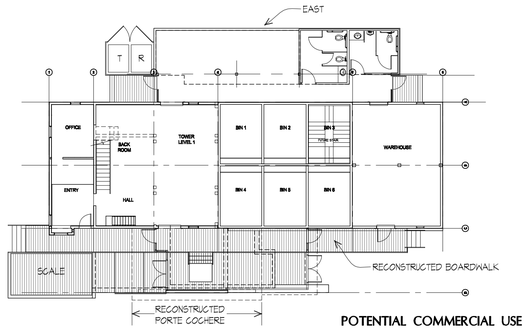
UNFINISHED

D1 / A4 FLOOR PLAN – FOURTH/FIFTH LEVEL (3RD STORY)
SCALE: 1/16" = 1'-0"



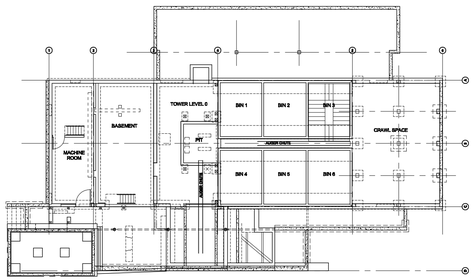
POTENTIAL COMMERCIAL USE

C1 / A4 FLOOR PLAN – SECOND/THIRD LEVEL (2ND STORY)
SCALE: 1/16" = 1'-0"



POTENTIAL COMMERCIAL USE

B1 / A4 FLOOR PLAN – FIRST LEVEL (1ST STORY)
SCALE: 1/16" = 1'-0"



UNFINISHED

A1 / A4 FLOOR PLAN – BASEMENT/CRAWL SPACE
SCALE: 1/16" = 1'-0"

LOT 2 - HISTORIC GRAIN ELEVATOR

HARTRONFT ASSOCIATES
A Professional Corporation
Planning
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Interior Design
950 Spruce Street, #1A
Louisville, CO 80027
TEL: 303.673.9304
FAX: 303.673.9319

LOUISVILLE MILL SITE REDEVELOPMENT & HISTORIC GRAIN ELEVATOR

500, 540 & 544 COUNTY ROAD, LOUISVILLE, CO
Louisville Mill Site LLC – Caranci / Hartronft

FINAL PUD

PROJECT # 1252.10
DATE: 04/03/14
DRAWN BY: HAPC
CHECKED BY: JEH
REVISIONS:
PPC/PCC – 06/13/14
FINAL – 11/06/14
FPC – 03/13/15
FCC – 05/08/15

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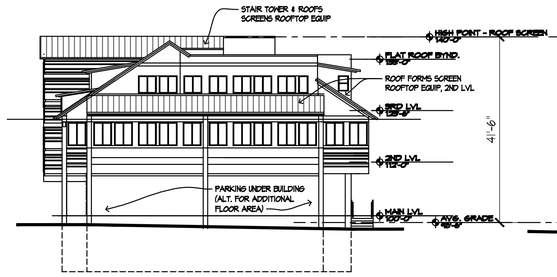
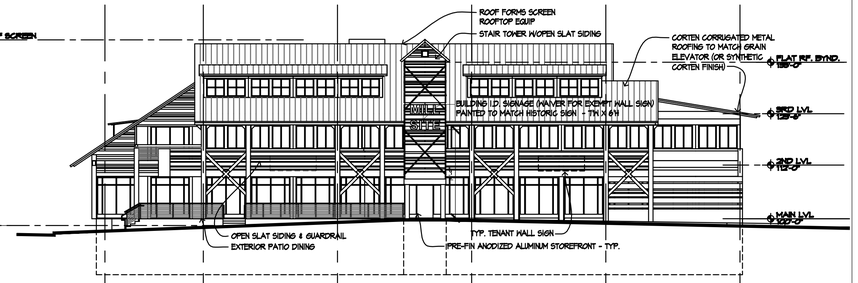
PLANS

Sheet
A4

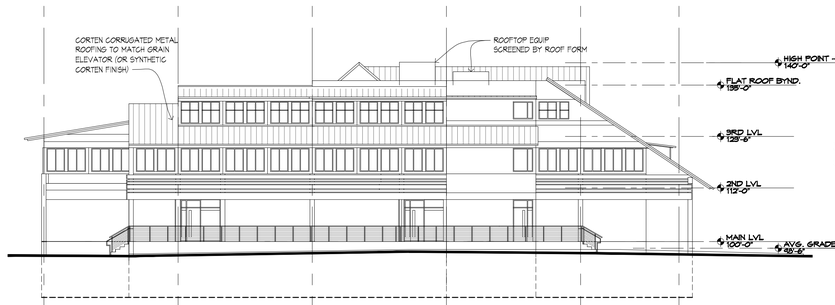
4 of 4 Sheets



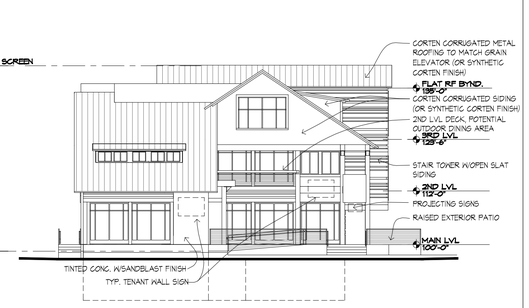
D4 / A5 EAST ELEVATION
SCALE: 1/16" = 1'-0"



D3 / A5 SOUTH ELEVATION
SCALE: 1/16" = 1'-0"

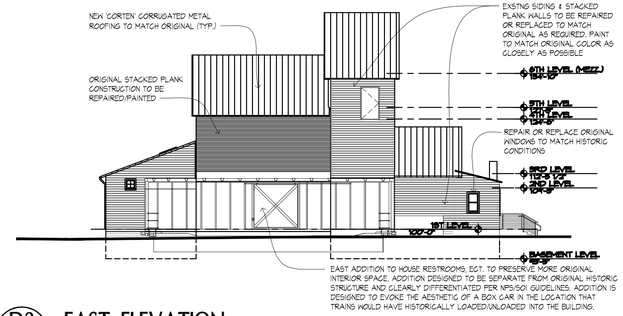


C4 / A5 NORTH ELEVATION
SCALE: 1/16" = 1'-0"

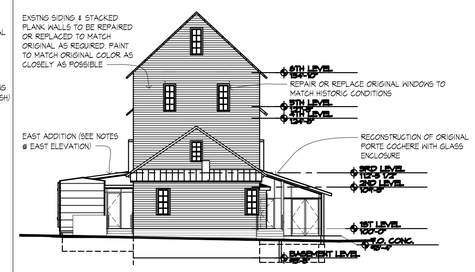


C3 / A5 WEST ELEVATION
SCALE: 1/16" = 1'-0"

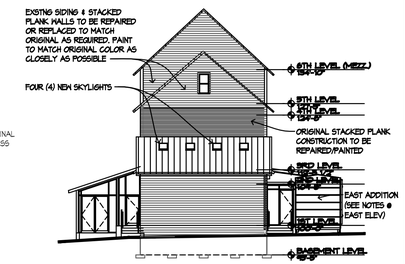
LOT 3 - NEW MILL SITE BUILDING



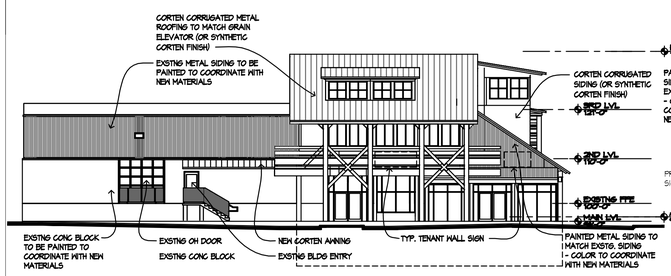
D2 / A5 EAST ELEVATION
SCALE: 1/16" = 1'-0"



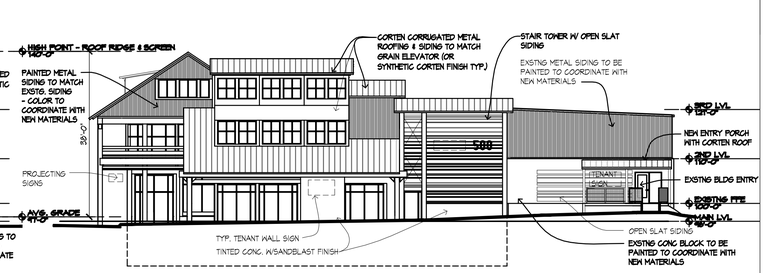
C2 / A5 NORTH ELEVATION
SCALE: 1/16" = 1'-0"



C1 / A5 SOUTH ELEVATION
SCALE: 1/16" = 1'-0"

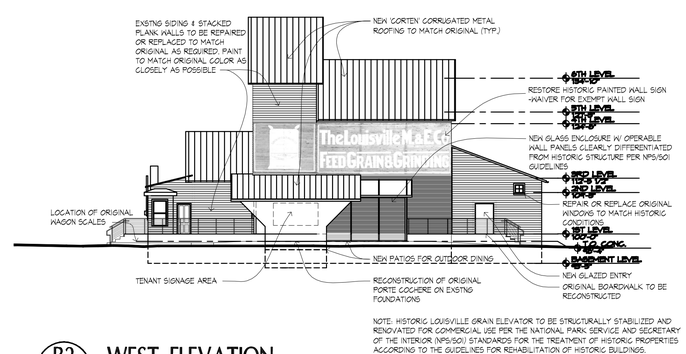


B4 / A5 NORTH ELEVATION
SCALE: 1/16" = 1'-0"



B3 / A5 WEST ELEVATION
SCALE: 1/16" = 1'-0"

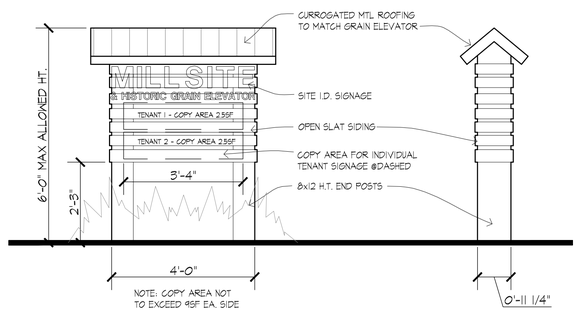
LOT 1 - CARANCI BUILDING ADDITION / RENOVATION



NOTE: HISTORIC LOUISVILLE GRAIN ELEVATOR TO BE STRUCTURALLY STABILIZED AND RENOVATED FOR COMMERCIAL USE PER THE NATIONAL PARK SERVICE AND SECRETARY OF THE INTERIOR (NPS/SOI) STANDARDS FOR THE TREATMENT OF HISTORIC PROPERTIES ACCORDING TO THE GUIDELINES FOR REHABILITATION OF HISTORIC BUILDINGS.

B2 / A5 WEST ELEVATION
SCALE: 1/16" = 1'-0"

LOT 2 - HISTORIC GRAIN ELEVATOR



NOTE: COPY AREA NOT TO EXCEED 45SF EA. SIDE

A4 / A5 SITE FREE STANDING SIGN
SCALE: 1/2" = 1'-0"

SIGN AREA CALCULATIONS

NOTE: SIGN AREA LOCATIONS ON BLD'G ELEVATIONS ARE GENERAL GUIDELINES & NOT POTENTIAL SIGNAGE AS SHOWN. FINAL SIGNAGE DESIGN, SIZE & LOC'N SHALL BE PROVIDED DURING PERMIT PROCESS.

LOT 1

MAXIMUM SIGN COPY AREA
MAXIMUM ALLOWED FOR COMBINATION OF ANY WALL, MARQUEE, AWNING/CANOPY, & FREE STANDING SIGN

PRIMARY FRONTAGE (FACING COUNTY RD)	121.5 L.F. x 2.5F PER L.F. =		242.7 SF
SECONDARY FRONTAGE (FACING THE GREEN)	122.1 L.F. x 1.5F PER L.F. =		122.6 SF

WALL SIGN COPY AREA
TOTAL ALLOWED COPY AREA OF WALL SIGNS

PRIMARY FRONTAGE (FACING COUNTY RD)	121.5 L.F. x 2.5F PER L.F. =		242.7 SF
SECONDARY FRONTAGE (FACING THE GREEN)	122.1 L.F. x 1.5F PER L.F. =		122.6 SF

AWNING & CANOPY SIGN COPY AREA
TOTAL ALLOWED COPY AREA OF AWNING & CANOPY SIGNS

PRIMARY FRONTAGE (FACING COUNTY RD)	121.5 L.F. x 1.5F PER L.F. =		121.5 SF
SECONDARY FRONTAGE (FACING THE GREEN)	122.1 L.F. x 1.5F PER L.F. =		122.6 SF

PROJECTING SIGNS
TOTAL ALLOWED COPY AREA OF PROJECTING SIGNS

THE MAXIMUM COPY AREA OF EACH PROJECTING SIGN ALONG ALL BLD'G FRONTAGES IS (4) SF PER SIDE

MULTI TENANT BUILDING MAY UTILIZE ONE PROJECTING SIGN PER TENANT

LOT 2

MAXIMUM SIGN COPY AREA
MAXIMUM ALLOWED FOR COMBINATION OF ANY WALL, MARQUEE, AWNING/CANOPY, & FREE STANDING SIGN

PRIMARY FRONTAGE (FACING COUNTY RD)	88.0 L.F. x 2.5F PER L.F. =		176.0 SF

WALL SIGN COPY AREA
TOTAL ALLOWED COPY AREA OF WALL SIGNS

PRIMARY FRONTAGE (FACING COUNTY RD)	88.0 L.F. x 2.5F PER L.F. =		176.0 SF

AWNING & CANOPY SIGN COPY AREA
TOTAL ALLOWED COPY AREA OF AWNING & CANOPY SIGNS

PRIMARY FRONTAGE (FACING COUNTY RD)	88.0 L.F. x 1.5F PER L.F. =		88.0 SF

PROJECTING SIGNS
TOTAL ALLOWED COPY AREA OF PROJECTING SIGNS

THE MAXIMUM COPY AREA OF EACH PROJECTING SIGN ALONG ALL BLD'G FRONTAGES IS (4) SF PER SIDE

MULTI TENANT BUILDING MAY UTILIZE ONE PROJECTING SIGN PER TENANT

LOT 3

MAXIMUM SIGN COPY AREA
MAXIMUM ALLOWED FOR COMBINATION OF ANY WALL, MARQUEE, AWNING/CANOPY, & FREE STANDING SIGN

PRIMARY FRONTAGE (FACING COUNTY RD)	56.0 L.F. x 2.5F PER L.F. =		112.0 SF
SECONDARY FRONTAGE (FACING THE GREEN)	142.0 L.F. x 1.5F PER L.F. =		142.0 SF

WALL SIGN COPY AREA
TOTAL ALLOWED COPY AREA OF WALL SIGNS

PRIMARY FRONTAGE (FACING COUNTY RD)	56.0 L.F. x 2.5F PER L.F. =		112.0 SF
SECONDARY FRONTAGE (FACING THE GREEN)	142.0 L.F. x 1.5F PER L.F. =		142.0 SF

AWNING & CANOPY SIGN COPY AREA
TOTAL ALLOWED COPY AREA OF AWNING & CANOPY SIGNS

PRIMARY FRONTAGE (FACING COUNTY RD)	56.0 L.F. x 1.5F PER L.F. =		56.0 SF
SECONDARY FRONTAGE (FACING THE GREEN)	142.0 L.F. x 1.5F PER L.F. =		142.0 SF

PROJECTING SIGNS
TOTAL ALLOWED COPY AREA OF PROJECTING SIGNS

THE MAXIMUM COPY AREA OF EACH PROJECTING SIGN ALONG ALL BLD'G FRONTAGES IS (4) SF PER SIDE

MULTI TENANT BUILDING MAY UTILIZE ONE PROJECTING SIGN PER TENANT

FREE STANDING SIGN: TWO FREE STANDING SIGNS FOR THE 3 LOTS ARE PROPOSED TO ACCOMMODATE MAJOR TENANT(S) & PROJECT IDENTIFICATION (SEE DETAIL & SITE PLAN). MAX 4 SF COPY AREA PER SIDE WHICH COUNTS TOWARDS MAX. SIGN COPY AREA

GENERAL NOTE: ALL SIGNAGE SHALL COMPLY WITH THE DOWNTOWN SIGN MANUAL UNLESS SPECIFIC WAIVER IS INDICATED OR REQUESTED

HARTRONFT ASSOCIATES
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950 Spruce Street, #1A
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LOUISVILLE MILL SITE REDEVELOPMENT & HISTORIC GRAIN ELEVATOR
500, 540 & 544 COUNTY ROAD, LOUISVILLE, CO
Louisville Mill Site LLC – Caranci / Hartronft

FINAL PUD

PROJECT # 1252.10
DATE: 04/03/14
DRAWN BY: HAPC
CHECKED BY: JEH
REVISIONS:
PPC/PCC – 06/13/14
FINAL – 11/06/14
FPC – 03/13/15
FCC – 05/06/15

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BUILDING ELEVATIONS

Sheet
A5
4 of 4 Sheets

Luminaire Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A	18	BASELITE 16" WAREHOUSE CORD HUNG LUMINAIRE	W516/BLC	WITH WHITE INTERIOR AND NO LENS	lumens for 1 32 tit	1	W516-BLC INC.IES	2400	0.65	32
	B	5	Lithonia Lighting	DSXW1 LED 10C 700 40K T3M MVOLT	DSXW1 LED WITH 1 LIGHT ENGINE, 10 LED's, 700mA DRIVER, 4000K LED, TYPE 3 MEDIUM OPTIC	LED	1	DSXW1_LED_10C _700_40K_T3M_ MVOLT.ies	2272.285	0.98	27
	C	4	Antique Street Lamps	EH16XT 63LED 350mA 50K R3 MVOLT 1DS ANWH	EUROTIQUE HANOVER SERIES WITH DECORATIVE SKIRT, HLM MODULE TYPE 3 LENS, SINGLE DRIVER. TEMP 50.2C	ONE 71.6-WATT LED, AIMED DOWN POS.	1	EH16XT_63LED_3 50mA_50K_R3_M VOLT_1DS_ANW H.ies	6299.651	0.65	71.6
	D	9	Gotham Architectural Lighting	EVO 30/14 6AR LD 120	6" LED DOWNLIGHT, 3000K, 1400 LUMENS, STANDARD DISTRIBUTION WITH MATTE DIFFUSE REFLECTOR	LED	1	EVO_30_14_6AR _LD_120.ies	1299.4	0.65	24.7
	B1	4	Lithonia Lighting	DSXW1 LED 10C 700 40K T2S MVOLT	DSXW1 LED WITH 1 LIGHT ENGINE, 10 LED's, 700mA DRIVER, 4000K LED, TYPE 2 SHORT OPTIC	LED	1	DSXW1_LED_10C _700_40K_T2S_ MVOLT.ies	2233.989	0.98	27
	E	2	BASELITE 12" ANGLE REFLECTOR - WALL MOUNT LUMINAIRE	A812/E3	WITH WHITE INTERIOR AND NO LENS	lumens for 1 32 tit	1	A812-E3 INC.IES	2400	0.65	198
	F	36	ECOSENSE	11LC-12-40-120-17	Linear HP EXT Wall Wash, 12in, 4000K, 110V, 17x33deg	4000K LED	1	11LC-12-40-120-17-ESNA.IES	990.92	0.85	16.83

TYPE A

TYPE B

TYPE C

TYPE D

TYPE E

TYPE F

Luminaire Locations

		Location						Aim		
No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z
1	A	294.70	204.44	15.00	15.00	81.71	0.00	294.70	204.44	0.00
2	A	298.34	174.22	15.00	15.00	84.56	0.00	298.34	174.22	0.00
3	A	301.34	150.43	15.00	15.00	82.62	0.00	301.34	150.43	0.00
4	A	305.42	124.07	15.00	15.00	77.72	0.00	305.42	124.07	0.00
5	A	327.06	114.64	15.00	15.00	0.00	0.00	327.06	114.64	0.00
6	A	345.92	108.88	15.00	15.00	0.00	0.00	345.92	108.88	0.00
7	A	373.57	112.71	15.00	15.00	0.00	0.00	373.57	112.71	0.00
8	A	428.07	130.50	15.00	15.00	0.00	0.00	428.07	130.50	0.00
9	A	37.09	18.74	14.00	14.00	0.00	0.00	37.09	18.74	0.00
10	A	59.00	18.13	14.00	14.00	0.00	0.00	59.00	18.13	0.00
11	A	74.52	26.04	14.00	14.00	0.00	0.00	74.52	26.04	0.00
12	A	88.52	31.82	14.00	14.00	-90.00	0.00	88.52	31.82	0.00
13	A	95.52	146.25	14.00	14.00	180.00	0.00	95.52	146.25	0.00
14	A	94.91	160.56	14.00	14.00	-90.00	0.00	94.91	160.56	0.00
19	A	155.00	180.00	14.00	14.00	111.52	0.00	155.00	180.00	0.00
20	A	246.00	157.00	14.00	14.00	-77.91	0.00	246.00	157.00	0.00
21	A	239.00	178.00	14.00	14.00	-73.61	0.00	239.00	178.00	0.00
22	A	194.00	192.00	14.00	14.00	104.47	0.00	194.00	192.00	0.00
4	B	88.51	164.77	14.00	14.00	0.00	0.00	88.51	164.77	0.00
5	B	47.12	165.38	14.00	14.00	0.00	0.00	47.12	165.38	0.00
1	B1	31.31	138.34	12.00	12.00	-90.00	0.00	31.31	138.34	0.00
12	B	200.97	202.20	12.00	12.00	17.98	0.00	200.97	202.20	0.00
13	B	228.30	196.34	12.00	12.00	13.51	0.00	228.30	196.34	0.00
14	B	302.29	223.99	14.00	14.00	-10.47	0.00	302.29	223.99	0.00
5	B1	31.31	88.34	12.00	12.00	-90.00	0.00	31.31	88.34	0.00
8	B1	31.31	34.34	12.00	12.00	-90.00	0.00	31.31	34.34	0.00
7	B1	39.21	158.99	12.00	12.00	-90.00	0.00	39.21	158.99	0.00
1	C	251.20	88.57	14.00	14.00	80.19	0.00	252.43	88.78	0.00
2	C	241.98	121.29	14.00	14.00	75.64	0.00	243.19	121.50	0.00
3	C	166.12	111.21	14.00	14.00	269.51	0.00	164.87	111.20	0.00
4	C	166.55	75.96	14.00	14.00	268.07	0.00	165.30	75.92	0.00
1	D	323.85	127.71	13.00	13.00	0.00	0.00	323.85	127.71	0.00
2	D	314.42	125.79	13.00	13.00	0.00	0.00	314.42	125.79	0.00
3	D	95.52	92.82	12.00	12.00	0.00	0.00	95.52	92.82	0.00
9	D	95.52	75.82	12.00	12.00	0.00	0.00	95.52	75.82	0.00
10	D	95.52	58.82	12.00	12.00	0.00	0.00	95.52	58.82	0.00
11	D	95.52	41.82	12.00	12.00	0.00	0.00	95.52	41.82	0.00
12	D	95.52	110.82	12.00	12.00	0.00	0.00	95.52	110.82	0.00
13	D	95.52	128.82	12.00	12.00	0.00	0.00	95.52	128.82	0.00
14	D	88.52	41.82	12.00	12.00	0.00	0.00	88.52	41.82	0.00
3	E	105.25	92.25	16.00	10.00	85.24	0.00	105.25	92.25	6.00
4	E	105.25	94.50	16.00	10.00	-85.91	0.00	105.25	94.50	6.00
16	F	207.11	51.51	1.00	1.00	77.47	0.00	207.11	51.51	0.00
17	F	207.33	60.54	1.00	1.00	77.47	0.00	207.33	60.54	0.00
18	F	207.54	59.56	1.00	1.00	77.47	0.00	207.54	59.56	0.00
19	F	207.76	58.58	1.00	1.00	77.47	0.00	207.76	58.58	0.00
20	F	212.90	52.90	1.00	1.00	75.96	0.00	212.90	52.90	0.00
21	F	213.14	51.93	1.00	1.00	75.96	0.00	213.14	51.93	0.00
22	F	213.39	50.96	1.00	1.00	75.96	0.00	213.39	50.96	0.00
23	F	213.63	59.99	1.00	1.00	75.96	0.00	213.63	59.99	0.00
80	F	193.48	159.38	25.00	25.00	14.38	0.00	193.48	159.38	0.00
81	F	194.45	159.13	25.00	25.00	14.38	0.00	194.45	159.13	0.00
82	F	195.42	158.88	25.00	25.00	14.38	0.00	195.42	158.88	0.00
83	F	196.39	158.63	25.00	25.00	14.38	0.00	196.39	158.63	0.00
84	F	197.36	158.38	25.00	25.00	14.38	0.00	197.36	158.38	0.00
85	F	198.33	158.13	25.00	25.00	14.38	0.00	198.33	158.13	0.00
86	F	199.30	157.89	25.00	25.00	14.38	0.00	199.30	157.89	0.00
87	F	200.27	157.64	25.00	25.00	14.38	0.00	200.27	157.64	0.00
88	F	201.23	157.39	25.00	25.00	14.38	0.00	201.23	157.39	0.00
89	F	202.20	157.14	25.00	25.00	14.38	0.00	202.20	157.14	0.00
90	F	203.17	156.89	25.00	25.00	14.38	0.00	203.17	156.89	0.00
91	F	204.14	156.64	25.00	25.00	14.38	0.00	204.14	156.64	0.00
92	F	205.11	156.40	25.00	25.00	14.38	0.00	205.11	156.40	0.00
93	F	206.08	156.15	25.00	25.00	14.38	0.00	206.08	156.15	0.00
94	F	207.05	155.90	25.00	25.00	14.38	0.00	207.05	155.90	0.00
95	F	208.01	155.65	25.00	25.00	14.38	0.00	208.01	155.65	0.00
96	F	208.98	155.40	25.00	25.00	14.38	0.00	208.98	155.40	0.00
97	F	209.95	155.15	25.00	25.00	14.38	0.00	209.95	155.15	0.00
98	F	210.92	154.91	25.00	25.00	14.38	0.00	210.92	154.91	0.00
99	F	211.89	154.66	25.00	25.00	14.38	0.00	211.89	154.66	0.00
100	F	212.86	154.41	25.00	25.00	14.38	0.00	212.86	154.41	0.00
101	F	213.83	154.16	25.00	25.00	14.38	0.00	213.83	154.16	0.00
102	F	214.80	153.91	25.00	25.00	14.38	0.00	214.80	153.91	0.00
103	F	215.76	153.66	25.00	25.00	14.38	0.00	215.76	153.66	0.00
104	F	216.73	153.42	25.00	25.00	14.38	0.00	216.73	153.42	0.00
105	F	217.70	153.17	25.00	25.00	14.38	0.00	217.70	153.17	0.00
106	F	218.67	152.92	25.00	25.00	14.38	0.00	218.67	152.92	0.00
107	F	219.64	152.67	25.00	25.00	14.38	0.00	219.64	152.67	0.00

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
Calc Zone #1	+	0.5 fc	9.2 fc	0.0 fc	N/A	N/A	0.1:1

Note

1.file=visual-files-sept2014-millsite2.vsl

1 / A6 SITE PHOTOMETRIC

1" = 30'

0 1 5 10 25 50 100 FEET

NORTH

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950 Spruce Street, #1A
Louisville, CO 80027
TEL: 303.673.9304
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LOUISVILLE MILL SITE REDEVELOPMENT & HISTORIC GRAIN ELEVATOR

500, 540 & 544 COUNTY ROAD, LOUISVILLE, CO

Louisville Mill Site LLC – Caranci / Hartronft

FINAL PUD

PROJECT # 1252.10
DATE: 04/03/14
DRAWN BY: HAPC
CHECKED BY: JEH
REVISIONS:
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FINAL – 11/06/14
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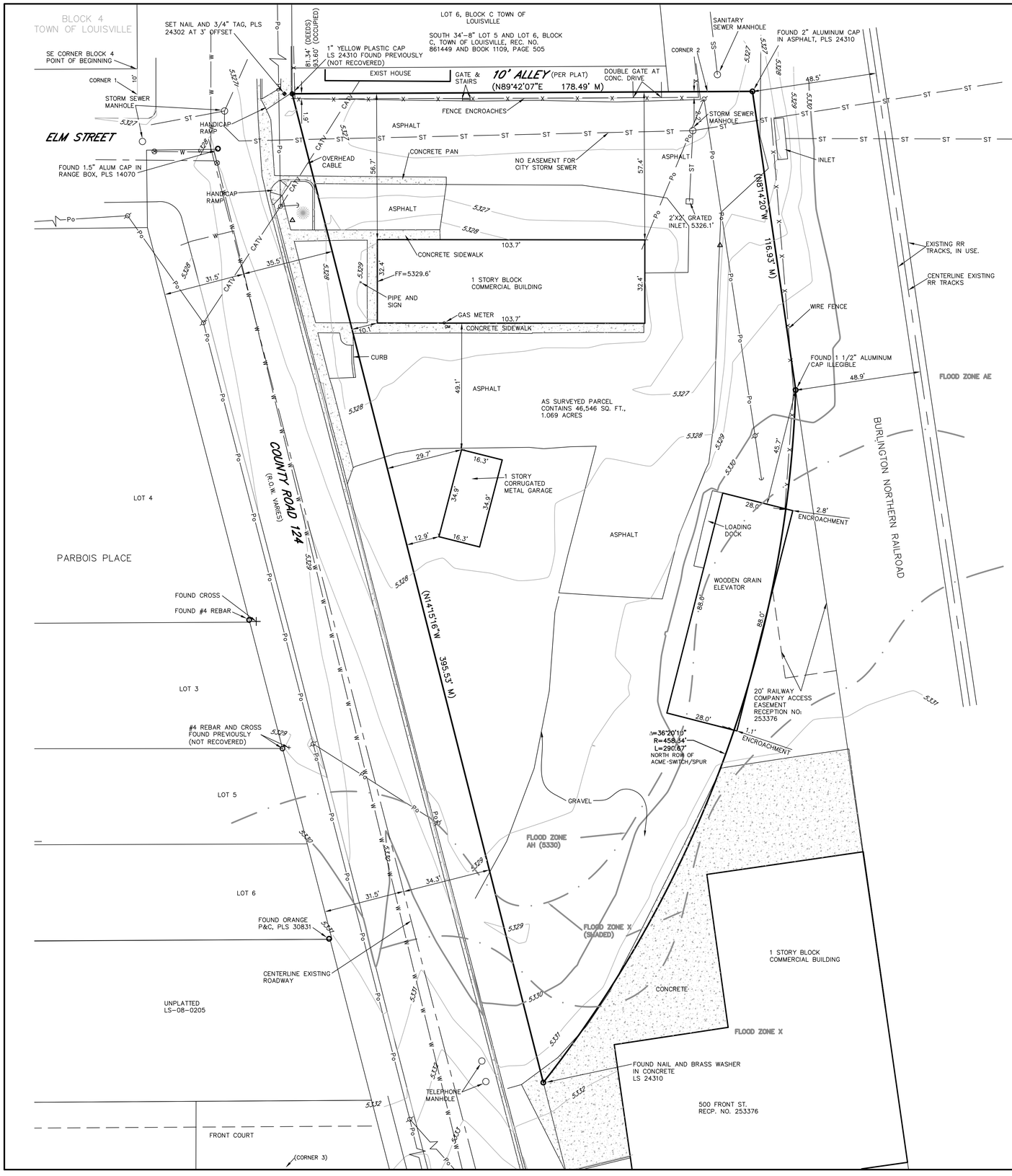
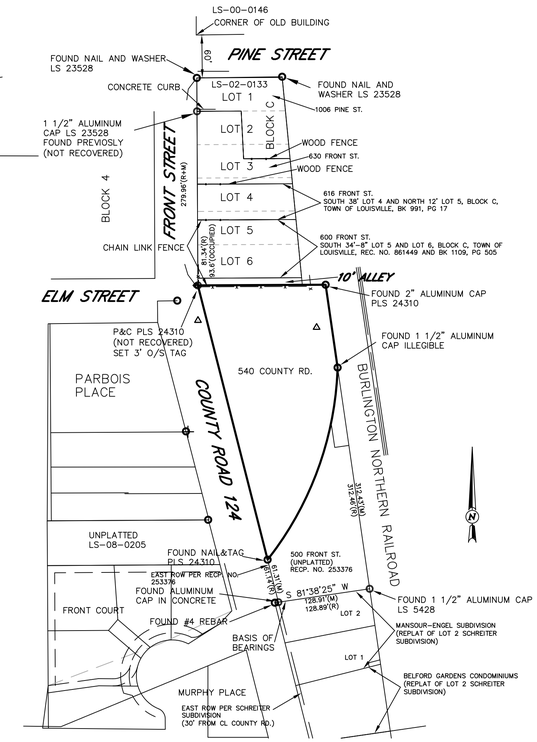
SITE PHOTOMETRIC

Sheet
A6
6 of 9 Sheets





CONTROL DIAGRAM

SCALE : 1" =100'

LEGEND

○	FOUND MONUMENT AS NOTED
⊗	EXISTING WATER VALVE
○GM	EXISTING GAS METER
○	EXISTING POWER POLE
—Po—Po—	EXISTING OVERHEAD POWER LINE
○	EXISTING MANHOLE COVER

LEGAL DESCRIPTION (PER TITLE COMMITMENT; RECP. NO. 952513)

BEGINNING AT THE SOUTHEAST CORNER OF BLOCK 4 OF THE ORIGINAL TOWN OF LOUISVILLE, THENCE SOUTH 10 FEET TO CORNER NUMBER ONE, THE TRUE POINT OF BEGINNING; THENCE EASTERLY ALONG SOUTH LINE OF ALLEY, 221 FEET, MORE OR LESS TO CORNER NUMBER TWO, SAID CORNER NUMBER TWO BEING THE INTERSECTION OF THE SOUTH LINE OF SAID ALLEY EXTENDED EAST WITH ACME SWITCH; THENCE SOUTHWESTERLY ALONG THE CURVE OF SAID ACME SWITCH TO CORNER NUMBER THREE, SAID CORNER NUMBER THREE BEING THE INTERSECTION OF ACME SWITCH WITH WEST LINE OF COUNTY ROAD NO. 124, SAID CORNER NUMBER THREE BEARS SOUTH 21° 41' WEST, 455 FEET, MORE OR LESS, FROM CORNER NUMBER TWO; THENCE NORTH, 14° 12' WEST, 435 FEET, MORE OR LESS, TO PLACE OF BEGINNING; EXCEPTING A STRIP FOR COUNTY ROAD NO. 124 DESCRIBED IN ROAD BOOK "B" AT PAGE 239 OF THE RECORDS OF THE COUNTY CLERK AND RECORDER'S OFFICE OF BOULDER COUNTY, SAID TRACT BEING IN THE SOUTHEAST ¼ OF THE SOUTHEAST ¼ OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER, STATE OF COLORADO.

SURVEY NOTES

1. THE BASIS OF BEARINGS IS THE NORTH LINE OF LOT 2, MANSOUR-ENGLE SUBDIVISION, BETWEEN THE FOUND MONUMENTS SHOWN HEREON AND BEARS S 81°38'25" W., PER SAID PLAT
2. THE SIZE AND TYPE OF MONUMENTS FOUND ARE SHOWN HEREON.
3. THE INITIAL SURVEY FIELD WORK INCLUDING TOPOGRAPHY SHOWN ON THIS SITE WAS COMPLETED ON JULY 17, 2003. SURVEY UPDATED JUNE 2012.
4. NOTICE: ACCORDING TO COLORADO LAW, YOU MUST COMMENCE ANY LEGAL ACTION BASED ON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON. CRS-13-80-105 (3)(a)
5. THE LOCATION OF THE ABOVE GROUND UTILITIES SHOWN HEREON ARE BASED ON THE FIELD SURVEY BY SCOTT, COX & ASSOCIATES, INC. THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON SAID SURVEY AND INFORMATION PROVIDED BY CITY OF LOUISVILLE, UNCC, XCEL AND QWEST MAPPING. SCOTT, COX & ASSOCIATES, INC. IS NOT RESPONSIBLE FOR UTILITY INFORMATION PROVIDED BY OTHERS. SCOTT, COX & ASSOCIATES, INC. RECOMMENDS THAT THE LOCATION OF THE UTILITIES BE FIELD VERIFIED PRIOR TO ANY DIGGING ON, OR ADJACENT TO THE SUBJECT PROPERTY.
6. ELEVATIONS ARE BASED ON THE CITY OF LOUISVILLE VERTICAL DATUM BASE, BM MONUMENT IN RANGE BOX AT THE E 1/4 CORNER OF SECTION 8, T1S, R69W OF THE 6TH P.M. ELEVATION =5316.65
7. BUILDING MEASUREMENTS ARE AT GROUND LEVEL. ROOF OVERHANGS AND ARCHITECTURAL PROJECTIONS OF THE BUILDINGS ARE WITHIN THE BOUNDARY OF THE SITE BUT ARE NOT SHOWN ON THIS SURVEY UNLESS NOTED.
8. LAND SURVEY PLATS AND PLATS REFERENCED OR USED FOR THIS SURVEY: PLAT OF TOWN OF LOUISVILLE; MANSOUR-ENGEL SUBDIVISION; PARBOIS PLACE-FINAL PLAT; MURPHY PLACE; FRONT COURT; SCHREITER SUBDIVISION; REPLAT OF LOT 1 SCHREITER SUBDIVISION; DRUMM MAP SECTION 8; LS-00-0146; LS-02-0133; LS-01-0143; LS-03-0131; LS-08-0205..
9. ALL ADJOINING STREETS ARE PUBLIC.
10. FLOOD PLAIN DESIGNATION OF THE SURVEYED PROPERTY PER FIRM MAP NUMBER 08013C0557 G EFFECTIVE MAP REVISED: OCTOBER 4, 2002 IS ZONE AH (EL 5330). ZONE IS IN THE 100 YEAR FLOOD PLAIN, AREAS OF FLOODING DEPTHS 1-3 FEET BASE FLOOD ELEVATIONS DETERMINED.

TITLE COMMITMENT NOTES

THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY SCOTT, COX & ASSOCIATES, INC. FIDELITY NATIONAL TITLE INSURANCE COMPANY COMMITMENT NO. 515-F0411181-170-LL0, EFFECTIVE DATE MAY 2, 2012 AT 7:00 A.M. WAS SOLELY RELIED UPON FOR INFORMATION REGARDING EASEMENTS, RIGHTS-OF-WAY, AND ENCUMBRANCES OF RECORD IN THE PREPARATION OF THIS SURVEY.

THE FOLLOWING ITEMS ARE AS ENUMERATED IN SCHEDULE B-2 EXCEPTIONS. [SURVEYOR'S NOTES]

ITEMS 1-8 STANDARD EXCEPTIONS REFER TO TITLE COMMITMENT.

ITEM 9 ALL COAL AND OTHER MINERALS, AND THE RIGHT TO MINE AND REMOVE THE SAME, AS RESERVED IN THE INSTRUMENT SET FORTH BELOW, AND ANY AND ALL ASSIGNMENTS THEREOF OR INTERESTS THEREIN:

RESERVED BY: UNION PACIFIC COAL COMPANY
RECORDING DATE: AUGUST 31, 1905
RECORDING NO.: BOOK 296 AT PAGE 53

NOTE: REQUEST FOR NOTIFICATION OF SURFACE DEVELOPMENT IN CONNECTION WITH THE ABOVE RESERVATION:

RECORDING DATE: MAY 17, 2002
RECORDING NO.: RECEPTION NO. 2288491
[AFFECTS THE PROPERTY BUT IS BLANKET IN NATURE]

ITEM 10 TERMS, CONDITIONS, PROVISIONS, AGREEMENTS AND OBLIGATIONS CONTAINED IN THE TENANTS IN COMMON AGREEMENT AS SET FORTH BELOW:

RECORDING DATE: FEBRUARY 16, 2011
RECORDING NO.: RECEPTION NO. 3133502
[AFFECTS THE PROPERTY BUT IS BLANKET IN NATURE]

CERTIFICATION

TO: FIDELITY NATIONAL TITLE INSURANCE COMPANY; AMTERRE PROPERTY GROUP, LLC, A PENNSYLVANIA LIMITED LIABILITY COMPANY; BARBARA R. STAHR, ALSO KNOWN AS BARBARA RAE STAHR AND MICHAEL K. DECKER AND PHILLIP T. DECKER

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1-5, 6a, 8, 11a, 11b AND 13 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON JUNE 4, 2012.

A. JOHN BURI, PLS 24302
FOR AND ON BEHALF OF
SCOTT, COX & ASSOCIATES, INC.

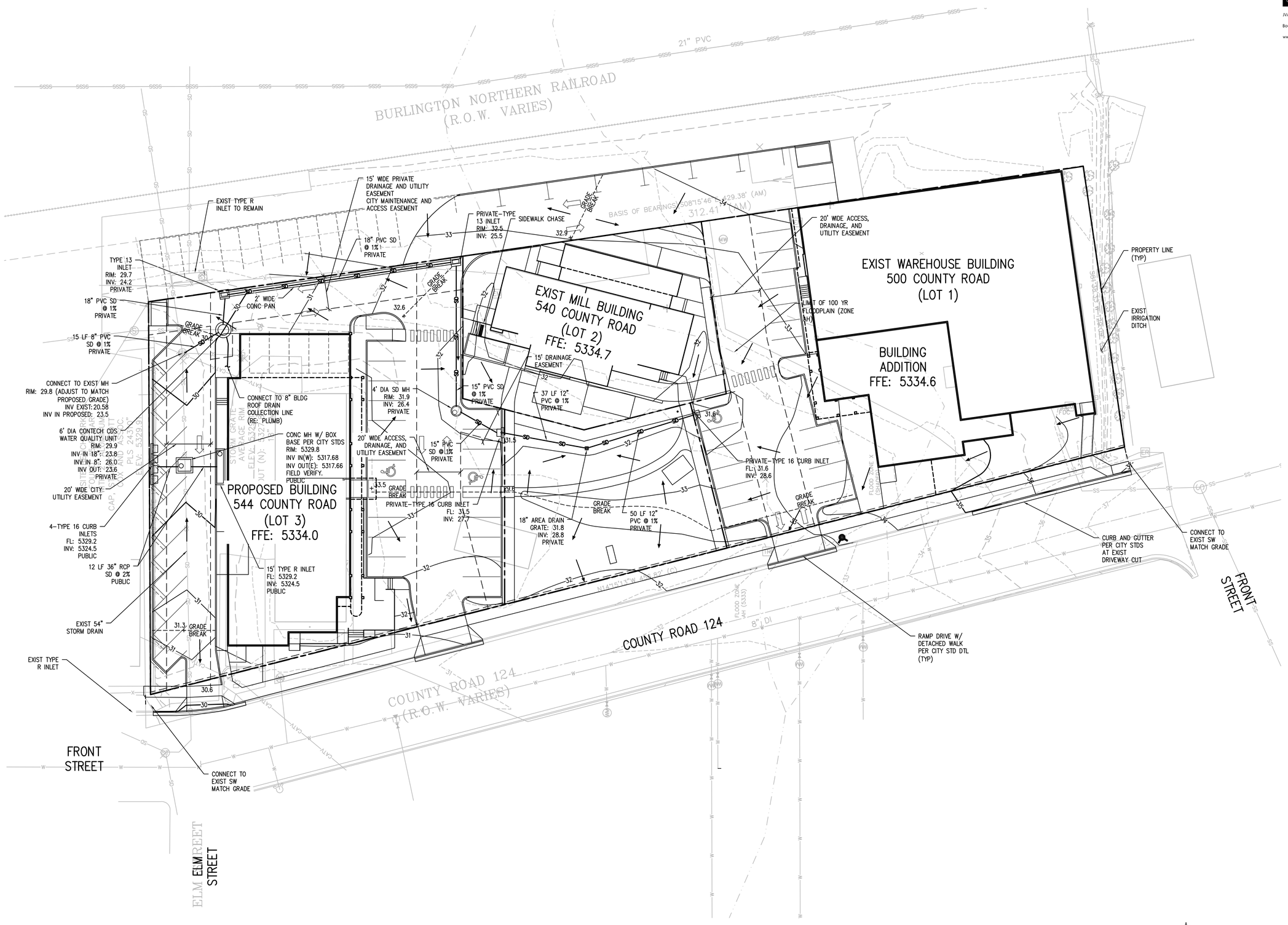
COLORADO REGISTERED A. JOHN BURI 24302 PROFESSIONAL LAND SURVEYOR

Scale: 1" = 20'
U.S. SURVEY FEET
0 10 20 40

ALTA/ACSM LAND TITLE SURVEY
A PARCEL OF LAND LOCATED IN THE SE ,1/4 SE 1/4 OF SECTION 8, T1S R69W OF THE 6TH P.M.
CITY OF LOUISVILLE
COUNTY OF BOULDER
STATE OF COLORADO
540 COUNTY RD.

SCOTT, COX & ASSOCIATES, INC.
consulting engineers • surveyors
1530 55th Street • Boulder, Colorado 80303
(303) 444 - 3051

Designed by AJB	Date	Scale	Drawing no.	Sheet
Drawn by JAS	06/11/12	1"=20'	12298	1
Checked by AJB	Revision	Description	Date	Project no. 12298



CONSULTING ENGINEERS
JVA, Incorporated 1319 Spruce Street
Boulder, CO 80302 Phone: 303.444.1951
www.jvajva.com E-mail: info@jvajva.com

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Louisville, CO 80027
TEL: 303.673.9304
FAX: 303.673.9319

LOUISVILLE MILL SITE REDEVELOPMENT & HISTORIC GRAIN ELEVATOR

500, 540 & 544 COUNTY ROAD, LOUISVILLE, Louisville Mill Site LLC – Caranci / Hartronft

FINAL PUD

PROJECT #1252.10
DATE: 04/13/14
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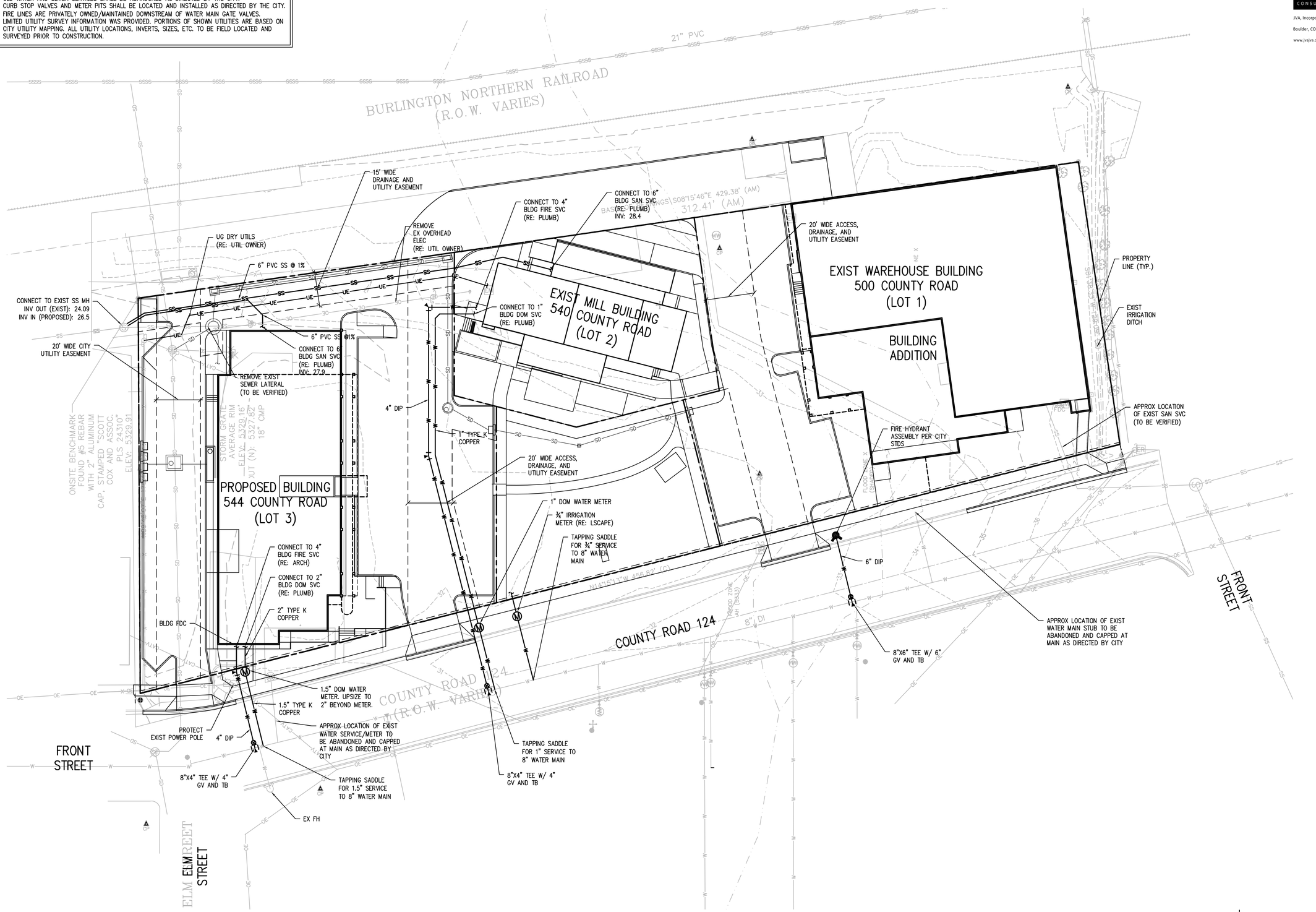
DRAINAGE PLAN

Sheet
SHEET NO.
C1.0
of Sheets

* D:/PROGRAM FILES/ACAD2000/LIB/_2436HAPCB17.DWG * 01/01/2009 * 22:00 * 7.66/7.66 *

NOTES:
1. OLD WATER AND SEWER SERVICES SHALL BE ABANDONED AS DIRECTED BY THE CITY.
2. CURB STOP VALVES AND METER PITS SHALL BE LOCATED AND INSTALLED AS DIRECTED BY THE CITY.
3. FIRE LINES ARE PRIVATELY OWNED/MAINTAINED DOWNSTREAM OF WATER MAIN GATE VALVES.
4. LIMITED UTILITY SURVEY INFORMATION WAS PROVIDED. PORTIONS OF SHOWN UTILITIES ARE BASED ON CITY UTILITY MAPPING. ALL UTILITY LOCATIONS, INVERTS, SIZES, ETC. TO BE FIELD LOCATED AND SURVEYED PRIOR TO CONSTRUCTION.



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www.jvajva.com E-mail: info@jvajva.com

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Louisville, CO 80027
TEL: 303.673.9304
FAX: 303.673.9319

LOUISVILLE MILL SITE REDEVELOPME
& HISTORIC GRAIN ELEVATOR
500, 540 & 544 COUNTY ROAD, LOUISVILLE,
Louisville Mill Site LLC – Caranci / Hartron

FINAL PUD

PROJECT #1252.10
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UTILITY PLAN

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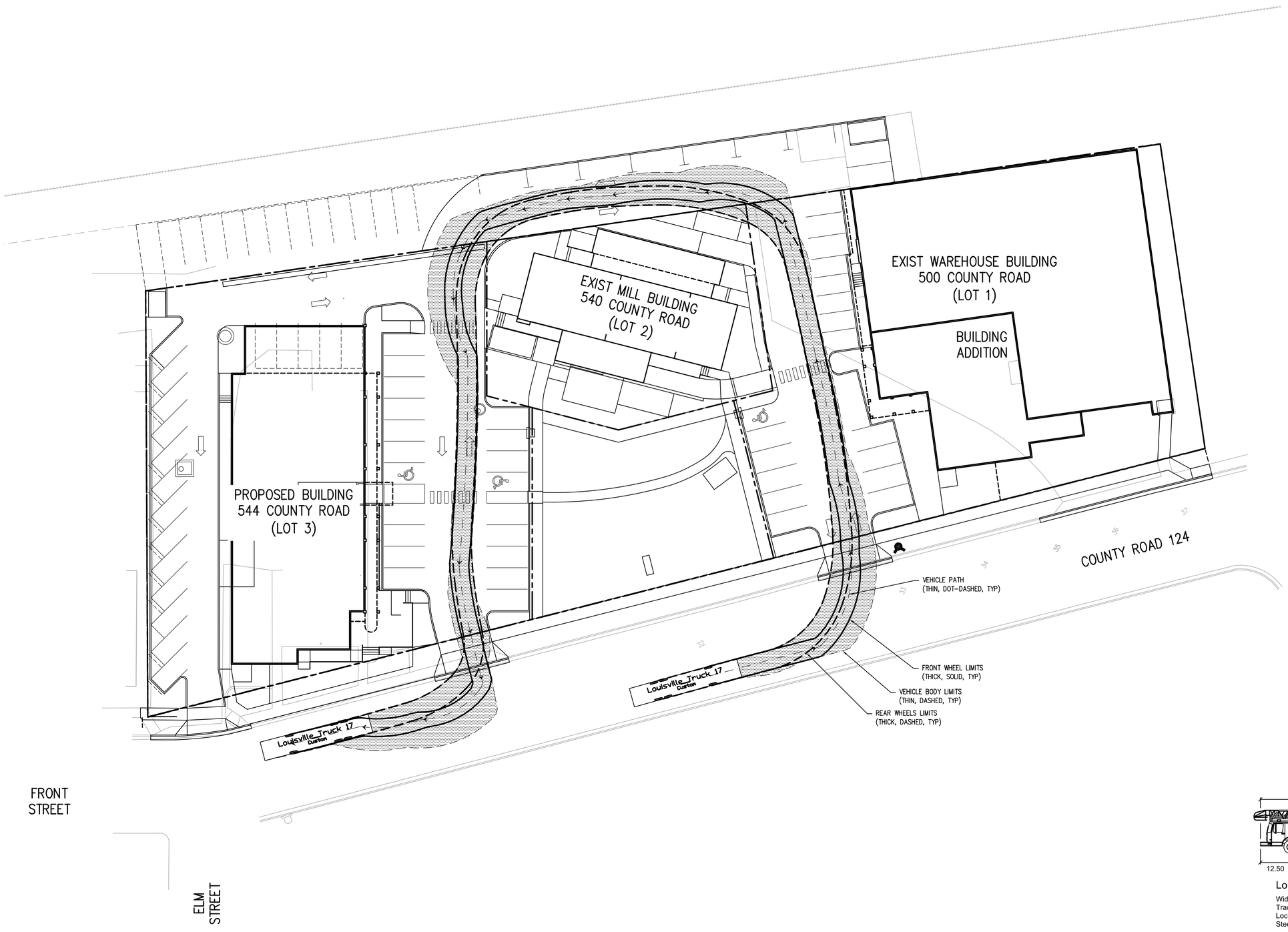

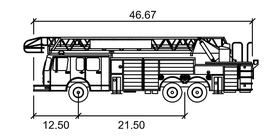

Louisville Truck 17 feet

Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 5.0
Steering Angle	: 45.0

20 0 20 40
SCALE IN FEET

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Boulder, CO 80302 Phone: 303.444.1951
www.jvajva.com E-mail: info@jvajva.com

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500, 540 & 544 COUNTY ROAD, LOUISVILLE, CO
Louisville Mill Site LLC - Caranci / Hartronft

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AUTOTURN FIRETRUCK EXHIBIT

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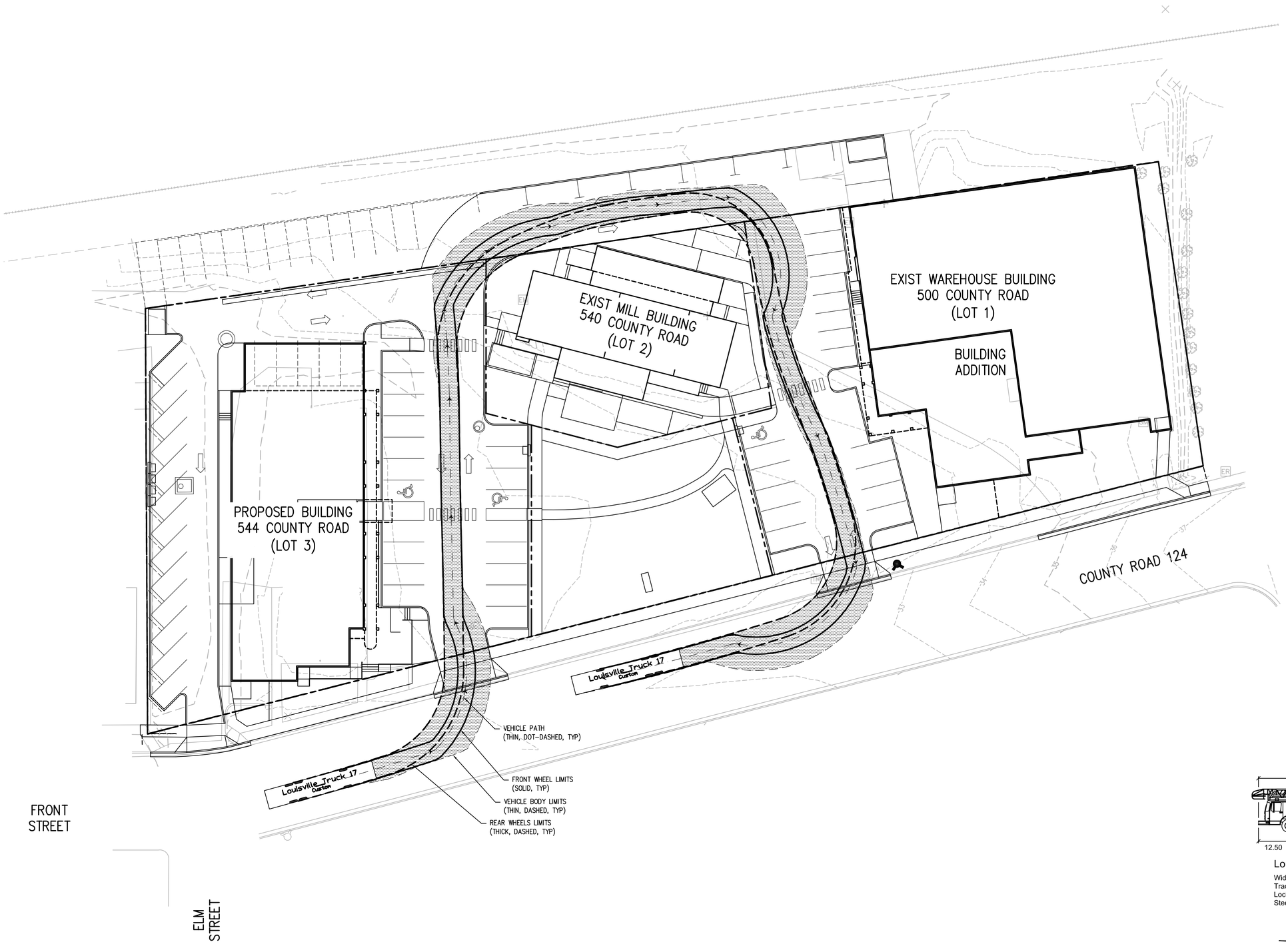

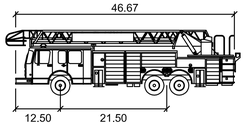

Louisville Truck 17 feet

Width	: 8.00
Track	: 8.00
Lock to Lock Time	: 5.0
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20 0 20 40
SCALE IN FEET

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AUTOTURN FIRETRUCK EXHIBIT

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Louisville Historical Museum
Department of Library & Museum Services
City of Louisville, Colorado
March 2012

Louisville Grain Elevator History

Address: 540 County Road, Louisville, Colorado

Legal Description: Referred to as Tract 712, Louisville

Year of Construction: Likely 1905-06 (see discussion)

Summary: This building is considered to be one of the area's last remaining wooden grain elevators. It was placed on the National Register of Historic Places in 1986 due to the elevator being "historically and visually the most significant structure associated with the agricultural history of the community." It is also listed on the Colorado Register of Historic Places. Its stacked plank construction style is considered to be rare.

This building was constructed by John K. Mullen, an Irish immigrant who built and operated a number of grain elevators in Colorado in his capacity as President of the Colorado Milling & Elevator Co. Besides being associated with John K. Mullen, the building was also associated with the Moore and Thomas families. The elevator was managed for about 35 years by Louisville resident Howard A. Moore and then his son, Donald Moore. In 1957, it was purchased by Louisville residents Charles Thomas and Quentin Thomas. Charles Thomas was the brother-in-law of Donald Moore.

As shown below, this building is connected with not only Boulder County's agricultural heritage, but is also connected with the area's railroad history, mining history, and the history of the Irish in Colorado. It was owned by an outsider before it became a locally owned Louisville business several decades later. It is located in Louisville's historic downtown area.

Every attempt has been made in the writing of this report to give accurate factual information, to discontinue the use of incorrect information that has occasionally cropped up in past reports about the building, and to compile in this document all of the available information about the structure's history.

Construction by John K. Mullen and Early Operation

The story of Louisville, Colorado is often told in terms of its history as a small coal mining town. However, farming not only predated mining in the area, but local farmers continued to play an important role in the town's economy and cultural life through much of the 1900s.

It was on the farm of David Kerr that coal was first discovered in 1877. And since coal mining was seasonal in this area due to the high moisture content of the coal that caused it to disintegrate once the coal was brought out of the ground, coal mining and farming came to have a complimentary relationship. Some miners worked on farms in the warm months, while some farmers worked in coal mines in the cold months. Louisville area farmers, though they did not live in town, certainly identified themselves as Louisville residents and fully participated in the town's economic, civic, and cultural life. They attended Louisville churches, shopped in the stores, and sent their children to Louisville schools. Just as Louisville miners tended to be recent European immigrants, the area farmers also represented different ethnicities.

Louisville faced particular challenges in the 1880s and 1890s (following its founding in 1878) and finally emerged with a viable economy after the turn of the century. This development likely made it a particularly attractive site for someone to build an elevator or mill in the early 1900s. A 1902 *Denver Post* item reported that a company called the Centennial Mill and Elevator Company in Louisville had been incorporated. However, there is no evidence that this was the company that constructed the Louisville Grain Elevator.

Boulder County property records indicate that the property on which the Grain Elevator was built came from The Union Pacific Coal Company. The deeds show that Peter F. Murphy of Louisville purchased property from Union Pacific in August 1905 and resold this parcel to John K. Mullen in October 1905. Both were Irish Catholics. It could be speculated that they knew one another and that Murphy was even acting on Mullen's behalf.

John K. Mullen, who had the Louisville Grain Elevator built, was an Irish immigrant who rose to great heights as the head of an empire of grain elevators and flour mills in Colorado and some surrounding states. He was born in County Galway, Ireland in 1847 and came to the United States in 1856 at the time of the Irish Potato Famine. He and his family settled in Oriskany Falls, New York, where he worked at a flour mill. As a young man, he worked his way West and assumed more and more responsibility in the grain industry. As described on the jacket of William J. Convery's biography of Mullen, *Pride of the Rockies: The Life of Colorado's Premiere Irish Patron, John Kernan Mullen*, Mullen "ruthlessly rose to control of the West's flour milling industry and was one of the architects of early Denver's transformation from a dusty supply town to the Queen City of the Mountains and Plains. A celebrated giver during his lifetime, J.K. Mullen endowed many religious and civic monuments." For example, Mullen High School in Denver was named for him, as was the Mullen Library at Catholic University in Washington, D.C. He helped finance and oversaw the construction of Denver's Cathedral of the Immaculate Conception. At times, he was even the owner of Elitch Gardens and the famous Matchless Mine in Leadville, among other prominent Colorado properties.

The book states that "[e]vidence of Mullen's contribution to the architectural landscape stretches beyond Denver. The tallest structure in many farming towns throughout the Rocky Mountain West is the grain elevator constructed by Mullen's Colorado Milling and Elevator Company" (p. 2). "By 1924, The

Colorado Milling and Elevator Company owned nearly three hundred mills, warehouses, and elevators …" (p. 197). The following is a portrait of J.K. Mullen from 1933:

Portrait accessed online from the Denver Public Library,
Western History Collection, www.denverlibrary.org

As explained in the UC-Denver report on *Eastern Plains and Front Range Grain Elevators of Colorado,* Mullen was not only responsible for bringing to Colorado the Hungarian milling process, but he also played a leading role in creating high altitude flour. The fact that he owned both the grain elevators where farmers would bring their grain and the flour mills where the grain could be processed had the effect of tightening his control on the industry.

Although an accounting of the number of remaining J.K. Mullen's Colorado grain elevators and mills could not be located for this report, information was found regarding Boulder County grain buildings. According to available information, two separate milling/elevator structures in Boulder burned down in 1889 and 1931. Longmont lost a flour mill and Mullen-owned grain elevator to fire in 1934. According to the UC-Denver report on *Eastern Plains and Front Range Grain Elevators of Colorado,* two other elevators besides the Louisville Grain Elevator still stand in Boulder County: in Lafayette and on a private farm in Hygiene. As with many historic elevators, the elevator in Lafayette has had metal siding installed on its sides to reduce the risk of fire, something that has never been done to Louisville's, other than in a few limited sections. Specific information about the elevator in Hygiene could not be located for this report. Louisville's elevator is the only one in the County that is listed on the National Register of Historic Places.

A 1918 *Denver Post* article shows that Louisville area wheat farmers at times disputed Mullen's practices, not unlike similar conflicts of the time between Louisville coal miners and the mining companies. The articles states:

> The wheat growers of the Lafayette-Louisville district are up in arms over the practices of the J.K. Mullen elevator there. Instead of the $2.20 per bushel price fixed by the federal food commission, the elevator is paying only about $1.00 or less for the highest grade wheat. . . . [The] Mullen explanation of a deduction of the freight to Kansas City does not explain this entire discrepancy. . . . [The farmers] are told that the purchase of wheat may be abandoned if there is any complaint.

According to the UC-Denver report *Eastern Plains and Front Range Grain Elevators of Colorado*, citing Convery's biography of Mullen,

> In an effort to placate suspicious farmers who felt CM&E [the Colorado Milling & Elevator Company] was a monopoly guilty of price fixing, Mullen looked for ways to improve CM&E's image. J.K. instituted several measures designed to reestablish trust in his company. In order to provide a sense of local ownership, subsidiary mills acquired or opened by CM&E were named for the community ….

In this connection, it should be noted that the first and longtime name of the Louisville Grain Elevator was the "Louisville Milling & Elevator Company," and it appears to have been selected for the public relations reason noted. Other legal owners of the building were the Northern Colorado Elevator Company and the Colorado Milling & Elevator Company. It was also called the "Denver Elevator" and the words "The Denver Elevators" were painted on the side of the building even while it was owned by the Colorado Milling & Elevator Company. Despite the name changes, all of these companies are believed to have been under the control of John K. Mullen.

Date of Construction

A review of the available evidence shows that the date of construction of this building was most likely 1905-06.

(The Boulder County Assessor lists two improvements located at 540 County Road and gives the date of construction of both of them as 1936. However, the County has sometimes been found to be in error with respect to the dates of construction of Louisville buildings. The 1936 date is clearly not accurate with respect to the Grain Elevator building.)

Different reports that have been written about the history of this building have given the dates of construction as 1903, 1904, 1905, and 1908.

The 1908 Sanborn fire insurance map for Louisville showed the Elevator and stated the year of construction to have been 1903. However, an examination of the deeds reveals that it was not until August 1905 that The Union Pacific Coal Company sold the property to Peter F. Murphy, who then sold it to J.K. Mullen in October 1905. It seems unlikely that the structure would have been built prior to the transfer of these deeds. Also, in February 1905, the Longmont, Colorado *Ledger* newspaper reported that "Louisville, in Boulder County, wants a flour mill." While a flour mill is not the same as a grain elevator, the statement suggests that what Louisville may have more broadly been seeking was a way for its wheat farmers to easily get their wheat crops to a mill. The construction of a grain elevator would have fulfilled that need, and the appearance of the item in the Longmont paper could suggest that Louisville did not yet have a grain elevator.

The Elevator, and Howard Moore as its manager, were first listed in the 1907-08 directory for Louisville, which could indicate that it was built before 1907. Significantly, the Elevator is not listed in the 1904 or 1906 Louisville directories. (A 1905 directory for Louisville appears to not exist.)

For the foregoing reasons, it is believed that the Elevator was constructed in 1905-06.

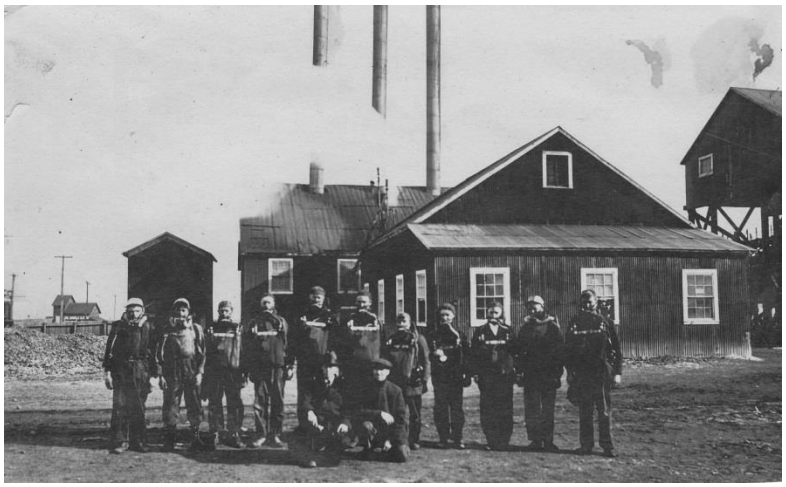
Location of Grain Elevator and Association with Railroad

The Grain Elevator and the nearby Acme Mine that was located at Roosevelt and Hutchinson used the same railroad spur that left the main track just northeast of the Elevator and curved over to the Acme. In fact, the 1905 deed that conveyed the property from Peter F. Murphy to J.K. Mullen specifically referred to the "Acme switch" in its legal description of the parcel (a description repeated in the 1957 deed to the Thomas family). The following section of the 1909 Drumm's Wall Map of Louisville shows this relationship, with a building labeled "Elevator" on the upper right, on the spur that continued to the west past the Acme mine dump towards the Acme Mine.

1909 Drumm's Wall Map of Louisville, Louisville Historical Museum

This map shows how the Elevator was actually constructed to be parallel to the railroad spur, not the main track. This is why even today, even with the spur gone, it sits at an angle to the main track. It is believed that the reason was that it was better for the railroad cars being loaded with grain at the Elevator to not block the main line of the railroad.

This photo, looking east, shows the relationship of the Elevator to the Acme Mine, with the Elevator visible in the rear to the left of the photo:



Rescue squad by Acme Mine looking east, circa 1920s, Louisville Historical Museum

Architecture, Physical Description, and Functions of the Grain Elevator

The building has been the subject of three different architectural and historical surveys. These are believed to have been funded and completed jointly by the City of Louisville and the State of Colorado in 1982, 1985, and 2000. In addition, information about this building is available from the 1986 National Register listing and in the 2011 structural report by Anderson Hallas Architects that was commissioned by the City of Louisville.

It is believed that the general, original purpose of a grain elevator in this area was to receive grain, particularly wheat, from farmers. A farmer would bring a wagonload of grain to the elevator; interviews of local residents indicate that the grains brought to the Louisville Elevator included wheat, corn, oats, and barley. The Louisville Historical Museum has in its collection annual licenses given in the 1930s by the state of Colorado to Donald Moore, operator of the Grain Elevator, to inspect and grade wheat, barley, oats, corn, and rye.

The wagon would be weighed on the weigh scale, then emptied into a pit. Then the empty wagon would be weighed again in order to obtain a true weight of the contents. The manager of the grain elevator was responsible for this recordkeeping. Merwin Jay Harrison, whose father was manager of the Mullen-owned grain elevator in Broomfield, Colorado, stated in a 1996 oral history interview for the Carnegie Library for Local History that wheat would then be loaded onto boxcars and shipped to Denver, where, he believed, it would be delivered to the Hungarian Flour Mill, which was also owned by J.K. Mullen. Later, trucks rather than boxcars were used to transport the grain.

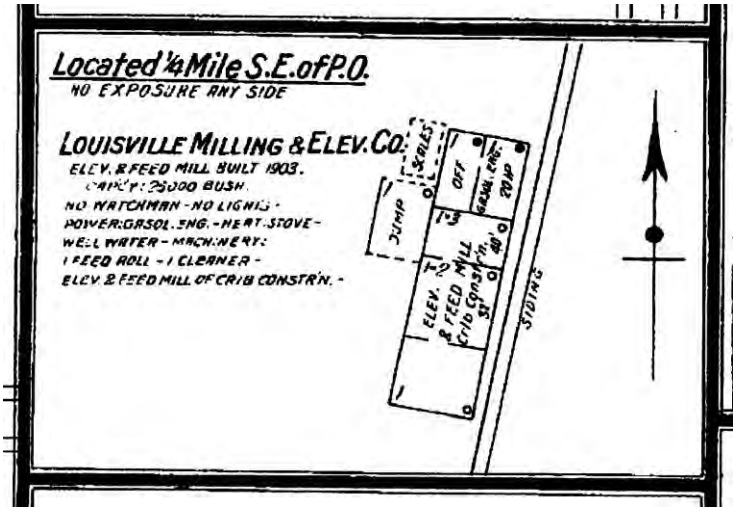
A grain elevator in this area would have also performed some processing of the grain, including separating out gravel and weed seeds from the grain brought in by farmers, and grinding.

Local residents could purchase 100-lb. sacks of flour directly from the Grain Elevator. These may have been brought from flour mills in Denver, but precise information could not be located for this report. Families in Louisville used the flour sacks from the Grain Elevator to make clothing.

Out of six possible types of materials used in the construction of grain elevators in the United States, the Louisville Grain Elevator was constructed of wood. Also, as a wooden elevator, it is considered to be of “cribbed” construction, meaning stacked lumber, as opposed to balloon frame construction.

The UC-Denver report on *Eastern Plains and Front Range Grain Elevators of Colorado* states that wood was the earliest construction material used for grain elevators. A disadvantage of wood was its high combustibility, particularly with elevators typically being located near railroad tracks where sparks could start a fire. The report cites the statistic that wood grain elevators had to be replaced at an average of every four years due to fires. (As noted below, the Louisville Elevator had an interior fire in the 1950s.)

The Louisville Grain Elevator is a three story building in the section of its tower. The following excerpt from the 1908 Sanborn fire insurance map for Louisville shows the layout:



Louisville, Colorado [map]. 1908. Sanborn Fire Insurance Map. (Excerpt.)
Accessed at www.louisville-library.org.

The 2000 survey of the building further describes the parts of the elevator: "This structure is oriented north-northeast to south-southwest, with overall measurements of 88' by 28'. From the north-northeast end, the building is composed of five sections, including an office, an elevator, an elevator tower, grain bins, and a warehouse." More detailed information about the purpose of these sections can be found in this 2000 survey report and in the 2011 structural engineering report by Anderson Hallas Architects. The covered area shown in historic photographs is where the scales were located.

The 2011 report prepared for the City of Louisville by Anderson Hallas Architects states that the building footprint is 2,800 square feet and that there are 8,500 square feet of accessible interior floor space. The building sits on a 1.2 acre parcel.

The capacity of the elevator was stated in the 1908 Sanborn map excerpt above to be 25,000 bushels. A penciled notation on the County Assessor card completed on the building in the 1950s appears to state the capacity as having been 20,500 bushels.

The 1982 survey of the structure states that the building was partially renovated by the owners in the 1970s.

The April 4, 1999 *Denver Post* article stated: "Its stacked plank design and diminutive size make the elevator unique. Most elevators stored 35,000 bushels of grain. Louisville's held far less."

The elevator is wood sided and has never had metal siding put on, as many grain elevators have had, except in a few sections by the gabled roofs.

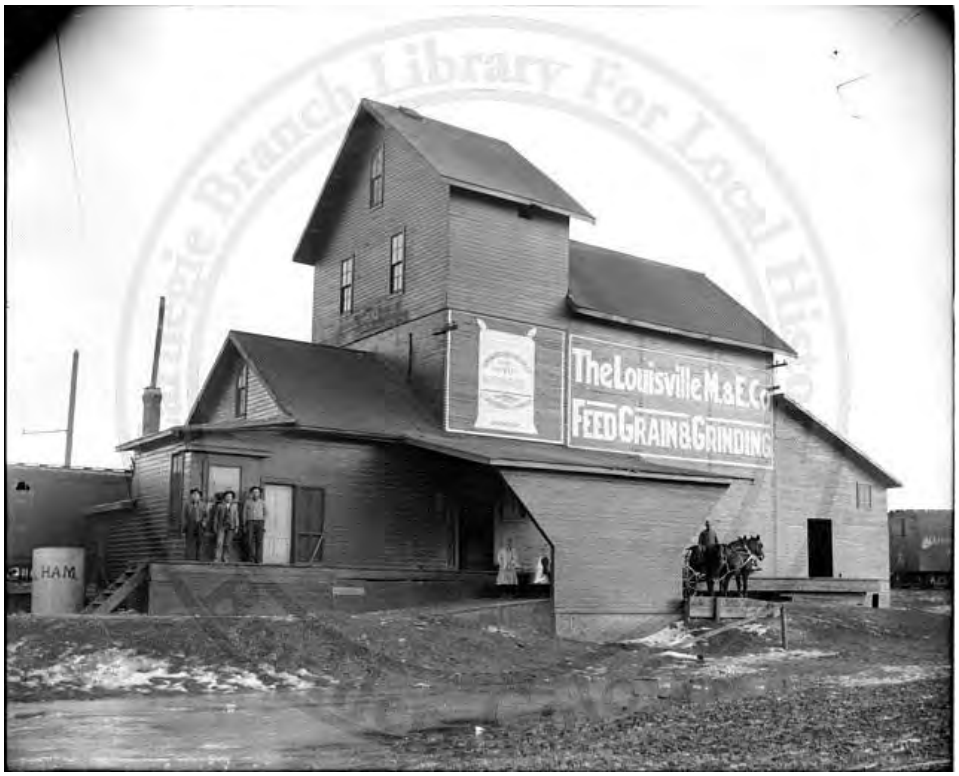
Management by Howard A. Moore and Donald Moore

Howard A. Moore operated the Grain Elevator for about thirty years (while it was owned by Mullen's companies) and was followed in this job by his son, Donald Moore. Howard Moore was living in Louisville and managing the Elevator by 1907, according to Louisville directories. He lived from 1876 to 1934. He, his wife, Zura, and their children lived in Louisville. Their children were Grace, Sadie, Donald, Ethel, Howard Jr., Lois, and Louanna. Museum records indicate that Howard A. Moore served as mayor of Louisville from 1915 to 1917.

The following photos from the collections of the Louisville Historical Museum and Boulder's Carnegie Branch Library for Local History show the Grain Elevator while it was managed by Howard A. Moore:

Louisville Grain Elevator, 2/8/1916, Louisville Historical Museum

Louisville Grain Elevator, 2/8/1916, Carnegie Branch Library for Local History, Boulder

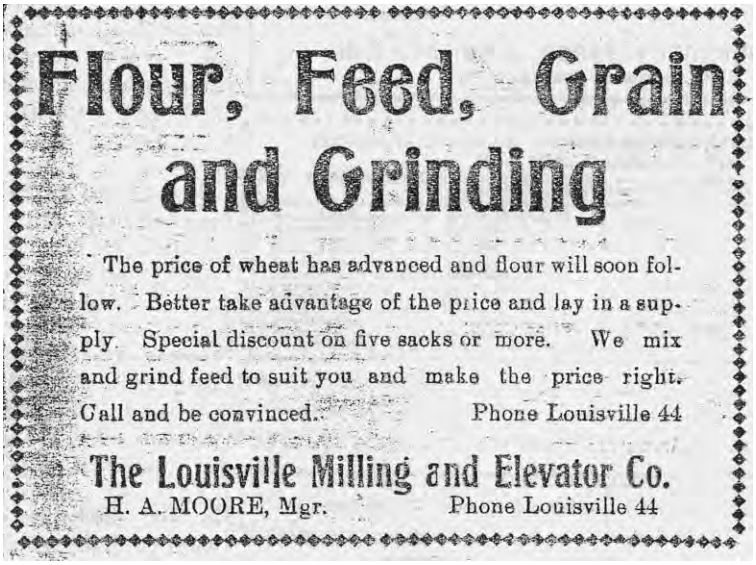


Louisville Grain Elevator, circa 1916, Carnegie Branch Library for Local History, Boulder

Louisville Grain Elevator, circa 1916, Carnegie Branch Library for Local History, Boulder

Louisville directories show that after the death of Howard Moore in 1934, his son, Donald (1909-1975), took over the management of the Elevator. Directories indicate that by 1943, Donald had left this position and the new manager was Wayne Bickel. Managers after this era are noted below.

The following advertisements for the Grain Elevator show that this was a longtime, active business that played a vital role in the economy of the Louisville area:


Flour, Feed, Grain and Grinding

The price of wheat has advanced and flour will soon follow. Better take advantage of the price and lay in a supply. Special discount on five sacks or more. We mix and grind feed to suit you and make the price right. Call and be convinced. Phone Louisville 44

The Louisville Milling and Elevator Co.
H. A. MOORE, Mgr. Phone Louisville 44

From *Louisville News*, 1909, Louisville Historical Museum

H. A. Moore, Mgr. Phone Louisville 44

∴ The ∴

Louisville Milling & Elevator Co.

Louisville, Colorado

FLOUR, FEED AND GRAIN

Agents for Nonpareil Colorado-Made Flour and Semolina, a Kansas Hard-Wheat Flour.

We Will Buy Your Wheat at Market Price—
At All Times.

R.L. Polk Directory, 1916, Boulder County, Louisville Historical Museum

Louisville Historical Museum

The Rex Theatre movie curtain, which is a painted canvas made in 1927-28 with advertisements of twenty-two Louisville businesses, includes the above advertisement for the Louisville Grain Elevator; the curtain currently is on exhibit at the Louisville Historical Museum.

THE LOUISVILLE ELEVATOR

Nonpareil Lay Mash

Flour, Salt, Grain, Hay and Straw

DR. SALSBURY'S POULTRY SERVICE

Phone 44

From 1940 St. Louis Church Annual Bazaar booklet, Louisville Historical Museum

From *Louisville Times*, Sept. 3, 1942,
commemorating the 50th anniversary of Methodist Church,
Louisville Historical Museum

Howard Moore and Don Moore are remembered as having given jobs at the Elevator to Louisville's young men. For example, Lee Evans, who was born in 1917, worked at the Louisville Grain Elevator in the mid 1930s. In his autobiography, entitled *From Happy Valley to the Mountaintop*, he wrote: "As I grew older, I worked regularly after school and on Saturdays at the elevator, shoveling grain into the chute after it was delivered. I sacked grain and loaded it into cars and trucks for customers or for delivery on the elevator-owned truck into Denver. At my highest rate of pay, I got 50 cents a day! But I grew strong with the heavy work, and by the time I was seventeen I could grab the ear of a sack and lift a one hundred pound sack of grain with each hand and pitch it from the walkway up into a truck about four feet higher" (p. 71).

Thomas Family Association and Ownership

By the time of the 1946 Louisville directory, Charles Thomas had become the manager of the Grain Elevator. Charles Thomas' wife (Iona Bowes Thomas) and Donald Moore's wife (Sadie Bowes Moore) were sisters, perhaps leading to Charlie Thomas taking over the management of the Elevator not long after the tenure as manager by Donald Moore and his father. A newspaper account states that Thomas lost one hand while working with a corn conveyor at the Elevator. By 1949, the manager had become Vance Lynn, possibly as a result of Thomas' injury. According to the 1951, 1953, and 1955 directories for Louisville, the manager was Dan Gunkel.

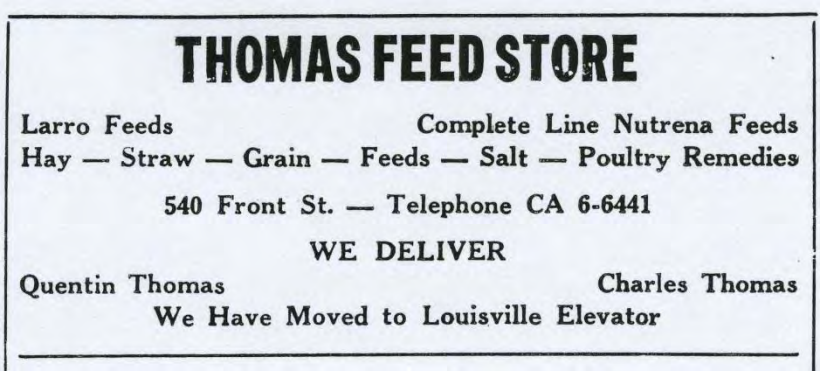
In 1957, Charles Thomas (1912-2002) and his brother, Quentin Thomas (1908-1986), who had a feed store nearby on Pine Street, purchased the Grain Elevator from the Colorado Milling & Elevator Company. The deed states that it was purchased for "$10 and other valuable consideration." This was the first time that the building became a locally owned business, after fifty years of outside ownership.

The Thomas family was a pioneer family of Louisville with varied business interests and properties. Charles Thomas and Quentin Thomas were the grandsons of Nicholas and Mary Thomas. Nicholas Thomas was from Wales and worked as a coal miner, while Mary Oldacre Thomas 's personal history includes the fact that she had worked as a chain maker as a young woman in England before marrying and coming to the United States. They immigrated from England in 1881 with their young son, Nicholas

Thomas, Jr., and came to Louisville in 1883. In 1892, Mary Thomas was one of the founders of the Methodist Church in Louisville, still located at 741 Jefferson, along with other early English settlers in Louisville. The family homes were at 733 Pine and 700 Lincoln (which, like the Grain Elevator, is listed on the National and Colorado Registers of Historic Places). Nicholas Thomas Jr. helped stated the Big Six Coal Company , which operated the Sunnyside Mine just southeast of Louisville. Nicholas Jr. and his sons formed the Ko-Z Coal Company and operated the Fireside Mine in Louisville, after which today's Fireside Elementary School in Louisville is named. It is believed that they had other coal mining interests as well. Thomas family members also operated the City Market on Main Street and moved the business to a new building on Front Street that they constructed. The Thomas family ran the City Market from the Front Street location from about 1966 until 1982. This building at 637 Front later became the location of the U.S. Post Office in Louisville and is now the location of a restaurant and ice cream shop. Another business owned and operated by the Thomas family was the Thomas Feed Store on Pine Street.

In the 1950s, and before 1957, a fire at the Grain Elevator damaged the interior. It was believed to have been caused by spontaneous combustion. Louisville volunteer firefighters Herb Steinbaugh and Tommy Cable are credited with saving the building in a risky and dramatic effort. They climbed up onto the Elevator roof in order to spray water into the tower section. A 1999 *Denver Post* article about the Louisville Grain Elevator stated that the year of the fire was 1955.

It is believed that by this time, the emphasis was on using the Grain Elevator for animal feed as opposed to purchasing wheat from wheat farmers to send to flour mills in Denver. As noted above, Quentin Thomas had operated a feed store on the south side of Pine Street facing north, on the site of today's 637 Front Street. The following 1957 advertisement dates from the Thomas family's early ownership and shows that the Thomas Feed Store had been moved to be located at the nearby Grain Elevator:


THOMAS FEED STORE

Larro Feeds — Complete Line Nutrena Feeds

Hay — Straw — Grain — Feeds — Salt — Poultry Remedies

540 Front St. — Telephone CA 6-6441

WE DELIVER

Quentin Thomas — Charles Thomas

We Have Moved to Louisville Elevator

From 1957 St. Louis Church Annual Bazaar booklet, Louisville Historical Museum

As noted in the April 4, 1999 *Denver Post* article about the Louisville Grain Elevator, "the automotive industry essentially made grain elevators obsolete, since trucks could load grain in the field and transport it." The UC-Denver report on *Eastern Plains and Front Range Grain Elevators of Colorado* states that many grain elevators were abandoned between the 1930s and 1950s for basically this reason and because of the failure of railroad companies, the droughts of the 1930s, changes in transportation and farm mechanization, and other reasons.

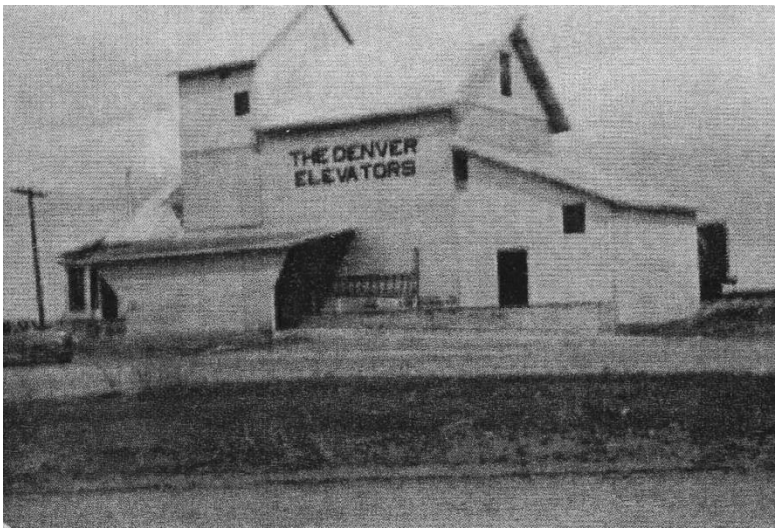
Although it is believed that the Grain Elevator was not used for the storage of grain for human consumption after the 1950s, the scales continued to be useful for weighing purposes for several more years. This usage of the building continued into at least the mid 1960s. For example, a local teen working for a Louisville farm in the 1960s regularly drove truckloads of silage to the Elevator so that the truck

could be weighed, with owner Quentin Thomas making the scales available. These scales from the Grain Elevator were later acquired by a Louisville farming family and are currently located on a Louisville farm. They are believed to have last been used on this farm in the 1990s.

According to the report by Anderson Hallas Architects, the Thomas family's feed store located in the Grain Elevator was open until as late as 1972.

County Assessor Cards

This image from the County Assessor shows the building in circa 1949-1958:



A statement written by the County Assessor's office in 1958 says "This building has been burned out on the inside but is still being used." (As noted above, this fire is believed to have occurred in around 1955.)

Placement on National Register and Colorado Register of Historic Places

In 1986, twelve historic buildings (seven residences and five businesses) in downtown Louisville were found to have met the required criteria and were placed on the National Register of Historic Places. The stated reason for the selection of the Grain Elevator was that "the elevator is historically and visually the most significant structure associated with the agricultural history of the community. Its frame construction and functional design illustrate an important resource type traditionally associated with agriculture. Listed under Louisville Multiple Resource Area and under Railroads in Colorado, 1858-1948 Multiple Property Submission."

Statements of Significance from Architectural and Historical Surveys

The survey of this building conducted in 2000 for the State of Colorado gave the following statement of significance:

> This building has been individually listed on the National Register of Historic Places. It is historically significant, relative to National Register Criterion A, for its association with the

> theme of agriculture during the first half of the twentieth century. The structure is architecturally significant, under National Register Criterion C, because it [is] one of the region's last remaining wooden grain elevators, and because of its rare stacked plank construction. The preservation of this building should be one of Louisville's highest preservation priorities.

The 1982 inventory record stated the building's special features to be "Multi-level steep gables, 50 feet high at highest gable; next to railroad track for transport" and gave the following statement of significance:

> This tall frame structure, although badly deteriorated, provides a valuable visual record of the agricultural heritage of Louisville which has been so largely overshadowed by the pervasiveness of coal mining. . . . [I]ts location near the tracks, (like the early lumber companies), pointed out the fact that Louisville had become an important distribution point for agricultural products by the early 1900's.

The 1982 inventory records also stated that "rehabilitation would help preserve perhaps the only structural link to the agricultural heritage of the town."

Past Community Discussion About and Recognition of the Louisville Grain Elevator

A 1996 *Louisville Times* article pointed to the strong support expressed by the Economic Development Committee of the Downtown Business Association for saving and re-using the Grain Elevator, and stated:

> Its roof is full of holes and its white pained is cracked and faded, but the 91-year-old elevator off Front Street is still coveted as a piece of Louisville's history.
>
> The elevator is considered one of the city's last recoverable landmarks, and a coalition of downtown business interests and historical preservationists is exploring ways to return the building to its former glory and open it to the public.

Citing the DBA's Vice President, Cheri Ruskus, the article noted that "preserving a landmark on what will be an increasingly important gateway to Louisville when the 96th Street interchange opens could mean good things for downtown business."

1998 saw the completion of "A Preservation Master Plan: Louisville Colorado." This project and document were funded by the Louisville Downtown Business Association; Historic Boulder, Inc.; the Colorado Historical Society/State Historical Fund; and Boulder County Cultural Council, Tier III SCFD. The completed plan stated that the Economic Development Committee of the Downtown Business Association recognized the potential in sites such as the Grain Elevator "for multiple uses with significant public benefit."

A 1990s *Denver Post* article stated,

> If an enthusiastic group of business owners, preservationists and architects has its way, a towering remnant of this town's rural past will someday welcome visitors to what has become a sprawling modern suburb. The group is studying the possibility of buying and

renovating the historic Thomas Grain elevator, built about 1905. Located just a block from Main Street and adjacent to a still-active railway line, the grain elevator rises above Front and Pine streets in downtown Louisville.

A *Denver Post* article from the 1990s noted that the stacked plank method of construction of the Louisville Grain Elevator is unique. The article cited James Stratis, a restoration specialist for the Colorado Historical Society, as stating that "the elevator's role in the grain transportation system and its unique 'stacked-plank' architecture make the structure a national treasure."

In 2007, the organization Historic Boulder, Inc., which is a 501c3 preservation organization focused on the Boulder area, selected the Louisville Grain Elevator for placement on its endangered list.

Boulder County installed a large photo collage at the Boulder County Courthouse within the last two years. This collage includes a historic photo of the Louisville Grain Elevator in the top center because of its strong connection to Boulder County history. Color was added to the photo to reflect the building's original color, which is believed to have been a deep red color.

In 2011, the City of Louisville awarded a contract to Anderson Hallas Architects, PC to complete a structural assessment of the Louisville Grain Elevator. The contract was for $38,000, which was funded by the City of Louisville through its Historic Preservation Fund. The report by Anderson Hallas Architects, PC, dated May 2, 2011, concluded that the building is structurally sound, barring a few areas of deterioration. The report contains recommendations for a work plan for the Elevator with several different phases and cost estimates.

Sources

The preceding research is based on a review of relevant and available online County property records, census records, and oral history interviews, and Louisville directories, newspaper articles, maps, files, obituary records, survey records, and historical photographs from the collection of the Louisville Historical Museum, as well as the following specific sources:

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"Grain elevator a silent sentinel of plains." *Denver Post*, Apr. 4, 1999.

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"New Incorporations." *Denver Post*, May 30, 1902. Accessed at www.genealogybank.com.

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http://www.ucdenver.edu/academics/colleges/ArchitecturePlanning/discover/centers/CenterPreservationResearch/research/Projects/Documents/GrainElevatorReport.pdf

Louisville Grain Elevator

Historic Structure Assessment

May 2, 2011

Anderson Hallas Architects, PC
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715 Fourteenth Street
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303.278.4378

Table of Contents
Note: Numbering follows CHS/SHF
Historic Structure Assessment Outline

		Page
0.1	**Table of Contents**	2
0.2	**Project Directory / Participants**	3
1.0	**Introduction**	
	Research Background / Participants	4
	Vicinity Map/Location Map/Site Plan	5
	Legal Description	7
2.0	**History and Use**	
	Architectural Significance and Construction History	8
	Proposed Use	9
3.0	**Condition Assessment**	
	3.0 Good/Fair/Poor Rating System	10
	3.1 Site/Associated Landscape Features/Parking	11
	3.2 Foundations	16
	3.3 Structural System	29
	3.4 Exterior Walls	48
	3.5 Roofing and Waterproofing	63
	3.6 Windows & Doors	66
	3.7 Interior Finishes	84
	3.8 Mechanical Systems	102
	3.9 Electrical Systems	104
4.0	**Analysis and Compliance**	
	4.1 Hazardous Materials Information	108
	4.2 Materials Analysis	109
	4.3 Zoning Code Compliance	109
	4.4 Building Code Compliance	109
	4.5 Accessibility Compliance	109
5.0	**Preservation Plan**	110
	5.1 Prioritized Work	111
	5.2 Phasing Plan	111
	5.3 Opinion of Probable Cost	115
6.0	**Historic Photos**	124
7.0	**Bibliography**	127
8.0	**Appendix**	128
	Floor Plans & Elevations	
	1908 Sanborn Map	
	Land Survey	
	Wood Scientist Report	
	Hazardous Material Report	

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1.1 Research Background / Participants

The purpose of this assessment is to evaluate the Louisville Grain Elevator and document the existing elements and their conditions to determine if the building is structurally sound and can be rehabilitated. This assessment is the first part of this project, the second part will explore potential future building use options at the schematic design level.

David Miller, Anne Cutrell and Kristen Craig visited the Grain Elevator January 13, 2011, to measure the building and create as built plans. The entire project team visited the site on January 20, 2011, to assess the building. Nan Anderson, Kristen Craig and Anne Cutrell of Anderson Hallas Architects documented the building elements and their condition. Tom Soell and Ian Glaser of JVA, Inc. visited the site to assess the structural systems. Ron Anthony and Kim Dugan evaluated the wood components of the building. Mike Ritter surveyed the building for hazardous materials.

1.2 Vicinity Map / Location Map / Site Plan

The Grain Elevator is located southeast of downtown Louisville, on a tract of land between County Road and the railroad tracks, south of Elm Street. The property is in the southeast corner of the Old Town Overlay District. The vicinity map, location map, and site plan are shown below.

VICINITY MAP:

Grain Elevator

LOCATION MAP:

Grain Elevator

SITE PLAN:

Grain Elevator

1.3 Legal Description

P.M. 6th Township 1S Range 69W NW 1/4 of NE 1/4 of SE 1/4 of section 8.
Town of Louisville Tract 712.

2.1 ARCHITECTURAL SIGNIFICANCE AND CONSTRUCTION HISTORY

Louisville was first settled in the 1860s and was mainly an agricultural area. The Colorado Central Railroad constructed a track through the area which became Louisville in 1872 and 1873 so six years later when the town was established, transportation was already in place. Louisville had three main economic activities – agriculture, mining and gardening. Throughout Colorado and the Front Range, agriculture was a common way to make a living and Louisville was no exception. Many farms in the area raised crops and livestock. The crops grown in Louisville were mainly corn and wheat, along with hay and straw for animal feed. In the 1870s coal was found in the Louisville area and the first coal mine opened in 1877. This mine created a population boom for the area and by 1900 there were eight mines in the area around Louisville.[1] Mines were located on the west and south edges of town and further away from town to the north and east of the railroad tracks. Coal mining in Louisville was mainly a seasonal activity – the mines operated in the fall and winter months when the demand for coal was greatest. Many of the miners gardened in the off months and sold their produce as far away as Denver and Boulder to supplement their income.

The Grain Elevator was constructed in 1908 by the Louisville Milling and Elevator Company. It had a 25,000 bushel capacity and served area farmers until its closure in the 1950s. In the 1910s and 1920s, Howard A. Moore was the facility manager and lived with his wife Zara on Spruce Street in Louisville, just west of McKinley Avenue. Donald C. Moore, who was perhaps Howard's son, managed the Louisville Milling and Elevator Company in the early 1930s. Donald Moore and his wife Sadie lived at 633 Garfield Avenue in Louisville.

In 1935 Quentin C. Thomas and Charles Thomas became the elevator operators and they purchased the Grain Elevator shortly thereafter. Charles, his wife Iona, and Quentin also owned and operated a feed store which was located approximately half a block to the north of the Grain Elevator. The Thomases were descendants of a long-time Louisville coal mining family. By the early 1950s, the Grain Elevator's name had been changed to "The Denver Elevator." The Grain Elevator stored multiple types of grain including corn, wheat and barley. A railroad spur ran adjacent to the east side of the building and grain was loaded on rail cars and transported to other areas. The Grain Elevator also sold grain to area farmers and to Louisville residents who raised chicken and goats. Local residents buying grain could come to the Grain Elevator and pick up the grain themselves or arrange for the Thomases to deliver the grain to them. Scales were located under an open shed on the west side of the building so wagons, and later trucks, could pull up and have the desired amount of grain loaded into them.

Grinding equipment was located in the basement under the north end of the building. Grain would be brought down to the grinding room through chutes and then transported back up to the top of the elevator tower through chutes and transferred into the grain bins. A small elevator ran from the basement to the fourth floor. Operators moved the elevator by sliding weights on and off the elevator at each floor. In the early 1960s a flash fire started on the second floor, but the fire department was able to put the fire out and the Grain Elevator continued to operate.

The agriculture community in Louisville quickly declined in the mid twentieth century and in the late 1960s the Grain Elevator closed and the majority of the equipment was removed. The Thomas family relocated the feed store to the Grain Elevator but in

1 Item 8 Page 2, *Louisville Multiple Resource Area National Register of Historic Place Inventory – Nomination Form*

1972 that was also closed. In 1981 the Thomas family closed their grocery store and moved the equipment into the Grain Elevator. The Thomas family still owns the Grain Elevator.

The Grain Elevator is listed as a contributing property on the National Register of Historic Places under the Louisville Multiple Resource Area and under Railroads in Colorado 1858 – 1948 Multiple Property Submission.

2.2 PROPOSED USE

The Grain Elevator is currently not in use and the purpose of this project is to explore potential reuse options for the building. Three adaptive reuse options will be developed in the schematic design phase of this project and a cost estimate created for each option. Potential uses to be explored include: office, retail, restaurant, brewpub, art gallery and multi-family housing. Another potential use of the building would be to maintain it as a restored artifact with no use.

3.0 CONDITION ASSESSMENT

The following rating system is used throughout this report to evaluate various elements of each building:

An element is evaluated as **Good** when:

- The structure, significant features or element is intact, structurally sound, and performing its intended purpose.
- There are few or no cosmetic imperfections.
- The structure, significant features or element needs no repair or rehabilitation and only minor or routine maintenance.

An element is evaluated as **Fair** when:

- There are early signs of wear, failure, or deterioration, though the element or structure and its features are structurally sound and performing the intended purpose.
- There is failure of a significant feature of the structure.
- There is failure of a sub-component of the element.
- Replacement of up to 25% of the element or replacement of a defective sub-component is required.

An element is evaluated as **Poor** when:

- The element or significant features are no longer performing their intended purpose.
- The element or significant features are missing.
- Deterioration or damage affects more than 25% of the element and cannot be adjusted or repaired.
- The element shows signs of imminent failure or breakdown.
- The element requires major repair or replacement.

An element is evaluated as **Unknown** when:

- Not enough information is available to make an evaluation.

No known archaeological resources were observed on the site, however if any ground excavations occur, an archaeologist should be contacted.

3.1 Site

View of the Grain Elevator from County Road

CATEGORY: 3.1 Site

DESCRIPTION:

The Grain Elevator is located in Louisville, on County Road, southeast of the downtown area. The building is located in Old Town Louisville – an area of town which has retained its historic character. A landmark ordinance was established in 2005 for Old Town and a Historic Preservation Fund was established in 2008 to help fund preservation projects in Old Town.

The site is the original location of the Grain Elevator, though the surrounding buildings have changed over the years. The Grain Elevator is located to the east of County Road and south of Elm Street on Tract 712. A railroad track is located east of the building and when the Grain Elevator was operational, a spur ran from the railroad to the east side of the building so the railroad cars could be loaded with grain. Today the spur no longer remains, but the railroad track is still in use. Historically the railroad track connected to the Acme Mine, which closed in 1928. See the Appendix for the 1908 Sanborn Map of the site and the 2003 Land Survey.

The site is generally flat, but slopes up sharply on the west side of the building to the first floor building entry. Where the ground slopes sharply, a wood walkway runs adjacent to the building. In historic pictures, the ground did not slope up to the first floor, instead stairs led from the wood walkway down to grade. The walkway started a couple feet north of the northwest building corner and ran along the west elevation just past the southernmost entry door on that elevation. Currently the walkway runs from the north edge of the building to the south edge of Door 5. Originally an open shed extended west from the west elevation with scales located under it so that wagons (and later trucks) could be weighed as grain was loaded into them. No evidence remains of the scales on the site, so it is likely that they were removed. In general the ground

slopes slightly away from the building and provides drainage, but on the south end the ground slopes toward the western half of the building. A concrete curb, that appears to be a more modern addition, runs along the north section of the east elevation.

The landscape around the Grain Elevator has not been maintained for some time. Three mature trees are growing on site – one on the north end of the east elevation and two on the north elevation. The tree on the east elevation is growing immediately adjacent to the building. The two trees to the north of the building are volunteer elms that are growing very close to the Grain Elevator. A young tree is growing at the northwest corner of the building. The only other vegetation growing on the site is volunteer grasses.

An overhead power line feeds into a weatherhead on the north elevation. The Grain Elevator is the last building fed from the overhead line which runs parallel to the railroad tracks north of the building. The wood power pole is located just to the north of the Grain Elevator.

A furniture warehouse is located to the southeast of the Grain Elevator. The warehouse uses the land to the east of the Grain Elevator as a drive for the loading docks. To the northwest of the Grain Elevator is a commercial building which is currently not occupied. An asphalt drive and parking area run along the south elevation of this building.

An asphalt access road runs from Elm Street to the west side of the Grain Elevator. Parking is currently available on the asphalt drive on the west side of the building or on County Road which offers parallel parking on both sides of the street. No parking area is specifically designated for the building.

No archaeological exploration was included and no archaeological artifacts were encountered during the survey but if excavation is planned, an archaeologist should be involved.

EVALUATION:

The site around the Grain Elevator is in fair condition and drains away from the building in most locations. Areas where water is not draining away from the building allow water to puddle against the building which damages the wood exterior walls. The section of the wood walkway that remains is in fair condition but is collapsing on the south end (see 3.3 Structural Recommendations).

Historically the grade around the Grain Elevator stopped below the wood but over the years has built up so it is burying the wood. The original grade can be seen in the historic photographs included in Section 6.0 of this assessment. The change in grade has caused the wood at and below the current grade level to deteriorate. (See Structural Sections 3.2 and 3.3.)

The tree growing on the east side of the Grain Elevator is growing against the building and if allowed to continue growing in this location, the root system may damage the foundation walls. The trees on the north side of the Grain Elevator are growing very close to the building. The grasses are in good condition.

When the Grain Elevator is restored, parking spaces will be needed to accommodate

visitors. A zoning study should be done at that time to determine the number of spaces necessary and the best location for them.

There is currently no site lighting.

RECOMMENDED TREATMENT:

The site should be regraded along the wood walkway so it matches the original grade as seen in the historic photos. The site should be regraded around the rest of the building to ensure it is sloping away from the Grain Elevator. When the ground is regraded or disturbed during site or foundation work, then archaeological monitoring should be provided. The portions of the wood walkway that remain and are in good condition should be maintained in their original locations, and the missing and deteriorated sections should be reconstructed.

The trees on the north and east sides of the Grain Elevator should be removed.

Lighting options should be studied to determine lighting that is appropriate for the site and compatible with the neighborhood.

Electrical pole to the north and asphalt drive to the west of the Grain Elevator

Section of the original wood walkway that remains on the west side of the building

Looking north at the Grain Elevator with the railroad tracks and warehouse on the right

Looking north at the railroad track and warehouse loading dock drive to the east of the Grain Elevator

3.2 Foundations

Grain bin walls in the basement

CATEGORY:

3.2 Foundation Systems

DESCRIPTION:

Sections 1, 2, and 3: The existing foundation is largely visible in the basement. The basement is approximately six feet tall from the bottom of the first floor joists to the dirt floor. The dirt floor approximately matches the top of continuous footing elevation. Continuous strip footings, where visible, were measured to be 6" thick by 2'-0" wide. These footings support half-height concrete stem walls. The stem walls support half-height wood stud walls around the perimeter and timber posts and beams along the interior bearing lines. Along gridline 4, full-height timber posts are supported on isolated spread footings.

In one location along gridline A and in two locations along gridline Z, the concrete stem wall is omitted where historic door openings once existed. The block-outs in the concrete stem wall are now covered with wood sheathing.

The current exterior grade elevation approximately matches first floor elevation. The historic grade elevation was approximately three feet lower, near the top of concrete stem wall elevation and with isolated areas of lower grade at the basement door openings. A boardwalk, visible in the February 8, 1916 photograph, afforded access to the first floor level door openings.

In Section 2, two interior timber posts on isolated spread footings support basement level machinery. In Section 3, four interior timber posts on isolated spread footing support the first floor in locations presumed to have previously housed heavy equipment. One of these four posts is no longer in-place.

In the central portion of Section 3, an 8'-8" x 7'-8" x 5'-0" deep pit exists. The pit

walls are unreinforced concrete approximately 7" thick. The pit floor is either dirt or a concrete slab concealed beneath the dirt.

Section 4: Four continuous strip footings running in the north to south direction support the stacked-plank bin walls. The footings measure 14" thick by 3'-0" wide. The top of footing elevation is approximately 5'-6" below the first floor elevation.

The bin floors, consisting of 3"x10" joists spaced at 5 inches, spanning east to west, bear on two untreated 3"x12" plates on top of the strip footings. The stacked-plank bin walls rest on the ends of the floor joists. The space between the joists are infilled with 3"x10" spacer blocks beneath the bin walls.

Section 5: The crawlspace under Section 5 is not accessible and is currently only visible through a small wall opening along gridline 5. A total of nine timber posts and the perimeter walls support the first floor above. Isolated footings were visible under the six northern posts at the dirt floor elevation, roughly three feet below the bottom of first floor joist elevation. Footings were not visible under the three posts along the south.

The perimeter foundation walls along gridlines A, Z, and 6 are constructed of wood studs and posts. The walls are sheathed on the exterior side with horizontal siding. The walls along gridlines A and Z are also sheathed on the interior side. Remnants of historic crawl space access openings are visible on each of the three foundation walls.

Along gridline 5, substantial wall settlement is visible along the entire length of this wall with isolated areas of failure where the studs have collapsed inward. The walls along gridlines A and Z do not show signs of movement, but various diagonal braces have been installed perpendicular to the wall plane to resist soil pressure.

The Architectural Inventory Form, (dated April 26, 2000) states that this building section has a wood timber on grade foundation. This is consistent with the substantial wall movement visible along gridline 6, signaling a deteriorated grade beam. The foundations along gridlines A and Z are likely constructed with the same materials. A small portion of concrete footing is visible along gridline A approximately 10 feet north of gridline 6. This concrete is possibly part of a later repair; a departure from the typical foundation construction on the end walls; or an isolated footing at the jamb of the crawlspace access opening.

EVALUATION:

Sections 1, 2, and 3: The existing footings where visible were in good condition and showed no signs of distress or movement. Although the 6" thick strip footings are relatively thin, they are still capable of carrying Code required gravity wall loads. The width of the footings is acceptable assuming an allowable bearing pressure of 2500 psf. However, the existing perimeter footings are inadequate to resist the rotation induced by the lateral earth pressures applied to the stem wall.

The concrete stem walls are in good condition and showed no signs of distress, cracking, or movement.

The interior wood foundation walls are in fair condition. The untreated sill plates are in contact with concrete which is not permitted by current Code. However, there were no

obvious signs of deterioration at the time of our assessment, except at one location near grid intersection 3/A noted in the Wood Scientist's report located in the Appendix.

The exterior stud walls were clearly not intended to retain soil originally and the wall is performing poorly as a result. The walls are deteriorated in some locations and deterioration would be expected to continue and become widespread if the wall is not repaired. The wood is absorbing moisture from the retained soil and wood with high moisture content is prone to decay. See the Wood Scientist's report for more discussion on wood decay. Current Code prohibits the use of untreated wood in contact with soil for this reason.

Along gridline Z, in Section 3, the full-height stud wall has failed due to a combination of overload (soil pressure) and wood deterioration. In this location, the first floor and the walls above are supported by a timber beam which spans to gridlines 3 and 4. Thus, the failed stud wall does not pose an immediate risk of structural collapse of the framing above.

Section 4: The existing footings, where visible near gridline 4, were in good condition and showed no signs of distress or movement. The footings were sized to support the weight of the stacked-plank bin walls and the weight of grain in a filled bin. Provided the bin walls remain largely intact and no more than two or three levels of floor framing are introduced in any adaptive re-use program, the existing footings should be able to remain in service unaltered.

The existing bin walls below grade range from poor to good condition. In Bins 5 and 6, severe deterioration was readily visible. In the remaining bins, the condition likely varies considerably based on localized areas of high moisture content coupled with environmental conditions favorable to promoting wood decay. Because no visible deterioration was obvious, it is assumed that the remaining bin walls below grade are in fair to good condition with only small areas of wood in poor condition requiring repair.

Section 5: The six visible isolated spread footings to the north appear to be in good condition. The remaining three isolated spread footings to the south were not visible and either never existed or have settled substantially. Their condition is poor.

The condition of the foundations along gridlines A and Z is poor since the untreated wood wall and grade beam is in contact with the soil. Wood deterioration was visible at the exterior grade elevation through a small break in the siding at grid intersection Z/6.

The foundations along gridline 6 are in poor condition as segments of the foundation wall above have collapsed and settled significantly. Since this wall supports portions of the first floor and the roof, it should be corrected immediately or temporarily shored until permanent repairs can be performed.

RECOMMENDED TREATMENT:

Sections 1, 2, and 3: If the exterior grade is returned to its historic elevation and the fill inside the basement is raised so that the difference in soil retaining heights on both sides of the wall is minimized, then the strip footings and concrete foundation walls, in general, may remain in service although isolated deficiencies will likely be uncovered during excavations that will require repair. It is also anticipated that alterations required

for adaptive re-use of the building will concentrate or change loads in some locations. In these locations, the footing will need to be strengthened or enlarged. Deteriorated portions of the wood stud foundation walls, once they are re-exposed along the exterior and no longer in contact with the surrounding soils, will require repair and replacement where deteriorated. Historic basement level door openings, will need to be infilled with concrete up to the top of the concrete stem wall.

If the grading alterations recommended above are not possible or desired, another basic foundation stabilization option exists. Details of the stabilization will be further developed during design phases after the final use of the building has been decided and in consideration of costs, durability, and other site constraints. The general approach would be as follows:

After excavating around the perimeter of the building to the bottom of the existing footing elevation, the first floor would be shored so that the existing untreated wood foundation walls could be removed. These walls would be replaced with concrete infill walls or preservative-treated wood stud walls and sheathing. The new walls would need to be anchored to the top of the existing stem wall and the first floor diaphragm. The existing concrete wall and footing would need to be augmented with a doweled footing extension and periodic counterforts to resist the lateral earth pressures. After the new wall assembly is constructed, appropriate waterproofing materials would need to be applied to the exterior side of the wall.

The four isolated posts and footings in Section 3 may be removed if office use first floor loading is anticipated. They may also remain if assembly occupancy or large concentrated loads on the first floor are planned. One of the four timber columns will need to be reset. The existing pit in Section 3 should be backfilled to minimize potential settlement of the Section 4 bin strip footings if the pit were to deform.

Section 4: No treatment to the bin footings is required. Note that if extensive alteration of the bin walls (i.e. punched openings) and/or significant recruitment of the bins wall for the lateral force resisting system is proposed as part of the adaptive re-use program, it will tend to concentrate load in discrete locations along the length of the existing strip footing. Large concentrated loads will require that the footing be strengthened in these locations.

In Bins 5 and 6, the severely deteriorated portions of the walls require replacement. Needle beam shoring may be required above the deteriorated areas. The deteriorated areas should be removed back to competent, dry material and replaced, ply-by-ply. Until repairs are made, the area between Bin 5 and Bin 6 should be periodically inspected. It may be prudent to shore the bin walls above this deterioration to prevent localized collapse until repairs are completed.

In the remaining bins, the extent of stacked-plank deterioration requiring replacement should be quantified by resistance boring from the interior of the bins. After the bins have been cleaned and the exterior walls currently below grade are exposed during excavation, the condition should also be visually assessed prior to recommendation of final repairs. It is assumed that small areas of the bin walls below grade will require replacement.

Along gridlines A and Z, the exterior grade should be removed so that the stacked-plank

wood bin walls are not in contact with the surrounding soils. If this is not possible, the grade should be excavated to the footing elevation so that deteriorated areas of the wall can be removed and replaced. Prior to backfilling, the exterior side of the walls should be surfaced with an impervious waterproof membrane. Reinforcement, if required, to resist the soil pressures could be installed on the exterior side of the wall and be constructed with preservative treated lumber.

Section 5: The soil around the six isolated spread footings to the north should be removed around the base of the timber columns to prevent potential deterioration to the column bases. The footing capacities can be determined once their size is determined, the nature of the first floor loading is determined, and the allowable soil bearing capacity is established.

The three isolated spread footings to the south, if existing, should be removed. New footings should be cast integrally with the new stem wall recommended along gridline 6. Pilasters can be introduced along the stem wall that support the first floor girders in-lieu of replacing the timber posts.

The first floor and stud walls along gridlines A, Z, and 6 should be shored and the existing untreated wood foundations removed. The foundations should be replaced with a concrete stem wall and continuous strip footing. A difference in exterior and interior grade elevations may be maintained by connecting the top of the new concrete stem wall to the first floor diaphragm.

CATEGORY: 3.2b Perimeter Foundation Drainage

DESCRIPTION: There is no known perimeter drainage system and it would have been unlikely to have been installed at the time of construction.

The exterior grade elevation is approximately equal to the first floor elevation along the north, east, and south sides of the building. Along the east elevation, a concrete curb divides the soils from the exterior wall and diverts surface drainage away from the building edge to the south. The depth of the curb is unknown but is expected to only be a few inches below the surface. Along the north and south elevation, the grade generally slopes away from the base of the building although a depression is centrally located along the north wall. Along the west elevation, the outlying grade is lower and is bermed up to the first floor elevation. This condition clearly diverts surface runoff away from the building envelope.

EVALUATION: Although the current grading appears to slope away from the building in most locations, the soil is still capable of wetting and transferring moisture into the wood foundation walls.

RECOMMENDED TREATMENT: The foundations appear stable and no signs of water infiltration were visible in the basement which indicates that a perimeter drain may not be appropriate.[1,2]

The final grade around the building perimeter, no matter of the elevation, should be sloped away from the building at least 2% to encourage surface runoff to migrate away from the foundation walls as recommended in Section 3.1 Site.

Until foundation stabilization and grading is complete, the interface between the existing curb and building's sheathing should be maintained to prevent water from infiltrating the joint. Snow that accumulates along the base of the building should be removed rather than allowed to melt while in contact with the building's wood materials. The grade depression along the north wall, potentially trapping water, should be corrected.

Footnotes:

1. The groundwater elevation and the in-situ soil characteristics are unknown. A Geotechnical Engineer's Report will be required to design foundation repairs and that Report should also asses the suitability of a perimeter drain. Since the building's perimeter grade will be excavated during foundation stabilization operations, a perimeter drain could be installed at that time for little additional cost. Perimeter drainage would minimize the possibility of saturated soils increasing the lateral earth pressure on the foundation walls, the periodic increases in moisture in the basement, and moisture changes at the footing depth that may lead to settlement.

2. The Code requires that wood foundation walls enclosing usable spaces below grade be adequately drained.

Attachments:

A. Sheet S1.0 in the Appendix.

Section 1: Foundation wall at grid intersection Z/1

Section 2: Foundation wall along grid 3; basement stair, wall sheathing deterioration along grid Z

Section 2: Foundation wall along grid 2 and grid Z; machinery supports posts and footing

Section 3: Foundation wall along grid Z near grid 3; wall failure along grid Z

Section 3: First floor support posts and footings; foundation along grid A beyond

Section 3 & 4: First floor framing beam and joists along grid 4; flared bins wall beyond along building centerline

Section 4: Edge of Bin 1 footing at grid 4; concrete pit in foreground

Section 4: Underside of Bin 4 floor along grid Z

Section 4: Southwest corner of Bin 5 wall deterioration near exterior grade elevation

Section 4: Bin 5 wall detail view of deterioration, plank plies, and nails

Section 5: Foundation wall along grid A and grid 6; crawlspace access opening remnant; diagonal bracing

Section 5: Failed foundation wall along grid 6

Section 5: Settled stud wall and roof framing along grid 6

3.3 Structural Systems

Roof structure and grain chutes in Section 4

CATEGORY: 3.3 General Structural System Description

DESCRIPTION:

Demolition was not performed during the building assessment visit and thus only areas readily visible were assessed. However, the majority of framing assemblies were visible as most of the building's interior is unfinished. The primary exceptions to this were the Section 1 basement and wall framing, and the Section 5 crawl space which were not readily accessible or visible.

The original construction drawings are not available nor does documentation describing any repairs, alterations or additions exist.

Note that this report departs from the Architectural Inventory Form (dated April 26, 2000) convention for describing the distinct building sections. In this report, the sections are described by number, with Section 1 starting at the north and ending with Section 5 at the south. Structural findings and recommendations are referenced to section numbers, room numbers, and gridlines per the drawings in the Appendix which were developed as part of this assessment.

The structure contains five distinct sections demarcated by their construction type, height and historic use. There are multiple floor levels in the approximately 48 foot tall Section 3, the tallest portion of the building. A full basement exists under Sections 1, 2, and 3.

Roof framing consist of sloped wood rafters bearing on interior dropped purlins and stud walls or bin walls on the exterior.

Sections 1, 2, 3, and 5 are conventional light-framed wood construction. The

floors are constructed of 2x and 3x joists with wood floor sheathing. The walls are constructed of 2x studs surfaced with horizontal wood siding. The first floor level of Section 3 is framed with timber posts and beams.

Section 4 is constructed of stacked-plank wood walls which form the six grain bins. There are similar stacked-plank walls on the third level of Section 3.

A mixture of foundations and foundation wall types exist and are described in Section 3.2 in this report.

All wood joists, studs, beams, and post sizes measured corresponded to typical dressed sizes. As such, lumber is referred to by its nominal size in this report. The wood species of the framing elements in Sections 1, 2, 3, and 4 has been identified as Douglas-fir. The wood species in Section 5 has been identified as a mixture of Douglas-Fir and Western yellow pine. Please refer to the Wood Scientist's Report in the Appendix for more details.

Detailed structural system descriptions are found elsewhere in this report.

EVALUATION:

The building structure below the first floor is in poor condition. The building from the first floor and above is generally in fair condition. Selective strengthening of the framing systems will be required to address fire damaged members and localized framing areas having calculated overstresses.

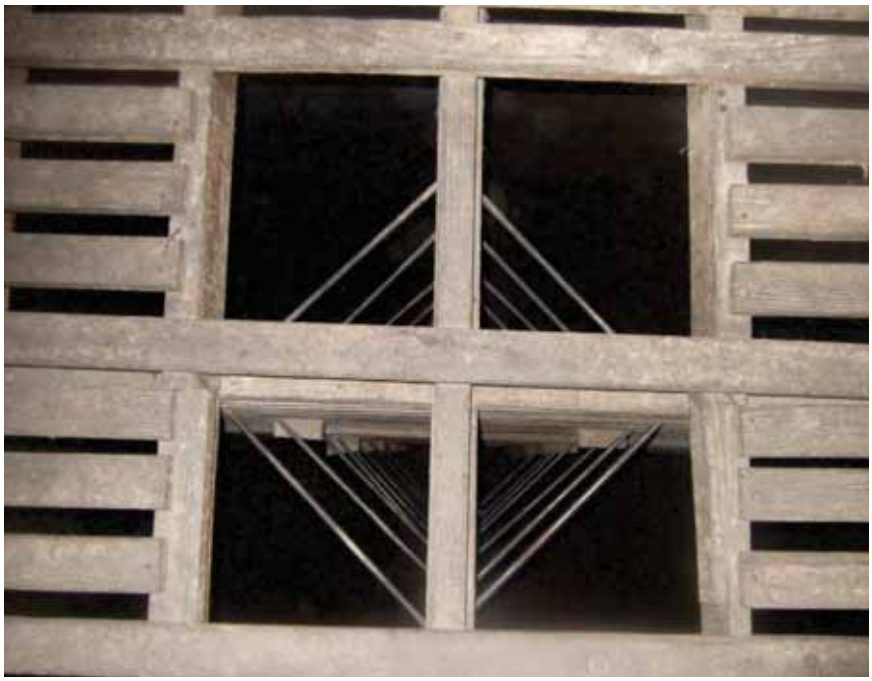
The structure is currently a "U" or utility occupancy. The proposed use will result in a classification that, per IEBC Table 912.4, represents an increase in hazard category. The occupancy category also increases from I to II per IBC Table 1604.5. This triggers a number of structural upgrade provisions in Section 907 of the IEBC. Per 907.2, the existing building shall be analyzed and comply with applicable wind or snow load provisions of the IBC. Per 907.3.1, the existing building shall conform to the seismic requirements of the IBC for the new seismic use group. This will require that the roof framing and lateral force resisting systems be strengthened to comply with current Code.

The final use of the building has not been determined. However, where the proposed use results in an increase in live load, the capacity of the floors and their supporting elements will have to be determined and strengthening will be required where they are found deficient.

RECOMMENDED TREATMENT:

See detailed structural system descriptions for recommended treatments.

3.3 Structural Systems



Looking down at the ladders leading from the fifth floor into the grain bins

CATEGORY:

3.3a Floor and Ceiling Systems

DESCRIPTION:

Section 1: The first floor is framed with 2”x8” joists spaced at 16 inches spanning in the north to south direction. The joists bear on wood stud walls along gridlines 1 and 2. An interruption in the floor framing exists where a basement stair exists and is now abandoned. The floor opening has been sheathed over.

The first floor ceiling is framed with 2”x6” joists spaced at 16 inches spanning in the north to south direction. The joists bear on wood stud wall along gridlines 1 and 2 and are surfaced on their underside with finishes. No other ceiling finishes exist in the building.

Section 2: The first floor is framed with 3”x12” joists spaced at 16 inches spanning in the north to south direction. The joists bear on a timber post and beam cripple walls along gridlines 2 and 3. An interruption in the floor framing exists at the basement stairs.

The second floor is framed with two bays of 2”x8” joists spaced at 24 inches spanning in the east to west direction. The joists bear on wood stud walls along gridlines A and Z and a central bearing line that equally divides the two bays. The central bearing line was a wood stud wall, but it has been removed. The existing top plate remains in place and is supported in three places by wood props. The second floor framing is fire damaged.

Section 3: The first floor is framed with 3”x12” joists spaced at 16 inches spanning in the north to south direction. The joists bear on a timber post and beam cripple wall

along gridline 3 and timber posts and beams along gridline 4. Four isolated posts with wood 'corbels' are spaced roughly equidistantly in a rectangular pattern beneath the center of the bay. It is assumed these additional floor supports accommodated machinery historically stored on the first floor of Section 3. One of the four posts in no longer in place.

The third, fourth, and sixth floors are also framed with 3"x12" joists spaced at 16 inches spanning in the north to south direction. The joists span the full bay width to bearing lines along gridlines 3 and 4. The floor joists on all three floors are fire damaged. The maximum depth of char measured is 9/32 inches. Multiple interruptions in the floor framing exist around chutes, machinery, stairs, and ladderways. The sixth floor is an approximately 8 feet wide centrally located mezzanine with open areas to the east and west.

Section 4: The bin floors, consisting of 3"x10" joists spaced at 5 inches, spanning in the east to west direction, bear on 3"x12" plates over the existing continuous footings. The bin floor joists are presumed to be wood sheathed, but the flooring materials were not visible beneath the existing grain and detritus.

The fifth floor is approximately 10 feet wide, centered over the bins below, with open areas to the east and west. The floor framing consists of 2"x8" joists at random spacing spanning approximately 9 feet in the north to south direction to the bin stacked-plank walls. The flooring is flat 2"x4" gapped boards. Six small openings in the flooring provide access to each bin via ladderways.

Section 5: The first floor is framed with 2"x10" joists, spaced at 16 inches, running east to west, and spanning a maximum of 10 feet. The floor joists bear on the foundation walls along gridlines A and Z at the exterior and lap over three-ply 4"x12" dropped timber beams on the interior. The beams are each supported by three 8"x10" timber posts.

The three timber posts along and nearest to gridline 6 have failed. Two of the posts have fallen down and the center post has noticeably settled. Along the western bearing line, the south end of the dropped beam has fallen down to the crawlspace floor. The south ends of the two other bearing lines have moved downward approximately 6 inches to 1 foot. The floor joists have also displaced downward sympathetically with the displaced beams.

EVALUATION:

All Sections: The approximate load carrying capacities of the floor framing systems were calculated based on the member size, approximate span, wood species, and an assumed grade. Fire damaged member sizes were adjusted based on the maximum depth of char measured, subtracted from three faces of the member.

The Wood Scientist's findings indicate that the likely grade of the building's wood framing as a whole is #3. Where the lumber grade was assessed, the percentage of members not meeting grade ranged from 10 to 20 percent. Utilizing the estimated grade of #3 in design calculation reduces the calculated joist capacities by approximately 40% compared to a grade of #2. Since this difference is considerably penalizing, a grade of #2 was utilized for estimated framing capacities. The use of the better grade in design calculations is coupled with the assumption that the

small percentage of joists that do not meet the requirements of #2 grade can be individually replaced or sistered and consequently minimize the amount of intervention required to stabilize and reoccupy the structure.

There are a number of existing interruptions in the floor framing and alterations (i.e. notches) to the floor joists. These framing anomalies were not considered in the determination of the approximate floor capacities.

In general and under the above assumptions, the floor framing is robust and has the calculated capacity to support office loading and in some places higher occupancies such as assembly. The existing floor joist sizes and spans are generally appropriate for their historic intended function in a light industrial facility. See the evaluations below, where departures from the above generalization are noted.

Section 1: The first floor framing is in good condition and has the capacity to support residential or office uses. The ceiling framing is capable of supporting new finishes and fixtures.

Section 2: The first floor framing is in good condition and has the capacity to support any of the proposed uses for the building excepting storage or other unusually high loads. The second floor joists are in poor condition and are overstressed under live loads in excess of 20 pounds per square foot, but the floor capacity as a whole is limited by the intermediate bearing line which presently has no excess calculated load carrying capacity.

Section 3: The first floor framing has the capacity to support any of the proposed uses for the building excepting storage or other unusually high loads. The third, fourth, and sixth floors, are hindered by their loss of section due to fire damage. But, these fire damage floor systems are still capable of supporting office loads.

The capacity of the timber post and beam framing system is outside the scope of this report, but the member sizes appear adequate for office uses. No signs of deterioration or distress were observed. The charring observed does not substantially affect the uses of the floors structurally.

Section 4: The bin floors appear to be in good condition and have very high load carrying capacity congruent with their historic purpose of supporting up to 30 feet of grain. The existing floor sheathing over the grain bin floors is assumed to have areas of deterioration as moisture has likely been trapped by the historic silage or existing detritus. The condition can be considered between poor and fair.

The fifth floor is in good condition and is capable of supporting approximately 50 pounds per square foot which is adequate for an office use.

Section 5: The first floor framing is in poor condition as the southern half of the floor has failed or nearly failed where the south ends of the dropped beams have been undermined. Once the foundation walls are repaired and the posts and dropped beams are re-supported, the first floor framing will have the calculated capacity to support any of the proposed uses for the building including light storage.

RECOMMENDED TREATMENT:

All Sections: Once the intended uses of the various floor sections are determined, the floor framing should be selectively strengthened as required to meet Code requirements for that use. Some floor areas will require strengthening while other areas will not.

Wood joists and beams should be graded individually by a qualified wood grader. Members not satisfying requirements for #2 grade will likely require replacement or strengthening. This approach requires that the lumber with grade limiting defects be identified by a qualified grader but allows the structural intervention to be minimized to only those members which absolutely require it.

All framing anomalies such as deeply notched joists and inadequately framed floor openings should be repaired.

Section 1: The first floor framing around the abandoned stair opening should be evaluated as it is not currently visible. Minor repairs should be expected. No treatment of the first floor ceiling is required.

Section 2: Minor strengthening of the first floor framing around the basement stair opening are warranted. The second floor joists have little excess load carrying capacity and are charred. The second floor framing should be removed and replaced with a system that meets the adaptive reuse programming needs.

Section 3: The basement level post should be reset between the existing spread footing and wood 'corbel'. Some additional posts or stud infill should be expected beneath the first and third level timber beams along gridlines 3 and 4. The extent of upgrades to these bearing lines will depend on the occupancy programmed for the four levels above.

From a structural point of view, the third, fourth, and sixth floor framing may remain in place, since the floors have moderate load carrying capacity despite the fire damage. However, the burnt lumber's odor, color, and texture may necessitate that the framing either be removed and replaced or the charred outer portions of the members be scraped off. The floor sheathing on these levels should be removed and replaced.

Section 4: Once the detritus is removed, the bin floor joists and floor sheathing should be investigated to identify deterioration. Deteriorated portions of the floor sheathing, and floor joists if occurring, should be removed or epoxy consolidated. If the floor is to be occupied, the floor sheathing will likely require replacement.

No treatment is recommended to the fifth floor in order to stabilize the building. If live loads exceeding 50 pounds per square foot are programmed, then selective member strengthening should be expected.

Section 5: The ends of the three dropped beams along gridline 6 should re-supported on new timber posts or on pilasters along a new foundation wall. Anchorage should be provided from the dropped beams to all points of support.

Section 1: First floor framing bearing on wall along grid 2; wall beyond on grid Z

Section 2: First floor framing bearing on wall along grid 2

Section 2: West bay of second floor framing

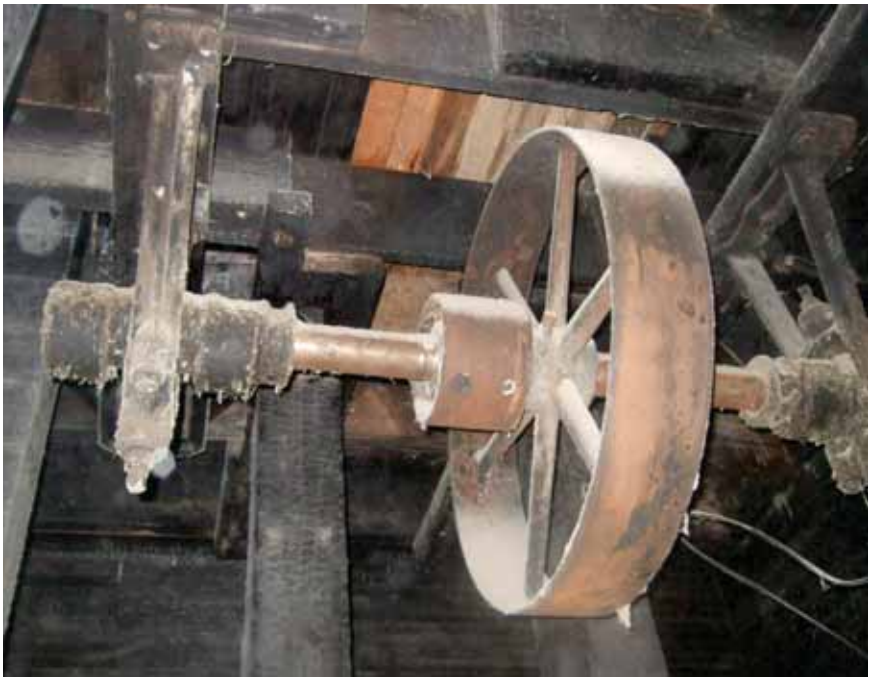
Section 2: Removed bearing wall supporting second floor framing with wood prop

Section 3: First floor framing bearing on wall along grid 3

Section 3: First floor framing, wood post and 'corbel'

Section 3: Southeast corner of third floor framing bay

Section 3: Fourth floor framing; stacked-plank Chute 'partitions' below



Section 3: Fourth floor framing interrupted for machinery

Section 3: Sixth floor mezzanine framing with notch

Section 4: Underside of Bin 1 floor framing

Section 4: Fifth floor framing, looking south

Section 5: First floor framing, looking south

3.3 Structural Systems

Stacked boards supporting roof structure

CATEGORY: 3.3b Roof Framing System

DESCRIPTION:

Section 1: The shed roof is framed with 2”x6” sloped rafters, spaced at 16 inches, and sheathed with horizontal board sheathing.

Sections 2 and 3: The gable roofs are framed with 2”x6” rafters spaced at 24 inches. The rafters are supported by three-ply 2”x8” dropped purlins and the stud walls along gridlines A and Z. At the peak, the rafters abut one another; there is no ridge board. Horizontal skip sheathing is surfaced with plywood which was apparently added after the fire. The 2x framing and skip sheathing are fire damaged.

Section 4: The gable roof is framed with 2”x6” rafters spaced at 24 inches. The rafters are supported by a 2x ridge board, 6”x8” dropped purlins, and the stacked plank walls along gridlines A and Z. The purlins are supported by 6”x6” posts at their ends on gridlines 3 and 4, and in two intermediate locations that align with the stacked-plank walls that divide the bins. Four lines of 2x collar ties approximately 9 feet above the fifth floor elevation are spaced at 6 feet. Horizontal skip sheathing is surfaced with corrugated sheet metal roofing. There is no ceiling and the chutes that serviced the bins remain in the open space.

Section 5: The shed roof is framed with 2”x8” sloped rafters spaced at 24 inches spanning north to south. The northern bay is supported by a ledger along gridline 5 and a dropped four-ply 2”x8” girder. The southern bay is supported by the dropped girder and the stud wall along gridline 6. The dropped girder is located midway between the gridlines 5 and 6 and spans in the east to west direction. It is supported by 8”x8” posts at mid-span and at its ends on gridlines A and Z. The rafters are sheathed with corrugated sheet metal roofing over horizontal skip sheathing.

EVALUATION:

The roof framing is in poor condition. In general, the rafters and purlins do not have the calculated capacity to support Code required snow load. Since the roof elevation of each building section is different, snow drift loads affect all of the roofs except in Section 3.

The skip sheathing in Sections 2, 3, 4, and 5 does not provide the Code required diaphragm capacity to resist and distribute lateral loads.

RECOMMENDED TREATMENT:

Section 1: The rafters at the high end of the roof are subject to increased snow loads due to drifting and should be sistered. Since there is no accessible attic space, this work will require that either the ceiling finishes or the roof sheathing be removed to perform this strengthening work.

Sections 2 and 3: The roof framing and sheathing should be replaced since it is fire damaged and has inadequate capacity. The replacement framing can generally mimic the existing framing although larger framing members and/or tighter spacing will be necessary. Ridge beams will be required to eliminate rafter thrust since collar ties will interfere with the floor spaces. (The second floor diaphragm in Section 2 is several feet below the eave elevation. The sixth floor diaphragm in Section 3 does not extend to the eaves on gridlines A and Z.) One layer of plywood roof sheathing will satisfy diaphragm requirements.

Section 4: Selective strengthening of roof framing is required to bring the roof into conformance with Code. Member sistering and/or replacement as well as connection strengthening should be expected. Various roof sheathing, insulation, and roofing material assemblies can be developed which allow the roof structure to remain exposed if desired, provide space for insulation, and address structural diaphragm concerns.

Section 5: The ledger connection along gridline 5 should be repaired. This will likely require that the existing ledger be shored and jacked into position flush against the stacked-plank wall and thru-bolted at regular spacing. The rafters in the north bay are subject to snow drift loads and will require sistering. Alternatively, additional rafters could be added between existing rafters to decrease the rafter spacing. The rafters in the south bay require no treatment. The dropped girder supporting the rafters has inadequate capacity to resist Code loading and should be strengthened, replaced or two additional supporting columns should be introduced. A new layer of plywood sheathing should be installed or other materials that provide diaphragm capacity can be considered.

Section 1: Shed roof framing and flat ceiling framing, looking north at grid 2

Section 2: Gable roof rafters over dropped purlin, looking south at grid 4

Section 2: Gable roof rafters at eave bearing on top of stud wall along grid Z

Section 3: Gable roof rafters over dropped purlin

Section 4: Gable roof rafters over dropped purlin on east side

Section 4: Gable roof rafters at eave bearing on top of stacked-plank wall along grid Z

Section 5: Shed roof rafters at eave birdsmouthed over stud wall on grid 6

Section 5: Shed roof rafters bearing on ledger along grid 5 and on dropped multi-ply dropped girder

3.4 Exterior Wall Structure

Grain bin stacked plank walls

CATEGORY:

3.4 Exterior Wall Structure

DESCRIPTION:

Sections 1, 2, 3, & 5: The exterior walls are light-framed stud walls. 2x6 studs are spaced at 16 inches and surfaced on the exterior with horizontal siding. In Section 3, intermittent 2x diagonal bracing is nailed to the inside face of the wall studs. The first level walls in Section 3 are stud infill between the existing timber beams and are stacked-plank on the third level. Many of the wall studs in Section 3 have experienced scorching due to the fire. Except in Section 1, there is no insulation between the studs and there are no finishes applied to the inside face of the studs.

Section 4: The exterior walls are constructed with 2x stacked planks. At the top of the walls, the planks are 2x4s. Roughly 6 feet below the top of the walls, the planks transition to 2x6s and continue to the bin floors at this width. The central bin wall that runs in the north to south direction and divides the three eastern bins from the three western bins, transitions from one wall to two walls roughly at the first floor elevation. There is crawlspace access between and below these flared walls. The lengths of the planks varies, so that splices in the plies are lapped with the plies above and below. The plies were nailed together as the wall was constructed; the nails are exposed in the deteriorated areas between Bin 5 and Bin 6. The stacked-plank plies alternately lap at the bin wall corners. Along the exterior walls, the end grain of alternating dividing wall plies are visible. In all of the bins, except Bin 6, stacked-plank sister walls exist at their bases on the interior side.

EVALUATION:

The exterior walls below grade, evaluated previously in this report, are in poor condition, The exterior walls from the first floor and above are in fair condition. The 2x6 stud walls and stacked plank walls are generally capable of resisting Code required gravity loads

and out of plane wind loads. The stacked plank walls are particularly robust since they had to resist the lateral pressures imparted by the stored grain or silage.

However, some areas of localized deficiencies do exist. In the upper level of Section 3, the wall studs along gridlines A and Z span approximately 11 feet from the fourth floor to the roof eave. The top of the stud wall is not braced where it terminates and supports the rafters since the sixth floor does not extend to the east and west walls.

In Section 5, the wall studs along gridlines A and Z vary in height from approximately 12 feet to 20 feet. The taller studs to the north do not meet current Code for resistance to out-of-plane wind loads.

In Section 4, the stacked-plank bin walls have localized areas of deterioration described elsewhere in this report. This deterioration is almost entirely isolated to portions of the walls currently below grade. The sister walls in the bases of the bins are believed to have been installed sometime after the original construction to address either wood decay or increased lateral earth pressures.

The existing walls also must resist in-plane wind and seismic loads and transmit those loads to the building foundations. The stacked-plank walls have the capacity to resist these loads. However, the horizontal siding on the stud walls and the intermittent 2x diagonal bracing in Section 3, are generally inadequate to resist the in-plane Code prescribed wind and seismic forces. Wall chords and anchorage are also insufficient to resist overturning forces. Drag elements along the interfaces with the stacked-plank walls along gridlines 4 and 5 are undersized to allow load sharing between Section 3, 4, and 5.

RECOMMENDED TREATMENT:

In Section 3, the top of the stud walls along gridlines A, Z, and 3 should be braced. This can be accomplished by adding strongbacks to the inside face of studs at the top of the wall or extending the sixth floor framing and sheathing to meet the walls at the east and west sides of the building. Studs that have experienced pillowing or alligatoring due to the fire should be removed and replaced.

In Section 5, the tall studs along gridlines A and Z should be sistered with new studs. Because the studs are not interrupted by an intermediate plate, these sisters can be easily installed.

In Section 4, the deteriorated areas of stacked-plank construction should be removed and replaced as noted elsewhere in this report.

In order to bring the existing lateral force resisting system into compliance with current Code, alterations will need to be made to the existing stud walls. These alterations would include installing a layer of plywood sheathing on a portion of all of the perimeter walls and the walls along gridlines 2 and 3. This sheathing would typically be installed on the inside face of the studs and be concealed by new finishes. Blocking between studs will need to be installed at plywood panel edges in heavily loaded walls. Stud packs and holdowns anchors will be required at the ends of all designated shear walls. Footing augmentation should be expected at the ends of all designated shear walls to resist overturning forces. The selective addition of collector and drag elements should also be anticipated.

Once the final use of the building has been determined, the required alterations to the lateral force resisting system can be developed. Not all of the walls in the building require the alterations noted in the paragraph above, just those portions of walls designated by the designers to be recruited to work in the lateral force resisting system. Segments of designated shear wall should be expected along gridlines A, Z, 2, 3, and 6. A shear wall should be installed on the first level along gridline 3 since currently there is no line of resistance at this location and this is clearly a weak link in the existing system. Since the stacked-plank walls in Section 4 have considerable in-plane lateral capacity, they can be employed to resist portions of the loads which might otherwise be resisted by new sheathed walls in Sections 3 and 5. This will require strengthening of the connections to the floor and roof diaphragms along gridlines 4 and 5. The amount of load redirected to the stacked-plank walls will need to be carefully balanced with desire to minimize the overturning forces induced in the stacked-plank walls that would trigger adding holdown anchorage to the bin walls and footing underpinning beneath the bins.

These modifications all potentially impact the appearance of the building and would be carefully designed to minimize that impact. There are numerous other solutions which can be explored to meet Code and minimize the impact to the historic fabric of the building. Diagonal or cross bracing with wood or steel rods may prove to be a more desirable solution than sheathing walls in terms of both cost and aesthetic impact.

Section 3: First floor exterior wall along grid Z; stud infill at timber post and beam framing

Section 3: Fourth floor exterior wall along grid 3 and grid A; 2x diagonal bracing lapped over wall studs

Section 3: Sixth floor exterior wall along grid 3 and grid A; unbraced wall hinge at break in studs

Section 3: Exterior wall with horizontal siding and 2x diagonal bracing lapped over wall studs

Section 4: Stacked-plank bin wall along west elevation, lapped plies at cross dividing wall corners

Section 5: Exterior wall studs along grid Z at grid 5; roof ledger along grid 5

Section 5: Roof ledger along grid 5 and underperforming anchors into stacked-plank wall

3.4 Exterior Walls

West elevation

CATEGORY: 3.4 Exterior Walls

DESCRIPTION:

The Grain Elevator is rectangular in plan, measuring approximately 88' x 28', with the front façade on the west side. The building outline is rectangular with the exception of a small jut out on the north end of the west elevation which is original to the building. The Grain Elevator is composed of five sections, each with a different height and roof. Section 1 is the section furthest north and the numbers progress to the south. (The sections are labeled on the west elevation, Sheet 4.0 in the appendix.) The northern and southern most sections have shed roofs, and the middle three sections each have a gable roof. The three north sections have wood tongue and groove siding, the southern most section has shiplap wood siding. The section in the middle, containing the grain storage bins, has stacked wood planks. The process of stacking boards horizontally with the broad sides together is called cribbing and was a common construction technique for grain elevators.

The three northernmost sections of the building are clad with wood tongue and groove siding with 5 1/8" exposure. The exception to this is Section 3 which has faux-shingle siding on the top third of the north, east and west elevations, though this appears to have been installed over the historic siding which is visible on the interior of the building. On all three sections the underside of the rafters are exposed where they extend from the building and the rafter tails are covered by fascia boards. Corner boards are nailed onto the northeast corner of the building. Historic photos do not show corner boards on the northwest edge of the building and there is no physical evidence that any ever existed. The siding, fascia and corner boards are painted white, though the paint is worn away and peeling. In the historic photo, the siding appears to have been painted a dark color and a sign showing a feed bag was painted on the west elevation of Section 3. A metal spout with a chain running along either side extends out

from the wall one third of the way up the east elevation of Section 3. The lower section of the spout appears to be newer than the section that extends from the building. This spout was likely used to pour grain into the railroad cars on the spur that ran adjacent to the building.

Section 4 contains the grain bins. There is no exterior cladding on this section, so the cribbed boards are visible. Since the boards are stacked with the broad sides together, the exterior edge of each board is 1 5/8". Two-by-six boards were used for the lower section of the bins and about two-thirds of the way up it switches to two-by-four boards. The boards are nailed together and interlock at the corners of the bins, so the bin divisions read through to the exterior. The boards have been painted white, though the paint is peeling and worn off. The lower ten feet of the east elevation has graffiti spray painted over the white paint. The historic photo shows a sign that says "The Louisville M.&E. Co FEED GRAIN & GRINDING" on the upper half of the west elevation. A chute extends out of the middle grain bin on the west elevation. At the joint between the southern two bins on the west elevation, a number of boards are deteriorated at grade level. Since Section 4 is taller than Section 5, part of the south bin wall is visible on the exterior. The stacked boards end at the top of the bins and above that the exterior wall is clad with corrugated sheet metal panels.

Section 5 is clad with shiplap siding, which has either shrunk so most boards are no longer overlapping or was not installed in the traditional manner with overlapping edges, but was instead installed with the bottom edge of one board abutting the top edge of the next board. The siding averages 5 ½" wide. On the west elevation, corrugated sheet metal has been nailed over the siding at grade level. Corrugated sheet metal panels have been nailed over the siding on the east half of the south elevation from grade level up to the rafter tails. The corrugated panels wrap around to the southeast corner of the building and cover three quarters of east elevation of Section 5. For the most part, the siding is not painted, though there are still faint hints of red paint on the wood in some areas. The corrugated metal panels are not painted, though there is graffiti on some of the panels on the east elevation.

The historic photo shows an open shed that extends out to the west of the building from the middle of Section 2 to the middle grain bin. The west wall of the shed was clad with tongue and groove siding that matched the siding still in situ on Sections 1, 2 and 3. No elements of the shed remain.

EVALUATION:

The siding on Sections 1, 2 and 3 is in fair to poor condition. There are a few areas where deterioration is visible on the exterior and a large percentage of the siding has fire damage on the interior side. The siding has been damaged on the north end of the east elevation and plywood has been nailed up to protect that area. The fascia boards are in fair to poor condition, with some boards splitting and peeling away from the rafters.

The stacked exterior boards on Section 4 are generally in good condition, with the exception of the area on the west elevation where boards are missing and deteriorating. The south end of Section 4 that is currently clad with corrugated metal panels historically had wood siding.

The wood siding on Section 5 is in poor condition. The wood is deteriorated and

splitting apart in many locations and not longer laps to create a weather barrier. On the west elevation, the siding to the north of the door is seriously deteriorated so a piece of plywood has been nailed up to cover the holes in it. On the south elevation the bottom four feet of boards, not covered by metal panels, are significantly deteriorated and some boards are missing. The southwest corner of the building has been run into by trucks that tore through the corrugated metal panels and damaged the wood in two places. The corrugated metal panels are peeling off of the east elevation in several places.

With the exception of Section 5, the Grain Elevator is currently painted white, though the paint is peeling. The paint on Section 5 is significantly deteriorated but the paint that remains is red. In the historic photos, the siding, with the exception of the building sign it appears to have been painted red or reddish brown.

RECOMMENDED TREATMENT:

On Sections 1, 2 and 3 damaged and deteriorated siding should be replaced with wood siding to match the existing. The faux-shingle siding should be removed and replaced with tongue and groove siding to match the historic. The fascia boards that are deteriorated or warped should be replaced in-kind.

Section 4 should be repaired per the structural recommendations for the grain bins. The corrugated metal panels should be removed from the south end and tongue and groove siding should be installed to match the siding found on Sections 1, 2 and 3.

The siding on Section 5 should be replaced with shiplap siding. The siding should have 5 ½" exposure to match the current.

The building should be painted a red or reddish brown to return it to its historic appearance. The exact color cannot be determined from the historic photographs. A paint analysis should be done to determine the paint color on Section 5. When the faux-shingle siding is removed from Section 3, if any original siding remains underneath, it may have remnants of the original paint color which should be included in the paint analysis. The historic sign should be repainted on the west façade.

South elevation

East elevation - southern sections 5, 4, 3

East elevation - northern sections 4, 3, 2, 1

North elevation

Sections 1, 2 and part of 3 - west elevation

Metal spout on east elevation of Section 3

Section 4 - Grain bins west elevation

Section 4 - deteriorated cribbing at grade level

Section 5 - siding deteriorated at grade level of south elevation

3.5 Roofing and Waterproofing

Asphalt shingles on Sections 2 and 3 and corrugated metal roofing on Section 4

CATEGORY:

3.5 Roofing and Waterproofing

DESCRIPTION:

There are five different roofs, one over each section of the Grain Elevator. Section 1 has a shed roof with red asphalt shingles. The roof sheathing appears to be 1x boards nailed to the rafters with abutted ends. A brick chimney with a cementitious coating is located slightly to the west of the center of the building in the north edge of the roof. Just to the east of the chimney, a weatherhead extends through the roof down to the electrical box. The jut out on the west side of the building has a small hipped roof with red asphalt shingles. Sections 2 and 3 are gable roofs with red asphalt shingles. The sheathing for both roofs appears to be plywood panels that have been nailed over the original 1”x9” sheathing spaced 16” on center. Section 4 has a gable roof covered by corrugated metal panels nailed directly to the 1”x9” roof sheathing spaced 16” on center. Section 4 is a shed roof with corrugated metal panels nailed directly to the 1”x9” roof sheathing spaced approximately 20” on center. At the east and west edges of the roof, a 1”x9” board is nailed between the roof sheathing to the last two rafters and extends out to the edge of the roof. This additional board provides support for the edges of the metal roofing panels.

Gutters have been installed along the west edge of Section 2 and 3. The gutter on Section 2 feeds into a downspout that runs over the roof on the jut out adjacent to Section 1 and drains at the north edge of the building. The gutter on Section 3 feeds into a downspout that extends down approximately fifteen feet and then stops, allowing water to continue draining down the face of the building. Originally the roof over Section 3 drained onto the roof of the shed below, which sloped to the west and drained directly onto the site. These gutters are not historic. There are no gutters anywhere else on the building and there is no indication that any ever existed.

EVALUATION:

The roofs are in poor condition and there is evidence of water infiltration in many areas of the building. The asphalt shingles on Sections 1, 2 and 3 are visibly deteriorated and no longer provide complete water protection. The roof over Section 1 is actively leaking, and water was observed dripping through the ceilings in the rooms below it. The metal roof over Section 4 was recently repaired so corrugated metal panels cover the entire roof now and no sheathing is exposed. However, there are a number of holes in the metal panels so water is still able to enter this section of the building. The metal panels over Section 5 also have holes in them.

The sheathing over Section 1 appears to be in good condition. The plywood sheathing over Sections 2 and 3 is in good condition, but the original 1"x8" sheathing below it is charred and in poor condition. The sheathing in Sections 4 and 5 is in good to fair condition.

The gutters and downspouts on the west side of Sections 2 and 3 are in good condition. However, the gutter and downspout on Section 3 may be damaging the building since instead of water draining from the roof onto the ground below, the water is caught and drained down the exterior cladding which is potentially accelerating the deterioration rate of the wood.

RECOMMENDED TREATMENT:

All five sections of the Grain Elevator need a new roof. In the historic photos the roof appears to have a corrugated metal roof over all five sections. All five roofs should be reroofed with a corrugated metal roof with a wide profile that matches the historic as closely as possible. A snow guard will need to be installed on Sections 2, 3 and 4 due to the slope of the roofs. The majority of the sheathing in Sections 1, 4 and 5 can be left in place, and any damaged sheathing should be replaced in kind. The sheathing in Section 3 and 4 should be removed and replaced in kind. New 5/8" plywood or OSB will be required to be installed over all roof areas – to provide the proper substrate for a warrantied roofing installation.

The gutters and downspouts should be removed from Sections 2 and 3.

Gutter, downspout and deteriorated asphalt roofing on Section 2

Corrugated metal roofing on Section 5

3.6 Windows and Doors

Window 1 and Doors 4 and 5 on the west elevation

CATEGORY:

3.6 Windows and Doors

DESCRIPTION:

Most of the window and door openings in the Grain Elevator are original and have not been altered over the years. All but one of the doors are historic with original hardware. New hardware has been installed on some of the exterior doors to secure the building. The windows that remain are the historic windows, however many of the windows have been removed or fallen apart over the years. Most windows on the upper floors have been removed so only the framed opening remains and studs have been installed in the openings in line with other studs.

EVALUATION:

In general the doors are in fair condition with some deterioration and the windows are in poor condition or missing. See 3.6a Doors and 3.6b Windows for specific evaluation.

RECOMMENDED TREATMENT:

See 3.6a Door and 3.6b Windows for recommended treatments.

3.6a Doors

Door 1 - interior side

CATEGORY: 3.6a Doors

DESCRIPTION:

There are nine doors in the Grain Elevator, five are exterior and three are interior. There are three sliding doors, the rest are hinged, swinging doors.

Door 1 is located in the basement on the north end of the west wall. The door is hinged on the south side and swings inward. It is constructed of 1x tongue and groove boards oriented vertically. It has two historic surface mounted hinges and is held shut by a wood bar that drops across it, held in place by a nail. The door historically would have opened into the space below the wood walkway, but is currently not accessible from the exterior due to changes in the grade.

Door 2 is located in the basement in the middle of the east wall. Wood 2”x4” boards frame the opening and a sheet of plywood currently serves as the door. There are no hinges or other hardware. Since this opening is currently below grade and historically the railroad spur ran adjacent to the east wall, this may have served as an opening for equipment and grain transportation, and not functioned as a true door.

Door 3 is an interior basement door located in the Machine Room. The door is constructed of 1x tongue and groove boards oriented vertically. An eye hook is attached to the door and serves as the latch. There is no door trim. The door opening is framed by the wall and ceiling structural members.

Door 4 is the main entry door, located on the north end of the west façade. It is a hinged door that opens into the building. It is the original wood four panel door, but the exterior has been covered by plywood with a small rectangle cut out at the door knob. The original hinges, door knob and escutcheon plate are still intact, although

the door is currently secured by a series of four hasps and padlocks. The door trim is composed of 2"x4" boards on the exterior and interior. The door and the exterior trim are painted white and the interior trim is painted brown. The exterior paint is peeling significantly.

Door 5 is a sliding door that opens to the north and slides along the interior side of the west exterior wall. The door opening is 5'-0" by 6'-9" with a door composed of 2"x6" boards oriented vertically on the exterior and boards of varying sizes oriented diagonally on the interior. The original door hardware and track are intact on the interior of the building. Since the door is located on the interior of the wall, the opening is framed by boards that run from the face of the building to the face of the door. The door is painted white, as is the exterior trim.

Door 6 is a sliding door located on the south end of the west elevation that opens to the north along the interior side of the exterior wall. The door opening is 4'-0" by 6'-9" with a door that has a 2"x6" boards oriented vertically. The original door hardware including the door track, hangers and hasp are still intact. The door is secured by a hasp and padlock located on both the north and south sides of the opening.

Door 7 is a sliding door located in the middle of the east elevation that opens to the north along the interior side of the wall. The door opening is 5'-0" by 6'-9" with a door composed of 2"x4" boards oriented diagonally on the exterior and 2"x6" boards oriented vertically on the interior. The original door hardware remains on the interior of the building. Since the door is located on the interior of the wall, the opening is framed by boards that run from the exterior face of the building to the face of the door. The exterior face of the door is painted white, as is the exterior trim, while the interior face is unpainted.

Door 8 is an interior door that leads from the Entry to the remainder of the building. The door is hinged on the east side and opens into the Entry. The door is the original wood, four panel door with the original hardware. The door trim on the north side of the opening is 2"x4" boards, and there is no trim on the south side. The door is painted white and the trim is painted brown.

Door 9 is located on the fourth floor on the east exterior wall. The door is hinged on the north side and opens into the interior space. It is composed of 2"x6" boards oriented vertically. The three historic hinges are still intact. The exterior face of the door is not visible because it is covered over by faux-shingle siding and the door cannot be opened due to the build up of various materials on the floor.

EVALUATION:

Door 1 is in fair condition with some of the boards needing to be replaced due to deterioration. The latching method of sliding a board over the door until it catches on the nail is not secure. When the soil is regraded this door will be operable.

Door 2 is in poor condition. There is no door or hardware, just a piece of plywood covering the door opening.

Door 3 is in fair condition with some boards needing to be replaced due to damage at the bottom of the door. The eye hook is rusted.

Door 4 is in fair to poor condition. It is assumed that the plywood was nailed over the exterior side of the door due to damage. The extent of the damage is unknown. The hinges, door knob and escutcheon are in fair condition.

Door 5 is fair condition with some of the boards needing to be epoxy repaired or replaced due to damage at the base of the door. The door hardware and track are intact and appear to be in fair condition.

Door 6 is in fair condition. The hardware is in fair condition, the historic hasp is no longer in use and the door hardware and track is intact but not longer properly attached to the wall so the door regularly falls off the track.

Door 7 is in fair condition with some of the boards needing to be epoxy repaired or replaced due to damage at the base of the door. The door hardware is intact and appears to be in fair condition and the door track is missing.

Door 8 is in fair condition, since the wood is chipped and worn in some places. The hardware is in good condition.

Door 9 is in fair condition, with deterioration on the base of the boards and possibly on the exterior side of the door. The hinges are in fair condition, and no locking mechanism is evident.

RECOMMENDED TREATMENT:

Door 1 should have the deteriorated boards replaced in kind and a door latch installed. The hinges should be removed, wire brushed, oiled and reattached.

Door 2 should have its ultimate use determined. Since it is currently below grade, if the site will not be regraded it should be infilled with concrete to match the adjacent foundation. If the site is to be regraded to allow access through this opening, a door should be constructed to match Doors 1 and 3.

Door 3 should have the deteriorated boards replaced in kind. The door hardware should be removed, wire brushed, oiled and reattached.

Door 4 should have the plywood removed from the exterior face and at that time it should be determined if the door can be repaired or if it should be replaced in kind. The original hardware should be removed, wire brushed, oiled and reattached either to the current door or the reconstruction.

Door 5 should have the deteriorated boards replaced and a new track and hardware that match the original should be installed.

Door 6 should have the deteriorated boards replaced in kind. A new track and hardware that match the original should be installed. The modern hasp should be removed and the historic hasp repaired or replaced in kind.

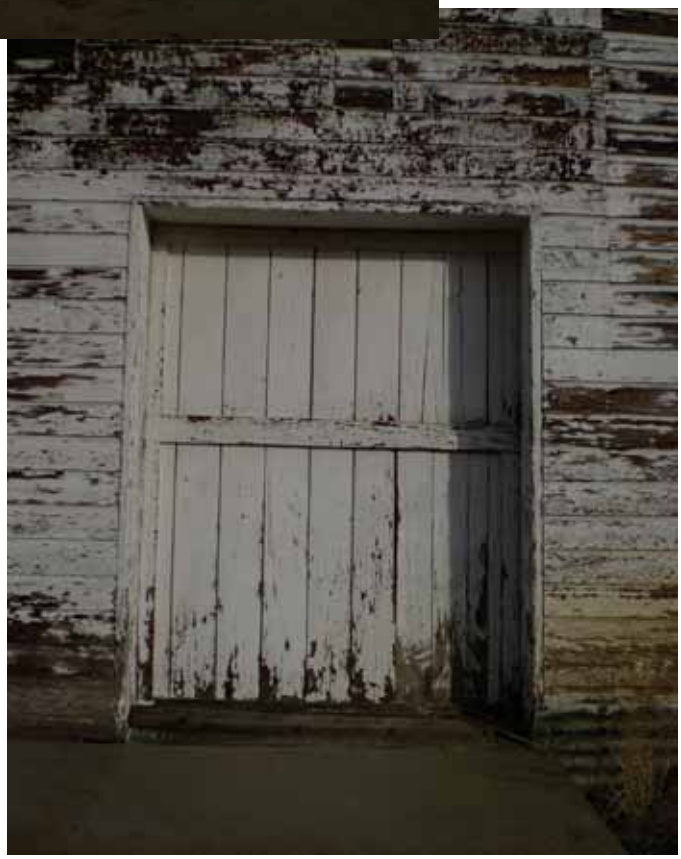
Door 7 should have the deteriorated boards replaced. A new track and hardware that match the original should be installed.

Door 8 should be refinished and the hinges should be removed, wire brushed, oiled and reattached.

Door 9 should have the deteriorated boards replaced and the hinges should be removed, wire brushed, oiled and reattached. A latch should be installed so that once the faux-shingle siding is removed the door can be secured so wind does not blow it open.

Door 3 propped open

Door 4 exterior side



Door 5 exterior side

Door 5 interior side

Door 6 exterior side

Door 7 original sliding door hardware

Door 8 original four panel door

Door 9 interior side

3.6b Windows

Windows 1 and 8

CATEGORY: 3.6b Windows

DESCRIPTION:

Window openings are located on all sides of the Grain Elevator, though most of the windows have been boarded up with plywood. The majority of the windows are rectangular, though there are a few square windows. Several of the window openings are just frames, the sash and glazing are missing. Windows 1 through 8 are on the first floor, Window 9 is on the second floor, Windows 10 through 12 are on the fourth floor, Window 13 is on the fifth floor and Window 14 is on the sixth floor.

Window 1 is located on the west elevation and is a double hung wood window. Plywood has been nailed over the window on the exterior. The frame and sill are visible on the interior and are painted brown. The sash are painted white and still intact, though the glazing is missing. The original window latch is still intact.

Window 2 is located on the narrow side of the jut out on Section 1 next to the main entry door. It is a two lite, narrow window that does not have a frame. The sash is directly attached to the walls and molding was originally attached to the sash on the interior, but it is missing in most areas. The sill has come loose and is now tilted to the exterior.

Window 3 is located on the west elevation of Section 5. The window is a fixed, four lite window that is missing one of the muntins and all of the glazing. A screen was nailed to the exterior side of the window and is now peeling off. The window frame on the exterior of the window is still intact, and a plywood board is nailed over the window on the interior.

Window 4 is located on the east elevation of Section 5 in the same location as Window

3 on the west elevation. No elements of the window remain and plywood has been nailed over the window on the exterior. Due to the symmetry with Window 3, it is likely that it was originally a fixed, four lite window.

Window 5 is located on the east elevation of Section 3. The window is covered by plywood on the exterior and the lower two thirds or the window are boarded up on the interior. No frame or sash are visible in the exposed section of the window.

Window 6 is located on the east elevation of Section 1 and is boarded over on the exterior. It is a double hung wood window, though only the upper sash is still intact. The parts of the window that remain are painted yellow, and the trim has been removed.

Windows 7 and 8 are located on the north elevation of Section 1 and are boarded over on the exterior. They are double hung wood windows that originally had four lites in each sash. In Window 7, currently only the vertical muntin remains in the lower sash. All but two of the panes of glazing are missing. The trim and sash are intact and painted brown, while the rest of the window is painted yellow. Window 8 is in similar condition, but all of the glazing is missing and both muntins in the lower sash have broken out, though the vertical muntin still sits in the opening. A beam intersects the upper west corner of the window trim. The original lock mechanism is still intact.

Window 9 is located on the north wall of Section 2 and is boarded over on the exterior. It is only a window opening, no elements of the window remain.

Window 10 is located on the west wall over Section 3, just under the eave. The window is not visible on the exterior, it is covered by the faux-shingle cladding. Very little remains of the window on the interior but it is a rectangular wood window with a screen nailed over it on the interior.

Windows 11 and 12 are located on the north wall of Section 3. The windows are covered on the exterior by the faux-shingle siding. The window frames have been completely removed but the header and sill still remain. A stud has been installed in both window openings that aligns with the studs above and below the window. Since this area of the building did not have interior finishes, it is likely that the window never had any trim.

Window 13 is located on the south elevation of Section 4. The window has been removed, so only the frame remains. This is the only window in the building that is not boarded up on either the interior or the exterior.

Window 14 is located on the north wall of Section 3 just under the peak of the roof. The opening is covered on the exterior by faux-wood siding. The window frame has been completely removed, but the header and sill remain. A board has been nailed inside the frame inline with the studs above and below it.

EVALUATION:

Windows 1, 5, 6, 7, 8, 9, 11, 12 and 13 all have the same proportions and remaining window elements suggest that these were identical eight lite, double hung windows. Historic photos reinforce this assumption since they illustrate several of these window openings with double hung, eight lite windows. Windows 1, 7 and 8 are the most intact.

Overall, the windows are in fair to poor condition, with some windows needing to be completely rebuilt and some needing work to restore them to their original condition. Necessary repair work includes repairing the frame, muntins, replacing the glazing and reconstructing the entire window. Since most of the exterior trim is covered over, the condition is assumed to range from fair to poor. Trim likely requires repair or stabilization in some places and in others it is likely missing.

RECOMMENDED TREATMENT:

Windows that are missing or damaged beyond repair should be reconstructed to match their historic appearance. Window elements that remain and are salvageable should be epoxy stabilized and missing window elements should be reconstructed. All of the windows need to be reglazed.

Trim should be epoxy stabilized where it remains and new trim should be installed where trim is missing, warped or severely deteriorated. Any trim boards that have come loose should be renailed.

A window-by-window survey and repair/reconstruction schedule with attendant details will be required to describe the work.

Interior side of window 1

Exterior side of window 1

Window 2 interior side

Window 3 exterior side

Window 4 exterior side

Window 7 frame detail

Interior side of window 7

Exterior side of window 7

Window 8 interior side

Window 9 interior side

Window 10 interior side

Window 12 interior side

3.7 Interior Finishes

Basement - looking south toward the grain bins

CATEGORY:

3.7 Interior Finishes

DESCRIPTION:

The Grain Elevator has six levels plus a basement. Some of the levals are all one room, while others are subdivided into multiple rooms. While from the exterior there are clearly five sections of the building, these sections are not always as evident on the interior. Since it is an agricultural building, most of the finishes are the structural elements without any interior finishes applied over them.

The basement is divided into three rooms plus a crawl space between the grain bins. The Machine Room, which was where grain was ground when the Grain Elevator was in operation, is located on the north end. There are two other rooms on the north end of the basement and all three have similar finishes. The floor is dirt, the exterior walls are concrete half walls with wood stud walls above them and the interior walls are concrete half height walls with posts on them. The ceiling is only about 6'-0" high and is the exposed first floor structure. There is a pit in Tower Level 0 that has concrete walls and a floor. The stairs from the basement to the first floor are wood treads with wood stringers and open risers. The grain bins extend into the basement but are not accessible at this level, though a crawl space runs between the east and west bins where a belt historically transported grain from the bins to other areas in the Grain Elevator.

The first floor has two separately accessed areas – the north three sections which contain four rooms and the south section which consists of one room. The grain bins are located between these two sections but can only be accessed from the fifth floor. The north section consists of the Entry, Office, Back Room and Tower Level One. The Entry has a tongue and groove wood ceiling and walls, though the walls have a heavily textured plaster applied over them. The floor steps up on the east side

of the room; the flooring to the west of the step is linoleum and the flooring to the east is carpet. The wall between the Entry and Office has a pegboard finish on the Entry side. A wood and brick chimney starts about five feet up on the north wall and a wood burning stove is located on the east side of the Entry. In the Office there are a variety of wall finishes including, fiberboard, painted tongue and groove boards and 1"x12" boards. Fiberboard shelves have been installed on all four walls and mounted with metal brackets. A variety of furniture and other materials are currently stored in this room. A Corridor leads from the Entry to Tower Level 1 and has wood plank flooring and fiberboard panels on the walls. The ceiling is the exposed second floor structure though painted fiberboard covers the structure in the northwest corner of the Corridor. A stair with wood treads and stringers leads up to the Second Floor, though the stair stops about two feet short of the floor. Tower Level 1 has wood floor boards and most of the walls and ceiling are the exposed structure. Part of the north wall has a gypsum board finish; the rest is the wall structure. The south wall is the stacked plank wall structure of the grain bins. A large amount of the wood visible in this space was affected by the fire and has char damage. (See Wood Scientist Report in the Appendix for more information on the damage.) A number of chutes are located on the ceiling. The walls and ceiling in the Back Room are a combination of exposed structure and fiberboard, some of which is painted white while other areas are natural wood color finish. A variety of items are stored in the Back Room and Tower Room 1.

The first floor in Section 5 is entered through a door on the west elevation and is a large open room used for storage. The walls and ceiling are the exposed structure. The north wall is the stacked plank grain bins walls, while the other walls are wood stud construction and exterior siding. A paper membrane was put up between the studs and the siding but it has significant water damage and is deteriorated. The ceiling is the exposed roof framing and corrugated metal roofing. The floor is wood boards, though it is mostly obscured by the items stored in the room and a layer of dirt.

The second floor is accessed from the stair off the first floor corridor and is in Section 2. The floor boards are currently covered by mounds of loose insulation and animal waste so they are not visible. The walls and ceiling are the wall and roof structure and sheathing. Large areas of this room have char damage from the fire. A small wood grain bin is located to the west of the stair. There is a small opening on the north side of the bin. A small set of stairs with wood treads and stringers leads up to the third floor.

The third floor is only located in Section 3 and over half of this level is occupied by chutes. There are two large wooden chutes, Chutes 3 and 4, which occupy the western third of the room, with access hatches that swing into the chutes from the room. These chutes extend from floor to ceiling. The middle third of this level is a mostly open room. The floor boards are covered by grain and other materials that have accumulated, the walls are the stacked plank bins walls and the ceiling is the exposed fourth floor structure. A medium sized chute is located in the northwest corner of this room, adjacent to Chute 3. On the south end of the room there are four small chutes (approximately 14"x8") that run from the ceiling through the floor. The elevator originally ran through the north side of this room and though the elevator has been removed, the wood boards that surrounded the opening on three sides and the wood elevator track are still intact. The openings in the floor and ceiling have been covered with corrugated metal. Some mechanical equipment remains and is mounted to the ceiling. A medium size chute (38"x30") is located in the southeast

corner of this space, adjacent to Chute 2, on the east side of the building. This chute is approximately eight feet tall and has a small access hole at the base which can be covered by a hinged piece of wood cut to match. Two bins occupy the east third of the building. Chute 1, the northern chute, has an access hatch that swings into the bin. Chute 2, the southern chute, only has a half height wall on the west side, the upper boards were cut out at some point. A stair with wooden stringers and treads leads up to the fourth floor.

The fourth floor is located in Section 3 and is a mostly open room. The floor boards are covered with grain and animal waste, the walls are the exposed structure and sheathing of the exterior walls and the ceiling is the roof structure and sheathing in most places, though the sixth floor structure forms the ceiling in the central portion of the room. The four small chutes visible on the third floor continue through the fourth floor up to the sixth floor. The wood elevator track continues up from the third floor. The elevator pulley and other mechanical equipment associated with the elevator are mounted to the underside of the sixth floor. A stair with wood stringers and treads runs along the east side of the north wall up to the sixth floor. A metal chute is located along the south wall on the east side of the room and runs down through the floor. Extra sections of wood chutes are stacked in the northwest corner of the space. A "ladder" formed by boards nailed to the wall joists runs from the fourth floor up to the southwest edge of the sixth floor. A large portion of the walls and ceiling in this space has char damage.

The fifth floor is located in Section 4 over the grain bins. A catwalk that is approximately eight feet wide runs down the center of the space, above the bins. The catwalk floor boards are 2"x3" boards spaced about 2" apart and there are two rectangular openings that allow access to the bins via built-in metal bars that serve as a ladder down to the floor of the grain bins. Two wood boards mounted to posts at the edge on either side of the catwalk serve as railings. A central wood chute runs above the catwalk with chutes that branch off and empty into the grain bins. The grain is allowed into each chute or diverted away by wood boards that can be pulled out and pushed into the chutes by wooden levers.

The sixth floor is a mezzanine level located above the center third of the fourth floor. There are no walls and the ceiling is the exposed roof structure and sheathing. The floor is wood floor boards. A number of chutes are located on this level, some of which run south to empty into the grain bins, while others run straight down, into the fourth floor and beyond.

EVALUATION:

The structural elements, exterior walls and roofs have been previously evaluated in sections 3.3 Structural System, 3.4 Exterior Walls and 3.5 Roofing and Waterproofing and will not be addressed in this section.

The finishes in the Entry and Office are in fair to poor condition since portions of the ceilings, walls and floors have significant water damage. The stairs are in good condition, but the stair from the first to the second floor does not meet code since it stops well below the second floor. The floorboards throughout are deteriorated or have char damage. Char damage has impacted a large percentage of the walls and ceilings in Tower Level 1, the Second Floor, the Fourth Floor and the Sixth Floor. While the structural impact of char damage has been previously addressed, the aesthetic

impacts have not. Char damaged wood has a burnt odor that is hard to remove from the wood and that will permeate an enclosed building.

RECOMMENDED TREATMENT:

The exterior walls and roof should be repaired according to the recommendations in sections 3.4 Exterior Walls and 3.5 Roofing and Waterproofing.

The interior of the structure should be cleaned per recommendations in the Hazardous Material Report located in the Appendix. All hazardous materials should be removed and properly disposed of and all animal waste and bird guano should be removed and cleaned. The lead based paint should be abated. Once all of the hazardous materials have been removed, the wood that remains should be cleaned by abrasive blasting.

All of the flooring throughout the building should be replaced with new wood to match the existing. The stairs should be reinstalled after the new flooring is in place except for the stair from the first to the second floor. A new stair should be constructed in this location that runs all the way up to the second floor. All of the charred wood that will be in the interior of the building should be removed and replaced so the scent of charred wood does not permeate the building.

Basement - Concrete pit in Tower Level 0

Basement - Typical finishes

First Floor - Entry typical finishes

First Floor - Entry
with pegboard wall
and carpet and wood
burning stone

First Floor - Entry
chimney on north wall

First Floor - Office north and east walls

First Floor - Office ceiling damage

First Floor - Corridor looking south

First Floor - Corridor looking north

First Floor - Tower Level 1 chute on ceiling and char damage on walls and ceiling

First Floor - Tower Level 1 looking at southeast corner

First Floor - Back Room
looking northeast

First Floor - Back Room
various wall and ceiling
finishes

Second Floor - Char damaged on walls and grain bin on south side of the room

Second Floor - Looking west along north wall

Third Floor - Access hatch into chute

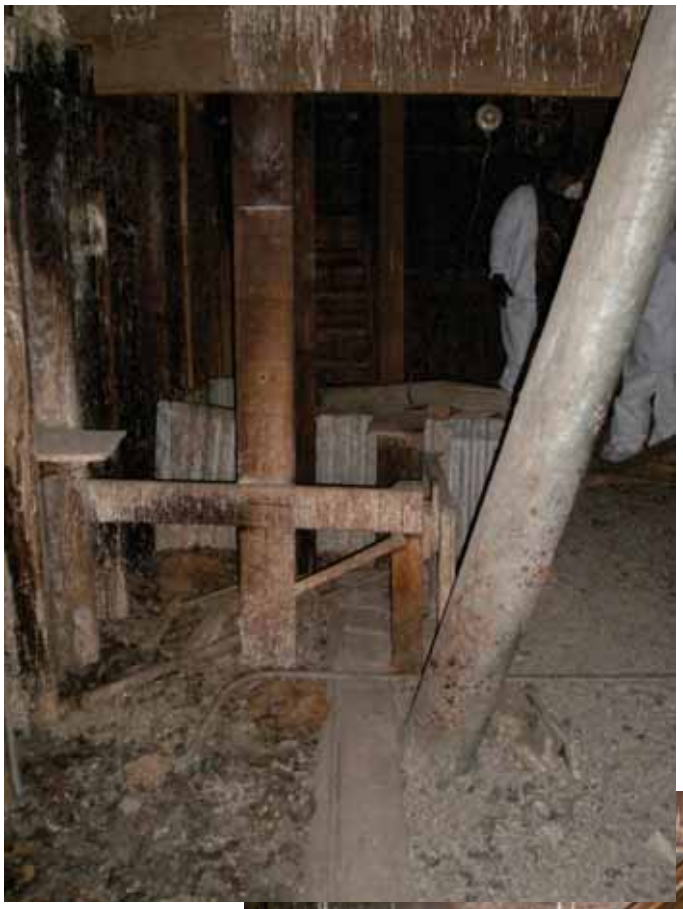
Third Floor - Track at original elevator shaft

Third Floor - Chute 2 has been cut down while Chute 1 (on the left) continues up to the ceiling

Fourth Floor - Chutes running though the room underneath the Sixth Floor

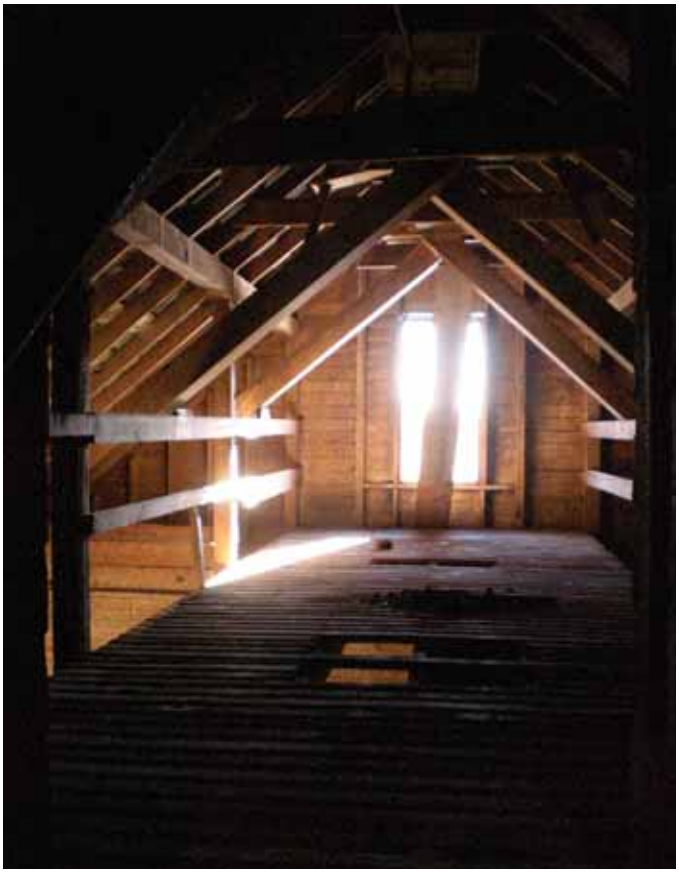
Fourth Floor - Equipment and Sixth Floor Structure with char damage and bird guano

Fourth Floor - Looking up at chutes on the Sixth Floor



Fourth Floor - Chutes, original elevator track and corrugated metal over the stair

Sixth Floor - Chute to grain bins



Fifth Floor - Looking south

Fifth Floor - Looking north

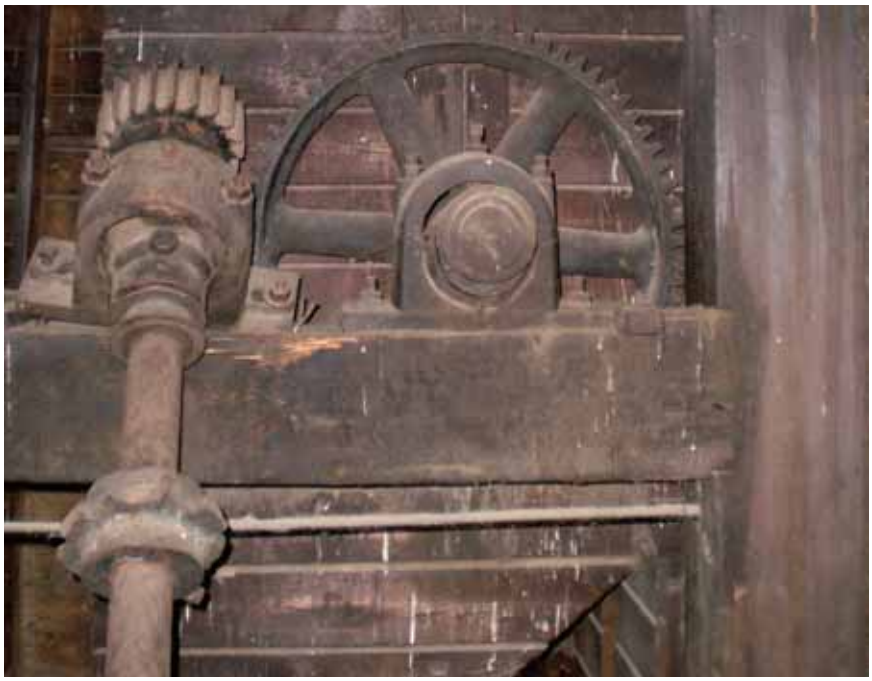
Fifth Floor - Operating mechanism to control grain entering the grain bin chutes

Fifth Floor - Bin catwalk and railing

Fifth Floor - Looking down into Bin 5

Fifth Floor - In Bin 5 looking east at stepped wall at bottom of bin

3.8 Mechanical Systems



Elements of the conveying system on the sixth floor

CATEGORY: 3.8 Mechanical Systems

DESCRIPTION: There are no active mechanical systems in the Grain Elevator. The conveying equipment that remains in the grain elevator, specifically the pulleys that remain in the basement, third, fourth and sixth floors, should be retained where feasible for interpretive purposes.

Elements of the conveying system on the third floor

Large pulley and belt in the Machine Room in the basement

3.9 Electrical Systems

Light fixture over the platform over the grain bins

CATEGORY:

3.9 Electrical Systems

DESCRIPTION:

Electricity was installed at some point, but has been shut off for a number of years. The weatherhead, which brought the power from the overhead lines into the building, extends through the roof in the middle of the north end of the Grain Elevator. The electrical panel remains on the inside face of the north wall.

Electrical wiring and switches are visible throughout the building. Fluorescent fixtures were installed in the north half of the first floor. The light fixtures on floors two through six are all fed from the same electrical line that runs from the first floor up through the fourth floor. The wire is hooked over the stair railing at the stair leading from the third to the fourth floor. Outlet boxes and light switches remain in some locations but most are missing the face plates. There is evidence of the previous knob and tube electrical system in some areas where the porcelain tube elements remain.

There is no evidence that a fire detection system or security alarm system were ever installed.

EVALUATION:

An electrical system will be necessary for any reuse option. The electrical elements that remain are outdated so the electrical system will need to be entirely replaced. The amount of light and location of fixtures and outlets should be determined by the reuse plans.

A fire detection system should be installed. A security system may be necessary depending on the final use of the building. The locks on the doors appear to be keeping trespassers out of the building since, aside from graffiti in the Entry room, there is not

evidence of vandalism inside the building. There is also graffiti on the east side of the building since that side is not visible from the street.

RECOMMENDED TREATMENT:

When floor plans for the new use are designed, a lighting plan should be developed that addresses all of the Grain Elevator's new electrical needs including a new electrical panel, wiring, electrical outlets, light switches and fixtures.

When the building is restored, a fire detection system should be installed. If desired by the owner, a security system should be installed.

Weatherhead and electrical meter on the north side of the building

Fluorescent light fixtures in Tower Level 1

Electrical wiring and remainder of previous ceramic electrical system

Wiring leading to the light fixture on the second floor and continuing on to the third floor

Light fixture and wiring in the basement

4.0 Analysis and Compliance
4.1 Hazardous Material Testing and Information

Hazardous material testing was conducted by Landmark Environmental Inc. as part of this report. The results of their testing are in the Appendix. When hazardous materials have been identified or are uncovered on a project, General Contractors are required to mitigate or abate these materials using authorized and trained personnel.

For further information about the state regulations in regards to hazardous materials, go to www.cdphe.state.co.us/op/regs/airregs.asp

Lead Containing Paint
Paint samples were tested for lead and it was determined that the building has both lead based paint and lead containing paint, both of which are regulated by the EPA, HUD and OSHA. The paint on the interior window sills was found to be lead based paint with lead concentrations of 7.7%. The exterior paint was found to be lead containing paint with lead levels of 0.008%. See the Landmark Environmental Inc. report for specific recommendations.

Historically, lead was used in paint to improve its durability and colorfast qualities. Lead was incorporated into a broad range of building coatings and paints from the 1800s to the 1970s.

Asbestos Containing Material
The hazardous material tests determined fourteen samples taken from the Grain Elevator tested negative for asbestos. Two materials sampled were under Colorado regulated limits reported as .25%." Any materials that contain greater than 1% asbestos are regulated by EPA and OSHA.

The EPA National Emissions Standard for Hazardous Air Pollutants (NESHAP) regulation requires that Asbestos Containing Materials be identified prior to demolition and renovation activities. From the 1920s to the 1980s, there were many materials that incorporated asbestos, for its fire and chemical resistive, thermal and high tensile strength properties. Among the most common applications for asbestos were: fireproofing, roofing/flashing materials, exterior coating systems (a paint-like coating that usually has a textured surface), asbestos/cement shingles and exterior wall panels (Transite), roofing shingles and shingle siding, glazing putty at windows, pipe and pipe fitting insulation, vinyl sheet and tile flooring, plaster, construction adhesives, and building insulation.

"Friable" and "non-friable" are the two terms applied to asbestos with "friable" evoking the most concern and the greatest level of care in removal and disposal. "Friable" means that when the material is disturbed in any way, (sawn, moved, removed, cut, etc.) it will introduce asbestos fibers into the air that could be inhaled by unprotected workers and building users. Pipe and building insulation typically fall into this category and therefore require the highest degree of worker protection and controlled handling during the abatement process. It is important to identify all asbestos-containing materials as even non-friable materials may become friable under certain conditions (i.e. if asbestos-containing floor adhesive is sanded).

Summary
Any proposed restoration or rehabilitation project could reveal additional hazardous materials. Lead containing paint and asbestos can present health risks to building users and construction workers; can trigger both state and federal hazardous material

regulations for control and abatement and can add significant cost to a rehabilitation project.

Once under construction, the General Contractor should be alert to encountering and disturbing any suspicious materials and should stop work immediately if any are encountered.

A word of caution: hazardous material abatement crews are not always sensitive to the issue of preserving historic materials (e.g. scraping lead-based paint may damage the underlying surfaces). Ideally, abatement of historic, character-defining elements can be performed by the General Contractor responsible for the rehabilitation work.

4.2 Material Analysis

Wood analysis was conducted by Anthony and Associates which determined that Sections 1, 2, 3 and 4 were constructed with Douglas-fir while Section 5 was constructed with a mix of species, including yellow pine and Douglas-fir. Anthony and Associates also tested moisture content measurements and lumber and timber grading. See the Wood Investigation Report in the Appendix for specific results.

4.3 Zoning Code Compliance

The site is currently zoned Commercial-Business. All of the uses currently being considered are permitted in this zone, except for multi-family residential which is only allowed with a review.

4.4 Building Code Compliance

A code study is being done as part of the Schematic Design portion of this project.

4.5 Accessibility Compliance

Currently the building is not accessible. When the building's end use is determined, an accessibility study will need to be performed to determine what is needed to meet ADA requirements. The Schematic Design portion of this project will do preliminary accessibility studies. Where there are issues, the Owner should work out reasonable accommodation with local group(s) who represent disabled citizen interests.

5.0 Preservation Plan

Rating System:

A **Critical Deficiency** of a feature or element exists where:

- There is advanced deterioration that has resulted in failure of the building feature or element or will result in its failure if nor corrected within two years, and or
- There is accelerated deterioration of adjacent or related building materials as a result of the feature or element's deficiency, and or
- There is a threat to the health and safety of the user, and or
- There is a failure to meet the legislative requirement.

A **Serious Deficiency** of a feature or element exists where:

- There is deterioration that if not corrected within 2 to 5 years, will result in the failure of the building feature or element, and or
- A threat to the health and or safely of the user may occur within 2 to 5 years if the deterioration is not corrected, and or
- There is deterioration of adjacent or related building materials and or systems as a result of the deficiency of the feature or element.

A **Minor Deficiency** of a feature or element exists where:

- Standard preventative maintenance practices and building conservation methods have not been followed, and or
- There is a reduced life expectancy of affected or related building materials and or systems, and or
- There is a condition with long-term impact beyond 5 years.

5.1 Prioritized Work

The phasing plan for the Louisville Grain Elevator was created by evaluating the priorities of the recommended work. The following criteria served as guidelines for determining priority. Typically, critical issues should be addressed in earlier phases to protect the building and address life safety issues while minor issues can be addressed in later phases.

Critical Deficiency (1 Priority)

1 = Critical: Work that should be performed immediately to mitigate existing life safety issues (including foundation stabilization) and work associated with critical work (e.g. roof replacement.)

Serious Deficiency (2 Priority)

2 = Serious: Work that should be performed within the next 2-5 years in order to address existing deferred maintenance.

Minor Deficiency (3 Minor Priority)

3 = Minor: Work that is of a cosmetic nature.

5.2 Phasing Plan

Since a large percentage of the recommended work is ranked critical, not all critical work is addressed in Phase I. Phase I work addresses the most critical issues - stabilizing the foundation and the roof. These two steps provide a solid base for the building and prevent water from entering the building and damaging the structure and interior finishes. Phase II addresses the remaining critical work, stabilizing the remaining structural systems, along with the serious work which includes repairing or replacing the exterior siding, so at the end of Phase II the building will be a restored shell. Phase III is the recommended work that is ranked minor and includes interior repairs and restoration of the doors and windows.

The intent of the phased development is to, by the end of Phase III, have a building that is “core/shell” complete and ready for tenant improvements (which would include installing utility lines to the site and system distribution within the building).

Phase I = Phase I addresses the most critical issues that need to be repaired to stabilize the building, including the roof structure, roofing, foundation and hazardous material mitigation.

Phase II = Phase II includes the remaining critical issues and the serious issues including the remaining structural work and exterior façade repairs.

Phase III = Phase III is the remaining recommended work and includes windows, doors and interior finish work.

Phase IV = Phase IV is the adaptive reuse of the Grain Elevator.

See the Phasing Spreadsheet for specific phase breakouts.

Louisville Grain Elevator Historic Structure Assessment - Phasing Plan	
Description	**Phase**
3.1 Site	
Regrade to ensure drainage away from building	I
Remove berm along west elevation (cut & fill on site)	I
Install perimeter drain	I
Remove 3 trees (2 on the north & 1 on the east)	I
3.2 Foundations	
Procure Geotechnical Engineer's Report for site	I
Excavate around entire perimeter of site to access work	I
Infill perimeter basement wall to Sections 1, 2, & 3	I
Concrete	I
Add counterforts & augment perimeter basement footing at Sections 1, 2, & 3	I
Add 4 spread footings to Section 3 (below timber posts along grid 3 and grid 4)	I
Add 2 square footings to Section 3 (at ends of shear wall along grid 3 to resist overturning forces)	I
Infill basement pit with flowfil	I
Repair deteriorated bin walls below grade, add impervious waterproofing membrane; reinforce wall with PT lumber if required	I
Add perimeter basement wall to Section 5	I
Add strip footing to Section 5	I
Allowance for footing augmentation where allowable bearing capacity exceeded or net tension due to shearwall overturning forces	I
3.3 Building Structural System	
Section 1	
1st Floor: Remove abandoned stair; re-frame floor around stair opening	II
Roof: Remove roof sheathing; sister rafters, add plywood sheathing	I
Section 2	
2nd Floor: Remove fire damaged floor joists which have a very low calculated load-carrying capacity. Replace with new more robust joists spanning east-west bearing on exterior walls and on one timber beam spanning north-south across center of bay.	II
Roof: Remove roof sheathing, rafters, and 2 dropped purlins; Add new sheathing, rafters, and purlins	I
Replace 100% of 2nd floor wall framing due to char damage	II
Section 3	
Add 1 timber post from 3rd floor to basement wall on grid 3 and grid 4 to support 3rd floor timber beams near midspan	II
6th Floor Mezzanine: Add 2 strongbacks to north gable end wall at floor diaphragm elevation to brace wall studs at hinge	II
Roof: Remove roof sheathing, rafters, and 2 dropped purlins; Add new sheathing, rafters, and purlins	I
Section 4	
Wood scientist for one day to quantify extent of bin wall and bin floor deterioration by resistance boring after excavation complete	I
Roof: Remove roof sheathing; leave existing rafters; add rafters @ 24" between existing rafters; enhance connections; strengthen 2 dropped purlins; add plywood sheathing	I
Section 5	
1st Floor: Shore floor to reset dropped girders on new posts on new footings or on new stem wall	II
Roof: Remove roof sheathing; sister rafters in north bay, add plywood sheathing, add hurricane ties on ends of rafters	I
Roof: Anchor existing ledger on grid 4 to bin wall	I
Roof: Shore rafters, remove and replace existing overstressed girder with steel beam or equivalent	I
Sections 1, 2, 3, & 5; Lateral Force Resisting System	
Miscellaneous drag strut and collector elements. Will drag some force into existing bin walls in order to minimize number of new wood shear walls	II

All Sections, Floor Framing	
Allowance to remove and replace structural elements affected by fire. Includes damaged elements requiring replacement and structurally acceptable elements to be replaced for aesthetic or odor reasons. (100% of 3rd floor framing, 30% of 4th floor framing, 100% of 6th floor framing)	II
Allowance for miscellaneous structural repairs and unknown conditions	I
3.4 Exterior Wall Construction & Envelope	
Structural Recommendations	
Section 3	
Replace existing studs damaged by fire	II
Add strongbacks to lines 3, A, Z at sixth floor	II
Section 4	
Cut small openings in bin walls for needle beam shoring. Shore bin walls, remove deteriorated stacked-plank lumber with demo saw. Tooth in Douglas-Fir 2x6 plies and attach plies with adhesive and toenails from each side. Correct smaller defects with epoxy consolidant	II
Section 5	
Sister tall studs along grids A & Z	II
Sections 1, 2, 3, & 5; Basement Stud Walls	
Replace deteriorated or damaged interior sills and plates on gridlines 2 and 3	II
Sections 1, 2, 3, & 5; Lateral Force Resisting System	
Selectively sheath existing stud walls to use as wood shear walls; add blocking, holdowns, and anchors into existing foundation.	II
Architectural Recommendations	
Remove and replace wood shiplap siding	II
Remove and replace wood tongue and groove siding	II
Remove lead containing paint from exterior of building	II
Repaint exterior of building	II
Repaint historic sign on exterior of building	III
3.5 Envelope - Roofing & Waterproofing	
Remove current roofing - corrugated sheet metal & asphalt shingles	I
Install Berridge corrugated metal roof	I
Install snow guards on the east and west edges of Sections 2, 3 & 4	I
3.6 Windows & Doors	
Restore all windows	III
Reconstruct eight lite double hung wood windows and frames to match original (2'x5')	
Reconstruct eight lite double hung wood windows to match original - epoxy stabalize existing frames (2'x5')	
Reconstruct four lite fixed wood window (approx. 2'x2')	
Reconstruct four lite fixed wood window (approx. 2'x3')	
Reconstruct two lite double hung window (8"x5')	
Restore all doors	III
Replace 50% of the wood on the sliding doors (6'x7')	
Sand and refinish 4 panel wood doors	
Replace 50% of the wood boards composing exterior doors (3'x7')	
Remove, wire brush and oil all hardware that remains	III
Install hardware to match historic	III
New hinges and track for sliding door to match original (2 hinges, 1 overhead track 7' long)	III

3.7 Interior Finishes	
Replace char damaged wood not covered in previous sections	III
Replace 100% of floor boards in Sections 1,2,3 & 5 (varies from 1"x6" or 1"x8" or 1 1/2" x 10)	III
Remove non-historic stair from 1st to 2nd floor & install new stair	II
Reinstall stairs on 2nd - 6th floors after new flooring is installed	III
Media blast all wood surfaces in the building (optional, not in total)	III
3.8 Mechanical Systems	
NA	
3.9 Electrical Systems	
NA	

5.3 Cost Estimate

Cost Estimating

This assessment document is a first step in determining the means and methods for the successful rehabilitation and restoration of the Louisville Grain Elevator. This report is not a substitute for a complete design and engineering process wherein rehabilitation needs are more rigorously examined, design and engineering is engaged, construction issues are coordinated and a set of construction documents (plans and specifications) is developed. This report is not intended to be the document from which repairs are actually affected or final costs are established. The Owner is urged to take this further (design and engineering) step, prior to applying for actual "bricks and mortar" funding.

Since the Architect has no control over the cost of labor, materials, equipment, the contractor's method of determining prices, or market conditions, opinions of probable costs, as provided herein, are made on the basis of our experience and qualifications and represent our best judgment as design professionals familiar with the rehabilitation/ construction industry. The Architect cannot and does not guarantee that proposals, bids or the construction costs will not vary from opinions of probable costs prepared for the Owner.

This pricing represents aggregate work performed in 2011. A 4% minimum annual inflation factor for each year should be added to work performed in subsequent years. Please note that breaking the cost estimate into smaller component parts will result in a loss of any economy of scale and will increase both design and construction cost percentages. The Opinion of Probable Cost was compiled from general field approximations of both quantities and quality and was estimated by a General Contractor with years of experience in the rehabilitation of historic buildings of similar size and complexity.

General Contractor Fees for General Conditions, Overhead, and Profit

The allowance for general conditions provide for the General Contractor's overhead, profit, and contingencies. General Contractor overhead includes indirect costs such as permits, Workers' Compensation, insurances and supervision. Owner Contingency (for construction) provides for unforeseen construction difficulties, which include material shortages, weather delays and unforeseen conditions.

Abbreviations

LS	lump sum
SF	square feet
LF	linear feet
EA	each
CF	cubic feet
CLF	cubic linear feet

Louisville Grain Elevator Historic Structure Assessment				
Description	**Quantity**	**Unit**	**Unit Price**	**Total**
3.1 Site				
Regrade to ensure drainage away from building	211	CY	$ 6.00	$ 1,266.00
Remove berm along west elevation (cut & fill on site)	50	CY	$ 6.00	$ 300.00
Install perimeter drain	250	LF	$ 21.00	$ 5,250.00
Remove 3 trees (2 on the north & 1 on the east)	3	EACH	$ 250.00	$ 750.00
3.2 Foundations				
Procure Geotechnical Engineer's Report for site	1	LS	$ 2,500.00	$ 2,500.00
Excavate around entire perimeter of site to access work	628	CY	$ 8.00	$ 5,024.00
Infill perimeter basement wall to Sections 1, 2, & 3	33	CY	$ 750.00	$ 24,750.00
Concrete	14	CY	$ 750.00	$ 10,500.00
Add counterforts & augment perimeter basement footing at Sections 1, 2, & 3	5	CY	$ 2,670.00	$ 13,350.00
Add 4 spread footings to Section 3 (below timber posts along grid 3 and grid 4)	1	CY	$ 850.00	$ 850.00
Add 2 square footings to Section 3 (at ends of shear wall along grid 3 to resist overturning forces)	1	CY	$ 850.00	$ 850.00
Infill basement pit with flowfill	17	CY	$ 150.00	$ 2,550.00
Repair deteriorated bin walls below grade, add impervious waterproofing membrane; reinforce wall with PT lumber if required	17	CY	$ 750.00	$ 12,750.00
Add perimeter basement wall to Section 5	9	CY	$ 850.00	$ 7,650.00
Add strip footing to Section 5	above	CY	above	above
Allowance for footing augmentation where allowable bearing capacity exceeded or net tension due to shearwall overturning forces	1	LS	$ 15,000.00	$ 15,000.00
3.3 Building Structural System				
Section 1				
1st Floor: Remove abandoned stair; re-frame floor around stair opening	15	SF	$ 25.00	$ 375.00
Roof: Remove roof sheathing; sister rafters, add plywood sheathing	370	SF	$ 15.00	$ 5,550.00
Section 2				
2nd Floor: Remove fire damaged floor joists which have a very low calculated load-carrying capacity. Replace with new more robust joists spanning east-west bearing on exterior walls and on one timber beam spanning north-south across center of bay.	400	SF	$ 20.00	$ 8,000.00
Roof: Remove roof sheathing, rafters, and 2 dropped purlins; Add new sheathing, rafters, and purlins	660	SF	$ 20.00	$ 13,200.00
Replace 100% of 2nd floor wall framing due to char damage	1375	SF	$ 6.00	$ 8,250.00
Section 3				
Add 1 timber post from 3rd floor to basement wall on grid 3 and grid 4 to support 3rd floor timber beams near midspan	19	LF	$ 30.00	$ 570.00
6th Floor Mezzanine: Add 2 strongbacks to north gable end wall at floor diaphragm elevation to brace wall studs at hinge	20	LF	$ 30.00	$ 600.00
Roof: Remove roof sheathing, rafters, and 2 dropped purlins; Add new sheathing, rafters, and purlins	750	SF	$ 20.00	$ 15,000.00
Section 4				
Wood scientist for one day to quantify extent of bin wall and bin floor deterioration by resistance boring after excavation complete	1	LS	$ 1,500.00	$ 1,500.00
Roof: Remove roof sheathing; leave existing rafters; add rafters @ 24" between existing rafters; enhance connections; strengthen 2 dropped purlins; add plywood sheathing	1330	SF	$ 20.00	$ 26,600.00
Section 5				
1st Floor: Shore floor to reset dropped girders on new posts on new footings or on new stem wall	3	Places	$ 1,000.00	$ 3,000.00
Roof: Remove roof sheathing; sister rafters in north bay, add plywood sheathing, add hurricane ties on ends of rafters	935	SF	$ 20.00	$ 18,700.00
Roof: Anchor existing ledger on grid 4 to bin wall	30	LF	$ 10.00	$ 300.00
Roof: Shore rafters, remove and replace existing overstressed girder with steel beam or equivalent	28	LF	$ 101.25	$ 2,835.00
Sections 1, 2, 3, & 5; Lateral Force Resisting System				
Miscellaneous drag strut and collector elements. Will drag some force into existing bin walls in order to minimize number of new wood shear walls	1	LS	$ 1,000.00	$ 1,000.00

*Floor framing rated for business type occupancy only except where otherwise noted.

All Sections, Floor Framing				
Allowance to remove and replace structural elements affected by fire. Includes damaged elements requiring replacement and structurally acceptable elements to be replaced for aesthetic or odor reasons. (100% of 3rd floor framing, 30% of 4th floor framing, 100% of 6th floor framing)	525	SF	$ 25.00	$ 13,125.00
Allowance for miscellaneous structural repairs and unknown conditions	1	LS	$ 15,000.00	$ 15,000.00
3.4 Exterior Wall Construction & Envelope				
Structural Recommendations				
Section 3				
Replace existing studs damaged by fire	80	EACH	$ 18.00	$ 1,440.00
Add strongbacks to lines 3, A, Z at sixth floor	50	LF	$ 80.00	$ 4,000.00
Section 4				
Cut small openings in bin walls for needle beam shoring. Shore bin walls, remove deteriorated stacked-plank lumber with demo saw. Tooth in Douglas-Fir 2x6 plies and attach plies with adhesive and toenails from each side. Correct smaller defects with epoxy consolidant	3	EACH	$ 5,163.33	$ 15,490.00
Section 5				
Sister tall studs along grids A & Z	16	EACH	$ 18.00	$ 288.00
Sections 1, 2, 3, & 5; Basement Stud Walls				
Replace deteriorated or damaged interior sills and plates on gridlines 2 and 3	12	LF	$ 35.00	$ 420.00
Sections 1, 2, 3, & 5; Lateral Force Resisting System				
Selectively sheath existing stud walls to use as wood shear walls; add blocking, holdowns, and anchors into existing foundation.	1166	SF	$ 3.00	$ 3,498.00
Architectural Recommendations				
Remove and replace wood shiplap siding	920	SF	$ 8.00	$ 7,360.00
Remove and replace wood tongue and groove siding	2100	SF	$ 8.00	$ 16,800.00
Remove lead containing paint from exterior of building	6482	SF	$ 2.00	$ 12,964.00
Repaint exterior of building	6482	SF	$ 1.50	$ 9,723.00
Repaint historic sign on exterior of building	550	SF	$ 8.00	$ 4,400.00
3.5 Envelope - Roofing & Waterproofing				
Remove current roofing - corrugated sheet metal & asphalt shingles	3880	SF	$ 1.00	$ 3,880.00
Install Berridge corrugated metal roof	3880	SF	$ 4.00	$ 15,520.00
Install snow guards on the east and west edges of Sections 2, 3 & 4	120	LF	$ 15.00	$ 1,800.00
3.6 Windows & Doors				
Restore all windows				
Reconstruct eight lite double hung wood windows and frames to match original (2'x5')	6	windows	$ 900.00	$ 5,400.00
Reconstruct eight lite double hung wood windows to match original - epoxy stabalize existing frames (2'x5')	3	windows	$ 900.00	$ 2,700.00
Reconstruct four lite fixed wood window (approx. 2'x2')	1	window	$ 360.00	$ 360.00
Reconstruct four lite fixed wood window (approx. 2'x3')	2	windows	$ 540.00	$ 1,080.00
Reconstruct two lite double hung window (8"x5')	1	window	$ 350.00	$ 350.00
Restore all doors				
Replace 50% of the wood on the sliding doors (6'x7')	3	doors	$ 945.00	$ 2,835.00
Sand and refinish 4 panel wood doors	2	doors	$ 250.00	$ 500.00
Replace 50% of the wood boards composing exterior doors (3'x7')	4	doors	$ 472.50	$ 1,890.00
Remove, wire brush and oil all hardware that remains	3	sets	$ 85.00	$ 255.00
Install hardware to match historic	3	sets	$ 235.00	$ 705.00
New hinges and track for sliding door to match original (2 hinges, 1 overhead track 7' long)	3	sets	$ 700.00	$ 2,100.00

*Floor framing rated for business type occupancy only except where otherwise noted.

3.7 Interior Finishes				
Replace char damaged wood not covered in previous sections	1	lump sum	$ 25,000.00	$ 25,000.00
Replace 100% of floor boards in Sections 1,2,3 & 5 (varies from 1"x6" or 1"x8" or 1 1/2" x 10)	3286	SF	$ 4.00	$ 13,144.00
Remove non-historic stair from 1st to 2nd floor & install new stair	1	lump sum	$ 1,500.00	$ 1,500.00
Reinstall stairs on 2nd - 6th floors after new flooring is installed	4	sets	$ 500.00	$ 2,000.00
Media blast all wood surfaces in the building (optional, not in total)	24372	SF	$ 2.50	$ 60,930.00
3.8 Mechanical Systems				
NA				
3.9 Electrical Systems				
NA				
General Conditions				
Assumed 90 Day Duration	3	MO	$ 15,000.00	$ 45,000.00
Subtotal Hard Construction Costs				**$ 439,347.00**
			Bond (1.5%)	$ 6,590.21
			Builder's Risk Insurance	$ 1,318.04
			Permits & Plan Review	$ 6,590.21
Subtotal Construction Costs				**$ 453,845.45**
			Contractor Overhead & Profit (15%)	$ 68,076.82
Subtotal				$ 521,922.27
			Contingency (during design) - 5%	$ 26,096.11
Subtotal				$ 548,018.38
			A&E fees (10%)	$ 54,801.84
Subtotal				$ 602,820.22
			Owner Contingency (for construction) - 10%	$ 60,282.02
Total Construction Costs				**$ 663,102.24**
Hazardous material mitigation - plan development and mitigation work per report in HSA Appendix				$ 21,281.25
Total Costs				**$ 684,383.49**

*Floor framing rated for business type occupancy only except where otherwise noted.

Phase I

Louisville Grain Elevator Historic Structure Assessment - Phase I				
Description	**Quantity**	**Unit**	**Unit Price**	**Total**
3.1 Site				
Regrade to ensure drainage away from building	211	CY	$ 6.00	$ 1,266.00
Remove berm along west elevation (cut & fill on site)	50	CY	$ 6.00	$ 300.00
Install perimeter drain	250	LF	$ 21.00	$ 5,250.00
Remove 3 trees (2 on the north & 1 on the east)	3	EACH	$ 250.00	$ 750.00
3.2 Foundations				
Procure Geotechnical Engineer's Report for site	1	LS	$ 2,500.00	$ 2,500.00
Excavate around entire perimeter of site to access work	628	CY	$ 8.00	$ 5,024.00
Infill perimeter basement wall to Sections 1, 2, & 3	33	CY	$ 750.00	$ 24,750.00
Concrete	14	CY	$ 750.00	$ 10,500.00
Add counterforts & augment perimeter basement footing at Sections 1, 2, & 3	5	CY	$ 2,670.00	$ 13,350.00
Add 4 spread footings to Section 3 (below timber posts along grid 3 and grid 4)	1	CY	$ 850.00	$ 850.00
Add 2 square footings to Section 3 (at ends of shear wall along grid 3 to resist overturning forces)	1	CY	$ 850.00	$ 850.00
Infill basement pit with flowfill	17	CY	$ 150.00	$ 2,550.00
Repair deteriorated bin walls below grade, add impervious waterproofing membrane; reinforce wall with PT lumber if required	17	CY	$ 750.00	$ 12,750.00
Add perimeter basement wall to Section 5	9	CY	$ 850.00	$ 7,650.00
Add strip footing to Section 5	above	CY	above	above
Allowance for footing augmentation where allowable bearing capacity exceeded or net tension due to shearwall overturning forces	1	LS	$ 15,000.00	$ 15,000.00
3.3 Building Structural System				
Section 1				
Roof: Remove roof sheathing; sister rafters, add plywood sheathing	370	SF	$ 15.00	$ 5,550.00
Section 2				
Roof: Remove roof sheathing, rafters, and 2 dropped purlins; Add new sheathing, rafters, and purlins	660	SF	$ 20.00	$ 13,200.00
Section 3				
Roof: Remove roof sheathing, rafters, and 2 dropped purlins; Add new sheathing, rafters, and purlins	750	SF	$ 20.00	$ 15,000.00
Section 4				
Wood scientist for one day to quantify extent of bin wall and bin floor deterioration by resistance boring after excavation complete	1	LS	$ 1,500.00	$ 1,500.00
Roof: Remove roof sheathing; leave existing rafters; add rafters @ 24" between existing rafters; enhance connections; strengthen 2 dropped purlins; add plywood sheathing	1330	SF	$ 20.00	$ 26,600.00
Section 5				
Roof: Remove roof sheathing; sister rafters in north bay, add plywood sheathing, add hurricane ties on ends of rafters	935	SF	$ 20.00	$ 18,700.00
Roof: Anchor existing ledger on grid 4 to bin wall	30	LF	$ 10.00	$ 300.00
Roof: Shore rafters, remove and replace existing overstressed girder with steel beam or equivalent	28	LF	$ 101.25	$ 2,835.00
All Sections, Floor Framing				
Allowance for miscellaneous structural repairs and unknown conditions	1	LS	$ 15,000.00	$ 15,000.00
3.4 Exterior Wall Construction & Envelope				
Structural Recommendations				
NA				
Architectural Recommendations				
NA				

*Floor framing rated for business type occupancy only except where otherwise noted.

Phase I

3.5 Envelope - Roofing & Waterproofing				
Remove current roofing - corrugated sheet metal & asphalt shingles	3880	SF	$ 1.00	$ 3,880.00
Install Berridge corrugated metal roof	3880	SF	$ 4.00	$ 15,520.00
Install snow guards on the east and west edges of Sections 2, 3 & 4	120	LF	$ 15.00	$ 1,800.00
3.6 Windows & Doors				
NA				
3.7 Interior Finishes				
3.8 Mechanical Systems				
NA				
3.9 Electrical Systems				
NA				
General Conditions				
Assumed 90 Day Duration	2	MO	$ 15,000.00	$ 30,000.00
Subtotal Hard Construction Costs				**$ 253,225.00**
			Bond (1.5%)	$ 3,798.38
			Builder's Risk Insurance	$ 759.68
			Permits & Plan Review	$ 3,798.38
Subtotal Construction Costs				**$ 261,581.43**
			Contractor Overhead & Profit (15%)	$ 39,237.21
Subtotal				$ 300,818.64
			Contingency (during design) - 5%	$ 15,040.93
Subtotal				$ 315,859.57
			A&E fees (10%)	$ 31,585.96
Subtotal				$ 347,445.53
			Owner Contingency (for construction) - 10%	$ 34,744.55
Total Construction Costs				**$ 382,190.08**
Hazardous material mitigation - plan development and mitigation work per report in HSA Appendix				$ 21,281.25
Phase I Total Costs				**$ 403,471.33**

*Floor framing rated for business type occupancy only except where otherwise noted.

Phase II

Louisville Grain Elevator Historic Structure Assessment - Phase II				
Description	**Quantity**	**Unit**	**Unit Price**	**Total**
3.1 Site				
NA				
3.2 Foundations				
NA				
3.3 Building Structural System				
Section 1				
1st Floor: Remove abandoned stair; re-frame floor around stair opening	15	SF	$ 25.00	$ 375.00
Section 2				
2nd Floor: Remove fire damaged floor joists which have a very low calculated load-carrying capacity. Replace with new more robust joists spanning east-west bearing on exterior walls and on one timber beam spanning north-south across center of bay.	400	SF	$ 20.00	$ 8,000.00
Replace 100% of 2nd floor wall framing due to char damage	1375	SF	$ 6.00	$ 8,250.00
Section 3				
Add 1 timber post from 3rd floor to basement wall on grid 3 and grid 4 to support 3rd floor timber beams near midspan	19	LF	$ 30.00	$ 570.00
6th Floor Mezzanine: Add 2 strongbacks to north gable end wall at floor diaphragm elevation to brace wall studs at hinge	20	LF	$ 30.00	$ 600.00
Section 4				
Section 5				
1st Floor: Shore floor to reset dropped girders on new posts on new footings or on new stem wall	3	Places	$ 1,000.00	$ 3,000.00
Sections 1, 2, 3, & 5; Lateral Force Resisting System				
Miscellaneous drag strut and collector elements. Will drag some force into existing bin walls in order to minimize number of new wood shear walls	1	LS	$ 1,000.00	$ 1,000.00
All Sections, Floor Framing				
Allowance to remove and replace structural elements affected by fire. Includes damaged elements requiring replacement and structurally acceptable elements to be replaced for aesthetic or odor reasons. (100% of 3rd floor framing, 30% of 4th floor framing, 100% of 6th floor framing)	525	SF	$ 25.00	$ 13,125.00
3.4 Exterior Wall Construction & Envelope				
Structural Recommendations				
Section 3				
Replace existing studs damaged by fire	80	EACH	$ 18.00	$ 1,440.00
Add strongbacks to lines 3, A, Z at sixth floor	50	LF	$ 80.00	$ 4,000.00
Section 4				
Cut small openings in bin walls for needle beam shoring. Shore bin walls, remove deteriorated stacked-plank lumber with demo saw. Tooth in Douglas-Fir 2x6 plies and attach plies with adhesive and toenails from each side. Correct smaller defects with epoxy consolidant	3	EACH	$ 5,163.33	$ 15,490.00
Section 5				
Sister tall studs along grids A & Z	16	EACH	$ 18.00	$ 288.00
Sections 1, 2, 3, & 5; Basement Stud Walls				
Replace deteriorated or damaged interior sills and plates on gridlines 2 and 3	12	LF	$ 35.00	$ 420.00
Sections 1, 2, 3, & 5; Lateral Force Resisting System				
Selectively sheath existing stud walls to use as wood shear walls; add blocking, holdowns, and anchors into existing foundation.	1166	SF	$ 3.00	$ 3,498.00
Architectural Recommendations				
Remove and replace wood shiplap siding	920	SF	$ 8.00	$ 7,360.00
Remove and replace wood tongue and groove siding	2100	SF	$ 8.00	$ 16,800.00
Remove lead containing paint from exterior of building	6482	SF	$ 2.00	$ 12,964.00
Repaint exterior of building	6482	SF	$ 1.50	$ 9,723.00

*Floor framing rated for business type occupancy only except where otherwise noted.

Phase II

3.5 Envelope - Roofing & Waterproofing				
NA				
3.6 Windows & Doors				
NA				
3.7 Interior Finishes				
Remove non-historic stair from 1st to 2nd floor & install new stair	1	lump sum	$ 1,500.00	$ 1,500.00
3.8 Mechanical Systems				
NA				
3.9 Electrical Systems				
NA				
General Conditions				
Assumed 90 Day Duration	1.5	MO	$ 15,000.00	$ 22,500.00
Subtotal Hard Construction Costs				**$ 130,903.00**
			Bond (1.5%)	$ 1,963.55
			Builder's Risk Insurance	$ 392.71
			Permits & Plan Review	$ 1,963.55
Subtotal Construction Costs				**$ 135,222.80**
			Re-mobilization cost (10%)	$ 13,522.28
Subtotal				$ 148,745.08
			Contractor Overhead & Profit (15%)	$ 22,311.76
Subtotal				$ 171,056.84
			Contingency (during design) - 5%	$ 8,552.84
Subtotal				$ 179,609.68
			A&E fees (10%)	$ 17,960.97
Subtotal				$ 197,570.65
			Owner Contingency (for construction) - 10%	$ 19,757.07
Phase II Total Construction Costs				**$ 217,327.72**

*Floor framing rated for business type occupancy only except where otherwise noted.

Phase III

Louisville Grain Elevator Historic Structure Assessment - Phase III				
Description	**Quantity**	**Unit**	**Unit Price**	**Total**
3.1 Site				
NA				
3.2 Foundations				
NA				
3.3 Building Structural System				
3.4 Exterior Wall Construction & Envelope				
Architectural Recommendations				
Repaint historic sign on exterior of building	550	SF	$ 8.00	$ 4,400.00
3.5 Envelope - Roofing & Waterproofing				
NA				
3.6 Windows & Doors				
Restore all windows				
Reconstruct eight lite double hung wood windows and frames to match original (2'x5')	6	windows	$ 900.00	$ 5,400.00
Reconstruct eight lite double hung wood windows to match original - epoxy stabalize existing frames (2'x5')	3	windows	$ 900.00	$ 2,700.00
Reconstruct four lite fixed wood window (approx. 2'x2')	1	window	$ 360.00	$ 360.00
Reconstruct four lite fixed wood window (approx. 2'x3')	2	windows	$ 540.00	$ 1,080.00
Reconstruct two lite double hung window (8"x5')	1	window	$ 350.00	$ 350.00
Restore all doors				
Replace 50% of the wood on the sliding doors (6'x7')	3	doors	$ 945.00	$ 2,835.00
Sand and refinish 4 panel wood doors	2	doors	$ 250.00	$ 500.00
Replace 50% of the wood boards composing exterior doors (3'x7')	4	doors	$ 472.50	$ 1,890.00
Remove, wire brush and oil all hardware that remains	3	sets	$ 85.00	$ 255.00
Install hardware to match historic	3	sets	$ 235.00	$ 705.00
New hinges and track for sliding door to match original (2 hinges, 1 overhead track 7' long)	3	sets	$ 700.00	$ 2,100.00
3.7 Interior Finishes				
Replace char damaged wood not covered in previous sections	1	lump sum	$ 25,000.00	$ 25,000.00
Replace 100% of floor boards in Sections 1,2,3 & 5 (varies from 1"x6" or 1"x8" or 1 1/2" x 10)	3286	SF	$ 4.00	$ 13,144.00
Reinstall stairs on 2nd - 6th floors after new flooring is installed	4	sets	$ 500.00	$ 2,000.00
Media blast all wood surfaces in the building (optional, not in total)	24372	SF	$ 2.50	$ 60,930.00
3.8 Mechanical Systems				
NA				
3.9 Electrical Systems				
NA				
General Conditions				
Assumed 90 Day Duration	1	MO	$ 15,000.00	$ 15,000.00
Subtotal Hard Construction Costs				**$ 77,719.00**
			Bond (1.5%)	$ 1,165.79
			Builder's Risk Insurance	$ 233.16
			Permits & Plan Review	$ 1,165.79
Subtotal Construction Costs				**$ 80,283.73**
			Re-mobilization cost (10%)	$ 8,028.37
Subtotal				$ 88,312.10
			Contractor Overhead & Profit (15%)	$ 13,246.81
Subtotal				$ 101,558.91
			Contingency (during design) - 5%	$ 5,077.95
Subtotal				$ 106,636.86
			A&E fees (10%)	$ 10,663.69
Subtotal				$ 117,300.55
			Owner Contingency (for construction) - 10%	$ 11,730.05
Phase III Total Construction Costs				**$ 129,030.60**

*Floor framing rated for business type occupancy only except where otherwise noted.

6.0 Historic Photos

"Louisville: Louisville M.&E. Company" date unknown.
Carnegie Branch Library for Local HIstory, Boulder Historical Society Collection

"Louisville: Louisville M.&E. Company" date unknown.
Carnegie Branch Library for Local HIstory, Boulder Historical Society Collection

Photo of the Grain Elevator, 2/8/1914.
Courtesy of the RFP from the City of Louisville

7.0 Bibliography

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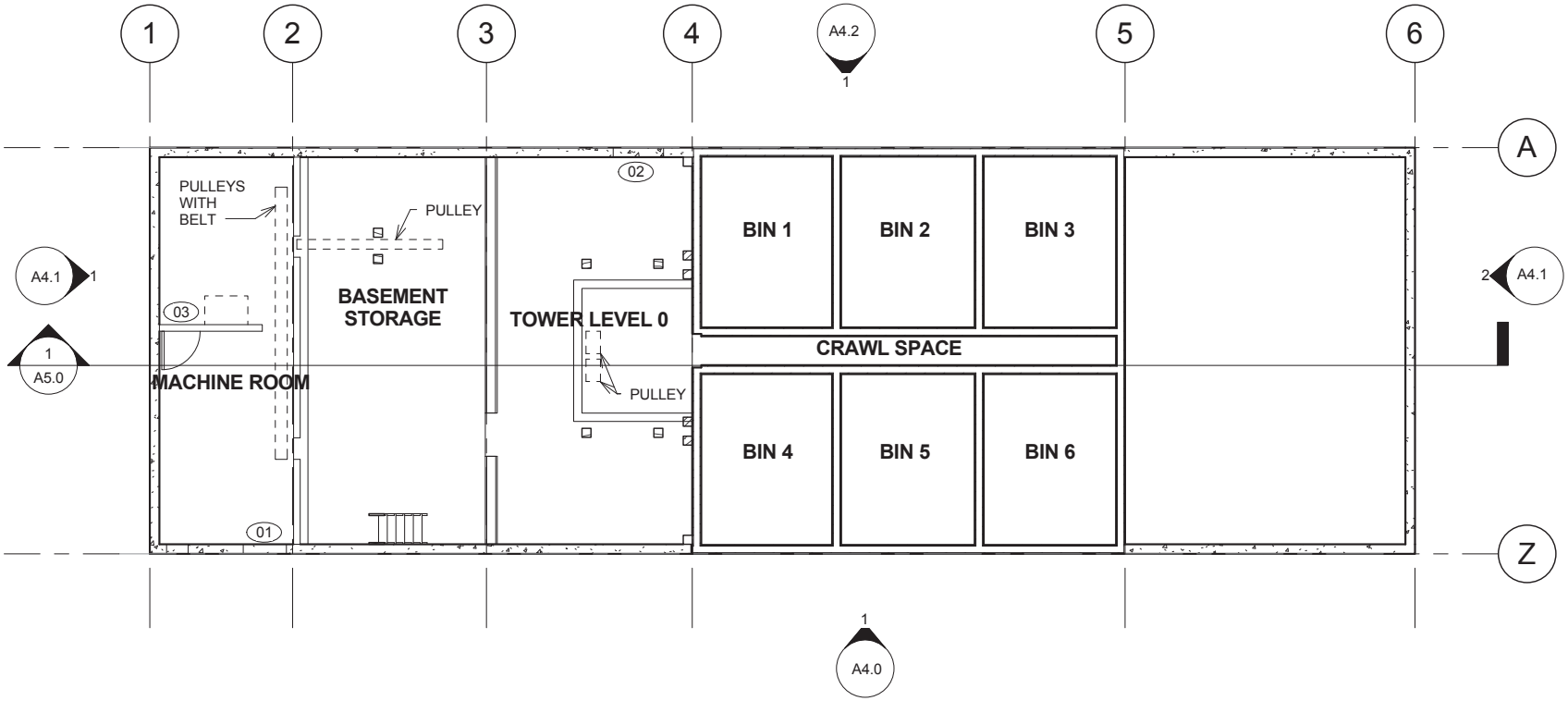
8.0 Appendix

- Floor Plans, Elevations and Section
- 1908 Sanborn Map
- Land Survey
- Wood Scientist Report
- Hazardous Materials Report
- National Register Nomination Form
- Colorado Cultural Resource Survey



1 **BASEMENT**
1/8" = 1'-0"

N

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(303) 278-4378
FAX (303) 278-0521

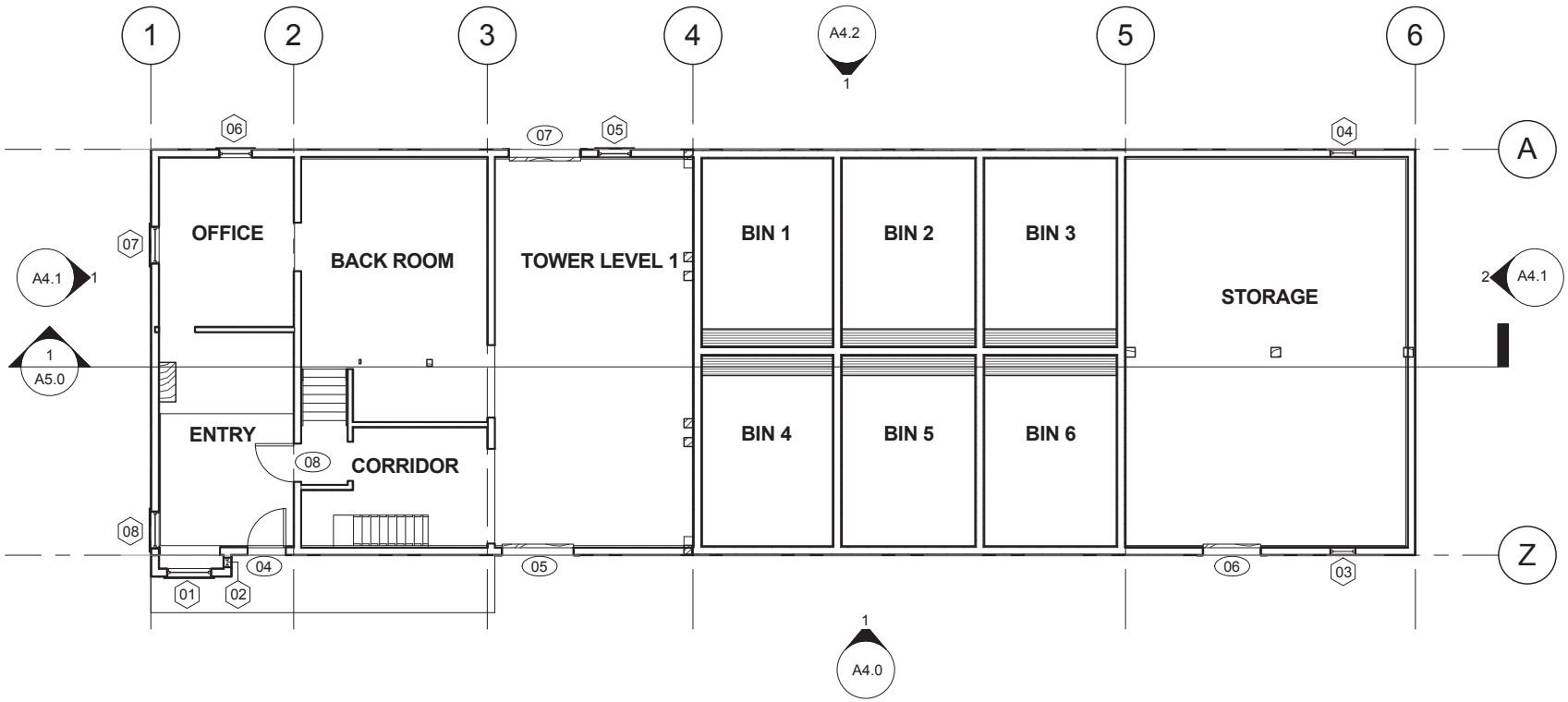
Louisville Grain Elevator
-
Louisville, Colorado

No.	Description	Date

Project Number	2011100
Issue	HSA
Date	05/02/2011
Drawn by	KAC/AFC
Checked by	NAA
Scale	1/8" = 1'-0"

Basement Floor Plan

A1.0



1 **FIRST FLOOR**
1/8" = 1'-0"

N

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Louisville Grain Elevator - Louisville, Colorado

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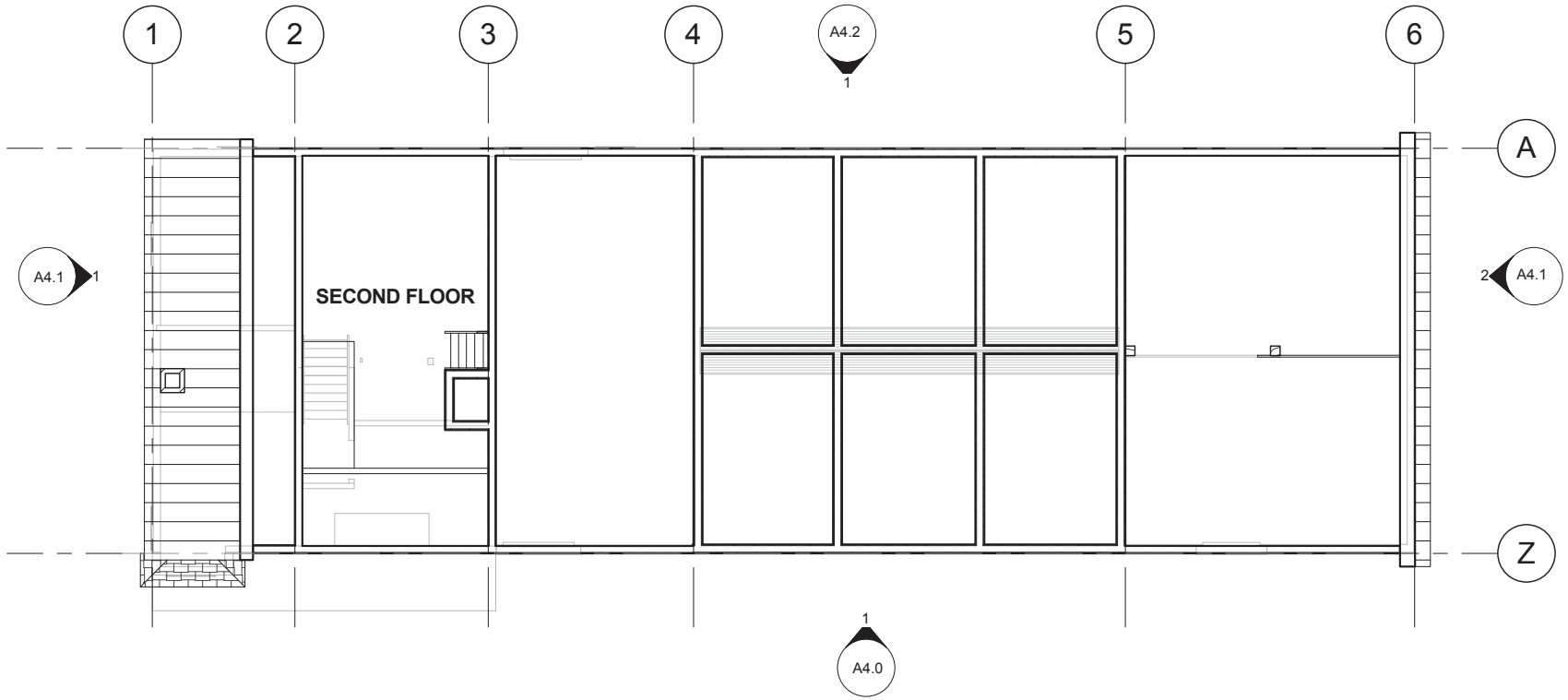
Project Number	2011100
Issue	HSA
Date	05/02/2011
Drawn by	KAC/AFC
Checked by	NAA
Scale	1/8" = 1'-0"

First Floor Plan

A1.1



1 **SECOND FLOOR**
1/8" = 1'-0"

N

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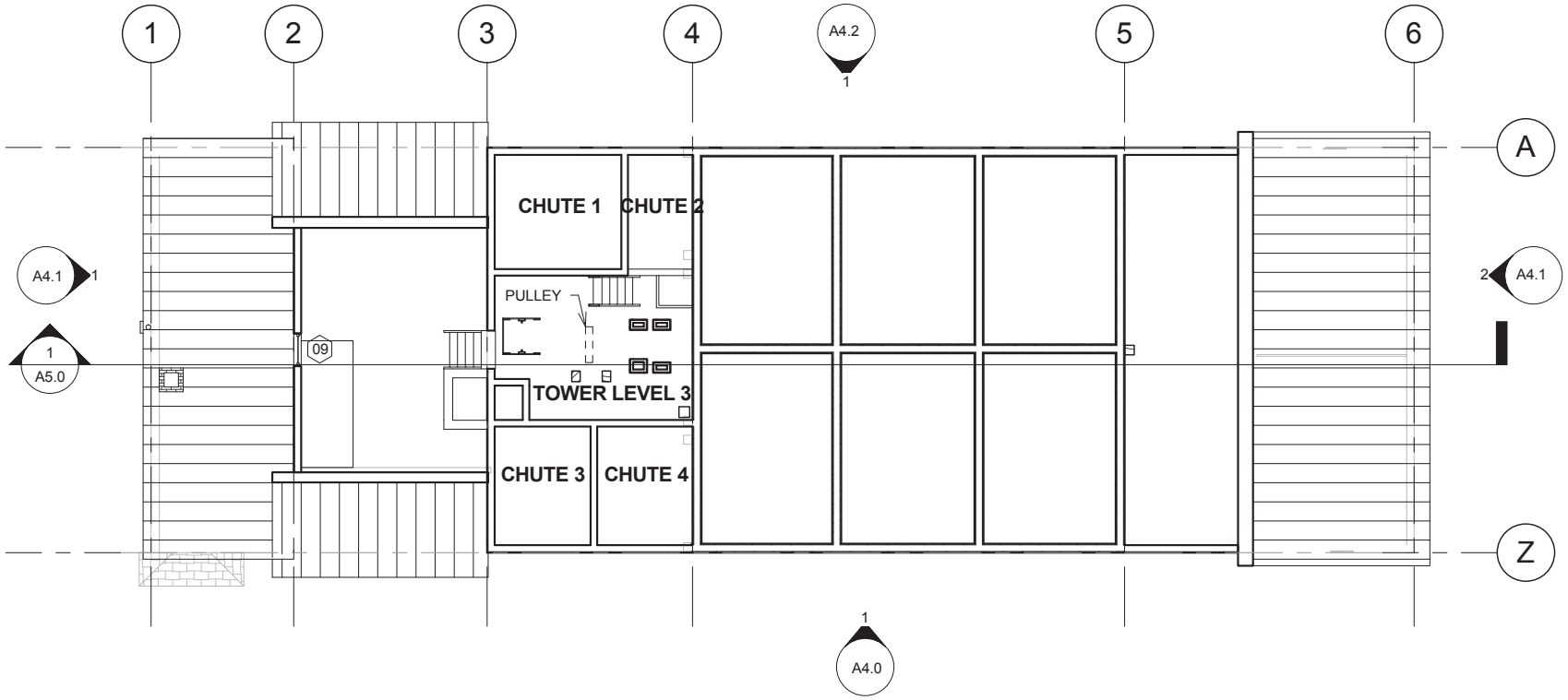
Louisville Grain Elevator
-
Louisville, Colorado

No.	Description	Date

Project Number	2011100
Issue	HSA
Date	05/02/2011
Drawn by	KAC/AFC
Checked by	NAA
Scale	1/8" = 1'-0"

Second Floor Plan

A1.2



1 **THIRD FLOOR**
1/8" = 1'-0"

N

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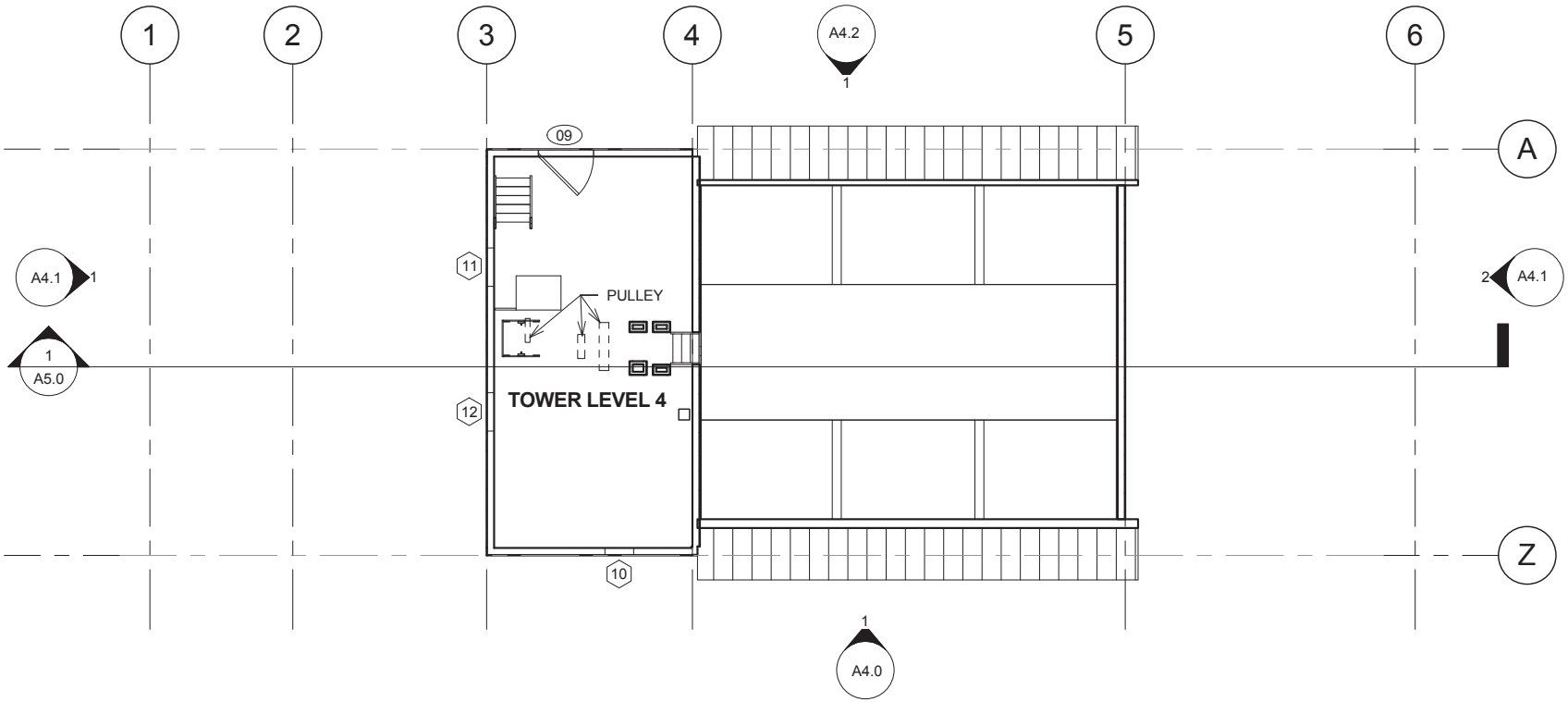
Louisville Grain Elevator - Louisville, Colorado

No.	Description	Date

Project Number	2011100
Issue	HSA
Date	05/02/2011
Drawn by	KAC/AFC
Checked by	NAA
Scale	1/8" = 1'-0"

Third Floor Plan

A1.3



1 **FOURTH FLOOR**
1/8" = 1'-0"

N

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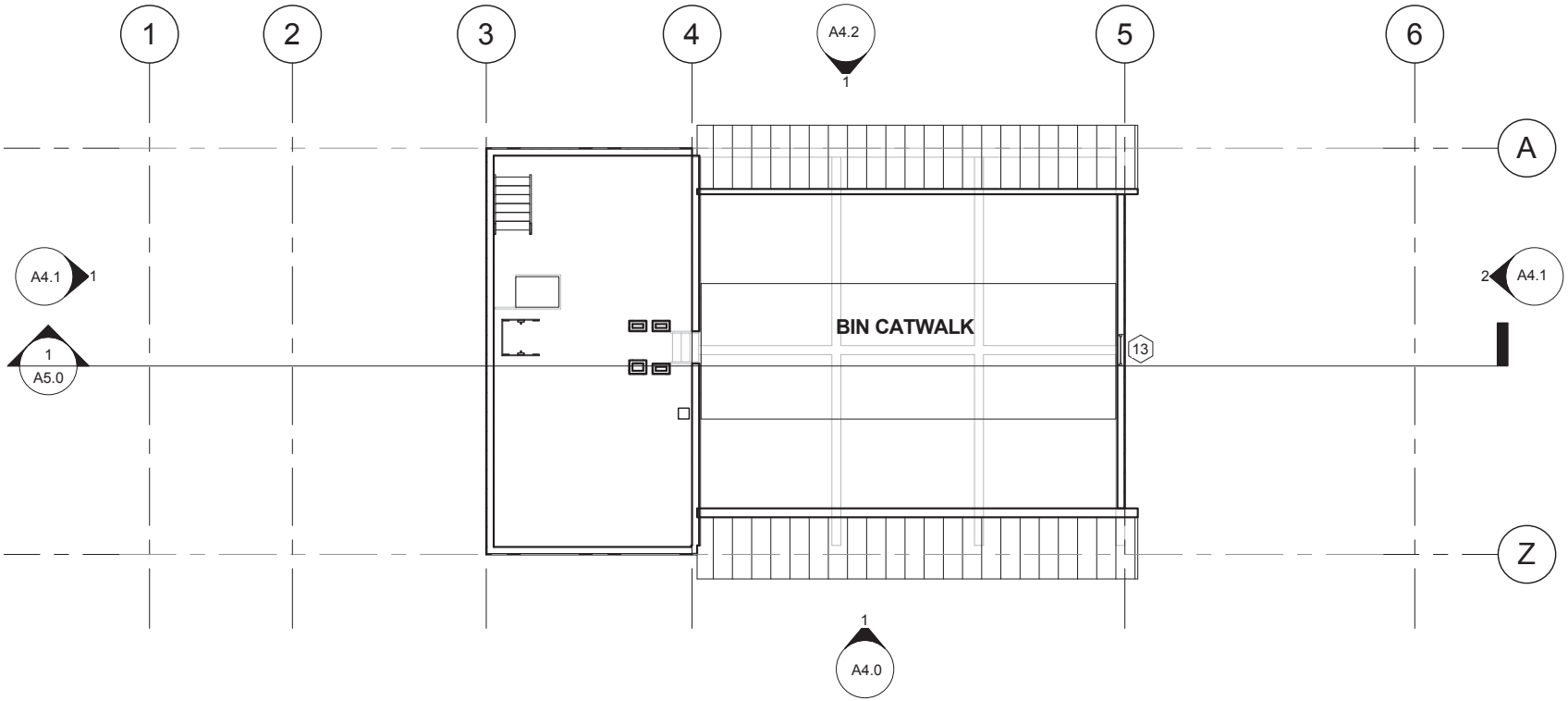
Louisville Grain Elevator - Louisville, Colorado

No.	Description	Date

Project Number	2011100
Issue	HSA
Date	05/02/2011
Drawn by	KAC/AFC
Checked by	NAA
Scale	1/8" = 1'-0"

Fourth Floor Plan

A1.4



1 **FIFTH FLOOR**
1/8" = 1'-0"

N

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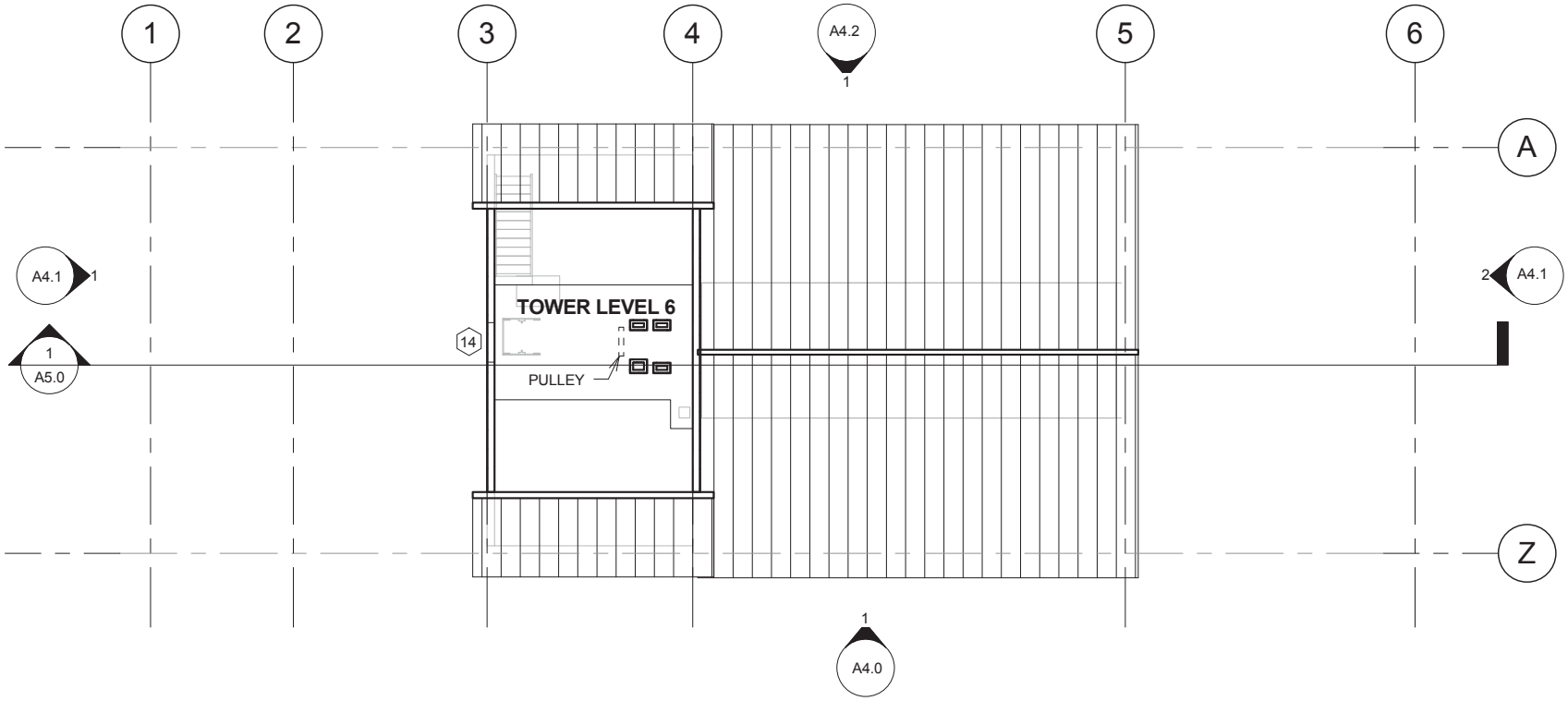
Louisville Grain Elevator
-
Louisville, Colorado

No.	Description	Date

Project Number	2011100
Issue	HSA
Date	05/02/2011
Drawn by	KAC/AFC
Checked by	NAA
Scale	1/8" = 1'-0"

Fifth Floor Plan

A1.5



1 **SIXTH FLOOR**
1/8" = 1'-0"

N

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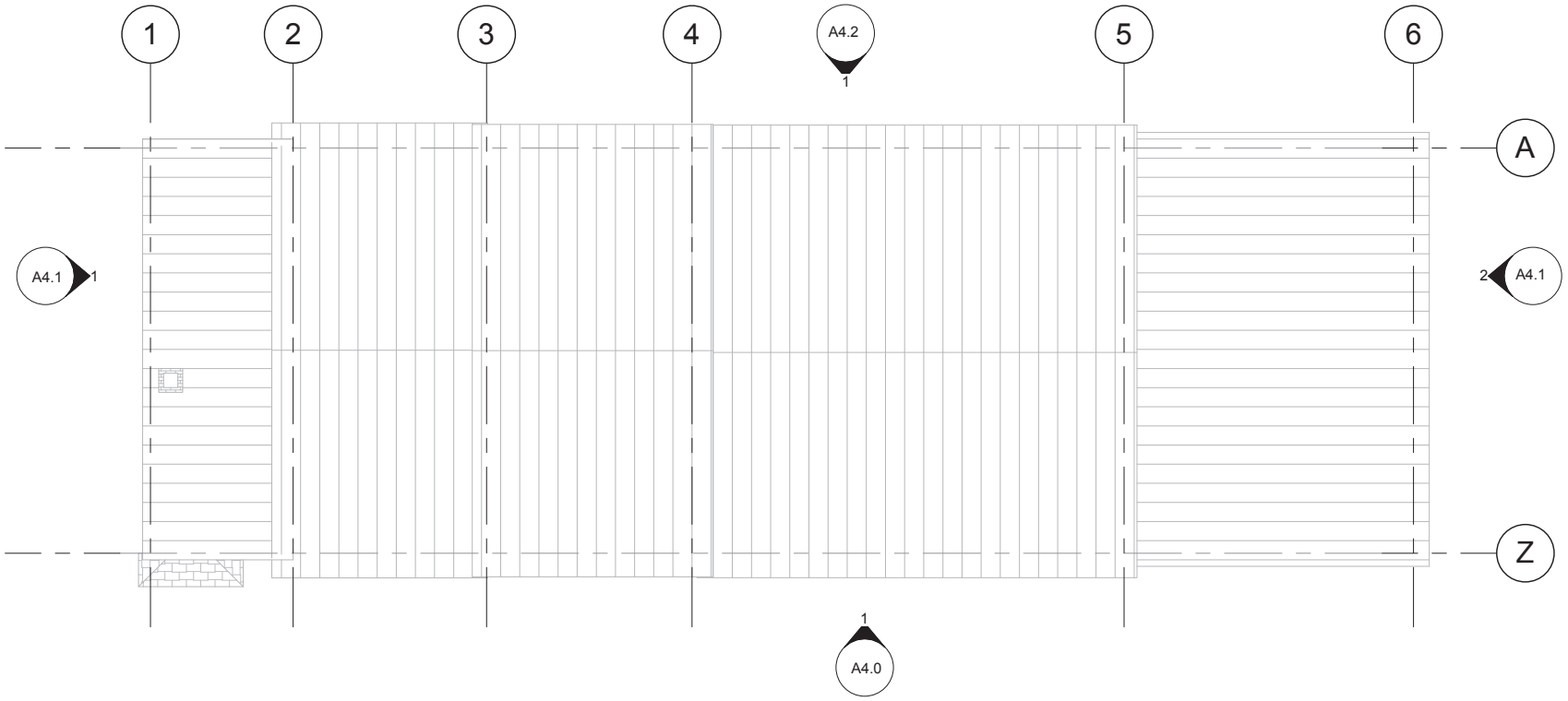
Louisville Grain Elevator - Louisville, Colorado

No.	Description	Date

Project Number	2011100
Issue	HSA
Date	05/02/2011
Drawn by	KAC/AFC
Checked by	NAA
Scale	1/8" = 1'-0"

Sixth Floor Plan

A1.6



1 **ROOF**
1/8" = 1'-0"

N

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Louisville Grain Elevator - Louisville, Colorado

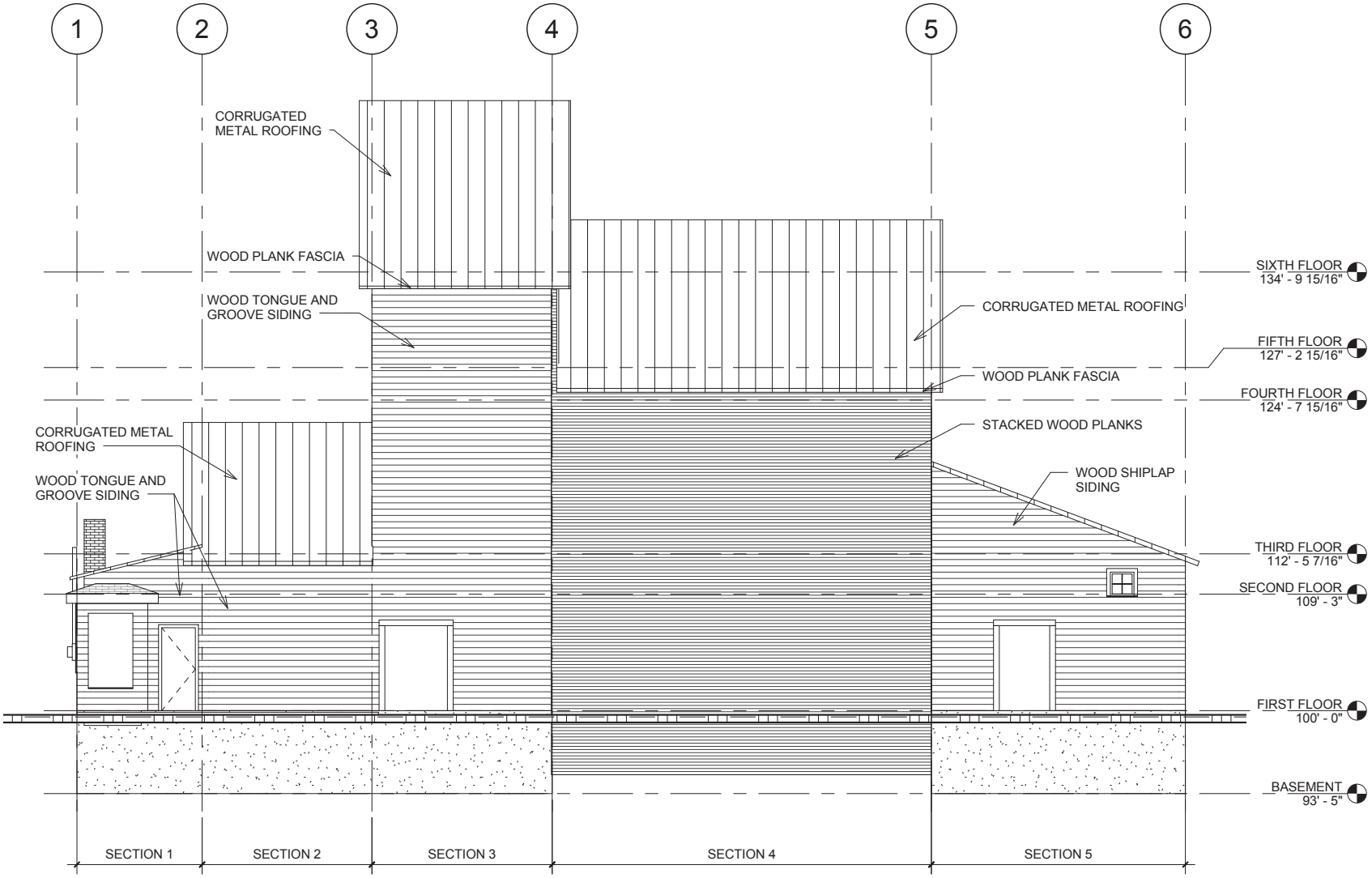
No.	Description	Date

Project Number	2011100
Issue	HSA
Date	05/02/2011
Drawn by	DM/KAC/AFC
Checked by	NAA
Scale	1/8" = 1'-0"

Roof Plan

A1.7

ELEVATIONS SHOW PROPOSED MATERIALS AFTER PHASE II WORK IS COMPLETED, NOT ALL MATERIALS ARE EXISTING. FOR EXISTING MATERIALS REFER TO PHOTOGRAPHS IN SECTIONS 3.4 & 3.5.



1 **WEST ELEVATION**
1/8" = 1'-0"

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Louisville Grain Elevator - Louisville, Colorado

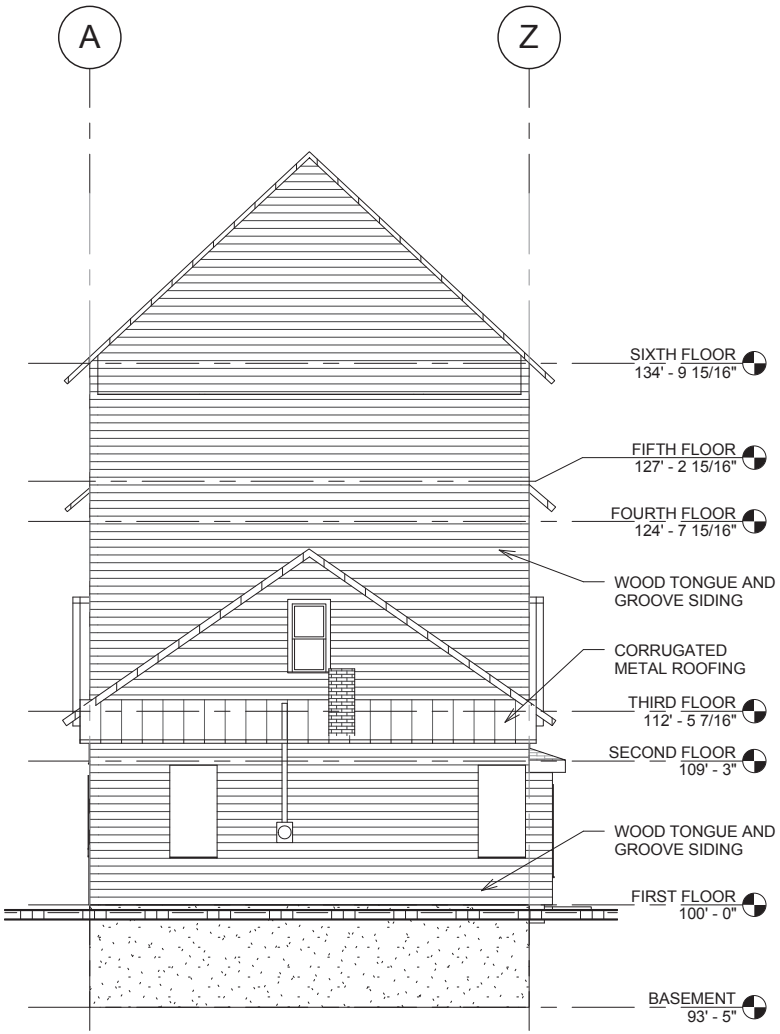
No.	Description	Date

Project Number	2011100
Issue	HSA
Date	05/02/2011
Drawn by	KAC/AFC
Checked by	NAA
Scale	1/8" = 1'-0"

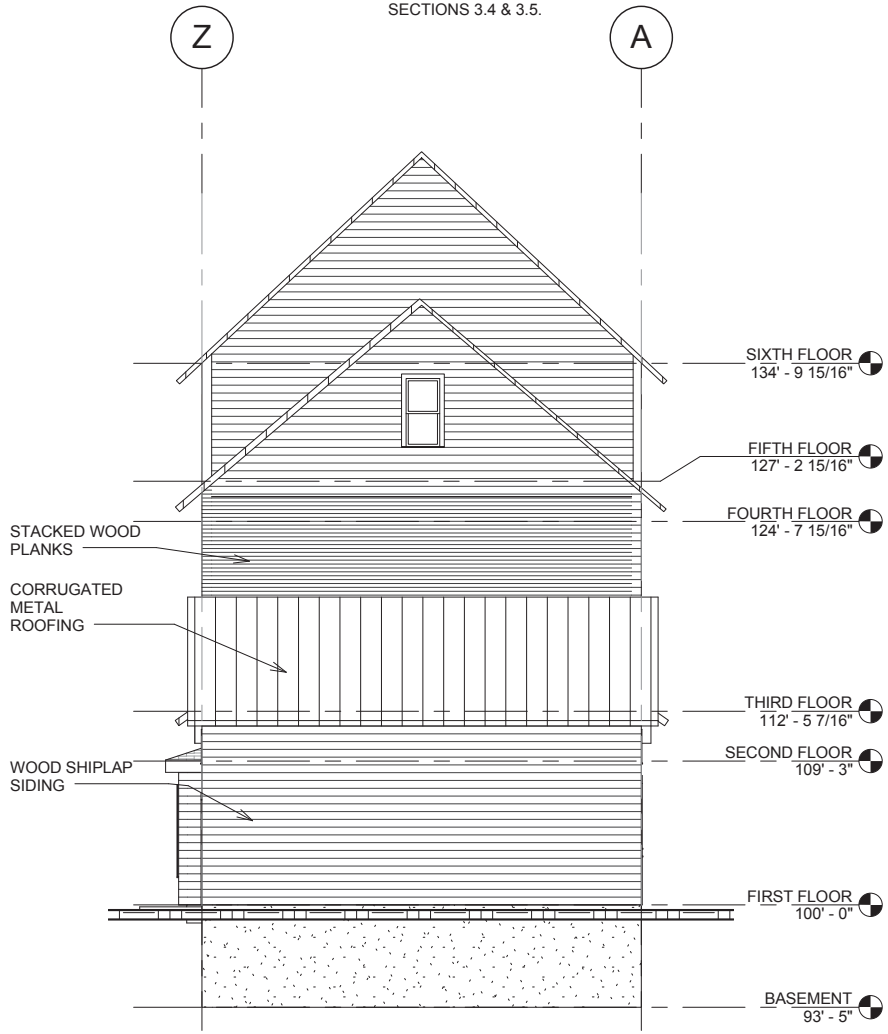
Exterior Elevation - West

A4.0

ELEVATIONS SHOW PROPOSED MATERIALS AFTER PHASE II WORK IS COMPLETED, NOT ALL MATERIALS ARE EXISTING. FOR EXISTING MATERIALS REFER TO PHOTOGRAPHS IN SECTIONS 3.4 & 3.5.



1 **NORTH ELEVATION**
1/8" = 1'-0"



2 **SOUTH ELEVATION**
1/8" = 1'-0"

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Louisville Grain Elevator - Louisville, Colorado

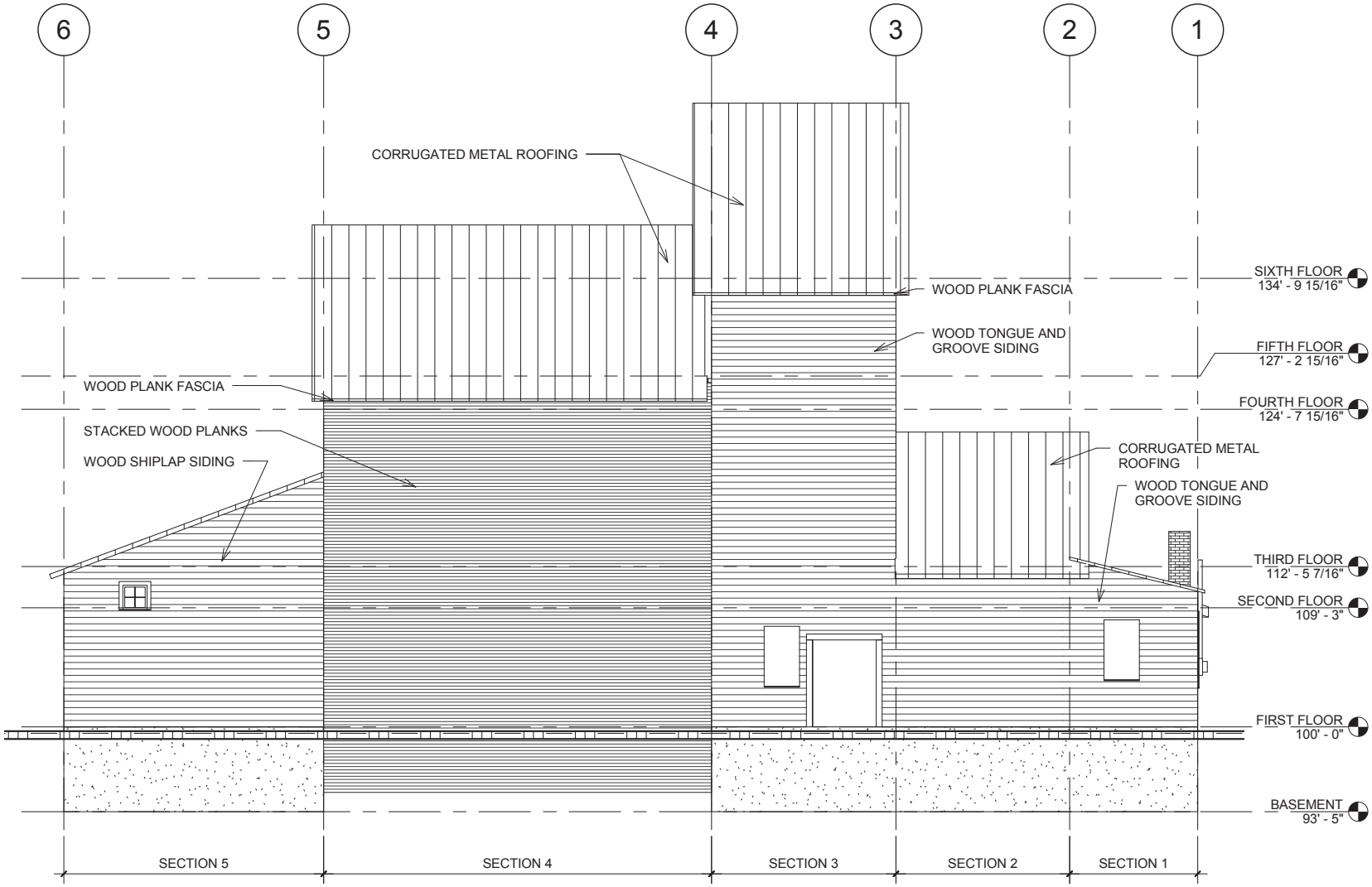
No.	Description	Date

Project Number	2011100
Issue	HSA
Date	05/02/2011
Drawn by	KAC/AFC
Checked by	NAA
Scale	1/8" = 1'-0"

Exterior Elevation - North and South

A4.1

ELEVATIONS SHOW PROPOSED MATERIALS AFTER PHASE II WORK IS COMPLETED, NOT ALL MATERIALS ARE EXISTING. FOR EXISTING MATERIALS REFER TO PHOTOGRAPHS IN SECTIONS 3.4 & 3.5.



1 **EAST ELEVATION**
1/8" = 1'-0"

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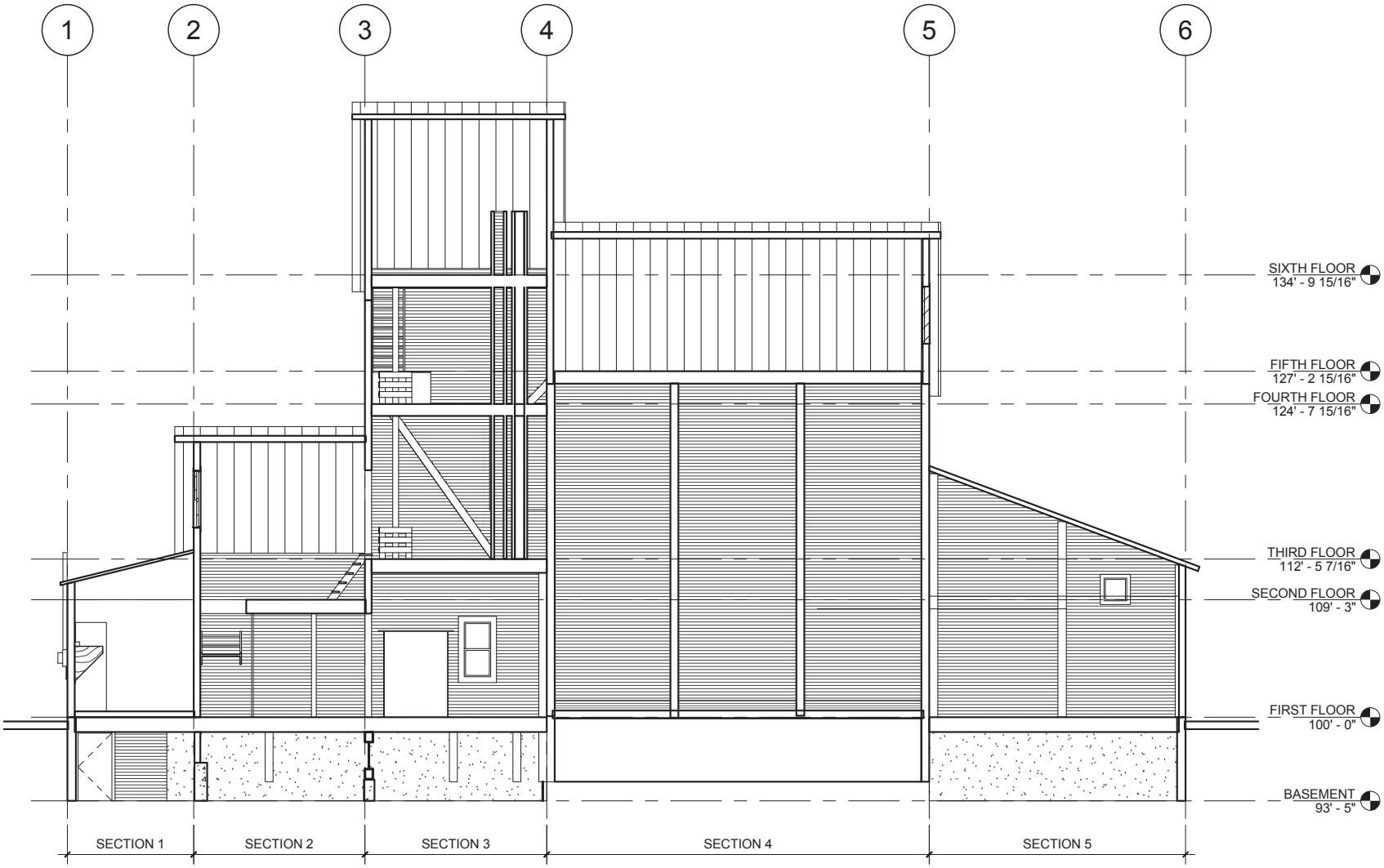
Louisville Grain Elevator - Louisville, Colorado

No.	Description	Date

Project Number	2011100
Issue	HSA
Date	05/02/2011
Drawn by	KAC/AFC
Checked by	NAA
Scale	1/8" = 1'-0"

Exterior Elevation - East

A4.2



1 **LONGITUDINAL SECTION**
1/8" = 1'-0"

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Louisville Grain Elevator - Louisville, Colorado

No.	Description	Date

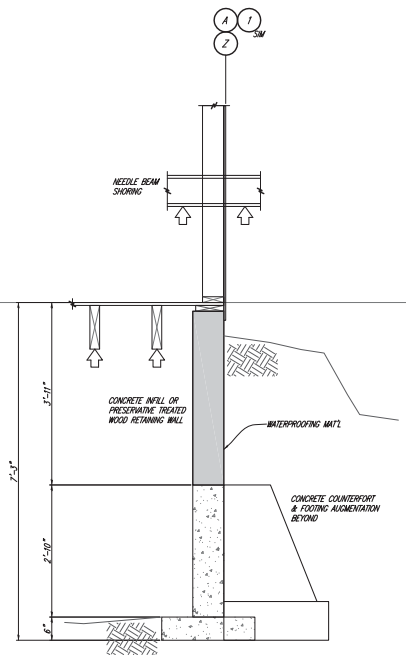
Project Number	2011100
Issue	HSA
Date	05/02/2011
Drawn by	KAC/AFC
Checked by	NAA
Scale	1/8" = 1'-0"

Building Section

A5.0

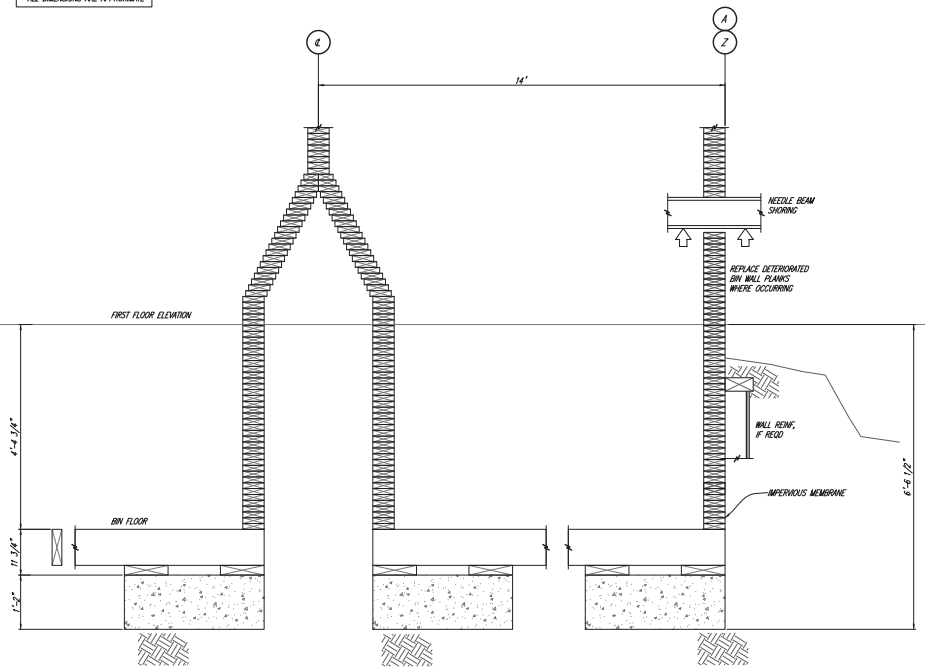
Z:\14858 Louisville Grain Elevator\14858-S10v2.dwg, 3/9/2011 9:40:37 AM, irg

NOTES:
* ALL DIMENSIONS ARE APPROXIMATE



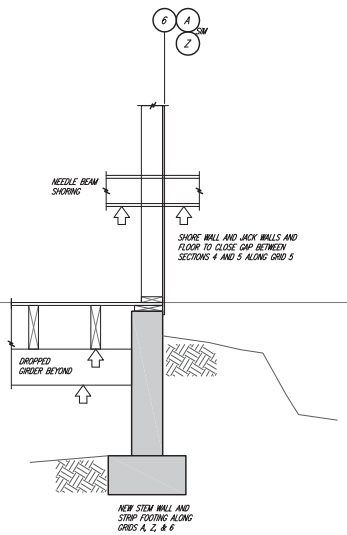
SECTIONS 1, 2, & 3

SECTION 1A/S1.0 3/8"=1'-0



SECTION 4

SECTION 2/S1.0 3/8"=1'-0



SECTION 5

SECTION 3/S1.0 3/8"=1'-0

0 6" 1' 2' 3'

Anderson Hallas Architects, PC

ARCHITECTURE
HISTORIC PRESERVATION
PLANNING

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(303) 278-4178
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Louisville Grain Elevator
Historic Structures Assesment
Louisville, Colorado

ISSUED	H.S.A. SET
DATE	03/09/2011

REVISION	DATE

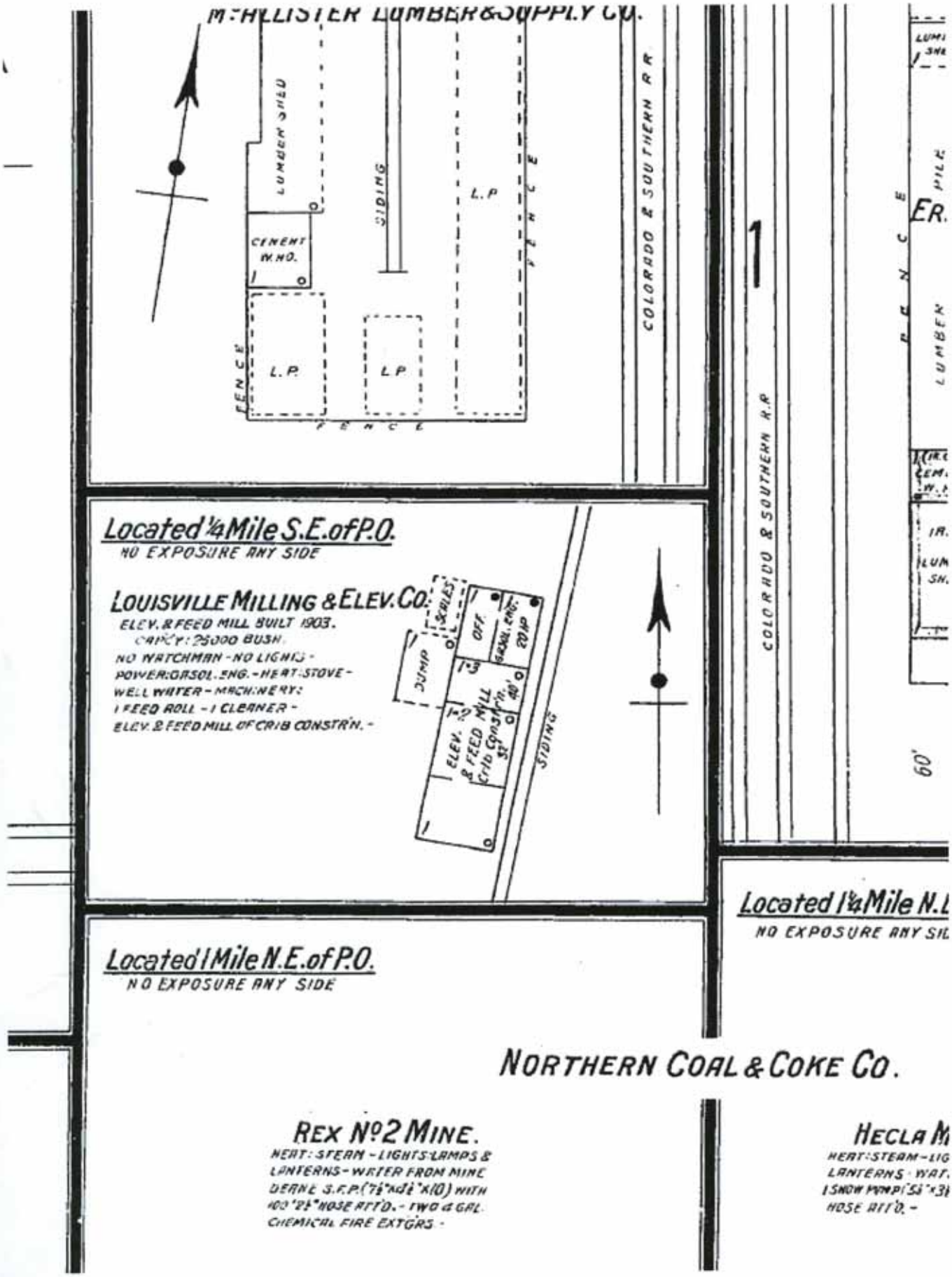
DRAWN	IRG
CHECKED	DEC
PROJECT NO.	2011100

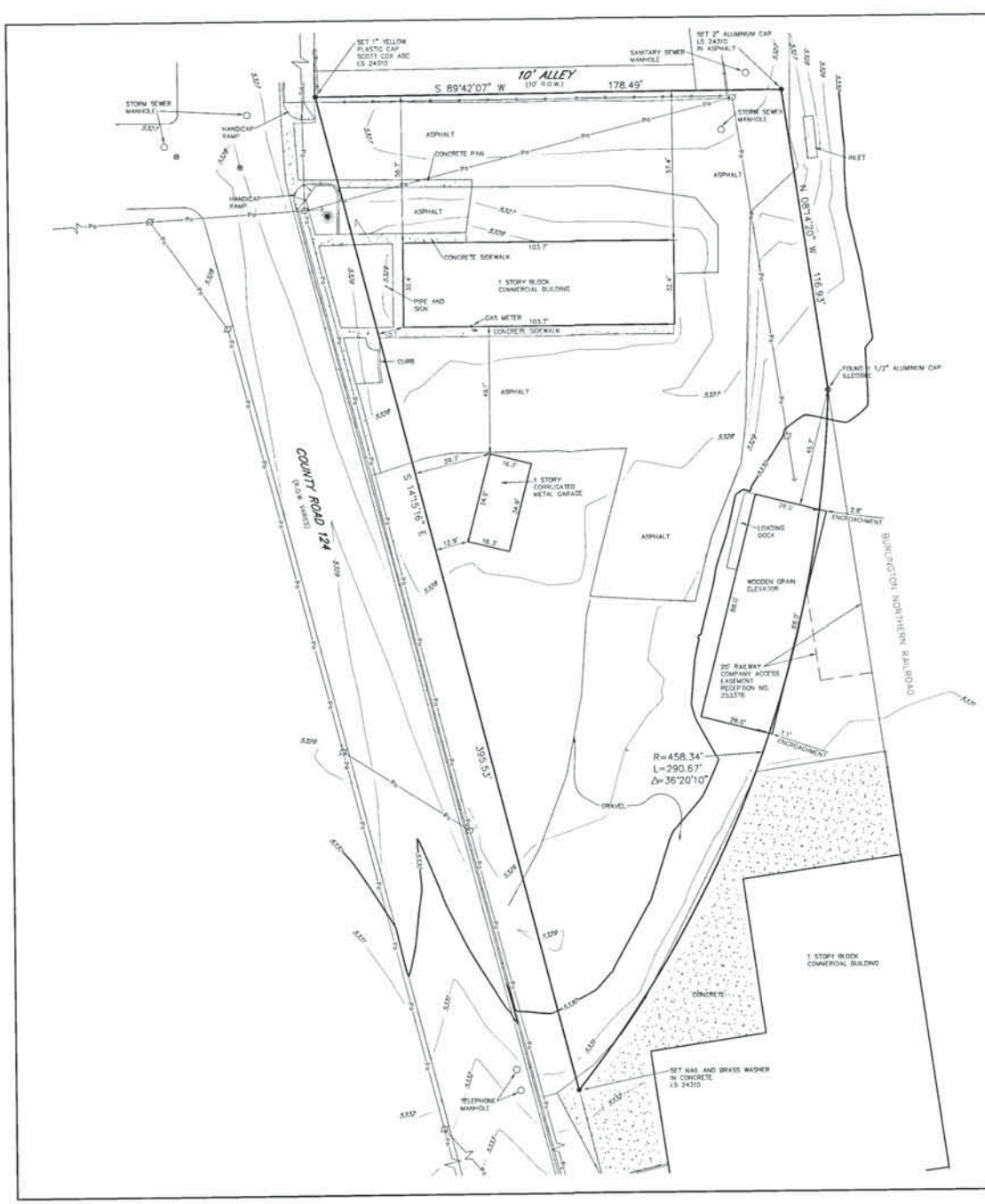
SHEET TITLE
Basement Wall Sections

SHEET NO. S1.0

JVA JOB 14858

1908 Sanborn Map - courtesy of the City of Louisville and the Louisville Historical Museum



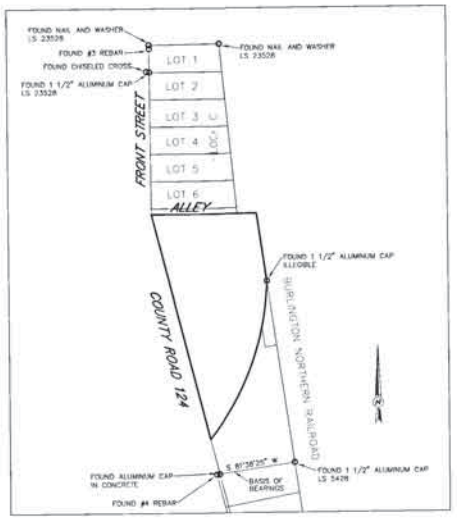


LEGEND

- SET MONUMENT AS NOTED
- FOUND MONUMENT AS NOTED
- EXISTING WATER VALVE
- EXISTING GAS METER
- EXISTING POWER POLE
- EXISTING OVERHEAD POWER LINE
- EXISTING MANHOLE COVER

Scale: 1" = 20'

0 10 20 40



CONTROL DIAGRAM

SCALE : 1" =100'

LEGAL DESCRIPTION

BEGINNING AT THE SOUTHEAST CORNER OF BLOCK 4 OF THE ORIGINAL TOWN OF LOUISVILLE, THENCE SOUTH 10 FEET TO CORNER NUMBER ONE, THE TRUE POINT OF BEGINNING, THENCE EASTERLY ALONG SOUTH LINE OF ALLEY 221 FEET MORE OR LESS TO CORNER NUMBER TWO, SAID CORNER NUMBER TWO BEING THE INTERSECTION OF THE SOUTH LINE OF SAID ALLEY EXTENDED EAST WITH ANGE SWITCH, THENCE SOUTHWESTERLY ALONG THE CURVE OF SAID ACME SWITCH TO CORNER NUMBER THREE, SAID NUMBER THREE BEING THE INTERSECTION OF ACME SWITCH WITH WEST LINE OF COUNTY ROAD NUMBER 124, SAID CORNER NUMBER THREE BEARS S27°41'W, 455 FEET MORE OR LESS FROM CORNER NUMBER TWO, THENCE N14°27'W, 435 FEET MORE OR LESS TO PLACE OF BEGINNING, EXCEPTING A STRIP FOR COUNTY ROAD 124 DESCRIBED IN ROAD BOOK "B", PAGE 239 OF THE RECORDS OF THE COUNTY CLERK AND RECORDER'S OFFICE OF BOULDER COUNTY, SAID TRACT BEING IN THE SE 1/4 OF THE SE 1/4 OF SECTION 8, T1S, R69W, COUNTY OF BOULDER, STATE OF COLORADO.

SURVEY NOTES

1. THE BASIS OF BEARINGS IS THE NORTH LINE OF LOT 2, MANSOUR-ENGLE SUBDIVISION, PLANFILE R-19 F-1 #40 AS FILED AT THE BOULDER COUNTY CLERK AND RECORDER, BETWEEN THE FOUND MONUMENTS SHOWN HEREON, ASSUMED TO BEAR S 81°38'25" W.
2. THE SIZE AND TYPE OF MONUMENTS FOUND ARE SHOWN HEREON.
3. THE SURVEY FIELD WORK ON THIS SITE WAS COMPLETED ON JULY 17, 2003.
4. NOTICE: ACCORDING TO COLORADO LAW, YOU MUST COMMENCE ANY LEGAL ACTION BASED ON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON. CRS-13-80-105 (3)(a)
5. OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY ORDER NO. W3R5699, EFFECTIVE DATE JUNE 3, 2003 AT 5:00 P.M. WAS USED FOR RECORDED EASEMENTS, RIGHT-OF-WAY, AND ENCUMBRANCES IN THE PREPARATION OF THIS SURVEY.
6. THIS SITE IS ENCUMBERED BY COAL AND MINERAL RIGHTS AS RECORDED IN BOOK 298 AT PAGE 53.
7. ELEVATIONS ARE BASED UPON THE CITY OF LOUISVILLE VERTICAL DATUM BASE, 7M MONUMENT IN RANGE BOX AT THE E 1/4 CORNER OF SECTION 8, T1S, R69W OF THE 6TH P.M. ELEVATION =5316.83

CERTIFICATION

TO: OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY; TIM RETZIK

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA, ACSM AND NSPS IN 1999, AND INCLUDES ITEMS 1, 4, 5, 7a, 8, 10, AND 11a OF TABLE A THEREOF. PURSUANT TO THE ACCURACY STANDARDS AS ADOPTED BY ALTA, NSPS, AND ACSM AND IN EFFECT ON THE DATE OF THIS CERTIFICATION, UNDERSIGNED FURTHER CERTIFIES THAT THE SURVEY MEASUREMENTS WERE MADE IN ACCORDANCE WITH THE "MINIMUM ANGLE, DISTANCE AND CLOSURE REQUIREMENTS WHICH CONTROL LAND BOUNDARIES FOR ALTA/ACSM LAND TITLE SURVEYS".

8/01/03

JOHN J. HILL PLS 24310
FOR AND ON BEHALF OF
SCOTT, COX & ASSOCIATES, INC.

ALTA/ACSM LAND TITLE SURVEY
A PARCEL OF LAND LOCATED IN THE SE 1/4 SE 1/4 OF SECTION 8, T1S R69W OF THE 6TH P.M. COUNTY OF BOULDER STATE OF COLORADO

SCOTT, COX & ASSOCIATES, INC.
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Designed by JJH	Date	Scale	Survey	Sheet 1	Drawing no.
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LS-03-0131

Report:

Wood Investigation of the Louisville Grain Elevator, Louisville, Colorado

Submitted to:

Andrews & Anderson Architecture, PC
715 Fourteenth Street
Golden, Colorado, 80401

Submitted by:

Anthony & Associates, Inc.
P.O. Box 271400
Fort Collins, CO 80527-1400

February 17, 2011

Wood Investigation of the Louisville Grain Elevator, Louisville, Colorado

BACKGROUND

The Louisville Grain Elevator, located just south of downtown Louisville, Colorado, was constructed in 1903 by the Louisville Milling and Elevator Company. The grain elevator served area farmers until its closure in the 1950s. The building's name was changed to the Denver Elevator in the early 1950s and it was acquired by the Thomas family in the 1960s. The Louisville Grain Elevator (the Building), which is still privately owned, has remained vacant since it ceased operation. It was listed as the Denver Elevator in 1984 in the National Register of Historic Places.

The Building has a rectangular footprint and is oriented on an approximate north-south axis. It is constructed of a combination of dimension lumber, large timbers, and stacked plank construction.

The City of Louisville is interested in developing an adaptive reuse plan for the Building. There are concerns regarding the condition of the structural wood elements. There is evidence of fire damage within the interior levels of the Building, and the extent of any deterioration caused by wood decay fungi and/or insects is unknown. The species and grade of the structural wood elements is also unknown, which is necessary for establishing capacities of the existing framing elements.

Anthony & Associates, Inc. was contracted to conduct a wood investigation of the structural wood elements within the Building, as well as determine the species and/or species group of key structural members of concern to the architect and engineer. *The scope of this investigation is intended to provide insight about the general condition of the wood throughout the Building, not serve as a comprehensive survey of all wood elements.* This report summarizes our findings and provides the preservation architect and structural engineer with information for developing a plan for potential uses of the Building.

SCOPE OF WORK

As noted above, the species, condition and structural grade of the timbers and structural lumber within the Building were unknown. A wood investigation, summarized in this report, was conducted to provide information on the general

condition of the wood throughout the Building. The scope of work included the following tasks:

- Removing 3-6 wood species samples to identify the wood species or wood species groups for a few structural elements such as columns, joists, and roof framing.
- Identifying, via a walk-through inspection, locations in the Building that have potential insect, mold, or decay damage.
- Taking moisture content measurements of a representative sample of structural wood elements to determine whether conditions in the Building are favorable for deterioration of the wood.
- Conducting limited resistance drilling in suspect locations to determine the extent of decay or insect damage.
- Commenting on the *likely* allowable structural grade(s) of the wood elements.

NOMENCLATURE

The Louisville grain elevator is comprised of five sections. The sections were described in a 2000 Colorado Resource Survey as (from north to south) the Office, the Elevator, the Elevator Tower, the Grain Bins, and the Warehouse. The current survey team relabeled each section with a simple numbering scheme (Sections 1 through 5, from north to south) and added room names that reference the function of the interior spaces. Section 1 is a single story and includes the Machine Room in the basement and the Entry and Office rooms on the first floor. Section 2 is two stories with a basement and includes the Basement Storage Room, the Corridor and Back Room on the first floor, and the Second Floor Room. Section 3 comprises the tallest section of the Building and contains several rooms, including Tower Level 0, Tower Level 1, Tower Level 3 with Chutes 1 through 4, Tower Level 4, and Tower Level 6. Six grain bins comprise Section 4. The grain bins are numbered 1 through 6 and extend from the basement level to the Bin Catwalk on the fifth floor. Section 5 is comprised of the Storage Room on the south end of the Building. References to conditions, species sample locations, and resistance drilling locations in this report are by section, floor or level, and room name, as well as by the grid lines established by the architects, where possible. Figures A1 and A2 in the appendix include section and room names as established by the 2011 survey team.

FIELD PROCEDURES

Anthony & Associates, Inc. provided a wood scientist and a wood specialist to conduct an investigation of wood elements in the Louisville Grain Elevator on January 20, 2011. The investigation was based on a combination of visual inspection and probing, species identification, moisture content determination, and decay quantification. These methods are described below. Results of the investigation can be used to draft a preservation plan and establish repair priorities for the Building.

Species Identification

The Building makes extensive use of heavy timber, framing lumber, and boards. Identifying wood species, along with determining the structural grade, makes it possible to determine design properties for conducting a structural analysis and to identify compatible material for repairs. Wood species were identified by removing small samples throughout the Building from which the species or species group was identified under microscopic examination (Figure 1). In consultation with the structural engineer, 10 samples were removed from the Building to identify species of key structural wood elements to aid in developing historical documentation, conducting structural analysis, and specifying repairs.

Figure 1. Removing a sample for species identification from a built-up beam, Section 5, Storage Room.

Visual Inspection and Probing

Visual examination of the wood allows for identifying components that are missing, broken, or in an advanced state of deterioration. Missing components are those which have been removed or have fallen away because of deterioration, structural failure, or vandalism. If missing components were intended to provide structural support or protection from the elements (e.g., to prevent

moisture intrusion), their replacement may be essential to prevent long-term damage to the structure. Visual inspection also allows for the detection of past or current moisture problems, as evidenced by moisture stains on the exposed surface of the wood. Further, visual inspection enables detection of external wood decay fungi or insect activity as determined by the presence of decay fruiting bodies, fungal growth, insect bore holes or wood substance removed by wood-destroying insects.

Internal decay and insect damage are often difficult to detect due to the lack of evidence on the exposed surface of the wood. Probing the wood with an awl enables rapid detection of voids in the wood that may not be visible on the surface. It can also indicate the approximate depth of any deterioration that is visible on the surface. Visual inspection and probing provides a rapid means of identifying areas that may need further investigation. Based on input from the preservation architects and structural engineers, several accessible areas of the Building were visually inspected for evidence of moisture intrusion and deterioration caused by wood decay fungi, insects, and fire damage.

Moisture Determination

Prolonged exposure to moisture can produce undesirable conditions and long-term maintenance issues for wood in a structure. Excessive shrinkage or swelling, checking, and loose connections are typical problems. Moisture content measurements can also identify wood with favorable moisture levels for the growth of wood-decay fungi. Generally, if the moisture content is less than 20 percent wood-decay fungi are unable to grow. While fungi may be present at lower moisture contents they are unable to continue to deteriorate the wood without sufficient moisture. Moisture contents from 20 to 30 percent indicate areas of concern where sufficient moisture is present for fungi to grow but not sufficient to indicate advanced decay. Moisture contents above 30 percent are often an indication of advanced decay with internal voids and / or surface deterioration. Limited moisture diagnostics were conducted within the basement and roof framing of the Building to determine whether further investigation of moisture intrusion issues is warranted.

Lumber and Timber Grading

Lumber and structural timbers used in new construction are intended to comply with the relevant building code for that jurisdiction. For wood construction, structural engineers rely on design values referenced in the building code to determine an acceptable species, size, and grade for a particular load condition. The design values given in the building code for solid wood products are established by the American Forest & Paper Association and published as the

National Design Specification for Wood Construction.[1] The published design values are based on test data and procedures published by the American Society for Testing and Materials (ASTM) that demonstrate the engineering performance of the material.[2] Wood products are graded in accordance with procedures promulgated by one of several forest products industry associations, such as the Western Wood Products Association (WWPA).[3]

For existing buildings the engineer often relies on available species and current standards to determine the adequacy of the wood elements to remain in service. Since many older buildings were built before building codes or design values for wood products were established (and, thus, before grade stamps were used), engineers are often in a quandary when determining what design values are appropriate. Frequently an assumed species and grade are assigned, only to show that the wood elements are structurally deficient. The result is often an overly conservative estimate of design values and unnecessary replacement and repair decisions with the associated unnecessary project costs.

Typically in older buildings, knots and slope of grain are the grade-limiting characteristics that can impact structural performance. Anthony & Associates, Inc. conducted in-situ visual grading of a representative sample of structural wood elements within the basement and the roof framing of interest to the structural engineer in order to provide information on the *likely* grade of the timber and lumber (Figure 2). Because only a representative sample of the structural wood elements was graded, and the sizes of the defects within the sample were typically estimated, the grades reported are likely conservative. More detailed measurements may allow for assigning more definitive and, in some cases, higher grades with increased allowable design stresses. The information reported provides general data sufficient for conducting preliminary structural analyses to determine the Building's ability to support current and future loading conditions.

Decay Quantification

In addition to the inspection of the wood elements using a combination of visual observations and moisture content measurements, limited resistance drilling was conducted to determine loss of material due to wood decay. Resistance drilling is a quasi-nondestructive assessment method best suited for determining internal

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[1] American Forest & Paper Association and American Wood Council, 2005, *National Design Specification for Wood Construction*, Washington, D.C.

[2] American Society for Testing and Materials, 2006, *Annual Book of Standards*, Vol. 04.10: D245, Standard Practice for Establishing Structural Grades and Related Allowable Properties for Visually Graded Lumber; D2555, Standard Test Methods for Establishing Clear Wood Strength Values. ASTM, West Conshohocken, Pennsylvania.

[3] Western Wood Products Association, 2005. *Western Lumber Grading Rules,* Portland, Oregon.

problems in timber that does not show obvious external signs of deterioration. Any internal void or early-stage decay at the location drilled can be detected by determining the relative density of the wood. The relative density is printed on a strip of paper as a small diameter needle penetrates the wood. The technique is very reliable for quantifying the extent of voids when used in combination with other techniques to rapidly locate areas of probable deterioration. Resistance drilling was conducted on structural elements within the basement and the stacked plank walls of Section 4 on the west elevation (Figure 3).

Figure 2. Measuring the slope of grain on a column with an acetate grid.

Figure 3. Resistance drilling a sill beam in the basement between Basement Storage and Tower Level 0.

FINDINGS AND DISCUSSION

General Observations

The wood grade and condition information provided is based on the conditions of wood elements that were visible and accessible for assessment. Access to structural members within the Building was limited in some areas, including the structural framing within Section 1 and the foundation of the Section 5.

Wood conditions found within the Building were divided into three classifications: good, fair, and poor. Good condition describes wood that has no evidence of insect damage or deterioration from wood decay fungi. Wood in good condition may exhibit moisture staining but is not structurally impacted. Wood in fair condition may exhibit evidence of past moisture damage, including minor deterioration from wood decay fungi, and may also have minor insect damage. Wood in poor condition may have ongoing deterioration caused by wood decay fungi and may also exhibit severe visible insect damage.

In general, with the exception of fire-damaged dimension lumber, most of the structural elements within the Building are in fair to good condition; areas of poor condition tend to be limited to structural elements in contact with the ground around the building's perimeter. In a few instances, such as along the south side of Section 5 and the first floor of Section 3 on the west elevation, the structural elements are in extremely poor condition and have failed due to deterioration caused by wood decay fungi (Figures 4 and 5).

Figure 4. Interior view of the west basement wall of Section 3, Level 0, which has collapsed due to deterioration caused by wood decay fungi.

Figure 5. Interior (crawl-space) view of the south foundation of Section 5 with collapsed elements.

Moisture staining is prevalent on structural elements in contact with wall or roof sheathing but is not generally apparent on wood located towards the interior of the Building. Current moisture intrusion issues could better be determined after periods of recent rainfall and should be mitigated to extend the long-term serviceability of the wood used in the Building. There was no identified evidence of insect damage on the structural wood elements.

Species Identification

Ten samples were removed from structural elements of interest to the engineer for species identification. The samples and their locations are provided in Table 1. Samples were not taken from Section 1 or from the foundation of Section 5 due to a lack of access to structural elements. The findings suggest that the central portion of the Building (Sections 2 through 4) was likely constructed at the same time out of Douglas-fir (*Pseudotsuga menziesii*), while Section 5 may have been constructed later using a mix of species, primarily locally available western yellow pine (*Pinus spp.*) in addition to Douglas-fir. Western yellow pine is a species group that includes ponderosa pine and lodgepole pine. These two species are indistinguishable based on microscopic characteristics.

Moisture Determination

Limited moisture diagnostics were conducted within the basement and roof framing of the Building using a resistance meter for timber and a capacitance meter for dimension lumber. Moisture contents of the roof framing above the Grain Bins (Section 4) ranged from 7 to 9 percent. Moisture contents of the first floor framing, accessed from the basement, ranged from 12 to 15 percent for interior posts and 17 to 22 percent for girders and posts that abutted exterior walls or concrete foundations. Given the low temperatures during the field

investigation (18° to 30° F), the moisture content measurements may not accurately reflect the actual moisture content of the wood. As wood temperature decreases, its electrical resistance increases and indicated moisture contents are lower. Thus, the readings should be considered only as indicators of likely areas of concern rather than definitive data for identifying moisture-damaged areas.

Table 1. Wood species identified from the Louisville Grain Elevator

Sample No.	Room (Section)	Floor	Element	Location Description	Species	Comments
1	Storage (5)	First	rafter	south shed / addition	Douglas-fir (*Pseudotsuga menziesii*)	
2	Storage (5)	First	built-up beam purlin	south shed / addition	western yellow pine (*Pinus spp.*)	
3	Storage (5)	First	wall stud	south shed / addition	western yellow pine	
4	Bin 6 (4)	First	stacked plank	south wall	Douglas-fir	nominal 2 x 6
5	Tower Level 0 (3)	Basement	girder	central girder 3A – 3Z	Douglas-fir	
6	Back Room (2)	First	floor joist	near south end of a central joist	Douglas-fir	accessed from Basement Storage
7	Chute 1(3)	Third	stacked plank	west interior wall	Douglas-fir	nominal 2 x 4
8	Bin Catwalk (4)	Fifth	west purlin	above bins	Douglas-fir	
9	Bin Catwalk (4)	Fifth	rafter	above bins, east side	Douglas-fir	
10	Bin 1 – Bin 2 (4)	Fifth	stacked plank	interior wall between bins	Douglas-fir	nominal 2 x 4, accessed from Bin Catwalk

Lumber and Timber Grading

Lumber and timber grades are determined by species, size of the member(s), and growth characteristics such as knots and slope of grain. Knots and slope of grain tend to be the grade-limiting characteristics for lumber and timber in older buildings. Measurement of knots and slope-of-grain provides an indication of

the allowable lumber grade for a given wood species. Knot size and slope of grain were either measured or estimated for a representative sample of the key structural elements of interest to the engineer. A few of the structural elements in the Building were essentially free of large knots and slope of grain and could be assigned a high structural grade. However, a significant number of elements have knots or slope of grain that either do not meet structural grade requirements or necessitate the assignation of a lower structural grade (Figure 6).

Figure 6. Large knots on a roof rafter above the Grain Bins (Section 4) that limit the structural grade.

To be assigned a particular grade, 95 percent of the pieces graded should meet or exceed the grade requirements. Since there are typically limited wood elements of any type available for inspection in the Building, the percentage within a grade can fall below the 95 percent level even if only a few members fail to meet a higher grade. In these cases, the structural engineer may elect to apply the higher overall grade if knowledge of the structural loads warrants it, provided that wood elements with large knots (i.e., lower grades) are replaced or augmented to provide adequate support. The results of the in-situ visual grading survey can be found in Table 2.

Based on grading rules applicable to the 2005 NDS specifications, the likely structural grade of the accessible structural elements within the Building as a whole is No. 3 Western Woods. If considering the Building in sections, the first-floor floor framing of Section 2 can be considered No. 3 Douglas-fir, the roof framing over the Grain Bins in Section 4 can be considered No. 3 Douglas-fir, and the roof framing of Section 5 can be considered No. 3 Western Woods. It should be noted that if more definitive grades are desired, particularly for critical areas of the Building, additional measurements could be taken to obtain sufficient data to make those determinations.

Table 2. Visual grading results for the Louisville Grain Elevator

Room (Section)	Floor	Element	Likely Grade	Comments
Storage (5)	Roof	rafters	No. 3	At least 10% do not meet requirements for No. 2 Western Woods or No. 2 Douglas-fir
Storage (5)	Roof	purlin	No. 3	At least 10% of laminations do not meet requirements for No. 2 Western Woods
Corridor and Back Room (2)	First	floor joists	No. 3	5% do not meet a structural grade; at least 15% do not meet requirements for No. 2 Douglas-fir
Tower Level 0 (3)	Basement	girder	Select Structural	
Roof Framing over Grain Bins (4)	Fifth	rafters	No. 3	At least 10% do not meet requirements for No. 2 Douglas-fir
Roof Framing over Grain Bins (4)	Fifth	purlins	No. 2	Approximately 75% do not meet requirements for No. 1 Douglas-fir

Fire Damage

Within the interior of the Building, there is evidence of fire damage on a number of floors. Wood with various degrees of charring can be found within Sections 2 and 3 at all levels except the basement (Level 0). Char is evident on dimension lumber such as roof rafters and sheathing, as well as on larger structural elements such as purlins and columns.

Wood elements subjected to fire develop a layer of char that protects the wood below the char layer by slowing the rate of combustion. Structural timbers generally perform well in fire, while thinner wood elements, such as boards and dimension lumber, may lose a significant portion of their cross section or burn through completely. In fires where the burning period is relatively brief, many of the wood elements will exhibit various stages of char development. For evaluating the effect of char after a structure fire, it is assumed that un-charred wood is sound and has the same strength as the wood did before the fire. To decide whether a structural member can remain in service, measuring the depth of the char is often necessary to determine the remaining cross section (Figure 7).

Figure 7. Measuring the depth of char on a joist with a char depth gauge. Note the alligatoring on the floor sheathing above the joist.

Char is the result of combustion of the wood. For the purposes of this report, the lightest degree of char is limited to discoloration due to scorching of the wood surface. Once the wood begins to burn, the scorched surface develops a two-dimensional pattern called alligatoring. Numerous small fissures develop across the grain of the wood as the fibers contract due to the heat, ultimately breaking and forming shallow fissures. As combustion continues, the alligatoring pattern extends into the wood developing deeper fissures that form three-dimensional pockets of burned wood. This degree of char is called pillowing. Figure 8 shows wood within the Building with various degrees of charring.

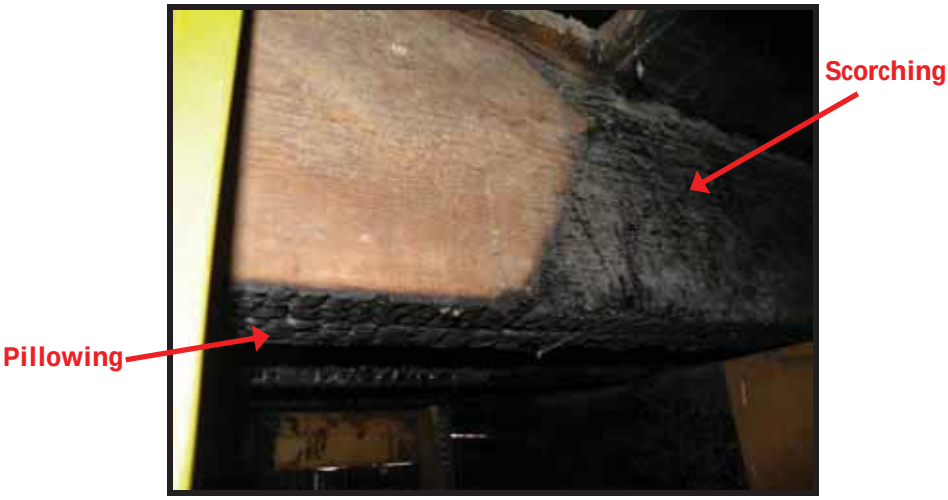


Figure 8. Pillowing and scorching on the same joist, Section 3, Level 1. Areas of undamaged wood are visible where charred elements have been removed.

Once pillowing develops, the rate of combustion of the wood slows considerably. The char layer protects the wood below from the heat of the fire. Large cross section timbers frequently survive even very hot fires and can remain in service

because the ratio of surface area (that was burned) to volume (of the cross section) is small. Dimension lumber (like purlins and roof sheathing) typically suffer much more damage during a fire because the ratio of surface area to volume is large enough that the char is unable to protect the interior of the thin wood. Several char depth measurements were taken on two second-floor floor joists within the Tower to determine the relative severity of the fire. Char depths from $^{1}/_{8}$-inch to $^{9}/_{32}$-inch were measured on the 2 ½" x 11" (actual dimensions) floor joists near the west wall.

Decisions about replacement of charred wood elements, subject to the requirements of the architect and engineer, can be a relatively simple process based on the following information:

- Wood that has burned through must be replaced.
- Any wood member with surface char only (scorching) can remain in service.
- Thin wood elements (e.g., roof sheathing) with alligatoring should be replaced.
- Nominal 2-inch dimension lumber (rafters) and boards (roof sheathing) with pillowing should be replaced or reinforced.
- Depending on the loads calculated by the engineer, dimension lumber greater than 2 inches thick (floor joists) and larger timbers may be able to remain in service if there is sufficient cross section remaining even though alligatoring and/or pillowing is present.
- In some cases, replacement of elements with little charring may be necessary because of the difficulty (i.e., construction or cost) in replacing adjacent damaged elements.
- It must be noted that for any degree of charring, the ability to clean the surface to produce the desired aesthetic and remove the odor of burned wood may override whether the wood can perform structurally.

Decay Quantification

Limited resistance drilling was conducted within the basement and along the west exterior wall of Grain Bins 4 through 6 (Figure 9). Wood elements around the perimeter of the Building in contact with the ground were not assessed based on discussions with the architect. Within the Basement Storage Room and Tower Level 0, there are numerous wood columns, sill beams, and sill plates that rest on concrete foundation walls or footers. Resistance drilling results of E-W sill beams indicate a pattern of deterioration extending into the beams from the exterior ends that abut the east elevation exterior wall. This deterioration extends at least 12 inches but no more than 33 inches into the southern sill beam

on the eastern end (grid 3A – 3Z), and at least 5 inches but no more than 14 inches into the northern sill beam (grid 2A – 2Z) on the eastern end. Resistance drilling of interior columns and sill plates within the basement found no voids at the drilling locations.

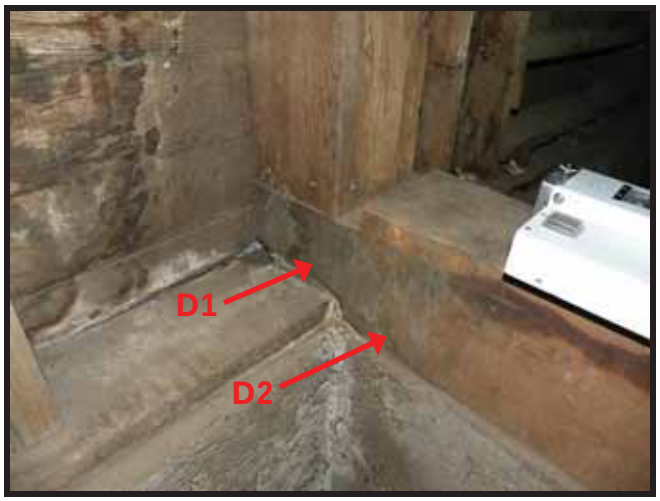


Figure 9. Resistance drilling locations D1 and D2 at the east end of the E-W basement sill beam dividing the Basement Storage Room from Tower Level 0.

The stacked plank construction on the west elevation of the Grain Bins was investigated using limited resistance drilling as well. Drilling locations were primarily located around the area of visible deterioration between Bins 5 and 6. Resistance drilling results indicate that the wood 12 to 16 inches above the ground line near the area of visible deterioration and sagging has internal deterioration. Resistance drilling results above or away from the visibly deteriorated area indicated no internal voids are present. Typically, stacked plank construction is very durable, particularly above grade, except where the wood may be subjected to moisture intrusion from leaks. The deterioration found in the stacked plank wall was near or below grade where poor drainage away from the foundation has allowed for a favorable environment for active wood decay to develop over a prolonged period of time. The appendix includes a resistance drilling log and schematics of drilling locations.

WOOD CONDITION SUMMARY

The findings of the investigation can be summarized as follows:

- The primary wood species of the Louisville Grain Elevator is Douglas-fir (*Pseudotsuga menziesii*). A sample taken from a lamination from a purlin and a sample removed from a wall stud within Section 5 were identified as western yellow pine (*Pinus spp.*).

- The *likely* allowable structural grade, based on a representative sample of key structural elements, is No. 3 Western Woods for Section 5 and No. 3 Douglas-fir for Sections 2 through 4. Additional measurements of lumber defects could provide more definitive grades in critical areas of the Building.
- A large percentage of the timbers and dimension lumber within the interior of Section 2 and nearly all levels of Section 3 have varying degrees of fire damage. Larger timbers can remain in service if sufficient cross section remains to support existing or future loads.
- Moisture content readings within the roof framing of the Grain Bins (Section 4) indicate that the structural elements are currently unable to support active wood decay.
- Moisture content readings within the Basement Storage Room (Section 2) and Tower Level 0 (Section 3) indicate that the structural elements that are not in contact with the ground or with perimeter walls are currently unable to support active decay but have elevated moisture contents that indicate during wetter periods, some of these elements most likely have sufficient moisture contents to support active wood decay. Drainage away from the repaired foundation should be considered to extend the service life of any wood near grade.
- The structural wood elements within the Building, excluding fire-damaged dimension lumber, are in general in fair to good condition and may be suitable for continued use provided deteriorated elements and those that fail to meet the necessary grade requirements as determined by the engineer are repaired or replaced.

APPENDIX

Resistance Drilling Results

Schematics of Louisville Grain Elevator and Drilling Locations

Table A-1. Resistance drilling results, Louisville Grain Elevator

Drilling No.	Room	Section	Element	Location	Drilling Direction	Comments
D1	Basement Storage	2	sill beam 3A-3Z	6" from east end, 2" from bottom	N-S	50% of the cross section is deteriorated
D2	Basement Storage	2	sill beam 3A-3Z	12" from east end, 2" from bottom	N-S	4" internal void
D3	Basement Storage	2	sill beam 3A-3Z	34" from east end, 2" from bottom	N-S	no voids found
D4	Basement Storage	2	sill beam 2A-2Z	5" from east end, 4" from bottom	S-N	3" solid, then void
D5	Basement Storage	2	sill beam 2A-2Z	15" from east end, 2" from bottom	S-N	no voids found
D6	Tower Level 0	3	SW interior column, central	2" from bottom, mid-width	E-W	no voids found
D7	Tower Level 0	3	NE column sill plate, central	directly under column, mid-depth	S-N	no voids found
D8	Bin 5, west elevation	4	stacked plank	12" above grade, 45" north of Bin 6 wall	W-E	possible internal deterioration
D9	Bin 6, west elevation	4	stacked plank	16" above grade, 51" south of Bin 5 wall	W-E	1" shell, then void
D10	Bin 6, west elevation	4	stacked plank	36" above grade, 51" south of Bin 5 wall	W-E	no voids found
D11	Bin 4, west elevation	4	stacked plank	8" above grade, 14" south of Tower wall	W-E	no voids found

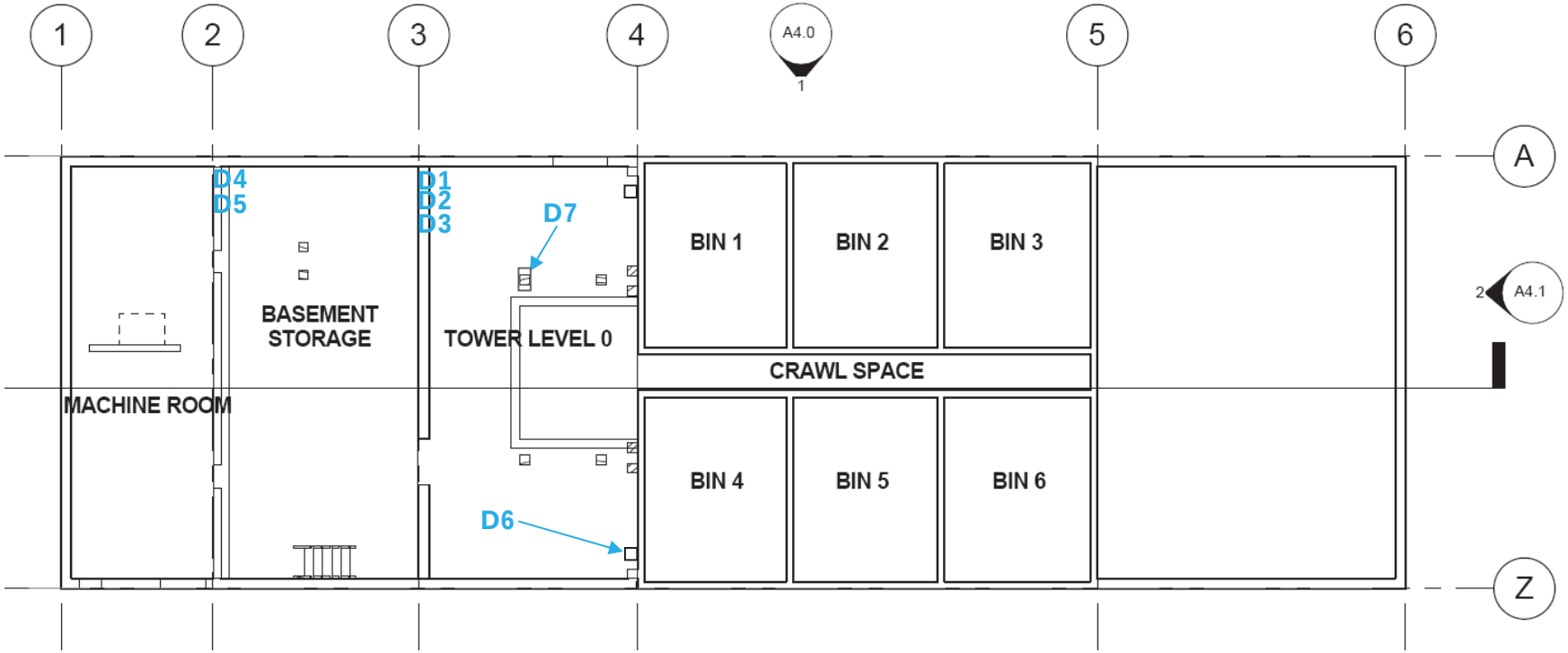


Figure A-1. Basement plan of the Louisville Grain Elevator, showing resistance drilling locations (blue).

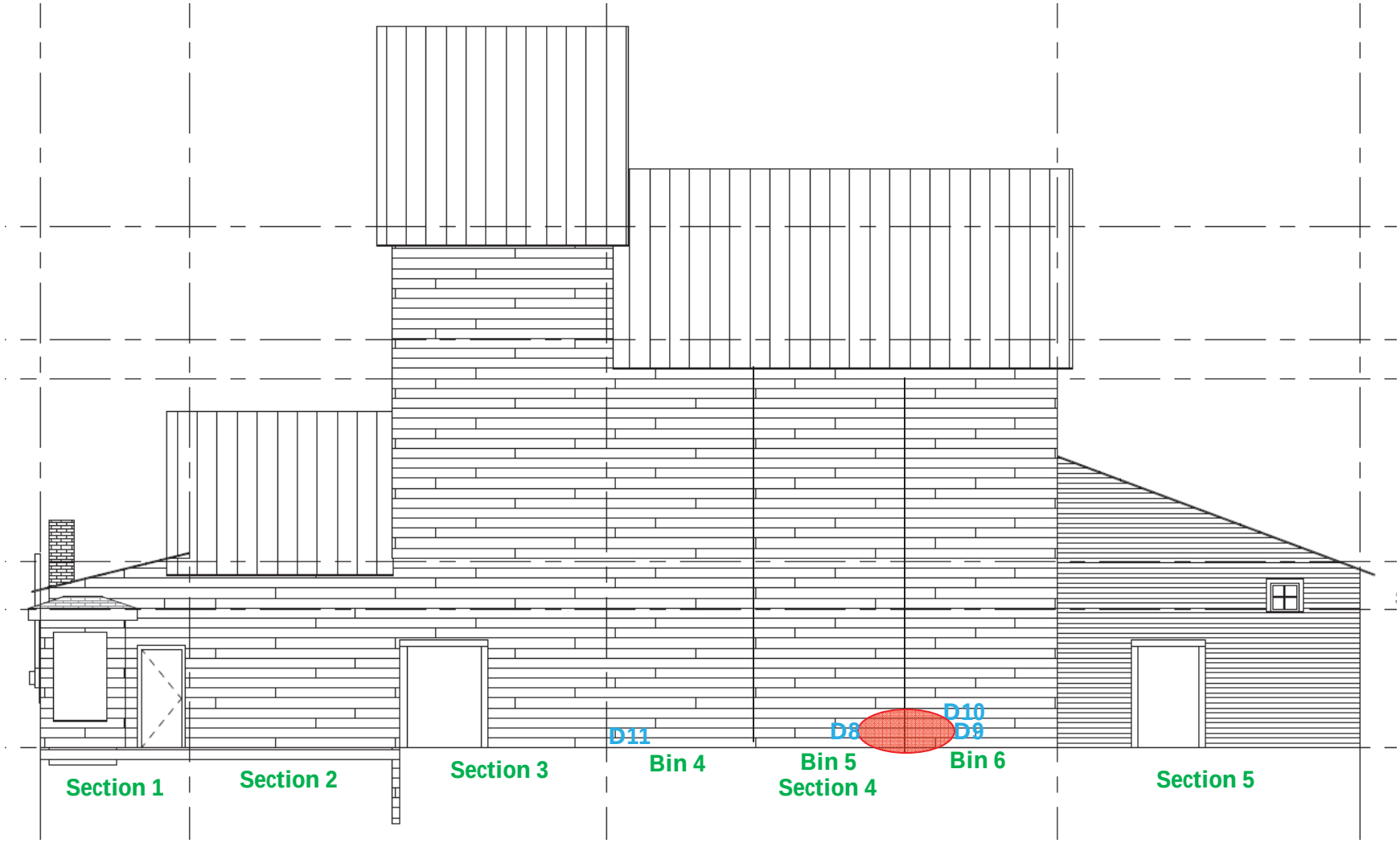


Figure A-2. West elevation of the Louisville Grain Elevator, with resistance drilling locations (blue), 2011 survey section names (green), and deterioration (red) marked.

March 3, 2011

Ms. Nanon Anderson
Anderson & Anderson Architects, PC
715 Fourteenth Street
Golden, CO 80401

RE: Results of Environmental Assessment at the Former Louisville M. & E. Company Grain Elevator, Louisville, Colorado.
Landmark Project No.: 10048.001

Dear Ms. Anderson:

Landmark Environmental, Inc. (Landmark) has conducted an Environmental Assessment of the property located at 540 County Road, Louisville, Colorado (subject property) on January 20, 2011. The Environmental Assessment included collection of samples from suspect asbestos containing materials (ACM) and lead containing/based paint (LCP/LBP) and observational/visual assessment of other regulated building materials (RBM) and conditions associated with animal infestation. The purpose of the Environmental Assessment is to support evaluation of the current status of the structure, as well as the possibility for reuse. This report presents findings and summarizes the regulatory requirements pertaining to environmental cleanup for the renovation rather than structural demolition scenario.

The subject property includes an approximate 2,800 square foot (building footprint) structure that was constructed in 1903 and was formerly used as a Grain Elevator and Feed Store. The structure is multi-level with approximately 8,500 square feet of accessible interior floor space and is located on an approximate 1.2 acre parcel. The structure is composed of five sections: office, elevator, elevator tower, grain bins; and a warehouse area. The structure was vacant at the time of the site visit and included numerous stored items, trash and, animal wastes.

This report presents the findings of the inspection and sampling efforts in the structure at the subject property in three general categories, asbestos, lead-containing paints and other RBMs. Under each category, the report is further organized by sampling approach, applicable regulatory criteria; and results, followed by recommendations associated with the findings and results. Further detail is provided in Attachment 1 (Asbestos), Attachment 2 (Paints); and Attachment 3 (Regulated Building Materials). Photographs are provided in Attachment 4 and Preliminary Cost Estimates are included in Attachment 5.

Asbestos Sample Collection and Analysis

The purpose of the ACM inspection is to identify the presence, location, quantity, friability, and condition of any ACMs and quantifying the suspect ACMs, which must be removed prior to renovation. Landmark collected fourteen samples of suspect ACM during the site inspection. The sampling was conducted according to requirements of the Colorado Department of Public Health and Environment (CDPHE), U.S. Environmental Protection Agency (EPA) Asbestos Hazard, Emergency Response Act (AHERA); and U.S. Occupational Safety and Health Administration (OSHA) Chapter 29 Code of Federal Regulations (CFR) §1926.1101, as well as generally accepted industry standards. Asbestos inspection activities were conducted by EPA AHERA and CDPHE accredited personnel.

Building material samples of the suspect ACM were collected in a representative manner as determined by the inspector and samples were collected by taking a composite core that includes all layers within the suspect ACM. Suspect ACM that were identified and sampled include the following.

- White plaster-like wall treatment/coating.
- Loose fill insulation on the third floor.
- Window putty on exterior windows.
- Asphalt roofing shingles.
- Paper vapor barrier on walls in the south addition.
- Sheet vinyl.
- Chimney plaster.
- Hot pad material.

Table 1 in Attachment 1 summarizes sample descriptions, locations, and analytical results. Laboratory Reports for suspect ACM samples are also provided in Attachment 1.

The suspect asbestos samples were submitted to Reservoirs Environmental Services, Inc. (Reservoirs), located in Denver, Colorado. Reservoirs is a National Voluntary Laboratory Accreditation Program (NVLAP) accredited laboratory and is also accredited by the American Industrial Hygiene Association (AIHA). The samples were analyzed by Polarized Light Microscopy (PLM) to determine asbestos type and percent. The total asbestos reported is the average of all components in the material, with the asbestos content of separate layers also identified. Unused portions of samples are archived for 60 days unless the client requests special handling.

Asbestos Regulatory Criteria

This brief overview of certain applicable asbestos regulatory criteria is general and for informational purposes only. Asbestos is one of the most widely regulated environmental substances and for specific requirements refer to applicable statutes and regulations. The OSHA regulations in 29 CFR 1926.1101 require that building owners inform prospective contractors, employees, and tenants of the presence, location, and quantity of ACM or presumed ACM, in their buildings and facilities.

Applicable asbestos regulations define ACM as material containing greater than 1.0 percent asbestos by weight, volume or visual surface area and also distinguish between friable and non-friable forms of ACM. Friable ACMs can be crumbled or reduced to powder by hand pressure when dry. Non-friable materials cannot be crumbled, pulverized, or reduced to powder by hand pressure.

The EPA National Emission Standards for Hazardous Air Pollutants (NESHAP) further classify non-friable ACM as Category I and II. Category I non-friable ACMs include asbestos containing packings, gaskets, resilient floor coverings, and asphalt roofing products. Category II non-friable ACMs are defined as all other non-friable ACM, such as cement board, window putty, etc. During abatement and renovation projects, applicable regulations identify removal requirements based on the friability classification of an ACM. Category I non-friable ACMs can remain in a building during standard structural demolition projects (i.e. demolition by heavy equipment, not burning or implosion). Category II non-friable ACM may also remain in the building under certain specific circumstances as long as the materials are not rendered friable during demolition, though typically these materials are abated prior to demolition. The EPA NESHAP and CDPHE Regulation #8, Part B require point count analysis for friable materials found to contain detectable asbestos at 1.0 percent or less by PLM analysis.

In general, removal of ACM is not required by regulation unless the potential for an airborne release of asbestos fibers in excess of allowable levels exists. Typically, the potential for an airborne release of asbestos fibers exists in three circumstances:

1. The ACM will be impacted during maintenance, renovation, or demolition.

2. The material is significantly deteriorated to the extent that asbestos debris is present.

3. The ACM will be subject to future deterioration by vibration, airflow, or weathering.

Asbestos Inspection Results

Landmark collected fourteen representative samples from suspect ACM identified in the structure. Results of laboratory analysis report that all of the fourteen samples are None Detected (ND) for asbestos, therefore no asbestos is presently identified in the structure.

Paint Sample Collection and Analysis

Bulk paint chip samples of suspect LBP were collected in a representative manner as determined by the inspector. Samples were collected from window sills and the exterior of the structure. The paint chip samples were submitted to Reservoirs, which is an Environmental Lead Laboratory Accreditation Program (ELLAP) accredited laboratory that uses procedures developed in compliance with the guidelines established by the National Institute of Occupational Safety and Health (NIOSH) Method 7420. The samples were analyzed by Atomic Absorption (AA)/Inductively Coupled Plasma (ICP) protocol to determine lead content. The total lead concentration reported is the average of all layers in the sample. Lead content results are reported as a percent by weight.

Lead-containing Paint Regulatory Criteria

The EPA and U.S. Department of Housing and Urban Development (HUD) regulate lead-based paint (LBP) abatement activities in target housing and child occupied facilities. OSHA regulates worker exposure to lead for coatings with any detectable lead. The EPA and HUD regulations related to LBP abatement do not apply to the project site unless abatement activities occur (specifically designed to permanently remove LBP). LBP is defined as paint containing 0.5 percent by weight or 1.0 milligram per cubic centimeter by both the EPA and HUD.

The CDPHE Regulation 19 regulates lead paints in housing and child-occupied facilities (not commercial properties) and CDPHE also regulates concentrations in soil that exceed 400 milligrams per kilogram (mg/kg), as provided in the CDPHE Soil Cleanup Table Value Standards, for residential/unrestricted land use.

The OSHA lead in construction standard 29 CFR 1926.62 addresses requirements for sites where the employer has reason to believe that any employee may be exposed to lead in excess of OSHA's action level (AL) of 30 micrograms per cubic meter (30 µg/m3) over an eight-hour time weighted average. The OSHA standard applies to all construction activities that may impact LCP (any detectable lead).

Paint Sampling Results

For this inspection, bulk paint samples are correlated to testing combinations using substrate, component, and color. The substrate is the material from which the component is fabricated. Substrates are classified as brick/masonry, concrete, drywall, metal, plaster, or wood.

A component is defined as a particular item, such as a door, a wall, or a cabinet. Laboratory analysis concluded that the lead concentration in sample PC-LGE-012011-EP-01collected from the exterior of the structure was 0.008 percent. Sample PC-LGE-012011-WP-01, collected from the interior window sills, resulted in a lead concentration of 7.7 percent. Lead paint concentrations of less than 0.5 percent are categorized as Lead Containing, not Lead Based. Laboratory results are summarized in Table 2 in Attachment 2 and laboratory analysis reports are also included in Attachment 2.

Regulated Building Materials Observations

Regulated Building Materials are generally materials that may require special handling, recycling, and/or disposal prior to building demolition or renovation and include paint, aerosol containers, fluorescent light tubes and ballasts, petroleum products, chlorofluorocarbons (CFCs) in refrigeration and air conditioning systems, and compressed gas cylinders. RBMs observed during the site survey include the following.

- Several refrigerated display cases and refrigerators.
- Five fluorescent light fixtures.
- One compressed gas cylinder (unmarked).
- One 55-gallon drum (contents undetermined).
- Numerous paint cans.
- Numerous automobile tires.
- Two television sets and other items with electronic components.
- One lawnmower and other equipment that may contain fuels or oils.

A complete inventory of RBMs observed at the Louisville Grain Elevator is included in Table 3 in Attachment 3. Photographs showing some of the RBM's (Photographs #1 through photograph #6) are included in Attachment 4.

Environmental Observations

Additional environmental conditions were noted during the site survey which included significant quantities of animal feces and bird/bat guano throughout the building on vertical and horizontal surfaces, in debris piles, and fixtures (see photographs #7 and #8 in Attachment 4). Guano and feces are known to carry diseases such as hystoplasmosis and hantavirus. A strong odor apparently from recent skunk habitation was noticeable when entering the building. Several animal carcasses believed to be raccoons were observed in the basement.

No discolored soil or stressed vegetation was observed during the site visit. Landmark did not observe evidence/indication of recognized environmental conditions (RECs) during the subject property site reconnaissance. A REC is described by the ASTM Standard E 1527-05 as: *the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property*.

Recommendations

Landmark recommends the following administrative and abatement activities be conducted prior to renovations and re-occupancy.

Asbestos

If planned renovations will include rehabilitation of structural members within the building, Landmark recommends that required permitting costs and timeframes be contemplated for the project. Two permits are required before structural demolition (if applicable), one from the CDPHE and one from Boulder County. If demolition of load bearing structures will occur, a Notification of Demolition Form must be submitted to the CDPHE, even if no asbestos was found during the inspection, along with payment of a $275 notification fee. A ten (10) working day waiting period is required before a permit is issued and the structural rehabilitation/demolition can proceed. The Notification of Demolition Form requires the signature of a CDPHE certified asbestos building inspector, stating that no ACM is present or that regulated ACM has been removed from the structure as applicable. Boulder County also requires a demolition permit. To obtain the Boulder County demolition permit, the contractor is required to provide a copy of CDPHE permit for demolition, a copy of the asbestos inspection report and pay a $25.00 fee.

Lead Containing Paints

Lead-containing materials, paints and coatings that may be impacted by demolition activities are regulated by OSHA 29 CFR 1926.62, which requires training, respiratory protection, medical monitoring and worker exposure assessment. Abatement of LCP is not required prior to renovation or structural rehabilitation. However, Landmark recommends that renovation plans be evaluated to determine the extent and nature of impacts to LCP/LBP and a work plan/specification that addresses basic lead hazard controls be developed.

During demolition, samples of building debris that are coated with LBP/LCP should be collected from representative areas of the waste and Toxicity Characteristic Leaching Procedure (TCLP) analysis for lead should be performed to verify the appropriate landfill to dispose of the demolition debris (i.e., Subtitle D (municipal landfill) or Subtitle C (hazardous waste landfill).

Loose/flaking LCP was identified on the exterior walls. Paint chip debris was noted on localized areas of surface soils at the foundation. Because the identified peeling LBP has the potential to further impact the surrounding soil during rehabilitation activities such as power washing etc., construction methods that prevent further paint chip debris from impacting soils are recommended.

Regulated Building Materials and Animal Debris

Landmark recommends that the identified RBMs be removed and properly disposed prior to the planned renovation project, that a licensed transporter complete a Universal or Hazardous Waste Manifest and a certificate of destruction be obtained from the disposal facility when RBMs are removed and disposed.

Regarding animal debris and feces, Landmark recommends that the structure be first and immediately secured in a manner that prevents further inhabitation by animals, and that if access to the interior is required, that personal protective equipment (PPE) be used until cleanup is complete. Landmark recommends that a work plan/specification that addresses biological hazards and controls be developed and that cleaning/biocide treatment of all surfaces contaminated with animal feces and bird/bat guano occur by an experienced and licensed abatement contractor, both while stored items are removed and segregated as trash or usable items, and as a second prior to renovation/construction activities.

Cost Estimate

Landmark has developed an estimate of probable abatement cost that includes line items for lead-containing paint stabilization during renovation (not abatement) and removal, transport and disposal of identified RBMs.

The estimate for abatement of animal debris and feces is developed based on the approach that cleaning of stored items will occur as a first step where trash is segregated from any items that would be salvaged, followed secondly by general decontamination of the structure. The estimate of probable abatement costs is included in Attachment 5.

Limitations

Landmark does not imply or guarantee that every suspect ACM on or in the building has been identified or sampled. The services performed and any opinions expressed by Landmark in the report are based on the limits of the investigation as described above. It is understood that Landmark has relied on the accuracy of documents, oral information, and other material and information provided by the Client and others, and Landmark assumes no liability for the accuracy of such data. Landmark assumes no responsibility for property conditions or activities that are outside the scope of the services, or for changes to property conditions or regulatory requirements which may apply after completion of the services by Landmark.

Services performed by Landmark on this Environmental Assessment were performed in a competent and professional manner in accordance with sound consulting practices and procedures. The inspection did not include a subsurface investigation or destructive sampling (i.e., sampling or visual inspection behind physical barriers, if structures were present). Therefore, Landmark warrants the conclusions contained in this report, but cannot warrant site conditions beyond matters amenable to visual confirmation.

This report does not warrant against operations or conditions present of a type or at a location not investigated during this study. Additionally, this document does not warrant against future conditions or exacerbation of contaminants by others. Conclusions presented in this report are professional opinions based solely on visual observations and supplemental testing of environmental media within the study area. Such opinions are intended exclusively for the purpose outlined herein and at the Site and project indicated.

Please call me 720.283.8974 if you have any questions.

Respectfully,
Landmark Environmental, Inc.

Matthew Roberts
President

Enclosures:

Attachment 1	ACM Sample Table and Laboratory Report
Attachment 2	Lead Containing Paint Sample Table and Laboratory Report
Attachment 3	Regulated Building Materials Summary Table
Attachment 4	Photographs
Attachment 5	Estimate of Probable Costs

Attachment 1

ACM SAMPLE TABLE AND LABORATORY REPORT

Asbestos Sample Results Louisville Grain Elevator Louisville, Colorado			
Sample Number	Material	Results	Location
B-LGE-012011-HP-01	Hot Pad	ND	First Floor
B-LGE-012011-WT-01	Wall Treatment	ND	1st Floor Entrance No. Wall
B-LGE-012011-WT-02	Wall Treatment	ND	1st Floor Entrance So. Wall
B-LGE-012011-WT-03	Wall Treatment	ND	1st Floor Entrance West Wall
B-LGE-012011-I-01	Insulation	ND	Third Floor East
B- LGE-012011-I-02	Insulation	ND	Third Floor East
B- LGE-012011-I-03	Insulation	ND	Third Floor East
B-LGE-012011-WP-01	Window Putty	ND	First Floor North
B-LGE-012011-S-01	Asphalt Shingle	ND	Above Entrance
B-LGE-012011-FT1-01	Sheet Vinyl	ND	1st Floor Entrance
B-LGE-012011-PS-01	Vapor Barrier	ND	South Addition
B-LGE-012011-PS-02	Vapor Barrier	ND	South Addition
B-LGE-012011-PS-03	Vapor Barrier	ND	South Addition
B-LGE-012011-CC-01	Chimney Plaster	ND	1st Floor North Wall

* ND = None Detected

Reservoirs Environmental, Inc.

January 28, 2011

Laboratory Code:	**RES**
Subcontract Number:	**NA**
Laboratory Report:	**RES 206023-1**
Project # / P.O. #	**10048.001.001**
Project Description:	**Louisville Grain Elevator**

Mike Ritter
Landmark Environmental, Inc.
250 Bryant Street
Denver CO 80219

Dear Customer,

Reservoirs Environmental, Inc. is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the National Voluntary Laboratory Accreditation Program (NVLAP), Lab Code 101896-0 for Transmission Electron Microscopy (TEM) and Polarized Light Microscopy (PLM) analysis and the American Industrial Hygiene Association (AIHA), Lab ID 101533 - Accreditation Certificate #480 for Phase Contrast Microscopy (PCM) analysis. This laboratory is currently proficient in both Proficiency Testing and PAT programs respectively.

Reservoirs Environmental, Inc. has analyzed the following samples for asbestos content as per your request. The analysis has been completed in general accordance with the appropriate methodology as stated in the attached analysis table. The results have been submitted to your office.

RES 206023-1 is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Reservoirs Environmental, Inc. will not discuss any part of this study with personnel other than those of the client. The results described in this report only apply to the samples analyzed. This report must not be used to claim endorsement of products or analytical results by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without written approval from Reservoirs Environmental, Inc. Samples will be disposed of after sixty days unless longer storage is requested. If you have any questions about this report, please feel free to call 303-964-1986.

Sincerely,

Jeanne Spencer Orr
President

Analyst(s): _____

Paul D. LoScalzo	Wenlong Liu
Michael Scales	Rich Wegrzyn
Anita Grigg	Robert R. Workman Jr.
Bethany Nichols	

RESERVOIRS ENVIRONMENTAL, INC.

NVLAP Lab Code 101896-0

TDH Licensed Laboratory # 30-0136

TABLE PLM BULK ANALYSIS, PERCENTAGE COMPOSITION BY VOLUME

RES Job Number: **RES 206023-1**
Client: **Landmark Environmental, Inc.**
Client Project Number / P.O.: **10048.001.001**
Client Project Description: **Louisville Grain Elevator**
Date Samples Received: **January 21, 2011**
Analysis Type: **PLM, Short Report**
Turnaround: **3-5 Day**
Date Analyzed: **January 24, 2011**

Client Sample Number	Lab ID Number	LAYER	Physical Description	Sub Part (%)	Asbestos Content: Mineral	Asbestos Content: Visual Estimate (%)	Non Asbestos Fibrous Components (%)	Non-Fibrous Components (%)
B-LGE-012011-HP-01	EM 685780	A	White carbonate	100		**ND**	0	100
B-LGE-012011-WT-01	EM 685781	A	White compound	100		**ND**	0	100
B-LGE-012011-WT-02	EM 685782	A	White compound w/ tan paint	100		**ND**	0	100
B-LGE-012011-WT-03	EM 685783	A	White compound	100		**ND**	0	100
B-LGE-012011-I-01	EM 685784	A	Yellow insulation	100		**ND**	95	5
B-LGE-012011-I-02	EM 685785	A	Yellow insulation	100		**ND**	95	5
B-LGE-012011-I-03	EM 685786	A	Yellow insulation	100		**ND**	95	5
B-LGE-012011-WP-01	EM 685787	A	Cream glaze w/ white paint	100		**ND**	0	100
B-LGE-012011-S-01	EM 685788	A	Red shingle w/ tan fibrous material	50		**ND**	20	80
		B	Red shingle	50		**ND**	20	80
B-LGE-012011-FT1-01	EM 685789	A	Tan sheet vinyl w/ black fibrous backing	100		**ND**	30	70
B-LGE-012011-PS-01	EM 685790	A	Red paper	100		**ND**	90	10
B-LGE-012011-PS-02	EM 685791	A	Red paper	100		**ND**	90	10
B-LGE-012011-PS-03	EM 685792	A	Red/brown paper	100		**ND**	90	10
B-LGE-012011-CC-01	EM 685793	A	White plaster w/ cream paint	100		**ND**	0	100

ND=None Detected
TR=Trace, <1% Visual Estimate
Trem-Act=Tremolite-Actinolite
Note: Further analysis by TEM is recommended for organically bound material (i.e. floor tile) if PLM results are≤1%.

Data QA

RES 206023

-1 PCM - 2 MM

Due Date: 1-26-1-28

Due Time: 9:45a

REI LAB Reservoirs Environmental, Inc.

5801 Logan St. Denver, CO 80216 • Ph: 303 964-1986 • Fax 303-477-4275 • Toll Free :866 RESI-ENV

Page 1 of 2

SUBMITTED BY:	INVOICE TO: (IF DIFFERENT)	CONTACT INFORMATION:	
Company: Landmark Environmental INC	Company:	Contact:	Contact: MIKE RITTER
Address: 250 Bryant St Denver, CO 80219	Address:	Phone:	Phone:
		Fax:	Fax:
		Cell/pager:	Cell/pager: 303-961-3218
Project Number and/or P.O. #: 10048.001.001		Final Data Deliverable Email Address:	
Project Description/Location: LOUISVILLE GRAIN ELEVATOR		mritter@landmarkenviro.com	

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm

PLM / PCM / TEM ___ RUSH (Same Day) ___ PRIORITY (Next Day) X STANDARD (Rush PCM = 2hr, TEM = 6hr.)

CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm

Metal(s) / Dust ___ RUSH ___ 24 hr. X 3-5 Day

RCRA 8 / Metals & Welding Fume Scan / TCLP ___ RUSH ___ 5 day ___ 10 day

Organics ___ 24 hr. ___ 3 day ___ 5 Day

Prior notification is required for RUSH turnarounds.

Analysis turnarounds are subject to laboratory sample volume and are not guaranteed. You will be notified if delays are expected. Additional fees apply for afterhours and holidays for all analysis types.

Special Instructions:

VALID MATRIX CODES

Air = A	Bulk = B
Dust = D	Paint = P
Soil = S	Wipe = W
Drinking Water = DW	
Waste Water = WW	
Other = O	

ASTM E1792 approved wipe media only

LAB NOTES:

Client sample ID number (Sample ID's must be unique)	PLM - Short report, Long report, Point Count	TEM - AHERA, Level II, 7402, ISO, +/-, Quant, Semi-quant, Micro-vac, ISO-Indirect Preps	PCM - 7400A, 7400B, OSHA	DUST - Total, Respirable	METALS - Analyte(s) LEAD	RCRA 8, TCLP, Welding Fume, Metals Scan	ORGANICS - BTEX, MTBE, 8260, GRO, DRO	OTHER -	Sample Volume (L) / Area	Matrix Code	# Containers	Date Collected mm/dd/yy	Time Collected hh/mm a/p	EM Number (Laboratory Use Only)
1 B-LGE-012011-HP-01	✓									B	1	01/20/11		68578 0
2 B-LGE-012011-WT-01	✓													81
3 012	✓													82
4 013	✓													83
5 B-LGE-012011-I-01	✓													84
6 B-LGE-012011-I-02	✓													85
7 03	✓													86
8 B-LGE-012011-WP-01	✓													87
9 B-LGE-012011-S-01	✓													88
10 B-LGE-012011-FT1-01	✓													89
11 B-LGE-012011-PJ-01	✓													90
12 02	✓													91
13 03	✓													92

Number of samples received: ___ (Additiional samples shall be listed on attached long form.)

NOTE: REI will analyze incoming samples based upon information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing client/company representative agrees that submission of the following samples for requested analysis as indicated on this Chain of Custody shall constitute an analytical services agreement with payment terms of NET 30 days, failure to comply with payment terms may result in a 1.5% monthly interest surcharge.

Relinquished By: Mike Ritter Date/Time: 1/21/11 9:43

Sample Condition: On Ice Y/N Sealed Y/N Intact Y/N

Temp. (F°) ___

Laboratory Use Only

Received By: [signature] Date/Time: 1-21-11 @ 9:45a Carrier: fed

Results: Contact Page Phone Email Fax Date Time Initials | Contact Page Phone Email Fax Date Time Initials

Contact Page Phone Email Fax Date Time Initials | Contact Page Phone Email Fax Date Time Initials

Due Date: 1-26-1-28

Due Time: 9:45a

Job # 206023

Page 2 of 2

Reservoirs Environmental, Inc.

REI LAB

5801 Logan St. Denver, CO 80216 • Ph 303 964-1986 • Fax 303-477-4275 • Toll Free :866 RESI-ENV

SUBMITTED BY:	INVOICE TO: (IF DIFFERENT)	CONTACT INFORMATION:	
Company: Landmark Environmental INC	Company:	Contact:	Contact:
Address: 250 Bryant St	Address:	Phone:	Phone:
Denver, CO 80219		Fax:	Fax:
		Cell/pager:	Cell/pager:
Project Number and/or P.O. #: 10048.001.001		Final Data Deliverable Email Address:	
Project Description/Location: Louisville Grain Elevator			

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm

PLM / PCM / TEM ___ RUSH (Same Day) ___ PRIORITY (Next Day) X STANDARD (Rush PCM = 2hr, TEM = 6hr.)

CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm

Metal(s) / Dust ___ RUSH ___ 24 hr. X 3-5 Day

RCRA 8 / Metals & Welding Fume Scan / TCLP ___ RUSH ___ 5 day ___ 10 day

Organics ___ 24 hr. ___ 3 day ___ 5 Day

Prior notification is required for RUSH turnarounds.

Analysis turnarounds are subject to laboratory sample volume and are not guaranteed. You will be notified if delays are expected. Additional fees apply for afterhours and holidays for all analysis types.

Special Instructions:

REQUESTED ANALYSIS

VALID MATRIX CODES

Air = A	Bulk = B
Dust = D	Paint = P
Soil = S	Wipe = W
Drinking Water = DW	
Waste Water = WW	
Other = O	

ASTM E1792 approved wipe media only

Client sample ID number (Sample ID's must be unique)	PLM - Short report, Long report, Point Count	TEM - AHERA, Level II, 7402, ISO, +/-, Quant, Semi-quant, Micro-vac, ISO-Indirect Preps	PCM - 7400A, 7400B, OSHA	DUST - Total, Respirable	METALS - Analyte(s) RCRA 8, TCLP, Welding Fume, Metals Scan	ORGANICS - BTEX, MTBE, 8260, GRO, DRO	OTHER -	Sample Volume (L) / Area	Matrix Code	# Containers	Date Collected mm/dd/yy	Time Collected hh/mm a/p	EM Number (Laboratory Use Only)
1 B-LGE-012011-CC-01	✓								B	1	01/20/11		168573
2 PC-LGE-012011-EP-01					lead				P	1			9464
3 PC-LGE-012011-WP-01					lead				P	1			9465
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													

Number of samples received: _____ (Additional samples shall be listed on attached long form.)

NOTE: REI will analyze incoming samples based upon information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing client/company representative agrees that submission of the following samples for requested analysis as indicated on this Chain of Custody shall constitute an analytical services agreement with payment terms of NET 30 days, failure to comply with payment terms may result in a 1.5% monthly interest surcharge.

Relinquished By: Michael Fitter Date/Time: 1/21/11 9:43

Sample Condition: On Ice Y/N Sealed Y/N Intact Y/N

Temp. (F°) _____

Laboratory Use Only

Received By: Date/Time: 1-21-11 @ 9:45 Carrier: Fed

Results:	Contact	Page	Phone	Email	Fax	Date	Time	Initials	Contact	Page	Phone	Email	Fax	Date	Time	Initials
	Contact	Page	Phone	Email	Fax	Date	Time	Initials	Contact	Page	Phone	Email	Fax	Date	Time	Initials

Attachment 2

LEAD CONTAINING PAINT SAMPLE TABLE AND LABORATORY REPORT

Reservoirs Environmental, Inc.

January 25, 2011

Laboratory Code:	**RES**
Subcontract Number:	**NA**
Laboratory Report:	**RES 206023-2R**
Project # / PO #:	**10048.001.001**
Project Description:	**Louisville Grain Elevator**

Mike Ritter
Landmark Environmental, Inc.
250 Bryant Street
Denver CO 80219

Dear Customer,

Reservoirs Environmental, Inc. is an analytical laboratory accredited for the analysis of Industrial Hygiene and Environmental matrices by the American Industrial Hygiene Association, Lab ID 101533 - Accreditation Certificate #480. The laboratory is currently proficient in both PAT & ELPAT programs respectively.

Reservoirs has analyzed the following sample(s) using Atomic Absorption Spectroscopy (AAS) / Atomic Emission Spectroscopy - Inductively Coupled Plasma (AES-ICP) per your request. Reported sample results were not blank corrected. The analysis has been completed in general accordance with the appropriate methodology as stated in the analysis table. Results have been sent to your office.

RES 206023-2R is the job number assigned to this study. This report is considered highly confidential and the sole property of the customer. Reservoirs Environmental, Inc. will not discuss any part of this study with personnel other than those authorized by the client. The results described in this report only apply to the samples analyzed. This report shall not be reproduced except in full, without written approval from Reservoirs Environmental, Inc. Samples will be disposed of after sixty days unless longer storage is requested. If you should have any questions about this report, please feel free to call me at 303-964-1986.

Sincerely,

Jeanne Spencer Orr
President

RESERVOIRS ENVIRONMENTAL, INC.

5801 Logan St., Suite 100
Denver CO 80216

TABLE ANALYSIS: LEAD IN PAINT

RES Job Number:	**RES 206023-2R**
Client:	**Landmark Environmental, Inc.**
Client Project Number / P.O.:	**10048.001.001**
Client Project Description:	**Louisville Grain Elevator**
Date Samples Received:	**January 21, 2011**
Analysis Type:	**USEPA SW846 3050B / AA (7420)**
Turnaround:	**3-5 Day**
Date Samples Analyzed:	**January 25, 2011**

Client ID Number	Lab ID Number	Reporting Limit (%)	LEAD CONCENTRATION (%)
PC-LGE-012011-EP-01	EM 685794	0.003	0.008
PC-LGE-012011-WP-01	EM 685795	0.003	7.696

*** Unless otherwise noted all quality control samples performed within specifications established by the laboratory.**

RES 206023

-1 PCM - 2 MM

Due Date: 1-26-1-28

Due Time: 9:45a

REI LAB Reservoirs Environmental, Inc.

5801 Logan St. Denver, CO 80216 • Ph: 303 964-1986 • Fax 303-477-4275 • Toll Free :866 RESI-ENV

Page 1 of 2

SUBMITTED BY:	INVOICE TO: (IF DIFFERENT)	CONTACT INFORMATION:	
Company: Landmark Environmental INC	Company:	Contact:	Contact: MIKE RITTER
Address: 250 Bryant St Denver, CO 80219	Address:	Phone:	Phone:
		Fax:	Fax:
		Cell/pager:	Cell/pager: 303-961-3218
Project Number and/or P.O. #: 10048.001.001		Final Data Deliverable Email Address:	
Project Description/Location: LOUISVILLE GRAIN ELEVATOR		mritter@landmarkenviro.com	

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm

PLM / PCM / TEM ___ RUSH (Same Day) ___ PRIORITY (Next Day) X STANDARD (Rush PCM = 2hr, TEM = 6hr.)

CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm

Metal(s) / Dust ___ RUSH ___ 24 hr. X 3-5 Day

RCRA 8 / Metals & Welding Fume Scan / TCLP ___ RUSH ___ 5 day ___ 10 day

Organics ___ 24 hr. ___ 3 day ___ 5 Day

Prior notification is required for RUSH turnarounds.

Analysis turnarounds are subject to laboratory sample volume and are not guaranteed. You will be notified if delays are expected. Additional fees apply for afterhours and holidays for all analysis types.

Special Instructions:

VALID MATRIX CODES

Air = A	Bulk = B
Dust = D	Paint = P
Soil = S	Wipe = W
Drinking Water = DW	
Waste Water = WW	
Other = O	

ASTM E1792 approved wipe media only

LAB NOTES:

Client sample ID number (Sample ID's must be unique)	PLM - Short report, Long report, Point Count	TEM - AHERA, Level II, 7402, ISO, +/-, Quant, Semi-quant, Micro-vac, ISO-Indirect Preps	PCM - 7400A, 7400B, OSHA	DUST - Total, Respirable	METALS - Analyte(s) LEAD	RCRA 8, TCLP, Welding Fume, Metals Scan	ORGANICS - BTEX, MTBE, 8260, GRO, DRO	OTHER -	Sample Volume (L) / Area	Matrix Code	# Containers	Date Collected mm/dd/yy	Time Collected hh/mm a/p	EM Number (Laboratory Use Only)
1 B-LGE-012011-HP-01	✓									B	1	01/20/11		68578 0
2 B-LGE-012011-WT-01	✓													81
3 012	✓													82
4 013	✓													83
5 B-LGE-012011-I-01	✓													84
6 B-LGE-012011-I-02	✓													85
7 03	✓													86
8 B-LGE-012011-WP-01	✓													87
9 B-LGE-012011-S-01	✓													88
10 B-LGE-012011-FT1-01	✓													89
11 B-LGE-012011-PJ-01	✓													90
12 02	✓													91
13 03	✓													92

Number of samples received: ___ (Additiional samples shall be listed on attached long form.)

NOTE: REI will analyze incoming samples based upon information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing client/company representative agrees that submission of the following samples for requested analysis as indicated on this Chain of Custody shall constitute an analytical services agreement with payment terms of NET 30 days, failure to comply with payment terms may result in a 1.5% monthly interest surcharge.

Relinquished By: Mike Ritter Date/Time: 1/21/11 9:43

Sample Condition: On Ice Y/N Sealed Y/N Intact Y/N

Temp. (F°) ___

Laboratory Use Only

Received By: [signature] Date/Time: 1-21-11 @ 9:45a Carrier: fed

Results: Contact Page Phone Email Fax Date Time Initials | Contact Page Phone Email Fax Date Time Initials

Contact Page Phone Email Fax Date Time Initials | Contact Page Phone Email Fax Date Time Initials

Due Date: 1-26-1-28

Due Time: 9:45a

Job # 206023

Page 2 of 2

Reservoirs Environmental, Inc.

REI LAB

5801 Logan St. Denver, CO 80216 • Ph 303 964-1986 • Fax 303-477-4275 • Toll Free :866 RESI-ENV

SUBMITTED BY:	INVOICE TO: (IF DIFFERENT)	CONTACT INFORMATION:	
Company: Landmark Environmental INC	Company:	Contact:	Contact:
Address: 250 Bryant St	Address:	Phone:	Phone:
Denver, CO 80219		Fax:	Fax:
		Cell/pager:	Cell/pager:
Project Number and/or P.O. #: 10048.001.001		Final Data Deliverable Email Address:	
Project Description/Location: Louisville Grain Elevator			

ASBESTOS LABORATORY HOURS: Weekdays: 7am - 7pm

PLM / PCM / TEM ___ RUSH (Same Day) ___ PRIORITY (Next Day) X STANDARD (Rush PCM = 2hr, TEM = 6hr.)

CHEMISTRY LABORATORY HOURS: Weekdays: 8am - 5pm

Metal(s) / Dust ___ RUSH ___ 24 hr. X 3-5 Day

RCRA 8 / Metals & Welding Fume Scan / TCLP ___ RUSH ___ 5 day ___ 10 day

Organics ___ 24 hr. ___ 3 day ___ 5 Day

Prior notification is required for RUSH turnarounds.

Analysis turnarounds are subject to laboratory sample volume and are not guaranteed. You will be notified if delays are expected. Additional fees apply for afterhours and holidays for all analysis types.

Special Instructions:

REQUESTED ANALYSIS

VALID MATRIX CODES

Air = A	Bulk = B
Dust = D	Paint = P
Soil = S	Wipe = W
Drinking Water = DW	
Waste Water = WW	
Other = O	

ASTM E1792 approved wipe media only

Client sample ID number (Sample ID's must be unique)	PLM - Short report, Long report, Point Count	TEM - AHERA, Level II, 7402, ISO, +/-, Quant, Semi-quant, Micro-vac, ISO-Indirect Preps	PCM - 7400A, 7400B, OSHA	DUST - Total, Respirable	METALS - Analyte(s) RCRA 8, TCLP, Welding Fume, Metals Scan	ORGANICS - BTEX, MTBE, 8260, GRO, DRO	OTHER -	Sample Volume (L) / Area	Matrix Code	# Containers	Date Collected mm/dd/yy	Time Collected hh/mm a/p	EM Number (Laboratory Use Only)
1 B-LGE-012011-CC-01	✓								B	1	01/20/11		168573
2 PC-LGE-012011-EP-01					lead				P	1			9464
3 PC-LGE-012011-WP-01					lead				P	1			9465
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													

Number of samples received: _____ (Additional samples shall be listed on attached long form.)

NOTE: REI will analyze incoming samples based upon information received and will not be responsible for errors or omissions in calculations resulting from the inaccuracy of original data. By signing client/company representative agrees that submission of the following samples for requested analysis as indicated on this Chain of Custody shall constitute an analytical services agreement with payment terms of NET 30 days, failure to comply with payment terms may result in a 1.5% monthly interest surcharge.

Relinquished By: Michael Fitter Date/Time: 1/21/11 9:43

Sample Condition: On Ice Y/N Sealed Y/N Intact Y/N

Temp. (F°) _____

Laboratory Use Only

Received By: Date/Time: 1-21-11 @ 9:45 Carrier: Fed

Results:	Contact	Page	Phone	Email	Fax	Date	Time	Initials	Contact	Page	Phone	Email	Fax	Date	Time	Initials
	Contact	Page	Phone	Email	Fax	Date	Time	Initials	Contact	Page	Phone	Email	Fax	Date	Time	Initials

Attachment 3

REGULATED BUILDING MATERIALS SUMMARY TABLE

Regulated Building Materials Inventory Louisville Grain Elevator Louisville, Colorado			
Description	Quantity	Size	Location
Fluorescent Light Fixtures	4	3 feet	Ground Floor
Fluorescent Light Fixture	1	6 feet	Ground Floor
Refrigerator	5	Standard Household	Ground Floor
Refrigerated Display Cases	4	6-8 Feet	Ground Floor
Vintage Television	2	1 Console, 1 - 12”	Ground Floor
Compressed Gas Cylinder	1	Volume Undetermined	Ground Floor
Lawn Mower	1	1 Qt. Gasoline	Ground Floor
Paint	12-15	1 Gallon	Ground Floor
Metal Drum	1	55 Gallon – Unknown Content	Second Floor
*Automobile Tires	8-10	N/A	Ground Floor

* Not an RBM, Requires Proper Disposal

Attachment 4

PHOTOGRAPHS

Photo 1 - First Floor Light Fixture

Photo 2 - Gas Cylinder and Refrigerated Display Case

Photo 3 - Vintage Television

Photo 4 - Discarded Vehicle Tires

Photo 5 - 55 Gallon Drum – Contents Unknown

Photo 6 - One of Five Refrigerators

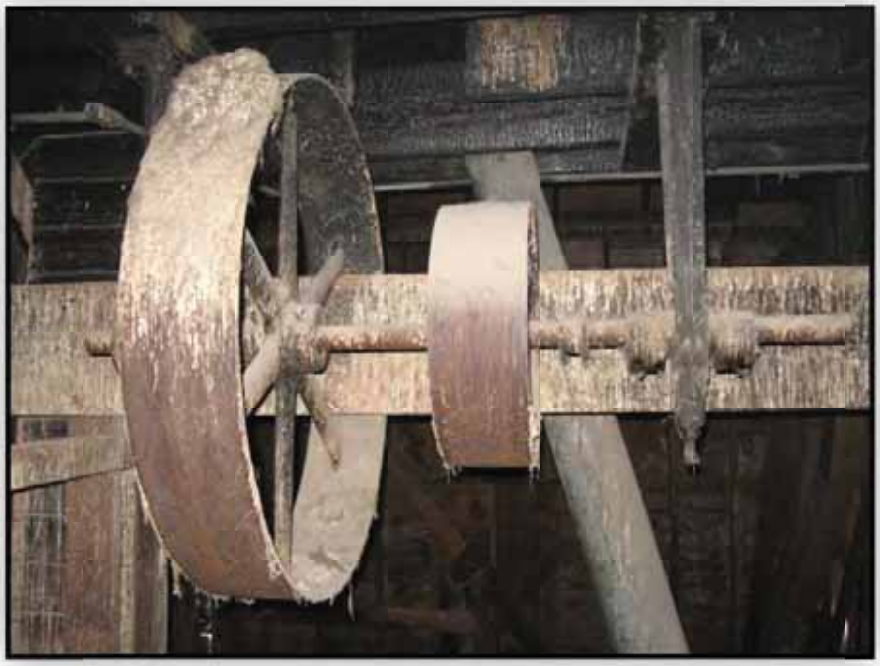


Photo 7 - Guano on Upper Floor Mechanical Components

Photo 8 - Animal Feces – Upper Floors

Attachment 5

ESTIMATE OF PROBABLE COSTS

Louisville Grain Elevator

Preliminary Cost Estimate

A&A

Prepared By:
M. Roberts
7-Feb-11

ITEM	SPEC. SECTION	DESCRIPTION	QUANTITY	UNIT		UNIT PRICE	SUBTOTAL	COMMENT
1		Mobilization	1	LS	@	$ 500.00	$ 500.00	
2		Demobilization	1	LS	@	$ 250.00	$ 250.00	
3		Labor Pre-cleaning of Stored Items for Recycling or Re-use	1	LS	@	$ 1,500.00	$ 1,500.00	1 day segregation & cleaning
4		Labor Trash Removal	1	LS	@	$ 1,200.00	$ 1,200.00	45 CY - 1 day
5		Labor Cleaning Animal debris, feces from Surfaces in Building	8,500	SF	@	$ 0.60	$ 5,100.00	8,500 Sf surfaces - 2 days
6		Selective demo and removal of animal-stained areas	400	SF	@	$ 2.50	$ 1,000.00	400 SF selective demo - 1 day
7		Biocide of Surfaces	8,500	SF	@	$ 0.20	$ 1,700.00	
8		Remove and dispose/recycle identified RBM's	1	LS	@	$ 1,600.00	$ 1,600.00	Identified RBMs
9		LCP Exterior Stabilization - Incremental Cost for Painter's Prep.	1	LS	@	$ 1,500.00	$ 1,500.00	Training, PPE and controls
10		LBP Removal - Component Window frame remove & dispose	2	EA	@	$ 150.00	$ 300.00	Replacement not incl.
11		Equipment and Supplies (daily rate)	5	EA	@	$ 250.00	$ 1,250.00	
12		Solid Waste Transport & Disposal	45	CY	@	$ 25.00	$ 1,125.00	
							Total	
13							$ 17,025.00	
13a		Industrial Hygiene Inspections/Oversight and Work Plan Development - 15%					$ 2,553.75	
13b		Contracting and Unforseen Condition Contingency 10%					$ 1,702.50	
							Grand Total	
14							$ 21,281.25	
		Estimated project performance period is 5 working days expedited schedules and associated overtime are not included in this estimate						

LANDMARK ENVIRONMENTAL INC.

COLORADO HISTORICAL SOCIETY
Office of Archaeology and Historic Preservation
1300 Broadway Denver, Colorado

Historic Building Inventory Record

NOT FOR FIELD USE
___ ELIGIBLE
___ DET. NOT ELIG.
___ NOMINATED
___ CERTIFIED REHAB
DATE _____

project name: Louisville Survey	county: Boulder	city: Louisville	state ID no. 5BL830.20 temporary no. LSV14
current building name: Grain Elevator		owner: Charles Thomas, Empire Road, Louisville, CO	
address: Tract 712, Louisville, CO		tnsp 1S range 69W sec 8 ,SE ¼, SE ¼	
historic name: Denver Elevator(Grain Elevator)		USGS quad name: Louisville 65(79)___yr. X 7.5' ___15'	
district name: N/A		blk. lot(s) addition yr. of addition: Previously unincorporated Louisville	
film roll: by S.F.Mehls no. LSV-1	negative nos.: 28,29	loc. of neg.: CHS	

paste photograph here. use archival glue.

date of construction
_____estimate 1904 _____actual
source
Present Owner

use
Vacant _____present
Grain Elevator _____historic

condition
_____excellent _____good
XX fair _____deteriorating

extent of alterations
XX minor ____moderate ____major
describe:
doors moved

XX ____original ____moved
date(s) of move:

style: Nineteenth Century Commercial	stories: 1-3
materials: Wood siding & corrugated metal sheathing/wood frame	sq. footage: 4,950

field assessment
XX eligible ____not eligible

architectural description

A wood-sided and corrugated metal 19th century grain elevator, functional in design. Has multi-gabled roofs with sections of disparate height. The main body consists of two tall units with few openings, with a shed-roofed appendage on the south side and a one-story section on the opposite, north side. There are openings on all sides in all sections excellent for the smaller of the two taller brick. Changes include metal siding on the tallest unit. Boardwalk on west side deteriorated.

district potential
____yes XX no ____contributing
____non-contributing

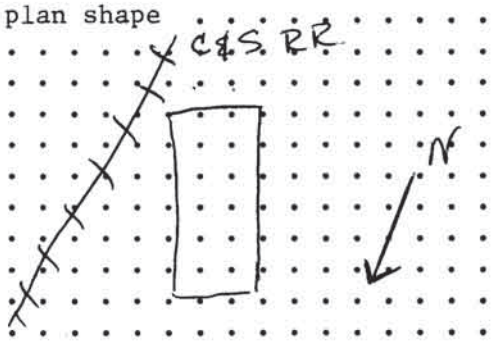
local landmark designation
Louisville Landmark _____name _____date

associated buildings? ____yes
type No

if inventoried, list ID nos.

additional pages ____yes XX no

plan shape



architect Unknown

source

builder/contractor Unknown

source

original owner Denver Elevator Co. (J.K. Mullen)

source Present Owner

theme(s) Mountains-farming Urban-Rail Era

construction history (descriptions, names, dates, etc. relating to major additions or alterations to original structure)

Wings on north side appear to have been modified at unknown date after initial construction. Other modifications have been minimal, consisting primarily of metal sheathing. Also, removal of steam boiler occurred at some date after 1960.

continued ___yes XX no

historical background (discuss important persons and events associated with this structure)

Built in 1908 to serve farmers in area surrounding Louisville. On exterior wall was once visible a sign saying "The Denver Elevator's".

continued ___yes XX no

significance (check appropriate categories and briefly justify below)

architectural significance:
___represents the work of a master
___possesses high artistic values
XX represents a type, period or method of construction

historical significance:
___associated with significant persons
___associated with sig. events patterns
___contributes to an historic district

Area of Significance: Agriculture, Architecture
Level of Significance: Local Dates: 1900 -

statement of significance

Built in 1908 for use as a grain elevator, this building is historically and visually the most significant structure associated with the agricultural history of the community. Its frame construction and functional design illustrate an important resource type traditionally associated with agriculture.

The building addresses the following RP3 concerns: correlates non-mining economic activity to the community-agricultural production; provides information on the physical form of rail towns-located directly on the tracks.

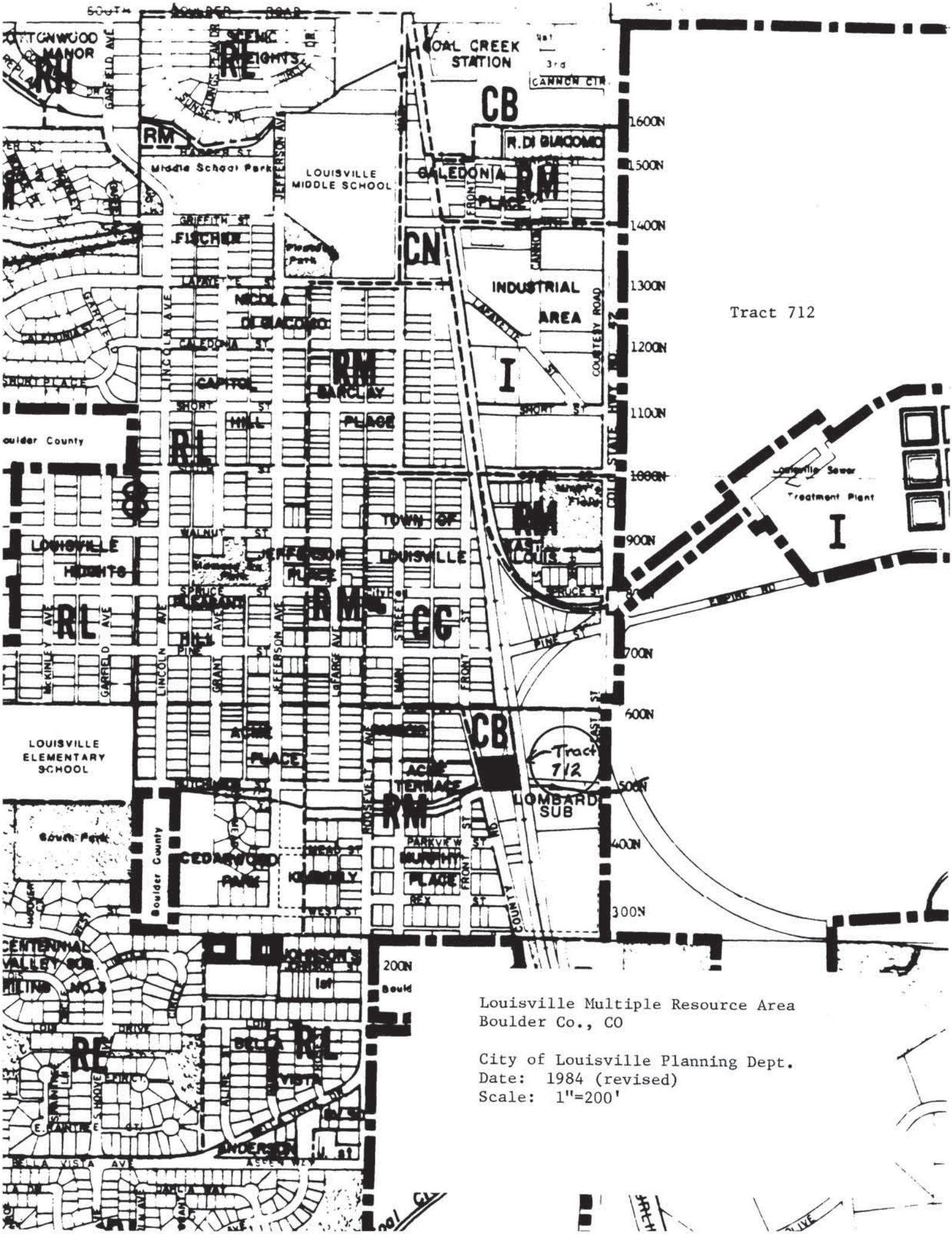
continued ___yes XX no

references (be specific)

Personal communication with Charles Thomas, present owner, 8/2/85.
Conarroe, Carolyn, The Louisville Story, Louisville: Louisville Times, 1978.

continued ___yes XX no

surveyed by S.Mehls, C.Mehls, J.Fell | Affiliation Western Historical Studies | date 7/28/85



Louisville Multiple Resource Area
Boulder Co., CO

City of Louisville Planning Dept.
Date: 1984 (revised)
Scale: 1"=200'

Denver Elevator, Louisville, CO

3. Classification

Category	Ownership	Status	Present Use	
___ district	___ public	___ occupied	___ agriculture	___ museum
XX building(s)	XX private	XX unoccupied	___ commercial	___ park
___ structure	___ both	___ work in progress	___ educational	___ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	n/a in process	XX yes: restricted	___ government	___ scientific
	n/a being considered	___ yes: unrestricted	___ industrial	___ transportation
		___ no	___ military	XX other: Vacant

Denver Elevator
Boulder County, Colorado

Photographer: Steven Mehls
Locale of Negative: Office of Archaeology
& Historic Preservation
1300 Broadway, Denver, CO
Date of Photo: August 1985

Photo 1 of 2
View looking southeast

Denver Elevator
Boulder County, Colorado

Photographer: Steven Mehls
Locale of Negative: Office of Archaeology
& Historic Preservation
1300 Broadway, Denver, CO
Date of Photo: August 1985

Photo 2 of 2
View looking northeast

OAHP1403
Rev. 9/98

COLORADO CULTURAL RESOURCE SURVEY

Architectural Inventory Form

Official Eligibility Determination
(OAHP use only)
Date_____ Initials_____
___Determined Eligible - National Register
___Determined Not Eligible - National Register
___Determined Eligible - State Register
___Determined Not Eligible - State Register
___Needs Data
___Contributes to eligible National Register District
___Noncontributing to eligible National Register District

I. IDENTIFICATION

1. Resource number: **5BL961.11**
2. Temporary number: **N/A**
3. County: **Boulder**
4. City: **Louisville**
5. Historic building name: **Louisville Milling & Elevator Co. Elevator**
6. Current building name: **Louisville Milling & Elevator Co. Elevator**
7. Building address: **Tract 712, Louisville**
8. Owner name: **Charles K. & Iona Thomas**
   Owner address: **P.O. Box 156**
   Louisville, CO 80027

II. GEOGRAPHIC INFORMATION

9. P.M. **6th** Township **1S** Range **69W**
   NW¼ of **NE**¼ of **SE**¼ of **SE**¼ of section **8**

10. UTM reference
    Zone **13**
    Easting: **488940**
    Northing: **4424830**
11. USGS quad name: **Louisville, Colorado**
    Year: **1965 (Revised 1994) 7.5'**
12. Lot(s): **Tract 712** Block: **n/a**
    Addition: **n/a** Year of Addition: **n/a**
13. Boundary Description and Justification: **This legally defined parcel encompasses but does not exceed the land historically associated with this property.**

III. ARCHITECTURAL DESCRIPTION

14. Building plan (footprint, shape):
    Rectangular
15. Dimensions in feet: **2464 square feet**
16. Number of stories: **Three**
17. Primary external wall material
    Wood / Weatherboard
    Wood / Stacked Lumber
18. Roof configuration (enter one):
    Gabled Roof
19. Primary external roof material (enter one):
    Asphalt Roof
20. Special features (enter all that apply):
    Chimney

Survey completed April 2000
National Register Landmark 1984

22. Architectural style / building type:

    Other Style
    (Stacked Plank
    Grain Elevator)

21. General Architectural Description

This structure is oriented north-northeast to south-southwest, with overall measurements of 88′ by 28′. From the north-northeast end, the building is composed of five sections, including an office, an elevator, an elevator tower, grain bins, and a warehouse. Each of these sections are described below.

The **Office** section is one-story tall, measures 10′ by 28′, is supported by a concrete foundation, and is covered with a shed roof, covered with rolled asphalt roofing. A brick chimney, with concrete pargeting, penetrates the roof near the north-northeast end. The office's exterior walls are painted white horizontal weatherboard, with 1" by 4" corner boards. A rectangular hipped-roof bay window, and a single wood-paneled door, are located on the office's north-northwest elevation. Three window openings on the office - two on the north-northeast elevation, and one on the east-southeast elevation - are covered with plywood.

The **Elevator** section is 1½-stories tall, measures 14′ by 28′, is supported by a low concrete perimeter walls foundation, and is covered by a gable roof, with red asphalt shingles, and exposed rafter ends with fascia. The elevator's exterior walls are painted white horizontal wood siding. A vertical wood plank horizontal sliding door is located on the elevator's west-northwest elevation.

The **Elevator Tower** section is three-stories tall, measures 14′ by 28′, is supported by a low concrete perimeter walls foundation, and is covered by a gable roof with red asphalt shingles, and exposed rafter ends with fascia. The elevator tower's first story exterior walls are painted white horizontal weatherboard; the elevator tower's second story walls are painted white stacked plank construction (2x lumber); the elevator tower's third story exterior walls are painted white square-cut wood shingle siding. Painted white wood plank, horizontal sliding doors are located on the tower's east-southeast and north-northwest elevations.

The **Grain Bins** section is 1½-stories tall, measures 30′ by 28′, is supported by a low concrete perimeter walls foundation, and is covered by a gable roof with corrugated metal, and exposed rafter ends with fascia. The Grain Bins section features painted white stacked plank walls (2x lumber), and there is one window opening in the upper gable end.

The **Warehouse** section is one-story tall, measures 20′ by 28′, has a wood timbers on grade foundation, and is covered by a shed roof with corrugated metal over 1x wood decking and 2x wood rafters. The warehouse's walls are painted red horizontal weatherboard. One door opening is located on the west-northwest elevation.

29. Construction History (include description and dates of major additions, alterations, or demolitions:

This structure was built in 1903.

23. **Landscape or setting special features:**
Now abandoned, this grain elevator is located on a tract of land between Front Street and the railroad tracks, south of Elm Street, to the southeast of downtown Louisville.

24. Associated buildings, features, or objects
n/a

IV. ARCHITECTURAL HISTORY

25. Date of Construction:
Estimate
Actual **1903**

Source of information:
1908 Sanborn map lists structure's date of construction as "1903.". Louisville Milling & Elevator Co. is first listed in the 1904 Boulder County Directory.

26. Architect:
n/a

Source of information:
n/a

27. Builder/ Contractor:
unknown

Source of information:
n/a

28. Original owner:
Louisville Milling & Elevator Co.

Source of information:
Boulder County Directories

30. Original location: **yes**
Moved **no**
Date of move(s) **n/a**

V. HISTORICAL ASSOCIATIONS

31. Original use(s): **Agriculture/ Subsistence / Grain Elevator**

32. Intermediate use(s): **n/a**

33. Current use(s): **Vacant / Not In Use**

34. Site type(s): **Grain Elevator**

35. Historical Background

This structure was constructed in 1903 by the Louisville Milling and Elevator Company. Built with a 25,000 bushel capacity, this grain elevator served area farmers until its closure in the 1950s. Howard A. Moore of Louisville was the facility's manager, during the 1910s and 1920s, Moore, and his wife Zara, lived on Spruce Street in Louisville, just west of McKinley Avenue. In the late 1930s and 1940s, the Louisville Milling and Elevator Company was managed by Donald C. Moore. (Donald was perhaps Howard's son.) Donald Moore, and his wife Sadie, lived at 633 Garfield Avenue in Louisville. By the early 1950s, the facility's name had been changed to "The Denver Elevator." Dan Gunkel was the manager in 1951. By the 1960s, the elevator had been acquired by Charles and Iona Thomas, and by Quentin C. Thomas, who ran a feed store in Louisville. The Thomases were descendant from a long-time Louisville coal mining family. Charles and Iona Thomas are still the building's owner in 2000.

36. Sources of Information

(Boulder County) "Real Estate Appraisal Card - Urban Master", on file at the Boulder Carnegie Library.

"Grain Elevator A Silent Sentinel of Plains. *The Denver Post*, April 4, 1999, p. 99.

Mehls, Steven F., and Mehls, Carol Drake. "Colorado Historical Society, Historic Building Inventory Record", (Tract 712, Louisville), July 28, 1985. On file at the Colorado Historical Society, Office of Archaeology and Historic Preservation, Denver, CO.

Polk's Boulder County Directory [generally published annually], Denver, Kansas City, and Salt Lake City: R.L. Polk and Company Publishers.

Polk's Longmont City Directory, [generally published annually], Denver, Kansas City, and Salt Lake City: R.L. Polk and Company, Publishers, 1966 - 1997.

Sanborn Fire Insurance Map, August 1908.

VI. SIGNIFICANCE

37. Local landmark designation:
    Yes
    No xx
    Date of Designation: n/a

38. Applicable National Register Criteria

xx A. Associated with events that have made a significant contribution to the broad patterns of our history;

B. Associated with the lives of persons significant in our past;

xx C. Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or that possess high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction;

D. Has yielded, or may be likely to yield information important in history or prehistory;

Qualifies under Criteria Considerations A through G (see Manual).

Does not meet any of the above National Register criteria.

39. Area(s) of Significance:

Agriculture; Commerce

40. Period of Significance: **1903 - 1950**

41. Level of Significance:
    National:
    State: xx
    Local: xx

42. Statement of Significance

This building has been individually listed in the National Register of Historic Places. It is historically significant, relative to National Register Criterion A, for its association with the theme of agriculture during the first half of the twentieth century. The structure is architecturally significant, under National Register Criterion C, because it one of the region's last remaining wooden grain elevators, and because of its rare stacked plank construction. The preservation of this building should be one of Louisville's highest preservation priorities.

43. Assessment of historic physical integrity related to significance:

This structure has had no additions, and very minimal alterations, subsequent to its original construction in 1903. As such it exhibits a high degree of historical integrity, in accordance with National Park Service and Colorado Historical Society guidelines. The property's owners are unfortunately allowing the building to deteriorate.

VII. NATIONAL REGISTER ELIGIBILITY ASSESSMENT

44. National Register eligibility field assessment:
    Eligible: xx
    Not Eligible:
    Need Data:

45. Is there National Register district potential?
    Yes:
    No: xx
    Discuss: **This structure is in a relatively isolated location, at Louisville's southeastern outskirts.**

    If there is National Register district potential, is this building:
    Contributing: n/a
    Noncontributing: n/a

46. If the building is in an existing National Register district, is it:
    Contributing: n/a
    Noncontributing: n/a

VIII. RECORDING INFORMATION

47. Photograph numbers:
    Roll: **CM-6**
    Frame(s): **25-28**
    Negatives filed at: **City of Louisville, Administration**
    749 Main Street
    Louisville, Colorado 80027

48. Report title: **"Old Town" Louisville Historical Building Survey**

49. Date: **February 1, 2000**

50. Recorder(s): **Carl McWilliams**

51. Organization: **Cultural Resource Historians**

52. Address: **1607 Dogwood Court**
    Fort Collins, Colorado 80525

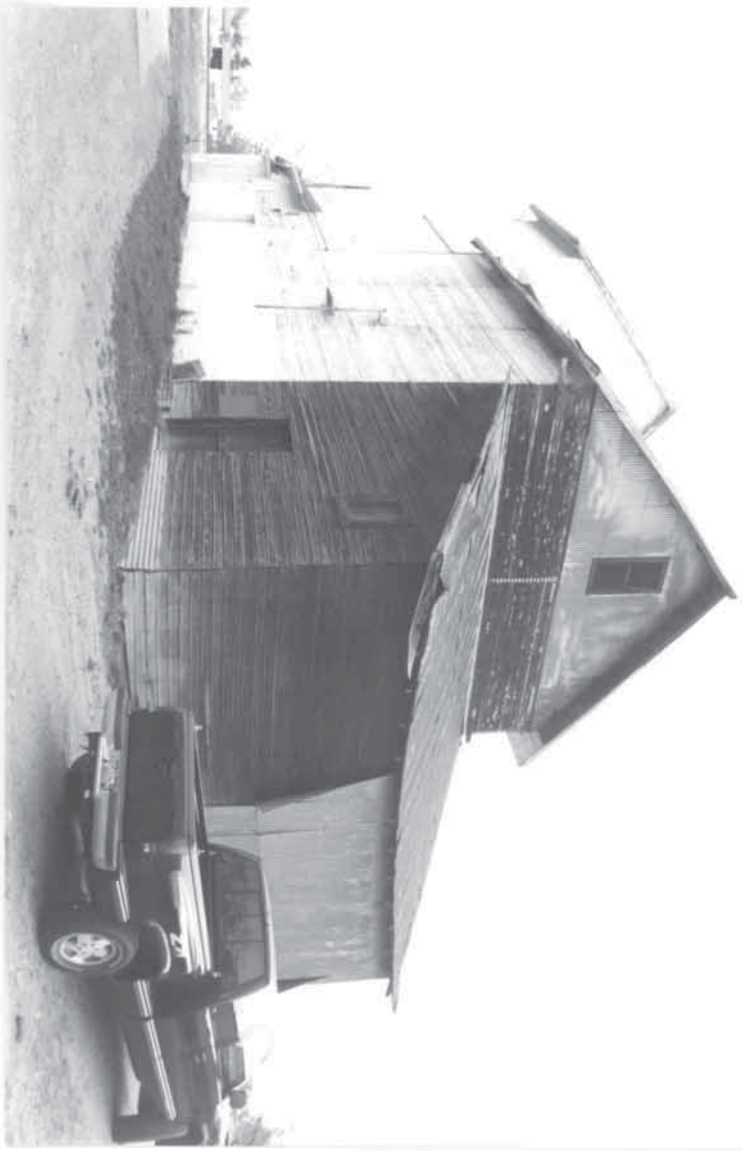
53. Phone number: **970/493-5270**

SKETCH MAP

Tract 712, Louisville, Colorado

• • • LOCATION MAP • • •

Tract 712, Louisville, Colorado



5BL961.11 Tract 712, Louisville
The Denver Elevator
26 April 2000
Negative located at: City of Louisville
749 Main Street, Louisville, CO 80027
Photographed by Carl McWilliams
Roll CM-6 Frame 26
View to SE

5BL961.11 Tract 712, Louisville
The Denver Elevator
26 April 2000
Negative located at: City of Louisville
749 Main Street, Louisville, CO 80027
Photographed by Carl McWilliams
Roll CM-6 Frame 27
View to NNE

City of Louisville
COLORADO • SINCE 1878

Department of Planning and Building Safety

749 Main Street • Louisville CO 80027 • 303.335.4592 • www.louisvilleco.gov

MEMORANDUM

To: Historic Preservation Commission Members

From: Department of Planning and Building Safety

Subject: DELO Lofts Referral

Date: **May 16, 2016**

Below is a submittal for a planned unit development and plat for DELO Lofts project located south of Griffith Street and east of Cannon Street. The proposal includes 33 apartment homes and 13 live-work units. City Council has already approved the preliminary planned unit development and plat extending to Hwy 42. This application includes the westerly 1.88 acres. The project is directly south of the Little Italy neighborhood and the Old Town Overlay.

This referral is to give the Commission an opportunity to comment on historic preservation aspects of the project and impact of the new construction. The comments go to the applicant, Planning Commission, and City Council.

DeLo East, LLC
21 S. Sunset St.
Longmont, CO 80503

April 1, 2016

Mr. Scott Robinson, Planner II
Mr. Aaron DeJong, Planning Director
City of Louisville Planning Department
749 Main Street Louisville, CO 80027

RE: Submittal for the Final PUD and Plat for the Lofts at DeLo

Mr. Robinson,

DeLo East, LLC and BOOM, LLC would like to thank the Planning Commission for giving RMCS, Inc. the opportunity to present the final PUD and Plat for The Lofts at DeLo. This unique project will make a significant contribution to DeLo and the entire Core Area while enhancing the already vibrant, Historic Downtown Louisville. The site plan consists of 33 apartment homes and 13 live-work units. RMCS is excited to provide Louisville with this one of a kind product type oriented toward local entrepreneurs seeking to purchase property and establish a business near downtown. The mix of uses within this proposal exceed the requirements of the Louisville Municipal Code thus contributing to the already existing diverse use matrix. RMCS recently received preliminary PUD and Plat approval for MU-R and CC zoning on the 4.39 acre parcel. The site is bounded by Griffith Street to the north, Short Street to the south, Highway 42 to the east, and Cannon Street to the west. This final PUD and plat request brings forth the westerly 1.88 acres of the property. RMCS is currently working on a future proposal for the remaining 2.5 acres. The layout of the 1.88 acres in this submittal acts as a catalyst for the future development of Highway 42 oriented Community Commercial.

The property is centrally located within the Highway 42 Revitalization Area. The Core Project Area, as identified within the Highway 42 Revitalization Area Framework Plan, includes several blighted properties that are no longer eligible for industrial uses. The purpose of this proposed plan is to promote local objectives with respect to appropriate downtown land use, private investment, and public improvements that will help to provide a variety of product types that have the ability to respond to market changes over time. The site, as currently designed, is in conformance with Exhibit A of the MUDDSG and Highway 42 Revitalization Area Framework Plan. These development guidelines aim to reduce congestion and create a multimodal, pedestrian friendly environment by providing ample access points into the Core Area. The Lofts at DeLo will be within easy walking distance of Nawatny Greenway, Caledonia Plaza and the Canon Street Woonerf. Additionally, residents will enjoy easy access to the South Street Pedestrian Plaza/Gateway, Miners Field, and Historic Downtown Louisville. A key characteristic of the Lofts design is a mid-block alley-way that utilizes the existing entry from Griffith Street connecting to Short Street. Providing multiple access points and promoting continual traffic flow are critical to the successful development of the remaining 2.5 acres.

RMCS is proud to provide the Core Area with unique product types and future Highway 42 oriented commercial and retail space. Our ultimate vision is to provide the City of Louisville with a luxurious commercial project that will enhance the entire DeLo Neighborhood. DeLo East, LLC and BOOM, LLC are proud to partner with the City of Louisville to further the revitalization of the Core Project Area.

Respectfully,

Alex Carlson

delo LOFTS

Final Planned Unit Development

A part of section 8, township 1 south, range 69 west of the 6th p.m.
City of Louisville, County of Boulder, State of Colorado

SHEET INDEX

COVER SHEET	1
PROJECT INTRODUCTION	2
MASTER PLAN AND GENERAL NOTES	3
COMMERCIAL / LIVE WORK AREA - PLAN, NOTES AND STANDARDS	4
RESIDENTIAL AREA - PLAN, NOTES AND STANDARDS	5
SITE PHOTOMETRIC	6
LANDSCAPE PLAN	7
EMERGENCY VEHICLE ACCESS PLAN	8
HORIZONTAL CONTROL PLAN	9
UTILITY PLAN	10
GRADING PLAN	11
ELEVATIONS - COMMERCIAL / LIVE WORK UNITS	12
ELEVATIONS - MULTI UNIT DWELLINGS	13
ELEVATIONS - MULTI UNIT DWELLINGS	14
TYPICAL SITE DETAILS	15
CHARACTER SKETCHES	16

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owner's representative
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LOUISVILLE, CO 80027
Phone: 720.524.3620

louisville, colorado

CITY COUNCIL SIGNATURE BLOCK

APPROVED THIS ____ DAY OF _____, 201___ BY THE CITY COUNCIL OF THE CITY OF LOUISVILLE, COLORADO.

_____ _____
MAYOR CITY CLERK

PLANNING COMMISSION CERTIFICATION

RECOMMENDED APPROVAL THIS ____ DAY OF _____, 201___ BY THE PLANNING COMMISSION OF THE CITY OF LOUISVILLE, COLORADO. RESOLUTION NO. _____, SERIES _____.

_____
CHAIRMAN

CLERK & RECORDER CERTIFICATE - COUNTY OF BOULDER, STATE OF COLORADO

I HEREBY CERTIFY THAT THIS INSTRUMENT WAS FILED IN MY OFFICE AT _____ O'CLOCK, ___M., THIS _____ DAY OF _____, OF 201___, AND IS RECORDED IN PLAN FILE _____, FEE _____.

PAID _____ FILM NO. _____, RECEPTION

_____ _____
RECORDER DEPUTY

OWNERSHIP SIGNATURE BLOCK

BY SIGNING THIS FDP/PUD, THE OWNER ACKNOWLEDGES AND ACCEPTS ALL THE REQUIREMENTS AND INTENT SET FORTH BY THIS PDP/PUD. WITNESS OUR HANDS AND SEALS THIS ____ DAY OF _____, 201__.

_____
OWNER: DELO EAST, LLC
JUSTIN McCLURE, MANAGER

_____
NOTARY

(NOTARY SEAL)

delo LOFTS

COVER SHEET

SUBMITTAL

no	date	description
1	03.11.2016	Initial Submittal

designed by: sta
drawn by: kim
checked by: pms
project #: 8675309

M:\11.000\ 11.Dwg - USER: Sta
V:\DELO - Site Plan\Plans\Final PUD\Sheet-01.dwg

delo LOFTS

Final Planned Unit Development

A part of section 8, township 1 south, range 69 west of the 6th p.m.
City of Louisville, County of Boulder, State of Colorado

LEGAL DESCRIPTION

LOT 101, LOUISVILLE TRADE CENTER AND A PORTION OF LOT 2, BLOCK A, LOT 3, BLOCK A, LOT 4, BLOCK A AND LOT 5, BLOCK A, INDUSTRIAL AREA SUBDIVISION LOCATED IN THE NORTHEAST ¼ OF SECTION 8, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE 6TH P.M., MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF SAID LOT 101;
THENCE NORTH 90°00'00" EAST A DISTANCE OF 152.50 FEET ALONG THE SOUTH RIGHT-OF WAY LINE OF GRIFFITH STREET TO THE NORTHEAST CORNER OF SAID LOT 101;
THENCE SOUTH 00°00'00" EAST, 120.00 FEET ALONG THE EAST LINE OF SAID LOT 101 TO THE SOUTHEAST CORNER OF SAID LOT 101 BEING A POINT ON THE NORTH LINE OF SAID LOT 2;
THENCE NORTH 90°00'00" WEST, 16.66 FEET ALONG THE SOUTH LINE OF SAID LOT 101;

THENCE SOUTH 00°00'00" EAST A DISTANCE OF 268.90;
THENCE NORTH 90°00'00" WEST, 11.80 FEET;
THENCE SOUTH 00°00'00" EAST A DISTANCE OF 100.70 FEET;
THENCE NORTH 90°00'00" EAST, 4.95 FEET;
THENCE SOUTH 00°00'00" EAST A DISTANCE OF 110.40 FEET TO A POINT ON THE SOUTH LINE OF SAID LOT 5;
THENCE NORTH 90°00'00" WEST, 129.00 FEET ALONG THE SOUTH LINE OF SAID LOT 5 TO THE SOUTHWEST CORNER OF SAID LOT 5;
THENCE NORTH 00°00'00" WEST, 600.00 FEET ALONG THE WEST LINE OF SAID LOTS 5, 4, 3, 2 AND 101 TO THE NORTHWEST CORNER OF SAID LOT 101, THE POINT OF BEGINNING;

CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO.

AREA = 1.87 ACRES
(SURVEY BY ROCK CREEK, DATED AUGUST 25th 2013)

PROJECT DESCRIPTION

PLATTED AREA:	±4.39 AC.
TOTAL GROSS PROJECT AREA:	±1.87 AC.
CURRENT ZONING:	LIGHT INDUSTRIAL (I)
PROPOSED ZONING:	MIXED USE RESIDENTIAL (MU-R)
ACCESS:	GRIFFITH STREET (FULL MOVEMENT) CANNON STREET (FULL MOVEMENT)

OWNERSHIP AND LAND USE SUMMARY

PARCEL	TOTAL AREA (ACRES)	OWNERSHIP	PRIMARY USES	MAINTENANCE
TRACT A	0.04	DELO EAST, LLC	PRIVATE UTILITIES, DRY UTILITY EASEMENTS, DRAINAGE, OUTDOOR USES AND PUBLIC ACCESS	DELO FLATS HOA
TRACT B	0.14	DELO EAST, LLC	PRIVATE UTILITIES, DRY UTILITY EASEMENTS, DRAINAGE, OUTDOOR USES AND PUBLIC ACCESS	DELO FLATS HOA
TRACT C	0.14	DELO EAST, LLC	PRIVATE UTILITIES, DRY UTILITY EASEMENTS, DRAINAGE, OUTDOOR USES, PUBLIC ACCESS, MONUMENTATION AND DRAINAGE	DELO FLATS HOA
TRACT D	0.55	DELO EAST, LLC	PRIVATE UTILITIES, PRIVATE PARKING, ACCESS, DRY UTILITY EASEMENTS, MONUMENTATION AND DRAINAGE	DELO FLATS HOA
TRACT E	0.29	DELO EAST, LLC	PRIVATE UTILITIES, PRIVATE PARKING, ACCESS, DRY UTILITY EASEMENTS, MONUMENTATION AND DRAINAGE	DELO FLATS HOA
TOTAL	1.16 (MORE OR LESS)			

NOTE: *EXISTING ENCUMBRANCES AND USES ARE NOTED ON THE DRAWINGS AND ARE NOT SUPERSEDED BY THE OWNERSHIP / USE TABLE.*

PUBLIC BENEFIT

THE DEVELOPMENT OF THE DELO LOFTS PROJECT YIELDS PUBLIC BENEFITS GENERATED BY THE PLANNING, LAYOUT AND INNOVATION WITHIN THE DESIGN. PUBLIC BENEFITS INCLUDE, BUT ARE NOT LIMITED, TO THE FOLLOWING:

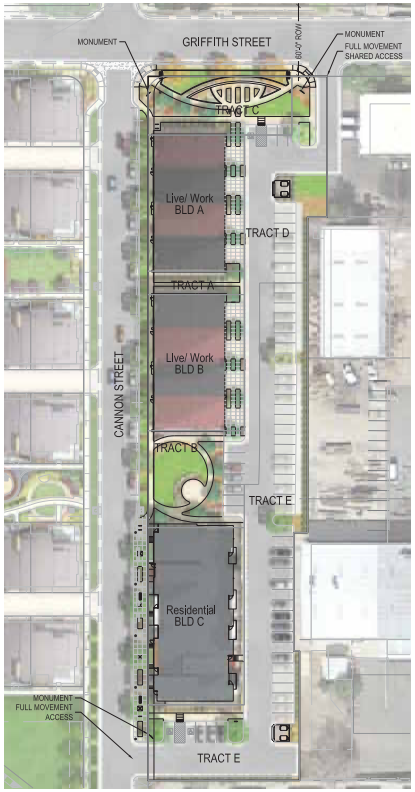
1. THE PROJECT IS AN IMPLEMENTATION OF THE HIGHWAY 42 REVITALIZATION AREA COMPREHENSIVE PLAN AND WILL LIKELY PROVIDE FOR THE CONTINUATION OF THAT PLAN. THE PUBLIC AND DEVELOPERS ALIKE, WILL VIEW THE AREA AS AN EXTENSION OF THE DOWNTOWN FABRIC PROVIDING MOMENTUM FOR CONTINUED DEVELOPMENT.

2. THROUGH THE IMPLEMENTATION OF THE DIVERSE USE MATRIX, THE PROJECT WILL STRENGTHEN AND ENHANCE ADJACENT RESIDENTIAL NEIGHBORHOODS BY PROVIDING HIGH QUALITY RESIDENTIAL (MULTI-UNIT DWELLINGS) AUGMENTED BY COMMERCIAL / LIVE WORK UNITS WITH AN EMPHASIS ON THE PEDESTRIAN EXPERIENCE. FURTHERMORE, THE PROJECT WILL PROTECT THE EXISTING RESIDENTIAL NEIGHBORHOODS THROUGH THE IMPLEMENTATION OF THOUGHTFUL SETBACKS AND ARCHITECTURE, PROVIDING CONSTRUCTION IMPLEMENTING HIGH QUALITY MATERIALS WHILE SCREENING PARKING AREAS.

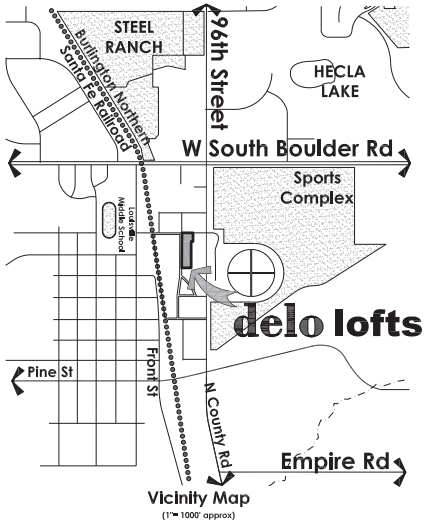
3. DELO LOFTS IS ANTICIPATED TO BRING MULTI MODAL, HIGH-QUALITY LIVE WORK AND RESIDENTIAL TO THE HIGHWAY 42 CORRIDOR UNITS THAT COMPLIMENT AND SUPPORT LOUISVILLE'S HISTORIC DOWNTOWN BUSINESSES, WHILE ENCOURAGING COMMERCIAL OPPORTUNITIES BETWEEN CANNON STREET & HIGHWAY 42 AND BOLSTERING THE CITY'S TAX BASE.

4. THE REDEVELOPMENT WILL REMOVE THE INDUSTRIAL ZONING AND REPLACE IT WITH MU-R ZONING, WHICH PROHIBITS THE INCOMPATIBLE INDUSTRIAL USES DISALLOWED BY THE REVITALIZATION PLAN.

5. THE REDEVELOPMENT INTEGRATES PRINCIPLES OF SUSTAINABLE ARCHITECTURE AND ENERGY CONSERVATION THROUGH THE ANTICIPATED IMPLEMENTATION OF ENVIRONMENTALLY RESPONSIBLE AND RESOURCE EFFICIENT TECHNOLOGIES WITH THE OBJECTIVE TO EXPAND AND COMPLEMENT THE CLASSICAL BUILDING DESIGN AS WELL AS CONCERNS OF ECONOMY, UTILITY, DURABILITY AND COMFORT. THIS MAY BE ACHIEVED THROUGH PHOTOVOLTAIC SOLUTIONS, ENERGY EFFICIENT HEATING AND COOLING, GREEN BUILDING PRODUCTS AND CONSTRUCTION WASTE REDUCTION.



1 MASTER PLAN - DELO LOFTS



Vicinity Map
(1"= 1000' approx)

delo LOFTS

SHEET TITLE

PROJECT INTRODUCTION

SUBMITTAL

no	date	description
1	03.11.2016	Initial Submittal

designed by: sta
drawn by: klm
checked by: pms
project #: 8675309

scale: 1"=50'
0 25 50 100

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delo LOFTS

Final Planned Unit Development

A part of section 8, township 1 south, range 69 west of the 6th p.m.
City of Louisville, County of Boulder, State of Colorado

USE CHART

PRINCIPAL USE GROUP	USES[1]	LOCATION
RESIDENTIAL	MULTI-UNIT DWELLING APARTMENTS/CONDOMINIUMS	LOT 9
COMMERCIAL / LIVE WORK	PROFESSIONAL/ BUSINESS OFFICES, RETAIL AND LIVE WORK	LOT 1-8

[1] ALL USES PER TABLE 1 OF SECTION 17.14.050.A ARE ALLOWED, WHICH MAY FURTHER DIVERSIFY THE RANGE OF USES WITHIN THE PROJECT.

DENSITY SUMMARY

TOTAL GROSS PROJECT AREA: ±4.39 AC. [2]
GROSS LAND AREA: ±2.39 AC. [2]

	GROSS LAND AREA (ACRE)	UNITS	DENSITY [1]
TOTAL:	±2.39 AC.	41 DU	17.2 DU/ACRE

[1] THE DENSITY CALCULATION IS CONSISTENT WITH CITY OF LOUISVILLE CODE SECTION 17.14.06.C.1.A.

[2] TOTAL GROSS PROJECT AREA INCLUDES ALL PLATTED AREA PLUS FULL RIGHT-OF-WAY AREA FOR THE DIRECTLY ADJACENT STREETS. GROSS LAND AREA IS SYNONYMOUS WITH THE AREA CONSISTENT WITH CODE OUTLINED IN FOOTNOTE 1.

BULK & DIMENSION STANDARDS

	COMMERCIAL / LIVE WORK	RESIDENTIAL
MIN. LOT AREA	1,500 SF	NA
MIN. LOT WIDTH	25'	NA
MIN. LOT COVERAGE	40%	40%
MIN. LANDSCAPE COVERAGE	**10%**	10%
MAX. FOOTPRINT	15,000 SF	15,000 SF
MAX. LENGTH ALONG STREET	**200'**	200'
MIN. % STREET FRONTAGE	70%	70%
BUILDING SETBACKS		
MIN. & MAX. PUBLIC STREET/ TRACT SETBACK (PRINCIPAL USES) [3,4,5]	MAXIMUM: 10' MINIMUM: 0'	MAXIMUM: 10' MINIMUM: 0'
MIN. SIDE YARD SETBACK (PRINCIPAL & ACCESSORY USES) [1,2,4]	0'	0'
MIN. REAR YARD SETBACK (PRINCIPAL USES) [4,6,7]	18'	0'
MIN. REAR YARD SETBACK (ACCESSORY USES) [2,7]	0'	0'
MAX. BUILDING HEIGHT		
PRINCIPAL USES [3,7]	MIN: 1 STORIES/16' MAX: 3 STORIES/45'	MIN: 2 STORIES/35' MAX: 3 STORIES/45'
ACCESSORY USES [2,3,7]	**20'** MAX	20' MAX.
PARKING SETBACK		
GRIFFITH ST. & CANNON ST. R.O.W.	10'	
PROPERTY LINE [7]	5'	

[1] FEE SIMPLE LOTS CREATED WITHIN BUILDINGS SHALL HAVE NO SETBACK REQUIREMENT BETWEEN INTERNAL UNITS.

[2] ACCESSORY STRUCTURES AS ALLOWED PER APPLICABLE CITY CODE AND PER MASTER PLAN AND GENERAL NOTES

[3] SHALL BE SUBJECT TO MUDDSG, SECTION 8, RESIDENTIAL PROTECTION AND TRANSITIONAL STANDARDS.

[4] ROOFLINES, OVERHANGINGS, PATIOS, DECKS, PORCHES AND BALCONIES MAY EXTEND INTO THE ADJACENT TRACTS. SETBACKS SHALL BE MEASURED FROM THE BUILDING FACE AND NOT THE AFOREMENTIONED EXTENSIONS.

[5] TO BE ADMINISTERED SOLELY AS A FRONT SETBACK.

[6] REAR SETBACK SHALL BE MEASURED FROM PROPERTY LINES, NOT TRACT BOUNDARIES.

[7] ANY AND ALL PROPOSED IMPROVEMENTS ADJACENT TO A LEGAL NON CONFORMING USE SHALL HAVE NO SETBACK REQUIREMENT

1 BULK & DIMENSION KEY MAP

delo LOFTS

SHEET TITLE

MASTER PLAN AND GENERAL NOTES

SUBMITTAL

designed by: sta
drawn by: klm
checked by: pms
project #: 8675309

no	date	description
1	03.11.2016	Initial Submittal

scale: 1"=40' (0 20 40 80)

north

sheet 3 of 16

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owner's representative
RMCS
1004 GRIFFITH STREET
LOUISVILLE, CO 80027
Phone: 720.524.3620

GENERAL NOTES AND STANDARDS

1. DELO LOFTS IS A MASTER PLANNED DEVELOPMENT AND IS COMPRISED OF TWO SEPARATE AND DISTINCT PRODUCT TYPES: RESIDENTIAL (MULTI-UNIT DWELLING APARTMENTS AND/OR CONDOMINIUMS), AND COMMERCIAL / LIVE WORK SPACE.
2. ANY AND ALL TRACTS, AS DEPICTED ON THE PROJECT PLAT, SHALL BE MAINTAINED BY THE HOA. THE DEVELOPER MAY CONDUCT ACTIVITIES (INCLUDING BUT NOT LIMITED TO GRADING) ON ALL DEDICATED LANDS FOR THE PURPOSE OF CONSTRUCTING PUBLIC AND PRIVATE IMPROVEMENTS.
3. ENTRY MONUMENTS, PROJECT IDENTITY AND WAY-FINDING SIGNAGE ARE CONCEPTUAL IN NATURE AT THE LOCATIONS SHOWN WITHIN THIS DEVELOPMENT PLAN. FINAL LOCATIONS SHALL BE DETERMINED DURING THE CONSTRUCTION DOCUMENTATION PROCESS, BUT SHALL CONFORM TO THE STANDARDS WITHIN THIS DEVELOPMENT PLAN.
4. THERE ARE NO HISTORIC STRUCTURES WITHIN THE DELO LOFTS PROJECT AREA.
5. ACCESSIBLE SIDEWALKS AND PEDESTRIAN WAYS SHALL BE PROVIDED THAT MEET ADA STANDARDS FOR RUNNING SLOPE AND CROSS SLOPE.
6. AMENITY / RECREATION STRUCTURES, IF ANY, ARE NOT INCLUDED IN DENSITY CALCULATIONS, HOWEVER MAY BE INCLUDED IN LOT COVERAGE CALCULATIONS. SUCH STRUCTURES ARE SUBJECT TO BULK AND DIMENSION STANDARDS SPECIFIED FOR ACCESSORY STRUCTURES AS DESCRIBED IN THIS DEVELOPMENT PLAN.
7. PARKING STRUCTURES, CARPORTS, AND PARKING GARAGES, WHETHER ATTACHED TO DWELLING UNITS OR DETACHED, SHALL BE APPROVED AS ACCESSORY STRUCTURES AND USES NECESSARY AND CUSTOMARILY INCIDENTAL TO THE RESIDENTIAL USE, SUBJECT TO BULK AND DIMENSION STANDARDS AS DESCRIBED IN THIS DEVELOPMENT PLAN. PARKING STRUCTURES, GARAGES AND SIMILAR STRUCTURES ARE NOT INCLUDED IN DENSITY CALCULATIONS, HOWEVER ARE INCLUDED IN LOT COVERAGE CALCULATIONS. FURTHERMORE, IT IS UNDERSTOOD THAT LIVING SPACES ARE NOT PERMITTED IN OR ABOVE DETACHED GARAGES, OR AS AN ACCESSORY USE.
8. NO RESTRICTIONS ARE IMPOSED WITH REGARD TO PROJECT PHASING OTHER THAN AS EXPRESSLY SET FORTH IN THIS DEVELOPMENT PLAN OR IN ANY DEVELOPMENT AGREEMENT BETWEEN THE OWNER AND THE CITY.
9. THE GROUND FLOOR PROGRAM MAY BE RESIDENTIAL SUBJECT TO THE SRU CRITERIA, AND/OR COMMERCIAL, AND SHALL BE INTERCHANGEABLE, PROVIDED THAT THE TOTAL NUMBER OF DWELLING UNITS DOES NOT EXCEED THE MAXIMUM NUMBER OF DWELLING UNITS DESCRIBED HEREIN.
10. RESIDENTIAL MULTI-UNIT DWELLING APARTMENTS SHALL BE ALLOWED TO TRANSITION TO CONDOMINIUMS, AT THE SOLE DISCRETION OF THE DEVELOPER, WITHOUT ADDITIONAL REQUIREMENTS.
11. THE LIGHTING CONFIGURATION, DESIGN, FIXTURE TYPES, ETC. AS DEPICTED HEREIN IS SUBJECT TO FURTHER ANALYSIS, DESIGN AND AVAILABILITY, AND AS SUCH MAY VARY FROM THE FINAL PUD TO FINAL CONSTRUCTION DOCUMENTS. PROPOSED LIGHTING WILL INCLUDE DIRECTIONAL COVERS AND SHALL BE DIRECTED AWAY FROM THE RESIDENCES.
12. DELO LOFTS PROJECT CALCULATIONS, INCLUDING LANDSCAPING, PARKING, SHALL BE CALCULATED ON THE AGGREGATE DELO LOFTS PROJECT AREAS.
13. STREETSCAPE TREES AND THEIR PLANTING LOCATIONS SHALL RESPECT ALL PROPOSED AND EXISTING UTILITIES AND BE INSTALLED TO AVOID ANY AND ALL SERVICE LINES.
14. ALL IMAGERY IS CONCEPTUAL IN NATURE.

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delo LOFTS Final Planned Unit Development

A part of section 8, township 1 south, range 69 west of the 6th p.m.
City of Louisville, County of Boulder, State of Colorado

1 COMMERCIAL / LIVE WORK AREA

BULK & DIMENSION STANDARDS

	COMMERCIAL / LIVE WORK
MIN. LOT AREA	1,500 SF
MIN. LOT WIDTH	25'
MIN. LOT COVERAGE	40%
MIN. LANDSCAPE COVERAGE	**10%**
MAX. FOOTPRINT	15,000 SF
MAX. LENGTH ALONG STREET	**200'**
MIN. % STREET FRONTAGE	70%
BUILDING SETBACKS	
MIN. & MAX. PUBLIC STREET/ TRACT SETBACK (PRINCIPAL USES) [3,4,5]	MAXIMUM: 10' MINIMUM: 0'
MIN. SIDE YARD SETBACK [1,2,4] (PRINCIPAL & ACCESSORY USES)	0'
MIN. REAR YARD SETBACK [4,6,7] (PRINCIPAL USES)	18'
MIN. REAR YARD SETBACK [2] (ACCESSORY USES)	0'
MAX. BUILDING HEIGHT	
PRINCIPAL USES [3,7]	MIN: 1 STORIES/16' MAX: 3 STORIES/45'
ACCESSORY USES [2,3,7]	**20'** MAX
PARKING SETBACK	
GRIFFITH ST. & CANNON ST. R.O.W.	10'
PROPERTY LINE [7]	5'

[1] FEE SIMPLE LOTS CREATED WITHIN BUILDINGS SHALL HAVE NO SETBACK REQUIREMENT BETWEEN INTERNAL UNITS.

[2] ACCESSORY STRUCTURES AS ALLOWED PER APPLICABLE CITY CODE AND PER MASTER PLAN AND GENERAL NOTES

[3] SHALL BE SUBJECT TO MUDDSG, SECTION 8, RESIDENTIAL PROTECTION AND TRANSITIONAL STANDARDS.

[4] ROOFLINES, OVERHANGINGS, PATIOS, DECKS, PORCHES AND BALCONIES MAY EXTEND INTO THE ADJACENT TRACTS. SETBACKS SHALL BE MEASURED FROM THE BUILDING FACE AND NOT THE AFOREMENTIONED EXTENSIONS.

[5] TO BE ADMINISTERED SOLELY AS A FRONT SETBACK.

[6] REAR SETBACK SHALL BE MEASURED FROM PROPERTY LINES, NOT TRACT BOUNDARIES.

[7] ANY AND ALL PROPOSED IMPROVEMENTS ADJACENT TO A LEGAL NON CONFORMING USE SHALL HAVE NO SETBACK REQUIREMENT

USE CHART

PRINCIPAL [1] USE GROUP	USES [2]	LOCATION	UNITS
COMMERCIAL / LIVE WORK	PROFESSIONAL/ BUSINESS OFFICE/ RETAIL/ LIVE WORK	LOT 1-8	8

[1] THE ANTICIPATED PRINCIPAL USES EXCEED THE MU-R MINIMUM REQUIREMENTS OF TWO USES AND PROVIDES A PUBLIC BENEFIT.

2 ALL USES PER TABLE 1 OF SECTION 17.14.050.A ARE ALLOWED, WHICH MAY FURTHER DIVERSIFY THE RANGE OF USES WITHIN THE PROJECT.

PARKING SUMMARY

COMMERCIAL & LIVE WORK CRITERIA	GROSS LEASEABLE AREA (GLA) [1]	REQUIRED	PROVIDED	PARKING RATIO
COMMERCIAL 1 SF / 300 SF	900 SF per UNIT [3]	24	OFF STREET= 16 ADAPTABLE INDOOR / OUTDOOR= 32 BICYCLE= 4	
LIVE WORK	2,100 per UNIT	24		
TOTAL	24,000 SF	48	48 [2]	1 / 500 SF

[1] GLA IS ASSUMED TO BE 85% OF TOTAL COMMERCIAL / LIVE WORK AREAS PROPOSED.

[2] THE COMMERCIAL / LIVE WORK BUILDINGS ARE COMPATIBLE WITH THE OVERALL USES WITHIN DELO SUBDIVISION AND SHALL SHARE EXISTING PARKING FROM DELO PHASE I, PHASE IA, AND PHASE II

[3] SQUARE FOOTAGE IS BASED ON AN ANTICIPATED AVERAGE AND NOT A REQUIRED OR ALLOWABLE AMOUNT

COMMERCIAL / LIVE WORK AREA NOTES

1. THE COMMERCIAL / LIVE WORK BUILDINGS ARE ORGANIZED AROUND TWO PRIMARY POINTS OF ACCESS KNOWN AS CANNON STREET, AND GRIFFITH STREET. ADDITIONALLY THIS SITE LAYOUT ENHANCES ACCESS TO EXISTING AND FUTURE PUBLIC PLAZAS, GREEN SPACES, GREENWAYS, AND MULTI-MODAL TRANSPORTATION OPPORTUNITIES.
2. REFER TO THE LAND USE SUMMARY AND/OR SUBDIVISION AGREEMENT FOR TRACT OWNERSHIP AND GENERAL MAINTENANCE INFORMATION INCLUDING DELINEATION OF MAINTENANCE RESPONSIBILITIES.
3. USES ALLOWED BY RIGHT: ALL USES AS PERMITTED IN THE LOUISVILLE MUNICIPAL CODE SECTION 17.14.050A, TABLE 1 IN ADDITION TO THOSE NOTED ON THE MASTER PLAN AND GENERAL NOTES.
4. BUILDINGS MAY BE BUILT AT ONE, TWO OR THREE STORY HEIGHTS, OR COMBINATIONS THEREOF AND MAY INCLUDE OUTDOOR LIVING SPACES.
5. THE PROPOSED COMMERCIAL AND LIVE WORK BUILDINGS SHALL BE PROTECTED WITH A FIRE SPRINKLER SYSTEM THAT SHALL BE OFF A LOOPED MAIN SUCH THAT NO MORE THAN ONE SERVICE IS OFF A DEAD-END LINE.
6. ALL LANDSCAPING DEPICTED IS CONCEPTUAL AND IS SUBJECT TO CHANGE WITH SUBSEQUENT CONSTRUCTION PLAN SUBMITTALS.
7. ALL BUILDING HEIGHTS RELATIVE TO ASSOCIATED GRADE SHALL BE MEASURED PER THE CITY OF LOUISVILLE MUNICIPAL CODE.
8. BLOCKS AND TRACTS DO NOT CONSTITUTE A FIRM DELINEATION OF PARKING AND SHALL BE SHARED BETWEEN RESIDENTIAL AND COMMERCIAL / LIVE WORK USES.
9. THE COMMERCIAL / LIVE WORK UNITS SHALL HAVE ADDITIONAL CONDITIONS, COVENANTS AND RESTRICTIONS (CCRs) THAT WILL BE CREATED BY DELO FLATS H.O.A.
10. IT IS ENCOURAGED TO PLANT DROUGHT TOLERANT, LOW GROWING PLANT MATERIAL IN THE ISLANDS BETWEEN THE PAVEMENT STRIPS CREATED BY DRIVE APRONS AND EDGE OF LANE / GARAGE. EVERGREEN AND DECIDUOUS SHRUB PLANTINGS WILL AID IN CREATING A MORE INVITING SPACE BY SOFTENING MANY OF HARDSCAPE ELEMENTS, AND SHALL COMPLY WITH ESTABLISHED SETBACKS.

delo LOFTS

SHEET TITLE
COMMERCIAL / LIVE WORK AREA

SUBMITTAL

no	date	description
1	03.11.2016	Initial Submittal

designed by: sta
drawn by: klm
checked by: pms
project #: 8675309

scale: 1"=20' (0 10 20 40)

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delo LOFTS

Final Planned Unit Development

A part of section 8, township 1 south, range 69 west of the 6th p.m.
City of Louisville, County of Boulder, State of Colorado

1 RESIDENTIAL AREA

BULK & DIMENSION STANDARDS

	RESIDENTIAL
MIN. LOT AREA	NA
MIN. LOT WIDTH	NA
MIN. LOT COVERAGE	40%
MIN. LANDSCAPE COVERAGE	10%
MAX. FOOTPRINT	15,000 SF
MAX. LENGTH ALONG STREET	200'
MIN. % STREET FRONTAGE	70%
BUILDING SETBACKS	
MIN. & MAX. PUBLIC STREET/ TRACT SETBACK (PRINCIPAL USES)	MAXIMUM: 10' MINIMUM: 0'
MIN. SIDE YARD SETBACK[1,2,4] (PRINCIPAL & ACCESSORY USES)	0'
MIN. REAR YARD SETBACK [4,6,7] (PRINCIPAL USES)	0'
MIN. REAR YARD SETBACK[2] (ACCESSORY USES)	0'
MAX. BUILDING HEIGHT	
PRINCIPAL USES[3,7]	MIN: 2 STORIES/35' MAX: 3 STORIES/45'
ACCESSORY USES[2,3,7]	20' MAX.
PARKING SETBACK	
GRIFFITH ST. & CANNON ST. R.O.W.	10'
PROPERTY LINE[7]	5'

[1] FEE SIMPLE LOTS CREATED WITHIN BUILDINGS SHALL HAVE NO SETBACK REQUIREMENT BETWEEN INTERNAL UNITS.

[2] ACCESSORY STRUCTURES AS ALLOWED PER APPLICABLE CITY CODE AND PER MASTER PLAN AND GENERAL NOTES

[3] SHALL BE SUBJECT TO MUDDSG, SECTION 8, RESIDENTIAL PROTECTION AND TRANSITIONAL STANDARDS.

[4] ROOFLINES, OVERHANGINGS, PATIOS, DECKS, PORCHES AND BALCONIES MAY EXTEND INTO THE ADJACENT TRACTS. SETBACKS SHALL BE MEASURED FROM THE BUILDING FACE AND NOT THE AFOREMENTIONED EXTENSIONS.

[5] TO BE ADMINISTERED SOLELY AS A FRONT SETBACK.

[6] REAR SETBACK SHALL BE MEASURED FROM PROPERTY LINES, NOT TRACT BOUNDARIES.

[7] ANY AND ALL PROPOSED IMPROVEMENTS ADJACENT TO A LEGAL NON CONFORMING USE SHALL HAVE NO SETBACK REQUIREMENT

USE CHART

PRINCIPAL [1] USE GROUP	USES [2]	LOCATION
RESIDENTIAL	MULTI-UNIT DWELLING APARTMENTS/CONDOMINIUMS	LOT 9

[1] THE ANTICIPATED PRINCIPAL USES EXCEEDS THE MU-R MINIMUM REQUIREMENTS OF TWO USES AND PROVIDES A PUBLIC BENEFIT.

[2] ALL USES PER TABLE 1 OF SECTION 17.14.050.A ARE ALLOWED, WHICH MAY FURTHER DIVERSIFY THE RANGE OF USES WITHIN THE PROJECT.

PARKING SUMMARY

RESIDENTIAL CRITERIA	DWELLING UNITS	REQUIRED	PROVIDED	PARKING RATIO
STUDIO / 1 BR X 1 SP / DU	STUDIO / 1 BR : 27	27	OFF STREET=49	
2 & 3 BR X 2 SP / DU	2 & 3 BR X 2 : 6	12	LOADING=1	
GUEST 1 SP / 8 DU		4	BICYCLE=6	
TOTAL	33 UNITS	43	50	1.5

RESIDENTIAL NOTES AND STANDARDS

1. THE RESIDENTIAL (MULTI DWELLING UNITS) WILL BE ORGANIZED AROUND TWO PRIMARY POINTS OF ACCESS KNOWN AS CANNON STREET, AND GRIFFITH STREET. THIS SITE LAYOUT ENHANCES ACCESS TO PUBLIC PLAZAS, GREEN SPACES, GREENWAYS, AND MULTI-MODAL TRANSPORTATION OPPORTUNITIES.
2. REFER TO THE LAND USE SUMMARY AND/OR SUBDIVISION AGREEMENT FOR TRACT OWNERSHIP AND GENERAL MAINTENANCE INFORMATION INCLUDING DELINEATION OF MAINTENANCE RESPONSIBILITIES.
3. USES ALLOWED BY RIGHT: ALL USES AS PERMITTED IN THE LOUISVILLE MUNICIPAL CODE SECTION 17.14.050A, TABLE 1 IN ADDITION TO THOSE NOTED ON THE MASTER PLAN AND GENERAL NOTES.
4. BUILDINGS MAY BE BUILT AT TWO OR THREE STORY HEIGHTS, OR COMBINATIONS THEREOF AND MAY INCLUDE OUTDOOR LIVING SPACES.
5. THE PROPOSED RESIDENTIAL (MULTI DWELLING UNITS) SHALL BE PROTECTED WITH A FIRE SPRINKLER SYSTEM THAT SHALL BE OFF A LOOPED MAIN SUCH THAT NO MORE THAN ONE SERVICE IS OFF A DEAD-END LINE.
6. ALL LANDSCAPING DEPICTED IS CONCEPTUAL AND IS SUBJECT TO CHANGE WITH SUBSEQUENT CONSTRUCTION PLAN SUBMITTALS.
7. BLOCKS AND TRACTS DO NOT CONSTITUTE A FIRM DELINEATION OF PARKING AND SHALL BE SHARED BETWEEN RESIDENTIAL AND COMMERCIAL / LIVE WORK USES.

delo LOFTS

SHEET TITLE

RESIDENTIAL AREA

SUBMITTAL

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drawn by: klm
checked by: pms
project #: 8675309

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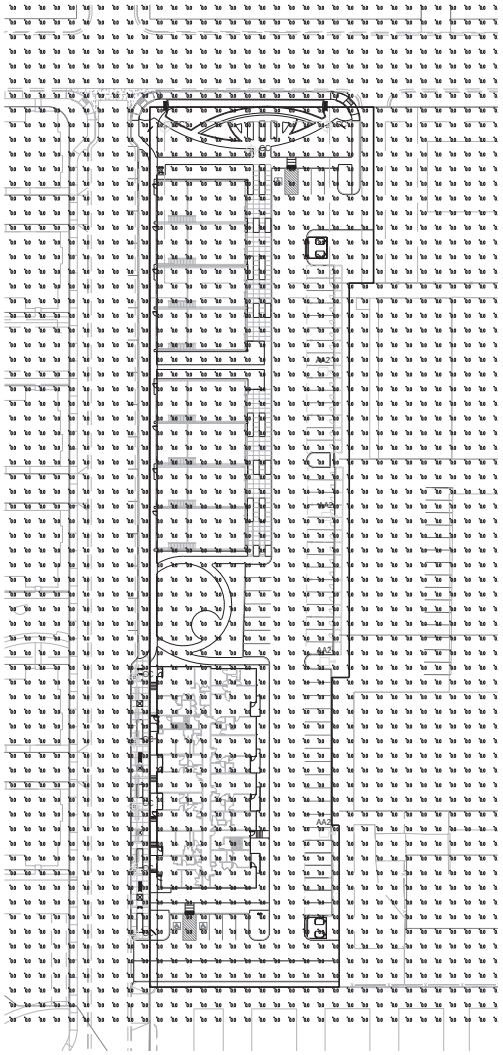
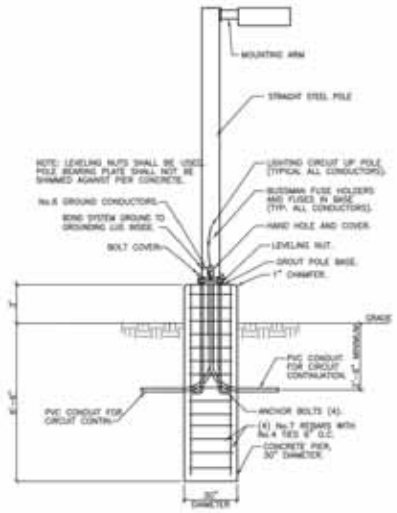
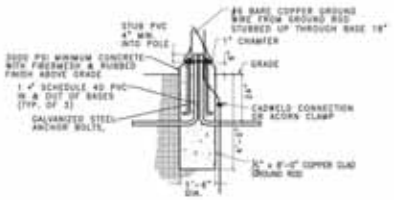


1 PHOTOMETRIC PLAN
SCALE: 1"=40'

SITE LUMINAIRE SCHEDULE											
PLAN MARK	MOUNTING	DESCRIPTION	MANUFACTURER AND CATALOG NUMBER	VOLTAGE	NO. OF LAMPS	LAMP TYPE	INITIAL LUMENS	CONTROLS	MOUNTING / POLE HEIGHT	FULL CUT OFF	REMARKS
AA2	POLE TOP	20' HEIGHT POLE PARKING/ DRIVE AREA LIGHT	FIXTURE TO BE SELECTED BY OWNER	208	1	150W MH	14000	PHOTOCELL	20'-0"	YES	HOUSESIDE SHIELD STRAIT STEEL ROUND
CC	POLE	PEDESTRIAN POLE	FIXTURE TO BE SELECTED BY OWNER	208	1	70W MH	5300	PHOTOCELL	8'-0"	YES	



2 TALL POLE DETAIL
32 N.T.S.



3 SHORT POLE DETAIL
32 N.T.S.

delo LOFTS

SHEET TITLE

PHOTOMETRIC PLAN

SUBMITTAL

no	date	description
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sheet 6 of 16

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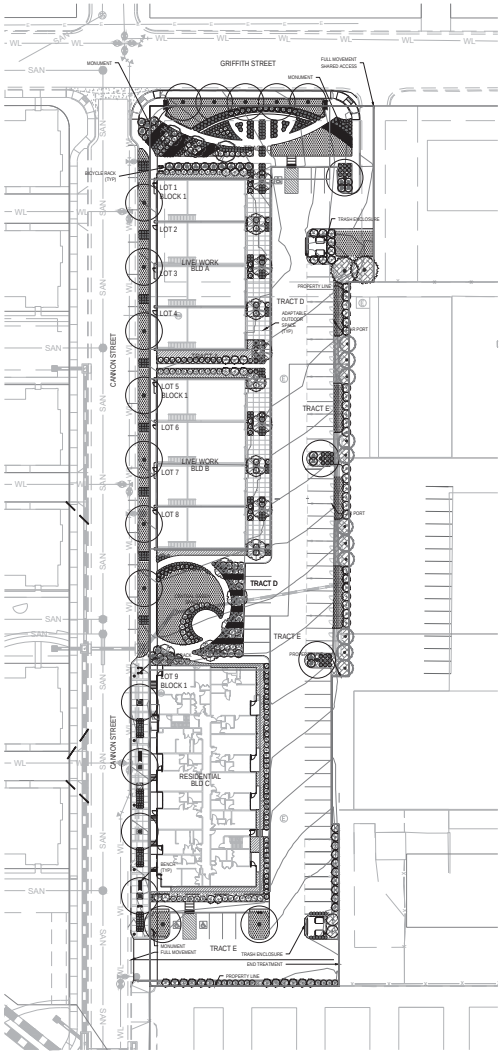

1 LANDSCAPE PLAN
SCALE: 1"=40'

SUGGESTED PLANT PALETTE:

BOTANICAL NAME	COMMON NAME
DECIDUOUS TREES	
ACER MIYABEI 'STATE STREET'	STATE STREET MAPLE
CELTIS OCCIDENTALIS	WESTERN HACKBERRY
GINKGO BILOBA 'SARATOGA'	MAIDENHAIR TREE
GLEDITSIA TRIACANTHOS 'IMPERIAL'	IMPERIAL HONEYLOCUST
TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN
ULMUS X 'FRONTIER'	FRONTIER ELM
EVERGREEN TREES	
PINUS HELDREICHII	BOSNIAN PINE
PINUS NIGRA	AUSTRIAN BLACK PINE
ORNAMENTAL TREE	
ACER GINNALA 'FLAME'	FLAME AMUR MAPLE
AMELANCHIER CANADENSIS 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY
PYRUS CALLERYANA 'CHANTICLEER'	CHANTICLEER PEAR
DECIDUOUS SHRUBS	
AMELANCHIER ALNIFOLIA 'REGENT'	SASKATOON SERVICEBERRY
BERBERIS THUNBERGII 'HELMOND PILLAR'	COLUMNAR BARBERRY
CARYOPTERIS X CLANDONENSIS 'DARK KNIGHT'	BLUE MIST SPIREA
CORNUS SERICEA 'ISANTI'	ISANTI REDOSIER DOGWOOD
CORNUS SERICEA 'KELSEYI'	KELSEYI DOGWOOD
EUONYMUS ALATUS 'COMPACTUS'	COMPACT BURNING BUSH
HYDRANGEA ARBORESCENS 'ANNABELLE'	ANNABELLE SMOOTH HYDRANGEA
PHYSOCARPUS OPULIFOLIUS 'DART'S GOLD'	YELLOW NINEBARK
RHUS TRILOBATA 'GRO LOW'	SKUNKBUSH SUMAC
ROSA X 'PINK KNOCKOUT'	ROSE
SPIRAEA JAPONICA 'ANTHONY WATERER'	SPIREA
VIBURNUM LENTAGO	NANNYBERRY
EVERGREEN SHRUBS	
EUONYMUS FORTUNEI 'COLORATA'	PURPLE-LEAF WINTER CREEPER
JUNIPERUS CHINENSIS 'HOLBERT'	HOLBERT JUNIPER
JUNIPERUS HORIZONTALIS 'BLUE CHIP'	BLUE CHIP JUNIPER
JUNIPERUS HORIZONTALIS 'HUGHES'	HUGHES JUNIPER
JUNIPERUS SABINA 'ARCADIA'	ARCADIA JUNIPER
JUNIPERUS SCOPULORUM 'COLOGREEN'	COLOGREEN JUNIPER
JUNIPERUS SCOPULORUM 'MOONGLOW'	MOONGLOW JUNIPER
JUNIPERUS X MEDIA 'SEA GREEN'	SEA GREEN JUNIPER
TAXUS X MEDIA 'TAUNTONI'	TAUTON YEW
GRASSES	
CALAMAGROSTIS BRACHYTRICHA	REED GRASS
CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	FEATHER REED GRASS
HELICTOTRICHON SEMPERVIRENS	BLUE OAT GRASS
MISCANTHUS SINENSIS 'MORNING LIGHT'	EULALIA GRASS
MISCANTHUS SINENSIS 'YAKU JIMA'	DWARF MAIDEN GRASS
PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN DWARF FOUNTAIN GRASS
PENNISETUM ALOPECUROIDES 'RED HEAD'	RED HEAD FOUNTAIN GRASS
ANNUALS/PERENNIALS	
ACHILLEA X 'MOONSHINE'	MOONSHINE YARROW
COREOPSIS VERTICILLATA 'MOONBEAM'	THREADLEAF COREOPSIS
ECHINACEA PURPUREA 'MAGNUS'	MAGNUS PURPLE CONEFLOWER
HEMEROCALLIS X 'STELLA DE ORO'	STELLA DE ORO DAYLILY
RUDBECKIA FULGIDA 'GOLDSTURM'	GOLDSTURM BLACK-EYED SUSAN

LANDSCAPE KEY

- DECIDUOUS TREES
- EVERGREEN TREES
- ORNAMENTAL TREES
- DECIDUOUS SHRUBS
- EVERGREEN SHRUBS
- ORNAMENTAL GRASSES
- PERENNIALS
- SOD - IRRIGATED
- ROCK MULCH - NON IRRIGATED
- WOOD MULCH - IRRIGATED
- CRUSHER FINES-GRAY
- EDGER - PERFORATED

GENERAL LANDSCAPE NOTES:

1. FINAL CONSTRUCTION DOCUMENTS SHALL CONFORM TO THE REQUIREMENTS OUTLINED WITHIN THIS PUD SUBMITTAL.
2. LANDSCAPE PLANS ARE SCHEMATIC IN NATURE AND ARE SUBJECT TO MODIFICATIONS TO MEET THE CITY'S REQUIREMENTS, THE DEVELOPER'S PROGRAM, THE BUILDING AND ARCHITECTURE AND TARGET DEMOGRAPHIC OR OTHER NECESSARY REQUIREMENTS.
3. THE LOCATION OF LANDSCAPE PLANTINGS MAY BE ALTERED TO PROVIDE ADEQUATE CLEARANCE FROM THE FINAL LOCATION OF UNDERGROUND UTILITIES. THE BASE OF DECIDUOUS TREES SHALL BE PLANTED NO CLOSER THAN 5' FROM WET UTILITIES. THE BASE OF EVERGREEN TREES SHALL BE PLANTED NO CLOSER THAN 10' FROM ALL WET UTILITIES UNLESS OTHERWISE DIRECTED BY THE CITY.
4. GRASS AREAS DESIGNATED AS IRRIGATED TURF SHALL BE SEEDED OR SODDED WITH A DROUGHT TOLERANT GRASS MIXTURE.
5. THE SIZE OF DECIDUOUS TREES SHALL BE A MINIMUM OF 2 1/2" CALIPER AND THE SIZE OF EVERGREEN TREES SHALL BE A MINIMUM OF 6'-8' IN HEIGHT.
6. THE SIZE OF DECIDUOUS AND EVERGREEN SHRUBS SHALL BE A MINIMUM OF 5 GALLONS.
7. WHENEVER POSSIBLE, MECHANICAL DEVICES SHALL BE SCREENED WITH LANDSCAPE MATERIAL.
8. SITE MONUMENTATION AND AMENITIES THROUGHOUT THE DEVELOPMENT WILL BE CONSTRUCTED IN CONCERT WITH ASSOCIATED PHASED IMPROVEMENTS
9. RIGHT OF WAY, PRIVATE PARKING AND THEIR ASSOCIATED IMPROVEMENTS WILL BE PRIVATELY MAINTAINED BY THE OWNERS ASSOCIATION WHICH SHALL INCLUDE INCLUDE LANDSCAPE MAINTENANCE AND SNOW REMOVAL. OTHER PUBLIC OR PRIVATE IMPROVEMENTS, INCLUDING CAPITAL IMPROVEMENTS TO THE ROW AND THEIR ASSOCIATED MAINTENANCE SHALL BE FURTHER DEFINED IN THE SUBDIVISION AGREEMENT.
10. ALL LANDSCAPE IMPROVEMENTS SHALL BE DESIGNED AND INSTALLED WITH THE INTENT TO PRESERVE THE PEDESTRIAN EXPERIENCE WHILE ENSURING PUBLIC SAFETY AND MAINTAINING A HIGH AESTHETIC QUALITY WITHIN THE SITE.
11. PLANT DIVERSITY SHOULD BE CONSIDERED WHEN SELECTING STREET TREES. THE MAXIMUM PERCENTAGE OF ANY ONE TREE SPECIES ON SITE SHOULD NOT EXCEED 33%.
12. EACH STREET TREE SHALL BE IRRIGATED VIA DRIP IRRIGATION OR A DRIP RING EMITTER.
13. COMMON AREAS - ONE TREE AND THREE SHRUBS PER 2,000 SQUARE FEET OF SOFTSCAPE OR A COMBINATION THEREOF AS AGREED UPON WITH THE PLANNING DEPARTMENT
14. A LOW WATER PLANT PALETTE IS PROPOSED. ADDITIONAL PLANTS MAY BE PROPOSED IN SUBSEQUENT PROCESSES.
15. THE USE OF ROOT BARRIERS IS REQUIRED FOR CANOPY TREES PLANTED IN PARKWAYS THAT ARE LESS THAN 10' IN WIDTH.
16. THE CITY SHALL WAIVE PART OF THE TAP FEE FOR THE PORTION OF LANDSCAPE IRRIGATION WITHIN THE CITY ROW, HOWEVER, THE WATER USAGE, AND MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNERS ASSOCIATION.
17. THE QUANTITY AND LOCATION OF LANDSCAPE AND HARDSCAPE ELEMENTS DEPICTED MAY BE ALTERED WITHIN THE CONSTRUCTION DOCUMENTS.

delo LOFTS

SHEET TITLE

LANDSCAPE PLAN

SUBMITTAL

designed by: sta
drawn by: klm
checked by: pms
project #: 8675309

no	date	description
1	03.11.2016	Initial Submittal

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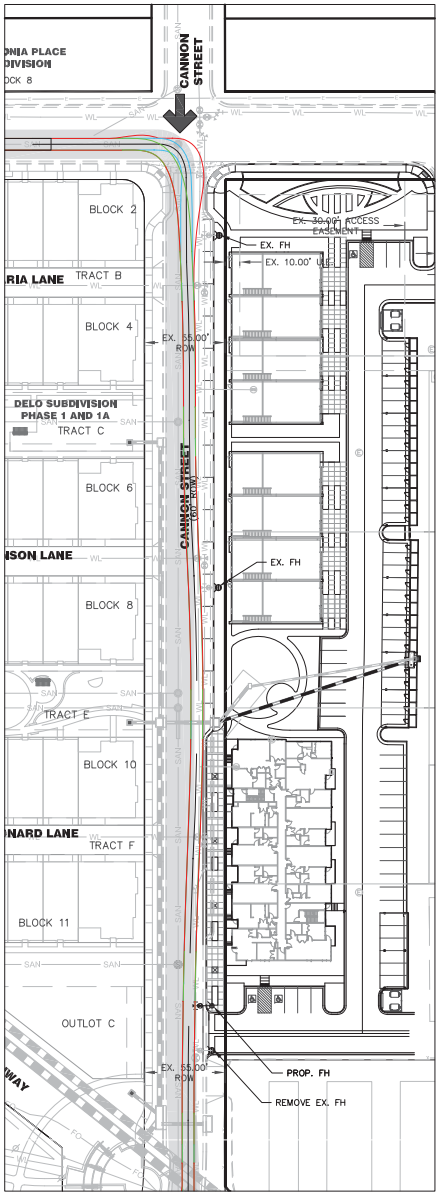
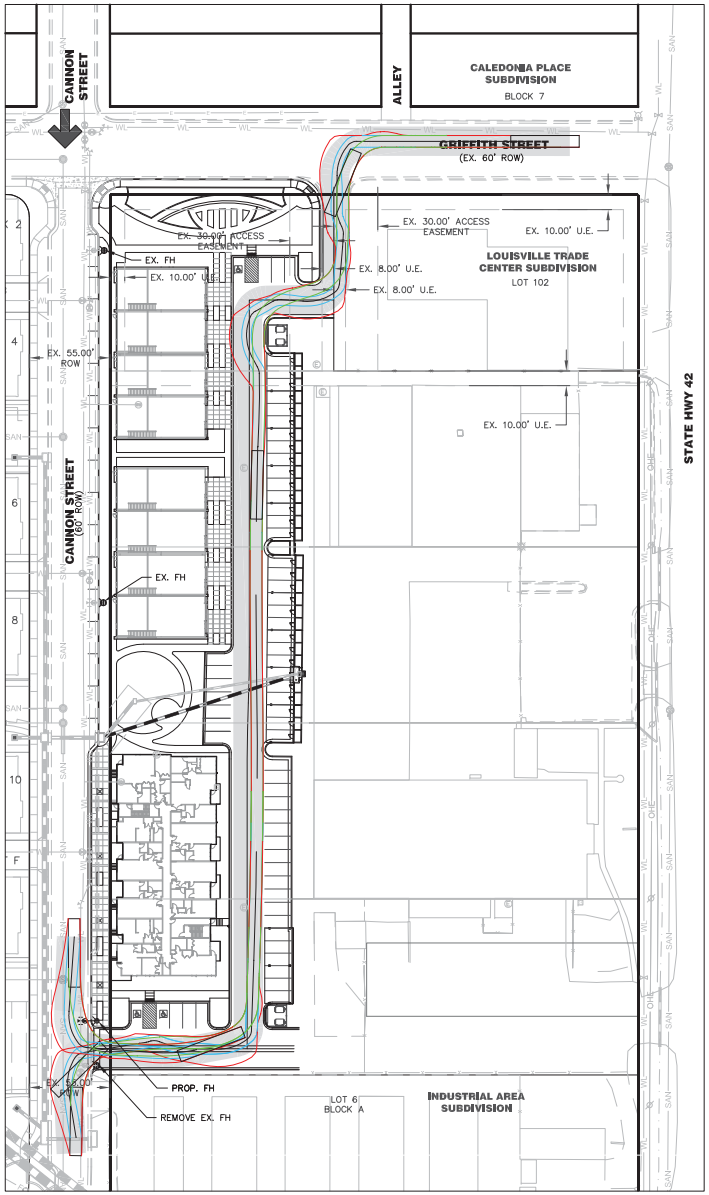


TURNING MOVEMENT - FRONT (5 MPH)



TURNING MOVEMENT - REAR (2 MPH)

SYMBOLS AND LINETYPES LEGEND

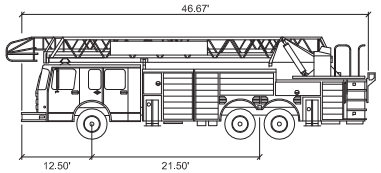
- PROPOSED 1' PAN CURB & GUTTER (SPILL)
- PROPOSED 2' PAN CURB & GUTTER (CATCH)
- EXISTING CURB & GUTTER
- LOT LINE
- EXISTING ROW
- 5425 PROPOSED CONTOURS
- 5425 EXISTING CONTOURS
- PROP. SANITARY SERVICE
- PROP. WATER SERVICE
- EX. SANITARY MAIN
- EX. WATER MAIN
- BUILDING ACCESS/DOORS
- ADA RAMP
- PROP. STORM PIPE
- EX. STORM PIPE
- STORM INLET
- WATER METER
- EXISTING FIRE HYDRANT
- PROP. REPLACEMENT FIRE HYDRANT
- ANTICIPATED, FUTURE ACCESS PONT

TURNING LEGEND

- VEHICLE LADDER/BUMPER OVERHANG
- VEHICLE FRONT TIRES
- VEHICLE REAR TIRES
- 20' WIDTH EMERGENCY VEHICLE ACCESS ROUTE

NOTES:

1. THE CITY OF LOUISVILLE TRUCK WAS EVALUATED UTILIZING THE PROGRAM AUTOTURN FOR ALL ROADS DEPICTED IN GRAY. THOSE AREAS ACCOMMODATE THIS VEHICLE.
2. FIRE HYDRANTS DEPICTED ARE TO PROVIDE THE REQUIRED COVERAGE TO THE SITE. FINAL LOCATION OF THE FIRE HYDRANTS SHALL BE DETERMINED WITHIN THE CONSTRUCTION DOCUMENTS.



LOUISVILLE TRUCK 17

	FEET
WIDTH	: 8.00
TRACK	: 8.00
LOCK TO LOCK TIME	: 5.00
STEERING ANGLE	: 45.00

delo LOFTS

SHEET TITLE
EMERGENCY VEHICLE ACCESS PLAN

SUBMITTAL

no	date	description
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designed by: sta
drawn by: klm
checked by: pms
project #: 8675309

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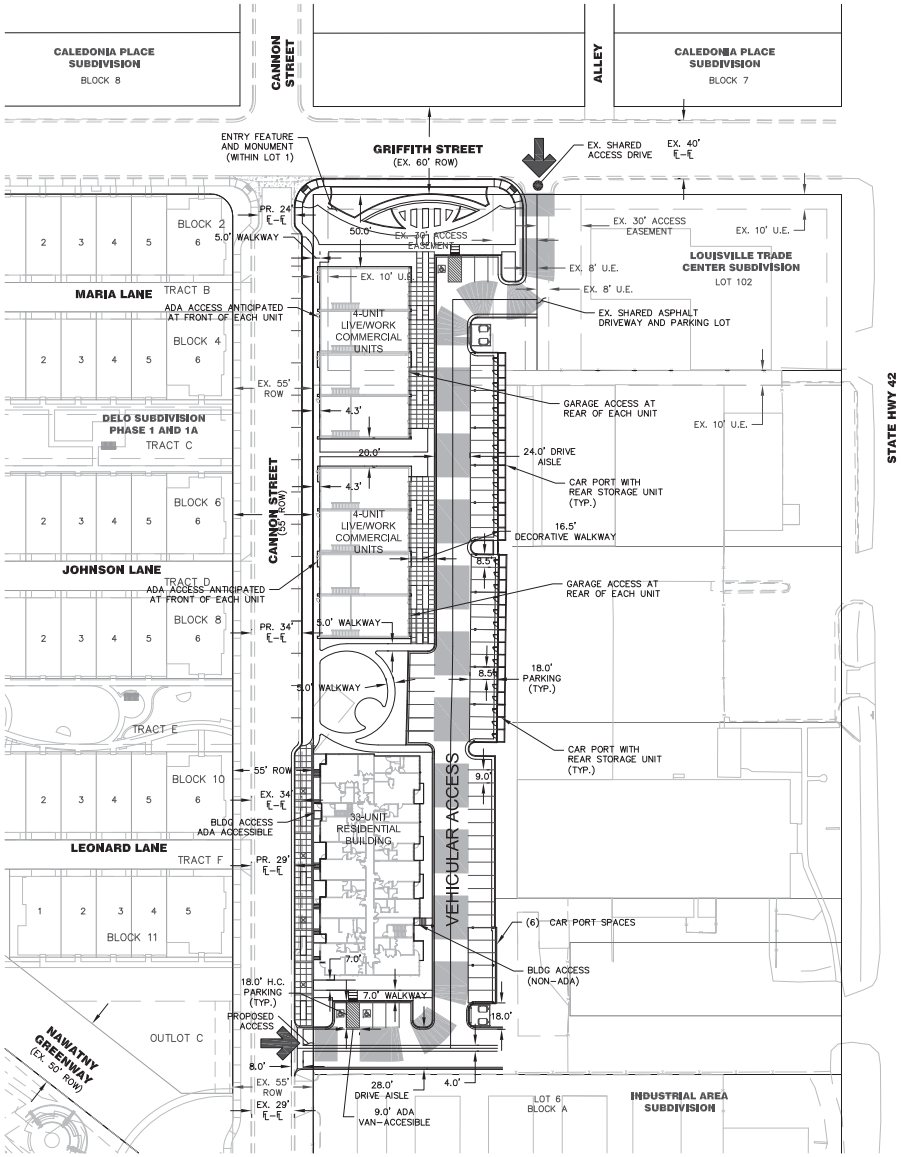

LEGEND

- CENTER LINE OF STREET
- BOUNDARY LINE
- RIGHT OF WAY LINE
- LOT LINE
- EASEMENT LINE
- STREET LIGHT
- STREET SIGN
- CHAIN LINK FENCE
- WOOD PANEL FENCE
- CURB & GUTTER
- EX. CURB & GUTTER
- CURB, GUTTER, CROSSPAN SIDEWALK & RAMP

NOTES

1. THE HORIZONTAL LAYOUT PRESENTED IN THIS PLAN IS A REPRESENTATION OF THE DESIGN INTENT FOR THE FLATS AT DELO DEVELOPMENT. SPECIFIC ELEMENTS ARE SUBJECT TO REVISION IN ORDER TO ACCOMMODATE UNFORSEEN CIRCUMSTANCES AND CHANGING PROJECT CONDITIONS.

delo LOFTS

SHEET TITLE
HORIZONTAL CONTROL PLAN

SUBMITTAL

no	date	description
1	03.11.2016	Initial Submittal

designed by: sta
drawn by: klm
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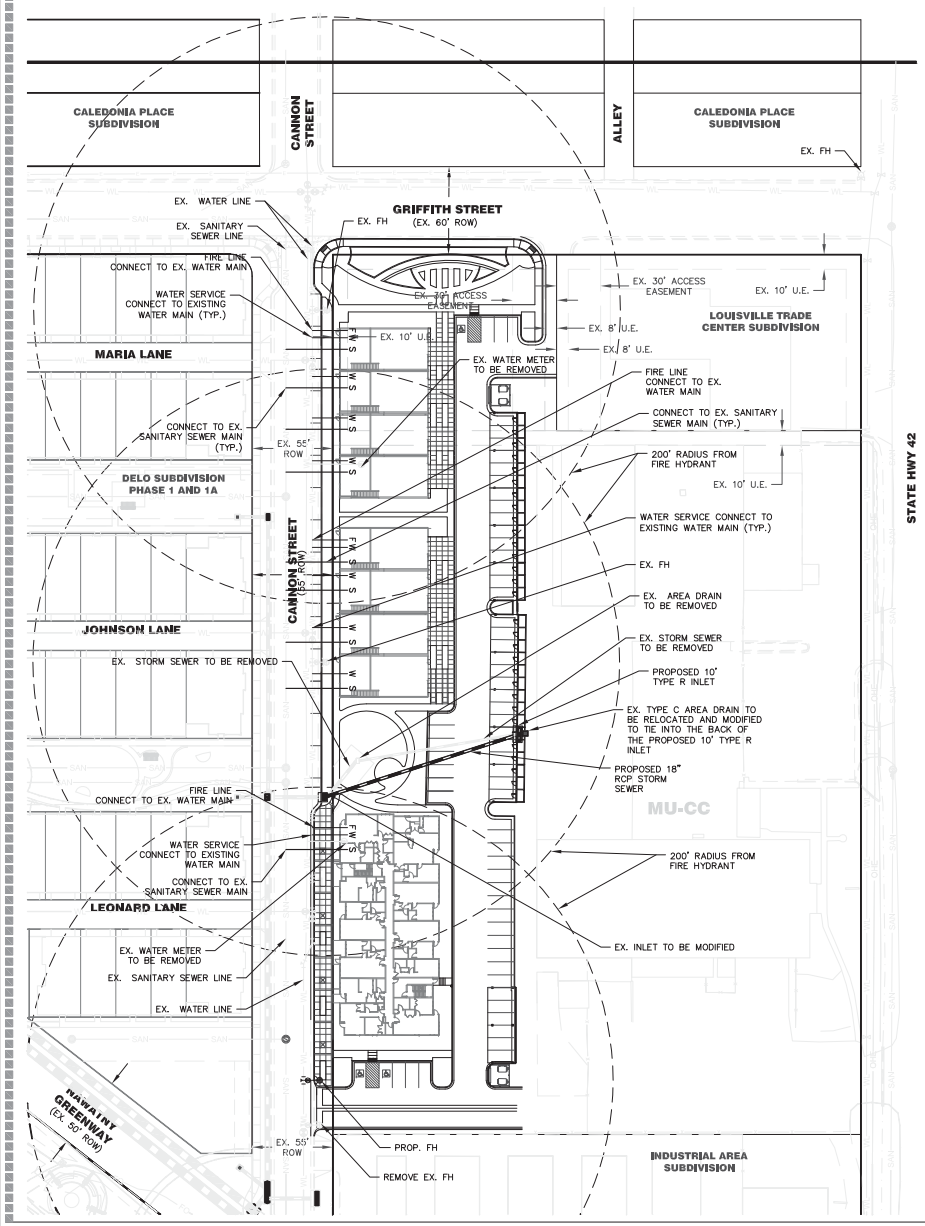

SYMBOLS AND LINETYPES LEGEND

- CENTER LINE OF STREET
- BOUNDARY LINE
- RIGHT OF WAY LINE
- LOT LINE
- EASEMENT LINE
- PROPOSED CONTOURS 5800
- EXISTING CONTOURS 5700
- WATERLINE W/ GATE VALVE & TEE
- SANITARY SEWER W/ MANHOLE
- STORM SEWER W/ INLET & F.E.S.
- CURB, GUTTER, CROSSPAN SIDEWALK & RAMP
- SWALE
- EX. WATERLINE W/ VALVE & TEE
- EX. SANITARY SEWER W/ MANHOLE
- EX. SANITARY SEWER FORCE MAIN
- EX. STORM SEWER W/ INLET & F.E.S.
- EX. UNDERGROUND ELECTRICITY LINE
- EX. OVERHEAD ELECTRICITY LINE
- EX. GAS LINE
- EX. TELEPHONE LINE
- EX. FIBER OPTIC LINE
- EX. FIRE HYDRANT
- FIRE HYDRANT
- FLOW ARROW
- SLOPE ARROW 2.0%
- STREET LIGHT
- STREET SIGN
- CHAIN LINK FENCE
- WOOD PANEL FENCE
- CURB & GUTTER
- EX. CURB & GUTTER

NOTES

1. THE UTILITY LAYOUT PRESENTED IN THIS PLAN IS A REPRESENTATION OF THE DESIGN INTENT FOR THE FLATS AT DELO DEVELOPMENT. SPECIFIC ELEMENTS ARE SUBJECT TO REVISION IN ORDER TO ACCOMMODATE UNFORSEEN CIRCUMSTANCES AND CHANGING PROJECT CONDITIONS.
2. FOR THE PURPOSES OF CLARITY, CERTAIN EXISTING UTILITIES ARE NOT SHOWN ON THIS PLAN. THESE INCLUDE MOST DRY UTILITIES, UTILITIES BEING ABANDONED OR REMOVED AS A PART OF THIS PROJECT.

delo LOFTS

SHEET TITLE

UTILITY PLAN

SUBMITTAL

no	date	description
1	03.11.2016	Initial Submittal

designed by: sta
drawn by: klm
checked by: pms
project #: 8675309

scale: 1"=40'
0 20 40 80

north

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Phone (303)861-5704
WWW.OZarch.com

engineering
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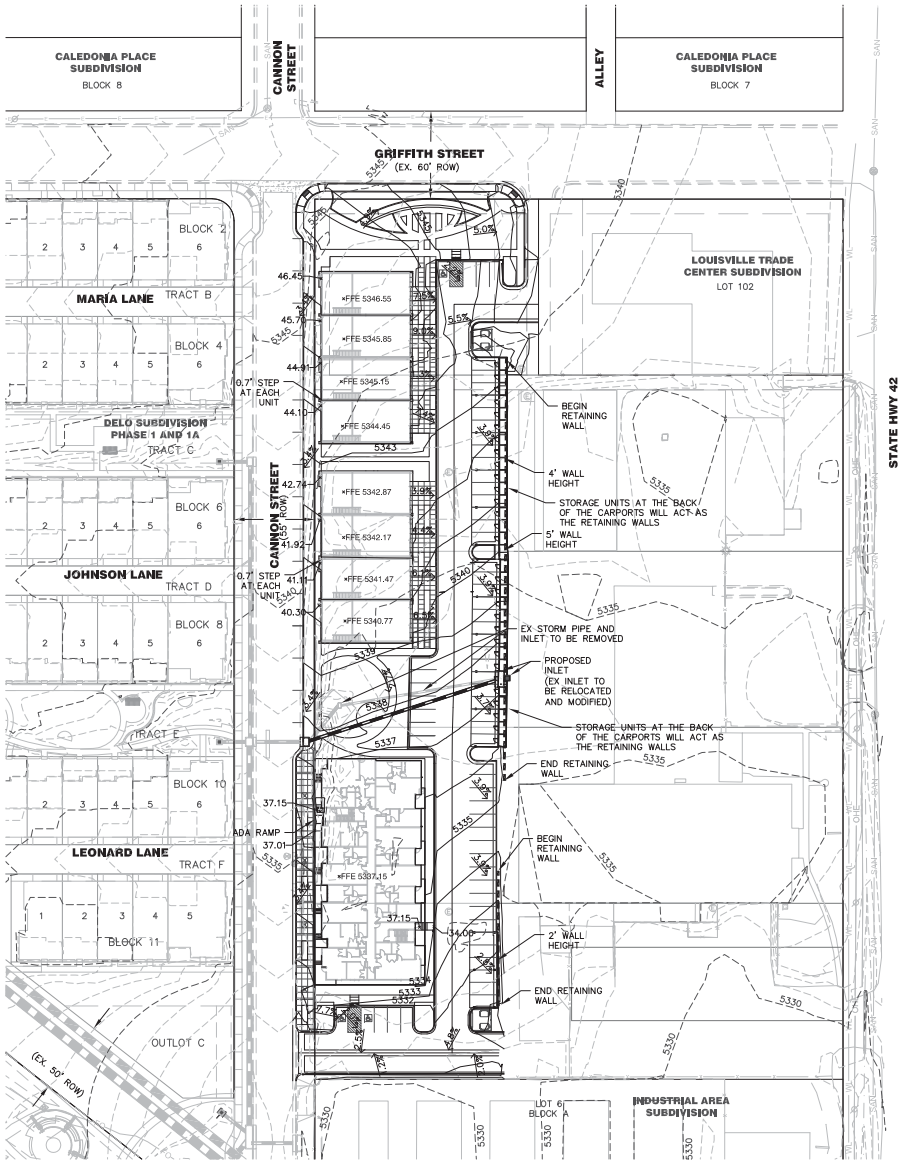
Phone (720)975-0177
www.j3engineering.net

owner's representative
RMCS
1004 GRIFFITH STREET
LOUISVILLE, CO 80027
Phone: 720.524.3620

delo LOFTS

Final Planned Unit Development

A part of section 8, township 1 south, range 69 west of the 6th p.m.
City of Louisville, County of Boulder, State of Colorado



SYMBOLS AND LINETYPES LEGEND

- CENTER LINE OF STREET
- BOUNDARY LINE
- RIGHT OF WAY LINE
- LOT LINE
- EASEMENT LINE
- PROPOSED CONTOURS 5800
- EXISTING CONTOURS 5700
- WATERLINE W/ GATE VALVE & TEE
- SANITARY SEWER W/ MANHOLE
- STORM SEWER W/ INLET & F.E.S.
- CURB, GUTTER, CROSSPAN SIDEWALK & RAMP
- SWALE
- EX. WATERLINE W/ VALVE & TEE
- EX. SANITARY SEWER W/ MANHOLE
- EX. SANITARY SEWER FORCE MAIN
- EX. STORM SEWER W/ INLET & F.E.S.
- EX. UNDERGROUND ELECTRICITY LINE
- EX. OVERHEAD ELECTRICITY LINE
- EX. GAS LINE
- EX. TELEPHONE LINE
- EX. FIBER OPTIC LINE
- EX. FIRE HYDRANT
- FIRE HYDRANT
- FLOW ARROW
- SLOPE ARROW 2.0%
- STREET LIGHT
- STREET SIGN
- CHAIN LINK FENCE
- WOOD PANEL FENCE
- CURB & GUTTER
- EX. CURB & GUTTER

NOTES

THE GRADING PRESENTED IS CONCEPTUAL BUT SHALL BE CONSIDERED THE BASIS FOR SUBSEQUENT GRADING PLANS.

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SHEET TITLE

GRADING PLAN

SUBMITTAL

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1	03.11.2016	Initial Submittal

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sheet 11 of 16

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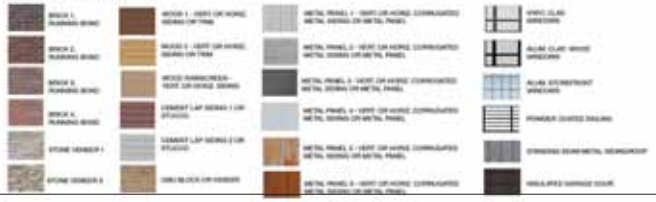
COMMERCIAL IN-LINE FLEX BUILDING - EAST ELEVATION - 1" = 10'-0"

COMMERCIAL IN-LINE FLEX BUILDING - WEST ELEVATION - 1" = 10'-0"

COMMERCIAL IN-LINE FLEX BUILDING - SOUTH ELEVATION - 1" = 10'-0"

COMMERCIAL IN-LINE FLEX BUILDING - NORTH ELEVATION - 1" = 10'-0"

MATERIAL LEGEND



NOTE:
ALL BUILDING MATERIALS AND COLORS ARE FROM THE BUILDING MATERIAL PALETTE ARE ELIGIBLE FOR USE IN THE CONSTRUCTION DOCUMENTATION PROCESS.

THE ARCHITECT WILL VARY THE COLORS ON THE EXTERIOR BALCONIES OF THE LIVE WORK BUILDINGS PROPOSING TO USE COMPLEMENTARY COLORS SELECTED OUT OF THE MATERIAL PALETTE FOR EACH BUILDING. THE ACTUAL COLOR ASSIGNMENT WILL BE FINALIZED IN SUBSEQUENT BUILDING CONSTRUCTION DOCUMENTS.

delo LOFTS

SHEET TITLE

ELEVATIONS - COMMERCIAL / LIVE WORK

SUBMITTAL

no	date	description
1	03.11.2016	Initial Submittal

designed by: sta
drawn by: klm
checked by: pms
project #: 8675309

scale: VARIES

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DELO BUILDING A - NORTH ELEVATION
1/8" = 1'-0"

PERSPECTIVE

DELO BUILDING A - EAST ELEVATION
1/8" = 1'-0"

DELO PHASE II BUILDING MATERIAL PALETTE

- LS1. CEMENT LAP SIDING OR STUCCO
- LS2. CEMENT LAP SIDING OR STUCCO
- MS1. VERTICAL OR HORIZONTAL CORRUGATED METAL SIDING OR METAL PANEL
- MS2. VERTICAL OR HORIZONTAL CORRUGATED METAL SIDING OR METAL PANEL
- MS3. VERTICAL OR HORIZONTAL CORRUGATED METAL SIDING OR METAL PANEL
- MS4. VERTICAL OR HORIZONTAL CORRUGATED METAL SIDING OR METAL PANEL
- WS1 HORIZONTAL TONGUE AND GROOVE WOOD RAINSCREEN
- BR1. BRICK, RUNNING BOND
- BR2. BRICK, RUNNING BOND
- SN1. STONE VENEER
- SS1. STANDING SEAM METAL SIDING / ROOF
- SS2. STANDING SEAM METAL SIDING / ROOF
- W01. ALUMINUM CLAD WINDOW FRAME
- W02 VINYL CLAD WINDOW FRAME
- SP1. SPANDREL PANEL
- ST1. ALUMINUM STOREFRONT SYSTEM
- TP1. PAINTED ACCENT TRIM
- MB1. PAINTED FAUX METAL EXPOSED BEAM
- GR1. POWDERCOATED METAL GUARDRAIL

NOTE:
ALL BUILDING MATERIALS AND COLORS ARE FROM THE BUILDING MATERIAL PALETTE ARE ELIGIBLE FOR USE IN THE CONSTRUCTION DOCUMENTATION PROCESS.

THE ARCHITECT WILL VARY THE COLORS ON THE EXTERIOR BALCONIES OF THE RESIDENTIAL BUILDINGS PROPOSING TO USE COMPLEMENTARY COLORS SELECTED OUT OF THE MATERIAL PALETTE FOR EACH BUILDING. THE ACTUAL COLOR ASSIGNMENT WILL BE FINALIZED IN SUBSEQUENT BUILDING CONSTRUCTION DOCUMENTS.

delo LOFTS

SHEET TITLE

ELEVATIONS - RESIDENTIAL MULTI UNIT DWELLINGS

SUBMITTAL

no	date	description
1	03.11.2016	Initial Submittal

designed by: sta
drawn by: klm
checked by: pms
project #: 8675309

scale: VARIES

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delo LOFTS Final Planned Unit Development

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City of Louisville, County of Boulder, State of Colorado

DELO BUILDING A - SOUTH ELEVATION
1/8" = 1'-0"

DELO BUILDING A - WEST ELEVATION
1/8" = 1'-0"

DELO PHASE II BUILDING MATERIAL PALETTE

- LS1. CEMENT LAP SIDING OR STUCCO
- LS2. CEMENT LAP SIDING OR STUCCO
- MS1. VERTICAL OR HORIZONTAL CORRUGATED METAL SIDING OR METAL PANEL
- MS2. VERTICAL OR HORIZONTAL CORRUGATED METAL SIDING OR METAL PANEL
- MS3. VERTICAL OR HORIZONTAL CORRUGATED METAL SIDING OR METAL PANEL
- MS4. VERTICAL OR HORIZONTAL CORRUGATED METAL SIDING OR METAL PANEL
- WS1 HORIZONTAL TONGUE AND GROOVE WOOD RAINSCREEN
- BR1. BRICK, RUNNING BOND
- BR2. BRICK, RUNNING BOND
- SN1. STONE VENEER
- SS1. STANDING SEAM METAL SIDING / ROOF
- SS2. STANDING SEAM METAL SIDING / ROOF
- WS1. ALUMINUM CLAD WINDOW FRAME
- WS2 VINYL CLAD WINDOW FRAME
- SP1. SPANDREL PANEL
- ST1. ALUMINUM STOREFRONT SYSTEM
- TP1. PAINTED ACCENT TRIM
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delo LOFTS

SHEET TITLE

ELEVATIONS - MULTI UNIT DWELLINGS

SUBMITTAL

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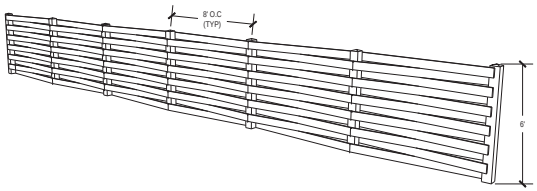


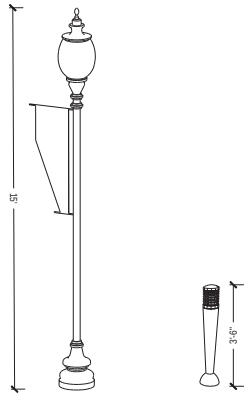
1 CONCEPTUAL BUFFER FENCE
SCALE: NTS PERSPECTIVE SKETCH

SCREENING & FENCING

SCREENING AND BUFFERING AREAS BETWEEN SERVICE AREAS AND PLAZAS, STREETSCAPES, PEDESTRIAN CORRIDORS AND PARKS, WILL AID TO THE AESTHETICS OF THE COMMUNITY.

DESIGN NOTES & STANDARDS

- THE SCREENING OF SERVICE AREAS AND TRASH ENCLOSURES SHALL COMPLY WITH THE CITY OF LOUISVILLE DESIGN STANDARDS.
- TRASH ENCLOSURES AND SERVICE AREAS SHALL BE LOCATED TO THE REAR OF OR BETWEEN BUILDINGS WHENEVER FEASIBLE.
- TRASH DUMPSTERS SHALL BE LOCATED WITHIN WALLED AND GATED ENCLOSURES AND PLACED ON A CONCRETE SLAB. SERVICE AREAS VISIBLE FROM ADJACENT AREAS SHALL BE SCREENED BEHIND WALLS OR DECORATIVE FENCES IN COMBINATION WITH DENSE LANDSCAPING.
- FENCING ALONG THE PROPERTY BOUNDARY SHOULD BE ALLOWED IF NEEDED TO AID IN THE SEPARATION AND PROTECTION OF ADJACENT USES.
- DETAILED LOCATIONS FOR FENCES AND ENCLOSURES WILL BE FINALIZED WITHIN THE CONSTRUCTION DOCUMENTS



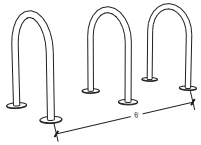
2 LIGHTS - POLE W/ BANNER & BOLLARD
SCALE: NTS PERSPECTIVE SKETCH

LIGHTING DESCRIPTION

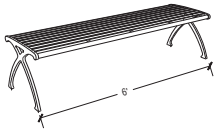
LIGHTING IS COMPRISED OF THE FOLLOWING CATEGORIES: PARKING LOT LIGHTING, STREET LIGHTING, BUILDING LIGHTING, PLAZA/PEDESTRIAN LIGHTING AND LANDSCAPE LIGHTING. LIGHTING SHALL CONSIST OF QUALITY FIXTURES THAT ARE BOTH APPEALING AND PROVIDE SAFETY FOR BOTH PEDESTRIANS AND AUTOMOBILES. LIGHTING SHALL COMPLIMENT THE BUILDING ARCHITECTURE, SIGNAGE, PARKING, LANDSCAPING AND PLAZA DESIGNS. FIXTURES ARE TO BE USED THAT REDUCE GLARE AND MINIMIZE IMPACT TO SURROUNDING PROPERTIES.

DESIGN NOTES & STANDARDS

- PARKING LOT LIGHTING IS TO BE OF A ZERO CUTOFF TYPE AND BE NO TALLER THAN 25 FEET IN HEIGHT. THE FIXTURES ARE TO BE IN THE STYLE, TYPE AND COLOR THAT COMPLIMENT THE ARCHITECTURE AND CHARACTER OF THE PROJECT.
- STREET LIGHTING IS TO BE ZERO OR PARTIAL CUTOFF TYPE AND BE NO TALLER THAN 15 FEET IN HEIGHT.
- BUILDING MOUNTED LIGHTING IS ENCOURAGED TO ENHANCE THE ADJACENT SIDEWALKS AS WELL AS THE ARCHITECTURE ITSELF. LIGHTING MAY BE USED TO ENHANCE IMPORTANT ARCHITECTURAL FEATURES OF THE BUILDING IT SERVES.
- LANDSCAPE LIGHTING IS TO ENHANCE THE LANDSCAPE FEATURE IT SERVES, AS WELL AS TO FURTHER ENHANCE THE SAFETY OF THE PEDESTRIAN AREA.



BICYCLE RACKS
(DEPICTION IS FOR PURPOSES OF INTENT ONLY. PROPOSED BIKE RACKS SHALL MATCH THE DOWN TOWN CITY OF LOUISVILLE'S EXISTING BIKE RACKS)



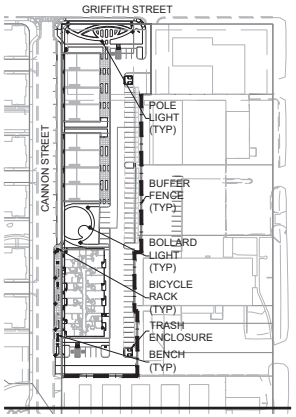
BENCH

3 SITE FURNISHINGS
SCALE: NTS PERSPECTIVE SKETCH

SITE FURNISHINGS AND DETAILS - KIT OF PARTS PROJECT DESCRIPTION

THE SITE FURNITURE IN DELO FLATS SHALL BE CONSISTENT WITH THAT OF THE SITE FURNITURE IN DOWNTOWN LOUISVILLE.

THE DEVELOPMENT OF THIS PROMINENT SITE WILL SERVE TO STRENGTHEN AND UNIFY THE SURROUNDING AREA. LIGHTING, STREET FURNISHINGS, PLANTERS, TREE GRATES, ETC. WILL ENHANCE AND UNIFY THE OVERALL PROJECT, CONTRIBUTING TO THE SENSE OF PLACE AND OVERALL CHARACTER. THE INTENT IS TO BENEFIT ALL USERS WITH A THEMATIC, WELL LIT, SAFE AND PLEASANT ENVIRONMENT. A KIT-OF-PARTS HAS BEEN DEVELOPED AS A STARTING POINT FOR THE DESIGN OF THE STREET FURNISHINGS WITHIN THE THE STREETSCAPE AND PUBLIC AREAS AND WILL HELP TO GUIDE THE SITE PLANNING PROCESS WHICH FOLLOWS THIS DOCUMENT. THE FURNISHINGS BEING SHOWN ARE INTENDED TO PORTRAY THE CHARACTER AND QUALITY FOR DELO FLATS.



1 SITE DETAILS PLAN
SCALE: 1"=100'

delo LOFTS

SHEET TITLE

TYPICAL SITE DETAILS

SUBMITTAL

no	date	description
1	03.11.2016	Initial Submittal

designed by: sta
drawn by: klm
checked by: pms
project #: 8675309

scale: VARIES

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Central Green Space Perspective

North Park Plaza Perspective

Central Green Space Perspective

Condominium Streetscape Perspective

Adaptable Live/Work Space Perspective

North Park Plaza Perspective

Adaptable Live/Work Space Perspective

Central Green Space Perspective

delo LOFTS

SHEET TITLE

CHARACTER SKETCHES

SUBMITTAL

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sheet 16 of 16

City of Louisville
COLORADO • SINCE 1878

Department of Planning and Building Safety

749 Main Street • Louisville CO 80027 • 303.335.4592 • www.louisvilleco.gov

MEMORANDUM

To: Historic Preservation Commission Members

From: Department of Planning and Building Safety

Subject: Historic Preservation Applications

Date: **May 16th, 2016**

One of the immediate action items in the Preservation Master Plan is to "improve and increase written and digital materials". In addition, the City's transition to a new software program creates an opportunity to update our historic preservation applications. The following current historic preservation applications are attached:

- Landmark Application
- Historic Preservation Fund Grant Application
- Alteration Certificate Application
- Demolition Permit

Planning staff will add additional applications for the Historic Structure Assessment grant and Revolving Loan Program. One idea would assemble to updated applications in a packet similar to the existing Public Hearing Packet. Staff is looking for comments from the Historic Preservation Commission on the following:

- Additional applications that might be needed
- Additional information needed on applications
- Information not needed on applications
- Format for distributing applications

Landmark Designation Nomination Form

(6/09)

DATE:_____

LANDMARK APPLICATION FOR:

☐ Individual Site/Building Landmark ☐ Historic District

NOMINATION MADE BY:

☐ Owner ☐ City Council
☐ Historic Preservation Commission ☐ Third Party

Name: _____
Address: _____
Phone: _____ Email _____
Relationship to Owner: _____

LOCATION OF PROPOSED LANDMARK:

Address: _____
Legal Description (Lot Number, Block Number, and Subdivision):
_____
Property Name (Historic and/or Common):
_____
Former Addresses (If Known):
_____

OWNER INFORMATION
(For district applications, please attach separate sheet)

Name: _____
Address: _____
Phone: _____

BOUNDARIES and TYPE OF DESIGNATION

Description of Boundary Determination:
_____
_____
_____
_____
_____
_____
_____
_____
_____

Historic Preservation Commission
Planning Department 749 Main Street Louisville CO 80027
303.335.4591 (phone) 303.335.4550 (fax) www.louisvilleco.gov

CLASSIFICATION

Category	**Ownership**	**Status**	**Present Use**	**Existing Designation**
☐ Building	☐ Public	☐ Occupied	☐ Residential	☐ National Register
☐ Structure	☐ Private	☐ Unoccupied	☐ Commercial	☐ Colorado Register
☐ Site			☐ Educational	
☐ District			☐ Religious	
☐ Object			☐ Agricultural	
			☐ Government	
			☐ Other	

SIGNIFICANCE

☐ **Site/Building is Over 50 Years Old and meet one of the following standards**

☐ ***Historic Landmark of Significance – must meet one (1) or more of the following criteria***

☐ **Architectural Significance:** The property:

- exemplifies specific elements of an architectural style or period;
- is an example of the work of an architect or builder who is recognized for expertise nationally, statewide, regionally, or locally;
- demonstrates superior craftsmanship or high artistic value; represents an innovation in construction, materials or design; is of a style particularly associated with the Louisville area;
- represents a built environment of a group of people in an era of history that is culturally significant to Louisville;
- shows a pattern or grouping of elements representing at least one of the above criteria; or
- is a significant historic remodel.

☐ **Social Significance:** The property is the site of a historic event that had an effect upon society; exemplifies cultural, political, economic or social heritage of the community or is associated with a notable person or the work of a notable person.

☐ **Geographic or Environmental Significance:** The property enhances the sense of identity of the community or is an established and familiar natural setting or visual feature that is culturally significant to the history of Louisville.

☐ ***Prehistoric or Archaeological Site*** The property has yielded, or may be likely to yield, information important in prehistory or history.

HISTORICAL INFORMATION

Please attach a narrative of the historical significance of the property. Include a title search or city directory research if the property is important for its association with a significant person.

ARCHITECTURAL and PHYSICAL DESCRIPTION
(Attach a separate sheet if needed)
Construction Date:

Architect/Builder:

Building Materials:

Architectural Style:

Special Features/Surroundings:

Describe any additions or alterations to the property:

REFERENCE LIST or SOURCES OF INFORMATION
(Attach a separate sheet if needed)

PHOTOS
Please include photos of EACH ELEVATION of EACH BUILDING and STRUCTURE on the property.

FOR OFFICE USE ONLY
Application Number _____
Date Filed with Planning Department _____
Date Determined "Eligible"_____ Date Determined "Ineligible"_____
Application ☐ Approved ☐ Denied
HPC Resolution # _____, CC Resolution # _____,
Date Recorded _____

Historic Landmark Agreement

Property Address:_____, Louisville, CO 80027
Property Legal Description:_____
_____

The undersigned owner(s) hereby agrees that the property above described be considered for local historic landmark designation, pursuant to the Louisville Landmark Preservation Ordinance, Ordinance No. 1463, Series 2005, as codified in Chapter 15.36 of the Louisville Municipal Code and amended from time to time (the "Ordinance").

I understand that upon designation, I or my successors in ownership of the property will be required to submit to the review process of the Historic Preservation Commission of the City of Louisville as set forth in the Ordinance prior to the occurrence of any of the following:

1. Reconstruction or alteration of the exterior of the improvements on the property, or;
2. Construction of, addition to, or demolition of improvements on the property.

I further understand that I or my successors in ownership will be required to submit to the review process of the Historic Preservation Commission of the City of Louisville as set forth in the Ordinance if a building permit for the property is requested for any one of the following:

1. Alteration or reconstruction of or an addition to the exterior of any improvement which constitutes all or part of a landmark structure or landmark district;
2. Demolition or relocation of any improvement which constitutes all or part of a landmark structure or landmark district; or
3. Construction or erection of or an addition to any improvement upon any land included in a landmark district.

I understand that as part of any such review process, the Historic Preservation Commission shall be under the time constraints and other requirements as set forth in the Ordinance.

I also understand that any historic landmark designation for the property transfers with the title of the property should the property be sold.

DATED this _____day of _____, 200___.

_____
Owner Name (please print)

_____
Owner Signature

State of _____)
)ss.
County of _____)

Subscribed and sworn before me this _____day of _____, 200____,
by _____.

Witness my hand and official seal. My commission expires _____.

_____
Notary Public

Landmark Designation Process

1) Application submitted by property owner, the Historic Preservation Commission, the City Council, or a third party with a recognized interest in historic preservation.
2) Application Processed by Staff for Historic Preservation Commission Public Hearing:
    - Review application and prepare a staff memo to the Historic Preservation Commission
    - Obtain Property Owner Permission to Landmark (if owner is not the applicant)
    - Meet legal notification process
        - Post property with notice
        - 15 days notice of Commission public hearing in newspaper
        - Notice by mail to owner of property in question as well as to all property owners within 500 feet of the proposed landmark)
3) Historic Preservation Commission Public Hearing
4) Application Processed by Staff for City Council Public Hearing:
    - Review Historic Preservation Commission hearing and prepare a staff memo to the City Council
    - Meet legal notification process
        - Post property with notice
        - 15 days notice of City Council public hearing in newspaper
        - Notice by mail to owner of property in question as well as to all property owners within 500 feet of the proposed landmark)
5) City Council Public Hearing
6) Final Recordation of Documents with Boulder County Clerk & Recorder

City of Louisville

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Historic Preservation Fund Grant Program

Application and Information

(Revised October 2009)

DRAFT 1/20/09

Grant Guidelines

The Grant Program is funded by the City of Louisville's Historic Preservation Fund and is intended to help retain the character of Historic Old Town Louisville by promoting the preservation and rehabilitation of historic resources. A complete application will consist of an application form, historic information about the property, photographs, a contractor bid (if applicable), and information about the source of any matching funds.

Staff contact:

Sean McCartney, Principal Planner
749 Main St.
Louisville, CO 80027
(303) 335-4591
seanm@louisvilleco.gov

Submit all applications to:

Grant Program, Historic Preservation Fund
City of Louisville
749 Main St.
Louisville, CO 80027

For more information

1) Louisville Municipal Code §3.20.605.C, available at http://www.municode.com/resources/gateway.asp?pid=13149&sid=6
2) City Council Resolution No. 20, Series 2009
3) Historic Preservation Commission website: http://www.louisvilleco.gov/GOVERNMENT/BoardsCommissions/HistoricPreservationCommission/tabid/260/Default.aspx

Deadlines

There are no application deadlines. Applications will be considered as they are received, but they are subject to the availability of funds in any given year.

Matching Funds and Other Incentives

This grant program is just one facet of incentives available from the Historic Preservation Fund. According to §3.d of City Council Resolution No. 20, Series 2009, priority for incentives shall be given to loans, then rebates, then grants. You may wish to structure your requests accordingly to maximize your chances of a success.

Matching funds are not required. However, applications which demonstrate the availability of matching funds from any source, including but not limited to the State Historical Fund, other grants, or private funding, may be viewed more favorably.

Eligible Applicants

Any owner of a historic resource or resource that helps to define the character of Historic Old Town Louisville (see map in Appendix A) is eligible to apply to the Grant Program.

DRAFT 1/20/09

"Resources" include, but are not limited to, primary structures, accessory structures, outbuildings, fences, existing or historical landscaping, archaeological sites, and architectural elements of structures.[1]

Owners of property in Historic Old Town Louisville which will experience new construction may also be awarded grants to preserve the character of Historic Old Town. The purpose of these incentives it to limit mass, scale, and number of stories, to preserve setbacks, to preserve pedestrian walkways between buildings, and to utilize materials typical of historic buildings, above mandatory requirements.[2]

Landmarking/Grant of Easements

As required by Ballot issue 2A, 2008 and Louisville Municipal Code §3.20.605.C, if you are awarded a grant from the Historic Preservation Fund, you must complete an application to landmark your property. Application forms are available here: http://www.louisvilleco.gov/Portals/0/Boards%20&%20Commissions/Preservation%20Commission/ladnmarkapplication.pdf . If the Historic Preservation Commission or the City Council determines that your property is not eligible to be landmarked, then you must enter into an agreement for a conservation easement to be placed upon your property. These requirements are to ensure that your property retains its character and that the city's investment in your property is respected, but does not mean that you cannot enjoy the use of your property or make appropriate additions or interior alterations.

Eligible Costs and Improvements:

Eligible costs include hard costs associated with the physical preservation of historic fabric or elements. Labor costs are eligible IF the work is to be done by someone other than the applicant/owner (whose labor can only be used for matching purposes with an acceptable written estimate).

Example eligible improvements:

Repair and stabilization of historic materials:

- Siding
- Decorative wood work and moulding
- Porch stairs and railing
- Cornices
- Masonry (such as chimney tuckpointing)
- Door and Windows

Removal of non-historic materials:
(particularly those that cover the historic materials)

- Siding, trim and casing
- Porch enclosures

[1] City Council Resolution No. 20, Series 2009, §1.e.
[2] City Council Resolution No. 20, Series 2009, §3.c.

DRAFT 1/20/09

- Additions that negatively impact the historic integrity
- Repair/replacement to match historic materials

Energy upgrades:

- Repair and weather sealing of historic windows and doors

Reconstruction of missing elements or features:
(Based on documented evidence such as historic photographs and physical evidence)

- Porches and railings
- Trim and mouldings
- False-fronts cornices

Some additional project elements are eligible under the property owner's match ONLY if they are part of a larger rehabilitation project that includes at least one of the eligible features and improvements listed above. These match elements include:

- Necessary structural repairs
- Materials analysis
- Donated labor and materials
- Architectural and engineering services

Ineligible Costs and Improvements:

- Redecorating or any purely cosmetic change that is not part of an overall rehabilitation or that does not enhance the property's character
- Soft costs such as appraisals, interior design fees, legal, accounting and realtor fees, grant fees, sales and marketing, closing, building permit, use and inspection fees, bids, insurance, project signs and phones, temporary power, bid bonds, copying, and rent loss during construction
- New additions or enlargements
- Excavation, grading, paving, landscaping or site work such as improvements to paths or fences unless the feature is part of the landmark designation, except for correcting drainage problems that are damaging the historic resource
- Repairs to additions to non-historic portions of the property
- Reimbursement for owner/self labor (which can count only towards the matching costs)
- Interior improvements *(unless the interior is also landmarked)*
- Non-historical decorative elements
- Outbuildings which are not contributing structures to a landmarked site or district

<u>Application Review Process</u>

Applications will be screened by Historic Preservation Commission (HPC) staff to verify project eligibility. If any additional information is required, staff will contact the applicant directly. The HPC will evaluate the applications in a public meeting at which the applicant will be allowed to make statements. The HPC will make a recommendation to City Council, utilizing the criteria contained in Appendix B. City Council will take final action on the application.

DRAFT 1/20/09

Project Review and Completion

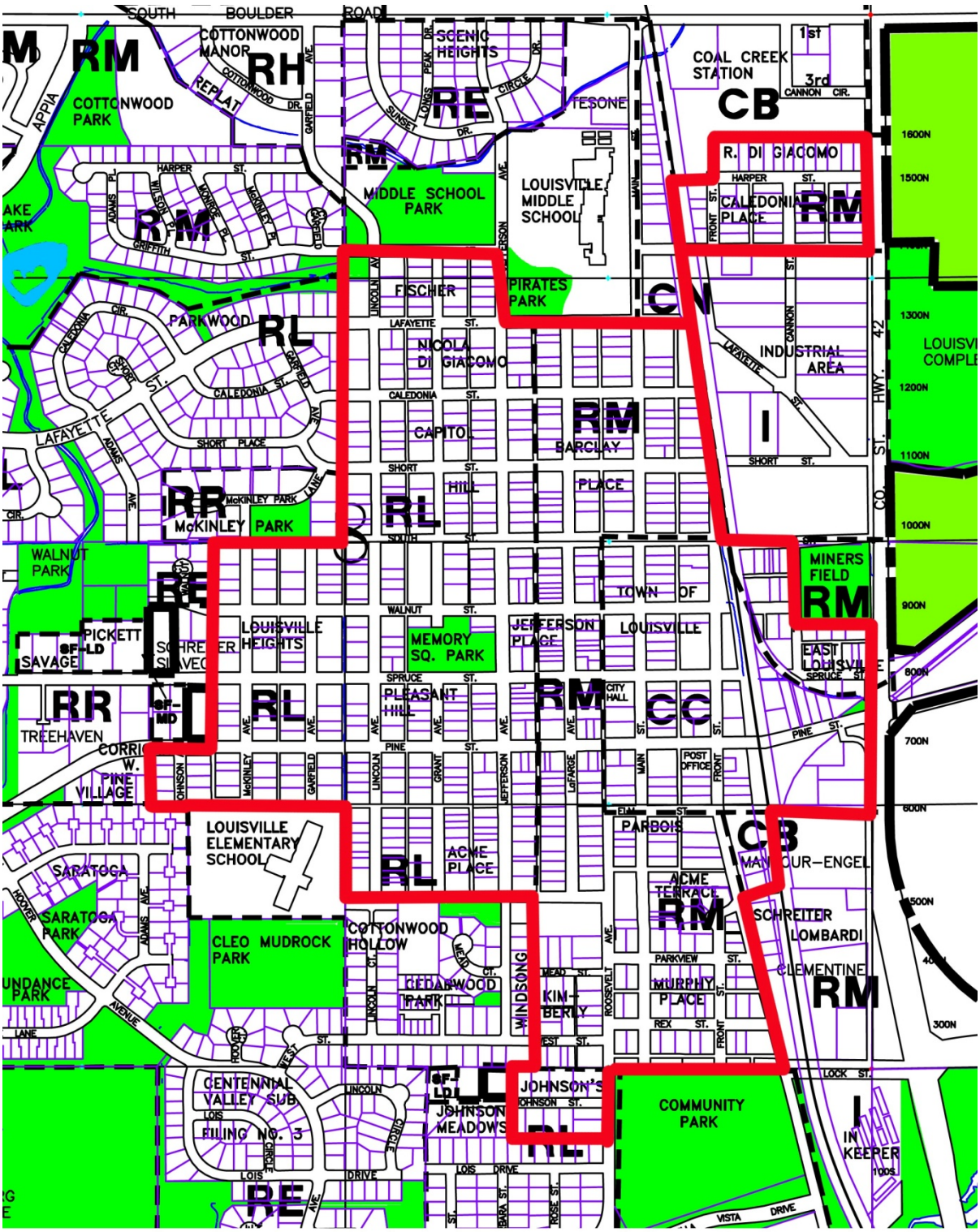
Any required design review or building permits must be obtained before beginning work on the project. If a property has already been landmarked, in some circumstances an Alteration Certificate must be approved by the HPC. HPC staff should be allowed a walk-through with the applicant and any contractor before the beginning of work. Projects must be completed within one year from the date on which the grant was awarded, unless a longer period of time was allowed when the grant was awarded or an extension is granted.

Disbursement of Funds

In most cases, grants will take the form of reimbursement after work has been completed, inspected and approved as consistent with the approved grant application by HPC staff. In planning your project, you should arrange to have adequate funds on hand to pay the final costs of the project. Grants may be revoked if the conditions of any grant approval are not met. Under some circumstances, as determined by the HPC and City Council, grants may be paid prior to the beginning of a project or in installments as work progresses.

Grants may be considered taxable income and applicants may wish to consult with a tax professional.

DRAFT 1/20/09



Old Town Overlay District and Commercial Core

(Downtown Lousiville Per LMC 17.08.113)

APPENDIX B

REVIEW CRITERIA

Applications that demonstrate the following will be preferred and have a greater chance of favorable review, although it is not necessary for all applications to satisfy all of these criteria.

1. Foster Rehabilitation of Resource

Applicants will be judged on how strong the effort to return the resource to its historic appearance and how well proper and professional preservation techniques will be applied.

2. Demonstrate Preservation Necessity or Threat

A project that demonstrates a strong need for funding because of an existing or future action or condition that may adversely affect the existing architectural or historic interest in the property will receive extra consideration for funding. This may include the need for significant repair due to neglect.

3. Demonstrate Resource Significance

Proposals to rehabilitate resources with high resource significance will be given greater weight over those proposals with lower resource value. Resources with high significance include those that are:

•Listed on the National, State or Louisville Registers of Historic Places.

•Eligible for listing as an individual landmark.

•Eligible for listing as a contributing building in a historic district and has architectural integrity.

4. Matching Funds

Applications which demonstrate the availability of matching funds will be preferred, though matching funds are not an absolute requirement.

5. Character-Producing Resources

Applications which retain or rehabilitate resources which contribute toward the historic character of Historic Old Town Louisville, even if those resources are not eligible for historic landmarking, may be given favorable review.

DRAFT 1/20/09

APPENDIX C

HELPFUL TERMS & DEFINITIONS

BASIC PRESERVATION THEORY

The Concept of Significance

A building possessing architectural significance is one that represents the work of a noteworthy architect, possesses high artistic value or that well represents a type, period or method of construction. A historically significant property is one associated with significant persons, or with significant events or historical trends. It is generally recognized that a certain amount of time must pass before the historical significance of a property can be evaluated. The National Register, for example, requires that a property be at least 50 years old or have extraordinary importance before it may be considered. A property may be significant for one or more of the following reasons:

- Association with events that contributed to the broad patterns of history, the lives of significant people, or the understanding of Louisville's prehistory or history.
- Construction and design associated with distinctive characteristics of a building type, period, or construction method.
- An example of an architect or master craftsman or an expression of particularly high artistic values.
- Integrity of location, design, setting, materials, workmanship, feeling and association that form a district as defined by the National Register of Historic Places Guidelines.

The Concept of Integrity "Integrity" is the ability of a property to convey its character as it existed during its period of significance. To be considered historic, a property must not only be shown to have historic or architectural significance, but it also must retain a high degree of physical integrity. This is a composite of seven aspects or qualities, which in various combinations define integrity, location, design, setting, materials, workmanship, feeling and association. The more qualities present in a property, the higher its physical integrity. Ultimately the question of physical integrity is answered by whether or not the property retains a high percentage of original structure's identity for which it is significant.

The Period of Significance Each historic town has a *period of significance*, which is the time period during which the properties gained their architectural, historical or geographical importance. Downtown Louisville, for example, has a period of significance which spans approximately 70 years (1880- 1950). Throughout this period of significance, the downtown has been witness to a countless number of buildings and additions which have become an integral part of the district. Conversely, several structures have been built, or alterations have been made, after this period which may be considered for removal or replacement.

DRAFT 1/20/09

BUILDING RATING SYSTEM

Contributing: Those buildings that exist in comparatively "original" condition, or that have been appropriately restored, and clearly contribute to the historic significance of downtown. Preservation of the present condition is the primary goal for such buildings.

Contributing, with Qualifications: Those buildings that have original material which has been covered, or buildings that have experienced some alteration, but that still convey some sense of history. These buildings would more strongly contribute, however, if they were restored.

Supporting category
These are typically buildings that are newer than the period of historic significance and therefore do not contribute to our ability to interpret the history of Louisville. They do, however, express certain design characteristics that are compatible with the architectural character of the historic district. They are "good neighbors" to older buildings in the vicinity and therefore support the visual character of the district.

Non-contributing building category
These are buildings that have features that deviate from the character of the historic district and may impede our ability to interpret the history of the area. They are typically newer structures that introduce stylistic elements foreign to the character of Louisville. Some of these buildings may be fine examples of individual building design, if considered outside the context of the district, but they do not contribute to the historic interpretation of the area or to its visual character. The detracting visual character can negatively affect the nature of the historic area.

Non-contributing, with Qualifications: These are buildings that have had substantial alterations, and in their present conditions do not add to the historic character of the area. However, these buildings could, with substantial restoration effort, contribute to the downtown once more.

PRESERVATION APPROACHES
Choosing an Appropriate treatment for historic buildings
While every historic project is different, the Secretary of the Interior has outlined four basic approaches to responsible preservation practices. Determining which approach is most appropriate for any project requires considering a number of factors, including the building's historical significance and its existing physical condition.
The four treatment approaches are:

- **Preservation** places a high premium on the retention of all historic fabric through conservation, maintenance and repair. It reflects a building's continuum over time, through successive occupancies, and the respectful changes and alterations that are made.

DRAFT 1/20/09

- **Rehabilitation** emphasizes the retention and repair of historic materials, but more latitude is provided for replacement because it is assumed the property is more deteriorated prior to work.

- **Restoration** focuses on the retention of materials from the most significant time in a property's history, while permitting the removal of materials from other periods.

- **Reconstruction** establishes limited opportunities to re-create a non-surviving site, landscape, building, structure, or object in all new materials.

The Secretary of the Interior's website outlines these approaches and suggests recommended techniques for a variety of common building materials and elements. An example of appropriate and inappropriate techniques for roofs is provided in the sidebars. Additional information is available from preservation staff and the Secretary's website at: www.cr.nps.gov/hps/tps/standguide/index.htm

THE SECRETARY OF THE INTERIOR'S STANDARDS

The Standards are neither technical nor prescriptive, but are intended to promote responsible preservation practices that help protect our Nation's irreplaceable cultural resources. For example, they cannot, in and of themselves, be used to make essential decisions about which features of the historic building should be saved and which can be changed. But once a treatment is selected, the Standards provide philosophical consistency to the work. http://www.nps.gov/history/hps/tps/standguide/overview/choose_treat.htm Louisville has not adopted these standards verbatim, but they are the basis for standards contained in Louisville's preservation code.

DRAFT 1/20/09

City of Louisville
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Historic Preservation Fund
Grant Program
Application

The following information must be provided to ensure adequate review of your proposal. Please type or print answers to each question. Please keep your responses brief.

1. OWNER/APPLICANT INFORMATION

Owner or Organization

a. Name:_____

b. Mailing Address:_____

c. Telephone:_____

d. Email:_____

Applicant/Contact Person (if different than owner)

a. Name:_____

b. Mailing Address:_____

c. Telephone:_____

d. Email:_____

2. PROPERTY INFORMATION

DRAFT 1/20/09

a. Address: _____

b. Year of construction or estimate: _____

C. Is the building designated as a landmark or in an historic district? (local, state, or federal) If so, what is the name of the landmarked property: _____

D. Attach information on the history of the site, including old photos and social history if available.

E. Primary Use of Property (check one): ___*Residential*

___*Commercial*

3. PROJECT DESCRIPTION (Please do not exceed space provided below.)

a. Provide a brief description of the proposed scope of work.

b. Describe how the work will be carried out and by whom. Include a description of elements to be rehabilitated or replaced and describe preservation work techniques that will be used.

c. Explain why the project needs rehabilitation grant funds now. Include a description of community support and/or community benefits, if any.

DRAFT 1/20/09

4. DESCRIPTION OF REHABILITATION

Feature A	
NAME OF ARCHITECTURAL FEATURE:_____ Describe feature and its condition:	Describe proposed work on feature:
Feature B	
NAME OF ARCHITECTURAL FEATURE:_____ Describe feature and its condition:	Describe proposed work on feature:
Feature C	

DRAFT 1/20/09

NAME OF ARCHITECTURAL FEATURE:_____ Describe feature and its condition:	Describe proposed work on feature:

DRAFT 1/20/09

4. DESCRIPTION OF REHABILITATION (continued)

Feature D	
NAME OF ARCHITECTURAL FEATURE:_____ Describe feature and its condition:	Describe proposed work on feature:
Feature E	
NAME OF ARCHITECTURAL FEATURE:_____ Describe feature and its condition:	Describe proposed work on feature:
Feature F	

DRAFT 1/20/09

NAME OF ARCHITECTURAL FEATURE:_____ Describe feature and its condition:	Describe proposed work on feature:

Please photocopy this sheet and attach copies if necessary.

DRAFT 1/20/09

5. COST ESTIMATE OF PROPOSED WORK

Please provide a budget that includes accurate estimated costs of your project. Include an ***itemized breakdown*** *of work to be funded by the grant and the work to be funded by the applicant. Include only eligible work elements. Use additional sheets as necessary.* ***(Please reference this section in your contractor's bid attachment).***

Feature	Work to be Funded	Grant Cost	Applicant Cost
A.		$	$
B.		$	$
C.		$	$
D.		$	$
E.		$	$
F.		$	$
G.		$	$
H.		$	$
I.		$	$
J.		$	$
K.		$	$
	Subtotal Grant Cost/Applicant Cost	$	$
		Total Project Cost	$

DRAFT 1/20/09

If partial grant funding were awarded, would you complete your project?

☐ **YES** ☐ **NO**

6. ADDITIONAL MATERIALS REQUIRED

The following items must be submitted along with this application:

a. One set of photographs or slides for each feature as described in Item 4 "Description of Rehabilitation". Please label of each photograph with the address of your property and the feature number.

b. A construction bid if one has been made for your project (recommended).

c. Working or scaled drawings, spec sheets, or materials of the proposed work if applicable to your project.

7. Assurances

The Applicant hereby agrees and acknowledges that:

A. Funds received as a result of this application will be expended solely on described projects, and must be completed within established timelines.

B. Grant recipients must submit their project for any required design review by the Historic Preservation Commission and acquire any required building permits before work has started.

C. All work approved for grant funding must be completed even if only partially funded through this grant program.

D. Unless the conditions of approval otherwise provide, disbursement of grant funds will occur after completion of the project.

E. The grants funds may be considered taxable income and Applicant should consult a tax professional if he or she has questions.

F. If this has not already occurred, Applicant will submit an application to landmark the property to the Historic Preservation Commission. If landmarking is not possible for whatever reason,

DRAFT 1/20/09

Applicant will enter into a preservation easement agreement with the City of Louisville. Any destruction or obscuring of the visibility of projects funded by this grant program may result in the City seeking reimbursement. (language?)

G. The Historic Preservation Fund was approved by the voters and City Council of Louisville for the purpose of retaining the city's historic character, so all work completed with these funds should remain visible to the public.

_____ _____

Signature of Applicant/Owner Date

DRAFT 1/20/09

Alteration Certificate Application

(7/15)

City of Louisville

DATE:_____

Property Address:_____
Legal Description (Lot Number, Block Number, and Subdivision):
_____
Property Name (Landmarked Name, if known):
_____

APPLICANT INFORMATION
Name: _____
Address: _____
Phone: _____ Email _____
Relationship to Owner: _____

OWNER INFORMATION
Name: _____
Address: _____
Phone: _____

PROJECT DESCRIPTION (please attach a separate sheet)
Include the following information:

- Site and floor plan drawings showing all proposed exterior alterations
- Specifications describing all proposed exterior alterations
- Elevation drawings including materials, architectural design, and detail. (Photos of examples are encouraged)

While plans do not need to be professionally done, they must be sufficiently detailed to determine if the project meets the criteria. The Historic Preservation Commission may ask for additional information as the Commission feels necessary.

PHOTOS
Please include current photos of EACH ELEVATION of EACH BUILDING and STRUCTURE on the property.

FOR OFFICE USE ONLY

Date Filed _____
Application Number _____
Date of HPC Sub. Review _____ ☐ No Significant Impact ☐ Referred to HPC
HPC Public Hearing Date _____ ☐ Approved ☐ Denied
Date Alteration Certificate Released _____

Historic Preservation Commission
Lauren Trice, Planner 749 Main Street Louisville CO 80027
303.335.4594 laurent@louisvilleco.gov www.louisvilleco.gov

Alteration Certificate Process

1) Applicant completes an application for an Alteration Certificate including plans and specifications showing all proposed exterior alterations, including their proposed exterior appearance, with texture, materials, and architectural design and detail.
2) Applicant submits application for an Alteration Certificate to Lauren Trice, Planner.

3)Application Processed by Staff for Historic Preservation Commission including reviewing application and preparing a staff memo to the Historic Preservation Commission
4) A staff person and two (2) randomly selected members of the Commission shall review all applications for landmark alteration certificates for alterations to buildings or special features and shall determine within seven (7) days after a complete application is filed whether or not the proposed work would have a significant impact upon or be potentially detrimental to a landmark site or historic district.
    A) *No significant impact* - If it is determined by both Commission designees that there would be no significant impact or potential detriment, the City shall issue a landmark alteration certificate to the applicant and shall notify the Commission of such issuance.
    B) *Commission referral*. If one of the Commission designees determines that the proposed work would create a significant impact or potential detriment, they shall refer the application to the Commission for a public meeting and begin the legal notification process:
        - Meet legal notification process
            - 15 days notice of Commission public hearing in newspaper
            - Notice by mail to applicant and/or owner of property
6) Historic Preservation Commission holds public hearing no more than 60 days after application submitted. Commission approves or denies request.
7) Applicant may appeal decision to the City Council.

Questions? Please contact Lauren Trice, Planner, at 303-335-4594 or laurent@louisvilleco.gov.

Call/Email – Date:-_____ ☐ Conf ☐ LVM ☐ LM

City of Louisville
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Department of Planning and Building Safety

749 Main Street Louisville, CO 80027 303.335.4592 Fax 303.335.4588 www.louisvilleco.gov

HISTORIC DEMO PERMIT

PERMIT NUMBER:

JOB ADDRESS (including Suite/Unit #):

_____

LEGAL DESCRIPTION (if known):
Lot: ___ Block ___ Subdivision_____

Total Lot Area (SQ. FT) _____

Year Built _____

☐ Residential ☐ Commercial

TYPE OF WORK:
☐ Full Demo of Historic Structure
☐ Partial Demo of Historic Structure

JOB DESCRIPTION: _____

BUILDING INFORMATION:
Owner Name: _____
Address: _____
City: _____ Zip:_____
Phone: (____) _____- _____

CONTRACTOR INFORMATION:
Louisville License # _____
Business Name: _____
Address: _____
City: _____ Zip:_____
Phone: (____) _____- _____

JOB SUPERVISOR:
Name: _____
Jobsite Phone # (____) _____- _____

Valuation

$_____

Permit Fee

$_____

This application becomes null and void if permit is not issued within 180 days of application date. I hereby certify that I have read and examined this application and know the same to be true and correct. All provisions of law and ordinances governing this type of work will be complied with whether specified herein or not. The granting of a permit does not presume to give authority to violate or cancel the provisions of any state or local law regulating construction or performance of construction. Permit and tap fees are subject to change at the beginning of each calendar year.
Note: a separate permit is required for signs, fences, irrigation systems & swimming pools unless noted on this application. Fees are assessed at time of permit issuance and are subject to city ordinance in effect at that time.

SIGNATURE BLOCK:
Signature: _____ Printed Name: _____ Date: _____

Address: _____ Phone: (_____) _____ - _____

Email Address:_____ Preferred Method of Contact: ☐ Phone ☐ Email

APPROVALS	SIGNATURES	DATE	COMMENTS
Building/Electrical			
Zoning/HPC			

City of Louisville
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Department of Planning and Building Safety

749 Main Street • Louisville CO 80027 • 303.335.4592 • www.louisvilleco.gov

ADDENDUM TO DEMO PERMIT ISSUED BY THE PLANNING DEPARTMENT

This information is to be handed to the applicant with the application for the demolition permit. This form needs to be signed by the owner of the property and a copy filed with the application for the demolition permit.

I have been informed of the following:

1) The demolition process and the possibility that my demolition may be delayed by 180 days from the application date, in order to explore alternatives to demolition.

2) The landmarking process and the benefits of landmarking (i.e. lot coverage and FAR bonuses for an addition on my building rather than demolition, tax credits, and possible financial assistance from the Louisville Historic Preservation Fund).

3) Design Assistance Program - Opportunities for design consultation with architect members of the Historic Preservation Commission about how an addition can be successfully designed while retaining historic and character defining elements of a historic structure.

4) There may be opportunities for my building to be moved in lieu of demolition.

5) I will be given a report on the historic significance of my building by the Planning Department prior to consideration by the Historic Preservation Commission subcommittee.

6) Other
_____
_____
_____
_____

Owner's signature: _____ Date: _____

Owner's name: _____

Address of home being applied for demo: _____

City of Louisville
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Department of Planning and Building Safety

749 Main Street • Louisville CO 80027 • 303.335.4592 • www.louisvilleco.gov

MEMORANDUM

To: Historic Preservation Commission Members

From: Department of Planning and Building Safety

Subject: Upcoming Schedule

Date: **May 16th, 2016**

May
16th – Historic Preservation Commission Meeting, 6:30pm, Council Chambers

June
18th – Farmer's Market Booth (Haley, Stewart)
20th – Historic Preservation Commission Meeting Canceled

July
12th – City Council Study Session - Citizen Survey results, 7pm, Library
16th – Farmer's Market Booth (Fahey, Haley)
18th – Historic Preservation Commission Meeting, 6:30pm, Council Chambers
TBD – Social Media Training (*required for NAPC attendees*)
27th -31st – NAPC Forum, Mobile, Alabama (Fahey, Koertje, Haley, Trice)

August
3rd – Joint HPC/Historical Commission meeting, 6:30pm, Library
20th – Farmer's Market Booth (Fahey, Cyndi Thomas)
15th – Historic Preservation Commission Meeting, 6:30pm, Council Chambers

City of Louisville
COLORADO • SINCE 1878

Department of Planning and Building Safety

749 Main Street • Louisville CO 80027 • 303.335.4592 • www.louisvilleco.gov

MEMORANDUM

To: Historic Preservation Commission Members

From: Department of Planning and Building Safety

Subject: Demolition Update – 1100 Pine Street

Date: **May 16, 2016**

On April 13, 2016, Planning Staff and two subcommittee members of the HPC reviewed a request to replace the roof at 1100 Pine Street. The permit was not eligible for an administrative process because Planning staff and the applicant were unable to determine the date of installation for the current roof.

1100 Pine Street

After deliberation, the HPC subcommittee decided to release the permit because the changes would not impair the historic qualities of the structure and help to maintain the structure.

City of Louisville
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Department of Planning and Building Safety

749 Main Street • Louisville CO 80027 • 303.335.4592 • www.louisvilleco.gov

MEMORANDUM

To: Historic Preservation Commission Members

From: Department of Planning and Building Safety

Subject: Demolition Update – Administrative Review

Date: **May 16, 2016**

---

421 East Street
On April 27, 2016, Planning Staff reviewed a request to replace the roof at 421 East Street.

Staff released the permit through the administrative review process outlined in 15.36.200(D) because the existing roof was put in place after 1955.

551 East Street
On April 27, 2016, Planning Staff reviewed a request to replace the roof at 551 East Street.

Staff released the permit through the administrative review process outlined in 15.36.200(D) because the existing roof was put in place after 1955.

555 East Street
On April 27, 2016, Planning Staff reviewed a request to replace the roof at 555 East Street.

Staff released the permit through the administrative review process outlined in 15.36.200(D) because the existing roof was put in place after 1955.

559 East Street
On April 27, 2016, Planning Staff reviewed a request to replace the roof at 559 East Street.

Staff released the permit through the administrative review process outlined in 15.36.200(D) because the existing roof was put in place after 1955.

563 East Street
On April 27, 2016, Planning Staff reviewed a request to replace the roof at 1563 East Street.

Staff released the permit through the administrative review process outlined in 15.36.200(D) because the existing roof was put in place after 1955.

565 East Street

On April 27, 2016, Planning Staff reviewed a request to replace the roof at 565 East Street.

Staff released the permit through the administrative review process outlined in 15.36.200(D) because the existing roof was put in place after 1955.