

2013 CEFPI Utah  
**Educational Facility  
Innovation Award**

**Ogden High School Reconstruction  
and Historic Restoration**

Ogden School District  
Ogden High School  
Renovation/Addition  
Hughes General Contractors, Inc.



- Long revered by residents of Ogden and Art Deco aficionados across the state, Ogden High School needed extensive restoration and renovation. For the sake of safety this community icon had to be seismically upgraded and technologically revamped if it hoped to endure for both artistic and functional purposes.
- The structure was built in 1937 as part of the Public Works Administration program launched by President Roosevelt. It is on the National Historical Register of Historic Places as well as the Ogden City Landmarks Register. The new design required that all of the original integral design elements be maintained and protected during the construction process.

**Narrative - Why this project is outstanding, and how it fosters exceptional student and teacher engagement (slide 1)**

- The scope of the project included a 72,000 square foot addition, asbestos abatement, seismic upgrades (including micro-piles), cosmetic repair, and a complete renovation of the existing building. Systems that made the building function (plumbing, electricity, HVAC system, etc.) had to be either replaced or upgraded.
- Students attending this school have the singular advantage of learning in one of the most architecturally significant schools in the nation. The school's auditorium alone attracts leading artists from far and wide whose lectures and performances provide educational experiences both rare and enlightening. It was extremely important to the Ogden School District that the historic qualities of Ogden High School be preserved. These facilities had been used continually for over seven decades and were suffering serious (and dangerous) deterioration.

**Narrative - Why this project is outstanding, and how it fosters exceptional student and teacher engagement (slide 2)**

- After the structure was reinforced, specialized craftsmen rehabilitated the plaster, woodwork, and gold leafing. Of the renovation work, Pulitzer Prize winning Historian David McCullough said the following: “Imagine how other cities would like to be able to claim such an icon as the Ogden High School! As an emblem of the importance of public education – and the pride of the community in its young men and women – there are few schools to compare anywhere in the country. This is an example of historic preservation at its very best.”
- In addition to the artistically rich atmosphere, students now enjoy the modern amenities afforded to contemporary high schools.

**Narrative - Why this project is outstanding, and how it fosters exceptional student and teacher engagement (slide 3)**

- All it takes is one look at the elaborate décor of this facility to know that the Ogden High School reconstruction and historic restoration project was unique and demanding. Ogden High School students had the unique opportunity of learning in one of the most impressive and historically significant high schools in the nation, let alone the state. The school's famous auditorium is the cultural hub of the community, drawing world-famous presenters and performers from the literary, musical, and theatrical worlds that exponentially enriched the educational experience of students and other community members. All would have been lost if the school been demolished.

**Narrative – Planning process,  
stakeholders and goals (slide 1)**

- The restoration of this ornate Art Deco structure had many vested interests. Hughes dealt with the school district, the state, the administration, and multiple fundraising entities and saw that all their needs were met. The goal was to preserve all that was artistically, architecturally, and historically significant about the structure while at the same time upgrading its seismic strength and technological capacity. Careful planning also allowed us to accommodate different teaching modalities.

**Narrative – Planning process,  
stakeholders and goals (slide 2)**

- The level of disrepair was, in many cases, astonishing. Some of the building's blocks could be knocked off just by hitting them, totally lacking in reinforcement. Student safety was a top priority, as well as providing them with up-to-date science labs, a media center, a professional kitchen, and an asbestos-free learning environment. The seismic upgrade involved drilling micropiles through the roofline and deep into the soil beneath the school to add structural support.
- Much of the plaster designs were damaged by moisture, temperature, and age. Stucco ceilings were cracked and in desperate need of repair. Most of the tiles had to be resecured. After structural matters were cared for, we carefully selected master craftsmen to repaint the colors and repair the damage.

## **Narrative – Planning process, stakeholders and goals (slide 3)**

- Built in the 1930s, the auditorium was embellished with an Art Deco exterior and a dazzling 68-color decorative plaster on the inner walls and ceiling. Some of the most amazing renovation work went on beneath the building's brilliant surface. To avoid upsetting this iconic work, Hughes precluded conventional methods of seismic reinforcing and opted to reinforce the structure by designing new shear walls located in existing wall cavities. These walls required thousands of steel dowels to be epoxied into the brick. All holes had to be drilled without percussion due to the brittleness of the slender brick walls. Ornate walls as thin as 13" were reinforced by dry-coring five inch diameter holes from rooftop to footing, a length of sixty feet. The new structural design called for a new concrete collar beam around the roof perimeter, new concrete roof diaphragms, the removal and replacement of all steel joists and deck, and a well-insulated roof. In order to accomplish this without exposing the ornate plaster ceiling to the damaging elements, Hughes only tore off sections of the old roof when they knew they had a 32-hour window without rain. During these windows Hughes worked all through the night to successfully complete the task in four 32-hour sessions with no damage done to the existing facility.

## **Narrative – Planning process, stakeholders and goals (slide 4)**



- The building was constructed on top of natural springs, which caused continual problems. Over the decades, the building's sub-basements filled with water time and time again. Any time we dug a hole around the building, it was filled with water that we had to pump out. We used an underground utility tunnel and installed drains to solve this problem.
- This project was further complicated by the fact that school was in session during construction. Effective scheduling, sequencing, and a surgical approach were essential to project success.

**Narrative – Planning process,  
stakeholders and goals (slide 5)**

- The restoration and renovation work we did is best described as surgical in nature. Where necessary, we drilled holes without percussion down the interior of thin, 60-foot-high walls without so much as spinning a brick. This precision maintained the integrity of the walls' interior and exterior ornamentation, while strengthening them to meet seismic codes.
- We put the highest quality products in the hands of highly skilled workers to make sure this project was carried out with exactitude and unwavering devotion. Walk into the facility's electrical rooms, and you will see tight and organized conduits. Walk into the science labs, and you will see state-of-the-art equipment ready to enrich the minds of students. You will find students practicing in band and choral rooms that previously did not exist. Look at the ceilings and walls and you will see the same Art Deco features as before except that the colors are brighter and the cracks no longer there. The school has functioning heating and cooling systems that make it an environment much more conducive to learning.

**Narrative – How the completed project accomplished desired methodology and goals (slide 1)**

- Students train in the new gym complex, eat in the modernized lunchroom which is provided food from the new professional kitchen, use the renovated media room and new computer labs, and socialize in the new commons and courtyard. The doors and windows are replaced with new, energy-efficient models that match the style of the old. Asbestos is gone. New lighting and sound complement the historic stage and auditorium. In short, we effectively modernized this antique building without detracting from its historical appearance and value. Not only has it been restored to its original artistic grandeur, it now meets seismic codes and provides all the technological amenities expected of a contemporary secondary educational edifice.

**Narrative – How the completed project accomplished desired methodology and goals (slide 2)**

- The interior of the rehabilitated historic Main Classroom Building is reconfigured to address different teaching modalities and support the educational environment of the learning communities. The new environment sustains a variety of learning and teaching styles with classrooms ranging from 650 square feet to 1200 square feet. There are two 2500 square foot lecture halls that can serve combined classes. New structures (additions) also facilitate the educational and extracurricular needs of the school while complementing the original architecture.

**Narrative – How the completed project accomplished desired methodology and goals (slide 3)**

- It is impossible to overstate how important this restoration/renovation job was to the community. This unique structure draws people from far and wide that vastly enrich the community's cultural experience. Ogden High School's auditorium is the location of world-class events drawing guests renowned in the musical (Van Cliburn, Grant Johannsen, Arthur Rubenstein, Leontyne Price), literary (Ray Bradbury, Amy Tan, David McCullough, Chaim Potok), and theatrical world (the Shakespearian festival). It attracts filmmakers who wish to incorporate the building in their work. It is the cultural center of the community, and now will be able to continue as such for many decades to come.

**Narrative – How the completed project accomplished desired methodology and goals (slide 4)**



Photo Caption: Before the renovation the walls were dangerously lacking in reinforcement

## Photo #2



Photo Caption: The plasterwork was faded and badly damaged

# Photo #3



Photo Caption: We brought the walls up to code and transformed what used to be an ugly and inconvenient parking lot into a beautiful courtyard





Photo Caption: The school can now safely continue as a cultural landmark as well as a functioning educational facility



Photo Caption: We replaced the roof in 32-hour segments to protect the ceiling beneath

Ph



Photo Caption: Chuck James restored the work of the very same masters he apprenticed under decades ago



Photo Caption: The artwork shines like new, and all evidence if seismic reinforcing is hidden inside the walls



Photo Caption: The administration desk, after renovation



Photo Caption: After Renovation

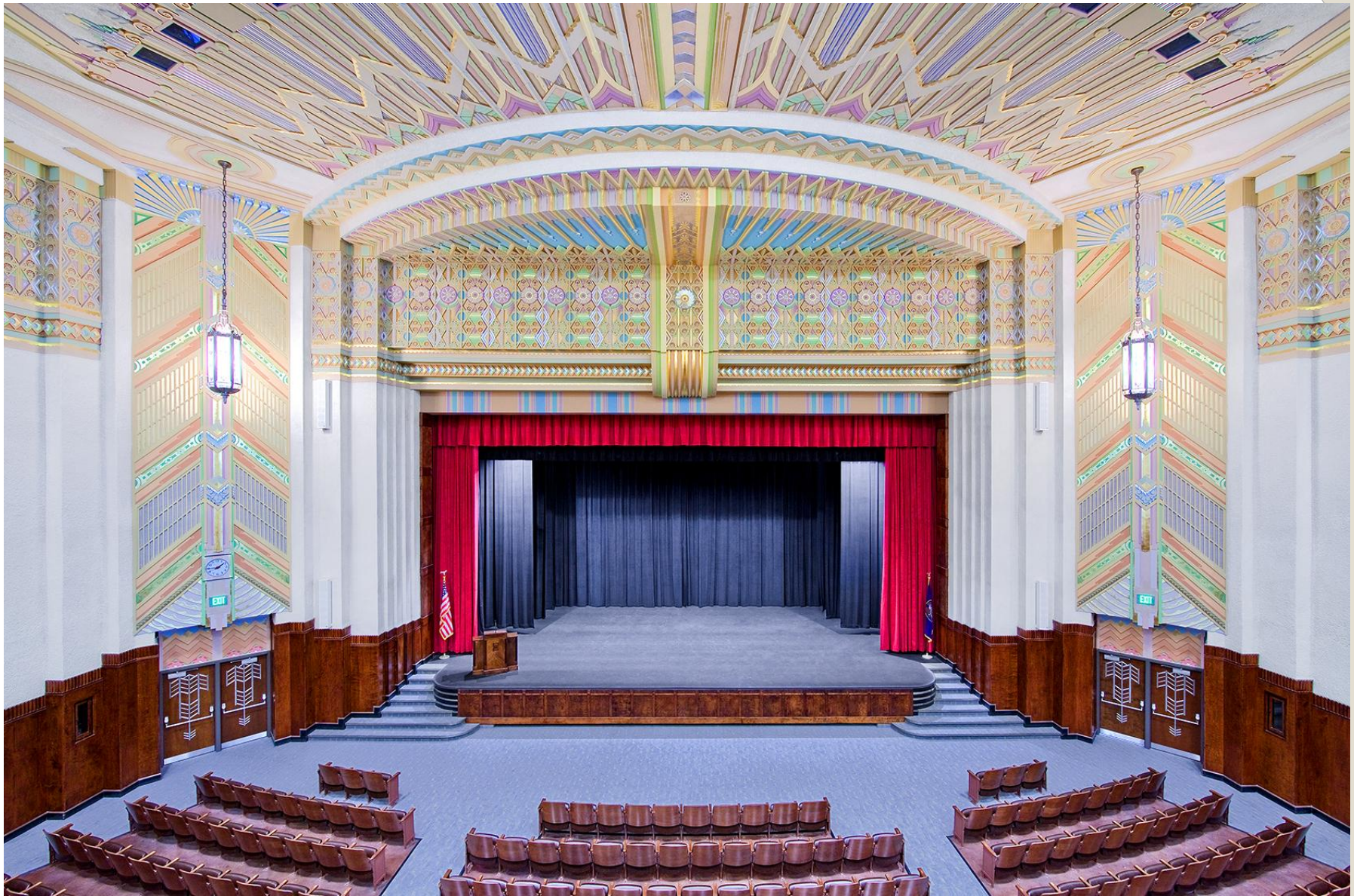


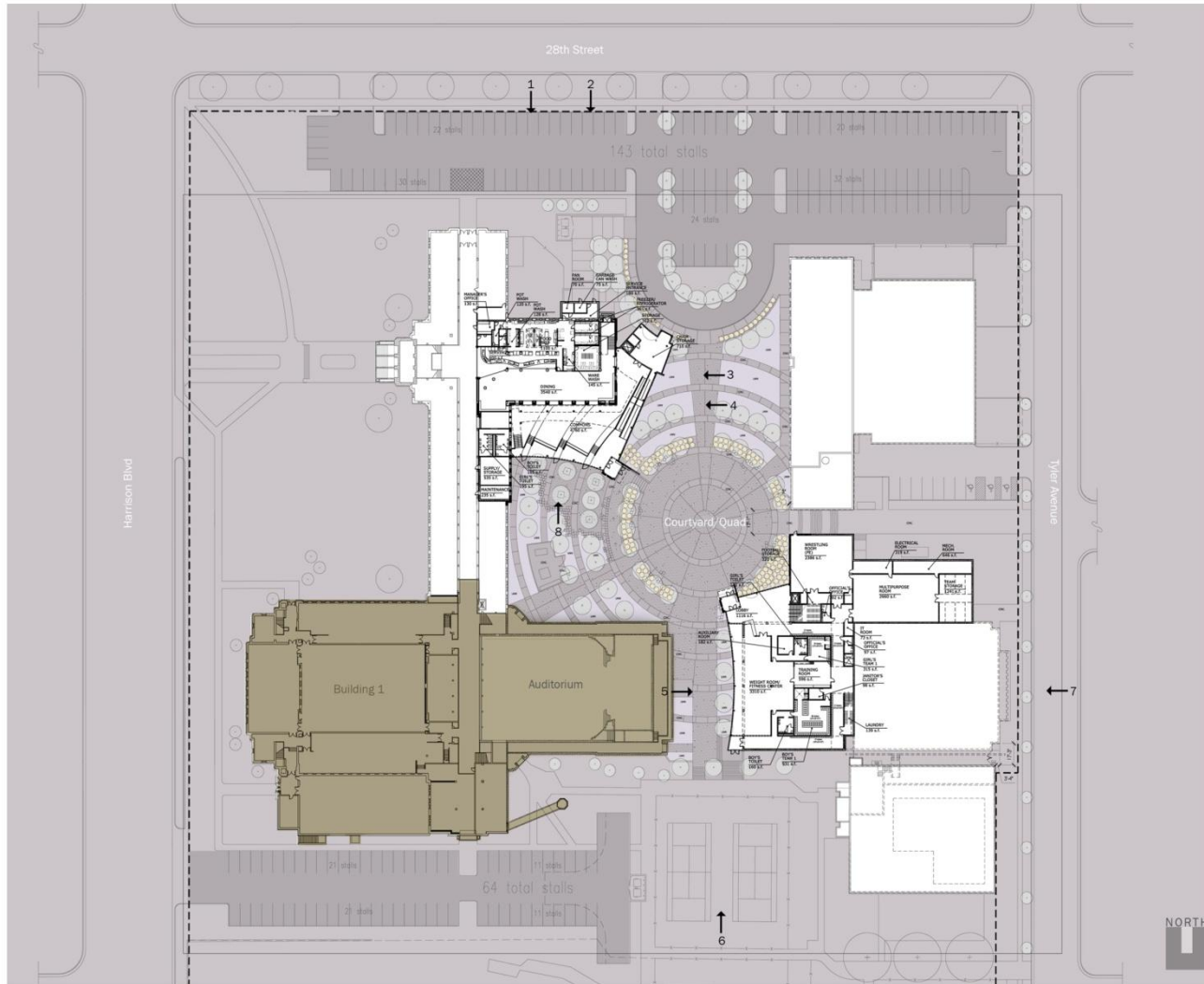
Photo Caption: Thanks to the expertly executed work of Hughes General Contractors, the historic auditorium can not only continue to be appreciated for its historical and aesthetic value, but as a functioning platform for the arts, complemented by new sound and lighting capabilities



Phase 1

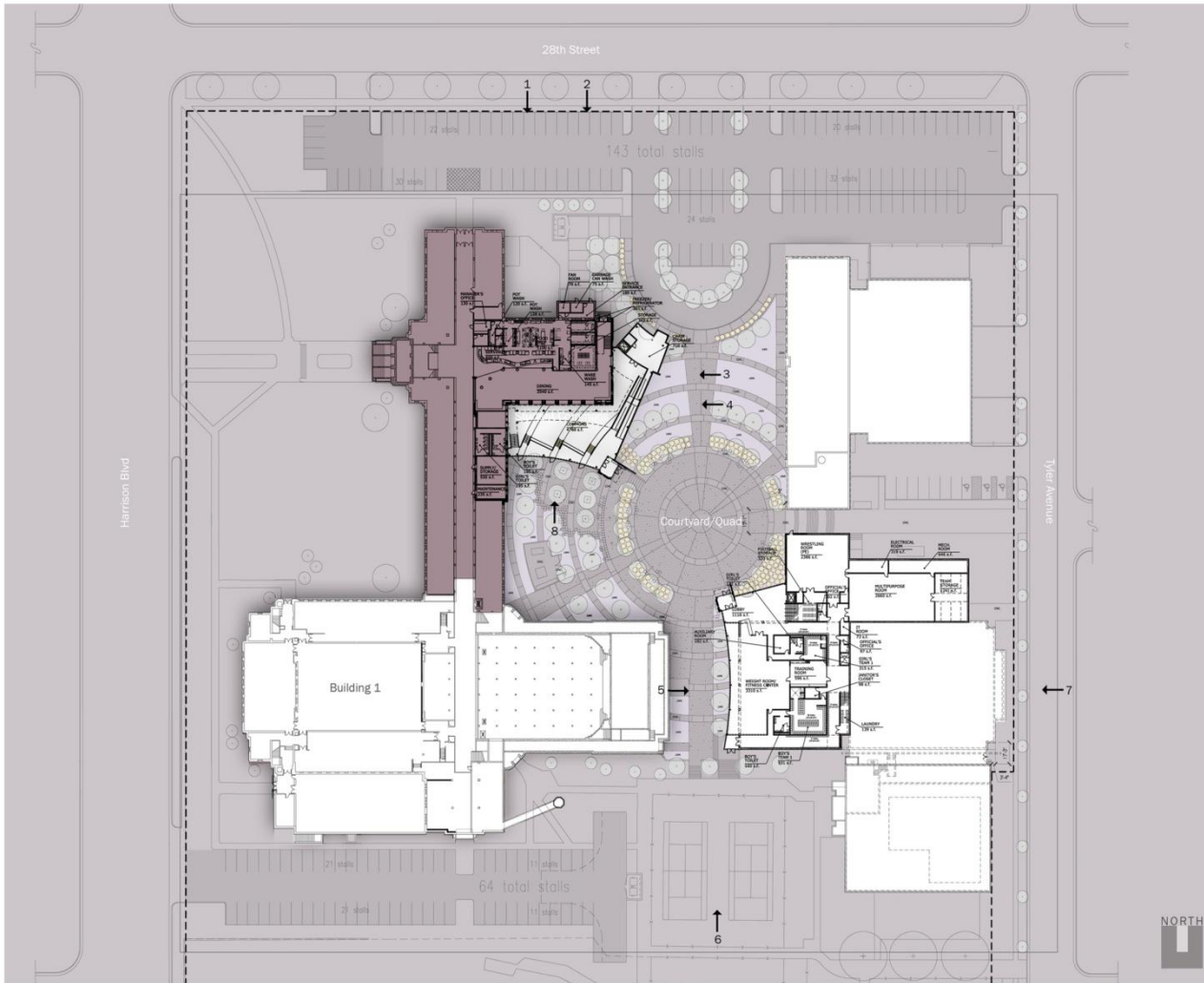
# Site Plan





Phase 2

# Floor Plan



Phase 3

# Floor Plan

# Project Details

1. Project Name	Ogden High School Reconstruction and Historic Restoration	
2. District Name	Ogden School District	
3. Award Category	Renovation/Addition	
4. Superintendent	Brad Smith	
5. Contact Person	Name:	Dan Pratt
	Email:	dan@hughesgc.com
	Phone Number:	(801) 292-1411
6. Type of Facility	Renovation/Addition (of a high school)	
7. Number of Students Impacted	Ogden High School has an average enrollment of 1,200 students any given year. The number of students impacted is substantially higher, considering that new freshmen come in every year as graduating seniors leave.	
8. Project Size	245,000 Square Feet	
9. Occupancy Date	The school was occupied throughout construction.	
10. Design Professional	Edward & Daniels Architects, Inc.	
11. General Contractor	Hughes General Contractors, Inc.	

Print, Sign, Scan and Submit with Package

Name of Project: Ogden High School

Location of Project: Ogden, VT

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School District: Ogden School District

Responsible Party/Photographer: Paul Richer / Richer Images LLC

Print Name: Paul Richer

Signature: Paul Richer

Date of Release: 11/15/2013

**Photo Release: (Return SIGNED copy with your submittal)**