

Environmental Affairs Division, Historical Studies Branch

Historical Studies Report No. 2010-01

Historic Agricultural Processing Facilities in Texas

An Annotated Guide to Selected Studies

By Susan Lassell, Martha Doty Freeman, and Lila Knight

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Prepared for



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April 2010

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INTRODUCTION

This annotated guide deals with the topic of agricultural processing facility analysis and evaluation. As a property type, agricultural processing facilities have been assessed inconsistently over the years. The goal of this guide is to provide reviews of relevant previous studies including Texas Department of Transportation-Environmental Affairs Division (TxDOT-ENV) survey reports and associated Section 106 project files, National Register of Historic Places (NRHP) nominations and historic contexts, National Park Service Bulletins (NPS), and other publications concerning NRHP evaluation guidance. This review of existing literature identified a broad range of existing studies across the country and NRHP-listed agricultural processing facilities in Texas. It also identified the areas of consensus and disagreement in previous evaluations of this broad property type and allowed some measure of comparison of more in-depth discussion of the property sub-types (such as cotton gins, mills, and grain elevators). This study of the existing evaluative literature may be useful in developing the key issues and research questions for research designs and historic resource surveys.

Agricultural processing facilities are often found at transportation intersections of roadways and/or railroads. These transportation junctions often come under TxDOT's purview for improvements including expansion of existing highways or frontage roads, at-grade crossing safety upgrades, and new construction. As these roadway projects move forward, TxDOT-ENV may require historic resource surveys to evaluate historic-age agricultural processing resources. Currently, project historians utilize various sources, such as *A Field Guide to Industrial Properties in Texas*, academic books, and trade association websites, to establish an evaluation framework. However, there are data gaps in how to evaluate this property type in terms of historical context, comparative property types, significance, and integrity.

The Annotated Guide to Selected Studies does not fill the data gaps nor does it lay out a context or registration criteria for the agricultural processing type. Instead it provides TxDOT staff and consultants with a common basis for understanding a range of sources that can help historians identify their data needs and make informed recommendations for appropriate registration criteria. The annotations and summaries provided by the authors will help readers choose sources worth exploring further based on relevance to their own study and potential for useful guidance.

Methods

A systematic search for NRHP nominations concerning agricultural processing facilities, both statewide and across the nation, utilized both the NPS and the Texas Historical Commission (THC) Atlas website. Numerous search terms were used to identify as many nominations as possible, as some of these properties are included in multiple property nominations and historic districts. The range and utility of NPS Bulletins were discussed to determine which might prove to be

most useful to the study. In addition, it was decided to include other types of evaluative literature to broaden the approach beyond the NPS methodology. The projects, nominations, and bulletins selected for this study were suggested and approved by both the staff of TxDOT-ENV and the THC.

The annotated guide was prepared by CP&Y, Inc. with assistance from Lila Knight and Martha Doty Freeman. Lila Knight analyzed the NRHP nominations emanating from the State of Texas. Martha Doty Freeman examined NRHP nominations from other states and statewide historic contexts. In addition, Ms. Freeman also reviewed the relevant NPS Bulletins and other types of evaluative literature. Susan Lassell investigated previous TxDOT projects and reports with their associated correspondence. The methodologies utilized for the selection of the specific materials from each of these categories are discussed more fully in the introductions to each of the following sections.

REVIEW OF NATIONAL REGISTER NOMINATIONS IN TEXAS

The Technical Expert reviewed twelve National Register nominations (with a total of twenty-six individual properties) from Texas that were either individual nominations for agricultural processing facilities or contained resources of that property type (multiple property or historic district nominations). An "agricultural processing facility" included a flour mill, feed mill, grain elevator, cotton gin, cotton compress, cotton oil mill, or packing shed. Textile mills were not included. Both the THC Atlas and the NPS's database were searched utilizing a variety of terms, both specific and more generic (such as "agriculture" and "industrial"), to locate as many nominations as possible. The nominations were selected on the basis of geographical representation, range of date nominated, and an additional eight nominations were not reviewed (two individual, two districts, and four multiple properties) as these contained little information on the property, included but fragments of larger complexes, or were for a grist mill. The omitted nominations dated from the 1980s.

The most common areas of significance utilized under Criterion A were industry or commerce. There appears to be no systematic reasoning in the application of these two terms for the same type of properties, either chronologically over time or by any stated reason for why the term was being applied. Three nominations used additional areas of significance: agriculture (packing shed); transportation (flour mill); and exploration/settlement (grist mill). Architecture or engineering are most commonly used as an area of significance under Criterion C. None of the NRHP nominations in Texas utilized Criterion B.

Most of these nominations provided an adequate historic context for the agricultural development of the area and its impact on the resource. A handful of the nominations contain interesting statistical information on the numbers of cotton gins and mills in existence in the state historically, but overall the nominations demonstrate a lack of understanding of the property types and their character defining features. This is best demonstrated in the inability of these nominations to adequately address historic integrity with respect to this particular property type. Unfortunately, as a result, some of these properties probably lacked sufficient integrity for listing in the NRHP.

None of these nominations are recommended as models for future work, neither for the development of property types, nor for the assessment of historic integrity.

Stanard-Tilton Flour Mill

2400 S. Ervay Street, Dallas, Dallas County, Texas Individually listed, NRHP, October 6, 1997 (tax act project)

Category of Analysis	Specific Data Given in the Nomination	Comments
Statement of Significance	"The largest flour milling operation in the community during its period of significance, the mill evolved from a grist mill founded in the 1850sIn 1912 the firm commissioned plans for this site, which provided direct access to the [rail lines], as well as the local road network. Construction coincided with a period of intense growth in Dallas fostered in part by an explosion in local industrial production. In 1941, the Russell- Miller Milling Co. of Minneapolis purchased the successful operation to enhance a distribution network embracing the entire Great Plains region. This firm began a campaign of expansions in 1948Reflective of Dallas' continued economic growth throughout the early 20th century, the resultant complex continues to convey its essential industrial character established during this period of significance. One of only two such properties surviving in Dallas"	The milling complex includes: • flour mill (1912-13) • elevator (1912-13) • warehouse (1912-13) • power plant (1912-13) • office (1912-13) • corn mill (1948) • grain silo (1948) • metal shed (1954) • metal shed (1954) • metal shed (1954) • hopper bin (1954) It includes important information on the history of milling in the Dallas area. It fails to provide a good model for the analysis of integrity issues or to provide an analysis of the property type and its evolution.
Criteria and Areas of Significance	 Criterion A - Industry Criterion C - Architecture Local level of significance 	Appropriate Criteria and areas of significance are applied to the property.

Category of Analysis	Specific Data Given in the Nomination	Comments
Period of Significance	1912-1948Period of significance is based on the construction dates (covering a 49-year period).The dates do not address Criterion A, as the significance of the mill continued past the 1948 alterations according to the nomination.	Períod of sígnificance should be inclusive of all the Criteria being proposed for a property.
Registration Requirements	None given.	Registration requirements are a good thing.
Assessment of Integrity	No real discussion of the property's integrity beyond a description of the buildings and the following statement: "Despite the evolutionary nature of the mill and its machinery, the complex retains sufficient integrity of location, design, setting, materials, workmanship, feeling, and association to remain recognizable to its period of significance." Nomination fails to adequately assess the property's historic integrity. There should be a full discussion of each area of integrity.	A full discussion of each area of integrity is important. Blanket statements are insufficient.
Boundaries	"Boundaries include all tracts historically associated with the property." One tract associated with the property and which contains the site (foundations only) of an older ice plant is not addressed in the nomination.	Any tracts being included within the boundaries should be relevant to the property.
Sources of Data	Secondary sources utilized for the understanding of the milling process. Building permits used for initial construction, but not for later additions to building. Reliance on Sanborn maps for later additions to building.	Primary documents are important in understanding the evolution of a property. Comparative data from similar properties in the area are also very important in analyzing significance and integrity.

Category of Analysis	Specific Data Given in the Nomination	Comments
Illustrations	Sanborn maps are used to illustrate the changes to the site. The data within the maps does not coincide with the information given in the text of the nomination. No historic photographs included, nor are there comparative photographs of similar properties.	Correct interpretation of documentation is of critical importance.
Contribution to Study Report	Provides important historical information on a major milling company, as well as historical statistical information on milling in Texas.	Contextual information on the history of the industry in Texas is important in understanding the particular significance of a property.
Issues with Nomination	No comparative information given on other properties (Burrus Mill). There is no attempt to outline the character defining properties of the mill so essential to addressing integrity issues. The description of the property is difficult to understand, particularly with regards to the 1948 and 1954 additions to the property.	Comparative information on similar properties in an area is critical in understanding both significance and integrity issues.

Schulenburg Cotton Compress

James at Main Street, Schulenburg, Fayette County, Texas Individually listed, NRHP, September 13, 1979

Category of Analysis	Specific Data Given in the Nomination	Comments
Statement of Significance	"One of the few remaining 19th century steam cotton compresses in the southwestern United States Schulenburg became a compression center for cotton grown in west Texas. In addition, the nation's first cottonseed crushing plant was engineered in Schulenburg followed by the development of a process of refining cottonseed oil from an engineering perspective the mere existence of the press is significant." In 1927, the press was transformed from standard density to high density compression. Continued in operation until 1968.	Only the actual compress machinery (1886) is listed on the NRHP. The building that houses the machinery is not included in the listing.
Criteria and Areas of Significance	 Criterion A - Industry Criterion C - Engineering State level of significance 	State level of significance should include a comparative discussion of similar resources statewide.
Period of Significance	Older NRHP form: marked box indicating 1800-1899.	Períod of significance should be as specific as possible and include all later alterations.
Registration Requirements	None given. There is a statement that "any alterations or removal of the building (not listed) should be considered insignificant only if the compress is not affected adversely by such action." No examples are given as to what types of alterations or removals might adversely affect the compress. Clearly, the nomination does not consider the building housing the compress of much importance.	Registration requirements should address why the machinery alone is being listed in the NRHP and why the building that houses it is being excluded.

Category of Analysis	Specific Data Given in the Nomination	Comments
Assessment of Integrity	Integrity is not discussed fully. Although the description does mention it is sited with "an industrial complex" and is sited on two railroad tracks which addresses location, feeling, and setting by implication.	An adequate discussion of integrity should include all 7 aspects of integrity, even when discussing machinery.
Boundaries	"Property nominated includes only the machinery and the ancillary structures."	Boundaries should be specific and carefully defined. After specifically stating the structure was not included, the reference to "ancillary structures" in the boundary description is confusing.
Sources of Data	Refers to research data in the Texas Historic Engineering Site Inventory (1976) at Texas Tech University's History of Engineering Program. Only 2 other references given (secondary source and deed records).	Technical information on a property type is useful in understanding its development.
Illustrations	No technical illustrations, historic photos, or site plans. Only current photographs of compress and one of exterior of building.	Síte plans, floor plans, and historic photographs (even of símilar propertíes) are important in understanding a property.
Contribution to Study Report	Provides important information on an early cotton compress, but with little comparative information or context for Fayette County.	Historic context is essential, particularly for state level significance, in providing adequate documentation to support statements regarding significance.

Category of Analysis	Specific Data Given in the Nomination	Comments
Issues with Nomination	The nomination makes broad statements regarding the significance of the property without adequate documentation. Establishes a precedent for the listing of the compress equipment only without the inclusion of the building.	 What is most important when dealing with industrial properties such as agricultural processing facilities? The actual historic equipment utilized in the processing facility? Or the vernacular building that houses the equipment? Or are the two significantly interlocked as the simple vernacular forms of the building are determined by the equipment it houses?

Gatewood-Shelton Gin

304 East Crawford, Palestine, Anderson County, Texas NRHP, 1998, listed as part of Historic and Architectural Resources of Palestine, Texas Multiple Property Nomination

Category of Analysis	Specific Data Given in the Nomination	Comments
Statement of Significance	"Processing of agricultural products, including cotton, played a supportive role in local history during the late 19th and early 20th century the gin is the only extant historic property associated with Palestine's cotton trade and thus provides the only tangible link to this portion of local history." Nomination includes 8 individual sites and 2 historic districts.	Includes 2 contributing buildings o gin building (1937) o small storage building "Comparative information is particularly important to consider when evaluating the integrity of a property that is a rare surviving example of its type. The property must have the essential physical features that enable it to convey its historic character or information." (NR Bulletin 15:47)
Criteria and Areas of Significance	 Criterion A - Industry Local level of significance 	Gin is not nominated under Criterion C as it no longer retains its original ginning equipment and is now converted into an antique store.
Period of Significance	1937-1945 Associated context: "Community and Regional Development in Palestine, 1846-1945"	Period of significance begins with the initial construction date and terminates with the end date for the historic context ("Community and Regional Development in Palestine, 1846- 1945").
Registration Requirements	Simply state that a property must be constructed within the period of significance and retain integrity of "form, massing and overall visual appearance." Registration requirements are focused on residential properties for which all detailed examples are given.	Registration requirements should be specific for the property type.

Category of Analysis	Specific Data Given in the Nomination	Comments
Assessment of Integrity	States it retains a "high degree" of all area of integrity except for workmanship. No gin equipment remains. Yet the "only significant alterations" are the removal of wood-partition walls (for office) and the concrete in-fill of the submerged lint flue in the center of the building." Windows slightly altered with decorative shutters and shed awnings.	Useful to discuss integrity in terms of each of the areas of historic integrity rather than making broad, general statements followed merely by a description.
Boundaries	Property historically associated with the property.	Include all property historically associated with the property within the boundaries.
Sources of Data	Sanborn maps, historic crop statistics, secondary sources, historic context.	Crop statistics are vital in understanding the role that agricultural processing facilities played in a community.
Illustrations	Sanborn maps, site plan, graph of cotton production in Anderson County (1928-1940).	Graphs of cotton production aid in the understanding of the rise and fall of its value in a specific area.
Contribution to Study Report	Concisely outlines role of cotton in Anderson County and that this gin, built in 1937, is "representative of the declining years of the cotton culture." Discusses impact of removal of ginning equipment on significance.	Lack of ginning equipment could impact determination of eligibility under Criterion C.
Issues with Nomination	Difficulties in determining construction date of gin are not totally resolved.	Determining date of construction often involves research in multiple sources and cannot always be determined solely through oral histories and Sanborn maps.

Mission Citrus Growers Union Packing Shed

824 West Business Highway 83, Mission, Hidalgo County, Texas NRHP, 2002, listed as part of Historic and Architectural Resources of Mission, Hidalgo County, Texas Multiple Property Nomination

Category of Analysis	Specific Data Given in the Nomination	Comments
Statement of Significance	The building is "an outstanding example of the lamella frame design that was prominently used for warehouses and agricultural processing plants throughout South Texas from the late 1930s until the 1950s and for its associations with citrus production in Mission it also represents the trend toward agricultural cooperatives that began with the Texas Citrus Fruit Growers Exchange in 1923 and expanded throughout the Valley in the 1930s and 1940s until the major freezes of 1949 and 1951 halted the dominance of citrus."	Site contains 3 buildings: o packing shed (1944) o cold storage building (1960) o cold storage building (1995) Good concise statement of significance.
Criteria and Areas of Significance	 Criterion A - Agriculture and Commerce Criterion C - Engineering Local level of significance 	Commerce as an area of significance is appropriate only if the property is significant for the actual business of the trading of commodities (as it is in the case of a packing shed).
Period of Significance	1944-1952 Associated context: "Grapefruit's Lone Star Home: The Development of Mission, Texas"	Period of significance includes the initial construction date and terminates with the end of the significance of the property.
Registration Requirements	None given.	Registration requirements for a property type can help guide the overall assessment of its significance and integrity.
Assessment of Integrity	Nomination never specifically addresses integrity issues, including the addition of 2 non-contributing buildings to the site. There is a good comparison with similar properties that lack integrity.	Comparing a property with similar properties in the area for the purpose of discussing integrity issues can be useful.

Category of Analysis	Specific Data Given in the Nomination	Comments
Boundaries	Includes the parcel historically associated with the property.	Include all property historically associated with the property.
Sources of Data	Oral histories, contemporary newspaper articles, historic context ("Grapefruit's Lone Star Home: The Development of Mission, Texas.").	Do not rely too much on one type of resource for information.
Illustrations	Site plan, architectural drawings, historic photographs, and current interior and exterior photographs.	When available, architectural drawings are an excellent source of information.
Contribution to Study Report	Good information on the Lamella roof design.	Documentation of innovative engineering techniques is important in understanding the evolution of a property type.
Issues with Nomination	Offers little information on how packing sheds actually operated, particularly with respect to equipment and function. Emphasis is on the engineering design of the structure. Little supporting documentation for Criterion A in the area of Commerce.	Understanding exactly how agricultural processing facilities operated is important in comprehending the significance of the property type. It is important to provide documentation for each of the Criteria under which a property is determined eligible for the NRHP.

Burton Farmers Gin

Main Street, Burton, Washington County, Texas

NRHP, June 11, 1991, listed as part of Historic and Architectural Resources of Burton, Texas Multiple Property Nomination

Category of Analysis	Specific Data Given in the Nomination	Comments
Statement of Significance	"The only example of the Gin Subtype of industrial properties nominated in Burton. A fine example of an early 20th century gin plant possessing a now rare and rich collection of processing equipment."	Site includes 2 contributing buildings: 1. gin 2. not specified
Criteria and Areas of Significance	 Criterion A - Industry Criterion C - Engineering Local level of significance 	Commerce would be a more appropriate area of significance under Criterion A for a cotton gin as it does not really process a raw material into a finished product. Cotton gins that are significant to the local economy are best considered at the local level of significance.
Period of Significance	1914-1941 Associated context: "Cotton Production in Rural Washington County, 1820-1941"	Period of significance should include the period of construction and terminate with the end of significance.
Registration Requirements	 Good discussion of the impact of new technology on building forms (albeit brief). Significance under A, B, and C discussed. The focus of Criterion C is on rarity. The discussion of integrity requirements addresses the entire site, but includes the statement that "the scarcity of resources probably precludes retention of all these features, and somewhat permissive registration requirements are justifiable. It is recommended that consideration for nomination be given to any historic example of the property 	"A property is not eligible simply because it has been identified as the only such property ever fabricated; it must be demonstrated to be significant as well." (NRHP Bulletin No. 15, p. 18) The property must also retain a sufficient level of its historic integrity in order to convey its significance. If a property is being nominated primarily for its rarity, it should

Category of Analysis	Specific Data Given in the Nomination	Comments
	type that is recognizable to a pre-1941 period of construction and retains integrity of location and setting."	include comparative information. This nomination fails to do so.
Assessment of Integrity	Fails to address integrity issues, particularly the raising of the roof in 1961.Raises an interesting question in the statement: "Retention of its full complement of equipment increases the significance of the Burton's Farmers Gin." Is the retention of equipment or machinery an issue of integrity or significance?	It is essential to address integrity issues. This is of particular importance in assessing a property whose significance is based on rarity, as it still must retain its essential physical features
Boundaries	Boundaries are those historically associated with the property.	Appropriate boundaries are commonly those historically associated with the property.
Sources of Data	None given in nomination.	Providing documentation of source material should always be provided.
Illustrations	Excellent site plan as well as a lay-out of the interior ginning equipment. Lacks historic photographs.	Diagrams of the lay-out of equipment or machinery aids in understanding the property type and how it functioned.
Contribution to Study Report	The emphasis of the nomination is on the significance of the historic ginning equipment. This sets another precedent for nomination to NRHP based on historic machinery and raises questions regarding the requirement of such for eligibility for Criterion C under Engineering. Context contains important statistical information on gins in Texas and information on the cotton industry, which was in decline in this part of the state by the late 1930s.	The retention of historic equipment and machinery is an important consideration for eligibility under Criterion C under Engineering for cotton gins.

Category of Analysis	Specific Data Given in the Nomination	Comments
Issues with Nomination	Nomination is too concise with very little information supplied on this important gin. Mention is given of a brick gin in Brenham, but no real comparative information.	Comparative information on similar property types in the area are important to consider.

Barnard's Mill

307 SW Barnard Street, Glen Rose, Somervell County, Texas Individually listed, NRHP, September 9, 1982

Category of Analysis	Specific Data Given in the Nomination	Comments
Statement of Significance	"significant for its historic associations with the development of Somervell County and early industry in Central Texas. A large and rare intact example of vernacular stone architecture in the area, the structure exhibits excellent craftsmanship and detailing in its construction The mill continued to fill the social and commercial needs of the community until 1941 when it was converted into a hospital."	Includes 3 contributing and 2 noncontributing buildings and structures: o mill o concrete silo (1900) o well o well house (modern) o annex to mill (1940s) - noncontributing The hospital also filled a social need for the community. Although the nomination addresses the 50-year cut-off date (1932), the inclusion of the hospital would address serious integrity issues.
Criteria and Areas of Significance	 Criterion A - Exploration/Settlement Criterion A - Industry Criterion C - Architecture State level of significance 	State level of significance requires comparison with similar properties and discussion of the property type on a statewide basis.
Period of Significance	Older NRHP form: marked box indicating 1800-1899.	Period of significance should include significant, historic additions to a structure. If these additions are less than 50 years of age, Criteria Consideration G should be applied if warranted.

Category of Analysis	Specific Data Given in the Nomination	Comments
Registration Requirements	None given.	No comparative information provided for a state level of significance.
Assessment of Integrity	Absolutely no mention of the 7 aspects of integrity, but there are serious issues with large additions to the mill. There is only the statement: "the structural integrity of the mill complex is not addressed." - which reflects a lack of understanding of "historic" integrity. The author also tries to downplay the addition by stating that the mill "towers over the later masonry hospital complex, and remains the focal point of the site."	Large additions to a historic building must be carefully analyzed as to how they impact the historic integrity of the property. Each of the 7 aspects of historic integrity should be applied to the addition and its affect on the historic property.
Boundaries	Boundaries are those historically associated with the property.	Appropriate boundaries are commonly those historically associated with the property.
Sources of Data	Relies completely on secondary sources.	A wide range of sources are useful, particularly when addressing eligibility on a state level of significance.
Illustrations	Only recent photographs are included. No site plans or historic photographs.	Site plans and historic photographs are essential to understanding a property.
Contribution to Study Report	This is an early grist mill, located on a river, to which a cotton gin was added in 1895. The nomination provides some very limited information to the overall knowledge of the property type.	It is essential to understand the function of the property type in order to establish a historic context, address historic integrity issues, and apply the appropriate Criteria.

Category of Analysis	Specific Data Given in the Nomination	Comments
Issues with Nomination	Nomination does not adequately address serious integrity issues with respect to a second story addition and veranda added to the gin and an 8,000-square-foot annex to the mill. There is little information on how early grist mills operated.	The history of a property is much more than a series of ownership. How and why a property is significant should be answered.

Historic and Architectural Properties in McKinney

1. Hill-Webb Grain Elevator (400 E. Louisiana)

2. Collin County Mill and Elevator Company (407 E. Louisiana)

3. McKinney Cotton Compress Plant (300 block of Throckmorton)

McKinney, Collin County, Texas

NRHP, 1987, individually listed as part of Historic and Architectural Properties in McKinney, Collin County, Texas Multiple Property Nomination

Category of Analysis	Specific Data Given in the Nomination	Comments
Statement of Significance	"Collin County has been an important agricultural, industrial and commercial center in north-central Texas since its founding in 1849 the town's most active period of development occurred during the late 19th and early 20th centuries when it became an important regional center for the processing and distribution of locally grown agricultural crops. Collin County was among the state's leading producers of cotton, wheat and corn which attracted such enterprises as grain elevators, a flour mill, cotton gins, a compress, a cotton oil mill and a textile mill to McKinney Industrial growth around the turn of the century also contributed to the town's commercial development." Nomination includes 50 individual sites, 4 groupings, and 2 historic districts.	 Multiple property nomination includes the following agricultural processing facilities: 1. Hill-Webb Grain Elevator (1910) A 4-story frame elevator with metal cladding; 3 warehouses; office building; feed store. Converted to feed mill by late 1930s. (also known as McKinney Elevator Co.) NOTE: Elevator burned in January 2008. Collin County Mill and Elevator Company (1914) A concrete elevator with modern metal silos attached. (1927); o 4-story brick mill (1914); o office (1914);

Category of Analysis	Specific Data Given in the Nomination	Comments
		 o warehouse. Built by Burrus. Converted to feed mill in 1930s. 3. McKinney Cotton Compress Plant (1916) o warehouse with compress (1916) and 1978 addition; o 2 warehouses (1916 and 1935); o 3 warehouses (1965-1978); o water tower (1916), o 3 small contributing buildings.
Criteria and Areas of Significance	 Criterion A - Commerce Criterion C - Architecture (note: only the Collin County Mill and Elevator Co. nominated under C, in addition to Criterion A) Local level of significance 	Commerce is the appropriate area of significance under Criterion A for many agricultural processing facilities, such as cotton gins and grain elevators, as it deals with "the business of trading goods, services and commodities. In contrast, "industry" as an area of significance deals more with the technology and processing of raw materials into finished goods and is appropriate for mills (both flour and feed mills).
Period of Significance	1890-1930 Associated context: "Processing of Agricultural Goods in McKinney, 1890- 1930"	Period of significance should begin with initial construction date and terminate with the end of the period of significance, not just with the end of the 50 year cut-off date.

Category of Analysis	Specific Data Given in the Nomination	Comments
Registration Requirements	Registration requirements for "cotton-processing facilities" are provided including a brief overview of the property type (gins, compress, cotton oil mill) including its function and the appropriate Criteria for nomination. There is no discussion of integrity issues. There are no registration requirements for properties associated with grain products (elevators, mills) although two such complexes were nominated. Registration requirements were included for the "residences of plant managers, investors, and commodity brokers."	Carefully defined registration requirements for a property type can provide an important guide through the evaluation process.
Assessment of Integrity	Individual nominations utilize the Texas Historic Sites Inventory Form. There is little discussion of integrity outside of a 5 to 10 line description of the property. Integrity issues are not addressed elsewhere in the nomination.	The assessment of a property's integrity cannot be ignored as: "Three key concepts - historic significance, historic integrity, and historic context - are used by the National Register program to decide whether a property qualifies for listing." (NR Bulletin 16A: 3)
Boundaries	True boundary descriptions are not given but are merely indicated on a site plan. Only one of the properties (McKinney Cotton Compress) includes the railroad tracks within the boundaries.	The significance of rail transportation to agricultural processing facilities should be considered in determining the boundaries of a property, particularly when spur lines are involved.
Sources of Data	The nomination is well-researched with both primary and secondary sources included for the historic context. For the individual nominations, the author utilized tax records, city directories, and Sanborn maps, as well as a local research collection.	Local records should be researched thoroughly to determine construction dates for each of the buildings within a complex.

Category of Analysis	Specific Data Given in the Nomination	Comments
Illustrations	Due to the size of the nomination (50 individual nominations, 4 groupings, and 2 historic districts), illustrations for these particular agricultural processing facilities were limited. A site plan, however, is included for each property.	Site plans for complex sites with multiple buildings is essential to communicate the inter-relationship of buildings and their functions.
Contribution to Study Report	The historic context includes important background information on both cotton and grain production that will be useful to the study. Information on Burrus (an important elevator operator) will also be helpful.	Information on the decline in production of a particular agricultural commodity is important in determining a termination date for significance.
Issues with Nomination	The lack of registration requirements for properties associated with grain is a regrettable omission from an otherwise excellent nomination.	The character-defining features of a particular property type should be well-defined and based on field research.

Belton Farmers' Gin

219 S. East Avenue, Belton, Bell County, Texas

NRHP, 1990, individually listed as part of Historic and Architectural Resources of Belton, Texas Multiple Property Nomination

Category of Analysis	Specific Data Given in the Nomination	Comments
Statement of Significance	"It is a rare example of a surviving brick cotton gin in Central Texas significant in the area of industry, for its association with the cotton processing industry that was central to Belton's economy from the late 19th century until the Great Depression. It also meets National Register Criterion C in the area of architecture as a rare example of a masonry cotton gin and because it is characteristic of the utilitarian agricultural processing facilities built during the boom years of the cotton industry in Texas." Nomination includes 38 individual sites and 2 historic districts.	One building is nominated: a brick cotton gin (1927) There is no comparative information provided with respect to this being the only surviving brick gin. If, in fact, this were the case, it might be eligible on a state level of significance.
Criteria and Areas of Significance	 Criterion A - Industry Criterion C - Architecture Local level of significance 	Commerce would be a more appropriate area of significance under Criterion A as a cotton gin does not really process a raw material into a finished product.
Period of Significance	1927-1940 Associated context: "Community Development in Belton, Texas, 1850-1945"	Period of significance should terminate with the end of its significance. The historic context is conflicting in its dates with regards to the decline of the importance of cotton. But it appears to have reached its decline by the early 1930s.
Registration Requirements	Registration requirements are included under the all- encompassing term, "industrial buildings." There is no list of building types given although warehouses and cotton gins are mentioned in passing. The amalgamation of so many different types of buildings	The character-defining features of a property and its sub-types should be carefully analyzed in order to distinguish it from other types of properties. Consistency is important in defining a period of significance

Category of Analysis	Specific Data Given in the Nomination	Comments
	under such a large term leads to some illogical conclusions, such as "Due to the utilitarian nature of industrial buildings, they do not share necessarily specific design characteristics."	within a historic context and then applying it to particular properties.
	With respect to significance, a different approach is taken: "Industrial buildings are by their nature distinct entities with specific functions so they would not normally be nominated as part of a district."	Area of significance is important. The particular area should be carefully considered. Criterion D is rarely applied to buildings that are still standing.
	But the discussion on significance is primarily about cotton processing, which was significant from "the 1870s to the 1930s."	
	The author specifically mentions "agriculture" as an area of significance under Criterion A (although the subsequent property is nominated under industry), Criterion B, and Criterion C (industry and architecture). Criterion D can be applied "if they are an example of a construction type or include machinery that may yield historical information about the industry."	
	Integrity issues address changes that allow for the incorporation of new technology up to 1940, which seems contradictory to the statement regarding significance to the 1930s.	
	Subsequent changes "should be assessed based on the degree to which they obscure the historic design and function of the property. For instance, if all loading docks and industry-specific equipment are removed for its conversion to a commercial building then it would no longer be eligible for Criterion C."	
	Although it is not explicitly stated, there is the implication that it would still be eligible under Criterion A.	
Assessment of Integrity	Integrity of the Belton Farmers' Gin is not addressed in the nomination.	The ginning equipment no longer exists.
		The extent to which this impacts Criterion C should be carefully

Category of Analysis	Specific Data Given in the Nomination	Comments
		considered. If the rarity of the building type (brick gin) is being applied under Criterion C, this should be carefully explained and documented.
Boundaries	Boundaries are those historically associated with the property.	Boundaries are appropriately selected.
Sources of Data	Sources are primarily secondary sources that focus on local history. Few primary sources were consulted. No field data, particularly with respect to other cotton gins in the area, are included.	A sign on the structure, "Farmers Coop Gin", is dated 1953. But this date is never addressed in the nomination. Moreover, the author states that the gin closed in the 1940s. Additional research could resolve these conflicts.
Illustrations	Only one photograph of the gin is included and there is no site plan.	The location of this gin along a creek is significant and a site plan would help illustrate this relationship.
Contribution to Study Report	Some interesting facts concerning the cotton industry in Central Texas are useful. There are some interesting remarks regarding "infrastructure" under registration requirements that address transportation systems as well as water and power properties.	
Issues with Nomination	The registration requirements fail to address the character- defining features of the property and contain conflicting information with regards to significant dates and area of significance.	This brick gin is significant, but unfortunately it is not well documented within this nomination.

Historic Resources of Ennis

1. Ennis Cotton Oil Company (800 block S. Kaufman)

2. Ennis Cotton Compress (111 E. Lampasas)

Ennis, Ellis County, Texas

NRHP, 1986, individually listed as part of Historic Resources of Ennis, Texas Multiple Property Nomination

Category of Analysis	Specific Data Given in the Nomination	Comments
Statement of Significance	"The city's early appearance, physical growth, and economic well-being were inextricably linked to the railroad. Ennis thrived by the turn of the century, serving the region as a commercial center, much of it agriculturally related because of the city's central location in an area of large-scale cotton production the town experienced its period of greatest physical expansion and population growth between 1890 and 1920." Nomination includes 44 individual sites and 1 historic district.	 Two properties nominated: © Ennis Cotton Oil Company (1915) includes a large addition to the 1915 seed house and one non-historic warehouse © Ennis Cotton Compress (1889) Includes one large 1880s warehouse with additions from 1917 and 1973. There are 2 warehouses from the 1950s not included in the boundaries Nomination also included a site form for the Old City Mill, a complex of four buildings including a 1917 concrete elevator. This is a noncontributing building (no district). There is no clear indication of why it was not being nominated.
Criteria and Areas of Significance	 Criterion A - Industry Local level of significance 	Industry is an appropriate area of significance for a cotton oil company that processes cotton seed into a finished product. Commerce would be a more appropriate area of significance under Criterion A for a cotton compress as it does not really process a raw material into a finished product.

Category of Analysis	Specific Data Given in the Nomination	Comments
Period of Significance	1889-1935	Period of significance should be inclusive of all the Criteria being proposed for a property.
Registration Requirements	No registration requirements.	A research design that defines the areas of significance, period of significance, and integrity provides an important framework for a successful evaluation of properties.
Assessment of Integrity	Integrity is not addressed. The Ennis Cotton Oil Company once included more buildings including a hull house. In addition, there is a very large modern addition to the only historic building on the site. This is labeled a "non-contributing addition" on the site map, but there is not discussion of how it impacts the overall integrity of the historic building. The Ennis Cotton Compress also has a large addition from the 1970s. Furthermore, two large warehouses from the 1950s have been excluded from the boundaries of the property.	Buildings no longer in existence should be considered in the overall assessment of integrity of a complex of buildings. The impact on the historic integrity of large modern additions should be considered in the context of the historic building. They should not be considered as separate buildings.
Boundaries	Boundaries are inappropriate. The boundaries do not include the railroad spur for the Ennis Cotton Oil Company and they do not include all of the buildings on the parcel for the Ennis Cotton Compress Company.	Do not exclude modern buildings from the boundaries if they are an integral part of the complex.
Sources of Data	Primarily secondary sources on local history and city directories and tax records.	Information on the particular resource type can be useful in understanding building types.

Category of Analysis	Specific Data Given in the Nomination	Comments
Illustrations	Site plans of each property are very useful. No historic photographs.	Always include a site plan of a complex when it includes multiple buildings. A site plan that includes demolished buildings can help in understanding the integrity of a site.
Contribution to Study Report	Provides some limited background information on an important cotton production region. Raises important issues regarding integrity of sites that are missing important components of their sites.	Defining the region in which a particular resource was important is essential. The entirety of Ellis County should be considered here.
Issues with Nomination	Nominated two properties that probably should not have been listed in the NRHP due to serious integrity issues.	Serious integrity issues can sometimes prevent a property from being NRHP eligible, even if it is the only surviving property type in a particular locale.

Elgin Commercial Historic District

1. Elgin Cotton Oil Mill (301 East 1st Street)

2. Purina Feed Mill (205 East 2nd)

Elgin, Bastrop County, Texas

NRHP, 1995, listed as part of the Elgin Commercial Historic District

Category of Analysis	Specific Data Given in the Nomination	Comments
Statement of Significance	 "The district developed around the railroads into a centralized trading center for lumber and agricultural products, especially cotton, and also served as a center for brick-making." "Elgin Cotton Oil Mill is historically significant as a representative property of the Elgin Commercial Historic District is also significant for its association with the agricultural aspects, specifically cotton and its by-products, that contributed to the development of Elgin's economy during the period of significance." Historic district includes 80 properties (78 buildings and 2 sites) - 67 contributing and 13 noncontributing properties. 	 Historic District includes 2 agricultural processing facilities: Elgin Cotton Oil Mill (c.1906-1920) Purina Feed Mill (unknown) Originally a cotton gin The termination of the period of significance is based more on construction dates than the historic context, which focuses on the establishment of a commercial center based on agriculture and brick-making.
Criteria and Areas of Significance	 Criterion A - Commerce Criterion C - Architecture Local level of significance 	Industry is a more appropriate area of significance for a cotton oil company and a feed mill, which process cotton seed and grain into a finished product.
Period of Significance	1827-1947	The period of significance ends with the construction of an International style building in 1947. This building is significant for its utilization of a new type of concrete block that would become "commonplace" throughout the late 1950s. Yet, this building may, in fact, mark a transition to another historic period.

Category of Analysis	Specific Data Given in the Nomination	Comments
Registration Requirements	It is uncertain if the author actually understands integrity requirements as they state: "the utilitarian nature of the resources, and the nature of their exterior building materials (sheet metal sheathing) caused almost perpetual alteration of their forms as well as their functions. Thus, the industrial properties can be said to retain significance because they possess integrity of setting, location and overall form and use of materials." (sect. 8, p. 19).	 For a property to be eligible for listing in the NRHP, it must 1. be 50 years of age; 2. possess historic significance, and 3. retain a sufficient level of its historic integrity in order to convey its historic significance. Significance is found in one of the 4 Criteria. Integrity is evident through the qualities described by location, design, setting, materials, workmanship, feeling, and association.
Assessment of Integrity	Only the Elgin Cotton Oil Mill is discussed as a representative property. The nomination does not address specific integrity issues for the particular property, but merely states that the property "retains its essential integrity of setting, location, and overall form and use of materials as an industrial property." No details are provided beyond a two-sentence description of the building.	It is not adequate just to state which aspects of integrity are retained by a property. This statement should be illustrated by specific examples from a description of the building.
Boundaries	The boundaries of the district appear to be justified based on property types (inclusion of historic commercial and industrial properties).	Selecting the boundaries of a historic district based on historic property types would be an appropriate approach.
Sources of Data	In addition to secondary sources on local history, the author uses oral histories, Sanborn maps, deed records, historic Texas Almanacs, and agricultural census material.	Historic Texas almanacs contain a wealth of information on agricultural production and processing facilities on both a statewide and county-wide basis.

Category of Analysis	Specific Data Given in the Nomination	Comments
Illustrations	There are no site plans, only a few photographs of the building as it exists today.	No site plans are included and there is no attempt to date additions or modifications to the buildings.
Contribution to Study Report	Contains important statistical information on the cotton industry in Bastrop County.	The historic context for agricultural processing facilities must utilize statistical information on agricultural production in the area to determine the rise and decline of the industry.
Issues with Nomination	Author believes that a property can achieve significance through the possession of integrity. Appears to have a lack of understanding of vernacular forms.	Be careful not to confuse significance with integrity.

Farmers & Merchants Milling Company (also known as B&D Mills)

213 W. Hudgins Street, Grapevine, Tarrant County, Texas NRHP, September 4, 1997, listed as part of the Cotton Belt Railroad Industrial Historic District

Category of Analysis	Specific Data Given in the Nomination	Comments
Statement of Significance	"(district) represents the community's evolution as a transportation hub for an agrarian economy based on the development of agricultural processing industries. With dates ranging from the inauguration of rail service through the development of modern agri-business in the post-war era, these properties reflect the growing prosperity of the community that access to the rail line facilitated." "the mill provided a significant source of income for Grapevine farmers, as well as the merchants and professional who provided services to their families." Although not concisely stated, the mill was instrumental in the development of a commercial poultry industry and constructed an innovative electronic manufacturing process in 1956. "Includes exceptional significance of the development of modern agri-business in the district during the post-war period." Historic district includes 9 contributing and 4 noncontributing properties	Farmers & Merchants Milling Company (1902) Complex includes multiple buildings: 1. mill (1902) 2. shop shed (1930) 3. metal shed (1930) 4. metal tank bulk feed (1930) 5. west warehouse (1935) 6. east warehouse (1935) 6. east warehouse (1939) 7. metal bins (1940) 8. truck canopy addition (1940) 9. concrete elevator (1945) 10. office (1955) 11. water tanks (1955) 12. tower (1956) 13. metal storage bins (1967) 14. shop shed (1930) Flour mill converted into a feed mill in the 1930s. The complex was damaged by a fire in 1995, before it was listed in the NRHP. There may be other agricultural processing facilities within the district, but they are not readily identified within the nomination.

Category of Analysis	Specific Data Given in the Nomination	Comments
Criteria and Areas of Significance	 Criterion A - Industry, Transportation Criterion C - Architecture Criteria Considerations B and G Local level of significance 	Industry is an appropriate area of significance for a feed mill that processes grain into a finished product.
Period of Significance	1888-1956 Associated context: "Historic and Architectural Resources of Grapevine, Texas"	Period of significance should be inclusive of all the Criteria being proposed for a property.
Registration Requirements	There are no real registration requirements included in the nomination, only a general statement that the district's contributing properties "retain their historic character, scale, materials and setting."	Generalized statements with regard to significance and integrity are inadequate.
Assessment of Integrity	"Despite a fire in 1995, the complex retains much of its original building forms, materials and details as a 20th century industrial facility."	The integrity of a property should be carefully assessed as to its ability to convey its historic significance.
Boundaries	Boundaries include historic industrial and rail-related properties including the original railroad right-of-way, but not adjacent residential properties or modern commercial buildings.	Boundaries of a historic district should include appropriate property types that coincide with the period of significance.
Sources of Data	Well-researched with both secondary sources and primary materials relating to the railroad, Sanborn maps, plat maps, oral histories, tax records, and survey materials.	Comparative information for similar property types is useful in understanding both significance and integrity.
Illustrations	No site plan is provided for this extensive complex of buildings.	A site plan should always be provided for a complex of buildings.

Category of Analysis	Specific Data Given in the Nomination	Comments
Contribution to Study Report	The mill is well-researched in the nomination, particularly when compared to other nominations under the study. The subsequent documentation submitted to the NPS for the tax act certification application provides very important documentation on this feed mill and for the industry in general. A controversy erupted over the property's tax act application which led to the NPS determining it lacked "sufficient integrity" for the Tax Reform Act in September of 1999. A subsequent appeal by the applicant overturned this decision in October of 2000 whereby subsequent documentation submitted reflected that "the remaining industrial features are sufficiently intact to reflect the conversion of the mill to a processing facility for poultry feed in the 1930s"	Determining the appropriate period of significance can impact the assessment of integrity. When an industrial complex undergoes a transformation from a flour mill to a feed mill, one might have to consider multiple periods of significance.
Issues with Nomination	Exceptional significance under Criteria Consideration G is not adequately documented in nomination, but it is in subsequent documentation provided with the tax act certification application, Part II.	The recent contributions of agri-business must be carefully researched and documented to justify their significance.

Proposed Grain Elevators National Register Thematic Group

Tarrant County, Texas Multiple Resource Nomination, 1981-1990

Category of Analysis	Specific Data Given in the Nomination	Comments
Statement of Significance	"The Grain Elevators National Register Thematic Group addresses the significant collection of grain elevators erected from 1900 through 1960 in Fort Worth and environs, a historic grain market terminal of the Southwest. Grain milling and storage are inextricably related to the growth of Fort Worth as a railroad hub Together, the elevators compose a striking element of the landscape and skyline of Tarrant County Concrete grain elevators are a widely admired type of industrial architecture, and represent significant works of engineering in their own right."	The "proposed" Grain Elevators National Register Thematic Group includes 11 elevator complexes. These are discussed in individual entries in Phases I, III, IV, and V of the survey. Individual entries include important information on the history of milling and grain storage in Tarrant County. The work lacks an overall history of the development of the building type, with few specifics on why it is significant to the area.
Criteria and Areas of Significance	 There is no specific information give on this proposed thematic nomination with respect to criteria and areas of significance. But the general discussion of significance would indicate the following: Criterion A - Commerce Criterion C - Architecture and Engineering Local level of significance The justification for architectural significance is poorly stated and not adequately documented. The architectural significance is based solely on grain elevators being "a widely admired type of industrial architecture." 	It is important to provide a clear and concise statement of the criteria and areas of significance. Criterion B is not addressed, even though significant people connected with the grain industry are featured in individual entries.
Period of Significance	Period of significance is not specifically stated, but the recommendation for a proposed thematic nomination does state that it "addresses the significant collection of grain elevators erected from 1900 through 1960." Since the latest publication of the series was in 1990, there is no explanation	Period of significance should be clearly stated and justified for each criterion. Exceptional significance must be documented for resources less

Category of Analysis	Specific Data Given in the Nomination	Comments
	for why elevators constructed after 1940 are included.	than 50 years of age.
Registration Requirements	None given. Although a NRHP nomination was never developed, there is no attempt to define minimum requirements for listing based on significance and level of historic integrity. The work does state that "this collection of resources should be subjected to further analysis and evaluation in order to prepare NR nomination materials."	Registration requirements are essential, particularly when dealing with a class of resources or a particular building type.
Assessment of Integrity	The work fails to adequately assess the property's historic integrity, either in individual entries or as a group of resources. There is no real discussion of the property's integrity beyond a description of the individual buildings and later alterations. The following statement is the only real attempt to address integrity: "Over time, almost all of the elevators have been enlarged to provide greater storage capacity, often several times, although each addition has been in the same industrial style." The work does state that "the status of grain elevators should be re-evaluated before the nomination process."	There should be a full discussion of each area of integrity for an evaluation of NR eligibility.
Boundaries	Boundary issues are not addressed. Some individual entries only include a lone surviving building with no discussion of the effect on the integrity of the resource as a whole.	Any tracts being included within the boundaries should be relevant to the property.
Sources of Data	No bibliography is given within the survey publications, although detailed information is provided for dates of construction. The methodology broadly states that the following information was utilized: county and school tax assessment records, old newspaper articles, interviews with property owners and descendents of original owners, and historical photographs. It also generally mentions the use of building permits and city directories as a source for dates of construction.	Specific sources of documentation should always be provided.

Category of Analysis	Specific Data Given in the Nomination	Comments
Illustrations	No historic maps or plans are given. Some entries include very good historic photographs of the resource. Historic photographs are rarely used, however, in a comparative way or for the assessment of integrity.	Comparisons of the existing resource with historic photographs can be critical to the assessment of historic integrity.
Contribution to Study Report	Provides important historical information on individual histories of specific grain elevators, flour mills, and feed mills in Tarrant County. Entries include concise and well-written descriptions of the properties, including dates of construction and later additions.	Descriptive information and dates of construction are important in determining NRHP eligibility.
Issues with Nomination	There is no attempt to outline the character defining properties of the resource, which is essential to addressing integrity issues. Since the proposed NRHP nomination for these resources was never completed, there is no comprehensive overview of the history, development, and evolution of the building type. The "thematic group" includes any type of complex with an elevator, including flour mills, grain storage facilities, and even feed mills. Individual entries often fail to assess the complex as a whole, but focuses on individual components. Integrity issues are rarely addressed.	The work fails to provide either a good model for the analysis of integrity issues or to provide an analysis of the property type and its evolution as a whole.

Example of an Individual Entry from the Tarrant County Historic Resources Survey: The Burrus Mill and Elevator Company

Saginaw, Tarrant County, Texas 1936-1981

Category of Analysis	Specific Data Given in the Nomination	Comments
Statement of Significance	"The \$490,000 plant was dedicated February 15, 1936 and at the time was the largest mill and elevator in Texas The office building contained a radio studio and auditorium, used for broadcasting the popular singing program of the Light Crust Doughboys, promoted by first plant manager, W. Lee "Pappy" O'Daniel. O'Daniel became Governor of the state of Texas in 1939 and was a US Senator from 1941 to 1949." from "Selected Tarrant County Communities" (1990) pages 156-157	The statement of significance identifies all of the potential areas of significance for the resource.
Criteria and Areas of Significance	 No specific information is given regarding criteria and areas of significance. But the general discussion of significance would indicate the following: Criterion A - Commerce Criterion B - association with both Jack Burrus and W. Lee "Pappy" O'Daniel. Some information is given regarding its association with the Western singer, Bob Wills, as well. Local level of significance The entry may indicate significance under Criterion C for engineering, but it is based largely on the complex's size with little information on why this is significant. 	Justification under Criterion C should be carefully analyzed and stated. Being the biggest or the only example is not necessarily sufficient.
Period of Significance	Period of significance is not specifically stated, but the construction dates of the facility are from 1935-1936 with later and substantial additions in 1941, 1948, 1972, and 1981.	Period of significance should be clearly stated and justified for each criterion. Exceptional significance must be documented for resources less

Category of Analysis	Specific Data Given in the Nomination	Comments
	The entry states that "it appears eligible for the NR when the complex as a whole has reached fifty years of age." It does not address the issue that this date would be the year 2031.	than 50 years of age.
Registration Requirements	None given within the overall survey.	Registration requirements are essential for adequately assessing a particular building type
Assessment of Integrity	There is no discussion of the property's integrity beyond a description of the individual buildings and later alterations. The following statement is the only real attempt to address integrity: "In general, construction since 1936 has been in a sympathetic industrial style, and the complex appears remarkably intact."	Lacks a discussion of each area of integrity for an adequate evaluation of NR eligibility.
	This assessment is vague both in its use of the term "industrial style" and its lack of justification for major additions in 1972 and 1981.	
Boundaries	Boundary issues are not addressed, although the entry appears to consider the entire complex as a whole.	Boundaries for an industrial complex should include all of the buildings within the site.
Sources of Data	No footnotes are supplied for the entry and there is no bibliography in the survey publication. Detailed information is provided for dates of construction, but it is not possible to determine how the dates were obtained.	Specific sources of documentation should always be provided.
Illustrations	No historic maps or plans are given, but several historic photographs are included (including an interior view of the elevator from the early 1940s).	Comparisons of the existing resource with historic photographs and plans should be utilized in the assessment of historic integrity.

Category of Analysis	Specific Data Given in the Nomination	Comments
Contribution to Study Report	Provides a concise and well-written description of the property, with a brief history that provides information on potential areas of significance. Dates of construction, particularly for later additions, provide an understanding of the overall evolution of the complex.	It is important to understand the evolution of such complexes to determine NRHP eligibility, both for establishing significance and assessing a property's historic integrity.
Issues with Nomination	Integrity issues are not adequately addressed. The additions in 1972 and 1981 increased the storage capacity to 6 million bushels, exceeding the original 1936 design by 5,500,000 bushels (or a 92% increase in its capacity). The impacts to the property's historic integrity by additions to the Art Deco office building (including a new porch and replacement of windows) are also not adequately addressed (no dates given for these alterations).	This entry fails to adequately assess the historic integrity of the mill complex or the fact that it will not be eligible for the NRHP "when the complex as a whole has reached 50 years of age" until 2031.

REVIEW OF STATEWIDE CONTEXTS AND NPS BULLETINS

The Technical Expert reviewed six statewide contexts/NRHP nominations from Iowa, Indiana, Oklahoma, Arkansas, Louisiana, and Minnesota; two National Register bulletins (Guidelines for Identifying, Evaluating, and Registering Historic Mining Properties and Guidelines for Evaluating and Documenting Historic Aviation Properties); and one study by the Advisory Council on Historic Preservation (ACHP) (Balancing Historic Preservation Needs with the Operation of Highly Technical or Scientific Facilities). The contexts/NRHP nominations focused on flour milling and related buildings and structures in Iowa (1840-1940), grain milling in Indiana (1730-1940), grain storage and processing facilities in Western Oklahoma (1889-1950), cotton and rice farming and architecture in the Arkansas Delta (1900-1955), sugar refining in Gramercy, St. James Parish, Louisiana (1895-1944), and grain elevator designs in Minnesota (1867-1945). The studies were identified after a broad online search and target search on the NPS website, contact with TxDOT staff in the Environmental Division and THC staff in the National Register Division, and discussion with team members. The THC staff, in turn, communicated online with staff at other SHPO offices and forwarded their suggestions.

The most common areas of significance listed under Criterion A were Industry and Agriculture, with Exploration/Settlement, Engineering, Commerce, and Transportation listed as secondary areas of significance. The areas are generally supported by the data provided in the contexts. Only two contexts specifically used Criterion B and a third justified its use but did not list it. Two contexts fully justified the application of this criterion by documenting the role of millers in establishing and developing towns, creating facilities that were community centers, and sometimes playing important roles in state milling organizations. In other cases, individuals associated with these properties led in introducing milling processes, power applications, and wheat varieties that made a significant difference to the industry. Architecture was listed for Criterion C in four of the six contexts/nominations, but consistently without success with one exception.

Two of the three contexts were based on data that were insufficiently complete to support detailed descriptions, identification of property types, formation of registration requirements, or arguments for integrity. A third included an extraordinary amount of detail about the property types and subtypes but failed to address the issue of what constituted a noteworthy example. A fourth identified Criterion C as the one most commonly used for assigning significance and provided an analysis based on structural materials, categories of arrangement, and eras of development. One context discussed the use of Criterion D (Iowa), where the length of flour milling history, beginning in 1840, makes it likely that earliest properties may not be intact. In such cases, where other data are lacking, archeological deposits may be the only way to collect information about presence/absence and design of mills.

All of the historic contexts supplied enough information to argue for the broad significance of agriculture in the history of their states, with the exception of the Louisiana sugar refinery nomination. That document argued for national and state significance without providing the necessary contextual data. The context for grain storage and processing properties in Western Oklahoma was thorough and complete due to the availability of data from multi-year surveys of the property type. The context for grain elevators in Minnesota was similarly thorough, despite a lack of field data, and provided sufficient detail to allow the author to develop and describe relevant criteria and areas of significance, periods of significance, assessments of integrity, and supportable registration requirements. The balance of the contexts, lacking equivalent data, did not provide supportable assessments when registration requirements could be stated only in the broadest of terms.

Four of the six nominations and the bulletin addressing mining properties were useful for the contextual information they provided, the formats that included maps and other illustrations, the bibliographies, and the recognition that industrial properties usually are best treated as systems and nominated as districts.

Flour Milling in Iowa, 1840-1940

Flour Milling and Related Buildings and Structures in Iowa, 1840-1940 (Multiple Property Listing) Listed NRHP, February 21, 2000

Category of Analysis	Specific Data Given in the Context and Nomination	Comments
Statement of Historic Context	Flour milling in Iowa rose to prominence 1840-1940. Mills represented the state's once-leading and most broadly distributed industry and are associated with the patterns of settlement and town building. Properties illustrate the changing conditions of agriculture and revolutions in marketing, milling technologies, and architecture. They were built to grind grains into flour and feed products and included four elements: mill, power source(s), receiving and storing facilities, ancillary buildings. Milling went through three distinct periods, each of which was characterized by construction of new mills of distinct types and by the adaptation of older mills, changes in market centers, availability of new power sources, and development of new milling technologies.	Good overall history of the key role of millers in local economies, and the development of the milling industry, market and milling centers, transportation and power networks, and milling machinery and mill architecture in the context of Jowa and the Midwest. Twenty-three individual properties are named in the document, eleven of which were listed at the time of the nomination. The status of the remaining twelve is not clear.
Criteria and Areas of Significance	 Criterion A – Industry, Exploration/Settlement, Engineering Criterion B – Significant Persons Criterion C – Architecture Criterion D – Information 	The organization does not follow a standard format in the section entitled "Significance." It is necessary to analyze the context to extract clear statements of the areas of significance.
Period(s) of Significance	 Three overlapping periods of significance: 1840-1930, 1872-1910, 1880-1925 	The periods of significance appear to be disassociated from the periods of technological development that are described in the context. It is not clear why the dates given for the period of significance in the titles (1840-1940) are different from those enumerated in the body of the document.
Registration Requirements	Criterion A – Mills must strongly characterize an event that importantly influenced the development of the milling industry or its contribution to local and state agriculture and settlement. Criterion B – Mills must be associated with a person who	Registration requirements for the criteria are adequate for Criteria A, B, and D. Lack of comprehensive investigation and fieldwork resulted in

Category of Analysis	Specific Data Given in the Context and Nomination	Comments
	importantly influenced the origins or development of a town, elevated the role of the mill, played an influential role in state milling organizations, or led in introducing milling processes, power applications, or wheat varieties.	registration requirements that were too broad to be useful for Criterion C.
	Criterion C – Mills must possess the distinct characteristics of construction that dominated one or more of the three overlapping periods and scales of development (1840-1930, 1872-1910, 1880-1925).	
	Criterion D – Mills must have intact subsurface features that might yield information about milling in a certain area or about an unusual or otherwise unknown configuration.	
Assessment of Integrity	Takes into account changes that may have occurred as milling processes and associated machinery, motive power, and transportation have changed.	Detailed definitions of thresholds are lacking as a result of field data described in comments under Registration Requirements.
	The mill should be on its original site and retain enough original appearance (exterior materials, configuration, proportions, fenestration patterns) and relationship to transportation system(s) to be recognizable to the period of significance.	
	Greater latitude is allowed for mills of a rare type or subtype.	
Boundaries	The State of Iowa.	
Sources of Data	All data were drawn from library and archival sources and resulted in the creation of individual site files.	Lack of field observation and recording resulted in lack of data that would support the registration requirements and assessments
	No field recording or verification occurred.	of integrity.
Illustrations	lowa maps depicted wheat production by county over time and locations of markets.	Illustrations in the forms of maps, charts, graphs, and reproductions of images of historic industrial buildings and
	Drawings and photographs of dams, mill buildings, and milling equipment from 1791-1918 provided good contextual information for milling technology.	equípment are helpful to conveying contextual data.
Contributions to Study	Provides good overall history of the key role of millers in local economies as well as the development of the milling	Studies such as this one may help to provide extra-regional

Category of Analysis	Specific Data Given in the Context and Nomination	Comments
Report	industry, market and milling centers, transportation and power networks, and milling machinery and mill architecture within the context of Iowa and the Midwest.	context to equivalent properties in Texas.
Drawbacks to Context and Nomination	The lack of field-verified data (pertaining to both the mill buildings and associated equipment) creates a vacuum when the authors attempt to develop registration requirements and assessments of integrity that are supportable.	
	The authors also appeared to be unfamiliar with standardized nomination protocol.	

Grain Milling in Indiana, 1730-1940

Grain Mills in Indiana (Multiple Property Listing) Listed NRHP, December 7, 1990

Category of Analysis	Specific Data Given in the Context and Nomination	Comments
Statement of Historic Context	Grain milling has made a significant contribution to the broad patterns of history in Indiana and can be organized into three overlapping periods of significance that reflect specific technologies. The authors make seven generalizations about Indiana agriculture and one about national trends in grain production. They point to the state's agricultural base until the early 1900s, the prominence of milling in Indiana industry until 1940, the simultaneous operation of smaller local and larger centralized mills, the gradual decline in the number of small rural mills and increase in large urban ones in the first half of the twentieth century, and the extent to which Indiana milling reflected broad trends in American society as it shifted from rural-agrarian to urban-industrial. They described the movement of grain production west and the impact of hard wheat on milling processes. Themes related to milling include: the impact of milling on settlement and commerce; role of millers on communities; impact of changing transportation systems on the industry; changes in types of wheat milled and impacts on equipment and technology, which included pounding or impact crushing, pressing, and rubbing or shearing; and the impact of changes in power. The three associated property types are: Buhr Mills, Roller Mills, and Feed Mills.	Good overall history of the key role of mills and millers in local, regional, statewide, and Midwestern economies; and explanation of the interrelatedness of the important themes associated with the property types. The property types are not parallel. That is, two of them (Buhr Mills and Roller Mills) produce flour; one (Feed Mills) produces feed. Identifying each as a subtype might be helpful. The document discusses how to locate examples of each mill type but does not actually list, discuss, or nominate anything. Associated property types include: Buhr Mills, Roller Mills, and Feed Mills.
Criteria and Areas of Significance	A - Primarily Industry, with Settlement, Commerce, Agriculture, Transportation, as secondary areas of significance.	Even though the authors devoted considerable discussion to the importance of millers in the historic context, they did not list Criterion B as an area of significance.

Category of Analysis	Specific Data Given in the Context and Nomination	Comments
Period(s) of Significance	 Three overlapping periods of significance: Buhr Mills – 1730-1880 Roller Mills – 1870-1940 Feed Mills – 1900-1940 	The periods of significance parallel changes in technology and markets. Given that no examples of the earliest mills are known, and Criterion D is not given as a criterion, the reason for the earliest date is not clear.
Registration Requirements	Registration requirements that are tied to specific criteria are not part of the document beyond the statement, "In order to be listed in the National Register, [the property] must possess significance" Instead, the sections titled "Registration Requirements" are discussions of integrity.	
Assessment of Integrity	Buhr Mills: Reference is made to <i>Bulletin 16</i> , and location (original or appropriate to period of significance), setting (may be altered, but presence of transportation networks is most important), design (evidence of industrial function, retention of specific, spelled-out characteristics, presence of elements of the milling process), workmanship and materials (industrial parts, building "sturdiness"), feeling and association (elements, even if altered, must recall the importance of milling in the area).	There is sufficient detail to provide guidance to future nominations, although a lack of physical inventory results in some repetition of the registration requirements among the three mill types and means that modification of the registration requirements will be necessary.
	Roller Mills: Registration requirements repeat those for Buhr Mills and reiterate the fact that these types may have been modified. Setting discussion refers to "intersecting lines of transportation," workmanship and materials discusses design that is responsive to new functions or technologies, and design discusses industrial function, fenestration, open interior spaces, and elements of the milling process.	
	Feed Mills: Registration requirements largely repeat those for Buhr and Roller Mills. Regarding design, changes from earlier types that reflect the new function are enumerated, and integrity of workmanship and materials requires retention of specific physical elements relating to the milling process.	
Boundaries	State of Indiana.	

Category of Analysis	Specific Data Given in the Context and Nomination	Comments
Sources of Data	All data are drawn from secondary sources, manufacturing censuses, oral histories, histories within and outside of Indiana, and local and state archives.	The authors acknowledge data gaps, including industry links to demographics, effects of urbanization on centralization of the industry, inconsistencies in census statistics, and lack of research about topics related to feed milling (cooperatives, line elevators, economic depression).
		Lacking architectural fieldwork, the authors creatively draw on sources that are appropriate for each property type, including censuses, county atlases, local histories, city directories, various maps, and government documents.
Illustrations	Maps and graphs depict drainage basins and watershed areas, numbers of mills through time, and locations of flour and grist mills in 1860.	Inclusion of a map for drainages and watersheds draws attention to important functional links between environmental factors and milling.
Contributions to Study Report	Provides good overall history of the milling industry and of milling technology in Indiana and the Midwest that is concise and focused.	The study provides extra-regional context to equivalent properties in Texas and includes detailed information about milling architecture, equipment, and technology. It discusses the roles of environmental factors, such as soils and water.
Drawbacks to Context and Nomination	The lack of field-verified data means that the registration requirements may have to be modified as those data become available. The authors acknowledge certain data gaps, particularly as they pertain to Feed Mills.	

Grain Storage and Processing Facilities in Western Oklahoma, 1889-1950

Grain Storage and Processing Facilities in Western Oklahoma (Multiple Property Listing) Listed NRHP, March 18, 2000

Category of Analysis	Specific Data Given in the Context and Nomination	Comments
Statement of Historic Context	Grain storage and processing facilities had practical and symbolic meaning and were historically and architecturally significant. They were an essential intermediate step between the grower and processor, and they were integrally related to transportation systems, particularly railroads. Two types and numerous subtypes of facilities were associated with the grain industry in Oklahoma: grain storage elevators (metal covered wood, steel, glazed clay tile, and concrete), and grain processing elevators (flour and feed). There were four types of grain elevator ownership (independent, line, co-op, and wheat pool). Influences on the industry included legislation, economics, and climate. Statements of significance are provided for each type of grain elevators.	Excellent history of grain storage and processing facilities based on comprehensive field surveys. The completeness of data allows the authors to enumerate most, if not all, property types and subtypes, which are organized, first, according to function, and then according to construction materials. This organization results in some redundancy and is not entirely parallel. Descriptions of each type and subtype are extraordinarily detailed, but there is no equivalent specificity when the authors discuss registration requirements, even though the data are available to do so.
Criteria and Areas of Significance	 Separate criteria and areas of significance are provided for each type and subtype. These include: Criterion A – (Grain Storage Elevators), "they served a vital function in the agricultural and commercial history of the region." Criterion A – (Grain Processing Facilities), "[they played a vital role] in the conversion of bulk grain into a series of consumable products and byproducts for humans and livestock." Criterion A – (Feed Mill Elevator Subtype), "[they were important] to the evolution of agriculture in western Oklahoma from 1889 to 1950." Criterion A – (Flour Mill Elevator Subtype), "[they were important] to the flour milling industry in western 	There is no single clear statement of the significance of grain storage and processing facilities in western Oklahoma that identifies the applicable criteria for all the properties. The presentation is overly complicated because it does not follow standard NRHP nomination organization. Statements of significance under Criteria C make little sense and fail to answer the "so what" question.

Category of Analysis	Specific Data Given in the Context and Nomination	Comments
	 Oklahoma from 1898 to 1950." Criterion C – (Iron-Clad Wood Country Elevator Subtype), important "because it represents the first kind of vernacular architecture applied to grain storage and processing facilities." Criterion C – (Clay Tile Country Elevator Subtype), important because "they are unique in their use of hollow red clay tile as the building material." Criterion C – (Concrete Country Elevator Subtype), significant "because of their more durable and fireproof construction material." Other subtypes under Criterion C follow similar lines of thought and make reference to significance due to standardized plans. 	
Period(s) of Significance	Dependent on the property type and subtype; ranges from 1889-1950.	Periods of significance are not identified for all property types and subtypes.
Registration Requirements	Registration requirements are stated broadly and reiterate the need for retention of integrity of location, design, setting, materials, workmanship, feeling, and association.	Periods of significance (inclusive dates) are mentioned as a registration requirement.
	Some specific information is given for each type and subtype and is supported by the large amount of descriptive data provided in the Description section.	
Assessment of Integrity	Discussions of integrity are building-type specific and are closely tied to detailed descriptions of each type and sub-type.	Where detailed information is present in the Description section, the authors do a good job of calling out the specific elements necessary for retention of integrity.
	Emphasis is placed on retention of original exterior building fabric and "some" original machinery and equipment associated with the pertinent period of significance.	They set a high bar where retention of equipment is concerned.
	There also is discussion of the site elements and adjacent structures that should be present.	
Boundaries	32 counties in Western Oklahoma in Management Regions 1, 2, 6, and 7 as outlined by the Oklahoma Historic Preservation Comprehensive Plan.	

Category of Analysis	Specific Data Given in the Context and Nomination	Comments
Sources of Data	Thematic surveys of grain elevators, documentation of more than 500 extant elevators or elevator sites, standard secondary articles and books, federal publications.	Existence of comprehensive field data allowed the authors to write detailed descriptions of each building type and subtype and to be specific about the elements that should be present for retention of integrity.
Illustrations	None.	Illustrations of specific building types and equipment (particularly when that equipment is associated with discussions of integrity) are helpful.
Contributions to Study Report	Provides excellent detailed information about grain storage and processing buildings that may also occur in North Texas. The bibliographies are potentially helpful.	The period of significance (1889-1950) corresponds well with the majority of similar properties in North Texas.
Drawbacks to Context and Nomination	Authors' focus on the meaning of the monumentality of the buildings was interesting but ultimately muddied what should have been a straight-forward, well-organized discussion.	An understanding of the role of agriculture in local, state, and regional economies is essential to communicating why associated properties are eligible for nomination to the NRHP.
	References to Le Corbusier and "the masterful, correct and magnificent play of masses brought together in light" apparently prevented their identifying a simple, straight forward statement of significance about the importance of agriculture in Oklahoma and the role of grain storage and processing facilities in that industry.	

Get Down the Shovel and the Hoe: Cotton and Rice Farm History and Architecture in the Arkansas Delta, 1900-1955

Hubbard Rice Dryer, Weiner, Poinsett County (Individual nomination)

Category of Analysis	Specific Data Given in the Context and Nomination	Brief Comments
Statement of Historic Context	 [Context]: Agriculture is one of the defining traits of the state, being "the backbone of Arkansas's economy from the early nineteenth century into the twentieth" Farming is a primary catalyst in the formation of cultural and social networks statewide. Markets for cotton and rice were responsible for the organization of levels of society, establishment of towns, and formation of government programs, political agendas, and transportation networks. Environmental setting is described, as well as the impact of cultivation of cotton and rice on the landscape. The author organizes the context around cotton and rice, summarizing the early history of the crops' cultivation, the spread and the buildings and "campuses" associated with each crop, both on the plantation and in urban settings, and the role organizations had in "shaping the farming landscape" [Nomination]: The nomination summarizes the legal, environmental, and county-level historical settings and refers back to the historic context. It describes the property as the " best example of a rural rice dryer in the Weiner vicinity" and associated with "development of agricultural practices in Poinsett County." 	[Context]: Specific property types listed in the context are: cotton gins, compresses, cottonseed crushers, and cottonseed warehouses; and rice driers, storage facilities, and mills. The author discusses appropriate processes, building types, equipment, power sources, transportation networks, and the role of each crop in creating an agricultural landscape. [Nomination]: The nomination provides local level information that parallels the regional data provided in the context. It also provides additional information about commercial rice drying in Arkansas and describes rice drier design, selecting the nominated property as the best in the county. However, while the photograph of the property depicts a site with multiple buildings, the nomination does not discuss them.
Criteria and Areas of Significance	 [Context]: Not defined. [Nomination]: Criterion A – "[F]or associations with development of agricultural practices in Poinsett County." Criterion C – "[A]s the best example of a rural rice dryer in the Weiner vicinity." 	The context does not identify the criteria under which properties associated with cotton and rice farms may be nominated. As a result, the nomination is not any more specific. Further, it nominates only "the best example," excluding all others and failing to discuss why the nominated property is "better." As a result, the rice dryer is compared only to others of its kind and not to a standard that is explained in the context and nomination.

Category of Analysis	Specific Data Given in the Context and Nomination	Brief Comments
Period of Significance	 [Context]: 1900-1955 – Period of significance is based on the period for which examples are available. [Nomination]: <i>ca</i>. 1945, the presumed construction date. 	While the context provides background data that predate 1900, the period of significance encompasses the years that are supported by the resources.
		The nomination fails to take into account the ongoing use of the dryer, which operated until 1979.
Registration Requirements	[Context]: None is provided. [Nomination]: Nothing is identified as a registration requirement.	Lack of specificity except where historical trends are concerned makes it difficult to present specific registration requirements. The pertinent data are embedded in the context text, but not extracted and rephrased as actual registration requirements.
		The nomination is similarly non-specific, making it necessary to take the nominator's assessment at face value. Power sources and transportation systems associated with the nominated property are not discussed at all.
Assessment of Integrity	[Context]: Not discussed. [Nomination]: Integrity is assumed.	See Registration Requirements.
Boundaries	[Context]: Arkansas Delta, or the eastern one-third of the state. [Nomination]: Not discussed.	The several buildings depicted in the nomination are not discussed, nor is the site itself. No boundaries are provided.
Sources of Data	[Context]: Secondary sources (books and articles both U.S. and foreign), online sources, newspapers personal interviews, and NRHP nominations. Sources pertain to history, landscapes, equipment, architecture, and plantation and farm culture, labor, and society. The author noted that cotton culture is well-documented in memoirs, fiction, film, and technical bulletins; rice is less well- documented, with most sources being technological forums. [Nomination]: Published sources specific to the property's	Sources are adequate for the author to be able to write registration requirements.

Category of Analysis	Specific Data Given in the Context and Nomination	Brief Comments
	location, the historic context, agricultural bulletins, interview, and online sources.	
Illustrations	 [Context]: Illustrations are limited, with the most helpful consisting of a plantation plan. The rest are intended to complement the context as a document that communicates the history of cotton and rice cultivation. [Nomination]: Illustrations consist of one picture of the nomination property. 	Contexts that discuss complicated agricultural processes and the role of agriculture in a particular region benefit from figures that illustrate the processes and maps that convey textual information in a format that complements the text.
Contributions to Study Report	 The main contribution of the context is the facility with which the author conveys key information in a readable, concise manner, communicating the <i>sense</i> of the topic as well as the facts of the history. The individual nomination is lacking in particulars, but provides an example of a property-specific NRHP nomination that makes an argument for eligibility by reference to a specific context without needlessly reiterating information provided in the context. 	
Issues with Context and Nomination	The historic context itself is outstanding, and the model of a single nomination that keys into a region-wide context is helpful. However, while the context includes the data necessary to identify criteria and areas of significance, as well as registration requirements, the author fails to do either. As a result, the argument presented for property-specific eligibility is insupportable, even though the property appears to the NRHP eligible.	Development of a history of the cultivation and processing of specific crops and discussion of associated properties, alone, is insufficient.

Colonial Sugars Historic District

1250 South Fifth Street, Gramercy, St James Parish, Louisiana Listed NRHP October 11, 1994

Category of Analysis	Specific Data Given in the Nomination	Brief Comments
Statement of Significance	 Sugar refining is one of many major historic American industries. In the mid 19th century, it occurred in scores of mostly small local plants. Vast consolidation took place in the closing decades of the century. Every effort was made to limit and control production to keep prices favorable. By the turn of the century, the plethora of small refineries was replaced by a limited number of large corporate refineries that were usually located in or near large cities with easy access to a major waterway to facilitate transportation and provide the enormous quantities of water needed in the refining process. About 25 of these large refineries existed at the turn of the century. Colonial Sugars was one of the country's major refineries. Colonial Sugars is significant on national and state levels because it is "one of a small number of surviving historic sugar refineries and an example of the kind of large centralized plants developed during the turn-of-the-century consolidation of sugar refining in this country. The company town is typical of the facilities created by industries for their employees in rural areas and is one of only two such towns surviving in the state." 	 The district consists of: Company chapel (ca. 1910, ca. 1920) Executive Row: Plant manager's home (1910), 5 executive residences, and 1 carriage house (ca. 1910- 1920) Industrial Complex: 39 contributing and non- contributing properties including water-related features, shops, storeroom, power house, office, boiler house, smoke stack, pumps, char house, bin, rail facilities, silos, kiln, and warehouses (1895-1980) Worker's Row: 11 houses and 1 medical department building (1910-1917) Includes useful information about steps involved in the sugar refining process. However, because the nomination fails to provide any comparative national or state information about equivalent examples, the levels of significance are not supported. This is a particular drawback because of the significance of the sugar industry in Louisiana. Also, no attempt is made to present the "constructional" history of the district because it is "too complex to set forth in this submission." There is no discussion of the internal organization of the district (streets, etc.), nor of the considerable landscaping that appears in the photographs. The transportation (rail) system that is discussed in the text as being integral to the functioning of the

Category of Analysis	Specific Data Given in the Nomination	Brief Comments
		plant is not part of the nominated properties.
Criteria and Areas of Significance	Criterion A - Industry	Although the area of significance is Industry, almost the entire discussion centers on the architectural attributes of the property. Context for Criterion A is noticeably insufficient, particularly given the fact that the complex is being nominated on national and state levels.
Period of Significance	1895-1944 – The period of significance is based on the first construction at the plant (1895) through 1914 (conversion from a combination mill and refinery to a refinery) to 1944 (50-year cutoff date for the nomination). Construction and modification dates support the period of significance.	The period of significance is appropriate because it parallels the construction dates for the contributing properties.
Registration Requirements	None given.	Registration requirements are needed to substantiate assessments of integrity and eligibility.
Assessment of Integrity	Separate assessments are provided for the industrial and residential buildings. Changes to the industrial buildings are expected because they are utilitarian in nature; "[m]ost changes have taken the form of replacing the equipment on the interior and have not significantly affected the structure itself. Additions to the buildings tend to be non-intrusive. Changes to housing have consisted of non-historic vinyl that mimics the look of the original clapboarding in gauge and character. The "quarters row" feeling that is characteristic of company towns has been retained.	Because registration requirements are lacking in the nomination, integrity assessments are non-specific beyond the two broad types of buildings. In addition, statements within Section 8 that it is unusual for equipment to be retained in refineries that have closed, and the retention of some historic equipment at Colonial adds to the significance of the property suggests that the authors believe that there is a relationship between equipment, buildings housing them, and integrity. This implication differs from the actual assessment that suggests that only the exteriors of the buildings are important when considering integrity.
Boundaries	"Boundaries were chosen to encompass the historic resources at Colonial while excluding non-contributing resources. Note that the eastern boundary follows a party	Gerrymandering is not recommended.

Category of Analysis	Specific Data Given in the Nomination	Brief Comments
	wall in order to exclude a non-contributing building.	
Sources of Data	Secondary sources, newspaper articles, telephone interviews, company archives. Staff was able to do only limited research and relied on the results of telephone conversations with "sources around the country" to inventory refineries (both extant and non-extant).	"[T]he staff feels comfortable with the following statement of significance" based on very limited research is not sufficient to argue for a level of national or state significance for resources. Information about this important, once-wide spread industrial process is readily available.
Illustrations	Other than photographs of the properties within the district, illustrations were not part of this nomination.	Illustrations are helpful to understanding the industrial process.
Contributions to Study Report	The nomination is the only one known that describes a sugar refinery, which is a property type once-prevalent in the South and in coastal Texas.	As an example of a sugar refinery and associated company town, the nomination may provide data that can be compared to properties in East and coastal Texas.
Issues with Nomination	Levels of significance are not supported by the data in the nomination. The authors fail to develop the registration requirements to a degree that supports assessments of both significance and integrity.	Comparative information about similar properties is important to understanding relative significance of nominated property.

Grain Elevators in Minnesota to 1945 (Historic Context) Grain Elevator Design in Minnesota (Multiple Property Listing)

Multiple Property Documentation Form approved by NRHP July 5, 1990

Specific Data Given in the Context and Nomination	Brief Comments
Initial discussion of elevators is organized around two types of elevators (terminal and country) and their functions (which are the bases for categorization), locations, sizes and capacities, ownership, and typologies.	Excellent history of grain storage facilities that is based on statewide-level research and provides a sound basis for assessing both state- and local-level significance. Virtually all
Other topics discussed include: elevator ownership in Minnesota (line, farmers' or cooperative elevators, and Minneapolis terminal) and associated topics (definitions of types, periods of dominance, important companies, influence of railroads, legislative controls).	types and subtypes are discussed, in-so-far as the methodology would allow (see Sources of Data), and comparative data are drawn from examples in Minnesota and other states with earlier examples of the types. Descriptions of each property type are
Another major area of discussion is the structural materials used in country and terminal elevators (wood, steel, tile, brick, and concrete).	detailed, allowing the author to discuss significance and registration requirements in a way that supports his assessments.
An appendix provides a discussion of grain elevator terminology rather than a glossary so that the functional relationships of structures, buildings, equipment, etc. are clear.	
The author assumes that all elevators are associated with the broad pattern of Minnesota agriculture, industry, and commerce but states that there is a responsibility to delineate the associations of each property that make it significant.	
 Criteria and areas of significance are provided for each type and subtype. These include: Criterion A (Terminal Elevators) – They "must have been involved in a particularly meaningful way with a significant development in the grain industry, grain trade, a transportation and shipping nexus, and/or a major processor." Consult other contexts in general geographic areas, "especially those prepared for municipal and railroad studies." 	Criteria and areas of significance for the two main types of grain elevators are fully discussed and supported with data drawn from the Statement of Historic Context.
	 Initial discussion of elevators is organized around two types of elevators (terminal and country) and their functions (which are the bases for categorization), locations, sizes and capacities, ownership, and typologies. Other topics discussed include: elevator ownership in Minnesota (line, farmers' or cooperative elevators, and Minneapolis terminal) and associated topics (definitions of types, periods of dominance, important companies, influence of railroads, legislative controls). Another major area of discussion is the structural materials used in country and terminal elevators (wood, steel, tile, brick, and concrete). An appendix provides a discussion of grain elevator terminology rather than a glossary so that the functional relationships of structures, buildings, equipment, etc. are clear. The author assumes that all elevators are associated with the broad pattern of Minnesota agriculture, industry, and commerce but states that there is a responsibility to delineate the associations of each property that make it significant. Criteria and areas of significance are provided for each type and subtype. These include: Criterion A (Terminal Elevators) – They "must have been involved in a particularly meaningful way with a significant development in the grain industry, grain trade, a transportation and shipping nexus, and/or a major processor." Consult other contexts in general geographic areas, "especially those prepared for

Category of Analysis	Specific Data Given in the Context and Nomination	Brief Comments
	"significant contributions in the development of a community and thus would have local, if not statewide significance." They also might be involved with "significant events in the grain industry and grain trade, including the cooperative movement." It is helpful to consult historic contexts prepared for municipal and county surveys in conjunction with assessments of significance.	
	 Criterion B (Terminal Elevators) – They are rarely eligible under Criterion B because their associations are almost always with an engineer, builder, or contractor (Criterion C). An elevator might have been associated with an industry entrepreneur, but other properties might more-appropriately serve that function. 	
	 Criterion B (Country Elevators) – See Terminal Elevators. 	
	 Criterion C (Terminal Elevators) – This is the criterion most commonly used for assigning significance and should be used "to winnow a group of similar resources to a meaningful list." The analysis is based first on structural materials and categories of arrangement, then on eras of development. 	
	 Any wooden terminal elevator is significant; 	
	 Steel elevators 1900-1918 and any associated with Max Toltz are significant; 	
	 All tile elevators are significant; 	
	 All brick elevators are significant; 	
	 Concrete bins that represent an important element in elevator development are significant; 	
	 "Architectural details are not as important as are larger engineering and structural elements. 	
	 It is not necessary to have surviving equipment in order to retain integrity. 	
	 Criterion C (Country Elevators) – [See Terminal Elevators.] 	
	Any wooden elevator pre-1930s may be significant,	1

Category of Analysis	Specific Data Given in the Context and Nomination	Brief Comments
	especially if it has not been modernized;	
	 Steel elevators built 1900-1918 are significant, and all should be carefully considered; 	
	 Almost all tile elevators are significant because of rarity; 	
	 All brick elevators are significant because of rarity; 	
	All pre-1945 concrete elevators are potentially significant because of rarity.	
	 Criterion D – Not discussed. 	
Period (s) of Significance	Dependent on the specific functional and construction types and subtypes; they range from the 1860s to 1945 but focus on the 1890s to 1945.	Periods of significance are embedded in the text; they are identified for all property types and subtypes.
Registration Requirements	Terminal Elevators – Registration requirements are stated for Criteria A, B, and C, with the greatest discussion focused on Criterion C.	Registration requirements for the two major elevator types and all subtypes based on building materials are explained in detail.
	The two functional arrangements are reiterated, and their relative significance explained.	
	Each also is described as an example of construction materials, and the importance of materials relative to significance provided.	
	Special consideration for terminal elevators is explained, with the rarity of wood, steel, brick and tile described, and the need to look at concrete elevators (especially after 1920) on a case-by-case basis.	
	Country Elevators – See Terminal Elevators.	
	Functional arrangements are reiterated, and the importance of examining construction materials is emphasized.	
	The persistence of wood is emphasized, lending additional importance to concrete elevators built before the mid-1930s.	
	All others should be investigated carefully.	

Category of Analysis	Specific Data Given in the Context and Nomination	Brief Comments
Assessment of Integrity	 Terminal Elevators – Integrity issues focus on the storage bins, usually within blocks. But more latitude is given for examples of wood, brick, and tile construction. Structural integrity for the working house or headhouse is defined, and the presence of replaceable equipment from the period of significance is not considered necessary, although its presence is an enhancement. Some changes in fenestration are allowed. In the same way, absence of associated structures (office, powerhouses) is not considered an impediment, and presence may be an enhancement. Country Elevators – Integrity issues focus on the storage bins, but extend to the structural integrity of the entire elevator. They also are influenced by the relative rarity of the construction type. See Terminal Elevators for discussions pertaining to equipment, fenestration, and associated structures. 	The author calls out the specific elements necessary for retention of integrity, first on an elevator function level, then on the basis of materials. Considerable allowance is made for cases where historic equipment has been replaced and associated structures replaced or altered.
Boundaries	The State of Minnesota.	
Sources of Data	SHPO inventory files, which included a statewide survey; databases referring to grain elevators; technical texts and professional and trade journals; collections in state and local archives, including building permits and pertinent collections in New York City; and private records of an elevator construction firm.	Research, which was done by a scholar with a strong background in the history of the grain and milling industries, appears to have been comprehensive, particularly where engineering, design, construction, and structural materials were concerned.
Illustrations	None.	Illustrations of specific building types would have been helpful, particularly given the technical detail embedded in the context.

Category of Analysis	Specific Data Given in the Context and Nomination	Brief Comments
Contributions to Study Report	Provides excellent detailed information about grain storage buildings in Minnesota that may also occur in North Texas. The research methodology, context organization, bibliographies, and explanation of terminology are particularly helpful.	The emphasis on the period 1890s-1945 corresponds well with many similar properties in North Texas. The methodology used to identify, describe, and analyze the properties should be useful for other agricultural industrial types.
Issues with Context and Nomination	The author assumed, but did not clearly state, what was obvious to him: the significance of agriculture in Minnesota, and the pivotal and functional role that grain elevators played in that industry. He noted in the methodology that he was unable to thoroughly analyze the topic of elevator ownership, because it was such an extensive and complicated one, and he listed other topics that should be explored in the future (cooperatives, line companies, railroads, terminal elevator owners, grain companies, patents, and engineers, builders, and construction firms). Intensive field survey would be an asset, particularly to understanding country elevators.	A lack of comprehensive field data meant that the author had to base statements of significance, registration requirements, and assessments of integrity on the examples available to him from the files of the SHPO and data in primary and secondary literature. Modification of the document will be necessary as field work continues.

National Register Bulletin: Guidelines for Identifying, Evaluating, and Registering Historic Mining Properties

Category of Information	Summary	Comments
Introduction	The authors summarize the importance of the U.S. as producer of metals, whose extraction has impacted settlement and economies, and has created historic landscapes.	Introduction provides a straightforward, concise summary of the purpose of the bulletin, assertion of the importance of the mining activity, and identification of the focus of the bulletin.
	The bulletin focuses on identification, evaluation, and registration of mining properties and industrial tracts, specifically properties constructed for mineral extraction or the support of extraction, beneficiation, and refining.	
Historic Contexts for Mining	The chapter summarizes the development of themes appropriate to mining property types, and identification of time periods and geographic areas. Brief mention made of "difficult integrity issues" associated with ruins and "mere imprints." Emphasis is placed on a thorough knowledge and understanding of an area's history and the research necessary to develop a useful historic context.	The authors emphasize that detailed historic research in a wide range of primary and secondary sources is necessary to write an historic context that will be useful to understanding mining sites and preparing NRHP nominations.
	<i>Themes</i> : should focus on some aspect of mining history; they also should be broad enough to encompass topics that bear on the history of mining and its impact (transportation, water systems, ethnic groups, prominent individuals, labor).	
	<i>Time frame</i> : should cover pertinent phases, such as discovery, development/boom, mature, and bust/decline.	
	<i>Geographic</i> : may depend on a variety of factors, such as the reason a mine district was formed, legal records.	
	<i>Sources</i> : existing contexts, preservation plans, NRHP nominations; federal and state agency publications; mining district maps; USGS publications; trade publications; patent (BLM), county deed, and federal Department of Justice and of War records; period journals and newspapers; company annual reports; historic photographs; mining district record books; and oral histories.	
Identification	This section is divided into Survey and Documentation (including Preliminary Research, Field Survey, and	Understanding the underlying organization of an activity is

Category of Summary	Comments
 Property Analysis), Identifying Property Types (associated with the Extraction, Beneficiation, and Refining activities), and identifying other property types (Engineer-Designed Complexes, Mining Landscapes, and Related Property Types). Survey and Documentation (Preliminary Research): Emphasis is placed on extensive and intensive research to define the limits of the survey area, understand its historic development, and determine the type of mine to be documented in order to prevent erroneous field interpretations. Collect mill drawings and assemble a process flow chart to understand the metallurgy in use. The list of sources that should be researched is nearly exhaustive. (<i>Field Survey</i>): Locate physical remains through aerial photograph, pedestrian survey, etc.; record them using photography, plan preparation, narrative description, and scaled maps; assess the potential for archeological deposits; use local informants. (<i>Property Analysis</i>): Identify activities and time periods represented by the physical remains, which often are associated with more than one time period. Sort the remains into separate technological or social systems. <i>Identifying Property Types</i>: Property types are based on three major activities (Extraction, Beneficiation, Refining) associated with mineral process in equipment is pointed out as well as the importance of linking the evolution of mining technologies and changes in equipment is pointed out as well as the importance of linking the evolution of mining technology to impacts on management, labor, business, politics, communities, science, and technology. Architectural descriptions start with the understanding that "mills were designed around the interior machinery metallurgy not the reverse." 	essential. That organization grows out of specific activities, and property types are specific to the activities. The authors emphasize that enough research should be done prior to field work to understand the underlying organization, the associated activities, and representative property types. The relationship of interior equipment and architecture is spelled out, as is the fact that equipment tends to change regularly as processes and technology change.

Category of Information	Summary	Comments
	which may include historic patterns of land use; and <i>Related Property Types</i> , such as support communities, transportation systems, utility systems, small camps.	
Evaluation	 This section is organized into Applications of each of the four criteria to mining properties, Criteria Considerations, and the seven aspects of Integrity <i>Criterion A</i>: The authors believe that mining is connected with 19 different themes. <i>Criterion B</i>: There are 6 applicable themes under this criterion. <i>Criterion C</i>: Categories of eligibility are Architecture and Engineering. <i>Criterion D</i>: Good research designs are necessary to support this criterion. <i>Criteria Considerations</i>: Examples of mining properties that will not qualify for listing are given. Moved mining properties that were moved over 50 years ago may be eligible because certain components are subject to relocation and reuse. Some properties less than 50 years old may be eligible if they are associated with important recent national themes or developments. <i>Integrity:</i> The authors discuss the seven aspects of integrity and emphasize mining sites as systems in which the combination of elements in the sites makes them eligible, even when some of the individual components have deteriorated or disappeared over time. Unaltered plants are rare, and the ability of a site to illustrate its evolution over time is important. Design, in particular, may include a wide range of buildings and materials, and designed or random landscapes; it must reflect the engineering flow chart discussed in the Identification section. The discussion of Association again emphasizes the importance of the system, as opposed to individual elements, "a holistic outlook that comprehensively considers all the component parts of a mining system. 	Discussions of the connections of mining with NRHP themes are very broad, some of the connections being only tangential at best. Interpretations of eligibility are generous. The authors emphasize looking at properties that include multiple components as systems when assessing integrity. This emphasis appears as well in the Documentation and Registration section.
Documentation	Because mining properties usually were parts of systems, it	District nominations may be the most appropriate for nominating

Category of Information	Summary	Comments
and Registration	 is unusual to nominate individual buildings or structures. As a result, the district or multiple property formats are the most appropriate for nominating mining properties. Discontiguous districts may be appropriate also. A district nomination is appropriate when "all of the elements of an intact mining system are located within a congruous geographic area." The multiple property format offers flexibility by encouraging the development of appropriate historic contexts and the subsequent nomination of groups of mining properties over time. Without context development, each individual nomination has to embody sufficient context information to justify nomination. 	multiple agricultural industrial properties, which often function as parts of a system. Multiple property documentation may also be useful because it results in an appropriate historic context, defines property types, and outlines significance and registration requirements for the property types. It can be amended as more contexts are developed and properties nominated.
Selected Bibliography	 The authors provide a bibliography that communicates the range of sources available to researchers and reflects topics that are pertinent to the four NRHP criteria. These include: histories of specific mines and mining districts; biographies of significant individuals involved in mines, mining districts, and mining technologies; guidelines for how to document mines and associated communities; technical studies of mining technology that are contemporaneous with a particular period of mining; histories of mining by state and company; labor histories; and 	Bibliographies are useful tools and need not be comprehensive. In this format, their purpose is to make researchers aware of the broad range of sources available.
Glossary	The glossary provides an overview of terms used to describe mining technologies, activities, processes, and structures.	A glossary of terms is helpful, particularly when property types are associated with technical processes.

Category of Information	Summary	Comments
Illustrations	The bulletin included few illustrations; they consisted of photographs of mining landscapes, some structures and	Bulletin format may not require multiple illustrations.
	equipment, and a sample process flow chart.	Contexts benefit greatly from them in cases where the purpose is to illustrate specific property types and industrial processes.

National Register Bulletin: Guidelines for Evaluating and Documenting Historic Aviation Properties

Category of Information	Summary	Comments
Introduction	The authors list properties associated with aviation and 16 areas of significance.	
Aviation in American History	The authors present a summary history that is chronological and concludes with a list of important dates in aviation history.	The approach is simplistic and focuses on historical trends and events in list format. However, it is a helpful beginning point for a researcher who knows nothing about aviation history.
Types of Historic Aviation Properties	The authors list eight broad categories of aviation properties and briefly discuss the problems associated with maintenance, parts replacement, and conversion of properties. They briefly describe each of the eight categories, why they might be eligible for NRHP listing, and the applicable criteria for each category. Much of the discussion is comprised of examples that	The overriding organization behind the typologies is not clear. Typologies that are associated with specific activities (six of the eight) are helpful. The dependence of the text on summaries of existing NRHP texts points to the importance of those documents.
Applying National Register Criteria to Historic Aviation Properties	 summarize NRHP nominations of similar properties. <i>Criterion A</i>: The authors reiterate Criterion A wording from the appropriate NRHP bulletin and then list examples of important events in aviation history. <i>Criterion B</i>: The authors reiterate Criterion B wording and list types of individuals who might be significant in the history of aviation. <i>Criterion C</i>: The authors reiterate Criterion C wording and list examples of listed properties. They provide considerable detail from the NRHP nominations that helps the reader understand the various ways a property might be eligible under Criterion C. <i>Criterion D</i>: The authors reiterate Criterion D wording. Because of the recent age of properties described in this context and the availability of other forms of information, the use of Criterion D is limited. <i>Criteria Considerations</i>: Criteria considerations B, E, F, and G are pertinent to aviation properties are easily moved 	Illustrations and textual summaries are helpful ways to convey information about listed properties. They assist readers in applying the criteria to contexts and property types that are different from those that are the focus of specific bulletins. When discussing issues of integrity, the bulletin focuses almost exclusively on aircraft, rather than on the numerous categories of aviation properties. Pertinent to industrial agricultural properties, however, the authors note that routine maintenance is to be expected, and that integrity is tied to identification of the essential components of a property and their retention. Such identification is dependent on "sound research" into the property type.

Category of Information	Summary	Comments
	(B), and to their eligibility if the new location is appropriate to the function of the property in its original location.	
	<i>Evaluating Integrity</i> : The authors reiterate wording concerning historic integrity.	
	Discussion of location and setting is particularly detailed, because aviation properties are so often moved. The NR "recognizes that some types of resources were designed to be moved."	
	Discussion of Materials also is detailed because integrity "cannot be evaluated without an understanding of the nature of aircraft maintenance, and the periodic replacement of parts. With this understanding one can identify the essential components of an aircraft which must be retained for the aircraft to be considered historic." The authors focus on replacement of parts as an example of change that is integral to the operation of aircraft and may have an impact on the question of integrity. [Such replacement is essentially different from the routine maintenance that is done to buildings.] It is important to document changes. But, "[a]s long as an aircraft retains the majority of its original structural members, it should be considered the authentic aircraft." What is important is to do enough "research into the design history of a given aircraft" to identify the features "that must be present to qualify as a specific aircraft type." As an example, the authors identify the parts of an aircraft that are not readily removed and replaced in the life of the craft. In all cases, "sound research is required."	
Nominating Historic Aviation	The authors' guide to nominating aviation properties is focused on individual properties. They emphasize documenting the property through	Physical inspection of properties is important, as is detailed research about the property and appropriate historic context(s).
Properties	physical inspection and research, and they list appropriate sources (books, archival collections, military history centers	

Category of Information	Summary	Comments
	and museums, and HABS/HAER documentation).	
	They discuss identifying the appropriate historic context and refer to sources that may aid in that identification.	
	To determine important characteristics, they recommend conducting physical inspections, identifying important characteristics, describing conditions, and relating characteristics to a theme or period of significance.	
	Evaluate significance within the context of civil and military aviation history.	
Recommended	The authors list	Bibliographies, particularly those focused on particular property
Sources	 National Park Service publications, 	types, are helpful to developing historic contexts, identifying
	 aviation-related National Register Bulletins, 	property types, and assessing integrity.
	\circ books about aircraft makes and models,	
	∘ airlines,	
	 air museums and collections, 	
	\circ general aviation history,	
	 o lighter-than-air aircraft, 	
	\circ military aviation,	
	\circ power plants, and	
	 women in aviation. 	
	Almost all references are to secondary sources.	

Balancing Historic Preservation Needs with the Operation of Highly Technical or Scientific Facilities

Category of Information	Summary	Comments
Introductory Identification of Key issues	A central issue discussed in the publication is, "how can organizations whose primary missions are active research and highly technical operations, also perform their public stewardship role for the nation's historic [scientific] resources, given the need to continually modify or replace 'historic' facilities and equipment."	Like scientific properties, agricultural industrial properties must be altered and updated frequently in order to fulfill their purpose. What are the thresholds beyond which a property loses its integrity?
Identification of Historic Significance	 <i>Criteria of significance</i>: "Specialized knowledge and a background in science and technology may be required" to assess significance of scientific objects and facilities. Opinions about historical significance may change over time because of changes in public taste and scholarly interest. It is important to separate the decision about what is worthy of consideration in planning and decision making from decisions about what is actually to be preserved. The concept of integrity is a central part of assessing criteria of significance because a qualified property must have "enough physical presence to retain a 'preservable entity' that communicates relevant significance." <i>Application of the criteria</i>: The authors list five reasons properties associated with the space program and research facilities meet NRHP and NHL criteria. They state a version of each criterion and then give a specific example of the way in which the program or facility exemplifies the criterion. Reference is made to the 50-year cutoff, which is particularly problematic when the examples are equipment and structures used in buildings and labs that are moved, re-used, cannibalized, or discarded. 	Emphasis is placed, again, on the specialized knowledge that is required in order to create appropriate historic contexts, to record and describe the elements of each property, and to relate those to the context. Reference is made to the contributions that knowledgeable individuals, who work with the facilities, may offer to individuals responsible for writing historic contexts and describing and assessing associated properties. Eligible properties need not be "pristine." Indeed, it is unlikely that they will be unchanged, given the fact that changes are necessary for the equipment or facility to continue to fulfill their missions. Integrity, in the context of this publication, requires that the property retain its "basic structure," the form that communicates its historic purpose, regardless of changes that may have occurred to associated equipment.

Category of Information	Summary	Comments
	 They reiterate the principle that "considerations of the uniqueness of a property, whether it is 'one of a kind,' should not enter into decisions about whether or not a property is historic." 	
	 Rarity or commonness is not considered for the purposes of Section 106; rather, these become issues only during consultation about what should be done with a property once it is determined significant. 	
	 Many scientific facilities are rare or unique, which means that the observer must be able to determine what is unique and what representative. 	
	Issues of integrity:	
	 Scientific properties may be changed (when the modifications are done to support new programs or equipment) or even moved to a new location. 	
	 Reference is made to situations in which the "basic structure," say, of a telescope, is what "gives these historic properties their integrity" 	
	Qualifications of assessing entity:	
	 It is "critical" that whoever assesses "whether a scientific or technological property merits designation have an understanding of both the historic context of the property and an understanding of the scientific contributions made by it." 	
	 They must be able to understand the technology, precisely identify and describe the historic elements of a facility or piece of equipment, and identify appropriate boundaries. 	
	 There must be sufficient specificity about significant features. 	
	 Problems resulting from a lack of such knowledge may be mitigated by involving scientists and facilities managers. 	

REVIEW OF TXDOT PROJECTS

The Technical Expert reviewed eight previous TxDOT projects that had addressed agricultural processing resources. The projects were chosen based on input from the TxDOT-ENV Historical Studies Branch historians, who identified a candidate list of relevant past projects. The Technical Expert reviewed the project files for each of these, and narrowed the list to eight projects. An effort was made to include projects whose files contained both technical reports and correspondence between TxDOT and the THC, as such correspondence would be most likely to reveal areas of consensus and disagreement.

With the exception of the intensive study of the Ralston-Purina complex, all of the evaluations conducted for TxDOT projects suffered from the lack of explicitly stated registration criteria for this property type. In two of the projects (US 290 Hempstead and US 287 Vernon), two different consultants arrived at two very different eligibility recommendations between the reconnaissance and intensive surveys, and TxDOT staff and the THC responded to those recommendations with even more variations.

Another common deficiency was the lack of comparative historical and physical contexts; by and large, the resources were evaluated with little reference to known examples of the same property type or other agricultural processing complexes within a reasonable study area. This often led the THC to request additional information before concurring with the eligibility determinations, thus impacting the project's schedule.

The intensive report of the Ralston-Purina complex clarifies the applicability – and limitations – of the NPS Bulletin #42 *Guidelines for Identifying, Evaluating, and Registering Historic Mining Sites*. Limitations noted include the fact that grain processing facilities bring resources into the facility for processing into final products, whereas mining facilities extract resources for shipping away for processing, and by nature have a finite existence dependent on the amount of extractable resource. This results in a different dynamic in the evolution of the facility, where grain processing facilities expand as they improve over time, whereas mining facilities lose systems and components over time.

The registration criteria provided in the Ralston-Purina intensive survey report represent TxDOT's most current thinking on this topic. This section of the report addresses key issues, such as classification as a district vs. individual resource; necessary associations for significance under criteria A, B, and C (though C is developed in much more detail than A and B); and how to assess integrity, which incorporates the entirety of the Minnesota Grain Elevator context. This includes the argument that since some equipment is transient in nature and is regarded as replaceable, changes to these features do not compromise integrity of the larger facility. Instead, it is the understanding of the importance of the equipment itself.

Ralston Purina Complex

Fort Worth, Tarrant County

County	District	CSJ	Project Description	Technical Reports	Correspondence	Resource Name or Identifier
Tarrant	Fort Worth District (Mark Brown)	IH 35W 0014- 16- 179, 192, 193	Project proposes to reconstruct and widen IH 35W in Tarrant County, Texas, for a total of 5.5 miles. 70 acres of new ROW.	Reconnaissance survey by Ecomm (April 2009) Intensive survey by TxDOT staff (July 2009)	July 2, 2009 TxDOT to THC July 17, 2009 THC to TxDOT	Ralston Purina Complex, Fort Worth (Site 101)
Regis: Require		grain processing facility at 1501 East Fourth Street potentially eligible and recommended an intensive survey. (This report is referenced in the Intensive, but was not in the TxDOT project file; it has not yet been reviewed.) Intensive Survey Report: The report includes a detailed discussion of the registration requirements for grain elevators in Texas, drawing heavily from the 1989 NRHP Multiple Property Documentation Form for Grain Elevator Design in Minnesota. The registration criteria (p. 14-16) address key issues such as classification as a district vs. individual resource; necessary associations for significance under criteria A, B, and C (though C is developed in much more detail than A and B); and how to assess integrity, which incorporates the entirety of the Minnesota Grain Elevator			The complex consists of three functionally distinct components: * Fort Worth Elevator (1911) * Railroad Corridor (pre-1911) * Purina Mills (1918, '20, and '29) Good model for summary of themes and trends in the historic context versus the detailed site history in the survey results.	
Historic Co Data S		with speci significand used in th What, at a	fic notation of how these ce, the date of particular b e report. a minimum, should all eva	s are clearly defined as pa gaps affect key conclusions buildings, or the meaning of luations of agricultural proc bugh investigation of the co	s such as period of f maps and figures cessing facilities take	Both the description and the discussion of integrity indicate a thorough understanding of the function of the grain processing property type.
NRHP Cr. Areas of Si		nd nce TXDOT staff conducted an intensive survey of the Raiston Purina Complex and comparison properties locate for its association with the grain processing industry in Fort Worth and under Criterion C for type, period of construction, and work of a master.		windshield survey photos of 5 comparison properties located in Fort Worth and 1 in Grapevine.		

	(Criterion C for Engineering at the local level and Criterion A for Industry at the local level)." No mention is made of the eligibility under Criterion C at the state level as a work of a master, nor of the individual eligibility status of the Fort Worth Elevator Facility.	construction dates of the first and last component of the complex. The rationale for this is not explained, beyond reference to the Minnesota Grain Elevator context.
Signficance Statement	TxDOT coordination letter: the Ralston Purina complex is NRHP eligible under Criterion A: Industry at the local level for association with Fort Worth grain processing. Criterion C: at the local level for type (both terminal and receiving grain elevator) and period of construction (early use of steel, reinforced concrete, and slip form construction in grain elevators). Criterion C: at the state level as a work of a Master (civil engineer Charles M. Davis). Contributing resources: Fort Worth Elevator (FEW) facility, Purina Mills facility, conveyor connecting the two facilities and the section of the railroad bed between East 1st and East 4th Streets. Furthermore, the Fort Worth Elevator Facility is individually eligible as one of the earliest reinforced concrete grain elevators in the city.THC response letter: THC did not comment/concur with the recommended eligibility of the Fort Worth Elevator as an individually eligible structure on its engineering merits.oWhen can an agricultural processing structure stand on its own eligibility?THC concurred with eligibility under A and C at the local level, but did not comment (thus did not concur) with the argument for eligibility under C at the state level.oWhat makes an agricultural processing property eligible at the state or national level?	
Assessment of Integrity	 <u>Intensive Survey Report</u>: This discussion includes the argument that since some equipment is transient in nature and are regarded as replaceable, changes to these features do not compromise integrity of the larger facility. It is the understanding of the importance of the equipment within the larger system that is significant, rather than the physical equipment itself. This report also clarifies the applicability - and limitations - of the NPS Bulletin #42 Guidelines for Identifying, Evaluating, and Registering Historic Mining Sites. Limitations noted include the fact that grain processing facilities bring resources into the facility for processing into final products, whereas mining facilities extract resources for shipping away for processing, and by nature have a finite existence dependent on the amount of extractable resource. This results in a different dynamic in the evolution of the facility, where grain processing facilities expand as they 	

	 improve over time, whereas mining facilities lose systems and components over time. If the dynamic of the evolution of the facility is different, then how would the
	thresholds for analyzing integrity be different?
	1911-1957: when the first grain elevator, storage block, loading shed, and warehouse were constructed at FWE through 1957 when Ralston Purina constructed the last historic-age building addition to the complex.
Period of Significance	Based on the definition of the construction period of significance, and with "grain industry" as an assumed theme, the following additional themes were included for their impact on the form and function of the facility: railroad expansion in the early twentieth century, industrial complex engineering and design, advances in feed production, farm mechanization, large-scale post-war construction and expansion development in Fort Worth.
	The report evaluates the three facilities as one historic resource, despite having been built and operated independently until merged by Ralston Purina in 1963.

Farmers Cooperative Gin & Elevator, Sinclair Gasoline, Texas Central Power Company, Martin-Lane Company, Vernon Cotton Oil Company

Vernon, Wilbarger County

County	District	CSJ	Project Description	Technical Reports	Correspondence	Resource Name or Identifier	
Wilbarger	Wichita Falls	0124 -03- 057	Rehabilitate and widen 1.79 miles of US 283 at US 287.	Reconnaissance survey by Michael Baker Jr. (July 2007) Intensive survey by CP&Y (Nov. 2008)	Feb 19 2008 Baker to TxDOT May 6 2008 TxDOT to THC May 23 2008 THC to TxDOT Feb 4 2009 Memo to 850 file	Farmers Cooperative Gin & Elevator (#A1-A11) Sinclair Gasoline (#B1-B2)	
					Mar 6 2009 TxDOT to THC Mar 30 2009 THC to TxDOT	Texas Central Power Company (#C1-C4)	
					Apr 14 2009 TxDOT to THC	Martin-Lane Company (#D1- D7)	
						Vernon Cotton Oil Company (#E1-E13)	
Registr Require		proces compribuilding are pro- <u>Intensi</u> eligibili TxDOT Evalua The cla and the the intensi with ar larger i (smalle District	sing resource, the Bolto sed of the remains of the gs or structures at the Movided. <u>ve Survey Report (11/14</u> ty question in Vernon and is approach to evaluating tion methods and thresh assification of resources the intensive; the reconna ensive survey classified accillary structures. This resources as a district cor or) districts. For example	an's Crown Quality Feed be Vernon Cotton Oil Co Martin-Lane Company. In <u>4/08):</u> conducted for dua nd to serve as an oppor- ng historic agricultural p holds are discussed for a varied greatly between issance survey called the resources as either a d team also contemplated omposed of buildings, s le, an Agricultural Proce e Martin-Lane Company	No registration requirements al purposes: to resolve the tunity to examine and refine rocessing resources. each Criterion. the reconnaissance survey nese resources "sites" whereas istrict or an individual building d the challenges of thinking of tructures, sites, objects and ssing in Vernon Historic y district, the Texas Central	(#E1-E13) Whereas the Recon report identified two resources based on current parcel ownership information, the Intensive identified five resources based on historical associations. The Recon survey concluded that there are no NRHP districts based (primarily) on a presence/absence analysis; multi-component resources were	

	<u>Reconnaissance Survey Report:</u> the reconnaissance survey provides three paragraphs of historical context and no individual histories of the surveyed resources. However, the NRHP evaluation discounts the majority of the resources as not eligible due to 'no known associations linking them to any significant events or people'. There is no indication of what events or people would be considered significant in the study area, nor what associations the resources had with any historical trends.	specific periods of significance and the structures that were present during that period which allowed a thorough analysis of integrity issues.
Historic Context and Data Sources	Intensive Survey Report (11/14/08): Presents a 'three-tiered approach' in establishing the evaluation context, including a regional 'historical context area', a 'study area' based on windshield-level survey and map research, and an intensive survey area that corresponded to Resources 8 and 10 from the reconnaissance survey. Presents an exhaustive historical context of the study area.	The discussion of "historic context" and "significant themes" in the Intensive report proved confusing and indicates a lack of accepted registration criteria.
	 Too much effort was spent attempting to select and explain which themes and areas of significance applied to the surveyed resources. For each of the applicable NRHP themes (i.e. Architecture, Agriculture, Industry, Community Planning and Development, etc), it is important to establish which areas of significance are appropriate, if any, under each of the Criteria. 	The THC letter states that 'we cannot expect these properties to be frozen in time' and that we should be evaluating integrity based on the ability to
	<u>Reconnaissance Survey Report:</u> Based on historical associations of function, three historic-age districts and two individual historic-age buildings (with ancillary structures) were recorded and evaluated. The intensive survey report concludes that none of the multi-component resources are eligible as historic districts, and furthermore, that the larger study area does not retain sufficient cohesiveness or adequate significance to qualify as an NRHP historic district.	illustrate the property's evolution through time, as expounded in the NR Bulletin on mining properties.
NRHP Criteria and Areas of Significance	<u>Baker letter:</u> provides a one page evaluation of the potential for an historic district, based on field observations and a review of aerial photos and the 1927/48 Sanborn map. Concludes that 'the majority of historic-age industrial properties shown on the Sanborn maps are no longer extant' and that this 'preclude[s] the site's eligibility as a historic district'. The letter adds that intrusion of modern buildings and structures further detracts from district potential.	
	Intensive Survey Report: The eligibility analysis discusses how the resource is associated with significant trends, people, and architectural/engineering practices and the degree to which the resource has retained integrity under each of the Criteria.	

	Intensive Survey Report: The intensive survey report concludes that three districts and two buildings of the survey resources post-date the period of significance for important themes (Farmers Cooperative Gin & Elevator; Texas Central Power Company), are not good examples of a significant property type (Sinclair Gasoline), or are no longer able to convey their significance due to modifications, demolitions, or intrusions (Kell Milling, Martin-Lane, Vernon Cotton Oil).	
	The structure of the resource-specific analysis works well. The following sub- sections were provided for each resource: History; Description; Significance, and; Conclusion. The Significance section starts off with a clear statement of the period of significance, and then presents the analysis of each of the Criteria with a discussion of significance immediately followed by the assessment of integrity and a conclusion about the site's eligibility under that Criterion.	
	<u>TxDOT coordination letters:</u> May 6 2008 asserts that there are no districts present in the APE due to the introduction of US 287 and other intrusions combined with demolition of numerous buildings all of which 'has severely damaged the relationships between the components'.	
Signficance Statement	In the March 6 2009 letter coordinating the Intensive report, TxDOT requests concurrence with the authors' recommendations except in regard to one building and one structure located in the Vernon Cotton Oil Company district, each of which he recommends as individually eligible. Both the office building and the seed storage silo are recommended eligible under Criterion C at the local level. Finally, the letter responds to the THC's recommendation about a comprehensive district by agreeing with the Intensive survey's conclusion that even the significant sites in the APE lack integrity of design, setting, feeling, and association, and thus are unable to contribute to a cohesive NRHP district.	
	<u>THC response letters:</u> May 23 2008 THC recommends that sites 8 and 10 together be considered eligible as one NRHP district because 1) they are all cotton processing and thus represent a concentration of buildings and structures united historically by physical development, 2) the mill building would be recognizable by a historical contemporary despite the alterations, 3) the modern cotton gin would contribute by virtue of its association with a farmer's cooperative in the cotton-processing industry, and 4) the relationship of the component resources to the railroad is an important, character-defining feature of the historic district.	
	March 30 2009 THC concurs with TxDOT's recommendation for individual eligibility of the two Vernon Cotton Oil Company buildings and that the remainder of that	

	resource is not eligible. THC further concurs that resources A (1960s cotton gin) and B (1920s gas station) are not eligible. THC disagrees with the determinations for site C (1924 power/ice plant) and site D (early to mid 20 th century mill and elevator facility) and finds that together the properties compose a discontiguous district that is eligible under Criterion A at the local level with a period of significance of 1890-1960. This letter puts forth a clear statement of THC's interpretation of how the NR bulletin's guidance on assessing integrity applies to agricultural processing resources.
Assessment of Integrity	Reconnaissance Survey Report: Discussions of integrity focus on whether later additions are removeable and/or visible from the primary elevation of the building. Intensive Survey Report: The eligibility analysis discusses the degree to which the resource has retained integrity under each of the Criteria. The majority of the resources failed to meet NRHP criteria due to insufficient integrity; alterations, intrusions, demolitions, and functional changes since the period of significance were all considered.
Period of Significance	Intensive Survey Report: The period of significance for each resource was clearly stated and included an explanation of why those dates were chosen. The period typically corresponded to the years that the facility functioned in the manner consistent with its significance. End dates for the period of significance related to the date when the facility was modified to accommodate a new use or when major demolitions occurred.

US 277 Haskell, Haskell County

County	District	CSJ	Project Description	Technical Reports	Correspondence	Resource Name or Identifier
Haskell	Abilene	0908 -22- 009	Upgrade from 2 to 4 lanes, with optional relief route, for US 277 from .6 miles south of Haskell to 0.9 miles north of Haskell	Inventory of historic-age properties (April 2001) Research Design by Prewitt & Associates/Martha Freeman (November 2001) Illustrated Handbook of Industrial Property Types by Prewitt & Associates (May 2003) The Development of an Agricultural Landscape (et. seq.) by Martha Doty Freeman (May 2003)	Apr. 20 2001 TxDOT to THC Mar. 6 2001 Haskell CHC to TxDOT	N/A
Registration Requirements		visually with per The gu types a general associal industr Althoug registra discont intende the cor guidan	A Field Guide to Industrial Properties in Texas: The field guide is presented as a visually rich, quick-reference document. It identifies the property types associated with petroleum and natural gas, grain, cotton, and utilities and services industries. The guide is helpful for surveyors who are otherwise unfamiliar with the property types and need help visualizing how the component parts work together and the general purpose and function of the property type. It identifies the property types associated with petroleum and natural gas, grain, cotton, and utilities and services industries. Although an attempt is made to provide guidance on NRHP evaluation issues such as registration criteria, relative significance, and integrity, this section of the guide is disconnected from the discussion of the property types and does not achieve the intended purpose. The reader is provided a better understanding of how to recognize the component parts of the covered property types, but is not provided with sufficient guidance on how to develop a similar understanding for other property types nor how to apply the NRHP criteria to industrial property types in Texas.			THC asserts that removal of the railroad tracks and railroad- related components of adjacent resources are a notable blow to the potential for an eligible historic district. The CHC stated that structures such as the icehouse and cotton gin were not considered qualified for historic preservation.
Historic Context and Data Sources		Research Design: The research design states that the context statement would focus on the role that rail transportation played in the agricultural development of communities and rural landscapes from Abilene to Wichita Falls.			Due to impacts of the preferred alternative, TxDOT 'proposes to	
		The De	evelopment of an Agricu	Itural Landscape Along a Portion of	the U.S. Highway	develop appropriate contextual

	277 Corridor, with a Case Study of the Cotton Industry in Haskell, Texas (May 2003): The context is presented as a scholarly publication, in three parts. The first is an historical overview of trends in agriculture, transportation, and community development intended to identify the 'forces at play in the development of the corridor that resulted in construction of specific properties', namely industrial properties related to the railroads. The second part takes a closer look at the community of Haskell and its cotton industry. The third component is an annotated bibliography pertaining to the broader historical context. The context is presented as a scholarly publication, in three parts: an overview of trends in the region, a history of Haskell, and an annotated bibliography. As a mitigation item, this context will serve as a good reference on historical trends for others conducting surveys in the US 277 corridor area. It can also serve as a model for the development of historic context studies for other regions. Its scope does not include addressing many of the key issues related to evaluating NRHP eligibility, as defined in the current research design effort.	documentation based on Haskell's resources to assist future Section 106 coordination in the region'. The products to be prepared include a research design, HABS/HAER Level III- type documentation of several resources, a context statement, and 'development of property types (including registration requirements) based on Haskell's resources (ice plants,
NRHP Criteria and Areas of Significance	See Registration Requirements , above.	fuel depots, lumber yards, storage facilities and cotton
	<u>Reconnaissance Survey Report:</u> the inventory consists of a 9-page inventory table, 30 pages of photos and sketch plans (with no captions), and 'TxDOT Site Inventory' forms. All of the surveyed resources are listed as not eligible in the inventory table. The site forms include remarks about alterations. Otherwise, there is very little to indicate the basis of the determination of eligibility.	gins)'. The US 277 mitigation documents (historical context and field guide) are examples of reference materials, in that they
Signficance Statement	 <u>Haskell County Historical Commission:</u> states that 'other structures such as the old icehouse and gin are not deemed to be qualified for historical preservation'. o How does local opinion factor into the assessment of local significance? <u>TxDOT coordination letter:</u> TxDOT asserts that the potential for an eligible historic district had been compromised by removal of the historic railroad tracks, significant buildings had been lost, loss of historic materials and rail-related components had changed the character of individual resources, and intrusions of later construction had changed the character of the area. 	do not provide guidance on appropriate registration criteria for the property types discussed. The survey raised the issue of how the presence and
Assessment of Integrity	See Significance Statement , above.	condition of railroad-related features affects the potential eligibility of an agricultural

		processing multi-component district.
Period of Significance	While the context and the field guide both discuss the chronology of the covered trends, there is no discernable statement of periods of significance for the covered property types, nor how to determine an appropriate period of significance.	

Maverick County Cotton Gin Company Eagle Pass, Maverick County

County	District	CSJ	Project Description	Technical Reports	Correspondence	Resource Name or Identifier
Maverick	Laredo	0922 -00- 026	Construction of a Border Safety Inspection Facility in the vicinity of the Camino Real International Bridge in Eagle Pass.	HRSR Nov 2001 by HHM, Inc. Environmental Assessment Section 4(f) Analysis Nov 2003 by HHM et al	TxDOT to THC Jul 5 2002TxDOT to THC June 132003Various letters 2003-04(re: Fort Duncan NRHPDistrict or archeo.ENV EA comments	Maverick County Cotton Gin Company
Registration Requirements		this pro- this pro- 5, 2002 that bochistorio This le advers the res The 6/ under s docum site no integrit altered indicat	Reconnaissance Survey Report: there is no discussion of the registration criteria for this property type. <u>TxDOT coordination letters:</u> In response to an April 8, 2002 THC letter, TxDOT's July 5, 2002, letter references a February 25, 2002, THC letter in which THC determined that both Fort Duncan and the Maverick County Cotton Gin Complex are NRHP historic properties. Both of these THC letters were not available in the project files. This letter proceeds to argue that introduction of the inspection station would be no adverse effect since it would be consistent with the existing industrial character of the resources' setting. The 6/13/03 TxDOT letter summarizes an archival research report supplied to THC under separate cover (and not located in the project files). The research documented evidence that the Maverick County Cotton Gin Company occupied that site no earlier than 1950 and only until 1969. TxDOT expands on the discussion of integrity by noting that the c. 1950 configuration of the complex had since been altered, and further that 40% of materials and all machinery or other internal indicators of building functions in the complex has been lost. Finally, TxDOT suggests that the 'late date of the company's relocation to the site also calls into			Reconnaissance-level historical research consisted of Atlas search, Handbook context, County appraisal district research to establish plat dates for residential neighborhoods, and analysis of Sanborn maps. The HRSR evaluation jumps straight to lack of integrity due to deterioration, without first discussing context or significance. An archival research report was prepared, but not available for review. It would be interesting to
Historic Context and Data Sources		Reconnaissance-level historical research consisted of Atlas search, Handbook context, County appraisal district research to establish plat dates for residential neighborhoods, and analysis of Sanborn maps.			see how the report addressed a discussion of significant themes and the description of the	
			storic context for the BSIF NRHP property (Fort Dur	historical context of the study		

	There is a single paragraph that addresses industrial and agricultural processing trends; even this is more of a history of the surveyed cotton gin than a context for why a gin was warranted. Despite the presence of a railroad corridor and industrial/agricultural processing resources in the APE, these trends are not discussed in the context.	area.
	Without an understanding of the regional and local trends the author is unable to identify which significant themes and associated property types might be represented in the APE, and thus any conclusions regarding eligibility lack an appropriate frame of reference.	
	<u>TxDOT coordination letters:</u> The June 13, 2003, TxDOT letter summarizes an archival research report supplied to THC under separate cover (and not located in the project files). The research documented evidence that the Maverick County Cotton Gin Company occupied that site no earlier than 1950 and only until 1969. Based on the additional research, THC is able to concur with the not eligible determination.	
NRHP Criteria and Areas of Significance	Reconnaissance Survey Report: Not discussed; see Significance Statement.	
Signficance Statement	Reconnaissance Survey Report: The survey report concludes that the gin resources 'have lost any historic associations with their possible significance as a focal point of the area's cotton industry' due to their vacant and deteriorated state. However, there is no discussion of the history of the gin company, the cotton industry, or registration criteria for this property type.	
Assessment of Integrity	<u>TxDOT coordination letters:</u> In response to an April 8, 2002 THC letter, TxDOT's 7/5/02 letter references a February 25, 2002 THC letter in which THC determined that both Fort Duncan and the Maverick County Cotton Gin Complex are NRHP historic properties. Both of these THC letters were not available in the project files. This letter proceeds to argue that introduction of the inspection station would be no adverse effect since it would be consistent with the existing industrial character of the resources' setting.	
	The 6/13/03 TxDOT letter summarizes an archival research report supplied to THC under separate cover (and not located in the project files). The research documented evidence that the Maverick County Cotton Gin Company occupied that site no earlier than 1950 and only until 1969. TxDOT expands on the discussion of integrity by noting that the c. 1950 configuration of the complex had since been	

	altered, and further that 40% of materials and all machinery or other internal indicators of building functions in the complex has been lost. Finally, TxDOT suggests that the 'late date of the company's relocation to the site also calls into question the integrity of association'.
Period of Significance	No explicit discussion of period of significance. TxDOT asserted its opinion that since the Company's association with this location didn't begin until 1950, its association with significant themes is suspect.

Cottonseed and Seed Corn Distribution Warehouses

Martindale, Caldwell County

County	District	CSJ	Project Description	Technical Reports	Correspondence	Resource Name or Identifier
Caldwell	Austin	0286 -02- 023	Widen SH 80 at the intersection with SH 142 in the town of Martindale to accommodate a continuous left turn lane.	Coordination letter report Jan 2001 by TxDOT staff (Harris)	None	Cottonseed and Seed Corn Distribution Warehouses
Registration Requirements		discus	<u>coordination letter:</u> This lette sion of historical trends, relativ rends, and TxDOT staff's con aphs.	The justification for concluding that the resources retain integrity of materials, setting,		
	ontext and ources	None p	provided.			and feeling is cited as 'verbal interviews with local residents and members of the Caldwell
NRHP Criteria and Areas of Significance		While to comper- statem down in resource part of decade	All six historic-age resources that were surveyed were determined eligible for NRHP isting under Criterion A at the local level of significance. While the documentation provided is unlikely to satisfy the SOUs, it is strangely compelling as written in this letter report. The write-up is not merely brief; each statement addresses the registration criteria, and thus the reader is not bogged down in the minutia of the community's history or the architectural details of the esources. We understand that, quite simply, these buildings have been an active part of Martindale's agricultural processing and distribution economy since the early decades of the 20 th century, and that locals consider them part of their historical andscape.			CHC.' How does local perception of their heritage contribute to our analysis of both significance and integrity? If locals recognize the surveyed resources as the same facility that's always been there, how important is it to know exactly what kind of windows
-	Significance StatementThe reconnaissance survey of the Maverick County Cotton Gin Complex failed to make a convincing argument, but the two paragraph analysis provided in the Martindale coordination letter hit on all of the registration criteria and provided a convincing determination of eligibility.•The objective is to present a compelling eligibility recommendation that satisfies the NRHP registration criteria and that facilitates the coordination of Section 106 effects determinations. The amount and type of research and physical investigation should be commensurate with that objective.				exactly what kind of windows and number of silos were present historically compared with the current configuration?	

Assessment of Integrity	The analysis of integrity seems to be based on conversations held with locals and the CHC, rather than analysis of historical photos and records. The implication is that the locals told the surveyor that the buildings had always looked like that, though this isn't explicitly stated.
Period of Significance	Not explicitly stated, though the discussion of trends in transportation and agriculture imply that the period of significance would be 1900-1949.

Hempstead Road Rice Dryer Houston, Harris County

County	District	CSJ	Project Description	Technical Reports	Correspondence	Resource Name or Identifier
Harris	Houston	0912 -00- 142	Improvements to US 290 and intersections to the Hempstead Highway.	Reconnaissance survey May 2008 by LopezGarcia Intensive survey July 2008 by CP&Y	Not found in TxDOT project file and not located in consultant file.	Cypress Grain Drying Company
	tration ements	 <u>Reconnaissance Survey Report:</u> no discussion of registration criteria beyond boilerplate summary of the NRHP criteria. <u>Intensive Survey Report:</u> The discussion of evaluation criteria in the methods section incorporates the typical overview of the NRHP criteria found in most TxDOT survey reports. Discussion of customized registration criteria for the surveyed property types is folded in with the analysis of eligibility in the survey results section. Providing the registration criteria for Agricultural Processing facilities in the methods section would provide a better framework for the ensuing historical context and survey results sections. The context could focus on the historical narrative of the study area, and the survey results could focus on comparing the resource to the registration criteria (rather than also trying to assert the criteria). The US 290 Hempstead intensive report provides an example of how an evaluation can address the comparative physical context, even when there is minimal time or budget to conduct a comparative survey or research. 				For significance under Criterion B, the report sets the following standard: persons that may be significant in these areas would have notable achievements that set them apart from their peers. Such achievements may show up in secondary literature about the era, the area, or the industry. An analysis of the cultural
a	Context nd cources	Reconnaissance Survey Report: The reconnaissance survey covered a 38 mile long corridor along US 290 just west of Houston. The methods section includes a written summary of the property types found in the APE, which include Domestic, Governmental, Commercial & Industrial, Institutional, Transportation, and Irrigation. No mention is made of agricultural property types, or of agricultural processing even within the discussion of Industrial types. The historic context is very broad, including everything from town site development for each community along the corridor to architectural and subdivision development to the Spindletop Oilfield.				landscape of a broader study area provided a basis for discussing whether the surveyed dryer was a common or rare example of the property type. What methods should be used during windshield and reconnaissance survey to determine the function of an

	property types, explaining how rice dryers function as well as what their role is within	agricultural processing complex,
	the rice production industry.	if visual inspection of the
	<u>Reconnaissance Survey Report:</u> The historic context concludes with a brief listing of the historic themes for the project area, against which the surveyed resources would	structures and signage do not
NRHP Criteria and	be evaluated. Agricultural processing facilities are listed as property types explicitly	conclusively indicate historic
	associated with Commerce, not Agriculture.	use? For example, on the
Areas of Significance		reconnaissance survey of the
Significance	Intensive Survey Report: The discussion of evaluation criteria in the methods section incorporates the typical overview of the NRHP criteria found in most TxDOT survey	Cypress rice dryer, the
	reports. Discussion of customized registration criteria for the surveyed property types	reconnaissance survey team
	is folded in with the analysis of eligibility in the survey results section.	discussed the structure as a
	Reconnaissance Survey Report: The surveyed resource is misinterpreted as a cotton	cotton gin, though no
	gin, and recommended for intensive study.	information was provided to
	<u>Intensive Survey Report</u> : The survey results section presents the following discussions for each resource: property history, property description, significance (with subsections for each Criterion), and Integrity (not broken out by Criterion). The rice dryer	explain that assumption.
Signficance	is recommended eligible at the local level under Criteria A and C, but not under Criterion B despite an association with a regionally prominent family.	
Signficance Statement	The analysis of Criterion A cites the importance of rice farming to the regional economy and discusses the waxing and waning of that industry, then proceeds to discuss the paucity of related resources which makes the surveyed example a rare example of an important trend. The analysis of why the Criterion B association does not live up to NRHP standards indicates TxDOT's thinking on Criterion B at the time (see sidebar). The analysis under Criterion C references the guidance on NRHP evaluation provided in the Field Guide to Industrial Properties in Texas, noting that guide's focus on building exteriors as well as the lack of detail provided in the guide about the rice dryer property type, as well as a lack of comparative information on rice dryers in general.	
Assessment of Integrity	<u>Intensive Survey Report</u> : The discussion of integrity includes the observation that the structures visual relationship to the rail corridor contributes to its integrity of association as well as location, feeling and setting, and that the presence of machinery contributes to integrity of materials and association.	
Period of Significance	<u>Intensive Survey Report</u> : Broad periods of significance are defined for each of the historical context themes. The discussion of significance under each of the Criteria includes an assessment of how well the resource falls within the thematic periods of significance. However, no period of significance is defined for the surveyed resource itself.	

South Texhoma Industrial Historic District

Sherman County

County	District	CSJ	Project Description	Technical Reports	Correspondence	Resource Name or Identifier
Sherman		0238 -06- 020	Upgrade US 54 from Stratford city limits to Texhoma, Oklahoma state line.	NEPA Appendix C – survey report May 2001 by unknown.	TxDOT to THC Mar. 2002 THC to TxDOT Apr. 2002	South Texhoma Industrial Historic District
Regis: Require		This is	a simple reconnaissance	e survey with minimal ana	alysis provided.	District includes at least five (5) distinct complexes: 3 grain
Historic Co Data S			ematic historic context in ated surveyed resources	elevator complexes, a dry fertilizer company, and a gas		
NRHP Cr Areas of S		Determined eligible as a district under Criterion A, Agriculture and Criterion C, Design/Construction, both at the local level.			station. What is the standard for	
Signficance Statement		justifica a vital for hun Likewis and thu Countr Appare classify that log	ation for eligibility seems role in the conversion of nans and livestock', this is se, under Criterion C the us they are eligible as ex y Elevator the last strently, the mere fact that the y the resource as a distri- gic is provided. <u>Coordination letter:</u> The sion, with no further anal	to be tautological – grain bulk grain into consumab is a grain processing facil argument is that the elev amples of 'the building su age in the evolution of the here are multiple concrete ct under Criterion C, thou coordination letter simply ysis or clarification.	ators are made of concrete, ubtype called the Concrete e building of grain elevators.' e elevators is sufficient to gh no further discussion of	significance under Criterion C? Is it enough to simply be an example of one of the property types, or does it need to be a "good" example. If so, how do we recognize the good examples from the pretty good or not so bad?
Assessment of Integrity		No explicit assessment of integrity.				
Perio Signifi		1930-1	950			

Southwestern Irrigated Cotton Growers Association Complex

El Paso, El Paso County

County	District	CSJ	Project Description	Technical Reports	Correspondence	Resource Name or Identifier
El Paso	El Paso	0001 -04- 074	Construction of a new interchange at US 85, Doniphan Drive, and New Mexico SH 273.	Windshield survey Jun 2005 by Sue Winton Moss	TxDOT to THC Sept. 8 2005	Southwestern Irrigated Cotton Growers Association Complex
	stration rements	Recon	naissance Survey Report:	none provided.		A 'massive' complex eligible under Criterion A for
Historic Context and Data Sources		Reconnaissance Survey Report: The report includes a highly readable historical narrative of the history of this area of El Paso. However, there is little to no discussion of the significant themes, as would typically be found in a thematically organized historical context statement. TxDOT coordination letter: Despite the letter's statement of significance, the theme of a multi-state cotton industry does not appear to have been spelled out in any of the documents.			association with the cotton growing industry in Southwest Texas, New Mexico, and eastern Arizona, and as one of the major employers in this area of El Paso.	
	NRHP Criteria and Areas of Significance		<u>Reconnaissance Survey Report:</u> There is little to no discussion of the significant themes, as would typically be found in a thematically organized historical context statement. There is also no analysis of the surveyed resources against the NRHP registration criteria; the eligibility recommendation is stated without discussion.			This study raises the issue of how to determine whether a complex should be considered
Signficance Statement		<u>Reconnaissance Survey Report:</u> The report recommends that the plant is locally significant under Criterion A as an intact industrial complex that has been an important employer in the region for more than 80 years. <u>TxDOT coordination letter:</u> The TxDOT coordination letter essentially reiterates the eligibility statement provided in the survey report. However, it adds the statement about association with the cotton growing industry in Southwest Texas, New Mexico and eastern Arizona. The theme of a multi-state cotton industry does not appear to have been spelled out in any of the documents.			important, i.e. the question of relative significance. It further raises the question of how to determine if a complex is significant beyond the local level.	
Assessment of Integrity		Not discussed.				
-	iod of ficance	Not dis compo	cussed. The survey infor nents.	mation sheet lists the cor	struction dates of various	

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Advisory Council on Historic Preservation

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1990, revised 1991, 1995, 1997. NR Bulletin 15: *How to Apply the National Register Criteria for Evaluation*.

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1992, revised 1997. *National Register Bulletin: Guidelines for Identifying, Evaluating, and Registering Historic Mining Properties* by Bruce J. Noble, Jr., and Robert Spude.

1998. *National Register Bulletin: Guidelines for Evaluating and Documenting Historic Aviation Properties* by Anne Milbrooke with Patrick Andrus, Jody Cook, and David B. Whipple.

National Register Nominations

n.d. Get Down the Shovel and the Hoe: Cotton and Rice Farm History and Architecture in the Arkansas Delta, 1900-1955 (Historic Context); Hubbard Rice Dryer, Weiner, Poinsett County, Arkansas (Individual nomination).

1979. *Schulenburg Cotton Compress*, James at Main Street, Schulenburg, Fayette County, Texas, Individually listed.

1981-1990. Proposed Grain Elevators National Register Thematic Group for Tarrant County, Texas, Multiple Resource Nomination.

1982. *Barnard's Mill*, 307 SW Barnard Street, Glen Rose, Somervell County, Texas, Individually listed.

1986. *Historic Resources of Ennis* with 1. *Ennis Cotton Oil Company* (800 block S. Kaufman) and 2. *Ennis Cotton Compress* (111 E. Lampasas), Ennis, Ellis County, Texas, individually listed as part of *Historic Resources of Ennis, Texas*, Multiple Property Nomination.

1987. *Historic and Architectural Properties in McKinney* with 1. *Hill-Webb Grain Elevator* (400 E. Louisiana), 2. *Collin County Mill and Elevator Company* (407 E. Louisiana), and 3. *McKinney Cotton Compress Plant* (300 block of Throckmorton), McKinney, Collin County, Texas, individually listed as part of *Historic and*

Architectural Properties in McKinney, Collin County, Texas, Multiple Property Nomination.

1990. *Belton Farmers' Gin*, 219 S. East Avenue, Belton, Bell County, Texas, individually listed as part of *Historic and Architectural Resources of Belton, Texas* Multiple Property Nomination.

May 24, 1990. *Grain Elevators in Minnesota to 1945* (Historic Context); *Grain Elevator Design in Minnesota* (Multiple property Listing).

December 7, 1990. *Grain Milling in Indiana, 1730-1940* (Historic Context); *Grain Mills in Indiana* (Multiple Property Listing).

June 11, 1991. *Burton Farmers Gin*, Main Street, Burton, Washington County, Texas, listed as part of *Historic and Architectural Resources of Burton, Texas*, Multiple Property Nomination.

October 11, 1994. *Colonial Sugars Historic District*, 1250 South Fifth Street, Gramercy, St James Parish, Louisiana.

1995. *Elgin Commercial Historic District* with 1. *Elgin Cotton Oil Mill* (301 East 1st Street) and 2. *Purina Feed Mill* (205 East 2nd), Elgin, Bastrop County, Texas, listed as part of the *Elgin Commercial Historic District*.

September 4, 1997. Farmers & Merchants Milling Company (also known as B&D Mills), 213 W. Hudgins Street, Grapevine, Tarrant County, Texas, listed as part of the Cotton Belt Railroad Industrial Historic District.

October 6, 1997. *Stanard-Tilton Flour Mill*, 2400 S. Ervay Street, Dallas, Dallas County, Texas, Individually listed (tax act project).

1998. *Gatewood-Shelton Gin*, 304 East Crawford, Palestine, Anderson County, Texas, listed as part of *Historic and Architectural Resources of Palestine, Texas*, Multiple Property Nomination.

February 21, 2000. *Flour Milling in Iowa, 1840-1940* (Historic Context); *Flour Milling and Related Buildings and Structures in Iowa, 1840-1940* (Multiple Property Listing).

March 18, 2000. *Grain Storage and Processing Facilities in Western Oklahoma,* 1889-1950 (Historic Context); *Grain Storage and Processing Facilities in Western Oklahoma* (Multiple Property Listing).

2002. *Mission Citrus Growers Union Packing Shed*, 824 West Business Highway 83, Mission, Hidalgo County, Texas, listed as part of *Historic and Architectural Resources of Mission, Hidalgo County, Texas, Multiple Property Nomination.*

TxDOT Previous Studies from the Texas Department of Transportation Environmental Affairs Division – Historical Studies Branch, on file at TxDOT-ENV/hsb, Austin, Texas.

Project files for CSJ#0124-03-057. US 283 from US 287 to US 925 Grade Separation, Vernon, Wilbarger County.

Project files for CSJ#0014-16-179, 192, 193. IH 35 W from IH 820 to IH 30, Fort Worth Purina Ralston Property, Fort Worth, Tarrant County.

Project files for CSJ#0922-00-026. Border Safety International Facility Camino Real International Bridge, Maverick County.

Project files for CSJ#0286-02-023. SH 80 at SH 142, Martindale Cotton Gins, Caldwell County.

Project files for CSJ#0001-04-074. US 85, Doniphan Drive and New Mexico SH 273 Interchange, Southwestern Irrigated Cotton Growers Association Complex, El Paso County.

Project files for CSJ#0908-22-009. US 277 Relief Route, Haskell Agricultural Industry Complex, Haskell County.

Project files for CSJ#0912-00-142. Intensive Survey of Two Parcels on Hempstead Road, Rice Dryer, Houston, Harris County.

Project files for CSJ#0238-06-020. US 54 from Stratford city limits to Oklahoma State line, South Texhoma Industrial Historic District, Sherman County.