Draft Environmental Assessment

City of Mesa Fire Station No. 220

Mesa, Arizona

FEMA Grant No. EMW-2009-FC-00917R

City of Mesa Capital Improvement Project No. 01-757-001

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FEMA

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LIST OF ACRONYMS

AAC	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
AFG	Assistance to Firefighters Grant
AGFD	Arizona Game and Fish Department
AZPDES	Arizona Pollutant Discharge Elimination System
BG	Block Group
BMPs	Best Management Practices
CFR	Code of Federal Regulations
CO	carbon monoxide
CT	Census Tract
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
EA	Environmental Assessment
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Phase I Environmental Site Assessment
FEMA	Federal Emergency Management Agency
HUD	U.S. Department of Housing and Urban Development
ISO	Insurance Services Office
L_{dn}	day-night average sound level
MFD	Mesa Fire Department
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
O_3	ozone
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
PM_{10}	particulate matter less than 10 microns in diameter
PPC	Public Protection Classification
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SWPPP	Stormwater Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
Waters	Waters of the United States

1.0 INTRODUCTION

1.1 Project Authority

Assistance to Firefighters Grants (AFG) are administered by the U.S. Department of Homeland Security Federal Emergency Management Agency (FEMA) and provide financial assistance to fire departments to build new or modify existing fire stations to enhance their response capability and protect the community they serve from fire and fire-related hazards. The authority for AFG is derived from the American Recovery and Reinvestment Act of 2009 (Public Law 111-5). Congress appropriated a total of $210 million for the Fiscal Year 2009 program. The primary goal of the program is to provide a coordinated effort to stimulate the economy while strengthening homeland security preparedness, and to support fire organizations lacking the tools and resources necessary to effectively protect the health and safety of the public and their emergency response personnel with respect to fire and all other hazards. The City of Mesa has been awarded FEMA Grant No. EMW-2009-FC-00917R for the construction of its proposed Fire Station No. 220 to meet service demand and to improve response times in the central part of the City of Mesa, Arizona.

Prior to approving funds, FEMA is required to consider potential environmental impacts on the quality of the human environment that would result from Grantee proposals. This Draft Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), the President's Council on Environmental Quality regulations to implement NEPA (40 Code of Federal Regulations [CFR] Parts 1500–1508), and FEMA regulations implementing NEPA (44 CFR Part 10). Based on the results of the environmental assessment process, FEMA will determine whether to prepare an Environmental Impact Statement or a Finding of No Significant Impact.

1.2 Project Location

Fire Station No. 220 would be located at 5763 E. Main St., at the southwest corner of 58th Street and Main Street in Mesa, Arizona (Figure 1). The project area is approximately 2.3 acres on a previously developed site within an urbanized area. All of the original buildings and structures previously on the site were removed prior to the City of Mesa's acquisition of the property. The fire station would include a one-story building containing a four-bay apparatus. The facility would also include parking areas, driveways, and landscaped retention areas. This project is located in Section 23, Township 1 North, Range 6 East on the Buckhorn, Arizona, U.S. Geological Survey 7.5-minute topographic series map.

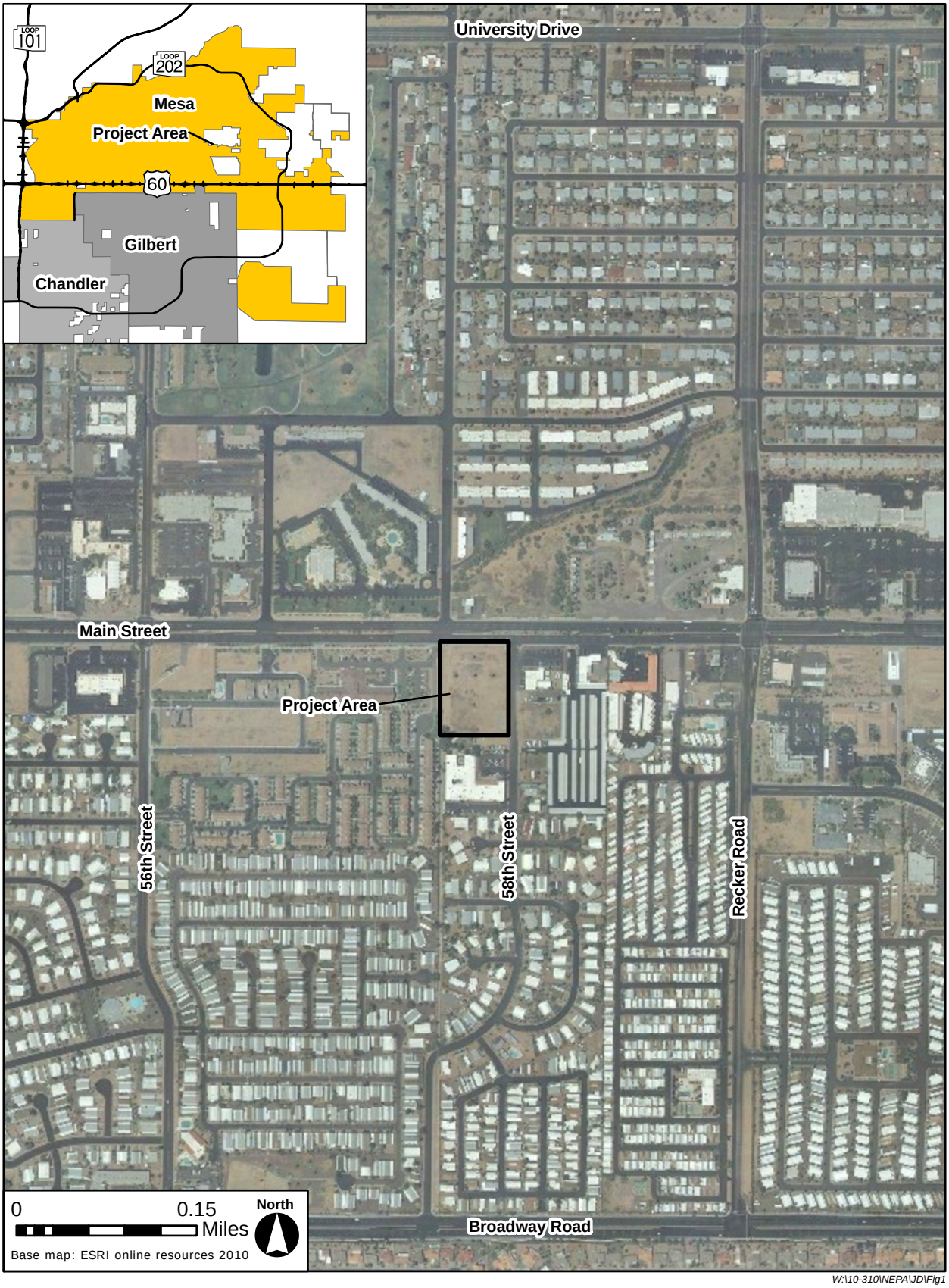

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Figure 1. Project location.

2.0 PURPOSE AND NEED

The purpose and need for the project is to address increasing population growth and associated demand for firefighting capabilities in the City of Mesa. The Mesa Fire Department (MFD) protects a population in excess of 464,000 over an area of 137 square miles. Seventeen fire stations currently cover the City, and the MFD operates 19 fire engines and 26 other emergency vehicles. Due to population growth and associated increased demand, the independent Insurance Services Office (ISO) rating for firefighting capability, or Public Protection Classification (PPC), for the City of Mesa dropped from PPC 2 to PPC 3 in 2007. PPC 1 represents exemplary firefighting protection; PPC 10 represents fire-suppression programs that do not meet ISO minimum standards. According to the ISO survey, five additional fire stations would be needed within the City to reestablish a PPC rating of 2. Eleven additional fire stations would be needed to reach a PPC rating of 1.

The defined service area for Fire Station No. 220 has been identified as an area with a critical need for locating a new fire station. The nearest existing fire station, No. 213, is 3 miles away. For this reason and due to high demand in this in-fill area of the City, average response times exceed 5 minutes in the project area. The MFD's target is to achieve an average response time of 4 minutes or less. Fire Station No. 220 would be located along the Main Street corridor, which experiences a high volume of calls because of population density and a large number of nursing homes, assisted living communities, and retirement communities. In 2008, more than 3,900 calls were dispatched in the proposed Fire Station No. 220 service area. More than 2,500 of these calls (64 percent) resulted in a response time averaging more than 5 minutes. Fire Station No. 220 is needed to address increased service demand, reduce average emergency response times, and increase safety for firefighting and emergency medical services personnel and operations in this part of the City of Mesa.

3.0 ALTERNATIVES

3.1 No Action

Under the No Action alternative, Fire Station No. 220 would not be constructed. The area surrounding its proposed location would continue to be serviced by other fire stations—primarily the nearest fire station (No. 213), which is 3 miles away. This would result in average response times in excess of 5 minutes and, therefore, would not meet the target 4-minute average response times needed to provide adequate emergency services to the area.

3.2 Proposed Action

The Proposed Action is the use of FEMA Grant No. EMW-2009-FC-00917R for the construction of City of Mesa Fire Station No. 220 at the southwest corner of 58th Street and Main Street in Mesa, Arizona. The fire station would be constructed on a 2.3-acre previously developed site in an urbanized part of the City of Mesa. Adjacent land uses are primarily residential, with some commercial uses along Main Street. Appendix A includes photos that show the current site conditions.

The fire station would be built for 24-hour staffing 365 days a year and would consist of a one-story, 13,492-square-foot building with a four-bay station and living quarters, exercise and laundry facilities, a decontamination room, a kitchen, a community/training room, men's and

women's public restrooms, and a dayroom. The station would have gas and electrical utilities, including solar thermal water heaters and solar photovoltaic panels, and a backup generator powered by natural gas. The facility would include parking areas, driveways, and landscaped retention areas. Main Street and 58th Street would be converted to a "T" intersection and would be signalized for fire truck traffic and normal traffic. Copies of the site and traffic control plans are included in Appendix B.

Construction is anticipated to start in September 2010 and be completed by April 2011 and would involve grading; construction of building, parking, and retention areas; and trenching and installation of utilities. Construction staging would occur on-site, and any fill material required would be obtained from an approved off-site source.

3.3 Alternatives Considered But Eliminated

Within the Main Street corridor, the area of identified need, the City of Mesa considered four available properties for the potential siting of Fire Station 220, including the proposed site at 58th Street and Main Street. Two primary considerations in the site evaluation process were whether the site could provide north–south access to Main Street or Broadway Road, and the site location's effect on emergency response times. Access to at least one of these two roads is important because these roads cross the City limits from east to west and provide direct access to surrounding municipalities with which the City of Mesa has firefighting and emergency response agreements. Table 1 compares the four sites.

Table 1. Comparison of sites considered.

Site Location	Selection Considerations
Main Street/54th Street—Southeast Corner	Site was eliminated from consideration because the only access to Broadway Road was indirect.
Main Street/54th Street—Southwest Corner	Site was eliminated from consideration because the only access to Broadway Road was indirect.
Recker Road/Main Street	Site was eliminated from consideration because there was no acceptable access to Recker Road; new access would have to be developed.
58th Street/Main Street	Site was selected as the preferred location because 58th Street would provide direct access to Main Street and the shortest access to Broadway Road and University Drive, where emergency calls have been concentrated, and the site is centered within the new fire station response area.

4.0 AFFECTED ENVIRONMENT AND POTENTIAL IMPACTS

4.1 Physical Resources

4.1.1 Geology and Soils

The site is located in south-central Arizona within the Basin and Range physiographic province in the urbanized Phoenix metropolitan area. The project area is on a nearly flat depositional plain within the Middle Gila River watershed at an approximate elevation of 1,370 feet above mean sea level. Mesa has an arid climate and receives an annual average precipitation of about 8 inches (Western Regional Climate Center 2010).

Surface geology is described as Quaternary-aged sand, gravel, and conglomerate (Wilson et al. 1957). Soils are classified as Gilman loam, which are well-drained soils with 0 to 1 percent slope and formed from mixed alluvium parent material (U.S. Department of Agriculture [USDA] 2010a).

The Farmland Protection Policy Act (P.L. 97-98, Sections 1539–1549; U.S. Code 4201, et seq.) was enacted to minimize the unnecessary conversion of farmland to non-agricultural uses as a result of federal actions. The Natural Resources Conservation Service (NRCS) is responsible for protecting significant agricultural lands from irreversible conversions that result in the loss of an essential food or environmental resource; this protection includes lands designated by the NRCS as important farmlands based on soil types present. The soil type in the project area (Gilman loam) is considered prime farmland (USDA 2010a); however, the site was previously developed within an urbanized setting.

No Action: Because the fire station would not be constructed, the No Action alternative would have no impacts on the soils, geology, or farmland of the area.

Proposed Action: Construction of the fire station would result in temporary disturbance of surface soils in the project area. Due to its level condition, grading of the site would be minimal. Implementation of Best Management Practices (BMPs) identified in a Storm Water Pollution Prevention Plan (SWPPP) would minimize soil erosion until construction is complete and the site is permanently stabilized (see Section 4.2.1 Surface Water Quality).

Construction of the fire station would not result in the conversion of important farmlands to non-agricultural uses. Though soils mapped in the project area are identified by the NRCS as potentially supporting prime farmland, the U.S. Census Bureau website Urbanization Reference Map identifies the site as an urbanized area (U.S Census Bureau 2000a). Urbanized areas referenced on the U.S. Census Bureau website are not subject to the Farmland Conversion Impact Rating Form AC 1006 (USDA 2010b).

4.1.2 Air Quality

The 1990 Clean Air Act, its amendments, and NEPA require that air quality impacts be addressed in the preparation of environmental documents. The U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS) for six "criteria" pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), sulfur dioxide, and lead. Primary and secondary standards for NAAQS have been established for most of the criteria pollutants. The EPA is authorized to designate those locations that have not met the NAAQS as non-attainment and to classify these non-attainment areas according to their degree of severity. The project area is located within portions of Maricopa County designated as non-attainment for O_3 and particulate matter (PM_{10}), and designated as a maintenance area for CO.

For non-attainment areas, states are required to formulate and submit to the EPA State Implementation Plans (SIPs), which outline those measures the state will use to attain and maintain compliance with NAAQS (40 CFR Part 51). Development of the SIP uses emission inventories for each of the nonattainment or maintenance pollutants and a baseline emission

budget against which future emissions are compared; fire stations are not included in the SIP emission budgets (Maricopa County Air Quality Department 2010).

Federally funded projects are subject to the SIP and the General Conformity Rule. The General Conformity Rule requires that actions taken by federal agencies in nonattainment and maintenance areas do not interfere with a state's plans to meet national standards for air quality.

No Action: Under this alternative, the fire station would not be constructed and operated. Emergency calls in the project area would be serviced by the nearest existing fire station (No. 213), approximately 3 miles away. Due to longer distances traveled, this would result in higher emergency-vehicle–related emissions compared with the Proposed Action, though emissions would be minimal relative to other mobile sources in the area.

Proposed Action: Under this alternative, short-term emissions of criteria pollutants would occur during the construction phase. Construction equipment and personal vehicles would generate exhaust emissions, including NO_2 and CO; the operation of motor vehicles on unpaved surfaces and the use of earthmoving equipment may additionally generate particulate matter. The moving and handling of soil during construction would increase the potential for emissions of fugitive dust; however, any deterioration of air quality would be a localized, short-term condition that would be discontinued when the project is completed and disturbed soils have been stabilized or permanently covered. Construction activities would be subject to Maricopa County Rule 310 and would be required to minimize fugitive dust emissions through watering, controlling entrainment of dust by vehicles, and/or other measures to reduce the disturbance of particulate matter. The Arizona Department of Environmental Quality (ADEQ) provided a list of actions designed to mitigate particulate matter impacts during construction (Appendix C). These measures have been incorporated as mitigation. Additional restrictions limiting emissions resulting from construction activities include Arizona Administrative Code (AAC) R18-2-604 through 607 and AAC R18-2-802 and 804.

During the operational phase, the transport of fire station personnel to and from the station and the station's response to emergencies would contribute to motor vehicle trips and generate air emissions, and emissions from a stationary natural gas generator at the facility would occur during periods requiring emergency backup power. The generator, rated at 415 horsepower, exceeds the de minimis value of 325 horsepower. Depending on the specific equipment selected, the generator might require a Class II operating permit (AAC R18-2-302[B][2]).

Increases in ambient concentrations of the criteria pollutants resulting from emergency and staff vehicle emission and the operation of the backup generator would be minimal. The proposed facility is expected to have no long-term adverse impacts on the air quality of the area.

Mitigation

- Based on the make and model of the backup generator procured, the City of Mesa would determine whether a Class II operating permit would be needed in accordance with AAC R18-2-302(B)(2).

- Construction activities would be subject to Maricopa County Rule 310 and would be required to minimize fugitive dust emissions through watering, controlling entrainment of dust by vehicles, and/or other measures to reduce the disturbance of particulate matter.
- During site preparation and construction, the contractor would:
  - Minimize land disturbance;
  - Suppress dust on traveled paths that are not paved through wetting, use of watering trucks, chemical dust suppressants, or other reasonable precautions to prevent dust from entering ambient air;
  - Cover trucks when hauling soil;
  - Minimize soil track-out by washing or cleaning truck wheels before leaving the construction site;
  - Stabilize the surface of soil piles; and
  - Create wind breaks.
- During site restoration, the contractor would:
  - Revegetate any disturbed land not used with native species in accordance with Executive Order (EO) 13112,
  - Remove unused material, and
  - Remove soil piles via covered trucks.
- The contractor would comply with AAC R18-2-604 through 607 and AAC R18-2-802 and 804.

4.2 Water Resources

4.2.1 Surface Water Quality

No perennial or ephemeral streams are located on the site; however, a drainage ditch crosses the site (Section 4.2.2). The site is within the Middle Gila River watershed. Storm flows in the area drain to the East Maricopa Floodway, which ultimately discharges to the Gila River south of the Phoenix metropolitan area.

No Action: Because the fire station would not be constructed, the No Action alternative would have no effect on surface water quality in the project area or within the watershed.

Proposed Action: Construction of the fire station would result in the removal of existing vegetation and the temporary disturbance of surface soils in the project area, increasing the potential for soil erosion and downstream sedimentation. Because the project would disturb more than 1 acre, the City of Mesa would be required to file a Notice of Intent under the Arizona Pollutant Discharge Elimination System (AZPDES) Construction General Permit and to prepare and implement a SWPPP for the project Implementation of BMPs identified in the SWPPP would minimize potential soil erosion, sedimentation, and discharge of other pollutants until construction is complete and the site is permanently stabilized.

Landscaped retention basins included as part of the site design would control storm water discharges from the project area and minimize potential water quality impacts once the facility has been constructed.

Mitigation

- Because the project would disturb more than 1 acre, prior to construction, the City of Mesa would file a Notice of Intent under the AZPDES Construction General Permit and prepare a SWPPP.

4.2.2 Waters of the United States, Including Wetlands

The U.S. Army Corps of Engineers (USACE) regulates the placement of dredged or fill material into Waters of the United States (Waters) under the federal Clean Water Act (CWA). Authorization from the USACE and the ADEQ would be required under CWA Sections 404 and 401 for discharge of dredged or fill material to Waters, including wetlands. Furthermore, EO 11990 directs federal agencies to take actions to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the values of wetlands. A site visit was conducted on March 22, 2010, by a biologist qualified to assess the occurrence of wetlands and other Waters. No hydrophytic vegetation or field indicators of wetland hydrology were observed on-site. Soils mapped in the project area are not identified as hydric soils by the NRCS. An unlined ephemeral drainage channel along the western site boundary flows south under Main Street through a culvert. The downstream portion of the drainage channel has been lined with concrete to Broadway Road, where it ties into the storm drain system under Broadway Road. This storm drain connects to the East Maricopa Floodway, which eventually connects to the Gila River. Based on the results of a jurisdictional delineation completed by a CWA permitting specialist on behalf of the City of Mesa, this channel is not considered jurisdictional under Section 404 of the CWA.

<u>No Action:</u> Under this alternative, Fire Station No. 220 would not be constructed. Therefore, the No Action alternative would have no effect on wetlands or other Waters and would not require a Section 404 permit.

<u>Proposed Action:</u> The drainage channel along the western site boundary is not considered potentially jurisdictional under Section 404 of the CWA. The Proposed Action would have no effect on wetlands or other Waters and would not require a Section 404 permit.

4.2.3 Floodplains

EO 11998 (Floodplain Protection) requires federal agencies to avoid or minimize development in the floodplain except where there are no practicable alternatives. FEMA regulations related to the implementation and enforcement of EO 11998 are set forth in 44 CFR Chapter 1 (10-1-03 Edition). The project area falls within FEMA Flood Insurance Rate Map 04013C2215H, Panel 2215 (FEMA 2005). The project area is designated as Zone X (shaded) and is defined as areas “of 0.2% annual chance of flood, areas of 1% annual chance of flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood.” The 0.2% annual chance flood and the 1% annual chance flood are also known as 500-year and 100-year flood events, respectively. A copy of the floodplain map is included as Appendix D.

FEMA's procedures for implementing EO 11998 (44 CFR 9, Section 9.6) include an eight-step planning process that decision-makers must use when considering projects that have potential impacts to or within a floodplain. This includes a determination of whether the proposed project is in the floodplain and, if so, justification for locating the project in the floodplain and identification of any means to minimize the impacts.

In summary, the eight-step planning process includes public notification of the City's intent to build within the floodplain, consideration of practicable alternatives to siting within the floodplain, an assessment of direct and indirect effects, and consideration of measures to minimize harm. A full summary of the eight-step planning process is included in Appendix E.

No Action: Because no fire station would be constructed, the No Action alternative would have no effect on floodplains.

Proposed Action: Because Fire Station No. 220 would be sited in a 500-year floodplain, the City of Mesa has initiated FEMA's eight-step planning process. No comments from the public were received following publication of the notice. The results of the eight-step planning process indicate that there are no practicable alternatives because the entire service area for the fire station is in the 500-year floodplain. Furthermore, the Proposed Action would not result in adverse impacts to the 500-year floodplain or to wetlands and, therefore, no measures to minimize harm were required.

4.3 Biological Resources

4.3.1 Flora and Fauna

The project area occurs within the Lower Colorado River subdivision of the Sonoran desertscrub biome, but floral and faunal communities have been altered by previous development of the site and urbanization of the surrounding areas. The project area is currently an undeveloped, previously graded lot that supports primarily annual and weedy grasses and forbs and a small number of non-native palm trees *(Washingtonia filifera)* previously planted as ornamentals. Fauna are likely to be limited to primarily non-native species adapted to urban settings, such as exotic birds (pigeons, house sparrows, etc.), rodents, and invertebrates. A field investigation was conducted on March 22, 2010, to determine the potential presence of Western burrowing owls *(Athene cunicularia hypugaea)* in the project area. No burrowing owls or potential nesting or roosting sites were observed.

No Action: The No Action alternative would have no effect on flora or fauna in the project area because the site would not be developed for the proposed fire station.

Proposed Action: Construction of the fire station would result in the permanent modification and development of 2.3 acres of open area. This would result in the removal of a small number of non-native palm trees and predominantly non-native and weedy grasses and forbs. Affected fauna would be limited and would be primarily non-native species adapted to urbanized settings.

4.3.2 Threatened, Endangered, and Candidate Species and Critical Habitat

The U.S. Fish and Wildlife Service (USFWS) list of threatened, endangered, and candidate species for Maricopa County (USFWS 2010) was reviewed by a biologist qualified to determine

which listed species may occur in the project vicinity (Table 2). FEMA requested the USFWS to concur with a finding of no effect on listed endangered or threatened species for the project (Meyer [FEMA] to Spangle [USFWS], November 30, 2009) (Appendix C). The USFWS responded with concurrence and stated that no further review is required (Spangle [USFWS] to Meyer [FEMA], February 23, 2010) (Appendix C).

Information regarding the presence of special status species was requested from the Arizona Game and Fish Department (AGFD) through its On-line Environmental Review Tool and through correspondence (Appendix C). The AGFD On-line Environmental Review Tool indicated no known records of any special status species within 3 miles of the project area (Appendix F).

Table 2. USFWS listed species in Maricopa County and evaluation of effects.

Common Name	Scientific Name	Status	Suitable Habitat Present?	Occupied Habitat Present?	Critical Habitat Present?	Species Affected?	Critical/ Suitable Habitat Affected?
Arizona cliffrose	*Purshia subintegra*	E	No	No	No	No	No
Bald eagle	*Haliaeetus leucocephalus*	T	No	No	No	No	No
California least tern	*Sterna antillarum browni*	E	No	No	No	No	No
Desert pupfish	*Cyprinodon macularius*	E	No	No	No	No	No
Gila topminnow	*Poeciliopsis occidentalis occidentalis*	E	No	No	No	No	No
Lesser long-nosed bat	*Leptonycteris curasoae yerbabuenae*	E	No	No	No	No	No
Mexican spotted owl	*Strix occidentalis lucida*	T	No	No	No	No	No
Razorback sucker	*Xyrauchen texanus*	E	No	No	No	No	No
Roundtail chub	*Gila robusta*	C	No	No	No	No	No
Sonoran pronghorn	*Antilocapra americana sonoriensis*	E	No	No	No	No	No
Southwestern willow flycatcher	*Empidonax traillii extimus*	E	No	No	No	No	No
Tucson shovel-nosed snake	*Chionactis occipitalis klauberi*	C	No	No	No	No	No
Woundfin	*Plagopterus argentissimus*	E	No	No	No	No	No
Yellow-billed cuckoo	*Coccyzus americanus*	C	No	No	No	No	No
Yuma clapper rail	*Rallus longirostris yumanensis*	E	No	No	No	No	No

C = Candidate, E = Endangered, T = Threatened (USFWS 2010)

No Action: The No Action alternative would have no effect on threatened, endangered, or candidate species or designated critical habitat because the fire station would not be constructed on the site.

Proposed Action: There are no known records of threatened, endangered, or candidate species in the project area, and there is no designated critical habitat. The project area does not provide suitable habitat for any of the 15 threatened, endangered, or candidate species listed for Maricopa County. Therefore, construction and operation of the proposed fire station under this alternative would have no effect on threatened or endangered species or designated critical habitat.

4.4 Historic Properties

Cultural resources are properties that reflect the heritage of local communities, states, and nations. Properties judged to be significant and to retain sufficient integrity to convey that significance are termed "historic properties" and afforded certain protections in accordance with federal legislation. In addition to review under NEPA, consideration of effects to historic properties is mandated under Section 106 of the National Historic Preservation Act (NHPA), as amended. The NHPA defines historic properties as sites, buildings, structures, districts, and objects included on, or eligible for inclusion on, the National Register of Historic Places (NRHP), as well as the artifacts, records, and remains related to such properties. "Traditional cultural properties" having heritage value for contemporary communities (often, but not necessarily, Native American groups) also can be listed on the NRHP because of their association with historic cultural practices or beliefs that are important in maintaining the cultural identities of such communities.

Regulations for *Protection of Historic Properties* (36 CFR Part 800), which implements Section 106, were most recently amended in 2004. These regulations define a process for responsible federal agencies to consult with the State Historic Preservation Office (SHPO), Native American groups, other interested parties, and, when necessary, the Advisory Council on Historic Preservation to ensure that historic properties are duly considered as federal undertakings are planned and implemented.

4.4.1 Historic

FEMA defined the area of potential effects as the 2.3-acre parcel proposed for construction of the fire station but also conducted a search of the NRHP in the vicinity of the parcel. FEMA researched the history of past land use and documented that the entire 2.3-acre parcel had been subject to ground disturbance as the result of earlier commercial development. FEMA also identified a single NRHP-listed property, the Buckhorn Baths Motel, approximately 0.22 mile northeast of the proposed fire station construction site and concluded that the proposed construction "is not expected to have an adverse visual effect on the Buckhorn Baths Motel … [because] … the listed historic property is located across a large divided road (East Main Street) that contains vegetation." FEMA consulted with the Arizona SHPO, provided the information presented here, and made a determination of "no historic properties affected" pursuant to 36 CFR Part 800.4(d)(1) (Meyer [FEMA] to Garrison [SHPO], November 30, 2009) (Appendix C). SHPO responded and concurred with a determination of "no adverse effect" on the Buckhorn Baths Motel (Collins, December 22, 2009) (Appendix C).

4.4.2 Resources Important to Native Americans

In addition to consulting with the Arizona SHPO, Donna M. Meyer, Deputy Environmental and Historic Preservation Officer for FEMA, distributed letters dated February 5, 2010, to eight Native American tribes: the Ak-Chin Indian Community, the Fort McDowell Yavapai Nation, the Gila River Indian Community, the Salt River Pima-Maricopa Indian Community, the San Carlos Apache Nation, the Tohono O'odham Nation, the Yavapai-Apache Nation, and the White Mountain Apache Tribe. The tribes were asked to provide comments regarding historic properties "including those of traditional religious and cultural importance" and to participate in the resolution of any adverse effects. No responses were received.

No Action: Under the No Action alternative, there would be no construction and no impacts to historic or cultural properties.

Proposed Action: Construction of the proposed fire station would not impact any historic or cultural properties.

4.5 Socioeconomic Resources

4.5.1 Environmental Justice

Title VI of the Civil Rights Act of 1964 ensures that individuals are not excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving federal financial assistance on the basis of race, color, and national origin. EO 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* directs that federal programs, policies, and activities do not have disproportionately high and adverse human health and environmental effects on minority and low-income populations.

The data used for this Environmental Justice analysis were taken from the 2000 Census (U.S. Census Bureau 2000b). Data specific to the project area at the Block Group (BG) level were evaluated. The construction footprint for the Proposed Action falls within Census Tract (CT) 4226.03, BG 3 and BG 4 and is immediately adjacent to CT 4202.03, BG 4. The City of Mesa and Maricopa County were used as comparison populations to determine whether the selected BG contained concentrations of minority populations or persons living below the poverty level.

For the purpose of environmental justice evaluations, a racial or ethnic minority population is an aggregate composed of the following categories: Black/African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, Other Races, Two or More Races, and Hispanic. Table 3 lists the aggregate of these minority populations in the selected BG. Data from the 2000 Census indicate that minority populations occur in the selected BG. The percentage of minorities for CT 4226.03, BG 3 (16.0 percent) and BG 4 (0.5 percent), and CT 4202.03, BG 4 (6.8 percent) are lower than the corresponding percentages for the City of Mesa (27 percent) and Maricopa County (33.8 percent).

The U.S. Department of Health and Human Services poverty guideline is an income of $16,700 for a family of four in 1999. Data from the 2000 Census indicate that individuals living below the poverty level reside in the selected BG. As shown in Table 3, the percentage of persons

living below the poverty level for CT 4226.03, BG 3 (3.8 percent) and BG 4 (8.2 percent) and CT 4202.03, BG 4 (16.2 percent) are similar to or lower than the corresponding percentage in the comparison populations of the City of Mesa (8.9 percent) and Maricopa County (11.8 percent).

Based on this analysis, the selected BGs do not reflect percentages that are meaningfully higher than the comparison populations; therefore, the selected BGs are not considered to have protected populations.

Table 3. 2000 total minority and below poverty level populations.

Area	Total Population	Total Minority[a]		Total Population for Whom Poverty Is Determined	Below Poverty Level	
		#	Percent		#	Percent
CT 4202.03, BG 4	693	47	6.8	693	112	16.2
CT 4226.03, BG 3	1,384	222	16.0	1,267	48	3.8
CT 4226.03, BG 4	1,513	7	0.5	919	75	8.2
City of Mesa	397,215	107,124	27.0	392,911	35,031	8.9
Maricopa County	3,072,149	1,038,729	33.8	3,027,299	355,668	11.8

[a] "Total Minority" is composed of all people who consider themselves Non-White racially plus those who consider themselves White Hispanic.

No Action: The No Action alternative would have no direct impacts on minority or low-income populations because no construction would occur. As the area continues to develop, all nearby residents will be affected equally by the distance fire department personnel have to travel to reach the area.

Proposed Action: Construction of the fire station under this alternative would result in quicker response times by fire personnel to the surrounding neighborhoods. This alternative would have an equally beneficial impact on nearby residents, including minority populations and persons living below the poverty level.

4.5.2 Noise

Noise is considered unwanted sound and is typically measured in decibels (dB). The day-night average sound level (L_{dn}) is the 24-hour average sound level, in dB, obtained after the addition of 10 dB to the sound levels occurring between 10 p.m. and 7 a.m. (nighttime hours) and is used by agencies for estimating sound impacts and establishing guidelines for compatible land uses. U.S. Department of Housing and Urban Development (HUD) regulations set acceptable noise levels at 65 L_{dn} or less (24 CFR Part 51, Subpart B). The noise ordinance for the City of Mesa establishes a 24-hour equivalent sound level for residential areas at 60 A-weighted decibels (dBA) (City of Mesa 2009). Unlike the HUD standard, the City ordinance does not add 10 dB to sound levels occurring during nighttime hours. Adding 10 dB to the City standard during nighttime hours would result in a 66 dBA L_{dn} 24-hour acceptable noise level. The EPA identifies a 24-hour exposure level of 70 dB as the level of environmental noise that will prevent any measurable hearing loss over a lifetime and noise levels of 55 dB outdoors and 45 dB indoors as preventing activity interference and annoyance (e.g., spoken conversation, sleeping, working, recreation) (EPA 1974). The levels identified represent averages over long periods of time rather than single events or "peak" levels.

Noise-sensitive receptors are land uses associated with indoor or outdoor activities that may be subject to stress or substantial interference from noise. These generally include residences, hotels/motels, nursing homes, schools, and libraries. At a sound level of 115 dBA at 10 feet for a siren and a standard attenuation rate of six dBA per doubling of distance, siren noise from fire trucks leaving the fire stations would be attenuated to the 65 dBA HUD standard within approximately six-tenths of a mile of the source. Locations most affected by fire truck sirens would be those around the fire station (within ½ mile) and along Main Street to the first main arterial intersections to the east and west (Recker Road and Higley Road, respectively). Noise-sensitive receptors within this distance include single- and multi-family residences, apartment complexes, motels, a hotel, a church, and mobile home parks. Single-family homes southeast of the Fire Station No. 220 exit onto South 58th Street are the closest receptors in the project area.

Traffic on Main Street, a City arterial, contributes to the existing noise environment, primarily during the morning (6 a.m to 9 a.m.) and evening (4 p.m. to 6 p.m.) peak periods. Peak-hour traffic on Main Street, estimated from 2007 Maricopa Association of Governments traffic counts, is approximately 3,500 vehicles per hour. Peak-hour vehicles traveling at the posted speed of 45 miles per hour generate approximately 60 dBA to 65 dBA at a distance of 300 feet from the roadway, depending on shielding from existing structures.

No Action: The No Action alternative would result in no noise-related impacts because the new fire station would not be constructed.

Proposed Action: Construction of the fire station under this alternative would result in short-term increases in noise levels from construction equipment and activities. Construction activities would be limited to daylight hours and, therefore, would not affect ambient noise levels at night in surrounding residential areas.

Once the fire station is operational, there would be a long-term increase in traffic and siren noise from emergency response personnel and activities. Siren noise from fire trucks leaving the facility would result in occasional peak noise events of up to 115 dBA at the source that would be the dominant noise source even during peak traffic hours but would be attenuated over distance. This would primarily affect noise-sensitive receptors within ½ mile of the source in the identified analysis area; these receptors consist of residences, apartment complexes, a hotel, motels, a church, and mobile home parks. These peak noise events would be short in duration and infrequent, and they would not be expected to result in exceedance of EPA or HUD 24-hour exposure levels or violate the City ordinance. The single-family homes located southeast of the Fire Station No. 220 driveway that exit onto South 58th Street have the greatest potential exposure to the temporary peak noise events.

EPA, HUD, and City standards do not apply to emergency vehicles; therefore, noise abatement standards and methods have not been established for fire truck sirens and horns. Some municipalities and fire companies have developed policies to limit the impact of emergency vehicle response on the community.

MFD apparatus are built to National Fire Protection Agency Standard 1901, which recommends that engine noise for trucks operating at 45 miles per hour should not exceed 80 decibels. Fire Station No. 220 will contain a traffic signal and an 8-foot-high concrete masonry unit perimeter

wall to help mitigate engine/siren noise. As a standard practice, with a control signal, sirens are not put into operation until the vehicle completes its first directional turn and encounters traffic. Normally, from 8 p.m. to 8 a.m., and depending on traffic flow, sirens are not placed into operation until the apparatus approaches a major intersection or approaching traffic traveling in the same direction. It is also standard practice to shut sirens off while making the turn off a main street and entering a residential neighborhood.

MFD dispatch triages and dispatches 911 calls as Code 2 (without lights and sirens) and Code 3 (with lights and sirens), so not every call will require siren operation. The company officer also has the ability to determine the response type.

The fire apparatus is checked each morning and will undergo a pump test for approximately 1–2 minutes; therefore, the engine will run at a higher idle for a short period of time. The check is normally performed at the rear of the station, where landscaping and fencing reduced engine noise. A siren check is required, but the sirens are tested during the first call, so they are not turned on while the apparatus is in the station.

Though some members of the public participating in the public meeting for Fire Station No. 220 expressed concern about fire station–generated noise, MFD representatives responded by describing the previously noted standard operating policies designed to limit noise. Noise complaints related to the operation of existing fire stations in the City of Mesa are not a common occurrence (MFD 2010).

4.5.3 Traffic/Transportation

The project area is located on Main Street, a main arterial through the central portion of Mesa. Main Street is a two-way, six-lane roadway divided by a median. Signalized intersections are at the nearest main arterial intersections (Higley Road, ¾ mile west, and Recker Road, ¼ mile east) and two collector streets (56th Street, ¼ mile west, and Via Norte, ½ mile east).

No Action: Because the fire station would not be constructed, the No Action alternative would not affect traffic or transportation patterns in the project area.

Proposed Action: Under this alternative, Main Street and 58th Street would be converted to a “T” intersection and would be signalized for fire truck traffic and normal traffic. The proposed traffic signal would be synchronized with other traffic signals along Main Street and, therefore, would result in little or no reduction in traffic flow in the project area. The traffic signal will allow fire trucks to enter the main arterial safely.

4.5.4 Public Health and Safety

The project area currently experiences fire and emergency response times in excess of 5 minutes, resulting in reduced public health and safety for residents, businesses, institutions, and the general public. With the nearest existing fire station (No. 213) 3 miles away, the MFD cannot meet its target average response time of 4 minutes or less.

No Action: Under the No Action alternative, Fire Station No. 220 would not be constructed and the project area would continue to be served by the other fire stations in the general area—particularly Fire Station No. 213, which is 3 miles away. Area residents, businesses, institutions,

and the general public in the project area would continue to experience emergency response times that average in excess of 5 minutes.

Proposed Action: Construction and operation of Fire Station No. 220 in the project area would reduce average emergency response times to less than 4 minutes, enhancing the level of public safety. It would also reduce distances traveled and time spent driving to and from emergency calls for emergency personnel, reducing the potential for vehicular conflicts, death, and injury.

4.6 Hazardous Materials

Hazardous wastes, as defined by the Resource Conservation and Recovery Act (40 CFR Part 261), are defined as a solid waste, or combination of solid wastes, that, because of quantity, concentration, or physical, chemical, or infectious characteristics, may (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported or disposed of or otherwise managed. The management of hazardous waste is regulated by the Arizona Department of Environmental Quality, the state environmental regulatory agency that oversees general compliance with state and federal environmental regulations.

A Phase I Environmental Site Assessment (ESA) was conducted at the proposed location for Fire Station No. 220 (Speedie and Associates 2009). The ESA was conducted in accordance with the American Society for Testing and Materials Standard E1527-05 to evaluate the property, identify potential recognized environmental conditions, and determine whether further investigation is warranted.

The ESA includes a summary of state and federal environmental databases, including the Arizona Superfund Program; the Comprehensive Environmental Response, Compensation, and Liability Act; leaking underground storage tanks; the National Priority Lists (for Superfund); and the Water Quality Assurance Revolving Fund. A review of these databases revealed no hazardous materials concerns for the project area or its immediate surroundings.

Review of select historical aerial photos dated 1937–2009 show the project area as undeveloped desert through 1949. The project area is shown with an apparent commercial structure in the 1954 aerial photo, which was visible through 1971. The project area appeared to be vacant land in the 1975 aerial photo and remained vacant through 2008. The 2009 aerial photo shows debris and storage in the central and eastern portions of the project area. Adjacent areas appeared to be undeveloped desert or agricultural through 1954, when commercial development was observed to the east and north. Residential development was observed in the 1971 aerial photo approximately ¼ mile in all directions. Other immediately adjacent areas continued to develop commercially through 2009.

Site reconnaissance of the project area did not reveal existing hazardous materials, substances, or conditions. No structures or dedicated site uses were observed. Ground cover consisted of bare soil with scattered gravel, weeds, grasses, and trees. Large tire tracks were observed throughout the site; they appeared to be from heavy equipment traffic. Adjacent land use did not reveal existing hazardous materials, substances, or conditions.

No Action: The No Action alternative would not disturb hazardous materials or create any potential hazard to human health because the fire station would not be constructed.

Proposed Action: Construction of a new fire station would not disturb any known hazardous materials or create any potential hazard to human health. If hazardous materials are encountered in the project area during construction, appropriate measures for the proper assessment, remediation, and management of the contamination would be initiated in accordance with applicable federal, state, and local regulations. The contractor would take appropriate measures to prevent, minimize, and control hazardous materials, if necessary, during construction.

5.0 CUMULATIVE IMPACTS

Cumulative impacts represent the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

The level and scale of the cumulative analysis should be commensurate with the proposed project's potential impacts, scale, and other factors. NEPA documents should consider those past, present, and future actions that incrementally contribute to the cumulative effects on resources affected by the proposed action. Fire Station No. 220 would have no cumulative impact on ecological or cultural resources because these resources would not be impacted by the project.

The City of Mesa is highly urbanized in the project's vicinity—the majority of the land is developed. Vacant lots suitable for future development are of limited size and are scattered throughout the project vicinity. Within the area, three future developments have been identified by the City's planning and development departments: proposed hotel expansion at 5750 E. Main St., commercial strip center expansion at 6147 E. Main St., and a new assisted living facility at 57th Street and Albany Street. As with the Proposed Action, each of these proposed developments are of limited scale.

The Proposed Action would permanently convert open space and would constitute new air emission and noise sources in the area. Development of the fire station would have a minor cumulative effect on the quality of the human environment with past, present, and reasonably foreseeable future development and urbanization of the area. Cumulative impacts would be minor because the project would not affect sensitive or critical resources, lead to a wide range of effects, induce population growth, lead to further development, or require expansion of development infrastructure.

6.0 IRREVERSIBLE/IRRETRIEVABLE COMMITMENTS OF RESOURCES

The term "irreversible" is used to mean that which is impossible to reverse or undo, including the loss of future options. It is also used to describe the effects of the consumption of nonrenewable resources and those that are renewable only over a long period of time. The term "irretrievable" is used to mean that which is impossible to recover or repair, such as the loss of production or harvest, or the use of natural resources.

Construction of Fire Station No. 220 would require the irreversible and irretrievable commitment of financial resources, labor, and natural resources, including fossil fuels, raw materials, and water. Operation and maintenance activities over the life of the project would also require the irreversible and irretrievable commitment of these resources. The commitment of land for the fire station construction would result in the irreversible loss of approximately 2.3 acres of open space.

7.0 RELATIONSHIP BETWEEN SHORT-TERM USE AND LONG-TERM PRODUCTIVITY

NEPA requires consideration of the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity. The intent is to employ all practicable means and measures in a manner that fosters and promotes general welfare, creates and maintains conditions under which man and nature can coexist, and fulfills the social, economic, and other requirements of present and future generations.

Construction and maintenance of the fire station would require the local short-term use of financial resources, manpower, and natural resources but would not be expected to result in the exploitation of natural resources, the degradation of the natural or human environment, or the decline of public welfare. The local short-term use of man's environment required to implement the proposed project would be consistent with, and supportive of, the general welfare of the community by enhancing fire and emergency response capabilities for present and future generations for the life of the project.

8.0 AGENCY COORDINATION, PUBLIC INVOLVEMENT, AND PERMITS

8.1 Agency Coordination

Interagency reviews have been conducted in the form of agency coordination and consultation letters and the responses received from the agencies. The following agencies were consulted:

- U.S. Fish and Wildlife Service
- State Historic Preservation Office
- Native American Tribes
- Arizona Department of Environmental Quality
- Arizona Game and Fish Department
- Flood Control District of Maricopa County

Copies of agency coordination and consultation letters and responses are included in Appendix C.

8.2 Public Involvement

A Design Review Board public meeting was held on September 2, 2009, to discuss the proposal (Appendix G). Notification of the availability of the Draft EA will be made through publication of a public notice in a local newspaper. A 15-day public comment period will commence on the initial date of publication of the public notice. Any public comments received and responses to them will be included in the Final EA.

8.3 Permits

The following permits and approvals may be required:

- Arizona Pollutant Discharge Elimination System Construction General Permit
- CWA Section 404 Permit
- Class II Operating Permit for Generator
- Grading Permit (City of Mesa)
- Building Permit (City of Mesa)

9.0 REFERENCES

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10.0 LIST OF PREPARERS

This *Draft Environmental Assessment for City of Mesa Fire Station No. 220* has been prepared for FEMA by the City of Mesa with the assistance of EcoPlan Associates, Inc., Visibility Services, Inc., and DM Environmental, LLC.

The following individuals participated in the development of this document:

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- Kathy Thielmann

Visibility Services, Inc.

- Dennis Haas

DM Environmental, LLC

- Joe D'Onofrio

APPENDIX A
Site Photos

Photo 1. View of the proposed location for Fire Station No. 220 from Main Street, facing south. Note the palm trees and the concrete plug.

Photo 2. View of the unlined drainage channel along the western boundary of the proposed location for Fire Station No. 220, from the northwestern corner, facing south.

Photo 3. View of the proposed location for Fire Station No. 220 from the northwestern corner, facing east. Note Main Street, the concrete box culvert, and the overhead power lines.

Photo 4. View of the proposed location for Fire Station No. 220 from the southeast corner, facing northwest. Note 58th Street along the right side of the photo.

Photo 5. View of the proposed location for Fire Station No. 220 from the southeast corner, facing west.

Photo 6. View of the proposed location for Fire Station No. 220 from the southwest corner, facing northeast.

APPENDIX B
Site and Traffic Control Plans

City of Mesa - Fire Station No. 220

Reduced size: Not to scale

mesa·az

FIRE STATION NO. 220

5763 E. MAIN STREET, MESA, ARIZONA

CITY OF MESA PROJECT NO.: 01-757-001

BCT PROJECT NO.: 0907

PROJECT DESCRIPTION:

THIS PROJECT IS A NEW FIRE STATION AND ASSOCIATED SITE IMPROVEMENTS & OFF-SITE IMPROVEMENTS.

PROJECT DATA:

PROJECT ADDRESS:	5763 E. MAIN STREET MESA, ARIZONA
OWNER:	CITY OF MESA MESA, ARIZONA
ARCHITECT:	BROCK, CRAIG, & THACKER ARCHITECTS 145 E. UNIVERSITY DR., NO. 3 MESA, ARIZONA 85201 (480) 969-3081
APN:	141-50-006A&B & 141-50-016
ZONING:	R-4
SITE AREA (NET):	102,035 S.F. 2.34 ACRES
BUILDING FLOOR AREA:	13,705 SF
COVERAGE AREA:	15,542 SF
LOT COVERAGE:	15,542 SF/102,035 SF = 15.23%
LANDSCAPE AREA:	45,453 SF = 44.55%

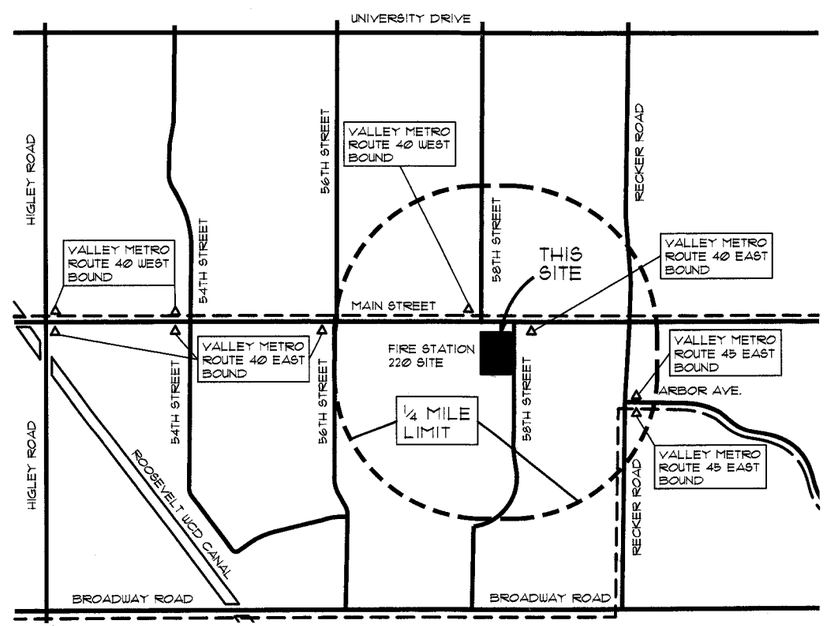
OCCUPANCY TYPE:	COMMUNITY ROOM:	A-3 – ASSEMBLY
	OFFICE:	B – BUSINESS
	CONGREGATE LIVING & DORMS:	R-2 – RESIDENTIAL
	MOTOR VEHICLE GARAGE:	S-1 – STORAGE

CONSTRUCTION TYPE: VB AFES

PARKING REQUIRED:
13,705 X 1SPACE/375 SF= 37 SPACES

PARKING PROVIDED: 37 SPACES (LEED SSc 4.4)
INCLUDES 1-ADA HANDICAP SPACE
INCLUDES 2-FUEL EFFICIENT VEHICLE SPACES (LEED SSc 4.4)
INCLUDES 2-CAR POOL SPACES (LEED SSc 4.3)

APPLICABLE BUILDING CODES: (TODAY)
2006 IBC, 2006 IPC, 2006 IMC, 2006 IFC, 2006 IFGC,
2006 IEBC & 2005 NEC ICC/ANSI A117.1-2003, 2006 MAC



N VICINITY & TRANSPORTATION LINKS MAP
SCALE: 1" = 600'
LEED SSc 4.1

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3	N2	GENERAL NOTES
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5	TP01	TOPOGRAPHIC SURVEY
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8	DT02	PAVING SECTIONS & DETAILS
9	UT01	UTILITY PLAN
10	PP01	OFFSITE IMPROVEMENT PLANS
11	PP02	OFFSITE IMPROVEMTNT PLANS
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108	FP2	FIRE SPRINKLER PIPING PLAN
109	FP3	BUILDING SECTION & HYDRAULIC CALCULATIONS

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STREET/ TRAFFIC LIGHTING
WRIGHT ENGINEERING CORPORATION
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CHANDLER, AZ 85225
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480.497.5807 FAX
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brock, craig and thacker architects, ltd.
daniel w. brock iii, aia . james e. craig jr., aia . boyd h. thacker, aia
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REGISTERED ARCHITECT
CERTIFICATE NO. 9441
DANIEL WESLEY BROCK III
EXPIRES 1-12-10
ARIZONA, U.S.A.
EXPIRES 3-31-2011

CITY OF MESA
ENGINEERING DEPARTMENT

FIRE STATION 220
5763 E. MAIN STREET
MESA, ARIZONA

COVER SHEET

DRAWING CV

DRAWN BY: B.H.T.
ARCHITECT: D. B.
APPROVED BY:

340 W.O. 4436
PROJ. NO. 01-757-001

SHEET 1 OF 109

CATALOG NUMBER:

FILE: 0810\DRAWINGS\COVERSHEET.dwg 11/24/2009

IMPROVEMENT PLANS
FOR
FIRE STATION #220
60 S. 58TH STREET
MESA, ARIZONA
CITY PROJECT NO. 01-757-001

CITY OF MESA GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL CONFORM TO CURRENT UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION AS FURNISHED BY THE MARICOPA ASSOCIATION OF GOVERNMENTS AND AS AMENDED BY THE CITY OF MESA. ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THESE AMENDED SPECIFICATIONS AND DETAILS ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE
2. CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATIONS OF ALL EXISTING UTILITIES AND AVOIDING DAMAGE TO SAME. CALL 602-263-1100 FOR BLUE STAKE SERVICES AND CALL SALT RIVER POWER FOR POLE BRACING, ELECTRIC SERVICE OR CONSTRUCTION SCHEDULING AT 602-273-8888. WHEN EXCAVATING IN OR ADJACENT TO A CITY PARK, THE CONTRACTOR SHALL CONTACT PARKS AND RECREATION ADMINISTRATION AT 480-644-2354 TO REQUEST ASSISTANCE IN LOCATING UNDERGROUND IRRIGATION FACILITIES. WHEN EXCAVATING IN OR ADJACENT TO LANDSCAPING WITHIN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL CONTACT TRANSPORTATION FIELD OPERATIONS AT 480-644-3038 TO REQUEST ASSISTANCE IN LOCATING UNDERGROUND IRRIGATION FACILITIES.
3. CONTRACTOR SHALL COMPLY WITH THE PROVISIONS FOR TRAFFIC CONTROL AND BARRICADING PER CURRENT CITY OF MESA TRAFFIC BARRICADE MANUAL.
4. THE CONTRACTOR IS ADVISED TO CONTACT THE CITY'S TRAFFIC SIGNALS SUPERVISOR AT 480-644-3122 48 HOURS PRIOR TO ANY WORK WITHIN THE VICINITY OF OR THROUGH A SIGNALIZED INTERSECTION WHICH WILL CHANGE TRAFFIC LANE PATTERNS.
5. THE CONTRACTOR IS ADVISED THAT DAMAGE TO ANY TRAFFIC SIGNAL EQUIPMENT (DETECTOR LOOPS, PULLBOXES, CONDUIT, ETC.) AS A RESULT OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AND INSPECTED BY THE CITY TRAFFIC SIGNALS GROUP. DETECTOR LOOPS SHALL BE REINSTALLED WITHIN 24 HOURS OF REMOVAL AND PRIOR TO PLACEMENT OF THE ASPHALT FINISH COURSE.
6. TRAFFIC SIGNAL DETECTOR LOOPS SHALL BE INSTALLED IN ASPHALT CONCRETE PAVEMENT BEFORE THE FINAL LIFT. THE CONDUCTORS (M-90) SHALL BE AT LEAST 1.5" BELOW THE TOP OF THE SURFACE COURSE (M-96.1).
7. CONTRACTOR TO NOTIFY TRAFFIC OPERATIONS AT 480-644-3126 PRIOR TO SIGN REMOVAL AND WHEN READY TO PERMANENTLY RELOCATE SIGN.
8. CONTRACTOR TO OBTAIN ANY PERMITS REQUIRED UNLESS OTHERWISE INDICATED, AND COORDINATE ALL IRRIGATION DRY-UPS, RELOCATIONS, AND REMOVALS BY OTHERS.
9. CONTRACTOR SHALL POTHOLE EXISTING UTILITIES AHEAD OF CONSTRUCTION TO ALLOW FOR ANY NECESSARY ADJUSTMENTS IN GRADELINE AND TO VERIFY PIPE MATERIALS FOR ORDERING THE APPROPRIATE TRANSITION AND TIE-IN FITTINGS THAT MAY BE REQUIRED.
10. THE CONTRACTOR IS RESPONSIBLE TO REMOVE ALL ABANDONED UTILITIES THAT INTERFERE WITH THIS PROJECT. THE CITY OF MESA UTILITIES DEPARTMENT LOCATING SECTION WILL ASSIST THE CONTRACTOR AS NEEDED IN DETERMINING IF THE UTILITY (GAS, WATER, AND SEWER ONLY) IS ABANDONED BY CALLING 480-644-4500.
11. PRIOR TO START OF CONSTRUCTION ON PRIVATE PROPERTY (EASEMENTS), THE CONTRACTOR SHALL GIVE THE OWNER SUFFICIENT TIME (MINIMUM 48 HOURS) TO REMOVE ANY ITEMS. THE CONTRACTOR SHALL ARRANGE TO REMOVE AND REPLACE ALL OTHER CONFLICTS AS REQUIRED.
12. THE CONTRACTOR SHALL COORDINATE WORK SCHEDULES TO PREVENT ANY CONFLICTING WORK CONDITIONS WITH THE CITY OF MESA UTILITY AND TRAFFIC CREWS.
13. THE CONTRACTOR IS ADVISED THAT A DUST CONTROL PERMIT AND DUST CONTROL PLAN MAY BE REQUIRED BY THE MARICOPA COUNTY AIR QUALITY DEPARTMENT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THIS PERMIT, IF NECESSARY, AND COMPLY WITH ITS REQUIREMENTS. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE A COPY OF THE DUST CONTROL PERMIT AND DUST CONTROL PLAN TO THE CITY FOR REVIEW.
14. INSPECTIONS SHALL BE PROVIDED BY THE CITY OF MESA.THE CONTRACTOR SHALL NOTIFY THE CITY INSPECTION DEPARTMENT AT LEAST 48 HOURS IN ADVANCE OF ANY CONSTRUCTION. THE JOB SITE SHALL BE CLEANED OF ANY DEBRIS OR SPOIL RESULTING FROM THIS PROJECT AT THE COMPLETION OF CONSTRUCTION.
15. ALL EQUIPMENT AND MATERIALS NOT SHOWN OR SPECIFIED ON THE PLANS OR SPECIFICATIONS, BUT REQUIRED TO COMPLETE THIS PROJECT, SHALL BE SUPPLIED BY THE CONTRACTOR AS PART OF THIS CONTRACT WORK. (NO ADDITIONAL COST TO THE CITY.)
16. WHEREVER PAVEMENT REPLACEMENT PER COM DETAIL M-19.4 OR MAG STD DETAIL 200 IS REFERRED TO WITHIN THESE PLANS, BACKFILLING SHALL BE PER THE CITY OF MESA STREET TRENCH BACKFILLING AND PAVEMENT REPLACEMENT POLICY STATEMENT, REVISED SEPTEMBER 29, 1999.
18. CONTRACTOR SHALL COORDINATE ALL DRIVEWAY LOCATIONS WITH PRIVATE PROPERTY OWNERS AND THE CITY INSPECTOR.
19. ALL GUTTER GRADES LESS THAN 0.0015 FT/FT SHALL BE STAKED ALONG THE ACTUAL GUTTER ALIGNMENT (NOT OFFSET) AND CHECKED BY CITY OF MESA INSPECTOR IMMEDIATELY PRIOR TO PLACEMENT OF CONCRETE.
20. ALL FRAMES, COVERS, VALVE BOXES, ETC. SHALL BE ADJUSTED BY THE CONTRACTOR TO FINISHED GRADE AFTER PLACEMENT OF ASPHALT CONCRETE SURFACE COURSE PER MAG STD DETAIL 270, 422 AND 391-1-C.
21. FOR PURPOSES OF PAVEMENT PER MAG STD DETAIL 200 OR COM DETAIL M-19.4, INTERSECTIONS ARE DEFINED BY THE CURB RETURNS IN ALL DIRECTIONS.
22. ANY SURVEY MARKERS DISTURBED OR DAMAGED BY THE CONTRACTOR SHALL BE REPLACED IN KIND AT NO ADDITIONAL COST TO THE CITY, UNLESS OTHERWISE NOTED IN PLANS.
23. SIDEWALK RAMPS PER MAG STD DETAIL 233, COM DETAIL M-44 AND DETAILS H & I OF THESE PROJECT PLANS SHALL BE PAID AS "EACH" SIDEWALK RAMP; (INCLUDES SIDEWALK WINGS UNLESS OTHERWISE NOTED.)
24. EXISTING CURB, GUTTER, & SIDEWALK IS TO REMAIN IN PLACE UNLESS OTHERWISE NOTED. IF DAMAGED, CONTRACTOR SHALL REPLACE IN KIND AT NO ADDITIONAL COST TO THE CITY.
25. CONTRACTOR SHALL REMOVE AND REPLACE EXISTING PROPERTY OWNER FACILITIES IN KIND IF DAMAGED DURING CONSTRUCTION AT NO ADDITIONAL COST TO THE CITY. THESE FACILITIES SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING: LANDSCAPING, PAVEMENT, CONCRETE, LAWN SPRINKLER SYSTEM, WATER, SEWER AND GAS SERVICES, AND OTHER IMPROVEMENTS.
26. ALL EXISTING PAVEMENT MARKINGS, SIGNS, AND SIGNAL EQUIPMENT THAT NEED TO BE REMOVED, REPLACED, RELOCATED, OR REPAIRED BECAUSE OF CONTRACTOR'S WORK WILL BE DONE AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE NOTED IN PLANS.

CITY OF MESA WATER UTILITY NOTES

THE FOLLOWING GENERAL NOTE(S) ARE REQUIRED WHENEVER A PRIVATE LAND DEVELOPMENT PROJECT CONSTRUCTS, INSTALLS OR MODIFIES THE PUBLIC WATER SYSTEM. THESE NOTES ARE IN ADDITION TO THE GENERAL REQUIREMENTS NOTES.

1. ALL PUBLIC WATER MAIN MATERIALS SHALL BE PER SECTION 610.3 OF THE M.A.G. UNIFORM STANDARD SPECIFICATIONS. ALL DUCTILE IRON PIPE (D.I.P.) WATER MAINS SHALL HAVE POLYETHYLENE CORROSION PROTECTION PER SECTION 610.5 OF THE M.A.G. UNIFORM STANDARD SPECIFICATIONS.
2. ALL NEW WATERLINES THAT REQUIRE SERVICE DISRUPTION IN ORDER TO CONNECT TO THE CITY SYSTEM SHALL REQUIRE A DAYTIME TIE-IN. THE CONTRACTOR SHALL COMPLETE ALL WORK NECESSARY TO RESTORE UTILITY SERVICE AND FULLY OPEN THE TIE-IN AREA TO VEHICULAR TRAFFIC WITHIN THE TIME FRAME ALLOWED BY THE CITY OF MESA ENGINEERING CONSTRUCTION INSPECTOR.
3. THE CONTRACTOR SHALL INSTALL A TEMPORARY PLUG OR VALVE ON A SECTION OF NEW WATER LINE TO TEST LINES BEFORE CONNECTING TO THE EXISTING PUBLIC WATER SYSTEM WHERE THERE IS NO WATER VALVE ON THE EXISTING LINE.
4. WATER LINE TESTS SHALL BE CONDUCTED SO THAT EXISTING WATER LINES WILL NOT BE INCLUDED IN THE TEST OF THE NEW LINE.
5. THE REQUIRED BACKFLOW PREVENTION ASSEMBLY SHALL BE A MANUFACTURER AND MODEL DESIGNATED IN THE CURRENT "LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES" AS PUBLISHED BY THE FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH, UNIVERSITY OF SOUTHERN CALIFORNIA.
6. THE BACKFLOW PREVENTION ASSEMBLY SHALL BE TESTED AND APPROVED BY A CERTIFIED TECHNICIAN DESIGNATED IN THE CURRENT CITY OF MESA "LIST OF APPROVED INSPECTORS" PRIOR TO THE REQUEST FOR FINAL INSPECTION.
7. IN ACCORDANCE WITH ARIZONA ADMINISTRATIVE CODE (A.A.C). R18-4-119, ALL MATERIALS ADDED AFTER JANUARY 1, 1993, WHICH MAY COME INTO CONTACT WITH DRINKING WATER, SHALL CONFORM TO NATIONAL SANITATION FOUNDATION STANDARDS 60 AND 61.
8. PER CITY ORDINANCE NO. 2341, ALL WATER METERS ARE TO BE PURCHASED FROM THE CITY OF MESA. METERS TWO INCHES OR LESS WILL BE DELIVERED AND INSTALLED BY CITY FORCES. METERS LARGER THAN TWO INCHES WILL BE DELIVERED BY THE CITY AND INSTALLED BY THE CONTRACTOR AND REQUIRE SCHEDULING AND INSPECTIONS WITH CITY FORCES (CONTACT BUILDING SAFETY - PERMIT SERVICES (480)644-4BSD FOR THE SPECIFIC PROCEDURE).

CITY OF MESA WASTEWATER UTILITY NOTES

THE FOLLOWING GENERAL NOTES ARE REQUIRED WHENEVER A PRIVATE LAND DEVELOPMENT CONSTRUCTS, INSTALLS OR MODIFIES THE PUBLIC WASTEWATER (SEWER) SYSTEM. THESE NOTES ARE IN ADDITION TO THE GENERAL REQUIREMENTS NOTES.

1. CONTRACTORS SHALL VERIFY ALL INVERT ELEVATIONS BEFORE PROCEEDING WITH THE BALANCE OF THE UTILITY TRENCHING.
2. ALL MANHOLES PER M.A.G. DETAILS MUST NECK DOWN TO USE THE STANDARD 30-INCH FRAME AND COVER. STEPS SHALL NOT BE INSTALLED WITHIN THE MANHOLE.

CITY OF MESA STORMWATER DRAINAGE & RETENTION

THE FOLLOWING NOTE(S) ARE REQUIRED WHENEVER A PRIVATE LAND DEVELOPMENT PROJECT IS REQUIRED TO PROVIDE RETENTION OF STORMWATER. THESE NOTES ARE IN ADDITION TO THE GENERAL REQUIREMENTS NOTES.

1. THE ENGINEER, OR LAND SURVEYOR SHALL CERTIFY THAT THE REQUIRED STORM WATER RETENTION HAS BEEN PROVIDED. THE CERTIFICATION SHALL ALSO INDICATE THE ACTUAL VOLUME PROVIDED. SUCH CERTIFICATION SHALL BE PROVIDED TO BUILDING SAFETY DIVISION - BUILDING INSPECTIONS WHEN THE RETENTION AREA IS TO REMAIN PRIVATE PROPERTY AND TO ENGINEERING CONSTRUCTION SERVICES WHEN THE RETENTION AREA IS TO BECOME CITY OF MESA PROPERTY.
2. ALL DRYWELLS SHOWN ON THIS PROJECT SHALL BE MAINTAINED BY THE OWNERS AND ARE TO BE REPLACED BY THE OWNERS WHEN THEY CEASE TO DRAIN WATER IN A 36-HOUR PERIOD. REGULAR MAINTENANCE OF THE DRYWELL-SILTING CHAMBER IS REQUIRED TO ACHIEVE THE BEST OPERATION OF THE DRYWELL. IN ACCORDANCE WITH ARIZONA REVISED STATUTES, DRYWELLS ARE REQUIRED TO BE REGISTERED WITH THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (A.D.E.Q.) IT IS THE OWNER'S RESPONSIBILITY TO REGISTER ALL DRYWELLS. AN AQUIFER PROTECTION PERMIT MAY BE REQUIRED BY A.D.E.Q. FOR DRYWELLS DEEMED TO BE HAZARDOUS TO GROUNDWATER.

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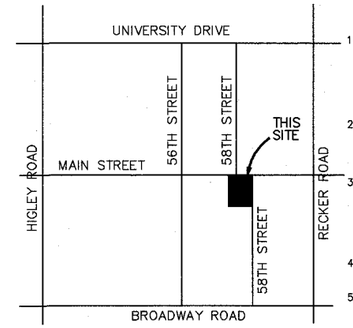

N VICINITY MAP
NOT TO SCALE

ATWELL LLC ENGINEERING NOTES

1. THE CONTRACTOR SHALL VERIFY WITH THE OWNER'S ENGINEER THAT HE HAS THE MOST CURRENT SET OF CONSTRUCTION PLANS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND KEEP THE APPROVED SET OF PLANS ON SITE FROM START OF CONSTRUCTION TO PROJECT COMPLETION. ANY CONSTRUCTION OR INSTALLATION BASED ON OUT OF DATE PLANS SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
2. THESE PLANS ARE SUBJECT TO THE INTERPRETATION OF INTENT BY THE ENGINEER. ANYONE WHO TAKES UPON HIMSELF THE INTERPRETATION OF THE DRAWINGS OR MAKES REVISIONS TO SAME WITHOUT CONFERRING WITH THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR THE CONSEQUENCES THEREOF.
3. THE ENGINEER MAKES NO GUARANTEE THIS PROJECT HAS AN EARTHWORK BALANCE.
   THE CONTRACTOR SHALL VERIFY THE PROJECT BENCH MARK AND EXISTING TOPOGRAPHY TO MAKE HIS OWN ESTIMATE OF EARTHWORK QUANTITIES. THE CONTRACTOR SHALL IMPORT OR EXPORT SOIL AS REQUIRED TO PROVIDE AN EARTHWORK BALANCE AT NO EXTRA COST TO THE PROJECT.
4. THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS SPECIFIED IN THE GEOTECHNICAL INVESTIGATION.
5. THE CLIENT AND CONTRACTOR ASSUME ALL RESPONSIBILITY AND COSTS INCURRED IF THEY ELECT TO LANDSCAPE RETENTION BASINS BEFORE THE REQUIRED RETENTION VOLUMES HAVE BEEN CERTIFIED BY THE ENGINEER.
6. QUANTITIES LISTED ON THESE PLANS ARE ESTIMATES ONLY. THE CONTRACTOR SHALL VERIFY ALL QUANTITIES BEFORE SUBMITTING A BID FOR THIS WORK.
7. THE ENGINEER MAKES NO GUARANTEE REGARDING THE LOCATION OR ELEVATION OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLANS. THE CONTRACTOR SHALL CALL BLUE STAKE PRIOR TO CONTSTRUCTION AND VERIFY THE PRESENCE OF AND SHALL PROTECT ANY OVERHEAD OR UNDERGROUND UTILITIES DURING CONSTRUCTION, WHETHER OR NOT SAID UTILITIES ARE SHOWN ON THESE PLANS. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS TO LOCATE UNDERGROUND UTILITIES AND/OR STRUCTURES IF NECESSARY TO VERIFY UNDERGROUND UTILITIES. WHERE EXISTING UNDERGROUND UTILITIES ARE EXPOSED, CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY FOR INSPECTION PRIOR TO BACKFILLING.
8. THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATIONS OF ALL POINTS OF CONNECTION PRIOR TO DIGGING BEYOND THE POINT OF CONNECTION.
9. THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE PROJECT ENGINEER AT LEAST TWO WORKING DAYS PRIOR TO ANY REQUIRED STAKING OR RESTAKING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING ALL STAKES AND CONTROL SET BY THE OWNER'S SURVEYOR.
10. THE CONTRACTOR SHALL OBTAIN PERMISSION FROM THE OWNER'S "ENGINEER-OF-RECORD" BEFORE BACKFILLING ANY WATER, SEWER OR RE-CLAIMED WATER MAINLINE OR SERVICE LINES TO ENSURE ALL HEALTH DEPARTMENT INSPECTIONS AND TESTING HAS BEEN COMPLETED. NO UNDERGROUND WATER, SEWER OR RE-CLAIMED WATER MAINLINE OR SERVICES SHALL BE BACKFILLED UNTIL AS-BUILT HORIZONTAL AND VERTICAL LOCATIONS HAVE BEEN OBTAINED.
11. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL PROVIDE FOR AND COORDINATE ALL QUALITY TESTING FOR THE PROJECT AS REQUIRED BY ALL PERMITTING AGENCIES.

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SOUTHWEST GAS	EDWARD LONGWELL	602-484-5385
COX CABLE	ENGINEERING CLERK	623-322-7220

SHEET INDEX

SHEET	DESCRIPTION	SHEET NO
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DT01	GRADING SECTIONS	4
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SS01	SIGNING STRIPING PLAN	9
SM01-SM03	STORM WATER MANAGEMENT PLANS	10,11,12

ATWELL LLC JOB NO 09000844

BENCHMARK
CITY OF MESA BENCHMARK
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BRASS TAG T.C. NE CORNER
NORTH OF TRAFFIC LIGHT
ELEVATION=1363.98

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ATWELL LLC
DEVELOPMENT CONSULTANTS
Engineering Planning Ecological
Surveying Environmental Water Resources
4700 E. Southern Avenue, Mesa, AZ 85206
TEL. 480-218-8831 FAX 480-830-4888

Registered Professional Engineer (Civil)
CERTIFICATE NO. 38112
JARED SCOTT COX
Date Signed 11/14/08
ARIZONA, U.S.A.
EXPIRES 06/30/2010

CITY OF MESA
ENGINEERING DEPARTMENT

FIRE STATION 220
60 S. 56TH STREET
MESA, ARIZONA

COVER SHEET

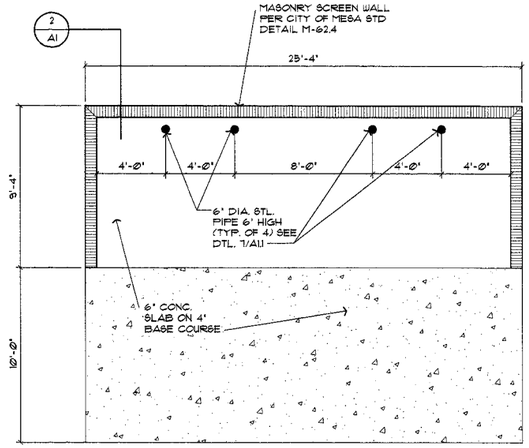
DRAWING CS01

DRAWN BY: DBA
ENGINEER: DBA
APPROVED BY: JSC

340 W.O. #4438
PROJ. NO. 01-757-001

SHEET 4 ~~1 of 12~~ 109

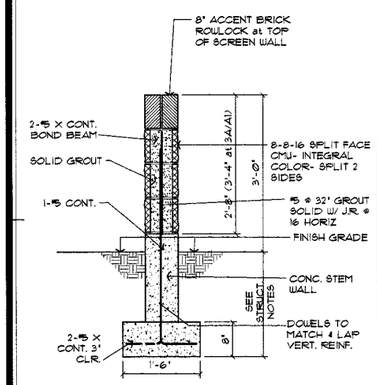
CATALOG NUMBER:



ENCLOSURE PER CITY OF MESA STD. DTL. M-622

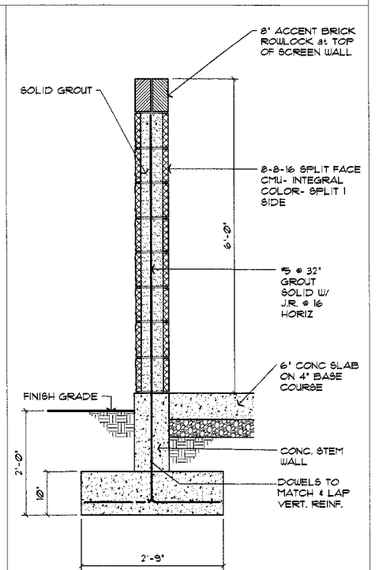
1 REFUSE ENCLOSURE PLAN

SCALE: 1/4" = 1' - 0" TRASH2



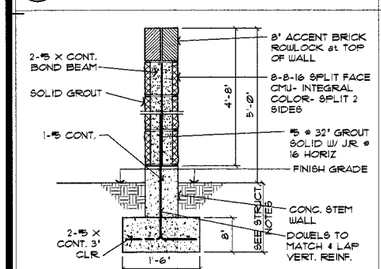
3 3' HI MAS. SCREEN WALLS

SCALE: 3/4" = 1' - 0" SCREENWALL2



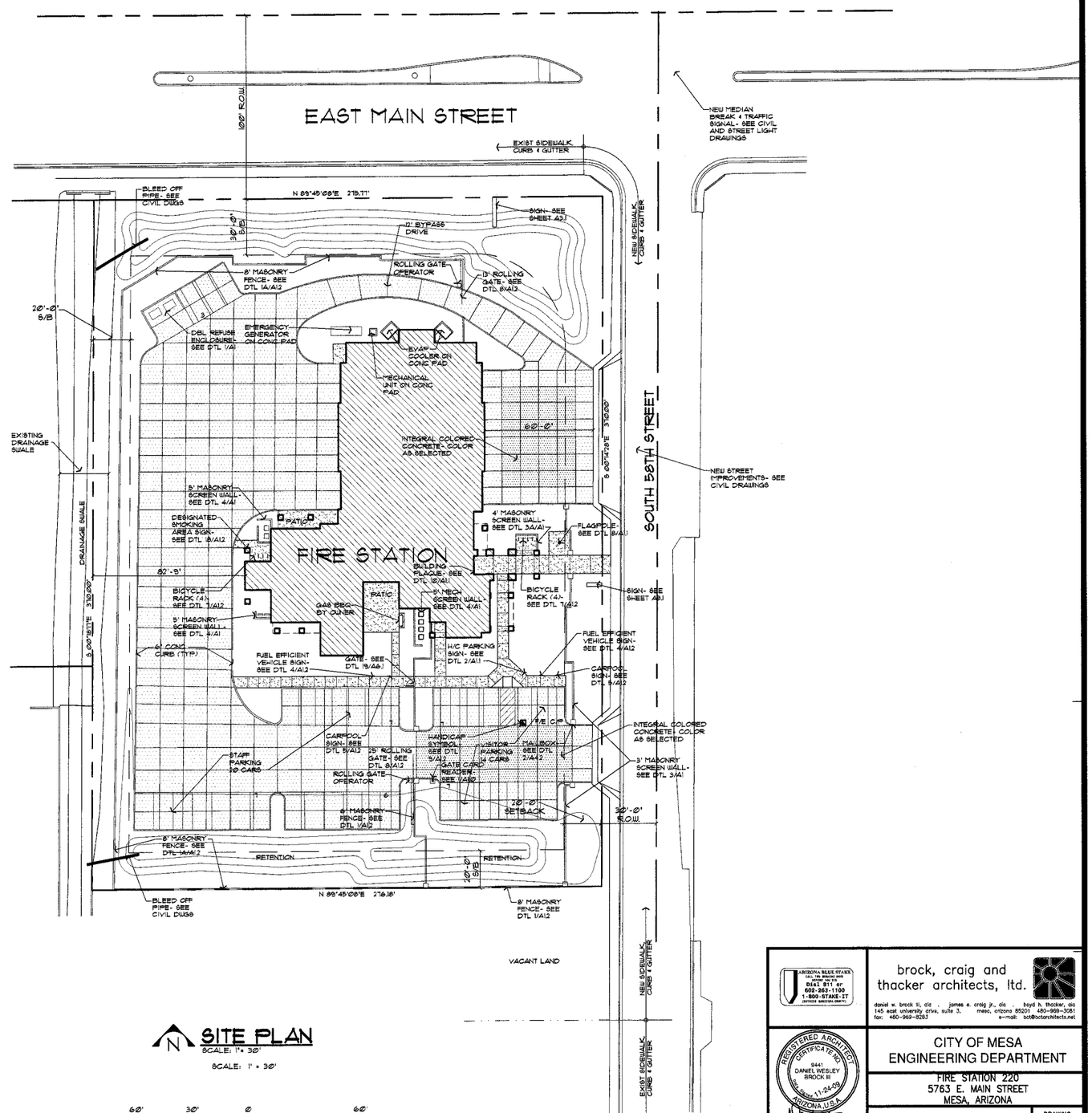
2 REFUSE MAS. SCREEN WALLS

SCALE: 3/4" = 1' - 0" SCREENWALL2



4 5' HIGH MAS. SCREEN WALL

SCALE: 3/4" = 1' - 0" SCREENWALL3



SITE PLAN

SCALE: 1" = 30'

SCALE: 1" = 30'

60' 30' 0 60'

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ARIZONA BLUE STAKE, INC. 70 BOXES AVE. PHOENIX, AZ 85012 602-263-1100 or 1-800-STAKE-IT (OUTSIDE MARICOPA COUNTY)

REGISTERED ARCHITECT CERTIFICATE NO. 9441 DANIEL WESLEY BROCK III ARIZONA, U.S.A. EXPIRES 3-31-2011

DRAWN BY: B.H.T.
ARCHITECT: D. B.
APPROVED BY:

340 W.O. 4438
PROJ. NO. 01-757-001

brock, craig and thacker architects, ltd.

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CITY OF MESA
ENGINEERING DEPARTMENT

FIRE STATION 220
5763 E. MAIN STREET
MESA, ARIZONA

SITE PLAN

DRAWING A1

SHEET ~~26~~ 28 OF ~~105~~ 109

CATALOG NUMBER:

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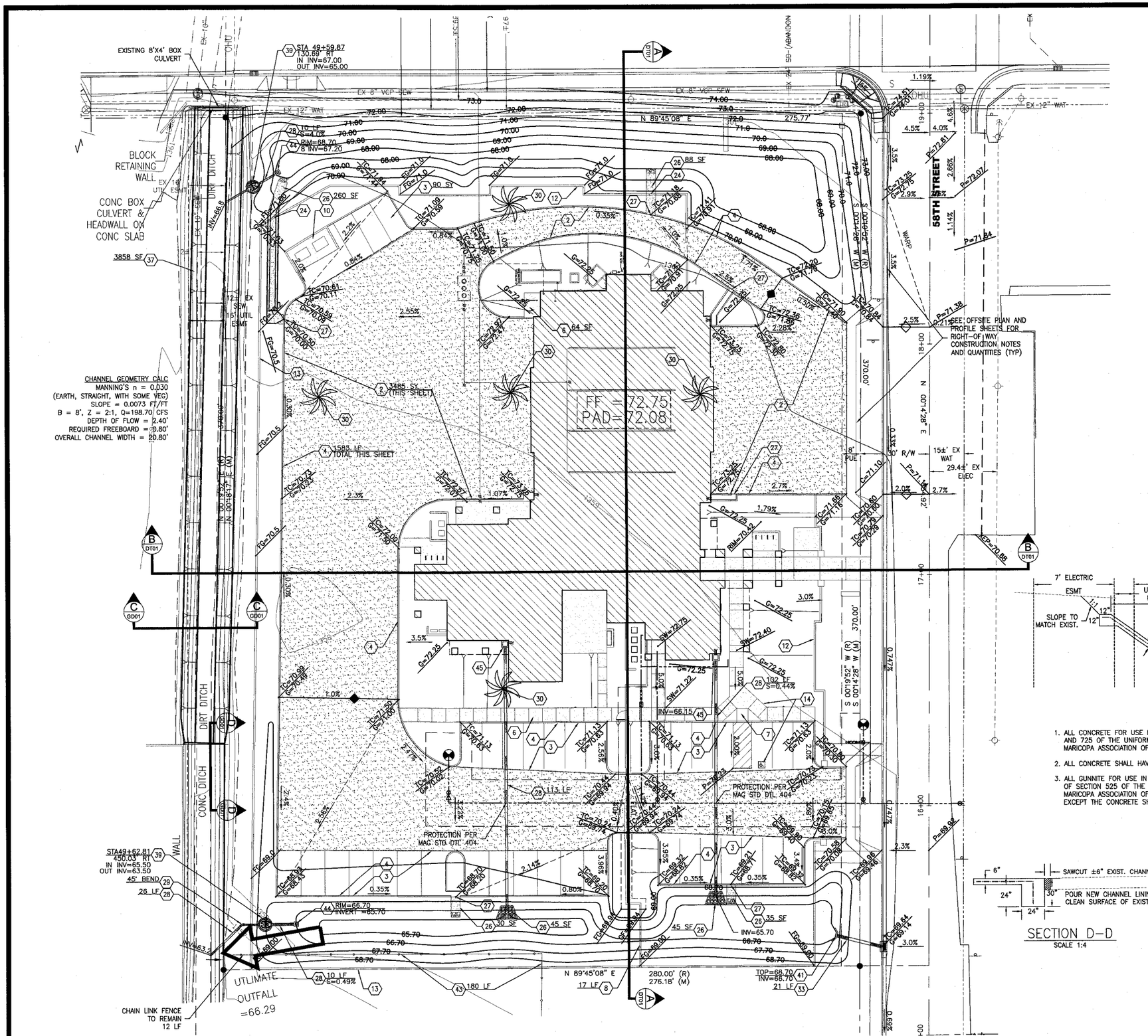


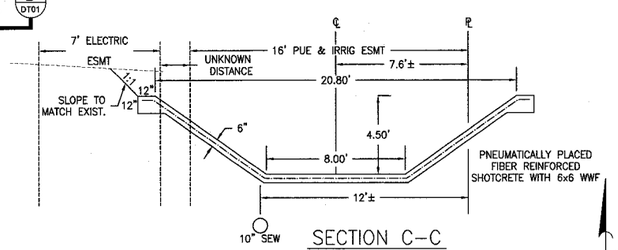
CONSTRUCTION NOTES

	ONSITE GRADING & DRAINAGE NOTES	
2	CONCRETE PAVEMENT (DRIVE AREAS) 8-IN CONCRETE (PCCP)	3485 SY
	ON 6-IN ABC SEE GEOTECHNICAL REPORT	
3	CONCRETE PAVEMENT (PARKING AREAS); 5-IN CONCRETE (PCCP) ON	90 SY
	6-IN ABC PER GEOTECHNICAL REPORT	
4	6-IN SINGLE CURB; MAG 222 TYPE 'A'	1583 LF
6	SIDEWALK (WIDTH AS SHOWN); MAG 230	64 SF
7	SINGLE ADA RAMP PER DETAIL B SHEET DT02	1 EA
8	INSTALL WEEP HOLES IN BLOCK WALL 3' ON-CENTER AT 0.2' ABOVE	17 LF
	FINISHED GRADE. LOWEST BLOCK BEGINS AT ELEV. 1366.90	
10	TRASH BIN RECEPTACLE ENCLOSURE AND CONCRETE PAD; SEE	1 EA
	ARCHITECTURAL PLANS FOR DETAILS	
12	SCREEN WALL; SEE ARCHITECT PLANS FOR DETAILS	NPI
13	PERIMETER WALL; SEE ARCHITECT PLANS FOR DETAILS	NPI
14	HANDICAP SIGN AND POST; COM STD DTL M-23.6 & M-39 AND ADAAG	1 EA
	SECTION 4.6.4 AND 4.30	
24	2' OPENING IN BLOCK FENCE FOR DRAINAGE	NPI
26	RIP-RAP DRAINAGE CHANNEL PER DETAIL C SHEET DT02	503 SF
27	24-INCH CURB OPENING	6 EA
28	8-IN PVC SDR-35 STORM DRAIN	261 LF
29	FITTING FOR PVC PIPE SDR-35	NPI
30	REMOVE EXISTING TREE	5 EA
33	18 INCH RGRCP CL III	21 LF
37	CHANNEL SLOPE STABILIZATION; SEE DETAIL THIS SHEET	3858 SF
39	SORBTIVFILTER WQ TREATMENT FILTER (SFM5 OR APPROVED EQUAL)	2 EA
	WITH H-20 RATED MANHOLE FRAME AND COVER. CONTRACTOR TO	
	COORDINATE SHOP DRAWINGS WITH IMBRIUM SYSTEMS	
41	HEADWALL PER MAG 501-1 'U' TYPE	1 EA
43	REMOVE EXISTING FENCE AND DELIVER TO THE OWNER	180 LF
44	NDS STORM INLET; SEE DET A ON SHEET DT02	2 EA
45	ROOF DRAIN DISCHARGE BOX. SEE DET B ON SHEET DT02	2 EA

GENERAL EARTHWORK AND GRADING NOTES:

NOTE:

1. A SOILS REPORT FOR THIS PROJECT HAS BEEN PREPARED BY RAMM & ASSOCIATES, INC. (RAMM PROJECT NO. G17145)
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A COPY OF THE SOILS REPORT (AND ALL ADDENDUMS) AND USING IT IN PREPARING A BID AND COMPLETING WORK FOR THIS PROJECT.
3. SEE ARCHITECT PLANS FOR TOP OF WALL ELEVATIONS.
4. STATIONING IS OFF OF MAIN STREET CONSTRUCTION LINE.

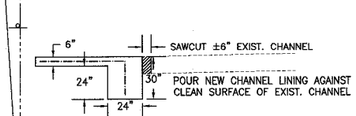


SECTION C-C
SCALE 1:4

1. ALL CONCRETE FOR USE IN THE WORK SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS 505 AND 725 OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, MARICOPA ASSOCIATION OF GOVERNMENTS, ARIZONA, LATEST EDITION, ACI AND ASTM CODES.
2. ALL CONCRETE SHALL HAVE COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
3. ALL GUNNITE FOR USE IN THE WORK SHALL BE 3,000 PSI AND CONFORM TO THE REQUIREMENTS OF SECTION 525 OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, MARICOPA ASSOCIATION OF GOVERNMENTS, ARIZONA, LATEST EDITION, ACI AND ASTM CODES, EXCEPT THE CONCRETE SHALL INCLUDE FIBER MESH.

20 0 20 40
Scale Feet

ATWELL LLC JOB NO 09000844



SECTION D-D
SCALE 1:4

Reduced size:
Not to scale

ARIZONA BLUE STAKE, INC.
DIAL 811 or 602-263-1100
1-800-STAKE-IT

ATWELL LLC
DEVELOPMENT CONSULTANTS
Engineering Planning Ecological
Surveying Environmental Water Resources
4700 E. Southern Avenue, Mesa, AZ 85206
TEL 480-218-8831 FAX 480-830-4888

Registered Professional Engineer (Civil)
CERTIFICATE NO. 38112
JARED SCOTT COX
ARIZONA, U.S.A.
EXPIRES 06/30/14

CITY OF MESA
ENGINEERING DEPARTMENT
FIRE STATION 220
60 S. 56TH STREET
MESA, ARIZONA

GRADING & DRAINAGE PLAN

DRAWING GD01

DRAWN BY: DBA
ENGINEER: DBA
APPROVED BY: JSC

340 W.O. #4438
PROJ. NO. 01-757-001

SHEET 6 ~~3 of 12~~ 109

CATALOG NUMBER:

CONDUCTOR SCHEDULE

	CONDUIT RUN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	CONDUIT SIZE (IN)	2½	2	2	2	3	3	2	3	3	3	3	3	3	3	3	3	3	3	2	2	2	3	3	2	1½	2	2	2
AWG	CIRCUIT PHASE	NUMBER OF WIRES																											
	DETECTOR ø1																												
	ø2								FUTURE USEAGE							SPARE CONDUIT													
	ø3															SPARE CONDUIT													
	ø4																	FUTURE USEAGE											
	ø5																												
	ø6																												
	ø7																												
	ø8						1●															4▲		1●					
19-1 #14* IMSA	20 CONDUCTOR CABLE					2			2			2											2						
	7 CONDUCTOR CABLE							1			2			1					1	1									
	5 CONDUCTOR CABLE							1			5			3					4										
	2 CONDUCTOR CABLE						1	1			1			1							1				1	1			
■	TELEPHONE																												
◆	OPTICOM CABLE						5			2	1		1	1					1					1	2		1	1	1
#10	SIGN LIGHTING XHHW				2				2		2																		
	LIGHTING XHHW				2				2		2																		
#8	GREEN, THHN/THWN, STRANDED, COPPER BOND		1	1	1	1		1	1	1		1	1		1	1	1	1	1	1	1		1						
#6	POWER BLK. THW	♦	1	1																									
#6	POWER WH. THW		1	1																									
#8	COMMON THW WHITE					1				1			1										1						
FIBER CABLES	12-CT OSPF																												
	24-CT OSPF																												
	36-CT OSPF																												

* I.M.S.A. CABLE 19-1, #14 AWG/2, 5, 7, & 20 CONDUCTOR SOLID COPPER (M-97.0)
● #18 AWG, STRANDED 4 CONDUCTOR WITH SHIELD (CANOGA 3000 3 OR EQUIVALENT) (M-97.0)
▲ #14 AWG, STRANDED, IMSA 51-5-1984 (M-97.0)
■ #22 AWG, 8 CONDUCTOR TELEPHONE WITH SHIELD (SUN STATES) (M-97.0)
◆ #20 AWG, 3 CONDUCTOR, STRANDED, 3M, #138 (M-97.0)
♦ SRP 2.5" RED CONDUIT. DEPTH PER SRP REQUIREMENTS. WIRE SIZE/QUANTITIES PER SRP SPECIFICATIONS.

PULL BOX SCHEDULE

PULL BOX NO.	TYPE	STATION MAIN STREET	FROM ℄ OF MAIN STREET	TOP OF PULL BOX ELEVATION
1	8	STA 52+24	98.0' SOUTH	SEE NOTE 4
2	7	STA 52+07	34.0' SOUTH	SEE NOTE 4
3	7	STA 52+28	32.0' NORTH	SEE NOTE 4
4	7	STA 52+93	31.0' NORTH	SEE NOTE 4
5	7	STA 53+03	35.0' SOUTH	SEE NOTE 4
6	7	STA 52+93	89.0' SOUTH	SEE NOTE 4
7	5	STA 52+26	173.0' SOUTH	SEE NOTE 4
8	5	STA 52+26	281.0' SOUTH	SEE NOTE 4

FOUNDATION SCHEDULE

(DIMENSIONS TO CENTER OF FOUNDATION)

POLE No.	TYPE	STATION MAIN STREET	FROM ℄ OF MAIN STREET	TOP OF CONCRETE FOUNDATION ELEVATION
A	SERVICE (M-91.2)	STA 51+84	92.5' SOUTH	SEE NOTE 4
B	UPS (M-92.2)	STA 51+94	92.5' SOUTH	SEE NOTE 4
C	V, V (M-92.1)	STA 52+04	92.5' SOUTH	SEE NOTE 4
D	A (M-94.1)	STA 52+17	88.5' SOUTH	SEE NOTE 4
E	R (M-94.4)	STA 52+19	31.0' NORTH	SEE NOTE 4
F	J (M-94.5)	STA 52+86	31.0' NORTH	SEE NOTE 4
G	J (M-94.5)	STA 53+04	89.5' SOUTH	SEE NOTE 4
H	PPB (M-94.0A)	STA 52+86	93.8' SOUTH	SEE NOTE 4
I	A (M-94.1)	STA 52+79	99.0' SOUTH	SEE NOTE 4
J	A (M-94.1)	STA 52+27	181.0' SOUTH	SEE NOTE 4
K	A (M-94.1)	STA 52+27	271.0' SOUTH	SEE NOTE 4

*NOTE:
NORTH AND SOUTH DIMENSIONS FOR LOCATIONS OF POLE FOUNDATIONS AND PULLBOXES ARE MEASURED ALONG MAIN STREET ℄ 90° TO THE MEDIAN LINE.

IMSA CABLE 19-1, 1984 #14 AWG, 7 CONDUCTOR, 5 CONDUCTOR, & 2 CONDUCTOR

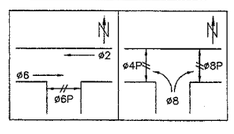
OUTBOARD MAST ARM AND TYPE "Q" HEADS		TYPE "F" SIGNAL HEADS INBOARD & SIDEMOUNT		PEDESTRIAN HEADS		PUSH BUTTON		DOUBLE PEDESTRIAN HEADS		
7-CONDUCTOR CABLE		5-CONDUCTOR CABLE		5-CONDUCTOR CABLE		2-CONDUCTOR CABLE		7-CONDUCTOR CABLE		
BASIC COLOR	SIGNAL INTERVAL	BASIC COLOR	SIGNAL INTERVAL	BASIC COLOR	SIGNAL INTERVAL	BASIC COLOR	SIGNAL INTERVAL	BASIC COLOR	SIGNAL INTERVAL	PED PHASING
RED	RED	RED	RED	RED	DON'T WALK	BLACK	PUSH BUTTON	RED	DON'T WALK	4 & 8
ORANGE	YELLOW	ORANGE	YELLOW	GREEN	WALK	WHITE	P.B. COM	ORANGE	SPARE	
GREEN	GREEN	GREEN	GREEN	WHITE	PED. COM			GREEN	WALK	4 & 8
BLACK	YELLOW ARROW	WHITE	VEH. COM	BLACK	SPARE			BLACK	DON'T WALK	2 & 6
BLUE	GREEN ARROW	BLACK	SPARE	ORANGE	SPARE			BLUE	WALK	2 & 6
WHITE	VEH. COM							WHITE	COMMON	PED. COM
WHITE/BLACK	SPARE							WHITE/BLACK	SPARE	

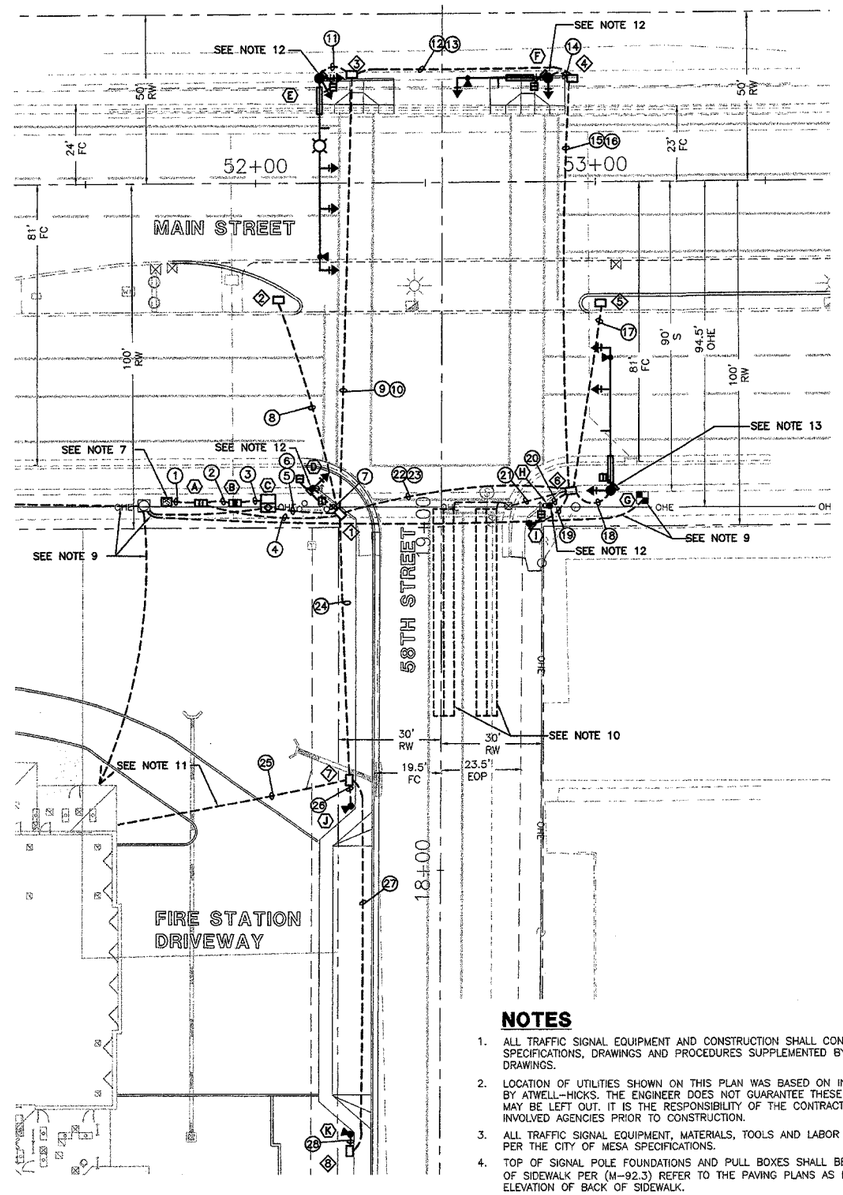
ALL CABLES SHALL BE TAGGED AS TO THEIR ASSIGNED PHASE INSIDE THE PULL BOX. REFER TO MESA STANDARD DETAIL M-97.4

LEGEND

- EXISTING UNDERGROUND CONDUIT
- NEW UNDERGROUND CONDUIT
- TRAFFIC CONTROL CABINET
- #9 PULL BOX
- #7 SIGNAL TRAFFIC PULL BOX
- NEW CONDUIT AND CONDUCTOR RUN
- HPS LUMINAIRE
- SIGNAL INDICATION
- C.O.M. CITY OF MESA
- UNINTERRUPTED POWER SUPPLY (UPS)

PHASE DIAGRAM





NORTH
1" = 20'

Reduced size: Not to scale

NOTES

1. ALL TRAFFIC SIGNAL EQUIPMENT AND CONSTRUCTION SHALL CONFORM TO THE CITY OF MESA STANDARD SPECIFICATIONS, DRAWINGS AND PROCEDURES SUPPLEMENTED BY ADOT SPECIFICATIONS AND STANDARD DRAWINGS.
2. LOCATION OF UTILITIES SHOWN ON THIS PLAN WAS BASED ON INFORMATION SUPPLIED TO THE ENGINEER BY ATWELL-HICKS. THE ENGINEER DOES NOT GUARANTEE THESE LOCATIONS NOR THE FACT THAT SOME MAY BE LEFT OUT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT BLUE STAKE AND ALL INVOLVED AGENCIES PRIOR TO CONSTRUCTION.
3. ALL TRAFFIC SIGNAL EQUIPMENT, MATERIALS, TOOLS AND LABOR SHALL BE SUPPLIED BY THE CONTRACTOR PER THE CITY OF MESA SPECIFICATIONS.
4. TOP OF SIGNAL POLE FOUNDATIONS AND PULL BOXES SHALL BE AT THE SAME ELEVATION AS THE BACK OF SIDEWALK PER (M-92.3) REFER TO THE PAVING PLANS AS PREPARED BY ATWELL-HICKS FOR ELEVATION OF BACK OF SIDEWALK.
5. ALL NEW VEHICLE AND PEDESTRIAN INDICATIONS SHALL HAVE LED INDICATIONS, PER SPECIFICATIONS.
6. CONTRACTOR SHALL INSTALL A OPTICOM (MODEL 711) RECEIVER MOUNTED TO SIGNAL MAST ARM. CONTRACTOR SHALL PULL, UNSPLICED, OPTICOM CABLE FROM CONTROLLER CABINET TO OPTICOM RECEIVER.
7. CONTRACTOR SHALL COORDINATE NEW POINT OF SERVICE LOCATION WITH SRP. CONTACT RYAN ADAMS AT SRP 602-236-3703.
8. INSTALL 400W HPS PER (M-70.1, L-132, OR L-133), 200W LAMP (M-71, LP-106).
9. COORDINATED THE INSTALLATION OF FIBER OPTIC CONDUIT INTO CONTROLLER CABINET SEE SHEETS TS-3, TS-4 AND TS-5.
10. CONTRACTOR SHALL INSTALL 6'x60' LOOP DETECTOR CENTERED IN LANE (PER M-96.2). LOOP STUB OUT SHALL BE PER M-96.3.
11. CONTRACTOR SHALL FURNISH AND INSTALL 1.5" CONDUIT FROM PULL BOX TO FIRE STATION BUILDING FOR FUTURE MANUAL PRE-EMPTION CONTROL. CONTRACTOR IS RESPONSIBLE FOR BRINGING CONDUIT TO BUILDING COORDINATE EXACT LOCATION WITH BUILDING ELECTRICAL. BUILDING ELECTRICAL TO CONTINUE CONDUIT INTO BUILDING.
12. CONTRACTOR SHALL PROVIDE CONCRETE ADA ACCESS PAD TO PEDESTRIAN PUSH BUTTON TO MEET ALL ADA ACCESSIBILITY REQUIREMENTS (M-44.1).
13. EXACT LOCATION AND DEPTH OF SEWER LINE MUST BE CONFIRMED PRIOR TO INSTALLING POLE 'G'. IF A CONFLICT EXISTS CONTACT ENGINEER FOR DIRECTION.

(A) NEW 100A SPLIT METERED SERVICE CABINET (M-91.2)
POWER SERVICE ADDRESS:

(B) NEW UPS CABINET PER CITY OF MESA SPECIFICATIONS – www.mesaaz.gov/transportation/Traffic_Signals_Specifications.aspx.

(C) NEW COM CONTROLLER CABINET (TYPE V, TS-2, TYPE 1 WITH ECONOLITE TS-2, TYPE 2 CONTROLLER AND TRANSIT SYSTEM PRIORITY DATA AND KEY PROVIDED WITH A 752 OPTICOM PHASE SELECTOR) ON NEW FOUNDATION WITH A PORCH SLAB (M-92.1)

(D) NEW COM TYPE A POLE (10')
M/H, F,IV, M/H,VII — TYPE 1 PPB(R) (M-95.4,M-99.1)

(E) NEW COM TYPE R POLE (35'), WITH A NEW 55' SIGNAL MAST ARM
18', 12', 12', 5'; F,II, F,II, F,II, TENON, F,VIII, M/H,V
400W HPS IES TYPE II DISTRIBUTION W/PEC ON A 20' MAST ARM SEE NOTE 8.
TYPE 1 PPB(L) (M-95.4,M-99.1)
OPTICOM (MODEL 711) RECEIVER

(F) NEW COM TYPE J POLE (22'), WITH A NEW 25' SIGNAL MAST ARM
12', 5', F,II, M/H,V, F,V, TENON
TYPE 1 PPB(R) (M-95.4,M-99.1)
OPTICOM (MODEL 711) RECEIVER

(G) NEW COM TYPE J POLE (22'), WITH A NEW 40' SIGNAL MAST ARM. SEE NOTE 13.
12', 5', 12', F,II, F,II, M/H,V, F,V, TENON
OPTICOM (MODEL 711) RECEIVER

(H) NEW COM TYPE BICYCLE/PEDESTRIAN POLE (66")
TYPE 1 PPB(L) (M-95.4,M-99.1)

(I) NEW COM TYPE A POLE (10')
M/H,V

(J) NEW 4" SQUARE POLE (10') PER DETAIL ON SHEET TS-2. COLOR AND STYLE TO MATCH ON-SITE LIGHTING.
OPTICOM (MODEL 711) RECEIVER MOUNTED ON SIDE OF POLE

(K) NEW 4" SQUARE POLE (10') PER DETAIL ON SHEET TS-2. COLOR AND STYLE TO MATCH ON-SITE LIGHTING.
OPTICOM (MODEL 711) RECEIVER MOUNTED ON SIDE OF POLE

THE CITY OF MESA REQUIRES AT LEAST ONE INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION (IMSA) LEVEL I AND ONE LEVEL II CERTIFIED TRAFFIC SIGNAL TECHNICIAN ON SITE DURING ALL PHASES OF ANY TRAFFIC SIGNAL WORK. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE VERIFICATION OF CERTIFICATION. IF A JOB SITE IS INSPECTED AND A CERTIFIED TECHNICIAN IS NOT ON SITE, THE JOB WILL BE SHUT DOWN.

CALL TWO WORKING DAYS BEFORE YOU DIG
BLUE STAKE, INC.
602-263-1100
OR 811
INSIDE MARICOPA COUNTY

WRIGHT ENGINEERING CORPORATION
165 E. CHILTON DR
CHANDLER, AZ 85225
PHONE 480.497.5829
FAX 480.497.5807

WEC JOB# 09094

Registered Professional Engineer (Electrical)
Certificate No. 16256
AARON D. KUTCHINSKY
6-15-10
Expires 12-31-12

CITY OF MESA
ENGINEERING DIVISION

MESA FIRE STATION No. 220
MAIN STREET & 58TH STREET

TRAFFIC SIGNAL PLAN

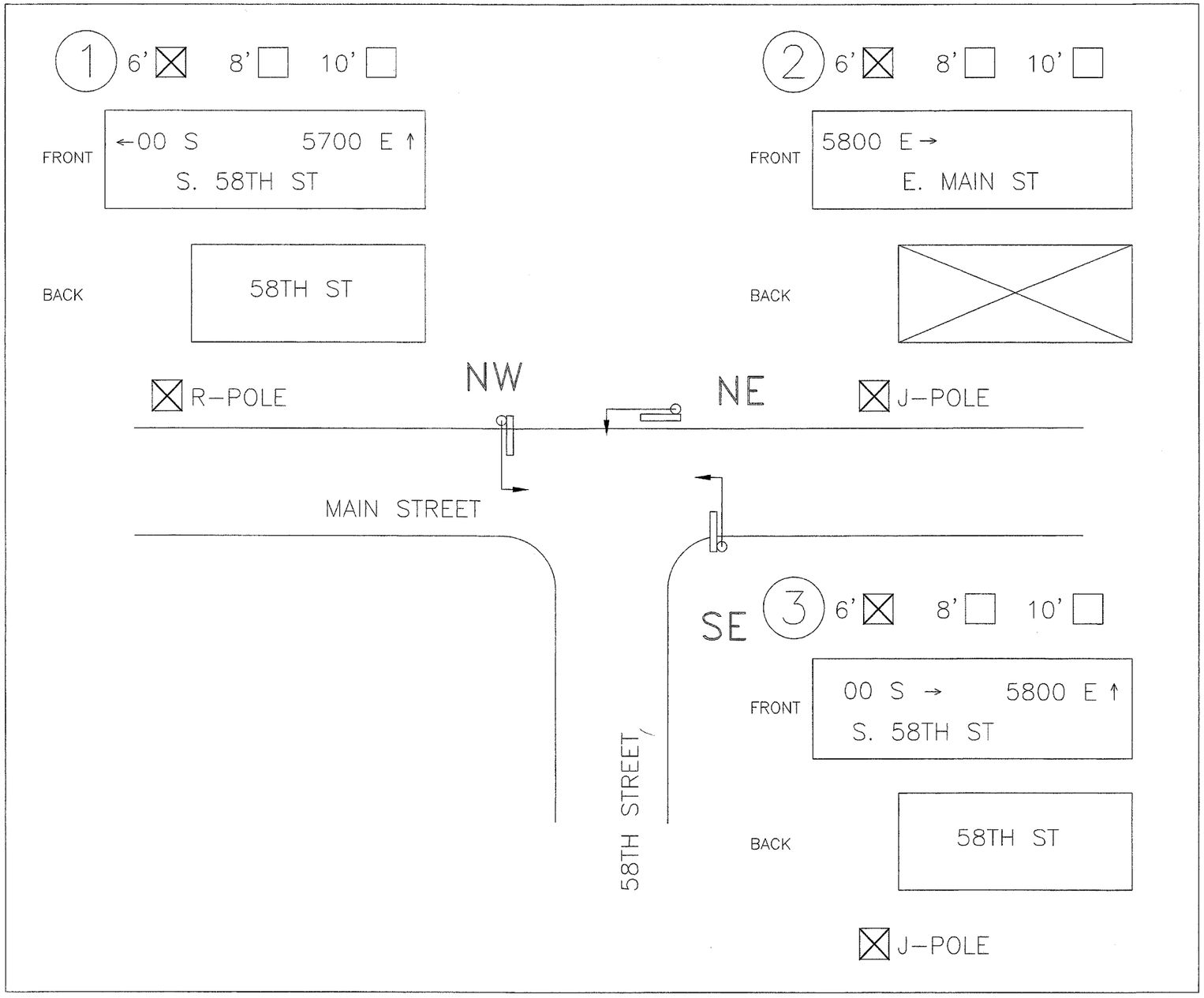
DRAWING: TS-1

DRAWN BY: AMB
ENGINEER: ADK
APPROVED BY: F. RUSTAM

340 W.O. #4438
PROJ. NO. 01-757-001

SHEET: 18 of 108

CATALOG NUMBER:



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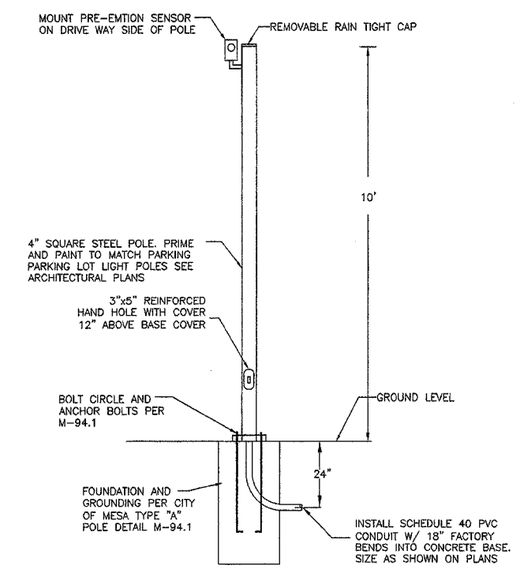
GENERAL NOTES:

1. SEE M-98.1 FOR SIGN SPECIFICATION.
2. SEE M-98.2 FOR SIGN LAYOUT AND INSTALLATION.



4" SQUARE POLE (10')
NTS

CALL TWO WORKING DAYS BEFORE YOU DIG
ARIZONA BLUE STAKE, INC.
602-263-1100
OR 811
INSIDE MARICOPA COUNTY

WRIGHT ENGINEERING CORPORATION
165 E. CHILTON DR
CHANDLER, AZ 85225
PHONE 480.497.5829
FAX 480.497.5807

WEC JOB# 09094

Registered Professional Engineer (Electrical)
Certificate No. 40256
AARON D. KUROWSKY
Date Signed 1-15-10
ARIZONA U.S.A.
Expires 12-31-12

CITY OF MESA
ENGINEERING DIVISION

MESA FIRE STATION No. 220
MAIN STREET & 58TH STREET

TRAFFIC SIGNAL DETAILS

DRAWING TS-2

DRAWN BY: AMB
ENGINEER: ADK
APPROVED BY: F. RUSTAM

340 W.O. #4438
PROJ. NO. 01-757-001

SHEET: 19 of 108

CATALOG NUMBER:

APPENDIX C
Agency Correspondence

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

November 30, 2009

Mr. Steve Spangle
Field Supervisor
2321 W. Royal Palm Road,
Suite 103
Phoenix, AZ 85021

RE: EMW-2009-FC-00917(2)

Dear Mr. Spangle:

The Department of Homeland Security Federal Emergency Management Agency (FEMA) is considering an application to provide financial assistance in support of the City of Mesa Fire Department's (Grantee) proposal to construct a 13,942 square foot, 4-bay fire station at the southwest corner of South 58th Street and East Main Street (Sec23, T1N, R6), Mesa, Maricopa County. The Grantee's proposal would fulfill a critical fire protection need due to increased service demand. The site is surrounded by Main Street on the north; 58th Street on the east; contiguous vacant land and a chain fence on the south; and, a storm water channel on the west. Previous surveys have revealed that the site is a vacant 2.4 acres, commercially zoned parcel with scattered gravel, weeds, and palm trees. The site was previously developed but the commercial building was demolished sometime in 1975. It is expected that the site would contain small mammals, rodents, lizards and birds. In accordance with Section 7 of the Endangered Species Act (16 U.S.C. §1531 et seq. (1973)) we advise you of our finding of no effect on any listed endangered or threatened species. We have reviewed the Arizona Ecological Services County Listing for Maricopa County and have determined that no listed threatened or endangered species exist in the project area.

FEMA requests your concurrence with our determination and anticipates your response within 30 days of receipt of this letter. Enclosed for your use is a location map and photographs of the proposed work. If you need any further information please contact me at (510) 627-7728 or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Regional Environmental Officer

Enclosures

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

November 30, 2009

Mr. James Garrison
State Historic Preservation Officer
1300 W. Washington Street
Phoenix, AZ 85007
Attention: Ms. Jo Anne Medley

Re: EMW-2009-FC-00917(2), Station 220
City of Mesa Fire Department

Dear Mr. Garrison:

The Department of Homeland Security Federal Emergency Management Agency (FEMA) is considering an application to provide financial assistance in support of the City of Mesa Fire Department's (Grantee) proposal to construct a 13,942 square foot, 4-bay fire station at the southwest corner of South 58th Street and East Main Street, Mesa, Maricopa County. The Grantee's proposal would fulfill a critical fire protection need due to increased service demand and reduce the current response time. FEMA's action of providing a grant supporting the Grantee's need meets the definition of an undertaking in accordance with 36 CFR Part 800.16(y) and therefore requires the completion of Section 106 review in accordance with the National Historic Preservation Act of 1966 (Title 16 United States Code Section 470f), as amended.

The site is a vacant, 2.4 acre parcel and is surrounded by East Main Street on the north; South 58th Street on the east; contiguous vacant land and a chain link fence on the south; and, a storm water channel on the west. The site is zoned commercial. FEMA has identified an Area of Potential Effect (APE) as the entire 2.4 acre parcel. FEMA has determined that the Grantee's proposal and FEMA's subsequent undertaking will result in no historic properties affected pursuant to 36 CFR Part 800.4(d)(1).

FEMA requests your concurrence on our finding and have enclosed documentation in accordance with 36 CFR Part 800.11(d). If you should require any additional information about FEMA's request, please do not hesitate to contact me at (510) 627-7728 or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and
Historic Preservation Officer

Enclosures

DOCUMENTATION – NO HISTORIC PROPERTIES AFFECTED

1) A description of the undertaking, specifying the Federal involvement, and its area of potential effects, including photographs, maps, drawings, as necessary;

The Department of Homeland Security – Federal Emergency Management Agency intends to provide an Assistance to Fire Fighters grant (AF SCG) to the City of Mesa Fire Department to construct a new fire station facility. The station will be constructed on the southwest corner of East Main Street and South 58th Street in Mesa, Maricopa County. It is a vacant and bare dirt site. The 2.4 acres contains grasses, weeds, scattered gravel and palm trees. The proposal would provide expanded fire protection coverage to meet increased service demands in the Mesa and surrounding community area. The Area of Potential Effect (APE) has been identified by FEMA as the entire 2.4 acre parcel.

2) A description of the steps taken to identify historic properties, including, as appropriate, efforts to seek information pursuant to § 800.4(b)

A search of the National Register of Historic Places (NRHP) was performed. One listed property, the Buckhorn Baths Motel, located at 5900 East Main Street is located approximately 0.22 miles northeast of the proposed construction site.

3) The basis for determining that no historic properties are present or Affected

The proposed construction site was originally developed in 1954 for a commercial use. In 1962 an asphalt parking lot was added and surrounded the commercial building. The site remained unchanged until 1975 when the commercial site was demolished. The proposed construction of a fire station is not expected to have an adverse visual effect on the Buckhorn Baths Motel as the listed historic property is located across a large divided road (East Main Street) that contains vegetation.

2009-1780 (75475)

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

RECEIVED
DEC 04 2009
ARIZONA STATE PARKS/S.H.P.

November 30, 2009

Mr. James Garrison
State Historic Preservation Officer
1300 W. Washington Street
Phoenix, AZ 85007
Attention: Ms. Jo Anne Medley

Re: EMW-2009-FC-00917(2), Station 220
City of Mesa Fire Department

Dear Mr. Garrison:

The Department of Homeland Security Federal Emergency Management Agency (FEMA) is considering an application to provide financial assistance in support of the City of Mesa Fire Department's (Grantee) proposal to construct a 13,942 square foot, 4-bay fire station at the southwest corner of South 58th Street and East Main Street, Mesa, Maricopa County. The Grantee's proposal would fulfill a critical fire protection need due to increased service demand and reduce the current response time. FEMA's action of providing a grant supporting the Grantee's need meets the definition of an undertaking in accordance with 36 CFR Part 800.16(y) and therefore requires the completion of Section 106 review in accordance with the National Historic Preservation Act of 1966 (Title 16 United States Code Section 470f), as amended.

The site is a vacant, 2.4 acre parcel and is surrounded by East Main Street on the north; South 58th Street on the east; contiguous vacant land and a chain link fence on the south; and, a storm water channel on the west. The site is zoned commercial. FEMA has identified an Area of Potential Effect (APE) as the entire 2.4 acre parcel. FEMA has determined that the Grantee's proposal and FEMA's subsequent undertaking will result in no historic properties affected pursuant to 36 CFR Part 800.4(d)(1).

RECEIVED
DEC 23 2009
BY:

FEMA requests your concurrence on our finding and have enclosed documentation in accordance with 36 CFR Part 800.11(d). If you should require any additional information about FEMA's request, please do not hesitate to contact me at (510) 627-7728 or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and
Historic Preservation Officer

Enclosures

Dec. 14, 2009
Concur
for SHPO
Should you please give township, range and section with time?
Thanks

CONCUR

William Collins 12/22/09
ARIZONA STATE HISTORIC PRESERVATION OFFICER
ARIZONA STATE PARKS BOARD

No adverse effect on Buckhorn Baths

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Ms. Diane Enos, President
Salt River Pima-Maricopa Indian Community
10005 E. Osborn
Scottsdale, AZ 85256

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear President Enos:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

Town of Buckeye Fire Department – 2582 North Verrado Way, Buckeye. (T2N, R2W, Sec 31)(33° 28' 31"N, -112° 30' 12"W);

Gilbert Fire Department – 1280 West Guadalupe Road, Gilbert. (T1S, R15E)(33°21.8585'N, -111°49.0756'W);

City of Mesa Fire Department – 3361 South Signal Butte Road, Mesa (T1S,R7E, Sec 12)(33°21'13"N, -111°36'3"W);

City of Mesa Fire Department – SW corner of South 58th Street and East Main Street, Mesa (T1N, R6E, Sec 23)(33°24'55"N, -111°42'10"W).

Each of the new fire stations would occupy between 1.3 and 3 acres in size. The new fire stations would fulfill a critical fire protection need due to increased service demand and would decrease current response times.

Because potential direct and indirect impacts of the Grantee's proposal may have an effect on historic properties we respectfully request your interest regarding the proposals, any comments regarding historic properties, advise us on the identification and evaluation of any historic properties, including those of traditional religious and cultural importance, articulate your views on the Grantees proposals and FEMA's undertaking on such historic properties, and to participate in the resolution of any adverse effects.

If you have any questions or require additional information please do not hesitate to contact me at (510) 627-7728, the letterhead address above or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Mr. Wendsler Nosie, Chairperson
San Carlos Apache Tribe of the
San Carlos Reservation
P.O. Box 0
San Carlos, AZ 85550

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear Chairperson Nosie:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

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City of Mesa Fire Department – SW corner of South 58th Street and East Main Street, Mesa (T1N, R6E, Sec 23)(33°24'55"N, -111°42'10"W).

Each of the new fire stations would occupy between 1.3 and 3 acres in size. The new fire stations would fulfill a critical fire protection need due to increased service demand and would decrease current response times.

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If you have any questions or require additional information please do not hesitate to contact me at (510) 627-7728, the letterhead address above or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Mr. Ned Norris, Chairman
Tohono O'odham Nation of Arizona
P.O. Box 837
Sells, AZ 85634

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear Chairman Norris:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

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City of Mesa Fire Department – 3361 South Signal Butte Road, Mesa (T1S,R7E, Sec 12)(33°21'13"N, -111°36'3"W);

City of Mesa Fire Department – SW corner of South 58th Street and East Main Street, Mesa (T1N, R6E, Sec 23)(33°24'55"N, -111°42'10"W).

Each of the new fire stations would occupy between 1.3 and 3 acres in size. The new fire stations would fulfill a critical fire protection need due to increased service demand and would decrease current response times.

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If you have any questions or require additional information please do not hesitate to contact me at (510) 627-7728, the letterhead address above or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Mr. Jamie Fullmer, Chairman
Yavapai-Apache Nation of the
Camp Verde Indian
2400 W. Datsi
Camp Verde, AZ 86322

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear Chairman Fullmer:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

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City of Mesa Fire Department – 3361 South Signal Butte Road, Mesa (T1S,R7E, Sec 12)(33°21'13"N, -111°36'3"W);

City of Mesa Fire Department – SW corner of South 58th Street and East Main Street, Mesa (T1N, R6E, Sec 23)(33°24'55"N, -111°42'10"W).

Each of the new fire stations would occupy between 1.3 and 3 acres in size. The new fire stations would fulfill a critical fire protection need due to increased service demand and would decrease current response times.

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If you have any questions or require additional information please do not hesitate to contact me at (510) 627-7728, the letterhead address above or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Mr. Ronnie Lupe, Chairman
White Mountain Apache Tribe of the Fort Apache
P.O. Box 700
Whiteriver, AZ 85941

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear Chairman Lupe:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

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City of Mesa Fire Department – SW corner of South 58th Street and East Main Street, Mesa (T1N, R6E, Sec 23)(33°24'55"N, -111°42'10"W).

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If you have any questions or require additional information please do not hesitate to contact me at (510) 627-7728, the letterhead address above or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Mr. William Rhodes, Governor
Gila River Indian Community of the Gila River Indian
P.O. Box 97
Sacaton, AZ 85247

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear Governor Rhodes:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

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If you have any questions or require additional information please do not hesitate to contact me at (510) 627-7728, the letterhead address above or donna.meyer@dhs.gov.

Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Mr. Raphael Bear, President
Fort McDowell Yavapai Nation
P.O. Box 17779
Fountain Hills, AZ 85268

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear President Bear:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

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Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

February 5, 2010

Ms. Delia Carlyle, Chairperson
Ak Chin Indian Community of the Marcopa
42507 W. Peters & Nall Road
Maricopa, AZ 85239

Re: EMW-2009-FC-03256 – Town of Buckeye Fire Department
EMW-2009-FC-02614 – Gilbert Fire Department
EMW-2009-FC-00917(1) – City of Mesa Fire Department
EMW-2009-FC-00917(2) – City of Mesa Fire Department

Dear Chairperson Carlyle:

Section 101(d)(6)(B) of the National Historic Preservation Act of 1966 as amended requires the Department of Homeland Security – Federal Emergency Management Agency (FEMA) to consult with any Indian Tribe that may attach religious and cultural significance to historic properties that may be affected by FEMA's undertaking. FEMA is considering four America Recovery and Reinvestment Act (ARRA) grant applications to the Grantees listed above. All four of the ARRA proposals would be Assistance to Firefighter grants for the construction of new fire stations located throughout Maricopa County. The specific locations are identified below:

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Sincerely,

Donna M. Meyer
Deputy Environmental and Historic
Preservation Officer

Enclosure

EcoPlan Associates, Inc.
Environmental Science & Resource Economics

March 24, 2010

Mark Shaffer
Arizona Department of Environmental Quality
Phoenix Main Office
1110 W. Washington Street
Phoenix, AZ 85007

Dear Mr. Shaffer:

The City of Mesa is applying for a grant from the Federal Emergency Management Agency (FEMA) for the construction of two fire stations—No.219 and No. 220. Because these projects are federally-funded, an environmental assessment (EA) will be prepared to comply with the National Environmental Policy Act (NEPA). FEMA will act as the lead agency with respect to NEPA compliance. EcoPlan Associates, Inc. has been contracted by the City to assist with the environmental analysis and documentation. This letter is a request for comments.

The following summarizes the two proposed sites:

Fire Station No. 219

Fire Station #219 would be constructed at 3361 South Signal Butte Road, north of Elliot Road on the east side of Signal Butte Road in Mesa, Arizona (Figure 1). The project site is approximately 2.23 acres in size and has not been previously developed. The fire station will include a one-story building containing a three-bay station with living quarters. The facility will also include parking areas, driveways, and landscaped retention areas. Fire Station #219 would be located in Section 12, Township (T) 1 North (N), Range (R) 7 East (E) on the Mesa, Arizona, US Geological Survey (USGS) 7.5-minute topographic series map.

Fire Station No. 220

Fire Station #220 would be located at the southwest corner of 58th Street and Main Street in Mesa, Arizona (Figure 2). The project site is approximately 2.34 acres in size on a previously developed site and within an urbanized area. All of the original buildings and structures previously on the site were removed prior to the City's acquisition of the property. The fire station will include a one-story building containing a four-bay apparatus. The facility will also include parking areas, driveways, and landscaped retention areas. This project is located in Section 23, Township (T) 1 North (N), Range (R) 6 East (E) on the Mesa, Arizona, US Geological Survey (USGS) 7.5-minute topographic series map.

Project location maps are attached for reference. Phase I Environmental Site Assessments have been completed for both sites and no Recognized Environmental Conditions were identified.

701 West Southern Avenue, Suite 203 • Mesa, Arizona 85210 • (480) 733-6666 • Fax (480) 733-6661

Please identify any issues or concerns you have regarding this project and contact Ron van Ommeren at EcoPlan Associates, Inc., by phone at (480) 733-6666, extension 126; by fax at (480) 733-6661; by e-mail at rvanommern@ecoplanaz.com; or by mail at EcoPlan Associates, Inc., 701 W. Southern Ave., Suite 203, Mesa, AZ 85210.

We would appreciate receipt of your comments by April 24, 2010. Thank you for your participation in this project.

Sincerely,

Ron van Ommeren
Senior Environmental Planner

Enclosures: Figure 1–Project location – Fire Station 219
Figure 2–Project location – Fire Station 220

Cc: Shahir Safi, City of Mesa Engineering Design

EcoPlan Associates, Inc.
Environmental Science & Resource Economics

March 24, 2010

Ms. Laura Canaca
Project Evaluation Program Supervisor
Arizona Game and Fish Department
WMHB-Project Evaluation Program
5000 W. Carefree Highway
Phoenix, AZ 85086-5000

Re: City of Mesa Proposed Fire Stations No. 219 and No. 220

Dear Ms. Canaca:

The City of Mesa is applying for a grant from the Federal Emergency Management Agency (FEMA) for the construction of two fire stations—No.219 and No. 220. Because these projects are federally-funded, an environmental assessment (EA) will be prepared to comply with the National Environmental Policy Act (NEPA). FEMA will act as the lead agency with respect to NEPA compliance. EcoPlan Associates, Inc. has been contracted by the City to assist with the environmental analysis and documentation. This letter is a request for comments.

The following summarizes the two proposed sites:

Fire Station No. 219

Fire Station #219 would be constructed at 3361 South Signal Butte Road, north of Elliot Road on the east side of Signal Butte Road in Mesa, Arizona (Figure 1). The project site is approximately 2.23 acres in size and has not been previously developed. The fire station will include a one-story building containing a three-bay station with living quarters. The facility will also include parking areas, driveways, and landscaped retention areas. Fire Station #219 would be located in Section 12, Township (T) 1 North (N), Range (R) 7 East (E) on the Mesa, Arizona, US Geological Survey (USGS) 7.5-minute topographic series map.

Fire Station No. 220

Fire Station #220 would be located at the southwest corner of 58th Street and Main Street in Mesa, Arizona (Figure 2). The project site is approximately 2.34 acres in size on a previously developed site and within an urbanized area. All of the original buildings and structures previously on the site were removed prior to the City's acquisition of the property. The fire station will include a one-story building containing a four-bay apparatus. The facility will also include parking areas, driveways, and landscaped retention areas. This project is located in Section 23, Township (T) 1 North (N), Range (R) 6 East (E) on the Mesa, Arizona, US Geological Survey (USGS) 7.5-minute topographic series map.

The Arizona Game and Fish Department's On-line Environmental Review Tool was used on February 1, 2010 and identified no known records of special status species within 3 miles of either project site (search ID numbers 20100201011343 and 20100201011344).

701 West Southern Avenue, Suite 203 • Mesa, Arizona 85210 • (480) 733-6666 • Fax (480) 733-6661

Please identify any issues or concerns you have regarding this project and contact Ron van Ommeren at EcoPlan Associates, Inc., by phone at (480) 733-6666, extension 126; by fax at (480) 733-6661; by e-mail at rvanommeren@ecoplanaz.com; or by mail at EcoPlan Associates, Inc., 701 W. Southern Ave., Suite 203, Mesa, AZ 85210.

We would appreciate receipt of your comments by April 24, 2010. Thank you for your participation in this project.

Sincerely,

Ron van Ommeren
Senior Environmental Planner

Enclosures: Figure 1–Project location – Fire Station 219
Figure 2–Project location – Fire Station 220

Cc: Shahir Safi, City of Mesa Engineering Design

EcoPlan Associates, Inc.
Environmental Science & Resource Economics

March 24, 2010

Ted Collins, CFM
Floodplain Development Services Branch Manager
Flood Control District of Maricopa County
2801 W. Durango Street
Phoenix, AZ 85009

Dear Mr. Collins:

The City of Mesa is applying for a grant from the Federal Emergency Management Agency (FEMA) for the construction of two fire stations—No.219 and No. 220. Because these projects are federally-funded, an environmental assessment (EA) will be prepared to comply with the National Environmental Policy Act (NEPA). FEMA will act as the lead agency with respect to NEPA compliance. EcoPlan Associates, Inc. has been contracted by the City to assist with the environmental analysis and documentation. This letter is a request for comments.

The following summarizes the two proposed sites:

Fire Station No. 219

Fire Station #219 would be constructed at 3361 South Signal Butte Road, north of Elliot Road on the east side of Signal Butte Road in Mesa, Arizona (Figure 1). The project site is approximately 2.23 acres in size and has not been previously developed. The fire station will include a one-story building containing a three-bay station with living quarters. The facility will also include parking areas, driveways, and landscaped retention areas. Fire Station #219 would be located in Section 12, Township (T) 1 North (N), Range (R) 7 East (E) on the Mesa, Arizona, US Geological Survey (USGS) 7.5-minute topographic series map.

Fire Station No. 220

Fire Station #220 would be located at the southwest corner of 58th Street and Main Street in Mesa, Arizona (Figure 2). The project site is approximately 2.34 acres in size on a previously developed site and within an urbanized area. All of the original buildings and structures previously on the site were removed prior to the City's acquisition of the property. The fire station will include a one-story building containing a four-bay apparatus. The facility will also include parking areas, driveways, and landscaped retention areas. This project is located in Section 23, Township (T) 1 North (N), Range (R) 6 East (E) on the Mesa, Arizona, US Geological Survey (USGS) 7.5-minute topographic series map.

Project location maps are attached for reference. FEMA shows that Fire Station # 219 lies within Flood Hazard Zone "D", defined as an area "in which flood hazards are undetermined, but possible". Based on this classification, FEMA has not established flood elevations or delineated floodplains within the area. Siphon Draw Wash is the only named drainage course that exists within the vicinity of the site. Various HEC-RAS models of the wash adjacent to the site have been prepared with differing results. One model that uses approximate topographic information from the USGS maps

shows a 100-year water surface elevation of 1465.79 feet near the fire station site. Another model that uses more accurate, locally collected topographical information shows a 100-year water surface elevation of 1464.20 feet. Neither study has been adopted by FEMA. The finished floor elevation of the fire station (1465.95 feet) accommodates either of the two 100-year models. FEMA has conveyed to the City that under FEMA regulations a fire station is considered a "critical action facility" and as such needs to be protected to the 500-year floodplain. The City has requested a waiver from FEMA from the 500 year floodplain protection requirement.

Please identify any issues or concerns you have regarding this project and contact Ron van Ommeren at EcoPlan Associates, Inc., by phone at (480) 733-6666, extension 126; by fax at (480) 733-6661; by e-mail at rvanommeren@ecoplanaz.com; or by mail at EcoPlan Associates, Inc., 701 W. Southern Ave., Suite 203, Mesa, AZ 85210.

We would appreciate receipt of your comments by April 24, 2010. Thank you for your participation in this project.

Sincerely,

Ron van Ommeren
Senior Environmental Planner

Enclosures: Figure 1–Project location – Fire Station 219
Figure 2–Project location – Fire Station 220

Cc: Shahir Safi, City of Mesa Engineering Design

Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov

Benjamin H. Grumbles
Director

April 16, 2010

Mr. Ron van Ommeren
Senior Environmental Planner
EcoPlan Associates, Inc.
701 W. Southern Ave., Suite 203
Mesa, Arizona 85210

Project: Environmental Assessment for Construction of Fire Stations Numbers. 219 and 220 FEMA funded for Mesa, Arizona

Dear Mr. Ommeren:

On April 13, 2010, the Air Quality Division of the Arizona Department of Environmental Quality received your National Environmental Policy Act (NEPA) Scoping Input request for the proposed construction of two fire stations in Mesa, Arizona.

Federally funded projects are subject to State Implementation Plan (SIP) and General Conformity requirements according to Clean Air Act Section 176(c)(1); 58 Federal Register 63214-63259; Title 40 Code of Federal Regulations (CFR) Part 51, Subpart W §§ 51.850-51.860; Title 40 CFR Part 93, Subpart B §§ 93.150-160; and Arizona Administrative Code R18-2-1438. The Air Quality Division is hereby responding as requested after reviewing the project's description and maps included with your letter.

Both identified station construction projects are located in the Carbon Monoxide Maintenance Area, as well as the Phoenix Metro PM_{10} Nonattainment Area and the 8-hour Ozone Nonattainment Area. Therefore, during your environmental assessment we refer you to http://www.azdeq.gov/environ/air/plan/notmeet.html#phoenix for consideration.

To comply with applicable air pollution control requirements and minimize adverse impacts on public health and welfare, the following information is provided for your consideration:

REDUCE DISTURBANCE of PARTICULATE MATTER during CONSTRUCTION

The following measures are recommended to reduce disturbance of particulate matter, including emissions caused by strong winds as well as machinery and trucks tracking soil off the construction site:

I. Site Preparation and Construction
   A. Minimize land disturbance;
   B. Suppress dust on traveled paths which are not paved through wetting, use of watering trucks, chemical dust suppressants, or other reasonable precautions to prevent dust entering ambient air;
   C. Cover trucks when hauling soil;
   D. Minimize soil track-out by washing or cleaning truck wheels before leaving construction site;
   E. Stabilize the surface of soil piles; and
   F. Create windbreaks.

II. Site Restoration
   A. Revegetate any disturbed land not used;
   B. Remove unused material; and
   C. Remove soil piles via covered trucks.

The following rules applicable to reducing dust during construction, demolition and earth moving activities are enclosed:

- Arizona Administrative Code R18-2-604 through -607
- Arizona Administrative Code R18-2-804

Should you have further questions, please do not hesitate to call A. "Bonnie" Cockrell at (602) 771-2378 or Dave Biddle at (602) 771-2376 of the Planning Section Staff.

Very truly yours,

Diane L. Arnst, Manager
Air Quality Planning Section

Enclosure

cc: Bret Parke, EV Administrative Counsel
A. "Bonnie" Cockrell, Environmental Program Specialist, Air Planning
File No. 234862

R18-2-604. Open Areas, Dry Washes, or Riverbeds

A. No person shall cause, suffer, allow, or permit a building or its appurtenances, or a building or subdivision site, or a driveway, or a parking area, or a vacant lot or sales lot, or an urban or suburban open area to be constructed, used, altered, repaired, demolished, cleared, or leveled, or the earth to be moved or excavated, without taking reasonable precautions to limit excessive amounts of particulate matter from becoming airborne. Dust and other types of air contaminants shall be kept to a minimum by good modern practices such as using an approved dust suppressant or adhesive soil stabilizer, paving, covering, landscaping, continuous wetting, detouring, barring access, or other acceptable means.

B. No person shall cause, suffer, allow, or permit a vacant lot, or an urban or suburban open area, to be driven over or used by motor vehicles, trucks, cars, cycles, bikes, or buggies, or by animals such as horses, without taking reasonable precautions to limit excessive amounts of particulates from becoming airborne. Dust shall be kept to a minimum by using an approved dust suppressant, or adhesive soil stabilizer, or by paving, or by barring access to the property, or by other acceptable means.

C. No person shall operate a motor vehicle for recreational purposes in a dry wash, riverbed or open area in such a way as to cause or contribute to visible dust emissions which then cross property lines into a residential, recreational, institutional, educational, retail sales, hotel or business premises. For purposes of this subsection "motor vehicles" shall include, but not be limited to trucks, cars, cycles, bikes, buggies and 3-wheelers. Any person who violates the provisions of this subsection shall be subject to prosecution under A.R.S. § 49-463.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-604 renumbered without change as Section R18-2-604 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-604 renumbered to R18-2-804, new Section R18-2-604 renumbered from R18-2-404 and amended effective November 15, 1993 (Supp. 93-4).

R18-2-605. Roadways and Streets

A. No person shall cause, suffer, allow or permit the use, repair, construction or reconstruction of a roadway or alley without taking reasonable precautions to prevent excessive amounts of particulate matter from becoming airborne. Dust and other particulates shall be kept to a minimum by employing temporary paving, dust suppressants, wetting down, detouring or by other reasonable means.

B. No person shall cause, suffer, allow or permit transportation of materials likely to give rise to airborne dust without taking reasonable precautions, such as wetting, applying dust suppressants, or covering the load, to prevent particulate matter from becoming airborne. Earth or other material that is deposited by trucking or earth moving equipment shall be removed from paved streets by the person responsible for such deposits.

Historical Note

Adopted effective May 14, 1979 (Supp. 79-1). Former Section R9-3-605 renumbered without change as Section R18-2-605 (Supp. 87-3). Amended effective September 26, 1990 (Supp. 90-3). Former Section R18-2-605 renumbered to R18-2-805, new Section R18-2-605 renumbered from R18-2-405 effective November 15, 1993 (Supp. 93-4).

R18-2-606. Material Handling

No person shall cause, suffer, allow or permit crushing, screening, handling, transporting or conveying of materials or other operations likely to result in significant amounts of airborne dust without taking reasonable precautions, such as the use of spray bars, wetting agents, dust suppressants, covering the load, and hoods to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-606 renumbered from R18-2-406 effective November 15, 1993 (Supp. 93-4).

R18-2-607. Storage Piles

A. No person shall cause, suffer, allow, or permit organic or inorganic dust producing material to be stacked, piled, or otherwise stored without taking reasonable precautions such as chemical stabilization, wetting, or covering to prevent excessive amounts of particulate matter from becoming airborne.

B. Stacking and reclaiming machinery utilized at storage piles shall be operated at all times with a minimum fall of material and in such manner, or with the use of spray bars and wetting agents, as to prevent excessive amounts of particulate matter from becoming airborne.

Historical Note

Section R18-2-607 renumbered from R18-2-407 effective November 15, 1993 (Supp. 93-4).

R18-2-804. Roadway and Site Cleaning Machinery

A. No person shall cause, allow or permit to be emitted into the atmosphere from any roadway and site cleaning machinery smoke or dust for any period greater than 10 consecutive seconds, the opacity of which exceeds 40%. Visible emissions when starting cold equipment shall be exempt from this requirement for the first 10 minutes.

B. In addition to complying with subsection (A), no person shall cause, allow or permit the cleaning of any site, roadway, or alley without taking reasonable precautions to prevent particulate matter from becoming airborne. Reasonable precautions may include applying dust suppressants. Earth or other material shall be removed from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water or by other means.

Historical Note

Adopted effective February 26, 1988 (Supp. 88-1). Amended effective September 26, 1990 (Supp. 90-3). Amended effective February 3, 1993 (Supp. 93-1). Former Section R18-2-804 renumbered to Section R18-2-904, new Section R18-2-804 renumbered from R18-2-604 effective November 15, 1993 (Supp. 93-4).

THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT
5000 W. CAREFREE HIGHWAY
PHOENIX, AZ 85086-5000
(602) 942-3000 • WWW.AZGFD.GOV

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April 24, 2010

Ron van Ommeren
EcoPlan Associates, Inc.
78 W. Cushing St.
Tucson, AZ 85701

Re: City of Mesa Proposed Fire Stations no. 219 and 220

Dear Mr. Ommeren:

The Arizona Game and Fish Department (Department) has reviewed EcoPlan's letter, dated March 24, 2010 regarding special status species information associated with the above-referenced project areas. We have verified and validated the searches you conducted using the Department's On-line Environmental Review Tool which indicated the presence of no special status species or habitat within 2 miles of the project area.

The Department has no further comment at this time. If you have questions or would like further information on this subject, please feel free to give me a call at (623) 236-7513.

Sincerely,

Daniel E. Nelson

Project Evaluation Program Specialist

CC. Dana Warnecke

Janice K. Brewer
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov

Benjamin H. Grumbles
Director

April 27, 2010

Ron van Ommeren
Senior Environmental Planner
EcoPlan Associates, Inc.
701 W. Southern Avenue, Suite 203
Mesa, AZ 85210

SENT VIA E-MAIL: rvanommeren@ecoplanaz.com

Re: Environmental Assessment for City of Mesa fire stations

Thank you for the March 24, 2010 letter requesting comments on an environmental assessment for the City of Mesa to construct two fire stations. The Arizona Department of Environmental Quality Water Quality Division (ADEQ) is responsible for ensuring the delivery of safe drinking water to customers of regulated public water systems under the Safe Drinking Water Act, permits for proposed discharges to surface waters of the United States under the federal Clean Water Act (CWA), permits under the state Aquifer Protection Program, and water quality certifications of certain federal licenses and permits. Based on the information provided, ADEQ has the following comments related to water quality.

Stormwater: Stormwater discharges associated with construction activities (clearing, grading, or excavating) that disturb one acre or more must obtain a general permit for coverage of stormwater discharges under the Arizona Pollutant Discharge Elimination System's (AZPDES) Construction General Permit. As part of permit coverage, a Stormwater Pollution Prevention Plan (SWPPP) must be prepared, and implemented during the course of construction. The SWPPP must comply with ADEQ's Construction General Permit's SWPPP requirements, and must identify such elements as the project scope, anticipated acreage of land disturbance, and the best management practices that would be implemented to reduce soil erosion, and contain or minimize the pollutants that might be released to waters of the U.S. In addition to preparing the SWPPP, the project proponent must file for permit coverage before construction. The Construction General Permit, SWPPP checklist, and associated forms are available on ADEQ's website at: http://www.azdeq.gov/environ/water/permits/stormwater.html#const. For questions, please contact Chris Henninger in our Stormwater and General Permits Unit at (602) 771-4508 or by e-mail at cph@azdeq.gov.

CWA 401 Water Quality Certification: If project activities will occur inside the Ordinary High Water Mark of any water of the U.S., then a CWA section 404 permit (a.k.a. dredge and fill), issued by the U.S. Army Corps of Engineers, may be required. If a 404 permit (or any other

federal permit) is required for the project, a state-issued CWA section 401 certification of the permit may be required to ensure that the permitted activities will not result in a violation of Arizona's surface water quality standards. For questions, please contact Bob Scalamera at (602) 771-4502 or by e-mail at rs3@azdeq.gov. The CWA 401 application form can be downloaded from ADEQ's website at: http://www.azdeq.gov/function/forms/appswater.html#dredge.

We appreciate the opportunity to review and provide comments. If you need further information, please contact Wendy LeStarge of my staff at (602) 771-4836 or via e-mail at wl1@azdeq.gov, or myself at (602) 771-4416 or via e-mail at lc1@azdeq.gov.

Sincerely,

Linda Taunt, Deputy Director
Water Quality Division

United States Department of the Interior

U.S. Fish and Wildlife Service
Arizona Ecological Services Field Office
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021-4951
Telephone: (602) 242-0210 Fax: (602) 242-2513

In Reply Refer to:

AESO/SE
22410-2010-TA-0095
22410-2010-CPA-0047

February 23, 2010

RECEIVED
FEB 26 2010
By

Ms. Donna M. Meyer
Deputy Regional Environmental Officer
U.S. Department of Homeland Security
Federal Emergency Management Agency, Region IX
1111 Broadway, Suite 1200
Oakland, California 94607-4052

Dear Ms. Meyer

Thank you for your correspondence of November 30, 2009, received by us on December 3, requesting our concurrence with your determination that the construction of a 4-bay fire station in the town of Mesa, Maricopa County, will have no effect on threatened or endangered species in accordance with section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et. seq.). For future reference, please note that "no effect" determinations do not require concurrence from the U.S. Fish and Wildlife Service. However, this letter documents our review in accordance with section 7 of the ESA and the Fish and Wildlife Coordination Act (48 Stat. 401, as amended U.S. C. 661 et. seq.).

We have reviewed the project information provided with your letter. Based on the information provided, we believe no endangered or threatened species, critical habitat, or wetlands will be affected by the project; nor is the project likely to jeopardize the continued existence of proposed species or destroy or adversely modify proposed critical habitat, because no such species or habitats exist in the project area. No further review is required for this project at this time. Should the project site change of if additional information on the distribution of listed or proposed species becomes available, this determination may need to be reconsidered.

We encourage you to coordinate review of this project with the Arizona Game and Fish Department and the U.S. Army Corps of Engineers. Should you require further assistance or have any questions, please contact Mike Martinez (x224) or Debra Bills (x239).

Sincerely,

Debra T. Bills

for Steven L. Spangle
Field Supervisor

cc: Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
Chief, Regulatory Branch, U.S. Army Corps of Engineers, Phoenix, AZ

W:\Mike Martinez\Section7\Mesa_Fire_Dept.docx:cgg

THE STATE OF ARIZONA
GAME AND FISH DEPARTMENT
5000 W. CAREFREE HIGHWAY
PHOENIX, AZ 85086-5000
(602) 942-3000 • WWW.AZGFD.GOV

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DEPUTY DIRECTORS
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BOB BROSCHEID

April 13, 2010

Ron van Ommeren
EcoPlan Associates
701 W. Southern Ave., Suite 203
Mesa, AZ 85210

Re: Town of Gilbert Proposed Fire Station No. 10

Dear Mr. van Ommeren:

The Arizona Game and Fish Department (Department) has reviewed your letter dated March 23, 2010 regarding special status species information associated with the above-referenced project area. We have validated and verified the information you obtained (search #20100322011702) from the Department's Arizona On-Line Environmental Review Tool (Tool), which indicates the presence of no listed or candidate species in the project vicinity (3-mile radius). The Department has no further comments at this time. Please refer to the project receipt for general project type concerns. If you have any questions regarding this letter, please contact me at (623) 236-7513. General status information, county and watershed distribution lists and abstracts for some special status species are also available on our web site at http://www.azgfd.gov/hdms.

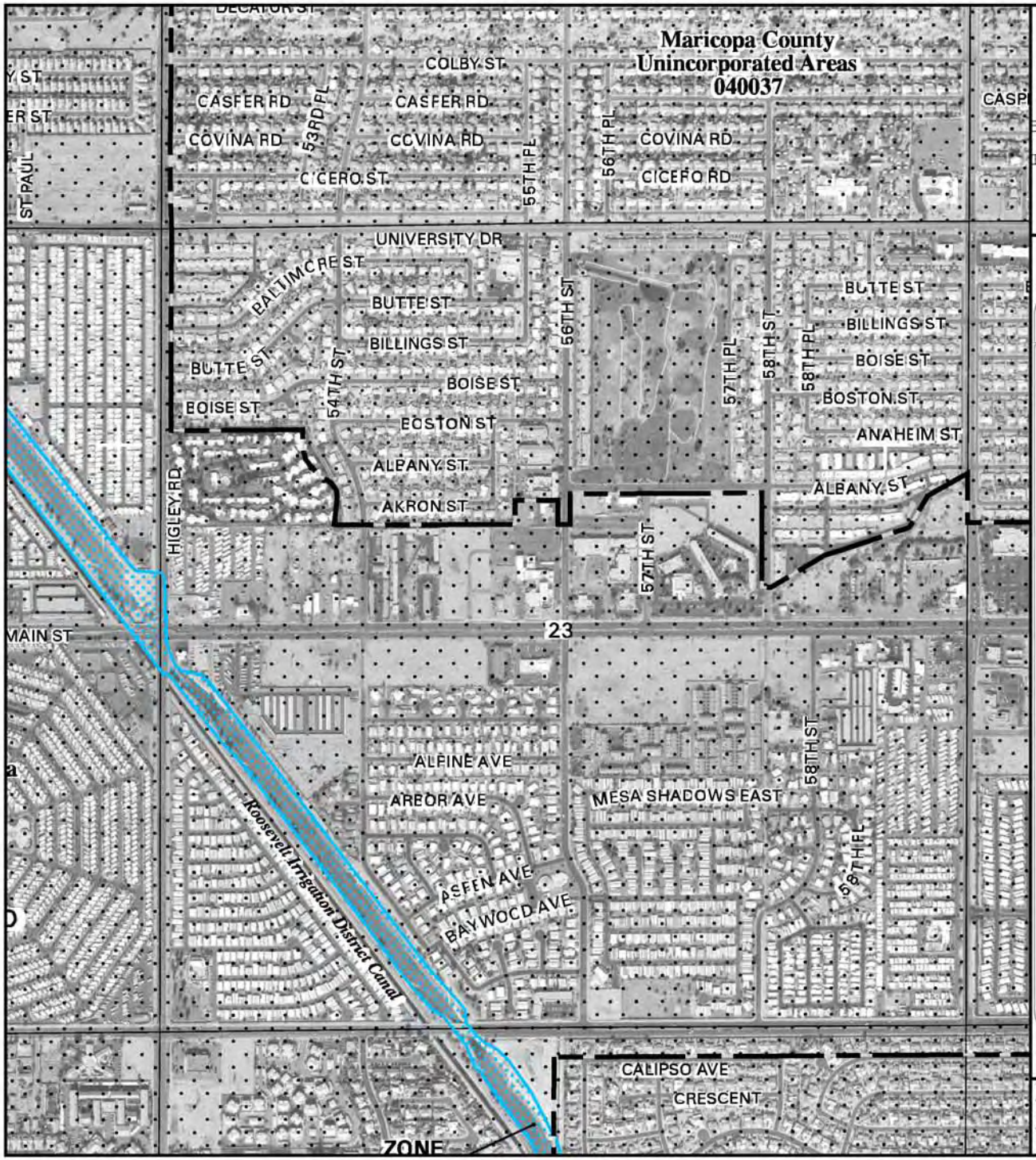
Sincerely,

Daniel E. Nelson

Project Evaluation Program Specialist

CC: Dana Warnecke

APPENDIX D
Floodplain Map



MAP SCALE 1" = 1000'

Scale not applicable at reduced size

0 1000 2000 FEET

0 300 600 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2215H

FIRM
FLOOD INSURANCE RATE MAP
MARICOPA COUNTY, ARIZONA
AND INCORPORATED AREAS

PANEL 2215 OF 4350

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
GILBERT, TOWN OF	040044	2215	H
MARICOPA COUNTY	040037	2215	H
MESA, CITY OF	040048	2215	H

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
04013C2215H

MAP REVISED
SEPTEMBER 30, 2005

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

FLOOD CONTROL DISTRICT
of Maricopa County
2801 W. Durango Street, Phoenix, Arizona 85009
Telephone (602) 506-1501 Fax (602) 372-6232

FLOOD HAZARD FLOOD INSURANCE RATE MAPS (FIRM) INFORMATION

Property Address: _____

City: _____ **State:** AZ **Zip:** 85 _____ **Parcel No.:** 140-50- 006 B

Requested By: Ron Van Ommeren **Phone:** 480-733-6666 ext 126

Mailing Address: _____ **Fax No.:** 480-733-6661

Select one (REQUIRED): ☑ **Vacant Land** ☐ **Existing Building**

The following is based upon the above property information:

FIRM Community Number: 040048 **Map Number:** 04013C

Panel Number: 2215 **Suffix:** H **Effective Date:** September 30, 2005

☐ Based upon the above information, the property's exact location cannot be made on the FIRM.

☑ The property is located in Flood Insurance Rate Map (FIRM) Zone X. Zone B, C or X are outside the delineated 100 year floodplain. Flood insurance is available, but not required by the Federal Insurance Administration, for buildings concerned with a federally insured loan. Flood insurance is optional at the discretion of the owner or lending institution.

☐ The property is located in Flood Insurance Rate Map (FIRM) Zone D. Zone D is an area in which flood hazards are undetermined. Flood insurance is available, but not required by the Federal Insurance Administration, for buildings concerned with a federally insured loan. Flood insurance is optional at the discretion of the owner or lending institution.

☐ The property is wholly or partially within a Special Flood Hazard Area, FIRM Zone _____. Federal law requires flood insurance as a condition of federally insured mortgage or loan secured by buildings within a Special Flood Hazard Zone.

Base Flood Elevation, (AO Zone, use depth), if shown is _____ feet, NGVD.

If erosion setback is applicable, Level 1 erosion setback is: _____.

☐ _____

This community participates in the National Flood Insurance Program - Regular. Check with your insurance carrier for premium discounts on flood insurance. The discounts vary depending on the community in which the property is located.

NOTE: The above flood hazard information is based on the property information furnished to us and the current Flood Insurance Rate Map for the area. The erosion setback is determined using the Flood Insurance Study maps. The District, the County or any officer or employee thereof do not warrant the accuracy of this information and are not responsible for any expense, losses or damage that may result from reliance on this information by the requestor or any third party.

Katina Castillo
Floodplain Management

May 12, 2010
Date

APPENDIX E
Summary of Federal Emergency Management Agency Eight-step Planning Process for Floodplains and Wetlands

EcoPlan Associates, Inc.
Environmental Science & Resource Economics

Memorandum

Date:	July 27, 2010
To:	Donna M. Meyer, Federal Emergency Management Agency
Copy:	Shahir Safi, City of Mesa Engineering Design
From:	Leslie J. Stafford
Mesa Number:	01-745-001
EcoPlan Number:	10-310
Project Name:	Mesa Fire Station No. 220
Regarding:	Eight-step Planning Process Documentation

The City of Mesa has been awarded Federal Emergency Management Agency (FEMA) Grant No. EMW-2009-FC-00917R for the construction of proposed Fire Station No. 220 to meet service demand and to improve response times in the central part of the City of Mesa, Arizona. Fire Station No. 220 would be located at 5763 E. Main St., Mesa, Arizona, within the 500-year floodplain. A fire station is considered a "critical action" and as such cannot be sited within a 500-year floodplain if a practicable alternative is available. Pursuant to Executive Order 11988, FEMA's Eight-step Planning Process for Floodplains and Wetlands has been undertaken. The results are summarized as follows.

Step 1

Determine whether the Proposed Action is located in a wetland and/or the 100-year floodplain, or whether it has the potential to affect or be affected by a floodplain or wetland.

Project Analysis: The project area falls within FEMA Flood Insurance Rate Map (FIRM) No. 04013C2215H, Panel No. 2215 (FEMA 2005). The project area is designated as Zone X ("shaded"), defined as areas "of 0.2% annual chance of flood, areas of 1% annual chance of flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood." Because Fire Station No. 220 would be sited in a 500-year floodplain and fire stations are considered critical actions pursuant to FEMA regulations 44 CFR Part 9, Floodplain Management and Protection of Wetlands, the City of Mesa initiated FEMA's eight-step process.

A site visit was conducted on March 22, 2010, by a biologist qualified to assess the occurrence of wetlands and other Waters of the United States. No hydrophytic vegetation or field indicators of wetland hydrology were observed on-site.

Step 2

Notify public at earliest possible time of the intent to carry out an action in a floodplain or wetland, and involve the affected and interested public in the decision-making process.

Project Analysis: The City of Mesa, the project applicant, placed a public notice in a local newspaper with general distribution notifying the public of the city's plans to construct Fire Station No. 220 within the 500-year floodplain. The notice was published on June 26 and June 30, 2010, in *The Arizona Republic* (notice attached). No responses were received from the public.

Following FEMA approval of the Draft Environmental Assessment (EA), the City of Mesa will notify the public of the availability of the Draft EA and the final results of the 8-step process through a public notice in a local newspaper of general distribution. An electronic copy of the Draft EA will be posted on the city's website, and hard copies will be available for review at City Hall. Public comment on the Draft EA will be accepted for 15 days after the date of publication of the public notice.

Step 3

Identify and evaluate practicable alternatives to locating the Proposed Action in a floodplain or wetland.

Project Analysis: Within the area of identified need for Fire Station No. 220—the Main Street corridor—the City of Mesa considered four available properties for its potential siting, including the proposed site at 58th Street and Main Street. Two primary considerations in the site evaluation process were the site location's effect on emergency response and whether the site could provide north–south access to Main Street or Broadway Road. Access to at least one of these two roads is important because these roads cross the city limits from east to west and provide direct access to surrounding municipalities with which the City of Mesa has firefighting and emergency response agreements. Table 1 compares the four sites.

Table 1. Comparison of sites considered.

Site Location	Selection Considerations
Main Street/54th Street—Southeast corner	Site was eliminated from consideration because the only access to Broadway Road was indirect.
Main Street/54th Street—Southwest corner	Site was eliminated from consideration because the only access to Broadway Road was indirect.
Recker Road/Main Street	Site was eliminated from consideration because no acceptable access to Recker Road existed; new access would have to be developed.
58th Street/Main Street	Site was selected as the preferred location because 58th Street would provide direct access to Main Street and the shortest access to Broadway Road and University Drive, where emergency calls have been concentrated. The site also is centered within the new fire station response area.

All of the sites identified would fall within the 500-year floodplain. Avoidance of the 500-year floodplain was not practicable for the siting of this fire station because Zone X covers the entire area of identified need, the entire jurisdiction of the City of Mesa, and all of Maricopa County. In summary, there is no alternative location that would be outside of the 500-year floodplain as shown on the current FEMA FIRM map.

Step 4

Identify the full range of potential direct or indirect impacts associated with the occupancy or modification of floodplains and wetlands, and the potential direct and indirect support of floodplain and wetland development that could result from the Proposed Action.

Project Analysis: FEMA confirmed that completion of a hydrology and hydraulics analysis will not be required for Fire Station No. 220.

Though the project would not directly or indirectly support floodplain development (the site is located in an urbanized area), the proposed fire station would improve emergency response times for populations already residing in the floodplain.

The project area is an undeveloped, previously graded lot. It retains little of the natural and beneficial values of a floodplain. Floral and faunal communities have been altered by previous development of the site and urbanization of the surrounding areas. Construction of the fire station would result in the permanent modification and development of 2.3 acres of open area, which would result in the removal of a small number of nonnative palm trees (previously planted as ornamentals) and predominantly nonnative and weedy grasses and forbs. Affected fauna would be limited and would be primarily nonnative species adapted to urbanized settings. Because no wetlands exist on the proposed site, the project would not result in the conversion of wetlands to upland.

Step 5

Minimize the potential adverse impacts from work within floodplains and wetlands (identified under Step 4), restore and preserve the natural and beneficial values served by wetlands.

Project Analysis: No adverse impacts to the 500-year floodplain or to wetlands would be anticipated with construction of Fire Station No. 220 (refer to Step 4 Project Analysis); therefore, no mitigation is proposed.

Step 6

Reevaluate the Proposed Action to determine (1) if it is still practicable in light of its exposure to flood hazards, (2) the extent to which it will aggravate the hazards to others, and (3) its potential to disrupt floodplain and wetland values.

Project Analysis: Reevaluation of the Proposed Action is not needed for the reasons described under Steps 1, 2, 3, and 4. The proposed site remains practical for Fire Station No. 220.

Step 7

If the agency decides to take an action in a floodplain or wetland, prepare and provide the public with a finding and explanation of any final decision that the floodplain or wetland is the only practicable alternative. The explanation should include any relevant factors considered in the decision-making process.

Project Analysis: The entire service area for proposed Fire Station No 220 is within Zone X ("shaded") designation, defined as areas "of 0.2% annual chance of flood, areas of 1% annual chance of flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from the 1% annual chance flood"; therefore, no practicable alternatives exist outside of the 500-year floodplain. A notice will be published in a general distribution newspaper describing the results of the Eight-step Planning Process for Floodplains and Wetlands undertaken for Fire Station No. 220 and announcing FEMA's final decision. This notification will be combined with the public notice of availability of the Draft EA.

Step 8

Review the implementation and post-implementation phases of the Proposed Action to ensure that the requirements of the Executive Orders are fully implemented. Oversight responsibility shall be integrated into existing processes.

Project Analysis: This step is integrated into the National Environmental Policy Act process and FEMA project management and oversight functions.

Reference

FEMA. 2005. Flood Insurance Rate Map No. 04013C2215H, Panel No. 2215. http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1. Revised September 30.

Attachments

Public notices published in *The Arizona Republic* on June 26 and June 30, 2010

The newspapers of **Arizona** make public notices from their printed pages available electronically in a single database for the benefit of the public. This enhances the legislative intent of public notice - keeping a free and independent public informed about activities of their government and business activities that may affect them. Importantly, Public Notices now are in one place on the web (www.PublicNoticeAds.com), not scattered among thousands of government web pages.

County: Maricopa
Printed In: Arizona Republic (Phoenix)
Printed On: 2010/06/26

PUBLIC NOTICECity of Mesa Fire DepartmentEMW-2009-FC-00917(2) The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to provide Federal financial assistance through the American Recovery and Reinvestment Act (ARRA) of 2009 - Assistance to Firefighters Grant Program (ASFG) to the City of Mesa Fire Department (Grantee) to construct a new 13,492 square foot, four-bay station at the southwest corner of 58th Street and Main Street, Mesa, Maricopa County. The Grantee's proposal has the potential to affect floodplains. Pursuant to Title 44 Code of Federal Regulations Part 9 and Executive Order 11988 (Floodplain Management), FEMA hereby provides interested parties with a notice of its intent to carry out an action in a floodplain. Based on information provided by the Grantee, the proposal would not occur within or affect wetlands.The Grantee's proposal would fulfill a critical fire protection need due to increased service demand. The Grantee's proposal is considered a critical action facility pursuant to Executive Order 11988 and is proposed to be located in an area designated in a Shaded Zone X (500-year floodplain) or area of 0.2% annual chance flood hazard. The property is located on Maricopa County Flood Insurance Rate Map 04013C2215H, Community Panel 2215 and was revised September 30, 2005.Within the Main Street corridor, the area of identified need, the City of Mesa considered four available properties for the potential site of Fire Station 220, including the proposed site at 58th Street and Main Street. Two primary considerations in the site evaluation process were whether the site could provide north-south access to Main Street or Broadway Road, and the site location's effect on emergency response times. Access to at least one of these two roads is important because these roads cross the city limits from east to west and provide direct access to surrounding municipalities with which the City of Mesa has firefighting and emergency response agreements. Below is a comparison of the four sites. Also note that the alternative sites are all within the Shaded Zone X (500-year floodplain) or area of 0.2% annual chance flood hazard. Comparison of sites considered:Main Street/54th Street - East Corner: Site was eliminated from consideration because the only access to Broadway Road was indirect.Main Street/54th Street - West corner: Site was eliminated from consideration because the only access to Broadway Road was indirect.Recker road/Main Street: Site was eliminated from consideration because there was no acceptable access to Recker Road; new access would have to be developed.58th Street/Main Street: Site was selected as the preferred location because 58th Street would provide direct access to Main Street and the shortest access to Broadway Road and University Drive, where emergency calls have been concentrated, and the site is centered within the new fire station response area.For more information and a map showing the location of the proposed fire station, contact Mr. Shahir Safi at 480-644-4292.Please provide comments on this proposed action by contacting: Donna M. Meyer, Deputy Regional Environmental Officer, FEMA, 1111 Broadway, Suite 1200, Oakland, California 94607 or by email to fema-rix-ehp-documents@dhs.gov. All comments should be received no later than July 14, 2010Published: June 26, 30, 2010

Public Notice ID: 13566170

The newspapers of **Arizona** make public notices from their printed pages available electronically in a single database for the benefit of the public. This enhances the legislative intent of public notice - keeping a free and independent public informed about activities of their government and business activities that may affect them. Importantly, Public Notices now are in one place on the web (www.PublicNoticeAds.com), not scattered among thousands of government web pages.

County: Maricopa
Printed In: Arizona Republic (Phoenix)
Printed On: 2010/06/30

PUBLIC NOTICECity of Mesa Fire DepartmentEMW-2009-FC-00917(2) The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to provide Federal financial assistance through the American Recovery and Reinvestment Act (ARRA) of 2009 - Assistance to Firefighters Grant Program (ASFG) to the City of Mesa Fire Department (Grantee) to construct a new 13,492 square foot, four-bay station at the southwest corner of 58th Street and Main Street, Mesa, Maricopa County. The Grantee's proposal has the potential to affect floodplains. Pursuant to Title 44 Code of Federal Regulations Part 9 and Executive Order 11988 (Floodplain Management), FEMA hereby provides interested parties with a notice of its intent to carry out an action in a floodplain. Based on information provided by the Grantee, the proposal would not occur within or affect wetlands.The Grantee's proposal would fulfill a critical fire protection need due to increased service demand. The Grantee's proposal is considered a critical action facility pursuant to Executive Order 11988 and is proposed to be located in an area designated in a Shaded Zone X (500-year floodplain) or area of 0.2% annual chance flood hazard. The property is located on Maricopa County Flood Insurance Rate Map 04013C2215H, Community Panel 2215 and was revised September 30, 2005.Within the Main Street corridor, the area of identified need, the City of Mesa considered four available properties for the potential site of Fire Station 220, including the proposed site at 58th Street and Main Street. Two primary considerations in the site evaluation process were whether the site could provide north-south access to Main Street or Broadway Road, and the site location's effect on emergency response times. Access to at least one of these two roads is important because these roads cross the city limits from east to west and provide direct access to surrounding municipalities with which the City of Mesa has firefighting and emergency response agreements. Below is a comparison of the four sites. Also note that the alternative sites are all within the Shaded Zone X (500-year floodplain) or area of 0.2% annual chance flood hazard. Comparison of sites considered:Main Street/54th Street - East Corner: Site was eliminated from consideration because the only access to Broadway Road was indirect.Main Street/54th Street - West corner: Site was eliminated from consideration because the only access to Broadway Road was indirect.Recker road/Main Street: Site was eliminated from consideration because there was no acceptable access to Recker Road; new access would have to be developed.58th Street/Main Street: Site was selected as the preferred location because 58th Street would provide direct access to Main Street and the shortest access to Broadway Road and University Drive, where emergency calls have been concentrated, and the site is centered within the new fire station response area.For more information and a map showing the location of the proposed fire station, contact Mr. Shahir Safi at 480-644-4292.Please provide comments on this proposed action by contacting: Donna M. Meyer, Deputy Regional Environmental Officer, FEMA, 1111 Broadway, Suite 1200, Oakland, California 94607 or by email to fema-rix-ehp-documents@dhs.gov. All comments should be received no later than July 14, 2010Published: June 26, 30, 2010

Public Notice ID: 13603670

APPENDIX F
AGFD On-line Environmental Review Tool Receipt

Arizona's On-line Environmental Review Tool
Search ID: 20100201011344
Project Name: 10-01010 Main and 58th
Date: 2/1/2010 10:43:20 AM

Project Location

Project Name: 10-01010 Main and 58th
Submitted By: Patrick Dockens
On behalf of: CONSULTING
Project Search ID: 20100201011344
Date: 2/1/2010 10:43:14 AM
Project Category: Development Within Municipalities (Urban Growth),Public & Community Facilities (school, library, church) and associated infrastructure,New construction
Project Coordinates (UTM Zone 12-NAD 83): 434416.826, 3697557.479 meter
Project Area: 0.150 acres
Project Perimeter: 99.451 meter
County: MARICOPA
USGS 7.5 Minute Quadrangle ID: 1305
Quadrangle Name: BUCKHORN
Project locality is not anticipated to change

Location Accuracy Disclaimer

Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Receipt is solely responsible for the project location and thus the correctness of the Project Review Receipt content.

The Department appreciates the opportunity to provide in-depth comments and project review when additional information or environmental documentation becomes available.

Special Status Species Occurrences/Critical Habitat/Tribal Lands within 3 miles of Project Vicinity:

No special status species were documented as occurring within the project vicinity. However, further field investigations of the project area are highly recommended. Site visits may reveal previously unrecorded resources of special concern in locations where they are currently undocumented.

No proposed or designated critical habitat is within the project vicinity.

No Indian tribal lands are within the project vicinity.

 APPLICATION INITIALS: _____

Please review the entire receipt for project type recommendations and/or species or location information and retain a copy for future reference. If any of the information you provided did not accurately reflect this project, or if project plans change, another review should be conducted, as this determination may not be valid.

Arizona's On-line Environmental Review Tool:

1. This On-line Environmental Review Tool inquiry has generated recommendations regarding the potential impacts of your project on Special Status Species (SSS) and other wildlife of Arizona. SSS include all U.S. Fish and Wildlife Service federally listed, U.S. Bureau of Land Management sensitive, U.S. Forest Service sensitive, and Arizona Game and Fish Department (Department) recognized species of concern.
2. These recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation). These recommendations are preliminary in scope, designed to provide early considerations for all species of wildlife, pertinent to the project type you entered.
3. This receipt, generated by the automated On-line Environmental Review Tool does not constitute an official project review by Department biologists and planners. Further coordination may be necessary as appropriate under the National Environmental Policy Act (NEPA) and/or the Endangered Species Act (ESA).

The U.S. Fish and Wildlife Service (USFWS) has regulatory authority over all federally listed species under the ESA. Contact USFWS Ecological Services Offices: http://arizonaes.fws.gov/.

Phoenix Main Office
2321 W. Royal Palm Road, Suite 103
Phoenix, AZ 85021
Phone 602-242-0210
Fax 602-242-2513

Tucson Sub-Office
201 North Bonita, Suite 141
Tucson, AZ 85745
Phone 520-670-6144
Fax 520-670-6154

Flagstaff Sub-Office
323 N. Leroux Street, Suite 101
Flagstaff, AZ 86001
Phone 928-226-0614
Fax 928-226-1099

Disclaimer:

1. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area.
2. The Department's Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there.
3. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HDMS data contains information about species occurrences that have actually been reported to the Department.

Arizona Game and Fish Department Mission

To conserve, enhance, and restore Arizona's diverse wildlife resources and habitats through aggressive protection and

 APPLICATION INITIALS: _____

management programs, and to provide wildlife resources and safe watercraft and off-highway vehicle recreation for the enjoyment, appreciation, and use by present and future generations.

Project Category: Development Within Municipalities (Urban Growth),Public & Community Facilities (school, library, church) and associated infrastructure,New construction

Project Type Recommendations:

Based on the project type entered; coordination with Arizona Department of Environmental Quality may be required (http://www.azdeq.gov/).

Based on the project type entered; coordination with Arizona Department of Water Resources may be required (http://www.water.az.gov/adwr/)

Based on the project type entered; coordination with County Flood Control districts may be required.

Based on the project type entered; coordination with State Historic Preservation Office may be required http://azstateparks.com/SHPO/index.html

Based on the project type entered; coordination with U.S. Army Corps of Engineers may be required (http://www.spl.usace.army.mil/regulatory/phonedir.html)

Communities can actively support the sustainability and mobility of wildlife by incorporating wildlife planning into their regional/comprehensive plans, their regional transportation plans, and their open space/conservation land system programs. An effective approach to wildlife planning begins with the identification of the wildlife resources in need of protection, an assessment of important habitat blocks and connective corridors, and the incorporation of these critical wildlife components into the community plans and programs. Community planners should identify open spaces and habitat blocks that can be maintained in their area, and the necessary connections between those blocks to be preserved or protected. Community planners should also work with State and local transportation planning entities, and planners from other communities, to foster coordination and cooperation in developing compatible development plans to ensure wildlife habitat connectivity. The Department’s guidelines for incorporating wildlife considerations into community planning and developments can be found at http://www.azgfd.gov/hgis/guidelines.aspx.

Development plans should provide for open natural space for wildlife movement, while also minimizing the potential for wildlife-human interactions through design features. Please contact Project Evaluation Program for more information on living with urban wildlife.

During planning and construction, minimize potential introduction or spread of exotic invasive species. Invasive species can be plants, animals (exotic snails), and other organisms (e.g. microbes), which may cause alteration to ecological functions or compete with or prey upon native species and can cause social impacts (e.g. livestock forage reduction, increase wildfire risk). The terms noxious weed or invasive plants are often used interchangeably. Precautions should be taken to wash all equipment utilized in the project activities before and after project activities to reduce the spread of invasive species. Arizona has noxious weed regulations (Arizona Revised Statutes, Rules

R3-4-244 and R3-4-245). See Arizona Department of Agriculture website for restricted plants http://www.azda.gov/PSD/quarantine5.htm. Additionally, the U.S. Department of Agriculture has information regarding pest and invasive plant control methods including: pesticide, herbicide, biological control agents, and mechanical control: http://www.usda.gov/wps/portal/usdahome. The Department regulates the importation, purchasing, and transportation of wildlife and fish (Restricted Live Wildlife), please refer to the hunting regulations for further information http://www.azgfd.gov/h_f/hunting_rules.shtml.

During the planning stages of your project, please consider the local or regional needs of wildlife in regards to movement, connectivity, and access to habitat needs. Loss of this permeability prevents wildlife from accessing resources, finding mates, reduces gene flow, prevents wildlife from re-colonizing areas where local extirpations may have occurred, and ultimately prevents wildlife from contributing to ecosystem functions, such as pollination, seed dispersal, control of prey numbers, and resistance to invasive species. In many cases, streams and washes provide natural movement corridors for wildlife and should be maintained in their natural state. Uplands also support a large diversity of species, and should be contained within important wildlife movement corridors. In addition, maintaining biodiversity and ecosystem functions can be facilitated through improving designs of structures, fences, roadways, and culverts to promote passage for a variety of wildlife.

Minimization and mitigation of impacts to wildlife and fish species due to changes in water quality, quantity, chemistry, temperature, and alteration to flow regimes (timing, magnitude, duration, and frequency of floods) should be evaluated. Minimize impacts to springs, in-stream flow, and consider irrigation improvements to decrease water use. If dredging is a project component, consider timing of the project in order to minimize impacts to spawning fish and other aquatic species (including spawning seasons), and to reduce spread of exotic invasive species. We recommend early direct coordination with Project Evaluation Program for projects that could impact water resources, wetlands, streams, springs, and/or riparian habitats.

Planning: consider impacts of lighting intensity on mammals and birds and develop measures or alternatives that can be taken to increase human safety while minimizing potential impacts to wildlife. Conduct wildlife surveys to determine species within project area, and evaluate proposed activities based on species biology and natural history to determine if artificial lighting may disrupt behavior patterns or habitat use.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

Trenches should be covered or back-filled as soon as possible. Incorporate escape ramps in ditches or fencing along the perimeter to deter small mammals and herptefauna (snakes, lizards, tortoise) from entering ditches.

Recommendations Disclaimer:

1. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project.
2. These recommendations are proposed actions or guidelines to be considered during **preliminary project development**.
3. Additional site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or

 APPLICATION INITIALS: _____

new project proposals.
5. The Department is interested in the conservation of all fish and wildlife resources, including those Special Status Species listed on this receipt, and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
6. **Further coordination requires the submittal of this initialed and signed Environmental Review Receipt with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map).**
7. Upon receiving information by AZGFD, please allow 30 days for completion of project reviews. Mail requests to:

Project Evaluation Program, Habitat Branch
Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086-5000
Phone Number: (623) 236-7600
Fax Number: (623) 236-7366

Terms of Use

By using this site, you acknowledge that you have read and understand the terms of use. Department staff may revise these terms periodically. If you continue to use our website after we post changes to these terms, it will mean that you accept such changes. If at any time you do not wish to accept the Terms, you may choose not to use the website.

1. This Environmental Review and project planning website was developed and intended for the purpose of screening projects for potential impacts on resources of special concern. By indicating your agreement to the terms of use for this website, you warrant that you will not use this website for any other purpose.
2. Unauthorized attempts to upload information or change information on this website are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1986 and/or the National Information Infrastructure Protection Act .
3. The Department reserves the right at any time, without notice, to enhance, modify, alter, or suspend the website and to terminate or restrict your access to the website.
4. This Environmental Review is based on the project study area that was entered. The review must be redone if the project study area, location, or the type of project changes. If additional information becomes available, this review may need to be reconsidered.
5. A signed and initialed copy of the Environmental Review Receipt indicates that the entire receipt has been read by the signer of the Environmental Review Receipt.

Security:

The Environmental Review and project planning web application operates on a complex State computer system. This system is monitored to ensure proper operation, to verify the functioning of applicable security features, and for other like purposes. Anyone using this system expressly consents to such monitoring and is advised that if such monitoring reveals possible evidence of criminal activity, system personnel may provide the evidence of such monitoring to law enforcement officials. Unauthorized attempts to upload or change information; to defeat or circumvent security measures; or to utilize this system for other than its intended purposes are prohibited.

This website maintains a record of each environmental review search result as well as all contact information. This information is maintained for internal tracking purposes. Information collected in this application will not be shared outside of the purposes of the Department.

If the Environmental Review Receipt and supporting material are not mailed to the Department or other appropriate agencies within six (6) months of the Project Review Receipt date, the receipt is considered to be null and void, and a new review must be initiated.

 APPLICATION INITIALS: _____

Print this Environmental Review Receipt using your Internet browser's print function and keep it for your records. Signature of this receipt indicates the signer has read and understands the information provided.

Signature:_____

Date: _____

Proposed Date of Implementation: _____

Please provide point of contact information regarding this Environmental Review.

Application or organization responsible for project implementation

Agency/organization:_____

Contact Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

E-mail: _____

Person Conducting Search (if not applicant)

Agency/organization:_____

Contact Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

E-mail: _____

 APPLICATION INITIALS: _____

APPENDIX G
Public Involvement

Notice of Public Meeting
Design Review Board

Meeting Date: September 2, 2009
Time: 5:00 p.m.
Location: Lower Level City Council Chambers – 57 E. 1st Street

Proposed Development: Fire Station No. 220
Address: 60 South 58th Street

*Call Planning Division to verify date and time (480) 644-2385

Dear Neighbor:

We have applied for City of Mesa Design Review Board approval for development at this location. This letter is being sent to all neighboring property owners within 300 feet of the boundaries of the proposed development site and all Registered Neighborhoods and Homeowners Associations within 1000 feet of the site as required by the Planning Division. You are invited to attend this meeting and provide any input you may have regarding this proposal.

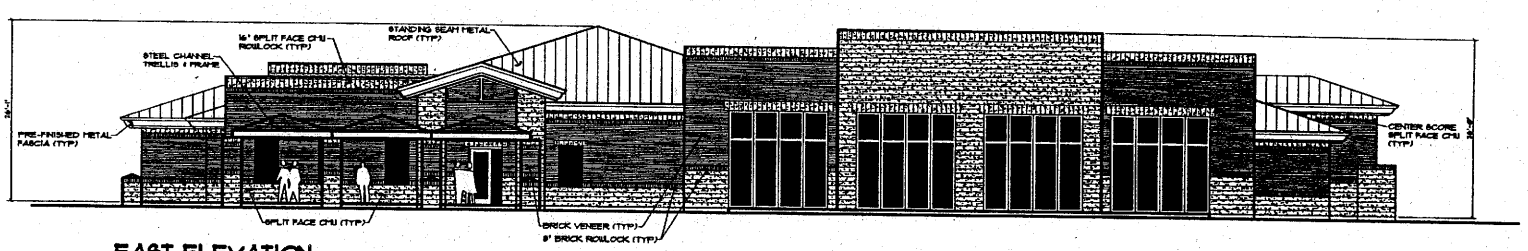
The Design Review Board reviews building design, landscape plans, parking layout and site layout. The Design Review Board does not review or discuss the actual use of the land (such as gas station, apartments or office building). Those issues are typically addressed by the Planning and Zoning Board, City Council or other public input processes.

For additional information concerning the design of the proposed development or the Design Review process, please contact the Mesa Planning Division at 20 E. Main Street, Suite 130, or call the Mesa Planning Division Office at 480-644-2385.

Sincerely,

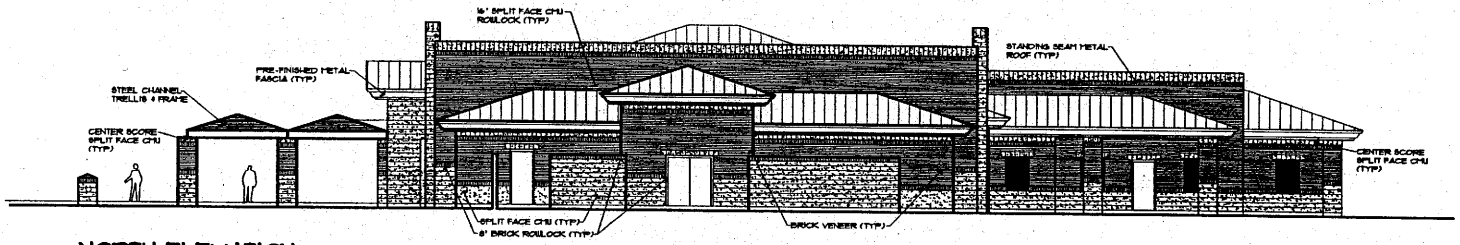
Daniel W. Brock, III, A.I.A.
Brock, Craig & Thacker Architects
145 E. University Dr., Suite 3
Mesa, AZ 85201
480-969-3081

Owner: City of Mesa
Contact: Shahir Safi
Phone: 480-644-4292



EAST ELEVATION

SCALE: 1/8" = 1'-0"



NORTH ELEVATION

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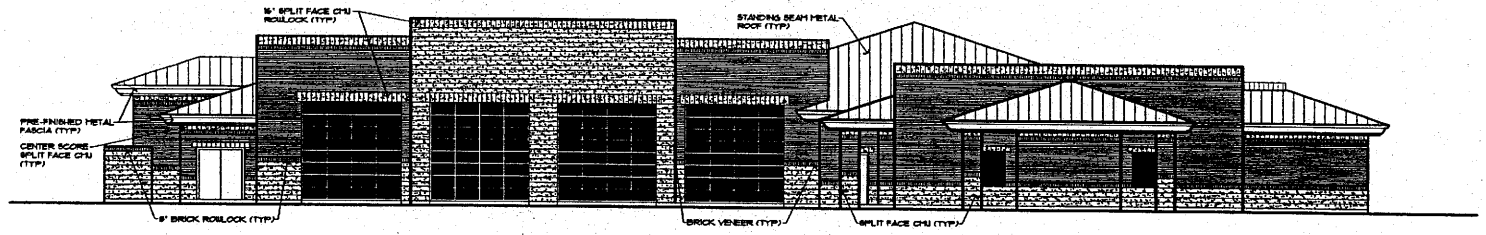

WEST ELEVATION

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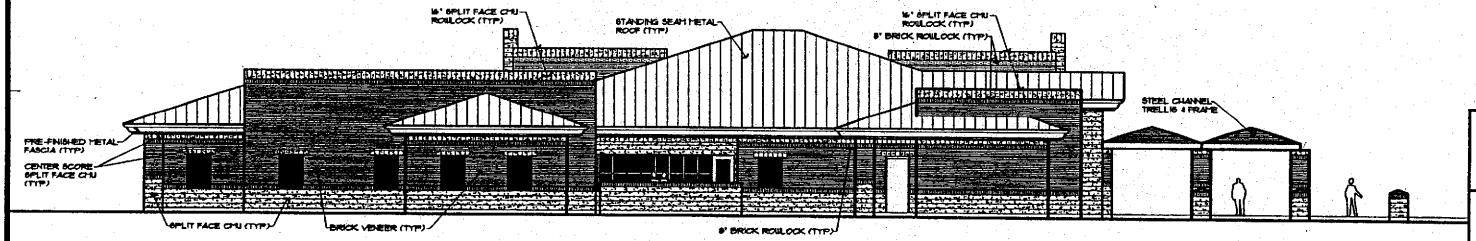

SOUTH ELEVATION

SCALE: 1/8" = 1'-0"

Reduced size: Not to scale

brock, craig and thacker architects, ltd.

CITY OF MESA
ENGINEERING DEPARTMENT

FIRE STATION 228
64 SOUTH 96TH STREET
MESA, ARIZONA

EXTERIOR ELEVATIONS

DRAWING A3

SHEET X of XX

CATALOG NUMBER

DRAWN BY: BAZ
ARCHITECT: D.B.
APPROVED BY:

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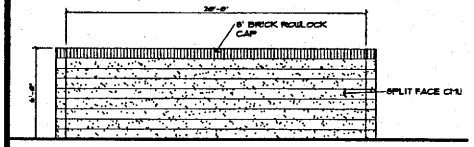
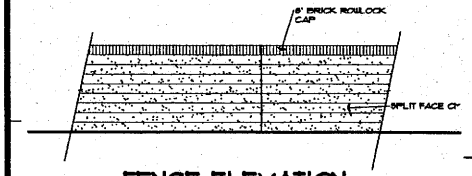
FILE: G:\PROJ\FIRE\AIA\A3.2.dwg 6/3/2005



REFUSE ELEVATION
SCALE: 1/4" = 1'-0"



FENCE ELEVATION
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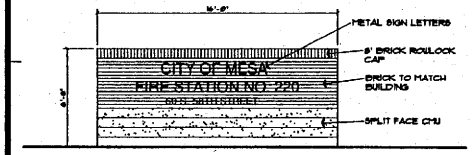

SIGN ELEVATION
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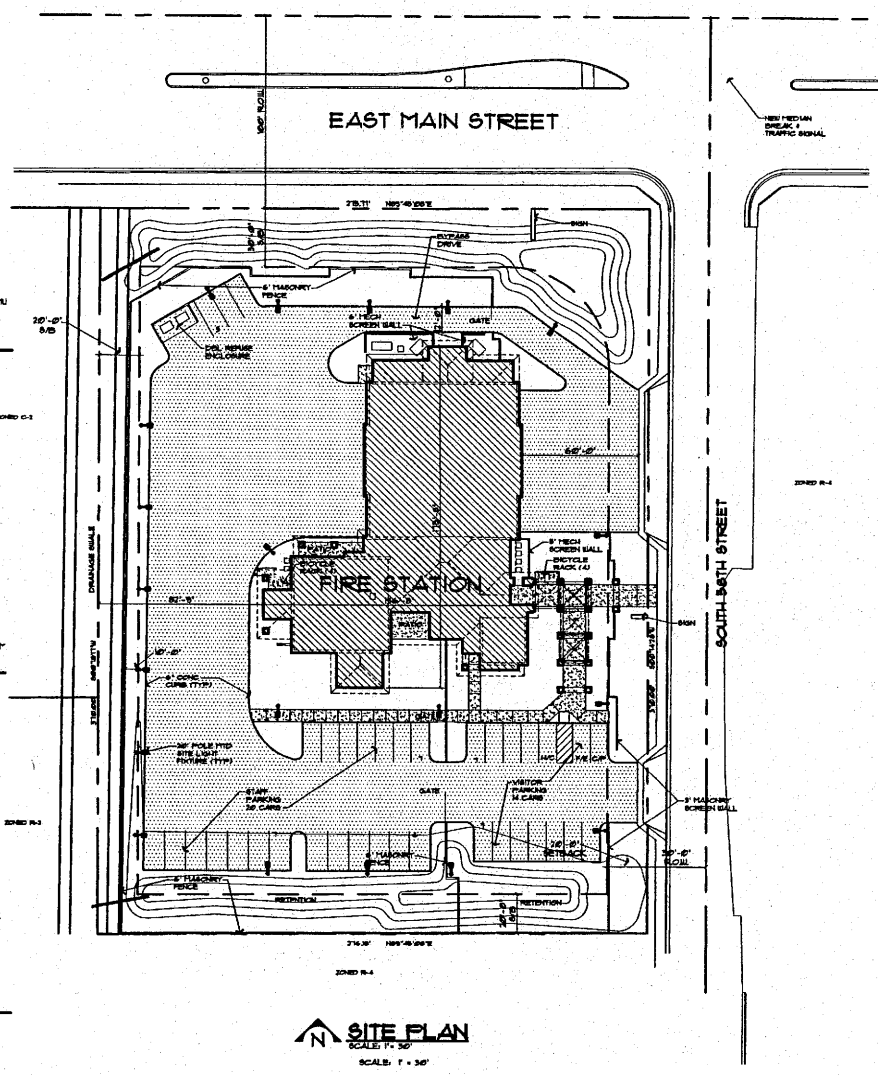


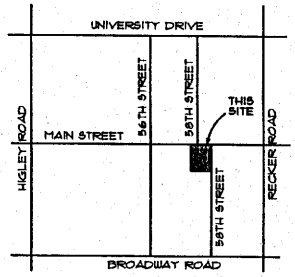
SITE PLAN
SCALE: 1" = 30'

SCALE: 1" = 30'

Reduced size: Not to scale

PROJECT DATA

OWNER:	CITY OF MESA
PROJECT ADDRESS:	58TH STREET & MAIN STREET
ASSESOR PARCEL NO.:	141-50-006A, 141-50-006B, 141-50-016
SITE AREA:	102,030 SF = 2.34 ACRES
BUILDING FLOOR AREA:	13,105 SF
COVERAGE AREA:	15,542 SF
LOT COVERAGE:	15,542 SF/102,030 SF = 15.23%
LANDSCAPE AREA:	45,453 SF = 44.55%
ZONING:	R-4
PARKING REQUIRED:	
COMMUNITY ROOM:	788 SF / 75 = 11 SPACES
FIRE STATION:	2 SHIFTS X 8 = 16 SPACES
TOTAL REQUIRED:	27 SPACES
PARKING PROVIDED:	37 SPACES



VICINITY MAP
NOT TO SCALE

brock, craig and thacker architects, ltd.

CITY OF MESA
ENGINEERING DEPARTMENT

FIRE STATION 220
60 SOUTH 58TH STREET
MESA, ARIZONA

SITE PLAN

DRAWING: A1

DRAWN BY: B.K.T.
ARCHITECT: D. S.
APPROVED BY:

340 W.O.
PROJ. NO.

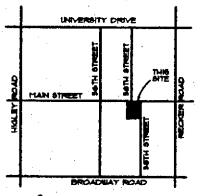
SHEET: X or XX

CATALOG NUMBER:

FILE: 0907\DRAWINGS\A1-KBAY.dwg 9/3/2009

PLANT CALCULATIONS:
275.77 L.F. E. MAIN STREET ROADWAY FRONTAGE
REQUIREMENTS: 2 TREES/8 SHRUBS/25 L.F.
(22 TREES/66 SHRUBS)
MIN 25% TREES @ 36" BOX
50% TREES @ 24" BOX
50% SHRUBS @ 5 GAL
50% VEGETATIVE COVER

22 TREES/66 SHRUBS PROVIDED
6 TREES @ 36" BOX
11 TREES @ 24" BOX
33 SHRUBS @ 5 GAL/BAL MIN 1 GAL



VICINITY MAP
NOT TO SCALE

PLANT CALCULATIONS:
370 L.F. WEST PROPERTY LINE
REQUIREMENTS: 1 TREE/4 SHRUBS/20 L.F.
(19 TREES/76 SHRUBS)
50% TREES MIN 24" BOX
50% SHRUBS @ 5 GAL

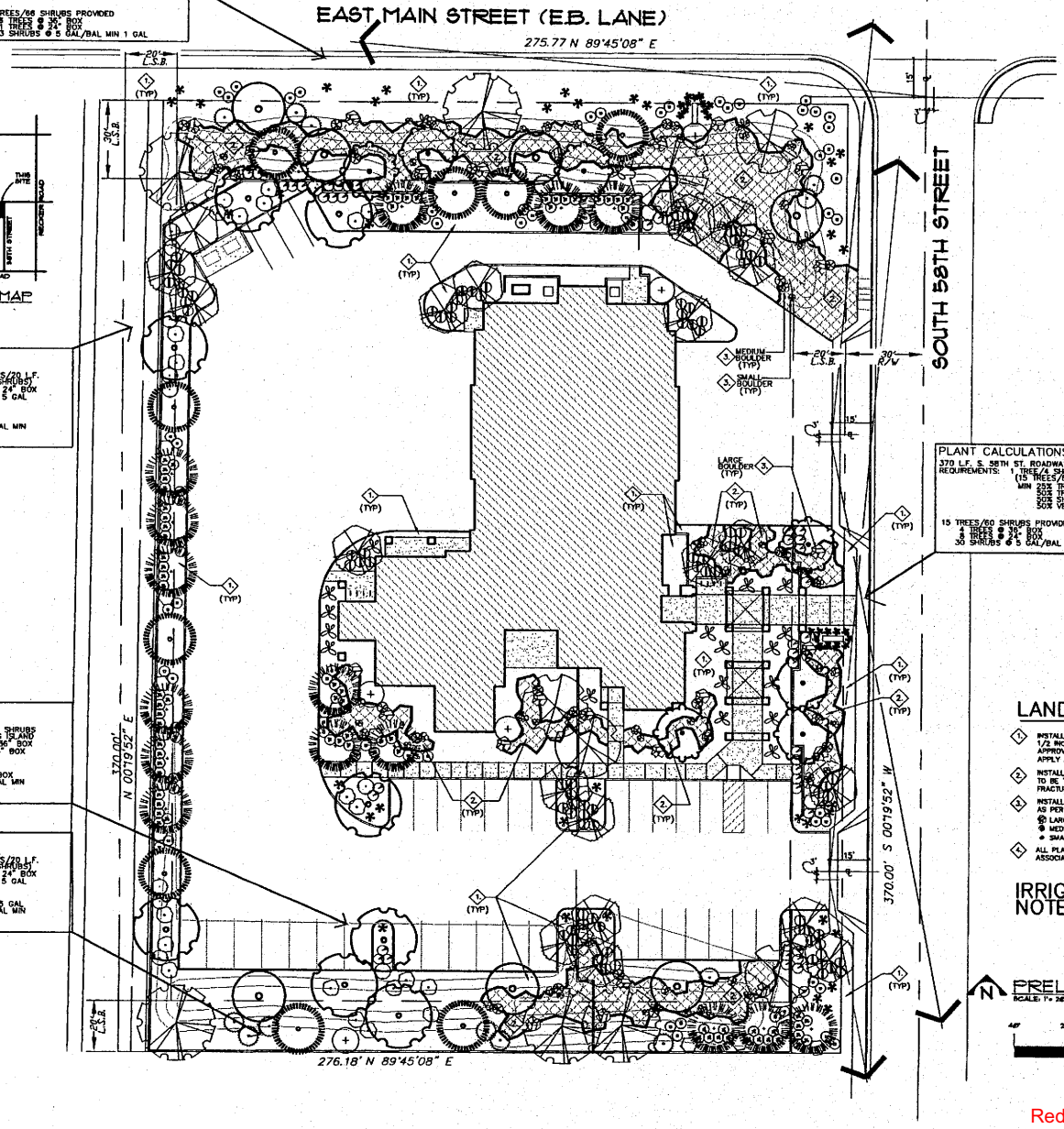
16 TREES/76 SHRUBS PROVIDED
10 TREES @ 24" BOX
36 SHRUBS @ 5 GAL/BAL 1 GAL MIN

PLANT CALCULATIONS:
PARKING LOT
REQUIREMENTS: 1 SHADE TREE/3 SHRUBS PER 15 PARKING SP. AND
10% TREES MIN 36" BOX
BAL TREES @ 24" BOX

8 TREES/24 SHRUBS PROVIDED
1 TREE @ 36" BOX, 7 @ 24" BOX
12 SHRUBS @ 5 GAL/BAL 1 GAL MIN

PLANT CALCULATIONS:
276.18 L.F. SOUTH PROPERTY LINE
REQUIREMENTS: 1 TREE/4 SHRUBS/20 L.F.
(14 TREES/56 SHRUBS)
50% TREES MIN 24" BOX
50% SHRUBS @ 5 GAL

14 TREES/56 SHRUBS PROVIDED
7 TREES @ 24" BOX, BAL @ 15 GAL
28 SHRUBS @ 5 GAL/BAL 1 GAL MIN



PLANT CALCULATIONS:
370 L.F. S. 58TH ST. ROADWAY FRONTAGE
REQUIREMENTS: 1 TREE/4 SHRUBS/20 L.F.
(15 TREES/60 SHRUBS)
MIN 25% TREES @ 36" BOX
50% TREES @ 24" BOX
50% SHRUBS @ 5 GAL
50% VEGETATIVE COVER

15 TREES/60 SHRUBS PROVIDED
4 TREES @ 36" BOX
8 TREES @ 24" BOX
30 SHRUBS @ 5 GAL/BAL MIN 1 GAL

PLANT KEY

SYMBOL	COMMON NAME	BOTANICAL NAME	SIZE	QUAN	REMARKS
TREES:					
	'DESERT MUSEUM' PALO VERDE (THORNLESS)	CERCIDIUM HYBRID THORNLESS 'DESERT MUSEUM' PALO VERDE	36" BOX	8	STANDARD
	PALO BREA	CERCIDIUM PRAECOX	36" BOX	15	STANDARD SPECIMEN TREE
	'PHOENIX M' HYBRID THORNLESS MESQUITE	PROSOPIS HYBRID 'PHOENIX M' THORNLESS	24" BOX	4	MULTI-TRUNK
	PINK DAWN CHITALPA	CHITALPA VARIETY 'PINK DAWN'	36" BOX	7	MULTI-TRUNK
	CHASTE TREE	VITEX AGNUS-CASTUS	24" BOX	7	MULTI-TRUNK
	WILLOW ACACIA	ACACIA SALIGNA	24" BOX	20	STANDARD
	DESERT SWEET ACACIA	ACACIA SMALLII	24" BOX	9	STANDARD
	BLUE PALO VERDE	CERCIDIUM FLORIDUM	48" BOX	6	STANDARD (SPECIMEN TREE)
SHRUBS, VINES & GROUND COVER:					
	MEXICAN (YELLOW) BIRD OF PARADISE	CAESALPINIA MEXICANA	15 GAL	5	FULL PAST CAN
	LITTLE LEAF CORDIA	CORDIA PARVIFOLIA	5 GAL	15	FULL PAST CAN
	BAJA RUELLIA	RUELLIA PENINSULARIS	5 GAL	41	FULL PAST CAN
	DESMETTIANA AGAVE	AGAVE DESMETTIANA	15 GAL	22	FULL PAST CAN
	THUNDER CLOUD SAGE	LEUCOPHYLLUM CANDIDUM 'THUNDER CLOUD'	5 GAL	23	FULL PAST CAN
	'MARICOPA' RED FAIRY DUSTER	CALLIANDRA CALIFORNICA VAR. 'MARICOPA RED'	5 GAL	71	FULL PAST CAN
	DESERT SPOON	DASYLIRION WHEELERI	5 GAL	37	FULL PAST CAN
	SILVER-LEAF CASSIA	CASSIA PHYLLODENIA	5 GAL	12	FULL PAST CAN
	TRAILING INDIGO BUSH	DALEA GREGGII	5 GAL	20	FULL PAST CAN
	BUSH MORNING GLORY	BUSH MORNING GLORY	3 GAL	73	FULL PAST CAN
	DESERT MILKWEED	DESERT MILKWEED	15 GAL	24	FULL PAST CAN
	GIANT HESPERALOE	GIANT HESPERALOE	15 GAL	22	FULL PAST CAN
	'SPREADING SUNSET' LANTANA	LANTANA 'SPREADING SUNSET'	5 GAL	92	FULL PAST CAN

NOTE: QUANTITIES SHOWN ON THIS PLANT KEY ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND ARE NOT TO BE CONSTRUED AS AN ACCURATE COUNT OF MATERIALS SHOWN ON THE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMATION OF ALL QUANTITIES PRIOR TO BIDDING, PROVISION AND INSTALLATION OF ALL MATERIALS SHOWN ON THE DRAWINGS.

LANDSCAPE KEY/NOTES

1. INSTALL DECOMPOSED GRANITE (D.G.) THRU-OUT ALL LANDSCAPE AREAS (UNLESS NOTED ON THE PLAN TO BE OTHERWISE). DECOMPOSED GRANITE IS TO BE 1/2 INCH SCREENED SIZE AND INSTALLED AT A UNIFORM DEPTH OF 2 INCHES. COLOR OF D.G. IS TO BE "DESERT BROWN" (SUBMIT SAMPLE FOR ARCHITECT'S APPROVAL). DO NOT USE PLASTIC UNDER D.G.----- APPLY SELECTIVE PRE-EMERGENCE HERBICIDE OVER SUBGRADE PRIOR TO INSTALLATION OF D.G. AND APPLY A SECOND APPLICATION OVER THE D.G. ONCE INSTALLED.
2. INSTALL COMPLETE COVER OF 4"-PLUS-SIZE FRACTURED (ANGULAR) GRANITE THRU-OUT AREAS KEYED WITH THIS NOTE ON THE LANDSCAPE PLAN; COLOR TO BE "APACHE RED". SEE FRACTURED GRANITE DETAIL SHEET, L2. APPLY SELECTIVE PRE-EMERGENCE HERBICIDE OVER SUBGRADE AREA TO RECEIVE FRACTURED GRANITE; FOLLOW WITH INSTALLATION OF FABRIC MESH PRIOR TO INSTALLATION OF FRACTURED GRANITE AS PER DETAIL ON SHEET L2.
3. INSTALL SURFACE SELECT GRANITE BOULDERS, "APACHE RED" IN COLOR, WHERE SHOWN ON THE PLAN, AS PER THE FOLLOWING KEY AND ACCORDING TO THE BOULDER INSTALLATION DET., SHEET L2.
   - LARGE (APPROX SIZE: 3.0'H X 4.0'W X 5.0'L) TOTAL OF 27
   - MEDIUM (APPROX SIZE: 2.5'H X 3.0' W X 4.0'L) TOTAL OF 34
   - SMALL (APPROX SIZE: 2.0'H X 2.5'W X 3.0'L) TOTAL OF 28
4. ALL PLANT MATERIAL SHALL COMPLY WITH THE "ARIZONA NURSERY ASSOCIATION SPECIFICATIONS" FOR TYPE AND SIZE OF PLANT.

IRRIGATION SYSTEM NOTE!

THE IRRIGATION FOR THIS PROJECT WILL CONSIST OF A FULLY AUTOMATED SYSTEM (W/ELECTRICAL CONTROLLER) FOR ALL PLANTINGS SHOWN ON THIS PLAN

PRELIM LANDSCAPE PLAN

SCALE: 1" = 20'

48' 24' 0 48'

brock, craig and thacker architects, ltd.

CITY OF MESA
ENGINEERING DEPARTMENT

FIRE STATION 220
58TH STREET & MAIN STREET
MESA, ARIZONA

PRELIMINARY LANDSCAPE PLAN

DRAWING: L1

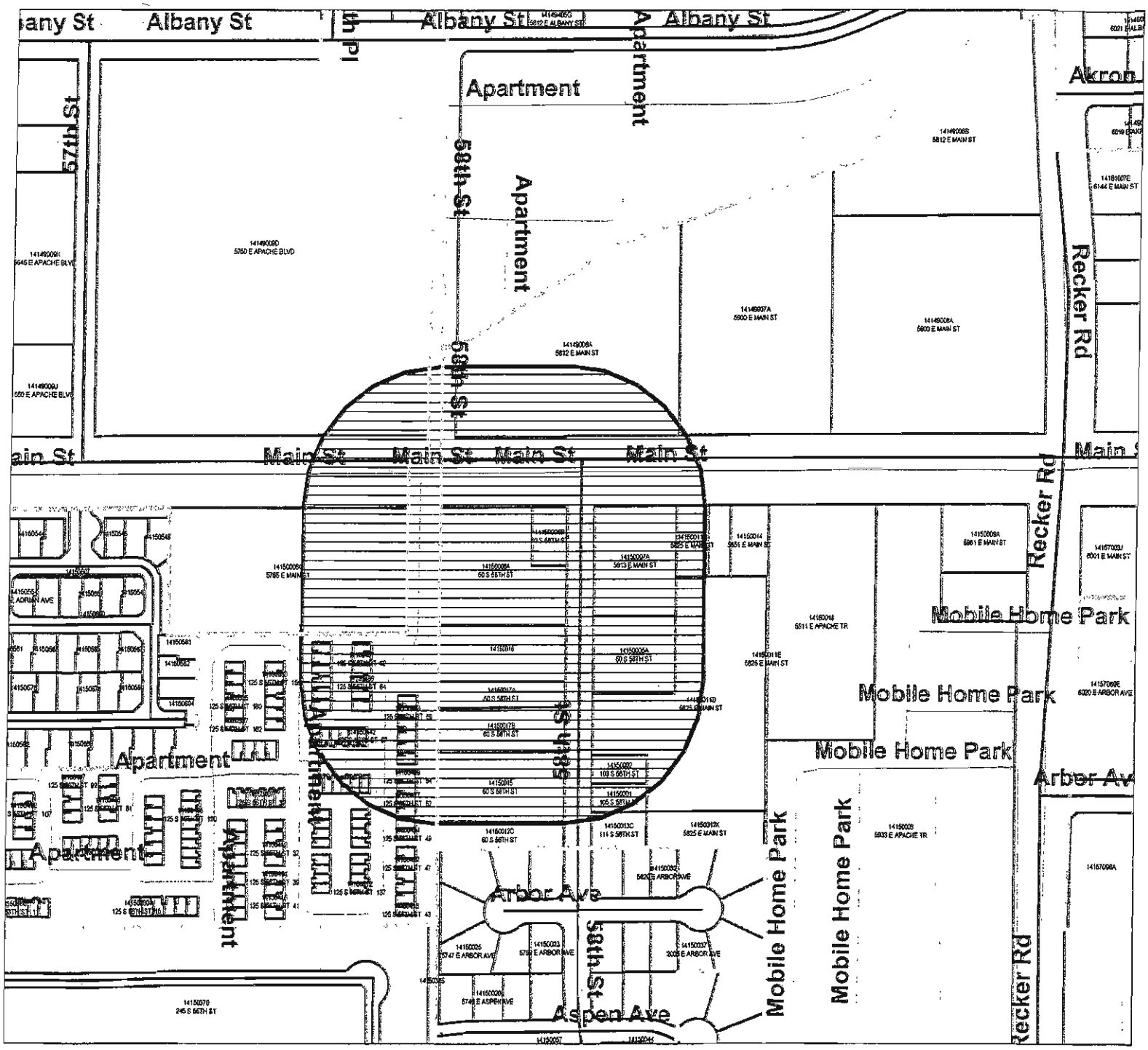
SHEET 1 of 1

CATALOG NUMBER:

340 W.O.
PROJ. NO.

Reduced size: Not to scale

County Parcels



AZQUISITIOINS LLC
60 S 58TH ST
MESA, AZ 85206 USA
Parcel: 141-50-005-A

BACA ISIDRO S
125 S 56TH ST NO 76
MESA, AZ 85206 USA
Parcel: 141-50-451

SMITH CHRISTOPHER G
125 S 56TH ST NO 78
MESA, AZ 85206 USA
Parcel: 141-50-453

MESA MAIN STREET PROPERTY HOLDING GROUP LLC
5580 N SUNCREST PL
TUCSON, AZ 85718 USA
Parcel: 141-50-012-C

KRAL RAYMOND C/ROSE A
7615 STEUBENVILLE PIKE
OAKDALE, PA 15071 USA
Parcel: 141-50-523

TYLER NANCY A
125 S 56TH ST NO 50
MESA, AZ 85206 USA
Parcel: 141-50-425

LONG DARLENE
125 S 56TH ST NO 67
MESA, AZ 85206 USA
Parcel: 141-50-442

SCOTT MATTHEW/EVA
125 S 56TH ST NO 62
MESA, AZ 85206 USA
Parcel: 141-50-437

SEMLER RACHELLE
125 S 56TH ST NO 58
MESA, AZ 85206 USA
Parcel: 141-50-433

KOFLER BRIAN L/GAYLA S
125 S 56TH ST NO 61
MESA, AZ 85206 USA
Parcel: 141-50-436

AINSWORTH NICOLE A
125 S 56TH ST UNIT 68
MESA, AZ 85206 USA
Parcel: 141-50-443

SLIGER BUCKHORN LIMITED PARTNERSHIP
5900 E MAIN ST
MESA, AZ 85205 USA
Parcel: 141-49-006-A

ISLEY-POWELL FUMI
105 S 58TH ST
MESA, AZ 85206 USA
Parcel: 141-50-001

FORGASH JASON/MARIA/MARCHESE JAMES
637 S CEDAR AVE
FULLERTON, CA 92833 USA
Parcel: 141-50-521

WOOD RAE ANN M
125 S 58TH ST UNIT 70
MESA, AZ 85206 USA
Parcel: 141-50-445

COOPER FAMILY TRUST
10609 E FENIMORE RD
MESA, AZ 85207 USA
Parcel: 141-50-007-A

SLIGER BUCKHORN LIMITED PARTNERSHIP
5900 E MAIN ST
MESA, AZ 85205 USA
Parcel: 141-49-007-A

ROMERO JUAN D
125 S 56TH ST 72
MESA, AZ 85206 USA
Parcel: 141-50-447

RUBIN THOMAS P/JAMES
125 S 56TH ST NO 66
MESA, AZ 85206 USA
Parcel: 141-50-441

HAMBY JAMES L
125 S 56TH ST 69
MESA, AZ 59705 USA
Parcel: 141-50-444

MWE MESA MEDICAL PROPERTIES LLC
380 E MAIN ST BLDG B 2ND FLR
MIDWAY, UT 84049 USA
Parcel: 141-50-008-G

SALISBURY AMY C
125 S 56TH ST UNIT 63
MESA, AZ 85206 USA
Parcel: 141-50-438

WILSON GLENN/CAROL
PO BOX 1211
EAGAR, AZ 85925 USA
Parcel: 141-50-430

PARK WILLIAM/SANDRA
125 S 56TH ST NO 60
MESA, AZ 85206 USA
Parcel: 141-50-435

CREED CRAIG A/CYNTHIA S TR
831 N HILL CIR
MESA, AZ 85203 USA
Parcel: 141-50-520

MAYS TRAMAINE C
125 S 56TH ST 71
MESA, AZ 85206 USA
Parcel: 141-50-446

MESA MAIN STREET PROPERTY HOLDING GROUP LLC
5580 N SUNCREST PL
TUCSON, AZ 85718 USA
Parcel: 141-50-015

GOODWIN CHARLOTTE
4202 E BROADWAY RD UNIT 225
MESA, AZ 85206 USA
Parcel: 141-50-452

DALLUGE ANNETTE M
125 S 56TH ST NO 64
MESA, AZ 85206 USA
Parcel: 141-50-439

ROSSMAN NEIL THOMAS/ROSSMAN DINA IRENE
125 S 56TH ST
MESA, AZ 85206 USA
Parcel: 141-50-431

MESA MAIN STREET PROPERTY HOLDING GROUP LLC
5580 N SUNCREST PL
TUCSON, AZ 85718 USA
Parcel: 141-50-017-A

RAMDAS INVESTMENSTS II LLC
5750 E MAIN ST
MESA, AZ 85205 USA
Parcel: 141-49-009-D

ELLIS RICHARD S/HATCH CHRISTINA
125 S 56TH ST NO 65
MESA, AZ 85206 USA
Parcel: 141-50-440

NEWBOLD JANA
5410 E CRESCENT AVE
MESA, AZ 852062248 USA
Parcel: 141-50-429

MESA CITY OF
20 E MAIN ST 6TH FL
MESA, AZ 85201 USA
Parcel: 141-50-006-B

MESA CITY OF
20 E MAIN ST 6TH FL
MESA, AZ 85201 USA
Parcel: 141-50-006-A

FISHER MONIQUE/DEMETRI
41864 CABO CT
PALMDALE, CA 93551 USA
Parcel: 141-50-450

CLARK GERALD D/JANET C
125 S 56TH ST UNIT 52
MESA, AZ 85206 USA
Parcel: 141-50-427

RUCKER BEATRICE V TR
111 S 58TH ST
MESA, AZ 85206 USA
Parcel: 141-50-013-C

CARRILLO STEPHEN A
125 S 56TH ST 73
MESA, AZ 85206 USA
Parcel: 141-50-448

YOUNG ANN
103 S 58TH ST
MESA, AZ 85206 USA
Parcel: 141-50-002

GARCIA JANET L
125 S 56TH ST NO 147
MESA, AZ 85206 USA
Parcel: 141-50-522

EAST VALLEY STORAGE SOLUTIONS
3930 E CAMELBACK RD #100
PHOENIX, AZ 85018 USA
Parcel: 141-50-011-D

MESA CITY OF
20 E MAIN ST 6TH FL
MESA, AZ 85201 USA
Parcel: 141-50-016

MESA MAIN STREET PROPERTY HOLDING GROUP LLC
5580 N SUNCREST PL
TUCSON, AZ 85718 USA
Parcel: 141-50-017-B

ZIMDARS DAVID E
1601 W MANN AVE
ARTESIA, NM 88210 USA
Parcel: 141-50-426

GONZALES NANCI
125 S 56TH ST UNIT 59
MESA, AZ 85206 USA
Parcel: 141-50-434

MATTAMANA THARIAN P/SARA/TINOY
4330 E MITCHELL DR
PHOENIX, AZ 85018 USA
Parcel: 141-50-428

MIRELES MARIANA/ADOLFO
125 S 56TH ST NO 57
MESA, AZ 85206 USA
Parcel: 141-50-432

MAYNARD GARY/MICHELLE D
125 S 56T ST 74
MESA, AZ 85206 USA
Parcel: 141-50-449

EAST VALLEY STORAGE SOLUTIONS
3930 E CAMELBACK RD #100
PHOENIX, AZ 85018 USA
Parcel: 141-50-011-C