

**CITY OF WEST DES MOINES
BOARD OF ADJUSTMENT COMMUNICATION**

DATE: April 18, 2018

ITEM: Extension of Entitlement – SBA Communications Tower – SBA Communications Company – 4101 E.P. True Parkway – Approval of extension of entitlement of the Permitted Conditional Use permit for the construction of a 100 foot tall cellular communications tower – PC-002968-2016

RESOLUTION: Approval of Extension of Entitlement for the Permitted Conditional Use Permit

BACKGROUND: The applicant, SBA Communications, is requesting an extension of entitlement for a Permitted Conditional Use permit and site plan to construct a 100 foot cellular communications tower and accessory equipment along the Jordan Creek Greenbelt on City-owned property at 4101 E.P. True Parkway (see Attachment B – Request Letter). The Permitted Conditional Use permit and site plan were approved on June 1, 2016 by the Board (see Attachment C – Board of Adjustment Communication 6/1/2016). At the time of approval there were several conditions of approval as noted below:

1. No lighting or signage, except to meet Federal, State, or other regulatory requirements shall be permitted.
2. The pole and enclosure will be regularly maintained to replace missing pole panels, landscape materials, painting, etc.
3. Prior to receiving a building permit, the applicant must execute a standard non-interference agreement, execute a lease with the City, and obtain utility easement and ingress/egress easements.
4. The applicant acknowledge future co-locations of cellular antennae and equipment shelters will require review and approval of a Minor Modification.
5. The applicant providing full sets of the permitted condition use permit site plan prior to the issuance of a building permit.

Condition 5 has been addressed by the applicant.

CITY COUNCIL SUBCOMMITTEE: This item was presented to the Development and Planning City Council Subcommittee on April 16, 2018, as an informational item only.

OUTSTANDING ISSUES: There are no outstanding issues.

FINDINGS: This request has been reviewed by City staff, and based upon that review; the following findings have been made for the extension of entitlement as governed by Title 9, Zoning, Chapter 1, Entitlements – Process and Procedures, Section A-8-6-d:

1. There have been no changes to the provisions of the comprehensive plan or zoning regulations applicable to the project since the approval of the entitlement.
2. There have been no changes in the character of the site or its surroundings which affect how the standards of the comprehensive plan or zoning regulations apply to the project.
3. There have been no changes in the character of the site or its surroundings which detrimentally affect the environment.

RECOMMENDATION: Based upon the preceding review and a finding of consistency with the goals and policies of the Comprehensive Plan, Staff recommends the Board of Adjustment approve a one year extension of entitlement for the Permitted Conditional Use permit and site plan for the construction of a 100 foot cellular communication towers to Jun 1, 2018, subject to the applicant meeting all City Code requirements and the following conditions of approval:

1. No lighting or signage, except to meet Federal, State, or other regulatory requirements shall be permitted.
2. The pole and enclosure will be regularly maintained to replace missing pole panels, landscape materials, painting, etc.
3. Prior to receiving a building permit, the applicant must execute a standard non-interference agreement, execute a lease with the City, and obtain utility easement and ingress/egress easements.
4. The applicant acknowledge future co-locations of cellular antennae and equipment shelters will require review and approval of a Minor Modification.

Lead Staff Member: Kara V. Tragesser, AICP 

Noticing Information: On April 11, 2018, notice of the April 18, 2018, Board of Adjustment Public Hearing on this project was published in the *Des Moines Register*. Notice of this public hearing was also mailed to surrounding property owners within 370 feet of the subject property on April 6, 2018.

Applicant: SBA Communications Corporation
8051 Congress Avenue
Boca Raton FL 33487

Property Owner: City of West Des Moines
PO Box 65320
4200 Mills Civic Parkway
West Des Moines IA 50265

ATTACHMENTS:

- Attachment A - Board of Adjustment Resolution
Exhibit A – Conditions of Approval
- Attachment B - Request Letter
- Attachment C - Board of Adjustment Communication 6/1/2016

Prepared by: K Tragesser Development Services, City of WDM PO Box 65320 West Des Moines, IA 50265-0320, 515-222-3620
When Recorded, Return to: City Clerk, City of West Des Moines, P. O. Box 65320, West Des Moines, IA 50265-0320

RESOLUTION -BOA-2018-03

A RESOLUTION OF THE BOARD OF ADJUSTMENT FOR THE CITY OF WEST DES MOINES, APPROVING AN EXTENSION OF ENTITLEMENT FOR PERMITTED CONDITIONAL USE AND SITE PLAN FOR THE CONSTRUCTION OF A 100 FOOT CELLULAR COMMUNICATION TOWER (PC-002968-2016) TO BE LOCATED AT 4101 EP TRUE PARKWAY

WHEREAS, pursuant to the provisions of Title 9, Chapter 1 et seq, of the West Des Moines Municipal Code, the applicant, SBA Communications Company LLC, has requested an extension of entitlement for a Permitted Conditional Use permit and site plan to construct a 100 foot cellular communication tower to be located on property locally know as 4101 E.P. True and legally described as;

Legal Description of Property

PARCEL A SOUTHWICK PLAT, AN OFFICIAL PLAT NOW IN AND FORMING A PART
OF THE CITY OF WEST DES MOINES, POLK COUNTY, IOWA

WHEREAS, studies and investigations were made, and staff reports and recommendations were submitted which is made a part of this record and herein incorporated by reference;

WHEREAS, on, April 18, 2018, this Board of Adjustment held a duly-noticed hearing to consider the request for an extension of entitlement for that Permitted Conditional Use permit and site plan (PC-002968-2016) to June 1, 2019;

NOW, THEREFORE, THE BOARD OF ADJUSTMENT FOR THE CITY OF WEST DES MOINES DOES RESOLVE AS FOLLOWS:

SECTION 1. The findings in the staff report, dated April 18, 2018, or as amended orally at the hearing of April 18, 2018, are adopted.

SECTION 2. The EXTENSION OF ENTITLEMENT FOR A PERMITTED CONDITIONAL USE AND SITE PLAN to construct a 100 foot cellular communications tower (PC-002968-2016) is approved, subject to compliance with all the conditions in the staff report, dated April 18, 2018, including conditions added at the Hearing, and attached hereto as Exhibit "A". Violation of any such conditions shall be grounds for revocation of the entitlement, as well as any other remedy which is available to the City.

[Continued on Next Page]

PASSED AND ADOPTED on April 18, 2018.

Michael R. Blaser, Chair

ATTEST:

Recording Secretary

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the Board of Adjustment for the City of West Des Moines, Iowa, at a regular meeting held on April 18, 2018, by the following vote:

AYES:
NAYS:
ABSTAIN:
ABSENT:

ATTEST:

Recording Secretary

Exhibit 'A'
Conditions of Approval

1. No lighting or signage, except to meet Federal, State, or other regulatory requirements shall be permitted.
2. The pole and enclosure will be regularly maintained to replace missing pole panels, landscape materials, painting, etc.
3. Prior to receiving a building permit, the applicant must execute a standard non-interference agreement, execute a lease with the City, and obtain utility easement and ingress/egress easements.
4. The applicant acknowledge future co-locations of cellular antennae and equipment shelters will require review and approval of a Minor Modification.



March 27, 2018

Ms. Kara Tragesser, Planner
The City of West Des Moines
Development Services
4200 Mills Civic Parkway
West Des Moines, IA 50265

Re: IA15833-B / West Des Moines 2 / Permitted Conditional Use Permit PC-002968-2016 / Communications Tower at 4101 EP True Parkway, West Des Moines, IA 50265

Dear Ms. Tragesser:

SBA Towers IX, LLC hereby requests an extension for the deadline for the Permitted Conditional Use Permit for Communications Tower at 4101 EP True Parkway. The CUP currently expires on June 1, 2018 and we are requesting to extend the deadline for one year through June 1, 2019.

Thank you in advance for your assistance. Should you have any questions, please feel free to reach out to me at 561-322-7792 or jross@sbsite.com.

Sincerely,

Jessica Ross
Zoning & Compliance Specialist
Tower Network Operations

**CITY OF WEST DES MOINES
BOARD OF ADJUSTMENT COMMUNICATION**

Meeting Date: June 1, 2016

Item: Cellular Communication Tower, 4101 E.P. True Parkway – Approval of a Permitted Conditional Use Permit to construct a 105 foot communications tower and associated equipment area – SBA Communications – PC-0002968-2016

Requested Action: Approval of a Permitted Conditional Use Permit

Case Advisor: Kara Tragesser, AICP



Applicant's Request: The applicant, SBA Communications, represented by Chad Gargrave with Black and Veatch, is requesting approval of a Permitted Conditional Use Permit to construct a one hundred foot communications tower with 5 foot lightning rod (total height 105') on property located at 4101 EP True Parkway (see Attachment B – Location Map and Attachment C – Site Plan). The property is owned by the City of West Des Moines. The applicant proposes to lease a 50 ft. by 50 ft. area, plus easement areas for utilities and access to the site.

History: The City has owned the property since 1991. The property is part of the Jordan Creek Greenbelt and is zoned open space. Communications towers are a permitted conditional use in this zoning district.

City Council Subcommittee: On April 10, 2014, SBA approached the City about possibly locating a communications tower at what was then the Dahl's property at 5003 E.P. True Parkway or at the Ace hardware store at 245 50th Street. At that time, SBA was advised the zoning of the properties did not allow for the construction of a communications tower. SBA proposed an 80' flag pole or light pole that would double as a communication tower. There also was discussion regarding locating the tower in the City-owned park to north of the Dahl's property, but at one time, this option was not supported by the Park Advisory Board or the Development and Planning Subcommittee. There was additional conversation regarding the potential to locate the tower on City property to the west of the rugby fields on the west side of 39th Street and E.P True Parkway. The Subcommittee direction at that time was to continue looking for other options, while not supporting putting towers in the parks.

On January 15, 2015, SBA approached the City about the possibility of locating a communications tower in the area of 39th Street and E.P. True Parkway. At that time the interest was in the western side of the of the park, west of the rugby fields on 39th Street, but the east side of 39th Street was also discussed. The Subcommittee directed staff to continue to investigate options and solutions.

On July 16, 2015, Black and Veatch on behalf of SBA Communications met with the Development and Planning City Council Subcommittee to discuss potential locations of cell towers; again citing the need for a tower in the vicinity of 39th Street and EP True Parkway. It was noted that the previously considered site on the east side of 39th Street at E.P. True parkway was encumbered with utilities and a deed restriction that restricted the property to municipal uses. It was determined that the City owns the west side of the rugby fields on the west side of 39th Street and that the Parks Department was originally not supportive of having a cell tower on this site. The Council members agreed that Black and Veatch should work with staff to identify a general area where cell towers could be located at 39th Street and the rugby field.

Projects for consideration by the Board of Adjustment generally are presented to the subcommittee for information only.

Staff Review and Comment: This request was distributed to other City departments and other agencies for their review and comment. Please note the following:

- The tower construction will be a monopole-style design with interior antenna.
- This tower is proposed to be 105 feet including a 5 foot tall lighting rod
- The tower can accommodate at least one additional cellular communications provider.

- The tower and equipment platform meet city codes and regulations.

Permitted Conditional Use Permit Findings: SBA's application for a Permitted Conditional Use Permit to construct a 105 foot tall stealth monopole style cellular tower and associated structures at 4101 EP True Parkway was reviewed by various City departments. Based upon those reviews and any conditions of approval, the following findings have been made on the proposed project:

1. The proposed development and use is consistent with all the goals and policies of West Des Moines Comprehensive. *It appears that the proposed use is consistent with the West Des Moines Comprehensive Plan in that the project is consistent with the goal and policies of the plan. Policy 1.1 provides, "As part of the Development Review process, the City shall seek to maintain and improve the visual appeal of the community by ensuring proposed development will provide site and building design that respects existing patterns, context, and character of the vicinity". The project is located within the appropriate zoning district, and while the height of the facility cannot be screened, landscaping has been required to aid in screening the enclosure and other utility infrastructure (transformers).*
2. The proposed development and use does assure compatibility of property uses within the zone and general area in that this project was reviewed by various City Departments for compliance with the Zoning Ordinance. *This project was review by various City Departments for compliance with the zoning ordinance. This project has been reviewed similarly to other like projects and is compatible with the zoning ordinance.*
3. All applicable standards and conditions have been imposed which protects the public health, safety and welfare in that this project was reviewed by various City Departments and public agencies for compliance with the various state and local regulations. Based upon that review a finding is made that the project has been adequately conditioned to protect the health, welfare, and safety of the community. *Although impossible to entirely visually mitigate the tower, all applicable standards appear to have been imposed to project the public health safety and welfare, the project was reviewed by various City Departments for compliance with regulations.*
4. There is adequate on-site and off-site public infrastructure to support the proposed development in that this project was reviewed by various public agencies and City Departments and public utilities to ensure that either the petitioner will construct or the project has been conditioned to construct adequate public infrastructure to serve the development. *There appears to be adequate on-site and off-site public infrastructure to support the proposed development.*
5. The proposed development and use has met the requirements contained in the City Code in that this project was reviewed by various City Departments and public agencies and the project has complied with or has been conditioned to comply with all City Code requirements. *The proposed project appears to meet the requirements contained in the city code*
6. The proposed development and use is in keeping with the scale and nature of the surrounding neighborhood in that the proposed project is consistent with the Zoning regulations and the Comprehensive Plan which designates this site as suitable for development such as that proposed by this project. *The Comprehensive Plan and the Zoning Ordinance have indicated this property to be used for open space uses; communication towers are a Permitted Conditional Use in the Open Space district. These regulations have designated this site as suitable for development such as the proposed project.*

Staff Recommendations and Conditions of Approval for the Permitted Conditional Use Permit: Based upon the review of the proposal, a finding of consistency with the goals and policies of the Comprehensive Plan, and compliance with the findings necessary for approval, staff recommends the Board of Adjustment adopt a resolution for approval of the Permitted Conditional Use Permit to construct a 105 foot cellular monopole-style tower and associated equipment platform at 4101 E.P. True Parkway, subject to meeting all City Code requirements, regulations, and the following:

1. No lighting or signage, except to meet Federal, State, or other regulatory requirements shall be permitted.
2. The pole and enclosure will be regularly maintained to replace missing pole panels, landscape materials, painting, etc.
3. Prior to receiving a building permit, the applicant must execute a standard non-interference agreement, execute a lease with the City, and obtain utility easement and ingress/egress easements.
4. The applicant acknowledge future co-locations of cellular antennae and equipment shelters will require review and approval of a Minor Modification.
5. The applicant providing full sets of the permitted condition use permit site plan prior to the issuance of a building permit.

Noticing Information: On May 13, 2016, notice of the June 1, 2016, Board of Adjustment Public Hearing on this project was published in the Des Moines Register Community section. Notice of this public hearing was also mailed to surrounding property owners within 370 feet of the subject property on May 12, 2016.

Applicant: SBA Communications Corporation
8051 Congress Avenue
Boca Raton FL 33487

Representative: Chad Gargrave
Black & Veatch
7600 S. County Line Road
Burr Ridge IL 60527
973-458-1212
gargravec@bv.com

Property Owner: City of West Des Moines
PO Box 65320
4200 Mills Civic Parkway
West Des Moines IA 50265

Attachments:

Attachment A	-	Permitted Conditional Use Resolution
Attachment B	-	Location Map
Attachment C	-	Application Information
Attachment D	-	Site Plan

Prepared by: KTragesser City of West Des Moines PO Box 65320 West Des Moines, IA 50265-0320 515-222-3620
When Recorded Return to: City Clerk City of West Des Moines PO Box 65320, West Des Moines, IA 50265-0320

RESOLUTION

A RESOLUTION OF THE BOARD OF ADJUSTMENT OF THE CITY OF WEST DES MOINES, APPROVING THE PERMITTED CONDITIONAL USE PERMIT (PC-002968-2016) FOR THE PURPOSE OF CONSTRUCTING A 105 FOOT TALL STEALTH MONOPOLE STYLE CELLULAR TOWER AND ASSOCIATED EQUIPMENT AT 4101 E.P. TRUE PARKWAY

WHEREAS, pursuant to the provisions of Title 9, Chapter 1 et seq, of the West Des Moines Municipal Code, the applicant, SBA Communications, LLC, has requested approval for a Permitted Conditional Use Permit to construct a 105 foot tall stealth monopole style cellular tower and associated equipment at property located at 4101 E.P. True Parkway and legally described as:

Legal Description of Property

PARCEL A SOUTHWICK PLAT, AN OFFICIAL PLAT NOW IN AND FORMING A PART OF THE CITY OF WEST DES MOINES, POLK COUNTY, IOWA

WHEREAS, studies and investigations were made, and staff reports and recommendations were submitted which is made a part of this record and herein incorporated by reference;

WHEREAS, on June 1, 2016, the Board of Adjustment held a duly-noticed public hearing to consider the application for Permitted Conditional Use Permit;

NOW, THEREFORE, THE BOARD OF ADJUSTMENT OF THE CITY OF WEST DES MOINES DOES RESOLVE AS FOLLOWS:

SECTION 1. The findings, for approval, in the staff report, or as amended orally at the Board of Adjustment hearing, are adopted.

SECTION 2. The PERMITTED CONDITIONAL USE PERMIT (PC-002968-2016) is approved, subject to compliance with all the conditions in the staff report including conditions added at the Hearing, and attached hereto as Exhibit "A", if any. Violation of any such conditions shall be grounds for revocation of the entitlement, as well as any other remedy which is available to the City.

PASSED AND ADOPTED on June 1, 2016

Mike Blaser, Chair

ATTEST:

Recording Secretary

I HEREBY CERTIFY that the foregoing resolution was duly adopted by the Board of Adjustment for the City of West Des Moines, Iowa, at a regular meeting held on June 1, 2016, by the following vote:

AYES:

NAYS:

ABSTAIN:

ABSENT:

ATTEST:

Recording Secretary

EXHIBIT A

1. No lighting or signage, except to meet Federal, State, or other regulatory requirements shall be permitted.
2. The pole and enclosure will be regularly maintained to replace missing pole panels, landscape materials, painting, etc.
3. Prior to receiving a building permit, the applicant must execute a standard non-interference agreement, execute a lease with the City, and obtain utility easement and ingress/egress easements.
4. The applicant acknowledges future co-locations of cellular antennae and equipment shelters will require review and approval of a Minor Modification.
5. The applicant providing full sets of the permitted condition use permit site plan prior to the issuance of a building permit.



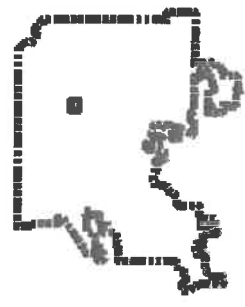
4101 E.P. True Pkwy



1: 2,803



Legend
□ Parcels



Disclaimer: The City of West Des Moines makes no warranties regarding the accuracy or completeness of the data provided herein.
 THIS MAP IS NOT TO BE USED FOR NAVIGATION

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 © City of West Des Moines, Iowa

**PROJECT OVERVIEW
PROPOSED VERIZON WIRELESS TELECOMMUNICATIONS FACILITY
LOCATED ON A PROPOSED SBA COMMUNICATIONS TOWER**

4101 E.P. True Parkway, West Des Moines, IL

SBA Communications Corporation (SBA) is a leading independent owner and operator of wireless communications infrastructure across North, Central, and South America. SBA leases antenna space on their multi-tenant towers to wireless service providers including Verizon Wireless.

Verizon Wireless provides wireless telecommunication services to the public in regional markets across the United States, as well as in more than 200 destinations around the world. Verizon Wireless has the largest nationwide voice and data network with over 107 million subscribers, operating the Nation's fastest and most advanced 4G network and the largest and most reliable 3G network. Verizon Wireless is licensed by the Federal Communication Commission (FCC) and regulated by the Federal Aviation Administration (FAA). Verizon Wireless is a major provider of wireless telephone service in the Iowa.

SBA is proposing a new monopole communications tower within the City of West Des Moines on the property at 4101 E.P. True Parkway. The proposed location will provide additional capacity to the Verizon Network currently operating in West Des Moines. Verizon Wireless' Radio Frequency Engineering team has selected the proposed location after a careful study of existing and future network capacity needs and consideration of other alternate locations.

Property Search

Once the need for a wireless telecommunications facility is identified, SBA studies the local zoning regulations to determine the most appropriate zoning districts within the search area to locate their facility. SBA is dedicated to working with local officials to site its facilities in locations appropriate to the community. SBA strives to build sites that blend with the local character and are unobtrusive to the community. Sites are chosen by their proximity to compatible land uses whenever feasible. It is important to remember that wireless telecommunication facilities must be considered as part of a network, not as individual locations. Wireless Telecommunication facilities can be likened to links in a chain. One link adds to the next making the network design larger.

As the proposed site is needed to improve network capacity, the geographic search area is very small. After a thorough search, it was determined that there are no other existing towers which meet Verizon Wireless's requirements for the necessary capacity site in this search area. As such, SBA is proposing a new tower on the property for Verizon Wireless's facilities and to accommodate an additional carrier.

In addition to providing for Verizon Wireless's facilities, SBA allows and in fact encourages colocation (carrier attachments) on its towers. SBA has a master lease agreement with the vast majority of carriers in the wireless industry.

Description of Property

The subject parcel is located at 4101 E.P. True Parkway and used as a park as part of the Jordan Creek Trail. The parcel is zoned OS. The proposed site is 6,652 square feet in area and located in an area set back from roadways and the trail in order to better blend with the surrounding uses. The facility will be secured by a fence which will surround the site. SBA's proposed site is designed and configured to minimize adverse visual impacts. It has been carefully designed as a 105' canister-style monopole communications tower with all antennas being hidden within the canister of the tower.

Description of Facilities

SBA has designed this proposed communications facility with many factors in mind. Wireless communication facilities are made up of 3 main parts: the tower, electronic equipment, and antennas. SBA will install a 100' canister-style tower (with a 5' lightning rod at the top). The antennas will be concealed from view installed within the canisters at the top of the tower. The color of the tower and canisters will be a uniform galvanized grey color. Cabinets housing the electronic equipment will be installed near the base of the tower. The electronic equipment is connected to the antennas on the tower via coaxial and / or fiber-optic cable. The electronic equipment is supported atop a steel platform that is raised 6'-6" above ground level in order to meet the requirements of the floodplain. All of this will be contained within a 6,652 square foot lease area.

Those major elements of the facility are supported by other items. Electrical, fiber-optic, and telephone utilities shall be brought by SBA from the right-of-way at E.P. True Parkway. From there, utilities will travel underground to the SBA lease area and connect to the electrical equipment. SBA will install a chain link fence surrounding the 50' x 50' facility area with a maximum height of 6' and a locked gate for access. No lighting is needed at the facility per Federal regulations or for maintenance purposes. The facility will have backup power in the form of battery stacks within the electronic equipment cabinets—no electrical generator will be installed. A separate document included with this application details the Outside Plant Enclosures with detailed specifications for the electronic cabinets and batteries. The cabinets will not be installed with the canopy as depicted on the title page of that document.

Ingress and egress to the site as well as parking will be provided by an access drive. SBA will improve the existing park maintenance path to a 12' wide concrete path to account for necessary facility construction and maintenance vehicles. From there, SBA will turn off from the existing path to continue an asphalt access drive the remaining distance to the facility, which is included as part of the lease area square footage. In an attempt to avoid improving the existing park maintenance path, a temporary access drive was discussed with the City and considered. However, due to the steep decline off of E.P True Parkway and the amount of landscaping that would need to be removed for the temporary access path, SBA proposes the best solution is to improve the existing access drive to be used for the construction vehicles.

Nature of Request/Zoning Analysis

SBA is requesting a Conditional Use Permit and any other permits necessary to construct a wireless telecommunications facility consisting of a 105' monopole tower (overall height) and related antenna equipment, as well as an equipment platform and cabinets in a fenced lease area with the approximate dimensions of 6,652 square feet.

SBA's proposed wireless communications facility requires a Conditional Use Permit according to Title 9 of the West Des Moines, IA City Code. In the OS zoning district, communication towers and antennas are allowed subject to the issuance of a Conditional Use Permit. According to Title 9, Chapter 5 of the Code, a Conditional Use Permit may be granted after review by the Board of Adjustment so long as the applicant meets the standards set forth by the Code.

The communications facility as proposed by SBA meets all standards of the Code including, but not limited to, Section 9-1-8 Entitlements – Processes and Procedures; Section 9-10-4 Specific Use Regulations; and Section 2-2-4 Jurisdiction and Powers of the Board of Adjustment.

The proposed communications facility shall be consistent with the intent and purpose of the Code and the Comprehensive Plan. The facility is necessary to improve network capacity in neighboring area. As the Comprehensive Plan considers the current and future development of the City, wireless communication infrastructure needs to keep pace in order to serve the community.

As described above, the communications facility will have a small footprint. This means there will be little impact in the character of the neighborhood with no adverse effect on existing uses or future development in the area. To the contrary, robust wireless communications have a positive influence on development. Citizens have come to rely upon mobile devices to stay in touch with family and friends, contact emergency services, and do business. Therefore, the surrounding residential and commercial uses will enjoy the safety and security of wireless technology with no adverse impacts to their daily lives.

Aside from the small footprint of the facility, SBA has worked with City officials to sight the proposed facility in a location that would be least impactful while still providing the necessary service to the neighborhood. Once the Radio Frequency Engineers decide the need to improve the network in an area, they issue a search ring. A search ring is a geographic area (typically the size of a 1/4 mile diameter) where a site must be located in order to meet the network needs. A specialist drives the area to look for existing wireless communication facilities or other existing structures where Verizon could collocate. If none exist, then the specialist examines the zoning code and works with local officials to determine the most appropriate location for a new tower facility.

The location on the Jordan Creek Trail parcel will meet the network needs in the area, but it is also a sound choice as it limits any impact on surrounding uses. The proposed site is set back from E.P. True Parkway and from the Jordan Creek Trail in a wooded area for natural screening. SBA will be installing additional landscaping around the facility. The landscaping will include trees native to the area similar to those already found in the park. SBA has chosen a canister-type monopole tower with all antennas located within the pole itself. This reduces the visual silhouette of the tower helping it blend into the background. The tower has also been designed to be the lowest height possible while still providing the necessary coverage to the surrounding neighborhoods.

SBA has designed the facility to have no detrimental effect on the character of the site, its surroundings, or the environment. SBA will not remove any of the existing trees in the park. In fact, the proposal includes adding additional native species trees for site screening. Further, as the site is located in a floodplain, the facilities equipment cabinets shall be elevated from the ground to avoid interference with any flood waters. The site has also been designed to account for any changes in flow of flood waters to avoid any adverse effects.

The communications facility shall contain no advertising, but only signage required by regulation or other signage used by SBA and its collocators to identify the site.

SBA shall apply for, and obtain, a Building Permit and any other permits required by the City prior to beginning installation of the communication facility.

Operation of the communication facility shall not create any nuisances. The communications facility equipment shall not produce noise in excess of 65 decibels when measured from the property lines. Nor shall operation of the facility require storage of any hazardous waste materials. At this time, no lighting is proposed at the site. Any lighting would be used to provide safe access to the equipment platform and cabinets should service technicians need to perform emergency maintenance after dark. Any site lighting will be downcast on the equipment cabinets and will be on a timer to turn off after a specific time period (approximately 1 hour).

For the reasons stated above, the proposed communications facility will not adversely affect the health or safety of persons, is not materially detrimental to the public welfare, nor injurious to nearby property or improvements. Instead, wireless communications are beneficial to the health, safety, and general welfare of the public. People have become dependent upon mobile phones and devices. Wireless communication helps stay in touch with family members. Companies run their businesses from wireless devices. Citizens contact emergency services from their mobile phones. A robust and dependable network is vital for the health, safety, and general welfare of the community.

This parcel is zoned OS, and as such, it is one of the few parcels in the area that allow telecommunication facilities in the area required for the Verizon network. The parcel has the Jordan Creek Trail running through it, as well as Jordan Creek itself, and an abundance of trees and other vegetation. With those factors, SBA is limited in the locations in which it could place the tower. After consulting with City officials, it was determined the proposed location is the best to minimize impact of the site while still allowing the facility to function. No other location on the property would allow appropriate ingress and egress, access to utilities, and avoid interference to the Trail, Jordan Creek, and the existing trees. Additionally, the tower is the minimum height necessary to fulfill the needs of the network. A tower of any less height would not benefit the community with the coverage needed.

Statement of Verizon Wireless Operations

The City's approval of this project will enable Verizon Wireless to continue to maintain the best, most reliable wireless service in your area. The proposed location will provide improved capacity to Verizon Wireless's network operating in Iowa. Currently, Verizon Wireless provides wireless service coverage in and around the area of the proposed site. However, with increasing capabilities of cellular devices—including smart phones, tablets, and WiFi hotspots— wireless networks are under constant pressure to provide faster data speeds for more devices and larger amounts of data. As a result, Verizon Wireless is working to increase wireless network capacity nationally within the existing network through capacity sites such as the proposed site. The proposed site will help ensure that Verizon Wireless's network remains reliable even with increased data usage by its customers.

Verizon Wireless currently provides voice and data service in this area, however, data usage is increasing exponentially due to services like wireless internet, mobile email and video streaming. Businesses are also increasingly dependent on our data network for mobile internet and enterprise applications. In addition, Verizon Wireless will soon be upgrading its voice service, which will put even more demand on its existing data network. As a result, Verizon Wireless must make critical upgrades to its network in this area to maintain and improve reliable data service for its customers who live and work in this area, many of whom rely exclusively on wireless communications

services and do not have landline phone service. Most critically, many local and state public safety and emergency service providers rely on Verizon Wireless's network, including the City of West Des Moines' emergency service providers, every day to ensure the safety of your community. Verizon Wireless is committed to best-in-class network reliability for all of these customers, and the proposed project at 4101 E.P. True Parkway will allow Verizon Wireless to maintain this commitment.

The proposed upgrade to their network in this area will provide businesses and residential customers with the reliable wireless service on which they have come to rely, and will ensure that emergency service and public safety customers can continue to ensure public safety for all of Iowa's citizens and visitors.

Once the construction of the wireless telecommunications facility is complete and the telephone switching equipment is fine-tuned, visitation to the site by service personnel for routine maintenance will occur approximately once a month. The site is entirely self-monitored and connects directly to a central office where sophisticated computers alert personnel to any equipment malfunction or breach of security. The wireless telecommunications facility will be unstaffed, with no regular hours of operation and no impact to existing traffic patterns. Maintenance—including mowing or snow removal—of the facility lease area and new access path branching from the existing access and pedestrian trail shall be the responsibility of SBA.

Compliance with Federal Regulations

Verizon Wireless and SBA will comply with all applicable FCC rules governing construction requirements, technical standards, interference protection, power and height limitations, and radio frequency standards. In addition, the company will comply with all applicable FAA rules on site location and operation. Therefore, the site will not interfere with emergency frequencies.

Benefits of Wireless Telecommunications

- **Public Safety:** More than 70% of all 911 calls nationwide are made from wireless phones.
- **Alternative to Landline System:** More than 41% of all US households are served by wireless carriers only. Where there is a landline phone in use, wireless serves as a back-up to the landline system.
- **Lifestyle and Convenience:** Wireless telecommunications support the productive and busy lifestyles of residents and tourists in Omaha by increasing productivity and reducing stress. More than 90% of all wireless phones are Smartphones.



WEST DES MOINES 2

TOWER LOCATION





WEST DES MOINES 2

View Facing NORTH WEST



BEFORE



WEST DES MOINES 2

View Facing NORTH WEST



AFTER



BEFORE



WEST DES MOINES 2

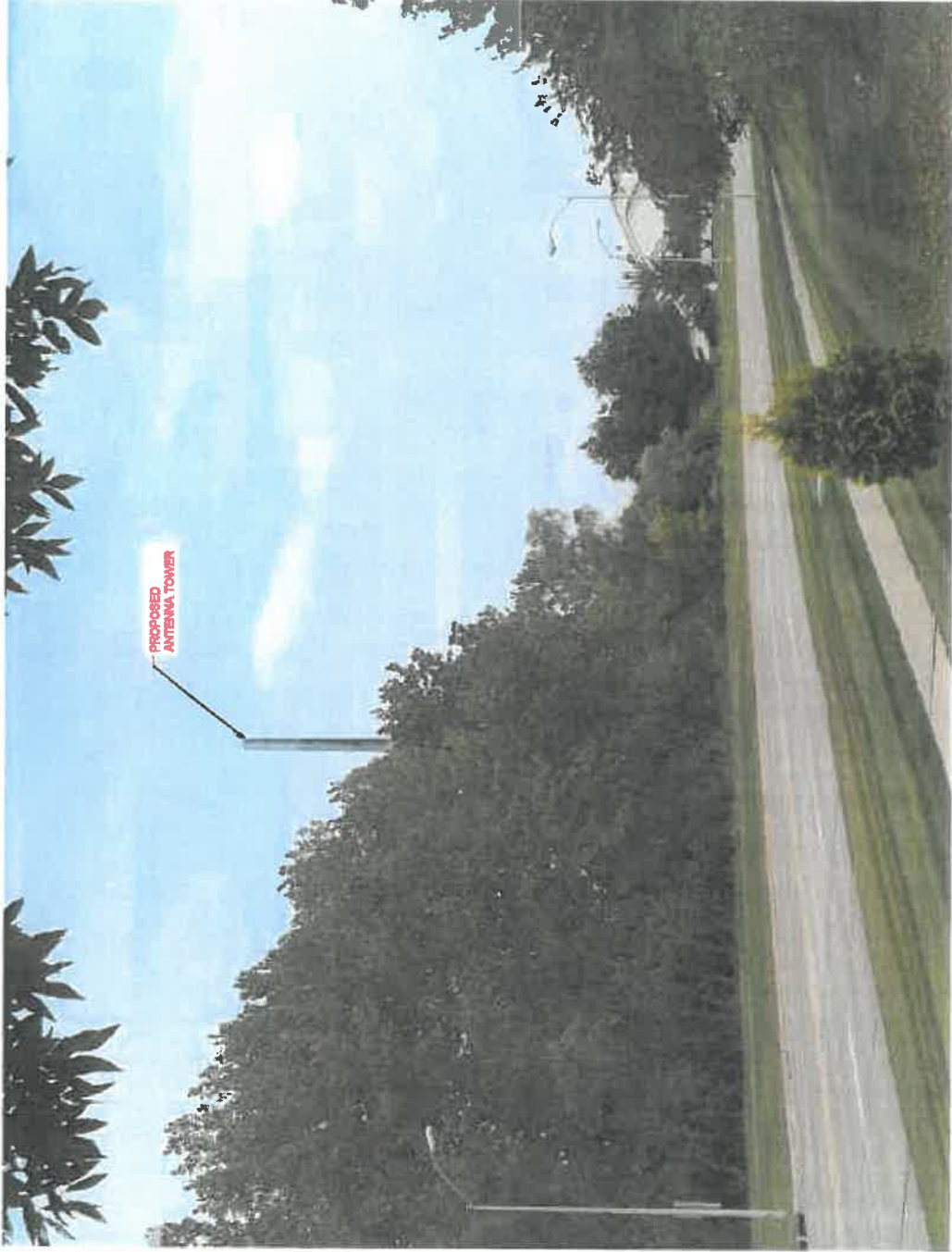
View Facing NORTH EAST





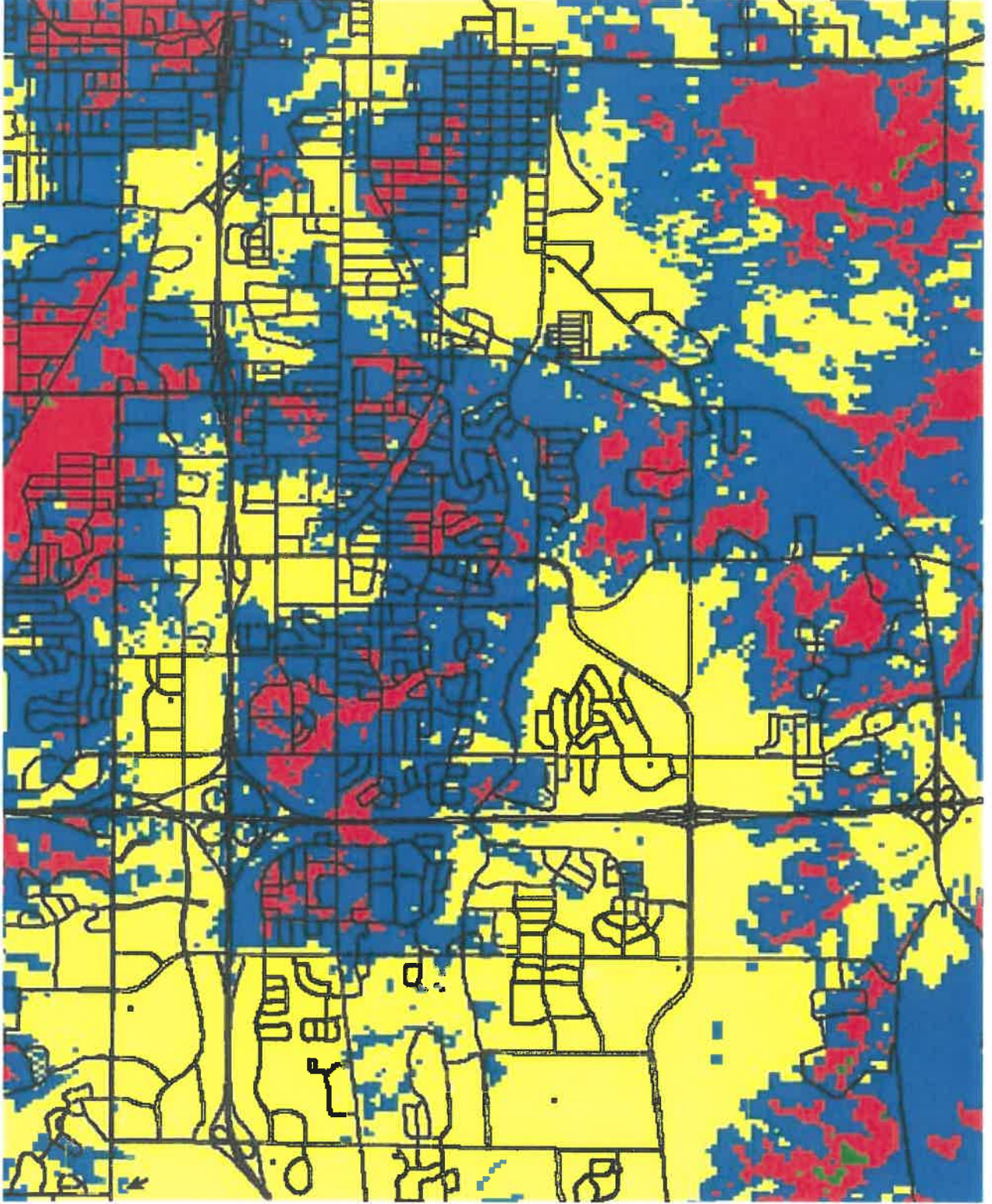
WEST DES MOINES 2

View Facing NORTH EAST

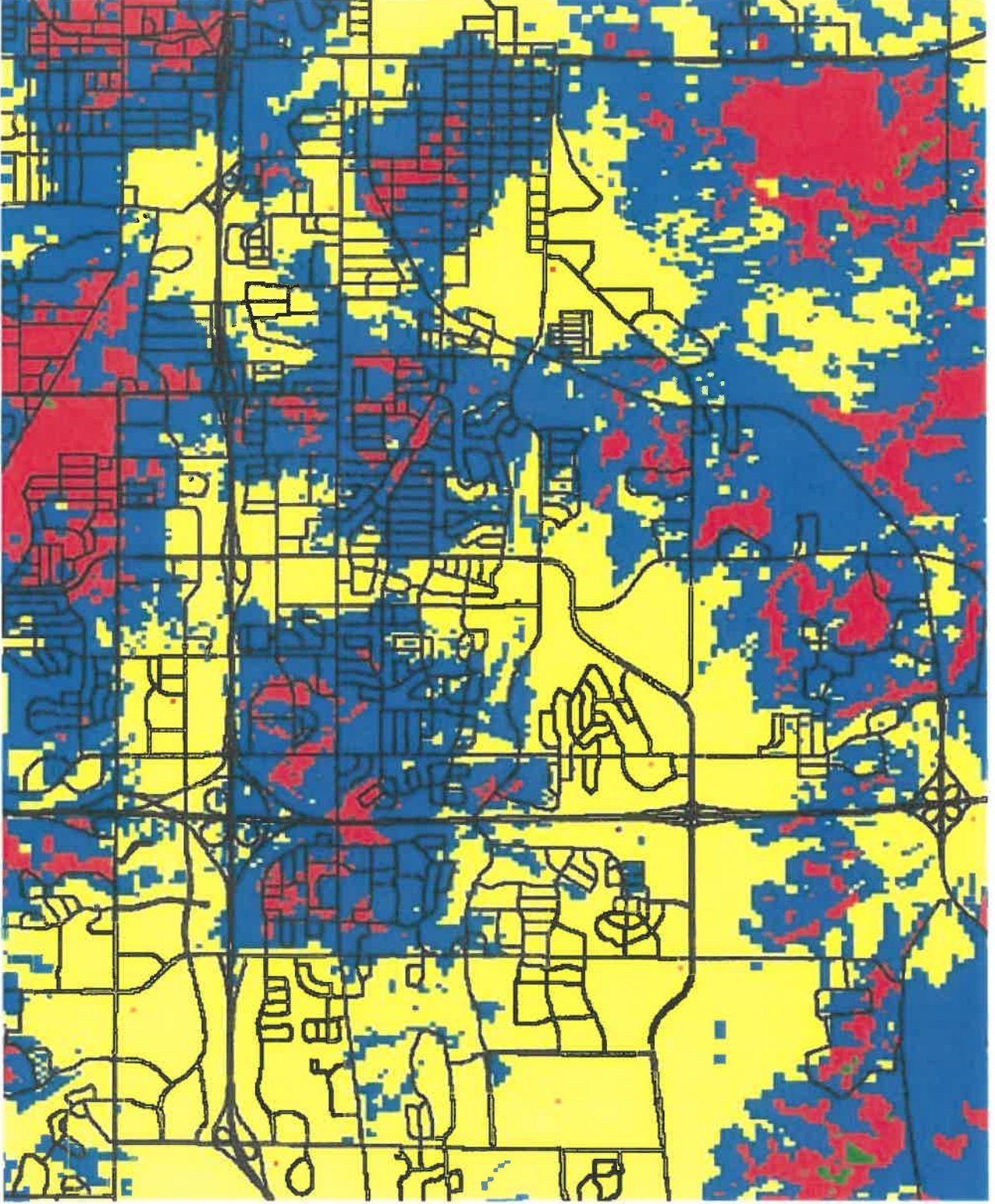


AFTER

Propagation without proposed site

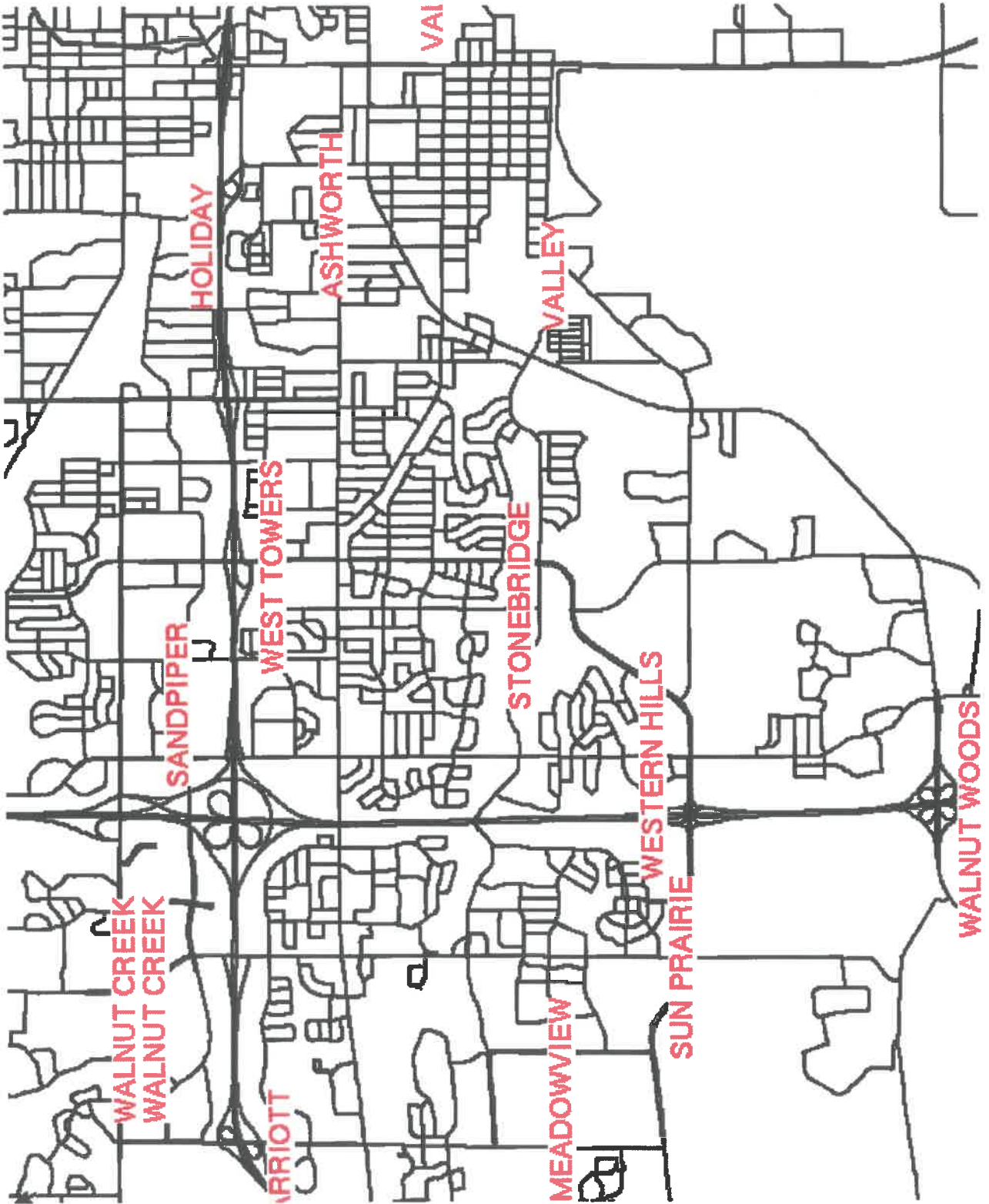


Propagation with proposed site



Signal Levels





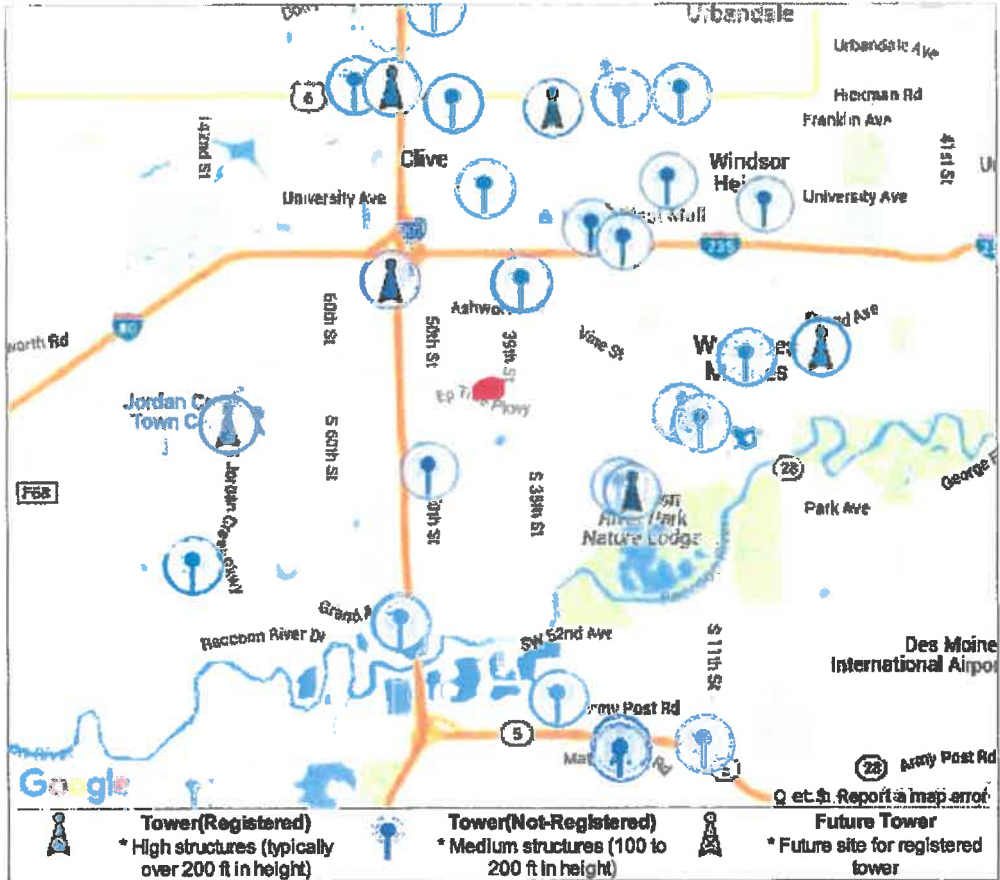



KEEP YOUR STUFF. SAVE MORE MONEY.
AT&T or T-Mobile compatible SIM only




\$0.99



BRING YOUR PHONE
See offer for details

• **Tower Structures - (4101 EP True Pkwy, West des Moines, IA 50265)**



Tower Search Results

-  **Alert!** 30 Towers (9 Registered, 21 Not Registered) found within 4.00 miles of 4101 EP True Pkwy, West des Moines, IA 50265.
-  **Info!** The NEAREST Tower is 1.05 miles away and is owned by **United States Cellular Corp.**
-  **Ok!** No Applications for Future Towers detected as of 01/14/16.

Tower Type	ID Num	Site Owner	Height	Dist
	(1)	United States Cellular Corporation	185 feet	1.71 miles
	(2)	United States Cellular Corporation	175 feet	1.74 miles
	(3)	Verizon Wireless (vaw) Llc	128 feet	2.13 miles
	(4)	United States Cellular Corporation	80 feet	2.75 miles
	(5)	United States Cellular Corporation	115 feet	3.15 miles
	(6)	United States Cellular Corporation	44 feet	3.26 miles
	(7)	Sba Structures, Llc	199 feet	3.35 miles
	(8)	Wireless	185 feet	3.35 miles
	(9)	Sba Steel, Llc.	189 feet	3.83 miles
	(1)	United States Cellular Corp	150 feet	1.05 miles

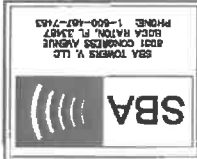
(2)	West Des Moines Community Schools	120 feet	1.14 miles
(3)	Us Cellular Corporation - WI	145 feet	1.58 miles
(4)	United States Cellular Corporation	60 feet	1.82 miles
(5)	United States Cellular Corporation	130 feet	1.87 miles
(6)	Nextel Communications	150 feet	2.07 miles
(7)	American Tower-schaumburg, I	198 feet	2.29 miles
(8)	American Tower Corp.	190 feet	2.29 miles
(9)	Nextel Communications	130 feet	2.37 miles
(10)	Blank	490 feet	2.71 miles
(11)	American Tower	164 feet	2.79 miles
(12)	Verizon Wireless	69 feet	2.83 miles
(13)	Usity Inc	99 feet	2.94 miles
(14)	Nextel Partners Inc	95 feet	3.11 miles
(15)	Telecorp	139 feet	3.36 miles
(16)	Western Pcs I Corp	186 feet	3.41 miles
(17)	United States Cellular Corporation	99 feet	3.53 miles
(18)	Racom Corporation	140 feet	3.83 miles
(19)	Us Cellular Corporation	125 feet	3.87 miles
(20)	Iowa Department Of Transportation	100 feet	3.87 miles
(21)	Des Moines Skywave, Inc.	471 feet	3.95 miles



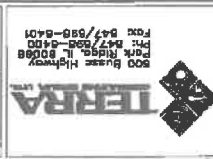
Future

(No Towers Detected)

© 2004-2009 by General Data Resources, Inc.



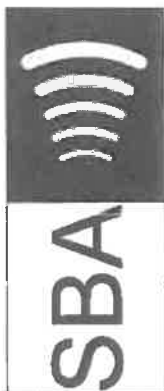
SBA TOWERS V, LLC
 8051 CONGRESS AVENUE
 BOCA RATON, FL 33487
 PHONE: 1-800-487-7483



300 Bruce Highway
 Suite 200
 Ft. Lauderdale, FL 33309
 Phone: 954/590-6407
 Fax: 954/590-6408

**VERIZON
 WIRELESS**

LOCATION NUMBER: 20130870658
SITE NUMBER: IA15833-B



SBA TOWERS V, LLC
 8051 CONGRESS AVENUE
 BOCA RATON, FL 33487
 PHONE: 1-800-487-7483

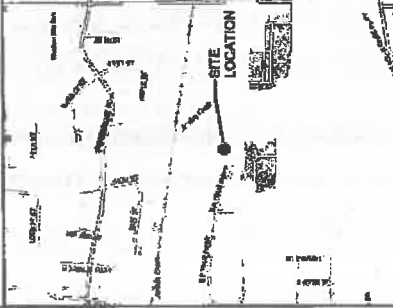
SITE NUMBER: IA15833-B
SITE NAME: WEST DES MOINES 2
E911 ADDRESS: TBD
PROPOSED 100' MONOPOLE TOWER
WITH COMMUNICATION EQUIPMENT

PARENT PARCEL DESCRIPTION:
 (SEE EXHIBIT A) NATIONAL TITLE INSURANCE COMPANY FILE NO. 213828A,
 EFFECTIVE DATE AUGUST 11, 2012,
 AN INTEREST IN LAND, SAID INTEREST BEING OVER A PORTION OF THE
 OUTLOT A, SOUTHMEDE PLAT, AN OFFICIAL PLAT MONUMENTED IN AND
 FOLLOWING DESCRIBED PARCEL:
 PORTION PART OF THE CITY OF WEST DES MOINES, POLK COUNTY, IOWA,
 AND BEING THE SAME PROCEDED CONVEYED TO THE CITY OF WEST DES
 MOINES, IOWA FROM WALTER T. POTTS, JR., AND SAID C. POTTS BY WARRANTY
 DEED DATED DECEMBER 27, 1993 AND RECORDED JUNE 13, 1994 IN DEED
 BOOK 188, PAGE 100, POLK COUNTY, IOWA, AND SAID C. POTTS BY DEED
 AND SAID C. POTTS GUARANTY FROM WALTER T. POTTS, JR., AND SAID C. POTTS
 BY DEED DATED OCTOBER 24, 2008 AND RECORDED DECEMBER 22,
 1993 IN DEED BOOK 188, PAGE 100, POLK COUNTY, IOWA,
 THAT PARCEL NO. 20041103004.

PROJECT INFORMATION

SITE NUMBER: IA15833-B
SITE NAME: WEST DES MOINES 2
SITE ADDRESS: WEST DES MOINES, IA 02085
LAND OWNER: CITY OF WEST DES MOINES
APPLICANT: KARA TRAEGER (PLANNER)
CONTACT PERSON: SBA TOWERS V, LLC
CONTACT PHONE: 801-222-3200
BOCA RATON, FL 33487
LAURA HALPERIN
(850) 833-2507
LONGITUDE: 41° 34' 18.281" NORTH (FROM 1A)
GROUND ELEVATION: 527' 45" 42.022" WEST (FROM 1A)
991.1 (MVD08)
DEGREES MINUTES AND SECONDS
CURRENT ZONING: OS - OUTDOOR SPACE
PARCEL NO.: 7355-08-378-001
GENERATOR TYPE = WA

REGIONAL MAP



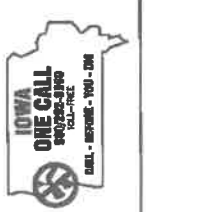
VICINITY MAP



SPECIAL NOTES

HANDICAPPED REQUIREMENTS:
 HANDICAPPED ACCESS REQUIREMENTS NOT REQUIRED
 BUILDING REQUIREMENTS:
 FACILITY HAS NO PLUMBING

DRIVING DIRECTIONS
 FROM DES MOINES, IA: DEPART ARMY POST ROAD TOWARD HWY 167, TURN LEFT
 ONTO PLAIN DR, THE RAMP RIGHT FOR I-43 NORTH TOWARD HOWLAND, TAKE
 RAMP LEFT FOR I-43 NORTH TOWARD MINNEAPOLIS, AT EXIT 7A, TAKE RAMP
 RIGHT TOWARD HOWLAND, TURN LEFT ONTO HOWLAND, TURN LEFT ONTO 167TH ST,
 ROAD NAME CHANGES TO 167TH ST, TURN RIGHT ONTO 167TH ST, TURN LEFT
 AT SITE ON THE LEFT.



SHEET	DESCRIPTION	REVISION
L-1	TITLE SHEET	A,B,C,D,E
Pp	PARCEL PLAN	A,B,C,D,E
LP	LOCATION PLAN	A,B,C,D,E
C-1	SITE PLAN	A,B,C,D,E
C-2	SITE GRADING PLAN	A,B,C,D,E
C-2A	SITE GRADING PLAN (SHEET 2)	A,B,C,D,E
C-2B	COMPENSATORY STORAGE	A,B,C,D,E
C-3	SITE DETAILS & SPECIFICATIONS	A,E
C-3A	SITE DETAILS	D,E
C-4	FENCE DETAILS	A,B,C,D
C-5	EQUIPMENT PLATFORM PLAN	A
C-6	FOUNDATION & FRAMING PLAN	D
S-1	STRUCTURAL DETAILS	D
S-2	SITE ELEVATION	A,B,C,E
ANT-1	ANTENNA INFORMATION	A
ANT-2	UTILITY ROUTING PLAN	A
ANT-3	UTILITY ROUTING PLAN	A
E-1	SINGLE LINE DIAGRAM & PANEL SCHEDULE	A
E-2	GROUNDING DETAILS	A
E-3	ELECTRICAL AND GROUNDING DETAILS	A
Q-1	ELECTRICAL AND GROUNDING DETAILS	A
Q-2	ELECTRICAL AND GROUNDING DETAILS	A
Q-3	GENERAL NOTES	A
Q-4	LANDSCAPE PLAN	A
N-1	EROSION CONTROL PLAN	A
EC-1	TRUCK TURN EXHIBIT	A, D
1		C

ATTACHMENTS BY OTHERS
 POC TRAIL PATCH DETAILS (BY OTHERS)
 SITE SURVEY

UTILITY CONTACT INFORMATION
 POWER PROVIDER:
 T.B.D.
 FIBER PROVIDER:
 T.B.D.

UTILITY CONTACT INFORMATION
 POWER PROVIDER:
 T.B.D.
 FIBER PROVIDER:
 T.B.D.

NOTE: UTILITY COORDINATION IS NOT FINALIZED.
 DO NOT PROCEED WITH CONSTRUCTION UNTIL
 POWER/FIBER/FIBER HAVE BEEN CONFIRMED.

PROJECT: IA15833-B
CITY: WEST DES MOINES 2
OWNER: SBA TOWERS V, LLC
DATE: 08/15/12

TITLE SHEET
SHEET NUMBER:
T-1



TERRA
 500 Breeze Highway
 Fort Rida, IL 60088
 PH: 647/858-6400
 FAX: 647/858-6401

DESCRIPTION	DATE	BY
REVISIONS		
REVISED FOR COMMENTS		
REVISED FOR COMMENTS		
REVISED FOR COMMENTS		
REVISED FOR COMMENTS		
REVISED FOR COMMENTS		
REVISED FOR COMMENTS		

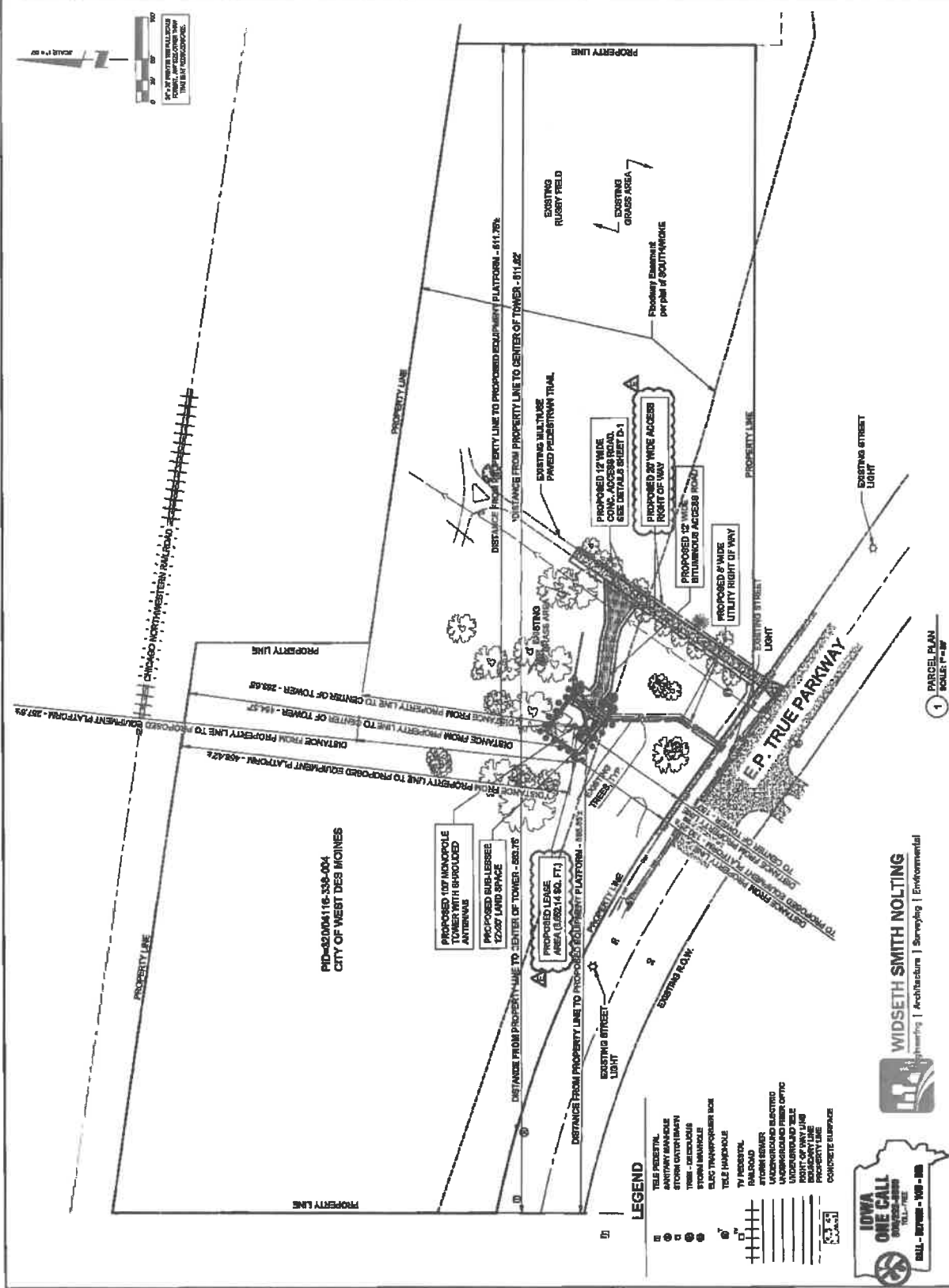
IA15833-B
WEST
DES MOINES 2

4101 E.P. TRUE PARKWAY
 WEST DES MOINES, IA 02020

DATE: 08/20/18
 DRAWN BY: [Name]
 CHECKED BY: [Name]

SHEET 1/11
 PARCEL PLAN
 EAST NUMBER

PP



RID=0004116.338-004
 CITY OF WEST DES MOINES

- LEGEND**
- TEL. SERVICE
 - TELEPHONE
 - STORM WATER MAIN
 - TRAIL - DECIDUOUS
 - STORM MANHOLE
 - ELEC TRANSPORTER BOX
 - TEL MANHOLE
 - TV MANHOLE
 - RAILROAD
 - STORM SEWER
 - UNDERGROUND ELECTRIC
 - UNDERGROUND GAS
 - UNDERGROUND OIL
 - RIGHT OF WAY LINE
 - BOUNDARY LINE
 - CONCRETE SURFACE

1 PARCEL PLAN
 SCALE: 1" = 30'

IOWA ONE CALL
 800-488-6868

WIDSETH SMITH NOLTING
 Architecture | Surveying | Environmental

SBA

824 TORRES V. LUC
 1000 COMMERS AVENUE
 DES MOINES, IA 50319
 PHONE: 1-800-827-7443

TERRA

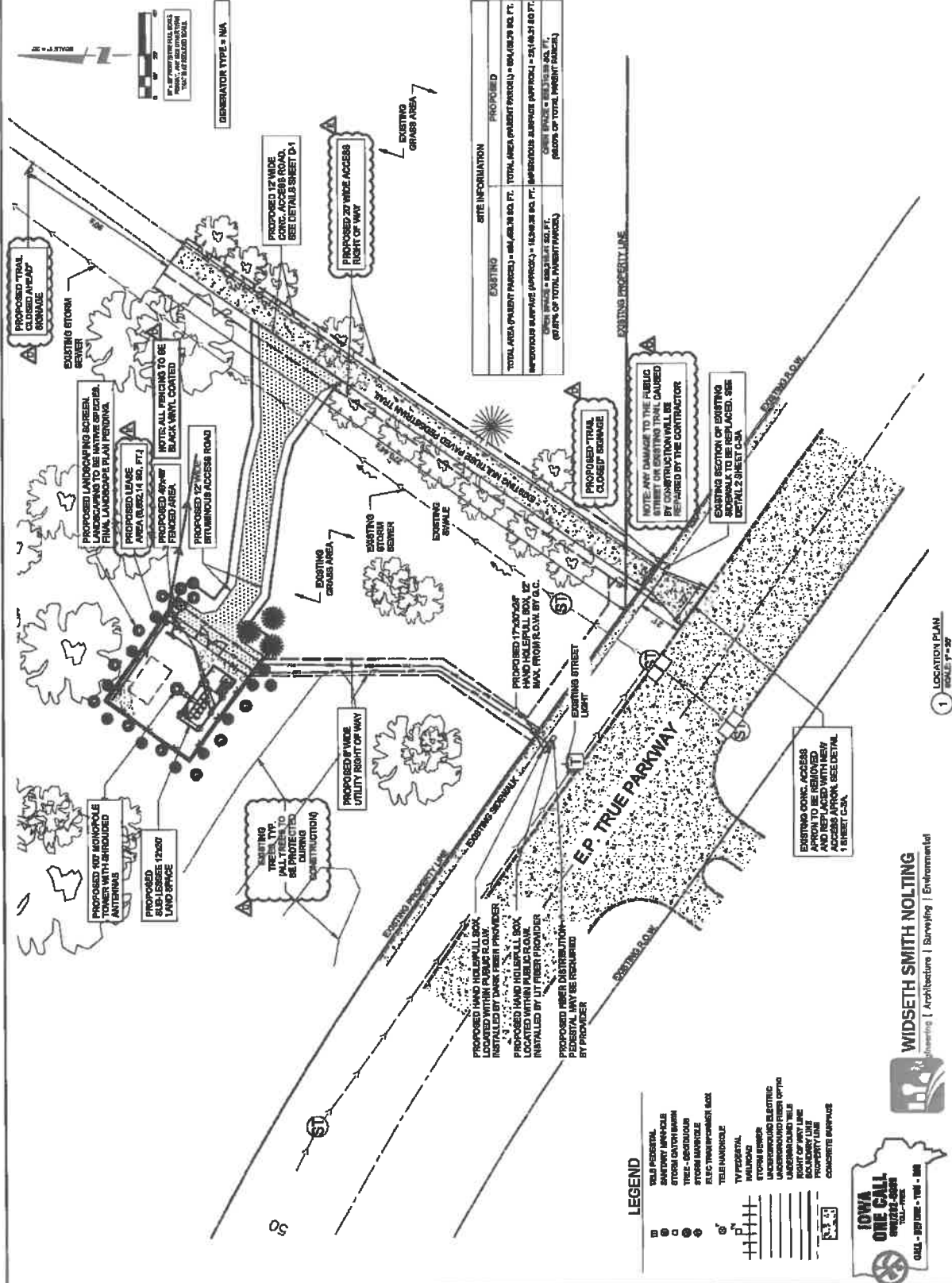
500 Shells Highway
 P.O. Box 1000
 Des Moines, IA 50319
 FAX: 515/281-6400
 PHONE: 515/281-6401

NO.	DATE	DESCRIPTION
1	11/11/11	ISSUED FOR PERMITS
2	11/11/11	ISSUED FOR PERMITS
3	11/11/11	ISSUED FOR PERMITS
4	11/11/11	ISSUED FOR PERMITS
5	11/11/11	ISSUED FOR PERMITS
6	11/11/11	ISSUED FOR PERMITS
7	11/11/11	ISSUED FOR PERMITS
8	11/11/11	ISSUED FOR PERMITS
9	11/11/11	ISSUED FOR PERMITS
10	11/11/11	ISSUED FOR PERMITS

IA15833-B
WEST
DES MOINES 2

4101 E.P. TRUE PARKWAY
 WEST DES MOINES, IA 50319

DATE:	04/11/11
DESIGNED BY:	DM
DATE:	08/11/11
PROJECT #:	200
SHEET TITLE	
LOCATION PLAN	
SHEET NUMBER	
LP	



SITE INFORMATION

EXISTING	PROPOSED
TOTAL AREA (PARENT PARCELS) = 88,476 SQ. FT.	TOTAL AREA (PARENT PARCELS) = 88,476 SQ. FT.
IMPASIBLE SURFACE (APPROX.) = 16,200 SQ. FT.	IMPASIBLE SURFACE (APPROX.) = 16,200 SQ. FT.
OPEN SPACE = 72,276 SQ. FT.	OPEN SPACE = 72,276 SQ. FT.
GRASS = 68,000 SQ. FT.	GRASS = 68,000 SQ. FT.
ASPHALT = 14,276 SQ. FT.	ASPHALT = 14,276 SQ. FT.
CONCRETE = 1,000 SQ. FT.	CONCRETE = 1,000 SQ. FT.
PAVING = 1,000 SQ. FT.	PAVING = 1,000 SQ. FT.

LEGEND

- 12" S.F. FIBER OPTIC
- 6" S.F. FIBER OPTIC
- STORM CATCH BASIN
- TREE - DECIDUOUS
- TREE - CONIFEROUS
- UTILITY MARKER
- TELEPHONE
- TV FIBER OPTIC
- UNDERGROUND FIBER OPTIC
- UNDERGROUND FIBER OPTIC
- UNDERGROUND TELEPHONE
- RIGHT OF WAY LINE
- PROPERTY LINE
- CONCRETE SURFACE

IOWA ONE CALL
 800-444-4444
 TOLL-FREE

CALL - BEFORE YOU DIG

WIDSETH SMITH NOLTING
 Surveying | Architecture | Environment

1 LOCATION PLAN
 SCALE: 1" = 30'



SBA FINANCIAL SERVICES
 800 BRIDGE WALK
 BOCA RATON, FL 33497
 PHONE 1-800-457-7433



TERRA
 800 BRIDGE WALK
 BOCA RATON, FL 33497
 PHONE 1-800-457-7433

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMITS	08/14/18
2	ISSUED FOR PERMITS	08/14/18
3	ISSUED FOR PERMITS	08/14/18
4	ISSUED FOR PERMITS	08/14/18
5	ISSUED FOR PERMITS	08/14/18
6	ISSUED FOR PERMITS	08/14/18
7	ISSUED FOR PERMITS	08/14/18
8	ISSUED FOR PERMITS	08/14/18
9	ISSUED FOR PERMITS	08/14/18
10	ISSUED FOR PERMITS	08/14/18

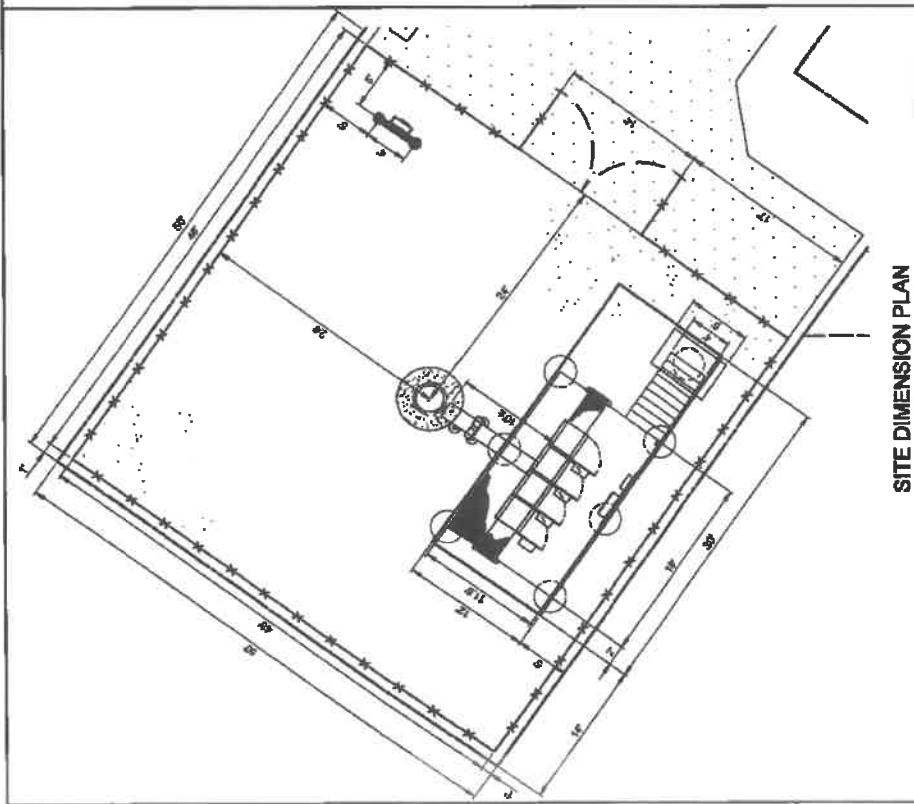
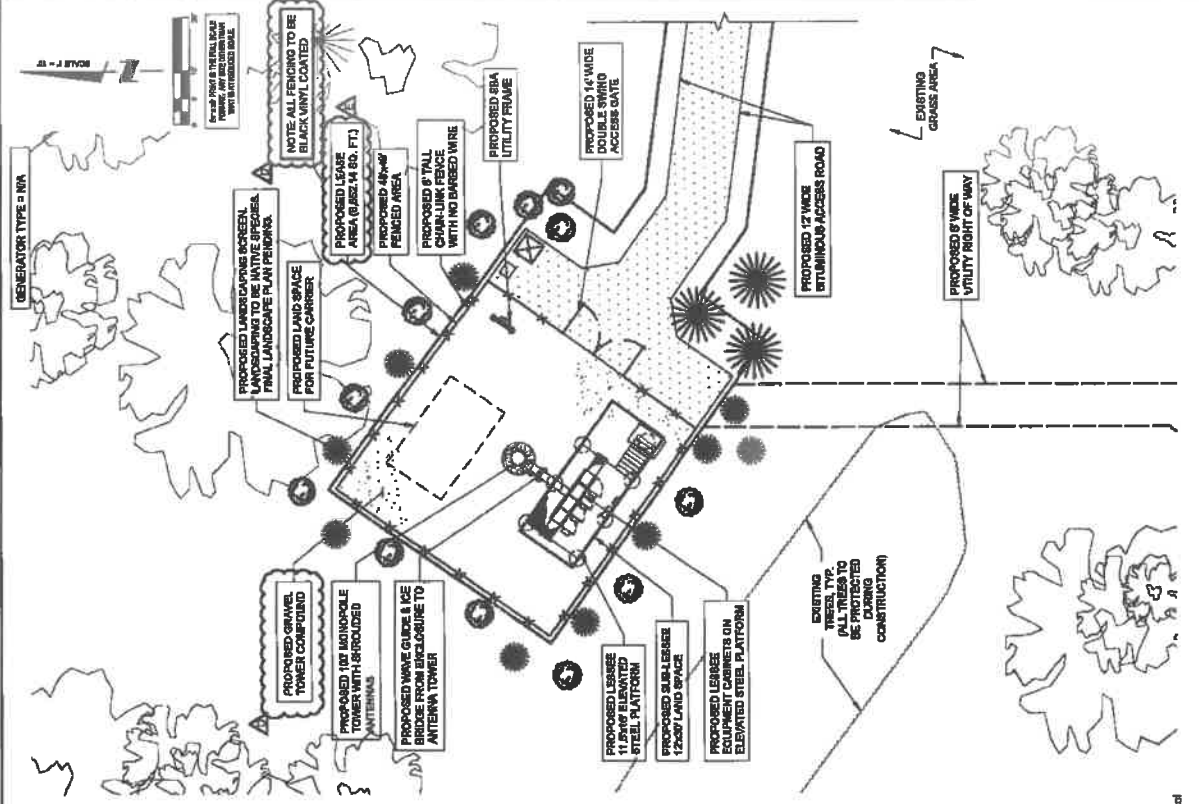
IA15833-B
 WEST
 DES MOINES 2

4101 E.P. TRILE PARWAY
 WEST DES MOINES, IA 50326

DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
PROJECT NO.	DATE

ENLARGED
 SITE PLAN

C-1



SITE DIMENSION PLAN



WIDSETH SMITH NOLTING
 Architecture | Surveying | Environmental

PAVEMENT MATERIALS AND QUANTITIES

ACCESS ROAD 24" x 6" V.C.
 1" ASPHALT SURFACE AND BINDER COURSE
 1" GRANULAR FILL COURSE, C&G CURBED STONE
 1" COMPACTED SUBGRADE

REINFORCED TRAIL 30" x 6" V.C.
 1" OF 1" x 6" TRAIL WITH EPOXY COATED REBAR 4" x 6" STD
 1" OF COMPACTED SUBGRADE

LEASE SITE 24" x 6" V.C.
 1" OF 1" x 6" TRAIL WITH EPOXY COATED REBAR 4" x 6" STD
 1" OF COMPACTED SUBGRADE

12" x 6" V.C.
 1" OF 1" x 6" TRAIL WITH EPOXY COATED REBAR 4" x 6" STD
 1" OF COMPACTED SUBGRADE

THE CONTRACTOR ALSO SHALL INCLUDE A SEPARATE UNIT PRICES FOR CURB YARD TO REMOVE UNDESIRABLE OR UNDESIRABLE MATERIAL AND MAINTAIN SPANULAR DISPOSAL UNDER THE ACCESS DRIVE ABOUT PERIOD.

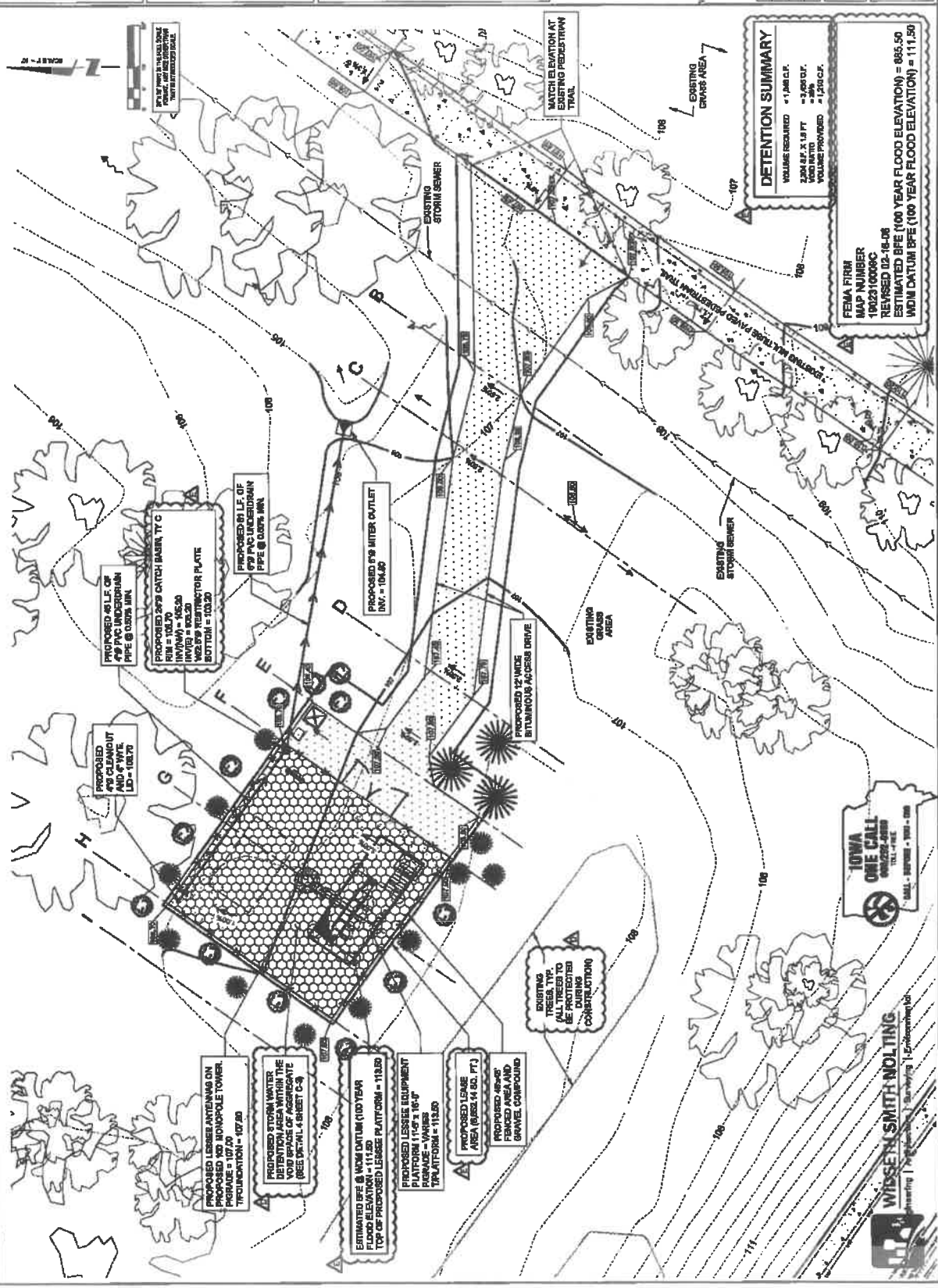
SBA
SBA TOWERS & LTD.
8501 CONGRESS AVENUE
BOCA RATON, FL 33497
PHONE: 1-800-497-7493

TERRA
500 Piazza Highway
Park Ridge, IL 60068
TEL: 847/598-6400
FAX: 847/598-9401

NO.	REVISIONS

1A16833-B
WEST
DES MOINES 2
4101 E.P. TRUB PARKWAY
WEST DES MOINES, IA 50266

DATE: 11/14/18
CHECKED BY: JAM
DRAWN BY: JAM
SCALE: AS SHOWN
SHEET TITLE: SITE GRADING PLAN
SHEET NUMBER: C-2



PROPOSED 48" DRAINAGE DITCH WITH 18" PVC UNDERDRAIN PIPE @ 0.02% MIN.

PROPOSED 24" CATCH BASIN, TYPICAL
RIM = 103.70
18" (MIN) PVC UNDERDRAIN PIPE @ 0.02% MIN.
INVERT = 103.50
BOTTOM = 103.20

PROPOSED 81' L.F. OF 48" PVC UNDERDRAIN PIPE @ 0.02% MIN.

PROPOSED 24" MITER OUTLET
INV. = 104.20

PROPOSED 12' WIDE BITUMINOUS ACCESS DRIVE

EXISTING TREES, TYP. TO BE PROTECTED DURING CONSTRUCTION

PROPOSED STORM WATER DETENTION AREA WITHIN THE VARIOUS BRANCHES OF ASSOCIATE (SEE SHEET C-3)
FOUNDATIONS = 107.20

ESTIMATED BFE & WIND OUTLINE (100 YEAR FLOOD ELEVATION) = 111.50
TOP OF PROPOSED LESSEE PLATFORM = 111.50

PROPOSED LESSEE EQUIPMENT PLATFORM (11' x 16'-0" PERIMETER) - VARIOUS FOUNDATIONS = 112.00

PROPOSED LEASE AREA (800.14 SQ. FT.) WITH FENCED AREA AND GRAVEL COMPOUND

PROPOSED 48" DRAINAGE DITCH WITH 18" PVC UNDERDRAIN PIPE @ 0.02% MIN.

PROPOSED 48" DRAINAGE DITCH WITH 18" PVC UNDERDRAIN PIPE @ 0.02% MIN.

PROPOSED 48" DRAINAGE DITCH WITH 18" PVC UNDERDRAIN PIPE @ 0.02% MIN.

PROPOSED 48" DRAINAGE DITCH WITH 18" PVC UNDERDRAIN PIPE @ 0.02% MIN.

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PROPOSED 48" DRAINAGE DITCH WITH 18" PVC UNDERDRAIN PIPE @ 0.02% MIN.

PROPOSED 48" DRAINAGE DITCH WITH 18" PVC UNDERDRAIN PIPE @ 0.02% MIN.

PROPOSED 48" DRAINAGE DITCH WITH 18" PVC UNDERDRAIN PIPE @ 0.02% MIN.

PROPOSED 48" DRAINAGE DITCH WITH 18" PVC UNDERDRAIN PIPE @ 0.02% MIN.

PROPOSED 48" DRAINAGE DITCH WITH 18" PVC UNDERDRAIN PIPE @ 0.02% MIN.

PROPOSED 48" DRAINAGE DITCH WITH 18" PVC UNDERDRAIN PIPE @ 0.02% MIN.

DETECTION SUMMARY
VOLUME REQUIRED = 1,068.00 CU YD
24" DIA. X 1.5' FT. WIDE DETENTION BASIN REQUIRED = 1,290.00 CU YD

FEMA FIRM
MAP NUMBER
1902510000C
ESTIMATED BFE (100 YEAR FLOOD ELEVATION) = 885.50
WIDE DATUM BFE (100 YEAR FLOOD ELEVATION) = 111.50

IOWA ONE CALL
800-448-8889
TOLL-FREE
CALL - BEFORE YOU DIG

WISSEIN SMITH-NOLTING
Engineering & Architecture
1000 Woodbury Lane
Des Moines, IA 50319



SBA TORREN V. LLC
 800 RUSSELL HIGHWAY
 P.O. BOX 110
 RIVER RIDGE, IL 60089
 PH: 847/898-8401
 FAX: 847/898-8401



TERRA
 800 RUSSELL HIGHWAY
 P.O. BOX 110
 RIVER RIDGE, IL 60089
 PH: 847/898-8401
 FAX: 847/898-8401

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	02/16/08
2	REVISED PER CONSTRUCTION	03/16/08
3	REVISED PER CONSTRUCTION	03/16/08
4	REVISED PER CONSTRUCTION	03/16/08
5	REVISED PER CONSTRUCTION	03/16/08
6	REVISED PER CONSTRUCTION	03/16/08
7	REVISED PER CONSTRUCTION	03/16/08
8	REVISED PER CONSTRUCTION	03/16/08
9	REVISED PER CONSTRUCTION	03/16/08
10	REVISED PER CONSTRUCTION	03/16/08

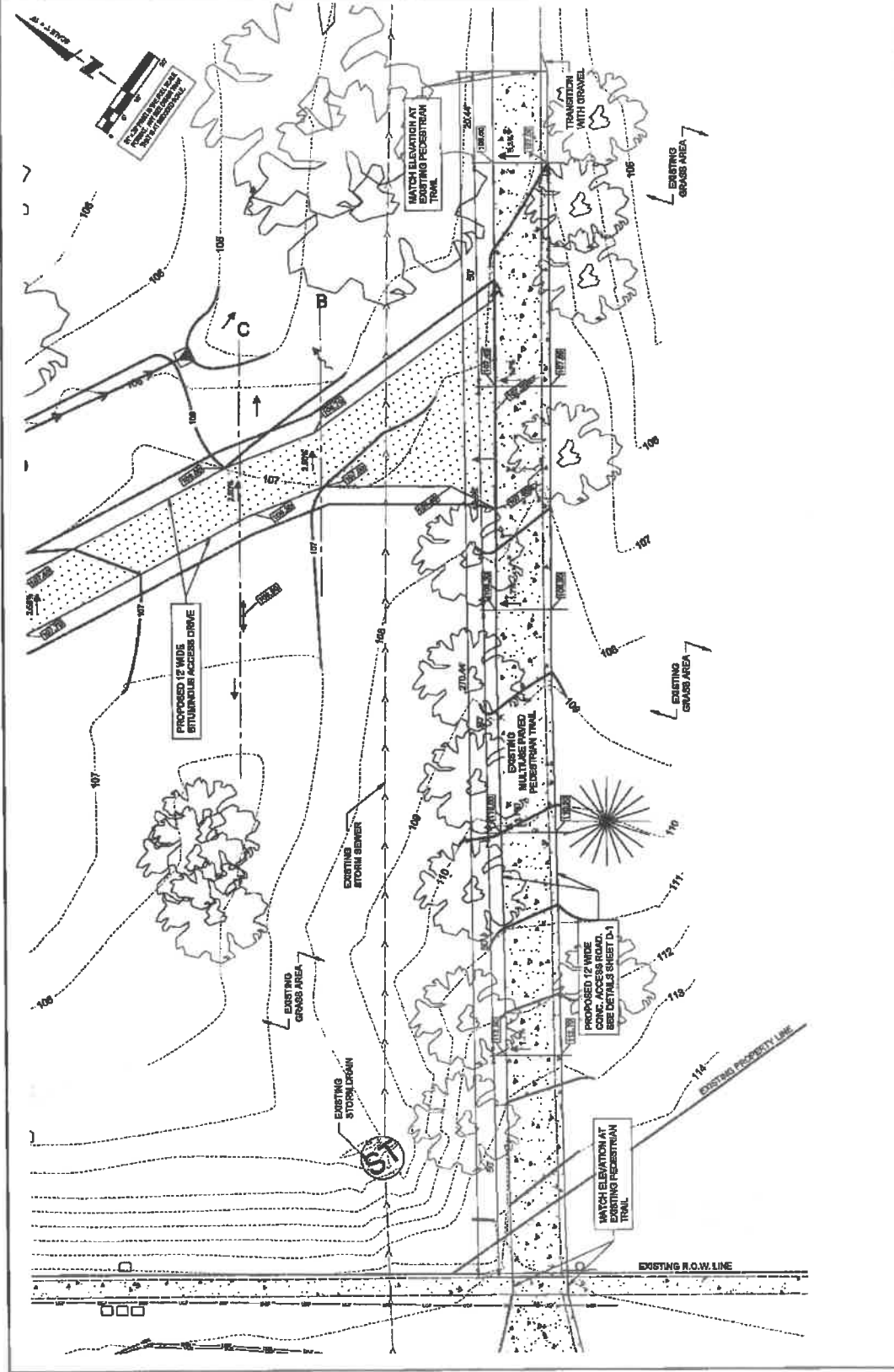
IA15933-B
 WEST
 DES MOINES 2

4101 E.P. TRUE PARKWAY
 WEST DES MOINES, IA 50266

DESIGNER:	JAS
CHECKED BY:	DM
DATE:	02/16/08
PROJECT #:	1593

SHEET TITLE
 SITE GRADING PLAN
 (SHEET 2)

C-2A

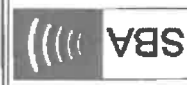


FEINA FIRM
 MAP NUMBER
 1902310000C
 ESTIMATED BFE (100 YEAR FLOOD ELEVATION) = 885.50
 ESTIMATED BFE (100 YEAR FLOOD ELEVATION) = 111.80
 WGN DATUM BFE (100 YEAR FLOOD ELEVATION) = 111.80



WIDSETH SMITH NOLTING
 Architecture | Surveying | Environmental





SBA TOWERS V. LLC
 600 BARR Highway
 PO Box 8400
 Des Moines, IA 50319
 Phone: 515-281-7423



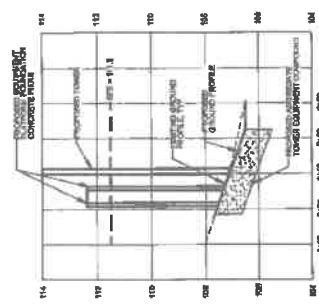
TERRA
 500 BARR Highway
 PO Box 8400
 Des Moines, IA 50319
 Phone: 515-281-7423

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3	08/14/13	ISSUED FOR PERMITS
4	08/14/13	ISSUED FOR PERMITS
5	08/14/13	ISSUED FOR PERMITS
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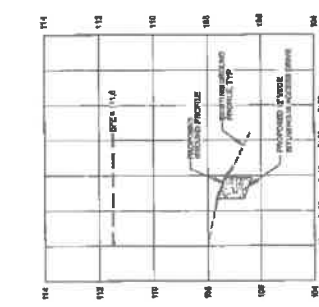
IA15833-B
**WEST
 DES MOINES 2**
 4101 E.P. TRUE PARKWAY
 WEST DES MOINES, IA 50266

DATE:	08/14/13
PROJECT:	WEST DES MOINES 2
CLIENT:	SBA TOWERS V. LLC
DESIGNER:	TERRA

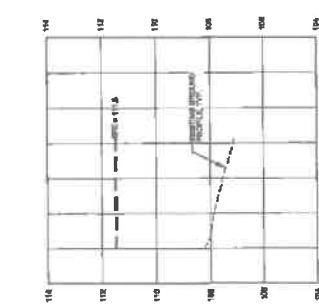
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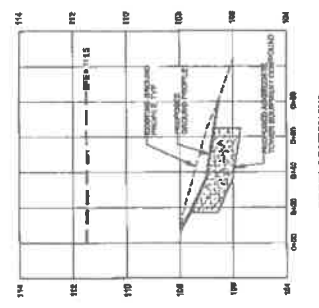
CROSS SECTION 132



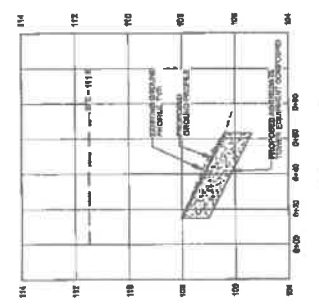
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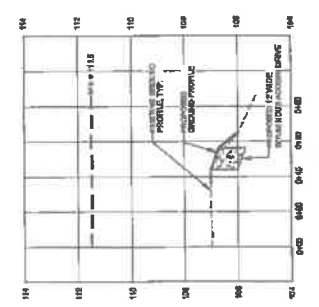
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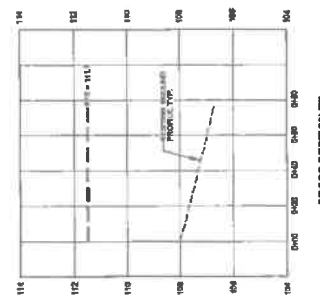
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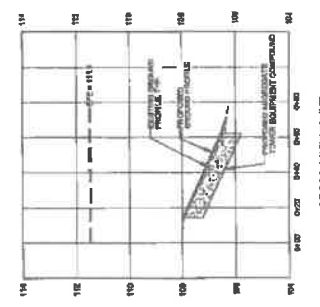
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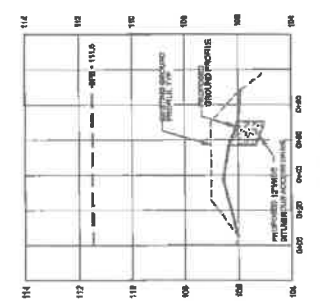
CROSS SECTION 137



CROSS SECTION 138



CROSS SECTION 139



CROSS SECTION 140

MINIMUM LIFE (10 YEAR FLOOD BEHAVIOR) - 11.5'

STATION	CUT AREA S.F.	FILL AREA S.F.	AVG. CUT S.F.	AVG. FILL S.F.	DISTANCE L.F.	CUT C.F.	FILL C.F.
A+00	0.0	0.0	0.0	2.0	25.0	0.0	50.0
B+00	0.0	4.0	21.9	1.4	40.0	394.2	39.0
C+00	43.7	0.0	21.9	1.4	40.0	1,051.2	67.2
D+00	0.0	2.8	1.4	3.0	22.0	30.8	30.8
E+00	0.0	0.0	1.4	3.0	12.0	16.8	36.0
F+00	0.0	8.9	3.3	3.0	22.0	72.6	66.0
G+00	8.5	0.0	15.5	0.0	12.0	186.0	0.0
H+00	11.67	24.6	15.5	0.0	12.0	186.0	0.0
I+00	0.0	0.0	15.5	0.0	12.0	186.0	0.0
TOTAL						2,106.5	317.0

COMPENSATORY STORAGE CALCULATIONS

- FILL DATA:**
- 317.0 CU.F.
 - FILL TO FINISHED GRADE
 - PROPOSED STRUCTURES IN BFE
 - TOWER - 3' DIA.
 - EQUIPMENT PERMITS - 2' DIA (10)
 - WEEKEND PATH
- CUT DATA:**
- 2,106.5 CU.F.
 - CUT FOR COMPENSATORY STORAGE
 - TOTAL LIFE CUT = 2,106.5 CU.F.

1 CROSS SECTIONS
 SCALE 1" = 10' HORIZONTAL 1" = 4' VERTICAL

SBA
SEA TOWERS V. L.L.O.
809 CONGRESS AVENUE
FORT PIERCE, FL 34947
PHONE: 1-800-437-7433

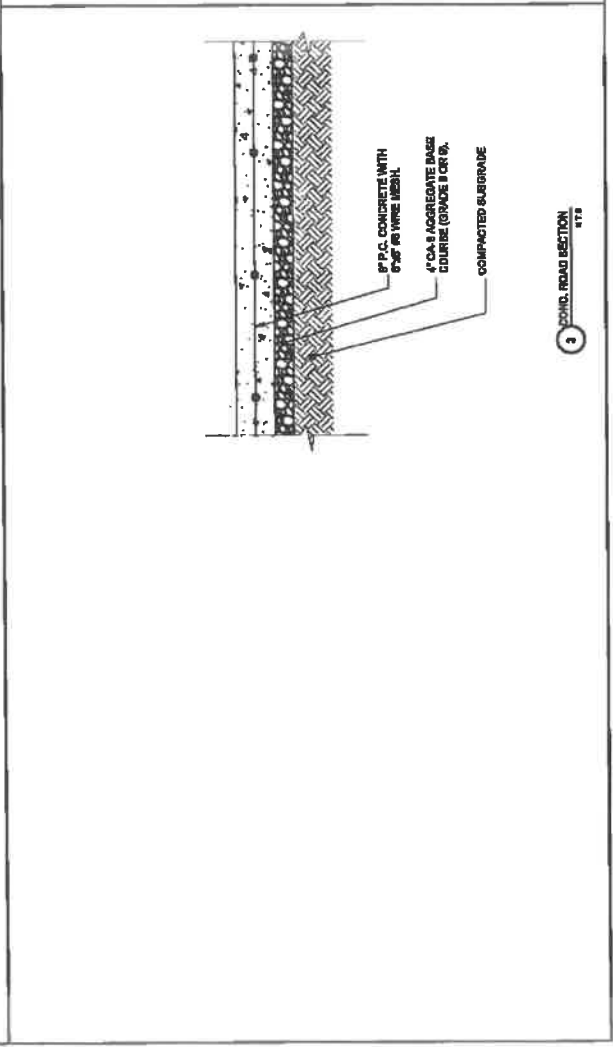
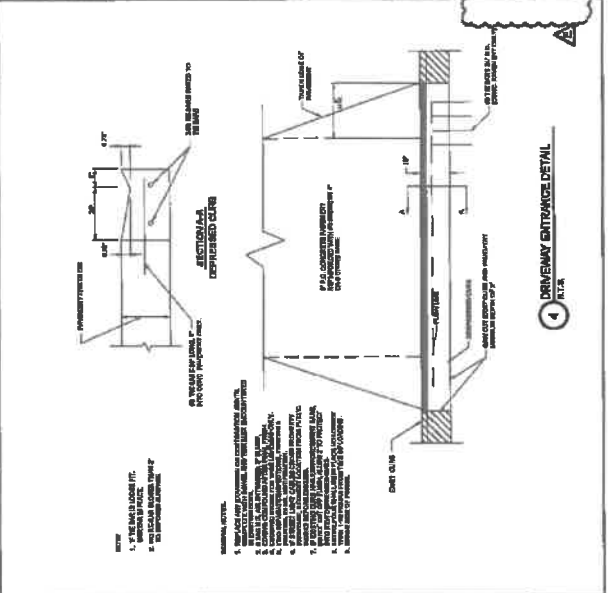
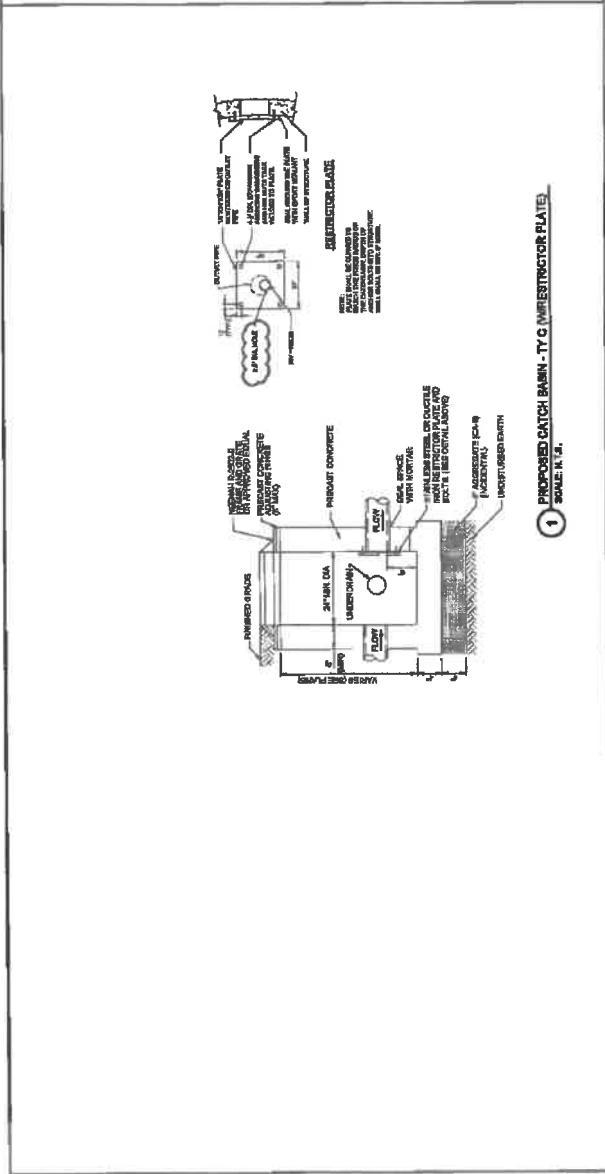
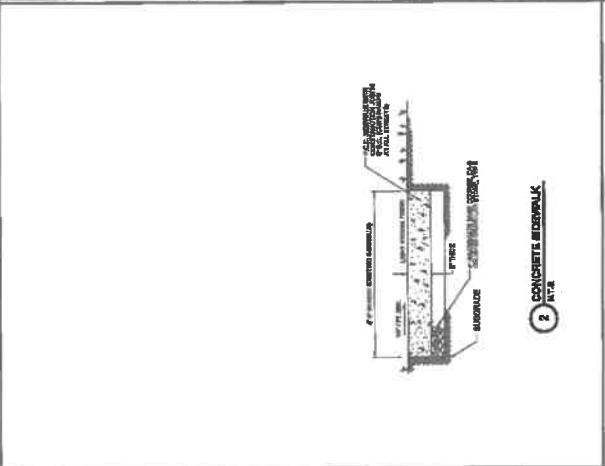
TERRA
809 BUREAU HIGHWAY
FORT PIERCE, FL 34947
PHONE: 888-898-8401

NO.	DATE	DESCRIPTION
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4	11/17/18	REVISED FOR COMMENTS
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8	11/17/18	REVISED FOR COMMENTS
9	11/17/18	REVISED FOR COMMENTS
10	11/17/18	REVISED FOR COMMENTS

IA15833-B
WEST
DES MOINES 2
4101 E.P. TRUB PARKWAY
WEST DES MOINES, IA 50319

DESIGN BY:	JAS
DESIGNED BY:	DM
DATE:	MM/YY
PROJECT NO.:	7078

SITE DETAILS
SHEET NUMBER
C-3A



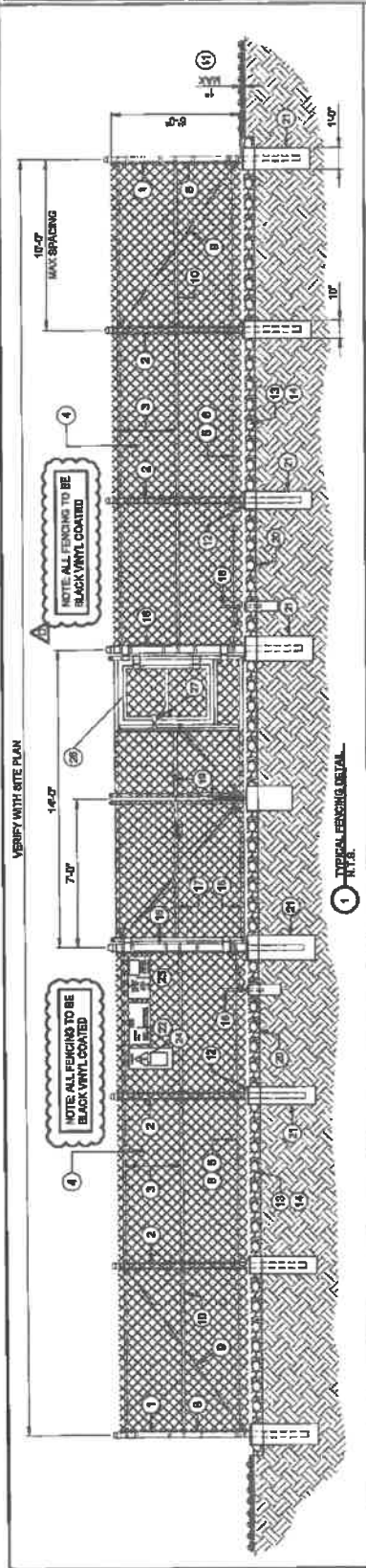


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IA15933-B
WEST
DES MOINES 2

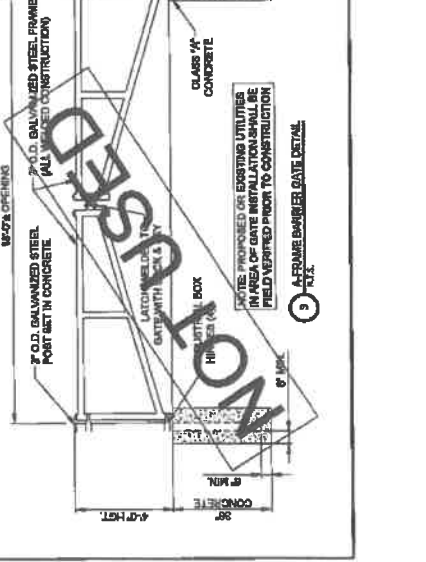
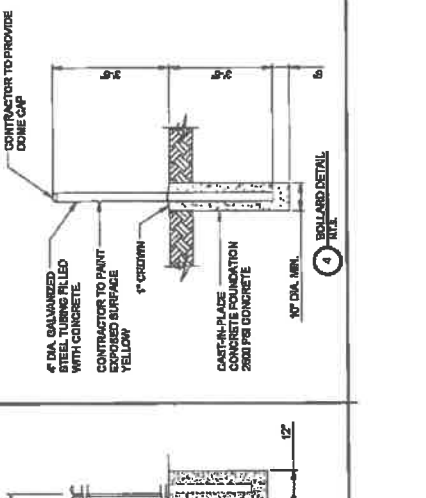
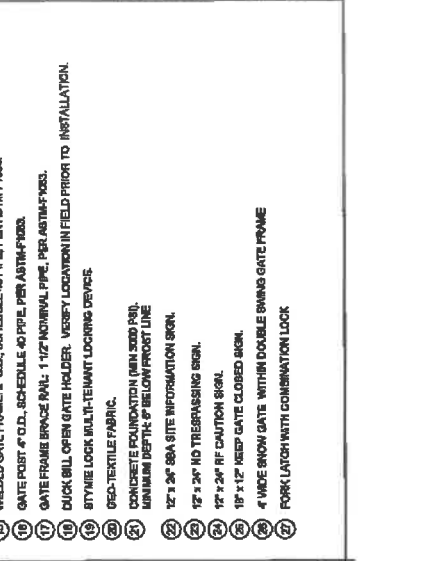
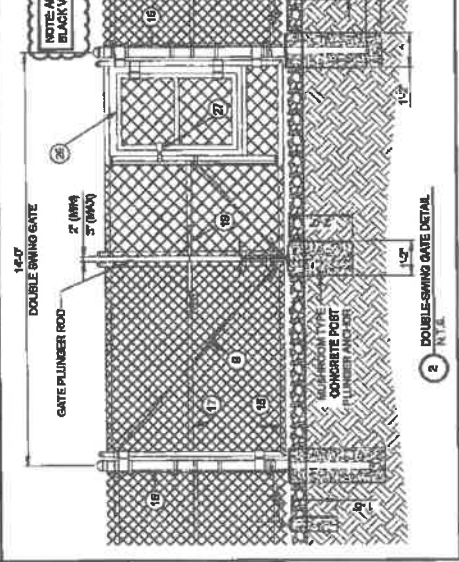
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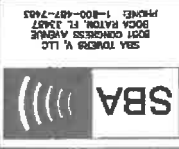
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DRAWN BY	DA
CHECKED BY	SPH
DATE	7/18
PROJECT	7178
FENCE DETAILS	
SHEET NUMBER	
C-4	



- BALLOON REFERENCE NOTES:**
- CORNER, END OR RAIL POST: 2" O.D. SCHEDULE 40 PIPE.
 - LINE POST: 1 1/2" NOMINAL SCHEDULE 40 PIPE, PER ATTACHED LINE POST SHALL BE EQUALLY SPACED AT MAXIMUM 10'-0" O.C.
 - TOP RAIL & BRACE RAIL: 1.56" O.D. STANDARD ROUND PIPE, PER ASTM F 1008.
 - FABRIC: BLACK VINYL COATED, 9 GA COARSE WIRE SIZE 2" MESH, CONFORMING TO ASTM A332.
 - TIE WIRE: 9 GA ALUMINUM, A SINGLE WIRE OF FABRIC TIE AND AT TENSION WISE BY HOG RINGS SPACED 12" O.C. FOR SUBSTITUTES AND 24" POLYUREANE.
 - TENSION WIRE: 9 GA ALUMINUM.
 - BARBED WIRE - BARBED WIRE SHALL BE 316 STAINLESS STEEL WIRE TO MATCH WITH FABRIC. 4 GA. 12" BARBED WIRE OR APPROXIMATELY EQUIVALENT.
 - 316 1/2" DIA. FULL HEIGHT STRETCHER BAR.
 - 3" DIA. DIAGONAL ROD WITH GALVANIZED STEEL TURNBUCKLE OR DIAGONAL THREADED ROD.
 - FENCE CORNER POST BRACE: 1.56" NOMINAL PIPE.
 - 1" MINIMUM CLEARANCE FROM FINISH GRADE.
 - FENCE POST FOUNDATION TO BE 1" FINISH ABOVE FINISHED GRADE.
 - 8" COMPACTED BASE MATERIAL.
 - FINISH GRADE SHALL BE UNIFORM AND LEVEL.
 - WELDED GATE FRAME: 2" O.D., SCHEDULE 40 PIPE, PER ASTM F 1008.
 - GATE POST: 4" O.D., SCHEDULE 40 PIPE, PER ASTM F 1008.
 - GATE FRAME BRACE RAIL: 1 1/2" NOMINAL PIPE, PER ASTM F 1008.
 - DUCK BILL OFSH GATE HOLDER. VERIFY LOCATION IN FIELD PRIOR TO INSTALLATION.
 - BYTONE LOCK MULTI-TENANT LOCKING DEVICE.
 - 90-0 TEXTELE FABRIC.
 - CONCRETE FOUNDATION (MIN 3000 PSI), MINIMUM DEPTH: 6" BELOW FROST LINE.
 - 12" x 24" 88A SITE INFORMATION SIGN.
 - 12" x 24" NO TRESPASSING SIGN.
 - 12" x 24" RE CAUTION SIGN.
 - 18" x 12" KEEP GATE CLOSED SIGN.
 - 4" WIDE SNOW GATE WITH DOUBLE SWING GATE FRAME FORK LATCH WITH COMBINATION LOCK.

- GENERAL NOTES:**
- INSTALL FENCING PER ASTM F 1007.
 - INSTALL SWING GATES PER ASTM F 1000.
 - LOCAL ORDINANCES OR BARBED WIRE PERMIT REQUIREMENTS - SHALL BE COMPLIED WITH - REQUIRED.
 - POST & GATE PIPE SIZES ARE (UNLESS OTHERWISE NOTED). ALL PIPE MUST BE GALVANIZED STEEL WITH A MINIMUM OF 1/8" THICKNESS. ALL GATE FRAMES SHALL BE WELDED. ALL WELDING SHALL BE COATED WITH (2) COATS OF COLD GALV. (OR EQUAL).
 - ALL OPEN POSTS SHALL HAVE END-CAPS.
 - USE GALVANIZED HOG-RING WIRE TO MOUNT ALL SIGNS.
 - ALL SIGNS MUST BE MOUNTED ON INSIDE OF FENCE FABRIC.
 - MULCHROOM ANCHOR & PLUNGER REQUIRED FOR GATE.
 - O.C. RESPONSIBLE FOR 88A GATE LOCK.





SBA TOMKINS V LLC
 800A EASTON RD
 WEST CONCHO AVENUE
 FORT RIDGE, TX 76841
 PHONE: 1-800-877-7443



800 Brass Highway
 Fort Ridge, TX 76841
 Ph: 817/558-9449
 Fax: 817/558-6401

REVISIONS	
NO.	DESCRIPTION
1	ISSUED FOR CONSTRUCTION
2	ISSUED FOR CONSTRUCTION
3	ISSUED FOR CONSTRUCTION
4	ISSUED FOR CONSTRUCTION
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10	ISSUED FOR CONSTRUCTION

IA15833-B
 WEST
 DES MOINES 2

4101 E.P. TRIPLE PARKWAY
 WEST DES MOINES, IA 50319

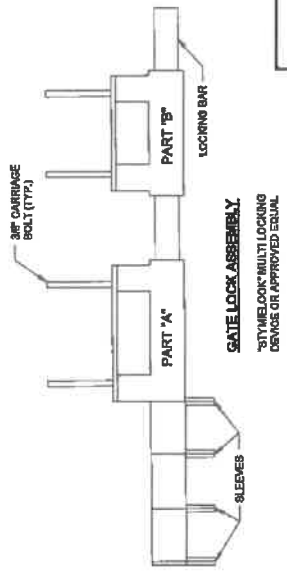
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CHECKED BY:	DM
DATE:	08/10/11
PROJECT:	WEST
SCALE:	1/4" = 1'-0"

QUANTITY
 FENCE DETAILS

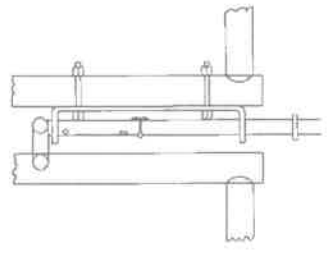
81211 FENCE
C-5

STYMILOCK INSTALLATION

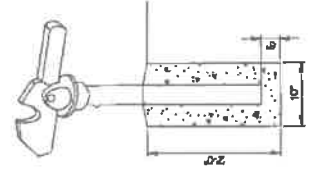
1. DRILL 3/8" HOLES IN THE GATE LEAF USING THE GATE DIMENSIONS PROVIDED.
2. SLIDE THE CARRIAGE BOLTS IN THE BOLTS ON THE BACK OF PART "B" AND PUNCH THE BOLTS THROUGH THE HOLES DRILLED IN THE GATE FIGURE. PUT THE NUT AND THE LOCKWASHER ON AND TIGHTEN AND CUT THE EXCESS BOLT OFF. DO THIS FOR ALL THE HOLES.
3. ADD THE NUMBER OF SLEEVES NEEDED FOR THE NUMBER OF LOCKS AND SLIDE THE LOCKING BAR INTO PLACE THROUGH BOTH PART "A" AND PART "B". NOW INSTALL THE LOCKS.
4. IF THE GATE HAS NO CENTER BAR IN THE GATE LEAF YOU MAY NEED TO MOUNT THE STYMILOCK VERTICALLY USING THE SAME DIMENSIONS GIVEN ON THE GATE FACE. VERTICAL APPLICATION MAY ALSO BE USED ON SLIDING GATES WITH MULTIPLE LOCKS.



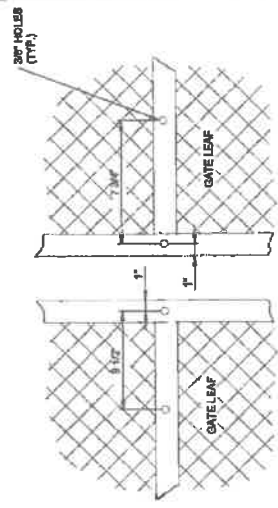
3 GATE LOCK ASSEMBLY DETAIL
 NUTS AND WASHERS TO LOCKING
 BOLTS OR APPROVED EQUAL



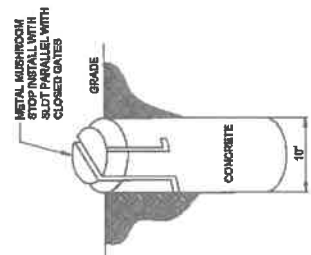
4 PROP ROD ASSEMBLY DETAIL



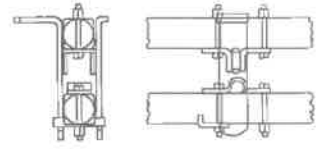
5 GATE KEEPER DETAIL



1 GATE FACE - ACCOMMODATING STYMILOCK



3 MUSHROOM STOP DETAIL



6 LATCH ASSEMBLY DETAIL

SBA
 524 TORRES V. LTD.
 8031 COMMERCE AVENUE
 BOCA RATON, FL 33487
 PHONE: 1-800-407-7463

TERRA
 800 SUMMIT HIGHWAY
 PARK RIDGE, IL 60068
 PH: 847/958-8400
 FAX: 847/958-8401

NO.	DATE	DESCRIPTION
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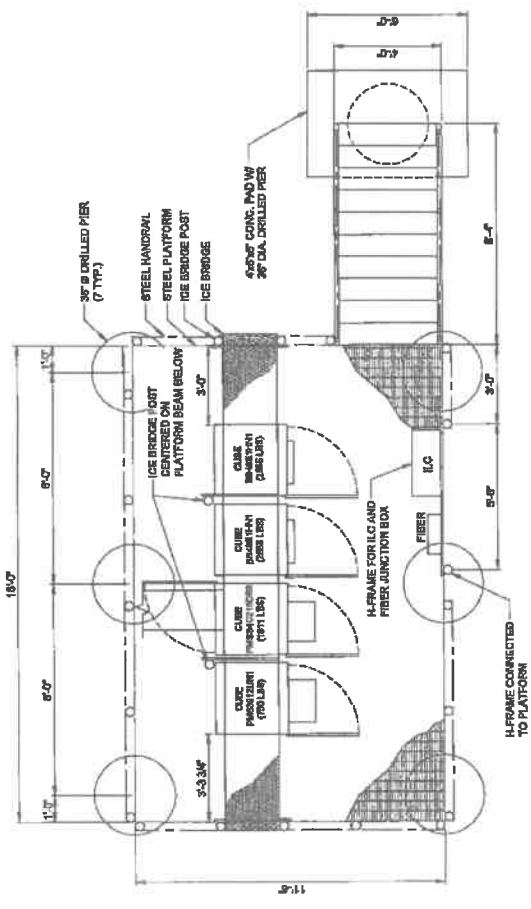
IA15833-B
**WEST
 DES MOINES 2**

4101 E.P. TRUE PARKWAY
 WEST DES MOINES, IA 50319

DESIGNED BY	JAB
CHECKED BY	DM
DATE	08/04/08
PROJECT #	1704

SHEET TITLE
EQUIPMENT PLATFORM

SECTION NUMBER
C-6



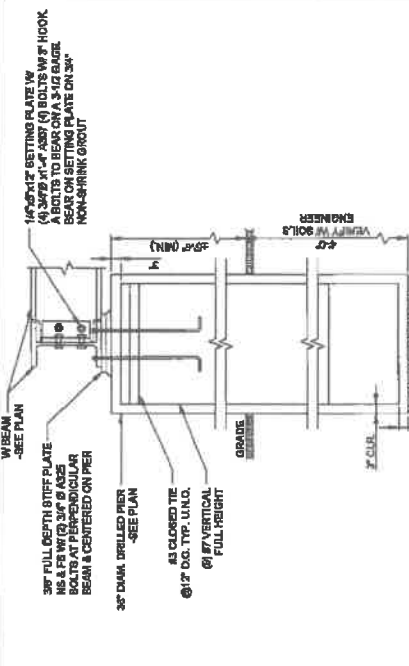
GENERAL STEEL NOTES

1. ALL STRUCTURAL STEEL WORK SHALL CONFORM TO THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, LATEST EDITION, AND THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES, LATEST EDITION, EXCEPT AS NOTICED OTHERWISE IN THE SPECIFICATION.
2. ALL STRUCTURAL STEEL, W. SHAPES SHALL CONFORM TO ASTM A992 OR A572 GRADE 50. ALL OTHER STRUCTURAL STEEL SHAPES, PLATES, AND BARS SHALL CONFORM TO THE AISC SPECIFICATION FOR STRUCTURAL STEEL. ALL STEEL SHALL CONFORM TO THE AISC SPECIFICATION FOR STRUCTURAL STEEL. ALL STEEL SHALL CONFORM TO THE AISC SPECIFICATION FOR STRUCTURAL STEEL. ALL STEEL SHALL CONFORM TO THE AISC SPECIFICATION FOR STRUCTURAL STEEL.
3. ALL WELDING SHALL BE DONE BY QUALIFIED WELDERS AND SHALL CONFORM TO THE AISC SPECIFICATION FOR STRUCTURAL STEEL. ALL WELDING SHALL CONFORM TO THE AISC SPECIFICATION FOR STRUCTURAL STEEL.
4. THE CONTRACTOR SHALL FIELD VERIFY ALL MEASUREMENTS AND EXISTING CONDITIONS.
5. IF CONDITIONS VARY FROM THOSE ON THE DRAWING, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
6. THE CONTRACTOR SHALL OBSERVE ALL SAFETY RULES GOVERNED BY CODE AND GOOD PRACTICE.
7. SHOULD UNRESOLVED DISCREPANCIES OR OTHER ISSUES ARISE BETWEEN THE DRAWING AND THE FIELD CONDITIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PERFORMING THESE CHANGES.

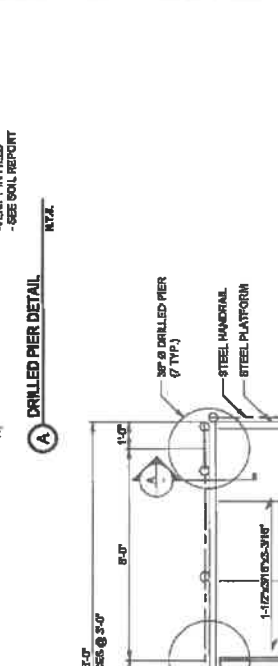
MISCELLANEOUS NOTES

1. STRUCTURAL DRAWINGS ARE INTENDED TO BE USED WITH ARCHITECTURAL DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE REQUIREMENTS OF ALL DRAWINGS INTO THEIR SHOP DRAWINGS AND WORK.
2. NO DIMENSIONS OTHER THAN THOSE SHOWN ON THESE DRAWINGS AND APPROVED SHOP DRAWINGS, SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.
3. NO CHANGES IN SIZE OR DIMENSIONS OF STRUCTURAL MEMBERS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.
4. CHANGES OF SIZE AND LEVELS ARE GENERALLY NOT PERMITTED ON THE DRAWINGS FOR LOCATION AND DIMENSIONS OF THOSE MEMBERS. PROVIDE REFERENCE TO THE DRAWING FOR TYPICAL DETAILS SHOWN ON STRUCTURAL DRAWINGS.
5. THE CONTRACTOR IS TO LIMIT THE AMOUNT OF CONSTRUCTION LOADS IMPOSED UPON STRUCTURAL MEMBERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.
6. THE CONTRACTOR IS TO LIMIT THE AMOUNT OF CONSTRUCTION LOADS IMPOSED UPON STRUCTURAL MEMBERS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE CAPACITY OF THE FRAMING AT THE TIME THE LOADS ARE IMPOSED.
7. DO NOT SCALE THESE DRAWINGS. USE DIMENSIONS.
8. CONTRACTORS CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL BE APPROVED BY THE ARCHITECT. THE CONTRACTOR SHALL SUBMIT AN ANTI-COLLAPSE ANALYSIS TO THE ARCHITECT FOR REVIEW AND APPROVAL BEFORE THE START OF CONSTRUCTION. EXPANSION JOINTS SHOWN ON THE DRAWINGS HAVE BEEN DESIGNED TO ACCOMMODATE ANTICIPATED THERMAL MOVEMENT AFTER THE BUILDING IS COMPLETE.
9. THE CONTRACTOR SHALL INFORM THE ARCHITECT IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUBMIT A WRITTEN APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNDER THE ARCHITECT'S APPROVAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DEVIATION FROM THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL SUBMIT A WRITTEN APPROVAL OF SHOP DRAWINGS, PRODUCT DATA, ETC., UNDER THE ARCHITECT'S APPROVAL.
10. ALL THINGS WHICH, IN THE OPINION OF THE CONTRACTOR, APPEAR TO BE DISCREPANCIES, OMISSIONS, CONTRADICTIONS AND AMBIGUITIES IN THE PLANS, SPECIFICATIONS, AND CONDITIONS SHALL BE CORRECTED ON A WRITTEN INTERPRETATION OF THE ALLEGED DEFICIENCY, OMISSION, CONTRADICTION OR AMBIGUITY WILL BE MADE BY THE ARCHITECT BEFORE THE EFFECTIVE WORK PROCEEDS.

- ### A. EQUIPMENT PLATFORM FOUNDATION
1. REFER TO CIVIL DRAWINGS FOR CREATION OF THE FOUNDATION.
 2. EQUIPMENT PLATFORM FOUNDATION IS DESIGNED FOR THE FOLLOWING LOADS:
 - FLOOR LIVE LOAD: 160 PSF
 - WIND LOAD: AS SPECIFIED
 3. THE CONTRACTOR SHALL NOTIFY THE CLIENT'S MECHANICAL ENGINEER TO COORDINATE HANGING FIELD REPRESENTATIVE ON SITE FOR TESTING AND INSPECTION.
 4. ASSUME EXISTING FINISHES = 2000 PPF TO BE VERIFIED.
- ### B. EQUIPMENT ENCLOSURES
- THE EQUIPMENT ENCLOSURES IS A PRE-FABRICATED BUILDING MANUFACTURED BY TERRACON, INC. THE CONTRACTOR SHALL VERIFY THE EQUIPMENT ENCLOSURE SHALL BE COMPLETED AND DELIVERED BY THE TIME THE EQUIPMENT IS DELIVERED TO THE SITE. THE CONTRACTOR SHALL VERIFY THE EQUIPMENT ENCLOSURE SHALL BE COMPLETED AND DELIVERED BY THE TIME THE EQUIPMENT IS DELIVERED TO THE SITE.
- ### C. CONCRETE NOTES
1. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI 308 AND ACI 309, LATEST EDITION. THESE DOCUMENTS SHALL BE AVAILABLE IN THE FIELD OFFICE.
 2. EXCEPT WHERE OTHERWISE INDICATED, CONCRETE SHALL BE NORMAL WEIGHT AND WITH MINIMUM 5000 PSI COMPRESSIVE STRENGTH OF 10000 PSI. ALL EXTERIOR EXPOSED CONCRETE SHALL BE FINISHED WITH EXACT FINISH.
 3. REINFORCING BARS SHALL CONFORM TO ASTM A618, GRADE 60. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A106.
 4. ALL FOUNDATIONS SHALL BEAN MINIMUM OF 3'-0" BELOW FINISHED GRADE.
 5. CONCRETE SET DESIGN SHALL BE SUBMITTED TO ARCHITECT/ENGINEER FOR REVIEW.



DRILLED PIER DETAIL
N.T.S.



FOUNDATION & FRAMING PLAN
N.T.S.

SBA
1-800-467-7463

TERRA
900 Russ
Fork River, VA 22069
Tel: 847/658-8400
Fax: 847/658-8401

NO.	DATE	DESCRIPTION
1		ISSUED FOR PERMIT
2		REVISION FOR COMMENTS
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7		REVISION FOR COMMENTS
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10		REVISION FOR COMMENTS

IA15833-B
WEST
DES MOINES 2
4101 E.P. TRUE PARKWAY
WEST DES MOINES, IA 50266

NO.	DATE	DESCRIPTION
1		ISSUED FOR PERMIT
2		REVISION FOR COMMENTS
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9		REVISION FOR COMMENTS
10		REVISION FOR COMMENTS

PROJECT TITLE
FOUNDATION & FRAMING PLAN
SHEET NUMBER
S-1

NOTE:
*PIER TO EXTEND 10'-0" (MIN.) ABOVE GRADE
1. VERIFY ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS IN FIELD AND WITH GELTNER MANUFACTURER.
2. ALL STEEL TO BE GALVANIZED.

IOWA
ONE CALL
800-368-8888
DALL - 867-806 - TOW - 088

SBA
SBA TURNER & LEO
300A RAVENHURST AVENUE
BOCA RATON, FL 33487
PHONE: 1-800-457-7463

TERRA
500 Grass Highway
Park Ridge, IL 60068
Tel: 847/988-4401
Fax: 847/988-4401

NO.	DATE	REVISION
1		ISSUED FOR CONSTRUCTION
2		REVISED FOR COMMENTS
3		REVISED FOR COMMENTS
4		REVISED FOR COMMENTS
5		REVISED FOR COMMENTS
6		REVISED FOR COMMENTS
7		REVISED FOR COMMENTS
8		REVISED FOR COMMENTS
9		REVISED FOR COMMENTS
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47		REVISED FOR COMMENTS
48		REVISED FOR COMMENTS
49		REVISED FOR COMMENTS
50		REVISED FOR COMMENTS

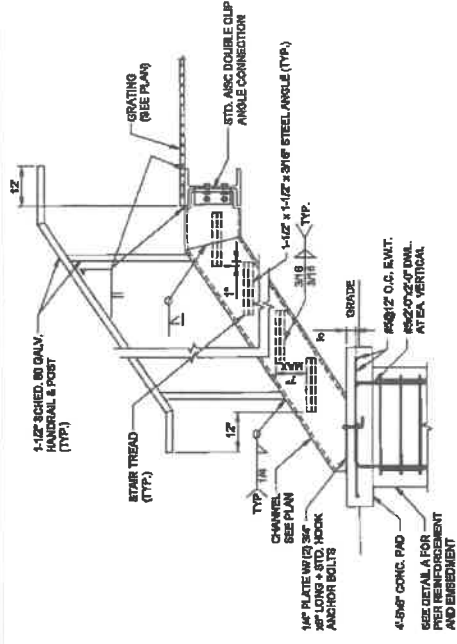
IA15833-B
WEST
DES MOINES 2

4101 E.P. TRULE PARKWAY
WEST DES MOINES, IA 50325

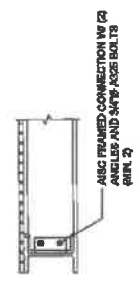
OWNER:	J&J
CHECKED BY:	DM
DATE:	MM/YY
PROJECT #:	2016

SHEET TITLE
STRUCTURAL DETAILS

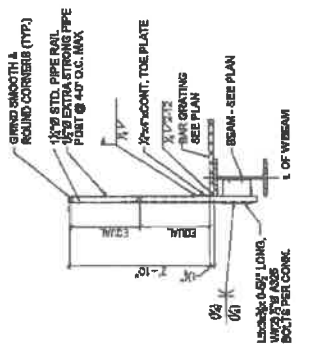
SCALE: 1/8"=1'-0"
S-2



D STAIR DETAIL
N/A



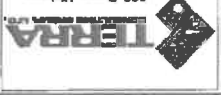
C TYPICAL BEAM TO BEAM CONNECTION
N/A



B TYPICAL HANDRAIL DETAIL
N/A



SEA TOWERS V, LLC
2505 CANAL ST, SUITE 100
WEST DES MOINES, IA 50301
PHONE: 515-281-7433



900 Bluffs Highway
Park Ridge, IL 60069
Tel: 847/898-0400
Fax: 847/898-0401

NO.	DATE	DESCRIPTION	BY	CHKD.
01		ISSUED FOR PERMITS		
02		REVISED FOR COMMENTS		
03		REVISED FOR COMMENTS		
04		REVISED FOR COMMENTS		
05		REVISED FOR COMMENTS		
06		REVISED FOR COMMENTS		
07		REVISED FOR COMMENTS		
08		REVISED FOR COMMENTS		
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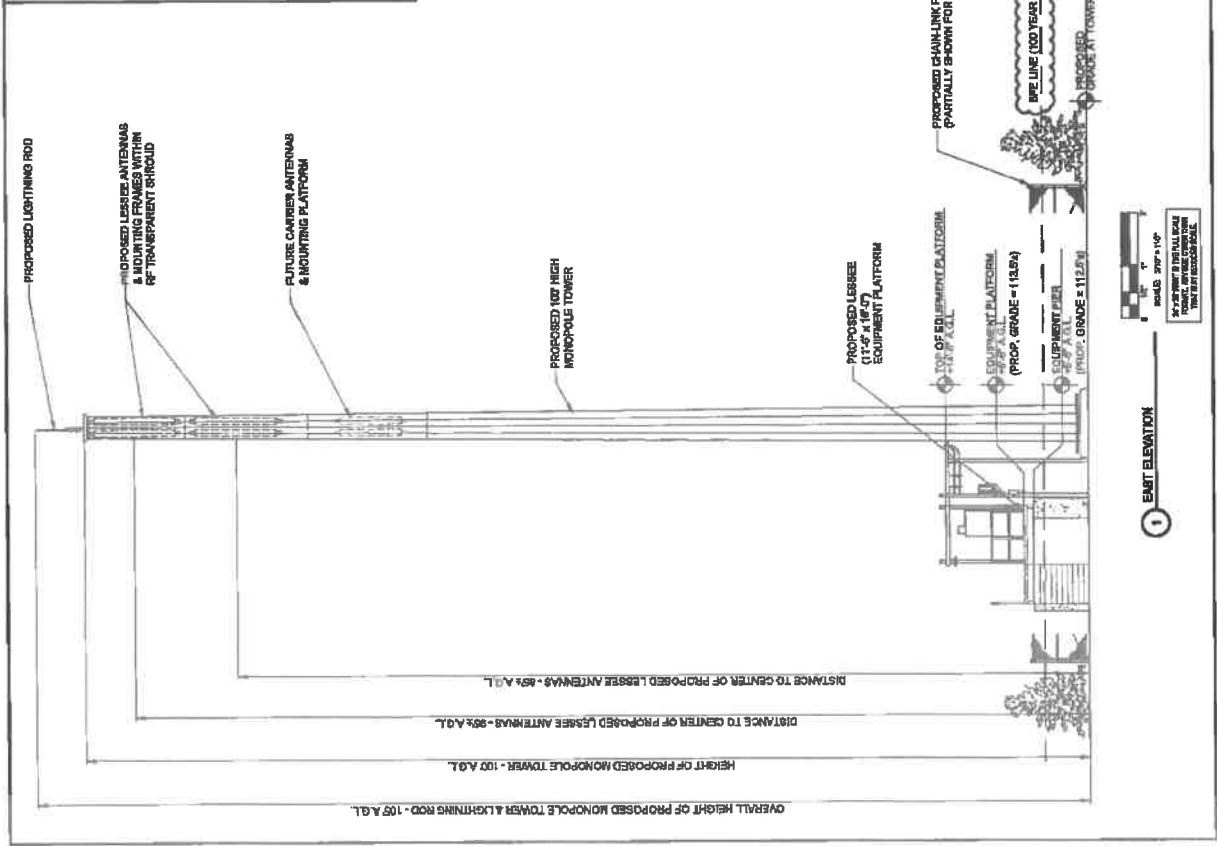
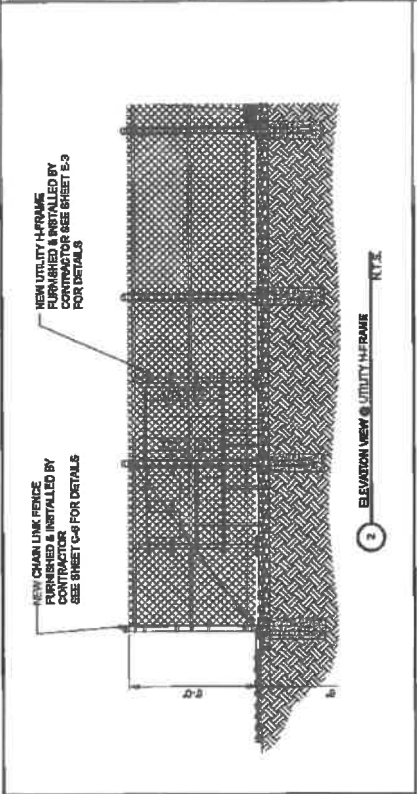
IA15833-B
WEST
DES MOINES 2

4101 E.P. TRUE PARKWAY
WEST DES MOINES, IA 50301

PROJECT NO.	270
DATE	08/15/17
PROJECT NAME	SEA TOWERS V

SHEET TITLE
SITE ELEVATION

ANT-1

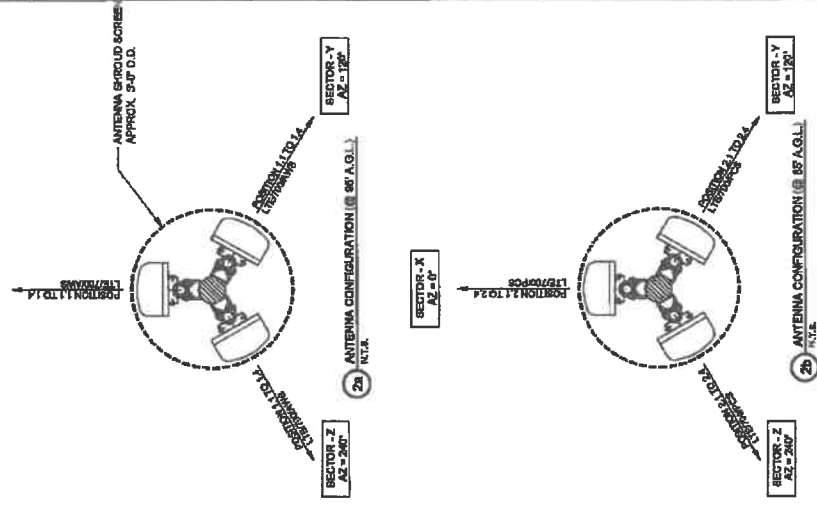


PENDING FINAL
RF DESIGN

NOTE:
CONTRACTOR IS TO OBTAIN MOST RECENT RFP
AND IS RESPONSIBLE FOR GETTING ALL
ADAPTABLE ELECTRICAL TUNING TO MATCH KEY.

NOTE:
NOTE: ANTENNA SUPPORTS ARE TO BE
DESIGNED TO SUPPORT A FIT
THE PROPOSED ANTENNAS.

CABLE LENGTH CHART
HORIZ. RUN @ ANTENNAS
ANT. CENTERLINE HEIGHT
ICE-BRIDGE
INSIDE SHELFER
BENDING RADIUS
TOTAL CABLE ESTIMATE



- NOTES:**
CONTRACTOR IS TO VERIFY THE ANTENNA LAYOUT
WITH THE R.F. ENGINEER ABOUT RECENT R.F. DESIGN.
- CONTRACTOR IS TO GET ALL ADJUSTS OFF OF TRUE MOUNT.
 - CONTRACTOR IS TO ORIENT PLATFORM SO ANTENNAS WILL NOT BE TURNED MORE THAN 20° FROM THE FACE OF THE PLATFORM TO OBTAIN ANTENNA ADJUSTS.

NOTE: THE TOWER DRAWINGS WERE NOT AVAILABLE WHEN THE CONSTRUCTION DRAWING WERE PREPARED. THERE MAY BE SOME REVISIONS REQUIRED ONCE THE TOWER IS DESIGNED.

1 ANTENNA SCHEDULE
N/A.

SBA
SBA TOWERS & L.L.C.
1000 W. MAIN ST. SUITE 1000
DES MOINES, IA 50319
PHONE: 1-800-487-7423

TERRA
600 W. MAIN ST. SUITE 1000
DES MOINES, IA 50319
PHONE: 515-281-8401

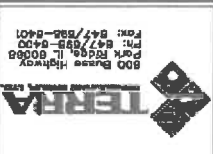
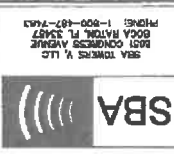
REV	DATE	DESCRIPTION
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02	01/22/14	REVISED FOR COMMENTS
03	02/05/14	REVISED FOR COMMENTS
04	02/12/14	REVISED FOR COMMENTS
05	02/19/14	REVISED FOR COMMENTS
06	02/26/14	REVISED FOR COMMENTS
07	03/05/14	REVISED FOR COMMENTS
08	03/12/14	REVISED FOR COMMENTS
09	03/19/14	REVISED FOR COMMENTS
10	03/26/14	REVISED FOR COMMENTS
11	04/02/14	REVISED FOR COMMENTS
12	04/09/14	REVISED FOR COMMENTS
13	04/16/14	REVISED FOR COMMENTS
14	04/23/14	REVISED FOR COMMENTS
15	04/30/14	REVISED FOR COMMENTS
16	05/07/14	REVISED FOR COMMENTS
17	05/14/14	REVISED FOR COMMENTS
18	05/21/14	REVISED FOR COMMENTS
19	05/28/14	REVISED FOR COMMENTS
20	06/04/14	REVISED FOR COMMENTS
21	06/11/14	REVISED FOR COMMENTS
22	06/18/14	REVISED FOR COMMENTS
23	06/25/14	REVISED FOR COMMENTS
24	07/02/14	REVISED FOR COMMENTS
25	07/09/14	REVISED FOR COMMENTS
26	07/16/14	REVISED FOR COMMENTS
27	07/23/14	REVISED FOR COMMENTS
28	07/30/14	REVISED FOR COMMENTS
29	08/06/14	REVISED FOR COMMENTS
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39	10/15/14	REVISED FOR COMMENTS
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41	10/29/14	REVISED FOR COMMENTS
42	11/05/14	REVISED FOR COMMENTS
43	11/12/14	REVISED FOR COMMENTS
44	11/19/14	REVISED FOR COMMENTS
45	11/26/14	REVISED FOR COMMENTS
46	12/03/14	REVISED FOR COMMENTS
47	12/10/14	REVISED FOR COMMENTS
48	12/17/14	REVISED FOR COMMENTS
49	12/24/14	REVISED FOR COMMENTS
50	12/31/14	REVISED FOR COMMENTS

IA15833-B
WEST
DES MOINES 2
4101 E.P. TRULE PARKWAY
WEST DES MOINES, IA 50319

DATE:	
PROJECT:	
PRODUCT:	
TYPE:	

ANTENNA INFORMATION

ANT-2



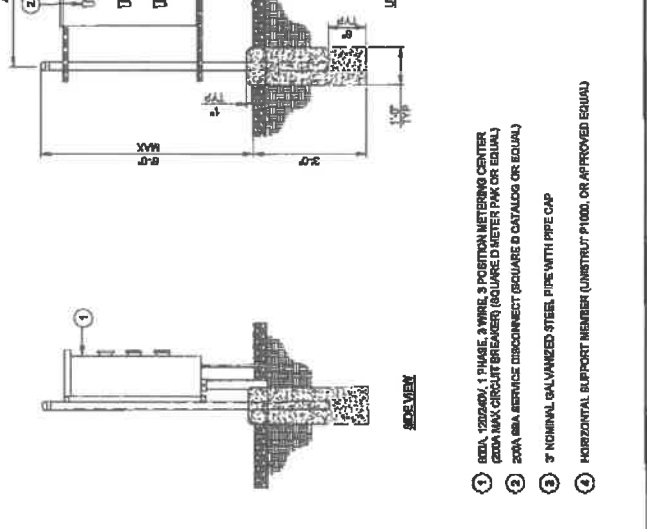
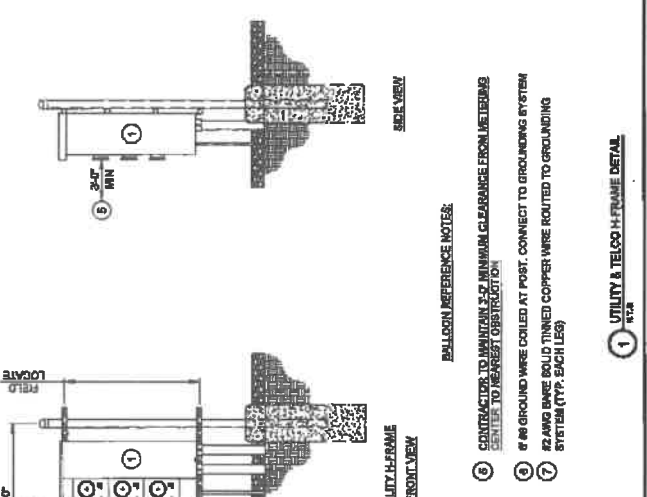
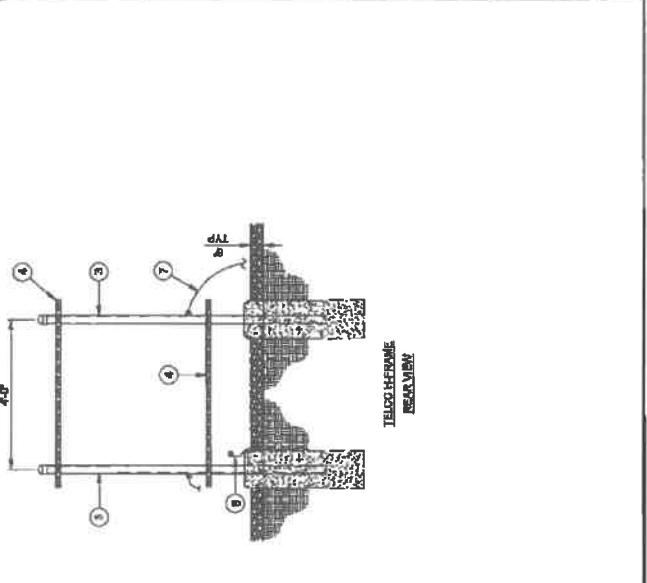
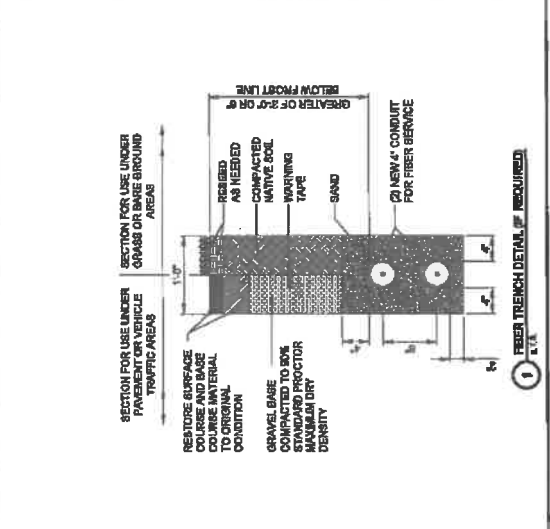
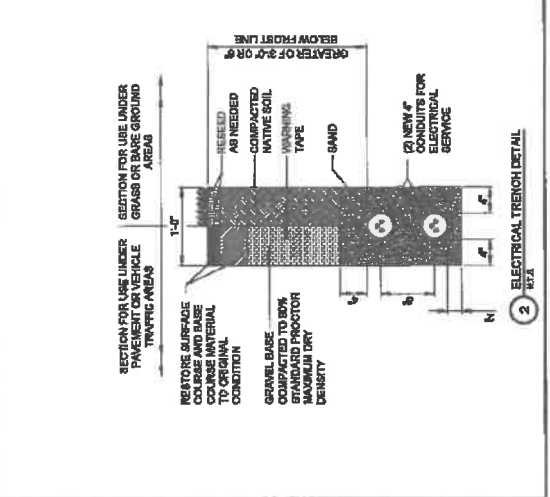
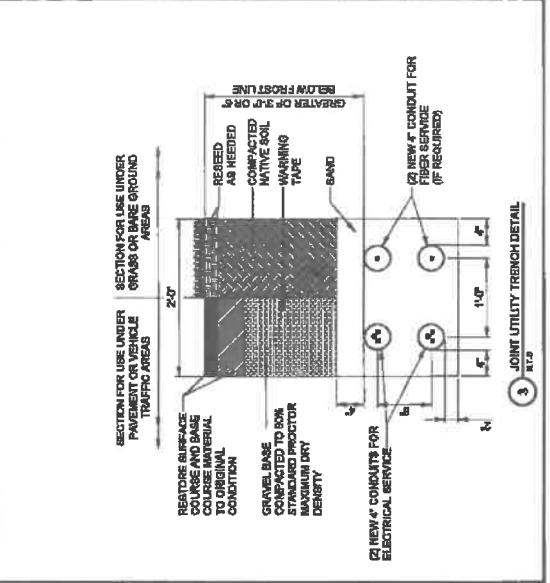
NO.	DATE	REVISION
1	11/18/11	ISSUED FOR BIDDING
2	11/18/11	REVISED PER COMMENTS
3	11/18/11	REVISED PER COMMENTS
4	11/18/11	REVISED PER COMMENTS
5	11/18/11	REVISED PER COMMENTS
6	11/18/11	REVISED PER COMMENTS
7	11/18/11	REVISED PER COMMENTS
8	11/18/11	REVISED PER COMMENTS
9	11/18/11	REVISED PER COMMENTS
10	11/18/11	REVISED PER COMMENTS

IA15833-B
WEST
DES MOINES 2

4101 E.P. TRUE PARKWAY
DES MOINES, IA 50326

DRAWN BY: JAB
CHECKED BY: DM
DATE: 8/25/11
PROJECT #:
JOB #:
UTILITY DETAILS

PROJECT NUMBER
E-2



- BALLOON REFERENCE NOTES:
- 1. 200A 120000V 1 PHASE 3 WIRE 3 POSITION METERING CENTER (SQUARE D METER PER EQUAL)
 - 2. 200A 120000V DISCONNECT (SQUARE D CATALOG OR EQUAL)
 - 3. 3\"/>

- 4. HORIZONTAL SUPPORT MEMBER (UNISTRUT P1000 OR APPROVED EQUAL)
- 5. CONTRACTOR TO MAINTAIN 5'-0\"/>

- 6. 4\"/>

1 UTILITY & TELCO H-FRAME DETAIL

SBA
SBA TOWERS & LLC
6051 CONGRESS AVENUE
BOCA RATON, FL 33487
PHONE: 1-904-487-7483

TERRA
800 Buses Highway
P.O. Box 11000
Des Moines, IA 50319
TEL: 515-281-8400
FAX: 515/281-8401

NO.	REVISIONS
1	ISSUED FOR REVIEW
2	REVISED PER COMMENTS
3	REVISED PER COMMENTS
4	REVISED PER COMMENTS
5	REVISED PER COMMENTS
6	REVISED PER COMMENTS
7	REVISED PER COMMENTS
8	REVISED PER COMMENTS
9	REVISED PER COMMENTS
10	REVISED PER COMMENTS

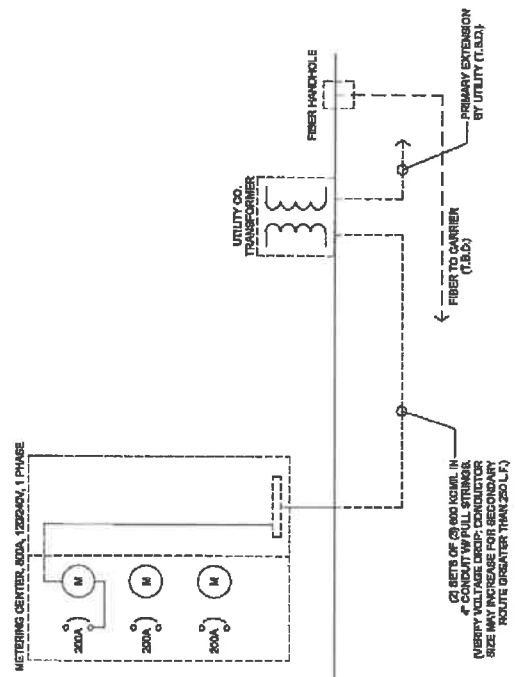
IA15633-B
WEST
DES MOINES 2

4101 E.P. TRUE PARKWAY
WEST DES MOINES, IA 50325

DESIGNED BY:	JAB
CHECKED BY:	DM
DATE:	MM/YY
PROJECT #:	TYPE

SINGLE LINE DIAGRAM
& PANEL SCHEDULE

PROJECT NUMBER:
E-3



1 ELECTRICAL SINGLE-LINE DIAGRAM
SEE

SBA

SBA TOMERS V, LLC
500 PARKER PL. SUITE 2
PARKER, IA 50247
PHONE: 1-502-467-7463

TERRA

500 Blaine Highway
Park Ridge, IL 60068
PH: 847/958-4000
FAX: 847/958-4401

NO.	DATE	DESCRIPTION
01	01/10/10	ISSUED FOR REVIEW
02	01/10/10	ISSUED FOR CONSTRUCTION
03	01/10/10	ISSUED FOR CONSTRUCTION
04	01/10/10	ISSUED FOR CONSTRUCTION
05	01/10/10	ISSUED FOR CONSTRUCTION
06	01/10/10	ISSUED FOR CONSTRUCTION
07	01/10/10	ISSUED FOR CONSTRUCTION
08	01/10/10	ISSUED FOR CONSTRUCTION
09	01/10/10	ISSUED FOR CONSTRUCTION
10	01/10/10	ISSUED FOR CONSTRUCTION

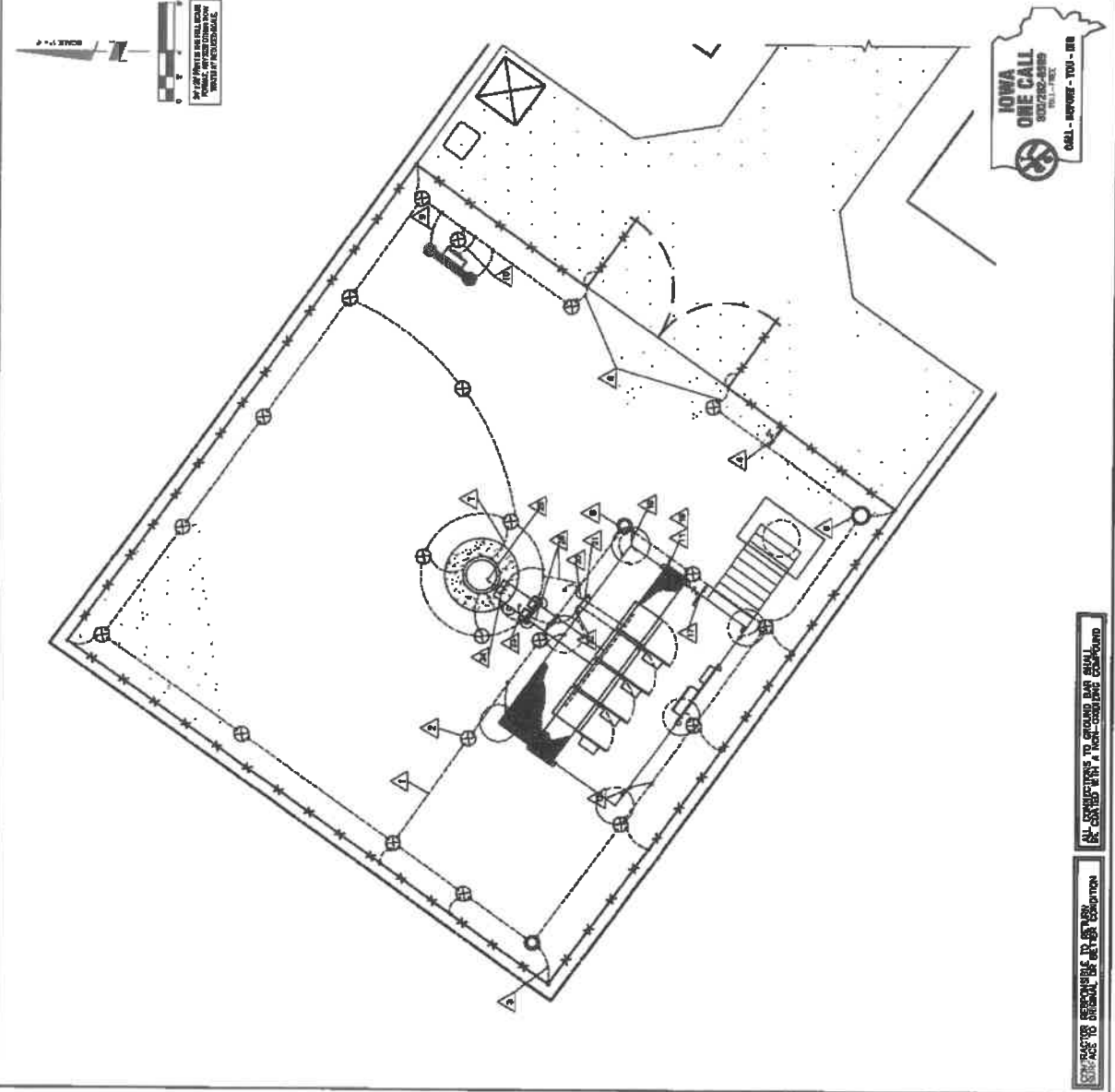
IA15833-B
WEST
DES MOINES 2

4101 E. TRUMP PARKWAY
WEST DES MOINES, IA 50268

DATE:	JUL
CHECKED BY:	JM
DATE:	2010
PROJECT #:	2009

WEST TOWER
SITE GROUNDING PLAN

SHEET NUMBER
G-1



UNUSUAL REVISED GROUNDING NOTES

- 1. TRANSFORMER TO BE INSTALLED WITHIN 4' RELAY RANGE
- 2. 1/4\"/>

ELECTRICAL SYMBOLS

- SURFACE ELECTRICAL PANELBOARD
- ⊕ ELECTRIC SERVICE METER
- ⊕ TRANSFORMER
- E— UNDERGROUND ELECTRICAL CONDUIT RUN
- T- UNDERGROUND TELEPHONE CONDUIT RUN
- C— SOLID BARE COPPER WIRE #2 AWG THIS WIRE 3\"/>

CONTRACTOR RESPONSIBLE FOR VERIFYING UTILITIES PRIOR TO ANY EXCAVATION

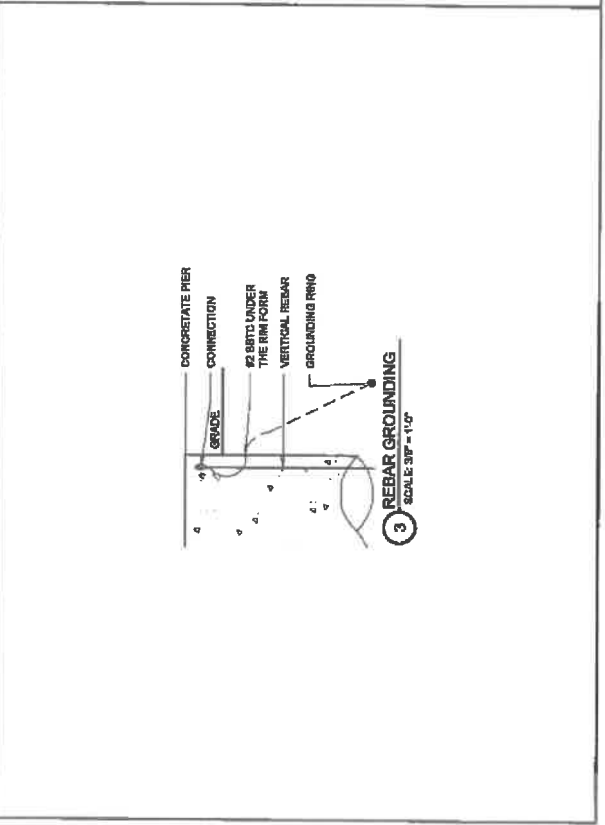
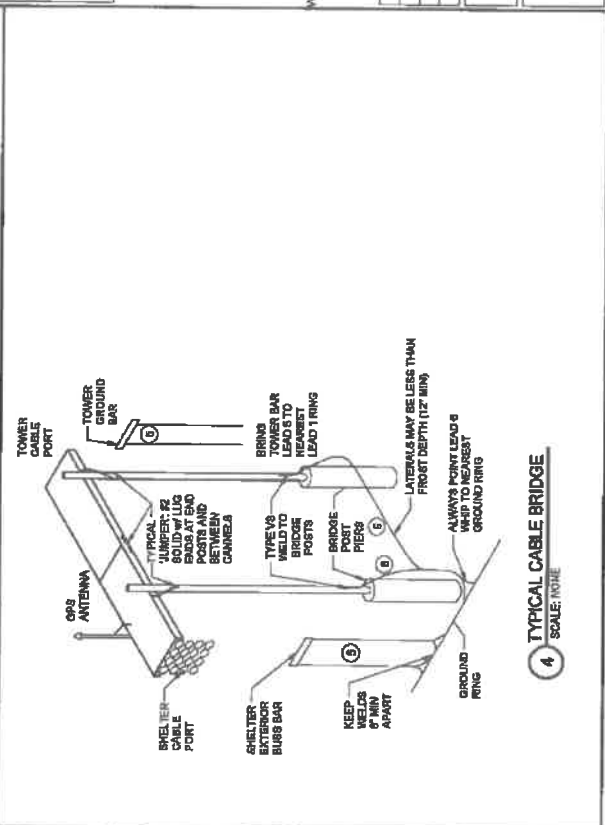
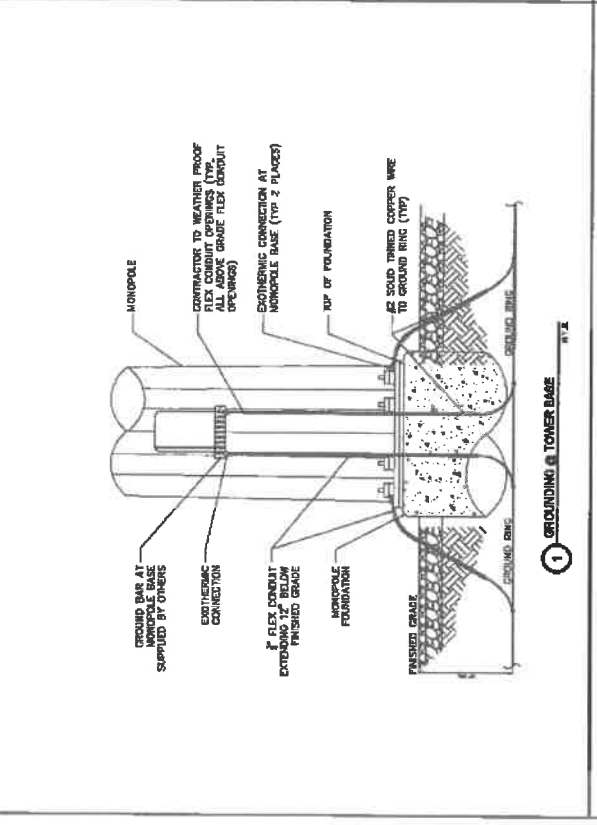
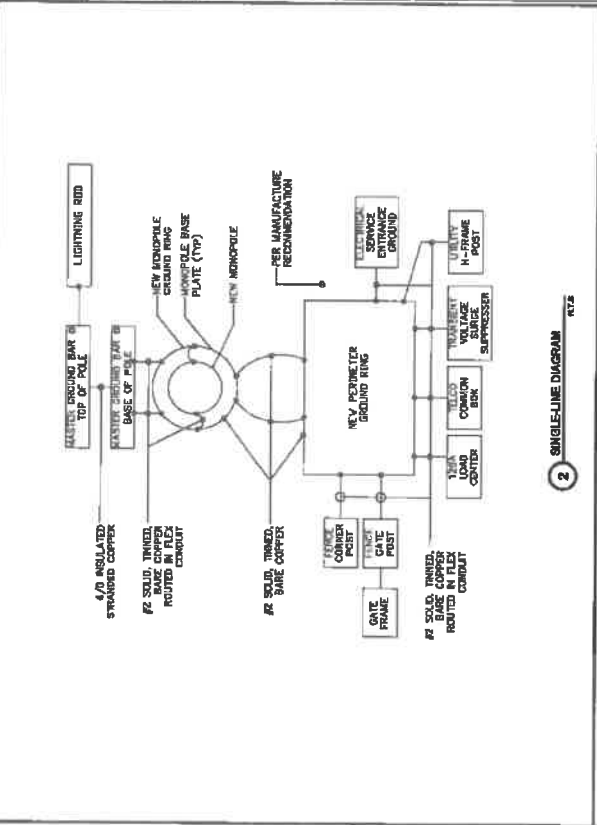
ALL CONNECTIONS TO GROUND BAR SHALL BE MADE WITH A NON-CORRODING COMPOUND

SEE THE SHEET FOR THE LOCATION OF ALL UTILITIES

NO.	DATE	DESCRIPTION
1		
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50		

DRAWN BY	JAS
CHECKED BY	CHI
DATE	8/24/07
PROJECT #	101
DATE	10/07
PROJECT #	101

CONSULTANT:
**ELECTRICAL &
GROUNDING DETAILS**





SBA TOWERS & LTD
8001 COMMERCE AVENUE
PORT RIDGE, IN 46384
PHONE: 1-800-487-7443



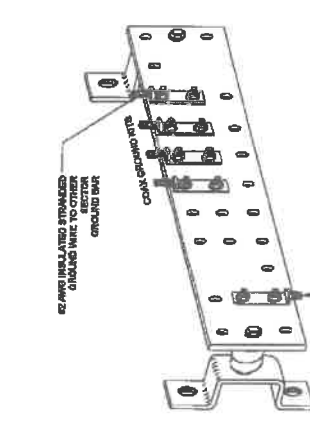
TERRA
3000 Highway
Port Ridge, IN 46384
Phone: 847/888-8401

NO.	DESCRIPTION	QTY	UNIT
1	GROUND ROD	1	EA
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3	GROUND ROD	1	EA
4	GROUND ROD	1	EA
5	GROUND ROD	1	EA
6	GROUND ROD	1	EA
7	GROUND ROD	1	EA
8	GROUND ROD	1	EA
9	GROUND ROD	1	EA
10	GROUND ROD	1	EA
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12	GROUND ROD	1	EA
13	GROUND ROD	1	EA
14	GROUND ROD	1	EA
15	GROUND ROD	1	EA
16	GROUND ROD	1	EA
17	GROUND ROD	1	EA
18	GROUND ROD	1	EA
19	GROUND ROD	1	EA
20	GROUND ROD	1	EA

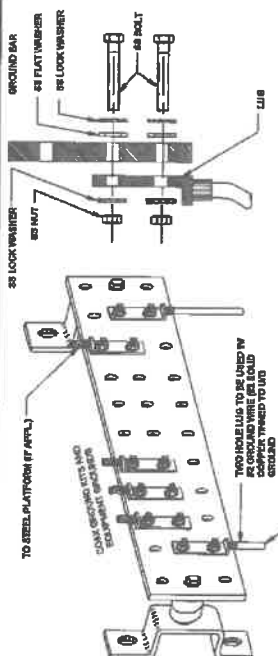
IA15833-B
WEST
DES MOINES 2
4101 E.P. TRUE PARKWAY
WEST DES MOINES, IA 50325

DATE:	BY:
DESIGNED BY:	DATE:
PROJECT:	NO.:
SCALE:	NO.:

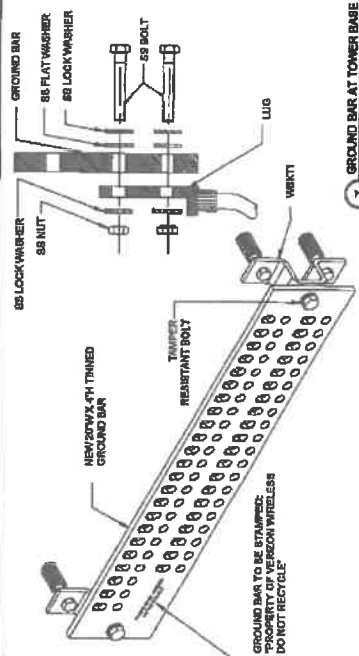
GROUNDING DETAILS
SHEET NO. 4



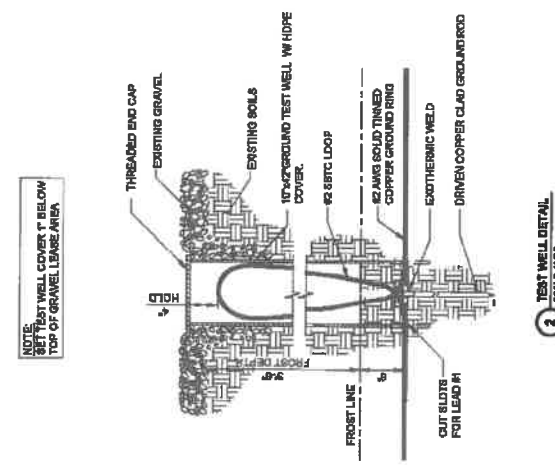
5 GROUND COLLECTOR BAR
SCALE: N.T.S.



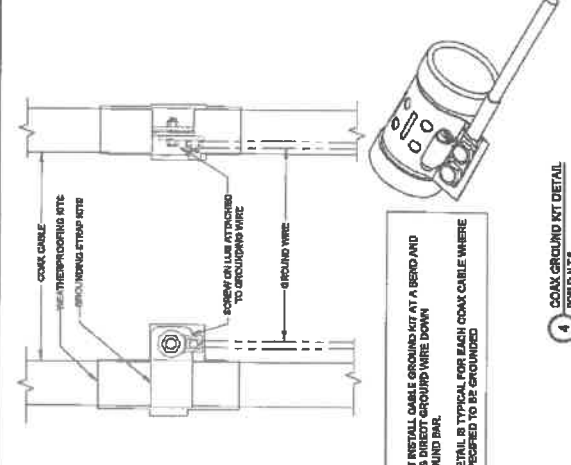
6 MASTER GROUND BAR
SCALE: N.T.S.



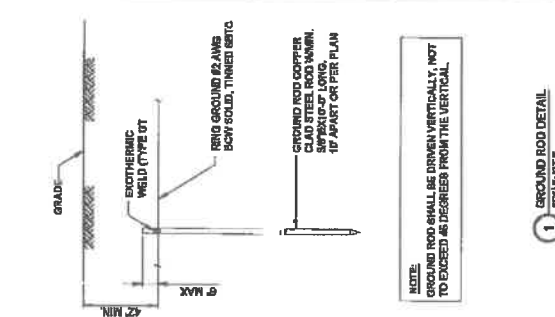
7 GROUND BAR AT TOWER BASE
SCALE: N.T.S.



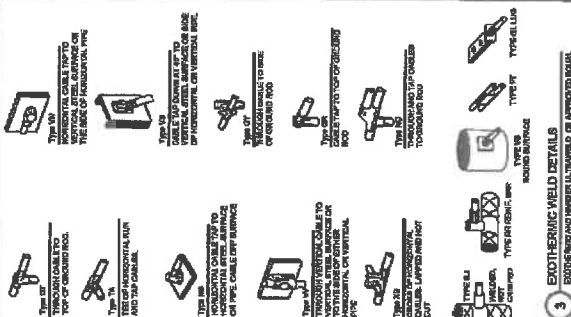
2 TEST WELL DETAIL
SCALE: N.T.S.



4 COAX GROUND KIT DETAIL
SCALE: N.T.S.



1 GROUND ROD DETAIL
SCALE: N.T.S.



3 EXOTHERMIC WELD DETAILS
EXOTHERMIC WELD NUMBER IS APPROVED BOARD.

SBA

SBA TREASURY V. LTD.
 800 N. GARDNER AVENUE
 BOCA RATON, FL 33487
 PHONE: 1-800-487-7483

TERRA

300 South Highway
 Cedar Rapids, IA 52401
 TEL: 319/399-8400
 FAX: 319/399-8401

NO.	DATE	DESCRIPTION
1	10/15/15	ISSUED FOR PERMITS
2	11/10/15	REVISED PER COMMENTS
3	12/01/15	REVISED PER COMMENTS
4	01/05/16	REVISED PER COMMENTS
5	02/01/16	REVISED PER COMMENTS
6	03/01/16	REVISED PER COMMENTS
7	04/01/16	REVISED PER COMMENTS
8	05/01/16	REVISED PER COMMENTS

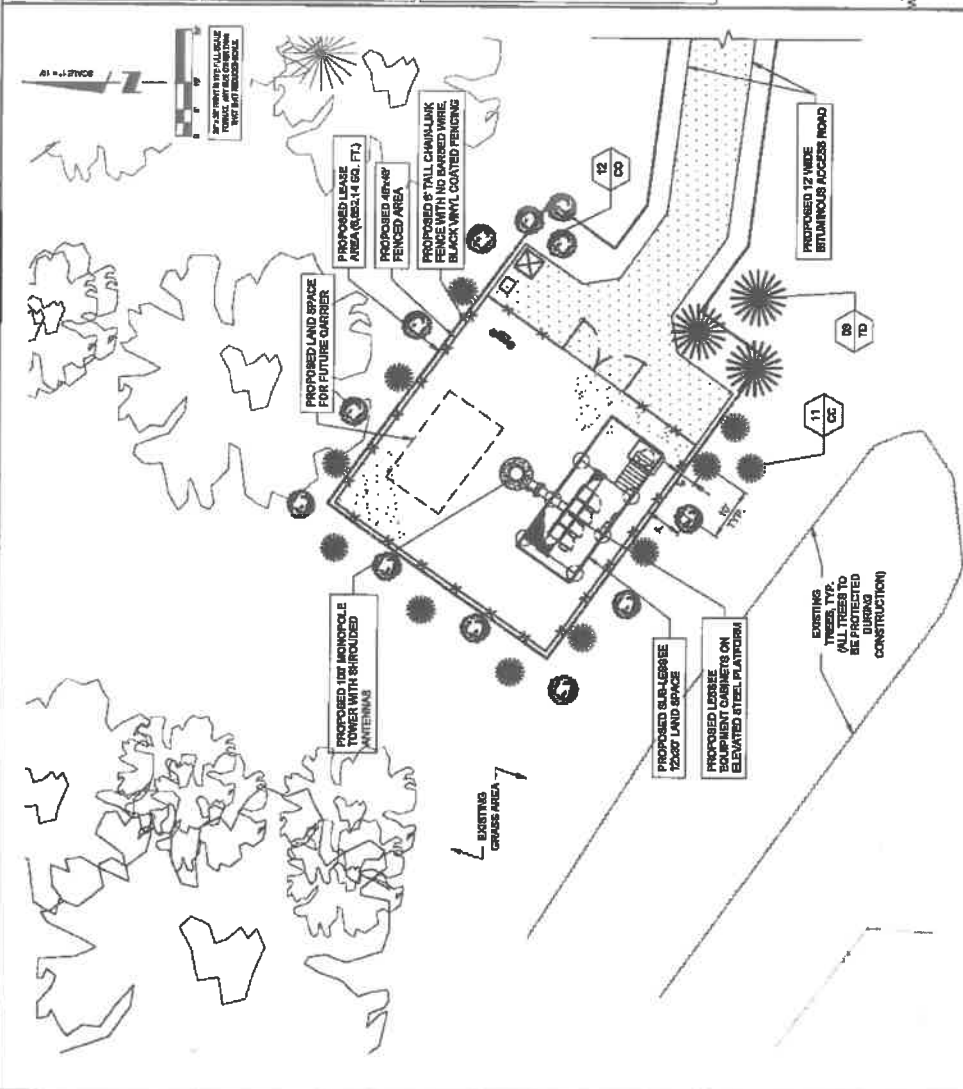
1A15833-B
WEST
DES MOINES 2

4101 E.P. TULLY PARKWAY
 WEST DES MOINES, IA 50395

DESIGNER:	JAD
CHECKED BY:	DB
DATE:	8/15/15
PROJECT NO.:	150022
SCALE:	AS SHOWN

LANDSCAPE PLAN

PROJECT NUMBER: **L-1**



PLANT LIST

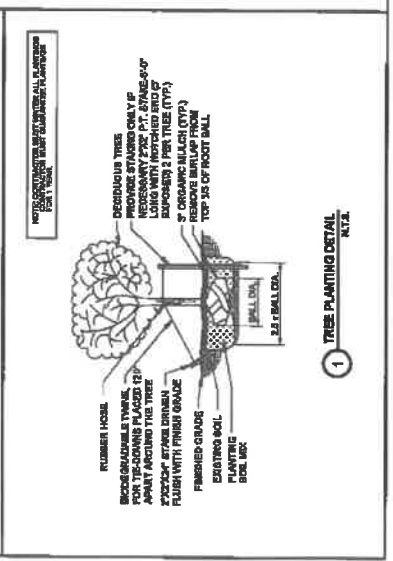
SYMBOL	BOTANICAL NAME	COMMON NAME	QUANTITY	SIZE	COMMENTS
CC	CARYOPHYS CAROLINIANA	AMERICAN HORSEBEAM	11	5 FT. HT. MIN.	B & B BALLED & BURGLAPPED
TD	TAXODIUM DISTICHUM	BALD CYPRESS	3	5 FT. HT. MIN.	B & B BALLED & BURGLAPPED
CG	CORNUCOPIA FLORIDA	DOGWOOD	12	5 FT. HT. MIN.	B & B BALLED & BURGLAPPED

3 PG PLANT QUANTITY
 PG PLANT SYMBOL

NOTE: ALL PLANTINGS TO BE WATERED IN ON SAME DAY OF PLANTING, AND WATERED UNTIL FULLY ESTABLISHED



- GENERAL LANDSCAPE NOTES**
- FRAME NEWLY INSTALLED SHRUBS. WORK SHALL BE DONE BY EXPERIENCED PERSONNEL. TO THIS ACCEPTED HORTICULTURAL AND ARBORETCULTURAL STANDARDS. WORKING SHALL RESULT IN A LOOSE OUTLINE CONFORMING TO THE GENERAL SHAPE OF THE BRUSH TYPE. DO NOT USE HEAVY SHEARS.
 - ALL PLANTING STOCK SHALL BE NURSERY-GROWN IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. PLANTS SHALL BE FREE OF DISEASE, INSECTS AND WEEDS. PLANTS SHALL BE PLANTED IN THE CORRECT DEPTH, WITH ADEQUATE AND UNIFORM GROWTH TYPICAL OF THE SPECIES AND VARIETY. WELL-FORMED, FREE FROM IRREGULARITIES, WITH THE APPROPRIATE PLANT QUALITY AND SIZE CONFORMING TO AMERICAN STANDARDS FOR NURSERY STOCK.
 - QUARANTINE, WATERWASH ALL PLANT MATERIAL TO BE TRUE TO BOTANICAL IDENTIFICATION. ALL PLANT MATERIAL SHALL BE CLEAN, FREE OF DISEASE AND UNDESIRABLE GROWTH FOR A MINIMUM PERIOD OF ONE YEAR. THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR DEFECTS RESULTING FROM NEGLECT OR MISUSE OF PLANT MATERIAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEFECTS RESULTING FROM NATURAL CAUSES SUCH AS FLOODS, STORMS, FREEZES OR WINDSTORMS.
 - REPLACEMENTS DURING THE WARRANTY PERIOD, REPLACE ONE TIME, AT NO CHARGE TO THE CONTRACTOR. REPLACEMENTS SHALL BE MADE IN THE ORIGINAL PLANTING LOCATION, UNLESS OTHERWISE SPECIFIED IN WRITING. REJECTED PLANT MATERIALS SHALL BE REMOVED FROM THE SITE AT CONTRACTOR'S EXPENSE. REPLACEMENTS ARE TO BE MADE NO LATER THAN THE END OF THE PLANTING SEASON. RESTORE AREAS DISTURBED BY REPLACEMENT OPERATIONS.
 - MULCHING SHALL BE DONE WITHIN 48 HOURS AFTER PLANTING. MULCH SHRUBS AND SMALL TREES WITH 2" DEEP MULCH. MULCH SHALL BE CLEAN, COMPOSTED PINE BARK MULCH FREE OF FERTILIZERS AND OTHER CHEMICALS. MULCH SHALL BE APPLIED TO THE SOIL SURFACE TO A DEPTH OF THREE INCHES. DO NOT MULCH TREE AND SHRUB PLANTING PITS.
 - TOPSOIL SHALL CONSIST OF FERTILE NATURAL LOAM, CONTAINING A MINIMUM OF 10% ORGANIC MATTER. SOIL SHALL BE CLEAN, FREE OF GRASS, ROOTS, STICKS AND OTHER EXTRANEIOUS MATTER, AND SHALL NOT BE USED FOR PLANTING OPERATIONS WHILE IN A FROZEN OR MUDDY CONDITION.
 - REPAIR ALL TURF AREAS BY SEEDING. SEEDING INSTALLATION SHALL BE EXECUTED ONLY AFTER ALL FRESH GRASSING HAS BEEN COMPLETED. NO SEEDING WORK SHALL BE DONE PAST SEPTEMBER 15, UNLESS APPROVED BY THE OWNER. SEED SHALL BE A MIXTURE OF BENTGRASS AND PERENNIAL RYE GRASS. SEED MIX SHALL MATCH EXISTING TURF, OR BE A SEED MIX OF CERTIFIED IMPROVED BLEND OF BLENDED AND CERTIFIED IMPROVED PERENNIAL RYE. MIX SHALL BE SOWN AND COVERED WITH A 1/4" DEEP MULCH. PLANTING SHALL BE COMPLETED BY THE END OF THE PLANTING SEASON. A TYPICAL MULCH OR SOIL SHALL BE USED FOR BROADCAST MULCH. WHERE NECESSARY IN LIEU OF HYDRO MULCH.
 - PLANT MATERIAL SHALL CONFORM WITH THE CURRENT AMERICAN STANDARDS FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF PLANTING CONTRACTORS. PLANTING SHALL BE COMPLETED BY THE END OF THE PLANTING SEASON. PLANTING SHALL BE APPROXIMATELY OCTOBER 15 TO DECEMBER 1, AND MARCH 15 TO MAY 1.



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SBA TOWERS & LLC
801 CHAMBERS AVENUE
BOCA RATON, FL 33487
PHONE: 1-800-467-7483

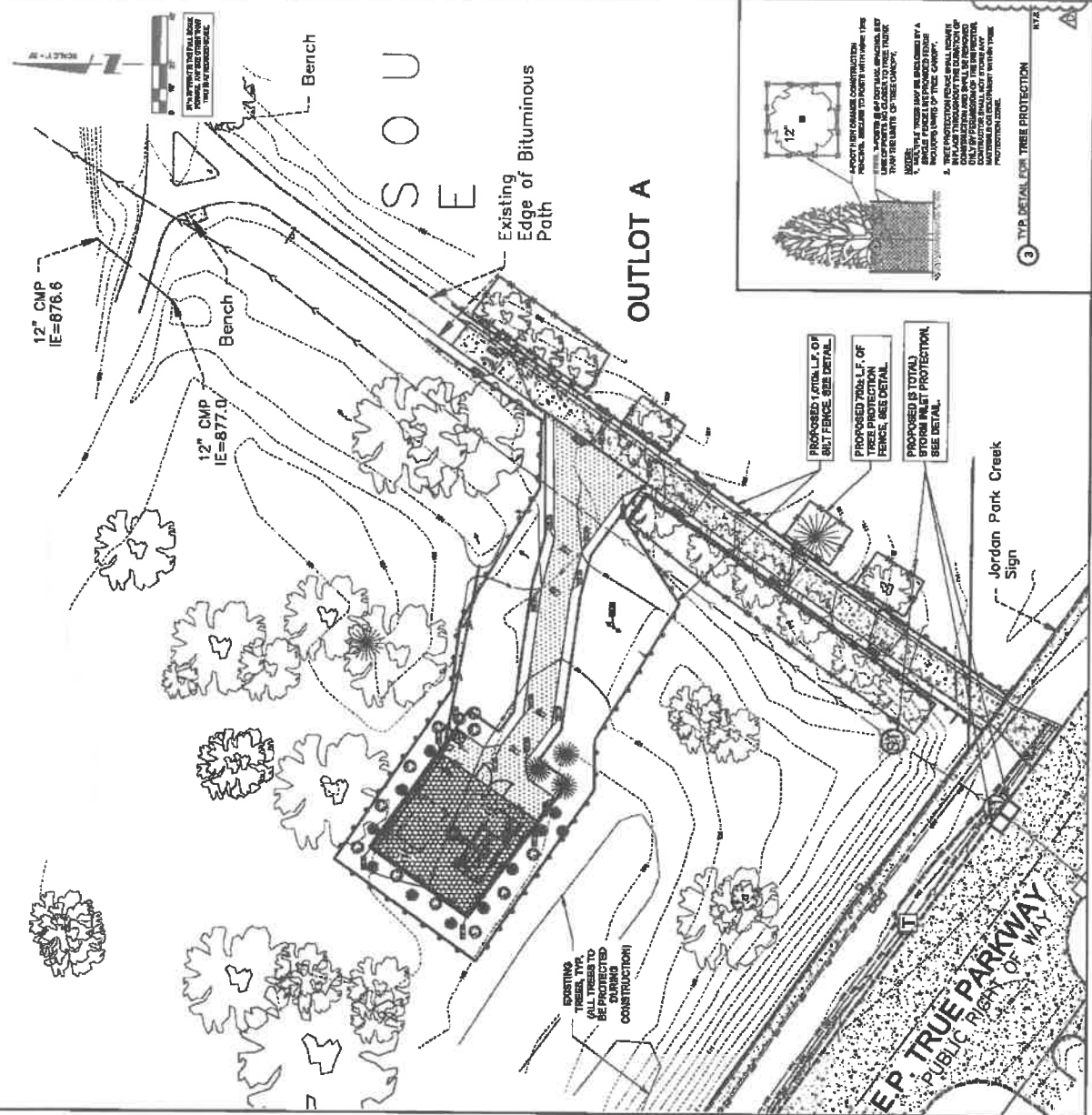
TERRA
800 Blake Highway
Fort Ridge, IL 60089
Phone: 847/988-0401

NO.	DATE	DESCRIPTION
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2	01/11/17	ISSUED FOR PERMITS
3	01/11/17	ISSUED FOR PERMITS
4	01/11/17	ISSUED FOR PERMITS
5	01/11/17	ISSUED FOR PERMITS
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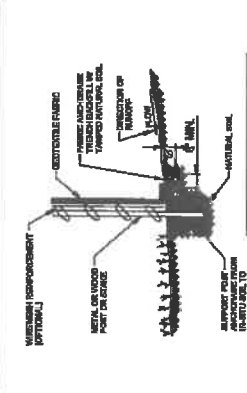
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401 E.P. TRUE PARKWAY
WEST DES MOINES, IA 50265

DRAWN BY: JAW
CHECKED BY: CAK
DATE: 08/11/17
PROJECT #:

EROSION CONTROL PLAN
8-1837-0000
EC-1

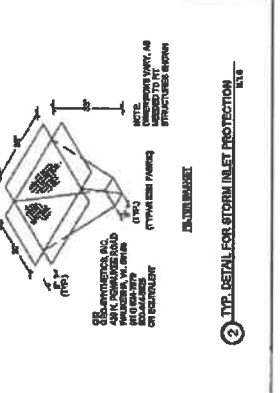


- EROSION CONTROL NOTES:**
- SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER TO NOT CHANGE OR BE PROTECTED FROM CONSTRUCTION TRAFFIC ON OTHER DISTURBANCE UNTIL FINAL RECORDS IS PERFORMED.
 - PROCESSES AND CHANNELS ALLOWING THE DEVELOPMENT SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION.
 - SOIL BENCHES AND SEDIMENT CONTROL FEATURES SHALL BE CONSTRUCTED BEFORE THE COMMENCEMENT OF HYDROLOGIC DISTURBANCE OF UPLAND AREAS.
 - DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES UNTIL SOURCE OF CALICULATED DRAINAGE FOLLOWING THE END OF ACTIVE HYDROLOGIC DISTURBANCE.
 - EXPOSED SOILS AND AREAS ARE USUALLY PROTECTED AND DISCHARGE SHALL BE PROTECTED FROM EROSION. DISCHARGES SHALL BE CONTROLLED THROUGH AN EFFECTIVE SEDIMENT CONTROL MEASURE. MEASURES THAT SEDIMENT BASIN OR OTHER APPROPRIATE MEASURES.
 - ALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. STABILIZATION IS ACHIEVED ON APTER THIS TEMPORARY MEASURES ARE NO LONGER NEEDED, TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS SHALL BE PERMANENTLY STABILIZED.
 - SOIL STOCKPILES SHALL NOT BE LOCATED IN A FLOOD-PRONE AREA OR DEGRADED BUFFER OF SURFACE WATERS.
 - THE CONTRACTOR SHALL PROVIDE ADEQUATE OBSTACLES FOR THE DEPOSITION OF ALL CONSTRUCTION MATERIAL BEING GENERATED DURING THE DEVELOPMENT PHASES. THE CONTRACTOR SHALL NOT DISCARD OR LEAVE OF CONSTRUCTION MATERIAL, DEBRIS, LUMPS OR OILS TO ANY DEVELOPMENT SITE, CHANNEL, OR SURFACE WATER. CONSTRUCTION MATERIAL SHALL BE REMOVED FROM THE DEVELOPMENT SITE FREE OF CONSTRUCTION MATERIAL DEBRIS.
 - ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN AN EFFECTIVE CONDITION.



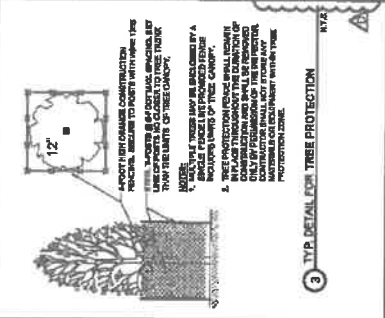
1 TYP. DETAIL FOR SILT FENCE

NOTE: CONSTRUCTION FOR CONSTRUCTION, ATTACH PERMANENT MEASURES TO WOOD OR METAL, SET IN PLACE TO STAKE, STAKE POSITION SHALL BE MAINTAINED.



2 TYP. DETAIL FOR STORM INLET PROTECTION

NOTE: CONSTRUCTION FOR CONSTRUCTION, ATTACH PERMANENT MEASURES TO WOOD OR METAL, SET IN PLACE TO STAKE, STAKE POSITION SHALL BE MAINTAINED.



3 TYP. DETAIL FOR TREE PROTECTION

NOTE: CONSTRUCTION FOR CONSTRUCTION, ATTACH PERMANENT MEASURES TO WOOD OR METAL, SET IN PLACE TO STAKE, STAKE POSITION SHALL BE MAINTAINED.

SBA

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NO.	DESCRIPCION	UNIDAD	CANT.	VALOR
1	REVISIONES			
2	REVISIONES			
3	REVISIONES			
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10	REVISIONES			

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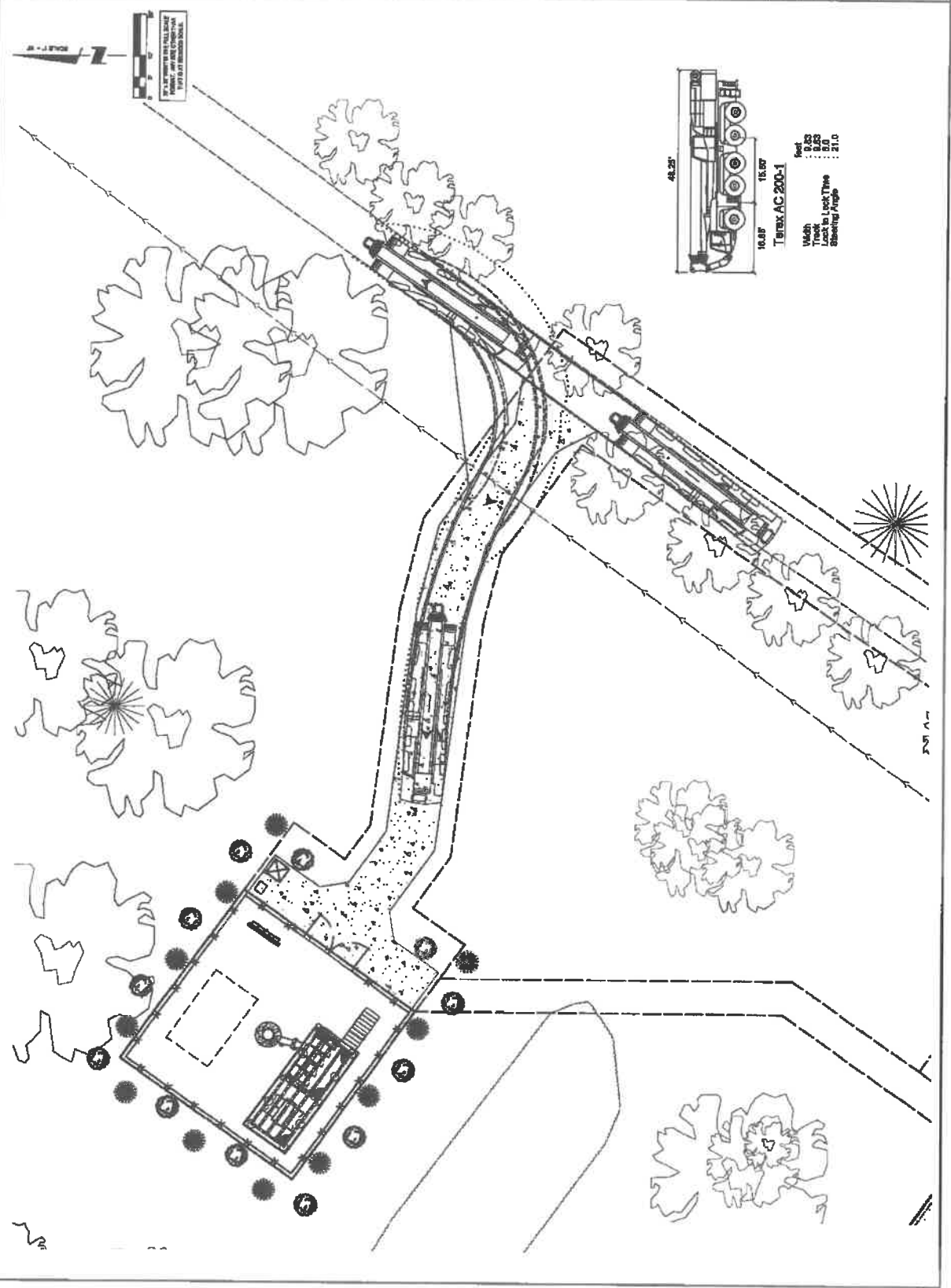
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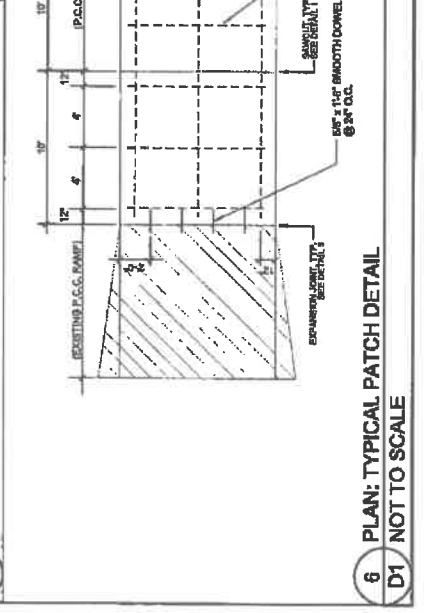
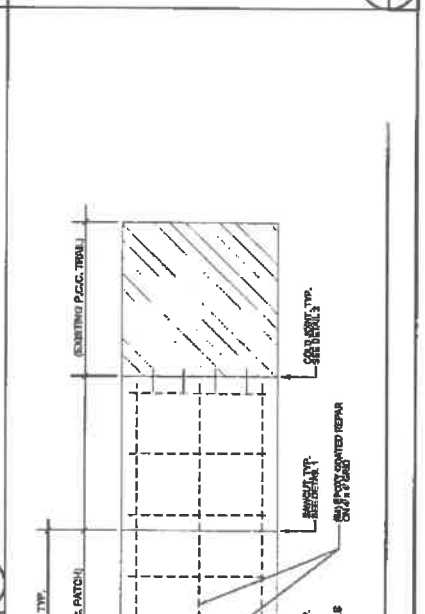
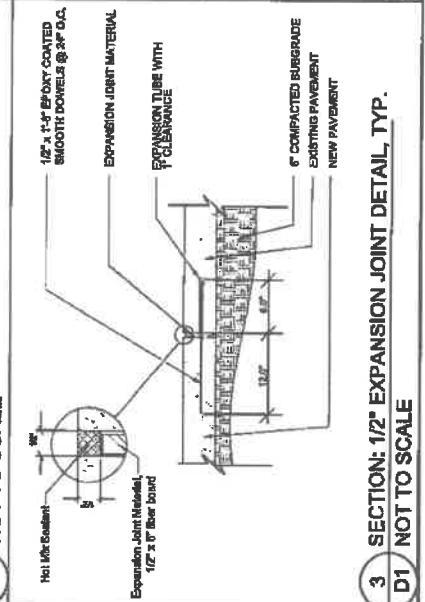
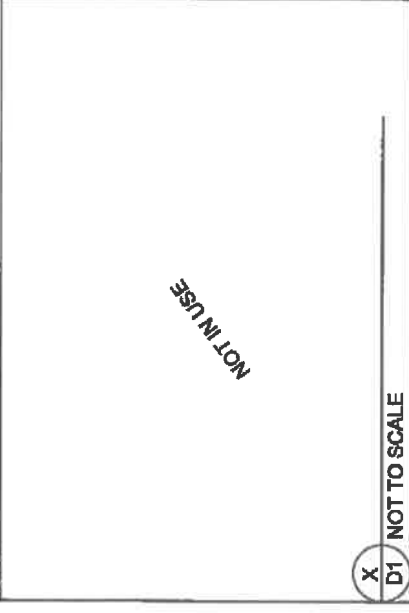
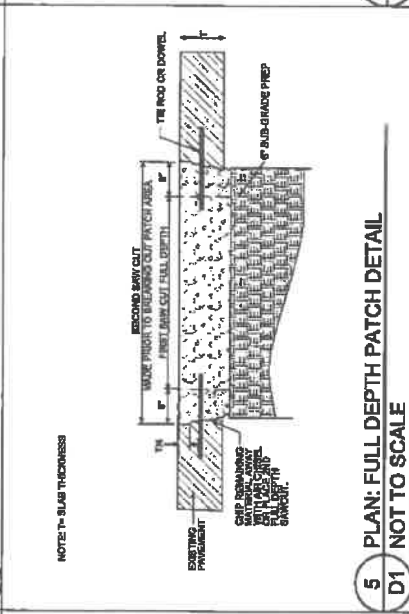
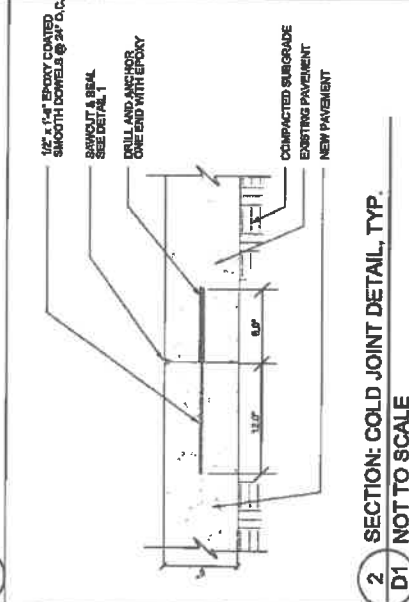
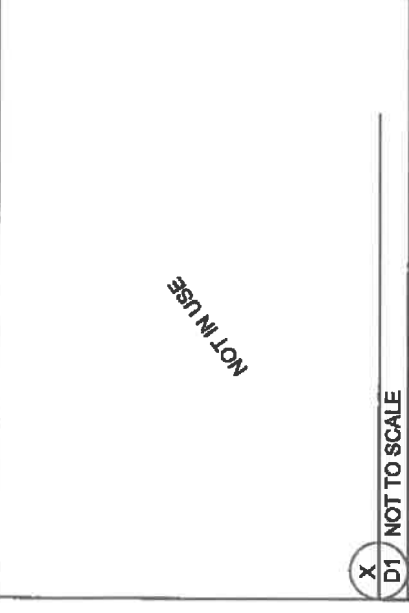
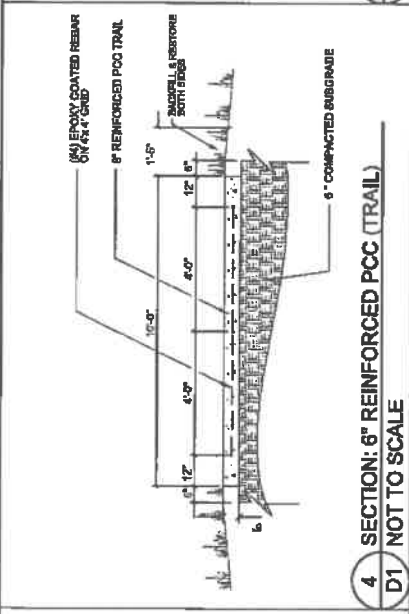
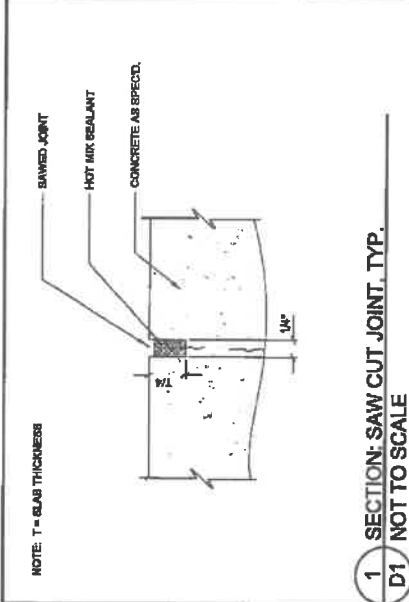
DESIGNER:	JAL
CONTRACTOR:	DM
DATE:	04/16
PROJECT NO.:	1070

CREDIT TITLE
TRUCK TURNING
EXHIBIT

SCALE: AS SHOWN

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NOT IN USE

NOT IN USE

