

Austin (re)Manufacturing Hub
Planning Development Potential

Prepared for:

The City of Austin

Prepared by:

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16019 Milo Road
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Purpose

The purpose of this report is to explore the development potential of the subject property as a (re)Manufacturing Hub and provide conceptual plans that can be used to determine the economic feasibility of such a development.

Qualified Information

The information provided in this report is the most accurate that can be obtained given the sources available. There are numerous items that will require additional measurements, tests, or engineering studies in order to assure the level of accuracy necessary to allow for adequate assessment. Assumptions have been made where adequate information is not currently available and these assumptions are identified in this report.

Location

There are two properties proposed for the Austin (re)Manufacturing Hub: Parcel I located at the southwest corner of FM 973 and Moores Bridge Road while Parcel II is located at the northwest corner of FM 812 and FM 973 (see Attachment 1).

The Subject Tracts

Parcel I is a 10 acre near rectangular shape tract with 907 feet of frontage on FM 973 and 641 feet of frontage on Moores Bridge Road (see Attachment 2). The northern half of the property has a typical slope of 1% while the south half is typically 2 to 3% slope but with a small area approximately 10% slope. There no trees located on the site.

Parcel II is an irregular shaped 96.77 acre tract with 2,134 feet of frontage on FM 812 and 1,722 feet on FM 973 (see Attachment 3). The topography is gently sloped in several different directions with one to two percent slopes typical and some areas reaching a maximum of 3%. There are no outstanding geographic features and no tree cover on the parcel.

Roadways

Parcel I is served by FM 973 and Moores Bridge Road. Parcel II is served by FM 973 and FM 812. Information on each roadway is listed below:

Parcel I

FM 973 (State Highway)

- 2 Lanes
- Posted Speed Limit – 55mph
- 907 feet of frontage
- 1 potential access point*

Moore's Bridge Road (County Road)

- Two lane, unpaved
- 641 feet of frontage

Parcel II

FM 812 (State Highway)

- 2 lanes west and 1 lane east; protected center turn lane
- Posted Speed Limit – 60mph
- 2,134 feet of frontage
- 4 potential access points*

FM 973 (State Highway)

- 2 lane
- Posted Speed Limit – 55mph
- 1,722 feet of frontage
- 4 potential access points*

*TxDOT Access Manual requires 425 feet between points of access on roadways with speed limits of 50 mph or greater.

TxDOT reports that there are no projected improvements for FM 812 on FM 973 other than plans to widen the shoulders on FM 973 by 4 feet on each side of the roadway.

Easements

There are three 100 foot wide pipeline easements that cross Parcel II diagonally; running generally east and west (see Attachment 4). These easements are:

- **Magellan Pipeline**
 - Longhorn Line – 18 inch diameter
 - Refined Product
 - Depth Unknown
- **Conoco Phillips Pipeline**
 - Benedum/Sweeny Line – 10.75 inch diameter
 - Natural Gas Liquids
 - Depth Unknown
- **Kinder Morgan Pipeline**
 - Texas System - 24 inch diameter
 - High Pressure Natural gas
 - Depth Unknown

Each pipeline publishes restrictions for use of their easement. The common and individual requirements of each pipeline company are listed below:

Common Requirements

- No structures allowed in the easement
- Utilities and roads cross at 90°
- Asphalt paving allowed, no concrete
- No trees allowed
- No change in grade without permission
- All plans must be approved
- No storage allowed
- No parallel roadways allowed in the easement

Specific Pipeline Requirements

Minimal Cover

- | | |
|---------------------|----------------------------|
| • Kinder Morgan | None stated |
| • Conoco Phillips | 48" |
| • Magellan Pipeline | 48" (3 feet below ditches) |

Vertical Separation for crossing utilities

- | | |
|---------------------|-----|
| • Kinder Morgan | 24" |
| • Conoco Phillips | 18" |
| • Magellan Pipeline | 24" |

Power Poles & Light Standards

- | | |
|---------------------|-------------------------|
| • Kinder Morgan | None allowed |
| • Conoco Phillips | None stated |
| • Magellan Pipeline | None within 20' of Line |

The three pipeline companies do not have accurate information concerning the depth of their respective lines. Field tests will be necessary to obtain this information. It is assumed that 4 feet of depth is typical.

In addition to the typical pipeline requirements, the City of Austin has fire safety restrictions for development in the proximity of pipelines in Section 25-4-134 of the Code and summarized in Attachment 5. The restrictions do not allow any structure to be constructed within 50 feet of a pipeline and provide fire restrictions for materials used beyond 50 feet. These restrictions should not impose an unusual burden on proposed development.

In addition to the pipeline easements, there is a 50 foot wide waterline easement located along the FM 973 frontage on Parcels I and II and 30 feet along the Moores Bridge Road frontage on Parcel I (see Attachments 2 & 3). No structures will be allowed to be constructed within this easement.

Utilities

Water

The property lies within the City of Austin service area for water and wastewater. There is a 36 inch City of Austin water transmission main located on both parcels along FM 973 and along Moores Bridge Road on Parcel I (see Attachment 6). There is a 16 inch "T" in this line that was installed to provide water service to the subject property. The exact location of this "T" has not been determined. An 8 inch/6 inch line is located in FM 812. Service to Parcel II can be provide by extending a 12 inch loop line through the property connecting the 16 inch "T" with the 8 inch/6 inch line in FM 812. The six inch portions of the line in FM 812 will need to be upgraded to 8 inches. There is an eight inch line located in Moores Bridge Road that can serve Parcel I if the fire flows are adequate to provide service for the uses on this tract. If not, the 36 inch transmission line must be tapped to provide additional service to Parcel I.

Wastewater

The area is served with Austin wastewater but there are no wastewater lines adjacent to either Parcel I or Parcel II. There was a 2008 approach main request to serve the land fill that envisioned extending a 12 inch wastewater line from the property down to an 84 inch wastewater tunnel located at Burleson Road. Accessing the tunnel is an expensive process and it has been recommended that an alternate service route be considered. There is a 36 inch trunk main located in Pierce Lane at FM 973, a distance of approximately 7,000 feet from Parcel I (see Attachment 7). The land along the west side of FM 973 is part of Austin Bergstrom Airport, therefore no easements will have to be obtained from private property owners in order to install a gravity line from Moores Bridge Road to the existing wastewater line at Pierce Lane. Parcel II drains in two directions (see Attachment 8) and sits lower than some of the land north of the Parcel on FM 973. This situation will require at least two lift stations be constructed on Parcel II to service the entire parcel.

Storm water Drainage

City regulations require that storm water runoff from a developed property not exceed that of the property's undeveloped condition. The most efficient manner of constructing stormwater ponds is to minimize their numbers by placing a single large pond at the lowest point on the property. Parcel II drains to three watersheds (see Attachment 8). The storm drainage in the Cotton Mouth Creek watershed can be directed to the Onion Creek watershed by surface swales. The Onion Creek and North Fork Creek watersheds will each require stormwater detention facilities. Water quality facilities will also be required for all storm water runoff from developed areas. Typically 10% of the developed area is required to accommodate detention and water quality facilities. Detailed engineering of an actual development will be necessary to determine exact detention and water quality requirements and land area required.

Crossing the pipeline easement with drainage swales may require engineered facilities. If the minimum cover cannot be maintained with the required depth of the swale, the storm water may have to be dispersed by means of a weir and directed across the easement over

asphalt paving. Each crossing will have to be engineered after the pipeline depth and volume of water crossing is known.

High Speed Internet

Time Warner Cable Company has stated that they can provide internet service to the property. Depending upon the number of potential customers and the services that they can obtain from Time Warner, the extension of service to the property will be at no expense to the City.

Electric

The two parcels are served by Bluebonnet Electric Cooperative and according to Mr. Rodney Gerick, their commercial service representative; Bluebonnet wishes to retain the subject in its service area. Currently the Cooperative has a three phase line along the south side of FM 812 and a single phase line in the east side of FM 973.

Mr. Gerick stated that Bluebonnet would prefer to provide three phase power along the full perimeter of the tract. He further stated that the cost of providing the perimeter service, and then service to each individual lot, is weighed against the return that they anticipate receiving from the future payments for the electricity provided. If the anticipated return does not exceed the cost of the installation, the developer would be required to pay the difference. Because of this, more information concerning the size, type, and timing of actual users would need to be known before an estimate of the cost to provide electric service is known.

Natural Gas

Texas Gas reports having a 6 inch gas main located in FM 812 approximately 3,240 west of Parcel II. Extension of this main to Parcel II is practical considering the amount of property that can be served. Extension to Parcel I may not be practical until gas service is brought to the northeast corner of Parcel II, at which time the length of extension to Parcel I would still be 2,850 feet.

Subdivision Plat

Before any given portion of the property can be improved with an industrial use, the property to be developed must be platted. The first step in platting process is the design, submission, and approval of preliminary plans by the City's Planning Commission. Once a preliminary plan has been approved, entire sections or individual lots can be platted, and served with utilities as demand for those lots is realized. Each lot is required to have at least 15 feet of frontage on a public roadway. The physical access to the lots from the public roadway need not follow the 15 foot required frontage but may be taken from a private access easement that may or may not include part of the 15 foot frontage strip.

100 Year Flood Plain

Parcel I is located within approximately 0.1 miles north of the Onion Creek. However, no portion of the property lies within the 100 year flood plain (see Attachment 9). A small portion lies within the 500 year flood plain, a designation that does not carry any development regulations.

Parcel II is located at the top of three watersheds and has no water courses or 100 year flood plain on or near the property.

Soils

Two soil types are found within Parcels I & II are Houston Black Clay and Ferris Heide Complex (see Attachment 10). Both of these soils are of clay types and have a high shrink swell indices.

Watershed & Environmental

Falling in the Austin ETJ the property comes under the regulations found in Chapter 25-8 of the City Land Development Code. Tract I lies within the Onion Creek Watershed, while Tract II lies within the Onion, Cottonmouth and North Fork watersheds (see Attachment 8). The code defines these three watersheds as Water Supply Suburban watersheds. All of the land on both parcels is located in the uplands and has slopes less than 15%. Therefore the net site area of each parcel is equal to the gross area of the tract. Section 25-8-394 allows development up to a maximum of 65% of the net site area for properties located in the ETJ and 80% for those located within the City limits.

Airport Overlay Zone

Both parcels lie in the Airport Overlay Zone (see Attachment 11) which is regulated by Chapter 25-13 of the City Code. In this zone, activities that would conflict with the airport operations, such as those attracting birds, are prohibited. In addition, the height of structures is limited. The Airport Hazard Zone map, a portion of which is included here as Attachment 12, establishes the maximum mean sea level (msl) elevation for all structures in the zone. A letter written by Stephen Dick, Research Analyst, City of Austin Aviation Department, averages the maximum elevation on the subject property at 600 feet msl (see Attachment 13). With this limitation, Parcel II would be allowed building heights between 33 and 54 feet, depending on the location on the Parcel (see Attachment 14). Parcel I would be allowed structures in excess of 100 feet.

Zoning

The property is located within the Austin ETJ where there is no zoning. Annexation in the City will increase the allowable impervious cover and require that a zoning designation be established on the property. The appropriate zoning for the uses anticipated is “LI” Limited Industrial. LI zoning allows a wide range of industrial activities including recycling. The uses allowed in the LI zoning district are all reasonable and should not restrict the property’s use in any substantial manner.

Lots and Roadways

Lots and roadways are the basic building blocks of any development. Establishing acceptable parameters for these two design elements is a requirement for any land plan of this type of property.

The common land area preference of several potential lessees was approximately 5 acres with some indicating the possible need for several times that and some expressing a need as small as one acre. Regardless of the size, industrial use lots that are rectangular in shape and have rectangular building areas are more efficient and therefore more desirable than those with triangular or odd shaped building areas. Lots with frontage to depth ratios of approximately 2 to 1 are also efficient and satisfy the building criteria of most users (see Attachment 15).

All lots are required to establish their legal frontage on a public roadway. The extensive amount of existing public roadway frontage on both parcels allows for the necessary lot frontages without dedicating additional public rights-of-way and constructing public streets. Private access easements can provide adequate access to interior lots provided that each lot has legal flag frontage on public roadways.

A minimum private roadway width of 25 feet is necessary to meet City Fire Code regulations and to accommodate the size of vehicles anticipated in an industrial development. The radii necessary to accommodate the largest tractor trailers allowed on Texas roads should be utilized at the intersection of two roadways (see Attachment 16).

Alternate Concepts

For reasons discussed above a lot layout with lots running parallel to the gas pipelines results in the most regular lot shapes. Two options are considered utilizing this approach while a third option is tested to determine if such a layout is necessary.

The three optional concepts considered are listed below:

- Concept A utilizes the existing public roadways for physical access to the greatest extent possible.

- Concept B utilizes an internal access easement for physical access to each lot to the extent possible.

Both Concept A and B are designed with lot lines parallel and perpendicular to the pipeline easements in order to create as many lots as possible with regular rectangular shaped building areas.

- Concept C envisions lot lines designed in a traditional manner that is perpendicular to the existing roadways (see Attachment 17).

In each of the alternate development concepts considered, there are some common features. In all cases, the pipelines are envisioned as open space to be landscaped as wild flower prairies. While individual lots could utilize them for parking, fencing through or across the easements will not be allowed, and this would preclude security fencing for individual businesses. In each concept, lot lines may be moved to “tailor” the lot to the requirements of a prospective lessee.

Lots can be combined to provide larger tracts, but except for the large acreage parcels in the north half of the Parcel, the lots are considered to be the minimum practical size. The acreage shown on each lot is net of pipeline easements and common detention filtration facilities but not other existing or proposed easements.

Concept A

For Parcel I, Concept A is the only concept needed. With only 10 acres to develop and the standard lot size being 5 acres the property needed only be divided into two lots. A common access point to FM 973 near the center of the property is considered reasonable. While there is adequate distance to allow a second access point near the south property line of the parcel, the topography of the highway in this location is such that it is not possible to provide adequate site distance from the south for a driveway at this location.

A single detention/filtration pond near the northwest corner of the property is considered the most efficient manner of providing these facilities.

It is envisioned that each lot in Parcel II can be developed with FM 973 and FM 812 frontage (see Exhibit A). Many of the interior lots would be developed as “flag” lots with only a 15 foot strip providing their legally required frontage on a public roadway. Physical access to these lots would be taken via a common access easement that may or may not utilize part of the 15 foot strip.

Concept A will require that a 1,002 foot common access drive be constructed and that Lot 9 provide its own 625 foot long drive.

In this or any other plan proposed in this report, lot lines can be moved to allow for creating the actual lot size required by a potential lessee or lots combined to

provide larger lots. Other than Lots 9 and 10, the lots are generally as small as practical.

The water, wastewater and storm water concepts required to develop Parcel I according to Concept A, are included here as Exhibits B, C and D.

Concept B

Concept B utilizes a common access drive that crosses Parcel II connecting FM 812 and FM 973 providing internal access to each lot in the subdivision (see Exhibit E). The common access easement is 2,796 feet in length. All lots have a minimum of a 15 foot strip, or flag, which gives them legal access to the public roadway. The water, wastewater, and drainage concepts needed to develop the property according to Concept B are included in this report as Exhibits F, G, and H.

Concept C

Concept C is a plan that envisions the typical development design with the lot lines perpendicular to adjacent roadways to the extent possible (see Exhibit I). Due to the diagonal crossing of the pipeline easement, this concept results in the creation of several lots that have triangular shapes to portions of their developable area. Given that creation of rectangular shaped building area is one of the goals for creating industrial property, Concept C was eliminated from any further consideration in this report. No utility plans were provided for this concept.

The plan for developing Parcel I is included as Exhibit J.

Phasing

The plans included in this report have been developed with an eye toward a phased development of the property. It is anticipated that Parcel I will be developed as the first phase. The portion of Parcel II that drains to North Fork Creek would constitute the next phase. The lots served by the wastewater lift stations in the northwest portion of Parcel II would be the final phases. In some cases single lots can be developed as a phase so that the infrastructure necessary to serve a lot is developed only after that particular lot is leased to a prospective business.

Conclusion

Both Parcel I and II present substantial but manageable challenges for development into an industrial park. The primary challenge to Parcel I is the extensive amount of wastewater line that will be required if that parcel were the only property to support the cost of wastewater extension. Considering Parcel I as a first phase is also complicated by the fact that the nearest natural gas line is 1.8 miles away on FM 812.

Parcel II has two elements that will present development challenges and increase the cost of development. The first of these is that the property drains in two directions increasing the amount and complexity of both wastewater service and storm water drainage and detention plans.

The second challenge is that the three pipelines result in a less efficient lot layout but more importantly will add cost as each element of infrastructure is required to cross each pipeline. The plans proposed in this report have been designed to maximize the amount of regular shaped buildable area and minimize the number of pipeline crossings.

Concept A will maximize the amount of buildable land at the least cost while Concept B provides more flexibility with lot layout and the possibility of creating a central identity for the development, but at an additional cost. Concept C proves the need for lots that respond to the pipeline locations and is not considered a viable option.

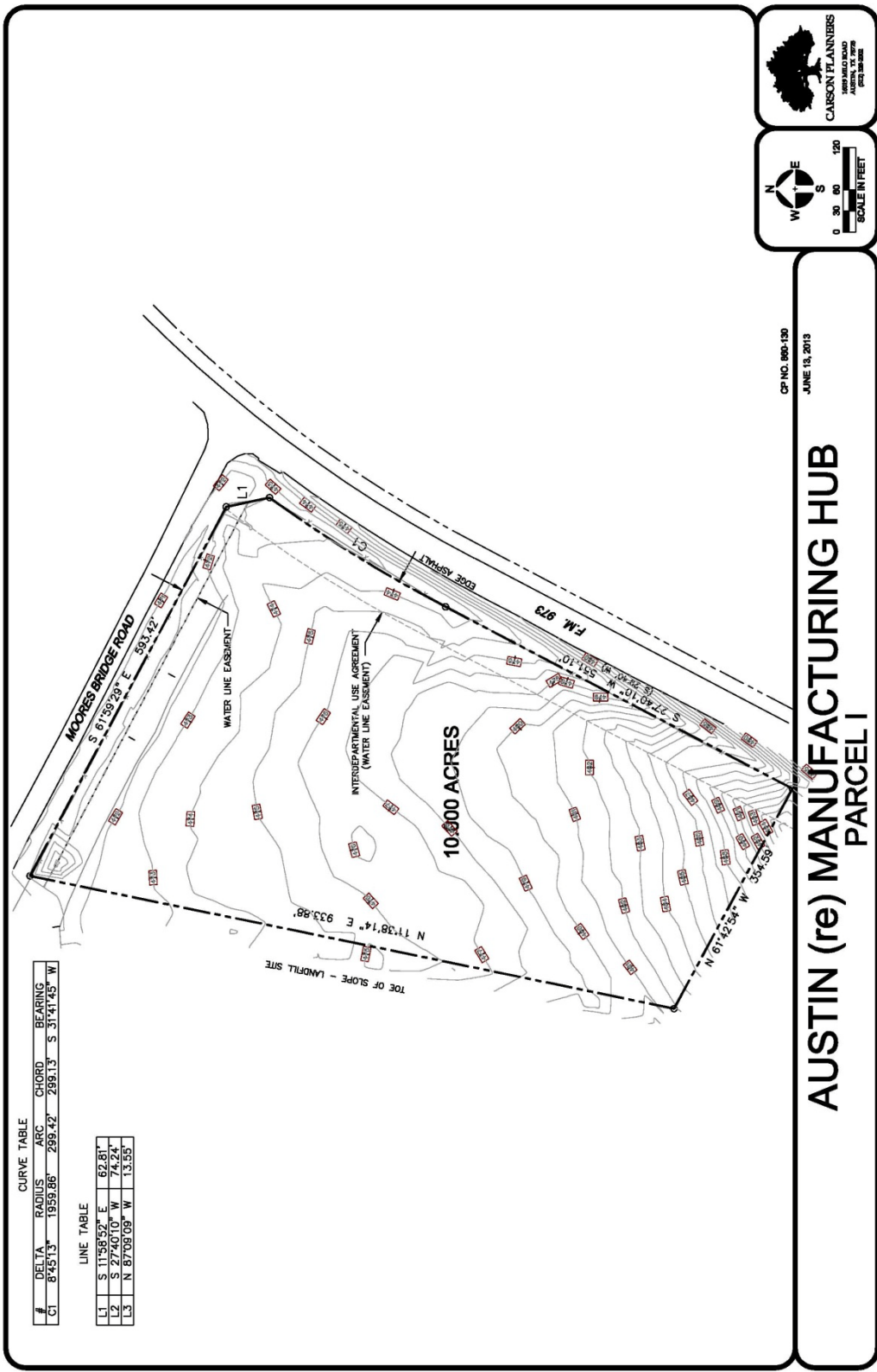
Additional information is required at several levels in order to adequately assess the viability of the development.

LOCATION



ATTACHMENT 1

CARSON PLANNERS





1. CONTOURS = 2 FEET

JUNE 13, 2013



**AUSTIN (re) MANUFACTURING HUB
PARCEL II**

96.77 ACRES
OUT OF THE
GARNER MAY'S SURVEY NO. 501 AND THE
JONATHAN BITTICK SURVEY NO. 500
TRAVIS COUNTY, TEXAS
BEING ALL OF THAT CALLED 0.94089 ACRE TRACT
CONVEYED TO THE CITY OF AUSTIN BY DEED
RECORDED IN DOCUMENT NO. 2001108909
DEED RECORDS OF TRAVIS COUNTY, TEXAS,
AND A PORTION OF THAT CALLED 283.94 ACRE TRACT
BY FINAL JUDGEMENT TO THE CITY OF AUSTIN IN
CAUSE NO. 1313, TRAVIS COUNTY COURT AT LAW NO. 1
RECORDED IN DOCUMENT NO. 2001108909
OFFICIAL PUBLIC RECORDS OF TRAVIS COUNTY, TEXAS.

SCALE 1" = 120'

- 1/2" REBAR FOUND (SMALLEST CONCRETE NOTED)
- REBAR FOUND WITH CAP (SHOWN AS NOTED)
- 1/2" REBAR PER FOUND (SMALLEST CONCRETE NOTED)
- TYPED TYPE 1 CONCRETE MONUMENT FOUND
- 1/2" REBAR WITH PLASTIC CAP (SHOWN AS NOTED)

L1	5 027118' E	110.75'
L2	5 164231' E	158.82'
L3	5 194443' W	132.05'
L4	5 142450' W	122.16'
L5	5 38173 03' E	209.79'
L6	N 21 44 53' E	100.49'
L7	N 19 40 40' E	170.00'
L8	S 15 15 20' E	224.30'
L9	N 04 55 50' W	76.03'

NO.	BEARING	CMO	WZ	ARC	DLTA
C1	N 23°45'52" E	561.73	173.48	262.30	112°18'03"
C2	S 43°29'18" W	589.77	1095.92	597.13	317°10'03"
C3	N 52°55'14" W	576.70	868.51	578.66	231°40'54"

[illegible]

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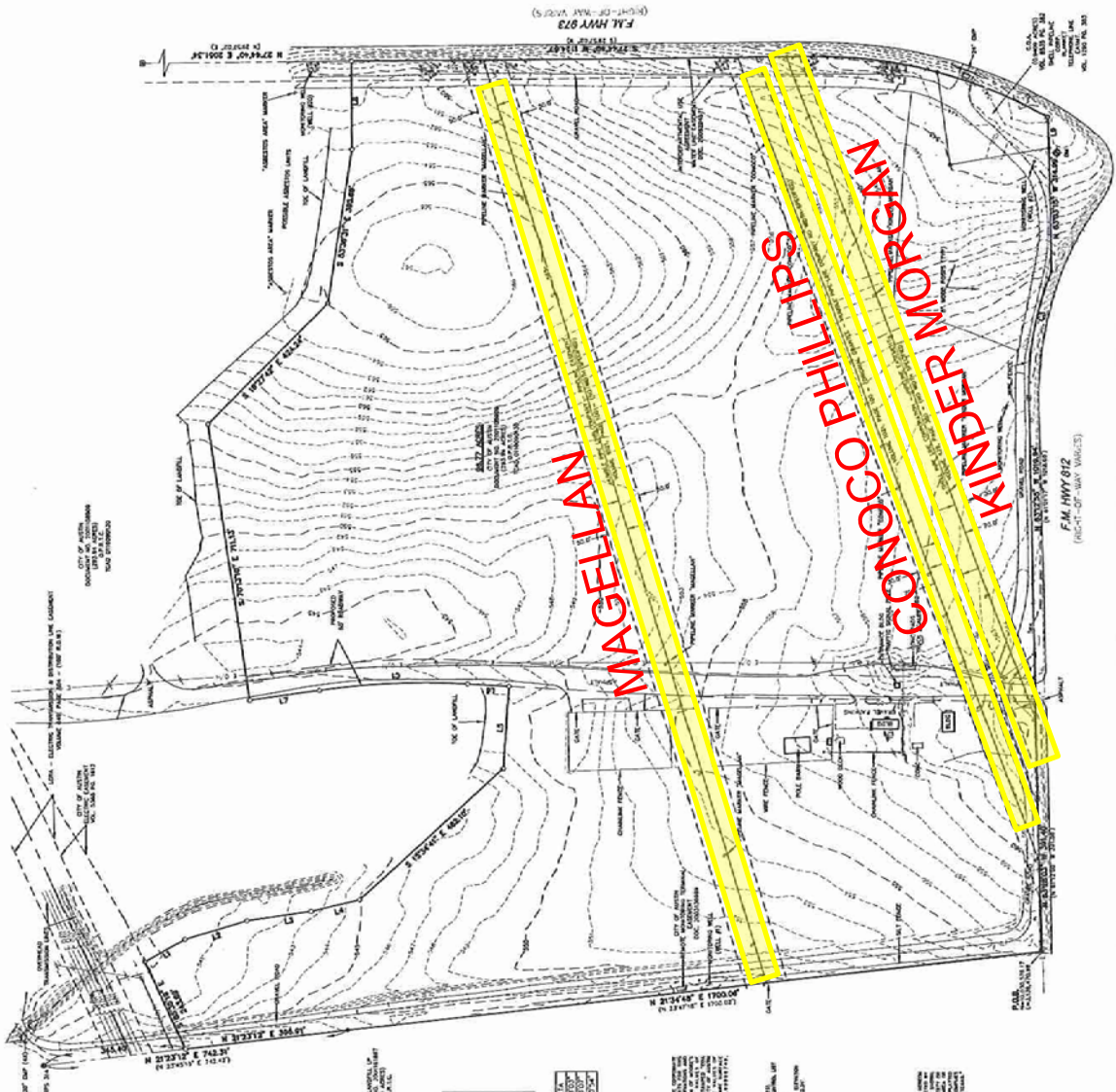
By _____, the City of Astoria, _____ and _____, the Astorian Historical Foundation, Inc., do hereby certify that the foregoing is a true and correct copy of the original as the same appears in the records of the City of Astoria, Oregon.



5-21-2013



DEPARTMENT OF PUBLIC WORKS AND STREETS MANAGEMENT DIVISION 400 MATTHEW STREET, SUITE 700 PHOENIX, AZ 85004 PHONE: (602) 354-2777 FAX: (602) 354-2776		PROJECT NAME: 7N 813 LANDFILL/C200-INDUSTRIAL ZONE DATE: MAY 21, 2013 SCALE: 1"=120' DRAWING BY: CLARK DANIEL / JOHN MOORE NO. 63 FILE: 7N813 LANDFILL/ZONE C200-INDUSTRIAL ZONE
---	---	--



CITY FIRE SAFETY SETBACKS

0-50 Feet

No Structure

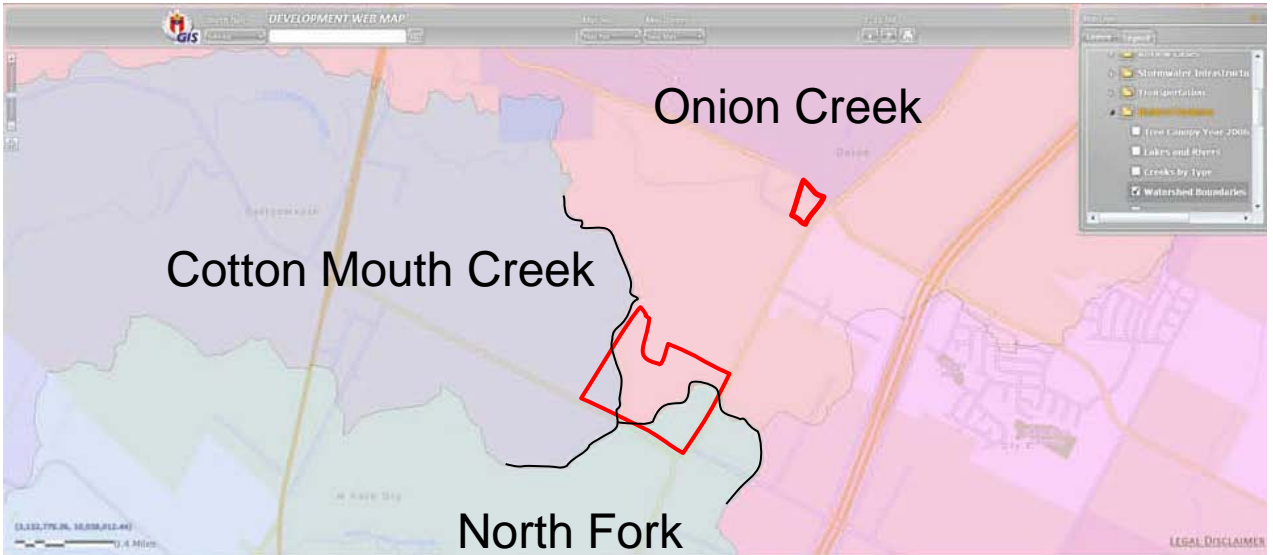
50-100 Feet

Wall V-D², Roof Class A nr H

100-200 Feet

Wall V-D, Roof Class A nr H

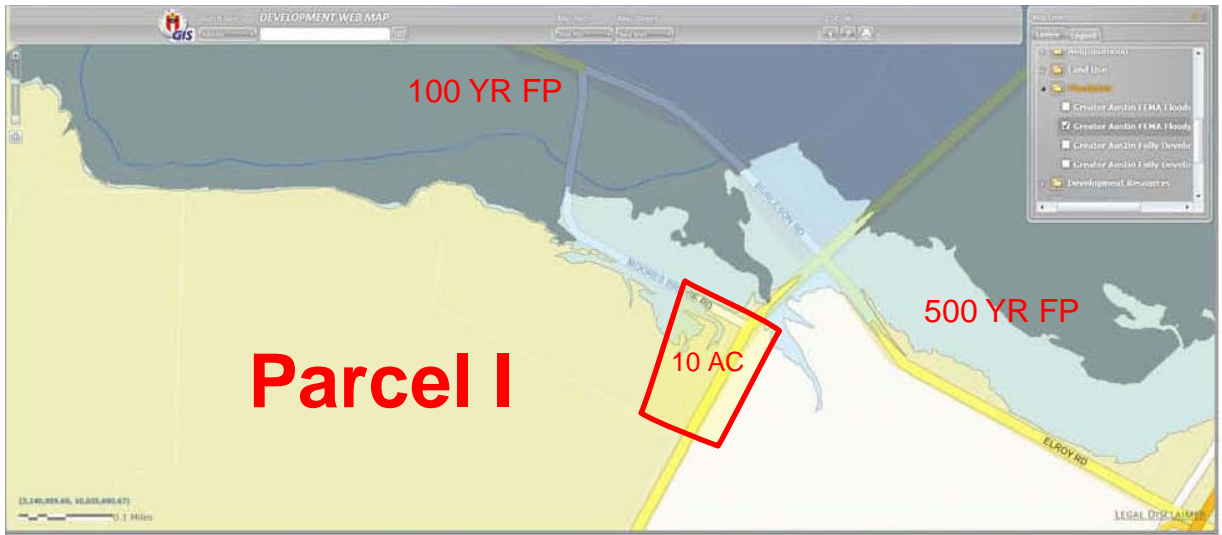
WATERSHEDS



City Code Chapter 25-8

- Onion, North Fork, Cotton Mouth
- Water Supply Suburban
- Total Land Area in the Uplands
- Allowed Impervious Cover in ETJ – 65%
- Allowed Impervious Cover in City of Austin – 80%

100 YEAR FLOOD PLAIN



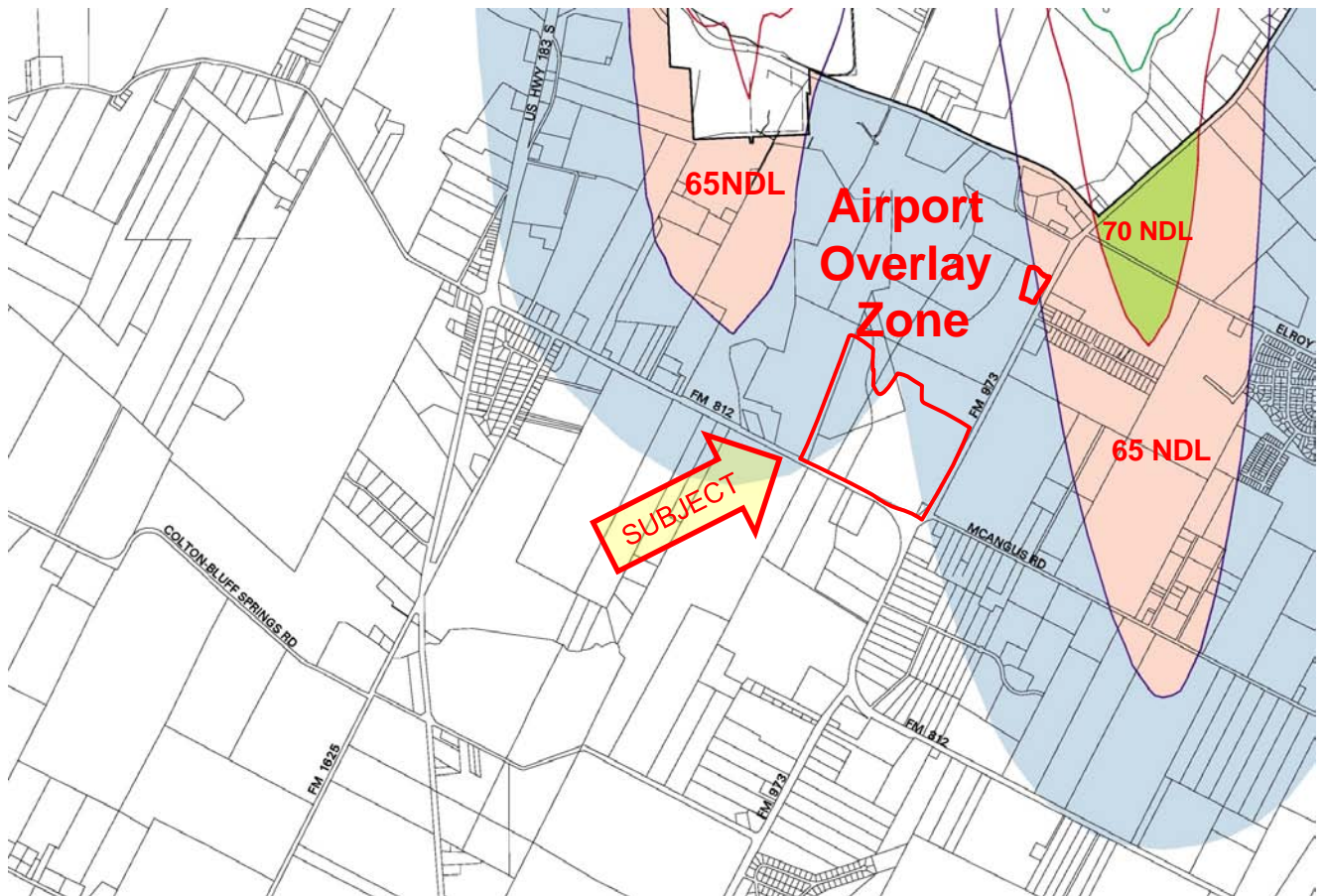
SOILS



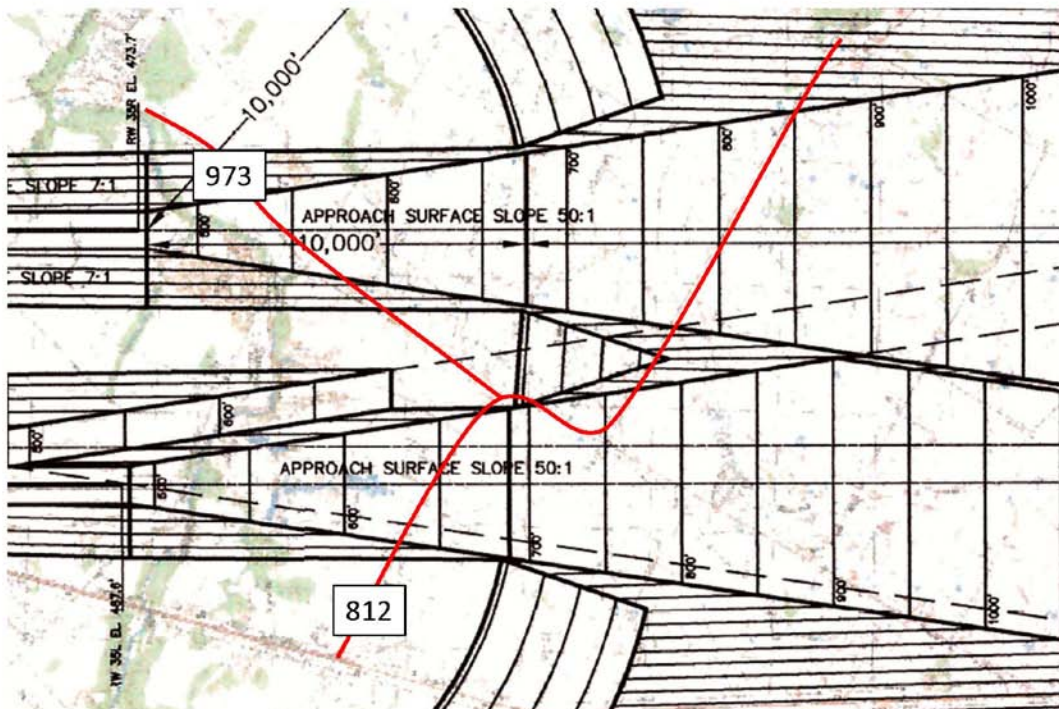
Symbol	Name	Soil Type	Elasticity
HnB	Houston Black Clay	Clay	High Shrink & Swell
HnC2	Houston Black Clay, Eroded	Clay	High Shrink & Swell
FhF3	Ferris Heide Complex	Clay	High Shrink & Swell

Source: USDA Soil Survey of Travis County, Texas

AIRPORT OVERLAY ZONES



AIRPORT HAZZARD ZONE MAP





City of Austin

Aviation Department

Austin-Bergstrom International Airport

3600 Presidential Blvd., Ste. 411, Austin, Texas 78719

512/530-6376 Fax: 512/530-6555

@a.austin.tx.us

TO: Julie Rhodes
Recycling Economic Development Liaison
City of Austin - Austin Resource Recovery and Economic Growth and
Redevelopment Services

FROM: Stephen Dick, Research Analyst
City of Austin - Aviation Department

DATE: February 28, 2013

SUBJECT: FM812 City Landfill

The Department of Aviation staff has reviewed the site referenced above to determine the probable impact of the proposed project upon operations at Austin-Bergstrom International Airport. The site is located within the Federal Aviation Administration's Part 77 imaginary approach surface, transitional surface, and the horizontal surface. As such, the maximum height of a structure that could be built on the site is limited to 600 feet Mean Sea Level (MSL).

The project site also exists within the boundaries of the Controlled Compatible Land Use Area (CCLUA), the Airport Overlay Zone AO-2 and AO-3 and is subject to conforming to the City of Austin's Land Development Code, Chapter 25-13 Airport Hazard and Compatible Land Use Regulations.

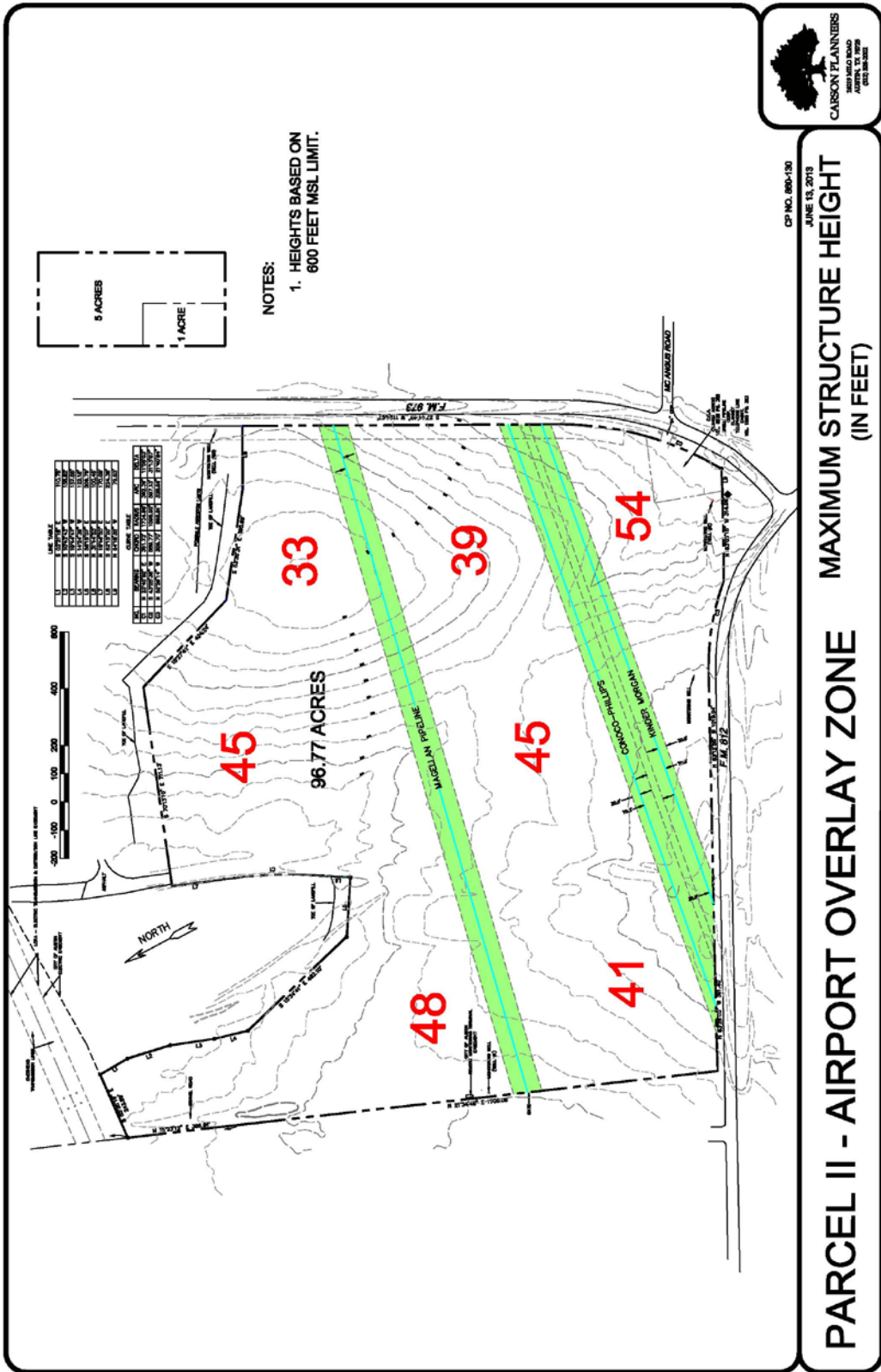
Hazards to airport operations include any land use, structure, or object of natural growth located within the CCLUA that exceeds height limitations, creates electronic interference with aircraft navigation or radio communications, inhibits a pilot's ability to distinguish airport lighting from other lighting, results in glare in the eyes of a pilot, impairs visibility in the vicinity of the airport, creates a wildlife hazard (i.e., bird attractants), or otherwise endangers or interferes with the landing, taking off, or maneuvering of aircraft is prohibited.

Should you have any questions or require additional information, please feel free to contact me.

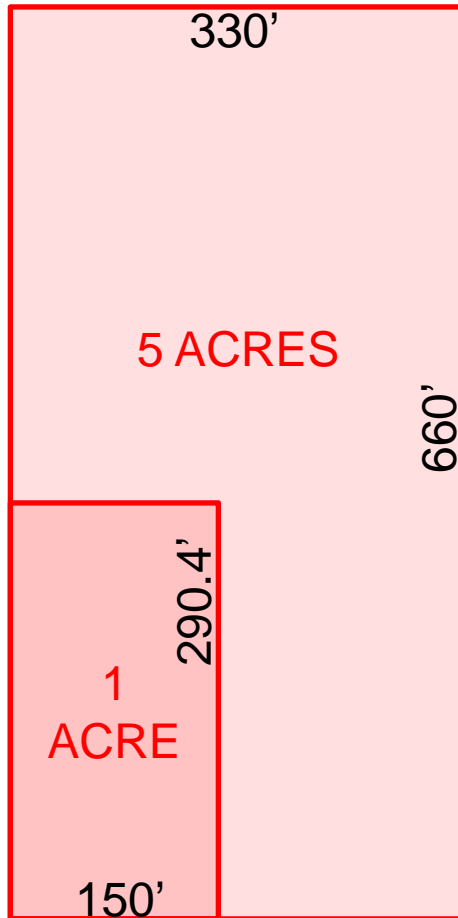
Sincerely,

Stephen Dick
Research Analyst
Austin-Bergstrom International Airport
2716 Spirit of Texas Dr.
Austin, Texas 78719-2353
Office: 512-530-5541

Cc: Doc Control



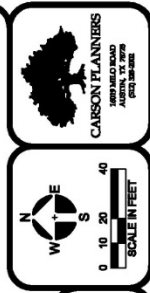
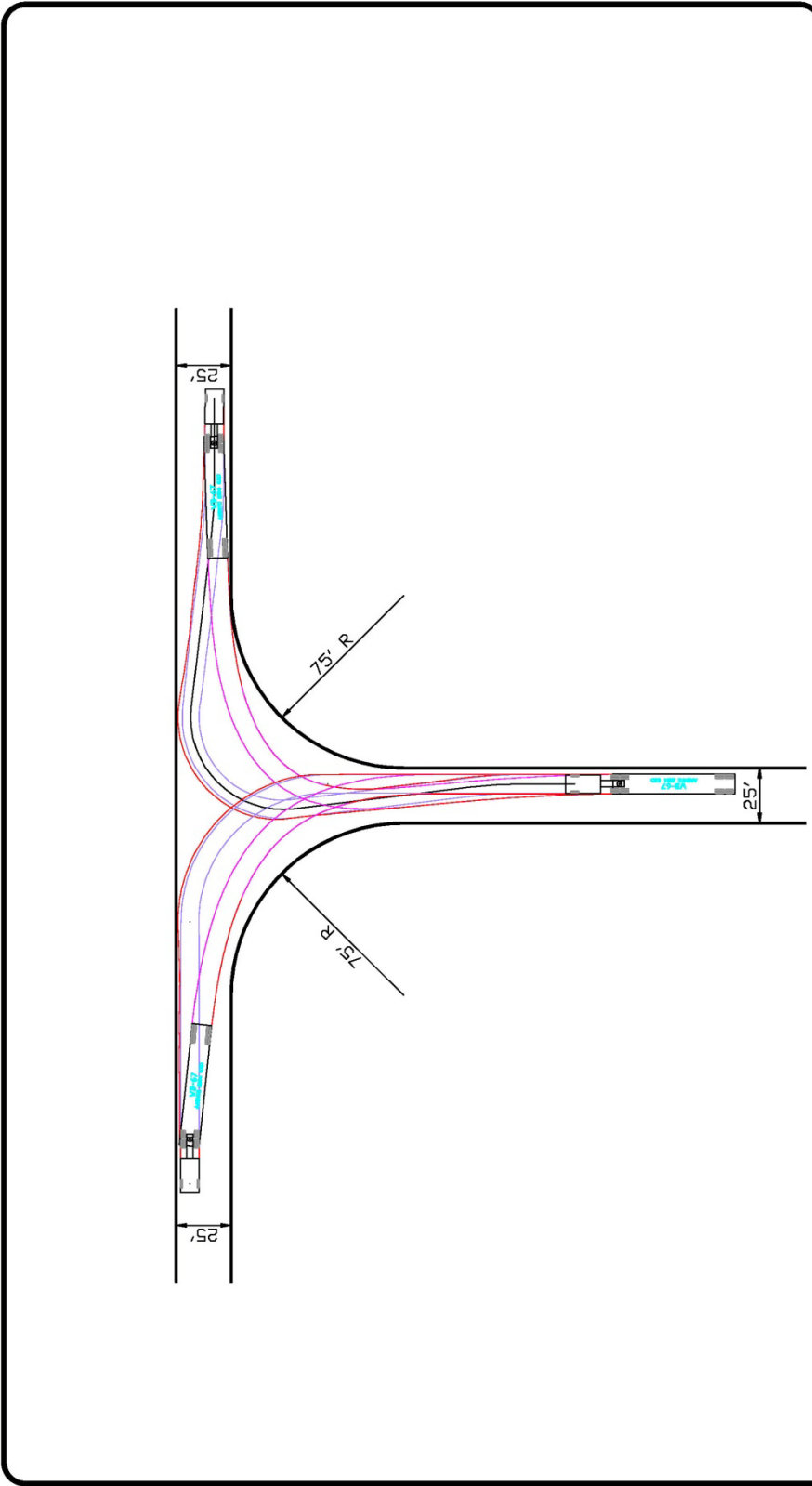
TYPICAL TRACT



A rectangular shape is most efficient

Frontage to depth ratio between 1:1 and 1:2; 1:2 ideal

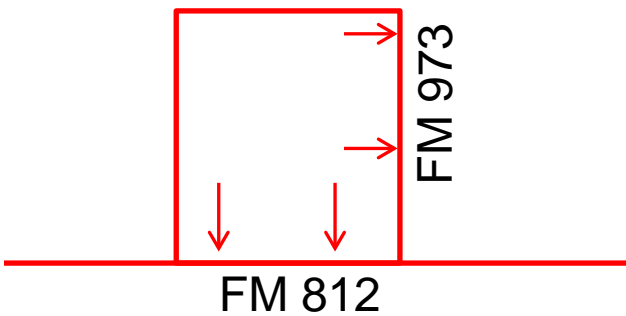
To the extent possible keep easements along the perimeter



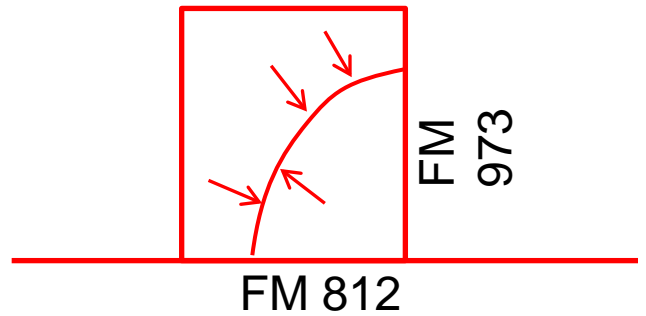
800-130
JUNE 17, 2013
TRUCK TURNING RADIUS FOR INTERSECTING 24' WIDE ROADS

OPTIONAL DEVELOPMENT CONCEPTS

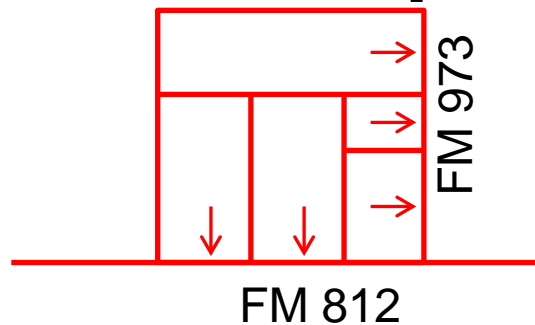
Concept A

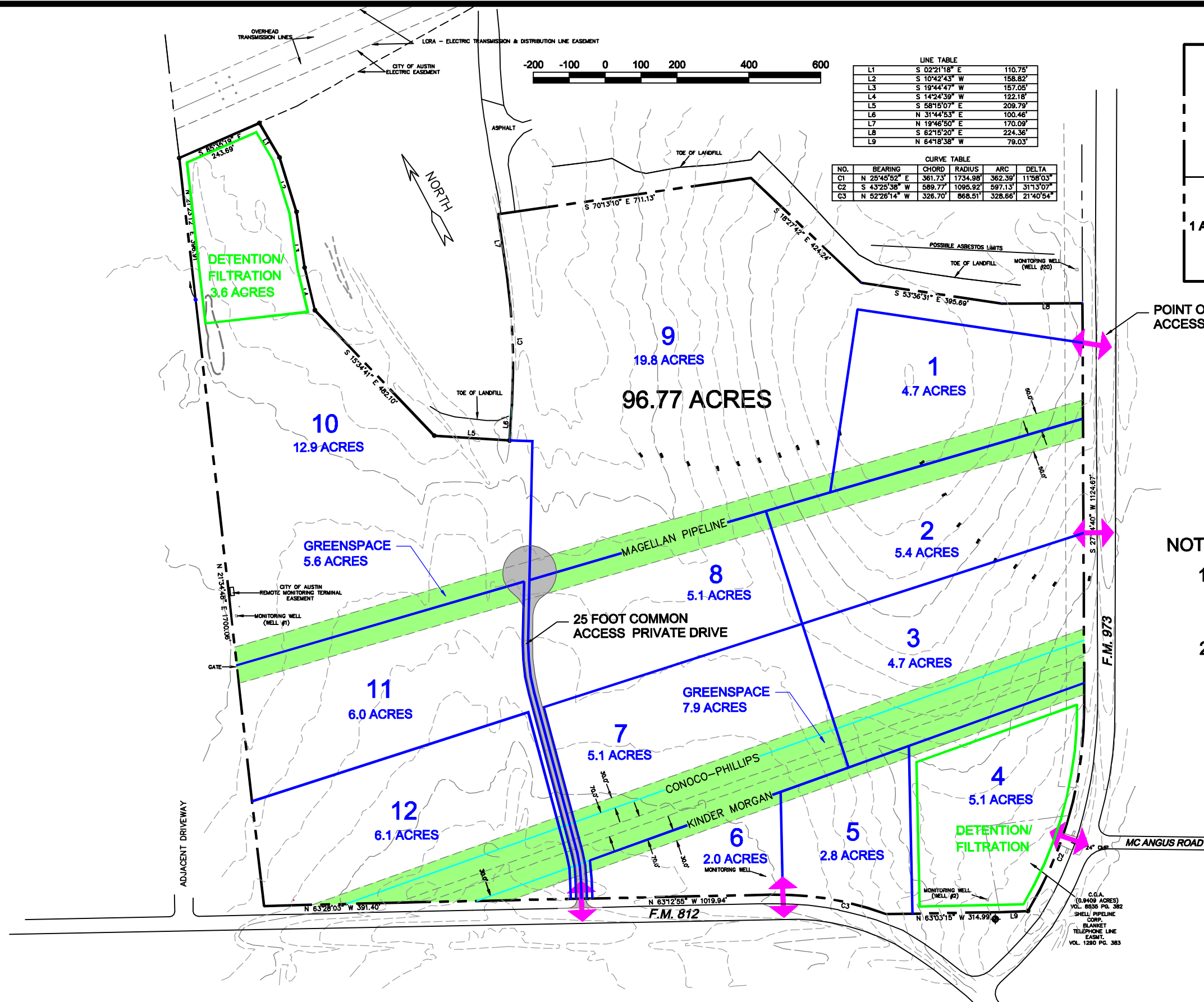


Concept B

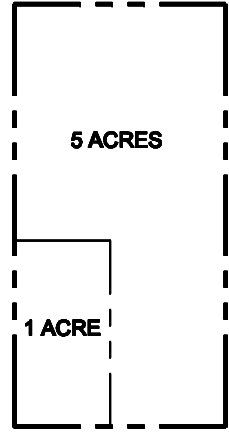


Concept C





- NOTES:
1. ALL LOT ACREAGES ARE NET OF GREENSPACE AND COMMON DETENTION
 2. 1,002 LINEAL FEET OF PRIVATE DRIVE

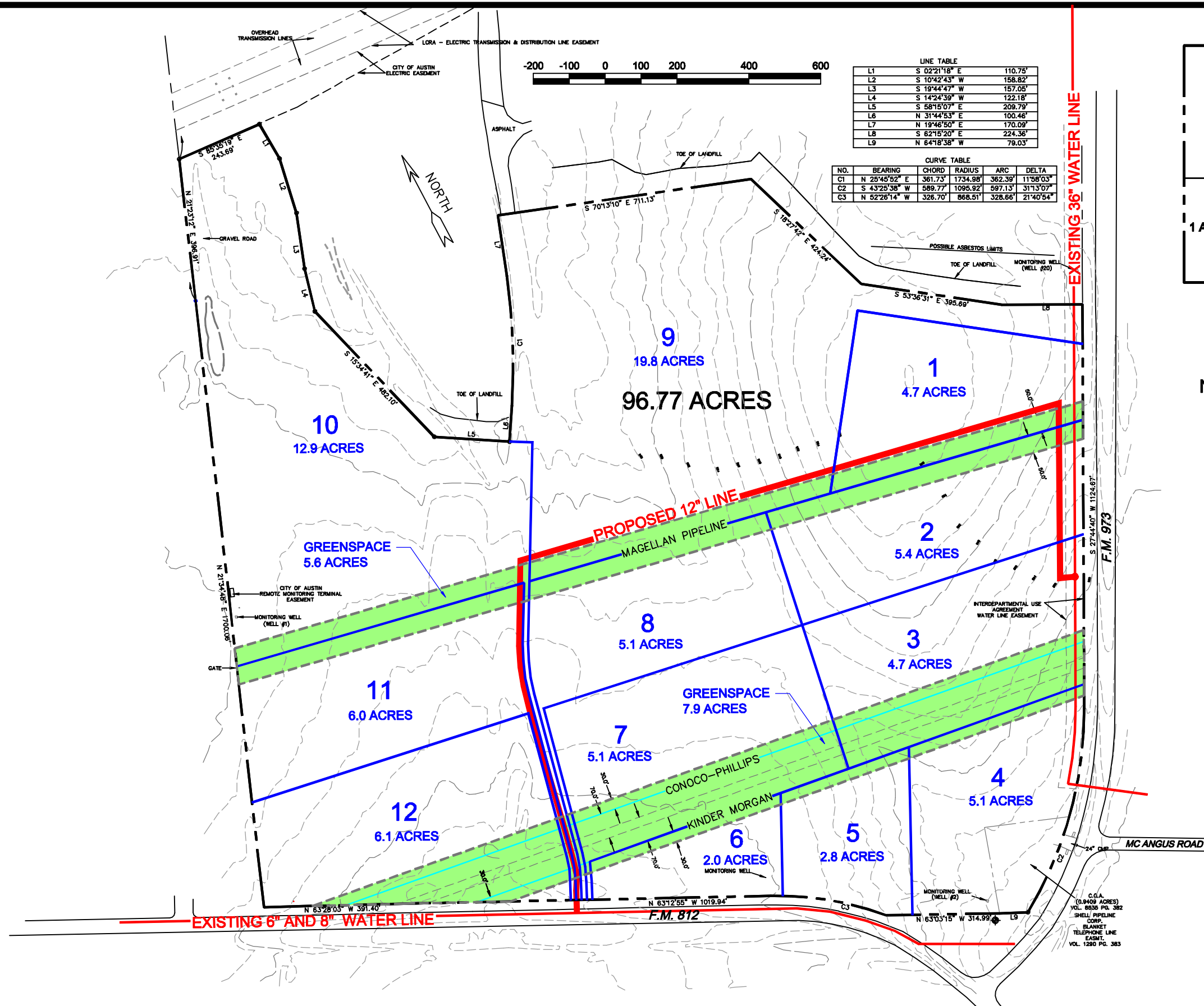


AUSTIN (re)MANUFACTURING HUB CONCEPT A

CP NO. 860-130
JUNE 13, 2013

EXHIBIT A





NOTES:

1. ALL LOT ACREAGES ARE NET OF GREENSPACE AND COMMON DETENTION
2. NEW 12" WATER LINE TO CONNECT WITH 36" TRANSMISSION LINE AT EXISTING "T"
3. 6" PORTIONS OF WATER LINE IN FM 812 MUST BE UPGRADED TO AN 8" LINE

CONCEPT A WATER

CP NO. 860-130

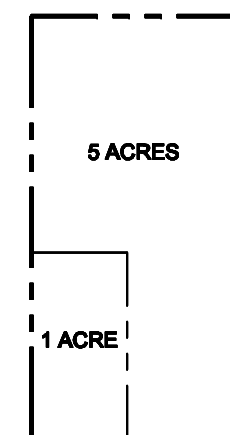
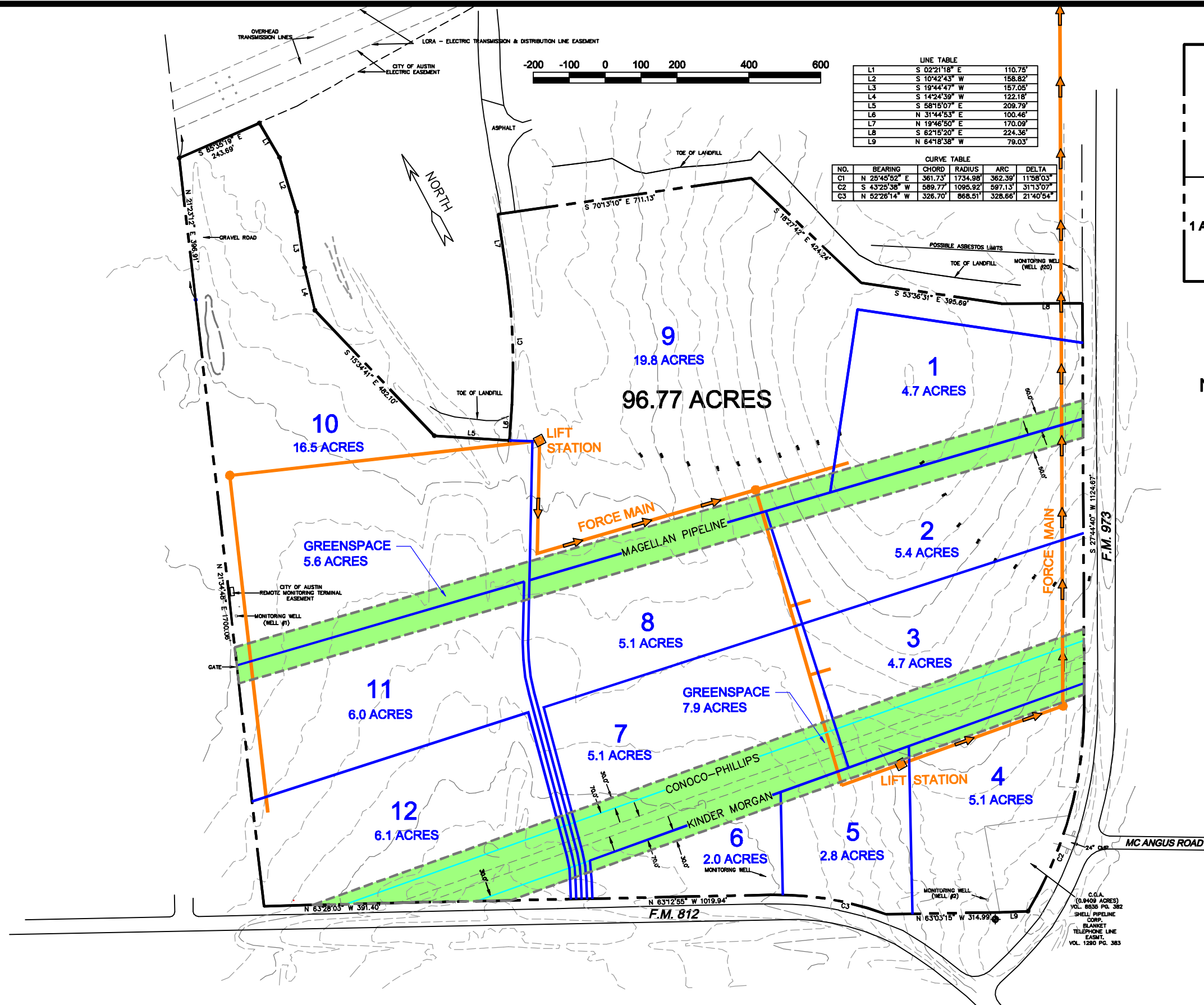
JUNE 13, 2013

EXHIBIT B



CARSON PLANNERS

16019 MILO ROAD
AUSTIN, TX 78725
(512) 328-2002



NOTES:

1. ALL LOT ACREAGES ARE NET OF GREENSPACE AND COMMON DETENTION
2. GRAVITY WASTEWATER LINE CROSSINGS OF PIPELINES MAY REQUIRE LINE DEPTHS OF 8-10 FEET

CONCEPT A WASTEWATER

CP NO. 860-130

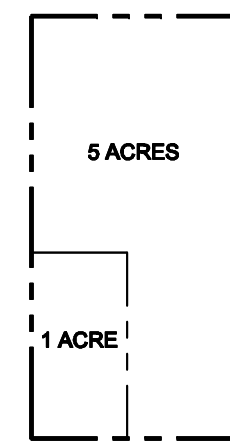
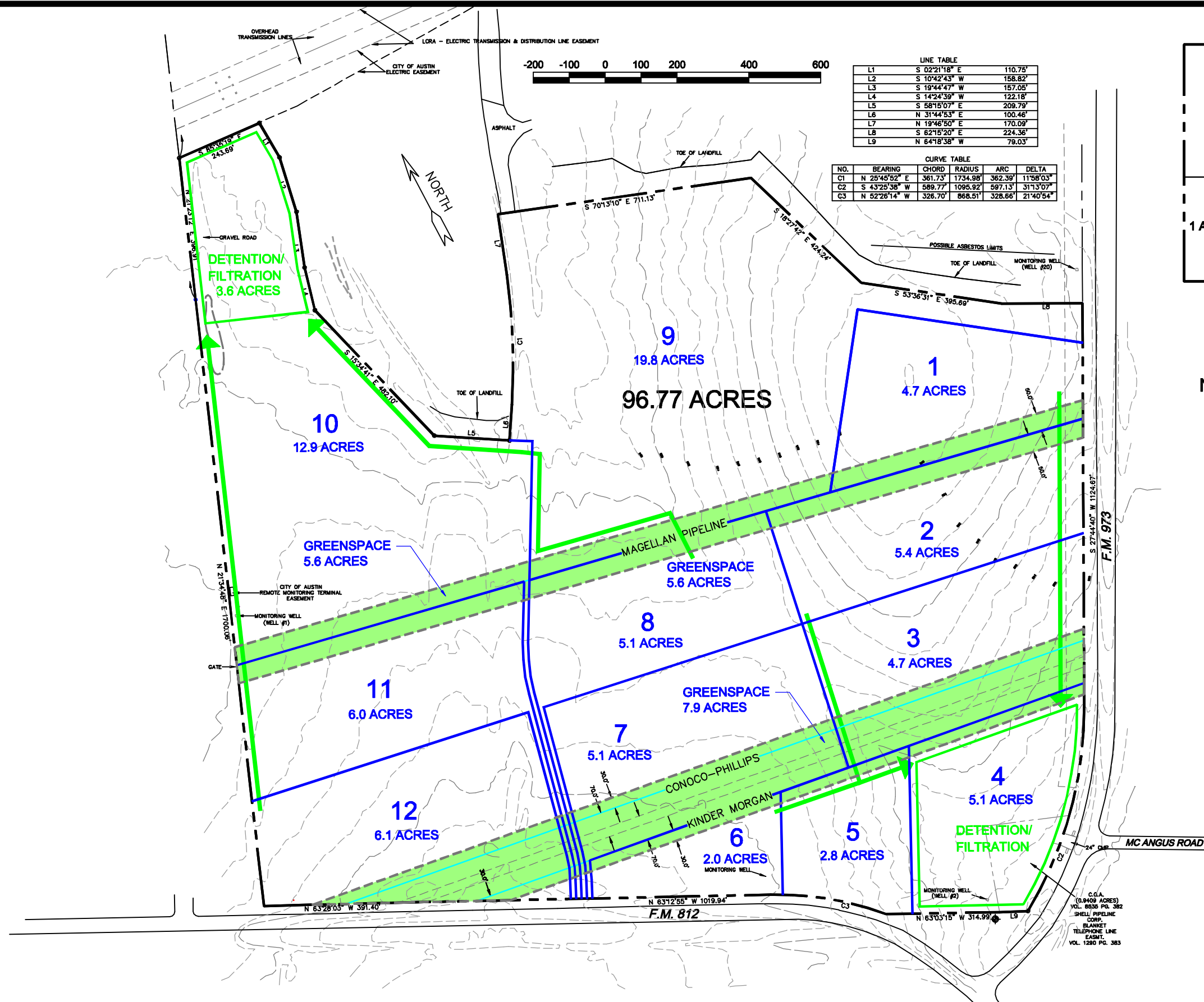
JUNE 13, 2013

EXHIBIT C



CARSON PLANNERS

16019 MILO ROAD
AUSTIN, TX 78725
(512) 328-2002



CONCEPT A WATER DRAINAGE SWALES AND DETENTION

CP NO. 860-130

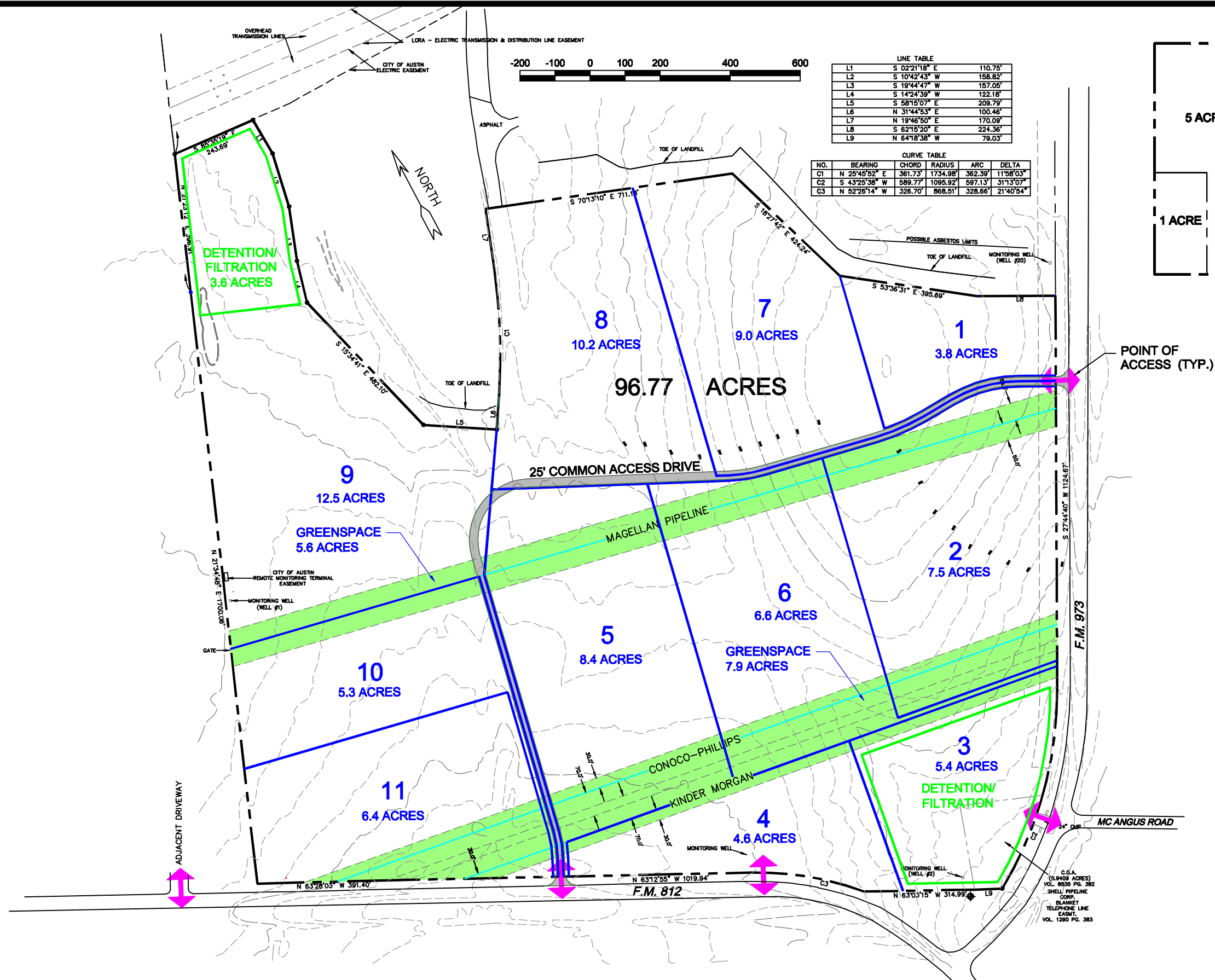
JUNE 13, 2013

EXHIBIT D



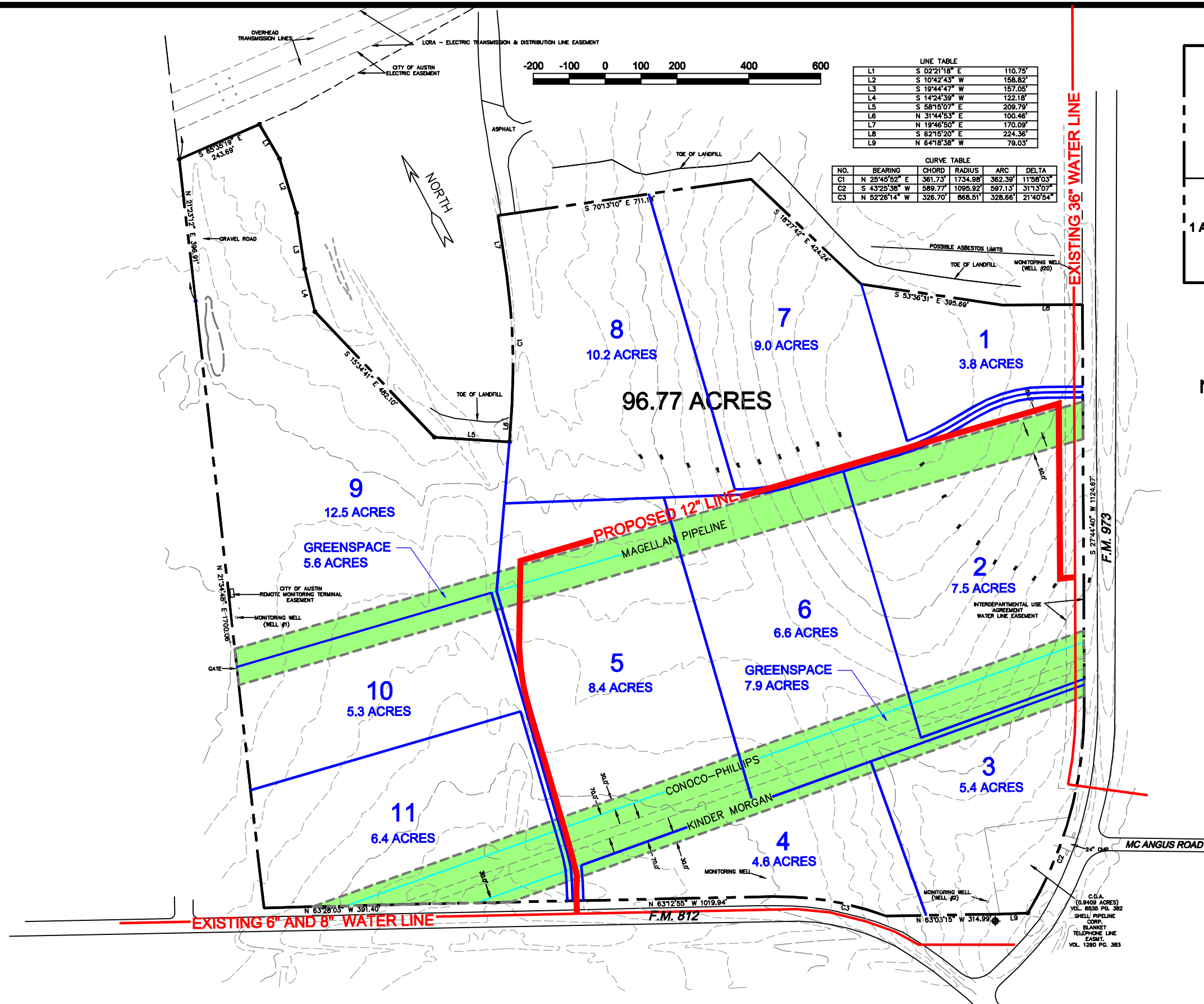
CARSON PLANNERS

16019 MILO ROAD
AUSTIN, TX 78725
(512) 328-2002



NOTES:

1. ALL LOT ACREAGES ARE NET OF GREENSPACE AND COMMON DETENTION
2. 2,796 LINEAL FEET OF PRIVATE ACCESS DRIVE
3. LEGAL LOT FRONTAGE IS NOT ALWAYS USED FOR PHYSICAL ACCESS



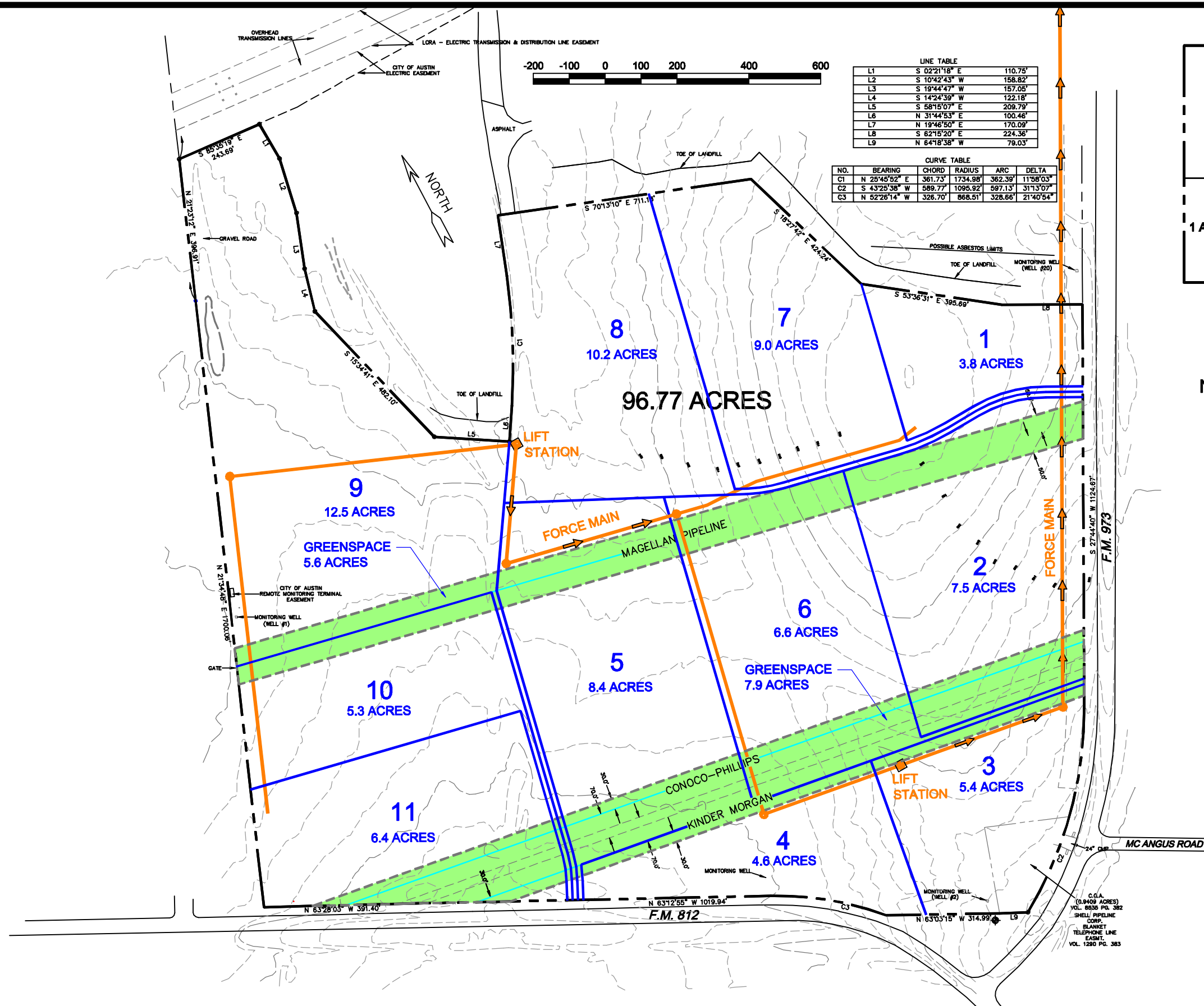
- NOTES:**
1. ALL LOT ACREAGES ARE NET OF GREENSPACE AND COMMON DETENTION
 2. NEW 12" WATER LINE TO CONNECT WITH 36" TRANSMISSION LINE AT EXISTING "T"
 3. 6" PORTIONS OF WATER LINE IN FM 812 MUST BE UPGRADED TO AN 8" LINE

CONCEPT B WATER

CP NO. 860-130
JUNE 13, 2013

EXHIBIT F





NOTES:

1. ALL LOT ACREAGES ARE NET OF GREENSPACE AND COMMON DETENTION
2. GRAVITY WASTE WATER LINE CROSSINGS OF PIPELINES MAY REQUIRE DEPTHS OF 8-10 FEET

CONCEPT B WASTEWATER

CP NO. 860-130

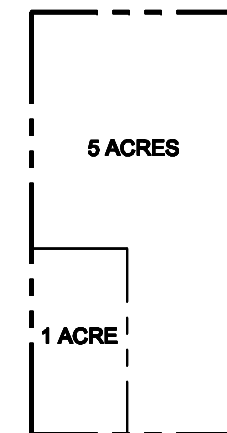
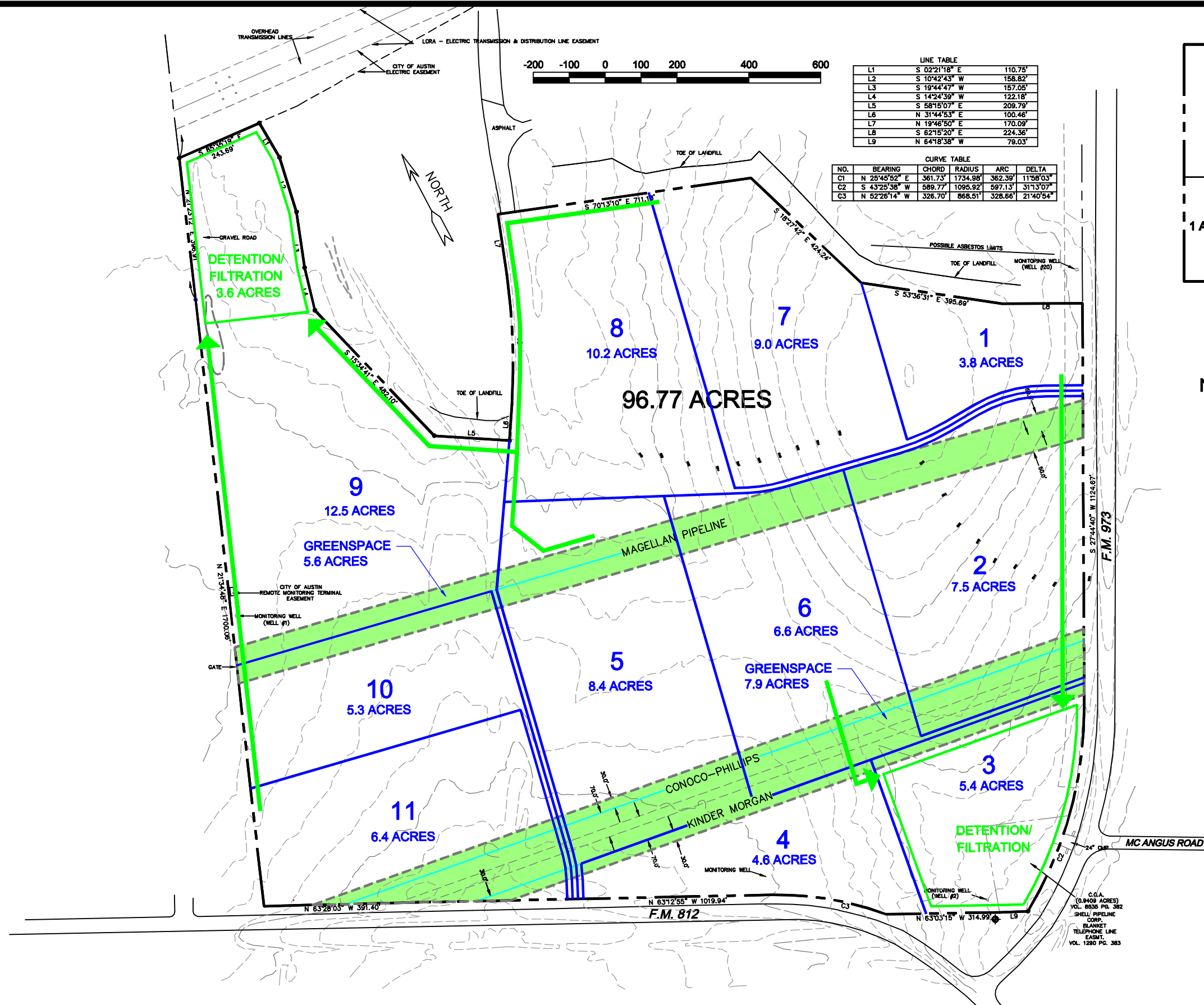
JUNE 13, 2013

EXHIBIT G



CARSON PLANNERS

16019 MILO ROAD
AUSTIN, TX 78725
(512) 328-2002



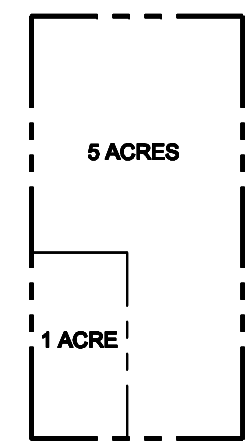
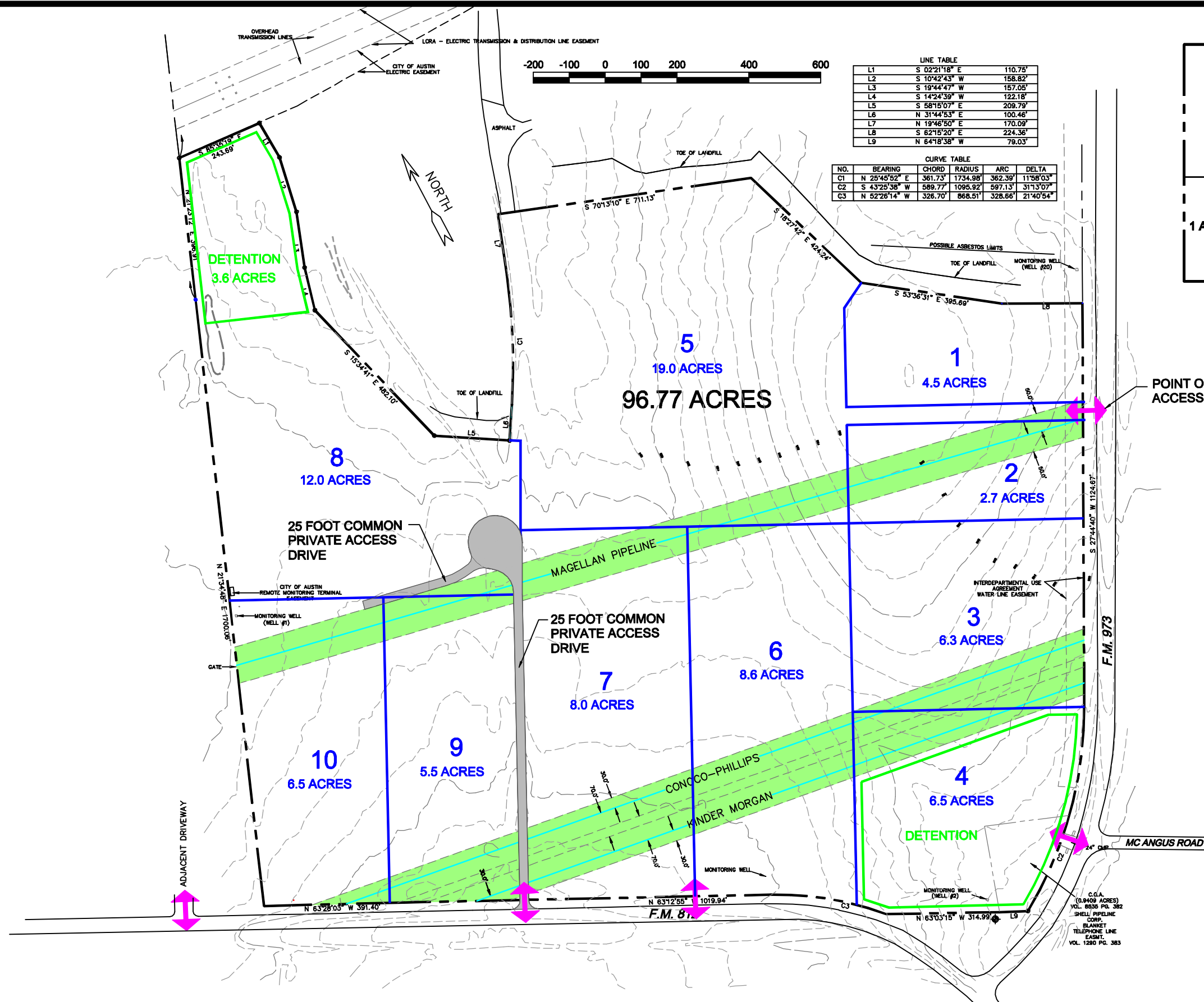
CONCEPT B WATER DRAINAGE SWALES AND DETENTION

CP NO. 860-130

JUNE 13, 2013

EXHIBIT H





- NOTES:**
1. ALL LOT ACREAGES ARE NET OF GREENSPACE AND COMMON DETENTION
 2. 1,427 LINEAL FEET OF PRIVATE ACCESS DRIVE

AUSTIN (re)MANUFACTURING HUB CONCEPT C

CP NO. 860-130
JUNE 13, 2013

EXHIBIT I

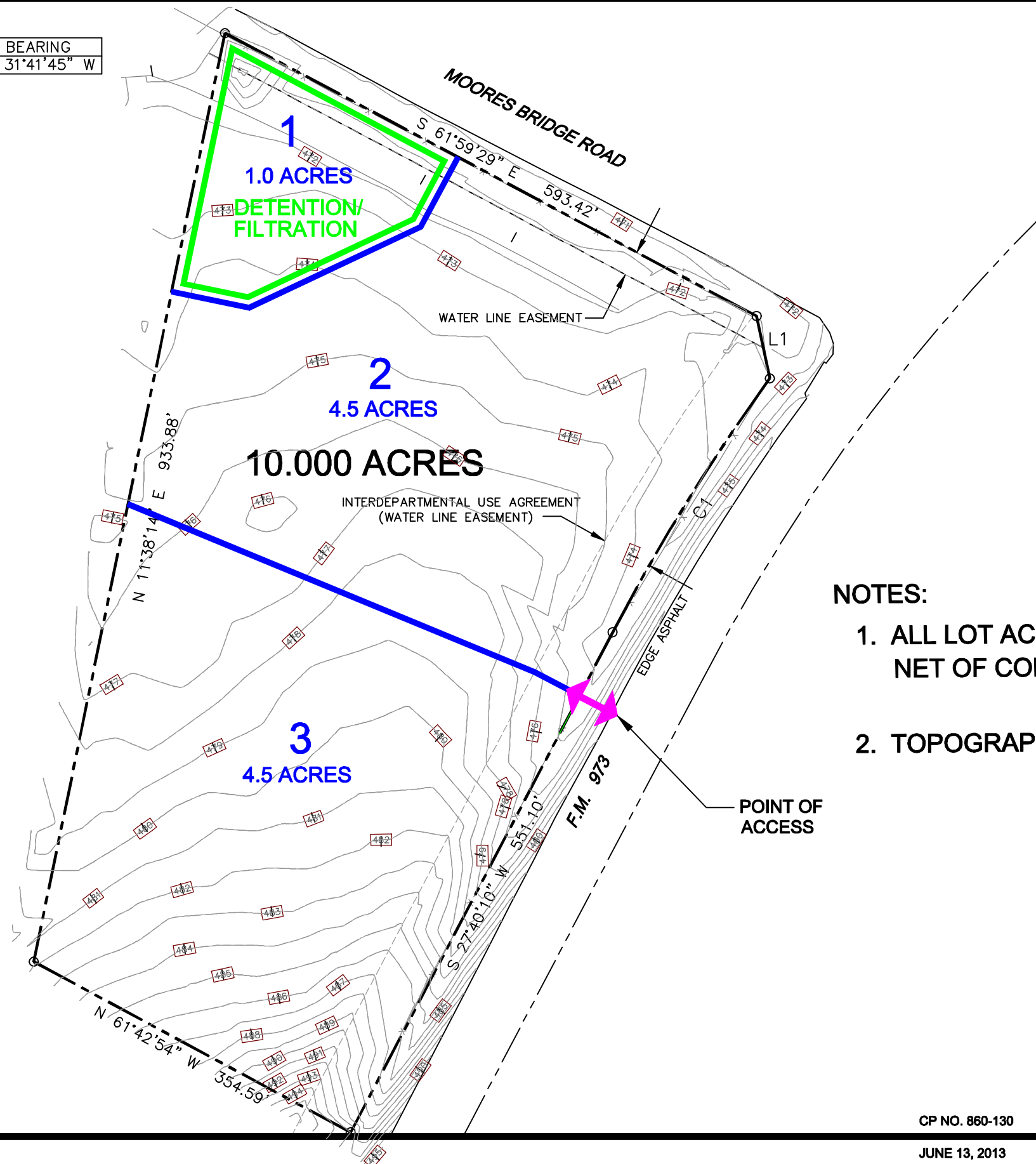
CARSON PLANNERS
16019 MILO ROAD
AUSTIN, TX 78725
(512) 328-2002

CURVE TABLE

#	DELTA	RADIUS	ARC	CHORD	BEARING
C1	8°45'13"	1959.86'	299.42'	299.13'	S 31°41'45" W

LINE TABLE

L1	S 11°58'52" E	62.81'
L2	S 27°40'10" W	74.24'
L3	N 87°09'09" W	13.55'



NOTES:

1. ALL LOT ACREAGES ARE NET OF COMMON DETENTION
2. TOPOGRAPHY AT 1 FOOT INTERVALS

EXHIBIT J

CP NO. 860-130

JUNE 13, 2013

AUSTIN (re)MANUFACTURING HUB PARCEL I - DEVELOPMENT PLAN

