## ANGEL PARKWAY PET HOSPITAL

# PAVING, DRAINAGE & UTILITY IMPROVEMENTS

LOT 1, BLOCK A ANGEL ADDITION

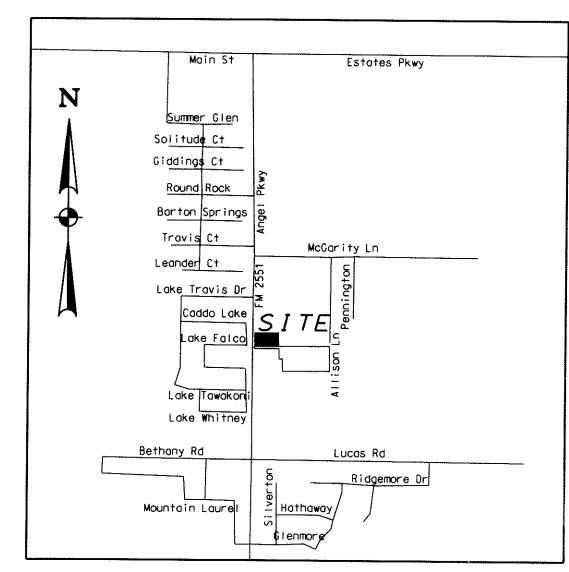
# CITY OF LUCAS, TEXAS

ARCHITECT:

PLACES MADE ARCHITECTURE
2840 KELLER SPRINGS ROAD, SUITE 103
CARROLLTON, TEXAS 75006
(214)529–9508
DAVID O'SHEA

CONTRACTOR:
TRI-STAR CONSTRUCTION
3601 YUCCA DRIVE
FLOWER MOUND, TEXAS 75028
RANDY AHLFS
(972)221–5558

ENGINEER:
HELMBERGER ASSOCIATES, INC.
1525 BOZMAN ROAD
WYLIE, TEXAS 75098
RANDALL T. HELMBERGER, PE
(972) 442–7459
TBPE REGISTRATION NO. F–000756



VICINITY MAP NOT TO SCALE

#### PAVING AND GRADING GENERAL NOTES

All construction shall conform to the City of Lucas Standard Construction Details and Standard Specifications for Public Works Construction. In the event that an item is not covered, NCTCOG specifications shall be followed. The contractor shall bring any discrepancies to the attention of the engineer for approval or modification.
 Excavation or fill operations shall not interfere with or obstruct pre-construction drainage patterns until such time as on-site drainage improvements are constructed.
 Top of curb elevations are noted with (TC) following them. Gutter elevations are 0.50 feet below top of curb. All other spot elevations shown are to top of pavement or finished grade unless otherwise noted. The intention of this grading plan is preclude ponding water on paving or grassed areas. If the contractor finds any location that will result in ponding water, the Engineer shall be notified for clarification prior to pavement placement.

All subgrade beneath proposed pavement shall be scarified 8" deep and compacted to 95% Standard Proctor (ASTM-D-698) at or slightly above optimum moisture content.

All driveways/approaches shall match existing street pavement sections. Firelane and access to the dumpster location and access easement pavement shall be 6" thick 4000 psi concrete with #3 bars on 18" centers both ways. Parking lot pavement shall be 5" 4000 psi concrete with #3 bars on 18" centers both ways. Sidewalks shall be 4" thick 4000 psi concrete with #3 bars on 24" centers both ways.

The trash enclosure foundation shall be constructed of 6" thick 4000 psi concrete with

#3 bars on 18" centers both ways. Slab edges shall be 12" wide by 24" deep with two #5 bars top and bottom.

Sawed transverse dummy joints shall be installed in concrete pavement on 15' centers. Sawed longitudinal dummy joints shall be installed along centerline of fire lane and outsides were applicable. All joints shall be filled with an approved sealer.

8. Transverse expansion joints shall be installed at all drive returns. Expansion joints shall be placed along all fixed objects such as light poles and foundations.

9. Contractor shall adjust all manholes and water valves to match finished grades as shown on drawings.

10 Street lights shall be installed 3 1/2 to 4' behind back of curbs as required but shall not

encroach on any sidewalks.
11. Contractor shall construct barrier free ramps at all intersections per City of Lucas Details. All handicap ramps, stalls, walks and access to the building(s) shall meet ADA standards.
12. All conduit for irrigation sleeves shall be class 200 PVC installed 12" below concrete pavement and extend 2' outside of back of curb.

Contractor shall be responsible for traffic control, warning and safety devices until all work has been accepted by the City of Lucas and the owner.
Contractor shall be responsible for Trench Safety in compliance with the Occupational Safety and Health Administration's trench safety standards.
The location of existing utilities shown on these plans are approximate. All utilities may not be shown. It is the responsibility of the contractor to contact the City of Lucas and all area utilities that may conflict with construction prior to beginning work.

Erosion control shall conform to the North Texas Council of Government Details as

Topography and field surveying provided by North Texas Surveys, Inc., McKinney, Texas

approved by the City of Lucas.

Asbuilt utilities, paving and drainage information obtained from record drawings on file with the City of Lucas.

#### UTILITY CONSTRUCTION GENERAL NOTES

All construction shall conform to the City of Lucas Standard Construction Details and Standard Specifications for Public Works Construction. In the event that an item is not covered, NCTCOG specifications shall be followed. The contractor shall bring any discrepancies to the attention of the engineer for approval or modification.
 All water mains shall be Class 200, AWWA C900 PVC pipe.
 All gate valves shall be City approved resilient Seat Gate Valves (A-2370-series).

All fire hydrants must meet City of Lucas Specifications.
Hose/pumper nozzles on fire hydrants shall be 18" above top of curb, or finished grade and shall face the streets or firelane. Fire hydrant shall not be placed less than 2.0' nor more than 6.0' behind the curb.
All water mains shall have a minimum cover of 48" below finished grade.

All water mains shall be pressure tested in accordance with the specifications. The Contractor shall flush and sterilize all water mains.
 The location of existing utilities shown on these plans is approximate. All utilities may not be shown. It is the responsibility of the contractor to contact all area utilities that may conflict with construction prior to beginning work.
 All sanitary sewer pipe outside of the building shall be SDR35 PVC pipe.
 All concrete blocking and embedment for water and sewer line shall be in accordance

with the City of Lucas construction standards.

11. Contractor shall be responsible for traffic control, warning and safety devices until all work has been accepted by the City of Lucas and the owner.

12. Contractor shall be responsible for Trench Safety in compliance with the Occupational Safety and Health Administration's trench safety standards.

13. Any water or sanitary sewer service located outside of a street, alley or easement shall be installed by a plumber and be inspected by Building Inspection.

Asbuilt utilities, paving and drainage information obtained from record drawings on file with the City of Lucas.

Fire Department Connection shall be within 50' of a fire hydrant.

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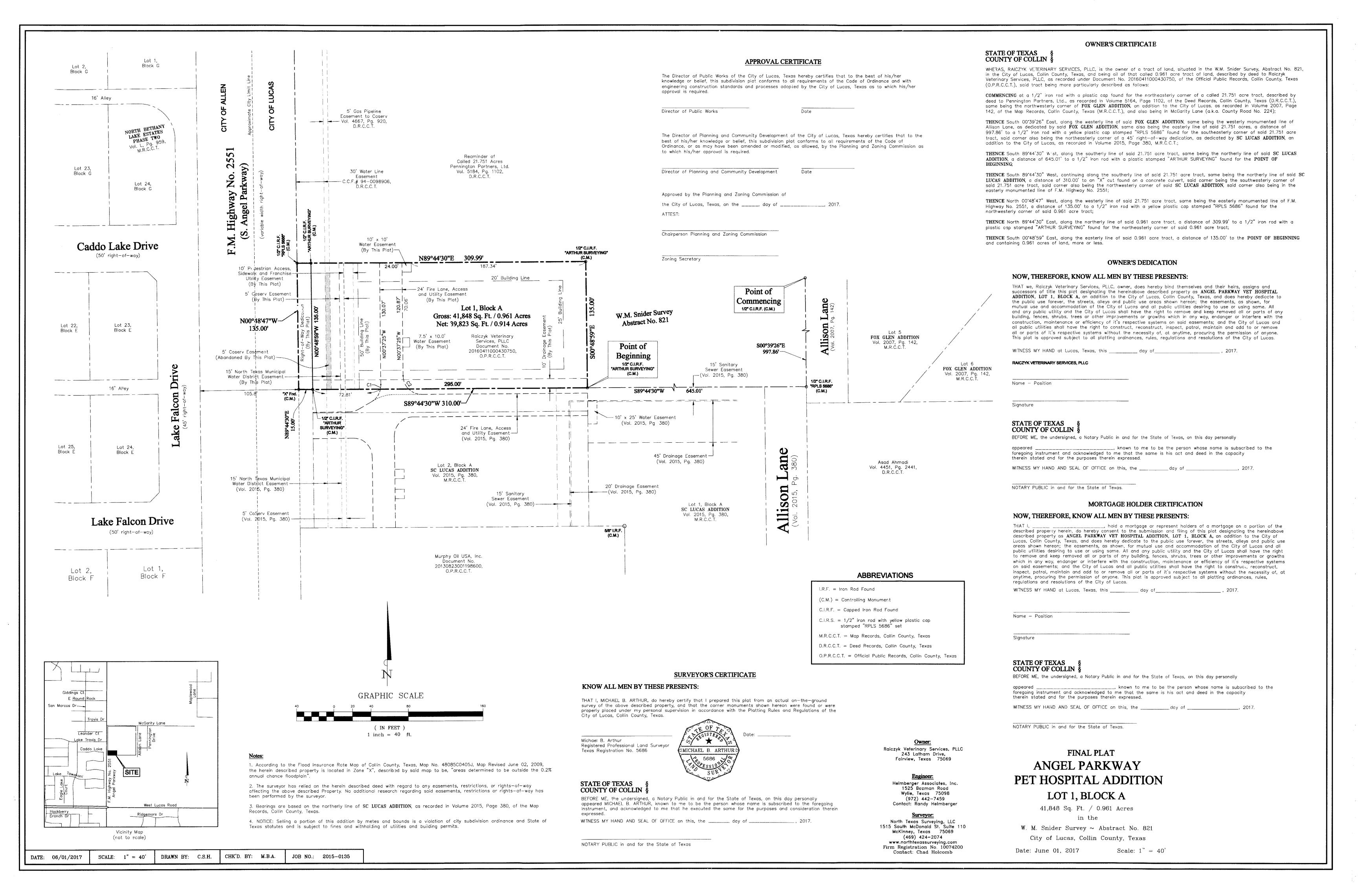


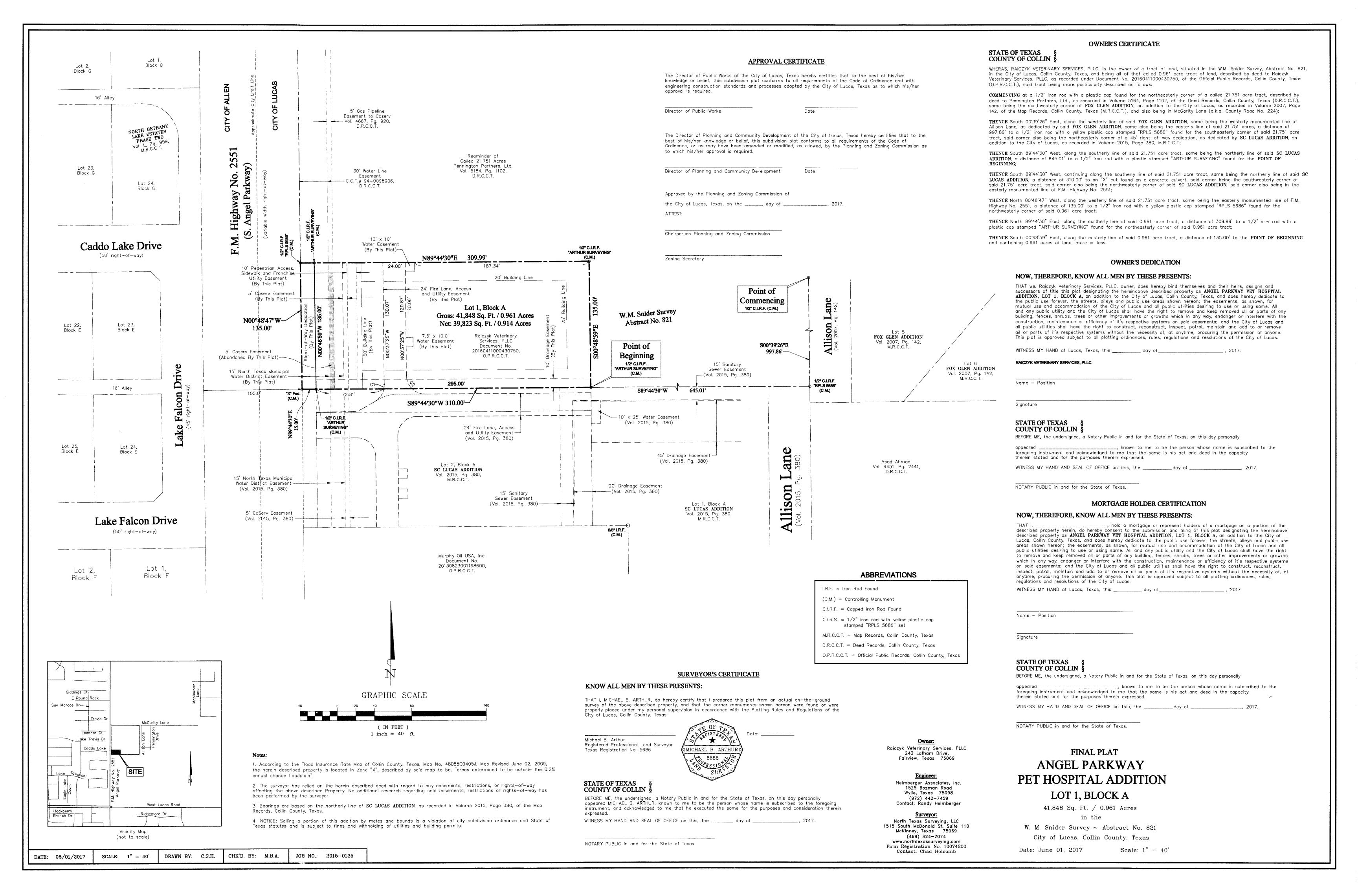
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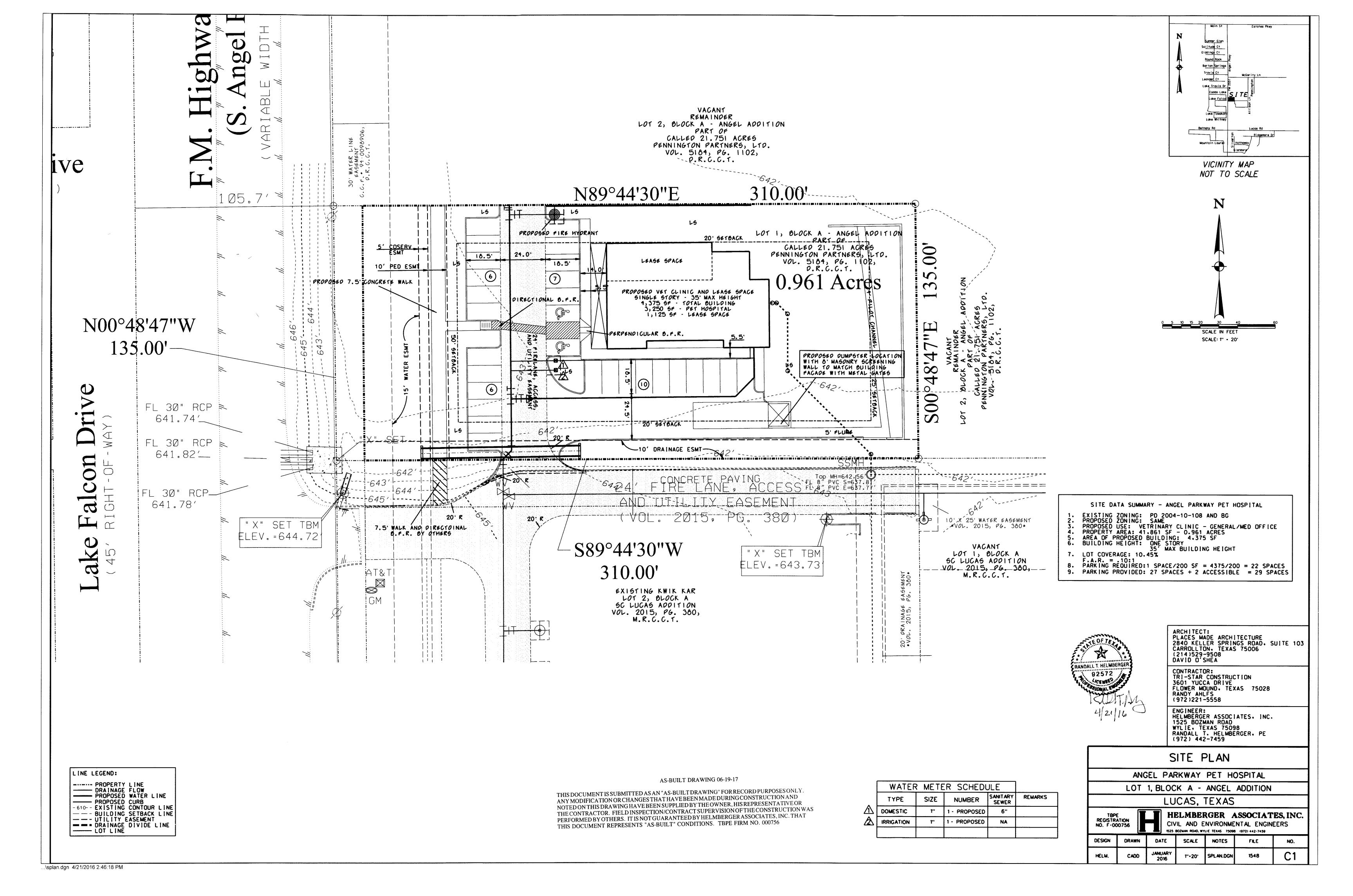
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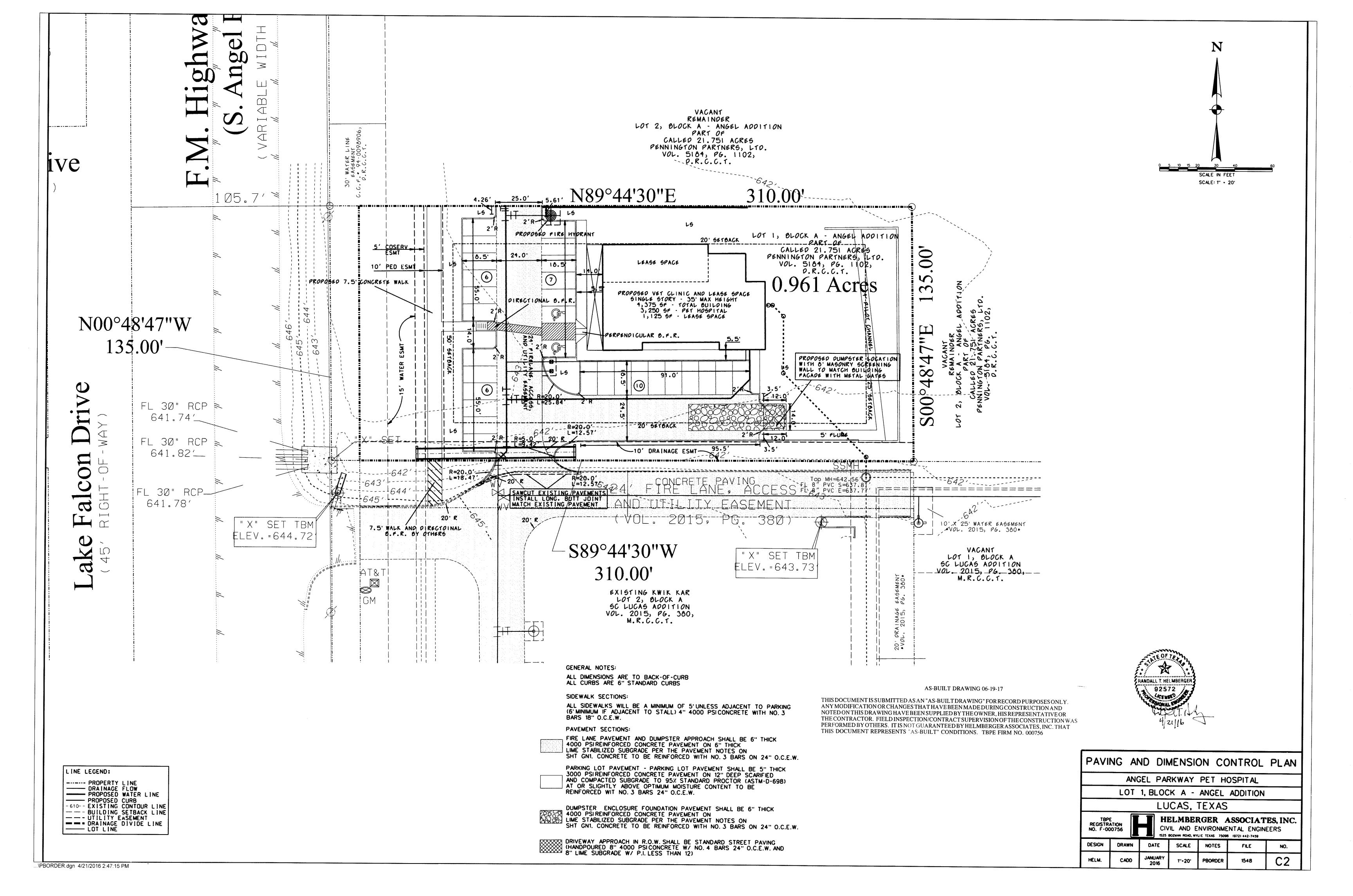
AS-BUILT DRAWING 06-19-17

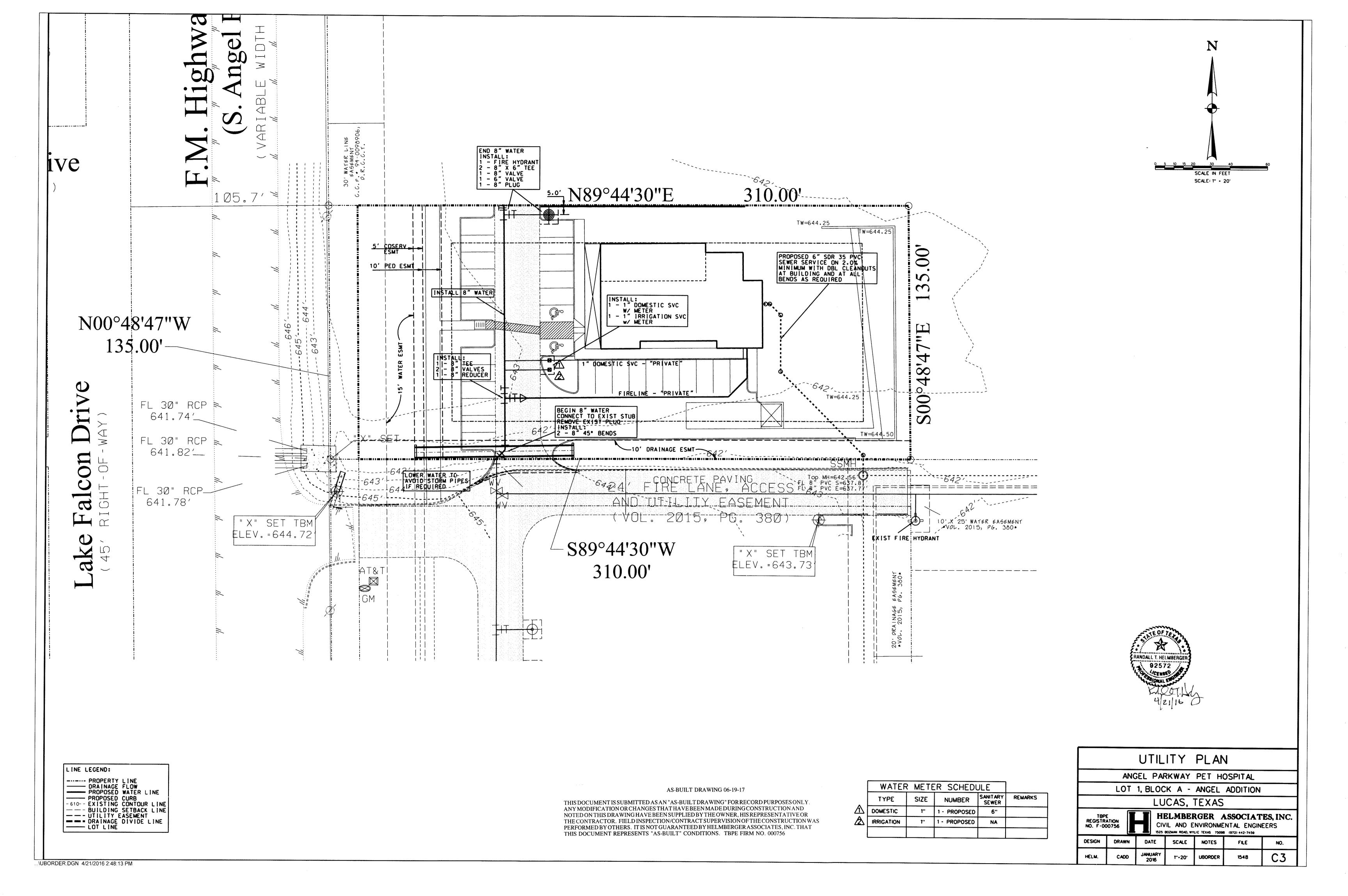
THIS DOCUMENT IS SUBMITTED AS AN "AS-BUILT DRAWING" FOR RECORD PURPOSES ONLY. ANY MODIFICATION OR CHANGES THAT HAVE BEEN MADE DURING CONSTRUCTION AND NOTED ON THIS DRAWING HAVE BEEN SUPPLIED BY THE OWNER, HIS REPRESENTATIVE OR THE CONTRACTOR. FIELD INSPECTION/CONTRACT SUPERVISION OF THE CONSTRUCTION WAS PERFORMED BY OTHERS. IT IS NOT GUARANTEED BY HELMBERGER ASSOCIATES, INC. THAT THIS DOCUMENT REPRESENTS "AS-BUILT" CONDITIONS. TBPE FIRM NO. 000756

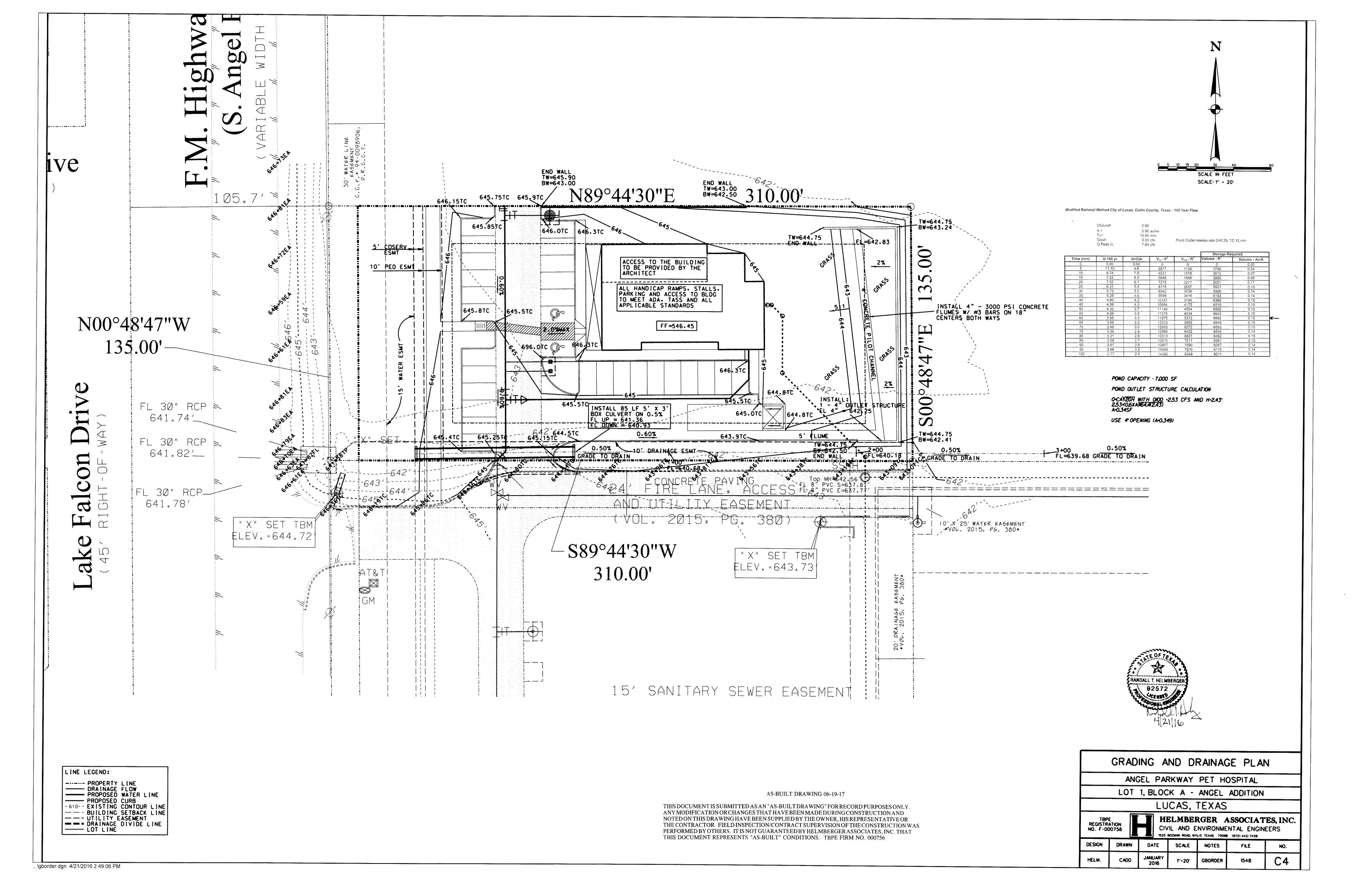


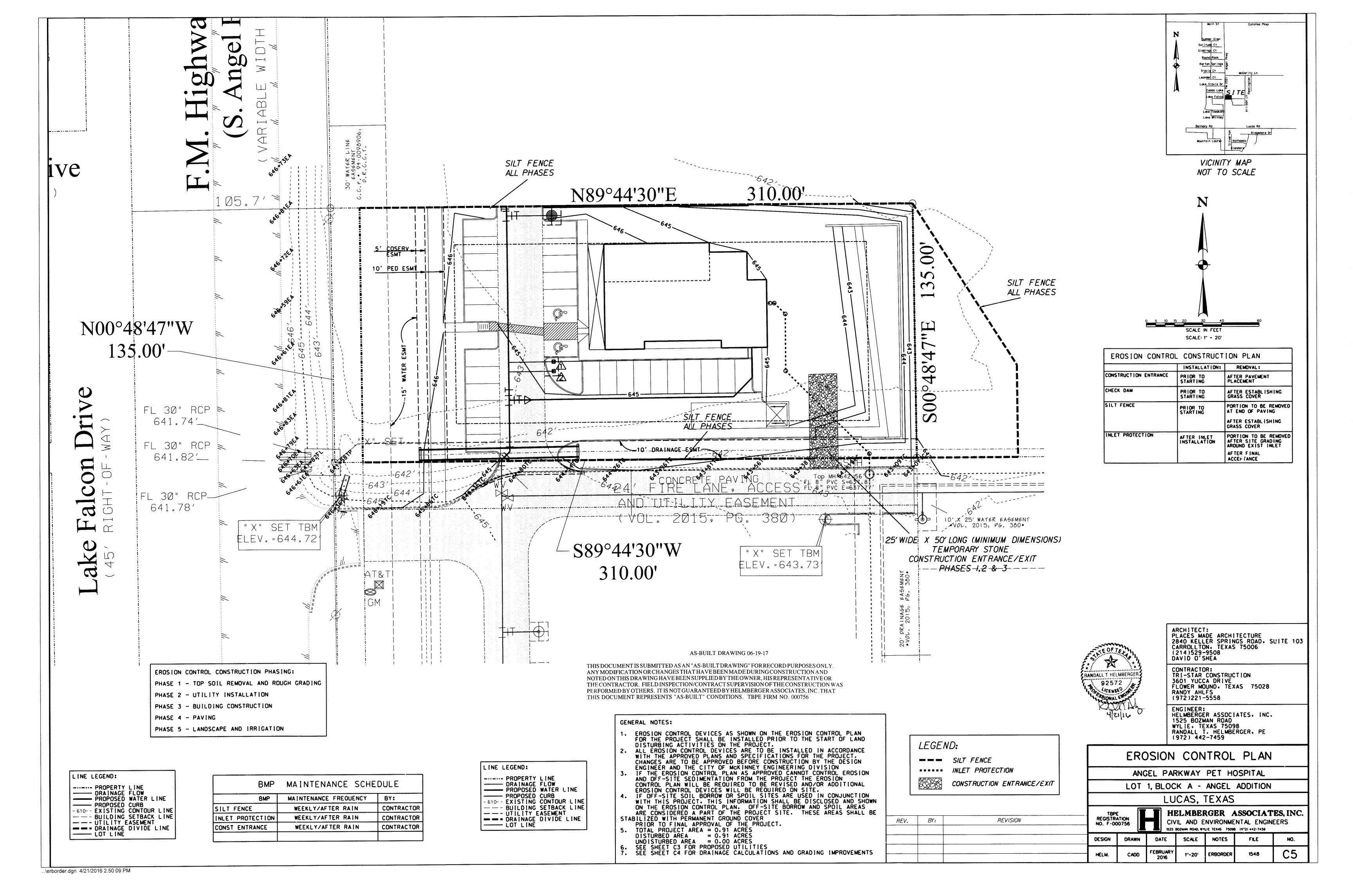


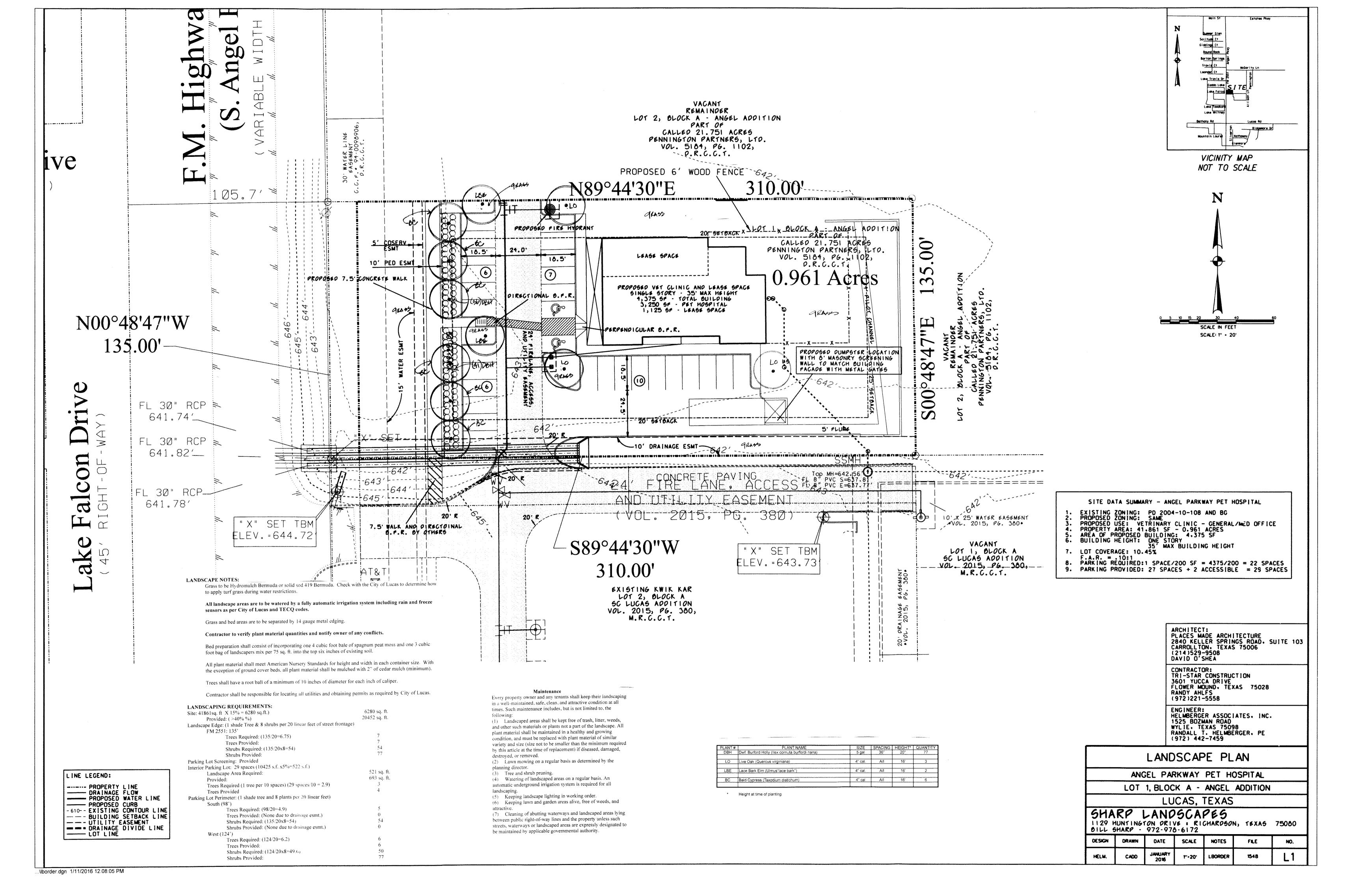


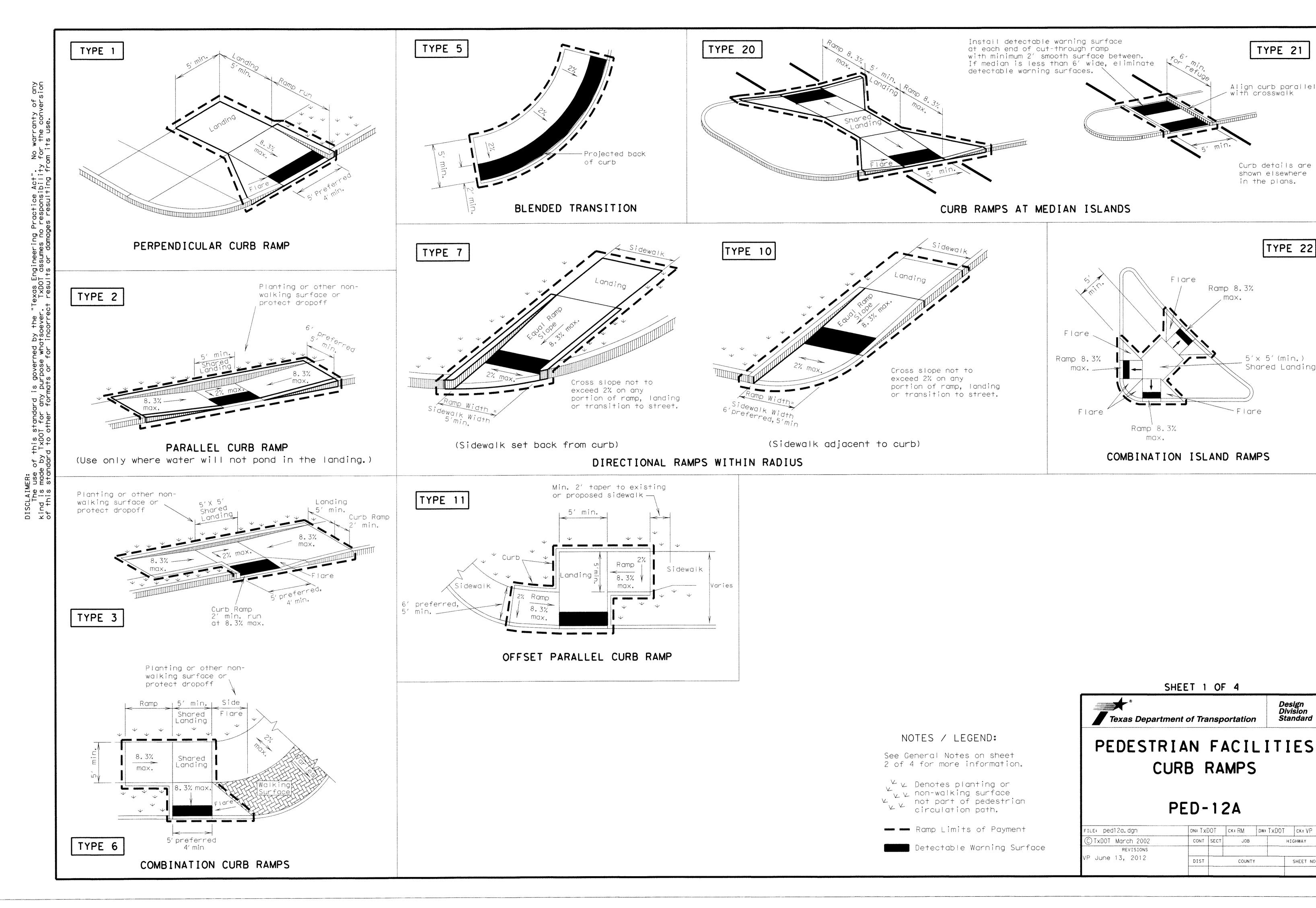












TYPE 21

Align curb parallel with crosswalk

Curb details are shown elsewhere in the plans.

TYPE 22

5'x 5'(min.)

Shared Landing

Design Division Standard

HIGHWAY

SHEET NO.

JOB

Ramp 8.3%

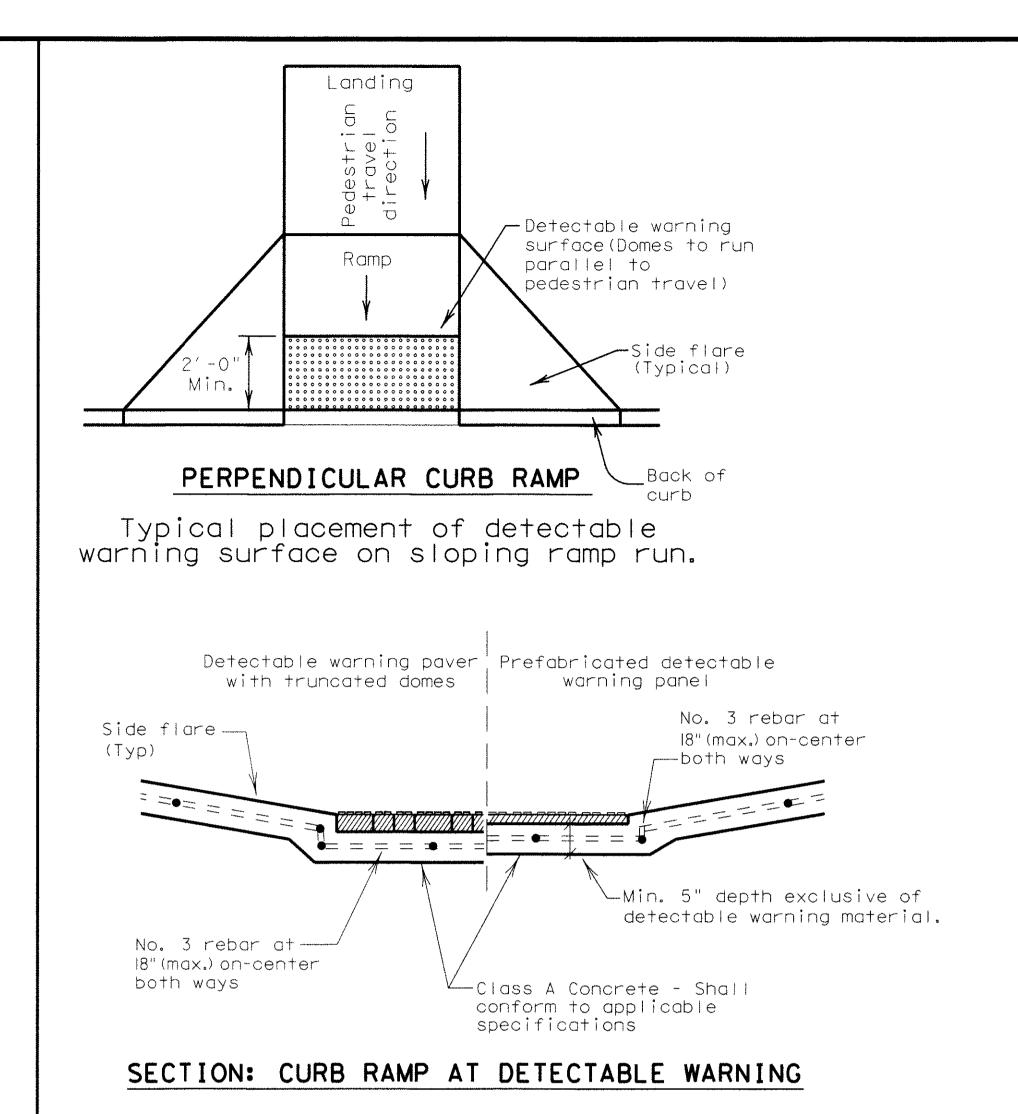
#### General Notes

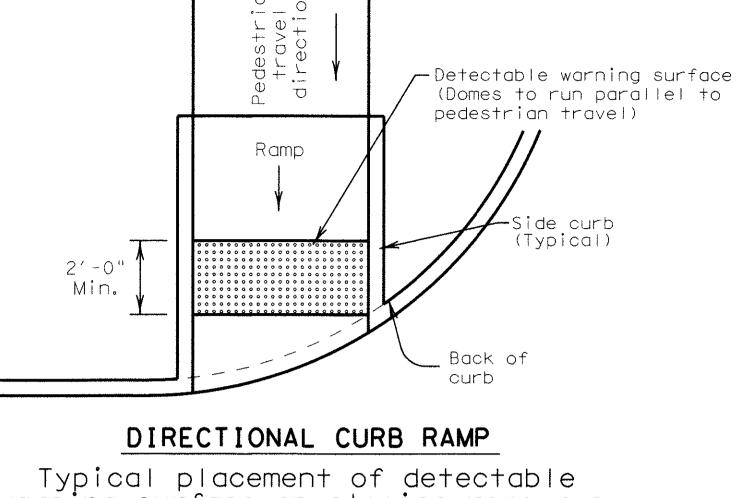
#### Curb Ramps

- 1. Install a curb ramp or blended transition at each pedestrian street crossing.
- 2. All slopes shown are maximum allowable. Lesser slopes that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
- 3. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5'x 5' passing areas at intervals not to exceed 200' are required.
- 4. Landings shall be  $5' \times 5'$  minimum with a maximum 2% slope in any direction.
- 5. Maneuvering space at the bottom of curb ramps shall be a minimum of 4'x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
- 6. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
- 7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
- Additional information on curb ramp location, design, light reflective value and texture may be found in the current edition of the Texas Accessibility Standards (TAS) and 16 TAC 68.102.
- 9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
- 10. Small channelization islands, which do not provide a minimum  $5' \times 5'$  landing at the top of curb ramps, shall be cut through level with the surface of the street.
- 11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
- 12. Handrails are not required on curb ramps. Provide curb ramps wherever on accessible route crosses (penetrates) a curb.
- 13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
- 14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
- 15. Provide a smooth transition where the curb ramps connect to the street.
- 16. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
- 17. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.

#### Detectable Warning Material

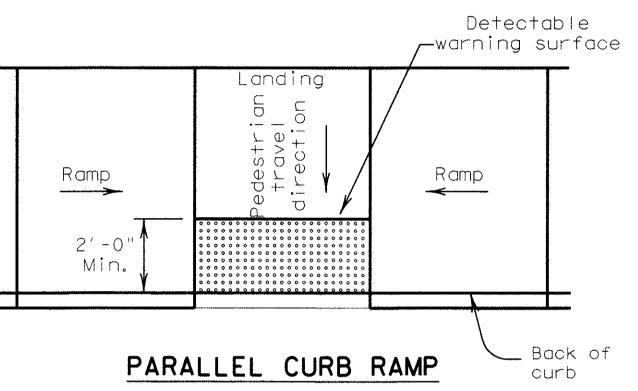
- 18. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with Section 705 of the TAS. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
- 19. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
- 20. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
- 21. Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
- 22. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb. Align the rows of domes to be perpendicular to the grade break between the ramp run and the street. Detectable warning surfaces may be curved along the corner radius.
- 23. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.





warning surface on sloping ramp run.

Landing



Typical placement of detectable warning surface on landing at street edge.

### DETECTABLE WARNINGS

#### Detectable Warning Pavers

- 24. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
- 25. Lay full-size units first followed by closure units consisting of at least 25 percent of a full unit. Cut detectable warning paver units using a power saw.

#### Sidewalks

- 26. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within one or more reach ranges specified in TAS 308.
- 27. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
- 28. Street grades and cross slopes shall be as shown elsewhere in the plans.
- 29. Changes in level greater than 1/4 inch are not permitted.
- 30. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than 5% must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with TAS 505.
- 31. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
- 32. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
- 33. Sidewalk details are shown elsewhere in the plans.

SHEET 2 OF 4

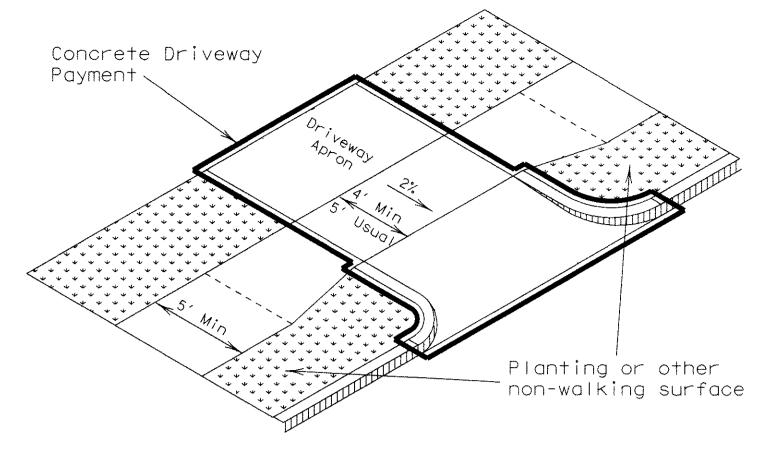
Design Division



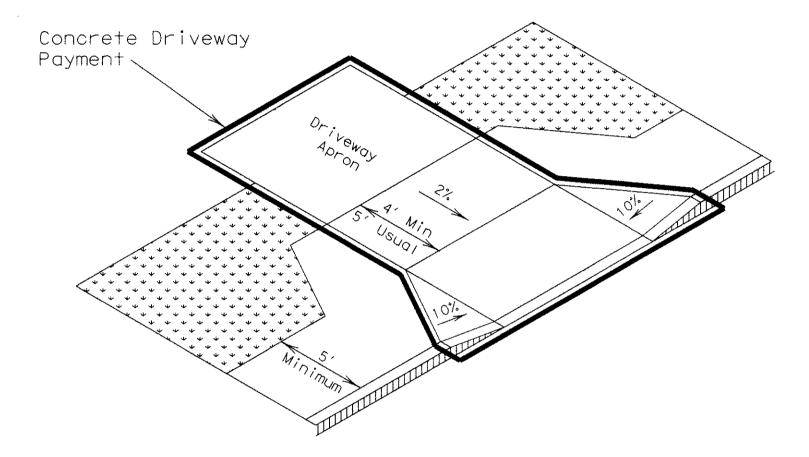
PED-12A

CURB RAMPS

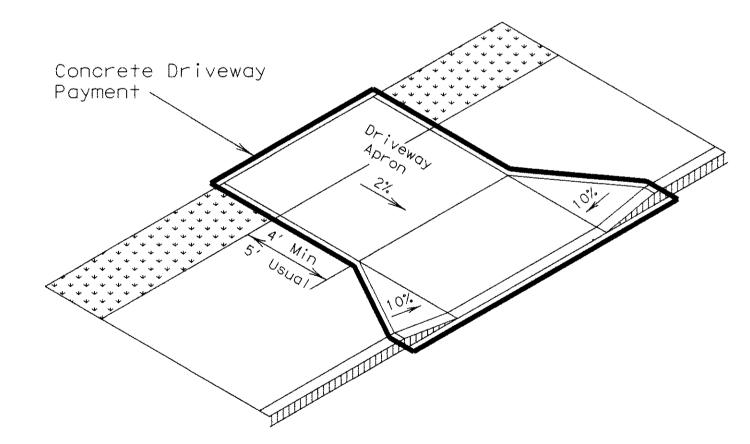
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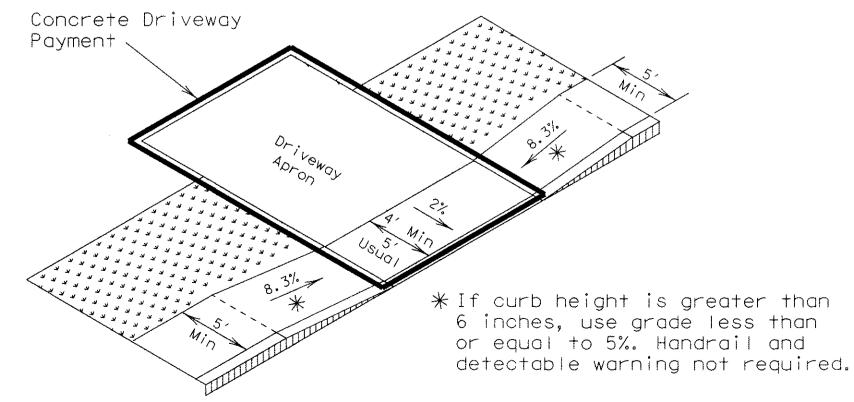
Setback sidewalk



Apron offset sidewalk

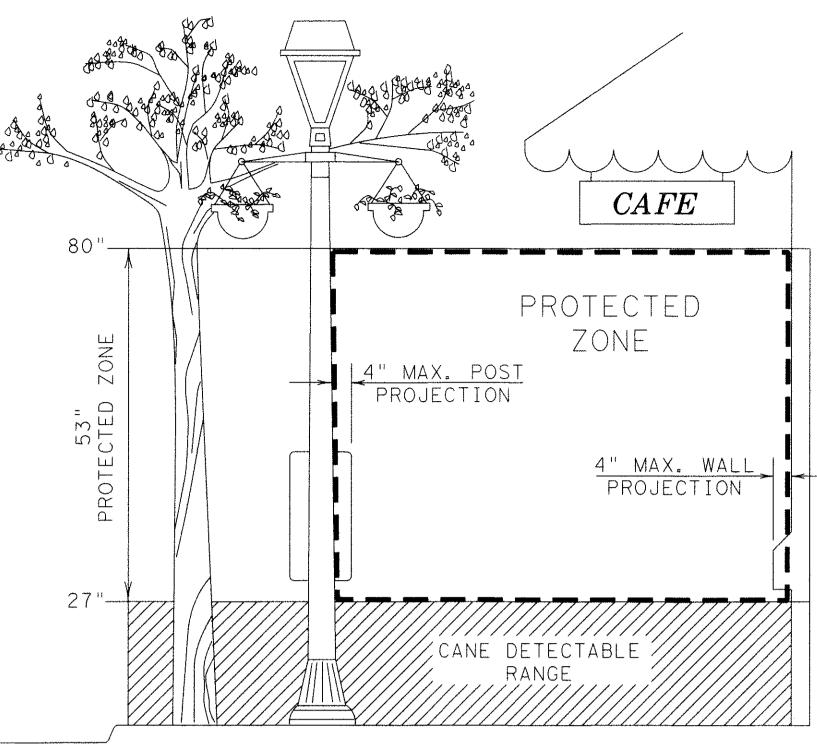


Wide sidewalk



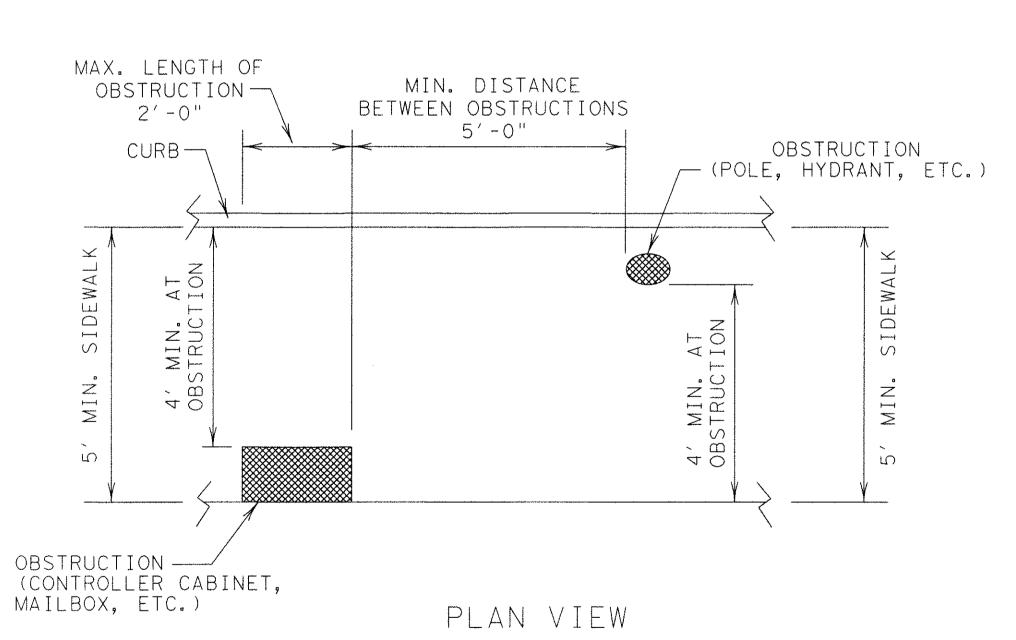
Ramp sidewalk

SIDEWALK TREATMENT AT DRIVEWAYS



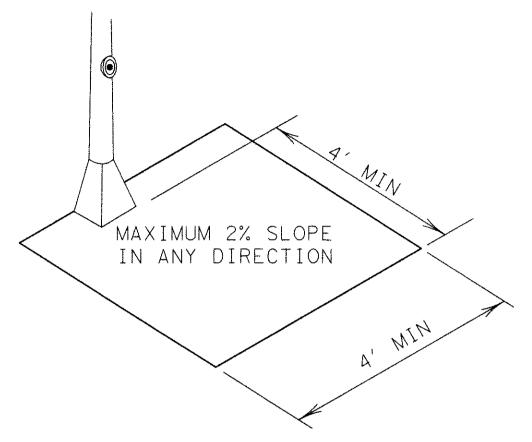
### PROTECTED ZONE

In pedestrian circulation area, maximum 4" projection for post or wall mounted objects between 27"and 80" above the surface.

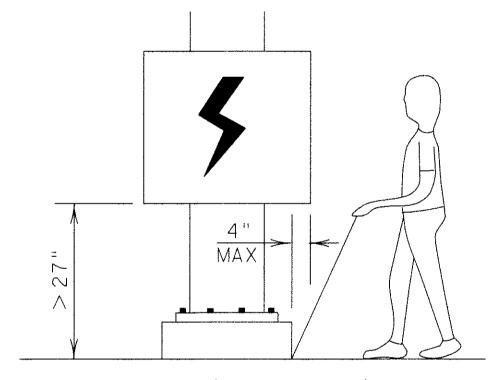


### PLACEMENT OF STREET FIXTURES

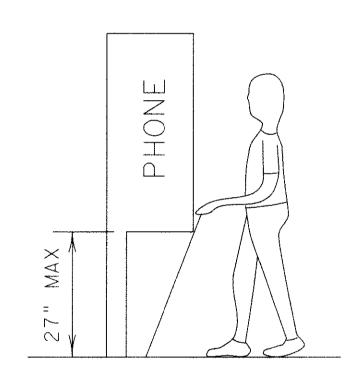
(ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' × 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.)



CLEAR GROUND SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON



When an obstruction of a height greater than 27" from the surface would create a protrusion of more than 4" into the pedestrian circulation area, construct additional curb or foundation at the bottom to provide a maximum 4" overhang.



Protruding objects of a height ≤ 27" are detectable by cane and do not require additional treatment.

DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"



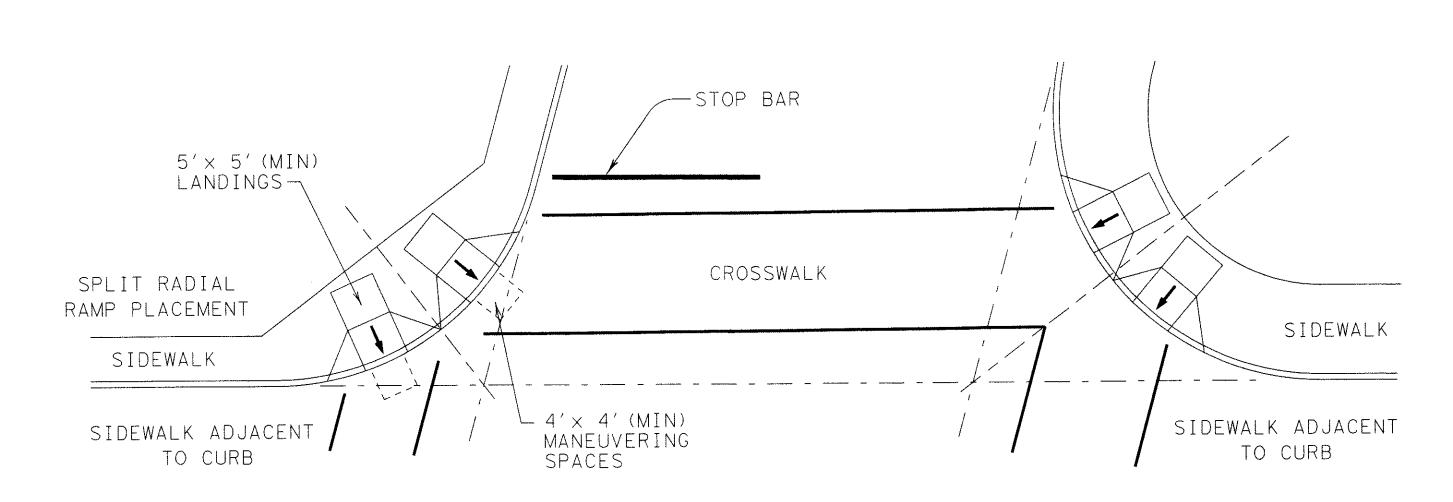


## PEDESTRIAN FACILITIES CURB RAMPS

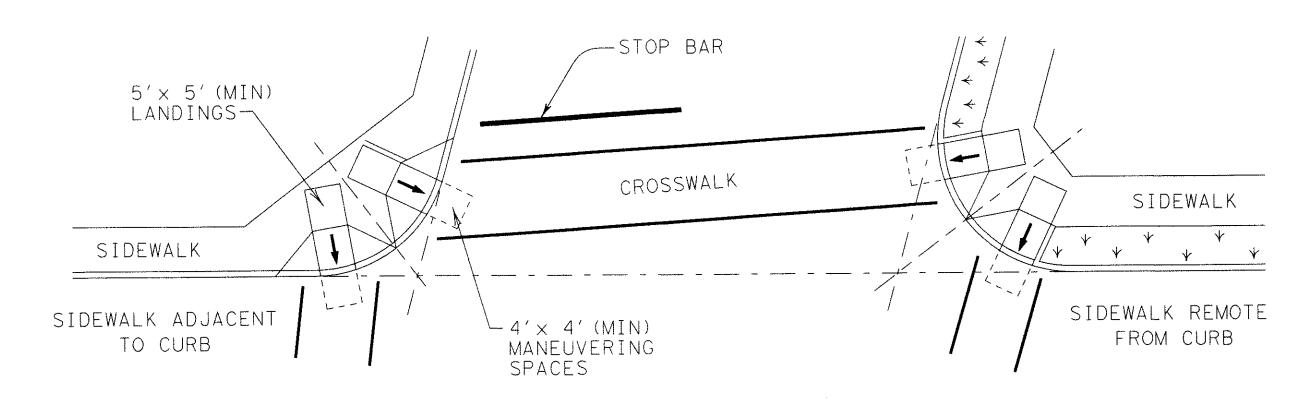
Design Division Standard

PED-12A

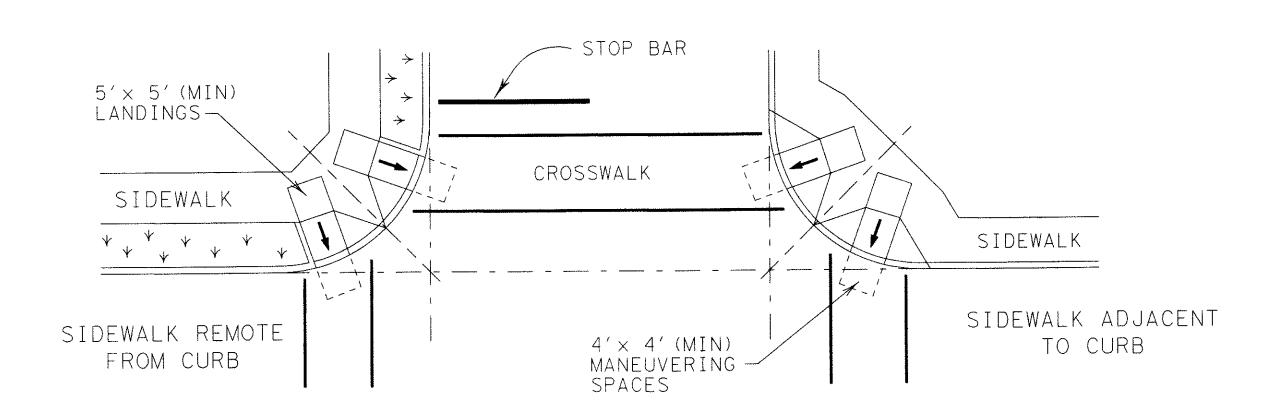
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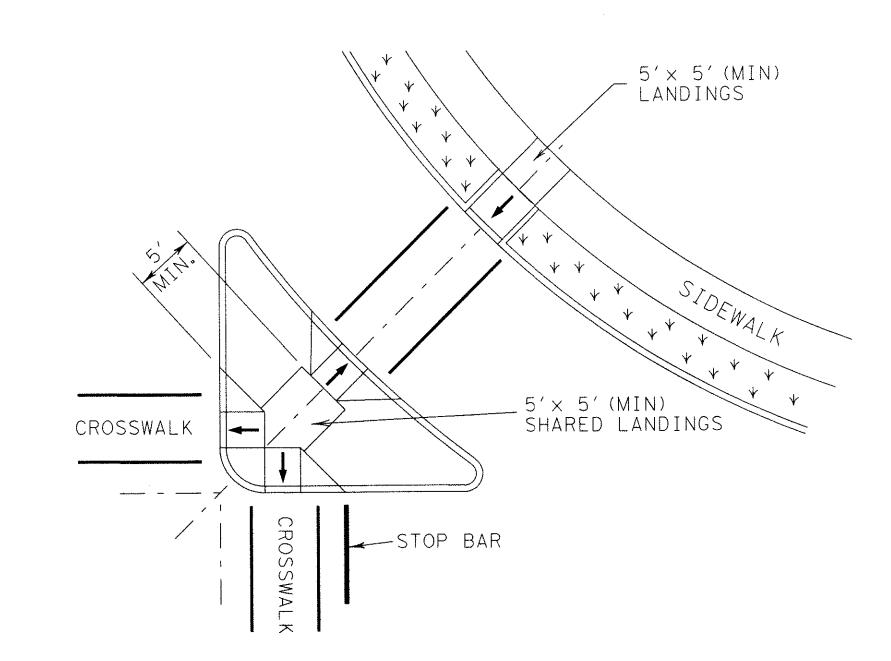
SKEWED INTERSECTION WITH "LARGE" RADIUS



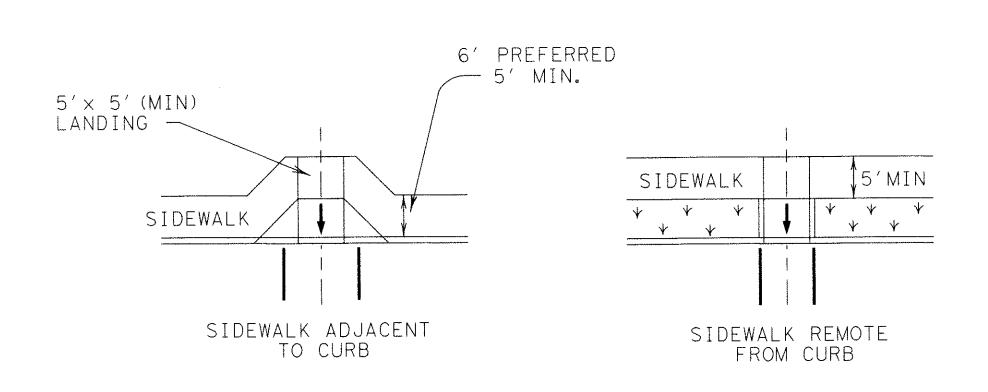
SKEWED INTERSECTION WITH "SMALL" RADIUS



NORMAL INTERSECTION WITH "SMALL" RADIUS



AT INTERSECTION W/FREE RIGHT TURN & ISLAND



MID-BLOCK PLACEMENT PERPENDICULAR RAMPS





Design Division Standard

## PEDESTRIAN FACILITIES CURB RAMPS

PED-12A

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TYPICAL CROSSING LAYOUTS