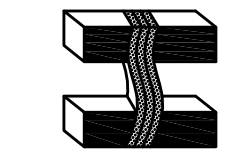


PROPOSED LAYOUT  
& GRADING PLAN-  
400 BLOCK

CITY OF MARSHALL, TX.  
DOWNTOWN REDEVELOPMENT PHASE III  
300 & 400 BLOCK OF N. WASHINGTON AVENUE

**HAYES ENGINEERING, INC.**  
Texas Registered Engineering Firm F-1465  
2126 Alpine St. Longview, TX 75601-3401  
Tel.: (903) 758-2010 • Fax: (903) 758-2099

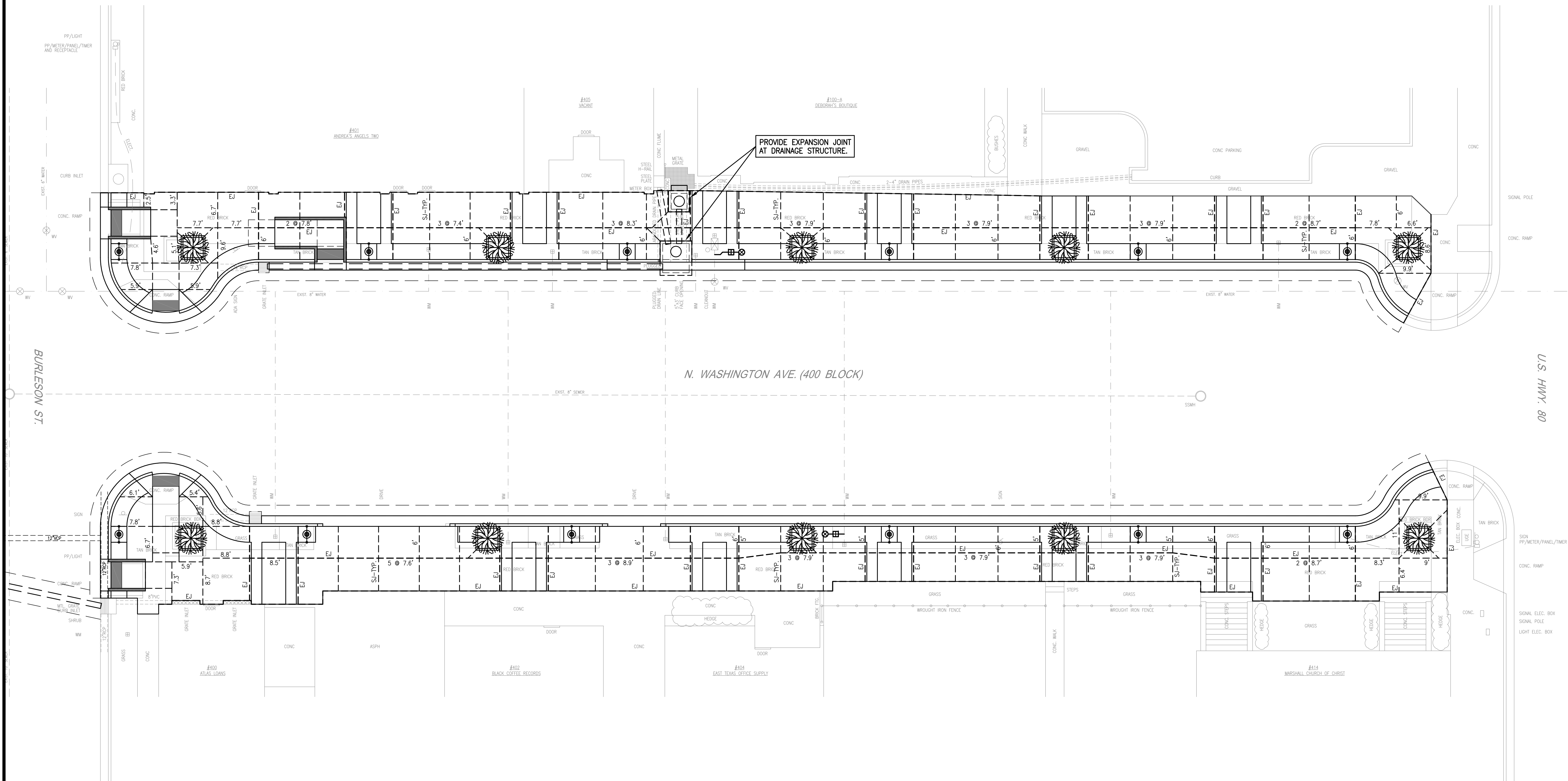
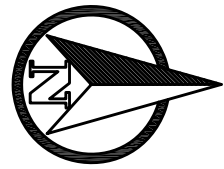


DRAWN BY : R.L.C.  
CHECKED BY : S.R.H.  
DATE : SEPT. 2023  
SCALE : 1"=5'  
JOB NO. : MA-21-01  
MA-22-04

SHEET  
16  
OF 27 SHEETS







NOTES

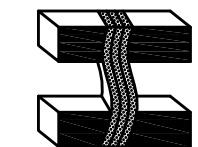
- CONTRACTOR TO PROVIDE 1/2" MASTIC ISOLATION JOINT AROUND ALL EXISTING STRUCTURES/FEATURES THAT ARE TO REMAIN WITHIN PROPOSED CONCRETE PAVING. (ELEC. VAULTS, GW'S, W'S, FH'S, WM'S ETC.)

----- EXPANSION JOINT (EJ)  
----- SAWED JOINT (SJ)

ALL EXPOSED NEW CONCRETE SURFACES SHALL HAVE A LIGHT BROOM FINISH.

HAYES ENGINEERING, INC.

Texas Registered Engineering Firm F-1465  
2126 Alpine St. Longview, TX 75601-3401  
Tel.: (903) 756-2010 • Fax: (903) 756-2099



DRAWN BY : R.L.C.  
CHECKED BY : S.R.H.  
DATE : SEPT. 2023  
SCALE : 1"=10'  
JOB NO. : MA-21-01  
MA-22-04

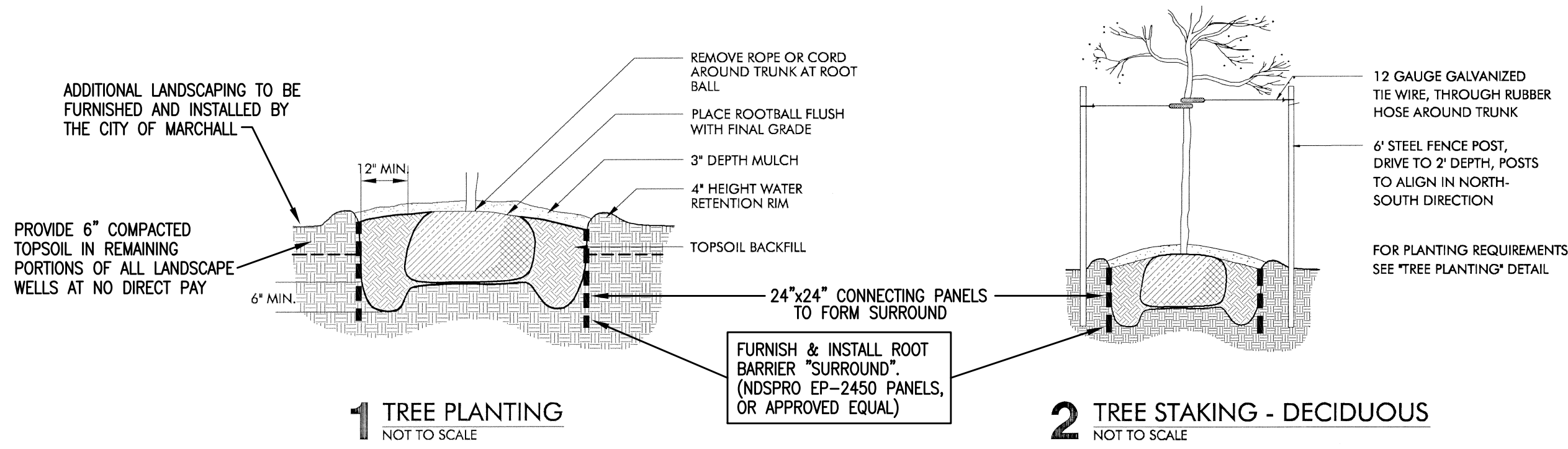
SHEET

18

OF 27 SHEETS

CITY OF MARSHALL, TX.  
DOWNTOWN REDEVELOPMENT PHASE III  
300 & 400 BLOCK OF N. WASHINGTON AVENUE

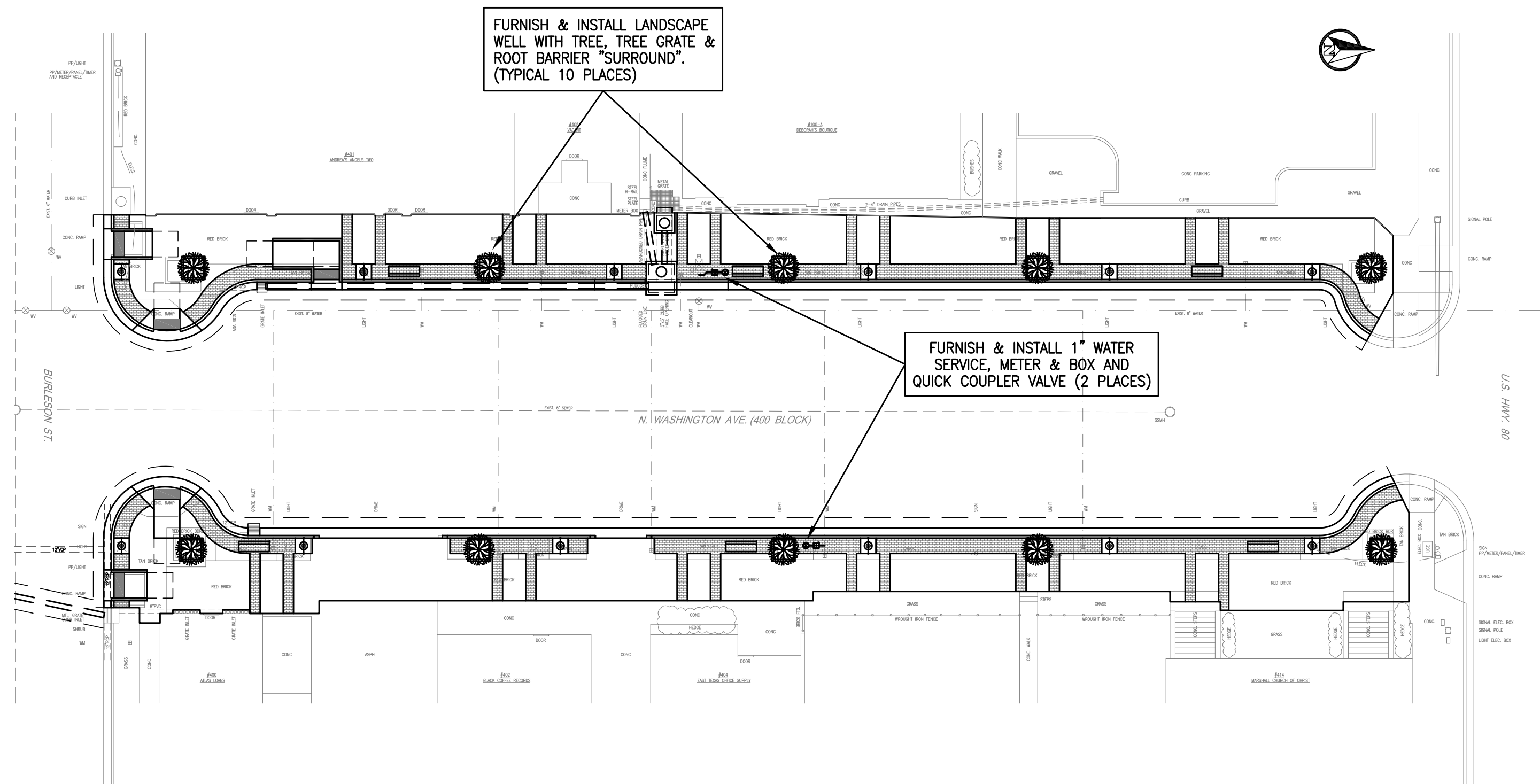
PROPOSED CONCRETE  
JOINT LAYOUT PLAN  
400 BLOCK



### PLANT LEGEND

Qty.	Botanical Name	Common Name	Root Ball	Size	Remarks
TREES					
10	Cercis canadensis "Merlot"	Merlot Redbud	B & B	3"-4" Cp minimum	Matched

Cp = Caliper, Ht = Height, Sp = Spread



### PLANTING NOTES

- THIS SITE HAS A TREMENDOUS AMOUNT OF SUBTERRANEAN UTILITIES AND PIPELINES. SOME OF THESE HAVE BEEN LOCATED ON THE SURVEY AND ARE REFLECTED IN THESE DRAWINGS. IT IS THE CONTRACTOR'S RESPONSIBILITY, HOWEVER, TO HAVE ALL UTILITIES AND PIPELINES LOCATED BEFORE INSTALLING LANDSCAPE MATERIALS. IF THERE ARE CONFLICTS THE ENGINEER SHALL BE CONTACTED IMMEDIATELY.
- CONTRACTOR SHALL VERIFY ALL LANDSCAPE MATERIAL QUANTITIES AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO INSTALLATION.
- CONTRACTOR SHALL MAKE NO SUBSTITUTIONS WITHOUT THE APPROVAL OF THE ENGINEER.
- CONTRACTOR SHALL STAKE LAYOUT PLAN IN THE FIELD AND SHALL HAVE THE LAYOUT APPROVED BY THE ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION.
- ALL LANDSCAPE AREAS SHALL BE MULCHED WITH 3" OF SHREDDED HARDWOOD MULCH. MUCH TO BE APPROVED BY ENGINEER PRIOR TO PLACEMENT. ALL MULCH TO BE RAKED EVEN TO THE SPECIFIED DEPTH & WATER SETTLED. THIS WORK SHALL BE SUBSIDIARY TO LANDSCAPE WORK.
- CONTRACTOR SHALL GUARANTEE ALL WORK AND PLANT MATERIAL FOR PERIOD STATED IN SPECIFICATIONS.
- ANY PLANT MATERIAL WHICH DIES DURING THE GUARANTEE PERIOD SHALL BE REMOVED IMMEDIATELY AND REPLACED BY THE CONTRACTOR DURING THE NEXT NORMAL PLANTING SEASON IN ACCORDANCE WITH THE SPECIFICATIONS AND LOCAL PRACTICE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE PLANTS. SEE SPECIFICATIONS FOR MAINTENANCE PERIOD.
- ALL PLANT NAMES ON THE PLANT LIST SHALL CONFORM TO HORTICULTURAL NOMENCLATURE AS SET FORTH IN HORTUS III OR IN DATASCAPE, 1994 EDITION AND ALL SUPPLEMENTS.
- ALL PLANT MATERIAL SHALL MEET THE MINIMUM SPECIFICATIONS IN THE "AMERICAN STANDARD FOR NURSERY STOCK" (ANSI Z60.1-1990 OR LATEST REVISION) SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, AND BE FREE OF PLANT DISEASES AND PEST. THE PLANTS SHALL BE OF TYPICAL FORM FOR THE SPECIES AND HAVING A HEALTHY, WELL BRANCHED ROOT SYSTEM.
- SIZES INDICATED ON THE PLANT LIST ARE THE MINIMUM ACCEPTABLE SIZE. IN NO CASE WILL SIZES LESS THAN THE SPECIFIED SIZES BE ACCEPTED.
- PLANTS SHALL BE PRUNED ONLY IN ACCORDANCE WITH STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH OTHER RELATED SITE WORK BEING PERFORMED BY OTHER CONTRACTORS AS REQUIRED TO ACCOMPLISH SITE CONSTRUCTION OPERATIONS.
- THE PLANTING OF ANY PLANT MATERIAL WILL INCLUDE AS SUBSIDIARY ITEMS: MULCH, STAKES AND ANY OTHER ELEMENTS NECESSARY TO INSTALL AS DETAILED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSURING THE TREE PITS ARE EXCAVATED TO TWICE THE ROOT BALL SIZE.

PROPOSED  
LANDSCAPING-  
400 BLOCK

CITY OF MARSHALL, TX.  
DOWNTOWN REDEVELOPMENT PHASE III  
300 & 400 BLOCK OF N. WASHINGTON AVENUE

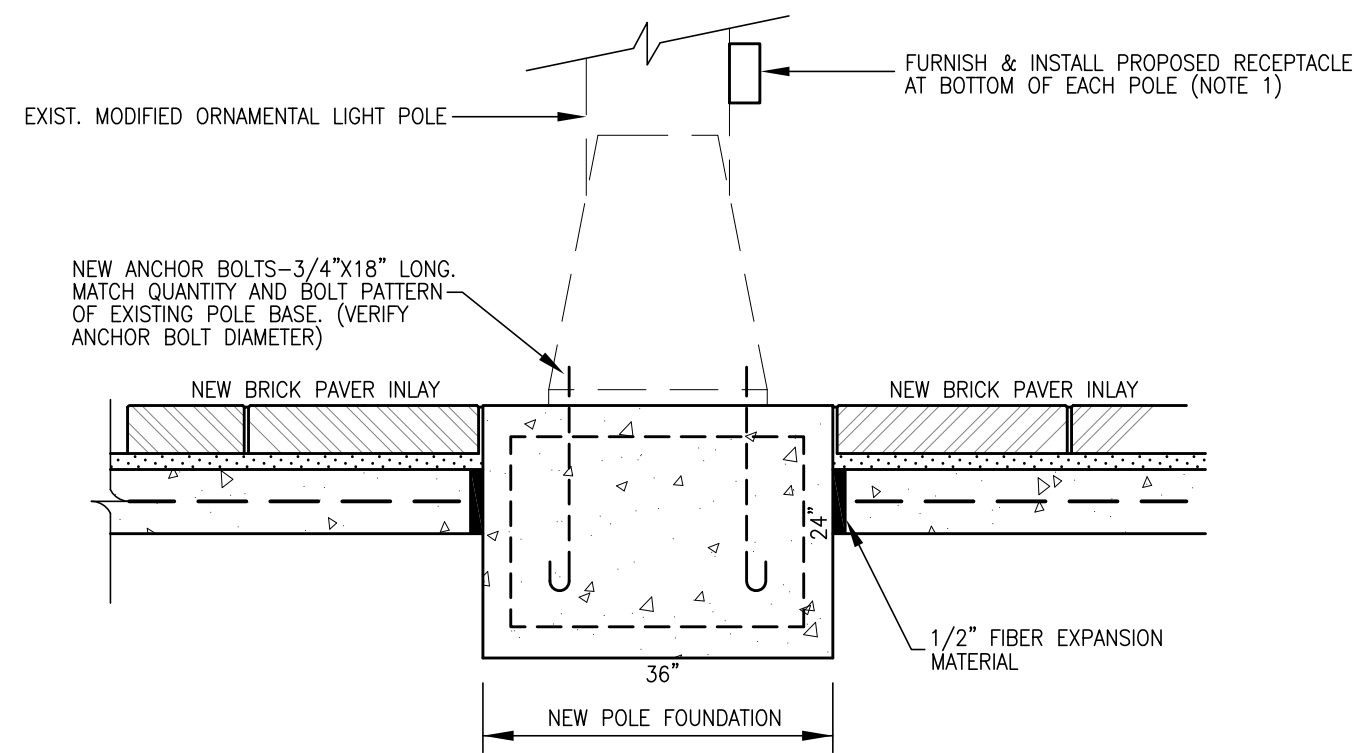
**HAYES ENGINEERING, INC.**  
Texas Registered Engineering Firm F-1465  
2126 Alpine St. Longview, TX 75601-3401  
Tel.: (903) 758-2010 • Fax: (903) 758-2099

**HR**



DRAWN BY : R.L.C.  
CHECKED BY : S.R.H.  
DATE : SEPT. 2023  
SCALE : 1"=20'  
JOB NO. : MA-21-01  
MA-22-04





## EXISTING LIGHT POLE-NEW FOUNDATION DETAIL

N.T.S.

- 1) FURNISH AND INSTALL ADDITIONAL RECEPTACLE AT TOP OF EACH POLE.

## ORNAMENTAL STREET LIGHT POLE/FIXTURE MODIFICATIONS

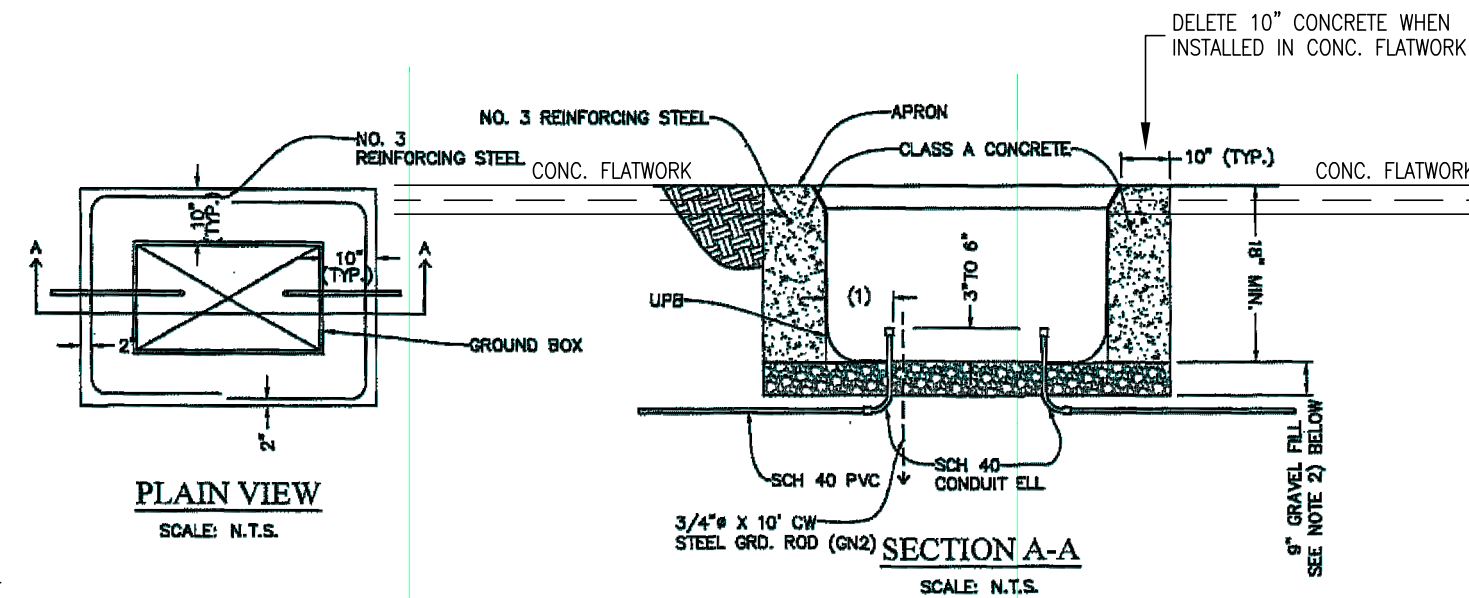
1. EXISTING ORNAMENTAL LIGHT POLES SHALL BE REMOVED, MODIFIED AND RE-USED.
2. CONTRACTOR SHALL REMOVE EXISTING LIGHT FIXTURES & DELIVER TO THE CITY.
3. CONTRACTOR SHALL DELIVER LIGHT POLES TO BRYCE GISELBECK AT "WELDING AND MACHINE WORKS" (903)263-9361 FOR MODIFICATIONS. MODIFICATIONS INCLUDE DRILLING AND TAPPING ONE 1/2" NPT HOLE AT THE TOP AND BOTTOM OF EACH POLE FOR THE ADDITION OF TWO ELECTRICAL RECEPTACLES THAT SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. EACH RECEPTACLE SHALL BE A 20A, 120V, GFCI, DUPLEX IN A FD BOX WITH A WPIU COVER PLATE. PAINT TO MATCH POLE. ADDITIONAL REPAIRS TO EXISTING POLES SHALL ALSO BE PERFORMED AS NECESSARY.
4. EXISTING MODIFIED LIGHT POLES SHALL BE RE-INSTALLED. PROPOSED FOUNDATIONS, CONDUITS AND WIRING SHALL ALSO BE INSTALLED AS SHOWN IN THE PLANS.
5. (12) NEW LIGHT FIXTURES SHALL BE FURNISHED BY THE CITY FOR INSTALLATION BY THE CONTRACTOR.
6. POLES/FIXTURES SHALL BE HANDLED WITH CARE TO PREVENT DAMAGE.

CONTRACTOR SHALL CONSTRUCT POLE FOUNDATION FOR EACH LIGHT FIXTURE. FOUNDATION TO BE 3'X3'X24" THICK, 3000 PSI CONCRETE WITH #4'S AT ABOUT 9" O.C.E.W. AROUND PERIMETER AND TOP AND BOTTOM. FOUNDATION TO BE LEVEL.

- 1 — COORDINATE WITH OWNER AND UTILITY, DISCONNECT POWER. REMOVE ALL TRAFFIC SIGNAL ITEMS. PROVIDE NEW LIGHTING CONTROL PANEL. SERVICE RISER CONDUIT, WIRING, METER & ELECTRICAL RACK SHALL BE REPLACED. F&I NEW CONDUIT & WIRING AS NOTED. SAW CUT AND PROVIDE PAVEMENT REPAIR.
- 2 — 2" (EMPTY)
- 3 — DISCONNECT & REMOVE EXIST. OVERHEAD AND UNDERGROUND SERVICE TO EXIST. ORNAMENTAL LIGHT POLE.
- 4 — 2" W/(4)-#10 (LTO), (4)-#8 (LR), (4)-#8 (LR) & (1)-#6 EGC
- 5 — 2" W/(2)-#10 (LTO), (2)-#8 (LR), (2)-#8 (LR) & (1)-#6 EGC
- 6 — 3/4" X 30' COPPERCLAD STEEL GROUND ROD
- 7 — 18" X 24" PULL BOX
- 8 — COORDINATE WITH OWNER AND UTILITY, DISCONNECT POWER. REPLACE EXIST. SERVICE & METER. PROVIDE NEW LIGHTING CONTROL PANEL NEAR CORNER OF BUILDING. MOUNT ON GALVANIZED UNISTRUT AT FACE OF BUILDING. FURNISH & INSTALL NEW GROUND. SAW CUT AND PROVIDE PAVEMENT REPAIR.
- 9 — F & I DUPLEX RECEPTACLE IN WEATHERPROOF BOX
- 10 — STUB-OUT 10±" AND CAP TWO 2" (EMPTY) FOR FUTURE EXTENSION.

## ELECTRICAL NOTES:

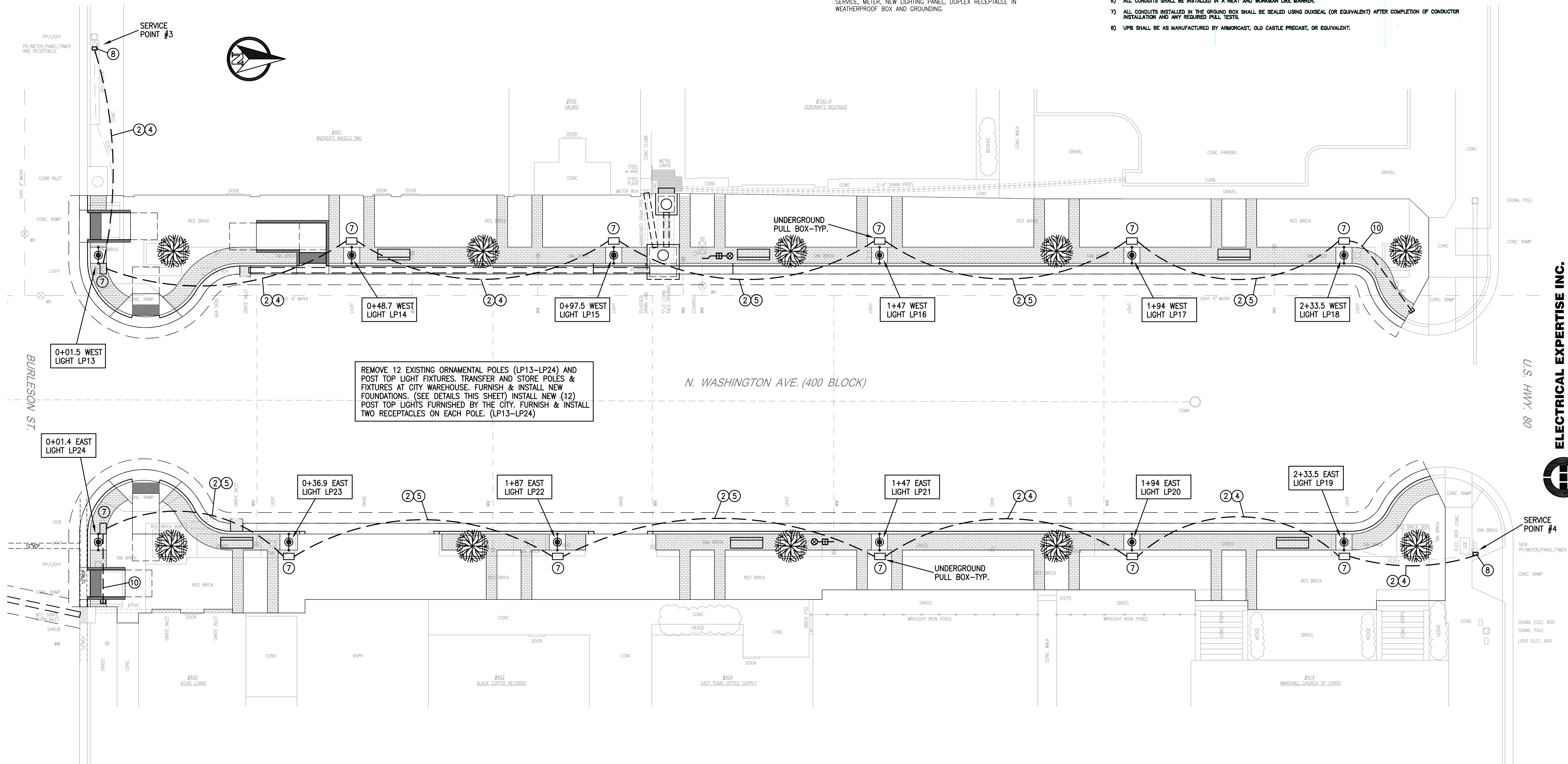
1. ALL ELECTRICAL IMPROVEMENTS SHALL BE IN COMPLIANCE WITH NEC AND CITY OF MARSHALL BUILDING CODES.
2. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING CIRCUITS. COORDINATE WITH OWNER AND UTILITY.
3. PRIOR TO EXISTING LIGHTING CONDUIT REMOVAL, THE CITY OF MARSHALL SHALL INSPECT THE CONDUIT FOR THE POSSIBILITY OF RE-USING IN PLACE WITH NEW WIRING.
4. ALL ORNAMENTAL LIGHTING CONTROLS SHALL HAVE, AT A MINIMUM, SERVICE, METER, NEW LIGHTING PANEL, DUPLEX RECEPTACLE IN WEATHERPROOF BOX AND GROUNDING.



## APRON FOR UNDERGROUND PULL BOX (UPB)

SCALE: N.T.S.

- 1) FINAL POSITION OF END OF CONDUIT SHALL NOT EXCEED ONE - HALF THE DISTANCE TO THE SIDE OF BOX OPPOSITE THE CONDUIT ENTRY.
- 2) PLACE GRAVEL "UNDER" THE BOX AND NOT "IN" THE BOX. GRAVEL SHALL NOT ENCRoACH ON THE INTERIOR VOLUME OF THE BOX.
- 3) INSTALL BUSHING ON THE UPPER END OF ALL CONDUIT ELBOWS.
- 4) WHERE A GROUND ROD IS PRESENT IN THE GROUND BOX, CONNECT IT TO ANY AND ALL EQUIPMENT GROUNDING CONDUCTORS BY EXOTHERMIC WELD PROCESS.
- 5) MAINTAIN SUFFICIENT SPACE BETWEEN ALL CONDUITS SO AS TO ALLOW FOR PROPER INSTALLATION OF BUSHINGS.
- 6) ALL CONDUITS SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER.
- 7) ALL CONDUITS INSTALLED IN THE GROUND BOX SHALL BE SEALED USING DUXSEAL (OR EQUIVALENT) AFTER COMPLETION OF CONDUCTOR INSTALLATION AND ANY REQUIRED PULL TESTS.
- 8) UPB SHALL BE AS MANUFACTURED BY ARMORCAST, OLD CASTLE PRECAST, OR EQUIVALENT.

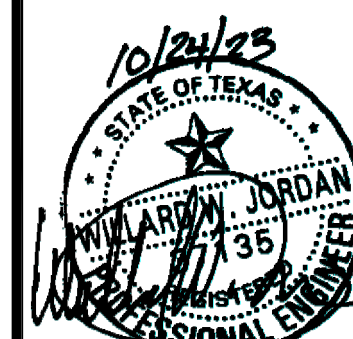


REMOVE 12 EXISTING ORNAMENTAL POLES (LP13-LP24) AND POST TOP LIGHT FIXTURES. TRANSFER AND STORE POLES & FIXTURES AT CITY WAREHOUSE. FURNISH & INSTALL NEW FOUNDATIONS. (SEE DETAILS THIS SHEET) INSTALL NEW (12) POST TOP LIGHTS FURNISHED BY THE CITY. FURNISH & INSTALL TWO RECEPTACLES ON EACH POLE. (LP13-LP24)

ELECTRICAL EXPERTISE INC.  
TEXAS REGISTERED ENGINEERING FIRM F-2490  
ST 87 LAKE CHEROKEE TEL: (903) 736-8868  
HENDERSON, TEXAS 75652



HAYES ENGINEERING, INC.  
Texas Registered Engineering Firm F-1465  
2126 Alpine St. Longview, TX 75601-3401  
Tel.: (903) 758-2010 • Fax: (903) 758-2099



DRAWN BY : R.L.C.  
CHECKED BY : S.R.H.  
DATE : SEPT. 2023  
SCALE : 1"=10'  
JOB NO. : MA-21-01  
MA-22-04

SHEET

20

OF 27 SHEETS

PROPOSED  
LIGHTING PLAN-  
400 BLOCK

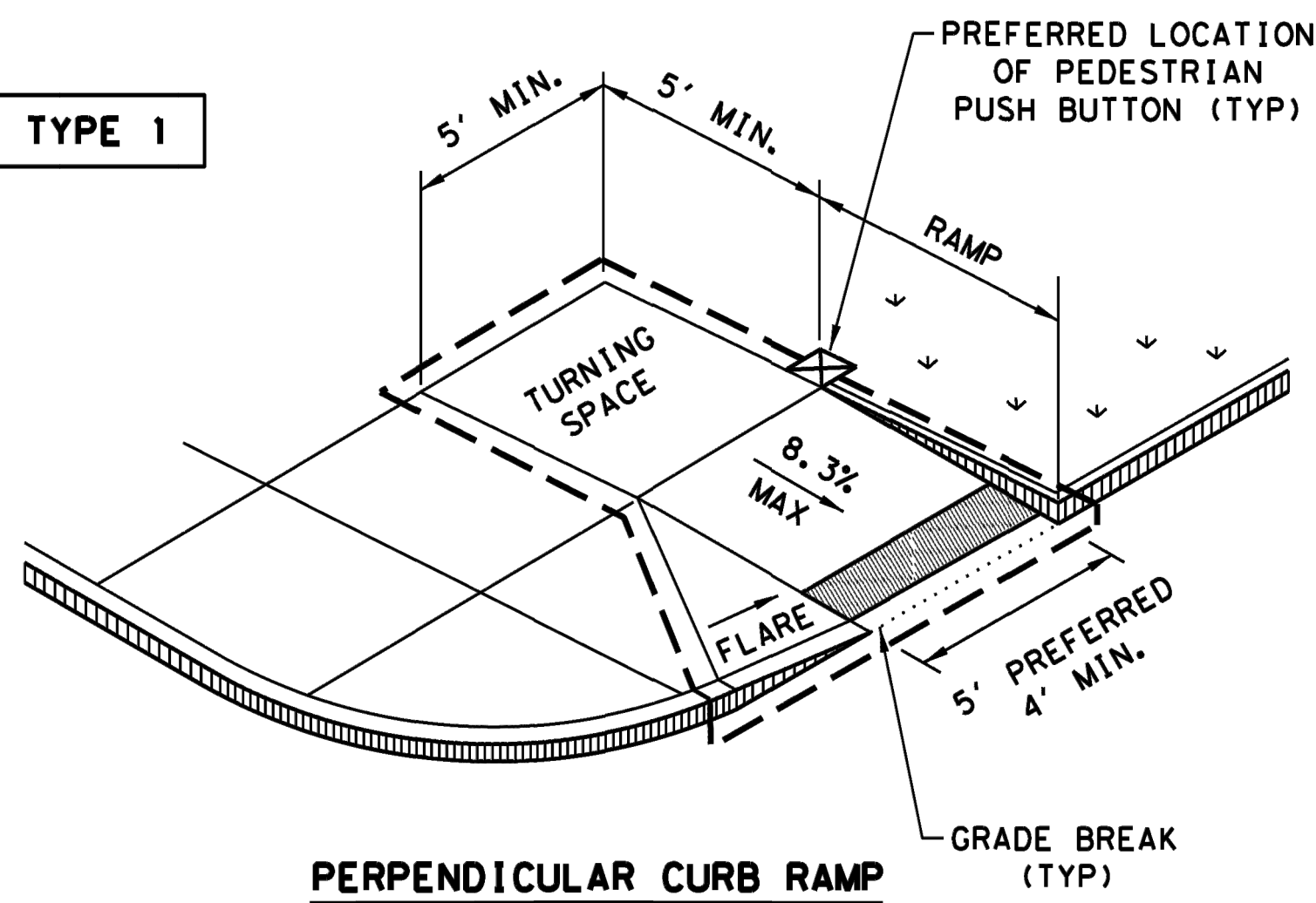
CITY OF MARSHALL, TX.  
DOWNTOWN REDEVELOPMENT PHASE III  
300 & 400 BLOCK OF N. WASHINGTON AVENUE



DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

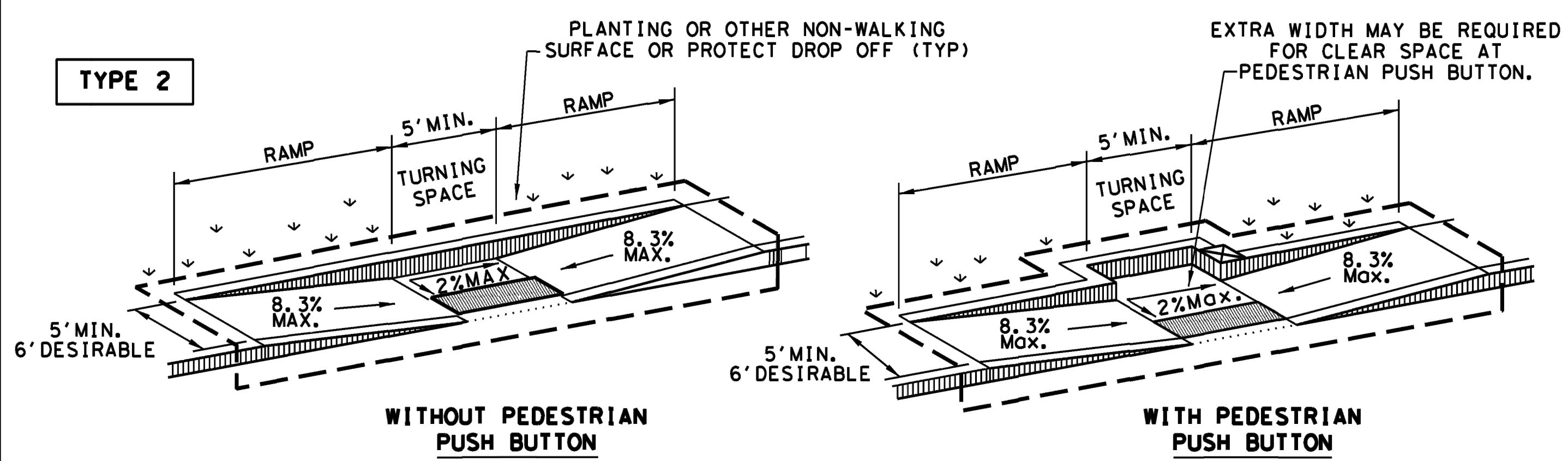
DATE: FILE:

TYPE 1



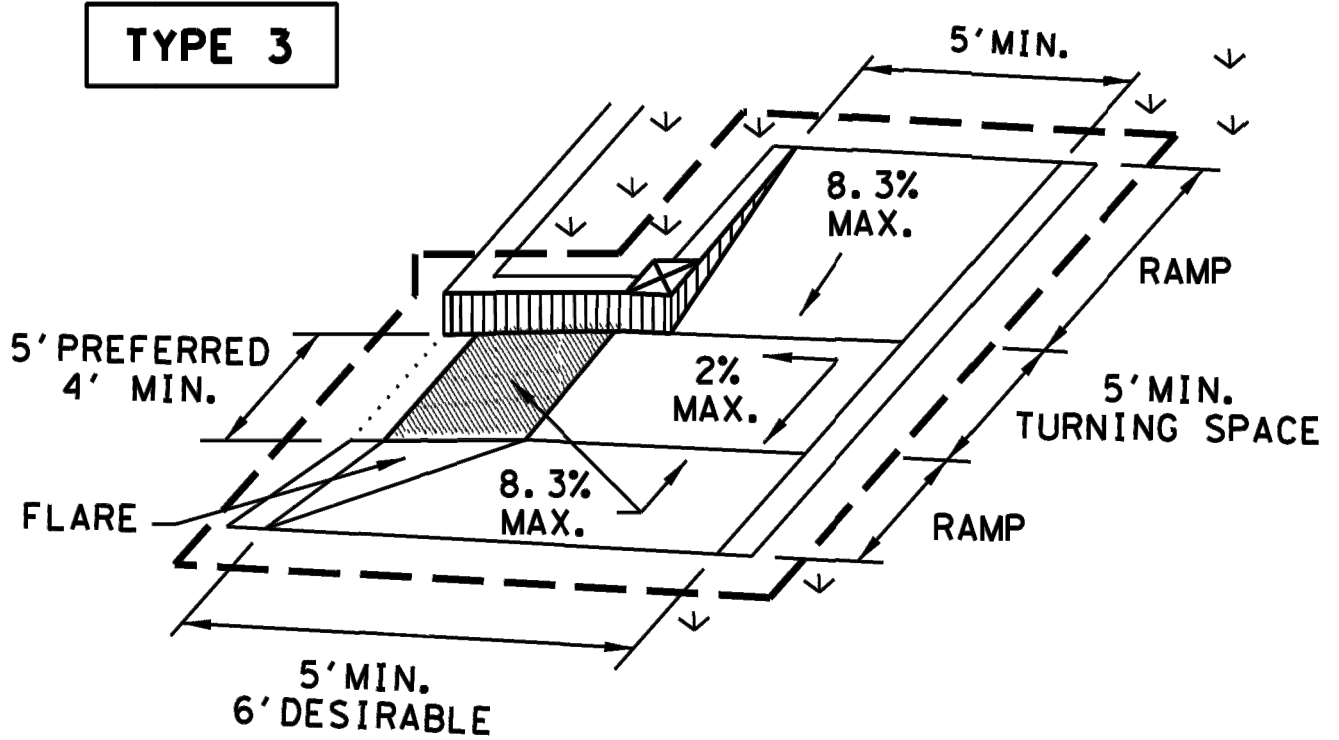
PERPENDICULAR CURB RAMP

TYPE 2

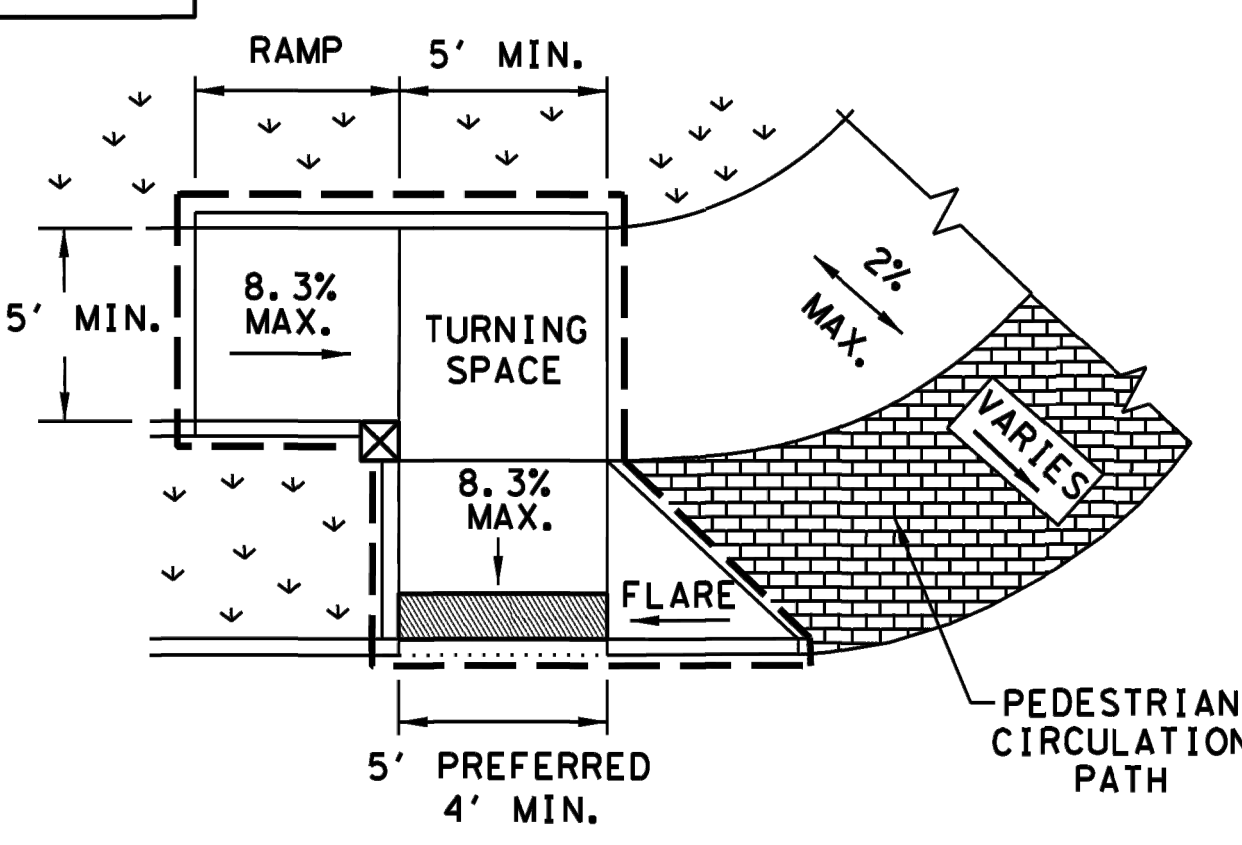


PARALLEL CURB RAMP

TYPE 3

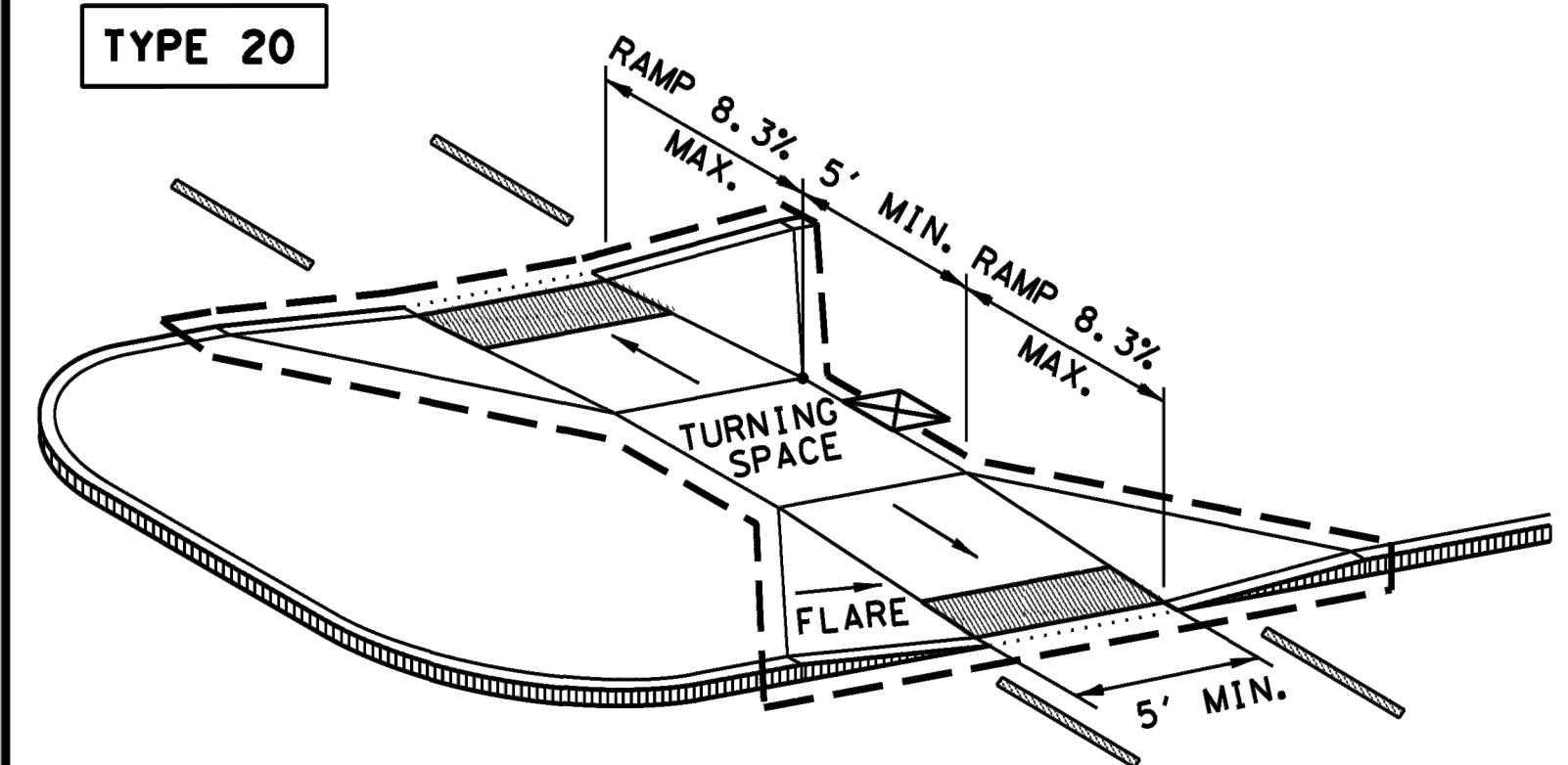


TYPE 6



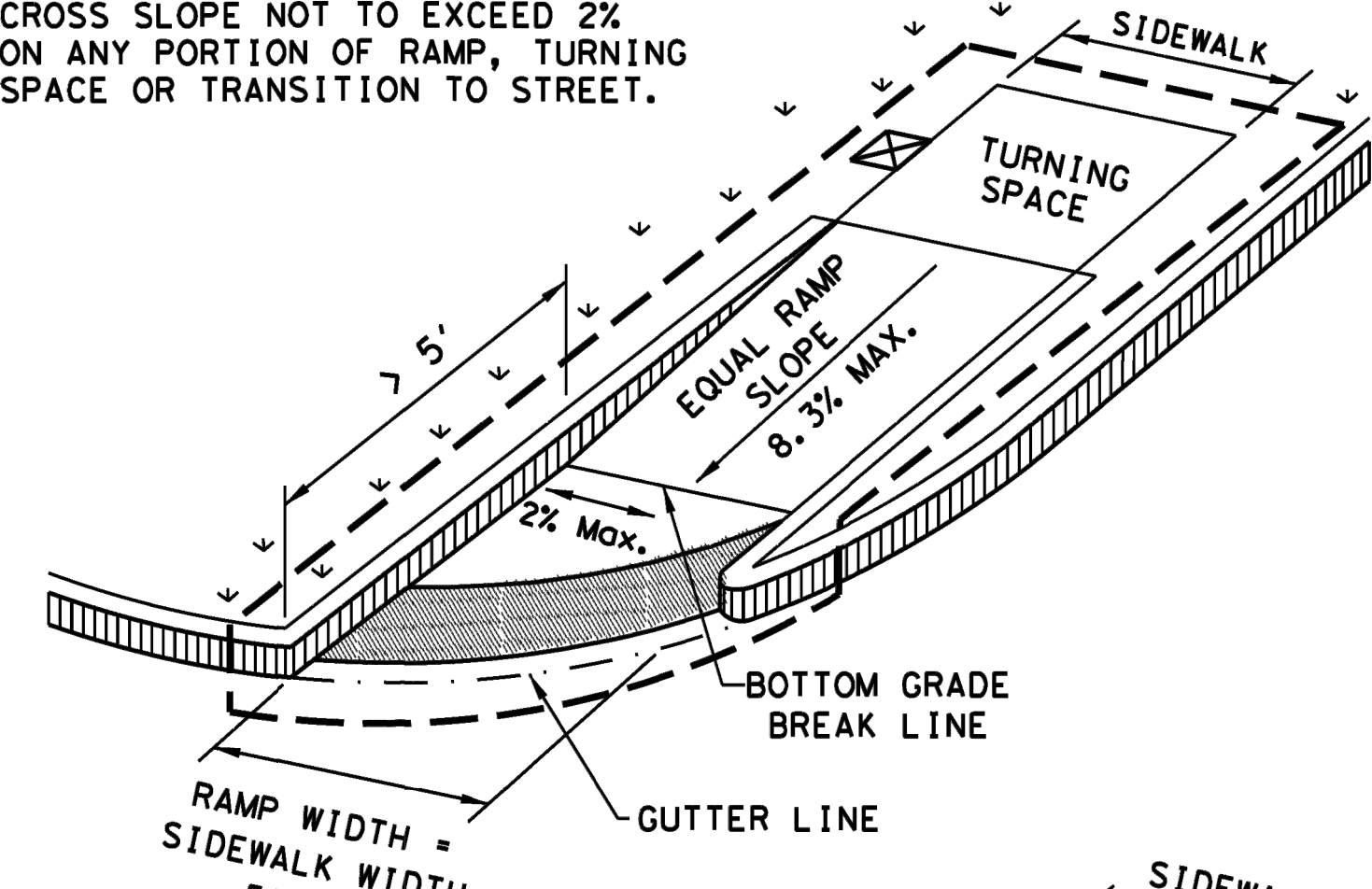
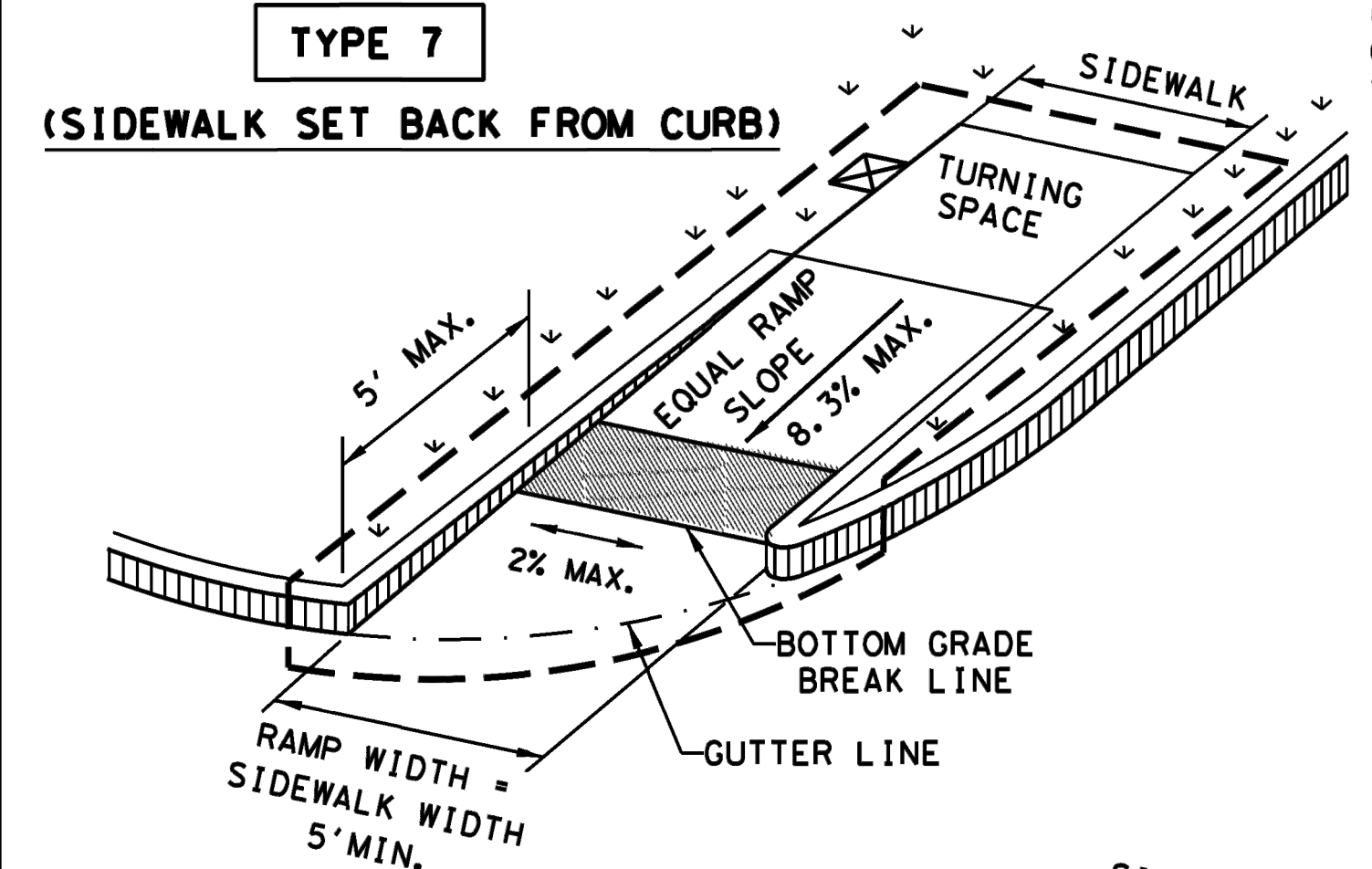
COMBINATION CURB RAMPS

TYPE 20

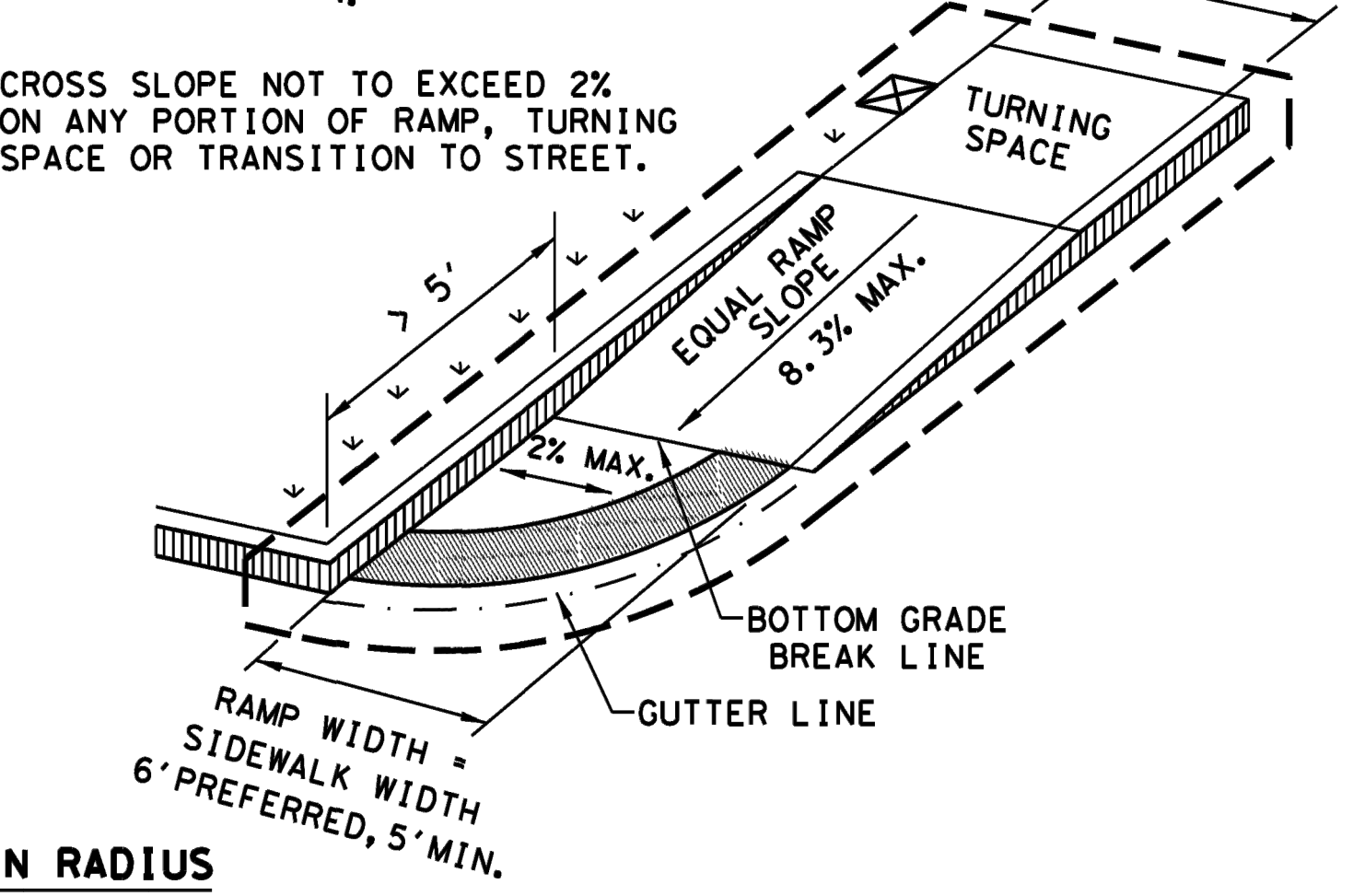
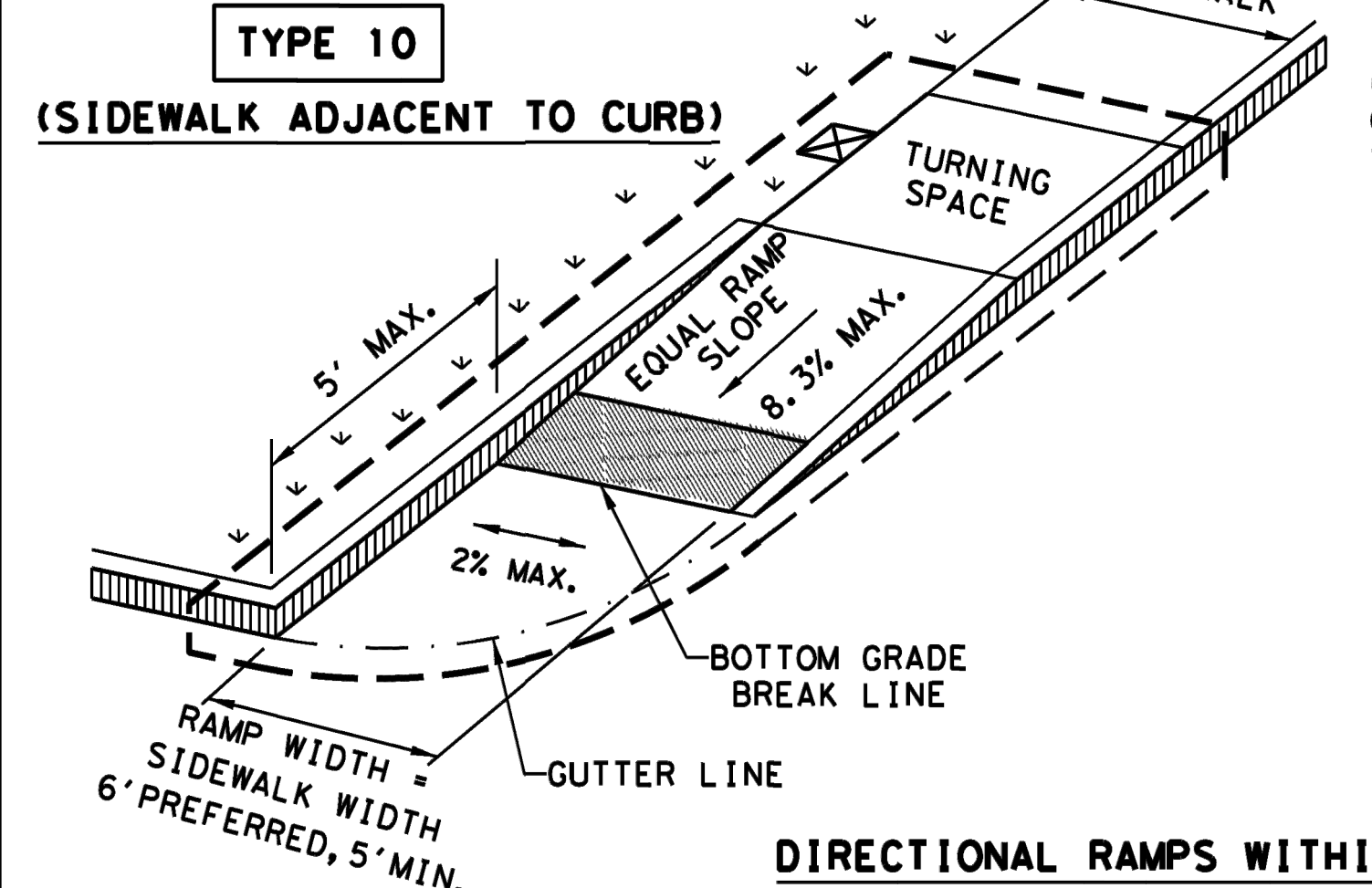


CURB RAMPS AT MEDIAN ISLANDS

TYPE 7

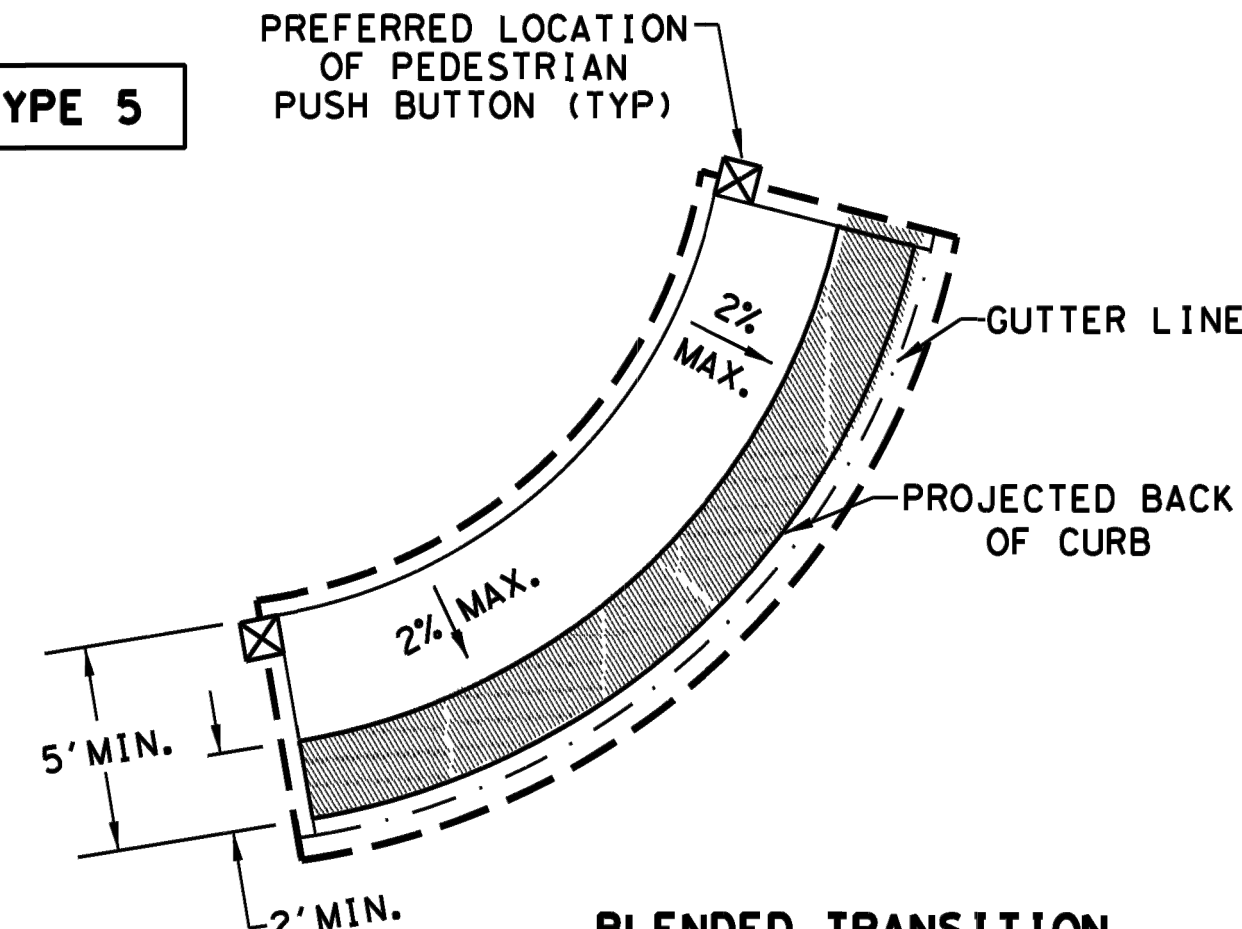


TYPE 10



DIRECTIONAL RAMPS WITHIN RADIUS

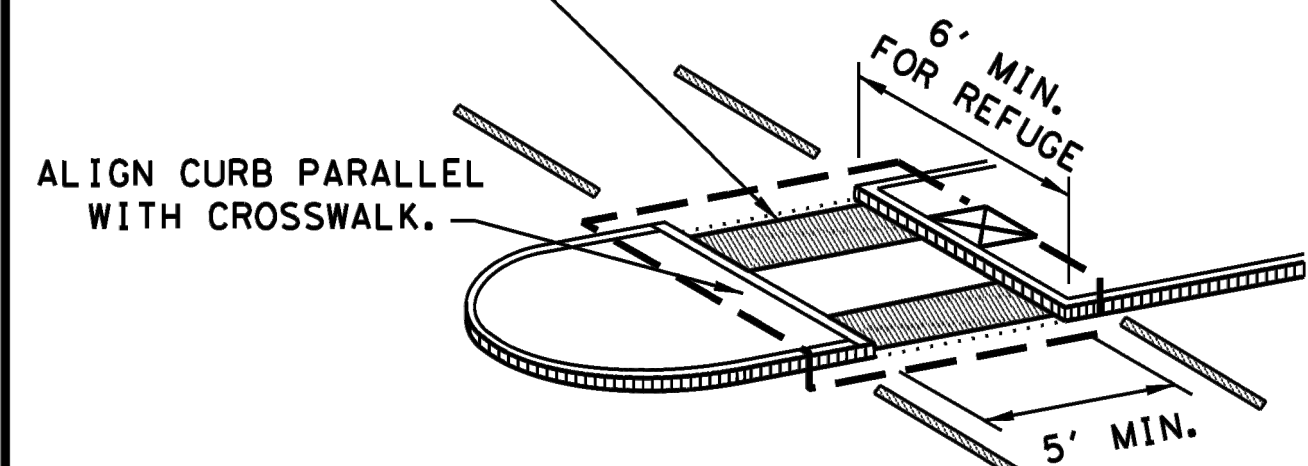
TYPE 5



BLENDED TRANSITION (FLUSH LANDING)

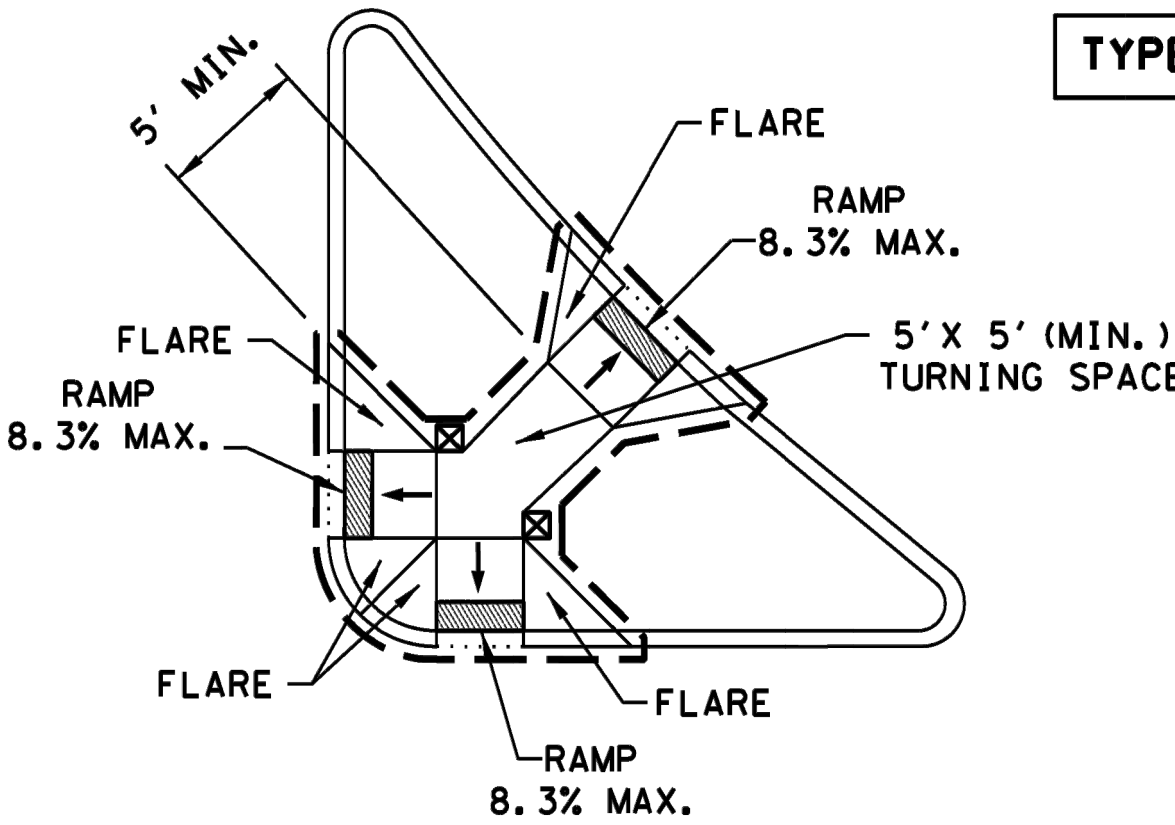
INSTALL DETECTABLE WARNING SURFACE AT EACH END OF THE CUT-THROUGH RAMP WITH A MINIMUM 2' USUAL SIDEWALK SURFACE BETWEEN. IF MEDIAN IS LESS THAN 6' WIDE, ELIMINATE DETECTABLE WARNING SURFACES.

TYPE 21



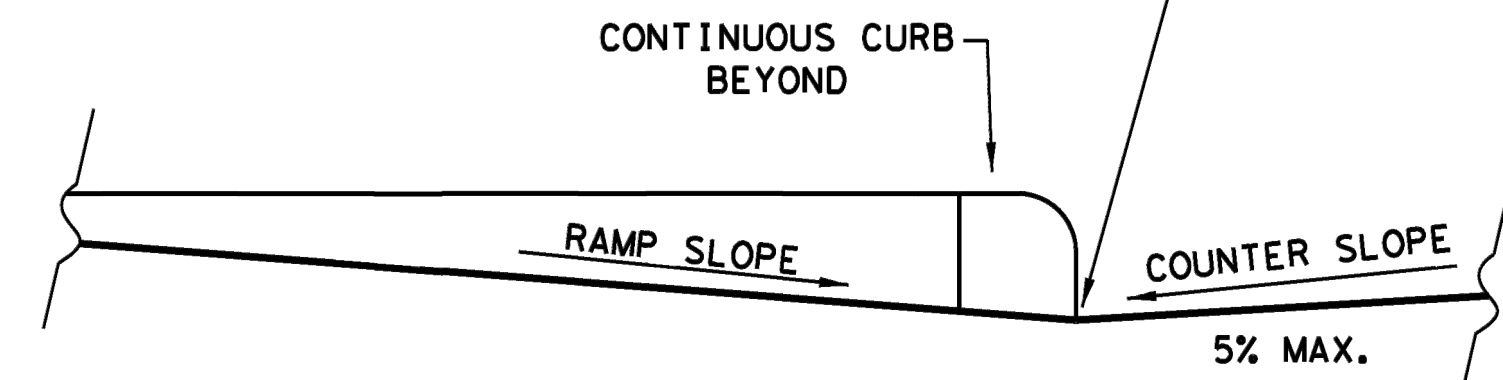
NOTE: CURB DETAILS ARE SHOWN ELSEWHERE IN THE PLANS.

TYPE 22



COMBINATION ISLAND RAMPS

BOTTOM GRADE BREAK OF CURB RAMP WILL NORMALLY BE AT GUTTER LINE. SURFACE SLOPES AT GRADE BREAKS SHALL BE FLUSH.



TYPICAL SECTION OF PERPENDICULAR CURB RAMP AT CONNECTION TO ROADWAY

NOTES / LEGEND:

SEE GENERAL NOTES ON SHEET 2 OF 4 FOR MORE INFORMATION.

DENOTES PLANTING OR NON-WALKING SURFACE NOT PART OF PEDESTRIAN CIRCULATION PATH.



GUTTER LINE

DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON IF APPLICABLE.



RAMP LIMITS OF PAYMENT

SHEET 1 OF 4



PEDESTRIAN FACILITIES CURB RAMPS

PED-18

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISED 08, 2005	REVISIONS			
REVISED 06, 2012	DIST	COUNTY	SHEET NO.	
REVISED 01, 2018			21 of 27	



DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: FILE:

GENERAL NOTES

CURB RAMPS

1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Cross slopes of 1.5% and lesser running should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
4. 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.
5. Turning Spaces shall be 5'x 5' minimum. Cross slope shall be maximum 2%.
6. Clear 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.
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.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the latest draft of the Proposed Guidelines for Pedestrian Facilities in the Public Right of Way (PROWAG) as published by the U.S. Architectural and Transportation Barriers Compliance Board (Access Board).
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'x 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. Provide curb ramps to connect the pedestrian access route at each pedestrian street crossing. Handrails are not required on curb ramps.
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. Furnish and install No. 3 reinforcing steel bars at 18" o.c. both ways, unless otherwise directed.
16. Provide a smooth transition where the curb ramps connect to the street.
17. 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.
18. Existing features that comply with applicable standards may remain in place unless otherwise shown on the plans.

DETECTABLE WARNING MATERIAL

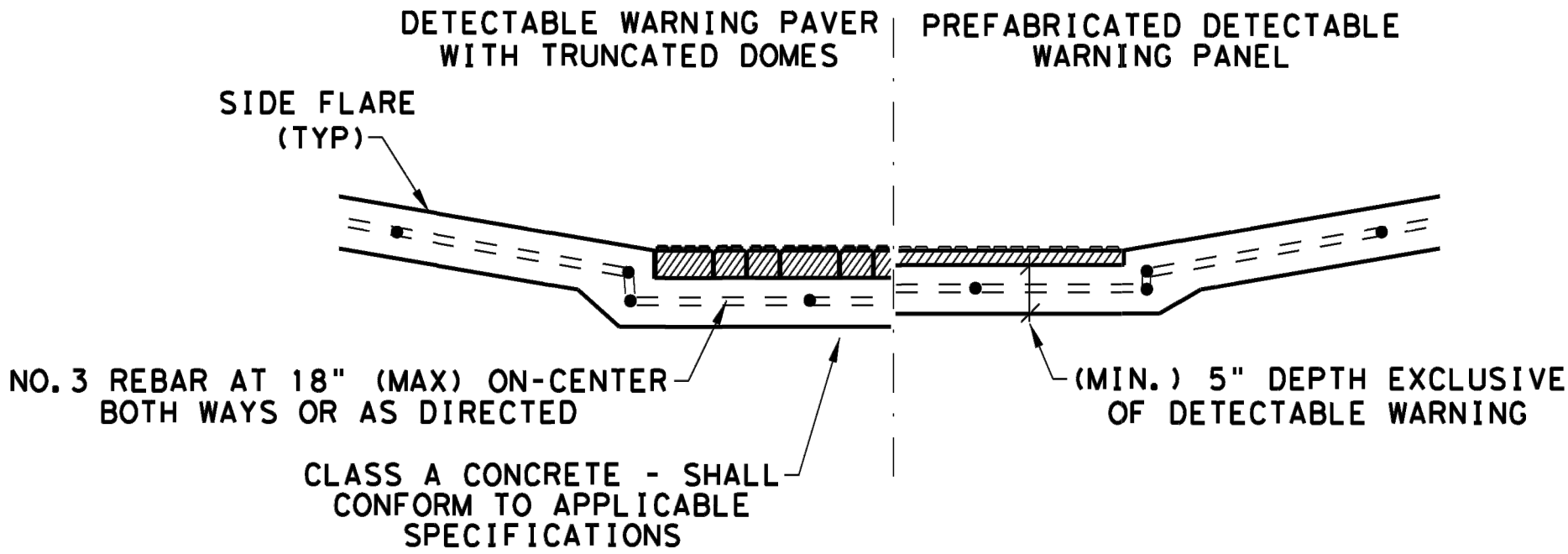
19. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with PROWAG. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
20. 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.
21. Detectable warning surfaces must be firm, stable and slip resistant.
22. Detectable warning surfaces shall be a minimum of 24 inches 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.
23. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb and neither end of that edge is greater than 5 feet from the back of curb. Detectable warning surfaces may be curved along the corner radius.
24. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.

DETECTABLE WARNING PAVERS (IF USED)

25. 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.
26. Lay full-size units first followed by closure units consisting of at least 25 percent (25%) of a full unit. Cut detectable warning paver units using a power saw.

SIDEWALKS

27. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within unobstructed reach range specified in PROWAG section R406.
28. 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.
29. Street grades and cross slopes shall be as shown elsewhere in the plans.
30. Changes in level greater than 1/4 inch are not permitted.
31. 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 five percent (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 PROWAG R409.
32. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
33. 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".
34. Sidewalk details are shown elsewhere in the plans.

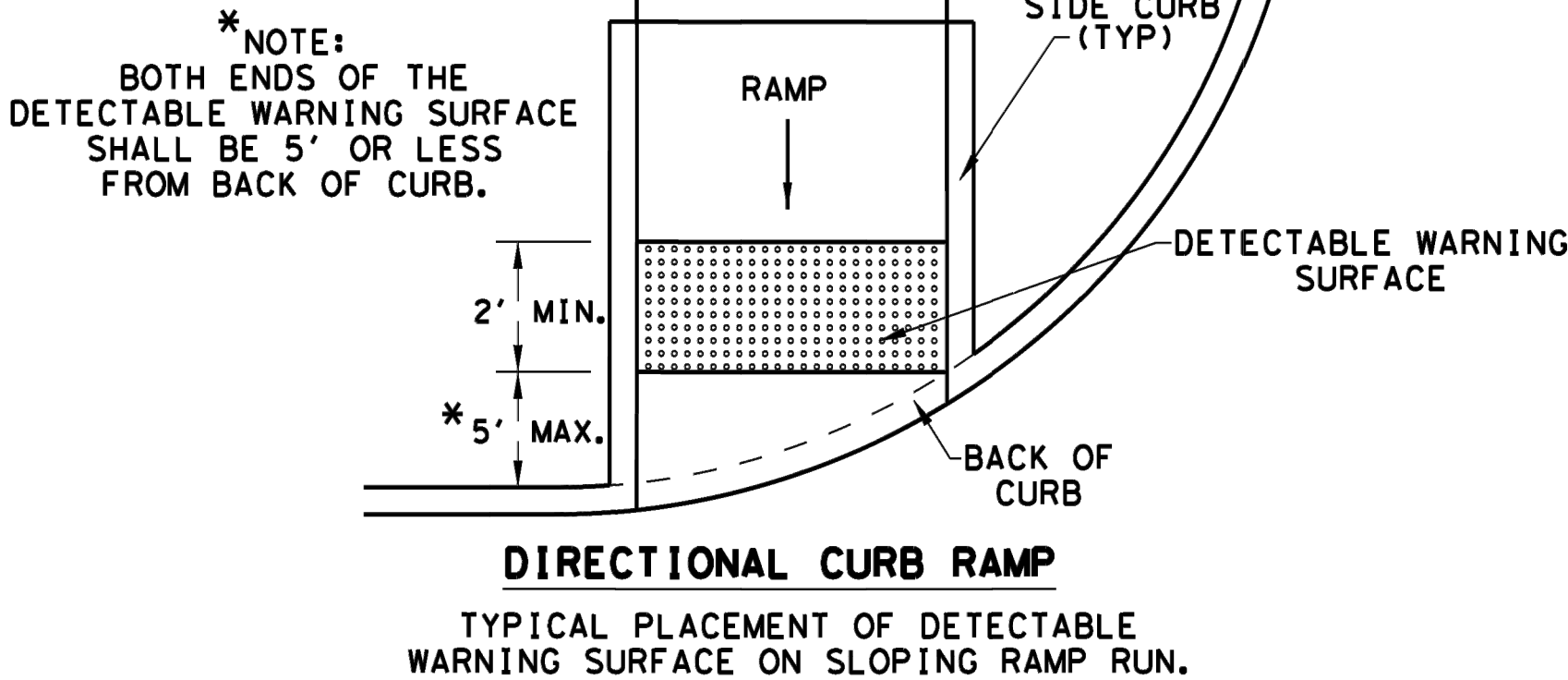
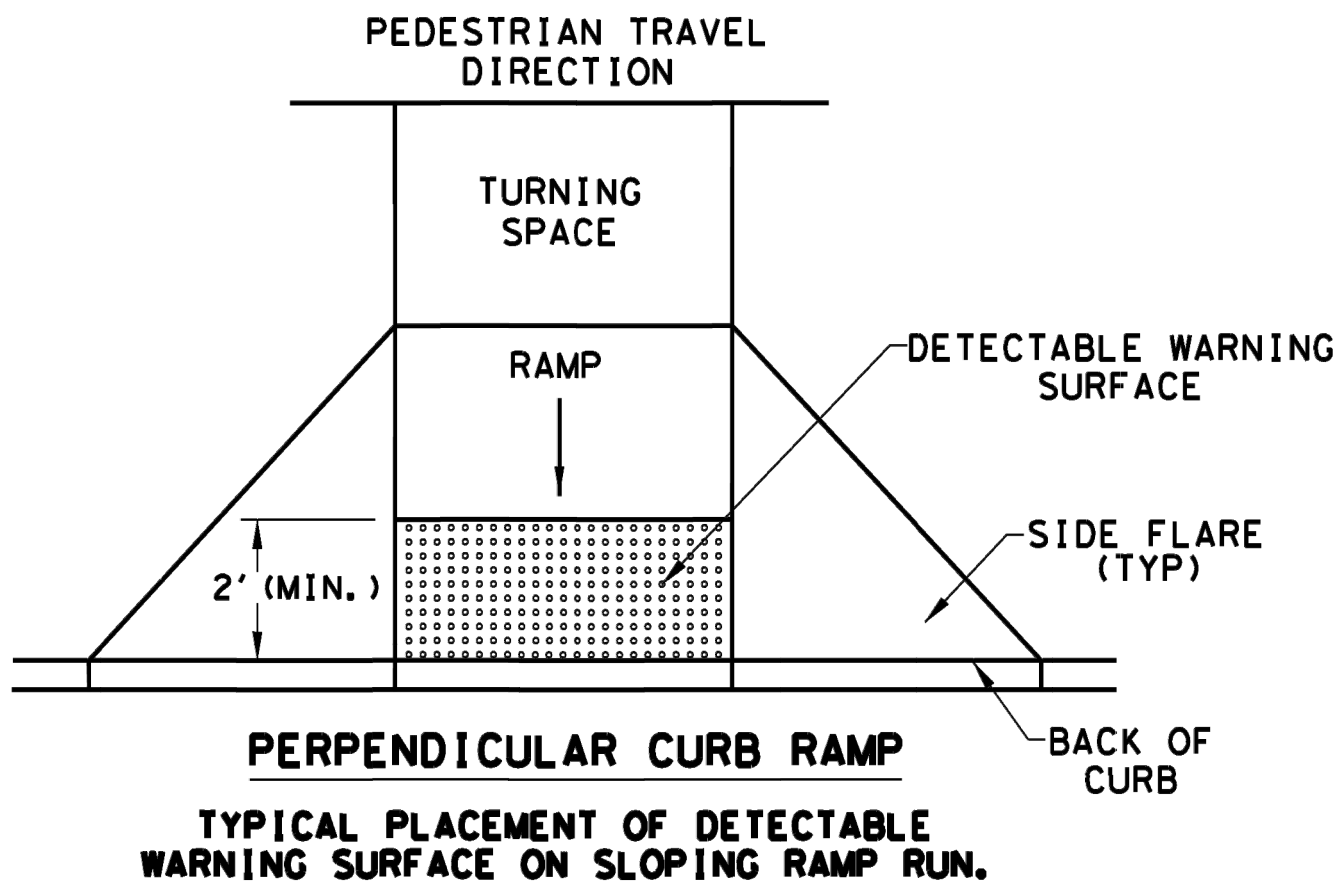
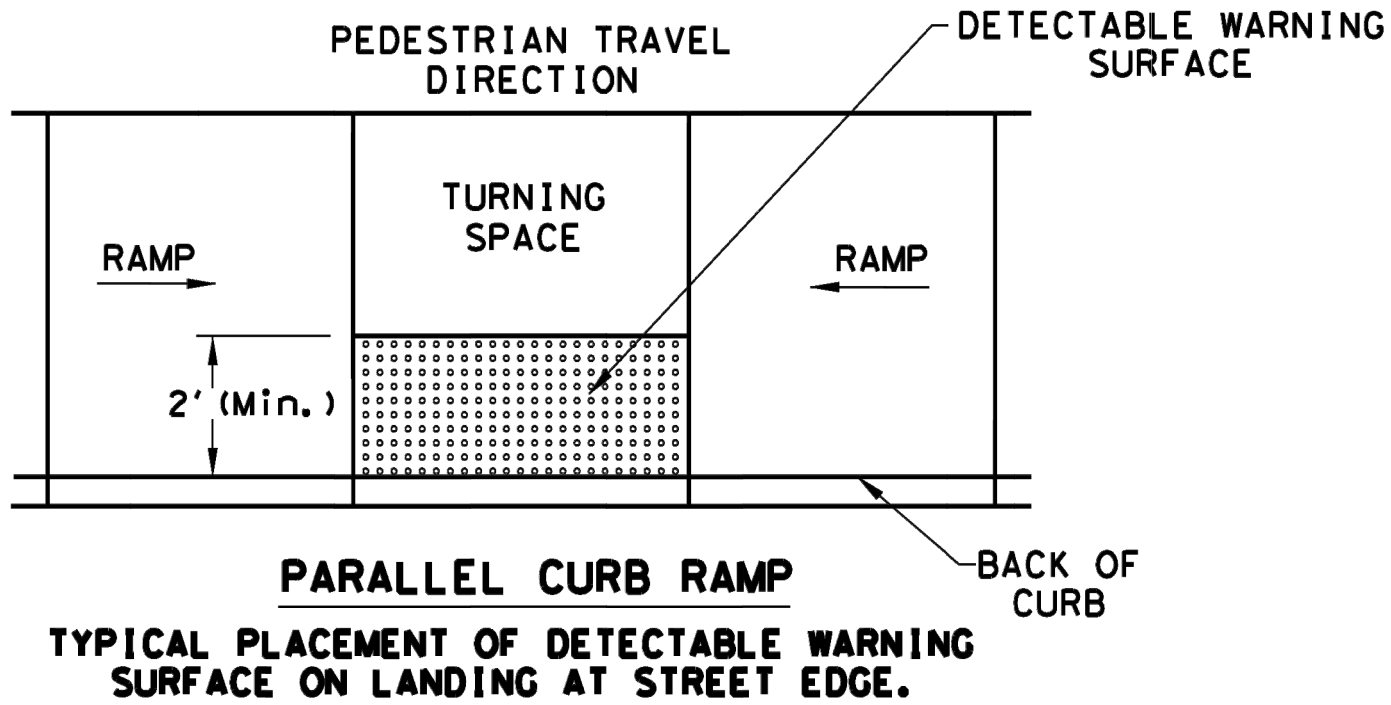


SECTION VIEW DETAIL  
CURB RAMP AT DETECTIBLE WARNINGS

NOTE:  
PED-18, SHEETS 1 THRU 4 ARE INTENDED TO BE USED AS  
GENERAL GUIDELINES FOR THE CONSTRUCTION OF CURB RAMPS  
FOR PEDESTRIAN FACILITIES. APPROX. INFORMATION FOR THE  
CONSTRUCTION OF THESE FACILITIES ARE SHOWN ELSEWHERE  
IN THE PLANS. ALL ADA/TAS REGULATIONS MUST APPLY

ALL EXPOSED NEW CONCRETE SURFACES  
SHALL HAVE A LIGHT BROOM FINISH.

DETECTABLE WARNING SURFACE DETAILS



SHEET 2 OF 4



PEDESTRIAN FACILITIES  
CURB RAMPS

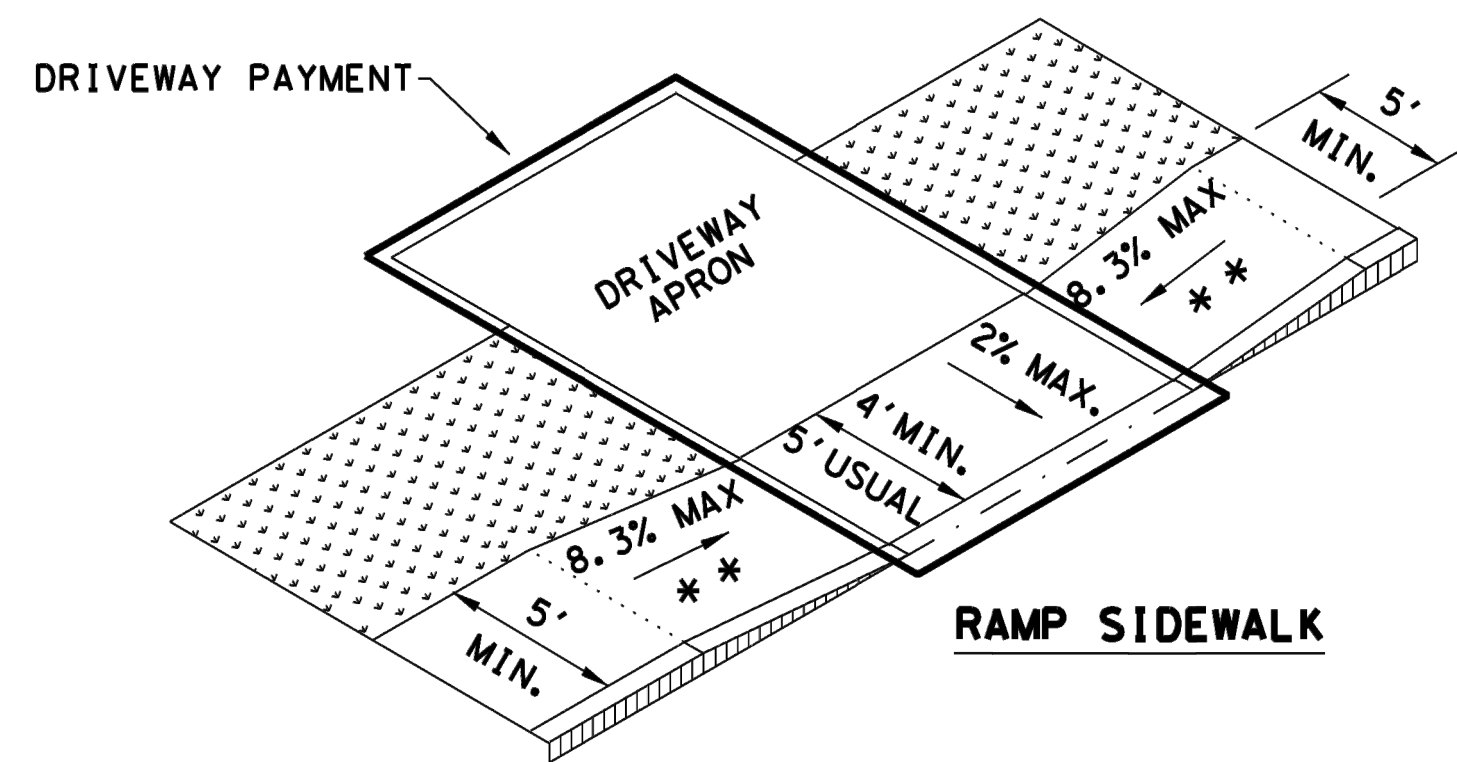
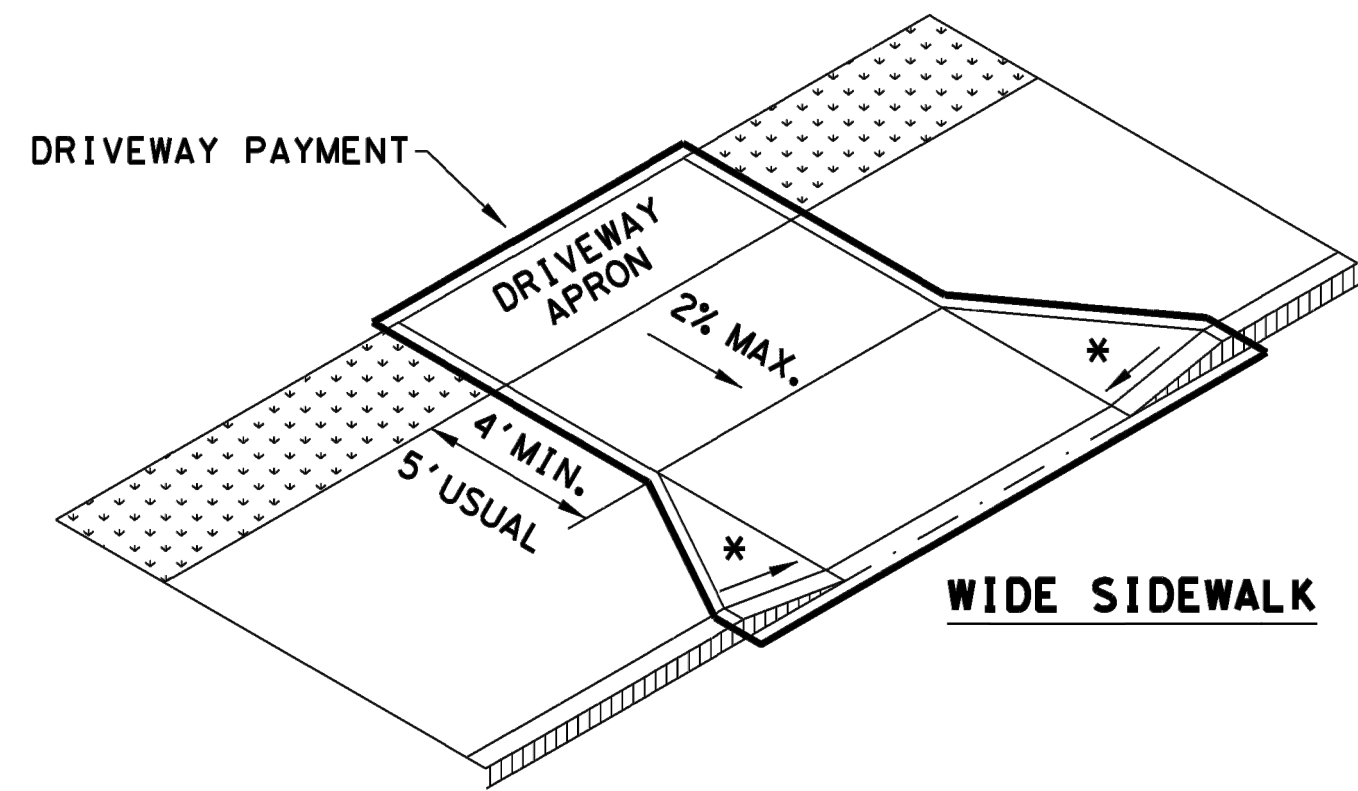
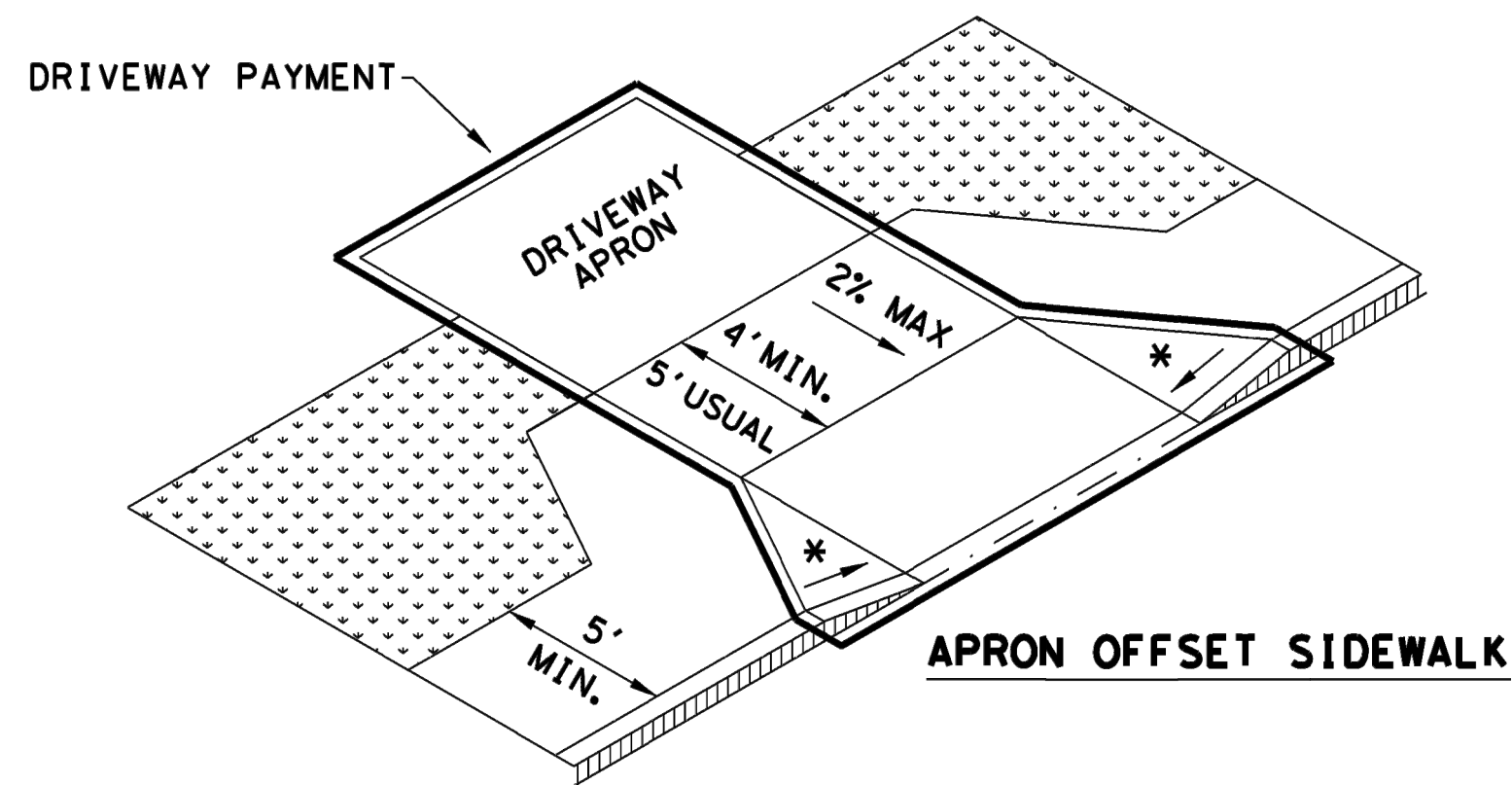
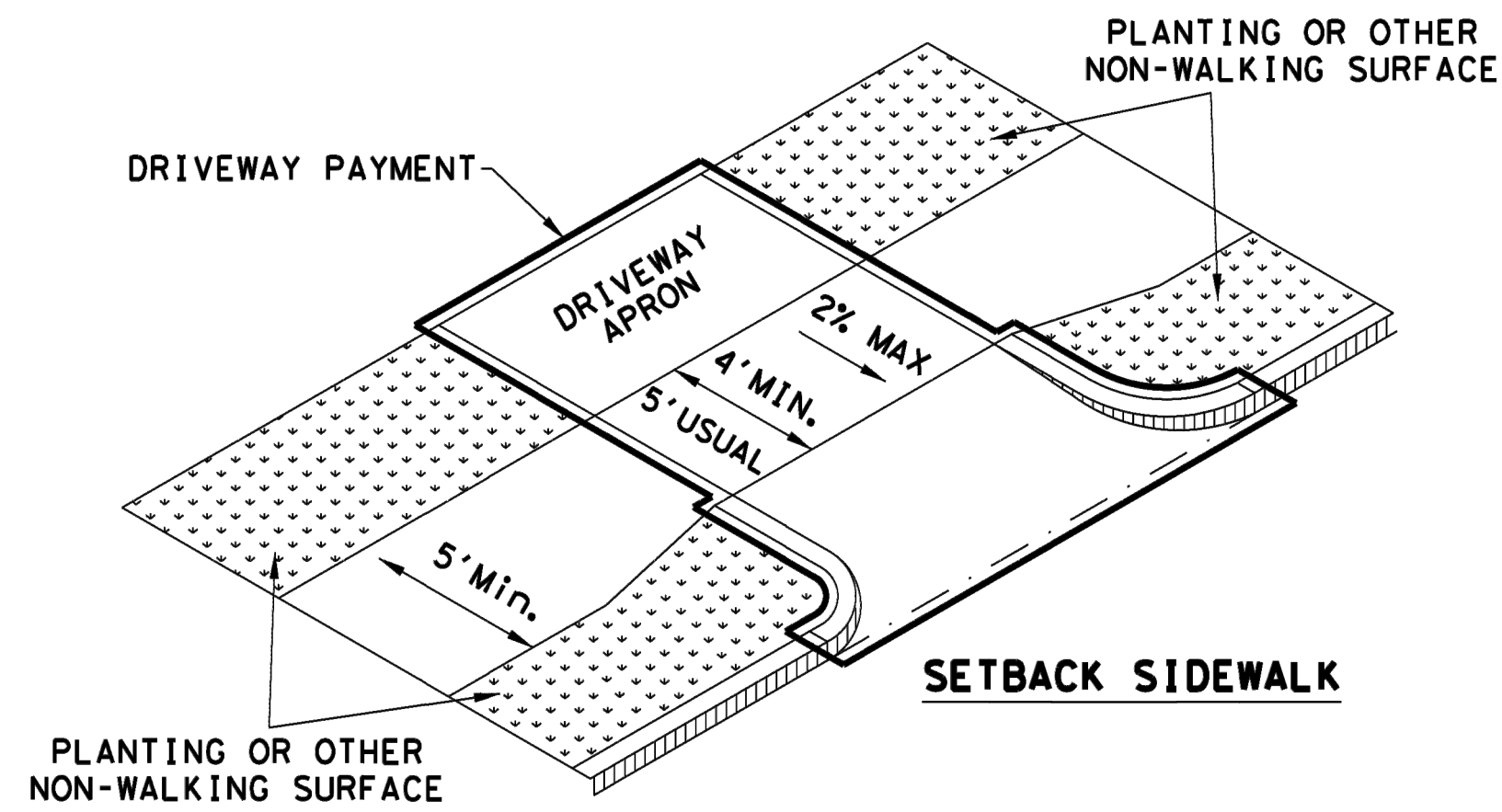
PED-18

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS				
REVISED 08, 2005				
REVISED 06, 2012				
REVISED 01, 2018				
	DIST	COUNTY	SHEET NO.	
			22 of 27	

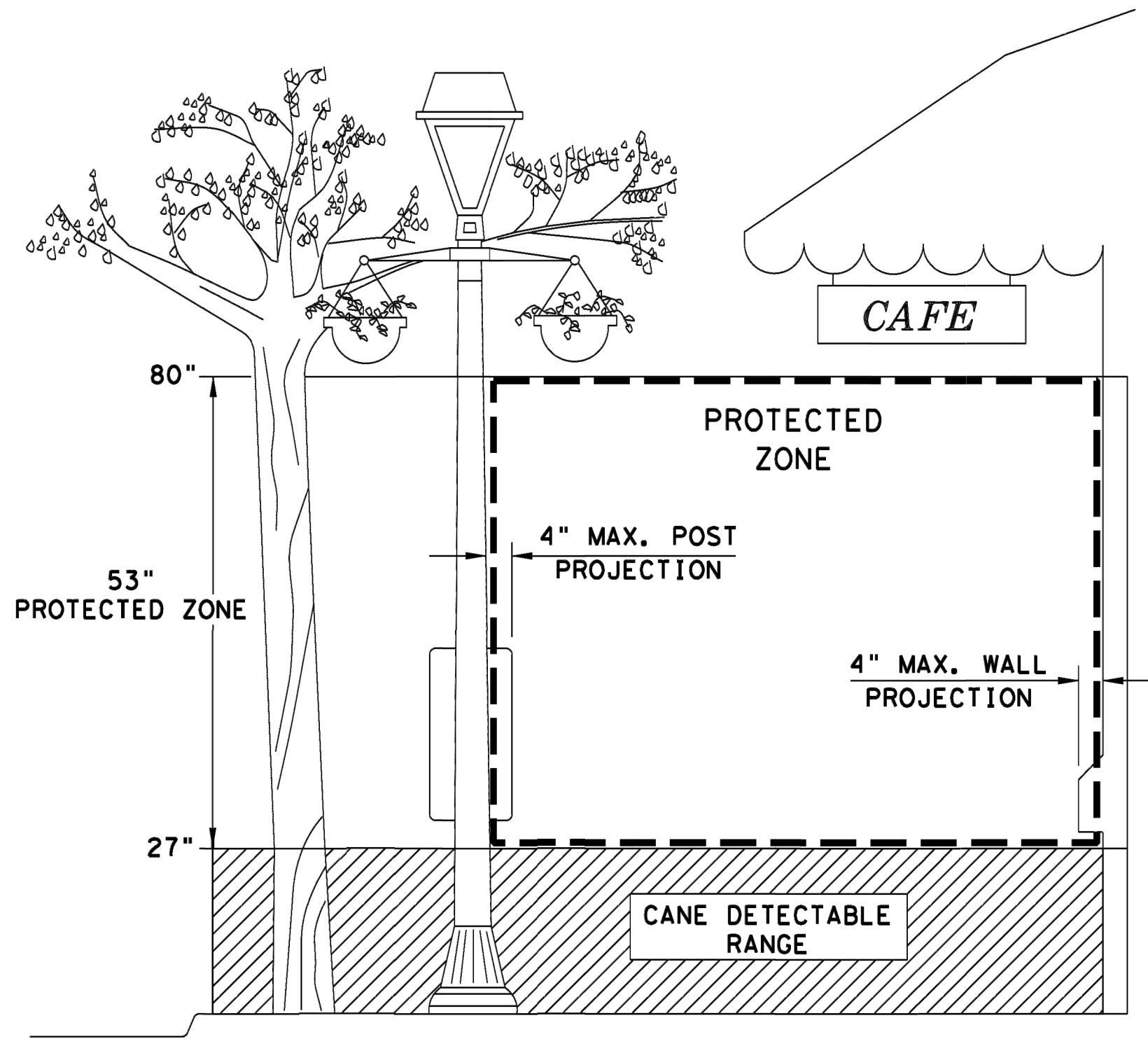
DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: FILE:

### SIDEWALK TREATMENT AT DRIVEWAYS

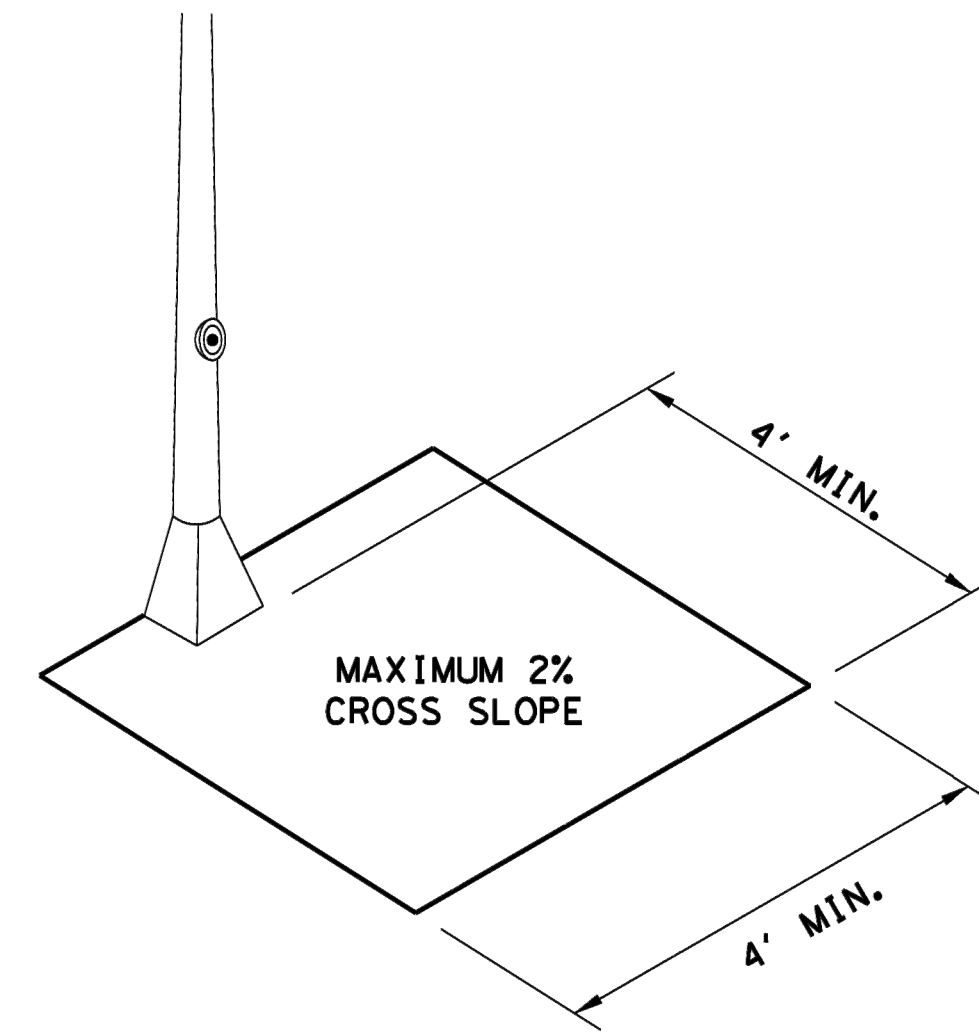


- NOTES:
- \* WHERE DRIVEWAYS CROSS THE PEDESTRIAN ROUTE, SIDES SHALL BE FLARED AT 10% MAX SLOPE.
  - \*\* IF CURB HEIGHT IS GREATER THAN 6 INCHES, USE GRADE LESS THAN OR EQUAL TO 5%. HANDRAIL AND DETECTABLE WARNING ARE NOT REQUIRED.

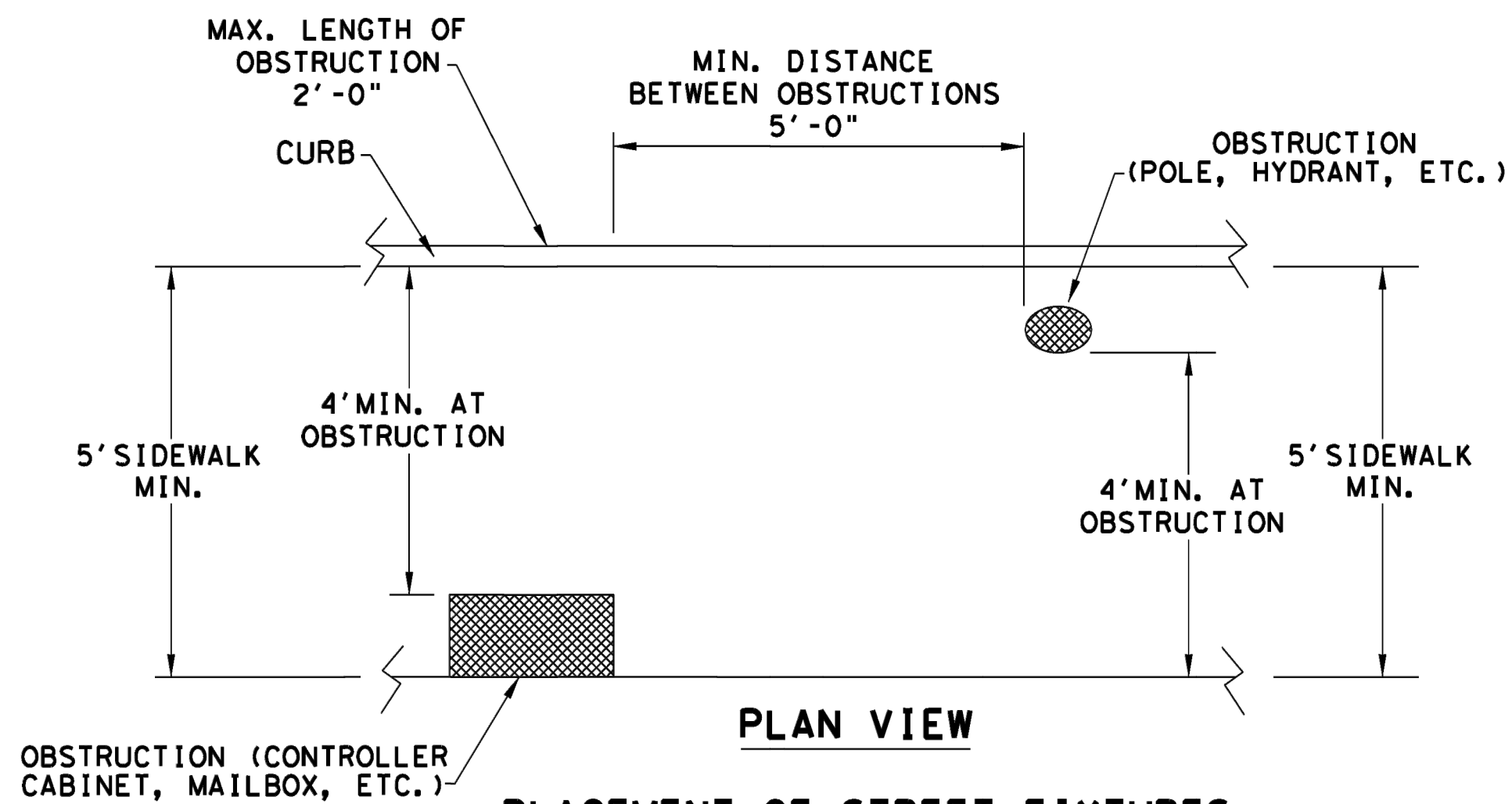


### PROTECTED ZONE

NOTE: IN PEDESTRIAN CIRCULATION AREA, MAXIMUM 4" PROJECTION FOR POST OR WALL MOUNTED OBJECTS BETWEEN 27" AND 80" ABOVE THE SURFACE.

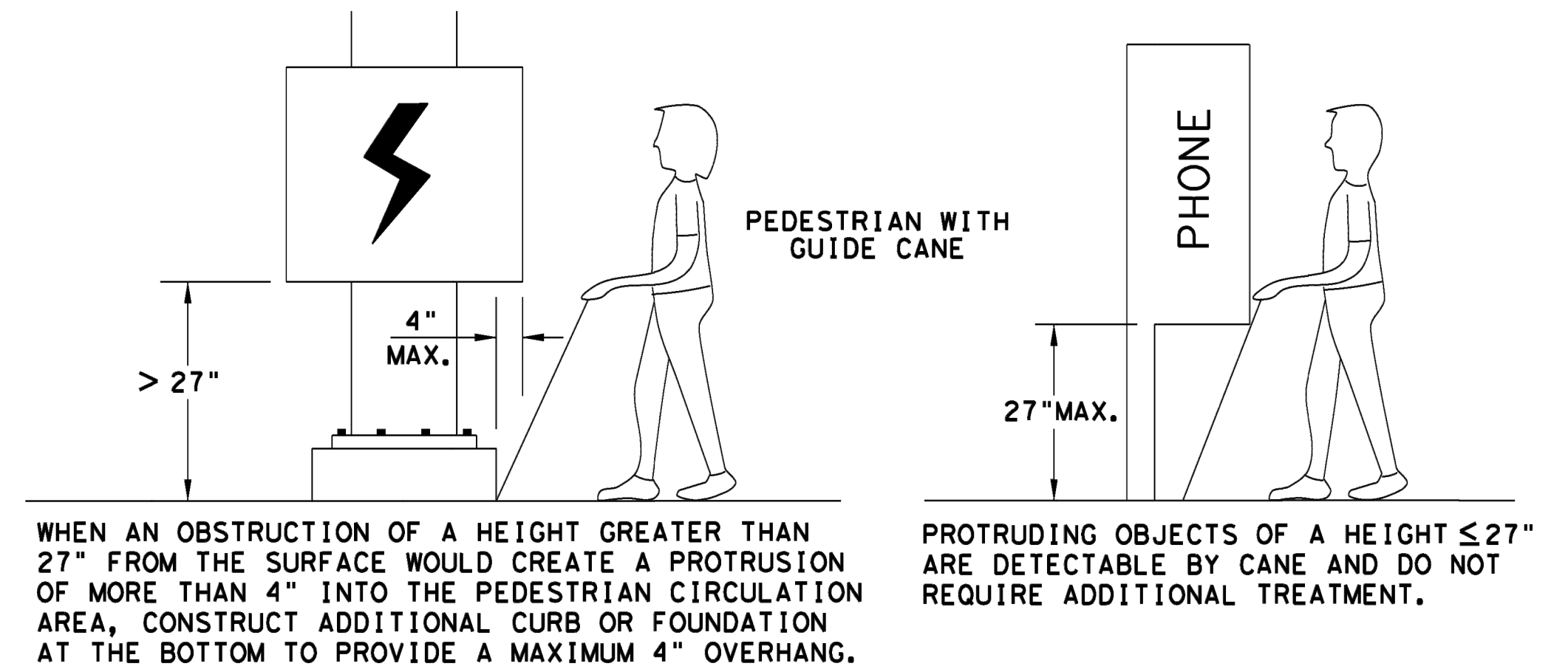


### CLEAR SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON



### PLAN VIEW

NOTE: ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' X 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.



### DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"

NOTE: PED-18, SHEETS 1 THRU 4 ARE INTENDED TO BE USED AS GENERAL GUIDELINES FOR THE CONSTRUCTION OF CURB RAMPS FOR PEDESTRIAN FACILITIES. APPROX. INFORMATION FOR THE CONSTRUCTION OF THESE FACILITIES ARE SHOWN ELSEWHERE IN THE PLANS. ALL ADA/TAS REGULATIONS MUST APPLY.

ALL EXPOSED NEW CONCRETE SURFACES SHALL HAVE A LIGHT BROOM FINISH.

SHEET 3 OF 4

Texas Department of Transportation  
Design Division Standard

## PEDESTRIAN FACILITIES CURB RAMPS

### PED-18

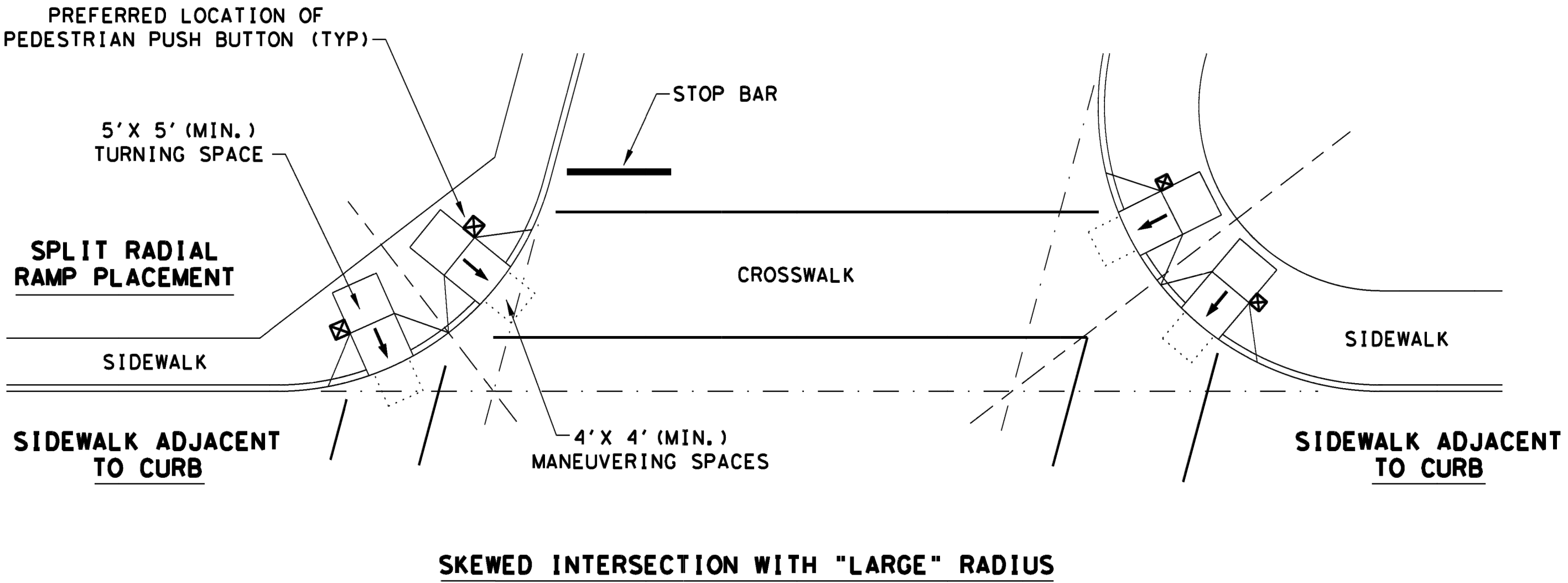
FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISED 08, 2005 REVISED 06, 2012 REVISED 01, 2018	DIST	COUNTY	SHEET NO.	23 of 27



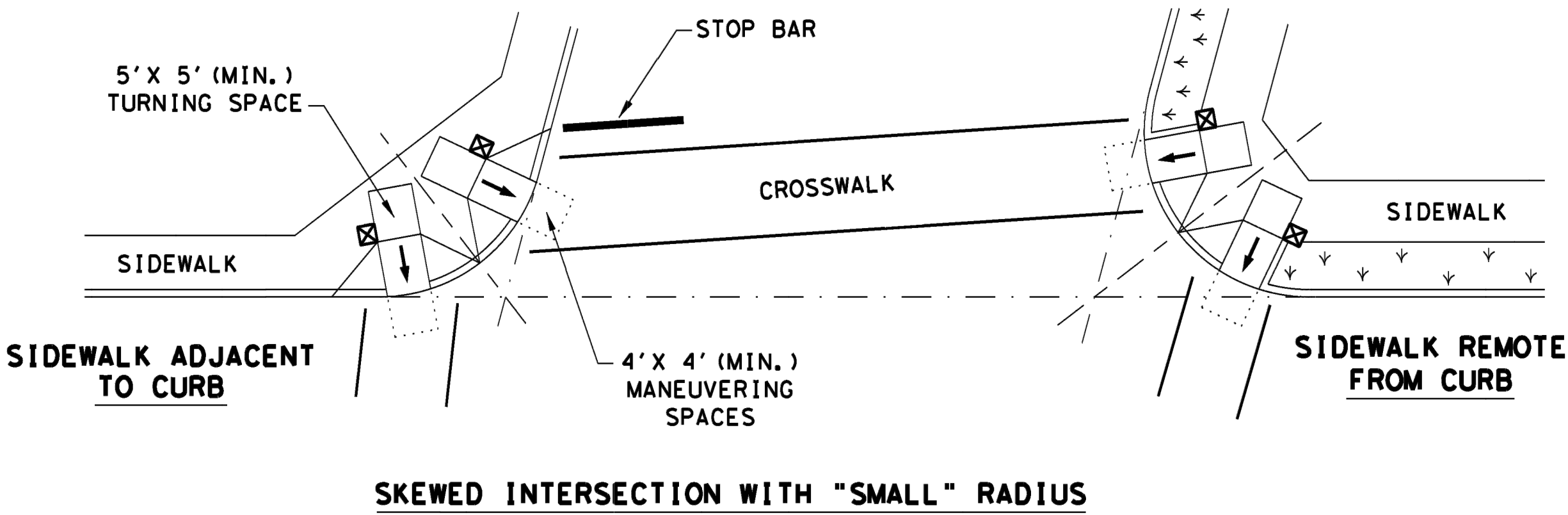
DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: FILE:

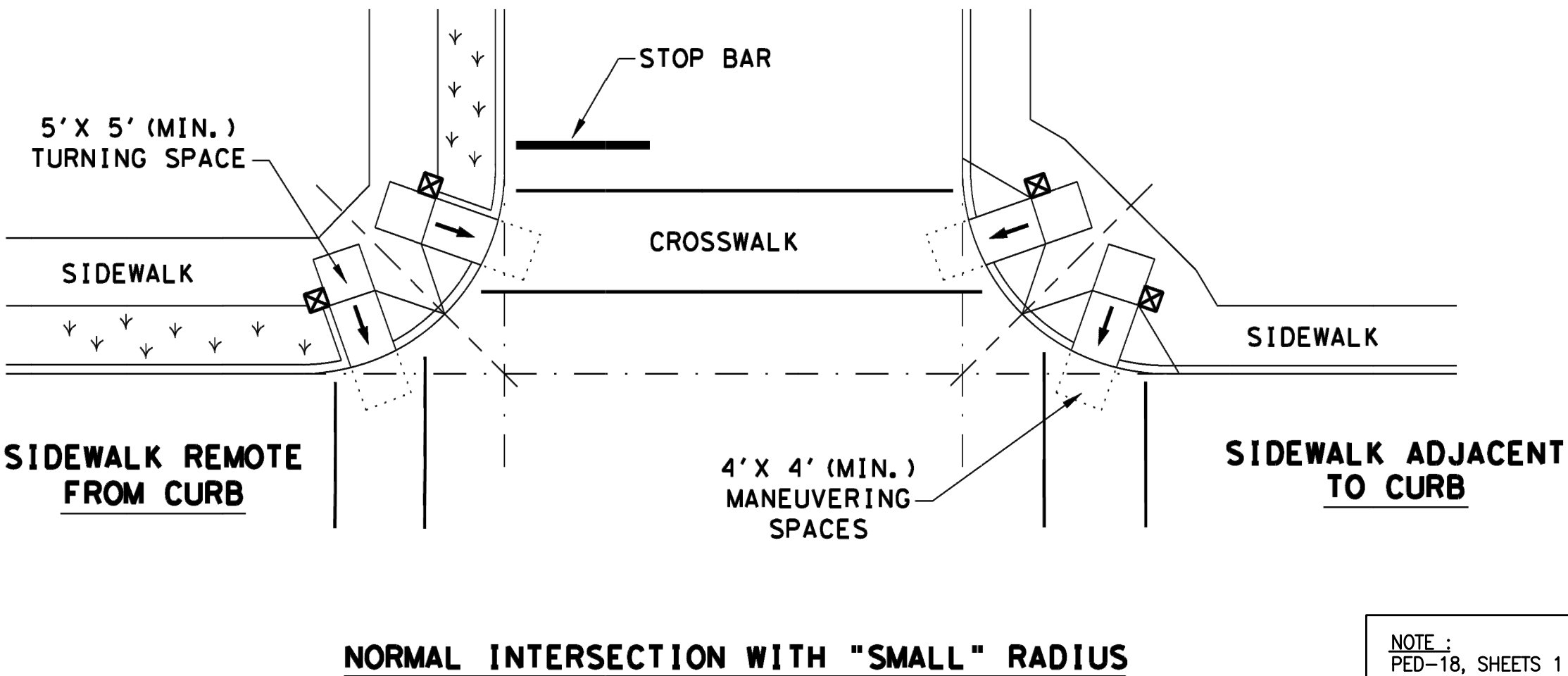
TYPICAL CROSSING LAYOUTS  
SEE SHEET 1 OF 4 FOR DETAILS AND DIMENSIONS



SKewed INTERSECTION WITH "LARGE" RADIUS



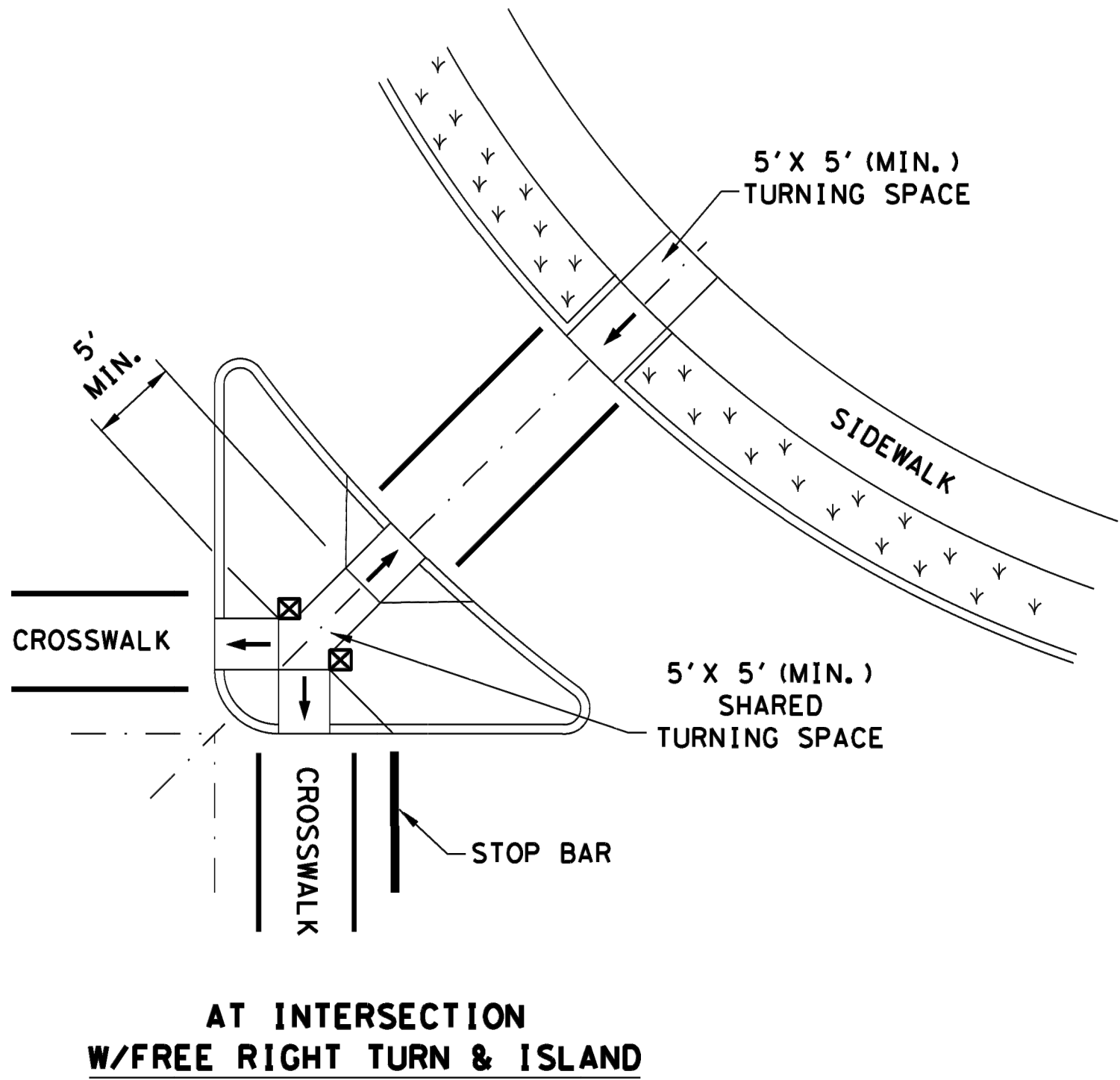
SKewed INTERSECTION WITH "SMALL" RADIUS



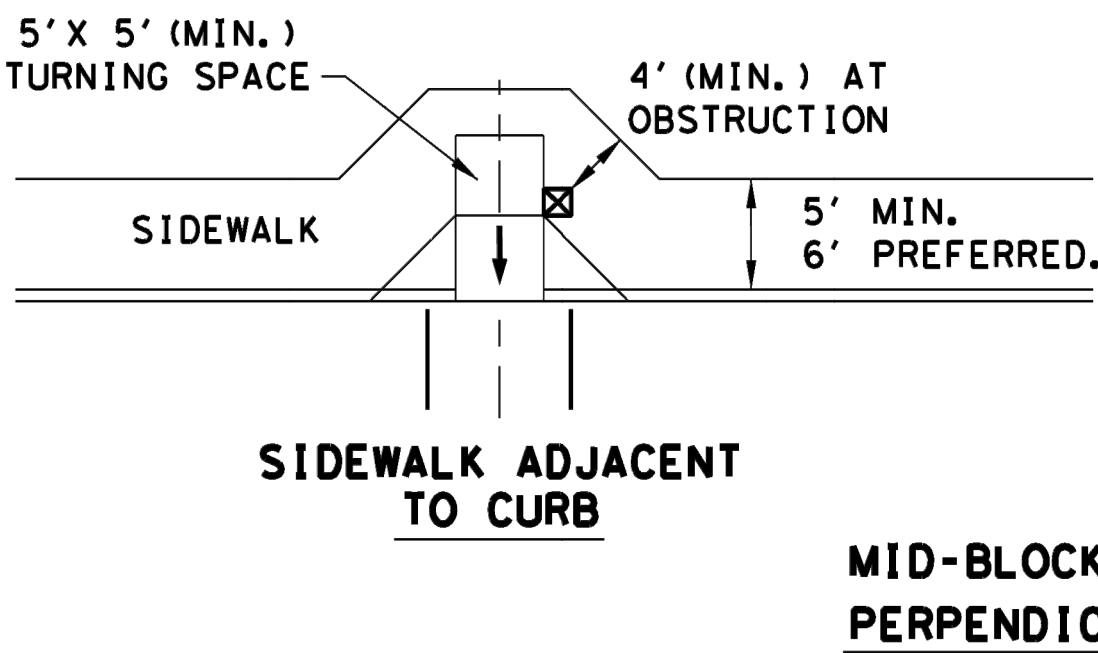
NORMAL INTERSECTION WITH "SMALL" RADIUS

NOTE: PED-18, SHEETS 1 THRU 4 ARE INTENDED TO BE USED AS GENERAL GUIDELINES FOR THE CONSTRUCTION OF CURB RAMPS FOR PEDESTRIAN FACILITIES. APPROX. INFORMATION FOR THE CONSTRUCTION OF THESE FACILITIES ARE SHOWN ELSEWHERE IN THE PLANS. ALL ADA/TAS REGULATIONS MUST APPLY.

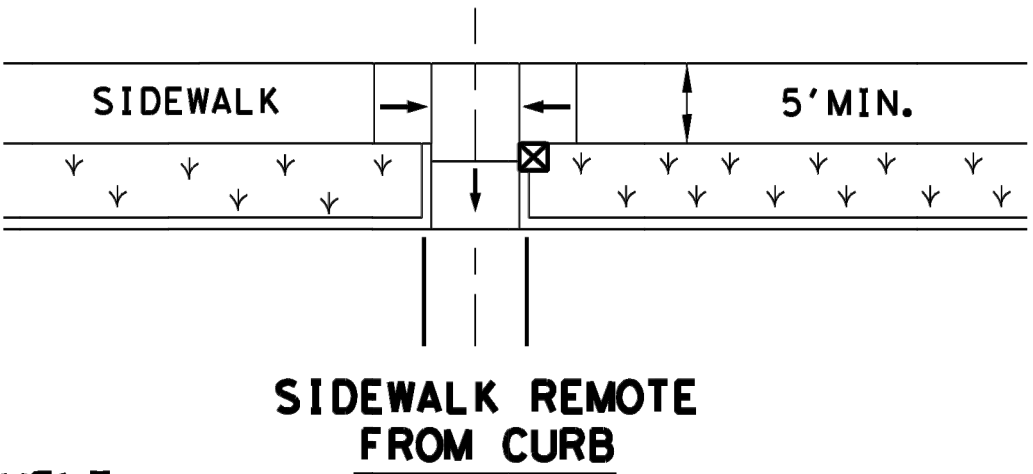
ALL EXPOSED NEW CONCRETE SURFACES SHALL HAVE A LIGHT BROOM FINISH.



AT INTERSECTION  
W/FREE RIGHT TURN & ISLAND



MID-BLOCK PLACEMENT  
PERPENDICULAR RAMPS



LEGEND:

SHOWS DOWNWARD SLOPE.



DENOTES PREFERRED LOCATION OF PEDESTRIAN PUSH BUTTON (IF APPLICABLE).



DENOTES PLANTING OR NON-WALKING SURFACE NOT PART OF PEDESTRIAN CIRCULATION PATH.



SHEET 4 OF 4

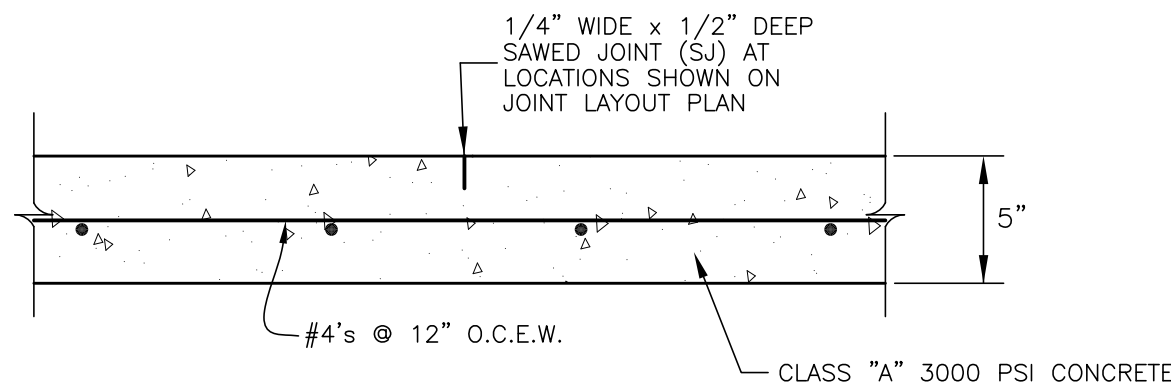


Design  
Division  
Standard

PEDESTRIAN FACILITIES  
CURB RAMPS

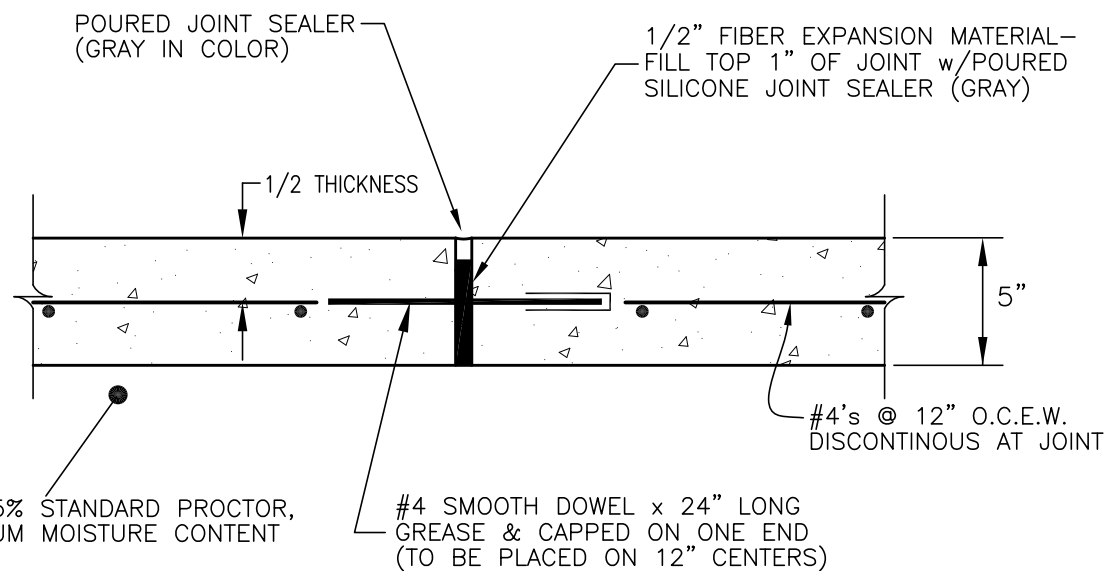
PED-18

FILE: ped18	DN: TxDOT	DW: VP	CK: KM	CK: PK & JG
© TxDOT: MARCH, 2002	CONT	SECT	JOB	HIGHWAY
REVISED 08, 2005	REVISIONS			
REVISED 06, 2012	DIST	COUNTY		SHEET NO.
REVISED 01, 2018				24 of 27



### CONCRETE FLATWORK DETAIL

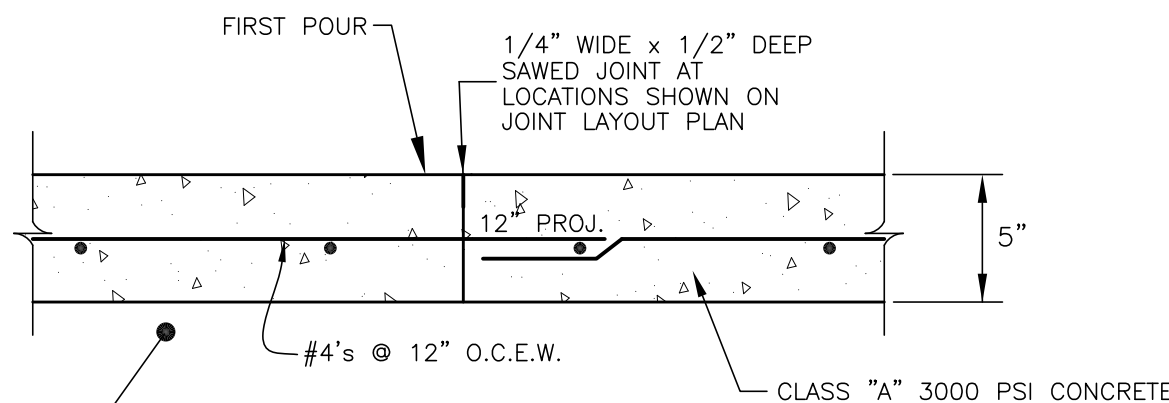
N.T.S.  
SEE JOINT LAYOUT PLAN FOR LOCATIONS (SJ)



RE-COMPACTED SUB-GRADE @ 95% STANDARD PROCTOR,  
@ PLUS OR MINUS 3% OF OPTIMUM MOISTURE CONTENT

### CONCRETE FLATWORK EXPANSION JOINT DETAIL

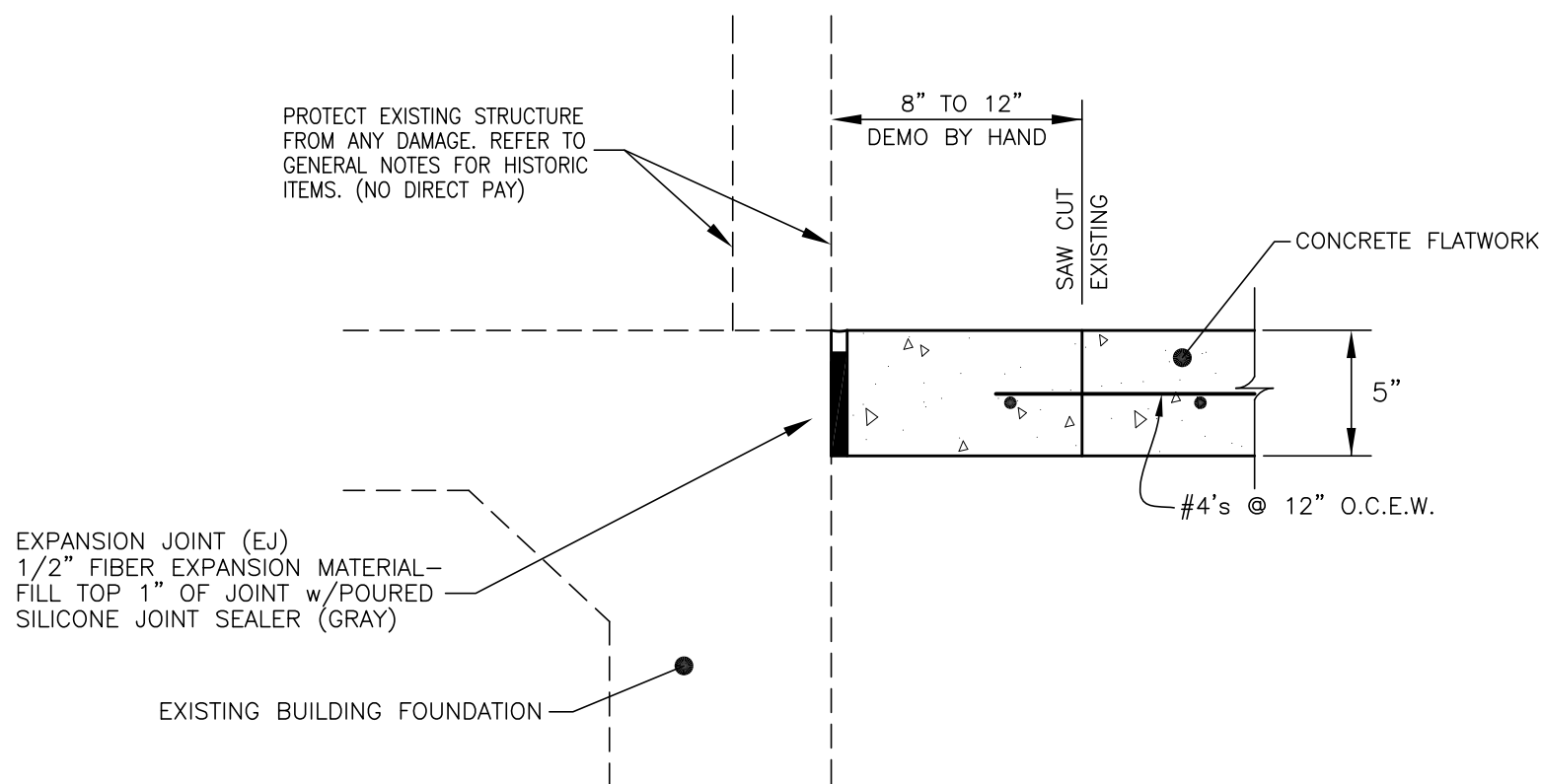
N.T.S.  
SEE JOINT LAYOUT PLAN FOR LOCATIONS (EJ)



RE-COMPACTED SUB-GRADE @ 95% STANDARD PROCTOR,  
@ PLUS OR MINUS 3% OF OPTIMUM MOISTURE CONTENT

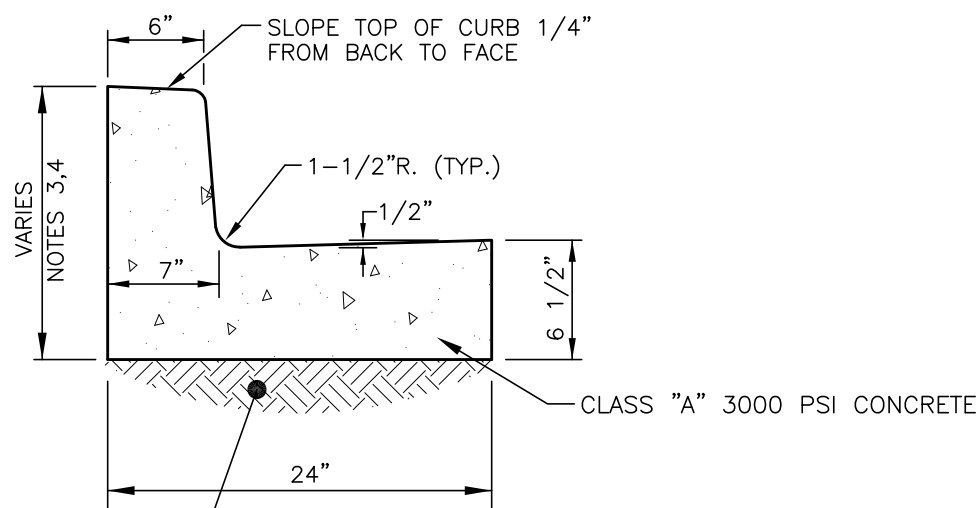
### CONCRETE FLATWORK CONSTRUCTION JOINT DETAIL

N.T.S.



### EXISTING BLDG. AT FLATWORK CONSTRUCTION/EXPANSION JOINT DETAIL (EJ)

N.T.S.



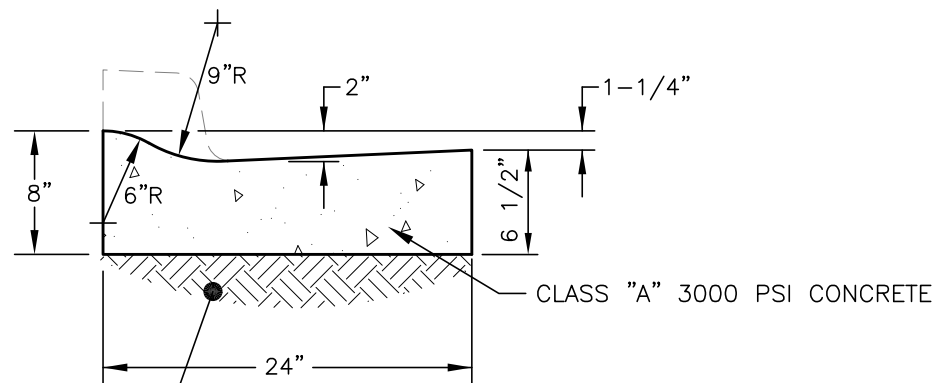
RE-COMPACTED SUB-GRADE @ 95% STANDARD PROCTOR,  
@ PLUS OR MINUS 3% OF OPTIMUM MOISTURE CONTENT

EXPANSION JOINTS TO HAVE TWO  
#4 SMOOTH DOWELS x 24" LONG  
GREASE & CAPPED ON ONE END  
(TO BE PLACED ON 12" CENTERS)  
WITH 1/2" FIBER EXPANSION MAT'L.

### 24" CONCRETE CURB & GUTTER

N.T.S.

- NOTES:
1. EXPANSION JOINTS TO BE PLACED AT 50' CENTERS.
  2. TOOLED JOINTS TO BE PLACED AT 5' CENTERS AND AT P.C.'s AND P.T.'s.
  3. SEE PROPOSED LAYOUT AND GRADING PLANS FOR PROPOSED CURB GRADES.
  4. CURB HEIGHT MAY BE ADJUSTED SLIGHTLY TO MATCH EXISTING FIELD CONDITIONS, WHILE MAINTAINING ADA COMPLIANCE WHERE APPLICABLE.



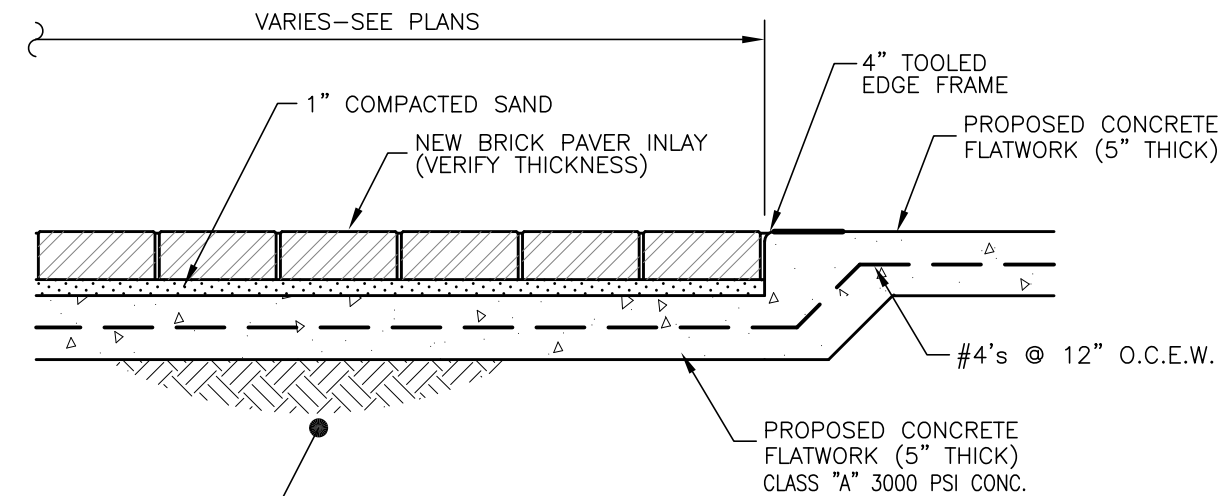
RE-COMPACTED SUB-GRADE @ 95% STANDARD PROCTOR,  
@ PLUS OR MINUS 3% OF OPTIMUM MOISTURE CONTENT

EXPANSION JOINTS TO HAVE TWO  
#4 SMOOTH DOWELS x 24" LONG  
GREASE & CAPPED ON ONE END  
(TO BE PLACED ON 12" CENTERS)  
WITH 1/2" FIBER EXPANSION MAT'L.

### 24" LAYDOWN CURB & GUTTER

N.T.S.

- NOTES:
1. EXPANSION JOINTS TO BE PLACED AT 50' CENTERS.
  2. TOOLED JOINTS TO BE PLACED AT 5' CENTERS AND AT P.C.'s AND P.T.'s.

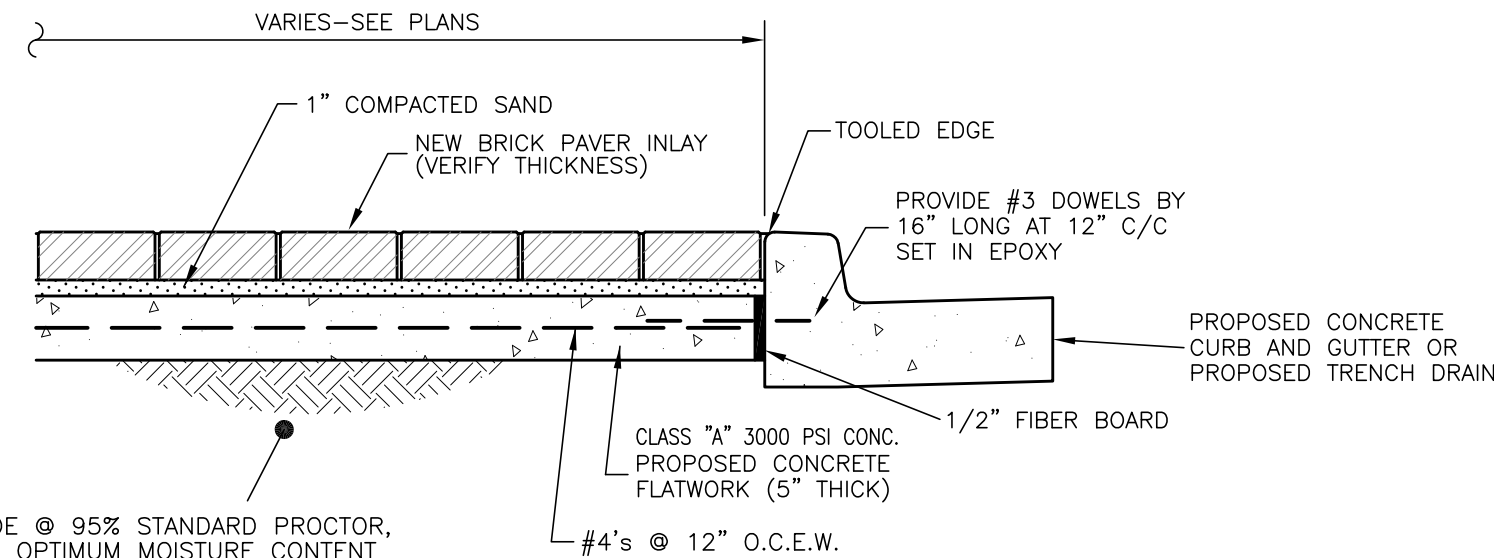


RE-COMPACTED SUB-GRADE @ 95% STANDARD PROCTOR,  
@ PLUS OR MINUS 3% OF OPTIMUM MOISTURE CONTENT

### TYPICAL BRICK PAVER INLAY SECTION

N.T.S.

(IN CONCRETE FLATWORK)  
SAWED, EXPANSION & CONSTRUCTION JOINTS TO EXTEND THRU CONCRETE  
UNDER BRICK INLAY AREAS-SEE JOINT LAYOUT PLAN

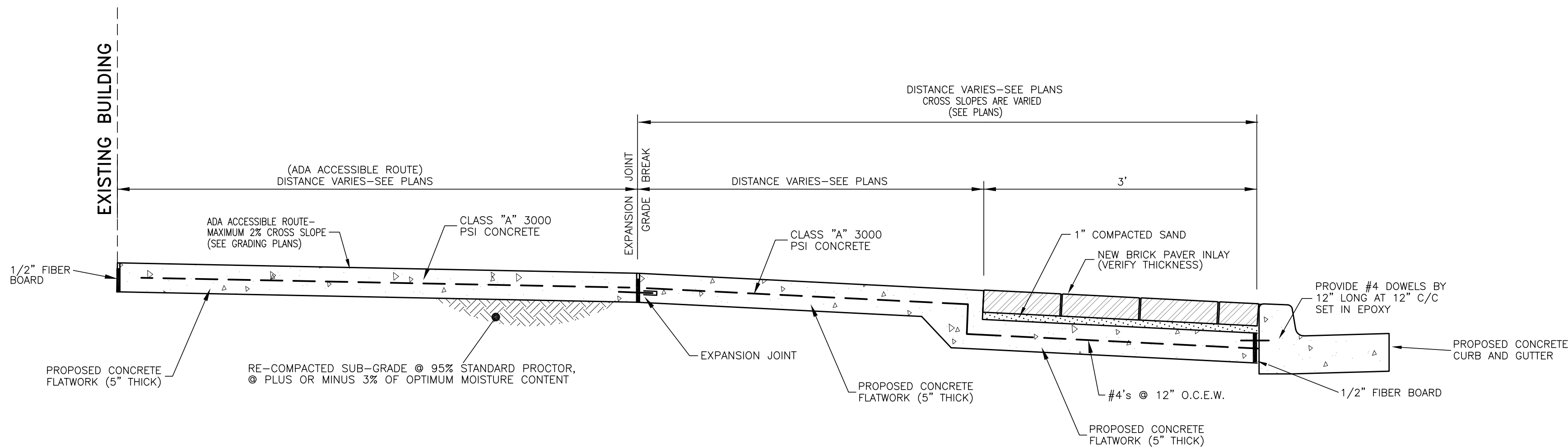


RE-COMPACTED SUB-GRADE @ 95% STANDARD PROCTOR,  
@ PLUS OR MINUS 3% OF OPTIMUM MOISTURE CONTENT

### TYPICAL BRICK PAVER INLAY SECTION

N.T.S.

(AT CURB & GUTTER)  
(SAME APPLIES AT LIGHT FIXTURE FOUNDATIONS)  
SAWED, EXPANSION & CONSTRUCTION JOINTS TO EXTEND THRU CONCRETE  
UNDER BRICK INLAY AREAS-SEE JOINT LAYOUT PLAN



### TYPICAL SIDEWALK CROSS SECTION

N.T.S.

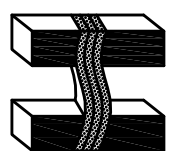
ALL EXPOSED NEW CONCRETE SURFACES  
SHALL HAVE A LIGHT BROOM FINISH.

MISCELLANEOUS  
DETAILS 1

CITY OF MARSHALL, TX.  
DOWNTOWN REDEVELOPMENT PHASE III  
300 & 400 BLOCK OF N. WASHINGTON AVENUE

HAYES ENGINEERING, INC.

Texas Registered Engineering Firm F-1465  
2126 Alpine St. Longview, TX 75601-3401  
Tel.: (903) 758-2010 • Fax: (903) 758-2099



DRAWN BY : R.L.C.  
CHECKED BY : S.R.H.  
DATE : SEPT. 2023  
SCALE : AS NOTED  
JOB NO. : MA-21-01  
MA-22-04

SHEET

25

OF 27 SHEETS









SEE NOTE 3

#4 @ 8" O.C. EACH WAY

PROVIDE 8-#4 @ 8" O.C. DIAGONAL REINFORCEMENT

PLAN

N.T.S.

NOTES:

- 
- Diagram illustrating the reinforcement details for a throat support. The cross-section shows a concrete structure with a central vertical reinforcement bar (#3 STIRRUP @ 12" O.C. ALONG LENGTH OF THROAT SUPPORT). The top horizontal reinforcement consists of #4 BARS (SEE NOTE 2) and #4 @ 9" O.C.E.W. (On Center Edge Width). The bottom horizontal reinforcement also consists of #4 BARS (SEE NOTE 2). The vertical dimension of the top slab is 6". The horizontal dimension of the throat support is 7-1/2". The vertical dimension of the throat support is 6".

N.T.S.



N.T.S.

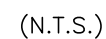


NOTES:

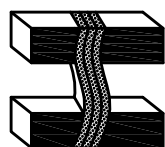
- (N.T.S.)



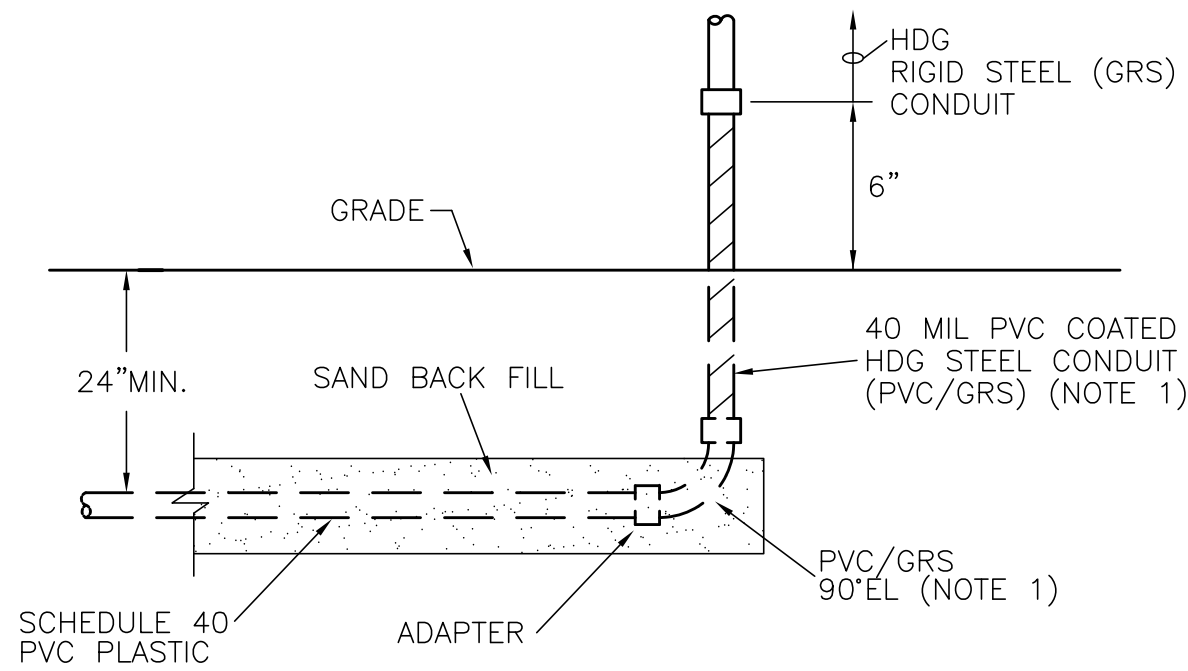
- ## QUICK COUPLER VALVE

$$1^{\text{st}} = 1^{\text{st}} - 0^{\text{th}}$$


THE CITY OF MARSHALL SHALL FURNISH NEW WATER METER AND BOX TO BE INSTALLED BY THE CONTRACTOR.



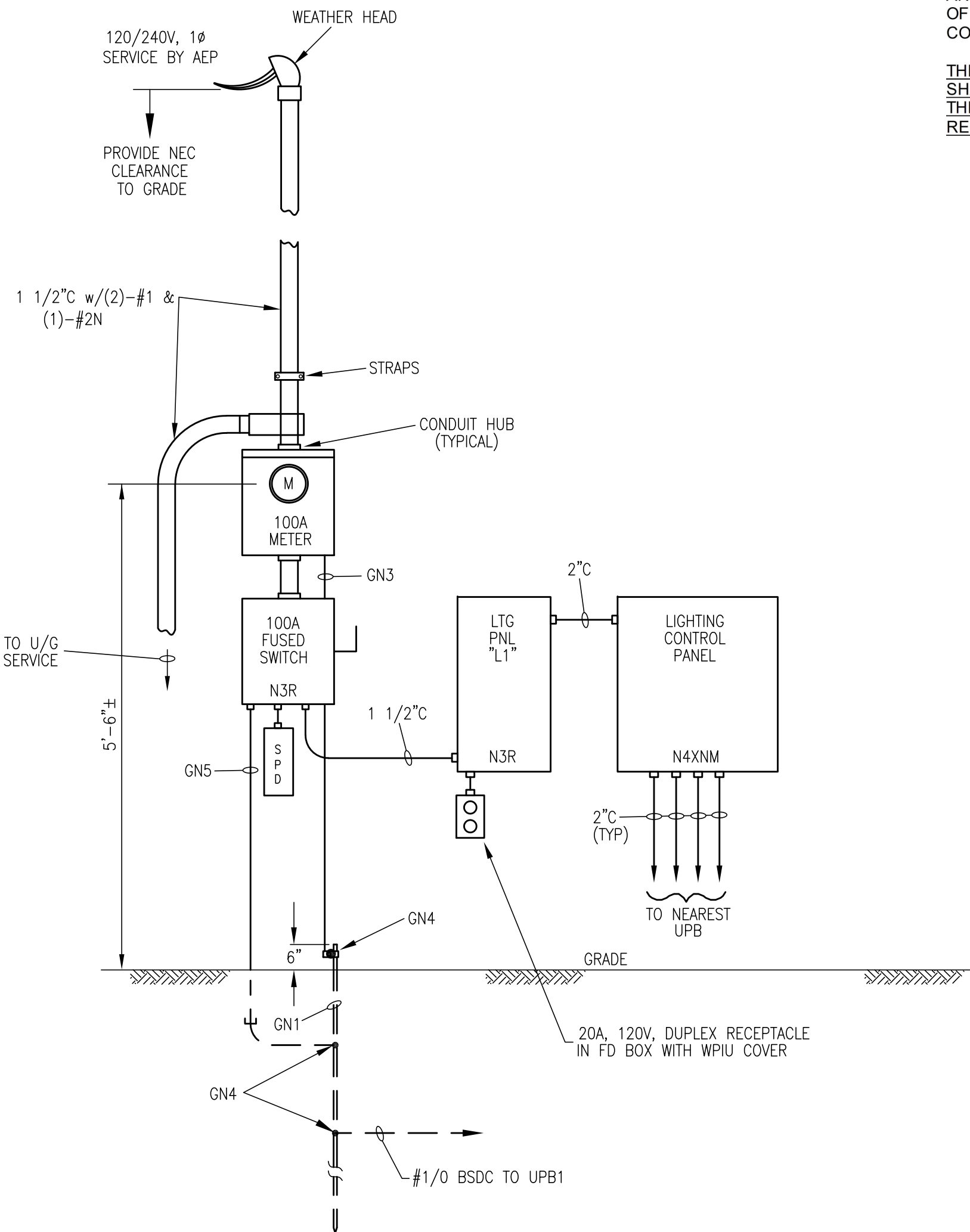




### TYPICAL CONDUIT DETAIL

N.T.S.

- 1) U/G CONDUIT & ELBOWS BETWEEN U/G PULL BOXES AND POLE BASES MAY BE SCHEDULE 40 PVC PLASTIC.



### ILLUSTRATIVE SERVICE DETAIL

N.T.S.

1. FURNISH & INSTALL SERVICE EQUIPMENT PER POWER CO. REQUIREMENTS.
2. ALL ELECTRICAL EQUIPMENT, MATERIALS AND INSTALLATIONS SHALL BE PER APPLICABLE ELECTRIC CODES AND CITY OF MARSHALL, TX. ORDINANCES.
3. MOUNT PROPOSED EQUIPMENT ON EXISTING BUILDING WALL USING HDG UNISTRUT P-1000 & 316 SS HARDWARE.

### GROUND GRID NOTES

- GN1 INSTALL 3/4" x 30' SECTIONALIZED COPPERCLAD STEEL GROUND ROD.
- GN2 INSTALL 3/4" x 10' COPPERCLAD STEEL GROUND ROD.
- GN3 INSTALL 3/4" SCHEDULE 40 PVC PLASTIC CONDUIT WITH (1)-#4 AWG COPPER GROUNDING ELECTRODE CONDUCTOR BETWEEN ELECTRICAL EQUIPMENT AND GROUND GRID.
- GN4 MAKE ALL CONNECTIONS USING EXOTHERMIC WELDING (CADWELD) PROCESS.
- GN5 INSTALL 3/4" SCHEDULE 40 PVC PLASTIC CONDUIT WITH (1)-#1/0 AWG COPPER GROUNDING ELECTRODE CONDUCTOR BETWEEN ELECTRICAL EQUIPMENT AND GROUND GRID.

### GROUND ROD INSTALLATION NOTES

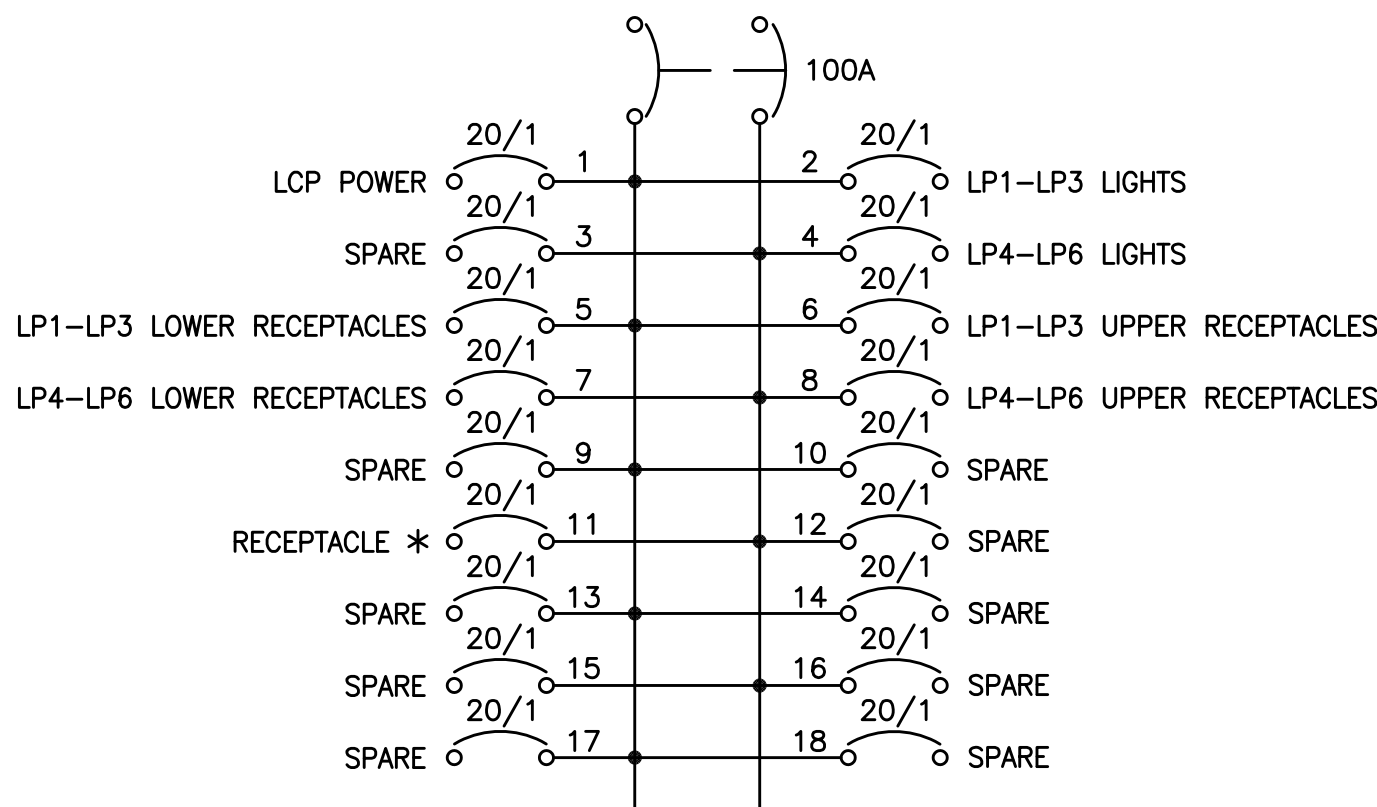
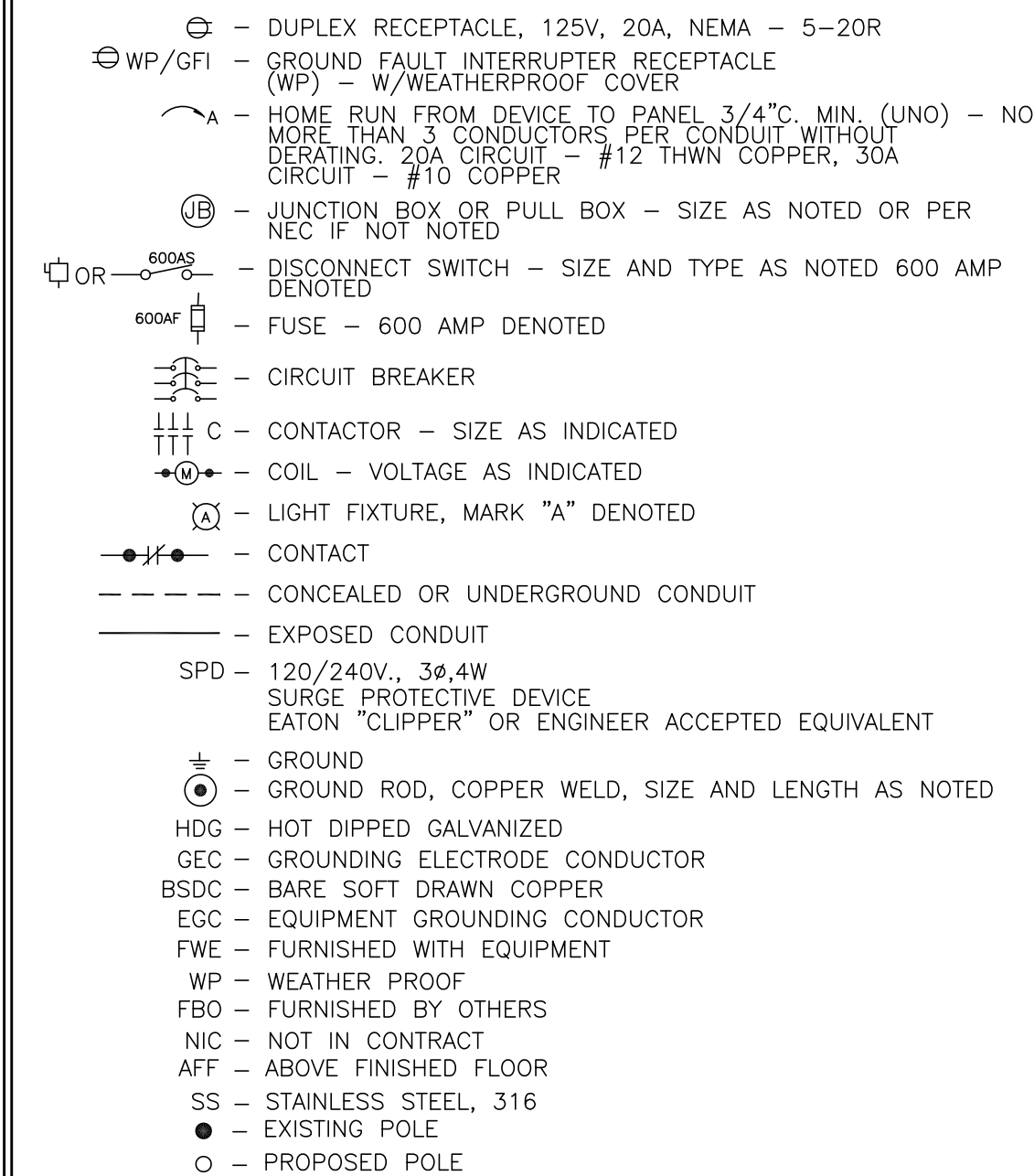
IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO INVESTIGATE SUBSURFACE SITE CONDITIONS AND BECOME FAMILIAR WITH THE REQUIREMENTS OF INSTALLING 30' GROUND RODS. THE CONTRACTOR SHALL PROVIDE EQUIPMENT AS NECESSARY TO ACCOMPLISH THE FOLLOWING STEPS:

STEP 1) DRIVE THE GROUND RODS TO THE FULL 30' DEPTH. IF THE GROUND RODS CANNOT BE DRIVEN THEN THEY SHALL BE INSTALLED PER STEP 2.

STEP 2) BORE A 6" DIAMETER X 30' PLUS DEEP GROUND WELL BY WHATEVER MEANS NECESSARY. INSTALL 30' GROUND ROD (THREE 10' SECTIONS SCREWED TOGETHER) INTO CENTER OF WELL. BACKFILL AND TAMP AROUND ROD WITH ERICO "GEM" COMPOUND TO WITHIN 24" OF GRADE. FINISH BACKFILL WITH SELECT TOPSOIL AFTER CONNECTION OF GROUNDING ELECTRODE CONDUCTOR(S).

THE INSTALLATION OF THE GROUND RODS AND GROUNDING GRID SHALL BE SCHEDULED IN ADVANCE SO THAT IT CAN BE WITNESSED BY THE OWNER OR HIS REPRESENTATIVE. FAILURE TO DO SO MAY RESULT IN THE REPLACEMENT OF THE ENTIRE GROUNDING SYSTEM.

### ELECTRICAL LEGEND



### LIGHTING PANEL "L1" SCHEDULE

100A, 120/240V, 1Ø, 3W, 22 KAIC, 18 SPACE, NEMA-3R, PANEL SHALL BE LOCKABLE.

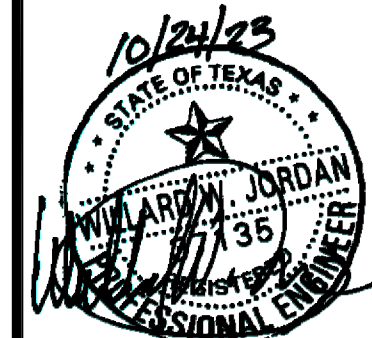
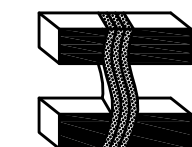
\* - GFCI

- 1) L2 @ SP#2 SHALL BE SIMILAR.
- 2) L3 @ SP#3 SHALL BE SIMILAR.
- 3) L4 @ SP#4 SHALL BE SIMILAR.

**ELECTRICAL EXPERTISE INC.**  
TEXAS REGISTERED ENGINEERING FIRM F-2490  
5117 LAKE CHEROKEE TEL: (903) 756-9868  
HENDERSON, TEXAS 75652



**HAYES ENGINEERING, INC.**  
Texas Registered Engineering Firm F-1465  
2126 Alpine St. Longview, TX 75601-3401  
Tel.: (903) 758-2010 • Fax: (903) 758-2099



DRAWN BY : R.L.C.  
CHECKED BY : W.W.J.  
DATE : OCT. 2023  
SCALE : AS NOTED  
JOB NO. : MA-21-01  
MA-22-04

SHEET

E1

OF 3 SHEETS

**CITY OF MARSHALL, TX.**  
**DOWNTOWN REDEVELOPMENT PHASE III**  
300 & 400 BLOCK OF N. WASHINGTON AVENUE

**ELECTRICAL  
DETAILS**



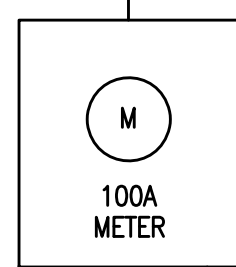
120/240V, 1Ø, 3W, OH OR U/G SERVICE  
BY SWEPCO

1 1/2" 2" w/(2)-#1 &  
(1)-#2N

100A, 120/240V, 1Ø, 3W, HD, FUSED  
SWITCH IN NEMA-3R ENCLOSURE WITH  
200A DETD, 100 KAIC FUSES

1 1/2" 2" w/(2)-#1, (1)-#2N  
& (1)-#6 EGC

2" 2" w/(4)-#12, (4)-#10,  
(8)-#8 & (1)-#6 EGC



GN3

CONDUIT HUB  
(TYPICAL)

GN5

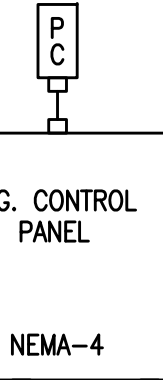
GN1

20A, 120V, DUPLEX  
RECEPTACLE IN BELL  
BOX W/WPIU COVER

1/2" 2" w/  
(3)-#12  
(L1-11)

GN1

GN4  
GN5 TO SERVICE  
SWITCH GEAR RACK



GN6

GN4

GN5

GN6

GN7

GN8

GN9

GN10

GN11

GN12

GN13

GN14

GN15

GN16

GN17

GN18

GN19

GN20

GN21

GN22

GN23

GN24

GN25

GN26

GN27

GN28

GN29

GN30

GN31

GN32

GN33

GN34

GN35

GN36

GN37

GN38

GN39

GN40

GN41

GN42

GN43

GN44

GN45

GN46

GN47

GN48

GN49

GN50

GN51

GN52

GN53

GN54

GN55

GN56

GN57

GN58

GN59

GN60

GN61

GN62

GN63

GN64

GN65

GN66

GN67

GN68

GN69

GN70

GN71

GN72

GN73

GN74

GN75

GN76

GN77

GN78

GN79

GN80

GN81

GN82

GN83

GN84

GN85

GN86

GN87

GN88

GN89

GN90

GN91

GN92

GN93

GN94

GN95

GN96

GN97

GN98

GN99

GN100

GN101

GN102

GN103

GN104

GN105

GN106

GN107

GN108

GN109

GN110

GN111

GN112

GN113

GN114

GN115

GN116

GN117

GN118

GN119

GN120

GN121

GN122

GN123

GN124

GN125

GN126

GN127

GN128

GN129

GN130

GN131

GN132

GN133

GN134

GN135

GN136

GN137

GN138

GN139

GN140

GN141

GN142

GN143

GN144

GN145

GN146

GN147

GN148

GN149

GN150

GN151

GN152

GN153

GN154

GN155

GN156

GN157

GN158

GN159

GN160

GN161

GN162

GN163

GN164

GN165

GN166

GN167

GN168

GN169

GN170

GN171

GN172

GN173

GN174

GN175

GN176

GN177

GN178

GN179

GN180

GN181

GN182

GN183

GN184

GN185

GN186

GN187

GN188

GN189

GN190

GN191

GN192

GN193

GN194

GN195

GN196

GN197

GN198

GN199

GN200

GN201

GN202

GN203

GN204

GN205

GN206

GN207

GN208

GN209

GN210

GN211

GN212

GN213

GN214

GN215

GN216

GN217

GN218

GN219

GN220

GN221

GN222

GN223

GN224

GN225

GN226

GN227

GN228

GN229

GN230

GN231

GN232

GN233

GN234

GN235

GN236

GN237

GN238

GN239

GN240

GN241

GN242

GN243

GN244

GN245

GN246

GN247

GN248

GN249

GN250

GN251

GN252

GN253

GN254

GN255

GN256

GN257

GN258

GN259

GN260

GN261

GN262

GN263

GN264

GN265

GN266

GN267

GN268

GN269

GN270

GN271

GN272

GN273

GN274

GN275

GN276

GN277

GN278

GN279

GN280

GN281

GN282

GN283

GN284

GN285

GN286

GN287

GN288

GN289

GN290

GN291

GN292

GN293

GN294

GN295

GN296

GN297

GN298

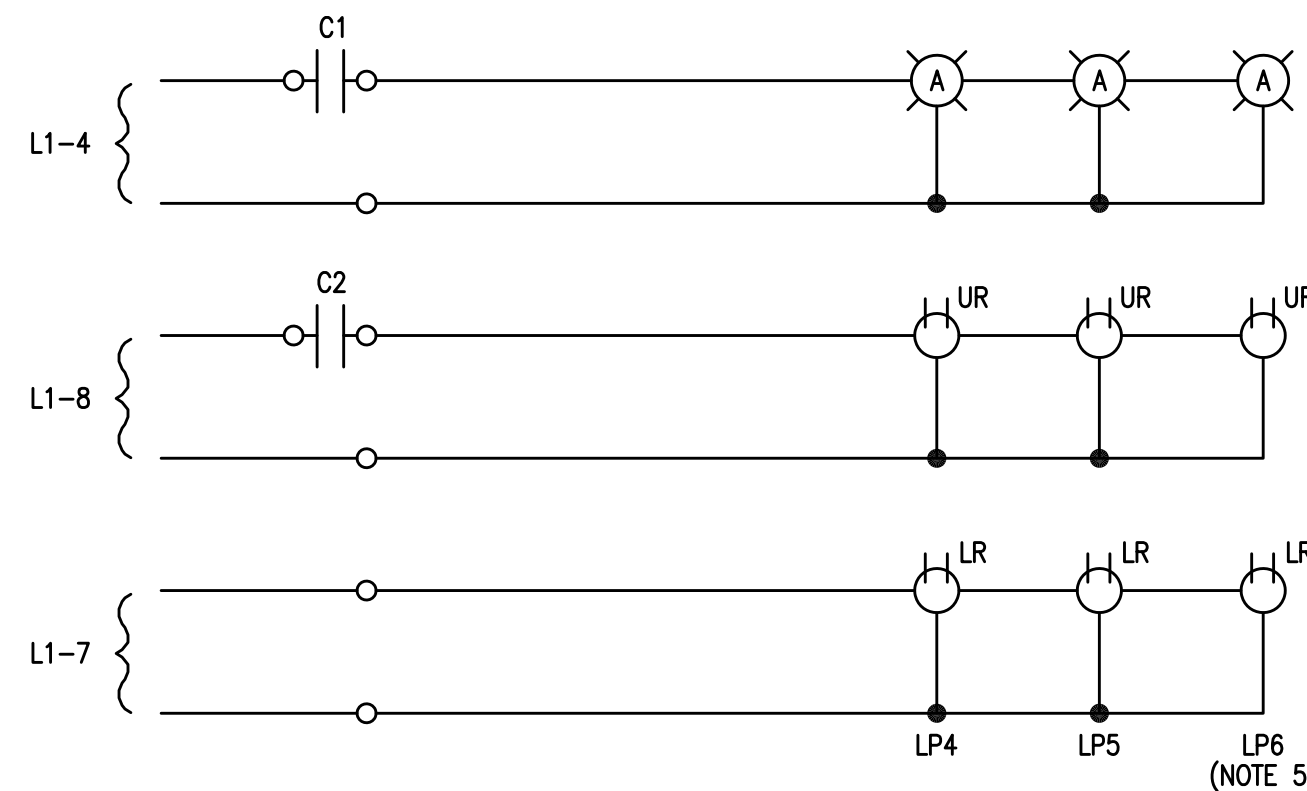
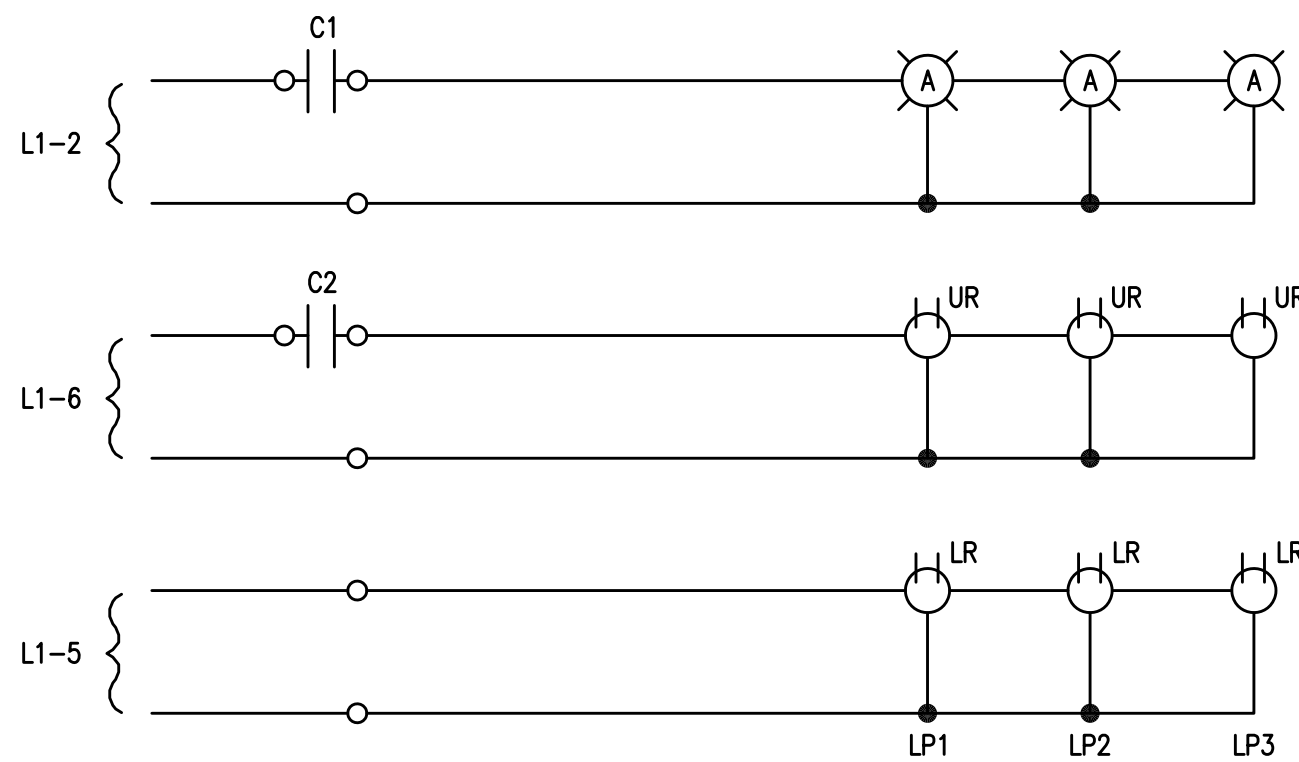
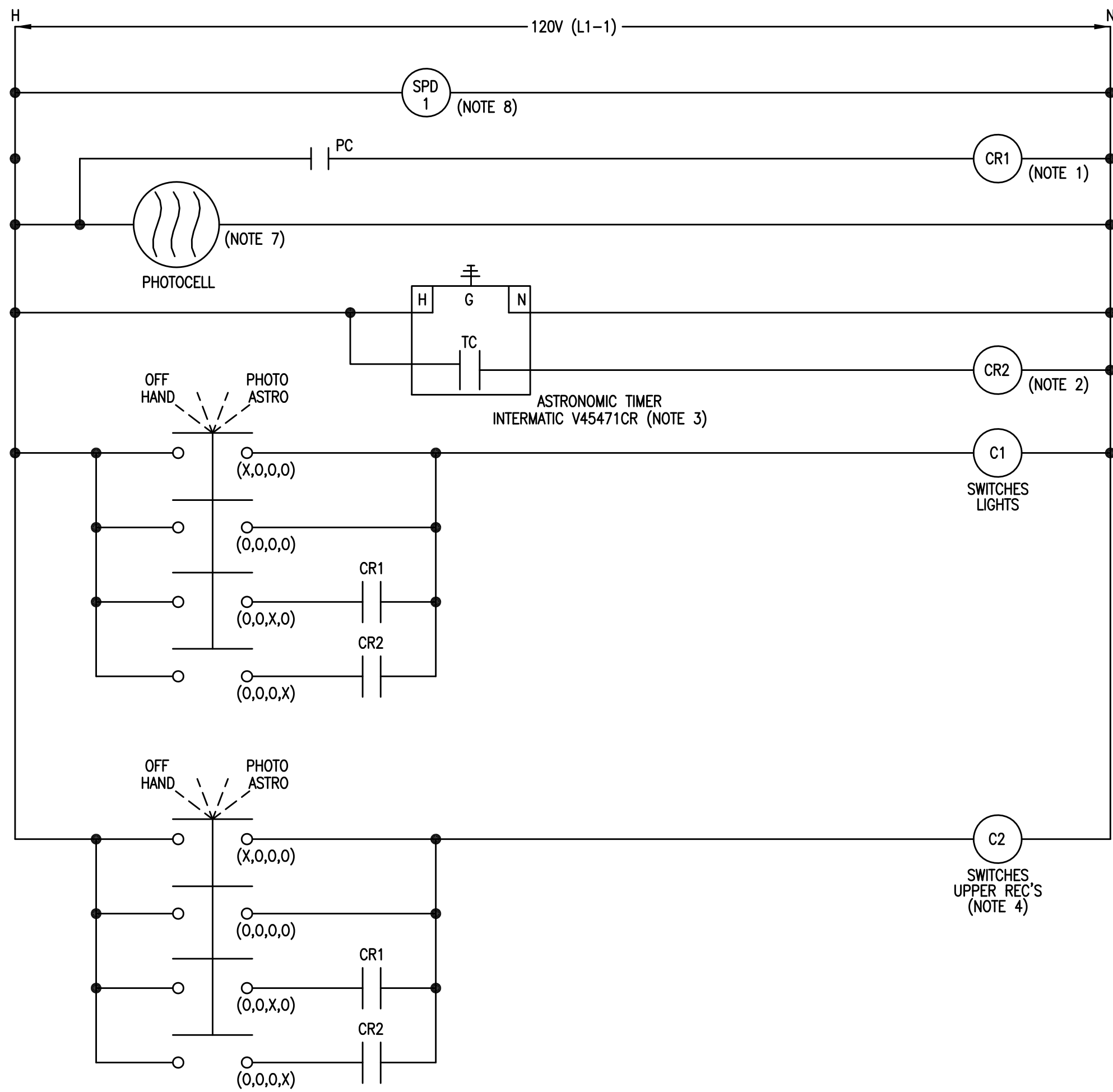
GN299

GN300

GN301

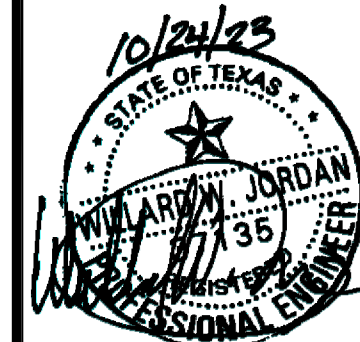
GN302

GN303



**LP1-LP6  
LIGHTS & RECEPTACLES  
CONTROL DIAGRAM**  
N.T.S.

- NOTE 1: CR1-4 POLE, 10A, 120V COIL, MACHINE TOOL RELAY ENERGIZED WHEN AMBIENT LIGHT IS AT DUSK OR DARKER.  
NOTE 2: CR2-4 POLE, 10A, 120V COIL, MACHINE TOOL RELAY ENERGIZED WHEN TIMER CONTACT CLOSURES.  
NOTE 3: TC-TIMER CONTACT IN ASTRONOMIC TIMER.  
NOTE 4: C1/C2-30A, 4P, ELECTRICALLY HELD, 240V, WITH 120VAC COIL.  
NOTE 5: LP1-LP6-EXISTING STREET LIGHT POLES.  
NOTE 6: NOT USED  
NOTE 7: PHOTO-ELECTRIC SWITCH, TORK TWIST LOCK WITH RECEPTACLE.  
NOTE 8: SPD1-SURGE PROTECTIVE DEVICE, MAXIVOLT, INC. MODEL ICP 110, OR EQUIVALENT.  
NOTE 9: HOUSE COMPONENTS IN 24"x24"x10" NEMA-4 STEEL ENCLOSURE WITH HINGED INNER PANEL, BACK PANEL, HINGED OUTER DOOR WITH QUICK DISCONNECT LATCHES AND HASP TO ACCOMMODATE A PAD LOCK.  
NOTE 10: LIGHTS LP7-LP12 SHALL BE SIMILAR.  
NOTE 11: LIGHTS LP13-LP18 SHALL BE SIMILAR.  
NOTE 12: LIGHTS LP19-LP24 SHALL BE SIMILAR.



DRAWN BY : R.L.C.  
CHECKED BY : W.W.J.  
DATE : OCT. 2023  
SCALE : AS NOTED  
JOB NO. : MA-21-01  
MA-22-04

SHEET

**E3**

OF **3** SHEETS

**ELECTRICAL  
DETAILS**

**CITY OF MARSHALL, TX.**  
**DOWNTOWN REDEVELOPMENT PHASE III**  
**300 & 400 BLOCK OF N. WASHINGTON AVENUE**