STANDARD PARK AND TRAIL CONSTRUCTION DETAILS

CITY OF PLANO PARKS & RECREATION DEPARTMENT

2017 PLANOPARKS.ORG
The following are the effective date(s) of the City of Plano and all of its amendments:

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<th>Description</th>
<th>Received by City Secretary</th>
<th>Effective Date</th>
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<td>1</td>
<td>Update to Parks and Recreation Trail Construction Details 2008</td>
<td>04/2017</td>
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<td>2</td>
<td>Added Detail 1a Trash Receptacle Pad Detail</td>
<td>01/2018</td>
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<td>Revised Traffic Control and Sign Notes (Pgs. 11, 12, 30, 31 &amp; 32)</td>
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<td>4</td>
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<td>5</td>
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# CITY OF PLANO

## PARKS AND RECREATION DEPARTMENT

### STANDARD PARK AND TRAIL CONSTRUCTION DETAILS

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JUNE 2019
GENERAL NOTES:
1. PAVING TO HAVE A MINIMUM 1% AND MAXIMUM 2% CROSS SLOPE AS SHOWN.
2. THE MATERIALS AND WORKMANSHIP FOR CONCRETE PAVING SHALL BE IN ACCORDANCE WITH N.C.T.C.O.G. SPECIFICATIONS AS MODIFIED BY THE CITY OF PLANO SPECIAL PROVISIONS.
3. TRAIL TO HAVE A MINIMUM OF 8' OF CLEARANCE ABOVE TRAIL, AT THE DISCRETION OF COP PROJECT MANAGER.
4. ALL AREAS OF TRAIL TO MEET TEXAS ACCESSIBILITY STANDARDS.

CONSTRUCTION NOTES:
A. 4,000 PSI CONCRETE PAVING. WHITE CURING COMPOUND REQUIRED WHEN TEMPERATURES ARE ABOVE 90°F.
B. MEDIUM BROOM FINISH.
C. 5' MINIMUM AREA OF RESODDING AND MINIMUM TREE SET BACK AS NOTED. (UNLESS MORE AREA IS DAMAGED DURING CONSTRUCTION)
D. FINISH GRADE, PROVIDE POSITIVE DRAINAGE AWAY FROM CONCRETE; SLOPE AWAY FROM TRAIL AT 2% MAXIMUM.
E. #3 BARS 18 O.C. MAXIMUM BOTH WAYS. ENDS OF BARS TO BE NO CLOSER THAN 2" FROM FORM BOARDS. REINFORCING STEEL MUST BE PLACED ON 3" PLASTIC CHAIRS PRIOR TO POUR.
F. COMPACT SUB GRADE TO 95% STANDARD PROCTOR DENSITY CUSHION. SAND IS NOT ALLOWED.
GENERAL NOTES:
1. PAVING TO HAVE A MINIMUM 1% AND MAXIMUM 2% CROSS SLOPE AS SHOWN.
2. THE MATERIALS AND WORKMANSHIP FOR CONCRETE PAVING SHALL BE IN ACCORDANCE WITH N.C.T.C.O.G. SPECIFICATIONS AS MODIFIED BY THE CITY OF PLANO SPECIAL PROVISIONS.
3. TRAIL TO HAVE A MINIMUM OF 8’ OF CLEARANCE ABOVE TRAIL, AT THE DISCRETION OF COP PROJECT MANAGER.
4. ALL AREAS OF TRAIL TO MEET TEXAS ACCESSIBILITY STANDARDS.

CONSTRUCTION NOTES:
A. 4’X4’ 4,000 PSI CONCRETE PAVING, WHITE CURING COMPOUND REQUIRED WHEN TEMPERATURES ARE ABOVE 90°F.
B. MEDIUM BROOM FINISH.
C. 4” SCHEDULE 40 PVC PIPE FLUSH TOP AND BOTTOM W/ ½”X12” GALV NIPPLE CENTERED.
D. #3 BARS SPACED EQUALLY AS SHOWN BOTH WAYS. ENDS OF BARS TO BE NO CLOSER THAN 2” FROM FORM BOARDS. REINFORCING STEEL MUST BE PLACED ON 2” PLASTIC CHAIRS PRIOR TO POUR.
E. #4 X 18” DOWEL WITH END CAPS AND SLEEVES
F. COMPACT SUB GRADE TO 95% STANDARD PROCTOR DENSITY CUSHION. SAND IS NOT ALLOWED.

TRASH RECEPTACLE PAD DETAIL

SCALE : 1/2” = 1'-0"

CONCRETE TRAIL DETAIL

PARK AND TRAIL STANDARDS

CITY OF PLANO PARKS AND RECREATION DEPARTMENT

JANUARY 2018
GENERAL PAVING NOTES:

1. THE LAYOUT OF ALL PROPOSED PAVING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REVIEWED BY OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.

2. ALL PAVING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION DETAILS SHOWN HEREIN AND THE CITY OF PLANO STANDARDS.

3. THE SUB GRADE BENEATH ALL PAVING SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.

4. THE EDGES OF ALL FINISHED PAVING SHALL BE SMOOTH, GRACEFUL CURVILINEAR OR STRAIGHT FORMS WITH NO INTERRUPTIONS SUCH AS CHORDS, WAVES, JOGS, OR MISSED TANGENTS. ANY PAVEMENT WITH SUCH INTERRUPTIONS SHALL BE SUBJECT TO REPLACEMENT AT NO COST TO THE CITY.

5. ALL CONCRETE FOR TRAILS AND PAVING SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI @ 28 DAYS, AND SHALL HAVE A MEDIUM BROOM FINISH.

6. CONCRETE SHALL NOT BE Poured UNTIL THE CITY'S REPRESENTATIVE HAS INSPECTED THE FORMS AND REINFORCING. THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER AT LEAST 48 HOURS IN ADVANCE OF ALL CONCRETE POURS.

7. TRAILS ARE TO BE CONSTRUCTED ON MAXIMUM 5% LONGITUDINAL SLOPE WITH MAXIMUM 2% CROSS SLOPE. THE CONTRACTOR IS RESPONSIBLE FOR TRAIL GRADING FOR ACCESSIBILITY AND COMPLIANCE WITH ALL TEXAS ACCESSIBILITY STANDARDS.

8. ALL AREAS DAMAGED AS A RESULT OF NEW CONSTRUCTION ARE TO HAVE APPROVED SEASONAL GRASS ESTABLISHED PRIOR TO FINAL ACCEPTANCE. THE MINIMUM REGRASSING IS AS NOTED ON THE PLAN OR AS SHOWN ON THE DETAILS.

9. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 8- FEET CLEAR AREA ABOVE THE NEW TRAIL (REFER TO DETAIL 6) OR SIDEWALK SURFACES. PRUNE EXISTING TREES AS NEEDED USING COMMON HORTICULTURAL PRACTICES. REMOVE ANY GENERATED DEBRIS OFF-SITE.

10. PROVIDE A 6" UNDERCUT HEADER WHEREVER PROPOSED CONCRETE PAVING IS TO ABUT EXISTING CONCRETE PAVING (REFER TO DETAIL 5). NOT REQUIRED WHERE EXISTING PAVING IS 6" THICK OR GREATER.

11. WHEN NEW CONCRETE IS POURED AGAINST OLD PAVING, 6" THICK OR GREATER; ⅜" DOWELS 18" IN LENGTH SHALL BE PLACED AT 2' SPACING.

12. AMBIENT AIR TEMPERATURE MUST BE 40 DEGREES (°F) AND RISING BEFORE ANY CONCRETE IS POURED.

13. TRAILS TO BE CONSTRUCTED IN ACCORDANCE WITH AASHTO STANDARDS, INCLUDING PEDESTRIAN AND BICYCLE FACILITY GUIDES OR SIMILAR.
GENERAL NOTES:
1. LOCATE DOWELED EXPANSION JOINTS AS NOTED ON PLANS WITH A MAXIMUM DISTANCE OF 48'.

CONSTRUCTION NOTES:
A. 2" SMOOTH DOWEL 18" LONG EACH LUBRICATED WITH CAP @ 12" O.C. WITH CAP; BARS 6" FROM EDGE OF TRIAL.
B. INSTALL REDWOOD EXPANSION JOINT BOARD WITH 2" STRIP OUT CAP. FILL EXPANSION JOINTS WITH SIKAFLEX 1C SL SEALANT SYSTEMS OR APPROVED EQUAL. CONTRACTOR TO SUBMIT COLOR SAMPLES.
C. 6" CONCRETE TRAIL PAVING WITH #3 BARS @ 18" O.C. BOTH WAYS AND 3" PLASTIC CHAIRS TO SUPPORT.
GENERAL NOTES:

1. CONTROL JOINT SPACING SHALL BE WIDTH OF PAVING OR AS SHOWN ON THE PLANS.

CONSTRUCTION NOTES:

A. SAWED CONTROL JOINTS 2" DEEP X 3/8" WIDE.
B. 6" CONCRETE TRAIL. REFER TO DETAIL 1.

CONTROL JOINT DETAIL

SCALE: 3/4" = 1'-0"
GENERAL NOTES:
1. UNDERCUT HEADER TO BE CONTINUOUS ALONG EXISTING PAVEMENT WHERE ADJACENT TO NEW PAVEMENT.
2. NEW PAVEMENT BARS TO BE BENT DOWN INTO HEADER. HEADER AND NEW PAVEMENT TO BE MONOLITHIC.

CONSTRUCTION NOTES:
A. REDWOOD EXPANSION JOINT BOARD WITH 1/2" STRIP-OUT CAP. FILL EXPANSION JOINT WITH SIKAFLEX 1C SL SEALANT; CONTRACTOR TO SUBMIT COLOR SAMPLES.
B. 6" THICK CONCRETE PAVING. REFER TO DETAIL 1.
C. SAWCUT EXISTING PAVING TO BE REMOVED AT NEAREST CONSTRUCTION JOINT.
D. UNDERCUT HEADER.
E. EXISTING CONCRETE PAVING TO REMAIN. CONCRETE 6" THICK AND GREATER SHALL BE DOWELED WITHOUT UNDERCUT HEADER.
F. #3 BARS @ 18" O.C. BOTH WAYS, BENT TO CONFORM TO UNDERCUT HEADER.

EXISTING PAVING LESS THAN 6" THICK

UNDERCUT HEADER ABUTTING EXISTING CONCRETE

SCALE: 1" = 1'-0"

Plano
City of Excellence

UNDERCUT HEADER DETAIL
PARK AND TRAIL STANDARDS
CITY OF PLANO PARKS AND RECREATION DEPARTMENT
March 2017
GENERAL NOTES:

CONTRACTOR IS TO PRUNE EXISTING TREES TO REMOVE ALL DEAD OR DAMAGED BRANCHES AND TO PROVIDE A MINIMUM 8'-0" BRANCHING HEIGHT OR GREATER AT DISCRETION OF URBAN FORESTER. PROPER PRUNING AND HORTICULTURAL PRACTICES SHALL BE OBSERVED DURING THIS WORK. PRUNING SHALL BE IN CONFORMANCE WITH ANSI STANDARDS, AND UNDER THE DIRECTION OF THE URBAN FORESTER.
GENERAL NOTES:
1. CROSS SLOPE NOT TO EXCEED 2% ON ANY PORTION OF RAMP OR TRANSITION TO STREET.

CONSTRUCTION NOTES:
A. EXISTING CURB
B. EXISTING ROAD SURFACE
C. CONCRETE CURB
D. 6" CONCRETE LANDING TO BE FLUSH WITH ROADWAY SURFACE
E. TACTILE WARNING SURFACE
F. STAMPED CONCRETE PAVING, HERRINGBONE PATTERN, TYPICAL (INTEGRAL RED BRICK COLOR)
G. CONCRETE CURB, PAINTED WITH GLASS BEADED YELLOW PAINT ON BEVELLED SURFACE, TYPICAL
H. WHITE ARROW MARKING, TYPICAL
I. 12" WIDE WHITE STOP BAR
J. 60 LINEAR FEET, YELLOW PAINT.
K. TYPICAL EXPANSION JOINT, REFER TO DETAIL 3.
L. 18" X #4 SMOOTH DOWELS ON 16" CENTERS.
M. 6" SCARIFIED AND COMPACTED SUBGRADE COMPACT SUBGRADE TO 95% STANDARD PROCTOR DENSITY.
N. CONCRETE BASE WITH #3 REBAR AT 12" O.C. BOTH WAYS.
O. 6" CONCRETE EDGE CURB (BEYOND)
P. 2' WIDE CONCRETE MEDIAN CURB
Q. CONCRETE TRAIL, REFER TO DETAIL 1.
R. LANDING AT TOP OF RAMP: MAXIMUM 2% IN ALL DIRECTIONS. MINIMUM LENGTH 36", MINIMUM WIDTH: FULL WIDTH OF RAMP.
CONSTRUCTION NOTES:
A. 24" WIDE WHITE PAVEMENT MARKING.

TRAIL CROSSWALK MARKING

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

Plano
City of Excellence
PARK AND TRAIL STANDARDS
CITY OF PLANO PARKS AND RECREATION DEPARTMENT
CONSTRUCTION NOTES:

A. 2-3/8" DIAMETER TUBULAR STEEL SCHEDULE 40 GALVANIZED RAIL, TYPICAL
B. 1-1/2" DIAMETER TUBULAR STEEL SCHEDULE 40 GALVANIZED RAIL, TYPICAL
C. 1/2" BOLT TO ANCHOR HANDRAIL TO SLEEVE
D. 1/2" CHAMFER/BEVEL ON FOOTING
E. 3" DIAMETER SLEEVE THROUGH A RETAINING WALL OR A 10" DIAMETER CONCRETE FOOTING.
F. FILL SLEEVE WITH HIGH STRENGTH GROUT.
G. 9" WIDE MOW STRIP FROM FACE OF COLUMN OR GUARDRAIL.
H. 6" X 6" X 10' MILSAP CUT STONE AS NEEDED
I. 4" X 4" SQUARE STRUCTURAL TUBING FILLED WITH GROUT.

STONE COLUMN NOTES:

1. ALL STONE IS RANDOM RECTANGULAR AND IS TO BE LAID IN A RANDOM ASHLAR PATTERN. MILLSAP SANDSTONE TO MATCH EXISTING COLUMNS IN THE AREA TO THE SIZES SHOWN IN THE DETAILS. SUBMIT AT LEAST 3 STONE BLOCKS FOR REVIEW BY OWNER'S REPRESENTATIVE ON THE JOB.
2. ALL MORTAR IS TO BE TYPE S.
3. MORTAR SHALL BE LIGHT TAN. SUBMIT SAMPLE FOR OWNER APPROVAL.
4. ALL MORTAR JOINTS SHALL BE 3/8" CONCAVE TOOLED JOINTS. JOINTS SHALL BE LEVEL AND TRUE.
5. RAILING TO BE SCHEDULE 40 GALVANIZED.

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PLANO
City of Excellence

PARK AND TRAIL STANDARDS
CITY OF PLANO PARKS AND RECREATION DEPARTMENT
March 2017
TABLE I

<table>
<thead>
<tr>
<th>SPEED (S)</th>
<th>MINIMUM DESIRABLE TAPER LENGTH (L)</th>
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<tbody>
<tr>
<td>OFFSET WIDTH -&gt;</td>
<td>11'</td>
</tr>
<tr>
<td>30'</td>
<td>165'</td>
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<tr>
<td>35'</td>
<td>225'</td>
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<td>40'</td>
<td>295'</td>
</tr>
<tr>
<td>45'</td>
<td>495'</td>
</tr>
<tr>
<td>50'</td>
<td>550'</td>
</tr>
<tr>
<td>55'</td>
<td>605'</td>
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</table>

SPEED -> ≤ 40 MPH > 40 MPH
L = (Wx5^2)/60 WxS

L = TAPER LENGTH IN FEET.
W= WIDTH OF OFFSET IN FEET.
S= POSTED SPEED LIMIT, OR OFF-PEAK 85TH PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH.

NOTE: TAPER LENGTHS HAVE BEEN ROUNDED TO MULTIPLES OF 5 FEET.

TABLE II

<table>
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<tr>
<th>POSTED SPEED</th>
<th>MINIMUM SIGN SPACING IN FEET (SS)</th>
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<tr>
<td>30'</td>
<td>120'</td>
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<tr>
<td>35'</td>
<td>160'</td>
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<td>40'</td>
<td>240'</td>
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<td>45'</td>
<td>320'</td>
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<tr>
<td>50'</td>
<td>400'</td>
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<tr>
<td>55'</td>
<td>500'</td>
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</table>

TRAFFIC CONTROL TO BE IMPLEMENTED WITH WORK AREA IS ADJACENT TO STREET

TYPICAL RIGHT LANE CLOSURE

NOTE:
FOR MORE INFORMATION ON LANE CLOSURE SEE "POCKET GUIDE TO WORK ZONE TRAFFIC CONTROL."
PUBLISHED BY:
PUBLIC WORKS TRAINING DIVISION TEXAS ENGINEERING EXTENSION SERIVCE TEXAS A & M UNIVERSITY SYSTEM COLLEGE STATION, TEXAS 77843-8000 (979) 845-2911

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PARK AND TRAIL STANDARDS
CITY OF PLANO PARKS AND RECREATION DEPARTMENT
March 2018
TRAFFIC CONTROL NOTES:

1. TAPER FORMULA:
   \[ L = S \times W \quad \text{FOR SPEEDS OF 45 OR MORE (>40)} \]
   \[ L = \frac{W \times S^2}{60} \quad \text{FOR SPEEDS OF 40 OR LESS (≤40)} \]
   WHERE:
   \[ L = \text{MINIMUM LENGTH OF TAPER} \]
   \[ S = \text{NUMERICAL VALUE OF POSTED SPEED LIMIT PRIOR TO WORK OR 85% SPEED}. \]
   \[ W = \text{WIDTH OF OFFSET} \]

2. THE MAXIMUM SPACING BETWEEN CHANNELIZING DEVICES IN A TAPER SHOULD BE APPROXIMATELY EQUAL IN FEET TO THE SPEED LIMIT.

3. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ADVANCE WARNING SIGNS AND/OR EQUIPMENT. BATTERIES MUST BE MAINTAINED TO KEEP FLASHING OPERATION.

4. TYPE III BARRICADES, AND FLASHING ARROWS MAY BE USEFUL IN MANAGING TRAFFIC.

5. ALL DISTANCES AND SPACINGS SHOWN ARE APPROXIMATE.

6. ONE OR MORE FLAGGERS TO BE WHERE TRAFFIC, ROAD CONDITIONS, OR TERRAIN WARRANT THEIR USE.

7. TRAFFIC CONTROL DEVICES AND SIGNAGE TO BE IN ACCORDANCE WITH "TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

8. ONLY ONE LANE TO BE CLOSED AT A TIME; ONLY APPLICABLE TO TWO LANE ROADS. MULTI-LANE CLOSURES ARE PERMITTED ON THREE LANE ROADS. LANE CLOSURES ONLY PERMITTED BETWEEN 9AM AND 4PM.

9. THE CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AS STATED IN THE GENERAL CONDITIONS OF THE CONTRACT. ADDITIONAL MEASURES MAY BE IMPLEMENTED BY THE CONTRACTOR AS NECESSARY IN THE INTEREST OF SAFETY.

10. NOTIFY PARD PROJECT MANAGER AT LEAST 48-HOURS PRIOR TO ANY TRAIL CLOSURE.
CONSTRUCTION NOTES:
A. DRIP LINE.
B. SET METAL "T" POSTS WITH CAPS @ 6'-0" O.C. AS FENCE SUPPORTS.
C. 4' HEIGHT ORANGE SAFETY FENCING AT THE DRIP LINE OF ALL EXISTING TREES TO BE PROTECTED.
D. FINISH GRADE

TREE PROTECTION NOTES

1. EXISTING TREES SHOWN TO REMAIN ARE TO BE PROTECTED DURING CONSTRUCTION. ORANGE SAFETY FENCING (MINIMUM 4'-0" HEIGHT) SHALL BE INSTALLED AT THE DRIP LINE OF ALL TREES OR TREE GROUPS TO REMAIN. PARKING OF VEHICLES OR PERFORMING WORK WITHIN THESE AREAS OTHER THAN SHOWN ON THE PLAN, WILL NOT BE ALLOWED. THE TREE PROTECTION SHALL REMAIN DURING CONSTRUCTION. OTHER TREE PROTECTION MEASURES SHALL BE IN ACCORDANCE WITH THE CITY OF PLANO STANDARDS AND ORDINANCES.

2. DISPOSAL OF ANY WASTE MATERIAL SUCH AS, BUT NOT LIMITED TO, PAINT, ASPHALT, OIL SOLVENTS, CONCRETE, MORTAR, ETC. WITHIN THE CANOPY AREA OF THE EXISTING TREES SHALL NOT BE ALLOWED.

3. NO ATTACHMENTS OR WIRES OF ANY KIND, OTHER THAN THOSE OF A PROTECTIVE NATURE, SHALL BE ATTACHED TO ANY TREE.

4. NO FILL OR EXCAVATION OF ANY NATURE SHALL OCCUR WITHIN THE DRIP LINE OF A TREE TO BE PRESERVED, UNLESS THERE IS A SPECIFIED WELL OR RETAINING WALL SHOWN ON THE GRADING PLAN.

5. NO MATERIALS SHALL BE STORED WITHIN THE DRIPLINE AREA OF A TREE TO BE PRESERVED. NO PARKING UNDER TREE.

NOTES:

1. FENCE TO BE MAINTAINED AND REPAIRED AS NEEDED DURING CONSTRUCTION.

2. NO CONSTRUCTION TRAFFIC, GRADING, STORAGE OR WASTE DISPOSAL ALLOWED WITHIN THE FENCED AREA AROUND TREES.
GENERAL NOTES:

1. REMOVE ADDITIONAL SOIL OR MULCH COVERING ROOT OR TRUNK FLARE IN CONTAINER BEFORE PLANTING. NO MULCH AGAINST TREE TRUNK.
2. CUT GIRDLING ROOTS OF CONTAINER TREES. LOOSEN AND SPREAD ROOTS AFTER REMOVING THE CONTAINER AND BEFORE PLACING TREE IN GROUND.
3. STABILIZE AND COMPACT SOIL BELOW ROOT BALL AND AS BACKFILL IS BEING ADDED TO STABILIZE TREE. REMOVE ALL AIR POCKETS BY TAMPPING DOWN THE SOIL AS EACH LAYER IS ADDED.
4. TOP OF ROOT BALL SHALL BE 1"-2" ABOVE FINISHED GRADE. NO MULCH WITHIN 6" OF TRUNK.
5. ALL WIRE ROPE AND SYNTHETIC MATERIALS SHALL BE REMOVED COMPLETELY FROM ROOT BALL AND REMOVE TOP 1/3 OF BURLAP.
6. PLANTING PITS SHALL BE THOROUGHLY SCARIFIED/ROUGHENED AND TWICE THE DIAMETER OF THE ROOT BALL.
7. SEE ARBORSTAKES INFO BROCHURE, AND WWW.ARBORSTAKES.COM

CONSTRUCTION NOTES:

A. TREE.
B. LOOSEN NATIVE BACKFILL (NO SOIL AMENDMENTS IN CONTRACT). BACKFILL SOIL SHOULD BE FIRMLY COMPACTED TO STABILIZE TREE.
C. WATER RETENTION BASIN OR BERM. 2" MAXIMUM DEPTH OF BARK MULCH AT BERM.
D. TOP OF ROOT BALL.
E. FINISH GRADE. ROOT BALL SHALL BE 1" TO 2" ABOVE FINISH GRADE.
F. BELOW GROUND, 19 MM BIODEGRADABLE STAKES. INSTALL A MINIMUM OF 3 STAKES VERTICALLY THROUGH ROOT BALL. SPACING SHALL BE EQUALLY PROPORTIONATE TO THE QUANTITY OF STAKES SPECIFIED. LATERAL DISTANCE SHALL NOT BE LESS-TAN 6" FROM TRUNK, ROOT FLARE, OR OUTER EDGE OF ROOT BALL. DO NOT DRIVE STAKES COMPLETELY FLUSH WITH ROOT BALL: MAINTAIN A MINIMUM 2" ABOVE GROUND FROM LOCK INSTALLATION.
G. PLACE (1) PRE-PUNCH浜HORIZONTAL BIODEGRADABLE BRACE ON EACH STAKE. ENSURE PLACEMENT DOES NOT RESTRICT IRRIGATION EMITTERS OR COMPONENTS. APPLY (1) BIODEGRADABLE FASTENER PER STAKE-TO-BRACE UNION. ENSURE NECK/COLLAR PLACEMENT AS TO MINIMIZE GAP. INSTALL (1) UNCOATED COARSE THREAD SCREW PER FASTENER AND ENSURE A SNUG FIT.
H. WIRE ROPE AND SYNTHETIC MATERIALS SHALL BE REMOVED COMPLETELY FROM ROOT BALL AND REMOVE TOP 1/3 OF BURLAP.
I. UNDISTURBED SOIL BELOW ROOT BALL.
CONSTRUCTION NOTES:

A. FINISHED GRADE. SLOPE AWAY FROM PLAYGROUND FOR POSITIVE DRAINAGE.
B. 12" WIDE REINFORCED CONCRETE PLAYGROUND EDGE (OR TO MATCH WIDTH WHERE CONNECTING TO EXISTING EDGE)
C. 4-#4 BARS CONTINUED WITH #3 STIRRUP @ 24" O.C.
D. VERTICAL FINISH TO BE HAND RUBBED, MINIMUM 18" BELOW TOP OF EDGE, NO HONEYCOMBS ALLOWED, FULL DEPTH FORMS, NO EARTH FORMS ALLOWED.
E. 3" GRAVEL BED WITH FILTER FABRIC ABOVE AND BELOW GRAVEL.
F. COMPACTED SUBGRADE TO 95% STANDARD DENSITY.

GENERAL NOTES:

1. PLAYGROUND SURFACE TO BE ENGINEERED HARDWOOD FIBER CHIPS "FIBAR" BY GAME TIME OR APPROVED EQUAL. REFERENCE ALL APPLICABLE ASTM STANDARDS AND IPEMA.

2. 1/2" REDWOOD EXPANSION JOINTS SHALL BE PROVIDED WHERE SHOWN ON THE PLAN. EXPANSION JOINTS SHALL BE CONTINUOUS THROUGH THE WALK AND CONCRETE PLAYGROUND EDGE WHERE ADJACENT. INSTALL VERTICAL EXPANSION JOINTS IN PLAYGROUND EDGE ON MAXIMUM 30-FOOT CENTERS.
**GENERAL NOTES:**

1. PLAYGROUND SURFACE TO BE ENGINEERED HARDWOOD FIBER CHIPS "FIBAR" BY GAME TIME OR APPROVED EQUAL. REFERENCE ALL APPLICABLE ASTM STANDARDS AND IPEMA.

2. 1/2" REDWOOD EXPANSION JOINTS SHALL BE PROVIDED WHERE SHOWN ON THE PLAN. EXPANSION JOINTS SHALL BE CONTINUOUS THROUGH THE WALK AND CONCRETE PLAYGROUND EDGE WHERE ADJACENT. INSTALL VERTICAL EXPANSION JOINTS IN PLAYGROUND EDGE ON MAXIMUM 30-FOOT CENTERS.

**CONSTRUCTION NOTES:**

A. 6" CONCRETE SIDEWALK WITH #3 BARS @ 18" O.C. BOTH WAYS.

B. VERTICAL FINISH TO BE HAND RUBBED MINIMUM 18" BELOW TOP OF EDGE, NO HONEYCOMB ALLOWED, FULL DEPTH FORM, NO EARTH FORMS ALLOWED.

C. 3" GRAVEL BED WITH FILTER FABRIC ABOVE AND BELOW GRAVEL.

D. COMPACTED SUBGRADE TO 95% STANDARD DENSITY.

E. 4-4 BARS CONTINUOUS

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**MONOLITHIC PLAYGROUND EDGE @ SIDEWALK**

**SCALE:** 1" = 1'-0"

**CONTRACTOR TO EXCAVATE FULL DEPTH OF PLAYGROUND BORDER WHERE SHOWN AS AREA TO BE EXCAVATED.**
CONSTRUCTION NOTES:

A. 3/4" SMOOTH DOWEL 18" LONG EACH LUBRICATED WITH CAP @ 12" O.C. WITH CAP.
B. INSTALL EXPANSION JOINT BOARD WITH 3/8" STRIP OUT CAP. FILL EXPANSION JOINTS WITH SIKAFLEX 1C SL SEALANT SYSTEMS OR APPROVED EQUAL. CONTRACTOR TO SUBMIT COLOR SAMPLES.
C. 12" WIDE REINFORCED CONCRETE PLAYGROUND EDGE (OR TO MATCH WIDTH WHERE CONNECTING TO EXISTING EDGE)

GENERAL NOTES:

1. 1/2" REDWOOD EXPANSION JOINTS SHALL BE PROVIDED WHERE SHOWN ON THE PLAN. EXPANSION JOINTS SHALL BE CONTINUOUS THROUGH THE WALK AND CONCRETE PLAYGROUND EDGE WHERE ADJACENT. INSTALL VERTICAL EXPANSION JOINTS IN PLAYGROUND EDGE ON MAXIMUM 30-FOOT CENTERS.
CONSTRUCTION NOTES:

A. 12" WIDE CONCRETE PLAYGROUND EDGE. REFER TO DETAILS 15 AND/OR 16. TOP OF PLAYGROUND EDGE ELEVATION AS SHOWN ON GRADING PLANS.
B. PLAYGROUND SAFETY SURFACE AS SPECIFIED, TO ALLOW FOR COMPACTED SUBGRADE TO 95% STANDARD DENSITY.
C. FILTER FABRIC ABOVE AND BELOW GRAVEL BED.
D. 3" GRAVEL BED BY CONTRACTOR.
E. 6" DIAMETER ADS PERFORATED FLEXIBLE DRAIN PIPE WITH SOCK.
F. FILTER FABRIC AROUND GRAVEL.
G. MINIMUM 12" OF WASHED COURSE GRAVEL (3/4"- 1 1/2" DIAMETER)
H. DRAIN CLEANOUT (TYPICAL) - REFER TO DETAIL 19. SIZE, QUANTITY AND TYPE (ONE-WAY OR TWO-WAY) PER PLAN.
I. SLOPE FINISHED GRADE AWAY FROM PLAYGROUND FOR POSITIVE DRAINAGE 10% SLOPE MAXIMUM TO TRANSITION TO EXISTING GRADE.
J. 6" SOLID PVC DRAIN EXTEND THRU PLAYGROUND EDGE WHERE SHOWN. SLOPE TO DRAIN AT MINIMUM 2% SLOPE OR CONNECT TO DRAINAGE STRUCTURE AS SHOWN ON PLAN.

PLAYGROUND DRAIN DETAIL

GENERAL NOTES:

1. PLAYGROUND SURFACE TO BE ENGINEERED HARDWOOD FIBER CHIPS "FIBAR" BY GAME TIME OR APPROVED EQUAL. REFERENCES ALL APPLICABLE ASTM STANDARDS AND IPEMA.
2. 1/2" REDWOOD EXPANSION JOINTS SHALL BE PROVIDED WHERE SHOWN ON THE PLAN. EXPANSION JOINTS SHALL BE CONTINUOUS THROUGH THE WALK AND CONCRETE PLAYGROUND EDGE WHERE ADJACENT. INSTALL VERTICAL EXPANSION JOINTS IN PLAYGROUND EDGE ON MAXIMUM 30-FOOT CENTERS.
CONSTRUCTION NOTES:

A. 6" PVC CLEAN-OUT THREADED PLUG (RECESSED) WITH INVERTED KEY PLUG.
B. 6" X 18" SQUARE CONCRETE ENCASEMENT WITH (1) #4 CONTINUOUS.
C. 6" PVC CLEAN-OUT ADAPTER HUB.
D. 6" SOLID PVC.
E. 6" 45° ELBOW (PVC)
F. 6" WYE FITTING (PVC)
G. 2-WAY CLEANOUT TEE (PVC)

ONE-WAY CLEANOUT DRAIN

TWO-WAY CLEANOUT DRAIN

PLAYGROUND DRAIN CLEANOUT DETAILS

SCALE: 1" = 1'-0"
GENERAL NOTES

1. CONCRETE EDGE AND FOOTING TO BE POURED TOGETHER.

CONSTRUCTION NOTES

A. 1/4" PREMOLDED EXPANSION JOINT MATERIAL OR WRAPPED 3 TIMES WITH 15 LB. ROOFING FELT.
B. DRY BRUSH FINISH CONCRETE EDGING UNDER FENCING.
C. FINISH GRADE
D. 2 - #4 BARS CONTINUOUS
E. 12" CONCRETE FOOTING
F. 3" BACKSTOP POST
G. PROVIDE Tool JOINT AT EACH POST
H. 1" SLOPE FOR DRAINAGE AT FENCE POST, ALL SIDES

NEIGHBORHOOD BACKSTOP MOW STRIP

N.T.S.
GENERAL NOTES

1. CHAIN-LINK FABRIC IS NOT SHOWN.
2. ALL RAIL TO POST CONNECTIONS ARE TO BE WELDED. NO BRACKETS ALLOWED.
3. GRIND SMOOTH ALL WELDS AND PAINT FINISH TO MATCH.

CONSTRUCTION NOTES

A. 1-5/8” O.D. GALVANIZED RAILS
B. FINISH GRADE
C. 12” DIAMETER CONCRETE FOOTING (TYPICAL) WITH MOW STRIP. REFER TO DETAIL 20.
D. 3” O.D. GALVANIZED POST TYPICAL WITH GALVANIZED STEEL BALL CAPS.
E. WELD ALL RAILS TO POSTS WITH FULL CONTACT WELDS. (TYPICAL)

BACKSTOP ELEVATION

N.T.S.

Plano
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BACKSTOP ELEVATION
PARK AND TRAIL STANDARDS
CITY OF PLANO PARKS AND RECREATION DEPARTMENT
March 2017
GENERAL NOTES
1. CONCRETE TO BE 4000 PSI.
2. ALL FABRIC TO BE 9 GAUGE GALVANIZED.
3. ALL RAIL TO POST CONNECTIONS ARE TO BE WELDED. NO BRACKETS ALLOWED.
4. GRIND SMOOTH ALL WELDS AND PAINT FINISH TO MATCH.

CONSTRUCTION NOTES
A. 1-5/8” O.D. SCH. 40 (6 HORIZONTALS) GALVANIZED RAILS
B. 3” O.D. SCH. 40 (4 TOTAL) GALVANIZED POST TYPICAL WITH GALVANIZED STEEL BALL CAPS.

BACKSTOP PLAN

N.T.S.
GENERAL NOTES

1. MITER AND WELD ALL CONNECTIONS.
2. ALL RAIL TO POST CONNECTIONS ARE TO BE WELDED. NO BRACKETS ALLOWED.
3. GRIND SMOOTH ALL WELDS AND PAINT FINISH TO MATCH.

CONSTRUCTION NOTES

A. STEEL BALL CAP
B. 3" GALVANIZED STEEL POST 12" ABOVE GRADE AT ENDS.
C. 1-5/8" GALVANIZED STEEL RAILS - WELD TO POSTS
D. BEVEL TOP OF FOOTING
E. 12" DIAMETER CONCRETE FOOTING AND MOW STRIP. REFER TO DETAIL 20.

BACKSTOP SECTION

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PARK AND TRAIL STANDARDS
CITY OF PLANO PARKS AND RECREATION DEPARTMENT

March 2017

N.T.S.
GENERAL NOTES

1. CONTROL JOINTS SHALL BE PLACED EVERY 10' O.C. AND AT EVERY CHANGE IN DIRECTION.
2. CONCRETE MOW STRIP TO BE DOWELED INTO ADJACENT WALKS.
3. PROVIDE REDWOOD EXPANSION JOINT EVERY 40'.

CONSTRUCTION NOTES

A. 3/4" CHAMFER (TYPICAL)
B. #3 REBAR CONTINUOUS
C. 4000 PSI CONCRETE
D. CONDITION VARIES, REFER TO LANDSCAPE PLANS.
E. UNDISTURBED SOIL. IF DISTURBED - COMPACT TO 95% STANDARD PROCTOR DENSITY BELOW MOWSTRIP.

8" CONCRETE MOW STRIP

SCALE: 1-1/2" = 1'-0"
MULTI-USE COURT STRIPING LAYOUT

GENERAL NOTES
1. ALL STRIPING SHALL BEGIN 1'-0" FROM THE EDGE OF THE COURT.
2. ALL WRITTEN DIMENSIONS SHALL PREVAIL.
3. ALL STRIPING TO BE PLEXIPAVE STRIPING MATERIAL OR APPROVED EQUAL.

CONSTRUCTION NOTES
A. EDGE OF MULTI-USE COURT
B. PROVIDE LEAVE-OUT FOR GOAL POST, TYPICAL. MINIMUM 12" WIDER THAN POST.
MULTI-USE COURT SLAB/BEAM LAYOUT

GENERAL NOTES
1. REFER TO POST TENSIONING NOTES ON DETAIL 27.

CONSTRUCTION NOTES
A. 1/2" DIAMETER TENDON TYPICAL
B. 1'-0" SPACE TO FIRST TENDON (TYPICAL)
C. BASKETBALL GOAL POST. REFER TO DETAIL 28.
POST TENSIONING NOTES:

1. POST TENSIONING SHALL MEET ALL CURRENT STANDARDS OF THE POST TENSIONING INSTITUTE.

2. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, INCLUDING INSTALLATION PROCEDURES, FOR REVIEW PRIOR TO BEGINNING INSTALLATION OF MULTI-USE COURT.

3. ALL TENDONS SHALL BE 1/2" DIAMETER - 270 KSI STRAND.

4. ALL CONCRETE SHALL BE 4000 PSI.

5. AGGREGATE USED IN CONCRETE IS TO BE UNIFORMLY GRADED WITH AT LEAST 500 # 3/8" AGGREGATE PER YARD.

6. PARTIAL STRESSING (25%) SHALL BE REQUIRED AT 24 HOURS. 100% STRESSING SHALL BE COMPLETED WITHIN 7 DAYS. REQUIRED ANCHOR FORCE TO BE 28.9 KPS.

7. MOISTEN SAND LEVELING COURSE BEFORE POURING CONCRETE.

8. CONCRETE FOR MULTI-USE COURT TO USE L.M. SCOFIELD CHROMIX ADMIXTURE FOR COLORED CONCRETE. COLOR TO BE C-33 (MOCHA BROWN). USE AND INSTALL COLORED ADMIXTURE IN STRICT ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

9. SUBMIT CONCRETE MIX DESIGN FOR REVIEW BY PARKS DEPARTMENT REPRESENTATIVE.

10. CURE COLORED CONCRETE ONLY WITH L.M. SCOFIELD LITHOCHROME COLOR WAX IN THE MATCHING COLOR! DO NOT USE CLEAR OR WHITE CONCRETE CURING COMPOUND.
GENERAL NOTES

1. BASKETBALL GOAL: QUALITY INDUSTRIES, INC.
   - NO. 411 CANTILEVERED POST
   - NO. 5401 ALUMINUM FAN SHAPED BACKBOARD
   - NO. 600 EXTRA HEAVY DUTY GOAL
   - NO. 599 STEEL CHAIN NET
   OR EQUAL APPROVED BY PARKS DEPARTMENT.

CONSTRUCTION NOTES

A. BASKETBALL GOAL SUPPORT POST.
B. FINISH GRADE OF MOW PAD.
C. 4000 PSI CONCRETE FOOTING.
D. 5/8" DIAMETER STEEL ANCHOR BAR.
GENERAL NOTES

1. ALL SPLICES LAP: #3 BARS 1'-3" AND #5 BARS 2'-3".
2. REFER TO POST TENSIONING NOTES ON DETAIL 27.

CONSTRUCTION NOTES

A. 4000 PSI CONCRETE DRY BRUSH FINISH
B. 1/2" DIAMETER TENDON
C. 2" MINIMUM SAND LEVELING COURSE
D. BEGIN SMOOTH VERTICAL TRANSITION OF TENDON
E. 1 - #5 BARS CONTINUOUS
F. FINISH GRADE
G. #4 BARS AT 24" O.C.
H. 2 - #5 BARS CONTINUOUS
I. PROVIDE #4 CORNER BAR
J. 3" CLEAR AT TOP AND BOTTOM OF BEAM INTERSECTION.

MULTI-USE COURT EXTERIOR BEAM

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

CORNER BAR DETAIL

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

MULTI-USE COURT DETAILS

PARK AND TRAIL STANDARDS

CITY OF PLANO PARKS AND RECREATION DEPARTMENT

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CONSTRUCTION NOTES

A. WELDED CAP ON TOP OF SIGN POST (TYPICAL). GRIND SMOOTH.

B. ALUMINUM SIGN (DIMENSIONS AS NOTED) FASTENED TO POST WITH STAINLESS STEEL VANDAL RESISTANT FASTENERS (TYPICAL).

C. ITEMS TO BE POWDER COATED DARK GREEN (TYPICAL). VERIFY THAT COLOR IS TO MATCH CITY CODE.

D. SINGLE 3" SQUARE TUBE SCHEDULE 40 STEEL SIGN POST (TYPICAL)

E. BEVEL TOP OF FOOTING 1"

F. FINISH GRADE FLUSH WITH SURROUNDING SOIL LINE.

G. 4000 PSI CONCRETE FOOTING (TYPICAL)
TYPICAL TRAIL SIGN ELEVATION

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

POST DETAIL

GENERAL NOTES
1. ALL 11 GAUGE MATERIALS
2. ALL SIGNAGE IS 22" X 22"
3. TAC WELD "L" BRACKETS TO POSTS AND "L" BRACKETS TO BACK PANELS (1" LONG BEADS NO MORE THAN 4" APART) AS SHOWN ON ELEVATION (TYPICAL).

CONSTRUCTION NOTES
A. PROVIDE (2) CAPS FOR STEEL POSTS.
B. TAC WELDS
C. MOUNTING "L" BRACKETS (2 TYPICAL)
D. SIGN PANEL (2' X 2')
E. 11 GAUGE TUBE STEEL (2 TYPICAL)
GENERAL NOTES
1. ALL 11 GAUGE MATERIALS
2. ALL SIGNAGE IS 22" X 22"
3. TAC WELD "L" BRACKETS TO POSTS AND "L" BRACKETS TO BACK PANELS (1" LONG BEADS NO MORE THAN 4" APART) AS SHOWN ON ELEVATION (TYPICAL).

CONSTRUCTION NOTES
A. PROVIDE (2) APS FOR STEEL POSTS.
B. TAC WELDS
C. MOUNTING "L" BRACKETS (4 TYPICAL)
D. SIGN PANEL (2' X 2') (2 TYPICAL)
E. 11 GAUGE TUBE STEEL (2 TYPICAL)

TYPICAL TRAIL SIGN ELEVATION

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

POST DETAIL

N.T.S.

DOUBLE PANEL TRAIL SIGN
PARK AND TRAIL STANDARDS
CITY OF PLANO PARKS AND RECREATION DEPARTMENT
March 2018
GENERAL NOTES
1. WATER FOUNTAIN: HAWS MODEL 3500 FR OR 3500 D FOR INCLUDED PET FOUNTAIN OR SIMILAR APPROVED. REFER TO VENDER FOR SPECIFICATIONS.

CONSTRUCTION NOTES
A. PEDESTAL
B. PET FOUNTAIN (MODEL 3500D ONLY)
   WHERE REQUIRED
C. CONCRETE ANCHORS (4 X 1/2"-13 UNC)
D. 30" SQUARE CONCRETE SLAB
   (NOT SUPPLIED BY VENDER)
E. 1/2" IPS FROM SHUT-OFF (NOT SUPPLIED BY VENDER)
F. 2" PVC SCHEDULE 40 PIPE FOR WASTE
G. NDS EZ-DRAIN "QUICK & EASY DRAIN"
H. 4X4 FLEX COUPLER
I. 4X2 PVC ADAPTER
J. 1/8" PEA GRAVEL
K. END CAP

WATER FOUNTAIN AND EZ-DRAIN DETAIL

N.T.S.
GENERAL NOTES

1. BRIDGE LENGTH AS DETAILED ON PLAN.
2. ELEVATIONS AS DETAILED ON GRADING PLAN.
3. REFER TO SHEET 37 FOR BRIDGE NOTES.
4. FINAL BRIDGE DESIGN TO BE IN ACCORDANCE WITH APPROVED SHOP DRAWINGS.

CONSTRUCTION NOTES

A. BRIDGE WIDTH AS DETAILED ON PLAN. REFER TO DETAIL 35 FOR BRIDGE ELEVATION AND DETAIL 36 FOR BRIDGE SECTION.
B. BRIDGE ABUTMENT. REFER TO DETAIL 40.
C. ELEVATION POINT FOR APPROACH SLAB. REFER TO GRADING PLAN.
D. APPROACH SLAB (TYPICAL). REFER TO DETAILS 41-43.
E. BRIDGE BACKWALL BEAM. REFER TO DETAILS 42-43.
F. 6" THICK CONCRETE TRAIL. REFER TO DETAIL 1.
G. STONE COLUMN. REFER TO DETAIL 38.

PEDESTRIAN BRIDGE PLAN

N.T.S.

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PEDESTRIAN BRIDGE PLAN
PARK AND TRAIL STANDARDS
CITY OF PLANO PARKS AND RECREATION DEPARTMENT
March 2017
CONSTRUCTION NOTES
A. TOP CHORD
B. DIAGONAL
C. FLOOR BEAM
D. BOTTOM CHORD
E. VERTICAL
F. CONCRETE DECK (BY OTHERS)
G. TOP OF ABUTMENT ELEVATION

PEDESTRIAN BRIDGE ELEVATION
N.T.S.

PEDESTRIAN BRIDGE ELEVATION
PARK AND TRAIL STANDARDS
CITY OF PLANO PARKS AND RECREATION DEPARTMENT
March 2017
GENERAL NOTES
1. REFER TO PLAN FOR SPECIFIC BRIDGE DIMENSIONS.
2. FINAL BRIDGE DIMENSIONS TO BE IN ACCORDANCE WITH APPROVED SHOP DRAWINGS.

CONSTRUCTION NOTES
A. TOP CHORD
B. RUB RAIL
C. DIAGONAL
D. SAFETY RAIL
E. VERTICAL
F. TOE RAIL
G. SIDE DAM
H. CONCRETE DECK (BY OTHERS)
I. FORM DECK
J. BOTTOM CHORD
K. BRACE DIAGONAL
L. FLOOR BEAM

PEDESTRIAN BRIDGE SECTION

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

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PEDESTRIAN BRIDGE SECTION
PARK AND TRAIL STANDARDS
CITY OF PLANO PARKS AND RECREATION DEPARTMENT
March 2017
GENERAL PEDESTRIAN BRIDGE NOTES:

1. DESIGN STRESSES ARE IN ACCORDANCE WITH "STANDARD SPECIFICATION FOR HIGHWAY BRIDGES" & "GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES" BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO), 2009.

2. BRIDGE MEMBERS ARE FABRICATED FROM HIGH STRENGTH, LOW ALLOY, ENHANCED ATMOSPHERIC CORROSION RESISTANT ASTM A847 COLD-FORMED WELDED SQUARE AND RECTANGULAR TUBING, AND ASTM A588, ASTM A606, OR ASTM A242 PLATE AND STRUCTURAL SHAPES (Fy=50,000 PSI).

3. CONCRETE DECK: GALVANIZED FORM DECK SUPPLIED BY CONTECH, CONCRETE, REINFORCING, AND EXPANSION MATERIAL SUPPLIED BY OTHERS, SEE CONCRETE DECK SHEET.

4. THE GAS METAL ARC WELDING PROCESS OR FLUX CORED ARC WELDING PROCESS WILL BE USED. WELDING TO BE IN ACCORDANCE WITH AWS D1.1.

5. ALL TOP AND BOTTOM CHORD SHOP SPLICES TO BE COMPLETE PENETRATION TYPE WELDS. WELD BETWEEN TOP CHORD AND END VERTICAL SHALL BE AS DETAILED.

6. UNLESS OTHERWISE NOTED, WELDED CONNECTIONS SHALL BE FILLET WELDS (OR HAVE THE EFFECTIVE THROAT OF A FILLET WELD) OF A SIZE EQUAL TO THE THICKNESS OF THE LIGHTEST GAUGE MEMBER IN THE CONNECTION. WELDS SHALL BE APPLIED AS FOLLOWS.
   A. BOTH ENDS OF VERTICALS, DIAGONALS, AND FLOOR BEAMS SHALL BE WELDED ALL AROUND.
   B. BRACE DIAGONALS WILL BE WELDED ALL AROUND.
   C. MISCELLANEOUS NON-STRUCTURAL MEMBERS WILL BE STITCH WELDED TO THEIR SUPPORTING MEMBERS.

7. BRIDGE DESIGN WAS ONLY BASED ON COMBINATIONS OF THE FOLLOWING LOADS WHICH WILL PRODUCE MAXIMUM CRITICAL MEMBER STRESSES.
   A. 90 PSF UNIFORM LIVE LOADING ON THE FULL DECK AREA OR ONE 10,000 LB VEHICLE LOAD. THE LOAD SHALL BE DISTRIBUTED AS A FOUR-WHEEL VEHICLE WITH 80% OF THE LOAD ON THE REAR WHEELS. THE WHEEL TRACK WIDTH OF THE VEHICLE SHALL BE 6'-0" AND THE WHEEL BASE SHALL BE 10'-0". THE VEHICLE SHALL BE POSITIONED SO AS TO PRODUCE THE MAXIMUM STRESSES IN EACH MEMBER, INCLUDING DECKING.
   B. 35 PSF WIND LOAD ON THE FULL HEIGHT OF THE BRIDGE, AS IF ENCLOSED.
   C. 20 PSF UPWARD FORCE APPLIED AT THE WINDWARD QUARTER POINT OF THE TRANSVERSE BRIDGE WIDTH (AASHTO 3.15.3).

8. CLEANING: ALL EXPOSED SURFACES OF STEEL SHALL BE CLEANED IN ACCORDANCE WITH STEEL STRUCTURES PAINTING COUNCIL SURFACES PREPARATION SPECIFICATIONS NO. 7 BRUSH-OFF BLAST CLEANING, SSPC-SP7-LATEST EDITION.

9. MINIMUM MATERIAL THICKNESS OF 1/4" ON ALL STRUCTURAL MEMBERS.

10. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR PEDESTRIAN BRIDGE, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF TEXAS.
GENERAL NOTES
1. ALL STONE SHALL BE CHOPPED MILSAP STONE TO THE SIZES SHOWN ON THE DETAILS. SUBMIT AT LEAST 3 STONE BLOCKS FOR REVIEW.
2. ALL MORTAR TO BE TYPE S.
3. MORTAR COLOR SHALL BE LIGHT TAN. SUBMIT SAMPLE FOR APPROVAL.
4. ALL MORTAR JOINTS SHALL BE 3/8" CONCAVE TOOLED JOINTS. JOINTS SHALL BE LEVEL AND TRUE.

CONSTRUCTION NOTES
A. 2" THICK STONE CAP SOLID-ONE PIECE
B. 3/4" CHAMFERED EDGE (ALL 4 SIDES)
C. 1/2" MORTAR JOINT (TYPICAL)
D. 24" X 24" STONE COLUMN
E. 6" X 6" X 9" MILSAP STONE: RANDOM RECTANGULAR, RANDOM ASHLAR PATTERN
F. 36" STONE BASE AROUND COLUMN
G. EXTEND STONE COLUMN TO FOOTING
H. 12" #4 DOWEL
I. 6" THICK TRAIL AS DETAILED (SEE TRAIL DETAILS)
J. 3 - #3 BARS TOP AND BOTTOM WITH #3 STIRRUPS AT 12" O.C.
K. 4 - #4 BARS. EXTEND BARS 18" FROM BOTTOM OF COLUMN INTO PIER.
L. COMPACTED SUBGRADE
M. 18" REINFORCING CONCRETE PIER. DEPTH OF PIER PER STRUCTURAL ENGINEER.
N. 1" DOWN WITH 1/2" RADIUS
O. FINISH GRADE

STONE COLUMN AT BRIDGE

SCALE: 1"=1'-0"

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STONE COLUMN AT BRIDGE DETAIL

PARK AND TRAIL STANDARDS

CITY OF PLANO PARKS AND RECREATION DEPARTMENT

March 2017
GENERAL NOTES

1. LAYOUT IS TYPICAL FOR ALL LOCATIONS ON BOTH SIDES OF BRIDGE.

CONSTRUCTION NOTES

A. 6" MOW STRIP (TYPICAL)
B. STONE COLUMN (TYPICAL)
C. 6" THICK CONCRETE TRAIL
D. EXPANSION JOINT
E. BRIDGE ABUTMENT
F. CUT STONE AS NEEDED
G. 3/4" CHAMFERED EDGE (ALL 4 SIDES)
H. FILL VOID INSIDE COLUMN WITH 4000 PSI GROUT OR CONCRETE (NO RUBBLE ALLOWED).
I. 4 - #4 BARS FROM FOOTING BELOW.

STONE COLUMN LAYOUT PLAN

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

STONE COLUMN

PLAN/SECTION

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

STONE COLUMN DETAILS

PARK AND TRAIL STANDARDS

CITY OF PLANO PARKS AND RECREATION DEPARTMENT

March 2017
CONSTRUCTION NOTES

A. ELEVATION A
B. ELEVATION B
C. ELEVATION C
D. BARS U2
E. BARS U1
F. BARS H
G. BARS S
H. BARS A
I. BARS V1 ~ SPA APT 1'-0" MAX, (3" COVER).
J. (3) SPIRAL AT 6" PITCH ONE FLAT TURN TOP AND BOTTOM.
K. (8) #7 BARS (EXTEND 2'-3" MIN. INTO CAP).
L. FACE OF BACKWALL.
M. CENTERLINE OF STRUCTURE AND TRAIL.
N. CENTERLINE OF 24" DIAMETER DRILLED SHAFTS AND CAP.
O. CENTERLINE OF PIERS.
P. CENTERLINE OF ANCHOR BOLTS.

BRIDGE ABUTMENT ELEVATION

BRIDGE ABUTMENT PLAN

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

PEDESTRIAN BRIDGE ABUTMENT DETAILS

PARK AND TRAIL STANDARDS

CITY OF PLANO PARKS AND RECREATION DEPARTMENT

March 2017
GENERAL NOTES

1. DIMENSIONS BASED ON CONTECH FABRICATION DRAWING. VERIFY WITH MANUFACTURER.

CONSTRUCTION NOTES

A. (2) #6 BARS CONTINUOUS
B. #3 TIES AT 12" O.C.
C. (3) #6 BARS CONTINUOUS
D. #3 TIES AT 12" O.C.
E. (2) #6 BARS EACH FACE
F. (5) #6 BARS TOP AND BOTTOM
G. 24" DIAMETER CONCRETE PIER
H. BRIDGE STRUCTURE BY OTHERS.
I. #6 BARS EACH FACE AT 12" O.C.
J. BEARING # BY OTHERS
K. 1" DIAMETER ASTM A1554 ANCHOR BOLT
L. 1/2" ISOLATION EXPANSION JOINT
M. APPROACH SLAB
N. (6) DOWEL (TYPICAL). SEE SUBSTRUCTURE DETAIL FOR MORE INFORMATION.

BRIDGE APPROACH SLAB

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

BRIDGE ABUTMENT BACKWALL

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

PEDESTRIAN ABUTMENT BACKWALL & APPROACH SLAB
PARK AND TRAIL STANDARDS
CITY OF PLANO PARKS AND RECREATION DEPARTMENT
March 2017
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GENERAL NOTES

1. COVER PLATES SHALL BE PROVIDED AT BOTH ENDS OF BRIDGE.
2. THE COVER PLATE AND EMBEDDED ANGLES SHALL BE CONSIDERED SUBSIDIARY TO THE BRIDGE SUPERSTRUCTURE AND SHALL BE PROVIDED BY THE SUPPLIER OF BRIDGE.
3. COVER PLATES SHALL HAVE A CROWN OF 1/4" TO PREVENT DEVELOPMENT OF TRIPPING HAZARD.

CONSTRUCTION NOTES

A. 6" X 1/4" X 10'-0" LG (ROUND SHAPE EDGES)
B. APPROACH SLAB
C. 1/2" EXPANSION JOINT
D. L 4" X 4" X 1/4" EMBEDDED IN CONCRETE WITH 1/2" DIAMETER SHEAR STUDS AT 12" C-C
E. 1/4" △
F. CONCRETE DECK
G. BOTTOM CHORD
H. END FLOOR BEAM
I. ABUTMENT BACKWALL
J. 6" X 24" LONG BEAM ON EACH SIDE OF APPROACH SLAB
K. BRIDGE ABUTMENT ELEVATION
L. TRAIL BEYOND APPROACH SLAB

BRIDGE COVER PLATE
N.T.S.

BRIDGE BACKWALL BEAM
N.T.S.
CONSTRUCTION NOTES

A. BRIDGE
B. BRIDGE ABUTMENT
C. 9" ABUTMENT SHELF
D. BRIDGE BACKWALL BEAM
E. APPROACH SLAB
F. 6" THICK CONCRETE TRAIL
G. #3 REBAR AT 18" O.C.
H. #3 REBAR
I. ABUTMENT SHELF
J. COMPACTED SUBGRADE

APPROACH SLAB AND BEAM

APPROACH SLAB SECTION

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

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

APPROACH SLAB / BEAM DETAILS

PARK AND TRAIL STANDARDS

CITY OF PLANO PARKS AND RECREATION DEPARTMENT

Plano
City of Excellence

March 2017
PEDESTRIAN BRIDGE STRUCTURAL GENERAL NOTES:

1. THE PEDESTRIAN BRIDGES ARE DESIGNED IN ACCORDANCE WITH THE AASHTO "GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES" AUGUST 2009.

2. THE PEDESTRIAN LIVE LOAD SHALL BE AS PER AASHTO GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES.


5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.

6. NUTS, BOLTS AND WASHERS USED IN THE ASSEMBLY OF WEATHERING STEEL SHALL BE A325, TYPE 3.

7. ALL EXPOSED CONCRETE SHALL HAVE A 28-DAY STRENGTH OF 4000 PSI.

8. ALL EXPOSED CONCRETE EDGES TO BE CHAMFERED 3/4".

9. ALL REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615/A615M. GRADE 60 STEEL.

10. ALL REINFORCING STEEL DETAIL SHALL BE AS PER ACI DETAILING MANUAL, SP-66 (04).

11. THE MINIMUM CLEARANCE, MEASURED FROM THE FACE OF THE CONCRETE TO THE SURFACE OF ANY REINFORCING BAR, SHALL BE TWO INCHES, EXCEPT WHERE OTHERWISE NOTED.

12. BRIDGE RAILING SHALL BE 48" HIGH. BRIDGE RAILING SHALL BE PROVIDED BY THE SUPPLIER OF THE BRIDGE. ANY CLEAR OPENING ON BRIDGE RAILING SHALL NOT BE MORE THAN 3 1/2". BRIDGE RAILING SHALL BE CONSIDERED PART OF THE BRIDGE PAY ITEMS AND WILL NOT BE MEASURED OR PAID SEPARATELY.

13. THE SUPERSTRUCTURE SHALL BE DESIGNED BY THE SUPPLIER OF THE BRIDGE. CONTRACTOR SHALL SUBMIT PLANS AND CALCULATIONS, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF TEXAS, TO THE ENGINEER FOR APPROVAL. NO ITEMS SHALL BE ORDERED OR FABRICATED BEFORE RECEIVING THE WRITTEN APPROVAL FROM THE ENGINEER.

14. THE SIZE, LOCATION AND LENGTH OF ANCHOR BOLTS SHALL BE COORDINATED WITH THE APPROVED SUPERSTRUCTURE DRAWINGS AND THE SUPPLIER OF THE BRIDGE.

15. CONTRACTOR SHALL MODIFY DESIGN OF ABUTMENTS IF NECESSARY TO MATCH THE SELECTED BRIDGE SUPERSTRUCTURE AND SUBMIT SIGNED/SEALED PLANS FOR APPROVAL.

16. THE PROFILE OF THE PATH AT THE BRIDGE INTERFACE SHALL BE COORDINATED DURING CONSTRUCTION TO PROVIDE AN ACCEPTABLE TRANSITION BETWEEN PATH AND BRIDGE.

17. THE EXPANSION JOINTS AT EACH ABUTMENT WILL BE CONSIDERED PART OF THE BRIDGE PAY ITEMS AND WILL NOT BE PAID FOR SEPARATELY.

18. BACKFILL BEHIND THE ABUTMENTS SHALL BE PLACED AFTER ERECTING THE BRIDGE SUPERSTRUCTURE IN PLACE.

19. BRIDGE STRUCTURE SHALL BE PAID AS A LUMP SUM. THIS WILL INCLUDE BUT NOT BE LIMITED TO DESIGN, CONSTRUCTION DRAWINGS, SHOP DRAWINGS, BRIDGE SUPERSTRUCTURE, EXCAVATION, BACKFILL, CONCRETE, REINFORCEMENT, STEEL TRUSSES, CONCRETE DECK, RAILINGS, BEARING PLATES, ANCHORS BOLTS, EXPANSION JOINTS, APPROACH SLABS, GROUND RODS, CONDUCTORS, ERECTION OF BRIDGE AND ALL INCIDENTAL ITEMS AS SHOWN AND SPECIFIED ON THE PLANS.

20. EXISTING UTILITIES AND UNDERGROUND FACILITIES OF THE PLANS HAVE BEEN LOCATED FROM FIELDS TIES, REFERENCE INFORMATION, AND AS-BUILT PLANS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT ALL EXISTING UTILITIES AND WILL BE RESPONSIBLE FOR ANY DAMAGE TO SAID UTILITIES. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CALL 1-800-DIG-TESS (1-800-344-8377) AT LEAST TWO DAYS PRIOR TO ANY EXCAVATION.
PROJECT SIGN DETAIL

GENERAL NOTES:
1. ONE (1) REQUIRED: LOCATE AS DIRECTED BY CITY
2. SEE PARK PROJECT SIGN TEMPLATE DETAIL