CONSTRUCTION DRAWINGS

THE CITY OF EDGEWATER
WHISTLE STOP PARK IMPROVEMENTS
SEPTEMBER 12, 2017

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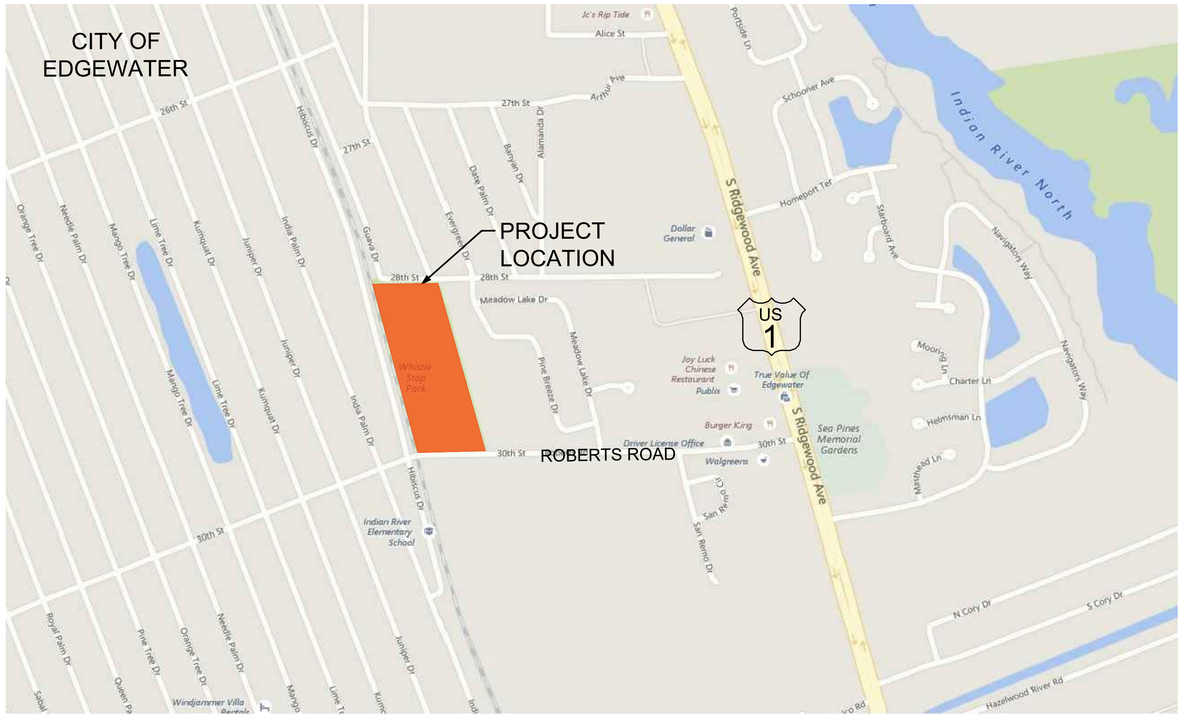
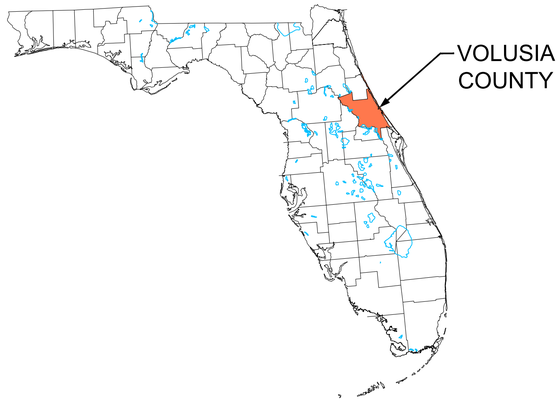
PROJECT LOCATION MAP
651 ROBERTS ROAD
EDGEWATER, FL 32141



FLORIDA



CITY COUNCIL

MAYOR	MICHAEL IGNASIAK
DISTRICT 1	CHRISTINE POWER
DISTRICT 2	AMY VOGT
DISTRICT 3	DAN BLAZI
DISTRICT 4	GARY CONROY

811 Know what's **below.** **Call** before you dig.

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THESE DRAWINGS AND THE PROJECT SPECIFICATIONS ARE COMPLEMENTARY, AND ANY REQUIREMENT OF ONE SHALL BE A REQUIREMENT OF THE OTHER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE DRAWINGS AND SPECIFICATIONS AND TO COMPARE THE REQUIREMENTS OF EACH DIVISION AND ENSURE THAT EACH TRADE OR SUBCONTRACTOR IS MAKING THE ALLOWANCES NECESSARY TO PROVIDE THE OWNER A COMPLETE FACILITY, OPERATIONAL IN ALL RESPECTS, UNLESS OTHERWISE SPECIFICALLY STATED IN THE DRAWINGS OR PROJECT SPECIFICATION.

IT IS ALSO THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER OF ANY DEFICIENCIES OR DISCREPANCIES AMONG THE DIVISIONS OF THE DRAWING AND SPECIFICATIONS PRIOR TO THE BID DATE. NEITHER THE OWNER OR ENGINEER WILL BE RESPONSIBLE FOR ANY DEFICIENCIES OR DISCREPANCIES RAISED AFTER THE BID OPENING. ACCORDINGLY, IN LIGHT OF THESE OBLIGATIONS, THE ENGINEER IS OBLIGATED TO INTERPRET THE DRAWINGS SPECIFICATIONS IN A MANNER THAT WILL PROVIDE THE OWNER WITH A COMPLETE, FUNCTIONING FACILITY FOR THE BID PRICE.

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I HEREBY CERTIFY THAT I AM A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA PRACTICING WITH DREDGING & MARINE CONSULTANTS LLC, (DMC) CORPORATION, AUTHORIZED TO OPERATE AS AN ENGINEERING BUSINESS, CERTIFICATE OF AUTHORIZATION # 9410, BY THE STATE OF FLORIDA DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION, AND THAT I, OR OTHERS UNDER MY DIRECT SUPERVISION, HAVE PREPARED OR APPROVED THE EVALUATIONS, FINDINGS, OPINIONS, CALCULATIONS, CONCLUSIONS OR TECHNICAL ADVICE HEREBY REPRESENTED BY THESE DRAWINGS.

STEPHEN J. KUHN, P.E.
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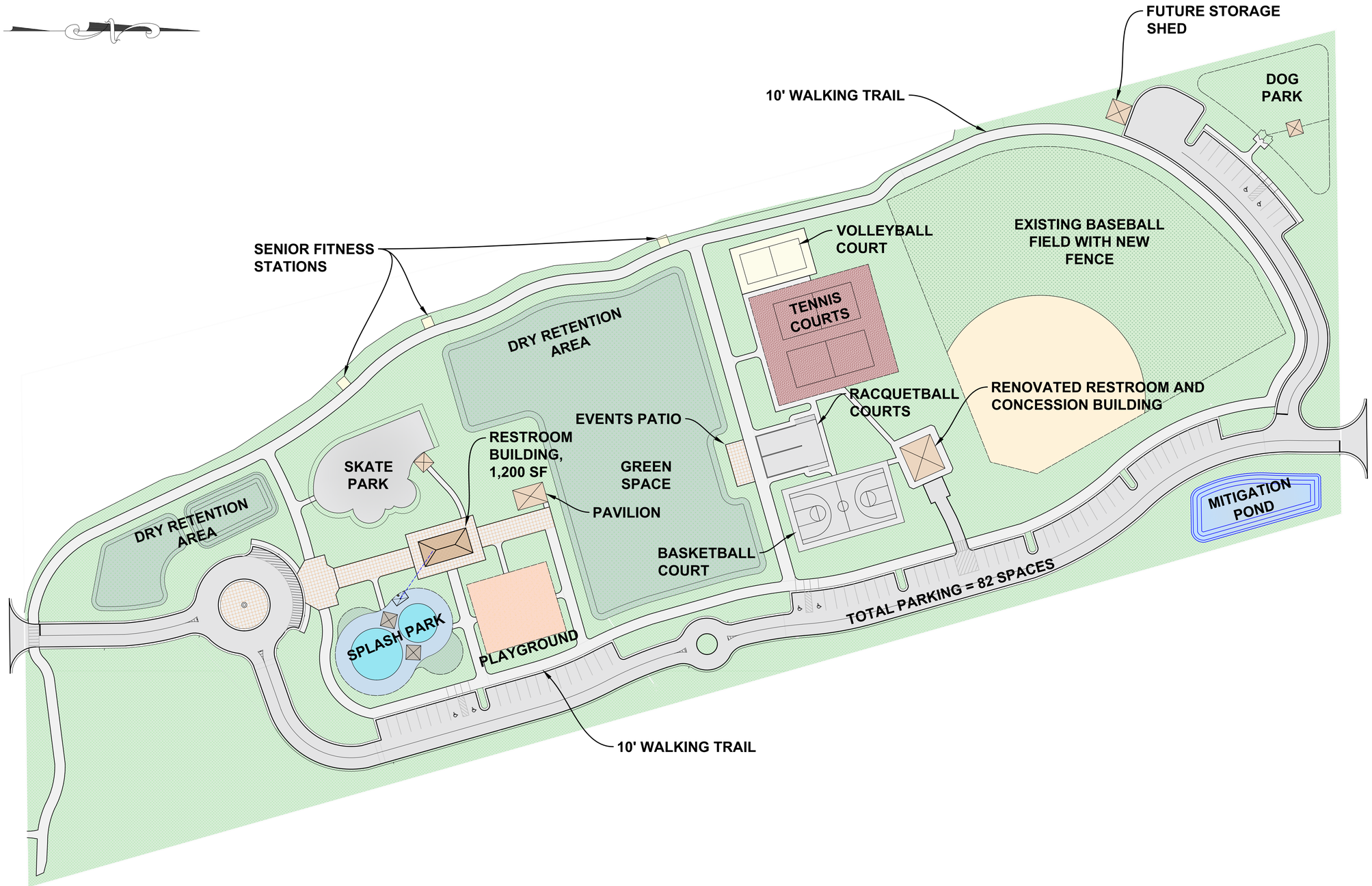

DRAWING: AERIAL PLAN
DMC JOB NO. 16-095-07
SHEET NO. C-01
DRAWN AR | CAD C3D
CHECKED NC | SCALE AS SHOWN
APPROVED SK | DATE 09-06-2017

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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CITY OF EDGEWATER
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EDGEWATER, FL 32132

Drawing Name: C:\Users\Arama\appdata\local\temp\AcPublish_7672\Whistle Stop Park Planset Revised.dwg By: ARama Tab: AERIAL 1 9/12/2017

LIMIT OF CONSTRUCTION/ DEMOLITION

PROPERTY BOUNDARY

SILT FENCE

MULCHED PLAY AREA

PLAYGROUND EQUIPMENT AND MULCH TO BE REMOVED

TENNIS COURT, SIDEWALK AND LIGHTING TO BE REMOVED

WATER FOUNTAIN

PAVILION

PAVILION, SIDEWALK AND WATER FOUNTAIN TO BE REMOVED

MATCHLINE A

SILT FENCE

ASPHALT ROADWAY TO BE REMOVED

SEPTIC SYSTEM AND DRAIN FIELD TO BE REMOVED

SHUFFLE BOARD TO BE REMOVED

SHUFFLE BOARD

RE-USE VAULT

RESTROOMS F.F.E.=19.22

CONCRETE

TENNIS COURT, SIDEWALK AND LIGHTING TO BE REMOVED

ALL PARKING STOPS AND TIMBER POSTS TO BE REMOVED ALONG DIRT PARKING

OVERHEAD LINE AND ELECTRICAL METER TO BE REMOVED

RESTROOM BUILDING AND SIDEWALK TO BE REMOVED

RACQUETBALL COURT

RACQUETBALL COURT, SIDEWALKS AND LIGHTING TO BE REMOVED

ASPHALT ROADWAY TO BE REMOVED

TREES TO REMAIN (TYP.)

LIMIT OF CONSTRUCTION/ DEMOLITION

SILT FENCE

PROPERTY BOUNDARY

SILT FENCE

ALL TIMBER POSTS AND PARKING STOPS TO BE REMOVED ALONG DIRT PARKING

ASPHALT ROADWAY TO BE REMOVED

SIGN TO BE REMOVED

MONITOR WELL

EXISTING MONITOR WELL TO REMAIN AND SHALL BE PROTECTED DURING DEMOLITION AND CONSTRUCTION

TREES TO BE REMOVED (TYP.)

SIDEWALK TO BE REMOVED

SIGN TO BE REMOVED

SIGN TO BE REMOVED

SET 5/8" IRC LB 3019

SET 5/8" IRC LB 3019

ROBERTS ROAD

SAW-CUT AT LIMIT OF ASPHALT TO BE REMOVED

FOUND 5/8" IRC "WITNESS" LS 2599 S18°02'09"W 1.63'

INLET TOP=15.5'

INLET TOP=15.81'

0 30 60 Feet

NOTE: CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF EXISTING 16" WATER MAIN ALONG EASTERN SIDE OF PROPERTY PRIOR TO ANY WORK EAST OF EXISTING DIRT DRIVEWAY. CONTRACTOR SHALL PROTECT EXITING UTILITIES FROM DAMAGE.

DRAWING: DEMO PLAN 1
DMC JOB NO. 16-095-07
DRAWN AR | CAD C3D | SCALE AS SHOWN | SHEET NO. C-02
CHECKED NC | DATE 09-06-2017
APPROVED SK

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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Drawing Name: C:\Users\Aramaappdata\local\temp\AcPublish_7672\Whistle Stop Park Planset Revised.dwg By: ARama Tab: DEMO 2 9/12/2017

BASEBALL FIELD FENCE TO BE REMOVED AND REPLACED

EXISTING MONITOR WELL TO REMAIN AND SHALL BE PROTECTED DURING DEMOLITION AND CONSTRUCTION

LIGHT POLE TO REMAIN (TYP.)

SILT FENCE

TREES TO REMAIN (TYP.)

LIMIT OF CONSTRUCTION/ DEMOLITION

PROPERTY BOUNDARY

SILT FENCE

LIMIT OF CONSTRUCTION/ DEMOLITION

MATCHLINE B

LIGHT POLE TO BE REMOVED

WATER FOUNTAIN & FLAG POLE TO BE REMOVED

RESTROOM / STORAGE BUILDING AND SIDEWALK TO REMAIN

LIGHT POLE TO BE REMOVED

ALL PARKING STOPS AND TIMBER POSTS TO BE REMOVED ALONG DIRT PARKING

SILT FENCE

LIGHT POLE TO BE REMOVED

STORMWATER SWALE TO BE FILLED

ALL PARKING STOPS AND TIMBER POSTS TO BE REMOVED ALONG DIRT PARKING

PROPERTY BOUNDARY

STORMWATER STRUCTURE TO BE REMOVED

INV. 18" RCP=13.41'

STORMWATER POND TO BE FILLED

LIGHT POLE TO BE REMOVED

STORMWATER SWALE TO BE FILLED

BASKETBALL COURT TO BE REMOVED

BASKETBALL HOOP

BASKETBALL HOOP

ASPHALT ROADWAY TO BE REMOVED

TENNIS COURT, SIDEWALK AND LIGHTING TO BE REMOVED

SILT FENCE

ALL PARKING STOPS AND TIMBER POSTS TO BE REMOVED ALONG DIRT PARKING

MATCHLINE A

MULCHED PLAY AREA

PLAYGROUND EQUIPMENT AND MULCH TO BE REMOVED

WATER FOUNTAIN

PAVILION

TREES TO BE REMOVED (TYP.)

PAVILION, SIDEWALK AND WATER FOUNTAIN TO BE REMOVED

0 30 60 Feet

NOTE: CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF EXISTING 16" WATER MAIN ALONG EASTERN SIDE OF PROPERTY PRIOR TO ANY WORK EAST OF EXISTING DIRT DRIVEWAY. CONTRACTOR SHALL PROTECT EXITING UTILITIES FROM DAMAGE.

DRAWING: DEMO PLAN 2

DMC JOB NO. 16-095-07

DRAWN	AR	CAD	C3D
CHECKED	NC	SCALE	AS SHOWN
APPROVED	SK	DATE	09-06-2017

SHEET NO. C-03

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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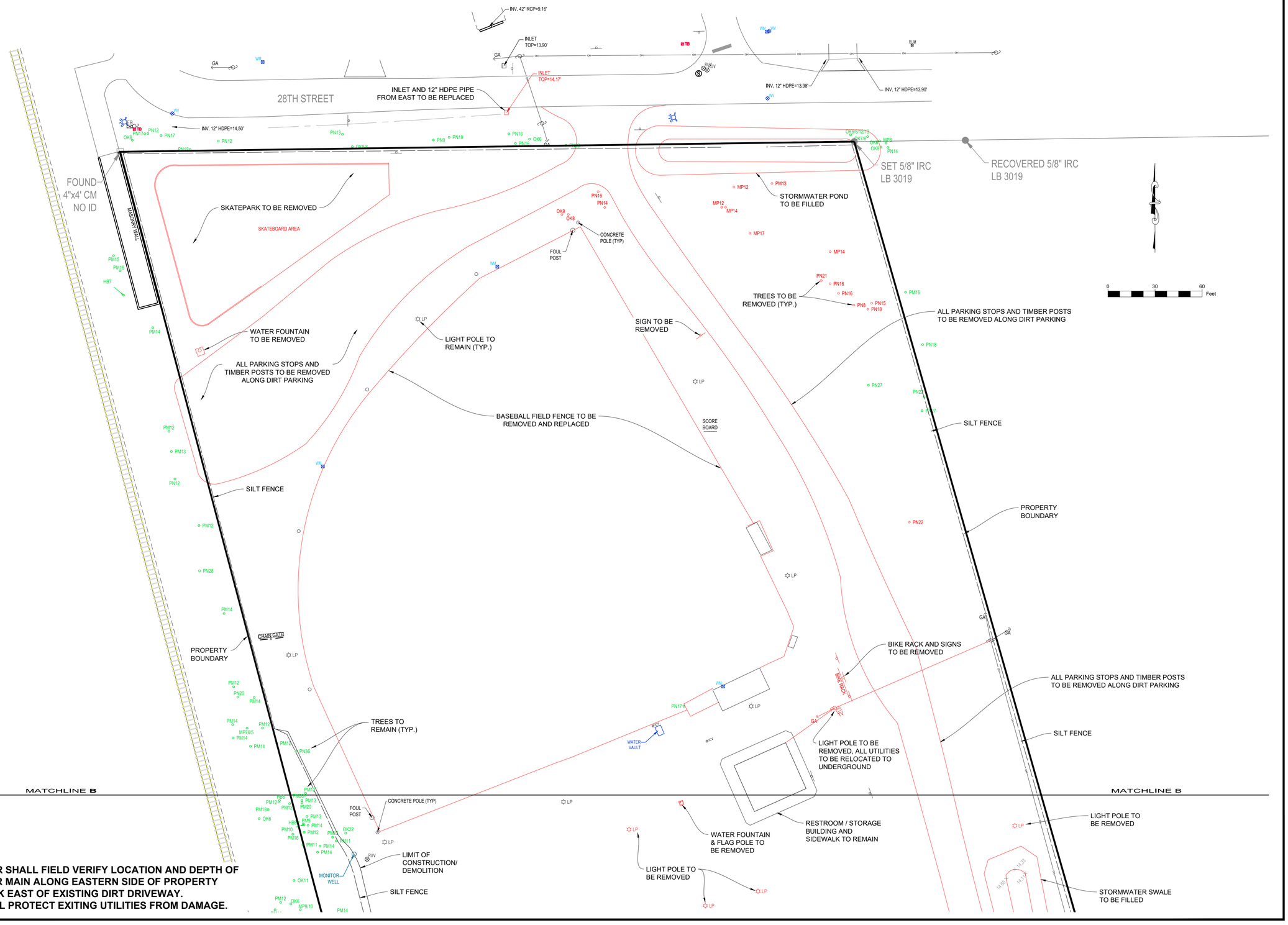

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DRAWING: DEMO PLAN 3

DMC JOB NO. 16-095-07

DRAWN	AR	CAD	C3D
CHECKED	NC	SCALE	AS SHOWN
APPROVED	SK	DATE	09-06-2017

SHEET NO. C-04

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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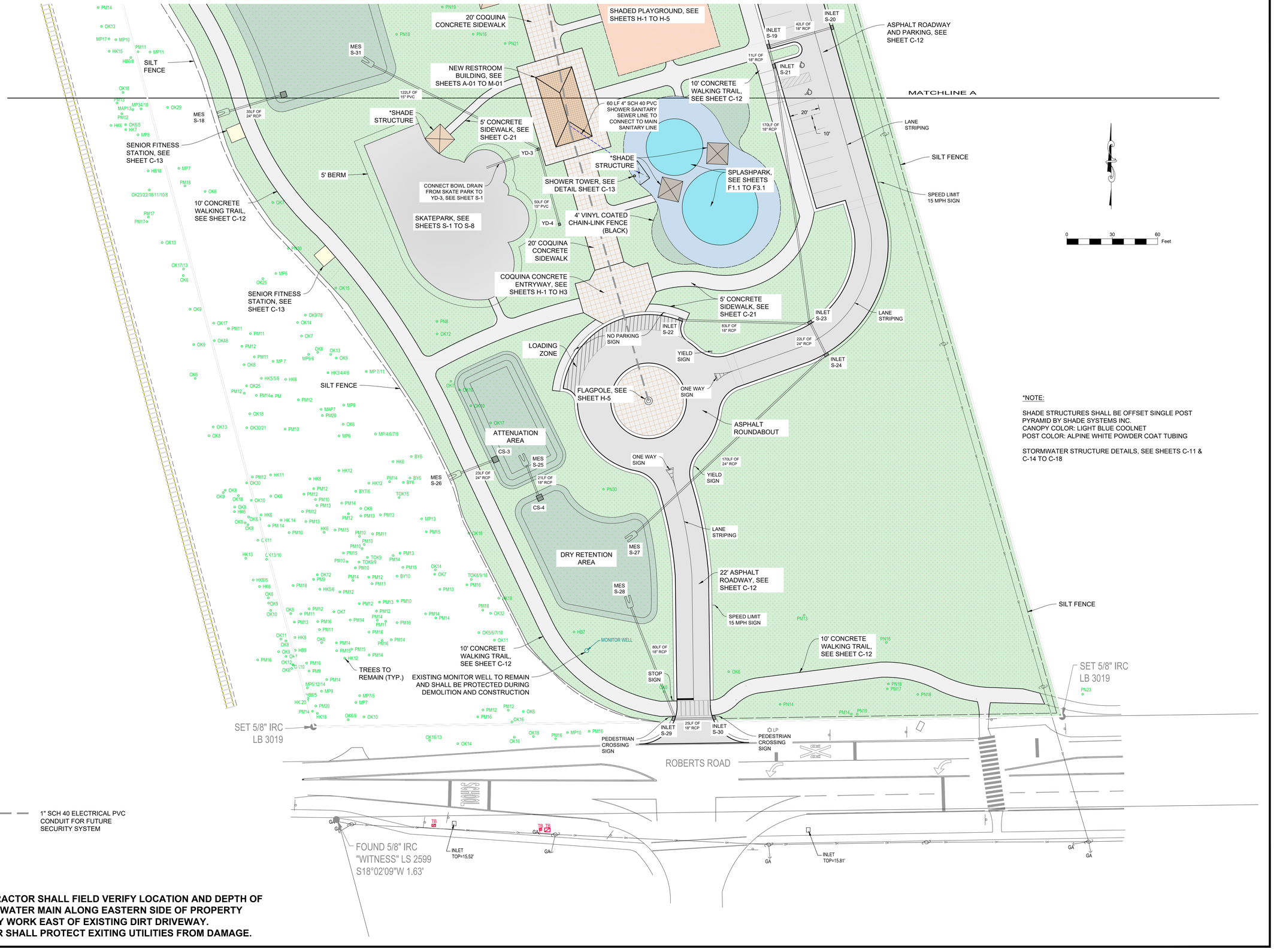

*NOTE:

SHADE STRUCTURES SHALL BE OFFSET SINGLE POST PYRAMID BY SHADE SYSTEMS INC.
CANOPY COLOR: LIGHT BLUE COOLNET
POST COLOR: ALPINE WHITE POWDER COAT TUBING

STORMWATER STRUCTURE DETAILS, SEE SHEETS C-11 & C-14 TO C-18

NOTE: CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF EXISTING 16" WATER MAIN ALONG EASTERN SIDE OF PROPERTY PRIOR TO ANY WORK EAST OF EXISTING DIRT DRIVEWAY. CONTRACTOR SHALL PROTECT EXITING UTILITIES FROM DAMAGE.

DRAWING: SITE PLAN 1
DMC JOB NO. 16-095-07
SHEET NO. C-05
DRAWN AR | CAD C3D | SCALE AS SHOWN
CHECKED NC | APPROVED SK | DATE 09-06-2017

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MATCHLINE B

MATCHLINE A

10' CONCRETE WALKING TRAIL, SEE SHEET C-12

REMOVE AND REPLACE EXISTING BASEBALL FIELD FENCE

SILT FENCE

RENOVATED RESTROOM AND CONCESSION BUILDING, SEE SHEETS A-01 TO M-01

ASPHALT ROADWAY

LANE STRIPING

10' CONCRETE WALKING TRAIL, SEE SHEET C-12

224LF OF 24" RCP

CONCRETE POLE (TYP)

FOUL POST

5' CONCRETE SIDEWALK, SEE SHEET C-21

TYPE F CURB AND GUTTER

SILT FENCE

EXISTING MONITOR WELL TO REMAIN AND SHALL BE PROTECTED DURING DEMOLITION AND CONSTRUCTION

MONITOR WELL

6' CONCRETE SIDEWALK

92 LF 10' VINYL COATED CHAIN-LINK FENCE (BLACK)

BASKETBALL COURT

SAND VOLLEYBALL COURT

TENNIS COURTS WITH VINYL COATED CHAIN-LINK FENCE (BLACK)

RACQUETBALL COURTS

1:16 RAMP

RAMP LANDING

ADA PARKING

INLET S-15

INLET S-14

42LF OF 18" RCP

ASPHALT ROADWAY AND PARKING, SEE SHEET C-12

44LF OF 24" RCP

12' PROMENADE

MES S-16

YIELD SIGN

ONE WAY SIGN

5' CONCRETE SIDEWALK, SEE SHEET C-21

12' PROMENADE, SEE SHEET C-12

EVENTS PATIO

10' CONCRETE WALKING TRAIL, SEE SHEET C-12

YIELD SIGN

ONE WAY SIGN

MES S-17

88LF OF 24" RCP

SENIOR FITNESS STATION

DRY RETENTION AREA / GREEN SPACE

INV. 24" RCP=11.88'

CS-1

10' CONCRETE WALKING TRAIL. SEE SHEET C-12

20' COQUINA CONCRETE SIDEWALK

10' CONCRETE SIDEWALK

20' x 30' PAVILION ON CONCRETE PAD, SEE CONCRETE DETAILS ON SHEET C-12*

LANE STRIPING

TREES TO REMAIN (TYP.)

5' CONCRETE SIDEWALK

PLAYGROUND WITH SHADE STRUCTURES

4' VINYL COATED CHAIN-LINK FENCE (BLACK)

INLET S-20

INLET S-19

42LF OF 18" RCP

ASPHALT ROADWAY AND PARKING, SEE SHEET C-12

NEW RESTROOM BUILDING

MES S-31

11LF OF 18" RCP

INLET S-21

ADA PARKING

CS-2

5' CONCRETE SIDEWALK

RAMP LANDING

1:16 RAMP

*SHADE STRUCTURE

60 LF 4" SCH 40 PVC SHOWER SANITARY SEWER LINE TO CONNECT TO MAIN SANITARY LINE

10' CONCRETE WALKING TRAIL, SEE SHEET C-12

*SHADE STRUCTURE

YD-3

SHOWER TOWER, SEE DETAIL SHEET C-13

170LF OF 18" RCP

TYPE F CURB AND GUTTER

SPEED LIMIT 15 MPH SIGN

35LF OF 24" RCP

MES S-18

SENIOR FITNESS STATION

10' CONCRETE WALKING TRAIL, SEE SHEET C-12

SKATEPARK, SEE SHEETS S-1 TO S-8

5' CONCRETE SIDEWALK

SPLASHPARK, SEE SHEETS F1.1 TO F3.1

SILT FENCE

20' COQUINA CONCRETE SIDEWALK

YD-4

4' VINYL COATED CHAINLINK FENCE (BLACK)

1" SCH 40 ELECTRICAL PVC CONDUIT FOR FUTURE SECURITY SYSTEM

*NOTE:

SHADE STRUCTURES SHALL BE OFFSET SINGLE POST PYRAMID BY SHADE SYSTEMS INC.
CANOPY COLOR: LIGHT BLUE COOLNET
POST COLOR: ALPINE WHITE POWDER COAT TUBING

STORMWATER STRUCTURE DETAILS, SEE SHEETS C-11 & C-14 TO C-18

NOTE: CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF EXISTING 16" WATER MAIN ALONG EASTERN SIDE OF PROPERTY PRIOR TO ANY WORK EAST OF EXISTING DIRT DRIVEWAY. CONTRACTOR SHALL PROTECT EXITING UTILITIES FROM DAMAGE.

0 30 60 Feet

DRAWING: SITE PLAN 2
DMC JOB NO. 16-095-07
SHEET NO. C-06
DRAWN AR | CAD C3D | SCALE AS SHOWN
CHECKED NC | APPROVED SK | DATE 09-06-2017

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CLIENT: CITY OF EDGEWATER

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EDGEWATER, FL 32132

28TH STREET

FOUND 4"x4' CM NO ID

MASONRY WALL

INV. 42" RCP=9.16'

INLET TOP=13.90'

INV. 12" HDPE=14.50'

INV. 12" HDPE=13.98'

INV. 12" HDPE=13.90'

INLET S-1

INLET S-2

INLET S-3

INLET S-4

INLET S-5

INLET S-6

INLET S-7

INLET S-8

INLET S-9

INLET S-10

INLET S-11

INLET S-12

INLET S-13

191LF OF 18" RCP

80LF OF 18" RCP

11LF OF 15" PVC

YD-1

160LF OF 18" RCP

30LF OF 18" RCP

27LF OF 18" RCP

52LF OF 18" RCP

13LF OF 15" PVC

YD-2

40LF OF 18" RCP

80LF OF 18" RCP

203LF OF 18" RCP

43LF OF 18" RCP

11LF OF 24" RCP

224LF OF 24" RCP

6' VINYL COATED CHAIN-LINK FENCE (BLACK)

DOG PARK WITH *SHADE STRUCTURE

(4) 4' GATES

1:16 RAMP

RAMP LANDING

ADA PARKING

10'

20'

LANE STRIPING

CURB AND GUTTER

STOP SIGN

CONCRETE POLE (TYP)

FOUL POST

10' CONCRETE WALKING TRAIL, SEE SHEET C-12

REMOVE AND REPLACE EXISTING BASEBALL FIELD FENCE (11 GAUGE, 2 INCH MESH, SCHEDULE 40 BLACK VINYL COATED CHAIN-LINK FENCE)

MITIGATION POND

SPEED LIMIT 15 MPH SIGN

SILT FENCE

ASPHALT ROADWAY

ASPHALT ROADWAY AND PARKING, SEE SHEET C-12

STORAGE SHED

SCORE BOARD

CHAIN GATE

RECOVERED 5/8" IRC LB 3019

SET 5/8" IRC LB 3019

REMOVE AND REPLACE EXISTING BASEBALL FIELD FENCE

RENOVATED RESTROOM AND CONCESSION BUILDING, SEE SHEETS A-01 TO M-01

WATER VAULT

5' CONCRETE SIDEWALK, SEE SHEET C-21

TENNIS COURTS

BASKETBALL COURT

TYPE F CURB AND GUTTER

MATCHLINE B

MATCHLINE B

1" SCH 40 ELECTRICAL PVC CONDUIT FOR FUTURE SECURITY SYSTEM

EXISTING MONITOR WELL TO REMAIN AND SHALL BE PROTECTED DURING DEMOLITION AND CONSTRUCTION

MONITOR WELL

TREES TO REMAIN (TYP.)

NOTE: CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF EXISTING 16" WATER MAIN ALONG EASTERN SIDE OF PROPERTY PRIOR TO ANY WORK EAST OF EXISTING DIRT DRIVEWAY. CONTRACTOR SHALL PROTECT EXITING UTILITIES FROM DAMAGE.

*NOTE:

SHADE STRUCTURES SHALL BE OFFSET SINGLE POST PYRAMID BY SHADE SYSTEMS INC.
CANOPY COLOR: LIGHT BLUE COOLNET
POST COLOR: ALPINE WHITE POWDER COAT TUBING

STORMWATER STRUCTURE DETAILS, SEE SHEETS C-11 & C-14 TO C-18

0 30 60 Feet

DRAWING: SITE PLAN 3
DMC JOB NO. 16-095-07
SHEET NO. C-07
DRAWN AR
CAD C3D
CHECKED NC
SCALE AS SHOWN
APPROVED SK
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MATCHLINE A

F.F.E. = 17.50

5' BERM

AREA AVAILABLE FOR ADDITIONAL MITIGATION (0.48 ACRES)

SILT FENCE

WETLAND LINE

TOE OF SLOPE

GRADE AREA TO MINIMUM ELEVATION OF 16.00 FOR FILL MATERIAL

MONITOR WELL

MATCH EXISTING, 16.0±

INLET TOP=15.52'

INLET TOP=15.81'

AB-1

AB-2

B-3

HAB-10

HAB-11

HAB-12

HAB-13

HAB-14

0 30 60 Feet

NOTE: CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF EXISTING 16" WATER MAIN ALONG EASTERN SIDE OF PROPERTY PRIOR TO ANY WORK EAST OF EXISTING DIRT DRIVEWAY. CONTRACTOR SHALL PROTECT EXITING UTILITIES FROM DAMAGE.

DRAWING: GRADING PLAN 1

DMC JOB NO. 16-095-07

DRAWN	AR	CAD	C3D	SHEET NO.	C-08
CHECKED	NC	SCALE	AS SHOWN		
APPROVED	SK	DATE	09-06-2017		

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

Stephen J. Kuhn, P.E.
FLORIDA LICENSE No. 67486

Dredging & Marine Consultants
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ENGINEERS • SCIENTISTS

CITY OF EDGEWATER
104 N. RIVERSIDE DR.
EDGEWATER, FL 32132

Drawing Name: C:\Users\Arama\appdata\local\temp\AcPublish_7672\Whistle Stop Park Planset Revised.dwg By: ARama Tab: GRADING 8 9/12/2017

MATCHLINE B

MATCHLINE B

MATCHLINE A

CONCRETE POLE (TYP)

FOUL POST

MONITOR WELL

WATER VAULT

MATCH EXISTING

1.89% ±

0% ±

0.59% ±

SILT FENCE

INV. 24" RCP=11.88'

INV. 24" RC ?=11.88'

F.F.E. = 17.50

B-1 B-2 B-4 B-5 B-6

AB-2

HAB-6 HAB-7 HAB-8 HAB-9 HAB-10

0 30 60 Feet

NOTE: CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF EXISTING 16" WATER MAIN ALONG EASTERN SIDE OF PROPERTY PRIOR TO ANY WORK EAST OF EXISTING DIRT DRIVEWAY. CONTRACTOR SHALL PROTECT EXITING UTILITIES FROM DAMAGE.

DRAWING: GRADING PLAN 2

DMC JOB NO. 16-095-07

DRAWN	AR	CAD	C3D	SHEET NO.	C-09
CHECKED	NC	SCALE AS SHOWN			
APPROVED	SK	DATE	09-06-2017		

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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28TH STREET

FOUND 4"x4" CM NO ID

MASONRY WALL

INV. 42" RCP=9.16'

INLET TOP=13.90'

MATCH EX. PAVEMENT EL. = 15.0 ±

INV. 12" HDPE=13.98'

INV. 12" HDPE=13.90'

INV. 12" HDPE=14.50'

RECOVERED 5/8" IRC LB 3019

SET 5/8" IRC LB 3019

WETLAND IMPACT AREA (0.14 ACRES)

HAB-1

HAB-2

HAB-3

HAB-4

HAB-5

AB-3

CONCRETE POLE (TYP)

FOUL POST

SCORE BOARD

CHAIN GATE

SILT FENCE

WATER VAULT

MONITOR WELL

MATCH EXISTING

1.89% ±

MATCHLINE B

MATCHLINE B

0 30 60 Feet

NOTE: CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF EXISTING 16" WATER MAIN ALONG EASTERN SIDE OF PROPERTY PRIOR TO ANY WORK EAST OF EXISTING DIRT DRIVEWAY. CONTRACTOR SHALL PROTECT EXITING UTILITIES FROM DAMAGE.

Drawing Name: C:\Users\Arama\appdata\local\temp\AcPublish_7672\Whistle Stop Park Planset Revised.dwg By: ARama Tab: GRADING 10 9/12/2017

DRAWING: GRADING PLAN 3

DMC JOB NO. 16-095-07

SHEET NO. C-10

DRAWN	AR	CAD	C3D
CHECKED	NC	SCALE	AS SHOWN
APPROVED	SK	DATE	09-06-2017

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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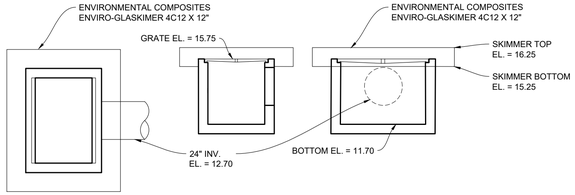
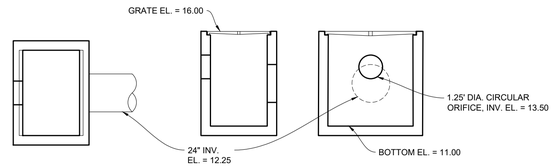
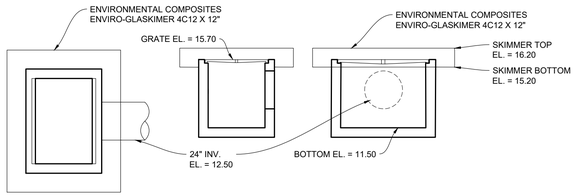
STORMWATER STRUCTURE TABLE									
ID	STRUCTURE TYPE	SPECIFICATION	NORTHING	EASTING	GRATE/RIM/THROAT ELEV.	N. INVERT	S. INVERT	E. INVERT	W. INVERT
S-1	TYPE "C" STORM INLET	FDOT INDEX 272			14.17	12.92 +/- (MATCH EX.)		11.00	
S-2	TYPE "C" STORM INLET	FDOT INDEX 272			13.50	13.50			11.33
S-3	CURB INLET TYPE 4	FDOT INDEX 200,201,210			16.25		13.55		
S-4	CURB INLET TYPE 4	FDOT INDEX 200,201,210			16.73		13.57	13.57	13.57
S-5	CURB INLET TYPE 4	FDOT INDEX 200,201,210			16.53		13.84		
S-6	CURB INLET TYPE 4	FDOT INDEX 200,201,210			16.25	13.45	13.45	13.45	13.45
S-7	CURB INLET TYPE 4	FDOT INDEX 200,201,210			16.25				13.50
S-8	CURB INLET TYPE 4	FDOT INDEX 200,201,210			16.55	13.80		13.80	13.80
S-9	CURB INLET TYPE 3	FDOT INDEX 200,201,210			16.45	13.35	13.35		13.35
S-10	TYPE "C" STORM INLET	CITY OF EDGEWATER ST-11			16.80			14.30	
S-11	CURB INLET TYPE 3	FDOT INDEX 200,201,210			16.25	13.00	12.75	13.05	
S-12	CURB INLET TYPE 4	FDOT INDEX 200,201,210			16.27				13.05
S-13	CURB INLET TYPE 3	FDOT INDEX 200,201,210			16.25	12.73	12.73		
S-14	CURB INLET TYPE 3	FDOT INDEX 200,201,210			16.25	12.45	12.45	12.45	
S-15	CURB INLET TYPE 4	FDOT INDEX 200,201,210			16.27				12.50
S-16	MITERED END SECTION	FDOT INDEX 272			-------	12.40			
S-17	MITERED END SECTION	FDOT INDEX 272			-------				12.73
S-18	MITERED END SECTION	FDOT INDEX 272			-------			12.00	
S-19	CURB INLET TYPE 3	FDOT INDEX 200,201,210			16.25		13.26	13.26	
S-20	CURB INLET TYPE 4	FDOT INDEX 200,201,210			16.27				13.31
S-21	CURB INLET TYPE 3	FDOT INDEX 200,201,210			16.25	13.22	13.22		
S-22	CURB INLET TYPE 3	FDOT INDEX 200,201,210			16.45			13.10	
S-23	CURB INLET TYPE 4	FDOT INDEX 200,201,210			16.25	12.90	12.90		12.90
S-24	CURB INLET TYPE 4	FDOT INDEX 200,201,210			16.25	12.85			12.85
S-25	MITERED END SECTION	FDOT INDEX 272			-------		13.50		
S-26	MITERED END SECTION	FDOT INDEX 272			-------				12.00
S-27	MITERED END SECTION	FDOT INDEX 272			-------			12.65	
S-28	MITERED END SECTION	FDOT INDEX 272			-------		13.20		
S-29	CURB INLET TYPE 4	FDOT INDEX 200,201,210			16.30	13.33		13.33	
S-30	CURB INLET TYPE 4	FDOT INDEX 200,201,210			16.30				13.38
S-31	MITERED END SECTION	FDOT INDEX 272			-------				
YD-1	INLINE DRAIN	DETAIL THIS SHEET			15.5 +/- (MATCH EX. GRADE)	13.77			
YD-2	INLINE DRAIN	DETAIL THIS SHEET			15.6 +/- (MATCH EX. GRADE)			13.35	
YD-3	INLINE DRAIN	DETAIL THIS SHEET			17.2 +/- (MATCH EX. GRADE)	13.10	13.10		13.10
YD-4	INLINE DRAIN	DETAIL THIS SHEET			17.2 +/- (MATCH EX. GRADE)	13.25			



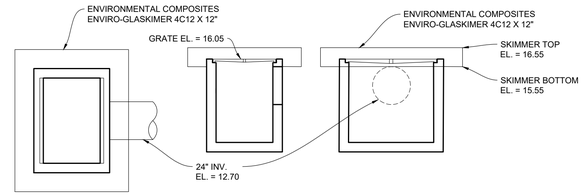
CONTROL STRUCTURE CS-1
MODIFIED FDOT TYPE "C" DITCH BOTTOM INLET
N.T.S.



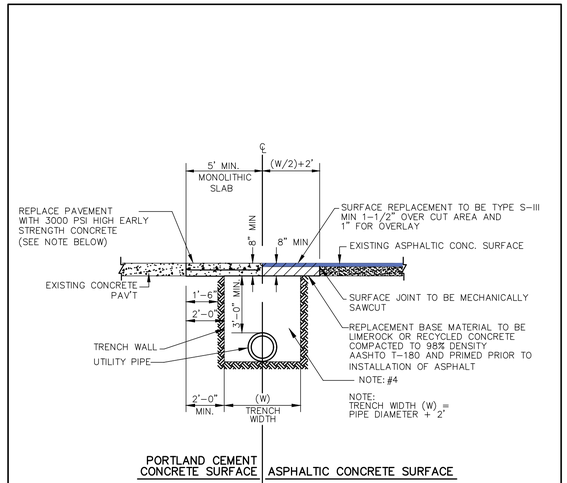
CONTROL STRUCTURE CS-3
MODIFIED FDOT TYPE "C" DITCH BOTTOM INLET
N.T.S.



CONTROL STRUCTURE CS-2
MODIFIED FDOT TYPE "C" DITCH BOTTOM INLET
N.T.S.



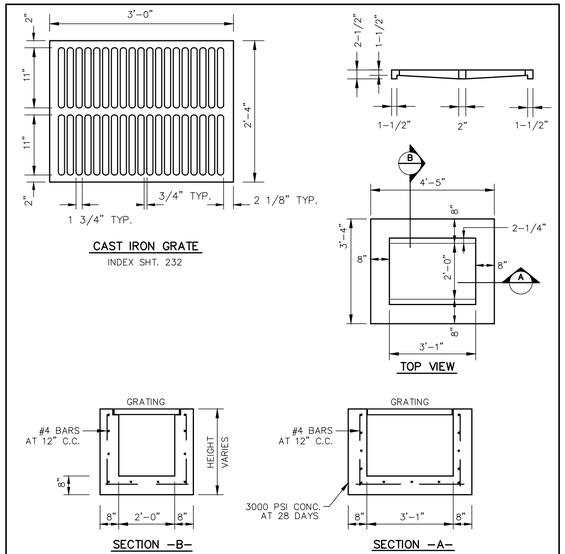
CONTROL STRUCTURE CS-4
MODIFIED FDOT TYPE "C" DITCH BOTTOM INLET
N.T.S.



NOTES:

1. PAVING REPLACEMENT SHALL INCLUDE RAISING ALL MANHOLE FRAMES AND LIDS AND VALVE BOXES AND LIDS (AND SIMILAR APPURTENANCES) TO FINAL ELEVATION PRIOR TO RESURFACING
2. SUBBASE TO BE COMPACTED TO 98% MAXIMUM DENSITY AASHTO T-180
3. IN AREAS WHERE CONCRETE PAVEMENT IS TO BE UTILIZED, 3000 PSI – 28 DAY STRENGTH CONCRETE PAVEMENT MAY BE PERMITTED PROVIDED THAT THE SUBJECT AREA WILL REMAIN FREE OF VEHICULAR TRAFFIC FOR A MINIMUM OF 3 DAYS.
4. 350 PSI. FLOWABLE FILL SHALL BE USED UPON DIRECTION BY CITY ENGINEER.

	STANDARD CONSTRUCTION DETAIL PAVEMENT TRENCH RESTORATION	FILE NAME: EW_ST3.DWG DETAIL REF: ST-3



CAST IRON GRATE
INDEX SHT. 232

TOP VIEW

SECTION –B–

SECTION –A–

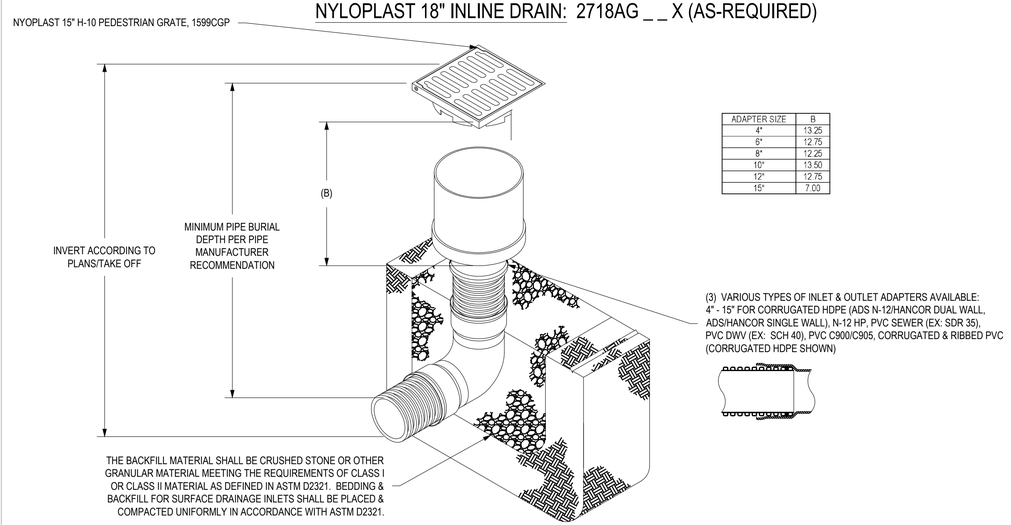
NOTE:

* 6" THICK WALLS MAY BE PERMITTED, PROVIDING THAT THE INCREASED REINFORCEMENT IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 201 IS INSTALLED. THIS MUST BE REFLECTED ON THE DESIGN PLANS, SHOP DRAWINGS, AND AS-BUILTS.

F.D.O.T. TYPE C INLET
INDEX SHT. 232

	STANDARD CONSTRUCTION DETAIL TYPE "C" STORM INLET	FILE NAME: EW_ST11.DWG DETAIL REF: ST-11

NYLOPLAST 15" INLINE DRAIN: 2715AG _ _ X OR
NYLOPLAST 18" INLINE DRAIN: 2718AG _ _ X (AS-REQUIRED)



ADAPTER SIZE	B
4"	13.25
6"	12.75
8"	12.25
10"	13.50
12"	12.75
15"	7.00

(3) VARIOUS TYPES OF INLET & OUTLET ADAPTERS AVAILABLE: 4" - 15" FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL, ADS/HANCOR SINGLE WALL), N-12 HP, PVC SEWER (EX: SDR 35), PVC DWV (EX: SCH 40), PVC C900/C905, CORRUGATED & RIBBED PVC (CORRUGATED HDPE SHOWN)

1 - GRATES SHALL BE 15" H-10 PEDESTRIAN GRATE.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER.
4 - DIMENSIONS ARE FOR REFERENCE ONLY. ACTUAL DIMENSIONS MAY VARY.
5 - DIMENSIONS ARE IN INCHES
6 - SEE DRAWING NO. 7001-110-275 FOR ADS N-12 & HANCOR DUAL WALL BELL INFORMATION & DRAWING NO. 7001-110-364 FOR N-12 HP BELL INFORMATION.

DRAWING: STORMWATER DETAILS
DMC JOB NO. 16-095-07
SHEET NO. C-11
DRAWN AR | CAD C3D | SCALE AS SHOWN
CHECKED NC | APPROVED SK | DATE 09-06-2017

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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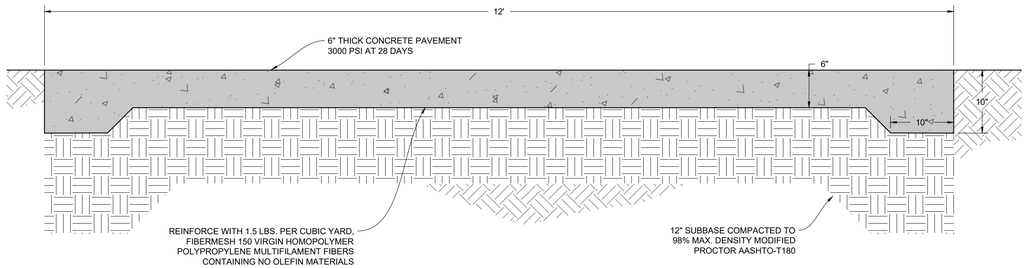
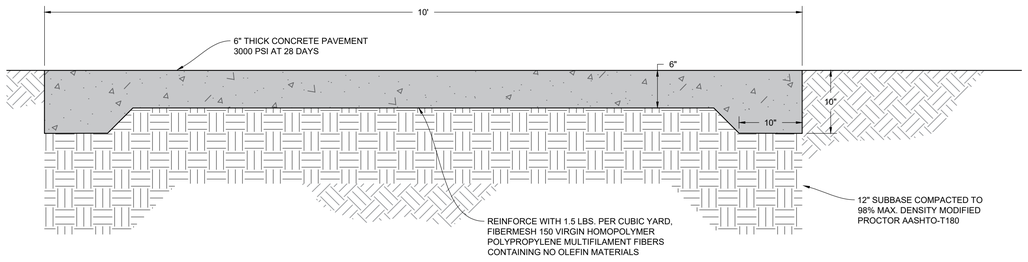


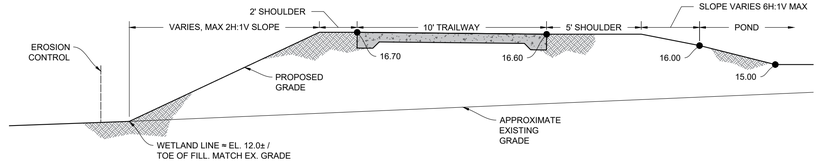
12' PROMENADE DETAIL
1" = 1'

TRAILWAY AND PROMENADE SHALL HAVE ISOLATION & CONTROL JOINTS PER NOTES ON STANDARD CONSTRUCTION DETAIL M-2 ON SHEET C-24.



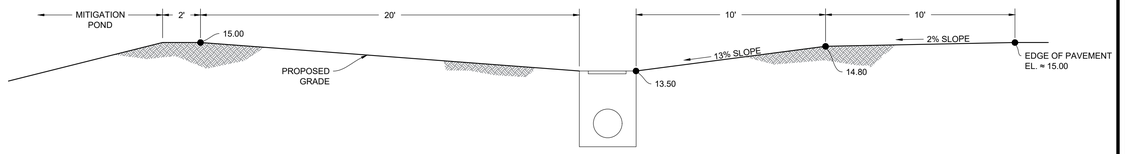
10' TRAILWAY DETAIL
1" = 1'

*20' X 30' PAVILION CONCRETE PAD SHALL BE 6" THICK AND SHALL CONTAIN THE SAME REINFORCED CONCRETE AND SUBBASE AS TRAILWAY.

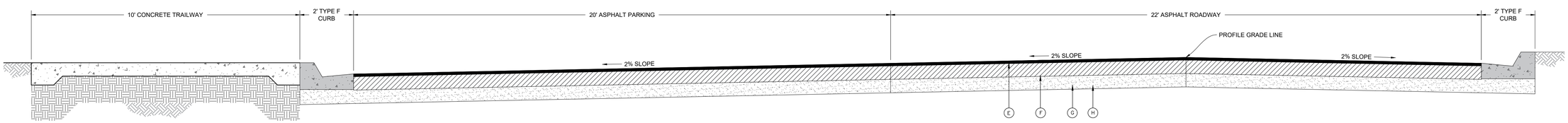


ISOLATED CREATED WETLANDS TO WEST TYPICAL SECTION A-A
1" = 4'

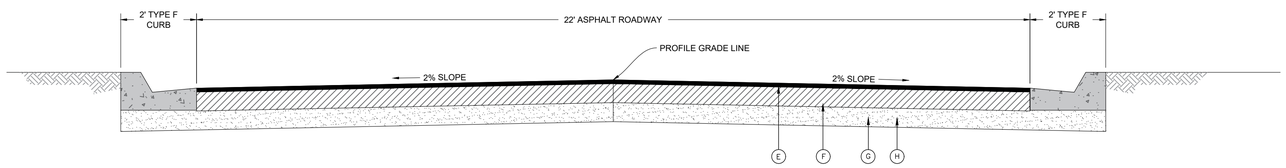
MITIGATION POND SECTION B-B
1" = 4'



28TH STREET SHOULDER SECTION C-C
1" = 4'



ASPHALT ROADWAY WITH PARKING AREA SECTION
1" = 1'



ASPHALT ROADWAY SECTION
1" = 1'

(E) ASPHALT PAVEMENT:
1-1/4" ASPHALT BITUMINOUS CONCRETE TYPE S-III; MINIMUM MARSHALL FIELD STABILITY 1500, COMPACTED TO 98% DENSITY PER FM 1-T238 (METHOD B), NUCLEAR DENSITY TEST, "BACK SCATTER METHOD".

(F) BASE:
6" SOIL CEMENT BASE FOR RESIDENTIAL MINIMUM BEARING STRENGTH OF 350 P.S.I. SHALL BE OBTAINED WITHIN 7 DAYS COMPACTED TO 98% DENSITY BASED ON AASHTO T-99 STANDARD PROCTOR TEST; CONSTRUCTION METHODS SHALL CONFORM TO SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
ALTERNATE:
6" LIMEROCK BASE (LBR 100) OR RECYCLED CONCRETE BASE (LBR 130) FOR RESIDENTIAL COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.

(G) SUB-BASE:
6" SUB-BASE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.

(H) SUBGRADE:
12" SUBGRADE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.

NOTES:

1. ALL MATERIALS ARE TO BE APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND THE DEVELOPER'S LICENSED SOILS ENGINEER PRIOR TO PLACEMENT.
2. A CITY APPROVED REPRESENTATIVE OF A CERTIFIED SOIL LABORATORY SHALL BE PRESENT DURING ALL CONSTRUCTION PHASES UTILIZING A SOIL CEMENT BASE. THE REPRESENTATIVE SHALL BE CERTIFIED BY F.D.O.T. IN THE INSTALLATION OF SOIL CEMENT.

DRAWING: CONSTRCUTION DETAILS
DMC JOB NO. 16-095-07
SHEET NO. C-12
DRAWN AR | CAD C3D | SCALE AS SHOWN
CHECKED NC | DATE 09-06-2017
APPROVED SK

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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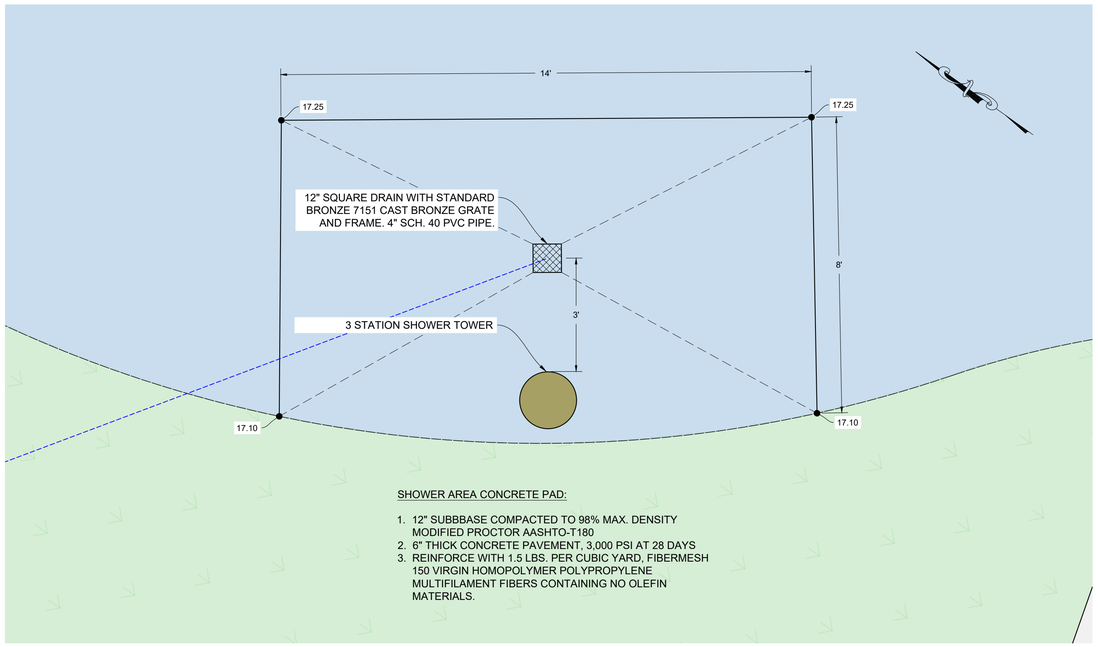
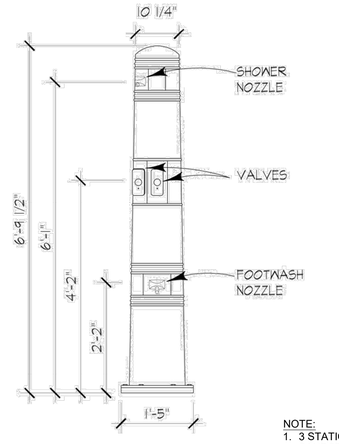


SHOWER AREA CONCRETE PAD:

1. 12" SUBBBASE COMPACTED TO 98% MAX. DENSITY MODIFIED PROCTOR AASHTO-T180
2. 6" THICK CONCRETE PAVEMENT, 3,000 PSI AT 28 DAYS
3. REINFORCE WITH 1.5 LBS. PER CUBIC YARD, FIBERMESH 150 VIRGIN HOMOPOLYMER POLYPROPYLENE MULTIFILAMENT FIBERS CONTAINING NO OLEFIN MATERIALS.

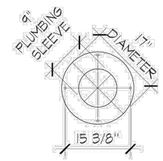
SHOWER AREA CONCRETE PAD DETAIL

1" = 2'



NOTE:

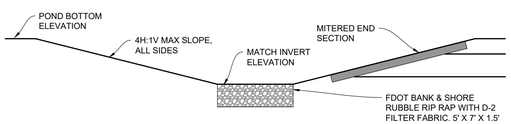
1. 3 STATION (2 SHOWER AND 1 FOOTWASH) ADA COMPLIANT, SANDSTONE COLOR SHOWER TOWER BY SHOWER TOWER INC. INSTALL PER MANUFACTURERS RECOMMENDATION ON 18" DIAMETER LEVEL MOUNTING AREA.
2. 6" THICK CONCRETE SHOWER PAD, 18' x 8'.
3. 12" SQUARE DRAIN WITH STANDARD BRONZE 7151 CAST BRONZE GRATE AND FRAME. 4" SCH. 40 PVC PIPE.



SHOWER TOWER DETAIL

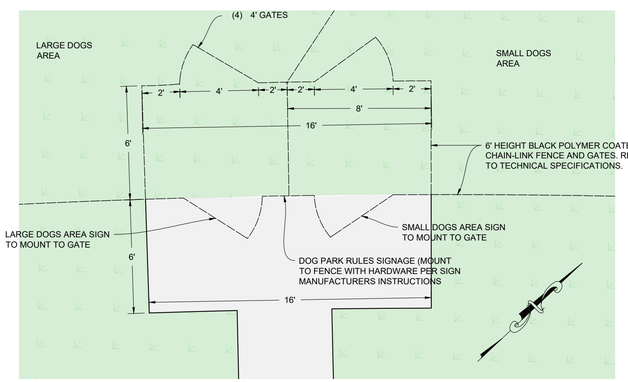
YARD DRAIN PLACEMENT DETAIL
(YD-1 & YD-2)

1" = 1'



POND INFLOW SUMP DETAIL

1" = 5'



DOG PARK ENTRANCE DETAIL

1" = 4'

DRAWING: SHOWER TOWER & CONSTRUCTION DETAILS

DMC JOB NO. 16-095-07

DRAWN	AR	CAD	C3D	SHEET NO.	C-13
CHECKED	NC	SCALE	AS SHOWN		
APPROVED	SK	DATE	09-06-2017		

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Drawing Name: C:\Users\Aramaappdata\local\temp\AcPublish_7672\Whistle Stop Park Planset Revised.dwg By: ARama Tab: CONST SHOWER DET 13 9/12/2017

LifeTrail Station 2 LAWS-2R-SM

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AND WOBBLE BOARD EXCERCISES

OVERHEAD PRESS, SHOULDER STABILITY &
STRENGTH EXCERCIESE AND STRETCHES

LifeTrail Station 5 LAWS-5R-SM

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STAIR EXCERCISES, OVERHEAD PRESS EXCERCISES AND
STANDING PRESSES & YOGA POSES

LIFETRAIL SENIOR FITNESS STATIONS

DRAWING: FITNESS STATION DETAILS
DMC JOB NO. 16-095-07
DRAWN AR | CAD C3D | SCALE AS SHOWN | SHEET NO. C-14
CHECKED NC | APPROVED SK | DATE 09-06-2017

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

Stephen J. Kuhn, P.E.
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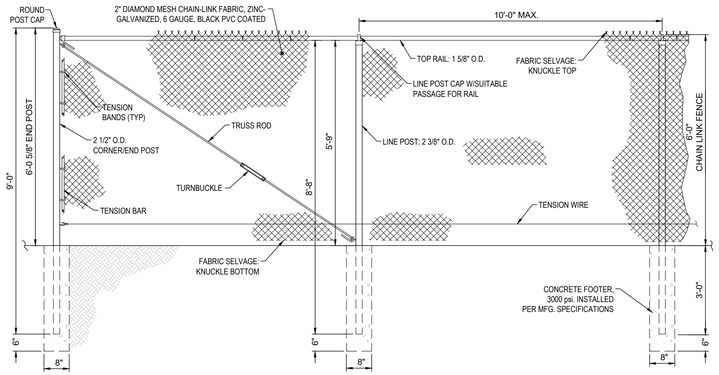
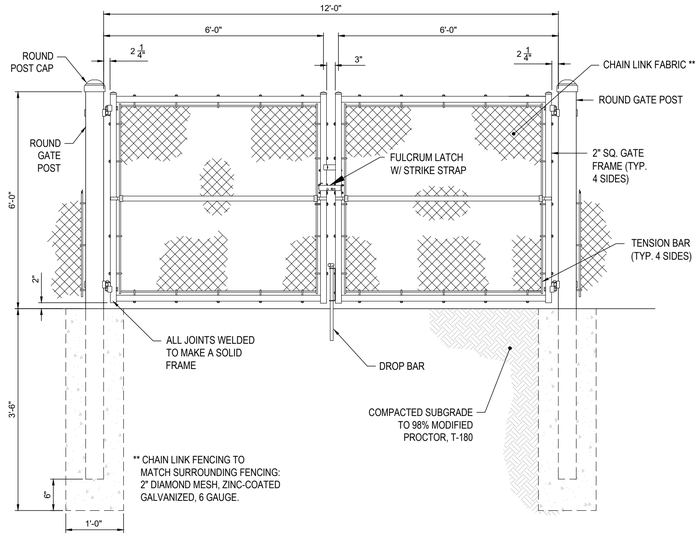
Drawing Name: C:\Users\Arama\appdata\local\temp\AcPublish_7672\Whistle Stop Park Planset Revised.dwg By: ARama Tab: FITNESS DETAILS 14 9/12/2017



CHAIN LINK FENCE DETAIL



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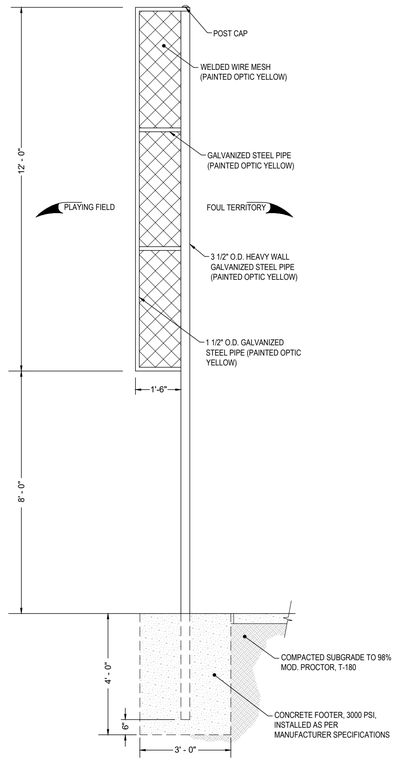
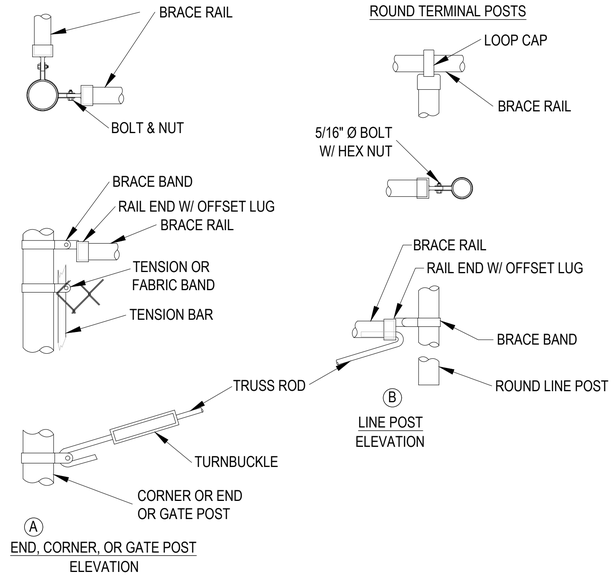


FOUL POLE DETAIL



CHAIN LINK FENCE CONNECTORS

DRAWING: FENCING DETAILS
DMC JOB NO. 16-095-07
SHEET NO. C-15
DRAWN AR | CAD C3D
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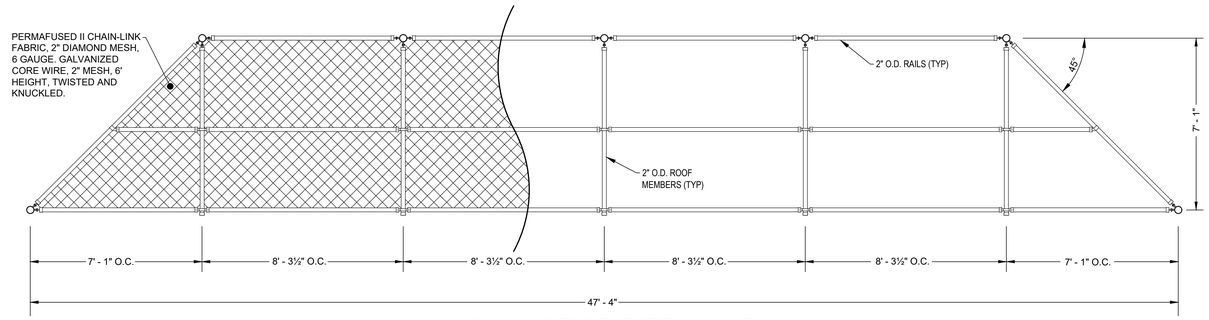


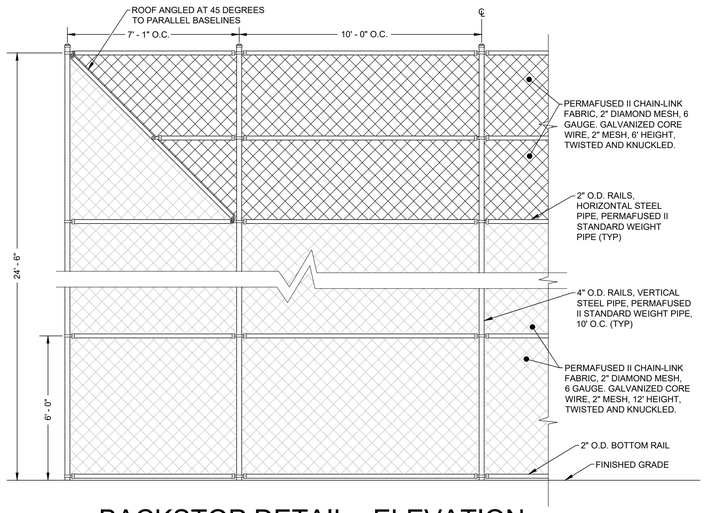
BACKSTOP DETAIL - PLAN

NOTE:

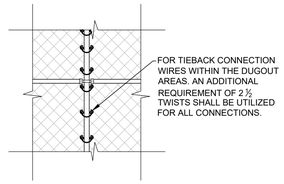
BACKSTOP FRAME AND FENCING WITH PERMAFUSED II CHAIN-LINK FENCE SYSTEM BY MASTER-HALCO, INC. 1(800)229-5615, OR ENGINEER APPROVED EQUAL

ALL FRAME WORK SHALL BE PERMAFUSED II POLYOLEFIN, 10 MILS MIN. OVER GALVANIZED STEEL ASTM F 1043, GROUP 1A, STANDARD WEIGHT PIPE, SCHEDULE 40. HOT-DIPPED GALVANIZED WITH A MIN. AVERAGE 1.8 OUNCES PER SQUARE FOOT OF ZINC-COATED SURFACE AREA. TENSION AND BRACE BANDS, CAPS, EYE TOPS, RAIL ENDS, AND SLEEVES SHALL BE PERMAFUSED II COATING, 6 MILS MIN., OVER HOT-DIPPED GALVANIZED PRESSED STEEL. TIE WIRES SHALL BE PERMAFUSED II COATING, 6 MILS MIN., OVER ZINC-COATED STEEL WIRE.

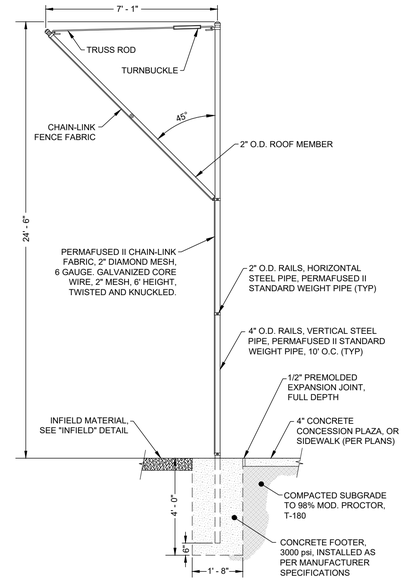
COLOR: MIDNIGHT BLACK



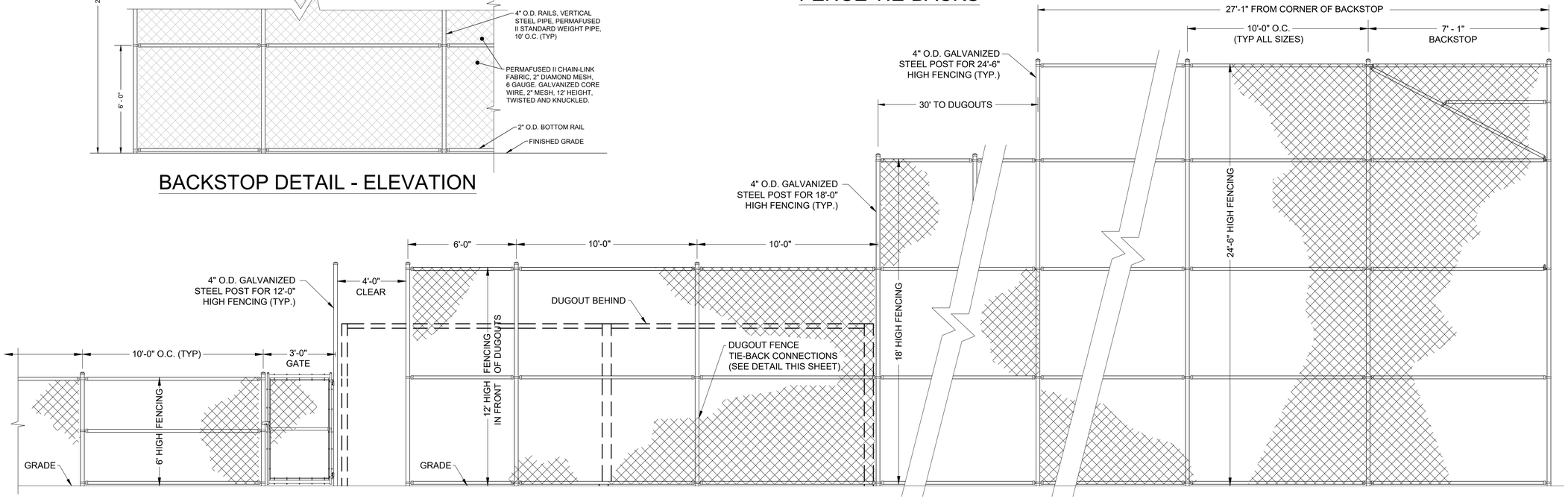
BACKSTOP DETAIL - ELEVATION



SPECIAL DUGOUT FENCE TIE-BACKS



BACKSTOP DETAIL - SECTION



CHAIN LINK FENCE DETAIL FROM DUGOUT TO BACKSTOP

DRAWING: FENCING DETAILS
DMC JOB NO. 16-095-07
SHEET NO. C-16

DRAWN	AR	CAD	C3D
CHECKED	NC	SCALE	AS SHOWN
APPROVED	SK	DATE	09-06-2017

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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Drawing Name: C:\Users\Arama\appdata\local\temp\AcPublish_7672\Whistle Stop Park Planset Revised.dwg By: ARama Tab: FENCING 16 9/12/2017

STORM DRAINAGE DESIGN AND CONSTRUCTION NOTES

ALL MATERIALS AND INSTALLATION METHODS USED FOR LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS FOR SUBDIVISIONS AND SITE PLANS SHALL BE IN CONFORMANCE WITH THE CITY, FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION).

1. ALL STORM SEWERS AND CULVERTS LOCATED IN ROADWAY RIGHTS–OF–WAY AND ROADWAY EASEMENTS SHALL BE A MINIMUM OF CLASS III REINFORCED CONCRETE PIPE, PRIVATE SITES AND AREAS OUTSIDE OF ROADWAY EASEMENTS AND R.O.W., PIPE MAY BE MADE OF ALTERNATE MATERIALS INCLUDING:
   A. SMOOTH INNER WALL HIGH DENSITY POLYETHYLENE (HDPE) IN ACCORDANCE WITH AASHTO M–294, AASHTO MP7, ASTM D3350 AND ASTM D2412 FOR SIZES UP TO 42" IN DIAMETER OR
   B. PVC IN ACCORDANCE WITH THE PROVISION NOTED IN THE "SEWER DETAILS" OF THESE SPECIFICATIONS.
2. ALL STORM SEWER PIPE JOINTS LOCATED IN ROADWAY RIGHTS–OF–WAY AND ROADWAY EASEMENTS SHALL BE ENTIRELY WRAPPED WITH FILTER FABRIC WITH A MINIMUM WIDTH OF 24" AND A MINIMUM OF 24" OVERLAP SECURED WITH PLASTIC OR STAINLESS BANDS. GASKETS ARE NOT PERMITTED AS AN EQUIVALENT SUBSTITUTE FOR MEETING THIS REQUIREMENT. THIS PRACTICE IS REQUIRED ON PRIVATE SITES ADDITIONALLY, ALL JOINTS SHALL BE RUBBER GASKETED FOR BOTH ROUND AND ELLIPTICAL PIPE.
3. DEPTH OF COVER MEASURED TO THE TOP OF PIPE (NOT INCLUDING THE BELL JOINT) SHALL BE A MINIMUM OF 1 FOOT. DEVIATION FROM THIS REQUIREMENT MAY BE ALLOWED BY INCREASING THE PIPE'S STRUCTURAL CAPACITY. THIS DEVIATION MUST BE SPECIFIED ON THE PLANS APPROVED FOR CONSTRUCTION AND SUBSEQUENTLY REFLECTED ON THE SHOP DRAWINGS AND AS–BUILT PLANS.
4. ALL STORM DRAINAGE PIPES LOCATED IN ROADWAY RIGHTS–OF–WAY AND ROADWAY EASEMENTS SHALL BE A MINIMUM OF TWELVE INCH (12") DIAMETER OR EQUIVALENT AND BE DESIGNED FOR A MINIMUM OF A TWENTY–FIVE (25) YEAR STORM OF TWENTY–FOUR (24) HOUR DURATION. STORM DRAINAGE PIPES SMALLER THAN 12" ARE PERMITTED ON PRIVATE SITE PLANS PROVIDING THAT MAINTENANCE SHALL BE PERFORMED BY THE OWNER.
5. STORM INLETS, MANHOLES, AND CATCH BASINS SHALL BE EITHER POURED IN PLACE OR PRECAST REINFORCED CONCRETE. STRUCTURES SHALL BE REQUIRED AT EACH CHANGE OF PIPE SIZE OR CHANGE IN PIPE DIRECTION. ALL STRUCTURES SHALL BE IN COMPLIANCE WITH ASTM C–478 AND SHALL HAVE 8" THICK WALLS. 6" THICK WALLS MAY BE PERMITTED PROVIDING THAT THE PLANS SPECIFY INCREASED REINFORCEMENT IN ACCORDANCE WITH FDOT STANDARD INDEX NO. 201 IN ADDITION, THIS REQUIREMENT MUST BE REFLECTED ON BOTH THE SHOP DRAWING AND AS–BUILT PLANS. NOTE: INLET APRONS MAY REQUIRE EXPANSION JOINTS AROUND THE STRUCTURE AS DICTATED BY THE CITY.
6. STORM INLETS SHALL BE SPACED IN SUCH A MANNER AS TO ACCEPT ONE HUNDRED (100) PERCENT OF THE DESIGN STORM RUNOFF WITHOUT IMPEDING THE FLOW OF TRAFFIC. FOR ROADWAY SECTIONS WITH DESIGN SPEEDS OF 45 MPH AND LESS AND WITHOUT FULL WIDTH SHOULDERS, SPREAD RESULTING FROM A RAINFALL INTENSITY OF FOUR INCHES (4 ") PER HOUR SHALL NOT EXCEED ONE–HALF OF THE TRAVEL LANE ADJACENT TO THE GUTTER. FOR SITE PLANS, INLET SPACING SHALL BE DESIGNED TO ACCEPT ONE HUNDRED (100) PERCENT OF THE RUNOFF FROM A RAINFALL INTENSITY OF FOUR INCHES (4 ") PER HOUR WITHOUT RESULTING IN PONDING OF WATER AROUND THE INLET.
7. LAKE DEPTHS SHALL BE EIGHT FEET (8') MINIMUM TO TWELVE FEET (12') MAXIMUM, MEASURED FROM HIGH WATER MARK.

	STANDARD CONSTRUCTION DETAIL STORM DRAINAGE DESIGN AND CONSTRUCTION NOTES	FILE NAME: EW_ST4.DWG DETAIL REF: ST–4

STORM DRAINAGE DESIGN AND CONSTRUCTION NOTES (CONTD.)

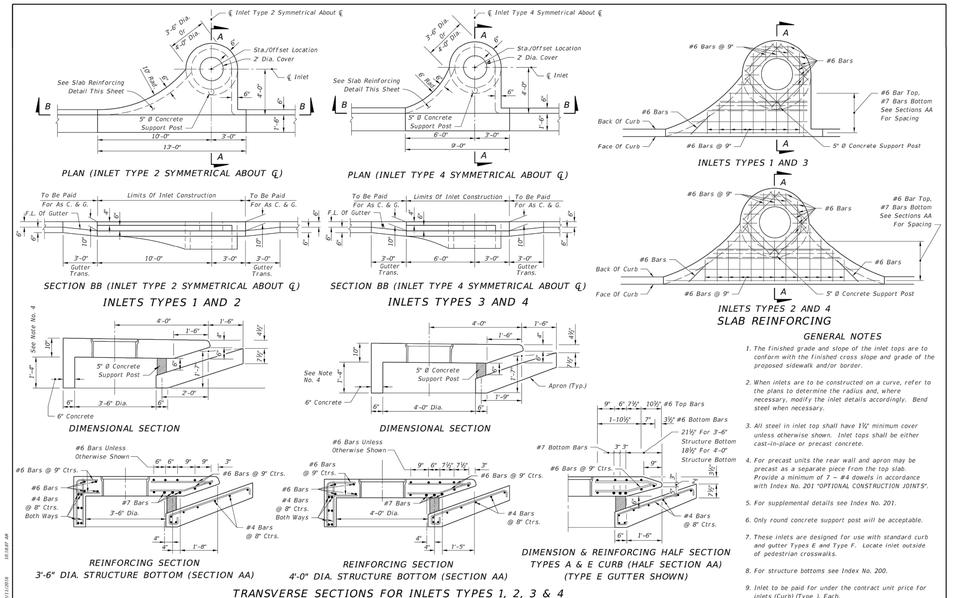
8. FOR CONNECTIONS BETWEEN INLETS WITH PIPING 15" IN DIAMETER AND LARGER, THE MAXIMUM DISTANCES BETWEEN INLETS AND / OR CLEAN–OUT JUNCTION BOXES SHALL BE 300 FEET. CULVERTS SHALL BE SLOPED TO MAINTAIN A MINIMUM SELF–CLEANING VELOCITY OF 3 FEET PER SECOND USING A MANNING'S 'n' OF 0.012. SPACING FOR CLEAN–OUTS AND INLETS FOR SMALLER PIPING SHALL BE REDUCED AND EVALUATED ON A CASE BY CASE BASIS.
9. THE MAXIMUM PERMISSIBLE SLOPE OF ANY NEW SITE GRADING IS 3:1 (HORIZONTAL:VERTICAL). THIS LIMIT SHALL BE APPLIED TO ALL AREAS EXCEPT STORMWATER CONVEYANCE AND TREATMENT SYSTEMS WHICH HAVE A MAXIMUM SLOPE OF 4:1 (EXCEPT BELOW THE WATER TABLE WHERE SHARPER SLOPES ARE PERMISSIBLE.)
10. ALL SWALES AND DITCHES SHALL HAVE A MAXIMUM PERMITTED SIDE SLOPE NOT GREATER THAN 4 TO 1 AT A MINIMUM. THE MAXIMUM PERMITTED BACKSLOPE, SHALL BE 3:1, PROVIDED THAT A 2' WIDE BERM IS INSTALLED. DESIGN CENTERLINE AND TOP–OF–BANK ELEVATIONS SHALL BE NOTED AT INTERVALS OF 100'.
11. SWALES THAT ARE NORMALLY DRY AND INTENDED FOR CONVEYANCE OF STORMWATER RUNOFF AND ARE NOT INTENDED FOR RETENTION SHALL HAVE A MINIMUM DRAINAGE MAINTENANCE EASEMENT WIDTH MEASURING 15 FEET. SWALED AREAS INTENDED FOR RETENTION SHALL PROVIDE APPROPRIATE EASEMENT AREAS FOR ACCESS AND MAINTENANCE MEASURED UPLAND FROM THE TOP OF BANK. AT A MINIMUM, THE SAID EASEMENT SHALL MEASURE 10' FEET IN WIDTH FROM THE TOP OF THE SWALE.
12. PIPED STORMWATER SYSTEMS SHALL HAVE A MINIMUM DRAINAGE MAINTENANCE EASEMENT WIDTH OF 20 FEET, AND MAY BE INCREASED DEPENDING UPON THE SIZE AND DEPTH OF PIPE.
13. NORMAL ROADSIDE SWALES ARE PERMITTED TO BE CONSTRUCTED TO A MAXIMUM DEPTH OF 18" BELOW THE OUTSIDE EDGE OF PAVEMENT OR CONCRETE CURB.
14. CONCRETE EROSION CONTROL MUST BE PROVIDED WHERE SWALES OR CULVERTS INTERCEPT DRAINAGE DITCHES.
15. WHEN A LAKE IS INCORPORATED WITHIN A SUBDIVISION AND IS ABUTTED BY LOTS, SUCH ABUTTING LOT LINES SHALL BE EXTENDED INTO THE LAKE PROPORTIONATELY ENCOMPASSING ALL OF THE LAKE AREA.
16. LAKE INFLOW AND OUTLET STRUCTURES SHALL GENERALLY BE CONSTRUCTED WITH REINFORCED CONCRETE AND SHALL BE SUBJECT TO THE APPROVAL OF THE CITY. SKIMMERS FOR WET PONDS SHALL BE CONSTRUCTED SUCH THAT THE BOTTOM EXTENDS 6" BELOW THE NORMAL WATER LEVEL AND 6" ABOVE THE OVERFLOW. FOR DRY PONDS, THE SKIMMER BOTTOM SHALL BE SET 6" BELOW THE LOWEST OVERFLOW ELEVATION AND 6" ABOVE THE HIGHEST POINT OF OVERFLOW. ALL SKIMMERS SHALL BE CONSTRUCTED OF MINIMUM 1/4" THICK ALUMINUM OR FIBERGLASS ADEQUATELY SUPPORTED TO PREVENT DEFLECTION.

	STANDARD CONSTRUCTION DETAIL STORM DRAINAGE DESIGN AND CONSTRUCTION NOTES	FILE NAME: EW_ST5.DWG DETAIL REF: ST–5

STORM DRAINAGE DESIGN AND CONSTRUCTION NOTES (CONTD.)

17. EROSION AND SEDIMENT CONTROL PLANS AS APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION SHALL BE EMPLOYED AT ALL TIMES. AT A MINIMUM, BEST MANAGEMENT PRACTICES (BMP's) SHALL BE UTILIZED.
18. THE CITY MAY REQUEST THAT THE DEVELOPER SUBMIT A REPORT BY A QUALIFIED HYDROLOGIST ON THE IMPACT THE LAKE WILL HAVE ON NEIGHBORING WATER TABLE ELEVATIONS BOTH DURING CONSTRUCTION AND AFTER LAKE COMPLETION. THE CITY MAY REQUIRE GROUNDWATER MONITORING DURING THE LAKE EXCAVATION.
19. ADEQUATE MAINTENANCE EASEMENTS OR RIGHTS–OF–WAY AS APPROVED BY THE CITY SHALL BE PROVIDED AROUND THE ENTIRE PERIMETER OF ALL LAKES AND ASSOCIATED OUTFALLS DISCHARGING INTO AND OUT OF LAKES. APPLICABLE CROSS SECTIONS SHALL BE INCLUDED ON ALL FINAL DEVELOPMENT PLANS.
20. DEVELOPMENT PLANS FOR ALL STORMWATER MANAGEMENT SYSTEMS SHALL CONTAIN POP–OFF DATA (OVERFLOW), BOTTOM ELEVATION, NORMAL WATER LEVELS, MEAN ANNUAL SEASONAL HIGH WATER TABLE ELEVATION, TREATMENT VOLUME AND CORRESPONDING ELEVATION, 100 YEAR HIGH WATER LEVELS, AND THE DESIGN TAILWATER ELEVATION (IF APPLICABLE).
21. IN GENERAL, ALL RETENTION / DETENTION SITES MUST BE CONSTRUCTED ON ALL PROJECTS PRIOR TO ANY ROAD, PARKING LOT, OR BUILDING CONSTRUCTION COMMENCING OR AS CURRENT PERMIT CONDITIONS DICTATE. SEWER AND WATER MAINS MAY BE INSTALLED PRIOR TO RETENTION/DETENTION SITE CONSTRUCTION IF DEWATERING IS NOT REQUIRED.
22. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ANY AND ALL DEWATERING PERMITS THAT MAY BE REQUIRED.
23. WHEN CULVERTS ARE INSTALLED TO MAINTAIN THE FLOW OF EXISTING DRAINAGE WAYS WHERE NEWLY PROPOSED ROADS WOULD OTHERWISE SEVER THE DRAINAGE WAY, THEN CULVERTS CROSSING RIGHTS–OF–WAY SHALL EXTEND FROM RIGHT–OF–WAY LINE TO RIGHT–OF–WAY LINE UNDER THE ROADWAY. CULVERTS SHALL BE DESIGNED TO ACCOMODATE THE FLOW FROM THE 100 YEAR – 24 HOUR STORM EVENT WITHOUT FLOODING ADJACENT PROPERTY OR SURCHARGING THE SAID ROADWAY.
24. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW AND MAINTAIN A COPY OF THE SJRWMD PERMIT AND/ OR NPDES CONSTRUCTION PERMIT AT THE CONSTRUCTION SITE, AND ABIDE BY ALL CONDITIONS OF THE PERMIT.
25. LANDSCAPE PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF PUBLIC UTILITIES AND STORMWATER INFRASTRUCTURE IN ORDER TO EVALUATE POTENTIAL CONFLICTS.

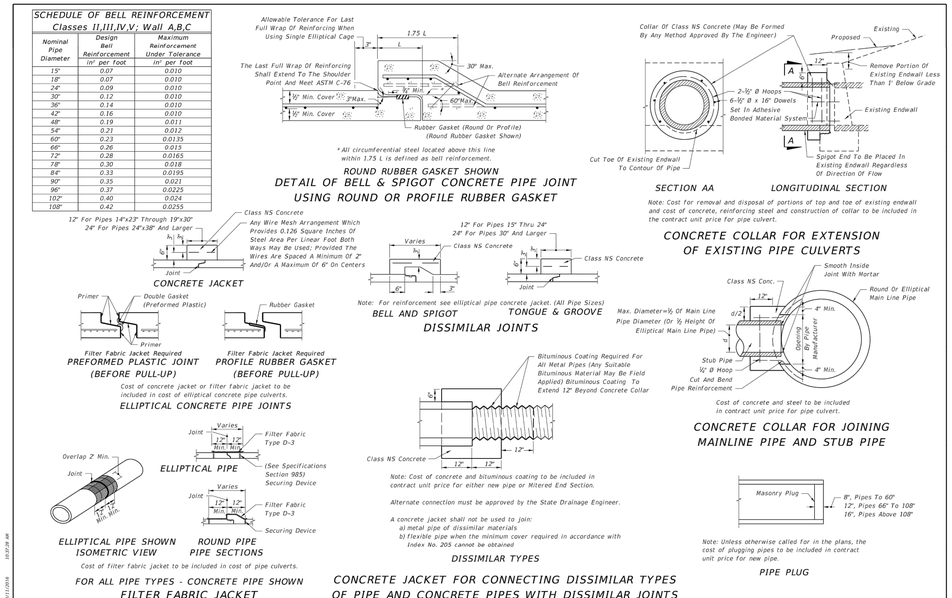
	STANDARD CONSTRUCTION DETAIL STORM DRAINAGE DESIGN AND CONSTRUCTION NOTES	FILE NAME: EW_ST6.DWG DETAIL REF: ST–6



GENERAL NOTES

1. The finished grade and slope of the inlet tops are to conform with the finished cross slope and grade of the proposed sidewalk and/or border.
2. When inlets are to be constructed on a curve, refer to the plans to determine the radius and, where necessary, modify the inlet details accordingly. Bend steel when necessary.
3. All steel in inlet top shall have 1½" minimum cover unless otherwise shown. Inlet tops shall be either cast-in-place or precast concrete.
4. For precast units the rear wall and apron may be precast as a separate piece from the top slab. Provide a minimum of 7 – #4 dowels in accordance with Index No. 201 "OPTIONAL CONSTRUCTION JOINTS".
5. For supplemental details see Index No. 201.
6. Only round concrete support post will be acceptable.
7. These inlets are designed for use with standard curb and gutter Types E and Type F. Locate inlet outside of pedestrian crosswalks.
8. For structure bottoms see Index No. 200.
9. Inlet to be paid for under the contract unit price for inlets (Curb) (Type_). Each.

LAST REVISION 11/01/16	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	CURB INLET TOPS TYPES 1, 2, 3 AND 4	INDEX NO. 210	SHEET NO. 1 of 1



LAST REVISION 07/01/14	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	MISCELLANEOUS DRAINAGE DETAILS	INDEX NO. 280	SHEET NO. 1 of 3

DRAWING: STANDARD DETAILS	DMC JOB NO. 16-095-07	DRAWN AR	CAD C3D	SHEET NO. C-17
		CHECKED NC	SCALE AS SHOWN	
		APPROVED SK	DATE 09-06-2017	

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

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LAST REVISION 11/01/16	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	STRUCTURE BOTTOMS TYPE J AND P	INDEX NO. 200	SHEET NO. 1 of 5

ROUND STRUCTURE BOTTOMS (ALTERNATE A) & ROUND RISERS– TABLE 1
Wall Thickness (t_1 & t_2) and Vertical & Horizontal Areas of Reinforcement (A_s)

Type	Structure/Riser Diameter (ft)	Cast-In-Place Items Class II Concrete			Precast Items			
					Class II Concrete			ASTM C478
		t_1 Riser (in.)	t_2 Bottom (in.)	A_s ($in.^2/ft.$)	t_1 Riser (in.)	t_2 Bottom (in.)	A_s ($in.^2/ft.$)	t_1 or t_2 (in.)	A_s *** ($in.^2/ft.$)
P	3'-6"	6	8	0.20	6	8	0.20	4**	0.105
P	4'-0"	6	8	0.20	6	8	0.20	5**	0.120
J	5'-0"	–	8	0.20	–	8	0.20	6**	0.150
J	6'-0"	–	8	0.20	–	8	0.20	6	0.180
J	7'-0"	–	8	0.20	–	8	0.20	7	0.210
J	8'-0"	–	8	0.20	–	8	0.20	8	0.240
J	10'-0"	–	10	0.40##	–	10	0.40##	10	0.300
J	12'-0"	–	10	0.40##	–	12	0.40##	12	0.360

TABLE 1 NOTES:
##Provide 0.20 eq. $in.^2/ft.$ at each face, 12" max. bar spacing.
**Modified minimum wall thickness.
***Min. total circumferential reinforcement for continuous steel hoops:
A_s = 0.40 sq. in. for riser section height equal or less than 2'-0" (2 hoop min.)
A_s = 0.60 sq. in. For riser section height more than 2'-0" up to 4'-0" (3 hoop min.)
Areas of reinforcing for precast items are based on Grade 60 reinforcing;
No reduction in the area of reinforcement is allowed for welded wire fabric in Table 1;
Area of vertical reinforcing may be reduced in accordance with ASTM C478.

SQUARE & RECTANGULAR STRUCTURES (ALTERNATE B) – TABLE 2

Type	Wall Length (ft)	Max. Depth (ft)	Wall Thickness (t_1)	
			CIP (in.)	Precast (in.)
P	≤ 3'-6"	40	6 Riser 8 Bottom	6
J	4'-0"	40	8	6
J	5'-0"	22	–	6
J	6'-0"	15	–	6
J	5'-0" to 9'-0"	40	8	8
J	10'-0"	26	8	8
J	10'-0" to 12'-0"	40	10	9
J	16'-0"	35	–	9
J	16'-0"	40	10	10
J	20'-0"	25	–	9
J	20'-0"	30	10	10

TABLE 2 NOTES:
See Table 8 for Reinforcing Schedule.

GENERAL NOTES

1. Standard structure bottoms 4'-0" diameter and smaller (Alt. A) and 3'-6" square (Alt. B) are designated Type P. Larger standard structure bottoms are designated Type J. Risers are permitted for all structures. Round risers are designated Type A, square risers are designated Type B.
2. Walls of circular structures (Alt. A) constructed in place may be of brick or reinforced concrete. Precast and rectangular structures (Alt. B) shall be constructed of reinforced concrete only.
3. Wall thickness and reinforcement are for either reinforced cast-in-place or precast concrete units except that precast circular units may be furnished with walls in accordance with ASTM C478 (see modified wall thicknesses in Table 1).
4. Top and bottom slab thickness and reinforcement are for precast and cast-in-place construction. All concrete shall be of Class II concrete, except use Class IV concrete when shown in the Plans, for special applications of structures located in extremely aggressive environments. Concrete as specified in ASTM C478 (4000 psi) may be used in lieu of Class II concrete for precast items manufactured in accordance with Specifications Section 449.
5. All reinforcement shown is Grade 60 steel, deformed bar. Equivalent area Grade 40 steel or equivalent area smooth or deformed welded wire reinforcement in accordance with Specification Section 931 may be substituted according to Index No. 201, unless otherwise noted.
6. Alt. A or Alt. B structure bottoms may be used in conjunction with curb inlet tops Types 1, 2, 3, 4, 5, 6, 9, and 10, and any manhole or junction box unless otherwise shown in the plans or other standard drawings. Alt. B structure bottoms may be used in conjunction with curb inlet Types 7 & 8, or any ditch bottom inlet unless otherwise shown in the plans or other standard drawings.
7. Rectangular structures may be rotated as directed by the Engineer in order to facilitate connections between the structure walls and storm sewer pipes.
8. Except when ACI hooks are specifically required, reinforcement in top and bottom slab shall be straight embedment.
9. All reinforcement must have 2" minimum cover except for 3'-6" diameter precast circular units manufactured under ASTM C478, keyed construction otherwise shown. Additional bars used to restrain hole formers for precast structures with grouted pipe connections,may be left flush with the hole surface. Cut or bend reinforcement at pipe openings to maintain cover. Exposed ends of reinforcing at precast pipe openings and grouted joints must be removed to 1" below the concrete surface and sealed with a Type F epoxy in accordance with Specification Section 926. Horizontal steel in rectangular structures shall be lapped a minimum of 30 bar diameters or by standard hooks at corners.
10. The corner fillets shown are necessary for rectangular structures used with circular risers and inlet throats and when used on skew with rectangular risers, inlets and inlet throats. Fillets will be required in the top slab of the Alt. A structure bottoms when used with the Alt. B risers. Each fillet shall be reinforced with two #5 bars.
11. Inlet walls, throats, risers or manhole tops shall be secured to structures as shown on Index No. 201 (Sheet 3 of 5) Optional Construction Joints.
12. Structures with depths over 14' below the mean high water table are to be checked for flotation by the designer of the drainage project.
13. Units larger than specified standards may be substituted at the contractor's option when these units will not cause or increase the severity of utility conflicts. Such larger units shall be furnished at no additional cost to the Department. Larger Alt. A units cannot replace Alt. B units without approval of the Engineer. This note applies to this Index only.
14. For manhole and junction box tops, for frames and covers, and, for supplementary details and notes see Index No. 201.
15. Type J structure bottoms must have a minimum 6'-0" wall height when possible, for maintenance access.

LAST REVISION 11/01/16	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	STRUCTURE BOTTOMS TYPE J AND P	INDEX NO. 200	SHEET NO. 2 of 5

TABLE 3-MINIMUM STRUCTURE SIZES FOR SINGLE PIPE CONNECTION PER SIDE

PIPE SIZE	RECTANGULAR Side Dimension (L) Single Pipe Per Side	Note Number	ROUND Diameter (D) Single Pipe or θ=180°	2 to 4 Pipes θ=90°
18"	3'-0"		3'-0"	4'-0"
24"	3'-6"		3'-6"	5'-0"
30"	3'-6"/4'-0"	2	4'-0"	6'-0"
36"	4'-0"/5'-0"	3	5'-0"	7'-0"
42"	5'-0"		6'-0"	7'-0"
48"	6'-0"		6'-0"	8'-0"
54"	6'-0"		7'-0"	10'-0"
60"	7'-0"		7'-0"	10'-0"
66"	7'-0"/8'-0"	4	8'-0"	12'-0"
72"	8'-0"		8'-0"	12'-0"
78"	9'-0"		10'-0"	12'-0"
84"	9'-0"		12'-0"	N/A

TABLE 3 NOTES:
1. For Round Structures sizes with variable angles between pipes and variable pipe sizes, refer to the FDOT Storm Drain Handbook.
2. For 3'-6" Precast Square Structure Bottoms, 30" Pipes with similar invert elevations are not permitted in adjacent walls. Use 4'-0" Side Dimensions when 30" pipe openings are required on adjacent walls and the difference in flow lines is less than 3'-0".
3. For 4'-0" Precast Square Structure Bottoms, 36" Pipes with similar invert elevations are not permitted in adjacent walls. Use 5'-0" Side Dimensions when 36" pipe openings are required on adjacent walls and the difference in flow lines is less than 3'-0".
4. For 7'-0" Precast Square Structure Bottoms, 66" Pipes with similar invert elevations are not permitted in adjacent walls. Use 8'-0" Side Dimensions when 66" pipe openings are required on adjacent walls and the difference in flow lines is less than 4'-0".

TABLE 4-MINIMUM SIZES FOR MULTIPLE PARALLEL PIPE CONNECTIONS FOR RECTANGULAR STRUCTURE BOTTOMS

PIPE SIZE	PIPE SPACING (S)	MINIMUM WALL LENGTH (L) FOR NUMBER OF PARALLEL PIPES		
		3	4	5
18"	2'-10"	6'-0"	8'-6"	11'-0"
24"	3'-3"	6'-6"	10'-0"	13'-6"
30"	4'-3"	8'-0"	12'-6"	16'-6"
36"	5'-1"	9'-6"	14'-6"	19'-6"
42"	6'-0"	11'-0"	17'-0"	–
48"	6'-9"	12'-6"	19'-0"	–
54"	7'-8"	14'-0"	–	–
60"	8'-6"	15'-0"	–	–
66"	9'-0"	16'-6"	–	–
72"	10'-0"	18'-0"	–	–
78"	10'-9"	19'-0"	–	–
84"	11'-8"	20'-6"	–	–

TABLE 4 NOTES:
1. Minimum wall lengths based on precast structures, using concrete pipe with maximum skew angles per Table 5.
2. Wall lengths exceeding 20'-0" require special designs.

TABLE 5 - MAXIMUM PIPE SKEW FOR PRECAST ROUND OPENINGS

	WALL THICKNESS	PIPE SIZE											
MAXIMUM SKEW ANGLE		18"	24"	30"	36"	42"	48"	54"	60"	66"	72"	78"	84"
	8"	19°	17°	16°	16°	15°	14°	13°	13°	13°	13°	12°	12°
	6"	21°	20°	18°	17°	17°	16°	15°	15°	14°	14°	13°	13°

TABLE 5 NOTES:
These values are based on 2" clearance for precast structures. Larger skews are possible for Cast-In-Place Structures or elliptical pipe openings when approved by the Engineer.

STRUCTURE SIZES FOR PIPE CONNECTIONS

LAST REVISION 07/01/07	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	STRUCTURE BOTTOMS TYPE J AND P	INDEX NO. 200	SHEET NO. 3 of 5

SLAB DESIGNS - SQUARE AND RECTANGULAR STRUCTURES (TABLE 6)
(ALL SLABS 8" THICK EXCEPT AS NOTED - REINFORCING PARALLEL TO SHORT WAY AND LONG WAY)

SHORT-WAY SLAB DEPTH	SHORT-WAY SCHEDULE (Bars A)	LONG-WAY SLAB DEPTH	LONG-WAY SCHEDULE (Bars B)
SIZE: 3'-6" x UNLIMITED			
≥0.5' < 8'	B10	≥0.5' < 24'	B10
8' < 13'	B5.5	24'-40'	B5.5
13' < 31'	C6.5		
31'-40'	D7		
SIZE: 4' x UNLIMITED			
≥0.5' < 7'	B5.5	≥0.5' < 19'	B10
7' < 19'	C6.5	15' < 29'	B5.5
19' < 31'	D7	29'-40'	C6.5
31'-40'	E5		
SIZE: 5' x 5'			
≥0.5' < 3'	C6.5	≥0.5' < 3'	C6.5
3' < 7'	B5.5	3' < 13'	C6.5
7' < 22'	C6.5	13' < 22'	D7
22' < 29'	D7	22' < 29'	D4.5
29'-40'	E5	29'-40'	E5
SIZE: 5' x 6'			
≥0.5' < 12'	C6.5	≥0.5' < 3'	C6.5
12' < 26'	D7	3' < 9'	B5.5
26'-40'	E5	9' < 23'	C3.5
		23' < 35'	D4.5
		35'-40'	E5
SIZE: 5' x 7'			
≥0.5' < 10'	C6.5	≥0.5' < 10'	B5.5
10' < 20'	D7	10' < 31'	C3.5
20' < 34'	E5	31'-40'	D4.5
34'-40'	F5		
SIZE: 5' x 8'			
≥0.5' < 7'	C6.5	≥0.5' < 8'	B10
7' < 13'	D7	8' < 17'	B5.5
13' < 24'	E5	17' < 25'	C6.5
24'-40'	F5	25'-40'	C3.5
SIZE: 5' x 9'			
≥0.5' < 8'	C6.5	≥0.5' < 14'	B10
8' < 14'	D7	14' < 24'	B5.5
14' < 25'	E5	24' < 34'	C6.5
25'-40'	F5	34'-40'	C3.5
SIZE: 5' x UNLIMITED			
≥0.5' < 8'	C6.5	≥0.5' < 14'	B10
8' < 14'	D7	14' < 24'	B5.5
14' < 25'	E5	24' < 34'	C6.5
25'-40'	F5	34'-40'	C3.5

SHORT-WAY SLAB DEPTH	SHORT-WAY SCHEDULE (Bars A)	LONG-WAY SLAB DEPTH	LONG-WAY SCHEDULE (Bars B)
SIZE: 6' x 6'			
≥0.5' < 13'	C6.5	≥0.5' < 10'	C3.5
13' < 23'	D7	10' < 18'	D4.5
23'-40'	E5	18' < 27'	E5
		27' < 33'	E3
		33'-40'	F5
SIZE: 6' x 7'			
≥0.5' < 8'	C6.5	≥0.5' < 8'	C6.5
8' < 16'	D7	8' < 12'	C3.5
16' < 28'	E5	12' < 21'	D4.5
28'-40'	F5	21' < 28'	E5
		28' < 35'	E3
		35'-40'	F5
SIZE: 6' x 8'			
≥0.5' < 6'	C6.5	≥0.5' < 6'	B5.5
6' < 13'	D7	6' < 11'	C6.5
13' < 22'	E5	11' < 17'	C3.5
22' < 35'	F5	17' < 22'	D4.5
35'-40'	G5	22' < 32'	E5
		32'-40'	E3
SIZE: 6' x 9'			
≥0.5' < 8'	D7	≥0.5' < 8'	B5.5
8' < 14'	E5	8' < 14'	C6.5
14' < 24'	F5	14' < 21'	C3.5
24'-34'	G5	21' < 25'	D4.5
		25'-34'	E5
SIZE: 6' x UNLIMITED			
≥0.5' < 8'	D7	≥0.5' < 8'	B5.5
8' < 14'	E5	8' < 14'	C6.5
14' < 24'	F5	14' < 21'	C3.5
24'-34'	G5	21' < 25'	D4.5
		25'-34'	E5
SIZE: 7' x 7'			
≥0.5' < 8'	C6.5	≥0.5' < 4'	C6.5
8' < 15'	D7	4' < 7'	C3.5
15' < 26'	E5	7' < 11'	D4.5
26'-40'	F5	11' < 22'	E3
		22' < 32'	F3.5
		32'-40'	G3.5
SIZE: 7' x 8'			
≥0.5' < 5'	C6.5	≥0.5' < 5'	C6.5
5' < 11'	D7	5' < 8'	C3.5
11' < 19'	E5	8' < 13'	D4.5
19' < 30'	F5	13' < 22'	E3
30'-40'	G5	22' < 30'	F3.5
		30'-40'	G3.5
SIZE: 7' x 9'			
≥0.5' < 9'	D7	≥0.5' < 7'	C6.5
9' < 15'	E5	7' < 10'	C3.5
15' < 25'	F5	10' < 14'	D4.5
25' - 34'	G5	14' < 21'	E5
		21' < 29'	F5
		29'-34'	F3.5

SHORT-WAY SLAB DEPTH	SHORT-WAY SCHEDULE (Bars A)	LONG-WAY SLAB DEPTH	LONG-WAY SCHEDULE (Bars B)
SIZE: 8' x 8'			
≥0.5' < 10'	D7	≥0.5' < 9'	D4.5
10' < 19'	E5	9' < 13'	E5
19'-30'	F5	13' < 18'	F5
		18' < 23'	F3.5
		23'-30'	G3.5
SIZE: 8' x 9'			
≥0.5' < 8'	D7	≥0.5' < 7'	D7
8' < 14'	E5	7' < 9'	D4.5
14' < 23'	F5	9' < 15'	E3
23'-31'	G3.5	15' < 20'	F3.5
		20' < 23'	F3.5
		23'-31'	G3.5
SIZE: 9' x 9'			
≥0.5' < 8'	D7	≥0.5' < 7'	D4
8' < 14'	E5	7' < 10'	E5
14' < 22'	F5	10' < 17'	F3.5
		17' < 22'	G3.5
SIZE: 9'x9'x10" SLAB THICKNESS			
22' < 36'	F5	22' < 31'	F3.5
36'-40'	G5	31'-40'	G3.5
SIZE: 10'x10'x10" SLAB THICKNESS			
≥0.5' < 7'	C6.5	0.5' < 6'	C6.5
7' < 10'	D7	6' < 9'	D4.5
10' < 18'	E5	9' < 15'	E5
18' < 27'	F5	15' < 22'	F5
27'-32'	G5	22'-32'	G3.5
SIZE: 12'x12'x12" SLAB THICKNESS			
≥0.5' < 10'	D7	≥0.5' < 8'	D7
10' < 16'	E5	8' < 14'	E5
16' < 25'	F5	14' < 22'	F5
25'-35'	G5	22' < 30'	G5
		30'-35'	H4

SLAB AND WALL DESIGN TABLE NOTES

1. Size is the inside dimension(s) of a structure.
2. Slab reinforcement is appropriate for top, intermediate, and bottom slabs.
3. Bottom Slabs for precast 3'-6" x 3'-6" rectangular structures at 15' depth or less, may be 6" thick.
4. Slab depth is measured from finished grade to top of slab.
5. Wall depth is measured to the top of the bottom slab for boxes and to the top of the intermediate slab for risers.
6. Wall height is the distance between top of lower slab to bottom of upper slab. Maximum wall height is 12' for wall lengths exceeding 5', or 10' for wall lengths exceeding 12'.

SLAB DESIGNS - ROUND STRUCTURES (TABLE 7)

SLAB DEPTH	SLAB THICKNESS	REINF. (2-WAY) SCHEDULE
SIZE: 3'-6" DIAMETER		
2'-15'	6" Precast	C6.5
0.5' < 30'	8"	A6
30'-40'	8"	B5.5
SIZE: 4'-0" DIAMETER		
≥0.5' < 19'	8"	A6
19' < 30'	8"	B5.5
30'-40'	8"	C6.5
SIZE: 5'-0" DIAMETER		
≥0.5' < 15'	8"	B5.5
15' < 26'	8"	C6.5
26' < 35'	8"	D7
35'-40'	8"	D4.5
SIZE: 6'-0" DIAMETER		
≥0.5' < 9'	8"	B5.5
9' < 15'	8"	C6.5
15' < 22'	8"	C3.5
22' < 30'	8"	D4.5
30'-40'	8"	E5
SIZE: 7'-0" DIAMETER		
≥0.5' < 8'	8"	C3.5
8' < 16'	8"	D4.5
16' < 23'	8"	E5
23' < 27'	8"	E3
27'-40'	8"	F3.5
SIZE: 8'-0" DIAMETER		
≥0.5' < 10'	8"	D4.5
10' < 16'	8"	E5
16' < 19'	8"	E3
19'-40'	8"	F3.5
29'-40'	10"	F5
SIZE: 10'-0" DIAMETER		
≥0.5' < 12'	10"	D4.5
12' < 20'	10"	E5
20' < 28'	10"	F5
28'-40'	10"	G3.5
SIZE: 12'-0" DIAMETER		
≥0.5' < 8'	10"	D4.5
8' < 13'	10"	E5
13' < 18'	10"	F5
18' < 26'	10"	G3.5
26'-40'	12"	G3.5

7. Wall lengths exceeding 6'-0" require two layers of reinforcing (See Table B) with 2" of cover from the horizontal bars to the inside and outside faces for each layer.
8. Wall lengths exceeding the dimensions or depths shown in Table B, or 12'-0" diameter require a special design.
9. Wall thickness and reinforcing for rectangular structures is based on the longer wall length.
10. Reinforcing schedules with larger areas of steel may be substituted for schedules with smaller bar or wire spacing, except that Schedule B10 may not be substituted for Schedule A6. See Index 201, Sheet 4 for allowable bar spacing adjustments when larger areas of reinforcing are substituted.

LAST REVISION 11/01/16	REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	STRUCTURE BOTTOMS TYPE J AND P	INDEX NO. 200	SHEET NO. 4 of 5

DRAWING: STANDARD DETAILS
DMC JOB NO. 16-095-07
DRAWN AR | CAD C3D | SHEET NO. C-18
CHECKED NC | SCALE AS SHOWN
APPROVED SK | DATE 09-06-2017

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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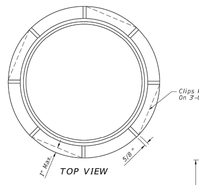
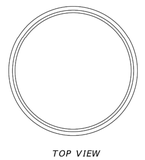


TOP VIEW



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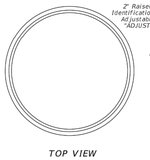

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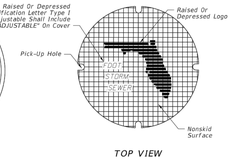

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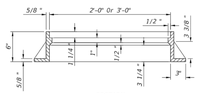
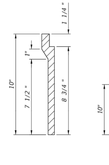


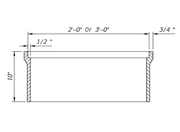
SECTION

For Manholes

TYPE I



WALL SECTION



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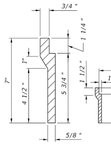
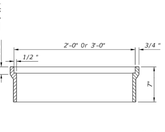


WALL SECTION



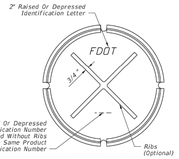
SECTION

For Curb Inlets Types 1, 2, 3, & 4

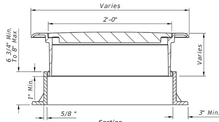
TYPE II

For Curb Inlets Types 7 & 8

TYPE III



BOTTOM VIEW



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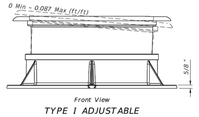


Front View

TYPE I ADJUSTABLE

WEIGHT OF CASTINGS (lb)						
Frame Type	2' OPENING		3' OPENING			
	Frame	Cover (Std.)	Frame	2-Piece Cover		
				Inside	Outside	Total
I *	155	190	220	190	220	410
II	145	190	255	190	220	410
III	90	190	180	190	220	410

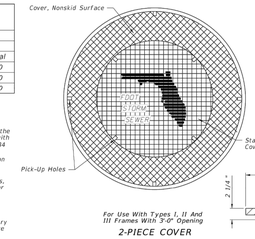
* Includes Type 1 Adjustable

NOTES (FRAMES, AND COVER)

1. The standard cover is to be used for all frames Types I, II, III and the 2-piece cover, and is the replacement cover for all previous frames with 1½" deep seats (traffic type). The 185 lb. cover (nontraffic type), 1984 Roadway and Traffic Design Standards Index No. 201, is the replacement cover for existing frames with ½" deep seats. Installation of frame with ½" deep seats is not permitted.
2. Use the 2'-0" cover, unless the 2-piece cover is called for in the plans, except at inlets and manholes with sump bottoms use the 2-piece cover when the sump depth exceeds 2', unless otherwise noted.

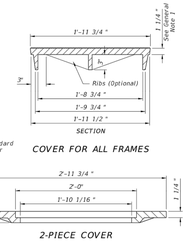
DESIGNER NOTE:

Consider using the 2-piece cover where depths exceed 5' and manual entry may be required for cleaning. Clearly note the requirement for a 2-piece cover, on the Drainage Structure sheets in the plans.



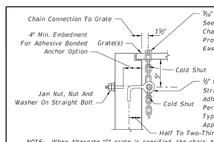
For Use With Types I, II And III Frames With 3'-0" Opening

2-PIECE COVER



SECTION

COVER FOR ALL FRAMES

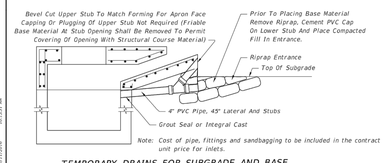


NOTE: When Alternate "O" grate is specified, the chain, bolt, nuts, washer and cold shuts shall be galvanized in accordance with Section 425 of the Standard Specifications.

Cost of eyebolt and chain to be included in the contract unit price for inlets.

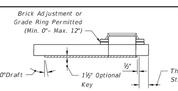
EYEBOLT AND CHAIN REQUIREMENTS				
Index Number	Inlet Type	Eye-Bolts	Length Of Chain	Handling & Remarks
217	(MB) 1	1	4'-0"	Slide & Spin
	(MB) 2	1	4'-0"	Slide & Spin
	(MB) 3	2	2 @ 4'-0"	Slide & Spin
	(MB) 4	2	2 @ 4'-0"	Slide & Spin
	(MB) 5	2	2 @ 4'-0"	Slide & Spin
218	(BW)	1	3'-8"	Slide Or Slide & Spin
219	(BW, RGD)	1	4'-0"	Slide & Spin
220	S	1	4'-0"	Slide & Spin
221	V	1	4'-0"	Slide & Spin
230	A	1	3'-0"	Slide
231	B	1	5'-0"	Slide & Spin
232	C	1	2'-6"	Slide & Spin
	D	1	2'-6"	Slide & Spin
	E	2	2 @ 2'-6"	Slide & Spin
	H	2	2 @ 2'-6"	Flip Ctr. Grate and Slide & Spin Single Free Grate
		1 or 2 @ 1'-6"		Ctr. Grate(s) Chained To One End Grate
233	F	1	3'-6"	Flip Or Slide & Spin
	G	1	6'-0"	Slide
			2'-0"	Lifting Loop
234	J	1	4'-0"	Slide & Spin

EYEBOLT AND CHAIN FOR LOCKING GRATES TO INLETS



Note: Cost of pipe, fittings and sandbagging to be included in the contract unit price for inlets.

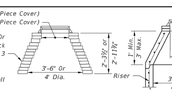
TEMPORARY DRAINS FOR SUBGRADE AND BASE



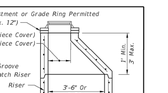
SECTION

Note: See Slab Designs Index No. 200.

TYPE 7



BRICK OR CONCRETE PRECAST CONCENTRIC CONE



PRECAST ECCENTRIC CONE

TYPE 8

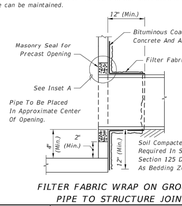
MANHOLE TOPS

NOTES (TOPS)

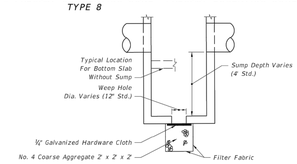
1. Manhole top Type 7 slabs shall be of Class II concrete. Concrete as specified in ASTM C478 may be used for precast units; see General Note No. 3.
2. Manhole top Type 7 slabs may be of cast-in-place or precast construction. The optional key is for precast tops and in lieu of dowels. Frame and slab openings are to be omitted when top is used over a junction box.
3. Manhole top Type 8 may be of cast-in-place or precast concrete construction or brick construction. For concrete construction, the concrete and steel reinforcement shall be the same as the supporting wall unit. An eccentric cone may be used.
4. Manhole tops shall be secured to structures by optional construction joints as shown on Sheet 3.
5. Frames can be adjusted a maximum 12" height with brick or precast ASTM C478 grade rings.
6. Substitution of manhole top Type 8 for manhole top Type 7 is allowed provided that minimum dimensions shown above are not reduced.
7. Substitution of Manhole top Type 7 for Type 8 is allowed if the minimum thickness (h) above pipe opening cannot be maintained with manhole top Type 8.

DESIGN NOTES

1. Manhole top Type 8 should be specified in the plans when depths shown above can be maintained.

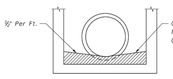


FILTER FABRIC WRAP ON GROUTED PIPE TO STRUCTURE JOINT



NOTE: Sump bottom appropriate for all manhole and inlet types. Sumps are to be constructed in inlet and manholes connected to French Drains unless excluded in the plans. At other locations, sump is to be constructed only where called for in the plans. Weep holes to be constructed in sump bottom only where called for in the plans. Cost of sump bottom and weep hole to be included in the contract unit price for inlet or manhole.

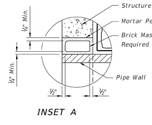
SUMP BOTTOM



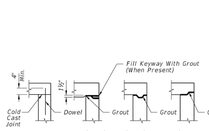
FOR ALL STRUCTURES UNLESS EXCLUDED BY SPECIAL DETAIL

ALL PIPE TYPES

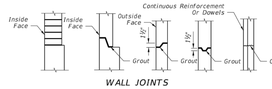
DRAINAGE STRUCTURE INVERT



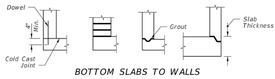
INSET A



TOP SLABS TO WALLS



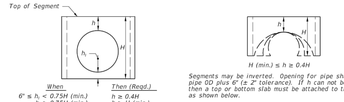
WALL JOINTS



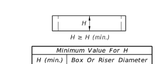
BOTTOM SLABS TO WALLS

1. One or more types of joints may be used in a single structure, except brick wall structure. Brick wall construction is permitted on circular units only.
2. All grouted joints are to have a maximum thickness of 1".
3. Keyways are to be a minimum of 1½" deep.
4. Joint dowels are to be #4 bars, 12" long with a minimum of 6 bars per joint approximately evenly spaced for circular structures or at maximum 12" spacing for rectangular structures. Bars may be either Adhesive Bonded Dowels in accordance with Specification Section 416, or placed approximately 6" into fresh concrete leaving the remainder to extend into the secondary cast. Welded wire reinforcement may be substituted for the dowel bar in accordance with the equivalent steel area table on Sheet 1.
5. Minimum cover on dowel reinforcing bars is 2" to outside face of structure.
6. Joints between wall segments and between wall segments and top or bottom slabs may be sealed either by preformed plastic gasket material using the procedures given in Section 430 of the Specifications or by non-shrink grout, in accordance with Section 934 of the Specifications.
7. Insert products approved by the Engineer may be used in lieu of dowel embedment.

OPTIONAL CONSTRUCTION JOINTS

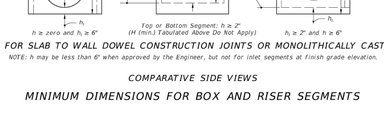


Segments may be inverted. Opening for pipe shall be the pipe OD plus 6" (± 2" tolerance). If h can not be attained, then a top or bottom slab must be attached to the segment as shown below.



Minimum Value for H	
H (min.)	Box Or Riser Diameter
1'-0"	3'-0" & 4'-0"
1'-6"	5'-0" & 6'-0"
2'-0"	>6'-0"

SEPARATE RISER SEGMENTS WITH CONSTRUCTION JOINTS OTHER THAN DOWEL OPTION

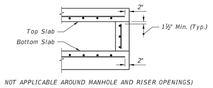


SEGMENTS FOR SLAB TO WALL DOWEL CONSTRUCTION JOINTS OR MONOLITHICALLY CAST SEGMENTS

NOTE: h may be less than 6" when approved by the Engineer, but not for inlet segments at finish grade elevation.

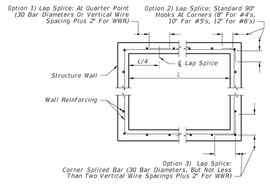
COMPARATIVE SIDE VIEWS

MINIMUM DIMENSIONS FOR BOX AND RISER SEGMENTS



(NOTE: NOT APPLICABLE AROUND MANHOLE AND RISER OPENINGS)

REBAR STRAIGHT END EMBEDMENT FOR TOP AND BOTTOM SLABS



WALL REINFORCING SPLICE DETAILS

EXAMPLE TABLE OF EQUIVALENT STEEL AREA								
SCHEDULE	GRADE 60 REINFORCING BAR		EQUIVALENT GRADE 40 REINFORCING BAR		EQUIVALENT 65 KSI SMOOTH WELDED WIRE REINFORCEMENT		EQUIVALENT 70 KSI DEFORMED WELDED WIRE REINFORCEMENT	
	Bar Size & Spacing	Steel Area (in²/ft)	Bar Size & Spacing	Min. Steel Area (in²/ft)	Style Designation	Min. Steel Area (in²/ft)	Style Designation	Min. Steel Area (in²/ft)
A	#3 @ 6½" Ctrs. #4 @ 12" Ctrs.	0.20	#3 @ 4½" Ctrs. #4 @ 8" Ctrs. #5 @ 12" Ctrs.	0.30	3"x3"-W4.6xW4.6 4"x4"-W6.2xW6.2 6"x6"-W9.2xW9.2	0.1846	3"x3"-D4.3xD4.3 4"x4"-D5.7xD5.7 6"x6"-D8.6xD8.6	0.1714
B	#3 @ 5½" Ctrs. #4 @ 10" Ctrs.	0.24	#3 @ 3½" Ctrs. #4 @ 6½" Ctrs. #5 @ 10" Ctrs.	0.36	3"x3"-W5.5xW5.5 4"x4"-W7.4xW7.4 6"x6"-W11.1xW11.1	0.2215	3"x3"-D5.1xD5.1 4"x4"-D6.9xD6.9 6"x6"-D10.3xD10.3	0.2057
Special 1	#3 @ 5" Ctrs. #4 @ 9" Ctrs.	0.267	#3 @ 3" Ctrs. #4 @ 6" Ctrs. #5 @ 9" Ctrs.	0.40	3"x3"-W6.2xW6.2 4"x4"-W8.2xW8.2 6"x6"-W12.3xW12.3	0.2465	3"x3"-D5.7xD5.7 4"x4"-D7.6xD7.6 6"x6"-D11.4xD11.4	0.2289
C	#3 @ 3½" Ctrs. #4 @ 6½" Ctrs. #5 @ 10" Ctrs.	0.37	#4 @ 4" Ctrs. #5 @ 6½" Ctrs. #6 @ 9½" Ctrs.	0.555	3"x3"-W8.5xW8.5 4"x4"-W11.4xW11.4 6"x6"-W17.1xW17.1	0.3415	3"x3"-D7.9xD7.9 4"x4"-D10.6xD10.6 6"x6"-D15.9xD15.9	0.3171
D	#4 @ 4½" Ctrs. #5 @ 7" Ctrs. #6 @ 10" Ctrs.	0.53	#4 @ 3" Ctrs. #5 @ 4½" Ctrs. #6 @ 6½" Ctrs.	0.795	3"x3"-W12.2xW12.2 4"x4"-W16.3xW16.3 6"x6"-W24.5xW24.5	0.4892	3"x3"-D11.4xD11.4 4"x4"-D15.1xD15.1 6"x6"-D22.7xD22.7	0.4543
E	#4 @ 3" Ctrs. #5 @ 5" Ctrs. #6 @ 7" Ctrs.	0.73	#5 @ 3½" Ctrs. #6 @ 4½" Ctrs. #7 @ 6½" Ctrs.	1.095	3"x3"-W16.8xW16.8 4"x4"-W22.5xW22.5 6"x6"-W33.7xW33.7	0.6738	3"x3"-D15.6xD15.6 4"x4"-D20.9xD20.9 6"x6"-D31.3xD31.3	0.6257
F	#5 @ 3½" Ctrs. #6 @ 5" Ctrs. #7 @ 7" Ctrs.	1.06	#6 @ 3" Ctrs. #7 @ 4½" Ctrs. #8 @ 6" Ctrs.	1.59	3"x3"-W24.5xW24.5 4"x4"-W32.6xW32.6 6"x6"-W48.9xW48.9	0.9785	3"x3"-D22.7xD22.7 4"x4"-D30.3xD30.3 6"x6"-D45.4xD45.4	0.9086
Special 2	#5 @ 3" Ctrs. #6 @ 4" Ctrs. #7 @ 5½" Ctrs.	1.24	#7 @ 4" Ctrs. #8 @ 5" Ctrs.	1.86	3"x3"-W28.6xW28.6 4"x4"-W38.2xW38.2 6"x6"-W57.2xW57.2	1.1446	3"x3"-D26.6xD26.6 4"x4"-D35.4xD35.4 6"x6"-D53.1xD53.1	1.0629
G	#6 @ 3½" Ctrs. #7 @ 5" Ctrs.	1.46	#7 @ 3" Ctrs. #8 @ 4" Ctrs.	2.19	3"x3"-W33.7xW33.7 4"x4"-W44.9xW44.9	1.3477	3"x3"-D31.3xD31.3 4"x4"-D41.7xD41.7	1.2514

GENERAL NOTES

1. For square or rectangular precast drainage structures, using either deformed or smooth WWR meeting the requirements of Specification Section 931, WWR shall be continuous around the box and lapped in accordance with Option 1 or 3 as shown in the Wall Reinforcing Splice Details.
2. Horizontal steel in the walls of rectangular structures shall be lap spliced in accordance with Option 1, 2 or 3 as shown in the Wall Reinforcing Splice Details.
3. Welding of splices and laps is permitted. The requirements and restrictions placed on welding in AASHTO M259 shall apply.
4. Rebar straight end embedment of per/lateral reinforcement may be used in lieu of ACI standard hooks for top and bottom slabs except when hooks are specifically called for in the plans or standard drawings.
5. Concrete as specified in ASTM C478, (4000 psi) may be used in lieu of Class II concrete in precast items manufactured in plants which meet the requirements in accordance with Specification Section 449.
6. Precast opening for pipe shall be the pipe OD plus 6" (± 2" tolerance). Mortar used to seal the pipe into the opening will be of such a mix that shrinkage will not cause leakage into or out of the structure. Dry-pack mortar may be used in lieu of brick and mortar construction to seal openings less than 2½" wide.
7. For pay item purposes, the height used to determine if a drainage structure is greater than 10 feet shall be computed using:
   A. the elevation of the top of the manhole lid,
   B. the grate elevation or the theoretical gutter grade elevation of an inlet, or
   C. the outside top elevation of a junction box less the flow line elevation of the lowest pipe or to top of sump floor.

NOTES FOR PRECAST OPTIONS AND EQUIVALENT REINFORCEMENT SUBSTITUTION

1. Details for optional precast inlet construction up to depths of 15' are shown on the inlet indexes.
2. When precast units are used in conjunction with Alt. "B" Structure Bottoms, Index No. 200, the interior dimensions of an Alt. "B" Bottom can be adjusted to reflect these inlet interior dimensions.
3. Concrete which meets the requirements of ASTM C478 or Class IV must be used for precast structures constructed with 6" wall or slab thickness.
4. Reinforcement can be either deformed bar reinforcement or welded wire reinforcement. Bar reinforcement other than 60 ksi may be used, however only two grades are recognized; Grade 40 and Grade 60. Smooth welded wire reinforcement, will be recognized as having a design strength of 65 ksi and deformed welded wire reinforcement will be recognized as having a design strength of 70 ksi. The area of reinforcement required may be adjusted in accordance with the Equivalent Steel Area Table provided. For bars and spacings not given, the steel area required can be determined by the following equations:

   Grade 40 Steel Area = $A_s40 = \frac{60}{40} \times A_s60$

   Smooth Welded Wire Reinforcement Steel Area = $A_s65 = \frac{60}{65} \times A_s60$

   Deformed Welded Wire Reinforcement Steel Area = $A_s70 = \frac{60}{70} \times A_s60$

   When a reduced area of reinforcement is provided, any maximum bar spacing shown must also be reduced as determined by the following equations, unless otherwise shown:

   Max. Grade 40 Bar Spacing = Grade 60 Bar Spacing
   Max. Smooth Welded Wire Spacing = Grade 60 Bar Spacing x 0.86
   Max. Deformed Welded Wire Spacing = Grade 60 Bar Spacing x 0.74

   When an increased area of reinforcing is provided, then the maximum bar spacing may be increased by the squared ratio of increased steel area, but not to exceed 12":

   Max. Bar Spacing Provided ≤ Max. Bar Spacing Required x $\left(\frac{\text{Steel Area Provided}}{\text{Min. Steel Area Required}}\right)^2$

   In no case will reinforcement with wires smaller than W3.1 or D4.0, or spacings greater than 8" be permitted. Bar reinforcement shall show the minimum yield designation grade mark or either the number 60 or one (1) grade mark line to be acceptable at the higher value. Maximum bar spacing shall not be greater than two (2) times the slab thickness with a maximum spacing of 12" or three (3) times the wall thickness, with a maximum spacing of 18" for vertical bars and 12" for horizontal bars. Wires smaller than W3.1 or D4.0 are permitted in the walls of ASTM C 478 round structure bottoms and round risers.
5. Fiber-reinforced concrete may be substituted for conventional steel reinforcement in accordance with the Structures Design Guidelines. Shop drawings corresponding to an approved fiber-reinforced concrete mix design must be submitted for approval to the State Drainage Engineer.

DRAWING: STANDARD DETAILS			
DMC JOB NO. 16-095-07	DRAWN AR	CAD C3D	SHEET NO. C-19
	CHECKED NC	SCALE AS SHOWN	
	APPROVED SK	DATE 09-06-2017	

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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DIMENSIONS AND QUANTITIES

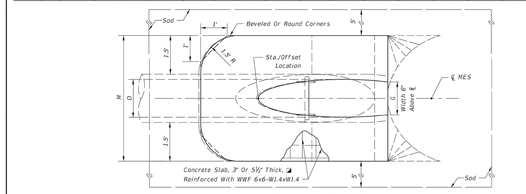
	D	X	A	B	C	E	F	G	H ■	M Single Pipe	M Double Pipe	M Triple Pipe	M Quad. Pipe	N	5½" CONCRETE SLAB (CY) ◪ Single Pipe	5½" CONCRETE SLAB (CY) ◪ Double Pipe	5½" CONCRETE SLAB (CY) ◪ Triple Pipe	5½" CONCRETE SLAB (CY) ◪ Quad.	SODDING (SY) Single Pipe	SODDING (SY) Double Pipe	SODDING (SY) Triple Pipe	SODDING (SY) Quad. Pipe
1:2 Slope	15"	2'-7"	1.92	2.18	4.10	2.06'	5'	1.22	2.9'	4.63	7.21	9.79	12.37	1.19'	0.38	0.58	0.77	0.96	21	24	27	30
	18"	2'-10"	1.97	2.74	4.71'	2.56'	6'	1.41	3.4'	4.92	7.75	10.58	13.42	1.21'	0.44	0.65	0.87	1.09	22	25	28	31
	24"	3'-5"	2.06	3.85	5.91'	3.56'	7'	1.73	3.4'	5.50	8.92	12.33	15.75	1.25'	0.54	0.83	1.12	1.42	24	28	32	35
	30"	4'-3"	2.15	4.95	7.10	4.56'	8'	2.00	3.4'	6.08	10.33	14.58	18.83	1.29'	0.66	1.09	1.50	1.91	26	31	35	40
	36"	5'-1"	2.25	6.08'	8.33'	5.56'	9'	2.24	3.4'	6.67	11.75	16.83	21.92	1.33'	0.81	1.38	1.95	2.51	28	34	39	45
	42"	6'-0"	2.34	7.21	9.55'	6.56'	10'	2.45	3.4'	7.25	13.25	19.25	25.25	1.38'	0.97	1.70	2.45	3.19	30	37	43	50
	48"	6'-9"	2.43	8.33	10.76'	7.56'	11'	2.65	3.4'	7.83	14.58	21.33	28.08	1.42'	1.13	2.04	2.93	3.84	32	39	47	54
	54"	7'-8"	2.52	9.44	11.96	8.56'	12'	2.83	3.4'	8.42	16.08	23.75	31.42	1.46'	1.31	2.44	3.58	4.72	34	42	51	59
	60"	8'-6"	2.62	10.56'	13.18'	9.56'	14'	3.00	4.4'	9.00	17.50	26.00	34.50	1.50'	1.51	2.89	4.28	5.68	36	45	55	64
	66"	9'-2"	2.71	11.68'	14.39'	10.56'	15'	3.18	4.4'	9.58	18.75	27.92	37.08	1.54'	1.68	3.25	4.84	6.43	38	48	58	68
	72"	10'-0"	2.80	12.80'	15.60'	11.56'	16'	3.30	4.4'	10.16	20.16	30.16	40.16	1.58'	1.89	3.74	5.59	7.45	40	51	62	73
1:4 Slope	15"	2'-7"	2.27	4.09	6.36'	4.03'	8'	1.22	4.0'	4.63	7.21	9.79	12.37	1.19'	0.57	0.87	1.15	1.44	23	26	29	32
	18"	2'-10"	2.36	5.12	7.48'	5.03'	9'	1.41	4.0'	4.92	7.75	10.58	13.42	1.21'	0.66	0.99	1.31	1.65	25	28	31	35
	24"	3'-5"	2.53	7.18' ◇	9.71'	7.03' △	11'	1.73	4.0'	5.50	8.92	12.33	15.75	1.25'	0.85	1.30	1.75	2.20	28	32	36	40
	30"	4'-3"	2.70'	9.25'	11.95'	9.03'	13'	2.00	4.0'	6.08	10.33	14.58	18.83	1.29'	1.10	1.74	2.39	3.05	31	36	41	46
	36"	5'-1"	2.87'	11.31' ◇	14.18'	11.03' ◇	15'	2.24	4.0'	6.67	11.75	16.83	21.92	1.33'	1.32	2.21	3.08	3.96	34	40	46	52
	42"	6'-0"	3.05'	13.37'	16.42'	13.03'	17'	2.45	4.0'	7.25	13.25	19.25	25.25	1.38'	1.58	2.76	3.91	5.05	38	44	51	58
	48"	6'-9"	3.22	15.43'	18.65'	15.03'	19'	2.65	4.0'	7.83	14.58	21.33	28.08	1.42'	1.85	3.30	4.73	6.17	41	48	56	63
	54"	7'-8"	3.39	17.49'	20.88'	17.03'	21'	2.83	4.0'	8.42	16.08	23.75	31.42	1.46'	2.14	3.95	5.77	7.58	44	52	61	69
	60"	8'-6"	3.56'	19.55'	23.11'	19.03'	23'	3.00	4.0'	9.00	17.50	26.00	34.50	1.50'	2.45	4.66	6.87	9.07	47	56	66	75
	66"	9'-2"	3.73	21.62'	25.35'	21.03'	25'	3.18	4.0'	9.58	18.75	27.92	37.08	1.54'	2.88	5.54	8.18	10.84	49	59	69	80
	72"	10'-0"	3.91'	23.68'	27.59'	23.03'	27'	3.30	4.0'	10.16	20.16	30.16	40.16	1.58'	3.54	6.61	9.87	13.13	52	63	74	85

◪ See General Note No. 5. See Sheet 5 For 3" Slab Quantities

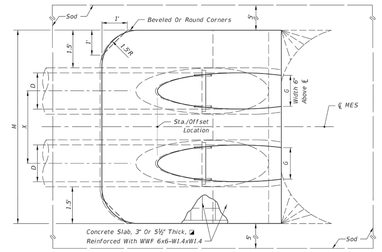
■ Values shown for estimating pipe quantities and are for information only.

B	E	
△ 6.42'	△ 6.29'	Dimensions permitted to allow use of B' standard pipe lengths.
◇ 10.40'	◇ 10.10'	Dimensions permitted to allow use of 12' standard pipe lengths.

△ ◇ Concrete slab shall be deepened to form bridge across crown of pipe. See section below.

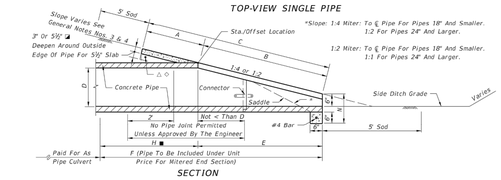


TOP-VIEW SINGLE PIPE



TOP-VIEW MULTIPLE PIPE

NOTE: See sheet 6 for details and notes.



SECTION

SINGLE AND MULTIPLE ROUND CONCRETE PIPE

LAST REVISION	DESCRIPTION:	FDOT	FY 2017-18 DESIGN STANDARDS	CROSS DRAIN MITERED END SECTION	INDEX NO.	SHEET NO.
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QUANTITIES FOR 3" THICK CONCRETE SLABS (CY)

ROUND-CONCRETE

	D	Single Pipe	Double Pipe	Triple Pipe	Quad. Pipe
1:2 Slope	15"	0.27	0.41	0.54	0.67
	18"	0.31	0.45	0.60	0.75
	24"	0.39	0.59	0.79	1.00
	30"	0.46	0.76	1.04	1.32
	36"	0.55	0.94	1.33	1.71
	42"	0.66	1.15	1.66	2.15
	48"	0.76	1.37	1.96	2.57
	54"	0.87	1.62	2.38	3.14
	60"	0.99	1.90	2.81	3.73
	66"	1.11	2.15	3.21	4.27
	72"	1.24	2.46	3.68	4.90
1:4 Slope	15"	0.40	0.61	0.80	1.00
	18"	0.47	0.69	0.91	1.14
	24"	0.60	0.90	1.21	1.52
	30"	0.76	1.19	1.63	2.07
	36"	0.89	1.48	2.05	2.63
	42"	1.05	1.82	2.57	3.34
	48"	1.21	2.15	3.07	4.00
	54"	1.39	2.55	3.72	4.88
	60"	1.59	3.02	4.44	5.86
	66"	1.91	3.66	5.40	7.15
	72"	2.12	4.18	6.24	8.30

ROUND-CMP

	D	Single Pipe	Double Pipe	Triple Pipe	Quad. Pipe
1:2 Slope	15"	0.24	0.37	0.51	0.64
	18"	0.26	0.43	0.61	0.78
	24"	0.32	0.52	0.72	0.91
	30"	0.38	0.64	0.91	1.18
	36"	0.44	0.78	1.13	1.48
	42"	0.51	0.96	1.41	1.87
	48"	0.57	1.09	1.63	2.15
	54"	0.65	1.32	1.99	2.66
	60"	0.71	1.49	2.28	3.07
1:4 Slope	15"	0.31	0.47	0.63	0.79
	18"	0.34	0.53	0.71	0.90
	24"	0.44	0.69	0.92	1.18
	30"	0.53	0.88	1.25	1.60
	36"	0.62	1.07	1.53	2.00
	42"	0.71	1.30	1.92	2.52
	48"	0.80	1.54	2.29	3.02
	54"	0.91	1.83	2.74	3.67
	60"	1.02	2.15	3.27	4.39

CMP-ARCH

	Span	Rise	Single Pipe	Double Pipe	Triple Pipe	Quad. Pipe
1:2 Slope	17"	13"	0.33	0.49	0.65	0.81
	21"	15"	0.33	0.50	0.67	0.83
	28"	20"	0.37	0.56	0.76	0.95
	35"	24"	0.40	0.62	0.84	1.07
	42"	29"	0.43	0.70	0.98	1.25
	49"	33"	0.49	0.82	1.15	1.48
	57"	38"	0.55	0.93	1.35	1.75
	64"	43"	0.62	1.10	1.57	2.05
	71"	47"	0.69	1.24	1.80	2.35
1:4 Slope	17"	13"	0.38	0.56	0.74	0.92
	21"	15"	0.39	0.59	0.80	0.95
	28"	20"	0.43	0.64	0.88	1.10
	35"	24"	0.49	0.77	1.05	1.33
	42"	29"	0.57	0.92	1.27	1.62
	49"	33"	0.65	1.08	1.50	1.93
	57"	38"	0.76	1.30	1.83	2.37
	64"	43"	0.87	1.55	2.18	2.83
	71"	47"	0.95	1.68	2.43	3.17

ELLIPTICAL-CONCRETE

	Rise	Span	Single Pipe	Double Pipe	Triple Pipe	Quad. Pipe
1:2 Slope	12"	18"	0.19	0.33	0.45	0.57
	14"	23"	0.25	0.40	0.55	0.69
	19"	30"	0.34	0.55	0.75	0.95
	24"	38"	0.43	0.71	1.00	1.28
	29"	45"	0.52	0.90	1.27	1.65
	34"	53"	0.62	1.11	1.60	2.09
	38"	60"	0.70	1.29	1.87	2.46
	43"	68"	0.81	1.54	2.26	2.99
	48"	76"	0.93	1.79	2.66	3.53
	53"	83"	1.04	2.04	3.03	4.02
	58"	91"	1.17	2.33	3.49	4.66
1:4 Slope	12"	18"	0.30	0.45	0.61	0.76
	14"	23"	0.36	0.56	0.76	0.95
	19"	30"	0.51	0.79	1.08	1.36
	24"	38"	0.68	1.10	1.53	1.96
	29"	45"	0.86	1.45	2.04	2.63
	34"	53"	1.02	1.81	2.60	3.39
	38"	60"	1.18	2.14	3.10	4.05
	43"	68"	1.38	2.58	3.79	4.99
	48"	76"	1.59	3.05	4.51	5.97
	53"	83"	1.80	3.50	5.19	6.88
	58"	91"	2.04	4.04	6.05	8.05

LAST REVISION	DESCRIPTION:	FDOT	FY 2017-18 DESIGN STANDARDS	CROSS DRAIN MITERED END SECTION	INDEX NO.	SHEET NO.
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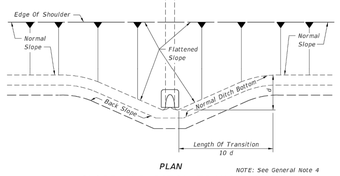


PLAN

NOTE: See General Note 4

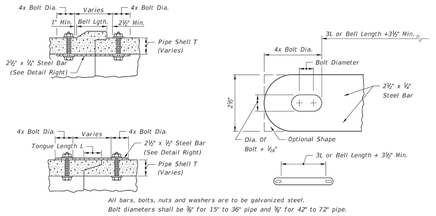
SLOPE AND DITCH TRANSITIONS

GENERAL NOTES

1. Unless otherwise designated in the plans, concrete pipe mitered end sections may be used with any type of side drain pipe; corrugated steel pipe mitered end sections may be used with any type of side drain pipe except aluminum pipe; and, corrugated aluminum mitered end sections may be used with any type of side drain pipe except steel pipe. When bituminous coated metal pipe is specified for side drain pipe, construct the mitered end sections with like pipe or concrete pipe. When the mitered end section pipe is dissimilar to the side drain pipe, construct a concrete jacket in accordance with Index 280.
2. Use either corrugated metal or concrete mitered end sections for corrugated polyethylene pipe (HDPE), polyvinyl-chloride pipe (PVC) and polypropylene pipe (PPP). When used in conjunction with corrugated mitered end sections, make connection using either a formed metal band specifically designated to join HDPE or PVC pipe, with metal pipe or other coupler approved by the State Drainage Engineer. When used in conjunction with a concrete mitered end sections, concrete jacket constructed in accordance with Index 280.
3. Class NS concrete cast-in-place reinforced slabs are required for all sizes of side drain pipes. Unless 3" thickness called for in plans, construct slabs at 5½" thick.
4. Select lengths of concrete pipe that avoid excessive connections in the assembly of the mitered end section.
5. Repair corrugated metal pipe galvanizing that is damaged during beveling and perforating.
6. Prior to placing concrete slab apply a bituminous coating to any portion of corrugated metal pipe in direct contact with concrete. Extend the coating 12" beyond the concrete slab.
7. When existing multiple side drain pipes are spaced other than the dimensions shown in this Index, have nonparallel axes, or non-uniform sections, either construct the mitered end sections separately as single pipe or collectively as multiple pipe end sections as directed by the Engineer.

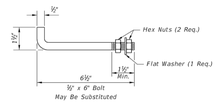
DESIGN NOTES

1. Mitered end sections for pipe sizes 15", 18" and 24" round or equivalent pipe arch or elliptical pipe are permitted within the clear zone. When the slope intersection permits, the mitered end section may be located with the culvert opening as close as 8' beyond the outside edge of the shoulder.
2. Include slope and ditch transitions when the normal roadway slope must be flattened to place end section outside clear zone. See Slope and Ditch Transitions detail.



All bars, bolts, nuts and washers are to be galvanized steel.
Bolt diameters shall be ⅝" for 15" to 36" pipe and ¾" for 42" to 72" pipe.
Two connectors required per joint, located 60" right and left of bottom center of pipe.
Bolt holes in pipe shell are to be drilled.

CONCRETE PIPE CONNECTOR



Anchors required for CMP only.

Anchor, washer and nuts to be galvanized steel.

Bend anchor where required to center in concrete slab. Damaged surfaces to be repaired after bending. Anchors are to be spaced a distance equal to four (4) corrugations. Place the anchors in the outside crest of corrugation.

Flat washers to be placed on inside wall of pipe.

Holes in the mitered end pipe are to be drilled or punched; burning not permitted.

ANCHOR DETAIL

SPECIAL DETAILS AND NOTES

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11/01/16	REVISION				272	6 of 6

DRAWING: STANDARD DETAILS
DMC JOB NO. 16-095-07
DRAWN AR | CAD C3D | SHEET NO. C-20
CHECKED NC | SCALE AS SHOWN
APPROVED SK | DATE 09-06-2017

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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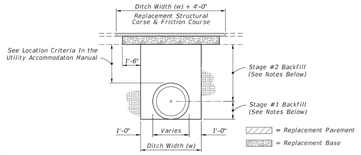

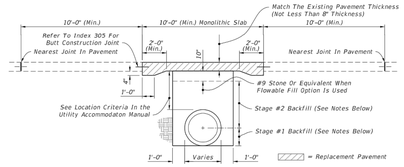

NOTES:

PAVEMENT REMOVAL AND REPLACEMENT

1. Pavement shall be mechanically sawed.
2. The replacement asphalt shall match the existing structural and friction courses for type and thickness in accordance with current FDOT asphalt mix specifications.
3. The new base materials shall be either of the same type and composition as the materials removed or of equal or greater structural adequacy (See Index No. 514).

BACKFILL OPTION

1. COMPACTED AND STABILIZED FILL
   - A. Backfill material shall be placed in accordance with Section 125 of the Standard Specifications.
   - B. In Stage #1, construct compacted fill beneath the haunches of the pipe, using mechanical tamps suitable for this purpose. This compaction applies to the material placed beneath the haunches of the pipe and above any bedding.
   - C. In Stage #2, construct compacted fill along the sides of the pipe and up to the bottom of the base, with the upper 12" receiving Type B Stabilization. In lieu of Type B Stabilization, the Contractor may construct using Optional Base Group 3.
2. FLOWABLE FILL
   - A. If compaction can not be achieved through normal mechanical methods then flowable fill may be used.
   - B. Flowable fill is to be placed in accordance with Section 121 of the Specifications, as approved by the Engineer.
   - C. Do not allow the utility being installed to float. If a method is provided to prevent flotation from occurring, Stages #1 and #2 can be combined, if approved by the Engineer.
   - D. In Stage #1, place flowable fill midway up on both sides of the utility. Allow to harden before placing Stage #2.
   - E. In Stage #2, place flowable fill to the bottom of the existing base course.

FLEXIBLE PAVEMENT CUT

NOTES:

PAVEMENT REMOVAL AND REPLACEMENT

1. High early strength cement concrete (3000 psi) meeting the requirements of Standard Specification 346 shall be used for rigid pavement replacement.
2. Pavement shall be mechanically sawed and restored to conform with existing pavement joints within 12 hours. (See Index 305)

BACKFILL OPTION

1. GRANULAR BACKFILL
   - A. Any edgedrain system that is removed shall be replaced with the same type materials. Any edgedrain system that is damaged shall be repaired with methods approved by the Engineer.
   - B. Fill material shall be placed in accordance with the Standard Specifications. Fill material shall be special select soil in accordance with Index 505.
   - C. In Stage #1, construct compacted fill beneath the haunches of the pipe, using mechanical tamps suitable for this purpose. This compaction applies to the material placed beneath the haunches of the pipe and above any bedding.
   - D. In Stage #2, construct fill along the sides of the pipe and up to the bottom of replacement pavement.
2. FLOWABLE FILL
   - A. If mechanical compaction can not be achieved through normal mechanical methods then flowable fill may be used.
   - B. Flowable fill is to be placed in accordance with Section 121 of the Specifications, as approved by the Engineer.
   - C. Do not allow the utility being installed to float. If a method is provided to prevent flotation from occurring, Stages #1 and #2 can be combined, if approved by the Engineer.
   - D. In Stage #1, place flowable fill midway up on both sides of the utility. Allow to harden before placing Stage #2.
   - E. In Stage #2, place flowable fill to the bottom of the stone layer.

RIGID PAVEMENT CUT

GENERAL NOTES

1. The details provided in this standard index apply to cases in which jack and bore or directional boring methods are not required by the Engineer.
2. Flowable fill shall not be placed directly over loose, or high plastic, or muck material (see Index 505) which will cause settlement due to fill weight. Where highly compressible material exists, the amount, shape and depth of flowable fill must be engineered to prevent pavement settlement.
3. These details do not apply to utility cuts longitudinal to the centerline of the roadway which may require the additional use of geotextiles, special bedding and backfill, or other special requirements.
4. Method of construction must be approved by the Engineer.
5. Some pipe may require special granular backfill up to 6" above top of pipe. Geotextiles may be required to encapsulate the special granular material.
6. Where asphalt concrete overlays exist over full slab concrete pavement, the replacement pavement shall have an overlay constructed over the replacement slab. The overlay shall match the existing asphalt pavement thickness. The replacement friction course shall match the existing friction course, except structural course may be used in lieu of dense graded friction course.
7. All shoulder pavement, curb, curb and gutter, and their substructure disturbed by utility trench cut construction shall be restored in kind.
8. The use of flowable fill to reduce the time traffic is taken off a facility is acceptable but must have prior approval by the Engineer. Flowable fill use is allowed only when properly engineered for pavement crossings, whether straight or diagonal, and shall not be installed for significant depths or lengths. The maximum length shall be fifty (50) feet and a maximum depth of six (6) feet unless supported by an engineering document prepared by a registered professional engineer that specializes in soils engineering. The engineering document shall address the evaluation of local groundwater flow interruption and settlement potential.
9. Excavatable flowable fill is to be used when the flowable fill option is selected.

TRENCH CUTS AND RESTORATIONS ACROSS ROADWAYS

LAST REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	MISCELLANEOUS UTILITY DETAILS	INDEX NO.	SHEET NO.
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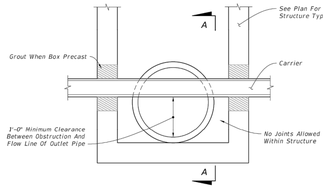
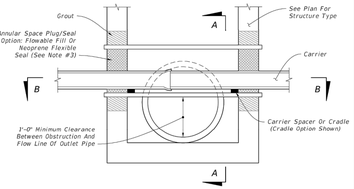


SECTION LONGITUDINAL TO CARRIER PIPE



SECTION LONGITUDINAL TO CARRIER PIPE

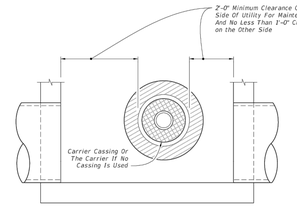
NOTES:

1. These details are for construction field expediency to resolve utility conflicts that cannot be remedied by relocation. For conflicts determined during design, use the construction shop drawings for structure details.
2. Concrete used in conflict structures shall be as specified in ASTM C478. 4000 psi may be used in lieu of Class I concrete.
3. Maximum opening for pipe shall be the pipe OD plus 6". Mortar used to seal the pipe into the opening will be of such mix that shrinkage will not cause leakage into or out of the structure.
4. If the conflict structure is round or there are multiple inlet or outlet pipes, then the wall section should be reviewed for strength.
5. If during construction or the plans design process it is determined that a potable water supply line must pass though a storm drain structure, it must be in compliance with Chapter 62-555.314 (3) F.A.C. and shown on the design or construction plans and submitted to the Florida Department of Environmental Protection (FDEP) Administrator For Drinking Water in the respective FDEP District for review and comment. This index and rule citation provide accepted methods for addressing conflicts when and where they cannot be reasonably avoided. To be submitted along with the plans shall be a justification describing inordinate cost and the impracticality of avoidance. If identified, properly justified, and accomplished in accordance with this index, approval is granted. Upon request, the Utility Agency Owner (UAO) must provide support data on the cost of relocation or adjustment to the FDOT for submittal to the FDEP. See the following web site for District FDEP Drinking Water Contacts: www.dep.state.fl.us/water/drinkingwater/index.htm and click on "Organization" on the menu to the right.

DESIGNER'S NOTES:

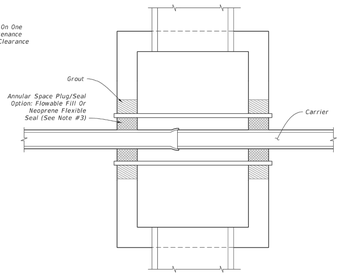
"Sumped" conflict manholes shall not be sued unless the system is hydraulically designed to account for the headloss generated if the sump is completley blocked

UTILITY CONFLICT CONDITION I
(Nonpresure Or Nonfluid Carrier Installations)



SECTION A-A

UTILITY CONFLICT CONDITION II
(Presure Or Fluid Carrier Installations)



SECTION B-B

UTILITY CONFLICT PIPES THRU STORM DRAIN STRUCTURES

LAST REVISION	DESCRIPTION:	FDOT FY 2017-18 DESIGN STANDARDS	MISCELLANEOUS UTILITY DETAILS	INDEX NO.	SHEET NO.
11/01/16	REVISION			307	2 of 3

DRAWING: STANDARD DETAILS
DMC JOB NO. 16-095-07
DRAWN AR | CAD C3D | SHEET NO. C-21
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APPROVED SK | DATE 09-08-2017

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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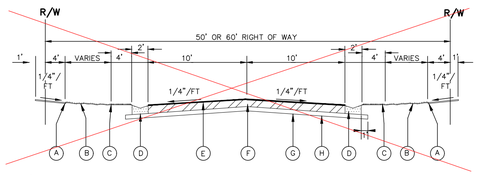


- (A) 4'-0" WIDE CONCRETE SIDEWALK
  4" THICK, 3000 P.S.I.
  6" THICK AT DRIVEWAY
  3" MINIMUM ABOVE TOP OF CURB
- (B) SOD or SEED AND MULCH PER F.D.O.T. STANDARD SPECIFICATION SECTION 570 OR 575, AS APPLICABLE.
- (C) 4' WIDE AREA WITH MAXIMUM SLOPE OF 1" PER 4 FT.
- (D) CONCRETE MIAMI CURB, 3000 P.S.I. (SEE DETAIL R-9)
- (E) ASPHALT PAVEMENT:
  1-1/4" ASPHALT BITUMINOUS CONCRETE TYPE S-III; MINIMUM MARSHALL FIELD STABILITY 1500, COMPACTED TO 98% DENSITY PER FM 1-T238 (METHOD B), NUCLEAR DENSITY TEST, "BACK SCATTER METHOD".
- (F) BASE:
  6" SOIL CEMENT BASE FOR RESIDENTIAL MINIMUM BEARING STRENGTH OF 350 P.S.I. SHALL BE OBTAINED WITHIN 7 DAYS COMPACTED TO 98% DENSITY BASED ON AASHTO T-99 STANDARD PROCTOR TEST; CONSTRUCTION METHODS SHALL CONFORM TO SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
  ALTERNATE:
  6" LIMEROCK BASE (LBR 100) OR RECYCLED CONCRETE BASE (LBR 130) FOR RESIDENTIAL COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
- (G) SUB-BASE:
  6" SUB-BASE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.
- (H) SUBGRADE:
  12" SUBGRADE COMPACTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST WITH MINIMUM LBR 40.

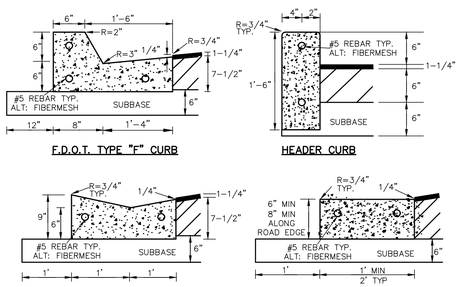
*SEE SHEET C-12 FOR PAVEMENT GRADES AND DIMENSIONS

NOTES:

1. ALL MATERIALS ARE TO BE APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND THE DEVELOPER'S LICENSED SOILS ENGINEER PRIOR TO PLACEMENT.
2. A CITY APPROVED REPRESENTATIVE OF A CERTIFIED SOIL LABORATORY SHALL BE PRESENT DURING ALL CONSTRUCTION PHASES UTILIZING A SOIL CEMENT BASE. THE REPRESENTATIVE SHALL BE CERTIFIED BY F.D.O.T. IN THE INSTALLATION OF SOIL CEMENT.

STANDARD CONSTRUCTION DETAIL
50' or 60' R/W ROAD SECTION

FILE NAME: EW_R1.DWG
DETAIL REF: R-1



NOTES:

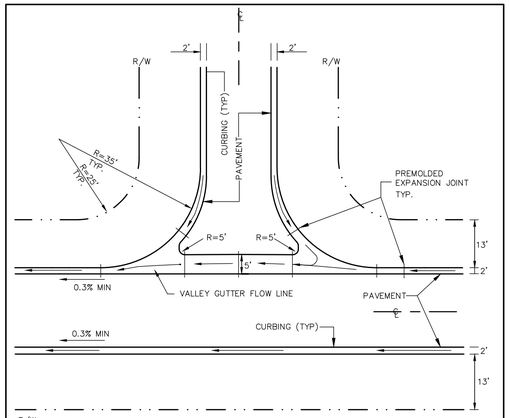
1. ALL CURBS TO BE CONSTRUCTED OF 28 DAY, 3000 P.S.I. CONCRETE REINFORCED W/ #5 REBAR OR FIBERMESH
2. 1/2" PRE-MOLDED EXPANSION JOINT REQUIRED EVERY 500', CONSTRUCTION JOINT REQUIRED EVERY 10' MAXIMUM (4' MINIMUM).
3. 1/2" PRE-MOLDED EXPANSION JOINT REQUIRED AT EACH SIDE OF ALL STORM INLET STRUCTURES AND AT ALL RADIUS POINTS.
4. 6" SUBBASE TO BE COMPACTED AND TESTED TO 98% DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST AND SHALL BE STABILIZED TO A MINIMUM L.B.R. 40.
5. EXPANSION JOINT MATERIAL MUST COVER THE ENTIRE CROSS SECTION OF CURB.
6. IN NO INSTANCE SHALL EXTRUDED CURBS (DEFINED AS HEADER-TYPE CURBS INSTALLED DIRECTLY ON TOP OF PAVEMENT) BE PERMITTED.
7. ALL ASPHALT AND/OR PAVER DRIVEWAY APRONS LOCATED IN PUBLIC RIGHT-OF-WAY, SHALL INCLUDE CURBING

ALL CURBING SHALL BE FIBERMESH CONCRETE:

CONCRETE SHALL BE 3000 PSI AT 28 DAYS. REINFORCE WITH 1.5 LBS. PER CUBIC YARD, FIBERMESH 150 VIRGIN HOMOPOLYMER POLYPROPYLENE MULTIFILAMENT FIBERS CONTAINING NO OLEFIN MATERIALS.

STANDARD CONSTRUCTION DETAIL
STANDARD CURB CONSTRUCTION

FILE NAME: EW_R9.DWG
DETAIL REF: R-9

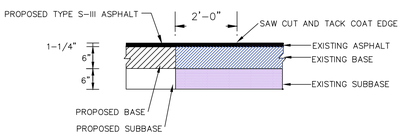


NOTES:

1. VALLEY GUTTER TO HAVE A STANDARD MINIMUM LONGITUDINAL SLOPE OF 0.30%
2. VALLEY GUTTER TO BE CONSTRUCTED OF 28 DAY, 3000 P.S.I. CONCRETE
3. 6" SUBBASE TO BE COMPACTED AND TESTED TO 98% DENSITY WITH MINIMUM L.B.R. 40 BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
4. VALLEY GUTTERS ARE REQUIRED WHEN STORMWATER CROSSES THE INTERSECTION OF ROADWAYS AND DRIVEWAY CONNECTIONS.
5. REFER TO F.D.O.T. STANDARD INDEX No. 300

STANDARD CONSTRUCTION DETAIL
ROADWAY INTERSECTION VALLEY GUTTER

FILE NAME: EW_R10.DWG
DETAIL REF: R-10



STANDARD CONSTRUCTION DETAIL
PAVEMENT BUTT JOINT

FILE NAME: EW_R11.DWG
DETAIL REF: R-11

ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES

ALL MATERIALS AND INSTALLATION METHODS USED FOR LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS FOR SUBDIVISIONS AND SITE PLANS SHALL BE IN CONFORMANCE WITH THE CITY, FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS (LATEST EDITION).

1. ALL RIGHT-OF-WAY OTHER THAN ROADWAY AREAS SHALL BE SODDED. ALL SLOPES STEEPER THAN 6:1 SHALL REQUIRE SODDING. THE CITY RESERVES THE RIGHT TO REQUIRE SODDING IN SPECIAL AREAS WHERE EROSION IS A CONCERN.
2. THE FOLLOWING WILL BE THE STANDARD PROTECTION FOR DITCHES UNLESS DRAINAGE CALCULATIONS INDICATE OTHERWISE:

SWALE PROFILE GRADES	PROTECTION REQUIRED
0.2%- 1.0%	GRASSING AND MULCHING
1.01%-4.0%	SODDING
4.0% AND GREATER	DITCH PAVING

3. THE PAVEMENT, BASE, AND SUBBASE THICKNESS PRESENTED ON DETAILS REPRESENTS THE MINIMUM REQUIREMENTS FOR LOCAL PUBLIC STREETS AND PRIVATE PARKING LOTS. THE CITY RESERVES THE RIGHT AT IT'S DISCRETION TO INCREASE THESE REQUIREMENTS FOR COLLECTOR AND ARTERIAL ROADWAYS AND PRIVATE PARKING LOTS SUBJECTED TO HEAVY VEHICULAR COMMERCIAL TRAFFIC.
4. THE DEVELOPER SHALL PROVIDE AT THEIR OWN EXPENSE A CERTIFIED SOILS ENGINEERING LABORATORY TO PERFORM ALL FIELD AND LABORATORY TESTING REQUIRED TO VERIFY THAT THE CONSTRUCTION IS IN COMPLIANCE WITH THE CITY'S MINIMUM STANDARDS. IT IS THE RESPONSIBILITY OF THE DEVELOPER TO ENSURE THAT COPIES OF ALL TEST REPORTS ARE PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR PRIOR TO THE PROJECT FINAL INSPECTION IN ORDER TO ALLOW PROJECT ACCEPTANCE BY THE CITY.
5. THE LIMITS OF STABILIZED SUBBASE SHALL EXTEND TO A DEPTH OF SIX INCHES (6") BELOW THE BOTTOM OF THE BASE AND OUTWARD TO TWELVE INCHES (12") BEYOND THE CURB.
6. THE STABILIZING MATERIAL, IF REQUIRED, SHOULD BE A HIGH BEARING VALUE SOIL, SAND-CLAY, LIMEROCK, RECYCLED CONCRETE, SHELL, OR OTHER MATERIAL AS APPROVED BY THE CITY'S DESIGNATED SITE INSPECTOR AND A LICENSED SOILS ENGINEER.
7. THE SUBBASE SHALL BE STABILIZED NOT LESS THAN FORTY (40) POUNDS LIMEROCK BEARING RATIO (LBR) TO A 6" MINIMUM DEPTH. A COMPACTION OF NO LESS THAN NINETY-EIGHT (98%) PERCENT DENSITY BASED ON AASHTO T-180 SHALL BE REQUIRED.
8. FOR ROADWAYS, TESTS FOR SUBBASE BEARING CAPACITY AND COMPACTION SHALL BE DONE AT A MINIMUM OF EVERY 300 FEET AND SHALL BE STAGGERED TO THE LEFT, RIGHT, AND AT CENTER LINE OF THE ROADWAY. FOR SITE PLANS, TEST SHALL BE PERFORMED FOR EVERY 600 SQUARE YARDS OF STABILIZED AREA, OR PORTIONS THEREOF.
9. BASES FOR ALL STREETS SHALL HAVE A MINIMUM SIX INCH (6") DEPTH. SOIL CEMENT BASES SHALL HAVE A STRENGTH OF 350 POUNDS PER SQUARE INCH AT 7 DAYS COMPACTED TO 98% DENSITY PER AASHTO T-99 STANDARD PROCTOR TEST IN CONFORMANCE WITH SECTION 270 OF STANDARD F.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION). RECYCLED CONCRETE OR LIMEROCK BASES SHALL BE COMPACTED TO 98% MAXIMUM DENSITY BASED ON AASHTO T-180 MODIFIED PROCTOR TEST.
9. ROADWAY DEFINITIONS
   a. ARTERIALS: PROVIDE REGIONAL MOBILITY VIA BOTH UNINTERRUPTED FLOW AND INTERRUPTED FLOW SEGMENTS. ARTERIALS PROVIDE MOBILITY AROUND AND THROUGH URBAN AND COMMUNITY CORES, AND ACCOMMODATE RELATIVELY LONG TRIP LENGTHS AS OPPOSED TO PROVIDING ACCESS TO ADJACENT PROPERTIES. ARTERIAL ROADS ARE U.S. #1 AND S.R. #442
   b. COLLECTORS: PROVIDE FOR MOVEMENT BETWEEN LOCAL STREETS AND THE ARTERIAL NETWORK. COLLECTORS SERVE RESIDENTIAL, COMMERCIAL AND INDUSTRIAL AREAS.
   c. LOCAL ROADS: PROVIDE DIRECT ACCESS TO ABUTTING PROPERTIES. LOCAL ROADS ACCOMMODATE TRAFFIC ORIGINATING IN OR TRAVELING TO PROPERTIES WITHIN A NEIGHBORHOOD, COMMERCIAL OR INDUSTRIAL DEVELOPMENT. LOCAL ROADS ARE NOT CONSIDERED PART OF THE MAJOR THOROUGHFARE SYSTEM.

STANDARD CONSTRUCTION DETAIL
ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES

FILE NAME: EW_R12.DWG
DETAIL REF: R-12

ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES (CONTD.)

10. SOIL CEMENT AND RECYCLED CONCRETE MIX DESIGNS SHALL BE SUBMITTED BY A LICENSED SOILS ENGINEER TO THE CITY'S DESIGNATED SITE INSPECTOR PRIOR TO THE START OF SUBBASE PREPARATION. ALL MIX DESIGNS SHALL BE SUBJECT TO THE APPROVAL OF THE CITY.
11. CEMENT DELIVERY TICKETS SHALL BE PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR AT THE TIME OF PLACEMENT. IF THE INSPECTOR IS NOT ON SITE THROUGHOUT THE ENTIRE INSTALLATION, ACCUMULATED DELIVERY TICKETS CAN BE PROVIDED TO THE INSPECTOR BY THE CONTRACTOR ON THE FOLLOWING DAY.
12. TESTING OF THE IN-PLACE BASE SHALL BE DONE AT INTERVALS EQUIVALENT TO SUBGRADE TESTING AND SHALL CONSIST OF, AS A MINIMUM, A MOISTURE CONTENT AND COMPACTION TEST.
13. PORTLAND CEMENT CONCRETE, LIMEROCK, RECYCLED CONCRETE, OR FULL DEPTH ASPHALT PAVEMENT MAY BE USED IN PLACE OF SOIL CEMENT BASE. ALL BASE AND ROADWAY DESIGNS SHALL BE SUBJECT TO THE APPROVAL OF THE CITY.
14. SOIL CEMENT BASE MATERIAL CONSTRUCTION SHALL BE CONTINUOUSLY SUPERVISED BY A SOILS TESTING LABORATORY AT THE DEVELOPER'S EXPENSE. THE TESTING LABORATORY SHALL PROVIDE AN ON-SITE TECHNICIAN CERTIFIED IN THE INSTALLATION OF SOIL CEMENT WITH THE CERTIFICATION RECOGNIZED BY F.D.O.T.
15. SOIL CEMENT PAVEMENT BASES WITH THE CURE COAT APPLIED SHALL BE ALLOWED TO CURE A MINIMUM OF SEVEN (7) DAYS UNDER NO TRAFFIC PRIOR TO PLACING ANY ASPHALT SURFACE. (TEST REPORTS ARE REQUIRED TO BE DELIVERED TO THE CITY'S DESIGNATED SITE INSPECTOR PRIOR TO TRAFFIC USAGE.)
16. RECYCLED CONCRETE CAN BE USED AS AN ALTERNATIVE BASE MATERIAL PROVIDED THE MATERIAL IS A MINIMUM OF 60% CARBONATE OF CALCIUM AND MAGNESIUM. THE MATERIAL SHALL BE LIMITED TO MAXIMUM OF 3% OF WATER SENSITIVE CLAY MATERIAL, LIQUID LIMIT SHALL NOT EXCEED 35 AND BE NON-PLASTIC, AND THE PLASTICITY INDEX SHALL NOT EXCEED 10. THE MATERIAL SHALL NOT CONTAIN ORGANIC MATERIAL, CHERTY OR OTHER EXTREMELY HARD PIECES, LUMPS, BALLS OR POCKETS OF SAND SIZE MATERIAL OF A QUANTITY AS TO BE DETRIMENTAL TO THE PROPER BONDING, FINISHING, OR STRENGTH OF THE RECYCLED CONCRETE BASE. FOR BASE APPLICATIONS, AT LEAST 97% (BY WEIGHT) OF THE MATERIAL SHALL PASS A 1" SIEVE AND FOR SUBBASE APPLICATIONS, AT LEAST 97 % (BY WEIGHT) OF THE MATERIAL SHALL PASS A 1-1/2" SIEVE. FOR BOTH APPLICATIONS, THE MATERIAL SHALL BE GRADED UNIFORMLY DOWN TO DUST AND THE MINIMUM LBR VALUES ARE TO BE NOT LESS THAN 130. COARSE AGGREGATE USED IN THE RECYCLED CONCRETE SHALL HAVE A MAXIMUM LOSS OF 45 % PER LOS ANGELES ABRASION TEST. ALL MATERIALS SHALL BE WELL GRADED IN ACCORDANCE WITH REQUIREMENTS SET FORTH IN SECTION 204, F.D.O.T., STANDARD SPEC. FOR ROAD AND BRIDGE CONSTRUCTION., (LATEST EDITION).
17. RECYCLED CONCRETE OR LIMEROCK FOR BASE OR SUBBASE APPLICATIONS SHALL BE ALLOWED ON CITY ROADWAYS ONLY WHERE THE LOWEST ELEVATION OF THE ROADWAY SUBBASE IS A MINIMUM OF 6" ABOVE THE SEASONAL HIGH GROUNDWATER TABLE AS CERTIFIED BY A FLORIDA LICENSED PROFESSIONAL SOILS ENGINEER AND SUBSEQUENTLY APPROVED FOR BY THE CITY. IN AREAS NOT MEETING THESE STANDARDS A SOIL CEMENT BASE WILL BE REQUIRED. ALL CRUSHING OF RECYCLED CONCRETE SHALL BE DONE PRIOR TO THE MATERIAL BEING PLACED IN THE ROADWAY. TESTING SHALL HAVE THE SAME REQUIREMENTS AND BE PERFORMED AT THE SAME LOCATION AND INTERVALS AS REQUIRED FOR LIMEROCK.

STANDARD CONSTRUCTION DETAIL
ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES

FILE NAME: EW_R13.DWG
DETAIL REF: R-13

ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES (CONTD.)

18. DESIGN MIXES AND PRODUCT GRADATION INFORMATION FOR ALL MATERIALS TO BE INSTALLED AS PART OF THE LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS SHALL BE SUBMITTED TO THE CITY'S DESIGNATED SITE INSPECTOR FOR ACCEPTANCE BY THE CITY. THE INFORMATION SHALL BE SUBMITTED NO LESS THAN THREE (3) WORKING DAYS PRIOR TO ANY CONSTRUCTION. SUBMITTALS SHALL INCLUDE, BUT NOT BE LIMITED TO, INFORMATION TO EVALUATE THE MATERIALS PROPOSED FOR INSTALLATION AS SUBBASE, BASE, AND PAVEMENT FOR ALL ROADWAY AND PARKING AREA SURFACES AS WELL AS SIMILAR INFORMATION FOR ALL OTHER CONCRETE SIDEWALKS, CURBING, AND COMPARABLE STRUCTURES AND APPLICATIONS.
19. PRIOR TO PLACEMENT FLORIDA STATE CERTIFIED BATCH PLANTS MUST CERTIFY TO THE CITY'S RESIDENT PROJECT INSPECTOR THAT THE ASPHALT DELIVERED TO THE SITE IS IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
20. EXTRACTION AND GRADATION TESTS ON ASPHALT MIXES SHALL BE PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR FOR EVERY 2500 SQUARE YARDS OF ASPHALT, OR PART THEREOF, TO ENSURE THAT DESIGN MIXES MEET THE CITY STANDARD SPECIFICATIONS.
21. FIELD TESTING OF THE ASPHALT PAVEMENT SHALL BE DONE AT INTERVALS EQUIVALENT TO SUBGRADE TESTING AND SHALL CONSIST OF, AS A MINIMUM, A COMPACTION TEST. ASPHALT PAVEMENT SHALL BE COMPACTED TO 98% DENSITY PER FM 1-T238 (METHOD B), NUCLEAR DENSITY TEST, "BACKSCATTER METHOD".
22. IN ADDITION TO THE FIELD DENSITY TESTS NOTED, THE CITY RESERVES THE RIGHT TO REQUIRE CORE SAMPLES OF PAVEMENT SECTIONS EXTRACTED AND TESTED BY A CERTIFIED SOILS ENGINEERING LABORATORY AT THE DEVELOPER'S EXPENSE. THE CITY'S DESIGNATED SITE INSPECTOR SHALL DESIGNATE THE LOCATIONS OF THE TEST CORE LOCATIONS.
23. THE ROADWAY CROWN SHALL HAVE A STANDARD ONE QUARTER INCH (1/4") PER FOOT SLOPE.
24. ALL ROADWAYS WITH CURB AND GUTTER SECTIONS SHALL HAVE AS A STANDARD A MINIMUM LONGITUDINAL SLOPE OF 0.30%. THE ROADWAY CENTERLINE SHALL BE CLEARLY MARKED ON THE DESIGN PLANS. AT A MINIMUM, DESIGN ROADWAY CENTERLINE ELEVATIONS SHALL BE NOTED AT ALL GRADE CHANGES AND AT 100' INTERVALS ALONG THE ROADWAY PROFILE ON BOTH THE DESIGN PLANS AND AS-BUILT DRAWINGS.
25. THE FINISHED PAVEMENT EDGE SHALL BE WITHIN ONE QUARTER INCH (1/4") ABOVE THE ADJACENT CONCRETE CURB FOR CURBS COLLECTING AND CONVEYING STORMWATER.
26. CONCRETE CURBS SHALL BE PROVIDED ON BOTH SIDES OF ALL STREETS AND ALL CONCRETE CURBS SHALL BE CONSTRUCTED WITH 3000 P.S.I. CONCRETE AT 28 DAYS.

STANDARD CONSTRUCTION DETAIL
ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES

FILE NAME: EW_R14.DWG
DETAIL REF: R-14

ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES (CONTD.)

27. CONCRETE CURBING, SIDEWALKS, PAVEMENT AND SIMILAR CONCRETE AREAS SHALL BE SAW CUT WITHIN 4 TO 18 HOURS OF PLACEMENT. SAW CUTS SHALL BE 1/4" IN WIDTH TO A DEPTH OF 1/4 OF THE TOTAL DEPTH OF CONCRETE OR 1-1/2", WHICHEVER IS LESS. SAW CUTS SHALL BE LOCATED AT INTERVALS OF TEN FEET (10') WITH EXPANSION JOINTS AT STREET INTERSECTIONS, RADIUS POINTS, STRUCTURES, AND ALONG CURVES AT SIXTY FEET (60') INTERVALS. ALL EXPANSION JOINT MATERIAL IS REQUIRED TO BE INSTALLED THROUGH THE ENTIRE DEPTH OF THE CONCRETE CURB. FOR LINEAL SECTIONS OF CURBS, EXPANSION JOINTS SHALL BE LOCATED AT A MAXIMUM SPACING OF FIVE-HUNDRED FEET (500') AND SHALL BE 1/2" IN WIDTH.
28. AN "X" SHALL BE CUT IN THE CURB TO MARK THE LOCATION OF WATER DISTRIBUTION SYSTEM VALVE.
29. A "V" SHALL BE CUT IN THE CURB TO MARK THE LOCATION OF ALL SEWER SERVICES.
30. A "L" SHALL BE CUT IN THE CURB TO MARK THE LOCATION OF ALL RECLAIMED WATER SERVICES.
31. A " ^ " SHALL BE CUT IN THE CURB TO MARK THE LOCATION OF ALL POTABLE WATER SERVICES.
32. BLUE REFLECTORS SHALL BE PLACED IN THE MIDDLE OF THE DRIVING LANE ON THE SIDE OF THE ROADWAY AND IN FRONT OF WHERE FIRE HYDRANTS ARE LOCATED.
33. THREE (3) CONCRETE CYLINDERS SHALL BE TAKEN AND TESTED (1 IN 14 DAYS AND 1 IN 28 DAYS) FOR EVERY SEVENTY-FIVE (75) CUBIC YARDS OF CONCRETE OR LESS PLACED. TEST RESULTS SHALL THEN BE PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR AS THEY BECOME AVAILABLE.
34. A CONCRETE SLUMP TEST SHALL BE REQUIRED WITHIN THE FIRST 30 CUBIC YARDS OF CONCRETE. THEREAFTER, SLUMP TESTS SHALL BE REQUIRED FOR EVERY THIRTY (30) CUBIC YARDS OF CONCRETE, OR FRACTION THEREOF, WITH COPIES OF THE RESULTS PROVIDED TO THE CITY'S DESIGNATED SITE INSPECTOR. THE SLUMP TEST SHALL MEET THE REQUIRED MIX DESIGN ON EACH LOAD DELIVERED.
35. THE DEVELOPER SHALL PROVIDE ALL REQUIRED PAVEMENT MARKINGS ON ALL ROADWAYS PER CITY, COUNTY, AND STATE REQUIREMENTS. CENTERLINE STRIPES SHALL BE PROVIDED ON EXTENSIONS OF CITY COLLECTOR OR ARTERIAL ROADS, COUNTY ROADS, STATE HIGHWAYS, AND ALONG LOCAL STREETS IN THE VICINITY OF THEIR INTERSECTION WITH THE ABOVE MENTIONED ROADWAYS.
36. A FDOT APPROVED STOP SIGN AND A 24"-WIDE WHITE THERMOPLASTIC STOP BAR ARE REQUIRED AT ALL ROADWAY INTERSECTIONS.
37. ALL TRAFFIC CONTROL DEVICES PLACED AT INTERSECTIONS, PRIVATE STREETS, PUBLIC STREETS, COUNTY ROADS, AND STATE HIGHWAYS WITHIN THE CITY LIMITS SHALL BE INSTALLED ACCORDING TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. THE MAINTENANCE-OF-TRAFFIC (MOT) INSTALLATION AND SUBSEQUENT OPERATION SHALL BE OVERSEEN BY A CONTRACTOR CERTIFIED BY THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION, OR EQUIVALENT CERTIFICATION RECOGNIZED BY FDOT.

STANDARD CONSTRUCTION DETAIL
ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES

FILE NAME: EW_R15.DWG
DETAIL REF: R-15

DRAWING: STANDARD DETAILS
DMC JOB NO. 16-095-07
SHEET NO. C-22
DRAWN AR | CAD C3D | SCALE AS SHOWN
CHECKED NC | APPROVED SK | DATE 09-06-2017

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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Drawing Name: C:\Users\Arama\appdata\local\temp\AcPublish_7672\Whistle Stop Park Planset Revised.dwg By: ARama Tab: RD DETAILS 22 9/12/2017

ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES (CONTD.)

38. THE DEVELOPER IS RESPONSIBLE FOR PAYING FEES FOR TRAFFIC CONTROL DEVICES TO THE CITY FOR INSTALLATION. STREET SIGNS AND STOP SIGNS SHALL BE PLACED AT ALL INTERSECTIONS, INCLUDING BUT NOT LIMITED TO PRIVATE STREETS, PUBLIC STREETS, COUNTY ROADS, AND STATE HIGHWAYS WITHIN THE CITY LIMITS.

39. THE DEVELOPER IS RESPONSIBLE FOR PAYING FEES FOR ALL STREET LIGHTS PRIOR TO ACCEPTANCE OF THE PROJECT BY THE CITY.

40. FOUR FOOT (4') WIDE SIDEWALKS SHALL BE PROVIDED ON BOTH SIDES OF ALL RESIDENTIAL STREETS. (SEE DETAIL, INDEXES M–2 AND M–3)

41. BIKE PATHS SHALL BE CONSTRUCTED AT A MINIMUM OF SIX–FOOT WIDTH, PREFERABLY EIGHT–FOOT WIDTH AS DIRECTED BY THE CITY IN ACCORDANCE WITH THE BICYCLE AND PEDESTRIAN TRAIL MASTER PLAN.

42. STANDARD TURNING RADII FOR INTERSECTIONS:

RESIDENTIAL STREETS WITH STATE & COUNTY ROADWAYS OR MAJOR THOROUGHFARES WITHIN THE CITY	35–50 FT.
ENTRANCES TO COMMERCIAL SITES OFF OF CITY STREETS	35 FT.
INTERSECTIONS INTERIOR IN SUBDIVISIONS	35 FT.

SHOULD VOLUSIA COUNTY OR THE FLORIDA DEPARTMENT OF TRANSPORTATION (F.D.O.T.) DETERMINE THAT LARGER RADII ARE WARRANTED WITHIN THEIR RIGHT–OF–WAY, THE LARGER RADII SHALL PREVAIL.

43. CONSTRUCTION METHODS AND DESIGN FOR CONCRETE PAVEMENT SHALL CONFORM TO FDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

44. ALL CONTRACTORS THAT ARE PERFORMING THE CONSTRUCTION OF LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS (INCLUDING WATER MAINS, SANITARY SEWER MAINS, RECLAIMED WATER MAINS, STORM WATER PIPES AND INLETS, ROADWAYS, AND PARKING FACILITIES) SHALL BE CERTIFIED WITH THE STATE OF FLORIDA BOARD OF PROFESSIONAL REGULATIONS (BPR) FOR THE TYPE OF WORK THAT THEY PERFORM.

45. ALL CONTRACTORS THAT ARE PERFORMING THE CONSTRUCTION WORK OF LAND DEVELOPMENT CODE REQUIRED IMPROVEMENTS SHALL BE LICENSED BY THE STATE OF FLORIDA AND REGISTERED WITH THE CITY. THE LICENSE AND REGISTRATION SHALL PERTAIN DIRECTLY TO THE TYPE OF WORK BEING PERFORMED.

46. EXCEPT AS PROVIDED IN THE LAND DEVELOPMENT CODE, ALL ELECTRIC, TELEPHONE, TELEVISION LINES AND SIMILAR UTILITIES ARE REQUIRED TO BE INSTALLED UNDERGROUND AT THE EXPENSE OF THE OWNER, DEVELOPER, AND BUILDER.

STANDARD CONSTRUCTION DETAIL
ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES

FILE NAME: EW_R16.DWG
DETAIL REF: R–16

ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES (CONTD.)

47. UTILITY DEPTH:
   A. HIGH VOLTAGE UTILITIES SUCH AS POWER (FEEDER, SERVICE, AND DROPS) SHALL BE BURIED A MINIMUM OF 30 INCHES IN DEPTH.
   B. LOW VOLTAGE UTILITIES SUCH AS PHONE AND CABLE TV SHALL BE BURIED A MINIMUM OF 24 INCHES IN DEPTH FOR FEEDER AND SERVICES. SERVICE DROPS SHALL BE BURIED A MINIMUM OF 18 INCHES IN DEPTH.
   C. IN NO INSTANCE SHALL THE DEPTH OF COVER BE LESS THAN 30" FROM FINISHED GRADE TO THE TOP OF PIPE FOR POTABLE WATER MAINS, SANITARY SEWER MAINS, AND RECLAIMED WATER MAINS. HOWEVER, IN THE EVENT THAT THIS CONDITION CANNOT BE MET DUE TO UNANTICIPATED CONFLICTS DURING THE CONSTRUCTION PROCESS, DUCTILE IRON PRESSURE CLASS 350 OR CONCRETE ENCASEMENT MAY BE USED AS APPROVED BY THE CITY PUBLIC UTILITIES DEPARTMENT.

48. LANDSCAPE PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF UNDERGROUND AND OVERHEAD PUBLIC UTILITIES AND STORMWATER INFRASTRUCTURE IN ORDER TO EVALUATE POTENTIAL CONFLICTS.

STANDARD CONSTRUCTION DETAIL
ROADWAY AND PARKING AREA DESIGN AND CONSTRUCTION NOTES

FILE NAME: EW_R17.DWG
DETAIL REF: R–17

TECHNICAL SPECIFICATIONS FOR SITE PLANS AND SUBDIVISIONS TESTING

A. MATERIALS

THE INSPECTION AND TESTING OF MATERIALS AND FINISHED ARTICLES TO BE INCORPORATED IN THE WORK SHALL BE MADE BY BUREAUS, LABORATORIES, OR AGENCIES APPROVED BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL SUBMIT SUCH SAMPLES, OR SUCH SPECIAL OR TEST PIECES OF MATERIALS AS THE ENGINEER OF RECORD MAY REQUIRE. THE CONTRACTOR SHALL NOT INCORPORATE ANY MATERIAL OR FINISHED ARTICLE INTO THE WORK UNTIL THE RESULTS OF THE INSPECTIONS OR TESTS ARE KNOWN AND THE CONTRACTOR HAS BEEN NOTIFIED BY THE ENGINEER OF RECORD THAT THE MATERIAL OR FINISHED ARTICLE IS ACCEPTED. ALL MATERIALS MUST BE OF THE SPECIFIED QUALITY AND BE EQUAL TO THE APPROVED SAMPLE IF A SAMPLE HAS BEEN SUBMITTED. CERTIFIED COPIES OF ALL TESTS MADE SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AS WELL AS TO THE CITY'S DESIGNATED SITE INSPECTOR. THE CITY'S DESIGNATED SITE INSPECTOR MUST RECEIVE COPIES OF ALL TESTING REPORTS AND CERTIFICATES PRIOR TO THE ENGINEER OF RECORD REQUESTING A FINAL PROJECT INSPECTION FROM THE CITY.

B. LABORATORY CONTROL AND CERTIFICATES

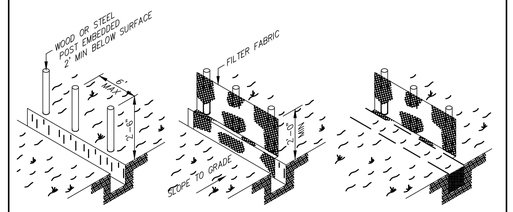
1. **SPECIFICATIONS** . SAMPLING, TESTING, AND LABORATORY METHODS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE AASHTO OR ASTM. WHERE AASHTO OR ASTM SPECIFICATIONS ARE USED, THE REFERENCE SHALL BE CONSTRUED TO BE THE MOST RECENT STANDARD SPECIFICATIONS OR TENTATIVE SPECIFICATIONS OF THE AASHTO OR ASTM IN FORCE ON THE DATE OF THE TEST.

2. **TEST & CERTIFICATES** . THE CONTRACTOR SHALL ENGAGE AN APPROVED TESTING LABORATORY TO PROVIDE THE FOLLOWING TESTS AND CERTIFICATIONS SIGNED BY A REGISTERED ENGINEER OF THE STATE OF FLORIDA. ALL TECHNICIANS PERFORMING THE TESTS SHALL BE STATE CERTIFIED FOR THE TESTING PERFORMED. ADDTIONAL TESTS THAT MAY BE REQUIRED BY EITHER THE ENGINEER OF RECORD OR THE CITY SHALL ALSO BE PROVIDED BY THE CONTRACTOR, AND THE FOLLOWING SHALL NOT BE TAKEN AS A COMPLETE AND EXHAUSTIVE LIST OF THE CONTRACTOR'S TESTING RESPONSIBILITIES.

   A. SOIL ANALYSIS FOR STRUCTURAL FILL MATERIAL PRIOR TO INSTALLATION.
   B. PROCTOR DENSITIES, MOISTURE CONTENT, COMPACTED FIELD DENSITIES, AND ATTERBERG LIMITS.
   C. SOIL CEMENT MIX DESIGNS AND COMPRESSIVE STRENGTH TESTS (FOR SOIL CEMENT ROAD BASE ONLY).
   D. SUPERVISION OF ALL SOIL CEMENT BASE CONSTRUCTION.
   E. ANALYSIS OF RECYCLED CONCRETE BASE MATERIAL PRIOR TO INSTALLATION.
   F. ASPHALT MIX DESIGN, BITUMEN CONTENT, SIEVE ANALYSIS, HUBBARD FIELD STABILITY TESTS, NUCLEAR DENSITY TESTS (BACKSCATTER METHOD), AND ANALYSIS OF CORE SAMPLES.
   G. CONCRETE MIX DESIGNS FOR ALL APPLICATIONS INCLUDING PAVEMENT, CAST–IN–PLACE STRUCTURES, CURBING, GUTTERS, SIDEWALKS, BIKE PATHS, APRONS AND DRIVEWAYS.
   H. COMPRESSIVE TEST CYLINDERS AND SLUMP TESTS FOR ALL APPLICATIONS OF CONCRETE, INCLUDING PAVEMENT, CAST–IN–PLACE STRUCTURES, CURBING, GUTTERS, SIDEWALKS, BIKE PATHS, APRONS, AND DRIVEWAYS.
   I. CHLORINE RESIDUAL AND BACTERIOLOGICAL TESTING OF WATER MAINS.
   J. PRESSURIZED LEAK TESTING OF WATER MAINS, FORCE MAINS, AND RECLAIMED WATER MAINS.

STANDARD CONSTRUCTION DETAIL
TECHNICAL SPECIFICATIONS FOR SITE PLANS AND SUBDIVISIONS TESTING

FILE NAME: EW_R18.DWG
DETAIL REF: R–18



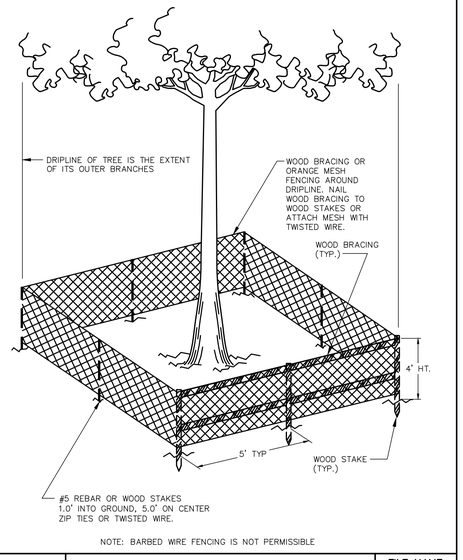
SILT FENCE DETAIL
F.D.O.T. INDEX NO. 102

NOTES:

1. MATERIALS, CONSTRUCTION METHODS AND MAINTENANCE SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND DESIGN STANDARDS CURRENT EDITION.
2. CONTRACTOR SHALL PROVIDE SILT FENCES AND HAY BALES AT ALL STORMWATER DISCHARGE POINTS FOR EROSION CONTROL AND SEDIMENT CONTROL DURING CONST.
3. CONTRACTOR SHALL ROUGH GRADE STORM–WATER SWALES AND RETENTION AREAS PRIOR TO CONSTRUCTION OF SITE IMPROVEMENTS.
4. CONTRACTOR SHALL MEET ALL PERMIT CONDITIONS AS ESTABLISHED BY THE CITY AND ALL OTHER APPLICABLE AGENCIES, INCLUDING BUT NOT LIMITED TO COUNTY, FDOT, AND THE SJRWMD.

STANDARD CONSTRUCTION DETAIL
SILT FENCE TURBIDITY BARRIER

FILE NAME: EW_R22.DWG
DETAIL REF: R–22



NOTE: BARBED WIRE FENCING IS NOT PERMISSIBLE

STANDARD CONSTRUCTION DETAIL
TREE PROTECTION BARRICADE

FILE NAME: EW_R23.DWG
DETAIL REF: R–23

CONTRACTOR REQUIREMENTS FOR SITE CLEARING, GRADING, AND EROSION CONTROL DESIGN AND CONSTRUCTION NOTES

THE FOLLOWING MEASURES REPRESENT MINIMUM STANDARDS TO BE ADHERED TO BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION OF A PROJECT. THE CITY RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO BE EMPLOYED WHEN WARRANTED BY EXTREME CONDITIONS AND/OR THE FAILURE OF THE CONTRACTOR TO EMPLOY THE APPROPRIATE EROSION CONTROL BEST MANAGEMENT PRACTICES. FAILURE TO COMPLY WITH THESE PROVISIONS SHALL RESULT IN THE ISSUANCE OF A "STOP WORK ORDER".

1. NO DISTURBANCE OF PROPOSED CONSERVATION EASEMENTS, NATURAL BUFFERS, OR WATER BODIES IS PERMITTED. THE CONTRACTOR SHALL LOCATE THESE AREAS ON SITE AND BARRICADE THEM TO AVOID ANY UNAUTHORIZED CLEARING. BARRICADES AND OTHER PROTECTIVE FENCING ARE TO BE LOCATED AT THE DRIP LINE OF EXISTING NATIVE TREES OR AT THE EDGE OF THE NATIVE UNDER–STORY HABITAT, WHICHEVER IS NEAREST TO THE CONSTRUCTION ACTIVITY.

2. SPECIMEN AND HISTORIC TREES, CONSERVATION EASEMENTS, NATURAL VEGETATION BUFFERS, AND SIMILAR AREAS MUST BE PROTECTED BY BARRICADES OR FENCING PRIOR TO CLEARING. BARRICADES ARE TO BE SET AT THE DRIP LINE OF THE TREES AND MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. BARBED WIRE IS NOT PERMITTED AS A PROTECTIVE BARRIER.

3. WHERE A CHANGE OF GRADE OCCURS AT THE DRIP LINE OF A SPECIMEN TREE, SILT FENCES WILL BE REQUIRED DURING CONSTRUCTION AND RETAINING WALLS MUST BE INSTALLED PRIOR TO FINAL ACCEPTANCE BY THE CITY.

4. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO HAVE ALL PROTECTIVE VEGETATION BARRICADES AND EROSION CONTROL STRUCTURES AND MEASURES IN PLACE PRIOR TO THE COMMENCEMENT OF ANY EARTHWORK, INCLUDING PRELIMINARY GRUBBING. THESE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, TEMPORARY CONSTRUCTION FENCES, HAY BALES, SILT FENCES, AND FLOATING TURBIDITY BARRIERS. FURTHER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL EROSION CONTROL DEVICES THROUGHOUT THE DURATION OF THE ENTIRE PROJECT. MAINTENANCE SHALL INCLUDE PERIODIC INSPECTION AND REMOVAL OF DEBRIS ABUTTING EROSION CONTROL DEVICES.

5. PRIOR TO THE INSTALLATION OF ANY FILL MATERIALS ON SUBJECT SITE, SILT FENCES SHALL BE INSTALLED (1) ALONG SUBJECT SITE BOUNDARY AND PROPERTY LINES, (2) AT THE EDGE OF CONSERVATION EASEMENTS AND WETLANDS, (3) ADJACENT TO NATURAL LANDSCAPE BUFFERS, (4) AROUND THE PERIMETER OF EXISTING STORM WATER TREATMENT FACILITIES, AND (5) AT ANY ADDITIONAL AREAS THAT THE CITY DEEMS NECESSARY TO BE PROTECTED FROM POTENTIAL EROSION IMPACTS DURING CONSTRUCTION. THESE CONDITIONS SHALL APPLY IN ALL INSTANCES WHERE FILL MATERIAL IS BEING INSTALLED WITHIN 25 FEET OF ANY OF THE AFOREMENTIONED LOCATIONS. WHILE THESE ITEMS REPRESENT THE MINIMUM REQUIREMENTS, THE CITY RESERVES THE RIGHT TO IMPOSE ADDITIONAL PROTECTIVE MEASURES, AS DETERMINED DURING ACTUAL SITE VISITS CONDUCTED AS PART OF THE STANDARD REVIEW OF THE SITE–SPECIFIC CLEARING PERMIT APPLICATION AND THROUGHOUT PROJECT CONSTRUCTION.

6. WHERE FILL MATERIAL IS INTENDED TO BE INSTALLED ADJACENT TO EXISTING VEGETATION WHICH IS INTENDED TO REMAIN NATURAL, THE CONTRACTOR MAY INSTALL SILT FENCING AS A TREE PROTECTION MEASURE, IN LIEU OF INSTALLING EITHER WOOD BRACING OR ORANGE MESH FENCING. THIS PRACTICE IS ENCOURAGED BY THE CITY. IF THE SILT FENCE FAILS TO PROVIDE ADEQUATE PROTECTION FROM IMPACT DUE TO CONSTRUCTION, THEN ADDITIONAL CONSTRUCTION FENCING OR WOOD BRACING SHALL BE REQUIRED.

7. AT A MINIMUM, THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS. SUFFICIENT GRASS COVERAGE IS TO BE ESTABLISHED WITHIN THIRTY DAYS. – DISTURBED AREAS IN CITY RIGHT–OF–WAYS OR CITY PROPERTY SHALL BE SODDED.

8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR THROUGH SCHEDULING, TO MINIMIZE THE DISTURBANCE OF SITE AREAS THAT HAVE BEEN BROUGHT TO THEIR PROPOSED FINAL GRADE. WITHIN TWENTY DAYS OF BRINGING A SUBJECT AREA TO ITS FINAL GRADE, THE CONTRACTOR SHALL INSTALL SEED AND MULCH OR SOD, AS REQUIRED.

STANDARD CONSTRUCTION DETAIL
CONTRACTOR REQUIREMENTS FOR SITE CLEARING, GRADING, AND EROSION CONTROL DESIGN AND CONSTRUCTION NOTES

FILE NAME: EW_R25.DWG
DETAIL REF: R–25

CONTRACTOR REQUIREMENTS FOR SITE CLEARING, GRADING, AND EROSION CONTROL DESIGN AND CONSTRUCTION NOTES (CONTD.)

9. FOR INDIVIDUAL CONSTRUCTION PROJECTS INVOLVING MULTIPLE PHASES, UPON COMPLETION OF EACH PHASE OF THE PROJECT, SEEDING AND MULCHING AND OR/ SODDING IS TO BE PERFORMED PRIOR TO COMMENCING THE NEXT PHASE OF CONSTRUCTION.

10. ONCE AN AREA IS SEEDED OR SODDED, IT MUST BE MAINTAINED BY THE CONTRACTOR TO ALLOW THE GRASS TO BECOME ESTABLISHED.

11. ANY BURNING OF CLEARED MATERIALS MUST BE INSPECTED AND PERMITTED ON A DAILY BASIS. CONTACT THE CITY FIRE MARSHALL AT 424–2412 PRIOR TO EACH DAY OF DESIRED BURNING.

12. ABSOLUTELY NO BURYING OF CLEARED MATERIALS IS PERMITTED.

13. THE REMOVAL OF ALL VEGETATION AND TOPSOIL ON THE FUTURE ROADWAY, PARKING AND BUILDING LOT AREAS IS REQUIRED TO BE COMPLETED PRIOR TO THE PLACEMENT OF FILL ON THOSE AREAS. THE TOPSOIL MAY BE TEMPORARILY STOCKPILED AND USED AS TOPSOIL OVER OVER PROPOSED GREEN AREAS SUCH AS PLANT BEDS, SODDED AREAS, AND WHERE TREES ARE TO BE INSTALLED OR RELOCATED.

14. A SIGNED, DATED, AND SEALED LETTER FROM A SOILS ENGINEER OR THE ENGINEER OF RECORD CERTIFYING THAT THE AREAS TO BE FILLED HAVE BEEN STRIPPED OF ORGANIC MATERIALS, MUST BE SUBMITTED TO THE CITY PRIOR TO FILLING.

15. FILL MATERIAL IS TO BE PLACED IN ONE FOOT LIFTS AND COMPACTED TO THE APPROPRIATE DENSITY (98% FOR PAVED AREAS AND 95% FOR BUILDING PADS AND ALL OTHER AREAS AS PER AASHTO T–180).

16. DURING SUBDIVISION DEVELOPMENT WHEN FUTURE BUILDING LOTS ARE FILLED AS PART OF THE OVERALL SUBDIVISION IMPROVEMENTS, COMPACTION TEST REPORTS MUST BE PERFORMED ON THE BUILDING LOTS AT 300 FOOT INTERVALS. THESE TESTS ARE TO BE PERFORMED IN ONE–FOOT VERTICAL INCREMENTS. THE RESULTS OF THESE TESTS ARE TO BE SUBMITTED TO THE CITY UPON COMPLETION OF THE TESTS.

17. IF ANY MUCK MATERIAL IS DISCOVERED, IT SHALL BE REQUIRED TO BE REMOVED AND REPLACED WITH A SUITABLE MATERIAL THAT IS PROPERLY BACKFILLED, COMPACTED AND TESTED USING AASHTO T–180 MODIFIED PROCTOR METHOD.

18. STOCKPILING IS NOT GENERALLY PERMITTED BY THE CITY. WHEN ALLOWED, STOCKPILES SHALL NOT EXCEED SIX FEET IN HEIGHT MEASURED FROM THE ORIGINAL GRADE. AT A MINIMUM, STOCK PILES THAT WILL REMAIN IN PLACE IN EXCESS OF TWENTY DAYS SHOULD BE SEEDED AND MULCHED IMMEDIATELY UPON PLACEMENT OF THE FINAL LIFT.

19. SOILS ARE TO BE STABILIZED BY WATER OR OTHER MEANS DURING CONSTRUCTION. THIS IS INTENDED TO REDUCE SOIL EROSION AND THE IMPACT TO NEIGHBORING COMMUNITIES. ADEQUATE WATERING METHODS SHOULD BE EMPLOYED TO ALLOW DAILY COVERAGE OF THE ENTIRE LIMITS OF ALL AREAS THAT DO NOT HAVE AN ESTABLISHED VEGETATIVE COVER. METHODS TO BE EMPLOYED INCLUDE, BUT ARE NOT LIMITED TO, WATER TRUCKS, PERMANENT IRRIGATION SYSTEMS, TEMPORARY SPRINKLER SYSTEMS OPERATED BY PUMPING UNITS CONNECTED TO WET RETENTION PONDS, WATER CANNONS, TEMPORARY IRRIGATION SYSTEMS MOUNTED ATOP STOCKPILE AREAS, AND OTHER METHODS AS DEEMED NECESSARY BY THE CITY.

20. ALL FILL MATERIALS LOCATED BENEATH STRUCTURES AND PAVEMENT SHALL CONSIST OF CLEAN GRANULAR SAND FREE FROM ORGANICS AND SIMILAR MATERIAL THAT COULD DECOMPOSE.

21. ALL FILL TO BE PLACED IN LANDSCAPED AREAS SHALL HAVE A Ph RANGE BETWEEN 5.5 AND 7.5, BE ORGANIC IN NATURE, FREE OF ROCKS AND DEBRIS, OR MATCH NATIVE EXISTING SOILS.

STANDARD CONSTRUCTION DETAIL
CONTRACTOR REQUIREMENTS FOR SITE CLEARING, GRADING, AND EROSION CONTROL DESIGN AND CONSTRUCTION NOTES

FILE NAME: EW_R26.DWG
DETAIL REF: R–26

DRAWING: STANDARD DETAILS
DMC JOB NO. 16-095-07
SHEET NO. C-23
DRAWN AR | CAD C3D | SCALE AS SHOWN
CHECKED NC | DATE 09-06-2017
APPROVED SK

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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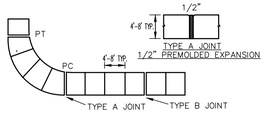
Drawing Name: C:\Users\Arama\appdata\local\temp\AcPublish_7672\Whistle Stop Park Planset Revised.dwg By: ARama Tab: RD DETAILS 23 9/12/2017

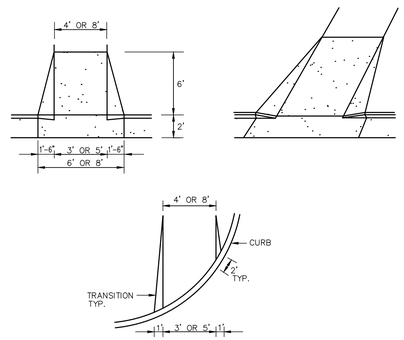


SIDEWALK CONSTRUCTION REQUIREMENTS

1. SIDEWALKS, BIKEPATHS, RAMPS, AND DRIVEWAY APRONS SHALL BE CONSTRUCTED OF PLAIN PORTLAND CEMENT CONCRETE WITH A MAXIMUM SLUMP OF 3 INCHES, A MINIMUM DEVELOPED COMPRESSIVE STRENGTH OF 2500 P.S.I. IN 28 DAYS, AND A MINIMUM UNIFORM THICKNESS OF 4 INCHES WHERE INTENDED SOLELY FOR PEDESTRIAN TRAFFIC, AND 6 INCHES THICK WHERE MOTOR VEHICLES ARE LIKELY TO CROSS.
2. SIDEWALKS AND BIKEPATHS SHALL BE PLACED PARALLEL TO, AND ONE FOOT WITHIN THE RIGHT-OF-WAY LINE EXCEPT THAT THE CITY MAY APPROVE DEVIATIONS TO SAVE SPECIMEN TREES PROVIDED THAT THE SIDEWALK REMAINS WITHIN THE RIGHT-OF-WAY OR AN APPROVED SIDEWALK EASEMENT ABUTTING THE RIGHT OF WAY. SIDEWALKS AND BIKE PATHS SHOULD BE LOCATED AT LEAST 4 FEET FROM THE EDGE OF THE STREET PAVEMENT UNLESS OTHERWISE APPROVED BY THE CITY.
3. THE TOP OF THE CONCRETE SHALL BE AT AN ELEVATION NO LOWER THAN THE CROWN OF THE ADJACENT ROADWAY, AND NO HIGHER THAN 6 INCHES ABOVE THE CROWN UNLESS APPROVED BY THE CITY TO MAKE A MORE NATURAL TRANSITION WITH THE ADJACENT LAND.
4. ISOLATION JOINTS (TYPE A JOINTS) SHALL BE INSTALLED SO END PRODUCT IS FLUSH WITH EXISTING AND NEW CONCRETE AS TO PREVENT TRIP HAZARDS , TO SEPARATE PEDESTRIAN SECTIONS FROM SECTIONS WHICH WILL ENCOUNTER VEHICLE TRAFFIC, TO SEPARATE FRESH PLACEMENT FROM CONCRETE WHICH HAS SET FOR MORE THAN 60 MINUTES, AND NO FARTHER APART THAN 100 FEET IN SIDEWALKS AND BIKEPATHS. JOINT MATERIAL SHALL BE AS SPECIFIED IN F.D.O.T. STANDARDS AND SPECIFICATIONS AND SHALL BE RUBBER, PLASTIC OR OTHER APPROVED NON-BIODEGRADABLE ELASTOMERIC MATERIAL. WOOD AND DECCA-DRAIN STYLE POOL DRAINS ARE STRICTLY PROHIBITED.
5. CONTROL JOINTS (TYPE B JOINTS) SHALL BE TOOLED INTO THE FRESH CONCRETE TO A DEPTH EQUAL TO 1/4 THE SLAB THICKNESS AND SPACED APART A DISTANCE EQUAL TO THE WIDTH OF THE SLAB OR 5 FEET WHICHEVER IS GREATEST.
6. THE SLAB SURFACE SHALL BE BROOM FINISHED TO BE SLIP RESISTANT, AND SHALL MATCH AS CLOSELY AS POSSIBLE THE FINISH OF EXISTING ADJACENT SLABS AND ALL EDGES SHALL BE TOOLED TO ELIMINATE SHARP CORNERS.
7. THE BEARING SUBSURFACE SHALL HAVE ALL ORGANIC, LOOSE, AND DELETERIOUS MATTER REMOVED, AND THE REMAINING CLEAN SOIL SHALL BE SMOOTH, SOUND, AND SOLID. ANY FILL MATERIAL SHALL BE COMPACTED WITH A VIBRATORY OR IMPACT COMPACTION MACHINE IN MAXIMUM 12 INCH LIFTS OR COMPACTED WITH A HAND TAMPER IN MAXIMUM 4 INCH LIFTS THE CITY SHALL REQUIRE A COMPACTION TEST FOR EACH LIFT IF THE TOTAL FILLED SECTION IS MORE THAN 12 INCHES DEEP OR IF THE SUBSURFACE HAS BEEN DISTURBED MORE THAN 12 INCHES DEEP. WHERE SUCH TEST IS REQUIRED, THE RESULTS SHALL SHOW A MINIMUM PROCTOR FIELD DENSITY OF 95 PERCENT.
8. ALL CONCRETE WORK IN THE RIGHT-OF-WAY SHALL BE INSPECTED BY THE CITY AFTER THE SUBSOIL IS PREPARED AND THE FORMS ARE SET, BUT BEFORE THE CONCRETE PLACEMENT BEGINS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE FINISHED SLAB FROM ALL DAMAGE AND VANDALISM UNTIL THE CITY ACCEPTS OR APPROVES THE SLAB, AFTER WHICH TIME THE OWNER OF THE ABUTTING LAND SHALL BE RESPONSIBLE FOR THE SLAB IN ACCORDANCE WITH THE CITY CODE. ANY SLAB SECTION DAMAGED OR VANDALIZED PRIOR TO ACCEPTANCE OR APPROVAL SHALL BE CUT OUT BETWEEN JOINTS AND REPLACED. REPAIRS ARE NOT ACCEPTABLE.
10. SIDEWALKS LOCATED WITHIN THE RIGHT-OF-WAY SHALL NOT BE TINTED, STAINED, COLORED, OR COATED.
11. ALL FORMS SHALL BE REMOVED PRIOR TO ACCEPTANCE OR APPROVAL AND THE DISTURBED GROUND SHALL BE BACKFILLED, REGRADED, AND SODDED SO THAT THE WEAR SURFACE OF THE CONCRETE IS REASONABLY FLUSH WITH THE ADJACENT GRADE.

NOTE: REINFORCE CONCRETE WITH 1.5 LBS. PER CUBIC YARD, FIBERMESH 150 VIRGIN HOMOPOLYMER POLYPROPYLENE MULTIFILAMENT FIBERS CONTAINING NO OLEFIN MATERIALS

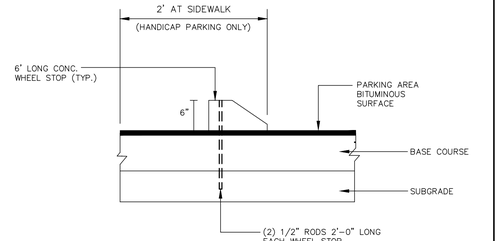
	STANDARD CONSTRUCTION DETAIL SIDEWALK CONSTRUCTION REQUIREMENTS	FILE NAME: EW_M2.DWG DETAIL REF: M-2



NOTES:

1. RAMP LOCATIONS ARE TO BE COORDINATED WITH AND IN COMFORMANCE WITH CROSSWALK MARKING DETAILS SHOWN IN THE PLANS.
2. CURBED RAMPS SHALL HAVE FLARED SIDES WITH A MAXIMUM SLOPE OF 12:1.
3. RAMPS SHALL HAVE A TACTLIKE SURFACE, TEXTURED TO A DEPTH NOT EXCEEDING 1/8".
4. RAMPS ARE TO BE CONSTRUCTED AT ALL LOCATIONS SHOWN IN THE PLANS EVEN WHEN A SIDEWALK IS NOT CONSTRUCTED CONCURRENTLY.
5. NO CURB TRANSITION IS NEEDED FOR MIAMI CURBS.
6. ALL RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FDOT INDEX NO. 304 AND HANDICAPPED ACCESSIBILITY REQUIREMENTS IN ACCORDANCE WITH THE AMERICAN DISABLITIES ACT.

	STANDARD CONSTRUCTION DETAIL SIDEWALK AND BIKEPATH RAMP	FILE NAME: EW_M3.DWG DETAIL REF: M-3



NOTE:

1. CENTER WHEEL STOP IN EACH STALL

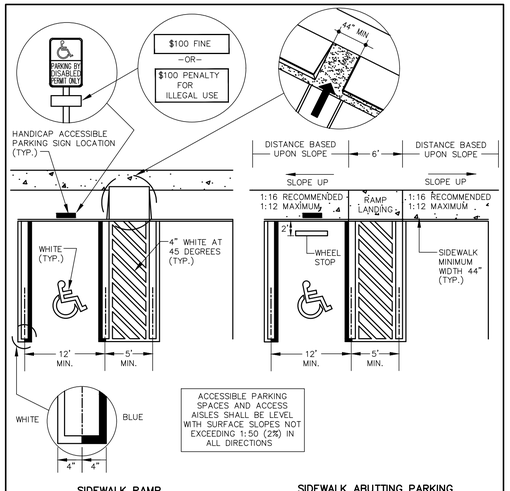
	STANDARD CONSTRUCTION DETAIL CONCRETE WHEELSTOP	FILE NAME: EW_M6.DWG DETAIL REF: M-6

HANDICAP ACCESSIBLE PARKING SPACES SHALL BE PROVIDED IN ACCORDANCE WITH CURRENT FLORIDA STATUTES, INCLUDING THE FOLLOWING DETAILS:

1. ANY COMMERCIAL REAL ESTATE PROPERTY OWNER OFFERING PARKING FOR THE GENERAL PUBLIC SHALL PROVIDE SPECIALLY DESIGNED AND MARKED MOTOR VEHICLE PARKING SPACES FOR THE EXCLUSIVE USE OF PHYSICALLY DISABLED PERSONS WHO HAVE BEEN ISSUED PARKING PERMITS PURSUANT TO STATE LAW.
2. DIAGONAL OR PERPENDICULAR PARKING SPACES SHALL BE A MINIMUM OF 12 FEET WIDE (SEE FIGURE 1).
3. PARALLEL PARKING SPACES SHALL BE LOCATED EITHER AT THE BEGINNING OR END OF A BLOCK OR ADJACENT TO ALLEY ENTRANCES (SEE FIGURE 2). CURBS ADJACENT TO SUCH SPACES SHALL BE OF A HEIGHT WHICH WILL NOT INTERFERE WITH THE OPENING AND CLOSING OF MOTOR VEHICLE DOORS.
4. EACH SUCH PARKING SPACE SHALL BE CONSPICUOUSLY OUTLINED IN BLUE PAINT AND SHALL BE POSTED AND MAINTAINED WITH A PERMANENT, ABOVE-GRADE SIGN BEARING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AND THE CAPTION PARKING BY DISABLED PERMIT ONLY, AND AN ADDITIONAL SIGN STATING THE PENALTY FOR ILLEGAL USE OF THE SPACE (SEE FIGURE 2). SUCH SIGNS SHALL NOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE. ALL HANDICAP ACCESSIBLE PARKING MUST BE SIGNED AND MARKED IN ACCORDANCE WITH THE STANDARDS ADOPTED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION.
5. ALL SPACES SHALL HAVE A SIXTY INCH (60") WIDE ADJACENT ACCESS AISLE (SEE FIGURE 2). PARKING ACCESS AISLES SHALL BE PART OF THE ACCESSIBLE ROUTE TO THE BUILDING OR FACILITY ENTRANCE. TWO ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE. PARKED VEHICLE OVERHANGS SHALL NOT REDUCE THE CLEAR WIDTH OF AN ACCESSIBLE CIRCULATION ROUTE.
6. ALL SPACES SHALL HAVE AN ACCESSIBLE CURB-RAMP OR CURB-CUT TO ALLOW ACCESS TO THE BUILDING SERVED, IT SHALL BE LOCATED SO THAT USERS WILL NOT BE COMPELLED TO WHEEL BEHIND PARKED VEHICLES.
7. THE MINIMUM NUMBER OF SUCH PARKING SPACES SHALL COMPLY WITH THE FOLLOWING TABLE:

TOTAL PARKING IN LOT	REQUIRED NUMBER OF ACCESSIBLE SPACES
UP TO 25	1
26 TO 50	2
51 TO 75	3
76 TO 100	4
101 TO 150	5
151 TO 200	6
201 TO 300	7
301 TO 400	8
401 TO 500	9
501 TO 1000	2% OF TOTAL
OVER 1000	20 PLUS 1 FOR EACH 100 OVER 1000

	STANDARD CONSTRUCTION DETAIL HANDICAP ACCESSIBLE PARKING SPACES	FILE NAME: EW_M8.DWG DETAIL REF: M-8



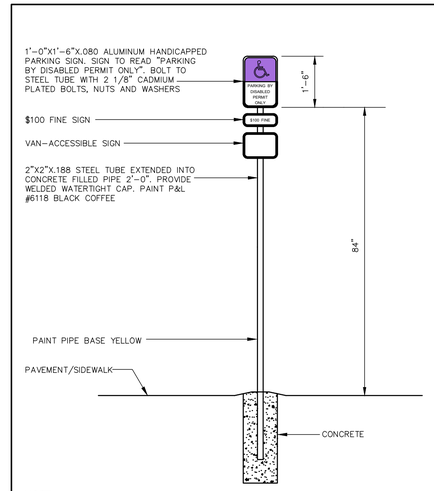
SIDEWALK RAMP DETAIL

SIDEWALK ABUTTING PARKING LOT DETAIL

NOTE:

1. WHEN HEADER CURB IS USED IN LIEU OF WHEEL STOPS, SIDEWALK ABUTTING CURB MUST BE WIDENED BY 18" SO THAT THE TOTAL SIDEWALK WIDTH IS 62", ALLOWING FOR 44" MINIMUM CLEAR ACCESSIBLE ROUTE.
2. FOR COMPLETE DETAIL OF HANDICAPPED SIGN, REFER TO DETAIL M-10.

	STANDARD CONSTRUCTION DETAIL HANDICAP ACCESSIBLE PARKING SPACES	FILE NAME: EW_M9.DWG DETAIL REF: M-9



NOTE:

1. HANDICAPPED PARKING SIGN SHALL CONFORM WITH CURRENT STATE AND LOCAL AND FEDERAL CODES AND REGULATIONS.
2. ALL SIGNS SHALL BE DESIGNED TO WITHSTAND 100 M.P.H. WINDLOAD.

	STANDARD CONSTRUCTION DETAIL HANDICAP SIGN	FILE NAME: EW_M10.DWG DETAIL REF: M-10

REQUIREMENTS FOR AS-BUILT DRAWINGS

IN ORDER TO ENSURE THAT NEW SUBDIVISIONS AND SITE PLANS ARE CONSTRUCTED SUBSTANTIALLY IN ACCORDANCE WITH CITY REGULATIONS AND THE APPROVED DRAWINGS, THE FOLLOWING INFORMATION IS REQUIRED ON ALL SUBDIVISION AS-BUILT DRAWINGS.

1. PAVEMENT AND CURB WIDTHS SHALL BE VERIFIED AND DIMENSIONED FOR EACH STREET AT EACH BLOCK. (FOR SUBDIVISIONS) AND AS APPROPRIATE TO CONFIRM PAVING LIMITS (ON SITE PLANS).
2. ALL RADII AT INTERSECTIONS SHALL BE VERIFIED AND DIMENSIONED. THIS INFORMATION IS TO BE CLEARLY INDICATED ON THE AS-BUILT.
3. ROADWAY ELEVATIONS SHALL BE RECORDED AT ALL GRADE CHANGES, 100' INTERVALS ALONG ROADWAY, AND OTHER INTERVALS AS NEEDED ALONG ALL STREETS. STREET CENTERLINE AND CURB INVERT ELEVATIONS SHALL BE RECORDED AS NOTED. THE AS-BUILT CENTERLINE PROFILE OF ALL STREETS SHALL ALSO BE SHOWN ON THE PLAN AND PROFILE SO IT MAY BE COMPARED TO THE DESIGN PROFILE GRADE LINES. IN THE EVENT THAT THE AS-BUILT CENTERLINE LONGITUDINAL GRADE DOES NOT MEET THE CITY MINIMUM STANDARDS, ADDITIONAL LONGITUDINAL GRADES OF THE ADJACENT CURBING AND SIMILAR ROADWAY CROSS-SECTION SURVEYS TO VERIFY THE CORRECT CROSS SLOPE, SHALL BE REQUIRED TO VERIFY THAT THE SYSTEM WILL FUNCTION AS ORIGINALLY DESIGNED.
4. STORM DRAINAGE STRUCTURES SHALL BE LOCATED AND / OR DIMENSIONED FROM CENTERLINES OR LOT LINES AS APPROPRIATE.
5. STORM DRAINAGE PIPE INVERT AND INLET ELEVATIONS SHALL BE RECORDED AND CLEARLY DENOTED AS AS-BUILT INFORMATION. DESIGN ELEVATIONS SHALL BE CROSSED OUT AND AS-BUILT INFORMATION WRITTEN NEXT TO IT.
6. STORM DRAINAGE PIPE MATERIAL, LENGTH, AND SIZE SHALL BE MEASURED AND / OR VERIFIED. THIS INFORMATION IS TO BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION .
7. ALL APPLICABLE TOPOGRAPHIC INFORMATION PERTINENT TO THE ON-SITE DRAINAGE SYSTEM, SUCH AS DITCHES, SWALES, LAKES, CANALS, ETC. THAT ARE DEEMED NECESSARY BY THE CITY TO VERIFY THE FUNCTIONAL PERFORMANCE OF THE STORMWATER SYSTEM, SHALL BE NOTED. NORMALLY, RECORDING ELEVATIONS EVERY 100 FEET AT THE TOP OF BANK AND TOE OF SLOPE WILL BE REQUIRED. MEASUREMENTS SHALL BE TAKEN AND RECORDED IN ORDER TO ACCURATELY TIE DOWN THESE FEATURES TO THE ROADWAY CENTERLINES AND TO PLAT LINES. WHENEVER POSSIBLE, CONTOUR LINES SHALL BE UTILIZED TO GRAPHICALLY DESCRIBE THESE TOPOGRAPHIC FEATURES .
8. RETENTION AREAS SHALL HAVE THEIR TOP-OF BANK AND BOTTOM ELEVATIONS RECORDED. ACTUAL MEASUREMENTS SHALL BE TAKEN AND DIMENSIONS RECORDED OF THE SIZE OF ALL RETENTION AREAS. MEASUREMENTS SHALL BE DONE FROM TOP-OF-BANK TO TOP-OF-BANK WITH SIDE SLOPES INDICATED. SEPARATE CALCULATIONS SHALL BE SUBMITTED TO INDICATE REQUIRED AND PROVIDED RETENTION VOLUMES.
9. ACTUAL MATERIALS USED AND ELEVATIONS AND DIMENSIONS OF OVERFLOW WEIR STRUCTURES AND SKIMMERS SHALL BE NOTED ON THE AS-BUILT.
10. STORM DRAINAGE SWALE CENTERLINES SHALL BE LOCATED AND ELEVATIONS OF FLOW LINE AND TOP OF BANK SHALL BE RECORDED EVERY 100 FEET. SIDE SLOPES SHALL ALSO BE INDICATED.
11. SANITARY SEWER MANHOLES SHALL BE VERIFIED AND DIMENSIONED FROM STREET CENTERLINES OR LOT LINES AS APPROPRIATE. ALL RIM AND INVERT ELEVATIONS SHALL BE VERIFIED AND RECORDED. THIS INFORMATION SHALL BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION. DESIGN ELEVATIONS SHALL BE CROSSED OUT AND AS-BUILT INFORMATION WRITTEN NEXT TO IT.
12. FOR SUBDIVISIONS, PROPOSED DESIGN FINISHED FLOOR ELEVATIONS SHALL APPEAR ON ALL SUBDIVISION LOTS ON THE APPROPRIATE PLAN AND PROFILE SHEET AS WELL AS ON THE MASTER DRAINAGE PLAN.

	STANDARD CONSTRUCTION DETAIL REQUIREMENTS FOR AS-BUILT DRAWINGS	FILE NAME: EW_M11.DWG DETAIL REF: M-11

REQUIREMENTS FOR AS-BUILT DRAWINGS (CONTD.)

13. SANITARY SEWER LINE LENGTHS, SIZES, MATERIAL, ETC., SHALL BE VERIFIED AND RECORDED. THIS INFORMATION IS TO BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION.
14. SEWER LATERALS SHALL BE VERIFIED AND RECORDED AT THEIR CLEAN-OUT LOCATIONS. STATIONING AND OFFSET DISTANCES SHALL BE MEASURED FROM DOWNSTREAM MANHOLES TOWARDS UPSTREAM MANHOLES.
15. LIFT STATIONS AND FORCE MAINS SHALL BE VERIFIED AND DIMENSIONED FROM STREET CENTERLINES OR LOT LINES AS APPROPRIATE. FORCE MAIN DEPTH AND LOCATION INCLUDING VALVES WILL BE PROVIDED AND TIED TO PERMANENT ABOVE GRADE FEATURES. DIMENSIONAL AND ELEVATION INFORMATION INDICATED ON THE APPROVED PLAN SHALL BE VERIFIED AND RECORDED. THIS INFORMATION SHALL BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION. BURIED ELECTRICAL SERVICE LINE SHALL BE CLEARLY DIMENSIONED, LOCATED, AND LABELED.
16. CURB CUTS OR METAL TABS, USED TO MARK SEWER LATERALS, WATER SERVICES AND WATER VALVES, SHALL BE VERIFIED FOR PRESENCE AND ACCURACY OF LOCATION.
17. POTABLE AND RECLAIMED WATER MAIN LINES SHALL BE DIMENSIONED OFF THE BACK OF CURB, OR EDGE OF PAVEMENT IF NO CURB IS PRESENT. WATER MAIN LINE MATERIAL SIZE, LENGTH AND DEPTH PLACED SHALL ALSO BE NOTED. LOCATIONS OF VALVES SHALL BE TIED TO PERMANENT ABOVE GRADE FEATURES. THIS INFORMATION SHALL BE CLEARLY INDICATED AS BEING AS-BUILT INFORMATION.
18. POTABLE AND RECLAIMED WATER VALVES, TEES, BENDS, ALL SERVICES, AND FIRE HYDRANTS SHALL BE LOCATED BY TYING THEM TO SANITARY SEWER MANHOLES. SIMILARLY, FORCE MAIN VALVES, TEES, AND BENDS SHALL BE LOCATED IN THE SAME MANNER. STATIONING AND OFFSET DISTANCES SHALL BE MEASURED FROM DOWNSTREAM MANHOLES TO UPSTREAM MANHOLES.
19. FOR PERPENDICULAR CROSSINGS OF STORMWATER, SANITARY SEWER, POTABLE WATER, OR RECLAIMED WATER, THE AS-BUILT PLANS SHALL CLEARLY INDICATE WHICH UTILITIES ARE LOCATED OVER OR UNDER OTHER UTILITIES, AS NECESSARY.
20. ANY SPECIAL FEATURES SUCH AS, CONCRETE FLUMES, LAKE BANKS, WALLS, FENCING, ETC., WHICH WERE A PART OF THE APPROVED CONSTRUCTION DRAWINGS SHOULD ALSO BE LOCATED AND DIMENSIONED.
21. IF AN APPROVED SUBDIVISION PLAT OR SITE PLAN SHOWS A CONSERVATION EASEMENT, THE PROJECT SURVEYOR SHOULD PROVIDE THE EXACT LOCATION OF THE SPECIMEN TREE(S) FROM THE RIGHT-OF-WAY OR PROPERTY LINES AND PROPOSED EASEMENT BOUNDARIES ON THE AS-BUILT DRAWING. THE AS-BUILT LOCATION OF THESE TREES WILL HELP VERIFY THE SUFFICIENCY OF THE CONSERVATION EASEMENT PRIOR TO PLAT RECORDING OR CERTIFICATE OF OCCUPANCY.
22. WHEN STORMWATER, POTABLE WATER, RECLAIMED WATER, OR SANITARY SEWER IMPROVEMENTS ARE ARE LOCATED WITHIN AN EASEMENT, THE AS-BUILT DRAWING SHALL ACCURATELY DEPICT THE LOCATION OF THE EASEMENT ITSELF AS WELL AS THE EXACT LOCATION OF THE IMPROVEMENTS WITHIN THE EASEMENT. THIS IS REQUIRED IN ORDER TO VERIFY THAT THE IMPROVEMENTS HAVE BEEN PROPERLY LOCATED AND TO ENSURE THAT FUTURE SUBSURFACE EXCAVATION TO PERFORM REMEDIAL REPAIR CAN BE ACCOMPLISHED WITHOUT DISTURBANCE BEYOND THE EASEMENT.

NOTE:

1. REFERENCES TO WATER SHALL MEAN BOTH POTABLE AND RECLAIMED WATER.

	STANDARD CONSTRUCTION DETAIL REQUIREMENTS FOR AS-BUILT DRAWINGS	FILE NAME: EW_M12.DWG DETAIL REF: M-12

DRAWING: STANDARD DETAILS
DMC JOB NO. 16-095-07
SHEET NO. C-24
DRAWN AR | CAD C3D | SCALE AS SHOWN
CHECKED NC | DATE 09-06-2017
APPROVED SK

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

Stephen J. Kuhn, P.E.
FLORIDA LICENSE No. 67486

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EDGEWATER, FL 32132

Drawing Name: C:\Users\Aramalappdata\local\temp\AcPublish_7672\Whistle Stop Park Planset Revised.dwg By: ARamia Tab: STD DETAILS 24 9/12/2017

NOTE:

1. REFER TO DETAIL SHEET M-2 FOR SIDEWALK CONSTRUCTION SPECIFICATIONS.
2. REFER TO DETAIL SHEET M-3 FOR SIDEWALK & BIKEPATH RAMP SPECIFICATIONS.

	STANDARD CONSTRUCTION DETAIL **SIDEWALK CONSTRUCTION AT INTERSECTIONS**	**FILE NAME:** EW_M18.DWG **DETAIL REF:** M-18

NOTE:

1. REFER TO DETAIL SHEET M-2 FOR SIDEWALK CONSTRUCTION SPECIFICATIONS.
2. REFER TO DETAIL SHEET M-3 FOR SIDEWALK & BIKEPATH RAMP SPECIFICATIONS.

	STANDARD CONSTRUCTION DETAIL **SIDEWALK CONSTRUCTION AT INTERSECTIONS**	**FILE NAME:** EW_M19.DWG **DETAIL REF:** M-19

DRAWING: STANDARD DETAILS

DMC JOB NO. 16-095-07

SHEET NO. C-25

DRAWN AR | CAD C3D | SCALE AS SHOWN

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PROJECT NAME:
WHISTLE STOP PARK IMPROVEMENTS

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IMPORTANT NOTES TO BIDDERS:

1. The Contractor shall retain all material delivery tickets, material testing reports and cut-sheets/shop drawings for manufactured products for the project and provide copies to the engineer on a weekly basis. The Engineer will not make a structure certification if the Contractor does not comply with this requirement.
2. The Engineer must be under contract with the Owner, Developer or Contractor for construction observations in order to provide certification of the constructed project. The Engineer must be given advanced notice of the critical stages of construction such as: completion of construction stakeout, framing, concrete forming and rebar placement prior to casting concrete, first section of concrete casting and finishing, first section of backfilling and compaction, etc.
3. The Contractor shall obtain the generic permit for stormwater discharge from large and small constrcution activities (NPDES Permit) prior to starting work. Under no circumstances will construction activities take place prior to insuance of the NPDES Permit. And the Contractor shall submit proof of permit insuance to the Engineer and the City before commencing work. All subcontractors, as well as the prime Contractor are responsible for maintaining compliance with conditions of the NPDES Permit at all times.

GENERAL:

1. All elevations in the project plans are referenced to feet N.A.V.D. 1988.
2. The project shall be straight, plumbed, level and all elevations are correct in the plans.
3. Any deviation from these plans, notes or specifications must be approved in writing by the Owner, Owner's Representative or Engineer, or else the deviation will be considered construction non-compliant with the plans and specifications.
4. Any discrepancies amongst the plans, notes, specifications and other bid documents must be resolved in writing by the Owner, Owner's Representative or Engineer prior to continuing the work in question.
5. These plans, notes and specifications, along with the other components of the project bidding documents, constitute the only instructions to bidders/contractors, unless written addenda are issued.
6. All construction, manufacturing, fabrication and testing of materials shall be performed under the guidelines set forth in applicable local, state and federal codes, and/or under recommendations provided in technical publications of respected professional or industry organizations. Material testing programs, where applicable, shall be presented to the Engineer for review and approval prior to construction.
7. All products constructed or manufactured/supplied for the project shall be accompanied by industry acceptable warranties or guarantees.
8. For the purpose of these specifications. "Project Completion" is defined as completion of an agreed upon list of punchlist items compiled in a planned project walkthrough held at a time the Contractor considers the project to be "Substantially Complete". The Contractor shall notify the owner and engineer at least 48 hours in advance of substantial completion and schedule a mutually agreeable walkthrough.

AS-BUILT SURVEY AND RECORD DRAWINGS

1. As-built survey and record drawings shall be submitted at the time of the punchlist review and shall be reviewed by the Engineer for completeness and correctness.
2. The record drawings shall be a designated set of drawings maintained on site for the purpose of hand-making all changes and deviations from the original design, no matter how slight. Color markings are preferred.
3. The record drawings shall also contain any and all field changed with respect to location, alignment, height, width, length, depth, materials, products, etc.

DESIGN SPECIFICATIONS:

1. City of Edgewater Standard Construction Specifications and Details, Latest Edition.
2. Florida Building Code, Latest Edition.
3. Florida Safety Code, Latest Edition.
4. Saint Johns River Water Management Permit Specifications.

MOBILIZATION AND DEMOBILIZATION:

1. The Contractor shall present a Shipping, Stockpile and Site Administration Plan (SSSAP) to the Owner, Owner's Representative or Engineer for approval. The plan shall be specific to the project requirements for the particular materials to be delivered to the site, describing delivery points, stockpile areas, temporary debris/trash storage areas, temporary field office (incl. utilities maintained there), fencing, security and a statement of commitment and details for maintaining safety on the site.
2. The Owner, Owner's Representative or Engineer shall have the right to exercise reasonable alterations or additions to the SSSAP.
3. It is the contractor's responsibility to coordinate, and pay for, necessary utilities to occupy the site and perform the work.
4. The Contractor shall not demobilize until project completion. See "GENERAL", Note 8.

SITE MAINTENANCE:

1. The Contractor shall maintain a clean and neat site, void of loose debris, trash, remnant parts or materials.
2. Trash receptacles and removal service shall be maintained by the Contractor specifically for this project. Pre-existing trash/debris facilities shall not be used to maintain the project.
3. Temporary debris piles shall be limited in number as much as practical and contained in designated areas until removal. Debris and trash shall not be scattered in areas outside the limited designated areas at anytime.
4. Removal of trash/debris shall be scheduled as appropriate to not allow piles to reach five feet in height or greater than ten feet in diameter. Debris individually larger than these dimensions shall be removed from the site within five working days. Receptacles shall not overflow at any time.
5. Where necessary, the Contractor shall employ a Maintenance of Traffic Plan (MOTP) for vehicles and pedestrians, including material deliveries, stockpile area(s), worker parking and construction equipment. The plan must be in writing, including sketches or drawings, and must be submitted to the Owner, Owner's Representative or Engineer for review and approval before commencement of any work.
6. The Contractor shall follow all applicable local, state and federal codes regarding site maintenance.

SITE SAFETY:

The Contractor shall prepare and adhere to a Site-Specific Safety Plan.
The contents of the plan are:

1. Identification of potential hazards and injuries pertaining to the specific site and project.
2. Location of nearest hospital.
3. Assure availability of at least one working cell phone and one vehicle on site at all times.
4. Emergency contacts within the subcontractor's organization and at the prime contractor's organization.
5. All field personnel wear appropriate safety attire and utilize appropriate personal protection equipment for a given task/operationsuch as safety glasses/googles, masks, shields, gloves, harnesses, hard hats, steel-toed boots,etc.
6. Safety kit available onsite at all times with materials for potential hazards and injuries.
7. The Site-Specific Safety Plan shall be distributed and reviewed with all site workers prior to said workers commencing work on the project site.
8. The Contractor shall follow all applicable local, state, and federal codes regarding site safety.

DEMOLITION, CLEARING AND RESTORATION:

1. Demolition or clearing may require permits. The contractor shall acquire all necessary building permits from the local municipality prior to commencing work.
2. Clearing and removal of vegetation, rocks and debris will be required within the project structure footprint.
3. Demolition or removal of objects, debris, or material specified or obstructing construction shall take place only to the extent necessary.
4. Any permitted demolition or removal from submerged lands or adjacent uplands shall be fully contained within siltation devices such that permit turbidity requirements and state water quality standards are met.
5. The site shall be restored by removing and finishing all evidence of construction including temporary haul roads, vehicle ruts, stockpile areas, shoreline slopes and vegetation, sod and areas subject to project work.

WORK BY OTHERS ON SITE:

The marine contractor shall coordinate with other contractors or utilities which must access, and work in, the same area.
Disposal of demolition debris, stockpiling material or equipment shall not impede any upland construction or access.

CONSTRUCTION SURVEYING:

1. Stake-out survey of the project is the responsibility of the Contractor. Beginning and end points will be provided by the Owner, Owner's Representative or Engineer either by stakes in the field or in the project drawings.
2. The staked project must be approved by the Engineer prior to commencing construction. The Engineer reserves the right to make alignment changes based on conditions portrayed by the initial stakeout.
3. Methods and frequency of continuing stake-out during construction shall be submitted to the Engineer for approval prior to beginning construction.
4. The Contractor must perform an independent construction record survey (as-built survey) as a check for compliance at the end of the project. The record survey must be signed and sealed by a State of Florida licensed Professional Surveyor. The record survey must be referenced to feet N.A.V.D. 1988.
5. The Prime Contractor is advised that certification of the project elevations and alignment is required by the Engineer for final acceptance of work.

ENVIRONMENTAL AND PERMITS:

1. The U.S. Army Corps of Engineers (USACE), St. Johns River Water Management District (SJRWMD), Regional Water Management District and the local city or county may exert jurisdiction over construction of the project. The contractor shall be responsible to understand and comply with all applicable permit conditions imposed by the jurisdictional agencies, if permits are necessary. If not, the Contractor must at least comply with general state water quality standards for siltation and guidelines for encounters with threatened and endangered species, including, but not limited to, the state manatee guidelines.
2. All building and construction-related permits from the local (city or county) or state authorities are the responsibility of the Contractor.
3. National Marine Fisheries Services has special conditions for sea turtles, smalltooth sawfish and manatees. See Special Environmental Conditions.

BOLTS & SCREWS:

1. All fasteners including screws, bolts, nuts, washers, plates, lags, rods, etc. shall be 316 stainless steel.
2. Stainless Steel (SS) screws shown in plans.

STEEL/MISCELLANEOUS:

All Structural steel and miscellaneous metal items (other than aluminum) shall be in accordance with structural steel, Grade 316 Stainless Steel or ASTM A36 Steel.

BACKFILL SOIL AND SURFACE TREATMENT:

1. Backfill material shall be from an upland source and shall be clean, construction-quality sand, free from organics, oils, grease and debris. The source company shall provide a sieve analysis to the engineer for approval prior to shipping material.
2. Backfill material shall be placed in maximum 12-inch lifts and compacted to minimum 98 percent optimum proctor moisture content and density. The bottom, middle and top of backfill shall be tested, at the expense of the Contractor, by a qualified independent testing company. The testing company name, qualifications and contact information shall be provided to the Owner, Owner's Representative or Engineer for approval prior to commencing soil testing.
3. Backfilling shall not be performed until after the cap has sufficiently cured to design strength and the tie-backs are completely installed.
4. The backfilling and compaction should be performed with the smallest practical equipment to reduce surcharge on the structure during the operation. Heavy equipment shall not be operated within 20 feet of the sheet-piling. The contractor shall review backfilling procedure with the engineer prior to commencing.

DRAWING: GENERAL NOTES
DMC JOB NO. 16-095-07
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PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
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INSPECTION COORDINATION:

1. The Engineer will be conducting routine observations and observations at critical stages of construction. A minimum of 72 hours notice shall be given to the Engineer prior to commencing the critical stages of construction. In general, critical stages are the initial work on the major structure components. Examples of critical stages of construction are: completion of construction stakeout, initial sheet piling installation, framing, concrete forming and rebar placement prior to casting concrete, first section of concrete casting and finishing, first section of backfilling and compaction, etc.
2. The local city or county may perform their own construction observations in addition to the Engineer. No observers other than the Engineer or his/her designated representative shall have the authority to determine compliance with plans and specifications.
3. Other observers may relay information to the Engineer, but it will be the Contractor's ultimate responsibility to maintain contact and resolve disputes, questions, field changes, payment requests, etc. directly with the Owner, Owner's Representative or Engineer.

STORM DRAINAGE DESIGN AND CONSTRUCTION NOTES:

All materials and installation methods used for land development code required improvements for subdivisions and site plans shall be in conformance with the county, FDOT standard specifications for road and bridge construction (latest edition), and the FDOT roadway and traffic design standards (latest edition).

1. All storm sewers and culverts located in roadway rights-of-way and roadway easements shall be a minimum of class iii reinforced concrete pipe. Outside of roadway easements and r.o.w., pipe may be made of alternate materials including:

    a. Smooth inner wall high density polyethylene (HDPE) in accordance with AASH to M-294, AASHTO MP7, ASTM D3350 and ASTM D2412 for sizes up to 42" in diameter or
    b. PVC in accordance with the provision noted.

2. Depth of cover measured to the top of pipe (not including the bell joint) shall be a minimum of 1 foot. Deviation from this requirement may be allowed by increasing the pipe's structural capacity. This deviation must be specified on the plans approved for construction and subsequently reflected on the shop drawings and as-built plans.
3. Storm inlets, manholes, and catch basins shall be either poured in place or precast reinforced concrete. Structures shall be required at each change of pipe size or change in pipe direction. All structures shall be in compliance with ASTM C-478 and shall have 8" thick walls. 6" thick walls may be permitted providing that the plans specify increased reinforcement in accordance with FDOT standard index NO. 201 in addition, this requirement must be reflected on both the shop drawing and as-built plans.
4. For connections between inlets with piping 15" in diameter and larger, the maximum distances between inlets and/or clean-out junction boxes shall be 300 feet. Culverts shall be sloped to maintain a minimum self-cleaning velocity of 3 feet per second using a manning's 'n' of 0.012. Spacing for clean-outs and inlets for smaller piping shall be reduced and evaluated on a case by case basis.
5. The maximum permissible slope of berm grading is 2:1 (horizontal:vertical).
6. Soil erosion control measures, satisfactory to SJRWMD and the County shall employed during construction.
7. The contractor shall be responsible to obtain any and all dewatering permits that may be required.
8. It shall be the responsibility of the Contractor to review and maintain a copy of the SJRWMD permit at the construction site, and abide by all conditions of the permit.

CONTRACTOR REQUIREMENTS FOR SITE CLEARING, GRADING AND EROSION DESIGN AND CONSTRUCTION NOTES:

The following measures represent minimum standards to be adhered to by the Contractor throughout the construction of this project. The county reserves the right to require additional measures to be employed when warranted by extreme conditions and/or the failure of the contractor to employ the appropriate erosion control best management practices. Failure to comply with these provisions shall result in the issuance of a "stop work order".

1. It shall be the responsibility of the Contractor to have all protective vegetation barricades and erosion control structures and measures in place prior to the commencement of any earthwork, including preliminary grubbing. These measures include, but are not limited to, temporary construction fences, hay bales, silt fences, and floating turbidity barriers. Further, it shall be the responsibility of the Contractor to maintain all erosion control devices throughout the duration of the entire project. Maintenance shall include periodic inspection and removal of debris abutting erosion control devices.
2. Prior to the installation of any fill materials on subject site, silt fences shall be installed (1) along subject site boundary and property lines, (2) at the edge of conservation easements and wetlands, (3) adjacent to natural landscape buffers, (4) around the perimeter of existing storm water treatment facilities, and (5) at any additional areas that the city deems necessary to be protected from potential erosion impacts during construction. These conditions shall apply in all instances where fill material is being installed within 25 feet of any of the aforementioned locations. While these items represent the minimum requirements, the county reserves the right to impose additional protective measures, as determined during actual site visits conducted throughout project construction.
3. At a minimum, the contractor shall seed and mulch all disturbed areas. Sufficient grass coverage is to be established within thirty days.
4. Absolutely no burying of cleared materials is permitted.
5. A signed, dated, and sealed letter from a soils engineer or the engineer of record certifying that the areas to be filled have been stripped of organic materials, must be submitted to the city prior to filling.
6. Fill material is to be placed in one foot lifts and compacted to the appropriate density (98% for paved areas and 95% for building pads and all other areas as per AASHTO T-180)
7. If any muck material is discovered, it shall be required to be removed and replaced with a suitable material that is properly backfilled, compacted and tested using AASHTO T-180 modified proctor method.
8. Stockpiling is not generally permitted by the county. When allowed, stockpiles shall not exceed six feet in height measured from the original grade. At a minimum, stock piles that will remain in place in excess of twenty days should be seeded and mulched immediately upon placement of the final lift.
9. Soils are to be stabilized by water or other means during construction. This is intended to reduce soil erosion and the impact to neighboring communities. Adequate watering methods should be employed to allow daily coverage of the entire limits of all areas that do not have an established vegetative cover. Methods to be employed include, but are not limited to, water trucks, permanent irrigation systems, temporary sprinkler systems operated by pumping units connected to wet retention ponds, water cannons, temporary irrigation systems mounted atop stockpile areas, and other methods as deemed necessary by the county.
10. All fill materials located beneath the berms shall consist of clean granular sand free from organics and similar material that could decompose.

TECHNICAL SPECIFICATIONS FOR SITE PLAN TESTING:

A. MATERIAL

The inspection and testing of materials and finished articles to be incorporated in the work shall be made by bureaus, laboratories, or agencies approved by the Engineer of Record. The Contractor shall submit such samples, or such special or test pieces of materials as the engineer of record may require. The Contractor shall not incorporate any material or finished article into the work until the results of the inspections or tests are known and the Contractor has been notified by the Engineer of Record that the material or finished article is accepted. All materials must be of the specified quality and be equal to the approved sample if a sample has been submitted. Certified copies of all tests made shall be submitted to the engineer of record as well as to the county's designated site inspector. the county's designated site inspector must receive copies of all testing reports and certificates prior to the Engineer of Record requesting a final project inspection from the county.

B. LABORATORY CONTROL AND CERTIFICATES

1. SPECIFICATIONS:

    Sampling, testing, and laboratory methods shall be in accordance with the standard specifications of the AASHTO or ASTM. Where AASHTO or ASTM specifications are used, the reference shall be construed to be the most recent standard specifications or tentative specifications of the AASHTO or ASTM in force on the date of the test.

2. TEST AND CERTIFICATES:

    The Contractor shall engage an approved testing laboratory to provide the following tests and certifications signed by a registered engineer of the state of Florida. All technicians performing the tests shall be state certified for the testing performed. Additional tests that may be required by either the engineer of record or the county shall also be provided by the Contractor, and the following shall not be taken as a complete and exhaustive list of the Contractor's testing responsibilities.

    a. Soil analysis for structural fill material prior to installation.
    b. Proctor densities, moisture content, compacted field densities and Atterberg limits.

DRAWING: GENERAL NOTES
DMC JOB NO. 16-095-07
SHEET NO. C-27
DRAWN AR | CAD C3D | SCALE AS SHOWN
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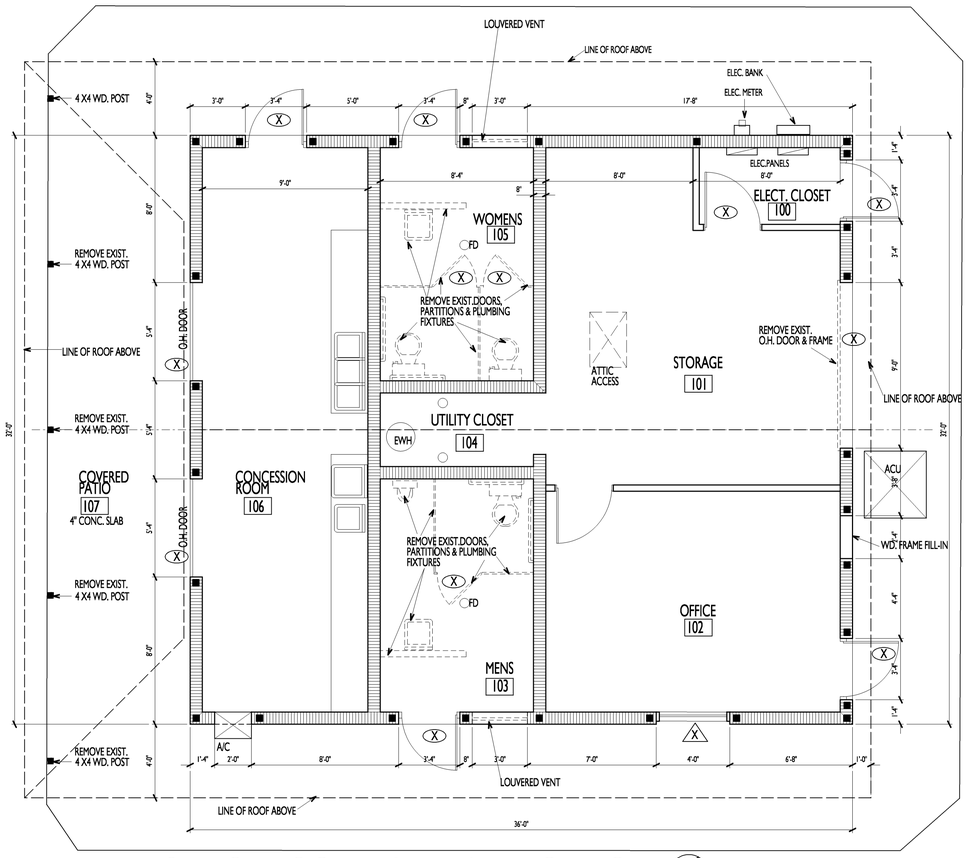
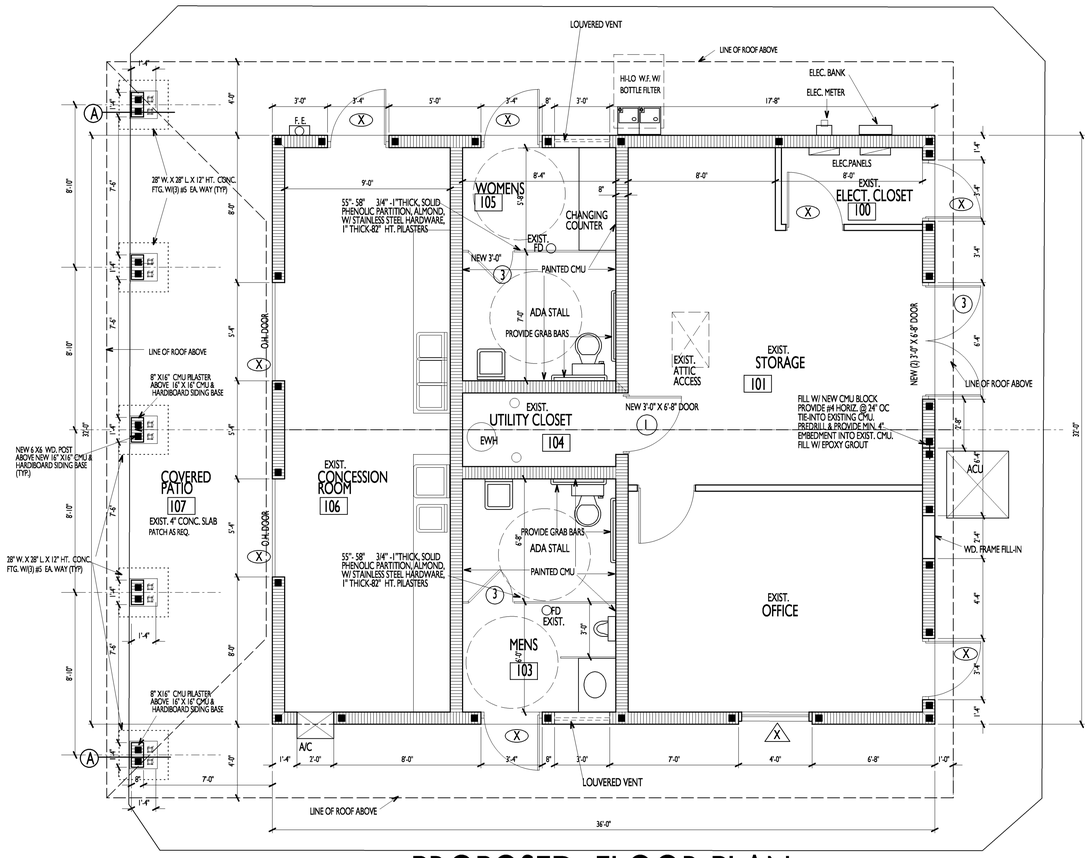


1 EXISTING FLOOR PLAN W/ DEMOLITION

NORTH

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



2 PROPOSED FLOOR PLAN

NORTH

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

FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING	REMARKS
103	MEN'S ADA TOILET	F1	W1	W1	EXIST.	PATCH & PAINT AREAS AFFECTED BY REMODEL
105	WOMEN'S ADA TOILET	F1	W1	W1	EXIST.	PATCH & PAINT AREAS AFFECTED BY REMODEL
107	COVERED PATIO				EXIST.	PATCH & PAINT AREAS AFFECTED BY REMODEL

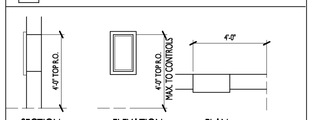
NOTES;
1. WALLS TO BE PAINTED PRIOR TO INSTALLATION OF ANY FIXTURES

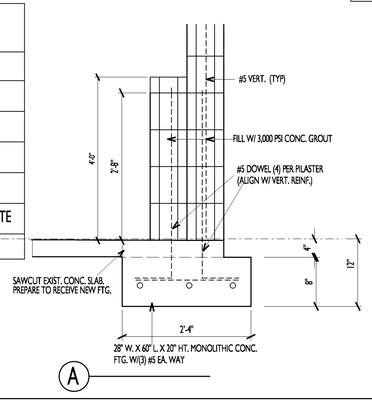
FINISH SCHEDULE

F1	EPOXY PAINT OVER CONCRETE, (1) COAT CONC. SEALER
F2	SMOOTH FINISH CONCRETE
W1	PAINT; (2) COAT EPOXY PAINT, SEMI-GLOSS, (1) COAT PRIMER (BLOCK SEALER)
C1	VINYL (VENTED) PBS80V BY ALCOA (OR EQUAL) , WHITE
C2	DENZ BOARD W/ STUCCO FINISH
C3	2-LAYERS 5/8" FIBERGLASS FACED MOLD & MOISTURE RESISTANT GYPSUM PANEL, WHITE

FIRE EXTINGUISHER- 2A10BC OR EQUAL

F.E. - SYMBOL





DESIGN CRITERIA

DESIGN GUIDE	ASCE 7-10
WIND SPEED (V_{ULT})	140 MPH
WIND SPEED (V_{ASD})	108 MPH
WIND EXPOSURE CATEGORY=	"C"
BUILDING TYPE=	PARTIALLY ENCLOSED
RISK CATEGORY=	II
IMPORTANCE FACTOR=	1.0
TOPOGRAPHY	FLAT
MEAN ROOF HEIGHT=	<=30 FT
WIND-BORNE DEBRIS ZONE=	NO
COMPONENTS & CLADDING PRESSURES;	
(+) 38.3	(-) 48.3

APPLICABLE CODES

LEVEL II ALTERATION

2014 FLORIDA BUILDING CODE-	EXISTING BUILDING	5TH EDITION
2014 FLORIDA BUILDING CODE-	BUILDING:	5TH EDITION
2014 FLORIDA BUILDING CODE-	ACCESSIBILITY	5TH EDITION
2014 FLORIDA BUILDING CODE-	ENERGY CONSERVATION	5TH EDITION
2014 FLORIDA BUILDING CODE-	FUEL GAS	5TH EDITION
2014 FLORIDA BUILDING CODE-	MECHANICAL:	5TH EDITION
2014 FLORIDA BUILDING CODE-	PLUMBING:	5TH EDITION
2014 FLORIDA FIRE PREVENTION CODE-	FIRE PREVENTION CODE	5TH EDITION
2010 NATIONAL ELECTRICAL CODE-	ELECTRICAL:	

CONSTRUCTION

TYPE OF CONSTRUCTION: TYPE V-B — NON-SPRINKLERED:

FIRE RESISTANCE OF STRUCTURAL ELEMENTS SHALL BE AS SPECIFIED IN TABLE 601 AND TABLE 602 OF FBCB 2015, 5TH ED.

MIN. INTERIOR FINISH CLASS

EXITS: B EXIT ACCESS: C OTHER:

DOOR SCHEDULE

1	3'-0" X 6'-8"	GALV. PAINT'D DOOR W/CHANGEABLE CORELOCKS,
2	3'-0" X 55-58"	3/4" TO 1"THICK, SOLID PHENOLIC DOOR, PRIVACY LATCH, SLIDE FOR EMERG.ACCESS, ALMOND, W/ STAINLESS STEEL HARDWARE
3	(2) 3'-0" X 6'-8"	GALV. PAINT'D DOOR W/CHANGEABLE CORELOCKS, RAISED ALUM.THRESHOLD , WEATHER SEAL

WALL TYPE LEGEND;

- CMU WALL
- WD. STUD WALL
- 4 X 4 WD. POST

AREA CALCULATIONS;

GROSS AREA (INTERIOR)	- 1,152 SF
GROSS AREA (EXTERIOR COVERED)	- 688 SF
TOTAL AREA (UNDER ROOF)	- 1,840 SF

GENERAL NOTES.

1. G.C. TO FIELD VERIFY ALL EXIST. DIMENSIONS PRIOR TO WORK.
2. G.C. TO PATCH ANY ALL CONC. SLAB AFFECTED BY DEMO., SAWCUTTING, ETC.
3. USE MIN. 3,000 PSI CONC. W/ FIBERMESH FOR PATCH WORK. PROVIDE 6 MIL VISQUEEN &TREAT FOR TERMITES (TYP)
4. G.C. TO COORDINATE ALL TRADES . INFORM ARCHITECT OF ANY UNFORSEEN CONDITIONS.

DRAWING: EXISTING & PROPOSED FLOOR PLANS
RENOVATED RESTROOM & CONCESSION BUILDING

DMC JOB NO. 16-095-07

SHEET NO. A-01

DRAWN | CAD | CHECKED | SCALE | APPROVED | DATE 08-18-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

-BFY Associates Inc.-
ARCHITECT
645 N Halifax Ave. Daytona Beach, FL 32118
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ROMAN TYDRE-WICZ, ARCHITECT
FLORIDA LICENSE No. AR 0015612

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AA 26001107

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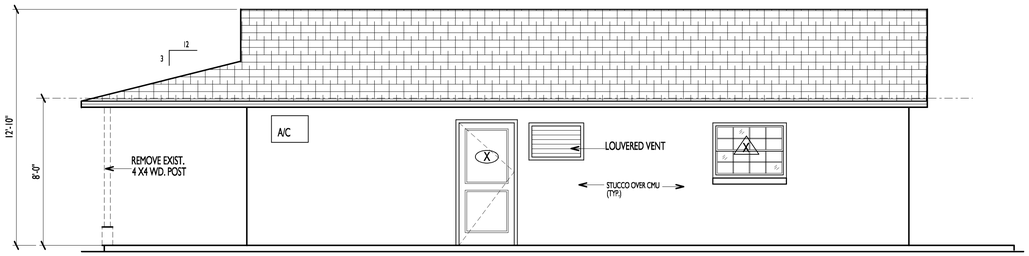
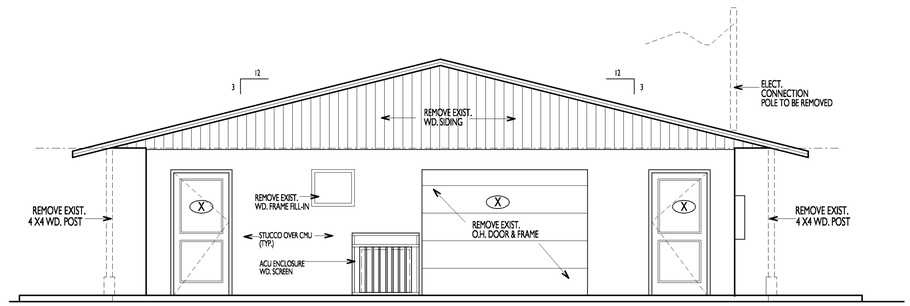
DMC ENGINEERS • SCIENTISTS

CITY OF EDGEWATER
104 N. RIVERSIDE DR.
EDGEWATER, FL 32132



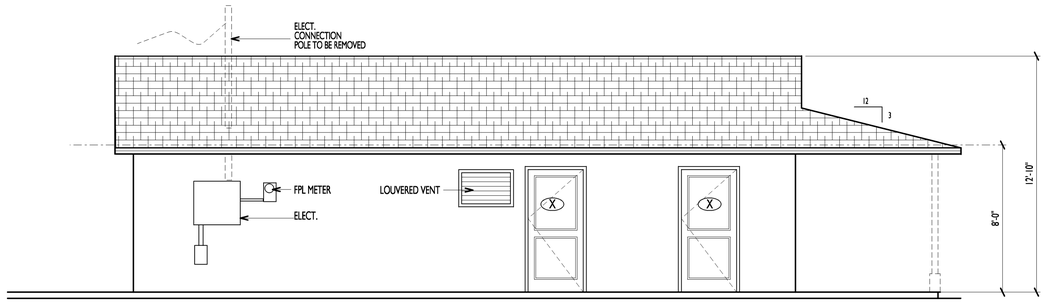
1 SIDE ELEVATION

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



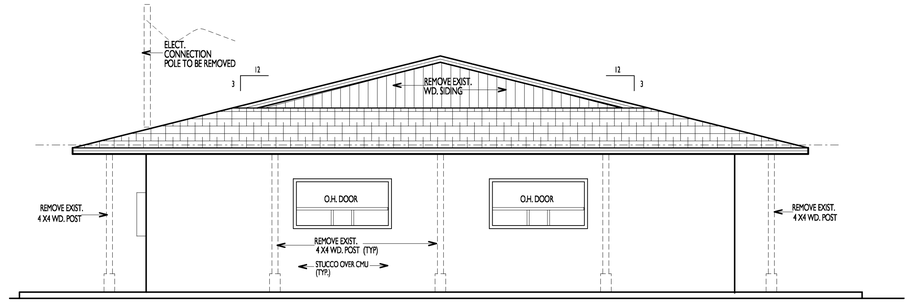
3 FRONT ELEVATION

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



2 SIDE ELEVATION

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



4 BACK ELEVATION

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

DRAWING: EXISTING EXTERIOR ELEVATIONS
RENOVATED RESTROOM
& CONCESSION BUILDING

DMC JOB NO. 16-095-07

SHEET NO. A-02

DRAWN
CHECKED
APPROVED

CAD
SCALE
DATE 08-18-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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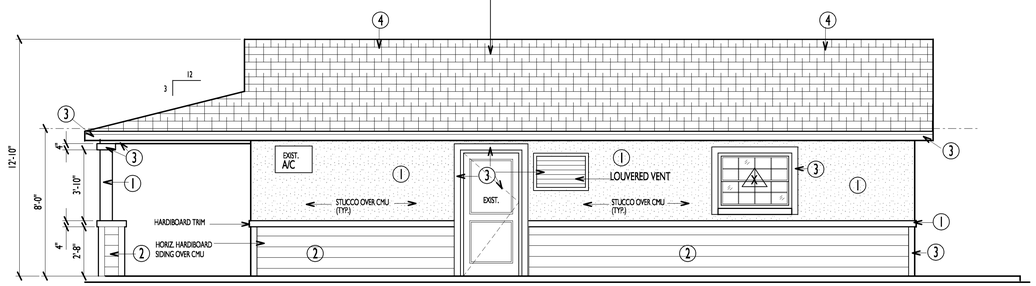
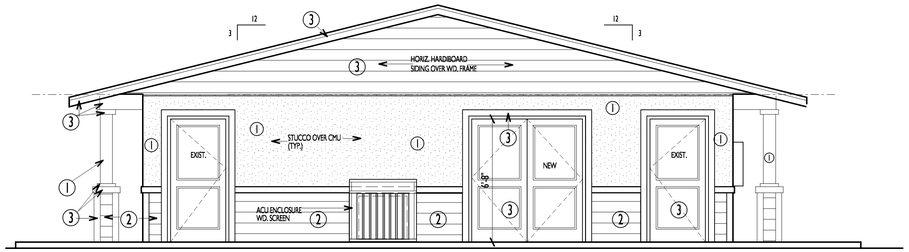
ROOF NOTES:
1. G.C. TO PROVIDE A BID ALTERNATE FOR INSTALLATION OF ALUM. ROOFING IN LIEU OF FIBERGLASS SHINGLES



1 SIDE ELEVATION

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

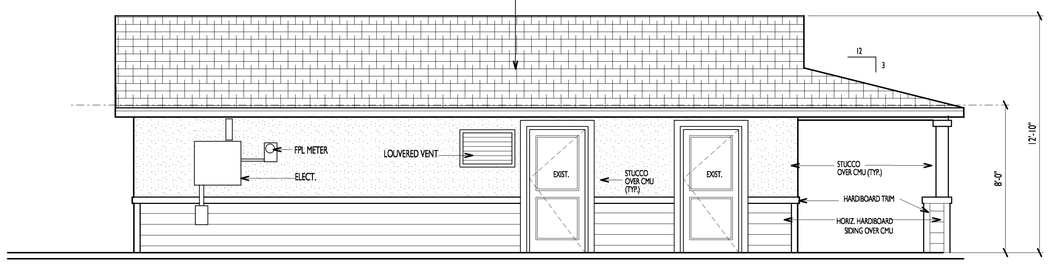
EXTERIOR COLOR PALETTE CHART				
MARK	SURFACE	MATERIAL	MANUFACTURER	COLOR NAME
1	STUCCO -	EXTERIOR PAINT	- SHERWIN WILLIAMS-	"EVENING SHADOW" -SW 7662
2	HARIBOARD HORIZ. SIDING -	EXTERIOR PAINT	- SHERWIN WILLIAMS-	"SECURE BLUE" -SW 6508
3	TRIM, FASCIA, DOORS -	EXTERIOR PAINT	- SHERWIN WILLIAMS-	"SKY HIGH" -SW 6504
4	ROOF	FIBERGLASS ROOF SHINGLES. 40 YEAR, ARCHITECTURAL ,		- CHARCOAL GRAY



3 FRONT ELEVATION

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

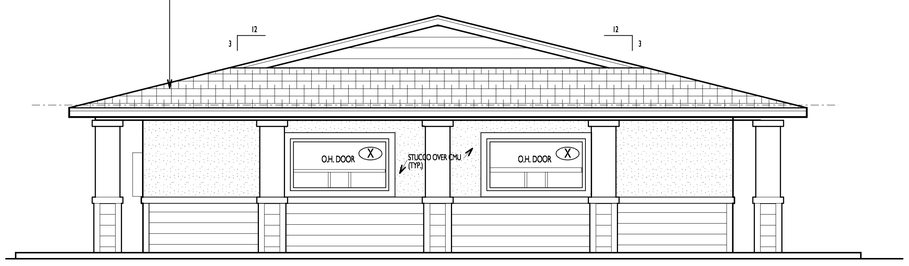
ROOF NOTES:
1. G.C. TO PROVIDE A BID ALTERNATE FOR INSTALLATION OF ALUM. ROOFING IN LIEU OF FIBERGLASS SHINGLES



2 SIDE ELEVATION

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

ROOF NOTES:
1. G.C. TO PROVIDE A BID ALTERNATE FOR INSTALLATION OF ALUM. ROOFING IN LIEU OF FIBERGLASS SHINGLES



4 BACK ELEVATION

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

DRAWING: NEW EXTERIOR ELEVATIONS RENOVATED RESTROOM & CONCESSION BUILDING

DMC JOB NO. 16-095-07

SHEET NO. A-03

DRAWN | CAD

CHECKED | SCALE

APPROVED | DATE 08-18-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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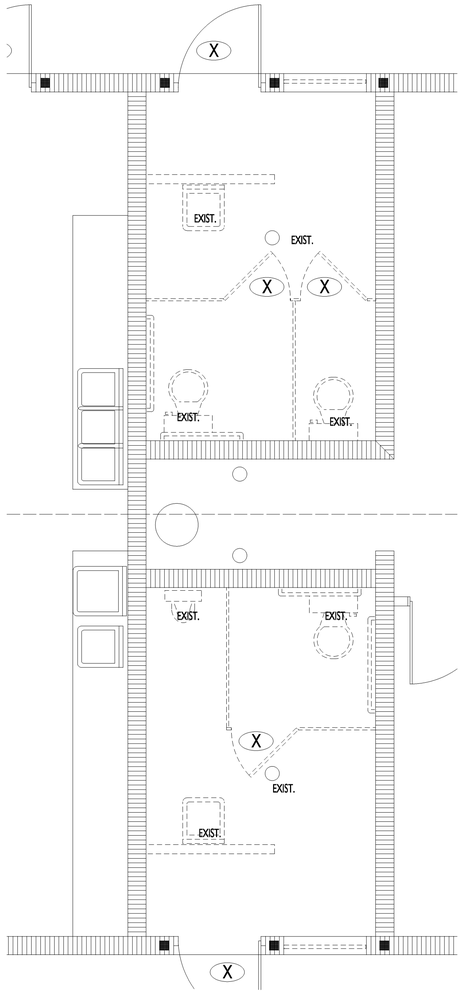
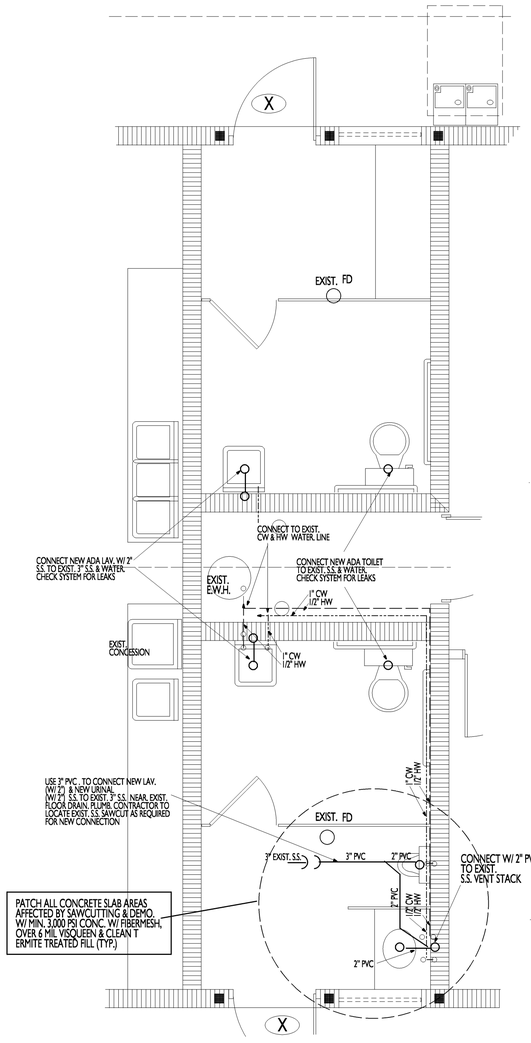


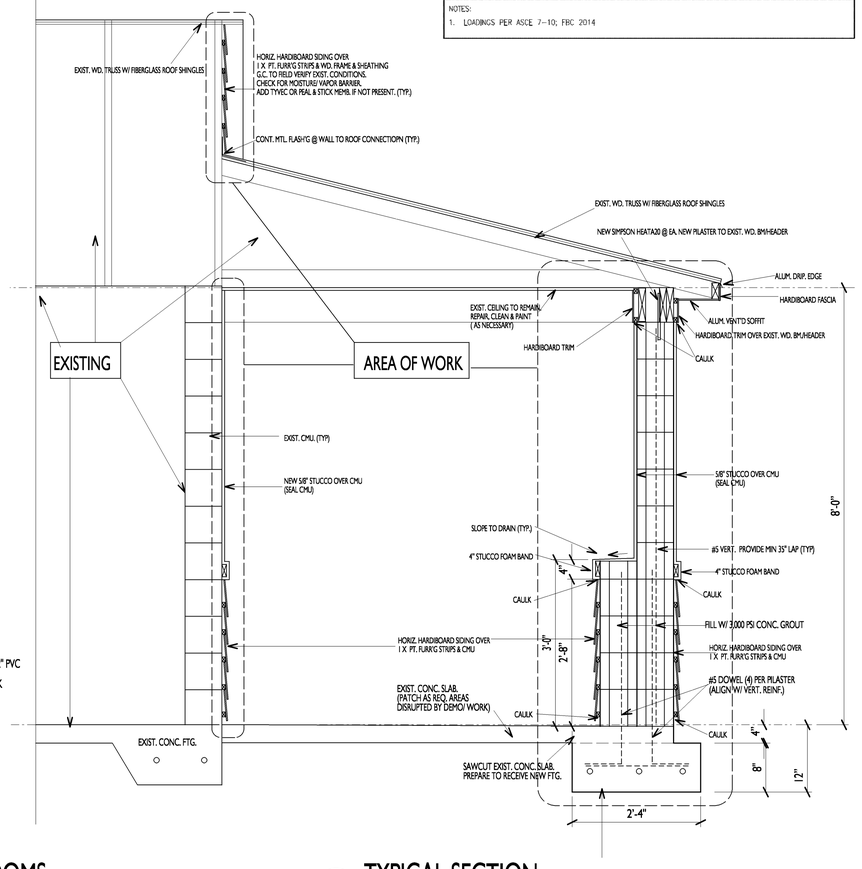
A EXIST. PLAN (PARTIAL) @ RESTROOMS

3/8" =1'-0"



B PLUMBING PLAN (PARTIAL) @ RESTROOMS

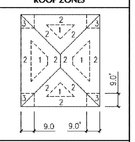
3/8" =1'-0"



C TYPICAL SECTION

3/4" =1'-0"

COMPONENTS AND CLADDING WIND LOAD SCHEDULE

DESIGN WIND LOAD		COMPONENT	DESIGN PRESSURES		
			WALL ZONE		
MPH	EXPOSURE		4	5	ELEVATION
140	C	WINDOWS AND DOORS	26 PSF	32 PSF	
140	C	MULLIONS	26 PSF	32 PSF	
140	C	ROOF	NEGATIVE PRESSURE ZONE 1 -29 PSF ZONE 2 -33 PSF ZONE 3 -44 PSF ALL POSITIVE LOADS +11 PSF		ROOF ZONES 

DESIGN PRESSURES (NEGATIVE) ROOF

AREA (S.F.)	ZONE 1	ZONE 2	ZONE 3
≤ 10	29 PSF	33 PSF	44 PSF
50	29 PSF	31 PSF	35 PSF
100	29 PSF	31 PSF	31 PSF

NOTES:

1. LOADINGS PER ASCE 7-10; FBC 2014

DRAWING: SECTION, PLUMBING PLAN
RENOVATED RESTROOM, & CONCESSION BUILDING

DMC JOB NO. 16-095-07

DRAWN | CAD
CHECKED | SCALE
APPROVED | DATE 08-18-17

SHEET NO. A-04

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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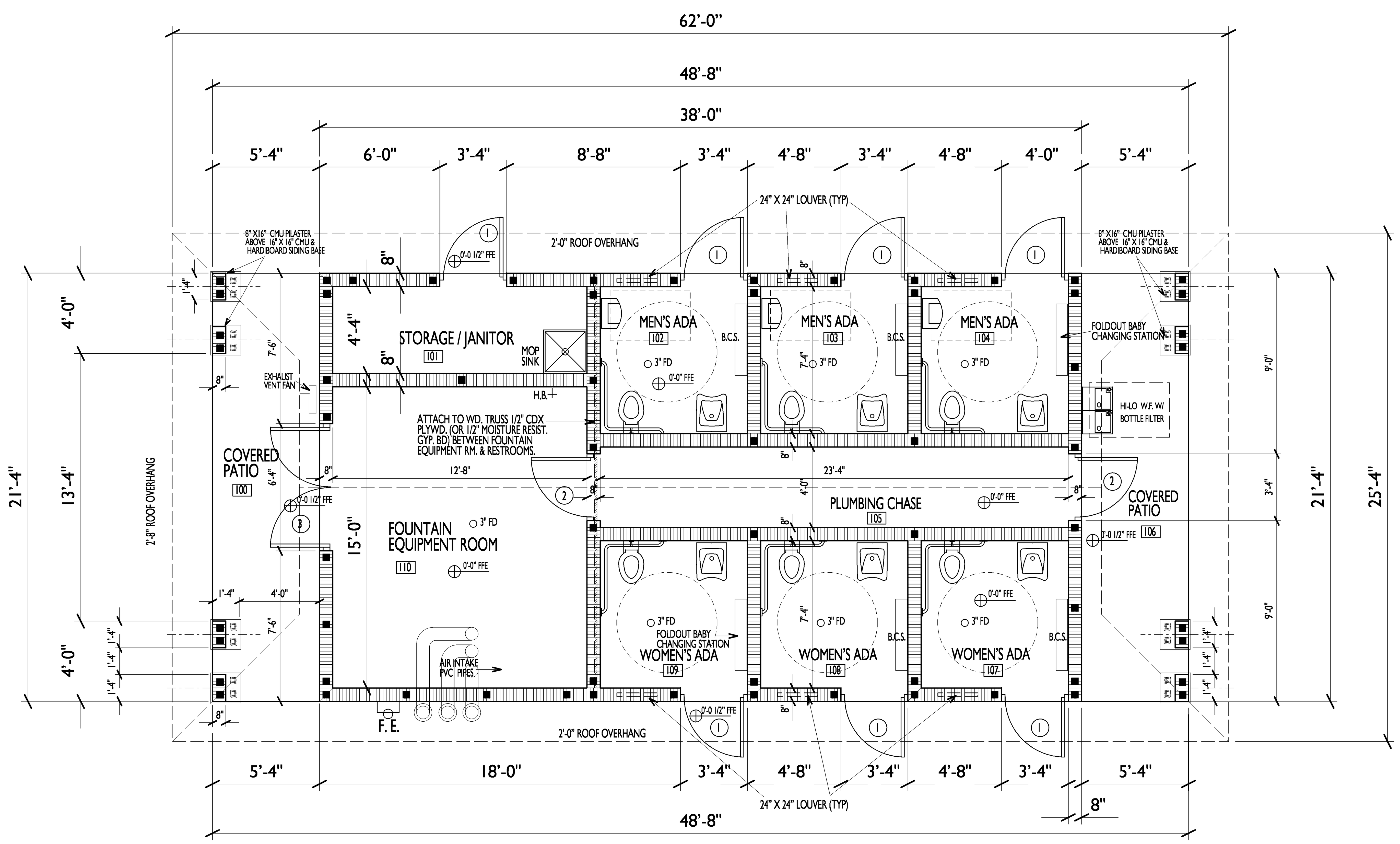


PROPOSED FLOOR PLAN

1

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

NORTH

DOOR SCHEDULE

1	3'-0" X 6'-8"	GALV. PAINT'D DOOR W/CHANGEABLE CORELOCKS, PRIVACY, RAISED ALUM.THRESHOLD & HYDR. DOOR CLOSURE, WEATHER SEAL
2	3'-0" X 6'-8"	GALV. PAINT'D DOOR W/CHANGEABLE CORELOCKS, RAISED ALUM.THRESHOLD , WEATHER SEAL
3	(2) 3'-0" X 6'-8"	GALV. PAINT'D DOOR W/CHANGEABLE CORELOCKS, RAISED ALUM.THRESHOLD , WEATHER SEAL

FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	BASE	WALLS	CEILING	REMARKS
100	COVERED PATIO	F2			C2	
101	STORAGE / JANITOR	F1	W1	W1	C3	
102	MEN'S ADA TOILET	F1	W1	W1	C1	
103	MEN'S ADA TOILET	F1	W1	W1	C1	
104	MEN'S ADA TOILET	F1	W1	W1	C1	
105	PLUMBING CHASE	F1	W1	W1	C3	
106	COVERED PATIO	F2			C2	
107	WOMEN'S ADA TOILET	F1	W1	W1	C1	
108	WOMEN'S ADA TOILET	F1	W1	W1	C1	
109	WOMEN'S ADA TOILET	F1	W1	W1	C1	
110	FOUNTAIN EQUIP. ROOM	F1	W1	W1	C3	

NOTES:
1. WALLS TO BE PAINTED PRIOR TO INSTALLATION OF ANY FIXTURES

FINISH SCHEDULE

F1	EPOXY PAINT OVER CONCRETE, (1) COAT CONC. SEALER
F2	SMOOTH FINISH CONCRETE
W1	PAINT; (2) COAT EPOXY PAINT, SEMI-GLOSS, (1) COAT PRIMER (BLOCK SEALER)
C1	VINYL (VENTED) PBS80V BY ALCOA (OR EQUAL) , WHITE
C2	DENZ BOARD W/ STUCCO FINISH
C3	2-LAYERS 5/8" FIBERGLASS FACED MOLD & MOISTURE RESISTANT GYPSUM PANEL, WHITE

DESIGN CRITERIA

DESIGN GUIDE	ASCE 7-10
WIND SPEED (V_{ULT})	140 MPH
WIND SPEED (V_{ASD})	108 MPH
WIND EXPOSURE CATEGORY=	"C"
BUILDING TYPE=	PARTIALLY ENCLOSED
RISK CATEGORY=	II
IMPORTANCE FACTOR=	1.0
TOPOGRAPHY	FLAT
MEAN ROOF HEIGHT=	$\leq$30 FT
WIND-BORNE DEBRIS ZONE=	NO

APPLICABLE CODES

NEW CONTRUCTION

2014 FLORIDA BUILDING CODE-	BUILDING:	5TH EDITION
2014 FLORIDA BUILDING CODE-	ACCESSIBILITY	5TH EDITION
2014 FLORIDA BUILDING CODE-	ENERGY CONSERVATION	5TH EDITION
2014 FLORIDA BUILDING CODE-	FUEL GAS	5TH EDITION
2014 FLORIDA BUILDING CODE-	MECHANICAL:	5TH EDITION
2014 FLORIDA BUILDING CODE-	PLUMBING:	5TH EDITION
2014 FLORIDA FIRE PREVENTION CODE-	FIRE PREVENTION CODE	5TH EDITION
2010 NATIONAL ELECTRICAL CODE-	ELECTRICAL:	

CONSTRUCTION

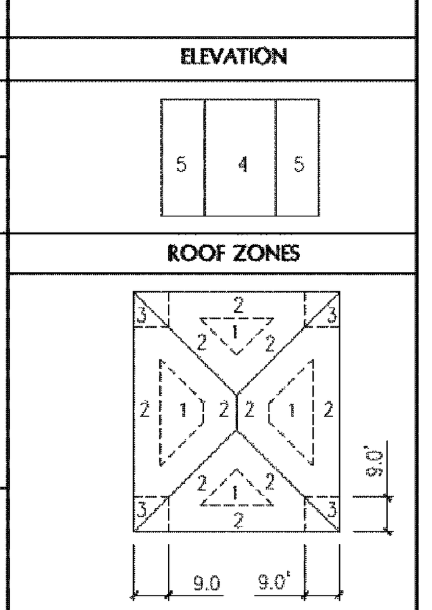
TYPE OF CONSTRUCTION: TYPE V-B

FIRE RESISTANCE OF STRUCTURAL ELEMENTS SHALL BE AS SPECIFIED IN TABLE 601 AND TABLE 602 OF FBCB 2015, 5TH ED.

NON-SPRINKLERED:
MIN. INTERIOR FINISH CLASS
EXITS: B EXIT ACCESS: C OTHER:

COMPONENTS AND CLADDING WIND LOAD SCHEDULE

DESIGN WIND LOAD		COMPONENT	DESIGN PRESSURES	
			WALL ZONE	
MPH	EXPOSURE		4	5
140	C	WINDOWS AND DOORS	26 PSF	32 PSF
140	C	MULLIONS	26 PSF	32 PSF
140	C	ROOF	NEGATIVE PRESSURE ZONE 1 -29 PSF ZONE 2 -33 PSF ZONE 3 -44 PSF ALL POSITIVE LOADS +11 PSF	



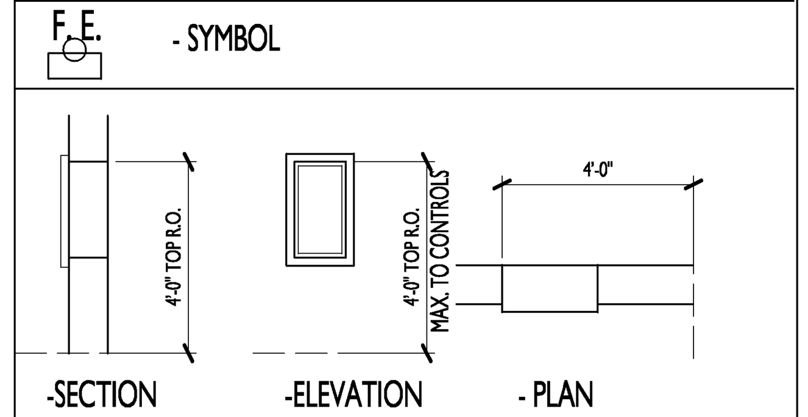
DESIGN PRESSURES (NEGATIVE) ROOF

AREA (S.F.)	ZONE 1	ZONE 2	ZONE 3
≤ 10	29 PSF	33 PSF	44 PSF
50	29 PSF	31 PSF	35 PSF
100	29 PSF	31 PSF	31 PSF

NOTES:
1. LOADINGS PER ASCE 7-10; FBC 2014

FIRE EXTINGUISHER- 2A10BC OR EQUAL

F.E. - SYMBOL



WALL TYPE LEGEND;

CMU WALL
WD. STUD WALL

AREA CALCULATIONS;

GROSS AREA (INTERIOR)	- 811 SF
GROSS AREA (EXTERIOR COVERED)	- 229 SF
TOTAL AREA (UNDER ROOF)	- 1,040 SF

DRAWING: PROPOSED FLOOR PLAN NEW RESTROOM BUILDING
DMC JOB NO. 16-095-07
SHEET NO. A-05
DRAWN | CAD
CHECKED | SCALE
APPROVED | DATE 08-18-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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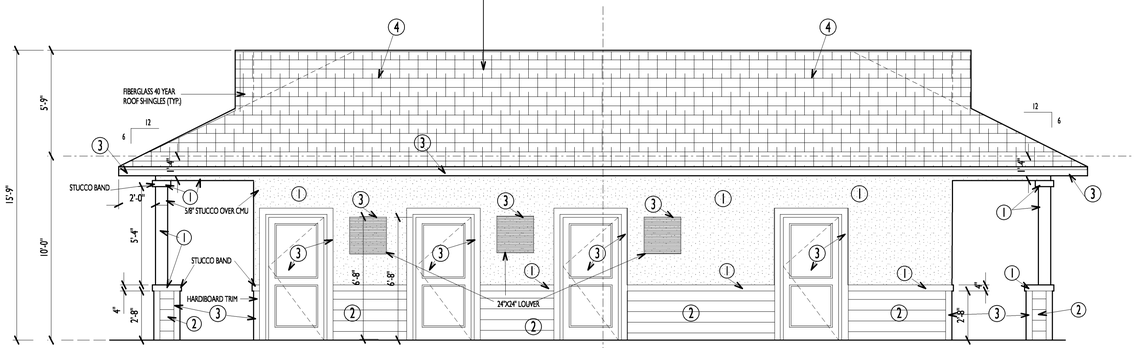
ROOF NOTES:
1. G.C. TO PROVIDE A BID ALTERNATE FOR INSTALLATION OF ALUM. ROOFING IN LIEU OF FIBERGLASS SHINGLES

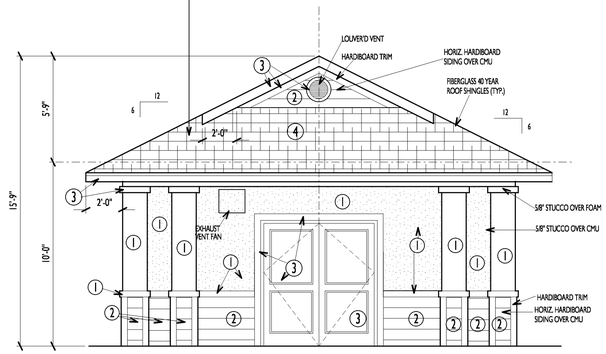


EXTERIOR COLOR PALETTE CHART				
MARK	SURFACE	MATERIAL	MANUFACTURER	COLOR NAME
1	STUCCO -	EXTERIOR PAINT	- SHERWIN WILLIAMS-	"EVENING SHADOW" -SW 7662
2	HARIBOARD HORIZ. SIDING -	EXTERIOR PAINT	- SHERWIN WILLIAMS-	"SECURE BLUE" -SW 6508
3	TRIM, FASCIA, DOORS -	EXTERIOR PAINT	- SHERWIN WILLIAMS-	"SKY HIGH" -SW 6504
4	ROOF	FIBERGLASS ROOF SHINGLES- 40 YEAR, ARCHITECTURAL ,		- CHARCOAL GRAY

1 SIDE ELEVATION

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

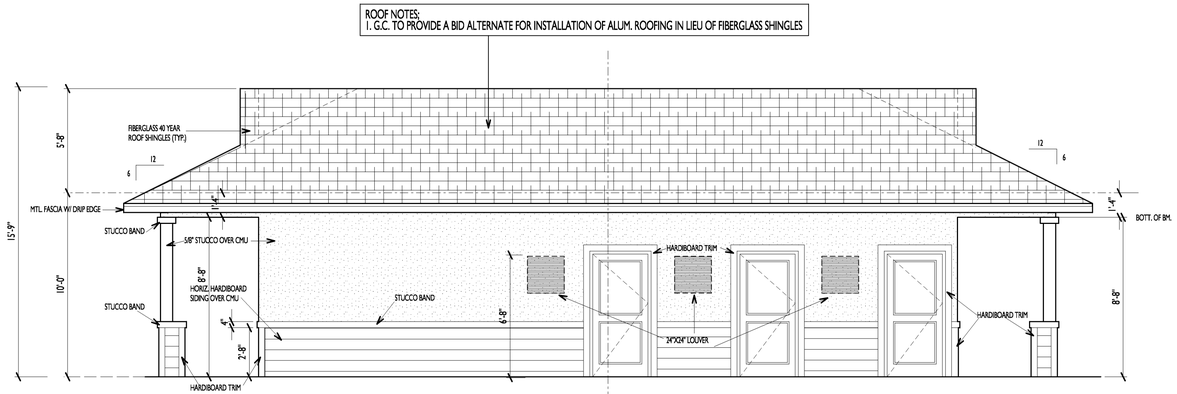
ROOF NOTES:
1. G.C. TO PROVIDE A BID ALTERNATE FOR INSTALLATION OF ALUM. ROOFING IN LIEU OF FIBERGLASS SHINGLES



3 FRONT ELEVATION

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

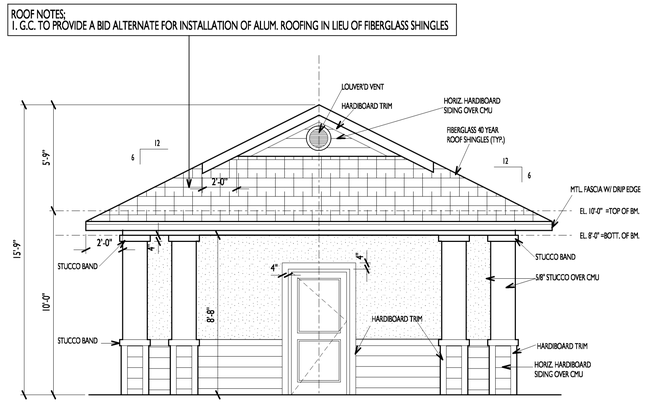
ROOF NOTES:
1. G.C. TO PROVIDE A BID ALTERNATE FOR INSTALLATION OF ALUM. ROOFING IN LIEU OF FIBERGLASS SHINGLES



2 SIDE ELEVATION

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

ROOF NOTES:
1. G.C. TO PROVIDE A BID ALTERNATE FOR INSTALLATION OF ALUM. ROOFING IN LIEU OF FIBERGLASS SHINGLES



4 BACK ELEVATION

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

DRAWING: EXTERIOR ELEVATIONS
NEW RESTROOM BUILDING

DMC JOB NO. 16-095-07

SHEET NO. A-06

DRAWN | CAD
CHECKED | SCALE
APPROVED | DATE 08-18-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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CITY OF EDGEWATER
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CONCRETE LINTEL SCHEDULE

"CAST-CRETE"			GRAVITY							UPLIFT							LATERAL	
LABEL	LENGTH	TYPE	8U8	8F8-0B / 8F8-1B	8F12-0B / 8F12-1B	8F16-0B / 8F16-1B	8F20-0B / 8F20-1B	8F24-0B / 8F24-1B	8F28-0B / 8F28-1B	8F32-0B / 8F32-1B	8F8-1T / 8F8-2T	8F12-1T / 8F12-2T	8F16-1T / 8F16-2T	8F20-1T / 8F20-2T	8F24-1T / 8F24-2T	8F28-1T / 8F28-2T	8F32-1T / 8F32-2T	8U8	8F8
A	2'-10" (34")	PRECAST	2302	3166 / 3166	4473 / 4473	6039 / 6039	7526 / 7526	9004 / 9004	10472 / 10472	11936 / 11936	2727 / 2727	2878 / 2784	4101 / 3981	5332 / 5190	6569 / 6407	7811 / 7630	9055 / 8857	2021	2021
B	3'-6" (42")	PRECAST	2302	3138 / 3166	3377 / 4473	4689 / 6039	6001 / 7526	7315 / 9004	8630 / 10472	9947 / 11936	2165 / 2165	2289 / 2215	3260 / 3165	4237 / 4125	5219 / 5091	6204 / 6061	7192 / 7036	1257	1257
C	4'-0" (48")	PRECAST	2029	2325 / 2646	2496 / 4473	3467 / 6039	4438 / 7526	5410 / 9004	6384 / 10472	7358 / 11936	1878 / 1878	1989 / 1925	2832 / 2750	3680 / 3583	4532 / 4422	5387 / 5264	6245 / 6110	938	938
D	4'-6" (54")	PRECAST	1651	1787 / 2170	1913 / 4027	2657 / 6039	3403 / 7526	4149 / 9004	4896 / 10472	5644 / 11936	1660 / 1660	1762 / 1705	2507 / 2435	3257 / 3171	4010 / 3913	4767 / 4658	5525 / 5406	727	727
E	5'-4" (64")	PRECAST	1184	1223 / 1665	1301 / 2889	1809 / 5057	2317 / 6096	2826 / 5400	3336 / 6424	3846 / 7450	1393 / 1393	1484 / 1437	2110 / 2050	2741 / 2670	3375 / 3293	4010 / 3920	4648 / 4549	505	505
F	5'-10" (70")	PRECAST	972	1000 / 1459	1059 / 2464	1474 / 4144	1889 / 5458	2304 / 4437	2721 / 5280	3137 / 6122	1272 / 1272	1357 / 1315	1930 / 1875	2505 / 2441	3084 / 3010	3665 / 3583	4247 / 4157	418	418
G	6'-6" (78")	PRECAST	937	1255 / 1255	2101 / 2101	3263 / 3396	2746 / 5260	3358 / 7134	3971 / 8995	4585 / 6890	1141 / 1141	1200 / 1182	1733 / 1684	2250 / 2192	2769 / 2703	3290 / 3216	3812 / 3732	707	887
H	7'-6" (90")	PRECAST	767	1029 / 1029	1675 / 1675	2385 / 2610	1994 / 3839	2439 / 5596	2886 / 6613	3333 / 5047	959 / 990	912 / 1029	1475 / 1466	1914 / 1907	2354 / 2351	2797 / 2797	3240 / 3245	591	657
I	9'-4" (112")	PRECAST	573	632 / 768	1049 / 1212	1469 / 1818	1210 / 2544	1482 / 3469	1754 / 4030	2027 / 3127	801 / 801	612 / 755	980 / 1192	1269 / 1550	1560 / 1910	1852 / 2271	2144 / 2634	454	630
J	10'-6" (126")	PRECAST	456	482 / 658	802 / 1025	1125 / 1514	915 / 2081	1122 / 2774	1328 / 3130	1535 / 2404	716 / 716	498 / 611	793 / 1039	1027 / 1389	1261 / 1711	1496 / 2034	1731 / 2358	396	493
K	11'-4" (136")	PRECAST	445	598 / 598	935 / 935	1365 / 1365	1854 / 1854	2355 / 2441	1733 / 3155	2075 / 4044	666 / 666	439 / 535	696 / 905	899 / 1295	1104 / 1595	1309 / 1896	1515 / 2198	363	556
L	12'-0" (144")	PRECAST	414	545 / 555	864 / 864	1254 / 1254	1689 / 1693	2074 / 2211	1570 / 2832	1818 / 3590	607 / 631	400 / 486	631 / 818	816 / 1209	1001 / 1514	1186 / 1799	1372 / 2086	340	494
M	13'-4" (160")	PRECAST	362	427 / 485	726 / 748	1028 / 1076	1331 / 1438	1635 / 1855	1224 / 2343	1418 / 2920	500 / 573	340 / 409	532 / 682	686 / 1004	841 / 1367	997 / 1637	1153 / 1897	302	398
N	14'-0" (168")	PRECAST	338	381 / 455	648 / 700	919 / 1003	1190 / 1335	1462 / 1714	1087 / 2153	1260 / 2666	458 / 548	316 / 378	493 / 629	635 / 922	778 / 1254	922 / 1567	1065 / 1816	286	360
O	14'-8" (176")	PRESTRESSED	N.R.	N.R. / 465	N.R. / 765	N.R. / 1370	N.R. / 2045	N.R. / 2610	N.R. / 3185	N.R. / 3765	243 / 243	295 / 352	459 / 582	591 / 852	724 / 1156	857 / 1491	990 / 1742	N.R.	357
P	15'-4" (184")	PRESTRESSED	N.R.	N.R. / 420	N.R. / 695	N.R. / 1250	N.R. / 1855	N.R. / 2370	N.R. / 2890	N.R. / 3410	228 / 228	278 / 329	430 / 542	553 / 791	677 / 1072	801 / 1381	925 / 1676	N.R.	327
Q	17'-4" (208")	PRESTRESSED	N.R.	N.R. / 310	N.R. / 530	N.R. / 950	N.R. / 1400	N.R. / 1800	N.R. / 2200	N.R. / 2600	188 / 188	236 / 276	361 / 449	464 / 649	567 / 874	670 / 1124	774 / 1389	N.R.	255
R	19'-4" (232")	PRESTRESSED	N.R.	N.R. / 240	N.R. / 400	N.R. / 750	N.R. / 1090	N.R. / 1400	N.R. / 1720	N.R. / 2030	165 / 165	207 / 239	313 / 383	401 / 550	490 / 736	578 / 940	667 / 1160	N.R.	204
S	21'-4" (256")	PRESTRESSED	N.R.	N.R. / 183	N.R. / 330	N.R. / 610	N.R. / 940	N.R. / 1340	N.R. / 1780	N.R. / 2110	145 / 142	186 / 212	278 / 336	356 / 477	433 / 635	512 / 807	590 / 993	N.R.	172
T	22'-0" (264")	PRESTRESSED	N.R.	N.R. / 160	N.R. / 300	N.R. / 570	N.R. / 870	N.R. / 1250	N.R. / 1660	N.R. / 1970	140 / 137	180 / 205	268 / 322	343 / 457	418 / 607	493 / 771	568 / 947	N.R.	161
U	24'-0" (288")	PRESTRESSED	N.R.	N.R. / 130	N.R. / 240	N.R. / 470	N.R. / 720	N.R. / 1030	N.R. / 1350	N.R. / 1610	127 / 124	165 / 186	244 / 290	312 / 408	380 / 538	447 / 680	515 / 833	N.R.	135

type designation

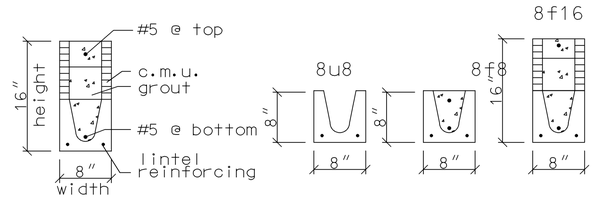
f=filled w/grout/u=unfilled

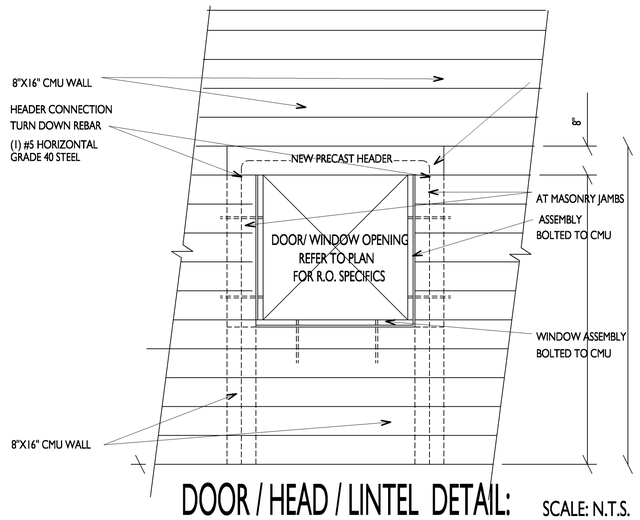
8f16-1b/1t

- width
- height
- quantity of #5 @ top
- quantity of #5 @ bottom

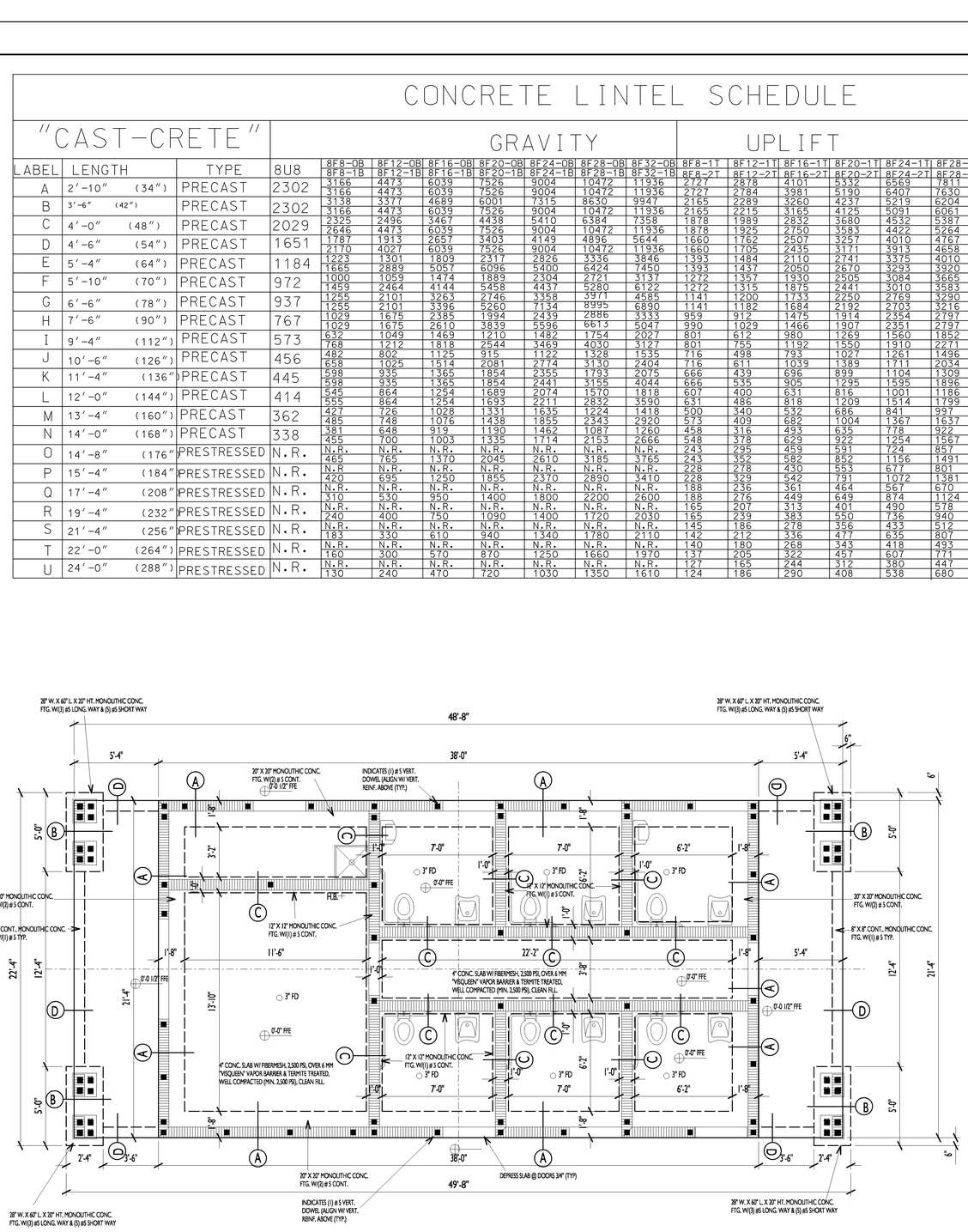
NOTE:

USE 8F16-1B/1T UNLESS OTHERWISE SPECF.





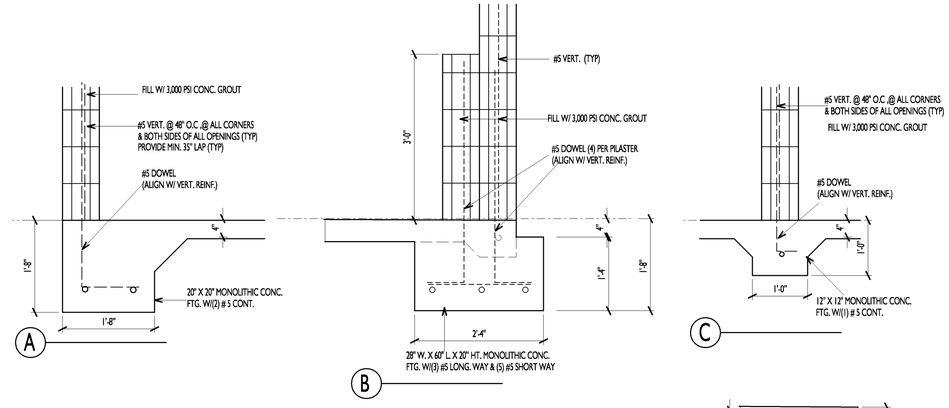
DOOR / HEAD / LINTEL DETAIL: SCALE: N.T.S.



NORTH

1 FOUNDATION PLAN

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



2 FOUNDATION DETAILS

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

DRAWING: FOUNDATION PLAN & DETAILS NEW RESTROOM BUILDING

DMC JOB NO. 16-095-07

SHEET NO. A-07

DRAWN | CAD

CHECKED | SCALE

APPROVED | DATE 08-18-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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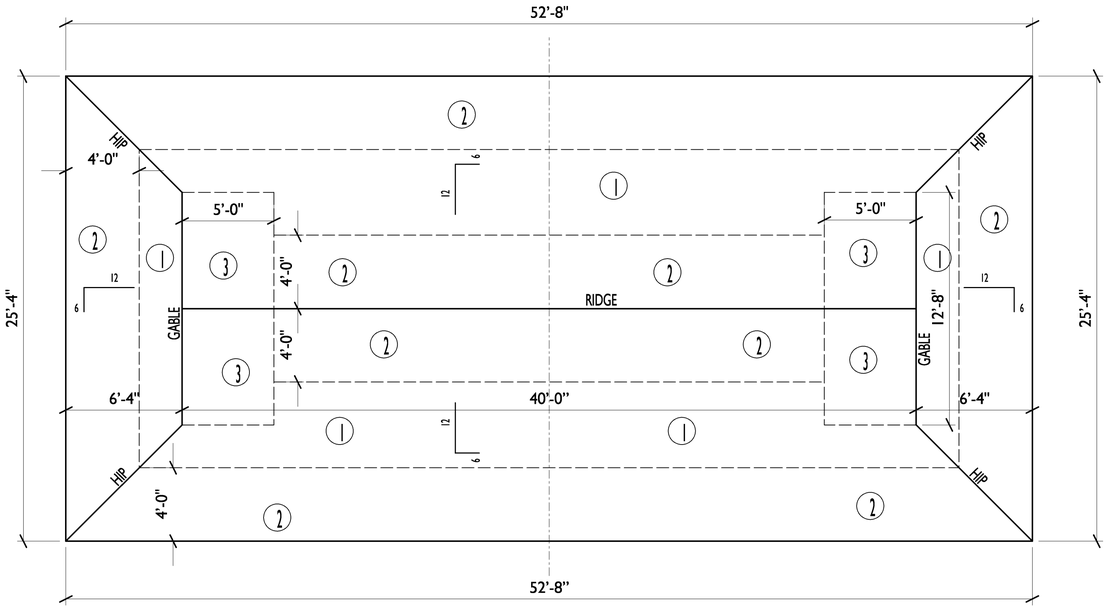
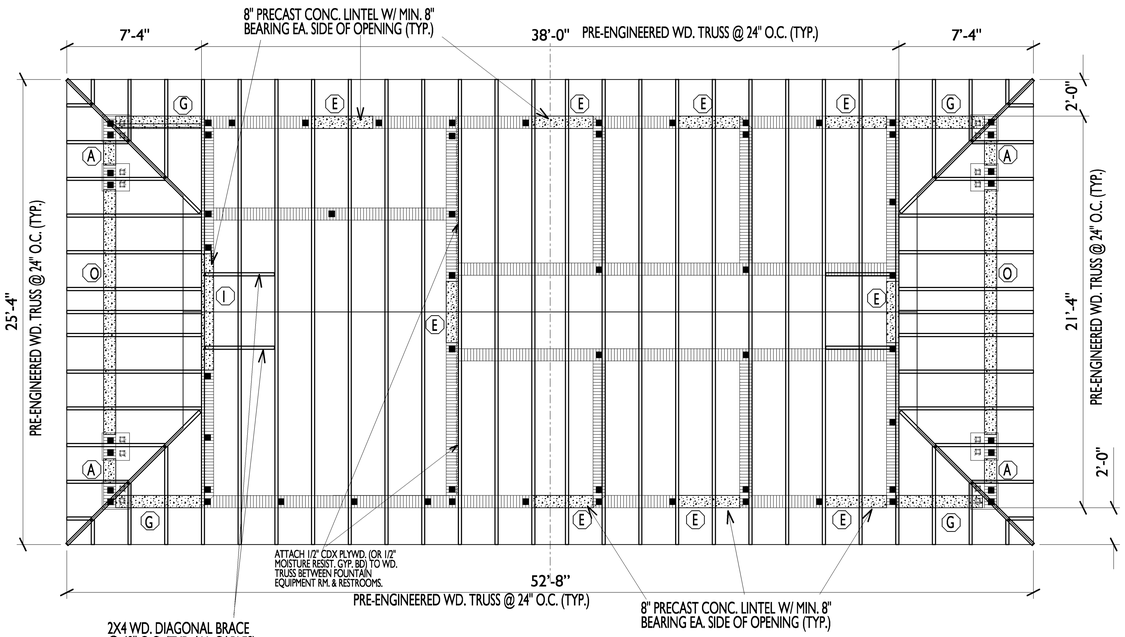


1 ROOF PLAN

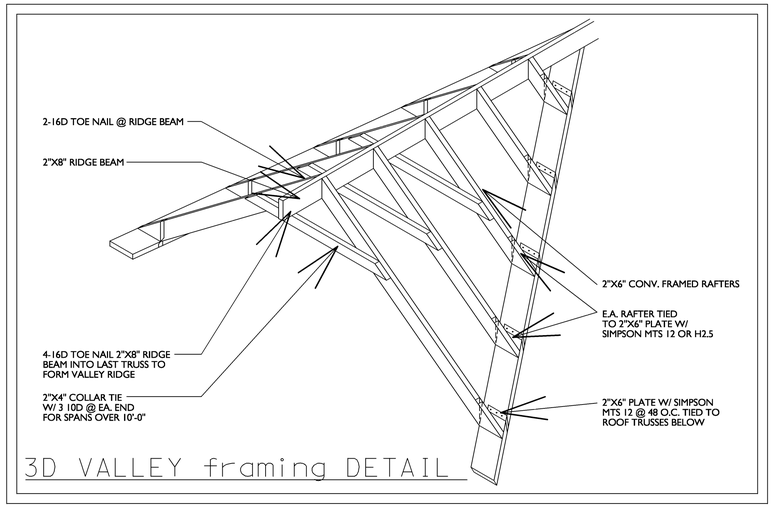
SCALE: 1/4"= 1'-0"

ROOF & WALL SHEATHING - NAIL ZONE PATTERN SCHEDULE		
ROOF SHEATHING NAILING PATTERN:		
MARK:	ZONE:	NAILING DESCRIPTION:
(1)	1	Use 8D Common Nails @ 6" O.C.
(2)	2	Use 8D Common Nails @ 6" O.C.
(3)	3	Use 8D Common Nails @ 4" O.C.
WALL SHEATHING NAILING PATTERN:		
Material:	Field Nailing Pattern:	Edge Nailing Pattern:
Plywood	Use 10D Nails @ 12" O.C.	Use 10D Nails @ 6" O.C.
Gypsum	Use 5D Nails @ 10" O.C.	Use 5D Nails @ 7" O.C.



2 ROOF FRAMING/ TRUSS PLAN

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



3D VALLEY framing DETAIL

WALL TYPE LEGEND;	AREA CALCULATIONS;	
CMU WALL	GROSS AREA (INTERIOR)	- 811 SF
WD. STUD WALL	GROSS AREA (EXTERIOR COVERED)	- 229 SF
	TOTAL AREA (UNDER ROOF)	- 1,040 SF

DRAWING: ROOF & FRAMING PLANS
NEW RESTROOM BUILDING

DMC JOB NO. 16-095-07

DRAWN | CAD | SHEET NO. A-08
CHECKED | SCALE
APPROVED | DATE 08-18-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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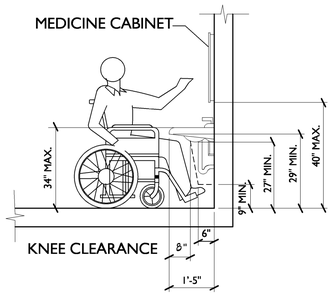
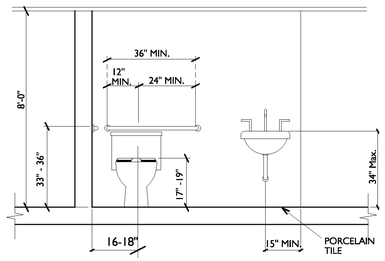
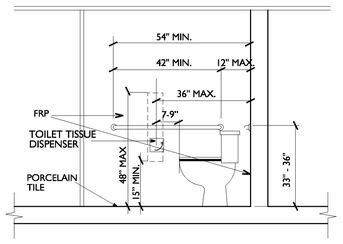


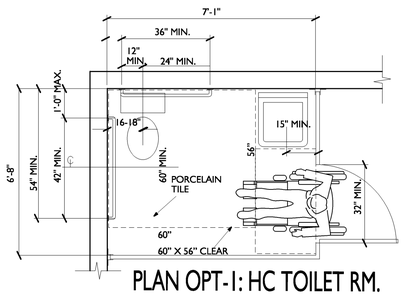
DETAIL: HC LAVATORY 1/2" = 1'-0"



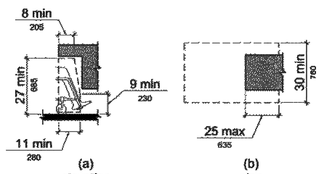
ELEVATION: HC TOILET RM. 1/2" = 1'-0"



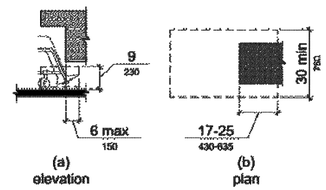
ELEVATION: HC TOILET RM. 1/2" = 1'-0"



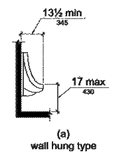
PLAN OPT-1: HC TOILET RM. 1/2" = 1'-0"



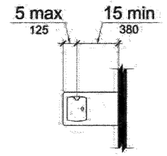
KNEE CLEARANCE (FIGURE 306.3 -FBCA) SCALE: NTS



TOE CLEARANCE (FIGURE 306.2 -FBCA) SCALE: NTS

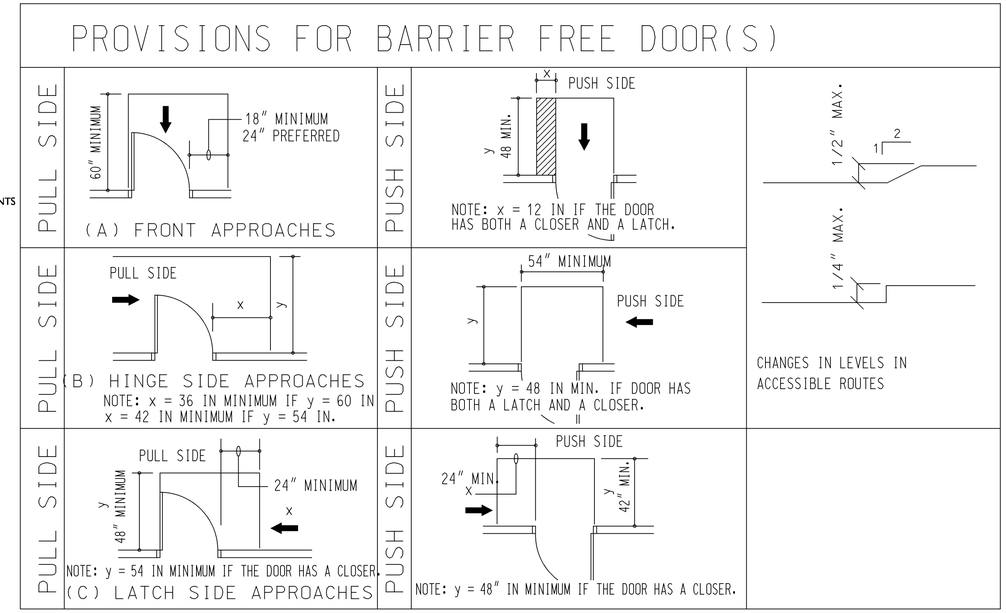


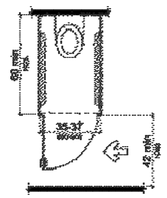
(FIGURE 605.2 -FBCA)
HEIGHT AND DEPTH OF URINAL



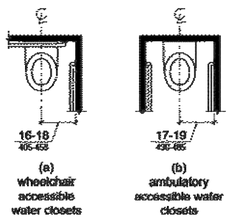
(FIGURE 602.5 -FBCA)
SPOUT LOCATION

PROVISIONS FOR BARRIER FREE DOOR(S)

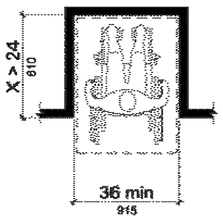




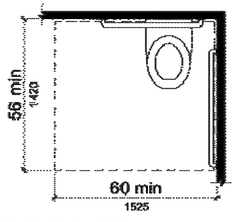
(FIGURE 604.8.2 -FBCA)
AMBULATORY ACCESSIBLE TOILET COMPARTMENT



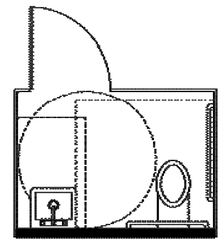
(FIGURE 604.2 -FBCA)
WATER CLOSET LOCATION



(FIGURE 305.7.1 -FBCA)
MANEUVERING CLEARANCE
IN AN ALCOVE
FORWARD APPROACH



(FIGURE 604.3.1 -FBCA)
SIZE OF CLEARANCE AT WATER CLOSETS



(FIGURE 604.8.1.6 -FBCA)
WHEELCHAIR ACCESSIBLE TOILET
COMPARTMENT IN NEW CONSTRUCTION

DRAWING: ADA DETAILS
DMC JOB NO. 16-095-07
SHEET NO. A-09
DRAWN | CAD
CHECKED | SCALE VARIES
APPROVED | DATE 08-18-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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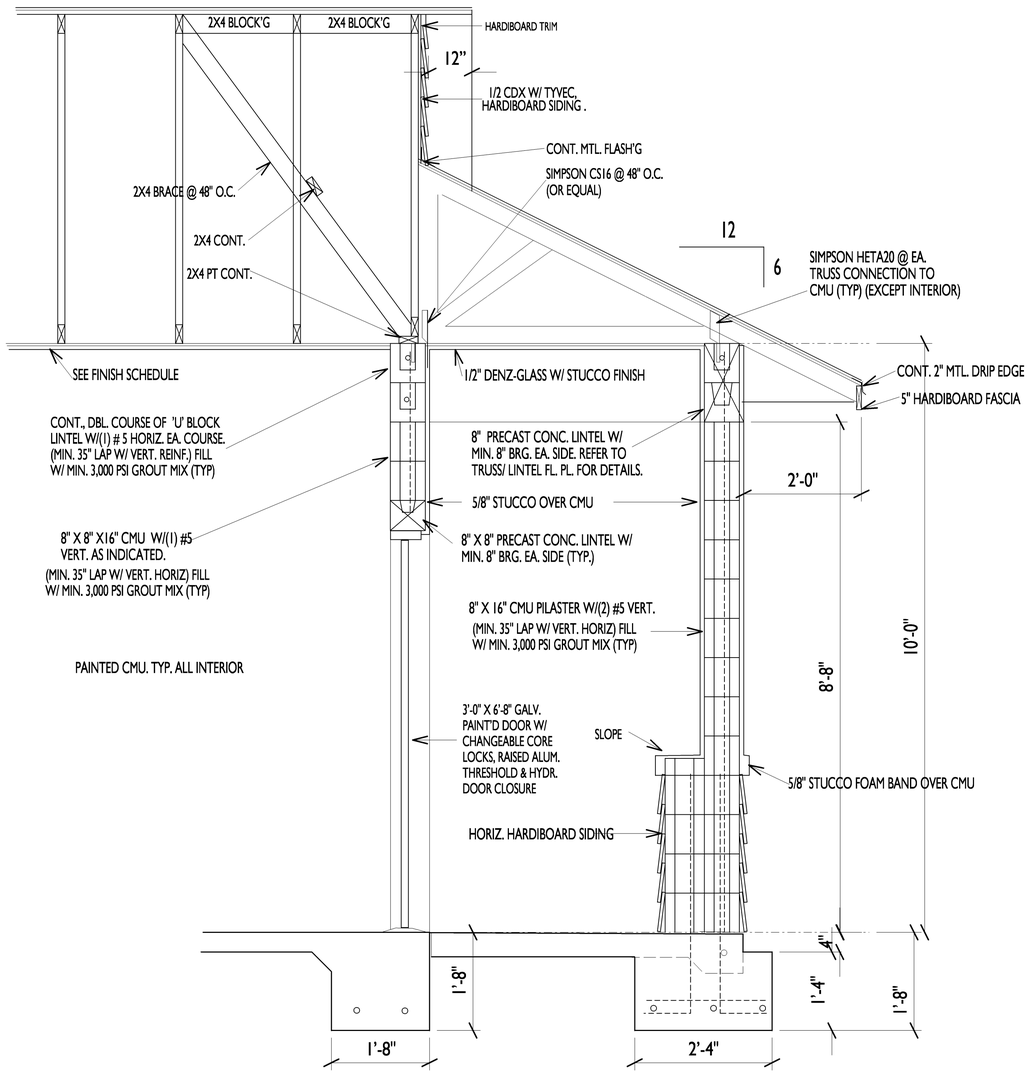
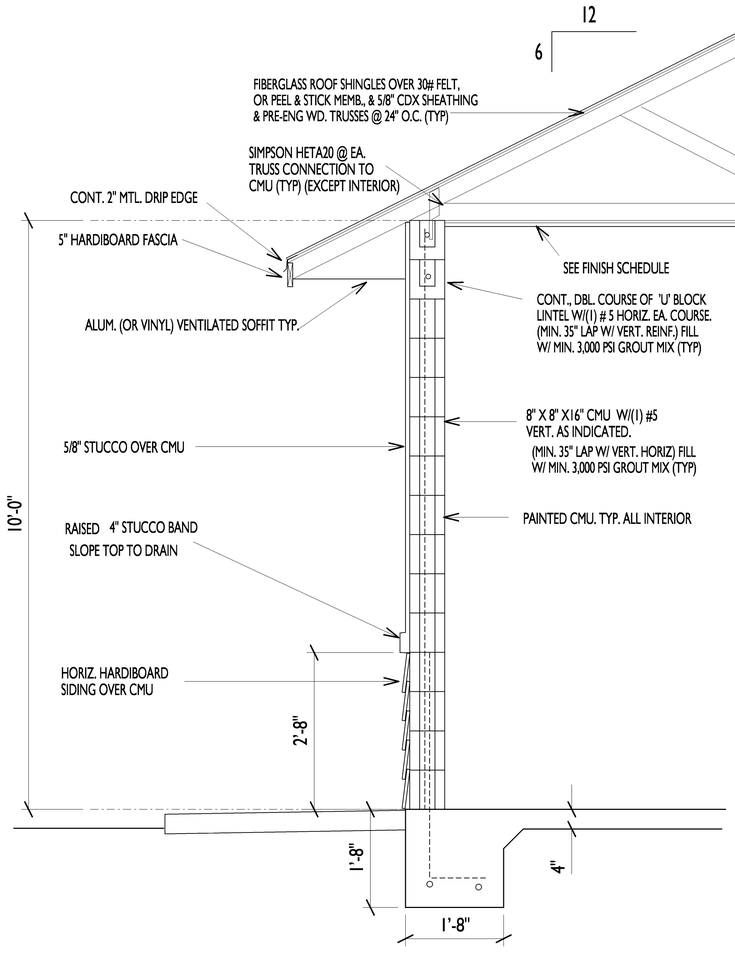


1 SECTION @ PORCH

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



2 SECTION (TYP.)

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

DRAWING: SECTIONS
NEW RESTROOM BUILDING
DMC JOB NO. 16-095-07
DRAWN | CAD | SHEET NO. A-10
CHECKED | SCALE
APPROVED | DATE 08-18-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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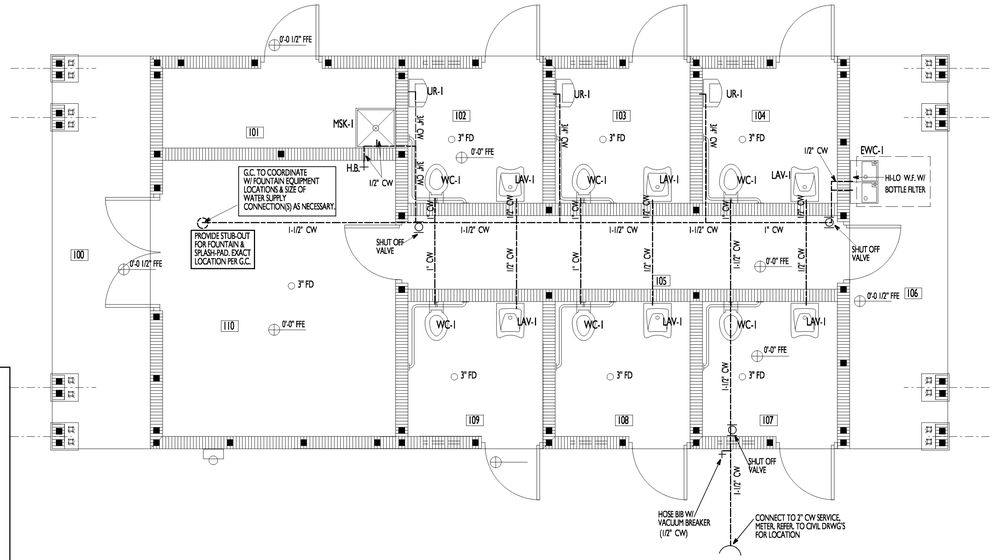
EDGEWATER FL 32132

PLUMBING FIXTURE & EQUIP. SCHEDULE (OR EQUAL)

FIXTURE TAG	DESCRIPTION & ACCESSORIES	MANUFACTURER	MODEL NUMBER	WASTE	VENT	CW
WC-1 (ADA)	ELONGATED FRONT VITREOUS SHINA - 1- PIECE (17" HIGH) FLOOR MOUNTED, BARRIER FREE - ADA HEIGHT SIPHON JET FLUSH VALVE, CHROME, 1.6 GPF HIGH EFFICIENCY, BATTERY OPERATED W/ OPEN TOILET SEAT (WHITE) & HARDWARE. PROVIDE MOUNTING RING, BOLTS, STOP	AMERICAN STANDARD AMERICAN STANDARD PROFLO	3043.001.020 SELECTRONIC TSCOFH2000	3"	2"	1"
LAV-1 (ADA)	BARRIER FREE - WALL HUNG LAV, VITREOUS CHINA (PROVIDE GURD FOR TRAPS/ STOPS ADA COMPLIANT. FRONT OVERFLOW. (ADA) PROVIDE STRAINER, TRAP, STOPS. FLOOR MOUNTED CARRIER. 4" CENTERSET, CHROME FINISH FAUCET, 1.5 GPM BATTERY POWERED	AMERICAN STANDARD WATTS AMERICAN STANDARD	0355012.020 TCA411 6055202.002	2"	2"	1/ 2"
F D	FLOOR DRAIN, 6 X 6, TYPE "S" STRAINER	WATTS	ZN415S	3"	2"	
	SQUARE GRATE, ADJUSTABLE INLET					
	PROVIDE TRAP PRIME VALVE	PROVENT	TPV			
MSK-1	MOP SINK BASIN, 24" X 24" X 10" PVC DRAIN BODY, STAINLESS STEEL STRAINER AND 3 GASKETED OUTLET CONNECTION	FIAT	MSBID2424			
EWC-1	DRINKING FOUNTAIN- BARRIER FREE, BI-LEVEL STAINLESS STEEL, CHROME PLATED TWO STREAM., W/ WATER FILTER, FLOOR MOUNTED CARRIER. (W/ BOTTLE FILTER)	HASLEY TAYLOR WATTS	HAC8FSBLQ TCA411	2"	2"	1/ 2"
FCO	FLOOR CLEAN OUT, NICKEL BRONZE, COORDINATE FLOORING MATERIALS W/ FINAL FINISHES	WATTS	CO- 200R			
ECO	EXTERIOR CLEAN OUT, NICKEL BRONZE, COORDINATE W/ CIVIL AND LANDSCAPE FOR EXACT LOCATION	WATTS	CO- 270- 1	VARIES		
UR-1	VITREOUS CHINA, BARRIER FREE - LOW CONSUMPTION 1.0 GPF, SIPHON JET FLUSH ACTION, 3/4" INLET SPUD, TOP FRONT RIM AT 17", WALL HANGERS, FLOOR MOUNTED URINAL CARRIER	AMERICAN STANDARD HYDROTEK	TRIMBROOK HB -8000C -81	2"	1-1/2"	3/4"
PDI	WATER HAMMER ARRESTOR	WATTS	15M2			VARIES

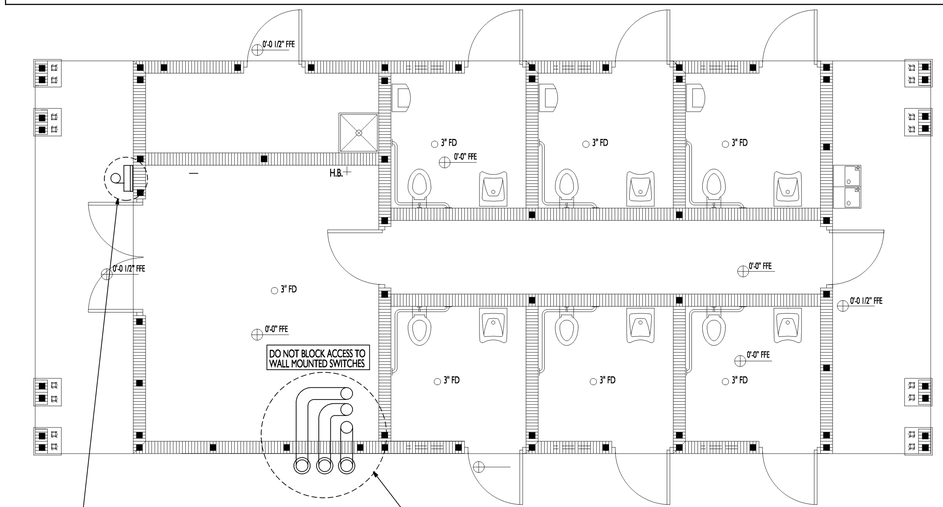
GENERAL NOTES - PLUMBING

1. CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM ALL WORK IN STRICT ACCORDANCE W/ FLORIDA BUILDING CODE, 5 TH EDITION, W/ ALL APPLICABLE LOCAL CODES AND ORDINANCES.
2. CONTRACTOR SHALL SHALL VERIFY AND CORRECT AS REQUIRED TO MEET ALL CODES & REGULATIONS ANY POSSIBLE DISCREPANCIES BETWEEN TYPE & SIZE OF CONNECTION SPECIFIED IN PLUMBING FIXTURE SCHEDULE AND FIXTURES ACTUALLY INSTALLED ON THE SITE
3. ALL SANITARY PIPING 3" AND LARGER SHALL HAVE A 1 / 8" PER FT. ALL SANITARY PIPING SMALLER THAN 3" SHALL HAVE A SLOPE OF 1 / 4" PER FT UNLESS OTHERWISE NOTED.
4. VENT PIPING SHOWN ON FLOOR PLANS IS ONLY INDICATIVE
5. VALVES AND FITTINGS SHALL BE OF SAME SIZE OF LINE ON WHICH THEY ARE LOCATED
6. CONTRACTOR SHALL COORDINATE ALL WORK W/ OTHER TRADES, INCLUDING FOUNTAIN EQUIP./SYSTEM CONTRACTOR
7. CONTRACTOR SHALL FIELD VERIFY ALL GIVEN MEASUREMENTS PRIOR TO LAYING AND CONNECTING ALL PIPING SYSTEMS AND NOTIFY ARCHITECT OF ANY SIGNIFICANT DISCREPANCIES.
8. INSTALL WATER HAMMER SHOCK ARRESTORS AT EACH FIXTURE OR BATTERY OF FIXTURES WHERE REQUIRED. ARRESTORS SHALL BE FACTORY- FABRICATED. INSTALL ARRESSTORS AND SIZE PER PLUMBING AND DRAINAGE INSTITUTE STANDARD P.D.I. WH -201
9. AIR CHAMBERS SHALL NOT BE CONSIDERED AN EQUAL TO WATER ARRESTORS AS SPECIFIED
10. CONTRACTOR SHALL BE RESPONSIBLE FOR MANTAINING FIRE RATING AND WEATHERPROOFING INTEGRITY OF ALL PIPING AND PENETRATIONS
11. THE WATER SUPPLY AND SANITARY LINES ARE DEPICTED DIAGRAMATICALLY AND THE LOCATIONS OF LINES MAY BE ADJUSTED IN FIELD AFTER NOTIFYING ARCHITECT. NO CHANGES OF SIZING UNLESS ARCHITECT IS INFORMED PRIOR TO IMPLEMENTATION OF WORK
12. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY SUPPORTING DEVICES FOR ALL FIXTURES INCLUDED IN CONTRACT OR HERBIN SPECIFIED OR OTHERWISE
13. ROUTE ALL PIPING CONCEALED ABOVE CEILINGS, WITHIN WALLS, OR IN CHASES. PIPING EXPOSED SHALL BE SLOPED AND PAINTED TO MATCH ARCH. FINISHES. PIPING IN PLUMBING CHASE ROOM, STORAGE MAY BE EXPOSED
14. SEE ADA DETAILS SHEET FOR EXACT LOCATIONS OF FIXTURE MOUNTING HEIGHTS, DIMENSIONS, ETC.
15. CONTRACTOR SHALL INSTALL DIELECTRIC UNIONS AT CONNECTIONS OF DISSIMILAR METALS (TYP.)
16. CONTRACTOR SHALL ROUGH-IN ALL WASTES AND SUPPLIES TO SPECIAL EQUIP. ACCORDING TO MANUFACTURER'S SHOP DRAWINGS AND MAKE FINAL CONNECTIONS. ALL SUPPLIES SHALL BE VALVED. INSTALL VACUUM BREAKERS WHERE REQUIRED BY CODE.
17. ALL PIPING PENETRATING A BEARING WALL OR FTG MUST BE SLEEVED
18. PIPING SHALL ESSENTIALLY BE ROUTED & LOCATED AS INDICATED ON THE DRAWINGS, HOWEVER, ACTUAL PLACEMENT SHALL BE VERIFIED BY CONFIRMING EXACT LOCATION OF STRUCTURES & OTHER UTILITIES IN THE FIELD & BY CAREFUL LAYOUT PRIOR TO EXECUTION OF THE WORK.
19. WATER SUPPLY PIPES AND DRAIN PIPES UNDER HANDICAPPED LAVATORIES SHALL BE INSULATED PER AMERICANS W/ DISABILITIES ACT, W/ FACTORY PRE-FABRICATED MICROBIAL PVC RESIN SEAMLESS INSULATION. BASE OF DESIGN : ZURN INDUSTRIES, INC.
20. ALL BELOW SLAB DEMO AND NEW PLUMBING WORK INDICATED REQUIRES SLAB CUTTING & PATCHING PER ARCHITECTURAL SPECIFICATIONS
21. IN ADDITION TO PROVIDING VALVE TAGS, CONTRACTOR SHALL AFFIX A LABEL (NEARBY) INDICATING VALVE FUNCTION AND NUMBER
22. STORM WATER, SANITARY, VENT & WASTE PIPING SHALL BE SCHEDULE 40 PVC -DWV W/ SOLVENT JOINTS. PROVIDE ASJ FIBERGLASS INSULATION TO MEET PLENUM RATING IN ALL CEILING RETURN AIR PLENUMS.
23. BUILDING DOMESTIC WATER PIPING (ABOVE FL.) SHALL BE HARD COPPER TUBING, ASTM B -88 TYPE L & MM WATER TUBE, DRAWN TEMPER, COPPER PRESSURE FITTINGS W/ SOLDERED JOINTS. PIPING 2" AND LARGER SHALL HAVE GROOVED END FITTINGS, KEYED COUPLINGS AND GROOVE
24. NOT USED (INSULATE HOT WATER LINES W/ 3/4" CELLULAR ELASTOMERIC INSULATION)
25. BALL VALVES 1/4" THRU 2" SHALL BE TWO PIECE - 600 WOG, TEFLON SEATS, ANSI 316 STAINLESS STEEL BALL AND STEM (EXTENSION STEM ON INSULATED HOT WATER AND TEMPERED HOT WATER), BRONZE BODY W/ THREADED OR SOLDIERED END.



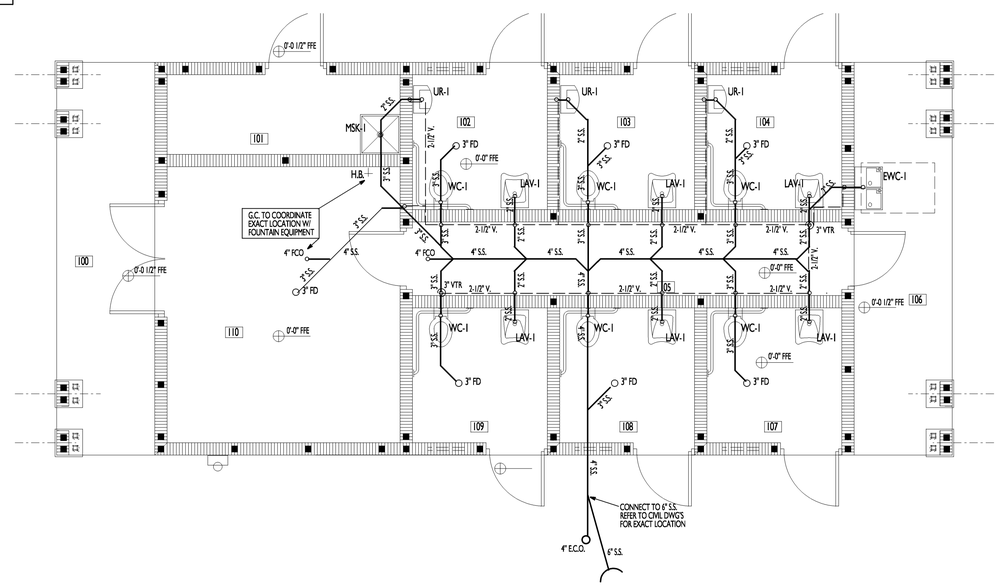
2 DOMESTIC WATER PLAN

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



1 MECHANICAL PLAN

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



3 SANITARY SEWER PLAN

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

DRAWING: MECHANICAL & PLUMBING PLANS & SCHEDULE NEW RESTROOM BUILDING

DMC JOB NO. 16-095-07

SHEET NO. M-01

DRAWN | CAD

CHECKED | SCALE

APPROVED | DATE 08-18-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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DIVISION 26 - ELECTRICAL SPECIFICATIONS

GENERAL REQUIREMENTS

THE GENERAL CONDITIONS AND THE SUPPLEMENTARY CONDITIONS OF THE ARCHITECT SHALL BE CONSIDERED AS PART OF THIS SPECIFICATION.

THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING. BIDS SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF ALL EXISTING SITE CONDITIONS. FIELD VERIFY THE EXISTING ELECTRICAL AND TELEPHONE SITE CONDITIONS AND ROUGH-IN (IF ANY).

CONTRACTOR TO VERIFY THE INTERCONNECTION REQUIREMENTS OF EACH ELECTRICAL SYSTEM BETWEEN THIS SPACE AND ANY OTHER ATTACHED SPACE. THESE REQUIREMENTS ARE TO BE INCLUDED IN BID.

FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND TOOLS TO PERFORM THE ELECTRICAL WORK AS INDICATED FOR A COMPLETE AND OPERABLE INSTALLATION.

THE ELECTRICAL CONTRACTOR SHALL PROVIDE TEMPORARY SERVICE, WIRING, POWER, AND LIGHTS AS REQUIRED. TEMPORARY SERVICE SHALL MEET ALL NEC AND OSHA REQUIREMENTS CONCERNING GROUND FAULT PROTECTION. UPON COMPLETION OF PROJECT, CONTRACTOR SHALL REMOVE ALL CONDUIT, CONDUCTORS, DEVICES, ETC., ASSOCIATED WITH TEMPORARY SERVICE AND WIRING.

ELECTRICAL CONTRACTOR SHALL RECORD ALL FIELD CHANGES IN HIS WORK AS THE JOB PROGRESSES, AND UPON COMPLETION SHALL TURN OVER TO THE GENERAL CONTRACTOR A RECORD SET OF PRINTS SHOWING THESE CHANGES.

COMPLYING AND PERMITS

COMPLY WITH LOCAL CODES, STATE CODES, AND NATIONAL ELECTRICAL CODE (NEC), AND ALL APPLICABLE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION AT THE SITE.

WHERE THE REQUIREMENTS OF ANY OF THE AUTHORITIES LISTED ABOVE DIFFER FROM THE PLANS OR SPECIFICATIONS, THE MOST STRINGENT REQUIREMENTS TAKE PRECEDENCE.

OBTAIN PERMITS FROM THE AUTHORITIES HAVING JURISDICTION AND TURN OVER TO THE GENERAL CONTRACTOR.

MATERIALS

ALL MATERIALS USED IN THIS PROJECT SHALL BE NEW UNLESS OTHERWISE NOTED AND SHALL BE LISTED BY THE UNDERWRITER'S LABORATORIES, INC., AS CONFORMING TO ITS STANDARDS WHERE SUCH STANDARDS HAVE BEEN ESTABLISHED. THESE MATERIALS SHALL BEAR THE LISTING MARK OF THE UL.

SUBMIT MATERIALS LIST AND SHOP DRAWINGS FOR ALL MAJOR EQUIPMENT PROPOSED FOR THIS WORK TO THE GENERAL CONTRACTOR FOR REVIEW. SUBMITTALS SHALL BE IN ACCORDANCE WITH THE GENERAL CONDITIONS AND SHALL BEAR THE APPROVAL OF THE ELECTRICAL CONTRACTOR SHOWING THAT HE HAS REVIEWED THEM AND THAT THE PROPOSED MATERIALS ARE EQUIVALENT TO OR BETTER THAN THE SPECIFIED MATERIALS AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN.

CONTRACTOR SHALL PROVIDE AND INSTALL THE SPECIFIED MANUFACTURER AND MODEL NUMBER OF LIGHT FIXTURES AND LAMPS AS INDICATED ON THE LIGHTING FIXTURE SCHEDULE. THE CONTRACTOR SHALL PROVIDE ADEQUATE INFORMATION ON ANY PROPOSED EXCEPTION TO THE SPECIFIED LIST NO LESS THAN THREE (3) DAYS PRIOR TO BID DATE. PROVIDE MANUFACTURER AND MODEL NUMBER OF PROPOSED EXCEPTIONS AND, IF REQUESTED, PROVIDE CUT SHEET, PHOTOMETRICS, AND SAMPLES. FIXTURE SUBMITTALS NOT AS SPECIFIED AND PROVIDED AFTER BID WITHOUT PRIOR APPROVAL WILL NOT BE ACCEPTED FOR REVIEW.

GROUNDING AND BONDING

GROUND THE SYSTEM IN ACCORDANCE WITH ARTICLE 250 OF THE LATEST ADOPTED ISSUE OF THE NEC.

ALL EQUIPMENT, MOTOR, FIXTURE, RECEPTACLE, OR DEVICE TO WHICH CURRENT CARRYING CONDUCTORS ARE CONNECTED SHALL HAVE A SEPARATE GREEN EQUIPMENT GROUNDING CONDUCTOR, SIZED IN ACCORDANCE WITH NEC TABLE 250-95, AND TO BE INSTALLED IN THE RACEWAY AND CONNECTED TO THE DEVICE.

ALL GROUNDING OR BONDING CONDUCTORS SHALL BE SIZED AS REQUIRED BY THE NEC AND SHALL BE THWN/THHN INSULATED WITH GREEN COLOR CODING.

ALL ELECTRICAL EQUIPMENT ENCLOSURES AND CONDUCTOR ENCLOSURES SHALL BE GROUNDED.

SAFETY SWITCHES

SAFETY SWITCHES SHALL BE GENERAL DUTY SAFETY SWITCHES WITH 100,000A SHORT CIRCUIT RATING AND SHALL BE LISTED IN ACCORDANCE WITH U.L. 98. THE COVER SHALL BE INTERLOCKED SO THAT THE DOOR CANNOT BE OPENED WITH THE HANDLE IN THE 'ON' POSITION, EXCEPT BY THE INTENTIONAL OPERATION OF A CONCEALED RELEASE (DEFEATER) MECHANISM. PROVIDE NEMA 1 ENCLOSURES FOR INTERIOR LOCATIONS AND NEMA 3R ENCLOSURES FOR EXTERIOR LOCATIONS.

SAFETY SWITCHES AND DISCONNECTS SHALL BE FUSED OR NON-FUSED AS INDICATED ON DRAWINGS OR AS REQUIRED BY THE NEC. SWITCHES SHALL BE MANUFACTURED BY GENERAL ELECTRIC, SQUARE D, SIEMENS, WESTINGHOUSE, OR EQUIVALENT.

PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR ALL SAFETY SWITCHES INDICATING EQUIPMENT SERVED.

FUSES TO BE BUSSMAN TYPE, DUAL-ELEMENT, TIME DELAY, TYPE RK5.

ELECTRIC MOTOR AND EQUIPMENT WIRING

PROVIDE A COMPLETE BRANCH CIRCUIT WIRING, STARTER AND DISCONNECT SWITCH FOR ALL MOTOR DRIVEN EQUIPMENT. WHEN MOTOR DRIVEN EQUIPMENT IS PROVIDED WITH 'PACKAGE' CONTROL PANEL WHICH INCLUDES STARTER, THIS CONTRACTOR WILL NOT PROVIDE STARTER. MOTOR CONNECTIONS SHALL BE MADE WITH FLEXIBLE CONDUIT.

PANELBOARDS

NEW PANELS SHALL BE STANDARD BRANCH CIRCUIT PANELBOARDS WITH CONCEALED HINGES AND CONCEALED TRIM ADJUSTING SCREWS AND WITH TYPEWRITTEN DIRECTORY CARD MOUNTED TO INSIDE THE DOOR. PROVIDE SURFACE OR FLUSH MOUNTED PANELBOARDS AS INDICATED ON THE PANELBOARD SCHEDULES AND DRAWINGS.

NEW PANELBOARDS AS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN SHALL BE PANELBOARDS SIMILAR TO SQUARE D TYPE I-LINE, NF, NQ OR SIMILAR EQUIPMENT AS MANUFACTURED BY SIEMENS, GENERAL ELECTRIC, CUTLER-HAMMER, ITE OR EQUIVALENT.

ALL CIRCUIT BREAKERS TO BE BOLT-ON.

RACEWAY

ALL RACEWAY ROUTED CONCEALED ABOVE CEILING OR IN WALL SHALL BE EMT. ALL CONDUIT EXPOSED TO THE PHYSICAL DAMAGE OR OUTSIDE SHALL BE GALVANIZED RIGID STEEL OR INTERMEDIATE METAL CONDUIT. MINIMUM SIZE OF RACEWAY SHALL BE 1/2". UNDERSLAB OR UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC CONDUIT.

SIZE CONDUIT PER NEC FOR ENCLOSED WIRING.

FITTINGS SHALL BE APPROVED AND U.L. LISTED FOR THE RACEWAY INSTALLED.

PROVIDE PULLSTRINGS IN ALL EMPTY CONDUITS.

ALL CONDUIT TERMINATING IN OUTLETS, JUNCTION OR PULL BOXES, AND CABINETS MUST TERMINATE WITH A LOCKNUT AND BUSHING, EXCEPT AT EXPOSED CAST BOXES WHERE THEY MAY BE OMITTED. RIGID CONDUIT SHALL BE INSTALLED WITH DOUBLE LOCKNUTS AND BUSHING.

COUPLINGS, CONNECTORS, AND FITTINGS FOR EMT SHALL BE STEEL SETSCREW.

FLEXIBLE CONDUIT EXPOSED TO MOISTURE SHALL BE LIQUID TIGHT FLEXIBLE METAL CONDUIT, EXCEPT WHERE LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT IS PERMITTED BY LOCAL AUTHORITY.

PVC CONDUIT SHALL BE INSTALLED WITH FACTORY ELBOWS AND FITTINGS. USE ONLY APPROVED SOLVENT GLUE FOR THE CONDUIT AND FITTINGS. FIELD BENDING OF PVC CONDUIT MAY BE PERFORMED ONLY WITH THE CONDUIT MANUFACTURER'S "HOT BOX" APPROVED BENDERS.

ALL CONDUCTORS MUST BE IN A RACEWAY. ROMEX IS NOT ALLOWED. MC CAN BE UTILIZED IF PERMITTED BY THE LOCAL AUTHORITIES HAVING JURISDICTION.

CONDUCTORS

ALL CONDUCTORS SHALL BE #12 COPPER (MINIMUM) WITH THWN/THHN INSULATION AND SHALL CONFORM TO THE CURRENT ISSUE OF THE NEC ARTICLES 300 AND 310, AND SHALL MEET ASTM SPECIFICATIONS. ALL CONDUCTORS SHALL BE NEW, FREE OF KINKS AND OTHER DEFECTS WHEN INSTALLED.

MINIMUM WIRE SIZE SHALL BE NO. 12 (EXCEPT NO. 14 FOR CONTROL WIRING) AND SHALL BE SOFT DRAWN COPPER, SOLID WITH THWN/THHN INSULATION IN SIZES THROUGH NO. 10 AND STRANDED WITH THWN/THHN INSULATION FOR NO. 8 AND LARGER.

INSULATION SHALL BE SUITABLE FOR 600 VOLTS AND MUST BEAR THE CONDUCTOR SIZE, TYPE OF INSULATION, AND THE MANUFACTURER'S NAME STAMPED AT REGULAR INTERVALS.

COLOR CODING SHALL BE AS FOLLOWS:

SYSTEM VOLTAGE:	240/120 VOLT
PHASE A	BLACK
PHASE B	RED
NEUTRAL	WHITE
GROUND	GREEN

COLOR CODE SHALL IDENTIFY THE SAME PHASE THROUGHOUT THE SYSTEM FROM MAIN SWITCH THROUGH ALL BRANCH CIRCUITRY.

SUPPORTS

PROVIDE ALL SUPPORTS FOR MATERIAL AND EQUIPMENT.

WIRING

A COMPLETE SYSTEM OF CONDUCTORS SHALL BE INSTALLED FOR ALL FEEDERS, BRANCH CIRCUITS, AND CONTROL CIRCUITS AS NOTED ON THE PLANS.

NO WIRE IS TO BE INSTALLED IN RACEWAY UNTIL THE ENTIRE RACEWAY SYSTEM IS COMPLETE AND THEN ONLY WITH THE USE OF AN APPROVED WIRING LUBRICANT.

BRANCH CIRCUIT SIZES ARE NOTED ON THE PLANS AND MUST BE CONTINUOUS WITHOUT REDUCTION IN SIZE THROUGHOUT THEIR LENGTH BETWEEN FIXTURE, EXCEPT WHERE CONNECTING TO FIXTURES. BRANCH CIRCUITS EXCEEDING 70 FEET IN TOTAL LENGTH SHALL BE A MINIMUM OF NO. 10 AWG TO THE FIRST OUTLET (THIS DOES NOT APPLY TO CIRCUITS WITH LARGER THAN NO. 12 CONDUCTORS ALREADY INDICATED ON PLANS).

ALL CONTROL AND SIGNAL CABLES SHALL BE 95% COPPER MINIMUM.

WIRING DEVICES

THE FOLLOWING LISTED HUBBELL DEVICES MAY BE THE PRODUCT OF EAGLE, P & S, OR ARROW-HART, BUT MUST BE EQUIVALENT TO THE DEVICES LISTED AND MUST BE IDENTIFIED IN THE SUBMITTALS. ALL DEVICES SHALL BE GANG MOUNTED WHERE POSSIBLE.

RECEPTACLES:

DUPLEX, NEMA 5-20R, 20 AMP, 125 VOLT: CR20-W

SINGLE, NEMA L5-30R, 30 AMP, 125 VOLT: HBL2610 TWISTLOCK (BLACK)

THE COLOR OF ALL WIRING DEVICES SHALL BE WHITE UNLESS OTHERWISE NOTED OR AS APPROVED/DIRECTED BY THE ARCHITECT. COVER PLATES SHALL BE PLASTIC, COLOR TO MATCH THE ASSOCIATED DEVICE.

EQUIPMENT CONNECTIONS

THE ELECTRICAL CONTRACTOR SHALL MAKE ALL POWER CONNECTIONS TO MOTORS, STARTERS, ETC.

THE ELECTRICAL CONTRACTOR MUST OBTAIN ROUGH-IN INFORMATION FROM OTHER CONTRACTORS AND VERIFY THE ACTUAL PURCHASED EQUIPMENT PRIOR TO INSTALLATION.

VERIFY THE THERMAL CONDITIONS OF THE EQUIPMENT BASED ON NAMEPLATE DATA AND CONNECT AS THE LISTING REQUIREMENTS ARE STATED USING THE SPECIFIED MATERIALS.

ALL POWER AND CONTROL CIRCUITS FOR ELECTRICAL EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS ARE BASED ON THE DESIGN AS INDICATED WITHIN THE CONTRACT DOCUMENTS. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL PURCHASED EQUIPMENT THAT REQUIRES ELECTRICAL CONNECTION WITH THE RESPONSIBLE CONTRACTOR OR VENDOR PRIOR TO ELECTRICAL ROUGH-IN. ANY DEVIATIONS IN EQUIPMENT ROUGH-IN REQUIREMENTS FROM THE CONTRACT DOCUMENTS SHALL BE CONSIDERED A COORDINATION ITEM THAT THE ELECTRICAL CONTRACTOR SHALL DISCUSS WITH THE OTHER TRADES INVOLVED.

APPARATUS IDENTIFICATION

PANELBOARDS, CIRCUIT BREAKERS, DISCONNECT SWITCHES, STARTERS AND OTHER APPARATUS USED FOR THE OPERATION AND CONTROL OF CIRCUITS, APPLIANCES AND EQUIPMENT SHALL BE PROPERLY IDENTIFIED BY MEANS OF ENGRAVED LAMINATED PLASTIC DESCRIPTIVE NAMEPLATES MOUNTED ON THE APPARATUS USING PERMANENT CONTACT CEMENT.

GUARANTEE

MATERIALS, EQUIPMENT, AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE.

DEVICE MOUNTING HEIGHTS

ALL MOUNTING HEIGHTS ARE TO THE CENTER OF DEVICE, UNLESS SHOWN OR NOTED OTHERWISE:

SWITCH: 48" A.F.F.

RECEPTACLE: 16" A.F.F. OR 6" ABOVE COUNTER

GENERAL ELECTRICAL NOTES

1. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH NEC 2011 AND ALL OTHER CODES AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
2. VOLTAGE DROP CALCULATIONS AND DESIGN CONFIRM TO THE FLORIDA BUILDING CODE 5TH EDITION (2014), ENERGY CONSERVATION SECTION C405.7.3.
3. THE USE OF ANY PROCESS INVOLVING ASBESTOS OR PCB, AND THE INSTALLATION OF ANY PRODUCT, INSULATION, COMPOUND OF MATERIAL CONTAINING OR INCORPORATING ASBESTOS OR PCB, IS PROHIBITED. THE REQUIREMENTS OF THIS SPECIFICATION FOR A COMPLETE AND PROPERLY OPERATING ELECTRICAL SYSTEM SHALL BE MET WITHOUT THE USE OF ASBESTOS OR PCB.
4. THE CONTRACTOR SHALL PROVIDE ELECTRICAL DISTRIBUTION AND UTILIZATION EQUIPMENT WHICH HAVE AIC/WITHSTAND RATINGS GREATER THAN THE AVAILABLE SHORT CIRCUIT CURRENT AT EACH POINT IN THE ELECTRICAL SYSTEM.
5. VISIT THE SITE AND CAREFULLY EXAMINE THOSE PORTIONS OF THE SITE AFFECTED BY THIS WORK BEFORE SUBMITTING PROPOSALS, SO AS TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT EXECUTION OF THE WORK. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE AND LATER CLAIMS FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED.
6. ALL 120V, 20A CIRCUIT HOMERUNS SHALL BE #10 CU. MINIMUM, UNLESS NOTED OTHERWISE.
7. ALL CONDUIT THROUGH WALL, FLOOR OR CEILING PENETRATIONS TO BE SEALED WITH A FIRE RESISTIVE COMPOUND OF SAME FIRE RATING AS THE WALLS, FLOORS OR CEILINGS THEY PENETRATE (TYP.). PROVIDE UL APPROVED SYSTEMS (HILTI OR EQUAL) FOR SEALING/REPAIRING PENETRATIONS THROUGH FIRE RATED SYSTEMS FOR EACH WIRING METHOD BEING UTILIZED.

ELECTRICAL ABBREVIATIONS

A	AMPERE
A.F.F.	ABOVE FINISHED FLOOR
C	CONDUIT
E	EXISTING
ER	EXISTING TO REMAIN
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GND.	GROUND
M.C.B.	MAIN CIRCUIT BREAKER
MIN.	MINIMUM
M.L.O.	MAIN LUGS ONLY
NIC	NOT IN CONTRACT
ø	PHASE (OR DIAMETER WHERE APPLICABLE)
RE	REMOVE EXISTING
TTB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
V	VOLT
XFMR	TRANSFORMER

ELECTRICAL SYMBOL LEGEND

- PANELBOARD, SIZE AND RATING AS SHOWN ON PLANS
- RPA-1,3,5 — HOMERUN TO PANEL (ONE ARROW PER CIRCUIT)
- CONNECTION TO EQUIPMENT
- ELECTRICAL CONDUIT
- UNDERGROUND/BURIED ELECTRICAL CONDUIT
- -UE- UNDERGROUND MAIN FEEDER FROM POWER CO'S XFMR
- DUPLEX RECEPTACLE, NEMA 5-20R, +18" A.F.F.
- JUNCTION BOX, WALL OR CEILING MOUNTED
- 2 100 NF — NON-FUSED DISCONNECT SWITCH, 2 = NUMBER OF POLES, 100= FRAME SIZE, NF=NON FUSED
- $ LIGHT SWITCH, SINGLE POLE
- $M MOTOR RATED SWITCH
- $OC LIGHT SWITCH WITH ADJUSTABLE TIME OCCUPANCY SENSOR
- $3 3-WAY LIGHT SWITCH
- CEILING MOUNTED LUMINAIRE
- WALL MOUNTED WALLPACK LIGHT FIXTURE. +84" A.F.G.
- ILLUMINATED EXIT SIGN, RED
- EMERGENCY LIGHT, 2-HEAD
- EF — WALL MOUNTED EXHAUST FAN

DRAWING: SPECIFICATIONS, NOTES, LEGEND, ABBREVIATIONS
DMC JOB NO. 16-095-07
DRAWN AEI | CAD C3D | SHEET NO. E1.0
CHECKED AEI | SCALE AS NOTED
APPROVED AEI | DATE 09-06-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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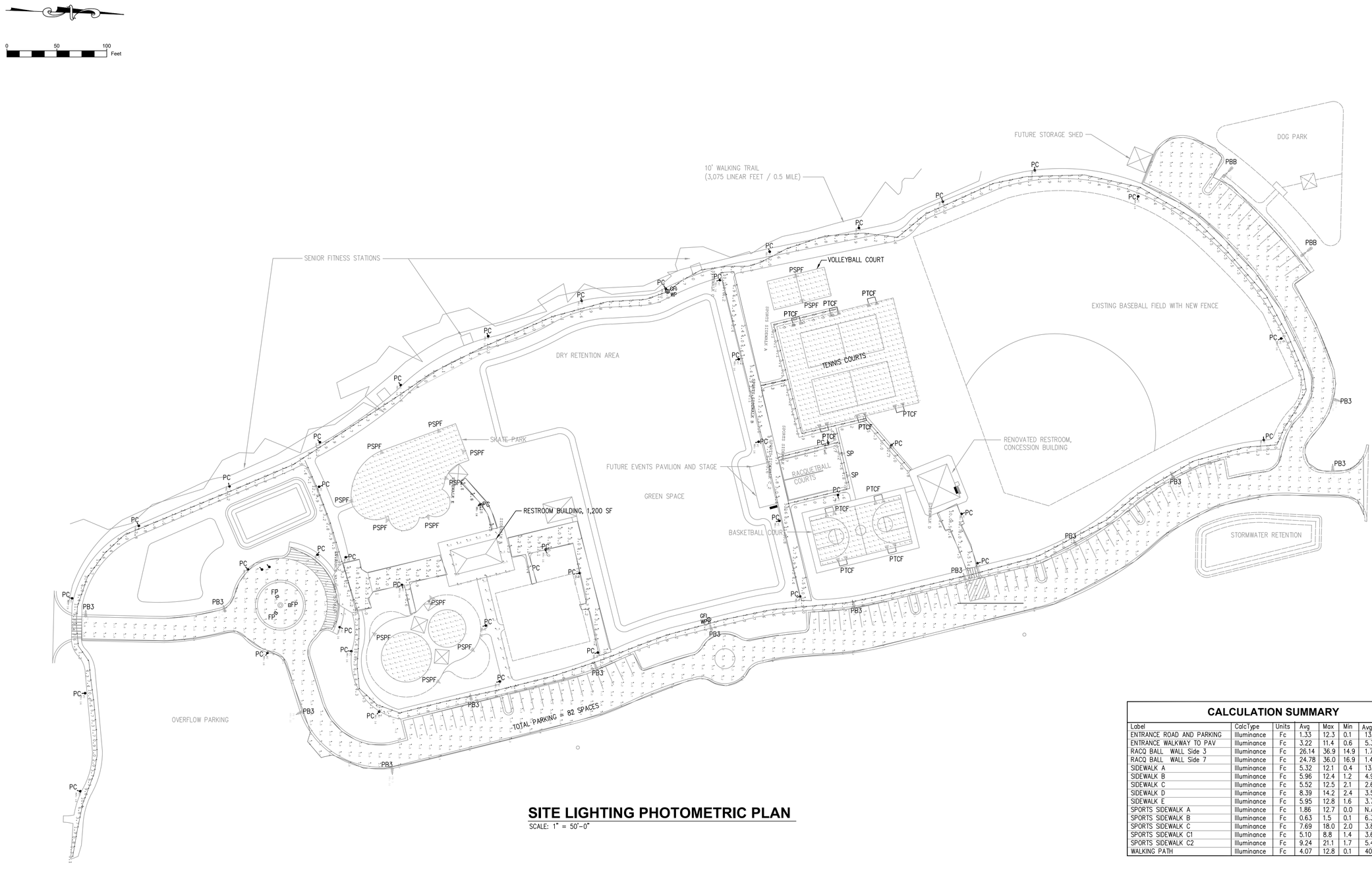

SITE LIGHTING PHOTOMETRIC PLAN

SCALE: 1" = 50'-0"

CALCULATION SUMMARY

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
ENTRANCE ROAD AND PARKING	Illuminance	Fc	1.33	12.3	0.1	13.30	123.00
ENTRANCE WALKWAY TO PAV	Illuminance	Fc	3.22	11.4	0.6	5.37	19.00
RACQ BALL WALL Side 3	Illuminance	Fc	26.14	36.9	14.9	1.75	2.48
RACQ BALL WALL Side 7	Illuminance	Fc	24.78	36.0	16.9	1.47	2.13
SIDEWALK A	Illuminance	Fc	5.32	12.1	0.4	13.30	30.25
SIDEWALK B	Illuminance	Fc	5.96	12.4	1.2	4.97	10.33
SIDEWALK C	Illuminance	Fc	5.52	12.5	2.1	2.63	5.95
SIDEWALK D	Illuminance	Fc	8.39	14.2	2.4	3.50	5.92
SIDEWALK E	Illuminance	Fc	5.95	12.8	1.6	3.72	8.00
SPORTS SIDEWALK A	Illuminance	Fc	1.86	12.7	0.0	N.A.	N.A.
SPORTS SIDEWALK B	Illuminance	Fc	0.63	1.5	0.1	6.30	15.00
SPORTS SIDEWALK C	Illuminance	Fc	7.69	18.0	2.0	3.85	9.00
SPORTS SIDEWALK C1	Illuminance	Fc	5.10	8.8	1.4	3.64	6.29
SPORTS SIDEWALK C2	Illuminance	Fc	9.24	21.1	1.7	5.44	12.41
WALKING PATH	Illuminance	Fc	4.07	12.8	0.1	40.70	128.00

LIGHT FIXTURE SCHEDULE

SYMBOL	QTY.	LABEL	ARRANGEMENT	TOTAL LAMP LUMENS	LLF	DESCRIPTION	WATTS
	2	PBB	D180	N.A.	0.810	R(2)RFM-108W48LED4K-T-4-HS/CMT TB 32 BLK H T238 TBF	220
	13	PB3	SINGLE	N.A.	0.810	RVM-110W96LED4K-R-LE3	75
	42	PC	SINGLE	N.A.	0.810	CXFxx64-G2-2W7-H-16	X
	13	PSPF	SINGLE	N.A.	0.810	PFAS-276L-700-NW-G1-4	618
	10	PTCF	TWN	N.A.	0.810	(2)PFAS-276L-700-NW-G1-4	1236
	2	SP	SINGLE	69884.2	0.810	SPL-600-XXXXK-60X60	1236
	3	FP	SINGLE	N.A.	0.810	LYTEPRO LARGE LED FLOODLIGHT 105W LPF4C-4K-SP (SPOT)	105

NOTES:
1. ALL LIGHT FIXTURES ARE BASED ON PHILIPS LIGHTING, UNLESS SHOWN OR NOTED OTHERWISE.
2. ALL FIXTURES ARE LED TYPE WITH ASSOCIATED DRIVERS.

DRAWING: SITE LIGHTING PHOTOMETRIC PLAN
DMC JOB NO. 16-095-07
SHEET NO. E2.0
DRAWN AE | CAD C3D
CHECKED AE | SCALE AS NOTED
APPROVED AE | DATE 09-06-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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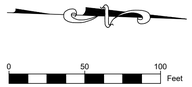
EDGEWATER, FL 32132

Drawing Name: C:\Projects\DMC\Whistle Stop Park\Whistle Stop Park Eleo4 .ior 105:..dwg By: Alex Tab: E2.0 9/10/2017



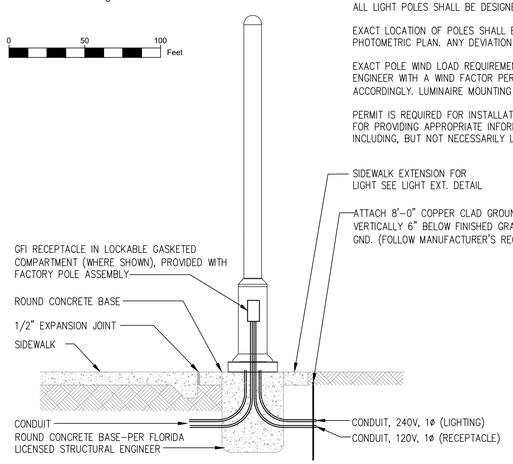
POLE NOTES:

ALL LIGHT POLES SHALL BE DESIGNED TO WITHSTAND 150 M.P.H. WIND SPEED.

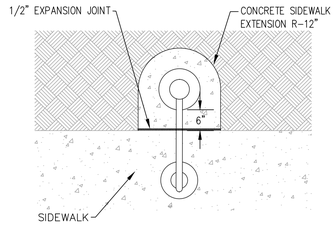
EXACT LOCATION OF POLES SHALL BE DETERMINED IN FIELD, IN ACCORDANCE WITH PHOTOMETRIC PLAN. ANY DEVIATION SHALL BE APPROVED BY ENGINEER.

EXACT POLE WIND LOAD REQUIREMENTS TO BE DETERMINED BY A FLORIDA LICENSED STRUCTURAL ENGINEER WITH A WIND FACTOR PER FBC. THE POLE LENGTH AND BURIAL DEPTH ADJUSTED ACCORDINGLY. LUMINAIRE MOUNTING HEIGHT SHALL BE 16' AFG.

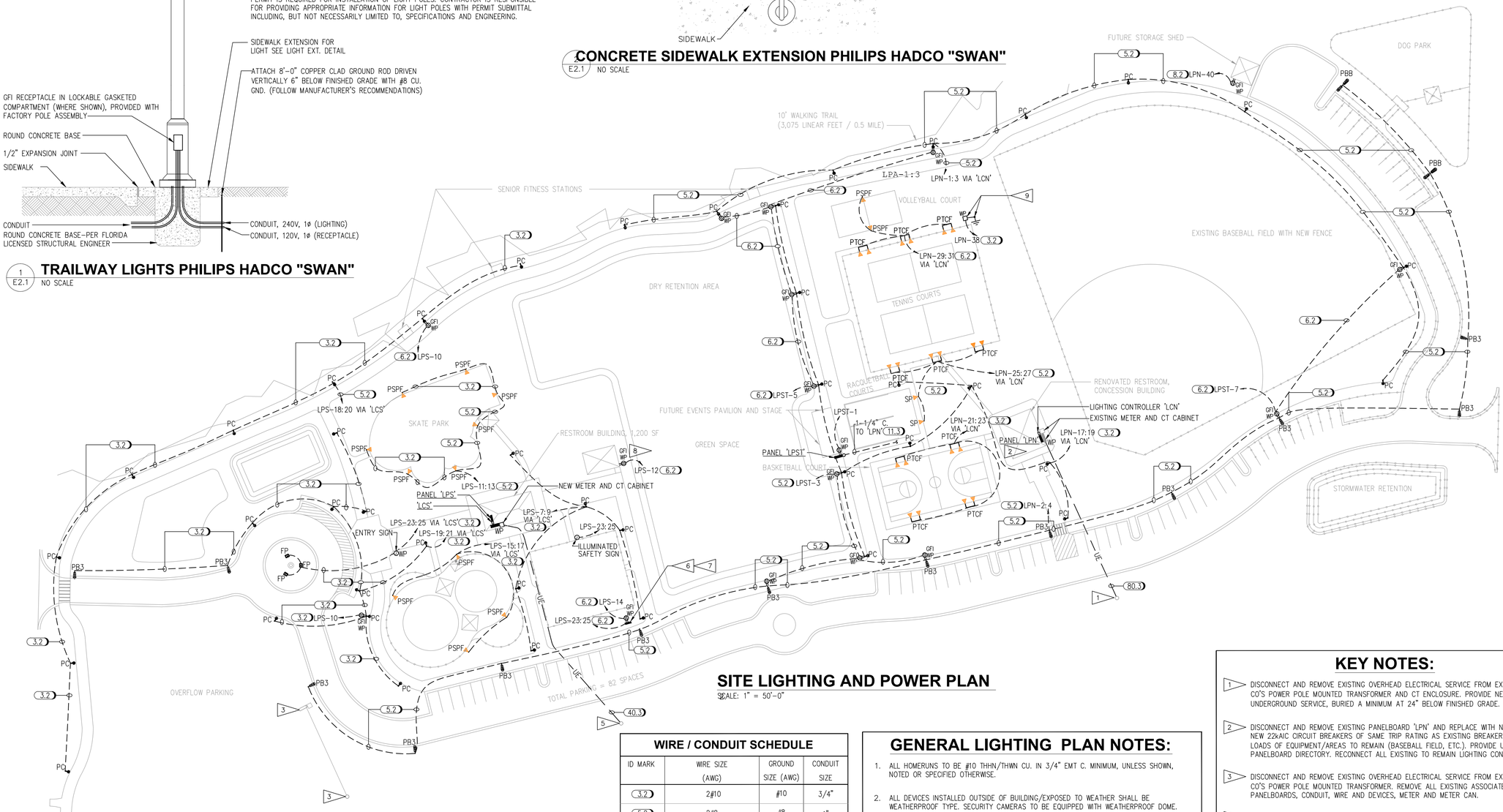
PERMIT IS REQUIRED FOR INSTALLATION OF LIGHT POLES. CONTRACTOR IS RESPONSIBLE FOR PROVIDING APPROPRIATE INFORMATION FOR LIGHT POLES WITH PERMIT SUBMITTAL INCLUDING, BUT NOT NECESSARILY LIMITED TO, SPECIFICATIONS AND ENGINEERING.



1 E2.1 **TRAILWAY LIGHTS PHILIPS HADCO "SWAN"**
NO SCALE



2 E2.1 **CONCRETE SIDEWALK EXTENSION PHILIPS HADCO "SWAN"**
NO SCALE



SITE LIGHTING AND POWER PLAN

SCALE: 1" = 50'-0"

LIGHT FIXTURE SCHEDULE

SYMBOL	QTY.	LABEL	ARRANGEMENT	TOTAL LAMP LUMENS	LLF	DESCRIPTION	WATTS
	2	PBB	D180	N.A.	0.810	R(2)RFM-108W48LED4K-T-4-HS/CMT TB 32 BLK H T238 TBF	220
	13	PB3	SINGLE	N.A.	0.810	RVM-110W96LED4K-R-LE3	75
	42	PC	SINGLE	N.A.	0.810	CXF4-64-G2-A-H-2-N-A	68
	13	PSPF	SINGLE	N.A.	0.810	PFAS-276L-700-NW-G1-4	618
	10	PTCF	TWN	N.A.	0.810	(2)PFAS-276L-700-NW-G1-4	1236
	2	SP	SINGLE	69884.2	0.810	SPL-500-XXXXK-60X60-VSG	500
	3	FP	SINGLE	N.A.	0.810	LYTEPRO LARGE LED FLOODLIGHT 105W LPF4C-4K-SP (SPOT)	105

NOTES:
1. ALL LIGHT FIXTURES ARE BASED ON PHILIPS LIGHTING, UNLESS SHOWN OR NOTED OTHERWISE.
2. ALL FIXTURES ARE LED TYPE WITH ASSOCIATED DRIVERS.

WIRE / CONDUIT SCHEDULE

ID MARK	WIRE SIZE (AWG)	GROUND SIZE (AWG)	CONDUIT SIZE
3.2	2#10	#10	3/4"
5.2	2#8	#8	1"
6.2	3#6	#6	1"
6.3	3#6	#10	1"
8.2	2#4	#8	1-1/4"
11.3	3#2	#6	1-1/4"
13.3	3#1	#6	1-1/2"
15.3	3#1/0	#6	2"
23.3	3#4/0	#4	2-1/2"
40.3	2 SETS OF 3#250kcmil		(2)3"
80.3	2 SETS OF 3#600kcmil		4"

GENERAL LIGHTING PLAN NOTES:

1. ALL HOMERUNS TO BE #10 THHN/THWN CU. IN 3/4" EMT C. MINIMUM, UNLESS SHOWN, NOTED OR SPECIFIED OTHERWISE.
2. ALL DEVICES INSTALLED OUTSIDE OF BUILDING/EXPOSED TO WEATHER SHALL BE WEATHERPROOF TYPE. SECURITY CAMERAS TO BE EQUIPPED WITH WEATHERPROOF DOME.
3. ALL CONDUIT SERVING EXTERIOR LIGHTING SHALL BE BURIED A MINIMUM OF 18" BELOW FINISHED GRADE IN LANDSCAPED AREAS AND 24" BELOW FINISHED GRADE IN HARDSCAPE AREAS (TRAFFIC, ROADWAYS).
4. SEE GENERAL ELECTRICAL NOTES, DRAWING E1.0
5. ALL COURT LIGHTING (BASKETBALL, TENNIS, RACQUETBALL, VOLLEYBALL) SHALL BE LOCALLY CONTROLLED VIA A LIGHT POLE MOUNTED LIGHT SWITCH IN NEMA 3R WEATHERPROOF GASKETED ENCLOSURE WITH COVER. OVERALL LIGHTING CONTROL VIA ASTRONOMIC CLOCK/PHOTOCELL LIGHTING CONTACTOR. OPERATIONAL HOURS TO BE DETERMINED BY THE OWNER. COORDIANTE FINAL LOCATION OF COURT LIGHT SWITCHES WITH THE OWNER PRIOR TO BID.
6. SPLASH POOL SHALL BE GROUNDED IN ACCORDANCE WITH ARTICLE 680 OF NEC.

KEY NOTES:

1. DISCONNECT AND REMOVE EXISTING OVERHEAD ELECTRICAL SERVICE FROM EXISTING POWER CO'S POWER POLE MOUNTED TRANSFORMER AND CT ENCLOSURE. PROVIDE NEW UNDERGROUND SERVICE, BURIED A MINIMUM AT 24" BELOW FINISHED GRADE.
2. DISCONNECT AND REMOVE EXISTING PANELBOARD 'LPN' AND REPLACE WITH NEW. PROVIDE NEW 22kAIC CIRCUIT BREAKERS OF SAME TRIP RATING AS EXISTING BREAKER SERVING LOADS OF EQUIPMENT/AREAS TO REMAIN (BASEBALL FIELD, ETC.). PROVIDE UPDATED PANELBOARD DIRECTORY. RECONNECT ALL EXISTING TO REMAIN LIGHTING CONTACTORS.
3. DISCONNECT AND REMOVE EXISTING OVERHEAD ELECTRICAL SERVICE FROM EXISTING POWER CO'S POWER POLE MOUNTED TRANSFORMER. REMOVE ALL EXISTING ASSOCIATED PANELBOARDS, CONDUIT, WIRE AND DEVICES, METER AND METER CAN.
4. PROVIDE NEW UNDERGROUND ELECTRICAL SERVICE BURIED A MINIMUM AT 24" BELOW FINISHED GRADE TO NEW PANELBOARD 'LPS' VIA CT ENCLOSURE. PROVIDE NEW METER BASE WITH METER AND ALL ASSOCIATED WIRING DEVICES.
5. LOCATION OF NEW POWER CO'S TRANSFORMER ON EXISTING POWER POLE, SERVING PANELBOARD 'LPS' WITHIN FOUNTAIN EQUIPMENT ROOM IN NEW RESTROOM BUILDING.
6. VERIFY AND COORDINATE LIFT STATION FINAL POWER REQUIREMENTS WITH OTHER TRADES PRIOR TO ROUGH-IN.
7. LIFT STATION CONTROL PANEL, FLYGT #WRT-FS2484F2 PROVIDED BY OTHERS.
8. PROVIDE GFI RECEPTACLE IN WEATHERPROOF LOCKABLE ENCLOSURE.
9. COORDINATE WITH SPRINKLER CONTRACTOR AND PROVIDE POWER AND 8'-0" COPPER CLAD GROUND ROD DRIVEN VERTICALLY INTO GROUND 6" BELOW FINISHED GRADE WITH #6 CU. GND. IN 3/4" PVC C. TO IRRIGATION CONTROLLER.

DRAWING: SITE LIGHTING PLAN
DMC JOB NO. 16-095-07
SHEET NO. E2.1
DRAWN AE | CAD C3D | SCALE AS NOTED
CHECKED AE | DATE 09-06-17
APPROVED AE

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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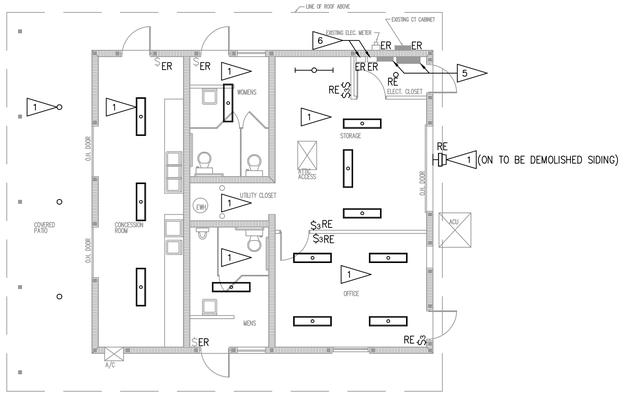
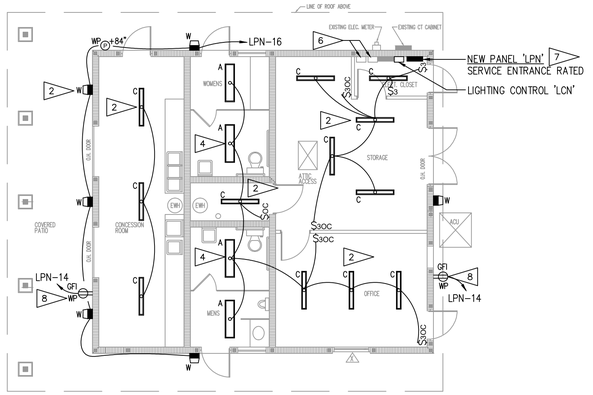
Drawing Name: C:\Projects\DMC\Whistle Stop Park\Whistle Stop Park Elec4 .ior 105: .dwg By: Alex Tab: E2.1 9/10/2017



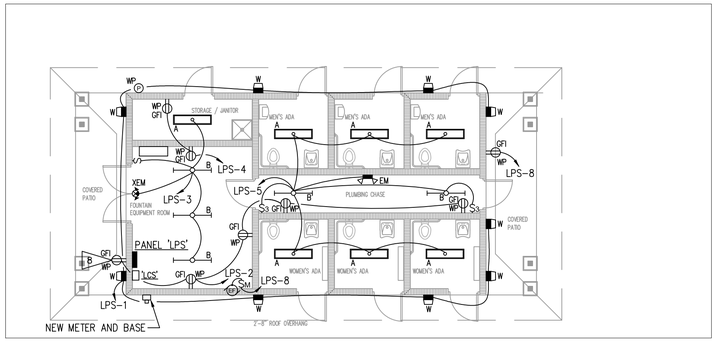
ELECTRICAL PLAN - EXISTING RESTROOM, CONCESSION BUILDING

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



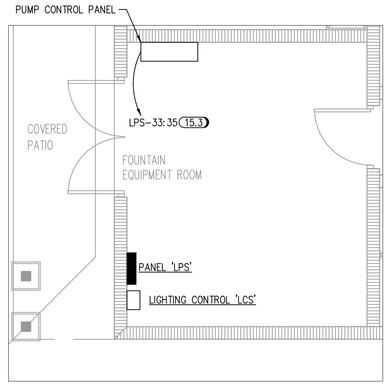
ELECTRICAL PLAN - RENOVATED RESTROOM, CONCESSION BUILDING

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



ELECTRICAL PLAN - NEW RESTROOM BUILDING

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



ENLARGED ELECTRICAL PLAN - NEW FOUNTAIN EQUIPMENT ROOM

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

GENERAL ELECTRICAL PLAN NOTES:

1. ALL RECEPTACLES WITHIN NEW RESTROOM BUILDING SHALL BE WEATHERPROOF TYPE WITH GASKETED CLEAR PLASTIC COVER.
2. ALL RECEPTACLES WITHIN NEW RESTROOM BUILDING SHALL BE NON FEED-THRU TYPE.
3. SEE GENERAL ELECTRICAL NOTES, DRAWING E1.0
4. ALL EMERGENCY AND EXIT LIGHT FIXTURES TO BE CONNECTED AHEAD OF LOCAL SWITCHING.
5. ALL RECEPTACLES WITHIN RESTROOM AND CONCESSION BUILDING SHALL BE INSPECTED FOR SIGNS OF CORROSION AND DETERIORATION, REPLACED IF NECESSARY, AND REUSED.

KEY NOTES:

1. DISCONNECT AND REMOVE EXISTING LIGHT FIXTURES, LIGHT SWITCH (UNLESS INDICATED OTHERWISE) AND ASSOCIATED CONDUIT AND WIRE WITHIN THIS AREA/ROOM TO THE NEAREST JUNCTION BOX UPSTREAM FOR FUTURE RE-USE.
2. PROVIDE NEW CONDUIT AND WIRE TO NEW LIGHT FIXTURES AND RECONNECT TO THE NEAREST JUNCTION BOX UPSTREAM SERVED BY EXISTING CIRCUITS. PROVIDE NEW OCCUPANCY SENSORS WITHIN ROOMS AS SHOWN.
3. EXISTING PANELBOARD SHALL BE DISCONNECTED, REMOVED AND REPLACED WITH NEW. RECONNECT EXISTING CIRCUIT SERVING AREAS/LOADS TO REMAIN (BASEBALL FIELD, ETC.).
4. FIXTURE TYPE 'A' IS FACTORY EQUIPPED WITH OCCUPANCY SENSOR (TYP.).
5. EXISTING 800A 'MDP' AND 100A HOUSE PANELBOARD ('MAIN') SHALL BE DISCONNECTED AND REMOVED. REMOVE ALL CONDUIT AND WIRE FROM PANELBOARDS TO THE NEAREST JUNCTION BOX DOWNSTREAM. ALL EXISTING DOWNSTREAM CIRCUITING AND WIRE SHALL BE REUSED AS MUCH AS POSSIBLE. ALL NO LONGER USED CONDUIT AND WIRE TO BE REMOVED.
6. EXISTING OPERATIONAL LIGHTING CONTACTORS WITHIN WALL MOUNTED ENCLOSURES SHALL BE DISCONNECTED AND RE-ENERGIZED UPON COMPLETION OF NEW PANELBOARD 'LPN' INSTALLATION. LIGHTING CONTACTORS NO LONGER SERVING DEMOLISHED SITE LIGHTING TO BE DISCONNECTED AND REMOVED. FIELD VERIFY WITH THE OWNER PRIOR TO BID.
7. PROVIDE NEW 800 PANELBOARD 'PLN' AT SAME LOCATION OF REMOVED MAIN PANELBOARD (SEE NOTE 4 ABOVE). EXTEND ALL EXISTING CONDUIT TO THE NEW PANELBOARD. PULL NEW WIRE TO ALL REMAINING EXISTING BUILDING LOADS SERVED BY NEW CIRCUIT BREAKERS WITHIN PANEL 'LPN'. UPDATE PANELBOARD DIRECTORY. RECONNECT EXISTING OPERATIONAL LIGHTING CONTACTORS WITHIN EXISTING WALL MOUNTED ENCLOSURES TO NEW BREAKERS (SERVING BASEBALL FIELD LIGHTING).
8. PROVIDE GFI RECEPTACLE IN WEATHERPROOF LOCKABLE ENCLOSURE (TYP.).

PUMP ROOM NOTES:

1. THE CARLON RIGID NONMETALLIC CONDUIT SYSTEM SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN.
2. ALL WIRING SHALL BE INSTALLED IN CARLON RIGID NONMETALLIC CONDUIT. ALL CONDUIT SHALL BE SECURED BY MEANS OF PROPER FITTINGS. ALL FITTINGS SHALL BE CARLON.
3. CARLON OUTLET BOXES, FITTINGS AND JUNCTION BOXES SHALL BE USED FOR ALL OUTLETS, PULL BOXES AND JUNCTION POINTS (LIGHTING FIXTURES SHALL NOT BE SUPPORTED OR HUNG FROM PVC JUNCTION BOXES BUT BE SUPPORTED IN POSITION BY OTHER MEANS).
4. EXPOSED CONDUITS SHALL BE MOUNTED SECURELY BY SUITABLE HANGERS OR STRAPS WITH THE MAXIMUM SPACING OF POINTS OF SUPPORTS NOT GREATER THAN INDICATED BY SECTION 352.30 OF NEC.
5. EXCEPT WHERE EMBEDDED IN CONCRETE OR DIRECT BURIED, CARLON CONDUIT SHALL BE SUPPORTED TO PERMIT ADEQUATE LINEAL MOVEMENT TO ALLOW FOR EXPANSION AND CONTRACTION OF CONDUIT DUE TO TEMPERATURE CHANGE.
6. FOR ABOVEGROUND INSTALLATIONS WHERE TEMPERATURE CHANGE IN EXCESS OF 14°C (25°F) IS ANTICIPATED, EXPANSION JOINTS SHALL BE INSTALLED. SEE TABLE 352.44(A) NEC FOR EXPANSION CHARACTERISTICS.
7. PROPER CARE SHALL BE TAKEN WHEN FIELD BENDING IS EMPLOYED TO MAINTAIN THE INTERNAL DIAMETER AND WALL THICKNESS OF THE CONDUIT.

LIGHT FIXTURE SCHEDULE

SYMBOL	QTY.	LABEL	MANUFACTURER	ARRANGEMENT	TOTAL LAMP LUMENS	LLF	DESCRIPTION	WATTS
	11	A	LUMINAIRE LED	LINEAR	N.A.	0.810	CLF114-46-50-4000K-120-CP-BRZ-OCC	50
	5	B	ILLUMINA	LINEAR	N.A.	0.810	HZ100T8-HT-232W-120	64
	12	C	BEGHELLI	LINEAR	N.A.	0.810	SLLED-4-HT-MO-WT40	40
	15	W	BEGHELLI	LINEAR	N.A.	0.810	FFW1212-20W-3000K-120-CP-BRZ-WET, +84" A.F.G.	20
	1	EM	BEGHELLI		N.A.	0.810	PEH-1, EMERGENCY NI-CAD BATTERY LIGHT	3
	1	XEM	BEGHELLI		N.A.	0.810	PCH-R-AT, COMBINATION EXIT/EMERGENCY BATTERY LIGHT	2

NOTES:
1. PROVIDE ENERGY SAVING LAMPS AND ELECTRONIC BALLASTS WHERE APPLICABLE.

DRAWING: ELECTRICAL PLANS - BUILDINGS
DMC JOB NO. 16-095-07
SHEET NO. E3.0
DRAWN AED | CAD C3D | SCALE AS NOTED
CHECKED AED | DATE 09-06-17
APPROVED AED

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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Drawing Name: C:\Projects\DMC\Whistle Stop Park\Whistle Stop Park Elec4 or 105□.dwg By: Alex Tab: E3.0 9/10/2017

BUS AMPS: 1200 PHASE: 1 LUG LOCATION: BOTTOM
MAIN AMPS: 800A M.C.B. (80.3) WIRE: 3 MOUNTING: SURFACE CIRCUITS: 54
SERVICE: 240/120 V OPTIONS: _____ TYPE: SQUARE D I-LINE AIC RATING: 22 K

KVA OTHER	KVA LTG	KVA REC	LOAD SERVED	CB POLE	CB TRIP	CKT. NO.	BUS A	BUS B	CKT. NO.	CB TRIP	CB POLE	LOAD SERVED	KVA REC	KVA LTG	KVA OTHER
	0.36		SITE LIGHTING (5.2)	2	20	1	•		2	20	2	PARKING LOT LIGHTING (5.2)		0.65	
	0.36		(NORTHWEST WALKING TRAIL)	---	---	3		•	4	---	---	-----		0.65	
	6.7		BASEBALL FIELD 1 (8.2)	2	70	5	•		6	70	2	BASEBALL FIELD 1 (8.2)		6.7	
	6.7		POLE A1 B1	---	---	7		•	8	---	---	POLE A2 B2		6.7	
	5.76		BASEBALL LIGHTING (8.2)	2	60	9	•		10	60	2	BASEBALL FIELD 1 (8.2)		5.76	
	5.76		-----	---	---	11		•	12	---	---	POLE C2		5.76	
1.40			EXISTING AC (3.2)	2	20	13	•		14	20	1	RECEPT., GFI AT CONCESSION	1.08		
1.40			-----	---	---	15		•	16	20	1	LTG., WALLPACKS AT CONCESSION		0.15	
	0.34		LTG., WALKWAYS AROUND (3.2)	2	20	17	•		18	20	1	EXISTING LOAD		0.68	
	0.34		CONCESSION, ALONG STAGE	---	---	19		•	20	15	1				
	2.47		LTG., BASKETBALL (3.2)	2	30	21	•		22	15	1				
	2.47		-----	---	---	23		•	24	30	1				2.88
	2.35		LTG., RACQUETBALL/TENNIS (5.2)	2	30	25	•		26	20	1				
	2.35		-----	---	---	27		•	28	20	1				
	1.86		LTG., VOLLEYBALL/TENNIS (6.2)	2	20	29	•		30	20	1				
	1.86		-----	---	---	31		•	32	20	2				1.92
	4.80		STAGE PANEL 'LPST' (11.3)	2	100	33	•		34	---	---				1.92
			-----	---	---	35		•	36	20	1	LIGHTING CONTROLLER 'LCN'			0.1
			EXISTING LOAD	1	20	37	•		38	20	1	IRRIGATION CONTROLLER (3.2)			0.1
				1	20	39		•	40	20	1	RECEPT., STORAGE SHED (8.2)	1.20		
				1	20	41	•		42	20	2	SPARE			
				1	20	43		•	44	---	---				
				1	20	45	•		46	20	2				
				1	20	47		•	48	---	---				
				1	20	49	•		50			SPACE			
2.88				2	30	51		•	52						
2.88				---	---	53	•		54						
			SPACE			55		•	56						
						57	•		58						
						59		•	60						
						61	•		62						
						63		•	64						
						65	•		66						

PROVIDE:
TYPEWRITTEN DIRECTORY.
BALANCE THE LOADS TO WITHIN 10% BETWEEN ALL PHASES.

CONNECTED KVA	14.80	67.45	15.48
DEMAND FACTOR	1.0	1.25	1.0
DEMAND KVA	12.40	84.3	15.48
TOTAL DEMAND KVA	112.2		
DEMAND AMPS	467		

LPN

BUS AMPS: 100 PHASE: 1 LUG LOCATION: BOTTOM
MAIN AMPS: 100A M.C.B. (11.3) WIRE: 3 MOUNTING: GALVANIZED UNISTRUT CIRCUITS: 18
SERVICE: 240/120 V OPTIONS: NEMA 4X TYPE: SQUARE D QO AIC RATING: 10 K

KVA OTHER	KVA LTG	KVA REC	LOAD SERVED	CB POLE	CB TRIP	CKT. NO.	BUS A	BUS B	CKT. NO.	CB TRIP	CB POLE	LOAD SERVED	KVA REC	KVA LTG	KVA OTHER
		1.20	RECEPT., GFI NEAR THIS PANEL	1	20	1	•		2	20	1	SPARE			
		1.20	RECEPT., ON POLE (5.2)	1	20	3		•	4	20	1	SPARE			
		1.20	RECEPT., ON POLE (6.2)	1	20	5	•		6	20	1	SPARE			
		1.20	RECEPT., ON POLE (6.2)	1	20	7		•	8	20	1	SPARE			
			SPACE			9	•		10			SPACE			
						11		•	12						
						13	•		14						
						15		•	16						
						17	•		18						

PROVIDE:
TYPEWRITTEN DIRECTORY.
BALANCE THE LOADS TO WITHIN 10% BETWEEN ALL PHASES.

CONNECTED KVA	4.80	0	0
DEMAND FACTOR	1.0	1.25	1.0
DEMAND KVA	4.80	0	0
TOTAL DEMAND KVA	4.80		
DEMAND AMPS	20		

LPST

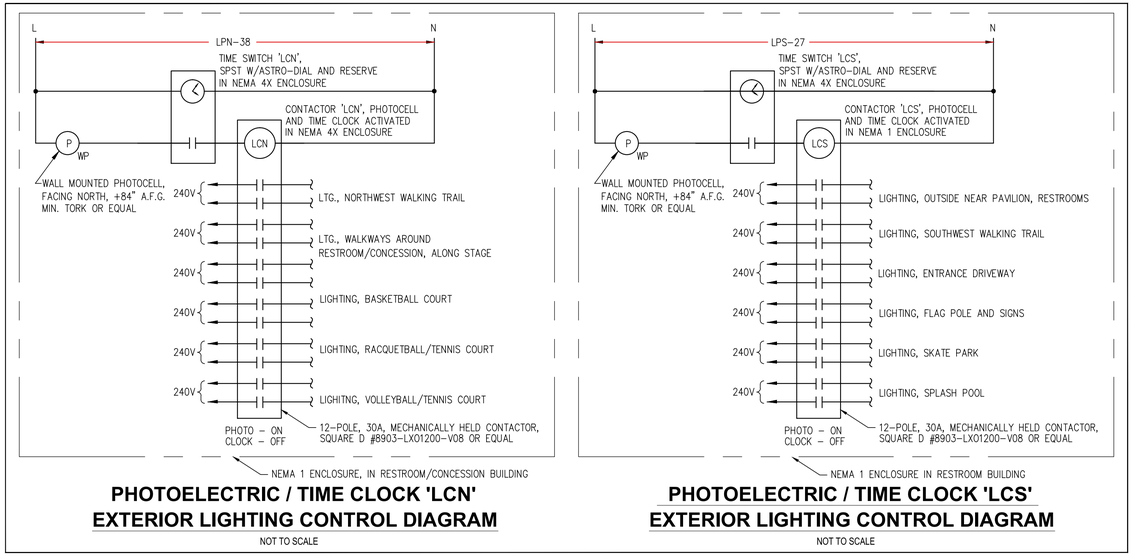
BUS AMPS: 400 PHASE: 1 LUG LOCATION: BOTTOM
MAIN AMPS: 400A M.C.B. (40.3) WIRE: 3 MOUNTING: SURFACE CIRCUITS: 42
SERVICE: 240/120 V OPTIONS: NEMA 4X TYPE: SQUARE D QO AIC RATING: 22 K

KVA OTHER	KVA LTG	KVA REC	LOAD SERVED	CB POLE	CB TRIP	CKT. NO.	BUS A	BUS B	CKT. NO.	CB TRIP	CB POLE	LOAD SERVED	KVA REC	KVA LTG	KVA OTHER
	0.18		LTG., WALLPACKS RESTROOMS	1	20	1	•		2	20	*1	RECEPT., PUMP EQ. RM., CHASE	0.90		
	0.25		LTG., N. RESTROOMS, EQ. ROOM	1	20	3		•	4	20	*1	RECEPT., PUMP EQ. RM., JANITOR	0.36		
	0.43		LTG., S. RESTROOMS, CHASE	1	20	5	•		6	20	1	EXHAUST FAN IN PUMP EQ. RM.			0.8
	0.21		LTG., SITE OUTSIDE RESTROOMS	2	20	7		•	8	20	1	HI-LO DRINKING FOUNTAIN			1.44
	0.21		AND PAVILION (3.2)	---	---	9	•		10	20	1	RECEPT., ON POLE (6.2)	0.18		
	2.16		LTG., SKATE PARK (5.2)	2	30	11		•	12	20	1	RECEPT., PAVILION (6.2)	0.18		
	2.16		-----	---	---	13	•		14	20	1	RECEPT., LIFT STATION (6.2)	0.18		
	1.24		LTG., SPLASH POOL (3.2)	2	20	15		•	16	20	1	SPARE			
	1.24		-----	---	---	17	•		18	20	2	SITE LIGHTING, PARKING (5.2)		0.28	
	0.38		LTG., ENTRANCE DRIVEWAY (3.2)	2	20	19		•	20	---	---	(SOUTHWEST WALKING TRAIL)		0.28	
	0.38		-----	---	---	21	•		22	60	2	LIFT STATION CONTROL PANEL			3.36
	0.25		LTG., FLAG POLE AND (3.2)	2	20	23		•	24	---	---	----- (6.2)			3.36
	0.25		ILLUMINATED SIGNS	---	---	25	•		26	20	1	SPARE			
0.1			LIGHTING CONTROLLER 'LCS'	1	20	27		•	28	20	1	SPARE			
			SPACE			29	•		30	20	1	SPARE			
						31		•	32	20	1	SPARE			
						33	•		34			SPACE			
						35		•	36						
						37	•		38						
10.1			PUMP CONTROL PANEL (15.3)	2	150	39		•	40						
10.1			-----	---	---	41	•		42						

PROVIDE:
TYPEWRITTEN DIRECTORY.
BALANCE THE LOADS TO WITHIN 10% BETWEEN ALL PHASES.
* – PROVIDE 20A/1P GFI CIRCUIT BREAKER

CONNECTED KVA	1.80	9.90	29.3
DEMAND FACTOR	1.0	1.25	1.0
DEMAND KVA	1.98	12.4	29.3
TOTAL DEMAND KVA	43.68		
DEMAND AMPS	182		

LPS

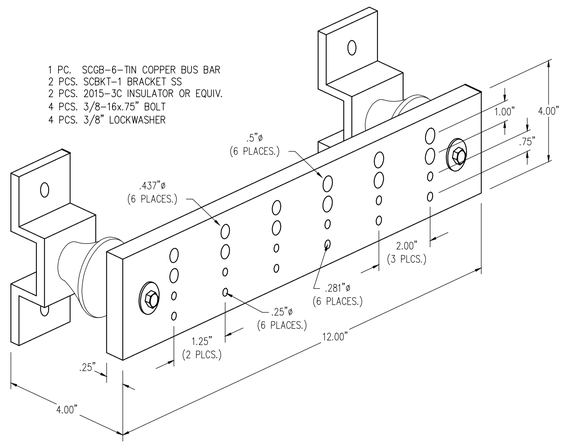


PHOTOELECTRIC / TIME CLOCK 'LCN'
EXTERIOR LIGHTING CONTROL DIAGRAM
NOT TO SCALE

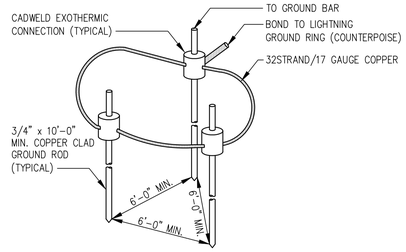
PHOTOELECTRIC / TIME CLOCK 'LCS'
EXTERIOR LIGHTING CONTROL DIAGRAM
NOT TO SCALE

WIRE / CONDUIT SCHEDULE

ID MARK	WIRE SIZE (AWG)	GROUND SIZE (AWG)	CONDUIT SIZE
(3.2)	2#10	#10	3/4"
(5.2)	2#8	#8	1"
(6.2)	3#6	#6	1"
(6.3)	3#6	#10	1"
(8.2)	2#4	#8	1-1/4"
(11.3)	3#2	#6	1-1/4"
(13.3)	3#1	#6	1-1/2"
(15.3)	3#1/0	#6	2"
(23.3)	3#4/0	#4	2-1/2"
(40.3)	2 SETS OF 3#250kcmil		(2)3"
(80.3)	2 SETS OF 3#600kcmil		4"



3 / E-4.0 **MASTER GROUND BAR (MGB) DETAIL**
NO SCALE
NOTE: USE COMPATIBLE BURNDY 2-HOLE CONNECTORS

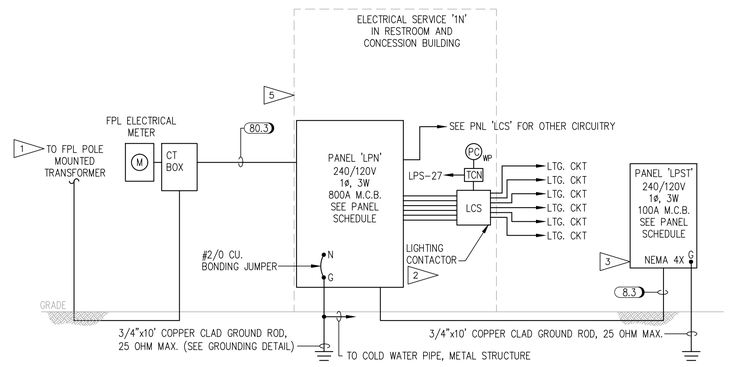


4 / E-4.0 **GROUNDING DETAIL**
NO SCALE

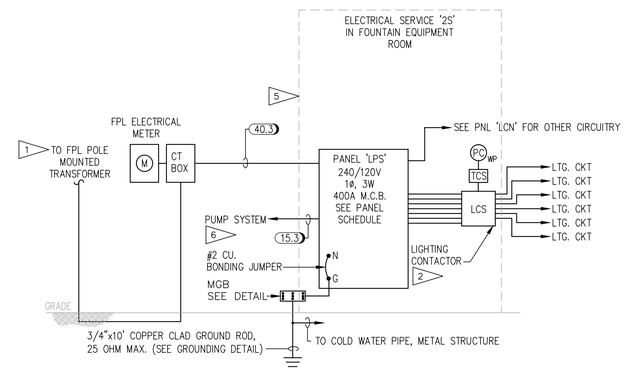
KEY NOTES:

'FPL CONTACT:
ALICIA RESHARD/386-322-3423/Alicia.Reshard@fpl.com

1. PROVIDE LIGHTING CONTACTOR: 12 POLES, 30A, 240V.
2. SEE DRAWING E-2.1. THE EXACT LOCATION OF GALVANIZED CHANNEL RACK MOUNTED PANEL 'LPST' TO BE DETERMINED BY THE OWNER/LANDSCAPING ARCHITECT. IN-FIELD PANELBOARD TO BE USED AS A POINT OF SERVICE FOR ELECTRICAL EQUIPMENT ASSOCIATED WITH SHOWS AT BAND STAGE AND RECEPTACLES.
3. VERIFY EXACT POWER REQUIREMENTS WITH FOUNTAIN EQUIPMENT PROVIDER/CONTRACTOR BEFORE PROCEEDING. THE PUMP SYSTEM WILL BE LOCATED IN THE SAME ROOM AS PANEL 'LPS'. SEE PANELBOARD SCHEDULE 'LPS'.
4. PROVIDE RED LAMINATE TAG WITH 1" HIGH WHITE LETTERING, INDICATING "ELECTRICAL MAIN SERVICE DISCONNECT ON THE OUTSIDE OF DOOR TO EACH ROOM CONTAINING CORRESPONDING MAIN SERVICE PANELBOARD.



1 / E-4.0 **ELECTRICAL RISER DIAGRAM - SERVICE '1N'**
NO SCALE



2 / E-4.0 **ELECTRICAL RISER DIAGRAM - SERVICE '2S'**
NO SCALE

DRAWING: ELECTRICAL SCHEDULES AND DETAILS
DMC JOB NO. 16-095-07
DRAWN AEJ | CAD C3D | SHEET NO. E4.0
CHECKED AEJ | SCALE AS NOTED
APPROVED AEJ | DATE 09-06-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

Alexander E. Jovanyov, P.E.
FLORIDA LICENSE No. 60953

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CITY OF EDGEWATER
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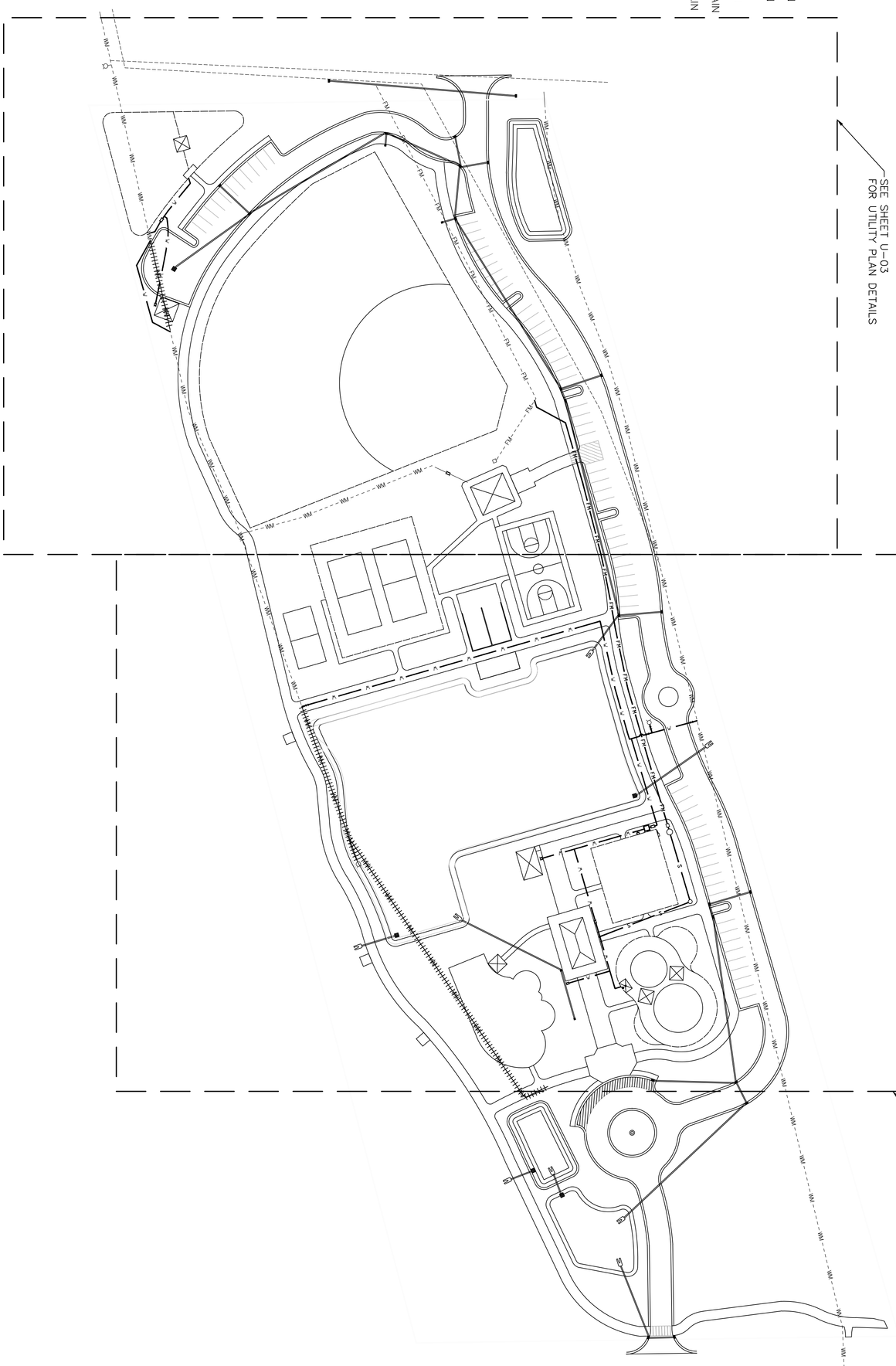
LEGEND

- EXISTING WATER MAIN
- EXISTING WATER MAIN TO BE REMOVED
- EXISTING FORCE MAIN
- PROPOSED WATER MAIN
- PROPOSED FORCE MAIN
- PROPOSED GRAVITY SANITARY SEWER

GRAPHIC SCALE IN FEET
0 30 60 120

NORTH



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Kimley»Horn

JAMIE DIONNE ZIVICH, P.E.
FLORIDA LICENSE No. 82183

PROJECT NAME:
WHISTLE STOP PARK IMPROVEMENTS

CLIENT:
CITY OF EDGEWATER

DRAWING:
OVERALL UTILITY PLAN

DMC JOB NO.
16-095-07

DRAWN	JIH	CAD	C3D	SHEET NO.
DESIGNED	JDZ	SCALE	1"=60'	U-01
CHECKED	SNR	DATE	09-05-2017	

MATCHLINE SHEET U-03

EXISTING 6" WATER MAIN

CUT EXISTING 6" WATER MAIN AND INSTALL 90° BEND. RESTRAIN EXISTING PIPE AS NECESSARY.

6" GATE VALVE

PROPOSED 6" PVC WATER MAIN

EXISTING 6" WATER MAIN TO BE ABANDONED AND REMOVED

EXISTING FIRE HYDRANT TO BE REMOVED

6" 90° BEND

PROPOSED 2" FORCE MAIN

NOTE: INSTALL FORCE MAIN AND WATER MAIN WITH MINIMUM 10' SEPARATION

PROPOSED FIRE HYDRANT (SEE DETAIL SHEET U-04 AND CONNECTION DETAIL)

6" TEE

PROPOSED 6" GATE VALVE

16"X6" TAPPING SLEEVE AND VALVE

NOTE: INSTALL PROPOSED FORCE MAIN AT A MIN. 18" BELOW PROPOSED WATER MAIN (SEE SHEET U-06)

ADD ABOVE GROUND BACKFLOW PREVENTER (SEE DETAIL W-11, SHEET U-04)

PROPOSED WATER 2" SERVICE METER AND (SEE DETAIL W-5, SHEET U-04)

PROPOSED ELECTRICAL POWER METER AND SUPPLY AND CONTROL PANEL ON WALL MOUNT (SEE SHEET U-05)

PROPOSED HOSE BIBB CONNECTION

PROPOSED 2" PVC WATER MAIN

PROPOSED VALVE BOX (SEE SHEET U-05)

PROPOSED LIFT STATION (SEE SHEET U-06)

PROPOSED 70 LF OF 6" SDR35 GRAVITY SEWER AT 1% SLOPE

PROPOSED MANHOLE (SEE SHEET U-06) W INV ELE:13.07' N INV ELE: 12.97'

EXISTING 16" WATER MAIN

PROPOSED HOSE BIBB CONNECTION

PROPOSED 3/4" PVC WATER MAIN

PROPOSED 2" PVC WATER MAIN

PROPOSED 100 LF OF 6" SDR35 GRAVITY SEWER AT 2% SLOPE

PROPOSED 1½" SERVICE CONNECTION

PROPOSED 1½" PVC WATER MAIN

EXISTING 2" WATER MAIN TO BE ABANDONED AND REMOVED

PROPOSED 3/4" PVC WATER MAIN

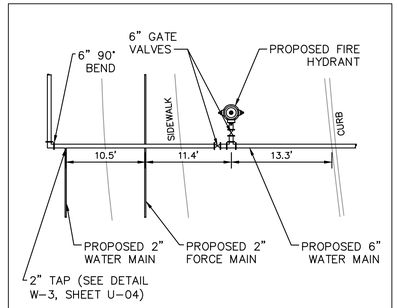
NOTES:
1. CONTRACTOR TO VERIFY LOCATION OF EXISTING UTILITIES.
2. CONTRACTOR TO INSTALL ALL UTILITY PIPELINES WITH A MINIMUM OF 3 FEET COVER.

NORTH

GRAPHIC SCALE IN FEET
0 15 30 60

LEGEND

- WM EXISTING WATER MAIN
- WM EXISTING WATER MAIN TO BE REMOVED
- FM EXISTING FORCE MAIN
- W PROPOSED WATER MAIN
- FM PROPOSED FORCE MAIN
- S PROPOSED GRAVITY SANITARY SEWER



FIRE HYDRANT CONNECTION DETAIL

GRAPHIC SCALE IN FEET
0 2.5 5 10

LIFT STATION PUMP NOTES:
- MANUFACTURER: FLYGT
- MODEL: MF 3068 HT 1~450
- DISCHARGE DIA: 1 INCH
- SUCTION DIA: 1 INCH
- IMPELLER DIA: 36 MM
- NO. OF BLADES: 1
- POWER: 1.7 HP
- VOLTAGE: 230 V
- SPEED: 1730 RPM
- PHASES: 1

PUMP STATION ELEVATIONS	
TOP OF WET WELL	ELE: 16.25'
INLET INVERT	ELE: 12.27'
HIGH WATER ALARM	ELE: 11.52'
LAG PUMP ON	ELE: 11.27'
LEAD PUMP ON	ELE: 11.02'
BOTH PUMPS OFF	ELE: 10.52'
BOTTOM	ELE: 9.52'

DRAWING: UTILITY PLAN DETAIL
DMC JOB NO. 16-095-07
SHEET NO. U-02

DRAWN	JIH	CAD	C3D
DESIGNED	JDZ	SCALE	1"=30'
CHECKED	SNR	DATE	09-05-2017

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

JAMIE DIONNE ZIVICH, P.E.
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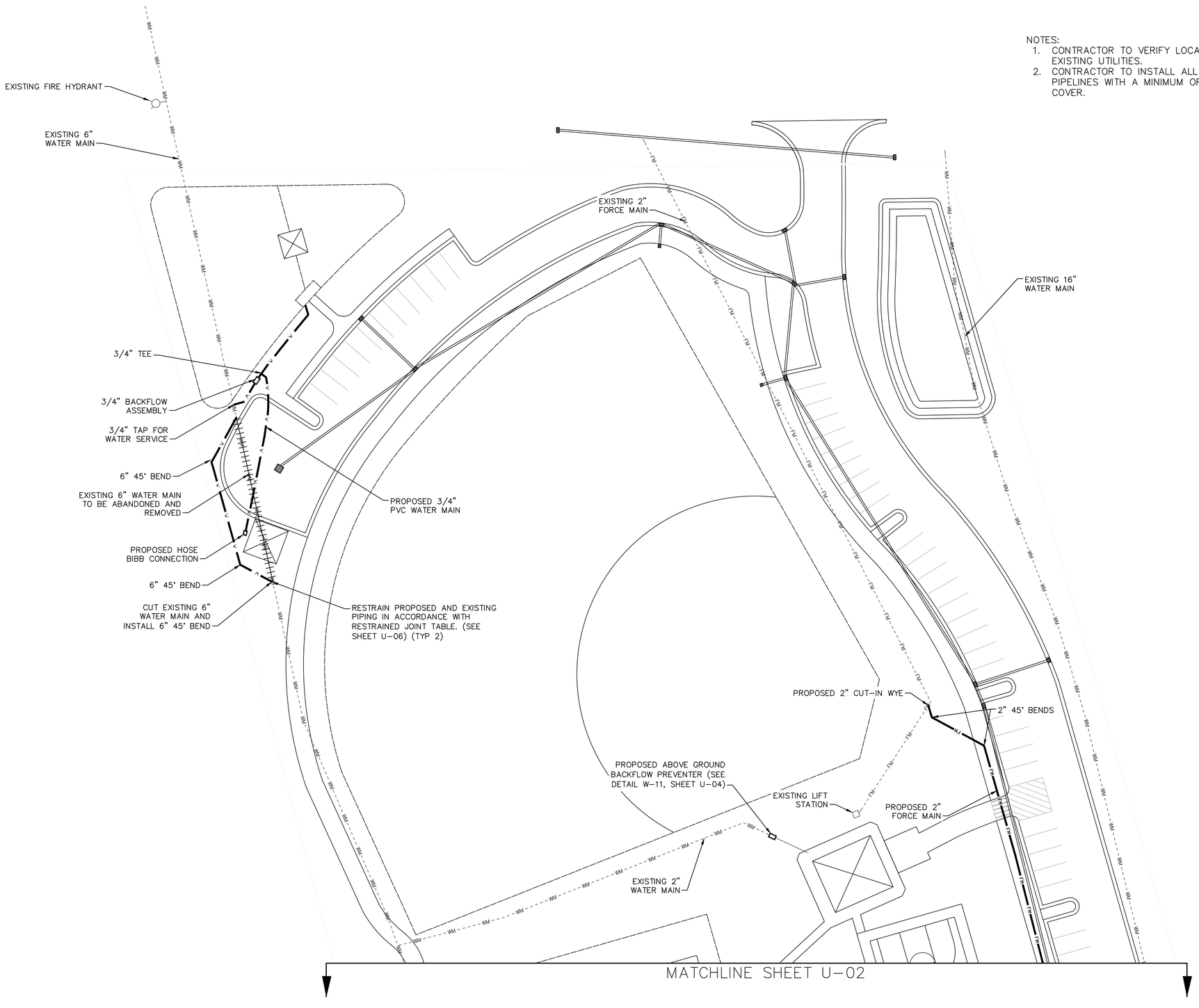
Drawing Name: C:\Users\carolyn.todd\appdata\local\temp\AcPublish_11388\Plansheets.dwg By: carolyn.todd Tab: U-2 9/07/2017

NOTES:
1. CONTRACTOR TO VERIFY LOCATION OF EXISTING UTILITIES.
2. CONTRACTOR TO INSTALL ALL UTILITY PIPELINES WITH A MINIMUM OF 3 FEET COVER.

NORTH

GRAPHIC SCALE IN FEET
0 15 30 60

LEGEND
- WM — EXISTING WATER MAIN
- EXISTING WATER MAIN TO BE REMOVED
- FM — EXISTING FORCE MAIN
- W — PROPOSED WATER MAIN
- FM — PROPOSED FORCE MAIN
- S — PROPOSED GRAVITY SANITARY SEWER



DRAWING: UTILITY PLAN DETAIL
DMC JOB NO. 16-095-07
SHEET NO. U-03
DRAWN JIH | CAD C3D
DESIGNED JDZ | SCALE 1"=30'
CHECKED SNR | DATE 09-05-2017

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

JAMIE DIONNE ZIVICH, P.E.
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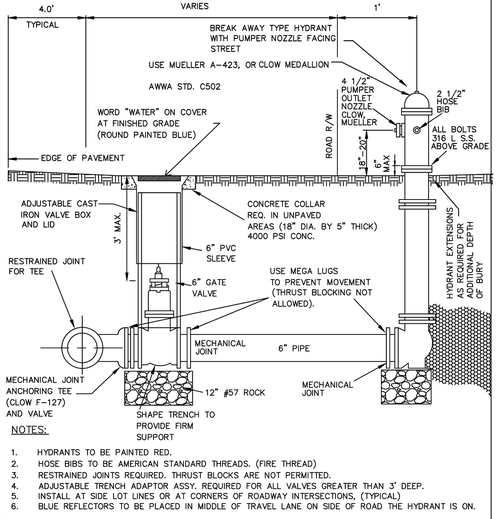
Drawing Name: C:\Users\carolyn.todd\appdata\local\temp\AcPublish_11388\Plansheets.dwg By: carolyn.todd Tab: U-3 9/07/2017

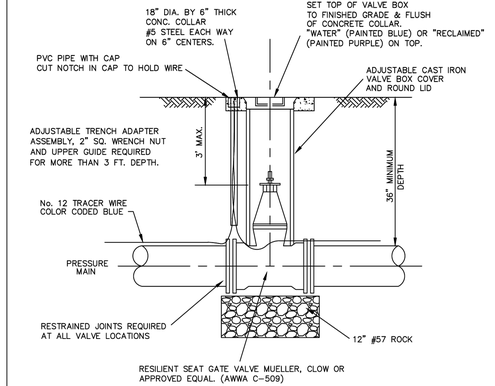


NOTES:

1. HYDRANTS TO BE PAINTED RED.
2. HOSE BIBS TO BE AMERICAN STANDARD THREADS. (FIRE THREAD)
3. RESTRAINED JOINTS REQUIRED. THRUST BLOCKS ARE NOT PERMITTED.
4. ADJUSTABLE TRENCH ADAPTOR ASSY. REQUIRED FOR ALL VALVES GREATER THAN 3' DEEP.
5. INSTALL AT SIDE LOT LINES OR AT CORNERS OF ROADWAY INTERSECTIONS, (TYPICAL)
6. BLUE REFLECTORS TO BE PLACED IN MIDDLE OF TRAVEL LANE ON SIDE OF ROAD THE HYDRANT IS ON.

STANDARD CONSTRUCTION DETAIL
FIRE HYDRANT ASSEMBLY

FILE NAME: EW_W1.DWG
DETAIL REF: W-1

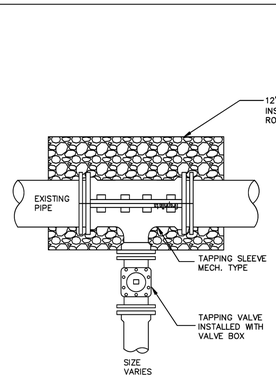


NOTE:

1. ROD OR BOLT TEE WHERE APPLICABLE.
2. VALVE BOX EXTENSIONS SHALL BE ONE CONTINUOUS PIECE OF PIPE.

STANDARD CONSTRUCTION DETAIL
POTABLE WATER AND/OR RECLAIMED WATER VALVE AND VALVE BOX
(2" - 16" VALVE SIZES)

FILE NAME: EW_W2.DWG
DETAIL REF: W-2

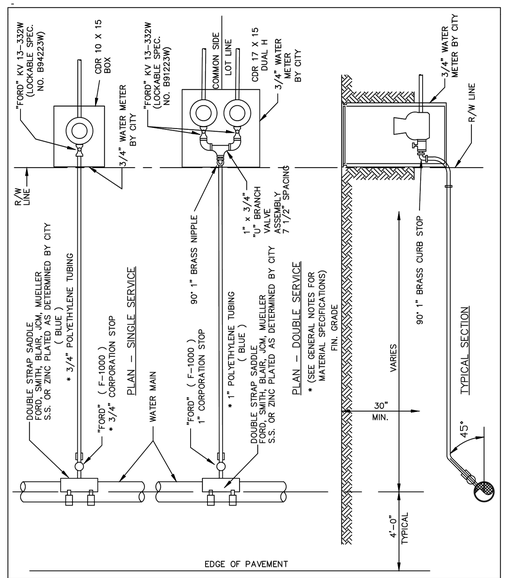


NOTES:

1. TAPPING SLEEVES SHALL BE ALL STAINLESS STEEL i.e. ROMAC INDUSTRIES, INC. MODEL SST.
2. INSTALL REQUIRED RESTRAINED JOINTS. IN NO INSTANCE SHALL THRUST BLOCK BE PERMITTED.
3. ALL TAPPING OF MAINS SHALL BE SUPERVISED BY THE CITY 48 HRS ADVANCE NOTICE PROVIDED.
4. TAPPING ASSEMBLY TO BE TESTED AT 150 p.s.i. FOR 10 MINUTES PRIOR TO PERFORMING TAP.

STANDARD CONSTRUCTION DETAIL
TAPPING VALVE AND SLEEVE

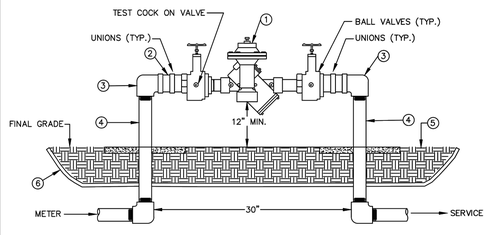
FILE NAME: EW_W3.DWG
DETAIL REF: W-3



STANDARD CONSTRUCTION DETAIL
WATER LATERAL SERVICE
(3/4" - 2" SIZES)

FILE NAME: EW_W5.DWG
DETAIL REF: W-5

DOUBLE CHECK OR REDUCED PRESSURE
BACKFLOW PREVENTER
SINGLE SERVICE: 3/4", 1", 1-1/2", 2"



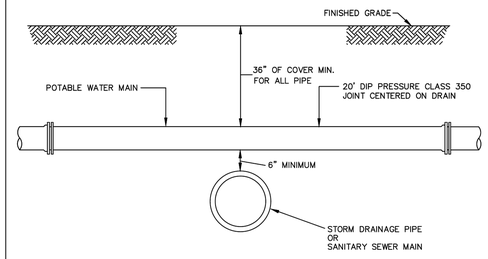
MATERIALS		
ITEM	QUANT.	DESCRIPTION
1.	1	2" BACKFLOW PREVENTER ASSEMBLY
2.	2	2" X NOM. NIPPLES - BRASS
3.	2	2" X 90° ELBOWS - GALV. / HARD COPPER
4.	2	2" X VARIES RISER - GALV. / HARD COPPER
5.	*	PEA GRAVEL
6.	*	PLASTIC LINER

NOTES:

1. INSTALLATION SHOWN ABOVE IS FOR A 2" SERVICE. CHANGE PIPING MATERIALS ACCORDINGLY FOR SERVICE SIZE.
2. CONTACT ADMINISTRATION OFFICE AT 424-2460 FOR LIST OF APPROVED DEVICES.

STANDARD CONSTRUCTION DETAIL
2" BACKFLOW PREVENTER

FILE NAME: EW_W11.DWG
DETAIL REF: W-11



NOTE:

1. CONCRETE ENCASEMENT OF A SANITARY SEWER MAIN IS AN ALTERNATIVE METHOD OF ADDRESSING A CONFLICT WHEN 18" VERTICAL SEPARATION DISTANCE CANNOT BE MAINTAINED. IN SUCH INSTANCES, THE MINIMUM PIPE VERTICAL SEPARATION SHALL BE 6".

STANDARD CONSTRUCTION DETAIL
STORM DRAINAGE PIPE
OR SANITARY SEWER MAIN CONFLICT

FILE NAME: EW_W14.DWG
DETAIL REF: W-14

POTABLE WATER DESIGN AND CONSTRUCTION NOTES

1. THE CITY'S PUBLIC UTILITIES DEPARTMENT (424-2460) SHALL BE GIVEN A MINIMUM OF 48 HOURS ADVANCE NOTICE (NOT INCLUDING HOLIDAYS OR WEEKENDS) PRIOR TO BEGINNING ANY POTABLE WATER SYSTEM CONSTRUCTION.
2. DEWATERING SHALL BE PROVIDED TO KEEP GROUNDWATER ELEVATION A MINIMUM OF 6 INCHES BELOW WATER MAIN BEING LAID
3. ALL WATER MAINS SHALL BE LAID ON A FIRM FOUNDATION WITH ALL UNSUITABLE MATERIAL (MUCK, ROCK, COQUINA, ETC.) REMOVED AND REPLACED WITH CLEAN GRANULAR MATERIAL.
4. TRENCHES SHALL BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE CITY WITH A MINIMUM COMPACTION OF 98% IN PAVED AREAS AND 95% IN UNPAVED AREAS IN ACCORDANCE WITH AASHTO T-180.
5. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT TRENCH COMPACTION TESTS BE PROVIDED AT POINTS 1 FOOT ABOVE THE PIPE AND AT 1 FOOT VERTICAL INTERVALS TO FINISH GRADE, AT A MINIMUM SPACING OF EVERY 300 FEET.
6. 3" METALLIZED PIPE LOCATION TAPE SHALL BE LOCATED BETWEEN 15" AND 24" BELOW FINISHED GRADE OR AS SPECIFIED BY MANUFACTURER FOR ALL PVC LINES. MARKER TAPE SHALL BE USED ON ALL DUCTILE IRON PIPE, AND 12 GUAGE TRACING WIRE AS WELL.
7. ALL SINGLE RESIDENTIAL WATER SERVICES SHALL BE 3/4", DOUBLE RESIDENTIAL SERVICES SHALL BE 1", AND COMMERCIAL SERVICES 1-1/2" OR 2". POLYETHYLENE TUBING SHALL BE USED, IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
   POLYETHYLENE TUBING SHALL BE CTS 3408 HIGH DENSITY TUBING, BLUE IN COLOR, AND RATED FOR A MINIMUM OF 200 P.S.I. WITH SDR OF 9 (CTS). THE TUBING SHALL HAVE A VIRGIN HIGH DENSITY POLYETHYLENE CENTER FOR WHICH THE MANUFACTURER SHALL FURNISH A CERTIFICATE OF PURITY. THE TUBING SHALL HAVE UV PROTECTION AND SHALL NOT BE AFFECTED BY DIRECT SUNLIGHT. THE TUBING SHALL COMPLY WITH OR EXCEED THE APPLICABLE STANDARDS OF A.S.T.M. D1248, D3350, D2239, D2737, N.S.F. 14 AND A.W.W.A. C901 AND SHALL COME WITH A LIFETIME WARRANTY.
   ACCEPTABLE MANUFACTURERS: ENDOT ENDO PURE OR APPROVED EQUAL
8. ALL WATER SERVICE ENDINGS SHALL BE MARKED WITH A 2" X 4" LUMBER (PRESSURE TREATED) EXTENDING 4 FEET ABOVE GRADE, WITH WATER SERVICES SECURED 12" MAXIMUM ABOVE THE GROUND AND ANY "U" BRANCHES FOR DOUBLE SERVICES SHALL BE AT GROUND LEVEL. ALL SERVICES SHALL BE LOCKED.
9. WATER VALVES SHALL BE PLACED AT ALL STREET INTERSECTIONS AND AT MAXIMUM SPACINGS OF 750 FEET.
10. AT ALL WATER MAIN TEES AND CROSSES, VALVES SHALL BE INSTALLED ON ALL LEGS EXCEPT ONE.
11. APPROVED WATER VALVE TYPES ARE THE FOLLOWING:
    A. RESILIENT SEAT GATE VALVES 24" DIAMETER AND SMALLER (AWWA C-509)
    B. BUTTERFLY VALVES GREATER THAN 24" (AWWA C-504)
    C. TAPPING VALVES WITH MECHANICAL TAPPING SLEEVE.
12. ALL WATER VALVES SHALL BE ADJUSTED TO FINISHED GRADE WITH CONCRETE COLLARS AND THE CAPS PAINTED BLUE TO MAKE THEM PLAINLY VISIBLE.
13. UPON FINAL ACCEPTANCE OF NEW WATER SYSTEMS, WATER VALVES SHALL BE COMPLETELY OPENED BY PUBLIC UTILITIES PERSONNEL. AT NO TIME SHALL CONTRACTOR OPERATE ANY EXISTING VALVES.
14. TYPICALLY, A MINIMUM OF ONE FIRE HYDRANT SHALL BE LOCATED AT EVERY INTERSECTION. OTHER FIRE HYDRANTS SHALL BE LOCATED SO AS TO PRODUCE A MAXIMUM 375 FEET HOSE LAY ALONG THE STREET FOR ALL RESIDENTIAL BUILDINGS.

STANDARD CONSTRUCTION DETAIL
POTABLE WATER DESIGN AND CONSTRUCTION NOTES

FILE NAME: EW_W22.DWG
DETAIL REF: W-22

POTABLE WATER DESIGN AND CONSTRUCTION NOTES (CONTD.)

15. ALL FIRE HYDRANTS SHALL BE CONSTRUCTED TO MAKE THEM EASILY ACCESSIBLE TO FIRE PERSONNEL IN CASE OF A FIRE. THE PRIMARY HYDRANT PORT SHOULD ALWAYS FACE THE STREET.
16. AS STANDARD PRACTICE, WATER MAINS SHALL BE INSTALLED 4 FEET OFF THE BACK OF CURB OR AS APPROVED BY THE CITY.
17. ALL WATER MAINS SHALL BE NSF-APPROVED FOR POTABLE WATER USE, AND SHALL HAVE A MINIMUM COVER OF 36 INCHES.
18. ALL PROPOSED WATER MAINS SHALL BE FLUSHED, DISINFECTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION REQUIREMENTS.
19. WATER MAINS SHALL BE C-900 PVC OR C-905 CL 150 (COLOR"BLUE") OR D.I.P. PRESSURE CLASS 350 STANDARD CEMENT LINED UNLESS OTHERWISE APPROVED BY THE CITY.
20. UPON CONSTRUCTION COMPLETION AND ACCEPTANCE OF THE SYSTEM, IT SHALL BE THE DESIGN ENGINEER'S RESPONSIBILITY TO ENSURE THAT THE SYSTEM IS PROPERLY CERTIFIED AND ACCEPTED BY THE DEPARTMENT OF HEALTH AND AS-BUILTS ARE PROVIDED TO THE CITY PRIOR TO ANY USE OF THIS SYSTEM .
21. WATER DISTRIBUTION SYSTEM SHALL BE DESIGNED TO COMPLY WITH THE CITY'S FIRE (WATER) FLOW CODE.
22. IN AREAS WHERE RECLAIMED WATER IS NOT AVAILABLE THE CONTRACTOR SHALL BE REQUIRED TO (UPON SATISFACTORY COMPLETION OF THE PRESSURE TEST) TRANSFER THE WATER FROM THE POTABLE WATER LINES TO THE RECLAIMED WATER LINES FOR UTILIZATION IN THEIR PRESSURE TEST.
23. IN AREAS WHERE RECLAIMED WATER IS AVAILABLE, RECLAIMED WATER WILL BE UTILIZED IN THE PRESSURE TESTING OF NEW RECLAIMED WATER LINES.
24. ALL POTABLE WATER MAINS SHALL USE A THRUST RESTRAINT JOINT METHOD IN COMPLIANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION (DIPRA) GUIDELINES. IN THE EVENT THAT PVC FITTINGS ARE SPECIFIED, THE RESTRAINT SHALL BE MODIFIED IN ACCORDANCE WITH THE RECOMMENDED ADDITIONAL RESTRAINT LENGTH REQUIRED FOR PIPE WRAPPED WITH POLYETHYLENE.
25. MEGALUGS, BOLTLESS RESTRAINED JOINTS, GRIPPER GASKETS, OR STAR GRIPS SHALL BE USED ON ALL RESTRAINED JOINT INSTALLATIONS. MINIMUM DEPTH OF BURY ON PIPES NOT MEETING REQUIRED COVER REQUIREMENTS SHALL FOLLOW THE MOST RECENT DIPRA THRUST RESTRAINT DESIGN GUIDELINES.
26. GRIPPER RING GASKETS BY ROMAC AND OR STAR AU-GRIP MAY BE USED AS APPROPRIATE FOR RESTRAINING PRESSURE PIPE TO FITTINGS, VALVES, ETC.
27. WATER SYSTEMS SHALL BE PRESSURE TESTED AT 150 PSI STATIC PRESSURE FOR A PERIOD OF 4 HOURS PER AWWA STANDARDS.
28. ALL WATER SERVICES SHALL BE MARKED WITH AN "/\" SAW CUT INTO THE CURB AND METAL TABS SET INTO THE PAVEMENT.
29. ALL WATER VALVES SHALL BE MARKED WITH AN "X" SAW CUT INTO THE CURB AND METAL TABS SET INTO THE PAVEMENT. BLOW-OFFS SHALL BE MARKED SIMILARLY, AS WELL.
30. WATER SERVICES SHALL BE NORMALLY DOUBLE 1" SERVICES LOCATED AT SIDE LOT LINES. IN INSTANCES WHERE SERVICES NEED TO BE OFFSET, 3/4" SINGLE SERVICES SHALL BE SPECIFIED. THESE SERVICES MAY BE OFFSET A MAXIMUM OF 2.0' FROM SIDE LOT LINES.
31. ALL TAPPING OF MAINS SHALL BE SUPERVISED BY THE CITY SCHEDULING OF THESE CONNECTIONS SHALL REQUIRE A MINIMUM 48 HOUR NOTIFICATION (MEASURED ON NORMAL WORK DAYS) DIRECTED TO THE CITY'S DESIGNATED SITE INSPECTOR. THE CONNECTION SHALL BE SCHEDULED TO COMMENCE BETWEEN 8:00 A.M. AND NOON ON THE APPROPRIATE DAY.

STANDARD CONSTRUCTION DETAIL
POTABLE WATER DESIGN AND CONSTRUCTION NOTES

FILE NAME: EW_W23.DWG
DETAIL REF: W-23

DRAWING: DETAILS
DMC JOB NO. 16-095-07
SHEET NO. U-04
DRAWN JJH | CAD C3D | SCALE 1"=30' | DATE 09-05-2017
DESIGNED JDZ | CHECKED SNR

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

JAMIE DIONNE ZIVICH, P.E.
FLORIDA LICENSE No. 82183

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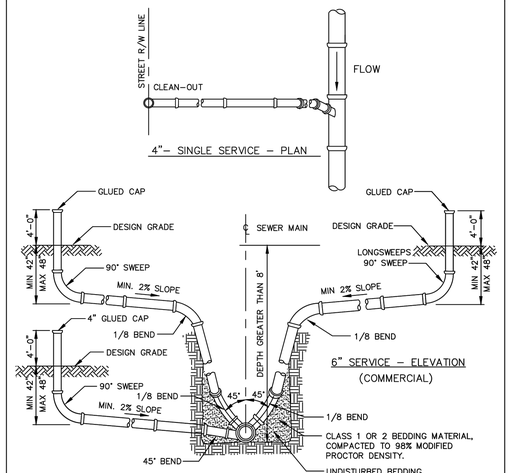
CITY OF EDGEWATER
104 N. RIVERSIDE DR.
EDGEWATER, FL 32132

POTABLE WATER DESIGN AND CONSTRUCTION NOTES (CONTD.)

32. ALL PROPOSED POTABLE WATER MAINS SHALL BE FLUSHED, DISINFECTED, PRESSURE TESTED AND BACTERIOLOGICALLY CLEARED FOR SERVICE WHEN APPROPRIATE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIROMENTAL PROTECTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE CITY'S DESIGNATED SITE INSPECTOR WHO SHALL COORDINATE WITH CITY PERSONNEL AT THE WATER TREATMENT PLANT AT LEAST 48 HOURS PRIOR TO BEGINNING FLUSH OF THE MAINS PRIOR TO THE COMMENCEMENT OF PRESSURE TESTING.
33. THE CONTRACTOR SHALL BE REQUIRED TO PIG ALL POTABLE MAINS IN EXCESS OF 8" IN DIAMETER AND PRIMARY DISTRIBUTION MAINS LOCATED ON COLLECTOR AND ARTERIAL ROADWAYS. LAUNCHING AND EXTRACTION POINTS SHALL BE DETERMINED BY THE CONTRACTOR.
34. WITH RESPECT TO TIE-IN CONNECTIONS , THE CITY RESERVES THE RIGHT TO REQUIRE CONNECTIONS TO BE PERFORMED DURING PERIODS OF LOW FLOW (MIDNIGHT TO 6:00 A.M.) IN ORDER TO MINIMIZE SERVICE DISRUPTION TO EXISTING CUSTOMERS.
35. ALL WORK PERFORMED UPON POTABLE WATER FACILITIES OWNED OR PROPOSED TO BE OWNED BY THE CITY SHALL BE CONSTRUCTED BY AN UNDERGROUND UTILITY CONTRACTOR OR GENERAL CONTRACTOR LICENSED IN THE STATE OF FLORIDA AND REGISTERED WITH THE CITY.
36. FOR CONSTRUCTION PURPOSES, THE PLANS SHALL DIMENSION THE PROPOSED LOCATIONS OF ALL WATER MAINS MEASURED FROM THE BACK OF CURB (OR EDGE OF PAVEMENT, IF NO CURB IS USED).
37. POTABLE WATER SYSTEM EXTENSIONS MAY NOT BE USED PRIOR TO FINAL TESTING, CLEARANCE AND ACCEPTANCE BY THE CITY OF EDGEWATER. THIS INCLUDES CONSTRUCTION WATER REQUIRED FOR SEWER LINE CLEANING OR RELATED USES.
38. ALL H.D.P.E. PIPE UTILIZED FOR WATER, FORCE MAIN AND/OR RECLAIMED WATER MAIN EXTENSIONS SHALL BE S.D.R. 11 UNLESS SPECIFICALLY NOTED OTHERWISE. THE HDPE PIPE SHALL BE SIZED TO MATCH THE EXTERNAL DIAMETER OF THE PVC OR DIP PIPE TO WHICH IT IS ATTACHED.
39. LANDSCAPE PLANS SHALL CLEARLY DEPICT THE DESIGN LOCATION OF PLANTINGS RELATIVE TO THE LOCATION OF PUBLIC UTILITIES AND STORMWATER INFRASTRUCTURE IN ORDER TO EVALUATE POTENTIAL CONFLICTS.
40. ALL VALVES 2" AND LARGER SHALL BE STANDARD 2" BOX VALVES (CORP STOPS ARE NOT ACCEPTABLE).
41. WHERE POTABLE WATER AND SANITARY SEWER MAINS CROSS WITH LESS THAN EIGHTEEN (18) INCHES OF VERTICAL CLEARANCE OR WHERE THE SEWER MAIN IS ABOVE THE WATER MAIN, THE SEWER MAIN SHALL BE ENCASED WITH CONCRETE OR ENCLOSED IN A WATER TIGHT CARRIER PIPE, OR UPGRADED TO DUCTILE IRON PIPE OR PRESSURE RATED PVC PIPE (MEETING THE AWWA C-900 OR C905 SPECIFICATION) FOR A MINIMUM LENGTH OF (20) FEET, CENTERED ON THE POINT OF CROSSING. A MINIMUM HORIZONTAL SEPARATION OF (10) TEN FEET (EDGE TO EDGE) BETWEEN POTABLE WATER MAINS AND SEWER MAINS SHALL BE MAINTAINED WHEN AT ALL POSSIBLE. WHEN THE 10-FOOT HORIZONTAL SEPARATION CANNOT BE MAINTAINED THE WATER MAIN SHALL BE INSTALLED IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF AT LEAST 18" ABOVE THE SEWAGE MAIN. ALTERNATIVELY, THE SEWER MAIN SHALL BE ENCASED WITH CONCRETE OR ENCLOSED IN A WATER TIGHT CARRIER PIPE, OR UPGRADED TO DUCTILE IRON PIPE OR PRESSURE RATED PVC PIPE (MEETING THE AWWA C-900 OR C-905 SPECIFICATION) AND PRESSURE TESTED.

STANDARD CONSTRUCTION DETAIL
POTABLE WATER DESIGN AND CONSTRUCTION NOTES

FILE NAME: EW_W24.DWG
DETAIL REF: W-24

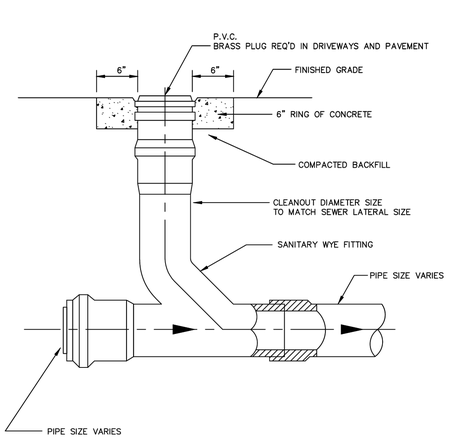


NOTES:
1. USE OF STYRENE MATERIAL WILL NOT BE PERMITTED.
2. ALL JOINTS TO BE RUBBER GASKET (NO GLUED FITTINGS) TYPICAL.
3. USE ALL HARCO SDR-26 FITTINGS OR CITY APPROVED EQUAL.

4" - RESIDENTIAL
6" - COMMERCIAL

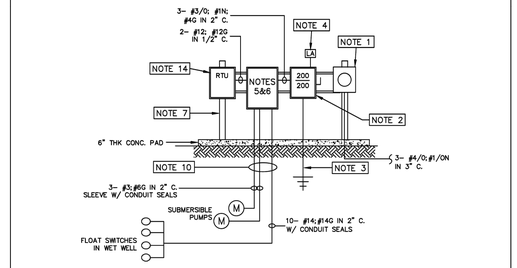
STANDARD CONSTRUCTION DETAIL
SEWER LATERAL DETAIL
(SINGLE 4" RESIDENTIAL)
(SINGLE 6" COMMERCIAL)

FILE NAME: EW_S10.DWG
DETAIL REF: S-10



STANDARD CONSTRUCTION DETAIL
CLEANOUT DETAIL

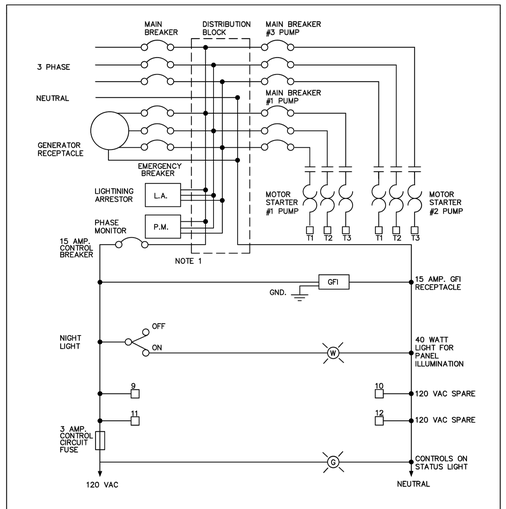
FILE NAME: EW_S12.DWG
DETAIL REF: S-12



NOTES:
1. FPL METER WITH BY-PASS
2. 200 AMP 3 POLE SOLID NEUTRAL NEMA 4X DICONNECT WITH CLASS R FUSE CLIPS AND CLASS RK-1 FUSES. STRUT MOUNT AND LABEL AS MAIN DICONNECT.
3. SERVICE GROUND TO BE #4 SOLID COPPER RUN TO 2 8FT. GROUND RODS SPACED AT 10FT. APART WITH CAD -WELD CONNECTIONS.
4. LIGHTENING ARRESTOR TO BE INSTALLED IN PANEL. SURGE PROTECTION TO BE INSTALLED IN MAIN DISCONNECT. LIGHTNING ARRESTOR TO BE LEVITON #57120-M3 OR APPROVED EQUAL. SURGE PROTECTOR TO BE G.E. MODEL 9.1.1888.301 OR APPROVED EQUAL.
5. ALARM LIGHT AND AUDIBLE ALARM TO BE INSTALLED ON ELECTRICAL PANEL. AUDIBLE ALARM TO BE FEDERAL SIGNAL MODEL #350 OR APPROVED EQUAL. ALARM LIGHT TO BE RUSSEL STOLL TYPE VLP, CAT.#
6. AUXILARY POWER CONNECTION IS TO BE MOUNTED ON THE ELECTRICAL PANEL. ELECTRICAL PANEL TO BE BUILT WITH AN EMERGENCY BREAKER, AND BE EQUIPPED WITH A 6345A. SLIDE BAR FAIL SAFE MECHANISM. AUXILARY POWER CONNECTOR TO BE HUBBEL MODEL#4100B9W OR APPROVED EQUAL, WITH SAFETY CAP.
7. PROVIDE 3IN. ALUMINUM PIPES OR 6in X 6in CEMENT POST AND 1/3 CUBIC YARD OF CEMENT TO SUPPORT EQUIPMENT RACK ASSEMBLY. EQUIPMENT RACK ASSEMBLY TO INCLUDE 1 1/2in STAINLESS STEEL KINDORF CHANNEL USING STAINLESS STEEL HARDWARE (U-BOLTS, BOLTS, ETC)
8. ELECTRICAL PANEL TO BE BUILT WITH 2 EXTRA POWER POINTS, AND 2 EXTRA GROUNDS.
9. ALL WIRING COMPONENTS AND STRUCTURES WITHIN THE ELECTRICAL SYSTEM WILL BE IN STRICT COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE.
10. ALL CONDUIT BETWEEN THE WET WELL AND THE ELECTRICAL PANEL WILL BE EQUIPPED WITH CONDUIT SEAL-OFFS.
11. NO CHANGES WILL BE MADE TO CITY OF EDGEWATER STANDARDS WITHOUT PRIOR APPROVAL OF CITY.
12. REQUIREMENTS FOR THE ELECTRICAL PANEL INTERNAL COMPONENTS ARE NOTED IN S-21
13. CONTRACTOR WILL BE REQUIRED TO APPLY FOR PERMITS WITH THE CITY OF EDGEWATER BUILDING DEPARTMENT.
14. PROVIDE CITY STANDARD RTU. DATA FLOW SYSTEMS. INC. MELBOURNE, FL.

STANDARD CONSTRUCTION DETAIL
PACKAGED LIFT STATION
ELECTRICAL EQUIPMENT RACK

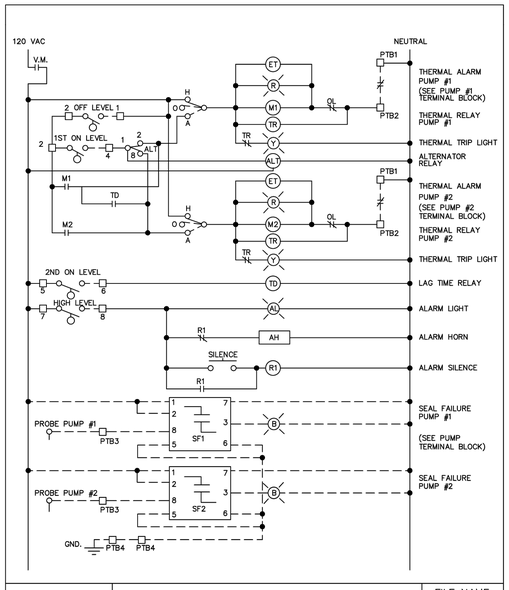
FILE NAME: EW_S22.DWG
DETAIL REF: S-22



NOTE 1 - FOR 277/480 VOLT PANELS STEP DOWN TRANSFORMER FOR 120 VOLT CONTROL VOLTAGE WILL BE REQUIRED.

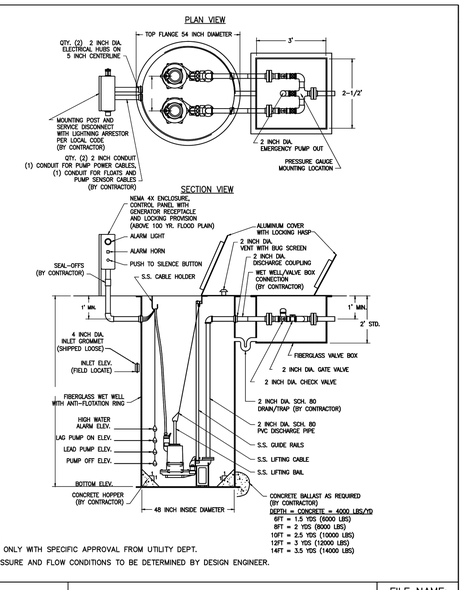
STANDARD CONSTRUCTION DETAIL
PACKAGED LIFT STATION
ELECTRICAL PANEL SCHEMATIC

FILE NAME: EW_S22A.DWG
DETAIL REF: S-22A



STANDARD CONSTRUCTION DETAIL
PACKAGED LIFT STATION
ELECTRICAL PANEL SCHEMATIC

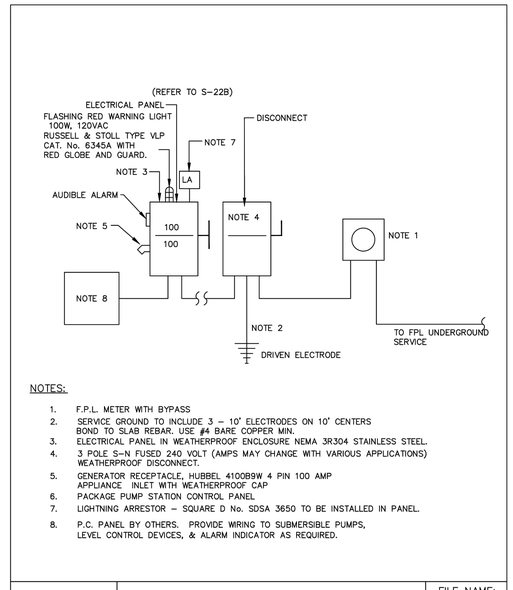
FILE NAME: EW_S22B.DWG
DETAIL REF: S-22B



NOTES:
1. USE ONLY WITH SPECIFIC APPROVAL FROM UTILITY DEPT.
2. PRESSURE AND FLOW CONDITIONS TO BE DETERMINED BY DESIGN ENGINEER.

STANDARD CONSTRUCTION DETAIL
UNITARY SEWAGE PUMP STATION

FILE NAME: EW_S22C.DWG
DETAIL REF: S-22C



NOTES:
1. F.P.L. METER WITH BYPASS
2. SERVICE GROUND TO INCLUDE 3 - 10' ELECTRODES ON 10' CENTERS BOND TO SLAB REBAR. USE #4 BARE COPPER MIN.
3. ELECTRICAL PANEL IN WEATHERPROOF ENCLOSURE NEMA 3R304 STAINLESS STEEL.
4. 3 POLE S-N FUSED 240 VOLT (AMPS MAY CHANGE WITH VARIOUS APPLICATIONS) WEATHERPROOF DISCONNECT.
5. GENERATOR RECEPTACLE, HUBBEL 4100B9W 4 PIN 100 AMP APPLIANCE INLET WITH WEATHERPROOF CAP
6. PACKAGE PUMP STATION CONTROL PANEL
7. LIGHTNING ARRESTOR - SQUARE D No. SDSA 3650 TO BE INSTALLED IN PANEL.
8. P.C. PANEL BY OTHERS. PROVIDE WIRING TO SUBMERSIBLE PUMPS, LEVEL CONTROL DEVICES, & ALARM INDICATOR AS REQUIRED.

STANDARD CONSTRUCTION DETAIL
PACKAGED LIFT STATION
ELECTRICAL NOTES

FILE NAME: EW_S22.DWG
DETAIL REF: S-22D

DRAWING: DETAILS
DMC JOB NO. 16-095-07
SHEET NO. U-05
DRAWN JJH | CAD C3D
DESIGNED JDZ | SCALE 1"=30'
CHECKED SNR | DATE 09-05-2017

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

JAMIE DIONNE ZIVICH, P.E.
FLORIDA LICENSE No. 82183

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CITY OF EDGEWATER
104 N. RIVERSIDE DR.
EDGEWATER, FL 32132

Drawing Name: C:\Users\carolyn.todd\appdata\local\temp\AcPublish_11388\Plansheets.dwg By: carolyn.todd Tab: U-5 9/07/2017

SANITARY SEWER DESIGN AND CONSTRUCTION NOTES

1. THE CITY'S ENVIRONMENTAL SERVICES DEPT. (424-2460) SHALL BE GIVEN A MINIMUM OF 48 HOURS ADVANCE NOTICE (NOT INCLUDING HOLIDAYS OR WEEKENDS) PRIOR TO BEGINNING ANY SANITARY SEWER CONSTRUCTION.
2. ALL GRAVITY SANITARY SEWER MAIN LINES SHALL BE 8" DIAMETER MINIMUM. COMMERCIAL SERVICE LATERALS WITH MULTIPLE CONNECTIONS SHALL BE GREEN 6" DIA. OR LARGER. ALL SINGLE FAMILY RESIDENTIAL SERVICE LATERALS SHALL BE 4" – SINGLE SERVICES.
3. ALL GRAVITY SANITARY SEWER LINES SHALL BE GREEN PVC SDR 26, ASTM D-3034. IN PLACES WHERE A MINIMUM COVER OF 4.0' CANNOT BE MAINTAINED, AWWA C-900 OR C-905 GREEN PVC DR-25, CLASS 100 OR CONCRETE ENCASEMENT SHALL BE USED. WATER LINES, RECLAIMED LINES, AND STORM DRAINAGE CROSSINGS SHALL ALSO FOLLOW THE CONCRETE ENCASEMENT REQUIREMENT PER THESE STANDARDS AND AS PER REGULATORY REQUIREMENTS.
4. MINIMUM GRAVITY SANITARY SEWER SLOPES ARE AS FOLLOWS:
   8" PIPE 0.40 %
   10" PIPE 0.30 %
   12" PIPE 0.22 %
5. GRAVITY SANITARY SEWER LINES SHALL BE INSTALLED WHENEVER POSSIBLE UNDER PAVED AREAS WITHIN PUBLIC RIGHTS-OF-WAY. UTILITY EASEMENTS SHALL BE PROVIDED WHENEVER PUBLICLY-OWNED SEWER LINES ARE CONSTRUCTED OUTSIDE OF A PUBLIC RIGHT-OF-WAY.
6. GRAVITY SANITARY SEWER LINE CONSTRUCTION SHALL BE ACCOMPLISHED BY THE USE OF A LASER INSTRUMENT UNLESS ANOTHER METHOD IS PREVIOUSLY APPROVED BY THE CITY.
7. THE CONTRACTOR SHALL AT ALL TIMES, DURING PIPE LAYING OPERATIONS, DEWATER THE GROUND SUFFICIENTLY TO KEEP THE GROUNDWATER ELEVATION A MINIMUM OF 6" BELOW THE PIPE BEING LAID WITHIN THE AREA OF THE TRENCH.
8. ALL PIPES SHALL BE LAID ON A FIRM FOUNDATION. SOFT OR SPONGY BEDDING FOR PIPES IS NOT ACCEPTABLE. ANY UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH A DRY, COMPACTED, GRANULAR MATERIAL SATISFACTORY TO THE CITY.
9. ON ALL EXCAVATION AND BACKFILLING THE CONTRACTOR SHALL PROVIDE ADEQUATE SHEETING AND BRACING IN ORDER TO PROVIDE FOR THE SAFETY OF WORKMEN, AS WELL AS REPRESENTATIVES OF THE CITY, THE DESIGN ENGINEER, AND THE DEVELOPER.
10. ALL TRENCHES SHALL BE BACKFILLED WITH ACCEPTABLE MATERIAL AND COMPACTED TO THE SPECIFIED MINIMUM COMPACTION (95% IN UNPAVED AREAS AND 98% IN PAVED AREAS) OF THE OPTIMUM DENSITY OF THAT MATERIAL BASED ON THE AASHTO T-180 MODIFIED PROCTOR TEST.
11. THE CONTRACTOR SHALL EMPLOY AN INDEPENDENT TESTING LABORATORY AT HIS OWN EXPENSE TO INSURE THAT COMPACTION OF ALL FILL MATERIAL IS COMPLETED PROPERLY. TESTS SHALL BE DONE ONE FOOT ABOVE THE PIPE AND THEN AT ONE FOOT VERTICAL INTERVALS UNTIL FINAL GRADE IS REACHED. TESTING SHALL BE COMPLETED AND TEST DOCUMENTS SUBMITTED TO THE CITY AT A MINIMUM FREQUENCY OF ONE SET OF TESTS BETWEEN EACH MANHOLE AND ONE ADDITIONAL SET OF TESTS AT EVERY MANHOLE. IDENTIFICATION OF TEST LOCATIONS SHALL BE CLEARLY INDICATED ON TEST REPORTS. TEST RESULTS SHALL BE FORWARDED PROMPTLY TO THE CITY'S DESIGNATED SITE INSPECTOR.
12. THE CONTRACTOR SHALL INSTALL A METALLIZED FOIL LOCATOR TAPE, OR SIMILAR DEVICE AS MAY BE APPROVED BY THE CITY FOR THE FULL LENGTH OF ALL PVC SEWAGE FORCE MAINS. THIS PIPE LOCATOR AID SHALL BE INSTALLED BETWEEN 15" AND 24" BELOW FINISHED GRADE OR AS DIRECTED BY THE MANUFACTURER. TAPE SHALL BE COLOR CODED GREEN FOR SANITARY SEWER AND FORCE MAIN. INSTALL 12 GUAGE TRACING WIRE IN TRENCH.

EDGEWATER	STANDARD CONSTRUCTION DETAIL SANITARY SEWER DESIGN AND CONSTRUCTION NOTES	FILE NAME: EW_S23.DWG DETAIL REF: S-23

SANITARY SEWER DESIGN AND CONSTRUCTION NOTES: (CONTD.)

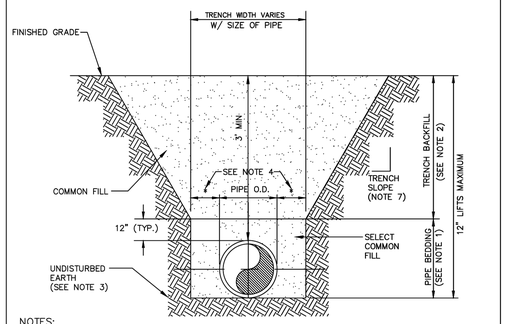
13. ALL TESTING REQUIRED BY THE CITY SHALL BE PAID FOR BY THE CONTRACTOR / DEVELOPER.
14. ALL LOCAL COLLECTION SANITARY SEWER MANHOLES SHALL BE PRECAST WITH A MINIMUM INSIDE DIAMETER OF 4 FEET.
15. STANDARD MANHOLES SHALL BE LOCATED AT INTERVALS NOT EXCEEDING 400 FEET.
16. ALL SEWER FITTINGS TO BE "HARCO" OR CITY APPROVED EQUAL.
17. MANHOLE RIMS SHALL MATCH FLUSH WITH THE FINISH GRADE ELEVATION IN PAVED AREAS AND A MINIMUM OF 0.2 FEET AND MAXIMUM OF 0.5 FEET ABOVE GRADE GENERALLY IN UNPAVED AREAS.
18. THE CONTRACTOR SHALL CONSTRUCT SANITARY SEWER MANHOLES IN SUCH A WAY THAT SEWER LINES DO NOT INTERSECT SEALED JOINTS BETWEEN SECTIONS OF THE MANHOLE.
19. RUBBER BOOTS AND STAINLESS STEEL BANDS SHALL BE UTILIZED IN THE CONNECTION OF THE SEWER MAIN TO THE MANHOLES (SEE STANDARD MANHOLE AND BOOT DETAIL).
20. INDIVIDUAL SANITARY SERVICE CONNECTORS ON NEW CONSTRUCTION SHALL NOT BE CONNECTED DIRECTLY INTO MANHOLES, AND MUST CONNECT TO SEWER MAIN LINES BY USE OF WYE CONNECTIONS, UNLESS OTHERWISE BE APPROVED BY THE CITY.
21. FOR SINGLE FAMILY HOMES, SINGLE OR DOUBLE FOUR INCH SEWER SERVICES LATERALS SHALL BE CONSTRUCTED SINGLES AT EACH LOT OR UNIT AND LOCATED ON THE DOWNSTREAM SIDE OF THE LOT CENTER LINE. DOUBLES LOCATED ON THE LOT LINES THESE SERVICES SHALL BE EXTENDED 4 FEET ABOVE GROUND AT THE PROPERTY LINE WITH A PVC RISER AND PLUG BEING EASILY VISIBLE FROM THE ROAD. RUBBER SEAL FITTINGS SHALL BE USED ON ALL LINES. NO GLUED JOINTS ARE PERMITTED ON LATERALS, INCLUDING DOUBLES.
22. FOR MULTI-FAMILY AND COMMERCIAL SITES, SIX INCH MINIMUM SEWER SERVICES AND CLEANOUTS SHALL BE PROVIDED AS APPROVED BY THE CITY.
23. SANITARY SEWER LIFT STATIONS AND FORCE MAINS, SIZE, MATERIAL, AND DESIGNS SHALL BE APPROVED BY THE CITY. LIFT STATIONS SHALL BE CONSTRUCTED WITH A MINIMUM WET WELL INTERIOR DIAMETER OF 6 FEET. FORCE MAINS SHALL BE A MINIMUM 6 INCH DIAMETER.
24. IT SHALL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER TO PREPARE AND SUBMIT FLOTATION CALCULATIONS TO SIZE THE BASE OF THE WET WELL, AND ANY MANHOLES AS DEEMED NECESSARY BY THE CITY.
25. SANITARY SEWER DROP MANHOLES SHALL ONLY BE USED UNDER SPECIAL CONDITIONS AS APPROVED BY THE CITY. DROPS LESS THAN 2.0' SHALL NOT BE ALLOWED.
26. ALL SANITARY SEWER MANHOLE COVERS SHALL HAVE THE WORDS "EDGEWATER, FLORIDA SANITARY SEWER" CAST INTO THEM.
27. ALL SANITARY SEWER FORCE MAINS, SHALL BE PVC AWWA C-900, OR C-905 (COLOR "GREEN") (PRESSURE FITTINGS, PRESSURE CLASS 150 OR 250 EPOXY LINED DIP. THE FORCE MAIN MINIMUM DEPTH OF COVER SHALL BE 36".
28. ALL SANITARY SEWER FORCE MAINS SHALL USE A THRUST RESTRAINT JOINT METHOD IN COMPLIANCE WITH THE DUCTILE IRON PIPE RESEARCH ASSOCIATION GUIDELINES MODIFIED TO ACCOMMODATE PVC PIPE BY FOLLOWING THE RECOMMENDED INCREASE IN RESTRAINT LENGTH CORRESPONDING TO THE INSTALLATION OF POLYETHYLENE WRAP. IN NO INSTANCE SHALL THRUST BLOCKS BE PERMITTED.

EDGEWATER	STANDARD CONSTRUCTION DETAIL SANITARY SEWER DESIGN AND CONSTRUCTION NOTES	FILE NAME: EW_S24.DWG DETAIL REF: S-24

SANITARY SEWER DESIGN AND CONSTRUCTION NOTES (CONTD.)

29. SANITARY SEWER MANHOLES WHICH HAVE SEWER FORCE MAINS DISCHARGING DIRECTLY INTO THEM SHALL BE FIBERGLASS OR POLY-ETHYLENE LINED. RETRO-FITTING OF MANHOLES WITH LINERS SHALL BE REQUIRED WHEN NEW CONNECTIONS SUCH AS THIS ARE MADE. FIBERGLASS SHALL BE A MINIMUM 1/2" THICKNESS UNLESS APPROVED OTHERWISE BY THE CITY. OTHER TYPES OF LINING METHODS AND MATERIALS MAY BE CONSIDERED ON A CASE BY CASE BASIS. UNDER SPECIAL CIRCUMSTANCES WHERE HYDROGEN SULFIDE IS A MAJOR CONCERN MANHOLES UPSTREAM AND/OR DOWNSTREAM OF THE FORCE MAIN TIE-IN OR WET WELL MAY ALSO BE REQUIRED TO HAVE LININGS INSTALLED.
30. THE CITY RESERVES THE RIGHT TO REQUIRE THE DEVELOPER TO PERFORM VACUUM TESTING OF ALL SANITARY MANHOLES, AIR TEST SEWER MAINS, AND REQUIRES THAT ALL SANITARY SEWER MAIN LINES BE TELEVISED PRIOR TO FINAL ACCEPTANCE. LATERALS SHALL BE TELEVISED UPON DEMAND BY THE CITY PRIOR TO FINAL ACCEPTANCE WHEN IT IS SUSPECTED THAT A PROBLEM EXISTS.
31. ALL SEWER MAINS, PRIOR TO ACCEPTANCE BY THE CITY AND PRIOR TO ANY FINAL PAVING OPERATIONS, SHALL BE CLEANED FLUSHED AND TELEVISED USING A "PAN AND TILT" CAMERA BY A CITY APPROVED CONTRACTOR. THE VIDEO SHALL BE NON-STOP WITH AUDIO DESCRIBING WHAT IS BEING REVIEWED. WRITTEN VIDEO LOGS DESCRIBING THE CONDITION OF THE LINES SHALL ACCOMPANY THE TAPE SUBMISSION TO THE CITY PRIOR TO COMMENCING ANY INSTALLATION OF ASPHALT OR CONCRETE PAVEMENT. RE-TAPING MAY BE REQUIRED BY THE CITY IF ADDITIONAL CLEARING OR CORRECTIVE ACTIONS ARE NECESSARY.
32. ALL MANHOLES WITH FORCE MAIN CONNECTIONS SHALL BE OUTFITTED WITH EGRU LINERS OR OTHER TYPES OF LINERS APPROVED BY THE VITY. IN ADDITION, THE CITY MAY REQUIRE LINES TO BE INSTALLED IN AREAS WHERE THE ENVIRONMENTAL SERVICES DEPARTMENT BELIEVES THE NEED IS JUSTIFIED.
33. ALL SEWER LINES WHICH ARE CONSTRUCTED OUTSIDE OF PUBLIC RIGHTS-OF-WAY WITHIN SIDE YARDS, BACKYARDS, AND OTHER POORLY ACCESSIBLE AREAS SHALL BE CONSTRUCTED OF C-900 PVC. ABSOLUTELY NO USE OF PLASTIC STYRENE FITTINGS SHALL BE ALLOWED.
34. SEWER LATERAL LOCATIONS SHALL BE MARKED ALONG THE OUTSIDE OF THE CURB WITH A SAW CUT "V", OR BY A METAL TAB SET INTO THE PAVEMENT.
35. CONTEC A-2000 PVC PIPE SHALL NOT BE ALLOWED FOR USE.
36. EZ-WRAP PLASTIC, AS MANUFACTURED BY PRESS SEAL GASKET CORPORATION, SHALL BE USED ON THE OUTSIDE OF ALL MANHOLE AND WETWELL JOINTS. APPLY ONE LAYER OF 9" WRAP CENTERED ON EACH JOINT. A CITY INSPECTOR SHALL PERSONALLY INSPECT ALL JOINT SEALS PRIOR TO BACKFILLING OPERATIONS.
37. ALL PROPOSED SEWER FORCE MAINS SHALL BE FLUSHED, PRESSURE TESTED AND CLEARED FOR SERVICE IN ACCORDANCE WITH THE LATEST AWWA STANDARDS AND THE FLORIDA DEPARTMENT OF ENVIROMENTAL PROTECTION REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE CITY'S DESIGNATED SITE INSPECTOR WHO SHALL COORDINATE WITH CITY PERSONNEL AT THE ENVIRONMENTAL SERVICES DEPARTMENT (AS APPROPRIATE) AT LEAST 24 HOURS PRIOR TO BEGINNING A FULL-DIAMETER FLUSH OF THE MAINS PRIOR TO THE COMMENCEMENT OF PRESSURE TESTING (SUBJECT TO AVAILABILITY).
38. THE CITY MAY REQUIRE THE CONTRACTOR TO PIG FORCE MAINS IN EXCESS OF 6" IN DIAMETER AND PRIMARY TRANSMISSION MAINS LOCATED ON COLLECTOR AND ARTERIAL ROADWAYS. LAUNCHING AND EXTRACTION POINTS SHALL BE DETERMINED BY THE CONTRACTOR.

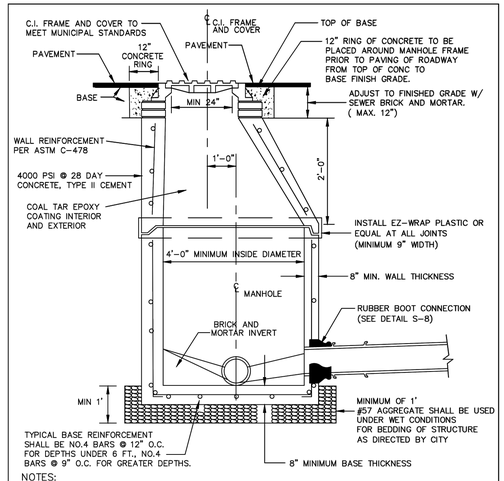
EDGEWATER	STANDARD CONSTRUCTION DETAIL SANITARY SEWER DESIGN AND CONSTRUCTION NOTES	FILE NAME: EW_S25.DWG DETAIL REF: S-25



NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180, (98% DENSITY REQUIRED UNDER DRIVEWAYS, PAVEMENT AND STRUCTURES).
3. PIPE BEDDING UTILIZING SELECT COMMON FILL OR BEDDING ROCK IN ACCORDANCE WITH TYPE "A" BEDDING AND TRENCHING DETAIL MAY BE REQUIRED AS DIRECTED BY THE CITY.
4. (•): 15" MAX. FOR PIPE DIAMETER LESS THAN 24", AND 24" MAX. FOR PIPE DIAMETER 24" AND LARGER.
5. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
6. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF FLOW.
7. REFER TO OSHA REQUIREMENTS FOR SLOPING, SHEETING AND BRACING IN EXCAVATIONS.
8. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

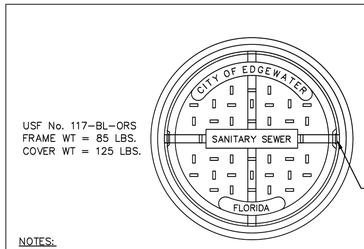
EDGEWATER	STANDARD CONSTRUCTION DETAIL TYPE "B" BEDDING AND TRENCH DETAIL (TYPICAL FOR WATER, SEWER, FORCE MAIN, STORM DRAIN AND RECLAIMED WATER MAIN INSTALLATIONS)	FILE NAME: EW_S29.DWG DETAIL REF: S-29



NOTES:

1. ON TRANSITIONS BETWEEN LARGER DIAMETER AND SMALLER SEWER COLLECTORS, OUTVERTS OF SEWERS SHALL BE MATCHED.
2. NON-PENETRATING PICK-HOLES IN ALL CONCRETE SECTIONS.
3. USE FARBERTITE BITUMASTIC SEALER BETWEEN SECTIONS OF MANHOLES.
4. 0.1' – DROP ACROSS MANHOLE TYP.
5. ALL MANHOLE TROUGHS AND BENCHES ARE TO BE EPOXY PAINTED BEFORE FINAL INSPECTION.

EDGEWATER	STANDARD CONSTRUCTION DETAIL STANDARD MANHOLE DETAIL	FILE NAME: EW_S1.DWG DETAIL REF: S-1



USF No. 117-BL-ORS
FRAME WT = 85 LBS.
COVER WT = 125 LBS.

NOTES:

1. CEMENT USED IN PRECAST CONCRETE MIX SHALL BE TYPE II, ACID RESISTANT AND SULFIDE RESISTANT CONCRETE.
2. MORTAR TO CONTAIN "HYDRATITE", OR APPROVED EQUAL, TO PREVENT SHRINKAGE.
3. SUB-GRADE BENEATH MANHOLES SHALL BE UNDISTURBED GRANULAR UNSATURATED SOIL. No. 57 AGGREGATE STONE SHALL BE USED IN WET CONDITIONS AND/OR WHERE UNSUITABLE MATERIAL IS ENCOUNTERED.
4. ALL SEWER LINES SHALL BE VIDEOTAPED WITH "PAN AND TILT" CAMERA AND COPIES OF VIDEOS SUPPLIED TO THE ENVIRONMENTAL SERVICES DEPT. THE CITY MAY REQUIRE ADDITIONAL VIDEO TAPING, VIDEO TAPING OF LATERALS, AND/OR INFILTRATION/EXFILTRATION TESTS IF DEFECTS ARE APPARENT OR WORKMANSHIP IS QUESTIONABLE.
5. UNLESS DETAILED PLANS SHOW OTHERWISE, ALL MANHOLE RING AND COVER CASTINGS IN PAVED AREAS ARE TO BE ADJUSTED TO FINAL GRADE, SEALED AND SECURED IN PLACE WITH A CONCRETE COLLAR AFTER THE ROAD BASE IS PLACED AND JUST PRIOR TO PLACEMENT OF ASHPALT WEARING SURFACE.
6. CONTRACTOR SHALL PROVIDE THICKER MANHOLE WALLS AND BASES AS REQUIRED TO PREVENT FLOTATION BASED ON HISTORIC HIGH GROUND WATER TABLE ELEVATIONS AS DETERMINED USING ACCEPTED ENGINEERING PRACTICES AND/OR APPROVED BY ENVIRONMENTAL SERVICES DEPT.
7. CONCRETE COLLAR AROUND MANHOLE FRAME IS REQUIRED IN PAVED AREAS ONLY.
8. SHOP DRAWINGS FOR ALL STRUCTURES SHALL BE SUBMITTED TO AND APPROVED BY THE DESIGN ENGINEER PRIOR TO INSTALLATION WITH TWO COPIES FORWARDED BY THE DESIGN ENGINEER TO THE CITY.
9. TWO (2) COATS OF BITUMASTIC COATING INSIDE: 16 MIL
10. ONE (1) COAT OF BITUMASTIC COATING OUTSIDE: 8 MIL
11. FRAME AND COVER TO BE USF #117-BL-ORS .
12. NO BUG HOLES OR HONEYCOMB WILL BE ACCEPTED.
13. ENDS OF SECTION SHALL FIT FLUSH TOGETHER
14. SEDIMENTATION BOWLS REQUIRED FOR ALL NEW MANHOLES AND REHABILITATION STRUCTURES. RAINGUARD OR APPROVED EQUAL.

EDGEWATER	STANDARD CONSTRUCTION DETAIL SANITARY SEWER COVER & GENERAL NOTES	FILE NAME: EW_S2.DWG DETAIL REF: S-2

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

PROPOSED UTILITY	POTABLE WATER		RECLAIMED WATER		WASTEWATER (GRAVITY & FM)		STORM SEWER	
	HORIZ	VERT	HORIZ	VERT	HORIZ	VERT	HORIZ	VERT
POTABLE WATER	3' NOTE 1	12"	3' NOTE 1 & 3	12" NOTE 3	6' NOTE 3	12" NOTE 3	3' NOTE 1 & 3	12"/18" NOTE 2 & 3
RECLAIMED WATER	3' NOTE 1 & 3	12" NOTE 3	3' NOTE 1	12"	3' NOTE 1	12"	3' NOTE 1	12"/18" NOTE 2
WASTEWATER (GRAVITY AND FM)	6' NOTE 3	12" NOTE 3	3' NOTE 1	12"	3' NOTE 1	12"	3' NOTE 1	12"/18" NOTE 2
RIGHT OF WAY	3' NOTE 1	N/A	3' NOTE 1	N/A	3' NOTE 1	N/A	N/A	N/A

NOTES:

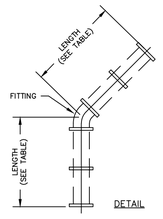
1. THIS SEPARATION REQUIREMENT IS TO PROVIDE ACCESSIBILITY FOR CONSTRUCTION AND MAINTENANCE. THREE FEET OF HORIZONTAL SEPARATION IS THE MINIMUM FOR PIPES WITH THREE FEET OF COVER. FOR PIPES INSTALLED AT GREATER DEPTHS, PROVIDE AN ADDITIONAL FOOT OF SEPARATION FOR EACH ADDITIONAL FOOT OF DEPTH.
2. THE 18-INCH SEPARATION REQUIREMENT APPLIES WHEN THE STORM PIPE CROSSES ABOVE THE MAIN, AND WHEN THE STORM PIPE HAS A DIAMETER EQUAL TO OR GREATER THAN 24 INCHES. OTHERWISE, THE REQUIRED SEPARATION IS 12 INCHES.
3. THIS SEPARATION REQUIREMENT COMPLIES WITH MINIMUM FDEP SEPARATION REQUIREMENTS OUTLINED IN 62-555.314, FAC. VARIANCES FROM THE FDEP REQUIREMENTS MUST COMPLY WITH 62-555.314(5), FAC AND MUST BE APPROVED BY UTILITY.
4. DISTANCES GIVEN ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
5. NO WATER PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF SANITARY OR STORM WATER MANHOLE OR STRUCTURE.

SEPARATION REQUIREMENTS FOR WATER, WASTEWATER AND RECLAIMED WATER MAINS

MINIMUM LENGTH (IN FEET) OF RESTRAINED PIPE REQUIRED

PIPE SIZE (DIAMETER IN INCHES)	BENDS										OTHER FITTINGS					
	90°		45°		22 1/2°		11 1/4°		VERTICAL BENDS		DEAD END		CROSS OR VALVE		TEE BRANCH	
	100psi	150psi	100psi	150psi	100psi	150psi	100psi	150psi	100psi	150psi	100psi	150psi	100psi	150psi	100psi	150psi
4"	20'	20'	20'	20'	20'	20'	20'	20'	20'	20'	40'	40'	20'	20'	40'	40'
6"	20'	40'	20'	20'	20'	20'	20'	20'	20'	40'	40'	60'	20'	20'	40'	40'
8"	20'	40'	20'	20'	20'	20'	20'	20'	20'	40'	40'	80'	20'	20'	40'	40'
10"	40'	40'	20'	20'	20'	20'	20'	20'	40'	40'	60'	80'	20'	20'	40'	40'
12"	40'	40'	20'	20'	20'	20'	20'	20'	40'	60'	60'	100'	20'	20'	40'	40'
14"	40'	60'	20'	20'	20'	20'	20'	20'	40'	60'	80'	120'	20'	20'	40'	40'
16"	40'	60'	20'	20'	20'	20'	20'	20'	40'	60'	80'	120'	20'	20'	40'	60'
18"	40'	60'	20'	40'	20'	20'	20'	20'	60'	80'	100'	140'	20'	20'	40'	60'
20"	40'	60'	20'	40'	20'	20'	20'	20'	60'	80'	100'	160'	20'	20'	40'	80'
24"	60'	80'	20'	40'	20'	20'	20'	20'	60'	80'	120'	180'	20'	20'	40'	100'
30"	60'	80'	40'	40'	20'	20'	20'	20'	80'	100'	140'	200'	20'	20'	60'	140'

RESTRAINED PIPE TABLE



DETAIL

RESTRAINED PIPE NOTES:

1. THE ABOVE THRUST RESTRAINT TABLE SHALL BE USED FOR THE FOLLOWING TRENCH CONDITIONS:
   MINIMUM 50% SOIL RETAINED ON A NUMBER 200 SIEVE
   MINIMUM 95% COMPACTION, AASHTO T-180
   MINIMUM 3' OF COVER
2. THE ABOVE TABLE SPECIFIES THE LENGTH OF RESTRAINED PIPE SECTIONS REQUIRED, IN EACH DIRECTION OF PIPE ON EXTENDED CENTERLINE OF FITTING OR IN-LINE VALVE (SEE DETAIL).
3. WHERE CONDITIONS VARY FROM THE ABOVE TABLE, THE ENGINEER MUST DETERMINE THE REQUIRED LENGTH OF RESTRAINED PIPE.
4. ALL FITTINGS, VALVES AND RESTRAINED PIPE SHALL BE RESTRAINED WITH MEGALUG, ROMAC, JCM SUR-GRIP, OR APPROVED EQUAL.
5. WATER MAIN AND REUSE MAIN TEST PRESSURE IS 150 PSI MINIMUM. ALL OTHERS ARE 100 PSI.
6. THRUST BLOCKS MAY BE APPROVED BY THE ENGINEER WHEN CONDITIONS WARRANT.
7. WHEN COVER IS LESS THAN MINIMUM, DOUBLE THE LENGTH OF RESTRAINING REQUIREMENTS.
8. BELOW FOUR (4) INCH, USE FOUR INCH REQUIREMENTS.

RESTRAINED JOINT DETAIL

DRAWING: DETAILS
DMC JOB NO.: 16-095-07
SHEET NO.: U-06
DRAWN: JJH | CAD: C3D
DESIGNED: JDZ | SCALE: 1"=30'
CHECKED: SNR | DATE: 09-05-2017

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

JAMIE DIONNE ZIVICH, P.E.
FLORIDA LICENSE No. 82183

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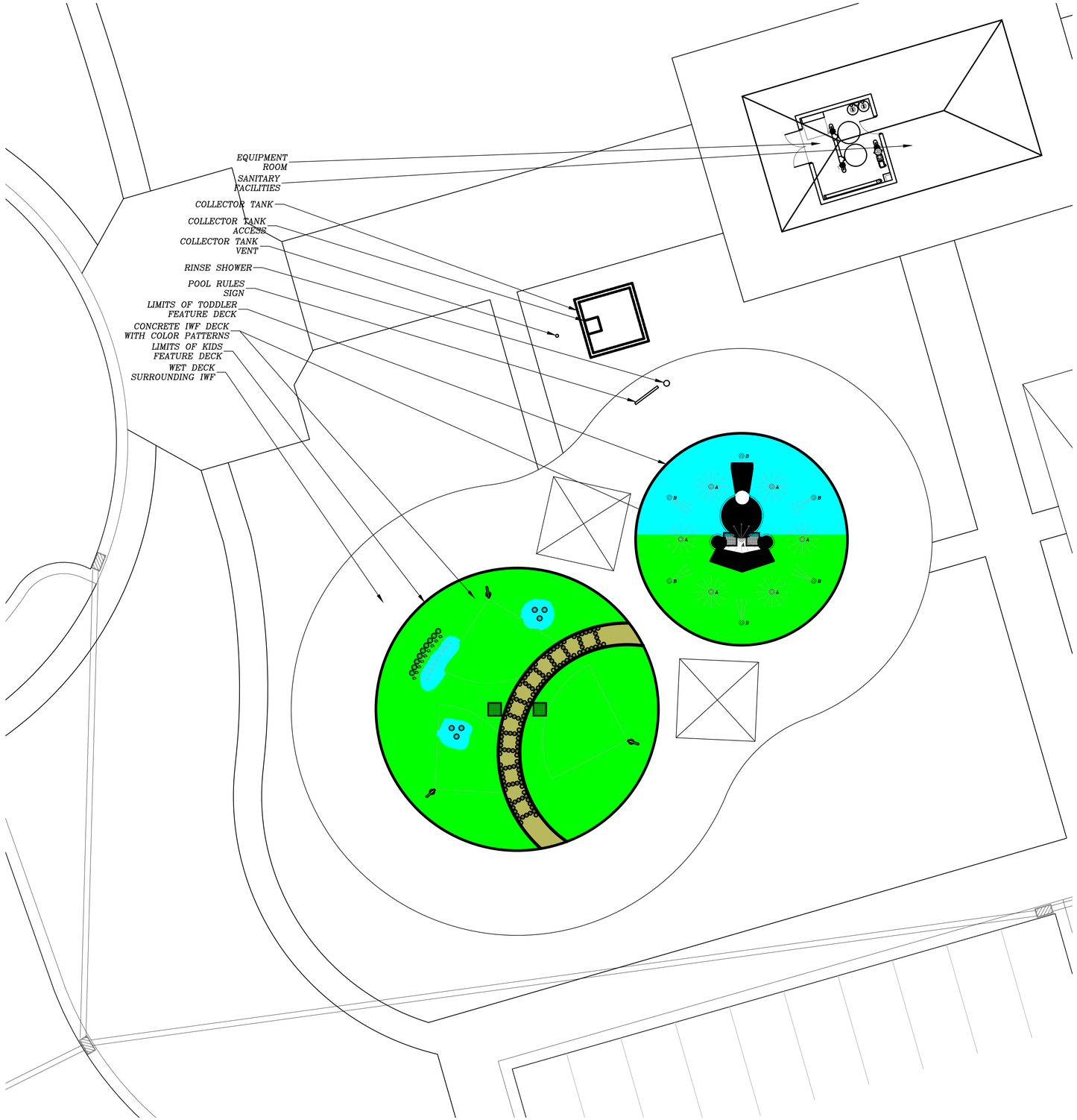
Drawing Name: C:\Users\carolyn.todd\appdata\local\temp\AcPublish_11388\Plansheets.dwg By: carolyn.todd Tab: U-6 9/07/2017



SITE PLAN
SCALE: 1"=10'-0"

N

5 0 10 20
SCALE IN FEET

SANITARY FACILITY NOTES

B1. Separate sanitary facilities shall be provided for each sex within 200 feet of the nearest edge of the water feature.

B2. Men's Rest room shall be equipped with (1) Urinal, (1) Water Closet, and (1) Lavatory. Women's Rest room shall be equipped with (1) Water Closet and (1) Lavatory.

B3. Walkway between water feature and sanitary facility must be constructed of concrete or other slip resistant finishes.

B4. Sanitary facilities shall have outside access door.

B5. If sanitary facilities are not visible from the pool deck direction sign to sanitary facility shall be legible from the feature deck and have letters at least 1" high.

B6. Sanitary facility floor shall be constructed of concrete or other nonabsorbent materials with a smooth slip resistant finish and are sloped to floor drains.

B7. Sanitary facility intersection between floor and walls are coved.

B8. A hose bibb with vacuum breaker must be provided within 50' of each rest room

IWF DATA	
SURFACE AREA	3,067 SQ. FT.
PERIMETER	275 FT.
VOLUME	3,740 GALLONS
OPERATING WATER LEVEL	4 FT. 6 IN.
SHUT DOWN WATER LEVEL	5 FT. 0 IN.
FEATURE RATE	468 G.P.M.
FILTRATION RATE	125 G.P.M.
FITLER TURNOVER	0 HR. 30 MIN.
BATHING LOAD	25 PEOPLE

GENERAL NOTES

A1. Written dimensions take precedence over scaled dimensions.

A2. The water feature deck shall be constructed of concrete or other impervious and structurally rigid material with a slip resistant finish.

A3. The water feature deck shall slope 2% toward the area drains per Section 454.1.9.8.6.12 of the Florida Building Code 5th Edition 2014.

A4. A minimum four foot wide wet deck shall surround the water feature deck. This deck shall be constructed of concrete with a smooth slip resistant finish and slope 2% away from the water feature deck or to deck drains to prevent standing water.

A5. A hose bibb with vacuum breaker shall be provided to allow wash down of the deck.

A6. No overhead service wiring shall be allowed within 10' from the inside edge of the water feature.

A7. Maximum operating height of the feature nozzles shall be six feet to insure the velocity through the feature nozzles does not exceed 20 feet per second.

A8. This fountain is intended as an Interactive Water Feature. Construction and operation of this feature shall comply with Florida Department of Health regulations for Interactive Water Features in section 64E-9.011(8) of the Florida Administrative Code and Section 454.1.9.8 of the Florida Building Code 5th Edition 2014.

A9. Interactive Water Feature rules sign shall have minimum 1" high letters and the following:

1. *No food or beverages in pool or on pool wet deck.*
2. *No glass or animals within 50 feet of pool.*
3. *Bathing Load: 25 persons.*
4. *Pool hours: _____ A.M. to _____ P.M.*
5. *Shower before entering.*
6. *Do not swallow the fountain water, it is recirculated.*
7. *Do not use the fountain if you are ill with diarrhea.*

A10. Applicable codes and standards include:

1. *Florida Building Code – Building (5th Edition)*
2. *Florida Building Code – Accessibility (5th Edition)*
3. *Florida Building Code – Energy Conservation (5th Edition)*
4. *Florida Building Code – Fuel Gas (5th Edition)*
5. *Florida Building Code – Mechanical (5th Edition)*
6. *Florida Building Code – Plumbing (5th Edition)*
7. *2011 National Electrical Code*
8. *Chapter 64E-9 of the Florida Administrative Code.*
9. *National Sanitation Foundation (NSF) Standards 50 and 60*
10. *ANSI and ASTM*
11. *Underwriter's Laboratory*
12. *Other state or local codes which are applicable*

A11. Provide 6 foot-candles of light on the water feature deck if night bathing is required. See electrical drawings for deck lighting.

IWF UTILITY REQUIREMENTS	
ELECTRICAL	
VOLTAGE	120/208
PHASE	THREE
NEUTRAL	REQUIRED
SERVICE SIZE	150 AMP
CONNECTED LOAD	92 AMP.
BACKWASH SUMP	
SIZE	250 GPM
LOCATION	EQUIPMENT AREA
TYPE	SANITARY
OVERFLOW DRAIN	
SIZE	4 INCH
LOCATION	5' FROM COLLECTOR TANK
TYPE	GRAVITY
WATER	
SERVICE SIZE	1½ INCH
BACKFLOW PROTECTION	REQUIRED
CONNECTION POINT	EQUIPMENT AREA

DRAWING: IWF SITE PLAN
DMC JOB NO. 16-095-07
SHEET NO. F1.1
DRAWN RV | CAD | SCALE VARIES
CHECKED CA | DATE 8.28.17
APPROVED JW

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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N1 VERTICAL CROWN JETS TYP. OF 7 — A / F3.1

N2 ARCING CROWN JETS TYP. OF 6 — A / F3.1

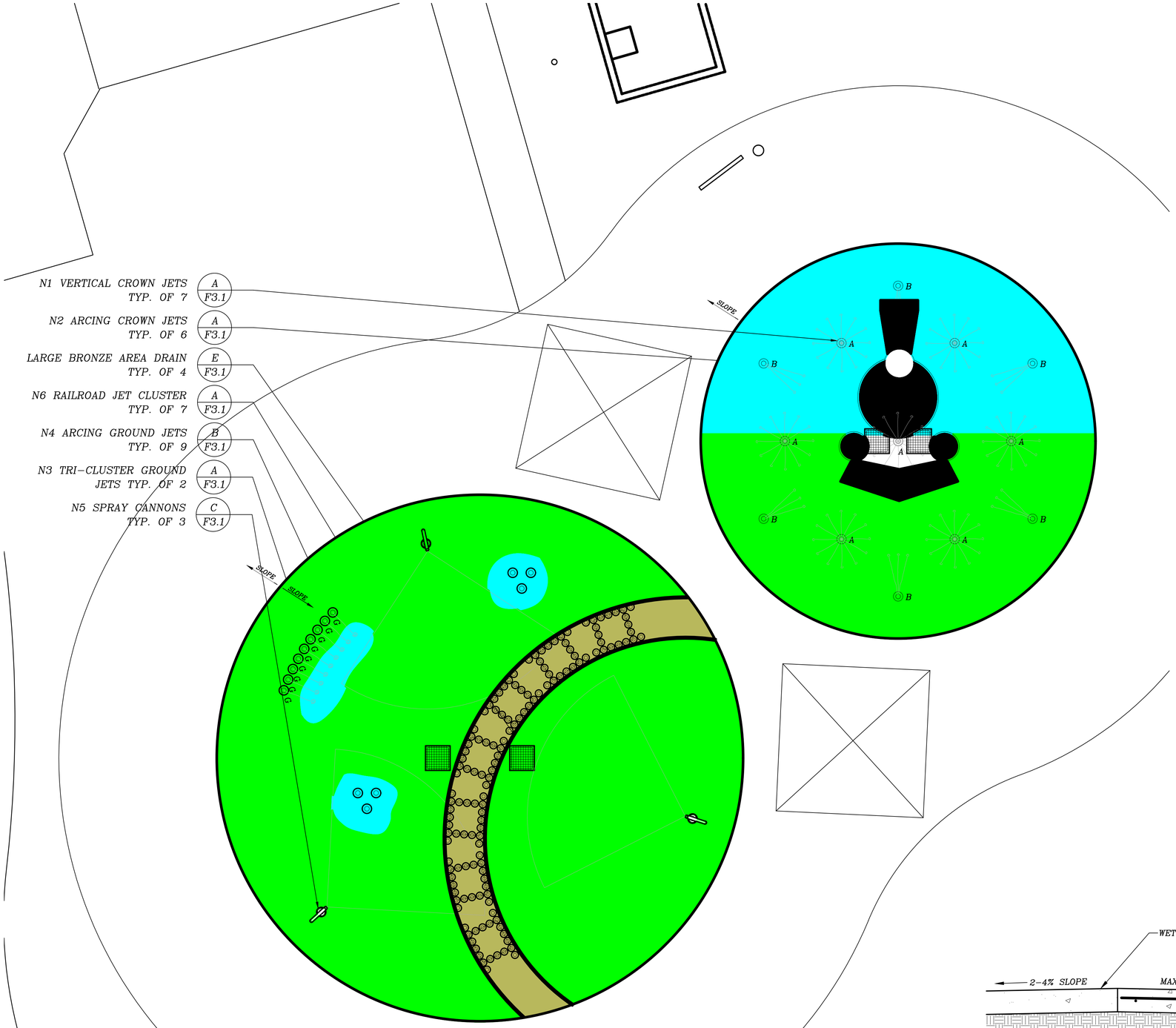
LARGE BRONZE AREA DRAIN TYP. OF 4 — E / F3.1

N6 RAILROAD JET CLUSTER TYP. OF 7 — A / F3.1

N4 ARCING GROUND JETS TYP. OF 9 — B / F3.1

N3 TRI-CLUSTER GROUND JETS TYP. OF 2 — A / F3.1

N5 SPRAY CANNONS TYP. OF 3 — C / F3.1

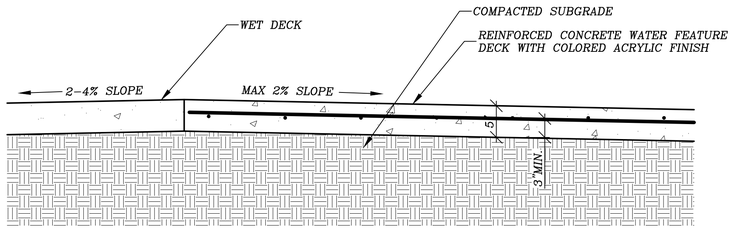


PLAN VIEW LEGEND

- NICHE MOUNTED FEATURE NOZZLE
- NICHE JUNCTION BOX
- RETURN FITTING
- VACUUM FITTING
- VARIABLE HEIGHT SKIMMER
- LEVEL SENSOR
- LARGE AREA DRAIN
- ANEMOMETER

FEATURE PLAN
SCALE: 3/16"= 1'-0"

2.67' 0 5.33' 10.67'
SCALE IN FEET



SECTION A
SCALE: 1"=1'-0"

DRAWING: IWF FEATURE PLAN
DMC JOB NO. 16-095-07
SHEET NO. F1.2
DRAWN RV | CAD | SCALE VARIES
CHECKED CA | DATE 8.28.17
APPROVED JW

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
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MATERIAL LIST

ITEM	QTY	DESCRIPTION	DETAIL	MANUFACTURER	MODEL	NOTES
N1	7	VERTICAL CROWN JETS	A/F3.1	FREEPORT FOUNTAINS	#N1910-A	MULTI-ORIFICE SOFT SPRAY NOZZLE WITH VERTICAL THROW, 1" FEMALE N.P.T. CONN., CAST BRONZE CONSTRUCTION, REMOVABLE FACE PLATE.
N2	6	ARCING CROWN JETS	A/F3.1	FREEPORT FOUNTAINS	#N1910-B	MULTI-ORIFICE SOFT SPRAY NOZZLE WITH ARCING THROW, 1" FEMALE N.P.T. CONN., CAST BRONZE CONSTRUCTION, REMOVABLE FACE PLATE.
N3	2	TRI CLUSTER GROUND JETS	A/F3.1	FREEPORT FOUNTAINS	#N1910-D	SERIES OF (3) 3/8" ORIFICE SPRAY NOZZLE WITH VERTICAL THROW, 1" FEMALE N.P.T. CONN., CAST BRONZE CONSTRUCTION, REMOVABLE FACE PLATE.
N4	9	ARCING GROUND JETS	B/F3.1	FREEPORT FOUNTAINS	#N1910-G	CAST BRONZE CONSTRUCTION, 3/8" ORIFICE NOZZLE W/ 25° ADJUSTMENT, 1" MALE N.P.T. CONN.
N5	3	SPRAY CANNONS	C/F3.1	VORTEX	VOR-220	STAINLESS STEEL CONSTRUCTION, SAFE-SWAP BASE ANCHORING SYSTEM. MAX. 360°, 240" SPRAY DISTANCE
N6	7	RAILROAD JET CLUSTER	D/F3.1	FREEPORT FOUNTAINS	#N2348	(20) 3/16" ORIFICE NOZZLE WITH VERTICAL THROW, 2" SCH. 80 PVC MANIFOLD WITH 2" INLET CONN., .
F1	6	INLET FITTING	F/F3.1	FREEPORT FOUNTAINS	#F115P	WHITE CYCOLAC CONSTRUCTION, 1 ½" INSIDE SLIP CONN., ½" DIRECTIONALLY ADJUSTABLE ORIFICE.
F2	4	LARGE AREA DRAIN	E/F3.1	FREEPORT FOUNTAINS	#F560	18"x18"x12" FIBERGLASS SUMP WITH WATERSTOP FLANGE AND 6" BOTTOM CONN.; 18"x18" CAST BRONZE GRATE WITH 94.5 SQ. IN. OPEN AREA.
F3	1	WATER LEVEL SENSOR	G/F3.1	FREEPORT FOUNTAINS	#F1460	STAINLESS STEEL FITTED CAST BRONZE JUNCTION BOX WITH NEOPRENE GASKET, TWO NORMALLY CLOSED, NARROW THROW FLOAT SWITCHES
F4	1	RINSE SHOWER	–	MDF	500 SM	S/S CONSTRUCTION, ADJUSTABLE SHOWER NOZZLE
F5	1	FLOOR SINK	H/F3.1	FREEPORT FOUNTAINS	CUSTOM	FABRICATED FROM SCH. 40 PVC.

IWF MATERIAL LIST

TAG	QTY	ITEM	DETAIL	MANUFACTURER	MODEL	DESCRIPTION
V1	1	COLLECTOR TANK	B/F2.3	FREEPORT FOUNTAINS	PV1010D	PRECAST CONCRETE CONSTRUCTION, 120"X120"X66" INSIDE DIMENSIONS, INTEGRAL WATERPROOFING.
V2	1	COLLECTOR TANK ACCESS HATCH	B/F2.3	HALLIDAY PRODUCTS	S1R3030	30"X30" ¼" THICK DIAMOND PLATE ALUMINUM LID; ANGLE FRAME FABRICATED FROM ¼" ALUMINUM; ; STAINLESS STEEL HINGES; LOCKABLE BAR; 300 LB/SQ. IN. LOADING.
V3	1	VENT CAP	C/F2.3	FREEPORT FOUNTAINS	6" VENT CAP	PAINTED CAST IRON CONSTRUCTION. 6" CONN.
P1	1	FEATURE PUMP	A/F2.2	PENTAIR	EQK1500	THERMOPLASTIC CONSTRUCTION WITH INTEGRAL BASKET STRAINER SELF PRIMING, 6" FLANGED. SUCTION AND 4" FLANGED DISCHARGE, 15 HP. 208-230/460 V. THREE PHASE TEFC MOTOR.
P2	1	LIQUID CHLORINE FEEDER	A/F2.2	STENNER	45M3	1.1 TO 22 G.P.D., 120 VOLT, SINGLE PHASE. UL LISTED AND CONFORMS NSP-50.
P3	1	LIQUID ACID FEEDER	A/F2.2	STENNER	45M3	1.1 TO 22 G.P.D., 120 VOLT, SINGLE PHASE. UL LISTED AND CONFORMS NSP-50.
W1	2	SAND FILTER	A/F2.2	FLUIDRA	06684	DUAL 37" DIA. FIBERGLASS TANKS, 21.64 SQUARE FOOT FILTER AREA EACH, 4" FACE PIPING WITH BUTTERFLY VALVES FOR CLEAN WATER BACKWASH
W2	1	CHEMICAL CONTROLLER	A/F2.2	CHEMTROL	250	NEMA 4X POLYSTYRENE ENCLOSURE, LCD READOUT, ORP CONTROL, FLOWCELL. 120 VOLT, SINGLE PHASE.
W3	1	FLOWCELL	A/F2.2	CHEMTROL	FCA	MOUNTED IN CABINET WITH ROTARY FLOW SWITCH
W4	1	CHLORINE SOLUTION TANK	A/F2.2	CHEMTAINER	TC3448DC	ONE PIECE LINEAR POLYETHYLENE CONSTRUCTION, DOUBLE WALL DUAL CONTAINMENT, 34" DIAMETER BY 48" TALL, 150 GALLON CAPACITY, LABEL CHLORINE
W5	1	ACID SOLUTION TANK	A/F2.2	CHEMTAINER	TC3539DC	ONE PIECE LINEAR POLYETHYLENE CONSTRUCTION, DOUBLE WALL DUAL CONTAINMENT, 35" DIAMETER BY 39" TALL, 100 GALLON CAPACITY, LABEL ACID
W6	1	VACUUM GAUGE	A/F2.2	ASHCROFT	3005PHL	2½" DIAL, LIQUID FILLED, 0-30" Hg.
W7	4	PRESSURE GAUGE	A/F2.2	ASHCROFT	3005PHL	2½" DIAL, LIQUID FILLED, 0-60 PSI.
W8	1	FLOW METER	A/F2.2	BLUE-WHITE	F-30300P	ACRYLIC CONSTRUCTION, 80-300 GPM FLOW RANGE
W9	1	TEST KIT	NA	TAYLOR	TK2005	TEST KIT FOR FAC, DPD, TA, CH, Ph, AND CA
E1	1	CONTROL PANEL	I/F3.1	FREEPORT FOUNTAINS	CUSTOM	NEMA 4 STEEL ENCLOSURE, DOOR MOUNTED HOA SWITCHES AND RUN LIGHTS, WATER LEVEL MONITORS, VFD FOR FEATURE PUMP, ANIMATION CONTROLLER, TIME CLOCK, 120/208 VOLT, 3 PHASE. U.L. 508 LABELED..

DRAWING: IWF MATERIAL LIST
DMC JOB NO. 16-095-07
SHEET NO. F2.1
DRAWN RV | CAD | SCALE VARIES
CHECKED CA | DATE 8.28.17
APPROVED JW

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

Joel M. Wolcott, P.E.
FLORIDA LICENSE No. 56165

FREEPORT FOUNTAINS
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1510 Kastner Place
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CITY OF EDGEWATER
104 N. RIVERSIDE DR.
EDGEWATER, FL 32132

LEGEND

P1 — MATERIAL CALLOUT

M1 — NOTE CALLOUT

LINE LEGEND

MFS	Main Filter Suction Line
SKS	Skimmer Suction Line
VS	Vacuum Suction Line
FR	Filter Return Line
ICW	Incoming Cold Water
SPD	Sump Pump Discharge Line to Waste
DS	Display Suction Line
JD	Jet Discharge Line
OD	Overflow Drain Line
FD	Floor Drain Line
EQ	Equalization Line
GR	Gravity Return Line
CM	Chemical Line
AIR	Compressed Air Line

SCHEMATIC LEGEND

- BALL VALVE
- 3-WAY VALVE
- BALL CHECK VALVE
- BUTTERFLY VALVE
- WAFER CHECK VALVE
- SOLENOID VALVE
- Y-STRAINER
- FLANGED Y-STRAINER
- FLANGED BASKET STRAINER
- FLANGED CONCENTRIC REDUCER
- FLANGED ECCENTRIC REDUCER
- CENTRIFUGAL PUMP
- VACUUM GAUGE 0-30" Hg
- PRESSURE GAUGE 0-60 PSI
- FLOW METER
- FLANGED PUMP W/STRAINER
- PUMP W/STRAINER
- CARTRIDGE FILTER
- SAND FILTER
- EROSION CHEMICAL FEEDER

MATERIAL LIST

ITEM	QTY	DESCRIPTION
N1	7	VERTICAL CROWN JETS
N2	6	ARCING CROWN JETS
N3	2	TRI CLUSTER GROUND JETS
N4	9	ARCING GROUND JETS
N5	3	SPRAY CANNONS
N6	7	RAILROAD JET CLUSTER
F1	6	INLET FITTING
F2	2	MEDIUM AREA DRAIN
F3	2	LARGE AREA DRAIN
F4	1	WATER LEVEL SENSOR
F5	1	RINSE SHOWER
F6	1	FLOOR SINK
V1	1	COLLECTOR TANK
V2	1	COLLECTOR TANK ACCESS HATCH
V3	1	VENT CAP
P1	1	FEATURE PUMP
P2	1	LIQUID CHLORINE FEEDER
P3	1	LIQUID ACID FEEDER
W1	2	SAND FILTER
W2	1	CHEMICAL CONTROLLER
W3	1	FLOWCELL
W4	1	CHLORINE SOLUTION TANK
W5	1	ACID SOLUTION TANK
W6	1	VACUUM GAUGE
W7	4	PRESSURE GAUGE
W8	1	FLOW METER
W9	1	TEST KIT
E1	1	CONTROL PANEL

FILTER HYPOHALOGENATION FEEDER

DISINFECTION TYPE	10% HYPOCHLORITE SOLUTION
REQUIRED RATE PER 424.1.9.8.6.8	12 mg/L FREE ACTIVE CHLORINE
FILTRATION RATE	125 GPM
FEED RATE	18 GPD

BATHING LOAD CALCULATION

$$\frac{125\ \text{GPM.}}{5\ \text{GPM./PERSON}} = 25\ \text{PEOPLE}$$

PUMP NOTES

E1. Feature and filtration pumps shall be self priming and equipped with a hair and lint strainer.

E2. Recirculation and treatment equipment including filters, filter pumps, and disinfecting feeders shall be tested and approved using the NSF Standard 50.

E3. The filter shall be equipped with an influent and effluent pressure gauge with a minimum 2" face and 0-60 psi. range.

E4. A flow meter capable of reading one-half to one and one-half the design flow rate in g.p.m. shall be installed in the filter return line.

E5. The drain/overflow line shall discharge into the floor sink in the pump room through an air gap.

E6. Incoming water supply line shall have a pressure of not greater than 50 psi. and be protected by a reduced pressure principle back flow preventor if connected to a potable water supply.

E7. The water make up line shall discharge to the collector tank through an air gap.

E8. Hypohalogenation feeder is capable of feeding a minimum of 12 p.p.m. of free chlorine to the filter return piping.

E9. Hypohalogenic and pH feeder are controlled by automatic chemical controller. Chemical controller is interlocked with filter pump with a flow switch.

E10. pH solution crock capacity is at least 50% of daily feeder capacity and crock is marked to indicate contents.

E11. A test kit shall be provided with testing free available chlorine, total alkalinity, calcium hardness, pH, and cyanuric acid.

E12. Chemicals used in controlling water quality shall be tested and approved using NSF Standard 60-1996a, 1997.

PIPING NOTES

P1. All piping runs are shown for clarity. Piping shall be installed with as few changes in direction as conditions allow.

P2. Suction piping shall be installed level or with an continuous slope from the pool(s) to the pumping equipment to avoid high loops.

P3. Gravity return lines shall be sloped a minimum of 1/8" in 1'-0" from the fountain to the collector tank.

P4. Pressure piping shall be pressure tested to a minimum of 40 psi. for 4 hours without any discernible pressure drop. It is recommended that pipes remain under pressure during concrete pours.

P5. Gravity return and gravity drain lines shall be static tested for 24 hours.

P6. Underground pipe and fittings shall be sch. 40 Type 1 PVC. All slip PVC fittings shall be sch. 40; all threaded PVC fittings shall be sch. 80.

P7. Pipe and fittings inside the pump rooms or vaults shall be sch. 80 PVC, epoxy or cement lined cast iron or sch. 10 type 304 stainless steel.

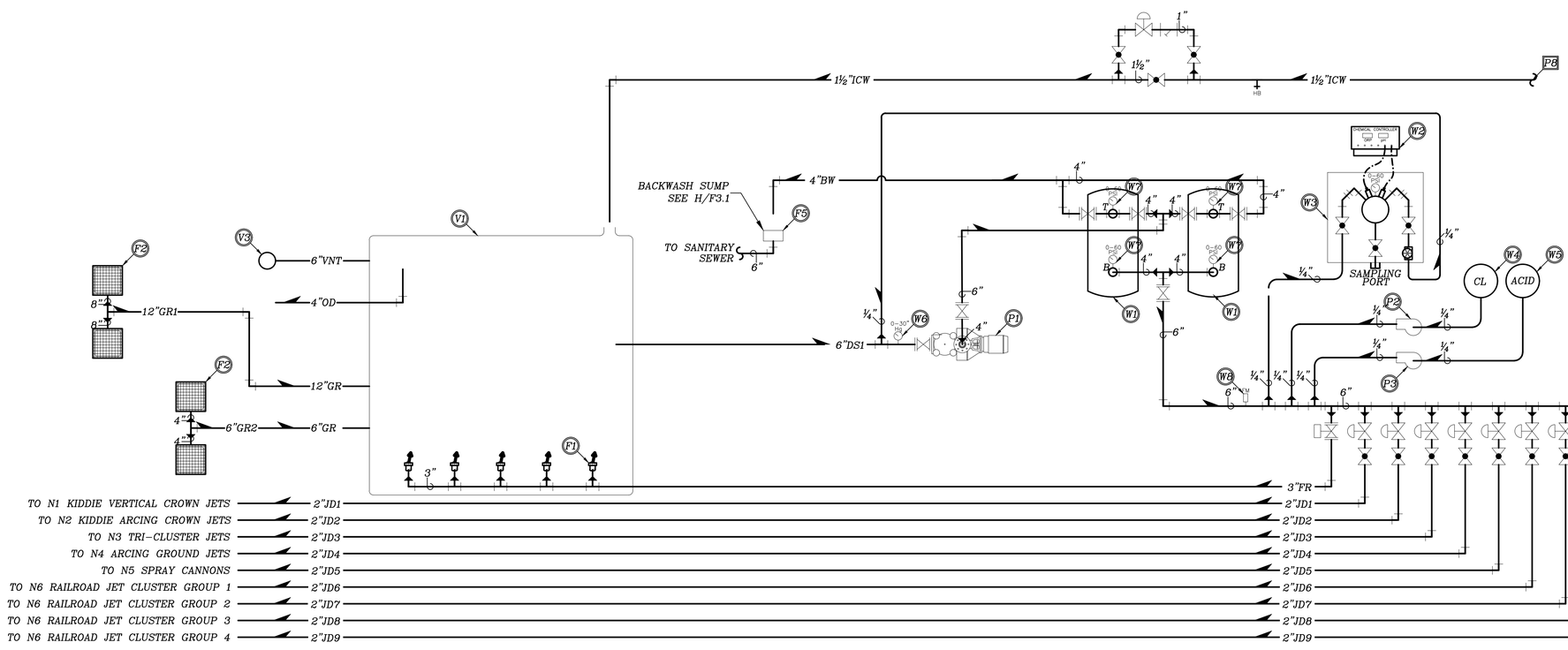
P8. Fountain Contractor will stub a 1½" incoming make-up water line five feet from the pump vault for connection to an appropriate source of potable by others.

P9. Incoming make-up water lines shall have a pressure of not greater than 50 psi. to prevent damage to fountain equipment.

P10. Incoming make-up water lines shall be protected by a reduced pressure principle backflow protector if connected to a potable water supply.

P11. Fountain Contractor will stub a 4" gravity drain line five feet from the edge of the fountain pool for connection to an appropriate sewer by others.

P12. Fountain Contractor will stub a 2" pressure drain line five feet from the pump vault for connection to an appropriate sewer by others.



PIPING SCHEMATIC (A)

SCALE: NONE

DRAWING: IWF PIPING SCHEMATIC
DMC JOB NO. 16-095-07
SHEET NO. F2.2
DRAWN RV | CAD | SCALE VARIES
CHECKED CA | DATE 8.28.17
APPROVED JW

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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EQUIPMENT ROOM NOTES

F1. The equipment room shall be enclosed on four sides by walls or a minimum four foot high fence.

F2. Access to the equipment room shall be a minimum of three feet by six feet and shall be by a self-closing, self latching gate or door with a permanent locking device.

F3. The equipment room floor shall be constructed of concrete with a smooth slip resistant surface.

F4. The equipment room shall have positive drainage such as a floor drain or sump pump located in a sump pit.

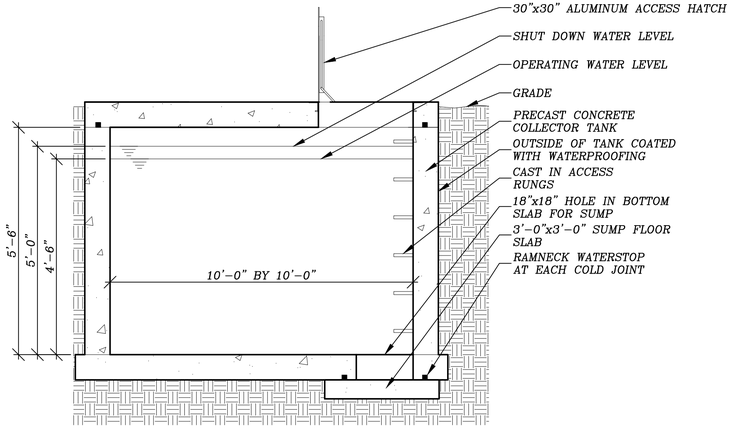
F5. The equipment room shall be equipped with forced draft or cross ventilation.

F6. If the equipment room has a fixed ceiling the minimum height shall be seven feet.

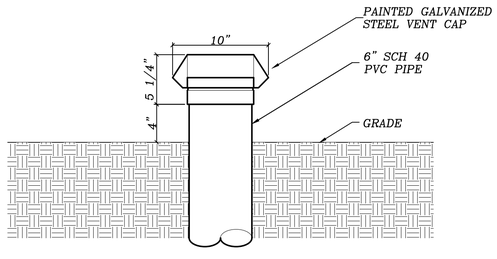
F7. The equipment room shall be lighting to provide 30 foot-candles of illumination at floor level.

F8. The equipment room shall have a hose bibb with a vacuum breaker.

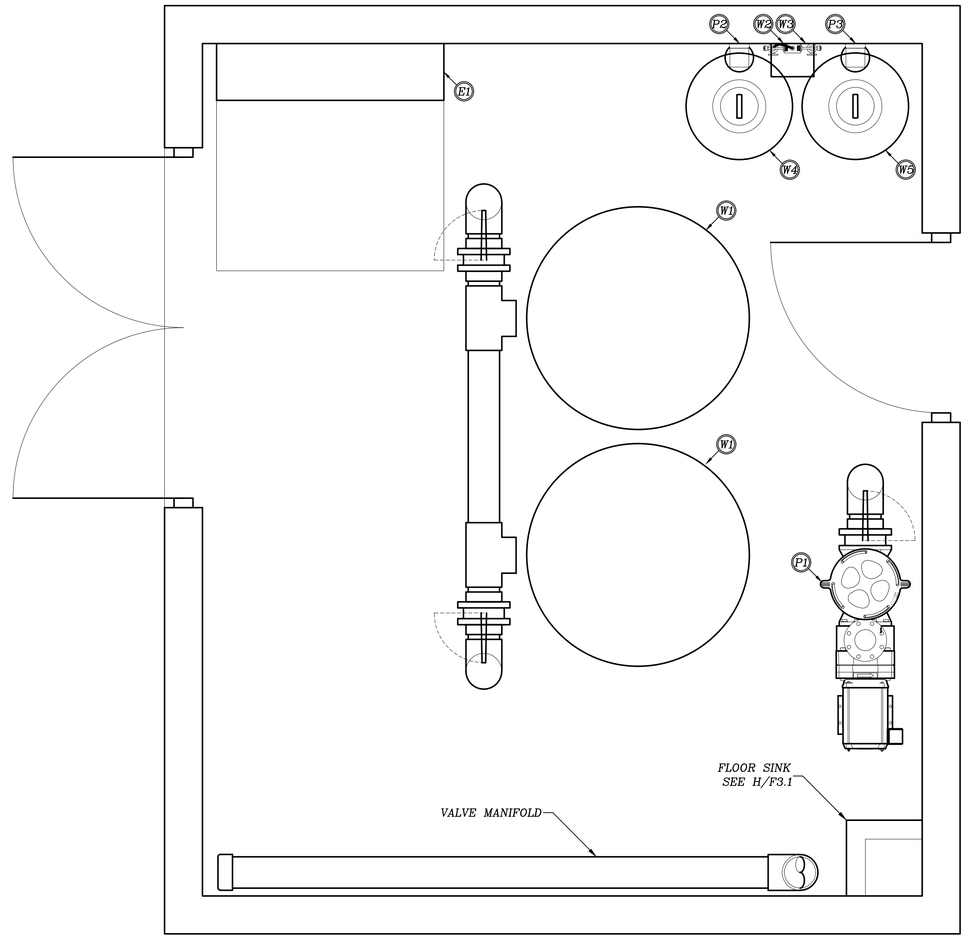
F9. Chemical shall be stored in a locked area.



COLLECTOR TANK SECTION (B)
SCALE: 1/2"=1'-0"



6" VENT CAP (C)
SCALE: 1-1/2" = 1'-0"



EQUIPMENT ROOM PLAN (A)
SCALE: 3/4"=1'-0"

MATERIAL LIST		
ITEM	QTY	DESCRIPTION
N1	7	VERTICAL CROWN JETS
N2	6	ARCING CROWN JETS
N3	2	TRI CLUSTER GROUND JETS
N4	9	ARCING GROUND JETS
N5	3	SPRAY CANNONS
N6	7	RAILROAD JET CLUSTER
F1	6	INLET FITTING
F2	2	MEDIUM AREA DRAIN
F3	2	LARGE AREA DRAIN
F4	1	WATER LEVEL SENSOR
F5	1	RINSE SHOWER
F6	1	FLOOR SINK
V1	1	COLLECTOR TANK
V2	1	COLLECTOR TANK ACCESS HATCH
V3	1	VENT CAP
P1	1	FEATURE PUMP
P2	1	LIQUID CHLORINE FEEDER
P3	1	LIQUID ACID FEEDER
W1	2	SAND FILTER
W2	1	CHEMICAL CONTROLLER
W3	1	FLOWCELL
W4	1	CHLORINE SOLUTION TANK
W5	1	ACID SOLUTION TANK
W6	1	VACUUM GAUGE
W7	4	PRESSURE GAUGE
W8	1	FLOW METER
W9	1	TEST KIT
E1	1	CONTROL PANEL

DRAWING: EQUIPMENT ROOM PLAN
DMC JOB NO. 16-095-07
SHEET NO. F2.3
DRAWN RV | CAD | SCALE VARIES
CHECKED CA | DATE 8.28.17
APPROVED JW

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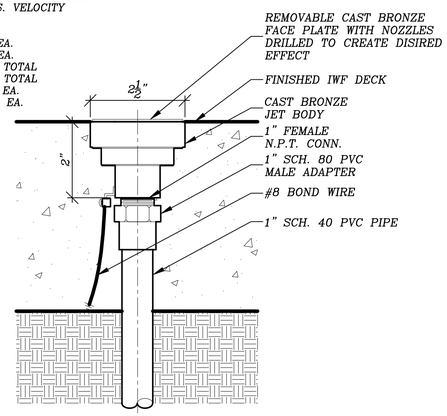
NOTE: MAX. SPRAY HEIGHT 6 FEET TO MAINTAIN 20 FPS. VELOCITY TROUGH NOZZLE.

1910–A= 7 G.P.M., EA.
1910–B= 9 G.P.M., EA.
1910–C= 34 G.P.M., TOTAL
1910–D= 42 G.P.M., TOTAL
1910–E= 16 G.P.M., EA.
1910–F= 6.9 G.P.M., EA.

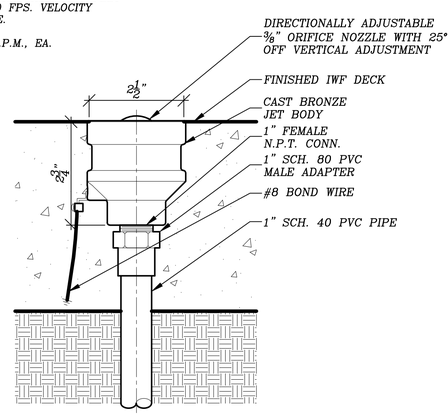


GROUND JET TYPICAL — A

SCALE: 6"=1'–0"

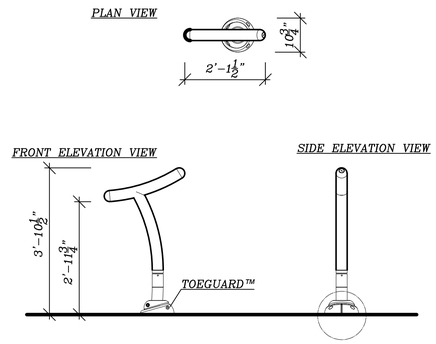
NOTE: MAX. SPRAY HEIGHT 6 FEET TO MAINTAIN 20 FPS. VELOCITY TROUGH NOZZLE.

1910–G= 6.9 G.P.M., EA.



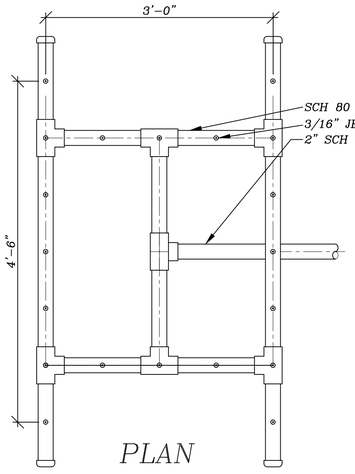
CLEAR STREAM JET — B

SCALE: 6"=1'–0"

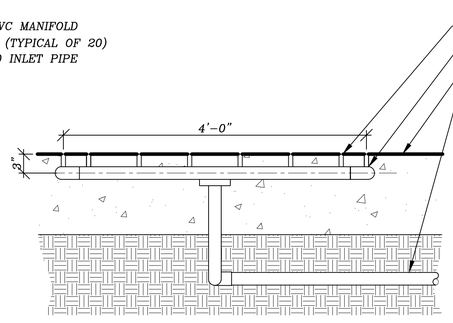


SPRAY CANNON — C

SCALE: ½"=1'–0"



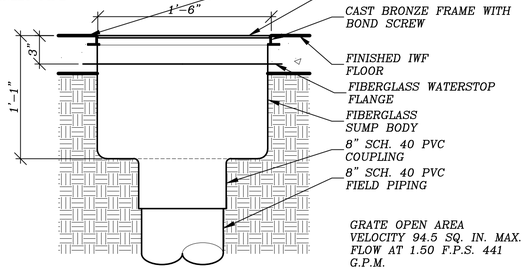
PLAN



SECTION

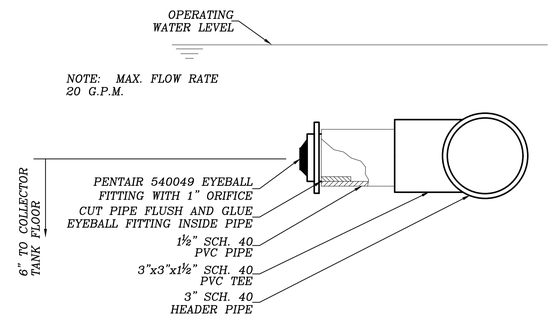
RAILROAD JET CLUSTER — D

SCALE: 1"= 1'–0"



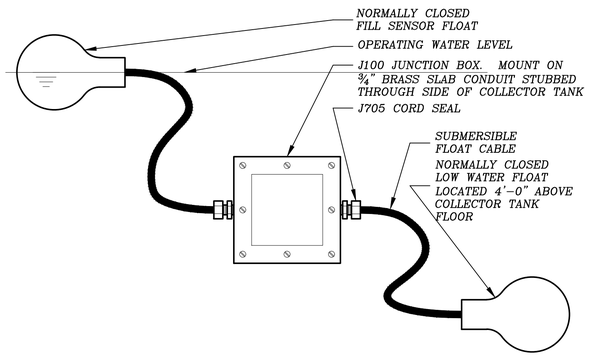
#F560 LARGE AREA DRAIN — E

SCALE: 1 1/2"=1'–0"



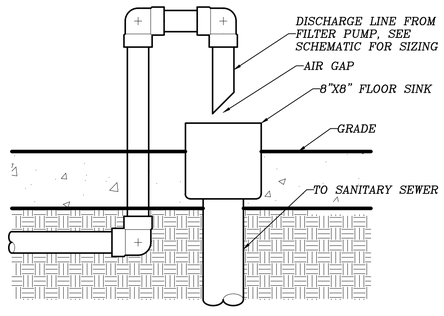
INLET FITTING — F

SCALE: 3"=1'–0"



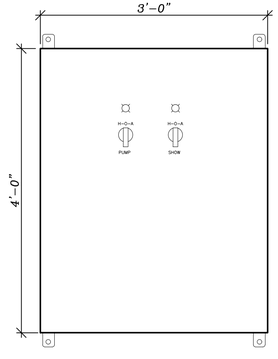
#F1460 WATER LEVEL SENSOR — G

SCALE: 3"=1'–0"



FLOOR SINK — H

SCALE: 1 1/2"=1'–0"



SPECIFICATIONS:
The fountain control panel is designed for fully automatic operate of the fountain. It will be factory wired and tested and will include, but not be limited to, the following features:

- NEMA 4 steel enclosure properly sized to accommodate all electrical equipment
- U.L. 508 listing and label
- Main circuit breaker for 120/208 volt, three phase incoming power
- Motor circuit breaker and properly sized for the 208 volt, three phase display pump
- Variable frequency drive for display pump
- Control circuit breaker and power supply
- Solid state type contactor for jet solenoids and motorized ball valve
- Animation controller
- Water level monitor
- Door mounted, hand operated H–O–A switches
- Door mounted run lights
- Neutral and ground bars

CUSTOM CONTROL PANEL — I

NOT TO SCALE

DRAWING: IWF DETAILS
DMC JOB NO. 16-095-07
SHEET NO. F3.1
DRAWN RV | CAD | SCALE VARIES
CHECKED CA | DATE 8.28.17
APPROVED JW

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
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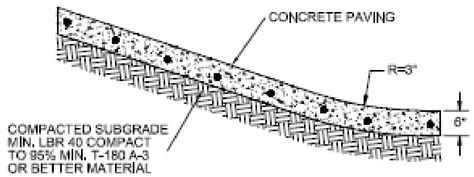
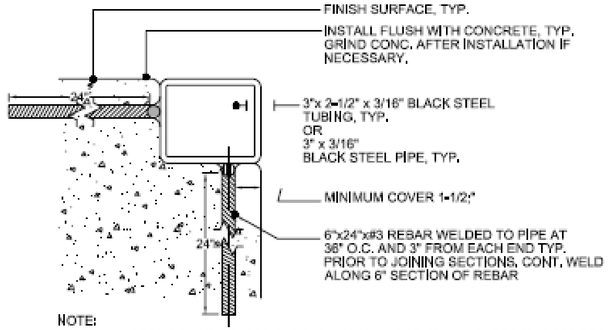
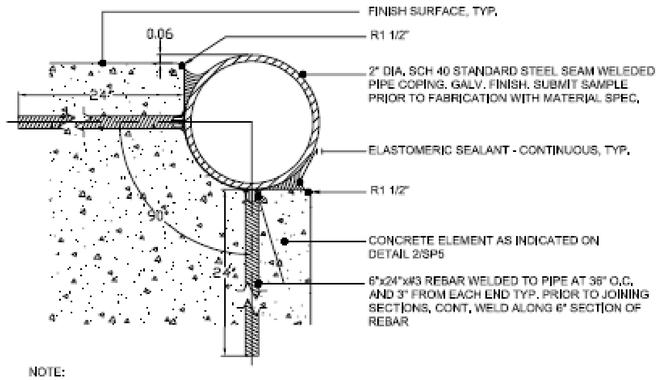


9 SLANT DETAIL
N.T.S.



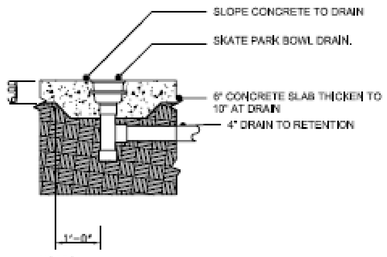
NOTE:
MITER ALL CORNER JOINTS, CONT. WELD 1/8" CHAMFER ON ALL EXPOSED CORNERS, GRIND SMOOTH. CAP ALL EXPOSED TUBE/PIPE ENDS WITH 1/8" STEEL PLATE, CONT. WELD AND GRIND SMOOTH.

10 SQUARE BOX
N.T.S.



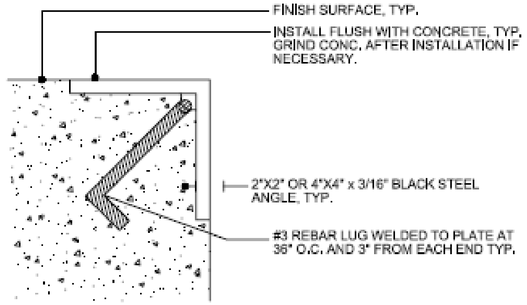
NOTE:
MITER ALL CORNER JOINTS, CONT. WELD ALL PIPING/TUBING CONNECTIONS & GRIND SMOOTH, GALV. FINISH TYP. CAP ALL EXPOSED PIPE/TUBE ENDS WITH 1/8" STEEL PLATE. CONT. WELD AND GRIND SMOOTH. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO INSTALLATION FOR APPROVAL.

11 STEEL PIPE COPING
NTS



NOTES:
1. REFER TO SKATE PARK PLANS FOR POSITION OF DRAIN WITHIN CONCRETE SLAB

16/ST16 SKATE PARK BOWL DRAIN
N.T.S.



NOTE:
MITER ALL CORNER JOINTS, CONT. WELD 1/8" CHAMFER ON ALL EXPOSED CORNERS, GRIND SMOOTH.

13 ANGLE STEEL EDGE
N.T.S.

STRUCTURAL NOTES

1. Reinforcement for paving to be #3 rebar placed at a maximum distance of 12" O.C. each way where depth of paving is less than 8' from the top of adjacent paving or where wall height is less than 8'. Reinforcement at depths greater than 8' from the top of adjacent paving or where wall height is greater than 8' tall shall be placed 6" O.C. max.
2. Concrete that is permanently cast against and exposed to earth shall maintain a minimum of 3" of concrete coverage over the steel. If the steel is #5 or smaller the minimum coverage may be 1-1/2"
3. Concrete to be 4,000 lbs per square inch minimum.
4. Reinforcement to be grade 60 D-form steel bars conforming to ACI 318 and ASTMA615/A615M
5. This structure is not designed for possible hydrostatic forces. All surrounding fill to have adequate drainage to prevent buildup of hydrostatic forces.
6. Pavement thickness to be 6.5" minimum with code required cover of reinforcing. See note 2.
7. 4" Drain Pipe to be schedule 40 PVC.
8. All design, construction, and workmanship shall be in conformity with ANSI/NSPI-3, ANSI/NSPI-4, ANSI/NSPI-5, ANSI/NSPI-6.
9. Concrete shall be evaluated for acceptance per ACI 318 5.6 - Evaluation and Acceptance of Concrete. Samples for strength tests of each class of concrete placed each day shall be taken not less than once a day, nor less than once for each 150 cubic yards of concrete, nor less than once for each 5,000 square feet of surface area for slabs and walls, At a minimum strength tests shall be performed on five (5) randomly selected batches or from each batch if less than five (5) batches are used.
10. Concrete footer shall have continuous #3 rebar around the entire perimeter of the structure and tied into the top mat #3 rebar every two feet as shown on detail number 2.
11. Placement and dimensions of objects in skate area may field adjusted. All objects will be constructed using #3 rebar at 12" o.c. and 6.5" of 4000psi concrete. All adjustments will be reflected in the "as-built" drawing.

CONSTRUCTION DETAILS

DRAWING: DETAILS
DMC JOB NO. 16-095-07
SHEET NO. S1
DRAWN BF | CAD -
CHECKED TM | SCALE 3/16"=1
APPROVED - | DATE 07-25-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

Xxxx Xxxx, P.E.
FLORIDA LICENSE No. XXXXX

MISIANO SKATEPARKS, DESIGN & BUILD
Misiano Construction & Remodelling, inc.
New Smyrna Beach, FL 386 788-3204
cgc 1513874

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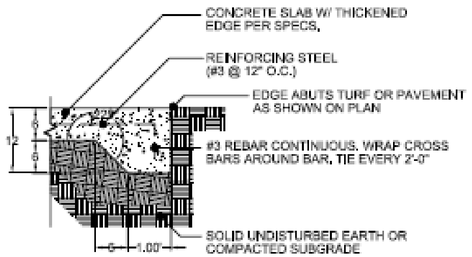
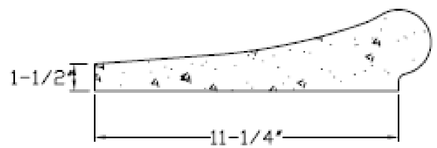
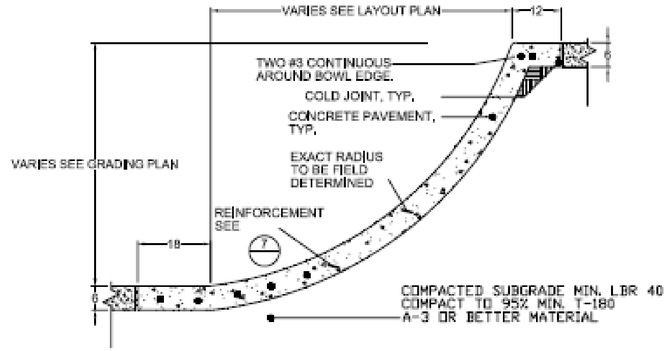


2 CONCRETE THICKENED SLAB EDGE
N.T.S.

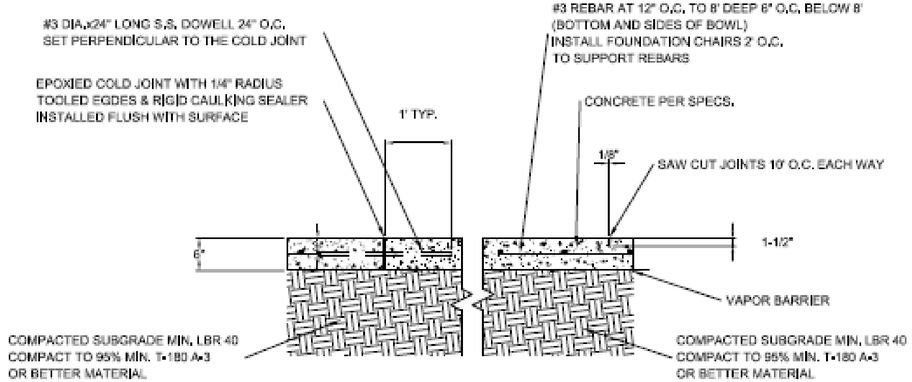
Install and grout Pool Coping using a Thinset mortar.
Deck behind pool coping level to the back edge of the coping tile.



3 POOL BLOCK
N.T.S.
NOTE; COPING TO BE PENROSE OR EQUAL



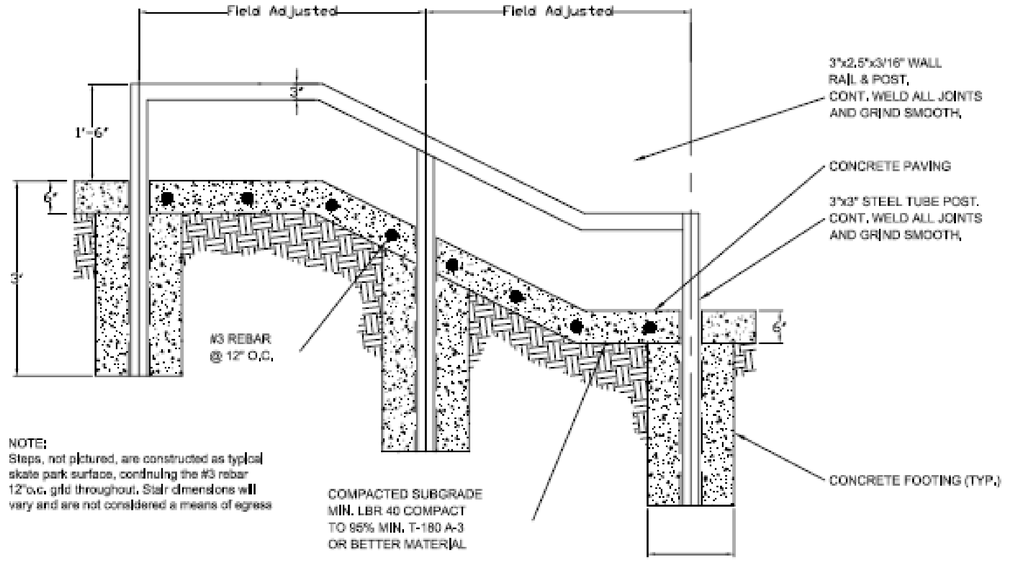
5 TRANSITION
N.T.S.



NOTES:

1. INSTALL ALL CONSTRUCTION JOINTS TRUE & STRAIGHT.
2. OBTAIN APPROVAL OF FORMS BY ENGINEER PRIOR TO PLACING ANY CONCRETE.
3. ALL CONCRETE EDGES TO BE FLUSH WITH ADJACENT EDGES, AFTER INSTALLATION, GRIND SURFACE IF NECESSARY TO PROVIDE SMOOTH TRANSITION.

7 PAVING FLATS
N.T.S.



NOTE:
Steps, not pictured, are constructed as typical skate park surface, continuing the #3 rebar 12"o.c. grid throughout. Stair dimensions will vary and are not considered a means of egress

8 RAIL
N.T.S.

CONSTRUCTION DETAILS

DRAWING: DETAILS
DMC JOB NO. 16-095-07
SHEET NO. S2
DRAWN BF | CAD - | SCALE 3/16"=1" | CHECKED TM | DATE 07-25-17 | APPROVED -

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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MISIANO SKATEPARKS, DESIGN & BUILD
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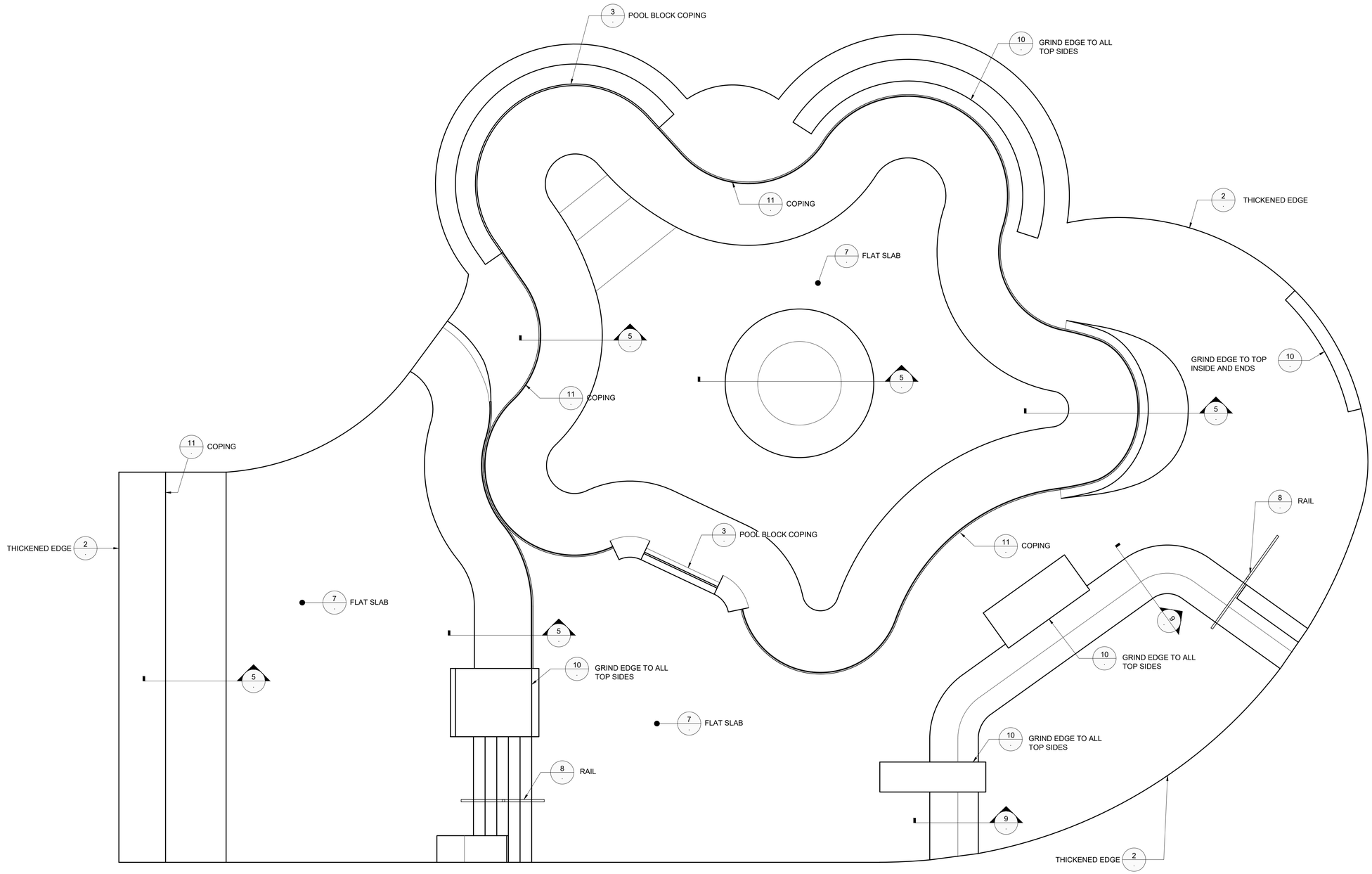
READ IN CONJUNCTION WITH DETAIL DRAWINGS



Drawing Name: E:\PROJECTS\2017 024 N.S Edgewater\modelling\sheet set\S3 DETAIL REFERENCE PLAN.dwg By: bradgraphics Tab: S3 DETAIL REFERENCE PLAN 7/25/2017

DRAWING: DETAIL REFERENCE PLAN
DMC JOB NO. 16-095-07
SHEET NO. S3
DRAWN BF | CAD -
CHECKED TM | SCALE 3/16"-1"
APPROVED - | DATE 07-25-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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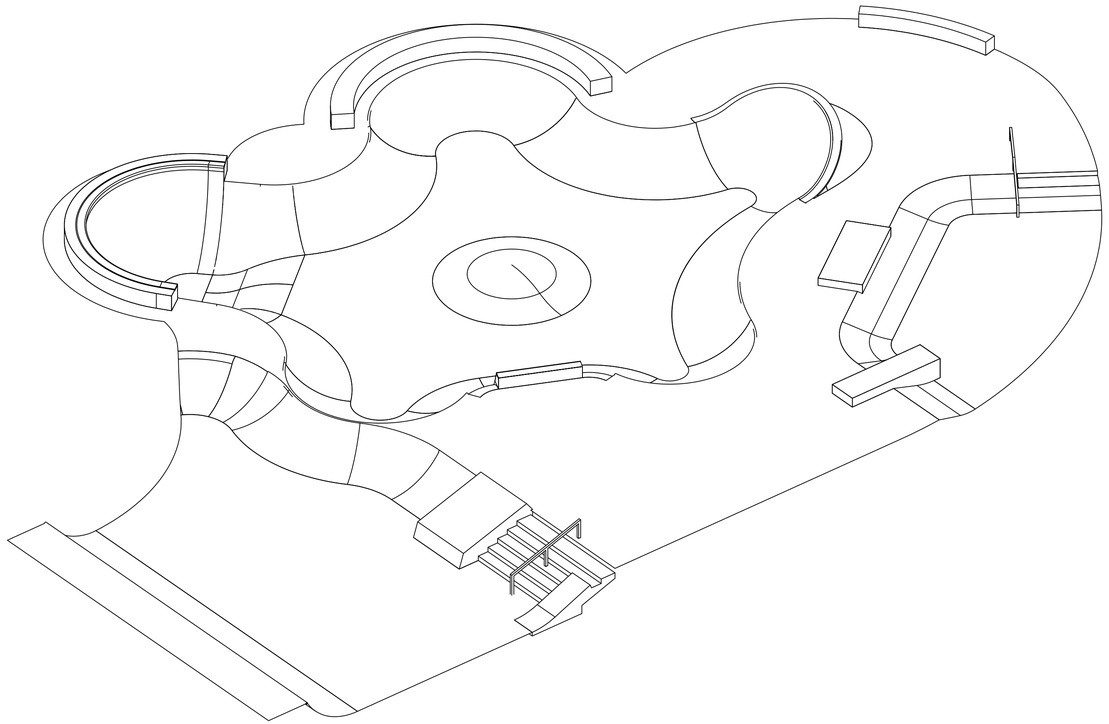
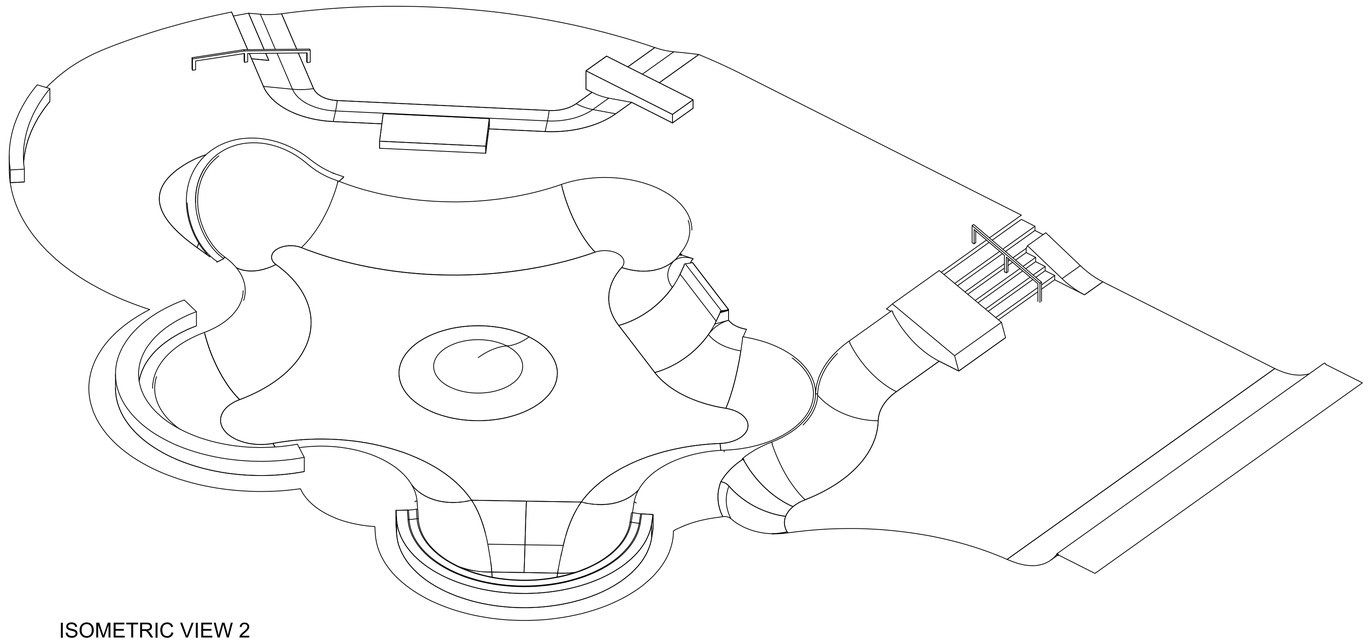


ISOMETRIC VIEW 1



ISOMETRIC VIEW 2

SKATEPARK DESIGN GUIDELINES

1. THE COMPRESSIVE STRENGTH OF CONCRETE SHALL BE A MINIMUM OF 400 PSI.
2. ALL WALLS AND OTHER CONCRETE AREAS SHALL BE FORMED WITH SMOOTH PLYWOOD FORMS, MDO (MARINE) GRADE WITH NO KNOTS OR IRREGULARITIES, NO METAL FORMS.
3. ALL CONCRETE EDGES TO BE FLUSH WITH ADJACENT EDGES. AFTER INSTALLATION, GRIND SURFACES AS NEEDED TO PROVIDE SMOOTH TRANSITIONS
4. THE TOP 12" OF SUBGRADE MUST BE COMPACTED TO MINIMUM LBR OF 40 AND TO 95□ MODIFIED PROCTOR VALUE.
5. EXACT HEIGHT AND CROSS SLOPES OF CONCRETE FEATURES MAY BE FIELD ADJUSTED AT THE OWNER AND BUILDERS DISCRETION
6. ALL METAL GRIND EDGES, RAILS, ETC SHALL HAVE CONTINUOUS WELDS AT ALL JOINTS AND BE GROUND TO A SMOOTH FINISH.

DRAWING: ISOMETRIC VIEWS AND NOTES
DMC JOB NO. 16-095-07
SHEET NO. S4
DRAWN BF | CAD - | CHECKED TM | SCALE NTS | APPROVED - | DATE 07-25-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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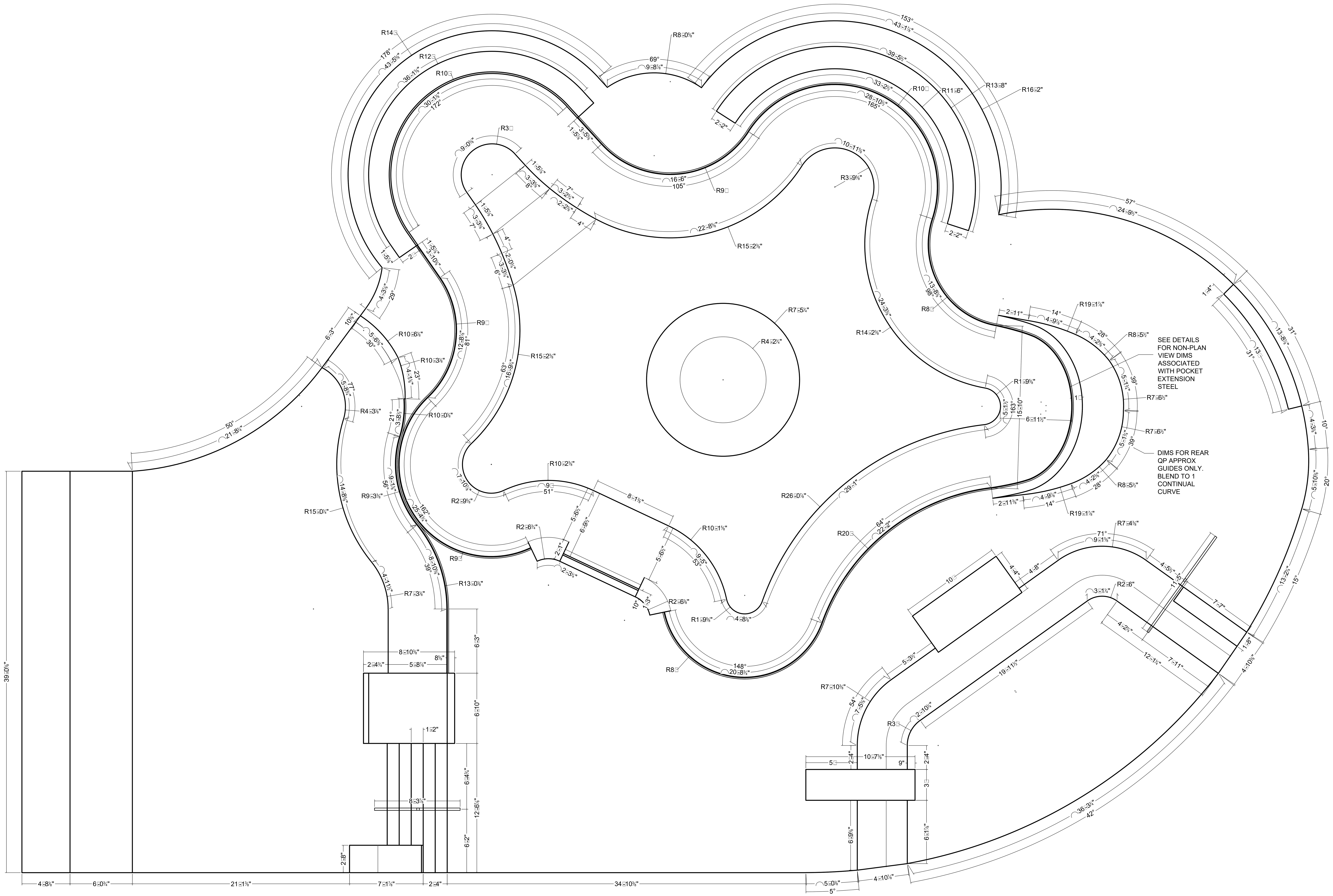
Drawing Name: E:\PROJECTS\2017 024 NLS Edgewater\modelling\sheet set\S4 ISOMETRIC VIEWS AND NOTES.dwg By: bradgraphics Tab: S4 ISOMETRIC VIEWS AND NOTES 7/25/2017



DRAWING: DIMENSION PLAN

DMC JOB NO. 16-095-07

DRAWN BF | CAD - | CHECKED TM | SCALE 3/16"=1' | APPROVED - | DATE 07-25-17 | SHEET NO. S5

PROJECT NAME: WHITE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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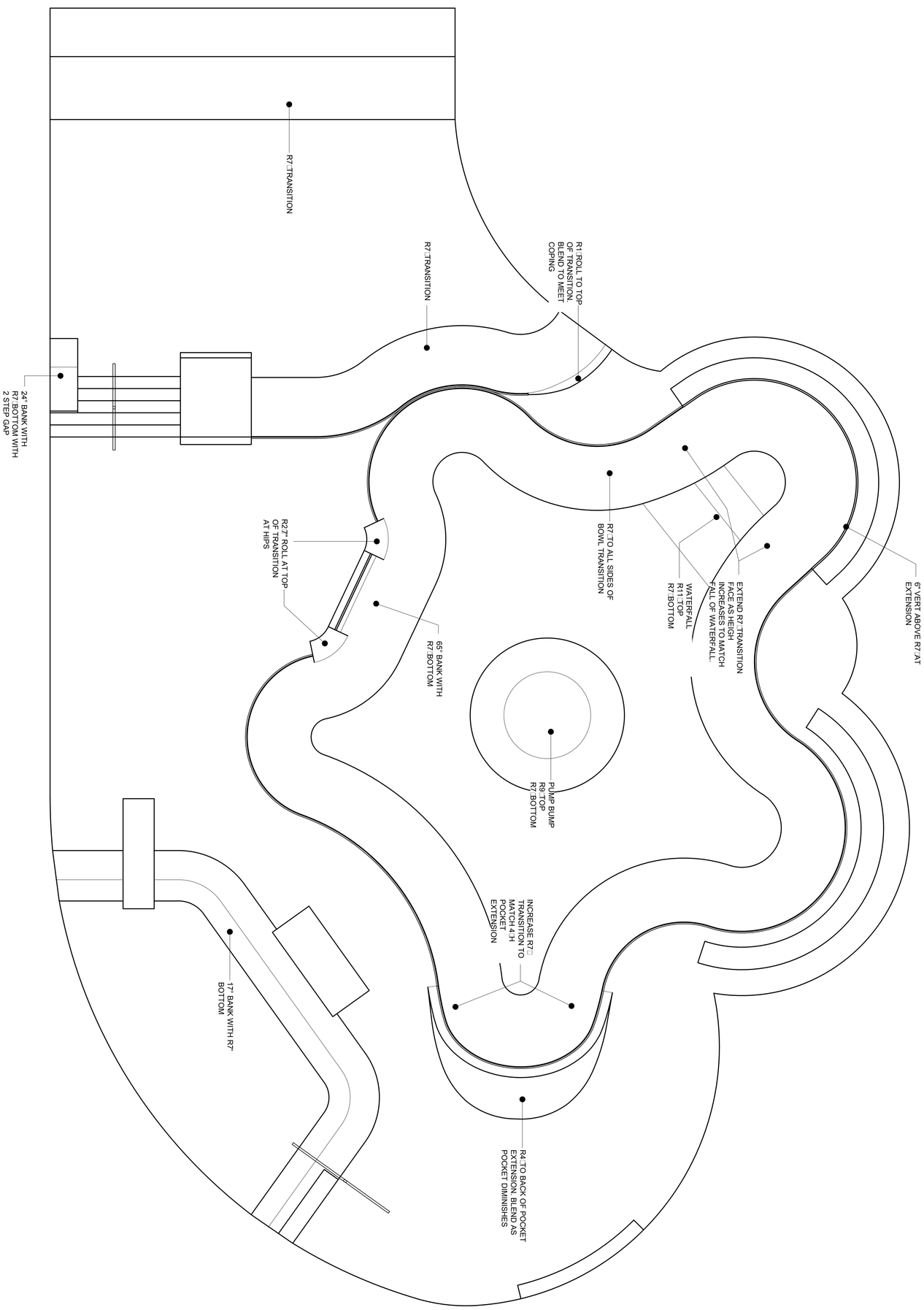

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PROJECT NAME:
WHISTLE STOP PARK IMPROVEMENTS

CLIENT:
CITY OF EDGEWATER

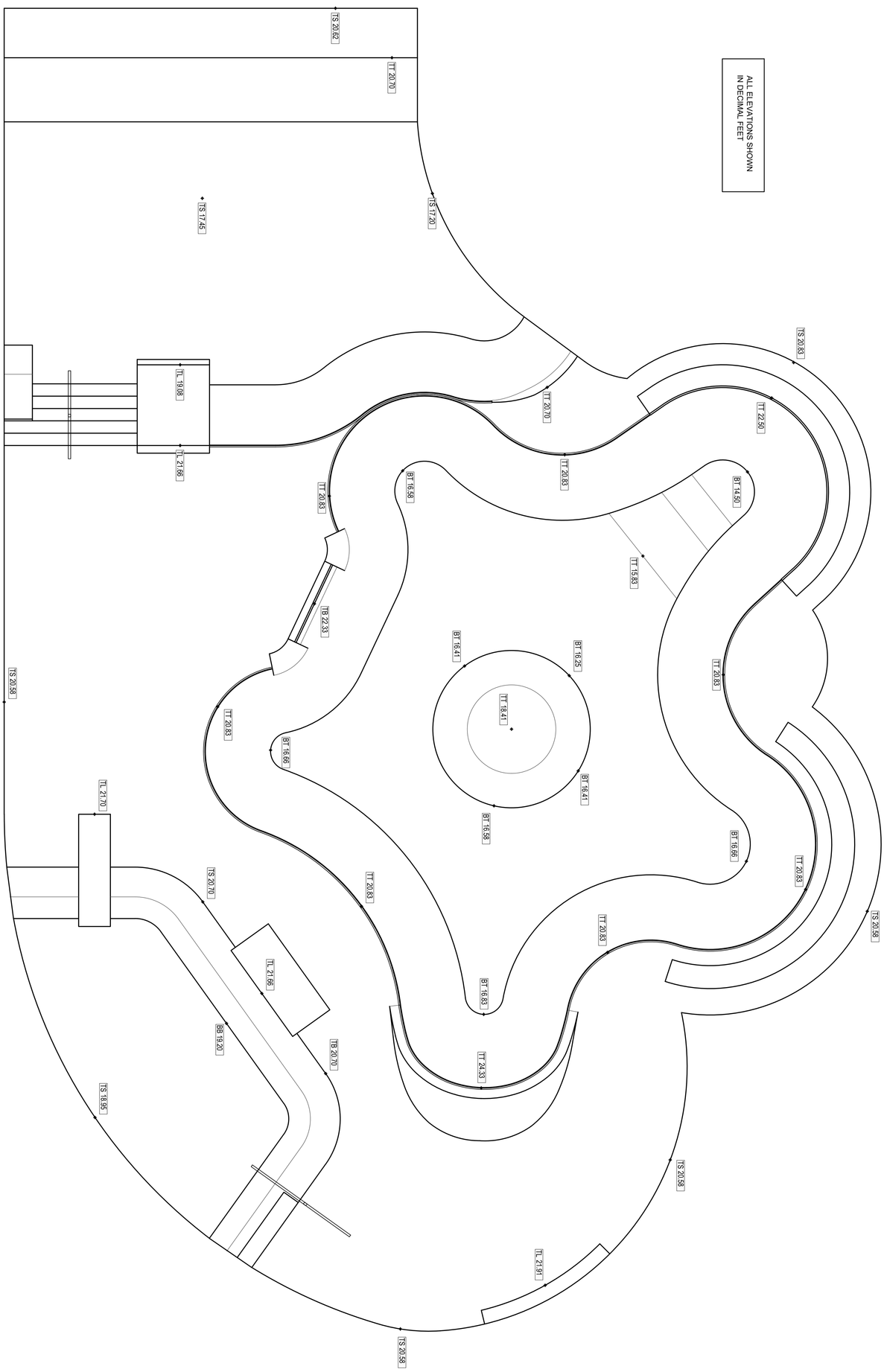
DRAWING: RADIUS PLAN

DMC JOB NO. 16-095-07

DRAWN	BF	CAD	.
CHECKED	TM	SCALE	1:xx
APPROVED	-	DATE	07-25-17

SHEET NO. S6

Drawing Name: E:\PROJECTS\2017 024 NLS Edgewater\modelling\sheet set\S7 GRADING PLAN.dwg By: bradgraphics Tab: S7 GRADING PLAN 7/25/2017



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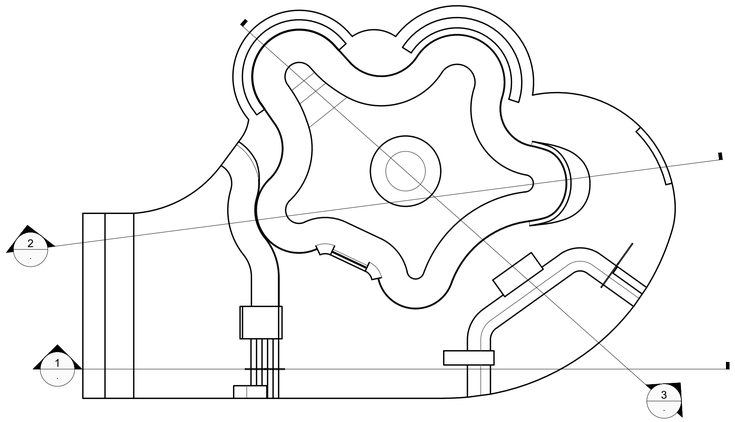
PROJECT NAME:
WHISTLE STOP PARK IMPROVEMENTS

CLIENT:
CITY OF EDGEWATER

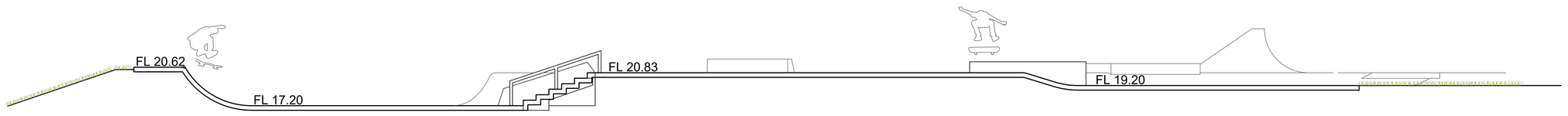
DRAWING:
GRADING PLAN

DMC JOB NO. 16-095-07

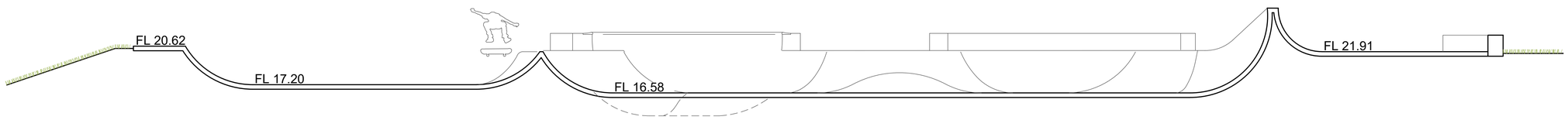
DRAWN	BF	CAD	.	SHEET NO.
CHECKED	TM	SCALE	3/16":1□	S7
APPROVED	-	DATE	07-25-17	



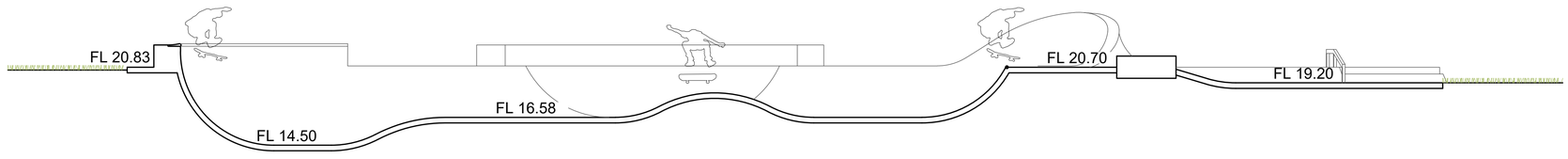
REFERENCE PLAN
SCALE: NTS



1 SECTION 1
SCALE: 3/16":1□



2 SECTION 2
SCALE: 3/16":1□



3 SECTION 3
SCALE: 3/16":1□

DRAWING: SECTIONS
DMC JOB NO. 16-095-07
SHEET NO. S8
DRAWN BF | CAD -
CHECKED TM | SCALE 3/16":1□
APPROVED - | DATE 07-25-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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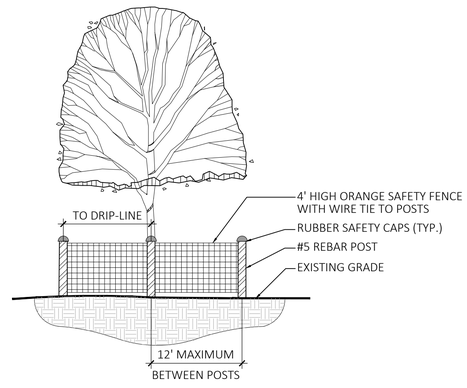
TREE PROTECTION NOTES

1. THE TREE PROTECTION AREA IS DEFINED AS ALL AREAS INDICATED ON THE TREE PROTECTION PLAN. WHERE NO LIMIT OF THE TREE AND PLANT PROTECTION AREA IS DEFINED ON THE DRAWINGS, THE LIMIT SHALL BE THE DRIP LINE (OUTER EDGE OF THE BRANCH CROWN) OF EACH TREE.
2. PREPARATION:
   - A. PRIOR TO THE PRECONSTRUCTION MEETING, LAYOUT THE LIMITS OF THE TREE AND PLANT PROTECTION AREA AND THE ALIGNMENTS OF REQUIRED TREE AND PLANT PROTECTION FENCING. OBTAIN THE OWNER'S REPRESENTATIVE'S APPROVAL OF THE LIMITS OF THE PROTECTION AREA AND THE ALIGNMENT OF ALL FENCING.
   - B. FLAG ALL TREES TO BE REMOVED BY WRAPPING ORANGE PLASTIC RIBBON AROUND THE TRUNK AND OBTAIN THE OWNER'S REPRESENTATIVE'S APPROVAL OF ALL TREES TO BE REMOVED PRIOR TO THE START OF TREE REMOVAL. AFTER APPROVAL, MARK ALL TREES TO BE REMOVED WITH ORANGE PAINT IN A BAND COMPLETELY AROUND THE BASE OF THE TREE 4.5 FEET ABOVE THE GROUND.
   - C. FLAG ALL TREES TO REMAIN WITH WHITE PLASTIC RIBBON TIED COMPLETELY AROUND THE TRUNK OF EACH TREE. OBTAIN THE OWNER'S REPRESENTATIVE'S APPROVAL OF ALL TREES TO REMAIN PRIOR TO THE START OF TREE REMOVAL.
   - D. NO LAND CLEARING OR TREE REMOVAL SHALL BEGIN UNTIL AFTER THE PROTECTION BARRICADES ARE INSTALLED AND THE BARRICADES SHALL REMAIN IN PLACE UNTIL AFTER COMPLETION OF CONSTRUCTION. ANY PRESERVED TREE DAMAGED DURING CONSTRUCTION WILL BE CONSIDERED REMOVED AND WILL HAVE TO BE REPLACED. DAMAGE MAY INCLUDE, BUT IS NOT LIMITED TO, MECHANICAL DAMAGE RESULTING IN THE REMOVAL OF BARK, LIMBS, LEADERS, AND SIGN ATTACHMENT, OR ROOT DAMAGE RESULTING FROM GRADE CHANGES, UTILITY INSTALLATION, EXCESSIVE SCRAPING, REMOVAL OF UNDERSTORY, AND COMPACTION FROM HEAVY MACHINERY.
   - E. NO GRADING IS TO BE PERFORMED WITHIN THE CRITICAL ROOT ZONE (BENEATH TREE CANOPY), UNLESS MONITORED BY AN ISA-CERTIFIED ARBORIST.
   - F. SITE GRADING SURROUNDING THE FITNESS PATH ALONG THE WESTERN SITE BOUNDARY WILL SEEK TO DISTURB AS FEW TREES AS POSSIBLE.



1 / T-1 TREE PROTECTION DETAIL
not to scale

0' 40' 80' 160'
SCALE: 1"=80'

DRAWING: TREE REMOVAL PLAN
DMC JOB NO. 16-095-07
SHEET NO. T-1
DRAWN CG | CAD C3D | SCALE AS NOTED
CHECKED JM | APPROVED JM | DATE 08-30-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

Marquis Latimer + Halback
LANDSCAPE ARCHITECTURE · PLANNING
Marquis Latimer + Halback, Inc.
34 Cordova Street, Suite A St. Augustine, FL 32084
Ph 904.825.6747 www.halback.com
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Jeremy Marquis, RLA
FLORIDA LICENSE No.6667110

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PRESERVED TREES

TREE #	CODE	DBH (IN.)	TOTAL INCHES
1	PM	12	12
2	PM	12	12
3	PM	28	28
4	PM	13	13
5	PM	20	20
6	PM	13	13
7	PM	9	9
8	PM	10	10
9	PM	14	14
10	PM	12	12
11	PM	13	13
12	PM	11	11
13	PM	11	11
14	PM	14	14
15	PM	14	14
16	PM	14	14
17	PM	9	9
18	MP	19/17/12	48
19	MP	16	16
20	MP	7	7
21	MP	12/10	22
22	MP	9/16	25
23	MP	7	7
24	MP	16/13/11/10/9/7	66
25	MP	12/6/7/6	33
26	MP	6/8	14
27	MP	10	10
28	MP	10/12/23	45
31	MP	35/8	43
32	MP	13	13
33	MP	16	16
34	PM	10	10
35	MP	7	7
36	PM	11	11
37	MP	11	11
38	MP	7	7
39	PM	18	18
40	MP	6	6
41	PM	11	11
42	PM	11	11
43	PM	12	12
44	PM	11	11
45	MP	7	7
46	MP	9/6	15
47	PM	12	12
48	PM	14	14
49	PM	unk	
50	PM	12	12
51	MAP	7	7
52	PM	20	20
53	MP	8	8
54	PM	10	10
55	MP	6	6
56	MP	4/6/7/8	25
57	BY	6	6
58	BY	6	6
59	BY	6	6
60	PM	14	14
61	BY	7/6	13
62	TOK	15	15
63	PM	14	14
64	PM	12	12
65	PM	12	12
66	PM	10	10
67	PM	13	13
68	PM	12	12
69	PM	14	14
70	PM	10	10
71	PM	13	13
72	PM	15	15
73	PM	12	12
74	PM	13	13
75	PM	13	13
76	PM	10	10
77	PM	11	11
78	MP	13	13
79	PM	15	15
80	PM	10	10
81	PM	15	15
82	PM	10	10
83	PM	10	10
84	TOK	9/9	18
85	TOK	9	9
86	PM	14	14
87	PM	13	13
88	PM	18	18
89	PM	89	89
90	PM	12	12
91	PM	14	14
92	PM	12	12
93	PM	11	11
94	BY	10	10

TREE #	CODE	DBH (IN.)	TOTAL INCHES
95	PM	15	15
96	PM	10	10
97	PM	13	13
98	PM	16	16
99	TOK	8/9/18	35
100	PM	18	18
101	PM	11	11
102	PM	12	12
103	PM	16	16
104	PM	11	11
105	PM	13	13
106	PM	14	14
107	PM	12	12
108	PM	13	13
109	PM	10	10
110	PM	12	12
111	PM	13	13
112	PM	11	11
113	PM	16	16
114	PM	16	16
115	PM	9	9
116	MP	6/12/14	32
117	PM	14	14
118	MP	9	9
119	PM	20	20
120	PM	14	14
121	MP	7	7
122	MP	7/5	12
123	PM	14	14
124	PM	15	15
125	PM	15	15
126	PM	14	14
127	PM	16	16
128	PM	14	14
129	PM	16	16
130	PM	14	14
131	PM	14	14
132	PM	16	16
133	PM	12	12
134	PM	12	12
135	PM	14	14
136	PM	17	17
137	PN	18	18
138	PN	19	19
144	PM	13	13
145	PM	12	12
146	MP	17/16/11	44
148	PM	16	16
149	MP	10	10
150	PM	16	16
151	PN	36	36
152	PN	30	30
153	PN	30	30
156	PN	14	14
157	PN	19	19
158	PN	18	18
159	PN	16	16
160	PN	16	16
161	PN	21	21
166	PN	20	20
167	PN	12	12
174	PN	27	27
175	PN	22	22
176	PN	27	27
178	PN	30	30
179	MP	7/11	18
180	PN	8	8
182	PN	17	17
183	PM	13	13
184	PN	8	8
190	OK	15	15
191	OK	9/78	87
192	OK	14	14
193	OK	7	7
194	OK	6	6
195	OK	13	13
196	OK	9	9
197	OK	8	8
198	OK	25	25
199	HK	5/5/8	18
200	HK	6	6
201	HK	3/4/4/6	17
202	OK	22	22
203	OK	23	23
209	OK	18	18
210	HK	11	11
211	HK	8	8
212	HK	12	12
213	HK	12	12
214	HK	6	6
215	OK	30/21	51
216	OK	18	18
218	OK	14	14
219	OK	7	7

TREE #	CODE	DBH (IN.)	TOTAL INCHES
220	HK	18	18
221	OK	32	32
222	OK	5/6/7/10	28
223	OK	32	32
224	HB	7	7
225	OK	10	10
226	OK	6/6	12
227	HK	18	18
228	HK	12	12
229	OK	10	10
230	HB	9	9
231	HB	6/5	11
232	OK	8	8
233	HK	5/6	11
234	OK	12	12
235	HK	6	6
236	HK	14	14
237	OK	13/10	23
238	OK	10	10
239	HK	6	6
240	OK	30	30
241	OK	7	7
245	OK	6	6
246	OK	12	12
247	OK	10	10
251	OK	19	19
252	OK	20	20
253	OK	25	25
254	OK	6	6
255	OK	7	7
256	OK	29	29
257	HB	9	9
258	HB	6/5	11
259	OK	20	20
260	HK	10	10
261	OK	8	8
263	OK	8/8	16
264	PN	16	16
265	OK	6	6
266	OK	16	16
267	OK	18	18
268	OK	16	16
269	OK	14	14
270	OK	18/13	31

Total Tree Inches Preserved: **3617**

Total Trees Preserved: **230**

REMOVED TREES

TREE #	SPECIES CODE	DBH (IN.)	SPECIMEN	NOTES	STATUS	TREE REMOVAL PERMIT REQUIRED?	TREE INCHES REQUIRED?
29	PM	9	NO		REMOVE		
30	ASH	14	NO	DOUBLE TRUNK 7/7"	REMOVE		
139	MP	14	YES		REMOVE	YES	2.5
140	MP	17	YES		REMOVE	YES	2.5
141	MP	14	YES		REMOVE	YES	2.5
142	MP	12	YES		REMOVE	YES	2.5
143	MP	12	YES		REMOVE	YES	2.5
147	PM	24	NO		REMOVE		
154	PN	16	NO		REMOVE		
155	PN	21	YES		REMOVE	YES	2.5
162	PN	17	NO		REMOVE		
163	PN	17	NO		REMOVE		
164	PN	14	NO		REMOVE		
165	PN	16	NO		REMOVE		
168	PN	21	YES		REMOVE	YES	2.5
169	PN	16	NO		REMOVE		
170	PN	16	NO		REMOVE		
171	PN	8	NO		REMOVE		
172	PN	18	YES		REMOVE	YES	2.5
173	PN	15	NO		REMOVE		
177	PN	22	YES		REMOVE	YES	2.5
181	PN	15	NO		REMOVE		
185	PN	24	YES		REMOVE	YES	2.5
186	OK	6	NO		REMOVE		
187	OK	6	NO		REMOVE		
188	OK	10	NO		REMOVE		
189	OK	14	YES		REMOVE	YES	2.5
204	OK	11	NO		REMOVE		
205	OK	7	NO		REMOVE		
206	OK	10	NO		REMOVE		
207	OK	10	NO		REMOVE		
208	OK	17	YES		REMOVE	YES	2.5
217	OK	35	YES	DOUBLE TRUNK 17/18"	REMOVE	YES	2.5
242	OK	6	NO		REMOVE		
243	OK	7	NO		REMOVE		
244	OK	6	NO		REMOVE		
246	OK	12	YES		REMOVE	YES	2.5
247	OK	10	NO		REMOVE		
248	OK	13	YES		REMOVE	YES	2.5
249	OK	6	NO		REMOVE		
250	OK	10	NO		REMOVE		
262	OK	9	NO		REMOVE		

Total Number of Trees Removed: 42

NOTE: 50% OF REPLACEMENT TREES SHALL BE **SPECIMEN TREES** AS SET FORTH IN SECTION 21-55-06 OF THE CITY OF EDGEWATER LAND DEVELOPMENT CODE

MINIMUM REPLANTED INCHES REQUIRED:	37.5

CITY OF EDGEWATER MITIGATION CALCULATIONS

TOTAL TREES REMOVED	42 TREES
TOTAL REMOVED SPECIMEN TREES	15 TREES*
REQUIRED INCHES PER REMOVED SPECIMEN TREE	2.5"
REQUIRED MITIGATION (INCHES)	37.50"

*NOTE: NO REMOVED TREES ARE CONSIDERED HISTORIC TREES.
10% OF EXISTING TREES ON SITE ARE BEING REMOVED

NEW PLANTINGS

TOTAL TREES PLANTED	156 TREES
TOTAL INCHES PLANTED (EXCLUDING PALMS)	229 INCHES*

*NOTE: THIS PLANTING EXCEEDS THE REQUIRED TREE INCHES NEEDED ON SITE FOR TREE MITIGATION

DRAWING: TREE INVENTORY
DMC JOB NO. 16-095-07
SHEET NO. T-2
DRAWN CG | CAD C3D | SCALE AS NOTED
CHECKED JM | APPROVED JM | DATE 08-30-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

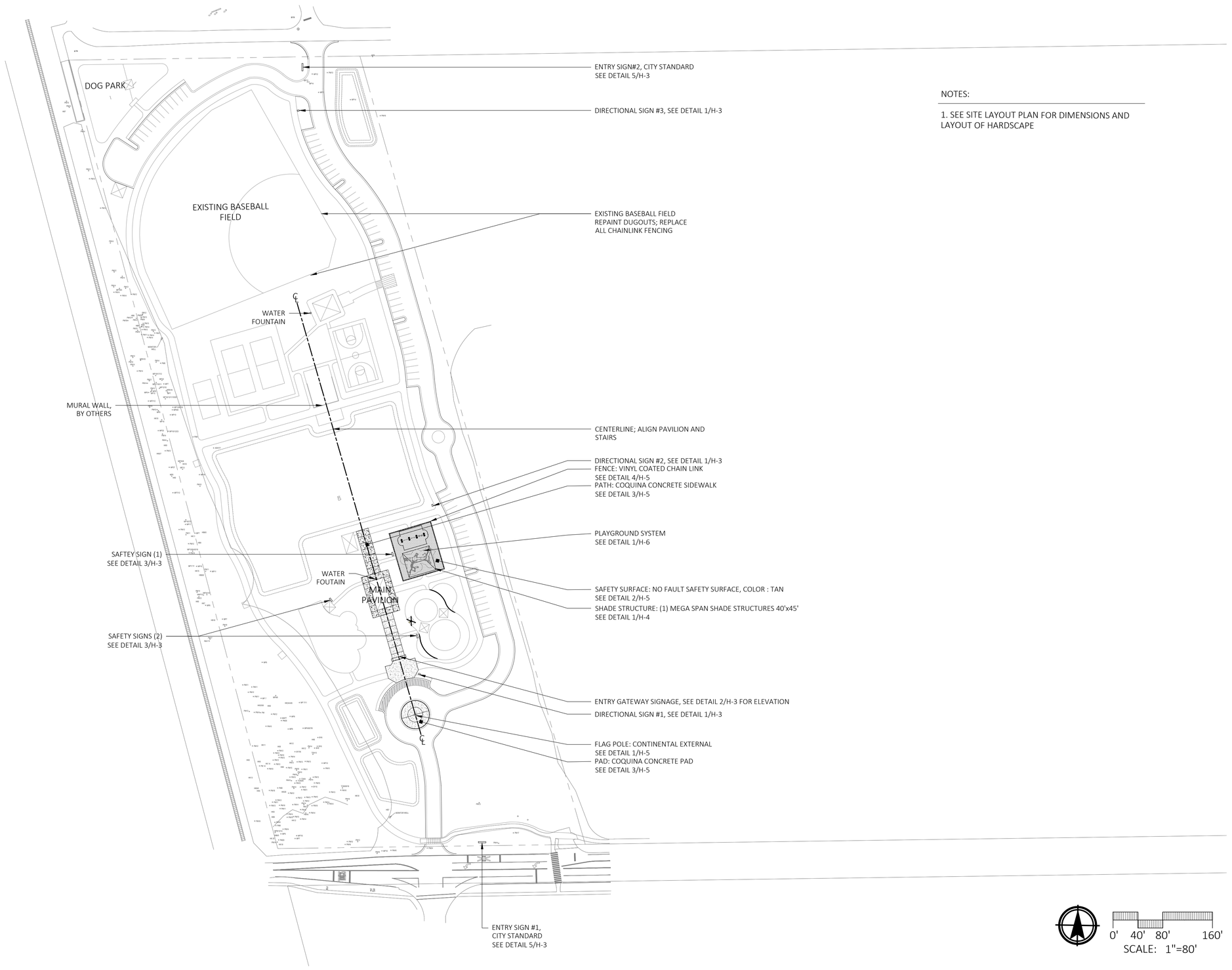
Jeremy Marquis, RLA
FLORIDA LICENSE No.6667110

Marquis Latimer + Halback
LANDSCAPE ARCHITECTURE · PLANNING
Marquis Latimer + Halback, Inc.
34 Cordova Street, Suite A St. Augustine, FL 32084
Ph 904.825.6747 www.halback.com
LC0000391

Dredging & Marine Consultants
DMC
ENGINEERS • SCIENTISTS
4643 S. Clyde Morris Blvd
Unit 302
Port Orange, FL 32129
Phone:(386) 304-6505
Fax:(386) 304-6506
www.dmcees.com

CITY OF EDGEWATER
104 N. RIVERSIDE DR.
EDGEWATER, FL 32132

Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\5-CAD\MLH16240_TREEMITIGATION.dwg By: Carter Tab: T-2 8/29/2017



NOTES:

1. SEE SITE LAYOUT PLAN FOR DIMENSIONS AND LAYOUT OF HARDSCAPE

DRAWING: SITE FEATURES PLAN

DMC JOB NO. 16-095-07

DRAWN	CG	CAD	C3D
CHECKED	JM	SCALE	AS NOTED
APPROVED	JM	DATE	08-30-17

SHEET NO. H-1

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

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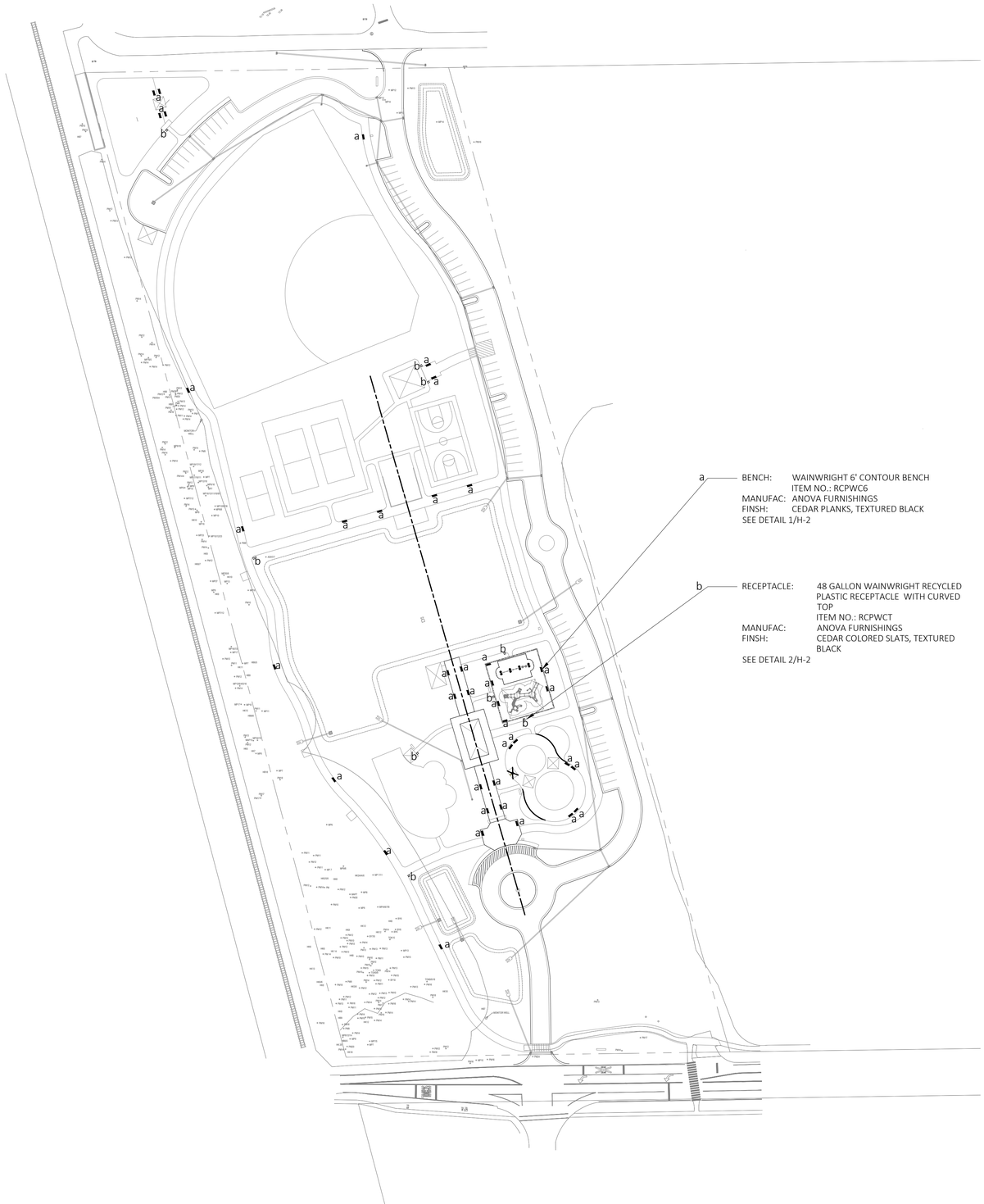
EDGEWATER, FL 32132

Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\5-CAD\MLH16240_HARDSCAPE_current.dwg By: Carter Tab: H-1 8/31/2017



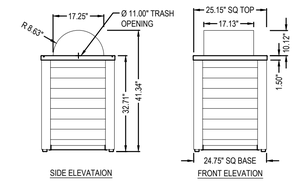
a — BENCH: WAINWRIGHT 6' CONTOUR BENCH
ITEM NO.: RCPWC6
MANUFAC: ANOVA FURNISHINGS
FINSH: CEDAR PLANKS, TEXTURED BLACK
SEE DETAIL 1/H-2

b — RECEPTACLE: 48 GALLON WAINWRIGHT RECYCLED PLASTIC RECEPTACLE WITH CURVED TOP
ITEM NO.: RCPWCT
MANUFAC: ANOVA FURNISHINGS
FINSH: CEDAR COLORED SLATS, TEXTURED BLACK
SEE DETAIL 2/H-2

ANOVA

ANOVA
211 NORTH LINDBERGH, 2ND FLOOR
ST. LOUIS, MO 63141
TOLL FREE: 1-888-535-5005
PHONE: (800) 231-1327
FAX: (314) 754-0835
www.anovafurnishings.com

☑ SELECT DESIRED COLOR (RECEPTACLE)
■ CEDAR COLORED SLATS
☐ MAHOGANY COLORED SLATS
☑ SELECT DESIRED COLOR (FRAME & STEEL TOP)
☐ PEWTER
■ TEXTURED BLACK
☑ SELECT DESIRED ACCESSORIES
☐ BLACK PLASTIC LINER (F1017)



FINISH: RECYCLED PLASTIC SLATS ARE IMPERVIOUS TO MOISTURE AND CORROSION. DO NOT REQUIRE THE APPLICATION OF SEALANTS OR PRESERVATIVES.
MATERIAL: THE 45- GALLON RECEPTACLE IS COMPOSED OF .75" X 3.5" RECYCLED PLASTIC SLATS WHICH ARE SUPPORTED BY A NON-RUSTING POWDER COATED EXTRUDED ALUMINUM FRAME.
CURVED HOOD TOP: 11" DIAMETER OPENING

THE RECEPTACLE ARRIVES FULLY ASSEMBLED FOR IMMEDIATE USE ON SITE
5 YEAR COMPREHENSIVE WARRANTY AND 20 YEAR LIMITED STRUCTURAL WARRANTY

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. ALL DIMENSIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER'S SPECIFICATIONS.
3. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 928-354.

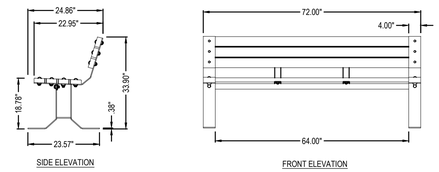
2 / H-2 — 45 GALLON WAINWRIGHT RECYCLED PLASTIC RECEPTACLE WITH CURVE TOP
NOT TO SCALE MODEL: RCPWCT

928-354 REVISION DATE 06/21/2016
 www.CADdetails.com

ANOVA

ANOVA
211 NORTH LINDBERGH, 2ND FLOOR
ST. LOUIS, MO 63141
TOLL FREE: 1-888-535-5005
PHONE: (800) 231-1327
FAX: (314) 754-0835
www.anovafurnishings.com

☑ SELECT DESIRED COLOR:
■ CEDAR PLANKS
☑ SELECT DESIRED FRAME & END LEG COLOR:
☐ PEWTER
■ TEXTURED BLACK



FINISH: FUSIONGUARD® PRIMER IS APPLIED TO ALL UNDER SUPPORTS, PROVIDING EXTREME RUST FIGHTING PROTECTION AND DURABILITY.
MATERIAL:
BENCH: MADE OF .38" THICK X 4" WIDE FORMED STEEL END LEGS
FRAME: 1.5" X 3.5" RECYCLED PLASTIC PLANKS FOR SEAT AND BACK REST.

SOME ASSMEBLY IS REQUIRED. ASSEMBLY HARDWARE IS INCLUDED
LIMITED 5 YEAR COMPREHENSIVE WARRANTY

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. ALL DIMENSIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER'S SPECIFICATIONS.
3. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 928-278.

1 / H-2 — 6' WAINWRIGHT CONTOUR BENCH
NOT TO SCALE MODEL: RCPWC6

928-278 REVISION DATE 06/21/2016
 www.CADdetails.com

0' 40' 80' 160'
SCALE: 1"=80'

DRAWING: SITE FURNISHINGS
DMC JOB NO. 16-095-07
SHEET NO. H-2

DRAWN	CG	CAD	C3D
CHECKED	JM	SCALE	AS NOTED
APPROVED	JM	DATE	08-30-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
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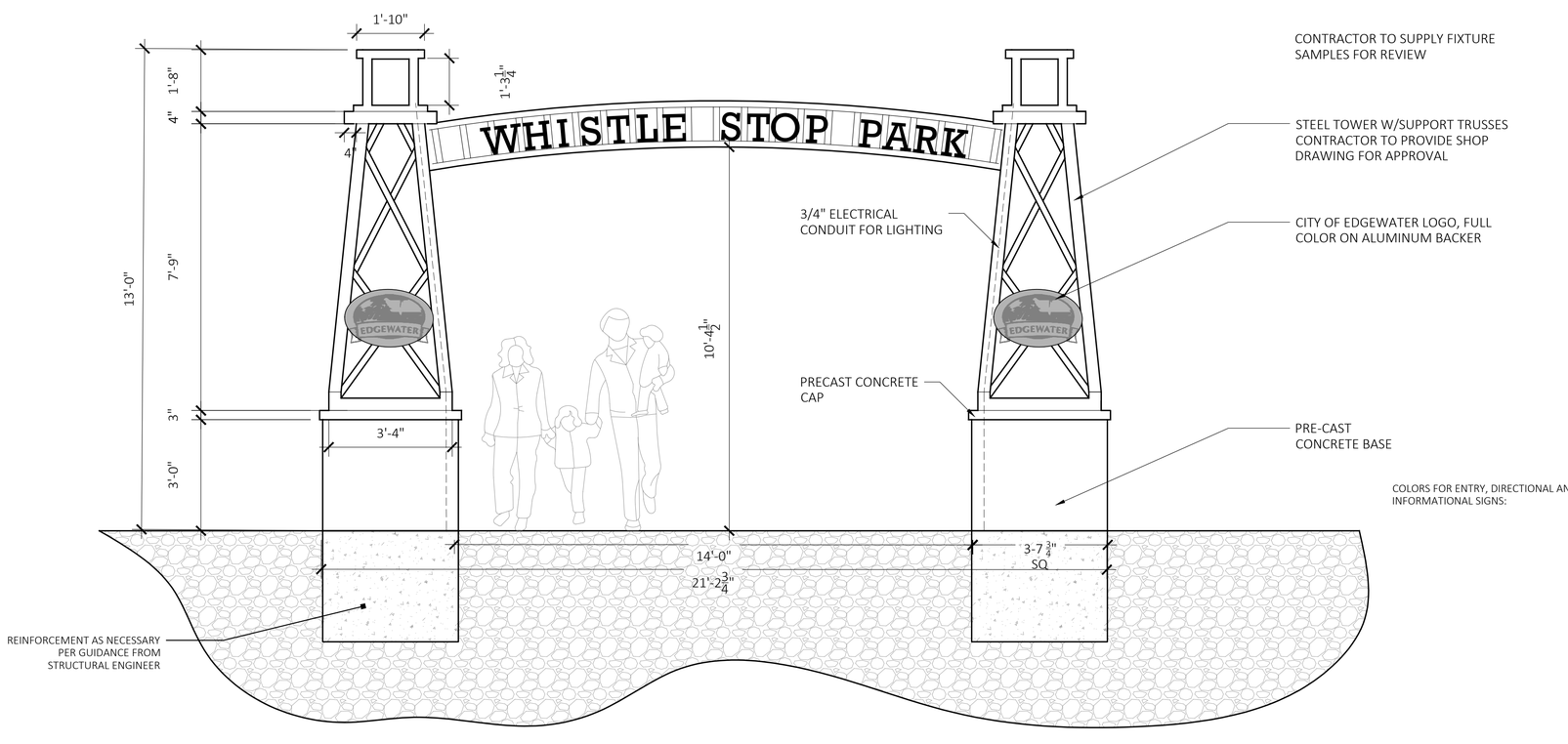
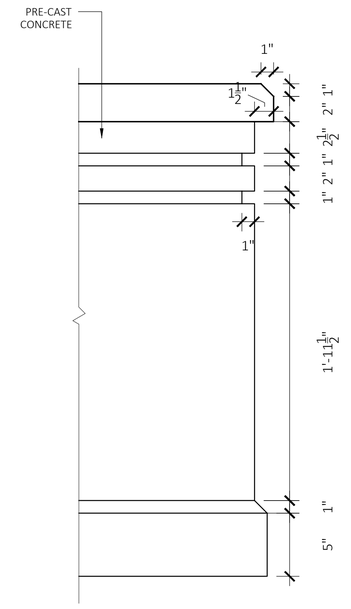
EDGEWATER, FL 32132

Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\5-CAD\MLH16240_HARDSCAPE_current.dwg By: Carter Tab: H-2 9/01/2017

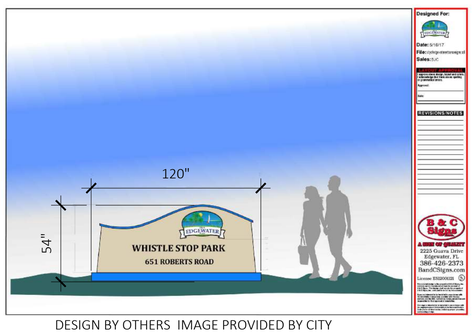


4 H-3 ENTRY GATEWAY ELEVATION
SCALE 1/2"=1' SCALE

SIGN MANUFACTURER TO PROVIDE SHOP DRAWINGS

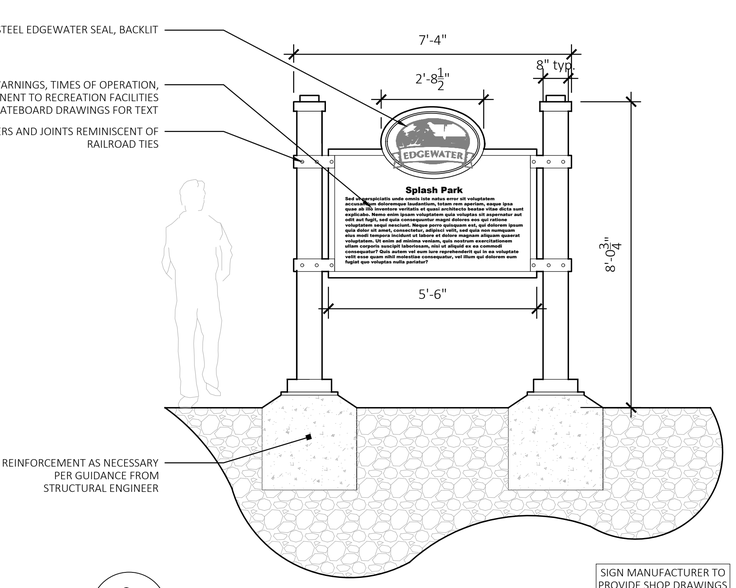


2 H-3 PRE-CAST BASE
SCALE 2" = 1'-0" SCALE



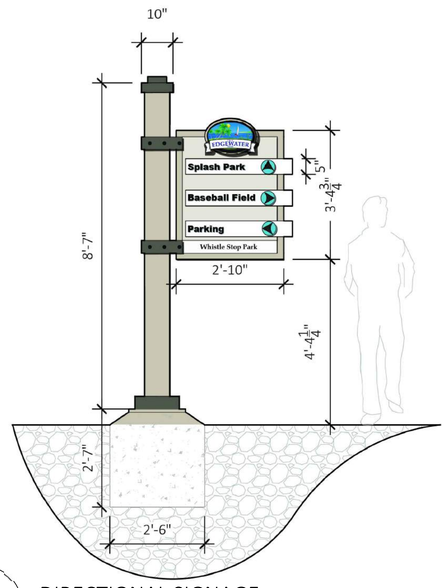
DESIGN BY OTHERS IMAGE PROVIDED BY CITY

5 H-3 CITY STANDARD SIGN
NOT TO SCALE



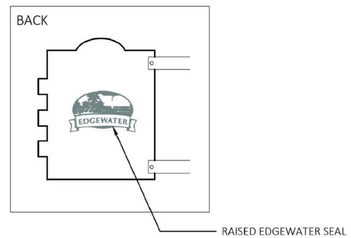
SIGN MANUFACTURER TO PROVIDE SHOP DRAWINGS

3 H-3 INFORMATIONAL SIGNAGE
SCALE 1/2"=1' SCALE



SIGN MANUFACTURER TO PROVIDE SHOP DRAWINGS

1 H-3 DIRECTIONAL SIGNAGE
SCALE 1/2"=1' SCALE



DRAWING: HARDSCAPE DETAILS
DMC JOB NO. 16-095-07
SHEET NO. H-3
DRAWN CG | CAD C3D | SCALE AS NOTED
CHECKED JM | APPROVED JM | DATE 08-30-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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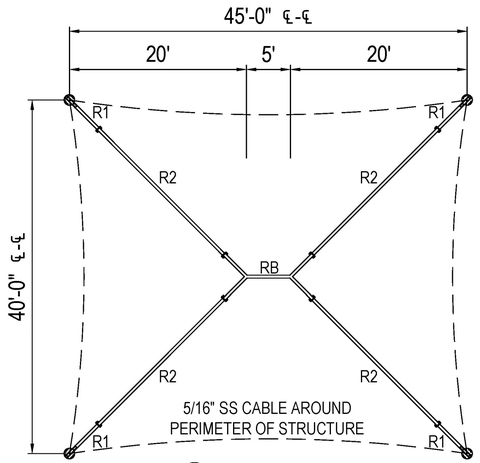
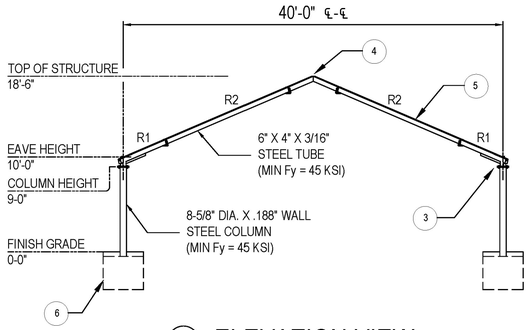
EDGEWATER, FL 32132

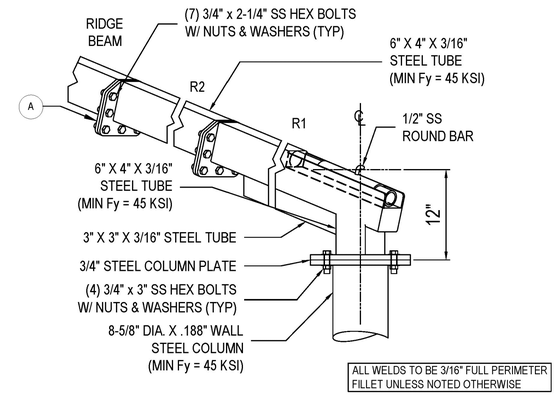
Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\5-CAD\MLH16240_HARDSCAPE_Details.dwg By: Carter Tab: H-3 8/30/2017



① PLAN VIEW



② ELEVATION VIEW

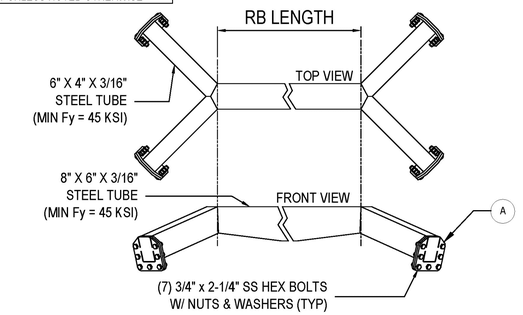


ALL WELDS TO BE 3/16" FULL PERIMETER FILLET UNLESS NOTED OTHERWISE

ALL CONNECTION COMPONENTS ARE FACTORY WELDED

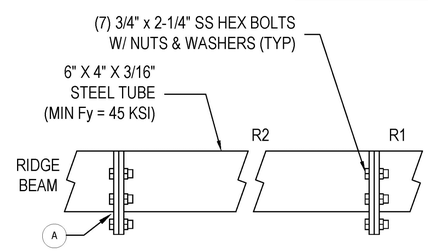
③ RAFTER-COLUMN DETAIL

ALL WELDS TO BE 3/16" FULL PERIMETER FILLET UNLESS NOTED OTHERWISE

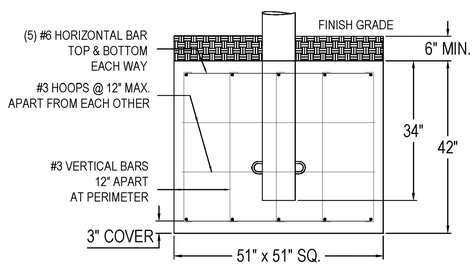


④ RIDGE BEAM DETAIL

ALL WELDS TO BE 3/16" FULL PERIMETER FILLET UNLESS NOTED OTHERWISE

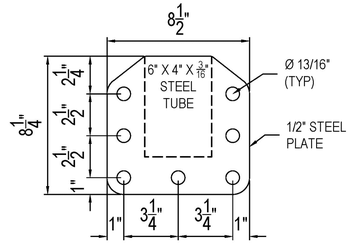


⑤ RAFTER BEAM CONNECTION



NOTE: HOOPS & REBARS NOT SUPPLIED BY FACTORY

⑥ FOOTING DETAIL



Ⓐ CONNECTION PLATE

BASIS OF DESIGN:

SHADE STRUCTURE:	(1) MEGA SPACE SHADE STRUCTURE 40'X45'
MANUF:	SHADE SYSTEMS, INC.
CANOPY COLOR:	CANARY YELLOW COOLNET
POST COLOR:	ALPINE WHITE POWDER COAT TUBING AND POST PADS
WARRANTY:	20 YEAR CORROSION; 10 YEAR FABRIC AND ATTACHMENT POINTS
HEIGHT:	ENSURE CLEARANCE OVER PLAY SYSTEM AND POSTS OUT OF FALL ZONES
CONTACT:	JEREMY PURKIS 1.800.609.6066

GENERAL NOTES

1- THE SHADE SYSTEMS, INC.™ STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE 2014 FLORIDA BUILDING CODE FIFTH EDITION AND ASCE 7-10 TO THE FOLLOWING DESIGN CRITERIA:

	STRUCTURE WITH FABRIC CANOPY REMOVED
RISK CATEGORY	I
EXPOSURE	C
BASIC WIND SPEED	165 MPH

2- THE FOUNDATION ASSUMES A MINIMUM SOIL BEARING CAPACITY OF 1700 PSF.

3- ALL FASTENERS SHALL BE STAINLESS STEEL.

4- THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH SECTION 3105.4 OF THE FLORIDA BUILDING GOVERNING THE DESIGN OF FABRIC-COVERED FRAMES. THIS SECTION REQUIRES THAT THE FRAMING MEMBERS BE DESIGNED FOR A WIND VELOCITY OF NOT LESS THAN 105 MPH WITH THE FABRIC ATTACHED. THIS FABRIC SYSTEM IS DESIGNED TO RELEASE WHEN WIND SPEED EXCEEDS 90 MPH.

STEEL:

1- STEEL PIPES SHALL HAVE A MINIMUM YIELD STRENGTH OF 45 KSI. STEEL PLATES SHALL CONFORM TO ASTM A36

2- ALL PARTS SHALL BE FACTORY-WELDED TO AMERICAN WELDING SOCIETY (AWS) SPECIFICATIONS AND SHALL UTILIZE E70-S6 AND HAVE THE HIGHEST STANDARDS OF QUALITY WORKMANSHIP.

3- ALL WELDS SHALL BE FILLET WELDS WITH MAXIMUM PERMISSABLE THROAT THICKNESS OR FULL PENETRATION GROOVE WELDS.

CONCRETE:

1- ALL CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301 AND 318.

2- CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c) OF 3000 PSI. A CONCRETE MIX HAVING A LISTED STRENGTH OF AT LEAST 3000 PSI THAT IS MIXED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS IS ACCEPTABLE FOR USE.

3- REINFORCING STEEL SHALL BE ASTM A-615 GRADE 60 WITH A MINIMUM YIELD STRENGTH (fy) OF 60 KSI.

4- UNLESS OTHERWISE SHOWN, CONCRETE COVER SHALL BE 3" (MIN).

FABRIC:

1- KNITTED HDPE FABRIC HAS A SIEVE FACTOR OF 64%

NOTE TO OWNER:
OWNER ACCEPTS FULL RESPONSIBILITY FOR REMOVING THE FABRIC SHADE MATERIAL FROM THE STEEL FRAME WHEN SEVERE WEATHER CONDITIONS ARE PREDICTED. SUCH CONDITIONS INCLUDE PREDICTED WIND SPEEDS IN EXCESS OF 90 MPH.

Firm Name and Address
Shade systems
4150 S.W. 19 Street
Ocala, FL 34474
Tel.: 1-800-609-6066

Approved:

Model Name:
RECTANGULAR SHADE SYSTEM STRUCTURE

Model No.:
R404510

Revisions

REP:

REP QTE. NO.

Approved:	JRB	Job:	
Checked:	MG		
Drawn:	RB		
Date:	06/28/2017	Sheets:	1 OF 1
NOT TO SCALE			

DRAWING: HARDSCAPE DETAILS
DMC JOB NO. 16-095-07
DRAWN CG | CAD C3D | SCALE AS NOTED | DATE 08-30-17
CHECKED JM | APPROVED JM
SHEET NO. H-4

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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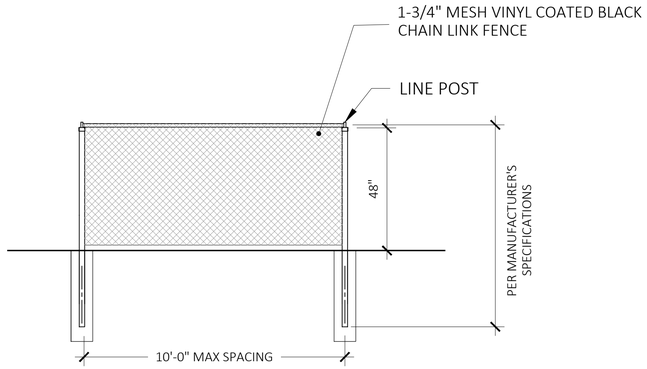
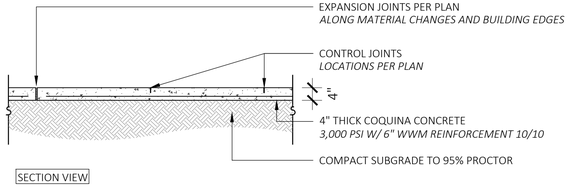
EDGEWATER, FL 32132

1 / H-4 SHADE SYSTEMS, INC., MEGA SPAN SHADE STRUCTURE DETAILS
NOT TO SCALE



4 / H-5 BLACK VINYL COATED CHAIN LINK FENCE
not to scale



3 / H-5 COQUINA CONCRETE SIDEWALK
$\frac{1}{2}$" = 1'-0"

GameTime
A PLAYCORE Company

Poured in Place Rubber
$0

A popular unitary surface choice, Poured in Place (PIP) Rubber is one of the best surfaces for ADA accessibility. A wide range of colors allows you to add an element of graphic fun to the playground by creating inlaid shapes and themed designs.

PIP utilizes trained and certified installation crews to produce a surface that is attractive and durable. Although PIP carries one of the highest initial investment costs, it is often offset by lower maintenance costs over the life of the product.

Learn more here

Features and Benefits:

Model: PIP1

Limited Lifetime Warranty on uprights, hardware and connections. Visit **gametime.com/warranty** for full warranty information

Designing award-winning playgrounds since 1929.

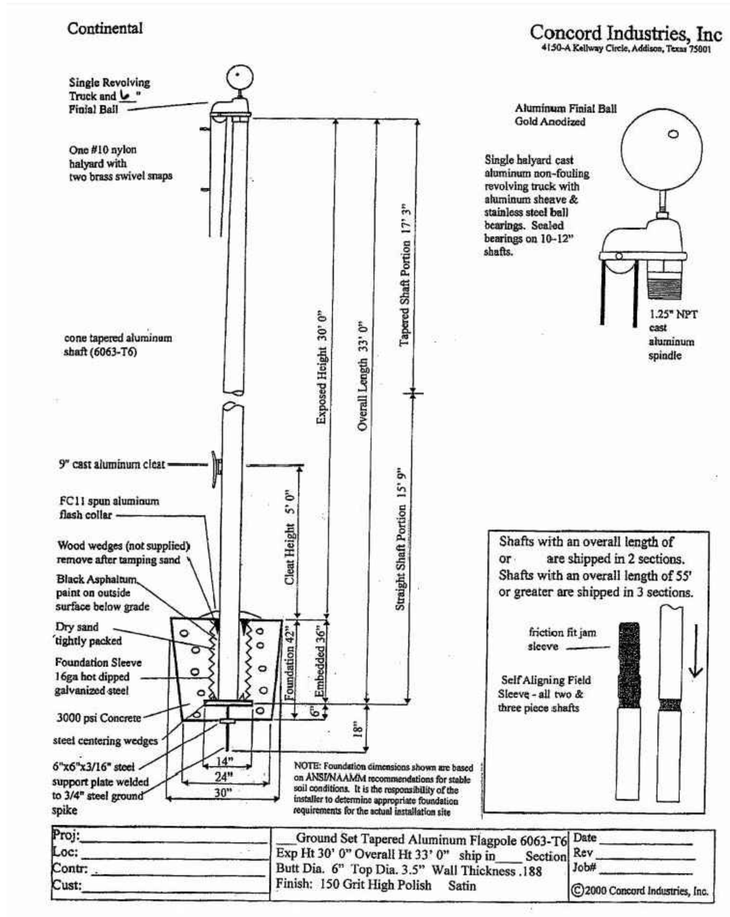
Certified Installer Network - GameTime trained for GameTime playgrounds.

Complies with ASTM standards before it leaves the factory.

MANUF: GAMETIME
POURED IN PLACE SAFETY SURFACE
COLOR: TAN
CURB: 1' FLUSH CURB
INSTALLATION: CONTACT MANUFACTURER FOR DEPTHS AND SUB-BASE PREPARATION
CONTACT: GAMETIME, STEVE LARSON 1.800.432.0162 ext. 308

2 / H-5 POURED-IN-PLACE SAFETY SURFACE
NOT TO SCALE

FLAG POLE: CONTINENTAL EXTERNAL
POLE: HALYARD XI30060250
MANUF: CONCORD INDUSTRIES
FINISH: SATIN
HEIGHT: 30'



1 / H-5 FLAG POLE DETAIL
NOT TO SCALE

DRAWING: HARDSCAPE DETAILS
DMC JOB NO. 16-095-07
SHEET NO. H-5
DRAWN CG | CAD C3D | SCALE AS NOTED
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PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
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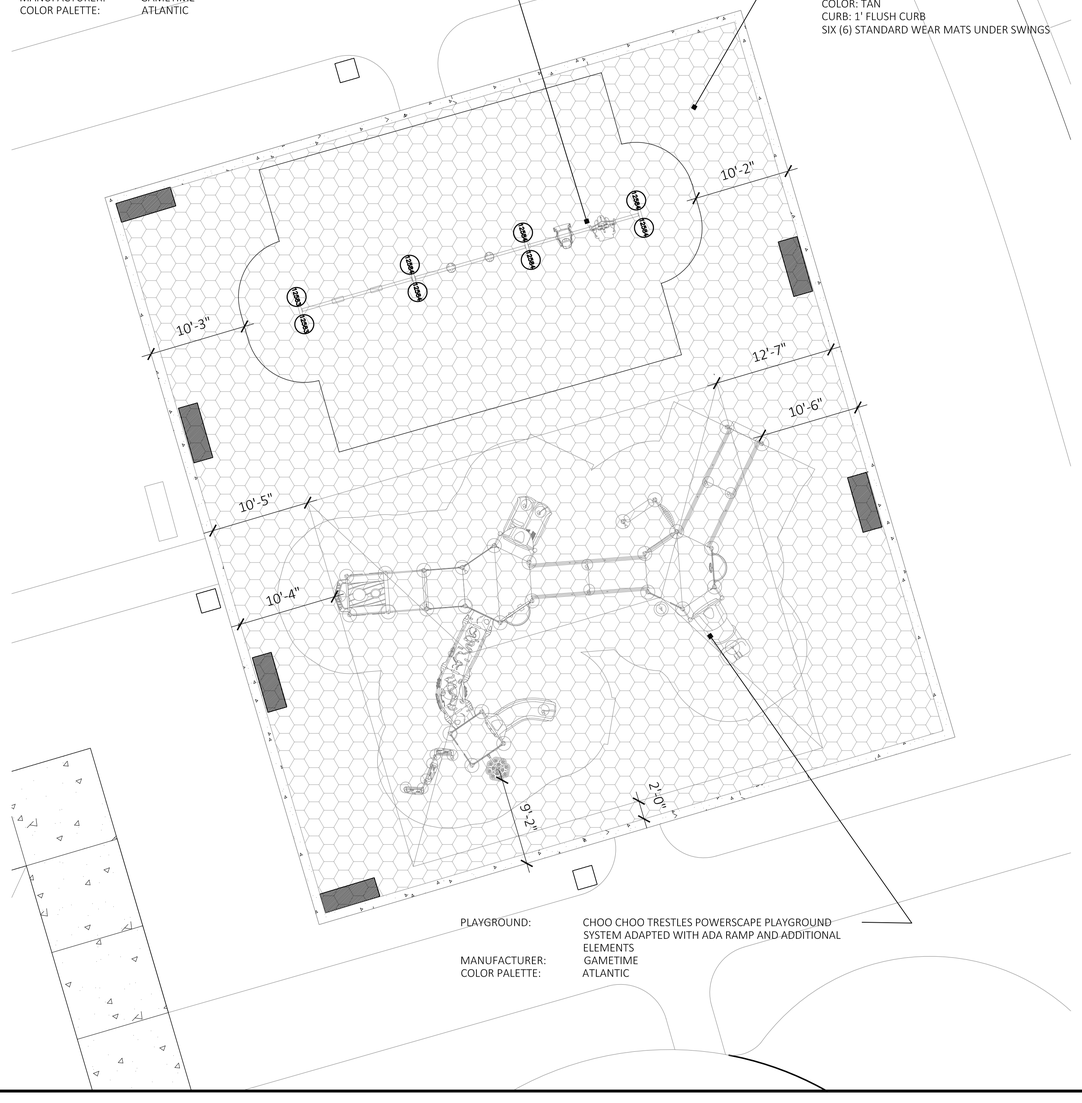
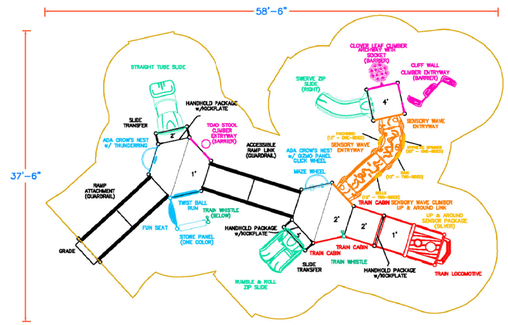
Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\5-CAD\MLH16240_HARDSCAPE_Details.dwg By: Carter Tab: H-5 9/01/2017

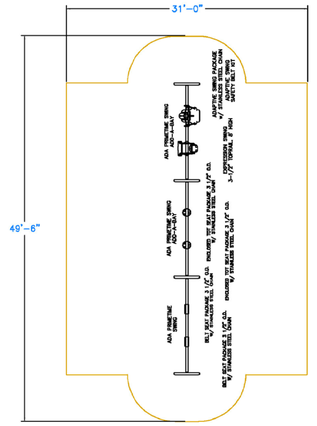
SWING: ADA PRIMETIME SWING WITH TWO (2) BELT SEATS, TWO (2) ENCLOSED TOT SEATS, ONE (1) EXPRESSION SWING, AND ONE (1) ADAPTIVE SWING
MANUFACTURER: GAMETIME
COLOR PALETTE: ATLANTIC

SAFETY SURFACING
MANUF: GAMETIME
POURED IN PLACE SAFETY SURFACE
THICKNESS: DEPENDENT ON FALL HEIGHTS
COLOR: TAN
CURB: 1' FLUSH CURB
SIX (6) STANDARD WEAR MATS UNDER SWINGS



PLAYGROUND: CHOO CHOO TRESTLES POWERSCAPE PLAYGROUND SYSTEM ADAPTED WITH ADA RAMP AND ADDITIONAL ELEMENTS
MANUFACTURER: GAMETIME
COLOR PALETTE: ATLANTIC





GameTime a PLAYCORE company 150 PlayCore Drive SE Fort Payne, AL 35967 www.gametime.com	Whistle Stop Park Halback Design Group Edgewater, FL Representative Dominica Recreation Products
This play equipment is recommended for children ages: 5-12	Minimum Area Required: see drawing Scale:NTS This drawing can be scaled only when in an 11" x 17" format
IMPORTANT: Soft resilient surfacing should be placed in the use zones of all equipment, as specified for each type of equipment, and at depths to meet the critical fall heights as specified by the U.S. consumer Product Safety Commission, ASTM standard F 1487 and Canadian Standard CAN/CSA-Z-614	Drawn By: gw Date: 8/11/2017 Drawing Name: Train & swing

BASIS OF DESIGN
PLAYGROUND: CHOO CHOO TRESTLES POWERSCAPE PLAYGROUND SYSTEM ADAPTED WITH ADA RAMP AND ADDITIONAL ELEMENTS
MANUFACTURER: GAMETIME
COLOR PALETTE: ATLANTIC
CONTACT: GAMETIME, STEVE LARSON 1.800.432.0162 ext. 308

SWING: ADA PRIMETIME SWING WITH TWO (2) BELT SEATS, TWO (2) ENCLOSED TOT SEATS, ONE (1) EXPRESSION SWING, AND ONE (1) ADAPTIVE SWING
MANUFACTURER: GAMETIME
COLOR PALETTE: ATLANTIC
CONTACT: GAMETIME, STEVE LARSON 1.800.432.0162 ext. 308

FOOTER DEPTHS: SEE DETAIL 1/H-7

1 / H-6 CHOO CHOO TRESTLES CUSTOM ADA PLAY SYSTEM
NOT TO SCALE

0' 4' 8' 16'
SCALE: 1/8"=1'-0"

DRAWING: PLAYGROUND LAYOUT
DMC JOB NO. 16-095-07
SHEET NO. H-6
DRAWN CG | CAD C3D
CHECKED JM | SCALE AS NOTED
APPROVED JM | DATE 08-30-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

Jeremy Marquis, RLA
FLORIDA LICENSE No.6667110

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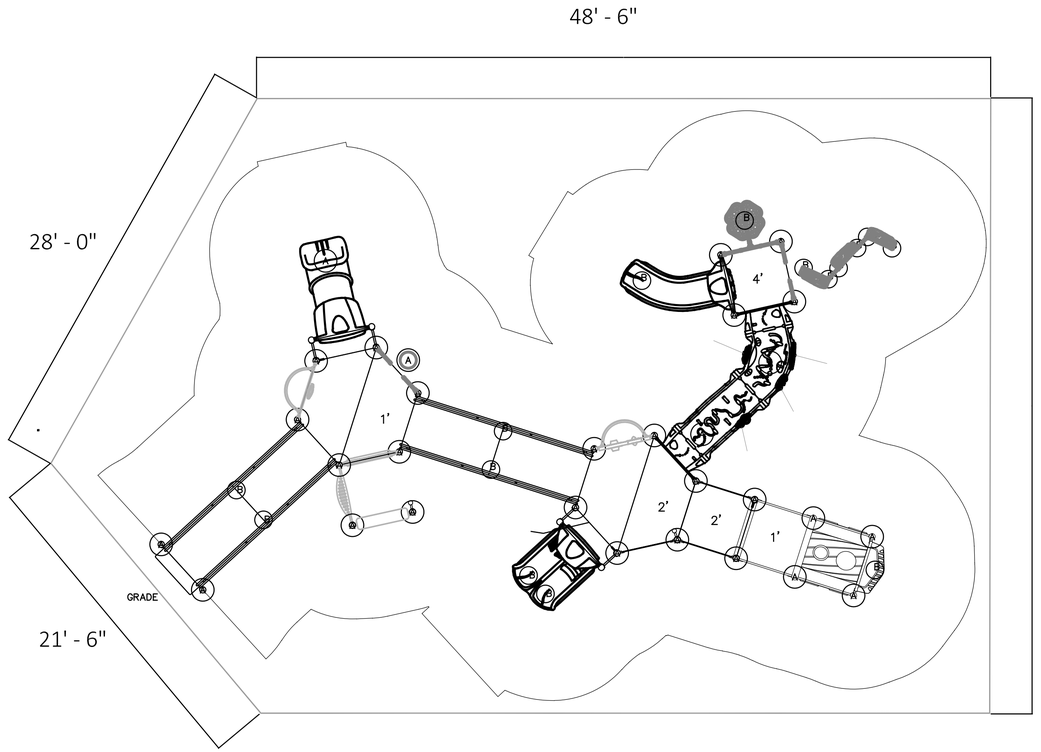
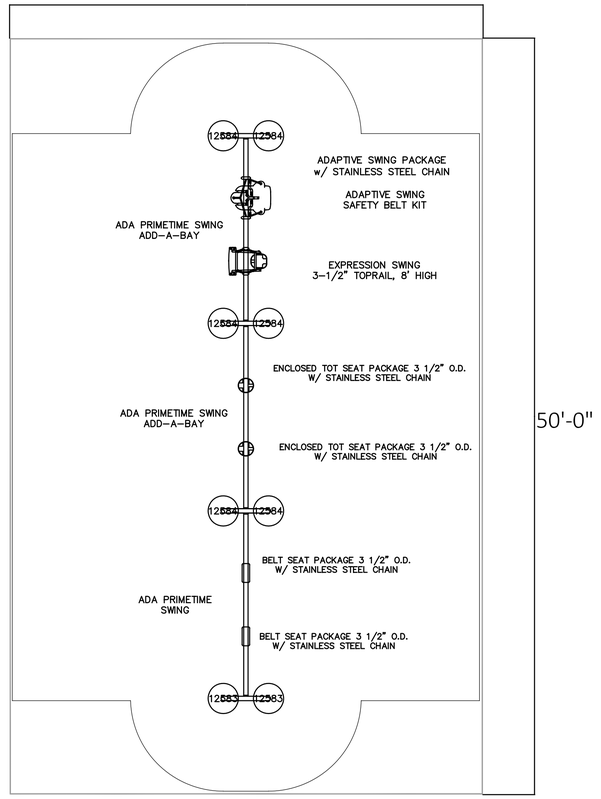
Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\5-CAD\MLH16240_HARDSCAPE_current.dwg By: Carter Tab: H-6 9/01/2017





THIS DRAWING CANNOT BE ALTERED IN ANY WAY. IF CHANGES ARE REQUIRED PLEASE CONTACT YOUR GAMETIME REPRESENTATIVE @ 1-800-235-2440.

FOOTINGS TABLE			
TYPE	DIAMETER/SIDE	DEPTH*	QTY.
A	1'-6" [45.72cm]	2'-6" [76.20cm]	30
B	1'-2" [35.56cm]	2'-6" [76.20cm]	15
*DEPTH IS MEASURED FROM FINISHED GRADE			

NOTE:
ON NON-LETTERED HOLES, TO ENSURE CONCRETE REQUIREMENTS PLEASE REFER TO EACH COMPONENTS INSTALLATION SHEETS.

BASIS OF DESIGN

PLAYGROUND: CHOO CHOO TRESTLES POWERSCAPE PLAYGROUND SYSTEM ADAPTED WITH ADA RAMP AND ADDITIONAL ELEMENTS
MANUFACTURER: GAMETIME
COLOR PALETTE: ATLANTIC
CONTACT: GAMETIME, STEVE LARSON 1.800.432.0162 ext. 308

SWING: ADA PRIMETIME SWING WITH TWO (2) BELT SEATS, TWO (2) ENCLOSED TOT SEATS, ONE (1) EXPRESSION SWING, AND ONE (1) ADAPTIVE SWING
MANUFACTURER: GAMETIME
COLOR PALETTE: ATLANTIC
CONTACT: GAMETIME, STEVE LARSON 1.800.432.0162 ext. 308

1 / H-7 CHOO CHOO TRESTLES CUSTOM ADA PLAY SYSTEM FOOTER DEPTHS
NOT TO SCALE

DRAWING: HARDSCAPE DETAILS
DMC JOB NO. 16-095-07
SHEET NO. H-7
DRAWN CG | CAD C3D
CHECKED JM | SCALE AS NOTED
APPROVED JM | DATE 08-30-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

Jeremy Marquis, RLA
FLORIDA LICENSE No.6667110

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Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\5-CAD\MLH16240_HARDSCAPE_Details.dwg By: Carter Tab: H-7 9/01/2017

PLANT LEGEND

TREES

SYMBOL	COMMON NAME	BOTANICAL NAME	QTY.	SIZE
Qv	*LIVE OAK	*Quercus virginiana*	47	10'h; 3" cal.
Sp	*REGENERATED SABAL PALM	*Sabal palmetto*	80	B&B; hurricane cut; heights per plan
Td	*BALD CYPRESS	*Taxodium distichum*	3	16'h; 5" cal.
Mg	SOUTHERN MAGNOLIA	*Magnolia grandiflora*	17	8'h; 2" cal.
Ar	RED MAPLE	*Acer rubrum*	9	16'h; 5" cal.

NOTE:

SEE ENLARGEMENTS (SHEETS L-2 - L-5) FOR SHRUB AND GROUNDCOVER PLACEMENT

NOTE: CITY OF EDGEWATER REQUIRES ONE TREE PER 2,500 SQ. FT. OF SITE.

LOT SIZE:	612,745.78 SQ. FT.
REQUIRED TREES ON SITE:	245 TREES
EXISTING TREES TO REMAIN:	270 TREES
PROPOSED TREES:	156 TREES (76 SANS PALMS)
TOTAL TREES ON FINAL SITE:	426 TREES

0' 40' 80' 160'
SCALE: 1"=80'

DRAWING: TREE PLANTING LAYOUT
DMC JOB NO. 16-095-07
SHEET NO. L-1
DRAWN CG | CAD C3D | SCALE AS NOTED
CHECKED JM | DATE 08-30-17
APPROVED JM

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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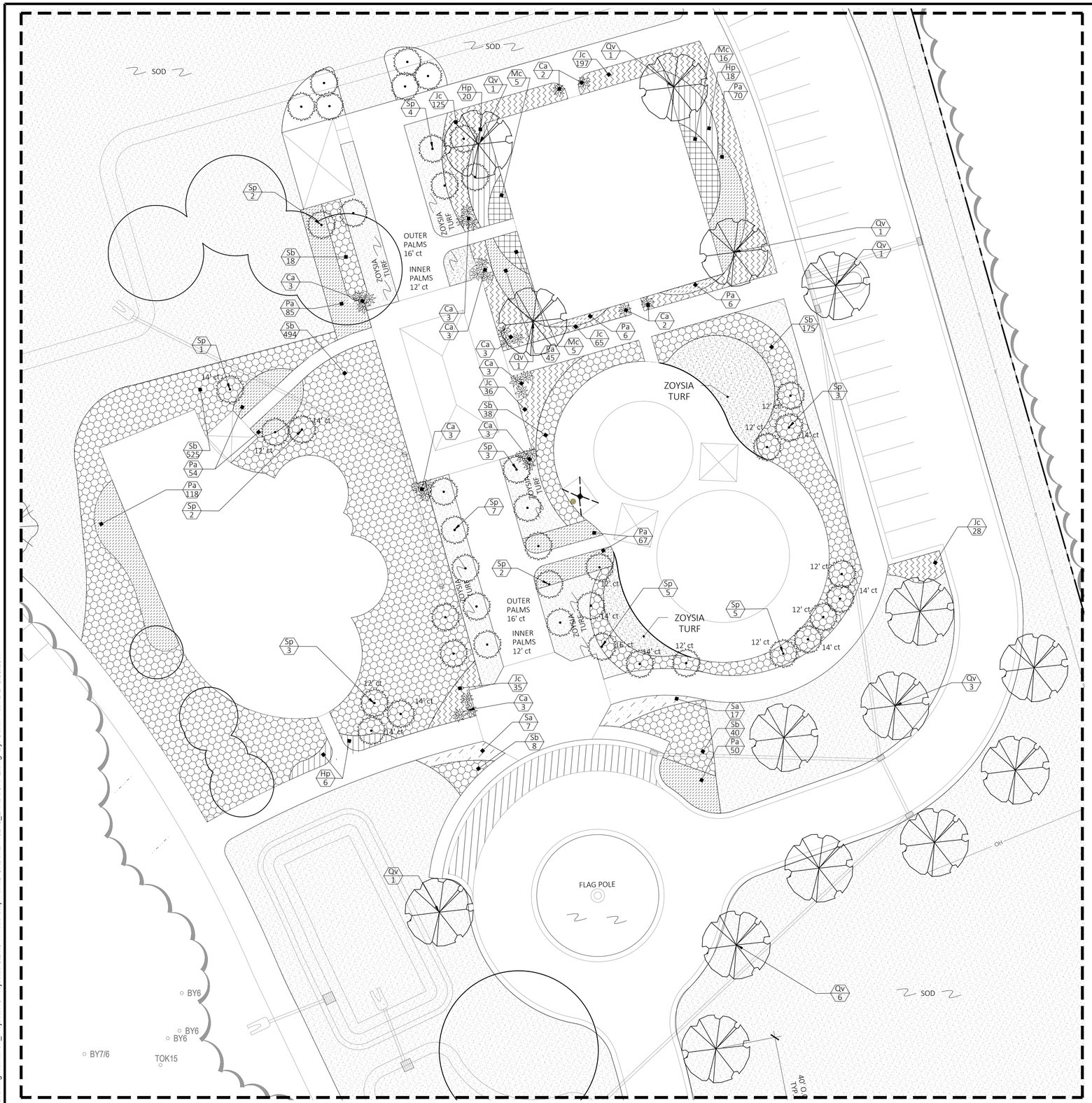
Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\5-CAD\MLH16240_LANDSCAPE.dwg By: Carter Tab: L-1 8/29/2017



PLANT LEGEND

TREES

SYMBOL	COMMON NAME	BOTANICAL NAME	QTY.	SIZE	SPACING
Qv	*LIVE OAK	*Quercus virginiana*	47	10'h; 3" cal.	
Sp	*REGENERATED SABAL PALM	*Sabal palmetto*	80	B&B; hurricane cut; heights per plan	
Td	*BALD CYPRESS	*Taxodium distichum*	3	12'h; 3" cal.	
Mg	SOUTHERN MAGNOLIA	*Magnolia grandiflora*	17	8'h; 2" cal.	
Ar	RED MAPLE	*Acer rubrum*	9	16'h; 5" cal.	

NOTE: CONTAINER SIZE AS NEEDED TO MEET HEIGHT/CALIPER SPECIFICATIONS

SHRUBS & GROUNDCOVER

SYMBOL	COMMON NAME	BOTANICAL NAME	QTY.	SIZE		SPACING
Ca	CRINUM LILY 'QUEEN EMMA'	*Crinum augustum* 'Queen Emma'	25	36"h x 24"w	7 GAL	PER PLAN
Sb	*SANDCORD GRASS	*Spartina bakeri*	1916	18"h x 12"w	1 GAL	36" O.C.
Mc	*MUHLY GRASS	*Muhlenbergia capillaris*	26	15"w	3 GAL	30" O.C.
Hp	*FIREBUSH	*Hamelia patens*	44	16"h x 16"w	3 GAL	36" O.C.
Sa	SCHEFFLERA	*Schefflera arboricola 'Variegated'*	20	12"h x 12"w	3 GAL	36" O.C.
Jc	SHORE JUNIPER	*Juniperus conferta* 'Blue Pacific'	486	8"h x 8"w	1 GAL	24" O.C.
Pa	PLUMBAGO	*Plumbago auriculata*	501	12"h x 8"w	1 GAL	24" O.C.
	BAHIA TURF	*Paspalum notatum* 'Argentine'				

**INDICATES A FLORIDA NATIVE*

ALL PLANTING BEDS TO BE COVERED WITH 3" OF PINESTRAW MULCH. SEE" MULCHING OF PLANTS" UNDER PLANTING NOTES

0' 10' 20' 40'
SCALE: 1"=20'

DRAWING: LANDSCAPE LAYOUT
DMC JOB NO. 16-095-07
SHEET NO. L-2
DRAWN CG | CAD C3D | SCALE AS NOTED
CHECKED JM | APPROVED JM | DATE 08-30-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

Jeremy Marquis, RLA
FLORIDA LICENSE No.6667110

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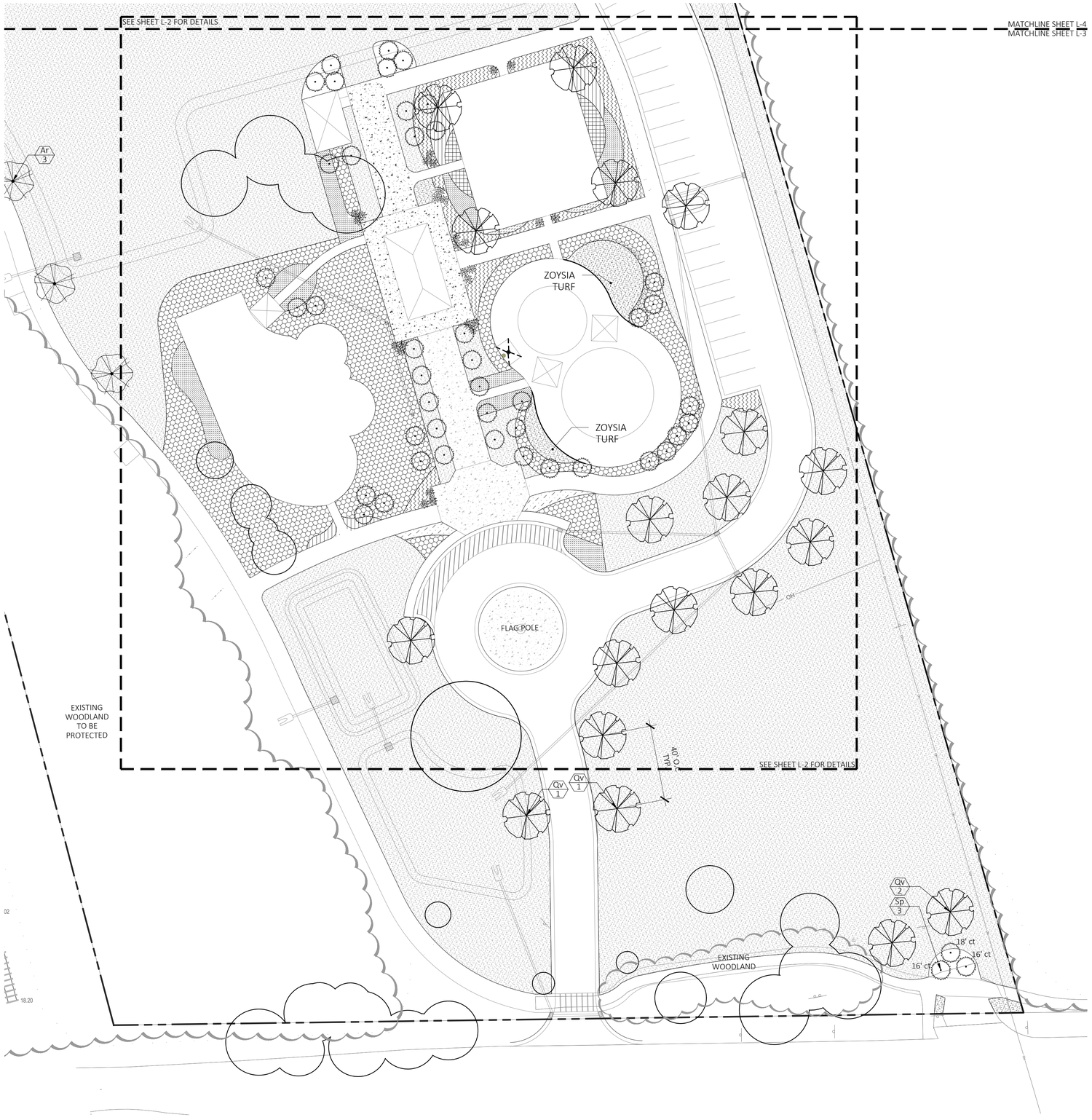
Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\S-CAD\MLH16240_LANDSCAPE.dwg By: Carter Tab: L-2 8/29/2017



PLANT LEGEND

TREES

SYMBOL	COMMON NAME	BOTANICAL NAME	QTY.	SIZE	SPACING
Qv	*LIVE OAK	*Quercus virginiana*	47	10'h; 3" cal.	
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Td	*BALD CYPRESS	*Taxodium distichum*	3	12'h; 3" cal.	
Mg	SOUTHERN MAGNOLIA	*Magnolia grandiflora*	17	8'h; 2" cal.	
Ar	RED MAPLE	*Acer rubrum*	9	16'h; 5" cal.	

NOTE: CONTAINER SIZE AS NEEDED TO MEET HEIGHT/CALIPER SPECIFICATIONS

SHRUBS & GROUNDCOVER

SYMBOL	COMMON NAME	BOTANICAL NAME	QTY.	SIZE		SPACING
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Mc	*MUHLY GRASS	*Muhlenbergia capillaris*	26	15"w	3 GAL	30" O.C.
Hp	*FIREBUSH	*Hamelia patens*	44	16"h x 16"w	3 GAL	36" O.C.
Sa	SCHEFFLERA	*Schefflera arboricola 'Variegated'*	20	12"h x 12"w	3 GAL	36" O.C.
Jc	SHORE JUNIPER	*Juniperus conferta* 'Blue Pacific'	486	8"h x 8"w	1 GAL	24" O.C.
Pa	PLUMBAGO	*Plumbago auriculata*	501	12"h x 8"w	1 GAL	24" O.C.
	BAHIA TURF	*Paspalum notatum* 'Argentine'				

**INDICATES A FLORIDA NATIVE*

ALL PLANTING BEDS TO BE COVERED WITH 3" OF PINESTRAW MULCH. SEE" MULCHING OF PLANTS" UNDER PLANTING NOTES

DRAWING: LANDSCAPE LAYOUT
DMC JOB NO. 16-095-07
SHEET NO. L-3
DRAWN CG | CAD | C3D
CHECKED JM | SCALE AS NOTED
APPROVED JM | DATE 08-30-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

Jeremy Marquis, RLA
FLORIDA LICENSE No.6667110

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EDGEWATER, FL 32132

Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\5-CAD\MLH16240_LANDSCAPE.dwg By: Carter Tab: L-3 8/29/2017

PLANT LEGEND

TREES

SYMBOL	COMMON NAME	BOTANICAL NAME	QTY.	SIZE	SPACING
Qv	*LIVE OAK	*Quercus virginiana*	47	10'h; 3" cal.	
Sp	*REGENERATED SABAL PALM	*Sabal palmetto*	80	B&B; hurricane cut; heights per plan	
Td	*BALD CYPRESS	*Taxodium distichum*	3	12'h; 3" cal.	
Mg	SOUTHERN MAGNOLIA	*Magnolia grandiflora*	17	8'h; 2" cal.	
Ar	RED MAPLE	*Acer rubrum*	9	16'h; 5" cal.	

NOTE: CONTAINER SIZE AS NEEDED TO MEET HEIGHT/CALIPER SPECIFICATIONS

SHRUBS & GROUNDCOVER

SYMBOL	COMMON NAME	BOTANICAL NAME	QTY.	SIZE		SPACING
Ca	CRINUM LILY 'QUEEN EMMA'	*Crinum augustum* 'Queen Emma'	25	36"h x 24"w	7 GAL	PER PLAN
Sb	*SANDCORD GRASS	*Spartina bakeri*	1916	18"h x 12"w	1 GAL	36" O.C.
Mc	*MUHLY GRASS	*Muhlenbergia capillaris*	26	15"w	3 GAL	30" O.C.
Hp	*FIREBUSH	*Hamelia patens*	44	16"h x 16"w	3 GAL	36" O.C.
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Jc	SHORE JUNIPER	*Juniperus conferta* 'Blue Pacific'	486	8"h x 8"w	1 GAL	24" O.C.
Pa	PLUMBAGO	*Plumbago auriculata*	501	12"h x 8"w	1 GAL	24" O.C.
	BAHIA TURF	*Paspalum notatum* 'Argentine'				

**INDICATES A FLORIDA NATIVE*

ALL PLANTING BEDS TO BE COVERED WITH 3" OF PINESTRAW MULCH. SEE" MULCHING OF PLANTS" UNDER PLANTING NOTES

0' 15' 30' 60'
SCALE: 1"=30'

DRAWING: LANDSCAPE LAYOUT
DMC JOB NO. 16-095-07
SHEET NO. L-4
DRAWN CG | CAD C3D | SCALE AS NOTED
CHECKED JM | DATE 08-30-17
APPROVED JM

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

Jeremy Marquis, RLA
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PLANT LEGEND

TREES

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NOTE: CONTAINER SIZE AS NEEDED TO MEET HEIGHT/CALIPER SPECIFICATIONS

SHRUBS & GROUNDCOVER

SYMBOL	COMMON NAME	BOTANICAL NAME	QTY.	SIZE		SPACING PER PLAN
Ca	CRINUM LILY 'QUEEN EMMA'	*Crinum augustum* 'Queen Emma'	25	36"h x 24"w	7 GAL	
Sb	*SANDCORD GRASS	*Spartina bakeri*	1916	18"h x 12"w	1 GAL	36" O.C.
Mc	*MUHLY GRASS	*Muhlenbergia capillaris*	26	15"w	3 GAL	30" O.C.
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**INDICATES A FLORIDA NATIVE*

ALL PLANTING BEDS TO BE COVERED WITH 3" OF PINESTRAW MULCH. SEE" MULCHING OF PLANTS" UNDER PLANTING NOTES

0' 15' 30' 60'
SCALE: 1"=30'

DRAWING: LANDSCAPE LAYOUT
DMC JOB NO. 16-095-07
SHEET NO. L-5
DRAWN CG | CAD C3D | SCALE AS NOTED
CHECKED JM | DATE 08-30-17
APPROVED JM

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

Jeremy Marquis, RLA
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Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\5-CAD\MLH16240_LANDSCAPE.dwg By: Carter Tab: L-5 8/29/2017

GENERAL NOTES

1. CONTRACTOR SHALL PROVIDE LANDSCAPE BED PREPARATION, INCLUDING REMOVAL AND DISPOSAL OF EXISTING LANDSCAPE AND TREES (TREES TO REMAIN ARE NOTED ON PLAN). CONTRACTOR SHALL PULL ANY APPLICABLE PERMITS, SUCH AS TREE REMOVAL PERMIT.
2. SPRAY DOWN BASE OF BUILDING TO REMOVE SOIL FROM CONSTRUCTION ACTIVITIES.
3. PLANT MATERIAL SHALL CONFORM TO THE STANDARDS FOR GRADE #1 OR BETTER AS GIVEN IN THE LATEST "GRADES AND STANDARDS FOR NURSERY PLANTS, PARTS I AND II," FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES . PLANT SIZE IS TO TAKE PRECEDENCE OVER CONTAINER SIZE.
4. ALL TREES AND SHRUBS ARE TO BE POSITIONED VERTICALLY REGARDLESS OF THE SLOPE OF THE GROUND IN WHICH THEY ARE PLANTED. BERMS ARE TO BE CONSTRUCTED AT RIGHT ANGLES TO THE TREE OR SHRUB OR IN A MANNER IN WHICH THEY WILL MOST EFFECTIVELY SERVE THE PURPOSE OF RETAINING WATER AT THE BASE OF THE PLANT.
5. WEEDS ARE TO BE ADEQUATELY AND PROPERLY TREATED AND REMOVED PRIOR TO LANDSCAPE INSTALLATION. ALL SOIL AMENDMENTS SHOULD BE CERTIFIED AS WEED-FREE FROM THE SUPPLIER.
6. LANDSCAPE MATERIAL IS TO BE MAINTAINED BY THE LANDSCAPE CONTRACTOR (INCLUDING MOWING, PRUNING, AND WEEDING) UNTIL PLANTING IS APPROVED BY THE LANDSCAPE ARCHITECT. THE LANDSCAPE CONTRACTOR MUST PROVIDE: (A.) A WARRANTY ON ALL TREES AND PALMS FOR A PERIOD OF (12) TWELVE MONTHS. (B.) A WARRANTY ON ALL SHRUBS AND GROUNDCOVERS FOR A PERIOD OF (12) TWELVE MONTHS. (C.) GUIDELINES FOR PROPER MAINTENANCE.
7. TREES SHALL NOT BE PLANTED CLOSER THAN 7.5' FROM THE CENTERLINE OF UNDERGROUND UTILITIES; ADJUST IN THE FIELD IF NEEDED.
8. BALLED AND BURLAPPED STRAPPING WIRE, AND ANY SYNTHETIC MATERIAL, SHALL BE REMOVED PRIOR TO FINAL INSPECTION. WIRE BASKETS SHOULD BE PULLED AWAY FROM THE TRUNK.
9. CONTRACTOR SHALL SCARIFY SOIL TO A DEPTH OF 12" IN AREAS WITH COMPACTED SOIL. CONTRACTOR SHALL EXCAVATE AND DISPOSE OF ALL STONE, DEBRIS AND BASE MATERIAL FROM PREVIOUS PARKING AREAS. BACK FILL WITH TOP SOIL WITH HIGH ORGANIC CONTENT AND CERTIFIED WEED FREE.
11. ALL SOD SHALL BE BAHIA SOD UNLESS OTHERWISE NOTED ON THE PLANS.

COORDINATION WITH PROJECT WORK

1. THE CONTRACTOR SHALL COORDINATE WITH ALL OTHER WORK THAT MAY IMPACT THE COMPLETION OF THE WORK.
2. PRIOR TO THE START OF WORK, PREPARE A DETAILED SCHEDULE OF THE WORK FOR COORDINATION WITH OTHER TRADES.
3. COORDINATE THE RELOCATION OF ANY IRRIGATION LINES, HEADS OR THE CONDUITS OF OTHER UTILITY LINES THAT ARE IN CONFLICT WITH TREE LOCATIONS. ROOT BALLS SHALL NOT BE ALTERED TO FIT AROUND LINES. NOTIFY THE LANDSCAPE ARCHITECT OF ANY CONFLICTS ENCOUNTERED.

LAYOUT AND PLANTING SEQUENCE

1. RELATIVE POSITIONS OF ALL PLANTS AND TREES ARE SUBJECT TO APPROVAL OF THE LANDSCAPE ARCHITECT.
2. NOTIFY THE LANDSCAPE ARCHITECT, ONE (1) WEEK PRIOR TO LAYOUT. LAYOUT ALL INDIVIDUAL TREE AND SHRUB LOCATIONS. PLACE PLANTS ABOVE SURFACE AT PLANTING LOCATION OR PLACE A LABELED STAKE AT PLANTING LOCATION. LAYOUT BED LINES WITH PAINT FOR THE LANDSCAPE ARCHITECT'S APPROVAL. SECURE THE LANDSCAPE ARCHITECT'S ACCEPTANCE BEFORE DIGGING AND START OF PLANTING WORK.

PLANTING GUIDELINES: TREES, SHRUBS & GROUNDCOVER

1. ASSURE THAT SOIL MOISTURE IS WITHIN THE REQUIRED LEVELS PRIOR TO PLANTING. IRRIGATION, IF REQUIRED, SHALL NOT BE APPLIED LESS THAN 12 HOURS PRIOR TO PLANTING TO AVOID PLANTING IN MUDDY SOILS.
2. ASSURE THAT SOIL GRADES IN THE BEDS ARE SMOOTH AND AS SHOWN ON THE PLANS.
3. PLANTS SHALL BE PLANTED IN EVEN, TRIANGULARLY SPACED ROWS, AT THE INTERVALS CALLED OUT FOR ON THE DRAWINGS, UNLESS OTHERWISE NOTED.
4. DIG PLANTING HOLES TWO TIMES (2x) THE WIDTH OF THE ROOT BALL AND BACK FILL WITH PLANTING MIX. SEE "SOIL MIX" GUIDELINES.
5. PRESS SOIL TO BRING THE ROOT SYSTEM IN CONTACT WITH THE SOIL.
6. SPREAD ANY EXCESS SOIL AROUND IN THE SPACES BETWEEN PLANTS.
7. APPLY MULCH TO THE BED BEING SURE NOT TO COVER THE TOPS OF THE PLANTS WITH OR THE TOPS OF THE ROOT BALL WITH MULCH.
8. WATER EACH PLANTING AREA AS SOON AS THE PLANTING IS COMPLETED. APPLY ADDITIONAL WATER TO KEEP THE SOIL MOISTURE AT THE REQUIRED LEVELS. DO NOT OVER WATER.

PALM PLANTING

1. PALM TREES SHALL BE PLACED AT GRADE MAKING SURE NOT TO PLANT THE TREE ANY DEEPER IN THE GROUND THAN THE PALM TREES ORIGINALLY STOOD.
2. THE TREES SHALL BE PLACED WITH THEIR VERTICAL AXIS IN A PLUMB POSITION.
3. ALL BACKFILL SHALL BE NATIVE SOIL EXCEPT IN CASES WHERE PLANTING IN ROCK. WATER-SETTLE THE BACK FILL.
4. DO NOT COVER ROOT BALL WITH MULCH OR TOPSOIL.
5. PROVIDE A WATERING BERM AT EACH PALM. BERMS SHALL EXTEND A MINIMUM OF 18 INCHES OUT FROM THE TRUNK ALL AROUND AND SHALL BE A MINIMUM OF (6) INCHES HIGH.
6. REMOVE TWINE WHICH TIES FRONDS TOGETHER AFTER PLACING PALM IN PLANTING HOLE AND SECURING IT IN THE UPRIGHT POSITION.

PRUNING OF TREES AND SHRUBS

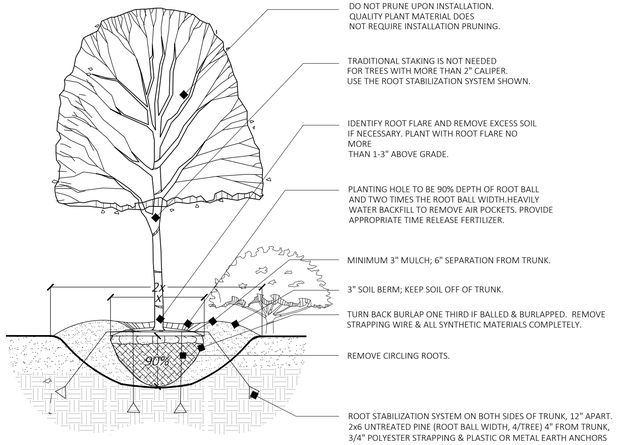
1. IF PRUNING OF EXISTING TREES OR PLANT MATERIAL IS REQUIRED THE CONTRACTOR SHALL ADHERE TO ANSI Z133.1 STANDARDS FOR TREE CARE AND INTERNATIONAL SOCIETY OF ARBORICULTURE (ISA) BEST MANAGEMENT PRACTICES.

SOIL MIX

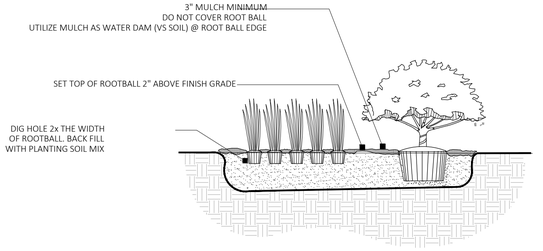
1. CONTRACTOR SHALL OBTAIN SOIL TESTING FOR THE PROJECT AREA TO DETERMINE AGRONOMIC SUITABILITY. RESULTS SHALL BE REVIEWED WITH THE OWNER AND LANDSCAPE ARCHITECT PRIOR TO PLANTING. AT A MINIMUM, SOIL TESTS SHOULD CONSIDER THE FOLLOWING
   A. PH / BUFFER PH
   B. SALINITY
   C. ORGANIC CONTENT / SAND CONTENT / SILT AND CLAY CONTENT (PERCENTAGE)
   D. PHOSPHOROUS / POTASSIUM / CALCIUM / MAGNESIUM
   E. AASHTO CLASSIFICATION
   F. PERCOLATION RATE
2. CONTRACTOR IS TO PROPOSE A SOIL MIX DESIGN BASED UPON RESULTS OF TESTING. THESE RECOMMENDATIONS SHOULD ALSO TAKE INTO ACCOUNT THE TEST RESULTS FROM SAMPLES AND TESTING DATA SHALL BE SUBMITTED AT THE SAME TIME. PROVIDE A SUBMITTAL OF A TWO GALLON SAMPLE WITH TESTING DATA THAT INCLUDES RECOMMENDATIONS FOR CHEMICAL ADDITIVES FOR THE TYPES OF PLANTS TO BE GROWN. . CONTRACTOR SHALL INCLUDE THE COST OF SOIL TESTING IN THE BASE BID AS WELL AS A APPLICATION OF SLOW RELEASE BALANCED FERTILIZER. CONTRACTOR WILL PROVIDE A PROPOSAL FOR ANY ADDITIONAL AMENDMENTS..
3. AT THE TIME OF FINAL GRADING, ADD FERTILIZER OR ACIDIFIER IF REQUIRED TO THE PLANTING SOIL AT RATES RECOMMENDED BY THE TESTING RESULTS FOR THE PLANTS TO BE GROWN.

MULCHING OF PLANTS

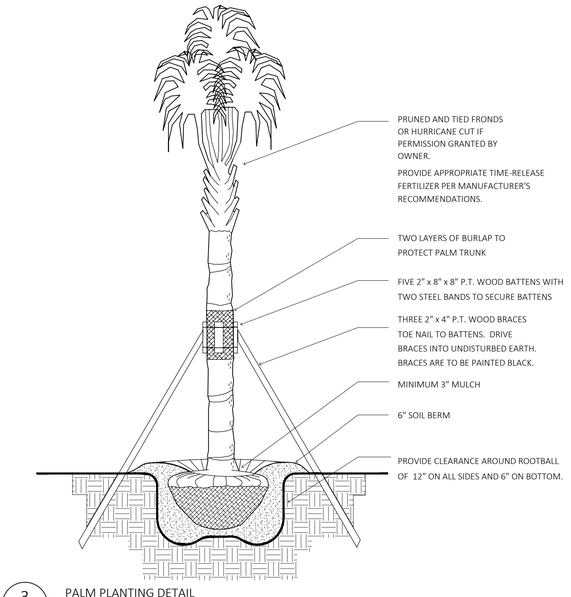
4. SCHEDULE THE PLANTING TO OCCUR PRIOR TO APPLICATION OF THE MULCH. IF THE BED IS ALREADY MULCHED, PULL THE MULCH FROM AROUND THE HOLE AND PLANT INTO THE SOIL. DO NOT PLANT THE ROOT SYSTEM IN THE MULCH. PULL MULCH BACK SO IT IS NOT ON THE ROOT BALL SURFACE.
5. APPLY A MINIMUM OF 2-3 INCHES DEPTH OF PINE STRAW MULCH BEFORE SETTLEMENT, COVERING THE ENTIRE PLANTING BED AREA. INSTALL NO MORE THAN 1 INCH OF MULCH OVER THE TOP OF THE ROOT BALLS OF ALL PLANTS. TAPER TO 2 INCHES WHEN ABUTTING PAVEMENT.
6. FOR TREES PLANTED IN LAWN AREAS THE MULCH SHALL EXTEND TO A 5 FOOT RADIUS AROUND THE TREE OR TO THE EXTENT INDICATED ON THE PLANS AND SPACED AT LEAST SIX INCHES AWAY FROM THE TREE TRUNK. MULCH TREES IN TURF AREAS PRIOR TO HYDROSEEDING.
7. LIFT ALL LEAVES, LOW HANGING STEMS AND OTHER GREEN PORTIONS OF SMALL PLANTS OUT OF THE MULCH IF COVERED.



4 / L-6 TREE PLANTING DETAIL
not to scale



2 / L-6 SHRUB & GROUNDCOVER PLANTING DETAIL
not to scale



3 / L-6 PALM PLANTING DETAIL
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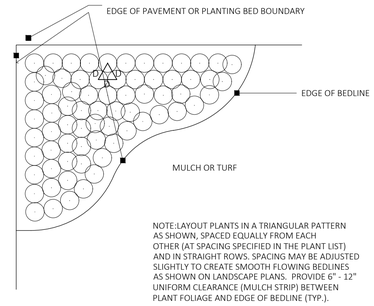

1 / L-6 SHRUB/GROUNDCOVER SPACING DETAIL
not to scale

DRAWING: LANDSCAPE DETAILS
DMC JOB NO. 16-095-07
SHEET NO L-6
DRAWN CG | CAD C3D
CHECKED JM | SCALE AS NOTED
APPROVED JM | DATE 08-30-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

Jeremy Marquis, RLA
FLORIDA LICENSE No.6667110

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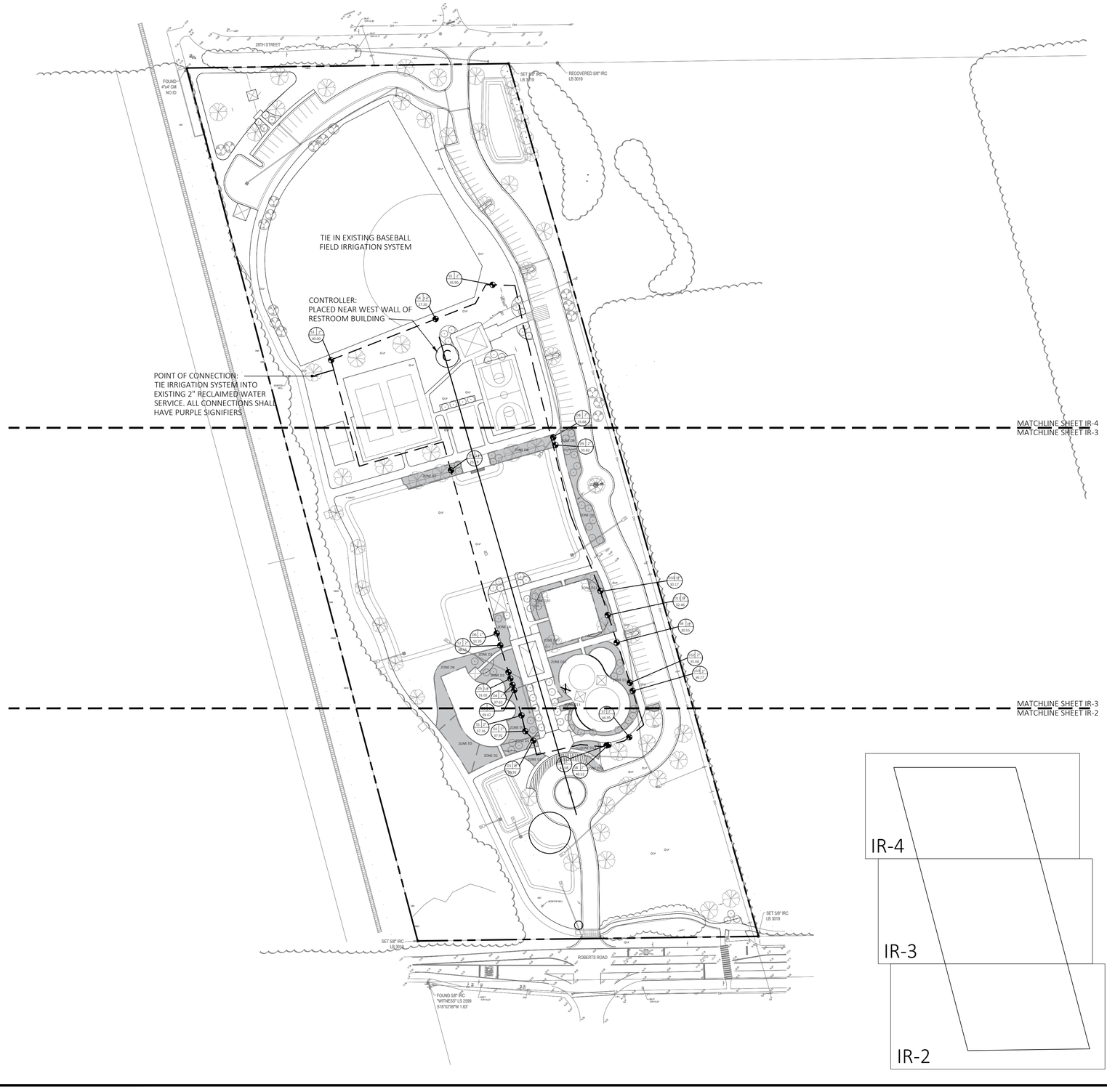

IRRIGATION LEGEND

C RAINBIRD ESP-LXMEF CONTROLLER
INSTALL WITH RSD-BEx RAIN SENSOR & BYPASS BOX. GROUND WITH 8' COPPER CLAD ROD,
INSTALL CONTROLLER 3' ABOVE GRADE ON METAL RACK
SOURCE: RECLAIMED WATER, 50 GPM

BASIS OF DESIGN

- 2" MAINLINE, SCHEDULE 200 PVC
- SCHEDULE 40 LATERAL PIPING
- SCHEDULE 40 SLEEVING (2" LARGER THAN MAIN OR LATERAL PIPE SIZE).
- VALVES, RAINBIRD OR EQUAL
- RAINBIRD 1800-PRS WITH U-SERIES NOZZLE
- RAINBIRD ROTORS
- DRIP ZONES, 12" O.C., RAINBIRD ESP-LXME OR EQUAL LOW VOLUME AREAS DRIP AREAS FOR SHRUBS AND GROUNDCOVERS
- SPRAY ZONES, RAINBIRD ESP-LXME OR EQUAL HIGH VOLUME AREAS SPRAY AREAS FOR SOD WHERE DESIGNATED
- DRIP IRRIGATION FOR NEWLY PLANTED TREES

S= SPRAY (ZONES 1-9)
D= DRIP (ZONES 1-13)

ZONE S2 2" VALVE SIZE
35.00 GALLONS PER MINUTE

NUMBERING FOR ZONE TYPES START AT SOUTH ENTRANCE AND MOVE CLOCKWISE

NOZZLE CHART

SYM	NOZZLE	NOZZLE PATTERN	GPM
B	MPR-35-H	35' RADIUS HALF	3.81
C	MPR-35-F	35' RADIUS - FULL	7.58
G	U-12Q	12' RADIUS- QUARTER	0.65
Gg	U-12Q	12' RADIUS- QUARTER - 24" RISER	0.65
H	U-12H	12' RADIUS- HALF	1.30
K	U-12F	12' RADIUS- FULL	2.60
M	U-8Q	8' RADIUS- QUARTER	0.26
L	U-8H	8' RADIUS- HALF	0.52
N	U-8F	8' RADIUS- FULL	1.05
O	15-SST	4' STRIP SPRAY	1.21
■Z		BUBBLER (1300 SERIES)	1.70

DRIP IRRIGATION DESIGN SPECIFICATIONS

BASIS OF DESIGN: RAINBIRD XFPD SURFACE DRIPLINE - 12" SPACING
MAXIMUM LATERAL LENGTH OF TUBING: 255 FT

IRRIGATION NOTES

1. LANDSCAPE AREAS SHALL BE PROVIDED WITH AN IRRIGATION SYSTEM THAT SUPPLIES ONE HUNDRED PERCENT (100%) COVERAGE TO ALL REQUIRED LANDSCAPING PLANT MATERIAL.

2. THE IRRIGATION SYSTEM SHALL MAXIMIZE WATER CONSERVATION, BE FULLY AUTOMATIC, AND SHALL CONSIST OF A DRIP SYSTEM FOR SHRUB AREAS AS NOTED. SOD AREAS SHALL BE IRRIGATED THROUGH SPRAY HEADS WHEN INDICATED.

3. REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREES. STAKE OUT MAINLINE FOR APPROVAL PRIOR TO TRENCHING BY CIVIL AND GENERAL CONTRACTOR.

4. ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 24" OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.

5. THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO DAMAGE ANY EXISTING UTILITIES. COORDINATION WITH THE GENERAL CONTRACTOR AND SITE SUPERINTENDENT SHALL BE REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIRS AND COST OF ANY DAMAGE CAUSED BY HIS WORK.

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7. ALL IRRIGATION SHOWN ON PLANS IS SCHEMATIC AND DOES NOT REFLECT ALL FITTINGS AND APPURTENANCES WHICH SHALL BE INCLUDED TO PROVIDE A FULLY FUNCTIONAL IRRIGATION SYSTEM CAPABLE OF PROVIDING 100 PERCENT COVERAGE WITH A 50 PERCENT OVERLAP.

8. ALL TREES LOCATED IN NON-IRRIGATED ZONES AND SPRAY AREAS SHALL BE TEMPORARILY IRRIGATED BY A BUBBLER. TREES LOCATED IN DRIP ZONES SHALL BE IRRIGATED BY A DOUBLE RING OF DRIP LINES.

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10. IRRIGATION SOURCE IS REUSE AND REQUIRES THE USE OF PURPLE PIPING AND HARDWARE

0' 40' 80' 160'
SCALE: 1"=80'

DRAWING: IRRIGATION PLAN
DMC JOB NO. 16-095-07
SHEET NO IR-1

		CAD	C3D	SCALE AS NOTED	DATE 08-30-17
DRAWN	CG	CHECKED	JM	APPROVED	JM

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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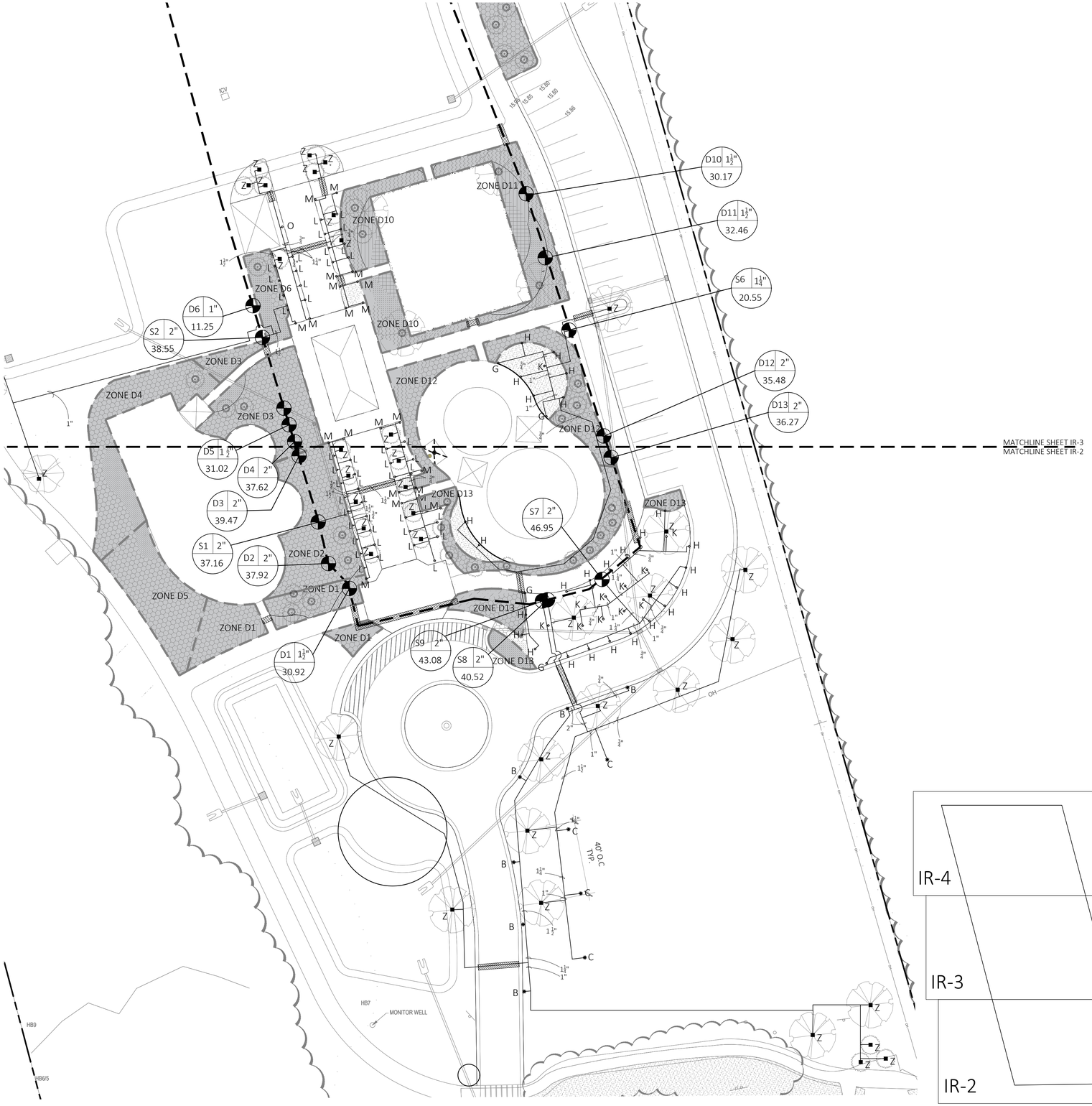
Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\IS-CAD\MLH16240_IRRIGATION_VE.dwg By: Carter Tab: IR-1 8/30/2017



IRRIGATION LEGEND

C — RAINBIRD ESP-LXMEF CONTROLLER
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0' 15' 30' 60'
SCALE: 1"=30'

DRAWING: IRRIGATION PLAN
DMC JOB NO. 16-095-07
SHEET NO. IR-2

DRAWN	CG	CAD	C3D
CHECKED	JM	SCALE	AS NOTED
APPROVED	JM	DATE	08-30-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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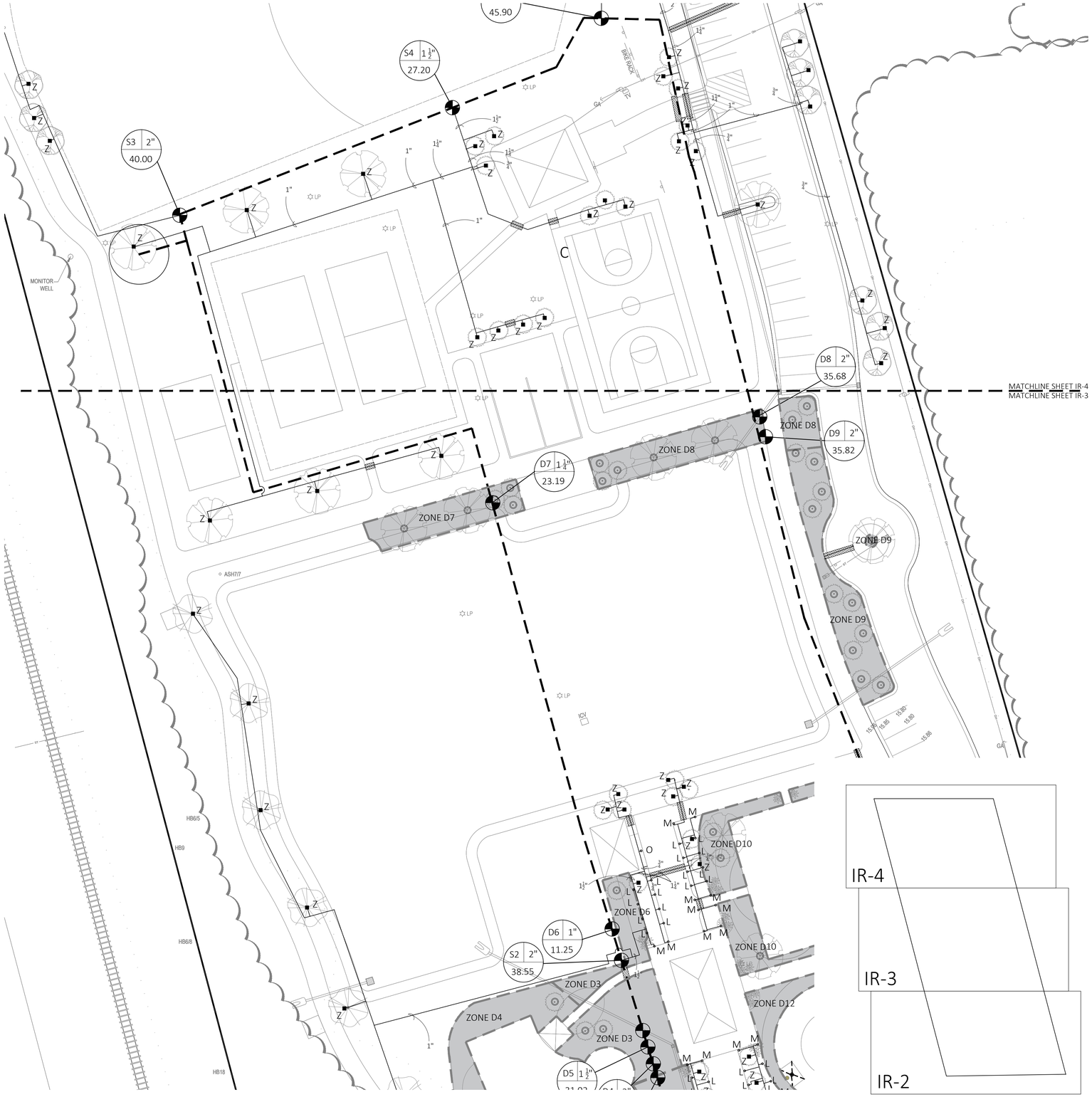
Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\5-CAD\MLH16240_IRRIGATION_VE.dwg By: Carter Tab: IR-2 8/29/2017



IRRIGATION LEGEND

C RAINBIRD ESP-LXMEF CONTROLLER
INSTALL WITH RSD-BEx RAIN SENSOR & BYPASS BOX. GROUND WITH 8' COPPER CLAD ROD,
INSTALL CONTROLLER 3' ABOVE GRADE ON METAL RACK
SOURCE: RECLAIMED WATER, 50 GPM

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DMC JOB NO. 16-095-07
SHEET NO. IR-3
DRAWN CG | CAD C3D | CHECKED JM | SCALE AS NOTED | APPROVED JM | DATE 08-30-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
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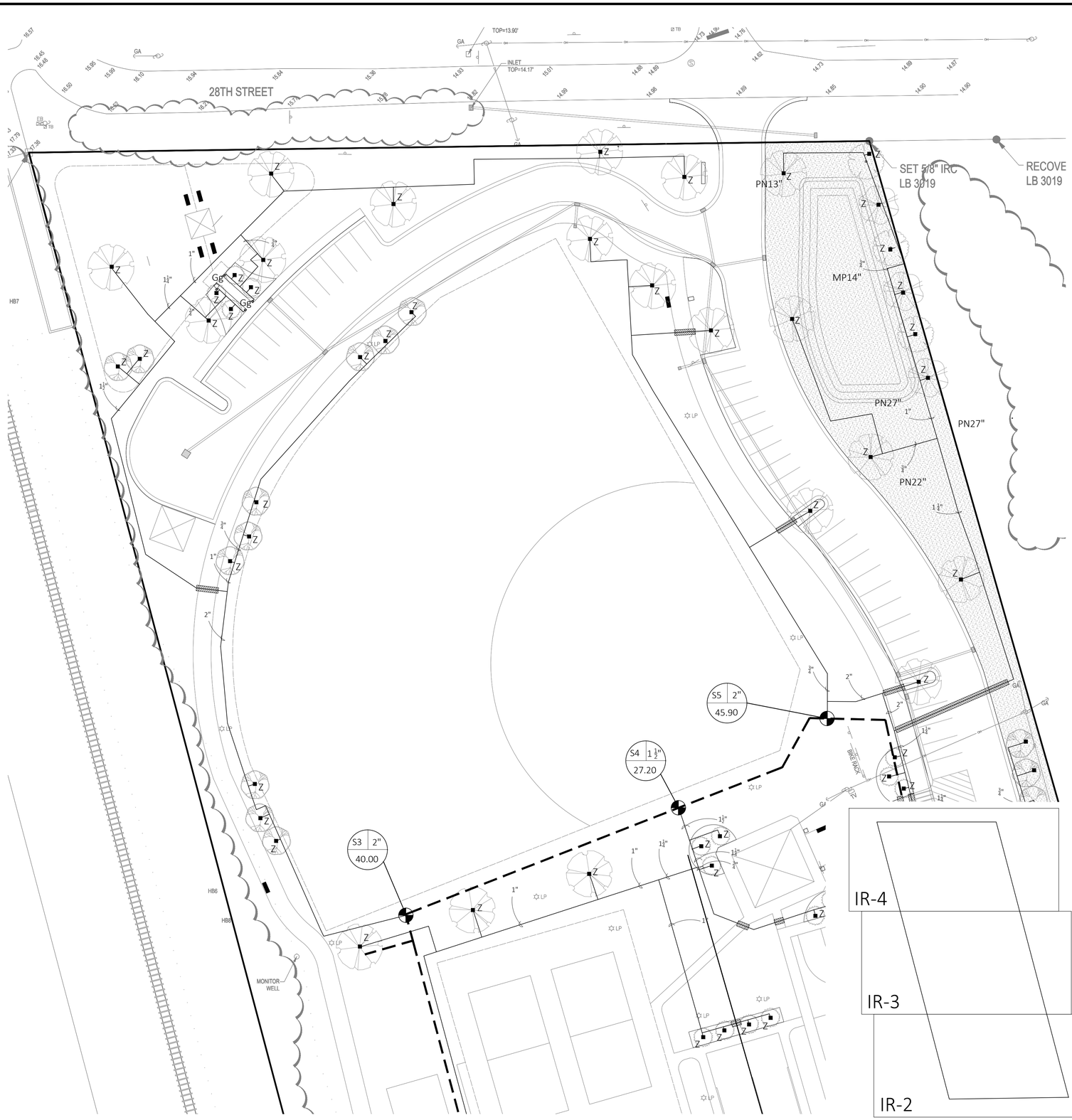

IRRIGATION LEGEND

(C) RAINBIRD ESP-LXMEF CONTROLLER
INSTALL WITH RSD-BEx RAIN SENSOR & BYPASS BOX. GROUND WITH 8' COPPER CLAD ROD,
INSTALL CONTROLLER 3' ABOVE GRADE ON METAL RACK
SOURCE: RECLAIMED WATER, 50 GPM

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- SCHEDULE 40 LATERAL PIPING
- SCHEDULE 40 SLEEVING (2" LARGER THAN MAIN OR LATERAL PIPE SIZE).
- VALVES, RAINBIRD OR EQUAL
- RAINBIRD 1800-PRS WITH U-SERIES NOZZLE
- RAINBIRD ROTORS
- DRIP ZONES, 12" O.C., RAINBIRD ESP-LXME OR EQUAL LOW VOLUME AREAS DRIP AREAS FOR SHRUBS AND GROUNDCOVERS
- SPRAY ZONES, RAINBIRD ESP-LXME OR EQUAL HIGH VOLUME AREAS SPRAY AREAS FOR SOD WHERE DESIGNATED
- DRIP IRRIGATION FOR NEWLY PLANTED TREES

S= SPRAY (ZONES 1-9)
D= DRIP (ZONES 1-13)

ZONE | S2 | 2" VALVE SIZE
35.00
GALLONS PER MINUTE

NUMBERING FOR ZONE TYPES START AT SOUTH ENTRANCE AND MOVE CLOCKWISE

NOZZLE CHART

SYM	NOZZLE	NOZZLE PATTERN	GPM
B	MPR-35-H	35' RADIUS HALF	3.81
C	MPR-35-F	35' RADIUS - FULL	7.58
G	U-12Q	12' RADIUS- QUARTER	0.65
Gg	U-12Q	12' RADIUS- QUARTER - 24" RISER	0.65
H	U-12H	12' RADIUS- HALF	1.30
K	U-12F	12' RADIUS- FULL	2.60
M	U-8Q	8' RADIUS- QUARTER	0.26
L	U-8H	8' RADIUS- HALF	0.52
N	U-8F	8' RADIUS- FULL	1.05
O	15-SST	4' STRIP SPRAY	1.21
■Z		BUBBLER (1300 SERIES)	1.70

DRIP IRRIGATION DESIGN SPECIFICATIONS

BASIS OF DESIGN: RAINBIRD XFPD SURFACE DRIPLINE - 12" SPACING
MAXIMUM LATERAL LENGTH OF TUBING: 255 FT

IRRIGATION NOTES

1. LANDSCAPE AREAS SHALL BE PROVIDED WITH AN IRRIGATION SYSTEM THAT SUPPLIES ONE HUNDRED PERCENT (100%) COVERAGE TO ALL REQUIRED LANDSCAPING PLANT MATERIAL.

2. THE IRRIGATION SYSTEM SHALL MAXIMIZE WATER CONSERVATION, BE FULLY AUTOMATIC, AND SHALL CONSIST OF A DRIP SYSTEM FOR SHRUB AREAS AS NOTED. SOD AREAS SHALL BE IRRIGATED THROUGH SPRAY HEADS WHEN INDICATED.

3. REFER TO THE LANDSCAPE PLANS WHEN TRENCHING TO AVOID TREES. STAKE OUT MAINLINE FOR APPROVAL PRIOR TO TRENCHING BY CIVIL AND GENERAL CONTRACTOR.

4. ALL MAINLINE PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 24" OF COVER. ALL LATERAL PIPING SHALL BE BURIED TO A MINIMUM DEPTH OF 12" OF COVER.

5. THE CONTRACTOR SHALL EXERCISE CARE SO AS NOT TO DAMAGE ANY EXISTING UTILITIES. COORDINATION WITH THE GENERAL CONTRACTOR AND SITE SUPERINTENDENT SHALL BE REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REPAIRS AND COST OF ANY DAMAGE CAUSED BY HIS WORK.

6. ALL WORK SHALL BE GUARANTEED FOR TWELVE (12) MONTHS FROM THE DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN EQUIPMENT AND WORKMANSHIP.

7. ALL IRRIGATION SHOWN ON PLANS IS SCHEMATIC AND DOES NOT REFLECT ALL FITTINGS AND APPURTENANCES WHICH SHALL BE INCLUDED TO PROVIDE A FULLY FUNCTIONAL IRRIGATION SYSTEM CAPABLE OF PROVIDING 100 PERCENT COVERAGE WITH A 50 PERCENT OVERLAP.

8. ALL TREES LOCATED IN NON-IRRIGATED ZONES AND SPRAY AREAS SHALL BE TEMPORARILY IRRIGATED BY A BUBBLER. TREES LOCATED IN DRIP ZONES SHALL BE IRRIGATED BY A DOUBLE RING OF DRIP LINES.

9. CONTRACTOR SHALL PROVIDE AS BUILT TO INCLUDE MAINLINE LOCATIONS, LATERAL LOCATIONS, VALVES AND ZONES.

10. IRRIGATION SOURCE IS REUSE AND REQUIRES THE USE OF PURPLE PIPING AND HARDWARE

0' 15' 30' 60'
SCALE: 1"=30'

DRAWING: IRRIGATION PLAN
DMC JOB NO. 16-095-07
SHEET NO. IR-4

DRAWN	CG	CAD	C3D
CHECKED	JM	SCALE	AS NOTED
APPROVED	JM	DATE	08-30-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS
CLIENT: CITY OF EDGEWATER

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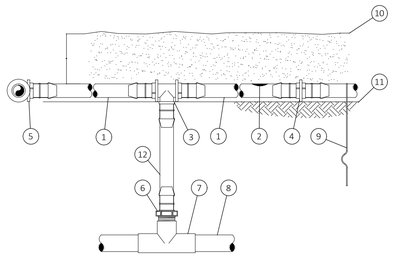
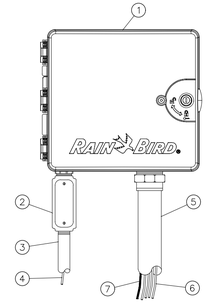
Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\IS-CAD\MLH16240_IRRIGATION_VE.dwg By: Carter Tab: IR-4 8/29/2017



1. ON-SURFACE DRIPLINE:
   RAIN BIRD XF SERIES DRIPLINE
   POTABLE: XFD DRIPLINE
   NON-POTABLE: XFDP DRIPLINE
2. INLINE DRIP EMITTER OUTLET, SEE PLANS FOR DRIPLINE OUTLET SPACING.
3. BARB TEE 17x17x17mm
   RAIN BIRD XFF-TEE
4. BARB COUPLING 17x17mm
   RAIN BIRD XFF-COUP
5. BARB ELBOW 17x17mm
   RAIN BIRD XFF-ELBOW
6. BARB MALE ADAPTER
   17mm X 1/2" MPT
   RAIN BIRD XFF-MA-050
   17mm X 3/4" MPT
   RAIN BIRD XFF-MA-075
7. PVC TEE SxSxT
8. PVC LATERAL SUPPLY HEADER
9. TIE DOWN STAKE:
   RAIN BIRD TDS-050 WITH BEND (TYPICAL)
10. MULCH
11. FINISH GRADE
12. RAIN BIRD XF SERIES BLANK TUBING LENGTH AS REQUIRED

NOTES:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.
3. SAVE YOUR HANDS. USE THE RAIN BIRD FITTINS-TOOL XF INSERTION TOOL FOR FITTING ASSEMBLY.

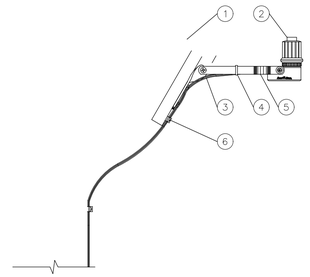
9 / IR-5 DRIP LINE RISER ASSEMBLY
not to scale



1. IRRIGATION CONTROLLER:
   RAIN BIRD ESP-LXMEF CONTROLLER WITH FLOW SMART MODULE IN PLASTIC CABINET WITH WALL MOUNT. INSTALL CONTROLLER AND CABINET ON WALL PER MANUFACTURER'S RECOMMENDATIONS.
2. JUNCTION BOX
3. 1-INCH CONDUIT AND FITTINGS TO POWER SUPPLY
4. POWER SUPPLY WIRE
5. 2-INCH CONDUIT AND FITTINGS FOR STATION WIRES
6. MASTER VALVE AND REMOTE CONTROL VALVE WIRES
7. FLOW SENSOR WIRE (PE 39, 89 OR 54) TO FLOW SENSOR

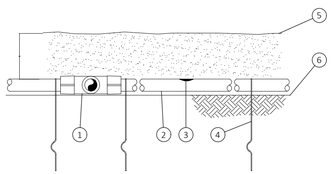
NOTES:
1. ESP-LXMEF CONTROLLER IS AVAILABLE IN 8- OR 12-STATION BASE MODELS. ADDITIONAL MODULES IN 4-, 8- AND 12-STATION VERSIONS MAY BE ADDED TO BRING THE CONTROLLER UP TO 48 STATIONS MAXIMUM.
2. FOR EASE OF INSTALLATION INTO A CONTROLLER WITH MORE THAN 24 STATIONS, INSTALL A JUNCTION BOX AT THE BASE OF CONTROLLER AND TRANSITION LARGER VALVE AND COMMON WIRES FROM FIELD TO 18 AWG MULTI CONDUCTOR WIRE TO BE USED IN CONTROLLER.
3. USE STEEL CONDUIT FOR ABOVE GRADE AND SCH 40 PVC CONDUIT FOR BELOW GRADE CONDITIONS.
4. PROVIDE PROPER GROUNDING COMPONENTS TO ACHIEVE GROUND RESISTANCE OF 10 OHMS OR LESS.

6 / IR-5 CONTROLLER
not to scale



1. SIDE OF BUILDING
2. RAIN SENSOR: RAIN BIRD RSD-BEx
3. WIRE TO IRRIGATION CONTROLLER
4. PLASTIC TIE DOWN STRAP
5. MOUNTING BRACKET
6. SECURE WIRE WITH CABLE TIE BRACKET (1 OF 2)

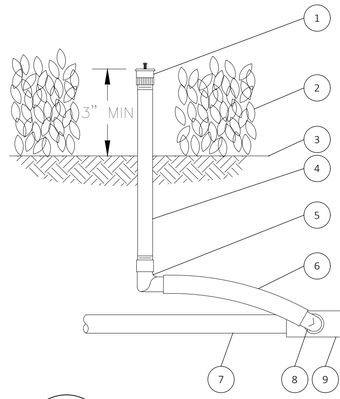
3 / IR-5 RAIN SENSOR
not to scale



1. EASY FIT COMPRESSION TEE:
   RAIN BIRD MDCFTEE
2. ON-SURFACE DRIPLINE:
   RAIN BIRD XF SERIES DRIPLINE
   POTABLE: XFD DRIPLINE
   NON-POTABLE: XFDP DRIPLINE
3. INLINE DRIP EMITTER OUTLET
4. TIE DOWN STAKE: RAIN BIRD TDS-050 WITH BEND (TYPICAL)
5. MULCH
6. FINISH GRADE

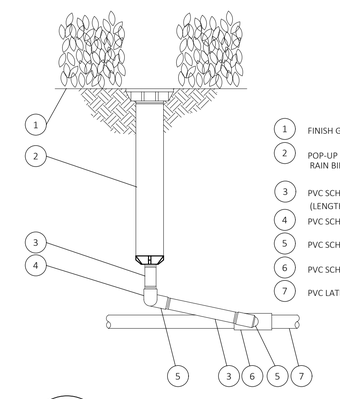
NOTES:
1. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
2. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

8 / IR-5 DRIP SECTION, TYPICAL (SURFACE)
not to scale



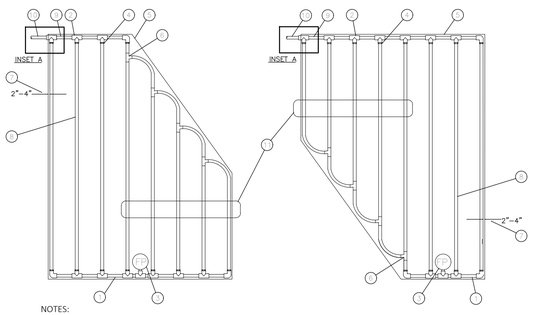
1. ADJUSTABLE FULL CIRCLE BUBBLER: RAIN BIRD 1300A-F
2. PLANT MATERIAL
3. FINISH GRADE/TOP OF MULCH
4. UV RADIATION RESISTANT 1/2-INCH PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
5. 1/2-INCH FEMALE NPT x 0.490-INCH BARB ELBOW: RAIN BIRD MODEL SBFE-050
6. SWING PIPE, 12-INCH LENGTH: RAIN BIRD MODEL SP-100
7. PVC LATERAL PIPE
8. 1/2-INCH MALE NPT x .490-INCH BARB ELBOW: RAIN BIRD MODEL SBE-050
9. SCH 40 TEE OR ELL

5 / IR-5 IRRIGATION BUBBLER W/ SWING JOINT
not to scale



1. FINISH GRADE/TOP OF MULCH
2. POP-UP SPRAY SPRINKLER: RAIN BIRD FOR 1800 PRS
3. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
4. PVC SCH 40 ELL
5. PVC SCH 40 STREET ELL
6. PVC SCH 40 TEE OR ELL
7. PVC LATERAL PIPE

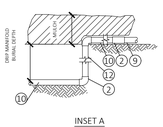
2 / IR-5 12" POP UP SPRAY HEAD (SHRUBS)
not to scale



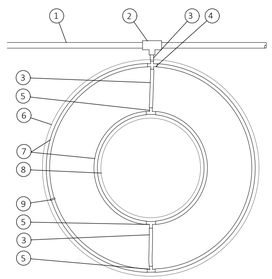
1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. FLUSH POINT (TYPICAL)
   SEE RAIN BIRD DETAIL "XFD FLUSH POINT
4. BARB X MALE FITTING:
   RAIN BIRD XFD-MA FITTING (TYPICAL)
5. PERIMETER OF AREA
6. BARB X BARB INSERT TEE OR CROSS:
   RAIN BIRD XFD-TEE OR
   RAIN BIRD XFD- CROSS (TYPICAL)
7. PERIMETER DRIPLINE PIPE INSTALLED 2"-4" FROM PERIMETER OF AREA
8. ON-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE (TYPICAL) NON-POTABLE: XFDP DRIPLINE
9. PVC SUPPLY MANIFOLD
10. PVC SUPPLY PIPE FROM RAIN BIRD CONTROL ZONE KIT (SIZED TO MEET LATERAL FLOW DEMAND)
11. TOTAL LENGTH OF SELECTED DRIPLINE SHOULD NOT EXCEED TABLE NOTES
12. PVC SCH 40 RISER PIPE

NOTES:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE INSTALLATION SPECIFICATIONS ON RAIN BIRD WEB SITE (WWW.RAINBIRD.COM) FOR SUGGESTED SPACING.
2. LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM SPACING SHOWN IN THE ACCOMPANYING TABLE.

7 / IR-5 DRIP LAYOUT TYPICAL (IRREGULAR SHAPE)
not to scale



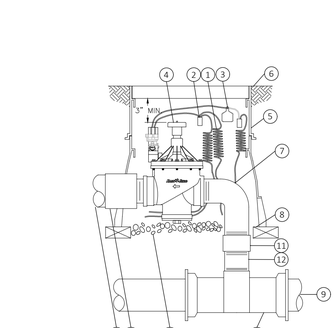
INSET A



1. PVC DRIP MANIFOLD PIPE
2. PVC SCH 40 TEE OR EL
3. ½" POLYETHYLENE TUBING:
   RAIN BIRD XF SERIES BLANK TUBING
4. BARB CROSS INSERT FITTING:
   RAIN BIRD XFD-CROSS
5. BARB TEE INSERT FITTING:
   RAIN BIRD XFD-TEE
6. PROJECTED CANOPY LINE OF TREE
7. ON-SURFACE DRIPLINE:
   RAIN BIRD XF SERIES DRIPLINE
   POTABLE: XFD DRIPLINE
   NON-POTABLE: XFDP DRIPLINE PLACE AS SHOWN (LENGTH AS REQUIRED)
8. ROOT BALL
9. TIE DOWN STAKE:
   RAIN BIRD TDS-050 WITH BEND (QUANTITY AS REQUIRED,
   SEE NOTES 2-3 BELOW)

NOTES:
1. DISTANCE BETWEEN LATERAL RINGS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, AND TREE CANOPY. SEE INSTALLATION SPECIFICATIONS ON RAIN BIRD WEB SITE (WWW.RAINBIRD.COM) FOR SUGGESTED SPACING.
2. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
3. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

4 / IR-5 DRIP LINE AROUND TREES & PALMS
not to scale



1. 30-INCH LINEAR LENGTH OF WIRE, COILED
2. WATERPROOF CONNECTION: RAIN BIRD SPLICE-1 (1 OF 2)
3. ID TAG: RAIN BIRD VID SERIES
4. REMOTE CONTROL VALVE: RAIN BIRD 300-BPE -PRS-D WITH BSP THREADS
5. VALVE BOX WITH COVER: RAIN BIRD VB-STD WITH 6-INCH EXTENSION
6. FINISH GRADE/TOP OF MULCH
7. DUCTILE IRON 90° EL
8. BRICK (1 OF 4)
9. MAINLINE PIPE
10. DUCTILE IRON SERVICE TEE
11. DUCTILE IRON COUPLING
12. DUCTILE IRON NIPPLE (4-INCH LENGTH)
13. PVC REDUCING MALE ADAPTER
14. PVC LATERAL PIPE
15. 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL

1 / IR-5 RAINBIRD VALVE
not to scale

DRAWING: IRRIGATION DETAILS
DMC JOB NO. 16-095-07
SHEET NO. IR-5

DRAWN	CG	CAD	C3D
CHECKED	JM	SCALE	AS NOTED
APPROVED	JM	DATE	08-30-17

PROJECT NAME: WHISTLE STOP PARK IMPROVEMENTS

CLIENT: CITY OF EDGEWATER

Jeremy Marquis, RLA
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Drawing Name: S:_Projects\16 Projects\16.24.0 Whistle Stop Park\5-CAD\MLH16240_IRRIGATION_VE.dwg By: Carter Tab: IR-5-DETAILS 9/29/2017