Oversized Drawings

1723

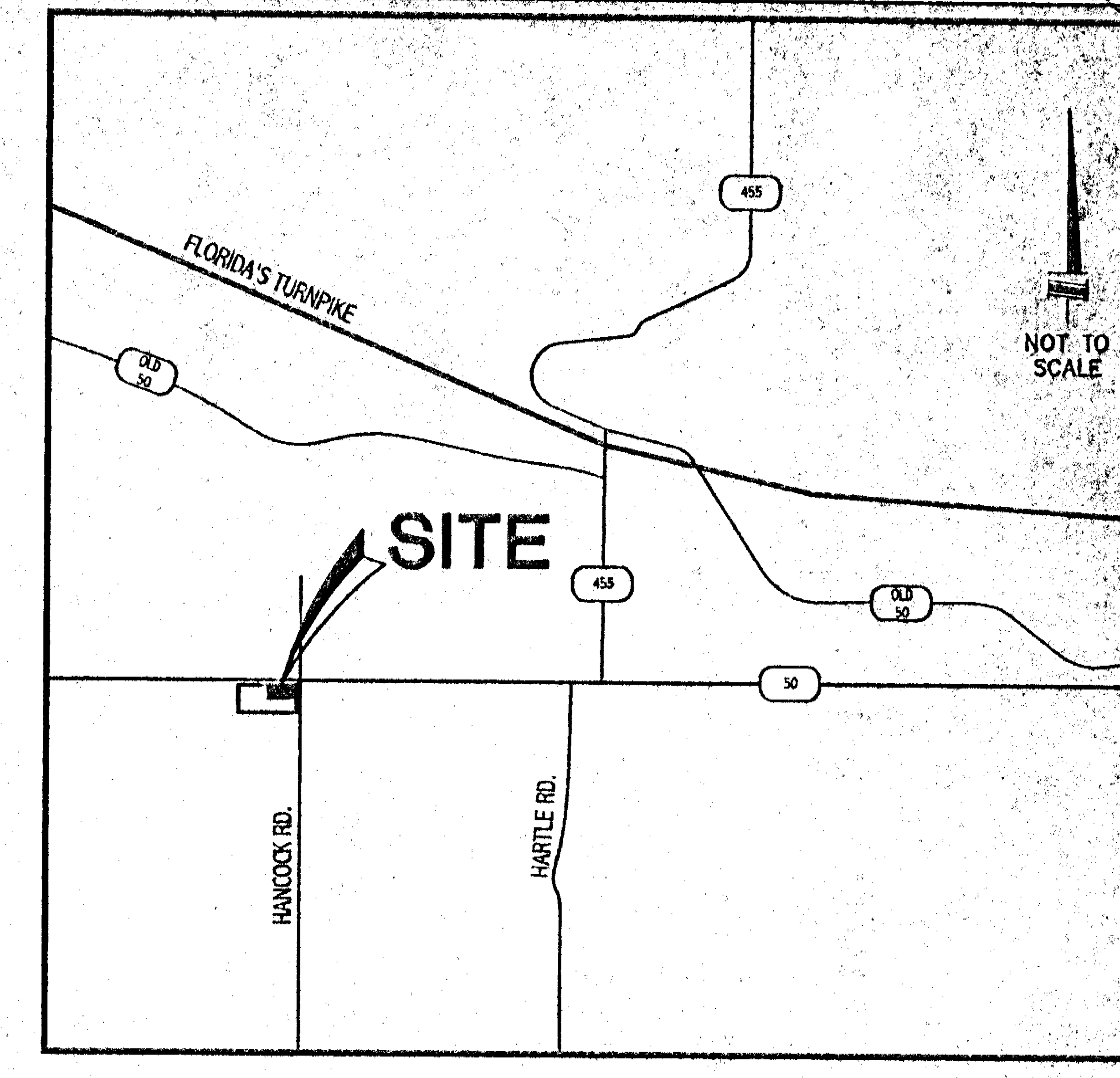
CONSTRUCTION PLANS

FOR:

ECKERD

LOCATED AT

COLLEGE STATION CENTER CLERMONT, FLORIDA



VICINITY MAP
N.T.S.

SITE DATA:

1. THE SUBJECT PARCEL IS ZONED C-2 (GENERAL COMMERCIAL DISTRICT). THE EXISTING LAND USE IS VACANT. THE PROPOSED LAND USE IS COMMERCIAL.

2. APPLICANT: THE HOGAN GROUP
   101 EAST KENNEDY BLVD SUITE 400
   TAMPA, FLORIDA 33602
   PHONE: (813) 274-8000

   OWNER: PRESCO ASSOCIATES, LLC
   232 MOHAWK ROAD
   CLERMONT, FLORIDA 34711
   PHONE: (352) 242-0073

   AGENT: SCOTT M. GENTRY, P.E.
   KELLY, COLLINS & GENTRY, INC.
   1700 NORTH ORANGE AVENUE, SUITE 400
   ORLANDO, FL 32804
   PHONE: (407)898-7858

   ENGINEER: SCOTT M. GENTRY, P.E.
   KELLY, COLLINS & GENTRY, INC.
   1700 NORTH ORANGE AVENUE, SUITE 400
   ORLANDO, FL 32804
   PHONE: (407)426-7979

   SURVEYORS: AMERICAN SURVEYING & MAPPING
   2511 EDGEWATER DRIVE
   ORLANDO, FL 32803
   PHONE: (407)898-7858

   FLORIDA GEODETIC SURVEYING & MAPPING, INC.
   720 WEST MONTROSE ST.
   CLERMONT, FL 34711
   PHONE: (352)394-3000

UTILITIES

ELECTRIC SERVICE:
FLORIDA POWER CORPORATION
3250 BONNETT CREEK ROAD
LAKE BUENA VISTA, FL 32830
ATTN: GLEN HOFFMAN
(407) 629-1010

TELEPHONE SERVICE:
SPRINT UNITED
(800) 339-1811

WATER SERVICE AND SANITARY SEWER SERVICE:
CITY OF CLERMONT
1 WESTGATE PLAZA
CLERMONT, FL 34711
(352) 394-3350

3. PROJECT SUMMARY:

PROPERTY	76,071.62 S.F. = 1.746± AC
BUILDING	13,824= 0.317± AC
SIDEWALK	3,145 SF = .072± AC
ASPHALT PAVING	42,853.16 = 0.984± AC
TOTAL IMPERVIOUS	59,822.16= 1.373± AC
GREEN SPACE	16,249.467 = 0.3753± AC
TOTAL	76,071.62 S.F. = 1.75± AC
OPEN SPACE/LANDSCAPE	16,249.16/ 76,071.62 = 21%
OPEN SPACE/LANDSCAPE REQUIRED	20%

4. SETBACK REQUIREMENTS:

STATE ROAD 50:	50'
ALL OTHER STREETS (FRONT):	25'
BUILDING SETBACK (SIDE):	12'
BUILDING SETBACK (REAR):	25'

5. PARKING REQUIREMENTS:

REQUIRED	1 SPACE/ 200 SF FLOOR SPACE= 69
PROVIDED	69

PREPARED FOR:

THE HOGAN GROUP
101 EAST KENNEDY
TAMPA, FLORIDA 33602
PH. (813) 274-8000

PREPARED BY:

KCG KELLY, COLLINS & GENTRY, INC.
ENGINEERING • PLANNING

1700 NORTH ORANGE AVENUE, STE. 400
ORLANDO, FLORIDA 32804
(407) 898-7858

OCTOBER 10, 2003

SHEET INDEX

ECKERD @ COLLEGE STATION

1 of 2

(2)

SCOTT M. GENTRY, P.E.
FLORIDA REGISTRATION
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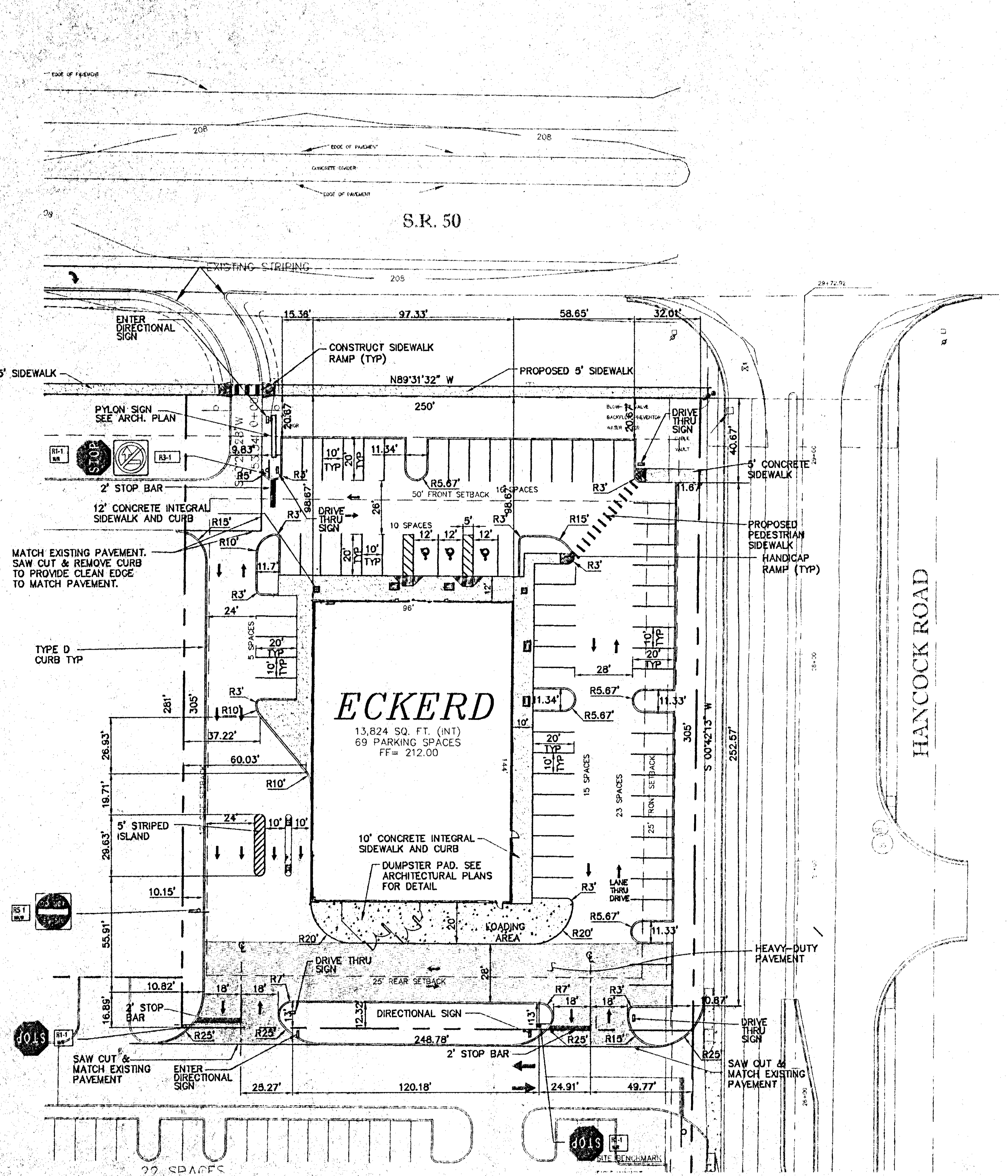

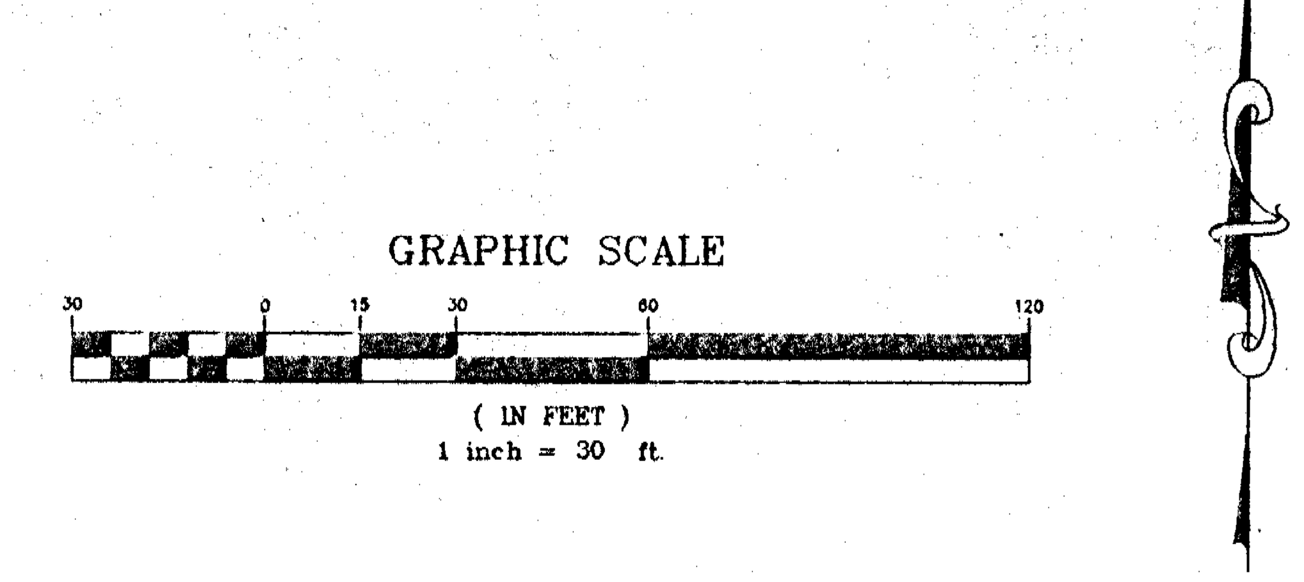

NOTES:

1. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES FOUND BETWEEN THESE PLANS, THE ARCHITECTURAL PLANS, AND/OR FIELD CONDITIONS PRIOR TO CONSTRUCTION.
2. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS CONTAINED HEREIN AND/OR OTHERWISE REQUIRED BY APPLICABLE FEDERAL, STATE AND LOCAL CODES, ORDINANCES, AND REGULATIONS. IN THE EVENT OF A CONFLICT BETWEEN THE REQUIREMENTS, THE MOST STRINGENT SHALL APPLY AS DETERMINED BY THE OWNER'S REPRESENTATIVE.
3. TOPOGRAPHIC INFORMATION, BOUNDARY INFORMATION AND VERTICAL CONTROL PROVIDED WITHIN THESE CONSTRUCTION PLANS IS TAKEN FROM A SURVEY BY AMERICAN SURVEYING & MAPPING AND FLORIDA GEODETIC SURVEYING & MAPPING, INC. AND CAN BE OBTAINED FROM THE OWNER.
4. GEOTECHNICAL INVESTIGATION REPORT IS AVAILABLE FROM THE OWNER.
5. CONTRACTOR SHALL COMPLY WITH ALL PERMIT CONDITIONS DURING CONSTRUCTION. DIMENSIONS SHOWN ARE MEASURED TO/FROM THE FACE OF CURB, PROPERTY LINE, PROPERTY CORNER, OR FACE OF BUILDING.
6. CONTRACTOR SHALL STAKE ALL IMPROVEMENTS USING THE DIMENSION BASELINE AND OFFSETS PROVIDED ON THIS SHEET. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO COMPLETELY STAKE AND CHECK ALL IMPROVEMENTS TO INSURE ADEQUATE POSITIONING BOTH HORIZONTAL AND VERTICAL, INCLUDING MINIMUM BUILDING SETBACKS, PRIOR TO THE INSTALLATION OF ANY IMPROVEMENTS.
7. ALL PARKING STRIPING, TRAFFIC ARROWS AND STOP BARS TO BE THERMOPLASTIC IN FDOT R/W. MATERIAL CERTIFICATION SHALL BE REQUIRED FOR ALL PAINT AND THERMOPLASTIC STATING SAID MATERIALS DO NOT CONTAIN LEAD.
8. ALL DISTURBED AREAS IN FDOT AND/OR COUNTY R/W SHALL BE SODDED.
9. SEE ARCHITECT PLAN FOR DETAILED INFORMATION FOR PYLON SIGNS, ENTER DIRECTIONAL SIGNS AND DRIVE THRU SIGNS.

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PDS
ALTAMONTE SVC

SCOTT M. GENTRY, P.E.
FLORIDA REGISTRATION 44877
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(3)

KCG
KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

	DATE	REVISION
6		
5		
4		
3		
2		
1		

PREPARED FOR:
HOGAN GROUP

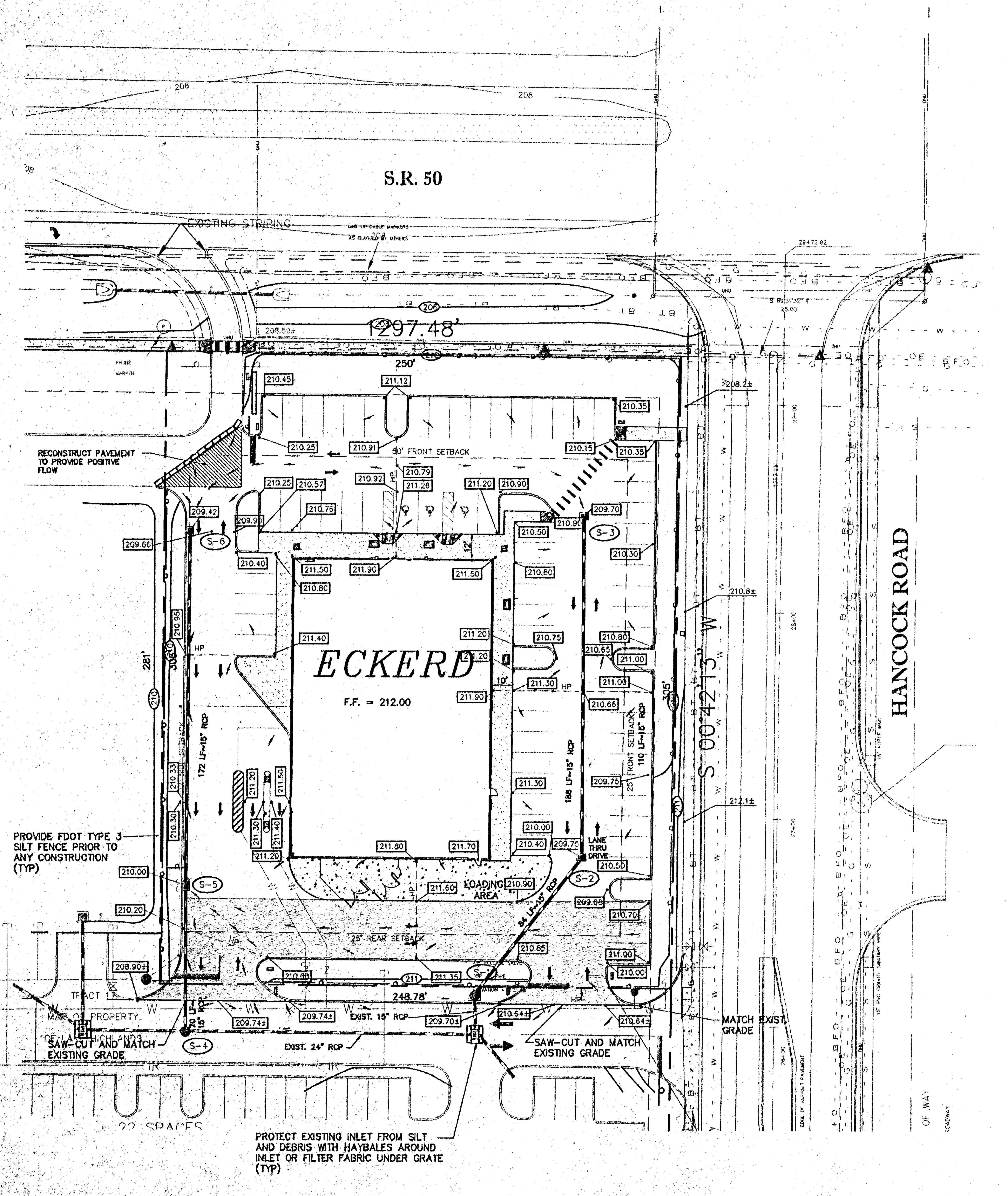
ECKERD
COLLEGE STATION CENTER.
CLERMONT, FLORIDA

SITE DIMENSION PLAN

DRAWN: SCF
DESIGN: CAG
CHECKED: SMG
JOB NO.: 510.000
DATE: 10/10/03

SHEET
C-2

(4)



GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY ALL EXISTING GRADES ON SITE BEFORE BEGINNING WORK. THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IMMEDIATELY OF ANY MAJOR DIFFERENCES BETWEEN CONTRACTOR'S DATA AND DRAWINGS.
2. THE CONTRACTOR SHALL PROTECT ALL EXISTING STORMWATER COLLECTION SYSTEMS FROM DAMAGE BY SEDIMENT OR OTHER CONSTRUCTION RELATED CAUSES.
3. SIZES, LOCATION AND INVERT ELEVATIONS OF EXISTING PIPE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
4. EROSION CONTROL SHALL BE MAINTAINED WITHIN CONSTRUCTION AREAS BY QUICKLY STABILIZING DISTURBED AREAS TO PREVENT THE RELEASE OF SEDIMENT. THIS SHALL BE ACCOMPLISHED USING SOD, TURBIDITY FENCES, HAY BALES, AND OTHER MEANS ACCEPTABLE TO OWNER, ENGINEER AND REGULATORY AGENCIES.
5. ALL STORM DRAINAGE INLETS AND PIPES SHALL BE PROTECTED FROM SILT, SAND AND DEBRIS DURING CONSTRUCTION. ANY ACCUMULATION OF DEBRIS WITHIN THE STORM DRAINAGE PIPE SYSTEM SHALL BE REMOVED.
6. PROVIDE HAY BALES IN FRONT OF ALL DRAINAGE CURB INLETS AFTER INITIAL COMPLETION OF THE DRAINAGE STRUCTURES. MAINTAIN THESE MEASURES DAILY.
7. SILT FENCE SHALL BE IN-PLACE AS SHOWN PRIOR TO CONSTRUCTION. DELINEATED MEASURES ARE MINIMUM REQUIRED. PLEASE SEE DETAIL SHEETS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION ON EROSION CONTROL. ADDITIONAL CONTROLS ARE TO BE UTILIZED AS NEEDED, DEPENDENT UPON ACTUAL SITE CONDITIONSAND CONSTRUCTION OPERATIONS.
8. EXCESS EXCAVATED UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR.
9. DEWATERING, IF REQUIRED, DURING CONSTRUCTION SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.
10. ALL DISTURBED AREAS TO BE SODDED OR SEEDED AND MULCHED. SIDE SLOPES TO BE SODDED.
11. GRADING SHOWN ON THESE PLANS IS PROVIDED TO THE CONTRACTOR TO EXPRESS THE GENERAL GRADING INTENT OF THE PROJECT. THE CONTRACTOR SHALL BE EXPECTED TO GRADE THE ENTIRE SITE TO PROVIDE POSITIVE DRAINAGE IN ALL AREAS THROUGHOUT THE SITE. SMOOTH TRANSITIONS SHALL BE PROVIDED BETWEEN CONTOURS OR SPOT ELEVATIONS AS SHOWN ON THE PLANS. ALL SLOPES SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADING HAS BEEN COMPLETED. CONTRACTOR SHALL NOTIFY OWNER AND ENGINEER PRIOR TO DEMOBILIZATION OF GRADING EQUIPMENT TO DETERMINE THAT THE GRADING INTENT HAS BEEN ACHIEVED.

LEGEND

134.00	PROPOSED SPOT ELEVATION (GROUND & EDGE OF PAVEMENT)
212.1±	PROPOSED HANCOCK ROAD CONSTRUCTION ELEVATIONS
H.P.	HIGH POINT
— — —	DRAINAGE DIVIDE IN PAVING AREAS
↘	DRAINAGE FLOW ARROW
(S-1)	STORM STRUCTURE IDENTIFICATION
+	EXISTING SPOT ELEV.
(165)	PROPOSED CONTOUR ELEVATION
— — — —	LIMIT OF DISTURBACE LINE

STORM SEWER SCHEDULE

NOTE: ALL STRUCTURES SHOWN WITHIN PAVED AREAS SHALL HAVE TRAFFIC BEARING GRATES

(S-1) EXISTING TYPE C INLET
REPLACE TOP WITH MH TOP
EXISTING STRUCTURE TOP= 211.00
PREP. PAVEMENT GRADE= 211.22
INV= 204.63 (EXISTING)
INV= 204.63 (PROPOSED)
(MATCH EXISTING INV.)

(S-2) TYPE "C" INLET
FDOT INDEX NO. 232
TOP= 209.75
INV.= 204.85

(S-3) TYPE C INLET
FDOT INDEX NO. 232
TOP= 209.70
INV= 205.55

(S-4) DRAINAGE MH
TOP= 209.4± (MATCH EXIST GRADE)
INV= 202.94± (MATCH EXIST INV)

(S-5) TYPE C INLET
FDOT INDEX NO. 232
TOP= 210.00
INV= 204.00

(S-6) TYPE C INLET
FDOT INDEX NO. 232
TOP= 209.42
INV= 205.00

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SCOTT M. GENTRY, P.E.
FLORIDA REGISTRATION 44877
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KCG
KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

	DATE	REVISION
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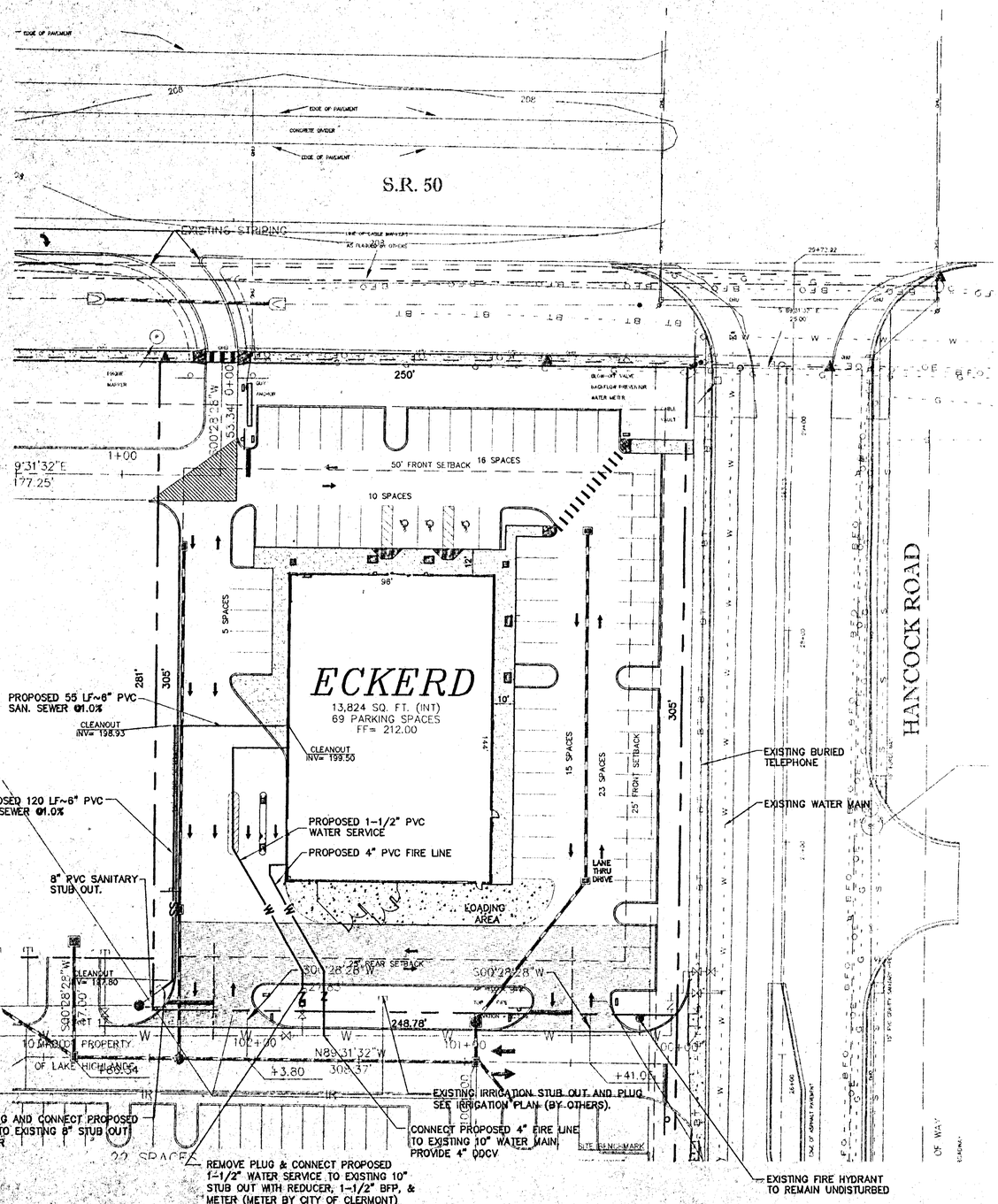
PREPARED FOR:
HOGAN GROUP

ECKERD
COLLEGE STATION CENTER
CLERMONT, FLORIDA

PAVING, GRADING, AND DRAINAGE PLAN

DRAWN: TSJ
DESIGN: CAG
CHECKED: SMG
JOB NO.: 510.000
DATE: 10/10/03

SHEET
C-3



GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NOTES:

1. WATER AND SEWER LINES SHALL EXTEND TO 5' FROM EXTERIOR WALL OF BUILDING, AND SHALL BE MARKED, CAPPED AND BURIED.
2. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTION(S) TO COMPLETE THE ON-SITE WASTEWATER AND WATER SYSTEMS.
3. WATER AND SEWER INSTALLATIONS ARE SHOWN IN OUTLINE FORM. CONTRACTOR SHALL INSTALL ALL FITTINGS AND INCIDENTALS NECESSARY TO COMPLETE THE FACILITY.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES AND VERIFYING LOCATION OF THEIR FACILITIES PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL USE SPECIAL CARE IN WORKING AROUND AND NEAR ALL EXISTING UTILITIES THAT ARE ENCOUNTERED DURING CONSTRUCTION, PROTECTING THEM WHERE NECESSARY SO THAT THEY WILL GIVE UNINTERRUPTED SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNERS FOR ALL DAMAGES TO SAID UTILITIES. DURING THE COURSE OF CONSTRUCTION BY THE CONTRACTOR, WHEN IT IS NECESSARY TO HAVE UTILITIES RELOCATED OR ADJUSTED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING AND COORDINATING THIS WORK WITH THE UTILITY COMPANIES.
5. CONTRACTOR SHALL COORDINATE THE PLACEMENT OF WATER AND SEWER APPURTENANCES WITH THE ARCHITECTURAL PLANS.
6. MAINTAIN A MINIMUM OF 3 FEET OF COVER OVER ALL NEW UTILITY MAINS.
7. CONTRACTOR TO CALL SUNSHINE FOR UTILITY LOCATIONS.
8. ALL IRRIGATION PIPING TO BE PURPLE. PROPER RECLAIMED IRRIGATION USAGE SIGNAGE TO BE INSTALLED PER CITY OF CLERMONT STANDARDS.
9. CITY OF CLERMONT SHALL NOT OWN, OPERATE, OR MAINTAIN THE ON-SITE WATER, RECLAIM WATER, AND WASTEWATER SYSTEMS.
10. THE CONTRACTOR SHALL NOTIFY THE CITY OF CLERMONT PUBLIC UTILITIES DEPARTMENT 48 HOURS PRIOR TO ANY UTILITIES CONSTRUCTION. (407)836-7274.
11. LOCATION OF ALL EXISTING UTILITIES TO BE FIELD VERIFIED.
12. WATER METERS PROVIDED BY THE CITY OF CLERMONT.

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STATE OF FLORIDA
OCT 22 2003
SCOTT W. GENTRY, P.E.
FLORIDA REGISTRATION #46077
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KELLY, COLLINS & GENTRY, INC.
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1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1468

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1				REVISION	DATE

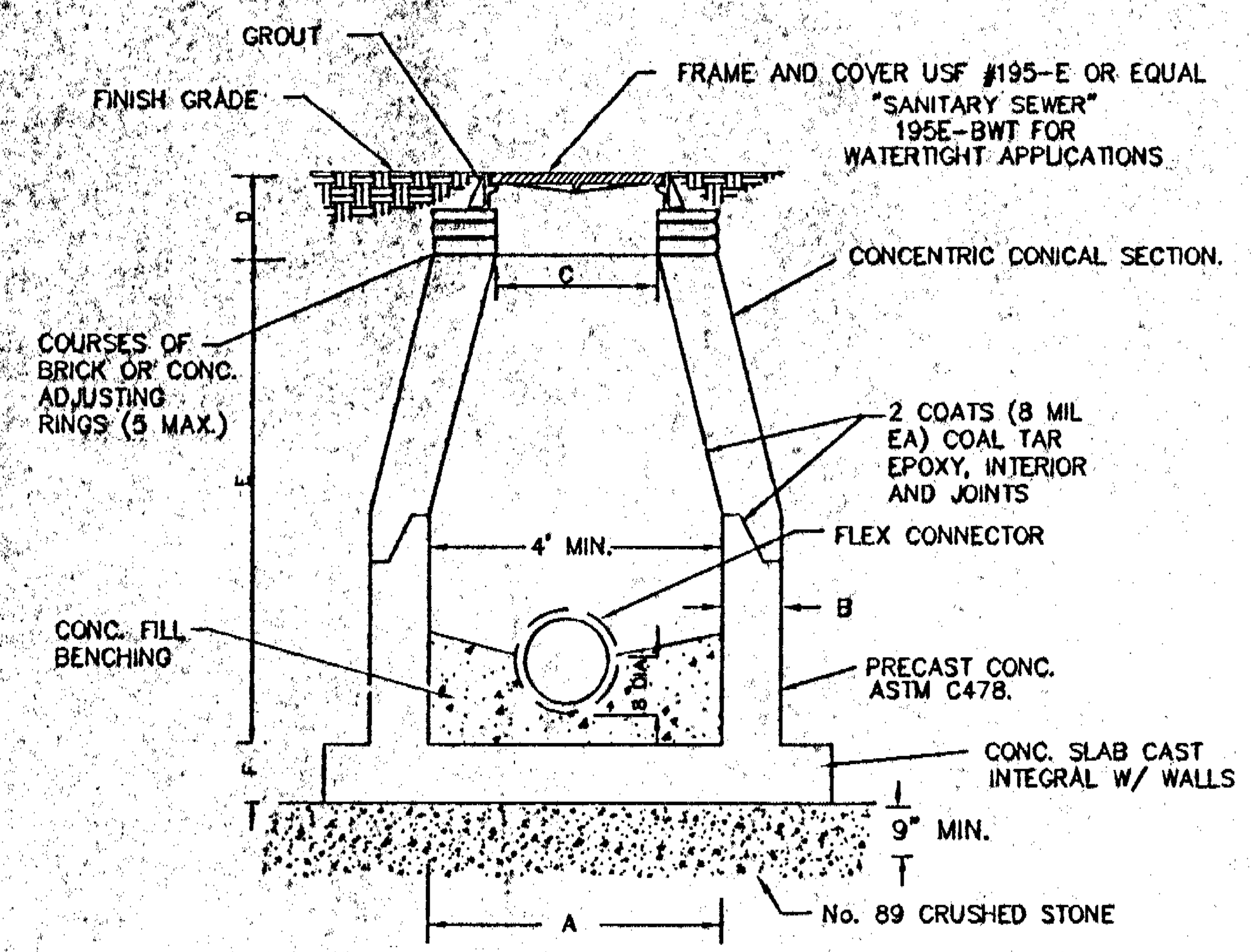
PREPARED FOR:
HOGAN GROUP

ECKERD
COLLEGE STATION CENTER,
CLERMONT, FLORIDA

UTILITY PLAN

DRAWN:	CAG
DESIGN:	CAG
CHECKED:	SWG
JOB NO.:	510.000
DATE:	10/10/03

SHEET
C-4



NOTES:

1. PRECAST CONCRETE SHALL BE TYPE 2 CEMENT 4000 PSI
2. LIFT HOLES NOT PERMITTED THROUGH PRECAST SECTIONS.
3. ALL OPENINGS SHALL BE SEALED WITH NON-SHRINK GROUT.
4. INSTALL FLOW CHANNEL INSIDE MANHOLES.
5. SERVICE LATERALS SHALL GENERALLY NOT BE PERMITTED DIRECTLY INTO MANHOLES.
6. PLACE TWO HALF-MOON SHAPED PLYWOOD (3/8"THK. MIN.) IN BOTTOM OF MANHOLE AFTER PIPES HAVE BEEN CONNECTED TO KEEP DEBRIS FROM ENTERING SEWER.
7. REINFORCING STEEL PER ASTM C478-88a.
8. PROVIDE 5' x 5' x 12" CONCRETE COLLAR AROUND COVER FRAME, W/4 #4 BARS E.W., IN UNPAVED AREAS.
9. MANHOLES RECEIVING DIRECT FORCE MAIN FLOW SHALL BE CONSTRUCTED WITH A HIGH DENSITY POLYETHYLENE LINER CAST IN DURING CONSTRUCTION. THIS LINER SHALL BE AGRU SURE GRIP, OR EQUAL.

M.H. DEPTH	A*	B	C	D	E	F
UP TO 12'	48"	5"	24"	15"	AS-REQ'D	8"
12' - 18'	60"	8"	24"	15"	AS-REQ'D	10"
18' & DEEPER	72"	8"	24"	15"	AS-REQ'D	14"

*ENTIRE DEPTH EXCEPT CONE.

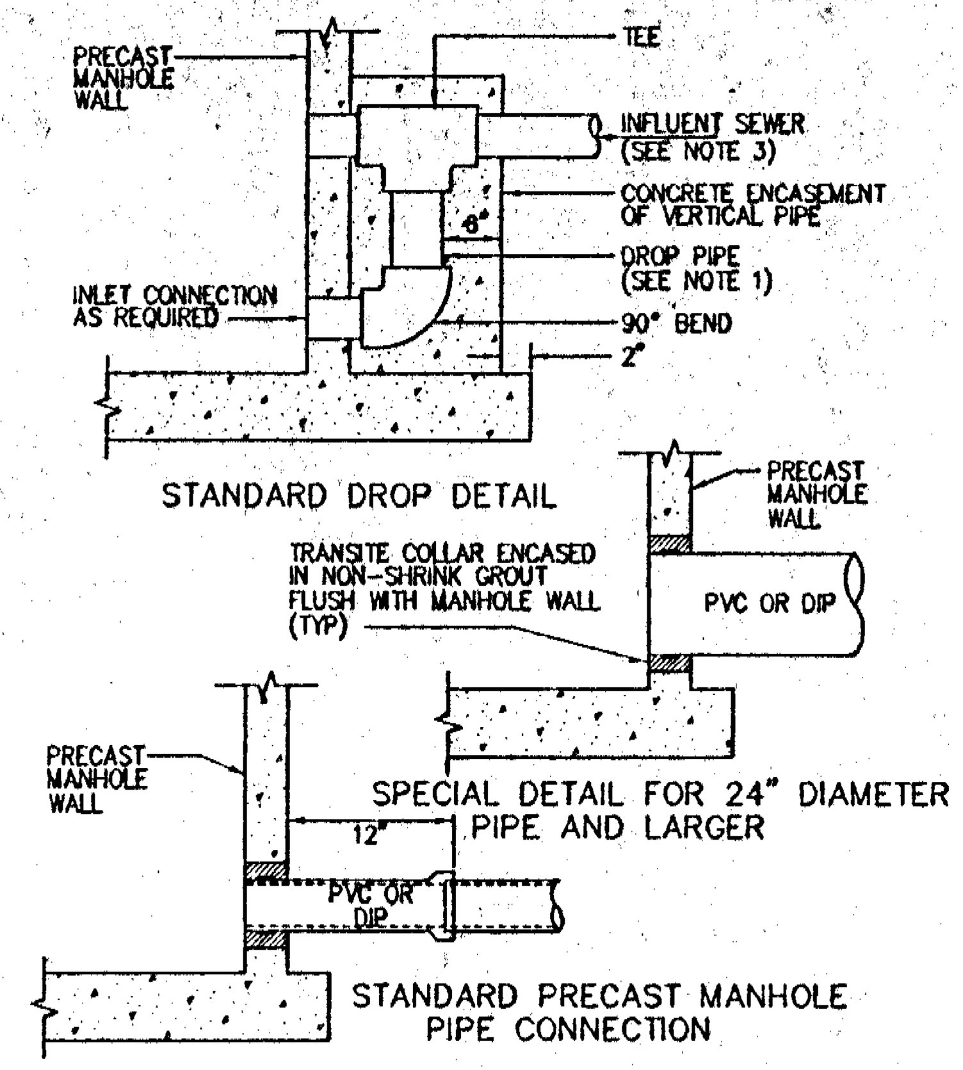
MANHOLE SIZE:

UP TO 24" PIPE = 48" Ø, UPTO 36" PIPE = 60" Ø, OVER 36" PIPE = 72" Ø

STANDARD MANHOLE DETAILS
NOT TO SCALE

STANDARD MANHOLE DETAIL

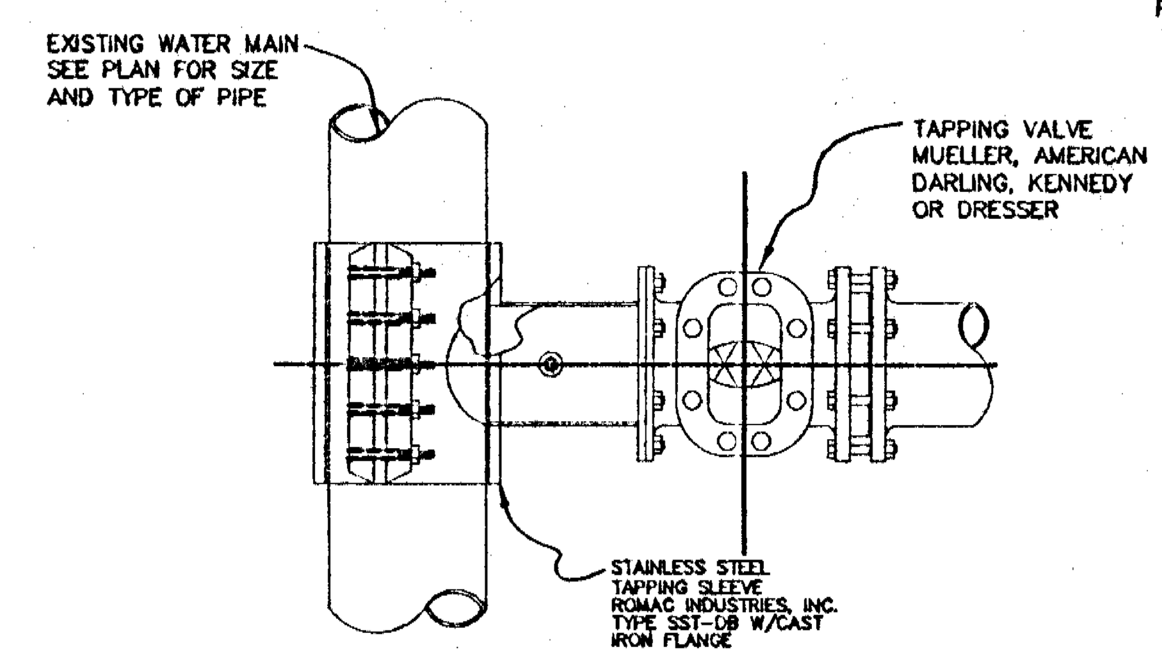
NTS



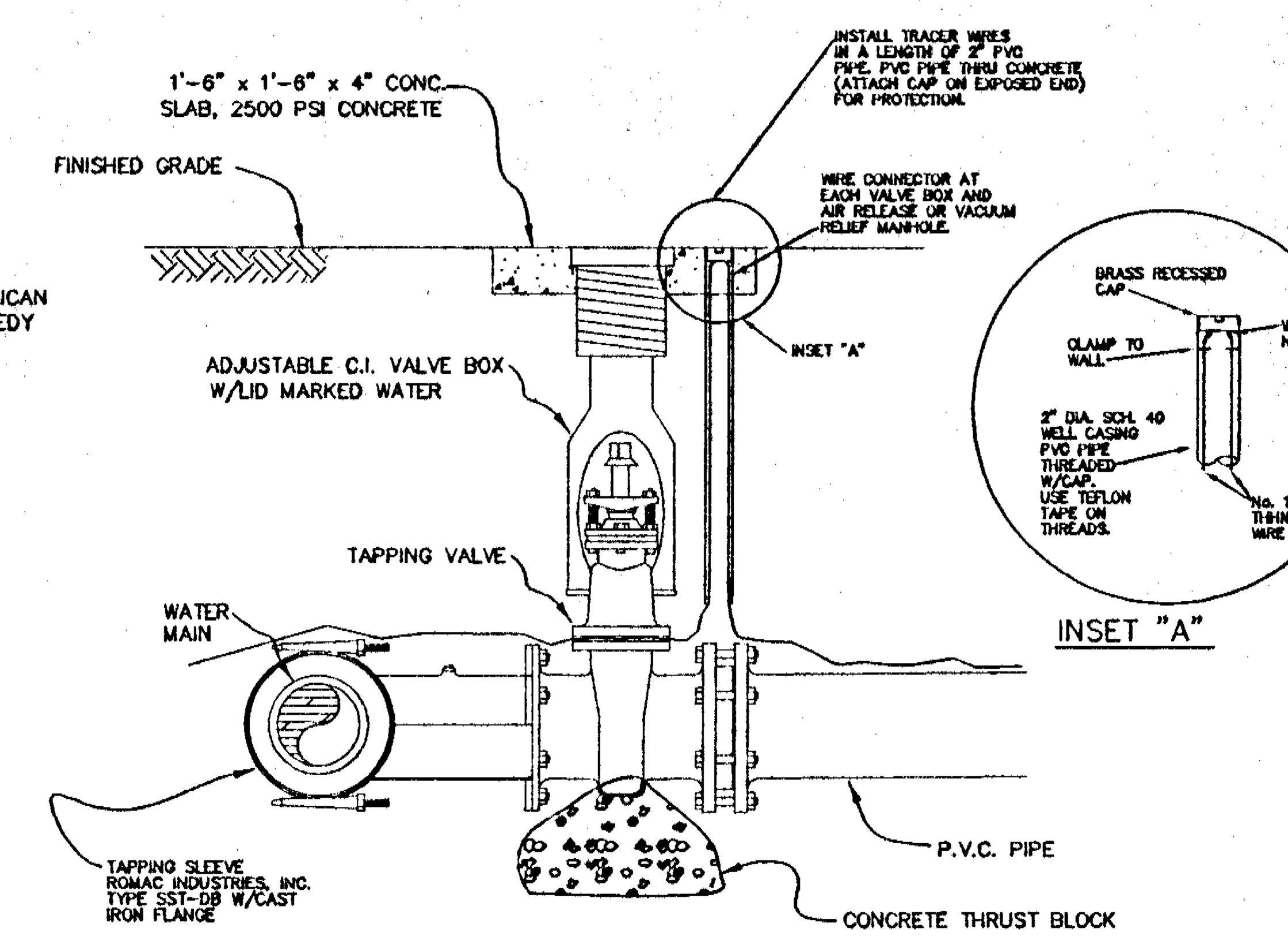
NOTES:
1. DROP PIPE AND FITTINGS SHALL BE OF EQUAL SIZE AND MATERIAL AS THE INFLUENT SEWER.
2. THE CITY MAY APPROVE ALTERNATE WATER TIGHT CONNECTION DETAILS FOR CONNECTION OF 24" DIAMETER PIPES AND LARGER.
3. AN OUTSIDE DROP CONNECTION SHALL BE REQUIRED FOR ALL INFLUENT PIPES WHICH HAVE AN INVERT 2' OR MORE ABOVE THE MANHOLE INVERT.
4. MANHOLES RECEIVING DIRECT FORCE MAIN FLOW SHALL BE CONSTRUCTED WITH A HIGH DENSITY POLYETHYLENE LINER CAST IN DURING CONSTRUCTION. THIS LINER SHALL BE AGRU SURE GRIP, OR EQUAL.

MANHOLE CONNECTION DETAILS

NTS

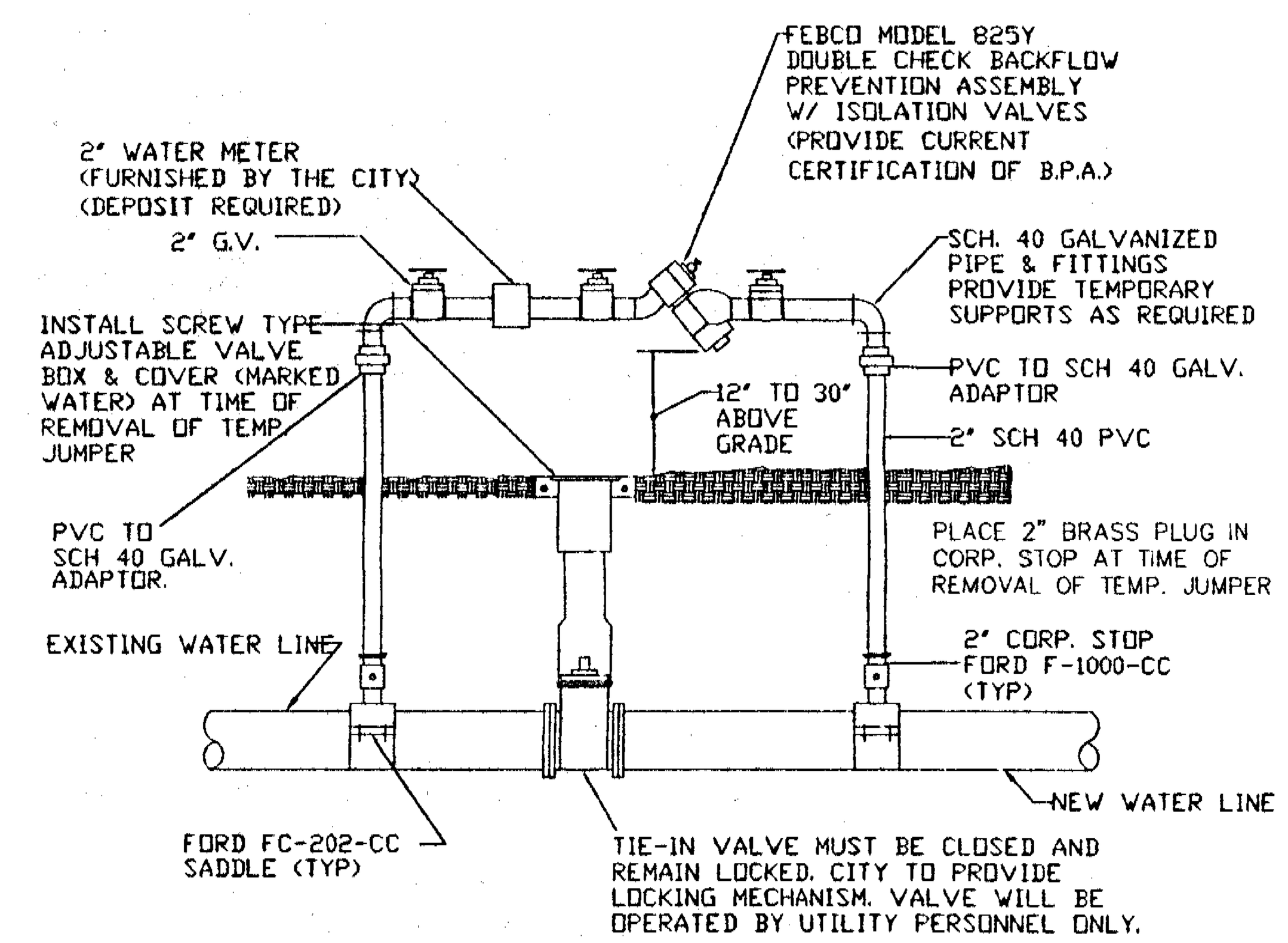


TAPPING SLEEVE DETAIL
PLAN VIEW



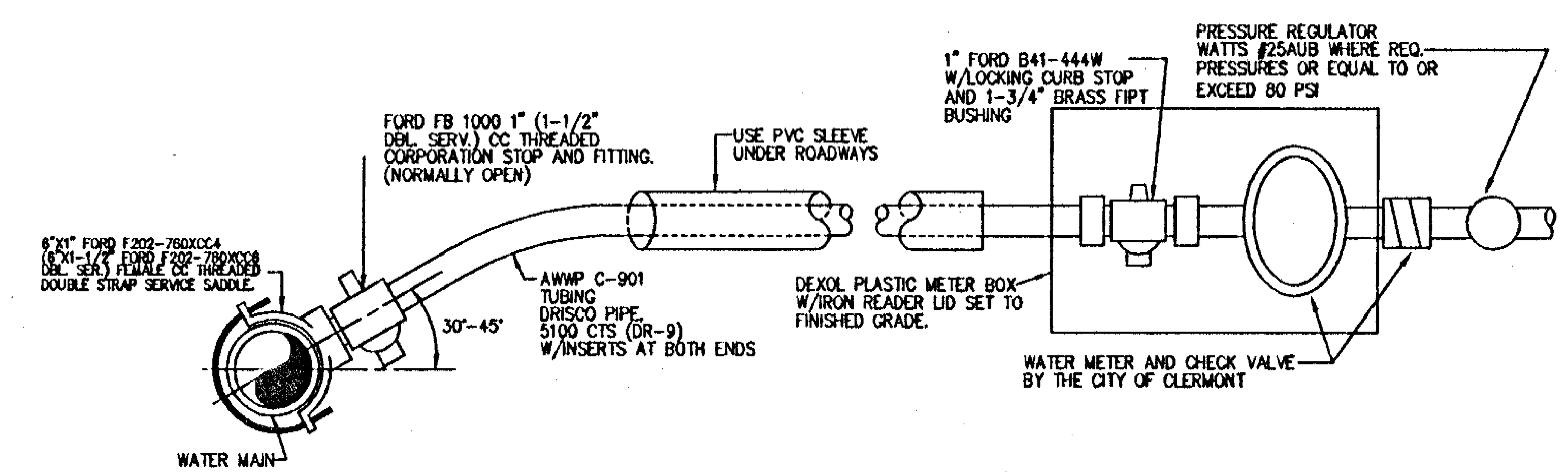
TAPPING SLEEVE DETAIL ELEVATION VIEW

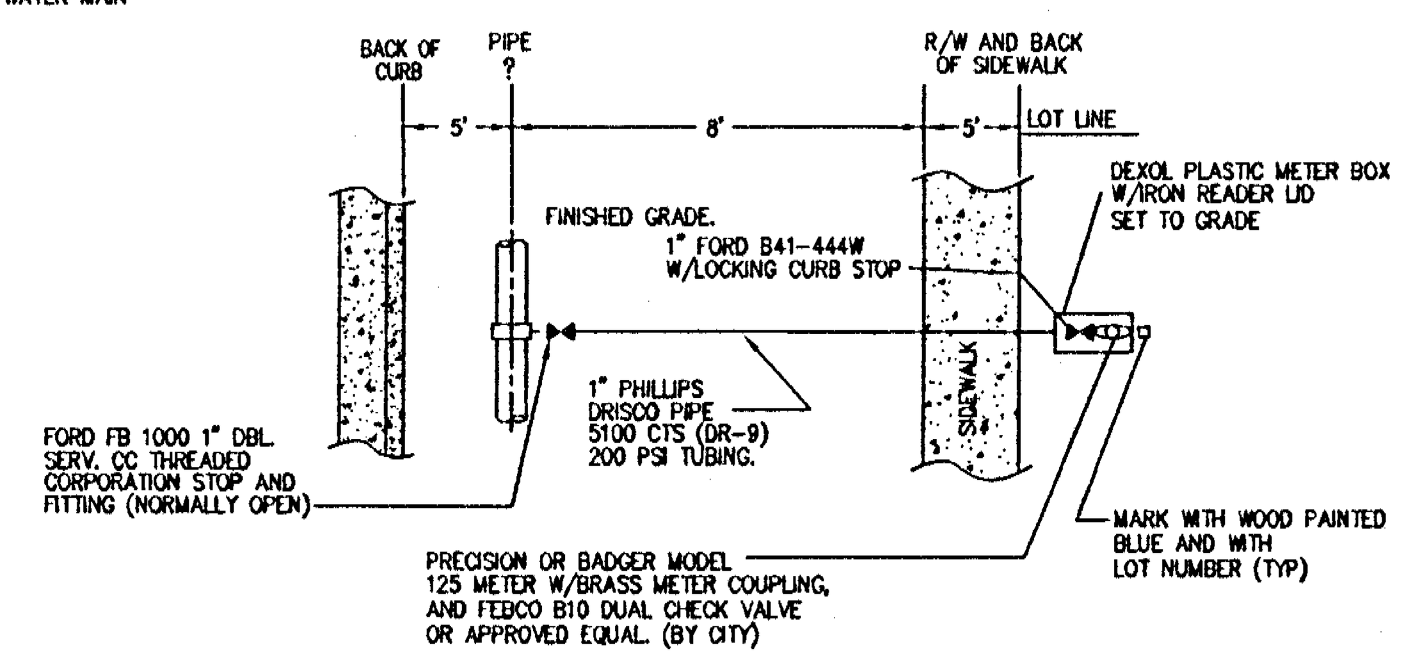
NTS



TEMPORARY JUMPER CONNECTION DETAIL

NOTE: LOCATION TO BE DETERMINED AT TIME OF PRECONSTRUCTION CONFERENCE W/ CITY.



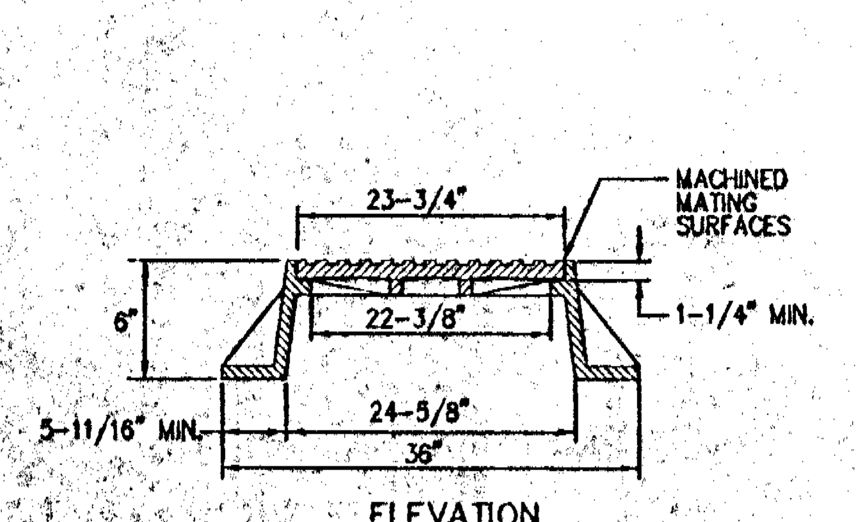


SINGLE SERVICE

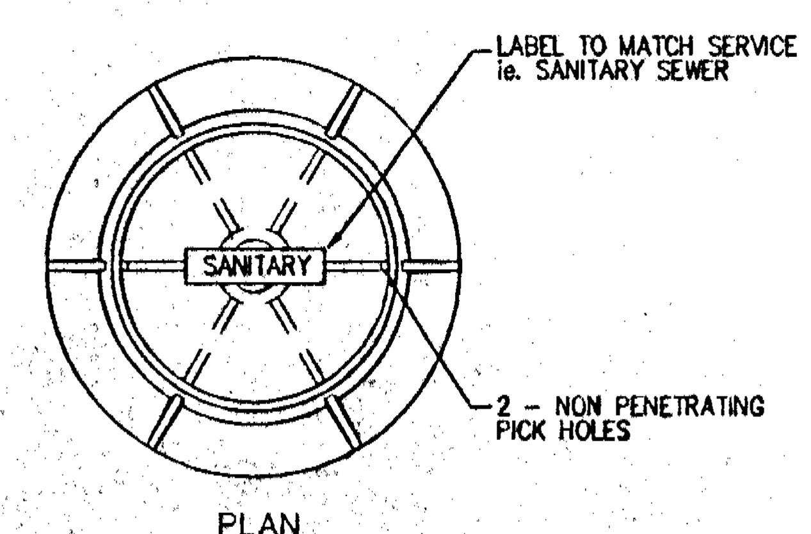
WATER SERVICE CONNECTION DETAILS

NTS

NOTES:
1. ALL WATER SERVICES AND METER BOXES SHALL BE LOCATED 8' INSIDE THE R/W LINE. SERVICE LINES SHALL BE CONTINUOUS FROM CORPORATION STOP TO CURB STOP.
2. ALL CLERMONT SERVICE LINES SHALL BE 1" (1-1/2" DBL. SERV.) AWWP C-901 TUBING, DRISCO PIPE, 5100 CTS (DR-9), 200 PSI.
3. EACH SERVICE SHALL TERMINATE AT A CURB STOP WHICH SHALL BE CLEARLY MARKED WITH A 2" X 2" X 18" STAKE
4. CURB STOPS SHALL BE 1" FORD B41-444W WITH LOCKWING AND FITTED WITH A 1" MIPT X 3/4" FIPT BRASS BUSHING.
5. ALL WATER SERVICES CROSSING UNDER ROADWAYS TO BE ENCASED IN LARGER SIZE SCHEDULE 40 PVC.
6. EXISTING METER BOXES TO REMAIN, PROVIDE NEW METER BOX FOR NEW SERVICES.
7. MARK CURB "W" WHERE SERVICES ARE LOCATED.
8. PROVIDE TRACER WIRE ALONG SERVICE LINES.
9. SET CURB STOP 8-FEET INSIDE R/W LINE.
10. PROVIDE WYE FOR IRRIGATION METER CONNECTION UNLESS, RECLAIMED PIPING IS PROVIDED. IF WYE IS PROVIDED, DOUBLE SERVICE SHALL BE 2 INCH.



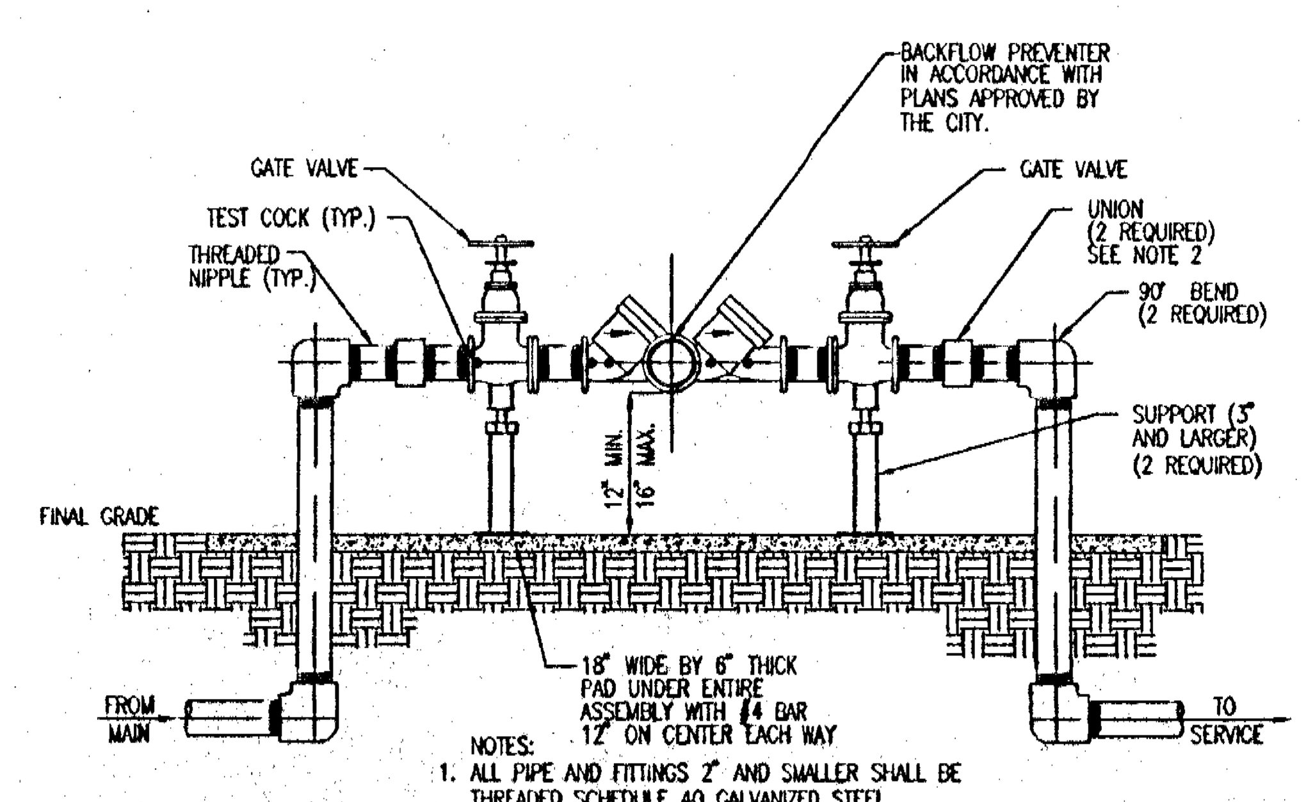
ELEVATION



PLAN

STANDARD MANHOLE FRAME AND COVER

NTS



NOTES:
1. ALL PIPE AND FITTINGS 2" AND SMALLER SHALL BE THREADED SCHEDULE 40 GALVANIZED STEEL.

PLAN VIEW

REDUCED PRESSURE BACKFLOW PREVENTER

NTS

RECEIVED OCT 2 2 2003 PDS ALTAMONTE SVC. CTR.
84016-1

SCOTT M. GENTRY, P.E. FLORIDA REGISTRATION #46577
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OCT 2 2 2003

KCG
KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

6	5	4	3	2	1	DATE	REVISION

PREPARED FOR:
HOGAN GROUP

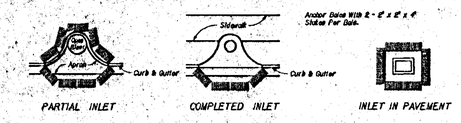
ECKERD
COLLEGE STATION CENTER
CLERMONT, FLORIDA

SITE DETAILS

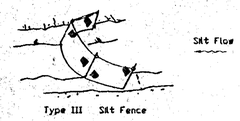
DRAWN: TSJ
DESIGN: CAG
CHECKED: SMG
JOB NO.: 510.000
DATE: 07/07/03

SHEET C-5

6

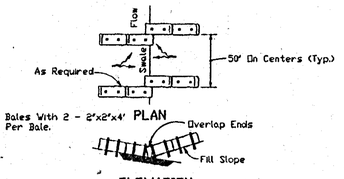


PROTECTION AROUND INLETS OR SIMILAR STRUCTURES

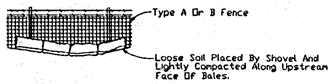


Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

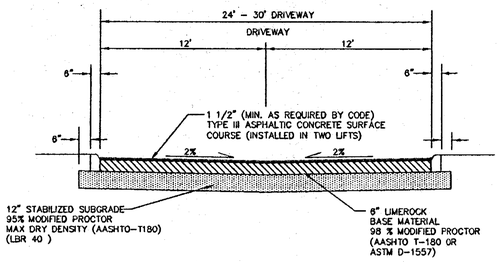
SILT FENCE APPLICATIONS
N.T.S.



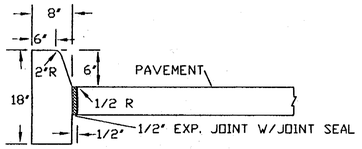
TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES TOWARD THE TOE OF SLOPE



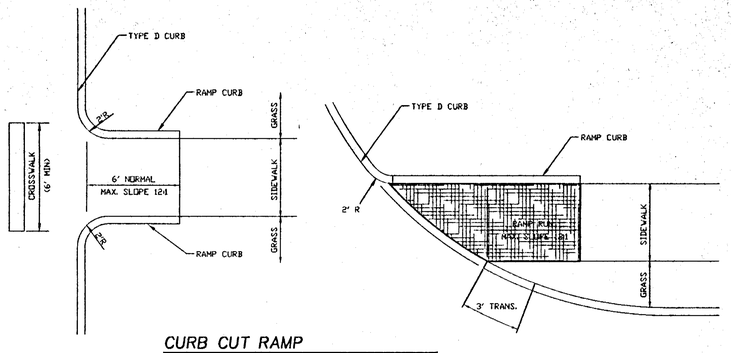
FENCE BACKED BY BALES
N.T.S.



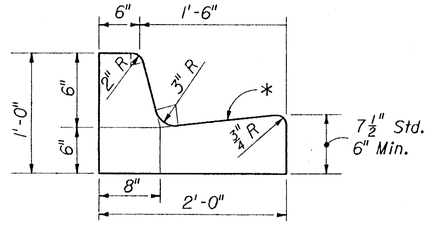
TYPICAL PAVEMENT SECTION
NTS



TYPE D CURB (FDOT INDEX 300)
NTS



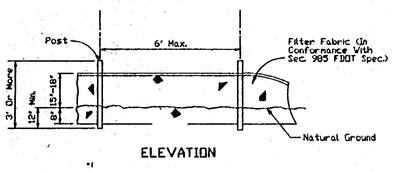
CURB CUT RAMP
SEE FDOT INDEX 304
NTS

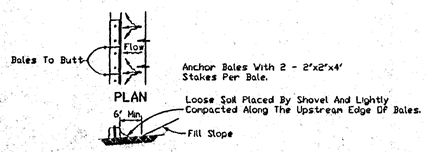


*Note: When used on high side of roadways, the cross slope of the gutter shall match the cross slope of the adjacent pavement the thickness of the lip shall be 6", unless otherwise shown on plans.

TYPE F

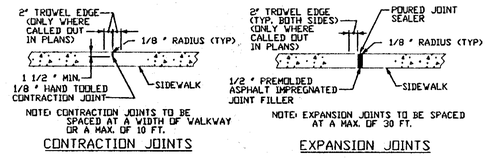
CURB & GUTTER DETAIL
NTS

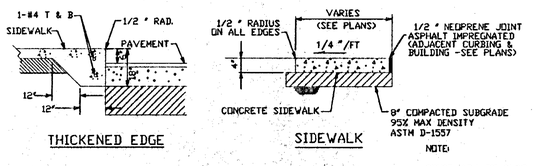




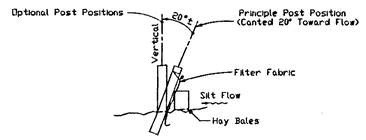
TO BE USED AT SELECTED SITES WHERE THE NATURAL GROUND SLOPES AWAY FROM THE TOE OF SLOPE

BARRIERS FOR FILL SLOPES
N.T.S.





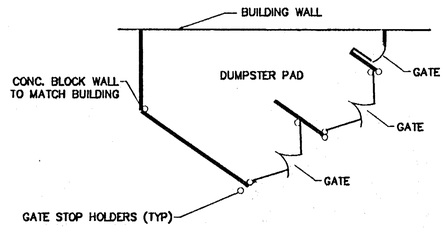
SIDEWALK DETAILS
NTS



Note: Silt Fence to be paid for under the contract unit price for Staked Silt Fence (LF).

TYPE III SILT FENCE
N.T.S.

SILT FENCE DETAILS
NTS



TRASH COMPACTOR ENCLOSURE
SEE ARCHITECTUAL PLANS FOR DETAILED INFORMATION.

2 of 2

3401C-1
RECEIVED
OCT 22 2003
PDS
ALTAMONTE SVC

OCT 22 2003

SCOTT M. GENDRON P.E.
FLORIDA REGISTRATION 44617
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7

KCG
KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 896-7850 FAX (407) 896-1488

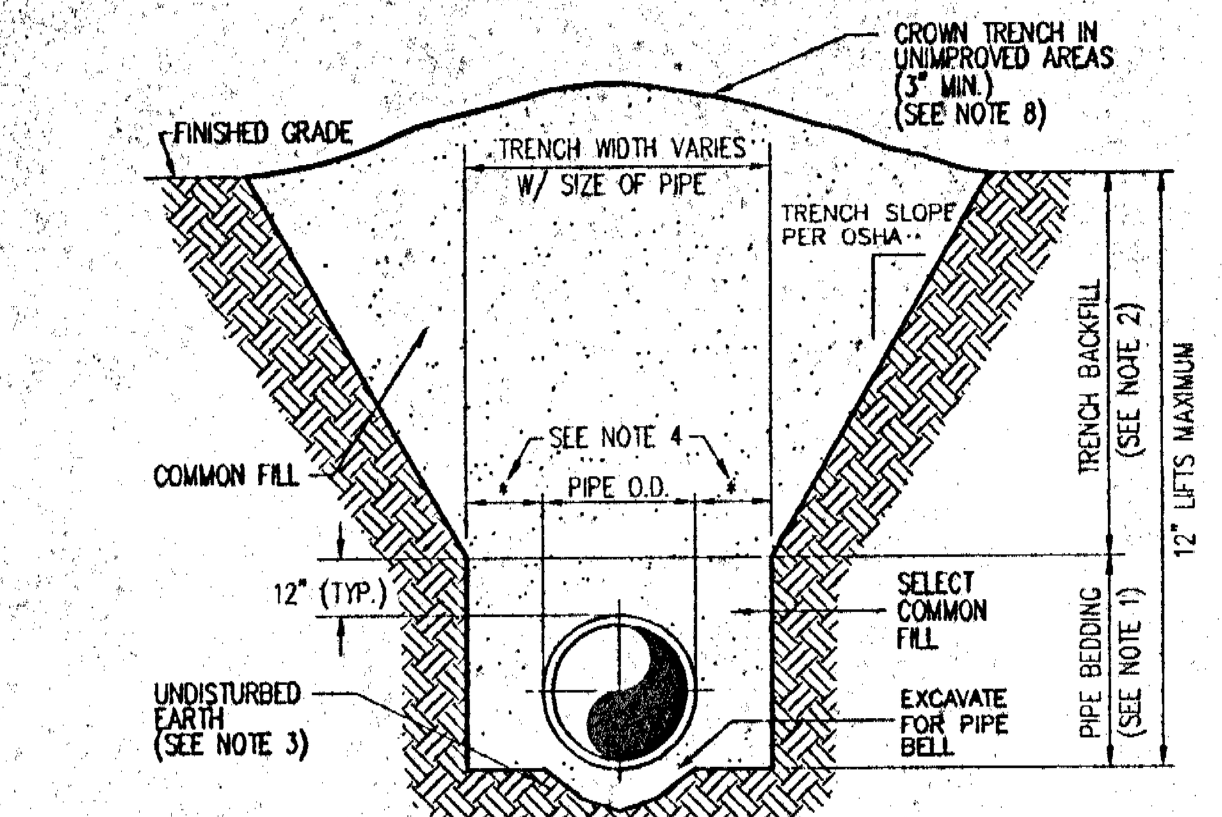
NO.	DATE	REVISION
1		
2		
3		
4		
5		
6		

PREPARED FOR:
HOGAN GROUP

ECKERD
COLLEGE STATION CENTER
CLERMONT, FLORIDA

SITE DETAILS

DRAWN: TSJ
DESIGN: CAG
CHECKED: SMG
JOB NO.: 510.000
DATE: 07/03/03
SHEET
C-6

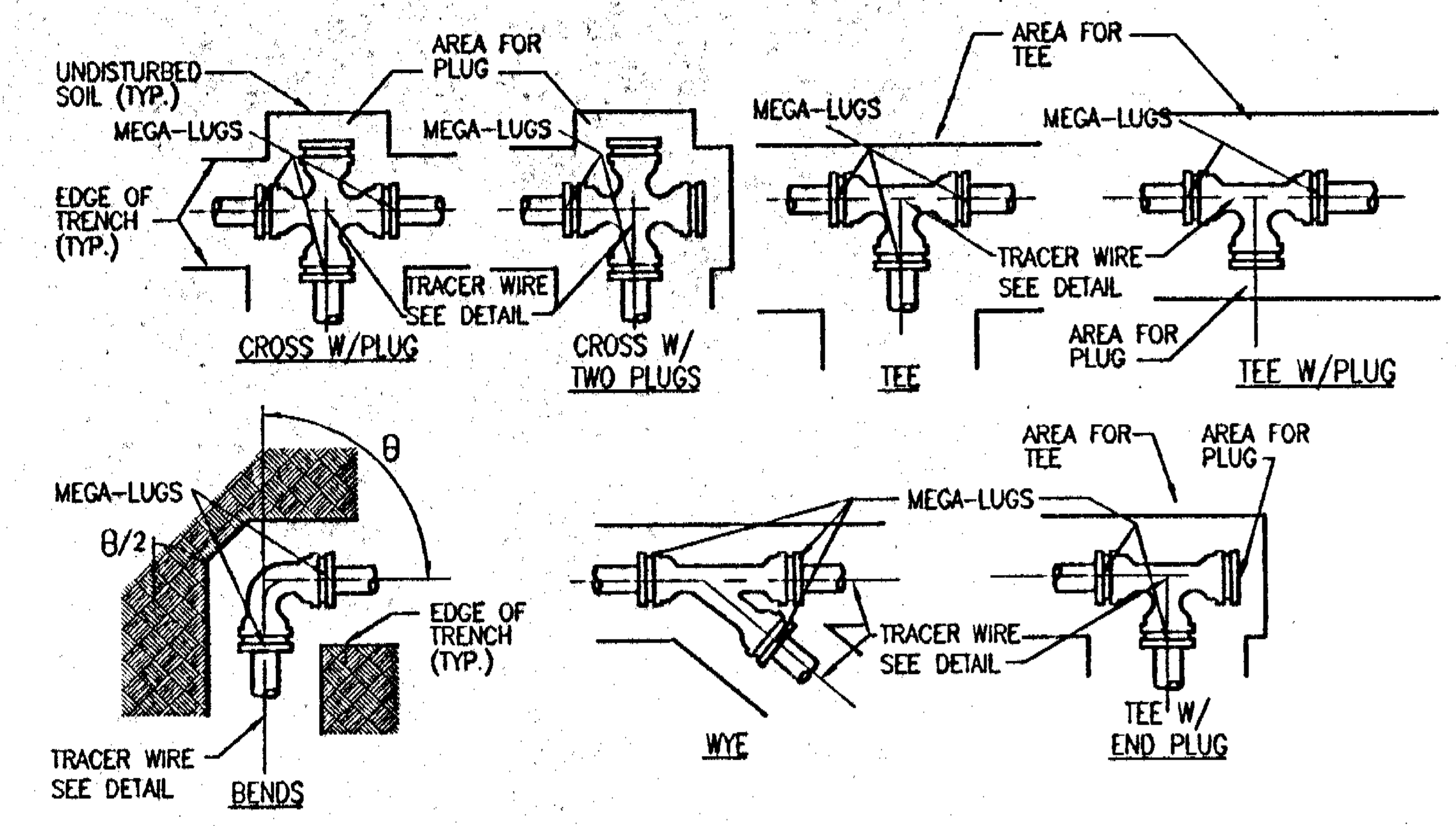


NOTES:

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.
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 ENGINEER.
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 THE FLOW.
7. SHEETING AND BRACING SHALL BE USED IN ACCORDANCE WITH CURRENT TRENCHING REGULATIONS AND WHERE UNSAFE CONDITIONS EXIST.
8. FINAL RESTORATION IN IMPROVED AREAS SHALL BE IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS OF GOVERNING AGENCIES. SURFACE RESTORATION WITHIN CITY OF CLERMONT RIGHT-OF-WAY SHALL COMPLY WITH REQUIREMENTS OF RIGHT-OF-WAY UTILIZATION REGULATIONS AND ROAD CONSTRUCTION SPECIFICATIONS.

TYPE B BEDDING AND TRENCHING DETAIL

NTS



NOTES:
USE "MEGA-LUG" FITTINGS AS APPROVED BY THE PROJECT ENGINEER. "MEGA-LUG" CALCULATIONS TO BE PROVIDED BY THE CONTRACTOR AND APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.

PIPE SIZE	HORIZONTAL BENDS			
	11 1/4°	22 1/2°	45°	90°
4"	1'	3'	6'	15'
6"	2'	4'	9'	21'
8"	3'	5'	11'	27'
10"	3'	6'	14'	33'
12"	4'	8'	16'	38'
16"	5'	10'	20'	48'
20"	6'	11'	24'	58'

DEAD ENDS & IN-LINE VALVES	
PIPE DIA.	MIN. LENGTH
4"	42'
6"	60'
8"	78'
10"	94'
12"	111'
16"	142'
20"	172'

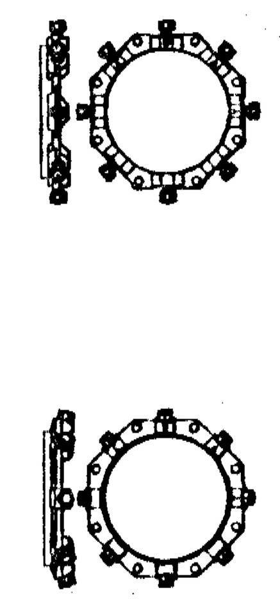
REDUCERS						
SMALL END	LARGE END					
	6"	8"	10"	12"	16"	20"
4"	31'	56'	76'	96'	131'	164'
6"		33'	58'	80'	120'	155'
8"			31'	59'	104'	142'
10"				54'	100'	139'
12"					60'	108'
16"						60'

BRANCH SIZE	TEES						
	4"	6"	8"	10"	12"	16"	20"
4"	6'	4'	3'	3'	2'	2'	2'
6"		8'	6'	5'	4'	3'	3'
8"			10'	8'	7'	5'	4'
10"				11'	12'	7'	6'
12"					13'	10'	8'
16"						18'	13'
20"							20'

NOTES:
LENGTH OF RESTRAINED PIPING WAS CALCULATED USING "THRUST RESTRAINT DESIGN FOR DUCTILE IRON AND PVC PIPE" (VERSION 3.1) A COMPUTER PROGRAM BY EBBA IRON SALES, INC.
1.) SOIL TYPE: WELL GRADED SANDS AND GRAVELY SANDS, LITTLE OR NO FINE SANDS.
2.) TRENCH TYPE: PIPE BEDDED IN SAND, GRAVEL, OR CRUSHED STONE TO 1/8 PIPE DIAMETER, 4" MINIMUM. BACK FILL COMPACTED TO THE TOP OF PIPE. (APPROXIMATELY 80% STANDARD PROCTOR, AASHTO T-99).
3.) PIPE TEST PRESSURE: 150 PSI
4.) SAFETY FACTOR: 2.0
5.) DEPTH OF COVER: 3.0 FEET
6.) APPROVED BY CITY ENGINEER.

MEGA-LUG DETAIL & THRUST RESTRAINT TABLE

NTS



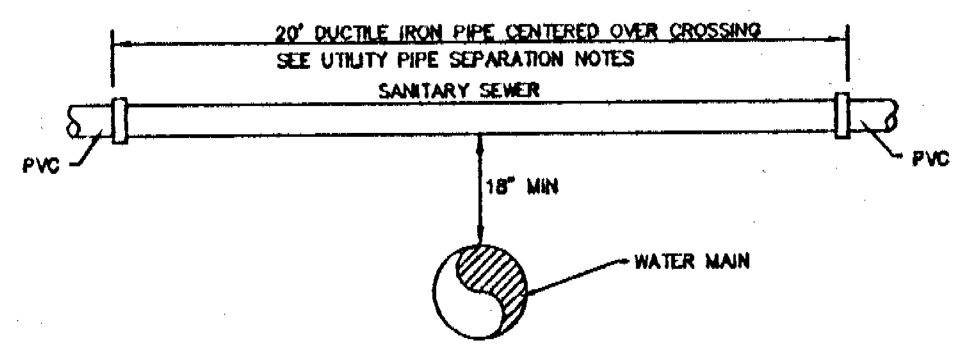
EBAA IRON
MEGA-LUG Series 2000
PRESSURE RATINGS FOR ORDINARY WATER WORKS:
DR14 200 PSI SDR17 250 PSI
DR18 150 PSI SDR21 200 PSI
DR25 100 PSI SDR26 160 PSI
UL <FM> RATED 150 PSI ON DR18
EXCEEDS UNI-B-13 OF 92
FOR USE ON PVC PIPE
MADE IN THE USA

EBAA IRON
MEGA-LUG Series 1100
350 PSI RATING
UL
<FM> RATED 175 PSI
FOR USE ON DUCTILE IRON PIPE
MADE IN THE USA

MEGALUG DETAIL

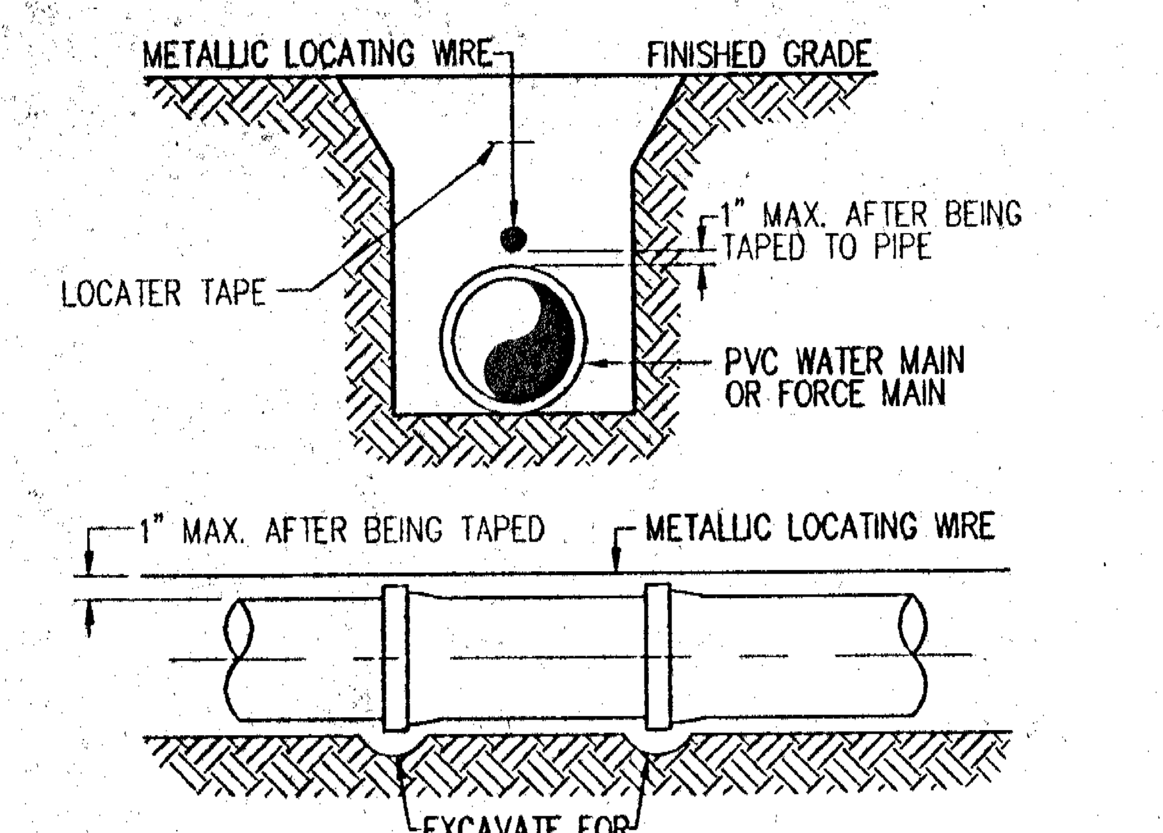
UTILITY PIPE SEPARATION NOTES:
WHERE POTABLE WATER AND SANITARY SEWER MAINS CROSS WITH LESS THAN EIGHTEEN (18) INCHES OF VERTICAL CLEARANCE OR WHERE THE SEWER MAIN IS ABOVE THE WATER MAIN, THE SEWER MAIN SHALL BE ENCASED WITH CONCRETE OR ENCLOSED IN A WATER TIGHT CARRIER PIPE, OR UPGRADED TO DUCTILE IRON PIPE OR PRESSURE RATED PVC PIPE (MEETING THE AWWA C-900 OR C-905 SPECIFICATION) FOR A MINIMUM LENGTH OF TWENTY (20) FEET, CENTERED ON THE POINT OF CROSSING. A MINIMUM HORIZONTAL SEPARATION OF TEN (10) 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 AT 150 PSI (1034 kPa) TO ASSURE WATER TIGHTNESS PRIOR TO BACKFILLING.

UTILITY PIPE SEPARATION NOTES



WATER MAIN / SANITARY SEWER CROSSING DETAIL

NTS

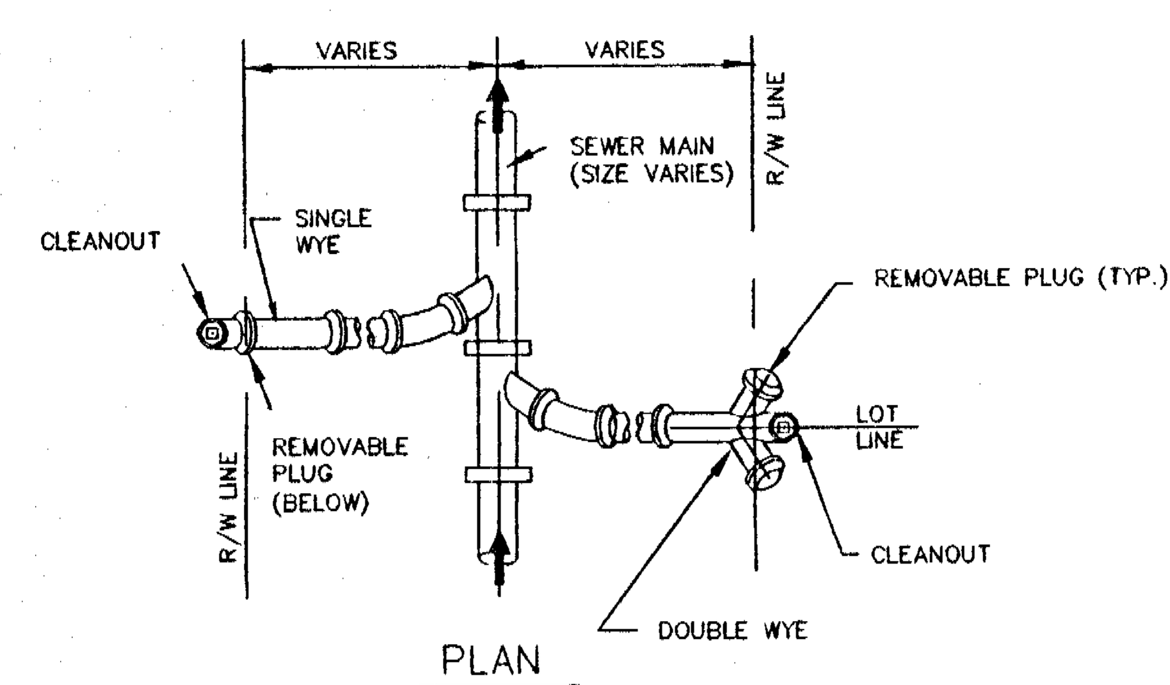


NOTES:

1. PVC PIPE SHALL REQUIRE INSULATED METALLIC LOCATING WIRE (14 GAUGE COPPER) CAPABLE OF DETECTION BY A CABLE LOCATOR
2. AND SHALL BE BURIED DIRECTLY ABOVE THE CENTERLINE OF THE PIPE. LOCATING WIRE SHALL TERMINATE AT THE TOP OF EACH VALVE BOX
3. AND BE CAPABLE OF EXTENDING 12" ABOVE TOP OF BOX IN SUCH A MANNER SO AS NOT TO INTERFERE WITH VALVE OPERATION. USE DUCT TAPE AS NECESSARY TO HOLD WIRE DIRECTLY ON THE TOP OF THE PIPE.

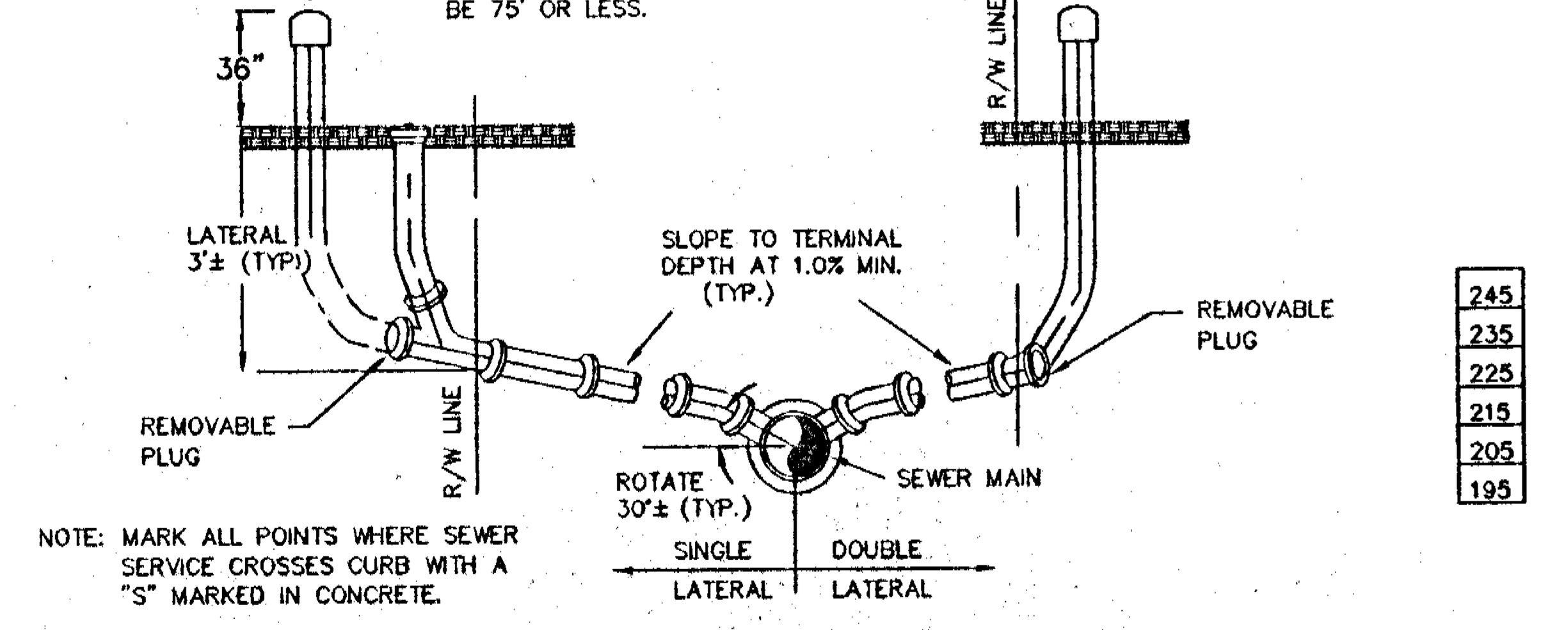
PVC PIPE LOCATING WIRE DETAIL

NTS



NOTES:

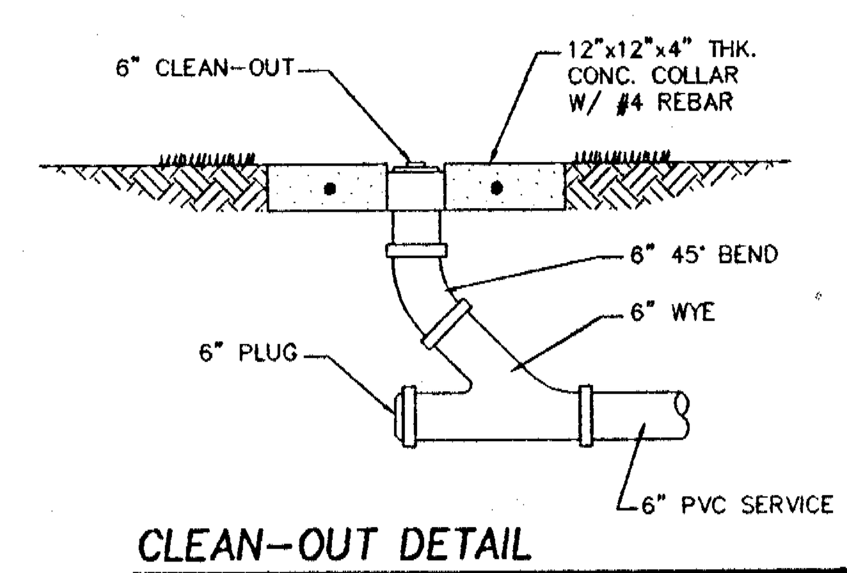
1. LOCATE SINGLE LATERAL AS CLOSE TO LOT LINE AS POSSIBLE.
2. SERVICE LATERALS SHALL BE 6" MIN DIAM FOR DOUBLE SERVICE AND 4" MIN DIAM FOR SINGLE SERVICE.
3. BENDS SHALL BE 45° MAXIMUM.
4. RECONNECT EXISTING SERVICES.
5. LENGTH OF SERVICE LATERALS SHALL BE 75' OR LESS.



NOTE: MARK ALL POINTS WHERE SEWER SERVICE CROSSES CURB WITH A "S" MARKED IN CONCRETE.

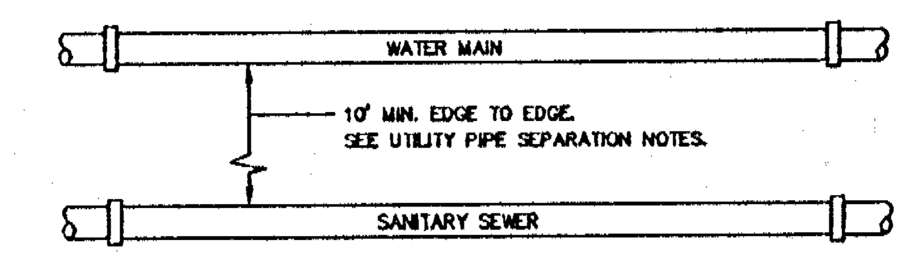
SEWER SERVICE RISER CONNECTION DETAILS

NTS



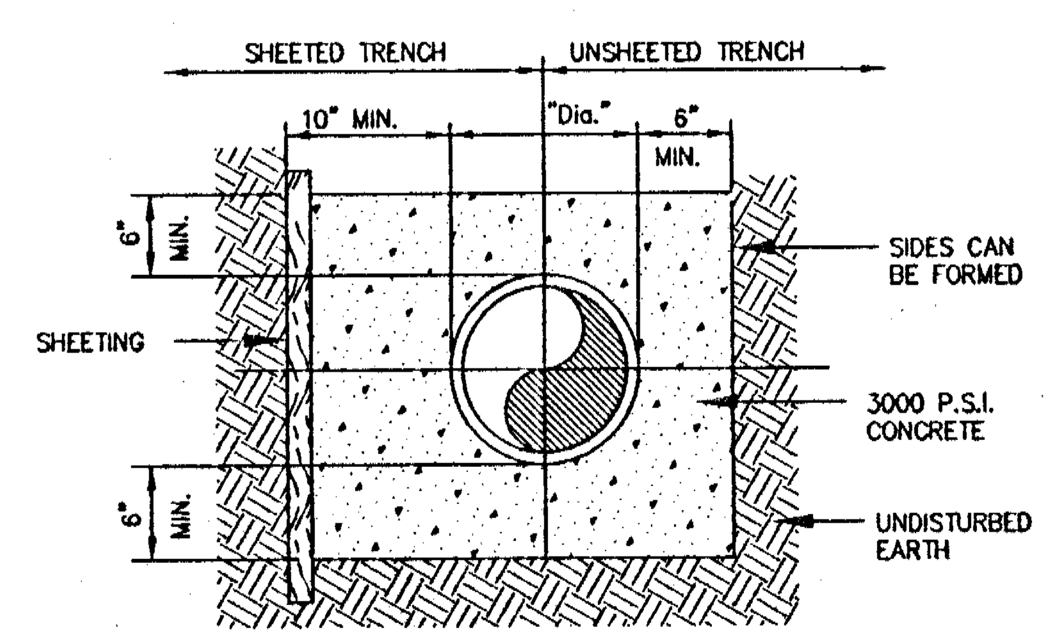
CLEAN-OUT DETAIL

NTS



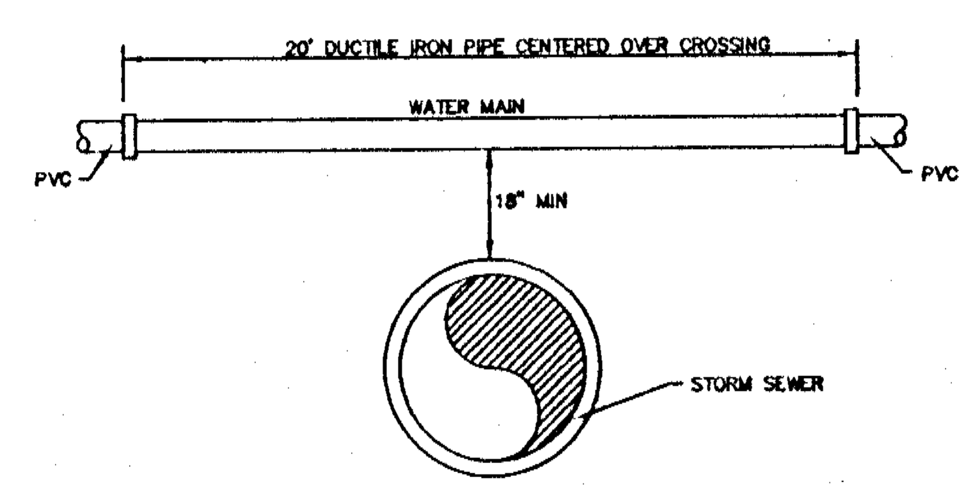
WATER MAIN / SAN. SEWER HORIZONTAL SEPARATION DETAIL

NTS



CONCRETE ENCASEMENT

NTS



WATER MAIN / STORM SEWER CROSSING DETAIL

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ALTAMONTE SVC. CTR.

OCT 22 2003
SCOTT M. GENTRY, P.E.
FLORIDA REGISTRATION 44877
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(8)

KCG
KELLY, COLLINS & GENTRY, INC.
1700 NORTH ORANGE AVENUE, SUITE 400
ORLANDO, FLORIDA 32804
(407) 898-7858 FAX (407) 898-1488

	DATE	REVISION
6		
5		
4		
3		
2		
1		

PREPARED FOR:
HOGAN GROUP

ECKERD
COLLEGE STATION CENTER.
CLERMONT, FLORIDA

SITE DETAILS

DRAWN: TSJ
DESIGN: CAG
CHECKED: SMG
JOB NO.: 510.000
DATE: 07/07/03
SHEET
C-7

GENERAL PROJECT DATA

FOR IDENTIFICATION OF CONTRACTUAL AGREEMENTS, THIS SET OF DRAWINGS IS DATED ______. ANY REVISIONS THEREAFTER WILL BE NOTED AND DATED ON THE AFFECTED DRAWINGS(S).

THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS TO THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANY AND THE CONTRACTOR SHALL COOPERATE WITH THEM DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE RELOCATION OF VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT, AND NO EXTRA COMPENSATION WILL BE ALLOWED.

DRAINAGE SYSTEMS

THE CONTRACTOR SHALL PERFORM ALL WORK PERTAINING TO DRAINAGE INCLUDING EXCAVATION OF WRA'S PRIOR TO THE COMMENCEMENT OF OTHER WORK INCLUDED IN THESE PLANS. THE DRAINAGE FACILITIES SHALL BE MAINTAINED BY THE CONTRACTOR DURING THE COURSE OF THIS CONTRACT. THE CONTRACTOR SHALL INCLUDE FUNDS IN THE DRAINAGE COSTS OF THE CONTRACT TO OPERATE AND MAINTAIN THE DRAINAGE SYSTEMS DURING THE WORK PROCESS.

THE UTILITIES ARE THE PROPERTY OF THE FOLLOWING:

WATER
CITY OF CLERMONT
PUBLIC SERVICES DEPARTMENT
400 12th STREET
CLERMONT, FL. 34711
(352) 394-3350
CONTACT: PRESTON DAVIS

POWER
FLORIDA POWER CORPORATION
P.O. BOX 120069
CLERMONT, FL. 34712
(407) 827-1250
CONTACT: SUE FREYSER

POWER
SUMTER ELECTRIC
700 EAST WASHINGTON STREET
ORLANDO, FL. 32801
(407) 648-0024
CONTACT: DON KOZMINSKI

SEWER
CITY OF CLERMONT
PUBLIC SERVICES DEPARTMENT
400 12th STREET
CLERMONT, FL. 34711
(352) 394-3350
CONTACT: PRESTON DAVIS

CABLE
TIME WARNER CABLE
3767 ALL AMERICAN BOULEVARD
ORLANDO, FL.
(407) 295-9119
CONTACT: TRACEY DOMOSTOY

GAS
APOPKA NATURAL GAS
P.O. BOX 771275
WINTER GARDEN, FL. 34777-1275
(407) 656-2734
CONTACT: JIM PARRIS
CONTACT: MARY JONES

TELEPHONE
SPRINT UNITED
P.O. BOX 490048
LEESGURG, FL. 34749-0048
(352) 326-1707
CONTACT: WAYNE PETERSON

TELEPHONE
AT&T
1-800-222-3000

SOILS INVESTIGATIONS FOR THE SITE WERE PROVIDED BY GFA INTERNATIONAL. THE CONTRACTOR IS TO OBTAIN A COPY OF THAT SOILS REPORT FOR REVIEW PRIOR TO CONSTRUCTION; AND THE CONSTRUCTION IS TO CONFORM TO THE RECOMMENDATIONS IN THAT REPORT.

SURVEY INFORMATION PREPARED BY; LEADING EDGE LAND SERVICES

AS-BUILTS

AS-BUILTS SHALL BE PROVIDED BY THE CONTRACTOR TO THE ENGINEER TWO WEEKS PRIOR TO FINAL INSPECTION. ALL AS-BUILT DATA SHALL BE PROVIDED BY A FLORIDA LICENSED SURVEYOR, SIGNED, SEALED, AND DATED BY THE RESPONSIBLE PARTY. SEE INDIVIDUAL SECTIONS (STORM, WATER SYSTEM, ETC.) FOR ADDITIONAL AS-BUILT REQUIREMENTS.

PERMITS AND PERMIT REQUIREMENTS

THE CONTRACTOR SHALL OBTAIN FROM THE OWNER COPIES OF ALL REGULATORY AND LOCAL AGENCY PERMITS. THE CONTRACTOR SHALL BE EXPECTED TO REVIEW AND ABIDE BY ALL THE REQUIREMENTS AND LIMITATIONS SET FORTH IN THE PERMITS. A COPY OF THE PERMIT SHALL BE KEPT ON THE JOB AT ALL TIMES.

LAYOUT AND CONTROL

UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL PROVIDE FOR THE LAYOUT OF ALL OF THE WORK TO BE CONSTRUCTED, BENCHMARK INFORMATION SHALL BE PROVIDED TO THE CONTRACTOR BY THE OWNER OR OWNER'S SURVEYOR. ANY DISCREPANCIES BETWEEN FIELD MEASUREMENTS AND CONSTRUCTION PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

QUALITY CONTROL TESTING REQUIREMENTS

ALL TESTING RESULTS SHALL BE PROVIDED TO THE OWNER/OPERATOR, COUNTY, AND THE ENGINEER. TESTING REQUIREMENTS ARE TO BE IN ACCORDANCE WITH THE OWNER/OPERATOR'S SPECIFICATIONS AND REQUIREMENTS. ALL TEST RESULTS SHALL BE PROVIDED (PASSING AND FAILING) ON A REGULAR AND IMMEDIATE BASIS. CONTRACTOR SHALL PROVIDE TESTING SERVICES THROUGH A FLORIDA LICENSES GEOTECHNICAL ENGINEERING FIRM ACCEPTABLE TO THE OWNER AND ENGINEER. CONTRACTOR TO SUBMIT TESTING FIRM TO OWNER FOR APPROVAL PRIOR TO COMMENCING TESTING.

SHOP DRAWINGS

SHOP DRAWINGS AND CERTIFICATIONS FOR ALL STORM DRAINAGE, WATER SYSTEM, SEWER SYSTEM, AND PAVING SYSTEM MATERIALS AND STRUCTURES ARE REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING THE MATERIALS REQUIRED FOR CONSTRUCTION.

EARTHWORK

EARTHWORK QUANTITIES

THE CONTRACTOR SHALL PERFORM HIS OWN INVESTIGATIONS AND CALCULATIONS AS NECESSARY TO ASSURE HIMSELF OF EARTHWORK QUANTITIES. THERE IS NO IMPLICATION THAT EARTHWORK BALANCES, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY IMPORT FILL NEEDED, OR FOR REMOVAL AND DISPOSAL OF EXCESS MATERIALS.

EROSION CONTROL

EROSION AND SILTATION CONTROL MEASURES ARE TO BE PROVIDED AND INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THESE MEASURES ARE TO BE INSPECTED BY THE CONTRACTOR ON A REGULAR BASIS AND ARE TO BE MAINTAINED OR REPAIRED ON AN IMMEDIATE BASIS, AS REQUIRED. REFER TO WATER MANAGEMENT DISTRICT PERMIT FOR ADDITIONAL REQUIREMENTS FOR EROSION CONTROL AND SURFACE DRAINAGE.

WETLAND PROTECTION

THE LIMITS OF THE ON-SITE WETLANDS HAVE BEEN PROVIDED TO THE CONTRACTOR ON THE CONSTRUCTION PLANS OR ON PERMIT MATERIALS. THE WETLANDS ARE TO BE PROTECTED FROM DISTURBANCE AT ALL TIMES. CONTRACTOR SHALL PROVIDE EROSION, SILTATION, AND DIVERSION MEASURES PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN A COPY OF EACH PERMIT RELATING TO WETLANDS AND WATER MANAGEMENT AND ADHERE TO ALL PROVISIONS AND CONDITIONS THERETO.

LIMITS OF DISTURBANCE

AT NO TIME SHALL THE CONTRACTOR DISTURB SURROUNDING PROPERTIES OR TRAVEL ON SURROUNDING PROPERTIES WITHOUT WRITTEN CONSENT FROM THE PROPERTY OWNER. REPAIR OR RECONSTRUCTION OF DAMAGED AREAS ON SURROUNDING PROPERTIES SHALL BE PERFORMED BY THE CONTRACTOR ON AN IMMEDIATE BASIS. ALL COSTS FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION SHALL BE PROVIDED.

TREE REMOVAL

THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER WHEN ALL WORK IS LAID OUT (SURVEY STAKED), SO THAT A DETERMINATION MAY BE MADE OF SPECIFIC TREES TO BE REMOVED. NO TREES SHOWN ON THE CONSTRUCTION PLANS AS BEING SAVED SHALL BE REMOVED WITHOUT PERMISSION FROM THE OWNER AND ENGINEER.

CLEARING AND GRUBBING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING AND GRUBBING FOR SITE CONSTRUCTION INCLUDING CLEARING FOR PAVING, UTILITIES, DRAINAGE FACILITIES AND BUILDING CONSTRUCTION. ALL AREAS TO BE CLEARED SHALL BE FIELD STAKED AND REVIEWED BY THE OWNER AND ENGINEER PRIOR TO ANY CONSTRUCTION.

MATERIAL STORAGE/DEBRIS REMOVAL

ALL MATERIALS EXCAVATED SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE STOCKPILED AT ON-SITE LOCATIONS AS SPECIFIED BY THE OWNER. MATERIALS SHALL BE STOCKPILED SEPARATELY AS TO USABLE (NONORGANIC) FILL STOCKPILES AND ORGANIC (MUCK) STOCKPILES IF MUCK IS ENCOUNTERED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL UNSUITABLE FILL MATERIALS FROM THE SITE. ALL CLAY ENCOUNTERED SHALL BE EXCAVATED OUT AND REPLACED WITH CLEAN GRANULAR FILL MATERIALS.

FILL MATERIAL

ALL FILL MATERIALS SHALL CONTAIN NO MUCK, STUMPS, ROOTS, BRUSH, VEGETATIVE MATTER, RUBBISH OR OTHER MATERIAL THAT WILL NOT COMPACT INTO A SUITABLE AND ENDURING BACKFILL. FILL SHALL BE CLEAN, NON-ORGANIC, GRANULAR MATERIAL WITH NOT MORE THAN 10% PASSING THE NO. 200 SIEVE.

COMPACTION

FILL MATERIALS PLACED UNDER ROADWAYS SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. ALL OTHER FILL AREAS ARE TO BE COMPACTED TO AT LEAST 95% MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. FILL MATERIALS SHALL BE PLACED AND COMPACTED IN A MAXIMUM OF 12" LIFTS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND OWNER WITH ALL (PASSING AND FAILING) TESTING RESULTS. RESULTS SHALL BE PROVIDED ON A TIMELY AND REGULAR BASIS PRIOR TO CONTRACTOR'S PAY REQUEST SUBMITTAL FOR THE AFFECTED WORK.

PAVEMENT AND/OR ROAD AND R/W WORK

OWNER/OPERATOR

THE ENTITY THAT WILL OWN, OPERATE AND MAINTAIN THE ROADWAYS SHOWN ON THESE PLANS IS FDOT & LAKE COUNTY. THE CONTRACTOR SHALL BE EXPECTED TO MEET ALL THE REQUIREMENTS OF THAT ENTITY.

GENERAL DESIGN INTENT

ALL PAVING SURFACES IN INTERSECTIONS AND ADJACENT SECTIONS SHALL BE GRADED TO DRAIN POSITIVELY IN THE DIRECTION SHOWN BY THE FLOW ARROWS ON THE PLANS AND TO PROVIDE A SMOOTHLY TRANSITIONED DRIVING SURFACE FOR VEHICLES WITH NO SHARP BREAKS IN GRADE, AND NO UNUSUALLY STEEP OR REVERSE CROSS SLOPES. APPROACHES TO INTERSECTIONS AND ENTRANCE AND EXIT GRADES TO INTERSECTIONS WILL HAVE TO BE STAKED IN THE FIELD AT DIFFERENT GRADES THAN THE CENTERLINE GRADES SHOWN ON THE PLANS. IN THESE AREAS, IT MAY ALSO BECOME ADVISABLE TO MAKE MINOR LOCAL FIELD ADJUSTMENTS IN THE CENTERLINE GRADES TO ACCOMPLISH THE PURPOSES OUTLINED. IN ADDITION, THE STANDARD CROWN WILL HAVE TO BE CHANGED IN ORDER TO DRAIN POSITIVELY IN THE AREA OF INTERSECTIONS. IT IS THE CONTRACTORS RESPONSIBILITY TO ACCOMPLISH THE ABOVE AND THE ENGINEER SHALL BE CONSULTED SO THAT HE MAY MAKE ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS OR GIVE SUPPLEMENTARY INSTRUCTIONS TO ACCOMPLISH THE INTENT OF THE PLANS.

MATERIALS/CONSTRUCTION SPECIFICATIONS

MATERIALS AND CONSTRUCTION METHODS FOR THE ROADWAY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 1991, OR LATEST EDITION.

PAVEMENT SECTION REQUIREMENTS

CONSTRUCTION OF ROADWAYS SHALL BE 12" OF STABILIZED SUBBASE WITH A LIMEROCK BEARING RATIO OF (LBR) 40 COMPACTED TO THE MODIFIED PROCTOR MAXIMUM DRY DENSITY OF 98% PER AASHTO T-180, 6" OF LIMEROCK BASE COURSE, (LBR) 100, COMPACTED TO THE MODIFIED PROCTOR MAXIMUM DRY DENSITY OF 98% PER AASHTO T-180 AND 1 1/4" TYPE S-111 OF VIRGIN ASPHALTIC CONCRETE SURFACE COURSE WITH A MINIMUM STABILITY OF 1500 LBS. SUBGRADE PREPARATION AND PAVEMENT INSTALLATION SHALL CONFORM TO FDOT STANDARDS AND SOILS REPORT RECOMMENDATIONS.

SIDEWALKS

SIDEWALKS ARE TO BE CONSTRUCTED IN THE AREAS AS SHOWN ON THE CONSTRUCTION PLANS. THE 5' SIDEWALK SHALL BE CONSTRUCTED OF 4" OF CONCRETE WITH A 28-DAY COMPRESSION STRENGTH OF 2500 PSI. JOINTS SHALL BE EITHER TOOLED OR SAWCUT AT A DISTANCE OF 5' LENGTHS, HANDICAPPED RAMPS SHALL BE PROVIDED AT ALL INTERSECTIONS AND BE IN ACCORDANCE WITH STATE REGULATIONS FOR HANDICAP ACCESSIBILITY.

PAVEMENT MARKINGS/SIGNAGE

PAVEMENT MARKINGS AND SIGNAGE SHALL BE PROVIDED AS SHOWN ON THE CONSTRUCTION PLANS AND SHALL MEET THE REQUIREMENTS OF THE OWNER/OPERATOR. SIGNAGE SHALL BE IN CONFORMANCE WITH MUTCD (LATEST EDITION). A 48-HOUR PAVEMENT CURING TIME WILL BE PROVIDED PRIOR TO APPLICATION OF THE PAVEMENT MARKINGS. REFLECTIVE PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH FDOT INDEX NO. 17352.

TRAFFIC CONTROL

A MINIMUM OF 2-WAY ONE LANE TRAFFIC SHALL BE MAINTAINED IN THE WORK SITE AREA. ALL CONSTRUCTION WARNING SIGNAGE SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF CONSTRUCTION AND BE MAINTAINED THROUGHOUT CONSTRUCTION. ACCESS SHALL BE CONTINUOUSLY MAINTAINED FOR ALL PROPERTY OWNERS SURROUNDING THE WORK SITE AREA. LIGHTED WARNING DEVICES ARE TO BE OPERATIONAL PRIOR TO DUSK EACH NIGHT DURING CONSTRUCTION.

CURBING

CURBING SHALL BE CONSTRUCTED WHERE NOTED ON THE CONSTRUCTION PLANS. CONCRETE FOR CURBS SHALL BE DEPARTMENT OF TRANSPORTATION CLASS "1" CONCRETE WITH A 28-DAY COMPRESSION STRENGTH OF 2500 PSI. ALL CURBS SHALL HAVE SAW CUT CONTRACTION JOINTS AND SHALL BE CONSTRUCTED AT INTERVALS NOT TO EXCEED 10'-0" ON CENTER. CONSTRUCTION OF CURBS SHALL BE IN CONFORMANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (1991) SECTION 520 AND DETAILS PROVIDED ON THE CONSTRUCTION PLANS.

R/W RESTORATION

ALL AREAS WITHIN THE RIGHT-OF-WAY SHALL BE FINISH GRADED WITH A SMOOTH TRANSITION INTO EXISTING GROUND. ALL SWALES SHALL BE STABILIZED IMMEDIATELY AFTER FINAL GRADING. ALL DISTURBED AREAS SHALL BE RAKED CLEAN OF ALL LIMEROCK AND ROCKS AND SODDED AFTER FINAL GRADING IN ACCORDANCE WITH THE CONSTRUCTION PLANS PRIOR TO FINAL INSPECTION. ALL GRASSING (SEED OR SOD) SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL ACCEPTANCE BY THE OWNER/OPERATOR.

SITE ACCESS

ALL ACCESS TO THE JOB-SITE FOR CONSTRUCTION AND RELATED ACTIVITIES SHALL BE BY EXISTING STREETS AND ROADS, OR BY THE CONSTRUCTION EASEMENT. THERE SHALL BE NO ACCESS TO THE JOB-SITE THROUGH THE F.D.O.T. RIGHT-OF-WAY.

POTABLE WATER/FIRE SYSTEMS

OWNER/OPERATOR

THE ENTITY THAT WILL OWN, OPERATE AND MAINTAIN THE WATER SYSTEM SHOWN ON THESE PLANS IS CITY OF CLERMONT. THE CONTRACTOR SHALL BE EXPECTED TO MEET ALL THE REQUIREMENTS OF THAT ENTITY.

PIPE MATERIALS

SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL INFRASTRUCTURE TO BE CONSTRUCTED. WATER SYSTEM SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND CITY OF CLERMONT FOR REVIEW PER THE CITY'S POLICY FOR REVIEW OF SHOP DRAWINGS.

POLYVINYL CHLORIDE PLASTIC PIPE (PVC) 4" THROUGH 12" SHALL BE MANUFACTURED IN ACCORDANCE WITH ANSI/AWWA C900 (LATEST EDITION) AND SHALL HAVE A MINIMUM WORKING PRESSURE OF 150 PSI AND HAVE A DR (DIMENSION RATIO) OF 18. ALL PVC PIPE SHALL BEAR THE NSF LOGO FOR POTABLE WATER. JOINTS SHALL BE OF THE PUSH-ON TYPE AND COUPLINGS CONFORMING TO ASTM D3139, DR18 PIPE.

DUCTILE IRON PIPE (DIP) SHALL BE STANDARD PRESSURE CLASS 350 IN SIZES 4" THROUGH 12" AND CONFORM TO ANSI/AWWA C150/A21.50 (LATEST EDITION). ALL DUCTILE IRON PIPE SHALL HAVE A STANDARD THICKNESS OF CEMENT MORTAR LINING AS SPECIFIED IN ANSI/AWWA C104/A21.4 (LATEST EDITION). PIPE JOINTS SHALL BE OF THE PUSH-ON RUBBER GASKET TYPE CONFORMING TO ANSI/AWWA C111/A21.11 (LATEST EDITION).

PIPE DETECTOR W/LOCATOR WIRE SHALL BE INSTALLED ON ALL WATER MAINS PER DETAIL.

PIPE SIZES GREATER THAN 12" IN BOTH PVC AND DUCTILE IRON SHALL BE SEPARATELY SPECIFIED ON THE PLANS; WITH THICKNESS CLASSES TO BE SHOWN BASED ON WORKING PRESSURES, PIPE DEPTH AND TRENCH CONDITIONS.

FITTINGS FOR DUCTILE IRON PIPE AND PVC C-900 PIPE SHALL BE DUCTILE IRON AND SHALL CONFORM TO ANSI/AWWA C153/A21.10 (LATEST EDITION) AND SHALL BE CEMENT LINED IN CONFORMANCE WITH ANSI/AWWA C104/A21.4 (LATEST EDITION).

POLYETHYLENE WRAP USED FOR CORROSION PREVENTION ON DUCTILE IRON PIPE SHALL CONFORM TO THE REQUIREMENTS OF ANSI/ASTM D1248. THE MINIMUM NOMINAL THICKNESS SHALL BE 0.008 IN. (8 MILS). INSTALLATION OF POLY WRAP SHALL BE IN ACCORDANCE WITH AWWA C105.

VALVES

GATE VALVES SHALL BE RESILIENT SEAT AND SHALL CONFORM TO ANSI/AWWA C509.87 WITH HANDWHEEL OR WRENCH NUT, EXTENSION STEMS AND OTHER APPURTENANCES AS REQUIRED. MANUFACTURER?S CERTIFICATION OF THE VALVES COMPLIANCE WITH AWWA SPECIFICATION C509 AND TESTS LISTED THEREIN WILL BE REQUIRED. VALVES SHALL BE CLOW, DRESSER KENNEDY, AMERICAN.

BUTTERFLY VALVES

BUTTERFLY VALVES SHALL MEET OR EXCEED THE DESIGN STRENGTH TESTING AND PERFORMANCE REQUIREMENTS OF AWWA C504, CLASS 150. VALVES SHALL BE DUCTILE IRON, RESILIENT SEAT, AND BE MANUFACTURED BY KENNEDY, MUELLER, M&H, AMERICAN BUTTERFLY VALVES TO BE USED FOR SIZES GREATER THAN 12".

AIR RELEASE VALVES

AIR RELEASE VALVES SHALL BE PLACED AT HIGH POINTS OF THE TRANSMISSION MAIN TO PERMIT ESCAPE OF TRAPPED AIR. THE VALVE SIZE, LOCATION, AND METHOD OF INSTALLATION SHALL BE INDICATED ON THE DRAWINGS, OR AS DIRECTED BY THE ENGINEER. AIR RELEASE VALVES SHALL BE CRISP IN PRESSURE AIR VALVE TYPE N, APCO, OR VALVE & PRIMER CORP.

VALVE BOXES

VALVE BOXES ON BURIED POTABLE WATER MAINS SHALL BE ADJUSTABLE, CAST IRON CONSTRUCTION, WITH MINIMUM INTERIOR DIAMETER OF 5" WITH COVERS CAST WITH THE INSCRIPTION IN LEGIBLE LETTERING ON TOP: WATER. BOXES SHALL BE SUITABLE FOR THE APPLICABLE SURFACE LOADING AND VALVE SIZE, AND SHALL BE MANUFACTURED BY MUELLER COMPANY, MODEL 10364, OR APPROVED EQUAL. VALVE BOX PADS SHALL BE 18" X 18" X 4" THICK CONCRETE WITH #4 REINFORCING BARS. PAD TO BE SET AT FINISHED GRADE WITH RECESSED DETECTOR WIRE CONDUIT PORT PER DETAIL.

FIRE HYDRANTS

FIRE HYDRANTS SHALL CONFORM TO THE LATEST EDITION OF AWWA C502.85 AND SHALL BE FURNISHED COMPLETE WITH WRENCH AND OTHER APPURTENANCES. MANUFACTURER'S CERTIFICATION OF COMPLIANCE WITH AWWA C502 AND TESTS LISTED THEREIN WILL BE REQUIRED. ALL HYDRANTS SHALL BE BREAKABLE TYPE, WITH THE BREAKABLE SECTION LOCATED SLIGHTLY ABOVE THE FINISH GROUND LINE. HYDRANTS SHALL CONTAIN TWO, TWO AND ONE-HALF INCH (2-1/2") HOSE CONNECTIONS, AND ONE, FOUR AND ONE-HALF INCH (4-1/2") STEAMER CONNECTIONS WITH NATIONAL STANDARD FIRE HOSE COUPLING SCREW THREADS, FIVE AND ONE-QUARTER INCH (5 1/4") VALVE OPENING, SIX INCH (6") DIAMETER MECHANICAL JOINT INLET, ONE AND ONE-HALF INCH (1 1/2") PENTAGON OPERATING NUT. SHALL OPEN COUNTERCLOCKWISE, SHALL BE PAINTED IN CONFORMANCE WITH LAKE COUNTY/CITY OF CLERMONT REQUIREMENTS (COLORS BASED ON DELIVERED FIRE FLOW) WITH THE PRIMER AND FINISH PAINT BEING SHERWIN WILLIAMS OSHA SAFETY COLOR ENAMEL PAINT. HYDRANTS SHALL BE MUELLER CENTRON (TRAFFIC MODEL A-423) NO SUBSTITUTE. FIRE HYDRANTS TO BE THE BREAK AWAY TYPE WITH A CAST IRON DUCTILE IRON MECHANICAL JOINT HYDRANT TEE, WITH RESILIENT SEAT AND MECHANICAL JOINT GATE VALVE.

1. BLUE PAVEMENT REFLECTORS (RPM'S) SHALL BE PLACED IN THE CENTERLINE OF THE DRIVING LANE DIRECTLY IN FRONT OF EACH FIRE HYDRANT.
2. CONTRACTOR SHALL PROVIDE A POST-CONSTRUCTION FIRE FLOW TEST WITNESSED AND APPROVED BY THE ENGINEER AND OWNER/OPERATOR. HYDRANTS SHALL DELIVER A MINIMUM OF 1000 GPM WITH A RESIDUAL PRESSURE OF 20 PSI IN RESIDENTIAL AREAS.
3. FIRE HYDRANTS AND FIRE APPLIANCES SHALL BE READILY ACCESSIBLE TO THE FIRE DEPARTMENT. NOTHING THAT MAY OBSTRUCT A FIRE HYDRANT OR FIRE PROTECTION APPLIANCE AND HINDER OR PREVENT ITS IMMEDIATE USE BY FIRE DEPARTMENT PERSONNEL MAY BE PLACED WITHIN THE FOLLOWING CLEARANCES. CLEARANCES OF SEVEN & ONE HALF FEET (7'-6") IN FRONT OF AND TO THE SIDES OF A FIRE HYDRANT, WITH A 4 FOOT (4') CLEARANCE TO THE REAR OF THE HYDRANT. MAINTAIN CLEARANCES OF SEVEN & ONE HALF FEET (7'-6") IN FRONT OF & TO THE SIDES OF THE APPLIANCE. SUCH FIRE HYDRANT OR FIRE PROTECTION APPLIANCE SHALL BE KEPT READILY VISIBLE AT ALL TIMES.

WATER SERVICES

UNLESS OTHERWISE NOTED IN THE PLANS, THE UTILITY COMPANY SHALL PROVIDE AND INSTALL WATER METERS. CONTRACTOR SHALL CONSTRUCT WATER SERVICE THROUGH THE CURB STOP AND SET METER BOXES TO FINISHED GRADE AS SHOWN ON THE WATER SYSTEM DETAIL SHEET.

POLYETHYLENE (PE) PRESSURE PIPE FOR WATER SERVICES 1/2" THROUGH 3" SHALL CONFORM TO AWWA C901.88, MIN 200 PSI. AND SHALL BE PHILLIPS DRISCO CTS 5100 (DR-9) ASTM D-2737, 200 PSI.

ALL SERVICES SHALL INCLUDE THE FOLLOWING: LOCKING CURB STOPS, WYE BRANCHES, UNIONS AS REQUIRED, PE SERVICE PIPE AND CORPORATION STOPS. THE SERVICE SHALL BE COMPLETE THROUGH THE CURB STOP AS SHOWN ON THE DETAIL SHEET, AND SHALL BE OF THE TYPE REQUIRED FOR COMPATIBILITY WITH THE SERVICE LINES SPECIFIED, AND FITTINGS SHALL BE MANUFACTURED BY FORD.

MATERIALS AS REQUIRED BY THE CITY OF CLERMONT

SERVICE SADDLE – FORD FS202
CORPORATION STOP – FORD FB1000
CURB STOP – FORD B41-444W
METER BOX – SINGLE ONLY (NO DOUBLE METER BOXES ALLOWED), DEXOL WITH IRON READER DOOR.
COMPOUND Y BRANCH – FORD Y44
JOINT RESTRAINT – MEGA LUG
INSTALL OR PROVIDE CITY WITH 1" X 3/4" BRASS BUSHING AT METER DISCHARGE CONNECTION.

THE CONTRACTOR SHALL CUT "W" IN THE CURB TOP AT EACH WATER SERVICE AND A "V" AT ALL VALVE LOCATIONS. CUT W'S AND V'S SHALL BE HIGHLIGHTED WITH BLUE PAINT. SEE WATER SYSTEM DETAILS FOR OTHER SERVICE LOCATION AND MARKING REQUIREMENTS.

PIPE INSTALLATION

PIPE INSTALLATION OF PVC WATER MAIN SHALL BE IN CONFORMANCE WITH ASTM D2774 (LATEST EDITION). INSTALLATION OF DUCTILE IRON PIPE WATER MAIN SHALL BE IN CONFORMANCE WITH AWWA C600.87.

COMPACTED BACKFILL SHALL BE TO 98% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 UNDER ALL PAVEMENTS WITH 12" MAXIMUM LIFT THICKNESS. OTHER COMPACTION OF BACKFILL SHALL BE TO 95% MAXIMUM DENSITY AS DETERMINED BY AASHTO T-180 WITH 12" MAXIMUM LIFT THICKNESS. SEE PIPE TRENCHING DETAILS.

MINIMUM COVER OVER ALL PIPE SHALL BE 36" FROM TOP OF PIPE TO FINISHED GRADE. SEE PLAN AND PROFILE SHEETS FOR REQUIRED DEPTH.

WATER MAINS ARE TO BE INSTALLED SO AS TO PROVIDE A MINIMUM VERTICAL CLEARANCE OF 18" OIR A MINIMUM HORIZONTAL CLEARANCE OF 10 FEET FROM ALL SANITARY HAZARDS, INCLUDING STORM DRAINAGE PIPES AND STRUCTURES, AS WELL AS SEPTIC TANKS, DRAIN FIELDS AND SEWER PIPING. IF CLEARANCE CANNOT BE ACHIEVED, THEN DUCTILE IRON WATER MAIN SHALL BE PROVIDED 10 FEET EITHER SIDE OF THE CROSSING.

ALL WATER MAINS SHALL BE INSTALLED WITH RESTRAINED JOINT FITTINGS. NO CONCRETE THRUST BLOCKS TO BE USED.

ALL PLUGS, CAPS, TEES, BENDS, FIRE HYDRANTS, VALVES, ETC. SHALL BE PROVIDED WITH MEGALUG PIPE RESTRAINTS. FOR RESTRAIN CONSTRUCTION SPECIFICATIONS, REFER TO THE WATER SYSTEM DETAILS.

PIPE IDENTIFICATION WIRE

BLUE INDICATOR TAPE SHALL BE BURIED IN THE WATER MAIN TRENCH 18" DIRECTLY ABOVE THE WATER MAIN. A CONTINUOUS COPPER DETECTOR WIRE SHALL BE ATTACHED AS SHOWN ON THE WATER DETAIL SHEET.

DISINFECTION AND TESTING

ALL PIPE SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651.86.

ALLOWABLE LEAKAGE FOR PVC PRESSURE MAINS WILL BE IN ACCORDANCE WITH AWWA M23.

THE CONTRACTOR SHALL PROVIDE AT HIS OWN EXPENSE ALL NECESSARY TEST PUMPING EQUIPMENT, WATER, WATER METERS, OIL FILLED PRESSURE GAUGES, AND OTHER EQUIPMENT, MATERIAL AND FACILITIES REQUIRED FOR ALL HYDROSTATIC AND LEAKAGE TESTING. CONTRACTOR SHALL CONTACT THE ENGINEER, OWNER/OPERATOR AND CITY IN WRITTEN FORM, FORTY-EIGHT (48) HOURS IN ADVANCE OF PROPOSED TESTING. THE CONTRACTOR SHALL PERFORM SATISFACTORY PRETESTING PRIOR TO NOTIFICATION.

THE WATER SYSTEM SHALL BE SOAK TESTED 24 HOURS @ 150 PSI AND TESTED FOR LEAKAGE AT 150 PSI FOR TWO (2) HOURS, WITH ALLOWABLE LEAKAGE IN ACCORDANCE WITH ABOVE STANDARDS.

CONTRACTOR SHALL OBTAIN A COPY OF THE FDEP WATER SYSTEM PERMIT AND PULL BACTERIOLOGICAL TEST SAMPLES FROM THE SAMPLE POINTS SPECIFIED IN THAT PERMIT.

CONNECTIONS TO EXISTING WATER MAINS

PRIOR TO THE CONNECTION TO ANY EXISTING MAIN, THE PROPOSED WATER MAIN SHALL BE DISINFECTED, HAVE ENGINEER APPROVED PRESSURE TESTING AND HAVE FDEP CLEARANCE. REFER TO FDEP PERMIT FOR ANY ADDITIONAL REQUIREMENTS.

AS BUILT DRAWINGS

THE CONTRACTOR SHALL PROVIDE VERTICAL AND HORIZONTAL "AS-BUILT" INFORMATION RELATIVE TO ALL CONSTRUCTED UTILITIES AND STRUCTURES. THREE SETS SHALL BE PROVIDED FOR REVIEW. ONCE APPROVED BY THE UTILITY, ONE REPRODUCIBLE SET SHALL BE PROVIDED.

AS-BUILT INFORMATION FOR THE WATER SYSTEM SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

1. LOCATION OF ALL VALVES, FITTINGS, HYDRANTS AND SERVICES. HORIZONTAL AND VERTICAL
2. LOCATION OF THE WATER MAIN TIED WITH COORDINATES FOR THE SUBDIVISION.
3. CERTIFICATION AS TO THE SYSTEM MEETING THE MINIMUM COVER REQUIREMENTS.
4. HORIZONTAL AND VERTICAL DATA FOR ANY CONSTRUCTION WHICH DEVIATES FROM THE APPROVED ENGINEERING PLANS.
5. UTILITY LOCATES ON SYSTEMS INSTALLED UNDER THIS CONTRACT SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER UNTIL AS-BUILT DRAWINGS ARE REVIEWED AND APPROVED BY THE UTILITY.

SANITARY SEWER NOTES

LATERALS

1. ALL SERVICE LATERALS AND FITTINGS SHALL BE A MINIMUM OF 6" IN DIAMETER.
2. ALL LATERALS SHALL TERMINATE WITH A 4" CLEAN-OUT AT THE PROPERTY LINE, AND AT A DEPTH TO FINAL GRADE OF 3 FEET.
3. THE END OF EACH SERVICE CONNECTION SHALL BE MARKED WITH A 2" X 2" X 2" ABOVE GRADE WOODEN STAKE OR APPROVED MARKER AND CURB MARKED WITH A "S"..
4. IF CLEANOUTS ARE NOT INSTALLED AT THE TIME OF FINAL INSPECTION, THEN THE TERMINAL END OF EACH LATERAL SHALL BE EXPOSED.

MAINS AND MANHOLES

1. ALL GRAVITY SANITARY SEWER MAINS SHALL BE CONSTRUCTED OF DR35 PVC PIPE MEETING ASTM 3034, AND SHALL HAVE A MINIMUM COVER OF THREE (3) FEET.
2. WHERE REQUIRED, MAINS SHALL BE CLASS 50 DUCTILE IRON PIPE (DIP) MEETING AWWA C150 AND C151. MAINS SHALL BE 60 MIL EPOXY COATED WITH POLYETHYLENE WRAP CONFORMING TO AWWA C105.
3. MAINS AND LATERALS WITH LESS THAN THREE (3) FEET OF COVER SHALL BE CLASS 50 DIP.
4. ALL PVC PIPE SHALL BEAR THE NSF-DW SEAL.
5. JOINTS SHALL BE INTEGRAL BELL ELASTOMERIC GASKET JOINTS MANUFACTURED IN ACCORDANCE WITH ASTM D3212 AND ASTM F477. APPLICABLE UNI-BELL PLASTIC PIPE ASSOCIATION STANDARD IS UNI-B-7.
6. JOINTS BETWEEN PIPES OF DISSIMILAR MATERIALS MAY BE MADE WITH A FLEXIBLE MECHANICAL COMPRESSION COUPLING WITH NUMBER 316 STAINLESS STEEL BANDS.
7. ALL SANITARY MANHOLES SHALL BE PRECAST CONCRETE WITH A MINIMUM WALL THICKNESS OF FIVE (5) INCHES FOR INSIDE DIAMETER OF FOUR (4) FEET.
8. MANHOLES SHALL MEET ASTM C-478. RING AND COVER SHALL BE TRAFFIC BEARING H-20, CLASS 30 MEETING ASTM A-48.
9. INTERIOR AND EXTERIOR WALLS OF ALL MANHOLES SHALL HAVE A MINIMUM OF TWO (2) 8 MIL COATS OF AN APPROVED PROTECTIVE COAL TAR EPOXY.
10. ALL PVC PIPE TO MANHOLE CONNECTIONS SHALL BE MADE WITH D.I.P. (SEE 2 ABOVE) USING EMBEDDED GROUT.
11. ALL MAINS NOT LOCATED UNDER PAVEMENT SHALL BE MARKED BY A THREE (3) INCH WIDE METALLIC LOCATOR TYPE 18" ABOVE THE CENTERLINE OF PIPE.

FORCEMAINS

1. FORCEMAINS SHALL BE DR18 PVC PIPE CONFORMING TO AWWA C-900, OR 60 MIL EPOXY COATED CLASS 50 DIP. PVC PIPE SHALL HAVE INTEGRAL BELL PUSH ON TYPE JOINTS CONFORMING TO ASTM D3139.
2. ALL FITTINGS SHALL BE MECHANICAL JOINT DUCTILE IRON WITH 250 PSI MINIMUM PRESSURE RATING.
3. METALLIC MARKING TAPE SHALL BE PLACED OVER THE MAIN AT A MAXIMUM DEPTH OF TWO (2) FEET BELOW THE SURFACE AND TIED INTO ALL VALVE BOXES. TESTING FOR CONTINUITY WILL BE REQUIRED.
4. ALL MAINS SHALL HAVE A MINIMUM COVER OF THREE (3) FEET. FORCEMAINS WITH LESS THAN THREE (3) FEET OF COVER SHALL BE CLASS 50 DIP.
5. ALL CONNECTIONS TO EXISTING SEWER FORCEMAINS SHALL BE ACCOMPLISHED WITH A WET TAP AND THRUST BLOCK.
6. PROVIDE JOINT RESTRAINTS AS SHOWN ON THE WATER DETAIL SHEET.

TESTING

1. SEWAGE COLLECTION SYSTEM
   A. ALL GRAVITY SEWER MAINS REQUIRE LOW PRESSURE AIR TESTING IN ACCORDANCE WITH THE LATEST UNI-BELL STANDARD FOR LOW- PRESSURE AIR TESTS.
   B. ALL SEWER MAINS SHALL BE LAMPED BY A CITY REPRESENTATIVE.
   C. ALL MANHOLES SHALL BE INSPECTED FOR INFILTRATION, ALIGNMENT, FLOW CHANNEL CONSTRUCTION AND COAL TAR EPOXY PAINT THROUGHOUT.
   D. HYDRO-STATIC TESTS CONSISTING OF A HYDROSTATIC PRESSURE TEST AND HYDROSTATIC LEAKAGE TEST SHALL BE CONDUCTED ON ALL NEWLY INSTALLED SEWER FORCE MAIN SYSTEM PRESSURE PIPES AND APPURTENANCES IN ACCORDANCE WITH AWWA C600 OR M23 AS APPLICABLE. THE PRESSURE

TEMPORARY JUMPER CONNECTION NOTES:

A TEMPORARY JUMPER CONNECTION IS REQUIRED AT ALL CONNECTIONS BETWEEN EXISTING ACTIVE WATER MAINS AND PROPOSED NEW WATER MAIN IMPROVEMENTS.

THE DETAIL PROVIDED IS TO BE USED FOR FILLING ANY NEW WATER MAIN OF ANY SIZE FROM EXISTING ACTIVE WATER MAINS AND FOR FLUSHING OF NEW MAINS UP TO 8" DIAMETER (2.5 FPS MINIMUM VELOCITY) AND FOR TAKING BACTERIOLOGICAL SAMPLES FROM ANY NEW WATER MAIN OF ANY SIZE. THE JUMPER CONNECTION SHALL BE MAINTAINED UNTIL AFTER FILLING, FLUSHING, TESTING, AND DISINFECTING OF THE NEW MAIN HAS BEEN SUCCESSFULLY COMPLETED AND CLEARANCE FOR USE HAS BEEN OBTAINED FROM THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) AND OTHER PERTINENT AGENCIES HAS BEEN RECEIVED BY THE CITY OF CLERMONT. THIS JUMPER CONNECTION SHALL ALSO BE USED TO MAINTAIN A MINIMUM LEVEL OF DISINFECTION AND UNTIL THE FDEP CLEARANCE LETTER IS OBTAINED AND THE LINES ARE PLACED INTO SERVICE.

ADEQUATE THRUST BLOCKING AND/OR RESTRAINTS SHALL BE PROVIDED TEMPORARILY, AS REQUIRED.

PIPE AND FITTINGS USED FOR CONNECTING THE NEW PIPE TO THE EXISTING PIPE SHALL BE DISINFECTED PRIOR TO INSTALLATION IN ACCORDANCE WITH AWWA C651, 1992 EDITION. THE TAPPING SLEEVE AND THE EXTERIOR OF THE MAIN TO BE TAPPED SHALL BE DISINFECTED BY SPRAYING OR SWABBING PER SECTION II OF AWWA C651-92.

FLUSHING OF 10" DIAMETER AND LARGER WATER MAINS MAY BE DONE THROUGH THE TIE-IN VALVE UNDER CONTROLLED CONDITIONS BY THE CITY ONLY. THE FOLLOWING PROCEDURES SHALL BE FOLLOWED

A. THE TIE-IN VALVES SHALL BE OPERATED ONLY BY THE CITY AND PRESSURE TESTED IN THE PRESENCE OF THE CITY AND ENGINEER TO VERIFY WATER TIGHTNESS PRIOR TO TIE-IN. VALVES WHICH ARE NOT WATERTIGHT SHALL BE REPLACED OR A NEW VALVE INSTALLED IMMEDIATELY ADJACENT TO THE LEAKING VALVE.
B. THE TEMPORARY JUMPER CONNECTION SHALL BE CONSTRUCTED AS DETAILED. THE JUMPER CONNECTION SHALL BE USED TO FILL THE NEW WATER MAIN, FOR PROVIDING WATER FOR BACTERIOLOGICAL SAMPLING OF THE NEW MAIN AS REQUIRED BY THE FDEP PERMIT AND FOR MAINTAINING CHLORINE RESIDUALS IN THE MAINS.
1. FLUSHING SHALL NOT BE ATTEMPTED DURING PEAK DEMAND HOURS OF THE EXISTING WATER MAIN.
2. ALL DOWNSTREAM VALVES IN THE NEW SYSTEM MUST BE OPEN PRIOR TO THE CITY OPENING THE TIE-IN VALVE.
3. PROVIDE FOR AND MONITOR THE PRESSURE AT THE TIE-IN POINT. THE PRESSURE IN THE EXISTING MAIN MUST NOT DROP BELOW 35 PSI.
4. TIE-IN VALVE SHALL BE OPENED BY THE CITY A FEW TURNS ONLY, ENSURING A PRESSURE DROP ACROSS THE VALVE IS ALWAYS GREATER THAN 10 PSI.
C. THE TIE-IN VALVE SHALL BE LOCKED CLOSED BY THE CITY UNTIL FLUSHING BEGINS.
D. THE TIE-IN VALVE SHALL BE OPENED ONLY BY THE CITY FOR FLUSHING OF THE NEW MAIN. THE PROCEDURE SHALL BE DONE BY THE CITY AND OBSERVED BY THE ENGINEER.
E. AFTER FLUSHING, THE TIE-IN VALVE SHALL BE CLOSED AND LOCKED IN THE CLOSED POSITION BY THE CITY.

THE CONTRACTOR SHALL PROVIDE DOCUMENTATION DEMONSTRATING THAT THE DOUBLE-CHECK BACK FLOW PRIVENTION DEVICE HAS BEEN TESTED WITHIN ONE YEAR AT THE TIME OF INSTALLATION, AND IS IN GOOD WORKING ORDER AT THE TIME OF INSTALLATION. THE TEST SHALL BE PERFORMED BY A CERTIFIED BACK FLOW PREVENTION TECHNICIAN AS APPROVED BY THE CITY OF CLERMONT CROSS-CONNECTION CONTROL PROGRAM. A CERTIFICATE IS REQUIRED BY THE CITY.

EXCEPT AS REQUIRED TO FLUSH LINES OF GREATER THAN 8' IN DIAMETER, THE TIE IN VALVE SHALL REMAIN CLOSED AND SHALL BE LOCKED IN THE CLOSE POSITION BY THE CITY. THE TIE-IN VALVE SHALL REMAIN LOCKED CLOSED UNTIL THE NEW SYSTEM HAS BEEN CLEARED FOR USE BY FDEP AND ALL OTHER AGENCIES. UPON RECEIPT OF CLEARANCE FOR USE FROM FDEP AND ALL OTHER AGENCIES, THE CONTRACTOR SHALL REMOVE THE TEMPORARY JUMPER CONNECTION. THE CORPORATION STOPS ARE TO BE CLOSED AND PLUGGED WITH 2" BRASS PLUGS. THERE SHALL BE NO LEAKAGE.

ALL INSTALLATION AND MAINTENANCE OF THE TEMPORARY JUMPER CONNECTION AND ASSOCIATED BACK FLOW PREVINTION DEVICE, FITTINGS, VALVE, ETC., SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

WATER METERS SHALL BE PAID FOR AT THE CITY HALL AND SHALL BE DELIVERED TO THE JOB SITE BY THE PUBLIC WORKS DEPARTMENT.

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CLIENT: The Hogan Group
PROJECT: Eckerd
DRAWING: Clermont Utility Notes
1 of 1

CITY OF CLERMONT
LAKE COUNTY, FLORIDA

SCALE:	FILE:	DATE:
		7/14/03
DESIGN:	DRAWN:	CHECKED:

DRAWING:
CLIENT: THE HOGAN GROUP
JOB NO.: 510.000
C-8