

**COUNTRY CLUB ROAD TRAILHEAD
CITY OF BLOOMINGTON
PROJECT NUMBER BPR-2011-2
ADDENDUM NO. 1**

November 7, 2011

The attention of all prospective Bidders on the subject project is directed to the following modification to the plans and specs:

ITEM NO. 1 – PREBID MEETING MINUTES

The Prebid Meeting Minutes are attached.

ITEM NO. 2 – SPECIFICATIONS

The Bid Form Sheet has been revised.

SP 19 DRINKING FOUNTAIN

The correct manufacturer's number for the Murdock Drinking Fountain is GRMBL-PF-SSB-FRU3.

SP 22 INTERLOCKING PAVERS

The Contractor shall place the rectangular shaped interlocking pavers into a herringbone pattern, if this is shape of brick paver you will be installing.

Aqua-Roc II manufactured by Belgarde shall be considered as an allowable product under Part 2 Materials, Section 2.01 of the specifications.

The detail for the paver section will apply to all. Contractor shall submit for approval the material that will be used to fill the voids between pavers.

SP 23 LIMESTONE MASONRY WALL

Section 2.0 Materials Section 2.2 is revised as follows:

2.2 Quality Assurance – Qualifications of Manufacturer: Manufacturer to have at least five years experience in the manufacturer of limestone masonry, field proven, for at least five years. Contractor shall list chosen subcontractor on the Contractor's Bid Form.

Headquarters:
8450 Westfield Blvd., Suite 300
Indianapolis, IN 46240-5920
T 317.713.4615
F 317.713.4616
E bfs@BFSEngr.com
www.BFSEngr.com

Branch Locations:
Fl. Wayne
Jeffersonville
Lafayette
Merrillville
Plainfield

Founded 1961



SP 25 HAWK RADIO SPECIFICATION

This specification is included within this addendum.

SP 26 HAWK SIGNAL CONTROLLER

This specification is included within this addendum.

ITEM NO. 3 – PLANS

The following sheets have been revised 1,

Limestone blocks are detailed on sheet 16 of the plans. They will sit on the surface of the flagstone.

BUTLER, FAIRMAN and SEUFERT, INC.

John C. Zant, P.E.

Please acknowledge receipt of this Addendum on the summation page of the Proposal.

CONTRACTOR BID FORM

**Country Club Trailhead Improvements
City of Bloomington Parks and Recreation Department
BPR-2011-02**

Designer:
Butler, Fairman & Seufert
8450 Westfield Blvd.
Indianapolis, IN 46240
Telephone: 317-713-4615 Fax: 317-713-4616

Submitted by (Contractor Name):

The undersigned as bidder declares that they have carefully examined the location of the proposed work, that they have examined the Special Provisions and read the accompanying instructions to bidders, and hereby proposes and agrees, if the proposal is accepted, to furnish all materials and do all work required to complete the said work in accordance with the said Standard Specifications, Special Provisions, and Plans in the time and manner therein prescribed for the unit price set forth in the following schedule.

I. Base Bid Total \$ _____

II. Alternates:

	Quantity	Unit Price	Total Price
Alternate #1 Add: Two (2) shelter benches as shown on the plans and described within the specifications.	2 Each	\$ _____	\$ _____
Alternate #2 Add: Drinking Fountain as shown in the plans and described within the specifications.	1 Each	\$ _____	\$ _____
Alternate #3 Add: Ornamental Grass – Lirope muscari 'Big Blue' as shown in the plans	635 Each	\$ _____	\$ _____
Alternate #4 Add: HAWK Pedestrian Signal System	1 Lump Sum	\$ _____	\$ _____

Paver system that will be utilized: _____

All work shall be completed within 180 calendar days from Notice to Proceed.

Any Subcontractors to be employed shall be listed below:

Subcontractor	Address	Type of Work
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

**Country Club Trailhead
Pre-Bid Meeting Minutes
November 2, 2011**

All Contractors must have a copy of their Affirmative Action Plan on file with the City a minimum of 24 hours prior to the bid. Those contractors that submit a bid without an Affirmative Action Plan on file will have their bid returned and unopened.

This project is a common wage project. It has a lump sum component for the base amount of work and four alternates as outlined the bid documents.

Materials can be stored at the City's switchyard site. It will be up to the Contractor to secure his materials and equipment at the site.

A contractor asked about the color of the fountain. It shall be furnished and installed black.

The model numbers at the vender's site do not seem to match those specified in the specification manual. BF&S indicated they would look into the issue.

A Contractor asked if the exposed aggregate sidewalk was an integral mix or a surface coat. The sidewalk will be specified as an integral mix.

A Contractor asked about the different hatch patterns on the sidewalk and what the design intent was. All sidewalks shown on the south side of the trailhead and that running parallel to Country Club Drive shall be installed as the integral mix exposed aggregate walk.

Many questions were asked about the pavers. Additional clarification will be answered within the addendum.

SP 25 HAWK RADIO SPECIFICATION

SPREAD SPECTRUM RADIO

Intuicom Spread Spectrum Radio System shall be used as radio interconnect. Radio components shall include but not limited to poly phaser, connecting cables inside of cabinet, radio, interface and all other miscellaneous components necessary for fully functioning radio interconnect. Request to use radio equipment other than Intuicom shall be submitted and demonstrated to be able to communicate with existing City of Bloomington radio locations. All equipment must be approved prior to ordering from manufacturer. Connector shall be installed on coaxial cable with a tool specifically made for heliax cables (PN: CPT-L4ARC).

CONSTRUCTION REQUIREMENTS

Installation shall be in accordance with manufacturer’s requirements and Section 805.

MEASUREMENT

Spread Spectrum Radio shall be included within the lump sum amount for Bid Alternate #4 installed in place.

Yagi antenna shall include antenna and hardware, and shall be included within the lump sum amount for Bid Alternate #4 installed in place.

Coaxial cable shall include heliax coaxial cable (PN: LDF4-50A) and coaxial cable connectors (PN: L4TNM-PS), and shall be included within the lump sum amount for Bid Alternate #4 installed in place.

PAYMENT

Payment will be made under:

Bid Alternate #4 LSUM

SP 26 HAWK SIGNAL CONTROLLERS

The controllers shall meet, as a minimum, all applicable sections of the NEMA Standards Publications for TS2 and NTCIP. The hardware design shall include the following:

- A 16-line by 40-character/line alphanumeric liquid crystal display (LCD)
- A 10-digit numeric keypad shall be an alphanumeric keyboard. The number keys shall also be used to enter vehicle, pedestrian and preemption calls.
- A data key shall be available for use as a database storage device (backup) or as a database transfer module.

In addition to the programming functions specified by NEMA and NTCIP, the controller shall provide:

- A 100 statement logic processor keyboard programmable that can be used to test 10 conditions using AND, OR, NAND, NOR or XOR and to set or clear up to 5 results if true or 5 different results if false. These statements shall be enabled, disabled or scheduled on a menu or TOD basis.
- Controller shall include on board support for high resolution data logging (Purdue MOE). This logging shall provide a chronological listing of controller events that can be retrieved by a central system for data analysis and intersection performance measurement.
- Ten preemption sequences that can be programmed as either railroad-fire, emergency or bus vehicle preemption sequences.
- Railroad Gate Down allowing track clearance phase to be extended with a programming value called "Gate Down Extension"
- Preempt Exit to Timing Plan shall provide the ability to program a different timing plan to run after preemption. This exit preempt plan will run for one cycle and revert back to the original timing plan that was running prior to preempt.
- An Extendable Walk and Pedestrian Clearance to extend the pedestrian timing until a walk or pedestrian clearance maximum timer expires or the input from a walk extension input is false.
- Adaptive Red Clearance using a separate detector input to sense if there are still vehicles present after the signal has turned red allowing the red clearance to be extended.
- A Bike Minimum Green used to replace the phase minimum green if the interval time is larger than the min green time and if a detector input designated as a bike detector has been activated.
- A Delay Green or Advanced Walk to delay the vehicle movement until the pedestrian movement begins and then delay green times out.
- Four separate timing plans called by coordination pattern, TOD or preemption plan (for one cycle following preemption).
- Split and Offset timing in seconds or percentage as selected by the operator.
- A Crossing arterial pattern to provide for dual coordination.

CONSTRUCTION REQUIREMENTS

Installation shall be in accordance with manufacturer's requirements.

MEASUREMENT

Spread Spectrum Radio and Yagi antenna shall be measured as apart of Alternate #4, installed in place. Spread Spectrum Radio, Yagi antenna shall include furnishing all hardware, installation and incidentals.

Coaxial cable shall include heliax coaxial cable (PN: LDF4-50A) and coaxial cable connectors (PN: L4TNM- PS), and shall be measured LSUM.

PAYMENT

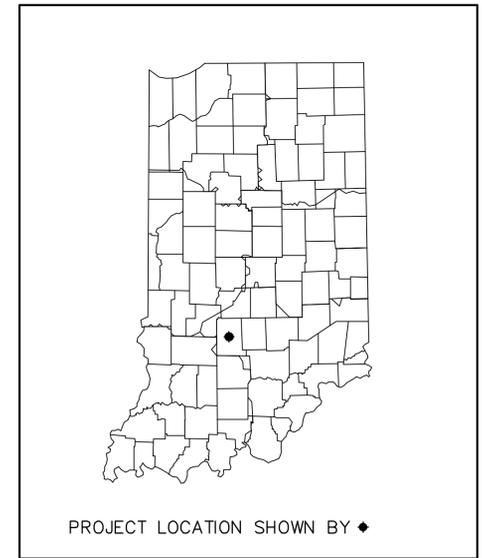
Payment will be made under:

ALTERNATE #4 LSUM

CITY OF BLOOMINGTON, INDIANA

COUNTRY CLUB TRAILHEAD

REVISIONS	
SHEET NO.	DATE & DESCRIPTION
04, 11, 12, 13, 15, 1	11/07/2011 - TITLE SHEET & INDEX



THE PROJECT IS LOCATED APPROXIMATELY 50 MILES SOUTHWEST OF INDIANAPOLIS, INDIANA AND SOUTH OF DOWNTOWN BLOOMINGTON, INDIANA. THE TRAILHEAD IS LOCATED IN SECTIONS 16, TOWNSHIP 8 NORTH AND SECTIONS 32 & 33, TOWNSHIP 9 NORTH, RANGE 1 WEST, ON THE U.S.G.S. BLOOMINGTON QUADRANGLE, ALL IN BLOOMINGTON TOWNSHIP, MONROE COUNTY, INDIANA.

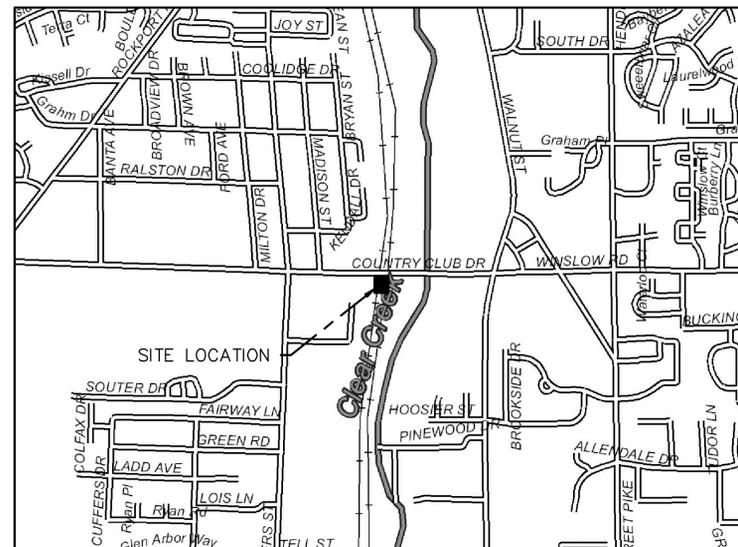
MORE SPECIFICALLY, THE TRAILHEAD PROJECT IS ON THE SOUTH SIDE OF THE INTERSECTION OF WEST COUNTRY CLUB ROAD AND THE FORMER CSX RAIL CORRIDOR, NOW THE BLOOMINGTON B-LINE TRAIL AND CLEAR CREEK TRAIL.

TOTAL SITE AREA = 0.77 Acres

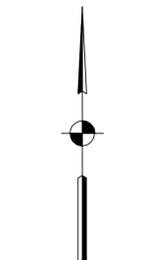
APPROVED BY:
 Mick Renneisen
 Director, City of Bloomington
 Department of Parks & Recreation

APPROVED BY:
 John Carter
 President, Board of Park Commissioners

PLAN { LONG: - 86°32'07"W
 TRANS: - 39°08'09"N
 MAX. GRADE-10.0%



VICINITY MAP
 MONROE COUNTY



SCALE: NONE

INDEX	
SHEET NO.	DESIGNATION
01	TITLE SHEET & INDEX
02	TOPO & DEMOLITION PLAN
03	MAINTENANCE OF TRAFFIC
04	SITE PLAN
05	GRADING PLAN
06	WATER SERVICE CONNECTION PLAN
07	EROSION CONTROL PLAN
08	EROSION CONTROL DETAILS
09	LANDSCAPE PLAN
10	LANDSCAPE DETAILS
11	WALL LAYOUT
12	WALL DETAILS
13	WIRING & SIGNALIZATION PLAN
14	PEDESTRIAN SIGNAL ASSEMBLY
15	ADVANCED WARNING BEACON DETAIL
16	MISCELLANEOUS DETAILS
17	SIGN & MARKING DETAILS
18	SITE FURNISHING DETAILS
19-21	WALL CROSS SECTIONS



CAUTION

LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (including, but not limited to, manholes, inlets, valves, and marks made upon the ground by others) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.

11/04/2011: WALL BLOCK REVISIONS

INDIANA DEPARTMENT OF TRANSPORTATION
 STANDARD SPECIFICATIONS DATED 2012 TO
 BE USED WITH THESE PLANS.

GAS:
 VECTREN ENERGY DELIVERY
 205 S. MADISON
 BLOOMINGTON, IN 47404
 Attn: Ray Wise
 Phone: (812) 330-4075
 Fax: (812) 330-4057

POWER:
 DUKE ENERGY
 1100 W. SECOND STREET
 BLOOMINGTON, IN 47403
 Attn: Kerry Ducker
 Phone: (812) 337-3035
 Fax: (812) 337-3000

T.V. CABLE:
 INSIGHT COMMUNICATION
 CABLE P.O. 2450 S.
 HENDERSON
 BLOOMINGTON, IN 47401
 Attn: Scott Templeton
 Phone: (812) 355-7822
 Fax: (812) 332-0129

UTILITIES TELEPHONE:
 SMITHVILLE TELEPHONE CO.
 1600 W. TEMPERANCE STREET
 ELLETTSVILLE, IN 47429
 Attn: Dwayne Lawrence, Eng. Dept.
 Phone: (812) 936-4511
 Fax: (812) 876-5131

SBC INDIANA
 4517 E. INDIANA BELL CT.
 BLOOMINGTON, IN 47408
 Attn: Brent McCabe
 Phone: (812) 334-4521
 Fax: (812) 334-4594

STORM, SEWER & WATER:
 BLOOMINGTON UTILITIES
 600 EAST MILLER DRIVE
 BLOOMINGTON, IN 47401
 Attn: Jane Fleig
 Phone: (812) 349-3631
 Fax: (812) 331-5961

Headquarters
 8450 WESTFIELD BLVD., SUITE 300
 INDIANAPOLIS, IN 46240-8302
 TEL 317-713-4615
 FAX 317-713-4616
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Branch Locations
 FORT WAYNE 260-459-1532
 JEFFERSONVILLE 812-285-0590
 LAFAYETTE 765-423-5602
 MERRILLVILLE 219-769-2333
 PLAINFIELD 317-839-3242

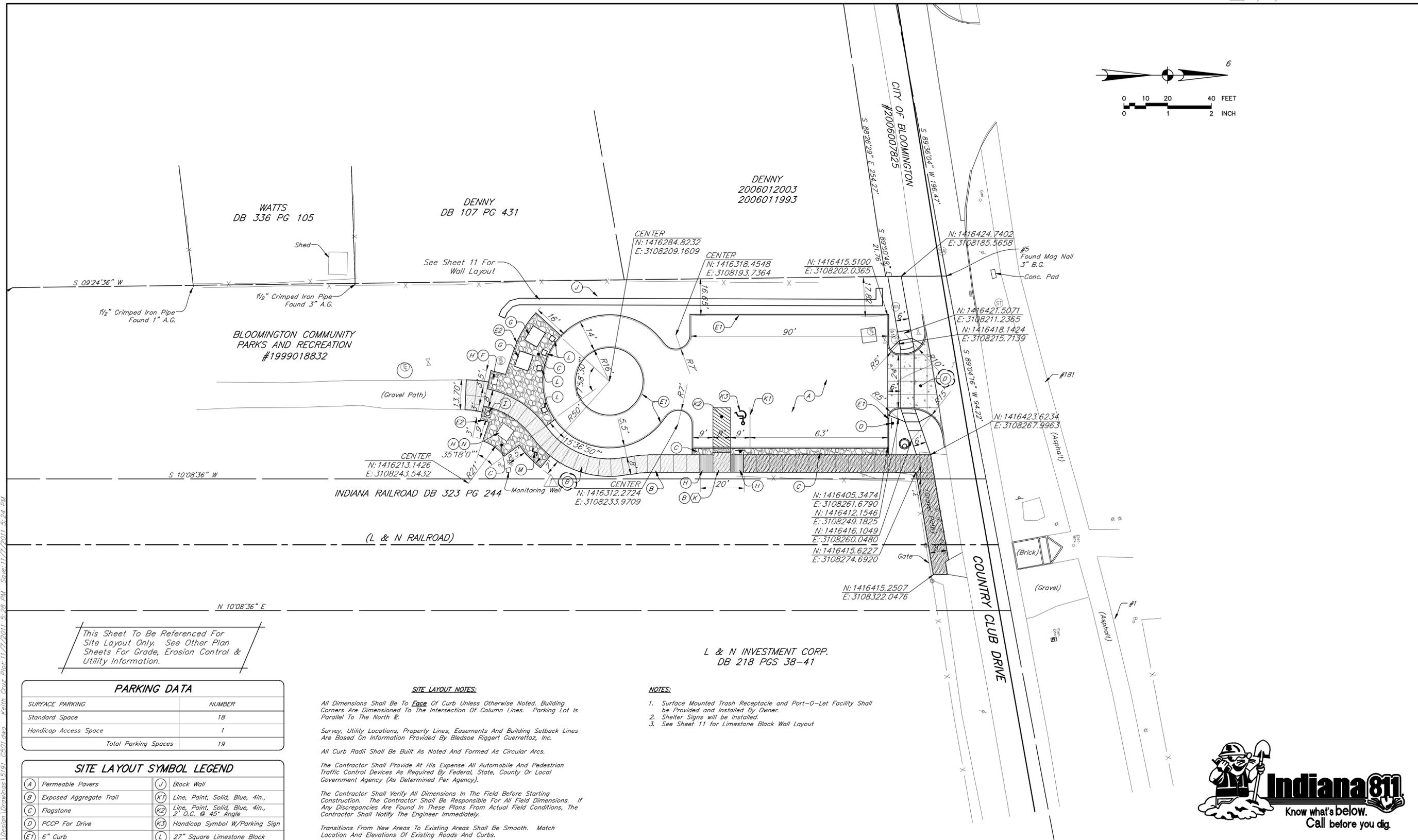
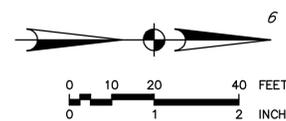


CERTIFIED BY: 10/19/11
 DATE

FILE	NA
DESIGNATION	NA
SHEET	01 OF 21
PROJECT	5191

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BFS NO. 5191



This Sheet To Be Referenced For Site Layout Only. See Other Plan Sheets For Grade, Erosion Control & Utility Information.

PARKING DATA	
SURFACE PARKING	NUMBER
Standard Space	18
Handicap Access Space	1
Total Parking Spaces	19

SITE LAYOUT SYMBOL LEGEND	
(A) Permeable Pavers	(J) Block Wall
(B) Exposed Aggregate Trail	(K1) Line, Paint, Solid, Blue, 4in., 2" O.C. @ 45° Angle
(C) Flagstone	(K2) Line, Paint, Solid, Blue, 4in., 2" O.C. @ 45° Angle
(D) PCCP For Drive	(K3) Handicap Symbol W/Parking Sign
(E1) 6" Curb	(L) 27" Square Limestone Block
(E2) 6" Flush Curb	(M) Bike Rack
(F) Drinking Fountain	(N) ADA Pot--John (By Others)
(G) Shelter Bench W/ Sign*	(O) Stop Sign
(H) 4" Concrete	(K) ADA Ramp, Type K
(I) Trash Receptacle (By Others)	

* Sign To Be Supplied By Owner

SITE LAYOUT NOTES:

All Dimensions Shall Be To Face Of Curb Unless Otherwise Noted. Building Corners Are Dimensioned To The Intersection Of Column Lines. Parking Lot Is Parallel To The North E.

Survey, Utility Locations, Property Lines, Easements And Building Setback Lines Are Based On Information Provided By Bledsoe Riggert Guerretaz, Inc.

All Curb Radii Shall Be Built As Noted And Formed As Circular Arcs.

The Contractor Shall Provide At His Expense All Automobile And Pedestrian Traffic Control Devices As Required By Federal, State, County Or Local Government Agency (As Determined Per Agency).

The Contractor Shall Verify All Dimensions In The Field Before Starting Construction. The Contractor Shall Be Responsible For All Field Dimensions. If Any Discrepancies Are Found In These Plans From Actual Field Conditions, The Contractor Shall Notify The Engineer Immediately.

Transitions From New Areas To Existing Areas Shall Be Smooth. Match Location And Elevations Of Existing Roads And Curbs.

All Damage To Existing Pavement And Curbs Caused By The General Contractor, Subcontractors Or Suppliers Shall Be Repaired At Least To Original Conditions After Construction Is Completed.

The Contractor Shall Remove All Mud, Dirt, Gravel And Any Other Materials Tracked Onto Any Public Or Private Streets Or Sidewalks. The Contractor Must Use Water Or Other Methods To Keep Airborne Dust To A Required Minimum.

Existing Trees Are Not Shown For Clarity. See Sheet 09 For Existing and Proposed Tree Locations.

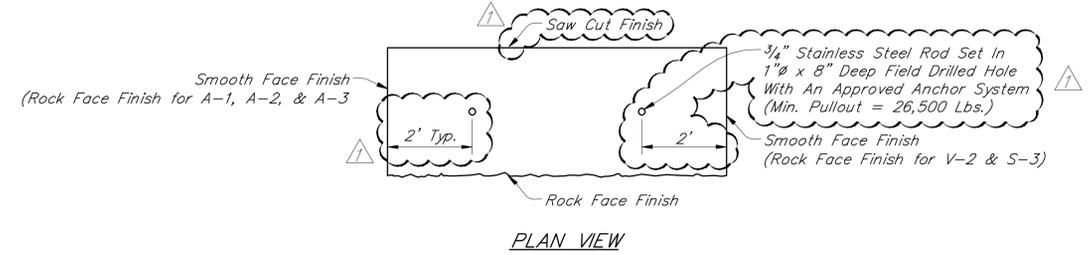
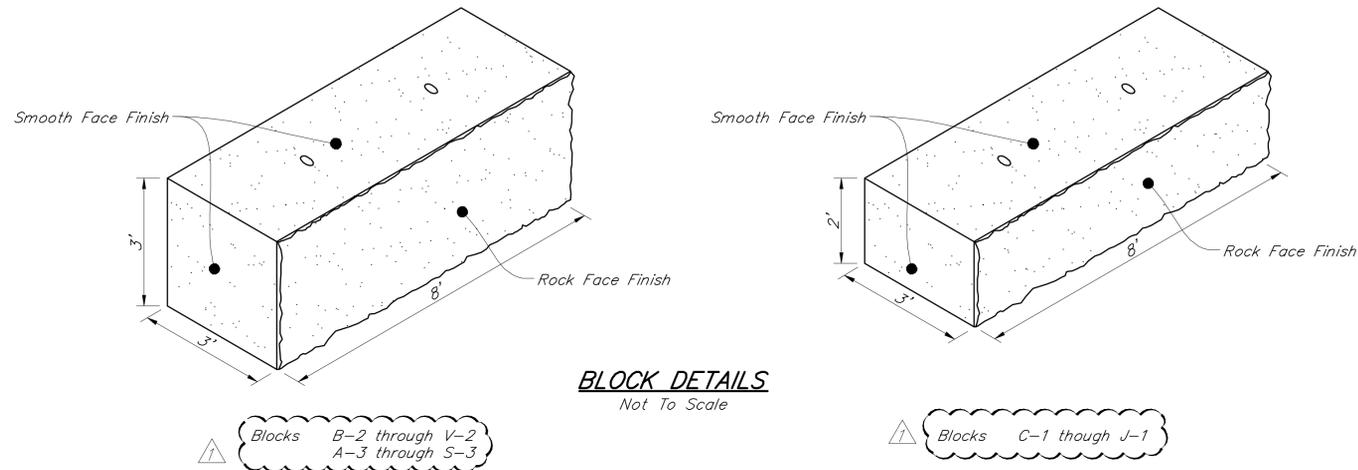
NOTES:

- Surface Mounted Trash Receptacle and Port--Let Facility Shall be Provided and Installed By Owner.
- Shelter Signs will be installed.
- See Sheet 11 for Limestone Block Wall Layout

	RECOMMENDED FOR APPROVAL: <i>John C. Zant 10/19/11</i>	SITE PLAN COUNTRY CLUB ROAD TRAILHEAD CITY OF BLOOMINGTON INDIANA	HORIZONTAL SCALE	FILE	
	DESIGNED: JGG		DATE	1" = 20'	NA
	CHECKED: KRC	CHECKED: JCZ	VERTICAL SCALE	DESIGNATION	
			NA	NA	
Headquarters: 8450 WESTFIELD BLVD., SUITE 300, INDIANAPOLIS, IN 46240-8302, TEL. 317-713-4615, FAX 317-713-4616, www.BFSengr.com			SURVEY BOOK	SHEET	
Branch Locations: FORT WAYNE 260-459-1532, JEFFERSONVILLE 812-286-0690, LAFAYETTE 765-423-5602, MERRILLVILLE 219-769-2333, PLAINFIELD 317-839-3242			NA	04 OF 21	
			CONTRACT	PROJECT	
				5191	

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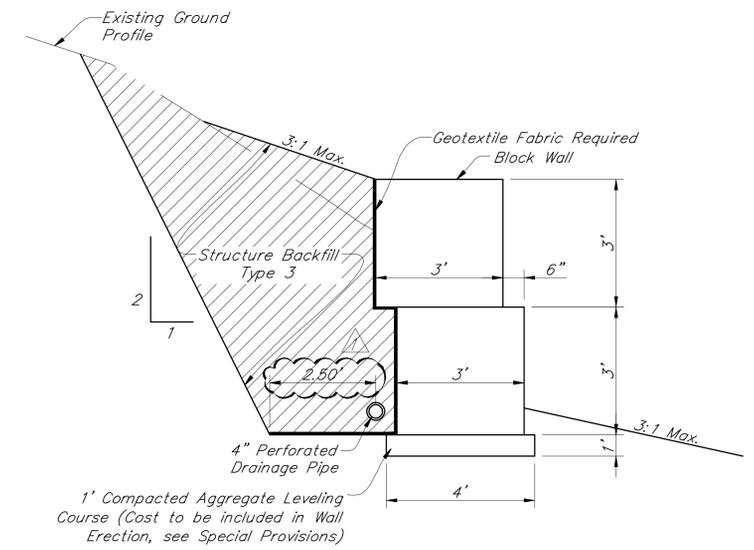
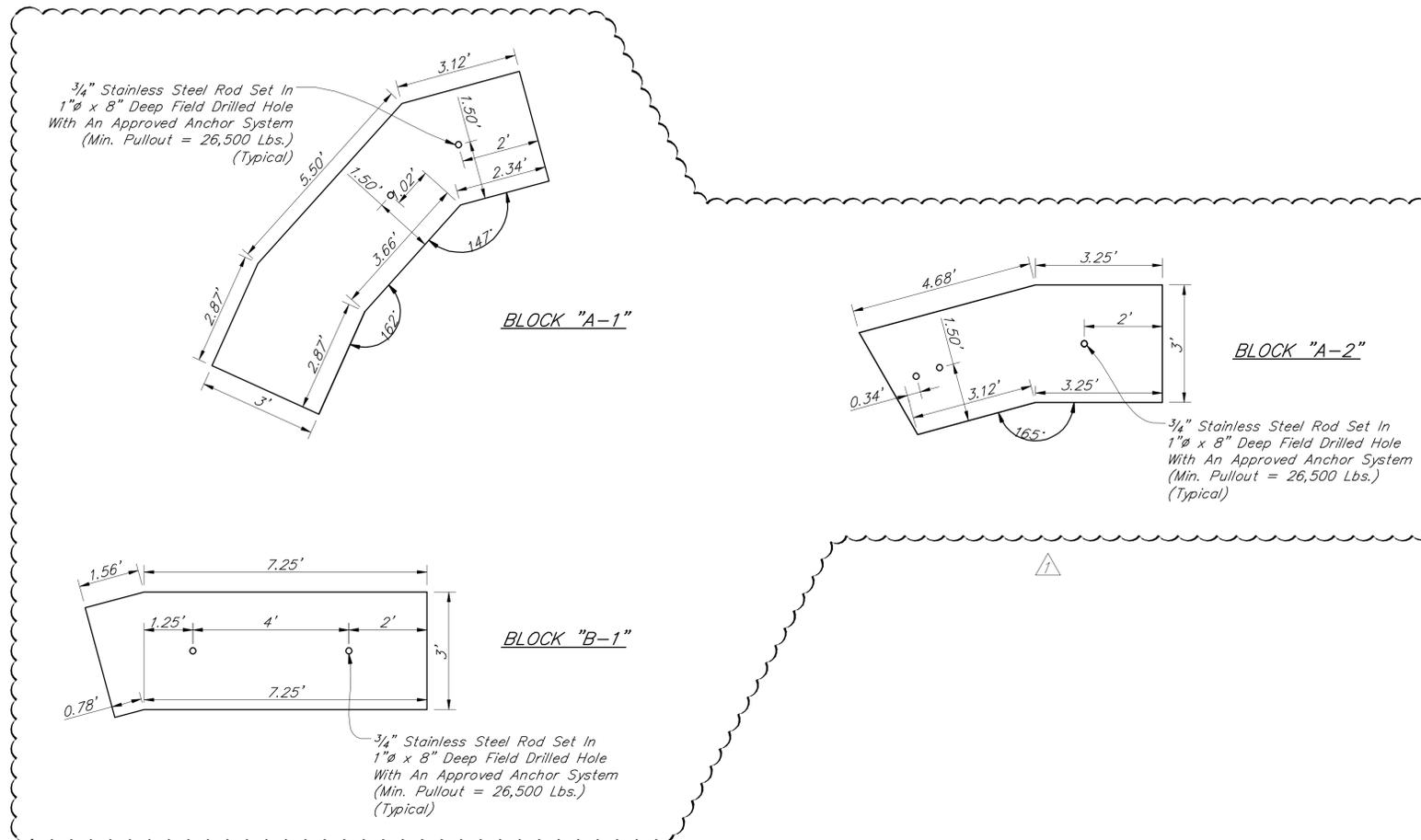
BFS NO. 5191



NOTE:
Hatched area indicates
Structure Backfill Type 3

NOTE:
Cross-Hatched Area
Indicates Foundation
Excavation and Structure
Backfill Type 3

LIMESTONE BLOCK WALL	
Block Wall Area	258 Sys
3x3x8 Blocks	43 Each
3x2x8 Blocks	8 Each
Foundation Excavation	27 Cys
Structural Backfill	215 Cys



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RECOMMENDED FOR APPROVAL: *John C. Zant 10/19/11*
DESIGN ENGINEER DATE

DESIGNED: KRC DRAWN: KRC
CHECKED: JCZ CHECKED: JCZ

BLOCK WALL DETAILS
COUNTRY CLUB ROAD TRAILHEAD
CITY OF BLOOMINGTON INDIANA

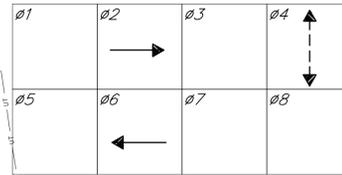
Headquarters
8450 WESTFIELD BLVD., SUITE 300
INDIANAPOLIS, IN 46240-8302
TEL 317-713-4615
FAX 317-713-4616
www.BFSengr.com

BFS
Branch Locations
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JEFFERSONVILLE 812-286-0690
LAFAYETTE 765-423-5602
MERRILLVILLE 219-769-2333
PLAINFIELD 317-939-3242

HORIZONTAL SCALE	FILE
AS NOTED	NA
VERTICAL SCALE	DESIGNATION
NA	NA
SURVEY BOOK	SHEET
NA	12 OF 21
CONTRACT	PROJECT
	5191

BFS NO. 5191

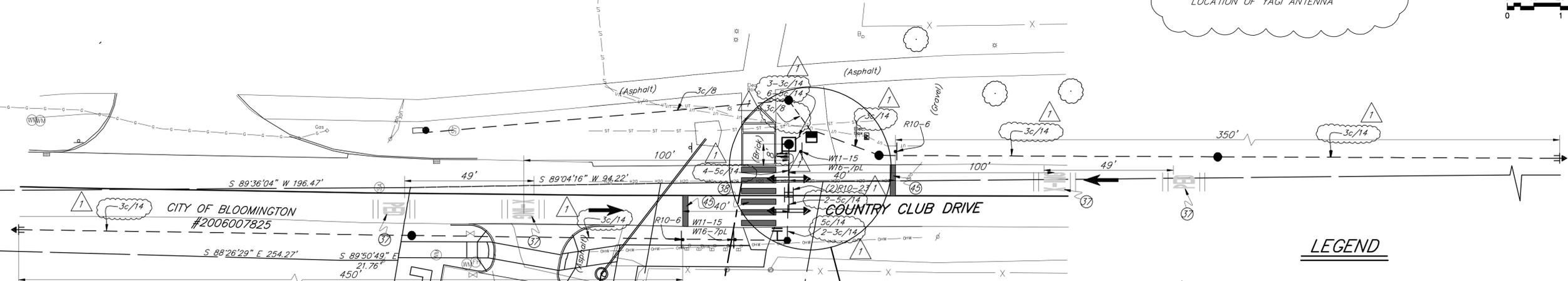
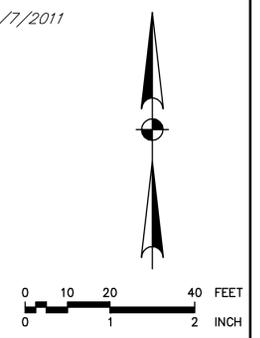
PHASE DIAGRAM



PREFERENTIAL ALL YELLOW FLASH

- NOTES:
1. CONTRACTOR SHALL DIRECTIONAL DRILL BENEATH EXISTING B-LINE TRAIL FEATURES
 2. SIGNAL CANTILEVER STRUCTURE AND FOUNDATION SHALL BE BASED ON THE INDOT RECURRING SPECIAL PROVISION: 805-T-177d
 3. PEDESTRIAN HYBRID BEACON SIGNAL HEAD SHALL BE BASED ON THE UNIQUE SPECIAL PROVISION; PEDESTRIAN HYBRID BEACON SIGNAL HEAD
 4. CONTRACTOR SHALL COORDINATE WITH THE CITY OF BLOOMINGTON TO DETERMINE FINAL POSITION AND LOCATION OF YAGI ANTENNA

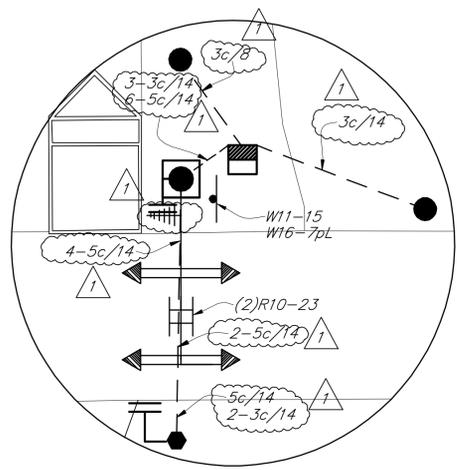
1 = 11/7/2011



DETAIL "A"

LEGEND

- ➔ PEDESTRIAN HYBRID BEACON SIGNAL HEAD, 1-WAY, 3 SECTION, 12" RED, RED, AMBER
- ⊥ PEDESTRIAN SIGNAL HEAD, COUNTDOWN SYMBOLIC LENS, 18 IN. (WITH PEDESTRIAN PUSHBUTTON AND R10-3E SIGN)
- SIGNAL CANTILEVER STRUCTURE (ARM TRUSS TYPE, 25' MAST) AND FOUNDATION
- 2" GALVANIZED STEEL CONDUIT
- HANDHOLE
- ⊙ SERVICE POINT
- ⊥ SPAN OR POLE MOUNTED SIGN
- ➔ TRAFFIC FLOW
- CONTROLLER AND CABINET, MENU DRIVEN 8 PHASE ON P-1 FOUNDATION
- ⊥ GROUND MOUNTED SIGN
- ⊥ ADVANCE WARNING BEACON ASSEMBLY (SEE DETAIL)
- 4' SIGNAL PEDESTAL ON "A" FOUNDATION
- ⊙ PAVEMENT MESSAGE MARKINGS, THERMOPLASTIC WORD, PED XING
- ⊙ TRANSVERSE MARKINGS, CROSSHATCH LINE, THERMOPLASTIC
- ⊙ WHITE, 2 Ft. (13 Ft. Long, 4 Ft. o.c.)
- ⊙ 2' WIDE WHITE STOP LINE, PREFORMED PLASTIC
- Wxx-xx MUTCD STANDARD WARNING SIGN
- Rxx-xx MUTCD STANDARD REGULATORY SIGN
- ⊥ YAGI ANTENNA



DETAIL "A"

This Sheet To Be Referenced For Traffic Signalization Layout Only. See Other Plan Sheets For Site, Grade, Erosion Control & Utility Information.

DENNY
2006012003
2006011993

DENNY
DB 107 PG 431

INDIANA RAILROAD DB 323 PG 244
(L & N RAILROAD)

L & N INVESTMENT CORP.
DB 218 PGS 38-41

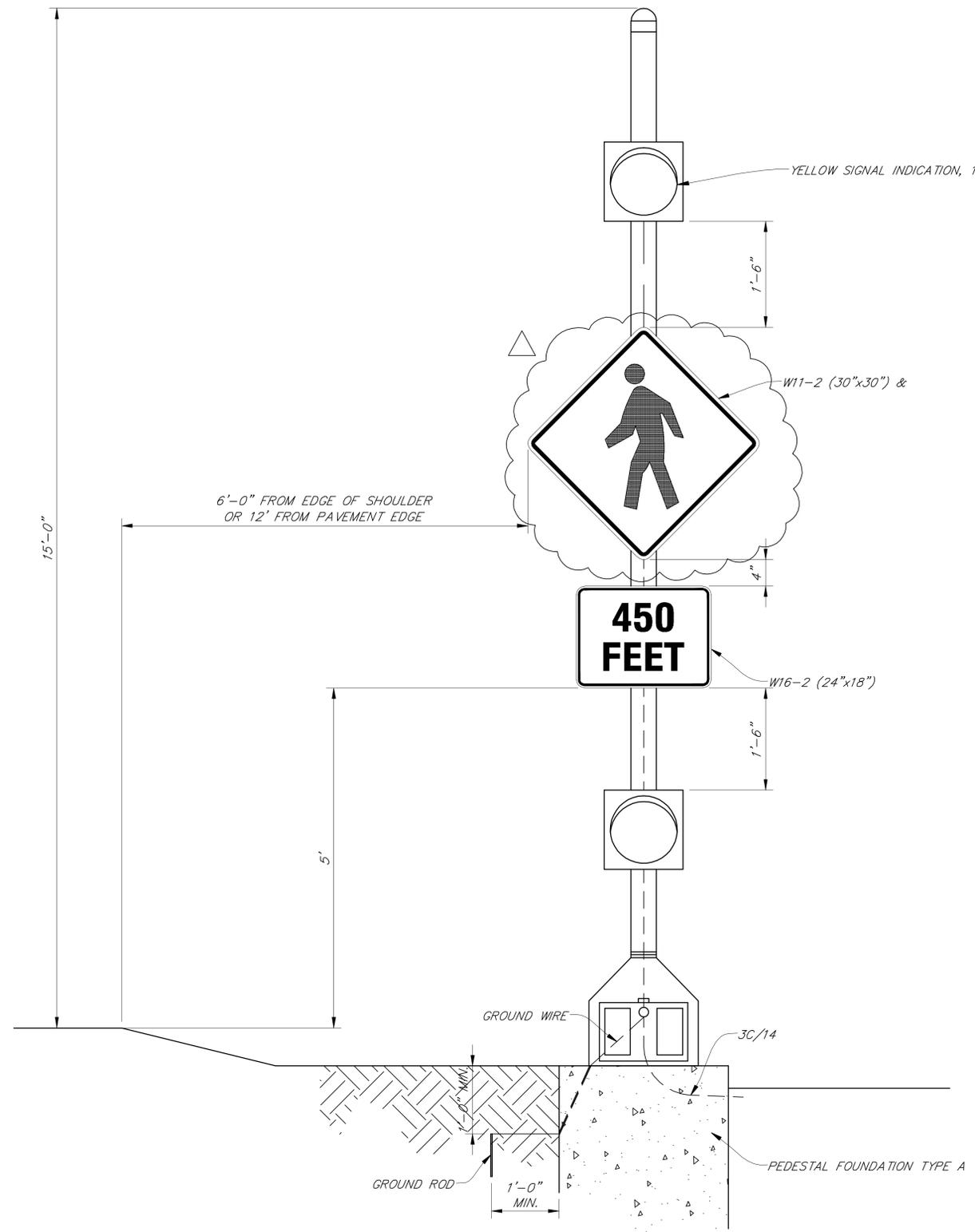


	RECOMMENDED FOR APPROVAL: <i>John C. Zant</i> 10/19/11 DESIGN ENGINEER DATE	WIRING & SIGNALIZATION PLAN COUNTRY CLUB ROAD TRAILHEAD CITY OF BLOOMINGTON INDIANA	HORIZONTAL SCALE 1" = 20'	FILE NA
	DESIGNED: JGG DRAWN: KRC		VERTICAL SCALE NA	DESIGNATION NA
	CHECKED: JCZ CHECKED: JCZ		SURVEY BOOK NA	SHEET 13 OF 21
Headquarters: 8450 WESTFIELD BLVD., SUITE 300, INDIANAPOLIS, IN 46240-8302, TEL. 317-713-4615, FAX 317-713-4616, www.BFSengr.com			Branch Locations: FORT WAYNE: 260-459-1532 JEFFERSONVILLE: 812-286-0590 LAFAYETTE: 765-423-5602 MERRILLVILLE: 219-769-2333 PLAINFIELD: 317-939-3242	
			CONTRACT PROJECT 5191	

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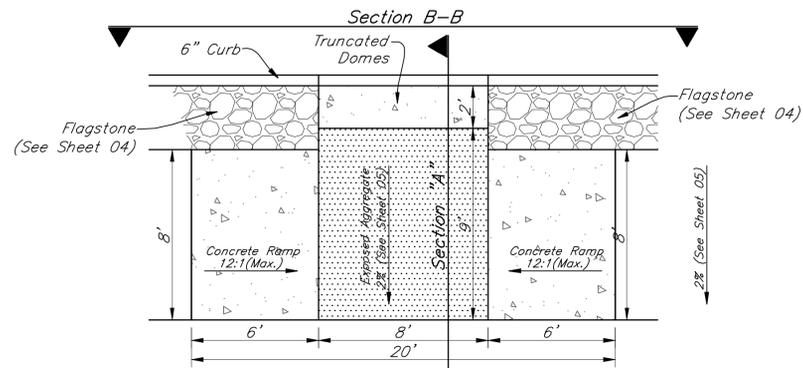


NOTES:

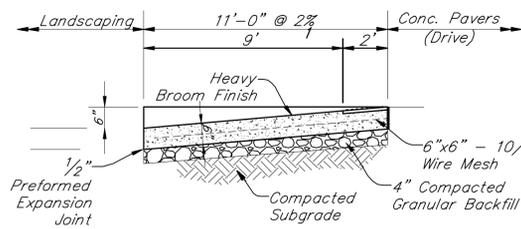
- ① SEE STANDARD DRAWING E 805-SGGR-03 FOR GROUNDING LUG DETAILS
- ② SEE STANDARD DRAWING E 805-SGCF-03 FOR TYPE A FOUNDATION DETAILS
- ③ SEE STANDARD DRAWING E 805-SNPL-02 FOR EDGE OF PAVEMENT OFFSET AND SIGN HEIGHT

	RECOMMENDED FOR APPROVAL: <i>John C. Zant</i> 10/19/11	ADVANCED WARNING BEACON COUNTRY CLUB ROAD TRAILHEAD CITY OF BLOOMINGTON INDIANA	HORIZONTAL SCALE	FILE
	DESIGNED: JGG		DRAWN: KRC	1" = 20'
CHECKED: JCZ	CHECKED: JCZ	<small>Headquarters 8450 WESTFIELD BLVD., SUITE 300 INDIANAPOLIS, IN 46240-8302 TEL 317-713-4615 FAX 317-713-4616 www.BFSEngr.com</small>	VERTICAL SCALE	DESIGNATION
			NA	NA
		<small>Branch Locations FORT WAYNE 260-459-1532 JEFFERSONVILLE 812-286-0590 LAFAYETTE 765-423-5802 MERRILLVILLE 219-769-2333 PLAINFIELD 317-839-3242</small>	SURVEY BOOK	SHEET
			NA	15 OF 21
			CONTRACT	PROJECT
				5191

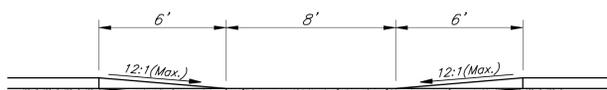
BFS NO. 5191



PLAN VIEW

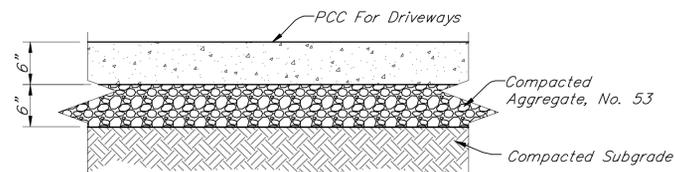


SECTION A-A

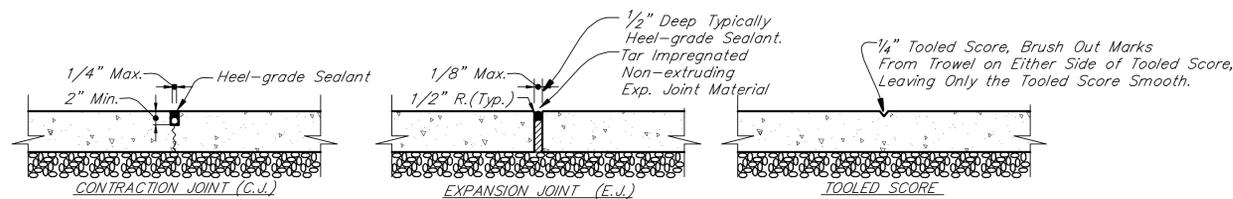


SECTION B-B

HANDICAP RAMP
NOT TO SCALE

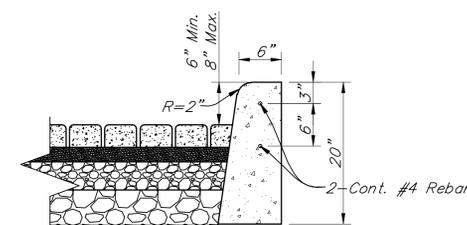


SPECIAL PAVEMENT: PCC FOR DRIVEWAYS
NOT TO SCALE

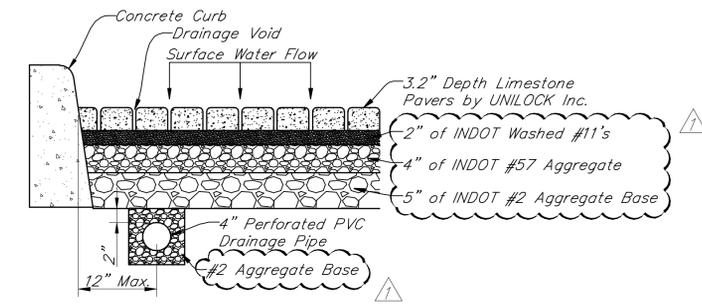


JOINTING IN SPECIAL PAVEMENT
NOT TO SCALE

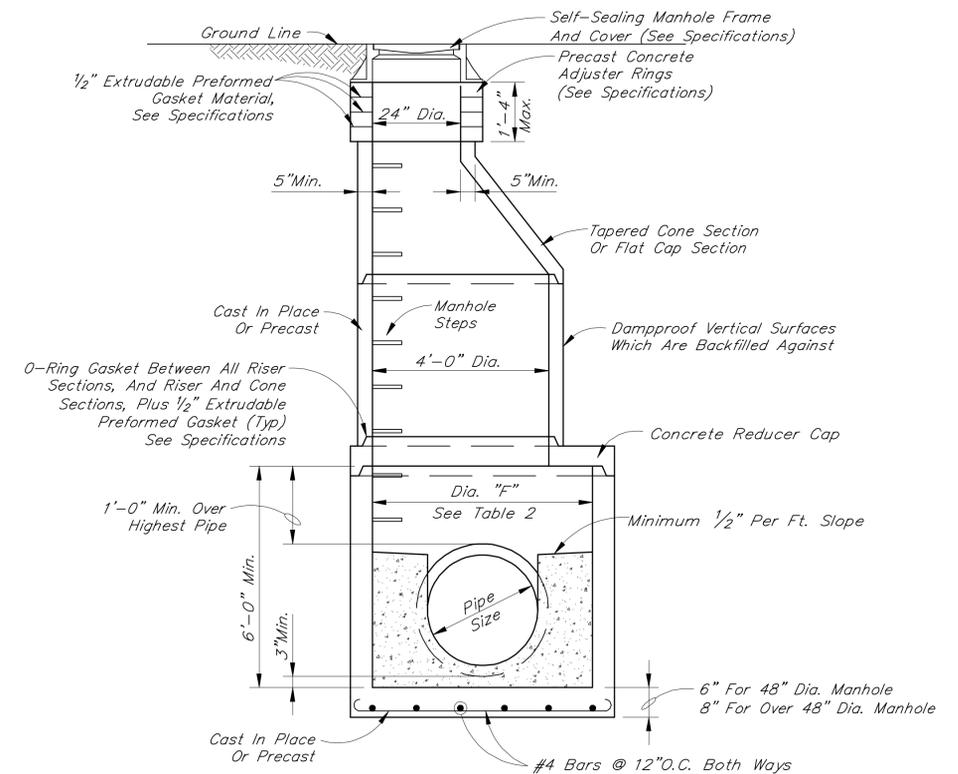
NOTE: EXPANSION JOINT MATERIAL SHALL BE "ZIP-STRIP" EXPANSION MATERIAL WITH REMOVABLE CAP BY GREENSTREAK OR APPROVED EQUAL.



6" CONCRETE CURB DETAIL
NOT TO SCALE



CONCRETE PAVER DETAIL
NOT TO SCALE



NOTES

Manhole Shall Conform To ASTM C-478. Joints Shall Conform To ASTM C-443.
With Precast Concrete Adjuster Rings Apply Butyl Rubber Base Exterior Backplaster Material $\frac{1}{4} \pm \frac{1}{16}$ Thickness From 2" Below Top Of Cone To Casting.
See Specifications For Standard Manhole Steps.

Pipe Size	TABLE 2 Minimum Manhole Diameter	
	Pipe Entering/ Pipe Exiting At 0° To 45° Bend	Pipe Entering/ Pipe Exiting At 45° To 90° Bend
24"-33"	60"	60"

TYPICAL MANHOLE TYPE "C"
NOT TO SCALE

I:\15191\Pro\Development\Design\Drawings\15191_C&S\Drawings\11/17/2011_5:29 PM_Sheet 11/17/2011_5:23 PM

	RECOMMENDED FOR APPROVAL: <i>John C. Zant 10/19/11</i>	MISCELLANEOUS DETAILS COUNTRY CLUB ROAD TRAILHEAD CITY OF BLOOMINGTON INDIANA	HORIZONTAL SCALE	FILE	
	DESIGNED: JGG		DRAWN: KRC	AS NOTED	NA
	CHECKED: JCZ		CHECKED: JCZ	VERTICAL SCALE	DESIGNATION
				NA	NA
		Headquarters: 8450 WESTFIELD BLVD., SUITE 300, INDIANAPOLIS, IN 46240-8302, TEL. 317-713-4615, FAX 317-713-4616, www.BFSengr.com 	SURVEY BOOK	SHEET	
		Branch Locations: FORT WAYNE 260-499-1532 JEFFERSONVILLE 812-286-0980 LAFAYETTE 765-423-5602 MERRILLVILLE 219-769-2333 PLAINFIELD 317-939-3242	NA	16 OF 21	
			CONTRACT	PROJECT	
				5191	

BFS NO. 5191