



CITY OF WESTFIELD, IN

ACP Workshop Meeting Agenda

Monday, August 18, 2008 at 07:00 PM

BOARD OR COMMISSION: Advisory Plan Commission (APC)

MEETING DATE: Monday, August 18, 2008 at 07:00 PM

MEETING PLACE: Westfield City Hall, 130 Penn Street, Westfield, IN 46074

OPENING OF MEETING

Note the presence of quorum

Approval of minutes

July 7, 2008 Minutes July 21, 2008 Minutes August 4, 2008 Minutes

Documents: [Minutes July 7, 2008](#) | [Minutes July 21, 2008](#) | [Minutes August 4, 2008](#)

OLD BUSINESS

0806-DP-08 & 0806-SIT-07 PUBLIC HEARING 546 North Union Street Webster Salon requests Development Plan Review and Site Plan Review of the conversion of a residence to a commercial use, approximately three tenths (0.3) of an acre in the SF-3 District.

Documents: [0806-DP-08 Staff Report](#) | [0806-DP-08 Petitioner Exhibits](#)

NEW BUSINESS

0807-DP-09 & 0807-SIT-08 CONTINUED 140 South Cherry Street. (Continued to September 2, 2008) Artus Realty and Development requests Development Plan and Site Plan Review of an expanded surface parking area, approximately one (1) acre in the LB-H District.

Documents: [0807-DP-09 Continuance](#)

0807-DP-10 & 0807-SIT-09 CONTINUED 500 Deer Walk Trace(Continued to February 16, 2009) Westfield Parks & Recreation Department requests Development Plan and Site Plan review of proposed improvements to Freedom Trail Park, approximately ten (10) acres in the SF-2 District.

Documents: [0807-DP-10 Continuance](#)

0805-DP-05 & 0805-SIT-04 CONTINUED 18792 North US 31 (Continued to September 15, 2008) Paddock's Heavy Transport requests Development Plan Review and Site Plan Review of an accessory building, approximately six and a half (6.5) acres in the GB-PD District.

Documents: [0805-DP-05 Continuance](#)

0808-PUD-02 PUBLIC HEARING 1010 West 146th Street The Estridge Group requests a change in zoning from the SF-2 District to the Brookie PUD District for approximately eight (7.82) acres.

Documents: [0808-PUD-02 Staff Report](#) | [0808-PUD-02 Petitioner Exhibits](#) | [0808-PUD-02 TAC Comments](#)

0808-DP-11 & 0808-SPP-02 PUBLIC HEARING 1010 West 146th Street The Estridge Group requests Development Plan and Subdivision Primary Plat review of an addition to Centennial South, fourteen (14) lots on approximately eight (7.82) acres, in the SF-2 District.

Documents: [0808-DP-11 Staff Report](#) | [0808-DP-11 Petitioner Exhibits](#) | [0808-DP-11 Waiver](#) | [0808-SPP-02 Staff Report](#) | [0808-DP-11 TAC Comments](#)

DELEGATED TO STAFF: NONE

REPORTS: NONE

APC COMMENTS

ADJOURNMENT

The Westfield-Washington Advisory Plan Commission held a meeting on Monday, July 7, 2008 scheduled for 7:00 PM at the Westfield City Hall-Council Chambers.

Opening of Meeting 7:00 PM

Roll Call – Note Presence of a Quorum

Commission Members Present: Robert Smith, President; Cindy Spoljaric, Vice-President, Robert Horkay, Ginny Kelleher, Daniel Degnan, Pete Emigh, Rob Stokes, and Bob Spraeztz.

Commission Members Absent: Bill Sanders

City Staff Present: Gregory J Anderson, Director CD and Brian Zaiger, City Attorney; and Jennifer Miller, Planner I.

Anderson reviewed the Workshop Purpose, General Procedures and Public Hearing Rules, and Rules of Conduct.

OLD BUSINESS

Case No.	0806-ZOA-06
Petitioner	City Staff
Description	WC 16.10 Zoning Ordinance Introduction and Table of Contents A revision and new introduction and table of contents for the Westfield-Washington Township Zoning Ordinance.

Anderson reviewed the proposed ordinance revision and discussed changes made to the document. He stated that Articles I through IX have been reserved since these articles are the original zoning ordinance as it exists today. He further stated that as these move forward from the Plan Commission to the City Council, the ordinances adopted at the City Council level will have the repealer built in individually at that time.

Discussion followed regarding:

- Under Farm exemptions, mineral exemptions has been removed
- If the ordinance does not address a use or issue, the Community Development Director makes a determination.
- If a use is not specifically written in the ordinance, it is a prohibited use.
- Enclosed Industrial and Planned Development both include industrial parks.
- Purpose and Intent of Corporate Business Park may need to be expanded.
- US 31 Overlay - clarification of subcategories.

- Ground Water Wellhead Protection Area wording of purpose since it does not cover private wells.
- Establishment of Overlay Districts states reduce development standards or design standards, which means more restrictive.

A Public Hearing opened at 7:26 p.m.

No one spoke, and the Public Hearing closed at 7:27 p.m.

Motion: To send 0806-ZOA-06 to the City Council with a positive recommendation.

Motion by: Emigh; Second by: Spraeztz; Vote: (8-0)

Case No.	0806-ZOA-07
Petitioner	City Staff
Description	WC 16.11.29 Corporate Business Park District A new section of code created to encourage and standardize an improved level of development for Corporate Business Parks.

Anderson reviewed the proposed ordinance revision and changes made as a result of Commission comments and input including Administrative Review Process, medical office includes clinic, office uses, industrial uses, definition changes, transitional buffer yard, parking lots, etc. He stated any words italicized throughout the Zoning Ordinance will be listed in the definition section.

Discussion followed regarding:

- Perimeter buffering
- Idea of the donut where more intense uses are internal and less intense uses can transition into the residential
- Setbacks
- Landscaping buffers
- Unified Development and the process
- Minimum acreage
- Commercial vehicles parking
- Service type uses under public utilities
- Site amenities
- Shared parking requirements
- Definition of Clean Manufacturing
- Definition of Medical Office

A Public Hearing opened at 8:10 p.m.

Mr. Craig Wood asked questions regarding the Corporate Business Park District including automatic annexation and potential on property taxes, and expressed concern about some of the details or lack thereof.

The Public Hearing closed at 8:14 p.m.

Motion: To send 0806-ZOA-07 to the City Council with a positive recommendation.

Motion by: Kelleher; Second by: Emigh; Vote: (8-0)

Case No.	0806-ZOA-08
Petitioner	City Staff
Description	WC 16.18 Sign Ordinance A revision to the language of the Westfield-Washington Zoning Ordinance to provide improved sign standards for the community.

Miller reviewed the proposed ordinance revision and changes including the incorporation of graphics, administrative process, garage sale signs, commercial and industrial height reduction, and lighthouse effect.

Discussion followed regarding:

- Tabling this ordinance to the next workshop.
- Delaying the Public Hearing to the July 21 meeting.
- Page Two: Obsolete Signs
- Painted Wall Sign
- Page One: Purpose and Intent vs. Page Two: Products Available

A Public Hearing opened at 8:35 p.m.

Mr. Brian Morales commented on the painted wall restrictions, sign frontage, and beacon lights.

The Public Hearing closed at 8:41 p.m.

Motion: To send 0806-ZOA-08 to the City Council with a positive recommendation.

Motion by: Emigh; Second by: Stokes; Vote: (8-0)

Case No.	0806-ZOA-09
Petitioner	City Staff
Description	WC 16.10 Nonconforming Signs Ordinance A revision to the language of the Westfield-Washington Zoning Ordinance to provide updated nonconforming sign standards for the community.

Miller reviewed the proposed ordinance revision and discussed changes made to the document.

A Public Hearing opened at 8:44 p.m.

No one spoke, and the Public Hearing closed at 8:45 p.m.

Motion: To send 0806-ZOA-09 to the City Council with a positive recommendation.

Motion by: Kelleher; Second by: Spraeztz; Vote: (8-0)

Case No.	0806-ZOA-10
Petitioner	City Staff
Description	WC 16.23 Definitions Revisions to former Section 16.04.210 Definitions of the Westfield-Washington Zoning Ordinance to accommodate new revisions and new location within said Zoning Ordinance.

Anderson reviewed the proposed ordinance revision, stating this is a living document which will change as the zoning ordinance is reviewed and revised. He further stated the definitions are taken from across the board and designed to fit the City of Westfield.

A Public Hearing opened at 8:46 p.m.

No one spoke, and the Public Hearing closed at 8:47 p.m.

Discussion:

- Degnan stated some illustrations would be a nice addition.

Motion: To send 0806-ZOA-10 to the City Council with a positive recommendation.

Motion by: Kelleher; Second by: Emigh; Vote: (8-0)

Case No.	0806-ZOA-12
Petitioner	City Staff
Description	WC 16.12.04 US 31 Overlay Districts Revisions to the language of Westfield-Washington Zoning Ordinance to update the U.S. 31 Overlay District.

Anderson requested a 30-day continuance on this ordinance to the August Regular Advisory Plan Commission meeting.

A Public Hearing opened at 8:52 p.m.

Mrs. Melody Sweat commented and questioned page five, Pedestrian and Vehicular Access, item two, perimeter side paths waivers.

The Public Hearing closed at 8:54 p.m.

Motion: To table 0806-ZOA-012 for thirty days to the August Regular Advisory Plan Commission meeting.

Motion by: Emigh; Second by: Horkay; Vote: (8-0)

NEW BUSINESS

Case No. 0709-REZ-04
Petitioner Douglas Realty Group, LLC
Description 16024 Spring Mill Road (AS), Requests a change in zoning for approximately 20 acres from the AG-SF-1 District to the LB District.

Anderson reviewed the staff report and the petition history. He stated the staff recommendation is to forward this petition from the workshop meeting to the July 21 public hearing.

Discussion followed regarding:

- Smith stated the City Council has already passed a resolution recommending that this petition not be approved; therefore, recommends the workshop session be waived.

Motion: To waive the workshop session on 0709-REZ-04 and hold the public hearing July 21, 2008.

Motion by: Emigh; Second by: Spraetz; Vote: (8-0)

Case No. 0807-DP-09 & 0807-SIT-08
Petitioner Artus Realty and Development
Description 140 South Cherry Street. Requests Development Plan and Site Plan Review of an expanded surface parking area, approximately one (1) acre in the LB-H District.

Anderson reviewed the staff report and the petition history. He stated the landscaping plan is not compliant, but additional information has been received and will be reviewed. He further stated staff is recommending this petition be forwarded to the July 21 Public Hearing meeting.

Discussion followed regarding:

- Kelleher requested aerial photos.

This item will be forwarded to the July 21 Public Hearing meeting.

Case No. 0807-DP-10 & 0807-SIT-09
Petitioner Westfield Parks & Recreation Department
Description 500 Deer Walk Trace (AS), Requests Development Plan and Site Plan review of proposed improvements to Freedom Trail Park, approximately ten (10) acres in the SF-2 District.

Anderson introduced Mr. Curt Cooley, Westfield Parks Director, who introduced the project and new park design for Freedom Trail Park. He reviewed already existing structures including two football fields, a lacrosse field, and a parking lot. He further stated planned additions include a playground, shelter houses, and restroom in the northwest section by parking lot; in addition, by the football field, a concession stand, restroom and storage area are planned to be added. Cooley further stated most of the trails are gravel, and the intention is in the future for them to be paved.

Discussion followed regarding:

- Parking issues – adding parking lot vs. parking on the streets

This item will be forwarded to the July 21 Public Hearing meeting.

Case No. 0807-REZ-02
Petitioner Crossroads Church at Westfield, Inc.
Description 16201 Spring Mill Road. (AS), Requests a change in zoning for approximately one and eight-tenths (1.79) acres from the AG-SF-1 District to the GB District.

Anderson reviewed the staff report and the petition history, stating staff is still working with the petitioner to revise and update information as a result of the TAC meeting. He further stated staff has no recommendation at this time.

Discussion followed regarding:

- Church is inactive and wishes to sell the property.
- Non-compliant with AG-SF1 due to size of parcel
- Proposed uses
- 161st Street & Springmill Study

This item will be forwarded to the July 21 Public Hearing meeting.

Case No. 0807-ZOA-11
Petitioner City Staff
Description Temporary Sales / Events
A new section of the Zoning Ordinance to provide for Temporary Sales and Events.

Miller reviewed this new section of the Zoning Ordinance stating part of the adoption of this code will be the rescinding of the temporary greenhouse ordinance which is part of the Municipal Code. She further stated that by moving those items into the zoning ordinance will allow this to be applied to the Township as well as the City. She also stated this addresses tent sales, outdoor cafes, sidewalk sales, etc., and that the purpose is to allow for review not only by the Community Development Department but also the fire and police departments to make sure there is adequate crowd control if necessary and that EMS has access or is on standby for a particular event.

Case No. 0807-ZOA-13
Petitioner City Staff
Description Special Districts
A new section of the Zoning Ordinance to provide for the development of educational, religious, and governmental institutions, as well as provide for designated preservation and open areas as well as recreational facilities and opportunities.

Discussion:

- Clarification of Table 11.3.8a
- Separate zoning classification
- Road Frontage

Case No. 0807-ZOA-14
Petitioner City Staff
Description WC 16.04.165 Development Plan Review
Revisions to the existing Development Plan Review language to accommodate the addition of Special Districts to the Zoning Ordinance.

Discussion:

- Change all “Town” to “City.”

DELEGATED TO STAFF

Anderson reviewed the two secondary plat items which follow.

0807-SFP-02 16225 Spring Mill Road (AS), Platinum Properties requests an amendment to the previously-approved secondary plat of Countryside Section 13, providing for ten (10) blocks in the MF-2 District.

0807-SFP-03 1000 West 169th Street (AS/JCM), Platinum Properties requests approval of Section 6 of Maple Village (aka Sonoma), 99 lots on approximately 25.93 acres, in the Maple Knoll PUD District.

ADJOURNMENT (9:33 PM)

Approved (date)

President, Robert Smith, Esq.

Vice-President, Cindy Spoljaric

Secretary, Gregory J. Anderson, AICP

The Westfield-Washington Advisory Plan Commission held a meeting on Monday, July 21, 2008 scheduled for 7:00 PM at the Westfield City Hall-Council Chambers.

Opening of Meeting 7:00 PM

Roll Call – Note Presence of a Quorum

Commission Members Present: Robert Smith, President; Cindy Spoljaric, Vice-President, Robert Horkay, Ginny Kelleher, Daniel Degnan, Pete Emigh, Bill Sanders, Rob Stokes, and Bob Spraeztz.

City Staff Present: Gregory J Anderson, Director CD and Brian Zaiger, City Attorney;

Approval of the Minutes:

Motion: To adopt the June 2 Workshop Minutes as presented.

Motion by: Emigh; Second by Spraeztz; Vote: (9-0)

Motion: To adopt the June 16 Public Hearing Minutes as presented.

Motion by: Emigh; Second by Stokes; Vote: (9-0)

Anderson discussed any withdrawn or continued items on the agenda.

Leuteritz read the Public Rules and Procedures.

NEW BUSINESS

Case No. 0709-REZ-04
Petitioner Douglas Realty Group, LLC
Description 16024 Spring Mill Road, Requests a change in zoning for approximately 20 acres from the AG-SF-1 District to the LB District.

Mr. Doug McCauley presented the petition and some background on the project.

A Public Hearing opened at 7:20 p.m.

Mr. Joe Ferraro asked the Commission to stick to the Comprehensive Plan or change it all and give this item careful consideration.

Mr. Fred Boyer expressed concern about the homes around him which are either being sold, rented, or are vacant and believes this is not a residential area any longer; he further believes this area should be commercial.

Mr. Jim Ake expressed concern about traffic issues and does not see any way this project would benefit the area.

Mr. Ron Thomas spoke against the petition referencing the Special Study which involved over 300 people of which 75% were against commercial versus the 30 citizens the petitioner claims are in favor of commercial.

Mr. Joe Plankis spoke against the petition referring to the Comprehensive Plan and the Special Study.

Mr. Mic Mead spoke against the petition stating there are other areas already approved in better locations for commercial development.

Ms. Renae Jordan spoke against the petition and stated the retail center currently at 161st and Springmill is not yet full and therefore, does not believe more retail is necessary in this location.

Mr. Neil Schneider spoke in favor of the petition stating he would rather see a commercial zone with a park and parking for the soccer fields rather than people walking through his yard. He further stated he would rather this project than more residential.

Ms. Susan Spencer spoke in favor of the petition and believes this is a great opportunity for Westfield.

The Public Hearing closed at 7:40 p.m.

McCauley responded to the public hearing comments.

Anderson reviewed the staff report and petition history stating this petition is inconsistent with the recommendations of the Comprehensive Plan and staff recommends the Commission sending this petition to the City Council with a negative recommendation.

Smith reminded the Commission that the City Council has passed a resolution regarding this area and based upon the extensive community surveys done, they would not look favorable upon this rezone.

Motion: To send 0709-REZ-04 to the City Council with a negative recommendation.

Motion by: Stokes; Second by: Spoljaric; Vote: (9-0)

Case No.	0807-REZ-02
Petitioner	Crossroads Church at Westfield, Inc.
Description	16201 Spring Mill Road, Requests a change in zoning for

approximately one and eight-tenths (1.79) acres from the AG-SF-1 District to the GB District.

Anderson reviewed the staff report and the petition history stating this is the first public hearing for this petition and this petition was reviewed at the July 7 workshop meeting.

A Public Hearing opened at 7:50 p.m.

Ms. Mary Soliday, representing the petitioner, presented the details of the petition and gave some background. She stated the adjoining property owners are in support of the petition. She further stated there have been several meetings with staff; they went before the City Council on June 9, and have attended the Technical Advisory Committee and the Workshop meeting on July 7. She brought the Commission's attention to the commitments as to potential development of the property.

Mr. Mic Mead spoke against the petition stating maybe the owner of the property could donate the property to the City for a park, etc., but believes this proposal is clearly not economic development considering it is competition for already approved projects nearby.

Mr. Ron Thomas spoke against the petition questioning staff's recommendation and asked the Commission to follow the Comprehensive Plan, which is to keep this residential.

Ms. Kristin Fiol spoke in favor of the petition and expressed her desire for more sidewalks and to get rid of the "blue house."

Ms. Tish Krebs spoke in favor of the petition stating her desire for sidewalks and to get rid of the "blue house."

Mr. Jim Ake spoke against the petition and spoke of the need for consistency with the Comprehensive Plan and stated there are plenty of other opportunities in the community and there are still empty stores in the Commons area.

Mr. Fred Boyer spoke against the petition.

Soliday responded to public hearing comments.

The Public Hearing closed at 8:12 p.m.

Discussion followed regarding:

- Spoljaric asked why GB zoning and not LB zoning, which seems more appropriate. She also stated a transitional use is appropriate.
- Horkay stated at a previous meeting the petitioner was asked to reduce the list of uses to a short list and this was not done.

- Smith stated he could not approve with such a list of uses and agreed a short list needs to be submitted.
- Kelleher agrees GB zoning is not appropriate and the list of uses needs to be considerably shortened.
- Spraetz stated the additional retail would just add to the already existing infrastructure problem.
- Sanders expressed concern about the size and location of a 15,000 square foot building.
- Spoljaric added that although she suggested LB zoning, this does not necessarily mean she will automatically support the project; there would still be many restrictions.
- Horkay stated that at a previous meeting it was specifically suggested that it is important to look at something other than just retail type uses.

Motion: To table 0807-REZ-02 for 30 days.

Motion by: Emigh; Second by: Spraetz; Vote: Motion failed (4-5) (Kelleher, Spoljaric, Sanders, Horkay, Stokes)

Motion: To send 0807-REZ-02 to the City Council with a negative recommendation.

Motion by: Emigh; Second by: Horkay; Vote: (9-0)

Petitioner's Counsel withdrew the petition and does not see a need for this to go before the City Council.

Emigh left the meeting.

Spraetz left the meeting.

Case No.	0807-ZOA-11
Petitioner	City Staff
Description	Temporary Sales / Events A new section of the Zoning Ordinance to provide for Temporary Sales and Events.

Anderson reviewed the proposed ordinance stating this is a new ordinance so there is no history. He further stated inspections on such events would be completed by the Community Development Department, the Fire Department and the Police Department.

A Public Hearing opened at 7:26 p.m.

Mr. Mic Mead expressed concern about sidewalk sales and the sidewalks being blocked.

The Public Hearing closed at 8:47 p.m.

Discussion followed regarding:

- Kelleher asked various questions regarding time limits, parking, landscaping, etc.
- Spoljaric stated she is troubled by the possibility of a commercial user with a parking lot next to a residential district holding a temporary event and there being nothing prohibiting them from bringing in large trucks and parking them.

Motion: To send 0807-ZOA-11 to the City Council with a positive recommendation.

Motion by: Stokes; Second by: Degnan; Vote: (7-0)

Spraetz returned to the meeting.

Case No.	0807-ZOA-13
Petitioner	City Staff
Description	Special Districts A new section of the Zoning Ordinance to provide for the development of educational, religious, and governmental institutions, as well as provide for designated preservation and open areas as well as recreational facilities and opportunities.

Anderson reviewed the proposed ordinance, the staff report, and changes made as a result of Commission comments, explaining that these are pulled out of the residential districts and given their own standards including set backs, procedures, and rules. He further stated the intention of the Special Districts was to reduce unnecessary appearances before the Advisory Plan Commission and provide for increased administrative review for uses within the special districts. He stated staff's recommendation is for the Commission to forward 0807-ZOA-13 to the City Council with a positive recommendation.

A Public Hearing opened at 8:53 p.m.

No one spoke, and the Public Hearing closed at 8:54 p.m.

Discussion followed regarding:

- Spoljaric questioned some of the commercial uses and commented on bike racks and setbacks and requested instead of having three different special districts, have different requirements and be left to the discretion of the director.
- Intent, purpose, and applicability – institutional, governmental, churches, and schools
- Special Districts Table and stand alone uses
- Special District 1 Development Standards
- Special District 3

Motion: To send 0807-ZOA-13 to the City Council with a positive recommendation.

Motion by: Stokes; Second by: Spraetz; Vote: (6-2) (Kelleher, Sanders)

Case No. 0807-ZOA-14
Petitioner City Staff
Description WC 16.04.165 Development Plan Review
Revisions to the existing Development Plan Review language to
accommodate the addition of Special Districts to the Zoning Ordinance.

Anderson reviewed the proposed ordinance revision and changes and stated that staff's recommendation is to forward this to the City Council with a positive recommendation.

Discussion followed regarding:

A Public Hearing opened at 9:19 p.m.

No one spoke, and the Public Hearing closed at 9:20 p.m.

Discussion followed regarding:

- Building Materials, specifically EFIS
- Loading docks adjoining residential and screening
- Anderson stated loading docks will be a separate section as well as parking.
- Anderson stated there will be a Design Guideline Book/Architectural Review Requirements developed in the future, which will probably be part of the Zoning Ordinance.

Motion: To send 0807-ZOA-14 to the City Council with a positive recommendation.

Motion by: Horkay; Second by: Stokes; Vote: (6-2) (Kelleher, Spoljaric)

ADJOURNMENT (9:30 PM)

Approved (date)

President, Robert Smith, Esq.

Vice-President, Cindy Spoljaric

Secretary, Gregory J. Anderson, AICP

The Westfield-Washington Advisory Plan Commission held a meeting on Monday, August 4, 2008 scheduled for 7:00 PM at the Westfield City Hall-Council Chambers.

Opening of Meeting 7:00 PM

Roll Call – Note Presence of a Quorum

Commission Members Present: Robert Smith, President; Cindy Spoljaric, Vice-President, Robert Horkay, Ginny Kelleher, Daniel Degnan, Pete Emigh, Bill Sanders, Rob Stokes, and Bob Spraeztz.

Commission Members Absent: NONE

City Staff Present: Gregory J Anderson, Director CD and Brian Zaiger, City Attorney; and Al Salzman, Senior Planner.

Anderson reviewed the Workshop Purpose, General Procedures and Public Hearing Rules, and Rules of Conduct.

PUBLIC HEARING

Case No.	0807-DP-10 & 0807-SIT-09
Petitioner	Westfield Parks & Recreation Department
Description	500 Deer Walk Trace, Requests Development Plan and Site Plan review of proposed improvements to Freedom Trail Park, approximately ten (10) acres in the SF-2 District.

A Public Hearing opened at 7:07 p.m.

Mr. Curt Cooley reviewed the petition and discussed changes made to the plan including the parking lot being added back in the plan as advised by the Community Development Department and the Mayor's Office due to public safety concerns.

Anderson discussed the compliance of the plan itself and stated staff had been focused more on the public safety aspect of the plan in getting vehicles off the street in the residential area to allow for emergency vehicles if necessary.

Ms. Debbie Barbour expressed concerns including the need for an additional parking lot since there is an existing parking lot which is never full, and suggested extending the sidewalk to where it ends now to up the hill to the current field, which would be less expensive, and only park on one side of the street.

Ms. Cheryl Bender stated the additional parking lot will affect them because of all the children and animals in the area. She expressed concern about the cost of the parking lot and the gates.

Mr. Herb Gaunt expressed concern about the overall process and what the City is doing, how this will be accomplished, and whether the City is listening to the citizens. He also stated concern about whether or not there will be lights as it was promised originally that there would be no lights. He asked the Commission to continue this proposal in order to gather more information.

Mr. Gerry Bush expressed concern regarding previous promises which have been made and not followed through on including paved walkways and treed berms. He also stated that the parking lot is not necessary.

Mr. Terry Harris expressed similar concerns about previous promises. He stated he does not want the parking lot and does not see a need for it.

Mr. Eric Rodenbarger stated he measured the distance, and it is 365 feet from the existing parking lot to the proposed location of the new parking lot. He questioned codes about a parking lot that close to his home. He further stated he has not had enough time to research the laws. He expressed concerns including cost, loss of property value, privacy, and higher berm to protect privacy. He requested more time for research.

Mrs. Molly Rodenbarger stated the parking lot will be a major safety issue for her children. She also stated the other parking lot is not full and the reasons for the additional parking lot keep changing. She believes the reasons for the changes are to cater to the WYSI and meeting their needs rather than the original intent of the park

Mrs. Julie Robbins does not believe there is any safety issue but that people are being lazy. She further stated the City should be looking at green space and not a parking lot. She also expressed concern about the cost.

Mr. Hitesh Patel expressed concern about promises made by the school including paving the walks, putting up trees, etc., which were never kept. He questioned accountability and who will enforce the overflow of traffic potentially on the street or in the parking lot.

Mr. Barry Simpson stated the overwhelming majority of the neighbors do not want the parking lot. He also stated the parking lot will not prevent cars from still parking on the streets in the neighborhood since there are only 54 parking spaces in the proposed lot. He also expressed concern about property values, cost, dust control, original promises not yet fulfilled, lack of detail, and discussed some proposed commitments regarding the parking lot if approved.

Cooley responded to public hearing comments, stating there will be no practice on these fields. He further stated there is an existing landscape plan,. He also stated this is a plan so that as the Department is able to fund it, the plans will be implemented.

The Public Hearing closed at 8:10 p.m.

Discussion followed regarding:

- Emigh asked about the agreement with WYSI and the time frame of that agreement.
- Zaiger reminded the Commission that the task before them does not include budgetary issues or future uses, but compliance of the particular petition.
- Kelleher asked about the lack of landscape plan; lighting plan; she also asked whether safety issues exist.
- Stokes asked if there are other options for additional parking
- Spoljaric stated she has not received the information needed in order to adequately review this petition and approve at this time.
- Zaiger reminded the Commission that their purpose is to determine whether this petition is compliant with the ordinance and if not, to identify where it fails to comply with the ordinance.
- Spoljaric asked about building materials and site access and circulation.

Motion: That this matter come back in two weeks before the Advisory Plan Commission, by way of a public hearing, in order for staff to address non-compliant issues including landscaping plan, lighting plan, building materials and traffic circulation including public safety concerns.

Motion by: Smith; Second by: Kelleher; Vote: (8-0)

NEW BUSINESS

Case No.	0808-PUD-02 0808-DP-11 0808-SPP-02
Petitioner	The Estridge Group
Description	1010 West 146 th Street, Requests a change in zoning from the SF-2 District to the Brookie PUD District for approximately eight (7.82) acres. 1010 West 146 th Street, Requests Development Plan and Subdivision Primary Plat review of an addition to Centennial South, fourteen (14) lots on approximately eight (7.82) acres, in the SF-2 District.

Mr. Al Salzman reviewed the petitions, related petitions, and staff reports. He stated there have been ongoing discussions with WFD and WPWD regarding access to the additional property and that the plans need to be amended to reflect those agreed upon

changes. He further stated that staff believes this revision is compliant with the PUD ordinance and that staff recommends this move forward for public hearing at the next available date.

Mr. Brian Stumpf, Estridge Companies, presented details of the petitions as well as some background information.

Spoljaric asked if there will be additional architectural requirements for rear yards facing streets

This item will be forwarded to the August 18 Public Hearing meeting.

PLAN COMMISSION COMMENTS

Spoljaric asked about ordinance comments and changes from the APC members and monthly updates.

Anderson stated that Jennifer Miller will be the Project Manager for the Zoning Ordinance Update. He further stated a summary will be presented at the next Workshop meeting.

ADJOURNMENT (9:33 PM)

Approved (date)

President, Robert Smith, Esq.

Vice-President, Cindy Spoljaric

Secretary, Gregory J. Anderson, AICP



WESTFIELD-WASHINGTON
ADVISORY PLAN COMMISSION
COMPLIANCE REPORT
August 18, 2008
0806-DP-08
Exhibit 1

PETITION NUMBER:	0806-DP-08
SUBJECT SITE ADDRESS:	546 N. Union St.
PETITIONER:	William and Robbie Webster
REQUEST:	Development Plan Review and Site Plan Review of a beauty shop on approximately .25 acres in the SF-3 District.
CURRENT ZONING:	SF-3
CURRENT LAND USE:	Residential
APPROXIMATE ACREAGE:	.25 acres
ASSOCIATED PETITIONS:	0806-SIT-07
	0708-VU-03
EXHIBITS:	1. Staff Report
	2. Technical Advisory Committee Letters
	3. Petitioner's Exhibits
STAFF REVIEWER:	Jennifer Miller

PETITION HISTORY

This property was granted a Variance of Use by the Board of Zoning Appeals on August 20, 2007. The following conditions were included in that decision:

- o That two (2) off-street parking spaces per chair/station plus one (1) off-street parking space per employee during the largest shift be provided per the standards found in WC 16.04.120, 2;
- o That any portion of an off-street parking lot that is not effectively screened by the existing structure, as determined by the Director, shall be screened per the landscaping standards found in WC 16.06.070, B1b; B1c; and B2;
- o That any wall signage shall comply with the Home Occupation signage standards, as prescribed in WC 16.08.010, F2 and F3;
- o That any monument signage shall comply with the following:
 - o One (1) monument sign shall be permitted for the business;
 - o The display area shall not exceed sixteen (16) square feet per face;
 - o The monument sign, including any base and cap feature, shall not exceed four feet (4') in height from grade;
 - o The monument sign shall not be internally lit;
- o That awning and projecting signs are prohibited;
- o That WC 16.08.010, J (Sign Area Bonus) shall not be available to this site;
- o That the structure and any additional site improvements comply with all ADA accessibility requirements;
- o That any parking lot lighting comply with all applicable standards found in WC 16.04.120, 2 (Off Street Parking) and WC 16.07.101 (Lighting Standards);
- o That the trash collection conform to standard residential trash collection practices;
- o That a six foot (6') wood privacy fence be installed along the southern property line;



and,

- o That this variance of use be rendered null and void when the owner of record at the time of approval (Mr. William Webster on August 20, 2007) ceases to own the subject property or operate a cosmetology business at the subject property.

The submitted development plan meets all applicable conditions related to DPR at this time.

PROCEDURAL

- o Notification of the June 2, 2008 Workshop Meeting was provided to abutting property owners in accordance with the Rules of Procedure on May 19, 2008. Notice of the June 2, 2008 Workshop Meeting was posted to the City web site and at City Hall.
- o The June 2, 2008 Workshop Meeting was the first appearance of the Development Plan and Site Plan for the salon.
- o This petition was continued once by the petitioner on June 16, 2008 to allow the petitioner more time to address TAC agency comments.
- o The petition was continued a second time on July 21, 2008 to allow the petitioner time to hire new engineering consultants.
- o Development Plan Review requires a Public Hearing.
- o Approval of a Development Plan must be granted if the submitted plans demonstrate compliance with the terms of the zoning district as well as variance conditions.
- o The Advisory Plan Commission may approve, conditionally approve, continue or deny the requested approval.
- o Any denial must be justified in writing on the accompanying Finding of Fact sheet.

STANDARDS

1. Zoning District Standards

The salon proposed on this site is permitted by Use Variance 0708-VU-03 with conditions (outlined above under Petition History). All minimum standards for lot area, lot frontage, setbacks, ground level square footage, and height have been met. The development plan does not show changes to the exterior of the structure. Parking requirements set as a condition of the variance will permit only three (3) chairs/stations in the business.

2. Overlay District Standards

This property is not located within an overlay district.

3. Subdivision Control Ordinance

This property will not be subdivided.

4. Development Plan Ordinance

Site Access and Circulation: The entrance to the site and internal traffic circulation are compatible with the surrounding area. The traffic pattern provides for the safe and efficient movement of pedestrian and vehicular traffic onsite as well as to and from the site.



Landscaping: The petitioner has preserved trees in exchange for credits towards landscaping requirements. The petitioner has a preservation credit of 126 caliper inches.

Onsite Standards:

Road Frontage and Perimeter Parking Lot trees count toward the onsite totals. Onsite standards have been met with the preservation credit.

	<u>Required</u>	<u>Shown</u>	<u>Preservation Credit</u> <u>126 caliper inches</u>	<u>+ / -</u>
Shade Trees (10 per acre)	3	0	120	+60
Ornamental or Evergreen Trees (10 per acre)	3	2	108	+54
Shrubs (25 per acre)	7	9	0	+2

Road Frontage Standards:

The terms of the Landscaping Ordinance also require Road Frontage trees where the subject site or area of impact abuts the right-of-way lines of Hoover and Union Streets. Road Frontage trees must be planted outside of the road right-of-way and any utility easements, and may be clustered to attain a creative site design. Road Frontage standards have been met with the preservation credit.

Trees	<u>Distance</u>	<u>Required</u>	<u>Shown*</u>	<u>+ / -</u>
Hoover	56'	1	0	+53
Union	25'	1	0	+52

**Trees met through preservation credits. Remaining caliper inch credit after Road Frontage standards: 104 caliper inches or 52 shade trees.*

Buffer Yard Standards:

The buffer yard standard within the landscape ordinance does not apply as all the adjacent properties and the site are zoned SF-3.

Parking Lot Islands:

A portion of vehicular use areas shall be maintained as landscaped area. The amount of required landscape area for this parking lot is 160 square feet. The parking lot island area standard has been met. Parking lot islands are required to be curbed and six (6) inches above grade. This standard has been met.

	<u>Required</u>	<u>Shown</u>	<u>+ / -</u>
Trees	2	2	0
Shrubs	8	9	+1



Parking Lot Perimeter:

Perimeter parking is not required for parking lots of less than ten (10) spaces. The parking lot is proposed to have nine (9) parking spaces. Perimeter parking is required for this petitioner as a condition of the variances obtained on this property. Perimeter landscaping is required in areas, as determined by the Director, that are not effectively screened by the existing structures. Such planting areas must be five (5) feet wide. Planting areas shown on the plans are all five (5) feet wide.

One (1) tree is required for every thirty (30) linear feet of parking area. One (1) shrub is required for every three (3) feet of parking area. Preserved trees fulfill the tree planting requirement and the proposed plantings fulfill the perimeter parking shrub requirements.

	<u>Required</u>	<u>Shown</u>	<u>+ / -</u>
Trees (1/30 linear feet)	4	0*	+48
Shrubs (1/3 linear feet)	38	38	0

* Trees met through preservation credits. Remaining caliper inch credit after Road Frontage standards: 96 caliper inches or 48 shade trees.

Lighting: No new lighting is proposed for this site. Submittal not required.

Building Orientation: There is no proposed demolition or addition to the existing building. No loading docks will be added and no loading spaces are required for this type of business.

Building Materials: There is no proposed demolition or addition to the existing building. In its present state, it is compatible with the residences on adjacent properties.

5. Comprehensive Plan Compliance

See Public Policies section below.

6. Street and Highway Access

Access to the site will be via the existing double drive from Hoover Street. This drive is already located toward the rear of the property and is positioned to safely accommodate parking and access to the site. Access has also been reviewed by WPWD and WFD.

7. Street and Highway Capacity

The adjacent streets, Union and Hoover, presently accommodate traffic for the Westfield-Washington School complex located between Union and US 31 along Hoover. It is not anticipated that a salon with 3-4 stations/chairs will impact Street and Highway Capacity in this area significantly.



8. Utility Capacity

See Technical Advisory Committee Letters, Exhibit 2.

9. Traffic Circulation Compatibility

The entrance to the site and internal traffic circulation are compatible with the surrounding area. The traffic pattern provides for the safe and efficient movement of pedestrian and vehicular traffic onsite as well as to and from the site. Circulation has also been reviewed by WPWD and WFD.

DEVELOPMENT REQUIREMENTS

1. Site access and circulation
2. Landscaping
3. Lighting
4. Signs
5. Building Orientation
6. Building Materials

FOR EACH DISTRICT

Compliant
Compliant
Compliant (no changes proposed)
None Proposed
Compliant (no changes proposed)
Compliant (no changes proposed)

PUBLIC POLICIES

Comprehensive Plan-Feb 2007

See Findings of Fact below.

Thoroughfare Plan-Feb 2007

Union Street has been identified as a secondary arterial in the Westfield Thoroughfare Plan. Characteristics of a secondary arterial include 120 feet of right-of-way, multi-use paths and moderate landscaping. The 120 feet of right-of-way will eliminate most front yards and some structures along this section of Union Street. This is in conflict with the Comprehensive Plan which calls for the preservation of the structures along this corridor.

Parks & Recreation Master Plan-Dec 2007

The 2008-2012 Parks and Recreation Master Plan, adopted in December of 2007, does not include policy regarding downtown development and parks development.

Water & Sewer System

See Technical Advisory Committee letter from Westfield Public Works addressing standards and regulations.

Annexation

This property is located within the corporate limits of the City of Westfield.

FINDINGS OF FACT

1. The proposed development is consistent with the intent and purpose of the Westfield-



Washington Township Comprehensive Plan,

Staff Finding: The property is located in the area identified by the Westfield-Washington Township Comprehensive Plan as Downtown Westfield. The Comprehensive Plan identifies a need to revitalize Westfield's downtown and improve parking. The potential to convert existing residences along Union Street to business and office uses is listed as an opportunity to help revitalize the area (chapter 3, page 74).

Additionally, the proposed development plan includes off-street parking including parking for employees located behind the store front. These are specifically listed as development policies in the Comprehensive Plan (chapter 3, page 74).

2. The proposed development satisfies the development requirements specified in this ordinance,

Staff Finding: The proposed development meets the development requirements of the zoning ordinance.

RECOMMENDATIONS

At this time staff recommends approval of 0806-DP-08 and 0806-SIT-07.

JMM

***TWISTED SISTERS
BEAUTY SALON***
546 N. UNION STREET
WESTFIELD, IN 46074
ZONING: SF3

GENERAL NOTES

- 1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, OR VERIFYING THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY, AND STATE AGENCIES PRIOR TO STARTING CONSTRUCTION.
- 2) IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES IN THE VICINITY OF THE CONSTRUCTION AREA PRIOR TO STARTING CONSTRUCTION
- 3) IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY AND COORDINATE CONSTRUCTION WITH ALL RESPECTIVE UTILITIES.
- 4) ALL QUANTITIES GIVEN ON THESE PRINTS, VERBALLY OR IN THE SCOPE OF WORK SECTION ARE ESTIMATES AND SHALL BE CONFIRMED BY THE BIDDING CONTRACTORS.
- 5) OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH.
- 6) IN ADDITION, EXCAVATION EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER.
- 7) IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTOR TO MAINTAIN QUALITY CONTROL THROUGHOUT THIS PROJECT.
- 8) TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL STANDARDS.
- 9) THE ENGINEER AND/OR OWNER DISCLAIM ANY ROLE IN THE CONSTRUCTION MEANS AND METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS.
- 10) ANY FIELD TILES ENCOUNTERED DURING EXCAVATION SHALL BE REPAIRED AND CONNECTED TO NEW STORM SEWERS AND POSITIVE DRAINAGE PRESERVED.
- 11) IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER THAT ALL LANDSCAPE REQUIREMENTS ARE MET AND CONFORM TO APPLICABLE LOCAL STANDARDS.
- 12) THE SITE DOES NOT LIE IN A SPECIAL FLOOD HAZARD AREA AS ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY – NATIONAL FLOOD INSURANCE PROGRAM, WHEN PLOTTED BY SCALE ON FLOOD INSURANCE RATE MAP #18057C0120F, DATED FEBRUARY 19, 2003.
- 13) BEARINGS, DIMENSIONS AND EASEMENTS ARE SHOWN FOR REFERENCE ONLY. SEE RECORD SURVEYS & PLAT FOR EXACT INFORMATION.
- 14) THIS SITE DOES NOT CONTAIN ANY WETLANDS AT SHOWN ON THE U.S. DEPARTMENT OF THE INTERIOR FISH AND WILDLIFE SERVICE; WESTFIELD, INDIANA, NATIONAL WETLANDS INVENTORY MAP DATED 1989.

BENCHMARK INFORMATION

T.B.M. – CENTER OF TOP OF CASTING ON MANHOLE AT NORTHEAST CORNER OF PROPERTY = 895.46

OPERATING AUTHORITIES

Westfield Community Development
130 Penn Street
Westfield, IN 46074
317-896-5577

Westfield Utilities and Street Department
2706 East 171st Street
Westfield, IN 46074
317-896-5452

Westfield Fire Department
17535 Dartown Road
Westfield, IN 46074
317-896-2704

Hamilton County Health Dept.
1 Hamilton Co. Square, Suite 30
Noblesville, IN 46060-2229
317-776-8500

Hamilton County Highway Dept.
1700 South 10th Street
Noblesville, IN 46060
317-773-770

Hamilton Co. Soil & Water Conservation Dist.
1108 South 9th Street
Noblesville, IN 46060-3745
317-773-1406

Hamilton County Surveyor's Office
1 Hamilton Co. Square, Suite 146
Noblesville, IN 46060
317-776-9626

Citizens Gas of Westfield
2150 Dr. Martin Luther King Drive
Indianapolis, IN 46202-1162
317-927-4684

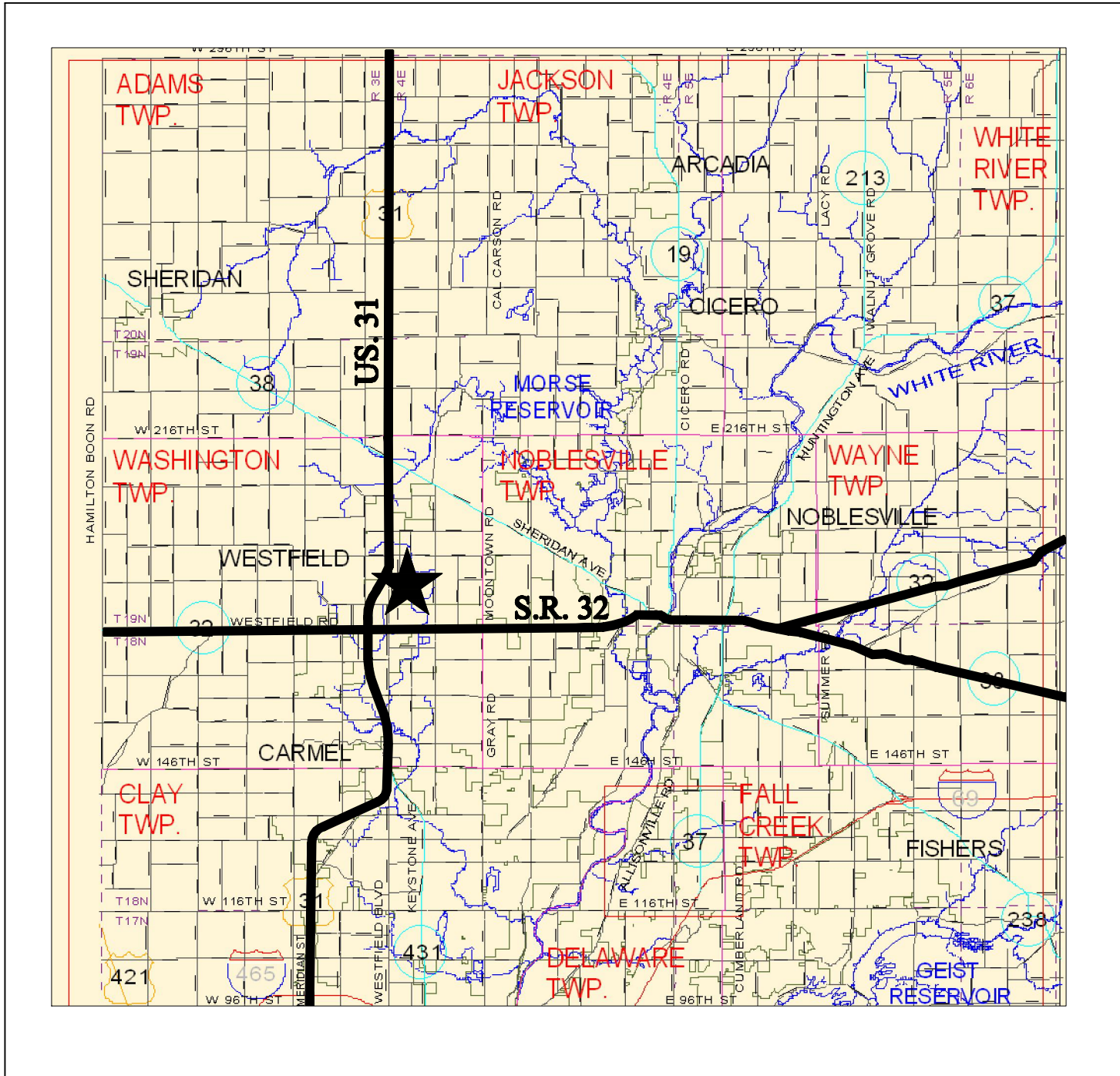
AT&T
5858 North College
Indianapolis, Indiana 46220
317-252-4227

Gingery/PSI
P.O. Box 312/100 Mill Creek Road
Noblesville, IN 46060
1-800-521-2232

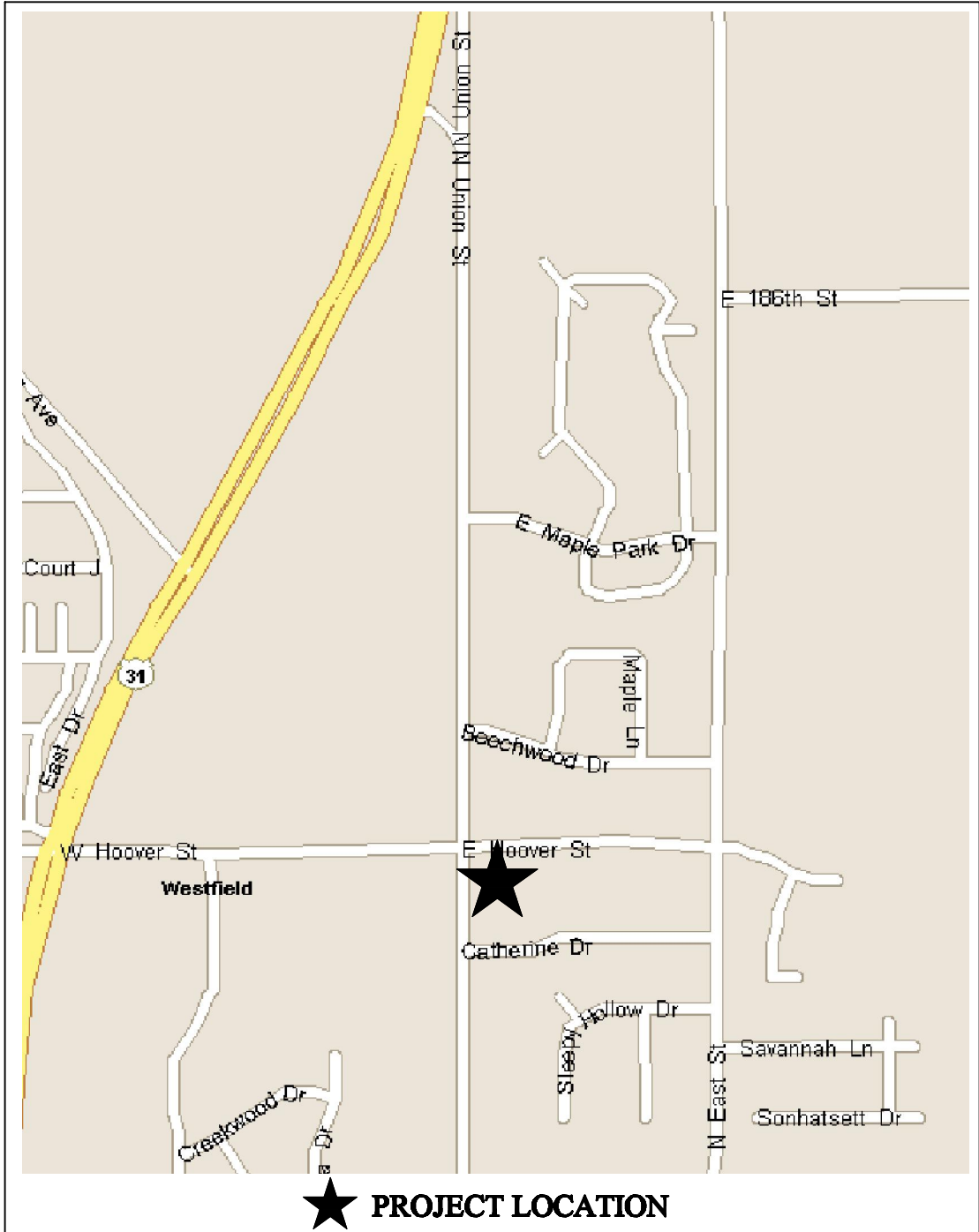
Insight Cablevision
15229 Stone Creek Way
Noblesville, IN 46060
317-776-0660



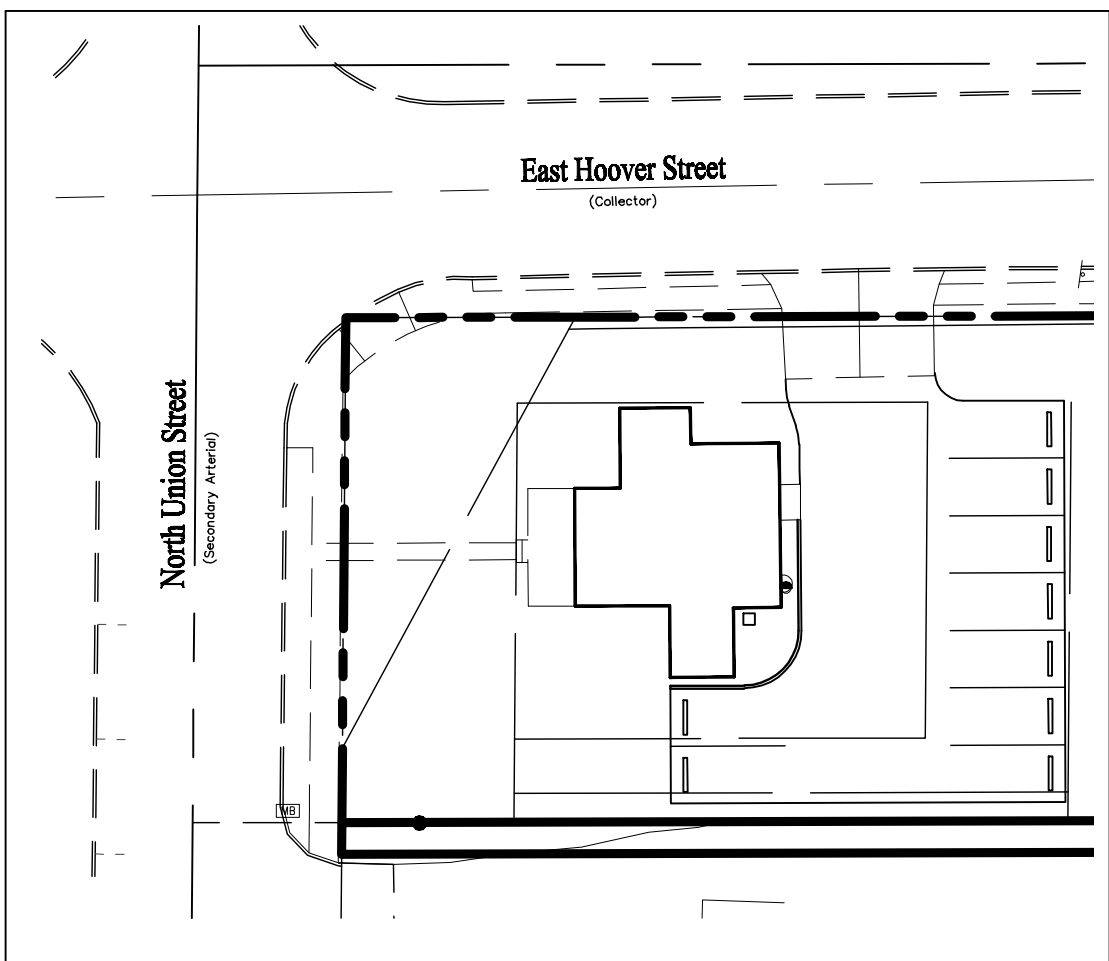
HOLEY MOLEY SAYS
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PER INDIANA STATE LAW IC 8-1-26,
IT IS AGAINST THE LAW TO EXCAVATE
WITHOUT NOTIFYING THE UNDERGROUND
LOCATION SERVICE TWO (2) WORKING
DAYS BEFORE COMMENCING WORK.



*THOROUGHFARE PLAN
FOR HAMILTON COUNTY,
INDIANA*



AREA MAP



SITE LOCATION MAP

PLANS PREPARED FOR:

*WILLIAM WEBSTER
22357 WEST ROAD
SHERIDAN, INDIANA 46069
TELEPHONE: 317-513-5675*

SHEET INDEX

SHEET NO.	DESCRIPTION
C001	TITLE SHEET
C100	SITE PREPERATION / DEMOLITION PLAN
C200	STORM WATER POLLUTION PREVENTION PLAN
C300	SITE GRADING PLAN
L101	LANDSCAPE PLAN

INDIANA STATE DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS LATEST EDITION TO
BE USED WITH THESE PLANS.

NOTE:
THE BOUNDARY AND ALL OTHER EXISTING CONDITIONS ARE
SHOWN PER SURVEY PROVIDED BY FOSTER LAND SURVEYING INC.
ALL UNDERGROUND UTILITIES HAVE BEEN LOCATED BY SURFACE
EVIDENCE AND SHOULD BE CONSIDERED APPROXIMATE. EXACT
LOCATIONS SHOULD BE VERIFIED PRIOR TO CONSTRUCTION.

PLAN CERTIFICATION NOTE:

PRELIMINARY DRAWINGS AND SITE TOPOGRAPHIC DRAWINGS WERE PREPARED BY FOSTER
LAND SURVEYING, INC. FOR WILLIAM WEBSTER. PRELIMINARY PLANS/DRAWINGS ARE THOSE
CONTAINING A DATE OR REVISION DATE OF 11/20/07 OR BEFORE.

FINAL DRAWINGS WERE PREPARED BY WEIHE ENGINEERS, INC. AND JAMES E. SHIELDS, JR.
FINAL CONSTRUCTION PLANS ARE THOSE PLANS CONTAINING A FINAL REVISION DATE AFTER
7/29/08. WEIHE ENGINEERS, INC. AND JAMES E. SHIELDS, JR. ACCEPT FULL RESPONSIBILITY
FOR ALL ENGINEERING WORK IN THESE PLANS.

10505 N. College Avenue
Indianapolis, Indiana 46280
weihe.net

317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 fax

ALLAN H. WEIHE, P.E., L.S. - PRESIDENT

**WEIHE
ENGINEERS**
Land Surveying | Civil Engineering
Landscape Architecture

PROJECT NO.: WEIHE JOB #
DWG NAME: C001 TITLE SHEET/DWG
DESIGNED BY: JES
DRAWN BY: BMB
CHECKED BY: JES
DATE: 7/29/2008

REVISIONS AND ISSUES
REVISION PER CITY OF WESTFIELD REVIEW



JAMES E. SHIELDS JR. P.E. 10201333

PREPARED FOR:
TWISTED SISTERS BEAUTY SALON
WILLIAM WEBSTER
TITLE SHEET
Part of the Northeast Corner of the Southwest Quarter of Section 31, Township 16, Range 4 East.

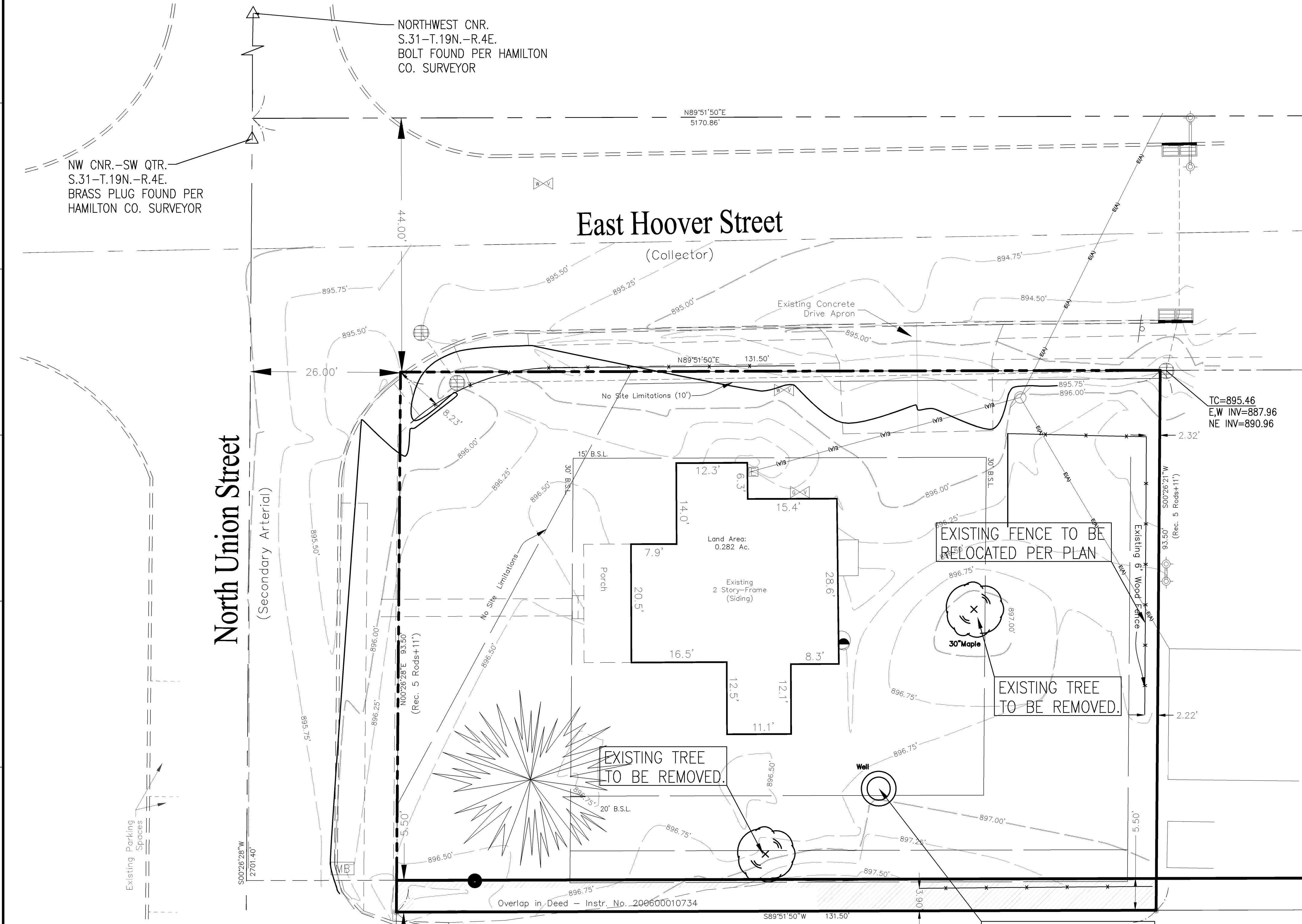
SHEET NO.

C001

PROJECT NO.

W08-0525

LOCATION: H:\2008\W080525\mxd\c100-EX.dwg
DATE/TIME: August 12, 2008 10:45am
PLOTTER: HP DesignJet 5000



GENERAL DEMOLITION NOTES:

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ANY MATERIALS AND/OR STRUCTURES NOT LOCATED ON THIS SURVEY.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL EXISTING UTILITIES PERTAINING TO THEIR PHASE OF WORK, AND TO VERIFY WHICH UTILITIES WILL BE REMOVED BY UTILITY COMPANY. ANY AND ALL UTILITIES NOT REMOVED BY THE UTILITY COMPANY SHALL BE REMOVED BY THE CONTRACTOR.
3. UTILITIES SHOWN ARE APPROXIMATE AND SHALL BE RELOCATED, CAPPED AND/OR ABANDONED PRIOR TO CONSTRUCTION.
4. ALL DEMOLITION MATERIAL AND SALVAGEABLE MATERIAL IS THE PROPERTY OF THE DEMOLITION CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFFSITE.
5. ALL EXISTING BUILDINGS ON THE PROPERTY ARE TO BE REMOVED AND MAY CONTAIN ASBESTOS MATERIAL TO BE REMOVED BY THE CONTRACTOR.
6. ALL STRUCTURES SHALL BE INVESTIGATED FOR POSSIBLE BASEMENTS, OR CELLARS. FOUNDATIONS AND WALLS TO BE REMOVED COMPLETELY AND TAKEN OFF THE SITE.
7. SLABS ON GRADE MUST BE REMOVED COMPLETELY AND TAKEN OFF THE SITE.
8. CAP ALL WELLS ON SITE AS SPECIFIED BY THE INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, HAMILTON COUNTY WELL CAPPING ORDINANCE AND INSPECTED BY WESTFIELD PUBLIC WORKS.
9. ALL EXISTING SEPTIC SYSTEMS ARE TO BE LOCATED BY CONTRACTOR ON SITE AND REMOVED COMPLETELY.
10. ALL EXISTING WALKS AND DRIVEWAYS TO BE COMPLETELY REMOVED BY CONTRACTOR AND HAULED OFFSITE.
11. THE CONTRACTOR SHALL OBTAIN ALL DEMOLITION PERMITS REQUIRED BY THE LOCAL AND STATE AGENCIES.
12. THE CONTRACTOR SHALL REMOVE ALL EXISTING FENCES LOCATED ON SITE.
13. THE OWNER GETS THE FIRST RIGHT OF SALVAGE.
14. POWER POLES TO BE REMOVED & RELOCATED PER UTILITY CO.
15. THE CONTRACTOR SHALL MAINTAIN STREETS FREE AND CLEAR OF SEDIMENT AND DEBRIS.
16. ALL EXISTING OFF-SITE DRAIN TILES THAT ARE ENCOUNTERED SHALL BE TIED INTO THE PROPOSED STORM SEWER SYSTEM WITH A POSITIVE OUTFLOW.

BENCHMARK INFORMATION

T.B.M. - CENTER OF TOP OF CASTING ON MANHOLE AT NORTHEAST CORNER OF PROPERTY = 895.46

LEGEND OF PLAT

- IPS - 5/8" dia. rebar w/ yellow cap stamped "WEIHE ENGR 0012" set.
- Iron Pin Found
- Magnetic Nail Set
- Magnetic Nail Found
- TC - Top of Casting elevation
- Inv. Flow line pipe elevation
- Utility Pole
- Cable TV / Electric Pedestal
- Yard / Curb Inlet
- Storm Manhole
- Spigot / Water Valve / Fire Hydrant
- Street Light
- Yard Light / Utility Pole w/ Light
- Traffic Signal Manhole
- Telephone Pedestal
- Mail Box
- Gas Line Marker
- Gas Meter
- Gas Valve
- San. Out / San. Sewer MH
- Electric Meter
- Fence Post
- Gate Post
- Aerial Utility Lines
- Gas Line
- Right-of-way Line
- Underground Telephone Line
- Water Line
- Flow Line SWALE
- Buried Secondary Electric
- Buried Cable TV
- Chain Link Fence / Fences
- as Measured and Calculated
- per Record document
- (M) - Measured
- (R) - per Record document
- Basketball Goal

SCALE: 1" = 10'

NOTE:
THE BOUNDARY AND ALL OTHER EXISTING CONDITIONS ARE SHOWN PER SURVEY PROVIDED BY FOSTER LAND SURVEYING INC. ALL UNDERGROUND UTILITIES HAVE BEEN LOCATED BY SURFACE EVIDENCE AND SHOULD BE CONSIDERED APPROXIMATE. EXACT LOCATIONS SHOULD BE VERIFIED PRIOR TO CONSTRUCTION.

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317 | 843 - 0546 /ax
ALLAN H. WEIHE, P.E., L.S. - PRESIDENT

WEIHE
ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture

PROJECT NO. WEIHE JOB #
DATE NAME: E.W.
DESIGNED BY: E.W.
DRAWN BY: E.W.
CHECKED BY: E.W.
DATE: 7/29/2008

DATE: 8-11-08
BY: E.W.

REVISIONS AND ISSUES
REVISIONS PER CITY OF WESTFIELD REVIEW

JAMES E. SHIELDS, JR.
REGISTERED
No. PE10201333
STATE OF INDIANA
PROFESSIONAL ENGINEER

JAMES E. SHIELDS, JR. P.E. 10201333

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JAMES E. SHIELDS, JR. P.E. 10201333

—NOTE—
THIS PLAN INDICATES EROSION CONTROL MEASURES REQUIRED AFTER SOIL STRIPPING AND PAD BUILDING HAS TAKEN PLACE. COORDINATE WITH DEVELOPER FOR MEASURES REQUIRED UNTIL PROPERTY TURNED OVER FOR DEVELOPMENT. COORDINATE WITH SOIL CONSERVATION DISTRICT REPRESENTATIVE FOR ANY OTHER MEASURES REQUIRED DUE TO SITE CONDITIONS.

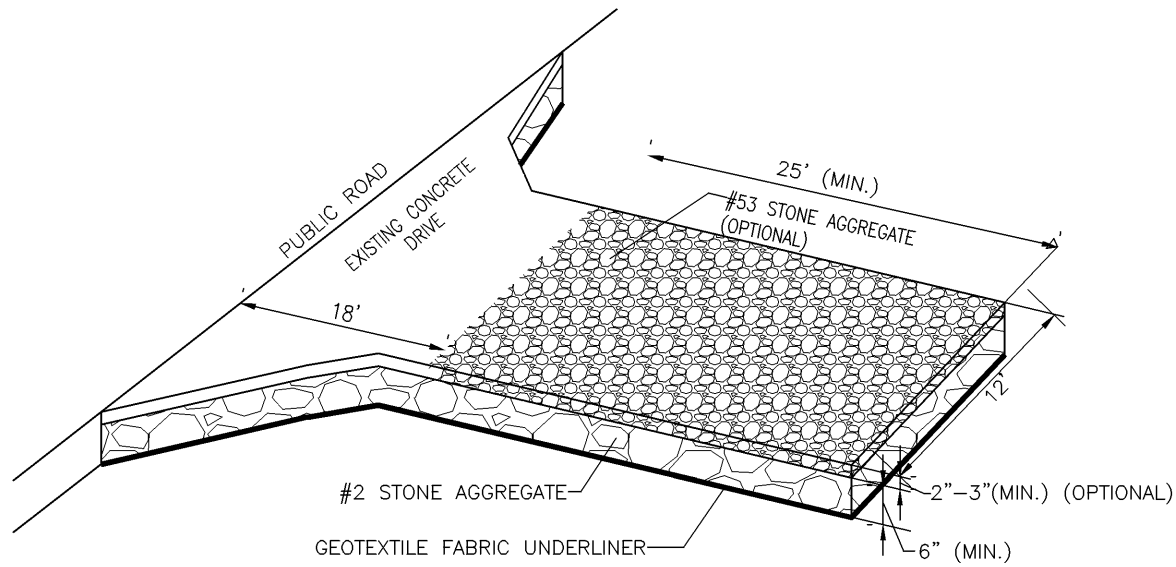
Contact Person for Erosion
Control & Sediment Practices
WILLIAM WEBSTER
22357 WEST ROAD
SHERIDAN, INDIANA, 46069
TELEPHONE: (317) 513-5675

NOTES:
PERMANENT SEEDING IS TO BE PLACED IN ANY AREA DISTURBED BY CONSTRUCTION.

NOTES:

1. EROSION CONTROL PLAN MEASURES MUST BE EXECUTED BEFORE ANY CONSTRUCTION COMMENCES.
2. THE SILT FENCE IS TO BE PLACED BEHIND THE CURB AS SOON AS THE CURBS ARE INSTALLED.
3. ALL S.S.D. SHALL BE SMOOTH BORE, DOUBLE WALLED PIPE.

—WARNING—
THIS PLAN TO BE USED FOR EROSION CONTROL PURPOSES ONLY. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN THE FIELD BY THE INSPECTOR.



INSTALLATION

1. REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA.
2. GRADE THE FOUNDATION AND CROWN FOR POSITIVE DRAINAGE.
3. INSTALL A CULVERT PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE.
4. IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY.
5. PLACE AGGREGATE (INDOT CA NO. 2) TO THE DIMENSIONS AND GRADE SHOWN IN THE CONSTRUCTION PLANS, LEAVING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE.
6. TOP-DRESS THE DRIVE WITH WASHED AGGREGATE (INDOT CA NO.55).
7. WHERE POSSIBLE, DIVERT ALL STORM WATER RUNOFF AND DRAINAGE FROM THE TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD TO A SEDIMENT TRAP OR BASIN.

MAINTENANCE

- INSPECT ONLY
- RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
- TOP-DRESS WITH CLEAN AGGREGATE AS NEEDED.
- IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS.
- FLUSHING SHOULD ONLY BE USED IF THE WATER FROM THE CONSTRUCTION DRIVE CAN BE CONVEYED INTO A TRAP OR BASIN.

REFERENCED IN CHAPTER 7 PAGE 22 AND 23 IN INIANA STORM WATER QUALITY MANUAL.

TEMPORARY CONSTRUCTION INGRESS/EGRESS PAD
SMALL SITES - LESS THAN TWO ACRES (NO SCALE)

LEGEND

- SILT FENCE BOX
- COCONUT MAT INLET PROTECTION
- PERMANENT SEEDING - USE PLANTING CHART
- CONSTRUCTION ENTRANCE (12" OF #2 STONE OR FILTER FABRIC)
- SF — SILT FENCE
- SWALE
- CONSTRUCTION LIMITS

SCALE: 1" = 10'
0 5 10 20

NOTE:
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PLAN CERTIFICATION NOTE:

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LAWNS AND HIGH-MAINTENANCE AREAS		
SEED MIXTURES	RATE PER ACRE PURE LIVE SEED	OPTIMUM SOIL PH
1. BLUEGRASS	140 LBS.	5.5 TO 7.0
2. PERENNIAL RYEGRASS (TURF TYPE)	60 LBS. 90 LBS.	5.6 TO 7.0
3. TALL FESCUE (TURF TYPE) - BLUEGRASS	170 LBS. 30 LBS.	5.6 TO 7.5

NOTES:

1. AN OAT OR WHEAT COMPANION OR NURSE CROP MAY BE USED WITH ANY OF THE ABOVE PERMANENT SEEDING MIXTURES, AT THE FOLLOWING RATES:
(A) SPRING OATS - ONE-FOURTH TO THREE-FOURTHS BUSHEL PER ACRE
(B) WHEAT - NO MORE THAN ONE-HALF BUSHEL PER ACRE
2. A HIGH POTENTIAL FOR FERTILIZER, SEED, AND MULCH TO WASH EXISTS ON STEEP BANKS, CUTS, AND IN CHANNELS AND AREAS OF CONCENTRATED

INSTALLATION

1. GRADE THE SITE TO ACHIEVE POSITIVE DRAINAGE.
2. ADD TOPSOIL OR COMPOST MULCH TO ACHIEVE NEEDED DEPTH FOR ESTABLISHMENT OF VEGETATION. (COMPOST MATERIAL MAY BE ADDED TO IMPROVE SOIL MOISTURE HOLDING CAPACITY, SOIL FRIABILITY, AND NUTRIENT AVAILABILITY.)

SEEDBED PREPARATION

1. TEST SOIL TO DETERMINE PH AND NUTRIENT LEVELS.
2. APPLY SOIL AMENDMENTS AS RECOMMENDED BY THE SOIL TEST AND WORK INTO THE UPPER TWO TO FOUR INCHES OF SOIL. IF TESTING NOT DONE, APPLY 400 TO 600 POUNDS PER ACRE OF 12-12-12 ANALYSIS FERTILIZER, OR EQUIVALENT.
3. TILL THE SOIL TO OBTAIN A UNIFORM SEEDBED. USE A DISK OR RAKE, OPERATED ACROSS THE SLOPE, TO WORK THE SOIL AMENDMENTS INTO THE UPPER TWO TO FOUR INCHES OF THE SOIL.

SEEDING

1. OPTIMUM SEEDING DATES ARE MARCH 1 TO MAY 10 AND AUGUST 10 TO SEPTEMBER 30. PERMANENT SEEDING DONE BETWEEN MAY 10 AND AUGUST 10 MAY NEED TO BE IRRIGATED. SEEDING OUTSIDE OR BEYOND OPTIMUM SEEDING DATES IS STILL POSSIBLE WITH THE UNDERSTANDING THAT RESEEDING OR OVERSEEDING MAY BE REQUIRED. IF ADEQUATE SURFACE COVER IS NOT ACHIEVED, RESEEDING OR OVERSEEDING CAN BE EASILY ACCOMPLISHED IF THE SOIL SURFACE REMAINS WELL PROTECTED WITH MULCH.
2. SELECT A SEEDING MIXTURE AND RATE FROM TABLE 1. SELECT SEED MIXTURE BASED ON SITE CONDITIONS, SOIL PH, INTENDED LAND USE, AND EXPECTED LEVEL OF MAINTENANCE.
3. APPLY SEED UNIFORMLY WITH A DRILL OR CULTIPACKER SEEDER OR BY BROADCASTING. PLANT OR COVER THE SEED TO A DEPTH OF ONE-FOURTH TO ONE-HALF INCH. IF DRILLING OR BROADCASTING THE SEED, ENSURE GOOD SEED-TO-SOIL CONTACT BY FIRING THE SEEDBED WITH A ROLLER OR CULTIPACKER AFTER COMPLETING SEEDING OPERATIONS. (IF SEEDING IS DONE WITH A HYDROSEEDER, FERTILIZER AND MULCH CAN BE APPLIED WITH THE SEED IN A SLURRY MIXTURE.)
4. MULCH ALL SEEDBED AREAS AND USE APPROPRIATE METHODS TO ANCHOR THE MULCH IN PLACE. CONSIDER USING EROSION CONTROL BLANKETS ON SLOPING AREAS AND CONVEYANCE CHANNELS.

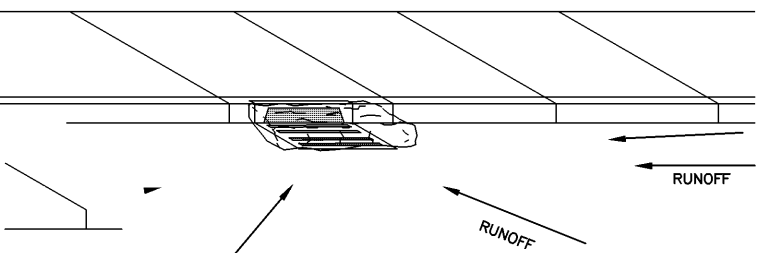
MAINTENANCE

- INSPECT WITHIN 24 HOURS OF EACH RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS UNTIL THE VEGETATION IS SUCCESSFULLY ESTABLISHED.
- CHARACTERISTICS OF A SUCCESSFUL STAND INCLUDE VIGOROUS DARK GREEN OR BLuishGREEN SEEDLINGS WITH A UNIFORM VEGETATIVE COVER DENSITY OF 90 PERCENT OR MORE.
- CHECK FOR EROSION OR MOVEMENT OF MULCH.
- REPAIR DAMAGED, BARE, GULLED, OR SPARSELY VEGETATED AREAS AND THEN FERTILIZE, RESEED, AND APPLY AND ANCHOR MULCH.
- IF PLANT COVER IS SPARSE OR PATCHY, EVALUATE THE PLANT MATERIALS CHOSEN, SOIL FERTILITY, MOISTURE CONDITION, AND MULCH APPLICATION; REPAIR AFFECTED AREAS EITHER BY OVERSEEDING OR PREPARING A NEW SEEDBED AND RESEEDING. APPLY AND ANCHOR MULCH ON THE NEWLY SEEDBED AREAS.
- IF VEGETATION FAILS TO GROW, CONSIDER SOIL TESTING TO DETERMINE SOIL PH OR NUTRIENT DEFICIENCY PROBLEMS. (CONTACT YOUR SOIL AND WATER CONSERVATION DISTRICT OR COOPERATIVE EXTENSION OFFICE FOR ASSISTANCE.)
- IF ADDITIONAL FERTILIZATION IS NEEDED TO GET A SATISFACTORY STAND, DO SO ACCORDING TO SOIL TEST RECOMMENDATIONS.
- ADD FERTILIZER THE FOLLOWING GROWING SEASON, FERTILIZE ACCORDING TO SOIL TEST RECOMMENDATIONS.
- FERTILIZE TURF AREAS ANNUALLY. APPLY FERTILIZER IN A SPLIT APPLICATION, FOR COOL-SEASON GRASSES, APPLY ONE-HALF OF THE FERTILIZER IN LATE SPRING AND ONE HALF IN EARLY FALL. FOR WARM-SEASON GRASSES, APPLY ONE-THIRD IN EARLY SPRING, ONE-THIRD IN LATE SPRING, AND THE REMAINING ONE-THIRD IN MIDDLE SUMMER.

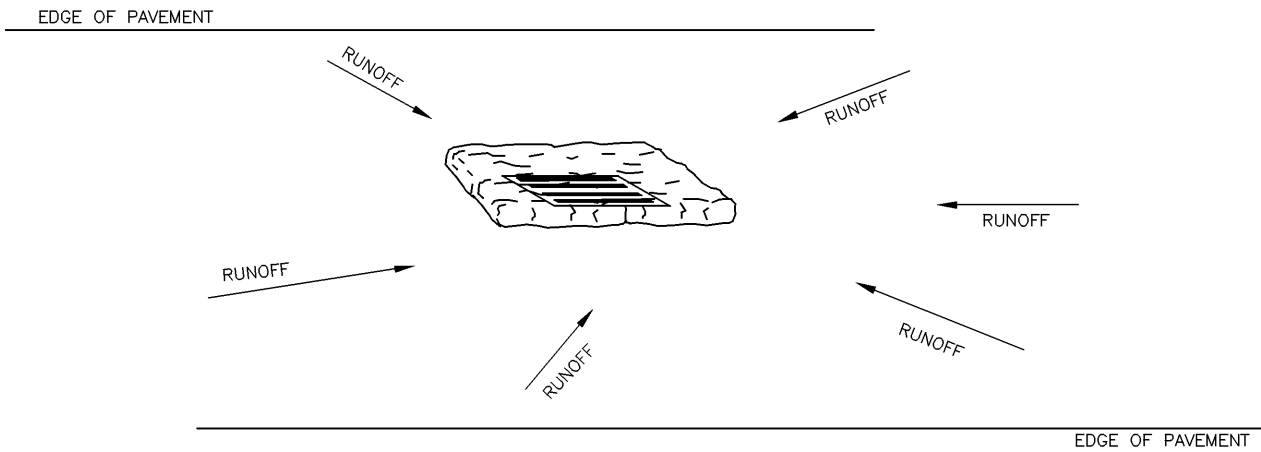
TABLE 1: PERMANENT SEEDING RECOMMENDATIONS
THIS TABLE PROVIDES SEVERAL SEED MIXTURE OPTIONS. ADDITIONAL SEED MIXTURES ARE AVAILABLE COMMERCIALY. WHEN SELECTING A MIXTURE, CONSIDER INTENDED LAND USE AND SITE CONDITIONS, INCLUDING SOIL PROPERTIES (E.G., SOIL PH AND DRAINAGE), SLOPE ASPECT, AND THE TOLERANCE OF EACH SPECIES TO SHADE AND DROUGHT.

REFERENCE IN CHAPTER 7 PAGES 35-40 IN THE INDIANA STORM WATER QUALITY MANUAL.

PERMANENT SEED



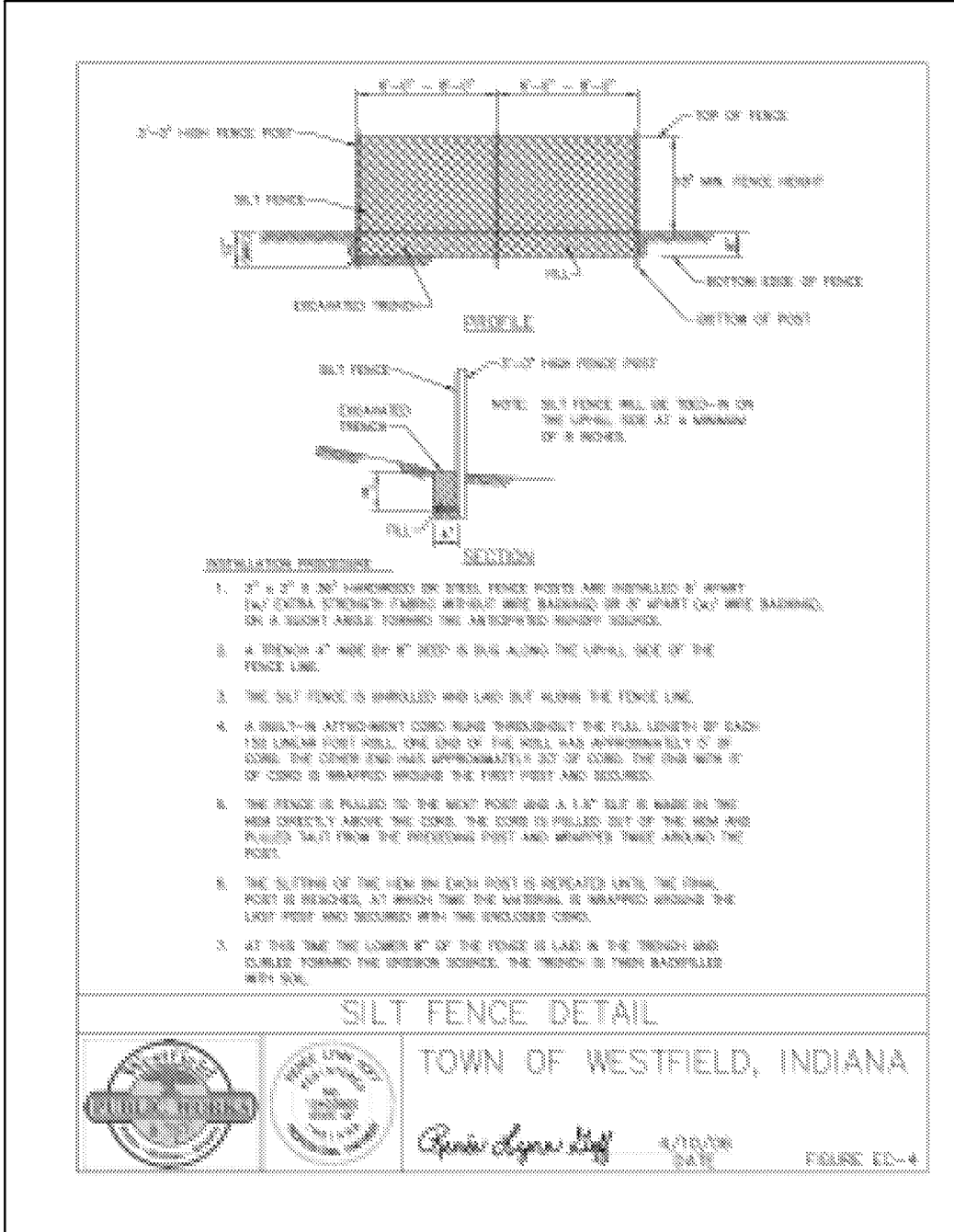
COCONUT MAT INLET PROTECTION
(FOR INLETS THAT ARE IN LOW POINTS) (NO SCALE)



MAINTENANCE:

- INSPECT DAILY.
- REMOVE ACCUMULATED SEDIMENT FROM PAVED AREA (DO NOT FLUSH WITH WATER) AFTER EACH STORM EVENT. DEPOSIT SEDIMENT IN AN AREA WHERE IT WILL NOT RE-ENTER THE PAVED AREA OR STORM DRAINS.
- INSPECT FOR DAMAGE BY VEHICULAR TRAFFIC AND REPAIR IF NEEDED.

COCONUT MAT INLET PROTECTION
FOR SAG INLETS LOCATIONS (NO SCALE)



10505 N. College Avenue
Indianapolis, Indiana 46280
weihe.net
317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 /ax
ALLAN H. WEIHE, P.E., L.S. - PRESIDENT

WEIHE ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture

PROJECT NO. WEIHE JOB #
DWC NAME: SHIPING
DESIGNED BY: EEC
DRAWN BY: EMB
CHECKED BY: JES
DATE: 7/29/2008

DATE: 8-11-08

DATE: 8-11-08

DATE: 8-11-08

DATE: 8-11-08

DATE: 8-11-08

DATE: 8-11-08

DATE: 8-11-08

DATE: 8-11-08

DATE: 8-11-08

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DATE: 8-11-08

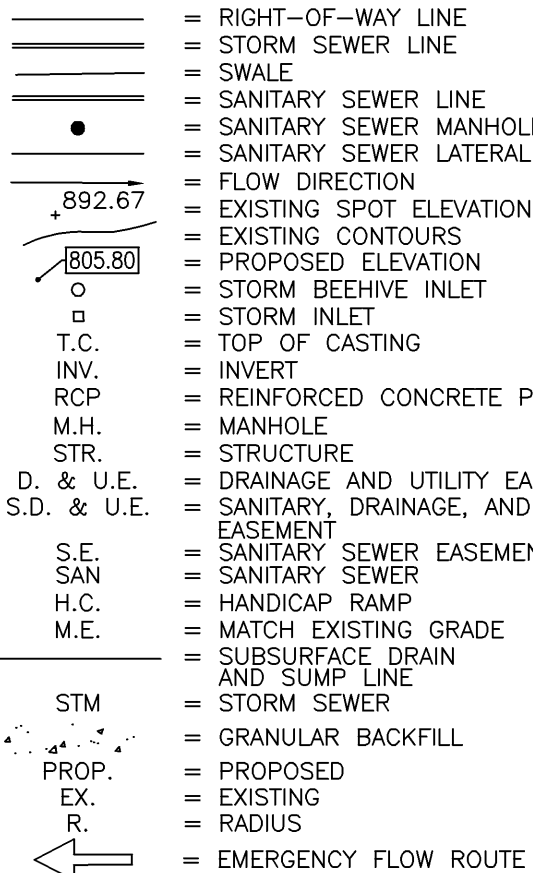
DATE: 8-11-08

DATE: 8-11-08

DATE: 8-11-08



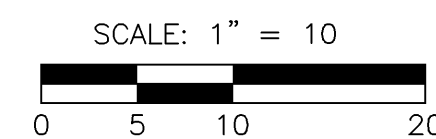
(Secondary Arterial)



- 1) THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, OR VERIFYING THAT ALL PERMITS AND APPROVALS ARE OBTAINED FROM THE RESPECTIVE CITY, COUNTY, AND STATE AGENCIES PRIOR TO STARTING CONSTRUCTION.
- 2) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES IN THE VICINITY OF THE CONSTRUCTION AREA PRIOR TO STARTING CONSTRUCTION.
- 3) IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY AND COORDINATE CONSTRUCTION WITH ALL RESPECTIVE UTILITIES.
- 4) ALL QUANTITIES GIVEN ON THESE PRINTS, VERBALLY OR IN THE SCOPE OF WORK SECTION ARE ESTIMATES AND SHALL BE CONFIRMED BY THE BIDDING CONTRACTORS.
- 5) OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29 CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH.
- 6) IN ADDITION, EXCAVATIONS EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRE THE DESIGN OF A TRENCH SAFETY SYSTEM BY REGISTERED PROFESSIONAL ENGINEER.
- 7) IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND CONTRACTOR TO MAINTAIN QUALITY CONTROL THROUGHOUT THIS PROJECT.
- 8) TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL STANDARDS.
- 9) BEARINGS, DIMENSIONS, AND EASEMENTS ARE SHOWN FOR REFERENCE ONLY. SEE RECORD SURVEYS AND PLATS FOR EXACT INFORMATION.
- 10) EXISTING ON-STREET PARKING WILL BE UTILIZED FOR THIS SITE.



CALL TOLL FREE
PER INDIANA STATE LAW IC 8-1-26.
IT IS AGAINST THE LAW TO EXCAVATE
WITHOUT NOTIFYING THE UNDERGROUND
LOCATION SERVICE TWO (2) WORKING
DAYS BEFORE COMMENCING WORK.

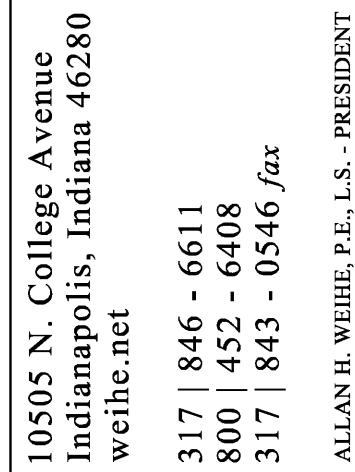


NOTE:
THE BOUNDARY AND ALL OTHER EXISTING CONDITIONS ARE SHOWN PER
SURVEY PROVIDED BY FOSTER LAND SURVEYING INC. ALL UNDERGROUND
UTILITIES HAVE BEEN LOCATED BY SURFACE EVIDENCE AND SHOULD BE
CONSIDERED APPROXIMATE. EXACT LOCATIONS SHOULD BE VERIFIED
PRIOR TO CONSTRUCTION.

PLAN CERTIFICATION NOTE:

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WEIHE
ENGINEERS

Land Surveying | Civil Engineering
Landscape Architecture

PROJECT NO.: WEIHE JOB #
DWG NAME: SITE GRADING
DESIGNED BY: EEF
DRAWN BY: BMB
CHECKED BY: JES
DATE: 7/10/2008

REVISIONS AND ISSUES



JAMES E. SHIELDS JR. P.E. 1020133

REPAIRED FOR:

TWISTED SISTERS BEAUTY SALON

WILLIAM WEBSTER

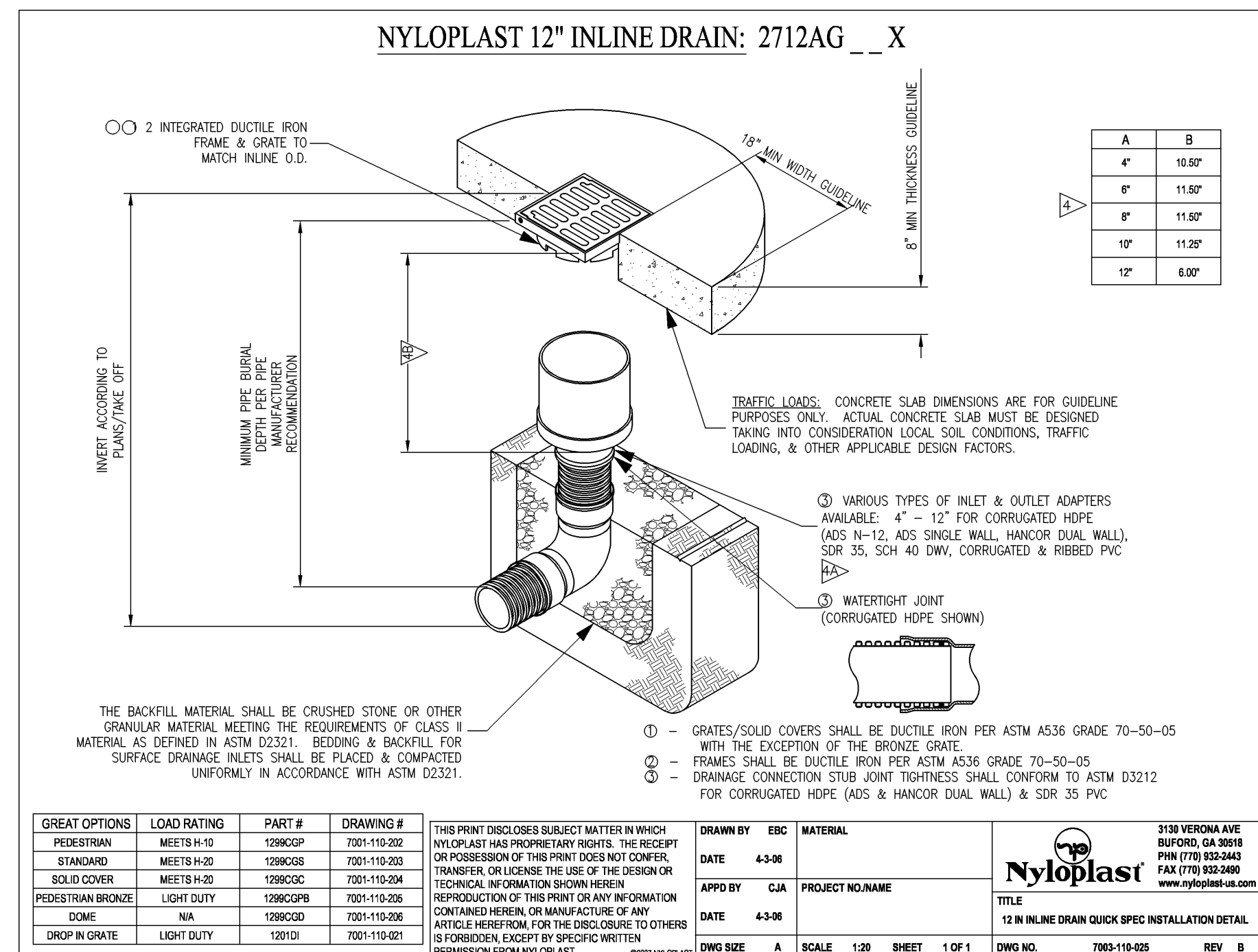
DEVELOPMENT PLAN

SHEET NO.

C300

PROJECT N

W08-0525



LOCATION: H:\2008\W080525\eng\conset\C300-DEV.dwg
 LAYOUT: C300
 DATE/TIME: August 12, 2008 - 11:01am
 PLOTTED BY: cadman

North Union Street
(Secondary Arterial)

East Hoover Street
(Collector)



HOLEY MOLEY SAYS
"DIG SAFELY"
"IT'S THE LAW"
CALL 2 WORKING DAYS BEFORE YOU DIG
1-800-382-5544
CALL TOLL FREE
PER INDIANA STATE LAW IC 8-1-26,
IT IS AGAINST THE LAW TO EXCAVATE
WITHOUT NOTIFYING THE UNDERGROUND
LOCATION SERVICE TWO (2) WORKING
DAYS BEFORE COMMENCING WORK.

GENERAL NOTES

- In case of discrepancies between the plan and the plant list, the plan shall dictate. If in question, contact the Landscape Designer.
- All shrub planting areas to be covered with 3" thick layer of shredded hardwood bark mulch. All ground cover beds shall be covered with 1" shredded hardwood bark mulch. Bark mulch shall be approved by Landscape Designer and shall be uniform in texture. No utility mulch or processed tree trimmings will be allowed.
- An approved pre-emergent herbicide shall be applied in all planting and ground cover beds at rates specified by manufacturer for each variety of plant prior to planting.
- Final placement of plant materials, etc. shall be approved by Landscape Designer before planting operations are to proceed. All trees shall be marked with a wooden stake indicating variety and size of tree. All ground cover and mulch bed lines shall be marked by a highly visible point line with occasional wood stakes for reference. All stakes shall be removed following planting operations. Landscape Designer reserves the right to adjust plant locations on site.
- No substitutions of plant material will be allowed. If plants are shown to be unavailable, the contractor shall notify Landscape Designer prior to bid date in writing. All plants shall be inspected and tagged with project identification of nursery or contractors operation prior to moving to job site. Plants may also be inspected and approved or rejected on the job site.
- All plants are to meet or exceed American Standards for Nursery Stock, current edition, as set forth by American Association of Nurserymen.
- Plants and all other materials to be stored on site will be placed where they will not conflict with construction operations and as directed by owner.
- All new landscape plantings shall be guaranteed for a period of one year following final inspection by Landscape Designer. At the end of this period, plant material termed dead or unsatisfactory by Landscape Designer shall be replaced at no additional charge by the landscape contractor.
- The landscape contractor shall obtain and pay for all permits and fees that may be required for his portion of work.
- Peat moss shall be sphagnum peat moss commercial grade with pH of 5.9 to 7.0.
- Landscape contractor shall notify Landscape Designer in writing prior to bid date of any plants that he feels may not survive in locations noted.
- All disturbed lawn areas shall be sodded or seeded as noted. Lawns shall be sodded or seeded with seed mix as approved by Landscape Designer.
- All lawns shall be guaranteed to have a full uniform stand of acceptable grass at end of one year guarantee period with no bare spots comprising more than 25% of any lawn area. Any area so noted will be resodded until an acceptable stand of grass is established.
- All landscape plantings to be maintained by the contractor for 60 days following final inspection by Landscape Designer. All seeded lawns to be maintained by the contractor for a period of 60 days and sodded lawns 30 days following final inspection by Landscape Designer after written request from landscape contractor. Maintaining to include watering, weeding, cultivation, mulching, mowing and all other necessary operations required for proper establishment of lawns and plantings.
- Contractor to submit unit prices on every type of work as requested by Landscape Designer.
- All lawn area within base project site to receive 4-8" approved topsoil prior to sodding or seeding operations.
- Backfill for tree and shrub planting shall be equal parts sphagnum peat moss, composted manure, and existing soil. A 5-10-5 analysis slow release fertilizer shall be incorporated into backfill at approved rates.
- Provide minimum 4" planting soil in all ground cover and flower areas with mulch comprising of equal parts sphagnum peat moss, composted manure, and existing soil. A full 4" layer of approved shredded fibrous peat moss may be used in lieu of planting mix.
- Lawns shall be seeded following scarifying final grading fertilizing and raking operations. Lawn area shall be fertilized at rates specified and amendments applied as dictated by soils tests prior to seeding operations. Lawns shall be seeded with a mechanical type spreader at the rate of 5 lbs./1000 S.F. of area with 1/2" of seed applied in one direction and the balance applied in a direction perpendicular to the first. Following seeding operation, lawn shall be lightly rolled, rolled with a 200 lb. roller, mulched using straw mulch, and topdressed, or hydroseeded at contractor's option.
- Grade aggregate used in beds as noted shall be oversized washed river gravel 4" in diameter and placed in 6" minimum layer and deeper as noted over non woven weed barrier fabric.
- Provide fertile, friable, natural loam surface reasonably free of subsoil, clay lumps, stones larger than 1/2" brush and other litter. Soil particulates not to exceed 1/4" in size prior to seeding/sodding.

SCALE: 1" = 10'

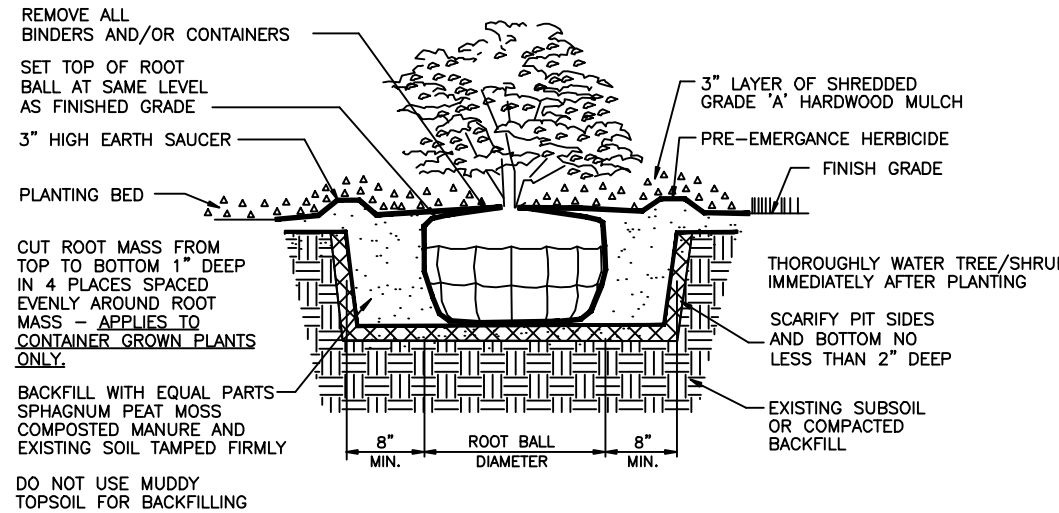
0 5 10 20

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PLAN CERTIFICATION NOTE:

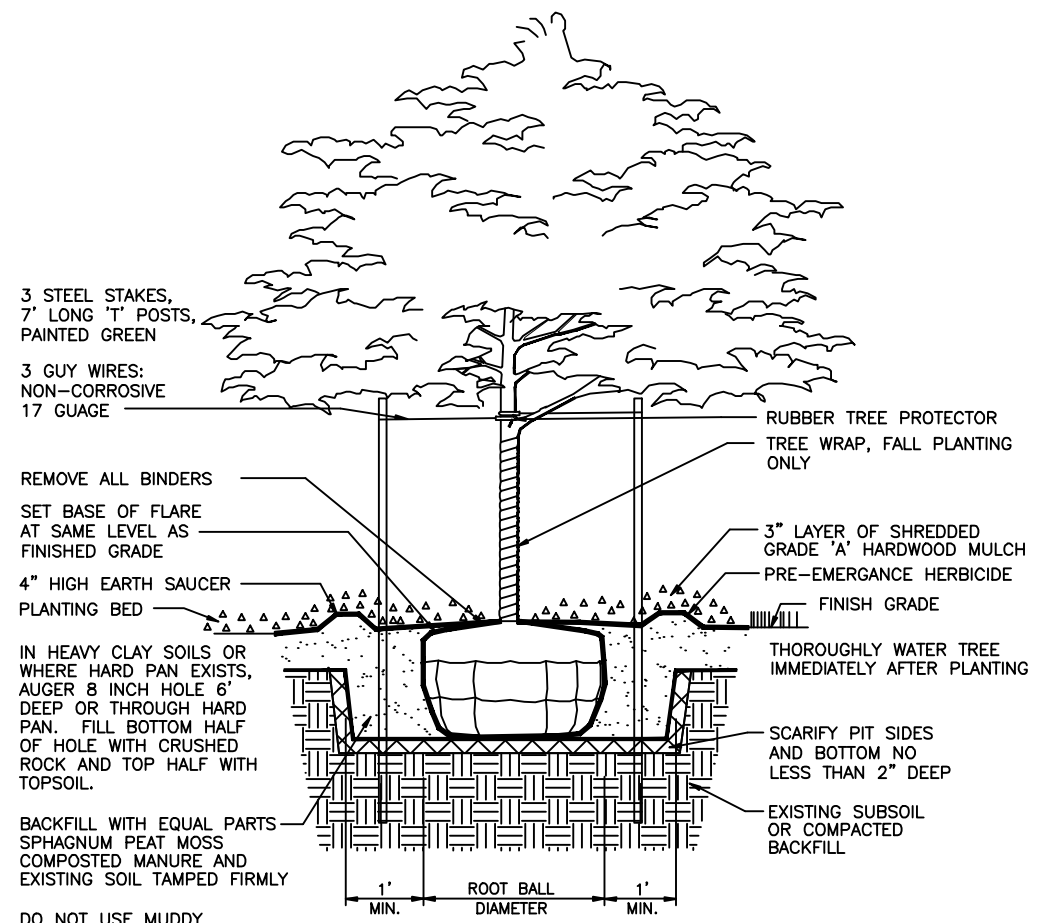
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SHRUB PLANTING DETAIL

(NO SCALE)



TREE PLANTING DETAIL

(NO SCALE)

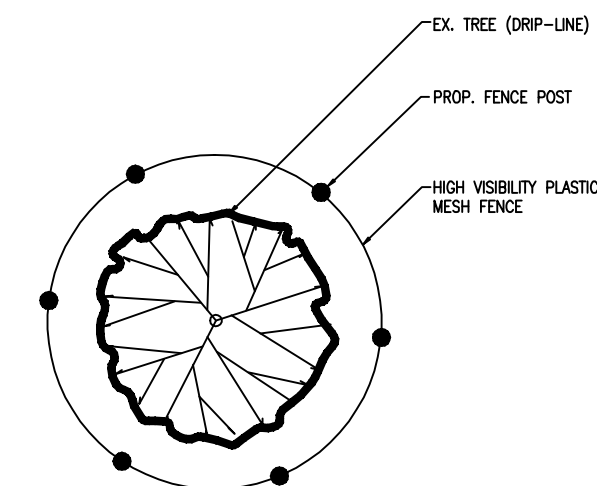
FILE: PLDET.DWG

NOTES

- LANDSCAPE BED EDGE
- MULCH - 3" DEPTH
- GRASS
- CURBED ISLANDS - ISLANDS MUST BE 6" ABOVE THE PARKING LOT GRADE.
- PERENNIAL/ ANNUAL FLOWER BED.

PLANT SCHEDULE

PLAN KEY	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY	ROOT CONDITION B & B BARE CONT	ON CENTER SPACING	SPECIAL INSTRUCTIONS
A	PRUNUS PENDULA 'SNOFOZAM'	SNOW FOUNTAINS WEEPING CHERRY	2" CALIPER	1		AS SHOWN	
B	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	#3	5		AS SHOWN	
C	EVONYMUS ALATUS 'COMPACTUM'	COMPACT BURNING BUSH	18-24"	7		AS SHOWN	
D	AMERLANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICE BERRY	2" CALIPER	1		AS SHOWN	
E	JUNIPERUS CHINENSIS 'SEA GREEN'	SEA GREEN JUNIPER	18-24"	24		AS SHOWN	
F	WEIGELA FLORIDA 'JAVA RED'	JAVA RED WEIGELA	#3	7		AS SHOWN	



NOTE: AVOIDING DAMAGE DURING CONSTRUCTION
THE SUREST WAY TO PROTECT TREES THAT ARE TO BE SAVED IS TO:

- WORK WITH THE BUILDER TO LOCATE AND MARK WITH FLAGGING AND/OR SIGNS ALL CONSTRUCTION ROADS, PARKING PLACES FOR WORKERS, AND AREAS FOR STORAGE OF BUILDING MATERIALS, GRAVEL AND SOIL.
- WORK WITH THE UTILITY CONTRACTORS TO STAKE OUT THE EXACT LOCATION OF TRENCHES, AND
- ERECT PHYSICAL BARRIERS AROUND ALL "SAVED" TREES OR, BETTER YET, AROUND GROUPS OF TREES, NEAR THE CONSTRUCTION ACTIVITY.
- EXTEND BARRIERS AS FAR AS POSSIBLE BEYOND DRIPLINE.

(NO SCALE)
FILE: TREEPRESV.DWG

BARRIERS THAT EXTEND BEYOND THE DRIP LINE PROTECT TREES DURING CONSTRUCTION.

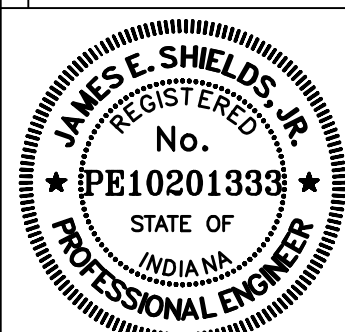
TREE PRESERVATION DETAIL

10505 N. College Avenue
Indianapolis, Indiana 46280
weihe.net
317 | 846 - 6611
800 | 452 - 6408
317 | 843 - 0546 fax
ALLAN H. WEIHE, P.E., L.S. - PRESIDENT

WEIHE
ENGINEERS
Land Surveying | Civil Engineering
Landscape Architecture

PROJECT NO.:
DWG NAME:
SITE GRADING:
DESIGNED BY:
DRAWN BY:
CHECKED BY:
DATE: 7/29/2008

REVISIONS AND ISSUES



JAMES E. SHIELDS JR. P.E. 10201333

PREPARED FOR:
TWISTED SISTERS BEAUTY SALON
WILLIAM WEBSTER
LANDSCAPE PLAN
Part of the Northwest Corner of the Southwest Quarter of Section 31, Township 16, Range 4, East.

SHEET NO.
PROJECT NO.
W08-0525

Jennifer Miller

From: Donna Luley
Sent: Tuesday, August 12, 2008 12:04 PM
To: Jennifer Miller; Pete White; 'Greg Hoyes'
Cc: Al Salzman, AICP
Subject: RE: Twisted Sister (Webster) Salon - 546 Union

Jennifer:

We are fine with the plans with the exception of the nyloplast item. We do not allow that type of structure. We are in the process of letting them know of items to change, but I don't see any concern to hold them back. Thank you.

Donna Luley
Plan Review
Westfield Public Works
Phone: 317-896-5452 ext. 142
Fax: 317-867-0202
dluley@westfield.in.gov
www.westfield.in.gov

From: Jennifer Miller
Sent: Monday, August 11, 2008 11:07 AM
To: Donna Luley; Pete White; 'Greg Hoyes'
Cc: Al Salzman, AICP
Subject: Twisted Sister (Webster) Salon - 546 Union

All –

This petitioner is hoping to move forward to a public hearing on August 18. This means they need compliant plans by 9:00 am on Wednesday to make our packet schedule on time. Could you please update me as to whether this petitioner is compliant with your agency's regulations? Thanks!

Sincerely,

JENNIFER M. MILLER

City of Westfield, Community Development Department
130 Penn Street, Westfield, IN 46074

Phone: 317-896-5577
Fax: 317-896-2791



Please consider the environment before printing this e-mail.

Jennifer Miller

From: Greg Hoyes [grh@co.hamilton.in.us]
Sent: Tuesday, August 12, 2008 12:08 PM
To: Donna Luley; Jennifer Miller; Pete White
Cc: Al Salzman, AICP
Subject: RE: Twisted Sister (Webster) Salon - 546 Union

Jennifer

Since WPW is fine with the plans, so is HCSO. If you have any questions, please let me know.

Greg Hoyes
HCSO Plan Reviewer

>>> "Donna Luley" <dluley@westfield.in.gov> 12:03 PM Tuesday, August 12,
>>> 2008 >>>
Jennifer:

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Donna Luley

Plan Review

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Thanks!



WESTFIELD-WASHINGTON
ADVISORY PLAN COMMISSION
PUBLIC HEARING
August 18, 2008
0809-DP-09
Exhibit 1

PETITION NUMBER:	0807-DP-09
SUBJECT SITE ADDRESS:	140 Cherry Street
PETITIONER:	Artus Realty & Development
REQUEST:	Development Plan and Site Plan review of the addition of two paved parking areas.
CURRENT ZONING:	LB-H
CURRENT LAND USE:	Office
APPROXIMATE ACREAGE:	1.0
ASSOCIATED PETITIONS:	0807-SIT-08
EXHIBITS:	1. Staff Report
STAFF REVIEWER:	Jeremy Miller

SITE HISTORY

None

PETITION HISTORY

- o This item was continued from the July 21, 2008 Advisory Plan Commission hearing to the August 18, 2008 APC hearing at the request of the petitioner.
- o This item previously appeared before the APC at the July 7, 2008 Workshop Meeting.

PROCEDURAL

- o The petitioner has requested that this petition be continued from the August 18, 2008 APC hearing to the September 15, 2008 APC hearing to allow additional time to amend submitted plans.
- o The required Public Hearing for this item will occur at that time.

JCM / afs



WESTFIELD-WASHINGTON
ADVISORY PLAN COMMISSION
PUBLIC HEARING
August 18, 2008
0807-DP-10
Exhibit 1

PETITION NUMBER:	0807-DP-10
SUBJECT SITE ADDRESS:	500 Deer Walk Trace
PETITIONER:	City of Westfield Parks & Recreation Department
REQUEST:	Development and Site Plan review of plans for Freedom Trail Park.
CURRENT ZONING:	SF-2
CURRENT LAND USE:	Public Park
APPROXIMATE ACREAGE:	10
ASSOCIATED PETITIONS:	0807-SIT-09
EXHIBITS:	1. Staff Report
STAFF REVIEWER:	Al Salzman

SITE HISTORY

0303-DP-07 & Development Plan and Site Plan review of the development
0303-SIT-04 of the Freedom Trail Park

PETITION HISTORY

- o This petition underwent Public Hearing at the August 4, 2008 Advisory Plan Commission meeting. At that time this petition was continued to the August 18, 2008 APC hearing by majority vote of the APC.
- o The APC voted to have an additional Public Hearing at the time that this petition proceeds.
- o This petition was scheduled to appear before the Advisory Plan Commission for public hearing at the July 21, 2008 meeting, but was continued due to a legal notice defect.
- o This item previously appeared at the July 7, 2008 Workshop Meeting.

PROCEDURAL

- o This petition has been continued from the August 18, 2008 Advisory Plan Commission hearing to the February 16, 2009 APC hearing at the request of the petitioner.

AFS



WESTFIELD-WASHINGTON
ADVISORY PLAN COMMISSION
PUBLIC HEARING
August 18, 2008
0805-DP-05
Exhibit 1

PETITION NUMBER:	0805-DP-05
SUBJECT SITE ADDRESS:	18702 U.S. 31 North
PETITIONER:	Paddack's Transportation
REQUEST:	Development Plan Review and Site Plan Review of building expansion
CURRENT ZONING:	GB
CURRENT LAND USE:	Transportation Service
APPROXIMATE ACREAGE:	10
ASSOCIATED PETITIONS:	0805-SIT-04
EXHIBITS:	1. Staff Report
STAFF REVIEWER:	Kevin Todd

SITE HISTORY

0807-VU-03	Variances of Use to allow Transportation Services business
0807-VS-12	Multiple Variances of Standard to development standards
86-V-7	Variance to allow single-family dwelling on property
83-V-5	Variance to allow manufactured dwelling on property

PROCEDURAL

This item has been continued to the September 15, 2008 Public Hearing at the request of the petitioner to allow additional time to amend submitted plans.

KMT



WESTFIELD-WASHINGTON

ADVISORY PLAN COMMISSION

PUBLIC HEARING

August 18, 2008

0808-PUD-02

Exhibit 1

PETITION NUMBER:	0808-PUD-02
SUBJECT SITE ADDRESS:	14911 Ditch Road
PETITIONER:	Estridge Development Company, Inc.
REQUEST:	Change in zoning to include the subject site in the Brookie PUD (Centennial South)
CURRENT ZONING:	AG-SF-1
CURRENT LAND USE:	Single-family Detached Dwelling, Agricultural
APPROXIMATE ACREAGE:	6.75
EXHIBITS:	1. Staff Report
	2. Technical Advisory Committee Letters
	3. Petitioner's Exhibits
STAFF REVIEWER:	Al Salzman

ZONING HISTORY	0808-DP-11	Development Plan Review (<i>pending</i>)
	0808-SPP-02	Primary Plat (<i>pending</i>)
	0505-SFP-11	Secondary Plat
	0501-DP-04	Development Plan Review
	0501-SPP-01	Primary Plat
	0407-PUD-05	Change in zoning - Planned Unit Development

PETITION HISTORY

- o The August 18, 2008 Advisory Plan Commission Meeting represents the first public hearing for the proposed Centennial South Amendment Primary Plat.
- o This item previously appeared before the APC at the August 4, 2008 Workshop Meeting.

PROCEDURAL

- o Requests for changes in zoning to PUD Districts are required to undergo public hearing.
- o Notification of the August 18, 2008 public hearing was provided to abutting property owners in accordance with the Rules of Procedure on August 8, 2008.
- o Notice of the August 18, 2008 public hearing was posted to the City web site and at City Hall, and published in newspapers of general circulation in accordance with the Rules of Procedure.
- o The Advisory Plan Commission issues a recommendation to the City Council for change in zoning petitions.



INTRODUCTION

The requested change in zoning would add approximately six and three-quarters (6.75) acres of property adjacent to the Brookie PUD (Centennial South Development) to the Brookie PUD, allowing the additional acreage to develop in compliance with the existing terms of the Brookie PUD. The proposed amendment to the Brookie PUD would also modify the concept plan associated with the original Brookie PUD to reflect the additional acreage. The proposed amendment to the Brookie PUD would make no other modification to any existing standards or requirements of the approved Brookie PUD.

PUD STANDARDS

A planned unit development shall:

1. Address the policies included in the Comprehensive Plan specific to the neighborhood in which the PUD is to be located so as to encourage consistency with the community development vision as presented in the Comprehensive Plan.

See discussion of Public Policies and Indiana Code, below.

2. Use design to provide compatibility between areas of different land uses and development intensities within the PUD.

The additional acreage would be developed in a manner consistent with the abutting portion of the PUD.

3. Buffer different types of land uses and development intensities outside of the PUD from those within the PUD so as to minimize any adverse impact which new development may have on existing or zoned development.

The existing, approved buffering standards of the Brookie PUD would apply to the additional acreage.

4. Enhance the appearance of neighborhoods by conserving areas of natural beauty, and natural green spaces.

The approved Brookie PUD includes areas of green space. The proposed amendment would not impact or reduce those areas.



5. Promote and protect the environmental integrity of the site and its surroundings and provide suitable design responses to the specific environmental constraints of the site and surrounding area.

The additional acreage is generally flat and without distinguishing natural features or constraints.

6. Promote architecture that complements the surroundings.

Architectural requirements would not differ from the approved architectural standards contained in the Brookie PUD.

7. Counteract urban monotony and congestion on streets.

The proposed street within the additional acreage would be coordinated and integrated into the approved design of Centennial South.

8. The area designated in the PUD map must be a tract of land under single ownership or control. Single control of property under multiple ownerships may be accomplished through the use of enforceable commitments.

Proof of ownership and consent has been provided for the petition file.

9. The concept plan shall indicate the land uses, development standards, and other applicable specifications which shall govern the development of the PUD site in lieu of the regulations for the non-planned unit development district. If the concept plan is silent on a particular land use, development standard, or other applicable specification, then the standards of the non-planned unit development district or the applicable regulations shall apply.

The proposed amended concept plan identifies the location of all proposed uses.

10. The PUD concept plan map shall show the general location of all improvements.

The proposed amended concept plan identifies the general location of all proposed improvements.

11. The PUD must comply with all required improvements, construction standards, design standards, and all other engineering standards contained within the Zoning Ordinance, other pertinent regulations, and adopted standards and policies, except where modification is specifically authorized through the provisions of this Section of the Ordinance.



Construction of the infrastructure to serve the additional lots proposed on the additional acres would be consistent with the other constructed portions of the Centennial South development, unless otherwise modified at the request of WPWD.

12. The PUD must include a statement of recreational amenities and how they benefit the PUD residents.

The proposed amendment would not modify the approved statement of recreational amenities included in the approved Brookie PUD.

PUBLIC POLICIES

Comprehensive Plan-Feb 2007

The Amended Westfield-Washington Township 2020 Plan includes the portion of the subject site in an area identified as “Existing Suburban.” Development policies for the Existing Suburban (page 38) recommend compatible infill on vacant parcels, proper buffering, and consistency in mass, scale, density, materials, and architectural style. Single-family detached dwellings are identified as an acceptable use in the Existing Suburban area.

Thoroughfare Plan-Feb 2007

The current Westfield-Washington Township Thoroughfare Plan roadway classification map identifies Ditch Road as a “Secondary Arterial,” and recommends a minimum dedication of a sixty (60) foot half right-of-way. The Thoroughfare Plan further recommends the provision of an eight (8)-foot asphalt path within the right-of-way of Ditch Road.

Parks & Recreation Master Plan-Dec 2007

The Westfield Parks & Recreation Master Plan makes no specific recommendation for the subject site.

Water & Sewer System

Water and sewer service for the subject site would be provided through infrastructure installed as part of the Centennial South PUD.

Annexation

The subject site is within the corporate boundaries of the City of Westfield.

TECHNICAL REVIEW

This petition underwent preliminary review by the Technical Advisory Committee at the July 22, 2008 TAC meeting. Agencies represented included Westfield Public Works, the Hamilton County Surveyor’s Office, Citizen’s Gas, and the Indiana Department of Transportation. As of the date of this report, a comment letter has been received from the Hamilton County Surveyor’s Office (Exhibit 2). WPWD and WFD have not issued written comments as of the date of this report, but have indicated acceptance of the proposed PUD in meetings with the petitioner. If formalized comments are received between the date of this report and the



scheduled August 18th, 2008 Public Hearing on this petition, those comments will be made available to the members of the APC and the public.

INDIANA CODE

IC 36-7-4-603 states that reasonable regard shall be paid to:

1. The Comprehensive Plan.

The Amended Westfield-Washington Township 2020 Plan includes the portion of the subject site in an area identified as “Existing Suburban.” Development policies for the Existing Suburban (page 38) recommend compatible infill on vacant parcels, proper buffering, and consistency in mass, scale, density, materials, and architectural style. Single-family detached dwellings are identified as an acceptable use in the Existing Suburban area.

2. Current conditions and the character of current structures and uses.

The subject property is currently improved with a single-family detached dwelling and agricultural outbuilding. Neighboring properties to the east and south are undergoing development with single-family detached dwellings in a subdivision. Property to the west is used agriculturally, and property to the north is used in a light industrial manner.

3. The most desirable use for which the land is adapted.

The subject site is improved with a dwelling and agricultural building of a character and function inconsistent with the abutting residential subdivision. The influence of this development has the potential to make this site less suitable for continued agricultural use. The requested change in zoning for the site may represent the most desirable use for which the land is adapted.

4. The conservation of property values throughout the jurisdiction.

This proposed change is expected to have neutral or positive impacts on property values within the vicinity and jurisdiction.

5. Responsible growth and development.

The subject property is contiguous to other development to the south and east, and further development of the subject site would be consistent with the principle of contiguous growth. City services such as water, sewer, and emergency services already exist on the subject property.

APPLICABLE COMMITMENTS

WPWD has requested a commitment related to the provision of rights-of-way on adjacent property controlled by the petitioner. That commitment is tied to the associated Development Plan Review, and not to the requested change in zoning.



RECOMMENDATIONS

Forward this petition to the September 8, 2008 City Council meeting with a positive recommendation.

AFS

ORDINANCE NO. _____

An Ordinance of the City of Westfield, Indiana Amending the Brookie Planned Unit Development Ordinance

This PUD Ordinance Amendment (the “Amendment”) amends the Brookie Property Planned Unit Development Ordinance of the City of Westfield and Washington Township, Hamilton County, Indiana (the “Brookie PUD”), enacted by the City of Westfield under authority of Chapter 174 of the Acts of the Indiana General Assembly 1947, as amended;

WITNESSETH:

WHEREAS, the Area Plan Commission of the City of Westfield and Washington Township (the “Commission”) has conducted a public hearing as required by law in regard to the application for a change of zone district designation filed by the Estridge Development Company, Inc. for the real estate containing approximately 76.12 acres more or less, legally described on Exhibit “A” hereto, and located in the City of Westfield, Hamilton County, Indiana (the “Real Estate”);

WHEREAS, the Commission has sent to the Common Council of the City of Westfield, Indiana (the “Common council”) its recommendation adopted on the _____ day of _____, 2008;

NOW, THEREFORE, BE IT ORDAINED BY THE COMMON COUNCIL OF WESTFIELD, INDIANA, THAT:

Section 1. The zoning classification of the Real Estate is reclassified on the Zone Map to the Planned Unit Development District classification – Brookie Property PUD, the underlying zoning classification of which shall be the SF-3 District of the Zoning Ordinance in force at the time of the enactment of this Brookie Property PUD. Permitted uses shall be restricted to single family dwellings.

Section 2. Exhibit A – Legal Description of the Brookie PUD Ordinance is hereby amended with Exhibit A attached hereto.

Section 3. Exhibit H – Concept Plan of the Brookie PUD Ordinance is hereby amended with Exhibit H attached hereto.

Section 4. This ordinance shall be in full force and effect from and after its passage.

ALL OF WHICH IS ORDAINED by the Common Council of the City of Westfield, Indiana,
this _____ day of _____, 2008.

COMMON COUNCIL OF THE CITY OF WESTFIELD

Aye

Nay

_____	John Dippel	_____
_____	Robert L. Horkay	_____
_____	Ken Kingshill	_____
_____	Bob Smith	_____
_____	Tom Smith	_____
_____	Rob Stokes	_____
_____	Melody Sweat	_____

APPROVED and signed by the Mayor of the City of Westfield, Hamilton County,
Indiana, this _____ day of _____, 2008.

J. Andrew Cook, Mayor
City of Westfield, Indiana

ATTEST:

Cindy Gossard, Clerk Treasurer
City of Westfield, Indiana

EXHIBIT A LEGAL DESCRIPTION

A part of the Southwest Quarter of Section 15, Township 18 North, Range 3 East in Hamilton County, Indiana, being more particularly described as follows:

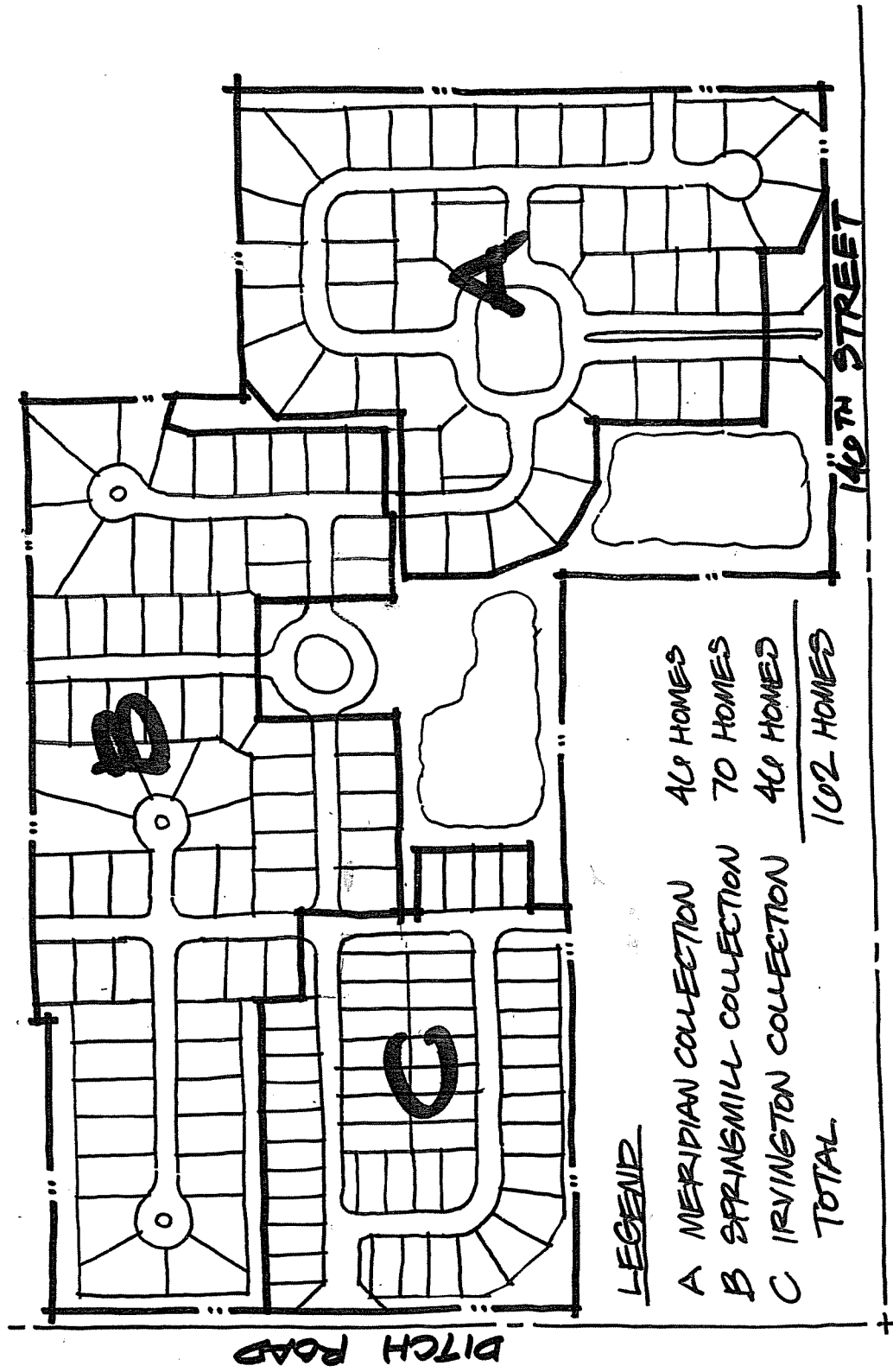
COMMENCING at the Southwest Corner of said Quarter Section; thence North 00 degrees 11 minutes 49 seconds West (assumed bearing) along the West Line thereof a distance of 657.00 feet to the POINT OF BEGINNING; thence continuing North 00 degrees 11 minutes 49 seconds West along said West Line a distance of 655.93 feet; thence North 88 degrees 52 minutes 53 seconds East a distance of 656.60 feet to the West Line of the East Half of the West Half of said Southwest Quarter Section; thence North 00 degrees 10 minutes 45 seconds West along the said West Line a distance of 475.32 feet to the South Line of Centennial Section 6, a subdivision in Hamilton County, Indiana, the plat of which is recorded as Instrument Number 200200005677 in the office of the recorder of Hamilton County, Indiana; thence North 89 degrees 03 minutes 49 seconds East along said South Line and the South Line of Centennial Section 4, a subdivision in Hamilton County, Indiana, the plat of which is recorded as Instrument Number 200100000470 in said recorder's office and along the South Line of Centennial Section 2B, a subdivision in Hamilton County, Indiana, the plat of which is recorded as Instrument Number 200000034016 in said recorder's office a distance of 1313.44 feet (the next two (2) described courses being along the Westerly and Southerly Lines of said Centennial Section 2B); thence South 00 degrees 08 minutes 36 seconds East a distance of 462.52 feet; thence North 89 degrees 00 minutes 29 seconds East a distance of 656.58 feet to the West Line of Merrimac Section 4, a subdivision in Hamilton County, Indiana, the plat of which is recorded as Instrument Number 9809860236 in said recorder's office; thence South 00 degrees 07 minutes 31 seconds East along the West Line of said Merrimac Section 4 and along the East Line of the said Southwest Quarter Section a distance of 1317.92 feet to the Southeast Corner of the said Southwest Quarter Section; thence South 88 degrees 50 minutes 00 seconds West along the South Line of said Southwest Quarter Section a distance of 1033.81 feet; thence North 00 degrees 11 minutes 49 seconds West, parallel with the West Line of the said Southwest Quarter Section, a distance of 657.00 feet; thence South 88 degrees 50 minutes 00 seconds West, parallel with the said South Line, a distance of 1591.00 feet to the POINT OF BEGINNING, containing 69.452 acres, more or less.

AND

A part of the Southwest Quarter of Section 15, Township 18 North, Range 3 East, of the Second Principal Meridian, Hamilton County, Indiana, being more particularly described as follows:

Commencing at the Southwest Corner of said Southwest Quarter; thence North 00 degrees 11 minutes 49 seconds West along the west line of said Quarter a distance of 1312.93 feet to the Point of Beginning; thence North 00 degrees 11 minutes 49 seconds West along said west line a distance of 448.83 feet to the southwest corner of a tract of land described in Deed Book 312, Page 796 in the Office of the Recorder in Hamilton County, Indiana; thence North 88 degrees 39 minutes 32 seconds East along the south line of said tract a distance of 656.79 feet to the boundary of Centennial South, a residential subdivision, the plat of which is recorded as Instrument #200500070069 in the Office of the Recorder in Hamilton County, Indiana; thence South 00 degrees 10 minutes 45 seconds East along the boundary of Centennial South a distance of 60.01 feet; thence North 88 degrees 39 minutes 32 seconds East a distance of 32.51 feet; thence South 01 degree 07 minutes 07 seconds East a distance of 82.17 feet; thence North 88 degrees 52 minutes 53 seconds East a distance of 130.00 feet; thence South 01 degree 07 minutes 07 seconds East a distance of 240.00 feet, thence South 88 degrees 52 minutes 53 seconds West a distance of 130.00 feet; thence South 01 degree 07 minutes 07 seconds East a distance of 69.28 feet to the boundary of Centennial South; thence South 88 degrees 52 minutes 53 seconds West along the boundary of Centennial South a distance of 695.53 feet to the Point of Beginning, containing 7.82 acres, more or less.

EXHIBIT H - CONCEPT PLAN





Kenton C. Ward, CFM
Surveyor of Hamilton County
Phone (317) 776-8495
Fax (317) 776-9628

Suite 188
One Hamilton County Square
Noblesville, Indiana 46060-2230

July 24, 2008

The Schneider Corporation
ATTN: Jamie Ford
8901 Otis Avenue
Indianapolis, IN 46216-1037
VIA E-MAIL: jford@schneidercorp.com

RE: Centennial South Expansion

Dear Mrs. Ford:

We have reviewed the construction plans submitted to the Hamilton County Surveyor's Office on July 1, 2008 for this project and have the following comments:

1. The proposed project falls in the incorporated area and MS4 jurisdiction of the City of Westfield.
2. The proposed project falls in the Hinshaw Henley Regulated Drain Watershed.
3. This proposed project DOES NOT fall within a Westfield Wellhead Protection Zone.
4. Along with all other sections of Centennial, this new part of Centennial will be a Hamilton County Regulated Drain Subdivision. As part of the pervious agreements, the curblin SSD will remain private or under the jurisdiction of the City of Westfield and will not become part of the regulated drain system.
5. Please submit the following procedural items to this office, petition for regulated subdivision, outlet permit (Williams Creek Drain), subdivision non-enforcement agreement (Williams Creek Drain), engineer's estimate, and all associated bonds for 120% of construction cost. The applications are available on our website at <http://www.co.hamilton.in.us>, go to Departments, Surveyor, and Forms. The bonds will include storm sewers and monumentation.

6. The Hamilton County Stormwater Management Technical Standards Manual does not allow detention of residential lots (Section 302.05). Please look into ways to increase the detention volume to lower the 100 year elevation or reconfigure the basin layout to try to keep the detention up to the 100 year event in the common area. Also, please delineate the limits of the 100 year elevation in the dry detention basin.
7. Please show the emergency overflow weir and path for the dry detention basin.
8. HCSO Standards require SSD in dry detention areas or 2% cross-slope. Since the depth for connecting the SSD is limited by existing pipe (unless you can use Str. E134 with minimal cover), consider design of low flow channels between the inlets and the basin outlet.
9. Please change all applicable storm sewer details to Hamilton County Surveyor's Office Standard Details.
10. The width of the easement of the east side of lot 14 seems a little to narrow. HCSO will agree to the "offset" easement if we can get closer to say 9' and 21' on the pipe run.
11. Please revise the landscape plan to move the trees from on top of the regulated drain storm sewers. HCSO ideally would like to have no trees within 15' of the centerline of the pipe, but slight encroachments can be considered.
12. Please note that further comments may be necessary at a later date.

Should you have any questions, I can be reached at 317-776-8495.

Sincerely,

A handwritten signature in blue ink that reads "Greg Hoyes". The signature is fluid and cursive, with the first name "Greg" being more prominent than the last name "Hoyes".

Greg Hoyes, AC, CFM
Plan Reviewer

CC: Donna Luley – Westfield Public Works
Wes Rood – Westfield Public Works
Al Salzman – City of Westfield
Dave Lucas – HCHD
Brian Stump – Estridge Development



WESTFIELD-WASHINGTON
ADVISORY PLAN COMMISSION
PUBLIC HEARING
August 18, 2008
0808-DP-11
Exhibit 1

PETITION NUMBER:	0808-DP-11	
SUBJECT SITE ADDRESS:	14911 Ditch Road	
PETITIONER:	Estridge Development Company, Inc.	
REQUEST:	Development Plan Review and Primary Plat Review of the addition of fourteen (14) lots to Centennial South.	
CURRENT ZONING:	AG-SF-1 (<i>Brookie PUD District pending</i>)	
CURRENT LAND USE:	Single-family Detached Dwelling, Agricultural	
APPROXIMATE ACREAGE:	7.82	
ASSOCIATED PETITIONS:		
EXHIBITS:	1. Staff Report	
	2. Waiver Request	
	3. Technical Advisory Committee Letters	
	4. Petitioner's Exhibits	
STAFF REVIEWER:	Al Salzman	
ZONING HISTORY	0808-SPP-02	Primary Plat (<i>pending</i>)
	0808-PUD-02	Addition to Brookie PUD (<i>pending</i>)
	0505-SFP-11	Secondary Plat
	0501-DP-04	Development Plan Review
	0501-SPP-01	Primary Plat
	0407-PUD-05	Change in zoning – Planned Unit Development

PETITION HISTORY

- o The August 18, 2008 Advisory Plan Commission Meeting represents the first public hearing for the proposed Centennial South Amendment Development Plan Review.
- o This item previously appeared before the APC at the August 4, 2008 Workshop Meeting.

PROCEDURAL

- o Notification of the August 18, 2008 public hearing was provided to abutting property owners in accordance with the Rules of Procedure on August 8, 2008.
- o Notice of the August 18, 2008 public hearing was posted to the City web site and at City Hall, and published in newspapers of general circulation in accordance with the Rules of Procedure.
- o Development Plan Review requires a Public Hearing.
- o Approval of a Development Plan Review must be granted if the submitted plans demonstrate compliance with the terms of the underlying zoning district or applicable PUD, any Variances associated with the site, and any Commitments associated with the site.



- o The Advisory Plan Commission may approve, conditionally approve, continue, or deny the requested approval. Any conditions must be determined through agreement of the APC and the petitioner. Any continuance should also be determined through agreement of the APC and the petitioner.
- o Any denial must be justified in writing on the accompanying Finding of Fact sheet.

DEVELOPMENT REQUIREMENTS

GENERAL

1. Zoning District Standards

Should the proposed amendment to the Brookie PUD be approved, the proposed development plan would comply with all applicable standards.

2. Overlay District Standards

The subject site is not located in any overlay zone.

3. Subdivision Control Ordinance

The report provided at the August 4, 2008 workshop meeting indicated that the submitted plat was compliant with all terms of the Subdivision Control Ordinance; however, further review revealed that the proposed cul-de-sac would exceed the length permitted by the terms of the S.C.O. The petitioner has submitted a request for a waiver to allow a six hundred and seventeen- (617)-foot long cul-de-sac street, which would exceed the recommended maximum by seventeen (17) feet.

Representatives of WPWD and WFD have evaluated the requested waiver, and are prepared to support the requested cul-de-sac length. WFD has indicated that support of the additional length will be contingent on concessions related to the type of curbing for the proposed cul-de-sac island and restrictions to parking within the cul-de-sac. Compliance with these conditions (type of curb, “no parking” signs) will be verified when construction plans are submitted with the secondary plat.

Staff recommends the requested waiver be approved.

4. Development Plan Ordinance

Should the requested waiver be approved, the proposal would be compliant with all requirements of the Development Plan Review ordinance.

5. Comprehensive Plan Compliance

See Public Policies section below.

6. Street and Highway Access

Access to the proposed lots would be provided through a new proposed public street (as yet unnamed), which would be accessed from an existing public street (Montclair Lane) internal to the Centennial South PUD. This access configuration has been reviewed and preliminarily



approved by WPWD, WCD, and WFD.

No new access points to external public streets are proposed.

7. Street and Highway Capacity

Capacity of the internal Centennial South streets has been reviewed and preliminarily approved by WPWD, WCD, and WFD.

8. Utility Capacity

Water and sewer capacity have been preliminarily reviewed by WPWD and found to be adequate. Detailed plans for the construction of site infrastructure will be submitted in conjunction with Secondary Plats.

The Hamilton County Surveyor's Office identified minor issues with the proposed detention area and drainage easements. These issues will be addressed in the construction documents that accompany secondary plat submittal, and do not need to be resolved prior to the August 18, 2008 public hearing.

9. Traffic Circulation Compatibility

The internal traffic circulation of the subject site has been evaluated by WCD, WPWD and WFD, and has been preliminarily approved.

DEVELOPMENT REQUIREMENTS

FOR EACH DISTRICT

a. Site Access and Circulation	Compliant, pending approval of cul-de-sac waiver
b. Landscaping – WC 16.06 et al:	Compliant with terms of Brookie PUD
c. Lighting – WC 16.07 et al:	Compliant with terms of Brookie PUD
d. Signs- WC 16.08 et al:	None proposed
e. Building Orientation	Compliant with terms of Brookie PUD
f. Building Materials	Compliant - See discussion below

Building Materials

A question directed to the petitioner at the August 4, 2008 Workshop Meeting regarding architectural features inquired as to whether the single-family dwellings that would eventually be constructed on lots abutting the public right-of-way of Ditch Road would have additional architectural features on the sides abutting the public right-of-way. This question appears to reference one of the standards present in the underlying "stock" language of the Development Plan Review ordinance.

The terms of the Brookie PUD established specific architectural standards for each area ("A", "B" and "C") within the PUD. The "stock" standards found in the Development Plan Review ordinance for Area "C" have been replaced with a list of requirements and options, and



supplemented with sample elevations. Dwellings constructed to this point in Area “C” of the Centennial South subdivision have been verified to be in compliance with the architectural requirements of the Brookie PUD. Compliance would continue to be verified at the Improvement Location Permit (ILP) stage for any proposed future dwellings.

PUBLIC POLICIES

Comprehensive Plan-Feb 2007

See “Finding of Fact” section below.

Thoroughfare Plan-Feb 2007

The report provided to the Advisory Plan Commission for the August 4, 2008 Workshop Meeting identified a conflict between the recommended right-of-way dedication as per the current Thoroughfare Plan and the dedication shown on the proposed Development Plans.

The current Westfield-Washington Township Thoroughfare Plan roadway classification map identifies Ditch Road as a “Secondary Arterial,” and recommends a minimum dedication of a sixty (60) foot half right-of-way. The Thoroughfare Plan further recommends the provision of an eight (8)-foot asphalt path within the right-of-way of Ditch Road. The proposed Primary Plat associated with this Development Plan Review depicts the provision of a forty- (40) foot right of way, which would be consistent with the right-of-way dedicated in both the Centennial and Centennial South developments where they abut Ditch Road.

WPWD has indicated that it would accept the proposed forty- (40) foot right of way, as it would be consistent with the right-of-way dedicated in previous phases of the Centennial South development. Further, the petitioner has indicated control over property abutting Ditch Road to the west (across the street from the pending petition), and has offered a commitment to provide additional right-of-way to accommodate expansion of Ditch Road as necessary.

Submitted development plans depict the recommended 8’ asphalt path.

Parks & Recreation Master Plan-Dec 2007

The Westfield Parks & Recreation Master Plan makes no specific recommendation for the subject site.

Water & Sewer System

Water and sewer service for the subject site would be provided through infrastructure installed as part of the Centennial South PUD.

Annexation

The subject site is within the corporate boundaries of the City of Westfield.



FINDINGS OF FACT

1) The proposed development is consistent with the intent and purpose of the Westfield-Washington Township Comprehensive Plan,

Staff finding: The Amended Westfield-Washington Township 2020 Plan includes the portion of the subject site in an area identified as “Existing Suburban.” Development policies for the Existing Suburban (page 38) recommend compatible infill on vacant parcels, proper buffering, and consistency in mass, scale, density, materials, and architectural style. Single-family detached dwellings are identified as an acceptable use in the Existing Suburban area. The proposed development would be consistent with the policies of the Comprehensive Plan.

2) The proposed development satisfies the development requirements specified in this ordinance.

Pending approval of the cul-de-sac length waiver, this petition will be compliant with the applicable development requirements.

Plan Documentation

Pending compliance with any conditions, the petitioner will have provided the required documents.

<u>Required Plan</u>	<u>Original</u>	<u>Amended</u>	<u>Status</u>
Site Plan	07/01/08	-	Compliant
Demolition Plan	07/01/08	-	Compliant
Location Map	07/01/08	-	Compliant
Landscape Plan	07/01/08	-	Compliant
Lighting Plan	None	-	N/A
Building Elevations	None	-	N/A
Access & Circulation	07/01/08	-	Compliant, pending waiver



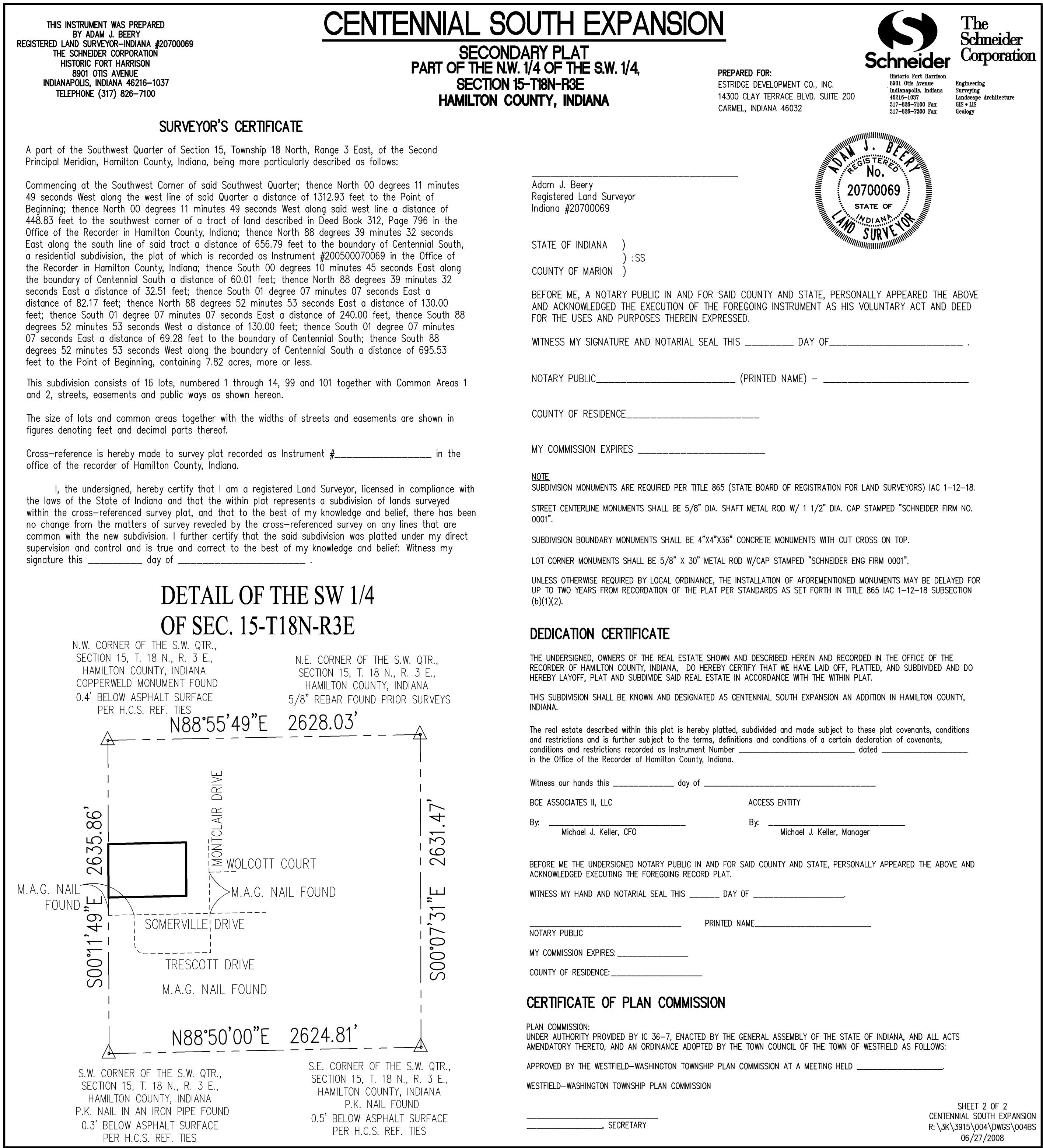
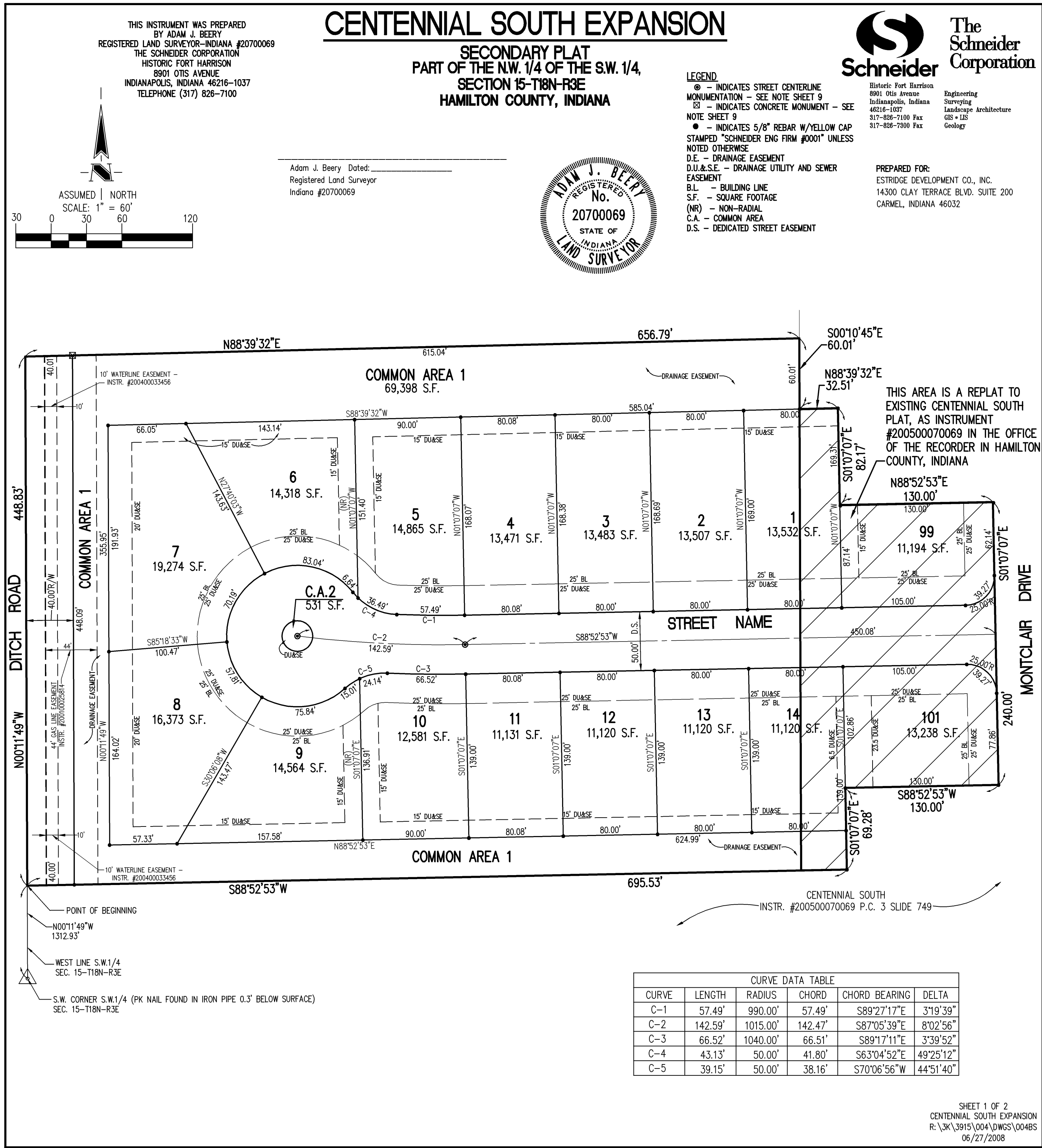
<u>Required Procedure</u>	<u>Original</u>	<u>Status</u>
Pre-Filing Conference	03/03/08	Compliant
Fees	07/01/08	Compliant
Legal Description	07/01/08	Compliant
Consent Form	07/01/08	Compliant
Contact Sheet	07/01/08	Compliant
TAC	07/22/08	Compliant
Notice - Sign on site	08/08/08	Compliant
Notice- Newspaper	08/08/08	Compliant
Notice -Mail	08/08/08	Compliant
Submit Revisions	None	N/A

RECOMMENDATIONS

Approve 0808-DP-11, with the following conditions:

1. Construction plans associated with the Secondary Plat of the cul-de-sac shall be approved by Westfield Fire prior to the recording of the Secondary Plat of the Amended Centennial South development; and
2. A commitment for the provision of additional right-of-way along the west side of Ditch Road shall be provided to WPWD prior to the recording of the Secondary Plat of the Amended Centennial South development.

AFS



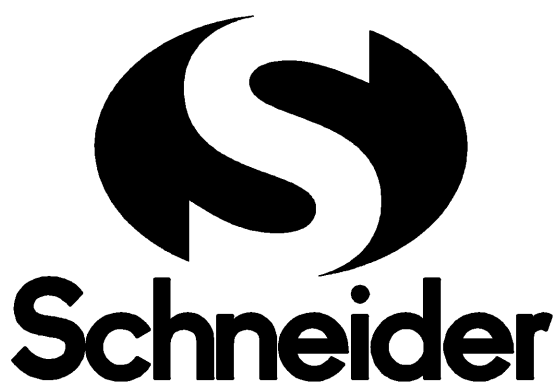
- SEC. 15-T18N-R3E -

CENTENNIAL SOUTH EXPANSION

(CONSTRUCTION PLANS)
HAMILTON COUNTY
WESTFIELD, INDIANA

DEVELOPER:
ESTRIDGE DEVELOPMENT CO., INC.
14300 CLAY TERRACE BLVD. SUITE 200
CARMEL, INDIANA 46032
(317) 582-2456

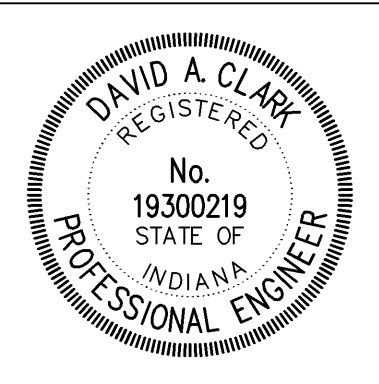
INDEX	
SHEET No.	DESCRIPTION
C100	COVER SHEET
D101	DEMOLITION PLAN
C101	DEVELOPMENT PLAN
C102	STORMWATER POLLUTION PREVENTION PLAN
C201	STREET PLAN & PROFILE
C301	CUL-DE-SAC & INTERSECTION DETAILS
C302	TRAFFIC CONTROL PLAN
C401	SANITARY SEWER PLAN
C601	STORM SEWER PLAN
C701	WATER DISTRIBUTION PLAN
C702	WATER DETAILS
C801, C802	STORMWATER POLLUTION PREVENTION DETAILS
C803-C805	GENERAL DETAILS
C901-C905	SPECIFICATIONS
L101	LANDSCAPE PLAN
L801	LANDSCAPE DETAILS
L901	LANDSCAPE SPECIFICATIONS



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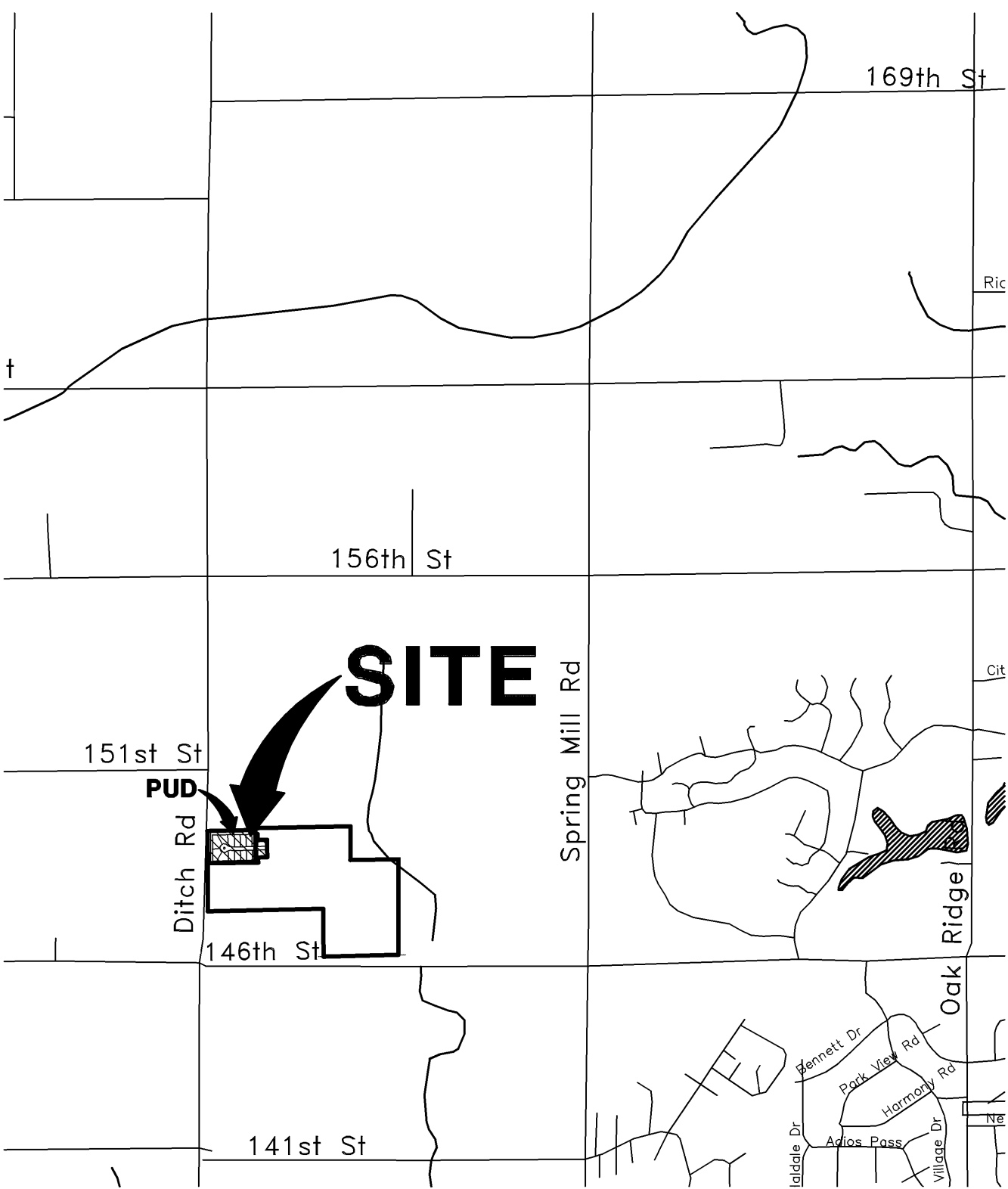


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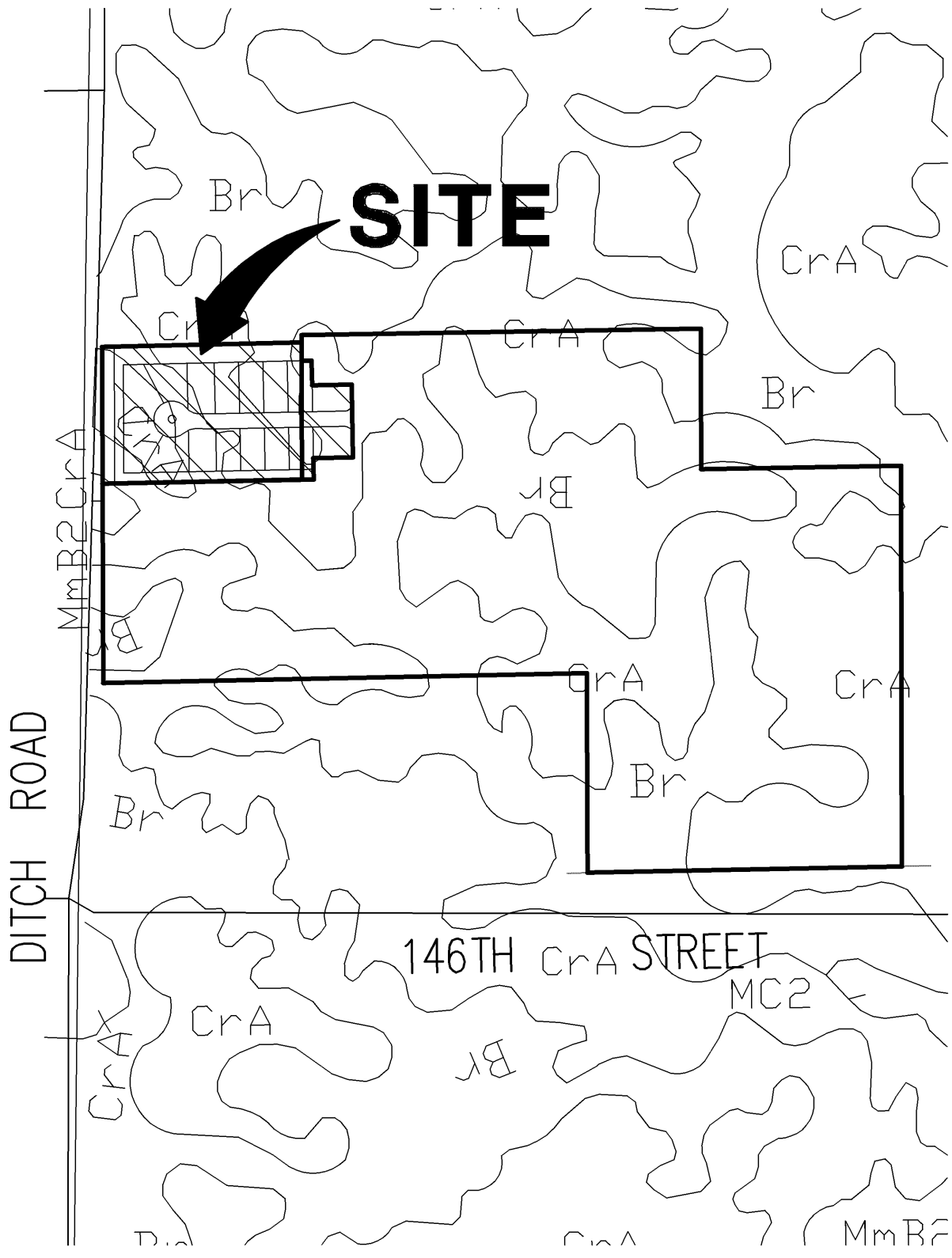
SHEET
C100
OF
24

JOB No. (3915.004)

FILE NAME: R:\3915\004\DWGS\C100



AREA MAP
SCALE: 1"=2000'



SOILS MAP
SCALE: 1"=500'



SITE MAP
SCALE: 1"=100'

REVISIONS:		
DATE:	BY:	DESCRIPTION:

PROJECT ENGINEER: JAR

CHECKED BY: JLF DATE CHECKED: 06/25/08

CERTIFIED BY: DAVID A. CLARK, P.E.
E-MAIL ADDRESS: dclark@schneidercorp.com

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BENCHMARK

BM - U.S.G.S. 93 RHP, BRASS DISK IN A CONCRETE POST AT THE SOUTHWEST CORNER OF 146TH STREET AND DITCH ROAD. ELEVATION = 903.373 (NGVD 1929)

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LEGEND

	INLET OR CATCH BASIN		GAS VALVE
	SEWER MANHOLE		GAS METER
	TELEPHONE MANHOLE		SIGNS
	ACCESS COVER		MAILBOX
	TRAFFIC MANHOLE		TREE, SHRUB
	WATER MANHOLE		BENCHMARK
	MANHOLE		SOIL BORING
	CLEANOUT		
	AREA LIGHT		OVERHEAD UTILITY LINES
	UTILITY POLE WITH GUY WIRE		T.V.
	UTILITY POLE WITH RISER		UNDERGROUND TELEVISION
	FLAG POLE		UNDERGROUND ELECTRIC
	TRAFFIC POLE		UNDERGROUND TELEPHONE
	UTILITY PEDESTAL		UNDERGROUND FIBER OPTIC
	ELECTRIC METER		UNDERGROUND FORCE MAIN
	ELECTRIC TRANSFORMER		UNDERGROUND GAS LINE
	CONDITIONING UNIT		UNDERGROUND WATER LINE
	UTILITY VALVE		SEWER LINE
	HYDRANT		UNDERGROUND STORM SEWER
	WELL		UNDERGROUND SANITARY SEWER
	WATER VALVE		EDGE OF WOODS
	WATER METER		FENCE LINE
			FLOW LINE

Utilities

Indiana Underground Utility Location Service (1-800-382-5544) was contacted on 29 NOV 04 for marking of utilities on 01 DEC 04 confirmation #0411292053, 0411292042 and 0411292023.

Sanitary Sewers
Westfield Utilities
2706 East 171st Street
Westfield, Indiana 46074
317-896-5577

Water
Westfield Utilities
2706 East 171st Street
Westfield, Indiana 46074
317-896-5577

Gas
Westfield Gas Corp.
606 West Park Street
Westfield, Indiana 46074
317-896-2581

Pipeline
Marathon Ashland Pipe Line LLC
9322 West 30th Street
Indianapolis, Indiana 46218
317-291-9460

Cable
Insight Cablevision
15229 Stoney Creek Way
Noblesville, Indiana 46060
317-776-0660

Telephone
A&T
220 North Meridian Street
Indianapolis, Indiana 46204
317-556-4000

Gas
Vectren Energy Delivery
P.O. Box 1700
Noblesville, Indiana 46061
317-776-5334

Cable
Bright House Networks
3030 Roosevelt Avenue
Indianapolis, Indiana 46218
317-632-2288

Pipeline
Buckeye Pipeline Company LP
9430 West 30th Street
Clermont, Indiana 46229
317-291-3121

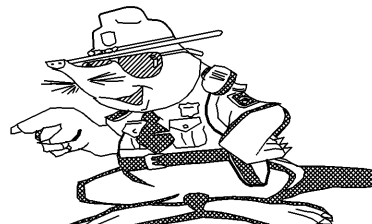
Electric
Cinergy
1000 East Main Street
Plainfield, Indiana 46168
800-521-2232

Utility Hotline: within Indiana 1-800-382-5544 outside Indiana 1-800-428-5200
Note

The nature, size and location of utilities are per plans and locations provided by the respective utility companies. The above list constitutes some, if not all, of the utility companies which may provide service in the area of, and adjacent to, the subject project, based upon the information available through such plans and locations, and any incidental visual inspection. All utility companies should be notified prior to any excavation for field location of services and verification of size and nature of services.

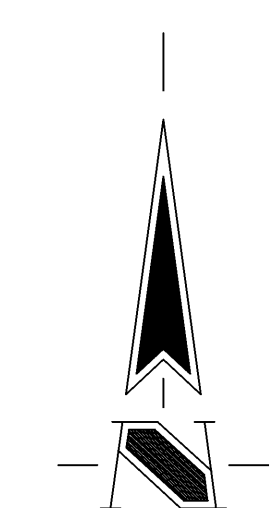
HOLEY MOLEY SAYS

"DON'T
DIG
BLIND"



"IT'S THE LAW"
CALL 2 WORKING DAYS BEFORE YOU DIG
1-800-382-5544

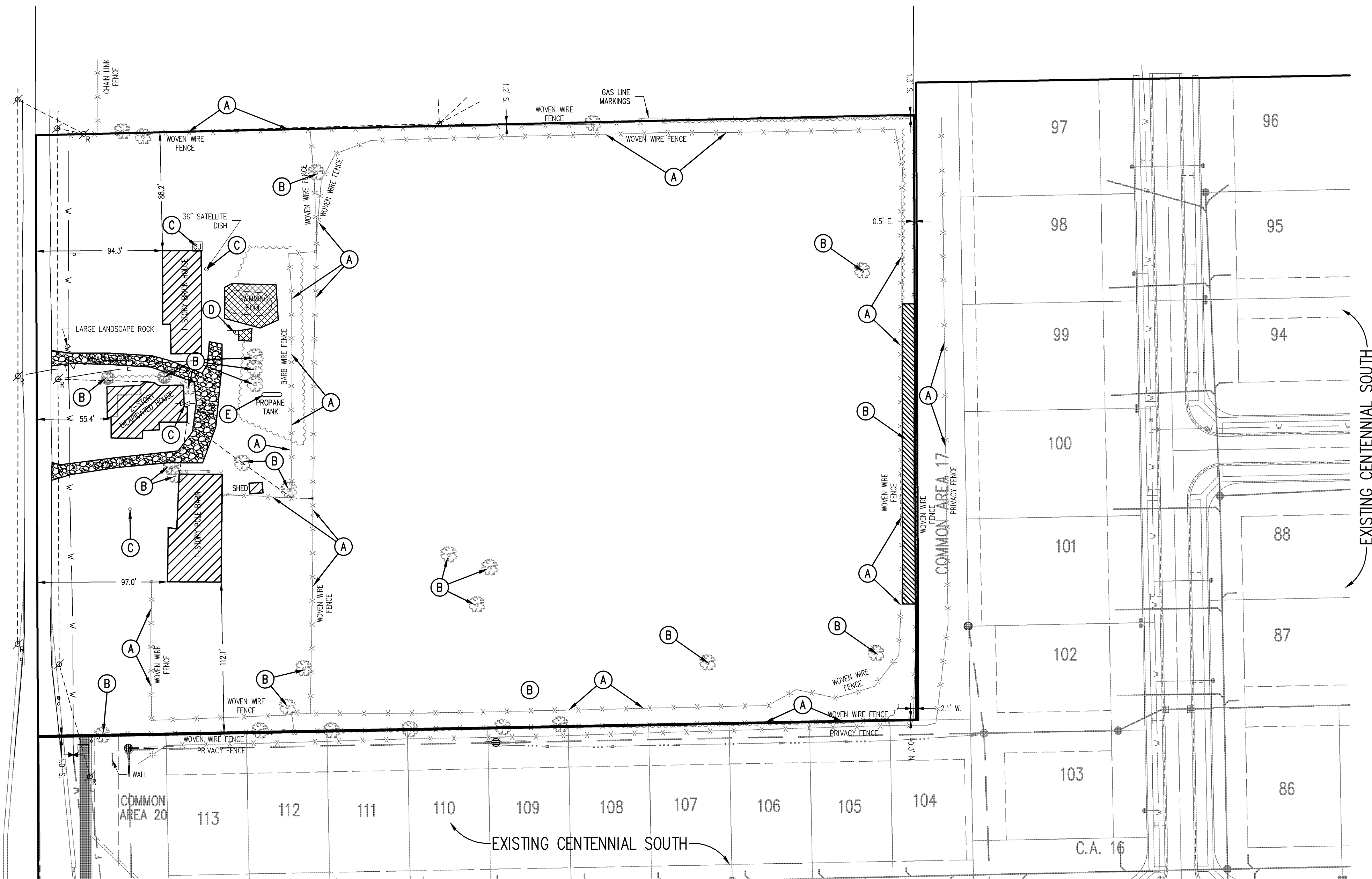
CALL TOLL FREE
PER INDIANA STATE LAW IS-69-1991,
IT IS AGAINST THE LAW TO EXCAVATE
WITHOUT NOTIFYING THE UNDERGROUND
LOCATION SERVICE TWO (2) WORKING
DAYS BEFORE COMMENCING WORK.



ASSUMED NORTH
SCALE: 1"=50'

GENERAL NOTES

- REMOVAL OF EXISTING IMPROVEMENTS ARE AS NOTED ON THE PLANS. THE MATERIALS REMOVED FROM THE SITE SHALL BE DISPOSED OF IN A PROPER AND LEGAL MANNER PER FEDERAL, STATE, COUNTY, CITY, AND OR LOCAL LAWS AND ORDINANCES.
- PROTECT EXISTING SITE IMPROVEMENTS, APURTENANCES, AND LANDSCAPING TO REMAIN. ERECT A PLAINLY VISIBLE FENCE AROUND DRIP LINE OF INDIVIDUAL TREES AND AROUND PERIMETER OF DRIP LINE OF GROUPS OF TREES TO REMAIN. PROVIDE PROTECTION TO ENSURE SAFE PASSAGE OF PEOPLE AROUND DEMOLITION AREA AND TO AND FROM OCCUPIED PORTIONS OF ADJACENT BUILDINGS & STRUCTURES.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND ELEVATIONS DURING THE ENTIRE CONSTRUCTION SCHEDULE. IF ANY DISCREPANCIES ARE FOUND IN THESE ENGINEERING PLANS OR LANDSCAPE PLANS FROM ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL CONTACT THE PROJECT MANAGER IMMEDIATELY. IF ANY DISCREPANCIES FOUND ON THE SURVEY PLAN OR ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL CONTACT THE PROJECT MANAGER IMMEDIATELY FOR INSTRUCTIONS.
- ALL CONTRACTORS, BUT NOT LIMITED TO THE EXCAVATING CONTRACTOR OR CONTRACTORS, MUST TAKE PARTICULAR CARE WHEN EXCAVATING IN AND AROUND EXISTING UTILITY LINES AND EQUIPMENT. ACTUAL FIELD LOCATIONS OF ALL THE EXISTING UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE LOCATED EITHER BY THE REPRESENTATIVE OF THE LOCAL UTILITY COMPANY OR BY A PRIVATE UNDERGROUND UTILITY LOCATION COMPANY PRIOR TO THE START OF EXCAVATION. VERIFY MINIMUM COVER REQUIREMENTS BY THE UTILITY CONTRACTOR OR CONTRACTORS, OR AGENCIES, WHICHEVER UTILITY COMPANY OR AGENCIES, THAT HAS JURISDICTION, SO NOT TO CAUSE DAMAGE.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY ALL THE UTILITY COMPANIES AND FIRE DEPARTMENT 72 HOURS BEFORE CONSTRUCTION IS TO START TO VERIFY ANY UTILITIES THAT MAY BE PRESENT ON THE SITE. ALL VERIFICATIONS, LOCATIONS, SIZE, AND DEPTHS SHALL BE MADE BY THE APPROPRIATE UTILITY COMPANIES OR DEPARTMENTS. WHEN EXCAVATING AROUND OR OVER EXISTING UTILITIES, THE CONTRACTOR MUST NOTIFY THE UTILITY COMPANY SO A REPRESENTATIVE OF THE UTILITY CAN BE PRESENT DURING THE EXCAVATION TO INSTRUCT AND OBSERVE DURING THE EXCAVATION.
- HEAVY CONSTRUCTION EQUIPMENT TRAFFIC MAY CREATE PUMPING AND GENERAL DETERIORATION OF THE SHALLOWER SOILS IF EXCESS SURFACE WATER IS PRESENT. PROPER PRECAUTIONARY STEPS MUST BE TAKEN DURING THE ENTIRE CONSTRUCTION SCHEDULE TO ALLEVIATE SUCH DAMAGE.
- ALL CONSTRUCTION METHODS AND MATERIALS MUST CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE FEDERAL, STATE, COUNTY, CITY, OR LOCAL REQUIREMENTS, WHICHEVER HAS JURISDICTION.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSPECT EACH DAY AND REMOVE ALL MUD, DIRT, GRAVEL, AND LOOSE MATERIALS TRACKED, DUMPED, OR WIND BLOWN FROM THE SITE ONTO OTHER SITES, RIGHT OF WAYS, PUBLIC OR PRIVATE STREETS OR ROADS, DRIVEWAYS, YARDS, OR SIDEWALKS. THE CONTRACTOR MUST CLEAN OR PICK UP DAILY IF NECESSARY. THE CONTRACTOR SHALL REDUCE THE AIRBORNE DUST DURING THE ENTIRE CONSTRUCTION SCHEDULE. WATER MAY BE USED AS A REDUCER.
- THE UTILITIES INDICATED ON THESE PLANS AND ON THE SURVEY MAY NOT BE A COMPLETE INVENTORY OF ALL THE EXISTING UTILITIES PRESENT ON AND AROUND THIS SITE. THE LOCATION AND SIZE OF THESE UTILITIES MAY BE APPROXIMATE. THIS INFORMATION WAS GATHERED OR SUPPLIED BY OTHERS AND USED BY THE ENGINEER AND MAY NOT BE ACTUAL. THE ENGINEER SHALL NOT BE HELD LIABLE FOR ANY INCORRECT OR MISLEADING UTILITY INFORMATION INDICATED, IMPLIED, OR NOT INDICATED ON THESE PLANS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BEAR ALL EXPENSES TO REMOVE, RELOCATE AND OR MODIFY ALL UTILITIES, PRIVATE OR PUBLIC, OR OTHERWISE, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY WITH EACH UTILITY COMPANY AND OR AGENT WHOM IS RESPONSIBLE TO REMOVE, RELOCATE, AND/OR MODIFY SUCH UTILITY EXISTING OR PROPOSED. IT FURTHER SHALL BE THE CONTRACTORS' RESPONSIBILITY TO VERIFY IF ANY FUTURE UTILITIES ARE PLANNED AND HOW IT MAY EFFECT THIS PROJECT AND ITS OWNER AS TO THEIR FUTURE RESPONSIBILITIES.
- CONTRACTOR TO ARRANGE SHUTTING OFF INDICATED UTILITIES PRIOR TO BEGINNING DEMOLITION.
- DISCONNECT PIPE OR CONDUIT A MINIMUM OF 24" BELOW THE FINAL GRADE. CAP, VALVE, OR PLUG AND SEAL REMAINING PORTION OF PIPE OR CONDUIT.
- COMPLETELY FILL BELOW GRADE VOIDS RESULTING FROM BUILDING DEMOLITION OPERATIONS. SEE PROJECT SPECIFICATIONS, EARTHWORK SECTION
- PROMPTLY REPAIR DAMAGE TO ADJACENT PROPERTY CAUSED BY DEMOLITION OPERATIONS
- ERECT AND MAINTAIN TEMPORARY FENCING AROUND TREE PROTECTION ZONES BEFORE STARTING SITE CLEARING. REMOVE FENCE WHEN CONSTRUCTION IS COMPLETE.
- PROVIDE TEMPORARY EROSION AND SEDIMENTARY CONTROL MEASURES TO PREVENT SOIL EROSION AND DISCHARGE OF SOIL-BEARING WATER RUNOFFS OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS. SEE SHEETS C102, C801-C802.
- TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL AND STATE STANDARDS.
- ALL CONSTRUCTION ACTIVITY ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH APPLICABLE O.S.H.A. STANDARDS FOR WORKER SAFETY.
- TIE ALL EXISTING DRAINAGE TILES INTO STORM SEWER.
- FIELD LOCATE EXISTING SERVICE CONNECTIONS. CUT AND CAP EXISTING UTILITIES AT LOCATION DIRECTED BY UTILITY CO. RELOCATION OF UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AS WELL AS COORDINATION WITH RELATIVE UTILITY COMPANIES. CONTRACTOR TO CARRY ALL COSTS RELATED TO UTILITY EXPENSES AND COSTS TO ACCOMPLISH SAID RELOCATION.
- REMOVE BELOW GRADE CONSTRUCTION, INCLUDING BASEMENTS, FOUNDATION WALKS, AND FOOTINGS COMPLETELY
- FILL ABANDONED WELLS WITH "B" BORROW, OR CONCRETE.
- VERIFY LOCATION AND DEPTH OF UTILITIES IN THE EASEMENT ALONG THE WEST PROPERTY LINE.

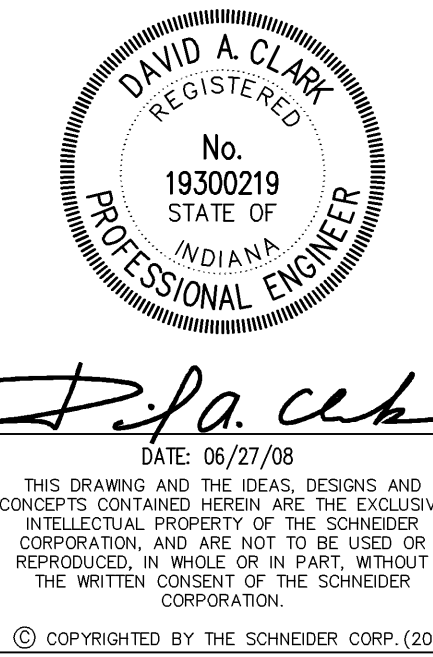


KEY NOTES

- (A) REMOVE EXISTING FENCE
(B) REMOVE EXISTING TREES. PROTECT EXISTING TREES THAT ARE NOT MARKED AS BEING REMOVED PER GENERAL NOTE 2 & 15.
(C) LOCATE, IDENTIFY, DISCONNECT, AND SEAL OFF OR CAP OFF INDICATED UTILITIES SERVING BUILDING AND STRUCTURES TO BE DEMOLISHED
(D) REMOVE EXISTING SIGN
(E) REMOVE EXISTING PROPANE TANK
(F) REMOVE EXISTING SWIMMING POOL

- EXISTING PAVEMENT TO BE REMOVED
SIDEWALK/CONC. PADS TO BE REMOVED
GRAVEL DRIVE TO BE REMOVED. REPLACE WITH TOPSOIL.
DEMOLISH BUILDING AND FOUNDATION. DISPOSE OF LEGALLY OFFSITE.
REMOVE EXISTING TREES AND BRUSH

REVISIONS:



CENTENNIAL SOUTH
EXPANSION
WESTFIELD, INDIANA
ESTRIDGE DEVELOPMENT CO., INC.
CARMEL, INDIANA

DATE: 06/27/08	PROJECT NO.: 3915.004
DRAWN BY: PRC	CHECKED BY: JLF
SHEET TITLE: DEMOLITION PLAN	
DRAWING FILES: R:\3\3915\004\DWGS\101 XREF: 00485 XREF: 39150045 XREF: R:\3\3915\001\DWGS\001B5	

SHEET NO.:
D101

STRUCTURE		L	DIA	SLOPE	RIM		INVERT	
UP	DOWN	(ft)	(in)	%	UP	DOWN	UP	DOWN
614	613	73	12	2.5	907.90	-	904.65	902.83
610	609	49	12	3.45	907.90	904.60	903.40	901.71
609	604	209	12	0.33	904.60	905.00	901.60	900.91
618	617	24	12	0.32	904.87	904.87	901.12	901.04
617	140	116	12	0.57	904.87	902.69	900.94	900.28
606	605	58	12	0.8	907.60	907.10	904.35	903.89
605	604	210	12	0.95	907.10	905.00	903.79	901.79
604	603	168	18	0.2	905.00	905.24	900.81	900.47
603	602	38	18	0.2	905.24	905.24	900.37	900.30
602	601	160	21	0.15	905.24	-	900.20	899.96
600	135	30	12	0.32		902.17	899.94	899.84

Utilities			
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Sanitary Sewers Westfield Utilities 2706 East 171st Street Westfield, Indiana 46074 317-896-5577	Water Westfield Utilities 2706 East 171st Street Westfield, Indiana 46074 317-896-5577	Gas Westfield Gas Corp. 606 West Park Street Westfield, Indiana 46074 317-896-2581	Pipeline Marathon Ashland Pipe Line LLC 9322 West 30th Street Indianapolis, Indiana 46218 317-291-9460
Cable Insight Cablevision 15229 Stony Creek Way Noblesville, Indiana 46060 317-776-0660	Telephone Alt81 220 North Meridian Street Indianapolis, Indiana 46204 317-556-4000	Gas Vectren Energy Delivery P.O. Box 1700 Noblesville, Indiana 46061 317-776-5334	
Cable Bright House Networks 3030 Roosevelt Avenue Indianapolis, Indiana 46218 317-632-2288	Pipeline Buckeye Pipeline Company LP 9430 West 30th Street Clermont, Indiana 46229 317-291-3121	Electric Cnenergy 1000 East Main Street Plainfield, Indiana 46168 800-521-2232	

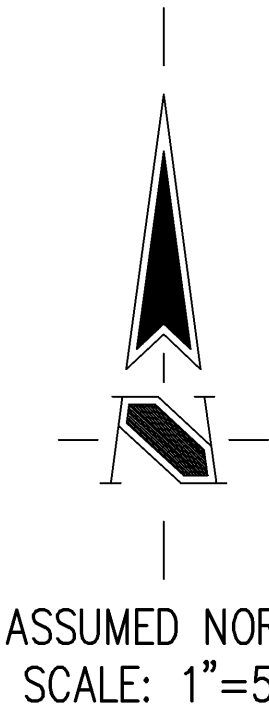
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BLIND"



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CALL TOLL FREE

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LOCATION SERVICE TWO (2) WORKING
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BENCHMARK

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BM2 - CUT SQUARE ON TOP OF CONCRETE BASE AT THE NORTH SIDE OF CONCRETE FENCE POST, WEST SIDE OF DITCH ROAD, 1320'± SOUTH OF 156TH STREET, ESTABLISHED FROM PREVIOUS JOB #753 (CENTENNIAL). ELEVATION = 916.99 (NGVD 1929)

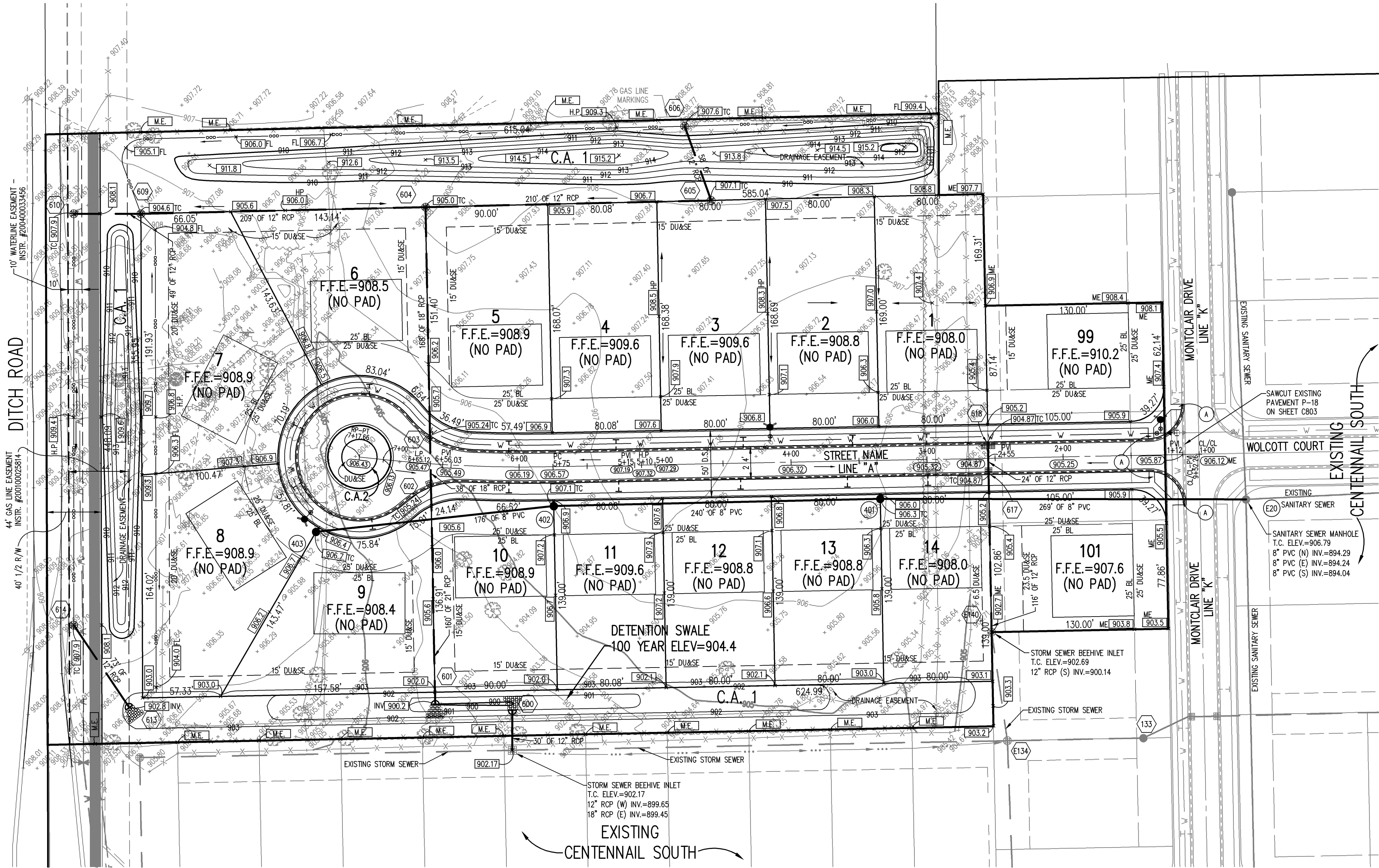
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LEGEND

- Existing Storm Sewer
- New Storm Sewer
- Existing Sanitary Sewer
- New Sanitary Sewer
- Existing Contour
- New Pavement Grade
- All Other Finish Grades
- Storm Structure Number
- Sanitary Structure Number
- Flow Arrow
- Denotes Approximate Home Location and Finished Floor Elevations
- Meet Existing Elevation
- Indicates Flood Routing
- Denotes Minimum Flood Protection Grade
- New Subsurface Drains
- Handicapped Ramp See Fig. P-11 & P11A on Sheet C803

GENERAL NOTES

- ALL RADIUS AND OTHER DIMENSIONS FOR 2' ROLL CURB ARE TO BACK OF CURB.
- IT SHALL BE THE RESPONSIBILITY OF EACH CONTRACTOR TO VERIFY ALL EXISTING UTILITIES AND CONDITIONS PERTAINING TO HIS PHASE OF WORK. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNERS OF THE VARIOUS UTILITIES FOR PROPER STAKE LOCATIONS FOR EACH UTILITY BEFORE WORK IS STARTED. THE CONTRACTOR SHALL NOTIFY IN WRITING THE OWNER OR THE ENGINEER OF ANY CHANGES, OMISSIONS, OR ERRORS FOUND ON THESE PLANS OR IN THE FIELD BEFORE WORK IS STARTED OR RESUMED.
- VERIFY SIGN LOCATIONS AND SIGN REQUIREMENTS WITH LOCAL GOVERNING AUTHORITIES.
- TEMPORARY TRAFFIC CONTROL DURING CONSTRUCTION TO CONFORM TO APPLICABLE LOCAL AND STATE STANDARDS.
- ALL CONSTRUCTION ACTIVITY ON THIS SITE TO BE PERFORMED IN COMPLIANCE WITH APPLICABLE O.S.H.A. STANDARDS FOR WORKER SAFETY.
- THE SIZE AND LOCATION OF EXISTING UTILITIES SHOWN AREA PER INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES. ALL UTILITY COMPANIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION FOR FIELD LOCATION OF SERVICES.
- SERVICE WALKS SHALL BE CONSTRUCTED PER FIG. P-10 ON SHEET C803.
- ROLL CURB SHALL BE DEPRESSED AT SIDEWALK INTERSECTIONS MARKED WITH HANDICAPPED RAMPS PER FIG. P-11 & P11A ON SHEET C803.
- LOCATION OF SERVICE WALKS TO INDIVIDUAL UNITS SHALL ALIGN WITH PORCH STEPS AS CONSTRUCTED WITH BUILDINGS AND SHALL BE CONSTRUCTED AFTER BUILDINGS ARE COMPLETED.
- ALL EXISTING OFF-SITE DRAIN TILES THAT ARE ENCOUNTERED SHALL BE TIED INTO THE PROPOSED STORM SEWER SYSTEM WITH A POSITIVE OUTFLOW.



REVISIONS:

DAVID A. CLARK
REGISTERED
No. 19300219
STATE OF INDIANA
PROFESSIONAL ENGINEER

DATE: 06/27/08

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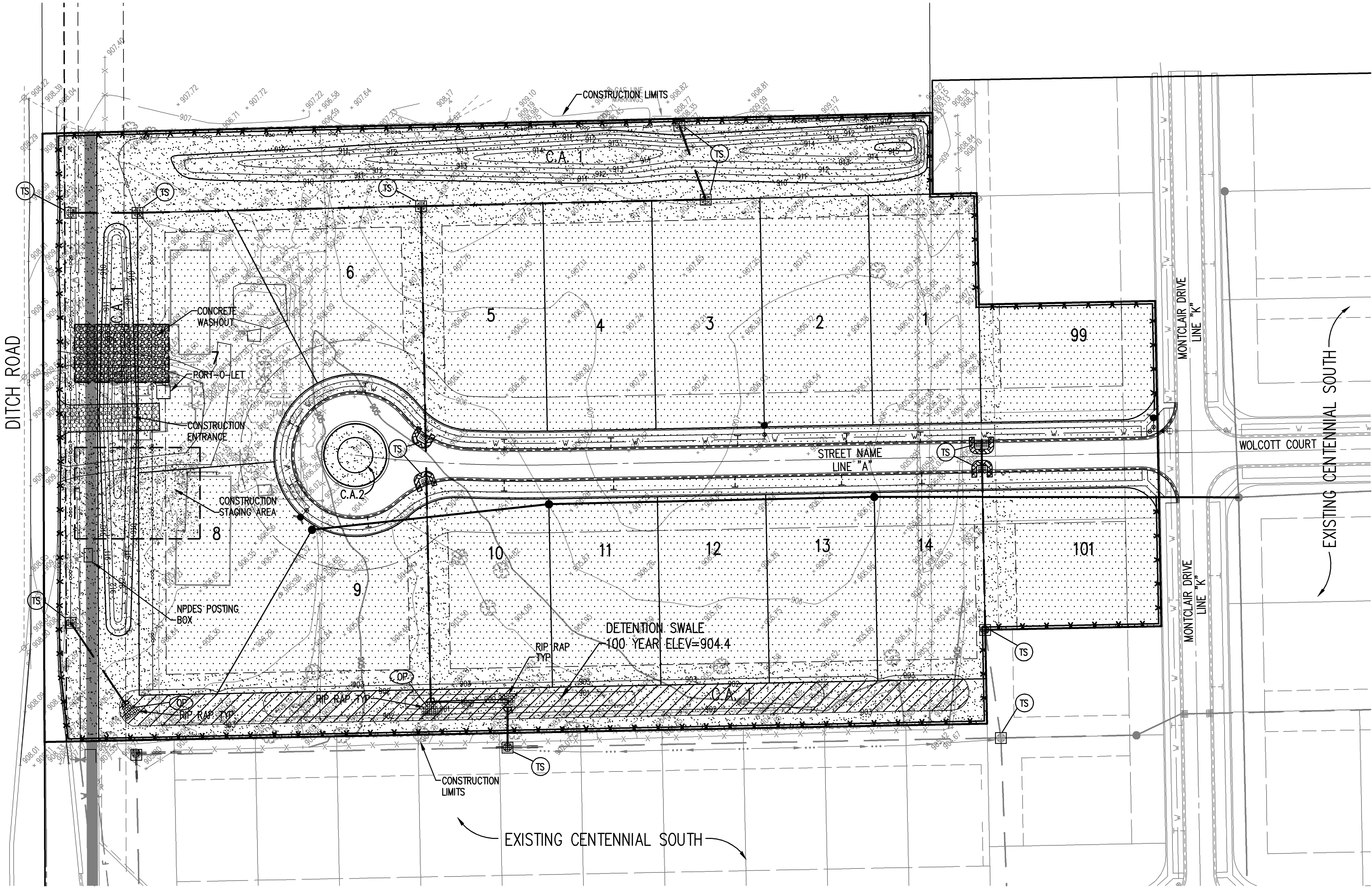
THE SCHNEIDER CORPORATION
Historic Fort Harrison
8901 Otis Avenue
Indianapolis, IN 46216-1037
Telephone: 317.826.7100
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CENTENNIAL SOUTH
EXPANSION
WESTFIELD, INDIANA

ESTRIDGE DEVELOPMENT CO., INC.
CARMEL, INDIANA

DATE: 06/27/08	PROJECT NO.: 3915.004
DRAWN BY: PRC	CHECKED BY: JLF
SHEET TITLE: DEVELOPMENT PLAN	
DRAWING FILES: R:\3\3915\004\DWGS\C101 XREF: 0408S XREF: 3915004S XREF: R:\3\3915\001\DWGS\001BS	
SHEET NO.: C101	



BENCHMARK

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LEGEND

- HATCH PATTERN DENOTES TEMPORARY SEEDING
- HATCH PATTERN DENOTES PERMANENT SEEDING
- HATCH PATTERN DENOTES EROSION CONTROL BLANKET
- TS - TEMPORARY SEDIMENT FILTER/BARRIER- SEE DETAILS SHEET C801
- OP - OUTLET PROTECTION- SEE DETAIL SHEET C801
- TEMPORARY SILT FENCE- SEE DETAIL SHEET C801
- TEMPORARY SEDIMENT FILTER- SEE DETAIL SHEET C801
- CONSTRUCTION LIMITS

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ASSUMED NORTH
SCALE: 1"=50'

EROSION CONTROL SCHEDULE		
EROSION CONTROL MEASURE	MAINTENANCE	INSTALLATION SEQUENCE
STONE ENTRANCE	AS NEEDED	PRIOR TO CLEARING AND GRADING
SILT FENCE	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	PRIOR TO CLEARING AND GRADING
EXISTING INLET PROTECTION	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	PRIOR TO CLEARING AND GRADING
TREE PROTECTION	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	PRIOR TO CLEARING AND GRADING
TEMPORARY DIVERSIONS	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	ALONG WITH ROUGH GRADING
TEMPORARY SEEDING	WATER AS NEEDED	AFTER ROUGH GRADING
PERMANENT SEEDING	WATER AS NEEDED	AFTER FINISH GRADING
EROSION CONTROL MATTING	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	AFTER FINISH GRADING
STRAW BALES	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	AFTER FINISH GRADING
INLET PROTECTION	WEEKLY, AFTER STORM EVENTS AND AS NEEDED	AFTER EACH INLET IS PLACED
SEED, SOIL & LANDSCAPE AROUND UNITS FINISHED	WATER AS NEEDED	AFTER FINISHED GRADING AROUND FINISHED UNITS
REMOVAL OF STRAW BALES	N/A	AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED
REMOVAL OF INLET PROTECTION	N/A	AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED
REMOVAL OF SILT FENCE	N/A	AFTER ALL AREAS DRAINING TO THESE AREAS ARE STABILIZED

CONSTRUCTION SEQUENCING

The following sequencing should be followed as much as possible, and any dewatering required during construction of this project shall be done through a "Dandy" dewatering bag or approved equal.

Call the Indiana Underground Protection Systems, Inc. ("Holey Moley") @ 1-800-382-5544 to check to location of any utilities at least two working days before work is to commence.

Establish onsite location for owner/operator/contractor placement of approved plans and Rule 5 NOI inspection documentation.

IDEM & CITY OF WESTFIELD MUST BE NOTIFIED WITHIN 48 HOURS OF WHEN THE CONSTRUCTION IS SCHEDULED TO BEGIN.

PRE-CONSTRUCTION ACTIVITIES (MASS EARTHWORK)

1. Install temporary stone access drive off of Ditch Road.
2. Construct Rule 5 information posting site, install trash dumpster, and place port-a-let.
3. Install silt fencing as shown.
4. Strip topsoil from pad and road areas.
5. Excavate road bed and prepare building pads as shown.
6. Install temporary seed in all disturbed areas.
7. Excavate detention swale. Install outlet structure for water quality pond as shown on sheet C101.
8. Install permanent seed and erosion control blanket on detention swale banks after completion.
9. Maintain all silt fencing by cleaning out every week and after every storm event.

CONSTRUCTION ACTIVITIES

1. Install concrete washout basin as indicated on plans.
2. Install lime in road subgrades as required.
3. Install storm sewer pipe and street underdrain with rip rap at pipe end sections. Immediately install inlet protection after installation of each inlet as completed.
4. Install all remaining utilities including sanitary, electric, water and gas. After completely installing offsite sanitary and water lines, install permanent seed.
5. Complete and/or repair earthwork for building pads and road subgrades.
6. Install perimeter and rear yard swales.
7. Permanently seed perimeter and rear yard swales.
8. Permanently seed all areas disturbed by installation of offsite sanitary and water mains.
9. Fine grade and permanently seed disturbed Common Areas upon completion of streets.
10. Install temporary seed in all remaining disturbed areas as completed.
11. Install silt fence along sidewalks to prevent siltation of new walks and streets if home/lot construction is to begin immediately.
12. Clean and maintain all ditch checks, silt fences, and inlet protection until site is stabilized.

POST CONSTRUCTION ACTIVITIES

1. Distribute Post Construction BMP Operations and Maintenance Manual to BMP owner.
2. Identify and locate the following BMP structures for the owner:
 - Stormwater quality ponds
 - Detention swale banks
 - Vegetated Swales
 - Energy dissipating Rip-Rap at pipe outlets
3. BMP owners must routinely inspect BMPs to verify that all BMP components are functioning as designed and are not in danger of failing.
4. BMP owner is responsible for the maintenance of the BMP and any costs associated with maintaining the BMP.
5. BMP Owner shall keep the BMP free from litter, woody growth, and shall mow the BMP when needed, but average grass blade height not to exceed six (6) inches. Refer to the inspection and maintenance guidelines for further clarification.
6. Sediment that collects in the BMP shall be removed when it adversely affects the ability of the BMP to perform as a water quality control device.

NOTE: EROSION CONTROL PLAN MUST BE EXECUTED BEFORE ANY CONSTRUCTION COMMENCES.

NOTE: ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED IN THE FIELD BY THE INSPECTOR.

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REGISTERED
No. 19300219
STATE OF INDIANA
PROFESSIONAL ENGINEER
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CENTENNIAL SOUTH
EXPANSION
WESTFIELD, INDIANA
ESTRIDGE DEVELOPMENT CO., INC.
CARMEL, INDIANA

DATE: 06/27/08 PROJECT NO: 3915.004
DRAWN BY: PRC CHECKED BY: JLF
SHEET TITLE: STORMWATER POLLUTION PREVENTION PLAN
DRAWING FILES: R:\3K\3915\004\DWG\S\C102
XREF: 004BS
XREF: 3915001S
XREF: EROSION
XREF: R:\3K\3915\001\DWG\S\001BS
SHEET NO: C102

BENCHMARK

BM - U.S.G.S. 93 RHP, BRASS DISK IN A CONCRETE POST AT THE SOUTHWEST CORNER OF 146TH STREET AND DITCH ROAD. ELEVATION = 903.373 (NGVD 1929)

TBM2 - CUT SQUARE ON TOP OF CONCRETE BASE AT THE NORTH SIDE OF CONCRETE FENCE POST, WEST SIDE OF DITCH ROAD, 1320'± SOUTH OF 156TH STREET, ESTABLISHED FROM PREVIOUS JOB #753 (CENTENNIAL). ELEVATION = 916.99 (NGVD 1929)

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GENERAL NOTES

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3. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY ALL UTILITY LOCATIONS BEFORE CONSTRUCTION BEGINS.
4. CONTRACTORS SHALL MINIMIZE DAMAGE TO EXISTING TREES.
5. ALL ELEVATIONS WITHIN VERTICAL CURVES (SHOWN INPARENTHESIS) ARE CORRECTED ELEVATIONS.

HOLEY MOLEY SAYS

"DON'T
DIG
BLIND"

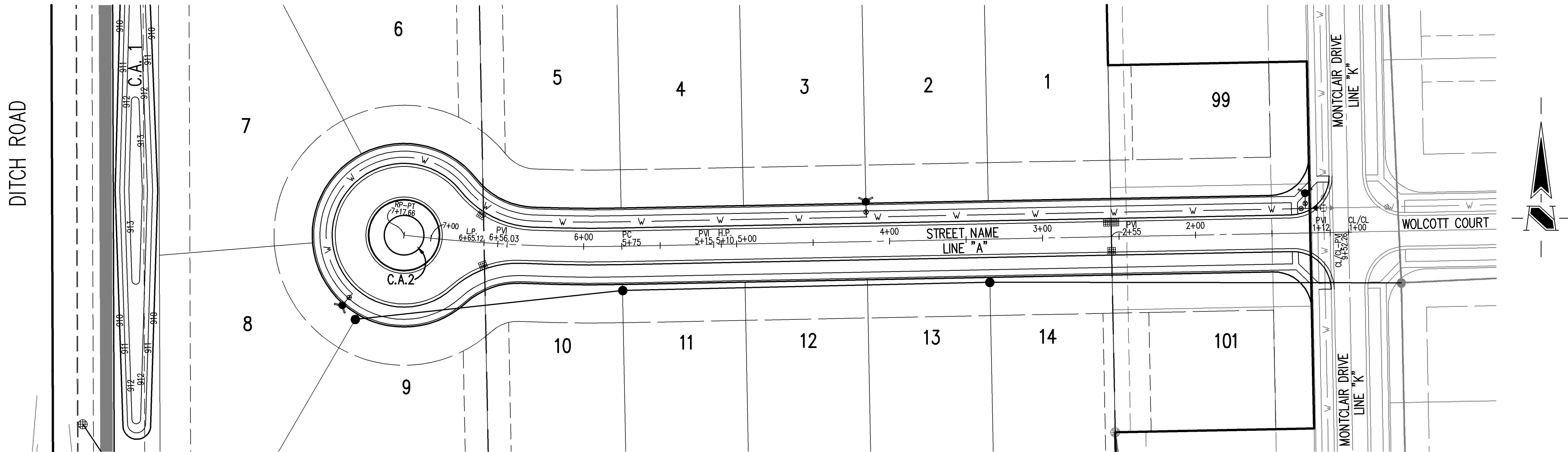


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LOCATION SERVICE TWO (2) WORKING
DAYS BEFORE COMMENCING WORK.



DETAILS	Sheet	Detail Number	Description
	C803	1	Street Cross Section Detail
	C803	P-10	Concrete Sidewalk Detail
	C803	P-11&11A	Sidewalk Ramp For Handicapped Detail
	C803	P-8	Curb Detail
	C803	P-9	Pipe Underdrain Detail
	C301		Intersection Details
NOTE			

STREET PLAN

SCALE: 1"=50'

920

920

915

915

910

910

905

905

900

900

895

895

890

890

885

885

880

880

FOR GRADING CUL-DE-SAC
BULB SEE SHEET C301.

HIGH POINT ELEV = 907.32
HIGH POINT STA = 5+10
PVI STA = 5+15
PVI ELEV = 907.47
50.00' VC

EVCS: 5+40
EVC: 907.09
BVC: 4+30
BVC: 907.22

PVI STA = 2+55
PVI ELEV = 904.87

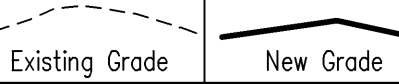
PVI STA = 1+12
PVI ELEV = 905.87

12" RCP
INV. 901.08

EXISTING 8" WATERLINE
INV. 901.34±

STREET PROFILE

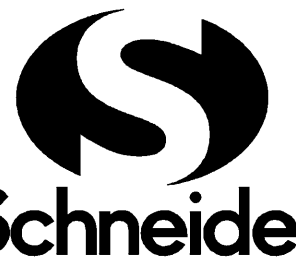
LEGEND



SCALE: HORZ.: 1"=50'
VERT.: 1"=5'



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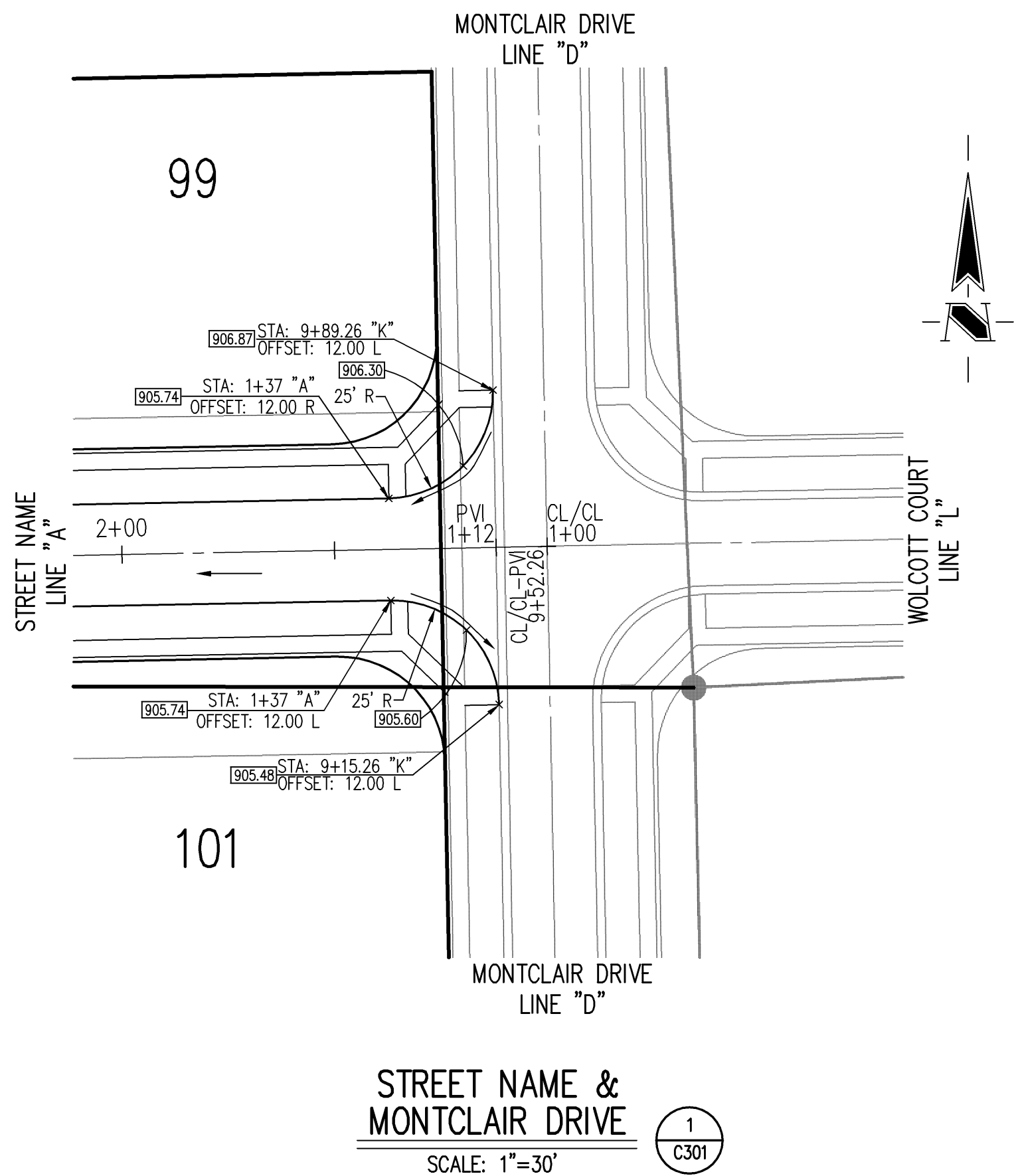
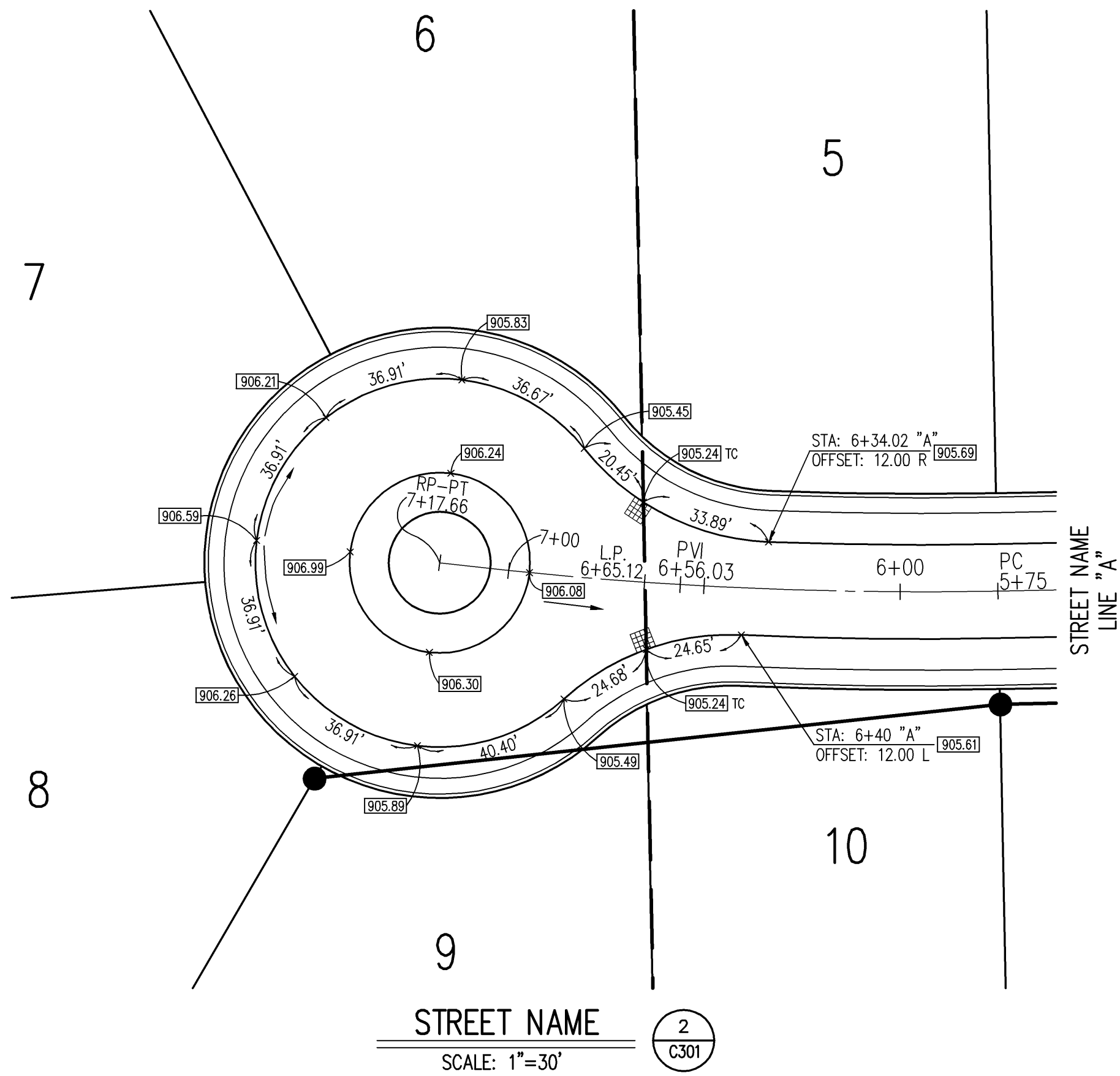
ESTRIDGE DEVELOPMENT CO., INC.

CARMEL, INDIANA

DATE: 06/27/08	PROJECT NO.: 3915.004
DRAWN BY: PRC	CHECKED BY: JLF
SHEET TITLE: STREET PLAN	
DRAWING FILES: R:\3K\3915\004\DWGS\C201 XREF: STREET XREF: 004B5 XREF: 3915004S XREF: R:\3K\3915\001\DWGS\001B5	

SHEET NO.:

C201



GENERAL NOTES

1. ALL STREETS ARE TO BE 24' WIDE AND HAVE A 50' DEDICATED STREET EASEMENT WIDTH, UNLESS OTHERWISE NOTED.

BENCHMARK

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REVISIONS:

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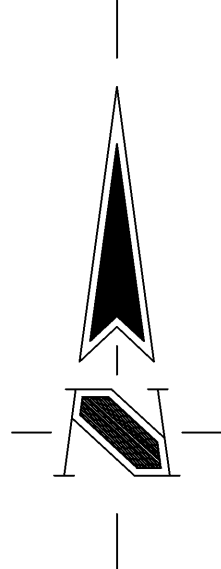
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DRAWN BY: PRC CHECKED BY: JLF
SHEET TITLE:
CUL-DE-SAC & INTERSECTION
DETAILS
DRAWING FILES:
R:\3K\3915\004\DWGS\C301
XREF: 001BS
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SHEET NO.:
C301

HOLEY MOLEY SAYS
“DON'T
DIG
BLIND”

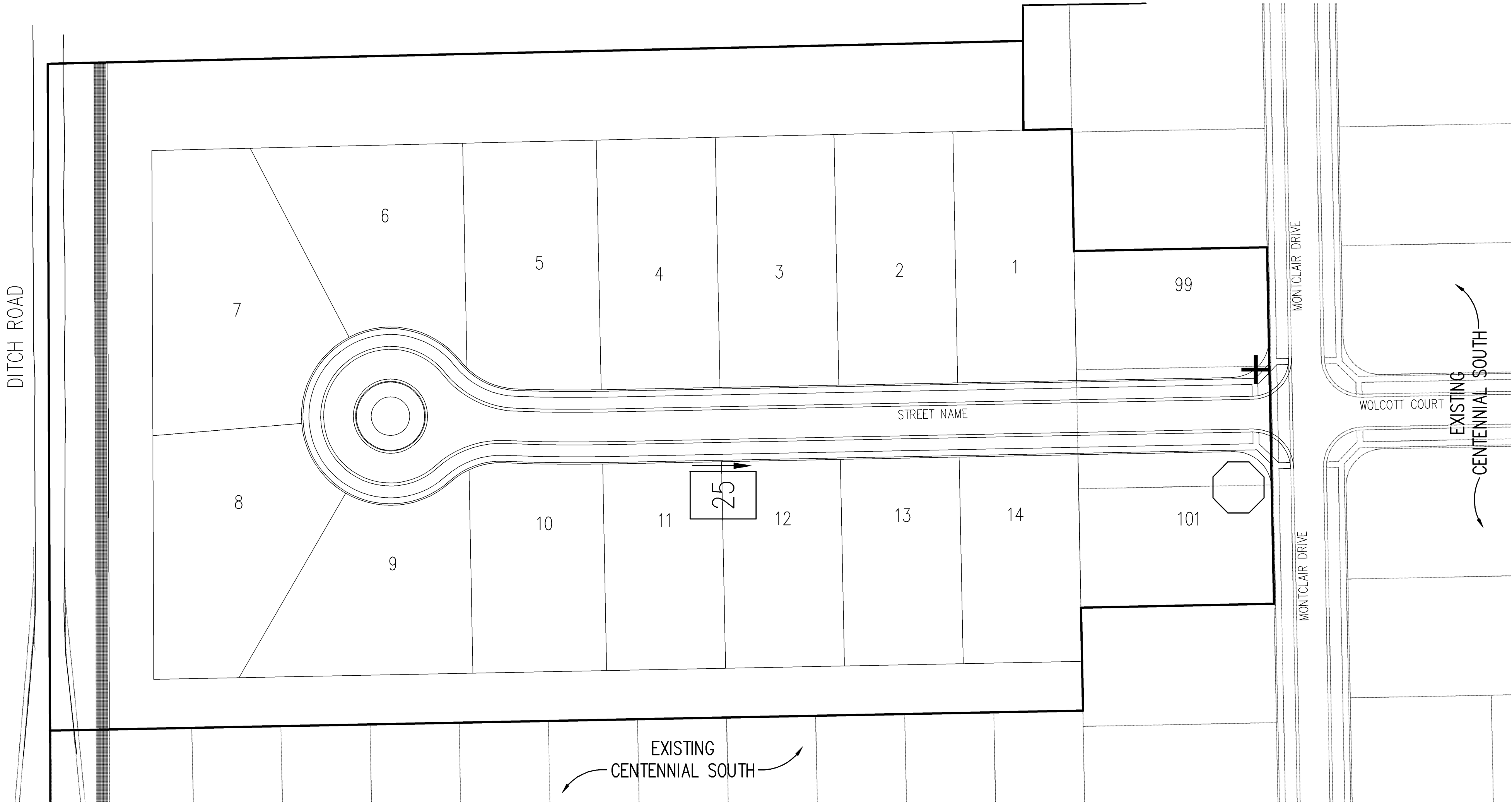


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ASSUMED NORTH
SCALE: 1"=50'



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3. ALL SIGNS AND PAVEMENT MARKINGS SHALL MEET MUTCD STANDARDS.

LEGEND

- (1 REQ.)  STOP
- (1 REQ.)  SPEED LIMIT (25 MPH)
- (1 REQ.)  STREET NAME SIGN

REVISIONS:

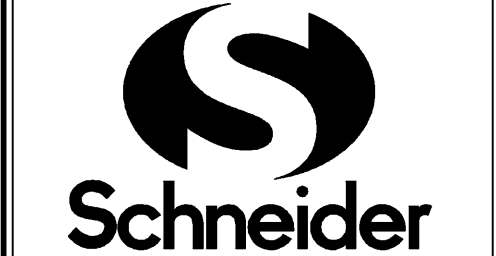
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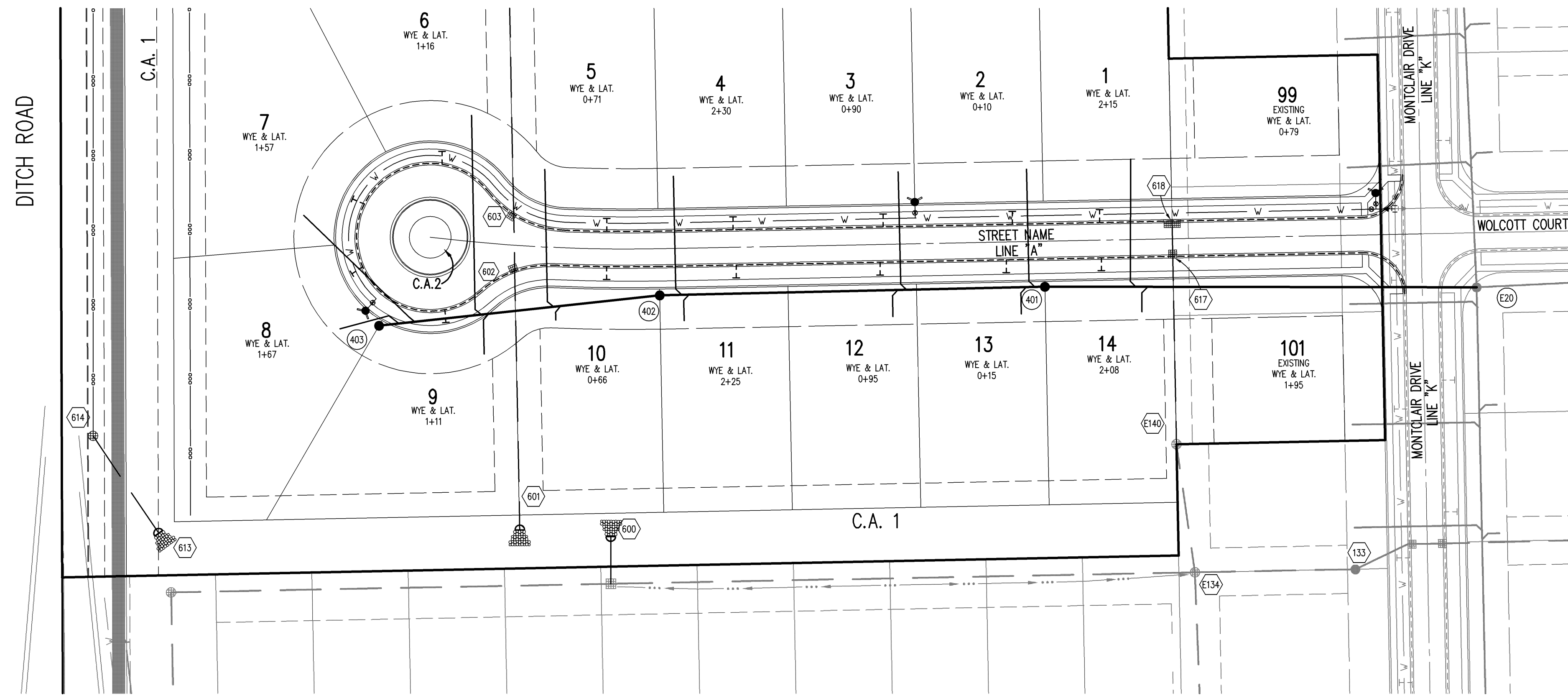
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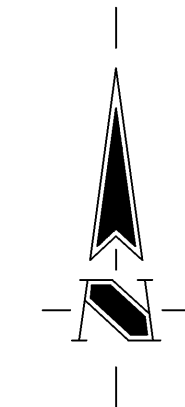
DATE: 06/27/08	PROJECT NO.: 3915.004
DRAWN BY: PRC	CHECKED BY: JLF
SHEET TITLE: TRAFFIC CONTROL PLAN	
DRAWING FILES: R:\3K\3915\004\DWGS\C302 XREF: 00485 XREF: 39150045 XREF: R:\3K\3915\001\DWGS\001B5	
SHEET NO.: C302	



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BENCHMARK

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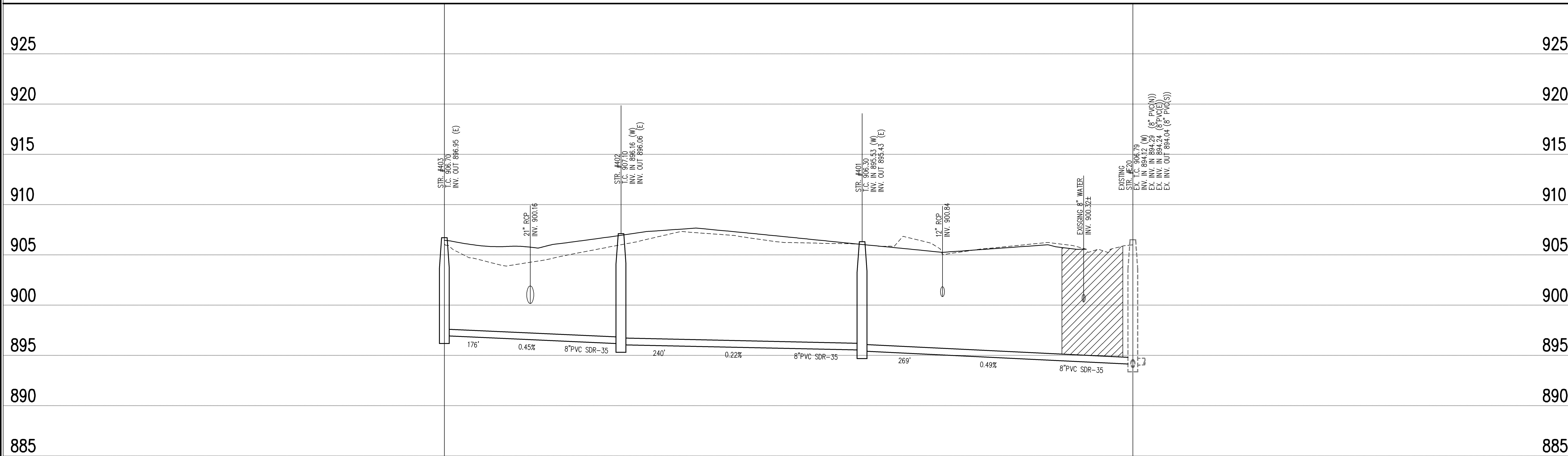
LEGEND/DETAILS	Sheet	Detail	Description
	Number	Number	
	C804	S-1	Precast Reinforced Concrete Manhole
	C804	S-5	Sanitary Sewer Bedding Detail
	C804	S-11	Service Connection
	C804	S-10	Wye & Lateral Capping Detail
	C804	S-12	Service Connection
	C804	S-13	Service Connection
	C804	S-13	Service Connection
NOTE			

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- ALL WYE, LATERAL AND PROFILE STATIONS ARE FROM THE NEAREST DOWNSTREAM MANHOLE. (MH)
- WYES AND LATERALS TO BE 6" PIPE UNLESS OTHERWISE SPECIFIED.
- FOR SINGLE FAMILY LOTS ALL WYE CONNECTIONS SHALL HAVE A MINIMUM OF FIVE (5) FOOT LATERAL EXTENSION CONNECTED TO THE WYE, OR EXTEND TO THE UTILITY AND DRAINAGE EASEMENT OF THE LOT, WHICHEVER IS GREATER, BUT IN NO CASE SHOULD THE END OF THE LATERALS BE CLOSER THAN FIVE (5) FEET TO THE BUILDING LINE, UNLESS NOTED OTHERWISE. THE END OF THE LATERAL SHALL BE PLUGGED OR CAPPED, UNLESS OTHERWISE NOTED.
- FOR SINGLE FAMILY LOTS, LATERALS RUNNING TO THE OPPOSITE SIDE OF THE STREET SHALL EXTEND TO THE UTILITY AND DRAINAGE EASEMENT OF THE LOT, BUT IN NO CASE SHOULD THE END OF THE LATERALS BE CLOSER THAN FIVE (5) FEET TO THE BUILDING LINE, UNLESS OTHERWISE NOTED.

SANITARY SEWER PLAN

SCALE: 1"=50'



SANITARY SEWER PROFILE

LEGEND		
	Existing Grade	
	New Grade	
	Granular Backfill	

SCALE: HORZ.: 1"=50'
VERT.: 1"=5'

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STATE OF INDIANA
PROFESSIONAL ENGINEER

D. A. Clark

DATE: 06/27/08

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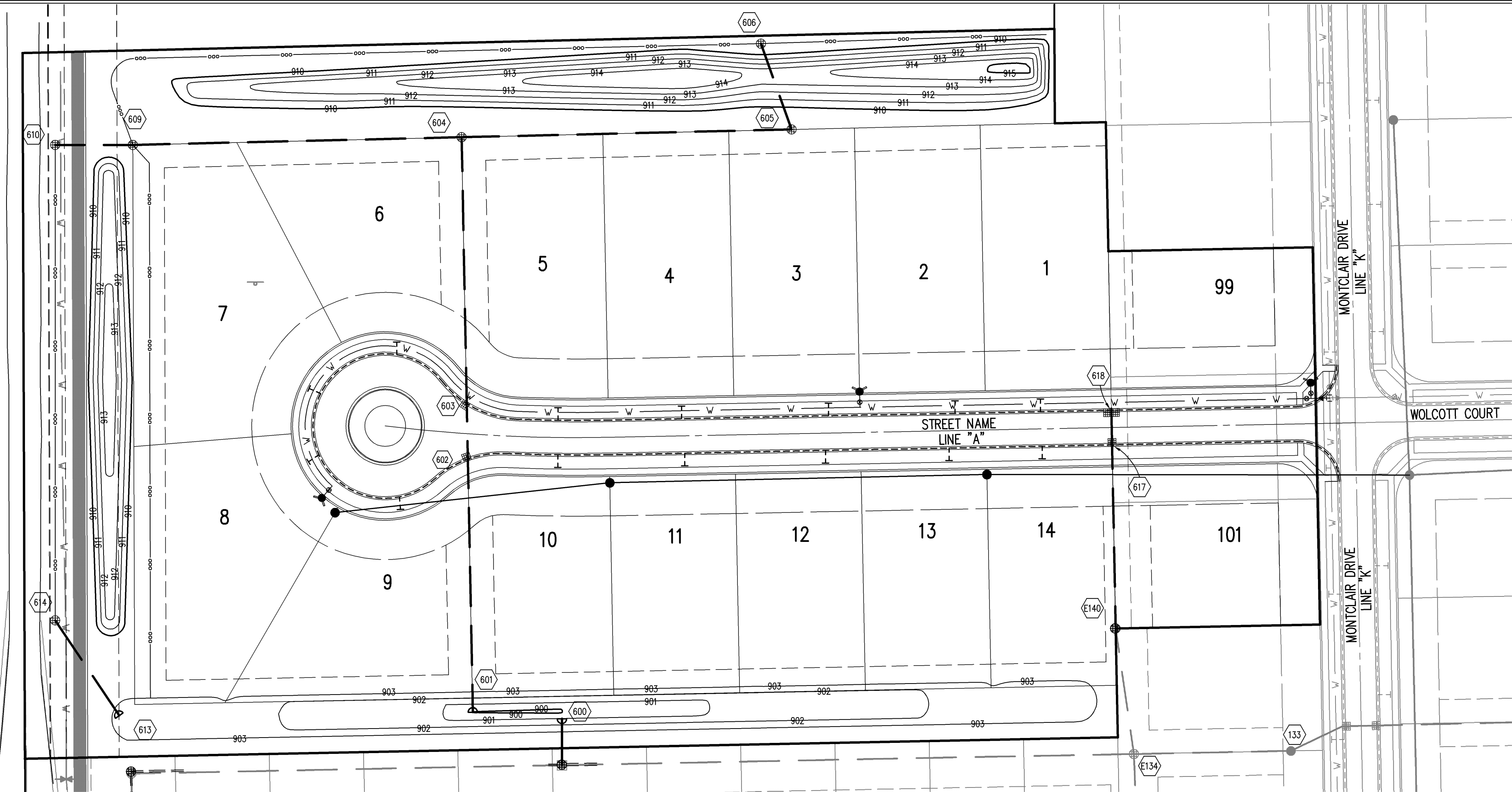
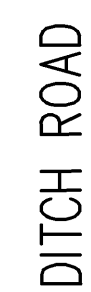
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CARMEL, INDIANA

DATE: 06/27/08	PROJECT NO.: 3915.004
DRAWN BY: PRC	CHECKED BY: JLF
SHEET TITLE: SANITARY SEWER PLAN	
DRAWING FILES: R:\3K\3915\004\DWGS\C401 XREF: SANITARY XREF: 004B5 XREF: 3915004S XREF: R:\3K\3915\001\DWGS\001B5	
SHEET NO.: C401	



BENCHMARK

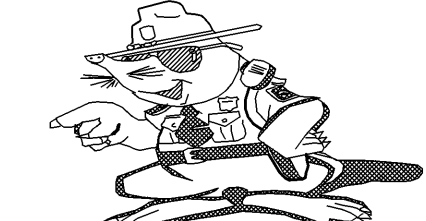
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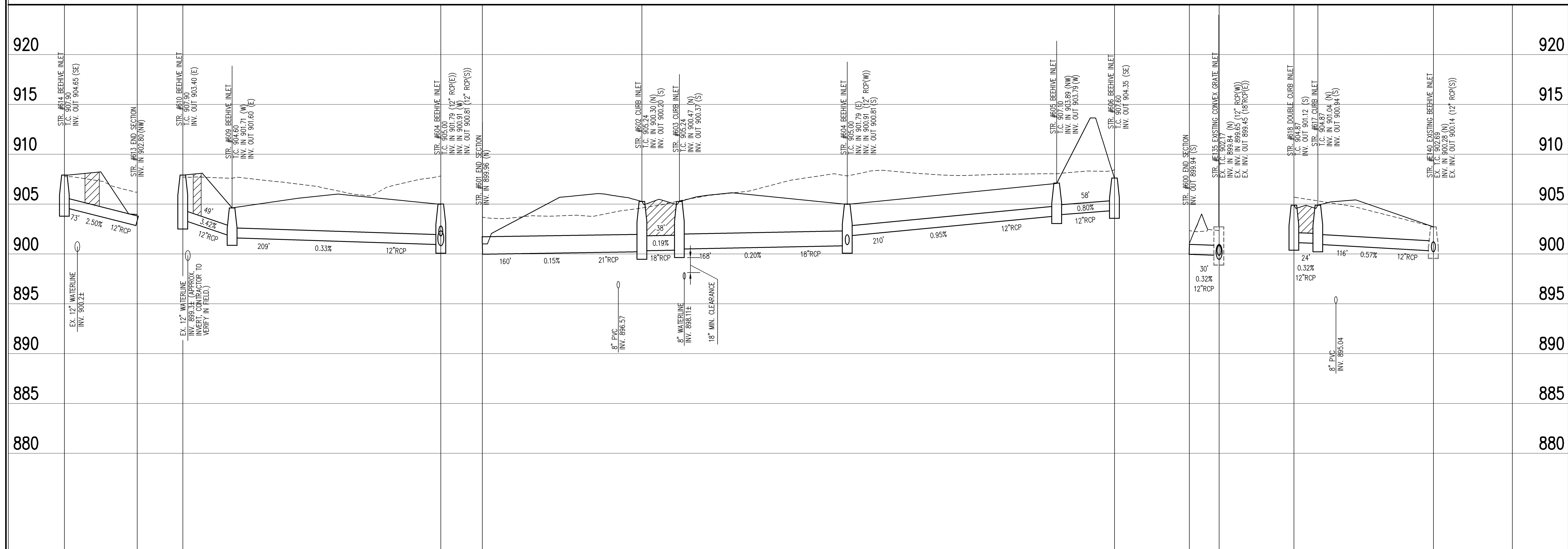
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Sheet	Detail Number	Description
C805	S-5	Bedding Detail Reinforced Concrete Pipe (RCP)
C805	ST-11&12	Roll Curb Inlet Detail
C805	ST-11&12	Beehive Inlet Detail
C805	ST-1	Storm Manhole Detail
C805	6	Precast Concrete End Section
C801		RipRap Detail @ End Section

STORM SEWER PLAN

SCALE: 1"=50'



LEGEND



SCALE: $\frac{\text{HORIZ.: } 1''=50'}{\text{VERT.: } 1''=5'}$

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D. A. Ceb
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**CENTENNIAL SOUTH
EXPANSION**
WESTFIELD, INDIANA

ESTRIDGE DEVELOPMENT CO., INC.
CARMEL, INDIANA

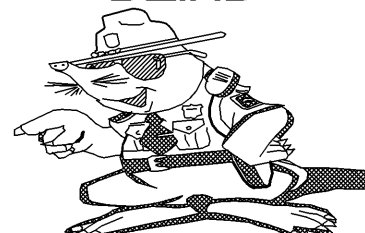
DATE: 06/27/08	PROJECT NO.: 3915.004
DRAWN BY: PRC	CHECKED BY: JLF

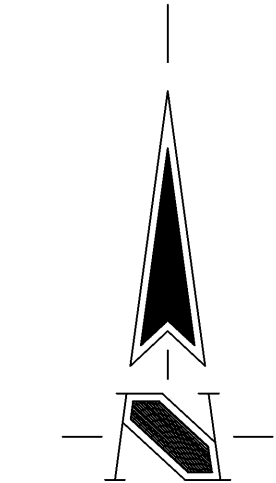
SHEET TITLE:
STORM SEWER PLAN

DRAWING FILES:
 : \3K\3915\004\DWGS\C601
 REF: STORM
 REF: 004BS
 REF: 3915004S
 REF: R: \3K\3915\001\DWGS\001BS

SHEET NO.:

C601

HOLEY MOLEY SAYS
"DON'T
DIG
BLIND"

"IT'S THE LAW"
CALL 2 WORKING DAYS BEFORE YOU DIG
1-800-382-5544
CALL TOLL FREE
PER INDIANA STATE LAW IS-69-1991,
IT IS AGAINST THE LAW TO EXCAVATE
WITHOUT NOTIFYING THE UNDERGROUND
LOCATION SERVICE TWO (2) WORKING
DAYS BEFORE COMMENCING WORK.



ASSUMED NORTH
SCALE: 1"=50'

BENCHMARK

BM - U.S.G.S. 93 RHP, BRASS DISK IN A CONCRETE POST AT THE SOUTHWEST CORNER OF 146TH STREET AND DITCH ROAD. ELEVATION = 903.373 (NGVD 1929)

TBM2 - CUT SQUARE ON TOP OF CONCRETE BASE AT THE NORTH SIDE OF CONCRETE FENCE POST, WEST SIDE OF DITCH ROAD, 1320'± SOUTH OF 156TH STREET, ESTABLISHED FROM PREVIOUS JOB #753 (CENTENNIAL). ELEVATION = 916.99 (NGVD 1929)

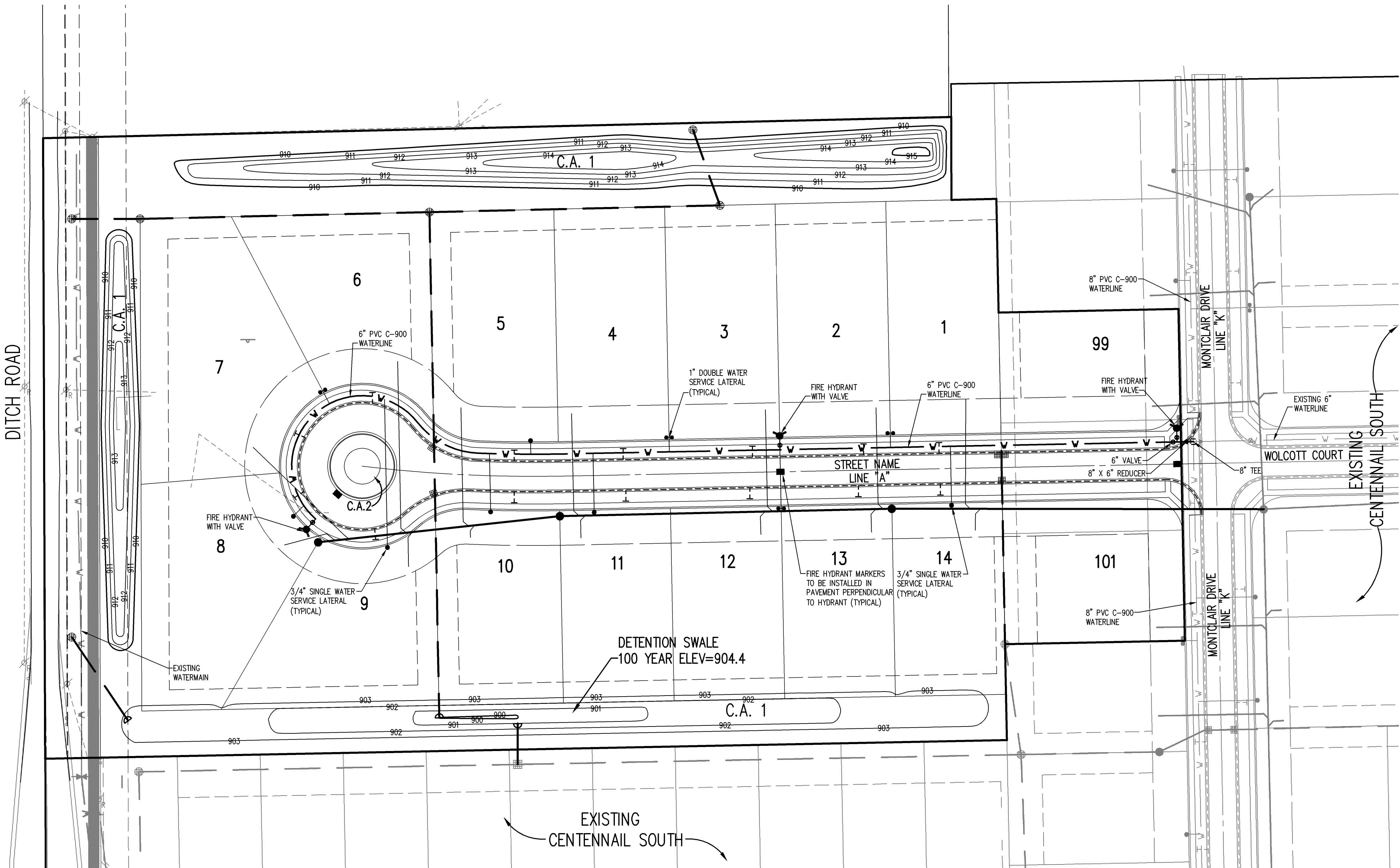
TBM4 - RAILROAD SPIKE SET 1.0' UP IN THE SOUTH SIDE OF A UTILITY POLE ON THE WEST SIDE OF DITCH ROAD, 267' NORTH OF THE SOUTHWEST CORNER AND 180' SOUTH OF THE NORTHWEST CORNER OF THE SUBJECT TRACT. ELEVATION = 909.51 (NGVD 1929)

LEGEND

- NEW STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- NEW SANITARY SEWER
- EXISTING WATER MAIN
- NEW WATER MAIN WITH VALVE
- NEW FIRE HYDRANT ASSEMBLY
- TEMPORARY FLUSHING HYDRANT
- REDUCER
- SAMPLE TAP
- 3/4" SERVICE LATERAL WITH METER PIT
- 1" SERVICE LATERAL WITH DOUBLE METER PIT
- FIRE HYDRANT MARKER

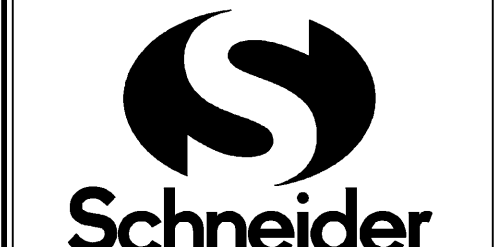
GENERAL NOTES

- WATERLINE TO HAVE A MINIMUM COVER OF 57".
- WATERLINE LATERALS TO HAVE A 10' HORIZONTAL MINIMUM SEPARATION TO SANITARY LATERALS.
- ALL WATERLINE ARE TO BE 8" PVC C-900 PIPE UNLESS OTHERWISE NOTED.
- ALL SERVICE LINES SHALL HAVE SADDLE TAPS.
- ALL VALVES SHALL HAVE POSI CAPS.
- ALL HYDRANTS SHALL HAVE 5" STORZ CONNECTIONS (MUELLER MODEL 290220 FOR CASTING AND 290221 CAP OR WPMO APPROVED EQUAL).
- SERVICE LINES SHALL BE STUBBED 2" BEHIND SIDEWALKS.
- MAINS SHALL BE BEDDED WITH SAND 6" BELOW THE PIPE AND 12" ABOVE THE PIPE.
- WATER MAINS SHALL HAVE MARKING TAPE INSTALLED 2' FEET DIRECTLY ABOVE ALL MAINS.
- ALL MAINS SHALL HAVE #12 GAUGE LOCATING WIRE TAPED TO THE TOP OF THE MAIN AND PULLED THROUGH THE VALVE BOXES TO THE SURFACE FOR LOCATING PURPOSES.
- ALL DUCTILE IRON PIPE SHALL BE POLY WRAPPED.
- HYDRANTS SHALL BE PAINTED WITH 2 COATS OF M.A.B. "FIRE PROTECTION RED (7068)" AFTER INSTALLATION.
- ALL SINGLE WATER SERVICES SHALL BE 3/4" INCH COPPER SERVICES.



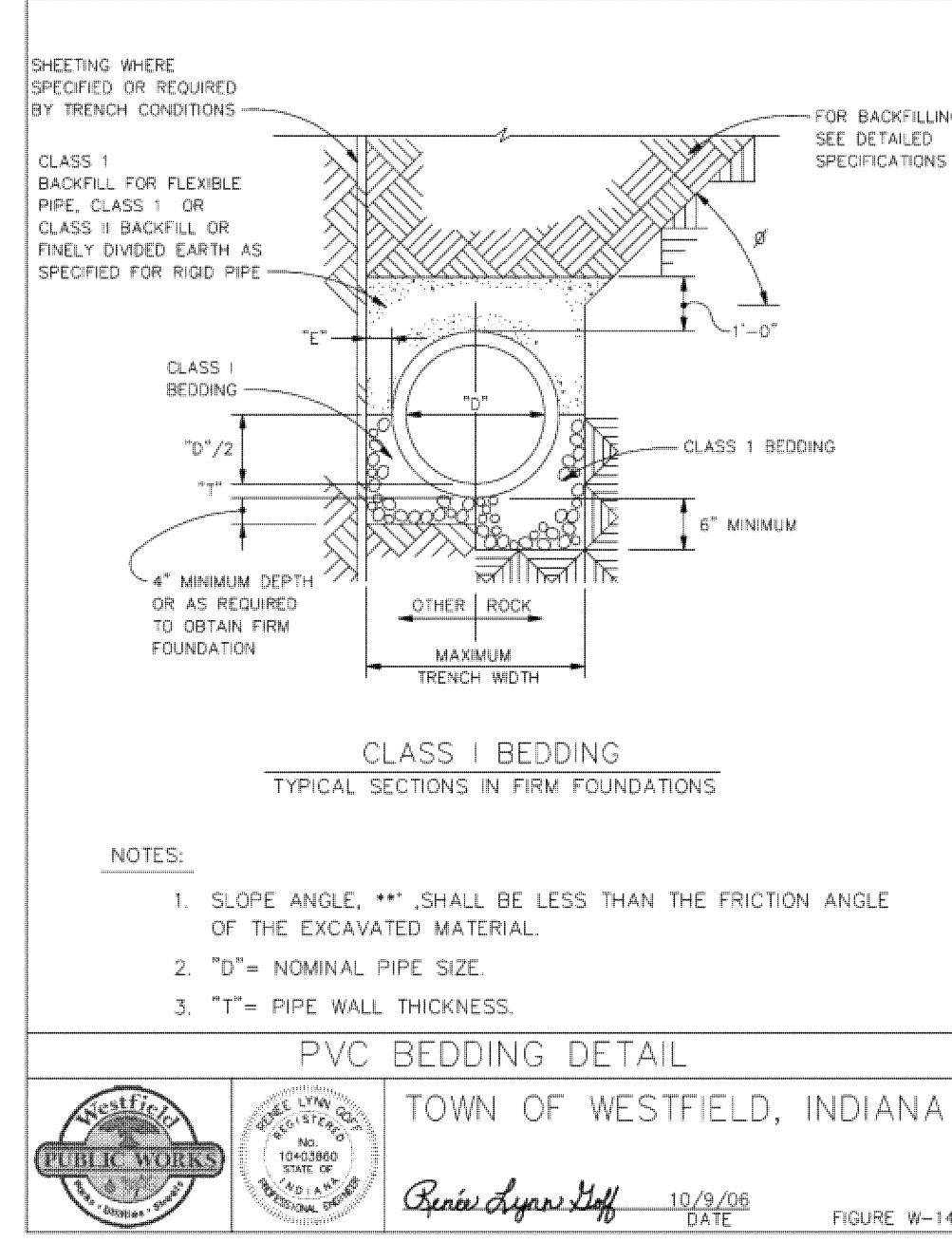
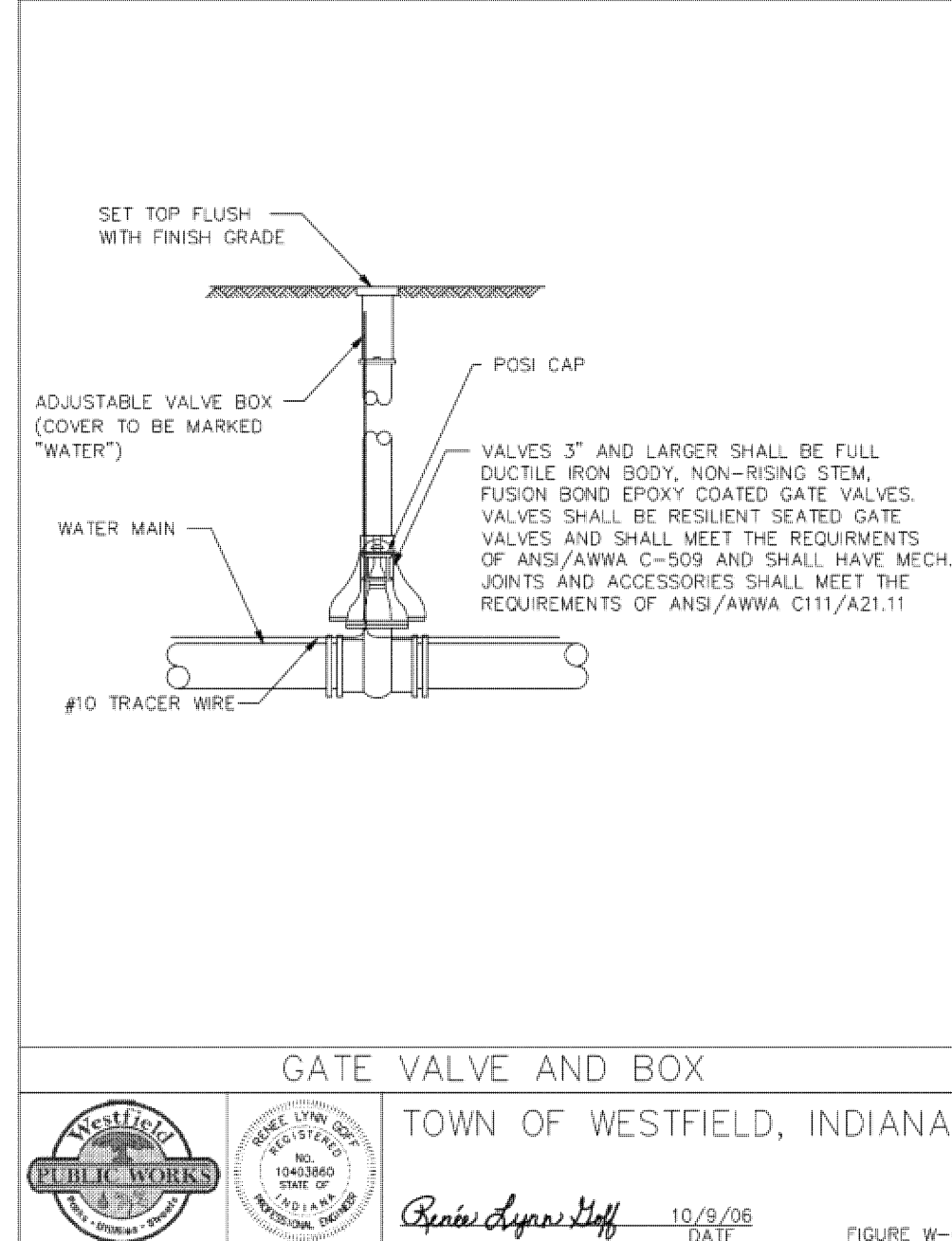
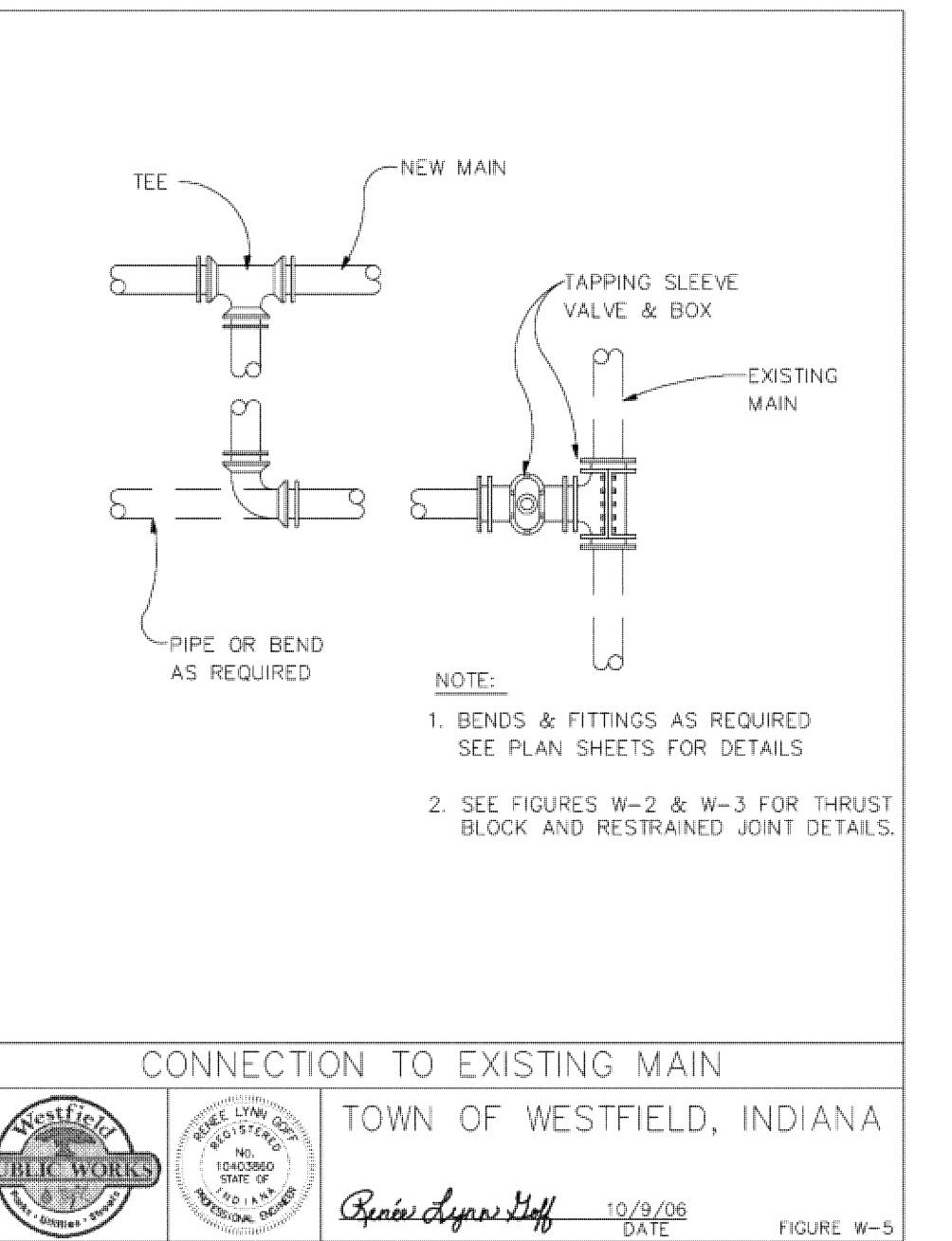
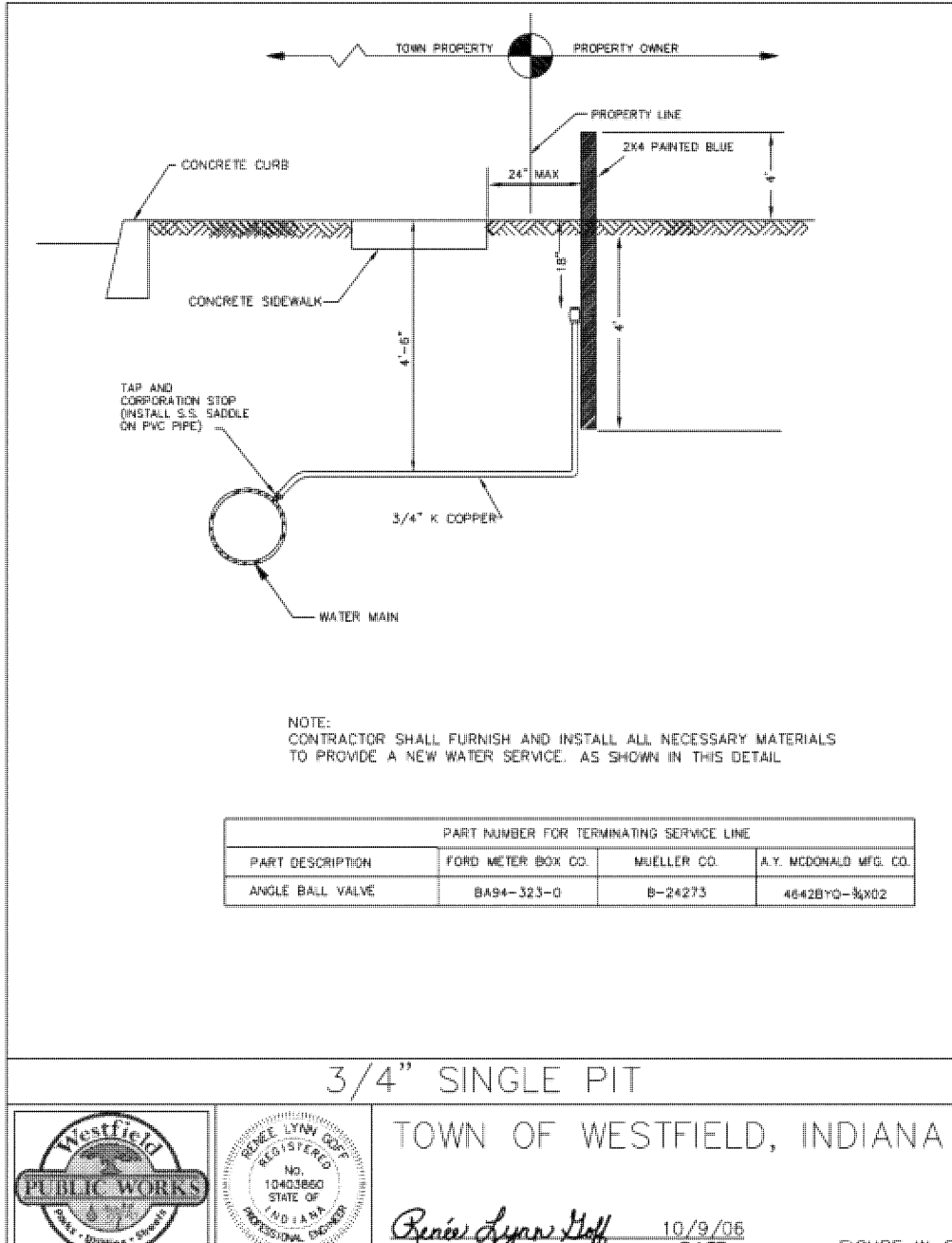
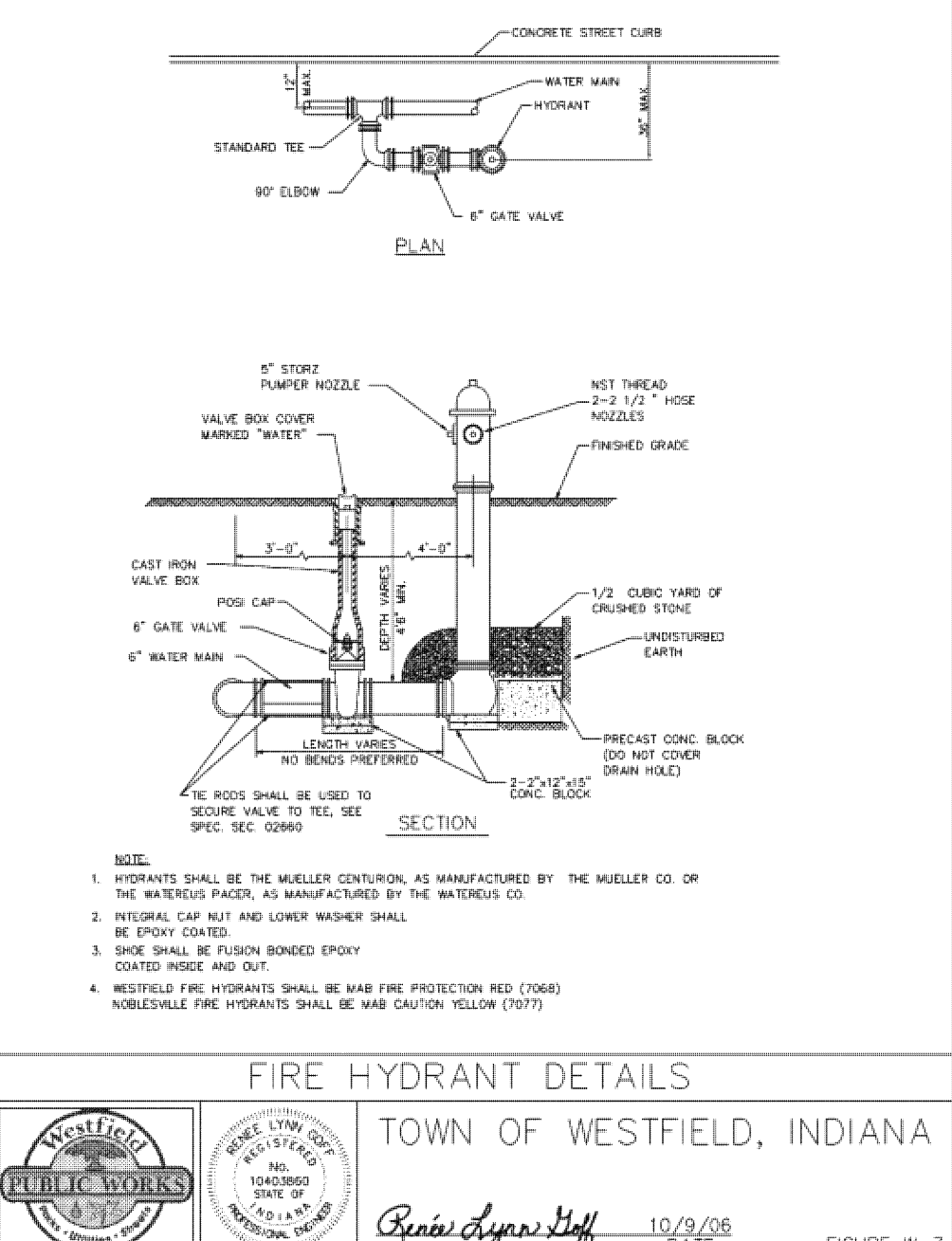
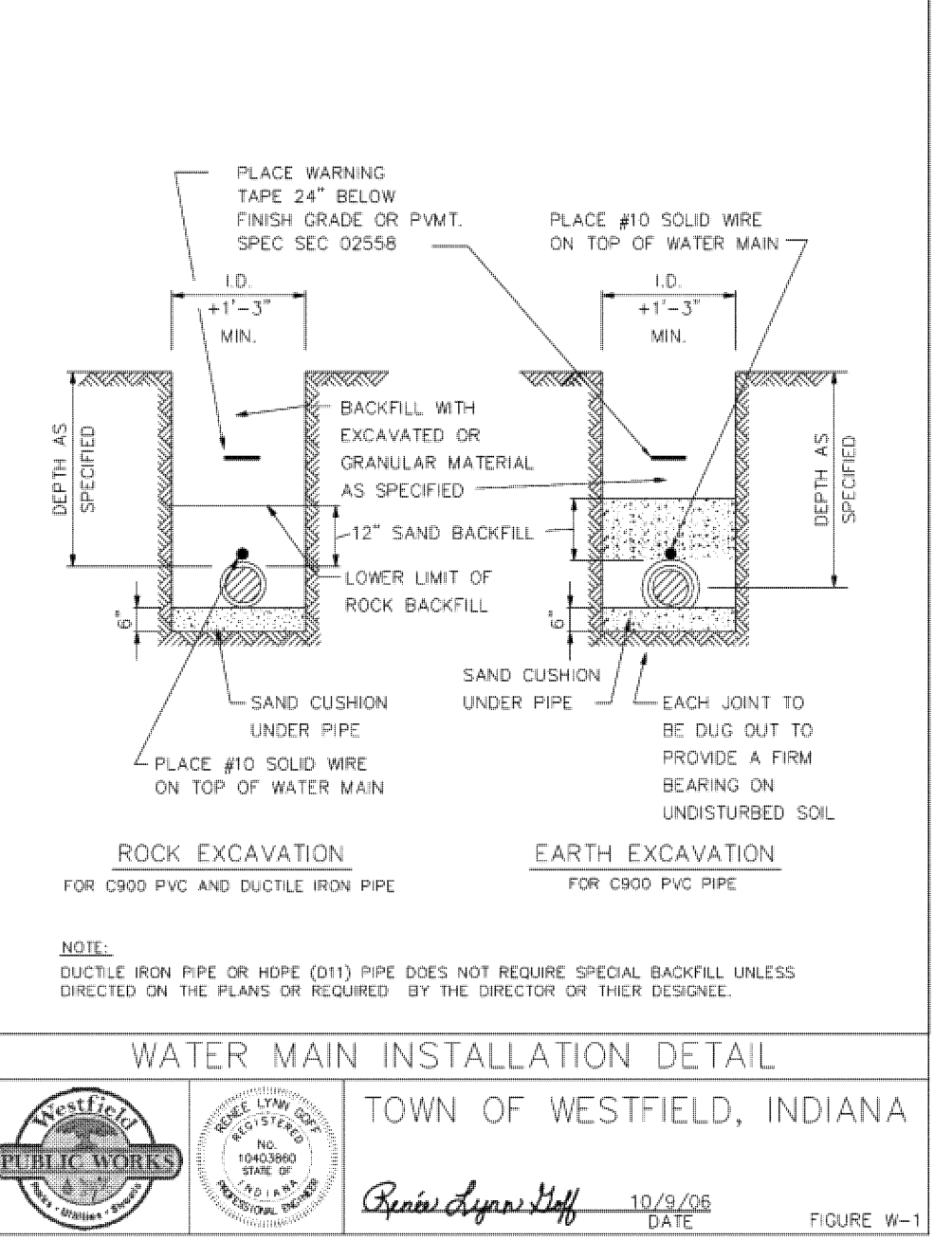
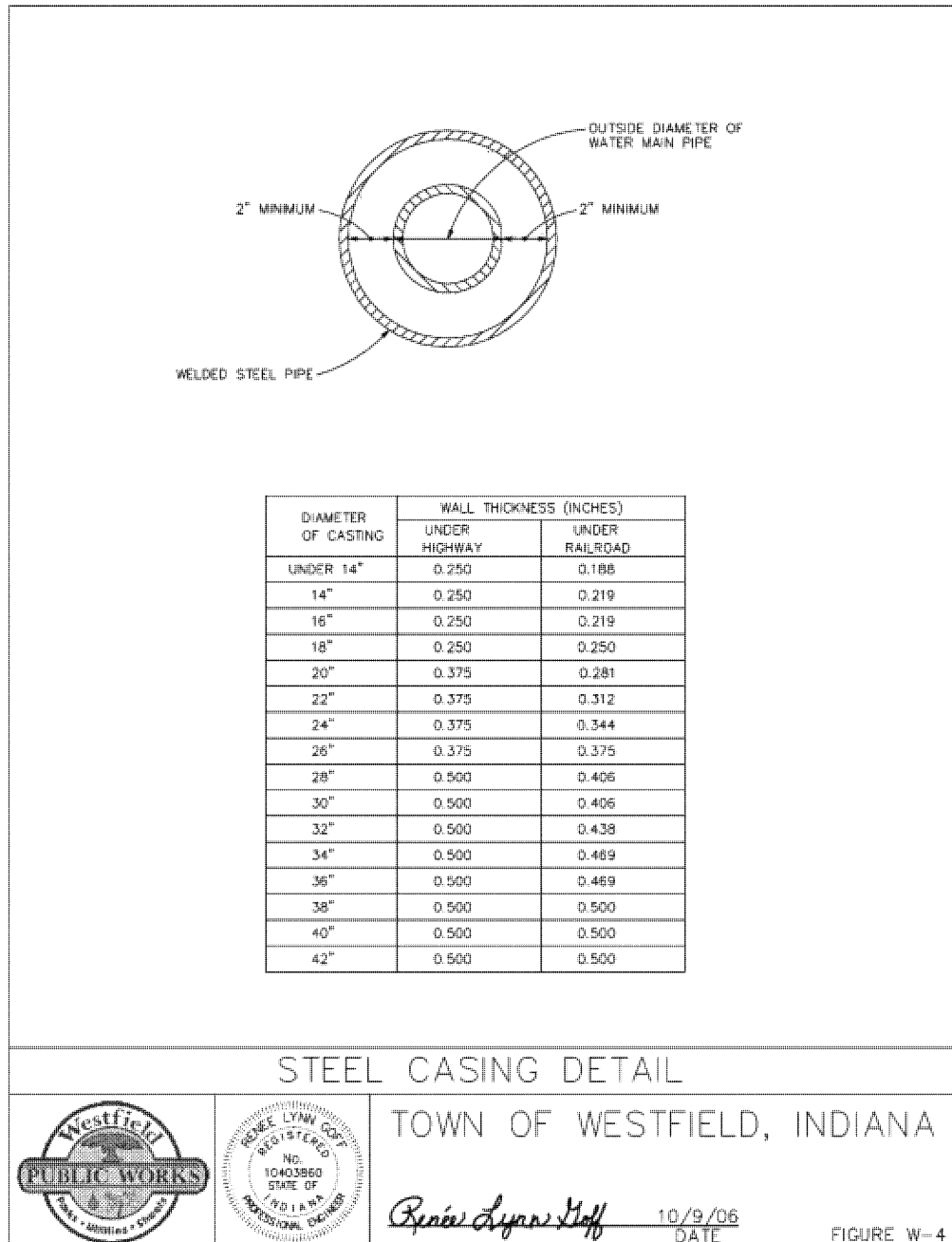
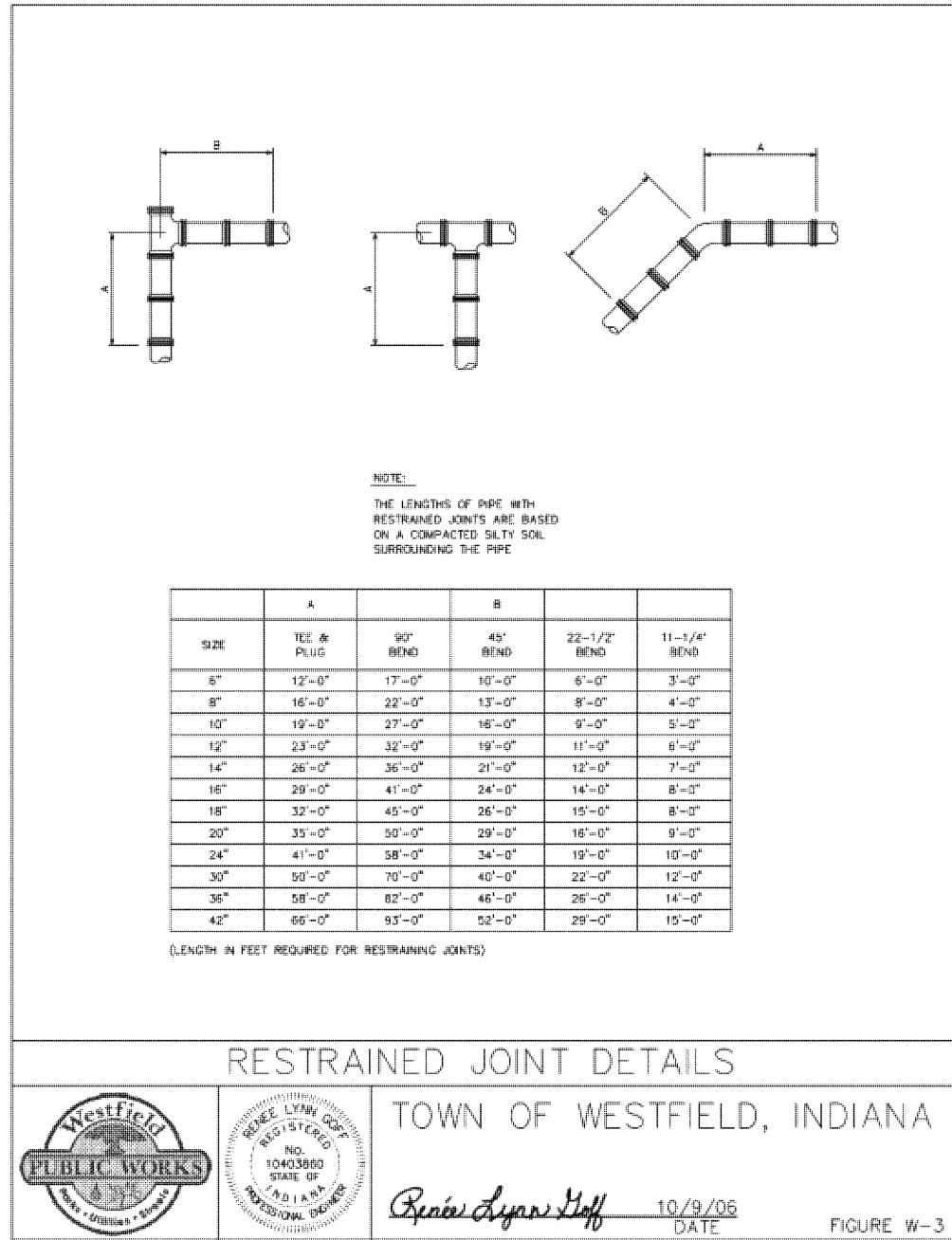
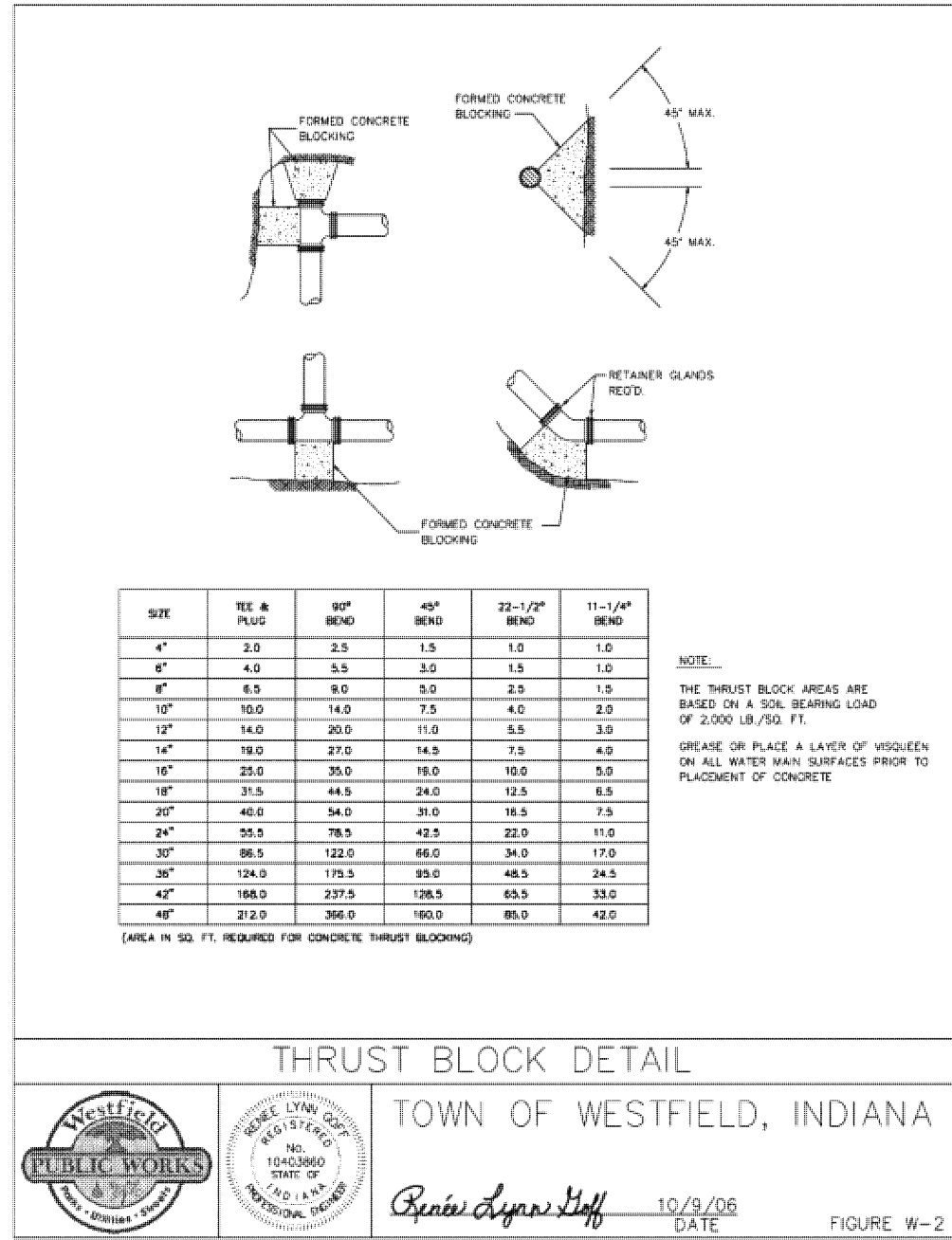
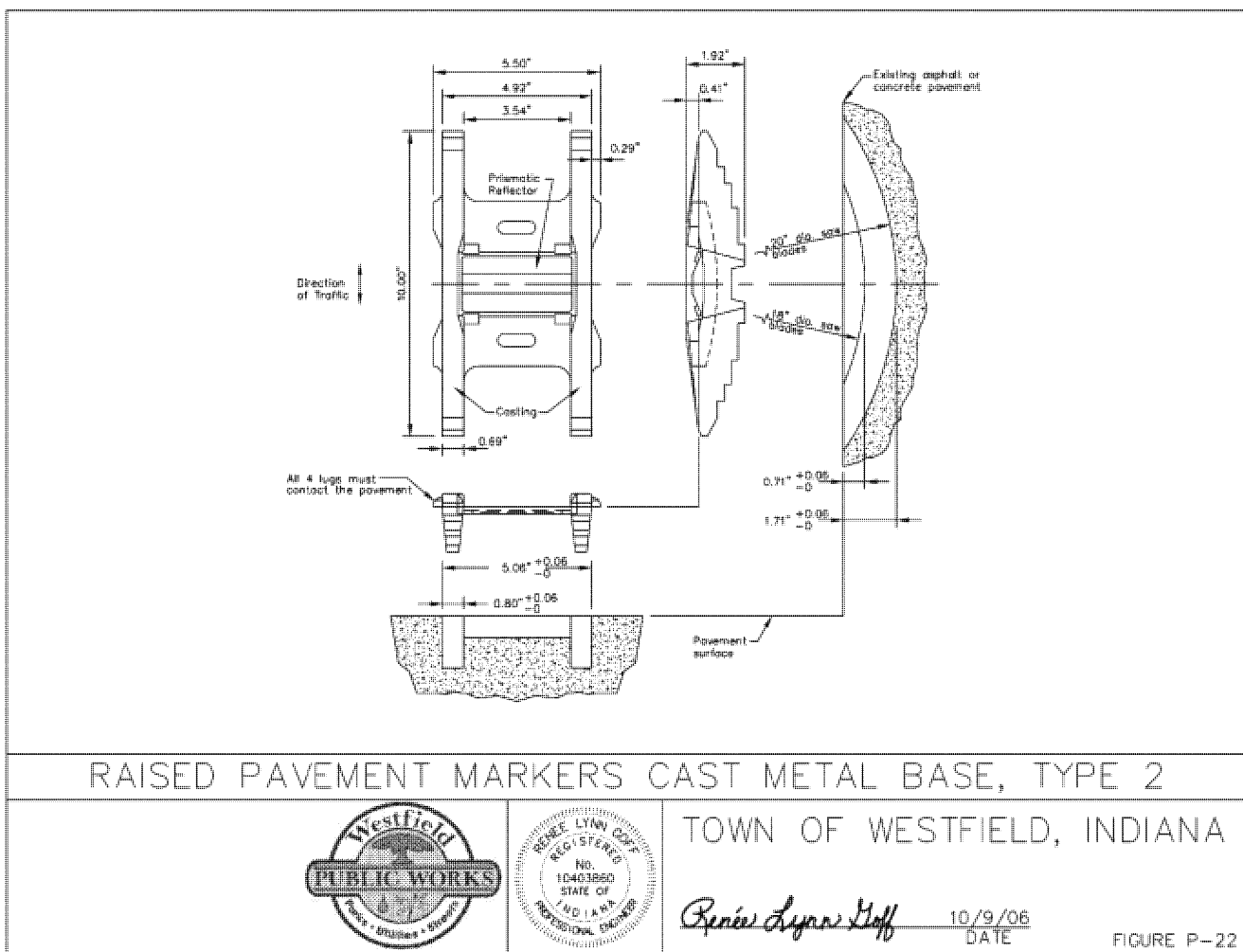
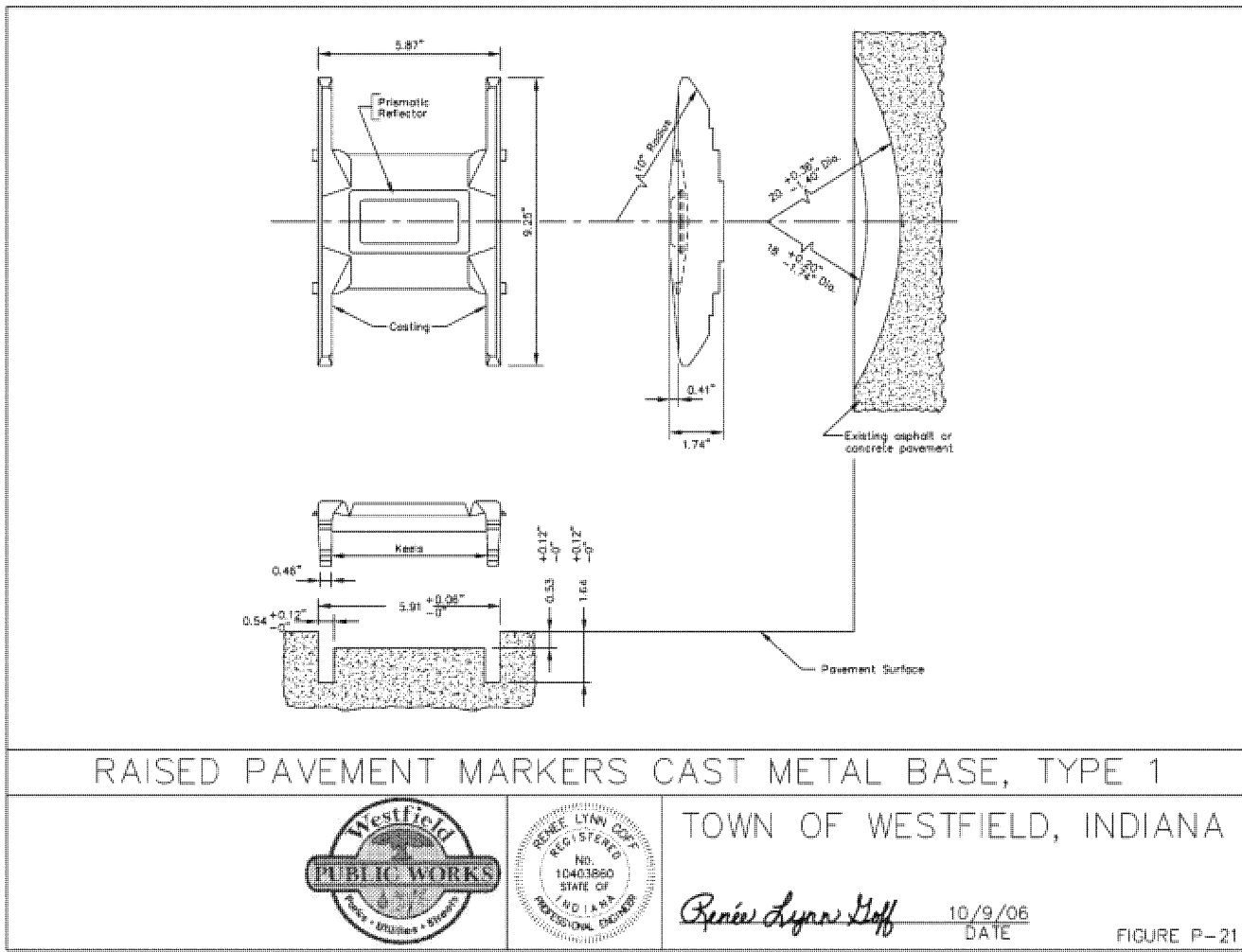
REVISIONS:

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D.A. Clark
DATE: 06/27/08
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CENTENNIAL SOUTH
EXPANSION
WESTFIELD, INDIANA
ESTRIDGE DEVELOPMENT CO., INC.
CARMEL, INDIANA

DATE: 06/27/08	PROJECT NO.: 3915.004
DRAWN BY: PRC	CHECKED BY: JLF
SHEET TITLE: WATER DISTRIBUTION PLAN	
DRAWING FILES: R:\3K\3915\004\DWGS\C701 XREF: 001B5 XREF: 301B045 XREF: R:\3K\3915\004\DWGS\001B5	
SHEET NO.: C701	



NOTE:
1. 1" Single Pit K copper laterals will be used insted of 3/4".

- NOTE:
1. Water service will be 1" K copper stubbed on the property line for a double meter pit, and 1" K copper for a single pit. Service lines shall be stubbed 2' max but no less than behind sidewalk.
 2. Posi caps will be required to be installed on all valves.
 3. Fire hydrants shall have five (5) inch Storz connection (Mueller model 290220 (cover to be marked "WATER"). Fire hydrants shall be placed a max of three (3) feet behind curb, per direction of the Westfield Fire Department.
 4. All public hydrants shall be painted with two (2) coats of M.A.B. "Fire Protection Red (7068)" after installation.
 5. Blue Reflectors shall be installed in the centerline of the pavement across from the fire hydrants.

REVISIONS:

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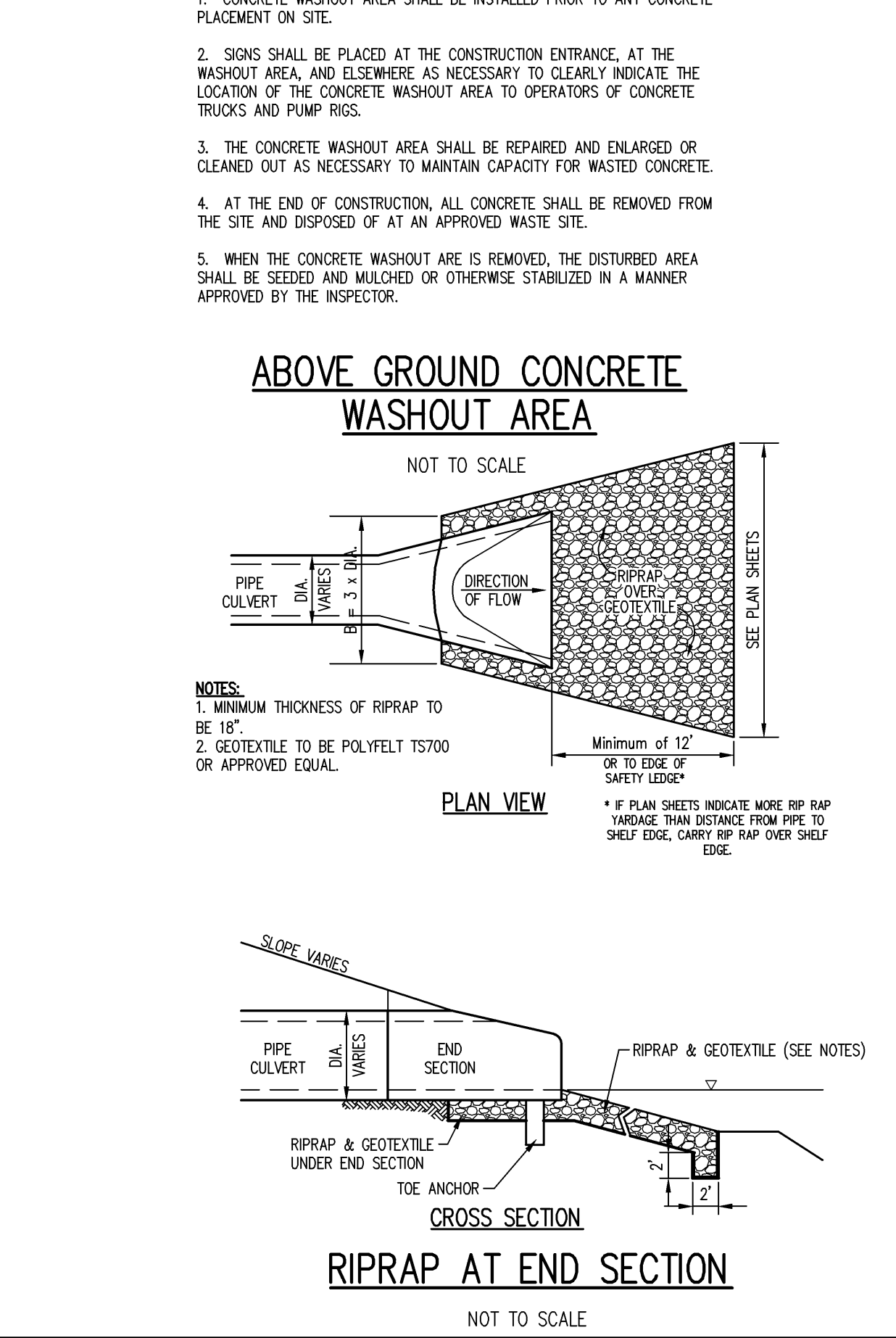
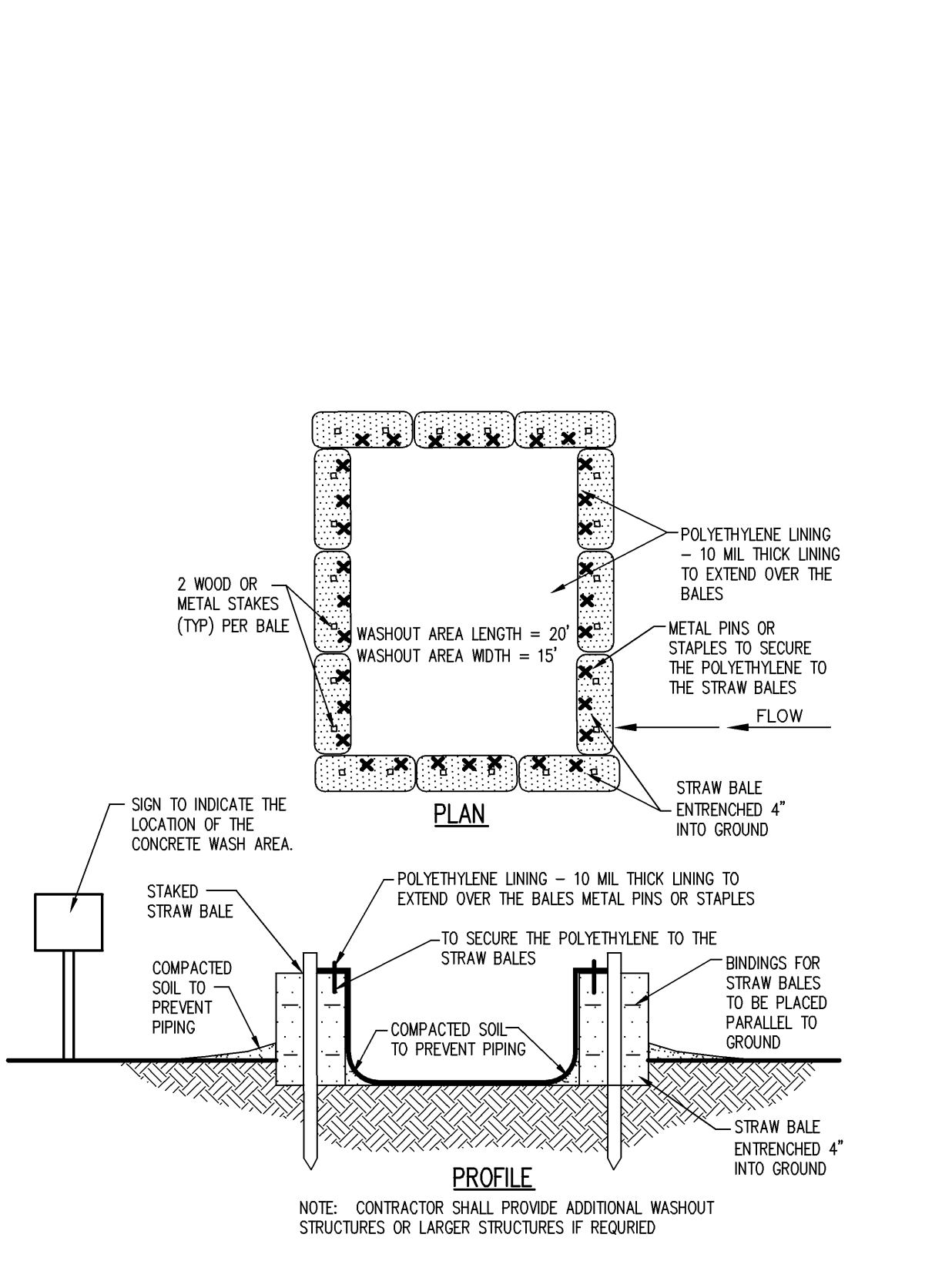
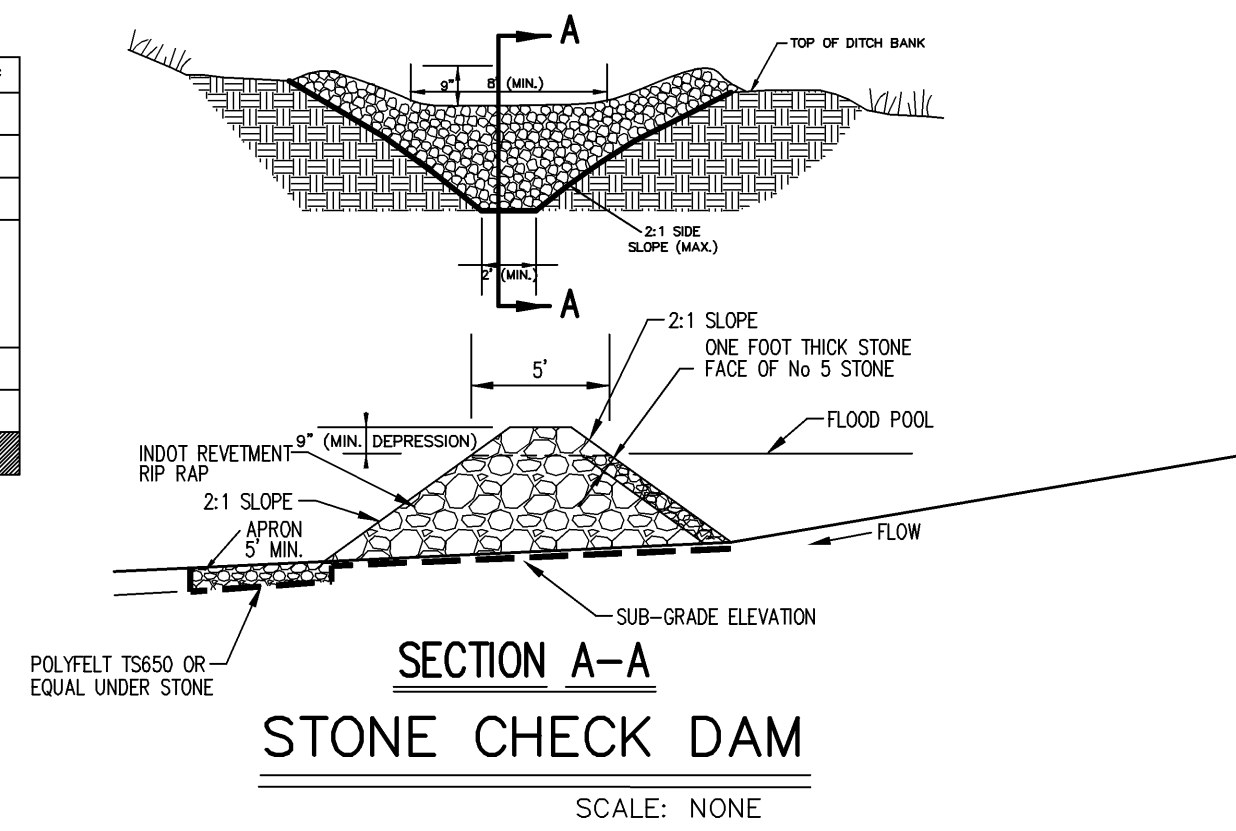
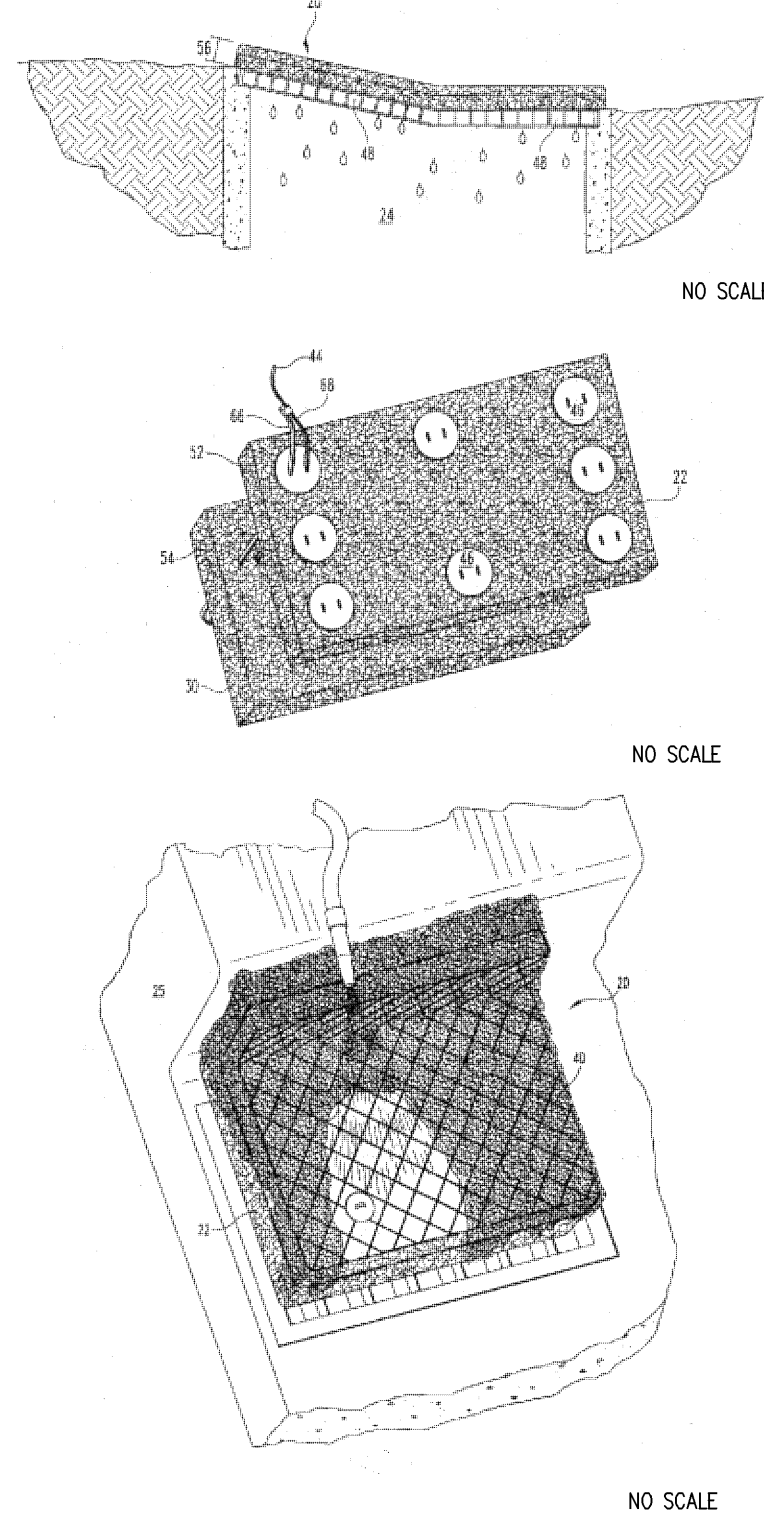
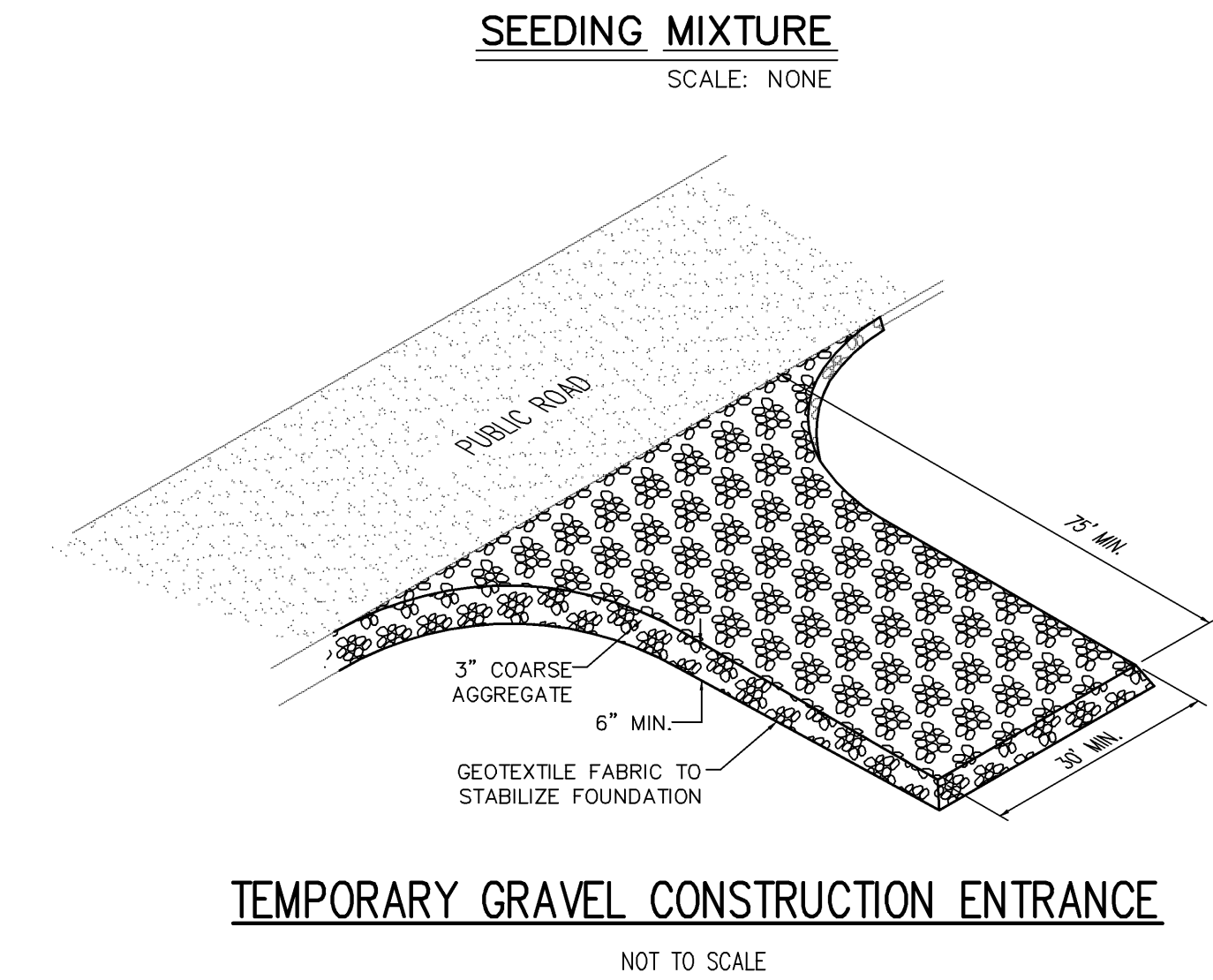
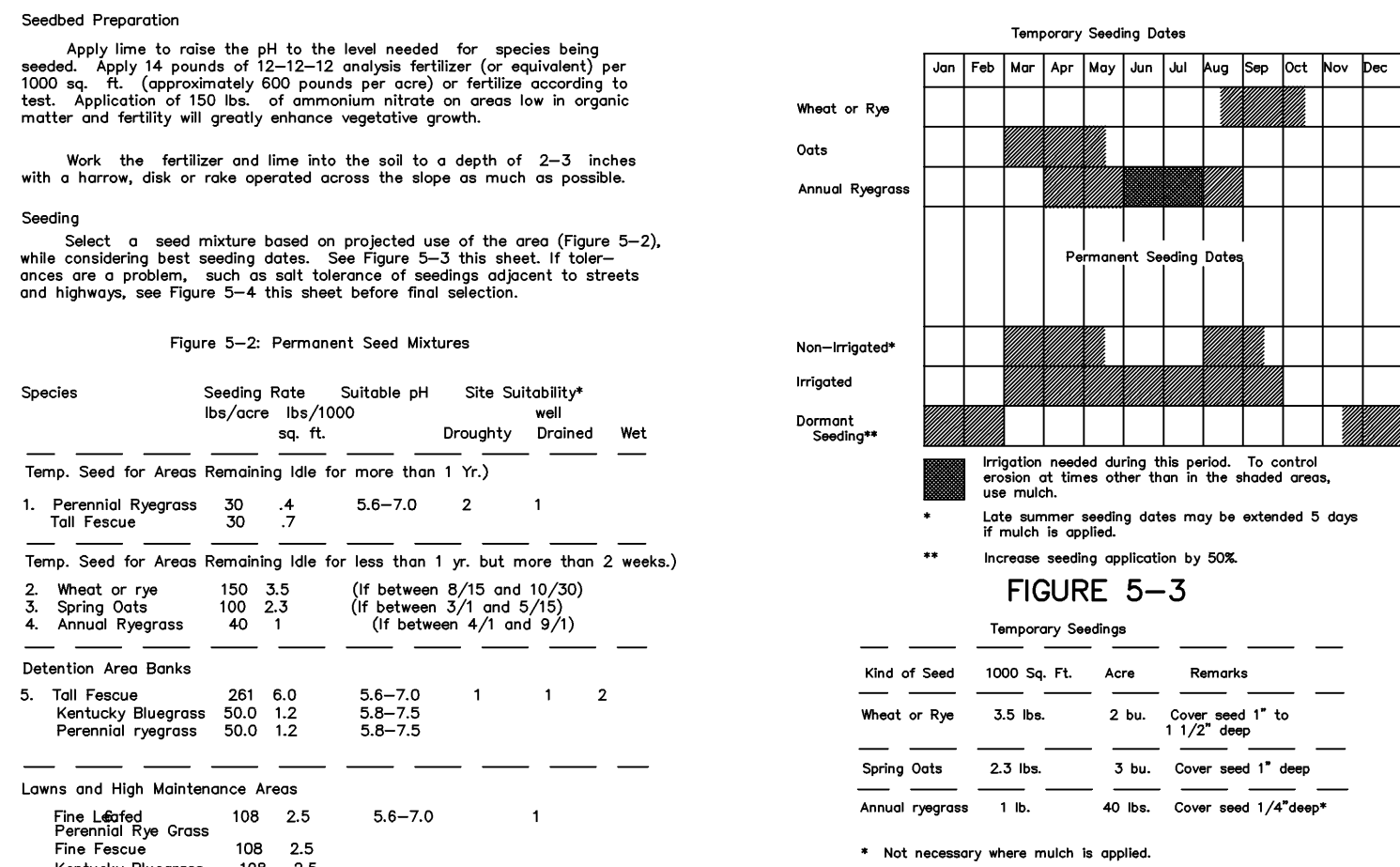
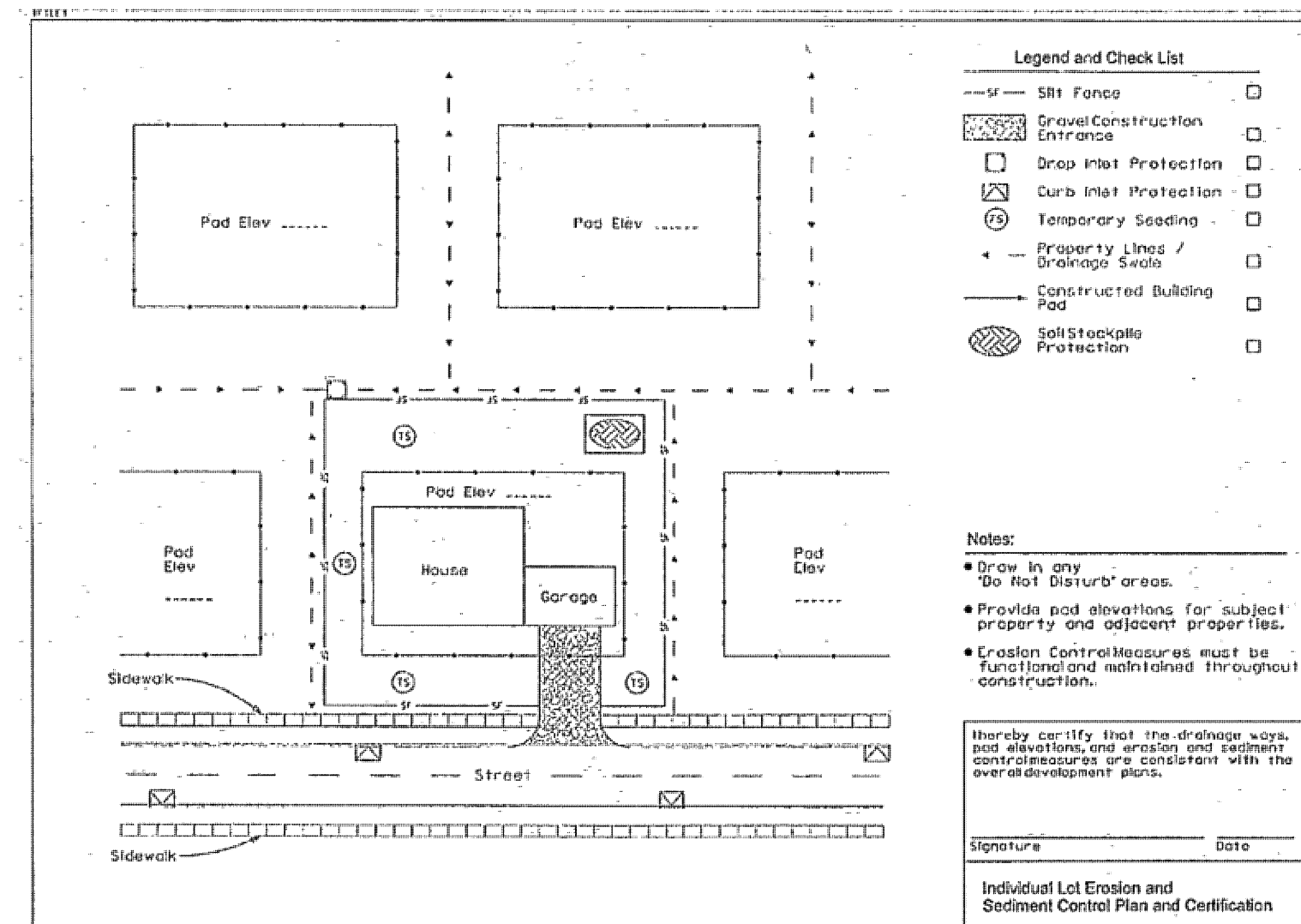
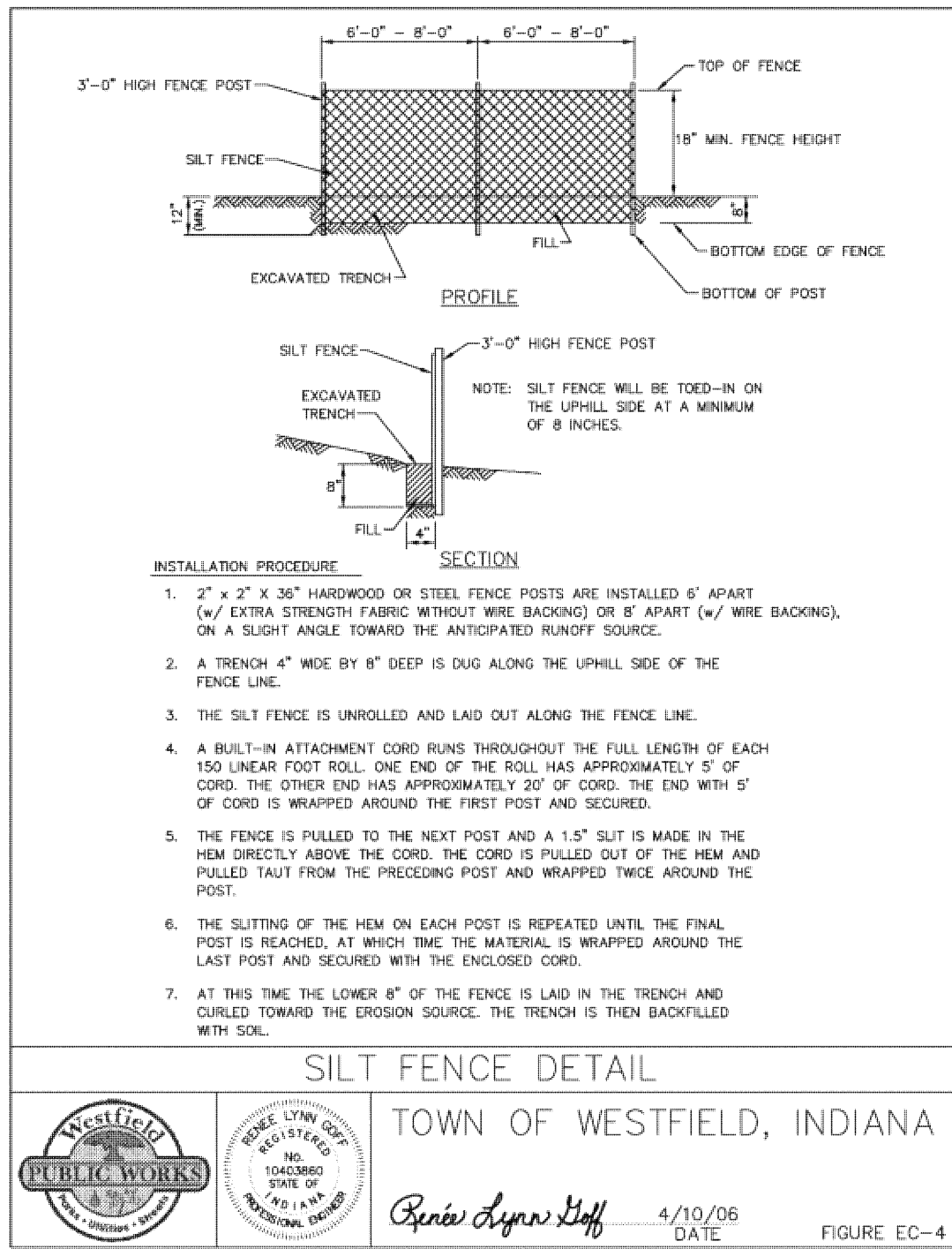
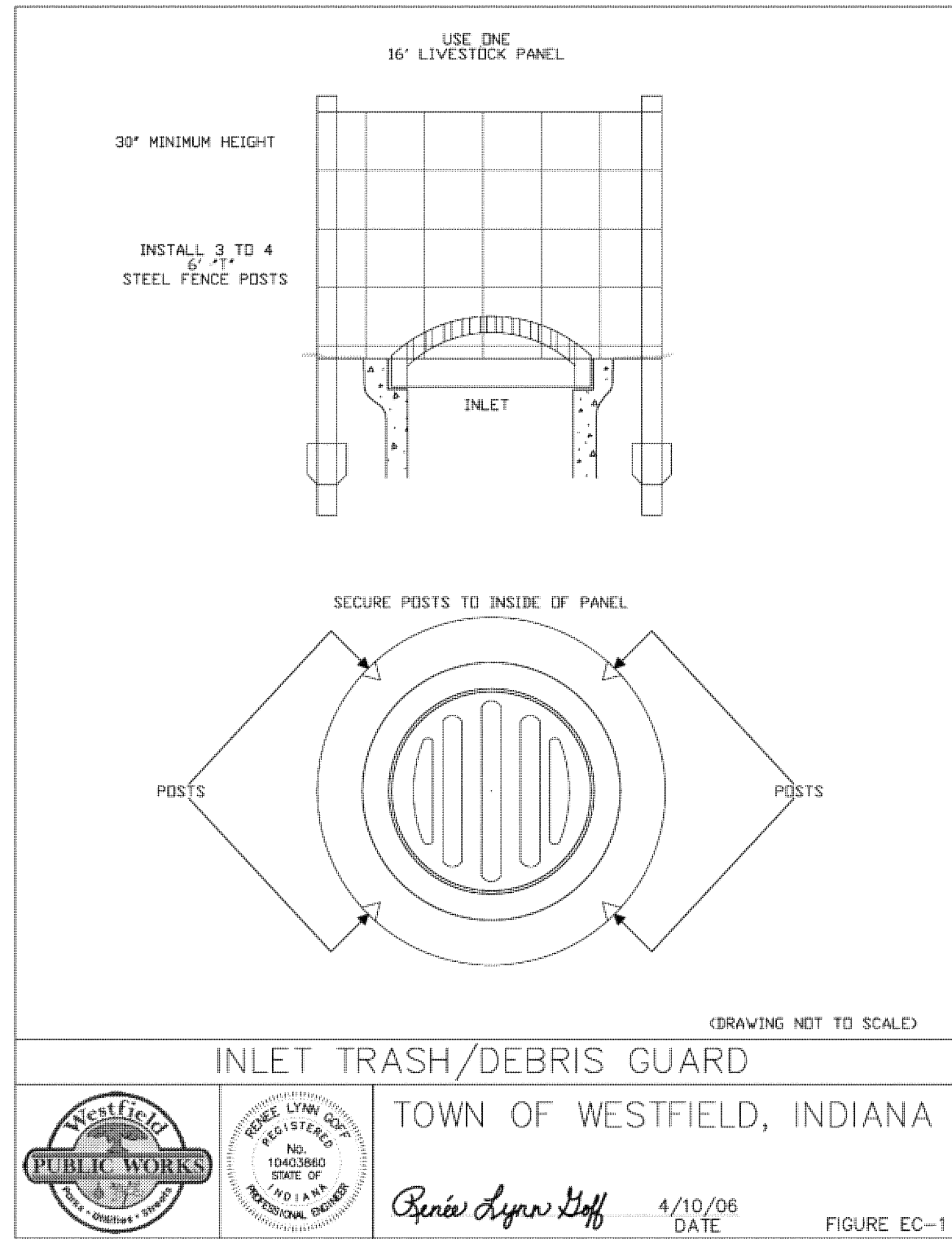
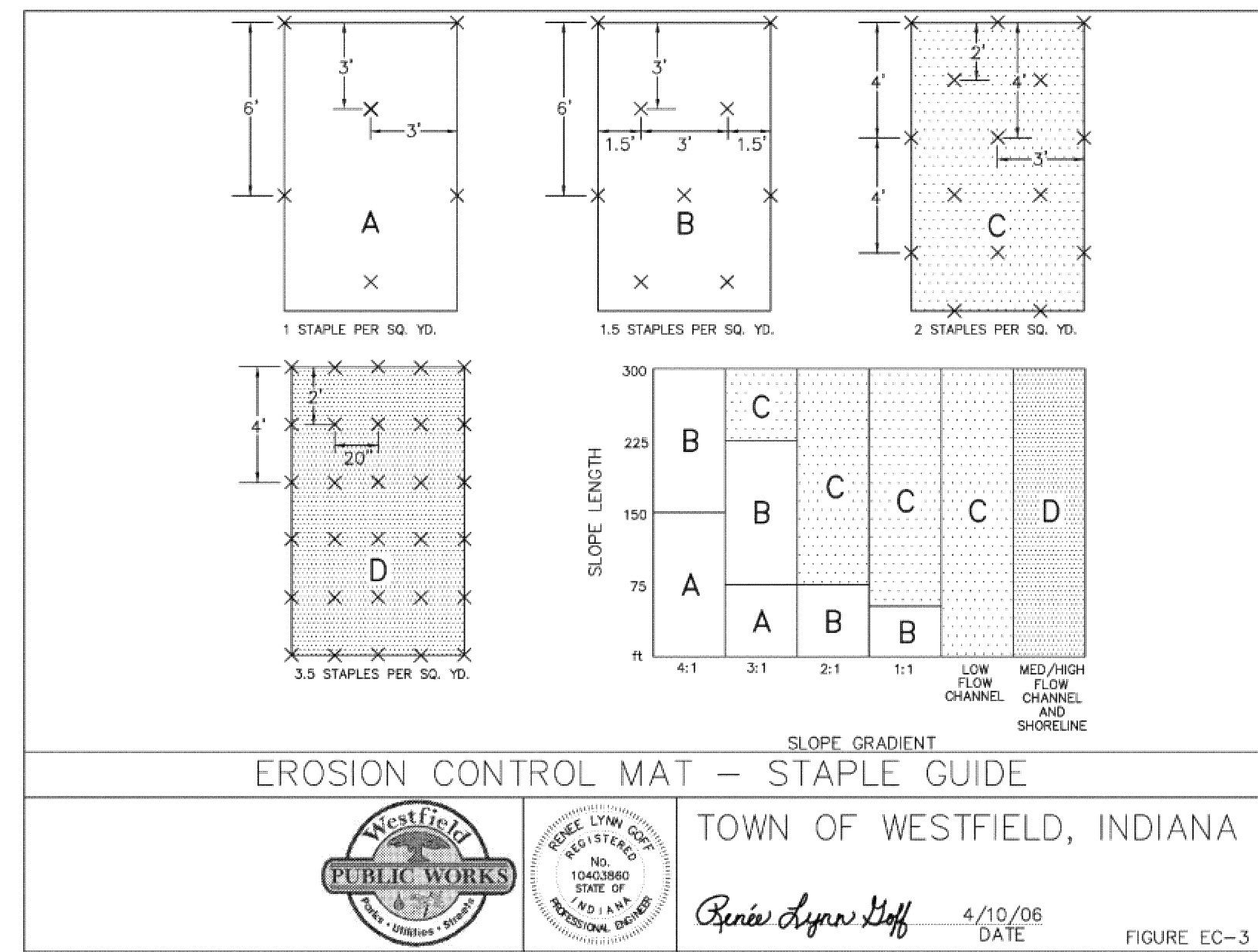
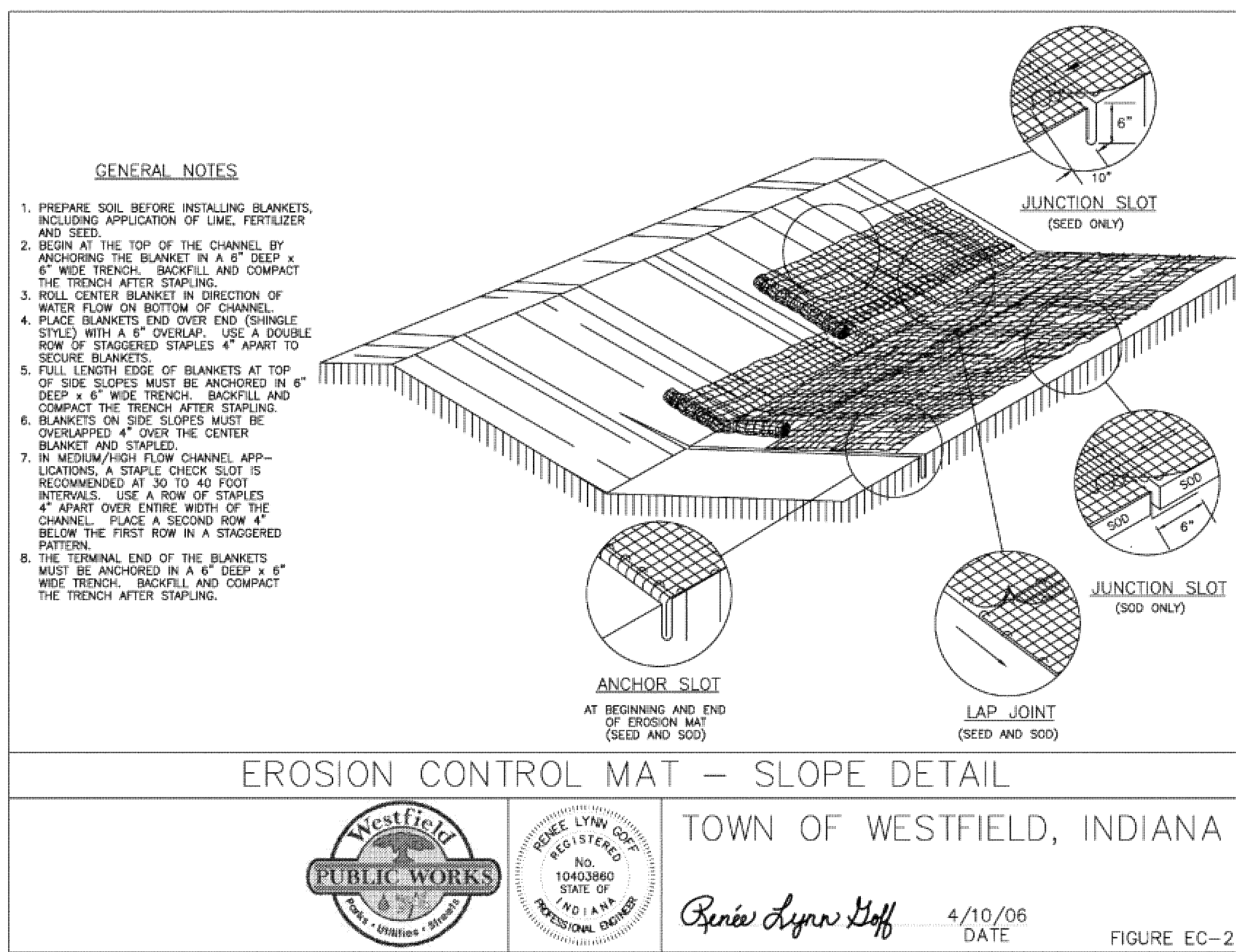
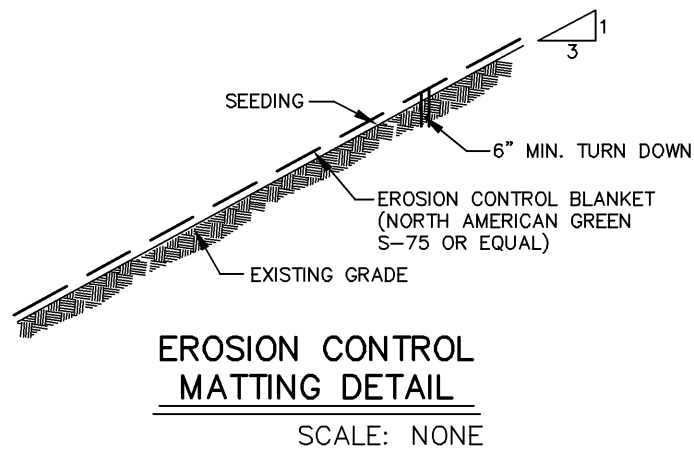
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WESTFIELD, INDIANA

ESTRIDGE DEVELOPMENT CO., INC.
CARMEL, INDIANA

DATE: 06/27/08 PROJECT NO: 3915.004
DRAWN BY: PRC CHECKED BY: JLF
SHEET TITLE: WATER DETAILS
DRAWING FILES: R:\3K\3915\004\DWGS\702
SHEET NO:

C702



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WESTFIELD, INDIANA
ESTRIDGE DEVELOPMENT CO., INC.
CARMEL, INDIANA

DATE: 06/27/08 PROJECT NO: 3915.004
DRAWN BY: PCJ CHECKED BY: JLF
SHEET TITLE: STORMWATER POLLUTION PREVENTION DETAILS
DRAWING FILES: R:\3\3915\004\DWG\C801-C802
SHEET NO: C801

STORMWATER POLLUTION PREVENTION PLAN INDEX

- A1. Plan Index provided below
A2. 11"x17" Plot detailing lot numbers, boundaries and streets is provided separately.
A3. Project Type: IS for single family subdivision.
A4. Vicinity Map: Denoted on Sheet C100
A5. Legal Description of Project Site: See attached Secondary Plat.
A6. Location of all lots and proposed site improvements: See sheet C101.
A7. 14 digit hydrologic unit code: 0512020100060.
A8. State or federal water quality permits: N/A
A9. Specific points where stormwater discharge will leave the site: Southern boundary of site into Centennial South Subdivision (see sheet C101-C102 for more detail).
A10. Location of all wetlands, lakes & water courses on and adjacent to site: None.
A11. Receiving Water: Highway and Hensley Drain.
A12. Identification of potential discharges to groundwater: None
A13. 100 Year Floodplains, Floodways and Flood Fringes: None
A14. Pre-Construction and Post Construction Peak Discharge
10year Pre-Construction Peak Discharge – South Property Line = 10.5 cfs
1hr Post Construction Peak Discharge – South Property Line = 3.6 cfs
A15. Adjacent Land Use: See Sheet C100.
North: Industrial
South: Single Family Residential/Open Space
East: Single Family Residential Subdivision
West: Agriculture
A16. Locations and approximate boundaries of all disturbed areas: See Sheet C102.
A17. Identification of existing vegetative cover: See Sheet C102.
A18. Soil Map including descriptions and limitations: See sheet C100 for scale map, description and limitations.
A19. Locations, size and dimensions of proposed stormwater systems: See Site Development Plan Sheet C101 for proposed storm sewer system.
A20. Locations, size and dimensions of any proposed off-site construction activities associated with this project: See Site Development Plan Sheet C101 for any proposed off-site construction activities.
A21. Locations of Soil Stockpiles: See Sheet C102.
A22. Existing site topography: See Sheets C101 for existing site topography.
A23. Proposed final topography: See Site Development Plan Sheet C101 for proposed site grading and drainage patterns.
B1. Description of potential pollutants sources associated with the construction activities: Silt and sediment from exposed soils, leaves, mulch, vehicular sources such as leaking fuel or oil, brake fluid, brake dust, trash, debris, biological agents found in trash, fertilizers, herbicides, pesticides, acid rain, lime dust and concrete washout.
B2. Sequencing of stormwater quality implementation relative to land disturbance activities: See Sheet C102-C103.

PRE-CONSTRUCTION ACTIVITIES:

1. Call the Indiana Underground Plant Protection systems, Inc. ("Tolley Moley") at 1-800-382-5544 to check the location of any existing utilities. They should be notified two working days before construction takes place.
2. Review sheet C102 for specific site sequence for Pre-Construction and Mass Earthwork.

POST-CONSTRUCTION ACTIVITIES:

- See Sheet C102.

CONSTRUCTION ACTIVITIES:

- See Sheet C102.

- B3. Stable construction entrance location(s) and specifications. See Stormwater Pollution Prevention Plan Sheet C102 for location. See Sheet C801-C802 for construction entrance details and specifications.
B4. Sediment control measures for sheet flow areas: See Stormwater Pollution Prevention Plan Sheet C102 for locations of sediment control measures and Sheet C801-C802 for construction details and specifications.
B5. Sediment control measures for concentrated flow areas: See Stormwater Pollution Prevention Plan Sheet C102 for locations of sediment control measures and Sheet C801-C802 for construction details and specifications.
B6. Storm sewer inlet protection measures, locations and specifications: See Stormwater Pollution Prevention Plan Sheet C102 for locations of inlet protection measures and Sheet C801-C802 for construction details and specifications.
B7. Runoff control measures: See Stormwater Pollution Prevention Plan Sheet C102 for locations of runoff control measures and Sheet C801-C802 for construction details and specifications.
B8. Stormwater outlet protection specifications: See Stormwater Pollution Prevention Plan Sheet C102 for locations of stormwater outlet control measures and Sheet C801-C802 for construction details and specifications.
B9. Grade stabilization structure locations and specifications: N/A
B10. Location, dimensions, specifications and construction details of each stormwater quality measure: See Stormwater Pollution Prevention Plan Sheet C102 for locations of various stormwater quality measures and Sheet C801-C802 construction details and specifications.
B11. Temporary surface stabilization methods appropriate for each season: See Stormwater Pollution Prevention Plan Sheet C102 for locations of temporary surface stabilization measures and Sheet C801-C802 for construction details and specifications.
B12. Permanent surface stabilization specifications: See Stormwater Pollution Prevention Plan Sheet C102 for locations of permanent surface stabilization measures and Sheet C801-C802 construction details and specifications.

- B13. Material handling and spill prevention plan:
Purpose:
The intention of this Spill Prevention, Control and Countermeasures (SPCC) is to establish the procedures and equipment required to prevent the discharge of oil and hazardous substances in quantities that violate applicable water quality standards, cause a sheen upon or discoloration of the surface of navigable waters or adjoining shorelines, or cause sludge or emulsion to be deposited beneath the surface of the water or adjoining shorelines. The Plan also establishes the activities required to mitigate such discharges (i.e., countermeasures) which they occur.

Definitions:
Pollutant: means pollutant of any kind or in any form, including but not limited to sediment, paint, cleaning agents, concrete washout, pesticides, nutrients, trash, hydraulic fluids, fuel, oil, petroleum, fuel oil, sludge, oil residue, and oil mixed with wastes other than dredged soil.
Discharges:
Includes but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping.
Navigable Waters:
Means all waters of the United States that are connected with a navigable stream, lake, or sea. (Note: This definition is usually interpreted to mean any navigable water (even normally dry wash or storm sewer) that eventually drains into a waterway.)

Plan Review and Amendments:
This Plan shall be reviewed and/or amended, if necessary, whenever there is a change in the design of the site, construction, operation, or maintenance which materially affects the site's potential for the discharge of regulated material.

Prevention of Potential Spills:
1. Nearest Navigable Water: Williams Creek
2. Drainage System: All storm drainage leaves the site by open ditches and closed storm systems to the south and east to the Highway and Hensley Drain.
3. Possible Spill Sources (During and post construction): Vehicular sources such as leaking fuel or oil, brake fluid, grease, antifreeze, construction trash and debris, biological agents found in trash and debris, fertilizers, household items including but not limited to cleaning agents, chemicals, paint, herbicides and pesticides.
4. Groundwater Contamination:
The facility maintains NO above ground or under ground storage tanks at this site. Therefore, it is felt that there is little or no possibility of post construction groundwater contamination. The facility does have city sanitary sewer and city water.

1. **Alert Procedures for Spills:**
Any personnel observing a spill will immediately instigate the following procedure:
a.) Calling "911" from any telephone.
b.) Notify the appropriate emergency personnel.
2. The Emergency Coordinator will then take the following actions:
a.) Barricade the area allowing no vehicles to enter or leave the spill area.
b.) Notify the Indiana Department of Environmental Management, Office of Emergency Response by calling the appropriate telephone number:
Office 317-233-7745
Toll Free 800-233-7745
Also the National Response Center at 800-424-8802 and provide the following information:
– Time of observation of the spill
– Location of the spill
– Identity of material spilled
– Probable source of the spill
– Probable time of the spill
– Volume of the spill and duration
– Present and anticipated movement of the spill
– Weather conditions
– Personnel at the scene
– Action initiated by personnel
c.) Notify the Westfield Fire Department Phone: 9-1-1
d.) Notify the Westfield Police Department Phone: 9-1-1
e.) Notify waste recovery contractor, maintenance personnel or other contracted personnel as necessary for cleanup.
f.) Weather conditions
g.) Coordinate and monitor cleanup until the situation has been stabilized and all spills have been eliminated.
h.) Cooperate with the IDEM-OR on procedures and reports involved with the event.

Design Parameters:

1. The Developer / Homeowners Association shall be continuously kept informed, maintain lists of qualified contractors and available bio-trucks, tank pumpers and other equipment readily accessible for clean-up operations. In addition, a continuously updated list of available absorbent materials and clean-up supplies should be kept on site.
2. All maintenance personnel will be made aware of techniques for prevention of spills. They will be informed of the requirements and procedures outlined in this plan. They will be kept abreast of current developments or new information on the prevention of spills and / or necessary alterations to this plan.
3. When spills occur which could endanger human life and this becomes primary concern, the discharge of the life saving protection function will be carried out by the local police and fire departments.
4. Absorbent materials, which are used in cleaning up spilled materials, will be disposed of in a manner subject to the approval of the Indiana Department of Environmental Management.
5. Fueling of spilled material will not be permitted unless so authorized by the Indiana Department of Environmental Management.

- B14. Monitoring and maintenance guidelines for pollution prevention measures:
Ditch and Stone Check From Maintenance Requirements
1. Inspect check dams after each storm event and promptly remove any sediment deposits to insure adequate storage volume for the next rain, taking care not to undermine the stone base.
2. Inspect periodically for deterioration or damage from construction activities and repair / replace immediately.
3. After the contributing drainage area has been stabilized, remove all check dams and sediment deposits, bring the disturbed area to grade and stabilize it.
Silt Fence Maintenance Requirements
1. Inspect the silt fence periodically and at each storm event.
2. If fence fabric tears, starts to decompose or in any way becomes ineffective, replace the affected portion immediately.
3. Remove deposited sediment when it reaches half the height of the fence at it's lowest point or is causing the fabric to bulge.
4. Take care to avoid undermining the fence during cleanup.
5. After the contributing drainage area has been stabilized, remove the fence and sediment deposits, bring the disturbed area to grade and stabilize it.
Grassed Outlet Inlet Barrier Maintenance Requirements
1. Inspect frequently for damage by vehicular traffic and repair if necessary.
2. Inspect after each storm event.
3. Remove sediment, without flushing, when it reaches half the height of the barrier.
4. Deposit removed sediment where it will not enter storm sewer drains.

- Erosion Control Blanket (Surface Applied) Maintenance Requirements**
1. During vegetative establishment, inspect after each storm event for any erosion below the blanket.
2. If any area(s) shows erosion, pull back that portion of the blanket covering it, re-seed the area and relay and staple the blanket.
3. After vegetative establishment check the treated area periodically.
Temporary Gravel Construction Entrance Maintenance Requirements
1. Inspect entrance pad and sediment disposal area weekly and after storm events or heavy use.

1. Reshape as needed for drainage and runoff control.
2. Topdress with clean stone as needed.
3. Immediately remove mud and sediment tracked or washed onto streets by brushing or sweeping. Cleaning should only be used if the water is conveyed into a sediment trap or basin.
5. Repair any broken road pavement immediately.

- B15. Erosion & sediment control specifications for individual building lots: See Sheet C801 for Construction details and specifications for erosion & sediment control on individual building lots.

- C1. Description of pollutants and their sources associated with the proposed land use: Silt and sediment from exposed soils, leaves, mulch, vehicular sources such as leaking fuel or oil, brake fluid, brake dust, grease, antifreeze, metals, rubber fragments, road grit, soils and sands, construction trash and debris, fertilizers, household items including but not limited to cleaning agents, chemicals, paint, miscellaneous home improvement materials, toys, clothing and animal waste, elevated storm runoff temperatures, acid rain pesticides and pathogens.
C2. Sequence describing stormwater quality measure implementation:
1. Inspect and maintain all erosion control measures as detailed in the Stormwater Pollution Prevention Measures Requirements beginning immediately after installation and continuing until vegetation has been sufficiently established and all construction activity is complete.
2. Remove all individual inlet protection and check dams, silt fences, etc. only after seeding and sufficient vegetative growth has been established in each area to a point where sediment/pollutants will not enter the later(s) or storm sewer system. (75% cover)
3. Inspection and maintenance of all common areas and infrastructure improvements is the responsibility of the owner/developer or his designee until improvements are accepted for maintenance by homeowners' association or local agencies.
4. Inspection and maintenance of individual lots is the responsibility of the home builder or his designee until the homeowner buys and thereby accepts responsibility for the individual lot.
C3. Description of proposed post construction stormwater quality measures: Site and facility design for stormwater quality protection on this site employs a multi-level strategy including design for sediment/eliminating post-project runoff.
1. Reducing or eliminating post-project runoff.
2. Controlling sources of pollutants.
3. And treating (in detention ponds) contaminated stormwater runoff before discharging it into the storm sewer system or receiving waters.

- Typical stormwater quality measures for reducing, eliminating or controlling pollutants (source controls) include:
a. Dention/Retention devices: The first flush will be detained in the post construction phase in permanent detention ponds allowing sediment and pollutants to drop out before runoff leaves the site.
b. Reducing Runoff or Direct runoff from impervious areas: Runoff from larger events will be detained by engineered outlets that reduce the maximum outflow in the 100-year frequency storm event.
c. Vegetated strips and/or swales: All runoff from rear yards will flow through the lawn and then a vegetated swale before it enters the storm sewer system.
d. Permanent erosion control seeding and plantings: Any vegetation removed from existing wooded areas that will remain will be replaced with seed mixture appropriate for steep banks.
e. Outlet protection & velocity dissipation devices: Rip rap at inlet pipes flowing into the detention / retention ponds and at structures leaving the site will reduce runoff velocity.
f. Mulching: All permanent seed will be mulched to reduce sedimentation until vegetation is established. It is the intent of this plan that the implementation of the above described storm water quality measures be executed in accordance with the enclosed plans and details in order to meet the requirements of Rule 5 storm water quality.

- C4. Location, dimensions, specifications and construction details of stormwater quality measures: See Stormwater Pollution Prevention Plan Sheet C102 for locations of permanent stormwater quality measures and Sheet C801-C802 construction details and specifications.
C5. Description of maintenance guidelines for proposed water quality measures: See attached BMP Operations and Maintenance Manual.

ADDITIONAL STORMWATER POLLUTION PREVENTION MEASURES**VEHICLE & EQUIPMENT MAINTENANCE****Description and Purpose**

Prevent or reduce the contamination of stormwater resulting from vehicle and equipment maintenance by running a "dry and clean site". The best option would be to perform maintenance activities at an offsite facility. If this option is not available then work should be performed in designated areas only while providing cover for materials stored outside, checking for leaks and spills, and containing and cleaning up spills immediately.

Suitable Applications

These procedures are suitable on all construction projects where an onsite yard area is necessary for storage and maintenance of vehicle and vehicles.

Limitations

Onsite vehicle and equipment maintenance should only be used where it is impractical to send vehicles and equipment offsite for maintenance and repair. Sending vehicles/equipment offsite should be done in conjunction with a Stabilized Construction Entrance/Exit. Outdoor vehicle or equipment maintenance is a potentially significant source of stormwater pollution. Activities that can contaminate stormwater include engine repair and service, changing or replacement of fluids, and outdoor equipment storage and parking (engine fluid leaks).

Implementation

If maintenance must occur onsite, use designated areas, located away from drainage courses. Dedicated maintenance areas should be protected from stormwater runoff and runoff, and should be located at least 50 ft from downstream drainage facilities and watercourses.

Drip pans or absorbent pads should be used during vehicle and equipment maintenance work that involves fluids, unless the maintenance work is performed over an impermeable surface in a dedicated maintenance area.
Place a stockpile of spill cleanup materials where it will be readily accessible.

All fueling trucks and fueling areas are required to have spill kits and/or use other spill protection devices.

Use absorbent materials on small spills. Remove the absorbent materials promptly and dispose of properly.

Inspect onsite vehicles and equipment daily at startup for leaks, and repair immediately. Keep vehicles and equipment clean; do not allow excessive build-up of oil and grease.

Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic and transmission fluids. Provide secondary containment and covers for these materials if stored onsite.

Train employees and subcontractors in proper maintenance and spill cleanup procedures. Drip pans or plastic sheeting should be placed under all vehicles and equipment placed on docks, bays, or other structures over water bodies when the vehicle or equipment is planned to be idle for more than 1 hour.

Properly dispose of used oils, fluids, lubricants, and spill cleanup materials.

Do not place used oil in a dumpster or pour into a storm drain or watercourse.

Properly dispose of or recycle used batteries.

Do not bury used tires.

Repair leaks of fluids and oil immediately.

Listed below is further information if you must perform vehicle or equipment maintenance onsite.

Inspection and Maintenance
Inspect and verify that BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly to verify continued BMP implementation.

Keep ample supplies of spill cleanup materials onsite.

Maintain waste fluid containers in leak proof condition.

Vehicles and equipment should be inspected on each day of use. Leaks should be repaired immediately or the problem vehicle(s) or equipment should be removed from the project site.

Inspect equipment for damaged hoses and leaky gaskets routinely. Repair or replace as needed.

VEHICLE AND EQUIPMENT FUELING**Description and Purpose**

Vehicle equipment fueling procedures and practices are designed to prevent fuel spills and leaks, and reduce or eliminate contamination of stormwater. This can be accomplished by using offsite facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors in proper fueling procedures.

Limitations

Onsite vehicle and equipment fueling should only be used where it is impractical to send vehicles and equipment offsite for fueling. Sending vehicles and equipment offsite should be done in conjunction with a Stabilized Construction Entrance/Exit.

Implementation

Do not allow excess concrete to be dumped onsite, except in designated areas.

For onsite washout:
– Locate washout area at least 50 feet from storm drains, open ditches, or water bodies.
– Do not allow runoff from this area by constructing a temporary rip or bermed area large enough for liquid and solid waste.
– Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.
– Avoid creating runoff by draining water to a bermed or level area when washing concrete to remove fine particles and expose the aggregate.
– Do not wash sweepings from exposed aggregate concrete into the street or storm drain. Collect and return sweepings to aggregate base stockpile or dispose in the trash.

Use absorbent materials on small spills. Do not hose down or bury the spill. Remove the absorbent materials promptly and dispose of properly.

Avoid mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas.

Train employees and subcontractors in proper fueling and cleanup procedures.

Dedicated fueling areas should be protected from stormwater runoff and runoff, and should be located at least 50 ft away from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas.

Protect fueling areas with berms and dikes to prevent runoff, and to contain spills.

Nozzles used in vehicle and equipment fueling should be equipped with an automatic shutoff to control drips. Fueling operations should not be left unattended.

Federal, state, and local requirements should be observed for any stationary above ground storage tanks.

Inspection and Maintenance

Vehicle and equipment should be inspected each day of use for leaks. Leaks should be repaired immediately or problem vehicles or equipment should be removed from the project site.

Keep ample supplies of spill cleanup materials onsite.

Immediately clean up spills and properly dispose of contaminated soil and cleanup materials.

SOLID WASTE MANAGEMENT**Description and Purpose**

Solid waste management procedures and practices are designed to prevent or reduce the discharge of pollutants to stormwater from solid or construction waste by providing designated waste collection areas and containers, arranging for regular disposal, and training employees and subcontractors.

Suitable Applications

This BMP is suitable for construction sites where the following wastes are generated or stored:
Solid waste generated from trees and shrubs removed during land clearing, demolition of existing structures (rubble), and building construction.
Packaging materials including wood, paper, and plastic:
Scrap or surplus building materials including scrap metals, rubber, plastic, glass pieces and masonry products

Domestic wastes including food containers such as beverage cans, coffee cups, paper bags, plastic wrappers, and cigarettes

Construction wastes including brick, mortar, lumber, steel and metal scraps, pipe and electrical cuttings, nonhazardous equipment parts, styrofoam and other materials send transport and package construction materials

Implementation

The following steps will help keep a clean site and reduce stormwater pollution:

Select designated waste collection areas onsite.

Inform trash-hauling contractors that you will accept only watertight dumpsters for onsite use.

Inspect dumpsters for leaks and repair any dumpster that is not watertight.

Provide an adequate number of containers with lids or covers that can be placed over the container to keep rain out or to prevent loss of wastes when it is windy.

Plan for additional containers and more frequent pickup during the demolition phase of construction.

Collect site trash daily, especially during rainy and windy conditions.

Remove this solid waste promptly since erosion and sediment control devices tend to collect litter.

Make sure that toxic liquid wastes (used oils, solvents, and paints) and chemicals (acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.

Do not hose out dumpsters on the construction site. Leave dumpster cleaning to the trash hauling contractor.

Arrange for regular waste collection before containers overflow.

Clean up immediately if a container does spill.

Make sure that construction waste is collected, removed, and disposed of only at authorized disposal areas.

Collection, Storage, and Disposal

Littering on the project site should be prohibited.

To prevent clogging of the storm drainage system, litter and debris removal from drainage grates, trash racks, and ditch lines should be a priority.

Trash receptacles should be provided in the contractor's yard, field trailer areas, and at locations where workers congregate for lunch and break periods.

Litter from work areas within the construction limits of the project site should be collected and placed in watertight dumpsters at least weekly, regardless of whether the litter was generated by the contractor, the public, or others. Collected litter and debris should not be placed in or next to drain inlets, stormwater drainage systems, or watercourses.

Dumpsters of sufficient size and number should be provided to contain the solid waste generated by the project.

Full dumpsters should be removed from the project site and the contents should be disposed of by the trash hauling contractor.

Construction debris and waste should be removed from the site biweekly or more frequently as needed.

Construction material visible to the public should be stored or stacked in an orderly manner.

Stormwater runoff should be prevented from contacting stored solid waste through the use of berms, dikes, or other temporary diversion structures or through the use of measures to elevate waste from site surfaces.

Solid waste storage areas should be located at least 50 ft from drainage facilities and watercourses and should not be located in areas prone to flooding or ponding.

Do not place used oil in a dumpster or pour into a storm drain or watercourse.

Properly dispose of or recycle used batteries.

Do not bury used tires.

Repair leaks of fluids and oil immediately.

Listed below is further information if you must perform vehicle or equipment maintenance onsite.

Inspection and Maintenance
Inspect and verify that activity-based BMPs are in place prior to the commencement of associated activities. While activities associated with the BMP are under way, inspect weekly to verify continued BMP implementation.

Inspect BMPs subject to non-stormwater discharge daily while non-stormwater discharges occur.

Inspect construction waste area regularly.

Arrange for regular waste collection.

Keep ample supplies of spill cleanup materials onsite.

Maintain waste fluid containers in leak proof condition.

Vehicles and equipment should be inspected on each day of use. Leaks should be repaired immediately or the problem vehicle(s) or equipment should be removed from the project site.

Inspect equipment for damaged hoses and leaky gaskets routinely. Repair or replace as needed.

For onsite washout:
– Locate washout area at least 50 feet from storm drains, open ditches, or water bodies.
– Do not allow runoff from this area by constructing a temporary rip or bermed area large enough for liquid and solid waste.
– Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.
– Avoid creating runoff by draining water to a bermed or level area when washing concrete to remove fine particles and expose the aggregate.
– Do not wash sweepings from exposed aggregate concrete into the street or storm drain. Collect and return sweepings to aggregate base stockpile or dispose in the trash.

Use absorbent materials on small spills. Do not hose down or bury the spill. Remove the absorbent materials promptly and dispose of properly.

Avoid mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas.

Train employees and subcontractors in proper fueling and cleanup procedures.

Dedicated fueling areas should be protected from stormwater runoff and runoff, and should be located at least 50 ft away from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas.

Protect fueling areas with berms and dikes to prevent runoff, and to contain spills.

Nozzles used in vehicle and equipment fueling should be equipped with an automatic shutoff to control drips. Fueling operations should not be left unattended.

Federal, state, and local requirements should be observed for any stationary above ground storage tanks.

Vehicle and equipment should be inspected each day of use for leaks. Leaks should be repaired immediately or problem vehicles or equipment should be removed from the project site.

Keep ample supplies of spill cleanup materials onsite.

Immediately clean up spills and properly dispose of contaminated soil and cleanup materials.

Solid waste management procedures and practices are designed to prevent or reduce the discharge of pollutants to stormwater from solid or construction waste by providing designated waste collection areas and containers, arranging for regular disposal, and training employees and subcontractors.

This BMP is suitable for construction sites where the following wastes are generated or stored:
Solid waste generated from trees and shrubs removed during land clearing, demolition of existing structures (rubble), and building construction.
Packaging materials including wood, paper, and plastic:
Scrap or surplus building materials including scrap metals, rubber, plastic, glass pieces and masonry products

Domestic wastes including food containers such as beverage cans, coffee cups, paper bags, plastic wrappers, and cigarettes

Construction wastes including brick, mortar, lumber, steel and metal scraps, pipe and electrical cuttings, nonhazardous equipment parts, styrofoam and other materials send transport and package construction materials

Gravity Bag Filter**Description:**

A gravity bag filter, also referred to as a dewatering bag, is a square or rectangular bag made of non-woven geotextile fabric that collects sand, silt, and fines.

Appropriate Applications:

Effective for the removal of sediments (gravel, sand, and silt). Some metals are removed with the sediment.

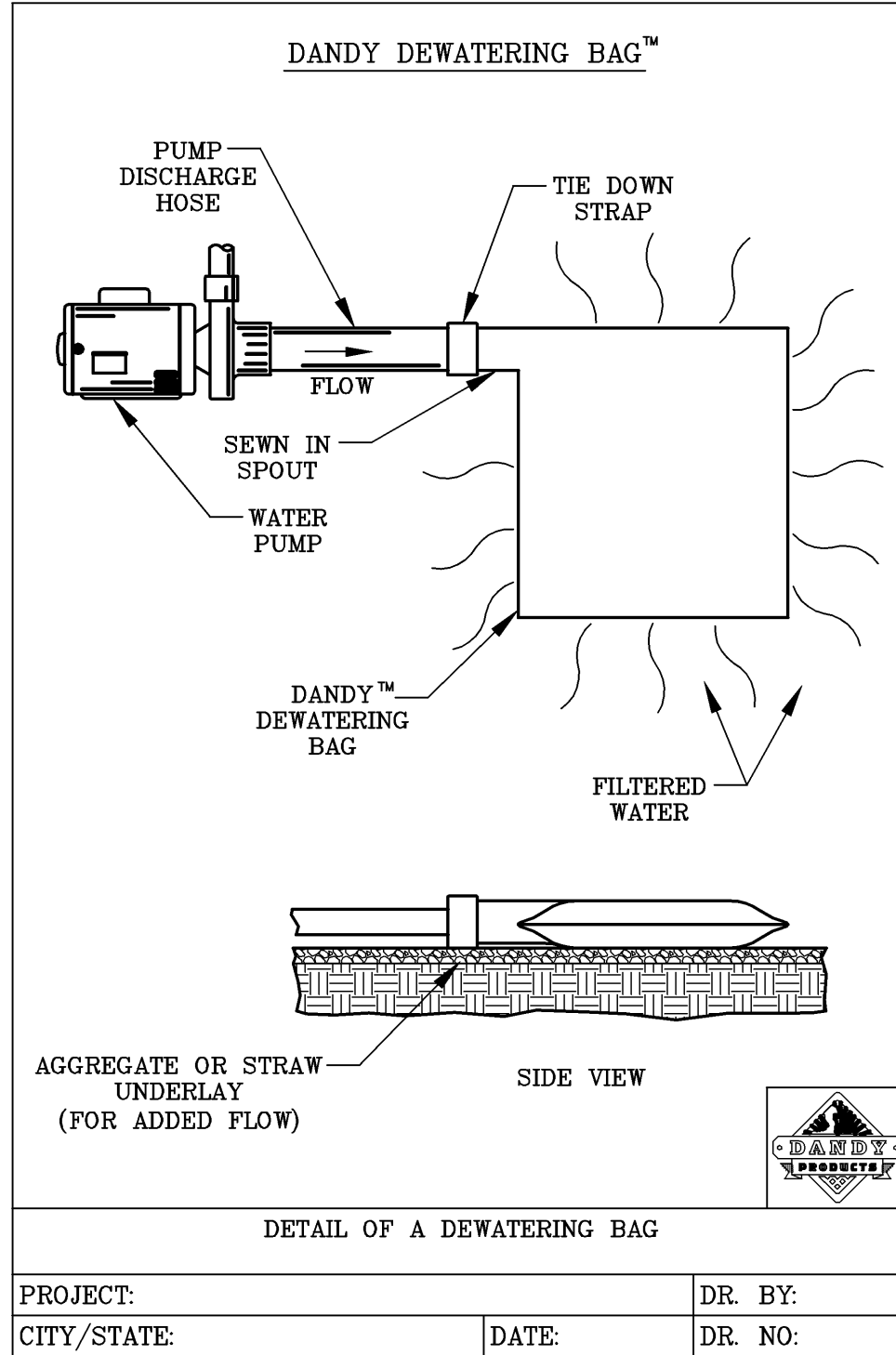
Implementation:

Water is pumped into one side of the bag and seeps through the bottom and sides of the bag.

A secondary barrier, such as a rock filter bed or straw/hay bale barrier, is placed beneath and beyond the edges of the bag to capture sediments that escape the bag.

Maintenance:
Inspection of the flow conditions, bag condition, bag capacity, and the secondary barrier is required.

Replace the bag when it no longer filters sediment or passes water at a reasonable rate. The bag is disposed of offsite.



DETAIL OF A DEWATERING BAG

PROJECT: CITY/STATE: **DATE:** **DR. BY:** **DR. NO:**

Store dry and wet materials under cover, away from drainage areas.

Avoid mixing excess amounts of fresh concrete.

Perform washout of concrete trucks offsite or in designated areas only.

Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.

Do not allow excess concrete to be dumped onsite, except in designated areas.

For onsite washout:
– Locate washout area at least 50 feet from storm drains, open ditches, or water bodies.
– Do not allow runoff from this area by constructing a temporary rip or bermed area large enough for liquid and solid waste.
– Wash out wastes into the temporary pit where the concrete can set, be broken up, and then disposed properly.
– Avoid creating runoff by draining water to a bermed or level area when washing concrete to remove fine particles and expose the aggregate.
– Do not wash sweepings from exposed aggregate concrete into the street or storm drain. Collect and return sweepings to aggregate base stockpile or dispose in the trash.

Use absorbent materials on small spills. Do not hose down or bury the spill. Remove the absorbent materials promptly and dispose of properly.

Avoid mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas.

Train employees and subcontractors in proper fueling and cleanup procedures.

Dedicated fueling areas should be protected from stormwater runoff and runoff, and should be located at least 50 ft away from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas.

Protect fueling areas with berms and dikes to prevent runoff, and to contain spills.

Nozzles used in vehicle and equipment fueling should be equipped with an automatic shutoff to control drips. Fueling operations should not be left unattended.

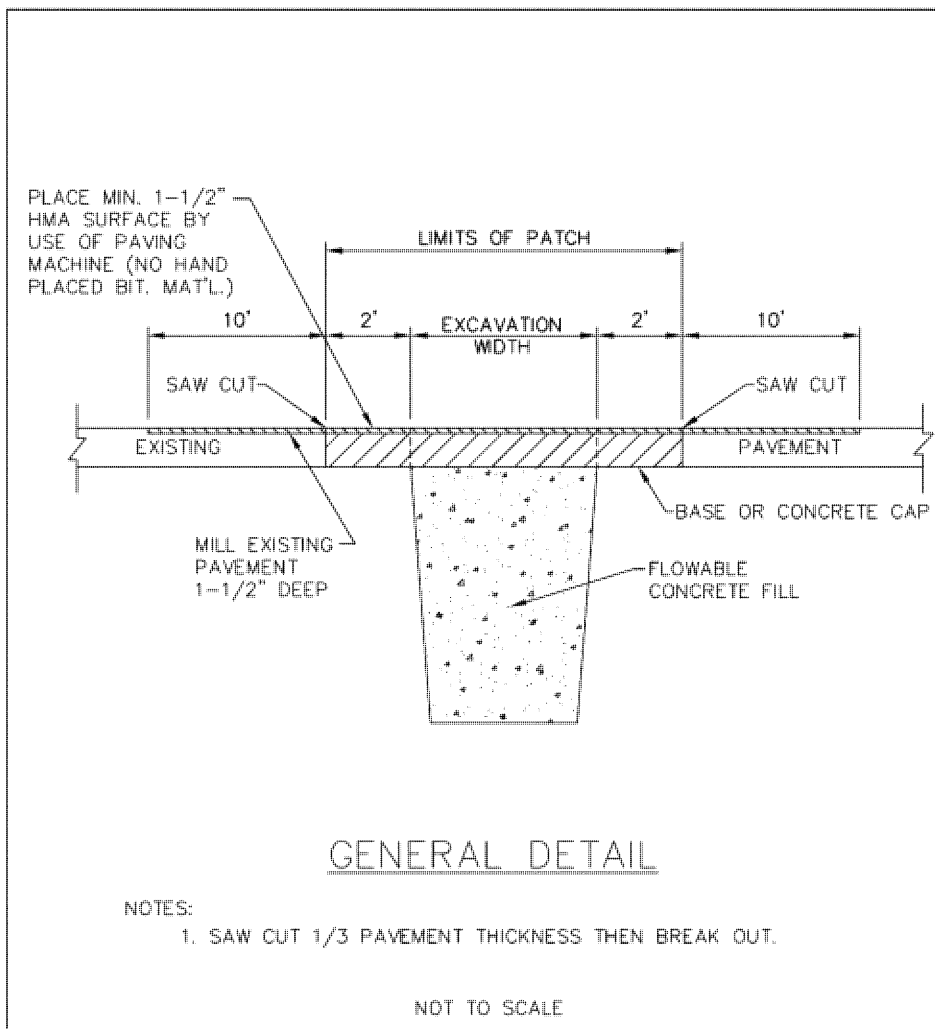
Federal, state, and local requirements should be observed for any stationary above ground storage tanks.

Vehicle and equipment should be inspected each day of use for leaks. Leaks should be repaired immediately or problem vehicles or equipment should be removed from the project site.

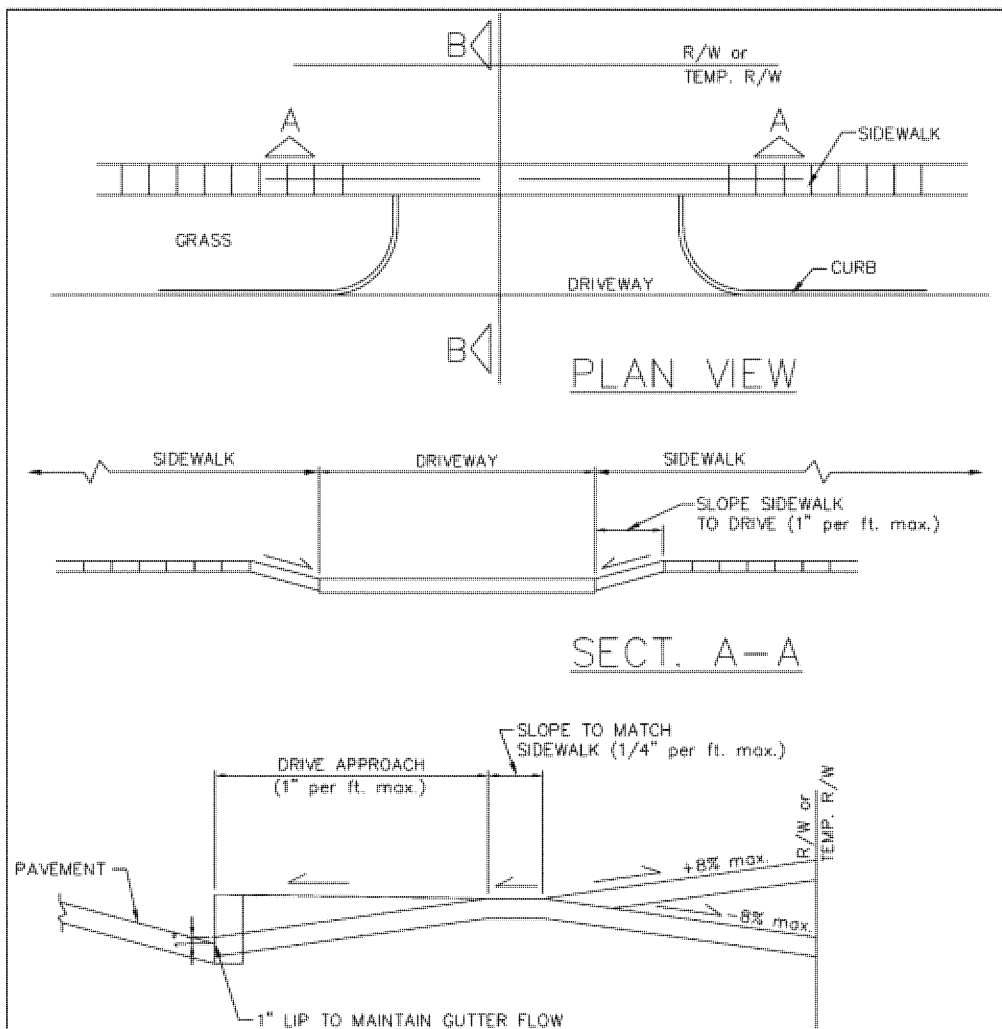
Keep ample supplies of spill cleanup materials onsite.

Immediately clean up spills and properly dispose of contaminated soil and cleanup materials.

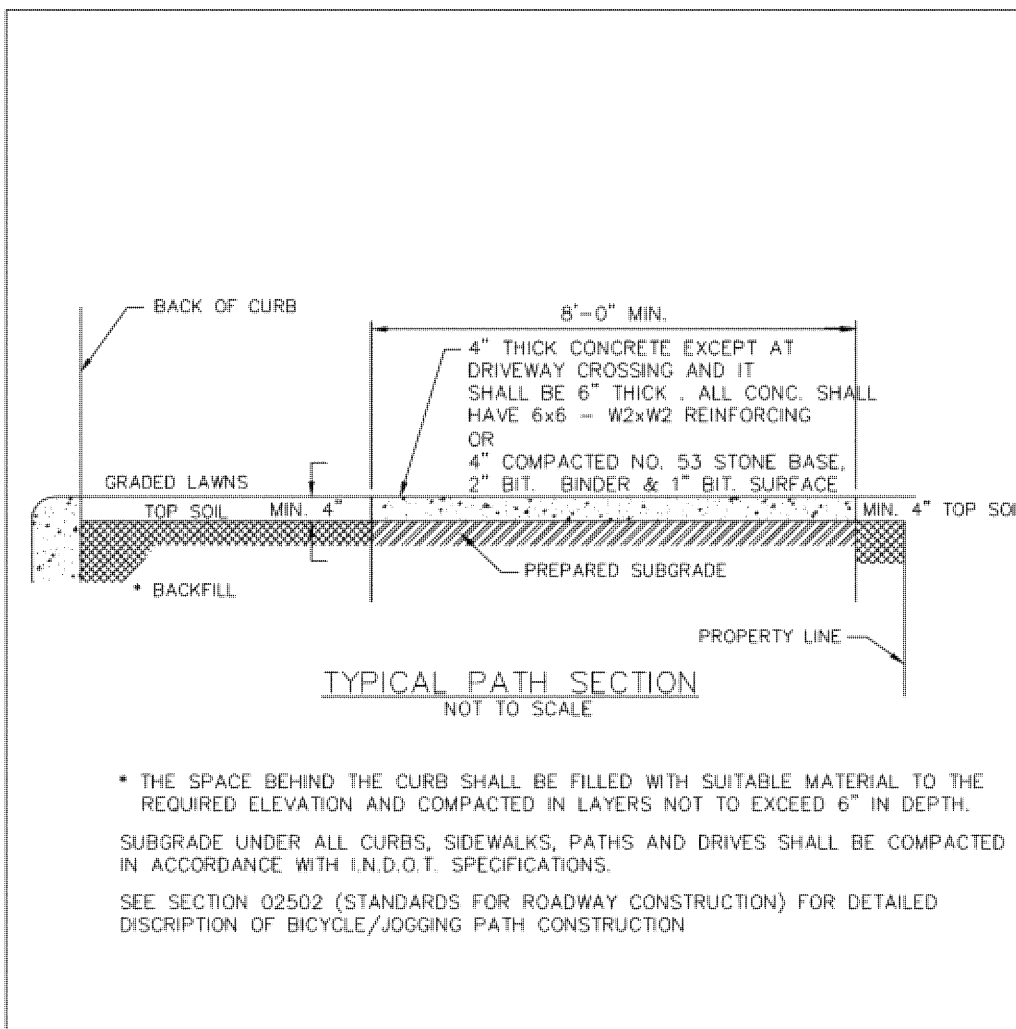
Solid waste management procedures and practices are designed to prevent or reduce the discharge of pollutants to stormwater from solid or construction waste



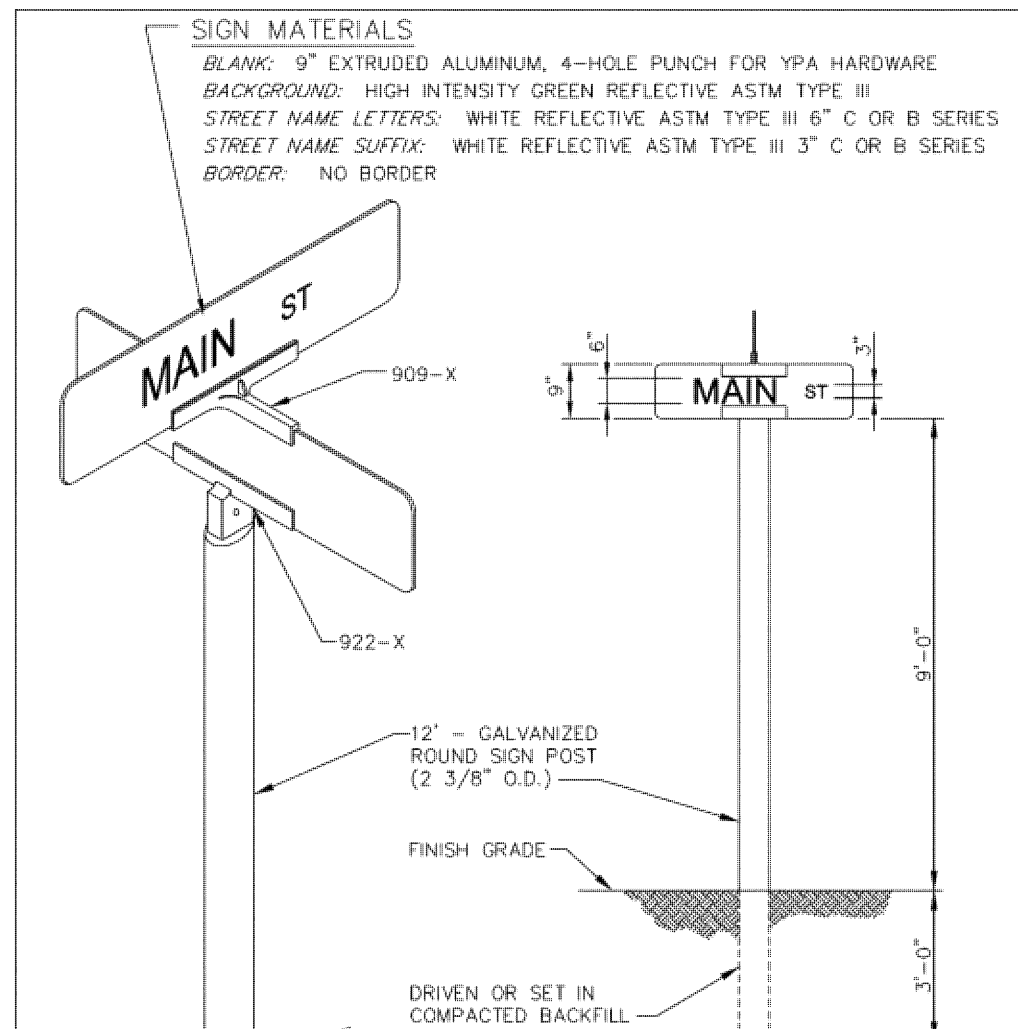
REPAIR CUTS WITHIN PAVEMENT LIMITS
TOWN OF WESTFIELD, INDIANA
Benji Ayers, Jeff 10/9/06 DATE FIGURE P-18



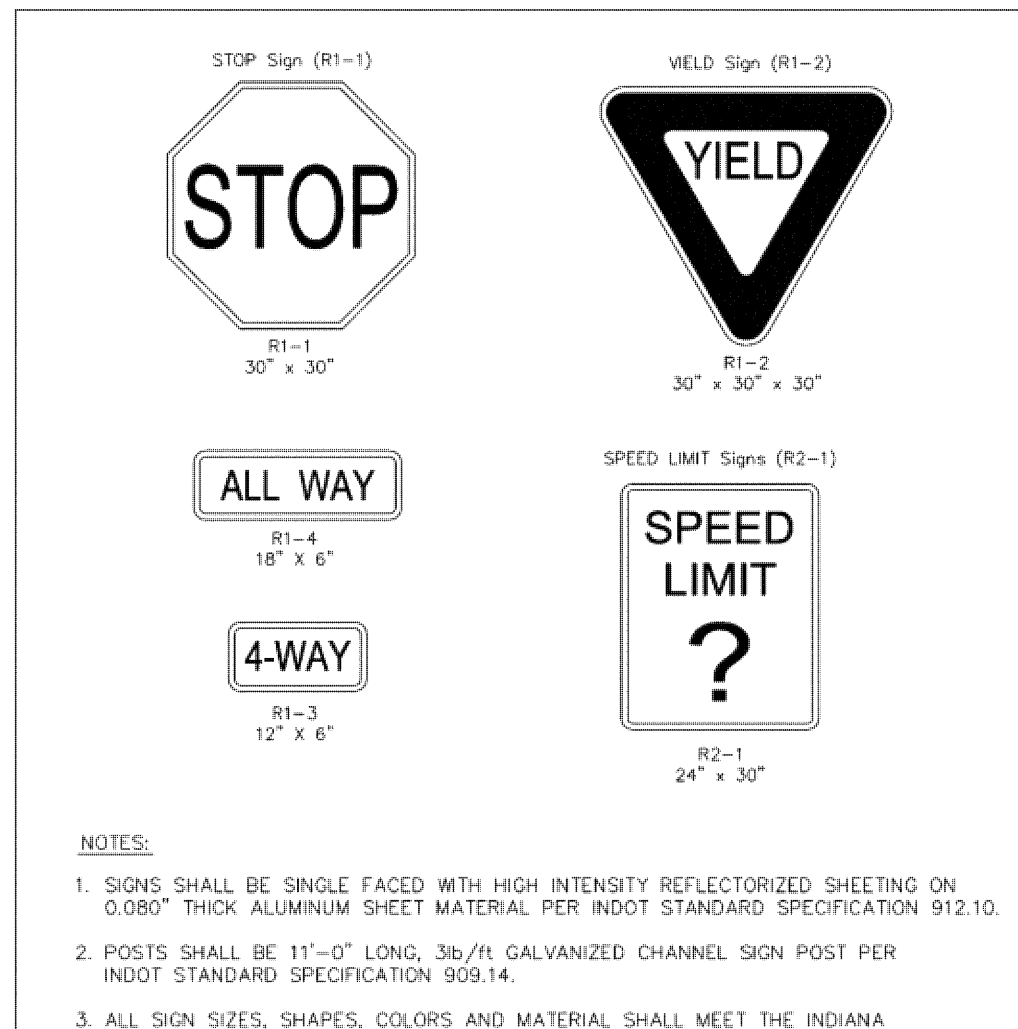
TYPICAL DRIVEWAY SECTION
TOWN OF WESTFIELD, INDIANA
Benji Ayers, Jeff 10/9/06 DATE FIGURE P-17



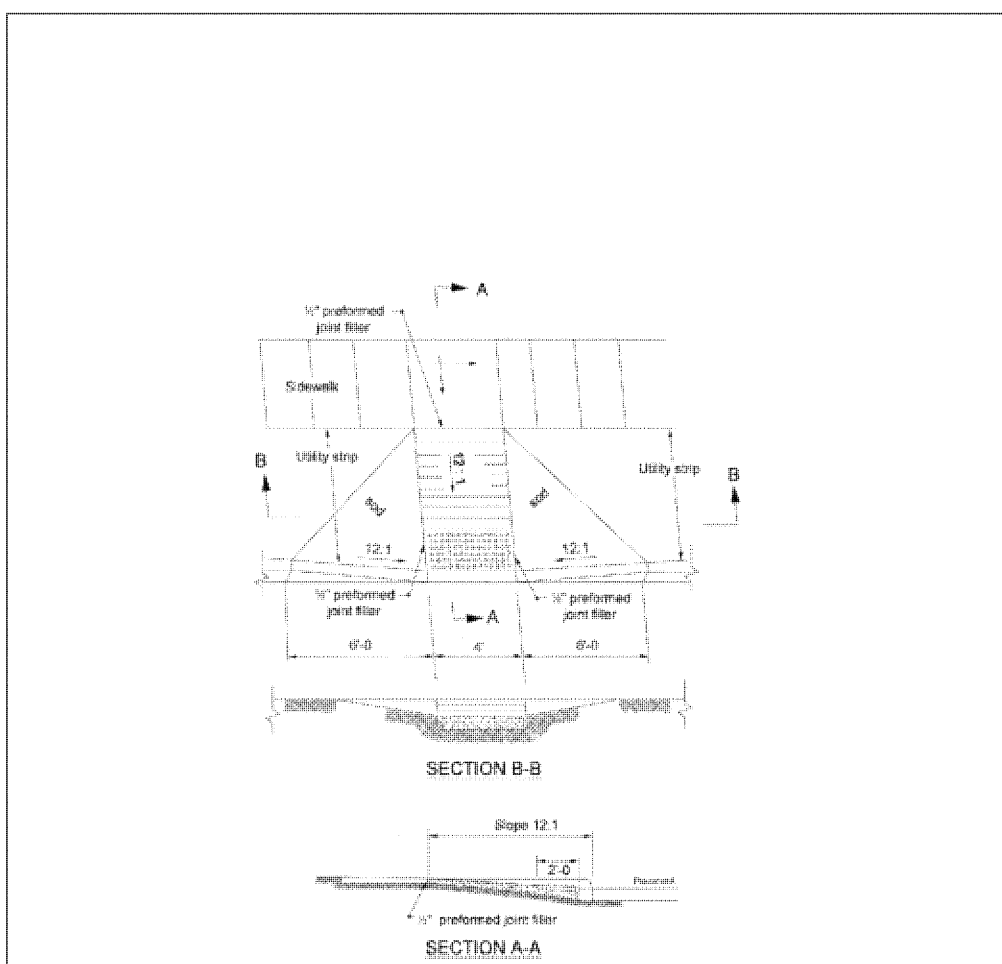
BICYCLE/JOGGING PATH DETAIL
TOWN OF WESTFIELD, INDIANA
Benji Ayers, Jeff 10/9/06 DATE FIGURE P-16



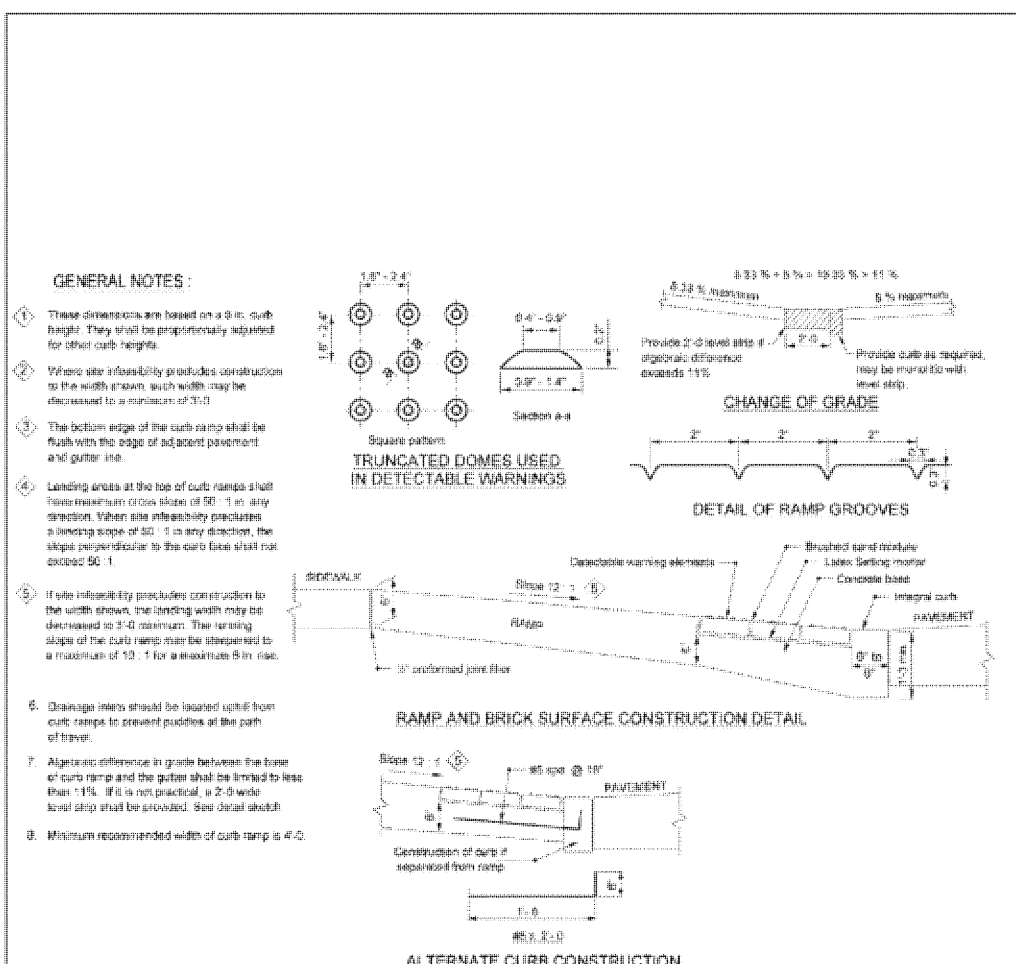
STREET SIGN DETAIL
TOWN OF WESTFIELD, INDIANA
Benji Ayers, Jeff 10/9/06 DATE FIGURE P-15



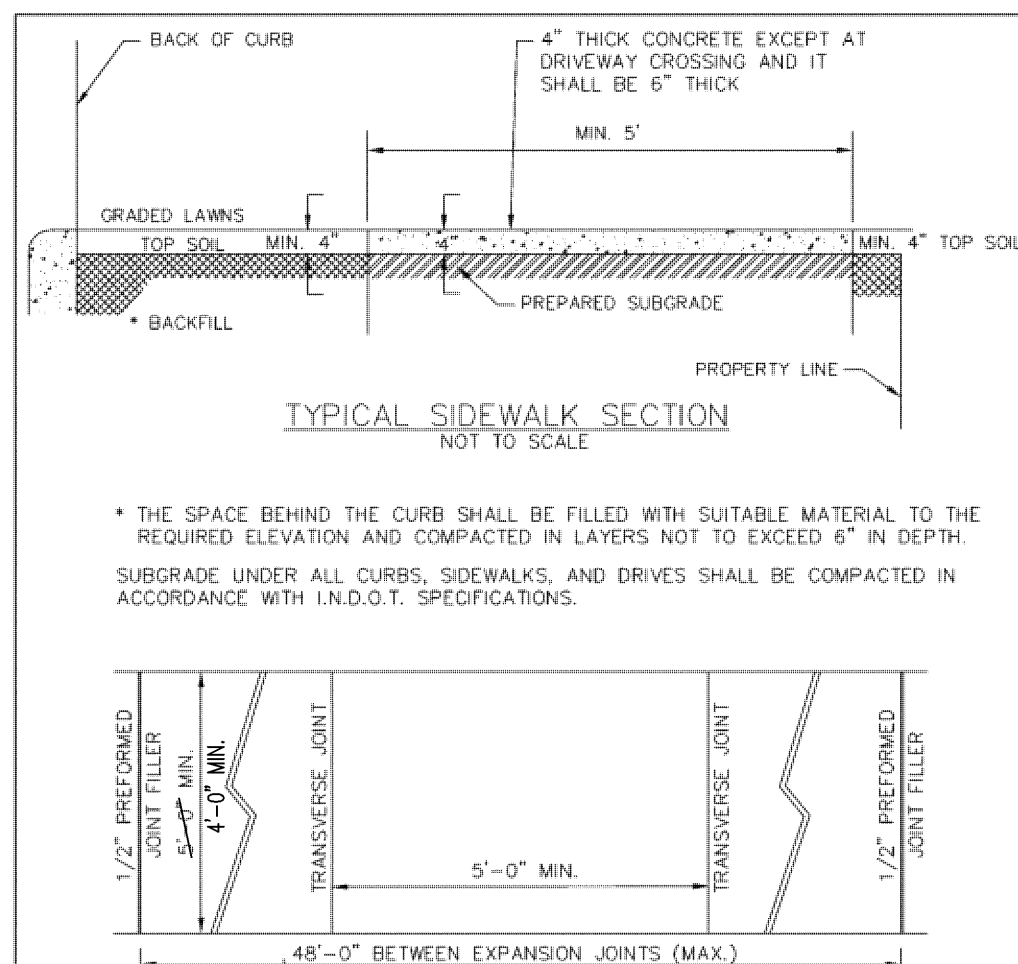
TYPICAL SUBDIVISION REGULATORY SIGNS
TOWN OF WESTFIELD, INDIANA
Benji Ayers, Jeff 10/9/06 DATE FIGURE P-15.1



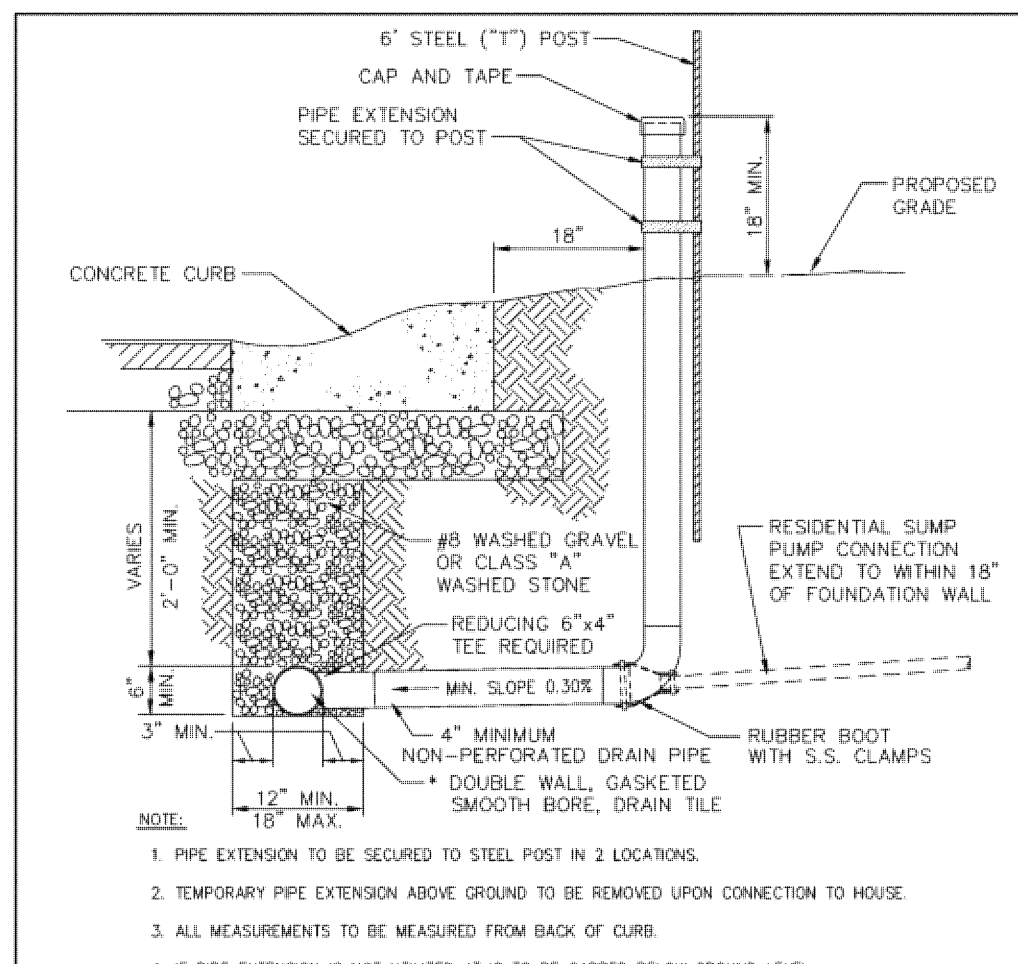
SIDEWALK RAMP FOR HANDICAPPED
TOWN OF WESTFIELD, INDIANA
Benji Ayers, Jeff 10/9/06 DATE FIGURE P-11A



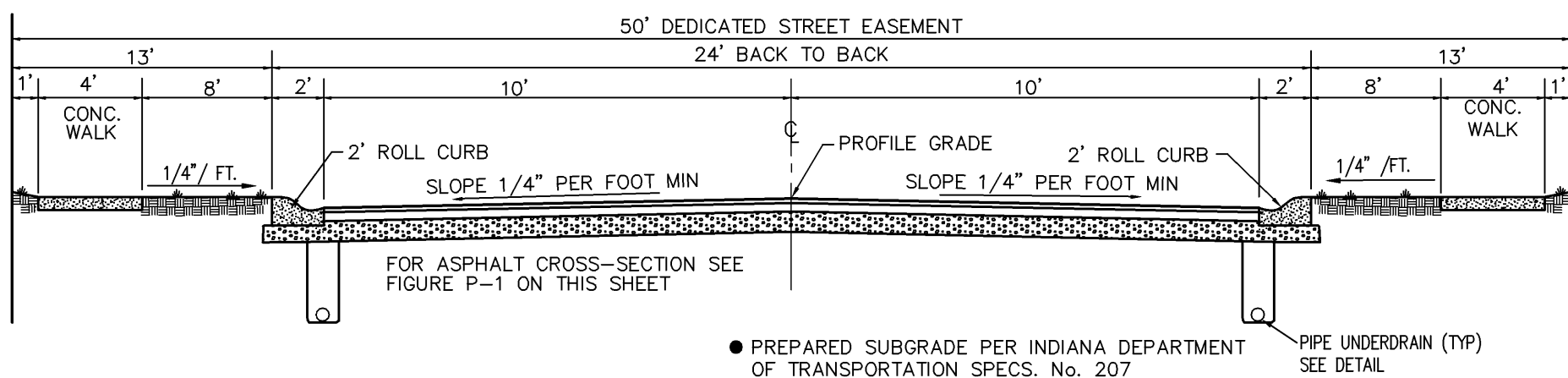
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TOWN OF WESTFIELD, INDIANA
Benji Ayers, Jeff 10/9/06 DATE FIGURE P-11



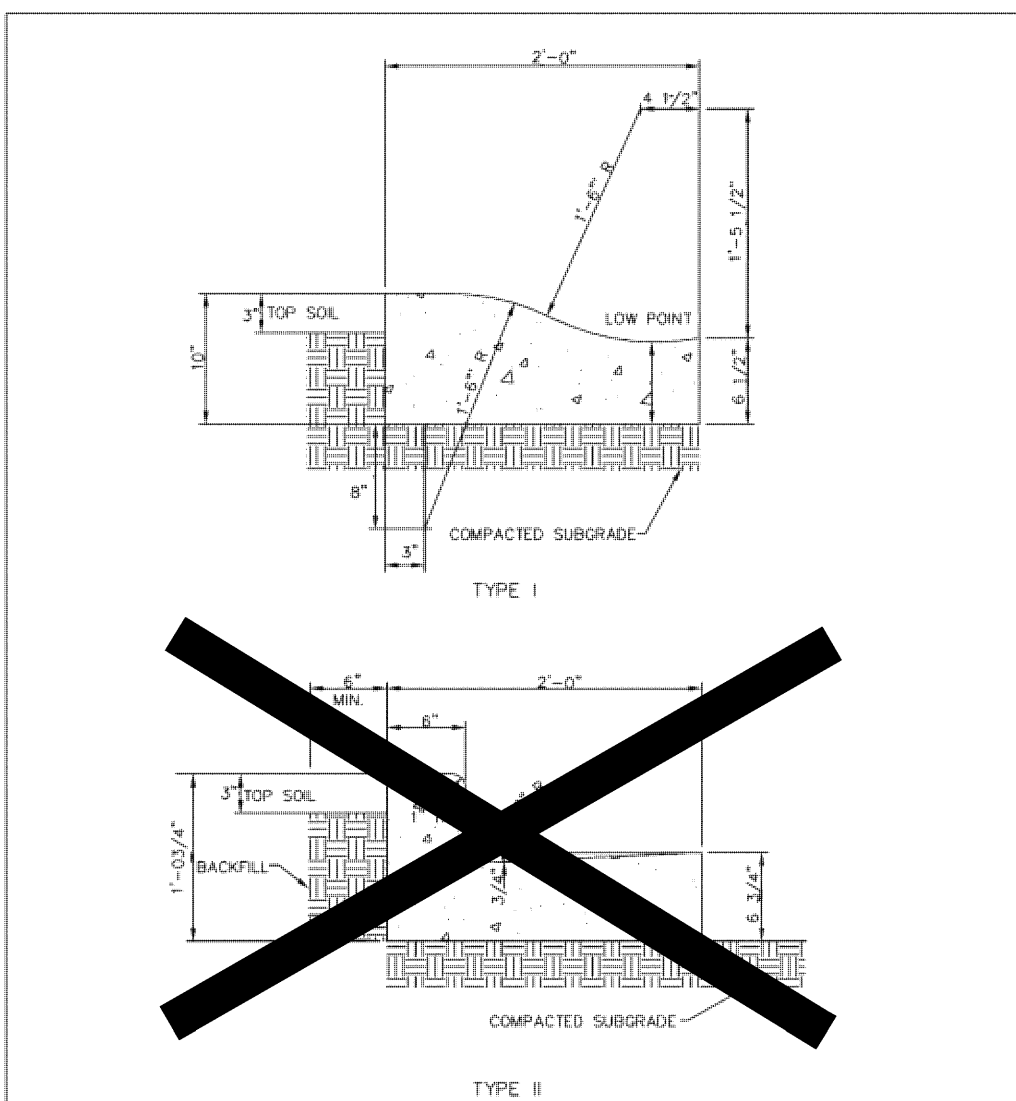
CONCRETE SIDEWALK
TOWN OF WESTFIELD, INDIANA
Benji Ayers, Jeff 10/9/06 DATE FIGURE P-10



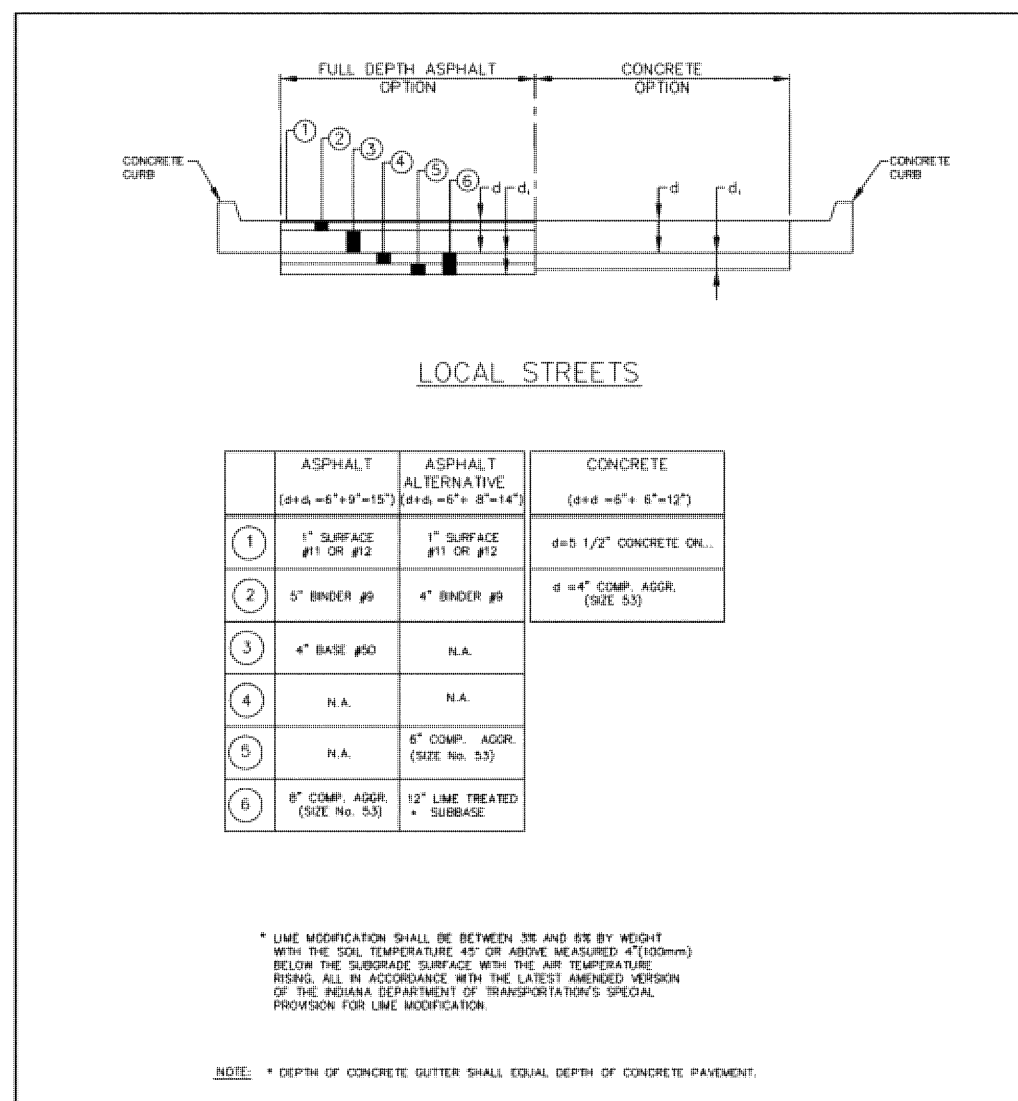
UNDERDRAIN DETAIL
TOWN OF WESTFIELD, INDIANA
Benji Ayers, Jeff 10/9/06 DATE FIGURE P-9



TYPICAL STREET SECTION 24' STREET



CONCRETE CURB AND GUTTER TYPE I & II
TOWN OF WESTFIELD, INDIANA
Benji Ayers, Jeff 10/9/06 DATE FIGURE P-8



TYPICAL PAVEMENT SECTIONS
TOWN OF WESTFIELD, INDIANA
Benji Ayers, Jeff 10/9/06 DATE FIGURE P-1

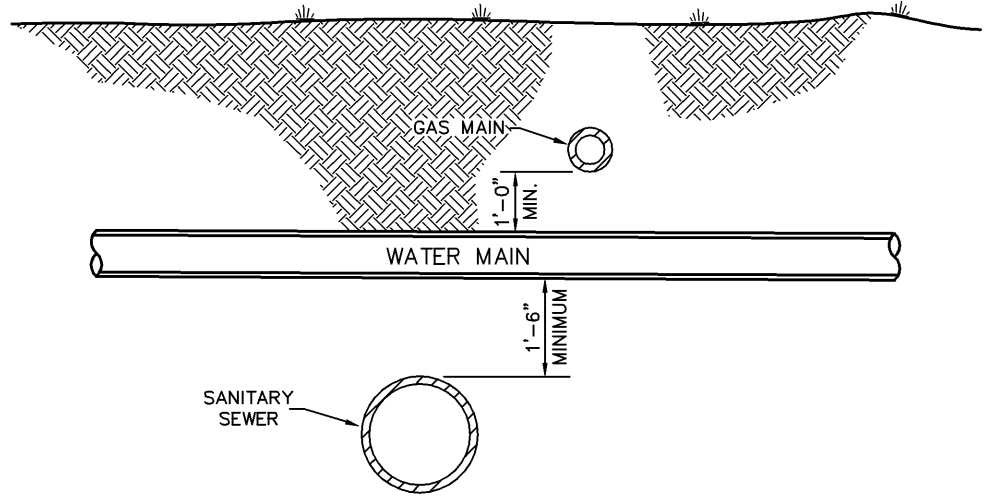
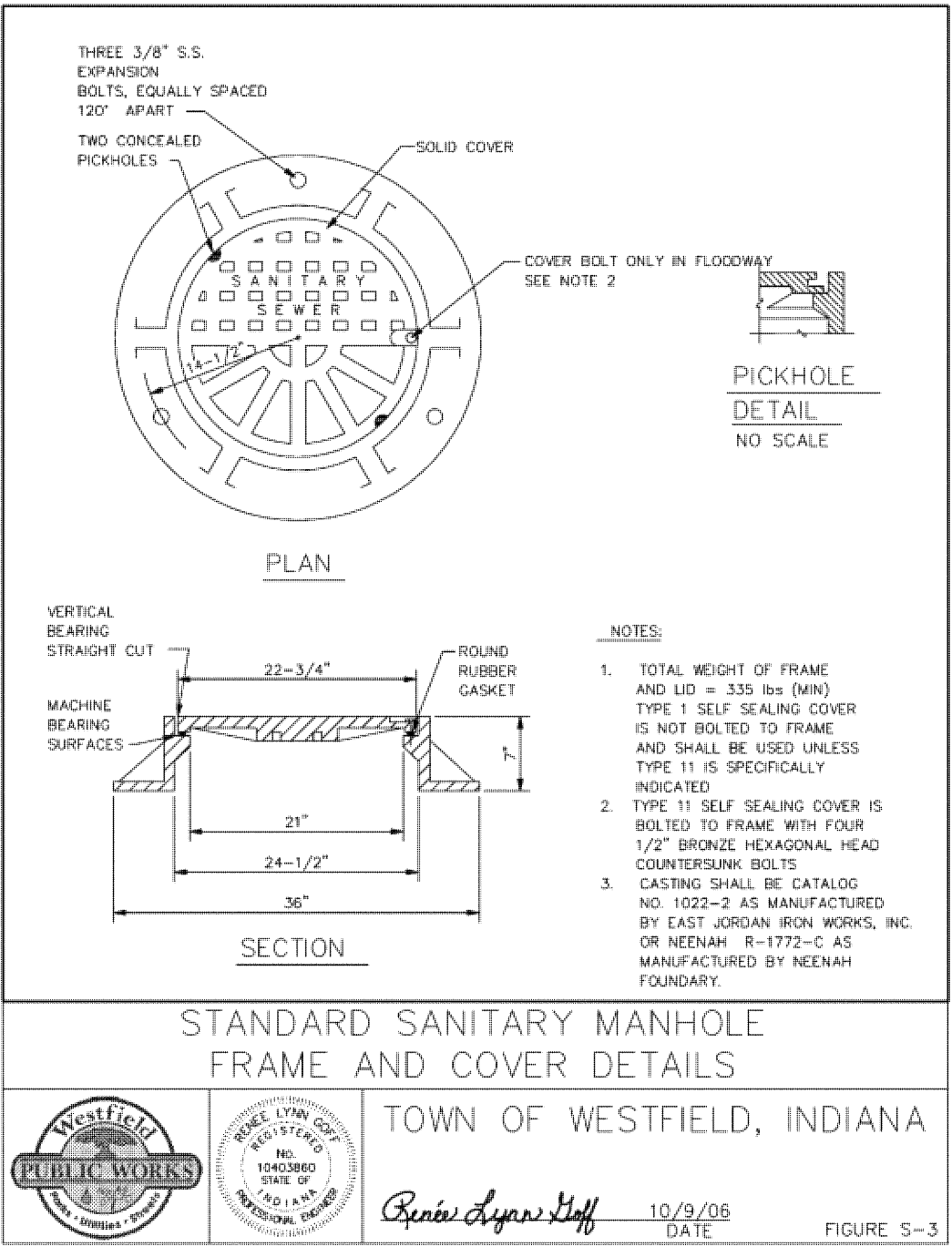
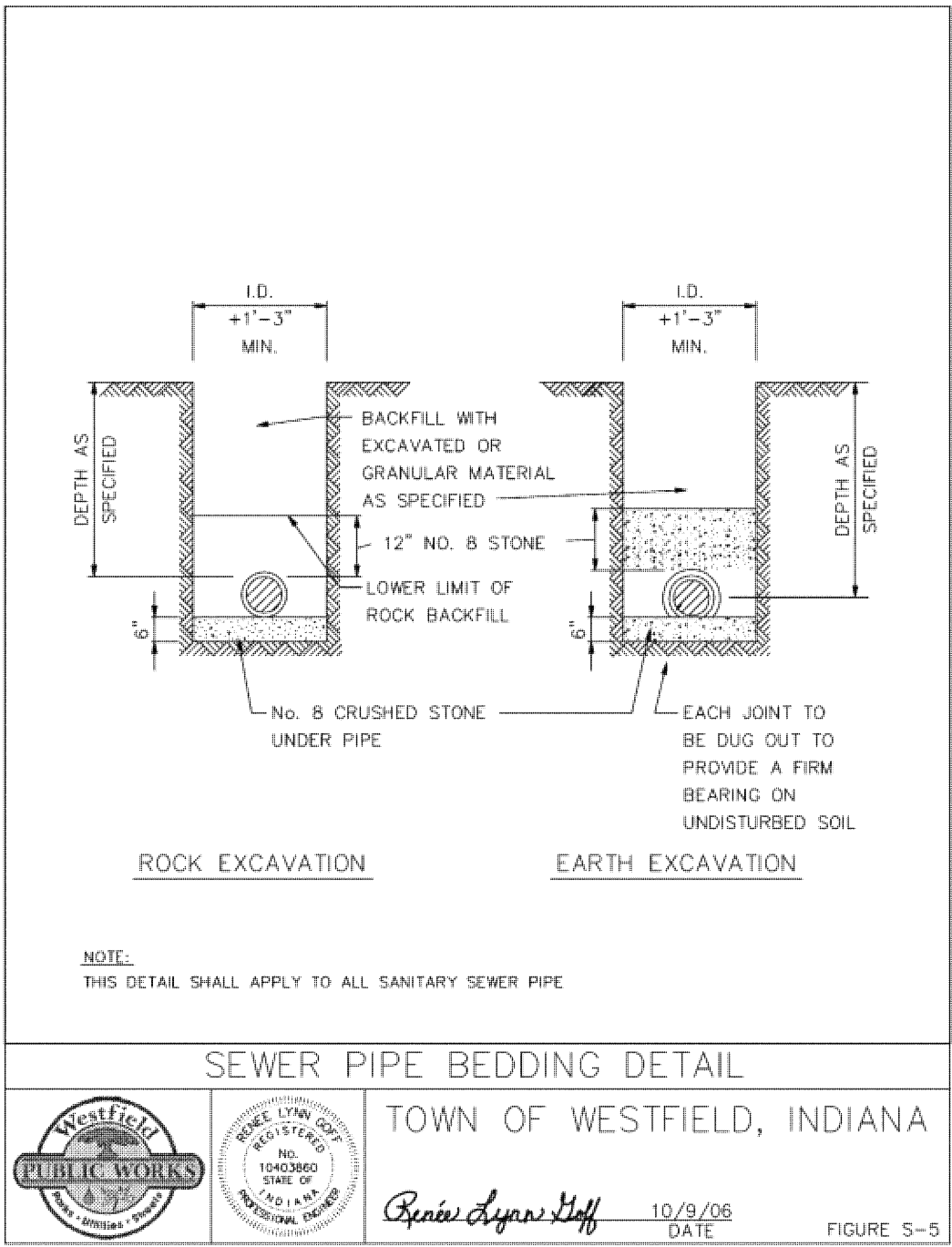
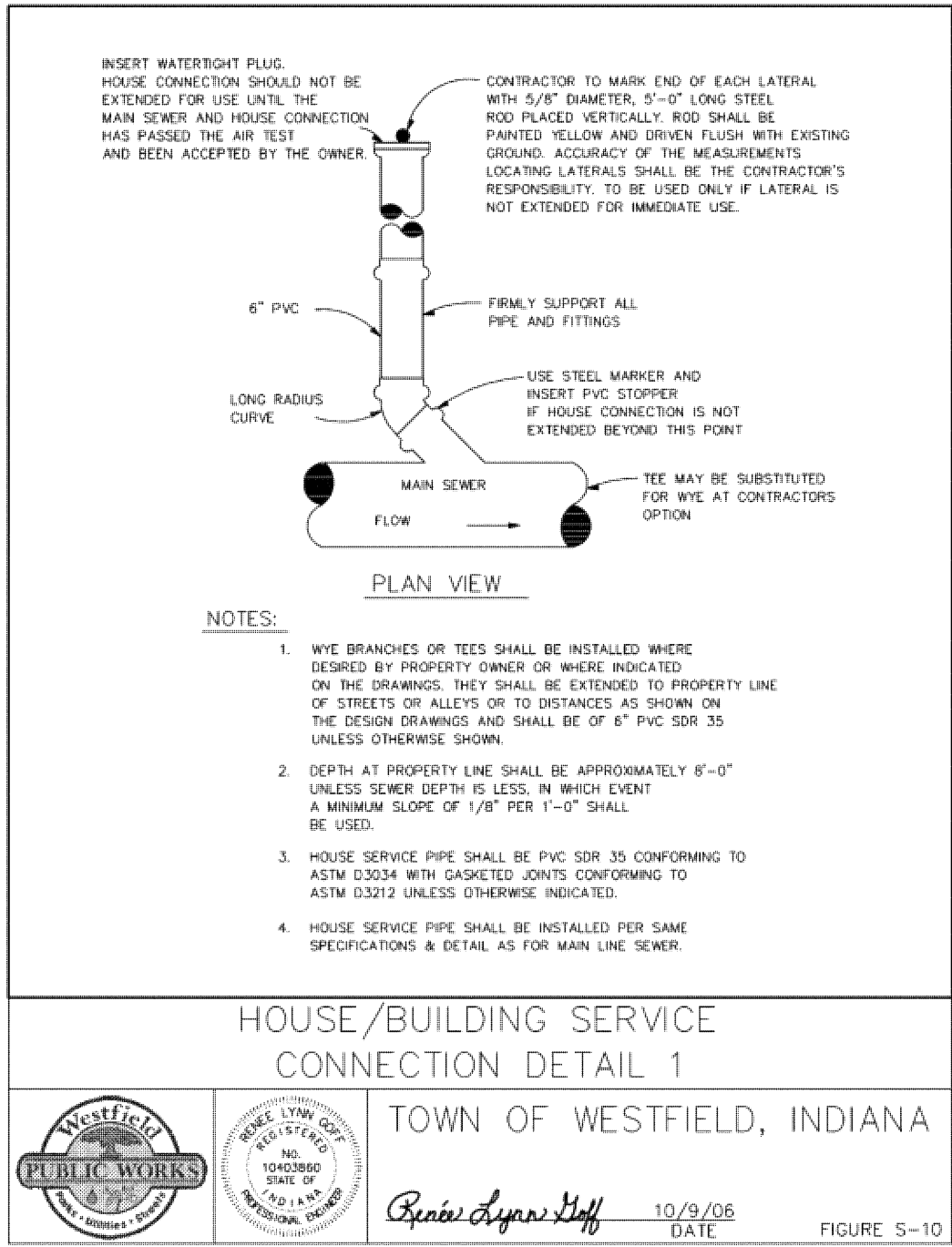
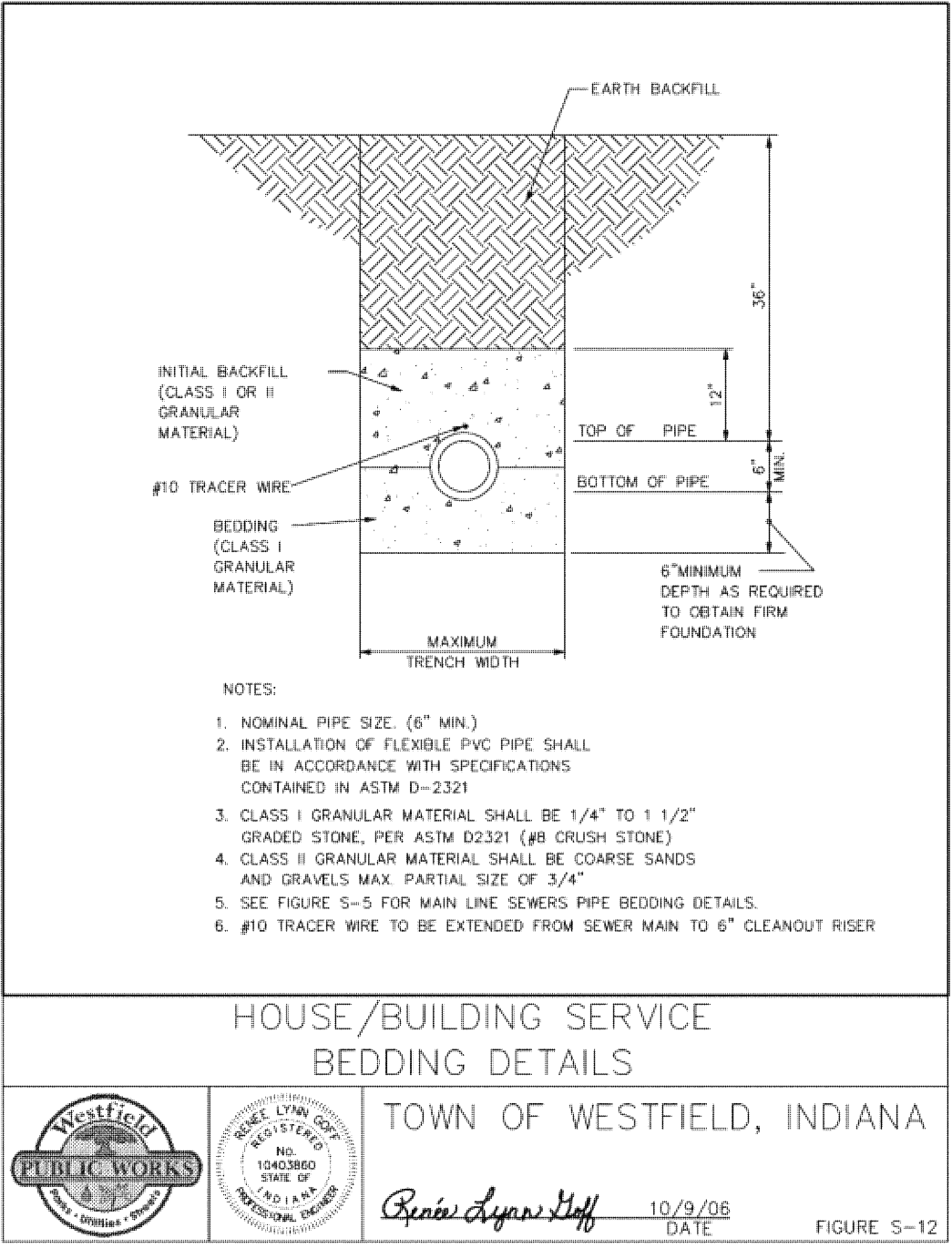
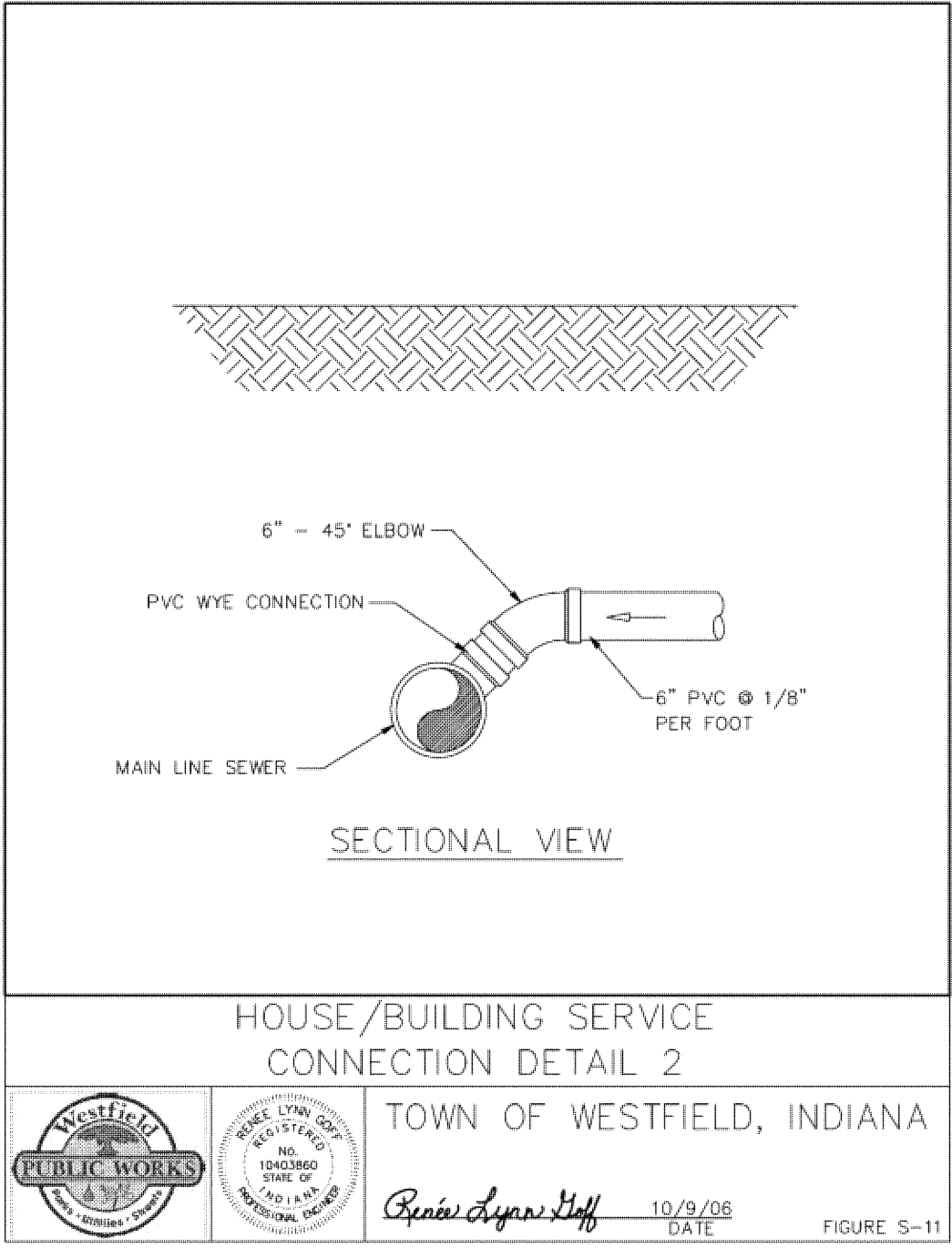
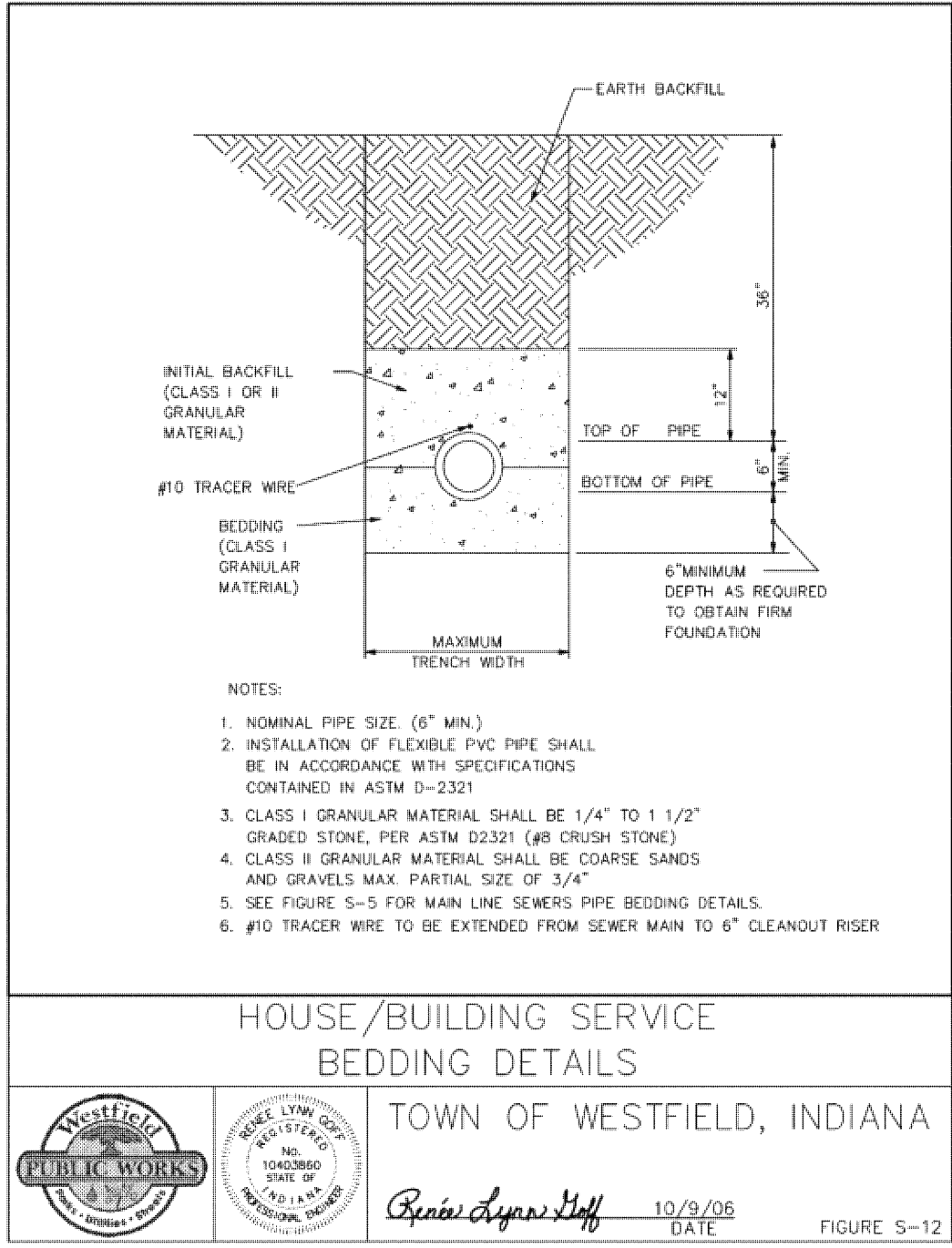
REVISIONS:

DAVID A. CLARK
REGISTERED
No. 19300219
STATE OF INDIANA
PROFESSIONAL ENGINEER
DATE: 06/27/08
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Landscape Architecture
Transportation Engineering

CENTENNIAL SOUTH
EXPANSION
WESTFIELD, INDIANA
ESTRIDGE DEVELOPMENT CO., INC.
CARMEL, INDIANA

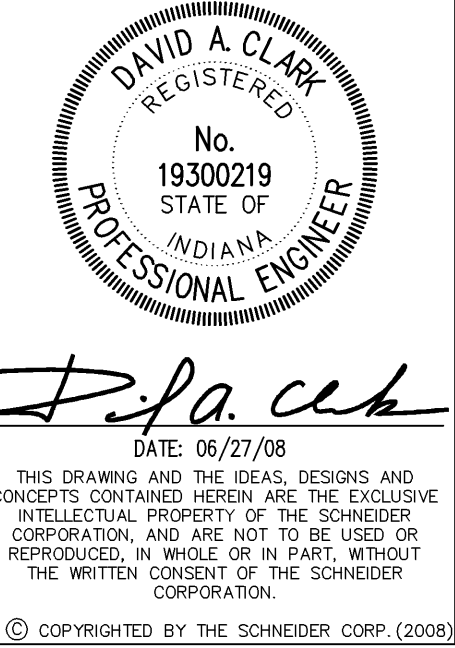
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DRAWN BY: PRC CHECKED BY: JLF
SHEET TITLE: GENERAL DETAILS
DRAWING FILES: R:\3\3915\004\DWG\C803-C805
SHEET NO.: C803



TYPICAL UTILITY CROSSING

1
C804

REVISIONS:



Schneider

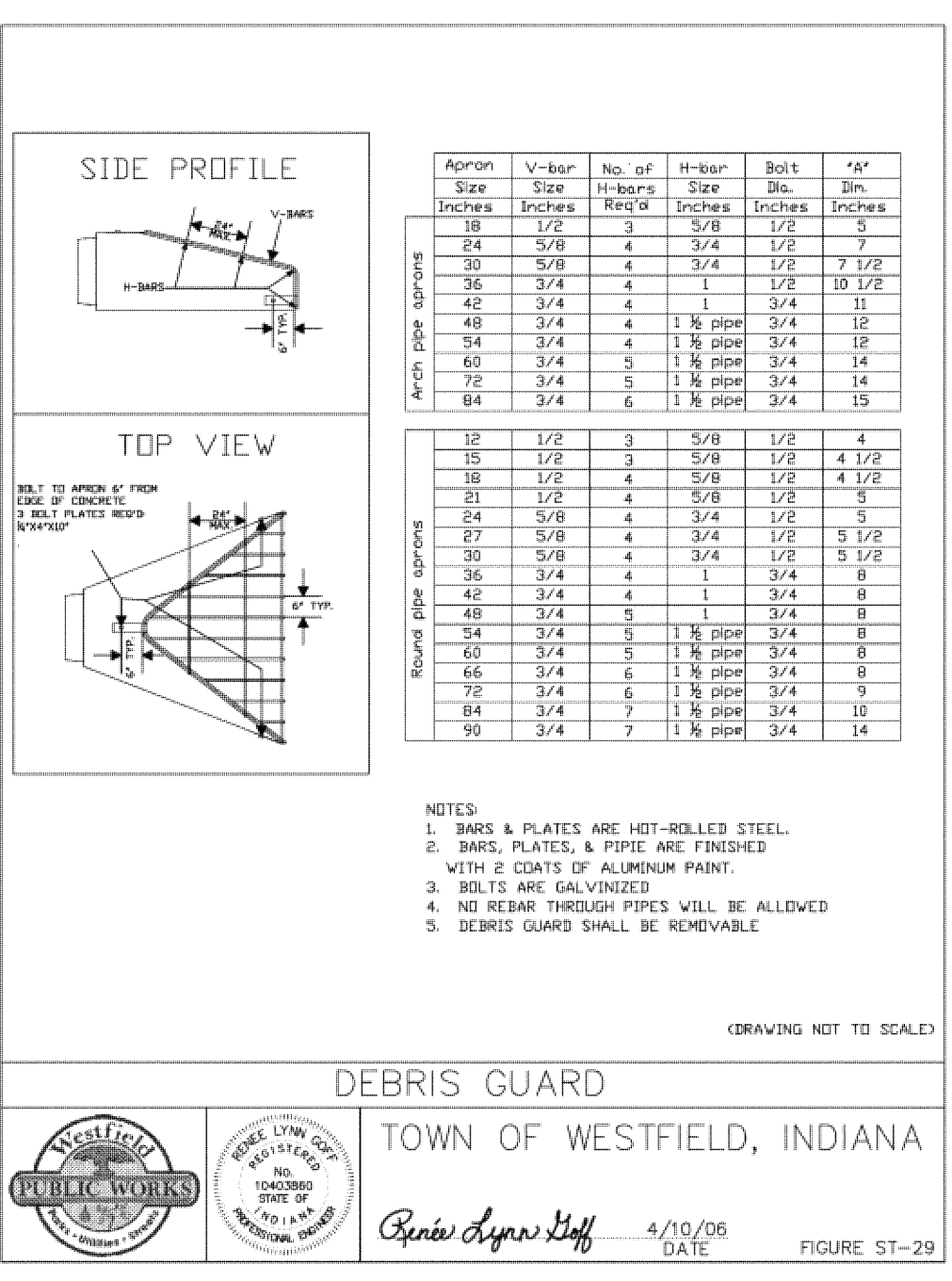
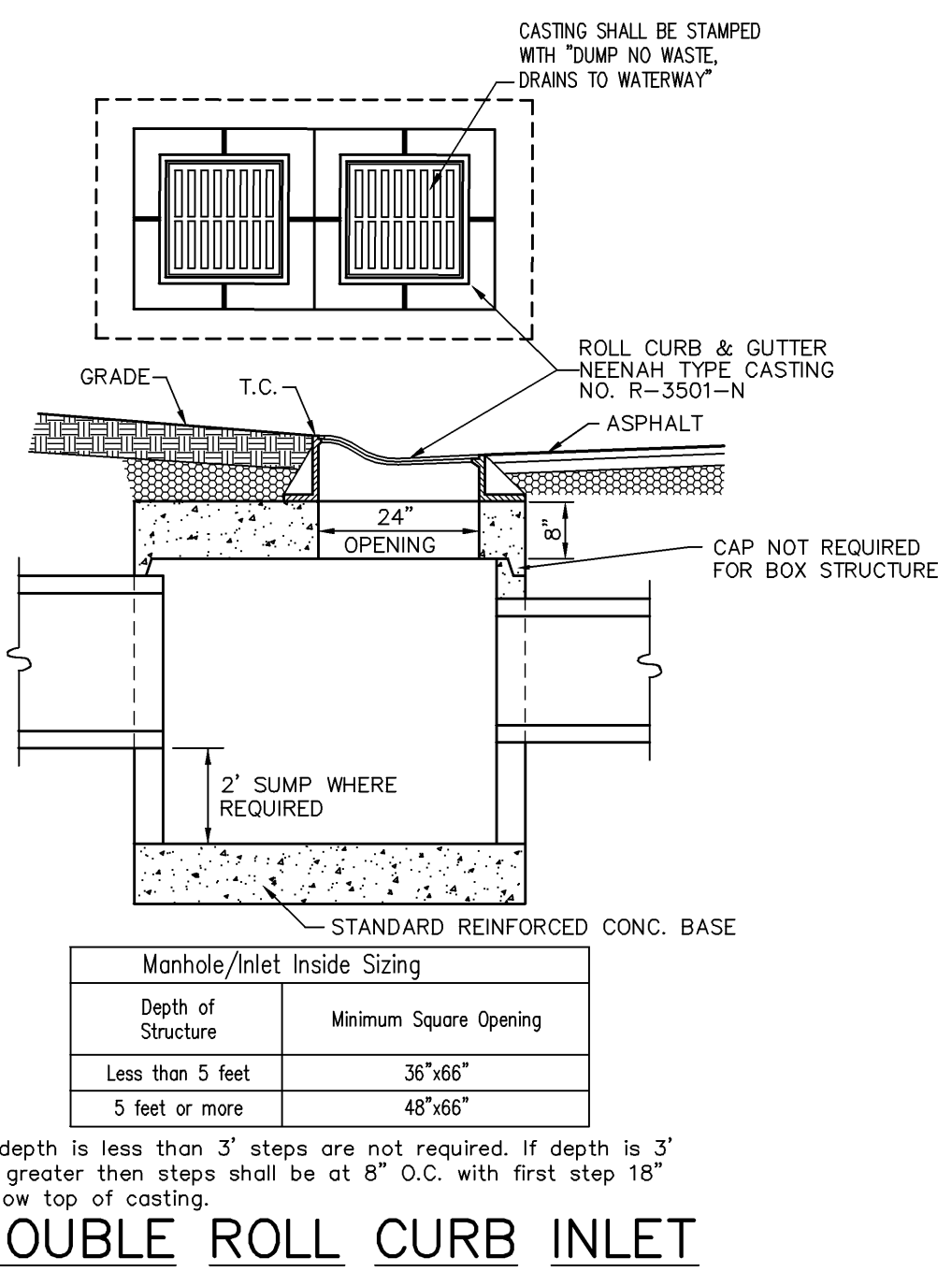
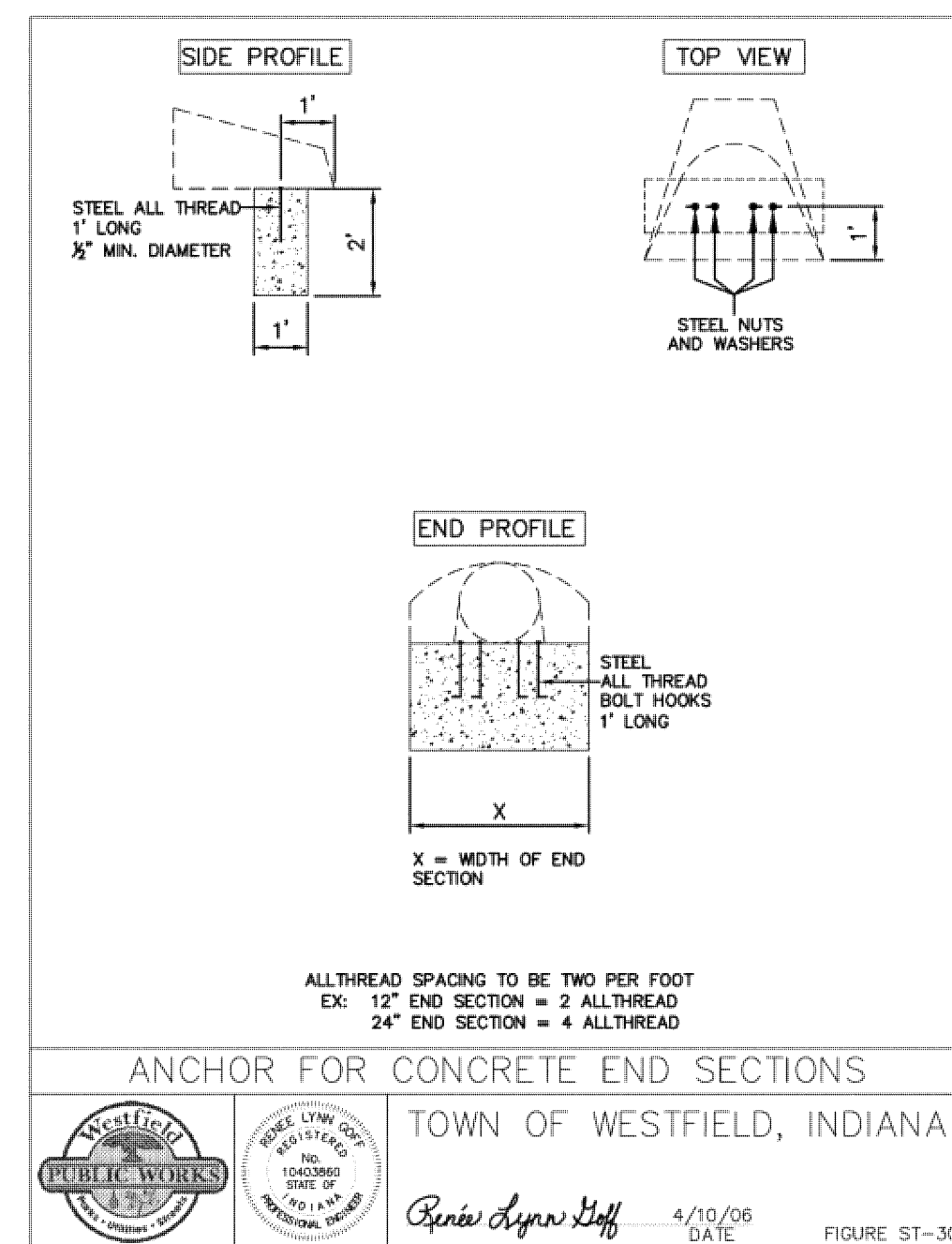
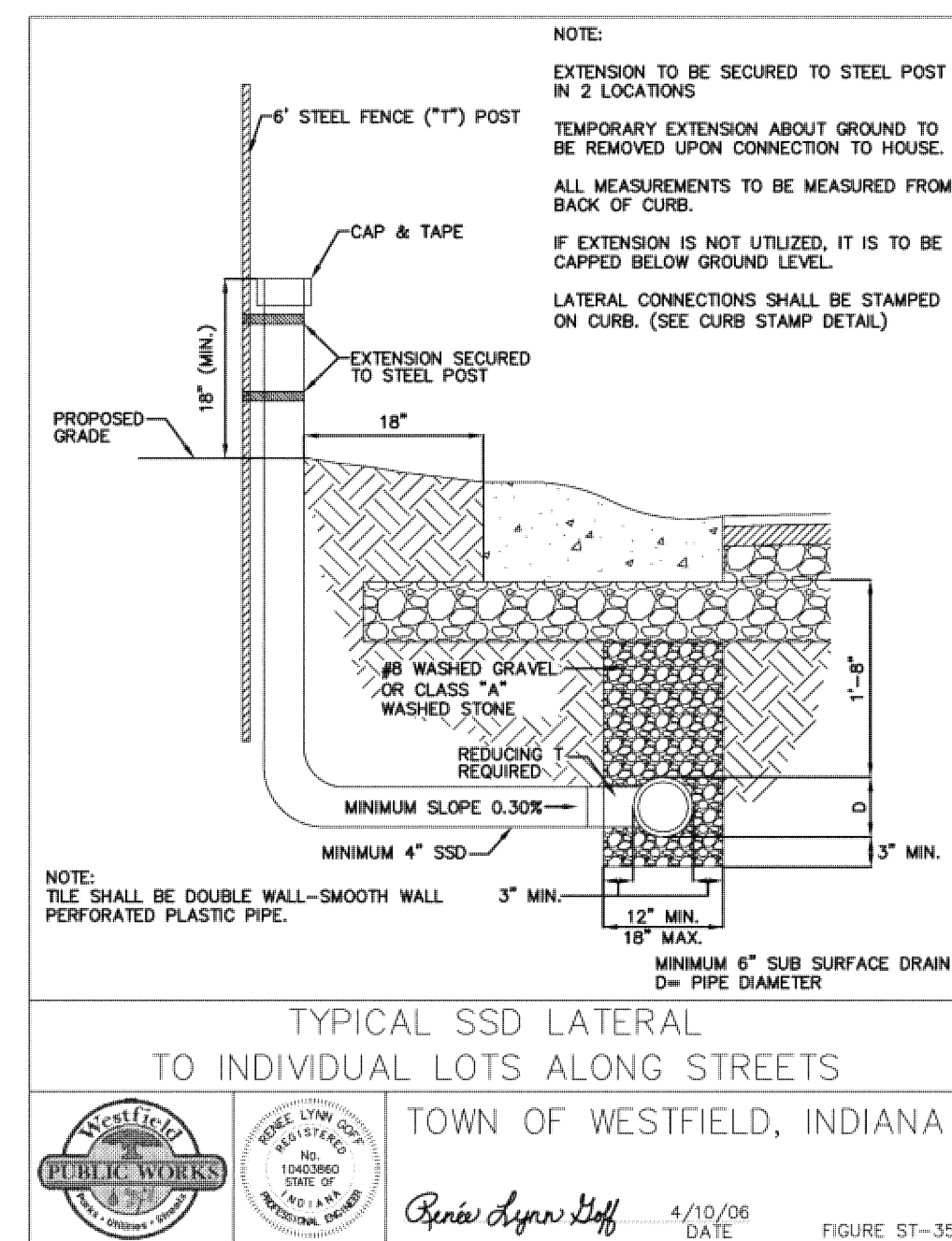
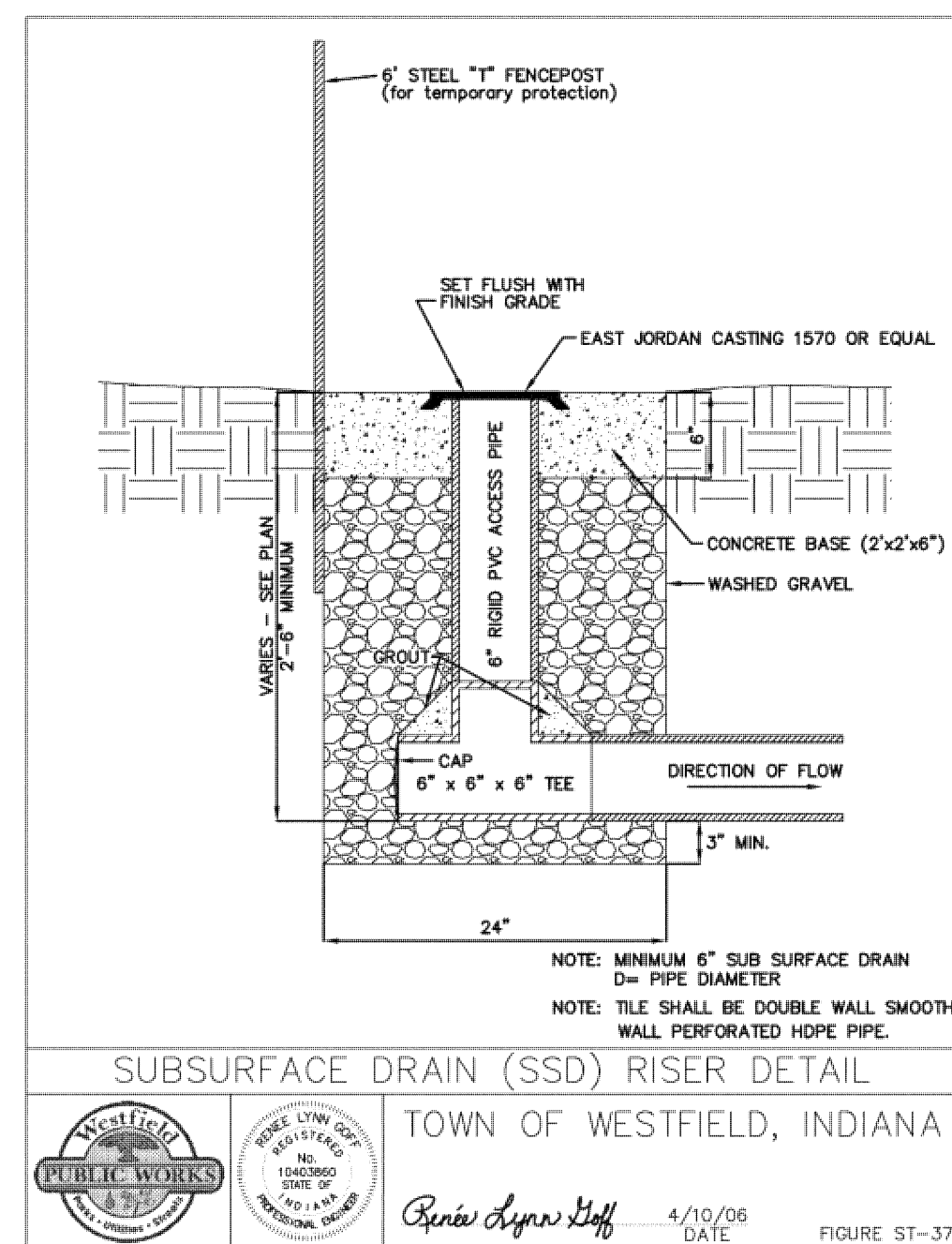
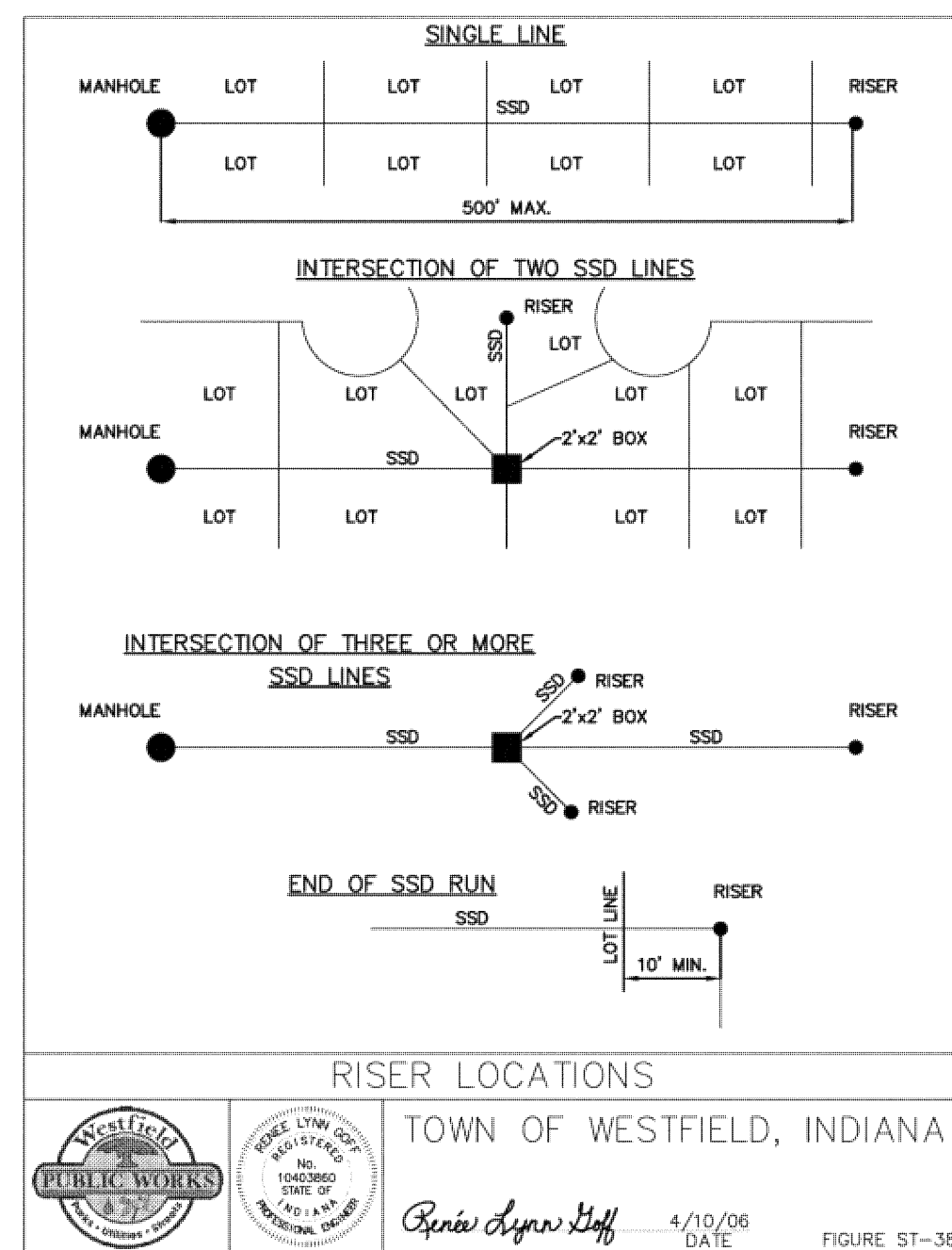
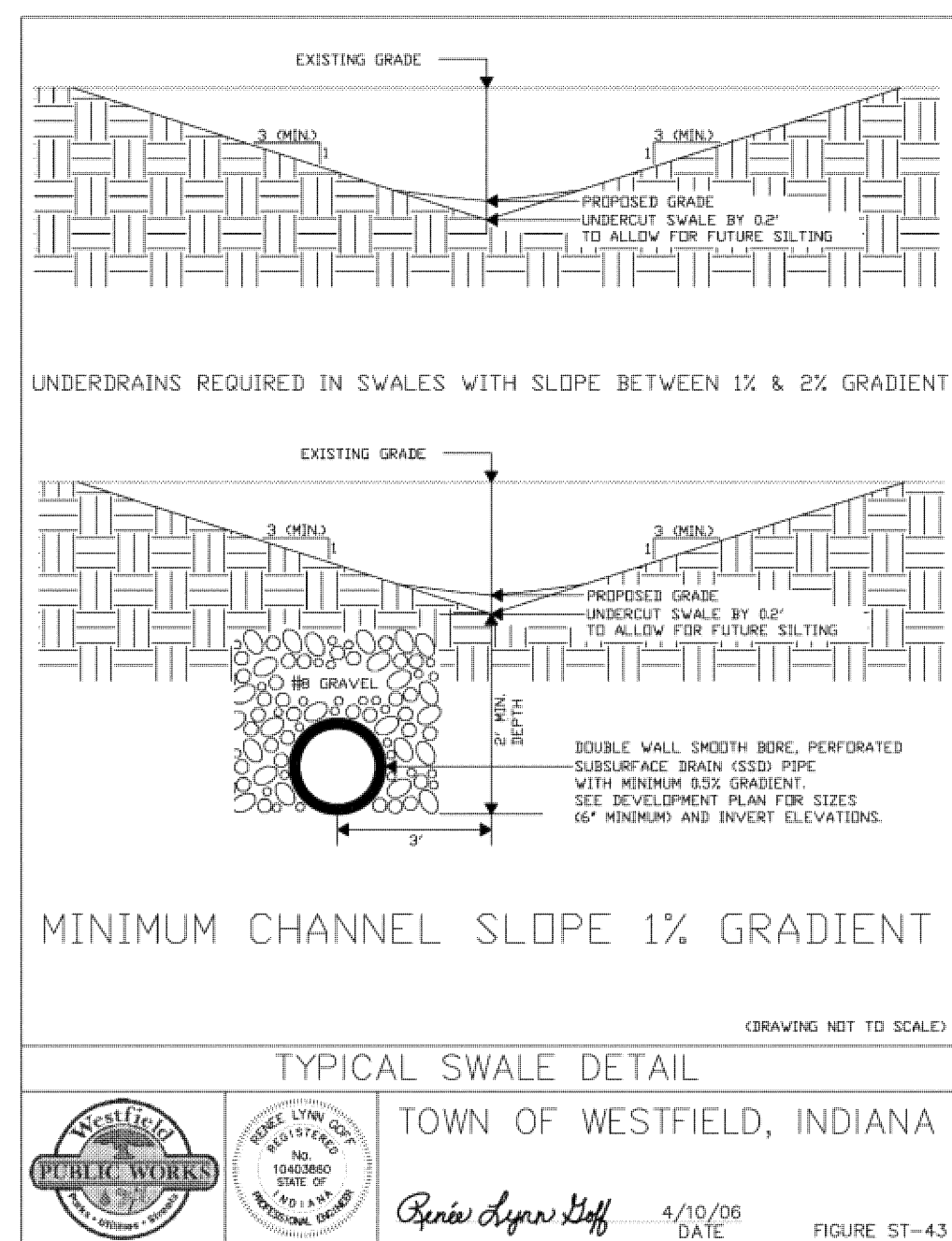
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ESTRIDGE DEVELOPMENT CO., INC.
CARMEL, INDIANA

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DRAWING FILES: R:\3\3915\004\DWG\C803-C805
SHEET NO.: 1
C804



PIPE SIZE (INCHES)	STRUCTURES LESS THAN 48" FROM 1/2" INVERT (INCHES)	STRUCTURES GREATER THAN 48" FROM 1/2" TO INVERT	ANGLE AND QUALITY OF PIPE SHALL REQUIRE SPECIAL DESIGN	STEPS REQUIRED	CURB CASTING #R-350IN	CASTING #3501 TL & TR
12 TO 18	24 X 24	***	DESIGN APPROVAL	NO	YES	YES
12 TO 21	30 X 30	***	DESIGN APPROVAL	NO	YES	YES
18 TO 21		MT/BOX	DESIGN APPROVAL	YES	YES	YES
21 TO 27	24 X 36" OR 36 X 36	***	DESIGN APPROVAL	NO	NO	YES
12 TO 24	36 X 36	***	DESIGN APPROVAL	NO	YES	YES
24 OR LARGER	DESIGN APPROVAL	***	DESIGN APPROVAL	NO	NO	YES
24 OR LARGER		MT/BOX	DESIGN APPROVAL	YES**	YES	YES

* PIPES NO LARGER THAN 18" CAN BE USED IN THE 2' SIDE OF THIS BOX.

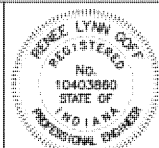
**INCOMING AND OUT GOING PIPES EFFECT STEPS IN THIS STRUCTURE.

***SPECIAL NOTE: STRUCTURES DEEPER THAN 48" FROM 1/2" TO INVERT WILL BE A M.M. OR A BOX WITH STEPS UNLESS SPECIAL DESIGN IS APPROVED.

SPECIAL NOTE: STRUCTURES WILL BE DESIGNED FOR MAXIMUM FLOW IN PIPES.

SPECIAL NOTE: TOWN MAY REQUIRE STEPS TO BE INSTALLED AFTER STRUCTURE IS SET, TO IMPROVE ACCESS.



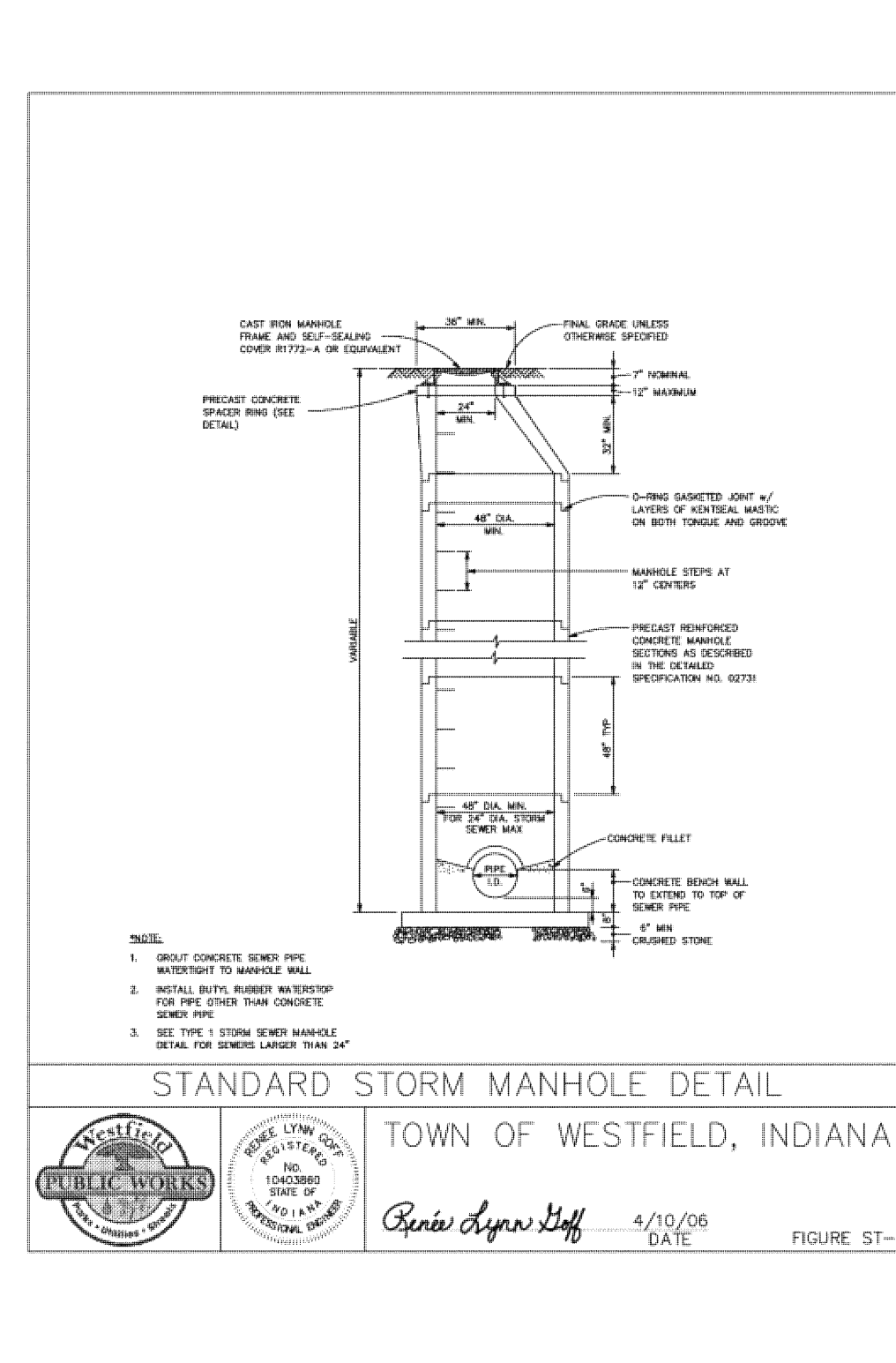
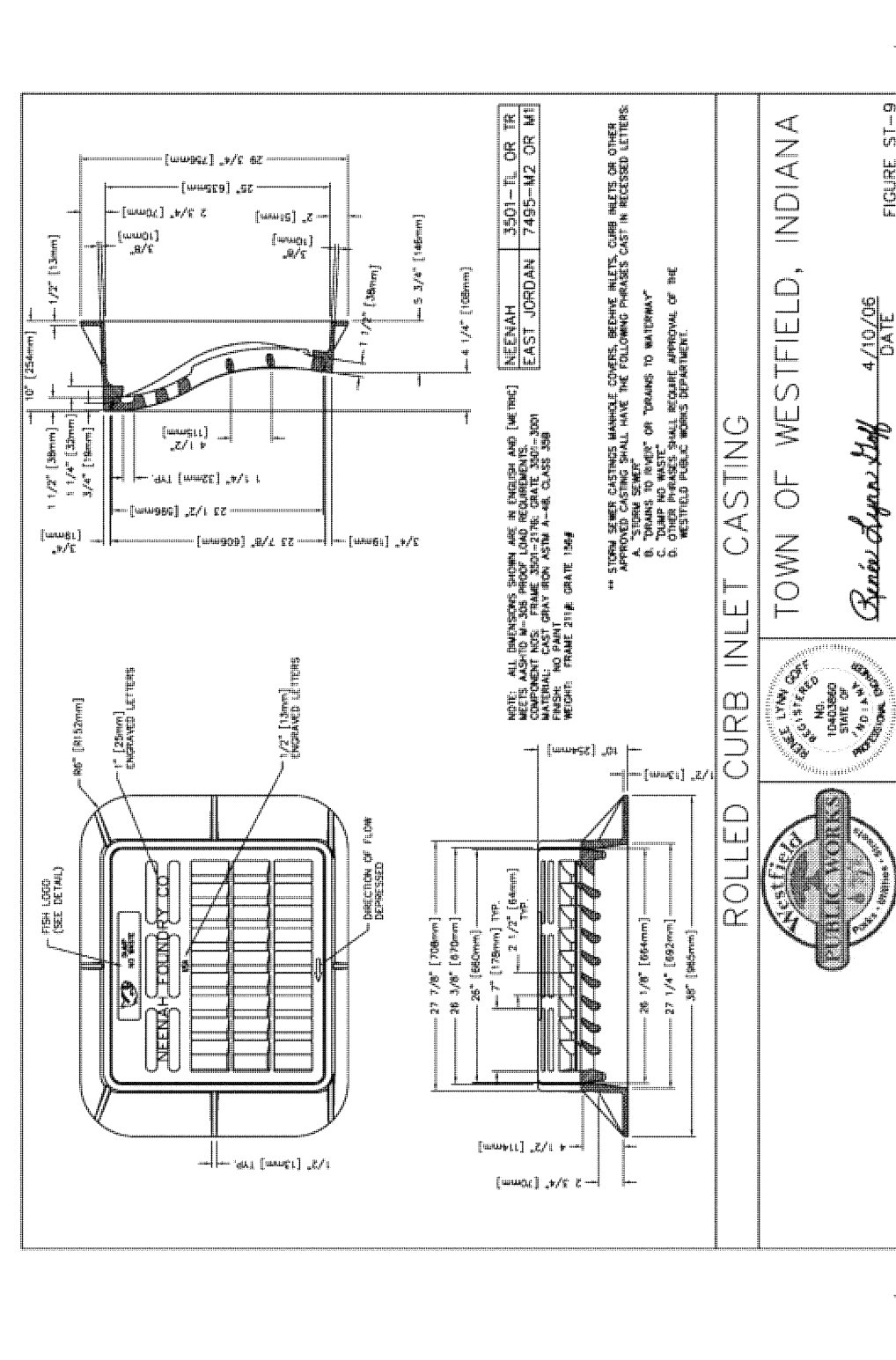
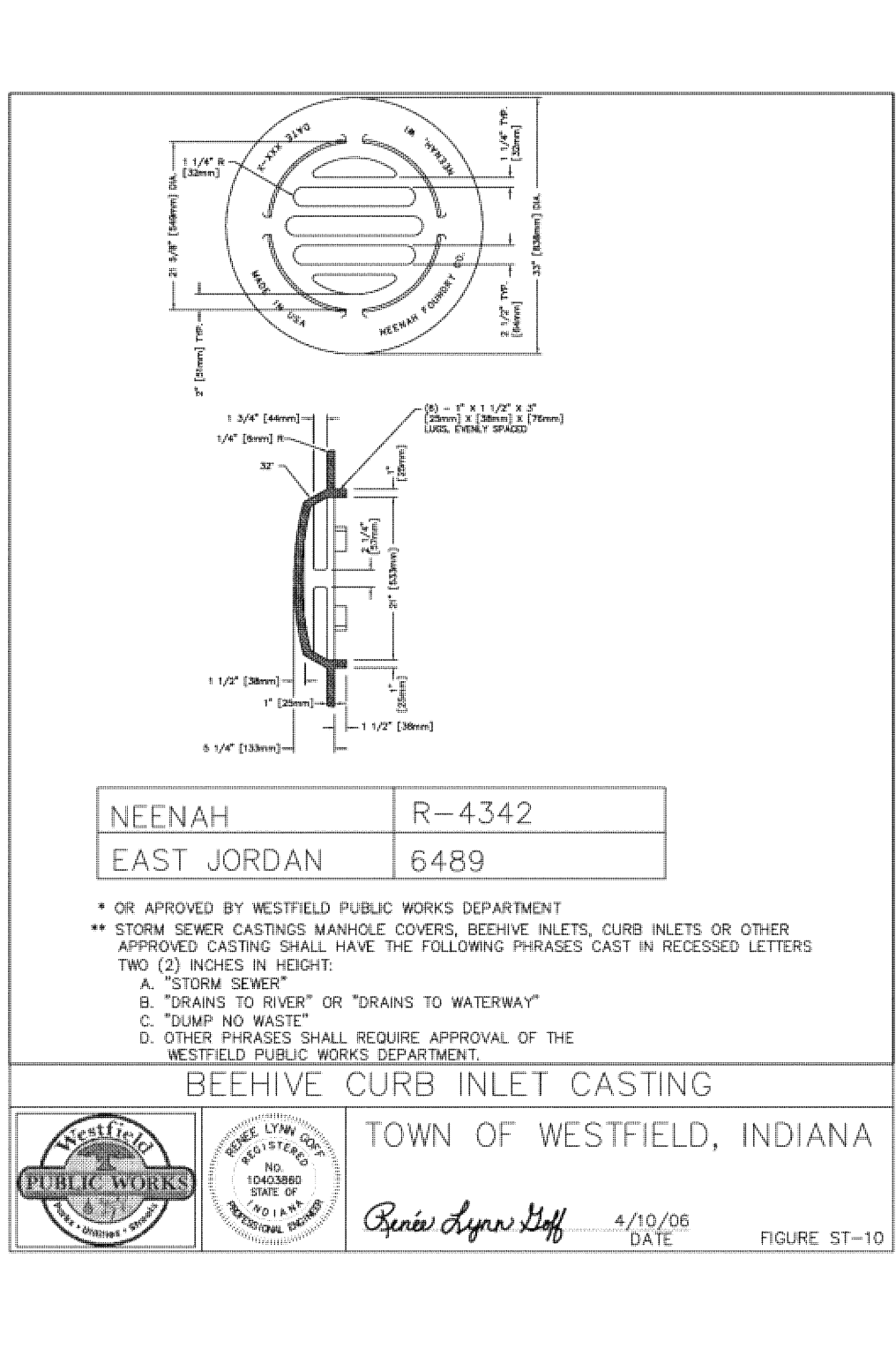
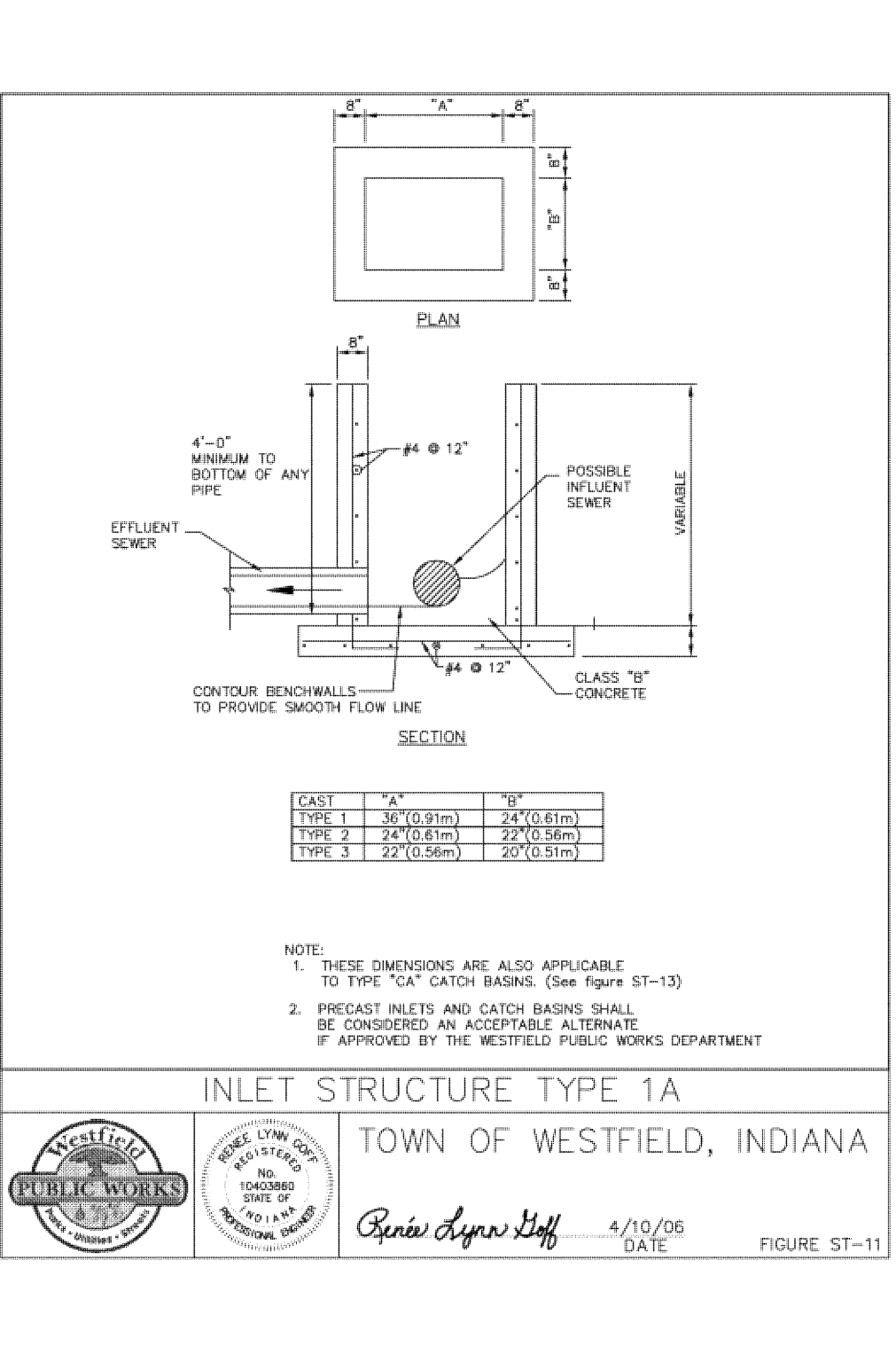
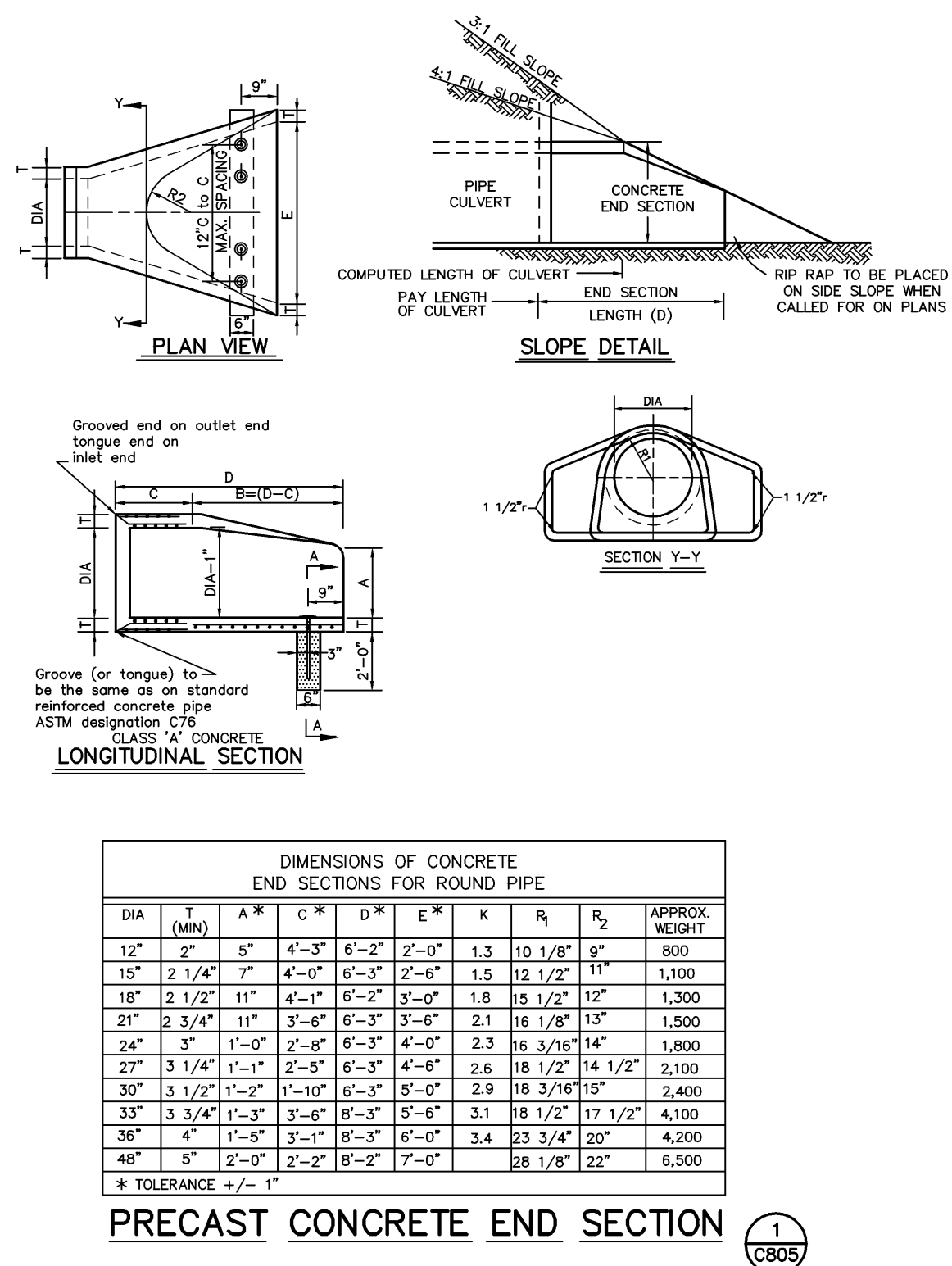
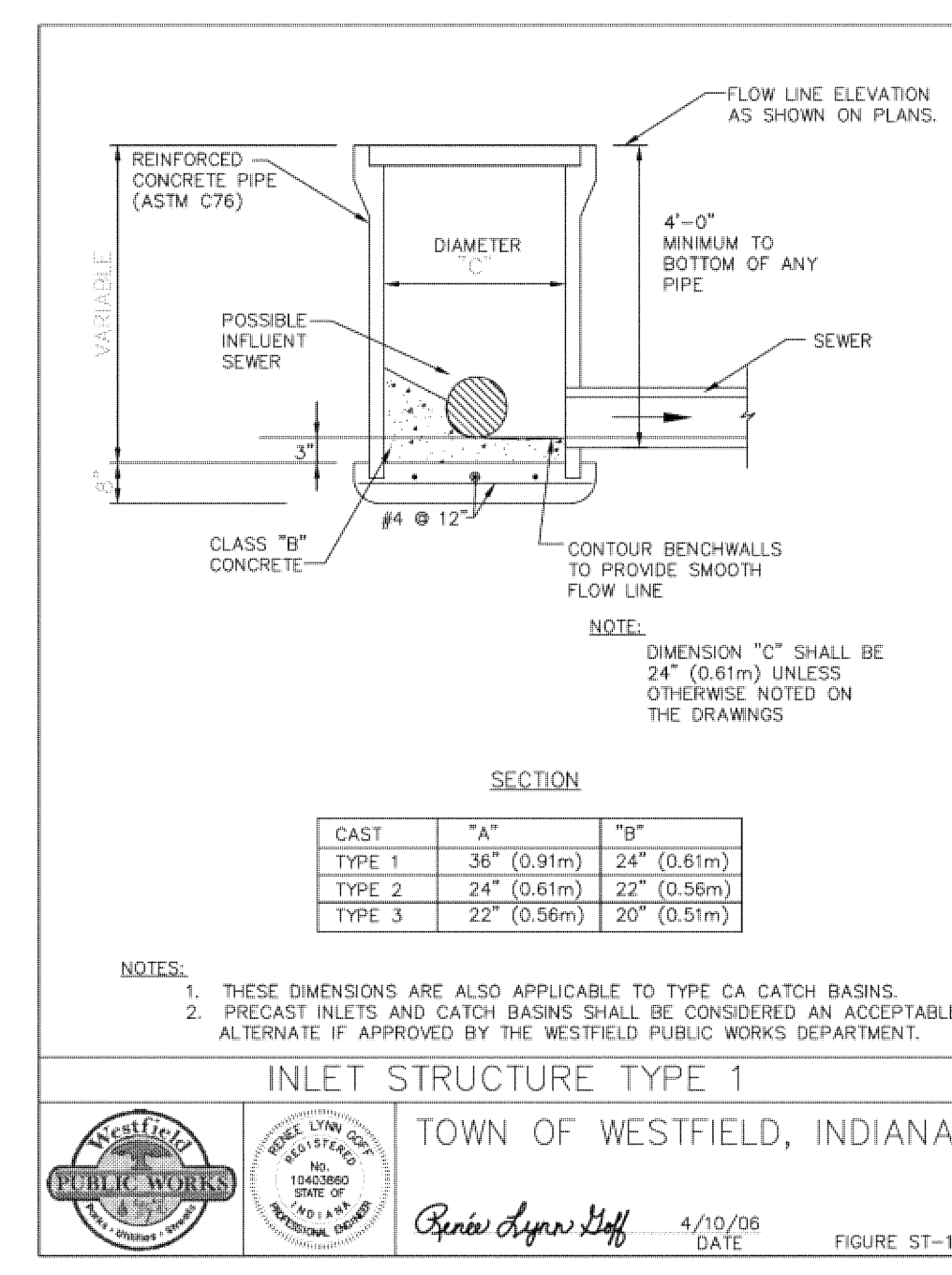
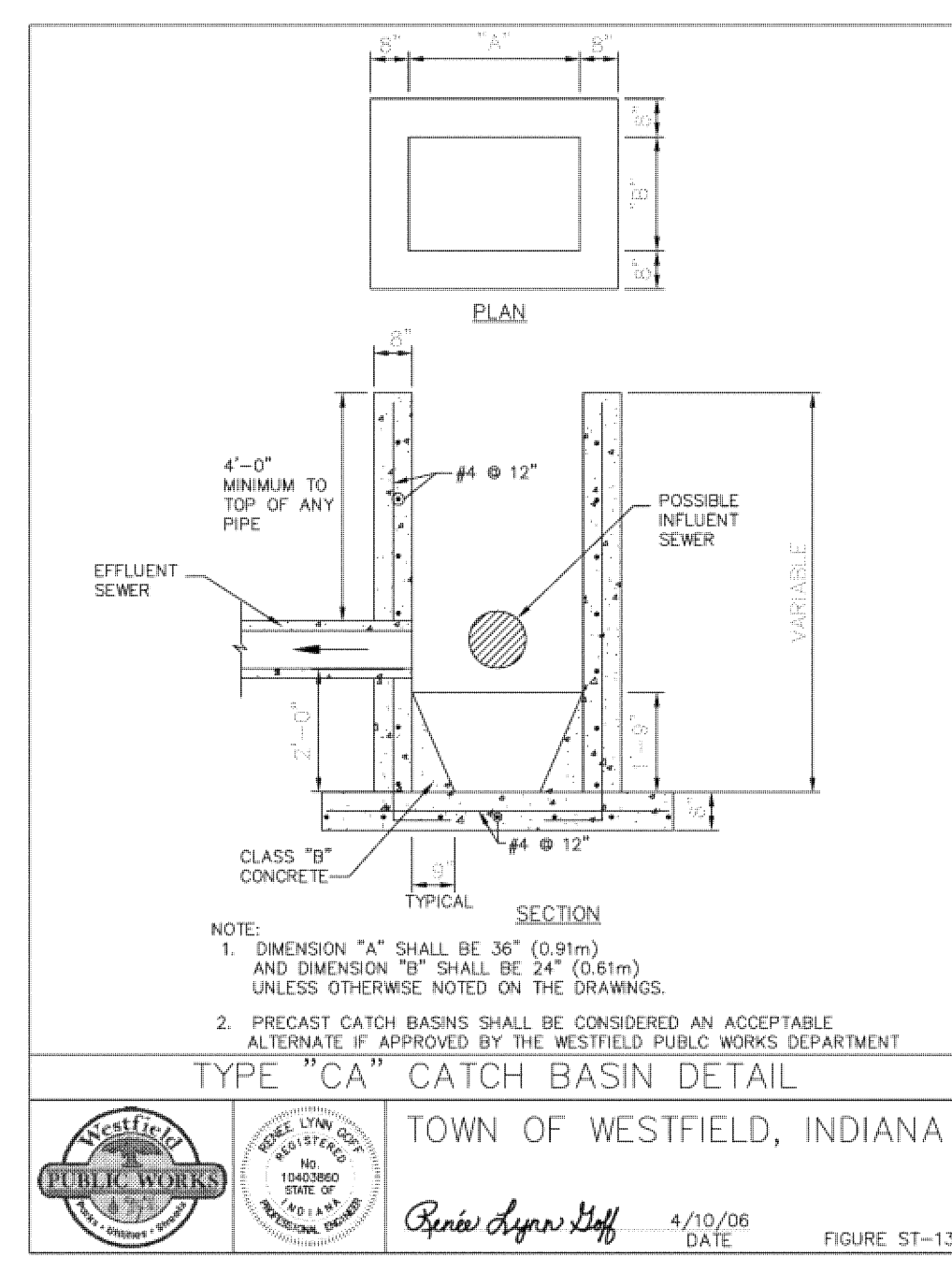


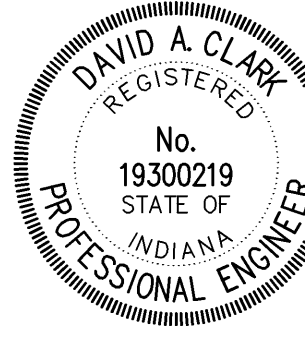
TOWN OF WESTFIELD, INDIANA

Renee Lynn Laff

4/10/06
DATE

FIGURE ST-15



REVISIONS:	
 <i>D. A. Clark</i> DATE: 06/27/08 THE DRAWING AND THE IDEAS, DESIGNS AND CONCEPTS CONTAINED HEREIN ARE THE EXCLUSIVE INTELLECTUAL PROPERTY OF THE SCHNEIDER CORPORATION, AND ARE NOT TO BE USED OR REPRODUCED, IN WHOLE OR IN PART, WITHOUT THE WRITTEN CONSENT OF THE SCHNEIDER CORPORATION. © COPYRIGHTED BY THE SCHNEIDER CORP. (2008)	



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CENTENNIAL SOUTH
EXPANSION
WESTFIELD, INDIANA

ESTRIDGE DEVELOPMENT CO., INC.
CARMEL, INDIANA

DATE: 06/27/08	PROJECT NO.: 3915-004
DRAWN BY: PRC	CHECKED BY: JLF
SHEET TITLE: GENERAL DETAILS	
DRAWING FILES: R:\3915\004\DWGS\C803-C805	
SHEET NO.: C805	

SECTION 02500 - PAVING AND SURFACING PART 1 - GENERAL 1.1 DESCRIPTION A. Scope: This section covers all work involved in the installation of new pavement, walks, and curbs, and the repair and replacement of existing streets, roads, highways, drives, parking areas, curbs, gutters, sidewalks, and other paved areas damaged or destroyed during construction. B. Related Work Specified in the following Section 1. Section 02222 Earthwork for Utilities Subgrade Preparation C. Codes, specifications, and standards referred to by number or title shall form a part of this specification to the extent required by the reference thereto. Except as specifically modified in this specification, paving and surfacing operations, materials and testing will comply with the most current revisions of applicable sections per the latest version of the Indiana Department of Transportation Standard Specifications. D. Definitions 1. Abbreviations a. INDOTSS Indiana Department of Transportation's Standard Specifications. b. AASHTO American Association of State Highway & Transportation Officials. c. ACI American Concrete Institute. d. ASTM American Society for Testing & Materials. e. NRMCA National Ready Mix Concrete Association. 1. Rock: A natural aggregate of mineral particles connected by strong and permanent cohesive forces. Rock includes limestone, sandstone, dolomite, granite, marble, and lava. 2. Subgrade: The prepared and compacted soil immediately below the pavement or walk system and extending to such depth as will affect the structural design. 3. Subbase: The layer of specified or selected material of designed thickness placed on a subgrade to support a base course and surface course. 4. Base Course: The layer of specified or selected material of designed thickness placed on a subbase to support a binder or surface course. 5. Binder Course: The layer of specified or selected material of designed thickness placed on a base course to support a surface course. 6. Surface Course: The layer of specified or selected material of designed thickness placed on a subbase or base course to support the traffic load. 1.2 QUALITY ASSURANCE A. The Developer/Contractor shall employ, at the request of the Westfield Public Works Department or designee, and pay for the services of an independent testing laboratory (unless otherwise noted) to perform specific services and necessary field density tests. The Developer/Contractor shall demonstrate to the Town of Westfield Public Works Department or designee that proper compaction has been obtained and proper asphalt and concrete mix designs are in compliance with the specifications. B. Mixing Plant: Prior to placing any hot asphalt concrete pavement or Portland cement concrete pavement, the Contractor shall provide the Westfield Public Works Department or designee the name and location of the bituminous mixing or concrete mixing plant and the type and composition of mixes the Contractor proposes to use in the work. C. Paving and surfacing shall comply with the tolerances specified in Sections 401.15 (Bituminous), 501.15, 501.16 and 501.23 of INDOTSS. 1. Subgrade and subbase shall be within 1/2 inch of dimensions indicated on drawings. 2. Bituminous base shall not vary longitudinally more than 1/4 inch from a 10-foot straightedge. Bituminous and concrete surfaces shall not vary more than 1/8 inch from a 10-foot straightedge. 3. Finished surface shall be within 1/4 inch of dimensions indicated on drawings. D. Asphalt and concrete pavement shall be installed by a contractor whose prime business is asphalt or concrete paving. 1.3 SUBMITTALS A. Submittals shall be as specified in the General Conditions and Section 01001, General Requirements. B. Submit the following: 1. Name and location of bituminous mixing plant or concrete ready-mix plant. Mixing plants and equipment shall meet the requirements of INDOTSS, Sections 401 and 501. 2. Type and composition of proposed materials and mixes. Job mix formulas shall be prepared and submitted for approval to the Engineer in accordance with INDOTSS 402 and 501. It shall include standard bituminous information including, but not limited to, aggregate gradation, binder content, maximum specific gravity, and air voids. 3. Certified copies of reports of tests specified in this Section and required by the referenced standards. 1.4 JOB CONDITIONS A. Do not place paving and surfacing materials on a wet surface, pumping subbase or when weather conditions would prevent the proper construction of paving and surfacing. B. Do not place aggregates on frozen subgrade. Do not place aggregates when air temperature is below 35°F. C. Bituminous materials are to be placed in accordance with INDOTSS 402.10, 405.04, and 406.05. D. When air temperatures are at or below 35 degrees F, an admixture is required to be added to the concrete to prevent freezing. E. Do not place paving and surfacing materials when natural light is not sufficient to properly observe work or operations. 1.5 GRADE ADJUSTMENT OF EXISTING STRUCTURES A. When grade adjustment of existing structures is required, the manhole frames, covers and grates, and the existing water valve boxes and covers, shall be removed and reconstructed to grade as required. B. On resurfacing work, the castings and boxes shall be adjusted to grade after the last binder course has been laid and before placing the surface course. C. All castings, frames and valve boxes adjusted to grade shall be done in advance of the final paving and shall be paid for by the Contractor as part of the project, unless specifically identified as an item for payment in unit price contracts.	2.6 REINFORCING STEEL ORGANIZATION A. The Contractor shall be the firm who's prime business is asphalt or concrete paving. The Contractor shall have a competent supervisor on the site during the progress of the work, acting for the Contractor in all matters concerning the work. He shall have the authority to receive directions and act upon them for the Town through the Westfield Public Works Department or designee. B. The Contractor shall keep a set of Plans and Specifications available on the site and in good condition. 1.7 TRAFFIC CONTROL The Contractor shall plan construction operations so that existing local traffic access can be maintained. During the construction, he will also maintain appropriate use of barricades, lights, flags, and other protective devices, whether specified for the project or required by the local governing authority. Traffic control devices used for maintenance of traffic shall comply with the Indiana Manual on Uniform Traffic Control Devices. PART 2 - PRODUCTS 2.1 AGGREGATE A. Fine aggregates shall consist of natural sand or manufactured sand produced by crushing rock, shells, air-cooled blast furnace slag, or wetbottom boiler slag. 1. Fine aggregates used in Portland cement concrete and bituminous pavements shall be free from injurious amounts of organic impurities. When subjected to the colorimetric test for organic impurities and a color darker than the standard is produced, it shall be tested for effect of organic impurities on strength of mortar in accordance with AASHTO T 71. If the relative strength at 7 and 28 days, calculated in accordance with section 10 of T 71, is less than 95%, it shall be rejected. B. Coarse aggregates shall consist of clean, tough, durable fragments of crushed rock, crushed or uncrushed gravel or shells, or crushed and processed air-cooled blast furnace slag. These materials shall not contain more than 15% flat or elongated pieces and shall not contain pieces with an adherent coating. Flat or elongated pieces will be described as pieces having a length in excess of four times its width. C. Coarse aggregates shall comply with INDOTSS, Section 904.02. Fine aggregates shall comply with INDOTSS, Section 904.01. 2.2 BITUMINOUS MATERIALS A. Petroleum asphalt cement shall be homogeneous, free from water, and shall not foam when heated to 347°F. 1. Petroleum asphalt cement shall be PG Binder, grade PG 64-22. 2. Petroleum asphalt emulsion shall be AE-60. B. Bituminous materials for prime coat shall consist of: 1. Cut-back asphalt - MC-70; or 2. Asphalt emulsion - AE-P. 3. Materials shall conform to INDOTSS Sections 902.03 and 902.04. C. Bituminous materials for tack coat shall consist of: 1. Asphalt emulsion - AE-T. 2. Materials shall conform to INDOTSS 902.04. D. Bituminous materials for seal coat shall consist of: 1. Asphalt emulsion - RS-2, AE-90, AE-150, HFRS-2. 2. Materials shall conform to INDOTSS Sections 902.03. E. Cover aggregate shall consist of: 1. Coarse aggregates, Class A or B, size no. 8, 9, 11 or 12. 2. Fine aggregate (natural sand only), size no. 23 or 24. 3. Materials shall conform to INDOTSS Sections 904.02 and 904.01, respectively. 2.3 HOT MIX ASPHALT (HMA) A. Hot mix asphalt (HMA) shall consist of an intimate mixture of coarse aggregate, fine aggregate (including mineral filler if required), and asphalt cement or emulsion combined in proportions specified in INDOTSS Section 402.04. B. When the use of one type or source of aggregate or binder is started, the use of that same type or source shall be continued for the entire lift being constructed, unless otherwise directed by the Engineer. C. The use of recycled materials, RAP or ARS, shall not be permitted unless otherwise directed and approved by Engineer. D. Preparation of HMA mixtures shall comply with the requirements of INDOTSS Section 402.04. 2.4 PORTLAND CEMENT CONCRETE A. Cement shall be Portland cement and shall meet the requirements of ASTM Specification C 150, ACI 301, and ACI 318. Cement shall be Type I for normal use, Type IA where air entrainment is desired, Type IIF or Type IIA where high early strength is desired and authorized by the Engineer. Blended hydraulic cements which meet the requirements of ASTM Specification C 595 Type 1P Portland pozzolan cement may be used where a more water retentive aggregate. Fly ash may also be used as a partial cement replacement for Types I or IA. Cement shall meet requirements specified in INDOTSS Section 901. B. Regular fine and coarse aggregates shall meet the requirements of ASTM Specification C 33. Aggregate shall be crushed limestone with a maximum size of 3/4 inch, except in mass concrete the maximum size may be 1 1/2 inches. 1. Lightweight fine and coarse aggregates shall meet the requirements of ASTM Specification C 332. 2. Insulating fine and coarse aggregates shall meet the requirements of ASTM Specification C 332. C. Water shall be potable, clean, and free from injurious amounts of oils, acids, alkalis, organic materials, or other substances that may be deleterious to concrete or steel. A maximum of 500 mg/L of chloride ion may be present in the water. D. Air entraining admixtures shall meet the requirements of ASTM Specification C 260. 1. Water reducing and retarding admixtures shall meet the requirements of ASTM C494, Type A or Type D; however, they shall contain no chlorides, be non-toxic after 30 days and compatible with the air entraining admixtures. The amount of admixture added to the concrete shall be in accordance with the manufacturer's requirements. Furnish a compliance statement that the admixture used satisfies all requirements of this specification. Evidence that the admixture is included in the approved list of the INDOTSS Division of Materials and Tests, in accordance with 2. INDOTSS Section 912.03, will satisfy the requirement for a compliance statement. 3. Fly ash shall meet the chemical and physical requirements of ASTM C 618 for mineral admixture Class F, except loss on ignition shall not exceed 6%. Fly ash shall be sampled and tested in accordance with ASTM C 311 prior to use.	E. Reinforcing steel shall meet the requirements of ASTM Specification A 615, Grade 60. 1. Welded wire fabric or wire mesh shall meet the requirements of ASTM A 185. 2. Reinforcing steel and appearances shall follow INDOTSS Section 910.01. F. Preformed expansion joint filler shall meet the requirements of ASTM Specification D 1752, Type III. 1. Hot-poured elastic joint filler shall meet the requirements of ASTM Specification D 1190. 2. Waterproof expansion joint filler shall meet the requirements of ASTM Specification D 1850. 3. Joint materials specified in INDOTSS Section 906 may be used, approved by the Engineer. G. Concrete pavement shall be wet cured by using burlap, waterproof blankets, or ponding; or by using a membrane compound. If the membrane method is used, the compound shall be Type 2, complying with AASHTO M148 for white pigmented compound. A pressure sprayer capable of applying a continuous uniform film to the pavement surfaces will be required. H. Dowel bars shall be smooth, round bars of plain bilsteel conforming to ASTM A615, Grade 40, and free of any deformation or foreign material that would restrict slippage in concrete. Dowel bars shall be coated as required by INDOTSS. For expansion joints, each bar shall be provided with a metal cap, or approved plastic cap, on one end that will provide for ample movement of the slabs. 1. Dowel bars and assemblies shall conform to the requirements of INDOTSS Section 501.14 (f). I. Concrete base shall meet the requirements of INDOTSS Section 307. J. Reinforced concrete pavement shall meet the requirements of INDOTSS Section 501. K. Reinforced concrete for sidewalks and steps shall meet the requirements of INDOTSS Section 604. L. Reinforced concrete for curbing shall meet the requirements of INDOTSS Section 605. 1. UNDERDRAINS Underdrain material shall be 6-inch polyethylene perforated pipe. 2. PART 3 - EXECUTION 2. GENERAL A. The Contractor is responsible to provide equipment, workmanship and materials required to achieve a finished product that meets these specifications. B. Use compaction equipment suitable to the material being placed. Compacting equipment shall include at least one piece of equipment capable of providing a smooth even surface on the pavement surface course. C. Prior to placing paving and surfacing materials, shape subgrade as required to produce finished pavement grades and cross-sections shown on drawings. D. Do not place paving and surfacing material before subgrade is reviewed (proof roll) and accepted by the Westfield Public Works Department or designee. Do not place paving and surfacing materials on a frozen or muddy subgrade. E. Compact subgrade to not less than 100% of its maximum density as determined in accordance with AASHTO 199. F. Provide adequate drainage at all times to prevent water from standing on subgrade, pavement or walks. 3.2 SUBGRADE The subgrade material and testing shall comply with INDOTSS Section 207, before placement of subbase. 3.3 SUBBASE PREPARATION Provide 8 inches of subbase in locations where pavement is to be placed on a material other than Special Backfill. Subbase shall meet the requirements of INDOTSS Section 304. 3.4 AGGREGATE BASE, SURFACE, OR SHOULDERS A. Aggregate base, surface
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SECTION 02731 - GRAVITY SANITARY SEWERS

PART 1 - GENERAL

1.1 GENERAL

A. This section covers all work necessary for the installation of gravity sanitary sewers and related items complete, including manholes, junction chambers, diversion chambers, house services, and miscellaneous concrete structures.

B. Sewer pipe shall be the size shown on the drawings and shall meet all requirements of these specifications.

C. If a material type is shown on the drawings, that material shall be used in the installation unless otherwise noted in the specifications.

1.2 PIPE MARKING

Each length of pipe shall bear the name or trademark of the manufacturer, the location of the plant, and the date of manufacture. Each length shall likewise be marked to designate the class or strength of the pipe. The marking shall be made on the exterior or interior of the pipe barrel near the bell or groove end and shall be plainly visible.

1.3 SUBMITTALS

Before construction and preferably before fabrication, the Contractor shall submit to the Westfield Public Works Department for approval calculations on the thickness or strength class and drawings showing pipe lengths, joints, and other construction and installation details. All pipe furnished shall be fabricated only in accordance with the drawings and these specifications.

1.4 QUALITY ASSURANCE

A. Performance Tests: The Contractor shall test all gravity sewers constructed. The Contractor shall constantly check horizontal and vertical alignment. Testing for vertical deflection in the case of non-rigid pipe and sewer watertightness testing in the case of all gravity sewers and hydrostatic testing of ductile iron pipe shall be as specified in this Section.

B. Line and Grade Requirements: The Contractor shall provide assurance to the Westfield Public Works Department that the representative that the sewer is laid accurately to the required line and grade as shown on the drawings. The Contractor shall utilize a laser beam instrument to lay and check the alignment and grade between manholes. Before proceeding with the next section of sewer, the last section shall be checked for proper line and grade. Variations from a uniform line and grade as shown on the drawings and as described below shall be cause for the line to be rejected.

1. Variance from established line and grade shall not be greater than 1/32 of an inch per inch of pipe diameter and not exceed 1/2 inch, provided that such variation does not result in a level or reverse sloping invert; provided also that the variation in the invert elevation between adjoining ends of pipe, due to non-concentricity of joints or variations in the interior surfaces, does not exceed 1/64 inch per inch of pipe diameter or 1/2 inch maximum.

C. Test Sections

1. Initial Performance Test: An initial performance and leakage test will be performed on the first sections of sanitary sewer constructed of approximately 600 feet in length of each size and type sewer material installed. No additional sewer pipe shall be installed until the first section of sewer of each size and type of sewer material has satisfactorily passed the test for line and grade and the leakage test.

2. Subsequent Performance Testing: After the initial performance test and leakage test and as work progresses, the Westfield Public Works Department or designee may designate additional test sections for testing as conditions in his opinion warrant. If a review of the Contractor's workmanship leads the Westfield Public Works Department or designee to question whether or not the tolerances and standards specified are being met, the Westfield Public Works Department or designee, reserves the right to select other locations and lengths to be tested. The Westfield Public Works Department or designee shall notify the Contractor of the location where a test is to be required not later than 15 days after the sewer installation has been completed. Unless otherwise authorized in writing, the Contractor shall arrange to commence the test within 15 days after the sewer has been installed or 15 days after receiving notification by the Westfield Public Works Department, whichever date is later.

3. Final Performance Testing for Acceptance: Before acceptance for all new sanitary sewers, the Contractor and the Westfield Public Works Department or designee shall check all sewers, even if previously checked, for accurate alignment and grade. Also, all sanitary sewers shall be tested as specified in Article 3.10 through 3.14 of this Section for watertightness. The program of testing whether by infiltration, exfiltration, air testing, or vacuum testing shall be determined by the Westfield Public Works Department.

1.5 LENGTH OF OPEN TRENCH

Except by permission of the Westfield Public Works Department not more than 450 feet of trench shall be opened at any one time. Not more than 30 feet of trench may be opened in advance of the completed pipe laying operation, and not more than one street crossing may be obstructed by the same trench at any one time.

1.6 RELATION TO WATER MAINS

A. Sewers must be laid at least 10 feet horizontally from any existing or proposed water main. The distance is to be measured edge to edge. Should specific conditions prevent this separation, the Contractor shall notify the Westfield Public Works Department for specific instructions regarding the treatment of the separation. Special conditions may allow installation of the sewer closer to a water main, provided that the water main is in a separate trench or on an undisturbed earth shelf located on one side of the sewer and at an elevation so the bottom of the sewer is at least 18 inches above the top of the sewer. It may be necessary to install 150 psi water main pipe and joints as sewer pipe for the congested areas.

B. Whenever the sewer crosses a water main, it should be laid at least 18 inches below the main, or the water main should be related with fittings to cross over the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints.

C. When it is impossible to obtain proper horizontal and vertical separation as stipulated above, the sewer shall be designed and constructed equal to water pipe, and shall be pressure tested to assure watertightness prior to backfilling. Maximum distance between sewer pipe joints and water pipe shall be provided where vertical separation is a problem.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Sewers 15 Inches or Smaller

1. Sewers 15 inches in diameter or smaller shall be PVC composite pipe, polyvinyl chloride pipe or ductile iron pipe.

2. PVC Composite Sewer Pipe and Fittings: PVC composite sewer pipe and fittings shall conform to ASTM D2680, latest revision.

3. Polyvinyl Chloride Pipe and Fittings

a. Polyvinyl chloride pipe and fittings shall conform to ASTM D3034 SDR 35, Type PSM, latest revision.

4. Ductile Iron Pipe and Fittings: Ductile iron pipe and fittings shall conform to the requirements of ANSI/ASTM A746, Ductile Iron Gravity Sewer Pipe.

a. Thickness class requirements of ductile iron pipe to be used in conveyance of sanitary sewage by gravity shall be minimum thickness of Class 350 unless otherwise noted for standard length pipe.

b. Outside surfaces of the pipe and fittings shall be bituminous coated complying with ANSI/AWWA A21.51/C151 and ANSI/AWWA A2210/C110.

c. Inside surfaces of all pipe, fittings and adapters shall be lined with cement mortar and a bituminous seal coat. Cement mortar lining and bituminous seal coat shall meet the requirements of ANSI/AWWA A21.4/C104.

d. Ductile iron pipe and fittings shall be push-on type conforming to ANSI A21.11 (AWWA C111), latest revision. Fittings shall be ductile iron and shall comply with ANSI Specification A21.10, latest revision, with mechanical joints for 150 psi working pressure.

5. Joints for PVC Sewer Pipe

a. Joints on PVC sewer pipe shall be the integral bell type gasketed joint designed so that when assembled the elastomeric gasket inside the bell is compressed radially on the pipe spigot to form a positive seal. The joint shall be so designed to avoid displacement of the gasket when installed in accordance with manufacturer's recommendations. The joint shall comply with the physical requirements of ASTM D3212, and the gasket shall be the only element depended upon to make the joint flexible and watertight.

b. All PVC pipe entering a manhole shall have a manhole watertop gasket as supplied by the manufacturer firmly clamped around the pipe at the manhole. If flexible entry type manhole system is used, the watertop gasket is not required.

B. Fittings

1. Fittings such as wyes and bends shall be made in such a manner as will provide strength and watertightness at least equal to the class of the adjacent main line pipe to which they are joined and shall conform to all other requirements specified for pipe of corresponding class and internal diameter. Joints shall be of the same type as used on the adjoining pipe.

2. Fabricated branches for wyes and tees shall be securely attached to the wall of the pipe in a watertight manner and shall be flush with the inside surface of the pipe. The branches shall have their axes perpendicular to the longitudinal axis of the pipe. Wye branches shall have their axes approximately 60 degrees for clay pipe and 45 degrees for concrete pipe from the longitudinal axis of the pipe, measured from the bell end. Pipe reinforcement shall not be interrupted beyond a radial distance of 3 inches outside of the fitting.

C. Manholes and Other Structures: Manholes shall be constructed of monolithic concrete or precast manhole sections. Precast manhole sections shall conform to requirements of ASTM Specification C478, latest revision.

1. Materials for manholes, junction chambers, diversion chambers, and miscellaneous concrete structures shall comply with the following:

a. Concrete for precast manhole sections shall be 3000 psi concrete. Monolithic manholes shall use 4000 psi concrete. Ready-mix concrete shall conform to ASTM C94 Alternate 2. Maximum size of aggregate shall be 1-1/2 inches. Slump shall be between 2 and 4 inches.

b. Forms for chamber and structures shall be plywood or other approved material. Steel forms shall be used for the inside face of monolithic concrete manholes.

c. Reinforcing steel shall conform to ASTM A615, Grade 40 deformed bars, or ASTM A616, Grade 40 deformed bars.

d. Mortar Materials

(1) Sand - ASTM Designation C144, passing a No. 8 sieve.

(2) Cement - ASTM Designation C150, Type 1.

(3) Water - shall be potable.

e. All joints shall be fully sealed and waterproofed. Rubber gaskets for precast concrete manhole sections shall meet the requirements of ASTM C443. The gasket shall be the sole element depended upon to make the joint flexible and watertight.

f. The manufacturer of the precast manholes shall provide core-drilled openings to produce a smooth, uniform, cylindrical hole of the proper size to accommodate a resilient connector meeting the requirements of ASTM C 923 for all sewers entering and leaving the manhole. The resilient connectors shall be either Press-Seal Gasket Corp., which provides PSX gasket, or Press-Wedge II, or similar flexible manhole sleeves furnished by Kor-N-Seal by NPG Systems, Inc.; or equal.

g. Precast manhole sections shall be steam cured and shall not be shipped from the point of manufacture for at least five days after having been cast. The exterior surface of each section shall be thoroughly coated with a coal tar epoxy type coating as manufactured by TNEMEC Co, Tneimec46H413 Hi-Build Tneime-Tar; or approved equal by the Engineer. Final dry film thickness shall be a minimum of 12 mils. Monolithic concrete manholes and other concrete structures shall be cured for a minimum of seven days and then coated in the field with a coal tar epoxy type coating as mentioned above.

h. Manhole castings shall be of good quality cast iron and/or ductile iron, conforming to ASTM Designation A48. Castings shall have a tensile weight of not less than 335 pounds and shall conform to the design of the manhole casting as shown on the standard detail sheet. Castings shall have three bolt holes equally spaced around base of frame and shall be securely anchored to one section to provide a water tight-fit with three 3/8-inch stainless steel bolts and expansion shields. Unless specifically designated otherwise, manhole castings shall be the non-locking type.

i. Manhole steps shall be made from a steel reinforcing rod encapsulated in a copolymer polypropylene resin. The manhole steps shall equal or exceed OSHA requirements. Manhole steps manufactured by M. A. Industries, Inc., RS-1-HF; Clay & Bailey Mfg. Co., or equal, are acceptable.

j. Any other special manholes, junction chambers, diversion chambers, and miscellaneous concrete structures shall be constructed as detailed on the drawings.

k. The Contractor may, at his option, furnish and install a combination precast concrete base and first section with precut openings for services. Detailed drawings shall be submitted to the Westfield Public Works Department prior to manufacture.

l. Precast manhole sections shall have a lifting eye cast into the wall for lifting the section. Lifting holes through the precast section will not be allowed.

D. Grease Trap: Grease trap tank shall be constructed of 6000 psi concrete. All tank joints shall be sealed watertight with butyl rubber extrudible preformed gasket material. All outside riser ring surfaces shall be waterproofed 1/8" with trowelable grade butyl rubber gasket plaster.

PART 3 - EXECUTION

3.1 INSPECTION AND REJECTION OF PIPE

A. The quality of all materials, the process of manufacture, and the finished pipe shall be subject to inspection and approval by the Westfield Public Works Department. Such inspection may be made at the place of manufacture or on the work after delivery, or at both places; and the pipe shall be subject to rejection at any time on account of failure to meet any of the specifications' requirements even though sample pipes may have been accepted as satisfactory at the place of manufacture.

B. Prior to being lowered into the trench, each pipe shall be carefully inspected, and those not meeting the specifications shall be rejected and at once removed from the work.

C. The Westfield Public Works Department or designee shall have the right to cut cores from such pieces of the concrete pipe as he desires for such inspection and test as he may wish to apply. The cost to cut the cores and administer appropriate test shall be paid by the developer.

D. Holes left by the removal of cores shall be filled in an approved manner by and at the expense of the manufacturer of the pipe.

E. The Westfield Public Works Department or designee shall also have the right to take samples of concrete after it has been mixed, or as it is being placed in the forms or molds, and to make such inspection and tests thereof as he may wish. The cost to administer appropriate test shall be paid by the developer.

F. Any pipe which has been damaged after delivery will be rejected and replaced solely at the Contractor's expense.

3.2 HANDLING PIPE

Each pipe section shall be handled into its position in the trench only in such manner and by such means as the Westfield Public Works Department or designee approves as satisfactory. As far as practicable, the Contractor will be required to furnish slings, straps, and other approved devices to permit satisfactory support of all parts of the pipe when it is lifted.

3.3 NOTICE TO WESTFIELD PUBLIC WORKS DEPARTMENT

The Westfield Public Works Department or designee shall be notified when the pipes are to be laid in the trench. At least 15 feet of the pipe shall, under ordinary circumstances, be laid before covering begins.

3.4 LAYING PIPE

A. All pipe shall be reinspected for soundness and damage due to handling immediately before being lowered into the trench. Any pipe found to be unsound or damaged will be rejected and shall be removed immediately from the site of the work.

B. All pipe shall be laid accurately to the required line and grade as shown on the drawings, and in the manner prescribed by the pipe manufacturer and appropriate ASTM Specifications, to form a close, concentric joint with the adjoining pipe and to bring the invert of each section to the required grade. The supporting of pipe on block will not be permitted.

C. Pipe laying shall proceed upgrade, beginning at the lower end of the sewer.

D. All sewers shall be designed and constructed to give mean velocities, when flowing full, of not less than 2.0 feet per second (0.6 m/s), based on Manning's formula using an "n" value of 0.013. The following are the recommended minimum slopes which should be provided; however, slopes greater than these are desirable.

Nominal Sewer Size	Minimum Slope in Feet Per 100 Feet (m/100m)
8 inch (200 mm) 0.40	
10 inch (250 mm) 0.28	
12 inch (300 mm) 0.22	
14 inch (350 mm) 0.17	
15 inch (375 mm) 0.15	
16 inch (400 mm) 0.14	
18 inch (450 mm) 0.12	
21 inch (525 mm) 0.10	

Nominal Sewer Size	Minimum Slope in Feet Per 100 Feet (m/100m)
24 inch (600 mm) 0.08	
27 inch (675 mm) 0.067	
30 inch (750 mm) 0.058	
33 inch (825 mm) 0.052	
36 inch (900 mm) 0.046	
39 inch (975 mm) 0.041	
42 inch (1050 mm) 0.037	

E. Practically watertight work is required, and the Contractor shall construct the sewers with the type of joint specified.

F. All pipe shall be laid to the line and grade as shown on the drawings. Variations from a uniform line and grade as shown on the drawings shall be cause for the line to be rejected.

G. The ends of the pipe shall be satisfactorily cleaned just before laying, and the joint shall be made in a satisfactory manner in accordance with the recommendations of the manufacturer on particular type of joint. All joint work shall be done by experienced workmen.

H. PVC (polyvinyl chloride) gravity sewer pipe and fittings, ASTM Designation D3034 SDR 35, shall be installed in accordance with the directions contained in ASTM Designation D2321. Only materials classified as Class I will be acceptable for bedding, haunching, and initial backfill of the pipe placed and compacted in accordance with ASTM D2321.

I. Joints on PVC pipe shall be the integral bell type gasketed joint designed so that when assembled the elastomeric gasket inside the bell is compressed radially on the pipe spigot to form a positive seal. The joint shall be so designed to avoid displacement of the gasket when installed in accordance with the manufacturer's recommendations. The gasket shall be the only element depended upon to make the joint flexible and watertight.

J. All PVC pipe entering a manhole shall have manhole watertop gasket as supplied by the manufacturer firmly clamped around the pipe. If flexible entry type manhole system is used, the watertop gasket is not required.

K. All PVC pipe shall have a deflection test performed by the Contractor in the presence of the Westfield Public Works Department or designee.

L. All pipe shall be bedded as described in this specification under Pipe Bedding. Bell holes shall be excavated in advance of pipe laying so the entire pipe barrel will bear uniformly on the prepared subgrade.

M. Each length of pipe shall be mechanically pulled "home" with a winch or come-along against the section previously laid and held in place until the trench and bedding are prepared for the next pipe section. Care shall be taken in laying the pipe so not to damage the bell end of the pipe. Mechanical means consisting of a cable placed inside the pipe with a winch, jack, or come-along shall be considered to pull the pipe home where pushing the pipe will not result in a joint going completely home and staying in place. Pushing the pipe home shall be done by means of a block and push bar. Use of hydraulic excavating equipment as the means of pushing or moving the pipe to grade will not be permitted.

N. The Contractor shall use laser beam equipment to maintain accurate alignment and grade. A qualified operator shall handle the equipment during the course of construction. If bending of the laser beam due to air temperature variations or dust in the air is apparent "within the pipe" units, a fan shall be provided to circulate the air. However, air velocity shall not be so excessive as to cause pulsating or vibrating of the beam. Survey instruments may be used for checking alignment and grade if questions arise about the accuracy of the work.

O. Open excavation shall be satisfactorily protected at all times. At the end of each day's work, the open ends of all pipes shall be protected against the entrance of animals, earth, or debris by bulkheads or stoppers. The bulkheads or stoppers shall be perforated to allow passage of water into the installed pipe line to prevent flotation of the pipe line. Any earth or other material that may find entrance into the main sewer or into any lateral sewer through any such open end of unplugged branch must be removed at the Contractor's expense.

P. The Contractor shall conduct a leakage test as described in SewerTests of the specification on the first section of sewer of each size and type sewer material installed. No additional sewer pipe shall be installed until the first reach of sewer of each size and each type sewer material has satisfactorily passed the leakage test.

Q. The Contractor shall prevent all ground water and surface water from entering the existing sewer system during construction of a new sewer or force main extension.

R. Sanitary sewer designs that require crossing a county legal drain shall be approved and constructed per the latest standards of the Hamilton County Surveyor's Office.

3.5 PIPE BEDDING AND HAUNCHING

A. Each pipe section shall be laid in a firm foundation of bedding material and haunched and backfilled with care.

B. Prior to pipe installation, carefully bring bedding material to grade along the entire length of pipe to be installed. To provide adequate support for the pipe, the following bedding procedures are recommended.

1. When Class I material is used for bedding, little or no compaction is necessary due to the nature of the angular particles. A depth of 4 to 6 inches is generally sufficient to provide uniform bedding.

C. Bedding material shall have a minimum thickness beneath the pipe of 4 inches (100 mm) or one-eighth of the outside diameter of the pipe, whichever is greater, and shall extend up the sides of the pipe one-sixth of the outside diameter of the pipe.

D. For rigid pipe, such as concrete or ductile iron, backfill between the bedding material and a plane 12 inches (300 mm) over the top of the pipe shall be hand-placed finely divided earth, free from debris and stones, or granular backfill if required.

E. For flexible pipe such as PVC, the placement of embedment material, consisting of bedding, haunching, and initial backfill, must be done with care. The ability of the pipe to withstand loading in a trench depends a large part on the method employed in its installation. Class I bedding, as defined in specification Section 02222, Article 2.01, paragraph A, shall be used as embedment material for flexible pipe. Bedding thickness shall be as specified in paragraph C of the specification. Bedding and haunching material (the material from the bedding to the pipe springline) and initial backfill (the material from the pipe springline to a plane 12 inches over the top of the pipe), shall be hand placed. Care must be taken to not cause damage by compacting the material directly over the pipe.

F. In yielding subsolls, the trench bottom shall be undercut to the depth necessary and backfilled with graded, crushed stone to form a firm foundation. No additional payment shall be made for stabilizing yielding subsolls.

G. Where excavation occurs in rock or hard shale, the trench bottom shall be undercut and a minimum of 6 inches (150 mm) crushed stone bedding placed prior to pipe installation. Additional payment for rock excavation shall be made on the basis of contracts only, and as prescribed under basis for payment.

3.6 MANHOLES AND OTHER STRUCTURES

A. Manholes and other structures are to be constructed at locations shown on the drawings and in accordance with the following specifications:

1. Precast concrete manhole sections shall conform to ASTM Designation C478, except as modified herein:

a. The joint design of the precast sections shall consist of a bell or groove on one end of the unit of pipe and a spigot or tongue on the adjacent end of the joining section.

b. The joint shall consist of a round rubber gasket confined in a groove in the spigot end of the precast manhole section and shall conform to Sections 6.1-6, 6.1-7 and 9 of ASTM Designation C443, latest revision and a 6 inch wide flexible butyl rubber joint sealant between the outside surface of the pipe and joints are to be sealed with hydroplup or non-shrink grout and brushed smooth.

2. Openings in manhole sections for sewer connections shall be core-drilled at the point of manufacture and shall be done to produce a smooth, uniform, cylindrical hole of proper size to accommodate a resilient connector meeting requirements of ASTM C 923. The resilient connectors shall be either Press-Seal Gasket Corp., which provides PSX Gasket or Press-Wedge II; or similar flexible manhole sleeves furnished by Kor-N-Seal by NPC Systems, Inc.; or equal.

3. Manhole bases shall be cast-in-place concrete, reinforced as shown on the Standard Detail Sheet, or monolithic base and first section combination. Manhole bases shall be cast or placed on a minimum of 6 inches of compacted crushed stone.

4. Monolithic concrete manholes, junction chambers, and other cast-in-place concrete structures shall be cured for a minimum of seven days. The exterior surfaces shall then be coated thoroughly with a coal tar epoxy type coating as manufactured by TNEMEC Co., Tneimec46H413 Hi-Build Tneime-Tar; or approved equal by the Westfield Public Works Department. Coating shall be 12 mil minimum dry film thickness. Each joint of precast concrete manhole sections, lifting holes, and holes left by the removal of wyes shall be fully mortared and shall be coated with a 1/2 mil minimum dry film thickness of coal tar epoxy as specified upon reaching its final set.

5. Any additional holes cut in the field drilled with a core-drill or in a manner approved by the Westfield Public Works Department or designee.

6. Manhole frames and lids shall weigh not less than 335 pounds and be of good quality cast iron, conforming to ASTM Designation A48. Unless specifically designated otherwise, manhole castings shall be the non-locking type. Manhole frames shall be cast or drilled with three holes equally spaced around base of frame and shall be securely anchored to one section with three 3/8-inch stainless steel bolts, nuts, and washers. The joint between the casting frame and one section shall be first sealed with cement mortar and then coated with a pliable butyl rubber or a coal tar epoxy coating upon reaching its final set to become a watertight joint.

7. Manhole steps shall be made from a steel reinforcing rod encapsulated in a copolymer polypropylene resin. A line is improperly prepared. It is extremely important that the various plugs be installed in such a way as to prevent blowouts. Inasmuch as a force of 2500 pounds is exerted on an 8-inch plug by an internal pipe pressure of 50 psi, it should be realized that sudden expulsion of a poorly installed plug or cap can be dangerous. As a safety precaution, no one shall be allowed in the manholes when the pipe is pressurized.

E. A hydrostatic test on ductile iron pipe with push-on type joints installed as force main shall be in accordance with Article 3.12, paragraph D., with the following exception:

1. The force main shall be subjected to an internal pressure equal to 50% more than the maximum operating pressure, but in no case less than 50 psig or greater than 120 psig.

3.13 MANHOLE VACUUM TESTING

A. A vacuum test shall be conducted by the Contractor on manholes to ensure watertightness and manhole integrity.

B. The equipment required to conduct a vacuum test on manholes includes inflatable pipe plugs, test hose, vacuum pump, flexible air hose, and a vacuum gauge. The test equipment shall be capable of drawing a vacuum of 10-inch Hg. The equipment shall be designed specifically for the purpose of testing manholes and shall be as manufactured by P.A. Glazier, Inc., Worcester, Massachusetts 10002, or equal.

C. The procedure for conducting an air test on manholes shall be in accordance with the following procedure:

1. Each manhole shall be tested immediately after assembly and prior to setting the casting or backfilling around the structure.

2. All lift holes shall be plugged with non-shrink grout.

3. All pipes entering the manhole shall be securely plugged and adequately braced against the inside of the manhole to prevent being drawn out of the pipe.

4. The test head shall be placed on the inside of the cone section and sealed with an inflatable seal.

5. A vacuum of 10 inches of mercury (Hg) shall be applied to the vacuum pump. When the pump starts, the valves closed, the time shall be measured for the vacuum to drop to 9 inches. The manhole shall pass if the time is greater than the following:

Manhole Size	Minimum Test Time
48"	60 seconds
60"	75 seconds
72"	90 seconds

3.14 CLOSED CIRCUIT TELEVISION INSPECTION

A. All sections of sewers shall be inspected by closed circuit television.

B. All unacceptable conditions found during television inspection must be corrected by the Contractor and re-televised.

C. Unacceptable conditions are conditions that adversely affect the ability of the system to function as designed or to be properly maintained and may include, but are not limited to, the following:

1. Protruding taps

2. Cracked or faulty pipe

3. Misaligned or deformed pipe

4. Debris in line

5. Infiltration / exfiltration

6. Excessive gaps at joints

7. Bellies or sags with a depth greater than or equal to 10% (or a maximum of 1-1/2 inches) of pipe diameter and/or a length greater than 25 feet.

D. See Specification Section 02750 Sewer Telescoping for procedures.

3.15 RECORD DRAWINGS

A. The Contractor shall prepare or be responsible for the preparation and submittal of record drawings as described in Section 01001, Article 1.17.

B. Record drawings shall be certified to accuracy by a registered professional Engineer.

PART 4 - FIGURES

4.1 STANDARD DETAILS

Figure	Description
S-1	Standard Sanitary Manhole Detail
S-2	Standard Sanitary Manhole Spacer Ring Detail
S-3	Standard Sanitary Manhole Frame and Cover Details
S-4	Force Main Discharge Detail
S-5	Sewer Pipe Bedding Details
S-6	Concrete Encasement Detail
S-7	Drop Pipe Detail
S-8	Alternate Drop Pipe Details
S-9	Jacking and Boring Detail
S-10	House/Building Sewer Detail-1
S-11	House/Building Service Connection
Detail-2 S-12	House/Building Service Bedding Detail
S-13	House/Building Service Clean-out Detail
S-14	Grease Trap Detail

END OF SECTION 02731

2. Water shall be introduced into the section to be tested at the lower end. The upper end shall have an office at the top of the plug or cap to expel air when filling the pipe. All air shall be expelled from the pipe.

3. The test plugs or caps shall be capable of withstanding an internal pressure of 175 psi.

4. The system shall be tested in conformance with Section 13 of AWWA Specifications 600, at 50 pounds per square inch over a period of not less than one hour. The system will not be acceptable until all leaks have been repaired.

5. Hydrostatic test may be dangerous if, because of carelessness, a line is improperly prepared. It is extremely important that the various plugs be installed in such a way as to prevent blowouts. Inasmuch as a force of 2500 pounds is exerted on an 8-inch plug by an internal pipe pressure of 50 psi, it should be realized that sudden expulsion of a poorly installed plug or cap can be dangerous. As a safety precaution, no one shall be allowed in the manholes when the pipe is pressurized.

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1. The force main shall be subjected to an internal pressure equal to 50% more than the maximum operating pressure, but in no case less than 50 psig or greater than 120 psig.

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3. All pipes entering the manhole shall be securely plugged and adequately braced against the inside of the manhole to prevent being drawn out of the pipe.

4. The test head shall be placed on the inside of the cone section and sealed with an inflatable seal.

5. A vacuum of 10 inches of mercury (Hg) shall be applied to the vacuum pump. When the pump starts, the valves closed, the time shall be measured for the vacuum to drop to 9 inches. The manhole shall pass if the time is greater than the following:

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S-14	Grease Trap Detail

END OF SECTION 02731

1. The ends of the sewer section being tested shall have test plugs or caps adapted with a tap of adequate diameter to fill and pressurize the system with water.

2. To accommodate a restraining cap. The benchwall shall be formed in the manhole after the test section has been approved.

1. When a section is terminated at a manhole with a plane end (spigot), the pipe must extend into the manhole of sufficient length

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DATE: 06/27/08

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CENTENNIAL SOUTH
EXPANSION
WESTFIELD, INDIANA

ESTRIDGE DEVELOPMENT CO., INC.
CARMEL, INDIANA

DATE: 06/27/08

PROJECT NO.: 3915.004

DRAWN BY: PCJ

CHECKED BY: JLF

SHEET TITLE: GRAVITY SANI. SEWER SPECS. FOR THE TOWN OF WESTFIELD

DRAWING FILES: R:\3\3915\004\DWGS\0301-C905

SHEET NO.: C904

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SECTION 02721 - STORM SEWERS

PART 1 - GENERAL

1.1 GENERAL

A. This section covers all work necessary for the construction of the storm sewer piping systems and related items complete, including catch basins and inlet drains, manholes, junction chambers, diversion chambers, outfall structures, and miscellaneous structures.

B. This specification covers the following types of materials for storm sewers, culverts, underdrains, inlet drains, conduits, and miscellaneous applications:

- Reinforced Concrete Pipe and Fittings
- Polyvinyl Chloride Pipe (PVC)
- Corrugated Metal Pipe
- Structural Plate Arches
- Aluminum or Aluminized Steel Pipe and Structural Plate
- Multi-Plate Pipe and Pipe Arches
- PVC Composite Pipe
- Corrugated Polyethylene Pipe- SSD (Perforated and Non-Perforated)

C. All storm sewer systems shall be reinforced concrete pipe (RCP), meeting the requirements set forth in Part 2.2, and shall be a minimum of twelve (12) inch in diameter; unless otherwise approved by the Westfield Public Works Department.

D. All lots shall have access to a subsurface or storm drain or open ditch.

E. Storm sewer systems shall have a minimum of five hundred (500) feet between structures.

F. Bench walls shall be shaped and formed for a clean transition with proper hydraulics to allow the smooth conveyance of flows through the structure. The bench wall shall form a defined channel, to a minimum height of the spring line of the pipe.

G. Bench walls shall be formed using full depth Class "A" concrete. Solid concrete block, stone or sand shall not be permitted as a base or filler for the construction of the bench wall.

H. This specification requires project plans and construction specifications to be submitted to and approved by all appropriate regulatory agencies prior to beginning any work.

1.2 PIPE MARKING

Each length of pipe shall bear the name or trademark of the manufacturer, the location of the plant, and the date of manufacture. Each length shall likewise be marked to designate the class or strength of the pipe. The marking shall be made on the exterior or interior of the pipe barrel near the bell or groove end and shall be plainly visible.

1.3 SUBMITTALS

Before construction and preferably before fabrication, the Contractor shall submit to the Westfield Public Works Department for approval calculations on the thickness or strength class and drawings showing pipe lengths, joints, and other construction and installation details.

PART 2 - PRODUCTS

2.1 MATERIALS

The Town of Westfield Public Works Department may, at their option, specify a material to be used on the drawings; and the Developer or Contractor shall furnish and install the pipe material or materials specified and will only offer other equal materials.

1. REINFORCED CONCRETE PIPE AND FITTINGS

- A. Reinforcing concrete pipe and fittings shall conform to ASTM C76, latest revision, for circular pipe and ASTM C507 for elliptical pipe.
- B. Reinforced concrete pipe and fittings for normal conditions shall be reinforced in accordance with ASTM C76, Class III, IV or V, Wall B (minimum). Acceptance shall be on the basis of Subsection 4.1.1 of ASTM C76.
- C. Circumferential reinforcing in circular pipe shall be required. Only with approval from the Westfield Public Works Department will elliptical reinforcing or combination of elliptical and circumferential reinforcing or part circular reinforcing shall be permitted, in circular pipe.
- D. Concrete pipe shall be steam cured and shall not be shipped from point of manufacture for at least five days after having been cast.
- E. Joints shall conform to the requirements of ASTM C443. Gaskets shall be of an oil resistant type having a maximum swell of 90% when tested in accordance with ASTM D471. Lubricant for jointing shall be approved by gasket manufacturer.

- All rubber gaskets similar to and equal to "Press-Seal" or "Tylotex" conforming to ASTM Designation C443, latest revision. The gasket shall be attached to the gasket flange of the pipe and shall be the sole element depended upon to make the joint flexible and practically watertight.
- Butyl mastic joint sealant in rope or trowel applied form specifically made for permanently sealing joints in tongue and groove concrete sewer pipe. The material shall adhere tightly to the pipe surface and form a tight, flexible joint. The material shall have been in use for at least five years. Test results and material specifications shall be submitted to the Westfield Public Works Department and shall have been approved prior to use on the project.

2. POLYVINYL CHLORIDE PIPE AND FITTINGS

Polyvinyl chloride (PVC) pipe and fittings shall comply with ASTM D 3034.

2.4 CORRUGATED METAL PIPE AND PIPE ARCHES

A. The following specifications shall govern the manufacture of the corrugated steel pipe and pipe arches.

- Specifications for Zinc Coated (galvanized) Steel Sheets (ASTM A444).
- Manufacture of Corrugated Steel Culverts and Underdrains (AASHTO M-36).
- Structural Plate for Pipe, Pipe Arches, and Arches (AASHTO M167).
- Bituminous Coated Corrugated Steel Pipe and Arches (AASHTO M-190).
- Sheet Material (ASTM A525).

B. Bituminous Coated Welded Seam Helically Corrugated Steel Pipe: The pipe shall be fabricated from flat coils. The base metal, spelter coating, and fabrication shall meet the applicable requirements of AASHTO M-36. Corrugations shall be 2-2/3-inch pitch by 1/2-inch depth. Each pipe shall have two annular corrugations rolled in each end. After the ends are rolled, the pipe shall be coated with bituminous material, inside and outside, to a minimum thickness of 0.05 inch as required by AASHTO M190 for Type A coating.

C. Bituminous Coated and Paved Invert Welded Seam Helically Corrugated Steel Pipe

- The pipe shall be fabricated from flat coils. The base metal, spelter coating, and fabrication shall meet the applicable requirements of AASHTO M-36. Corrugations shall be 2-2/3-inch pitch by 1/2-inch depth. Each pipe shall have two annular corrugations rolled in each end.
- After the ends are rolled, the pipe shall be coated with bituminous material, inside and outside, to a minimum thickness of 0.05 inch. In addition, bituminous material shall be applied to form a smooth pavement in the bottom 25% of pipe and in the bottom 40% of pipe arch as required by AASHTO M-190 for Type C coating.

D. Smooth Lined Welded Seam Helically Corrugated Steel Pipe

- The pipe shall be fabricated from flat coils. The base metal, spelter coating, and fabrication shall meet the applicable requirements of AASHTO M-36. Corrugations shall be 2-2/3-inch pitch by 1/2-inch depth. Each pipe shall have two annular corrugations rolled in each end. Each pipe shall have two lifting lugs welded to the outside of the pipe.
- After the ends have been rolled, the pipe shall be coated with bituminous material, inside and outside, to a minimum thickness of 0.05 inch as required by AASHTO M-190 for Type A coating. The pipe shall be centrifugally lined on the inside with bituminous material to form a smooth surface which fills the corrugations to a minimum thickness of 1/8 inch above the crests of the corrugations. The bituminous lining material shall meet the requirements of AASHTO M-190.

2.5 CORRUGATED METAL PIPE COUPLINGS

Bituminous Coated Pipe Couplings: Coupling bands shall be the same base metal and spelter coating as the pipe. Bands shall be 0.064-inch thick and 10-1/2 inches wide. Bands shall be bituminous coated and shall have two corrugations 7-5/8 inches center to center. Bands 12-inch diameter through 30-inch diameter shall be one-piece, and 36-inch diameter through 96-inch diameter shall be two-piece. Band laps 12-inch diameter through 48-inch diameter shall be joined by one galvanized bar, bolt, and strap connector. Band laps 54-inch diameter through 96-inch diameter shall be joined by two galvanized bar, bolt, and strap connectors.

2.6 ALUMINUM OR ALUMINIZED STEEL CORRUGATED PIPE AND STRUCTURAL PLATES

A. Aluminum Alloy Structural Plate

- Aluminum alloy plates and fasteners intended for use in the construction of structural plate pipe and pipe arch for storm sewers shall meet the applicable requirements of AASHTO M-219. The plate shall be fabricated from aluminum alloy 5052 H141. The chemical composition of the plates shall conform to ASTM B209 alloy 5052.
- The corrugations shall have a pitch of 9 inches plus or minus 3/8 inch and depth of 2-1/2 inches plus or minus 1/8 inch. The inside crown radius of the corrugations shall be not less than 2 inches.
- The structural plate pipe or arches shall be assembled in accordance with the manufacturer's erection instructions and in accordance with the drawings.

B. Aluminized Steel Pipe and Arches

- Aluminized coated corrugated steel pipe and pipe arch intended for use in the construction of storm sewers shall meet the applicable requirements of AASHTO M-36. Sheet material shall meet the latest revision of ASTM A525 and AASHTO M-274. The coils from which the pipe is produced shall be coated with 1.0 ounce per square foot of commercially pure aluminum.
- Pipe shall be furnished circular or as a pipe-arch shape as required and shall be fabricated with helical corrugations and a continuous welded seam extending from end to end of each length of pipe.
- Each end of each pipe with the welded seam shall have two annular corrugations reformed to permit joining with hugger bands.
- Coupling bands shall be hugger bands.

2.7 MULTI-PLATE PIPE AND PIPE ARCHES

A. Multi-plate pipe and pipe arch structures shall be in accordance with AASHTO M-167. They shall be made with steel sections with corrugations 6 inches wide by 2 inches deep running at right angles to the section.

B. Bolts and nuts shall be special heat-treated galvanized 3/4-inch diameter bolts in accordance with ASTM specifications.

C. Multi-plate pipes and pipe arches shall be designed in accordance with the manufacturer's design criteria and in accordance with the drawings.

D. Detailed instructions regarding erection shall be furnished by the manufacturer.

2.8 PVC COMPOSITE PIPE AND FITTINGS

ABS or PVC composite pipe and fittings shall conform to ASTM D 2680, Latest Revision.

2.9 CORRUGATED POLYETHYLENE PIPE AND FITTINGS

A. Pipe Materials: Corrugated polyethylene pipe shall comply with the requirements fore materials, test methods, dimensions, and marking in accordance with AASHTO M-252 for pipe diameters 6" - 10", AASHTO M-294 for pipe diameters of 12" - 48", and AASHTO MP7 for 54" and 60".

B. The resin material shall meet ASTM D3350 cell classification 335400C.

C. Pipe Joints: The pipe lengths shall be connected using a gasketed, bell and spigot joint. This joint shall consist of a factory installed, gasketed double bell polyethylene coupling, a factory welded bell or integral bell. The spigot end of the pipe shall be furnished with a factory installed elastomeric profile "O-ring" rubber gasket that meets ASTM F-477.

D. The pipe shall be shipped with a removable vaw to protect the gasket. Provide lubrication to the joint prior to pushing together. At least two (2) corrugations of the spigot must insert into the bell end.

E. Certification: All HDPE pipe shall be certified through the Plastic Pipe Institute (PPI) Third Party Certification Program. All HDPE pipe delivered and installed shall bear the Third Party Administered PPI Seal.

2.10 MANHOLES AND OTHER STRUCTURES

A. Manholes shall be constructed of monolithic concrete or precast manhole sections. Precast manhole sections shall conform to requirements of ASTM Specification C478, latest revision.

B. Materials for manholes, junction chambers, diversion chambers, and miscellaneous concrete structures shall comply with the following:

- Cement shall be Portland cement and shall meet the requirements of ASTM Specification C150, ACI 301, and ACI 318. Concrete for precast manhole sections shall be 3000 psi concrete. Monolithic manholes shall use 4000 psi concrete. Ready-mix concrete shall conform to ASTM C94, Alternate 2. Maximum size of aggregate shall be 3/4 inch. Slump shall be between 2 and 5 inches.
- Forms for chamber and structures shall be plywood or other approved material. Steel forms shall be used for the inside face of monolithic concrete manholes.
- Reinforcing steel shall conform to ASTM A615, Grade 60 deformed bars, or ASTM A616 Grade 60 deformed bars.
 - Mortar Materials:
 - Sand - ASTM Designation C144, passing a No. 8 sieve.
 - Cement - ASTM Designation C150, Type 1.
 - Water - shall be potable.
- The manufacturer shall provide openings for sewers entering and leaving the manhole. Any additional openings needed to be made in the field shall be made by drilling holes at least 1/2 inch in diameter with a maximum spacing of 3 inches.
- Manhole steps shall be made from a steel reinforcing rod encapsulated in a copolymer polypropylene resin. The manhole steps shall equal or exceed OSHA requirements.
- Any other special manholes, junction chambers, diversion chambers, and miscellaneous concrete structures shall be constructed as detailed on the drawings.

4. Manhole bases shall be set on a minimum of six (6) inches of # 8 aggregate.

C. Concrete ends sections shall have a minimum of an eighteen (18) inch toe plate, either poured in place or precast, bolted to the end section per Standard Detail (ST-9). Corrugated end sections with toe plates shall require Westfield Public Works approval.

2.11 CATCH BASINS

A. During construction, precautionary measures such as adequate screening of grates shall be maintained to deter earth and other materials from entering the drains.

B. Catch Basins, for sediment control, locations to be determined by a Professional Engineer, and approved by the Westfield Public Works Department. Catch Basins shall be located within easily accessible dedicated easements or right of way of sufficient size to facilitate the required maintenance of these structures

C. Catch basins and curb inlet structures which are 2 feet x 2 feet in size shall not have a depth deeper than four (4) feet from the invert of the lowest pipe to the lowest part of the rim elevation of the casting. All structures which do not meet this criteria shall be a manhole type, which is forty-eight (48) inches in diameter.

2.12. CASTINGS

A. Cast iron or ductile iron frames and gratings for catch basins and drain inlets shall be as shown on the drawings. Bearing surfaces shall be clean and shall provide uniform contact. Castings shall be tough, close-grained gray iron, sound, smooth, clean, free from blisters, blow holes, shrinkage, cold shuts, and all defects and shall conform to ASTM A48 Class No. 30-B.

B. During construction, precautionary measures such as adequate screening of grates shall be maintained to deter earth and other materials from entering the drains.

C. The following castings types are required:

- Manholes - Neenah R 1772 A or equivalent
- Beehive Inlets - Neenah R 4342 or equivalent
- "Roll Curb" Inlets - Neenah 3501 - TR or TL or equivalent
- "Chair Back" Curb Inlet - Neenah 3287 - 10V or equivalent
- Other types shall require approval of the Westfield Public Works Department.

D. Curb inlets castings which possess open backs or have grate bars parallel to traffic flow (are not "bicycle safe") will not be accepted by the Westfield Public Works Department.

E. Storm sewer castings manhole covers, beehive inlets, curb inlets or other approved castings shall have the following phrases cast in recessed letters two (2) inches in height:

- "Storm Sewer"
- "Drains to River" or "Drains to Waterway"
- "Dump No Waste"
- Other phrases shall require approval of the Westfield Public Works Department.

F. All castings frames shall have a horizontal bearing surface around the entire perimeter of the frame in order to support the cover or grate.

2.13. SUBSURFACE TILES

A. Unless otherwise approved, perforated subsurface drain tiles, footer drains, or sump pumps lines shall connect to a storm structure. Storm sewer connections shall be provided by either precast or drilled holes, which are to be a minimum of two (2) inches larger the O.D. of the connecting tile. Drain tile connections shall be made with either "tee" or "Wye" method.

B. Blind connections to storm sewer pipes shall not be allowed.

C. Subsurface tile as specified herein may be used to convey water collected in sump pits and footer drains to an acceptable storm sewer outlet, provided these drain tiles are properly sized to accept these flows.

D. Gutter or building drains shall not be allowed to outlet directly into storm sewer systems.

E. Double wall smooth core corrugated polyethylene tile, manufactured under specification ASTM F 667, shall be required for all subsurface drain tile installed in swales. Single wall corrugated polyethylene drain tile shall be required for curb sub-grade drainage.

F. Polyethylene tile shall possess male and female pipe ends, which allow the construction of overlapping, gasket pipe joints, in conformance with the requirements of ASTM D 3212. The gasket material shall conform to all requirements of ASTM F-477. As an alternative, pipe joints utilizing external couplings bands will be accepted, provided the minimum AASHTO requirements for satisfactory soil tightness are also achieved.

G. Storm sewer pipe shall be of the size shown on the drawings and shall meet all requirements of these specifications. Subsurface drains (SSD) shall have a minimum of five hundred (500) feet between structures. Subsurface drains shall have clean-outs installed every 500 feet or at changes in direction.

H. Rear yard swales shall have a minimum slope of 2% gradient. Swales less than a 2% gradient are required to have double-wall perforated drain tile installed two (2) feet below the invert of the swale. Minimum swale slope shall be greater than 1% gradient. Subsurface drains shall have a minimum slope of .5% gradient.

I. Proposed road grades will be required to be graded within two (2) inches of the proposed sub-grade prior to installation of SSD. Trench width for SSD shall be a minimum of three (3) inches on both sides of the SSD, with a minimum trench width of twelve (12) inches.

PART 3 - EXECUTION

3.1 INSPECTION AND REJECTION OF PIPE

A. The quality of all materials, the process of manufacture, and the finished pipe shall be subject to inspection and approval by the Westfield Public Works Department or designee. Such inspection may be made at the place of manufacture or on the work after delivery, or at both places; and the pipe shall be subject to rejection at any time on account of failure to meet any of the specifications' requirements even though sample pipes may have been accepted as satisfactory at the place of manufacture.

B. Prior to being lowered into the trench, each pipe shall be carefully inspected and those not meeting the specifications shall be rejected and at once removed from the work.

C. The Westfield Public Works Department shall have the right to cut cores from such pieces of the concrete pipe as he desires for such inspection and tests as he may wish to apply. The Developer/Contractor shall pay for the samples of an Independent Laboratory Testing.

D. Holes left by the removal of cores shall be filled in an approved manner by and at the expense of the manufacturer of the pipe.

E. The Westfield Public Works Department shall also have the right to take samples of concrete after it has been mixed, or as it is being placed in the forms or molds, and to make such inspection and tests thereof as he may wish.

F. Any pipe which has been damaged after delivery will be rejected and replaced solely at the Contractor's expense.

3.2 HANDLING PIPE

Each pipe section shall be handled into its position in the trench only in such manner and by such means as the Westfield Public Works Department or designee approves as satisfactory. As far as practicable, the Contractor will be required to furnish slings, straps, and other approved devices to permit satisfactory support of all parts of the pipe when it is lifted.

3.1 NOTICE TO WESTFIELD PUBLIC WORKS DEPARTMENT

The Westfield Public Works Department or designee shall be notified when the pipes are to be laid in the trench. At least 15 feet of the pipe shall, under ordinary circumstances, be laid before covering begins.

3.4 LAYING PIPE

A. All pipes shall be reinspected for soundness and damage due to handling immediately before being lowered into the trench. Any pipe found to be unsound or damaged will be rejected and shall be removed immediately from the site of the work..

B. No portion of a Storm Sewer pipe, open culvert, manhole, inlet, or subsurface tile system shall be installed directly or indirectly onto frozen ground or with frozen backfill materials.

C. Where ground water is encounter, the contractor shall make every effort necessary to secure a dry trench bottom prior to installation of the storm water system. The contractor shall be required to maintain the groundwater level below the base of the excavation. The Town, nor the Westfield Public Works Department, will not assume any liability for the actions of the Developer or Contractor in the performance of the required dewatering operation. If trench conditions outside the trench cannot be achieved, the Westfield Public Works Department or designee may terminate installation until such efforts can be achieved.

D. All pipes shall be laid accurately to the required line and grade as shown on the drawings, and in the manner prescribed by the pipe manufacturer and appropriate ASTM Specifications, to form a close, concentric joint with the adjoining pipe and to bring the invert of each section to the required grade. The supporting of pipe on block will not be permitted.

E. Pipe lying shall precede upgrade, beginning at the lower end of the sewer.

F. Practically watertight work is required, and the Contractor shall construct the sewers with the type of joint specified.

G. Joints between precast structures shall be sealed with (1) An approved rubber gasket manufactured and installed in accordance with ASTM C 443, latest version, (2) A ½ inch diameter non-asphaltic mastic (Kent Seal or approved equal) conforming to AASHTO M-198 and Federal Specifications SS 521-A, or 4 (3) mortar or butyl rubber sealed on the outside and (4) mortar sealed on the inside and brushed smooth.

H. The annular space between the pipe and precast structures walls shall be filled inside and outside with a grout mixture composed of 2 parts of fine aggregate and one part of Portland Cement or Class "A" Concrete.

I. All pipes shall be laid to the line and grade as shown on the drawings. Variations from a uniform line and grade as shown on the drawings shall be cause for the line to be rejected.

J. The ends of the pipe shall be satisfactorily cleaned just before laying, and the joint shall be made in a satisfactory manner in accordance with the recommendations of the manufacturer on particular type of joint. All joint work shall be done by experienced workmen.

K. All pipes shall be bedded as described in this specification under Pipe Bedding. Bell holes shall be excavated in advance of pipe laying so the entire pipe barrel will bear uniformly on the prepared subgrade.

L. Each length of pipe shall be mechanically pulled "home" with a winch or come-along against the section previously laid and held in place until the trench and bedding are prepared for the next pipe section. Care shall be taken in laying the pipe so not to damage the bell or the spigot end of the pipe. Mechanical means consisting of a cable placed inside the pipe with a winch, jack, or come-along shall be considered to pull the pipe home where pushing the pipe will not result in a joint going completely home and staying in place.

M. The Contractor shall use laser beam equipment, surveying instruments, or other proven techniques to maintain accurate alignment and grade.

N. Open excavation shall be satisfactorily protected at all times. At the end of each day's work, the open ends of all pipes shall be protected against the entrance of animals, children, earth, or debris by bulkheads or stoppers. The bulkheads or stoppers shall be perforated to allow passage of water into the installed pipe line to prevent flotation of the pipe line. Any earth or other material that may find entrance into the main sewer or into any lateral sewer through any such open end of unplugged branch must be removed at the Contractor's expense. The cost of all such plugs, and the labor connected therewith, must be included in the regular bid for the sewers.

O. Storm sewer which outlets into a Hamilton County Regulated Drain shall be approved, inspected, and constructed per the latest standards of the Hamilton County Surveyor's Office Standards.

3.5 PIPE BEDDING AND HAUNCHING

A. Each pipe section shall be laid in a firm foundation of bedding material and haunched and backfilled with care.

B. Prior to pipe installation, carefully bring bedding material to grade along the entire length of pipe to be installed of pipe. To provide adequate support for the pipe, the following bedding procedures are recommended.

- When Angular 60 to 12 mm (1/4 to 1/2-inch) clean graded stone, slag, or crushed stone material is used for bedding, little or no compaction is necessary due to the nature of the angular particles. A depth of 4 to 6 inches is generally sufficient to provide uniform bedding. If Class I material is used for bedding, it must also be utilized for haunching up to or higher than the spring line of the pipe to avoid loss of side support through migration of Class II haunching material into the bedding.
- Take care with coarse sands and gravels and maximum size 20 mm (3/4-inch) materials, to provide uniformly compacted bedding. Excavate the bedding material or place it to a point above the pipe bottom, determining such point by the depth of loose material resulting in the preparation of the bedding and the amount of compaction that will be required to bring the material to grade. Use hand or mechanical tamping to compact the bedding material to a minimum 85% Standard Proctor Density.
- Slightly damp material will generally result in maximum compaction with a minimum of effort. If water is added to improve compaction or if water exists in the trench, take care to avoid saturation of Class II material, which could result in additional stability problems. Check grade of bedding after compaction.

C. Bedding material shall have a minimum thickness beneath the pipe of 4 inches (100 mm) or one-eighth of the outside diameter of the pipe, whichever is greater, and shall extend up the sides of the pipe one-sixth of the outside diameter of the pipe.

D. The rigid pipe, such as concrete or ductile iron, backfill between the bedding material and a plane 12 inches (300 mm) over the top of the pipe shall be hand-placed finely divided earth, free from debris and stones, or granular backfill if required.

E. For flexible pipe, corrugated metal pipe, the placement of embedment material or haunching around the pipe must be done with care. The ability of the pipe to withstand loading in a trench depends a large part on the method employed in its installation. If crushed stone, pea gravel, or graded gravel or sand is used to backfill between the bedding material and a plane 12 inches (300 mm) over the top of the pipe, it shall be hand placed. If fine sand, silt, or clayey gravels are used for initial backfilling over the pipe, the material shall be hand placed in 6- to 8-inch layers and hand compacted on both sides of the pipe to an elevation 12 inches (300 mm) over the top of the pipe. Care should be taken so not to compact directly over the pipe.

F. In yielding subsolls, the trench bottom shall be undercut to the depth necessary and backfilled with graded, crushed stone to form a firm foundation.

G. Where excavation occurs in rock or hard shale, the trench bottom shall be undercut and a minimum of 6 inches (150 mm) crushed stone bedding placed prior to pipe installation.

3.6 CONCRETE CRADLE (CLASS "A" BEDDING)

Concrete cradles shall be constructed of Class "B" concrete and of the design shown on the detailed drawings.

3.7 MANHOLES AND OTHER STRUCTURES

A. Manholes and other structures are to be constructed at locations shown on the drawings and in accordance with the following specifications:

- Precast concrete manhole sections shall conform to ASTM Designation C478, except as modified herein:
 - The joint design of the precast sections shall consist of a bell or groove on one end of the unit of pipe and a spigot or tongue on the adjacent end of the joining section.
 - The joint shall consist of a flat rubber gasket attached to the spigot end of the precast manhole section and shall conform to Sections 6.1.6, 6.1.7 and 9 of ASTM Designation 443, latest revision.
- Openings in manhole sections for sewer connections shall be cut at the point of manufacture and shall be circular or horseshoe shaped with grooved or roughened surfaces to improve mortar bond.
- Manhole bases shall be cast-in-place concrete, reinforced as shown on the Standard Detail Sheet. Manhole bases shall be cast on a minimum of 6 inches of compacted crushed stone.
- Manhole channels or inverts (flow lines) shall be preformed and poured with Class "B" concrete to the spring line of the connecting pipe. The finished invert shall be a semi-circular shaped smooth channel directing the flow to the downstream sewer.
- Manhole steps shall be made from a steel reinforcing rod encapsulated in a copolymer polypropylene resin. Steps shall be placed as shown on the drawings.

3.8 FINAL SEWER CLEANING

A. Prior to final acceptance and final manhole-to-manhole inspection of the sewer system by the Westfield Public Works Department or designee, all parts of the storm system shall be flush and clean. Remove all accumulated construction debris, rocks, gravel, sand, silt, and other foreign material from the sewer system at or near the closest downstream manhole. If necessary, use mechanical rodding or bucketing equipment.

B. Upon the Westfield Public Works Department or designee final manhole-to-manhole inspection of the sewer system, if any foreign matter is still present in the system, flush and clean the sections and portions of the lines as required.

3.9 CLOSED CIRCUIT TELEVISION INSPECTION

A. All sections of storm sewer, including SSD shall be inspected by closed circuit television.

B. All unacceptable conditions found during television inspection must be corrected by the Contractor and re-televised.

C. Unacceptable conditions are conditions that adversely affect the ability of the system to function as designed or to be properly maintained and may include, but are not limited to, the following:

- Protruding taps
- Cracked or faulty pipe
- Misaligned or deformed pipe
- Debris in line
- Infiltration / exfiltration
- Excessive gaps at joints
- Bellies or sags with a depth greater than or equal to 10% (or a maximum of 3 inches) of pipe diameter and/or a length greater than 25 feet.

D. See specification section 02750 Sewer Televising for procedures.

PART 4 - FIGURES

4.1 INDEX

Figure	Description
ST-1	Standard Storm Sewer Manhole Detail
ST-2	Type I Storm Sewer Manhole Detail
ST-3	Rollod Curb Inlet Casting
ST-4	Rollod Curb Inlet Casting
ST-5	Beehive Curb Inlet Casting
ST-6	Inlet Structure Type 1A
ST-7	Inlet Structure Type 1
ST-8	Type CA Catch Basin Detail
ST-9	Anchor Concrete End Sections
ST-10	Typical Swale
ST-11	Subsurface Drain (SSD) Without Swale
ST-12	Subsurface Drain (SSD) When Within Drip Line Of Existing Trees
ST-13	Subsurface Drain (SSD) Riser Detail
END OF SECTION	02721

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ESTRIDGE DEVELOPMENT CO., INC.
CARMEL, INDIANA

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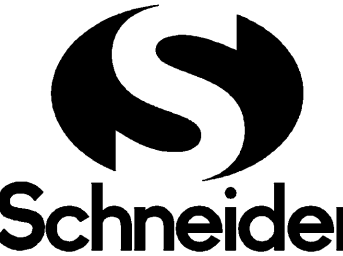
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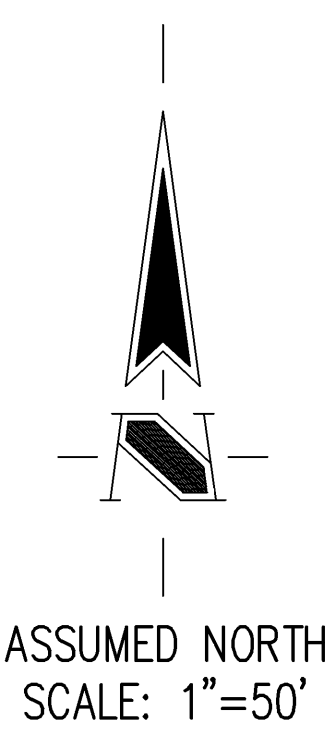
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HOLEY MOLEY SAYS
"DON'T
DIG
BLIND"

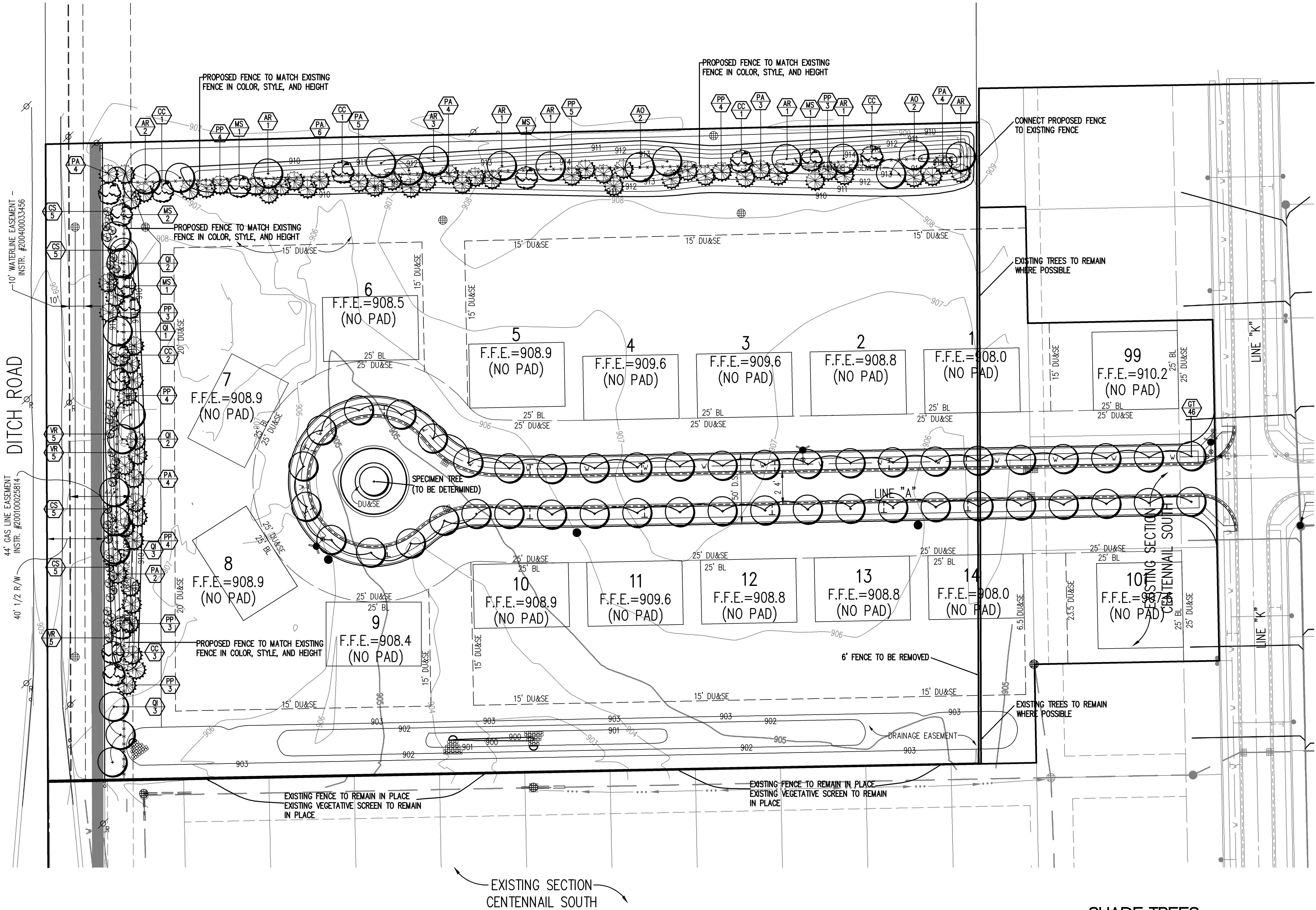
"IT'S THE LAW"
CALL 2 WORKING DAYS BEFORE YOU DIG
1-800-382-5544
CALL TOLL FREE

PER INDIANA STATE LAW 15-69-1991,
IT IS AGAINST THE LAW TO EXCAVATE
WITHOUT NOTIFYING THE UNDERGROUND
LOCATION SERVICE TWO (2) WORKING
DAYS BEFORE COMMENCING WORK.



LEGEND

- PERMANENT SEEDING
- SOD
- DECORATIVE STONE
- PERENNIALS
- CONSTRUCTION LIMITS
- MULCH LIMITS
- EXISTING TREELINE
- PROPOSED TREELINE
- EXISTING TREES
- CANOPY TREE
- ORNAMENTAL TREE
- EVERGREEN TREE
- DECIDUOUS SHRUB
- EVERGREEN SHRUB
- PLANT TAG



SHADE TREES

AO	Acer rubrum 'October Glory'	October Glory Red Maple	-	2.5"	B & B	
AR	Acer rubrum 'Red Sunset'	Red Sunset Red Maple	-	2.5"	B & B	
GT	Gleditsia triacanthos 'Impcole'	Imperial Honeylocust	-	2.5"	B & B	
SJ	Sophora japonica	Japanses Scholar Tree	-	2.5"	B & B	
QI	Quercus imbricaria	Shingle Oak	-	2.5"	B & B	

UNDERSTORY TREES

CC	Crataegus crus-galli inermis	Thornless Cockspur Hawthorn	-	2"	B & B	
MS	Magnolia Soulangeriana	Saucer Magnolia	-	2"	B & B	

EVERGREEN TREES

PA	Picea abies	Norway Spruce	-	6'	B & B	
PP	Picea pungens	Colorado Spruce	-	6'	B & B	Straight Species

EVERGREEN SHRUBS

VR	Viburnum rhytidophyloides	Allegheny Viburnum	-	36"	5 gal.	
CS	Cornus sericea	Red Twig Dogwood	-	36"	5 gal.	

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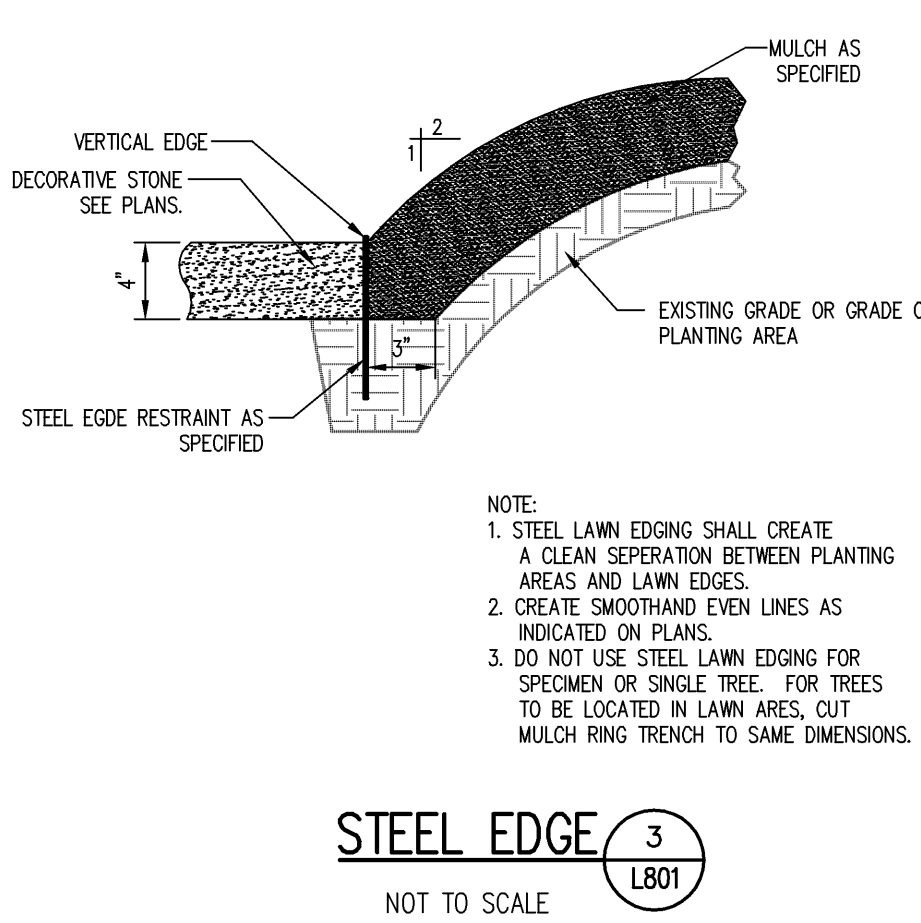
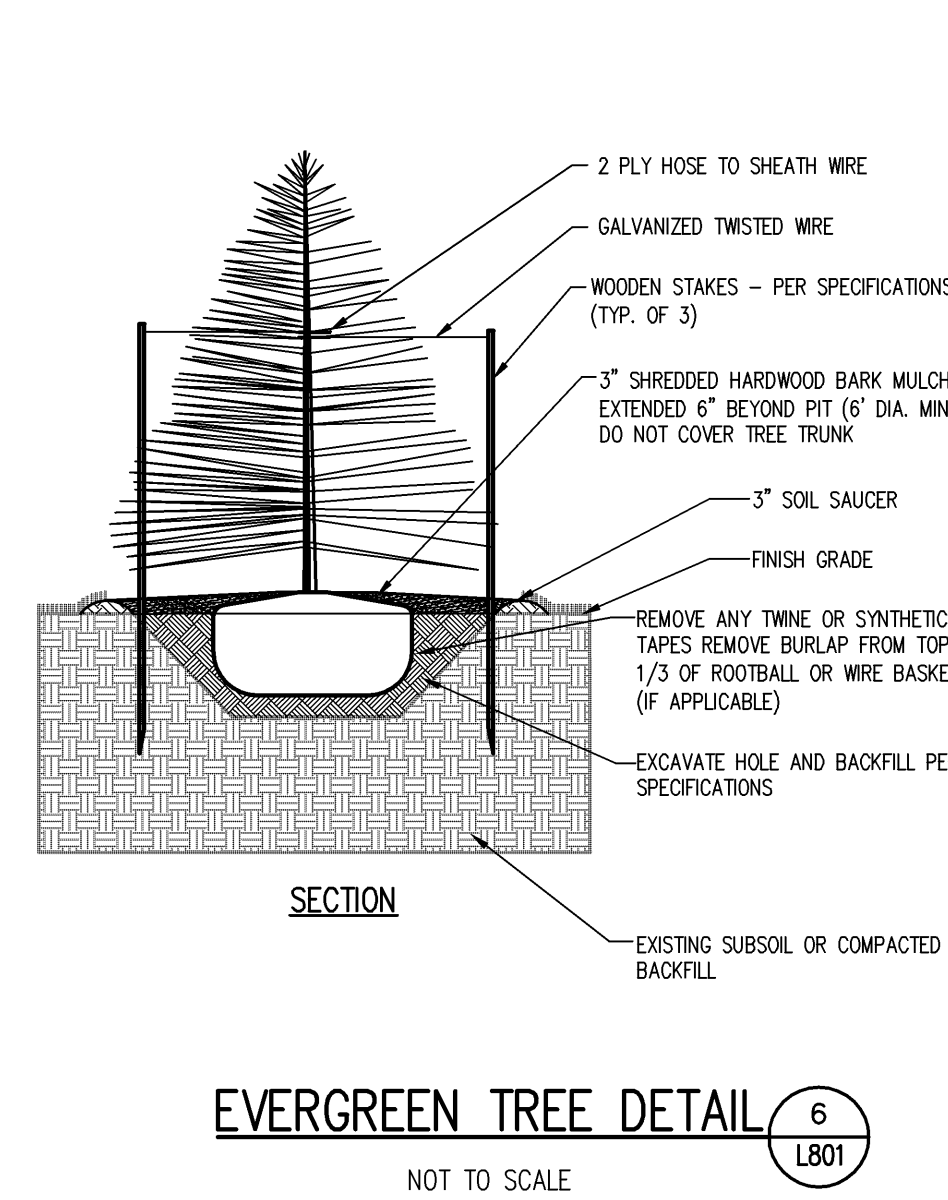
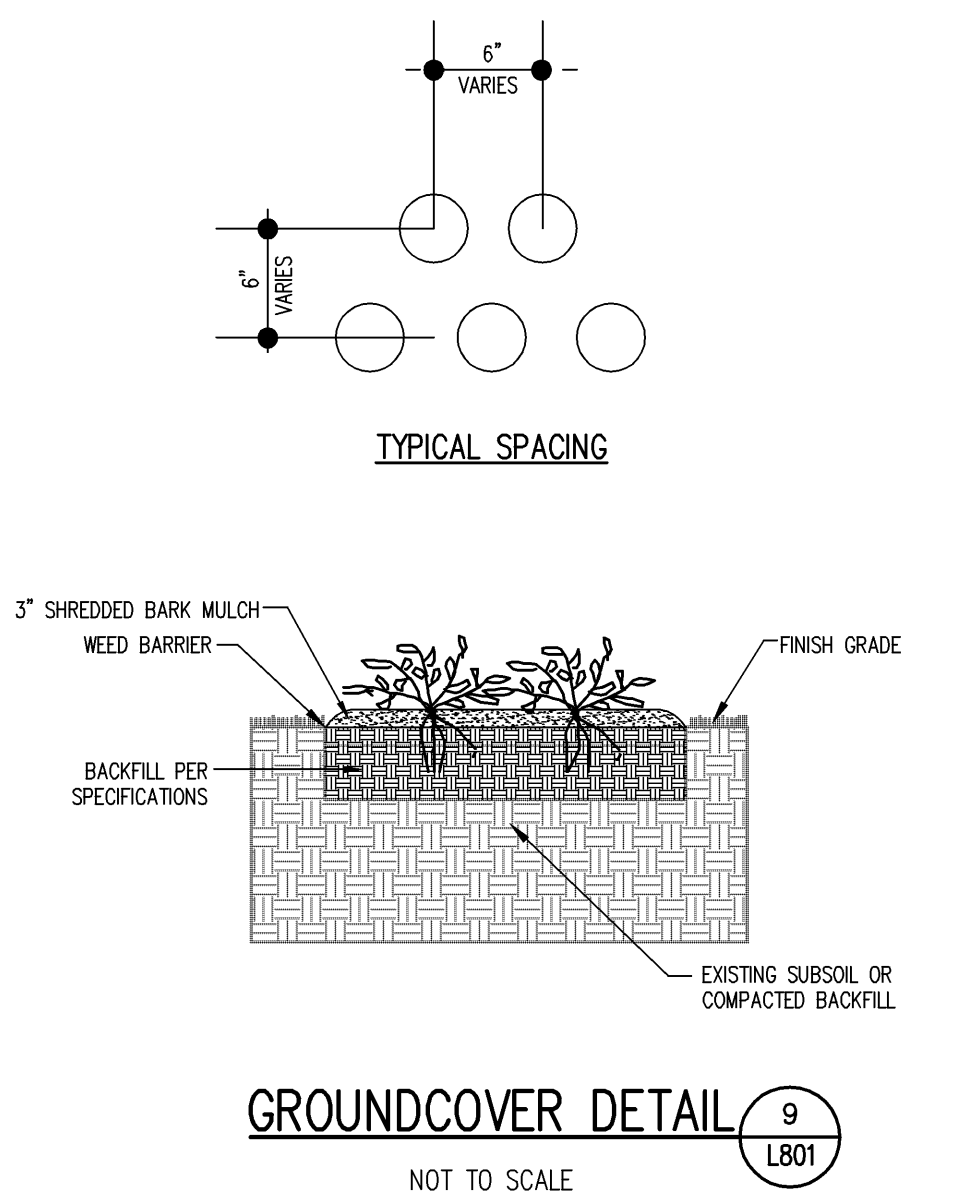
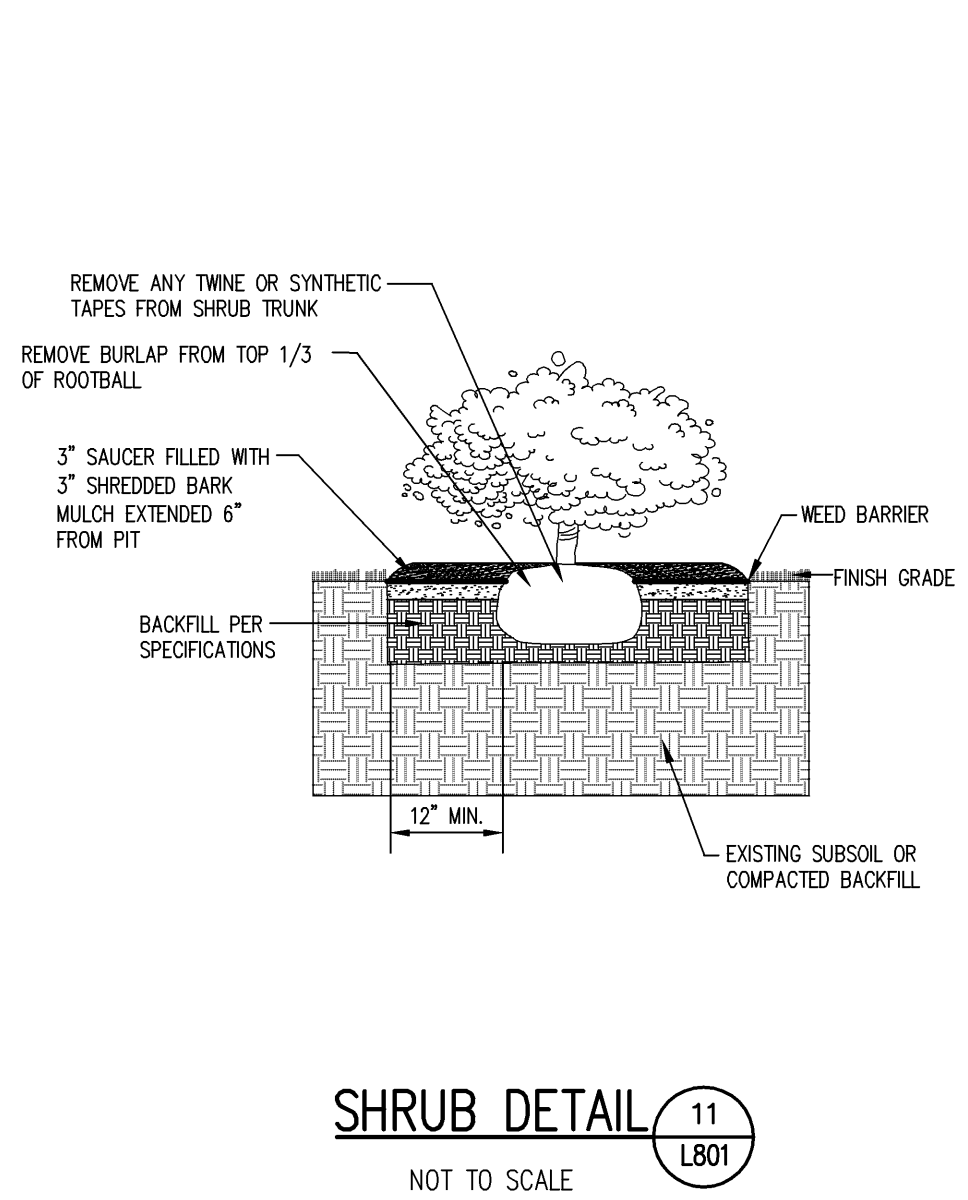
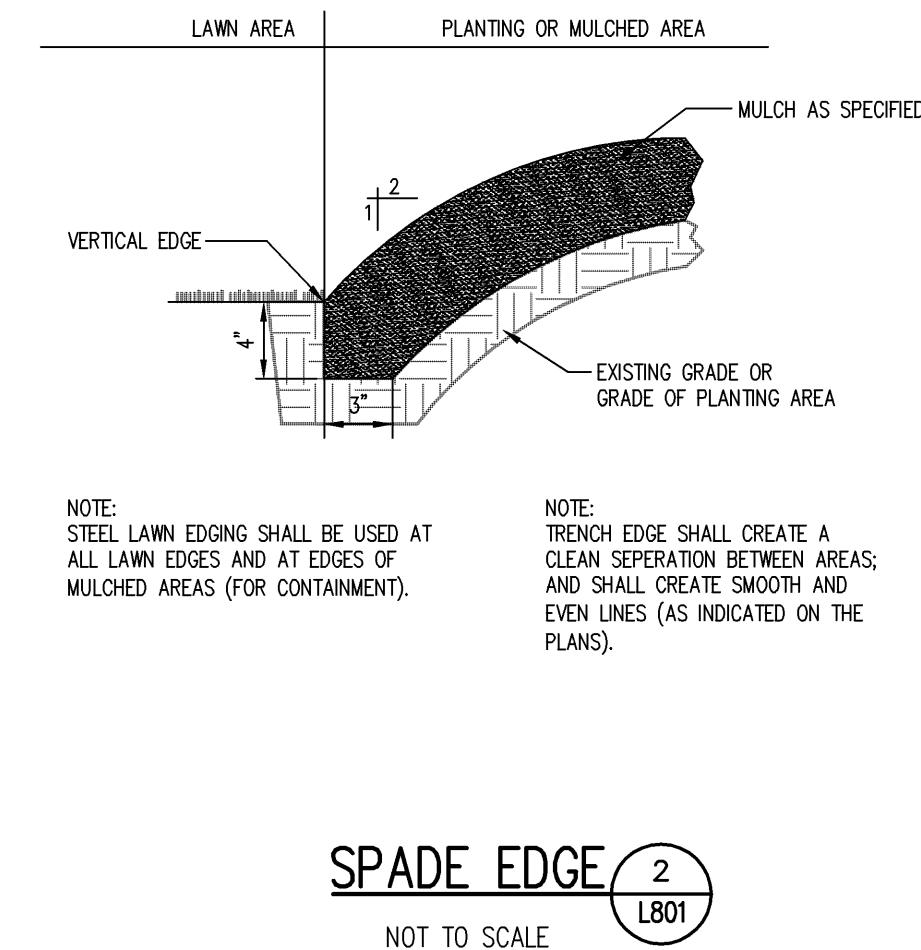
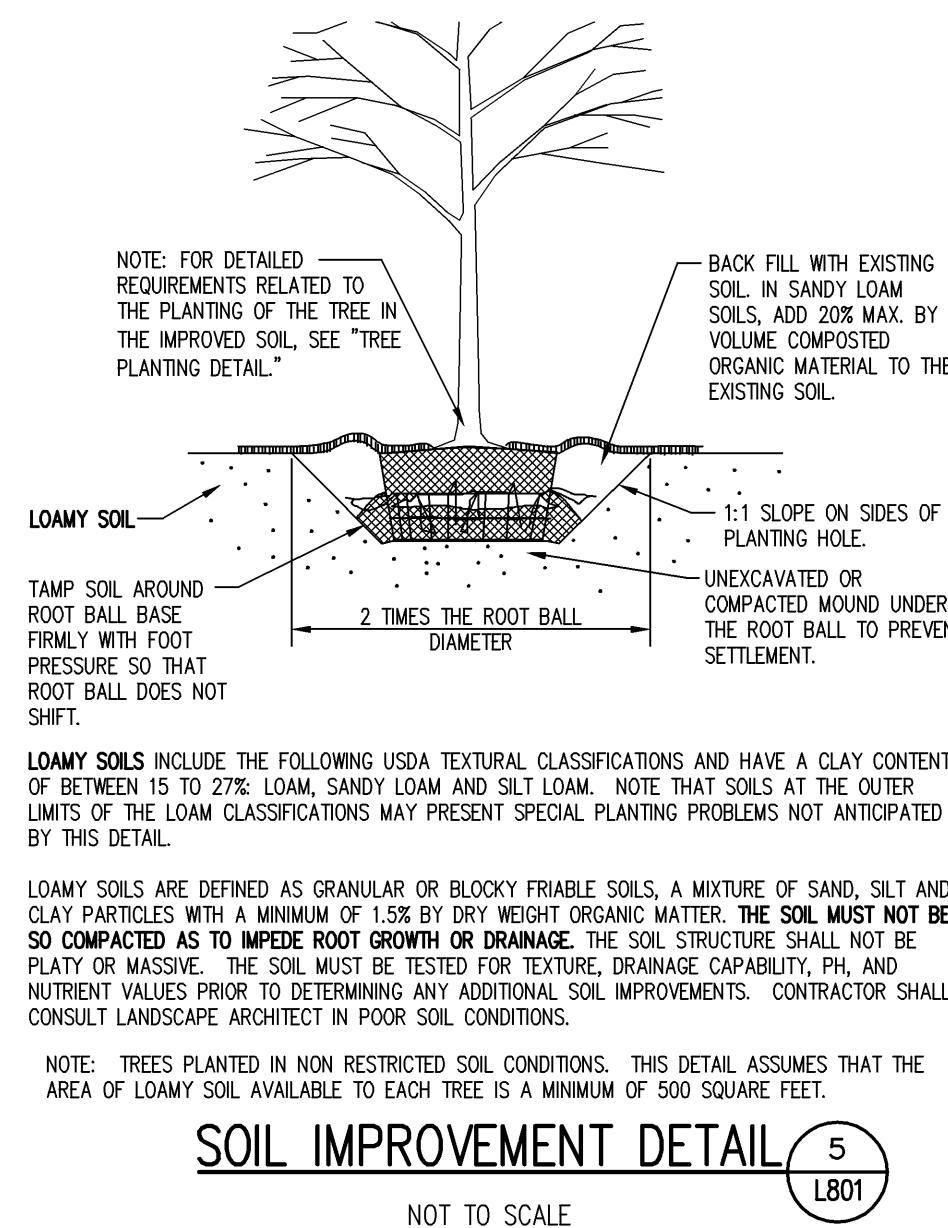
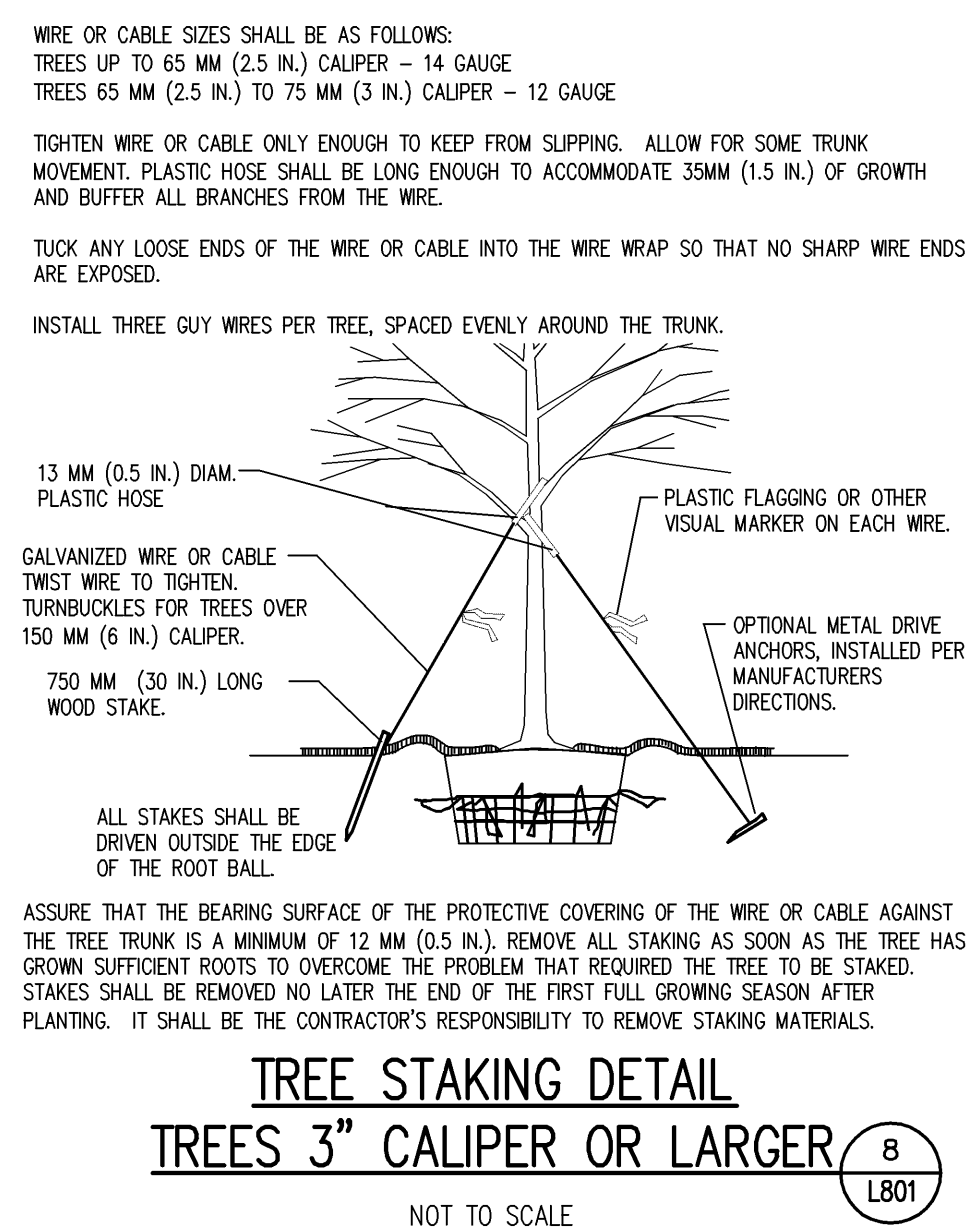
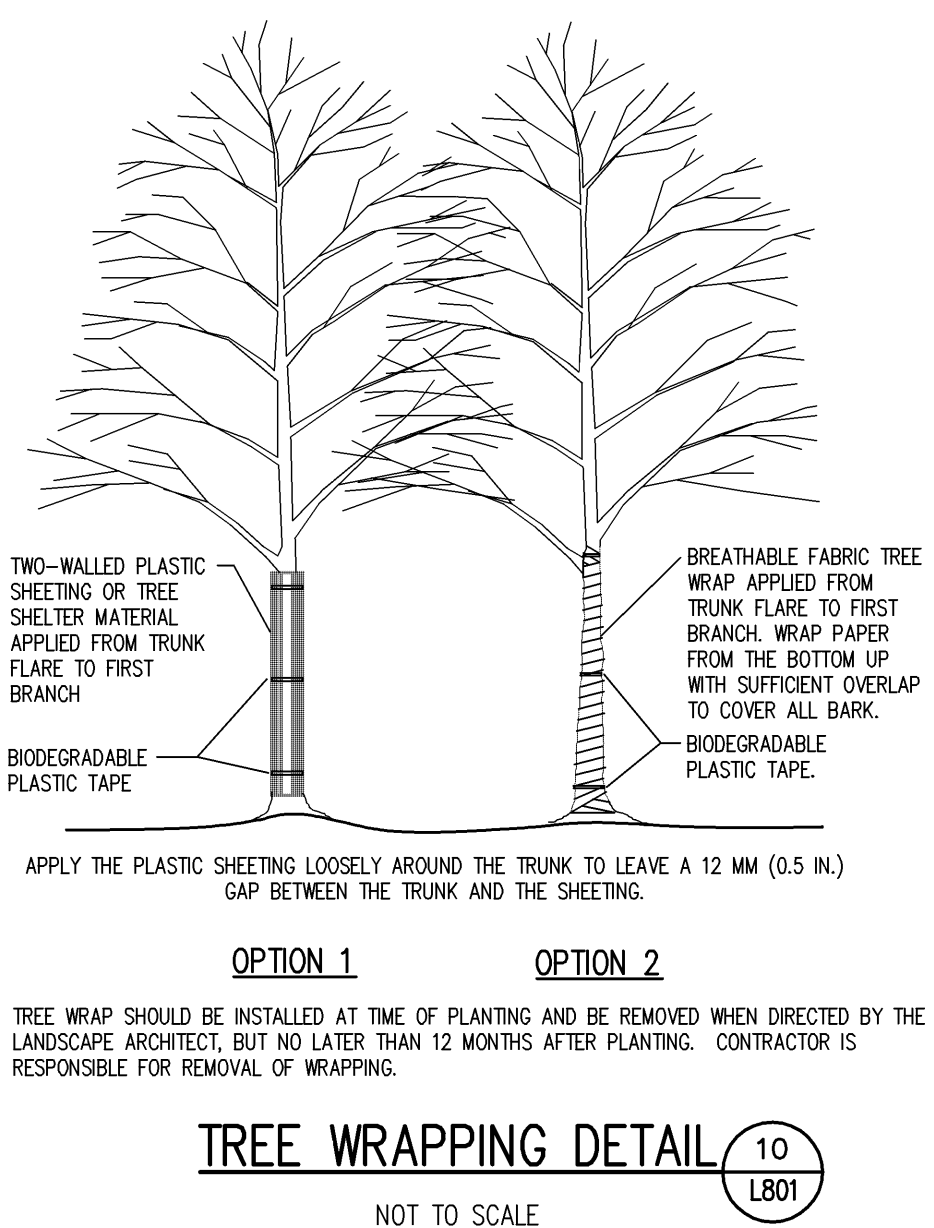
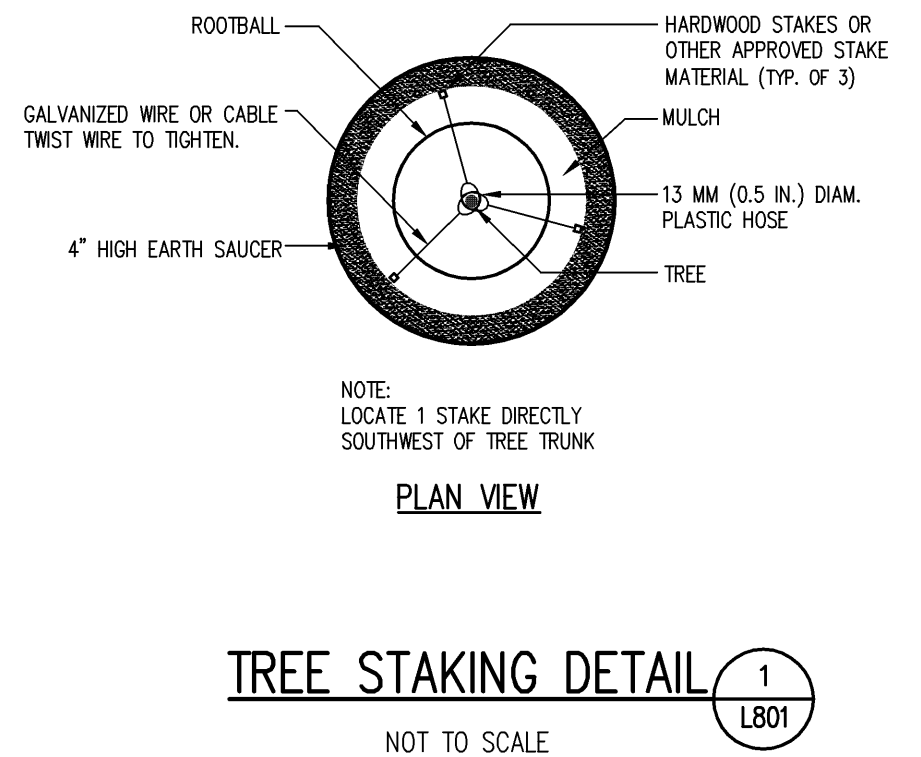
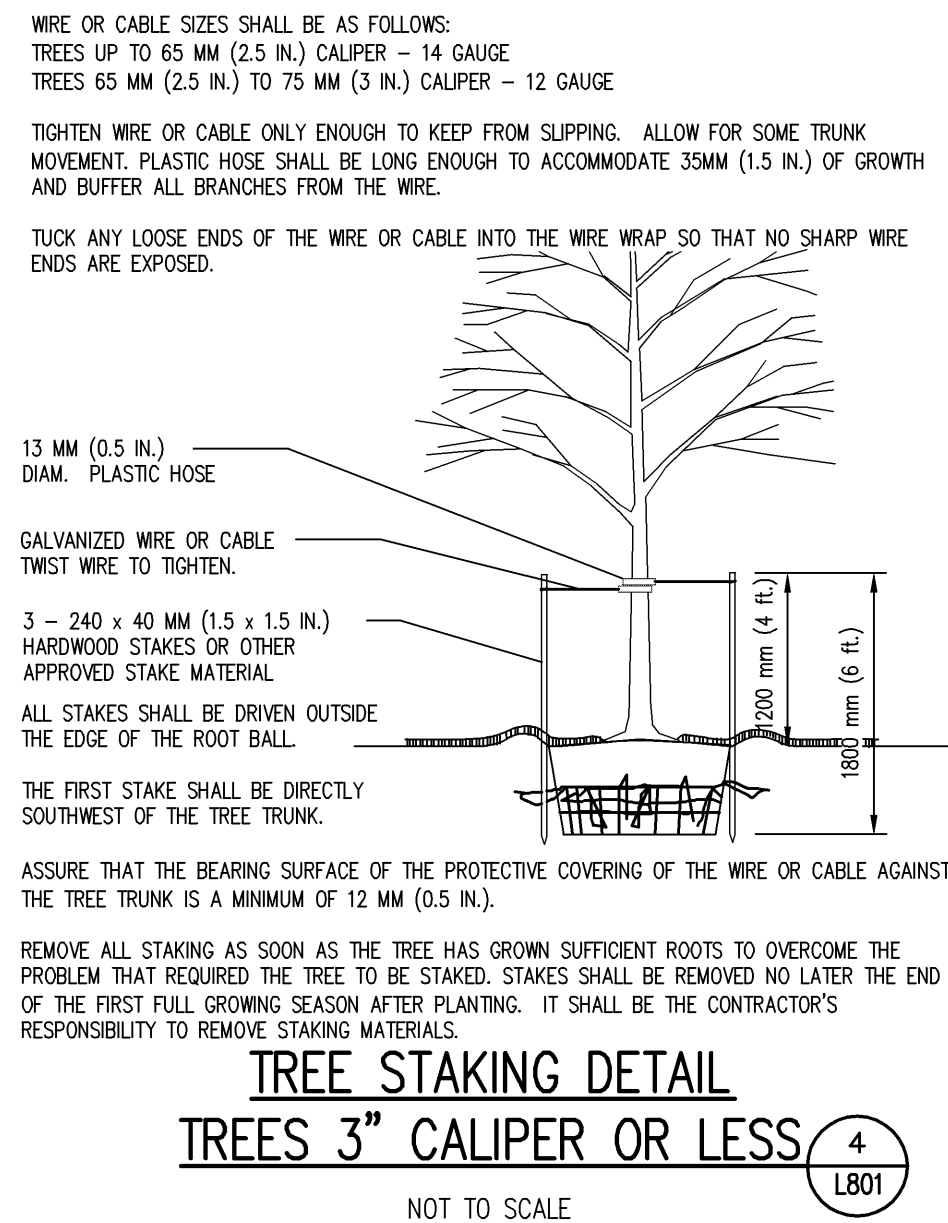
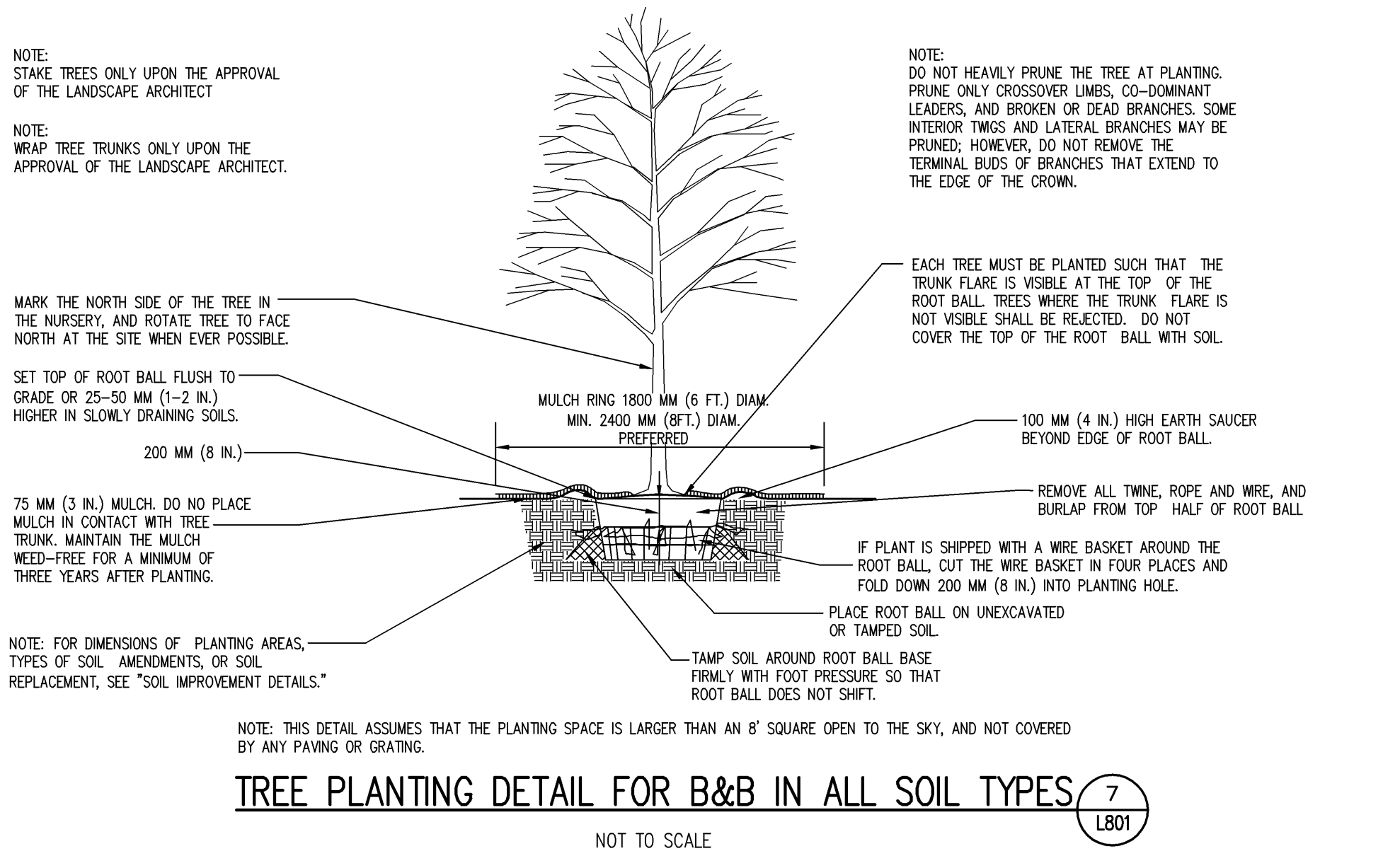
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LANDSCAPING

PART 1 – GENERAL

1.01 Related Documents

- A. Drawings and general provisions of the Contract, including Conditions, Specification Sections, apply to this Section.
- 1.02 Summary
- A. This Section includes the following:
1. Trees.
 2. Shrubs.
 3. Ground covers.
 4. Plants.
 5. Excavating and backfilling for trees, shrubs, ground covers and plants.

6. Removal of all rock encountered while installing drainage pits.

7. Placement of satisfactory fill and topsoil and final grading shown on drawings.
8. Topsoil and soil amendments.
9. Fertilizers and mulches.
10. Stakes and guys.
11. Initial maintenance of landscape materials.

B. Description: This work shall consist of furnishing, transporting, and installing all plants or other materials required for:

1. The establishment of landscape plantings community.
2. Post-planting maintenance until released by the Owner. An inspection will be conducted within one year of substantial completion. The Owner reserves the right to withhold the final 10% of contract amount until final acceptance inspection for complete job.
3. All remedial operations required to fulfill Contractor's obligations of these Specifications, the plans or as reasonably directed by the Owner.
4. Provide all exterior planting as shown on the drawings or inferable therefrom and/or as specified in accordance with the requirements of the Contract Documents.
5. These specifications include standards necessary for and incidental to the execution and completion of planting, including hauling and spreading of topsoil, and finished grading as indicated on the prepared drawings and specified herein.
6. Protection of existing features. During construction, protect all existing trees, shrubs, and other specified vegetation, site features and improvements, structures, and utilities specified herein and/or on submitted drawings. Removal or destruction of existing plantings is prohibited unless specifically authorized by the Owner.

1.03 Applicable Standards:

A. American National Standards Institute for Tree Care Operations, ANSI A300. American National Standards Institute, 11 West 42nd Street, New York, NY 10036.

B. American Standard for Nursery Stock, ANSI Z60.1, American Nursery and Landscape Association, 1250 Eye Street, NW, Suite 500, Washington, D.C. 20005.

C. Hortus Third, The Staff of the L.H. Bailey Hortorium. 1976. MacMillan Publishing Co., New York.

D. All standards shall include the latest additions and amendments as of the date of advertisement for bids.

1.03 Submittals:

Submit the following unless directed otherwise by Landscape Architect or Owner:

- A. General: Submit each item in this Article according to the Conditions of the Contract, Specification Sections.
- B. Product certificates signed by manufacturers certifying that their products comply with specified requirements.

1. Manufacturer's certified analysis for standard products.
2. Analysis for other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.
3. Label data substantiating that plants, trees, shrubs, and planting materials comply with specified requirements.
4. Qualification data for firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with names and addresses, names and address of architects and owners, and other information specified.

D. Submit name of wholesale nursery source for plants within bid package. Include nursery phone numbers so that availability can be checked. Contractor may be required to provide updated plant source information as the project progresses. Sources with similar soil types and climate are desirable. Sources south of USDA Zone 5 will not be accepted.

E. Planting schedule indicating anticipated dates and locations for each type of planting.

F. Maintenance instructions recommending procedures to be established by Owner for maintenance of landscaping during an entire year. Submit before expiration of required maintenance periods.

1.05 Quality Assurance:

A. Installer Qualifications: Engage an experienced installer who has completed landscaping work similar in material, design, and extent to that indicated for this Project and with a record of successful landscape establishment.

1. Installer's Field Supervision: Require installer to maintain an experienced full-time supervisor on the Project site during times that landscaping is in progress.

B. Source Quality Control:

1. General: A Certificate of Nursery inspection from each State Department of Agriculture from which plants originate and/or a dated, current year Indiana Department of Natural Resources Nursery Dealer Certificate. The nursery must verify whether or not they are under a Gypsy Moth Compliance Agreement between the DNR and the United States Department of Agriculture or under an MA Japanese Beetle Quarantine. All plant material shipped from nursery vendors subject to quarantines must be accompanied by a 1997 Certificate of Compliance for gypsy moth and/or Japanese Beetle. To determine if vendors are subject to quarantines, call the DNR supervisor of Plant Regulatory Services.

2. Provide quality, size, genus, species, and variety of trees and shrubs indicated, complying with applicable requirements of ANSI Z60.1 "American Standard for Nursery Stock." Provide healthy, vigorous stock grown in recognized nursery in accordance with good horticultural practice and free of disease, insects, eggs, larvae and defects such as knots, sun-scald, injuries, abrasions or disfigurement.

3. Do not make substitutions. If specified landscape material is not obtainable, submit proof of non-availability to Landscape Architect, together with proposal for use of equivalent material prior to bid submittal.

4. Analysis and Standards: Package standard products with manufacturer's certified analysis. For other materials, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Agriculture Chemists, wherever applicable.

5. Inspection: The Landscape Architect/Owner may inspect trees and shrubs either at place of growth or at site before planting, for compliance with requirements for genus, species, variety, size, and quality. Architect retains right to further inspect trees and shrubs for size and condition of balls and root systems, insects, injuries and latent defects, and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from project site.

C. Measurements: Measure trees and shrubs according to ANZI Z60.1 with branches and trunks or canes in their normal position. Do not prune to obtain required sizes. Take caliper measurements 6 inches (150 m) above ground for trees up to 4 inch (100 mm) caliper size, and 12 inches (300 mm) above ground for larger sizes. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip-to-tip.

1.5 Delivery, Storage, and Handling:

A. Packaged Materials: Deliver packaged materials in containers showing weight, analysis, and name of manufacturer. Protect materials from deterioration during delivery and while stored at site.

B. Sod: Harvest, deliver, store, and handle sod according to the requirements of the American Sod Producers Association's (ASPA) "Specifications for Turfgrass Sod Materials and Transplanting/Installing." Time delivery so that sod will be placed within 24 hours after stripping. Protect sod against drying and breaking of rolled strips.

C. Trees and Shrubs: Deliver freshly dug trees and shrubs. Do not prune before delivery, except as approved by Landscape Architect. Protect bark, branches, and root systems from sun-scald, drying, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy natural shape. Provide protective covering during delivery. Do not drop trees and shrubs during delivery.

D. Handle balled and burrapped and container stock by the root ball.

E. Deliver trees, shrubs, ground covers, and plants after preparations for planting have been completed and install immediately. If planting is delayed more than 6 hours after delivery, set planting materials in shade, protect from weather and mechanical damage, and keep roots moist. Do not deliver more plant material than can be planted in one day. If planting is delayed more than 6 hours:

1. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
2. Do not remove container-grown stock from containers before time of planting.
3. Water root systems of trees and shrubs stored on site with a fine-mist spray. Water as often as necessary to maintain root systems in a moist condition.

1.06 Project Conditions:

A. Utilities: Determine location of above grade and underground utilities and perform work in a manner which will avoid damage. Hand excavate, as required. Maintain grade stakes until removal is mutually agreed upon by parties concerned.

B. Excavation: When conditions detrimental to plant growth are encountered, such as rubble fill, adverse drainage conditions, or obstructions, notify Landscape Architect before planting.

1.07 Coordination and Scheduling:

A. Planting Time: Proceed with and complete landscape work as rapidly as portions of site become available, working within seasonal limitations for each kind of landscape work required.

1. Plant or install materials only when ground and backfill is not frozen.

2. Correlate planting with specified maintenance periods to provide maintenance from date of substantial completion.

3. Install plant material between March and June and/or between September and December (whichever contract allows).

B. Coordination with Dirt Contractor: Plant trees and shrubs after final grades are established and prior to planting of lawns, unless otherwise acceptable to a Landscape Architect/Owner.

1.08 Warranty:

A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.

B. Special Warranty: Warrant the following living planting materials for a period of one year after date of Final Completion, against defects including death and unsatisfactory growth, except for defects resulting from lack of adequate maintenance, neglect, or abuse by Owner, abnormal weather conditions unusual for warranty period, or incidents that are beyond Contractor's control.

1. Trees.
2. Shrubs.
3. Ground covers.
4. Plants.

C. Remove and replace dead planting materials immediately unless required to plant in the succeeding planting season.

D. Replace planting materials that are more than 25 percent (25%) dead or in an unhealthy condition at end of warranty period.

E. A limit of one replacement of each plant material will be required, except for losses or replacement due to failure to comply with requirements.

1.09 Tree and Shrub Maintenance:

A. Maintain trees and shrubs by pruning, cultivating, watering, weeding, fertilizing, restoring planting saucers, tightening and repairing stakes and guy supports, and resetting to proper grades or vertical position, as required to establish healthy, viable plantings. Spray as required to keep trees and shrubs free of insects and disease. Restore or replace damaged tree wrappings. Maintain trees and shrubs for the following period:

1. Maintenance Period: 12 months following Substantial Completion. Maintenance should occur on a semi-monthly basis.

1.10 Ground Cover and Plant Maintenance:

A. Maintain ground cover and plants by watering, weeding, fertilizing, and other operations as required to establish healthy, viable plantings for the following period:

1. Maintenance Period: 12 months following Substantial Completion. Maintenance should occur on a semi-monthly basis. Watering shall be coordinated with Owner.

PART 2 – PRODUCTS

2.01 Plants:

A. Plants shall be true to species and variety specified and nursery-grown in accordance with good horticultural practices under climatic conditions similar to those in the locality of the project for at least two years. They shall have been freshly dug (during the most recent favorable harvest season).

1. All plant names and descriptions shall be as defined in Hortus Third.

2. All plants shall be grown and harvested in accordance with the American Standard for Nursery Stock.

3. Unless approved by the Landscape Architect, plants shall have been grown at a latitude not more than 200 miles (325 km) north or south of the latitude of the project unless the provenance of the plant can be documented to be compatible with the latitude and soil hardness zone of the planting location.

B. Unless specifically noted, all plants shall be of specimen quality, exceptionally heavy, symmetrical, and so trained or favored in development and appearance as to be unquestionably and outstandingly superior in form, compactness and symmetry. They shall be sound, healthy, vigorous, well branched, and densely foliated when in leaf; free of disease and insects, eggs, or larvae; and shall have healthy, well-developed root systems. They shall be free from physical damage or other conditions that would prevent vigorous growth.

1. Trees with multiple leaders, unless specified, will be rejected. Trees with a damaged or crooked leader, bark abrasions, sun-scald, disfiguring knots, insect damage, or cuts of limbs over ? in. (20 mm) in diameter that are not completely closed will be rejected.

C. Plants shall conform to the measurements specified, except that plants larger than those specified may be used if approved by the Landscape Architect. Use of larger plants shall not increase the contract price. If larger plants are approved, the root ball shall be increased in proportion to the size of the plant.

1. Caliper measurements shall be taken on the trunk 6 in. (150 mm) above the natural ground line for trees up to and including 4 in. (100 mm) in caliper, and 12 in. (300 mm) above the natural ground line for trees over 4 in. (100 mm) in caliper. Height and spread dimensions specified refer to the main body of the plant and not from branch tip to branch tip. Plants shall be measured when branches are in their normal position. If a range of sizes is given, no plant shall be less than the minimum size, and no more than 50 percent (50%) of the plants shall be as large as the maximum size specified. Measurements specified are minimum sizes acceptable after pruning, where pruning is required. Plants that meet measurements but do not possess a standard relationship between height and spread, according to the American Standard for Nursery Stock, shall be rejected.

D. Substitutions of plant materials will not be permitted unless authorized in writing by the Landscape Architect. If proof is submitted in writing that a plant specified is not obtainable, consideration will be given to the nearest available size or similar variety, with a corresponding adjustment of the contract price.

E. The plant list at the end of this section , or on the drawing, is for the Contractor's information only, and no guarantee is expressed or implied that quantities therein are correct or that the list is complete. The Contractor shall ensure that all plant materials shown on the drawings are included in his or her bid.

F. All plants shall be labeled by plant name. Labels shall be attached securely to all plants, and containers of plant materials when delivered. Plant labels shall be durable and legible, with information given in weather-resistant ink or embossed process lettering.

G. Selection and Tagging:

1. Plants shall be subject to inspection for conformity to specification requirements and approval by the Landscape Architect at their place of growth and upon delivery. Such approval shall not impair the right of inspection and rejection during progress of the work.

2. A written request for the inspection of plant material at their place of growth shall be submitted to the Landscape Architect at least ten (10) calendar days prior to digging. This request shall state the place of growth and the quantity of plants to be inspected. The Landscape Architect may refuse inspection at this time if, in his or her judgment, sufficient quantities of plants are not available for inspection.

3. All plants shall be selected and tagged by the Landscape Architect at their place of growth. For distant material, photographs may be submitted for pre-inspection review.

4. All field grown deciduous trees shall be marked to indicate the trees north orientation. The nursery shall place a 1 in. diameter spot of white point onto the north side of the tree trunk within the bottom 12 inches of the trunk.

H. Anti-Desiccants:

1. Anti-desiccants, if specified, are to be applied to plants in full leaf immediately before digging or as required by the Landscape Architect. Anti-desiccants shall be sprayed so that all leaves and branches are covered with a continuous protective film.

2. Anti-desiccant: shall be an emulsion specifically manufactured for agricultural use, which provides a protective film over plant surfaces. Anti-desiccants shall be delivered in containers of the manufacturer and shall be mixed according to the manufacturer's directions. Submit manufacturer literature for approval.

I. Balled and Burlapped (B&B) Plant Materials:

1. Trees designated B&B shall be properly dug with firm, natural balls of soil retaining as many fibrous roots as possible, in sizes and shapes as specified in the American Standard for Nursery Stock. Balls shall be firmly wrapped with nonsynthetic, rottable burlap and secured wit noils and heavy, nonsynthetic, rottable twine. The root collar shall be apparent at surface of ball. Trees with loose, broken, processed, or manufactured root balls will not be acceptable, except with special written approval before planting.

J. Container Plants:

1. Plants grown in containers shall be of appropriate size for the container as specified in the most recent edition of the American Standard for Nursery Stock and be free of circling roots on the exterior and interior of the root ball.

1. Container plants shall have been grown in the container long enough to have established roots throughout the growing medium.

K. Bareroot and Collected Plants:

1. Plants designated as bareroot or collected plants shall conform to the American Standard for Nursery Stock.

2. Bareroot material shall not be dug or installed after bud break or before dormancy.

L. Immediately after harvesting plants, protect from drying and damage until shipped and delivered to the planting site. Rootballs shall be checked regularly and watered sufficiently to maintain root viability.

M. Transportation and Storage of Plant Material:

1. Branches shall be tied with rope or twine only, and in such a manner that no damage will occur to the bark or branches.

2. During transportation of plant material, the Contractor shall exercise care to prevent injury and drying out of the trees. Should the roots be dried out, large branches broken, balls of earth broken or loosened, or areas of bark torn, the Landscape Architect may reject the injured tree(s) and order them replaced at no additional cost to the Owner. All loads of plants shall be covered at all times with tarpaulin or canvas. Loads that are not protected will be rejected.

3. All bareroot stock sent from the storage facility shall be adequately covered with wet soil, sawdust, woodchips, moss, peat, straw, hay, or other acceptable moisture-holding medium, and shall be covered with a tarpaulin or canvas. Loads that are not protected in the above manner may be rejected.

4. Plants must be protected at all times from sun or drying winds. Those that cannot be planted immediately on delivery shall be kept in the shade, well protected with soil, wet mulch or other acceptable material, and kept well watered. Plants shall not remain unplanted any longer than three (3) days after delivery. Plants shall not be bound with wire or rope at any time so as to damage the bark or break branches. Plants shall be lifted and handled with suitable support of the soil ball to avoid damaging it.

N. Mechanized Tree Spade Requirements:

1. Trees may be moved and planted with an approved mechanical tree spade. The tree spade shall move trees limited to the maximum size for a similar B&B root-ball diameter according to the American Standard for Nursery Stock or the manufacturer's maximum size recommendation for the tree spade being used, whichever is smaller.

1.10 Ground Cover and Plant Maintenance:

A. Maintain ground cover and plants by watering, weeding, fertilizing, and other operations as required to establish healthy, viable plantings for the following period:

1. Maintenance Period: 12 months following Substantial Completion. Maintenance should occur on a semi-monthly basis. Watering shall be coordinated with Owner.

2.02 Tree and Shrub Material:

A. General: Furnish nursery-grown trees and shrubs conforming to ANSI Z60.1, with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully-branched, healthy, vigorous stock free of disease, insects, eggs, larvae, and defects such as knots, sun-scald, injuries, abrasions, and disfigurement.

1. Soil balls shall not be broken or loose. If, when pulled, the stem or crown moves and the ball does not, the plant will be rejected.

2. The root flare should be at the soil line on top of the ball. The plant was planted too deep if you see the root flare deeper inside the ball with most of the roots near the bottom of the ball. If the uppermost roots are more than 4 inches below the top of the soil ball, the plant will be rejected.

3. Measure the width and depth of the root ball. Root systems must be in balance with the top of the plant. The roots must be of sufficient size to support the top of the plant.

4. Plants must have a balanced root system that is well distributed and not one-sided, circling or girdling.

5. Buds on plants (if visible) should be full, moist, and green inside when split apart.

6. Trees must have a defined central leader (leader) with a minimum of eight branches radiating to all sides of the tree. The tree is acceptable if it can be pruned to a center leader.

7. Minimum Tree Ball Requirement Size:

Spade Size (D=Diameter); Deciduous Shade Trees (C=Caliper); Evergreen Trees (H=Height)

D=34" C=2.5"

D=38" C=3.0"

D=44" C=3.5"

D=48" C=4.0"

D=28" H=6 ft.

D=30" H=7 ft.

D=44" H=12 ft.

D=48" H=13 ft.

D=48" H=14 ft.

D=52" H=15 ft.

8. Container plants are to grow in containers for a minimum of 90 days prior to delivery.

9. Roots must fill the soil ball of the container grown plant.

10. Root bound plants will be rejected.

B. Grade: Provide trees and shrubs of sizes and grades conforming to ANSI Z60.1 for type of trees and shrubs required. Trees and shrubs of a larger size may be used if acceptable to Landscape Architect, with a proportionate increase in size of roots or balls.

1. In size grading B&B trees, caliper shall take precedence over height. Where a minimum and maximum size (i.e. size range) is specified the average of the lot should approximate the midpoint of the specified size range.

1. Hardpan Layer: Drill 6 inch (150 mm) diameter holes into free-draining strata or to a depth of 10 feet (3 m), whichever is less, and backfill with free-draining material.

D. Drainage: Notify Landscape Architect if subsoil conditions evidence unexpected water seepage or retention in tree or shrub pits.

1. Landscape Architect has the option to require the installation of 8" drainage pits at the bottom of the ball excavation to facilitate drainage. Use an 8" auger to dig 36" deep pit. Fill pit with washed drainage fill.

2. Rock's excavation includes removal and disposal of rock material and obstructions encountered that can be removed by the following heavy-duty rock excavating equipment.

a. Rock material includes boulders ½ cu. yd. (0.38 cu.m.) or more in volume and rock in beds, ledges, unstratified masses, and conglomerate deposits.

3. Rock excavating equipment for tree pits shall be equivalent to Caterpillar Model No. 215D LC track-mounted hydraulic excavator, equipped with a 42 inch (1050 mm) wide short-tip radius rock bucket, rated at not less than 120 hp (89 kW) flywheel power with bucket-curling force of not less than 25,000 LB (111 kN) and stick-crowd force of not less than 18,700 LB (83 kN), measured according to SAE Standard J1179.

4. Do not excavate rock until it has been cross-sectioned by Landscape Architect.

B. Provide balled and burrapped deciduous shrubs.

1. Container-grown deciduous shrubs will be acceptable in lieu of balled and burrapped deciduous shrubs subject to meeting ANSI Z60.1 limitations for container stock.

2.05 Ground Covers and Plants:

A. Provide ground covers and plants established and well rooted in removable containers or integral peat pots and with not less than the minimum number and length of runners required by ANSI Z60.1 for the pot size indicated.

2.06 Grass Materials:

A. Sod: Certified turfgrass sod complying with ASPA specifications for machine-cut thickness, size, strength, moisture content, and mowed height, and free of weeds and undesirable native grasses. Provide viable sod of uniform density, color, and texture, strongly rooted, and capable of vigorous growth and development when planted.

B. Seed: Seed mixture "R" as described in Section 621.06 of the 1999 Indiana Department of Transportation Standard Specifications Section 621.06 (a).

C. Mulch: Mulch method A or B as described in Section 621.05 of 1999 Indiana Department of Transportation Standard Specifications and Section 621.05 ?.

2.07 Fill Material:

A. Satisfactory Fill Materials: ASTM 2487 soil classification groups GW, GP, GM, SW, SP and SM; free of rock or gravel larger than 2 inches (50 mm) in any dimension, debris, water, frozen materials, vegetation and other deleterious matter.

B. Topsoil: Provide topsoil that is fertile, friable, natural loam, surface soil, reasonably free of subsoil, clay, limps, brush, weeds and other litter, and free of rocks, stumps, stones larger than 1 inch in any direction, and other extraneous or toxic matter harmful to plant growth. Topsoil shall contain a minimum two percent (2%) organic matter.

1. Topsoil Source: Import topsoil from off-site sources. Obtain topsoil from naturally well-drained sites where topsoil occurs at least 4 inches (100 mm) deep; do not obtain from bogs or marshes.

C. Drainage Fill: Washed evenly graded mixture of crushed stone with 100 percent (100%) passing a 1 ½ inch sieve, and not more than 5 percent passing a No. 8 sieve.

2.08 Fertilizer:

A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-nitrogen, 50 percent (50%) derived from natural organic sources of urea-form, phosphorous, and potassium in the following composition:

1. Slow-Release Fertilizer for Trees and Shrubs: Granular fertilizer consisting of 50 percent (50%) water-insoluble nitrogen, phosphorous, and potassium in the following composition:

a. Composition: 5 percent (5%) nitrogen, 10 percent (10%) phosphorous, and 5 percent (5%) potassium, by weight.

2. Fertilizer for reconditioning of lawns: 1 lb. Per 1,000 sq. ft. of actual nitrogen, 4 percent (4%) phosphorous, and 2 percent (2%) potassium be weight.

2.09 Mulches:

A. Organic Mulch: Organic mulch, free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of the following:

1. Type: Shredded hardwood bark.

2.10 Stakes and Guys:

A. Upright and Guy Stakes: Rough-sawn, sound, new hardwood, redwood, or pressure-preservative-treated softwood, free of knots, holes, cross grain, and other defects 2 by 2 inches (50 by 50 mm) by length indicated, pointed at one end.

B. Upright Tree Stake and Tie Wire: ASTM A641 (ASTM A 641M), Class 1, galvanized-steel wire, 2-strand, twisted, 0.106 inch (2.7 mm) in diameter.

C. Tree Guy Cable: 5-strand, 3/16 inch (4.8 mm) diameter, galvanized-steel cable, with zinc-coated turn buckles, 3 inch (75 mm) long minimum, with 3/8 inch (10 mm) galvanized eyebolts. All guy wires shall be marked with white flags to prevent safety hazard.

D. Hose Chafing Guard: Reinforced rubber or plastic hose at least ½ inch (13 mm) in diameter, black, cut to lengths required to protect tree trunks from damage.

E. Trunk-Wrap Tape: Two layers of crinkled paper cemented together with bituminous material, 4 inches (102 mm) wide minimum, with stretch factor of 33 percent.

PART 3 – EXECUTION

3.01 Examination:

A. Examine areas to receive landscaping for compliance with requirements and for conditions affecting performance of work of the Section. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.02 Preparation:

A. Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, and secure Owner's/Landscape Architect's acceptance before the start of planting work. Make minor adjustments as may be required.

3.03 Planting Soil Preparation:

A. Before mixing, clean topsoil of roots, plants, stones, sods, clay lumps, and other extraneous materials harmful to plant growth.

B. Mix soil amendments as specified on planting details. Mix fertilizers with topsoil at rates indicated. Delay mixing fertilizer if planting does not follow placing of planting soil within a few days.

C. For tree pit or trench backfill, mix planting soil before backfilling and stockpile at site.

1. Provide specified fertilizer at a rate of:

A. Shade tree – 2 pounds per inch of caliper.

B. Small trees – 1 pound per inch of caliper.

C. For planting beds, mix planting soil either prior to planting or apply on surface of topsoil and mix thoroughly before planting.

1. Apply specified commercial fertilizer at rates and thoroughly mix into upper 2" of topsoil. Provide specified fertilizer at the following rates:

A. Shrubs – ¼ pound per foot height or spread.

B. Evergreens – 1/8 pound per foot height or spread.

C. Herbaceous Plants – 1/8 pound per plant.

3.04 Ground Cover and Perennial Plant Bed Preparation:

A. Till soil in beds to a minimum depth of 8 inches (200 mm) and mix with specified fertilizers.

1. Use fertilizer at a rate of 2 pounds per 100 square feet.

3.05 Excavation for Trees and Shrubs:

A. Pits and Trenches: Excavate with vertical sides and with bottom of excavation slightly raised at center to assist drainage. Loosen hard subsoil in bottom of excavation.

1. Balled and Burlapped Trees and Shrubs: Excavate approximately 2 times as wide as ball diameter and equal to ball depth, plus the following setting layer depth:

a. Setting Layer: Allow 3 inches (75 mm) of planting soil.

2. Container-Grown Shrubs: Excavate to container width and depth, plus the following setting-layer depth:

a. Setting Layer: Allow 3 inches (75 mm) of planting soil.

B. Dispose of subsoil removed from landscape excavations. Do not mix with planting soil or use as backfill.

C. Obstructions: Notify Landscape Architect if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.

1. Hardpan Layer: Drill 6 inch (150 mm) diameter holes into free-draining strata or to a depth of 10 feet (3 m), whichever is less, and backfill with free-draining material.

D. Drainage: Notify Landscape Architect if subsoil conditions evidence unexpected water seepage or retention in tree or shrub pits.

1. Landscape Architect has the option to require the installation of 8" drainage pits at the bottom of the ball excavation to facilitate drainage. Use an 8" auger to dig 36" deep pit. Fill pit with washed drainage fill.

2. Rock's excavation includes removal and disposal of rock material and obstructions encountered that can be removed by the following heavy-duty rock excavating equipment.

a. Rock material includes boulders ½ cu. yd. (0.38 cu.m.) or more in volume and rock in beds, ledges, unstratified masses, and conglomerate deposits.

3. Rock excavating equipment for tree pits shall be equivalent to Caterpillar Model No. 215D LC track-mounted hydraulic excavator, equipped with a 42 inch (1050 mm) wide short-tip radius rock bucket, rated at not less than 120 hp (89 kW) flywheel power with bucket-curling force of not less than 25,000 LB (111 kN) and stick-crowd force of not less than 18,700 LB (83 kN), measured according to SAE Standard J1179.

4. Do not excavate rock until it has been cross-sectioned by Landscape Architect.

E. Fill excavations with water and allow it percolate out, before placing setting layer and positioning trees and shrubs.

3.06 Planting Trees and Shrubs:

A. Set balled and burrapped stock plants and in center of it or trench with top of ball raised above adjacent finish grades as indicated.

1. Place stock on setting layer of compacted planting soil.

2. Remove burlap and wire baskets from tops of balls and partially from sides, but do not remove from under balls. Remove pallets, if any, before setting. Do not use planting stock if ball is cracked or broken before or during planting operation.

3. Place backfill around ball in layers, tamping to settle backfill and eliminate voids and air pockets. When pit is approximately ½ backfilled, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing and tamping final layer of backfill.

B. Set container-grown stock plants and in center of pit or trench with top of ball raised above adjacent finish grades as indicated.

**WESTFIELD-WASHINGTON TOWNSHIP
ADVISORY PLAN COMMISSION**

Petition Number	0808-DP-11
Approximate Address	14911 Ditch Road
Petitioner	Estridge Development Company, Inc.
Request	Waiver of maximum cul-de-sac length requirement
Current Zoning	PUD
Approximate Acreage	7.82 acres

The Plan Commission may approve a waiver of Development Requirements only upon finding that:

1. The proposed development represents an innovative use of site design/site access design/site circulation design/ building orientation/building materials/landscaping which will enhance the use or value of area properties.

The subject property is part of Centennial, a community known for its innovative site design and use of traditional neighborhood development principles. The extension of Centennial onto the subject property will enhance the use and value of the property from its current state due to the value of the homes and the high standard of landscaping for which Centennial is known.

2. The proposed development will not be injurious to the public health, safety, morals or general welfare of Westfield-Washington Township.

The proposed development improves public health, safety, morals, and general welfare by removing an existing road cut onto Ditch Road. Deleting the road cut removes a potential conflict point on Ditch Road. Greater benefit to the public is gained by the removal of this road cut than by arbitrarily holding the cul-de-sac length to 600 feet. Access to the subject property will come from the existing neighborhood of Centennial. The additional 17 feet of roadway length allowed by the approval of this waiver does not create conditions injurious to the public health, safety, and welfare.

3. The strict application of the Development Requirements of the Westfield-Washington Township Zoning Ordinance will result in a development of the real estate which is undesirable when compared with the proposed development.

Limited options of access are available on this site due to its small size and the configuration of the parcel to the surrounding development. Strict application of the zoning ordinance would require extension of the proposed road through the property to Ditch Road. Increasing the size and intensity of activity at the existing road cut is undesirable due to the proximity of other road cuts along Ditch Road. Furthermore, road cuts reduce the ability of Ditch Road to serve as a Secondary Arterial as identified in the Thoroughfare Plan. It is more desirable to reduce the number of curb cuts along Ditch Road as proposed in this development.

4. The proposed development is consistent with and compatible with other development located in the area.

The subject property is part of the existing residential community that abuts it. The property is subject to the same zoning commitments and restrictive covenants as the residential uses it abuts.

5. The proposed development is consistent with the intent and purpose of the Westfield-Washington Township Comprehensive Plan.

The comprehensive plan identifies the subject property as part of the Suburban Residential district. This district is intended to preserve and protect the stability and integrity of the existing residential uses as new infill development occurs. The proposed residential development is consistent with the intent and purpose of the Suburban Residential district.



PETITION NUMBER:	0808-SPP-02	
SUBJECT SITE ADDRESS:	14911 Ditch Road	
PETITIONER:	Estridge Development Company, Inc.	
REQUEST:	Primary Plat Review of the addition of fourteen (14) lots to Centennial South.	
CURRENT ZONING:	AG-SF-1 (<i>Brookie PUD District pending</i>)	
CURRENT LAND USE:	Single-family Detached Dwelling, Agricultural	
APPROXIMATE ACREAGE:	7.82	
ASSOCIATED PETITIONS:		
EXHIBITS:	1. Staff Report	
	2. Petitioner's Exhibits	
STAFF REVIEWER:	Al Salzman	
ZONING HISTORY	0808-DP-11	Development Plan Review (<i>pending</i>)
	0808-PUD-02	Addition to Brookie PUD (<i>pending</i>)
	0505-SFP-11	Secondary Plat
	0501-DP-04	Development Plan Review
	0501-SPP-01	Primary Plat
	0407-PUD-05	Change in zoning – Planned Unit Development

PETITION HISTORY

- o The August 18, 2008 Advisory Plan Commission Meeting represents the first public hearing for the proposed Centennial South Amendment Primary Plat.
- o This item previously appeared before the APC at the August 4, 2008 Workshop Meeting.

PROCEDURAL

- o Notification of the August 18, 2008 public hearing was provided to abutting property owners in accordance with the Rules of Procedure on August 8, 2008.
- o Notice of the August 18, 2008 public hearing was posted to the City web site and at City Hall, and published in newspapers of general circulation in accordance with the Rules of Procedure.
- o Primary Plat review requires a Public Hearing.
- o Approval of a Primary Plat review must be granted if the submitted plans demonstrate compliance with the terms of the underlying zoning district or applicable PUD, any Variances associated with the site, and any Commitments associated with the site.
- o The Advisory Plan Commission may approve, conditionally approve, continue, or deny the



requested approval. Any conditions must be determined through agreement of the APC and the petitioner. Any continuance should also be determined through agreement of the APC and the petitioner.

- o No Finding of Fact accompanies a Primary Plat application. Any denial should be justified verbally for the meeting minutes.

PRIMARY PLAT REQUIREMENTS

Requirements for the approval of a Primary Plat are established by WC 16.04.220 Procedures.

Notation Information

The majority of the requirements pertain to the technical aspects of the submittal; required information includes items such as proposed subdivision name, a graphic scale, a legend and legend notes, a north arrow, and general boundary information about the subject tract. These requirements ensure the submitted Primary Plat is submitted with consistent markings and formatting, and establish consistency across all development documents within the jurisdiction.

The submitted plat has been reviewed, and has provided acceptable notation. Further, the Primary Plat notation is consistent with the notation of the approved, recorded Centennial South secondary plat.

Utility & Infrastructure Information

Primary Plat approval requires general statements as to the location, availability, and capacity of public utilities at the subject site. General information about road access, storm water management, and easement location is also required. As indicated in the accompanying Development Plan Review, utility and road capacity issues are addressed to the general satisfaction of the applicable agencies, and detailed information will be forthcoming at the Secondary Plat phase.

Lot and Right-of-Way Information

In addition to the requirements identified above, the proposed Primary Plat is required to identify any proposed lots, setbacks and lot lines, and proposed common areas, and the location and dimensions of any proposed right-of-way. The submitted Primary Plat depicts all of the features listed. The proposed lots and roads would comply with the terms of the proposed Brookie PUD district.

RECOMMENDATION

Approve the 0808-SPP-02, subject to compliance with any conditions associated with the accompanying Development Plan Review (0808-DP-11)

AFS



Kenton C. Ward, CFM
Surveyor of Hamilton County
Phone (317) 776-8495
Fax (317) 776-9628

Suite 188
One Hamilton County Square
Noblesville, Indiana 46060-2230

July 24, 2008

The Schneider Corporation
ATTN: Jamie Ford
8901 Otis Avenue
Indianapolis, IN 46216-1037
VIA E-MAIL: jford@schneidercorp.com

RE: Centennial South Expansion

Dear Mrs. Ford:

We have reviewed the construction plans submitted to the Hamilton County Surveyor's Office on July 1, 2008 for this project and have the following comments:

1. The proposed project falls in the incorporated area and MS4 jurisdiction of the City of Westfield.
2. The proposed project falls in the Hinshaw Henley Regulated Drain Watershed.
3. This proposed project DOES NOT fall within a Westfield Wellhead Protection Zone.
4. Along with all other sections of Centennial, this new part of Centennial will be a Hamilton County Regulated Drain Subdivision. As part of the previous agreements, the curblin SSD will remain private or under the jurisdiction of the City of Westfield and will not become part of the regulated drain system.
5. Please submit the following procedural items to this office, petition for regulated subdivision, outlet permit (Williams Creek Drain), subdivision non-enforcement agreement (Williams Creek Drain), engineer's estimate, and all associated bonds for 120% of construction cost. The applications are available on our website at <http://www.co.hamilton.in.us>, go to Departments, Surveyor, and Forms. The bonds will include storm sewers and monumentation.

6. The Hamilton County Stormwater Management Technical Standards Manual does not allow detention of residential lots (Section 302.05). Please look into ways to increase the detention volume to lower the 100 year elevation or reconfigure the basin layout to try to keep the detention up to the 100 year event in the common area. Also, please delineate the limits of the 100 year elevation in the dry detention basin.
7. Please show the emergency overflow weir and path for the dry detention basin.
8. HCSO Standards require SSD in dry detention areas or 2% cross-slope. Since the depth for connecting the SSD is limited by existing pipe (unless you can use Str. E134 with minimal cover), consider design of low flow channels between the inlets and the basin outlet.
9. Please change all applicable storm sewer details to Hamilton County Surveyor's Office Standard Details.
10. The width of the easement of the east side of lot 14 seems a little to narrow. HCSO will agree to the "offset" easement if we can get closer to say 9' and 21' on the pipe run.
11. Please revise the landscape plan to move the trees from on top of the regulated drain storm sewers. HCSO ideally would like to have no trees within 15' of the centerline of the pipe, but slight encroachments can be considered.
12. Please note that further comments may be necessary at a later date.

Should you have any questions, I can be reached at 317-776-8495.

Sincerely,

A handwritten signature in blue ink that reads "Greg Hoyes". The signature is fluid and cursive, with the first name "Greg" being more prominent than the last name "Hoyes".

Greg Hoyes, AC, CFM
Plan Reviewer

CC: Donna Luley – Westfield Public Works
Wes Rood – Westfield Public Works
Al Salzman – City of Westfield
Dave Lucas – HCHD
Brian Stump – Estridge Development