

ATTACHMENT 8 SCOPE OF WORK

(RSQ)

CITRUS GROVE RD PHASE 1

From west of the: Grassy Lake Road intersection

To: N. Hancock Rd.

Lake County is seeking statement of qualifications from Engineering firms for the design of Phase One of Citrus Grove Road located in the City of Minneola, Lake County, Florida. The project is funded under State of Florida Department of Transportation Financial Project No. 435541-1-38-01 (Economic Development Transportation Project Fund). The Project Development and Environmental Study was completed in December of 2008. The link to final report and appendix is: ftp://ftp.co.lake.fl.us/Public_Works/Engineering/MinneolaCollectorRoad/ .

The project consists of the design of new construction of Citrus Grove Road a 4 lane roadway. The project limits extend from West of Grassy Lake Road to Hancock Road for total length of approximately 4,000 LF (Exhibit A). The typical section of Citrus Grove Road will be 120 foot width right of way, a 4-lane urban typical section with 12' lanes, 4' bike lanes, full and directional median openings and dedicated left and right turn lanes in various locations of the project. The design will also include a 12.5' multi-use path along the north side and a 5' sidewalk along the south side (Exhibit B). Signing and Pavement markings will be required. All proposed sidewalks, shared-used path and curb ramps will need to comply with ADA requirements. Drainage design will be necessary including a pond siting evaluation. Surveying including topographic, above and below ground utilities, and right of way will be required. Permitting will be required. Utility coordination will be required. Coordination with property owners will be required.

The consultant will evaluate the signal warrants for the intersections of Citrus Grove Rd/Grassy Lake Rd., and Citrus Grove Rd, N. Hancock Rd. The consultant will also

evaluate the intersections of US 27, Grassy Lake, and N. Hancock Rd for proper queue length by providing an updated traffic engineering evaluation. The Project includes a traffic signal design for the intersection of Citrus Grove Rd and N. Hancock Rd.

The Consultant will be required to coordinate the Phase 1 Plans with the plans being provided by the Citrus Grove Development (Exhibit C), a new urban neighborhood with seven hundred twenty two, (722) new home sites located on Citrus Grove Road, east of US 27 in Minneola Florida. The Citrus Grove Development is providing a plan to build the first two lanes (northern 2 lanes) of the future four lane roadway. The design will be for the entire four-lane section and the fill and grading for the remaining two lanes of the roadway section will be completed so as to allow for the future development of the remaining two-lane section with minimal future site work. The Developer designed segment is from Grassy Lake Rd west to US 27.

The Consultant will be required to attend and lead meetings with affected property owners including Hills of Minneola, Overlook at Grassy Lake (Exhibit D), and Crittenden.

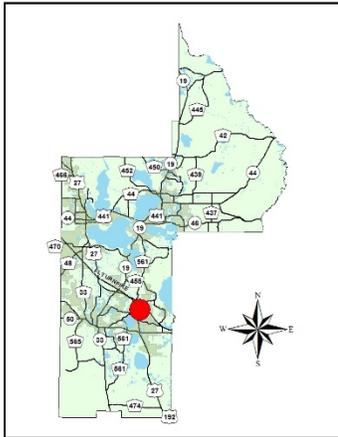
The Consultant will be required to coordinate with the Florida Turnpike on the Citrus Grove Rd. connection to N. Hancock Rd. The consultant will be required to apply for a limited access connection variance for the connection of Citrus Grove Rd. to N. Hancock Rd, dependent upon how the final turnpike interchange is aligned (Design Build in this section by the Florida Turnpike).

The Consultant will be required to coordinate with the Florida Department of Transportation District V office on plan review, as this segment is being funded by FDOT agreement.

Public Meeting(s) will be required.

Citrus Grove Road Alignment

EXHIBIT A



Citrus Grove Road
From West of Grassy Lake Road to N. Hancock Road

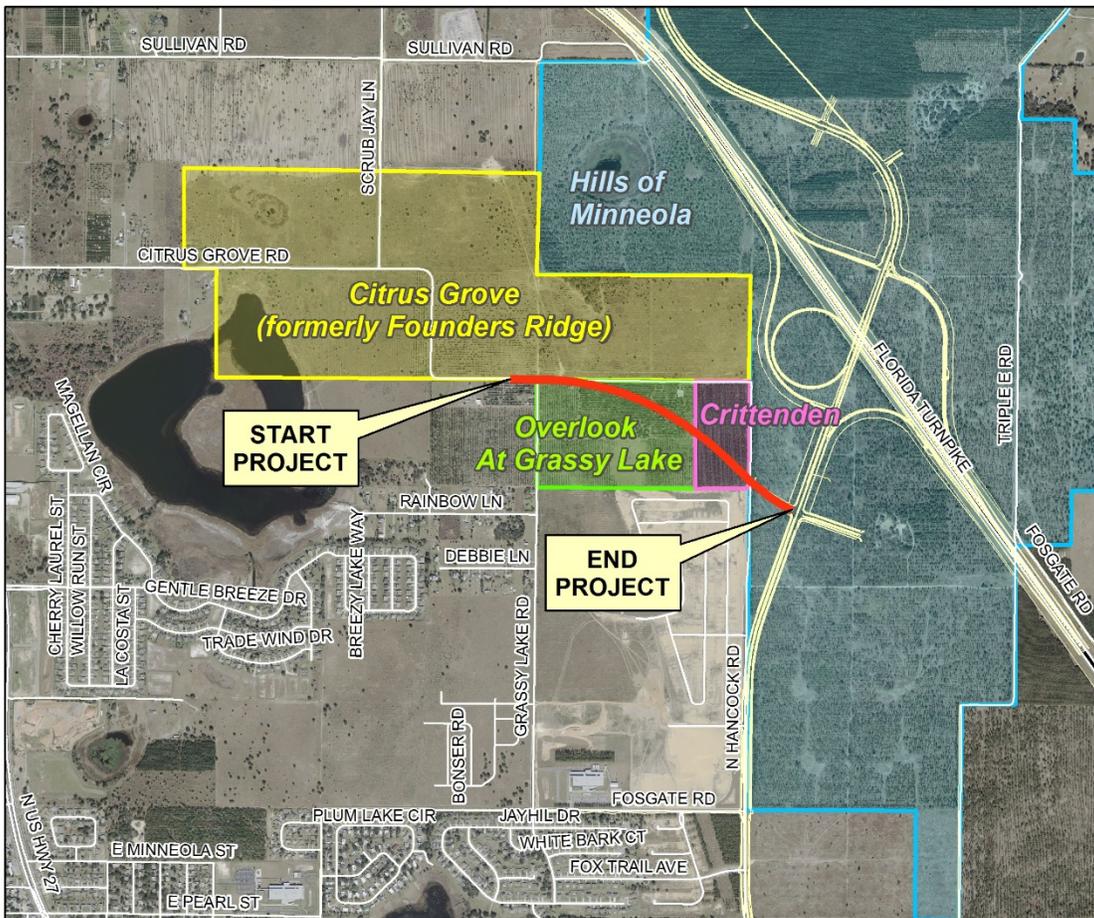


EXHIBIT B

Citrus Grove Road Typical Section

Not to Scale

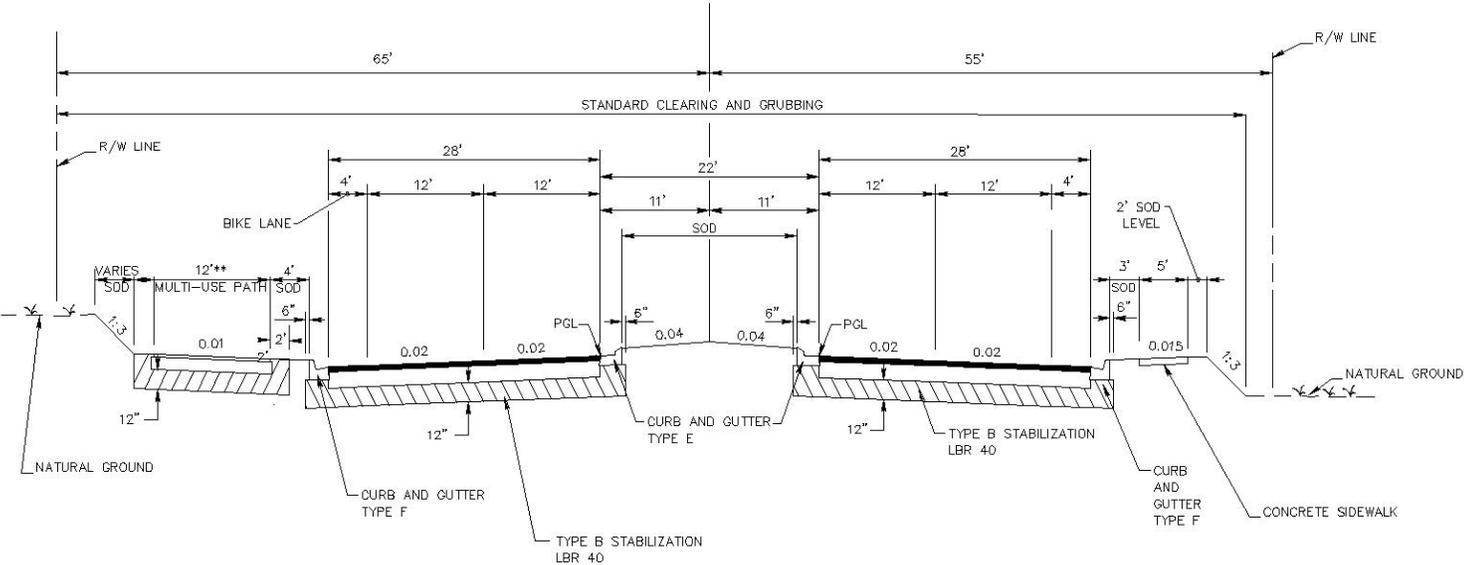
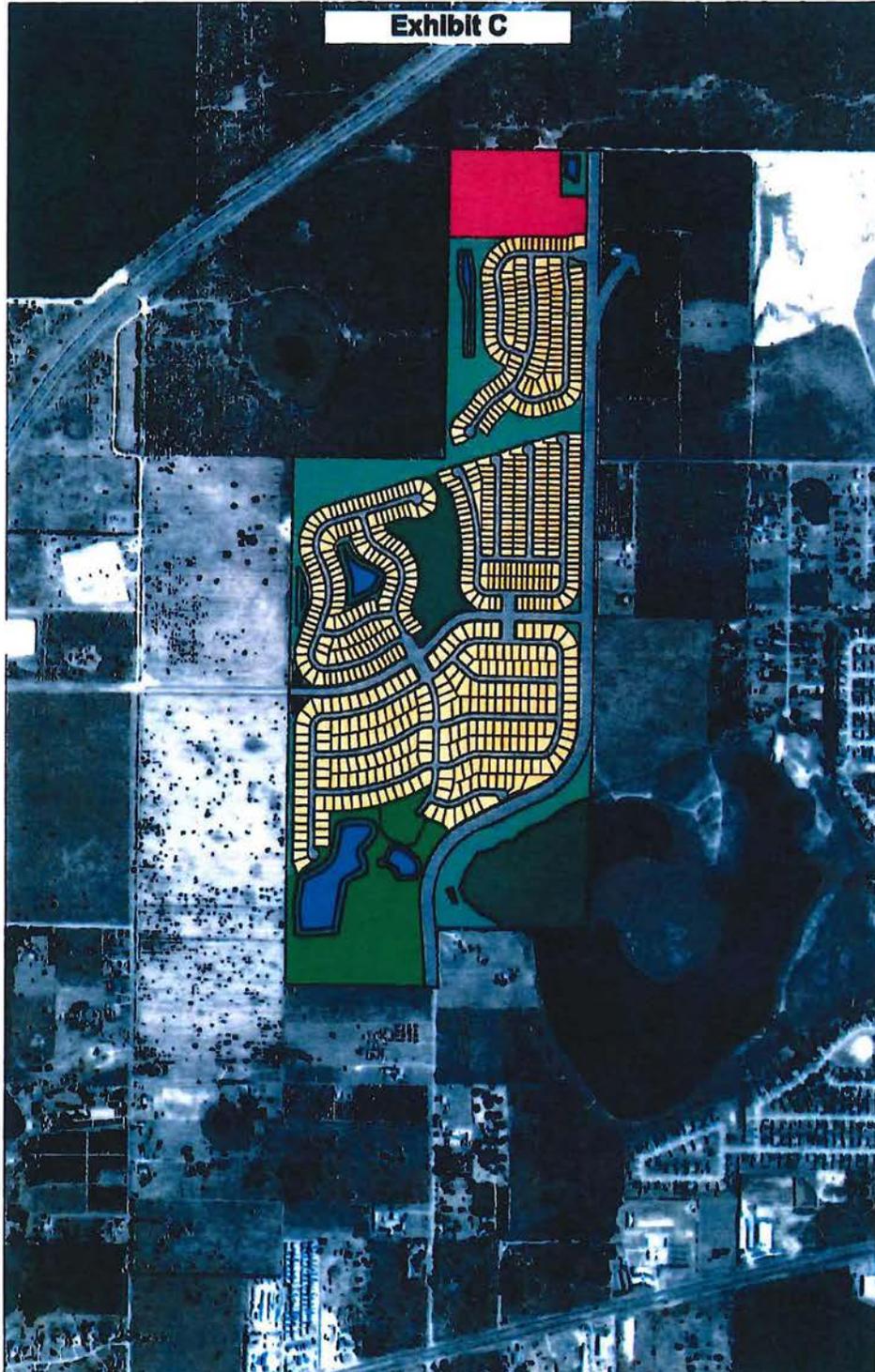


Exhibit C
Citrus Grove (Formerly Founders Ridge)



ATTACHMENTS:

1. Lake County Public Works - Scope of Work Requirements
2. Lake County Dept. of Public Works Project Management - Expected Deliverables Guidelines

LAKE COUNTY PUBLIC WORKS

SCOPE OF WORK REQUIREMENTS

Updated 3/20/2015

- A. General Requirements
- B. Survey Requirements
- C. Right of Way Plan Requirements:
- D. Plan Deliverables:
- E. Invoice Requirements:
- F. Public Involvement/Meeting Requirements:

A. General Requirements:

- 1) Consultant shall refer to Lake County's "Expected Deliverable Guidelines" for additional expectations for completion of project milestones and deliverables.
- 2) Consultant shall prepare a project schedule and present to the County project manager at the project kickoff meeting
- 3) Consultant shall create and prepare project deliverable Cad files utilizing Autocad. Microstation files converted to AutoCAD shall not be acceptable.
- 4) Consultant shall construct and maintain a web page detailing the project
- 5) Consultant shall schedule, conduct, and present **all** public meetings according to the approved public meeting scope and public meeting checklist.
- 6) Consultant shall Advertise and Notify the public of the public meeting schedule and location according to the approved public meeting scope and public meeting checklist.
- 7) Consultant will attend monthly progress meetings for the life of the project at the Public Works Department facility. At the discretion of the County project manager, telephone conference calls may substitute for face to face meetings.

B. Survey Requirements:

- 1) Consultant shall prepare the Record Survey under the direction and supervision of a Professional Surveyor and Mapper licensed in the State of Florida. The survey shall be in accordance with the adopted "Standards of Practice" for Land Surveying as required by Chapter 5J-17, Florida Administrative Code pursuant to Section 472.027, Florida State Statutes".
- 2) Consultant shall submit all survey notes and computations to document the surveys. All field survey work shall be recorded and submitted to the County. Field notes shall include all sketches, bench level runs and instrument set up information that supports electronic data

collection methodology. Computations shall include any adjustment reports for Horizontal and Vertical control.

- 3) Consultant shall establish or recover Horizontal Project Control (HPC) relative to Florida State Plane Coordinate System, Florida East Zone, 1983 North American Datum, 1990 Adjustment (NAD83/90). All Primary Control values shall be established with independent, redundant measurement methods. A report depicting residual statistics shall be submitted with the computations portion of the project report.
- 4) Consultant shall establish or recover Vertical Project Control (VPC) relative to North American Vertical Datum 1988 (NAVD88). Benchmarks shall be placed at intervals not to exceed 500 feet along the project route and in safe areas that minimize the possibility of the mark being lost or disturbed.
- 5) Prior to beginning survey, the consultant will request a copy of a Right of Way package from the Lake County Right of Way Supervisor. This package will include all the right of way information available in the Lake County Public Works Department.
- 6) Consultant shall recover monumentation along existing right of way lines according to all available recorded Public Records. Establish, recover or re-establish project alignment. Also includes analysis and processing of all field collected data, existing maps, and/or reports for identifying existing right of way lines per County maps, platted or dedicated rights of way. The Survey shall show existing recorded right of way with recording information for the dedication document clearly identified (deed, plat, court order, or recorded maintenance or right of way maps). This information shall include intersecting side street right of way shown on the survey. All other evidence of right of way that is shown on the survey shall be shown in different line type, with the source clearly identified (i.e. property line per deed, State Road Department (SRD)/FDOT monument found, RW per unrecorded plat, recorded plat, etc.)
- 7) Consultant shall file Certified Corner Records (CCR) to Florida Department of Environmental Protection unless one already exists in the state database. Included shall be Section Corners, $\frac{1}{4}$ Section Corners or other General Land Office (G.L.O.) recognized corners.
- 8) Consultant shall map existing conditions to include (but not limited to) location and identification of all constructed or fixed improvements and features within the survey area, identification and location of all relevant property information such as deed lines, plat lines, designated roads, right of way lines, easements and other matters of public record or information referenced in title report. In addition, a 2-dimension location of any Jurisdictional Wetlands that fall within the scope limits will be located. A notation of the environmental agency that performed the wetlands designation shall be depicted on the survey. When required, elevation data with sufficient density and coverage to develop a Digital Terrain Model supported by determining all existing break lines and high and low points. Ground elevations shall extend a minimum of 25 feet beyond survey limits. Survey limits may change due to certain conditions and any request for deviation from the original scope must be submitted in writing and approved by County staff.
- 9) Consultant shall comply with all Right of Way Engineering Project Requirements as set forth by Lake County Public Works / Engineering / Right of Way Section.
- 10) Consultant shall contact Sunshine One Call @ 811 for utility designation. Include 2-dimensional collection of existing utilities and selected 3-dimensional verification as needed for designation. Location includes non-destructive excavation to determine size, type and location of existing

utility, as necessary for final 3-dimensional verification. Survey includes collection of data on points as needed for designates and locates. Includes analysis and processing of all field collected data, and delivery of all appropriate electronic files.

- 11) Consultant shall detail existing underground storm water and sanitary sewer structures including pipe size, type, condition, and flow direction. Included shall be at least one structure outside the scope limits and in some cases the extent of the system outfall shall be investigated and included in the mapping.
- 12) Consultant shall map any water bodies that fall within the scope limits. If available, the Base Flood Elevation should be determined and shown.
- 13) Contractors and subcontractors must have capability to work from plans in AutoCAD format. Lake County does not provide hard copy detailed plans for the purpose of survey stakeout.
- 14) The Final signed and sealed survey shall be provided to the Project Manager for review by the County Staff. Upon approval, three (3) signed and sealed copies of the survey, along with an electronic file in appropriate format shall be provided to the Project Manager for distribution to County Staff.

C. Right of Way Plan Requirements:

- 1) Right of Way Mapping (Right of Way Identification Maps)
 - a) The consultant shall prepare a Right of Way I.D. Map for the entire project area at a scale not to exceed 1" = 40' (1" = 40' or larger). The sheet view set up on detail sheets shall include only 2 match lines per page (with exceptions at the intersections), and only one alignment per sheet, with view being aligned with the direction of the road, trail or sidewalk. No Text below .10 times (x) the map scale. Lake County prefers the stationing shown on the RW ID Maps match the stationing shown on design plans. Situations where not possible should be discussed with the Lake County Survey Manager. Pond site detail sheet should be provided at the end of the map/survey. RW ID Maps shall also include the following:
 - i. Key Map, not to exceed 1"= 400', which provides full coverage of the project area and assists in defining the overall project limits.
 - ii. Table of Ownership, which provides present ownership and recording information in tabular form, on a separate tabulation sheet at the end of the map. The minimum parcel data required shall include parcel identification numbers or alternate key numbers; the sheet numbers on which each parcel appears; names of property owners; area of acquisition; interest of acquisition (RW- right of way; WRA-water retention area; PE-perpetual grading drainage and utility easement; DE-drainage easements; TCE-temporary construction easements; RE-right of entry agreement. Other interest types may be identified for project, and should be coordinated with the RW Supervisor and Project Manager.
 - iii. Section & ¼ section lines should be shown and labeled within scope.

- b) All survey work shall be prepared under the direction and supervision of a Professional Surveyor and Mapper, licensed in the State of Florida. The Survey shall be in accordance with the adopted "Standards of Practice" for Land Surveying as required by Chapter 5J-17, Florida Administrative Code pursuant to Section 472.027, Florida state Statutes. The consultant shall analyze each proposed acquisition to identify the appropriate property interest to be acquired, including: RW – (Fee simple); WRA (Water Retention Areas); PE (Permanent Grading Drainage and Utility Easements); DE (Drainage Easements);; TCE (Temporary Construction Easements); RE (Right of Entry Agreements). The consultant shall submit 60%, 90%, and 100% progress review submittals of the Right of Way I.D. Maps on D size (24" x 36") format in landscape view. Electronic copies of AutoCAD files (in format approved by Project Engineer) shall be submitted with final signed and sealed Right of Way I.D. Maps.
- c) Sufficient control data shall be shown on the final Right of Way Identification Map to allow for preparation of legal descriptions and parcel sketches for individual parcels with no additional field information needed.
- d) Consultant shall update and modify legal descriptions and parcel sketches, Right of Way I.D. Maps as needed until final 100% submittal.

2) Review of Title Work

- a) The consultant shall be responsible for all title work needed to provide an accurate Project Survey and Right of Way Identification Maps. Prior to initiating any title searches, the consultant shall meet with the Lake County Right of Way Supervisor to discuss title search parameters, and for approval of the title search company that will be used. The consultant shall provide the Right of Way Supervisor with a copy of the title work, and associated documents. Cost for each search should be included in the project scope.
- b) The consultant shall also review supplemental surveys and investigations performed by the consultant and/or other record information. Recorded and Unrecorded easements shall be shown to the extent they can be identified and located on the right of Way I.D. Map and parcel sketches.

3) Legal Descriptions and Parcel Sketches (If Required)

Consultant shall have a licensed Professional Surveyor and Mapper prepare legal descriptions and parcel sketches for each parcel, if requested as part of the project scope. All legal descriptions and sketches must reference the signed and sealed project Survey, and must include the square footage and acreage for each parcel being acquired. A draft of each legal description and parcel sketch shall be submitted prior to the 90% right of way maps, if required. If any parcels are added or modified prior to the 100% right of way map submittal, the consultant shall submit the legal descriptions and sketches of the modified parcels with revisions to the Right of Way I.D. Map showing the modifications. The signed and sealed final legal descriptions and parcels sketches shall be submitted upon request by the County for use in parcel acquisitions, but not later than with the submittal of the final signed and sealed Right of Way I.D. Maps.

4) Right of Way Surveys, Alignment and Monumentation

Consultant shall have a licensed Professional Surveyor and Mapper monument the centerline of construction/survey at stations that are not more than 600 feet apart and at all P.C's, P.T.'s, side street intersections, and changes in direction. Stationing shall be shown on the Right of Way I.D. Maps at all changes of direction, property lines, points of curvature and proposed parcel takes. Similar monumentation and markings shall be provided at all side streets to 150 ft. beyond the limits of the topographic survey or at other locations as approved by the Project Manager. The centerline of construction/survey shall be referenced to permanent monumentation (Section Corners, subdivision corners, roadway monumentation) located outside the limits of construction at the beginning and end of project, all P.C's and P.T.'s, all changes in direction, and intermediate points such that referenced points are spaced not more than 600 feet apart. Horizontal control, as stated above shall be tied to the Florida State Plane Coordinate System, North American Datum of 1983/1990 Adjustment East Zone and shall be shown on the final Right of Way I.D. Maps/miscellaneous surveys. Map dimensions shall be shown in U.S. feet.

D. Plan Deliverables:

1) Expected Plan sheet Divisions:

<u>NO.</u>	<u>DESCRIPTION</u>
1	COVER / KEY SHEET
2	DRAINAGE MAP
3-4	TYPICAL SECTIONS
5-6	GENERAL NOTES
7-8	PROJECT LAYOUT
9-10	REFERENCE POINTS / CONTROL
11-12	ROADWAY PLAN
13-14	ROADWAY PROFILE
15-16	SPECIAL PROFILES
17-18	DRIVEWAY DETAILS
19-20	DRAINAGE STRUCTURE DATA
21-22	POND DETAILS / OUTFALL DETAILS
23-24	POND CROSS SECTIONS
25-26	CROSS SECTION PATTERN
27-28	CROSS SECTIONS
29-30	SIGNING AND MARKING PLAN
31-32	STORMWATER POLLUTION PREVENTION PLAN
33-34	EROSIONS CONTROL PLAN
35-36	TRAFFIC CONTROL PLAN
37-38	UTILITY ADJUSTMENT PLAN
39-40	SIGNALIZATION PLAN
41-42	LIGHTING PLAN
43-44	LANDSCAPE PLAN
45-46	GEOTECHNICAL PLAN

2) Deliverables at the 30% design submittal level:

- a) Three (3) signed and sealed copies of the project survey, an electronic signed copy of survey in pdf format, and an electronic file in an AutoCAD format identified by Lake County.
- b) A letter from the Consultant to the County project manager listing **all** permits that will be required for the project and what agency the permit will be sought from
- c) Consultant will complete an initial threatened and endangered species survey and present a copy of the results to the County project manager
- d) Consultant will complete a phase one environmental survey (if applicable) and submit results to the County project manager
- e) Consultant will complete a planned storm water and initial pond siting report and submit to County project manager for review.
- f) Submitted plans will include "line and grade" plan view and:
 - i. exceed the construction boundaries by 300 feet running longitudinally with the travel way and show existing conditions
 - ii. include a cover page acceptable to the County project manager
 - iii. include County typical sections
 - iv. include County general notes pages
 - v. Show centerline of proposed roadway as the baseline of project. The baseline of survey and centerline of project shall match.
 - vi. Show stationing with beginning and ending project station limits.

- vii. show existing pavement striping (on additional sheet if necessary for legibility)
 - viii. show existing conditions (grades, signalization, right-of-way, property lines, parcels, trees, driveways, fences, gates, utilities, everything relevant from the survey, etc.)
 - ix. Show proposed edge of pavement and preliminary proposed right-of-way on plans.
 - x. Show pond locations relative to roadways on plans.
 - xi. Signal plans are to be initiated with proposed Pole locations and ROW impacts provided on plans for review.
- g) Submittal will include 3 sets of review plans (11" x 17" paper to proper legible scale) and a CD with an electronic copy of submitted plans in pdf format, and an electronic file in an AutoCAD format identified by Lake County of the submitted plans.

3) Deliverables at the 60% design submittal level:

- a) A copy of the transmittals for the utility companies notified within the limits of the project for "red – brown – green" markups. All utilities within the project limits shall be notified.
- b) A copy of **any and all** permit plans, permit package (including calculations if necessary) that will be submitted to required permitting agencies, **or** copy of a letter of request for exemption from needing a permit that will be sent to the permitting agency.
- c) Three copies of the preliminary Right of Way I.D. Maps showing existing and proposed right of way is to be provided. The existing right of way shown on the Right of Way ID Map shall include the recorded right of way, including the recording information for all public rights of ways and easements, and any other RW as approved by the Lake County Engineering Director or his designee.
- d) Three (2) signed and sealed copies of the Geotechnical Report with an electronic copy of submitted report in pdf format provided on the submittal CD.
- e) Submitted plans will include all items listed under the 30% submittal and:
 - i. all corrections made to the 30% reviewed plans addressing the comments made by the County project manager
 - ii. Failure to make corrections to the 30% plans as identified by the County Project Manager may result in the requirement of a resubmittal of 60% plans, when deemed necessary by County Project Manager.
 - iii. any problem areas that may exist with utilities noted on the plans
 - iv. plan views, profile views, and cross section views (interval to be set by the County project manager)
 - v. show proposed storm water management system
 - vi. show the relevant Geotechnical information on the plans
 - vii. show approximate location of listed species and/or environmental impacts
 - viii. Provide preliminary signal plans.
- f) Submittal will include 3 sets of review plans (11" x 17" paper to proper legible scale) and a CD with an electronic copy in pdf format and in an AutoCAD format identified by Lake County of the project and submitted plans

4) Deliverables at the 90% design submittal level:

- a) A copy of **all** needed permits for the project **approved** by the permitting agency with an electronic copy in pdf format provided on the submittal CD.

- b) A copy of an exemption letter from needing a permit from a permitting agency (if applicable) with an electronic copy in pdf format provided on the submittal CD.
 - c) An **electronic** copy (AutoCAD, pdf, etc.) of the 60% plan submittal “red – brown – green” markups from **all** utilities within the limits of the project shall be included on the submittal CD
 - d) Copies of any correspondence between a utility and the Consultant shall be provided to the County project manager with an electronic copy in pdf format provided on the submittal CD.
 - e) Submitted plans will include all items listed under the 60% submittal and:
 - i. all corrections made to the 60% reviewed plans addressing the comments made by the County project manager
 - ii. all corrections made to the reviewed plans by the utilities (incorporate the information from the red – brown – green markups)
 - iii. Failure to make corrections to the 60% plans as identified by the County Project Manager may result in the requirement of a resubmittal of 90% plans, when deemed necessary by County Project Manager.
 - iv. Proposed signing and pavement marking plans.
 - v. Signalization plans provided in accordance with the FDOT Plans Preparation Manual.
 - f) Three (3) signed and sealed copies of the signal warrant (if applicable) with an electronic copy in pdf format provided on the submittal CD.
 - g) Three copies of the final Right of Way I.D. Maps showing existing and proposed right of way is to be provided addressing the comments made by the County project manager.
 - h) Three copies of the preliminary legal descriptions and sketches (L&S) for proposed RW, easements and TCE. L&S for right of entry areas should be discussed with the RW Supervisor before preparation.
 - i) Submittal will include 3 sets of review plans (11” x 17” paper to proper legible scale) and a CD with an electronic copy in pdf format and in an AutoCAD format identified by Lake County of the project and submitted plans
- 5) Deliverables at the 100% design submittal level:
- a) Submitted plans will include all items listed under the 90% submittal and:
 - i. All corrections made to the 90% reviewed plans addressing the comments made by the County project manager
 - ii. All corrections made to the reviewed plans by the utilities (incorporate the information from the red – brown – green markups if any)
 - b) Three (3) copies Signed & Sealed of the Final Right of Way I.D. Maps showing existing and proposed right of way and addressing comments made by the County project manager with an electronic copy in pdf format provided on the submittal CD.
 - c) Three (3) copies Signed & Sealed of the Final legal descriptions and sketches of proposed right of way and easements, addressing comments made by the County project manager with an electronic copy in pdf format provided on the submittal CD.
 - d) Submittal will include 3 sets of review plans (11” x 17” paper to proper legible scale) and a CD in AutoCAD format of the submitted plans
- 6) Deliverables at the Final submittal level:
- a) 2 copies each of **all** permits with pdf copy provided on submittal DVD

- b) 2 copies each of **any** agency permit exemption letter with pdf copy provided on submittal DVD
- c) 2 copies each of **any** geotechnical reports with pdf copy provided on submittal DVD
- d) 2 copies each of **any** environmental reports with pdf copy provided on submittal DVD
- e) Three (3) signed and sealed project plan record sets
- f) Ten (10) Hard Copies of the Original Signed and Sealed Sets clearly showing the engineers signature, date, and seal.
- g) One (1) Scanned pdf copy of the Original Signed and Sealed Set clearly showing the engineers signature, date, and seal provided on the submittal DVD.

E. Invoice Requirements:

- 1) The Consultant is free to submit required deliverable items **before** the listed submittal percentage level with the approval of the County project manager
- 2) Design submittals will not be considered complete until all items listed under the appropriate design submittal level are delivered and approved by the County
- 3) Invoices will be put thru for payment by the County project manager **only** when the County is in possession of all deliverables for the relevant submittal.
- 4) Advancement to the next design submittal level shall not take place until the previous submittal is approved by the County and considered complete.

F. Public Meeting / Project Involvement Requirements: Public meetings will be required.

- 1) Public Involvement
 - a. Web site creation and maintenance
 - b. Project Coordination with land owners / developments
 - c. Project Coordination with City
 - d. Project News Letter
- 2) Public Meeting:
 - 1. Project Discussion Meeting (Approx. 2 months before meeting)
 - 2. Mailing List (Prepare 6-weeks prior to public meeting)
 - 3. Meeting Location Facility (Arrange 6-8 weeks prior to public meeting)
 - 4. The following must be coordinated with the Lake County Project Manager for approval:
 - a. Proposed Meeting Day/Date/Time
 - b. Start time for Meeting & Presentation Start Time
 - c. County Commissioner Availability for meeting time and location must be verified!
 - d. Notify County Attorney of Proposed Date
 - e. Check Facility Amenities
 - f. Visit site and check for following:
 - 1. Screen
 - 2. Sound System
 - 3. Seating

5. Flyer (Mail out 2 weeks prior to public meeting)
 - a. Engineering Director's Approval
 - b. Public Works Director's Approval
6. Press Release: Prepared and sent to county PIO for approval.
7. Legal Advertisement (Advertise in Newspaper for 1 day only- 10-14 day prior to public meeting)
8. Consultant Presentation (Draft reviewed 1 month prior to meeting)
 - a. Consultant Responsible for the following
 1. Boards
 2. Powerpoint
 3. Sign In Sheets
 4. Speaker Cards
 5. Comment Cards
9. After the Meeting Procedures
 - a. compile Comments
 - b. prepare Responses
 - c. update Mailout List
 - d. contact Owners (if requested)
 - e. mail out Responses
 - f. Website (add to website)

**Lake County Dept. of Public Works Project Management
Expected Deliverables Guidelines**

PROJECT MANAGEMENT	Project Definition and Summary	Project Startup	Geometric Review (30%)	General Plans Review (60%)	Preliminary Contract Review (90%)	Final Contract Review (100%)	Bid Review	Out To Bid
Purpose / Milestone	<ul style="list-style-type: none"> Documents the project purpose, type, strategy, phase durations, budget, and recommended ad date. Identified in the Transportation Construction Program. PD&E and Environmental Reviews have been completed. 	<ul style="list-style-type: none"> Provides basis to project team to determine levels of review documentation. Documents the key project criteria, assumptions, and deliverable format. Team assignment Roles & responsibilities established Major Milestones established Boundaries of project identified Project Management Plan completed, including: Baseline schedule Budget 	<ul style="list-style-type: none"> Documents design criteria and major design decisions. 	<ul style="list-style-type: none"> Design of major project elements completed Review for constructability Conformance with standards 	<ul style="list-style-type: none"> On small projects, this may be combined with the final Contract Review. This is intended to be a near-final review. Items missing from design should be minor and should be documented by reviewers 	<ul style="list-style-type: none"> Plans are bid ready. All previous comments have been addressed. Minor changes if any. 	<ul style="list-style-type: none"> Submittal of all final deliverables. Minor changes to review left over from 100%. 	<ul style="list-style-type: none"> Final Checklist Sign Off by County Engineer All documents to Bid Folder Evaluation of team/ consultant performance completed
Decisions Frozen and Milestones Completed		<ul style="list-style-type: none"> Milestone dates set Design criteria set. Expected level of effort Authorized budget Deliverable list 	<ul style="list-style-type: none"> Design concept fixed Design features defined Type size and location of all structures fixed Approval to begin ROW acquisition process Approval of geometric design Design Concurrence/ Approval 	<ul style="list-style-type: none"> All key project elements and features that drive the project outcome and costs are defined. Type, size and location of key elements and features fixed. Geometric Review comments resolved and documented 	<ul style="list-style-type: none"> The deliverables are substantially complete Review and acceptance of design detail of key elements and features Permits Obtained. All environmental permits are approved, verified, and accepted for inclusion into the plans General Plans Review comments resolved & documented. 	<ul style="list-style-type: none"> The Deliverables are Complete. All Review Comments adjudicated. Plans and specs sealed at end. ROW certification. Final Project Approval 	<ul style="list-style-type: none"> Owner accepts design Approval to advertise ROW is clear 	
Environmental Review, Permitting, and Documentation	<ul style="list-style-type: none"> PD&E Study is the basis for the alignment of the project. PD&E will also document environmental issues. In the absence of a PD&E establish environmental issues in the project startup. 	<ul style="list-style-type: none"> Verify Environmental Documentation and permits needed . Wetland areas delineated for survey Scope of work 	<ul style="list-style-type: none"> Agency and public coordination conducted Permits needed verified and begin submitting applications Environmental Studies initiated 	<ul style="list-style-type: none"> All environmental permit applications submitted Permits conditions coordinated with the design team and incorporated into the plans 	<ul style="list-style-type: none"> All environmental permits approved, verified, and accepted for inclusion into the plans All environmental special provisions approved and included in the PS&E plan set All permits and environmental requirements completed 	<ul style="list-style-type: none"> Environmental Commitment File completed 	<ul style="list-style-type: none"> Environmental Permits in the Bid Docs Folder 	
Estimates	<ul style="list-style-type: none"> Preliminary cost estimate developed if project is not in the Transportation Construction Program 	<ul style="list-style-type: none"> Budget assumptions communicated. 		<ul style="list-style-type: none"> Construction cost estimate updated. RW cost estimate calculated (once areas of acquisition provided). 	<ul style="list-style-type: none"> Construction cost estimate completed. Summary of quantities completed. 	<ul style="list-style-type: none"> Construction cost estimate finalized 	<ul style="list-style-type: none"> Construction cost estimate updated if needed. 	
Intersection Plans	<ul style="list-style-type: none"> Traffic Safety Study if available used as basis for scope of work. Intersection issues and deficiencies identified. 	<ul style="list-style-type: none"> Intersection improvement recommendations reviewed 	<ul style="list-style-type: none"> Intersection Plans approved Signal Plan initiated (if required) Confirm Turn Lane Queue Lengths and number of lanes Verify RW accurate on intersection streets. 		<ul style="list-style-type: none"> Signal Poles layout completed 	<ul style="list-style-type: none"> Final Plan Review 	<ul style="list-style-type: none"> Final Plan Update 	
Right of Way (RW)	<ul style="list-style-type: none"> Requirements for Right of Way documented Look at quotes & calculate # of L&S needed (owners impacted x 2) 	<ul style="list-style-type: none"> Preliminary RW needs identified. Title reports ordered RW Package Prepared & Ready 	<ul style="list-style-type: none"> Schedule review with RW Team at the request of the County Engineer (Alignment, Ponds & impacts) Right of Entries for project investigations obtained at the request of the Project Manager 	<ul style="list-style-type: none"> Submit preliminary RW I.D. maps showing existing and proposed right of way with 60% plans. RW schedule meeting w/County Engineer to review alignment & limits of construction. County Engineer to sign off on Plan set before proceeding with plans, etc. Legal description & sketches (L&S) will be requested under direction of the County Engineer. Pre-acquisition initiated. Relocation issues discussed & relocation plan initiated on Federally funded projects. 	<ul style="list-style-type: none"> Final RW ID maps submitted for review (final S&S copies (2 each) provided after review) L&S submitted for review (final S&S copies provided between 90% & 100% plans) RW negotiations initiated. Relocation continues on Federally funded projects. Eminent Domain initiated on parcels unable to be secured. 	<ul style="list-style-type: none"> RW negotiations complete before going to bid. Eminent Domain complete through O.T. (Order of Take) before going to bid. 	<ul style="list-style-type: none"> Right of Way certified if DOT Project. 	

**Lake County Dept. of Public Works Project Management
Expected Deliverables Guidelines**

PROJECT MANAGEMENT	Project Definition and Summary	Project Startup	Geometric Review (30%)	General Plans Review (60%)	Preliminary Contract Review (90%)	Final Contract Review (100%)	Bid Review	Out To Bid
Roadway Geometrics and Plans	<ul style="list-style-type: none"> Project limits identified. Preliminary Design Criteria established. PD&E or Preliminary Engineering Report reviewed for alignment and all issues. Affected alignments identified New versus existing alignment determined Lane/shoulder widths determined Design matrix identified Design speed defined. Traffic Studies Provided. 	<ul style="list-style-type: none"> New Alignment identified Design criteria/ parameters approved Preliminary footprint designed Accident & crash history reviewed Conflicting traffic movements (diverging, merging, weaving, crossing) identified Pedestrian & bicycle needs identified Structural identified Access review completed 	<ul style="list-style-type: none"> Typical roadway section(s) completed, identifying station to station roadway geometrics, surfacing type & depth, slope information, guardrail, vertical cut locations, and construction notes Clear Zone Inventory & Evaluation Mainline and major horizontal & vertical alignments designed. Geometric Check completed – Intersections, horizontal, vertical sight distances PROFILE AND CROSS SECTION INITIAL REVIEW AND ROW IMPACTS Plan Baseline and Survey Baseline Shall Match 	<ul style="list-style-type: none"> All horizontal & vertical alignments & superelevations completed Cross Sections Reviewed for ROW Impacts Design criteria/ parameters approved Hazard Mitigation completed– i.e. barrier length of need, fixed objects, attenuator design, drainage structures ADA requirements completed 	<ul style="list-style-type: none"> All geometric plans completed (alignment, profiles, roadway sections, interchange contours, site preparation, road approach plans, etc.) Design compared to endorsed design criteria/ parameters 	<ul style="list-style-type: none"> Final Plan Review 	<ul style="list-style-type: none"> Final Plan Update 	
Signals, Street Lighting, and ITS	<ul style="list-style-type: none"> Need for new Signals or Signal modifications identified 	<ul style="list-style-type: none"> Signal design methodology completed. ITS design methodology for review completed Type, size, and location completed Decision made on design standards, equipment 	<ul style="list-style-type: none"> Soils analysis 	<ul style="list-style-type: none"> Preliminary Signal Plan submitted 	<ul style="list-style-type: none"> Final Signal Plan submitted 		<ul style="list-style-type: none"> Final Plan Update 	
PROJECT MANAGEMENT	Project Definition and Summary	Project Startup	Geometric Review (30%)	General Plans Review (60%)	Preliminary Contract Review (90%)	Final Contract Review (100%)	Bid Review	Out To Bid
Signing & Striping		<ul style="list-style-type: none"> Passing / No Passing Zone study 	<ul style="list-style-type: none"> Sign layout completed Existing signs to reuse, and relocate determined Potential conflicts between signal poles and utilities 	<ul style="list-style-type: none"> Signing plans, notes, sign specifications completed Conflicts with signals, poles, or utilities identified Coordination with luminaries on structures or walls identified and mounting/foundation details completed Utility Agreement and Utility Relocation Requests submitted Preliminary Striping Plan 	<ul style="list-style-type: none"> Signing detail sheets completed Final Striping Plan 		<ul style="list-style-type: none"> Final Plan Update 	
Soils & Paving	<ul style="list-style-type: none"> See PD&E or Preliminary Engineering Study 	<ul style="list-style-type: none"> Soils investigation initiated Preliminary Pavement Design Historical Data/Maintenance Projected Traffic Type/Usage Existing Conditions Field and Core Investigation completed Draft Pavement Design Typical Borings coordinated with signals, high mast & sign structures, 	<ul style="list-style-type: none"> Soils and Geotechnical Report completed Pavement Resurfacing Report completed Pavement Design Report Foundation Design checked for signals/illumination 	<ul style="list-style-type: none"> Final Pavement Design Document Foundation Design for signals/illumination completed 	<ul style="list-style-type: none"> Final Pavement Design 	<ul style="list-style-type: none"> Boring logs submitted 	<ul style="list-style-type: none"> Geotechnical Report compiled for contractor review Geotechnical Report & cross-sections posted on website Pavement Repair quantities and locations reviewed with Construction for verification of field accuracy 	
Specifications					<ul style="list-style-type: none"> Prepare summary of quantities Determine item prices All special provisions submitted for review and approval 	<ul style="list-style-type: none"> Approved Specifications 	<ul style="list-style-type: none"> Specifications updated if needed for Bid. 	
Stormwater Ponds and Hydraulics	<ul style="list-style-type: none"> Design criteria identified Drainage Deficiencies identified in accordance with Maintenance Water quality requirements identified 	<ul style="list-style-type: none"> Hydraulic and Water Quality issues identified. Deficiencies confirmed with Maintenance Deficiencies confirmed with Project/Design Team Storm water Management and Report Requirements and type documented 	<ul style="list-style-type: none"> Drainage facilities determined. Preliminary Hydraulic Report completed, including: <ul style="list-style-type: none"> Documentation of deficiencies Existing basins and flows Storm Water Report Preliminary Stormwater Management options to identify Right of Way needs completed 	<ul style="list-style-type: none"> Pond Design Ready for Permitting 	<ul style="list-style-type: none"> Approved Hydraulic Report Storm water details completed 	<ul style="list-style-type: none"> Pond Final Layout Storm Sewer and Culverts finalized 	<ul style="list-style-type: none"> Final Plan Update 	

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PROJECT MANAGEMENT	Project Definition and Summary	Project Startup	Geometric Review (30%)	General Plans Review (60%)	Preliminary Contract Review (90%)	Final Contract Review (100%)	Bid Review	Out To Bid
Structures (Bridges, Retaining Walls, Noise Walls, high mast lighting, sign structures)	<ul style="list-style-type: none"> Identified Bridges, Culverts, Walls, structures reviewed. 	<ul style="list-style-type: none"> Bridge & Special Structure scope and RFP 	<ul style="list-style-type: none"> Bridge and Structures initial review 	<ul style="list-style-type: none"> Structural layouts completed Continue Review 	<ul style="list-style-type: none"> Bridge Plan & Culverts review 	<ul style="list-style-type: none"> Final Bridge, Culverts and Structures Plans 	<ul style="list-style-type: none"> Final Plan Update 	
Survey & Mapping	<ul style="list-style-type: none"> Project Survey & Mapping limits identified. Review and County approval of consultants approach to establishing Horizontal and Vertical control. 	<ul style="list-style-type: none"> Project Horizontal and Vertical Control Networks completed. Control Networks approved by County before data collection. ROW Package received from County and reviewed Any areas offsite to be included reviewed. 	<ul style="list-style-type: none"> Baseline of Survey coordinated with Design Team Topographic Survey performed including location of designated utilities, wetlands and flood zones. Design level mapping completed. Record of Survey completed. 	<ul style="list-style-type: none"> Field review of proposed features completed Right of Way mapping plan coordinated through the County Right of Way Section and efforts documented. 	<ul style="list-style-type: none"> Updated Survey for Proposed Right of Way Acquisition Legals and Sketches completed and submitted for review by County Right of Way Section. 	<ul style="list-style-type: none"> All previous comments have been addressed. Minor changes if any. Updated Survey for Proposed Right of Way 	<ul style="list-style-type: none"> Final signed and sealed Survey and electronic files in appropriate formats for distribution to County Staff. 	<ul style="list-style-type: none"> Right of Way or easement staking coordinated through County Survey and Right of Way section.
Temporary Erosion and Sediment Control (TESC)		<ul style="list-style-type: none"> Initial discussion and review of special features such as OFW, Streams, and wetlands 		<ul style="list-style-type: none"> TESC plan submitted for review 	<ul style="list-style-type: none"> TESC approved Water Quality Monitoring Plan submitted 	<ul style="list-style-type: none"> Erosion Control Plans and Notes completed 	<ul style="list-style-type: none"> NPDES permit identified for contractor to acquire, or supplied by LCPW 	<ul style="list-style-type: none"> NPDES Permit in place
Utilities	<ul style="list-style-type: none"> Utilities within the project limits notified Permit application for railroad crossings submitted 	<ul style="list-style-type: none"> Potential utility relocations identified Responsibility for costs established. Utility As-Builts requested 	<ul style="list-style-type: none"> Utility Plan with as-built information completed and transmitted to Utilities Preliminary Utility conflicts identified Project Overview Meeting held with Utility Owners Subsurface Utility Engineering (SUE) Quality Level C & D completed Determination of need for SUE Quality Level A & B Relocation plans and schedule requested from utilities 	<ul style="list-style-type: none"> Utility relocation meeting held Utility Relocation Plans and schedules obtained and approved Utility and railroad agreements completed 	<ul style="list-style-type: none"> Utility Relocation Plan information and specifications Letters of Understanding issued to utilities requiring relocation Utility, service, and railroad agreements completed Subsurface Utility Engineering (SUE) Quality Level A & B completed if applicable 	<ul style="list-style-type: none"> Utility relocation and schedule monitored and coordination completed 	<ul style="list-style-type: none"> Utility relocation work completed 	
Public Involvement Plan	<ul style="list-style-type: none"> PIP review of the PD&E or Preliminary Engineering Study 	<ul style="list-style-type: none"> Public Involvement Plan completed 		<ul style="list-style-type: none"> Public Meeting if Required 	<ul style="list-style-type: none"> Public Meeting if Required 	<ul style="list-style-type: none"> Public Meeting if Required 		
Work Zone Traffic Control		<ul style="list-style-type: none"> Traffic control strategy discussed 	<ul style="list-style-type: none"> Preliminary traffic control layouts completed 	<ul style="list-style-type: none"> Traffic control plans showing Construction Sequence and staging completed 	<ul style="list-style-type: none"> Final traffic control plans completed Final detour plans completed 	<ul style="list-style-type: none"> Traffic Control Plans Completed 		